G100

User Guide

ENABLING BRIGHT OUTCOMES

BARCO

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Changes

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The environmental conditions as well as the servicing and maintenance regulations specified in this manual must be complied with by the customer.

Federal Communications Commission (FCC Statement)

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential

area may cause harmful interference, in which case the user will be responsible for correcting any interference at his own expense

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

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Patent protection

Please refer to *www.barco.com/about-barco/legal/patents*

EMC notices

EN55032/CISPR32 Class A MME (MultiMedia Equipment)

Warning : This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

GB/T 9254 Class A ITE (Information Technology Equipment)

Warning : This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

BSMI Taiwan Class A statement:

警告使用者：此為甲類資訊技術設備，於居住環境中使用 ，可能會造成射頻擾動，在此情況下，使用者會被要求採取某些適當的對策。

Disclaimer for camera usage

The projector comes with a built-in camera to help with the automatic setup and adjustment of the projector settings. Barco disclaims any liability for any use of the camera outside this intended use.

Disclaimer for network usage

Barco highly recommends to install the projector in a **closed network** environment to minimize the risk of leaking, hacking or corrupting of company confidential information; commercial sensitive information and/or personal data. Furthermore, strengthen your network security to protect the projector against unauthorized access by third parties. To the maximum extent permitted by law, Barco disclaims any liability for the use of the projector in an open network environment.

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1 Safety

About this document

Read this document attentively. It contains important information to prevent personal injury while installing and using the G100 projector. Furthermore, it includes several cautions to prevent damage to the G100 projector. Ensure that you understand and follow all safety guidelines, safety instructions and warnings mentioned in this chapter before installing the G100 projector.

Clarification of the term “G100” used in this document

When referring in this document to the term “G100” means that the content is applicable for following Barco products:

- G100-W16, G100-W19, G100-W22

Model certification name

- G100

Barco provides a guarantee relating to perfect manufacturing as part of the legally stipulated terms of guarantee. Observing the specification mentioned in this chapter is critical for projector performance. Neglecting this can result in loss of warranty.

1.1 General considerations

General safety instructions

- Before operating this equipment please read this manual thoroughly and retain it for future reference.
- Installation and preliminary adjustments should be performed by qualified Barco personnel or by authorized Barco service dealers.
- All warnings on the projector and in the documentation manuals should be adhered to.
- All instructions for operating and use of this equipment must be followed precisely.
- All local installation codes should be adhered to.
- IEC/EN 60825-1: 2014 Laser class 1 RG2 or RG3.
- IEC/EN 62471-5:2015 RG2 or RG3.
- Additional instructions to supervise children, no staring, and not use optical aids.
- Additional instructions to install above the reach of children.
- Notice is given to supervise children and to never allow them to stare into the projector beam at any distance from the projector.
- Notice is given to use caution when using the remote control for starting the projector while in front of the projection lens.
- Notice is given to the user to avoid the use of optical aids such as binoculars or telescopes inside the beam.
- “As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015”.
- “WARNING: MOUNT ABOVE THE HEADS OF CHILDREN. The use of a ceiling mount is recommended with this product to place it above the eyes of children.

Notice on safety

This equipment is built in accordance with the requirements of the applicable international safety standards. These safety standards impose important requirements on the use of safety critical components, materials and insulation, in order to protect the user or operator against risk of electric shock and energy hazard and having access to live parts. Safety standards also impose limits to the internal and external temperature rises, radiation levels, mechanical stability and strength, enclosure construction and protection against the risk of fire. Simulated single fault condition testing ensures the safety of the equipment to the user even when the equipment's normal operation fails.

Laser safety precautions for G100 Series

This product is classified as CLASS 1 LASER PRODUCT - RISK GROUP 2 of IEC 60825-1 : 2014 and also complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:Ed. 1.0. For more information, see Laser Notice No. 57, dated May 8, 2019.

When installed with G LENS (2.0 - 4.0 : 1) and G LENS (4.0-7.2 : 1) lens (throw ratio greater than 2.0), this projector may become Class 1 Laser Product-Risk Group 3 (RG3) according to IEC 60825-1:2014, IEC 62471-5: 2015, and also make a variance approvals under 21 CFR 1010.4 for RG3 LIP according to Classification and Requirements for Laser Illuminated Projectors (LIPs) (Laser Notice No. 57).

To ensure safety operation, read all laser safety precautions before installing and operating the projector.

- This projector uses extremely high brightness laser. Do not stare into the direct light beam, as the extremely high
  brightness may cause permanent eye damage. (Risk Group 2 of IEC 62471-5:2015).
- No direct exposure to the beam shall be permitted. (Risk Group 3 of IEC 62471-5:2015).
- This product is not for household use.
- Possibly hazardous optical radiation emitted from this product.
- This projector has a built-in Class 4 laser module. Never attempt to disassemble or modify the laser module.
- Any operation or adjustment not specifically instructed in the User manual creates the risk of hazardous laser
  radiation exposure.
- Do not stare into beam when the projector is on. When turning on the projector, make sure no one within projection range is looking into the lens.
- Follow the control, adjustment, or operation procedures to avoid damage or injury from exposure of laser radiation.

- The instructions for the assembly, operation, and maintenance include clear warnings concerning precautions to
  avoid possible exposure to hazardous laser radiation.

Light Intensity Hazard Distance for G100 Series

This projector may become Laser Product-Risk Group 3 (RG3) when installed with lens with throw ratio greater than 2.0. Permanent eye injury is possible when exposed to the high intensity light beam within the hazard distance (HD).

Lens information with resolution WUXGA (0.96”):

		Hazard Distance (HD)	
Projection Lens Throw ratio	**Risk Group**	**G100–W22**	**G100–W16, G100–W19**
0.38 - 2.0	RG2	NA	NA
2.0 - 4.0	RG3	1940 mm	1165 mm
4.0 - 7.2	RG3	4565 mm	4120 mm

Follow the precautions to avoid light intensity hazard.

- NEVER look into the lens! High intensity light beam.
- Permanent eye injury is possible when exposed to the high intensity light beam within the hazard distance.
- Operators shall control access to the light beam within the hazard distance or install the product at a height that will prevent eye exposure within the hazard distance.
- Do not place any reflective objects in the light path of the projector.

1.2 Important safety instructions

To prevent the risk of electrical shock

- This product should be operated from a mono phase AC power source.
- This apparatus must be grounded (earthed) via the supplied 3 conductor AC power cable. If none of the supplied power cables are the correct one, consult your dealer. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
- Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Use only the power cord supplied with your device. While appearing to be similar, other power cords have not been safety tested at the factory and may not be used to power the device. For a replacement power cord, contact your dealer.
- Do not operate the projector with a damaged cord. Replace the cord.
- Do not operate the projector if the projector has been dropped or damaged until it has been examined and approved for operation by a qualified service technician. Position the cord so that it will not be tripped over, pulled, or contact hot surfaces.
- If an extension cord is necessary, a cord with a current rating at least equal to that of the projector should be used. A cord rated for less amperage than the projector may overheat.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock.
- Do not expose this projector to rain or moisture.
- Do not immerse or expose this projector in water or other liquids.
- Do not spill liquid of any kind on this projector.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified service personnel before resuming operations.
- Do not disassemble this projector, always take it to an authorized trained service person when service or repair work is required.
- Do not use an accessory attachment which is not recommended by the manufacturer.

- Lightning - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the device due to lightning and AC power-line surges.

To prevent personal injury

- To prevent injury and physical damage, always read this manual and all labels on the system before connecting to the wall outlet or adjusting the projector.
- To prevent injury, take note of the weight of the projector.
- To prevent injury, ensure that the lens and all covers are correctly installed. See installation procedures.
- Warning: high intensity light beam. NEVER look into the lens ! High luminance could result in damage to the eye.
- Warning: extremely high brightness laser: This projector uses extremely high brightness laser. Never attempt to look directly into the lens or at the laser.
- Before attempting to remove any of the projector's covers, you must turn off the projector and disconnect from the wall outlet.
- When required to switch off the projector, to access parts inside, always disconnect the power cord from the power net.
- The power input at the projector side is considered as the disconnect device. When required to switch off the projector, to access parts inside, always disconnect the power cord at the projector side. In case the power input at the projector side is not accessible (e.g. ceiling mount), the socket outlet supplying the projector shall be installed nearby the projector and be easily accessible, or a readily accessible general disconnect device shall be incorporated in the fixed wiring.
- Do not place this equipment on an unstable cart, stand, or table. The product may fall, causing serious damage to it and possible injury to the user.
- It is hazardous to operate without lens or shield. Lenses, shields or ultra violet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example by cracks or deep scratches.
- Exposure to UV radiation: Some medications are known to make individuals extra sensitive to UV radiation. The American Conference of Governmental Industrial Hygienists (ACGIH) recommends occupational UV exposure for an-8 hour day to be less than 0,1 micro-watts per square centimeters of effective UV radiation. An evaluation of the workplace is advised to assure employees are not exposed to cumulative radiation levels exceeding these government guidelines. The exposer of this UV radiation is allowed for only 1 hour per day for maintenance and service persons.

To prevent fire hazard

- Do not place flammable or combustible materials near the projector!
- Barco large screen projection products are designed and manufactured to meet the most stringent safety regulations. This projector radiates heat on its external surfaces and from ventilation ducts during normal operation, which is both normal and safe. Exposing flammable or combustible materials into close proximity of this projector could result in the spontaneous ignition of that material, resulting in a fire. For this reason, it is absolutely necessary to leave an "exclusion zone" around all external surfaces of the projector whereby no flammable or combustible materials are present. The exclusion zone must be not less than 100 cm (39.4") for all DLP projectors. The exclusion zone on the lens side must be at least 5 m. Do not cover the projector or the lens with any material while the projector is in operation. Keep flammable and combustible materials away from the projector at all times. Mount the projector in a well-ventilated area away from sources of ignition and out of direct sun light. Never expose the projector to rain or moisture. In the event of fire, use sand, CO2 or dry powder fire extinguishers. Never use water on an electrical fire. Always have service performed on this projector by authorized Barco service personnel. Always insist on genuine Barco replacement parts. Never use non- Barco replacement parts as they may degrade the safety of this projector.
- Slots and openings in this equipment are provided for ventilation. To ensure reliable operation of the projector and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the projector too close to walls, or other similar surface. This projector should never be placed near or over a radiator or heat register. This projector should not be placed in a built-in installation or enclosure unless proper ventilation is provided.
- Projection rooms must be well ventilated or cooled in order to avoid build up of heat.
- Let the projector cool down completely before storing. Remove cord from the projector when storing.

To prevent projector damage

- Always remove lens cap before switching on the projector. If the lens cap is not removed, it may melt due to the high energy light emitted through the lens. Melting the lens cap may permanently damage the surface of the projection lens.
- The air filters of the projector must be cleaned or replaced on a regular basis. Cleaning the booth area would be monthly minimum. Neglecting this could result in disrupting the air flow inside the projector, causing overheating. Overheating may lead to the projector shutting down during operation.
- The projector must always be installed in a manner which ensures free flow of air into its air inlets and unimpeded evacuation of the hot air from its cooling system.
- If more than one projector is installed in a common projection booth, the exhaust air flow requirements are valid for EACH individual projector system. Note that inadequate air extraction or cooling will result in decreased life expectancy of the projector as a whole as well as causing premature failure of the lasers.
- In order to ensure that correct airflow is maintained, and that the projector complies with Electromagnetic Compatibility (EMC) requirements, it should always be operated with all of its covers in place.
- Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. The device should not be placed in a built-in installation or enclosure unless proper ventilation is provided.
- Ensure that nothing can be spilled on, or dropped inside the projector. If this does happen, switch off and unplug the mains supply immediately. Do not operate the projector again until it has been checked by qualified service personnel.
- Do not block the projector cooling fans or free air movement around the projector.
- Do not use this equipment near water.
- Special care for Laser Beams: Special care should be used when DLP projectors are used in the same room as high power laser equipment. Direct or indirect hitting of a laser beam on to the lens can severely damage the Digital Mirror Devices™ in which case there is a loss of warranty.
- Never place the projector in direct sun light. Sun light on the lens can severely damage the Digital Mirror Devices™ in which case there is a loss of warranty.
- Save the original shipping carton and packing material. They will come in handy if you ever have to ship your equipment. For maximum protection, repack your set as it was originally packed at the factory.
- Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Never use strong solvents, such as thinner or benzine, or abrasive cleaners, since these will damage the cabinet. Stubborn stains may be removed with a cloth lightly dampened with mild detergent solution.
- To ensure the highest optical performance and resolution, the projection lenses are specially treated with an anti-reflective coating, therefore, avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Rated operating ambient temperature: ta= 0 °C (32 °F) to 50 °C (122 °F).
- Rated operating humidity: 10% RH to 85% RH (non-condensing). This projector can be set to any angle within 360° range.
- Allowing proper space around the projector is critical for proper air circulation and cooling of the unit. The dimensions shown here indicate the minimum space required.

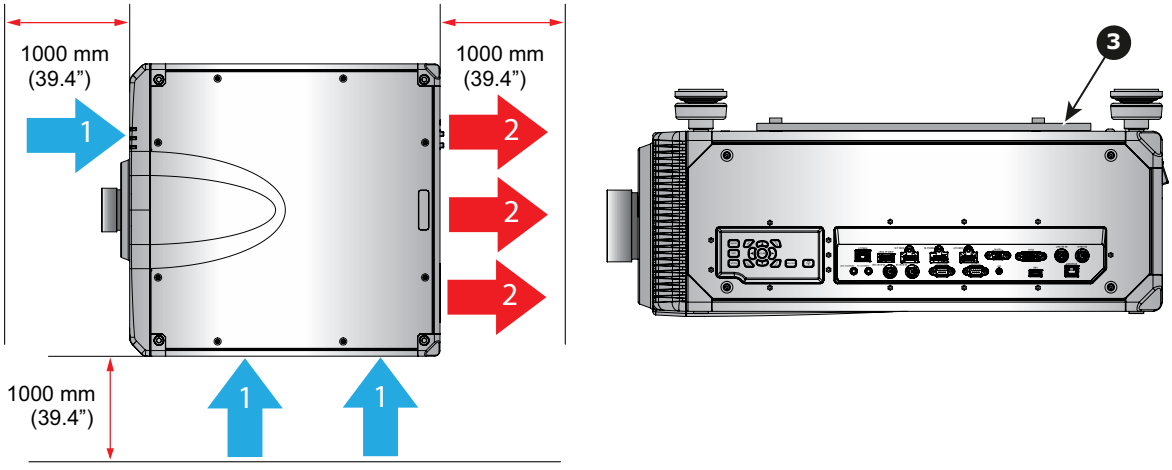


Image 1–1

1 Air Inlet.
2 Air outlet.
3 Ceiling mount plate.

To prevent battery explosion

- Danger of explosion if battery is incorrectly installed.
- Replace only with the same or equivalent type recommended by the manufacturer.
- For disposal of used batteries, always consult federal, state, local and provincial hazardous waste disposal rules and regulations to ensure proper disposal.

On servicing

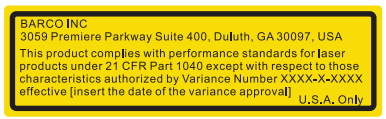
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage potentials and risk of electric shock.
- Refer all servicing to qualified service personnel.
- Attempts to alter the factory-set internal controls or to change other control settings not specially discussed in this manual can lead to permanent damage to the projector and cancellation of the warranty.
- Remove all power from the projector and refer servicing to qualified service technicians under the following conditions:
  - When the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the equipment.
  - If the product has been exposed to rain or water.
  - If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of the other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
  - If the product has been dropped or the cabinet has been damaged.
  - If the product exhibits a distinct change in performance, indicating a need for service.
- Replacement parts: When replacement parts are required, be sure the service technician has used original Barco replacement parts or authorized replacement parts which have the same characteristics as the Barco original part. Unauthorized substitutions may result in degraded performance and reliability, fire, electric shock or other hazards. Unauthorized substitutions may void warranty.
- Safety check: Upon completion of any service or repairs to this projector, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

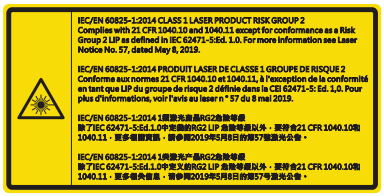
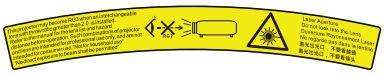
Safety Data Sheets for Hazardous Chemicals

For safe handling information on chemical products, consult the Safety Data Sheet (SDS). SDSs are available upon request via safetydatasheets@barco.com.

1.3 Product safety labels

Light beam related safety labels for G100 Series

Label image	Label description
	"WARNING: MOUNT ABOVE THE HEADS OF CHILDREN." Additional warning against eye exposure for close exposures less than 1 m.
	FDA laser variance (US projectors only).

Label image	Label description
	This product is classified as Class 1 Laser Product-Risk Group 2 of IEC 60825-1:2014 and also complies with 21 CFR 1040.10 and 1040.11 as a Risk Group 2, LIP (Laser Illuminated Projector) as defined in IEC 62471-5:Ed.1.0. For more information, see Laser Notice No. 57, dated May 8, 2019.
	This projector may become Risk Group 3 product when an interchangeable lens with throw ratio greater than 2.0 (G lens - Ultra Long Zoom) is installed. Refer to the manual for the lens list and hazard distance before operation. Such combinations of projector and lens are intended for professional use only, and are not intended for consumer use. Not for household use.

1.4 Risk Group 3 Safety

1.4.1 General considerations

Notice on optical radiation from G100 Projector when it becomes Risk Group 3.

- For RG3, no direct exposure to the beam shall be permitted.
  For RG3, operators shall control access to the beam within the hazard distance or install the product at a height that will prevent eye exposure within the hazard distance.
- This projector has one or several built-in Class 4 laser clusters. Disassembly or modification is very dangerous and should never be attempted.
- Any operation or adjustment not specifically instructed by the user's guide creates the risk of hazardous laser radiation exposure.
- Do not open or disassemble the projector as this may cause damage by the exposure of laser radiation.

FOR PROFESSIONAL USE ONLY means installation can only be carried out by Barco AUTHORIZED PERSONNEL familiar with potential hazards associated with high intensity light beams.

WARNING: No direct exposure to the beam within the hazard distance shall be permitted, RG3 (Risk Group 3) IEC EN 62471-5:2015

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

PPE (Personal Protective Equipment) description.

A skilled person or service person shall be worn protective clothes and goggles when access to restricted area.

Possible skin or eye damage.

Disconnect power before servicing.

1.4.2 High Brightness precautions: Hazard Distance

HD
Hazard Distance (HD) is the distance measured from the projection lens at which the intensity or the energy per surface unit becomes lower than the applicable exposure limit on the cornea or on the skin. The light beam is considered (to be) unsafe for exposure if the distance from a person to the light source is less than the HD.

Restriction Zone (RZ) based on the HD

The HD depends on the amount of lumens produced by the projector and the type of lens installed. See chapter “HD for fully enclosed projection systems”, page 15.

To protect untrained end users (as cinema visitors, spectators) the installation shall comply with the following installation requirements: Operators shall control access to the beam within the hazard distance or install the product at the height that will prevent spectators' eyes from being in the hazard distance. Radiation levels in excess of the limits will not be permitted at any point less than 2.0 meter (SH) above any surface upon which persons other than operators, performers, or employees are permitted to stand or less than 1.0 meter (SW) lateral separation from any place where such persons are permitted to be. In environments where unrestrained behavior is reasonably foreseeable, the minimum separation height should be greater than or equal to 3.0 meter to prevent potential exposure, for example by an individual sitting on another individual's shoulders, within the HD.

These values are minimum values and are based on the guidance provided in IEC 62471-5:2015 section 6.6.3.5.

The installer and user must understand the risk and apply protective measures based upon the hazard distance as indicated on the label and in the user information. Installation method, separation height, barriers, detection system or other applicable control measure shall prevent hazardous eye access to the radiation within the hazard distance.

For example, projectors that have a HD greater than 1 m and emit light into an uncontrolled area where persons may be present should be positioned in accordance with “the fixed projector installation” parameters, resulting in a HD that does not extend into the audience area unless the beam is at least 2.0 meter above the floor level. In environments where unrestrained behavior is reasonably foreseeable, the minimum separation height should be greater than or equal to 3.0 meter to prevent potential exposure, for example by an individual sitting on another individual's shoulders, within the HD. Sufficiently large separation height may be achieved by mounting the image projector on the ceiling or through the use of physical barriers.

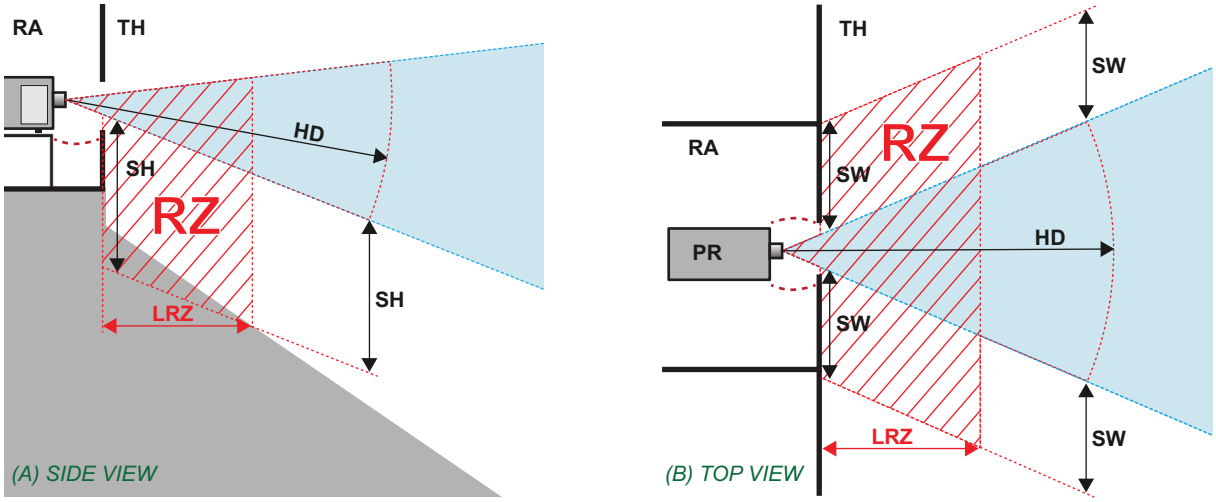


Image 1–2

A Side view.
B Top view.
RA Restricted Access location (boot area of projector).
PR Projector.
TH Theater.
RZ Restriction Zone in the theater.
SH Separation Height.
SW Separation Width.

Based on national requirements, no person is allowed to enter the projected beam within the zone between the projection lens and the related hazard distance (HD). This shall be physically impossible by creating sufficient separation height or by placing barriers. The minimum separation height takes into account the surface upon which persons other than operator, performers or employees are permitted to stand.

On Image 1–3 a typical setup is displayed. It must be verified if these minimum requirements are met. If required a restricted zone (RZ) in the theater must be established. This can be done by using physical barrier, like a red rope as illustrated in Image 1–3.

The restricted area sticker can be replaced by a sticker with only the symbol.

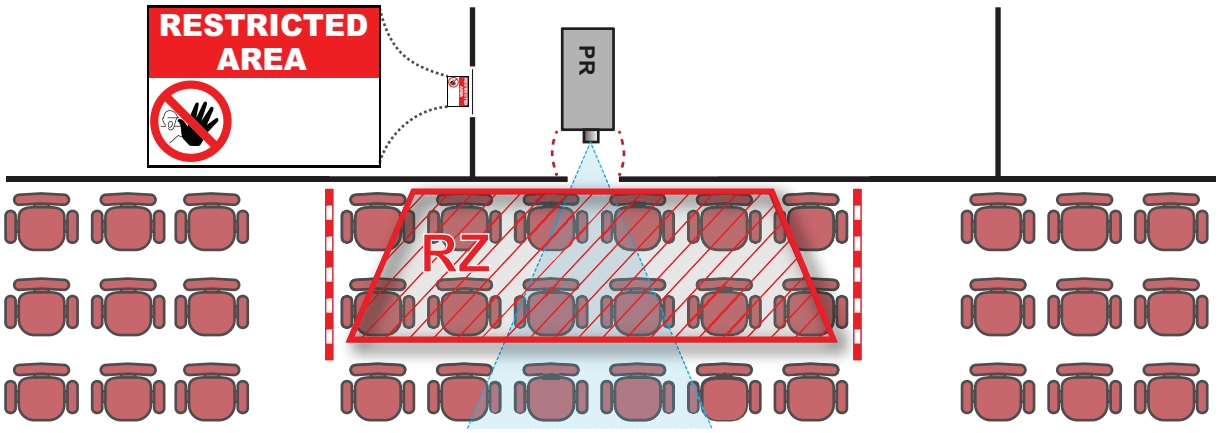


Image 1–3

1.4.3 HD for fully enclosed projection systems

HD
Hazard Distance (HD) is the distance measured from the projection lens at which the intensity or the energy per surface unit becomes lower than the applicable exposure limit on the cornea or on the skin. The light beam is considered (to be) unsafe for exposure if the distance from a person to the light source is less than the HD.

Restriction Zone (RZ) based on the HD

The projector is also suitable for rear projection applications; projecting a beam onto a defuse coated projection screen. As displayed in Image 1– 4 two areas should be considered: the restricted enclosed projection area (RA) and the observation area (TH).

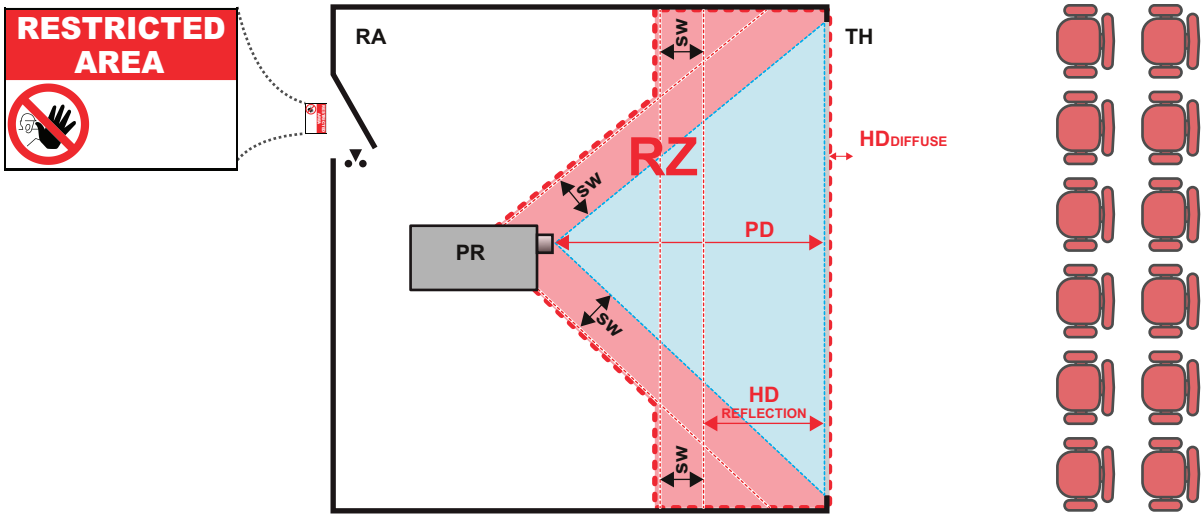


Image 1–4

RA Restricted Access location (enclosed projection area).
PR Projector.
TH Theater (observation area).
RZ Restriction Zone.
PD Projection Distance.
SW Separation Width. Must be minimum 1 meter.

For this type of setup 3 different HD shall be considered:

- HD as discussed in “High Brightness precautions: Hazard Distance”, page 13, relevant for intrabeam exposure.
- $HD_{reflection}$: the distance that has to be kept restrictive related to the reflected light from the rear projection screen.
- $HD_{diffuse}$: the relevant distance to be considered while observing the diffuse surface of the rear projection screen.

As described in “High Brightness precautions: Hazard Distance”, page 13, it is mandatory to create a restricted zone within the beam areas closer than any HD. In the enclosed projection area the combination of

two restricted zones are relevant: The restricted zone of the projected beam toward the screen; taking into account 1 meter Separation Width (SW) from the beam onward. Combined with the restricted zone related to the rear reflection from the screen ($HD_{reflection}$); also taking into account a 1 meter lateral separation.

The $HD_{reflection}$ distance equals 25% of the difference between the determined HD distance and the projection distance to the rear projection screen. To determine the HD distance for the used lens and projector model see chapter “HD for fully enclosed projection systems”, page 15.

$$HD_{reflection} = 25\% \ (HD - PD)$$

The light emitted from the screen within the observation shall never exceed the RG2 exposure limit, determined at 10 cm. The $HD_{diffuse}$ can be neglected if the measured light at the screen surface is below 5000 cd/m² or 15000 LUX.

Getting started 2

2.1 Getting to know the projector 18
2.2 Powering on the projector 20
2.3 Start image projection 21
2.4 Powering off the projector 22

About this chapter

This chapter and by extension this whole document, the user manual, is intended for the user who want's to operate the projector. It does not contain installation instructions because the installation has to be done by trained and qualified service technicians. Refer to the projector installation manual for detailed installation instructions.

2.1 Getting to know the projector

Orientation convention

This manual refers to the left side of the projector as the side at your left hand when standing behind the projector and looking at the projection screen in front of the projector.

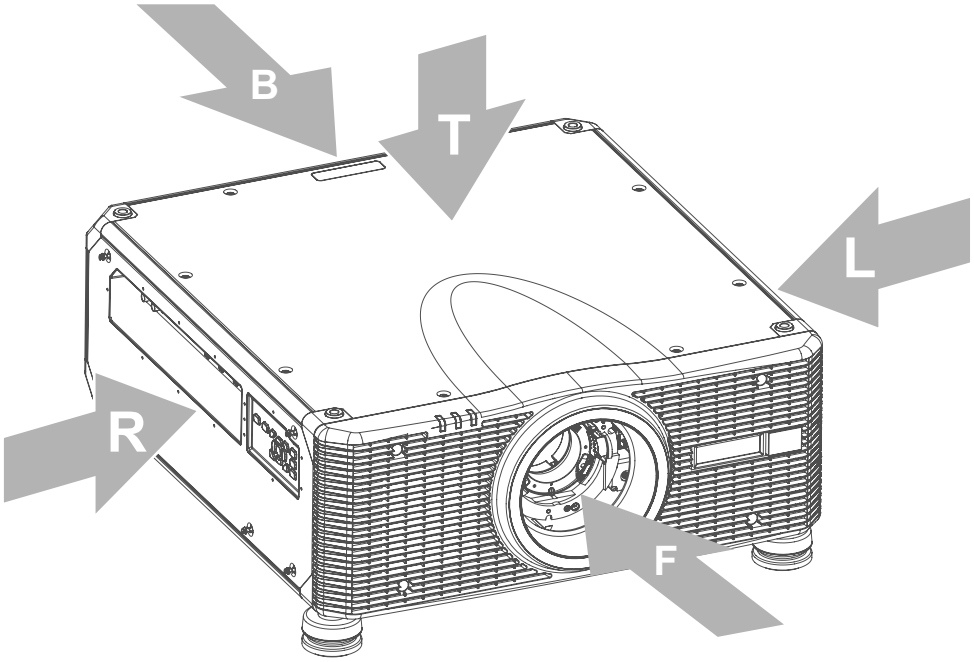


Image 2–1

T Top
L Left
F Front
R Right
B Back

Component location

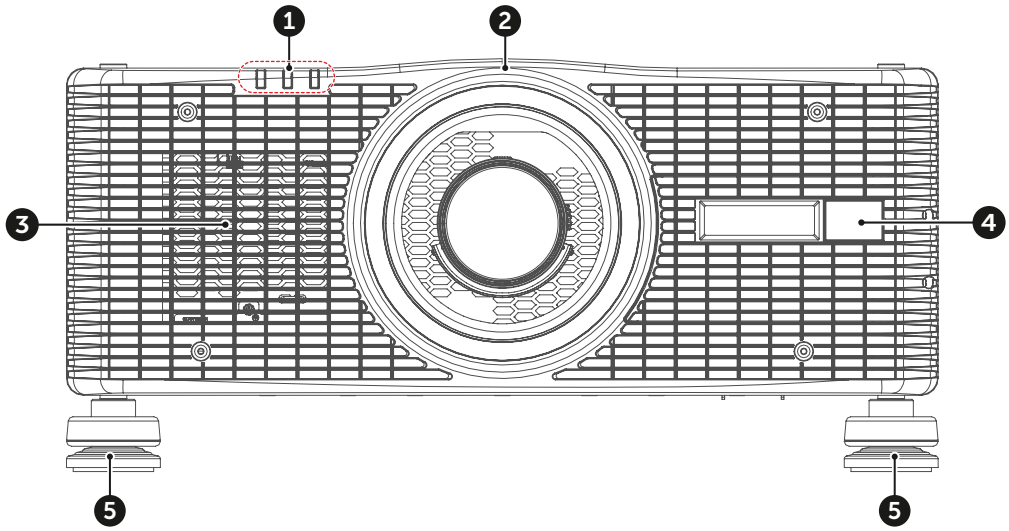


Image 2–2 Front view

1 Status LEDs
2 Projection lens
3 Cooling air vents (intake)
4 Front IR sensor
5 Adjustment feet

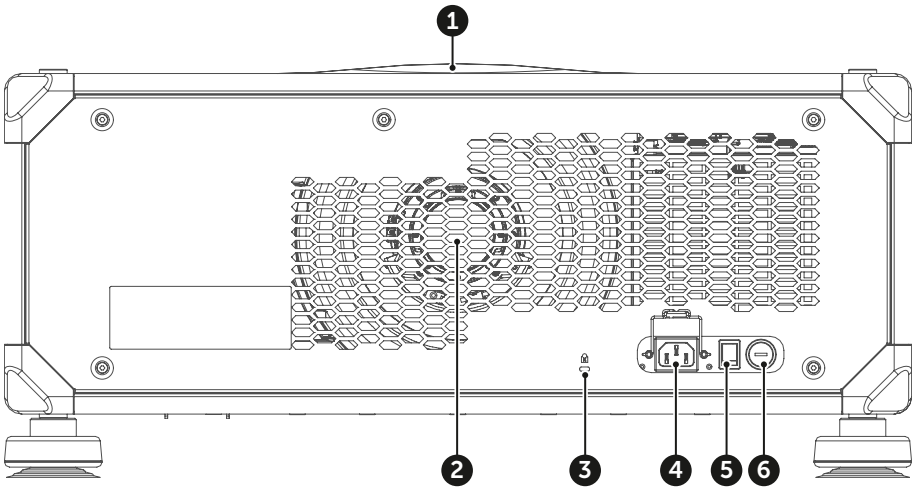


Image 2–3 Rear view

1 Top IR sensor
2 Cooling air vents (exhaust)
3 Kensington lock
4 AC input
5 Power switch
6 Fuel location

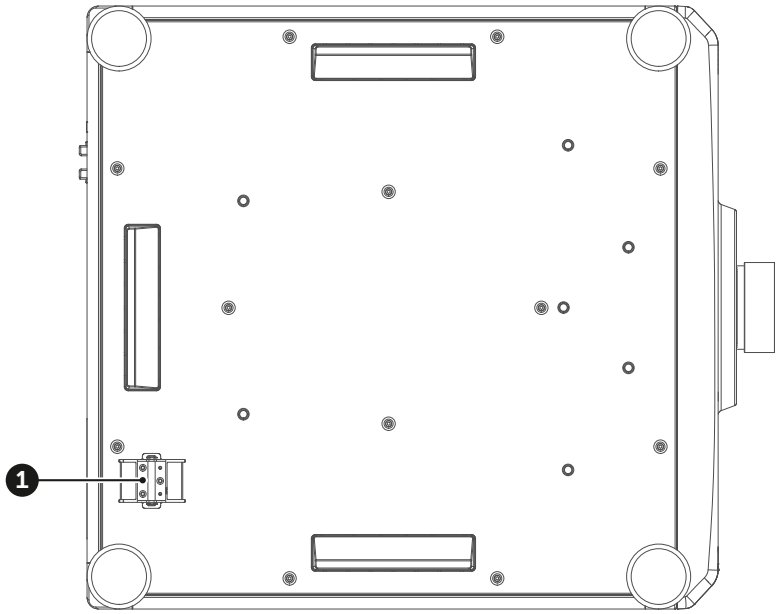


Image 2–4 Bottom view

1 Anti-theft bar

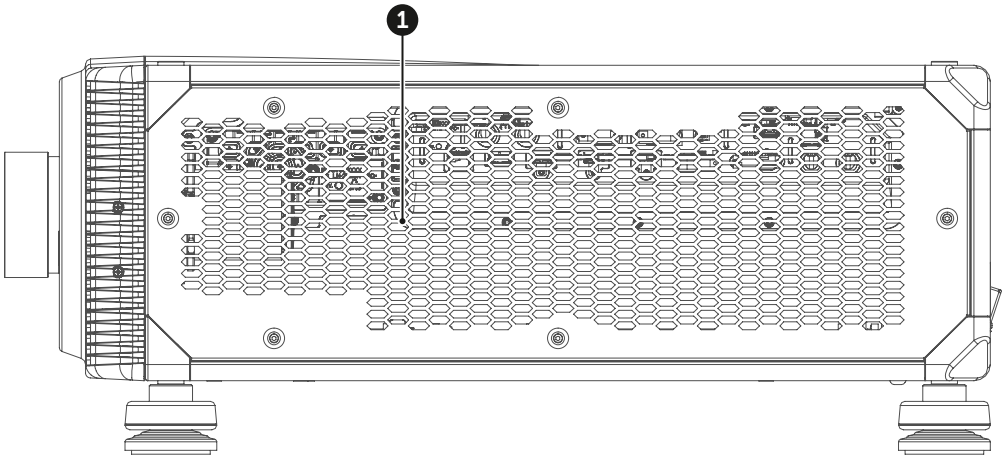


Image 2–5

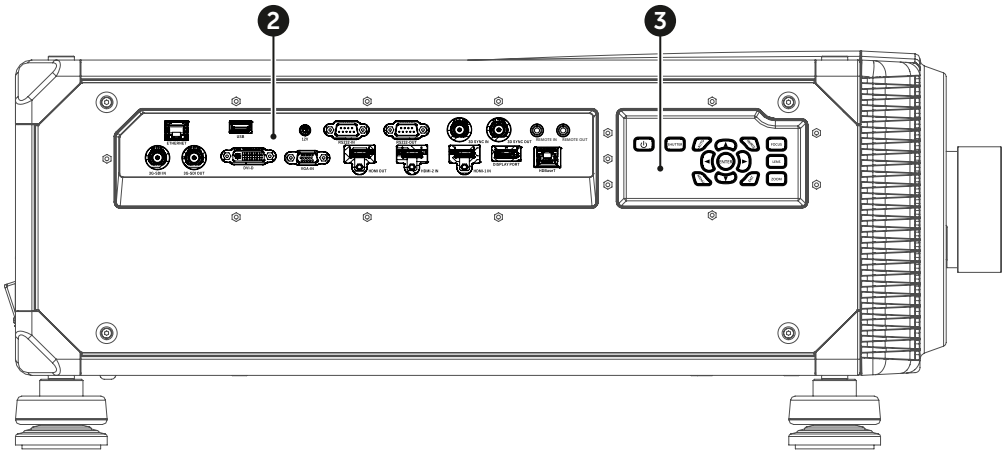


Image 2–6 Sidev iews

1 Cooling air vents (intake)
2 Input / Output panel
3 Built-in keypad

Airflow

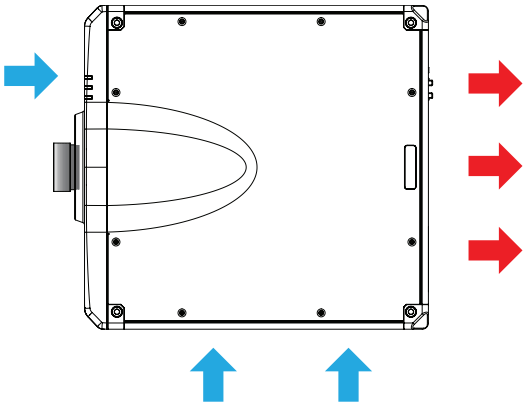


Image 2–7

2.2 Powering on the projector

How to power on the projector

1. Power on the AC switch (1) and wait until the power button on the control panel is solid orange.

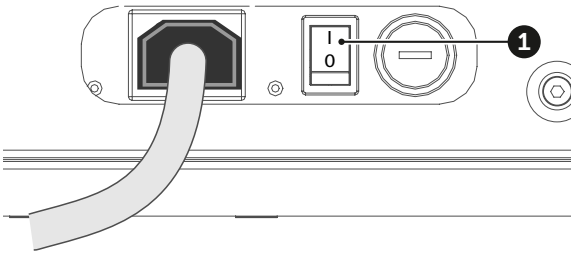


Image 2–8

2. Turn on the projector by pressing the POWER button (2) on the control panel or the ON key (3) on the remote control.

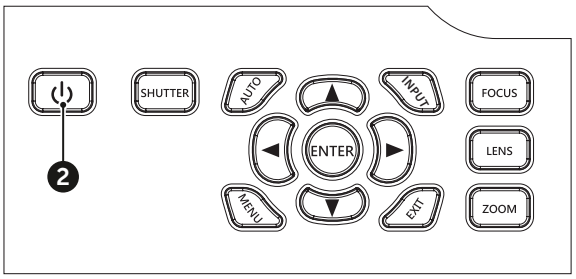


Image 2–9

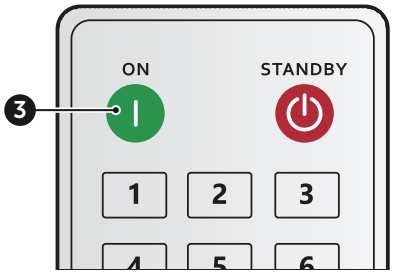


Image 2–10

The status LED (4) will flash orange. The startup screen will display and the status LED will turn to solid green.

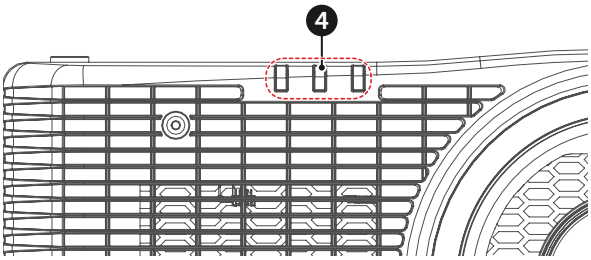


Image 2–11

3. Turn on your source. The projector detects the source you selected and displays the image.

   Note: If you connect multiple sources at the same time, press “Input” key on the control panel or on the remote control to switch inputs.

If this is the first time you powered up the projector, you will be prompted to select the projector language, projector orientation and other basic settings.

WARNING: Do not look directly into the lens when the projector is turned on. The strong light might cause permanent eye damage.

2.3 Start image projection

Connecting and displaying a source

1. Connect the source cable with the appropriate input port on the Input panel.

   The projector will automatically detect the input source.

2. If multiple sources are connected, press the Input button on the remote control or the projector keypad to select the desired source (reference 1).

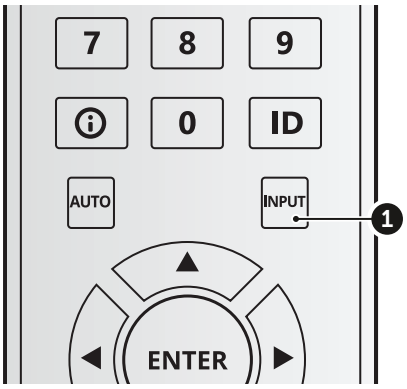


Image 2–12

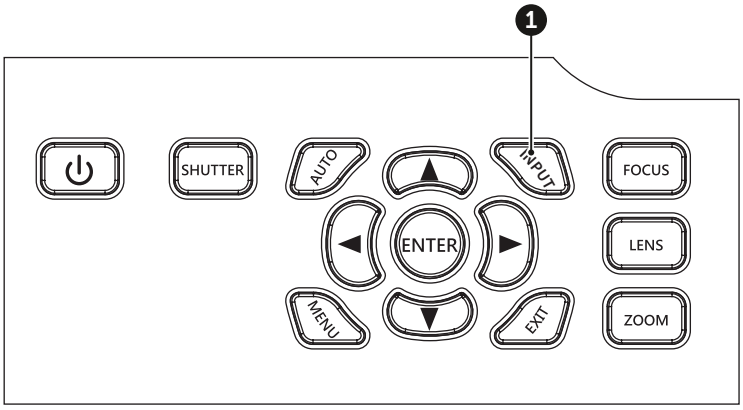


Image 2–13

2.4 Powering off the projector

How to power the projector off

1. Press the POWER button (2) on the control panel or the OFF key (5) on the remote control.

   A message will prompted on screen to confirm if you want to turn off the projector.

2. Press the POWER button or OFF key again to confirm. If not, the message will disappear after 10 seconds and the projector will remain on.

   The projector will go to standby mode.

3. Once the projector has entered standby mode and you want to turn the projector off completely, power off the AC switch.

   Tip: If you still plan to use the projector in the foreseeable future, it is recommended to keep the projector in standby mode. Only turn off the projector completely if you want to physically move the projector, or if you do not plan on using the projector for the foreseeable future.

CAUTION: It is not recommended to turn the projector on immediately after powering off the projector.

Remote Control Unit (RCU) 3

3.1 RCU battery installation 24
3.2 Overview of the RCU 25
3.3 Projector Address (ID) 25
3.4 Using the RCU 26

3.1 RCU battery installation

How to install the batteries of the Remote Control Unit

1. Remove the cover by sliding it in the direction indicated by the arrow
2. Insert two new AAA batteries (observe the polarity).
3. Replace the cover.

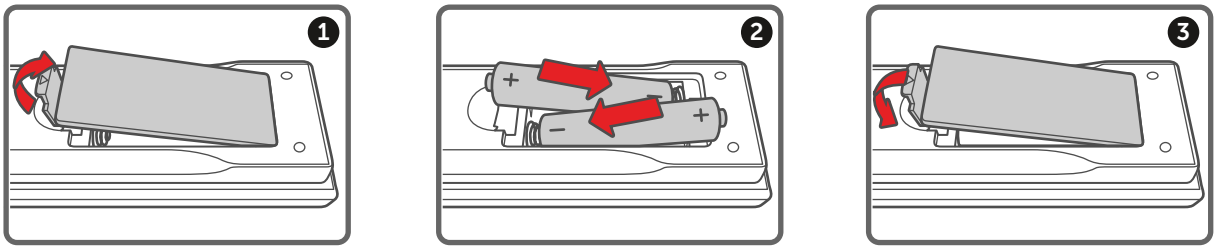


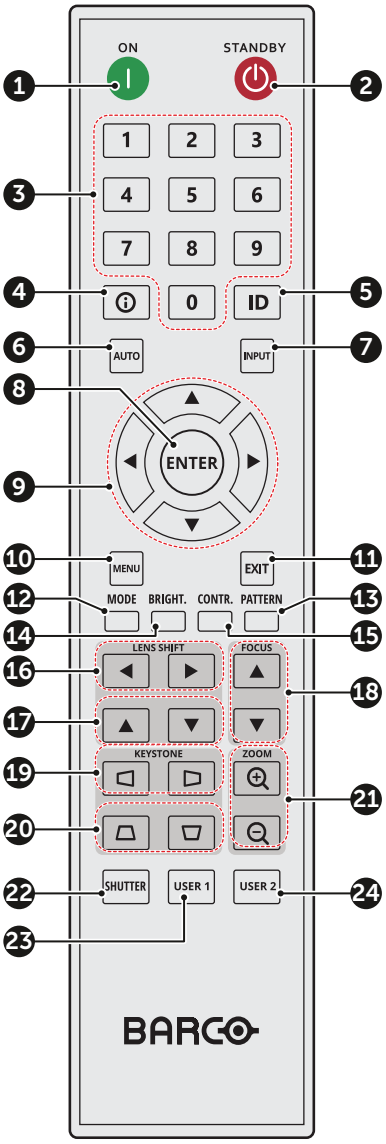
Image 3–1

Notes for the Remote Control Unit

- Be sure to insert the batteries in the corresponding orientations to match the polarities.
- Do not mix new batteries with used batteries as it would shorten the life of new batteries or cause leakage.
- Only used AAA batteries as instructed; do not attempt to insert different types of batteries into the remote control.
- If the remote is going to be unused for long periods of time, be sure to remove the batteries to prevent leakage, which could damage the remote control.
- The liquid contents in the batteries is harmful to the skin; do not touch the leakage with your bare hands directly. When installing fresh batteries, be sure to clean up the leakage thoroughly.
- Under most circumstances, you only need to point the remote control towards the screen and the IR signal would be reflected off the screen and picked up by the IR sensor on the projector. But under specific circumstances, the projector may fail to receive signals from the remote control due to environmental factors. When this happens, orient the remote control at the projector and try again.
- If the range of effective remote control signal reception decreases or if the remote control stops working, replace the batteries.
- If the infrared receiver is exposed to fluorescent lamp or strong sunlight, the remote control may not operate normally.
- Refer to the regulations enforced by your local government on the disposal of used batteries; improper disposal could damage the environment.

3.2 Overview of the RCU

Button identification



No.	Button	Function
1	ON	Turn the projector on.
2	Standby	Turn the projector off.
3	Number	Input numbers (0-9)
4	Info	Display information on the source image.
5	ID	Set the projector address.
6	Auto	Automatically synchronize the projector to an input source.
7	Input	Select an input source manually.
8	Enter	Confirm an selection.
9	Arrow keys	Use arrow keys to navigate through the menu or select the appropriate settings.
10	Menu	Show the main menu on the screen.
11	Exit	Back to previous menu.
12	Mode	Press to select the preset display mode.
13	Pattern	Displays test patterns
14	Brightness	Set the brightness of the image.
15	Contrast	Set the contrast of the image.
16	Lens shift H	Adjust the image position horizontally.
17	Lens shift V	Adjust the image position vertically.
18	Focus	Adjust the image focus.
19	Keystone H	Adjust a horizontally keystone image.
20	Keystone V	Adjust a vertically keystone image.
21	Zoom	Adjust the image size.
22	Shutter	Momentarily turn off/on the screen (AV Mute).
23	User1	Press to assign custom functions. See user guide for more info.
24	User2	Press to assign custom functions. See user guide for more info.

3.3 Projector Address (ID)

About the projector address

The Remote Control supports individual addressing of multiple projectors. The remote receiver on the projector can be set with a specific number from 00 to 99, and the projector only responds to the IR remote set

to the same number. The default ID code of the RCU (also known as the broadcast address) is 00. This specific address allows the RCU to control all projectors within its effective range.

How to set the projector address on the RCU

1. Press for at least 3 seconds on **ID Key** (reference 5).
2. Enter the address with the numeric keys (reference 3). Always enter 2 digits.

   Tip: Always enter two digits. E.g. for address 2, enter 02.

The projector address can be set in: *Communication* > *Remote setup* > *Remote code*.

3.4 Using the RCU

Effective range

The Infrared (IR) remote control sensors are located on the front and top sides of the projector. To have the remote control functions correctly, make sure of the following:

- The maximum range between the remote control and the sensor is 30 m (98.4 ft).
- Ensure to hold the remote at the following angles towards one of the IR remote control sensors:
  - horizontally: ±30°
  - vertically: ±20°
- Make sure there are no obstacles between the remote control and the IR sensors on the projector.
- Make sure the IR transmitter of the remote control is not directly being shined by sunlight or fluorescent lamps.
- Keep a minimum distance of 2 m between the remote control and nearby fluorescent lamps. If not, the RCU might malfunction.
- If the projector and remote are within very short distance, the RCU may become ineffective.
- When you aim at the screen, the effective distance is less than 5 m from the remote control to the screen and reflecting the IR beams back to the projector. However, the effective range might change depending on type of screen used.

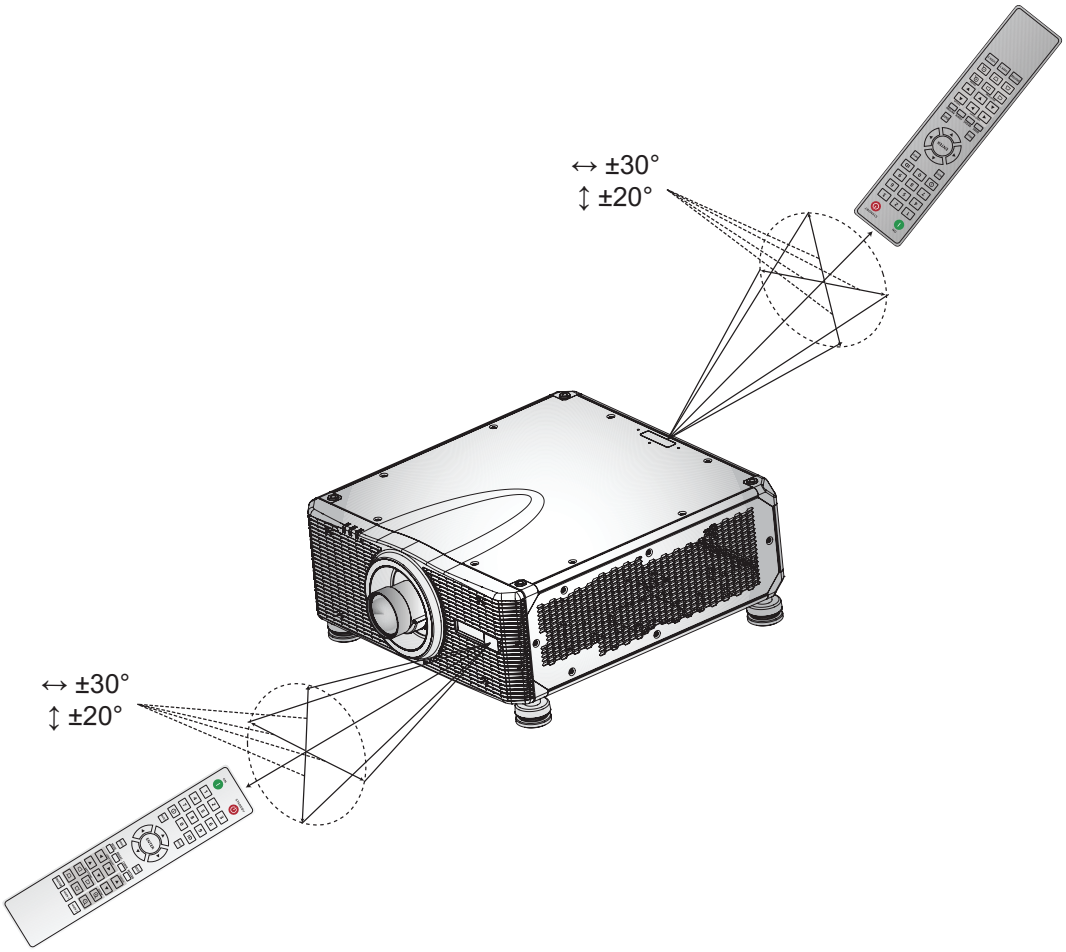


Image 3–2

Input & Communication

4

4.1 Input/Output (I/O) Panel 30
4.2 Control panel 31

4.1 Input/Output (I/O) Panel

Input and output ports location

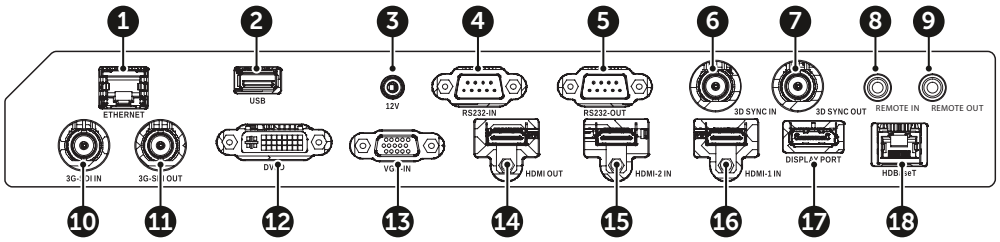


Image 4–1

N-r.	Name	Type	Cable	Example connections[1]
1	Ethernet	Control port	RJ-45 cable	Local or company network
2	USB Type A	Control port	USB power cable	PC, USB flash drive
3	12V	Control port	12V trigger cable	motorized screen, curtain, etc
4	RS-232-IN	Control port	RS-232 cable	PC
5	RS-232-OUT	Control port	RS-232 cable	PC
6	3D Sync IN	Input	3D sync cable	PC
7	3D Sync OUT	Output	3D emitter cable	3D emitter
8	Remote IN	Control port	Wired remote cable	RCU
9	Remote OUT	Control port	Wired remote cable	RCU
10	3G-SDI IN	Input	3G-SDI cable	Camera
11	3G-SDI OUT	Output	3G-SDI cable	Screen, other projectors
12	DVI-D	Input	DVI-D cable	PC
13	VGA-IN	Input	VGA cable	PC
14	HDMI OUT (HDMI 2.0)	Output	HDMI cable	Screen
15	HDMI-2 IN (HDMI 2.0)	Input	HDMI cable	PC, game console, media player
16	HDMI-1 IN (HDMI 2.0)	Input	HDMI cable	PC, game console, media player
17	DisplayPort 1.2a	Input	DisplayPort cable	PC, Mac
18	HDBaseT	Input	RJ-45 cable	Media player

1. These are just a few examples of what you can connect. There may be more options available for each port.

4.2 Control panel

Button location

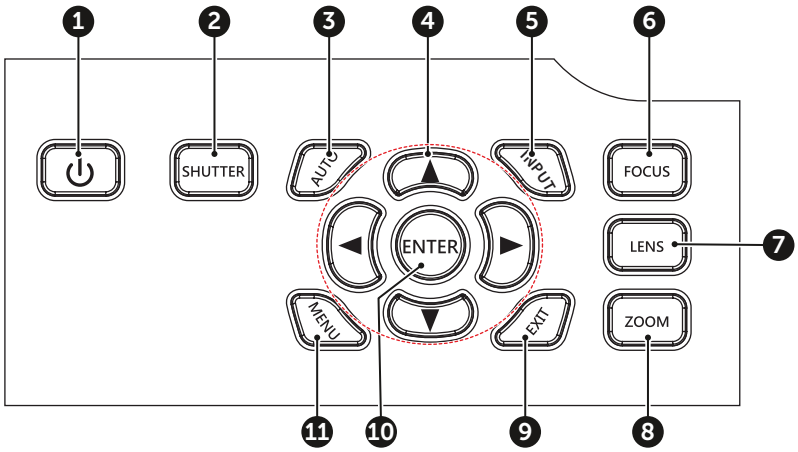


Image 4–2

1 Power
2 Shutter
3 Auto
4 Arrow keys
5 Input
6 Focus
7 Lens
8 Zoom
9 Exit
10 Enter
11 Menu

Button function

Button	Function
Power	Turns the projector on or off
Shutter	Opens or closes the shutter
Auto	Automatic setup
Arrow keys	Navigation keys
Input	Selects an input source
Focus	Adjusts the image focus
Lens	Adjusts lens position
Zoom	Adjusts the image size
Exit	Returns to previous menu or exit menu if at top level
Enter	Confirms the settings
Menu	Shows the main menu on screen

5 User controls

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5.5 Controlling the projector over network 46
5.6 Using the web control center 47
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5.10 Information menu 54

About this chapter

This chapter gives an overview of the On-screen display and user control options.

5.1 GUI Overview

Disclaimer on GUI images used in this manual

The GUI images in this manual are example illustrations and should be treated as such. While the illustrations may be different from the projector model you are currently using, the menu lay-out and functionality is identical.

GUI – First start of the software

When you start the projector for the first time, you will be requested to choose the system language. You can choose between the following languages:

- German (DE)
- English (EN-US)
- Spanish (ES)
- French (FR)
- Indonesian (ID)
- Italian (IT)
- Japanese (JA)
- Korean (KO)
- Dutch (NL)
- Portuguese (PT)
- Russian (RU)
- Simplified Chinese (ZH)

The default language is English.

GUI – Main Menu overview

The projector on-screen display (OSD) is the primary user interface (UI). From here, you can review and adjust all projector and display settings.

The OSD interface uses buttons to display the main menu. Each main menu contains submenus.

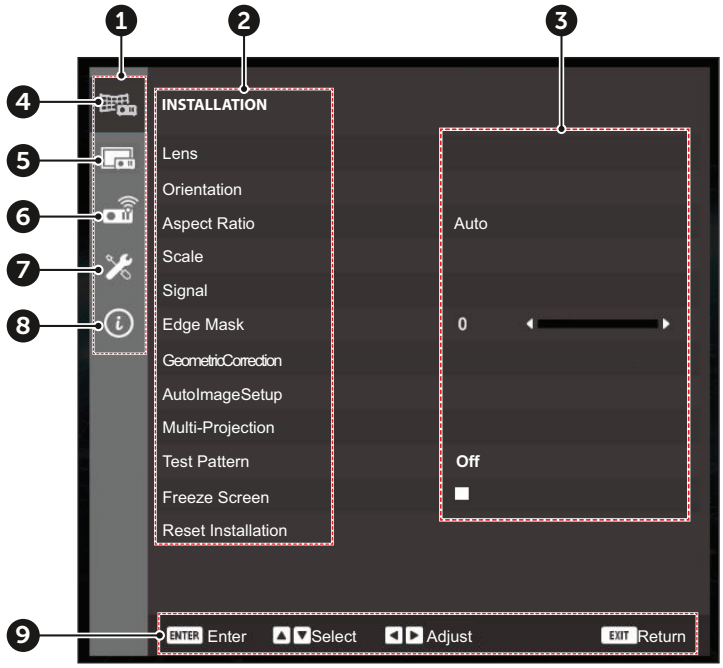


Image 5–1 Example of the menu

1 Main menu area
2 Submenu area
3 Menu settings area
4 Installation menu
5 Image settings
6 Communication menu
7 System settings
8 Information menu
9 Navigation bar

How to navigate

1. To start up the menu structure, press the **Menu** key on the remote control or projector keypad.
2. Use arrow keys to navigate through the menus and select the desired settings.
3. Press the **Enter** key to confirm your selection.
4. Press **Exit** to return to the previous menu or exit OSD menu if at top level.

5.2 Installation menu

About the installation menu

This menu allows you to configure the settings of the projector to properly project images according to your specific installation circumstances.

Available submenu's include:

- Lens
- Orientation
- Aspect ratio
- Scale
- Signal
- Edge mask
- Auto-image setup
- Geometric correction (warp)
- Multi-projection
- Test pattern
- Freeze screen
- Reset installation

Lens

Configure the following lens settings to adjust the image quality and position.

Setting	Possible actions
Focus	Use the up and down arrow keys to adjust the focus of the image, or you can press **Enter** to perform Auto Focus. **Note:** The auto adjustment process might take more than one minute to complete.
Zoom	Use the up and down arrow keys to adjust the size of the projected image.
Lens shift	Use the arrow keys to adjust the lens position to shift the projected area.
Lens memory	This projector can save up to five lens settings, which records the lens position, zoom and focus. • **Save memory**: Select a record from 1 to 5 to save the current lens settings. • **Apply memory**: Select a record from 1 to 5 to apply the lens settings saved in the selected record. • **Clear memory**: Clear all saved lens records.
Lens calibration	Calibrate the lens position to return it to the center of the lens holder. **Note:** To prevent damage to the projector and the lens, always perform lens calibration before replacing the lens.
Lens lock	Lock the lens to prevent the lens motors from moving, which disables all lens functions.
Reset	Returns all lens settings to the factory default values.

Orientation

Setting the projection orientation according to the projector's installation direction:

- **Ceiling Mount:** Enable/disable the function for ceiling mount installation.
- **Direction:** Select Front Projection or Rear Projection based on the projector's relative position to the screen.

Aspect Ratio

Set the aspect ratio of the projected image. The available options are:

- Auto (default)
- 4:3
- 16:9
- 16:10
- Letter boxing
- Native

The projector can detect the image size from the connected source. Select **Auto** to display the detected image size.

Scale

Digitally scale the image size and position to fit onto the actual projection surface.

Setting	Possible actions
Digital zoom	Digitally adjust the size of the projected image. • **Proportional**: Enable the function to have the image's height and width changed at the same ratio. • **Horizontal**: Use the left and right arrow keys to change the width of the projected image. • **Vertical**: Use the up and down arrow keys to change the height of the projected image.
Digital shift	Adjusts the position of the display area within the lens offset range. Use the arrow keys to shift the projected image either horizontally or vertically.
Reset	Returns all scale settings to the factory default values.

First perform a digital zoom. Only perform a digital shift when the image has been zoomed in/out to the desired position.

Signal

Configure the settings to correctly project the input signals and transfer the output signals.

Setting	Possible actions
Auto signal	When Auto Signal is enabled, the projector automatically detects and selects the input signal. Once an input source is selected, you can press the Input key on the keypad or the input button on the remote control to switch to the other available source(s). If Auto signal is disabled, pressing the Input key or button will bring up the Input Signal submenu.
Input signal	Select an input signal from the source list. The available input sources are VGA, HDMI-1, HDMI-2, DVI-D, DisplayPort, 3G-SDI and HDBaseT.
Backup input	Backup Input function allows the user to set up two input sources with the same timing specification. Upon loss of one input source, the projector automatically switches to the other source. This function is useful for installations and setups requiring uninterruptedly displaying the content source, such as live show, exhibition, and critical control rooms. • **Auto Switch:** Enable this option to automatically switch to the backup input source when the current source fails. • **Current Signal:** Displays the current active signal. • **First Input:** Select a signal as the first input source.

Setting	Possible actions
	• **Second Input:** Select a signal as the second input source. • **Backup Input Status:** Display the function status. Once a selected source is activated, the OSD menu will list the signal's resolution, Horizontal refresh rate and color space. The Backup Input status will be active when the following conditions are met: • Auto Switch is enabled. • The two selected input sources have the same timing specification • The two selected input sources are active at the same time • The projector is displaying one of the two sources.
VGA	Setup the VGA source by selecting the proper Phase, H. Position, V Position and Resolution.
HDMI	Setup the projector's HDMI ports. • **Output**: Select an HDMI port to output the signal. • **EDID:** When receiving a HDMI signal, set the projector's EDID compatibility to display the signal correctly. Select **1.4** for the input devices with HDMI 1.4, or **2.0** for HDMI 2.0 devices.
HDBaseT	Configure the HDBaseT settings to correctly display the HDMI signal transfered via the HDBaseT port. • **EDID**: When receiving a HDMI signal via HDBaseT, set the projector's EDID compatibility to display the signal correctly. Select **1.4** for the input devices with HDMI 1.4, or **2.0** fo HDMI 2.0 devices.
Auto Signal Resync	If enabled, the system will automatically synchronize the projector to the recent connected input source every time you switch the input source.

Edge mask

The edge blending function allows you to hide one or multiple edges of the projected image. You can use this function to remove the video encoding noise on the edges of the video images.

Auto image setup

Automatically adjust the image to achieve better performance.

- **Auto Focus:** Automatically adjust the image focus.
- **Auto Wall Color:** Automatically adjust the image color to fit the color of the projection screen.

The auto image setup functions are performed via the built-in camera. Please make sure the camera is not covered by any subjects. The auto adjustment process might take more than one minute to complete.

Geometric correction (warp)

Configure the geometric settings to reshape the image for different projection surface. These options are divided in two options:

- **Basic warp**: Including Keystone, pincushion and 4–Corners
- **Advanced warping**: Grid points, Warp inner, Warp sharpness and more.

Basic Warp:

- **Keystone**: Keystone function is used to adjust the images in asymmetric rectangle shape.
  - **Horizontal**: Adjust the left and right side of the projected image to make it an even rectangle. It is used or the images with unequal left and right sides.

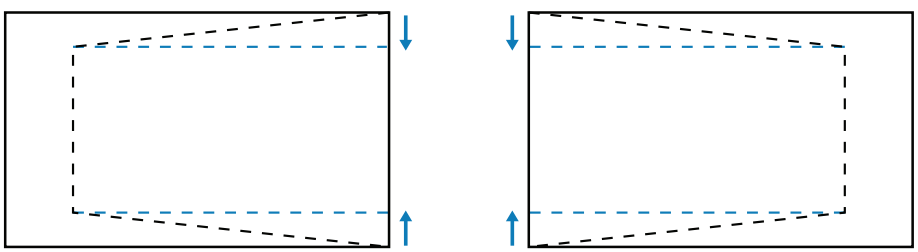


Image 5–2

- **Vertical**: Adjust the top and bottom side of the projected image to make it an even rectangle. It is used for the images with unequal top and bottom sides.

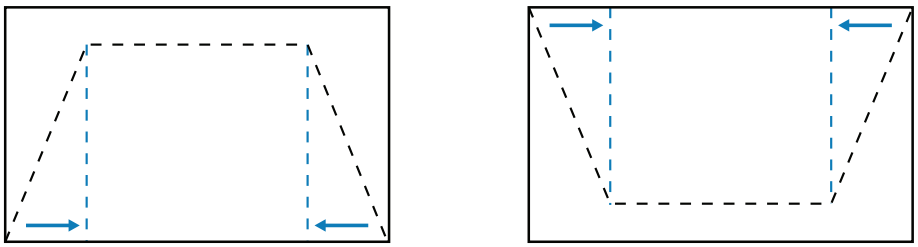


Image 5–3

- **Pincushion**: Pincushion function is used to adjust the image with barrel or pincushion distortion.
  - **Horizontal:** Correct the projected image with horizontal barrel or pincushion distortion.

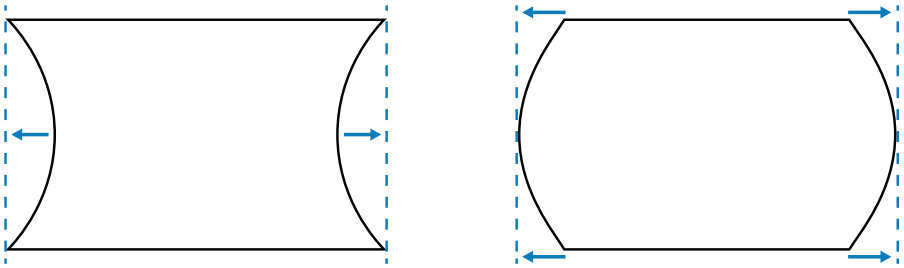


Image 5–4

  - **Vertical:** Correct the projected image with vertical barrel or pincushion distortion.

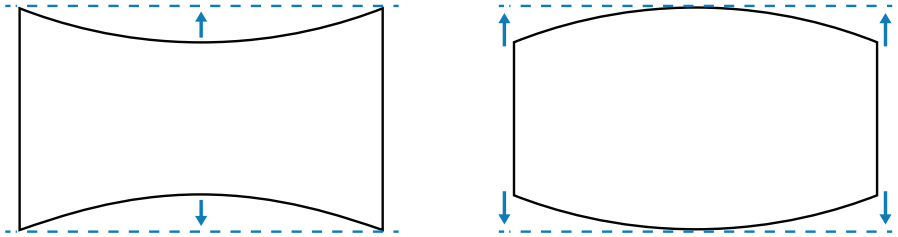


Image 5–5

- **4–Corner**: Reshape the image by moving the 4 corners of the image to have it fit a specific projection surface.

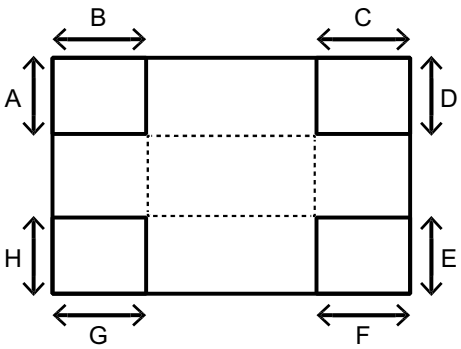


Image 5–6

- **Reset**: Reset geometric settings to factory default values.

Advanced warping:

- **Grid point**: Use this function to adjust flat and curved surfaces.
- **Warp inner**: Enable or disable warp inner control.[2].

2. Warp inner does not support 2x2 grid points

- **Warp sharpness**: When the grid lines are warped from straight into curve, the grid lines will be distorted and become jagged. To avoid having jagged lines being too noticeable, users can adjust the warp sharpness to blur or sharpen the edge of the images.
- **Grid color**: Select a grid color for warp and blend pattern.
- **Grid background**: Select the grid background.
- **Blend settings**: Configure the blend settings directly on the projector to merge two or more adjacent images into one larger and seamless image.
  - **Blend width**: Set the width of the blend area.
  - **Overlap grid number**: Set the blend overlap grid number.
  - **Gamma**: Set the gamma value of the blend area to adjust the curvature of the blending effect.

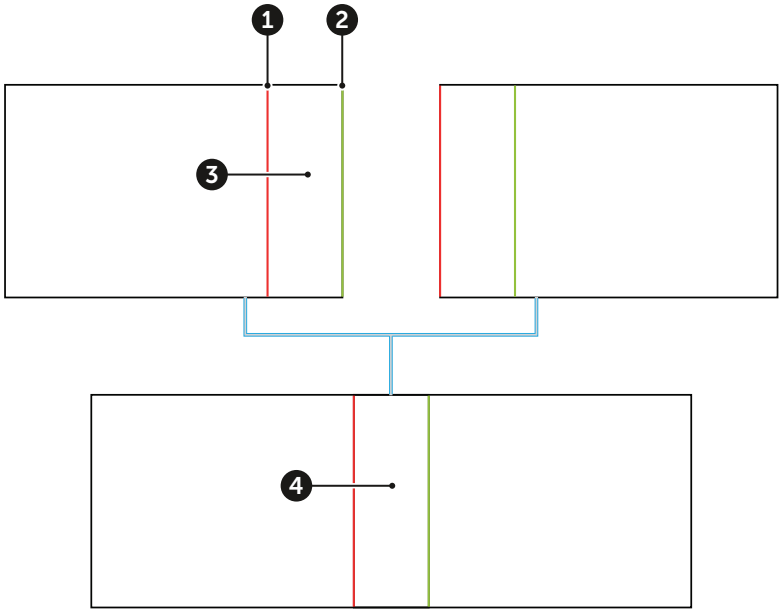


Image 5–7

1–2 Width
3 Blend area
4 Gamma

- **Geometry Memory**: The projector allows the user to save up to five geometric memories, including the ones set directly on the projector and the ones configures via Projector Toolset. The available options are Save Memory, Apply Memory, and Clear Memory.
- **Reset**: Reset geometric values to the factory default.

Multi-projection

Multi-Projection is a submenu group that consists of the functions for multiple projector applications.

Setting	Possible actions
Projector ID	Set the identification code for each projector. For more info, see “Projector Address (ID)”, page 25.
Remote code	Set the remote code for each remote control to have it matching with the projector.
3D setup	Configure the 3D settings for each projector when performing 3D warp and blend. For more info, see “Image settings”, page 40.
Light source settings	Configure the light source settings for the projectors to have their brightness level matching with each other. For more info, see “System Settings”, page 49.
Color mode	Set the projectors to the same color mode. For more info, see “Image settings”, page 40.
White balance	Adjust the white color performance of the projectors to have them looks as the same as possible. For more info, see “Image settings”, page 40.
Advanced color	Adjust the advanced color settings of the projectors to unify the color performance. For more info, see “Image settings”, page 40.
Lens	Set up the lens of each projector to adjust the image focus, size, and position.

Setting	Possible actions
Scale	Digitally change image size and position of each projector.
Geometric Correction	Configure the geometry settings for each projector.

Test pattern

Select a test pattern. The available options are:

- Off (no test pattern)
- Green Grid
- Magenta Grid
- White Grid
- White
- Black
- Red
- Green
- Blue
- Cyan
- Magenta
- Yellow
- ANSI Contrast 4x4
- Color bar
- Full screen

Freeze screen

Select to pause the display screen despite any change in the source device.

Reset installation

Reset all the installation settings to factory default values.

5.3 Image settings

About the Image settings menu

The image settings menu consists of settings related to the quality and performance of the projected content, such as image color and brightness. The available submenu's are the following:

- Color mode
- Brightness
- Contrast
- Saturation
- Tint
- Sharpness
- Gamma
- White balance
- Advanced color
- Advanced image
- Save to user
- Apply to user (fine-tuning)
- Reset image settings

Color mode

There are a number of color modes that are preset for different types of images. These include:

- **Presentation:** Best for displaying presentation slides in a bright room.
- **Bright:** Best for the installations requiring high brightness images.

- **Super bright**: Best for images with the brightness above the standard level.
- **Cinema:** Best for videos projected in a dark room.
- **HDR**: Best for displaying High Dynamic Range (HDR) content.
- **sRGB:** Standardized image color that matches the sRGB color standard.
- **DICOM SIM.:** Best for projecting monochrome medical images, such as X-ray diagram.
- **Blending:** Best for multiple projector installations.
- **3D:** Best for playing 3D videos.
- **2D High Speed**: This mode is used for displaying 2D input signal with a high framerate (120Hz).
- **User:** Image settings saved by the user.

Brightness

Adjust the luminous brightness of the projected image to adapt to different ambient light.

Contrast

Adjust the contrast of the projected image. The contrast controls the degree of difference between the lightest and darkest parts of the image.

Saturation

Adjust the intensity of the image colors.

Tint

Adjust the color balance of red and green in video images.

Sharpness

Adjust the clarity of detail in the projected image.

Gamma

Adjust the gamma levels of the projected image. The smaller the value, the brighter the dark areas of the image will become. The available options are:

- 1.8
- 2.0
- Standard 2.2
- 2.4
- 2.6
- Graphic
- Video
- CRT (vivid)
- Enhanced (default)
- Film
- DICOM

White balance

Adjust the overall tint of the image to optimize the white color performance.

Setting	Possible actions
Color temperature	Adjust the color temperature of the projected image.
Gain/offset (RGB)	Gain and offset are individual controls for each RGB channels used to set greyscale. The Gains calibrate the color of the dark parts and Bias calibrate the white parts. • **Red / Green / Blue Gain:**Adjust the color of the image's bright areas. • **Red / Green / Blue Offset:** Adjust the color of the image's dark areas.
White peaking	Adjusts the image color brightness while providing more vibrant colors, in increments from 0 to 10.
Reset	Reset the function settings to factory default values.

Advanced color

Configure advanced color settings to improve the color performance.

- **Color space**: Select a color space that has been specifically tuned for the input signal. The available options are Auto (default),
  - Auto (default)
  - RGB (0 - 255)
  - RGB (16 - 235)
  - REC709
  - REC601
- **Wall color**: Set the wall color of the projector to achieve best color performance for a specific wall. The available options are:
  - Off (default)
  - Auto Wall Color: Only available with the built-in camera. If selected, the projector automatically adjust the image color to fit the color of the projection screen. When selected please make sure the camera is not covered by any objects.
  - Blackboard
  - Light Yellow
  - Light Green
  - Light Blue
  - Pink
  - Gray
- **Custom RGBCYM**: Change the color of a projected image by adjusting each color component in the image.
  - **Auto Test Pattern:** Enable the function to view a specific color pattern while adjusting.
  - **R / G / B / C / Y / M:** Select a color for further adjustment.

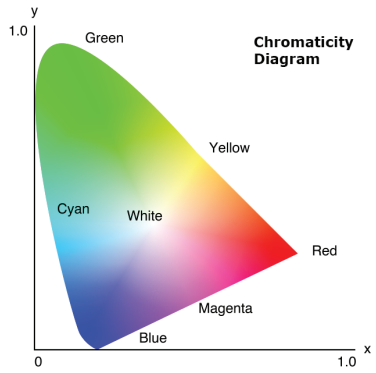


Image 5–8

  - **Hue:** Adjust the hue of the selected color. The value reflect the number of degrees of rotation around the chromaticity diagram from the original color. Increasing value indicates counterclockwise rotation, and decreasing value, clockwise rotation.
  - **Saturation**: Adjust the saturation of the selected color. The value indicates the color shifts from or towards the white in the center of the chromaticity diagram.
  - **Gain**: Adjust the gain of the selected color. Increase the value to brighten the image (add white to a color) or decrease the value to darken the image (add black to a color).
  - **Reset**: Reset the function settings to factory default values.
- **Custom White**: Adjust the white color performance via setting the Red, Green, and Blue values.
  - **Auto Test Pattern:** Enable the function to view the white color pattern while adjusting.
  - **Red / Green / Blue:** Adjust the red, green, and blue colors to optimize the white color performance.
  - **Reset:** Reset the function settings to factory default values.

Advanced image settings – Dynamic contrast

Configure advanced image settings to correctly project specific image formats for more complicated applications, such as setting up the Dynamic Contrast to maximizing the contrast for dark content.

- **Dynamic Black**: Enable the function to automatically adjust the contrast ratio for video sources. It improves the black level in dark scenes by reducing the light output.
  - **Speed**: Adjust the speed of the light source correction. The value ranges from 1 to 15. A lower value makes the correction slower and less aggressive while a higher value results in the faster correction.
  - **Strength**: Set the strength of the dynamic contrast adjustment. The value ranges from 0 to 3, the higher the value the stronger the correction.
  - **Level**: Adjust the light source when the brightness level of the current content gets lower than the set value. The value ranges from 50% to 100%. The higher the value, the larger the range to adjust the light source.
- **Extreme Black:** Enable the function to automatically increase the contrast ratio by turning off the laser light when black image is detected.
  - **Lights Out Timer:** Set a timer for the laser light to turn off after detecting black content. The set value ranges from 0s to 20s.
  - **Lights Out Signal Level:** Set a black level value as the threshold for the Real Black function. The value can be selected from 0% to 5%, with 0 being the darkest black and 5 being the brightest.
- **Reset:** Reset the function settings to factory default values.

Advanced image settings – 3D setup

Configure advanced image settings to correctly project specific image formats for more complicated applications, such as 3D.

3D video file combines two slightly different images (frames) of the same scene representing the different views that the left and right eyes see. When these frames are displayed fast enough and viewed with 3D glasses synchronized with the left and right frames, the viewer's brain then assemble the separate images into a single 3D image.

The 3D Menu provides options to set up the 3D functions to correctly display 3D videos.

- **3D mode enable**: Enable or disable the 3D function.
- **3D format**: Select a proper 3D format for the 3D input signal. The available options are:
  - Auto
  - Side by Side
  - Top and Bottom
  - Frame Sequential
  - Frame Packing
- **3D tech**: Select a proper 3D technology according to how the 3D sync signal is processed. The available options are:
  - **DLP-Link**: Select DLP-Link when the 3D sync signal is generated by the DLP Link technology built-in the projector. DLP Link works only with the glasses that are compatible with DLP 3D technology and the 3D function is enabled.
  - **3D Sync**: Select 3D Sync when the 3D sync out signal is sent to an emitter or another projector through the 3D sync out port
- **3D-2D**: Transform the 3D content to 2D images according to the following methodology.
  - **3D:** Play the 3D content as the intended 3D.
  - **2D-Left:** Play only the left images of the 3D content.
  - **2D-Right:** Play only the right images of the 3D content.
- **3D Sync out**: Set up the transmission of the 3D sync output signal.
  - **To Emitter:** Send the 3D sync signal to the emitter connected to the 3D sync out port.
  - **To Next Projector:** Send the 3D sync signal to next projector when using multiple projectors.
- **3D invert**: When the 3D video does not appear correctly, use this function to invert the 3D left and right frames.
- **L/R reference**: To ensure the correct 3D synchronisation, use this function to set the signal reference for the left and right (L/R) frames.
  - **Field GPIO:** When receiving an external 3D sync signal from the 3D sync in cable, the projector automatically select this option to synchronize the L/R reference with the 3D sync signal.

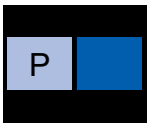
  - **1ST Frame:** When the projector generates 3D sync signal internally, select this option to set the first frame of the input source as the projector's left reference. If the 3D image does not appear correctly, use 3D Invert function to swap the left and right frames.
- **Frame delay**: Set a frame delay value for the projector to correct the time difference between the 3D signal being given and the result being executed. This function works only when L/R Reference is set to Field GPIO. When performing 3D blending on multiple projectors, set the frame delay for each projector to correct the non-synchronous images
- **Reset**: Reset the function settings to factory default values.

Advanced image settings – PIP/PBP

PIP/PBP (picture in picture/picture by picture) mode allows displaying two images from two independent sources. For more information on the PIP/PBP compatibility, See "Compatibility modes", page 73.

- **PIP/PBP enable** : Select the appropriate PIP/PBP mode.
  - **Off** : Disable PIP/PBP mode.
  - **PBP** : Display two input sources simultaneously on the left and right sides of the screen.
  - **PIP** : Display one input source on the main screen and the other input source in an inset window.
- **Main source** : Select an input source for the main image.
- **Sub source** : Select an input source for the second image.
- **Swap source**: Swap the main source and sub source.
- **Sub image size** : Change the display size of the sub source in PIP mode.
- **Sub position**: Adjust the layout of two images. In the layout chart below, the "P" indicates the main image:

PIP Layout	PIP Size		
	Small	Medium	Large
PIP, Bottom Right			
PIP, Bottom Left			
PIP, Top Left			
PIP, Top Right			

PBP Layout	
PBP, Main Left 	PBP, Main Right 
PBP, Main Top 	PBP, Main Bottom 

Advanced image settings – High Dynamic Range (HDR)

Configure the settings for the High Dynamic Range (HDR) function.

- **HDR**:
  - **Off**: Tursn off the projector's HDR function. When selected, the projector will prompt that it does not support HDR content. This way the input device will only send out SDR signals.
  - **Auto:** When receiving HDR signals, the projector automatically changes to HDR display mode.
- **HDR Picture mode**:
  - **Bright**: Increase the color saturation for bright images.
  - **Standard**: Make the images look more realistic and natural.
  - **Film:** Improve the image details for videos.
  - **Detail:** Improve image details in dark scenes.

Advanced Image settings – Low latency

When **2D Ultra** is selected, you can use this function to reduce response times (input latency) during events which require a very low latency (e.g. gaming).

Save to user

Save the image settings to the User Mode. Select the correct format according to the image format. This includes:

- 2D Image
- 3D Image
- Blending Image

Apply to user

Apply the image settings to User-Presentation, User-Bright, User-Super Bright, User-Cinema, User-HDR, User-sRGB, User-DICOM SIM., User-Blending, User-3D, or User-2D High Speed.

Reset image settings

Reset all the image settings to factory default values.

5.4 Communication

About the communication menu

The communication menu is used to configure the settings that allow the projector to communicate with other projectors. The available submenus are the following:

- Projector ID
- Remote setup
- Network setup
- Control
- Baud rate
- Reset communication

Projector ID

Assign an ID code for the projector from 00 to 99. Use this code as the projector ID when controlling the projector by RS232, HDBaseT, Telnet or other control protocols.

Remote setup

Configure the settings for interaction with the Infra-Red (IR) remote control.

- **Remote code**: The ID code that the RCU with the same ID will respond to. Assign a code from 00 to 99 The default code is 00.
- **Remote receiver**: Enables/disables each IR receiver on the projector (front / top / HDBaseT).
  Tip: If not used for signal inputs or network, you can also use the HDBaseT input as a remote receiver.

- **User Button 1 & 2**: Assign a menu function to the **User 1** / **User 2** button of the RCU. Available functions are:
  - Freeze screen
  - Bank screen
  - Save to User
  - PIP/BIP
  - Aspect Ratio
  - Show message
  - User data
  - Network setup
  - Projector ID
  - Projector orientation
  - Custom RGBCYM
  - Multi-projection
  - Reset selective

Network setup

Configure the projector's Ethernet settings for network communications.

- **LAN Interface**: Choose which RJ-45 port you connected the RJ-45 cable (either the RJ-45 input, or the HDBaseT input).
- **MAC Address** : Display the MAC address (read-only).
- **Network status**: Displays the network connection status (read-only).
- **DHCP** : Turn on DHCP to automatically acquire IP address, subnet mask, gateway, and DNS. If it is turned off, manually enter the values for the network.
- **IP Address** : Set the projector's IP address.
- **Subnet Mask** : Set the projector's subnet mask.
- **Default Gateway** : Set the projector's gateway.
- **DNS**: Assign the projector's DNS
- **Apply** : Apply the network settings.
- Reset: Resets all network settings to the factory default values.

Control

For a more detailed description of the Control function, see "Controlling the projector over network", page 46.

Baud Rate

Select a serial port and baud rate. The available options include 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, and 115200 (default).

Reset communication

Reset all communication settings to factory default values.

5.5 Controlling the projector over network

About controlling

This projector can be controlled remotely by a computer or other external devices through network connection. It allows the user to control one or more projectors from a distant control center, such as powering the projector on or off, and adjusting the image brightness or contrast. This projector is compatible with following control devices and commands.

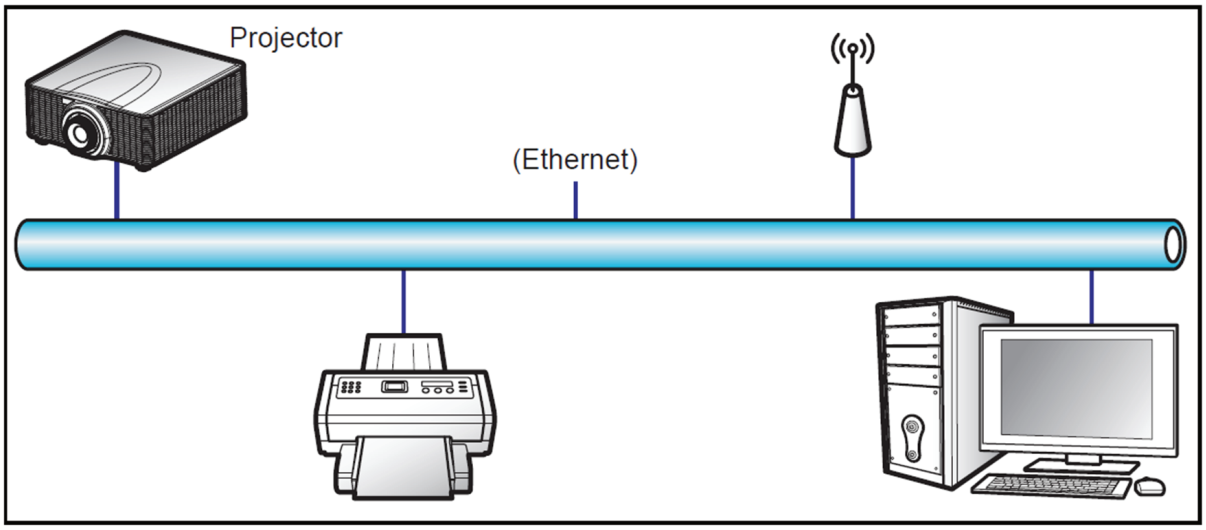


Image 5–9

- **Crestron**[3]: The projector can be controlled with Crestron controller and related software, for example Room- View®. (Port: 41794)
  For more information, please visit *http://www.crestron.com*.
- **Extron**[4]: The projector can be controlled with Extron devices. (Port: 3023)
  For more information, please visit *http://www.extron.com*.
- **PJ Link**[5]: The projector can be controlled with PJLink v1.0 commands. (Port: 4352)
  For more information, please visit *http://pjlink.jbmia.or.jp/english*.
- **AMX Device Discovery**[6]: The projector can be controlled with AMX devices. (Port: 9131)
  For more information, please visit *http://www.amx.com*.
- **Telnet**: Support using RS232 commands via Telnet connection. (Port: 23)
  For more information, see "Using RS232 command by Telnet", page 48.
- **HTTP**: The projector can be controlled with a web page control center. (Port: 80)
  For more information, see "Using the web control center", page 47.

For more information about the various types of external devices which can be connected to the LAN / RJ45 port and remotely control the projector, as well as the supported commands for these external devices, please contact the Support-Service directly.

5.6 Using the web control center

About web control center

Web control panel allows the user to configure various projector settings using a web browser from any personal computer or mobile devices.

System requirement

To use the web control panel, make sure your devices and software meet the minimum system requirements.

- RJ45 cable (CAT-5e) or wireless dongle
- PC, laptop, mobile phone, or tablet installed with a web browser
- Compatible web browsers:
  - Internet Explorer 11 or higher version
  - Microsoft Edge 40 or higher version
  - Firefox 57 or higher version
  - Chrome 63 or higher version

3. Crestron is a registered trademark of Crestron Electronics, Inc. of the United States.
4. Extron is a registered trademark of Extron Electronics, Inc. of the United States.
5. PJLink applied for trademark and logo registration in Japan, the United States of America, and other countries by JBMIA
6. AMX is a registered trademark of AMX LLC of the United States.

  - Safari 11 or higher version
- Operating system of the mobile devices:
  - iOS 10 or higher version
  - Android 5 or higher version

Accessing the web control panel

When network is available, connect the projector and the computer to the same network. Use the projector address as the web URL to open the web control panel in a browser.

1. Check the projector address using the OSD menu.
   - In a wired network, select *Communication* > *Network Setup* > *Ethernet*.
   - Make sure *DHCP* is enabled.
   - Select *IP Address*
   - In a wireless network, select *Communication* > *Network Setup* > *Wireless* > *IP Address*.
2. Open a web browser and type the projector address in the address bar and confirm.

   The web page redirects to the web control panel.

When network is not available, see *Directly connect the projector to a computer*.

Directly connect the projector to a computer

When a network is not available to you, connect the projector to you computer directly using a RJ-45 cable, and configure the network settings manually.

1. Assign IP address to the projector
   - In the menu, select *Communication* > *Network Setup* > *Ethernet*.
   - Turn off DHCP, and manually set the projector's IP Address, Subnet Mask, and Gateway.
   - Press **Enter** to confirm the settings.
2. Assign an IP address to the computer
   - Set the Default Gateway and Subnet Mask of the computer to match the projector.
   - Set the IP address of the computer to match the first three numbers of the projector.
     For example, if the projector IP address is 192.168.000.100, set the computer IP address to 192.168.000. xxx, where xxx is not 100.
3. Open a web browser and type the projector address in the address bar.

   The web page redirects to the web control panel.

5.7 Using RS232 command by Telnet

How to use

This projector supports using RS232 commands through Telnet connection.

1. Set up direct connection between the projector and computer. See block Directly connect the projector to a computer, in "Controlling the projector over network", page 46
2. Disable the firewall on the computer.
3. Open the command dialogue on the computer. For Windows 7 operating system, select *Start* > *All Programs* > *Accessories* > *Command Prompt*.
4. Input the command "telnet ttt.xxx.yyy.zzz 23".

   Replace "ttt.xxx.yyy.zzz" with the projector IP address.
5. Press **Enter** on the computer keyboard.

Specification for RS232 by Telnet

- Telnet: TCP
- Telnet port: 23 (contact service team for more details)
- Telnet utility: Windows “TELNET.exe” (console mode).
- Disconnection for RS232-by-Telnet control normally: Close
- Below are the limitations for using Windows Telnet utility directly after TELNET connection is ready:
  - There is less than 50 bytes for successive network payload for Telnet-Control application.
  - There is less than 26 bytes for one complete RS232 command for Telnet-Control.
  - Minimum delay for next RS232 command must be more than 200 (ms).

5.8 System Settings

About the system settings menu

Learn how to configure the system settings for the projector. This menu contains the following:

- Language
- Date and time
- On Screen Display
- Logo setup
- Schedule
- Standby mode
- Power settings
- Light source settings
- Shutter
- Security
- Backlight
- High altitude
- 12V trigger
- User data
- Reset
- Service

Language

Select a language for the OSD menu. The available languages are:

- German (DE)
- English (EN-US)
- Spanish (ES)
- French (FR)
- Indonesian (ID)
- Italian (IT)
- Japanese (JA)
- Korean (KO)
- Dutch (NL)
- Portuguese (PT)
- Russian (RU)
- Simplified Chinese (ZH)

Date and time

Set up the date and time for the projector.

- **Clock mode**: Set the clock mode to Local or Network. A NTP Servcer is required if the clock mode is set to network.
- **Date**: Set a date for the projector. The date format is in Year/Month/Date.
- **Time**: Set the time for the projector.

- **Daylight Saving Time**: Configures the daylight saving settings if required.
  - **Daylight Saving Time**: Enable or disable the daylight saving function.
  - **Daylight Adjustment**: Set the difference between standard time and daylight saving time.
  - **DST Start**: Set the date and time to start the daylight saving time.
  - **DST End**: Set the date and time to end the daylight saving time.
- **NTP Server**: Specify an IP address for the NTP Server, which is required for the network clock mode.
- **Time Zone**: Set a time zone for the network clock mode.
- **Update interval**: Set the date and time update interval.
- **Apply**: Apply date and time modifications.

On Screen Display (OSD)

Set up the on screen display menus.

- **Menu location**: Select the menu location from Top left, Top right, Center, Bottom left, and Bottom right.
- **Menu transparency**: Set the menu transparency level.
- **Menu timer**: Set the length of time the menu displays on the screen.
- **Show message**: Enable or disable the corner information messages, such as input source, IP address, and so on.
- **Background**: Set a background color to display when no input signal is detected. The available options are Blue, Black, White, and Logo.
- **Reset**: Reset the menu settings to default factory values.

Logo setup

Set up the logo for the startup screen.

Schedule

For more info on scheduling, see “Scheduling”, page 52.

Standby mode

Setup the projector standby mode.

- **Standby Mode:** Minimum power consumption (0.5 Watt) which does not allow network controlling.
- **Network Standby Mode:** Low power consumption (< 2 Watt) which allows the LAN module to enter sleep mode and supports to be woken by Wake on LAN (WoL). When the LAN module is woken by WoL, the projector is ready to receive commands over the network.
- **Communication Mode:** More power consumption that allows controlling the projector over the network.

Power settings

Configure the projector’s power settings.

- **Fast Power On**: Enable the function to have the projector turned on and off with a fast speed. Some part of the projector system is still running in the background if it is turned off when the Fast Power On is enabled
- **Signal Power On**: Turn on this function to have the projector automatically turning on when connected to HDMI input sources. It only applies to the standby projector set to Communication Mode.
- **Auto Power Off**: Set an interval timer for the projector to automatically turn off if no signal is detected within the specified time period. Press the t and u buttons to increase or reduce time. The available time range is 0-180 minutes.
- **Sleep Timer**: Set an interval timer for the projector to automatically turn off after operating for the specified amount of time. The available time range is 0-16 hours.
- **Reset**: Reset the power settings to factory default values.

Light source settings

Set up the light source to control the projector brightness.

- **Light Source Mode:** Select a light source mode depending on the installation requirements. The available options are Normal, Eco Mode, Quiet Mode, and Custom Mode.
- **Custom Brightness:** When the Light Source Mode is set to Custom Mode, set up the custom brightness level.

- set up the Constant Brightness to maintain the image brightness at a specified level. A special algorithm is designed to compensate the natural decay of brightness so that the image can be maintained at a fixed brightness level.
  - **Brightness Level:** Adjust the brightness level from 30% to 100%.

Shutter

Set up the shutter behavior.

- **Fade-In:** This function allows the fading in effect when turning off shutter. The time for the fading effect can be adjusted from 0.5s to 5s.
- **Fade-Out:** This function allows the fading out effect when turning on shutter. The time for the fading effect can be adjusted from 0.5s to 5s.
- **Startup:** Select the shutter behavior when turning on the projector.
  - **Shutter On:** Projector automatically turns on shutter after being powered on.
  - **Shutter Off:** Projector projects images normally after being powered on.

Security

Set up the projector security options.

- **Password:** Enable to protect the projector with a password. If the user enters incorrect password three times, a message will pop up warning that the projector shuts down in 10 seconds.
- **Security Timer:** Specify the length of time the projector can be used without the password. Once the timer counts to 0, the user must enter a password to use the projector. The timer restarts every time the projector is turned on.
- **Set Password:** Set the password required to operate the projector.

In the last minute before reaching a specified timer, including Auto Power Off, Sleep Timer, and Security Timer, an on-screen message will pop up warning that the projector shuts down in 60 seconds. Press any button on the remote control or projector keypad to reset the timer and the projector remains on.

Backlight

Set up the projector backlight options.

- **Keypad:** Enable or disable the keypad backlight.
- **Power Key:** Enable or disable the backlight for the power key.

High Altitude

Select On to increase the fan speed. To ensure the image quality and prevent damage to the projector, enable High Altitude mode in high temperature, high humidity, or high altitude environment.

12V trigger

When enabled, the projector screen is automatically raised or lowered when the projector is turned on or off. This function only works when the projector is connected to an electrical projector screen.

User data

User can save the projector settings as user data and reload the settings later.

- **Save all settings:** Save all of the projector settings as user data. User can save up to 5 records.
- **Load all settings:** Load the previously saved user data.

Reset

Reset the projector settings to factory default values.

- **Reset System settings:** Reset the settings of the system menu to factory default values.
- **Reset all settings:** Reset all of the projector settings.
- **Reset Selective:** Reset the settings of one of the main menus. User can choose from Installation, Image settings, Communication, and System settings.

Service

Input the service password to enter the service menu. In the Service menu, you can reset all settings to the factory defaults, set filter index, phosphor index, view error log, total projector hours, light source hours, and perform lens calibration.

5.9 Scheduling

About the Schedule menu

The schedule menu allows you to schedule the projector functions to operate automatically at a set time.

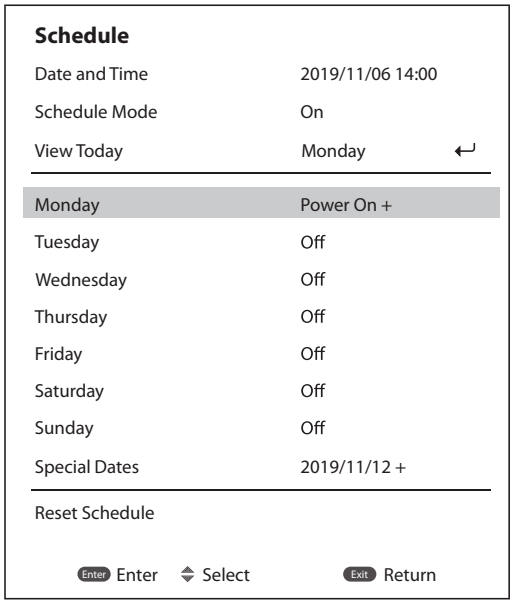


Image 5–10 Example of the Schedule menu

This menu has the following options

- **Date and time**: Check or adjust the current date and time for the projector.
- **Schedule Mode**: Enable or disable. If the projector is controlled via external devices or Projector Toolset, the Schedule mode displays “AP Mode” and the projector’s schedule functions are grayed out.
- **View Today**: Will show the events scheduled for the current day.
- **Monday to Sunday**: Set up the schedule for each day of the week
- **Reset Schedule**: Reset all of the schedule settings.

How to set up a schedule

1. Select the desired day of the week and confirm.

   The schedule table for the chosen date will be displayed.

2. Select the first event slot and confirm.

   The event submenu will be displayed.

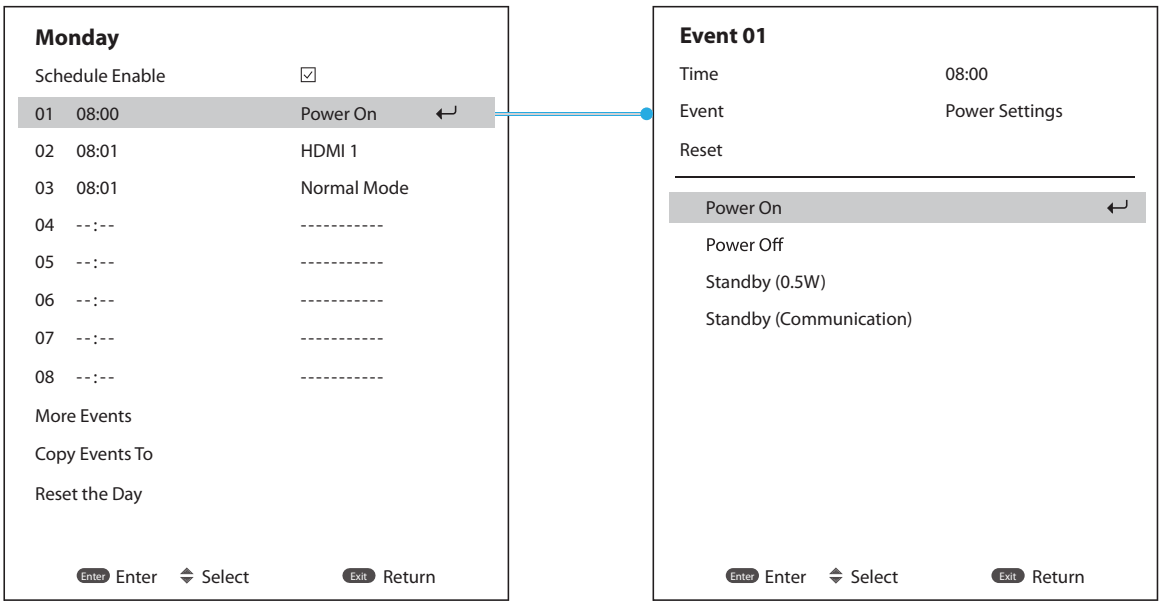


Image 5–11 Example of the Schedule for Monday.

3. Select the *Time* the chosen event must take place (e.g. 08:00).
4. Select the desired action that needs to be taken (e.g. *Power settings* > *Power On*). Available functions include:
   - Power Settings
   - Input source
   - Light source mode
   - Shutter status
5. Once time and action have been selected, return to he schedule table for the chosen day.
6. Repeat the previous steps for each desired action for this day.

   Tip: Up to 16 events can be scheduled per day. Select More Events and use the arrow keys to see the second page of events.

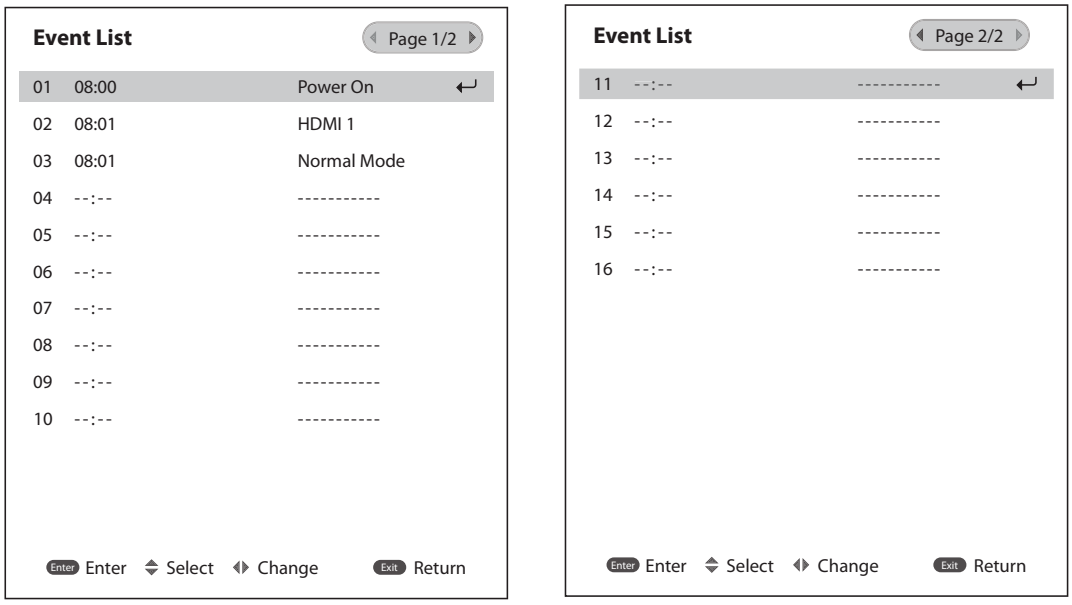


Image 5–12 The full list of available events

7. Return to the main Schedule menu and repeat this process for each day of the week the projector is scheduled to operate.

Tip: If multiple days use the same schedule, you can use the *Copy Events to* option. Go to the already fully scheduled day, select Copy Events to and choose the day of the week to copy the full schedule to.

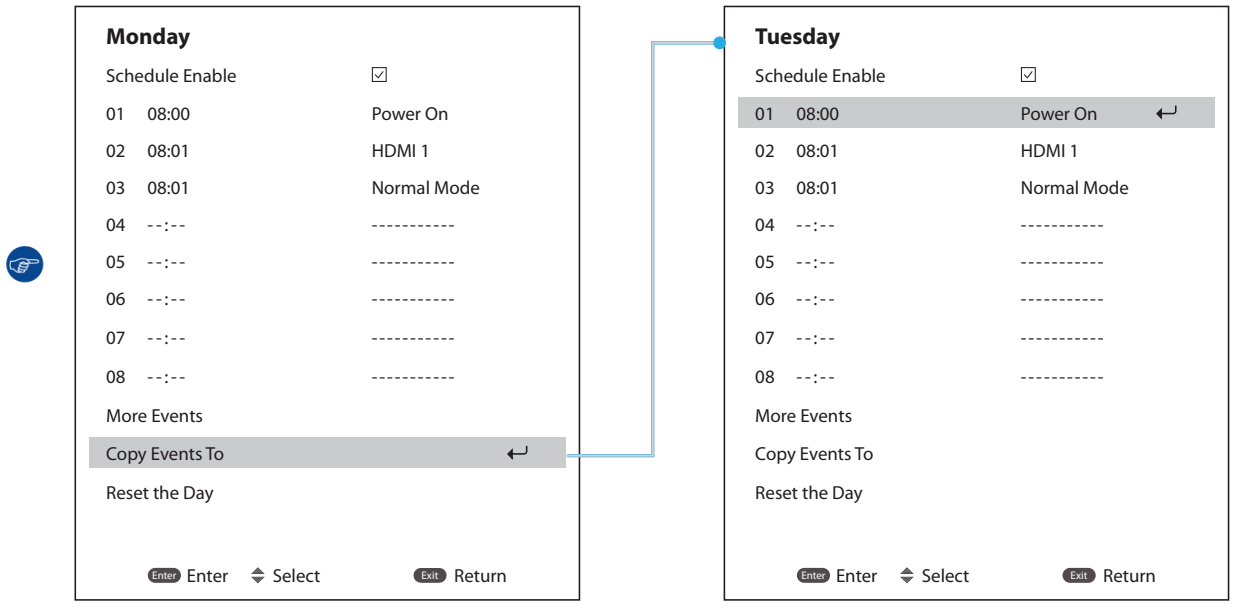


Image 5–13 Example of copying the schedule of Monday to Tuesday

5.10 Information menu

The information menu

View the projector information about its status and settings. The projector information is read only.

The information available is the following:

Menu	Details
Projector	• Model name • Serial number • Total projector hours • Lens type
System Status	• Standby mode • Light source mode • Light source hours • Temperature • AC Voltage
Communica-tion	• Projector ID • Remote code • Ethernet • Control

Menu	Details
Signal	Input signal & second signal: • Resolution • Signal format • Pixel clock • Horizontal refresh rate • Vertical refresh rate • Color space
Firmware version	• Main version • I-SCALER version • F-MCU version • M-MCU version • L-MCU version • A-MCU version • K-MCU version • LAN version • Formatter version • FPGA0 version • FPGA1 version • FPGA2 version • XFPGA version • HDBaseT version • Camera version

6 Maintenance

6.1 Cleaning the lens 58
6.2 Cleaning the exterior of the projector 58
6.3 Replacing the fuse 58
6.4 Software update 59

About this chapter

This chapter contains general maintenance procedures.

6.1 Cleaning the lens

To minimize the possibility of damage to optical coatings, or scratches to lens surfaces follow the cleaning procedure as described here precisely.

Required tools

- Compressed air
- Clean micro fiber lens cleaning cloth (e.g. Toraysee® cloth(s))
- Clean cotton cloth
- Lens cleaner (e.g. ZEISS lens cleaner, Purosol™ or other water based lens cleaner products)

How to clean the lens?

1. Blow off dust with clean compressed air (or pressurized air cans[7]) .
2. Clean with lens cleaner together with a clean lens cleaning cloth to remove the dust and contamination. Use big wipes in one single direction.

   Warning: Do not wipe back and forwards across the lens surface as this tends to grind dirt into the coating.
3. Use a dry lens cleaning cloth to remove left liquid or stripes. Polish with small circles.
4. If there are still fingerprints on the surface, wipe them off with lens cleaner together with a clean lens cleaning cloth. Polish again with a dry one.

If smears occur when cleaning lenses, replace the cloth. Smears are the first indication of a dirty cloth.

6.2 Cleaning the exterior of the projector

How to clean the exterior of the projector ?

1. Switch off the projector and unplug the projector from the mains power net.
2. Clean the housing of the projector with a damp cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution.

6.3 Replacing the fuse

Required tools

Flat screwdriver

Required parts

Fuse type T20A/250V~

How to replace the fuse

1. Turn the projector off.
2. Remove the screw on the fuse, using a flat screwdriver.
3. Replace the fuse as illustrated.

7. Pressurized air cans are not efficient if there is too much dust on the surface, the pressure is too low

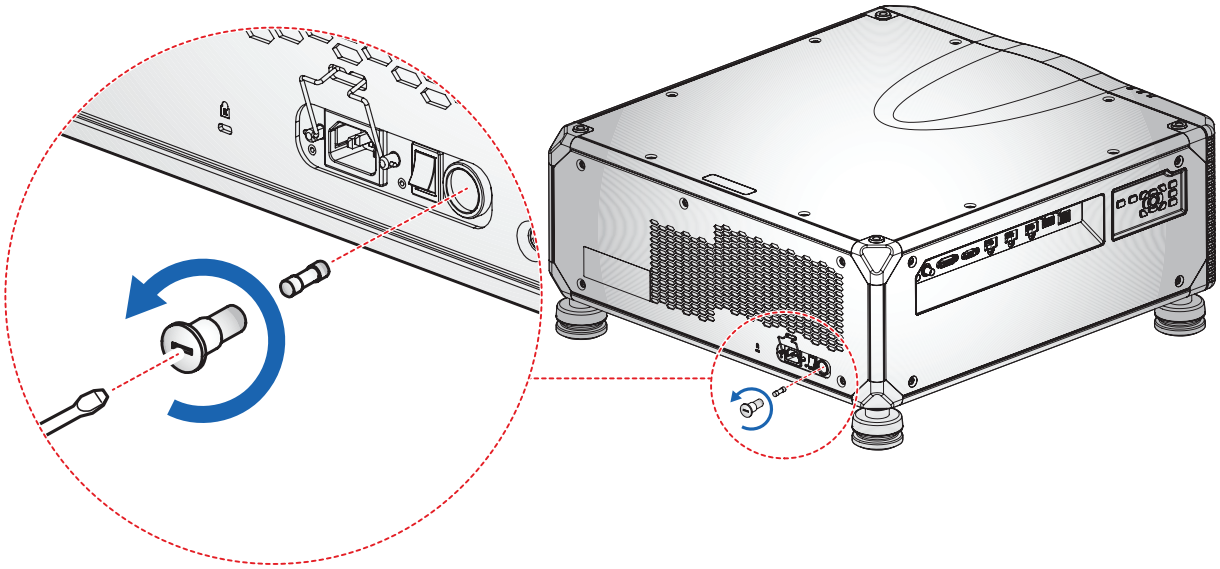


Image 6–1 Replacement of the fuse

4. Mount the screw back onto the projector, using the flat screwdriver.

6.4 Software update

CAUTION: Do not power off or unplug the projector while the software update is ongoing.

How to update the software

1. Power on the projector.
2. Download and install the latest version of Projector Toolset for G-series. The program can be downloaded for free from Barco's website, (URL: http://www.barco.com). Click on *myBarco* and log in to get access to secured information. Registration is necessary.

   If you are not yet registered, click on *New to myBarco* and follow the instructions. With the created login and password, it is possible to log in where you can download the software.
3. Download the latest firmware (format .iso) from Barco's website in the same way as for Projector Toolset.
4. Start Projector Toolset and make a connection with the projector. For more information, see the "*Projector Toolset*" user guide.
5. Select tab **Update settings**.
6. Fill out the path to the update file (1)

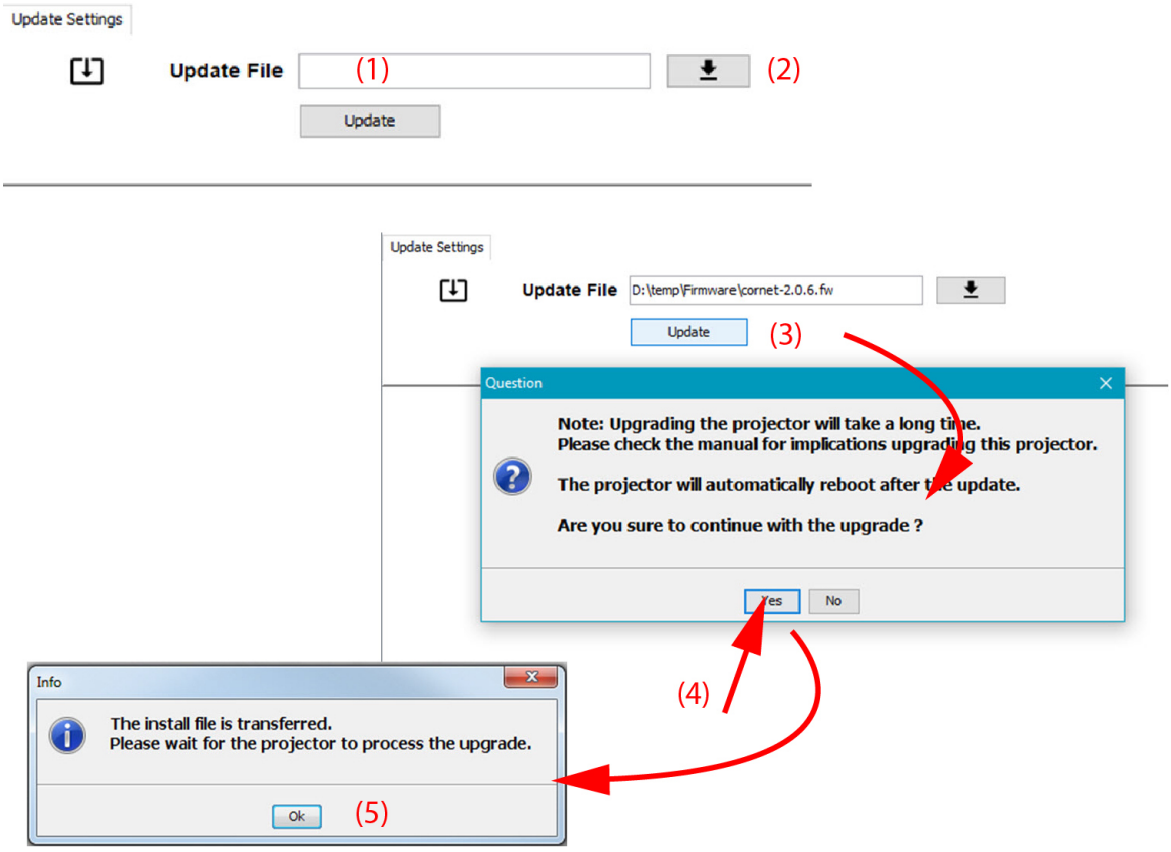


Image 6–2 Update Pulse projector

or

click on the path selection icon (2) to open a browser window.

7. Browse to the desired update package (format .iso) and click **Select Update Package**.

   The path will be filled out in the input field next to *Update File*.

8. Click **Update** (3).

   The update starts. This action can take a long time. A message is displayed.

9. Click **Yes** to continue (4).

   The update file will be transferred to the projector and installed. The projector will reboot.

   A message is displayed. Click **Ok** to clear the message.

How to update the software if the projector isn't connected to the network

1. Power on the projector.
2. Download the latest firmware file (format .iso) from Barco's website. The firmware can be downloaded for free from Barco's website, (URL: *http://www.barco.com*). Click on *myBarco* and log in to get access to secured information. Registration is necessary.

   If you are not yet registered, click on *New to myBarco* and follow the instructions. With the created login and password, it is possible to log in where you can download the software.

3. Connect your computer to the projector, using a LAN cable.
4. Browse to the IP address of the projector (e.g. the default 192.168.1.100).

   The login screen will be displayed.

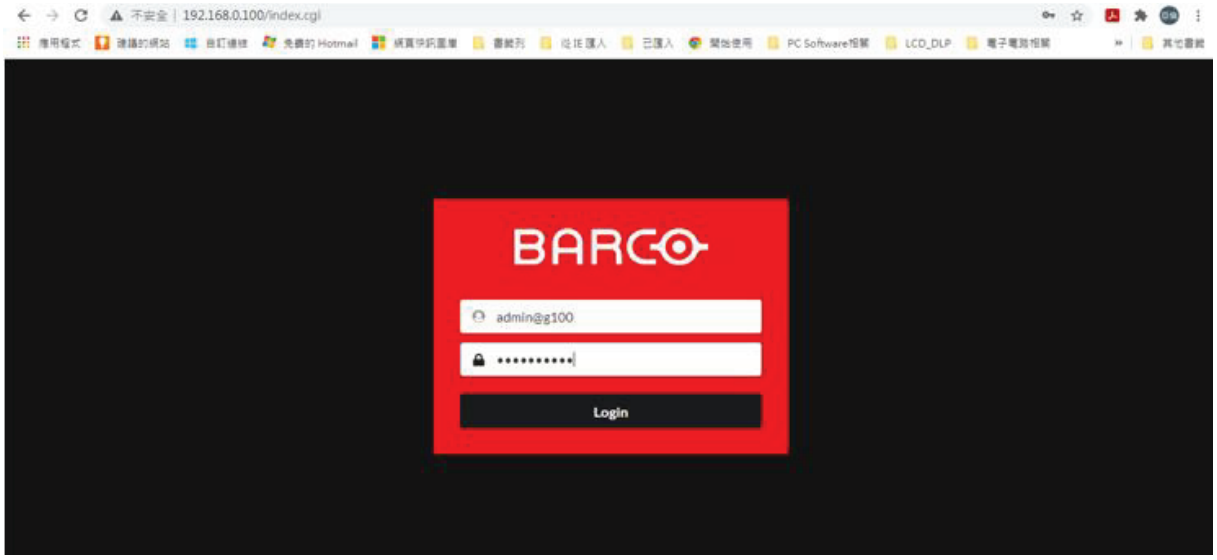


Image 6–3 Example of the login page

5. Log in, using the following (default) settings:
   - Username: admin@g100
   - password: admin@g100

   Tip: It is advised to change the username and password once you have logged in. It is also advised to use a strong password.

6. Navigate to System Settings > Upgrade (reference 1).

   The upgrade page will be displayed.

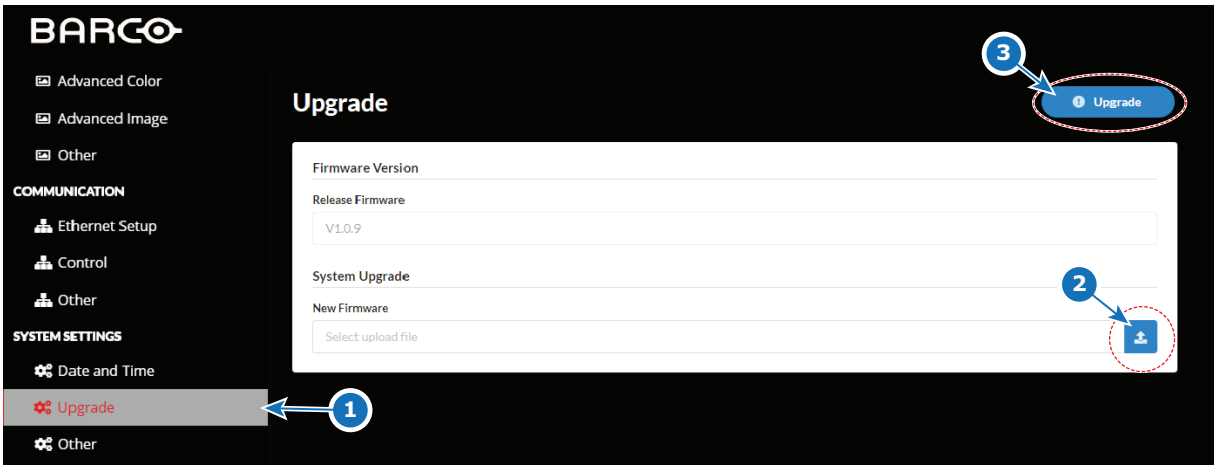


Image 6–4 Example of the upgrade page

7. Browse to the desired update package (format .iso) and confirm (reference 2). Click **Upgrade** (reference 3) to start the upgrade process.

   The update file will be transferred to the projector and installed. The projector will reboot when completed.

Take note that the update process can take a long time to complete.

For more info about the Projector Toolset see user guide of the Projector Toolset.

7 Troubleshooting

7.1 LED indication chart 64
7.2 Projector Problems 65

If you experience a problem with your projector, please refer to the following information. If a problem persists, please contact your local re-seller or service center.

7.1 LED indication chart

Overview

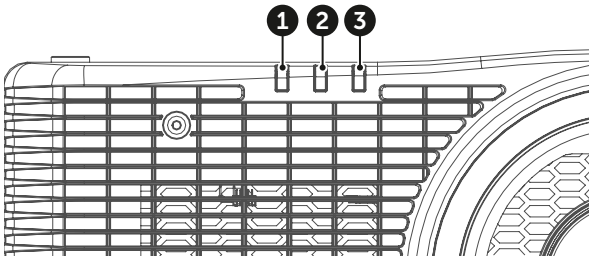


Image 7–1

1 Light LED
2 Status LED
3 AV Mute LED

Explanation

Message	Light LED			Status LED			AV Mute LED	
	Green	Orange	Red	Green	Orange	Red	Green	Orange
Standby State								
Power on (Warm up)					Flash-ing			
Power on & Laser diode on	Steady			Steady			Steady	
Power off (cooling down)					Flash-ing			
AV mute is off (Image is displayed)	Steady			Steady			Steady	
AV mute is on (Image is black)	Steady			Steady				Steady
Projector communication	Steady			Flash-ing			Steady	
Firmware upgrade				Flash-ing	Flash-ing			
Burn-in		Flash-ing			Flash-ing			
Factory reset			Steady	Steady				
Over temperature error						Steady		
Fan failure error						Flash-ing		
Color wheel failure error						Flash-ing		

Power key of the keypad is in steady red light when the projector enters standby mode.

7.2 Projector Problems

No image appears on-screen

- Check if all the cables and the AC power are correctly connected. For more details, refer to the installation manual.
- Check if the pins of the connectors are not crooked or broken.
- Check if the “Shutter (AV Mute)” function is disabled.

Image is fuzzy and blurry

- Press the “Focus ▲” or “Focus ▼” button on the remote control or control panel to adjust the image focus until it is sharp and clear.
- Make sure the projection screen is in proper distance with the projector. For projection distances of each lens, see chapter installation manual.

Stretched when displaying 16:10 DVD videos

- If you play a DVD mastered in anamorphic or 16:10 format, the projector will show the best image in 16:10 format on projector side.
- If you play a DVD mastered in 4:3 format, change the format as 4:3 in the projector OSD.
- Set the aspect ratio to 16:10 (wide) on the DVD player.

Image is too small or too large

- Adjust the image size by pressing the “Zoom ▲” or “Zoom ▼” button on the remote control or control panel.
- Adjust the distance between the projector and the screen.
- Adjust the aspect ratio by selecting “*Installation* > *Aspect Ratio*“ from the OSD menu.

Image is not an even rectangle

- If possible, reposition the projector and/or screen in such a way that the projected image is centered on the screen and is an even rectangle.
- If not possible, perform keystone correction, using the Keystone buttons on the remote control.

Image is reversed

- To reverse the image, enable rear projection by selecting “*Installation* > *Orientation* > *Direction* > *Rear Projection*” from the OSD menu.

The projector stops responding to all controls

- If possible, turn off the projector, then unplug the power cord and wait at least 20 seconds before reconnecting power.

If the remote control does not work

- Check if the operating angle of the remote control is pointed within ±30° horizontally or ±20° vertically to the IR receivers on the projector.
- Make sure there are no obstructions between the remote control and the projector.
- Make sure you are within the maximum range between projector and remote control (10 m / 32.8 ft).
- Check the remote batteries. Make sure batteries are inserted correctly. Replace the batteries if they are used up. For more info, see “RCU battery installation”, page 24.
- Ensure you have set the correct IR code to the remote control. For more info, see “Projector Address (ID)”, page 25.

Specifications

A

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A.1 Product specifications of the G100-W16

Specifications

Projector type	Single chip DLP laser phosphor projector
Resolution	1,920 x 1,200 (WUXGA) - 0.96" DLP chip
Brightness	19,000 ISO lumen / 17,800 center lumen / 16,000 ANSI lumen
Contrast ratio	1,100:1 sequential; 5,500:1 dynamic; Extreme black: 100,000:1
Brightness uniformity	90%
Aspect ratio	16:10
Lens type	FLDX-lens 0.38:1; GC-lenses - 0.65-0.75:1 / 0.84-1.02:1 / 1.02-1.36:1 / 1.2-1.5:1 / 1.5-2.0:1 / 2.0-4.0:1 / 4.0-7.2:1 / 7.2-10.8:1
Optical lens shift	Vertical up to 120%, depending on lens Horizontal up to 50%, depending on lens Motorized zoom and focus Motorized lens shift
Color correction	Yes
CLO (constant light output)	Yes
Light source	Laser phosphor
Light source lifetime	Up to 20,000hrs
Sealed DLP™ core	Yes
Orientation	360° rotation, no restrictions
3D	Active and passive stereoscopic 3D
Image processing	Embedded warp & blend. Also possible via Ptoolset
Keystone correction	Yes
Inputs	2x HDMI 2.0b / DisplayPort 1.2a / DVI-D / HDBaseT / 3G-SDI / VGA (D-Sub 15 pin)
Input resolutions	Up to 1,920 x 1,200 @ 60Hz refresh rates: 24Hz to 120Hz for 720p (1280x720) / 24Hz to 60Hz for WUXGA (1920x1200) / 24Hz to 60Hz for 3840x2160 and 24Hz to 30Hz for 4196x2160
Software tools	Projector Toolset
Control	IR, RS232, RJ45, USB type A
Network connection	10/100 Ethernet, RJ45
Power requirements	100-240V / 50-60Hz
Power consumption	1150W nominal, 1325W maximum
BTU per hour	3,925 BTU/h nominal; 4,520 BTU/h maximum
Standby power	less than 0.5W

Noise level (typical at 25°C/ 77°F)	36dB(A) - 40dB(A) depending on the used mode
Operating temperature	0 - 50 °C (sea level)
Storage temperature	-10 to 60 °C
Operating humidity	10 - 85% RH, non-condensing
Storage humidity	5 - 90% RH, non-condensing
Dimensions (WxLxH)	without feet: 650 x 710 x 251 mm / 25.6 x 27.9 x 9.9 in
Weight	without lens: 50.0 kg / 110.2 lbs
Standard accessories	Power cord, wireless remote control
Certifications	CE, FCC Class A, cTUVUS, CCC, EAC, KCC, RCM, BIS, BSMI
Warranty	Limited 3 years parts and labor

A.2 Product specifications of the G100–W19

Specifications

Projector type	Single chip DLP laser phosphor projector
Resolution	1,920 x 1,200 (WUXGA) - 0.96" DLP chip
Brightness	19,000 ISO lumen / 17,800 center lumen / 16,000 ANSI lumen
Contrast ratio	1,100:1 sequential; 5,500:1 dynamic; Extreme black: 100,000:1
Brightness uniformity	90%
Aspect ratio	16:10
Lens type	FLDX-lens 0.38:1; GC-lenses - 0.65-0.75:1 / 0.84-1.02:1 / 1.02-1.36:1 / 1.2-1.5:1 / 1.5-2.0:1 / 2.0-4.0:1 / 4.0-7.2:1 / 7.2-10.8:1
Optical lens shift	Vertical up to 120%, depending on lens Horizontal up to 50%, depending on lens Motorized zoom and focus Motorized lens shift
Color correction	Yes
CLO (constant light output)	Yes
Light source	Laser phosphor
Light source lifetime	Up to 20,000hrs
Sealed DLP™ core	Yes
Orientation	360° rotation, no restrictions
3D	Active and passive stereoscopic 3D
Image processing	Embedded warp & blend. Also possible via Ptoolset
Keystone correction	Yes
Inputs	2x HDMI 2.0b / DisplayPort 1.2a / DVI-D / HDBaseT / 3G-SDI / VGA (D-Sub 15 pin)

Input resolutions	Up to 1,920 x 1,200 @ 60Hz refresh rates: 24Hz to 120Hz for 720p (1280x720) / 24Hz to 60Hz for WUXGA (1920x1200) / 24Hz to 60Hz for 3840x2160 and 24Hz to 30Hz for 4196x2160
Software tools	Projector Toolset
Control	IR, RS232, RJ45, USB type A
Network connection	10/100 Ethernet, RJ45
Power requirements	100-240V / 50-60Hz
Power consumption	1150W nominal, 1325W maximum
BTU per hour	3,925 BTU/h nominal; 4,520 BTU/h maximum
Standby power	less than 0.5W
Noise level (typical at 25°C/ 77°F)	36dB(A) - 40dB(A) depending on the used mode
Operating temperature	0 - 50 °C (sea level)
Storage temperature	-10 to 60 °C
Operating humidity	10 - 85% RH, non-condensing
Storage humidity	5 - 90% RH, non-condensing
Dimensions (WxLxH)	without feet: 650 x 710 x 251 mm / 25.6 x 27.9 x 9.9 in
Weight	without lens: 50.0 kg / 110.2 lbs
Standard accessories	Power cord, wireless remote control
Certifications	CE, FCC Class A, cTUVUS, CCC, EAC, KCC, RCM, BIS, BSMI
Warranty	Limited 3 years parts and labor

A.3 Product specifications of the G100–W22

Specifications

Projector type	Single chip DLP laser phosphor projector
Resolution	1,920 x 1,200 (WUXGA) - 0.96" DLP chip
Brightness	22,000 ISO lumen / 20,600 center lumen / 18,500 ANSI lumen
Contrast ratio	1,100:1 sequential; 5,500:1 dynamic; Extreme black: 100,000:1
Brightness uniformity	90%
Aspect ratio	16:10
Lens type	FLDX-lens 0.38:1; GC-lenses - 0.65-0.75:1 / 0.84-1.02:1 / 1.02-1.36:1 / 1.2-1.5:1 / 1.5-2.0:1 / 2.0-4.0:1 / 4.0-7.2:1 / 7.2-10.8:1
Optical lens shift	Vertical up to 120%, depending on lens Horizontal up to 50%, depending on lens Motorized zoom and focus Motorized lens shift

Color correction	Yes
CLO (constant light output)	Yes
Light source	Laser phosphor
Light source lifetime	Up to 20,000hrs
Sealed DLP™ core	Yes
Orientation	360° rotation, no restrictions
3D	Active and passive stereoscopic 3D
Image processing	Embedded warp & blend. Also possible via Ptoolset
Keystone correction	Yes
Inputs	2x HDMI 2.0b / DisplayPort 1.2a / DVI-D / HDBaseT / 3G-SDI / VGA (D-Sub 15 pin)
Input resolutions	Up to 1,920 x 1,200 @ 60Hz refresh rates: 24Hz to 120Hz for 720p (1280x720) / 24Hz to 60Hz for WUXGA (1920x1200) / 24Hz to 60Hz for 3840x2160 and 24Hz to 30Hz for 4196x2160
Software tools	Projector Toolset
Control	IR, RS232, RJ45, USB type A
Network connection	10/100 Ethernet, RJ45
Power requirements	100-240V / 50-60Hz
Power consumption	1380W nominal, 1565W maximum
BTU per hour	4,709 BTU/h nominal; 5,340 BTU/h maximum
Standby power	less than 0.5W
Noise level (typical at 25°C/ 77°F)	38dB(A) - 42dB(A) depending on the used mode
Operating temperature	0 - 50 °C (sea level)
Storage temperature	-10 to 60 °C
Operating humidity	10 - 85% RH, non-condensing
Storage humidity	5 - 90% RH, non-condensing
Dimensions (WxLxH)	without feet: 650 x 710 x 251 mm / 25.6 x 27.9 x 9.9 in
Weight	without lens: 54 kg / 119.0 lbs
Standard accessories	Power cord, wireless remote control
Certifications	CE, FCC Class A, cTUVUS, CCC, EAC, KCC, RCM, BIS, BSMI
Warranty	Limited 3 years parts and labor

A.4 Ceiling mount information

Projector dimensions

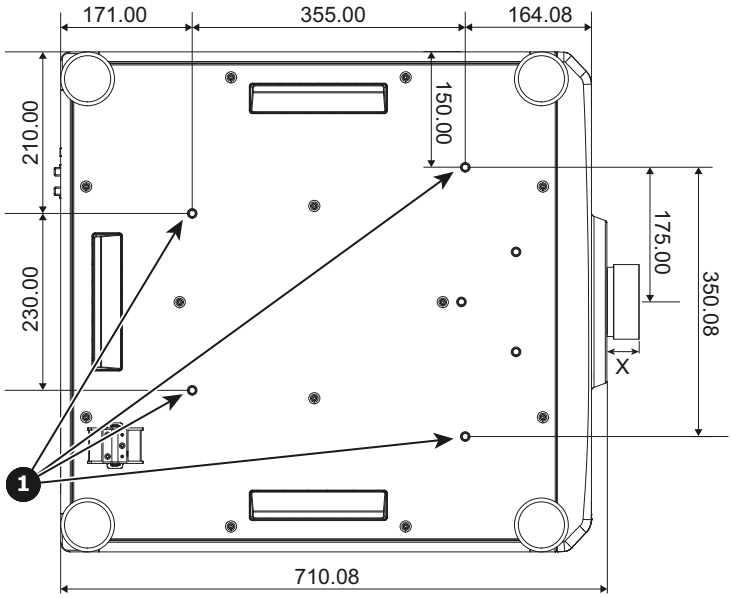

Image A–1 All dimensions given in mm

1 Mounting holes for ceiling mount
X Distance between projector and end of lens

Lens type	Distance X (in mm)
R9802188	82.94
R9802181	53.12
R9802182	56.42
R9802183	56.79
R9802184	42.02
R9802185	76.23
R9802186	106.9
R9802187	143.32
R9801832	257.14

Ceiling mount information

To prevent damage to your projector, please use a Barco recommended ceiling mount. Ensure the screws used to install the mount to the projector meet the following specifications:

- Screw type: M8 x 4
- Minimum screw length: 18 mm

Damage resulting from incorrect installation will void the warranty.

A.5 Compatibility modes

PIP/PBP Compatibility

PIP/PBP Matrix	VGA	DVI-D	HDMI-1	HDMI-2	3G-SDI	HDBaseT	Display-Port
VGA	—	—	V	V	V	V	V
DVI-D	—	—	V	V	V	V	V
HDMI-1	V	V	—	V	V	V	V
HDMI-2	V	V	V	—	V	V	V
3G-SDI	V	V	V	V	—	V	V
HDBaseT	V	V	V	V	V	—	V
Display-Port	V	V	V	V	V	V	—

A.6 Overview video timings – PC

Timing table PC – VGA & HDMI

Signal format	Resolu-tion	Frame rate (Hz)	VGA		HDMI 1/2						
			RGB	YPb-Pr	RGB			YCbCr 4:4:4			YCbCr 4:2:2
					8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
VGA	640x350	85	V		V	V	V	V	V	V	V
	640x400	85	V		V	V	V	V	V	V	V
	640x480	60	V		V	V	V	V	V	V	V
		72	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
	720x400	70	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
SVGA	800x600	60	V		V	V	V	V	V	V	V
		72	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
		120			V	V	V	V	V	V	V
	832x624	75	V		V	V	V	V	V	V	V
	848x480	60	V		V	V	V	V	V	V	V
XGA	1024x768	60	V		V	V	V	V	V	V	V
		70	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
		120			V	V	V	V	V	V	V
SXGA	1152x864	75	V		V	V	V	V	V	V	V
	1152x870	75	V		V	V	V	V	V	V	V
WXGA	1280x768	60	V		V	V	V	V	V	V	V

Signal format	Resolu-tion	Frame rate (Hz)	VGA		HDMI 1/2						
			RGB	YPb-Pr	RGB			YCbCr 4:4:4			YCbCr 4:2:2
					8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
	1280x800	60	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
SXGA	1280x960	60	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
	1280x1024	60	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
WXGA	1360x768	60	V		V	V	V	V	V	V	V
	1366x768	60	V		V	V	V	V	V	V	
SXGA+	1400x1050	60	V		V	V	V	V	V	V	V
WXGA+	1440x900	60	V		V	V	V	V	V	V	V
		75	V		V	V	V	V	V	V	V
		85	V		V	V	V	V	V	V	V
WXGA++	1600x900	60	V		V	V	V	V	V	V	V
UXGA	1600x1200	50	V		V	V	V	V	V	V	V
		60	V		V	V	V	V	V	V	V
WSXGA+	1680x1050	60	V		V	V	V	V	V	V	V
WUX-GARB	1920X120-0RB[8]	50	V		V	V	V	V	V	V	V
		60	V		V	V	V	V	V	V	V

Timing table PC – DVI & 3G-SDI

Signal format	Resolution	Frame rate (Hz)	DVI							3G-SDI
			RGB			YCbCr 4:4:4			YCbCr 4:2:2	YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit	10 bit
VGA	640x350	85	V	V	V	V	V	V	V	
	640x400	85	V	V	V	V	V	V	V	
	640x480	60	V	V	V	V	V	V	V	
		72	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
	720x400	70	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
SVGA	800x600	60	V	V	V	V	V	V	V	
		72	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	

8. RB = Reduced Blanking

Signal format	Resolution	Frame rate (Hz)	DVI							3G-SDI
			RGB			YCbCr 4:4:4			YCbCr 4:2:2	YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit	10 bit
		85	V	V	V	V	V	V	V	
		120								
	832x624	75	V	V	V	V	V	V	V	
	848x480	60	V	V	V	V	V	V	V	
XGA	1024x768	60	V	V	V	V	V	V	V	
		70	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
		120								
SXGA	1152x864	75	V	V	V	V	V	V	V	
	1152x870	75	V	V	V	V	V	V	V	
WXGA	1280x768	60	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
	1280x800	60	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
SXGA	1280x960	60	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
	1280x1024	60	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
WXGA	1360x768	60	V	V	V	V	V	V	V	
	1366x768	60	V	V	V	V	V	V	V	
SXGA+	1400x1050	60	V	V	V	V	V	V	V	
WXGA+	1440x900	60	V	V	V	V	V	V	V	
		75	V	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V	
WXGA++	1600x900	60	V	V	V	V	V	V	V	
UXGA	1600x1200	50	V	V	V	V	V	V	V	
		60	V	V	V	V	V	V	V	
WSXGA+	1680x1050	60	V	V	V	V	V	V	V	
WUX-GARB	1920X1200-RB[8]	50	V	V	V	V	V	V	V	
		60	V	V	V	V	V	V	V	

Timing table PC – HDBaseT

Signal format	Resolution	Frame rate (Hz)	HDBaseT						
			RGB			YCbCr 4:4:4			YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
VGA	640x350	85	V	V	V	V	V	V	V
	640x400	85	V	V	V	V	V	V	V
	640x480	60	V	V	V	V	V	V	V

Signal format	Resolution	Frame rate (Hz)	HDBaseT						
			RGB			YCbCr 4:4:4			YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
		72	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	720x400	70	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
SVGA	800x600	60	V	V	V	V	V	V	V
		72	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
		120	V	V	V	V	V	V	V
	832x624	75	V	V	V	V	V	V	V
	848x480	60	V	V	V	V	V	V	V
XGA	1024x768	60	V	V	V	V	V	V	V
		70	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
		120	V	V	V	V	V	V	V
SXGA	1152x864	75	V	V	V	V	V	V	V
	1152x870	75	V	V	V	V	V	V	V
WXGA	1280x768	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	1280x800	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
SXGA	1280x960	60	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	1280x1024	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
WXGA	1360x768	60	V	V	V	V	V	V	V
	1366x768	60	V	V	V	V	V	V	
SXGA+	1400x1050	60	V	V	V	V	V	V	V
WXGA+	1440x900	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
WXGA++	1600x900	60	V	V	V	V	V	V	V
UXGA	1600x1200	50	V	V	V	V	V	V	V
		60	V	V	V	V	V		V
WSXGA+	1680x1050	60	V	V	V	V	V	V	V
WUX-GARB	1920X1200-RB[8]	50	V	V	V	V	V	V	V
		60	V	V	V	V	V		V

Timing table PC – DisplayPort

Signal format	Resolution	Frame rate (Hz)	DisplayPort						
			RGB			YCbCr 4:4:4			YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
VGA	640x350	85	V	V	V	V	V	V	V
	640x400	85	V	V	V	V	V	V	V
	640x480	60	V	V	V	V	V	V	V
		72	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	720x400	70	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
SVGA	800x600	60	V	V	V	V	V	V	V
		72	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
		120	V	V	V	V	V	V	V
	832x624	75	V	V	V	V	V	V	V
	848x480	60	V	V	V	V	V	V	V
XGA	1024x768	60	V	V	V	V	V	V	V
		70	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
		120	V	V	V	V	V	V	V
SXGA	1152x864	75	V	V	V	V	V	V	V
	1152x870	75	V	V	V	V	V	V	V
WXGA	1280x768	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	1280x800	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
SXGA	1280x960	60	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
	1280x1024	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	V
		85	V	V	V	V	V	V	V
WXGA	1360x768	60	V	V	V	V	V	V	V
	1366x768	60	V	V	V	V	V	V	V
SXGA+	1400x1050	60	V	V	V	V	V	V	V
WXGA+	1440x900	60	V	V	V	V	V	V	V
		75	V	V	V	V	V	V	
		85	V	V	V	V	V	V	V
WXGA++	1600x900	60	V	V	V	V	V	V	V
UXGA	1600x1200	50	V	V	V	V	V	V	V
		60	V	V	V	V	V	V	V

Signal format	Resolution	Frame rate (Hz)	DisplayPort						
			RGB			YCbCr 4:4:4			YCbCr 4:2:2
			8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
WSXGA+	1680x1050	60	V	V	V	V	V		V
WUX-GARB	1920X1200-RB[8]	50	V	V	V	V	V	V	V
		60	V	V	V	V	V	V	V

A.7 Overview video timings – TV

Timing table – TV

Signal format	Resolution		Frame rate (Hz)	VGA	HDMI 1/2	DVI	HDBa-seT	3G-SDI	DP
SDTV	480i	720x480	59.94	V	V		V		
			60	V	V		V		
	576i	720x576	50	V	V		V		
EDTV	480p	720x480	59.94	V	V		V		V
			60	V	V		V		V
	576p	720x576	50	V	V		V		V
HDTV	720p	1280x720	50	V	V	V	V		V
			59.94	V	V	V	V		V
			60	V	V	V	V		V
			120		V		V		V
	1080i	1920x1080	50	V	V	V	V		V
			59.94	V	V	V	V		V
			60	V	V	V	V		V
	1080p	1920x1080	23.98	V	V	V	V		V
			24	V	V	V	V		V
			25	V	V	V	V		V
			29.97	V	V	V	V		V
			30	V	V	V	V		V
			50	V	V	V	V		V
			59.94	V	V	V	V		V
			60	V	V	V	V		V

A.8 Overview video timings – SDI

Timing table – SDI

Signal type	Resolution		Frame rate (Hz)	VGA	HDMI 1/2	DVI	HDBa-seT	3G-SDI YCbCr 4:2:2 10bit	DP
SD-SDI	SDTV (480i)	720x480	59.94					V	
	SDTV (576i)	720x576	50					V	
HD-SDI	HDTV (720p)	1280x720	50					V	

Signal type	Resolution		Frame rate (Hz)	VGA	HDMI 1/2	DVI	HDBa-seT	3G-SDI YCbCr 4:2:2 10bit	DP
			59.94					V	
			60					V	
	HDTV (1080i)	1920x1080	50					V	
			59.94					V	
			60					V	
	HDTV (1080p)	1920x1080	23.98					V	
			24					V	
			25					V	
			29.97					V	
			30					V	
	HDTV (1080sF)	1920x1080	25					V	
			29.97					V	
			30					V	
3GA-SDI	HDTV (1080p)	1920x1080	50					V	
			59.94					V	
			60					V	
3GB-SDI	HDTV (1080p)	1920x1080 With 352M Payload ID	50					V	
			59.94					V	
			60					V	

A.9 Overview video timings – 3D

Timing table – 3D

Signal type	Signal format	Resolution	Frame rate (Hz)	VGA	HDM-I1/2	DVI	HDBa-seT	3G-SDI	DP
Mandato-ry 3D	Frame Packing 1080p	1920x1080	23.98		V		V		
			24		V		V		
	Frame Packing 720p	1280x720	50		V		V		
			59.94		V		V		
			60		V		V		
	Side by Side 1080i	1920x1080	50		V		V		
			59.94		V		V		
			60		V		V		
	Side by side 1080p	1920x1080	24		V		V		
			50		V		V		
			59.94		V		V		
			60		V		V		
	Top and Bottom 720p	1280x720	50		V		V		
			59.94		V		V		
			60		V		V		
	Top and Bottom 1080p	1920x1080	23.98		V		V		
			24		V		V		

Signal type	Signal format	Resolution	Frame rate (Hz)	VGA	HDM-I1/2	DVI	HDBa-seT	3G-SDI	DP
			59.9		V		V		
			60		V		V		
Frame Sequen-tial 3D (single and multiple)	SVGA	800x600	120		V		V		V
	XGA	1024x768	120		V		V		V
	HDTV	1280x720	120		V		V		V
	1080p	1920x1080	120		V		V		V
			60		V[9]		V		V
	WUXGA	1920x1200	60		V		V		V

A.10 Overview video timings – 4K

VGA, DVI and 3G-SDI do not support 4K

Timing table 4K – HDMI

Resolution	Frame rate (Hz)	HDMI 1/2						
		RGB			YCbCr :4:4			YCbCr 4:2:2
		8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
3840x2160	24	V	V	V	V	V	V	V
	25	V	V	V	V	V	V	V
	30	V	V	V	V	V	V	V
	50	V			V			V
	60	V			V			V
4096x2160 SMPTE	24	V	V	V	V	V	V	V
	25	V	V	V	V	V	V	V
	30	V	V	V	V	V	V	V
	50	V			V			V
	60	V			V			V

Timing table 4K – HDBaseT

Resolution	Frame rate (Hz)	HDBaseT						
		RGB			YCbCr :4:4			YCbCr 4:2:2
		8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
3840x2160	24	V	V	V	V	V	V	V
	25	V	V	V	V	V	V	V
	30	V	V	V	V	V	V	V
	50	V			V			V
	60	V			V			V
4096x2160 SMPTE	24	V			V			V
	25	V			V			V

9. Not supported with YCbCr 4:2:2 8 bit

Resolution	Frame rate (Hz)	HDBaseT						
		RGB			YCbCr :4:4			YCbCr 4:2:2
		8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
	30	V			V			V
	50							
	60							

Timing table 4K – DisplayPort

Resolution	Frame rate (Hz)	DisplayPort						
		RGB			YCbCr :4:4			YCbCr 4:2:2
		8 bit	10 bit	12 bit	8 bit	10 bit	12 bit	8 bit
3840x2160	24	V	V	V	V	V	V	V
	25	V	V	V	V	V	V	V
	30	V	V	V	V	V	V	V
	50	V			V			V
	60	V			V			V
4096x2160 SMPTE	24	V	V	V	V	V	V	V
	25	V	V	V	V	V	V	V
	30	V	V	V	V	V	V	V
	50	V			V			V
	60	V			V			V

A.11 EDID table

VGA (analog)

Established timing	Standard timing	Detail timing
720x400 @ 70 Hz	1024x768 @ 120 Hz	1920x1200 @ 59 Hz
720x400 @ 88 Hz	1280x800 @ 75 Hz	1920x1080 @ 60 Hz
640x480 @ 60 Hz	1280x1024 @ 60 Hz	
640x480 @ 67 Hz	1360x765 @ 60 Hz	
640x480 @ 72 Hz	800x600 @ 120 Hz	
640x480 @ 75 Hz	1400x1050 @ 60 Hz	
800x600 @ 56 Hz	1600x1200 @ 60 Hz	
800x600 @ 60 Hz	1680x1050 @ 60 Hz	
800x600 @ 72 Hz		
800x600 @ 75 Hz		
832x624 @ 75 Hz		
1024x768 @ 60 Hz		
1024x768 @ 70 Hz		

Established timing	Standard timing	Detail timing
1024x768 @ 75 Hz		
1280x1024 @ 75 Hz		
1152x870 @ 75 Hz		

DVI-D

Established timing	Standard timing	Detail timing
720x400 @ 70 Hz	1024x768 @ 120 Hz	1920x1200 @ 59 Hz
720x400 @ 88 Hz	1280x800 @ 75 Hz	1920x1080 @ 60 Hz
640x480 @ 60 Hz	1280x1024 @ 60 Hz	640x480 @ 60 Hz
640x480 @ 67 Hz	1360x765 @ 60 Hz	720x480 @ 60 Hz
640x480 @ 72 Hz	800x600 @ 120 Hz	1280x720 @ 60Hz
640x480 @ 75 Hz	1400x1050 @ 60 Hz	1920x1080i @ 60 Hz
800x600 @ 56 Hz	1600x1200 @ 60 Hz	720x480i @ 60 Hz
800x600 @ 60 Hz	1680x1050 @ 60 Hz	720x576 @ 50 Hz
800x600 @ 72 Hz		1280x720 @ 50 Hz
800x600 @ 75 Hz		1920x1080i @ 50 Hz
832x624 @ 75 Hz		720x576i @ 50 Hz
1024x768 @ 60 Hz		1920x1080 @ 50 Hz
1024x768 @ 70 Hz		1920x1080 @ 24 Hz
1024x768 @ 75 Hz		1440x480 @ 60 Hz
1280x1024 @ 75 Hz		1920x1080 @ 25 Hz
1152x870 @ 75 Hz		

HDMI, HDBaseT and DisplayPort

Established timing	Standard timing	Detail timing
720x400 @ 70 Hz	1024x768 @ 120 Hz	1920x1200 @ 59 Hz
720x400 @ 88 Hz	1280x800 @ 75 Hz	1920x1080 @ 60 Hz
640x480 @ 60 Hz	1280x1024 @ 60 Hz	640x480 @ 60 Hz
640x480 @ 67 Hz	1360x765 @ 60 Hz	720x480 @ 60 Hz
640x480 @ 72 Hz	800x600 @ 120 Hz	1280x720 @ 60Hz
640x480 @ 75 Hz	1400x1050 @ 60 Hz	1920x1080i @ 60 Hz
800x600 @ 56 Hz	1600x1200 @ 60 Hz	720x480i @ 60 Hz
800x600 @ 60 Hz	1680x1050 @ 60 Hz	720x576 @ 50 Hz
800x600 @ 72 Hz		1280x720 @ 50 Hz

Established timing	Standard timing	Detail timing
800x600 @ 75 Hz		1920x1080i @ 50 Hz
832x624 @ 75 Hz		720x576i @ 50 Hz
1024x768 @ 60 Hz		1920x1080 @ 50 Hz
1024x768 @ 70 Hz		1920x1080 @ 24 Hz
1024x768 @ 75 Hz		1440x480 @ 60 Hz
1280x1024 @ 75 Hz		1920x1080 @ 25 Hz
1152x870 @ 75 Hz		1280x720 @ 120 Hz
		1920x1080 @ 120 Hz
		3840x2160 @ 24 Hz
		3840x2160 @ 25 Hz
		3840x2160 @ 30 Hz
		3840x2160 @ 50 Hz[10]
		3840x2160 @ 60 Hz[10]
		4096x2160 @ 24 Hz
		4096x2160 @ 25 Hz
		4096x2160 @ 30 Hz
		4096x2160 @ 50 Hz[10]
		4096x2160 @ 60 Hz[10]

10. Only supported for HDMI 2.0

Communication protocols

B

B.1 Serial control

RS232 Configuration

RS232 protocol	
Baud Rate	115200 bps (default)
Data Length	8 bit
Parity Check	None
Stop Bit	1 bit
Flow Control	None

UART command list Installation menu

Level 2	Level 3	Level 4	Level 5	Level 6	Default	Uart Command
Lens	Focus		Focus In/ Out		N.A.	[FCSI1] / [FCSO1]
	Auto Focus				N.A.	[ATFC1]
	Zoom		Zoom In / Out		N.A.	[ZOMI1] / [ZOMO1]
	Lens Shift	Up / Down / Right / Left (icon)			N.A.	motor go step: [LSVU1] / [LSVD1] / [LSVR1] / [LSVL1] motor go run: [LSVU2] / [LSVD2] / [LSVR2] / [LSVL2]
	Lens Memory	Save Memory	Memory 1		Memory 1	[LMSP1]
			Memory 2			[LMSP2]
			Memory 3			[LMSP3]
			Memory 4			[LMSP4]
			Memory 5			[LMSP5]
		Apply Memory	Memory 1		Memory 1	[LMAP1]
			Memory 2			[LMAP2]
			Memory 3			[LMAP3]
			Memory 4			[LMAP4]
			Memory 5			[LMAP5]
		Clear Memory	Yes / Cancel		Cancel	[LMRT1]
	Lens calibra-tion	Yes / Cancel	Yes / Cancel		Cancel	[LECA1]
	Lens Lock	Checkbox			Un-checked	[LELO1] / [LELO0]
	Reset	Yes / Cancel			Cancel	[LERT1]
Orienta-tion	Ceiling mount	Auto			Auto	[CEMO0]
		On				[CEMO1]

Level 2	Level 3	Level 4	Level 5	Level 6	Default	Uart Command
		Off				[CEMO2]
	Direction	Front Projection			Front Projec-tion	[REPJ0]
		Rear Projection				[REPJ1]
Aspect Ratio	Auto				Auto	[ASPR0]
	4:3					[ASPR1]
	16:9					[ASPR2]
	16:10					[ASPR3]
	Letter Boxing					[ASPR4]
	Native					[ASPR5]
Scale	Digital Zoom					
	Propor-tional	Checkbox			Checked	[PPZM1] / [PPZM0]
	Horizon-tal				100	[HDZM***]
	Vertical				100	[VDZM***]
	Digital Shift					
	Horizon-tal				50	[HDSH***]
	Vertical				50	[VDSH***]
	Reset	Yes / Cancel				[SCRT1]
Signal	Auto Signal	Checkbox			Un-checked	[ASRC1] / [ASRC0]
	Input Signal	VGA			VGA	[MSRC0]
		HDMI1				[MSRC1]
		HDMI2				[MSRC2]
		DVI-D				[MSRC3]
		Display Port				[MSRC4]
		3G-SDI				[MSRC5]
		HDBaseT				[MSRC6]
	Backup Input	Auto Switch			Un-checked	[BKSW1]
		Current Signal			N.A.	[BKCS?]
		First Input	HDMI1		HDMI1	[BKFI0]
			HDMI2			[BKFI1]
			HDBa-seT			[BKFI2]
			Display-Port			[BKFI3]
		Resolution			N.A.	[BKFR?]
		Horz Refresh Rate			N.A.	[BKFH?]
		Color Space			N.A.	[BKFC?]
		Second Input	HDMI1		HDMI2	[BKSI0]
			HDMI2			[BKSI1]

Level 2	Level 3	Level 4	Level 5	Level 6	Default	Uart Command
			HDBa-seT			[BKSI2]
			Display-Port			[BKSI3]
		Resolution			N.A.	[BKSR?]
		Horz Refresh Rate			N.A.	[BKSH?]
		Color Space			N.A.	[BKSC?]
		Backup Input Status			N.A.	[BKIS?]
	VGA	Phase			50	[PHAS***]
		H. Position			50	[HPOS***]
		V. Position			50	[VPOS***]
		Resolution			N.A.	[DVRS?]
	HDMI	Output	HDMI1		HDMI1	[DHOP0]
			HDMI2			[DHOP1]
		EDID				
		HDMI1	1,4		2,0	[DHEA0]
			2,0			[DHEA1]
		HDMI2	1,4		2,0	[DHEB0]
			2,0			[DHEB1]
	HDBa-seT	EDID	1,4		1,4	[DHBT0]
			2,0			[DHBT1]
	Auto signal resync	Checkbox			Un-checked	[ASRS1] / [ASRS0]
Edge Mask	0–10				0	[EDMA*]
Auto Image	Auto Focus				N.A.	[ATFC1]
	Auto Wall Color	Yes / Cancel			Cancel	[ATWC1]
Geome-try Correc-tion	Warp Control	Basic			Basic	[WWCG0]
		Advanced				[WWCG1]
	Basic Warp	Keystone	Horizon-tal		20	[HKES***]
			Vertical		20	[VKES***]
		Pincushion	Horizon-tal		50	[HPIC***]
			Vertical		50	[VPIC***]
		4-Corner	Top Left	Horizontal	0	Top Left Horz: [TLCX***]
				Vertical	0	Top Left Vert: [TLCY***]
			Top Right	Horizontal	0	Top Right Horz: [TRCX***]
				Vertical	0	Top Right Vert: [TRCY***]
			Bottom Left	Horizontal	0	Bottom Left Horz: [BLCX***]
				Vertical	0	Bottom Left Vert: [BLCY***]
			Bottom Right	Horizontal	0	Bottom Right Horz: [BRCX***]
				Vertical	0	Bottom Right Vert: [BRCY***]

Level 2	Level 3	Level 4	Level 5	Level 6	Default	Uart Command
	Ad-vanced Warp	Grid Points	2x2		2x2	[WGPG0]
			3x3			[WGPG1]
			5x5			[WGPG2]
			9x9			[WGPG3]
			17x17			[WGPG4]
		Warp Inner	Off / On		On	[WWIG0] / [WWIG1]
		Warp Sharpness			9	[WWSG*]
		Grid Color	Green		Green	[WGCG0]
			Magenta			[WGCG1]
			Red			[WGCG2]
			Cyan			[WGCG3]
		Grid background	Black		Black	[WBCG0]
			Trans-parent			[WBCG1]
		Blend Setting	Blend Width			[EBLG+BLAJ1]
			Overlap Grid Number	4	4	[EBLG+OLGN0]
				6		[EBLG+OLGN1]
				8		[EBLG+OLGN2]
				10		[EBLG+OLGN3]
				12		[EBLG+OLGN4]
			Gamma	1,8	2,2	[EBLG+GAMA0]
				1,9		[EBLG+GAMA1]
				2		[EBLG+GAMA2]
				2,1		[EBLG+GAMA3]
				2,2		[EBLG+GAMA4]
				2,3		[EBLG+GAMA5]
				2,4		[EBLG+GAMA6]
	Memory	Save Memory	Memory 1		Memory 1	[GMSG1]
			Memory 2			[GMSG2]
			Memory 3			[GMSG3]
			Memory 4			[GMSG4]
			Memory 5			[GMSG5]
		Apply Memory	Memory 1		Memory 1	[GMAG1]
			Memory 2			[GMAG2]
			Memory 3			[GMAG3]
			Memory 4			[GMAG4]
			Memory 5			[GMAG5]
		Clear Memory	Yes / Cancel		Cancel	[GMCG0]

Level 2	Level 3	Level 4	Level 5	Level 6	Default	Uart Command
	Reset	Yes / Cancel			Cancel	[GCRT1]
Multi-Projection	Projector ID	Please check COMMUNICATION \Projector ID				
	Remote Code	Please check COMMUNICATION \Remote Setup\Remote Code				
	3D Setup	Please check IMAGE\Advanced Image \3D Setup				
	Light Source Settings	Please check SYSTEM\Light Source Settings				
	Color Mode	Please check IMAGE\Color Mode				
	White Balance	Please check IMAGE\White Balance				
	Advanced Color	Please check IMAGE\Advanced Color				
	Lens	Please check INSTALLATION\Lens				
	Scale	Please check INSTALLATION\Scale				
	Geometry Correction	Please check INSTALLATION \Geometry Correction				
Test Pattern	Off				Off	[TPRN0]
	Green Grid					[TPRN1]
	Magenta Grid					[TPRN2]
	White Grid					[TPRN3]
	White					[TPRN4]
	Black					[TPRN5]
	Red					[TPRN6]
	Green					[TPRN7]
	Blue					[TPRN8]
	Yellow					[TPRN9]
	Magenta					[TPRN10]
	Cyan					[TPRN11]
	ANSI Contrast 4x4					[TPRN12]
	Color bar					[TPRN13]
	Full screen					[TPRN14]
Freeze Screen	Checkbox				Unchecked	[FRZE1] / [FRZE0]
Reset Installation	Yes / Cancel				Yes	[DPRT1]

UART command list Image menu

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
Color mode	Presentation			Bright	[DPMO0]
	Bright				[DPMO1]
	Super Bright				[DPMO2]
	Cinema				[DPMO3]
	HDR				[DPMO4]
	sRGB				[DPMO5]
	DICOM SIM.				[DPMO6]
	Blending				[DPMO7]
	3D				[DPMO8]
	2D High Speed				[DPMO9]
	User				[DPMO10]
Brightness				50	[BRIG*]
Contrast				50	[CONT*]
Saturation				50	[SATU*]
Tint				50	[TINT*]
Sharpness				8	[SHRP*]
Gamma	1,8			Enhanced	[GAMM0]
	2.0				[GAMM1]
	Standard2.2				[GAMM2]
	2,4				[GAMM3]
	2,6				[GAMM4]
	Graphic				[GAMM5]
	Video				[GAMM6]
	CRT(Vivid)				[GAMM7]
	Enhanced				[GAMM8]
	Film				[GAMM9]
	DICOM				[GAMM10]
White Balance	Color temperature	Warm		Standard	[CTMP0]
		Standard			[CTMP1]
		Cool			[CTMP2]
	Gain/Offset (RGB)				
	Red Gain			50	[RGAN***]
	Green Gain			50	[GGAN***]
	Blue Gain			50	[BGAN***]
	Red Offset			50	[ROFS***]
	Green Offset			50	[GOFS***]
	Blue Offset			50	[BOFS***]
	White Peaking				[WHPK**]
	Reset			Cancel	[RSGO1]
Advanced Color	Color Space	Auto		Auto	[CSPA0]
		RGB (0-255)			[CSPA1]
		RGB (16-235)			[CSPA2]
		REC709			[CSPA3]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		REC601			[CSPA4]
	Wall Color	Off		Off	[CCAG+WALL0]
		Auto Wall Color	Yes / Cancel (dialog box)		
		Blackboard			[CCAG+WALL1]
		Light Yellow			[CCAG+WALL2]
		Light Green			[CCAG+WALL3]
		Light Blue			[CCAG+WALL4]
		Pink			[CCAG+WALL5]
		Gray			[CCAG+WALL6]
	Custom RGBCYM	Auto Test Pattern	Checkbox	Checked	[HGWP1] / [HGWP0]
		Red	Hue	Ref OE Color table ,By Color Mode	[HGRH***]
			Saturation	Ref OE Color table ,By Color Mode	[HGRS***]
			Gain	Ref OE Color table ,By Color Mode	[HGRG***]
		Green	Hue	Ref OE Color table ,By Color Mode	[HGGH***]
			Saturation	Ref OE Color table ,By Color Mode	[HGGS***]
			Gain	Ref OE Color table ,By Color Mode	[HGGG***]
		Blue	Hue	Ref OE Color table ,By Color Mode	[HGBH***]
			Saturation	Ref OE Color table ,By Color Mode	[HGBS***]
			Gain	Ref OE Color table ,By Color Mode	[HGBG***]
		Cyan	Hue	Ref OE Color table ,By Color Mode	[HGCH***]
			Saturation		[HGCS***]
			Gain	Ref OE Color table ,By Color Mode	[HGCG***]
		Yellow	Hue	Ref OE Color table ,By Color Mode	[HGYH***]
			Saturation	Ref OE Color table ,By Color Mode	[HGYS***]
			Gain	Ref OE Color table ,By Color Mode	[HGYG***]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		Magenta	Hue	Ref OE Color table ,By Color Mode	[HGMH***]
			Saturation	Ref OE Color table ,By Color Mode	[HGMS***]
			Gain	Ref OE Color table ,By Color Mode	[HGMG***]
		Reset	Yes / Cancel (dialog box)	Cancel	[HGRE1]
	Custom White	Auto Test Pattern	Checkbox	Checked	[HSWP1] / [HSWP0]
		Red		127	[HSWR***]
		Green		127	[HSWG***]
		Blue		127	[HSWB***]
		Reset	Yes / Cancel (dialog box)	Cancel	[HSRE1]
Advanced Image	Dynamic Contrast	Dynamic Black	Checkbox	Unchecked	[DYBK1] / [DYBK0]
		Speed		1	[DCSP**]
		Strength		2	[DCST*]
		Level		100%	[DCLE***]
		Extreme Black	Checkbox	Unchecked	[EXBK1] / [EXBK0]
		Light Out Timer		0s	[DCLT**]
		Light Out Signal Level		0	[DCLS*]
		Reset	Yes / Cancel (dialog box)	Cancel	[DCRT1]
	3D Setup	3D mode	Off	On	[TDNG0]
			On		[TDNG1]
		3D Format	Auto	Auto	[TDEN0]
			Frame Packing		[TDEN1]
			Side by Side		[TDEN2]
			Top and Bottom		[TDEN3]
			Frame Sequential		[TDEN4]
		3D-Tech	DLP-link	3D Sync	[TDDL0]
			3D Sync		[TDDL1]
		3D-2D	3D	3D	[TDLR0]
			2D-Left		[TDLR1]
			2D-Right		[TDLR2]
		3D Sync Out	To Emitter	To Emitter	[SOSG0]
			To Next Projector		[SOSG1]
		3D Invert	Checkbox	Unchecked	[TDIV1] / [TDIV0]
		L/R Reference	1ST Frame	Field GPIO	[LRRG0]
			Field GPIO		[LRRG1]
		Frame Delay		1	[FDYG***]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		Reset	Yes / Cancel (dialog box)	Cancel	[TDRT1]
	PIP / PBP	PIP / PBP	Off	Off	[PIBP0]
			PIP		[PIBP1]
			PBP		[PIBP2]
		Main Source	VGA	VGA	[MSRC0]
			HDMI1		[MSRC1]
			HDMI2		[MSRC2]
			DVI-D		[MSRC3]
			Display Port		[MSRC4]
			3G-SDI		[MSRC5]
			HDBaseT		[MSRC6]
		Sub Source	VGA	HDMI1	[SSRC0]
			HDMI1		[SSRC1]
			HDMI2		[SSRC2]
			DVI-D		[SSRC3]
			Display Port		[SSRC4]
			3G-SDI		[SSRC5]
			HDBaseT		[SSRC6]
		Swap Source		N.A.	[PISW1]
		Sub Image Size	Small	Large	[PHSG0]
			Medium		[PHSG1]
			Large		[PHSG2]
		Sub position	PBP, Main Left	PBP, Main Left	[PILO0]
			PBP, Main Top		[PILO1]
			PBP, Main Right		[PILO2]
			PBP, Main Bottom		[PILO3]
			PIP, Bottom Right	PIP, Bottom Right	[PILO4]
			PIP, Bottom Left		[PILO5]
			PIP, Top Left		[PILO6]
			PIP, Top Right		[PILO7]
	Dynamic Range	HDR	Off	Auto	[HDRG0]
			Auto		[HDRG1]
		HDR Picture Mode	Bright	Standard	[HDRP0]
			Standard		[HDRP1]
			Film		[HDRP2]
			Detail		[HDRP3]
	Low Latency		Normal	Normal	[LLTC0]
			2D Ultra		[LLTC1]
Save to User	Yes / Cancel (dialog box)			Cancel	[DPSU1]
Apply to User	User-Presentation				[DPAU0]
	User-Bright				[DPAU1]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
	User-Super Bright				[DPAU2]
	User-Cinema				[DPAU3]
	User-HDR				[DPAU4]
	User-sRGB				[DPAU5]
	User-DICOM SIM.				[DPAU6]
	User-Blending				[DPAU7]
	User-3D				[DPAU8]
	User-2D High Speed				[DPAU9]
Reset Image Settings	Yes / Cancel (dialog box)			Cancel	[IMRT1]

UART command list Communication menu

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
Projector ID				0	[PJPD**]
Remote Setup	Remote Code			0	[PJAD**]
	Remote Receiver	Front		Checked	[FRNT1] / [FRNT0]
		Top		Checked	[TOPP1] / [TOPP0]
		HDBaseT		Unchecked	[HDBT1] / [HDBT0]
	User Button 1		Freeze Screen	Freeze Screen	[HKSA0]
			Blank Screen		[HKSA1]
			Save to User		[HKSA2]
			PIP/PBP		[HKSA3]
			Aspect Ratio		[HKSA4]
			Show Message		[HKSA5]
			User Data		[HKSA6]
			Network setup		[HKSA7]
			Projector ID		[HKSA8]
			Orientation		[HKSA9]
			Custom RGBCYM		[HKSA10]
			Multi-Projection		[HKSA11]
			Reset Selective		[HKSA12]
	User Button 2		Freeze Screen	Freeze Screen	[HKSB0]
			Blank Screen		[HKSB1]
			Save to User		[HKSB2]
			PIP/PBP		[HKSB3]
			Aspect Ratio		[HKSB4]
			Show Message		[HKSB5]
			User Data		[HKSB6]
			Network setup		[HKSB7]
			Projector ID		[HKSB8]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
			Orientation		[HKSB9]
			Custom RGBCYM		[HKSB10]
			Multi-Projection		[HKSB11]
			Reset Selective		[HKSB12]
Network	Ethernet	LAN Interface	RJ-45	RJ-45	[LANI0]
			HDBaseT		[LANI1]
		MAC Address		N.A.	[LMAC?]
		Network Status		N.A.	[LMNS?]
		DHCP	Checkbox	Unchecked	[LDHC0] / [LDHC1]
		IP Address	---.---.---.---	192.168.1.100	[LIPA"***.***.***.***"]
		Subnet Mask	---.---.---.---	255.255.255.0	[LSUB"***.***.***.***"]
		Gateway	---.---.---.---	192.168.1.51	[LGAT"***.***.***.***"]
		DNS	---.---.---.---	0.0.0.0	[DNSG"***.***.***.***"]
		Apply	Yes / Cancel	Cancel	[LAPY1]
	Network Reset	Yes / Cancel		Cancel	[NFRS1]
Control	Crestron	Checkbox		Checked	[CREN0] / [CREN1]
	IP Address	---.---.---.---		192.168.0.2	[CRIP"***.***.***.***"]
	IPID	0~9		5	[CRID*]
	Port	0~65535		41794	[CRPO*****]
	Crestron Setup Apply	Yes / Cancel		Yes	[CRAP1]
	Extron			Checked	[EXEN0] / EXEN1]
	PJ Link			Checked	[PJEN0] / [PJEN1]
	Service			192.168.0.3	[PJIP"***.***.***.***"]
	PJ Link Setup Apply			Yes	[PJAP1]
	AMX			Checked	[AXEN1] / [AXEN0]
	Telnet			Checked	[TEEN1] / [TEEN0]
	HTTP			Checked	[HTEN1] / [HTEN0]
	Reset	Yes / Cancel		Cancel	[CNRT1]
Baud Rate	Serial Port In	1200		115200	[SPBI0]
		2400			[SPBI1]
		4800			[SPBI2]
		9600			[SPBI3]
		19200			[SPBI4]
		38400			[SPBI5]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		57600			[SPBI6]
		115200			[SPBI7]
	Serial Port Out	1200		115200	[SPBO0]
		2400			[SPBO1]
		4800			[SPBO2]
		9600			[SPBO3]
		19200			[SPBO4]
		38400			[SPBO5]
		57600			[SPBO6]
		115200			[SPBO7]
Reset Communication	Yes / Cancel			Cancel	[CMRT1]

UART command list System menu

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
Language	English			English	[LANG0]
	Simplified Chinese				[LANG1]
	French				[LANG2]
	German				[LANG3]
	Italian				[LANG4]
	Japanese				[LANG5]
	Korean				[LANG6]
	Russian				[LANG7]
	Spanish				[LANG8]
	Portuguese				[LANG9]
	Indonesian				[LANG10]
	Dutch				[LANG11]
Date and Time	Clock Mode	Use NTP Server		Use NTP Server	[DTCM0]
		Manual			[DTCM1]
	Date	2000 ~ 2037 (Year)		2020	[DTSY*]
		01 ~ 12 (Month)		1	[DTSM*]
		01 ~ 31 (Day)		1	[DTSD*]
	Time	00 ~ 23 (Hour)		0	[DTTH*]
		00 ~ 59 (Minute)		0	[DTTM*]
	Daylight Saving Time	Checkbox		Unchecked	[DTDS1] / [DTDS0]
	NTP Server	time.google.com		time.google.com	[DTNS0]
		asia.pool.ntp.org			[DTNS1]
		europe.pool.ntp.org			[DTNS2]
		north-america.pool.ntp.org			[DTNS3]
	Time Zone	UTC+14:00		UTC+00:00	[DTTZ0]
		UTC+13:00			[DTTZ1]
		UTC+12:45			[DTTZ2]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		UTC+12:00			[DTTZ3]
		UTC+11:00			[DTTZ4]
		UTC+10:30			[DTTZ5]
		UTC+10:00			[DTTZ6]
		UTC+09:30			[DTTZ7]
		UTC+09:00			[DTTZ8]
		UTC+08:45			[DTTZ9]
		UTC+08:00			[DTTZ10]
		UTC+07:00			[DTTZ11]
		UTC+06:30			[DTTZ12]
		UTC+06:00			[DTTZ13]
		UTC+05:45			[DTTZ14]
		UTC+05:30			[DTTZ15]
		UTC+05:00			[DTTZ16]
		UTC+04:30			[DTTZ17]
		UTC+04:00			[DTTZ18]
		UTC+03:30			[DTTZ19]
		UTC+03:00			[DTTZ20]
		UTC+02:00			[DTTZ21]
		UTC+01:00			[DTTZ22]
		UTC+00:00			[DTTZ23]
		UTC-01:00			[DTTZ24]
		UTC-02:00			[DTTZ25]
		UTC-03:00			[DTTZ26]
		UTC-03:30			[DTTZ27]
		UTC-04:00			[DTTZ28]
		UTC-05:00			[DTTZ29]
		UTC-06:00			[DTTZ30]
		UTC-07:00			[DTTZ31]
		UTC-08:00			[DTTZ32]
		UTC-09:00			[DTTZ33]
		UTC-09:30			[DTTZ34]
		UTC-10:00			[DTTZ35]
		UTC-11:00			[DTTZ36]
		UTC-12:00			[DTTZ37]
	Update Interval	Hourly		Hourly	[DTUI0]
		Daily			[DTUI1]
	Apply	Yes / Cancel		Cancel	[DTAP1]
On Screen Display	Menu Location	Top Left		Center	[MELG0]
		Top Right			[MELG1]
		Center			[MELG2]
		Bottom Left			[MELG3]
		Bottom Right			[MELG4]
	Menu Transparency			0%	[MNTP*]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
	Menu Timer	Off		15s	[METI0]
		5s			[METI1]
		10s			[METI2]
		15s			[METI3]
	Show Message	Checkbox		Checked	[SMSG0] / [SMSG1]
	Background	Blue		Logo	[BGCL1]
		Black			[BGCL2]
		White			[BGCL3]
		Logo			[BGCL0]
	Reset	Yes / Cancel		Cancel	[BGRT1]
Logo Setup	Change Logo	Default Logo		Default Logo	[LOGC0]
		Captured Logo			[LOGC1]
		Save	Captured Logo	Yes / Cancel (Dialog box)	[LOGS0]
	Delete Logo		Captured Logo	Yes / Cancel (Dialog box)	[LOGD0]
Schedule	Date and Time	——/–/– –:–		Depend on System Time	[DTIF?]
	Schedule Mode	Off		Off	[SCHE+MODE0]
		On			[SCHE+MODE1]
	View Today	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday		Depend on System Time	[SCHE+WDAY?]
	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday	Schedule Enable	Checkbox	Unchecked	SCW0 ~ SCW6 : Sunday to Saturday [SCW0 +MODE0]/ [SCW0 +MODE1] [SCW1 +MODE0]/ [SCW1 +MODE1] [SCW2 +MODE0]/ [SCW2 +MODE1] [SCW3 +MODE0]/ [SCW3 +MODE1] [SCW4 +MODE0]/ [SCW4 +MODE1] [SCW5 +MODE0]/ [SCW5 +MODE1] [SCW6 +MODE0]/

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
					[SCW6 +MODE1]
		Event 01-08 Event 09-16	Time	- -:- - (If event is off)	(Write Event) [SCW0 +EVWR"$$,****, ##"] [SCW1 +EVWR"$$,****, ##"] [SCW2 +EVWR"$$,****, ##"] [SCW3 +EVWR"$$,****, ##"] [SCW4 +EVWR"$$,****, ##"] [SCW5 +EVWR"$$,****, ##"] [SCW6 +EVWR"$$,****, ##"] SCW0 ~ SCW6 : Sunday ~ Saturday $$ = 01 ~ 16 (Choice Event 01 ~ Event 16) **** = 0000 ~ 2359 (Time 00:00 ~ 23:59) ## : 00 :Off 11: Power On 12 : Standby 13: Standby (Network Standby) 14: Standby (Communica-tion) 21: VGA 22: HDMI1 23: HDMI2 24: DVI-D 25: Display Port 26: 3G-SDI 27: HDBaseT 31: Normal Mode 32: Eco Mode 34: Custom Brightness 41: Shutter On 42: Shutter Off _____ _____ _____ _____ (Read Event) [SCW0+EVRD?] / [SCW1 +EVRD?] /[SCW2 +EVRD?] /[SCW3 +EVRD?] /[SCW4 +EVRD?] /[SCW5 +EVRD?] /
			Function	Off	
			Event	Off (Function = Off)	
			(Function = Power Settings)	Power On (Function = Power Settings)	
			(Function = Input Source)	VGA (Function = Input Source)	
			(Function = Light Source Mode)	Normal Mode (Function = Light Source Mode)	
			(Function = Shutter)	Shutter On (Function = Shutter)	

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
					[SCW6+EVRD?] SCW0 ~ SCW6 : Sunday ~ Saturday
			Reset	Cancel	SCW0 ~ SCW6 : Sunday to Saturday [SCW0 +EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW1+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW2+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW3+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW4+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW5+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16) [SCW6+EVRT*] , * = 1 ~ 16 (Reset Event 01 to Event 16)
		More Events / Previous Events	Event 01-16 (2 pages)		
		Copy Events to	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday	by setting	SCW0 ~ SCW6 : Sunday to Saturday [SCW0 +CPWD*] , * = 0 ~ 6 (Sunday to Saturday) [SCW1+CPWD*] , * = 0 ~ 6 (Sunday to Saturday) [SCW2+CPWD*] , * = 0 ~ 6 (Sunday to Saturday) [SCW3+CPWD*] , * = 0 ~ 6 (Sunday to Saturday) [SCW4+CPWD*] , * = 0 ~ 6 (Sunday to Saturday) [SCW5+CPWD*] , * = 0 ~ 6 (Sunday to

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
					Saturday) [SCW6+CPWD*] , * = 0 ~ 6 (Sunday to Saturday)
		Reset the day		Cancel	SCW0 ~ SCW6 : Sunday to Saturday [SCW0 +REST1] [SCW1 +REST1] [SCW2 +REST1] [SCW3 +REST1] [SCW4 +REST1] [SCW5 +REST1] [SCW6 +REST1]
	Reset Schedule	Yes / Cancel		Cancel	[SCHE+REST1]
Standby Mode	Standby Mode			Communication Mode	[SBPM0]
	Network Standby Mode				[SBPM1]
	Communication Mode				[SBPM2]
Power Setting	Fast Power On	Checkbox		Unchecked	[FPON0] / [FPON1]
	Signal Power On	Checkbox		Unchecked	[SPON0] / [SPON1]
	Auto Power Off			0	[APOF***]
	Sleep Timer			0	[SLTM***]
	Reset	Yes / Cancel		Cancel	[PSRT1]
Light Source Setting	Light Source Mode	Normal		Normal	[LPMO0]
		Eco Mode			[LPMO1]
		Custom Mode			[LPMO2]
	Custom Brightness	Brightness Level		100%	[LSBL***]
Shutter	Fade-In			0,5	[SHFI*]
	Fade-Out			0,5	[SHFO*]
	Startup	Checkbox		Unchecked	[SHSP0]/ [SHSP1]
Security	Security	Checkbox		Unchecked	[PINE"****"]
	Security Timer	Month		0	[PINM**]
		Day		0	[PIND**]
		Hour		0	[PINH**]
	Change Password			1234	[PINC"****,****"]
Backlight	Keypad	Checkbox		Unchecked	[BALI0] / [BALI1]
	Power key	Checkbox		Checked	[BALP0] / [BALP1]
High Altitude	Checkbox			Unchecked	[HIAL0]/[HIAL1]
12V Trigger	Checkbox			Unchecked	[TRIG0] / [TRIG1]
User Data	Save All Settings	Memory 1		Memory 1	[UDSA0]
		Memory 2			[UDSA1]

Level 2	Level 3	Level 4	Level 5	Default	Uart Command
		Memory 3			[UDSA2]
		Memory 4			[UDSA3]
		Memory 5			[UDSA4]
	Load All Settings	Memory 1		Memory 1	[UDLD0]
		Memory 2			[UDLD1]
		Memory 3			[UDLD2]
		Memory 4			[UDLD3]
		Memory 5			[UDLD4]
Reset	Reset System Settings	Yes / Cancel		Cancel	[SYRT1]
	Reset All Settings	Yes / Cancel		Cancel	[FRST1]
	Reset Selective	INSTALLATION		Cancel	[DPRT1]
		IMAGE			[IMRT1]
		COMMUNICA-TION			[CMRT1]
		SYSTEM			[SYRT1]
	Reset All Settings			Cancel	[FRST1]
Service	Filter Index			660	[FTID*]
	Phosphor Index			440	[PSID*]
	Error Log			NA	[ERRG?]
	Total Projector Hours			NA	[LPTH?]
	Light Source Hours			NA	[LSAT?]
	Normal			NA	[LSNT?]
	Eco Mode			NA	[LSET?]
	Custom Mode			NA	[LSCT?]
	Lens Calibration			Yes	[LECA1]

UART command list Information menu

Level 2	Level 3	UART Command
Projector	Model Name	[MDNA?]
	Serial Number	[SERI?]
	Total Projector Hours	[LPTH?]
	Lens Type	[LEPT?]
System Status	Standby Mode	[SBPM?]
	Light Source Mode	[LPMO?]
	Light Source Hours	[LSAT?]
	Normal	[LSNT?]
	Eco Mode	[LSET?]
	Custom Power	[LSCT?]
	Temperature	[SSTP?]
	AC Voltage	[SSAC?]
Communication	Projector ID	[PJPD?]
	Remote Code	[PJAD?]

Level 2	Level 3	UART Command
	Ethernet	
	LAN Interface	[LANI?]
	MAC Address	[LMAC?]
	Network Status	[LMNS?]
	DHCP	[LDHC?]
	IP Address	[LIPA?]
	Subnet Mask	[LSUB?]
	Gateway	[LGAT?]
	DNS	[DNSG?]
	Control	
	Crestron	[CREN?]
	Extron	[EXEN?]
	PJ Link	[PJEN?]
	AMX	[AXEN?]
	Telnet	[TEEN?]
	HTTP	[HTEN?]
Signal	Input Signal	[MSRC?]
	Resolution	[MSRS?]
	Signal Format	[MSSF?]
	Pixel Clock	[MSPC?]
	Horz Refresh	[MSHR?]
	Vert Refresh	[MSVR?]
	Color Space	[MSCS?]
	Second Signal	[SSRC?]
	Resolution	[SSRS?]
	Signal Format	[SSSF?]
	Pixel Clock	[SSPC?]
	Horz Refresh	[SSHR?]
	Vert Refresh	[SSVR?]
	Color Space	[SSCS?]
Firmware Version	Main Version	[FWVR?]
	I-SCALER Version	[FWIS?]
	F-MCU Version	[FWMF?]
	M-MCU Version	[FWMM?]
	L-MCU Version	[FWML?]
	A-MCU Version	[FWMA?]
	K-MCU Version	[FWMK?]
	LAN Version	[FWLA?]
	Formatter Version	[FWFM?]
	FPGA0 Version	[FWFA?]
	FPGA1 Version	[FWFB?]
	FPGA2 Version	[FWFC?]
	XFPGA Version	[FWFX?]
	HDBaseT Version	[FWHD?]
	Camera Version	[CAVR?]

Other UART Commands

Command	Range or Explanation
Power On	[POWR1]
Power Off	[POWR0]
AV Mute Enable	[PMUT1]
AV Mute Disable	[PMUT0]
Freeze Screen	[FRZE1]
Unfreeze Screen	[FRZE0]
Power Off	KEYG 50
1	KEYG 51
2	KEYG 52
3	KEYG 53
4	KEYG 54
5	KEYG 55
6	KEYG 56
7	KEYG 57
8	KEYG 58
9	KEYG 59
Info	KEYG 40
0	KEYG 60
Mode	KEYG 36
Auto	KEYG 41
Input	KEYG 46
Up	KEYG 10
Left	KEYG 11
Enter	KEYG 12
Right	KEYG 13
Down	KEYG 14
Menu	KEYG 20
Exit	KEYG 72
Bright	KEYG 19
Cont.	KEYG 62
Lens H(Left)	KEYG 64
Lens H(Right)	KEYG 65
Focus(Up)	KEYG 34
Lens V(Up)	KEYG 66
Lens V(Down)	KEYG 67
Focus(Down)	KEYG 35
Keystone H(Left)	KEYG 68
Keystone H(Right)	KEYG 69
Zoom(Up)	KEYG 32
Keystone V(Up)	KEYG 15
Keystone V(Done)	KEYG 16
Zoom(Down)	KEYG 33

Command	Range or Explanation
Shutter(AV Mute)	KEYG 24
USER 1	KEYG 70
USER 1	KEYG82
Pattern	KEYG 71

Freeze can be released by menu key, exit key and direct source key.

B.2 LAN

LAN function

Item	Specifications
Crestron	RoomView, Port: 41794 Control system
PJ-Link	Support v1.0, Port: 4352,
AMX	Device discovery only, Port: 9131
Telnet	Port: 3023
Web page	English only, Port 80

Creston command list

Item	Type	Join Number
Assign To Name	Serial	5051
Brightness Level	Analog	5002
Brightness Minus	Digital	5110
Brightness Plus	Digital	5109
Color Level	Analog	5001
Color Minus	Digital	5108
Color Plus	Digital	5107
Contrast Level	Analog	5003
Contrast Minus	Digital	5112
Contrast Plus	Digital	5111
Control System IP Address	Serial	5045
Control System IP ID	Serial	5046
Control System Port	Serial	5047
Cooling Down	Digital	5161
Cooling Down Progress	Analog	5011
Current Source	Serial	5010
Default Gateway	Serial	5042
DHCP Disable	Digital	5211
DHCP Enable	Digital	5210
DNS Server	Serial	5043
Down	Digital	5152

Item	Type	Join Number
Enter	Digital	5156
Exit	Digital	5155
Firmware Version	Serial	5056
Freeze Off	Digital	5106
Freeze On	Digital	5105
IP Address	Serial	5040
Lamp Hours	Serial	5004
Lamp Mode	Serial	5003
Left	Digital	5153
Location	Serial	5052
MAC Address	Serial	5044
Max Lamp Life	Analog	5040
Menu	Digital	5150
Power Off	Digital	5
Power On	Digital	6
Power Status	Serial	5002
Preset Mode	Serial	5055
Projector Name	Serial	5050
Projector Position	Serial	5053
Re-sync	Digital	5171
Resolution	Serial	5054
Right	Digital	5154
Sharpness Level	Analog	5004
Sharpness Minus	Digital	5114
Sharpness Plus	Digital	5113
Source Name 1 (read only)	Serial	5070
Source Name 2 (read only)	Serial	5071
Source Name 3 (read only)	Serial	5072
Source Name 4 (read only)	Serial	5073
Source Name 5 (read only)	Serial	5074
Source Search	Digital	5090
Source Select 1	Digital	5070
Source Select 2	Digital	5071
Source Select 3	Digital	5072
Source Select 4	Digital	5073
Source Select 5	Digital	5074
Status Message	Serial	5001
Subnet Mask	Serial	5041
Up	Digital	5151
Warm Up	Digital	5160
Warm Up Progress	Analog	5010

PJ-Link command list

Description	Command
Power control instruction	POWR
Power status query	POWR?
Input switch instruction	INPT
Input switch query	INPT?
Mute instruction	AVMT
Mute status query	AVMT?
Error status query	ERST?
Lamp number/lighting hour query	LAMP?
Input toggling list query	INST?
Projector name query	NAME?
Manufacture name information query	INF1?
Production name information query	INF2?
Other information query	INFO?
Class information query	CLSS?

Extron command list

Description	Command
Power On	[POWR1]
Power Off	[POWR0]
Video Mute	[PMUT1]
Video Mute Query	[PMUT?]
Freeze	[FREZ1]
Freeze Query	[FREZ?]
Main Source	[MSRC#]
Main Source Query	[MSRC?]
Sub Source	[SSRC#]
Sub Source Query	[SSRC?]
Aspect Ratio	[ASPR#]
Aspect Ratio Query	[ASPR?]
Display Mode	[DPMO#]
Display Mode Query	[DPMO?]

Environmental information

C

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C.1 Turkey RoHS compliance

Turkey RoHS compliance

Türkiye Cumhuriyeti: AEEE Yönetmeliğine Uygundur.

[Republic of Turkey: In conformity with the WEEE Regulation]

C.2 Disposal information

Disposal Information

Waste Electrical and Electronic Equipment

This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

For details, please visit the Barco website at: *http://www.barco.com/AboutBarco/weee*

Disposal of batteries in the product

This product contains batteries covered by the Directive 2006/66/EC which must be collected and disposed of separately from municipal waste.

If the battery contains more than the specified values of lead (Pb), mercury (Hg) or cadmium (Cd), these chemical symbols will appear below the crossed-out wheeled bin symbol.

By participating in separate collection of batteries, you will help to ensure proper disposal and to prevent potential negative effects on the environment and human health.

C.3 Contact information

Barco contact information

Registered office address: President Kennedypark 35, 8500 Kortrijk, Belgium

Contact address: Beneluxpark 21, 8500 Kortrijk, Belgium

Importers contact information

To find your local importer, contact Barco directly or one of Barco's regional offices via the contact information given on Barco's web site, *www.barco.com*.

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