

IN5100 (SERIES)



Regulatory models: W59

InFocus
Bright Ideas Made Brilliant

Declaration of Conformity

Manufacturer: InFocus Corporation, 13190 SW 68th Parkway, Suite 200, Portland, Oregon 97223 USA

We declare under our sole responsibility that this projector conform to the following directives and norms:

EMC Directive 2004/108/EC

EMC: EN 55022

EN 55024

EN 61000-3-2

EN 61000-3-3

Low Voltage Directive 2006/95/EC

Safety: IEC 60950-1: 1st Edition

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FCC Warning

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

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interferences received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by InFocus Corporation may void authority to operate the equipment.

EN 55022 Warning

This is a Class A product. In a domestic environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

EN EMC directive

This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Agency Approvals

UL, CUL

Other specific Country Approvals may apply, please see product certification label.

InFocus reserves the right to alter product offerings and specifications at any time without notice.

This document applies to model W59.

Input ratings: 100-120/220-240Vac, 5.0/2.1A, 50/60Hz

Remote Control Warning

Laser radiation class II product; wavelength 650nm; maximum output 1mW. Remote control complies with applicable requirements of 21 CFR 1040.10 and 1040.11.

Remote control complies with applicable requirements of IEC60825-1:1993 +A1:1997 +A2: 2001 or IEC60825-1:2007 EN60825-1:2007.

WARNING: Do not look into laser beam emitted from the front of the remote control.

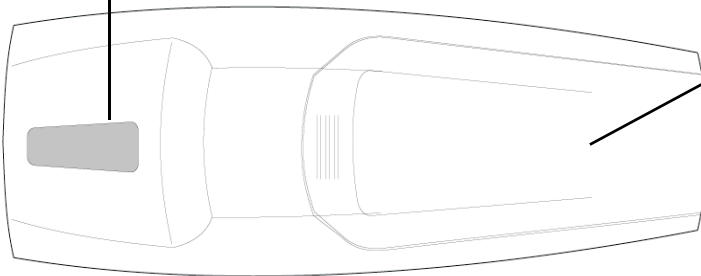
CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Class 2 Laser product; maximum output 1mW; wavelength 650nm.

[Class 2 Laser Product] Wavelength 650nm; Maximum output 1mW; No beam divergence.

[Laser Diode] Wave length 650nm; Maximum power 7mW; Beam divergence 33deg (perpendicular)/8deg (parallel).



Location of laser beam warning labels on remote



IEC60825-1:2007 EN60825-1:2007



OR

IEC60825-1:1993 +A1:1997 +A2:2001



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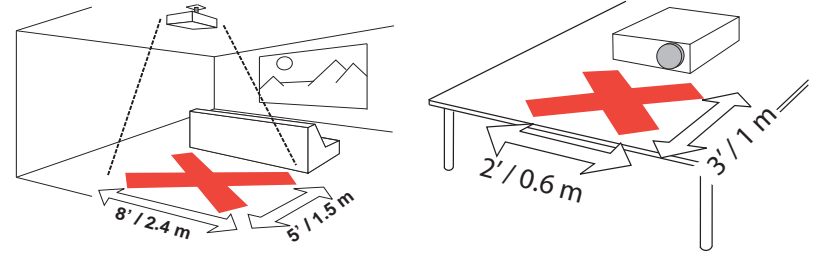
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For complete details on connecting and operating the projector, refer to this User's Guide.

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.

Important Operating Considerations for Safety

- Place the projector in a horizontal position no greater than 8 degrees off axis.
- 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 approved ceiling mounts.
- **Warning:** To prevent eye injury if the projector is ceiling mounted, wear protective eyewear before opening lamp door. A warning sticker is included with the user documentation. Place this sticker on the lamp door if the projector is mounted on the ceiling.
- Only genuine InFocus lamps are tested for use in this projector. InFocus is not liable for the performance, safety or certification of any other lamps. The use of other lamps violates the projector warranty and voids all certification marks on this projector.
- Use only the power cord provided. A surge-protected power strip is recommended.
- Refer to this manual for proper startup and shutdown procedures.
- Hg – Lamp contains mercury. Manage in accordance with local disposal laws. See www.lamprecycle.org.
- In the unlikely event of a lamp rupture, particles may exit through the projector vents. When the projector is turned on, keep people, food, and drinks out of the "keep out" area under and around the projector, as indicated by the "X" areas.



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 booklet.

Introduction

Your new multimedia projector provides three computer, three video, and four audio inputs, one audio output, and RS-232 and Network control. It has WUXGA 1920 x 1200 resolution. The projector is easy to connect, easy to use, and easy to maintain.

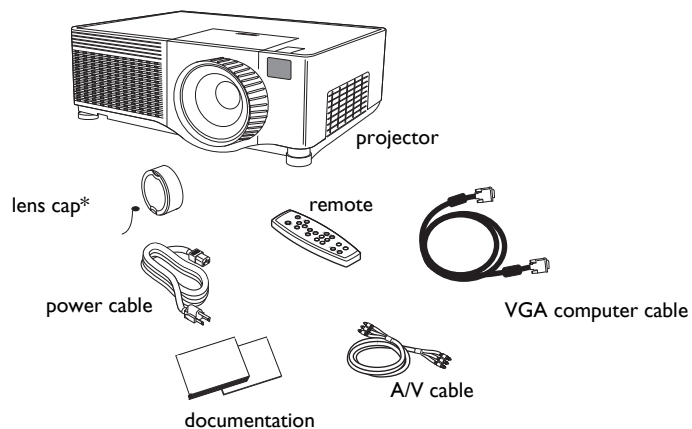
Product specifications

To read the latest specifications on your multimedia projector, be sure to visit our website. Web address information is located on the back inside cover of this User's Guide.

Online Registration

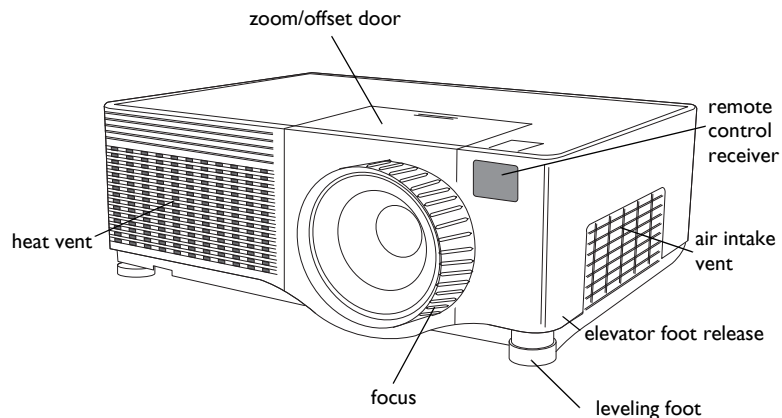
Register your projector on our website to receive product updates, announcements, and registration incentives. See the inside back cover for the web address.

Included Items

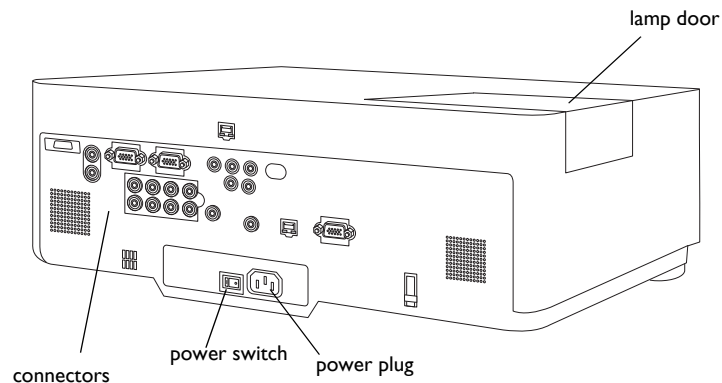


*The lens cap is tethered to the projector.

Projector components and features: front



Projector components and features: back



Connector Panel

The projector provides three computer and three video connection options:

- one VGA computer
- one HDMI™ (High Definition Multimedia Interface)*
- one component BNC (G/Y, B/C_B/P_B, R/C_R/P_R, H, V)
- one component RCA video (Pr, Pb, Y)
- one S-video
- one composite RCA video

The projector provides computer and video connectors for audio support:

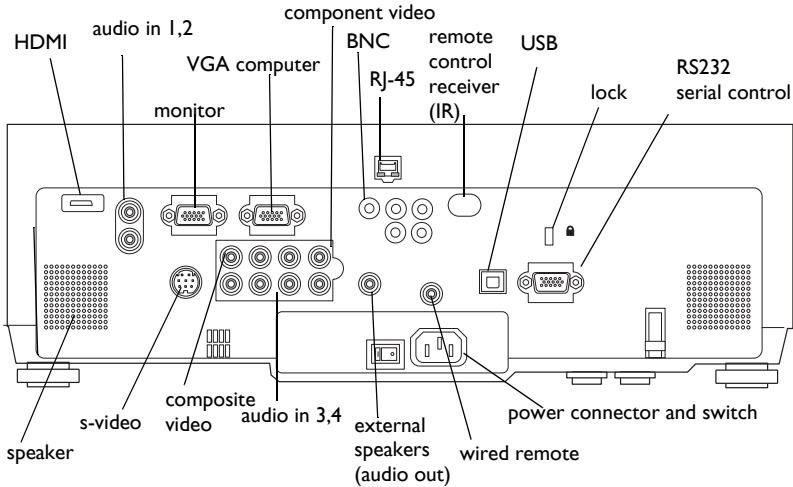
- two composite RCA stereo audio (L, R)
- one audio out
- two audio ins

The projector also provides the following connectors:

- one wired remote
- one monitor out
- RS-232 serial connector (for serial control)
- RJ-45 connector (for networked control)

The RS-232 Command Line Interface (CLI) specifications and commands are available in the Appendix and on our website, www.infocus.com/support.

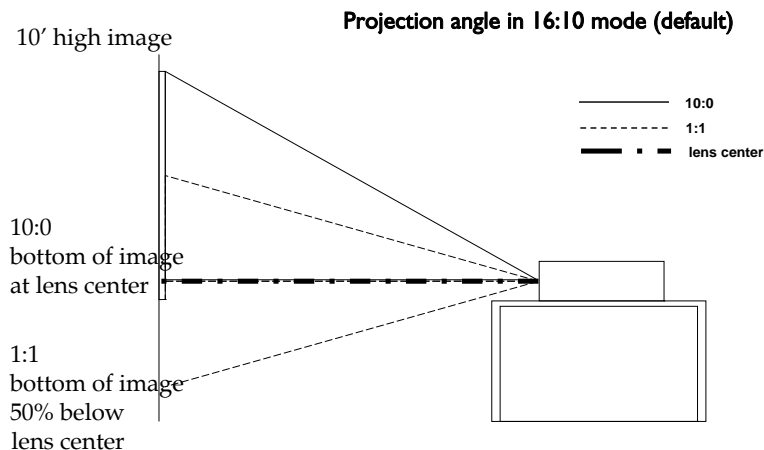
* HDMI is an industry standard, uncompressed, all-digital audio/video interface that connects between sources, such as set-top boxes, DVD players, and receivers and your projector. To take advantage of HDMI 1.3 you must have a 1.3-compatible source. The HDMI, because it is a digital signal, yields the highest quality image. It is common for these signals to be encrypted with HDCP (high-bandwidth digital-content protection). Your new projector ships standard with decryption codes so you can enjoy these high quality, all digital images.



Positioning the projector

To determine where to position the projector, consider 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:

- Position the projector on a flat surface at a right angle to the screen. The projector must be at least 3 feet (0.9m) from the projection screen.
- Position the projector within 10 feet (3m) of your power source and within 6 feet (1.8m) of your video device (unless you purchase extension cables). To ensure adequate cable access, do not place the projector within 6 inches (.15m) of a wall or other object.
- If you are installing 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 “Ceiling” on page 33. We recommend using an authorized ceiling mount. The Ceiling Mount Kit is sold separately; visit our website for more information.
- 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 information about image sizes at different distances, see “Projected image size” on page 41.
- For the standard lens that comes with the projector, the image exits at a given angle. However, the lens shift feature makes the image offset variable. The image offset is 100% at a 10:1 ratio when the projector is in 16:10 mode (default mode). This means that if you have an image 10’ high, the bottom of the image will be at the center of the lens.
- The image offset is 50% when the lens shift is at a 1:1 ratio. This means that if you have an image 10’ high, the bottom of the image will be 5’ below the center of the lens.



Connecting a computer

Required computer connections

Connect one end of the VGA computer cable to the **Computer 2** connector on the projector. 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.

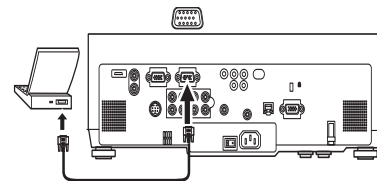
NOTE: Always use the power cable that shipped with the projector.

Optional computer connections

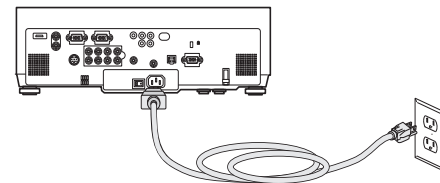
You can also connect to your computer using optional BNC or HDMI cables. Connect the BNC connectors on the BNC cable to the appropriate **Computer 3** connectors on the projector. Connect the other end to the video port on your computer. If you are using a desktop computer, you first need to disconnect the monitor cable from the computer's video port. Or, connect the HDMI cable to the **Computer 1** connector.

To have sound with your presentation, connect the audio cable to your computer and to the corresponding computer **Audio In** connector on the projector. You can assign a particular source to a particular audio in connector, see page 33.

connect computer cable



connect power cable



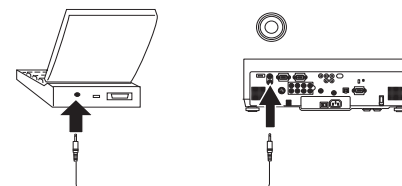
connect BNC cable



connect HDMI cable

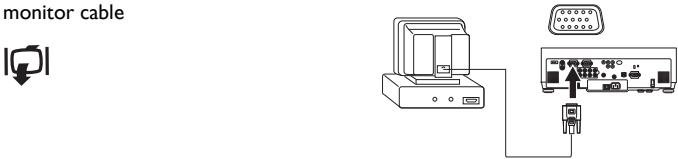


connect audio cable



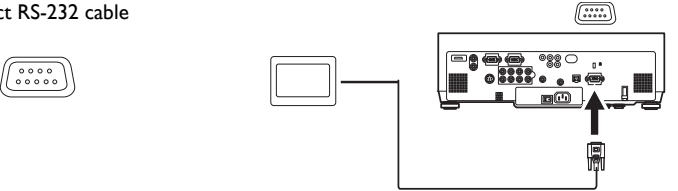
If you are using a desktop computer and want to see the image on your computer screen as well as on the projection screen, plug the monitor cable to the **Monitor out** connector on the projector.

connect monitor cable



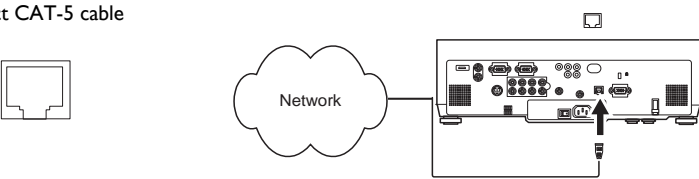
You can control the projector from an LCD control panel, touch screen, or other control device or computer by connecting an RS-232 cable to the projector's **Serial Control** connector. Specific RS-232 commands can be found in the Service and Support section of our website and in the Appendix.

connect RS-232 cable



The projector can be managed by networking software through its **Network** (RJ-45) connector. Detailed instructions on this feature can be found on our website.

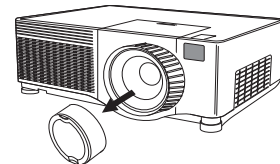
connect CAT-5 cable



Displaying a computer image

Remove the lens cap.

remove lens cap



Press the power switch on the back of the projector to the on (I) position. The Power light on the Status Indicator Panel (page 15) lights green.

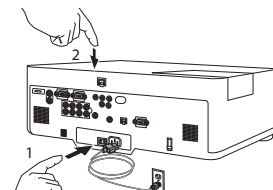
press Power switch



press Power button



Press the **Power** button on the top of the projector or the remote.



The Power light blinks green and the fans start to run. When the lamp comes on, the startup screen is displayed and the light is steady green. It can take a minute for the image to achieve full brightness.

? No startup screen? Get help on page 16.

Turn on your computer.

turn on computer



SOURCE



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

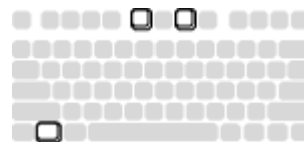


Make sure your laptop's external video port is active.

activate laptop's external port



Many laptops do not automatically turn on their external video port when a projector is connected. Usually a key combination like FN + F5 is used to turn the external display on and off. Refer to your computer's documentation to learn your computer's key combination.



? No computer image? Get help on page 16.

Adjusting the image

Adjust the height of the projector, if necessary, by pressing the release buttons on each side of the projector's front to extend the elevator feet.

Position the projector the desired distance from the screen at a 90 degree angle (perpendicular) to the screen.

See page 41 for a table listing screen sizes and distances.

Adjust the zoom by rotating the **Zoom** ring inside the lens door until the desired image size is produced.

Adjust the focus by rotating the **Focus** ring on the lens until the desired focus is produced.

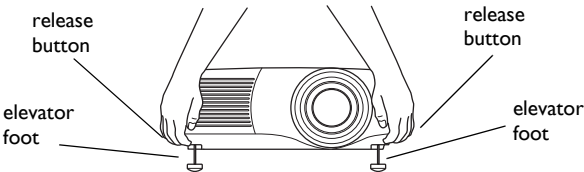
If the image is not on the screen or viewing area, adjust it by using the lens shift dials inside the lens door.

Use the right dial to shift the lens left or right. Use the left dial to shift the lens up or down.

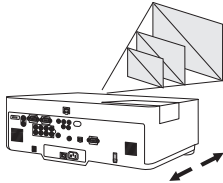
Adjust the Contrast or Brightness in the Picture menu.

See page 27 for help with the menus.

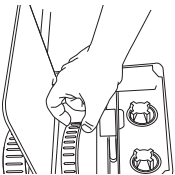
adjust height



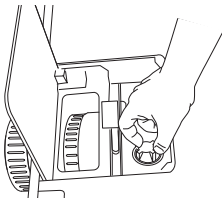
adjust distance



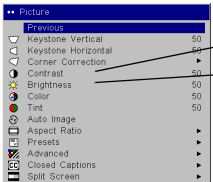
adjust zoom and focus



adjust lens shift



adjust Contrast or Brightness



contrast

brightness

Connecting a video device

Standard video connections

Plug the audio/video (A/V) cable's yellow connector into the video-out connector on the video device. Plug the other yellow connector into the yellow **Video 3** connector on the projector. Plug a white connector into the left audio out connector on the video device and plug a red connector into the right audio out connector on the video device. Plug the remaining white connector into a left **audio in** connector on the projector, and plug the red connector into a right **audio in** connector on the projector. You can assign a particular source to a particular audio in connector, see page 33.

Connect the black power cable to the connector on the back of the projector and to your electrical outlet.

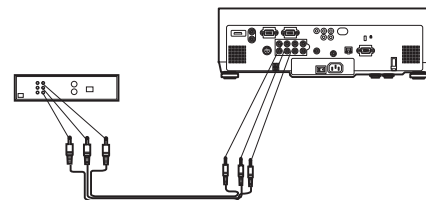
NOTE: Always use the power cable that shipped with the projector.

Optional video connections

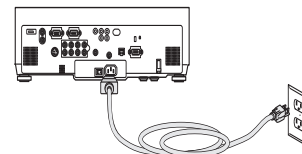
If the video device uses a round, four-prong S-video connector, plug an S-video cable (sold separately) into the S-video connector on the video device and into the **Video 2** connector on the projector. Use the A/V cable's audio connectors as described directly above (the yellow connectors on the A/V cable are not used).

If the video device uses component cable connectors (sold separately), plug the cable's green connectors into the green component-out connector on the video device and into the **Video 1** green component connector (labeled "Y") 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 "Cb/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 "Cr/Pr") on the projector. Use the A/V cable's audio connectors as described above (the yellow connectors on the A/V cable are not used). **NOTE:** The component connectors can be used for HDTV sources (480i, 480p, 720p, 576i and 1080i formats).

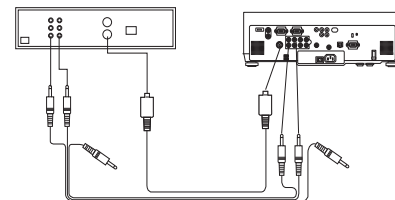
connect A/V cable



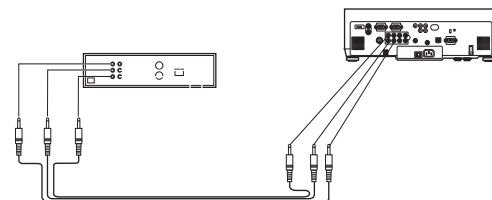
connect power cable



connect S-video and video cables



connect component cables and video cables



Displaying a video image

Remove the lens cap.

Press the power switch on the back of the projector to the on (I) position. The Power light on the Status Indicator Panel (page 15) lights green.

Press the **Power** button on the top of the projector or the remote.

The Power light blinks green and the fans start to run. When the lamp comes on, the startup screen is displayed and the light is steady green. It can take a minute for the image to achieve full brightness.

? No startup screen? Get help on page 16.

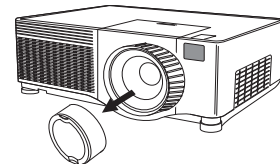
Plug in and turn on the video device.

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

Adjust the height of the projector, if necessary, by pressing the release buttons on each side of the projector's front to extend the elevator feet. Rotate the feet, if necessary, to level the projector.

Position the projector the desired distance from the screen at a 90 degree angle to the screen. See page 41 for a table listing screen sizes and distances to the screen.

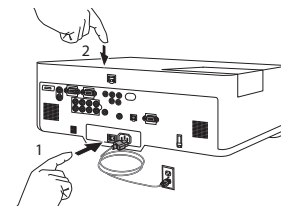
remove lens cap



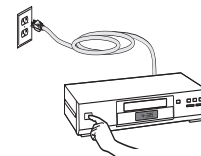
press Power switch



press Power button



turn on video device



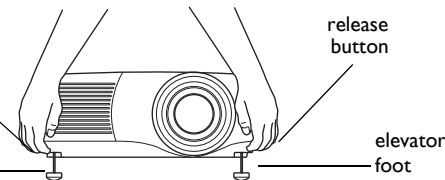
adjust height

release button

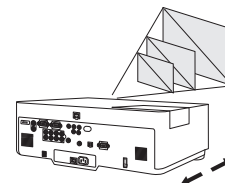
release button

elevator foot

elevator foot

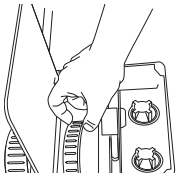


adjust distance



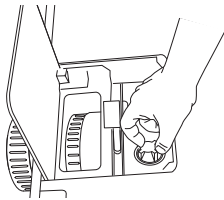
Adjust the zoom by rotating the Zoom ring, located inside the lens door, until the desired image size is produced.

adjust Zoom and Focus



Adjust the focus by rotating the Focus ring on the lens until the desired focus is produced.

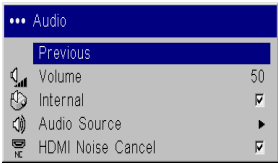
adjust Lens Shift



If the image is not on the screen or viewing area, adjust it by using the lens shift dials inside the lens door.

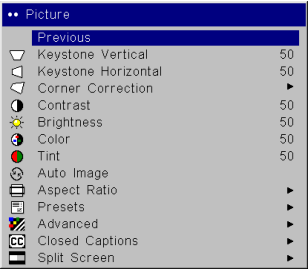
Use the right dial to shift the lens left or right. Use the left dial to shift the lens up or down.

adjust volume



Adjust the volume in the Audio menu.

adjust Picture menu



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

See page 27 for help with the menus.

Shutting down the projector

The projector automatically blanks the screen after no active source is detected for 5 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 34.

Power Save

The projector also has a Power Save feature that automatically turns the lamp off after no signals are detected for 20 minutes. After 10 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 34.

Turning off the projector

To turn off the projector, press the **power** button and verify that you want to turn the projector off by pressing the **power** button again within 3 seconds. You can cancel the shutdown by not pressing the **power** button a second time. The lamp turns off and the Power light blinks green for over 1 minute while the fans continue to run to cool the lamp. When the lamp has cooled, the Power light is solid green and the fans stop. Press the power switch on the back of the projector and unplug the power cable to completely power off the projector.






Troubleshooting your setup

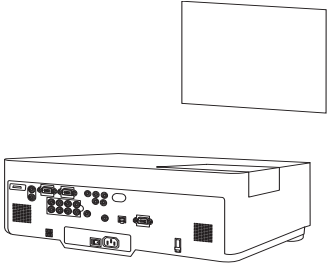
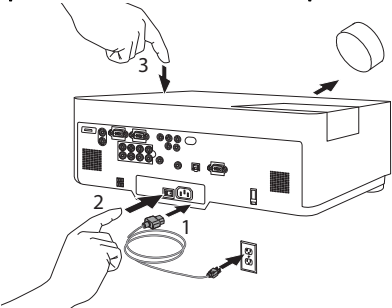
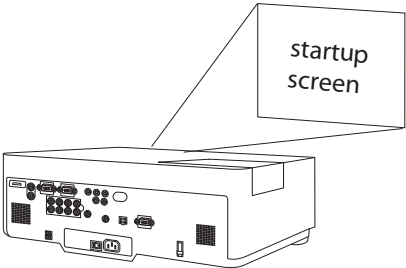
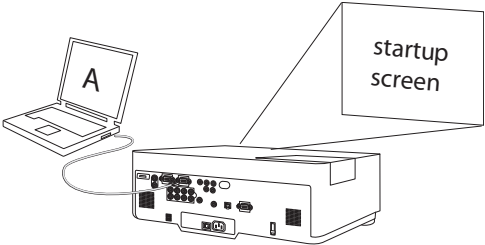
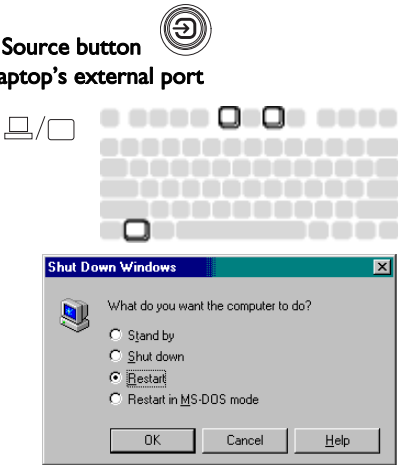
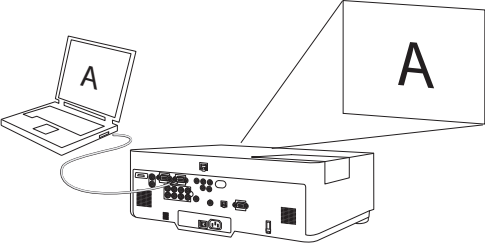
If your image appears correctly on the screen, skip to the next section. If it does not, troubleshoot the setup.

The Status Indicator Panel on top of the projector indicates the state of the projector and can help you troubleshoot.

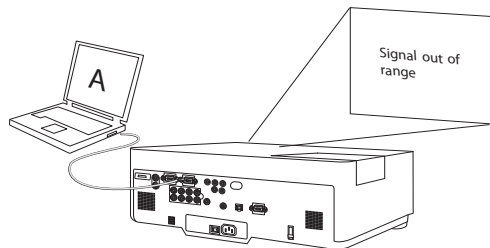


Table 1: Status indicator light behavior and meaning

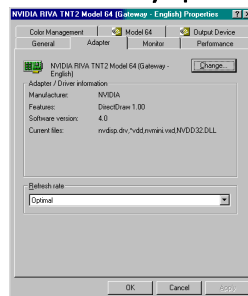
Status Indicator Panel icons	Meaning
Power, solid green 	The power button has been pressed and the software has initialized or the projector has been powered off.
Power, blinking green 	The power button has been pressed and the software is initializing, or the projector is powering down and the fans are running to cool the lamp.
Thermometer 	The projector is too hot. Make sure the vents aren't blocked (see page 20). Turn off the projector and wait one minute, then turn the projector on again. Contact Technical Support if the problem persists.
Lamp 	Turn off the projector and wait one minute, then turn the projector on again. If the lamp light turns on again, replace the lamp and reset the lamp timer.
Wrench/Service 	Turn off the projector and wait one minute, then turn the projector on again. If the service lamp turns on again, service is required. Visit our website to contact Service.

Problem	Solution	Result
<p>No startup screen</p> 	<p>Plug power cable in, press power switch and power button. Remove lens cap.</p> 	<p>Correct image</p> 
<p>Only startup screen appears/no computer image</p> 	<p>Press the Source button Activate laptop's external port</p>  <p>or restart laptop</p>	<p>Computer image projected</p> 

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, as shown in the following problem, “Image fuzzy or cropped”

Computer image projected

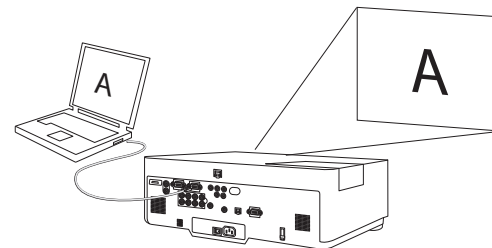
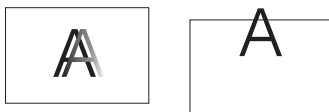


Image fuzzy or cropped



Set your computer’s display resolution to the native resolution of the projector (Start>Settings>Control Panel>Display>Settings tab, select 1920x1200)

For a laptop, disable laptop monitor or turn-on dual-display mode



Image clear and not cropped



Projector troubleshooting


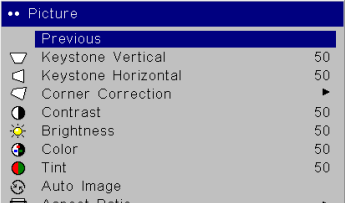


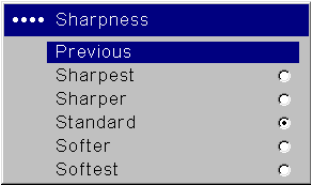


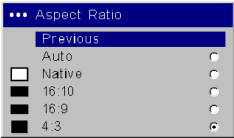

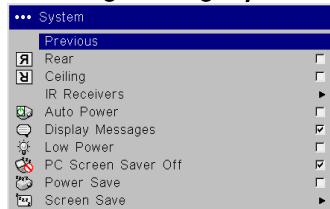
Problem	Solution	Result
<p>Image not square</p> 	<p>Adjust keystone in the Picture menu</p> 	<p>Square image</p> 
<p>Image not sharp</p> 	<p>Adjust the focus ring or Sharpness in the Picture>Advanced menu</p> 	<p>Correct image</p> 
<p>Image does not fit 16:9 screen</p> 	<p>Change aspect ratio to 16:9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

Image upside down



Turn on/off Ceiling in Settings>System menu



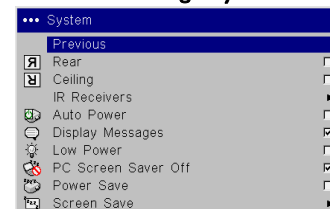
Correct image



Image reversed left to right



Turn on/off Rear in Settings>System menu



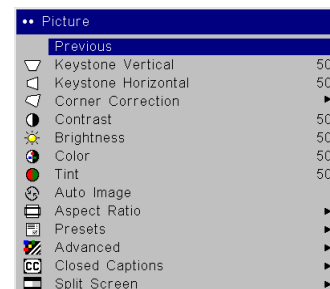
Correct image



Projected colors don't match source



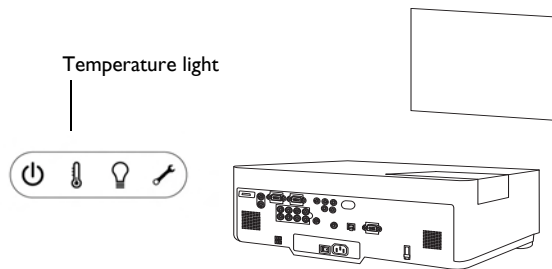
Adjust color, tint, color temperature, brightness, contrast in the menus



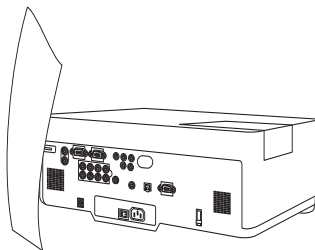
Correct image



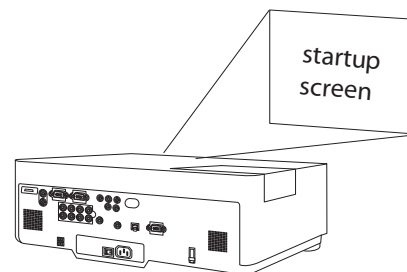
Lamp won't turn on, Temp light is lit (page 15)



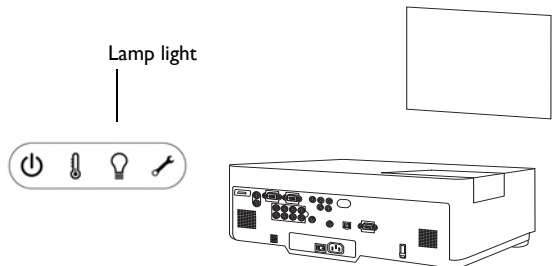
Make sure vents aren't blocked; allow projector to cool for one minute



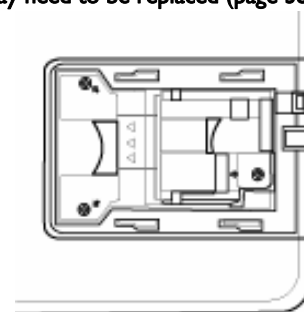
Unplug projector; wait 20 minutes; plug in projector and turn it on: lamp lights



Lamp won't turn on, Lamp light is lit (page 15)



Lamp may need to be replaced (page 38)



Lamp turns on

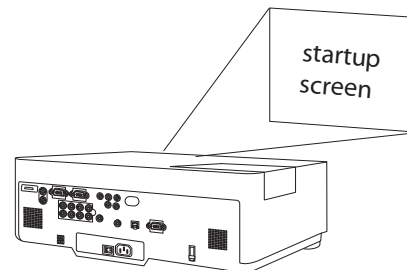
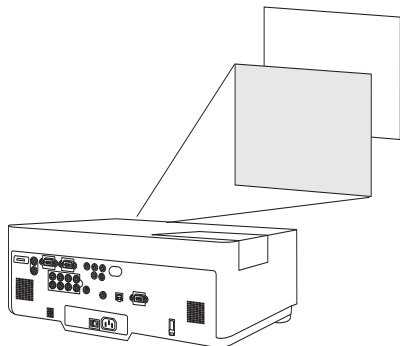
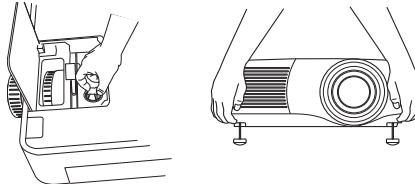


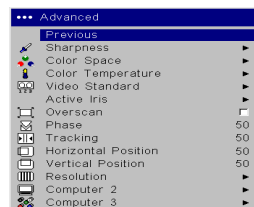
Image not centered on screen



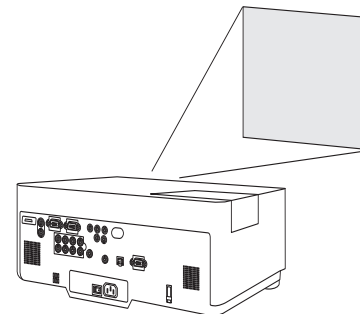
Move projector, adjust zoom or lens shift, adjust height



Adjust horizontal or vertical position in
Picture>Advanced menu



Correct image



Still having problems?

If you need assistance, visit our website (www.infocus.com/service) or call us.

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

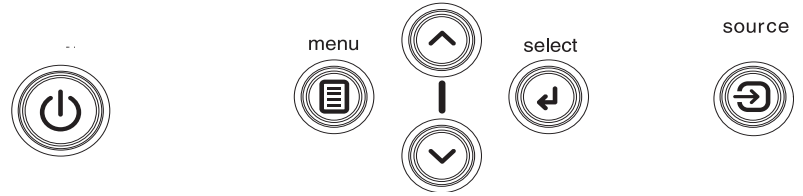
power—turns the projector on (page 10) and off (page 15).

menu—opens the on-screen menus (page 27).

up/down arrows—navigates to and adjusts settings in the menus (page 27).

select—confirms choices made in the menus (page 27).

source—switches among active sources



Using the remote control

The remote uses two (2) AAA batteries (not included). 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 computer). The range of optimum operation is about 16 feet (5m). For best results, aim the remote directly at the projector.

To use the laser pointer, press and hold the **Laser** button. The laser turns off when the button is released, or times out after two (2) minutes of continuous operation.

WARNING: Do not look into the laser beam emitted from the top of the remote control.

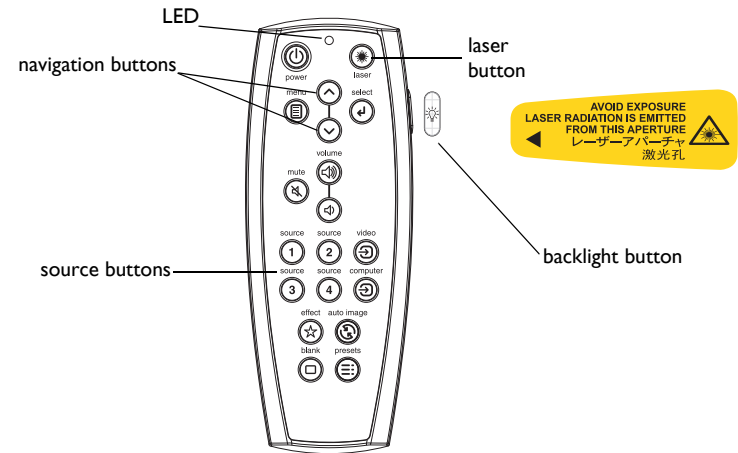
The remote contains four **Source** buttons that allow you to assign a particular input to a specific source. Simply press the numbered Source buttons to travel to whatever four sources you wish to have available.

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.

The remote also has a power button to turn the projector on and off, volume buttons and a mute button to control the sound, a backlight button to light the remote's buttons in the dark, and a video and computer button to switch between those two sources.

Two presentation-specific features are also provided. Use the blank button to display a blank screen instead of the current slide; use the effect button to invoke a user-definable action, such as freeze, or magnify.

The Auto Image button reacquires the computer image and the Presets button lets you customize the settings for each source. Up to three Preset settings can be customized and saved.



Troubleshooting the remote

- Make sure the batteries are installed in the proper orientation and are not dead. The LED at the top of the remote lights when any button is pressed when the battery power is adequate.
- Make sure you're pointing the remote at the projector, not the computer, and are within the remote range of 16 feet (5m).

Using the audio

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

To adjust the volume, mute, or loudness, use the Audio menu (see page 33).

Troubleshooting audio

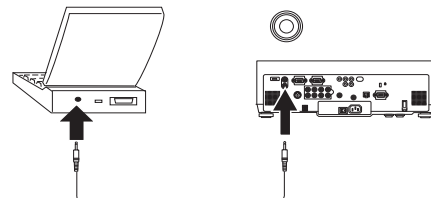
If there is no sound, check the following:

- Make sure the audio cable is connected.
- Make sure mute isn't active.
- Make sure the volume is turned up enough.
- Make sure you are connected to the corresponding **audio in** for your source. By default, **Audio 1** corresponds to **Computer 2**, **Audio 2** corresponds to **Computer 3**, **Audio 3** corresponds to **Video 2** and **3**, and **Audio 4** corresponds to **Video 1**. You can change these assignments, see page 33.
- Adjust the audio source.
- If playing a video, make sure the playback has not been paused.

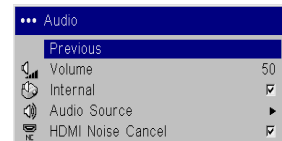
Connecting external speakers

The projector can be attached to external speakers that have their own power source by plugging a speaker cable into the projector's **Audio Out** connector.

connect audio cable

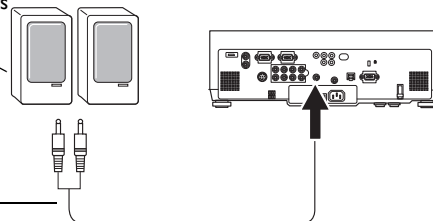


adjust volume



external speakers

speaker cable



Optimizing computer images

After your computer is connected properly and the computer's image is on the screen, you can optimize the image using the onscreen menus. For general information on using the menus, see page 27.

- Adjust the Keystone, Contrast, or Brightness in the Picture menu.
- Change the Aspect Ratio. Aspect Ratio is the ratio of the image width to image height. Standard TV screens and older laptops are 4:3; HDTV and most DVDs are 16:9; and widescreen computers are 16:10. Choose the option that best fits your input source. See page 28 for details.
- Adjust the Color Temperature in the Advanced menu.
- Adjust the Phase, Tracking, or Horizontal or Vertical position in the Advanced menu.
- Once you have optimized the image for a particular source, you can save the settings using Presets. This allows you to quickly recall these settings later. See page 29.

Presentation features

Several features are provided to make giving presentation easier. The following is an overview, details are found in the menu section on page 27.

- The **Custom** key, available on several optional remotes only, allows you to assign various features to the key. The default effect is Source Info. See page 35 for details.
- The Freeze effect allows you to freeze the displayed image. This is useful if you want to make changes on your computer without your audience seeing them.
- The Startup Logo menu option lets you change the default startup screen to a black, white, blue, or a custom logo screen via Capture New. See page 34.
- Two menu options, Power Save and Screen Save, are provided to automatically shut down the projector after several minutes of inactivity or display a blank screen. This helps preserve lamp life. See page 34.
- A Low Power menu option is also available to help lower the projector's fan sound volume. See page 34.

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 27.

- Adjust the Keystone, Contrast, Brightness, Color, or Tint in the Picture menu. See page 28.
- Change the Aspect ratio. Aspect ratio is the ratio of the image width to image height. Standard TV screens and older laptops are 4:3; HDTV and most DVDs are 16:9; and widescreen computers are 16:10. Choose the option that best fits your input source. See page 28.
- Select a Sharpness setting. See page 29.
- Adjust the Color Temperature. Select a listed value, or select User and individually adjust the intensity of the red, green, and blue color. See page 29.

Customizing the projector

You can customize the projector for your specific setup and needs. See page 33 to page 36 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.
- Specify which source the projector checks first for an active signal during power-up.
- Turn the projector's on-screen 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 9 and page 42.

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.

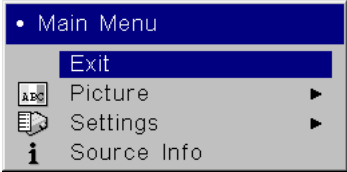
To change a menu setting, highlight it, press **Select**, then use the up and down arrow buttons to adjust the value, select an option using radio buttons, or turn the feature on or off using check boxes. Press **Select** to confirm your changes. Use the arrows to navigate to another setting. When your adjustments are complete, navigate to Previous, 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 five (the most nested menus).

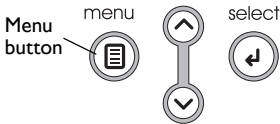
The menus are grouped by usage:

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

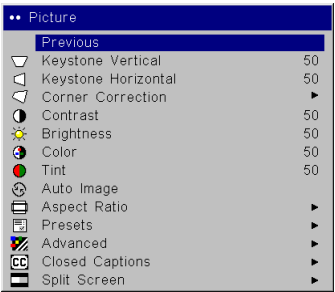
Certain menu items may be grayed out until a particular source is connected. For example, Tint is only available for video sources and will be hidden when a computer source is active. Other menu items may be grayed out when they are not available. For example, Brightness is grayed out until an image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



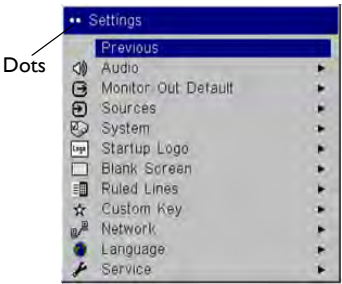
Main menu



Keypad navigation buttons



Picture menu



Settings menu



Source Info 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.

Keystone Vertical: adjusts the image vertically and makes a squarer image by using an adjustable scale band.

Keystone Horizontal: adjusts the image horizontally and makes a squarer image by using an adjustable scale band.

Corner Correction: allows you to adjust the corners of the projected image. This is particularly helpful when stacking projectors. Select the corner you would like to adjust within the Corner Correction submenu and follow the instructions on the screen to make desired adjustments.

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.

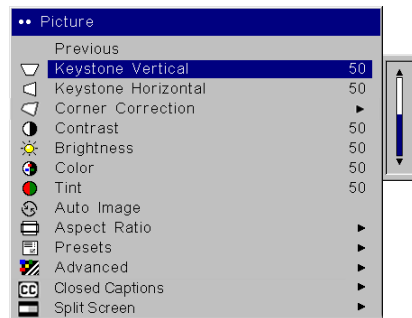
Brightness: changes the intensity of the image.

Color: (Computer 1 and video sources only) adjusts a video image from black and white to fully saturated color.

Tint: (Computer 1 and NTSC video sources only) adjusts the red-green color balance in the image.

Auto Image: resynchs the projector to the source.

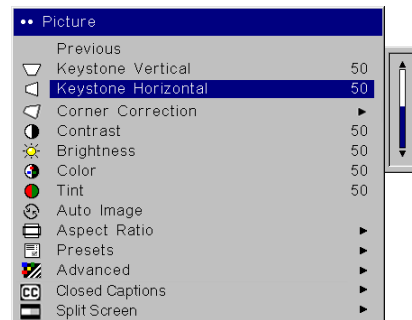
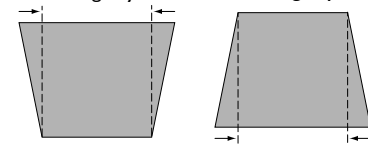
Aspect Ratio: Aspect ratio is the ratio of the image width to image height. Standard TV screens and older laptops are 4:3; HDTV and most DVDs are 16:9; and widescreen computers are 16:10. The default is 16:10, which displays the input resized up or down to fill the display area.



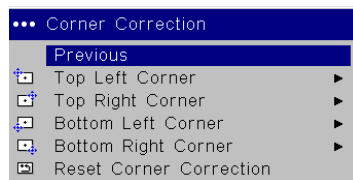
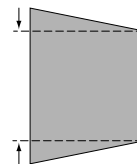
Keystone Vertical

increasing keystone

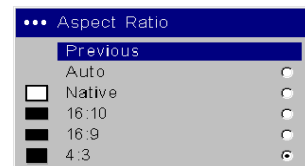
decreasing keystone



Keystone Horizontal



Corner Correction

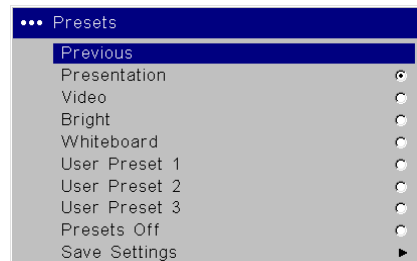


Aspect Ratio

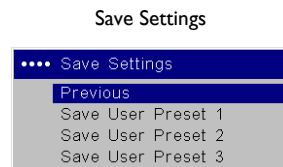
Presets: Presets are provided that optimize the projector for displaying computer presentations and video images in different lighting conditions and on different backgrounds.

There are also user-definable presets. To set a preset for the current source, adjust the image, select Save Settings in the Presets menu, then select Save User Presets 1 (or 2 or 3). You can recall these settings in the future by selecting the User 1 preset. If you select User Presets then further adjust the image, Presets Off will automatically be selected in the Preset menu to indicate changes have been made.

To restore the factory default settings, choose Factory Reset in the **Settings>Service** menu.



Presets

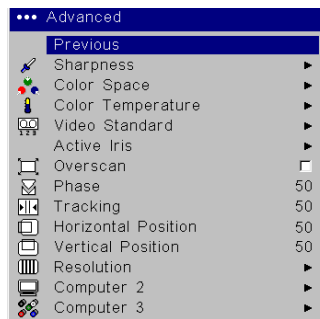


Advanced settings

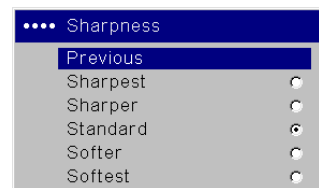
Sharpness: changes the clarity of the edges of a video image. Select a sharpness setting.

Color Space: This option applies to computer and component video sources (except 480i/576i). It allows you to select a color space that has been specifically tuned for the input signal. When Auto is selected, the projector automatically determines the standard. To choose a different setting, turn off Auto, then choose RGB for computer sources, RGB Video for HDMI computer sources, and either REC709 or REC601 for component video sources.

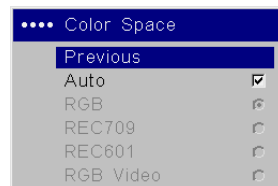
Color Temperature: changes the intensity of the colors. Select a listed value, or select User and individually adjust the intensity of the red, green, and blue colors.



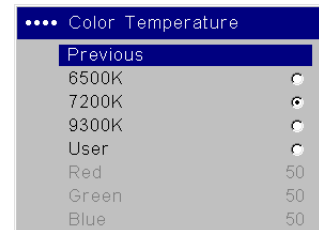
Advanced



Sharpness



Color Space



Color Temperature

Video Standard: when set to Auto, the projector attempts to automatically pick the video standard based on the input signal it receives. (The video standard options may vary depending on your region of the world.) If the projector is unable to detect the correct standard, the colors may not look right or the image may appear “torn.” If this happens, manually select a video standard by selecting NTSC, PAL, or SECAM from the Video Standard menu.

Active Iris: when on, the projector monitors the image brightness and modifies the light output if the image is dark, which improves black levels. In Presentation mode, it looks at peak brightness, in Theater mode it looks at average brightness.

Overscan: (Computer 1 and video sources only) removes noise around the video image.

The following 4 options are for computer sources only:

Phase: adjusts the horizontal phase of computer 2, 3 and component (except 480i and 576i) sources.

Tracking: adjusts the horizontal scan of a computer source (except Computer 1).

Horizontal / Vertical Position: adjusts the position of a computer source (except Computer 1) and Video 1 source (except 480i and 576i).

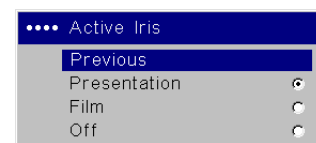
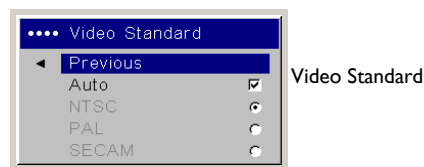
Resolution: When this feature is set to Auto, the projector attempts to pick the resolution standard based on the input signal it receives. If the projector is unable to detect the correct standard, the resolution may look odd. If this happens, manually select the resolution from the menu which matches your source signal.

Computer 2: allows you to turn Sync on Green on for this source.

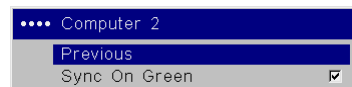
Computer 3: allows you to turn Sync on Green on for this source.

Closed Captions: can be shown when the source is analog - component (480i only), or S-video or composite (NTSC only). The video signal must also include caption information. Auto: Display captions when sound is muted.

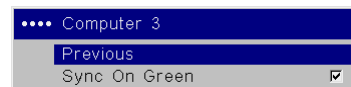
On: Always display captions. Off: Never display captions. Channel: Selects which captions to display.



Active Iris



Computer 2



Computer 3

Split Screen

Split Screen lets you show two different sources at the same time, one on the left half of the screen and the other on the right. The following source combinations are supported:

Table 2: Split Screen Matrix

	Computer 1	Computer 2	Computer 3	Video 1	Video 2	Video 3
Computer 1		X	X	X		
Computer 2	X		X	X	X	X
Computer 3	X	X		X	X	X
Video 1	X	X	X		X	X
Video 2		X	X	X		
Video 3		X	X	X		

Exit or Previous: Removes the Split Screen Menu (if Split Screen is on) or goes to the Picture menu (if Split Screen is off).

Split Screen: Check the box to turn on Split Screen, or un-check it to turn off Split Screen.

Main on Left/Right: Selects which side is the main (primary) side. Characteristics of the main side:

Source buttons, as well as Aspect Ratio and Auto Image buttons, affect the main side only (unsupported source combinations are prevented – see above table).

Only sound from the main side is audible.

When Split Screen is turned off, the main side is displayed full screen.

Swap Left and Right: Switches the left and right sources.

Left/Right Settings: Adjusts aspect ratio, phase, tracking, and horizontal/vertical position for the left or right side.

Left/Right Source: Selects the source to display on the left or right side (some items will be disabled to prevent unsupported source combinations – see above table).

Source Info: Shows source information for the left and right sides.

Main Menu: Turns off Split Screen and goes to the Main Menu.

To program your remote’s Custom button to display the above Split Screen Menu: Go to the Main Menu > Settings > Custom Key menu and select Split Screen.

IMPORTANT - When Split Screen is on, some projector functions work differently:

The Main Menu and its sub-menus are not available – pressing the Menu button shows the Split Screen Menu instead. To turn off Split Screen and access other menus from the Split Screen Menu: select Main Menu, or un-check Split Screen then select Previous.

Autosource (source search), Closed Captions and Magnify are not available.

Most picture settings can’t be adjusted (e.g. Brightness, Contrast, Keystone, Overscan, Presets, etc.).

To change these settings:

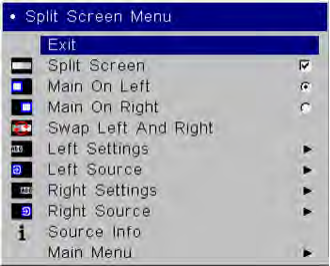
Make sure the source you want to adjust is the main source (See above for a description of the main source. If needed, go to the Split Screen Menu and select Swap Left and Right or Main on Left/Right).

Turn off Split Screen (go to the Split Screen Menu, then select Main Menu, or un-check Split Screen then select Previous).

Change picture settings.

Turn on Split Screen (go to the Split Screen Menu, then check Split Screen).

Some RS-232 commands have no effect. See the end of the RS-232 Command Additions section later in this document.



Split Screen Menu

Settings menu

Audio: allows adjustments to the volume. Also allows you to turn on and off the Internal speakers and assign a particular source to a specific audio input. If your HDMI source has problems with its audio stream, you can mute it by selecting HDMI Noise Cancel.

Monitor Out Default: Determines the source (either Computer 2 or Computer 3) which is output through the Monitor Out connector. Computer 2: Outputs Computer 2 unless current source is Computer 3 (in that case output Computer 3 instead). Computer 3: Outputs Computer 3 unless current source is Computer 2 (in that case output Computer 2 instead). Off: Outputs the current source if it is Computer 2 or Computer 3. Otherwise do not output any signal.

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

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

Sources>Autosource: When Autosource is not checked, the projector defaults to the source selected in Powerup Source. If no source is found, a blank screen displays. When Autosource is checked, Powerup 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.

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

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

WARNING: To prevent eye injury if the projector is ceiling mounted, wear protective eyewear before opening lamp door. A warning sticker is included with the user documentation. Place this sticker on the lamp door if the projector is mounted on the ceiling.

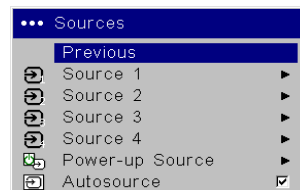
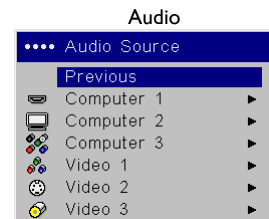
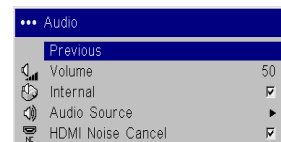
IR Receivers: turns individual IR receivers off or on to avoid environmental interference.

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.

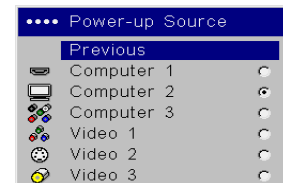
Display Messages: displays status messages (such as “Searching”) in the lower-left corner of the screen.



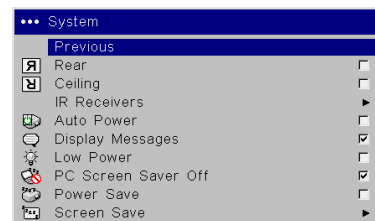
Settings menu



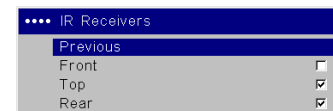
Sources



Powerup Source



System



IR Receivers

Low Power: toggles between on and off. Turn it on to lower the light output of the lamp. This also lowers the fan speed, making the projector quieter.

PC Screen Saver Off: prevents your notebook computer from going into Screen Save mode. The projector must be connected to the PC via a USB cable for this feature to work.

Power Save: automatically turns the lamp off after no signals are detected for 20 minutes. After 10 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 Save: automatically blanks the screen after no signals are detected for five 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 when no source is detected at startup. It also allows you to capture and display a custom startup screen.

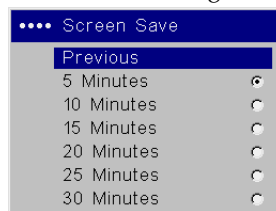
To capture a custom logo, display the image you want to capture on your computer and select the Capture New option. From the **Capture New** menu, use the Capture Position X and Capture Position Y adjustments to frame the logo to be captured. Press Capture Start in the **Capture New** menu. The projector will let you know if the capture was a success or a failure.

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 an optional remote.

Ruled Lines: This feature displays line patterns that are useful when projecting onto a writeable surface, or when installing and setting up the projector. Lines on White: Horizontal lines on a white background. Lines

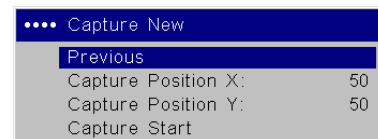
on Black: Horizontal lines on a black background. Grid on White: Grid on a white background. Grid on Black: Grid on a black background.



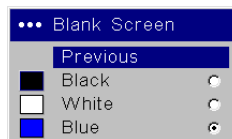
Screen Save



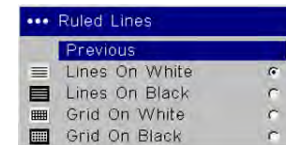
Startup Logo



Capture New



Blank Screen



Ruled Lines

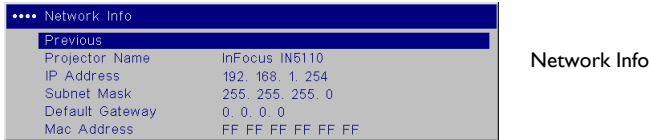
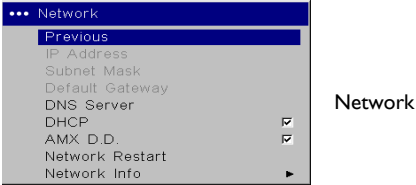
Custom Key (for use with optional remote only): allows you to assign a different function to the **Custom** key on the optional remote to quickly and easily use the effect. Only one effect can be enabled at a time. The default is Source Info; highlight an effect and press **Select** to choose a different one.

- Blank:** shows an empty screen.
- Mute:** turns off all sound.
- AV Mute:** turns off all sound and displays a blank screen.
- Aspect Ratio:** sets the ratio of the image width to image height.
- Source:** cycles through the available sources.
- Auto Image:** causes all sources to be reacquired.
- Freeze:** pauses the projected image.
- Magnify:** allows you to enlarge a section of the projected image.
- Ruled Lines:** displays line patterns that are useful when projecting onto a writeable surface, or when installing and setting up the projector.
- Split Screen:** enables or disables Split Screen. Before using this for the first time, configure Split Screen sources and layouts using the Split Screen menu.
- Source Info:** displays the Source Info menu.
- Service Info:** displays the Service Info menu.

Network: The projector has an RJ45 Ethernet connector that supports network connections and TCP/IP protocols. This will allow for the control and management of the projector over a corporate network. Visit our website for complete details on using the networking functionality. The following fields are accessible when DHCP is not checked and available for manual entry of data.

For network control, you can access the projector through Port 23 (Telnet). We use the same control codes on serial as we do over the network. InFocus network control uses the Telnet packet structure.

- IP Address:** Identifies the projector on the network.
- Subnet Mask:** Separates the network address part of the IP address.
- Default Gateway:** The IP address of the local router.
- DNS Server:** Shows the address of the DNS server.
- DHCP:** Select this to automatically obtain an IP address, Subnet mask, and Default gateway.
- AMX DD:** When enabled, allows the AMX controller to dynamically detect the projector.
- Network Restart:** Disconnects the projector from the network, gets a new IP address, and reconnects.
- Network Info:** Provides information on the network configuration.



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**.

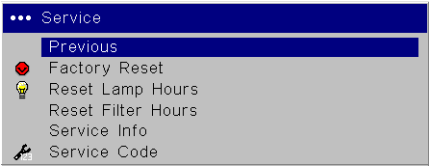
Factory Reset: restores all settings (except Lamp and Filter Hours and Network settings) to their default after displaying a confirmation dialog box.

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

Reset Filter Hours: resets the filter counter in the Service Info menu to zero. Do this only after cleaning the filter. It displays a confirmation dialog box.

Service Info: provides information for service.

Service Code: only used by authorized service personnel.



Service menu



Service Info

Maintenance

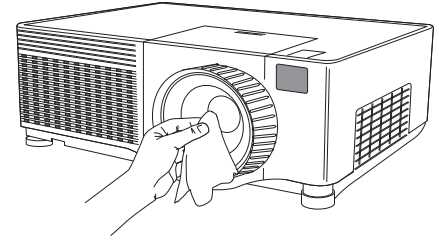
Cleaning the lens

- 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 Service Info menu counts the number of hours the lamp has been in use. Twenty hours before the specified end of the lamp's life, the message "Change lamp" briefly appears on the projected screen.

NOTE: You can order new lamp housings from www.infocus.com (in select areas), your retailer or your dealer. Only genuine InFocus lamps are tested for use in this projector. InFocus is not liable for the performance, safety or certification of any other lamps. The use of other lamps violates the projector warranty and voids all certification marks on this projector.

- 1 Turn off the projector and unplug the power cable.
- 2 Wait 45 minutes to allow the projector to cool thoroughly.
- 3 Loosen the lamp cover screw on the right side of the projector (marked by the arrow) then slide and lift the lamp cover off.

WARNINGS:

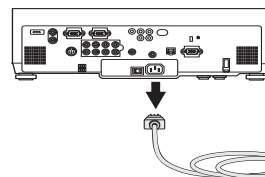
- To avoid burns, allow the projector to cool for at least 45 minutes before you replace the lamp.
- Only genuine InFocus lamps are tested with this projector. Use of other lamps may cause electrical shock and fire.
- To prevent eye injury if the projector is ceiling mounted, wear protective eyewear before opening lamp door. A warning sticker is included with the user documentation. Place this sticker on the lamp door if the projector is mounted on the ceiling.
- Do not drop the lamp module. The glass may shatter and cause injury. Do not touch the glass lamp screen. Fingerprints can obscure projection sharpness.
- Be extremely careful when removing the lamp housing. In the unlikely event that the bulb ruptures, small glass fragments may be generated. The lamp housing is designed to contain these fragments, but use caution when removing the lamp housing. Before replacing the lamp, clean the lamp compartment and dispose of cleaning materials. Wash

hands after lamp replacement.

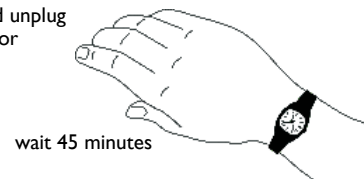
Hg – Lamp contains mercury. Manage in accordance with local disposal laws. See www.lamprecycle.org.

Service Info	
Previous	
Model Name	IN5110
Firmware	1.00
Lamp Hours	0
Total Lamp Hours	0
Lamp Resets	0
Filter Hours	0

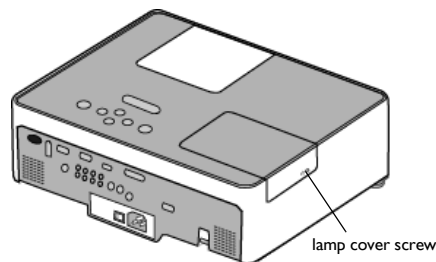
Service Info menu



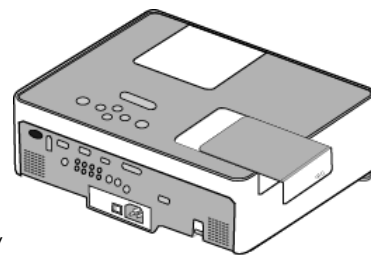
turn off and unplug
the projector



wait 45 minutes

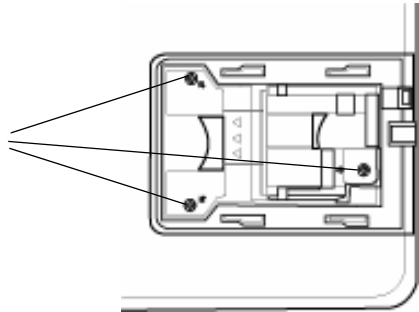


lamp cover screw



4 Loosen the three captive screws (marked by the arrows) on the lamp module. When replacing the lamp, never touch any screws without the arrow mark.

loosen the captive screws on lamp module



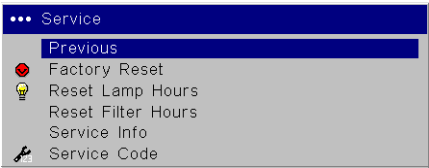
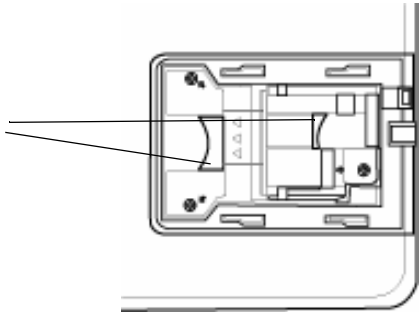
5 Carefully remove the lamp module by grasping and lifting the handle. Dispose of the lamp in an environmentally proper manner.

6 Install the new lamp module, making sure that it is properly seated, and tighten the three captive screws.

7 Replace the cover over the lamp module by sliding it back into place and tightening the screw.

8 Plug in the power cable, press the power switch then press the **Power** button to turn the projector back on. Reset the lamp hour timer by navigating to the **Settings>Service** menu and selecting **Reset Lamp Hours**.

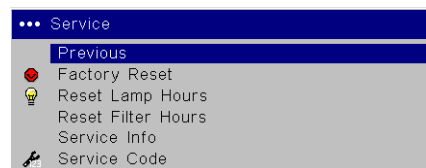
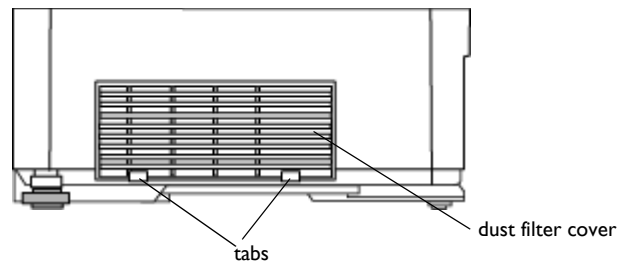
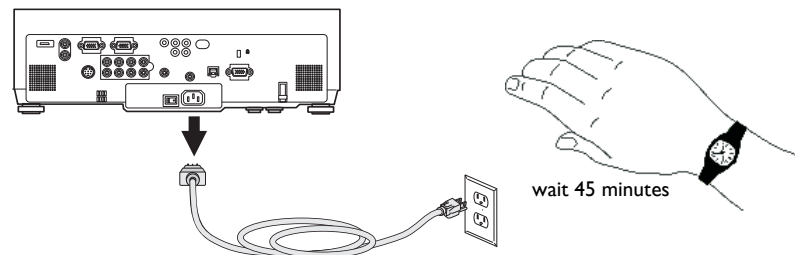
lamp module handle



reset lamp hours in Service menu

Cleaning the dust filter

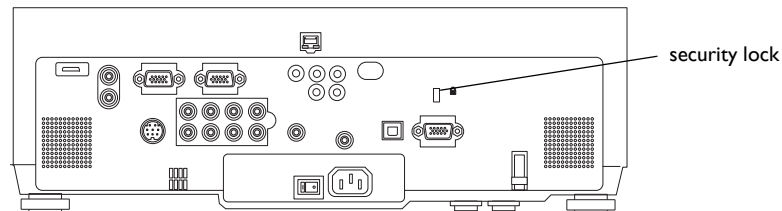
- 1 Turn off the projector and unplug the power cable.
- 2 Wait 45 minutes to allow the projector to cool thoroughly.
WARNING: To avoid burns, allow the projector to cool for at least 45 minutes before you clean or replace the dust filter.
- 3 Remove the dust filter cover on the side of the projector by pressing up on the two tabs at the cover's bottom.
- 4 Pull the tab on the center of the black dust filter bracket and lift it off.
- 5 Clean the filter, cover, and vent using a vacuum set on low power. Replace the filter if it is damaged or too dirty to clean.
- 6 Replace the dust filter and the bracket on the cover, then replace the dust filter cover.
- 7 Reset the filter hour timer by navigating to the **Settings>Service** menu and selecting **Reset Filter Hours**.



reset filter hours in Service menu

Using the security lock

The projector has a security lock for use with a cable lock system. See the Accessories catalog that came with the projector, or visit our website, for ordering information. Refer to the information that came with the lock for instructions on how to use it.



Appendix

Projected image size

NOTE: Visit the Service section of our website for interactive image size calculators for the standard lense.

Table 3: Projection sizes: Standard lens (1.5 - 2.9:1 throw ratio)

	Minimum Image		Maximum Image	
Distance (feet/m)	Diagonal Image (feet/m)	Image Width (feet/m)	Diagonal Image (feet/m)	Image Width (feet/m)
Min Distance 3/0.9	not supported	not supported	2.5/0.8	2.1/0.7
5/1.5	not supported	not supported	4.1/1.3	3.5/1.1
6/1.9	2.5/0.8	2.1/0.6	5.0/1.5	4.2/1.3
10/3.0	4.0/1.2	3.4/1.0	8.1/2.5	6.8/2.1
15/4.6	6.0/1.8	5.1/1.6	12.0/3.7	10.2/3.1
20/6.1	8.0/2.4	6.8/2.1	16.0/4.9	13.5/4.1
25/7.6	10.0/3.1	8.5/2.6	19.9/6.1	16.9/5.2
30/9.1	12.0/3.7	10.2/3.1	23.9/7.3	20.3/6.2
37/11.2	14.7/4.5	12.4/3.8	29.2/8.9	24.7/7.5
Max Distance 73/22.3	29.2/8.9	24.7/7.5	not supported	not supported

The image offset range for the standard lens is 10:0 (100%) to 1:1 (50%).

Command Control

Serial Communication Configuration

Visit our website for additional RS-232 settings and information.

To control this projector via RS-232, connect a null modem cable and set the control system serial port settings to match the following communication configuration:

RS-232 Port Settings	
Setting	Value
Bits per second	19,200
Data bits	8
Parity	None
Stop bits	1
Flow control	None
Emulation	VT100

Network Communication Configuration

For network control, you can access the projector through Port 23 (Telnet). We use the same control codes on serial as we do over the network. InFocus network control uses the Telnet packet structure.

Command Format

All commands consist of 3 alpha characters followed by a request, all enclosed in parentheses. The request can be a read request (indicated by a "?") or a write request (indicated by 1 to 4 ASCII digits).

A read request example:

(AAA?) where

(starts the command

AAA denotes the command

? denotes the read request

) ends the command

A read command returns the range and the current setting, for example:

Read Command Examples		
Function	Command	Response
Brightness	(BRT?)	(96-160,128)
Volume	(VOL?)	(0-32,16)
Lamp Hours	(LMP?)	(0-32766, 42)

A write request example:

(AAA####) where

(starts the command

AAA denotes the command

denotes the value to be written

(leading zeros not necessary)

) ends the command

Some commands have ranges, while others are absolute. If a number greater than the maximum range is received, it is automatically set to the maximum number for that function. If a command is received that is not understood, a "?" is returned. With absolute settings, "0" is off, 1-9999 is on. The one exception is the Power command, where 0 is off and 1 is on.

To assure the projector can process a command, wait 3 seconds before entering the next command.

Write Command Examples

Function	Command	Response
Brightness	(BRT100)	Sets the brightness to 100
Power	(PWR0)	Turns power off
Power	(PWR1)	Turns power on

Error Conditions

Not all commands are supported for all projectors. If an unsupported command is issued, the command will be ignored. If a command is received that is not understood, a '?' character will be returned indicating the command was not understood.

Limitations

The projector cannot respond to commands coming in at a high-rate. Therefore, a delay must occur between commands to ensure that the command gets properly executed.

The Step column refers to increasing or decreasing the menu bar position since the On-screen Display is not an exact match of values. For example, Step 2 changes the data by 2 through the CLI (Command Line Interface). The menu bar is up (or down) by 1.

Function	Command	RW	Min	Max	Default	Step
Active Iris* 0: Off 1: Presentation 2: Film	IRI	RW	0	2	1	1
AMX Device Discovery Enable 0: Disable; 1: Enable	AMX	RW	0	1	0	1
Aspect Ratio 0: Auto 1: Native 2: 4:3 3: 16:9 6: 16:10	ARZ	RW	0	6	0	1
Aspect Ratio (Split Screen left) 0: Auto 1: Native 2: 4:3 3: 16:9 6: 16:10	ARL	RW	0	6	0	1
Aspect Ratio (Split Screen right) 0: Auto 1: Native 2: 4:3 3: 16:9 6: 16:10	ARR	RW	0	6	0	1

Auto Image 1: enable	AIM	W	n/a	1	n/a	1
Auto Power* 0: disable; 1: enable	APO	RW	0	1	0	1
Auto Source* 0: disable; 1: enable	ASC	RW	0	1	1	1
Blank 0: disable; 1: enable	BLK	RW	0	1	0	1
Blank Screen* 0: black 1: blue 2: white	BSC	RW	0	2	1	1
Brightness*	BRT	RW	96	160	128	1
Ceiling* 0: disable; 1: enable	CEL	RW	0	1	0	1
Closed Captions* 0: Off 1: On 2: Auto	CCD	RW	0	2	0	1
Closed Captions Channel* 0: CC1 1: CC2 2: CC3 3: CC4 4: Text1 5: Text2 6: Text3 7: Text4	CCC	RW	0	7	0	1

Color*	CLR	RW	96	160	128	1
Color Space* 0: Auto 1: RGB 2: REC709 3: REC601 4: RGB Video	CSM	RW	0	4	0	1
Color Temp* 0: 9300K 1: 6500K 2: 7200K 3: User	TMP	RW	0	3	2 (computer2, 3) 0 (computer1, video)	1
Contrast*	CON	RW	96	160	128	1
Corner Correction Enable* 0: Disable; 1: Enable	CNE	RW	0	1	0	1
Corner Correction- Top left corner -H*	CN1	RW	0	959	0	1
Corner Correction- Top left corner -V*	CN2	RW	0	599	0	1
Corner Correction- Top right corner -H*	CN3	RW	0	959	0	1
Corner Correction- Top right corner -V*	CN4	RW	0	599	0	1
Corner Correction- Bottom left corner - H*	CN5	RW	0	959	0	1

Corner Correction- Bottom left corner - V*	CN6	RW	0	599	0	I
Corner Correction- Bottom right corner - H*	CN7	RW	0	959	0	I
Corner Correction- Bottom right corner - V*	CN8	RW	0	599	0	I
Corner Correction all corners Reset* 0: n/a 1: enable	CNR	RW	0	I	n/a	I
Source 0: computer1 1: computer2 2: computer 3 3: video 1 4: video 2 5: video 3	SRC	RW	0	5	0	I

Custom Key (Effect)* 0: Blank 1: Mute 2: Aspect ratio 3: Source 4: Auto image 5: Freeze 6: Magnify 7: Source Info 8: Service Info 15: AV Mute 17: Split Screen 18: Ruled Lines	EFK	RW	0	18	7	I
Display Messages* 0: disable; 1: enable	DMG	RW	0	I	I	I
Factory Reset* 1: reset	RST	W	n/a	I	n/a	I
Filter Hours	RFT	R	0	32766	0	
Freeze 0: disable; 1: enable	FRZ	RW	0	I	0	I
HDMI Noise Cancel* 0: Not Reset 1: Reset	HNC	RW	0	I	I	I
Horizontal Keystone*	DKH	RW	88	168	128	I
Horizontal Position	HPS	RW	Def. -128	Def. +128	auto	I
Horizontal Position (Split Screen left)	HPL	RW	Def. -128	Def. +128	auto	I

Horizontal Position (Split Screen right)	HPR	RW	Def. -128	Def. +128	auto	I
Internal Sound Enable* 0: disable; I: enable	INT	RW	0	I	I	I
IP Address Byte 1	IP1	R	0	I	192	
IP Address Byte 2	IP2	R	0	I	168	
IP Address Byte 3	IP3	R	0	I	I	
IP Address Byte 4	IP4	R	0	I	254	
IR Receiver front* 0: disable; I: enable	IRF	RW	0	I	I	I
IR Receiver rear* 0: disable; I: enable	IRR	RW	0	I	I	I
IR Receiver top* 0: disable; I: enable	IRT	RW	0	I	0	I

Language* 0 = English 1 = French 2 = German 3 = Italian 5 = Korean 6 = Norwegian 7 = Portuguese 8 = Russian 9 = Simp. Chinese 10 = Spanish 11 = Trad. Chinese 12 = Swedish 13 = Dutch 14 = Polish 15 = Turkish 16 = Danish 17 = Finnish	LAN	RW	0	17	0	I
Lamp Hours Used: All Bulbs	LMT	R	0	21474 83646	0	
Lamp Hours	LMP	R	0	32766	0	
Lamp 1 Lasted (Hrs)	LB1	R	0	32766	0	
Lamp 2 Lasted (Hrs)	LB2	R	0	32766	0	
Lamp 3 Lasted (Hrs)	LB3	R	0	32766	0	
Lamp Lit 0: not lit; I: lit	LML	R	0	I	n/a	
Lamp Resets (Total)	LMR	R	0	32766	0	
Low Power* 0: disable; I: enable	LPE	RW	0	I	0	I

Magnify*	MAG	RW	0	48	0	I
Magnify Enable* 0: disable; I: enable	MGE	RW	0	I	0	I
Magnify Position Horizontal*	MPH	RW	0	64	32	I
Magnify Position Vertical*	MPV	RW	0	64	32	I
Menu 0: clear; I: display	MNU	RW	0	I	0	I
Menu Navigation 0: up key I: down key 4: select key	NAV	W	0	4	n/a	I
Monitor Out Default* I: Computer 2 2: Computer 3 5: Off	MO D	RW	I	5	I	I
Mute 0: disable; I: enable	MTE	RW	0	I	0	I
Network Restart* I: restart	NTR	W	n/a	I	n/a	I
Overscan* 0: disable; I: enable	OVS	RW	0	I	0	I
PC Screen Saver Off* 0: disable; I: enable	NND	RW	0	I	I	I
Phase	MSS	RW	0	3I	0	I

Phase (Split Screen left)	MSL	RW	0	3I	0	I
Phase (Split Screen right)	MSR	RW	0	3I	0	I
Power 0: Turn Off; I: Turn On	PWR	RW	0	I	0	I
Power Save* 0: disable; I: enable	PSV	RW	0	I	0	I
Power-up Source* 0: computer I I: computer 2 2: computer 3 3: video I 4: video 2 5: video 3	DSC	RW	0	5	0	I
Presets* 0: user I I: user 2 2: user 3 3: Presets Off 5: presentation 7: video I0: bright II: whiteboard	PST	RW	0	II	5 (computer 2, 3) 7 (computer I, video)	I
Rear* 0: disable; I: enable	REA	RW	0	I	0	I
Reset Filter Hours I: reset	FRT	W	n/a	I	n/a	I

Reset Lamp Hours I: reset	LRT	W	n/a	I	n/a	I
Ruled Lines* 0: Lines on White 1: Lines on Black 2: Grid on White 3: Grid on Black	RLL	RW	0	3	0	I
Ruled Lines Enable 0: disable; I: enable	RLE	RW	0	I	0	I
Save User Presets I-3* I: save	USn	W	n/a	I	n/a	I
Screen Save* 0: 5 minutes 1: 10 minutes 2: 15 minutes 3: 20 minutes 4: 25 minutes 5: 30 minutes	SSV	RW	0	5	0	I
Sharpness* 5 = Sharpest 6 = Sharper 7 = Standard 8 = Softer 9 = Softest	SHP	RW	5	9	7 (computer and video 1) 6 (video 2 and 3)	I

Source 0 Audio* 0: audio 1 1: audio 2 2: audio 3 3: audio 4 4: HDMI Internal 5: mute	SA0	RW	0	5	4	I
Source 1-5 Audio* 0: audio 1 1: audio 2 2: audio 3 3: audio 4 5: mute	SA _n	RW	0	5	Source 1 = 0 Source 2 = 1 Source 3 = 3 Source 4 = 2 Source 5 = 2	I
Source 1* 0: computer 1 1: computer 2 2: computer 3 3: video 1 4: video 2 5: video 3	SR1	RW	0	5	0	I
Source 2* 0: computer 1 1: computer 2 2: computer 3 3: video 1 4: video 2 5: video 3	SR2	RW	0	5	I	I

Source 3* 0: computer 1 1: computer 2 2: computer 3 3: video 1 4: video 2 5: video 3	SR3	RW	0	5	3	I
Source 4* 0: computer 1 1: computer 2 2: computer 3 3: video 1 4: video 2 5: video 3	SR4	RW	0	5	4	I
Source Info 1: enable	ABT	W	n/a	I	n/a	I
Split Screen 0: Disable; 1: Enable	SSC	RW	0	I	0	I
Split Screen Main Side 0: Left; 1: Right	SSM	RW	0	I	0	I
Split Screen Left Source 0: Computer 1 1: Computer 2 2: Computer 3 3: Video 1 4: Video 2 5: Video 3	SSL	RW	0	5	I	I

Split Screen Right Source 0: Computer 1 1: Computer 2 2: Computer 3 3: Video 1 4: Video 2 5: Video 3	SSR	RW	0	5	2	I
Split Screen Swap Left and Right 1: Execute Swap	SSS	W	n/a	I	n/a	I
Startup Logo* 0: blank screen 1: default 2: captured	DSU	RW	0	2	I	I
Sync on Green* 0: Disable; 1: Enable	SOG	RW	0	I	I	I
Tint*	TNT	RW	96	160	128	I
Tracking	MTS	RW	def. -384	def. +384	auto	I
Tracking (Split Screen left)	MTL	RW	def. -384	def. +384	auto	I
Tracking (Split Screen right)	MTR	RW	def. -384	def. +384	auto	I
Unit Total Time On	ONL	R	0	21474 83646	0	
Vertical Keystone*	DKC	RW	48	208	128	I

Vertical Position	VPS	RW	if def<1 28 : 0 else: def- 128	def+ 128	auto	1
Vertical Position (Split Screen left)	VPL	RW	if def<1 28 : 0 else: def- 128	def+ 128	auto	1
Vertical Position (Split Screen right)	VPR	RW	if def<1 28 : 0 else: def- 128	def+ 128	auto	1
Video Standard* 0: Auto 1: NTSC 2: PAL 3: SECAM	VSU	RW	0	3	0	1
Volume	VOL	RW	0	32	16	1
Red Gain* Green Gain* Blue Gain*	RCG GCG BCG	RW	64	192	128	1

* These RS-232 commands have no effect when Split Screen is on.

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