# IN5312/IN5314

User's Guide Mode d'emploi Benutzeranleitung Manual de Uso Guidaall'uso Gebruikershandleiding Guia do Usuário Användarhandbok Руководство по пользователя 사용 설명서 用户指南 Panduan Pengguna Brugervejledning Käyttöohje Brukerhåndbok Instrukcja obsługi 用戶手冊 Kullanım Kılavuzu





Regulatory Model: IN5312/IN5314 DISPERINDAG No. 0287/1.824.51/09.03

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#### **Important Safety Information**

#### Important:

It is strongly recommended that you read this section carefully before using the projector. These safety and usage instructions will ensure that you enjoy many years of safe use of the projector. Keep this manual for future reference.

#### Symbols Used

Warning symbols are used on the unit and in this manual to alert you of hazardous situations.

The following styles are used in this manual to alert you to important information.

Note:

Provides additional information on the topic at hand.

Important:

Provides additional information that should not be overlooked.

#### Caution:

Alerts you to situations that may damage the unit.

#### Warning:

Alerts you to situations that may damage the unit, create a hazardous environment, or cause personal injury.

Throughout this manual, component parts and items in the On-Screen Display (OSD) menus are denoted in bold font as in this example: "Push the **MENU** button on the remote control to open the **DISPLAY** menu."

#### **General Safety Information**

- Do not open the unit case. Aside from the projection lamp, there are no user-serviceable parts in the unit. For servicing, contact InFocus at www.infocus.com/support
- > Follow all warnings and cautions in this manual and on the unit case.
- The projection lamp is extremely bright by design. To avoid damage to eyes, do not look into the lens when the lamp is on.
- > Do not place the unit on an unstable surface, cart, or stand.
- > Avoid using the system near water, in direct sunlight, or near a heating device.
- > Do not place heavy objects such as books or bags on the unit.

#### Caution:

Avoid using the projector in dusty environments.

#### Important:

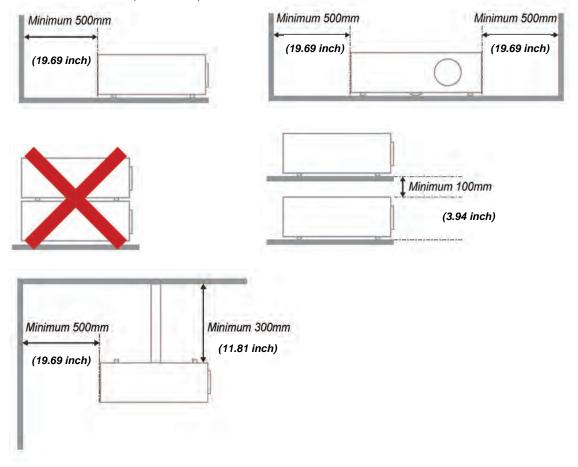
Ventilation openings on the projector allow for good air circulation, which keeps the projector lamp cool. Do not obstruct any of the ventilation openings.

#### **Projector Installation Notice**

- > Place the projector in a horizontal position
  - The tilt angle of the projector should not exceed 15 degrees, nor should the projector be installed in any way other than the desktop and ceiling mount, otherwise lamp life could decrease dramatically.



> Allow at least 50 cm (19.69 inch) clearance around the exhaust vent.



- > Ensure that the intake vents do not recycle hot air from the exhaust vent.
- When operating the projector in an enclosed space, ensure that the surrounding air temperature within the enclosure does not exceed 5 35°C (41– 95°F) while the projector is running, and the air intake and exhaust vents are unobstructed.
- All enclosures should pass a certified thermal evaluation to ensure that the projector does not recycle exhaust air, as this may cause the device to shutdown even if the enclosure temperature is within the acceptable 5 35°C (41– 95°F) range.

#### **Power Safety**

- > Only use the supplied power cord.
- Do not place anything on the power cord. Place the power cord where it will not be in the way of foot traffic.
- > Remove the batteries from the remote control when storing or not in use for a prolonged period.

#### Replacing the Lamp

Replacing the lamp can be hazardous if done incorrectly. See *Replacing the Projection Lamp* on page 42 for clear and safe instructions for this procedure. Before replacing the lamp:

- Unplug the power cord.
- > Allow the lamp to cool for about one hour.

#### **Cleaning the Projector**

- > Unplug the power cord before cleaning. See *Cleaning the Projector* on page 45.
- > Allow the lamp to cool for about one hour.

#### **Regulatory Warnings**

Before installing and using the projector, read the regulatory notices in the *Regulatory Compliance* section on page 57.

#### Important Recycle Instructions:

Hg Lamp(s) inside this product contain mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal laws. For more information, contact the Electronic Industries Alliance at <u>www.eiae.org</u>. For lamp specific disposal information check <u>www.lamprecycle.org</u>.

#### Symbol Explanations



DISPOSAL: Do not use household or municipal waste collection services for disposal of electrical and electronic equipment. EU countries require the use of separate recycling collection services.

#### About this Manual

This manual is intended for end users and describes how to install and operate the DLP projector. Wherever possible, relevant information—such as an illustration and its description—has been kept on one page. This printer-friendly format is both for your convenience and to help save paper, thereby protecting the environment. It is suggested that you only print sections that are relevant to your needs.

#### Table of Contents

GETTING STARTED	1
PACKING CHECKLIST	
VIEWS OF PROJECTOR PARTS	
Front-angled View	
Top view—On-screen Display (OSD) buttons	
Rear view	
Bottom view	
Remote Control Parts	
SETUP AND OPERATION	
INSERTING THE REMOTE CONTROL BATTERIES	
INSTALLING OR REMOVING THE OPTIONAL LENS	
Removing the Existing Lens From the Projector	
Installing the New Lens	
STARTING AND SHUTTING DOWN THE PROJECTOR	
SETTING AN ACCESS PASSWORD (SECURITY LOCK)	
Adjusting the Projector Level Adjusting Projected Image Position Using Shift	
Adjusting the vertical image position	
Adjusting the horizontal image position	
Shift Range Diagram	
Adjusting Zoom, Focus and Keystone	
ADJUSTING THE VOLUME	
ON-SCREEN DISPLAY (OSD) MENU SETTINGS	
OSD MENU CONTROLS	
Navigating the OSD	
SETTING THE OSD LANGUAGE	
OSD MENU OVERVIEW	
OSD SUB-MENU OVERVIEW Image Menu	
Advanced Features	
Computer Menu	
VIDEO/AUDIO MENU	
Audio	
INSTALLATION I MENU	
Advanced	
INSTALLATION II MENU	
Advanced Features	
Factory Reset	
Status	
MAINTENANCE AND SECURITY	
REPLACING THE PROJECTION LAMP	
CLEANING THE PROJECTOR	
Cleaning the Lens	
Cleaning the Case	
TROUBLESHOOTING	
COMMON PROBLEMS AND SOLUTIONS	
TIPS FOR TROUBLESHOOTING	
LED Error Messages	
IMAGE PROBLEMS	
LAMP PROBLEMS	
REMOTE CONTROL PROBLEMS	
AUDIO PROBLEMS	
HAVING THE PROJECTOR SERVICED	
HDMI Q & A	

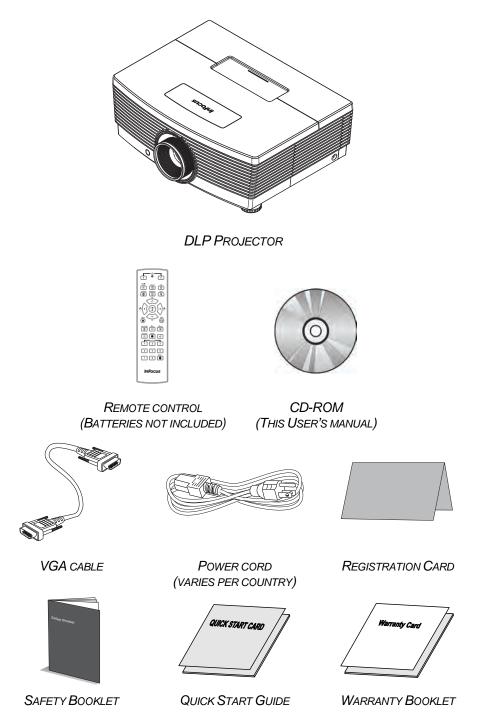
# **User's Manual**

SPECIFICATIONS	
Specifications	
PROJECTION DISTANCE VS. PROJECTION SIZE	
TIMING MODE TABLE	
PROJECTOR DIMENSIONS	
REGULATORY COMPLIANCE	
REGULATORY COMPLIANCE	
FCC WARNING	

# **GETTING STARTED**

# Packing Checklist

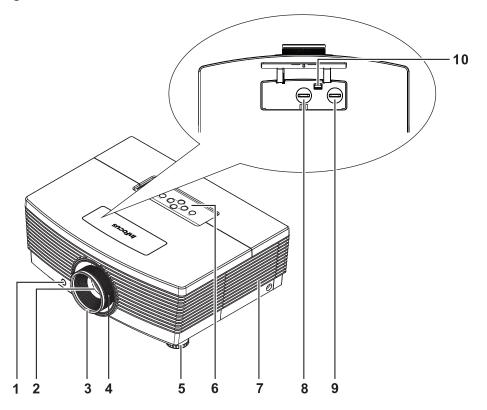
Carefully unpack the projector and check that the following items are included:



Contact your dealer immediately if any items are missing, appear damaged, or if the unit does not work. It is recommend that you keep the original packing material should you ever need to return the equipment for warranty service.

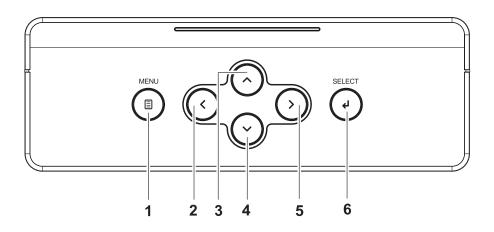
# **Views of Projector Parts**

# Front-angled View



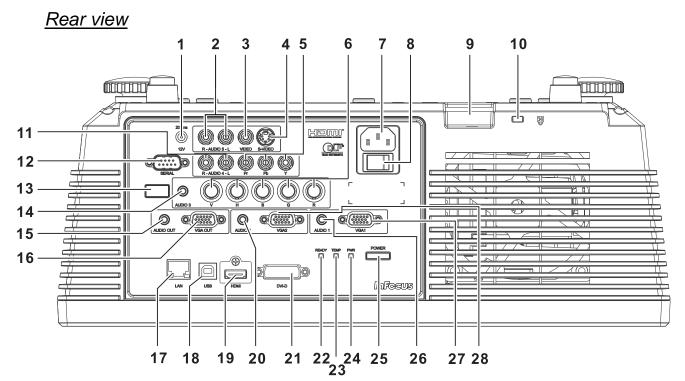
Ітем	LABEL	DESCRIPTION	SEE PAGE:
1.	IR receiver	Receives the IR signals from the remote control	7
2.	Lens	Projection Lens	
3.	Focus ring	Focuses the projected image	19
4.	Zoom ring	Enlarges the projected image	19
5.	Elevator foot	Adjusts level of projector	16
6.	Function keys	See Top view—On-screen Display (OSD) but- tons.	3
7.	Lamp cover	Remove cover to replace lamp	42
8.	Vertical lens shift	Adjusts the image position vertically	17
9.	Horizontal lens shift	Adjusts the image position horizontally	18
10.	Lens release button	Press the release button before attempting to replace the lens	10

# Top view—On-screen Display (OSD) buttons



Ітем	LABEL	DESCRIPTION	SEE PAGE:
1.	MENU	Open and exit OSD menus	
2.	<ul> <li>◄ (Left cursor)</li> </ul>	Navigate and change settings in the OSD Quick Menu – For Volume	
3.	▲ (Up cursor)	Navigate the OSD Quick Menu – For Keystone	21
4.	▼ (Down cursor)	Navigate the OSD Quick Menu – For Keystone	21
5.	► (Right cursor)	Navigate and change settings in the OSD Quick Menu – For Volume	
6.	SELECT	Enter or confirm highlighted OSD menu item	

### **User's Manual**



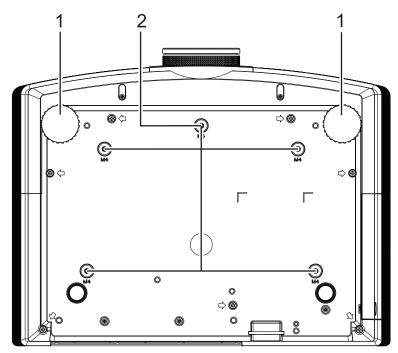
Ітем	LABEL	DESCRIPTION	SEE PAGE:
1.	DC 12V TRIGGER	Connect a 12V screen trigger (200ma max)	
2.	AUDIO 5 (L and R)	Connect the AUDIO CABLE from an input device	
3.	VIDEO	Connect the COMPOSITE CABLE from a video device	
4.	S-VIDEO	Connect the S-VIDEO CABLE from a video device	
5.	YPbPr	Connect the COMPONENT CABLE from a component device	video enabled
6.	BNC	Connect the BNC CABLES from a computer or a video	enabled device
7.	AC IN	Connect the POWER CABLE	12
8.	Power Switch	Connects AC power to the projector	12
9.	Safety Cable Anchor	Secure a ceiling mount safety cable to this anchor	
10.	Security Lock	Connect a security lock system to the projector and attanent object	ach to a perma-
11.	AUDIO 4 (L and R)	Connect the AUDIO CABLES from an input device	
12.	SERIAL	Connect an RS-232 serial port cable for command cont	rol
13.	IR receiver	Receives the remote control IR signal	7
14.	AUDIO 3	Connect the AUDIO CABLE from an input device	
15.	AUDIO OUT	Connect an AUDIO CABLE to an external speaker syst	em
16.	VGA OUT	Connect the RGB cable to a display (Pass through by $\mathbb{V}$	/GA1 only)
17.	LAN	Connect a LAN CABLE for networking purposes	

18.	USB		SB CABLE from a computer entation slide control with the projector re	mote)	
19.	HDMI	Connect the H	DMI CABLE from an HDMI device		
20.	AUDIO 2	Connect the A	UDIO CABLE from an input device		
21.	DVI-D	Connect the D	VI cable (not supplied) from a computer		
		Solid Red	Normal operation		
22.	READY LED	Flashing Amber	Lamp is not ready		
23.	TEMP LED	Solid Red	Overheating	47	
		Solid Amber	Standby	77	
24.	PWR LED	Solid Blue	Normal operation		
		Flashing Amber	Powering on or powering/cooling down		
25.	POWER button	Turns the projector on or off (main power switch must be turned on first).12			
26.	AUDIO 1	Connect the AUDIO CABLE from an input device			
27.	VGA1	Connect the R	Connect the RGB CABLE from a computer or a video enabled device		
28.	VGA2	Connect the R	GB CABLE from a computer or a video e	nabled device	

**Note:** If your video equipment has various input sources, it is recommended to connect in priority of HDMI, component, S-Video, Composite for better picture quality.

*Warning:* As a safety precaution, disconnect all power to the projector and connecting devices before making connections.

# Bottom view



Ітем	LABEL	DESCRIPTION	SEE PAGE:
1.	Leveling/Elevator Feet	Raise and rotate the feet to change and fine tune the angle of the projector.	16
2.	Ceiling support holes	Only use with an InFocus ceiling mount system (p/n See your InFocus dealer or go to www.infocusstore.c	

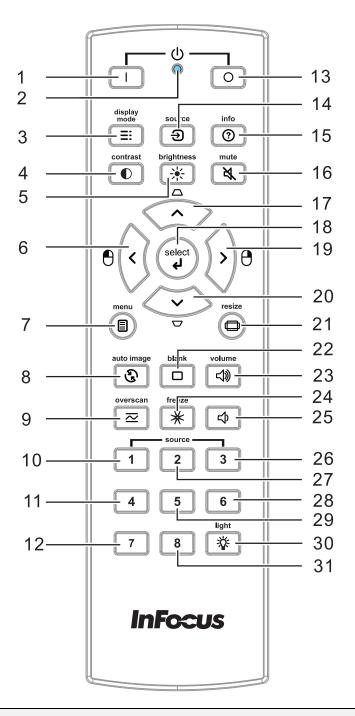
#### Note:

When installing, ensure that you use only UL Listed ceiling mounts.

For ceiling installations, use approved mounting hardware and M4 screws with a maximum screw depth of 6 mm (0.23 inch).

The construction of the ceiling mount must be of a suitable shape and strength. The ceiling mount load capacity must exceed the weight of the installed equipment, and as an additional precaution be capable of withstanding three times the weight of the equipment over a period of 60 seconds.

### **Remote Control Parts**



#### Important:

**1.** Avoid using the projector with bright fluorescent lighting turned on. Certain high-frequency fluorescent lights can disrupt remote control operation.

**2.** Be sure nothing obstructs the path between the remote control and the projector. If the path between the remote control and the projector is obstructed, you can bounce the signal off certain reflective surfaces such as projector screens.

**3.** The buttons and keys on the projector have the same functions as the corresponding buttons on the remote control. This user's manual describes the functions based on the remote control.

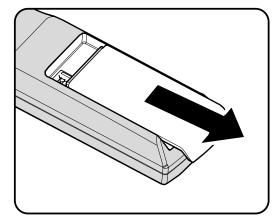
# **User's Manual**

Ітем	LABEL	DESCRIPTION	SEE PAGE:
1.	Power ON	Turn the projector on	12
2.	LED indicator	Only lights when the remote keys are pressed	
3.	Display Mode	Choose a suitable preset mode for usage environment	
4.	Contrast	Display the Contrast setting bar and use the right and left	keys to adjust
5.	Brightness	Display the Brightness setting bar and use the right and le just.	ft keys to ad-
6.	Left cursor	When the OSD is displayed, this button navigates to the left. When USB has been connected to the projector and PC, the previous presentation slide is displayed	21
7.	Menu	Display the OSD menu	
8.	Auto image	Re-synchronize the PC image	
9.	Overscan	Adjust overscan	
10.	Source-1	VGA 1	
11.	Source-4	DVI	
12.	Source-7	S-Video	
13.	Power OFF	Turn the projector off	13
14.	Source	Display the source menu	
15.	Info	Display projector information	
16.	Mute	Mute the audio	
17.	Up cursor / Keystone+	When the OSD is displayed, this button navigates up the menu. Otherwise it adjusts keystone	
18.	Select	Enter and confirm settings in the OSD	
19.	Right cursor	When the OSD is displayed, this button navigates to the right. When USB has been connected to the projector and PC, the next presentation slide is displayed	21
20.	Down cursor / Keystone -	When the OSD is displayed, this button navigates down the menu. Otherwise it adjusts keystone	
21.	Resize	Change the image aspect ratio	
22.	Blank	Blank the screen	
23.	Volume+	Increase the volume	
24.	Freeze	Freeze video	
25.	Volume-	Decrease the volume	
26.	Source-3	HDMI	
27.	Source-2	VGA 2	
28.	Source-6	Component	
29.	Source-5	RGBHV	
30.	Light	Turn the remote control backlight on or off	
31.	Source-8	Composite	

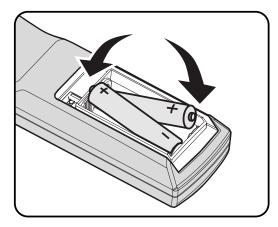
# **SETUP AND OPERATION**

# **Inserting the Remote Control Batteries**

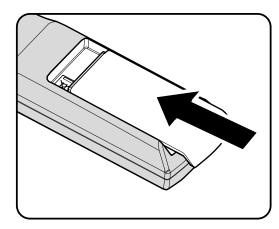
**1** Remove the battery compartment cover by sliding the cover in the direction of the arrow.



**2.** Insert the batteries (not included) as shown in the illustration.



**3.** Replace the cover.



#### Caution:

- **1.** Only use AA batteries (Alkaline batteries are recommended).
- **2.** Dispose of used batteries according to local ordinance regulations.
- 3. Remove the batteries when not using the projector for prolonged periods.
- 4. Do not mix old and new batteries, or mix battery types.

# Installing or Removing the Optional Lens

#### Caution:

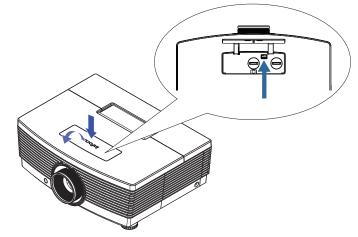
• Do not shake or place excessive pressure on the projector or the lens components as the projector and lens components contain precision parts.

• Before removing or installing the lens, be sure to turn off the projector, wait until the cooling fans stop, and turn off the main power switch.

- Do not touch the lens surface when removing or installing the lens.
- Keep fingerprints, dust or oil off the lens surface.
- Do not scratch the lens surface.
- Work on a level surface with a soft cloth under it to avoid scratching.
- If you remove and store the lens, attach the lens cap to the projector to keep off dust and dirt.

#### Removing the Existing Lens From the Projector

- Push and release the top cover to open as shown.
- **2.** Push the LENS RELEASE button to the unlock position.



- **3.** Grasp the lens.
- **4** Rotate the lens counterclockwise. The existing lens will be disengaged.
- **5.** Pull out the existing lens slowly.

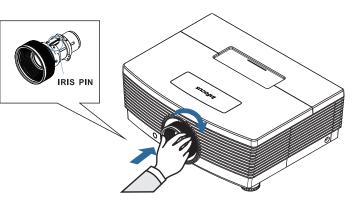
# Installing the New Lens

**1** Align the notches and correctly position the electrical contact pad as shown in the picture.

Note:

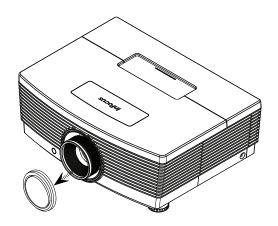
Pin of IRIS should be in the direction as shown in the picture.

**2.** Rotate the lens clockwise until you feel it click into place.



# Starting and Shutting down the Projector

- **1** Remove the lens cap.
- 2. Connect the power cord to the projector. Connect the other end to a wall outlet. Verify that the AC Power switch on the back of the unit is turned on. When connected, the PWR LED will turn solid amber.

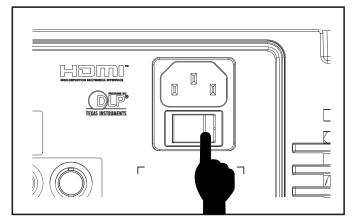


**3.** Turn on the lamp by pressing the " button on the rear of the projector or the Power On button on the remote. The PWR LED will now flash amber.

The startup screen will display in approximately 30 seconds.

#### Note:

The first time you use the projector, you can select your preferred language from the Quick menu after the startup screen displays.





- **4** If more than one input device is connected, press the **SOURCE** button and use ▲ ▼ to scroll among devices.
  - VGA 1 : Analog RGB
  - VGA 2 : Analog RGB
  - BNC : Analog / serial digital interface video inputs
  - HDMI : High Definition Multimedia Interface
  - DVI : DVI
  - Component Video: DVD input YCbCr / YPbPr, or HDTV input YPbPr via HD15

connector

- S-Video: Super video (Y/C separated)
- Composite Video: Traditional composite video
- 5. To turn the projector off, press the Power OFF button on the remote. When the "Power Off? / Press Power again" message appears, press the POWER button twice. The projector turns off.



#### Caution:

1. Be sure to remove the lens cap before starting projector.

2. Do not unplug the power cord until the READY LED stops flashing–indicating the projector has cooled down.

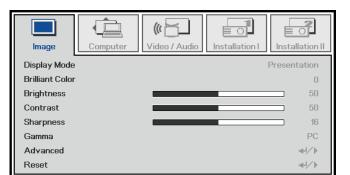
# Setting an Access Password (Security Lock)

You can use the four (arrow) buttons to set a password and prevent unauthorized use of the projector. When enabled, the password must be entered after you power on the projector. (See *Navigating the OSD* on page 21 and *Setting the OSD Language* on page 22 for help on using OSD menus.)

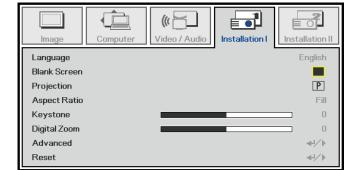
#### Important:

Keep the password in a safe place. Without the password, you will not be able to use the projector. If you lose the password, contact InFocus at <u>www.infocus.com/support</u>.

Press the **MENU** button to open the OSD menu.

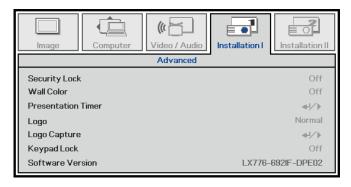


Press the cursor < button to move to the Installation I menu, press the cursor ▲ ▼ button to highlight Advanced. Press the Select button or right arrow button to select the Advanced menu.</li>



- 3. Press the cursor ▲ ▼ button to select Security Lock.
- **4.** Press the cursor **◄** button to enable or disable security lock function.

A password dialog box automatically appears.



# IN5312/IN5314 - User's Manual

5. Use the arrow buttons ▲ ▼ ◄ ► on either the keypad or remote control to enter a password. Any combination can be used, including the same arrow button, but you must use a combination of five arrow button presses.

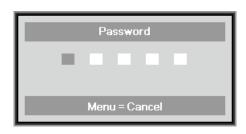
Push the **MENU** button to exit the dialog box.

Pass	word				
Register Password Confirm Password	ľ,				
Menu	= Exit				
Pass	word				
	word	*	*	*	*
Register Password	_				*

**6.** The password confirm menu appears when the user powers on the projector and the Security Lock feature is enabled.

Enter the password in the order you set it at step 5. In case you forget the password, please contact InFocus at www.infocus.com/support.

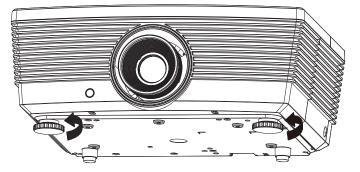
The service center will validate the owner and help reset the password.



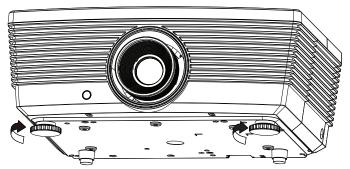
# **Adjusting the Projector Level**

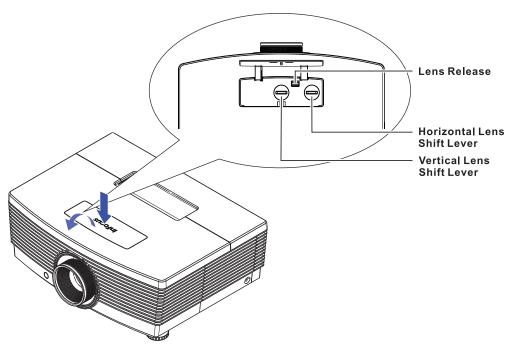
Take note of the following when setting up the projector:

- The projector table or stand should be level and sturdy.
- Position the projector so that it is perpendicular to the screen.
- Remove and discard the foam spacers on the rear leveling feet before adjusting the projection angle.
- Ensure the cables are in a safe location. You could trip over them.
- **1** To raise the level of the projector, twist the leveling feet clockwise.



**2.** To lower the level of the projector, lift the projector and twist the leveling feet counter clockwise.





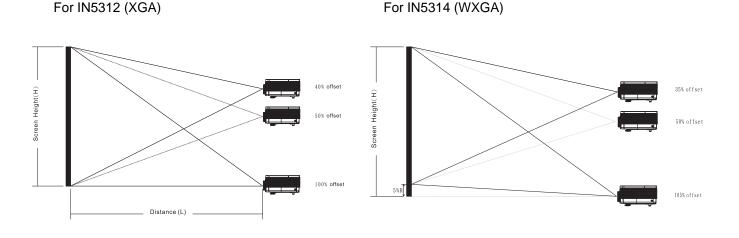
# Adjusting Projected Image Position Using Shift

The Shift feature provides a lens shift function that can be used to adjust the position of the projected image either horizontally or vertically within the range detailed below.

Shift is a unique system that provides lens shift while maintaining a much higher ANSI contrast ratio than traditional lens shift systems.

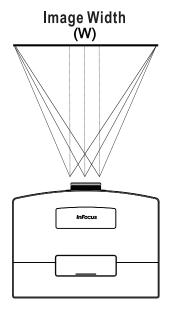
#### Adjusting the vertical image position

The vertical image height can be adjusted between 100% and 40% offset for IN5312 (XGA); 105% and 35% for IN5314 (WXGA) (offset =[(O+H)/H] x100%, O: distance from bottom of image to center of lens). Note that the maximum vertical image height adjustment can be limited by the horizontal image position. For example it is not possible to achieve the maximum vertical image position height detailed above if the horizontal image position is at maximum. Please consult the Shift Range diagram below for further clarification.



# Adjusting the horizontal image position

With the lens in the center position the horizontal image position can be adjusted to the left or right by up to a maximum of 5% of the image width. Note that the maximum horizontal image height adjustment can be limited by the vertical image position. For example it is not possible to achieve the maximum horizontal image position if the vertical image position is at maximum. Please consult the Shift Range diagram below for further clarification.

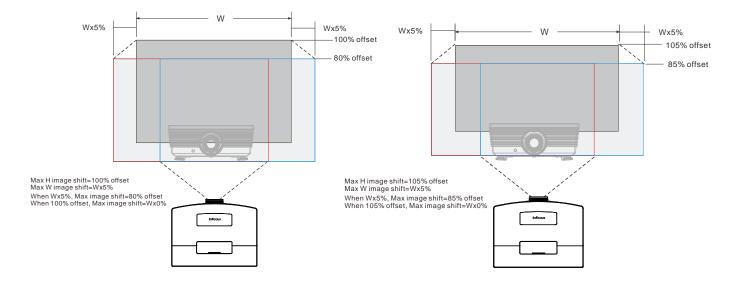


Left Side  $\prec \rightarrow$  Right Side (W) x 5% (W) x 5%

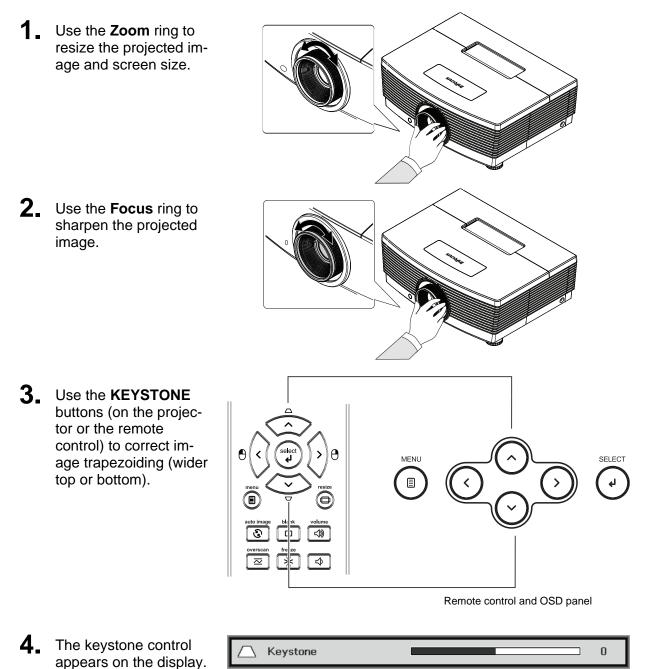
# Shift Range Diagram

For IN5312 (XGA)

For IN5314 (WXGA)



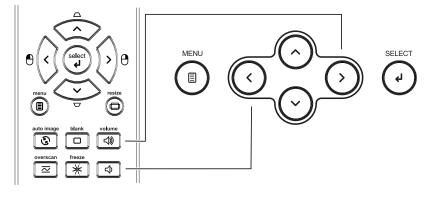
# Adjusting Zoom, Focus and Keystone



# **Adjusting the Volume**

**1** Press the **Volume** buttons (on the projector or the remote control).

The volume control appears on the display.



- 2. Use the Vol +/- buttons (on the projector or the remote control).
- **3.** Press the **MUTE** button to turn off the audio (This feature is only available on the remote).





# **ON-SCREEN DISPLAY (OSD) MENU SETTINGS**

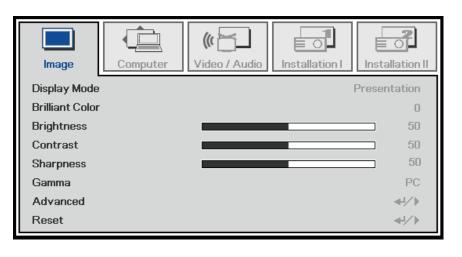
# **OSD Menu Controls**

The projector has an OSD that lets you make image adjustments and change various settings.

#### Navigating the OSD

You can use the remote control cursor buttons or the projector keypad to navigate and make changes to the OSD.

- 1. To enter the OSD, press the **MENU** button.
- There are five menus. Press the cursor ◀► button to move through the menus.
- Press the cursor ▲ ▼ button to move up and down in a menu.
- 4. Press **◄**► to change setting values.
- 5. Press **MENU** to close the OSD or leave a sub menu.



#### Note:

Depending on the video source, not all items in the OSD are available. For example, the **Horizon**tal/Vertical Position items in the **Computer** menu can only be modified when connected to a PC. Items that are not available cannot be accessed and are grayed out.

# Setting the OSD Language

Set the OSD language to your preference before continuing.

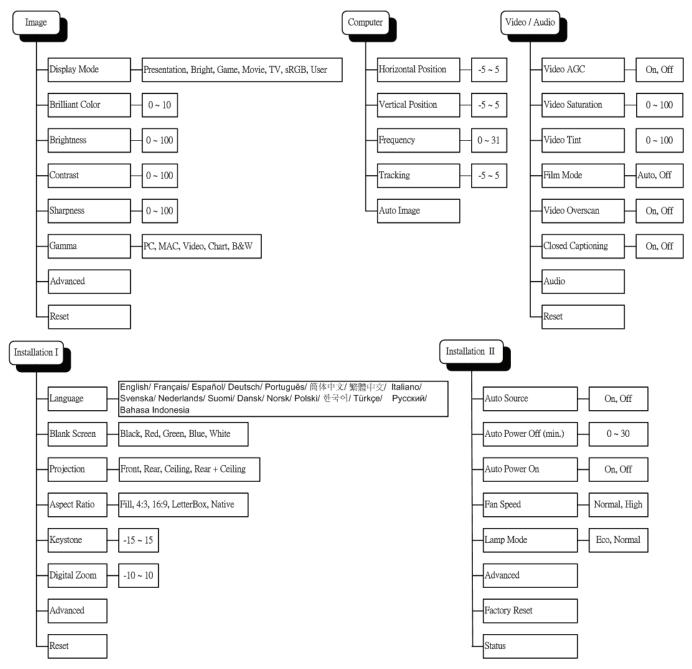
1. Press the **MENU** button. Press the cursor **◄** button to navigate to **Installation I**.

Image	Computer	(() Turker () Video / Audio	Installation I	Installation	11
Language				English	
Blank Screen					
Projection				Ρ	
Aspect Ratio				Fill	
Keystone				0	
Digital Zoom				0	
Advanced				/ ►</th <th></th>	
Reset				<b>₩/</b>	

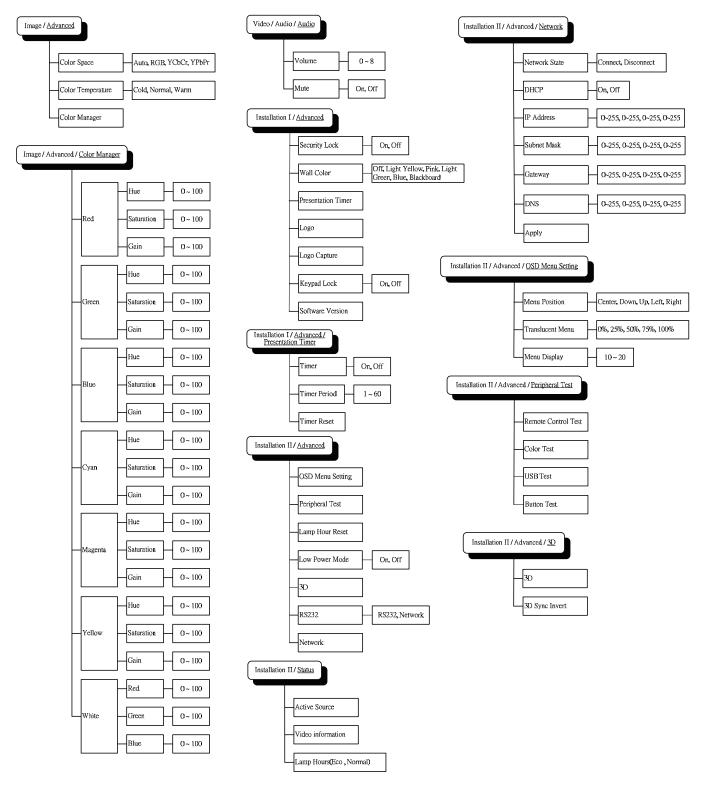
- 2. Press the cursor ▲ ▼ button until Language is highlighted.
- 3. Press the cursor **◄** button until the language you want is selected.
- 4. Press the **MENU** button to close the OSD.

# OSD Menu Overview

Use the following illustration to quickly find a setting or determine the range for a setting.



# **OSD Sub-Menu Overview**



# Image Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor  $\blacktriangleleft \triangleright$  button to move to the **Image Menu**. Press the cursor  $\blacktriangle \checkmark$  button to move up and down in the **Image** menu. Press  $\blacktriangleleft \triangleright$  to change setting values.

Image	Computer	(() Constant () Co	Installation I	Installation II
Display Mode			F	Presentation
Brilliant Color				0
Brightness				50
Contrast				50
Sharpness				50
Gamma				PC
Advanced				∕►<br /►</th
Reset				<b>€</b> //►

Ітем	DESCRIPTION
Display Mode	Press the cursor ◀▶ button to set the Display Mode.
Brilliant Color	Press the cursor ◀▶ button to adjust the Brilliant Color value.
Brightness	Press the cursor ◀▶ button to adjust the display brightness.
Contrast	Press the cursor ◀► button to adjust the display contrast.
Sharpness	Press the cursor ◀► button to adjust the display sharpness level.
Gamma	Press the cursor ◀▶ button to adjust the gamma correction of the display.
Advanced	Press
Reset	Press

# Advanced Features

Press the **Menu** button to open the **OSD** menu. Press  $\blacktriangleleft \triangleright$  to move to the **Image** menu. Press  $\blacktriangledown \blacktriangle$  to move to the **Advanced** menu and then press **Enter** or  $\triangleright$ . Press  $\blacktriangledown \blacktriangle$  to move up and down in the **Advanced** menu.

<b>Image</b>	Computer	(() Total Video	Installation I	Installation II
		Advanced		
Color Space				Auto
Color Temper	ature			Normal
Color Manage	er			<b>€</b> /∕►

Ітем	DESCRIPTION
Color Space	Press the cursor ◀▶ button to adjust the color space.
Color Temperature	Press the cursor ◀► button to adjust the color temperature.
Color Manager	Press

Color Manager

Press ← (Enter) / ► to enter the **Color Manager** sub menu.

Image	Computer	(() Video	Installation I	Installation II
	Adva	anced \ Color Ma	nager	
Red				
Green				<b>↓</b> /▶
Blue				<b>≪</b> 4∕►
Cyan				<b>≪</b> 4∕►
Magenta				<b>≪</b> 4∕►
Yellow				<b>≪</b> 4∕►
White				<b>₩</b> />

Ітем	DESCRIPTION
Red	Select to enter the Red Color Manager. Press the ◀▶ buttons to adjust the Hue, Saturation, and Gain.
Green	Select to enter the Green Color Manager. Press the ◀▶ buttons to adjust the Hue, Saturation, and Gain.
Blue	Select to enter the Blue Color Manager. Press the ◀► buttons to adjust the Hue, Saturation, and Gain.
Cyan	Select to enter the Cyan Color Manager. Press the ◀▶ buttons to adjust the Hue, Saturation, and Gain.
Magenta	Select to enter the Magenta Color Manager. Press the ◀▶ buttons to adjust the Hue, Saturation, and Gain.
Yellow	Select to enter the Yellow Color Manager. Press the ◀► buttons to adjust the Hue, Saturation, and Gain.
White	Select to enter the White Color Manager. Press the ◀▶ buttons to adjust the Red, Green, and Blue.

# **Computer Menu**

Press the **MENU** button to open the **OSD** menu. Press the cursor  $\triangleleft \triangleright$  button to move to the **Computer** menu. Press the cursor  $\blacktriangle \lor$  button to move up and down in the computer menu. Press  $\triangleleft \triangleright$  to change setting values.

Image Computer	Video / Audio	Installation I	Insta	allation II
Horizontal Position				0
Vertical Position				0
Frequency				0
Tracking				0
Auto Image				

Ітем	DESCRIPTION	
Horizontal Position	Press the cursor ◀▶ button to adjust the display position left or right.	
Vertical Position	Press the cursor ◀▶ button to adjust the display position up or down.	
Frequency	Press the cursor ◀▶ button to adjust the A/D sampling clock.	
Tracking	Press the cursor ◀▶ button to adjust the A/D sampling dot.	
Auto Image	Press	

### Video/Audio Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor **◄** button to move to the **Video/Audio** menu. Press the cursor **▲ ▼** button to move up and down in the **Video/Audio** menu. Press **◀ ▶** to change setting values.

Image Computer Video / Audio	Installation I
Video AGC	Off
Video Saturation	50
Video Tint	50
Film Mode	Off
Video Overscan	Off
Closed Captioning	Off
Audio	<b>4!∕</b> ►
Reset	

Ітем	DESCRIPTION	
Video AGC	Press the ◀► buttons to enable or disable the Automatic Gain Control for video source.	
Video Saturation	Press the ◀► buttons to adjust the video saturation.	
Video Tint	Press the ◀► buttons to adjust the video tint/hue.	
Film Mode	Press the ◀► buttons to select a different film mode.	
Video Overscan	Press the ◀► buttons to enable or disable video overscan.	
Closed Captioning	Press the ◀► buttons to enable or disable Closed Captioning.	
Audio	Press	
Reset	Press	

#### Note:

Video jagging may occur when playing interlaced video. To overcome this issue, open the Video / Audio menu and adjust the Film Mode feature.

## <u>Audio</u>

ation II 4 Off Mute

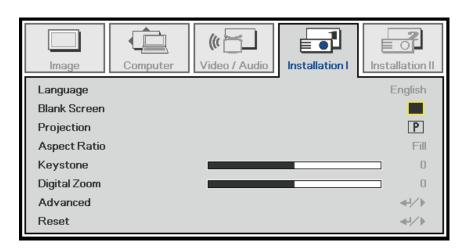
Image	Computer	Video / Audio	Installation I	Installa
		Audio		
Volume Mute				

Press ← (Enter) / ► to enter the Audio sub menu.

Ітем	DESCRIPTION
Volume	Press the ◀► buttons to adjust the audio volume.
Mute	Press the ◀► buttons to turn the speaker on or off.

## Installation I Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor **◄** button to move to the **Installation I** menu. Press the cursor **▲ ▼** button to move up and down in the **Installation I** menu. Press **◀ ▶** to change setting values.



Ітем	DESCRIPTION
Language	Press the cursor ◀▶ buttons to select a different localized menu. (Range: English/ Français/ Español/ Deutsch/ Português/ 簡体中文/ 繁體中文/ Itali- ano/ Svenska/ Nederlands/ Suomi/ Dansk/ Norsk/ Polski/ 한국어/ Türkçe/ Русский/ Bahasa Indonesia/)
Blank Screen	Press the cursor ◀► button to select different color to blank the screen.
Projection	Press the cursor ◀► button to choose from four projection methods: Front, Rear, Ceiling, Rear + Ceiling
Aspect Ratio	Press the cursor ◀► button to adjust the video aspect ratio.
Keystone	Press the cursor ◀► button to adjust the display keystone.
Digital Zoom	Press the cursor ◀► button to adjust the Digital Zoom.
Advanced	Press
Reset	Press

## <u>Advanced</u>

Image Computer Video / Audio	Installation I
Advanced	
Security Lock Wall Color Presentation Timer	Off Off ◄斗∕♪
Logo	Normal
Logo Capture	<b>↓</b> /►
Keypad Lock	Off
Software Version	LX776-692IF-DPE02

Press ← (Enter) / ► to enter the **Advanced** sub menu.

Ітем	DESCRIPTION
Security Lock	Press the cursor ◀► button to enable or disable security lock function.
Wall Color	When displaying the image against a wall, press the cursor ◀► button to select different wall color settings. This will help compensate for color variations caused by the wall surface.
Presentation Timer	Press
Logo	Press the cursor ◀► button to select the screen to display during startup.
Logo Capture	Press
Keypad Lock	Press the cursor ◀► button to enable or disable keypad lock function.
Software Version	Display the software version information.

Presentation Timer

Press ← (Enter) / ► to enter the **Presentation Timer** sub menu.

Image	Computer	(() Video	Installation I	Installation II
	Advand	ed \ Presentation	on Timer	
Timer				Off
Timer Period				10
Timer Reset				<b>↓/</b> ►

Ітем	DESCRIPTION
Timer	Press the cursor ◀► button to enable or disable presentation timer function.
Timer Period	Press the cursor ◀► button to adjust the display timer period.
Timer Reset	Press

## Installation II Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor **◄** button to move to the **Installation II** menu. Press the cursor **▲ ▼** button to move up and down in the Installation II menu.

Image	Computer	(() 🚰	Installation I	Installation II
Auto Source				Off
Auto Power C	)ff (min)			
Auto Power C	)n			Off
Fan Speed				Normal
Lamp Mode				Normal
Auto Source Auto Power C Auto Power C Fan Speed Lamp Mode Advanced Factory Rese Status				<b>↓</b> /▶
Factory Rese	t			€!∕) €!∕)
Status				4!/>

Ітем		Descr		
Auto Source	Press the cursor <b>◄</b> ► button to enable or disable automatic source detection.			
Auto Power Off (min.)	Press the cursor ◀▶ button to enable or disable automatic shutdown of lamp when no signal.			
Auto Power On	Press the cursor ◀► supplied.	button to enable or disa	able Automatic Power (	On when AC power is
		button to toggle betwo d selecting high speed		
		≦ 25°C ( 77°F )	26~30°C ( 78.8~86°F )	31~35°C ( 87.8~95°F )
Fan Speed	0~4,999ft (0~1523m)	Normal Mode		
	5,000 ft ( 1524m )	Normal Mode	High Spe	eed Mode
	7,500 ft ( 2286m )	High Spe	ed Mode	
	10,000 ft ( 3048m )	High Speed Mode		
Lamp Mode	Press the cursor <b>I</b>	button to select the la np life.	Imp mode for higher b	orightness or lower
Advanced	Press	to enter the Advanced	menu. See Advanced	d Features on page
Factory Reset	Press <table-cell-rows> (Enter) / 🕨</table-cell-rows>	to reset all items to fac	ctory default settings.	
Status	Press	to enter the Status me	enu. See page 41 for r	more information on

## Advanced Features

Press the **Menu** button to open the **OSD** menu. Press  $\blacktriangleleft \triangleright$  to move to the **Installation II** menu. Press  $\blacktriangle \lor$  to move to the **Advanced** menu and then press **Enter** or  $\triangleright$ . Press  $\blacktriangle \lor$  to move up and down in the **Advanced** menu. Press  $\blacktriangleleft \triangleright$  to change setting values.

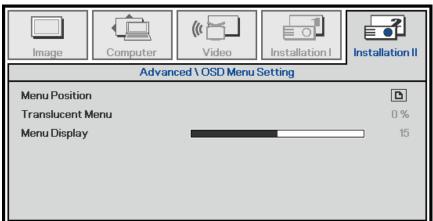
Image	Computer	(() Video	Installation I	Installation II
		Advanced		
OSD Menu Se	tting			<b>≪!∕</b> ►
Peripheral Te	st			<b>↓/</b> ►
Lamp Hour Re	eset			<b>↓/</b> ►
Low Power M	ode			Off
3D				<b>≪!∕</b> ►
RS232				RS232
Network				<b>≪!∕</b> ►

Ітем	DESCRIPTION	
OSD Menu Setting	Press Enter / ► to enter the OSD setting menu. See page 35 for more information on OSD Menu Setting.	
Peripheral Test	Press Enter/ ► to enter the Peripheral Test menu. See page 35 for more information on <i>Peripheral Test</i> .	
Lamp Hour Reset	After replacing the lamp, this item should be reset. See page 36 for more information on <i>Lamp Hour Reset</i> .	
Low Power Mode	Press ◀► to turn Low Power Mode on or off. This affects power consumption when the projector is in standby. When this feature is on, the projector will use less than 1 watt of electricity in standby mode. When this feature is off, the projector will use 9 watts of electricity in standby mode.	
3D	Press $\blacktriangleleft$ to disable or enable different 3D modes. See page 36 for more information on the 3D menu.	
RS232	Press ◀► to select RS232 (remote) or Network (LAN) mode depending on the pro- jector connection method. Selecting RJ45 enables RJ45 control and disables the RS232 port. Selecting RS232 enables RS232 control and disables the RJ45 network port. When RS232 control is enabled, the serial port settings are fixed to: 19200 Baud 8-bits No parity 1 Stop-bit	
Network	No flow control Press	

#### Note:

Ensure that your video source is compatible with 3D source material.

### OSD Menu Setting



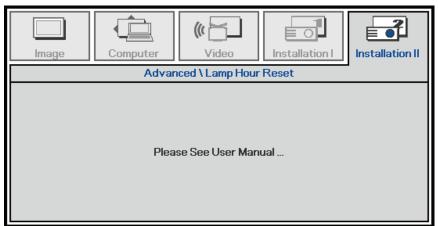
Ітем	DESCRIPTION
Menu Position	Press ◀► button to move the OSD menu position.
Translucent Menu	Press ◀► button to select OSD background translucent level.
Menu Display	Press ◀► button to select OSD timeout delay.

Peripheral Test

Image	Computer	( Video / Audio	Installation I	Installation II
	Adva	anced \ Periphera	l Test	
Remote Cont	rol Test			<b>4</b> 1∕►
Color Test				₹↓∕♪ ₹↓∕♪
USB Test				<b>≪</b> -/∕►

Ітем	DESCRIPTION
Remote Control Test	Press
Color Test	Press
USB Test	Press

Lamp Hour Reset



Please refer to Replacing the Projection Lamp on page 42 to reset the lamp hour counter.

3D

Image	Computer	Video Advanced \ 3D	Installation I	Installation II
3D 3D Sync Inve	rt			Off Off

Select the correct 3D setting for your 3D glasses:

- Select DLP-Link<sup>™</sup> if your glasses are compliant with Texas Instruments' DLP 3D standard. This type of glasses do not require an external trigger, they are triggered by the projected image.

- Select IR if your glasses are triggered by the video source. This type of glasses are triggered by an external Infrared source (not included).

Note:

While the 3D function is enabled, the current picture settings will be disabled.

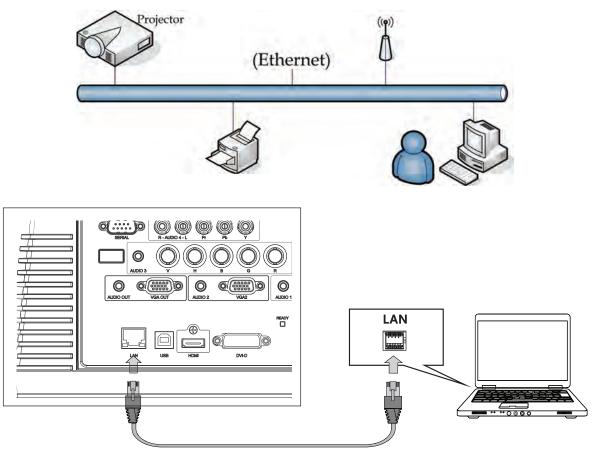
Network State

Image Computer Vio	
Network State	Connect
DHCP	Off
IP Address	255.255.255.255
Subnet Mask	255.255.255.255
Gateway	255.255.255.255
DNS	255.255.255.255
Apply	<b>↓</b> /▶

Ітем	DESCRIPTION
Network State	Displays the network connection status.
	Press ◀▶ to turn DHCP On or Off.
DHCP	<b>Note:</b> If you select DHCP Off, complete the IP Address, Subnet Mask, Gateway, and DNS fields.
IP Address	Enter a valid IP address if DHCP is turned off.
Subnet Mask	Enter a valid Subnet Mask if DHCP is turned off.
Gateway	Enter a valid Gateway address if DHCP is turned off.
DNS	Enter a valid DNS name if DHCP is turned off.
Apply	Press ← (ENTER/SELECT) / ► to confirm settings.

For simplicity and ease of operation, the projector provides diverse networking and remote management features.

The LAN/RJ45 feature allows the projector to be connected to a network and remotely managed. Available remote management controls include: Power On/Off, Video-Source, Brightness and Contrast settings, Sound-Mute, etc.



Enter the Projector IP address shown in the Installation II / Advanced / Network State menu. Note: DHCP must be on. The LAN/RJ45 Web Control window displays as follows:

Web Control				
	Display Power	💿 Off 🔾 On	Freeze	⊙ Off ○ On
Projector Settings	Audio Mute	◉ Off ◯ On	Video Mute	◉ Off ◯ On
Alert Mail Settings	Source Input	None 💌	Contrast	- N/A +
	Display mode	None 💌	Brightness	- N/A +
	Volume	- N/A +	Sharpness	- N/A +
	Display format	None 🔽	Projection mode	None 💌
	Lamp mode	None 💌	Lamp hours	0

#### **Preparing Email Alerts**

- 1. Make sure that user can access the homepage of LAN RJ45 function by web browser (for example, Microsoft Internet Explorer v6.01/v8.0).
- 2. From the Homepage of LAN/RJ45, click Alert Mail Settings.

Web Control				
	Display Power	⊙ Off ○ On	Freeze	⊙ Off ○ On
Projector Settings	Audio Mute	◉ Off ◯ On	Video Mute	⊙ Off ○ On
Alert Mail Settings	Source Input	None 💌	Contrast	- N/A +
	Display mode	None 💌	Brightness	- N/A +
	Volume	- N/A +	Sharpness	- N/A +
	Display format	None 💌	Projection mode	None 💌
	Lamp mode	None 🔽	Lamp hours	0

3. By default, the input boxes in **Alert Mail Settings** are blank.

rol	Se	nd E-Mai	
Settings	Enter	the appropriate settings	; in the fields below:
Setting			equire a user name or password.)
		MAC Address:	00:18:23:03:03:38
		SMTP Server:	Port:
		User Name:	
		Password:	
			Mail Server Apply
		From:	
		то:	
		CC:	
			Mail Address Apply
		E-mail Alert Options	
		Fan lock :	✓ Over_Heat: ✓
		Case Open: Lamp Hours Over:	✓ Lamp Fail: ✓
			Alert Option Apply
			Send Test Mail

- 4. To setup email alerts, input the following:
  - The **SMTP** field is the mail server for sending out email (SMTP protocol).

This is a required field.

- The **To** field is the recipient's email address (for example, the projector administrator). This is a required field.
- The **Cc** field sends a carbon copy of the alert to the specified email address.

This is an optional field (for example, the projector administrator's assistant).

## **User's Manual**

- The **From** field is the sender's email address (for example, the projector administrator). This is a required field.
- Select the alert conditions by checking the desired boxes.

	940.	A D - 100 - 10
G Back • 🜍 💌 😫 😚	1.4	
Web Control Protector Settings Alerc Wall Settings	Send E-Ma Enter the appropriate setti (Your SMTP Server may no	When the stress
	SMTP Server: User Name:	mail.comp.com Port: 25 Sender.UK
	Password:	Mail Server Apply
	Fram: To: CC:	send@mail.comp.com rcvrl@mail.comp.com rcvr2@mail.comp.com
		Mail Address Apply
	E-mail Alert Optic Fan lock : Cose Open: Lamp Hours Over	© Over_Heat: ☑ ☑ Lamp Fail: ☑

**Note:** Fill in all fields as specified. Select the desired alert condition and click **Submit** to conduct an **Email Alert Test**. A successful test alerts the designated email accounts. To create an email alert, you must select alert conditions and enter a correct email address.

Group and Name identify the alerting projector and are located at the button of the alert mail as shown below:

Web Control       Projector Settings         Projector Settings       Enter the Projector settings in the fields below:					
Alert Mail Settings	Group: Name:	US_7FA			
		Setting Apply			

## Factory Reset

Press the cursor  $\blacktriangle \lor$  button to move up and down in the **Installation II** menu. Select the **Factory Reset** sub menu and press  $\blacktriangleleft$  (Enter) /  $\blacktriangleright$  to reset all the menu items to factory default values (except Language, Network Settings and Security Lock).

Image	(() Constant () Co	Installation I	Installation II
Auto Source			Off
Auto Power Off (min)			0
Auto Power On			Off
Fan Speed			Normal
Lamp Mode			Normal
Advanced			<b>≪</b> !∕⊁
Factory Reset			<b>≪</b> 4⁄-≻
Status			<b>↓</b> /▶

## <u>Status</u>

Press the cursor ▲ ▼ button to move up and down in the Installation II menu. Select the Installation II sub menu and press ← (Enter) / ► to enter the Status sub menu.

Image	Computer	Video	Installation I	Installation II
		Status		-
Active Source	9			Analog RGB
Video Informa	ation		1024 x	768 @ 60 Hz
Active Source Video Information Lamp Hours (Normal , Bright)			0	0

Ітем	DESCRIPTION
Active Source	Display the active source.
Video Information	Displays resolution/video information for RGB source and color standard for Video source.
Lamp Hours	Displays the number of hours the lamp has been used in Normal and Bright modes.

# **MAINTENANCE AND SECURITY**

## **Replacing the Projection Lamp**

The projection lamp should be replaced when it burns out. Be sure to use the InFocus lamp module designed for this projector. You can order new lamps from www.infocusstore.com (in select areas), your retailer or your dealer. Only genuine InFocus lamps are tested for use in this projector. Use of non InFocus lamps may cause electrical shock and fire, and may void the projector warranty. InFocus is not liable for the performance, safety or certification of any other lamps.

#### Warning:

• The projector uses a high-pressure mercury glass lamp. The lamp may fail prematurely, or it may rupture with a popping sound if jolted, scratched, or handled while hot. The risk of lamp failure or rupture also increases as the lamp age increases; please replace the lamp when you see the "Replace Lamp."

• Do not touch or block the projector lens with any objects as this can damage the projector lens. Scratches, gouges and other lens damage are not covered by the product warranty.

- 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 surface of the lamp module. Fingerprints can obscure projection sharpness and may cause the glass to shatter.

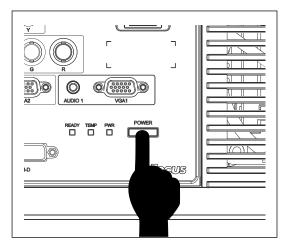
• Be extremely careful when removing the lamp housing. In the unlikely event that the lamp ruptures, small glass fragments may be generated. The lamp module is designed to contain most of these fragments, but use caution when removing it.

• Before replacing a ruptured lamp, clean the lamp compartment and dispose of cleaning materials. Wash hands after lamp replacement.

• When replacing the lamp while the projector is ceiling-mounted, wear protective eyewear to prevent eye injury. Hg – Lamp contains mercury. Manage in accordance with local disposal laws. See <u>www.lamprecycle.org</u>.

• Be sure to turn off and unplug the projector at least 60 minutes before replacing the lamp. Failure to do so could result in a severe burn.

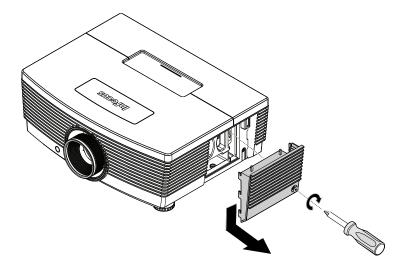
- Switch off the power to the projector by pressing the POWER button twice.
- 2. Allow the projector to cool down at least 60 minutes.
- **3.** Disconnect the power cord.

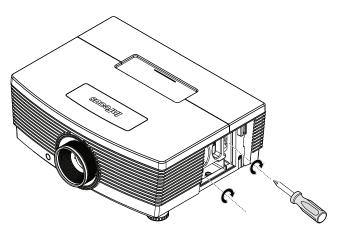


## IN5312/IN5314 - User's Manual

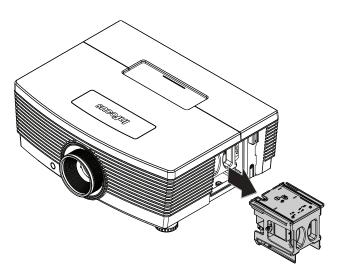
- **4.** Loosen the captive screw on the lamp cover.
- **5.** Pull up and remove the cover.

6. Use a screwdriver to remove the two captive screws from the lamp module.





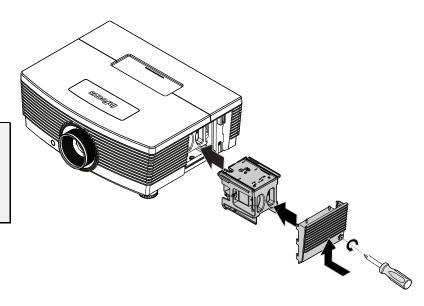
**7.** Pull out the lamp module.



#### 8. Reverse steps 1 to 7 to install the new lamp module. While installing, align the lamp module with the connector and ensure it is level to avoid damage.

#### Note:

The lamp module must sit securely in place and the lamp connector must be connected properly before tightening the screws.



**9.** Turn on the projector and reset the lamp after the lamp module is replaced.

#### Lamp Reset:

Press Menu  $\rightarrow$  Select Installation II / Advanced  $\rightarrow$  Select Lamp Hour Reset  $\rightarrow$  Press the  $\blacktriangleleft \triangleright$  buttons to adjust the settings.

## Cleaning the Projector

Cleaning the projector to remove dust and grime will help ensure trouble-free operation.

#### Warning:

**1.** Be sure to turn off and unplug the projector at least 60 minutes before cleaning. Failure to do so could result in a severe burn.

**2.** Use only a dampened cloth when cleaning. Do not allow water to enter the ventilation openings on the projector.

**3.** If a little water gets into the projector interior while cleaning, leave unplugged in a well-ventilated room for several hours before using.

4. If a lot of water gets into the projector interior when cleaning, have the projector serviced.

## Cleaning the Lens

You can purchase optic lens cleaner from most camera stores. Refer to the following to clean the projector lens.

- 1. Apply a little optic lens cleaner to a clean soft cloth. (Do not apply the cleaner directly to the lens.)
- 2. Lightly wipe the lens in a circular motion.

#### Caution:

1. Do not use abrasive cleaners or solvents.

2. To prevent discoloration or fading, avoid getting cleaner on the projector case.

### Cleaning the Case

Refer to the following to clean the projector case.

- 1. Wipe off dust with a clean dampened cloth.
- 2. Moisten the cloth with warm water and mild detergent, and then wipe the case.
- 3. Rinse all detergent from the cloth and wipe the projector again.

#### Caution:

To prevent discoloration or fading of the case, do not use abrasive alcohol-based cleaners.

# **TROUBLESHOOTING**

## **Common Problems and Solutions**

These guidelines provide tips to deal with problems you may encounter while using the projector. If the problem remains unsolved, contact InFocus at <u>www.infocus.com/support</u>.

Often the problem is traced to something as simple as a loose connection. Check the following before proceeding to problem-specific solutions.

- Use another electrical device to confirm that the electrical outlet is working.
- Ensure the projector is turned on.
- Ensure all connections are securely attached.
- Ensure the attached device is turned on.
- Ensure a connected PC is not in standby mode.
- Ensure a connected notebook computer is configured for an external display. (This is usually done by pressing a Fn-key combination on the notebook. Go to <u>www.infocus.com/support</u> and the Learn tab to review the Laptop Activation chart.)

### **Tips for Troubleshooting**

In each problem-specific section, try the steps in the order suggested. This may help you to solve the problem more quickly.

Try to pinpoint the problem and avoid replacing non-defective parts. For example, if you replace batteries and the problem remains, put the original batteries back and go to the next step.

Keep a record of the steps you take when troubleshooting. The information may be useful when calling Technical Support and obtaining service.

## LED Error Messages

Error Code Messages	PWR LED	TEMP LED	READY LED
Over temperature	Off	Solid Red	Off
Thremal break	Flashing Red 4x	Off	Off
Lamp strike fail	Flashing Red 5x	Off	Flashing Red 1x
Ballast said Lamp off	Flashing Red 5x	Off	Flashing Red 2x
Ballast said OVT when Lamp strike	Flashing Red 5x	Off	Flashing Red 3x
Ballast said OVT when SYS operation	Flashing Red 5x	Off	Flashing Red 4x
Fan 1 error	Flashing Red 6x	Off	Flashing Red 1x
Fan 2 error	Flashing Red 6x	Off	Flashing Red 2x
Fan 3 error	Flashing Red 6x	Off	Flashing Red 3x
Case open	Flashing Red 7x	Off	Off
DMD fail	Flashing Red 8x	Off	Off
Color wheel fail	Flashing Red 9x	Off	Off
Ballast Communication Fail	Flashing Red 10x	Off	Flashing Red 1x

In the event of an error, please disconnect the AC power cord and wait for one (1) minute before restarting the projector. If the PWR or READY LED is still blinking or the TEMP LED is lit, contact InFocus Technical Support at <u>www.infocus.com/support</u>.

#### Image Problems

#### Problem: No image appears on the screen

- 1. Verify the settings on your notebook or desktop PC.
- 2. Turn off all equipment and power up again in the correct order.
- Many laptops do not automatically turn on their external video port when a projector is connected. Usually a key combination like FN + F8 or CRT/LCD key turns the external display on and off. Locate a function key labeled CRT/LCD or function key with a monitor symbol. Press FN and the labeled function key simultaneously.

#### Problem: The image is blurred

- 1. Adjust the **Focus** on the projector.
- 2. Press the Auto Image button on the remote control.
- **3.** Ensure the projector-to-screen distance is within the projection range. (Within 7m/23' for the standard lens; within 20m/66' for the long lens and within 3m/10' for the short lens).
- 4. Check that the projector lens is clean.

#### Problem: The image is wider at the top or bottom (trapezoid effect)

- **1.** Position the projector so it is as perpendicular to the screen as possible.
- 2. Use the Keystone buttons on the remote control or projector to correct the problem.

#### Problem: The image is reversed

Check the **Projection** setting on the **Image** menu of the OSD.

#### Problem: The image is streaked

- 1. Set the **Frequency** and **Tracking** settings on the **Computer** menu of the OSD to the default settings.
- **2.** To ensure the problem is not caused by a connected PC's video card, connect to another computer.

#### Problem: The image is flat with no contrast

Adjust the **Contrast** setting on the **Image** menu of the OSD.

#### Problem: The color of the projected image does not match the source image.

Adjust the Color Temperature and Gamma settings on the Image menu of the OSD.

#### Lamp Problems

#### Problem: There is no light from the projector

- 1. Check that the power cable is securely connected.
- 2. Ensure the power source is good by testing with another electrical device.
- 3. Restart the projector in the correct order and check that the PWR LED is solid blue.
- 4. If you have replaced the lamp recently, try resetting the lamp connections.
- **5.** Replace the lamp module.
- 6. Put the old lamp back in the projector and have the projector serviced.

#### Problem: The lamp goes off

- 1. Power surges can cause the lamp to turn off. Unplug and re-plug the power cord and press the Power button.
- **2.** If the lamp still does not ignite, unplug the projector and allow it to cool for 60 minutes. Replace the lamp.
- **3.** If a new lamp does not resolve the issue, put the old lamp back into the projector and arrange to have the projector repaired.

#### **Remote Control Problems**

#### Problem: The projector does not respond to the remote control

- 1. Direct the remote control towards remote sensor on the projector.
- 2. Ensure the path between remote and sensor is not obstructed.
- **3.** Turn off any fluorescent lights in the room.
- 4. Check the battery polarity.
- 5. Replace the batteries.
- 6. Turn off other infrared-enabled devices in the vicinity.
- 7. Replace the remote control.

## Audio Problems

#### Problem: There is no sound

- 1. Adjust the volume on the remote control.
- **2.** Adjust the volume of the audio source.
- **3.** Check the audio cable connection.
- 4. Disconnect audio out cable.
- 5. Test the source audio output with other speakers.
- 6. Have the projector serviced.

#### Problem: The sound is distorted

- 1. Check the audio cable connection.
- 2. Test the source audio output with other speakers.
- 3. Have the projector serviced.

## Having the Projector Serviced

If you are unable to solve the problem contact InFocus Technical Support at <u>www.infocus.com/support</u>. If your projector needs repair, pack the projector in the original carton and include the return authorization number on the outside of the box.

## HDMI Q & A

# Q. What is the difference between a "Standard" HDMI cable and a "High-Speed" HDMI cable?

Recently, HDMI Licensing, LLC announced that cables would be tested as Standard or High-Speed cables.

<sup>•</sup>Standard (or "category 1") HDMI cables have been tested to perform at speeds of 75Mhz or up to 2.25Gbps, which is the equivalent of a 720p/1080i signal.

'High Speed (or "category 2") HDMI cables have been tested to perform at speeds of 340Mhz or up to 10.2Gbps, which is the highest bandwidth currently available over an HDMI cable and can successfully handle 1080p signals including those at increased color depths and/or increased refresh rates from the Source. High-Speed cables are also able to accommodate higher resolution displays, such as WQXGA cinema monitors (resolution of 2560 x 1600).

#### Q. How do I run HDMI cables longer than 10 meters?

There are many HDMI Adopters working on HDMI solutions that extend a cable's effective distance from the typical 10 meter range to much longer lengths. These companies manufacture a variety of solutions that include active cables (active electronics built into cables that boost and extend the cable's signal), repeaters, amplifiers as well as CAT5/6 and fiber solutions.

#### Q. How can I tell if a cable is an HDMI certified cable?

All HDMI products are required to be certified by the manufacturer as part of the HDMI Compliance Test Specification. However, there may be instances where cables bearing the HDMI logo are available but have not been properly tested. HDMI Licensing, LLC actively investigates these instances to ensure that the HDMI trademark is properly used in the market. We recommend that consumers buy their cables from a reputable source and a company that is trusted.

For more detailed information, go to: <u>http://www.hdmi.org/learningcenter/faq.aspx#49</u>

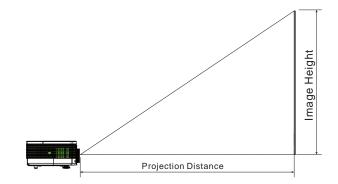
# **SPECIFICATIONS**

## **Specifications**

Model	IN5312	IN5314						
Display type	TI DMD XGA 0.7"	TI DMD WXGA 0.65"						
Native Resolution	1024x768	1200x800						
Projection distance (standard lens)	1.5 meters ~ 7 meters ( 4.92 ft ~ 22.97 ft ) 37.3" ~ 215" ( 95cm ~ 546cm ) 34.3" ~ 200" ( 87cm ~ 508cm )							
Projection screen size (standard lens)	37.3" ~ 215" ( 95cm ~ 546cm )	34.3" ~ 200" ( 87cm ~ 508cm )						
Projection lens	Manual Focus	/Manual Zoom						
Zoom ratio (standard lens)	1.25							
Vertical keystone correc- tion	+/- 30 degrees							
Projection methods	Front, Rear, Desktop/Ceiling (Rear, Front)							
Data compatibility	VGA, SVGA, XGA, SXG	GA, SXGA+, UXGA, Mac						
SDTV/ EDTV/ HDTV	480i, 480p,576i, 576j	o, 720p, 1080i, 1080p						
Video compatibility	NTSC 4.43, PAL	(M/N/60), SECAM						
H-Sync	15K, 31	– 90 KHz						
V-Sync	23 – 85 Hz (120	)Hz 3D support)						
Safety certification	FCC-B, UL, cUL, CB, CE, CCC, PCT, PSB, SABS, NOM, CECP, SASO Tuv-GS, KC, UL-s for Argentina and C-TICK							
Operation temperature	5° ~ 35°C ( 41° ~ 95°F)							
Dimensions (W x D x H)	430.16mm x 318.00mm x 175.	00mm (16.94" x 12.52" x 6.89")						
AC Input	AC Universal 100-240, Typica	I @ 110VAC (100-240)/±10%						
Power consumption	Bright mode: 410W /	Normal mode: 350W						
Standby	RS232 Control Enab RJ45 Control E							
Lamp	Bright mode: 330W /	Normal mode: 280W						
Audio speaker	AMP 3W s	speaker x 2						
	VGA	A x 2						
		D x 1						
		eo x 1						
lauret Tanaia da		GBHV) x 1						
Input Terminals		nent x 1 e video x 1						
	•	I <sup>™</sup> x 1						
		ereo x 2						
		stereo x 3						
Output Terminale	VGA	A x 1						
Output Terminals	Mini-jack	stereo x 1						
		232C						
Control Terminals	RJ45							
	•••	DC12V 200mA output function)						
	•	vice only)						
Security	Security ca	ble lock slot						

## **Projection Distance vs. Projection Size**

For XGA



#### Standard projection lens: TR: 1.6~2; offset=100%

IN5312	TELE				Wide			
Distance (m/inch)	1.63/	3.25/	4.06/	8.13/	1.63/	3.25/	6.50/	9.75/
	64	128	160	320	64	128	256	384
Diagonal (inch/ ft)	40/3.3	80/6.7	100/8.3	200/16.7	50/4.2	100/8.3	200/16.7	300/25
Keystone Correction angle (degree)	10.62	10.62	10.62	10.62	13.19	13.19	13.19	13.19
Image Height	609.6/	1219.2/	1524.0/	3048.0/	762.0/	1524.0/	3048.0/	4572.0/
(mm/inch)	24	48	60	120	30	60	120	180
Image Width	812.8/	1625.6/	2032.0/	4064.0/	1016.0/	2032.0/	4064.0/	6096.0/
(mm/inch)	32	64	80	160	40	80	160	240

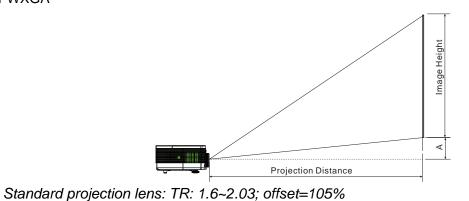
#### Long throw projection lens: TR: 2~3; offset=100%

IN5312	TELE			WIDE				
Dictored (m/inch)	2.44/	6.10/	12.19/	19.51/	2.03/	6.10/	12.19/	19.91/
Distance (m/inch)	96	240	480	768	80	240	480	784
Diagonal (inch/ft)	40/	100/	200/	320/	50/	150/	300/	490/
Diagonal (inch/ ft)	3.3	8.3	16.7	26.7	4.2	12.5	25	40.3
Keystone Correction angle (degree)	7.13	7.13	7.13	7.13	10.62	10.62	10.62	10.62
Image Height	609.6/	1524.0/	3048.0/	4876.8/	762.0/	2286.0/	4572.0/	7467.6/
(mm/inch)	24	60	120	192	30	90	180	294
Image Width	812.8/	2032.0/	4064.0/	6502.4/	1016.0/	3048.0/	6096.0/	9956.8/
(mm/inch)	32	80	160	256	40	120	240	392

Short throw projection lens: TR: 0.8; offset=100%

IN5312	Fix					
Distance (m/inch)	0.65/26	1.30/51	1.63/64	3.25/128		
Diagonal (inch/ ft)	40/3.3	80/6.7	100/8.3	200/16.7		
Keystone Correction angle (degree)	25.11	25.11	25.11	25.11		
Image Height (mm/inch)	609.6/ 24	1219.2/ 48	1524.0/ 60	3048.0/ 120		
Image Width (mm/inch)	812.8/ 32	1625.6/ 64	2032.0/ 80	4064.0/ 160		

For WXGA



IN5314		TELE				WIDE			
Distance (m/inch)	1.75/ 69	3.50/ 138	4.37/ 172	8.74/ 344	1.74/ 68	3.49/ 137	6.98/ 275	10.47/ 412	
Diagonal (inch/ ft)	40/3.3	80/6.7	100/8.3	200/16.7	50/4.2	100/8.3	200/16.7	300/25	
Keystone Correction angle (degree)	9.61	9.61	9.61	9.61	11.98	11.98	11.98	11.98	
Image Height (mm/inch)	538.5/ 21	1077.0/ 42	1346.2/ 53	2692.4/ 160	673.1/ 27	1346.2/ 53	2692.4/ 106	4038.6/ 159	
Image Width (mm/inch)	861.6/ 34	1723.1/ 68	2153.9/ 85	4307.8/ 170	1077.0/ 42	2153.9/ 85	4307.8/ 170	6461.7/ 254	
A (mm/inch)	26.9/1	53.8/2	67.3/3	134.6/5	33.7/1.3	67.3/3	134.6/5	201.9/8	
Long throw proje	ection lens	s: TR: 2.0	3~3.05; off	set=105%					
IN5314		T	ELE		WIDE				
Distance (m/inch)	2.63/ 104	6.57/ 259	13.14/ 517	19.71/ 776	2.19/ 86	6.56/ 258	13.12/ 517	19.68/ 775	
Diagonal (inch/ ft)	40/3.3	100/8.3	200/16.7	300/25	50/4.2	150/12.5	300/25	450/37.5	
Keystone Correction angle (degree)	6.43	6.43	6.43	6.43	9.61	9.61	9.61	9.61	
Image Height (mm/inch)	538.5/ 21	1346.2/ 53	2692.4/ 160	4038.6/ 159	673.1/ 27	2019.3/ 80	4038.6/ 159	6057.9/ 239	
Image Width (mm/inch)	861.6/ 34	2153.9/ 85	4307.8/ 170	6461.7/ 254	1077.0/ 42	3230.9/ 127	6461.7/ 254	9692.6/ 382	
A (mm/inch)	26.9/1	67.3/3	134.6/5	201.9/8	33.7/1.3	101.0/4	201.9/8	302.9/12	

Short throw projection lens: TR: 0.81; offset=105%

IN5314	Fix					
Distance (m/inch)	0.70/28	1.40/55	1.74/69	2.62/103		
Diagonal (inch/ ft)	40/3.3	80/6.7	100/8.3	150/12.5		
Keystone Correction angle (degree)	23	23	23	23		
Image Height (mm/inch)	538.5/ 21	1077.0/ 42	1346.2/ 53	2019.3/ 80		
Image Width (mm/inch)	861.6/ 34	1723.1/ 68	2153.9/ 85	3230.9/ 127		
A (mm/inch)	26.9/1	53.8/2	67.3/3	101.0/4		

## Timing Mode Table

The projector can display several resolutions. The following table outlines the resolutions that can be displayed by the projector.

Signal	RESOLUTION	H-Sync (KHz)	V-Sync (Hz)	Composite / S-Video	VGA (analog)	HDMI (DIGITAL)
NTSC	—	15.734	60.0	0	—	—
PAL/SECAM		15.625	50.0	0	_	_
	720 x 400	37.9	85.0		0	0
	640 x 480	31.5	60.0	—	0	0
	640 x 480	37.9	72.8	—	0	0
	640 x 480	37.5	75.0	—	0	0
	640 x 480	43.3	85.0	—	0	0
	800 x 600	35.2	56.3	—	0	0
	800 x 600	37.9	60.3	—	0	0
	800 x 600	46.9	75.0	—	0	0
	800 x 600	48.1	72.2	_	0	0
	800 x 600	53.7	85.1	—	0	0
	1024 x 768	48.4	60.0	—	0	0
	1024 x 768	56.5	70.1	—	0	0
VESA	1024 x 768	60.0	75.0	—	0	0
	1024 x 768	68.7	85.0	—	0	0
	1280 x 800	49.7	59.8	—	0	0
	1280 x 800	62.8	74.9	—	0	0
	1280 x 800	71.6	84.8	—	0	0
	1280 x 1024	64.0	60.0	—	0	0
	1280 x 1024	80.0	75.0	—	0	0
	1280 x 1024	91.1	85.0	—	0	0
	1400 x 1050	65.3	60.0	—	0	0
	1440 x 900	55.9	60.0	—	0	0
	1600 x1200	75.0	60	—	0	0
	1920 x1080	67.2	60	_	0	0
	1920 x1200	74.0	60	_	0	0
	640 x 480	35.0	66.7	_	0	0
Apple	832 x 624	49.7	74.5		0	0
Macintosh	1024 x 768	60.2	74.9	—	0	0
	1152 x 870	68.7	75.1	—	0	0
SDTV	480i	15.734	60.0	—	0	0
	576i	15.625	50.0		0	0
EDTV	576p	31.3	50.0	—	0	0
	480p	31.5	60.0		0	0

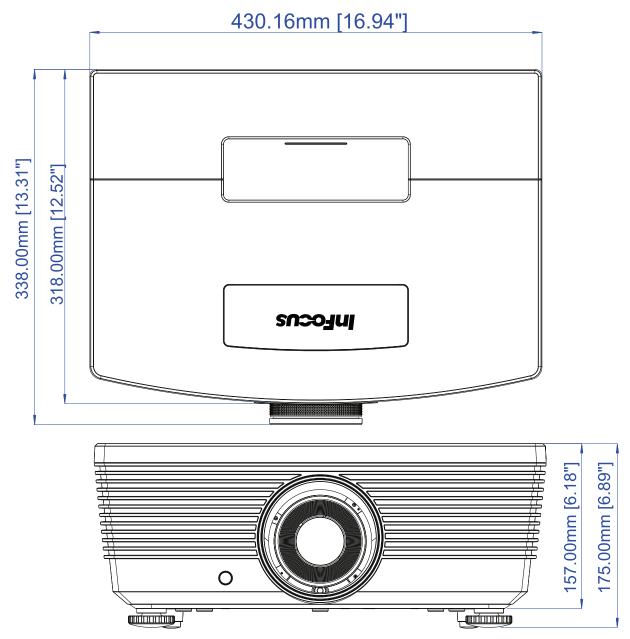
Signal	RESOLUTION	H-Sync (KHz)	V-Sync (Hz)	Composite / S-Video	VGA (analog)	HDMI (digital)
	720p	37.5	50.0	—	0	0
	720p	45.0	60.0	—	0	0
HDTV	1080i	33.8	60.0	_	0	0
	1080i	28.1	50.0	_	0	0
	1080p	27	24.0	_	0	0
	1080p	28.13	25.0		0	0
	1080p	33.75	30.0	—	0	0
	1080p	67.5	60.0	—	0	0
	1080p	56.3	50.0	—	0	0

O: Frequency supported

—: Frequency not supported

(\*) VGA support EDTV/SDTV/HDTV component with an adapter.

## **Projector Dimensions**



# **REGULATORY COMPLIANCE**

## FCC Warning

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 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/her own expense.

Changes or modifications not expressly approved by the parties responsible for compliance could void the user's authority to operate the equipment.

### Canada

This class B digital apparatus complies with Canadian ICES-003.

## WEEE



**NOTE:** This product is covered electrical and electronic equipment under the European Union's Waste from Electrical and electronic Equipment ("WEEE") Directive (2002/96/EC). The WEEE Directive requires that covered equipment be collected and managed separately from typical household waste in all EU member states. Please follow the guidance of your local environmental authority or ask the shop where you purchased the product for collection or recycling options.

## **Safety Certifications**

FCC-B, UL, cUL, CB, CE, CCC, PCT, PSB, SABS, NOM, CECP, SASO, Tuv-GS, KC, UL-s for Argentina and C-TICK