

***E-Vision Laser 9000 Series***

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Super High Brightness Digital Video Projector  
**Important Information**

## Digital Projection

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# Super High Brightness Digital Video Projector

## Important Information

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Full information about operating, connecting and setting up the projector can be found in the User Guides.

Please use the QR code (also located on the projector) to access the latest E-Vision projector user guides and other documentation via the Digital Projection website.

Or visit the products specification page on the Digital Projection website to download the latest user guide and other documentation.



## Symbols used in the User Manual

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**LASER WARNING:** this symbol indicates that there is a potential hazard of eye exposure to laser radiation unless the instructions are closely followed.



**ELECTRICAL WARNING:** this symbol indicates that there is a danger of electrical shock unless the instructions are closely followed.



**WARNING:** this symbol indicates that there is a danger of physical injury to yourself and/or damage to the equipment unless the instructions are closely followed.



**NOTE:** this symbol indicates that there is some important information that you should read.

## Electrical and physical specifications

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Main Voltage	100 - 240VAC 50/60Hz single phase 10.0A
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Operating Humidity	10% to 85% non-condensing
Dimensions:	L: 525mm (20.6in) x W: 470mm (18.5in) x H: 220.5mm (8.6in)
Weight	25Kg 55.1lb (projector p/n: 120-481) with lens
Power Consumption	at 100 VAC 1000 W typical (Normal Mode) at 200 VAC 950 W typical (Normal mode)
Thermal Dissipation	at 100 VAC 3410 BTU/Hour typical (Normal mode) at 200 VAC 3240 BTU/Hour typical (Normal mode)
Fan Noise:	44 dBA Typical (Normal Mode)



*Specifications are subject to change without notice.*

## Laser precautions

### Projector



#### CLASS 3R LASER PRODUCT

This Laser Product is designated as Class 3R during all procedures of operation.

**LASER LIGHT - AVOID DIRECT EYE EXPOSURE.**

Do not point laser or allow laser light to be directed or reflected toward other people or reflective objects.

Direct or scattered light can be hazardous to eyes and skin.

There is a potential hazard of eye exposure to laser radiation if the included instructions are not followed.

Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Non-laser emission. There remains non-laser emission from the projection lens. This portion of emission has been tested per IEC/EN 62471 to be Risk Group 2 (low risk).

#### Laser Parameters:

Wavelength	450nm - 460nm (Blue)
Mode of operation	Pulsed, due to frame rate
Pulse duration	1.34ms
Pulse repetition rate	120Hz
Maximum pulse energy	0.698mJ
Total internal power	>100W
Apparent source size	>10mm, at lens stop
Divergence	>100 milli Radian

### Remote Control - Laser Pointer



#### CLASS 2 LASER PRODUCT

This Laser Product is designated as Class 2 during all procedures of operation.

**LASER LIGHT - AVOID DIRECT EYE EXPOSURE.**

Do not point laser or allow laser light to be directed or reflected toward other people or reflective objects.

**AVOID EXPOSURE-LASER RADIATION IS EMITTED FROM THIS APERTURE**

CAUTION

LASER RADIATION  
DO NOT STARE INTO BEAM

WAVELENGTH: 640-660nm  
MAX OUTPUT: <1mW  
CLASS II LASER PRODUCT

Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50 dated June 24, 2007. IEC/EN60825-1:2007

激光辐射 勿直视激光束 雷射辐射 勿注视光束  
2类激光产品 等级2雷射产品  
波长:640-660nm 波长:640-660nm  
最大输出:1mW 最大输出:1mW

ÉVITEZ L'EXPOSITION - UN RAYONNEMENT LASER EST ÉMIS PAR CETTE OUVERTURE RAYONNEMENT LASER NE REGARDEZ PAS DIRECTEMENT LE RAYONNEMENT

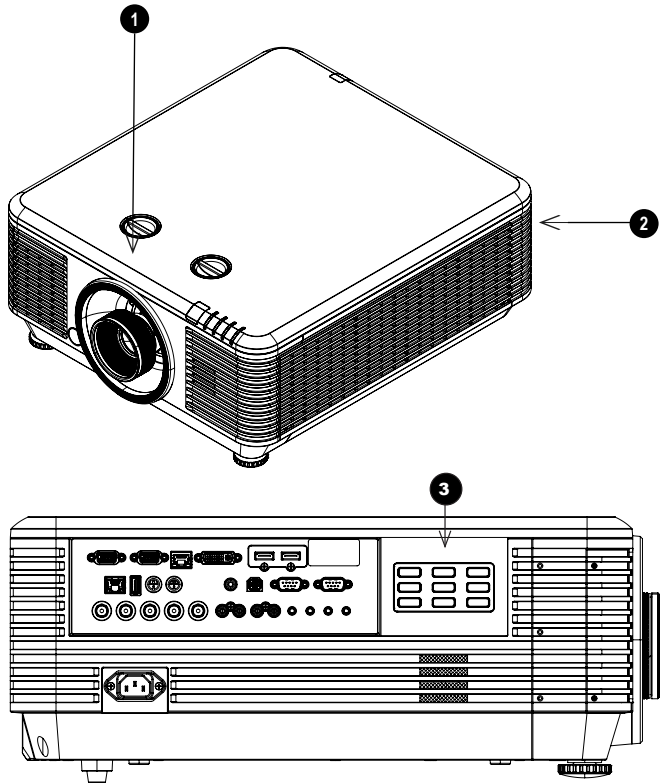
WAVELENGTH:640-660nm  
MAX OUTPUT:<1mW  
LASER LIGHT  
DO NOT STARE INTO BEAM  
CLASS 2 LASER PRODUCT

IEC/EN 60825-1:2007 IEC/EN 60825-1:2014  
P/N: SN1411010 Product code:1512010  
ADVANCETECH CO., LTD (FACTORY)  
11/F-1, No.120, Qiaochu Rd., Zhonghe Dist., New Taipei  
City 23584, Taiwan, R.O.C.



### Label Locations

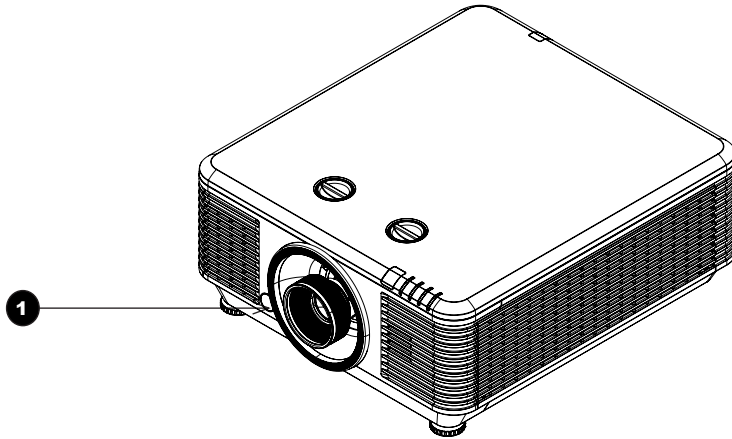
- 1** Location of Hazard Warning Symbol and Laser Aperture Label on the body of the projector
- 2** Location of Manufacturer's ID Label and Explanatory Label with Certification Statement and Risk Statement on the body of the projector
- 3** Location of User Guides Label on the body of the projector



## Location of laser aperture

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The laser aperture is located as indicated below. Be careful not to expose the eye to direct laser light.

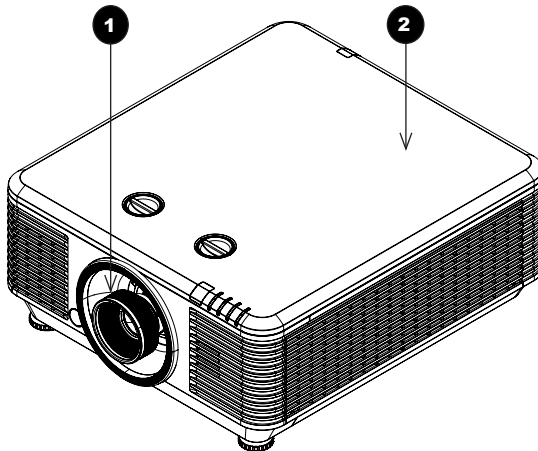


- 1** Laser aperture

## Interlock switches

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Interlock switches are installed at the main frame, inside the cover. These will power-off the system individually when activated.



- 1** Will be activated when the projection lens is removed or misplaced.
- 2** Will be activated when the top cover is removed.



## General precautions

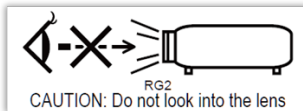
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- The unit is never to be operated if the unit is defective or the cover or seal is damaged.
- No maintenance allowed by end user.
- Do not open the cabinet. There are no user serviceable parts inside.
- No service is allowed except by authorized personnel.
- Use only the power cable provided.
- Ensure that the power outlet includes a Ground connection, as this equipment **MUST** be earthed.
- Take care to prevent small objects such as paper or wire from falling into the projector.
- If this does happen, switch off immediately, and have the objects removed by authorised service personnel.
- Do not expose the projector to rain or moisture, and do not place any liquids on top of the projector.
- Unplug before cleaning, and use a damp, not wet, cloth.
- Do not touch the power plug with wet hands.
- Do not touch the power plug during a thunder storm.
- Handle the power cable carefully and avoid sharp bends. Do not use a damaged power cable.



- Do not touch the ventilation outlets, as they will become hot in use.
- Do not cover or obstruct the ventilation outlets or inlets.
- Do not cover the lens whilst the projector is switched on. This could cause a fire
- Always allow the projector to cool for 5 minutes before disconnecting the power or moving the projector.
- Never use strong detergents or solvents such as alcohol or thinners to clean the projector and lens.
- RISK GROUP 2 CAUTION.** Possibly hazardous optical radiation emitted from this product. Do not stare at operating light source. May be harmful to the eyes.



## Installation precautions



Connect the LAN cable only to a computer LAN connection. Other similar connectors may have a dangerously high voltage source.

The projector must be installed only by suitably qualified personnel, in accordance with local building codes.

The projector should be installed as close to the power outlet as possible.

The power connection should be easily accessible, so that it can be disconnected in an emergency.

Allow at least 50cm (19.7in) of space between the ventilation outlets and any wall, and 30cm (11.8in) on all other sides.

Do not install the projector close to anything that might be affected by its operational heat, for instance, polystyrene ceiling tiles, curtains etc.

Place the projector in a dry area away from sources of dust, moisture, steam, smoke, sunlight or heat.

The projector is heavy. Use safe handling techniques when lifting the projector.

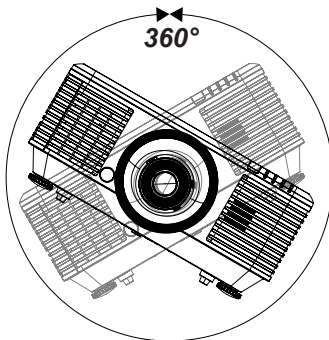
Do not drop or knock the projector.

Before installation, make sure that the surface, ceiling or rigging that is to support the projector is capable of supporting the combined weight of the projector and lens.

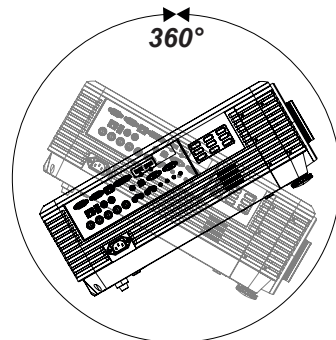
Do not place heavy objects on top of the projector chassis.

Backup safety chains or wires should always be used with ceiling mount installations.

The projector can be operated any position, as shown in the diagram:



**Roll**



**Pitch**

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.

Turn on High Fan Speed Mode when located in high altitude areas.



When installing a ceiling mount, make sure the weight limit is not exceeded and the projector is firmly secured.

Avoid installing near an air conditioner duct or a subwoofer.

Avoid installing at high temperature, insufficient cooling and heavy dust locations.

Keep your product away from fluorescent lamps (>1 Meter) to avoid malfunction caused by IR interference.

A VGA IN connector should be used to connect to the VGA IN port on the projector. It should be inserted tightly, with the screws on both sides securely fastened to ensure proper connection of the signal wire for achieving optimal display effect.

An AUDIO IN connector should be used to connect to the AUDIO IN port on the projector. It CANNOT be connected to AUDIO OUT or other ports like BNC, RCA; otherwise, it will lead to mute output and even DAMAGE the port.

The power cord and signal cable should be connected before the projector is powered on. During startup and operation, DO NOT insert or remove the signal cable or the power cord to avoid damaging the projector.

The projector generates heat during use. The internal fans dissipate the heat of the projector when shutting down, which could continue for a certain period. After the projector enters STANDBY MODE, remove the power cord. DO NOT remove the power cord during shutdown as it may cause damage to the projector and may affect the service life of the projector.

When using projectors in environments with third party high power laser systems avoid direct laser beams pointing towards the projection lens. This may cause incident light to converge into the optical engine and cause damage to the DLP DMD.

Please pay attention to projector installation with respect to other staging laser light equipment set-up. These systems can cause permanent damage to the DMD imaging devices used in our projectors. This damage is not covered by our warranty.

Make sure the lens cap is removed from the rear of the lens before it is inserted into the projector.

Make sure the lens caps are removed from the lens before operating the projector. Light energy levels have been known to cause damage to both the lens and projector optics. This damage is not covered by our warranty.

## Operation and configuration precautions

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Do not make changes to the networking configuration unless you understand what you are doing, or have taken advice from your Network Manager. If you make a mistake, it is possible that you will lose contact with the projector. Always double-check your settings before pressing the APPLY button. Always keep a written note of the original settings, and any changes you have made.

Software updates should NOT be carried out except by, or with the supervision of, Digital Projection Service personnel.

## Compliance with international standards

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### RF Interference

#### *FCC*

The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified by Digital Projection in this manual. Failure to comply with this government regulation could void your right to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant with 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 may cause harmful interference, in which case the user will be responsible for correcting any interference.

### Noise

#### *GSGV Acoustic Noise Information Ordinance*

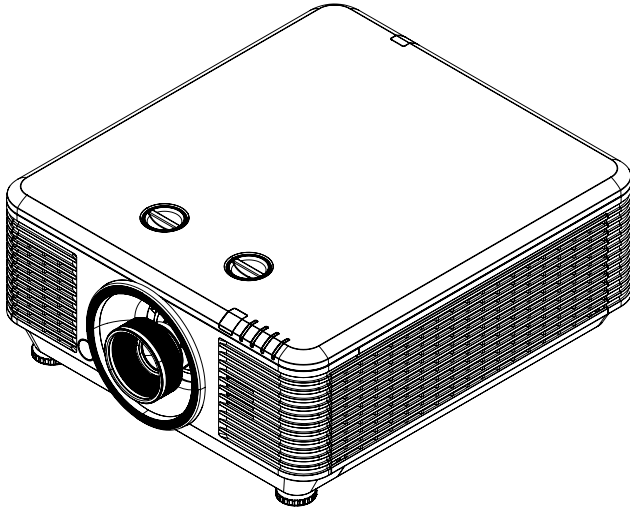
The sound pressure level is less than 45 dB (A) according to ISO 3744 or ISO 7779.

### European Waste Electrical and Electronic Equipment (WEEE) Directive



Digital Projection Ltd is fully committed to minimising Waste Electrical and Electronic Equipment. Our products are designed with reuse, recycling and recovery of all components in mind. To this end, at end of life, your projector may be returned to Digital Projection Ltd or its agent so that the environmental impact can be minimised.

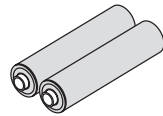
## Whats in the Box?



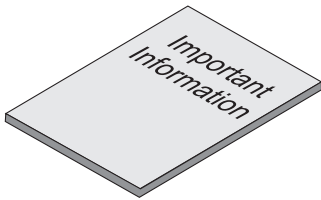
**Projector**



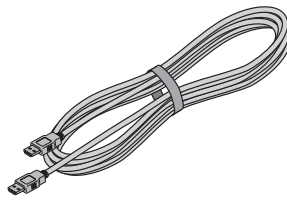
**Remote control**



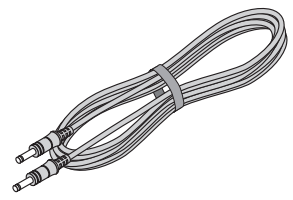
**2x AAA batteries**



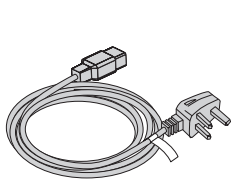
**Important Information**



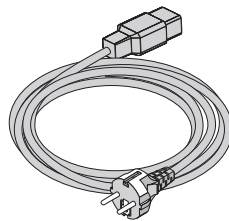
**HDMI cable**



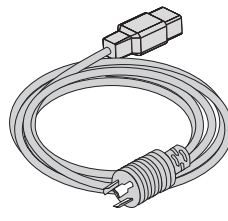
**Remote cable**



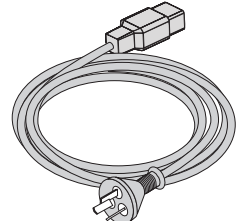
**Power Cable  
UK/ROW**



**Power Cable  
EU**



**Power Cable  
USA**



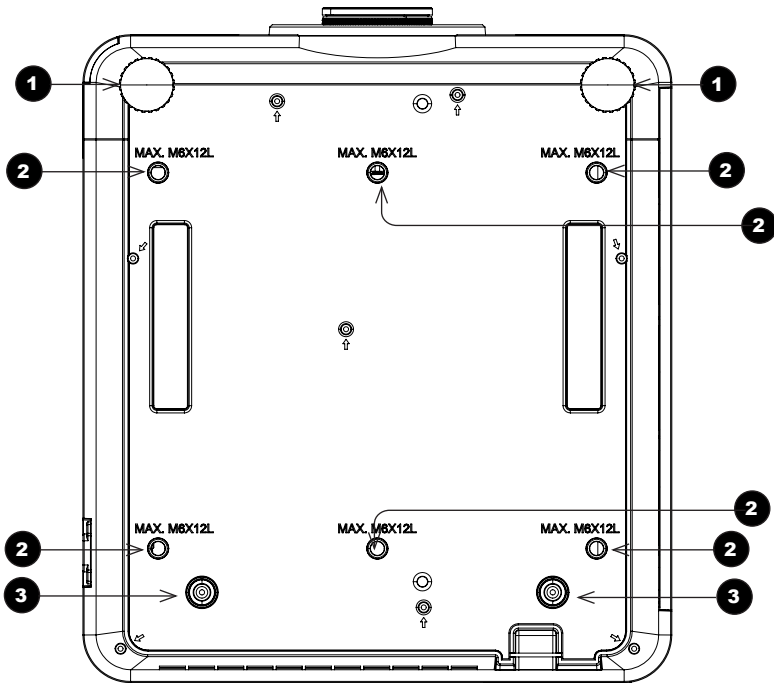
**Power Cable  
China**

## Basic Operation Instructions

### Positioning the screen and projector

1. Install the screen, ensuring that it is in the best position for viewing by your audience.
2. Mount the projector, ensuring that it is at a suitable distance from the screen for the image to fill the screen. Set the adjustable feet so that the projector is level, and perpendicular to the screen.

The drawing below shows the positions of the feet for table mounting, and the fixing holes for ceiling mounting.



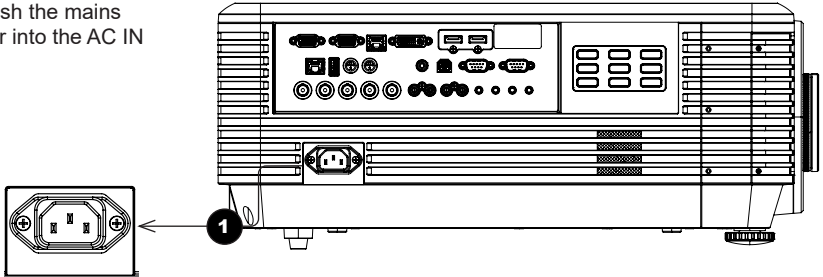
- 1** Two adjustable feet (front)
- 2** Six M6 holes for ceiling mount  
The screws should not penetrate more than 12mm max into the body of the projector.
- 3** Two fixed length feet (rear)



*Do not use the threaded holes for the adjustable feet to hang or mount the projector.*

## Connecting the power supply

- 1 Firmly push the mains connector into the AC IN socket.



**Use only the power cable provided.**

Ensure that the power outlet includes a ground connection as this equipment **MUST** be earthed.

Handle the power cable carefully and avoid sharp bends. Do not use a damaged power cable.

## Switching the projector on

1. Connect the power cable between the mains supply and the projector. (See **Connecting the power supply** above.)
2. The **POWER** indicator lights green to indicate that the projector is in STANDBY mode. Press one of the following buttons:
  - On the remote control, the **ON** button
  - On the projector control panel, the **POWER** button.

The **POWER** indicator begins flashing green and the fans start. The **POWER** indicator lights steady Green when the projector is fully switched on.

## Switching the projector off

1. Press **OFF** on the remote control or **POWER** on the control panel, then press again to confirm your choice. The **POWER** indicator light will flash green until the cool down period has completed, then goes steady green to indicate that the projector has entered **STANDBY** mode.
2. If you need to switch the projector off completely, disconnect the power cable from the projector.

## Selecting an input signal

If more than one input source is connected, select the input you want to display. Press the **Source** button on the control panel and use the **UP ▲** and **DOWN ▼** arrow buttons to scroll through the list of inputs:

- HDMI 1
- HDMI 2
- DVI
- VGA
- BNC
- Composite Video
- HDBaseT

## Selecting a test pattern

1. Press the **MENU** button to open the OSD.
2. Press the **LEFT ◀** and **RIGHT ▶** arrow buttons to navigate to the **Settings 1** menu.
3. Press the **UP ▲** and **DOWN ▼** arrow buttons to move to the **Advanced 2** submenu and then press **↵ (ENTER)** to open the submenu. Once inside, press **UP ▲** and **DOWN ▼** to highlight **Test Pattern**.
4. Use the **LEFT ◀** and **RIGHT ▶** arrow buttons to cycle through the available test patterns.

Test patterns are: **None, RGB Ramps, Color Bars, Step Bars, Checkboard, Grid, Horizontal Lines, Vertical Lines, Diagonal Lines, Horizontal Ramp, Vertical Ramp, White, Red, Green, Blue, Black.**

## Adjusting the image

### *Orientation*

- This can be set from the **Settings 1** menu.

Highlight **Projection** and choose from **Normal, Rear, Ceiling** and **Rear+Ceiling**.

### *Keystone*

To adjust keystone, press the **Keystone** button on the remote control to open the **Keystone** menu, and then use the arrow buttons for vertical or horizontal keystone corrections.

### *Picture*

- Settings such as **Gamma, Brightness, Contrast** and **Sharpness** can be set from the **Image** menu.

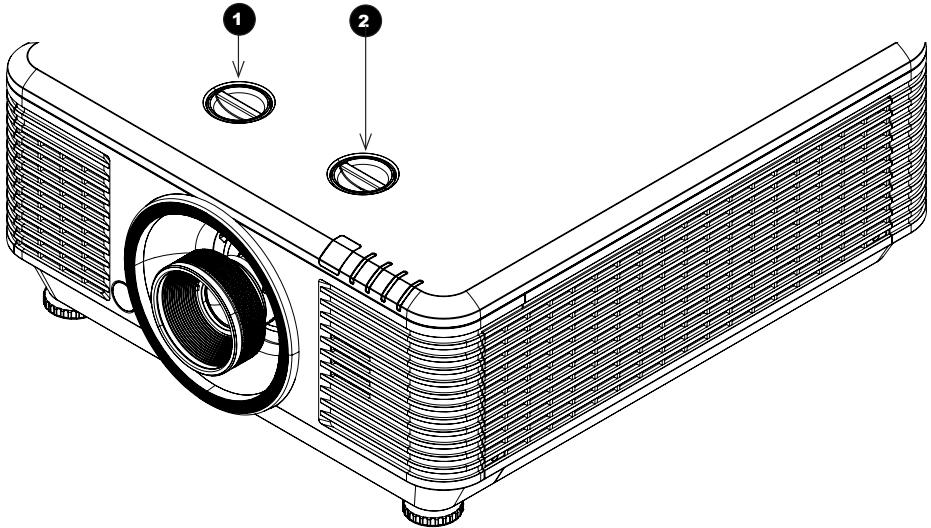


## Adjusting the lens

### **Lens shift**

The lens shift function can be used to adjust the position of the projected image either horizontally or vertically.

Use the vertical and horizontal lens shift knobs to move the image across the width or height of the screen.

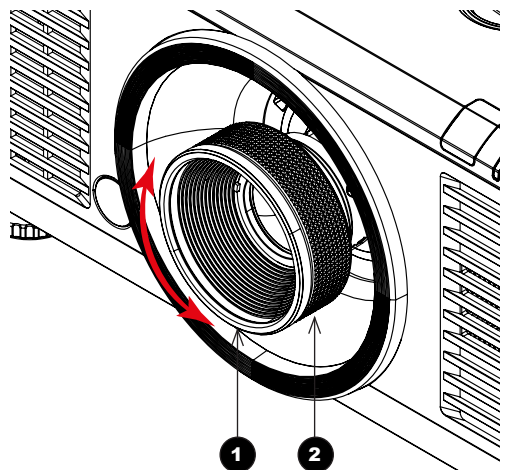


**1** Horizontal lens shift knob

**2** Vertical lens shift knob

### **Focus and zoom**

Use the **focus** **1** and **zoom** **2** rings on the projector lens to adjust focus and zoom.



## Inserting a new lens



Before changing the lens, always make sure the projector is switched off and fully disconnected from its power supply.



When changing the lens, avoid using excessive force as this may damage the equipment.

Avoid touching the surface of the lens as this may result in image impairment.



*The lens is shipped separately.*

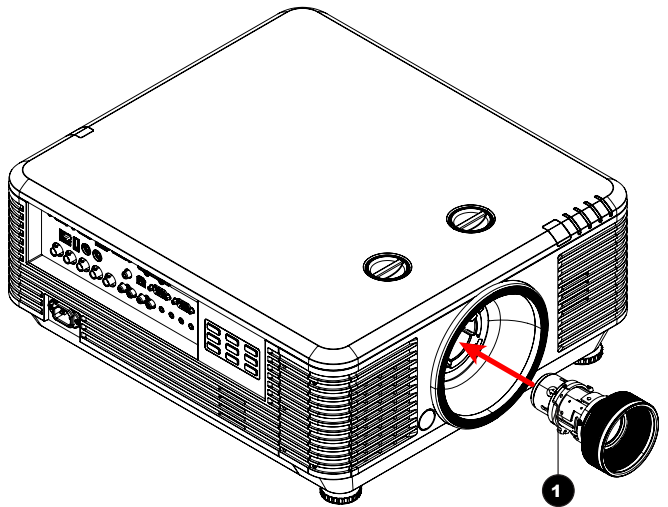


*Take care to preserve the original lens packaging and protective caps for future use.*



*The projector will not power on without the lens fitted.*

1. Use the flange to align the lens with the socket.
2. Firmly push the lens into the socket.
3. Turn the lens clockwise until it clicks into place.



## Removing the lens



Before changing the lens, always make sure the projector is switched off and fully disconnected from its power supply.



When changing the lens, avoid using excessive force as this may damage the equipment.

Avoid touching the surface of the lens as this may result in image impairment.




*The lens is shipped separately.*

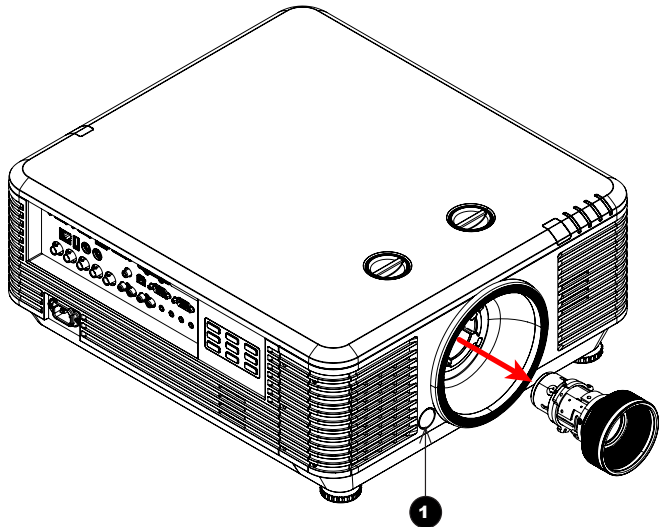


*Take care to preserve the original lens packaging and protective caps for future use.*



*The projector will not power on without the lens fitted.*

1. Push in the lens release button. 
2. Turn the lens anti-clockwise.
3. Slowly pull the lens out of the socket.



## Control Panel Reference

### MENU

Opens and exits OSD menus.

### Keystone LEFT ◀◀

Navigates and changes settings in the OSD.

Adjusts **Horizontal Keystone**.

### Keystone UP ▲

Navigates and changes settings in the OSD.

Adjusts **Vertical Keystone**.

### ENTER

Enters and confirms settings in the OSD.

### POWER

Turns the projector on and off.

### SOURCE

Opens the **Source** menu.

### Keystone DOWN ▼

Navigates and changes settings in the OSD.

Adjusts **Vertical Keystone**.

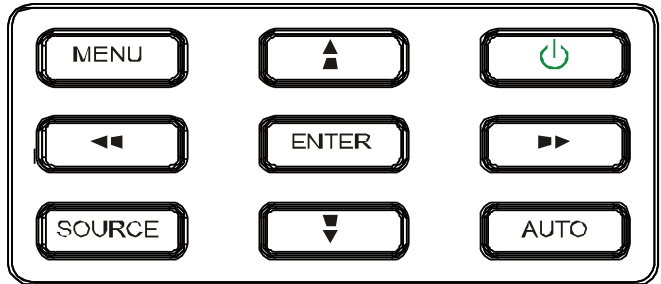
### Keystone RIGHT ▶▶

Navigates and changes settings in the OSD.

Adjusts **Horizontal Keystone**.

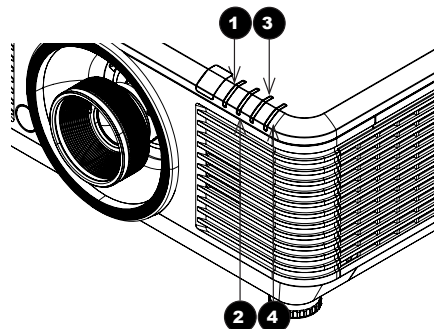
### AUTO

Optimizes image size, position and resolution.



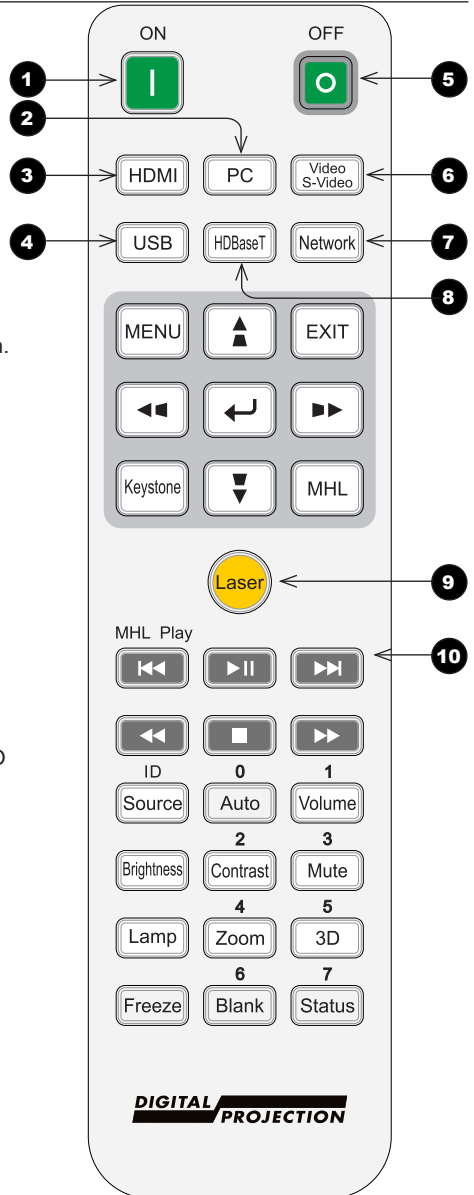
## Projector indicators

- 1 **Filter LED**  
Displays filter status.
- 2 **Temp LED**  
Displays thermal status.
- 3 **Lamp LED**  
Displays lamp status.
- 4 **Power LED**  
Displays power on/off sequence status.



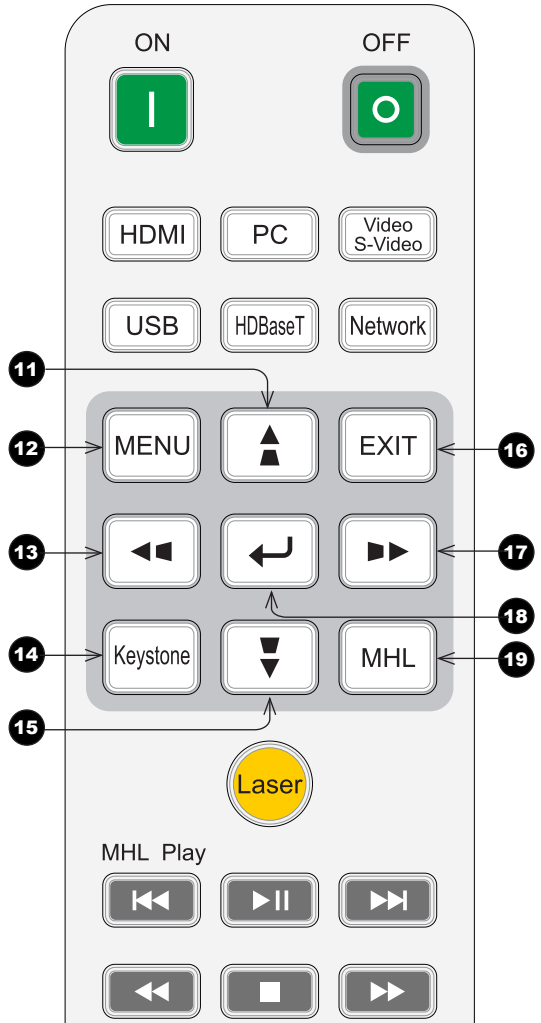
## Remote Control Reference

- 1 Power ON**
- 2 PC**  
Displays the **PC** source selection.
- 3 HDMI**  
Displays the **HDMI 1 / HDMI 2 / DVI** source selection (toggle).
- 4 USB**  
This button is not used in this configuration.
- 5 Power OFF**  
Turns the projector off.
- 6 Video / S-Video**  
Displays the **Video** source selection.
- 7 Network**  
Opens the **Network** menu.
- 8 HDBaseT**  
Displays the **HDBaseT** source selection.
- 9 Laser Pointer**  
Press to operate the on-screen pointer. DO NOT POINT IN EYES.
- 10 MHL Play controls**  
Play, pause, stop, rewind and fast forward MHL content..



Remote Control reference continued...

- 11 Keystone UP ▲**  
 Navigates and changes settings in the OSD.  
 Adjusts **Vertical Keystone**.
- 12 MENU**  
 Opens the OSD.
- 13 Keystone LEFT ◀◀**  
 Navigates and changes settings in the OSD.  
 Adjusts **Horizontal Keystone**.
- 14 Keystone**  
 Selects the HDBaseT input. Use with **ALT** to switch the green DMD on and off. This functionality is disabled when the projector is showing a test pattern.
- 15 Keystone DOWN ▼**  
 Navigates and changes settings in the OSD.  
 Adjusts **Vertical Keystone**.
- 16 EXIT**  
 Returns to the previous OSD page.
- 17 Keystone RIGHT ▶▶**  
 Navigates and changes settings in the OSD.  
 Adjusts **Horizontal Keystone**.
- 18 ENTER**  
 Enters and confirms settings in the OSD.
- 19 MHL**  
 Enables the Mobile High-Definition Link technology feature for smart devices.



Remote Control reference continued...

- 20 Auto / ID input 0**  
Automatically adjusts frequency, phase and position.  
Use with **Source / ID** to set the remote ID to **0**.
- 21 Source / ID**  
Selects the next input source.  
Press with a number key to set a remote control ID.
- 22 Brightness**  
Displays the **Brightness** slider.
- 23 Zoom / ID input 4**  
Displays the zoom control.  
Use with **Source / ID** to set the remote ID to **4**.
- 24 Lamp**  
Shows the light source selections.
- 25 Freeze**  
Freezes / unfreezes the current frame.
- 26 Blank / ID input 6**  
Blanks out the screen.  
Use with **Source / ID** to set the remote ID to **6**.
- 27 Volume / ID input 1**  
Displays the **Volume** slider.  
Use with **Source / ID** to set the remote ID to **1**.
- 28 Contrast / ID input 2**  
Displays the **Contrast** slider.  
Use with **Source / ID** to set the remote ID to **2**.
- 29 Mute / ID input 3**  
Mutes the built-in speaker.  
Use with **Source / ID** to set the remote ID to **3**.
- 30 3D / ID input 5**  
Opens the **3D Settings** menu.  
Use with **Source / ID** to set the remote ID to **5**.
- 31 Status / ID input 7**  
Opens the **Status** menu (only if an input source is detected).  
Use with **Source / ID** to set the remote ID to **7**.

