ScreenPlay 5000

User's Guide

[English • Français • Deutsch • Español • Italiano • Norsk • Nederlands]

InFocus®
ScreenPlay

WARNING: The power cord and cables associated with this product contain lead, a chemical known to the state of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

WARNING: This product has a lamp which contains a very small amount of mercury. Dispose of it as required by local, state, or federal ordinances and regulations. For more information, see **www.eiae.org**

Declaration of Conformity

Manufacturer: InFocus Corporation, 27700B SW Parkway Ave. Wilsonville, Oregon 97070 USA
European Office: Strawinskylaan 585, 1077 XX Amsterdam, The Netherlands
We declare under our sole responsibility that this projector conforms to the following directives and norms:

EMC Directive 89/336/EEC, Amended by 93/68/EEC
EMC: EN 55022
EN 55024
EN 61000-3-2
EN 61000-3-3
Low Voltage Directive 73/23/EEC, Amended by 93/68/EEC
Safety: EN 60950: 2000

July, 2004

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FCC Warning

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and receiver.
--Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
--Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by InFocus Corporation can void the user's authority to operate the equipment.

Canada

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Agency Approvals

UL, CUL, TUV, GOST
Other specific Country Approvals may apply, please see product certification label.

InFocus reserves the right to alter product offerings and specifications at any time.

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If you are experienced in setting up presentation systems, use the included *Quick Set Up* card. For complete details on connecting and operating the projector, refer to this User's Guide. Electronic versions of this User's Guide in multiple languages are available on our website. The most current versions can be found on our website.

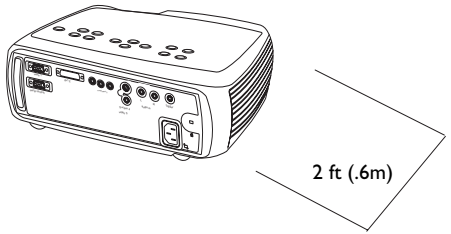
The website also has technical specifications (an interactive image size calculator, laptop activation commands, connector pin outs, a glossary, the product data sheet), a web store to buy accessories, and a page for online registration. See the inside of the back cover for a list of all relevant web addresses.

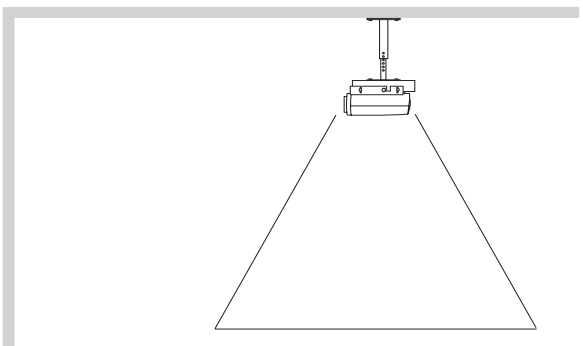
Important Operating Considerations for Safety

- Place the projector in a horizontal position with no greater than 8 degrees forward or backwards tilt.
- Locate the projector in a well-ventilated area without any obstructions to intake or exhaust vents. Do not place the projector on a tablecloth or other soft covering that may block the vents.
- Locate the projector at least 4' (1.2 m) away from any heating or cooling vents.
- Use only InFocus-approved ceiling mounts. The minimum distance between the ceiling and a ceiling-mounted projector is 11.8″/30cm.
- Use only the power cord provided. A surge-protected power strip is recommended.
- Refer to this manual for proper startup and shutdown procedures.
- In the unlikely event of the lamp rupturing, discard any edible items placed in the surrounding area and thoroughly clean the area along all sides of the projector. Wash hands after cleaning the area and handling the ruptured lamp. This product has a lamp which contains a very small amount of mercury. Dispose of it as required by local, state or federal ordinances and regulations. For more information see **www.eiae.org**.

Follow these instructions to help ensure image quality and lamp life over the life of the projector. Failure to follow these instructions may affect the warranty. For complete details of the warranty, see the Warranty section at the end of this user's guide.

Do not place objects or people in the 2 foot (.6m) area along the side of the projector. For ceiling mount applications, this area should be 5 feet (1.5m).





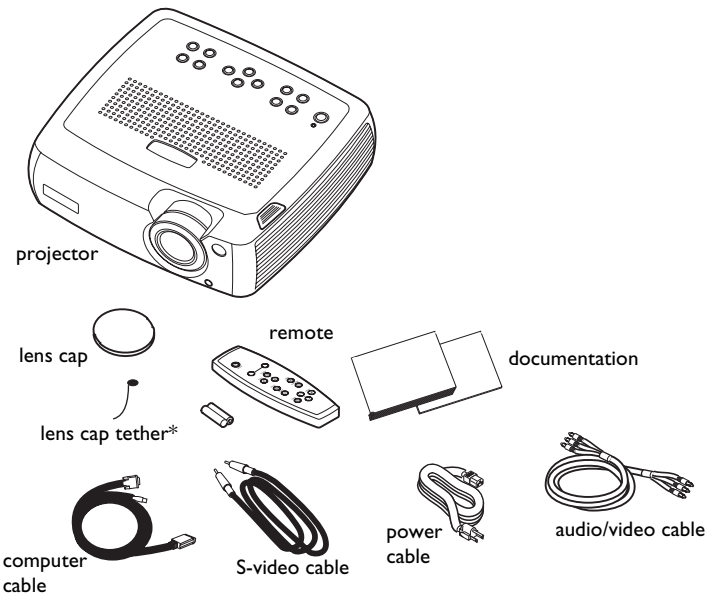
Introduction

Your new ScreenPlay™ 5000 projector from InFocus® is specifically designed for home cinema applications. It has native 1280x720 resolution. The projector is easy to connect, easy to use, easy to maintain.

Online Registration

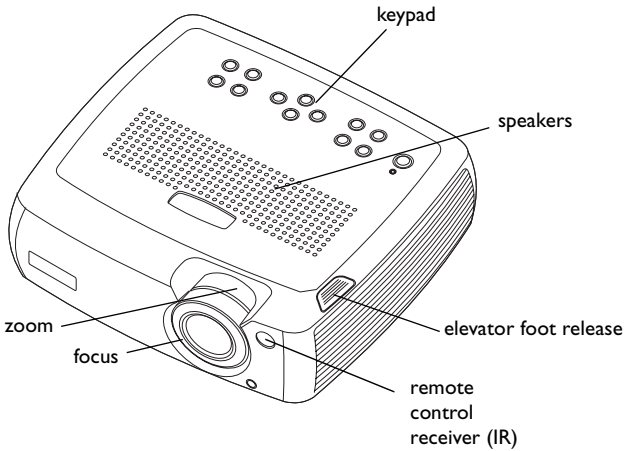
Register your projector on our website to receive product updates, announcements, and registration incentives. See the inside of the back cover for the web address.

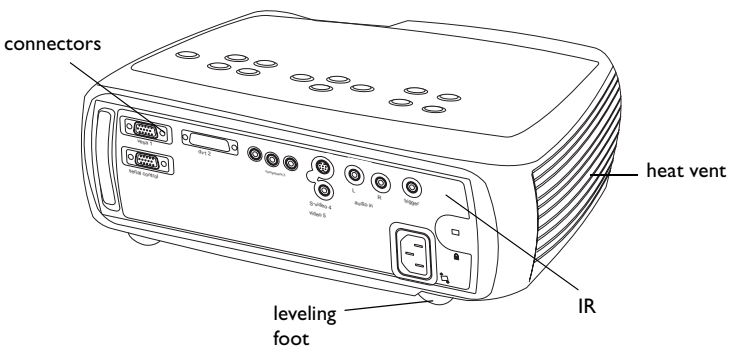
Included items



*The lens cap tether ships in the Documentation Pack. Attach it to the lens cap and the projector if desired.

Projector components and features





Connector Panel

The projector provides two computer and four video connectors:

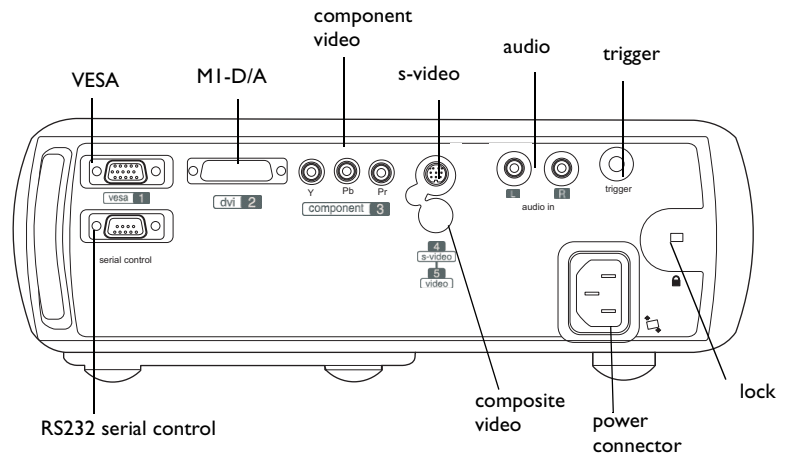
- one M1-D/A (HD, DVI, and computer)
- one VESA (HD, HD component, and computer)
- one S-video
- one composite RCA
- one component video

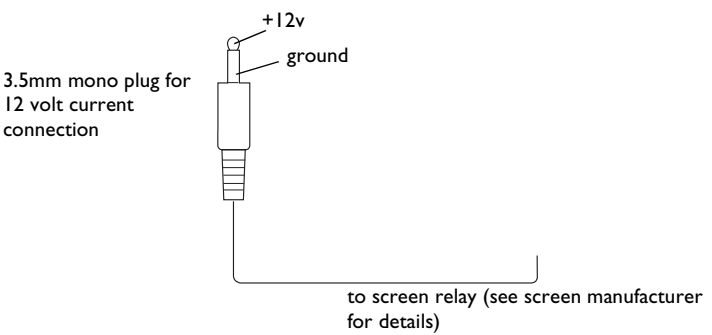
It also has an RS-232 serial connector for serial control. The Command Line Interface (CLI) specifications and commands are on our website.

A 3.5mm mini-jack trigger provides 12 volt current. This provides a constant output while the projector is on. For example, if you connect your projection screen to the trigger, when you turn on the projector the screen will move down; when you turn the projector off, the screen will return to the storage position.

You must turn the trigger on in the System menu, see page 28.

Connector panel





Positioning the projector

There are a number of factors to consider when determining where to set up the projector, including the size and shape of your screen, the location of your power outlets, and the distance between the projector and the rest of your equipment. Here are some general guidelines.

1 Position the projector on a flat surface at a right angle to the screen.

The projector must be within 10 feet (3 m) of your power source. To ensure adequate cable access, place the projector at least 6 inches (0.15m) from a wall or other objects. Place the projector at least 5.6 feet (1.7 m) from the projection screen.

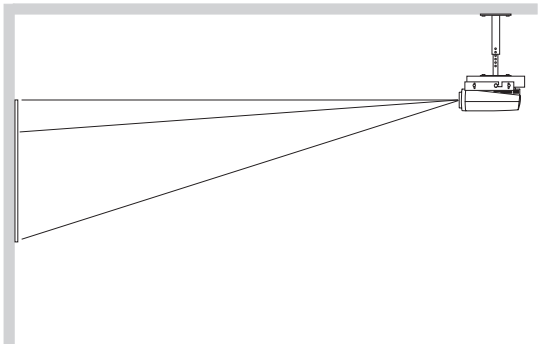
If you install the projector on the ceiling, refer to the installation guide that comes with the Ceiling Mount Kit for more information. To turn the image upside down, see page 28. InFocus recommends use of an authorized InFocus ceiling mount. The Ceiling Mount Kit is sold separately.

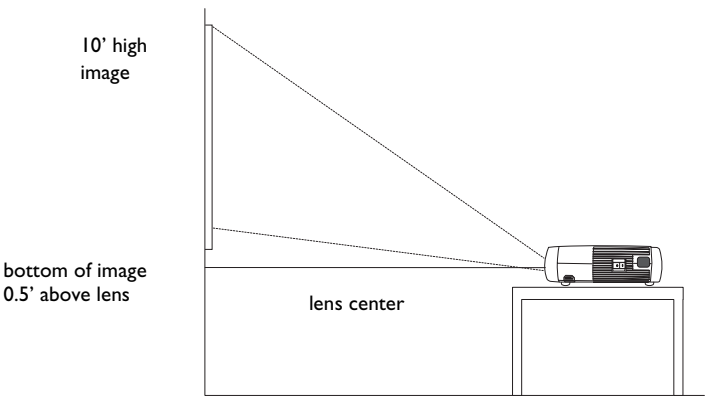
2 Position the projector the desired distance from the screen.

The distance from the lens of the projector to the screen, the zoom setting, and the video format determine the size of the projected image. For more information about projected image sizes, see page 36.

The image exits the projector at a given angle. This image offset is 105%. This means that if you have an image 10’ high, the bottom of the image will be 0.5’ above the center of the lens.

Go to **www.infocushome.com/support** for a complete image size calculator.





Video connections

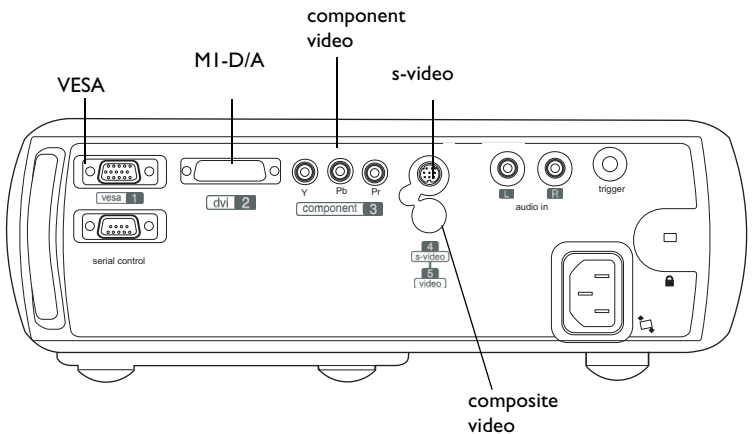
You can connect VCRs, DVD players, camcorders, digital cameras, video games, HDTV receivers, and TV tuners to the projector. (You cannot directly connect the coaxial cable that enters your house from a cable or satellite company; the signal must pass through a tuner first. Examples of tuners are digital cable boxes, VCRs, digital video recorders, and satellite TV boxes. Basically, any device that can change channels is considered a tuner.) If there is more than one output, select the highest quality one. DVI, Component video and RGB (M1, HD15) have the best quality, followed by S-video, and then composite video.

Table 1: Video connections

Input signal	Connector	Connector label on projector
Standard Broadcast TV (not HDTV), via cable, digital cable, satellite TV, DirectTV	Component video S-video Composite video	Component 3 S-video 4 Video 5
HDTV	Component video VESA DVI	Component 3 VESA 1 DVI 2
DVD	Component video S-video Composite video	Component 3 S-video 4 Video 5
VCR	Composite video S-video Component video	Video 5 S-video 4 Component 3
Video Camera	Composite video S-video	Video 5 S-video 4
Video Game	VESA Composite video S-video Component video	VESA 1 Video 5 S-video 4 Component 3

Table 1: Video connections

NOTE: If you want to use RGB video, see page 8.



Connecting a video device

If your video device has more than one output, select the highest quality one. DVI video has the best quality, followed by Component video, S-video, and then composite video.

If the video device uses component cable connectors, plug the cable's green connectors into the green component-out connector on the video device and into the green component connector (labeled "**Y**" **Component 3**) on the projector. Plug the component cable's blue connectors into the blue component-out connector on the video device and into the blue component connector (labeled "**Pb**") on the projector. Plug the component cable's red connectors into the red component-out connector on the video device and into the red component connector (labeled "**Pr**") on the projector. If you are using RGB input, plug the additional connector into the **Video 5** connector and turn on the RGB Video option in the Sources menu. See page 28.

If the video device uses a round, four-prong S-video connector, plug the S-video cable into the S-video connector on the video device and into the **S-Video 4** connector on the projector. Connect the red and white audio connectors from the A/V cable to your source and **Audio In** connector on the projector, if desired. If the video device uses a yellow composite video connector, plug the A/V cable's yellow connector into the video-out connector on the video device. Plug the other yellow connector into the yellow **Video 5** connector on the projector. Connect the red and white audio connectors from the A/V cable to your source and the projector.

If the video device uses a DVI connector, plug the computer cable into the video-out connector on the video device. Plug the other connector into the **DVI 2** connector on the projector.

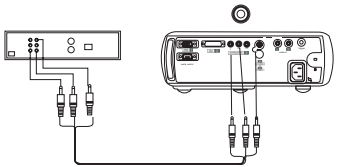
If the video device uses a VESA connector, plug a VESA cable into the video-out connector on the video device. Plug the other connector into the **VESA 1** connector on the projector.

Connecting the power cable

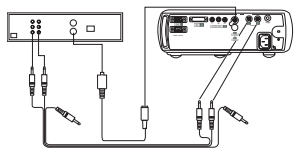
Connect the power cable to the connector on the back of the projector and to your electrical outlet. The Power button on the keypad lights up and the LED on the keypad turns solid green.

NOTE: Always use the power cable that shipped with the projector.

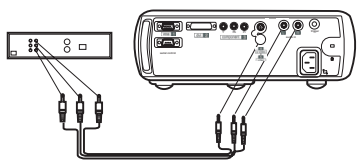
connect component cable



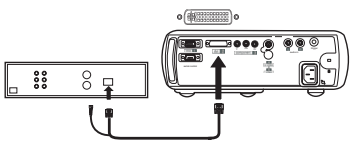
connect S-video cable



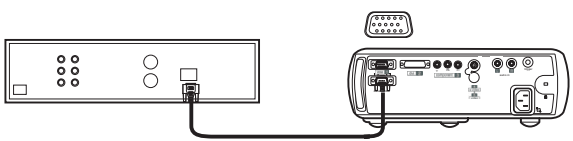
connect composite video cable



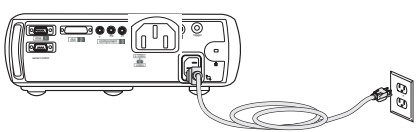
connect M1-D cable



connect VESA cable



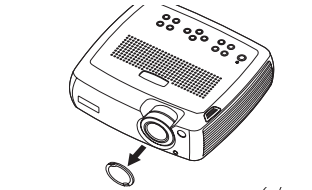
connect power cable



Displaying a video image

Remove the lens cap.

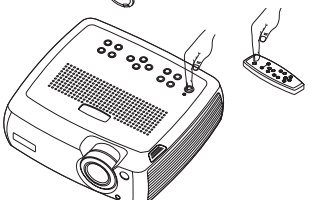
remove lens cap



Press the **Power** button on the top of the projector or the remote. The fans start to run. When the lamp comes on, the startup screen is displayed. It can take a minute for the image to achieve full brightness.

? No startup screen? Get help on page 12.

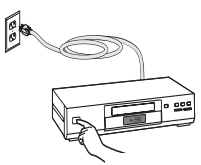
press Power button



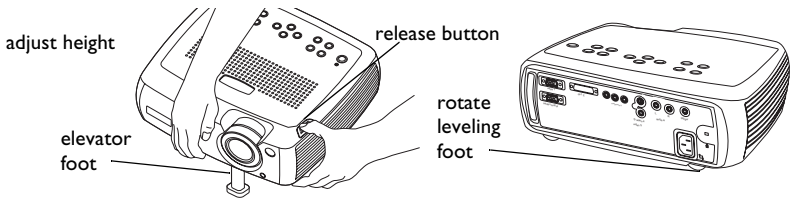
Plug in and turn on the video device.

The video device's image should appear on the projection screen. If it doesn't, press the **Source** button on the keypad or remote.

turn on video device

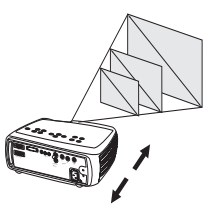


Adjust the height of the projector by pressing the release button to extend the elevator foot. Rotate the leveling foot, if necessary.



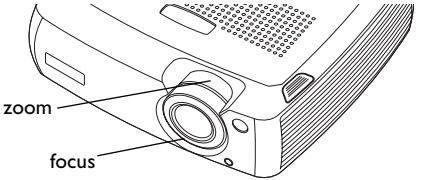
Position the projector the desired distance from the screen at a 90 degree angle to the screen. See page 36 for a table listing screen sizes and distances to the screen.

adjust distance



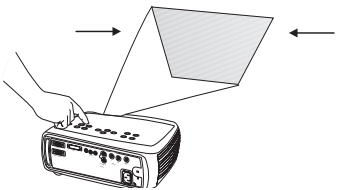
Adjust the zoom or focus rings by rotating them until the desired image size and focus are produced.

adjust zoom and focus



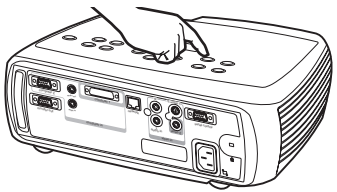
If the image is not square, adjust the vertical keystone using the buttons on the keypad.
Press the upper **Keystone** button to reduce the upper part of the image, and press the lower **Keystone** button to reduce the lower part.
You can also adjust the horizontal keystone via the menus, or set the projector to automatically adjust the vertical keystone. See page 24.

adjust keystone



Adjust the volume in the Audio menu.

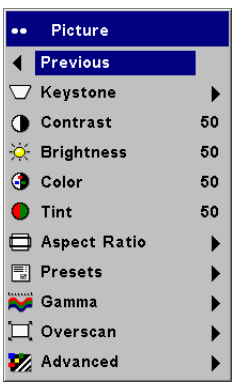
adjust volume



Adjust the **Contrast**, **Brightness**, **Color**, or **Tint** in the Picture menu.

See page 23 for help with the menus.

adjust Picture menu



Connecting a computer

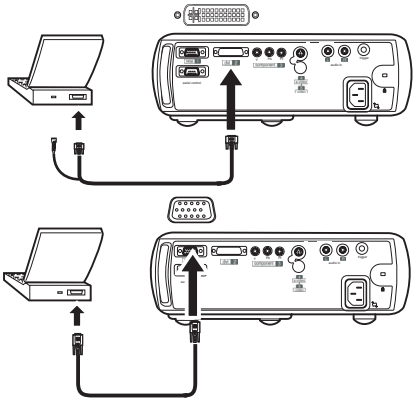
Connect either a VESA cable or M1 cable into the appropriate connector on the projector (**Vesa 1 or DVI 2**). Connect the other end to the video port on your computer. If you are using a desktop computer, you first need to disconnect the monitor cable from the computer's video port.

Connect the black power cable to the connector on the back of the projector and to your electrical outlet. The Power LED on the projector's keypad turns solid green.

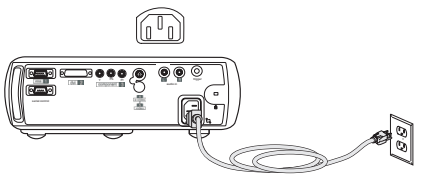
NOTE: Always use the power cable that shipped with the projector.

You can control the projector from an LCD control panel or computer by connecting an RS-232 cable to the projector's **Serial control** connector. Specific RS-232 commands can be found in the Service and Support section of our website at **www.infocushome.com/support**. You should also check here for software updates. You can update your projector's software using the computer cables USB connector, see the website for details.

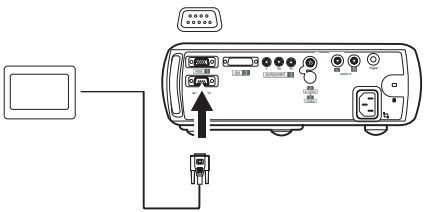
connect computer cable



connect power cable



connect RS-232 cable



Shutting down the projector

The projector automatically blanks the screen after no active source is detected for 30 minutes. This blank screen helps preserve the life of the projector. The image returns when an active source is detected or a remote or keypad button is pressed.

Screen Save

You can make the blank screen appear after five minutes by turning on Screen Save in the **Settings>System** menu. See page 29. There are six time options for the Screen Save feature. They range from five minutes to 30 minutes with five minute intervals.

Power Save

The projector also has a Power Save feature that automatically turns the lamp off after no signals are detected for 5 minutes. After 3 additional minutes with no signal, the projector powers down. If an active signal is received before the projector powers down, the image is displayed. You must press the **Power** button to display an image after 30 minutes have passed. When Power Save is enabled, Screen Save is disabled. See page 29.

Turning off the projector

To turn off the projector, press the **Power** button. You can cancel the shutdown by pressing the **Power** button again within 3 seconds. The lamp turns off and the LED blinks green for 1 minute while the fans continue to run to cool the lamp. When the lamp has cooled, the LED lights green and the fans stop. Unplug the power cable to completely power off the projector.

Troubleshooting your setup

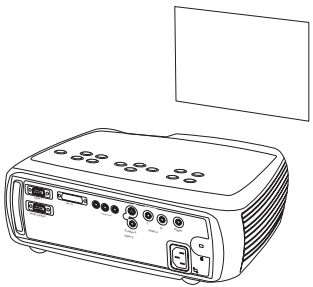
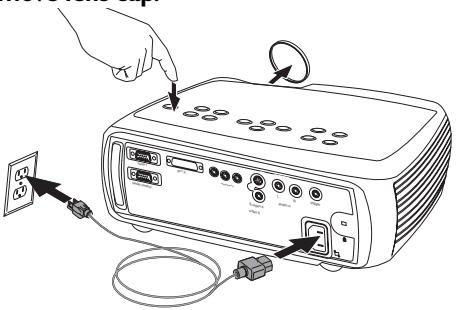
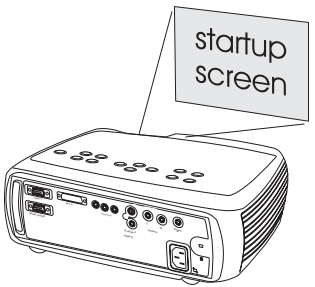
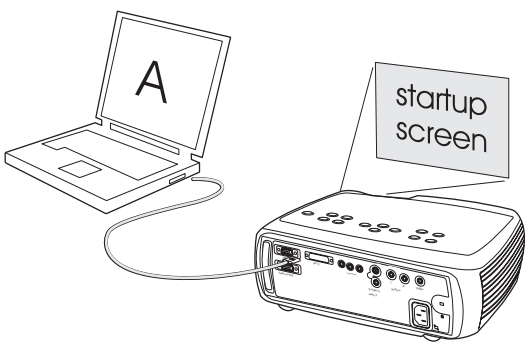
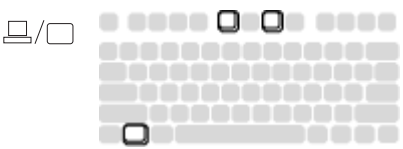
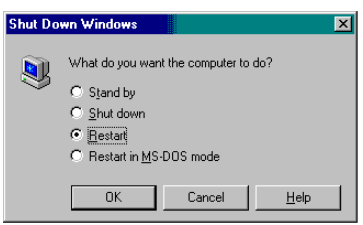
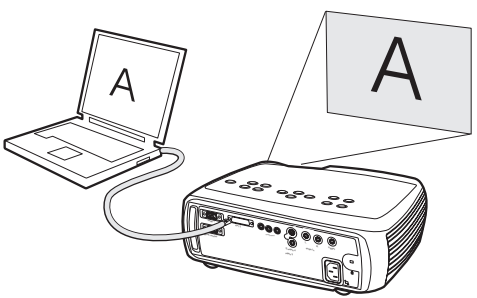
If your image appears correctly on the screen, skip to the next section (page 20). If it does not, troubleshoot the setup. The LED on top of the projector indicates the state of the projector and can help you troubleshoot.

Table 2: LED behavior and meaning

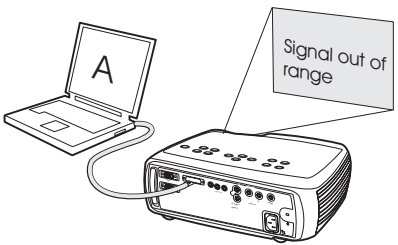
LED color/behavior	Meaning
solid green	The projector is plugged in, or the projector has been turned off and the fans have stopped.
blinking green	The projector is powering down and the fans are running to cool the lamp.
blinking red see page 36 for more information	A fan or lamp failure has occurred. Make sure the vents aren't blocked (see page 17). Turn off the projector and wait one minute, then turn the projector on again. If the Replace Lamp message appears, replace the lamp and reset the lamp timer. Contact Technical Support if the problem persists.
solid red	An unidentifiable error: please contact Technical Support.

The following tables show common problems. In some cases, more than one possible solution is provided. Try the solutions in the order they are presented. When the problem is solved, you can skip the additional solutions.

Source Troubleshooting

Problem	Solution	Result
No startup screen 	**Plug power cable in, press Power button. Remove lens cap.** 	**Correct image** 
Only startup screen appears 	**Press the Source button** **Activate laptop's external port**  **or restart laptop** 	**Computer image projected** 

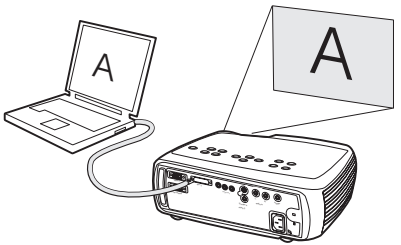
No computer image, just the words "Signal out of range"



Adjust computer refresh rate in Control Panel>Display>Settings>Advanced> Adapter (location varies by operating system)

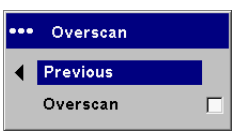
You may also need to set a different resolution on your computer.

Computer image projected



Edges of image distorted

Turn Overscan on in the Picture>Overscan menu



Correct image

Projector troubleshooting

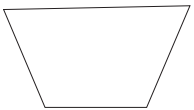
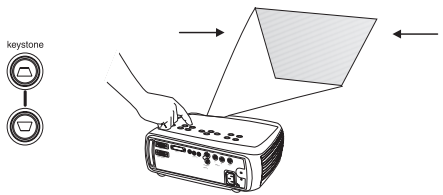
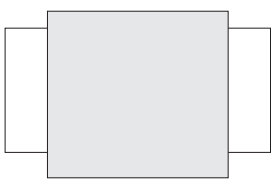
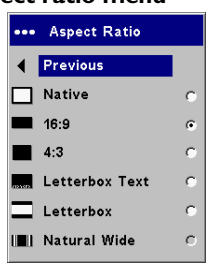
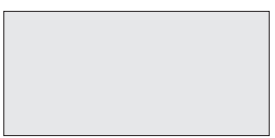
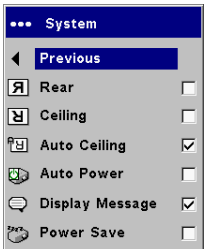
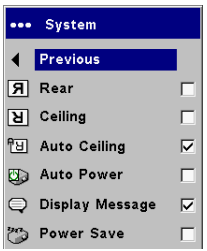
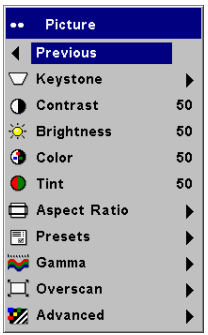
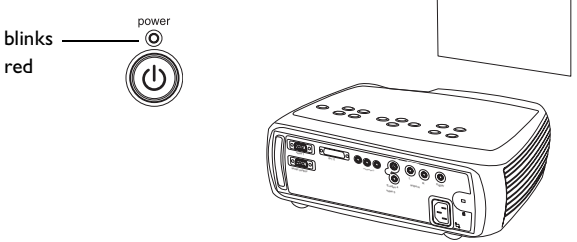
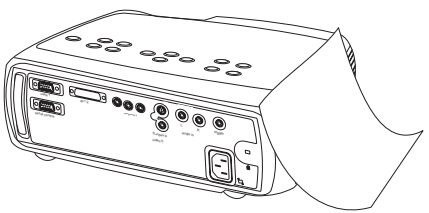
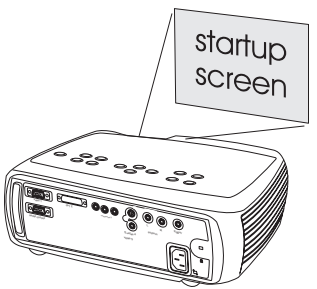
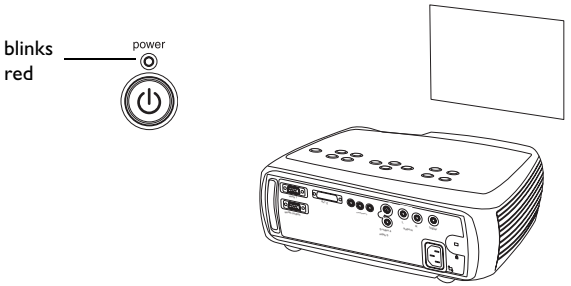
Problem	Solution	Result
Image not square 	**Adjust keystone on keypad or Picture menu** 	**Square image**
Image not sharp 	**Adjust the focus lens or Sharpness in the Picture>Advanced menu** 	**Correct image**
Image does not fit 16:9 screen 	**Change aspect ratio to 16:9 in Picture>Aspect ratio menu** 	**Correct image** 

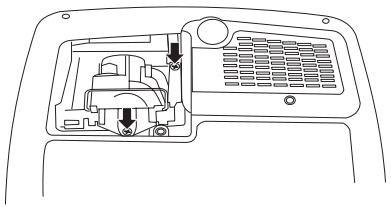
Image upside down 	**Turn off Ceiling in Settings>System menu** 	**Correct image**
Image reversed left to right 	**Turn off Rear in Settings>System menu** 	**Correct image**

1. Projected colors don't match source **2. Colors are washed out or too deep** **3. Image from component source appears greenish** 	**1. Adjust color, tint, color temperature, brightness, or contrast in the menus.** **2. Select another gamma setting** **3. Select another color space** 	**Correct image**
Lamp won't turn on, LED blinking red (page 12) 	**Make sure vents aren't blocked; allow projector to cool for one minute** 	**Unplug projector; wait one minute; plug in projector and turn it on: lamp lights** 

Lamp won't turn on, LED blinking red (page 12)



Lamp must be replaced (page 32)



Lamp turns on

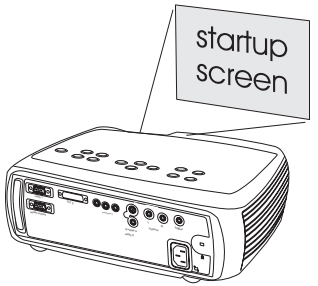
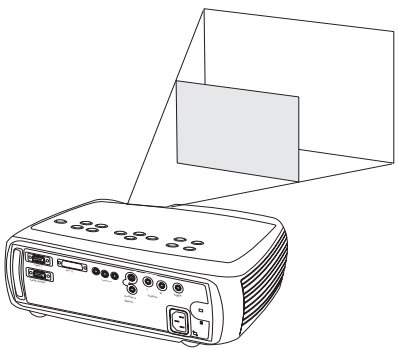
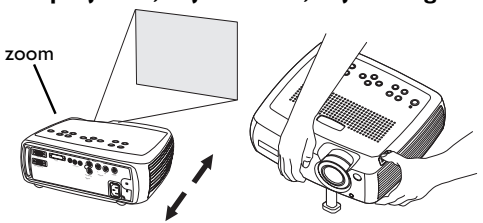


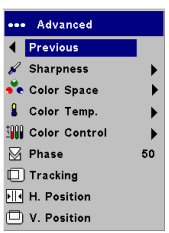
Image not centered on screen



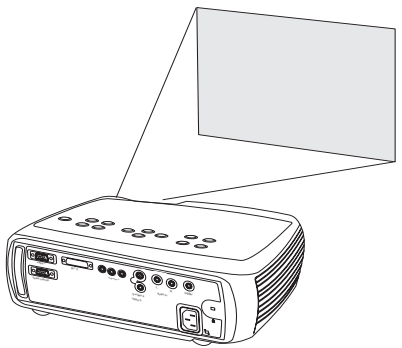
Move projector, adjust zoom, adjust height



Adjust horizontal or vertical position in Picture>Advanced menu



Correct image



Still having problems?

If you need assistance, visit our website or call us. See the inside of the back cover for a list of all relevant web addresses. This product is backed by a limited warranty. An extended warranty plan may be purchased from your dealer. When sending the projector in for repair, we recommend shipping the unit in its original packing material, or having a professional packaging company pack the unit. Please insure your shipment for its full value.

Using the keypad buttons

Most buttons are described in detail in other sections, but here is an overview of their functions:

power–turns the projector on (page 9) and off (page 12).

menu–opens the on-screen menus (page 23).

select–confirms choices made in the menus (page 23).

up/down arrows–navigates to and adjusts settings in the menus (page 23).

auto image–resets the projector to the source.

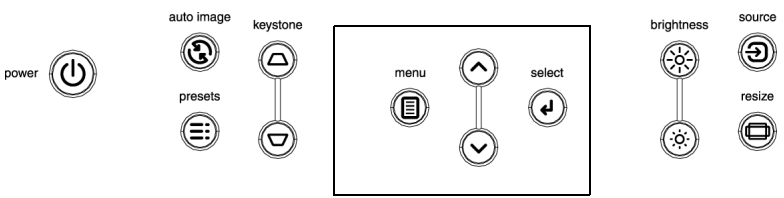
presets–cycles through the available preset settings (page 26).

keystone–vertical keystone adjusts the squareness of the image (page 24).

brightness–adjusts intensity of the image (page 24).

resize–changes the aspect ratio (page 24).

source–changes the active source (page 9).



menu navigation buttons

Using the remote control

The remote uses two (2) provided AAA batteries. They are easily installed by sliding the cover off the remote's back, aligning the + and - ends of the batteries, sliding them into place, and then replacing the cover.

To operate, point the remote at the projection screen or at the projector (not at the video device or computer). The range of optimum operation is up to 30 feet (9.14m).

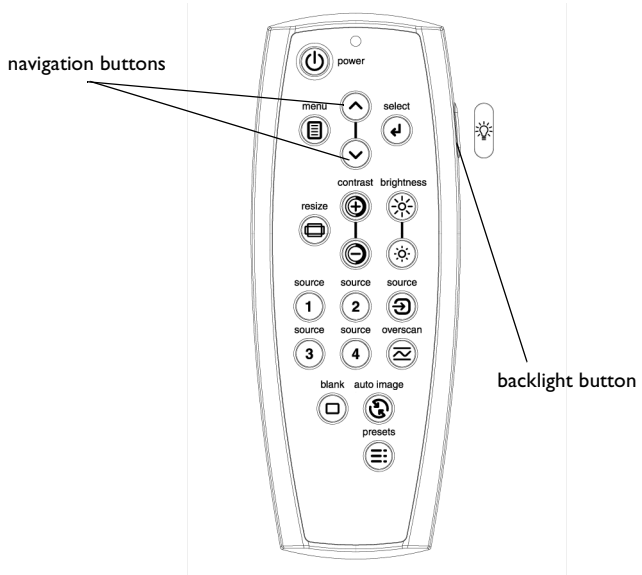
Press the remote's **Menu** button to open the projector's menu system. Use the arrow buttons to navigate, and the **Select** button to select features and adjust values in the menus. See page 23 for more info on the menus.

The remote also has:

- **Power** button to turn the projector on and off (see page 12 for shut-down info)
- backlight button to light the remote's buttons in the dark
- **Brightness** and **Contrast** buttons to adjust the image
- **Blank** button to display a blank screen instead of the current image (to change the color of the blank screen, see page 29)
- **Source** buttons to switch among sources (to assign a particular source to a source button, see page 28) and a source toggle
- **Resize** button to change the Aspect Ratio (see page 24)
- **Auto Image** button to resynchronize the projector to the source
- **Preset** button to restore stored settings (see page 26)
- **Overscan** button to remove noise in a video image (page 26)

Troubleshooting the remote

- Make sure the batteries are installed in the proper orientation and are not dead.
- Make sure you're pointing the remote at the projector or the screen, not at the video device or the computer, and are within the remote range of 30 feet (9.14m).

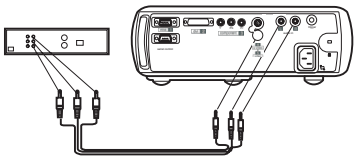


Using the audio

To play sound from the projector, connect your source to the **Audio In** connector on the projector.

To adjust the volume, mute or turn off the projector's chime, use the Audio menu (see page 28).

connect audio connectors on A/V cable

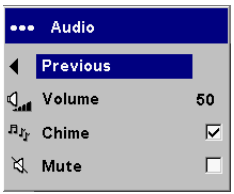


Troubleshooting audio

If there is no sound, check the following:

- Make sure the audio cables are connected.
- Make sure mute isn't active in the Audio menu.
- Make sure the volume is turned up enough.
- Adjust the audio source.
- If playing a video, make sure the playback has not been paused.

adjust volume



Customizing the projector

You can customize the projector for your specific setup and needs. See page 28 to page 31 for details on these features.

- For rear projection, turn Rear mode on in the **Settings>System** menu.
- For ceiling mounted projection, turn Ceiling mode on in the **Settings>System** menu.
- Turn on Automatic Vertical Keystone adjustments.
- Specify which source the projector checks first for active video during power-up.
- Turn the projector's display messages on and off.
- Turn on power saving features.
- Specify blank screen colors and startup logos.
- Specify the menu language.
- Control your projector using RS232 commands. See page 5.

Optimizing video images

After the video device is connected properly and the image is on the screen, you can optimize the image using the onscreen menus. For general information on using the menus, see page 23.

- Adjust the Keystone, Contrast, Brightness, Color, or Tint in the Picture menu. See page 24.
- Change the Aspect ratio. Aspect ratio is the ratio of the image width to image height. TV screens are usually 1.33:1, also known as 4:3. HDTV and most DVDs are 1.78:1, or 16:9. Choose the option that best fits your input source. See page 24.
- Select a Sharpness setting. See page 27.
- Select a different Color Temperature or use the Color Control to adjust the gain and offset of the red, green, and blue color. See page 27.
- Select a specific Gamma or Color Space. See page 26 and page 27.
- Turn Overscan on to remove noise around the video image. See page 26.

Using the menus

To open the menus, press the **Menu** button on the keypad or remote. (The menus automatically close after 60 seconds if no buttons are pressed.) The Main menu appears. Use the arrow buttons to move up and down to highlight the desired submenu, then press the **Select** button.

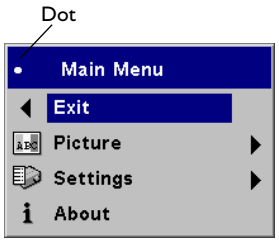
To change a menu setting, highlight it, press **Select**, then use the up and down arrow buttons to adjust the value, select an option using radio buttons, or turn the feature on or off using check boxes. Press **Select** to confirm your changes. Use the arrows to navigate to another setting. When your adjustments are complete, navigate to Exit, then press **Select** to go to the previous menu; press the **Menu** button at any time to close the menus.

Dots appear before the menu name. The number of dots indicate the menu's level, ranging from one (the Main menu) to four (the most nested menus).

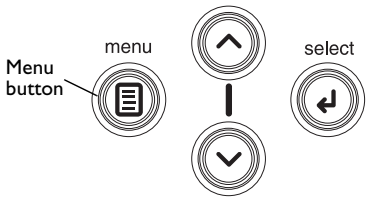
The menus are grouped by usage:

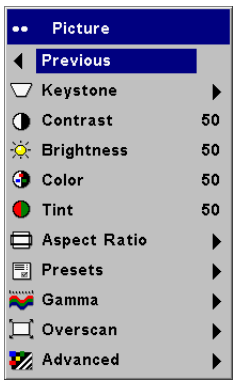
- The Picture menu provides image adjustments.
- The Settings menu provides set-up type adjustments that are not changed often.
- The About menu provides a read-only display of information about the projector and source.

Certain menu items may be grayed out until a particular source is connected. For example, Sharpness is only available for video sources and will be hidden when a computer source is active. Other menu items may be grayed out when they are not available. For example, Brightness is grayed out until an image is active.

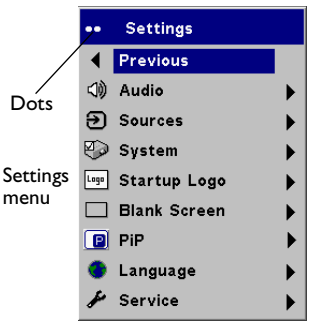


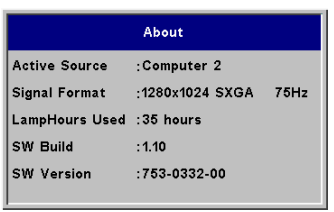
Main menu





Picture menu





About menu

Picture menu

To adjust the following six settings, highlight the setting, press **Select**, use the up and down arrows to adjust the values, then press select to confirm the changes.

Vertical Keystone: adjusts the image vertically and makes a squarer image. You can also adjust vertical keystone from the keypad. If you want the projector to automatically adjust the vertical keystone, check the Auto Vertical check box.

Horizontal Keystone: adjusts the image horizontally and makes a squarer image.

Contrast: controls the degree of difference between the lightest and darkest parts of the picture and changes the amount of black and white in the image.

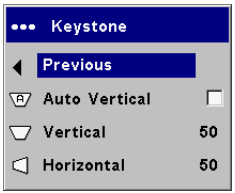
Brightness: changes the intensity of the image.

Color: (video and component sources only) adjusts a video image from black and white to fully saturated color.

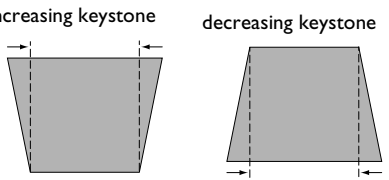
Tint: (NTSC video sources only) adjusts the red-green color balance in the image.

Aspect Ratio: Aspect ratio is the ratio of the image width to image height. TV screens are usually 1.33:1, also known as 4:3. HDTV and most DVDs are 1.78:1, or 16:9. The default is16:9.

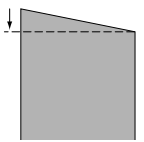
Native: this mode bypasses the internal scaler, displaying the image with no resizing. Since the native resolution is 1280x720 and 4x3 video images are approximately 640x480, 4x3 images will always be smaller than the display and will be centered in the display. Computer images 1024x768 or smaller will also be centered in the display. If a 16x9 video source or a 1280x1024 or larger computer source is viewed, it will display up to 1280 pixels and 720 lines from the center of the input.

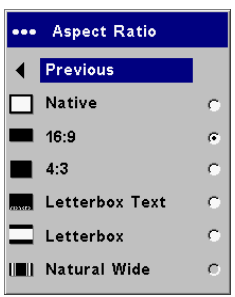


Vertical Keystone



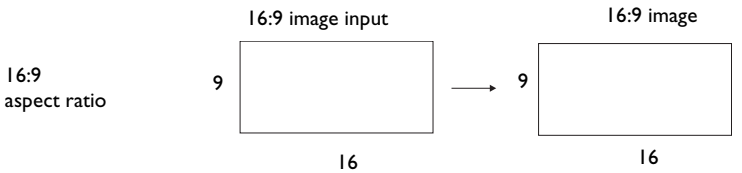
Horizontal Keystone



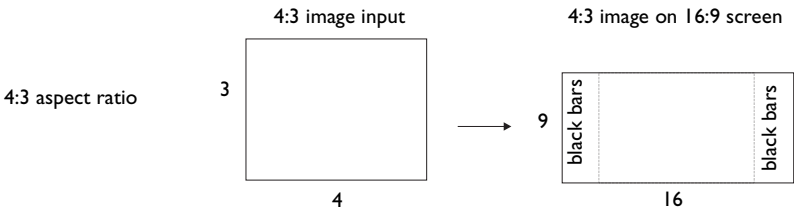


Aspect Ratio

16:9: the default is **16:9**, which preserves the 16:9 aspect ratio and is designed to be used with content that is Enhanced for Widescreen TVs.

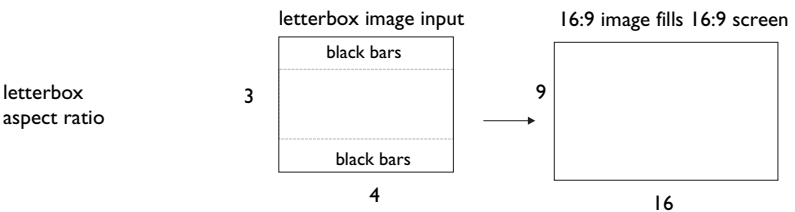


4:3: resizes the image from its original version to fit a standard 4:3 aspect ratio screen. If you have a 4:3 source on a 16:9 screen, the image is placed in a 16:9 space, so black bars appear at the sides of the image.

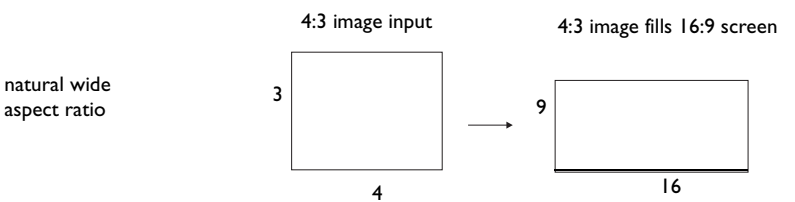


Letterbox text: preserves the 16:9 aspect ratio and maximizes readability of the text.

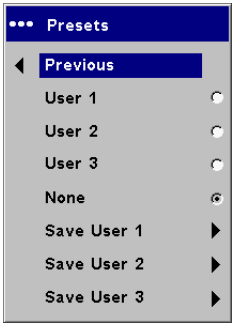
Letterbox: preserves the 16:9 aspect ratio. If you have a 16:9 source and screen, the image fills the screen. If your source is letterboxed, the image is expanded to fill the screen.



Natural Wide: this mode stretches a 4:3 image to fill the entire 16:9 screen. The center two-thirds of the image is unchanged; the edges of the image are stretched.



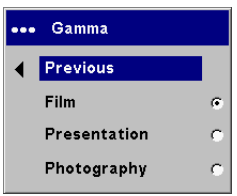
Presets: You can customize the settings for each source and save them as a preset. There are three user-definable presets. To set a preset for the current source, adjust the image, then choose Save User 1, 2, or 3. You can recall these settings in the future by selecting the appropriate user presets.



Presets

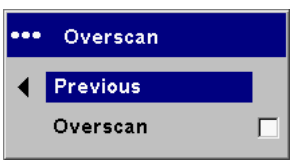
Gamma: Gamma tables contain preset intensity configurations optimized for the input source. You can select a gamma table that has been specifically tuned for either film, presentation, or photography.

NOTE: Your viewing preferences may vary. Cycle through the gamma options and pick the one you like the best.



Gamma

Overscan: (video sources only) removes noise around the video image.



Overscan

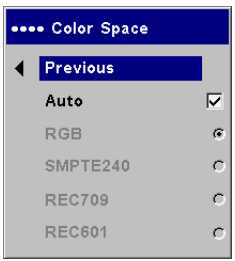
Advanced settings

Sharpness: (video sources only) changes the clarity of the edges of a video image. Select a sharpness setting.

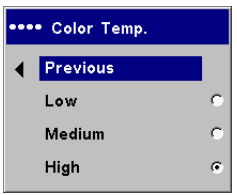
Sharpness

Color Space: This option applies to computer sources. It allows you to select a color space that has been specifically tuned for the video input. When Auto is selected, the projector automatically determines the standard. To choose a different setting, turn off Auto, then choose RGB for computer sources, choose either SMPTE240, REC709 or REC601 for component sources.

Color Temperature: changes the relative warmth of the colors.



Color Space



Color Temperature

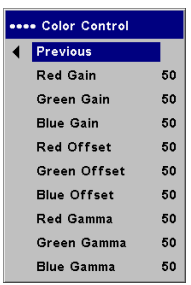
Color Control: allows you to individually adjust the gain (intensity of the color), the offset (the amount of black in the color), and the gamma of the red, green, and blue colors.

The following 4 options are for computer and component sources only.

Phase: adjusts the horizontal phase of a computer source.

Tracking: adjusts the vertical scan of a computer source.

Horizontal/Vertical Position: adjusts the position of a computer source.



Color Control

Settings menu

Audio: allows adjustments to the volume and mute, and turns the projector's startup Chime on and off.

Sources: allows you to assign a particular input to a specific source key on the remote. Also allows selection of a default Startup Source and enables or disables Autosource and RGB Video.

Sources>Startup Source: this determines which source the projector checks first for active video during power-up.

Sources>Autosource: When Autosource is not checked, the projector defaults to the source selected in Startup Source. If no source is found, a blank screen displays. When Autosource is checked, Startup Source determines which source the projector defaults to at power-up. If no signal is present, the projector checks the sources in order until a source is found or until power down.

Sources>RGB Video: check this box if you are using a DVD player with RGB output.

System>Rear: reverses the image so you can project from behind a translucent screen.

Ceiling: turns the image upside down for ceiling-mounted projection.

Auto Ceiling: automatically senses when the projector is inverted and turns the image upside down. This is On by default.

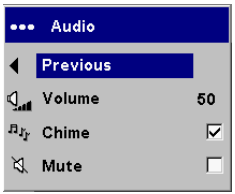
Auto Power: When Auto Power is checked, the projector automatically goes into the startup state after the projector is powered on. This allows control of ceiling mounted projectors with a wall power switch.

Display Messages: displays status messages (such as "Searching" or "Mute") in the lower-left corner of the screen.

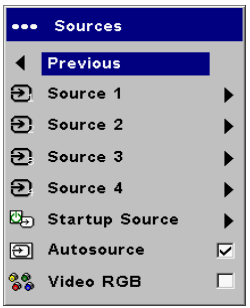
Power Save: automatically turns the lamp off after no signals are detected for 5 minutes. After 3 additional minutes with no signal, the projector powers down. If an active signal is received before the projector powers down, the image will be displayed.

Screen Trigger: turns on the 12 volt DC output switch on the connector panel.

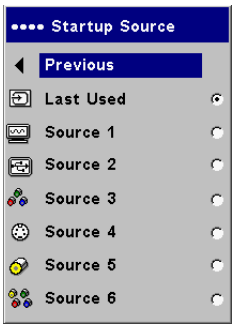
Backlight: allows you to turn off the backlighting on the keypad.



Audio

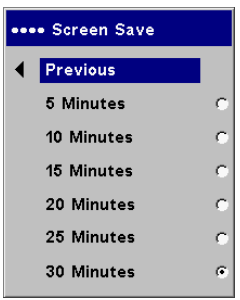


Sources



Startup Source

System menu



Screen Save

Sleep Timer: allows you to force the projector to automatically shutoff after 4 hours.

Screen Save: automatically blanks the screen with a black color after no signals are detected for a preset number of minutes. The image returns when an active source is detected or a remote or keypad button is pressed. Screen Save is disabled when Power Save is enabled.

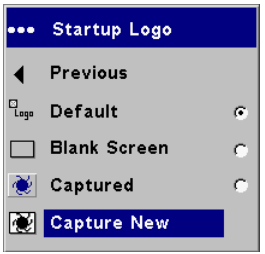
Startup Logo: allows you to display a blank Black, White, or Blue screen instead of the default screen at startup and when no source is detected. It also allows you to capture and display a custom startup screen.

To capture a custom logo, display the image you want to capture on your computer, highlight Capture New, then press **Select** twice. When complete, the projector confirms the capture.

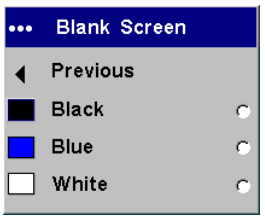
The next time you start the projector, the custom logo you captured displays.

Blank Screen: determines what color is displayed when you press the **Blank** button on the remote.

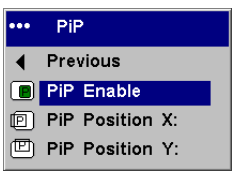
PiP: (Picture in Picture) allows you to overlay a smaller window showing the video source on top of the larger computer source window. You must have both a computer and video source connected to use PIP. You can't show a computer image in the smaller PiP window, only a video image. You can select a small, medium, or large window. You can also move the PiP window on the screen using the PiP Position X and Y options in the menu. Press the up and down arrows to change the position.



Startup Logo



Blank Screen



Picture in Picture

Language: allows you to select a language for the onscreen display of menus and messages.

Language

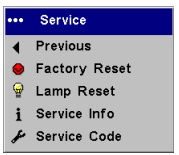
Service: to use these features, highlight them and press **Select**.

Factory Reset: restores all settings (except Lamp Hours) to their default after displaying a confirmation dialog box.

Lamp Reset: resets the lamp hours counter in the About menu to zero. Do this only after changing the lamp. It displays a confirmation dialog box.

Service Info: provides information about the projector's software version and the active source.

Service Code: only used by authorized service personnel.



Service menu

Maintenance

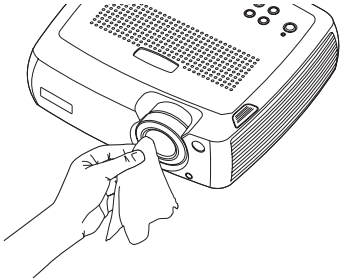
Cleaning the lens

1 Apply a non-abrasive camera lens cleaner to a soft, dry cloth.

Avoid using an excessive amount of cleaner, and don't apply the cleaner directly to the lens. Abrasive cleaners, solvents or other harsh chemicals might scratch the lens.

2 Lightly wipe the cleaning cloth over the lens in a circular motion. If you don't intend to use the projector immediately, replace the lens cap.

clean the lens
with a soft dry cloth
and non-abrasive
cleaner



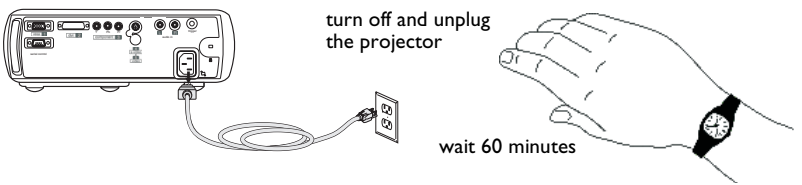
Replacing the projection lamp

The lamp hour timer in the About menu counts the number of hours the lamp has been in use. When the lamp timer reaches the estimated total lamp life, the LED on the projector's keypad blinks red (indicating a lamp error, see page 36) and a dialog box appears each time the projector is turned on. You can order new lamp modules from your dealer. See "Accessories" on page 35 for information.

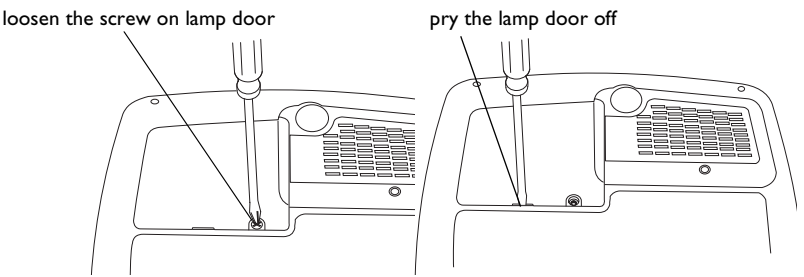
About menu

1 Turn off the projector and unplug the power cable.

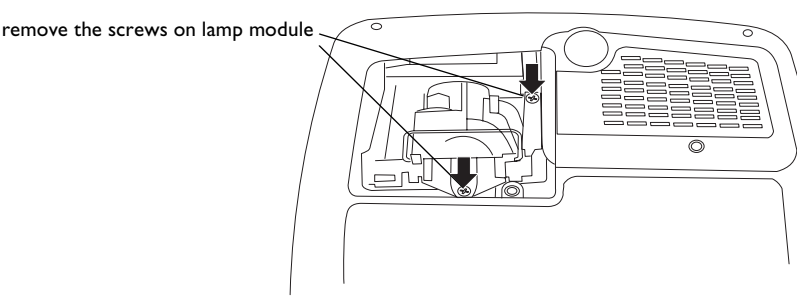
2 Wait 60 minutes to allow the projector to cool thoroughly.



3 Turn the projector upside down and remove the lamp door by loosening the captive screw and then prying the lamp door out.



4 Remove the two screws on the lamp module.



WARNINGS:

- To avoid burns, allow the projector to cool for at least 60 minutes before you replace the lamp.
- Unplug the power cord before replacing the lamp.
- Do not drop the lamp module. The glass may shatter and cause injury.
- Do not touch the glass portion of the lamp module. Fingerprints can obscure projection sharpness.

- Be extremely careful when removing the lamp housing. In the unlikely event that the lamp ruptures, small glass fragments may be generated. The lamp module is designed to contain most of these fragments, but use caution when removing it. Before replacing the lamp, clean the lamp compartment and dispose of cleaning materials. Wash hands after lamp replacement. This product has a lamp which contains a very small amount of mercury. Dispose of it as required by local, state or federal ordinances and regulations. For more information see **www.eiae.org**.

5 Carefully remove the lamp module by grasping and lifting the metal bail wire. Dispose of the lamp in an environmentally proper manner.

6 Install the new lamp module, making sure that it is properly seated.

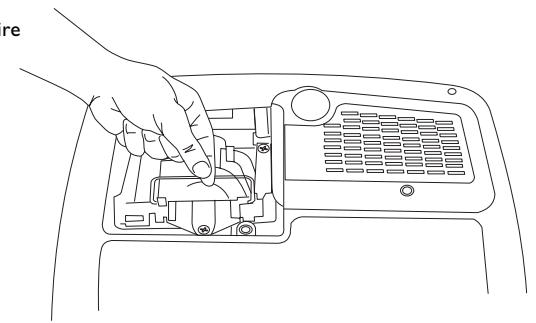
7 Replace the two screws.

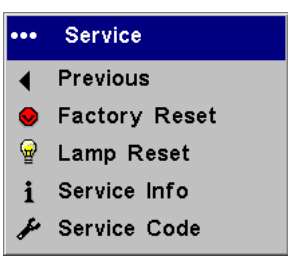
8 Replace the lamp door and tighten the screw.

9 Plug in the power cable then press the **Power** button to turn the projector back on.

10 Reset the lamp hour timer by navigating to the **Settings>Service** menu and selecting **Lamp Reset**.

remove module using bail wire





reset lamp time in Service menu

Cleaning the dust filters

In dirty or dusty environments, the dust filters can become clogged, causing high temperatures inside the lamp module. These high temperatures can impact lamp performance and operating life. Routine maintenance to remove dust and dirt from the filters lowers the lamp operating temperature and prolongs lamp life. To maximize lamp life you will need to clean the filters every 250 hours. Lamp filter maintenance may need to occur more often than 250 hours depending on your installation/use environment. There are two filters, one mesh filter attached to the dust filter door and one metal grid filter adjacent to the lamp door.

1 Turn off the projector and unplug the power cable.

2 Wait 60 minutes to allow the projector to cool thoroughly.

WARNING: To avoid burns, allow the projector to cool for at least 60 minutes before you clean or replace the dust filter.

3 Turn the projector upside down and remove the lamp door. See page 32.

4 Remove the dust filter door.

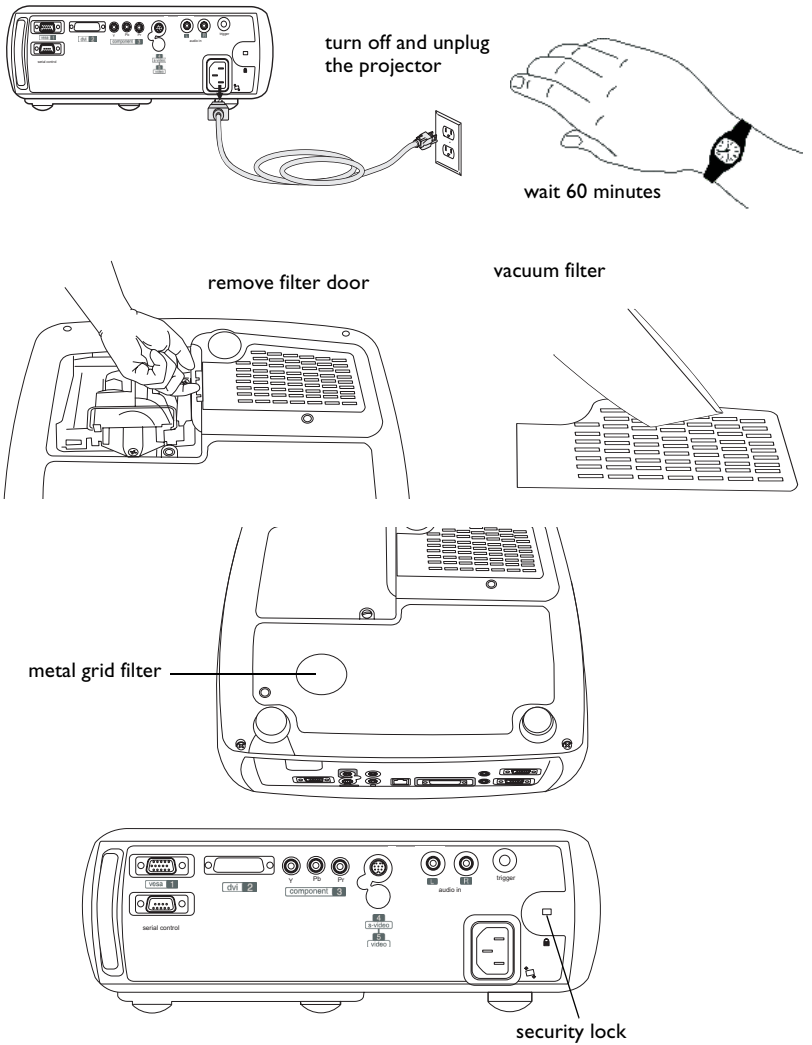
5 Clean the filter using a vacuum set on low power.

6 Replace the dust filter door and the lamp door.

7 Vacuum the non-removable metal grid filter adjacent to the lamp door.

Using the security lock

The projector has a security lock for use with a cable lock system. See "Accessories" on page 35 for ordering information. Refer to the information that came with the lock for instructions on how to use it.



Appendix

Accessories

Standard Accessories (ship with the projector)	Part Number
Computer Cable 6 ft (1.8 m)	210-0185-xx
Audio/Video Cable 6 ft (1.8 m)	210-0053-xx
S-video Cable	210-0125-xx
Power Cable, US*	210-0023-xx
Power Cable, EURO*	210-0029-xx
Director Remote	590-0567-xx
Projection Lamp Module (included in projector)	SP-LAMP-017
Lens Cap	340-1234-xx
Lens Cap Tether	321-0192-xx
Quick Setup card	009-0931-xx
User's Guide	010-0555-xx
Safety Card	009-0659-xx
SCART Adapter*	301130

*country-dependent

NOTE: Use only approved accessories.

Optional Accessories	Part Number
Shipping Case (ATA approved)	CA-ATA-019
Projector Mount	SP-CEIL-011
False Ceiling Plate for Projector Mount	SP-LTMT-PLT
Extension Arm for Projector Mount 26" - 47"	SP-LTMT-EXTP
Organizer Carry Case	CA-C230
DVI-D Cable 6 ft (1.8 m)	SP-DVI-D
M1 to Component Adaptor	SP-M1-ADPT
LiteShow Wireless Connection	LP-LITESHOW
ProjectorNet Software	SW-PN2-1CD
Audio/Video Cable, 30 ft (9m)	SP-AV30
Projector Cable Lock System	SP-LOCK-B
50" Diagonal Screen (portable)	A650
60" Diagonal Screen (portable)	HW-DLXSCRN
84" Diagonal Wall/Ceiling Mounted Screen	HW-WALLSCR84
Replacement Lamp Module	SP-LAMP-017
RF Presenter Remote Control	HW-PRESENTER-RF
IR Presenter Remote Control	HW-PRESENTER
IR Conductor + Remote Control	HW-CONDUCTOR+

Red LED behavior and projector errors

If the projector is not functioning properly and the red LED is blinking, consult **Table 2** to determine a possible cause. There are two second pauses between the blinking cycles. Visit our website for more details on the red LED error codes. See the inside back cover for contact information.

Table 3:

Red LED Behavior	Explanation
One (1) blink	The lamp won't strike after five (5) attempts. Check the lamp and lamp door installations for loose connections.
Two (2) blinks	The lamp counter hours have exceeded lamp life hours. Replace the lamp and reset the lamp hours counter.
Three (3) blinks	The projector has shut down the lamp. Turn the projector off and wait one minute, then turn the projector on. If the lamp does not turn on, replace the lamp. Contact Technical Support for repair if replacing the lamp does not solve the problem.
Four (4) blinks	A fan has failed. Contact Technical Support for repair.
Five (5) blinks	The projector is overheating. Check for a blocked air vent. Contact Technical Support for repair if clearing the air vents does not solve the problem.

Projected image size

Table 4:
Image sizes

Distance to screen (feet/m)	Minimum Diagonal (feet/m) throw ratio 1.72	Maximum Diagonal (feet/m) throw ratio 1.44	Minimum Horizontal (feet/m) throw ratio 1.98	Maximum Horizontal (feet/m) throw ratio 1.65
5/1.5	2.9/0.9	3.5/1.1	2.6/0.8	3.1/0.9
10/3	5.8/1.8	6.9/2.1	5.1/1.5	6.0/1.8
15/4.6	8.7/2.6	10.4/3.2	7.6/2.3	9.0/2.8
20/6.1	11.6/3.5	13.8/4.2	10.1/3.1	12.0/3.7
30/9.1	17.3/5.3	20.6/6.3	15.1/4.6	18.0/5.5
32.8/10	18.9/5.8	22.6/6.9	16.5/5.0	19.7/6.0

NOTE: Visit our website for an interactive image size calculator.

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Limited Warranty

Subject to the Limitations, Exclusions and Disclaimers hereof, InFocus Corporation ("InFocus") warrants that the Projector, Lamps and Accessories (hereinafter collectively or individually referred to as "Product" as appropriate) purchased from InFocus, an InFocus distributor, or an InFocus reseller will conform to InFocus' specifications and be free from defects in material or workmanship for the respective Limited Warranty period provided below. InFocus does not warrant that the Product will meet the specific requirements of the end-user customer.

If the Product while subject to this Limited Warranty, is defective in material or workmanship during the warranty period, then InFocus, at its option, will REPAIR or REPLACE the Product.

All exchanged parts and Products replaced under this Limited Warranty will become property of InFocus. InFocus' sole obligation is to supply (or pay for) all labor necessary to repair the Product found to be defective within the Limited Warranty period and to repair or replace defective parts with new parts or, at the option of InFocus, serviceable used parts that are equivalent or superior to new parts performance. Limited Warranty periods are as follows:

- **Projector Product Limited Warranty Period (Excluding Lamps)**: **Two (2) years** from date of purchase.
- **Lamp Product Limited Warranty Periods:** From the date of Projector Product purchase, the original installed lamp shall have a 90-day or 500 hours usage Limited Warranty Period, whichever comes first.
  Replacement Lamps purchased at the time of Projector Product purchase will have a 90-day or 500 hours usage Limited Warranty Period from the date of installation, whichever comes first.
  Replacement lamps purchased after the time of Projector Product purchase shall have a 90-day or 500 hours usage Limited Warranty Period from the date of replacement lamp purchase, whichever comes first.
- **Accessory Product Limited Warranty Period: one (1) year** from date of purchase.

WARRANTY LIMITATION AND EXCLUSION

THIS WARRANTY SETS FORTH INFOCUS' MAXIMUM LIABILITY FOR ITS PRODUCT. THIS WARRANTY EXTENDS ONLY TO PRODUCTS PURCHASED FROM INFOCUS OR AN INFOCUS AUTHORIZED RESELLER.

InFocus shall have no further obligation under the foregoing Limited Warranty if the Product has been damaged due to abuse, misuse, neglect, smoke exposure (cigarette or otherwise), accident, unusual physical or electrical stress, unauthorized modifications (including use of an unauthorized mount), tampering, alterations, or service other than by InFocus or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product was intended. This Limited Warranty excludes Product cleaning, repair, or replacement of plastics due to cosmetic damage and damage as a result of normal wear. Product repair outside of the terms of the Limited Warranty will be on a time and materials basis. Prolonged Product "demonstration" causes unusual Product wear and is not considered normal use under the terms of this Limited Warranty.

The Accessory Product Limited Warranty covers the accessory item only and excludes normal wear. The Lamp Product Limited Warranty excludes expected lamp degradation.

Remanufactured Products and Software Products are exempt from the foregoing Limited Warranty. Please refer to the appropriate Remanufactured Product Limited Warranty or Software Product Limited Warranty for applicable Warranty information.

DISCLAIMER OF UNSTATED WARRANTIES

THE WARRANTY PRINTED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PRODUCT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE DISCLAIMED. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF AND THE FOREGOING WARRANTY SHALL NOT BE EXTENDED, ALTERED OR VARIED EXCEPT BY WRITTEN INSTRUMENT SIGNED BY INFOCUS. SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY MAY LAST, SO SUCH LIMITATIONS MAY NOT APPLY TO YOU.

Limited Warranty Period

The Limited Warranty periods hereof commence on the date of purchase by the end-user customer. These Limited Warranty provisions shall apply only to the end-user purchaser (first person or entity that purchased a new Product for personal or business use and not for the purpose of distribution or resale). SOME JURISDICTIONS MAY GRANT YOU CONSUMER RIGHTS WITH MINIMUM WARRANTY DURATION THAT DIFFER FROM THE DURATIONS PROVIDED HEREIN, AND INFOCUS WILL HONOR ALL SUCH CONSUMER RIGHTS.

To Be Eligible For Limited Warranty Coverage

Any person exercising a claim under this Limited Warranty must establish to the satisfaction of InFocus both the date of purchase and that the Product was purchased new. The sales receipt or invoice, showing the date of purchase of the Product is the proof of the date of purchase.

To Obtain Warranty Service

During the Limited Warranty period, to exercise this Limited Warranty, the purchaser must first contact 1) InFocus, 2) a service facility authorized by InFocus or 3) the place of original purchase. InFocus Customer Service – 1-503-685-8888 or visit www.infocus.com/service

For Warranty service, the purchaser will be advised to return or deliver the defective Product freight and all fees prepaid, to an InFocus Service Center or to a service facility authorized by InFocus. When returning Product to InFocus, a Service Request Number (SR #) is required and must be clearly displayed on the outside of the shipping carton or a similar package affording an equal degree of protection. InFocus or the service facility authorized by InFocus will return the repaired/replaced Product freight prepaid to the purchaser.

Products returned for Warranty service must be accompanied by a written letter that: (i) explains the problem; (ii) provides proof of date of purchase; (iii) provides the dealer's name; and (iv) provides the model and serial number of the Product. Upon request of InFocus Corporation or an authorized repair center for InFocus, proof of legal import must accompany the warranty repair Product, otherwise the Product must be returned to the place of original purchase, to the manufacturer (Purchaser must bear all tax, duty and freight), or the Purchaser must bear charges for the warranty repair.

No repair or replacement of Product or part thereof shall extend the Limited Warranty period as to the entire Product. Warranty on the repair part and workmanship shall only be effective for a period of ninety (90) days following the repair or replacement of that part or the remaining period of the Product Limited Warranty whichever is greater.

LIMITATION OF LIABILITY

IT IS UNDERSTOOD AND AGREED THAT INFOCUS' LIABILITY WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, IN NEGLIGENCE OR OTHERWISE SHALL NOT EXCEED THE RETURN OF THE AMOUNT OF THE PURCHASE PRICE PAID BY PURCHASER AND UNDER NO CIRCUMSTANCES SHALL INFOCUS BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOST PROFITS, LOST REVENUES OR LOST SAVINGS. THE PRICE STATED FOR THE PRODUCTS IS A CONSIDERATION IN LIMITING INFOCUS' LIABILITY.

Limitation on Bringing Action - No action, regardless of form, arising out of the agreement to purchase the Product may be brought by purchaser more than one year after the cause of action has accrued.

Governing Law - Any action, regardless of form, arising out of the agreement to purchase the Product is governed by Oregon law.

Mandatory Arbitration – Any action, regardless of form, arising out of the agreement to purchase the Product is subject to mandatory arbitration.

SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, DEPENDING ON JURISDICTION.