

## Furion W402 WashBeam

Product code: 41440

## Preface

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Thank you for purchasing this Infinity product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Intended and non-intended use of the device
- Installation and operation of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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## 1. Introduction

### 1.1. Before Using the Product



#### Important

Read and follow the instructions in this user manual before installing, operating or servicing this product.

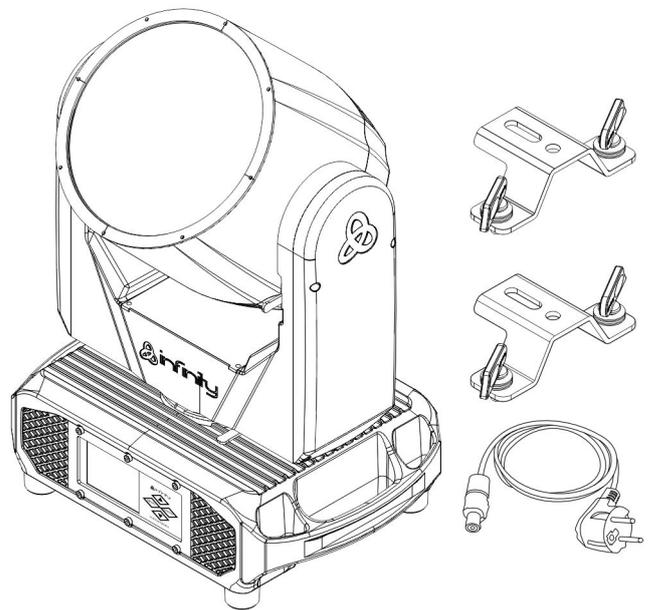
The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- Infinity Furion W402 WashBeam
- Schuko to Power Pro True cable (1,5 m)
- 2 x quick-lock brackets
- User manual

Figure 1



### 1.2. Intended Use

This device is intended for professional use as a moving head. It can be installed indoors and outdoors. This device is not suitable for households and for general lighting.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

### 1.3. LEDs Lifespan

The light output of the LEDs gradually decreases over time (lumen depreciation). High operating temperatures contribute to this process. You can extend the lifespan of the LEDs by providing adequate ventilation and operating the LEDs at the lowest possible brightness.

### 1.4. Text Conventions

Throughout the user manual the following text conventions are used:

- Buttons: All buttons are in bold lettering, for example "Press the **UP/DOWN** buttons"
- References: References to parts of the device are in bold lettering, for example: "turn the **adjustment handle (05)**". References to chapters are hyperlinked
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

## 1.5. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.



**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



**Attention**

Indicates important information for the correct operation and use of the product.



**Important**

Read and observe the instructions in this document.



**Electrical hazard**



**Eye damage hazard**



Provides important information about the disposal of this product.

## 1.6. Symbols on the Information Label

This product is provided with an information label. The information label is located on the base plate of the device.

The information label contains the following symbols:



This device shall not be treated as household waste.



Read and follow the instructions in the user manual before installing, operating or servicing the device.



This device falls under IEC protection class I.

**IP65**

This device is rated IP65.



Minimum distance from lighted objects



Minimum distance from other objects

## 2. Safety



**Important**  
**Read and follow the instructions in this user manual before installing, operating or servicing this product.**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

### 2.1. Warnings and Safety Instructions



**DANGER**  
**Danger for children**

For adult use only. The device must be installed beyond the reach of children.

- Do not leave any parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within the reach of children. Packaging material is a potential source of danger for children.



**DANGER**  
**Electric shock caused by dangerous voltage inside**

There are areas inside the device where dangerous touch voltage may be present.

- Do not open the device or remove any covers.
- Do not operate the device if the covers or the housing are open. Before operation, check if the housing is firmly closed and all screws are tightly fastened.
- Disconnect the device from the electrical power supply before service and maintenance, and when the device is not in use.



**DANGER**  
**Electric shock caused by short-circuit**

This device falls under IEC protection Class I.

- Make sure that the device is electrically connected to ground (earth). Connect the device only to a socket-outlet with a ground (earth) connection.
- Do not cover the ground (earth) connection.
- Do not bypass the thermostatic switch or fuses.
- Replace fuses only with the same type and rating.
- Do not let the power cable come into contact with other cables. Handle the power cable and all connections with the mains with caution.
- Do not modify, bend, mechanically strain, put pressure on, pull or heat up the power cable.
- Make sure that the power cable is not crimped or damaged. Examine the power cable periodically for any defects.
- Do not immerse the device in water or other liquids. Do not install the device in a location where flooding may occur.
- Do not use the device during thunderstorms. Disconnect the device from the electrical power supply immediately.
- Keep the connectors sealed with the rubber caps when the connectors are not in use.
- Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.



**WARNING**  
**Risk of epileptic shock**

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.



**WARNING**  
**Possible eye damage caused by high light intensity**

Possibly hazardous optical radiation emitted from this device.

- Do not look at the operating light source. May be harmful to the eye.
- Do not look at the light source with optical instruments that may concentrate the light output.
- Make sure that persons are not looking directly into the light source when the device lights up suddenly. This can happen when the device is powered on, when it receives a DMX signal, or when certain menu items are selected.
- Disconnect power before servicing.
- Wear protective goggles if looking into the light source during service or maintenance.



**CAUTION**  
**Risk of injury due to movement of the device**

The head of the device can move quickly. Persons standing near the device could get injured or scared.

- Make sure that there are no persons close to the device when you turn on the device and during operation.
- Keep body parts away from the moving parts of the device when servicing and during maintenance. Long hair or loose clothing can be entangled during the rotation of the moving head.



**Attention**  
**Power supply**

- Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.
- Make sure that the cross-sectional area of the extension cords and power cables is sufficient for the required power consumption of the device.



**Attention**  
**General safety**

- Do not lift the device holding it by the projector head. This may damage the mechanics. Use the transport handles when handling the device.
- Do not insert objects into air vents.
- Do not connect the device to a dimmer pack.
- Do not switch the device on and off in short intervals. This reduces the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Change the lens or the LEDs if they are visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches. Contact your Highlite International dealer for more information, as servicing can be performed only by instructed or skilled persons.
- If the device is dropped or struck, disconnect the device from the electrical power supply immediately.



- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
- If the device fails to work properly, discontinue use immediately.



**Attention**  
**For professional use only**  
**This device must be used only for the purposes it is designed for.**

This device is intended for professional use as a moving head. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not suitable for households and for general lighting.
- This device is not designed for permanent operation.
- This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.



**Attention**  
**Before each use, examine the device visually for any defects.**

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- The safety devices are not damaged.
- There are no deformations on housings, fixings and installation points.
- The lens is not cracked or damaged.
- The power cables are not damaged and do not show any material fatigue.



**Attention**  
**Do not expose the device to conditions that exceed the rated IP class conditions.**

This device is IP65 rated. IP (Ingress Protection) 65 class means that the device is dust-tight and protected against harmful effect of water jets.

Keep the connectors sealed with the rubber caps when the connectors are not in use.

## 2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance may be carried out by ordinary persons. Installation and service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and avoid hazards associated with the installation, service and maintenance of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

## 2.3. Personal Protective Equipment

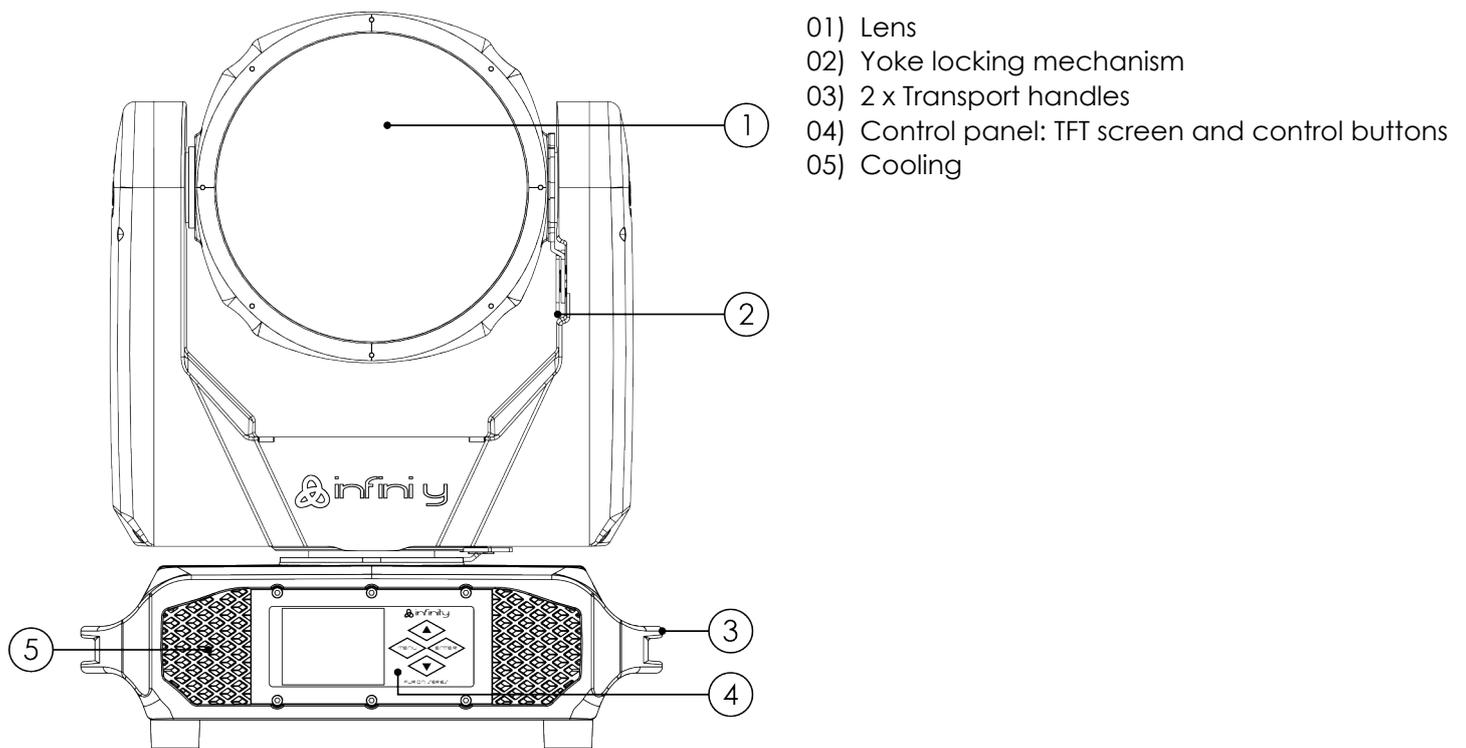
During installation, deinstallation and rigging wear personal protective equipment in compliance with the national and site-specific regulations.

### 3. Description of the Device

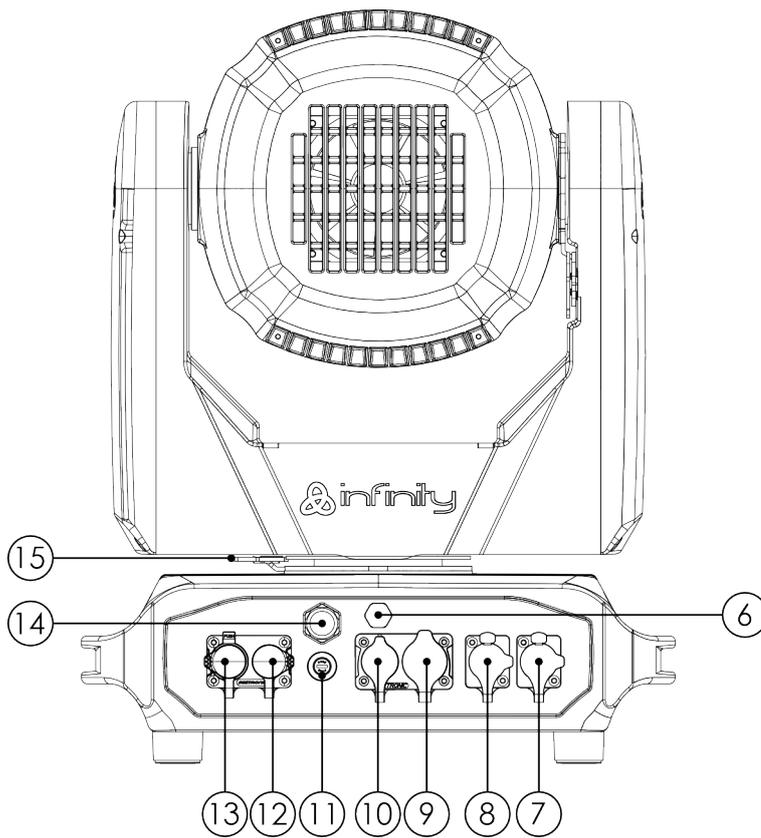
The Infinity Furion W402 WashBeam is an IP65-rated moving head with 7 x 45 W RGBW LEDs. This device has a motorized zoom that enables seamless transitions between a narrow 3,1° beam and a wide 36,6° wash. Furthermore the device offers customizable color temperatures due to its intelligent white mode with a user-calibrated 7500 K output and the CTC channel offers stepless white light between 2700 K and 7500 K. The device also offers 16-bit dimming capabilities, 4 different fan speeds and 6 different PWM frequencies. The control options include basic, advanced and customized DMX, CRMX, W-DMX, Art-Net, sACN and RDM.

#### 3.1. Front View

Figure 2

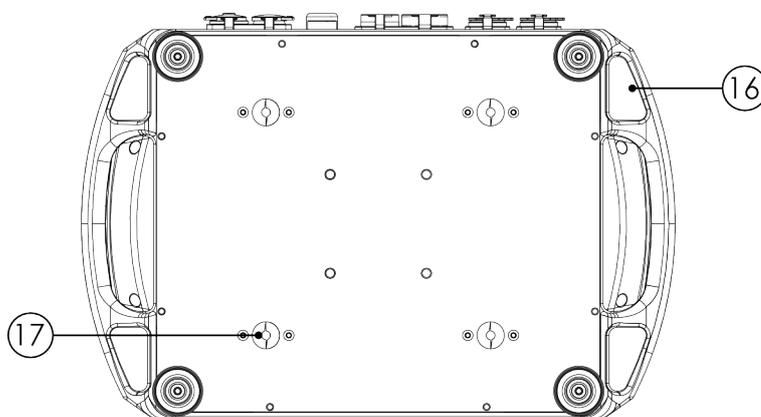


### 3.2. Back View

**Figure 3**


- 06) Protective vent (M12x1,5)
- 07) IP65-rated RJ45 connector
- 08) IP65-rated RJ45 connector
- 09) IP65-rated Seetronic power connector OUT
- 10) IP65-rated Seetronic power connector IN
- 11) Fuse (F8 AL, 250 V)
- 12) IP65-rated 5-pin DMX signal connector IN
- 13) IP65-rated 5-pin DMX signal connector OUT
- 14) W-DMX Antenna
- 15) Base locking mechanism

### 3.3. Base Plate

**Figure 4**


- 16) 4 x Openings for a safety cable
- 17) 4 x Mounting holes for quick-lock brackets

### 3.4. Product Specifications

Model:	Furion W402 WashBeam
<b>Source:</b>	
Light source type	LED
Light source quantity	7
Light source power	45 W
LED color type	RGBW
Refresh rate	600 Hz
Refresh rate (max.)	15 kHz
Luminous flux (total)	3951 lm
Luminous flux (red)	1112 lm
Luminous flux (green)	1481 lm
Luminous flux (blue)	729 lm
Luminous flux (white)	2272 lm
CRI	79,1
CCT	7500 K
<b>Optical:</b>	
Beam angle minimum (circular)	3,1°
Beam angle maximum (circular)	36,6°
Cutoff angle minimum (circular)	4,6°
Cutoff angle maximum (circular)	54,6°
Field angle minimum (circular)	4,2°
Field angle maximum (circular)	47,8°
Zoom type	Motorized
<b>Control and Programming:</b>	
Control mode	Auto / DMX / Manual
DMX channels	14 / 22
Protocols	CRMX Classic / DMX / W-DMX / RDM
Wireless	LumenRadio
Display	Battery / Gravity Sensor / TFT
Fan mode	Yes
Dim curve	Linear / Square / I-Square / S-Curve
Dimmer resolution	16-bit
Zoom resolution	16-bit
<b>Dynamic Effects:</b>	
Dimmer	0-100 %
Strobe	0-20 Hz
<b>Movement:</b>	
Pan	540°
Tilt	260°
Pan/Tilt resolution	16-bit

**Electrical Specifications and Connections:**

Power supply	100–240 V AC 50/60 Hz
Power consumption	375 W
Fuse	F8 AL, 250 V
Power connector IN	Power Pro True
Power connector OUT	Power Pro True
DMX connector	XLR 5P IN/OUT
DMX connector IN	XLR 5P
DMX connector OUT	XLR 5P
Data connector	etherCON IN/OUT
Data connector IN	RJ45
Data connector OUT	RJ45

**Mechanical Specifications:**

Length	254 mm
Width	370 mm
Height	468 mm
Weight	15,1 kg
IP rating	IP65
Housing	Magnesium die-cast
Color	Black

**Product Properties:**

Cooling	Forced convection
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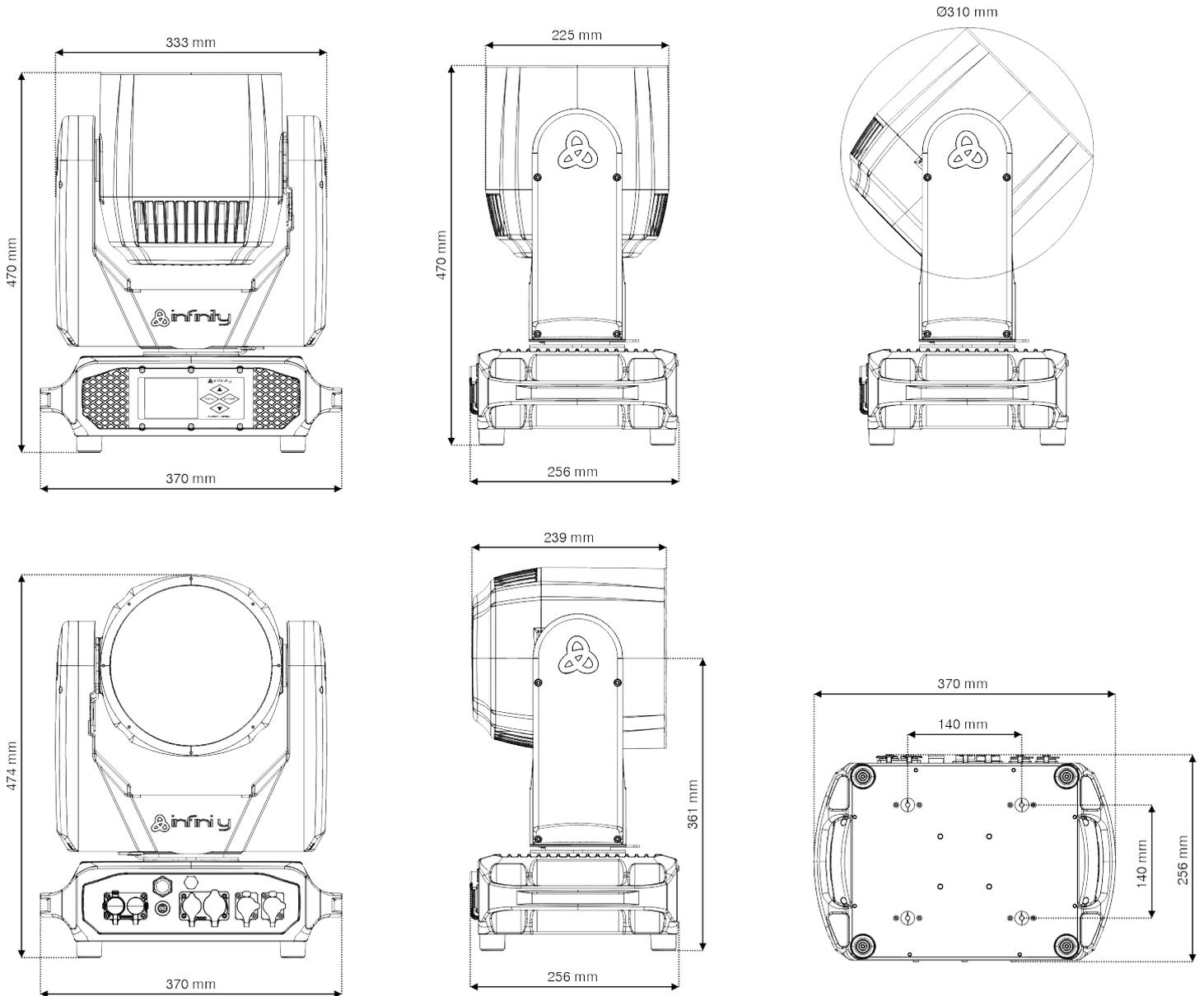
**Thermal Specifications:**

Maximum ambient temperature	45 °C
Minimum operating temperature	-10 °C

**Included Items:**

Included cables	Power Pro True cable
Included rigging	Quick-lock bracket

### 3.5. Dimensions

**Figure 5**


### 3.6. Optional Accessories

You can additionally purchase the following accessory:

- [D7277](#) Case for 4x Furion W402 WashBeam
- [41549](#) Infinity IP Tester for Furion

Contact your Highlite International dealer for more information.

## 4. Installation

### 4.1. Safety Instructions for Installation



#### WARNING

Incorrect installation can cause serious injuries and damage of property.

If trussing systems are used, installation must be carried out only by instructed or skilled persons.

Follow all applicable European, national and local safety regulations concerning rigging and trussing.

### 4.2. Personal Protective Equipment

During installation, deinstallation and rigging wear personal protective equipment in compliance with the national and site-specific regulations.

### 4.3. Installation Site Requirements

- The device can be used indoors and outdoors.
- The minimum distance between the light output and the illuminated surface must be bigger than 2 m.
- The minimum distance to other objects must be bigger than 0,5 m.
- The maximum ambient temperature  $t_a = 45\text{ °C}$  must never be exceeded.

### 4.4. Rigging

The device can be positioned on a flat surface or mounted to a truss or other rigging structure in any orientation. Make sure that all loads are within the pre-determined limits of the supporting structure.



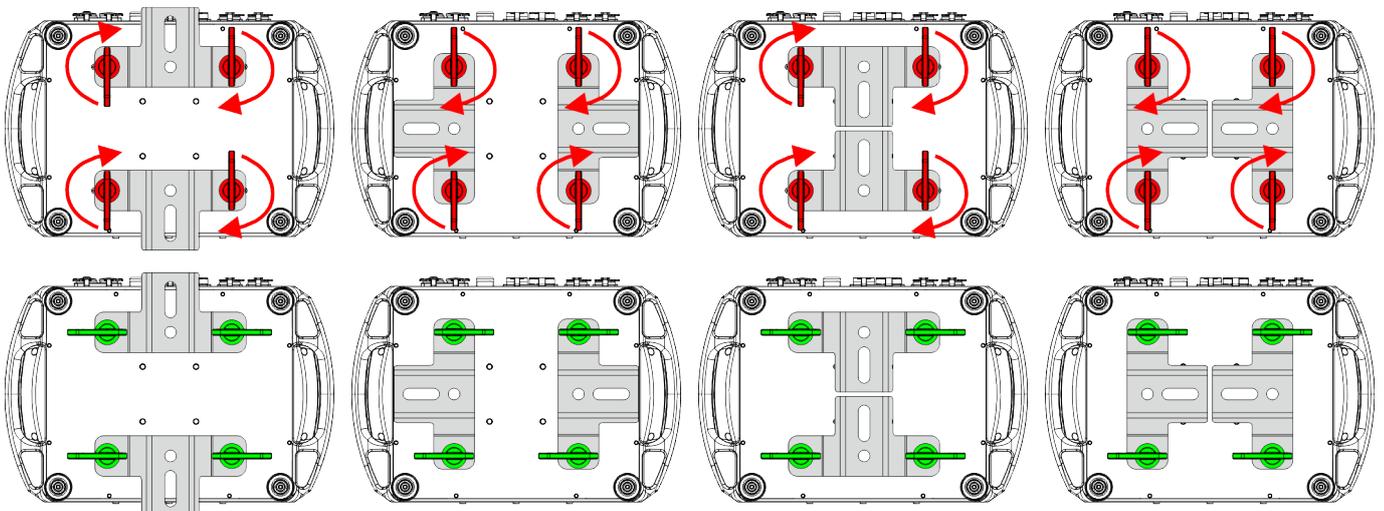
#### CAUTION

Restrict the access under the work area during rigging/derigging.

To mount the device, follow the steps below:

- 01) Fasten the 2 quick-lock brackets, supplied with the device, on the **mounting holes for quick-lock brackets (17)**. You can position the quick-lock brackets in 4 ways.
- 02) Lock the 2 quick-lock brackets by turning the locking mechanism of the quick-lock brackets clockwise.

Figure 6



- 03) Install the clamps. Make sure that you use clamps suitable for attaching the device to a truss.

Figure 7

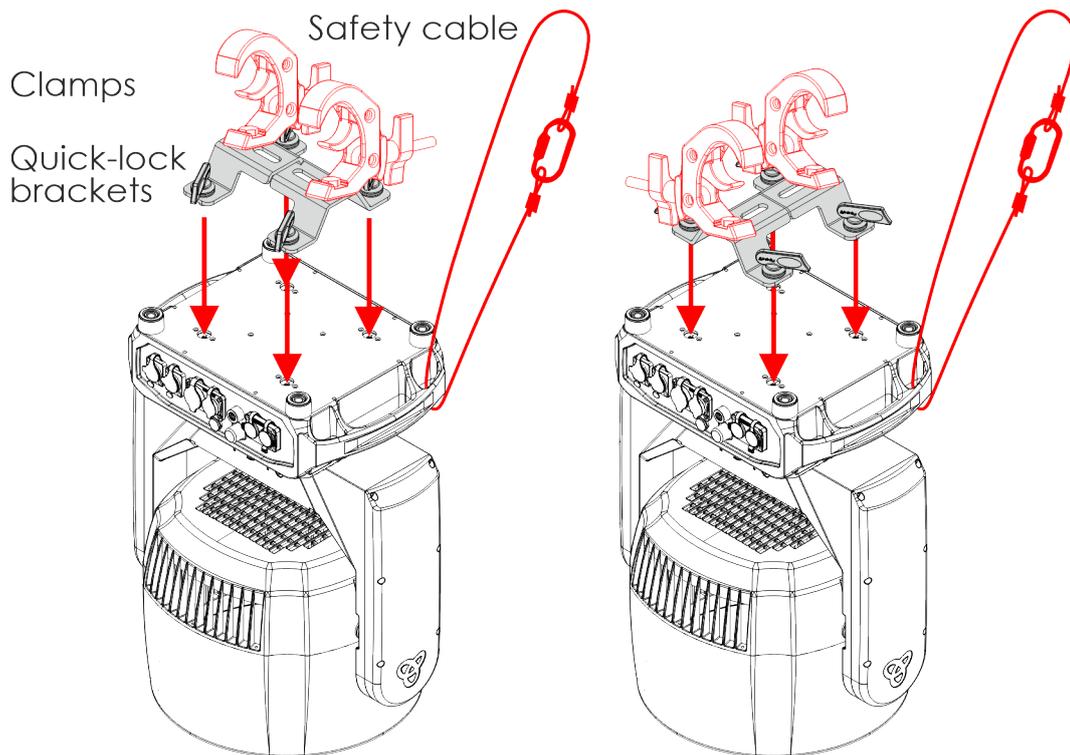
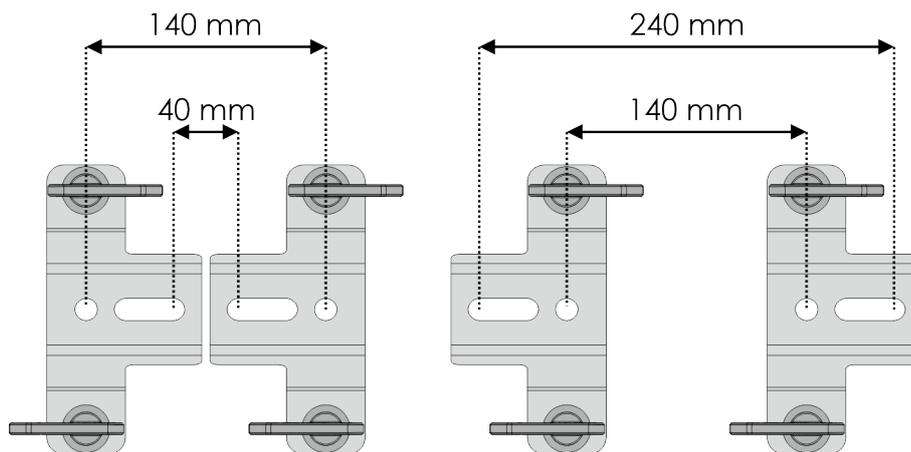


Figure 8



- 04) Attach the device to the supporting structure. Make sure that the device cannot move freely.
- 05) Secure the device with a secondary suspension, for example a safety cable. Make sure that the secondary suspension can hold 10 times the weight of the device. If possible, the secondary suspension should be attached to a supporting structure independent of the primary suspension. Put the safety cable through the **openings for a safety cable (16)**.

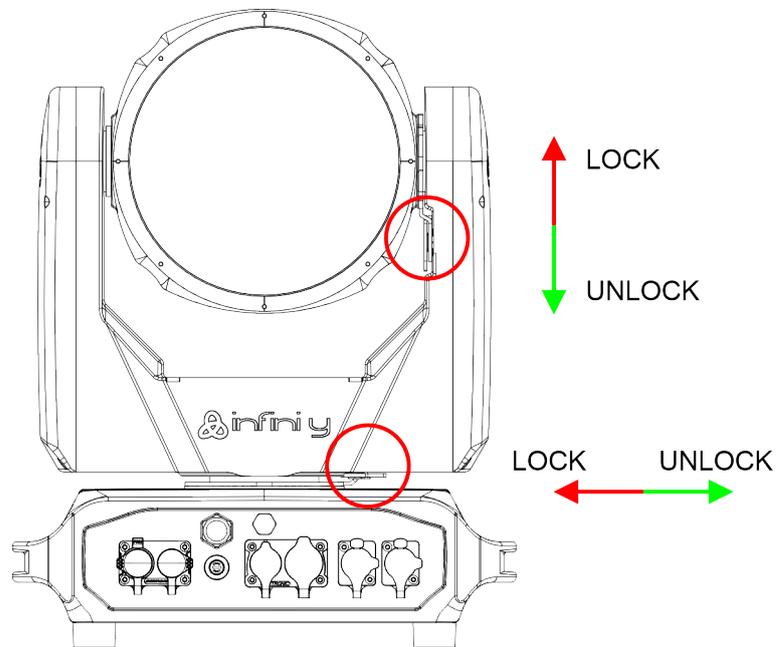


#### 4.5. Lock/Unlock the Device

The device has a locking mechanism on the yoke and on the base.

- To unlock the device, slide the **base locking mechanism (15)** to the the right or slide the **yoke locking mechanism (02)** downwards.
- To lock the device, slide the **base locking mechanism (15)** to the left or slide the **yoke locking mechanism (02)** upwards.

Figure 9



**Note:**

Do not operate the device with the locking mechanisms locked.

#### 4.6. Connecting to Power Supply



**DANGER**  
Electric shock caused by short-circuit

The device accepts AC mains power at 100–240 V and 50/60 Hz. Do not supply power at any other voltage or frequency to the device.

This device falls under IEC protection class I. Make sure that the device is always electrically connected to the ground (earth).

Before connecting the device to the socket-outlet:

- Make sure that the power supply matches the input voltage specified on the information label on the device.
- Make sure that the socket-outlet has ground (earth) connection.

Connect the device to the socket-outlet with the power plug. Do not connect the device to a dimmer circuit, as this may damage the device.

This device is IP65 rated.

- Do not expose the device to conditions that exceed the rated IP class conditions.
- Keep the connectors sealed with the rubber caps when the connectors are not in use.
- Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.
- Make sure that the cable run is not too heavy. A heavy cable run can cause damage to the connectors. If the connectors are damaged, their ingress protection (IP) can deteriorate.

#### 4.7. Power Linking of Multiple Devices

This device supports power linking. Power can be relayed to another device via the power OUT connector. Note that the input and the output connectors have different designs: one type cannot be connected to the other.

Power linking of multiple devices must be carried out only by instructed or skilled persons.



**WARNING**  
Incorrect power linking may lead to overload of the electrical circuit and result in serious injuries and damage of property.

To prevent overload of the electrical circuit, when power linking multiple devices:

- Use cables with sufficient current-carrying capacity. The power cable supplied with the device is not suitable for power linking of multiple devices.
- Make sure that the total current draw of the device and all connected devices does not exceed the rated capacity of the power cables and the circuit breaker.
- Do not link more devices on one power link than the maximum recommended number.

Maximum recommended number of devices:

- at 100–120 V: 4 devices Furion W402 WashBeam
- at 200–240 V: 8 devices Furion W402 WashBeam

## 5. Setup

### 5.1. Warnings and Precautions



**DANGER**  
Electric shock caused by short-circuit

This device is IP65 rated.

- Do not expose the device to conditions that exceed the rated IP class conditions.
- Keep the connectors sealed with the rubber caps when the connectors are not in use.
- Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.
- Make sure that the cable run is not too heavy. A heavy cable run can cause damage to the connectors. If the connectors are damaged, their ingress protection (IP) can deteriorate.



**Attention**  
Connect all data cables before supplying power.  
Disconnect power supply before connecting or disconnecting data cables.

### 5.2. Stand-alone Setup

When the Furion W402 WashBeam is not connected to a controller or to other devices, it functions as a stand-alone device. It can be operated manually via the control panel or in auto mode.

For more information refer to Control Modes (see [6.2. Control Modes](#) on page 23).

### 5.3. DMX Connection

#### 5.3.1. DMX-512 Protocol

You need a DMX serial data link to run light shows of one or more devices using a DMX-512 controller.

The Furion W402 WashBeam has 5-pin DMX signal IN and OUT connectors.

The pin assignment is as follows: pin 1 (ground), pin 2 (-), pin 3 (+), pin 4 (N/C), pin 5 (N/C).

Devices on a serial data link must be daisy-chained in a single line. The number of devices that you can control on one data link is limited by the combined number of the DMX channels of the connected devices and the 512 channels available in one DMX universe.

To comply with the TIA-485 standard, no more than 32 devices should be connected on one data link. In order to connect more than 32 devices on one data link, you must use a DMX optically isolated splitter/booster, otherwise this may result in deterioration of the DMX signal.

**Note:**

- Maximum recommended DMX data link distance: 300 m
- Maximum recommended number of devices on a DMX data link: 32 devices

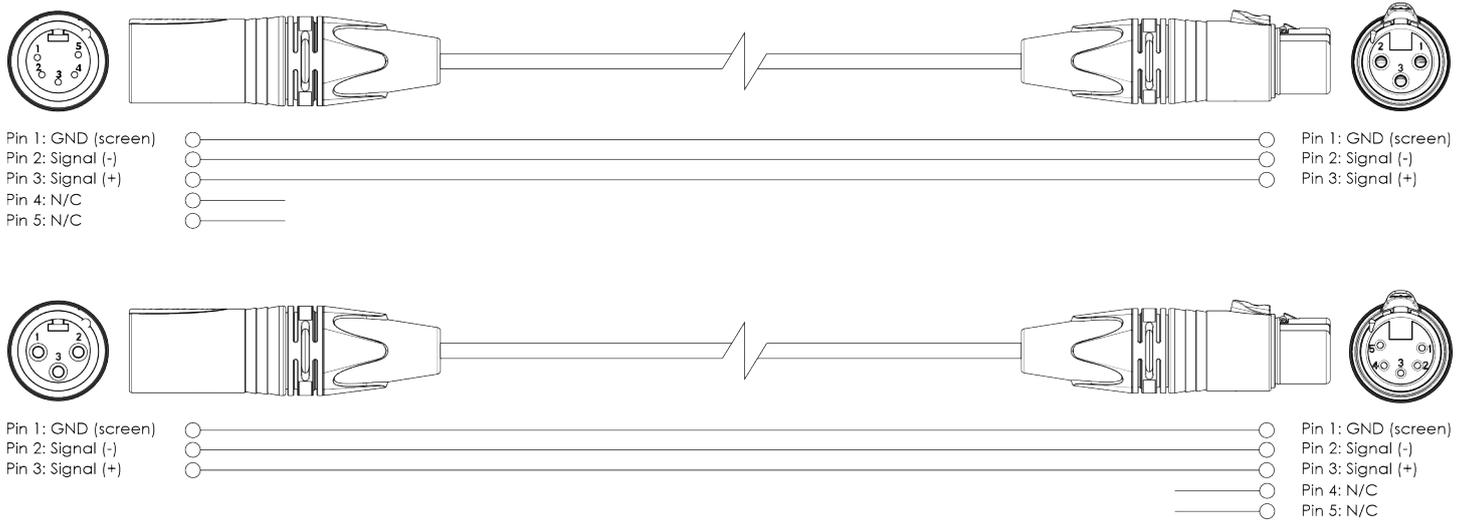
#### 5.3.2. DMX Cables

Shielded twisted-pair cables with 5-pin XLR connectors must be used for reliable DMX connection. You can purchase DMX cables directly from your Highlite International dealer or make your own cables.

If you use XLR audio cables for DMX data transmission, this may lead to signal degradation and unreliable operation of the DMX network.

When you make your own DMX cables, make sure that you connect the pins and wires correctly as shown in the figure below.

Figure 10

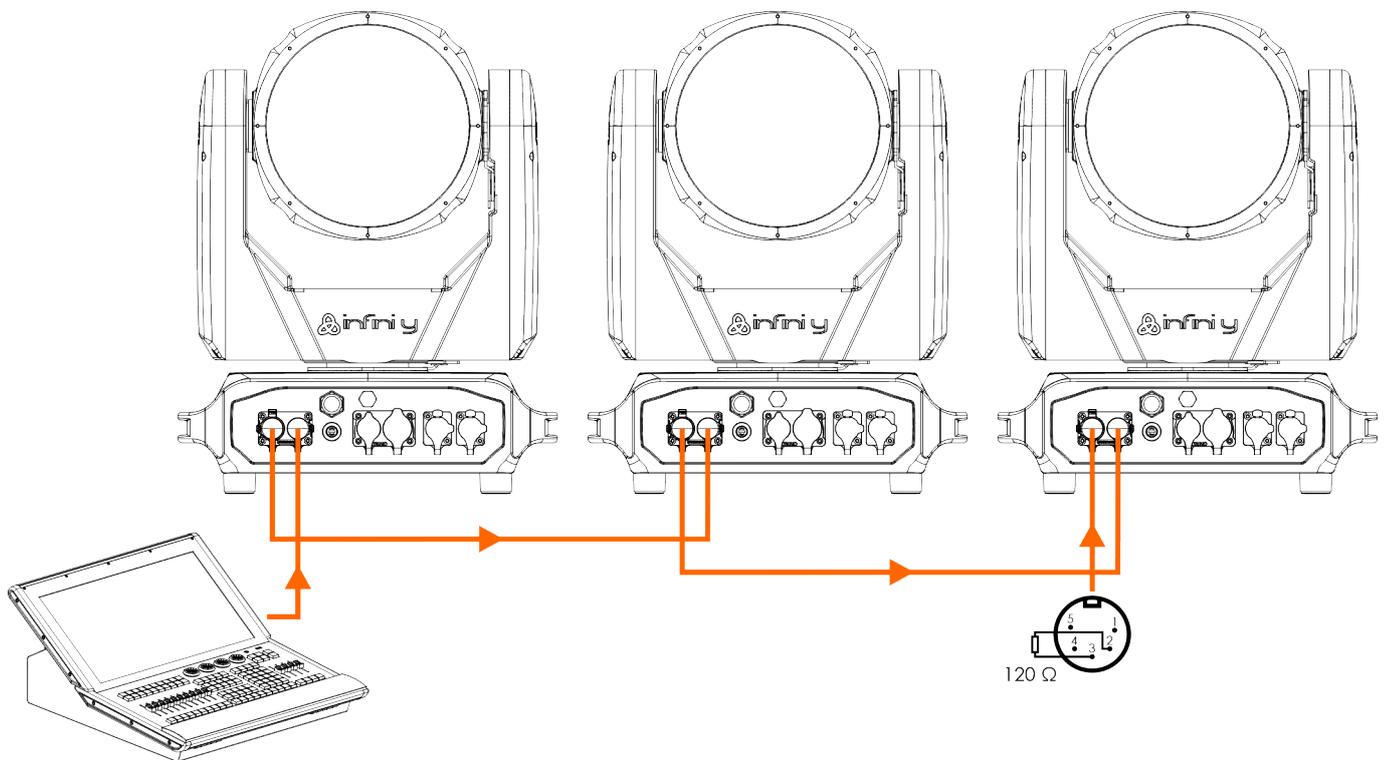


### 5.3.3. DMX Linking

To connect multiple devices on one DMX data link, follow the steps below:

- 01) Use a 5-pin DMX cable to connect the DMX OUT connector of the lighting controller to the DMX IN connector of the 1<sup>st</sup> device.
- 02) Connect the DMX OUT connector of the 1<sup>st</sup> device to the DMX IN connector of the 2<sup>nd</sup> device with a 5-pin DMX cable.
- 03) Repeat step 2 to connect all devices in a daisy-chain.
- 04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.

Figure 11



### 5.3.4. DMX Addressing

In a setup with multiple devices, make sure that you set the DMX starting address of each device correctly. The Furion W402 WashBeam has 3 personalities: Basic (14 channels), Advanced (22 channels) and User (22 channels).

If you want to connect multiple devices on one data link and use them in 22-channel mode, for example, follow the steps below:

- 01) Set the starting address of the 1<sup>st</sup> device on the data link to 1 (001).
- 02) Set the starting address of the 2<sup>nd</sup> device on the data link to 23 (023), as  $1 + 22 = 23$ .
- 03) Set the starting address of the 3<sup>rd</sup> device on the data link to 45 (045), as  $23 + 22 = 45$ .
- 04) Continue assigning the starting addresses of the remaining devices by adding each time 22 to the previous number.

Make sure that you do not have any overlapping channels in order to control each Furion W402 WashBeam correctly. If two or more devices are addressed similarly, they will work similarly.

### 5.4. Wireless Connection

The device is equipped with a 2,4 GHz wireless receiver from LumenRadio. The W-DMX receiver is compatible only with other W-DMX devices. It can be paired only with transceivers and transmitters with a W-DMX module.

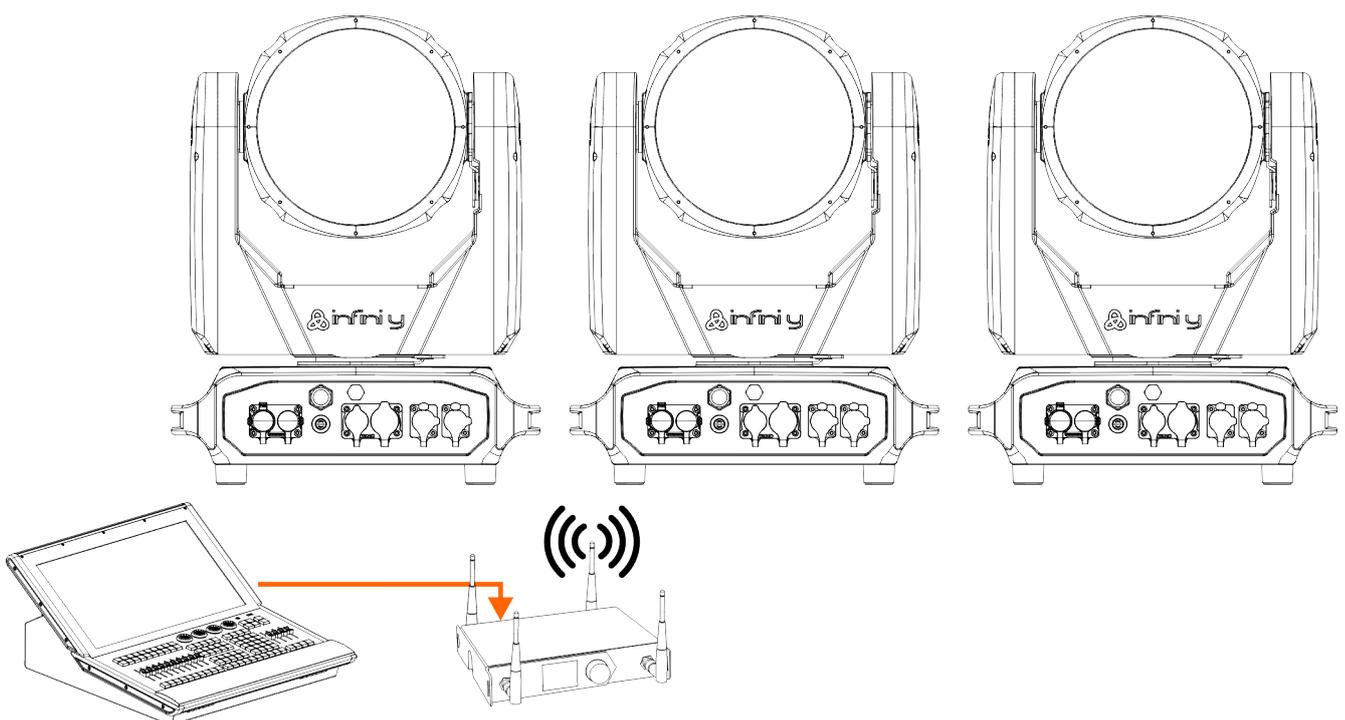
Communication distance	Depending on the transmitting power or transmitter module
Test conditions	WDMX TRx Transmitter module, 2 dBi Antenna, transmitting power 20 dBm (100 mW)
Range indoor	60 m
Range outdoor	250 m

Recommended transceiver: [51503](#) Lumenradio Stardust (G3, G4s, CRMX)

To connect multiple devices via wireless DMX, follow the steps below:

- 01) Set the devices to receive wireless DMX signal, refer to Control Mode (see [6.7.4. Control Mode](#) on page 39).
- 02) Connect the transceiver/transmitter to the lighting controller.
- 03) Follow the user manual supplied with the transceiver to pair the devices.

Figure 12



## 5.5. Ethernet Connection

### 5.5.1. Art-Net/sACN Protocol

Art-Net is a protocol that uses TCP/IP to transfer a large amount of DMX-512 data over an Ethernet network. Art-Net 4 can support up to 32768 universes. Art-Net™ is designed by and copyright of Artistic Licence Holdings Ltd.

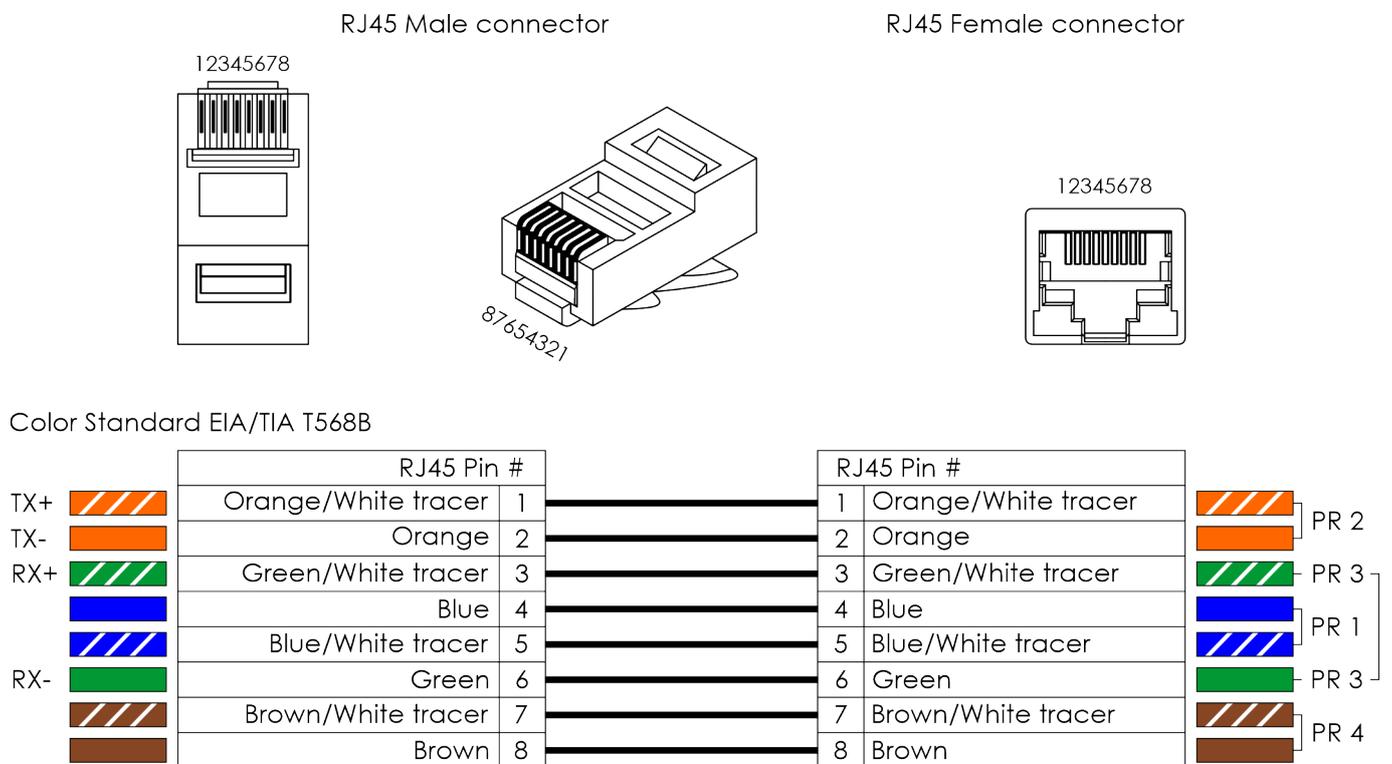
sACN (streaming Architecture for Control Networks), also known as ANSI E1.31, is a protocol developed by ESTA (Entertainment Services and Technology Association) for sending DMX-512 data over IP networks. It supports up to 63999 universes and uses multicasting.

### 5.5.2. Network Cables

Standard twisted-pair Ethernet cables (CAT-5/CAT-5E/CAT-6) can be used to connect the device to a computer or to a lighting controller that supports Art-Net or sACN.

If you make your own network cables, make sure that you connect the pins and wires correctly. Use RJ45 (8P8C) connectors and patch the cables according to the T568B color standard.

Figure 13

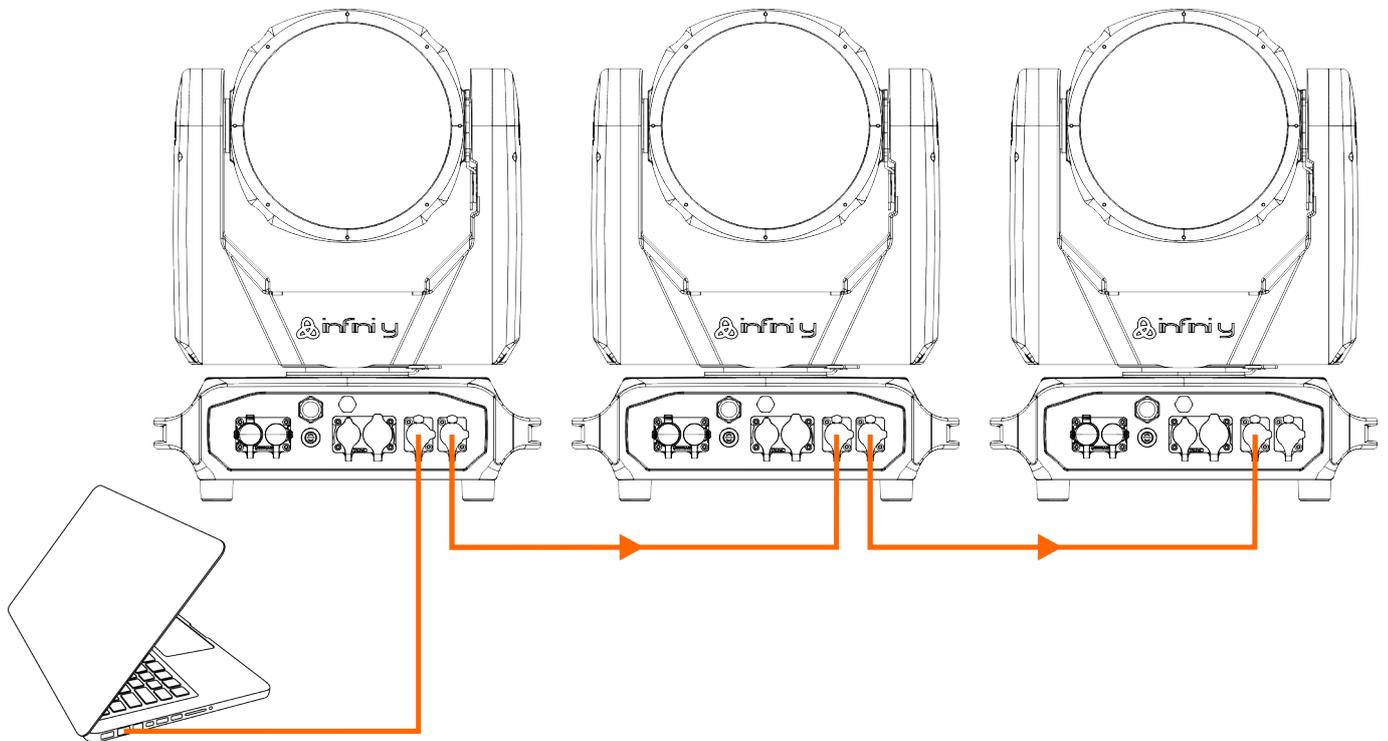


### 5.5.3. Art-Net/sACN Linking

To connect multiple devices on one Art-Net/sACN data link, follow the steps below:

- 01) Use a CAT-5/CAT-6 cable to connect the RJ45 connector of the computer/lighting controller to one of the RJ45 connectors of the 1<sup>st</sup> device.
- 02) Connect the 2<sup>nd</sup> RJ45 connector of the 1<sup>st</sup> device to the 1<sup>st</sup> RJ45 connector of the 2<sup>nd</sup> device with a CAT-5/CAT-6 cable.
- 03) Repeat step 2 to connect all devices in a daisy-chain.

Figure 14



### 5.5.4. Art-Net Settings

You need an Art-Net data link to run light shows of one or more devices using a computer/light controller.

If you want to connect multiple devices on one Art-Net/RDM data link, follow the steps below:

- 01) Set the IP address of your computer/light controller to 2.x.x.x or 10.x.x.x, depending on the Art-Net settings. All devices in the network must have a unique IP address. To change the IP address, the IP Mode, the Subnet mask, and the Universe of the device, refer to Network Setup (see [6.7.2.2. Network Setup](#) on page 34).
- 02) Set the Subnet mask to 255.0.0.0. on all devices.
- 03) Set the universe of the 1<sup>st</sup> device to 1.
- 04) Set the DMX address of the 1<sup>st</sup> device to 001.
- 05) Map all the connected devices in the Art-Net-based software. To change the Art-Net protocol of the device, refer to Art-Net/sACN Protocol (see [5.5.1. Art-Net/sACN Protocol](#) on page 21).

### 5.5.5. sACN Settings

To run your device using sACN protocol:

- 01) Set the IP address of your computer/light controller. sACN does not have restrictions on the IP address. To change the IP address, the IP Mode, the Subnet mask, and the Universe of the device, refer to Network Setup (see [6.7.2.2. Network Setup](#) on page 34).
- 02) Select sACN Protocol in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39).
- 03) Set the universe in the Network Setup menu (see [6.7.2.2. Network Setup](#) on page 34).

## 6. Operation

### 6.1. Safety Instructions for Operation



**Attention**

**This device must be used only for the purposes it is designed for.**

This device is intended for professional use as a moving head. It can be installed indoors and outdoors. This device is not suitable for households and for general lighting.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.



**Attention**

**Power supply**

Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.

### 6.2. Control Modes

The Furion W402 WashBeam supports the following control modes:

- Stand-alone: Stand-alone mode (built-in programs), manual control
- DMX-512: Basic (14 channels), Advanced (22 channels), User (22 channels)
- WDMX: Basic (14 channels), Advanced (22 channels), User (22 channels)
- Art-Net: Basic (14 channels), Advanced (22 channels), User (22 channels)
- sACN: Basic (14 channels), Advanced (22 channels), User (22 channels)

For more information about how to connect the devices, refer to Setup (see [5. Setup](#) on page 18).

To operate the device manually as a stand-alone device:

Adjust the parameters of the device in the Manual Control menu (see [6.7.5. Manual Control](#) on page 40).

To run the built-in programs in auto operation mode without a DMX controller:

Select the control mode of the device in the Stand Alone menu (see [6.7.3. Stand Alone](#) on page 39). If you select Program 1–9, the device will run the built-in program.

To operate the device with a DMX controller:

- 01) Select DMX512 as control mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39).
- 02) Set the DMX starting address of the device in the DMX Address menu (see [6.7.1. DMX Address](#) on page 31).
- 03) Select the DMX channel mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39). Refer to DMX Channels (see [6.8. DMX Channels](#) on page 44) for a complete overview of all DMX channels.

To operate the device wireless with a DMX controller in combination with a wireless transceiver:

- 01) Select WDMX as control mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39).
- 02) Set the DMX starting address of the device in the DMX Address menu (see [6.7.1. DMX Address](#) on page 31).
- 03) Select the DMX channel mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39). Refer to DMX Channels (see [6.8. DMX Channels](#) on page 44) for a complete overview of all DMX channels.

To operate the device via Art-Net with a computer/lighting controller:

- 01) Select ArtNet as control mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39).
- 02) Set the DMX starting address of the device in the DMX Address menu (see [6.7.1. DMX Address](#) on page 31).



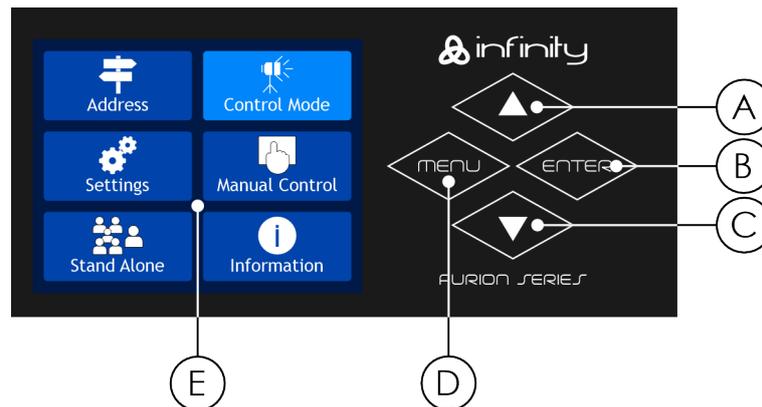
03) Select the DMX channel mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39). Refer to DMX Channels (see [6.8. DMX Channels](#) on page 44) for a complete overview of all DMX channels.

To operate the device via sACN with a computer/lighting controller:

- 01) Select sACN as control mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39).
- 02) Set the DMX starting address of the device in the DMX Address menu (see [6.7.1. DMX Address](#) on page 31).
- 03) Select the DMX channel mode in the Control Mode menu (see [6.7.4. Control Mode](#) on page 39). Refer to DMX Channels (see [6.8. DMX Channels](#) on page 44) for a complete overview of all DMX channels.

### 6.3. Control Panel

Figure 15



- A) UP touch button
- B) ENTER touch button
- C) DOWN touch button
- D) MENU touch button
- E) TFT display

- Use the **MENU** button to exit the current submenu, to return to the Main Menu and to return to the start screen.
- Use the **UP/DOWN** buttons to navigate through the menus or to increase/decrease numeric values.
- Use the **ENTER** button to open the desired menu, to confirm your choice or to set the currently selected value.

### 6.4. Start-up

After the device is connected to power supply, the device will perform a reset. During the reset the display shows a splash screen with the Infinity logo and the name of the device:



During the reset procedure it is possible to enter the menu to change the DMX address.

After the reset is completed, the device is ready to be operated. The display shows the start screen. The start screen provides information about the DMX starting address, the IP address, the universe and the selected DMX channel mode of the device:



- I. DMX starting address of the device.
  - If the DMX connection is lost or the device is not connected, the DMX starting address is red.
  - If the device is receiving DMX signal, the DMX starting address is white.
- II. Control protocol and channel mode
- III. IP address and assigned universe
- IV. W-DMX indicator: if the control protocol of the device is set to W-DMX (Wireless DMX), the W-DMX indicator appears on the display.
  - If the device is not assigned to a transmitter, the indicator is gray.
  - If the device is assigned to a transmitter but DMX is not present, the indicator is blinking slowly.
  - If the device is assigned to a transmitter and DMX is present, the indicator is green.
  - If the device is being linked to a transmitter or lost the connection with the transmitter, the indicator is blinking quickly.
- V. Art-Net/sACN indicator: if the control protocol of the device is set to Art-Net or sACN, the Art-Net/sACN indicator appears on the display.
  - If the Ethernet connection is lost or the device is not connected, the Art-Net/sACN indicator is gray.
  - If the Ethernet connection is properly working, the Art-Net/sACN indicator is green.
- VI. Enter/Unlock button. By default the display of the device is locked (see [6.5. Display Lock](#) on page 25).
- VII. Warning icon: if there is an error message (see [7.1. Error Messages](#) on page 50), the warning icon starts blinking in the top left corner of the display.

#### Note:

If no button is pressed, after 5 seconds the display is locked.

## 6.5. Display Lock

In this screen you can lock/unlock the display of the device.

There are 3 options to lock/unlock the device:

- Locking Option (see [6.5.1. Locking](#))
- Unlocking without Password (see [6.5.2. Unlocking without Password](#))
- Unlocking with Password (see [6.5.3. Unlocking with Password](#))

### 6.5.1. Locking

In this screen you can lock the display of the device.

- 01) Press and hold down the **MENU** button and **ENTER** button for 3 seconds.
- 02) The display shows:

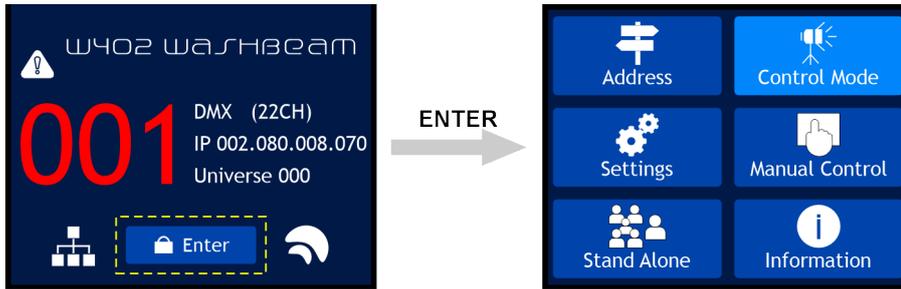


- 03) To unlock the device, refer to Unlocking Option.

## 6.5.2. Unlocking without Password

### 6.5.2.1. Option 1

Press the **ENTER** button to unlock the device. The display shows:



### 6.5.2.2. Option 2

01) Press the **MENU** button.

02) Press the **ENTER** button to unlock the device. The display shows:



## 6.5.3. Unlocking with Password

01) Press and hold down the **MENU** button and **ENTER** button for 3 seconds.

02) Press the **ENTER** button to unlock the device. The display shows:



## 6.6. Menu Overview

Level 1	Level 2	Level 3	Level 4
<b>Address</b> (see <a href="#">6.7.1. DMX Address</a> on page 31)	Address Setting	001–512	
	Screen Reverse	NO	
		YES	
		AUTO	
	Pan Reverse	NO	
		YES	
	Tilt Reverse	NO	
		YES	
	Zoom Reverse	NO	
		YES	
	Pan Angle	540	
		360	
		180	
	Tilt Angle	260	
		180	
		90	
	BL.O.P/T Move	NO	
		YES	
	Auto Pan Invert	OFF	
		ON	
<b>Settings</b> (see <a href="#">6.7.2. Settings Menu</a> on page 32)	Lock Code (6468)	Activate Lock Code	NO
			YES
		Enter Lock Code	SET
WDMX	OFF		
	ON		
Wireless Unlink	NO		
	YES		
Backlight Timer	30S		
	1M		
	5M		
	ON		
DMX Fail	Hold		
	OFF		
Network Setup	IP Mode	Manual	
		DHCP	
	Universe	000–255	
		001–256	
	IP Address	002.080.008.070	
SubMask	255.000.000.000		
Fans	Auto		
	Full		
	Silent		

Level 1	Level 2	Level 3	Level 4	
		Studio		
	C Mixing Mode	RGBW CMY		
	Dimmer Curve	Linear Square I Squa SCurve		
	Dimmer Speed	Smooth Fast		
	PWM Option	600 Hz 1200 Hz 2000 Hz 4000 Hz 6000 Hz 15000Hz		
	Color Balance	Red Green Blue White	100–255 100–255 100–255 100–255	
	Calibrated White	ON OFF Custom		
	White Balance	Red Green Blue White	000–255 000–255 000–255 000–255	
	Service Menu (6468)	PAN	128	
		TILT	128	
		ZOOM	128	
		MAC4	128	
		MAC5	128	
		MAC6	128	
		RDM4	128	
		RDM5 RDM6	128 128	
	Service Menu (2322)	Red Green Blue White	255 255 255 255	
		Reset User Hours	NO YES	
		Reset Function	Pan/Tilt	NO YES
			Zoom	NO YES

Level 1	Level 2	Level 3	Level 4
		All	NO YES
		Factory Settings	NO YES
<b>Stand Alone</b> (see <a href="#">6.7.3. Stand Alone</a> on page 39)	Program Number	1–9	
<b>Control Mode</b> (see <a href="#">6.7.4. Control Mode</a> on page 39)	Control Mode	DMX	
		WDMX	
		ArtNet	
		sACN	
	Personality	Basic	
		Advance	
		User	
	User Personality	Pan	NO/1~Advance Num
		Pan Fine	NO/1~Advance Num
		Tilt	NO/1~Advance Num
		Tilt Fine	NO/1~Advance Num
		P/T Speed	NO/1~Advance Num
		Dimmer	NO/1~Advance Num
		Dimmer Fine	NO/1~Advance Num
		Shutter	NO/1~Advance Num
		Color	NO/1~Advance Num
		Red	NO/1~Advance Num
		Red Fine	NO/1~Advance Num
		Green	NO/1~Advance Num
		Green Fine	NO/1~Advance Num
		Blue	NO/1~Advance Num
		Blue Fine	NO/1~Advance Num
		White	NO/1~Advance Num
		White Fine	NO/1~Advance Num
		CTC	NO/1~Advance Num
	CTC Fine	NO/1~Advance Num	
	Zoom	NO/1~Advance Num	
	Zoom Fine	NO/1~Advance Num	
	Control	NO/1~Advance Num	
<b>Manual Control</b> (see <a href="#">6.7.5. Manual Control</a> on page 40)	Auto Test	Apply	
	Manual Test	Pan	000–255
Tilt		000–255	
P/T Speed		000–255	
Red		000–255	
Green		000–255	
Blue		000–255	
White		000–255	
CTC		000–255	
Color	000–255		

Level 1	Level 2	Level 3	Level 4
		Dimmer	000–255
		Shutter	000–255
		Zoom	000–255
		Control	000–255
	Fixture Info	Ver	V2. XXXXXX
		Running Mode	DMX
		DMX Address	001
		Temperature	025
		Fixture Hours	00000
		User Hours	00000
		IP Address	002.080.008.070
		SubMask	255.000.000.000
		UID	29B40E4XXXXXX
		MAC	34.29.8F.08.05.04
	Fan Info	XFAN1 Speed	2000
		XFAN2 Speed	2000
		XFAN3 Speed	2000
DFAN2 Speed		2000	
Base Fan1 Speed		2000	
	Error Info		
	Channel Info	DMX Frequency	000
		Pan	000–255
		Pan Fine	000–255
		Tilt	000–255
		Tilt Fine	000–255
		P/T Speed	000–255
		Dimmer	000–255
		Dimmer Fine	000–255
		Shutter	000–255
		Color	000–255
		Red	000–255
		Red Fine	000–255
		Green	000–255
		Green Fine	000–255
		Blue	000–255
		Blue Fine	000–255
		White	000–255
		White Fine	000–255
		CTC	000–255
		CTC Fine	000–255
Zoom	000–255		
Zoom Fine	000–255		
Control	000–255		

**Information** (see [6.7.6. Information](#) on page 41)

## 6.7. Main Menu Options

The main menu has the following 6 options:



DMX Address



Settings Menu



Stand Alone



Control Mode



Manual Control



Information

- 01) Press the **UP/DOWN** buttons to navigate through the main menu.
- 02) Press the **ENTER** button to open the submenus.

### 6.7.1. DMX Address

In this menu you can set the DMX starting address of the device.

- 01) Press the **UP/DOWN** buttons to select the DMX starting address of the device. The adjustment range is between 001–512.
- 02) Press the **ENTER** button to confirm the selection.



### 6.7.2. Settings Menu

In this menu you can adjust the settings of the device.

01) Press the **UP/DOWN** buttons to scroll through the 26 available options:

Settings	
Screen Reverse	AUTO
Pan Reverse	NO
Tilt Reverse	NO
Zoom Reverse	NO
Pan Angle	540
Tilt Angle	260
BL. O. P/T Move	NO
Auto Pan Invert	ON
Lock Code	SET
WDMX	OFF
Wireless Unlink	NO
Backlight Timer	30S
DMX Fail	Hold
Network Setup	Enter
Fans	Auto
C Mixing Mode	RGBW
Dimmer Curve	Linear
Dimmer Speed	Smooth
PWM Option	4000Hz
Color Balance	SET
Calibrated White	OFF
White Balance	SET
Service Menu	Enter
Reset User Hours	NO
Reset Function	Enter
Factory Settings	NO

- Screen Reverse: Rotate the text on the display 180° when the device is mounted upside down (NO/YES/AUTO). If you select AUTO, the text on the display will automatically rotate 180° when the device is turned upside down
- Pan Reverse: Turn off/on the inverted pan direction (NO/YES)
- Tilt Reverse: Turn off/on the inverted tilt direction (NO/YES)
- Zoom Reverse: Turn off/on the inverted zoom direction (NO/YES)
- Pan Angle: 540°/360°/180°
- Tilt Angle: 260°/180°/90°
- BL.O. P/T Move: The device will black out the light output when Pan/Tilt are active (NO/YES)

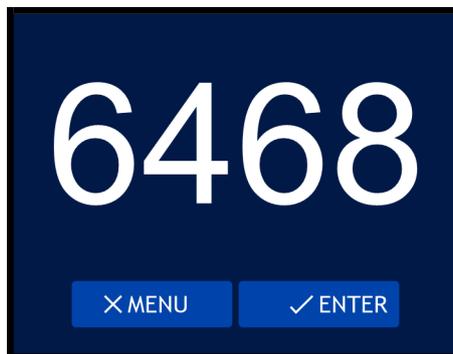
- Auto Pan Invert: Invert the pan direction automatically, depending on the position of the device (ON/OFF)
- Lock Code (see [6.7.2.1. Lock Code](#))
- WDMX: Activate/deactivate Wireless DMX (ON/OFF)
- Wireless Unlink: Terminate the connection between the device and the transmitter (NO/YES)
- Backlight Timer: Set the time after inactivity, before the display turns off (30 s/1 min/5 min/ON). If you select ON, the display will not turn off
- DMX Fail: Set the behavior of the device in case of a DMX failure. There are 2 options: OFF (the device will black out the light output) and HOLD (the device will use the last properly received DMX signal which ensures uninterrupted performance)
- Network Setup (see [6.7.2.2. Network Setup](#))
- Fans (see [6.7.2.3. Fans](#))
- C Mixing Mode: Set the C Mixing Mode (RGBW/CMY)
- Dimmer Curve (see [6.7.2.4. Dimmer Curve](#))
- Dimmer Speed: Set the dimmer speed (Smooth/Fast)
- PWM Option (see [6.7.2.5. PWM Option](#))
- Color Balance (see [6.7.2.6. Color Balance](#))
- Calibrated White (see [6.7.2.7. Calibrated White](#))
- White Balance (see [6.7.2.8. White Balance](#))
- Service Menu (see [6.7.2.9. Service Menu](#))
- Reset User Hours: Reset the total operation time counter (NO/YES)
- Reset Function (see [6.7.2.10. Reset Function](#))
- Factory Settings: Restore the factory default settings (NO/YES)

02) Press the **ENTER** button to confirm the selection.

### 6.7.2.1. Lock Code

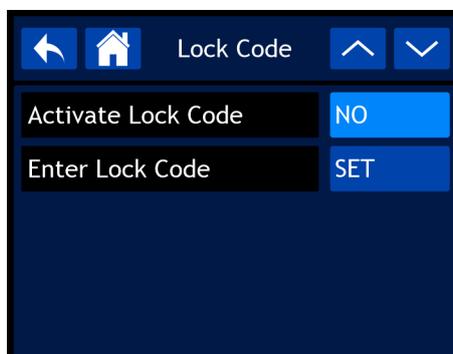
In this submenu you can set a personal lock code or change the current lock code.

01) Press the **UP/DOWN** buttons to insert the master code: 6468:



02) Press the **ENTER** button to confirm.

03) Press the **UP/DOWN** buttons to select the desired mode. There are 2 options:



- Activate Lock Code: Activate the lock code (NO/YES)
- Enter Lock Code (see [6.7.2.1.1. Enter Lock Code](#))

### 6.7.2.1.1. Enter Lock Code

In this menu you can set Enter Lock Code for the device.

- 01) Press the **UP/DOWN** buttons to increase/decrease the values in order to create your personal code. Set the lock code 0000–9999.
- 02) Press the **ENTER** button to confirm the selection.



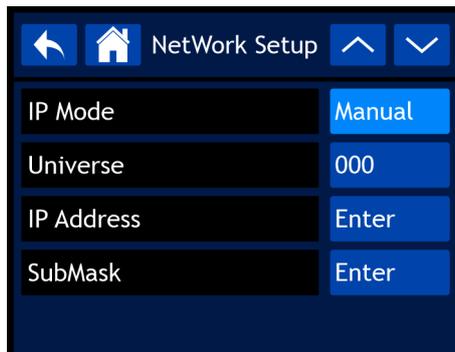
#### Note:

If you forget your personal code, you can still insert the **master code: 6468** which overrides your personal code.

### 6.7.2.2. Network Setup

In this submenu you can adjust the network settings.

- 01) Press the **UP/DOWN** buttons to scroll through the 4 available options:



- IP Mode: Set the configuration of the IP Address manually or automatically by a network server (DHCP)
- Universe: Set the Universe. The range is 000–255 for Art-Net/001–256 for sACN
- IP Address: Set the IP address
- SubMask: Set the Subnet Mask

- 02) Press the **ENTER** button to confirm the selection.
- 03) Press the **UP/DOWN** buttons to increase/decrease the value.
- 04) Press the **ENTER** button to confirm the selection.

### 6.7.2.3. Fans

In this submenu you can adjust the fan settings.

- 01) Press the **UP/DOWN** buttons to scroll through the 4 available options:

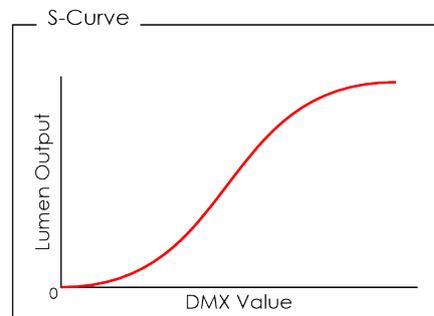
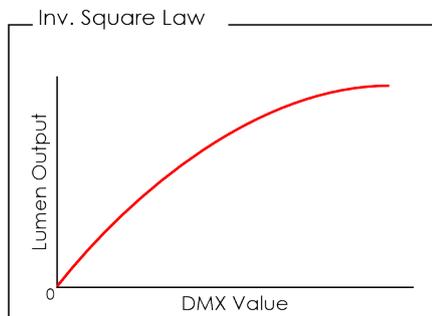
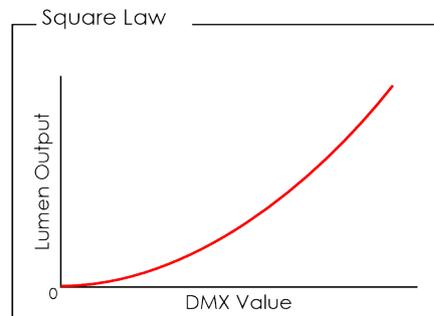
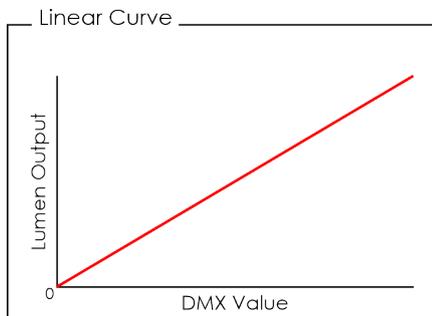
- Auto: The fan speed is automatic, depending on the selected light output
- Full: The fan speed is full on
- Silent: The fan speed is silent
- Studio: The fan speed is set for studio use. The light output will be reduced to guarantee a constant reduced fan speed

#### 6.7.2.4. Dimmer Curve

In this submenu you can select the dimming curve.

01) Press the **UP/DOWN** buttons to select one of the 4 options:

- Linear
- Square
- Inverse Square
- S-Curve



02) Press the **ENTER** button to confirm.

#### 6.7.2.5. PWM Option

In this submenu you can adjust the PWM (pulse-width modulation) frequency of the LEDs.

01) Press the **UP/DOWN** buttons to select one of the 6 options:

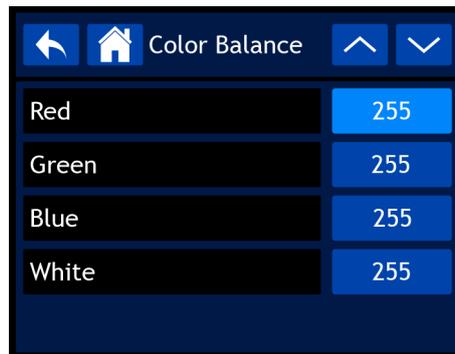
- 600 Hz
- 1200 Hz
- 2000 Hz
- 4000 Hz
- 6000 Hz
- 15000 Hz

02) Press the **ENTER** button to confirm.

### 6.7.2.6. Color Balance

In this submenu you can adjust color brightness of the LEDs.

01) Press the **UP/DOWN** buttons to select one of the 4 options:



- Red
- Green
- Blue
- White

02) Press the **ENTER** button to confirm the selection

03) Press the **UP/DOWN** buttons to change the value. The adjustment range is between 100–255.

04) Press the **ENTER** button to confirm the selection.

### 6.7.2.7. Calibrated White

In this submenu you can set the white calibration.

01) Press the **UP/DOWN** buttons to scroll through the 3 available options:

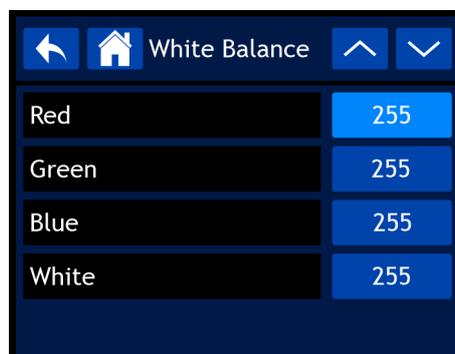
- ON: The white calibration is ON
- OFF: The white calibration is OFF
- Custom: Manually change the RGBW values in the White Balance menu (see [6.7.2.8. White Balance](#))

### 6.7.2.8. White Balance

In this submenu you can adjust color brightness of the LEDs.

This submenu is only visible when you have selected Calibrated White (see [6.7.2.7. Calibrated White](#)) to ON or Custom.

01) Press the **UP/DOWN** buttons to select one of the 4 options:



- Red
- Green
- Blue
- White

02) Press the **ENTER** button to confirm the selection

03) Press the **UP/DOWN** buttons to change the value. The adjustment range is between 000–255.

04) Press the **ENTER** button to confirm the selection.

### 6.7.2.9. Service Menu

In this submenu you can make fine adjustments of the home position of all moving parts, change the MAC address and the RDM identification number of the device or change RGBW.

There are 2 passwords to enter the service menu:

- Password 6468 (see [6.7.2.9.1. Password 6468](#))
- Password 2322 (see [6.7.2.9.2. Password 2322](#))

#### 6.7.2.9.1. Password 6468

**Note:**

If you forget your previously set personal lock code, you can still insert the **master code: 6468** which overrides the personal code.

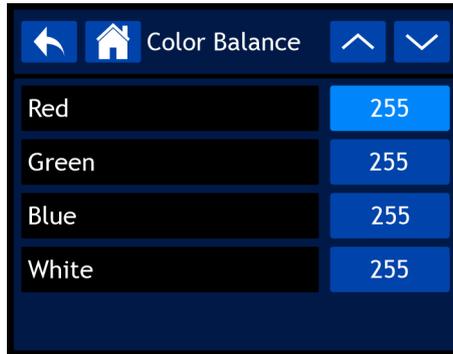
- 01) Press the **UP/DOWN** buttons to insert the personal code or if you forgot that, insert the master code: 6468.
- 02) Select **ENTER** to confirm.
- 03) Press the **UP/DOWN** buttons to scroll through the 9 available options:

Option	Value
PAN	088
TILT	128
ZOOM	121
MAC4	080
MAC5	008
MAC6	070
RDM ID4	112
RDM ID5	000
RDM ID6	138

- 04) Once you have selected the desired option, press the **ENTER** button to confirm the selection.
- 05) Press the **UP/DOWN** buttons to adjust the values to change the home position of all moving parts, the MAC addresses and the RDM identification numbers of the device. The adjustment range is 000–255.
- 06) Press the **ENTER** button to confirm the selection.

### 6.7.2.9.2. Password 2322

- 01) Press the **UP/DOWN** buttons to insert the master code: 2322.
- 02) Select **ENTER** to confirm.
- 03) Press the **UP/DOWN** buttons to scroll through the 4 available options:



- Red
- Green
- Blue
- White

- 04) Press the **ENTER** button to confirm the selection.
- 05) Press the **UP/DOWN** buttons to change the value. The adjustment range is between 100–255.

### 6.7.2.10. Reset Function

In this submenu you can reset the settings of the device.

- 01) Press the **UP/DOWN** buttons to scroll through the 3 available options:



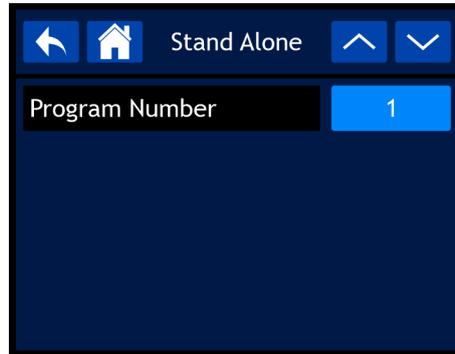
- Pan/Tilt: Reset Pan/Tilt (NO/YES)
- Zoom: Reset Zoom (NO/YES)
- All: Reset all settings (NO/YES)

- 02) Press the **UP/DOWN** buttons to select NO or YES. If you select YES, the function in question will reset.
- 03) Press the **ENTER** button to confirm the selection.

### 6.7.3. Stand Alone

In this menu you can set the built-in program.

Press the **UP/DOWN** buttons to start one of the 9 built-in programs. The display shows:



### 6.7.4. Control Mode

In this menu you can set the control mode, personality and user personality.

01) Press the **UP/DOWN** buttons to scroll through the 3 available options:



- Control Mode: DMX, WDMX, Art-Net, sACN
- Personality: Basic (14 channels), Advance (22 channels), User (up to 22 channels)
- User Personality (see [6.7.4.1. User Personality](#))

02) Press the **ENTER** button to confirm the selection.

#### 6.7.4.1. User Personality

In this menu you can customize the device by changing the order of the 22 DMX channels and/or leaving some channels out. These functions are the same as the 22 DMX channels in Advance personality. For more information, refer to DMX Channels (see [6.8. DMX Channels](#) on page 44).

01) Press the **UP/DOWN** buttons to scroll through the 22 available options:



02) Press the **ENTER** button to confirm the selection.

03) Press the **UP/DOWN** buttons to increase/decrease the numeric value in order to assign a DMX channel to this function. The adjustment range is between 001–022. Select NO if you want to exclude a function.

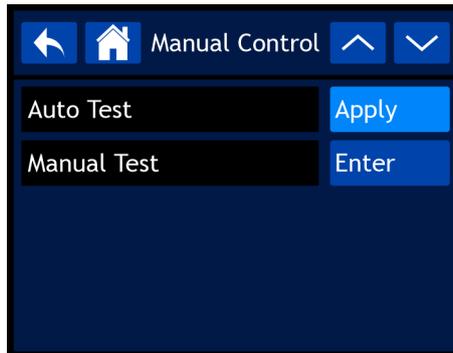
04) Press the **ENTER** button to confirm the selection.



### 6.7.5. Manual Control

In this menu you can set Auto Test or Manual Test.

01) Press the **UP/DOWN** buttons to scroll through the 2 available options:



- Auto Test (see [6.7.5.1. Auto Test](#))
- Manual Test (see [6.7.5.2. Manual Test](#))

02) Press the **ENTER** button to confirm the selection.

#### 6.7.5.1. Auto Test

In this submenu you can automatically run an auto test of the functions of the device.

(If you have selected Auto Test in the previous menu and pressed the **ENTER** button) The device automatically runs an auto test of the functions of the device and the display shows:



### 6.7.5.2. Manual Test

In this submenu you can test each function of the device individually or as a group.

It is possible to customize the device by changing the value of each function manually. These functions are the same as the 22 DMX channels in Advance personality. For more information, refer to DMX Channels (see [6.8. DMX Channels](#) on page 44).

01) Press the **UP/DOWN** buttons to scroll through the 22 available options:



02) Press the **ENTER** button to confirm the selection.

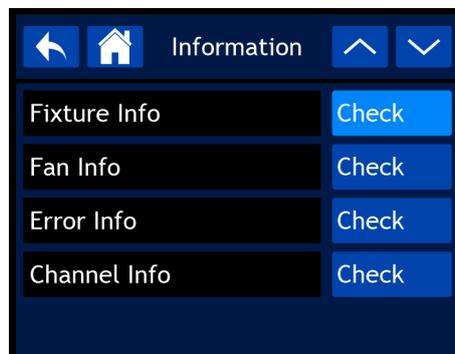
03) Press the **UP/DOWN** buttons to adjust the values in order to test each function of the device individually or as a group. The adjustment range is between 000–255.

04) Press the **ENTER** button to confirm the selection.

### 6.7.6. Information

In this menu you can view the parameters of the device.

01) Press the **UP/DOWN** buttons to scroll through the 4 available options:



- Fixture Info (see [6.7.6.1. Fixture Info](#))
- Fan Info (see [6.7.6.2. Fan Info](#))
- Error Info (see [6.7.6.3. Error Info](#))
- Channel Info (see [6.7.6.4. Channel Info](#))

02) Press the **ENTER** button to confirm the selection.

### 6.7.6.1. Fixture Info

In this submenu you can view the currently installed firmware version, operation mode, DMX address and other parameters of the device.

Press the **UP/DOWN** buttons to see all available parameters.

Fixture Info	
Ver	V2. XXXXXX
Running Mode	DMX
DMX Address	001
Temperature	064
Fixture Hours	00000
User Hours	00000
IP Address	002.080.008.070
SubMask	255.000.000.000
UID	29B40E4XXXXX
MAC	34.29.8F.08.05.04

- Ver: Shows the current software version
- Running Mode: Shows the current running mode
- DMX Address: Shows the current DMX address
- Temperature: Shows the current temperature
- Fixture Hours: Shows the total amount of hours the device has been running
- User Hours: Shows the total amount of hours the device has been running the current day
- IP Address: Shows the current IP address
- SubMask: Shows the current SubMask address
- UID: Shows the UID address of the device
- MAC: Shows the current MAC address

### 6.7.6.2. Fan Info

In this submenu you can view the parameters of the fans and other parameters of the device.

Press the **UP/DOWN** buttons to see all available parameters.

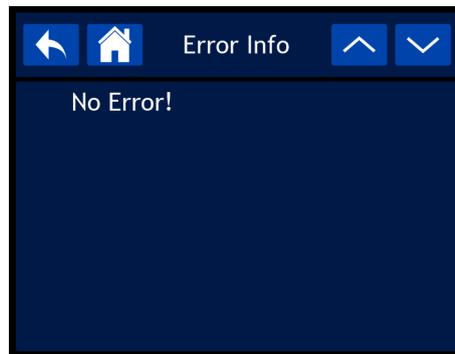
Fan Info	
XFAN1 Speed	2220
XFAN2 Speed	5140
XFAN3 Speed	3860
DFAN2 Speed	3988
Base Fan1 Speed	3172

- XFAN1 Speed: Shows the current speed of the head fan
- XFAN2 Speed: Shows the current speed of defrost fan 2
- XFAN3 Speed: Shows the current speed of defrost fan 3
- DFAN2 Speed: Shows the current speed of the pan fan
- Base Fan1 Speed: Shows the current speed of base fan 1

### 6.7.6.3. Error Info

In this submenu you can view whether there are any system errors.

If you have selected Error Info and there are no errors the display shows:



**Note:**  
In case of an error message, discontinue the use of the device and contact your Highlite International dealer for more information. For more information about the complete list of error messages, refer to Error Messages (see [7.1. Error Messages](#) on page 50).

### 6.7.6.4. Channel Info

In this submenu you can view the current value of all signal input channels.

Press the **UP/DOWN** buttons to see all current channel values.



## 6.8. DMX Channels

### 6.8.1. DMX Channels Overview

Function	Basic 14 CH	Advance 22 CH	DMX Value	Setting	Default	Highlight
Pan	1	1	000–255	0°–540°	128	
Pan Fine 16-bit	2	2	000–255	Fine positioning		
Tilt	3	3	000–255	0°–260°	128	
Tilt Fine 16-bit	4	4	000–255	Fine positioning		
Pan/Tilt Speed		5	000–255	From fast to slow	0	
Dimmer	5	6	000–255	0–100 %	0	255
Dimmer Fine 16-bit		7	000–255	Fine adjustment		
Strobe	6	8	000–255	Check channel details	6	6
Color Wheel	7	9	000–255	Check channel details	0	0
Red	8	10	000–255	Check channel details	255	255
Red 16-bit		11	000–255	Check channel details		
Green	9	12	000–255	Fine adjustment	255	255
Green 16-bit		13	000–255	Check channel details		
Blue	10	14	000–255	Check channel details	255	255
Blue 16-bit		15	000–255	Fine adjustment		
White	11	16	000–255	Check channel details	255	255
White 16-bit		17	000–255	Fine adjustment		
CTC	12	18	000–255	Check channel details	0	0
CTC 16-bit		19	000–255	Fine adjustment		
Zoom	13	20	000–255	Check channel details	128	
Zoom 16-bit		21	000–255	Fine adjustment		
Control	14	22	000–255	Check channel details	0	

**6.8.2. Basic (14 Channels), Advance (22 Channels)**

Basic 14 CH	Advance 22 CH	Function	Value	Setting	Control Type
1	1	<b>Pan</b>	000–255	Pan adjustment 0°–540°	
2	2	<b>Pan Fine</b>	000–255	Pan adjustment, 16-bit	
3	3	<b>Tilt</b>	000–255	Tilt adjustment 0°–260°	
4	4	<b>Tilt Fine</b>	000–255	Tilt adjustment, 16-bit	
	5	<b>Pan/Tilt Speed</b>	000–255	From fast to slow	
5	6	<b>Dimmer</b>	000–255	From low to high intensity (0–100 %)	
	7	<b>Dimmer Fine</b>	000–255	Fine adjustment	
6	8	<b>Strobe</b>	000–003	No function	
			004–006	Open	step
			007–066	Synchronized strobe, from low to high frequency	proportional
			067–127	Pulse strobe, from low to high frequency	proportional
			128–188	Ramp-down, from low to high frequency	proportional
			189–249	Random strobe, from low to high frequency	proportional
			250–255	Open	step
7	9	<b>Color Macro</b>	000	No function	
			001–002	White 2700 K (R=156, G=118, B=0, W=63)	step
			003–004	White 3200 K (R=156, G=141, B=5, W=89)	step
			005–006	White 4200 K (R=156, G=141, B=14, W=255)	step
			007–008	White 5600 K (R=156, G=207, B=54, W=255)	step
			009–010	White 8000 K (R=130, G=255, B=96, W=255)	step
			011	Blue (R=0, G=0, B=255, W=0)	step
			012–048	R=0, G+, B=255, W=0	proportional
			049	Cyan (R=0, G=255, B=255, W=0)	step
			050–086	R=0, G=255, B-, W=0	proportional
			087	Green (R=0, G=255, B=0, W=0)	step
			088–124	R+, G=255, B=0, W=0	proportional
			125	Yellow (R=255, G=255, B=0, W=0)	step
			126–162	R=255, G-, B=0, W=0	proportional
			163	Red (R=255, G=0, B=0, W=0)	step
			164–200	R=255, G=0, B+, W=0	proportional
			201	Magenta (R=255, G=0, B=255, W=0)	step
			202–238	R-, G=0, B=255, W=0	proportional
			239	Blue (R=0, G=0, B=255, W=0)	step
			240–247	Color fade from fast to slow	proportional
248–255	Color jump from fast to slow	proportional			
8	10	<b>Red</b>	000–255	0–100%	
	11	<b>Red 16-bit</b>	000–255	Fine adjustment	
9	12	<b>Green</b>	000–255	0–100%	
	13	<b>Green 16-bit</b>	000–255	Fine adjustment	
10	14	<b>Blue</b>	000–255	0–100%	
	15	<b>Blue 16-bit</b>	000–255	Fine adjustment	
11	16	<b>White</b>	000–255	0–100%	
	17	<b>White 16-bit</b>	000–255	Fine adjustment	

Basic 14 CH	Advance 22 CH	Function	Value	Setting	Control Type
12	18	CTC	000	No function	
			001–255	Color temp from output mode to 2700 K	proportional
	19	CTC 16-bit	000–255	Fine adjustment	
13	20	Zoom	000–255	Wide to narrow	
	21	Zoom 16-bit	000–255	Fine adjustment	
14	22	Control	000–004	No function	
			005–009	Pan reverse	step
			010–014	Pan normal	step
			015–019	Tilt reverse	step
			020–024	Tilt normal	step
			025–029	Auto pan invert OFF	step
			030–034	Auto pan invert ON	step
			035–039	BO PT OFF	step
			040–044	BO PT ON	step
			045–064	Reserved	
			065–069	Single color calibration OFF	step
			070–074	Single color calibration ON	step
			075–079	Preset Color HTP OFF	step
			080–084	Preset Color HTP ON	step
			085–089	Fans Auto	step
			090–094	Fans Full	step
			095–099	Fans Silent	step
			100–104	Fans Studio (TV35)	step
			105–109	DMX Fail: Hold	step
			110–114	DMX Fail: Off	step
			115–119	Dimmer mode FAST	step
			120–124	Dimmer mode SMOOTH	step
			125–129	Reserved	
			130–134	Dimmer Linear	step
			135–139	Dimmer Square	step
			140–144	Dimmer Inv-Square	step
			145–149	Dimmer S-curve	step
			150–154	PWM 600 Hz	step
			155–159	PWM 1200 Hz	step
			160–164	PWM 2000 Hz	step
			165–169	PWM 4000 Hz	step
			170–174	PWM 6000 Hz	step
175–179	PWM 15000 Hz	step			
180–184	Defrost fan OFF	step			
185–189	Defrost Fan ON	step			
190–194	Color Calibration OFF	step			
195–199	Color Calibration ON	step			
200–204	Reset P/T	step			
205–219	Reserved				

Basic 14 CH	Advance 22 CH	Function	Value	Setting	Control Type
			220-224	Reset Zoom/Focus	step
			225-234	Reserved	
			235-239	Reset All	step
			240-244	Full mode	step
			245-249	White mode (7500 K)	step
			250-255	Reserved	



## 6.9. RDM Information

This device supports RDM (see [6.9.2. Supported RDM PIDs \(Parameter IDs\)](#)).

### 6.9.1. RDM Details

- Responder ID: 29B4:0E4XXXXX
- Manufacturer's ID: Infinity (Highlite International B.V.)
- Manufacturer Label: Infinity
- Model Description: Furion W402 WashBeam
- Model ID: 228 (0E4 hexadecimal)
- Device Label: Furion W402 WashBeam

#### Note:

An RDM responder ID consists of 3 parts:

- 1<sup>st</sup> part – 4 digits – Manufacturer's ID
- 2<sup>nd</sup> part – 3 digits – Model ID
- 3<sup>rd</sup> part – 5 digits – Unique ID

The RDM responder IDs of all products of Highlite International start with the same 4 digits. The first 7 digits of the RDM responder ID for each model are the same. The last 5 digits are different for each device.

### 6.9.2. Supported RDM PIDs (Parameter IDs)

RDM Parameter ID	Value	Required	GET	SET
SUPPORTED_PARAMETERS	0x0050	*	*	
PARAMETER_DESCRIPTION	0x0051	*	*	
DEVICE_MODEL_DESCRIPTION	0x0080		*	
MANUFACTURER_LABEL	0x0081		*	
DEVICE_LABEL	0x0082		*	*
FACTORY_DEFAULTS	0x0090		*	*
DMX_PERSONALITY	0x00E0		*	*
DMX_PERSONALITY_DESCRIPTION	0x00E1		*	
DMX_START_ADDRESS	0x00F0	*	*	*
SENSOR_DEFINITION	0x0200		*	
SENSOR_VALUE	0x0201		*	*
CURVE	0x0343		*	*
CURVE_DESCRIPTION	0x0344	*	*	
MODULATION_FREQUENCY	0x0347		*	*
MODULATION_FREQUENCY_DESCRIPTION	0x0348	*	*	
DEVICE_HOURS	0x0400		*	*
LAMP_HOURS	0x0401		*	*
DISPLAY_INVERT	0x0500		*	*
PAN_INVERT	0x0600		*	*
TILT_INVERT	0x0601		*	*
RESET_DEVICE	0x1001			*

## 7. Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution
The device does not function at all	No power to the device	<ul style="list-style-type: none"> <li>Make sure that the device is connected to power supply and the cables are plugged in</li> </ul>
	Main fuse is blown	<ul style="list-style-type: none"> <li>Replace the fuse (see <a href="#">8.3.1. Replacing the Fuse</a> on page 52)</li> </ul>
The device responds erratically	The factory settings of the device are changed	<ul style="list-style-type: none"> <li>Reset the parameters of the device to the default factory settings (see <a href="#">6.7.2.10. Reset Function</a> on page 38)</li> </ul>
The device does not respond to DMX control	The controller is not connected	<ul style="list-style-type: none"> <li>Connect the controller</li> </ul>
	The signal is reversed. The 5-pin DMX OUT of the controller does not match the DMX IN of the device	<ul style="list-style-type: none"> <li>Install a phase-reversing cable between the controller and the device</li> </ul>
	The controller is defective	<ul style="list-style-type: none"> <li>Try using another controller</li> </ul>
The device responds erratically to DMX control	Connections are defective	<ul style="list-style-type: none"> <li>Examine connections and cables. Correct defective connections. Repair or replace damaged cables</li> </ul>
	The data link is not terminated with a 120 $\Omega$ termination plug	<ul style="list-style-type: none"> <li>Insert a termination plug in the DMX OUT connector of the last device on the link</li> </ul>
	Incorrect addressing	<ul style="list-style-type: none"> <li>Make sure that the address settings are correct</li> </ul>
	In case of a setup with multiple devices, one of the devices is defective and disturbs data transmission on the link	<ul style="list-style-type: none"> <li>To find out the defective device, bypass one device at a time until normal operation is restored</li> </ul>
No light or LEDs cut out intermittently	LEDs are damaged	<ul style="list-style-type: none"> <li>Disconnect the device and contact your Highlite International dealer, refer to Corrective Maintenance</li> </ul>
	The input power parameters of the device do not match the local AC voltage and frequency	<ul style="list-style-type: none"> <li>Disconnect the device. Make sure that the local current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device</li> </ul>
No wireless connection	The device is not connected to the transmitter, when the W-DMX indicator on the display of the device is gray.	<ul style="list-style-type: none"> <li>Create a wireless connection, refer to Wireless Connection (see <a href="#">5.4. Wireless Connection</a>)</li> </ul>
	The device is trying to connect to the transmitter, when the W-DMX indicator on the display is blinking quickly. This will take 30 seconds.	<ul style="list-style-type: none"> <li>Create a wireless connection, refer to Wireless Connection (see <a href="#">5.4. Wireless Connection</a>)</li> </ul>
	This device cannot receive a wireless DMX signal and a DMX cable signal at the same time.	<ul style="list-style-type: none"> <li>Remove the DMX cable</li> </ul>

## 7.1. Error Messages

In case one of the error messages below appears on the error information screen, discontinue the use of the device and contact your local dealer.

For more information, refer to Error Info (see [6.7.6.3. Error Info](#) on page 43).

Error code	Error description
X_CM	pan magnetic sensor error
X_OP	pan optocoupler error
Y_CM	tilt magnetic sensor error
Y_OP	tilt optocoupler error
CPU-A	CPU-A error (display)
CPU-B	CPU-B error (Pan/tilt)
CPU-C	CPU-C error (head)
XFAN1	head fan 1 error
DFAN2	pan fan 2 error
XFAN2	defrost fan 2 error
XFAN3	defrost fan 3 error
Base FAN1	base fan error
R-OPEN	thermistor open
R-SHORT	thermistor short
LED_HOT	LED over heat

## 8. Maintenance

### 8.1. Safety Instructions for Maintenance



**DANGER**  
**Electric shock caused by dangerous voltage inside**

Disconnect power supply before servicing or cleaning.

### 8.2. Preventive Maintenance



**Attention**  
**Before each use, examine the device visually for any defects.**

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- The safety devices are not damaged.
- There are no deformations on housings, fixings and installation points.
- The lens is not cracked or damaged.

The power cables are not damaged and do not show any material fatigue.

#### 8.2.1. Basic Cleaning Instructions

The external lens of the device must be cleaned periodically in order to optimize the light output. The cleaning schedule depends on the conditions at the site where the device is installed. When smoke or fog machines are used at the site, the device will need more frequent cleaning. On the other hand, if the device is installed in well-ventilated area, it will need less frequent cleaning. To establish a cleaning schedule, examine the device at regular intervals during the first 100 hours of operation.

To clean the device, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 15 minutes.
- 03) Remove the dust collected on the external surface with dry compressed air and a soft brush.
- 04) Clean the lens with a damp cloth. Use a mild detergent solution.
- 05) Dry the lens carefully with a lint-free cloth.
- 06) Clean the DMX and other connections with a damp cloth.



**Attention**

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.

Make sure that the connections are fully dry before connecting the device to the power supply and to other devices.

### 8.3. Corrective Maintenance

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

### 8.3.1. Replacing the Fuse



**DANGER**  
Electric shock caused by short-circuit

- Do not bypass the thermostatic switch or fuses.
- Replace fuses only with the same type and rating.

Power surges, short-circuit or incorrect electrical power supply may cause a fuse to burn out. If the fuse burns out, the device will not function anymore. If this happens, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 15 minutes.
- 03) Loosen the fuse cover with a screwdriver and remove the fuse holder.
- 04) If the fuse is brown or unclear, it is burned out. Remove the old fuse.
- 05) Insert a new fuse in the fuse holder. Make sure that the type and the rating of the replacement fuse are the same as the ones specified on the information label of the product.
- 06) Replace the fuse holder in the opening and tighten the fuse cover.

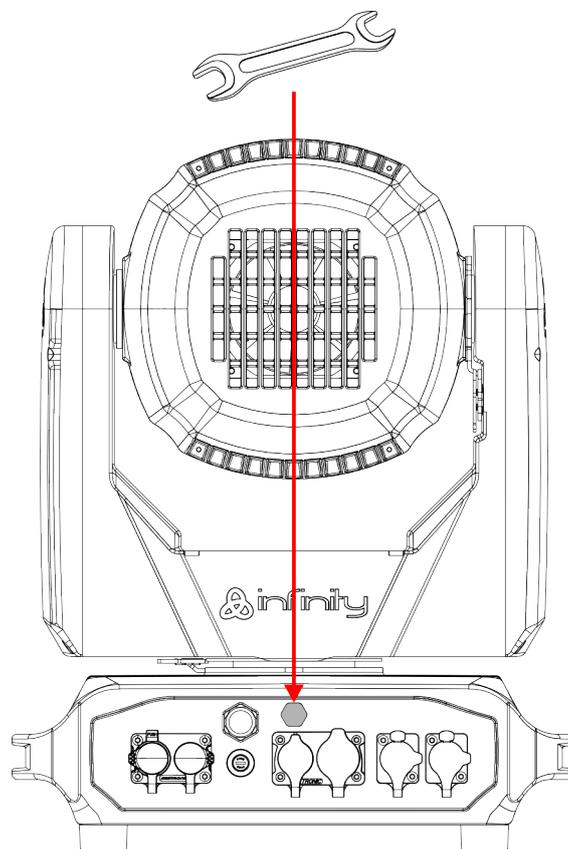
### 8.3.2. Draining Condensation Water

The Furion W402 WashBeam is IP65 rated. The device can resist water jets. If the device is exposed to extreme humid conditions during use, condensation may collect inside the device. This can happen also during transportation, if the device is exposed to extreme temperature variations.

If condensation water collects inside the device, follow the steps below to remove the condensation water:

- 01) Carefully remove the **protective vent (06)** with a wrench (16 mm).
- 02) Let the device operate with the lamp at full output for 60 minutes.
- 03) Let the device cool down for 30 minutes.
- 04) Reinstall the **protective vent (06)**. Make sure that you do not overtighten.

Figure 16



## 9. Deinstallation, Transportation and Storage

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### 9.1. Instructions for Deinstallation



**WARNING**

**Incorrect deinstallation can cause serious injuries and damage of property.**

- Let the device cool down before dismantling.
- Disconnect power supply before deinstallation.
- Always observe the national and site-specific regulations during deinstallation and derigging of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

### 9.2. Instructions for Transportation

- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

### 9.3. Storage

- Clean the device before storing (see [8.2.1. Basic Cleaning Instructions](#) on page 51).
- Store the device in the original packaging, if possible.

## 10. Disposal

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### Correct disposal of this product



Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

## 11. Approval

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Hereby, Highlite International declares that the device Furion W402 WashBeam, product code 41440, is in compliance with Directive 2014/53/EU (RED – Radio Equipment Directive).

The full text of the EU declaration of conformity is available on the respective product page on the website of Highlite International ([www.highlite.com](http://www.highlite.com)).



