

A Delta Group Company

Titan 37000 4K-UHD Titan 41000 4K-UHD Titan 43000 WU Titan 47000 WU

IMPORTANT INFORMATION



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Introduction

Congratulations on your purchase of this Digital Projection product.

The information in this document is relevant for the following products:

- Titan 37000 4K-UHD (EMEA and China)
- Titan 37000 4K-UHD (USA)
- Titan 37000 4K-UHD (USA TAA)
- Titan 41000 4K-UHD (EMEA and China)
- Titan 41000 4K-UHD (USA)
- Titan 41000 4K-UHD (USA TAA)
- Titan 43000 WU (EMEA and China)
- Titan 43000 WU (USA)
- Titan 43000 WU (USA TAA)
- Titan 47000 WU (EMEA and China)
- Titan 47000 WU (USA)
- Titan 47000 WU (USA TAA)

Symbols used in this document

Some information in this document may be accompanied by the following symbols:



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



LIGHT HAZARD WARNING: this symbol indicates that there is a danger of exposure to intensive light that may result in personal injury 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.

Additional Documentation

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 Titan projector user guides and other documentation via the Digital Projection website.



Or visit the Digital Projection website to download the latest user guide and other documentation.

Legal notice

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Third Party Credits

DMD™, Digital Micromirror Device™ and DLP™ are trademarks of Texas Instruments Inc.

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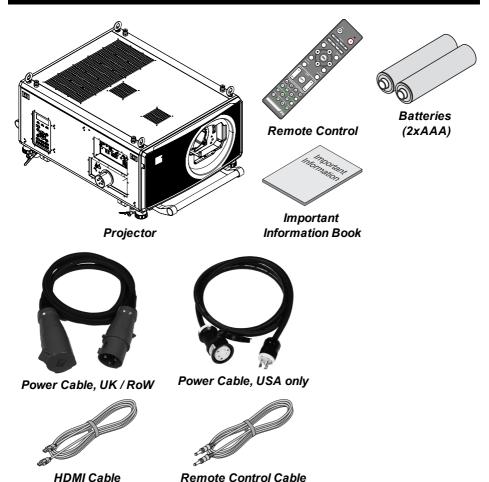
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What's in the box?





A single power cable is supplied with the projector. The cable appropriate for the destination territory is supplied.

Electrical and Physical Specifications

	Titan 37000 4K-UHD	Titan41000 4K-UHD
Mains Voltage	110-240 VAC 50/60Hz	
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 90% non-condensing	
Storage Humidity	10% to 90% non-condensing	
Dimensions	W 650 mm (29.4 in), H 381 mm (9.8 in), D 840 mm (20.9 in)	
Weight	88 kg (194 lb) without lens	
Power Consumption	at 110 VAC: 570 W in Normal Mode at 220 VAC: typical 3450 W in Normal Mode at 220 VAC: max 3800 W in High Altitude Mode	at 110 VAC: max 570 W in Normal Mode at 220 VAC: typical 3650 W in Normal Mode at 220 VAC: max 4000 W in High Altitude Mode
Standby Power	1 W (without LAN)	
Thermal Dissipation	at 110 VAC: max 3685 BTU/hr at 230 VAC: max 12966 BTU/hr	at 110 VAC: max 3685 BTU/hr at 230 VAC: max 14160 BTU/hr
Fan Noise	typical 53 dB in Normal Mode, typical 52 db in ECO Mode	typical 55 dB in Normal Mode, typical 53 db in ECO Mode



	Titan 43000 WU	Titan 47000 WU	
Mains Voltage	110-240 VAC 50/60Hz		
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 90% non-condensing		
Storage Humidity	10% to 90% non-condensing		
Dimensions	W 650 mm (29.4 in), H 381 mm (9.8 in), D 840 mm (20.9 in)		
Weight	88 kg (194 lb) without lens		
Power Consumption	at 110 VAC: max 570 W in Normal Mode at 220 VAC: typical 3450 W in Normal Mode at 220 VAC: max 3800 W in High Altitude Mode	at 110 VAC: max 1080 W in Normal Mode at 220 VAC: typical 3650 W in Normal Mode at 220 VAC: max 4000 W in High Altitude Mode	
Standby Power	1 W (without LAN)		
Thermal Dissipation	at 110 VAC: max 3685 BTU/hr at 230 VAC: max 12966 BTU/hr	at 110 VAC: max 3685 BTU/hr at 230 VAC: max 14160 BTU/hr	
Fan Noise	typical 50 dB in Normal Mode, typical 48 db in ECO Mode	typical 53 dB in Normal Mode, typical 50 db in ECO Mode	



110 V operation is only available on the USA model. Light output power is reduced to approx 30% when operating on 110 V.



Specifications are subject to change without notice.

General Precautions



Warning! Death or Serious Injury could occur if the following precautions are ignored



Eye Hazard! Do not look directly into the lens when the light source is on. The high brightness can cause permanent eye damage



Fire Hazard! Keep any combustible material away from hot surfaces and the projected beam. Ensure cables do not contact hot surfaces



Shock Hazard! Use only authorized components, tools, accessories and replacement parts specified by the manufacturer



Trip Hazard! Locate cables where they cannot be pulled, tripped over or damaged by persons or objects

Operate the product in the specified operating environment and conditions

Product should be powered off and disconnected from the mains before any service or maintenance operation

Keep body parts, hair, clothing and jewelery away from moving parts in the product.

Do not operate the product without a lens installed

Use a lens plug when installing or moving the product



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.



Service personnel should use effective laser safety goggles during service operations.



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 authorized 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.

Laser Safety Precautions



Warning! Death or Serious Injury could occur if the following precautions are ignored



Permanent/Temporary Blindness Hazard

Do not look directly into the lens when the light source is on. The high brightness can cause permanent eye damage.



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

Do not attempt to operate the product without covers in place.

Lens Change should only be carried out by instructed and skilled persons in accordance with the Important Information document or User Manual. If in doubt consult your dealer.

Ensure the projector is switched off and AC power removed before attempting a lens change

Laser Risk Group 3 Precautions



Not for household use.



Class 1 Laser Product, BS EN IEC 60825-1:2014. No direct exposure to the beam shall be permitted, RG3 BS EN IEC 62471-5:2015.

Operators shall control access to the beam within the hazard distance or install the product at a height that will prevent exposure of the spectator's eyes within the hazard distance. See Light Hazard Distance and Hazard Zone on page 32 for more information.

The product should be installed and operated in accordance with the provisions of BS EN IEC 62471-5:2015 and the Important Information document or User Manual by instructed and skilled persons only (BS EN IEC 62368-1:2020).

Laser Parameters

Wavelength (Red) 635-647nm Wavelength (Blue) 459-471nm Wavelength (Green) 519-531nm

Mode of operation Pulsed, due to frame rate

Total internal power 1356 W

Compliance with International Standards



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 A 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 for the Titan 37000 4K-UHD is less than 53 dB (A) at normal operating mode according to ISO 3744 or ISO 7779.

The sound pressure level for the Titan 41000 4K-UHD is less than 55 dB (A) at normal operating mode according to ISO 3744 or ISO 7779.

The sound pressure level for the Titan 43000 WU is less than 50 dB (A) at normal operating mode according to ISO 3744 or ISO 7779.

The sound pressure level for the Titan 47000 WU is less than 53 dB (A) at normal operating mode according to ISO 3744 or ISO 7779.

European Waste Electrical and Electronic Equipment (WEEE) Directive

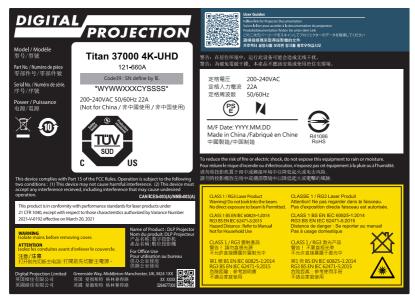
Digital Projection Ltd is fully committed to minimizing Waste Electrical and Electronic Equipment. Our products are designed with reuse, recycling and recovery of all components in mind. To this end, at end of life, your projector may be returned to Digital Projection Ltd or its agent so that the environmental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

Product Labels

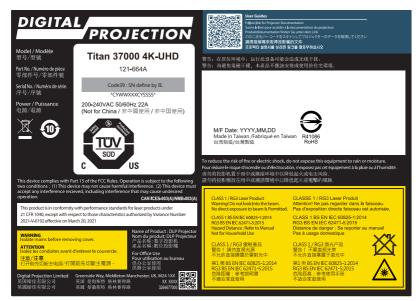
Projector



Titan 37000 4K-UHD Manufacturers Label (EMEA and China)



Titan 37000 4K-UHD Manufacturers Label (USA)



Titan 37000 4K-UHD Manufacturers Label (USA TAA)

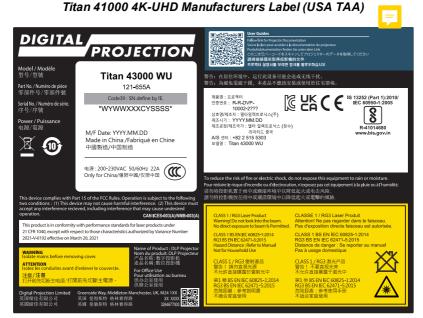


Titan 41000 4K-UHD Manufacturers Label (EMEA and China)

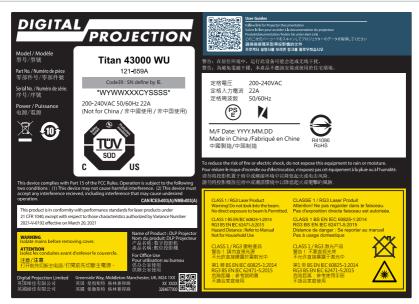


Titan 41000 4K-UHD Manufacturers Label (USA)





Titan 43000 WU Manufacturers Label (EMEA and China)



Titan 43000 WU Manufacturers Label (USA)



Titan 43000 WU Manufacturers Label (USA TAA)



Titan 47000 WU Manufacturers Label (EMEA and China)



Titan 47000 WU Manufacturers Label (USA)



Titan 47000 WU Manufacturers Label (USA TAA)



Laser Aperture Label



Electrical Safety Label



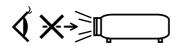
Laser Warning Label

Note: Input voltage limited 200-240V

注意:输入电压仅限 200-230V 注意:輸入電壓僅限 200-240V



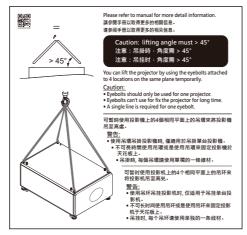
Mains Information Label



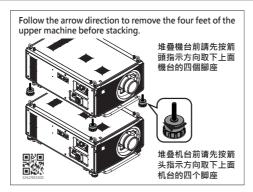
Laser Hazard Warning



Lens Obstruction Hazard Label



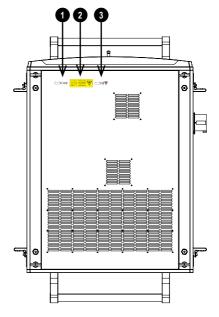
Lifting Guidance Label



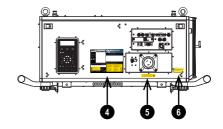
Stacking Guidance Label

Label Locations

- Location of the Laser Hazard Warning Label on the top of the projector.
- 2. Location of the Laser Aperture Label on the top of the projector.
- Location of the Lens
 Obstruction Hazard Label on the top of the projector.



- 4. Location of the Manufacturer's ID Label with Explanatory, Certification Statement and Risk Statement on the right side of the projector.
- 5. Location of the Mains Information Label on the right side of the projector.



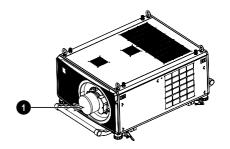
6. Location of the Electrical Safety Label on the right side of the projector.

Location of Laser Aperture

1. The laser aperture is located as indicated below.



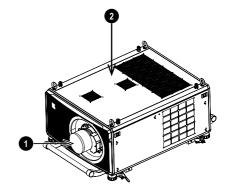
Do not look directly at the light coming from the lens.



Interlock Switches

Interlock switches are installed inside the projector. These will power-off the system when activated.

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



Installation Precautions



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

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

Do not drop or knock the projector.

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.

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.

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.

Avoid installing near an air conditioner duct or a subwoofer.

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.

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.

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™.



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.

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

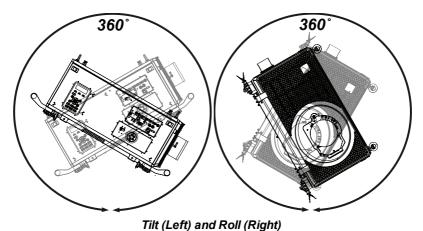
When installing a ceiling mount, make sure the weight limit is not exceeded and the projector is firmly secured.

When stacking projectors, the stack MUST be vertical, to ensure that the stresses are distributed to all four chassis corners.

Do not stack more than 2 projectors.

Do not use the provided eye bolts to suspend more than one projector. The eye bolts must not be used when stacking as they can carry the weight of one projector only.

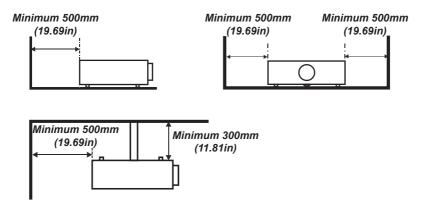
The projector can be operated any position, as shown in the diagram:





The following positions are to be avoided as they can reduce motor life: Lens facing down Inputs and outputs facing up

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



Example Positioning



Make sure the lens cap is 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.

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

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

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.

Turn on High Altitude Mode when located in high altitude areas.



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.

Do not place heavy objects on top of the projector chassis. Only the chassis corners and the optional rigging frame are capable of withstanding the weight of another projector.

Risk Group 3 Laser Hazard Installation Precautions



Do not attempt to access the internal hardware of the projector. Do not a attempt to modify or remove the laser module.

Do not operate the projector without its protective covers.

Please consult with a qualified professional to install or remove the lens.

Do not operate the projector without a lens installed.

Laser Risk Group 3 Installation Precautions



This product is a Class 1 Risk Group 3 laser product. It must be installed in a safe place and must be handled by qualified and professionally trained personnel.

Operators shall control access to the beam within the hazard distance or install the product at a height that will prevent exposure of the spectator's eyes within the hazard distance.

The product should be installed and operated in accordance with the provisions of BS EN IEC 62471-5:2015 and the Important Information document or User Manual by instructed and skilled persons only (BS EN IEC 62368-1:2020).

Light Hazard Warning



No direct exposure to the beam is permitted, RG3 BS EN IEC 62471-5:2015.

Light Hazard Distance and Hazard Zone



Operators should control access to the beam within the hazard distance or install the projector at sufficient height to prevent exposures of spectators' eyes within the hazard area.

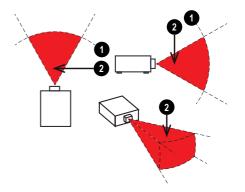
When the projector is installed overhead, allow a minimum of 3m between the floor surface and the Light Hazard Zone.

The hazard distance is the distance measured from the projection lens at which the intensity or energy per unit of surface is lower than the applicable exposure limit on the cornea or skin.

The hazard zone is the area from the projection lens up to the hazard distance that encompasses where the projected beam is considered

hazardous. 2

If the person is within the hazard zone, the beam is considered unsafe for exposure.



The hazard distance for this projector is related to the fitted lens:

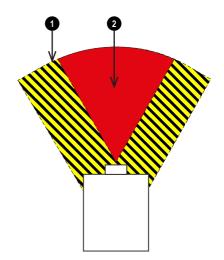
	Hazard Distance	
Lens	Titan 37000 4K-UHD Titan 41000 4K-UHD	
0.38 : 1	0m	0m
0.65 - 0.85: 1	0m	0m
0.67 : 1	N/A	0m
0.8 - 1.16 : 1	2.1m	2.5m
1.12 : 1	N/A	2m
1.16 - 1.49:1	2.2m	2.4m
1.39 - 1.87:1	2.8m	3.5m
1.87 - 2.56:1	3.8m	4.3m
2.56 - 4.16:1	5.3m	5.7m
4.16 - 6.96:1	7.5m	8.2m
6.92 - 10.36:1	9m	9.5m



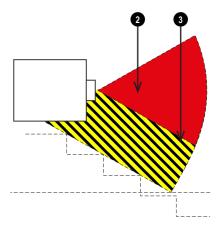
Restriction Zone

A restriction zone should be in place around the hazard zone to prevent any person from entering the hazard zone with any part of their body:

- Horizontal clearance 1. This should be no less than 2.5m around the hazard zone 2.
- Vertical clearance 3. This should be no less than 3m between the hazard zone 2 and the floor when the projector is installed overhead.



Hazard Zones - Horizontal Clearance (Top View)



Hazard Zones - Vertical Clearance (Side View)

Fitting a lens



The projector must be fully turned off prior to attempting a lens change.



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 following lenses are available for this projector:

Lens Throw Ratio	Titan 37000 4K-UHD Titan 41000 4K-UHD	'' ' ' ' ' '
0.38 : 1	✓	✓
0.65 - 0.85: 1	✓	✓
0.67 : 1	N/A	✓
0.8 - 1.16 : 1	✓	✓
1.12 : 1	N/A	✓
1.16 - 1.49:1	✓	✓
1.39 - 1.87:1	✓	✓
1.87 - 2.56:1	✓	✓
2.56 - 4.16:1	✓	✓
4.16 - 6.96:1	✓	✓
6.92 - 10.36:1	✓	✓

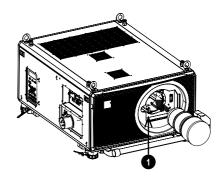


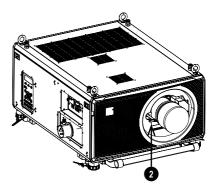


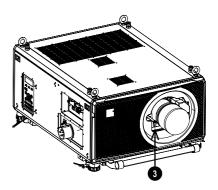
Please refer to the user manual for details about each lens.

Inserting a new lens

- Remove the lens aperture cap or lens from the projector. See Removing the lens on the facing page for guidance on removing a lens.
- Turn the lens release lever clockwise so that it is pointing upwards, to open the lock fully.
- 3. Remove the rear lens cap from the lens.
- 4. Insert the lens into the lens aperture, making sure that the plug on the zoom drive mechanism lines up with the socket on the front of the projector, then push the lens in firmly as far as it will go.
- 5. Turn the lens release lever anti-clockwise to the midposition. 2
- 6. The lens can now be pushed in further. Push the lens in firmly as far as it will go.
- 7. Turn the lens release lever fully anti-clockwise until it is pointing down, to close the lock fully. 3

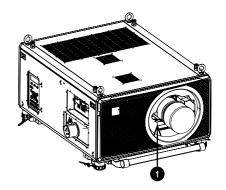






Removing the lens

- 1. Turn the release lever up to the mid-position **1**, then pull the lens out as far as it will go.
- Turn the release lever clockwise until it is pointing up, then pull the lens out completely.
- 3. Fit lens caps to the front and rear of the lens.
- 4. Fit a lens aperture cap or a new lens to the projector. See Inserting a new lens on the previous page for guidance on inserting a lens.



Positioning the screen and projector

- Install the screen, ensuring that it is in the best position for viewing by your audience
- Mount the projector, ensuring that it is at a suitable distance from the screen for the image to fill the screen.
 The drawing shows the

The drawing shows the positions of the mounting points:

- Four adjustable feet for tabletop mount ①. Set the adjustable feet so that the projector is level, and perpendicular to the screen.
- Four M6 holes for ceiling mount 2.
 The mounting screws

2 2 2 1 Projector Bottom

should not penetrate more than 30 mm into the body of the projector.



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

Stacking and rigging



The projectors must be in a vertical position when they are stacked. This will ensure that the stresses are distributed to all four corners of the chassis.

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

Do not use the carry handles to hang or mount the projector.

Do not stack more than 2 projectors.

Do not use the provided eye bolts to suspend stacked projectors. The eye bolts can only carry the weight of one projector.

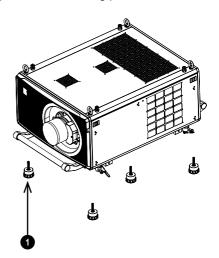
It is the customer's responsibility to ensure that the assembly is carried out securely.

The projector can be stacked using the pin and cups that are located on top and underneath the projector. The pin and cups can also be used to attach a mounting rail. The eye bolts on top of the projector can be used with suspension cables to fly the projector.

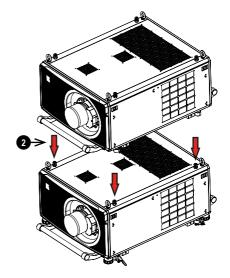
Pin and cup stacking

The top of the projector has pins and the bottom of the projector has cups. The pins and cups can connect together and be locked into place with a locking pin.

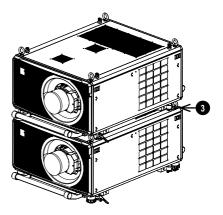
 Remove the adjustable feet from the projector that will be stacked on the top.



2. Mount the projector on top of the other projector. Ensure that all four cups are placed over the pins on the bottom projector. 2



3. Push the locking pins into place on each cup and pin. 3

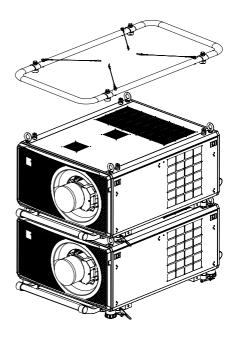


Using a mounting rail

A mounting rail may also be fitted using the pin and cup system. This is an optional accessory to the projector. It can be used with commercially available rigging truss clamps to attach the projector to a staging or lighting truss.



Only qualified riggers should make this installation after careful consideration of the strength and safety of the truss.



Using the eye bolts

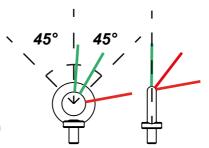
Four eye-bolts are fitted to the top of the projector to enable the flying of the projector using steel wire or chains.



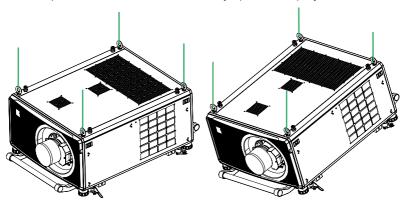
This system should only be used to fly a single projector. Do not stack projectors and fly them together.

Point-to point connections

Refer to the following guidelines when connecting one end of a suspension cable directly to an eye-bolt and the other to a suspension point.



- The suspension cables can be connected to
 - the eye-bolts at an angle of up to 45° around the eye ring.
- The suspension cables must not be connected to the eye-bolts at any angle across the eye ring.
- The suspension cable must run vertically up from the projector.



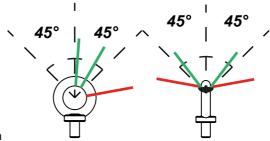
Examples of correct configurations



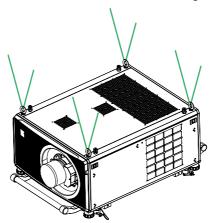
Example of an incorrect configuration

Threaded suspension cables

Refer to the following guidelines when threading the suspension cable through the eye-bolts and connecting both ends to suspension points.



- The suspension
 cable can exit
 the eye-bolts at an angle of up to 45° around the eye ring.
- $\bullet\,$ The suspension cable can exit the eye-bolts at an angle of up to 45° across the eye ring.
- The suspension cable should not be threaded through 2 or more eye-bolts.

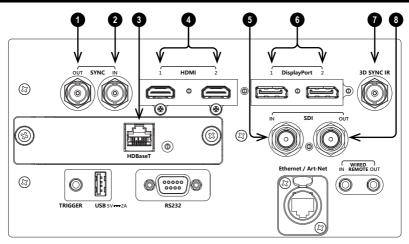


Example of a correct configuration



Example of an incorrect configuration

Signal connections



1. Sync Out

3D sync output signal. This enables synchronized 3D with multiple projectors. Use a 3-pin DIN connector to connect this to another projector.

2. Sync In

3D sync input signal. Use a BNC connector to connect the 3D sync from your graphics card or server.

3. **HDBaseT** (Optional board)

Receives digital signal from HDBaseT-compliant devices. Cat 6A cable is recommended

4. HDMI 1 / HDMI 2

HDMI 2.0 inputs supporting HDCP 2.2 and **Frame Sequential**, **Top and Bottom**, **Side By Side** and **Frame packing** 3D formats. Connect an **HDMI** cable to the connector.

5. SDI in

SDI input supporting up to 12G-SDI. Connect an SDI cable to the connector.

6. DisplayPort 1 / DisplayPort 2

DisplayPort 1.2 input. Connect a DisplayPort cable to the connector.

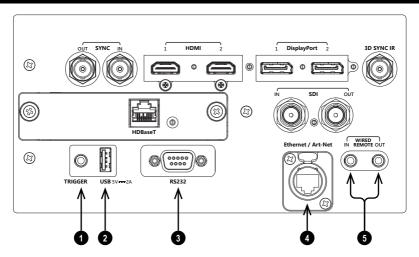
7. 3D Svnc IR

Sync output signal. Connect this to an IR emitter or ZScreen.

8. SDI out

SDI output supporting up to 12G-SDI. Connect an SDI cable to distribute the SDI signal to another projector.

Control connections



1. Trigger

The trigger output can be used to control an electrically operated screen. The screen will be automatically deployed when the projector starts up and retracted when the projector shuts down.

2. **USB**

USB 5V / 2A output. Connect a USB cable to supply power to an external device.

3. **RS232**

All of the projector's features can be controlled via a serial connection, using commands described in the **Protocol Guide**. Use a crossover cable to connect directly to a computer.

4. Ethernet/Art-Net

Ethernet

The projector's features can be controlled via a LAN connection. For example using Digital Projection's Projector Controller application, a terminal-emulation program or PJ-Link.

Art-Net

Art-Net compatible RJ45 etherCON input. Connect an etherCON connector cable from an Ethernet LAN/WLAN network to receive DMX-512 data over an IP-based network.

5. Wired Remote

The remote control can be connected using a standard 3.5 mm mini jack cable (tip-ring-sleeve, or TRS).

AC Power Precautions



Warning! Death or Serious Injury could occur if the following precautions are ignored

Shock Hazard! Only use the AC power cord provided or recommended by the manufacturer

Fire & Shock Hazard! Do not operate the product unless the power cord, socket and plug meet local rating standards

Do not attempt operation if the AC supply is not within the specified parameters

The AC power cord must be inserted into a socket with grounding

Disconnect the product from the AC supply before installing, moving, servicing, cleaning or removing covers

Do not use an AC power cord that appears damaged

Do not overload power sockets or extension cords

The projector can operate at 110V or 200V. Voltage selection is automatic. Power off the projector before switching power outlets.

Connecting the power supply

Rest of the World:

 Firmly push the mains connector into the AC socket 1

When the cable is plugged in and the power supply is on, the projector is OFF until the power button is switched to ON.

USA Only

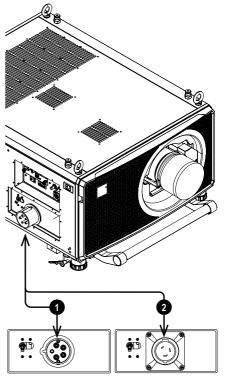
- Firmly push the mains connector into the AC socket 2
- 2. Rotate the connector 90° clockwise to lock it in place



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.



Basic Operating Instructions



See Control panel on page 54 for guidance on using the control panel to control the projector.



See Remote control on page 57 for guidance on using the remote control to control the projector.

Switching the projector on

- Connect the power cable between the mains supply and the projector. (See Connecting the power supply above.) Switch the breaker switch next to the power connector to on.
 - The **POWER** indicator turns red to signal that the projector is on and in STANDBY mode.
- 2. 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 as the projector powers up. When the flashing stops, the POWER indicator lights solid green and the Digital Projection logo appears on the screen. The projector is switched on and projecting.

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 on the control panel will start flashing blue, the projected image will turn off and the cooling fans will run for a short time until the **POWER** indicator goes steady red to indicate that the projector has entered STANDBY mode.
- 2. If you need to switch the projector off completely, switch the breaker switch next to the power connector to off and then disconnect the power cable from the projector.

Interlock reset

In the event of the laser illumination turning off as a result of an Interlock break:

- 1. Make sure all interlocks are in place. See Interlock Switches on page 26
- 2. Turn ON the laser illumination. See Switching the projector on above

Selecting an input signal

- 1. Connect one or more image sources to the projector.
- 2. Select the input you want to display:
 - Press one of the input buttons on the remote control or control panel.
 - Alternatively, open the On-screen display (OSD) by pressing MENU.
 Highlight Input from the main menu, press ENTER/OK and then select an input signal using the UP and DOWN arrow buttons. Press ENTER/OK to confirm your choice.

Selecting a test pattern

The following test patterns are available: Off, White, Black, Red, Green, Blue, Checkerboard, Crosshatch, Color Bar, Aspect Ratio

Use one of the following methods to display a test pattern:

- Press TEST on the remote control.
 Use the LEFT and RIGHT arrow buttons to cycle through the test patterns.
- Press MENU open the OSD. Highlight Test Patterns from the main menu, then select a test pattern using the LEFT and RIGHT arrow buttons.

After the final test pattern, the projector exits test pattern mode and returns to the main image. To view test patterns again, you need to press **TEST** again. If you wish to exit the test patterns before you reach the final one, press **TEST** or **EXIT** at any time.

Adjusting the lens

You can use the following options to adjust the lens:

- Control panel. See Control panel on page 54
- Remote control. See Remote control on page 57
- · On screen display (OSD).

OSD Lens menu

The **Lens** menu provides access to the **Lens Control** setting and the **Lens Center** command.

Lens Control allows **Zoom**, **Focus** and **Shift** adjustments using the arrow buttons. The setting operates in **Zoom/Focus Adjustment** and **Shift Adjustment** mode.

Press ENTER/SELECT to switch between the two modes.

Adjusting the image

Orientation

This can be set from the **Setup** menu.

Highlight Orientation and choose from Front Tabletop, Front Ceiling, Rear Tabletop, Rear Ceiling and Auto-front.

Picture

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

Please refer to the user manual for guidance on every available picture setting.

Operating the projector

The projector has the following controls:

- Remote control
- Control panel



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.

Control panel

1. POWER

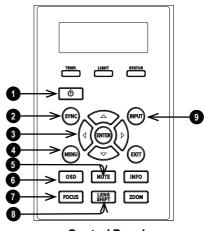
Switches the projector on and off (STANDBY).

2. SYNC

Press to resynchronise the active input.

3. Arrow buttons & ENTER

Press Focus, Lens Shift or Zoom and use the Up and Down arrow buttons to adjust the lens focus, shift or zoom. After opening the OSD, use the arrow buttons to highlight menu entries. Press **ENTER** to open or execute the highlighted menu entry.



Control Panel

4. MENU

Press to display or hide the OSD menu.

5. **MUTE**

Shows and hides the projected image.

When closed, the laser remains on and a black image is projected.

6. **OSD**

Press to enable or disable the OSD. When disabled, the OSD cannot be displayed.

7. FOCUS

Press this button, then press an arrow button to adjust the focus. Press EXIT to exit the focus mode.

8. LENS SHIFT

Press this button, then press an arrow button to adjust the lens shift. Press EXIT to exit the lens shift mode. Press and hold for 5 seconds to center the lens.

9. INPUT

Press to move to the next input source.

10. **EXIT**

Exits the current OSD page and enters the level above. Exits the OSD when at the top level OSD page.

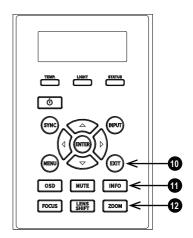
11. **INFO**

Press and hold for 5 seconds to activate or deactivate the LCM.

Press to change pages when the LCM is active.

12. **ZOOM**

Press this button, then press an up or down arrow button to adjust the zoom. Press EXIT to exit the zoom mode.



Control Panel

Projector indicators

1. LCM

Displays information about the current state of the projector.

2. TEMP

Off = no error Flashing red = temperature error

3. POWER

Off = the projector is switched off

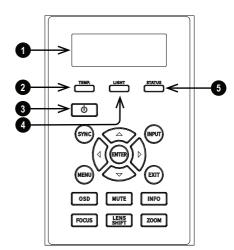
Flashing green = the projector is warming up

Flashing amber = the projector is cooling down

On, green = the projector is switched on

On, amber = the projector is in network standby mode

On, red = the projector is in power saving standby mode



Indicators

4. LIGHT

Off = light source is switched off

On, amber = light source is on (forced ECO mode)

On, green = light source is switched on

Flashing red (cycle of single flashes)

= failed to light up during power up

Flashing red (cycles of double flashes)

= light source failed while projector is on

Flashing green (cycles of single flashes)

= light source is temporarily off as PIC Mute is activated

5. STATUS

Off = no error

On, amber = firmware update mode

On, red = system error

Flashing green (cycles of double flashes) = lens calibration mode

Flashing amber (cycles of double flashes) = request to recalibrate the lens

Flashing red (cycle of single flashes) = cover error

Flashing red (cycles of double flashes) = TEC/Color sensor problem

Flashing red (cycles of four flashes) = fan error

Remote control

Power ON / OFF Turns power on and off.

2. Pic Mute OPEN / CLOSE

- Press CLOSE to hide the projected image. When off, the laser remains on and a black image is projected.
- Press OPEN to display the hidden image.

3. OSD ON / OFF

Enable and disable screen timeout messages and control whether to show the OSD during projection.

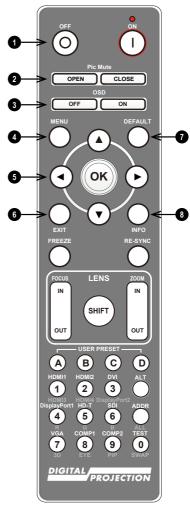
4. MENU

Access the on screen display (OSD). If the OSD is open, press this button to go back to the previous menu.

5. Navigation (arrows and OK) OSD mode: Navigate through the menus with the arrows, confirm your choice with OK. Lens adjustment modes: Press OK to switch between Shift Adjustment and Zoom / Focus Adjustment. Use the arrows to shift, zoom or focus the lens. See 10 below.

6. **EXIT**

Go up one level in the OSD. When the top level is reached, press to close the OSD.



Remote Control

7. **DEFAULT**

When editing a parameter, press this button to restore the default value.

8. **INFO**

Access information about the projector.

9. FREEZE

Freeze the current frame.

10. LENS adjustment

- FOCUS IN / OUT: adjust focus.
- SHIFT: press and hold this button, then use the Navigation arrow buttons to move the lens.
- ZOOM IN / OUT: adjust zoom.

USER PRESET A, B, C, D Load user presets.

12. RE-SYNC

Re-synchronise with the current input signal

13. **ALT**

Press and hold this button to access alternative functions for other buttons on the remote.

14. DVI / DisplayPort2 / numeric input 3

There is no DVI input on this projector.
Use with **ALT** to select the DisplayPort 2 input.

15. HDMI 2 / HDMI 4 / numeric input 2

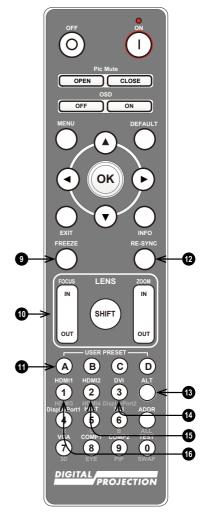
Select the HDMI 2 input. There is no HDMI 2 input on this projector.

There is no HDMI 4 input on this projector

16. HDMI 1 / HDMI 3 / numeric input 1

Select the HDMI 1 input.

There is no HDMI 3 input on this projector



Remote Control

- DISPLAYPORT 1 / R / numeric input 4
 Select DisplayPort 1 input.
- 18. **HD-T/G/numeric input 5** Select the HDBaseT input.
- ADDR / ALL (with red indicator at the top)
 Assign and unassign an IR remote address.

To assign an IR remote address:

- Press and hold this button until the red indicator starts flashing.
- Release this button and while the red indicator is still flashing, enter a twodigit address using the numeric input buttons. The indicator will flash three times quickly to confirm the change.

To unassign an address and return to the default address 00:

- Press and hold ALT and this button simultaneously until the red indicator flashes to confirm the change.
- 20. **SDI/B/numeric input 6** Select the SDI input.



Remote Control

21. VGA / 3D / numeric input 7

There is no VGA input on this projector.

Use with **ALT** to toggle the 3D Format setting between Off and Auto.

22. COMP1 / EYE / numeric input 8

There is no Component 1 input on this projector.
Use with **ALT** to switch between left and right eye 3D dominance.

23. TEST / SWAP / numeric input 0

Show a test pattern. Press again to show the next test pattern: Off, White, Black, Red, Green, Blue, Checkerboard, Crosshatch, Color Bar, Aspect Ratio

The **SWAP** function is not used on this projector.

24. COMP2 / PIP / numeric input 9

There is no Component 2 input on this projector.
The **PIP** function is not used on this projector.



Remote Control

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