SP8600HD3D/IN8601

User's Guide
Mode d'emploi
Benutzeranleitung
Manual de Uso
Guidaall'uso
Guia do Usuário
Руководство по пользователя
用戶手冊
Kullanım Kılavuzu

사용 설명서
用户指南
Panduan Pengguna
Användarhandbok
Gebruikershandleiding
Brukerhåndbok
دليل المستخدم
راهنمای کاربر
Hướng dẫn sử dụng

InFocus
Bright Ideas Made Brilliant

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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.

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, and may lead to other *unpredictable damages*.
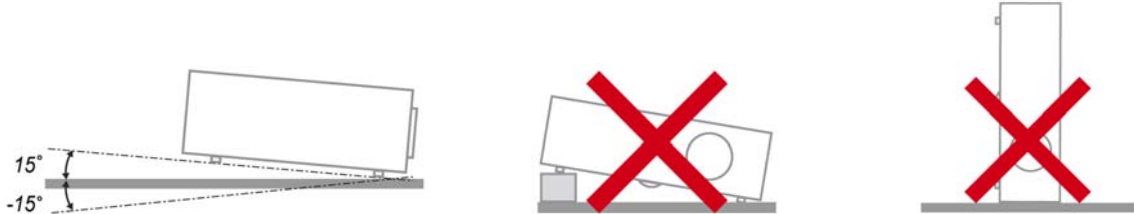
➢ Allow at least 50 cm (19.69 inch) clearance around the exhaust vent.
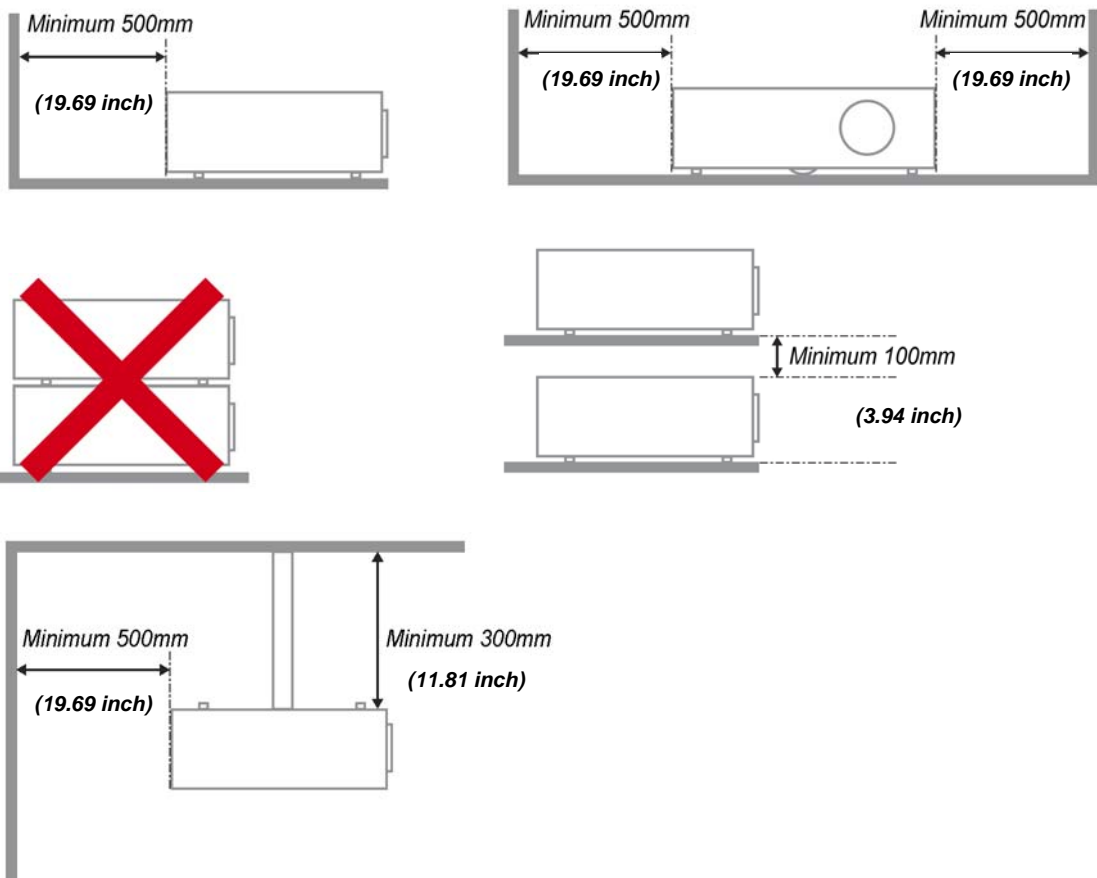
➢ Ensure that the intake vents do not recycle hot air from the exhaust vent.

➢ When operating the projector in an enclosed space, ensure that the surrounding air temperature within the enclosure does not exceed operation temperature 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 with the acceptable operation temperature 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 28 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 31.
- ➢ 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 43.

Important Recycle Instructions:

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 www.eiae.org. For lamp specific disposal information check www.lamperecycle.org.

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.

GS Mark

Associated address:
INFOCUS INTERNATIONAL B.V.
CASABLANCAWEG 14 BLD A4 1047 HP
AMSTERDAM NL

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

Packing Checklist

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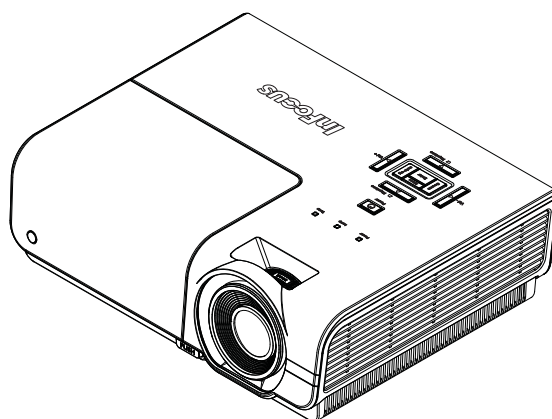
DLP PROJECTOR

REMOTE CONTROL
(BATTERIES NOT INCLUDED)

CD-ROM
(THIS USER'S MANUAL)
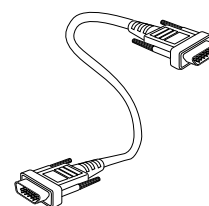
VGA CABLE
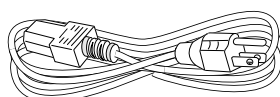
POWER CORD
(VARIES PER COUNTRY)

SAFETY & WARRANTY BOOKLET

QUICK START GUIDE

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.

Caution:
Avoid using the projector in dusty environments.

Views of Projector Parts

Front-right View
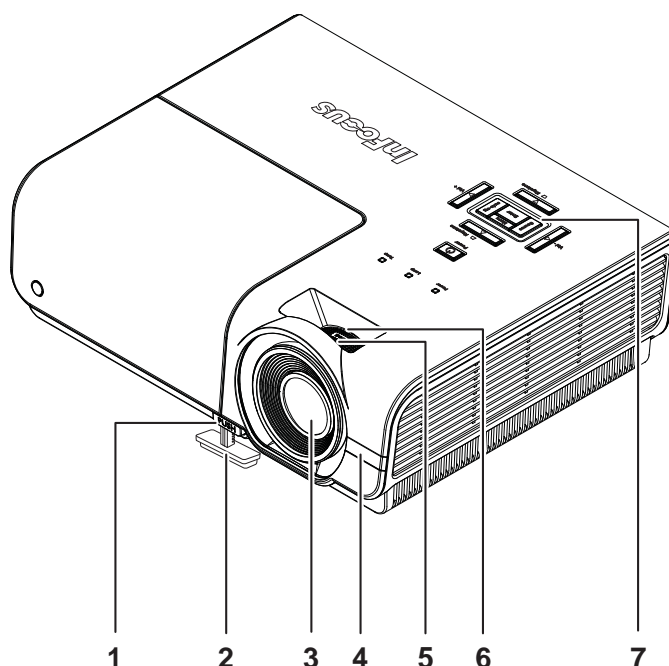
ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	Elevator button	Push to release elevator foot	*10*
2.	Elevator foot	Adjusts level of projector	
3.	Lens	Projection Lens	
4.	IR receiver	Receives the remote control IR signal	*6*
5.	Focus ring	Focuses the projected image	*11*
6.	Zoom ring	Enlarges the projected image	
7.	Function keys	See Top view—On-screen Display (OSD) buttons and LEDs.	*3*

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.

Top view—On-screen Display (OSD) buttons and LEDs
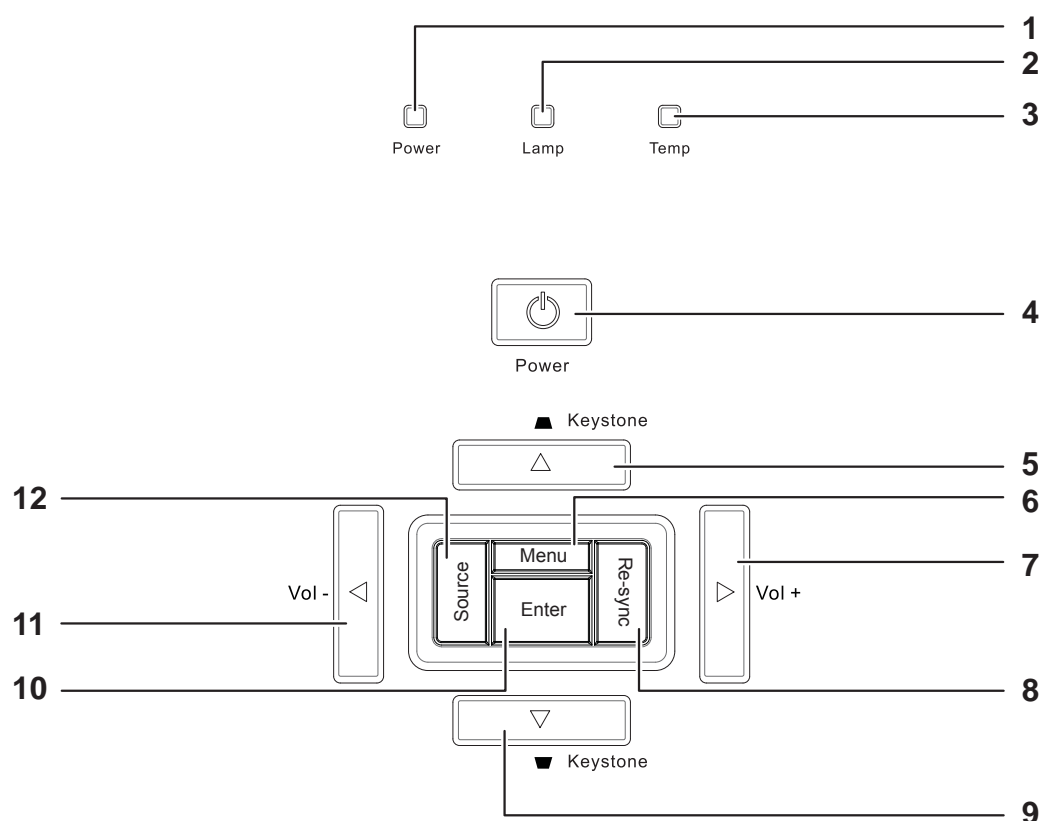
ITEM	LABEL	DESCRIPTION		SEE PAGE:
1.	Power LED	Solid Green	Power On / Standby	
		Off	Power Off (AC Off)	
2.	Lamp LED	Solid Red	The lamp is powered on.	
		Flashing Red	The lamp is warming up or cooling down. (see *LED Error Messages* on page 33)	
3.	Temp LED	Solid Red	Error code (see *LED Error Messages* on page 33)	
4.	⏻ (Power button)	Turn the projector On or Off.		*9*
5.	▲ (Up cursor) / ◢ Keystone	Navigate the OSD Quick Menu – For Keystone		
6.	Menu	Open and exit OSD menus		*13*
7.	► (Right cursor) / Vol+	Navigate and change settings in the OSD Quick Menu – For Volume		
8.	Re-sync	Optimize image size, position, and resolution		
9.	▼ (Down cursor) / ◣ Keystone	Navigate the OSD Quick Menu – For Keystone		
10.	Enter	Enter or confirm highlighted OSD menu item		*13*
11.	◄ (Left cursor) / Vol-	Navigate and change settings in the OSD Quick Menu – For Volume		
12.	Source	Navigate and select sources.		*4*

Rear view
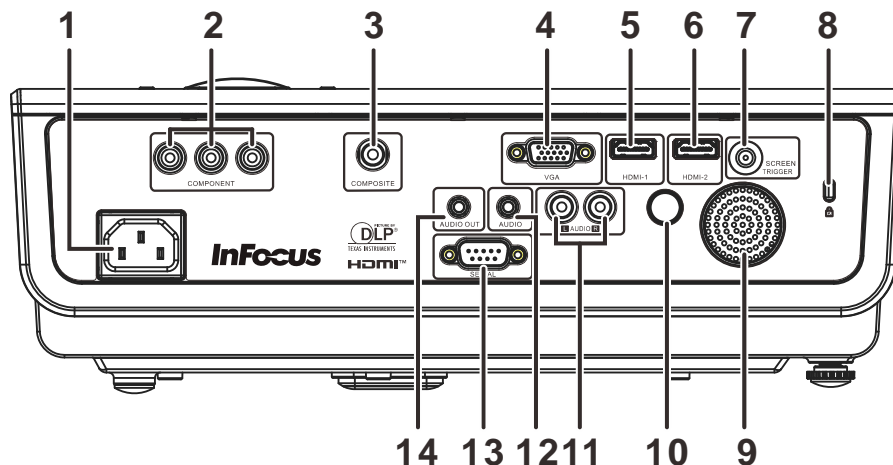
ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	AC IN	Connect the POWER CABLE.	*9*
2.	COMPONENT	Connect the COMPONENT CABLE from a display.	
3.	COMPOSITE	Connect the COMPOSITE CABLE from a video device.	
4.	VGA	Connect the RGB CABLE from a computer.	
5.	HDMI – 1	Connect the HDMI CABLE from an HDMI device.	
6.	HDMI – 2	Connect the HDMI CABLE from an HDMI device.	
7.	DC 12V TRIGGER	Connect a 12V screen trigger (200ma max).	
8.	Security Lock	Secure to permanent object with a security lock system.	
9.	Speaker	Outputs the projector audio.	
10.	IR receiver	Receives the remote control IR signal.	*6*
11.	AUDIO IN (L and R)	Connect the AUDIO CABLE from an input device.	
12.	AUDIO IN	Connect an AUDIO CABLE from an input device.	
13.	RS-232C	Connect RS-232 serial port cable for command control.	
14.	AUDIO OUT	Connect an AUDIO CABLE to external speaker system.	

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
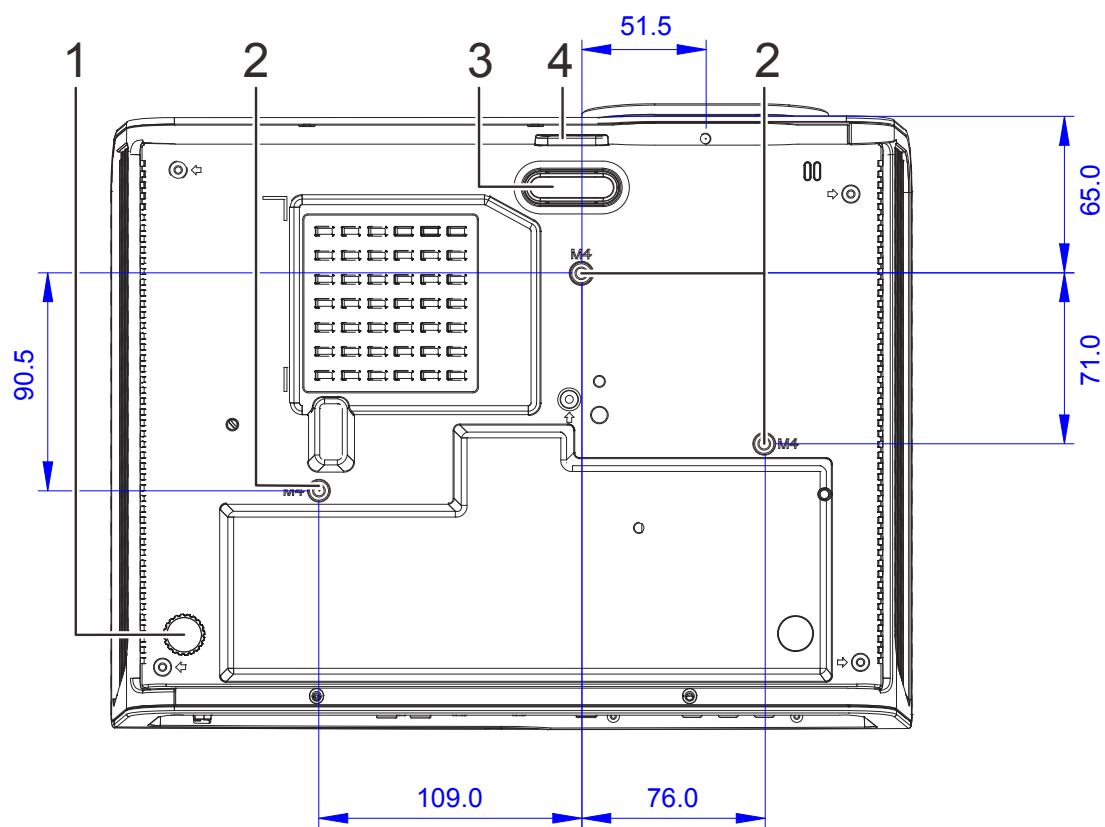
ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	Leveling foot	Rotate leveling foot to adjust angle position.	*10*
2.	Ceiling support holes	Only use with an InFocus ceiling mount system (p/n PRJ-MNT-UNIV). See your InFocus dealer or go to www.infocusstore.com.	
3.	Elevator foot	Elevator foot drops down when elevator button is pushed.	*10*
4.	Elevator button	Push to release elevator foot.	

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 12 mm (0.47inch).
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
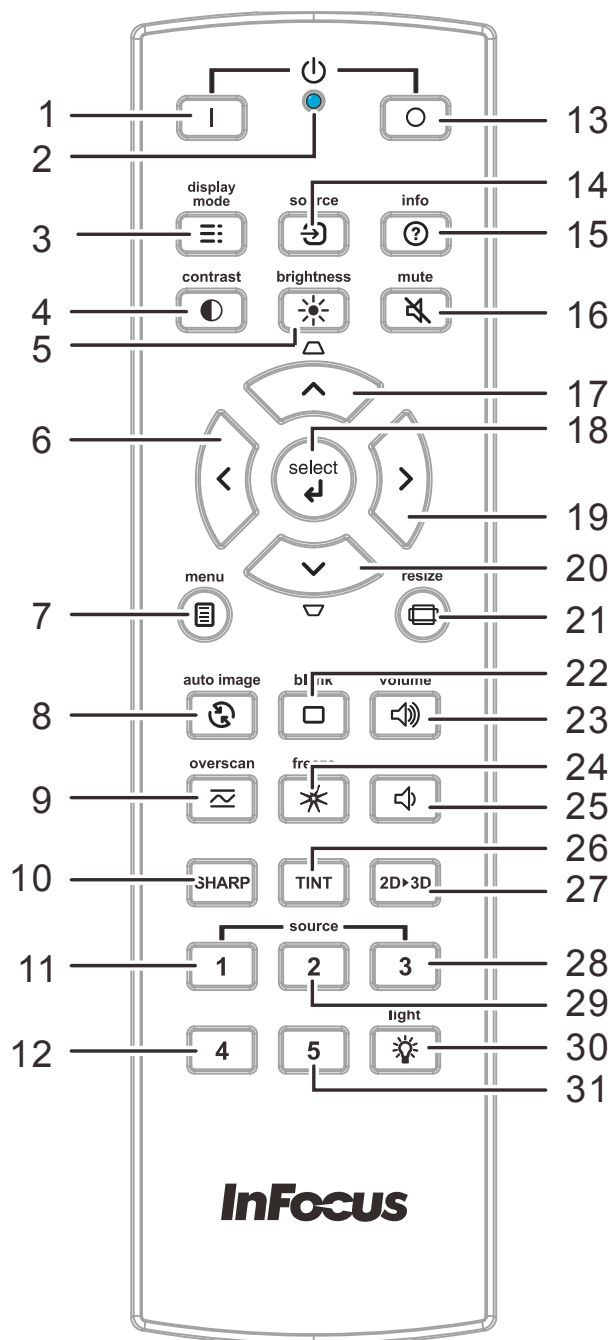
Important:

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.

ITEM	LABEL	DESCRIPTION	SEE PAGE:
1.	Power ON	Turn the projector on.	*9*
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 left keys to adjust.	
6.	Left cursor	When the OSD is displayed, this button navigates to the left.	*13*
7.	Menu	Display the OSD menu.	
8.	Auto image	Re-synchronize the PC image.	
9.	Overscan	Adjust overscan.	
10.	SHARP	Display the Sharpness setting bar and use the right and left keys to adjust the image sharpness levels (video sources only).	
11.	Source-1	HDMI1	
12.	Source-4	Component	
13.	Power OFF	Turn the projector off.	*9*
14.	Source	Navigate and select sources..	
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.	*13*
18.	Select	Enter and confirm settings in the OSD.	
19.	Right cursor	When the OSD is displayed, this button navigates to the right.	
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.	TINT	Display the Tint setting bar and use the right and left keys to adjust the image tint levels (video sources only).	
27.	2Dto3D	Turn On/Off 2D to 3D function (HDMI1 and HDMI2 only).	
28.	Source-3	VGA	
29.	Source-2	HDMI2	
30.	Light	Turn the remote control backlight on or off.	
31.	Source-5	Video	

Inserting the Remote Control Batteries

1. Remove the battery compartment cover by sliding the cover in the direction of the arrow.
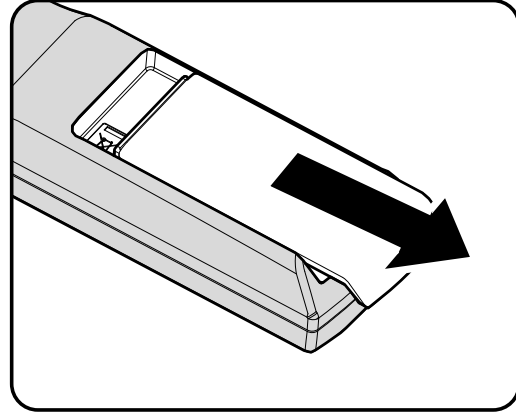
2. Insert the batteries (not included) as shown in the illustration.
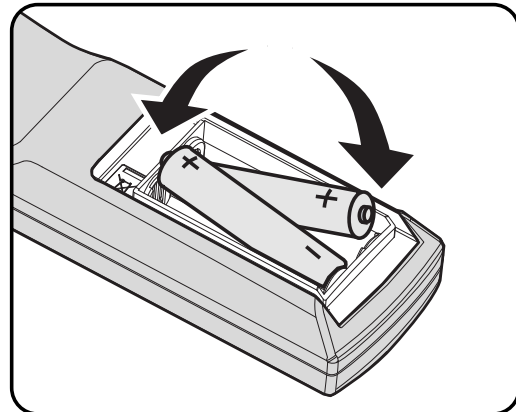
3. Replace the cover.
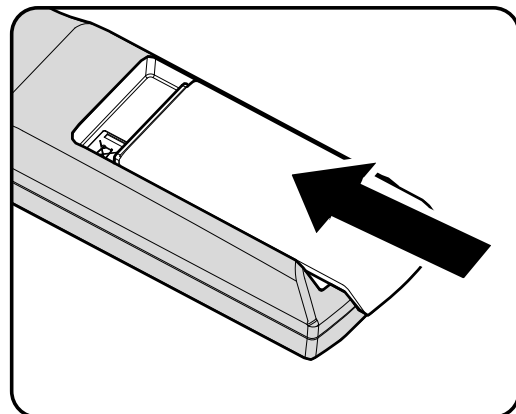
Caution:
1. Only use AA batteries (Alkaline batteries are recommended).

2. Dispose of used batteries according to local ordinance regulations.

3. Remove the batteries when not using the projector for prolonged periods.

Starting and Shutting down the Projector

1. Connect the power cord to the projector. Connect the other end to a wall outlet.
The ⏻ **POWER** LED will be on.
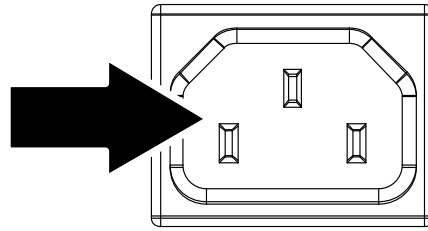
2. Turn on the connected devices.

3. Ensure the ⏻ **POWER** LED displays a solid green. Then press the Power ON button on the projector keypad or remote (⬚).

The projector splash screen displays and connected devices are detected.

4. If more than one input device is connected, press the **SOURCE** button and use ▲▼ to scroll among devices.

- VGA : Analog RGB

- HDMI 1/2: High Definition Multimedia Interface compatible

- COMPONENT: DVD input YCbCr/ YPbPr, or HDTV input YPbPr

- Video: Traditional composite video

5. To turn the projector off, press the Power OFF button (⬚). on the projector keypad or remote. When the POWER OFF window appears, press the Power OFF button (⬚) again.

The projector turns off.

POWER OFF

Press ⏻ button again to power off.

Press any other button to cancel.
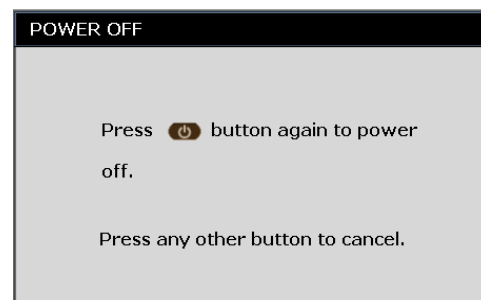
Caution:
Do not unplug the power cord until the LAMP LED stops flashing–indicating the projector has cooled down.

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 spacer on the rear leveling foot before adjusting the projection angle.*
- *Ensure the cables are in a safe location. You could trip over them.*
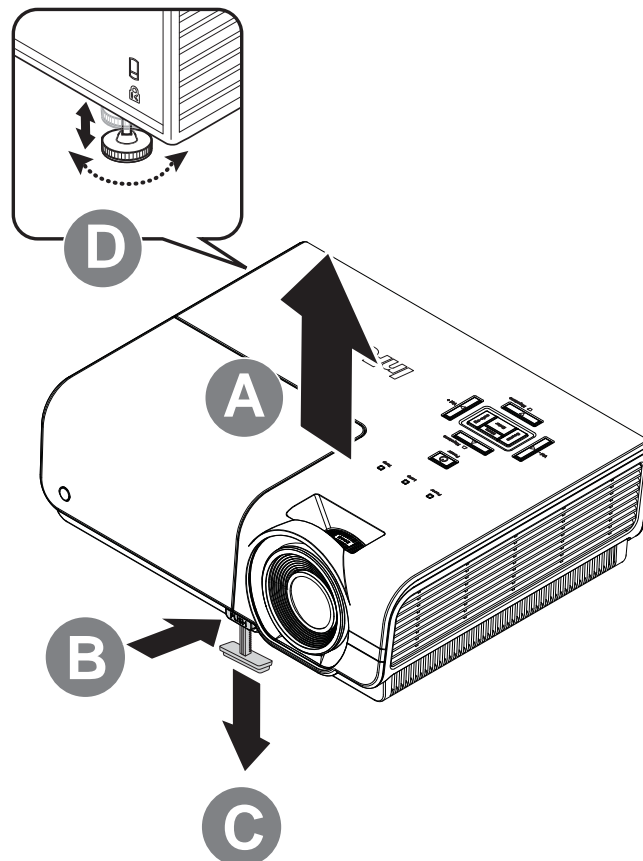
1. To raise the level of the projector, lift the projector **[A]** and press the elevator button **[B]**.

The elevator foot drops down **[C]**.

2. To lower the level of the projector, press the elevator button and push down on the top of the projector.

3. To adjust the angle of the picture, turn the leveling foot **[D]** right or left until the desired angle has been achieved.

Adjusting the Zoom ring, Focus and Keystone

1. Use the **Zoom** control (on the projector only) to resize the projected image and screen size Ⓑ.

2. Use the **Focus** control (on the projector only) to sharpen the projected image Ⓐ.
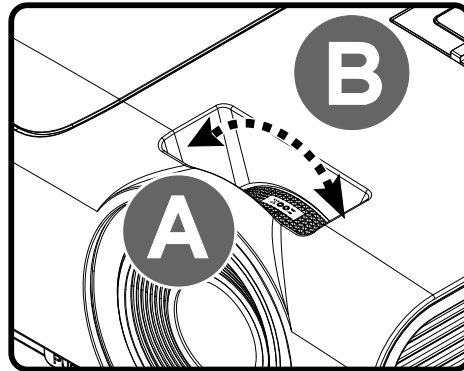
3. Use the **KEYSTONE** buttons (on the projector or the remote control) to correct image trapezoiding (wider top or bottom).

Remote control and OSD panel
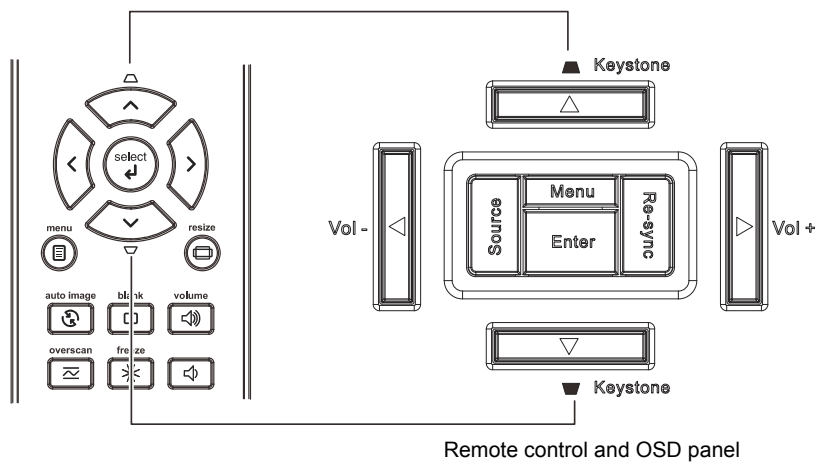
4. The keystone control appears on the display.

Keystone   0

Adjusting the Volume

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

The volume control appears on the display.
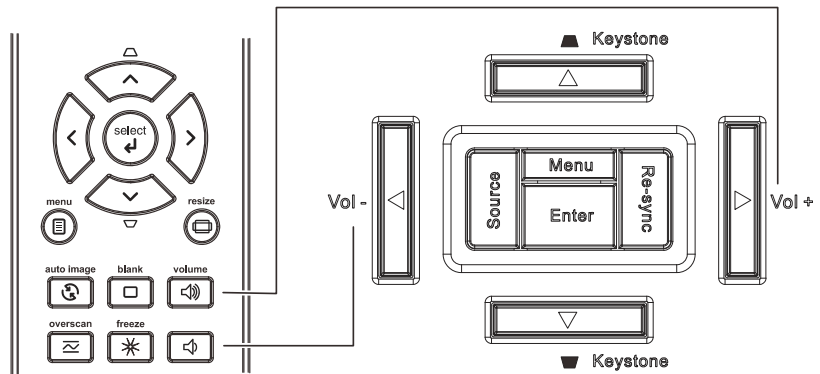
2. Use the **Vol +/-** buttons (on the projector or the remote control).

Volume	5	
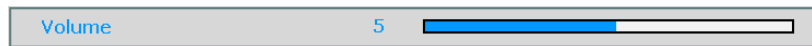
3. Press the **MUTE** button to turn off the audio (This feature is available only on the remote).

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.

2. There are six menus. Press the cursor ◄► button to move through the menus.

3. Press the cursor ▲▼ button to move up and down in a menu.

4. Press ◄► to change values for settings.

5. Press **MENU** to close the OSD or leave a sub menu.

PICTURE >> Basic	
Display Mode	User 2
User Mode	Normal
Brightness	50
Contrast	50
Color	50
Tint	50
Sharpness	0
Flesh Tone	0
Save Setting	
Reset Picture Settings	
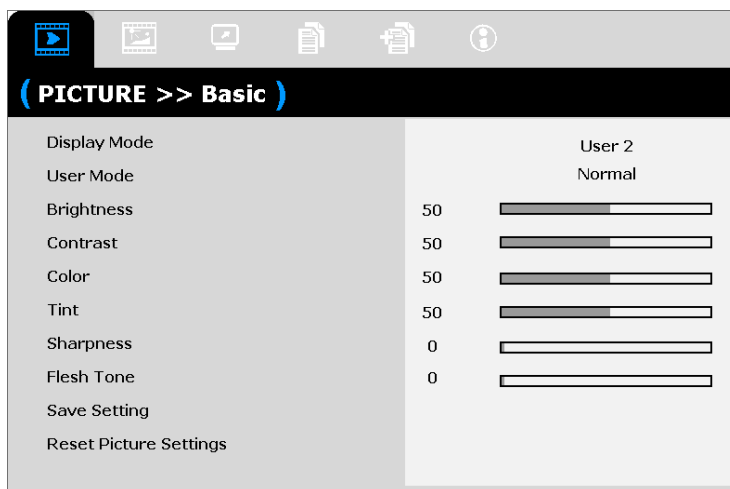
> *Note:*
> *Depending on the video source, not all items in the OSD are available. For example, the **PC Detail Adjustment** item in the PICTURE>>Basic menu can only be modified when connected to a PC. Items that are not available cannot be accessed and are grayed out.*

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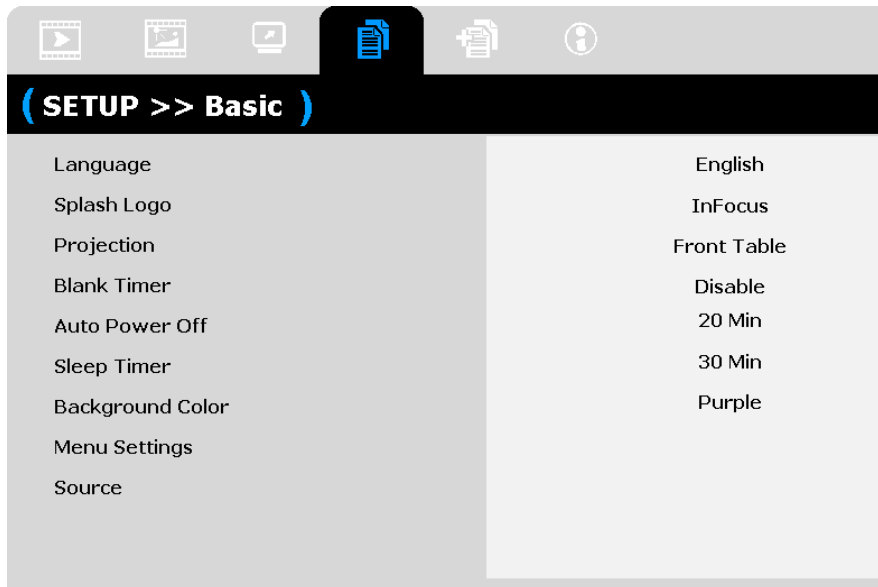
2. Press the cursor ▲▼ button until **Language** is highlighted.
3. Press the cursor ◄► button until the language you want is selected.
4. Press the **MENU** button to close the OSD.

OSD Menu Overview

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

PICTURE>> Basic

Display Mode	Movie/Bright/Normal/User 1/User 2/User 3/ISF Day/ISF Night	
User Mode	Movie/Bright/Normal	
Brightness		
Contrast		
Color		
Tint		
Sharpness		
Flesh Tone		
Save Setting	Enter	Setting Saved
Reset Picture Setting	Enter	Yes/No

PICTURE>> Advanced

Noise Reduction	
Color Temperature	Lamp Native/Warm/Normal/Cool/Cooler/High Cool
Gamma	
HSG Adjustment	
Color Space	Auto/RGB/STDV/HDTV

PICTURE>> Advanced|HSG Adjustment

Primary Color	R/G/B/Y/C/M
Hue	
Saturation	
Gain	

DISPLAY

Aspect Ratio	Auto/16:9/4:3/Letter Box/Real	
Keystone		
Overscan	Overscan	
PC Detail Adjustment	Auto/Frequency/Phase/Horizontal Position/Vertical Position	
3D Settings	3D Mode/2D to 3D mode/3D Type/Sync Invert/2D to 3D Deep/2D to 3D Curve/Side-by-Side/Top-and-Bottom	

SETUP >> Basic

Language	English/ Français/ Deutsch/ Español/ Português/ 简体中文/ 繁體中文/ Italiano/ Norsk/ Dansk/ Svenska/ Nederlands/ Русский/ 한국어/ Bahasa Indonesian/ فارسی/العربية/Türkçe/Việt		
Splash Logo	InFocus/Blue/Black		
Projection	Front Table/Front Ceiling/Rear Table/Rear Ceiling		
Blank Timer	Disable / 5 Min / 10 Min / 15 Min / 20 Min / 25 Min / 30 Min		
Auto Power Off	Disable / 5 Min / 10 Min / 15 Min / 20 Min / 25 Min / 30 Min		
Sleep Timer	Disable / 30 Min / 1 Hr / 2 Hr / 3 Hr / 4Hr / 8Hr / 12 Hr		
Background Color	Purple/Black/Blue		
Menu Settings	Menu position	Top-Left/Top-Right/Center/Bottom-Left/Bottom-Right	
	Menu Display Time	5 Sec / 10 Sec / 15 Sec / 20 Sec / 25 Sec / 30 Sec	
Source	VGA	check/uncheck	
	HDMI 1	check/uncheck	
	HDMI 2	check/uncheck	
	Component	check/uncheck	
	Video	check/uncheck	
	Quick Auto Search	On	
		Off	

SETUP >> Advanced

Audio	Volume	
	Treble	
	Bass	
	Mute	On /Off
	AGC	On /Off
	Reset	Yes/No
Lamp	Lamp Mode	Boost/Standard
	Reset Lamp Timer	Yes/No
	Lamp Hour	
High Altitude Mode	Off/ On	Yes/No
Test Pattern	Off/ On	
Closed Caption	Closed Caption Enable	Off
	Caption Version	CC1/CC2/CC3/CC4
LED Control	Off/ Normal	
Presentation Timer	Timer	On/Off
	Timer Period	
	Timer Reset	ENTER
Reset All	Enter	Reset / Cancel

STATUS

Display Mode
Aspect
Source
Resolution
Lamp Hour
Firmware Version

ISF

ISF Mode	Off/Lock/Unlock

– 15 –

PICTURE>>Basic Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **PICTURE>>Basic** menu. Press the cursor ▲▼ button to move up and down in the **PICTURE>>Basic** menu. Press ◄► to change values for settings.

> **Note:**
> *Customizing the settings in PICTURE>>Basic menu is only available in User 1/ 2/ 3 mode.*

```
┌──────────────────────────────────────────────────────────┐
│  ▶   🖼   🖥   📄   📑   ⓘ                                   │
│                                                            │
│ ( PICTURE >> Basic )                                       │
│                                                            │
│   Display Mode                        User 2               │
│   User Mode                           Normal               │
│   Brightness                   50   [▓▓▓▓▓░░░]             │
│   Contrast                     50   [▓▓▓▓▓░░░]             │
│   Color                        50   [▓▓▓▓▓░░░]             │
│   Tint                         50   [▓▓▓▓▓░░░]             │
│   Sharpness                     0   [░░░░░░░░]             │
│   Flesh Tone                    0   [░░░░░░░░]             │
│   Save Setting                                             │
│   Reset Picture Settings                                   │
└──────────────────────────────────────────────────────────┘
```

ITEM	DESCRIPTION
Display Mode	Press the cursor ◄► buttons to set the Display Mode. (Range: Movie/ Bright/ Normal/ User 1/ User 2/ User 3)
User Mode	Press the cursor ◄► buttons to set the User Mode. Note: Only available when User 1/2/3 is selected. (Range: Movie/ Bright / Normal**)**
Brightness	Press the cursor ◄► buttons to adjust the display brightness.
Contrast	Press the cursor ◄► buttons to adjust the display contrast.
Color	Press the cursor ◄► buttons to adjust the video saturation. **Notes:** This function is only available when Component or Video input source is selected.
Tint	Press the cursor ◄► buttons to adjust the video tint/hue. **Notes:** This function is only available when Component or Video with NTSC system input source is selected.
Sharpness	Press the cursor ◄► buttons to adjust the display sharpness. **Notes:** This function is only available when Video or S-Video input source is selected.
Flesh Tone	Press the cursor ◄► buttons to adjust the display flesh tone. **Notes:** This function is only available when Video or S-Video input source is selected.
Save Settings	Press the **ENTER** button to save all settings. **Notes:** Only available when User 1/2/3 is selected.
Reset Picture Settings	Press the **ENTER/SELECT** button to reset all settings to default values.

PICTURE>>Advanced Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **PICTURE>>Advanced** menu. Press the cursor ▲▼ button to move up and down in the **PICTURE>>Advanced** menu. Press ◄► to change values for settings.
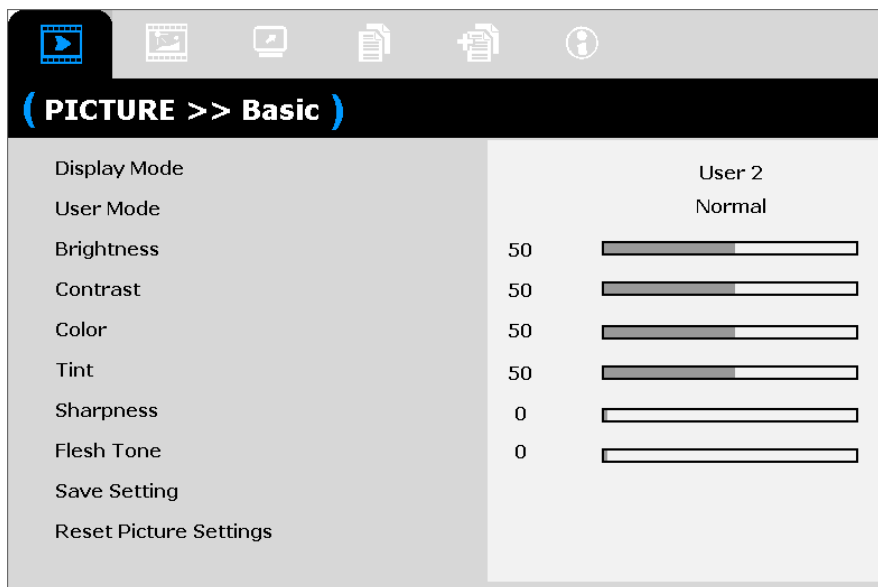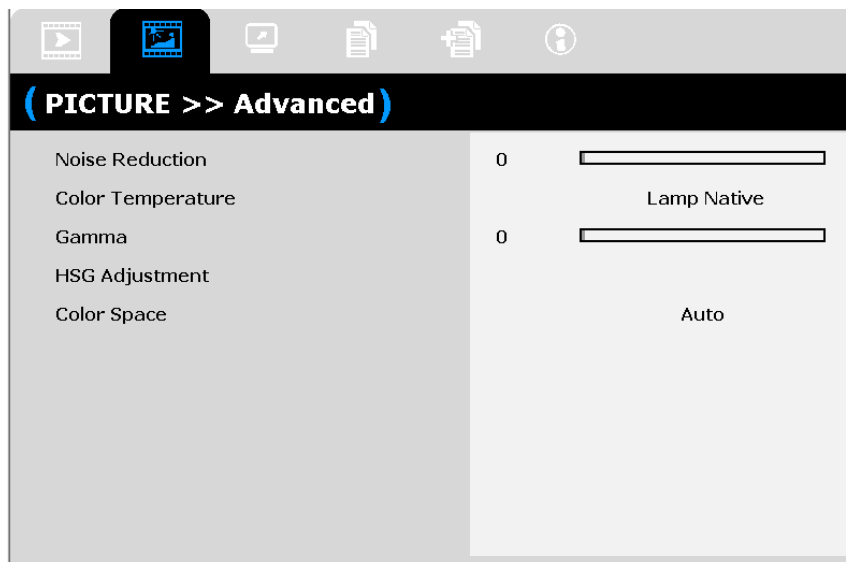
PICTURE >> Advanced	
Noise Reduction	0
Color Temperature	Lamp Native
Gamma	0
HSG Adjustment	
Color Space	Auto

ITEM	DESCRIPTION
Noise Reduction	Press the cursor ◄► button to adjust the Noise Reduction.
Color Temperature	Press the cursor ◄► button to set the Color Temperature.
Gamma	Press the cursor ◄► button to adjust the gamma correction of the display. **Notes:** This function is only available in User 1/ 2/ 3 mode.
HSG Adjustment	Press the **ENTER/SELECT** button to enter the **HSG** (Hue/Saturation/Gain) **Adjustment** sub menu. See *HSG Adjustment* on page 18.
Color Space	Press the cursor ◄► button to set the Color Space. (Range: **Auto**/ RGB/ SDTV/ HDTV) **Notes:** This function is only available when HDMI input source is selected.

HSG Adjustment

Press the **ENTER/SELECT** button to enter the **HSG Adjustment** sub menu.

```
HSG Adjustment

  Primary Color                          R
  Hue                         0    [====    ]
  Saturation                100    [====    ]
  Gain                      100    [====    ]
```
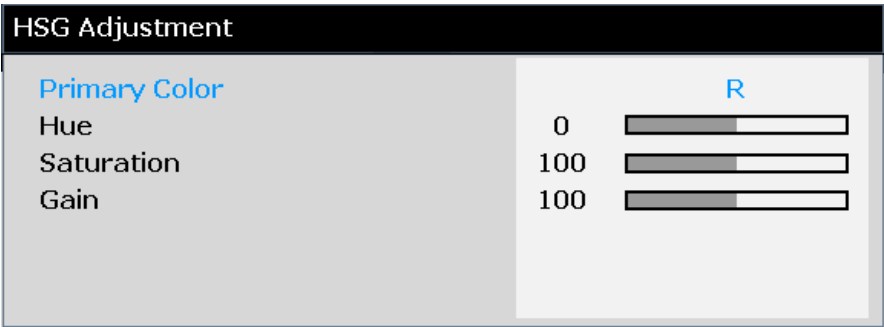
ITEM	DESCRIPTION
Primary Color	Press the ◄► buttons to set the Primary Color. **Notes:** There are six colors (**R**/ G/ B/ C/ M/ Y) to be customized.
Hue	Press the ◄► buttons to adjust the Hue.
Saturation	Press the ◄► buttons to adjust the Saturation.
Gain	Press the ◄► buttons to adjust the Gain.

DISPLAY Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **DISPLAY** menu. Press the cursor ▲▼ button to move up and down in the **DISPLAY** menu. Press ◄► to change values for settings.

（ DISPLAY ）	
Aspect Ratio	Auto
Keystone	0
Overscan	0
PC Detail Adjustment	
3D Settings	
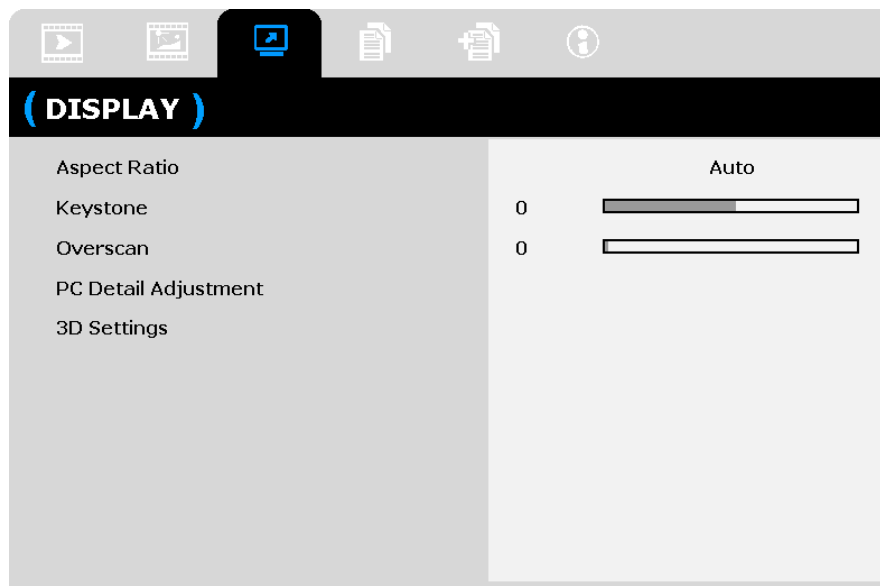
ITEM	DESCRIPTION
Aspect Ratio	Press the cursor ◄► button to set the Aspect Ratio. (Range: **Auto**/ 16:9/ 4:3/ Letter Box/ Real)
Keystone	Press the cursor ◄► button to adjust the Keystone.
Overscan	Press the cursor ◄► button to adjust the Overscan.
PC Detail Adjustment	Press the **ENTER/SELECT** button to enter the **PC Detail Adjustment** sub menu. See *PC Detail Adjustment* on page 20.
3D Settings	Press the **ENTER/SELECT** button to enter the **3D Settings** sub menu. See *3D Settings* on page 21.

PC Detail Adjustment

Press the **ENTER/SELECT** button to enter the **PC Detail Adjustment** sub menu.

> ***Note:***
> *Customizing the settings in **PC Detail Adjustment** menu is only available when PC input source (analog RGB) is selected.*

PC Detail Adjustment		
Auto		ENTER
Frequency	0	
Phase	32	
Horizontal Position	0	
Vertical Position	0	

ITEM	DESCRIPTION
Auto	Press the **RE-SYNC** button on the projector keypad or the **AUTO IMAGE** button on the remote control to automatically adjust frequency, phase, and position.
Frequency	Press the ◄► buttons to adjust the A/D sampling number.
Phase	Press the ◄► buttons to adjust the A/D sampling clock.
Horizontal Position	Press the ◄► buttons to adjust the display position right or left.
Vertical Position	Press the ◄► buttons to adjust the display position up or down.

3D Settings

```
                    3D Settings

3D Mode                          Off
2D to 3D Mode                    Off
3D Type                          Off
Sync Invert                      Off
2D to 3D Deep                Inward 1
2D to 3D Curve                   Off
Side-by-Side                     Off
Top-and-Bottom                   Off
```

ITEM	DESCRIPTION
3D mode	Press the cursor ◄► button to to enable or disable 3D Mode.
2D to 3D mode	Press the cursor ◄► button to enable or disable 2D to 3D mode.
3D Type	Press the cursor ◄► button to select 96Hz or 120Hz when a 1080p 24Hz "Frame Packing" 3D format is used.
Sync Invert	Press the cursor ◄► button to enable or disable sync invert. If the image appears to flutter, look odd or if the image depth looks off or you experience eye strain, turn this feature on to see if the image improves.
2D to 3D Deep	Press the cursor ◄► button to adjust the depth of the 3D effect. The positive and negative 3D Z-axis can be adjusted.
2D to 3D Curve	Press the cursor ◄► button to adjust the 3D curve. Selecting different curve options affects the relative curve (or flatness) of the displayed 3D image.
Side-by-Side	Press the cursor ◄► button to enable or disable 2D Side-by-Side image conversion. This feature converts 2D images with Side-by-Side formatting into 3D.
Top-and-Bottom	Press the cursor ◄► button to enable or disable 2D Top-and-Bottom image conversion. This feature converts 2D images with Top-and-Bottom formatting into 3D.

Note:

1. By default, when a 3D compatible source is not detected, the 3D submenu items are unavailable.

2. In addition to the projector, you will need a pair of 3D shutter glasses, 3D content, and 3D compatible source (and emitter). Ensure the glasses you choose are consistent with the synchronization mode you will be using.

3. Different types of glasses (DLP Link and IR shutter glasses) have their own configuration process. Follow the manufacturer's documentation to set the glasses up correctly.

SETUP>>Basic Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **SETUP>>Basic** menu. Press the cursor ▲▼ button to move up and down in the **SETUP>>Basic** menu. Press ◄► to change values for settings.
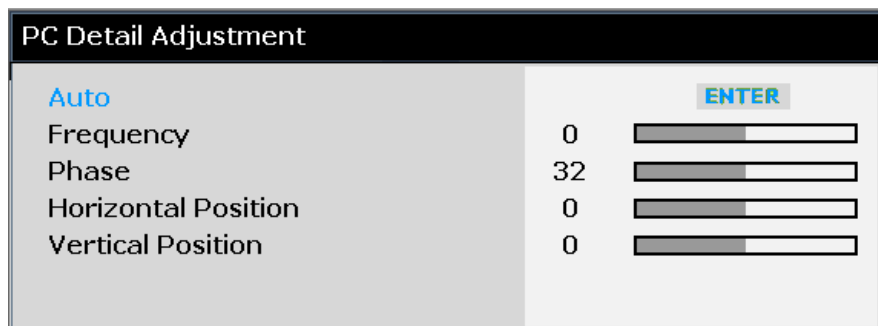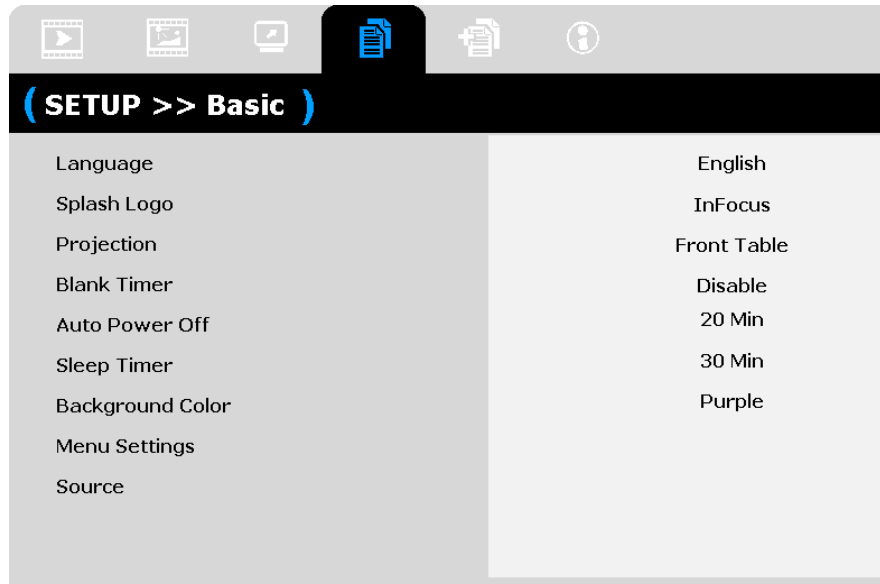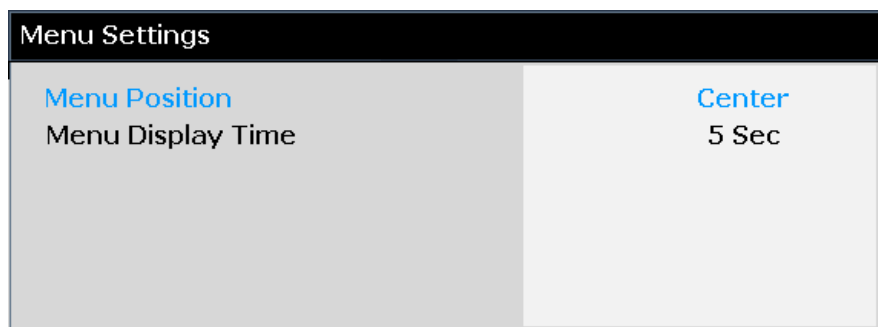
ITEM	DESCRIPTION
Language	Press the cursor ◄► buttons to select a different localization menu. (Range: English/ Français/ Deutsch/ Español/ Português/ 簡体中文/ 繁體中文/ Italiano/ Norsk/ Dansk/ Svenska/ Nederlands/ Русский/ 한국어/ Bahasa Indonesian/ العربية/ Türkçe/ Việt/ فارسی)
Splash Logo	Press the cursor ◄► buttons to select a different startup screen. (Range: **InFocus**/ Blue/ Black)
Projection	Press the cursor ◄► buttons to choose from four projection methods: **Front Table**/ Front Ceiling/ Rear Table/ Rear Ceiling.
Blank Timer	Press the cursor ◄► buttons to set the Blank Screen timer. The projected image is automatically restored after the set time. (Range: **Disable**/ 5 min/ 10 min/ 15 min/ 20 min/ 25 min/ 30 min)
Auto Power Off	Press the cursor ◄► buttons to set the Auto Power Off timer. The projector automatically turns off if no input source is detected after the preset period of time. (Range: **Disable**/ 5 min/ 10 min/ 15 min/ 20 min/ 25 min/ 30 min)
Sleep Timer	Press the cursor ◄► buttons to set Sleep timer. The projector automatically turns off after the preset period of time. (Range: **Disable**/ 30 min/ 1hr/ 2hr/ 3hr/ 4hr/ 8hr/ 12hr)
Background Color	Press the cursor ◄► buttons to select the background color when no input source is detected. (Range: Purple/ Black/ Blue)
Menu Settings	Press the **ENTER/SELECT** button to enter the **Menu Settings** sub menu. See *Menu Settings* on page 23.
Source	Press the **ENTER/SELECT** button to enter the **Source** sub menu. See *Source* on page 23.

Menu Settings

Press the **ENTER/SELECT** button to enter the **Menu Settings** sub menu.

Menu Settings	
Menu Position	Center
Menu Display Time	5 Sec

ITEM	DESCRIPTION
Menu Position	Press the ◄► buttons to select from five OSD locations: Top-Left/ Top-Right/ **Center**/ Bottom-Left/ Bottom-Right.
Menu Display Time	Press the ◄► buttons to set the Menu Display timer before the OSD times out. (Range: 5sec/ 10sec/ **15sec**/ 20sec/ 25sec/ 30sec)

Source

Press the **ENTER/SELECT** button to enter the **Source** sub menu.

Source	
VGA	✓
HDMI 1	✓
HDMI 2	✓
Component	✓
Video	✓
Quick Auto Search	Off
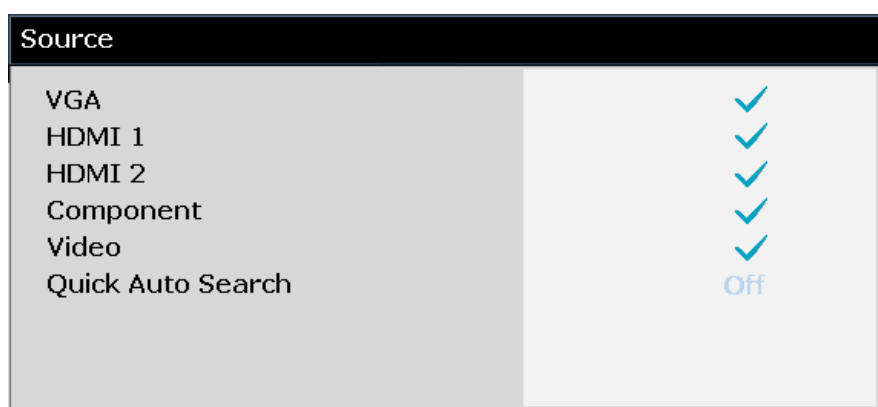
ITEM	DESCRIPTION
VGA	Press the ◄► buttons to enable or disable the VGA source.
HDMI 1	Press the ◄► buttons to enable or disable the HDMI source.
HDMI 2	
Component	Press the ◄► buttons to enable or disable the Component source.
Video	Press the ◄► buttons to enable or disable the Video source.
Quick Auto Search	Press the ◄► buttons to enable or disable Quick Auto Search for available input source. **Notes:** When the desired source is selected, the Quick Auto Search function will be turned off.

SETUP>>Advanced Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **SETUP>>Advanced** menu. Press the cursor ▲▼ button to move up and down in the **SETUP>>Advanced** menu.

SETUP >> Advanced	
Audio	
Lamp	
High Altitude Mode	Off
Test Pattern	Off
Closed Caption	
LED Control	Normal
Presentation Timer	
Reset All	
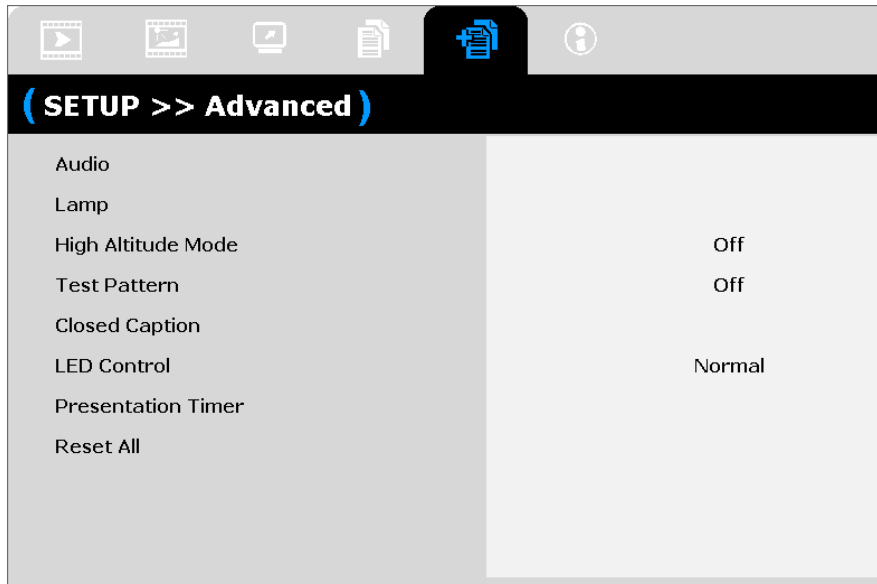
ITEM	DESCRIPTION
Audio	Press the **ENTER/SELECT** button to enter the **Audio** sub menu. See *Audio* on page 25.
Lamp	Press the **ENTER/SELECT** button to enter the **Lamp** sub menu. See *Lamp* on page 25.
High Altitude Mode	Press the cursor ◄► buttons to turn on or off High Altitude Mode. Recommended to turn on when the altitude of the environment is higher than 1500m (4921ft).
Test Pattern	Press the cursor ◄► buttons to turn on or off the grid test pattern.
Closed Caption	Press the **ENTER/SELECT** button to enter the **Closed Caption** sub menu. See *Closed Caption* on page 26.
LED Control	Press the cursor ◄► buttons to turn the projector LED indicators on (Normal) and off (Off).
Presentation Timer	Press ↵ (**ENTER/SELECT**) / ► to the Presentation Timer menu. See *Presentation Timer* on page 26.
Reset All	Press the **ENTER/SELECT** button to enter reset all settings to default values.

Audio

Press the **ENTER/SELECT** button to enter the **Audio** sub menu.
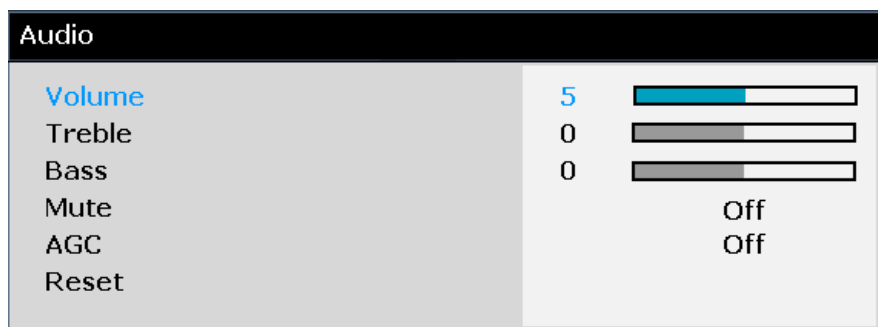
ITEM	DESCRIPTION
Volume	Press the ◄► buttons to adjust the audio Volume.
Treble	Press the ◄► buttons to adjust the audio Treble.
Bass	Press the ◄► buttons to adjust the audio Bass.
Mute	Press the ◄► buttons to turn on or off the internal and external speakers.
AGC	Press the ◄► buttons to turn on or off the Automatic Gain Control setting.
Reset	Press the **ENTER/SELECT** button to reset all settings to default values.

Lamp

Press the **ENTER/SELECT** button to enter the **Lamp** sub menu.
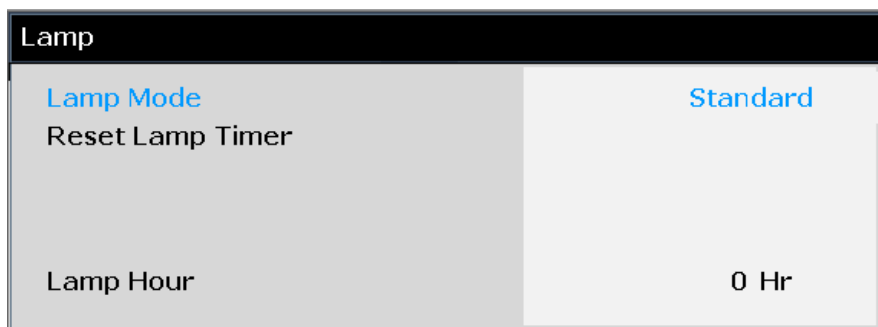
ITEM	DESCRIPTION
Lamp Mode	Press the ◄► buttons to adjust lamp brightness.
Reset Lamp Timer	Press the **ENTER/SELECT** button to reset the Lamp Hour after the lamp is replaced.
Lamp Hour	Displays the number of hours the lamp has been in use.

Closed Caption

Press the **ENTER/SELECT** button to enter the **Closed Caption** sub menu.

Closed Caption

| Closed Caption Enable | Off |
| Caption Version | CC1 |
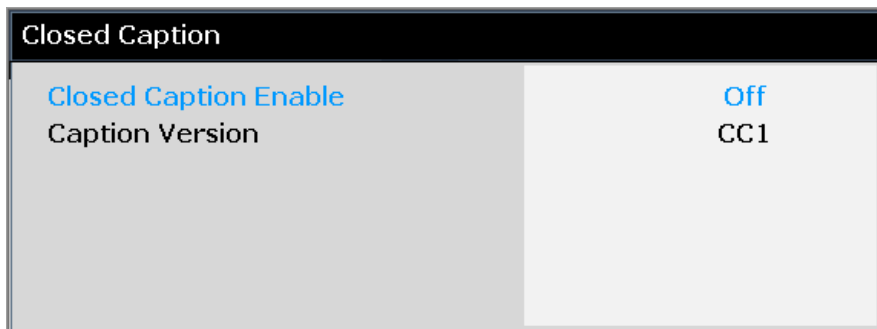
ITEM	DESCRIPTION
Closed Caption En-able	Press the ◄► buttons to turn on or off Closed Caption.
Caption Version	Press the ◄► buttons to select the Caption Version.

Presentation Timer

The Presentation Timer function can indicate the presentation time on the screen to help you achieve better time management when giving presentations.

Presentation Timer

Timer	Off
Timer Period	10
Timer Reset	
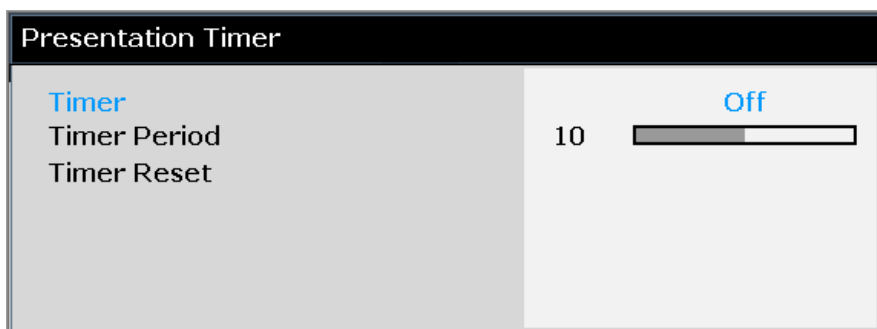
ITEM	DESCRIPTION
Timer	Press the cursor ◄► button to enable or disable presentation timer.
Timer Period	Press the cursor ◄► button to select timer period (1 ~ 60 minutes)
Timer Reset	Press ↵ (**ENTER/SELECT**) / ► to reset the timer settings.

STATUS Menu

Press the **MENU** button to open the **OSD** menu. Press the cursor ◄► button to move to the **STATUS Menu**.

STATUS	
Display Mode	Normal
Aspect	16:9
Source	VGA
Resolution	1280 x 1024 75Hz
Lamp Hour	0 Hr
Firmware Version	PWD01
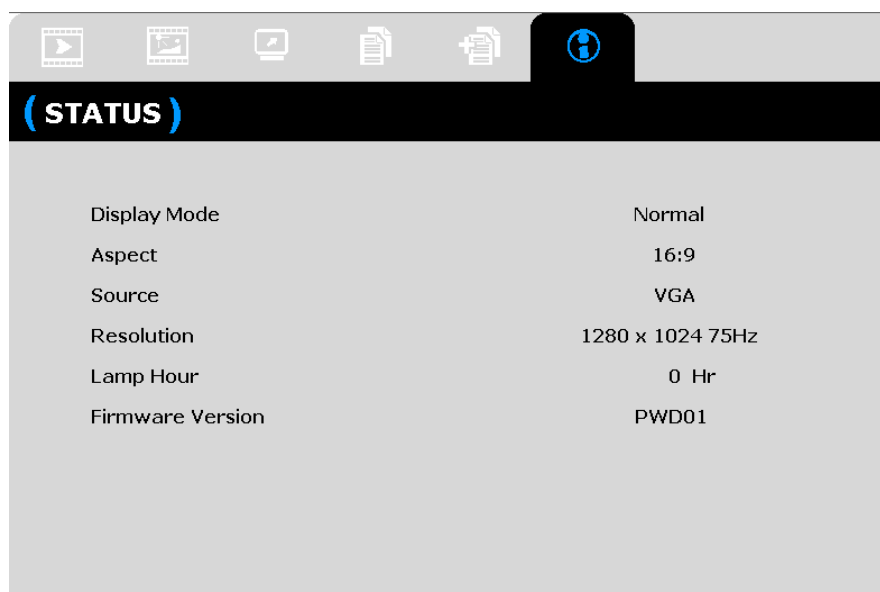
ITEM	DESCRIPTION
Display Mode	Displays the current display mode.
Aspect	Displays the current aspect ratio setting.
Source	Displays the activated input source.
Resolution	Displays the native resolution of input source.
Lamp Hour	Displays the number of hours the lamp has been in use.
Firmware Version	Displays the firmware version of the projector.

Note:
Status displayed in this menu is for viewing only and cannot be edited.

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 de-signed 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 InFo-cus 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"*

• *To avoid burns, allow the projector to cool for at least 60 minutes before you replace the 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 mate-rials. 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 www.lamprecycle.org.*
• *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.*

---

1. Pry the screw cover out.
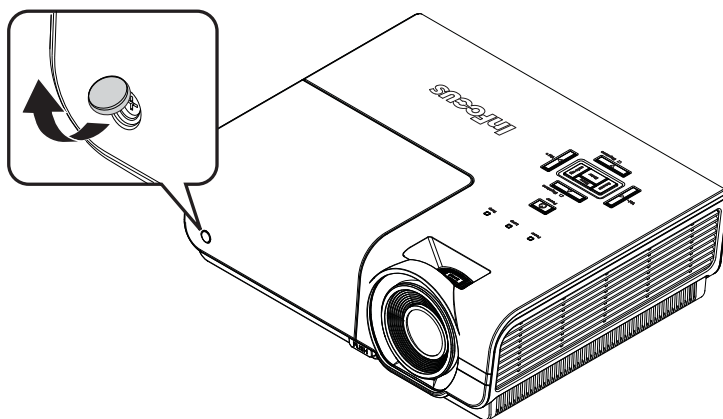
2. Remove the single screw on the lamp compartment cover, using a small Philips screwdriver.
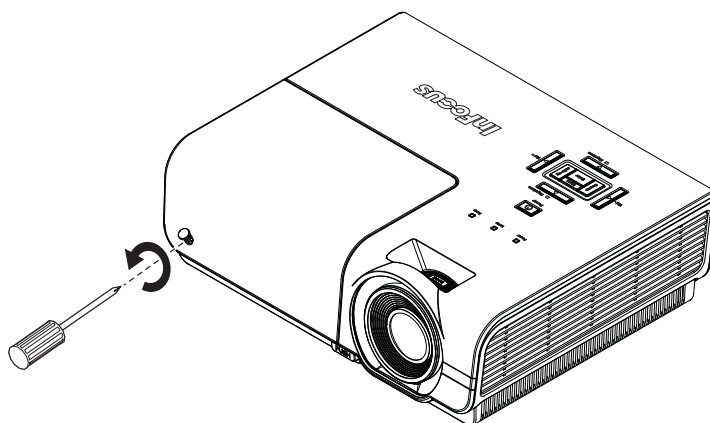
3. Remove the lamp compartment cover.
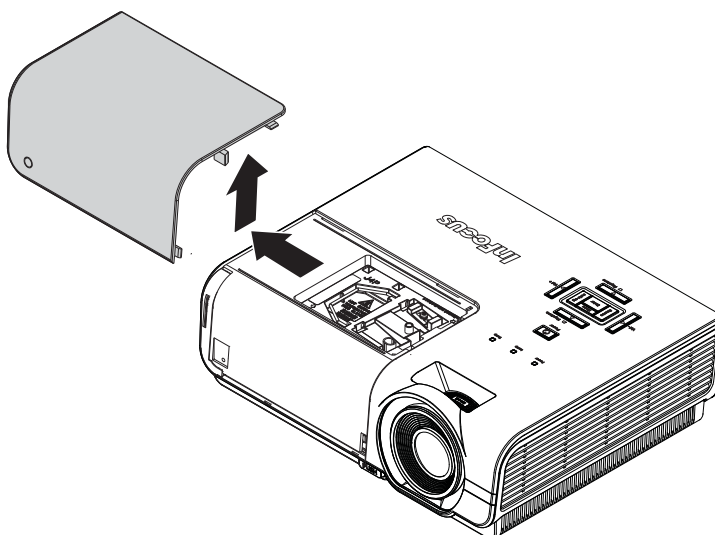
4. Remove the three screws from the lamp module, using a small Philips screwdriver.
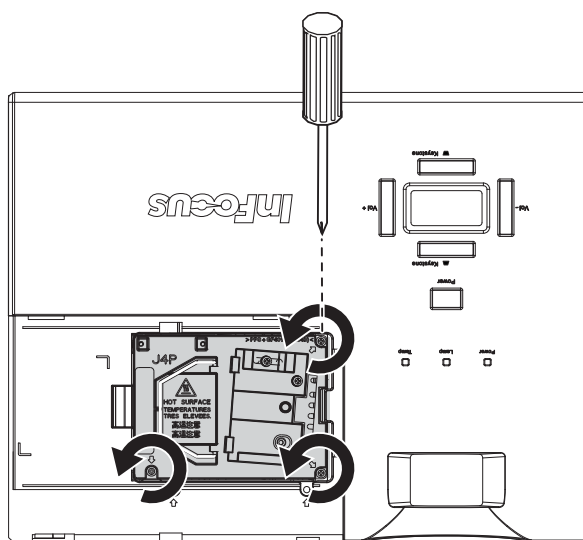
5. Lift the module handle up.

6. Pull firmly on the module handle to remove the lamp module.
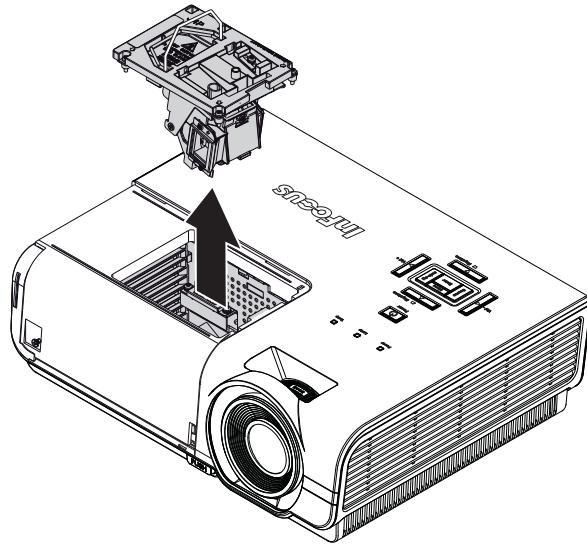
7. Reverse steps 1 to 6 to install the new lamp module. While installing, align the lamp module with the connector and ensure it is level to avoid damage.
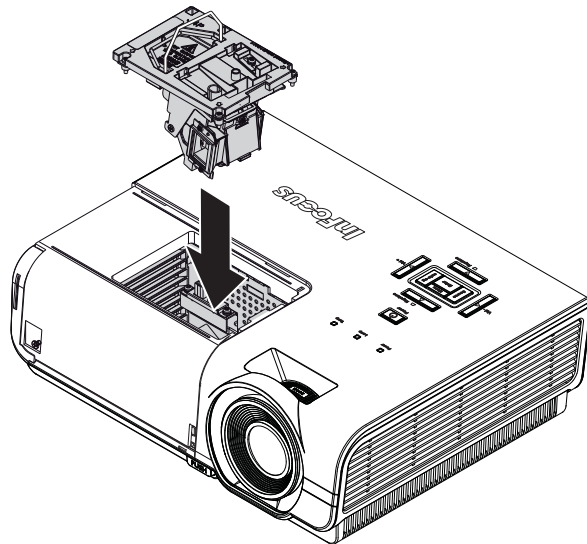
Note: The lamp module must sit securely in place and the lamp connector must be connected properly before tightening the screws.

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

Lamp Reset:
   a) Press the Menu button and select the **SETUP**>>**Advanced** menu.
   b) Highlight "**Lamp**" and press the Enter/Select button to access the Lamp submenu.
   c) Select "**Reset Lamp Timer**" and press Enter/Select.
   d) Highlight "Reset" (it will appear blue) and press Enter/Select to reset the lamp counter to zero.

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.

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 your dealer for assistance.

Often after time spent troubleshooting, the problem is traced to something as simple as a loose connection. Check the following before proceeding to the 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 stand-by 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. Review your computer's user documentation for more information.)

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	POWER LED	LAMP / READY LED	TEMP LED
Powered on	Solid Green	Solid Red	OFF
Powering up	Solid Green	Flashing Red	OFF
Cooling down	Solid Green	Flashing Red	OFF
Over Temperature	OFF	OFF	Solid Red
Thermal Break Sensor error	Flashes Green 7x	OFF	OFF
Lamp error/Color wheel control error	Flashes Green 5x	OFF	OFF
Burner Fan error	Flashes Green 6x	Flashes Green 1x	OFF
Lamp Fan error	Flashes Green 6x	Flashes Green 2x	OFF
Power Fan error	Flashes Green 6x	Flashes Green 3x	OFF
DMD Fan error	Flashes Green 6x	Flashes Green 4x	OFF
Case Open	Flashes Green 7x	OFF	OFF
DMD error/Ignition failed	Flashes Green 8x	OFF	OFF
Color wheel error	Flashes Green 9x	OFF	OFF

In the event of an error, please disconnect the AC power cord and wait for one (1) minute before re-starting the projector. If the POWER or LAMP LEDs are still blinking or the TEMP LED is lit, contact InFocus Technical Support at www.infocus.com/support.

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.
3. 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 or the Re-sync button on the keypad.
3. Ensure the projector-to-screen distance is within the 10-meter (33-feet) specified range.
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** button on the remote control or projector to correct the problem.

Problem: The image is reversed

Check the **Projection** setting on the **Setup >> Basic** menu of the OSD.

Problem: The image is streaked

1. Set the **Frequency** and **Phase** settings on the **Display >> PC Detail Adjustment** 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 **Picture >> Basic** 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 **Picture >> Advanced** 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 Power LED is green.

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. Have the remote control replaced.

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. Test the source audio output with other speakers.
5. 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 www.infocus.com/support. 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.

˙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: http://www.hdmi.org/learningcenter/faq.aspx#49

SPECIFICATIONS

Specifications

Model	SP8600HD3D/IN8601
Display type	TI DLP DMD 0.65"
Native Resolution	1920 x 1080
Projection distance	1 meters ~ 10 meters (3.28 ft ~ 32.8 ft)
Projection screen size	23.5" ~ 300" (59.7cm ~ 762cm)
Projection lens	Manual Focus/Manual Zoom
Zoom ratio	1.2
Vertical keystone correction	+/- 20 degrees
Projection methods	Front, Rear, Desktop/Ceiling (Rear, Front)
Data compatibility	VGA, SVGA, XGA, SXGA, UXGA, WUXGA, Mac
SDTV/ EDTV/ HDTV	480i, 480p,576i, 576p, 720p, 1080i, 1080p
Video compatibility	NTSC 4.43, PAL (M/N/60), SECAM
H-Sync	15K, 31 – 90 KHz
V-Sync	50 – 85 Hz
Safety certification	FCC-B, UL, cUL, CB, CE, CCC, PCT, PSB, SABS, NOM, CECP/ECO, TUV-GS, SASO, KC, UL-s for Argentina and C-TICK
Operation temperature	0° ~ 40°C (32° ~ 104°F)
Dimensions (W x D x H)	332.8 mm x 254.6 mm x 113 mm (13.1" x 10.0" x 4.45")
AC Input	AC Universal 100-240, Typical @ 110VAC (100-240)/$\pm$ 10%
Power consumption	STD mode: 300W / ECO mode: 260W
Stand By	RS232 Control Enabled <0.5 watt (Default)
Lamp	STD mode: 230W / ECO mode: 190W
Audio speaker	AMP 3W speaker
Input Terminals	Digital: HDMI x 2
	Analog: RGB HD-15 x 1
	Composite Video x 1
	Component (YPbPr RCA x 3) x 1
	Audio in: Φ3.5 mm stereo mini jack x 1; RCA x 1 R/L
Output Terminals	Mini-jack stereo x 1
Control Terminals	RS-232: DSUB-9 x 1
	12V Trigger
Security	Security cable lock slot

Projection Distance vs. Projection Size
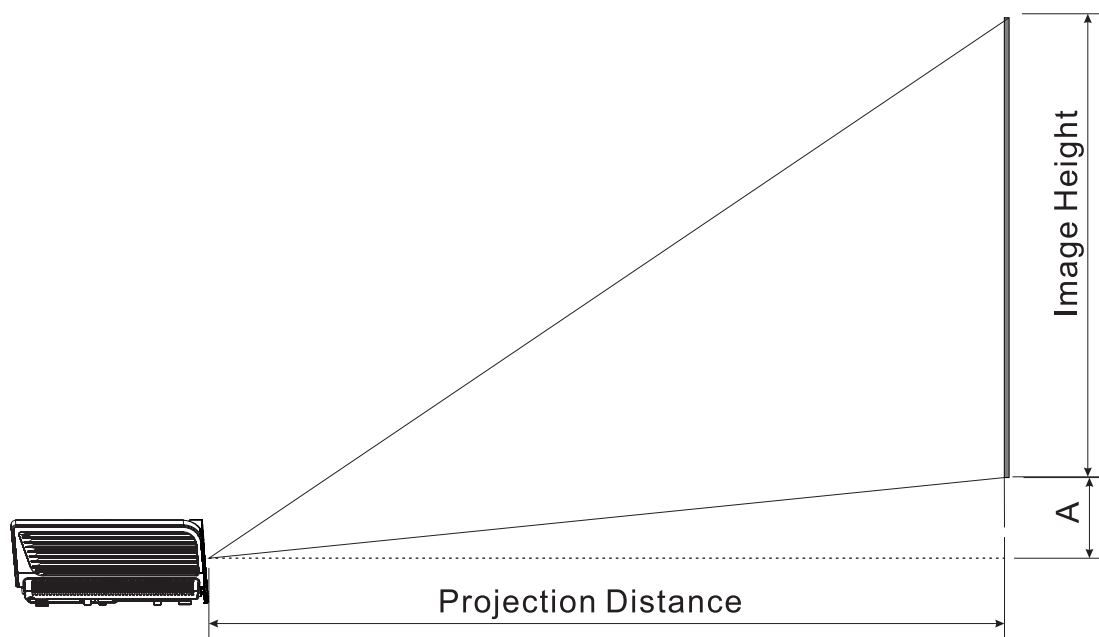
Projection Distance and Size Table

16:9 SCREEN				PROJECTION DISTANCE			VERTICAL OFFSET (A)
DIAGONAL		WIDTH	HEIGHT	MIN LENGTH (WITH MAX ZOOM)	AVERAGE	MAX LENGTH (WITH MIN ZOOM)	
INCH	MM	MM(INCH)	MM(INCH)				MM(INCH)
30	762	664(26)	374(15)	1063(42)	1169(46)	1275(50)	56(2)
40	1016	886(35)	498(20)	1417(56)	1559(61)	1700(67)	75(3)
50	1270	1107(44)	623(25)	1771(70)	1948(77)	2125(84)	93(4)
60	1524	1328(52)	747(29)	2125(84)	2338(92)	2550(100)	112(4)
80	2032	1771(70)	996(39)	2834(112)	3117(123)	3400(134)	149(6)
100	2540	2214(87)	1245(49)	3542(139)	3896(153)	4250(167)	187(7)
120	3048	2657(105)	1494(59)	4250(167)	4676(184)	5101(201)	224(9)
150	3810	3321(131)	1868(74)	5313(209)	5844(230)	6376(251)	280(11)
200	5080	4428(174)	2491(98)	7084(279)	7793(307)	8501(335)	374(15)
220	5588	4870(192)	2740(108)	7793(307)	8572(337)	9351(368)	411(16)
250	6350	5535(218)	3113(123)	8855(349)	9741(383)	10626(418)	467(18)
300	7620	6641(261)	3736(147)	10626(418)	--	--	560(22)

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	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
NTSC	—	15.734	60.0	O	—	–	–
PAL/SECAM	—	15.625	50.0	O	—	–	–
VESA	720 x 400	37.9	85.0	—	—	O	O
	640 x 480	31.5	60.0	—	—	O	O
	640 x 480	37.9	72.8	—	—	O	O
	640 x 480	37.5	75.0	—	—	O	O
	640 x 480	43.3	85.0	—	—	O	O
	800 x 600	35.2	56.3	—	—	O	O
	800 x 600	37.9	60.3	—	—	O	O
	800 x 600	46.9	75.0	—	—	O	O
	800 x 600	48.1	72.2	—	—	O	O
	800 x 600	53.7	85.1	—	—	O	O
	1024 x 768	48.4	60.0	—	—	O	O
	1024 x 768	56.5	70.1	—	—	O	O
	1024 x 768	60.0	75.0	—	—	O	O
	1024 x 768	68.7	85.0	—	—	O	O
	1280 x 800	49.7	59.8	—	—	O	O
	1280 x 800	62.8	74.9	—	—	O	O
	1280 x 800	71.6	84.8	—	—	O	O
	1280 x 1024	64.0	60.0	—	—	O	O
	1280 x 1024	80.0	75.0	—	—	O	O
	1280 x 1024	91.1	85.0	—	—	O	O
	1400 x 1050	65.3	60.0	—	—	O	O
	1440 x 900	55.9	60.0	—	—	O	O
	1600 x1200	75.0	60	—	—	O	O
	1920 x1080	67.2	60	—	—	O	O
Apple Macintosh	640 x 480	35.0	66.7	—	—	O	O
	832 x 624	49.7	74.5	—	—	O	O
	1024 x 768	60.2	74.9	—	—	O	O
	1152 x 870	68.7	75.1	—	—	O	O
SDTV	480i	15.734	60.0	—	O	O	O
	576i	15.625	50.0	—	O	O	O
EDTV	576p	31.3	50.0	—	O	O	O

SIGNAL	RESOLUTION	H-SYNC (KHz)	V-SYNC (Hz)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
	480p	31.5	60.0	—	O	O	O
HDTV	720p	37.5	50.0	—	O	O	O
	720p	45.0	60.0	—	O	O	O
	1080i	33.8	60.0	—	O	O	O
	1080i	28.1	50.0	—	O	O	O
	1080p	67.5	60.0	—	O	O	O
	1080p	56.3	50.0	—	O	O	O

2D to 3D support timings :

RESOLUTION	V-SYNC (Hz)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
800x600	60Hz	—	—	—	O
1024x768	60Hz	—	—	—	O
1280x720	60Hz	—	—	—	O
1280x768	60Hz	—	—	—	O
1280x800	60Hz	—	—	—	O
1440x900	60Hz	—	—	—	O
1280x1024	60Hz	—	—	—	O
1400x1050	60Hz	—	—	—	O
480i	60Hz	—	—	—	O
480p	60Hz	—	—	—	O
576i	50Hz	—	—	—	O
576p	50Hz	—	—	—	O
720p	50Hz	—	—	—	O
720p	60Hz	—	—	—	O
1080i	50Hz	—	—	—	O
1080i	60Hz	—	—	—	O
1080p	50Hz	—	—	—	O
1080p	60Hz	—	—	—	O

3D support timings:

Frame sequential

RESOLUTION	V-SYNC (HZ)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
720p	100Hz	—	—	—	O
720p	120Hz	—	—	—	O

Frame packing

RESOLUTION	V-SYNC (HZ)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
720p	50Hz	—	—	—	O
720p	60Hz	—	—	—	O
1080p	24Hz	—	—	—	O

Side-By-Side Half

RESOLUTION	V-SYNC (HZ)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
720p	50Hz	—	—	—	O
720p	60Hz	—	—	—	O
1080i	50Hz	—	—	—	O
1080i	60Hz	—	—	—	O
1080p	50Hz	—	—	—	O
1080p	60Hz	—	—	—	O

Top-and-Bottom

RESOLUTION	V-SYNC (HZ)	COMPOSITE	COMPONENT	RGB (ANALOG)	HDMI (DIGITAL)
720p	50Hz	—	—	—	O
720p	60Hz	—	—	—	O

O: Frequency supported

—: Frequency not supported

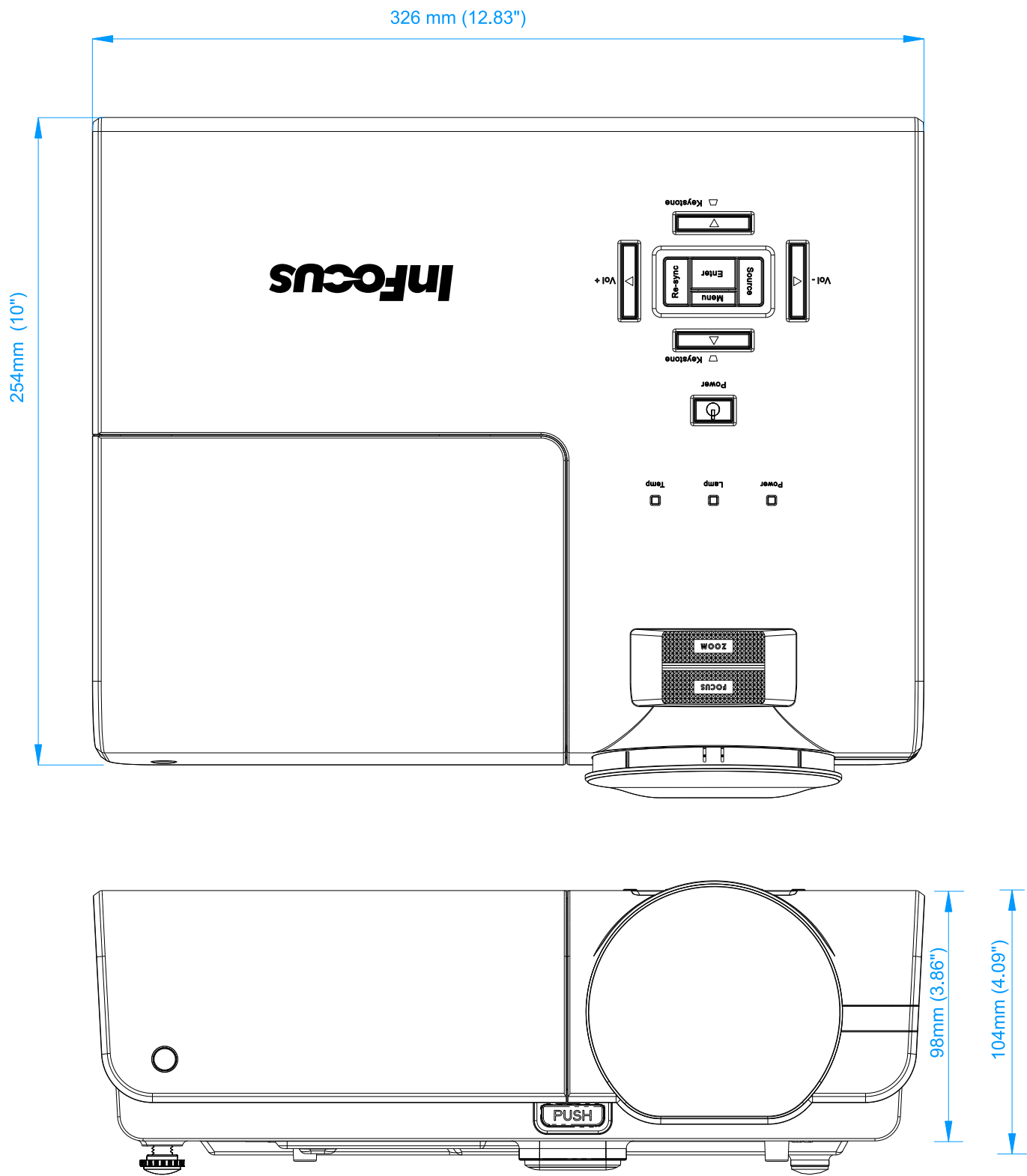(*) VGA support EDTV/SDTV/HDTV component with an adapter.

The SP8600HD3D and IN8601 projector's native resolution is 1920 x 1080. Resolutions different than this may display uneven lines or text.

Projector Dimensions

326 mm (12.83")

254mm (10")

InFocus

Keystone

Vol + | Re-sync | Enter | Source | Vol -
Menu

Keystone

Power

Temp | Lamp | Power

ZOOM

FOCUS

PUSH

98mm (3.86")

104mm (4.09")

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/ECO, TUV-GS, SASO, KC, UL-s for Argentina and C-TICK

RS-232C Protocol

RS232 Setting

Baud rate:	**9600**
Parity check:	**None**
Data bit:	**8**
Stop bit:	**1**
Flow Control	**None**

Minimum delay for next command: **1ms**

Control Command Structure

The command is structured by the Header code, command code, data code and end code. Most of the commands are structured except some for the compatibility issue with other projectors.

	Header code	Command code	Data code	End code
HEX	**7Eh**	**Command**	**Data**	**0Dh**
ASCII	**'~'**	**Command**	**Data**	**CR**

Control Sequence

The projector may send a return code after it received a command. If the command isn't received correctly, the projector will not send the return code

Operation Command

The operation commands execute the basic operation setting of this projector.

Operation	ASCII	HEX
Power On ※	**~ P N CR** ※	**7Eh 50h 4Eh 0Dh**
Power Off	**~ P F CR**	**7Eh 50h 46h 0Dh**
Auto Image	**~ A I CR**	**7Eh 41h 49h 0Dh**
Input Select VGA	**~ S R CR**	**7Eh 53h 52h 0Dh**
Input Select HDMI1	**~ S D CR**	**7Eh 53h 44h 0Dh**
Input Select HDMI2	**~ S H CR**	**7Eh 53h 48h 0Dh**
Input Select Video	**~ S V CR**	**7Eh 53h 56h 0Dh**
Input Select Component	**~ S Y CR**	**7Eh 53h 59h 0Dh**

※　Power On command will not work for 1 minute after the power off command triggered.

※ **CR :** Carriage Return.

Remote Command

The remote commands simulate the code send from IR remote handset.

Button's name	ASCII	HEX
UP arrow	~ r U CR	7Eh 72h 55h 0Dh
DOWN arrow	~ r D CR	7Eh 72h 44h 0Dh
LEFT arrow	~ r L CR	7Eh 72h 4Ch 0Dh
RIGHT arrow	~ r R CR	7Eh 72h 52h 0Dh
POWER	~ r P CR	7Eh 72h 50h 0Dh
EXIT	~ r E CR	7Eh 72h 45h 0Dh
INPUT	~ r I CR	7Eh 72h 49h 0Dh
AUTO	~ r A CR	7Eh 72h 41h 0Dh
KEYSTONE+	~ r K CR	7Eh 72h 4Bh 0Dh
KEYSTONE-	~ r J CR	7Eh 72h 4Ah 0Dh
MENU	~ r M CR	7Eh 72h 4Dh 0Dh
STATUS	~ r S CR	7Eh 72h 53h 0Dh
MUTE	~ r T CR	7Eh 72h 54h 0Dh
BLANK	~ r B CR	7Eh 72h 42h 0Dh
FREEZE	~ r F CR	7Eh 72h 46h 0Dh
VOLUME+	~ r V CR	7Eh 72h 56h 0Dh
VOLUME-	~ r W CR	7Eh 72h 57h 0Dh
Enter	~ r N CR	7Eh 72h 4Eh 0Dh

Set Value Command

ITEM	ASCII	HEX
Brightness	~ s B ? CR ※	7Eh 73h 42h ?h 0Dh
Contrast	~ s C ? CR	7Eh 73h 43h ?h 0Dh
Color	~ s R ? CR	7Eh 73h 52h ?h 0Dh
Tint	~ s N ? CR	7Eh 73h 4Eh ?h 0Dh
Scaling	~ s A ? CR	7Eh 73h 41h ?h 0Dh
Color Temperature	~ s T ? CR	7Eh 73h 54h ?h 0Dh
Projection Mode	~ s J ? CR	7Eh 73h 4Ah ?h 0Dh

※ ? : ASCII Data

Data Range

ITEM	Set Data Range	Source
Brightness(User1~User3 only)	0 ~ 100	ALL
Contrast(User1~User3 only)	-50 ~ 50	ALL
Color(User1~User3 only)	-50 ~ 50	Video/S-Video/Component
Tint(User1~User3 only)	-50 ~ 50	Video/S-Video/Component
Scaling	0:AUTO 1: 16:9 2: 4:3 3: LETTER BOX 4:REAL	ALL
Color Temperature	0: Lamp Native 1: Warm 2:Normal 3: Cool 4:Cooler 5: High Cool	ALL
Projection Mode	0:Front Table 1: Front Ceiling 2: Rear Table 3:Rear Ceiling	ALL

Attention: 1.Data range may be different for different models

2.Brightness/Contrast/Color/Tint adjustment is only available in User1~User3 picture mode.

Example 1. Adjust Brightness value to 100

Send Command : ~sB100CR

Example 2. Adjust Color Temperature to Warm

Send Command : ~sT2CR

Query Command

ITEM	ASCII	HEX
Software Version	~ q V CR	7Eh 71h 56h 0Dh
Power State	~ q P CR	7Eh 71h 50h 0Dh
Input Select	~ q S CR	7Eh 71h 53h 0Dh
Lamp Hours	~ q L CR	7Eh 71h 4Ch 0Dh
Brightness	~ q B CR	7Eh 71h 42h 0Dh
Contrast	~ q C CR	7Eh 71h 43h 0Dh
Color	~ q R CR	7Eh 71h 52h 0Dh
Tint	~ q N CR	7Eh 71h 4Eh 0Dh
Scaling	~ q A CR	7Eh 71h 41h 0Dh
Color Temperature	~ q T CR	7Eh 71h 54h 0Dh
Projection Mode	~ q J CR	7Eh 71h 4Ah 0Dh

Response message

ITEM	Response Message examples	
Software Version	…..	
Power State	On Off	
Input Select	VGA HDMI1 HDMI2 Video Component	
Lamp Hours	2000	
Brightness	100	
Contrast	50	
Color (Video)	50	
Tint (Video)	50	
Scaling	AUTO 16:9 4:3 LETTER BOX REAL	
Color Temperature	Lamp Native Warm Normal Cool Cooler High Cool	
Projection Mode	Front Table Front Ceiling Rear Table Rear Ceiling	

Example 1. Get Brightness value
Send Command : ~qBCR
Response : 100
Example 2. Get Color Temperature
Send Command : ~qTCR
Response : Warm