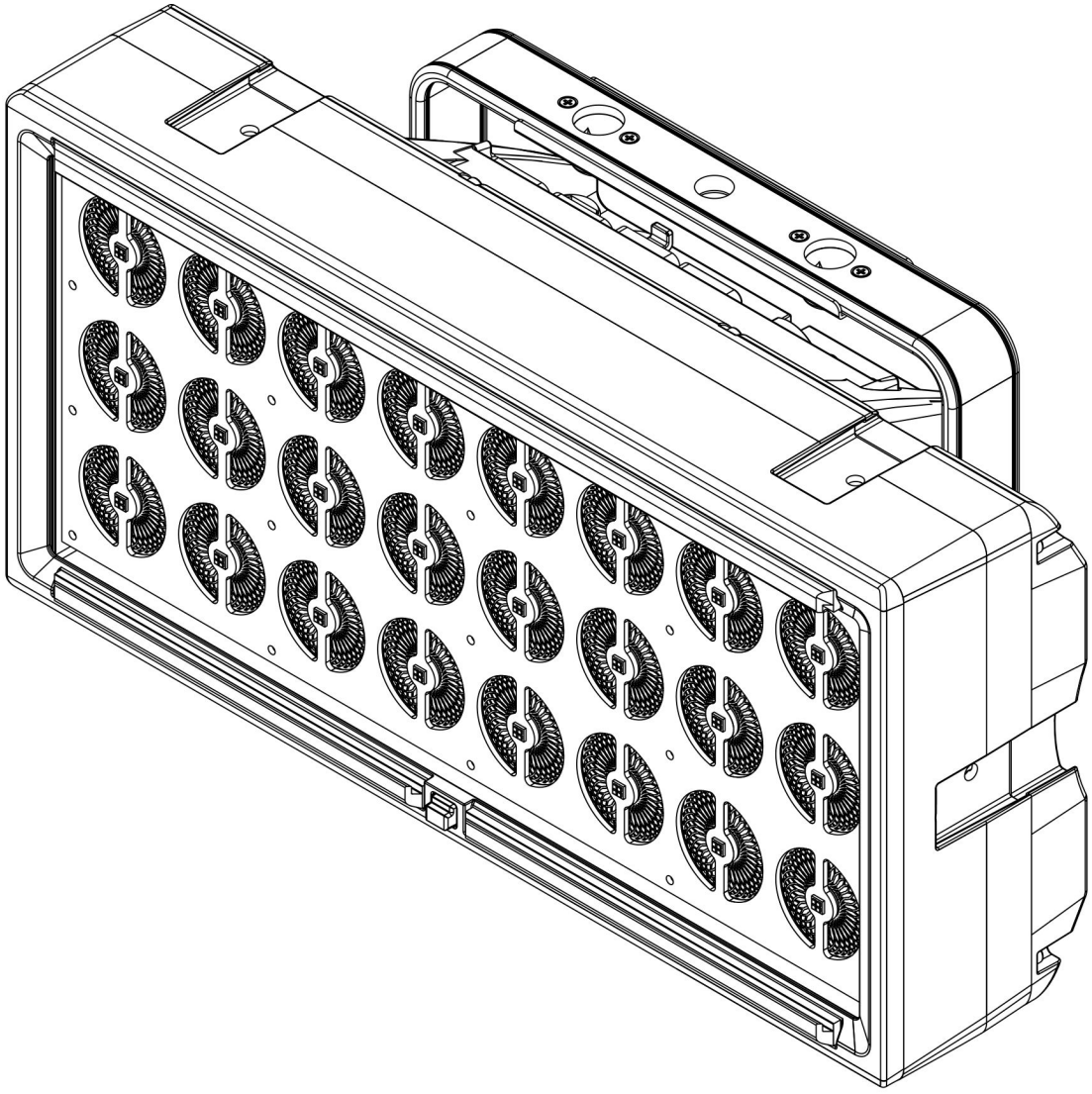
USER MANUAL

ENGLISH

V1.0



Titan Matrix FX

Product code: 40354

Preface

Thank you for purchasing this Showtec 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.

©2026 Showtec. All rights reserved.

No part of this document may be copied, published or otherwise reproduced without the prior written consent of Highlite International.

Design and product specifications are subject to change without prior notice.

For the latest version of this document or other language versions, please visit our website www.highlite.com or contact us at service@highlite.com.

Highlite International and its authorized service providers are not liable for any injury, damage, direct or indirect loss, consequential or economic loss or any other loss arising from the use of, or inability to use or reliance on the information contained in this document.

Highlite International B.V. – Vestastraat 2 – 6468 EX Kerkrade – the Netherlands

Table of contents

1. Introduction **4**
1.1. Before Using the Product 4
1.2. Intended Use 4
1.3. LEDs Lifespan 4
1.4. Product Lifespan 4
1.5. Text Conventions 4
1.6. Symbols and Signal Words 5
1.7. Symbols on the Information Label 5

2. Safety **6**
2.1. Warnings and Safety Instructions 6
2.2. Requirements for the User 8
2.3. Personal Protective Equipment 8

3. Description of the Device **9**
3.1. Front View 9
3.2. Back View 10
3.3. Product Specifications 11
3.4. Dimensions 12
3.5. Optional Accessories 13

4. Installation **14**
4.1. Safety Instructions for Installation 14
4.2. Personal Protective Equipment 14
4.3. Installation Site Requirements 14
4.4. Rigging 15
4.5. Angle Adjustment 16
4.6. Installation of Accessories 17
4.6.1. Frost Filter / Black Filter Installation 17
4.6.2. Titan Connection Block Installation 18
4.6.2.1. Vertical Installation 18
4.6.2.2. Horizontal Installation 19
4.7. Connecting to Power Supply 20
4.8. Power Linking of Multiple Devices 20

5. Setup **21**
5.1. Warnings and Precautions 21
5.2. Stand-alone Setup 21
5.3. DMX Connection 21
5.3.1. DMX-512 Protocol 21
5.3.2. DMX Cables 22
5.3.3. DMX Linking 22
5.3.4. DMX Addressing 23
5.4. Ethernet Connection 24
5.4.1. Art-Net/sACN Protocol 24
5.4.2. Network Cables 24
5.4.3. Art-Net/sACN Linking 25
5.4.4. Art-Net Settings 25
5.4.5. sACN Settings 25
5.4.6. Universe Numbering 26

6. Operation **27**
6.1. Safety Instructions for Operation 27
6.2. Control Modes 27
6.3. Control Panel 28
6.4. Start-up 28
6.5. Menu Overview 29
6.6. Main Menu Options 31
6.6.1. DMX Functions 31
6.6.1.1. DMX Address 31
6.6.1.2. DMX Mode 32
6.6.1.3. Protocol 32

6.6.1.4. DMX Fail ... 32
6.6.2. Ethernet Functions ... 33
6.6.2.1. IP Address ... 33
6.6.2.2. ArtNet Universe ... 33
6.6.2.3. sACN Universe ... 34
6.6.2.4. sACN Priority ... 34
6.6.3. Fixture Test ... 34
6.6.3.1. Auto Test ... 34
6.6.3.2. Manual Mode ... 35
6.6.4. Fixture Settings ... 36
6.6.4.1. Dimmer Curve ... 37
6.6.4.2. Fan Mode ... 37
6.6.4.3. Fixture Information ... 38
6.7. DMX Channels ... 39
6.7.1. 18 channels, 24 channels, 42 channels, 192 channels, 202 channels ... 39
6.8. RDM Information ... 51
6.8.1. RDM Details ... 51
6.8.2. Supported RDM PIDs (Parameter IDs) ... 51

7. Troubleshooting ... 52

8. Maintenance ... 53
8.1. Safety Instructions for Maintenance ... 53
8.2. Preventive Maintenance ... 53
8.2.1. Basic Cleaning Instructions ... 53
8.3. Corrective Maintenance ... 54
8.3.1. Draining Condensation Water ... 54

9. Deinstallation, Transportation and Storage ... 55
9.1. Instructions for Deinstallation ... 55
9.2. Instructions for Transportation ... 55
9.3. Storage ... 55

10. Disposal ... 55

11. Approval ... 55

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.

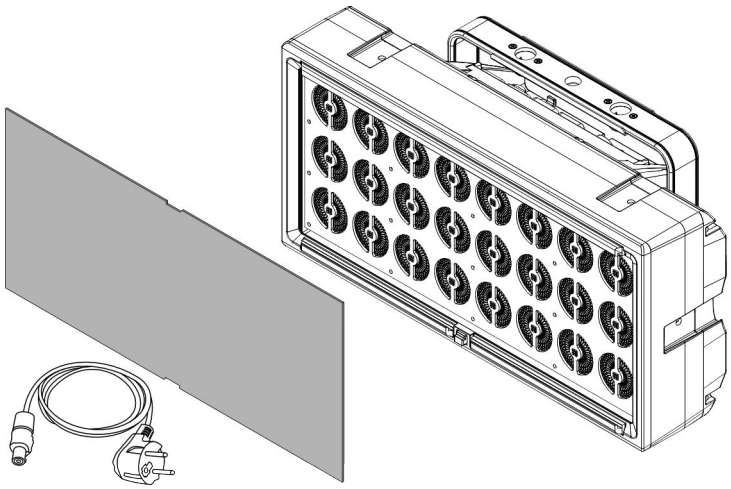
The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

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

Your shipment includes:

- Showtec Titan Matrix FX
- Schuko to Power Pro True cable (1,5 m)
- Frost filter
- User manual

Figure 1



1.2. Intended Use

This device is intended for professional use as an LED luminaire for stage lighting. 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. Product Lifespan

This device is not designed for permanent operation.

Disconnect the device from the electrical power supply when the device is not in operation. This will reduce the wear and will improve the lifespan of the device.

1.5. 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

1.6. 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



Provides important information about the disposal of this product.

1.7. Symbols on the Information Label

This product is provided with an information label. The information label is located on the back side 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 devices is rated IP65.



The surface and the inner parts of the device can become very hot during operation. Do not touch the pods during operation.

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.
- 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
Risk of burns due to hot surface

The surface and the inner parts of the device can become very hot during operation.

- Do not touch the device during operation.
- Allow the device to cool down for at least 15 minutes before handling.



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 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
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
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 an LED luminaire for stage lighting. 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
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.

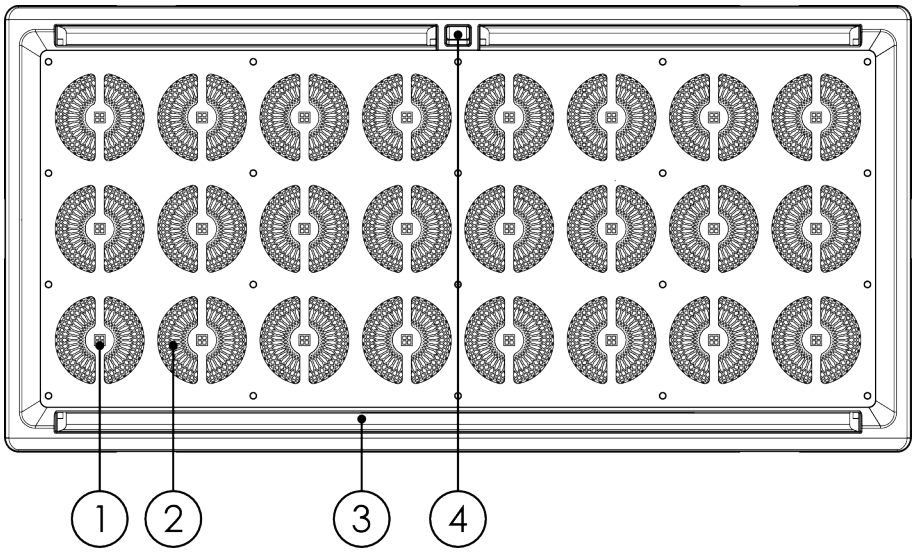
3. Description of the Device

The Showtec Titan Matrix FX is a matrix light with fully controllable pixels. It features 3 rows of 8 RGBW LEDs (24 in all) that are covered with a lens and in front of each lens is a 6 W RGBW LEDs (another 24). This combination makes it possible to create bold, colorful. geometric patterns, making the Titan Matrix FX an excellent choice for live events, studios and more. With an IP65 rating, it can also be used outdoors.

For ultimate flexibility, the fixture can be controlled with DMX (incl. RDM), Art-Net, sACN or manually. Connection options include 5-pin XLR, etherCON and Power Pro True inputs and outputs. Unique horizontal and vertical setups with multiple fixtures can be built quickly and easily using the optional Titan Connection Blocks.

3.1. Front View

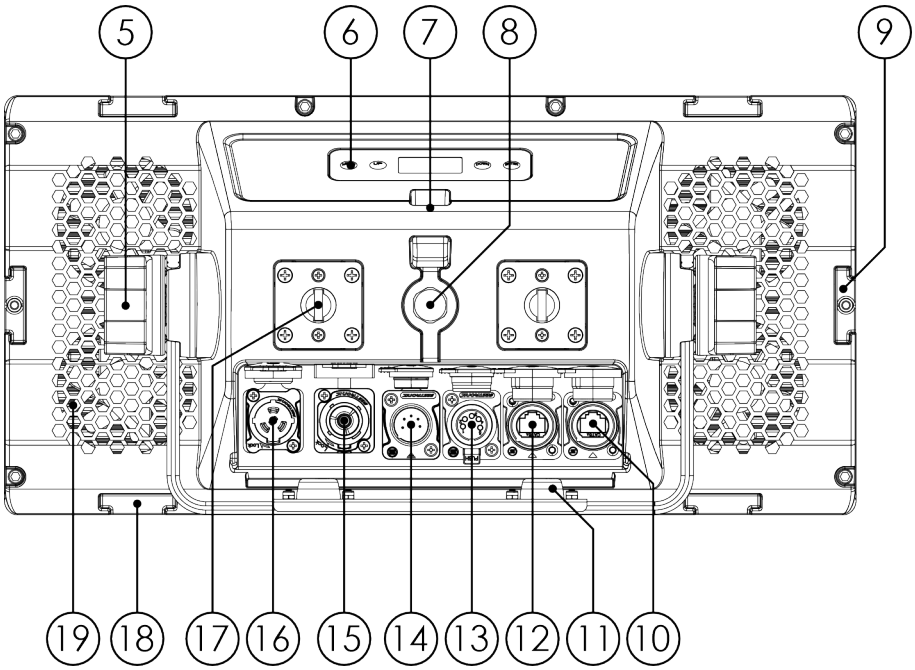
Figure 2



01) 24 x 6 W RGBW LEDs
02) 24 x 40 W RGBW LEDs
03) Filter holders
04) Button for included frost filter or Black filter for Titan (40353)

3.2. Back View

Figure 3



05) Adjustment handle
06) Control panel: OLED display and control buttons
07) Safety eye
08) Protective vent (M12 x 1,5)
09) 2 x Locking mechanism in combination with 40352 (for horizontal connection to 2nd device)
10) RJ45 ArtNet connector
11) Mounting bracket with 2 x mounting holes for quick-lock bracket
12) RJ45 ArtNet connector
13) IP65-rated 5-pin DMX signal connector OUT
14) IP65-rated 5-pin DMX signal connector IN
15) IP65-rated Power Pro True connector OUT
16) IP65-rated Power Pro True connector IN
17) 2 x Mounting holes for quick-lock bracket
18) 4 x Locking mechanism in combination with 40352 (for vertical connection to 2nd device)
19) Ventilation opening

3.3. Product Specifications

Model:	Titan Matrix FX

Source:	
Light source type	LED
Light source quantity	48
Light source power	40 W
LED color type	RGBW
Luminous flux (total)	8219 lm
Luminous flux (green)	8846 lm
Luminous flux (blue)	3619 lm
Luminous flux (white)	2079 lm

Optical:	
Beam Angle (Circular)	10°

Control and Programming:	
Control mode	Art-Net / DMX / Manual / RDM / sACN
Protocols	Art-Net / DMX / RDM / sACN
Dim curve	Linear / Square / I-Square / S-Curve

Dynamic Effects:	
Dimmer	0–100 %
Strobe	0–25 Hz

Electrical Specifications and Connections:	
Power supply	100–240 V AC 50/60 Hz
Power consumption	700 W
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	etherCON
Data connector OUT	etherCON

Mechanical Specifications:	
Height	200 mm
Width	407 mm
Depth	169 mm
Weight	8,8 kg
IP rating	IP65
Housing	Aluminium die-cast
Color	Black

Product Properties:	
Cooling	Forced convection

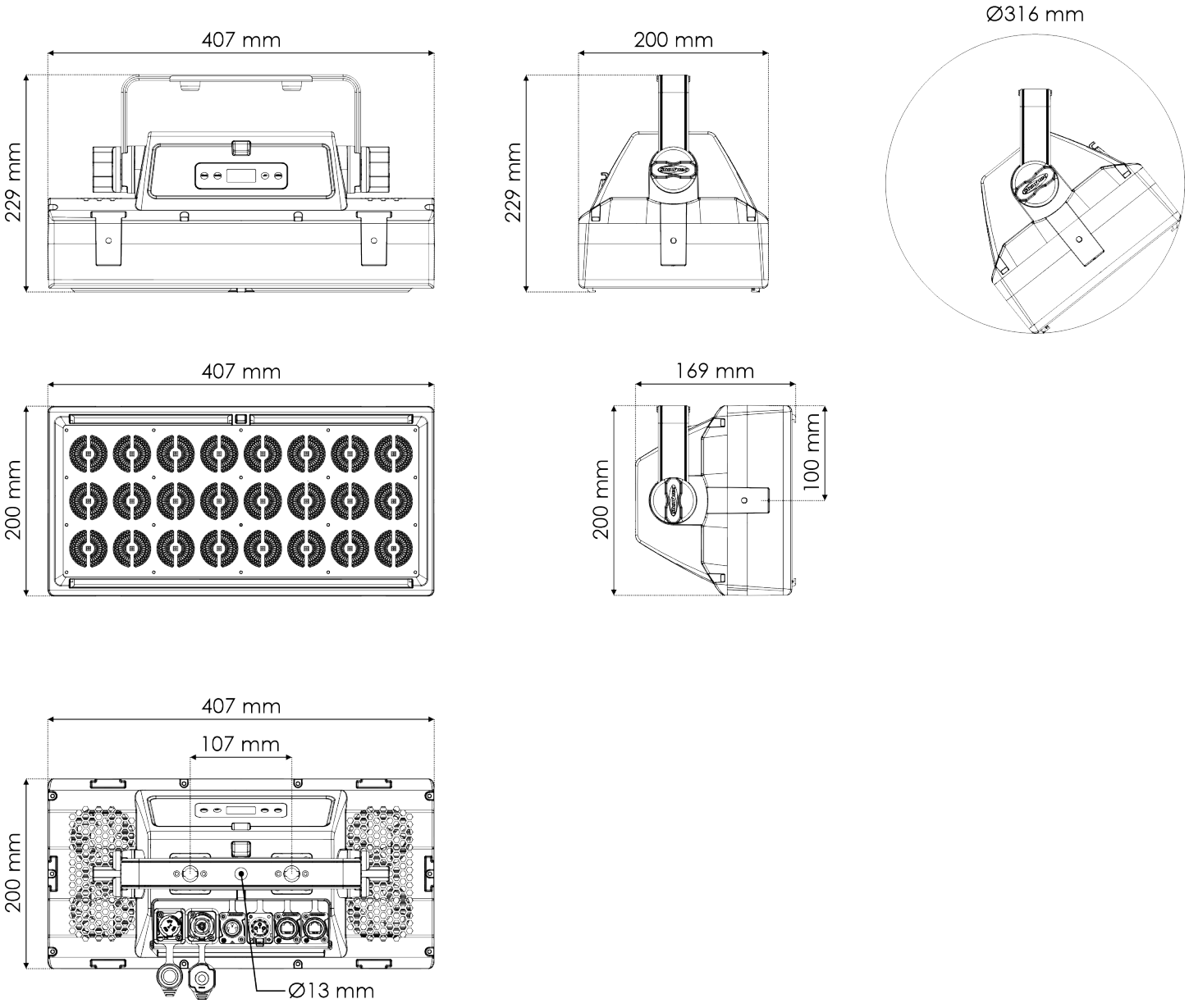
Rigging:	
Mounting options	Clamp / quick-lock
Safety attachment	Yes

Thermal Specifications:	
Maximum ambient temperature	40 °C

Included Items:	
Included cables	Power Pro True cable
Included accessories	Frost filter

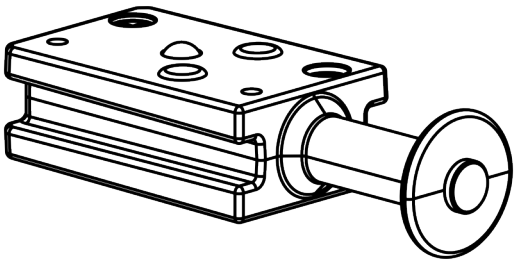
3.4. Dimensions

Figure 4

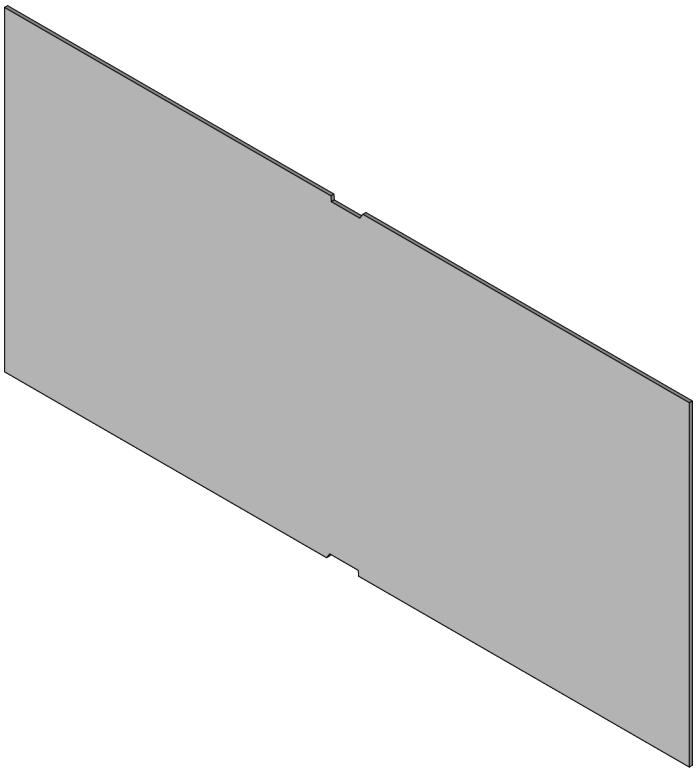


3.5. Optional Accessories

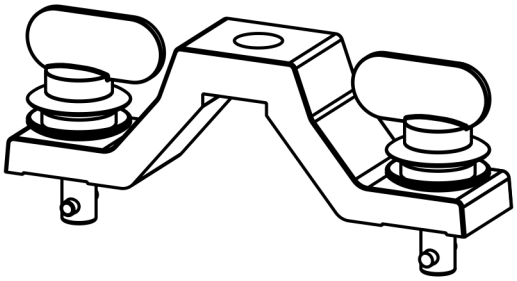
- Product code : 40352 (Titan Connection Block)



- Product code: 40353 (Black filter for Titan)



- Product code : 75151 (Quicklock Bracket 2)



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 device must be installed away from heating sources and direct sunlight.
- The ambient temperature must be in the range -5 and 40 °C.

4.4. Rigging

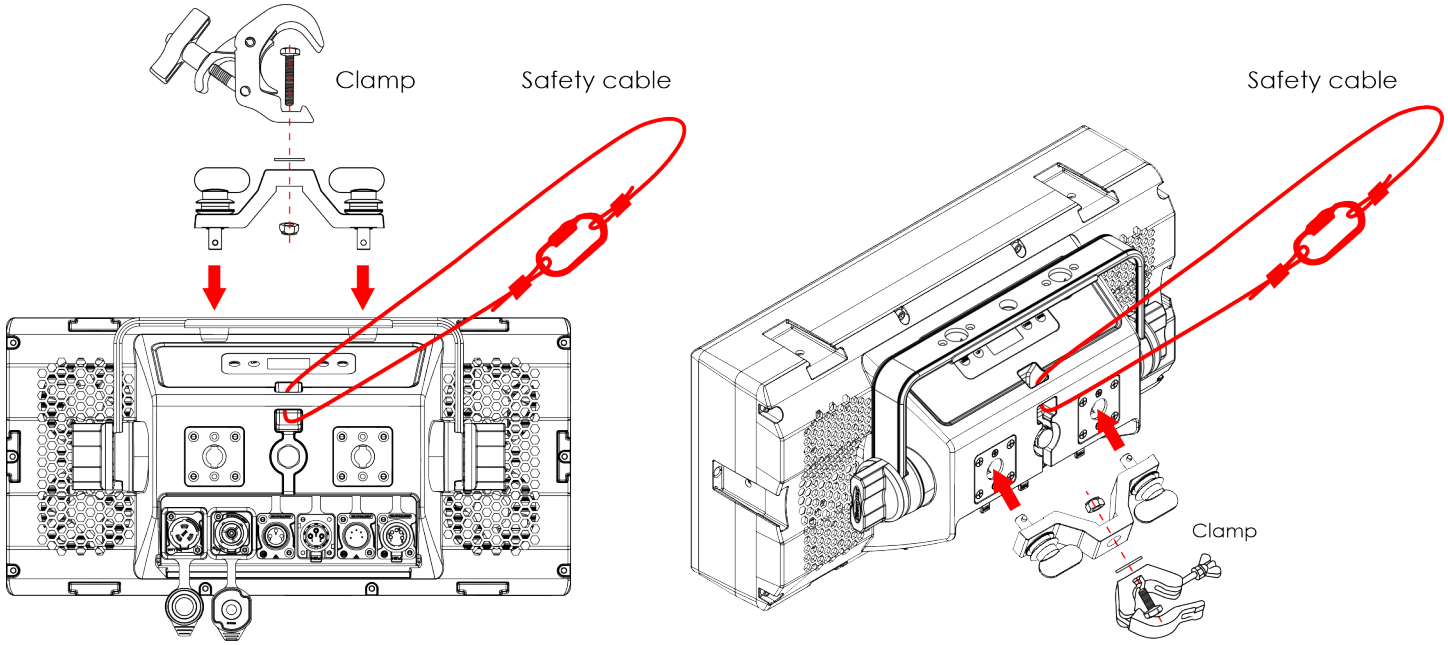
The device can be positioned on a flat surface or mounted to a truss or other rigging structure in any orientation. Make sure that all loads are within the pre-determined limits of the supporting structure.

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

To mount the device, follow the steps below:

01) Install a clamp. Make sure that you use clamps suitable for attaching the device to a truss.
02) Fasten the quick-lock bracket, supplied with the device, on the **mounting holes for quick-lock brackets (11/17)**.

Figure 5



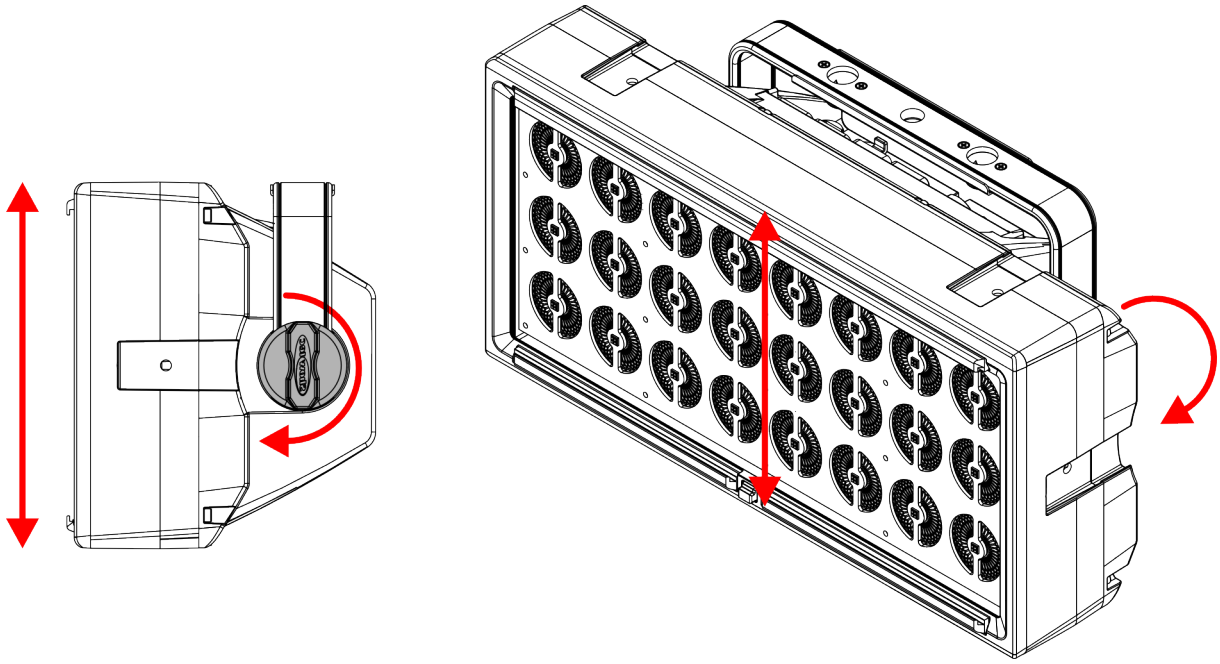
03) Attach the device to the supporting structure. Make sure that the device cannot move freely.
04) Secure the device with a secondary suspension, for example a safety cable. Make sure that the secondary suspension can hold 10 times the weight of the device. If possible, the secondary suspension should be attached to a supporting structure independent of the primary suspension. Put the safety cable through a **safety eye (07)**.

4.5. Angle Adjustment

You can adjust the angle of the device with the **adjustment handle (05)**.

01) Turn the **adjustment handle (05)** counterclockwise to loosen it.
02) Tilt the device to the desired angle.
03) Turn the **adjustment handle (05)** clockwise to tighten it. Make sure that the device cannot move freely after the **adjustment handle (05)** is tightened.

Figure 6



4.6. Installation of Accessories

There are a number of accessories available for the device (see 3.5. Optional Accessories on page 13).

The accessories are not supplied with the device. Contact your Highlite International dealer for more information.

4.6.1. Frost Filter / Black Filter Installation

The frost filter changes the beam angle of the device.

To install the frost filter, follow the steps below:

01) Insert the frost filter or black filter into the **filter holders (03)**, until the red dotted line, as shown in Fig. 07.
02) Press the **button (04)** to be able to slide the frost filter or blackfilter further, as shown in Fig. 08.
03) Release the **button (04)** once the frost filter or blackfilter is in place, as shown in Fig. 09.

Figure 7

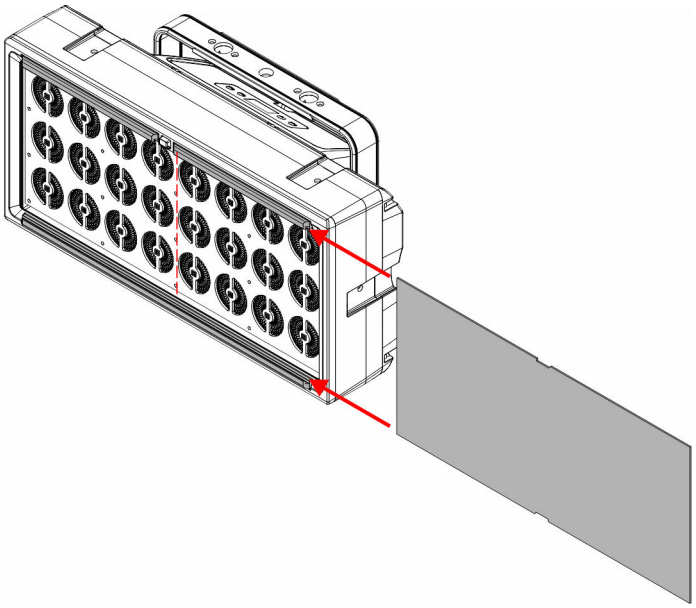


Figure 8

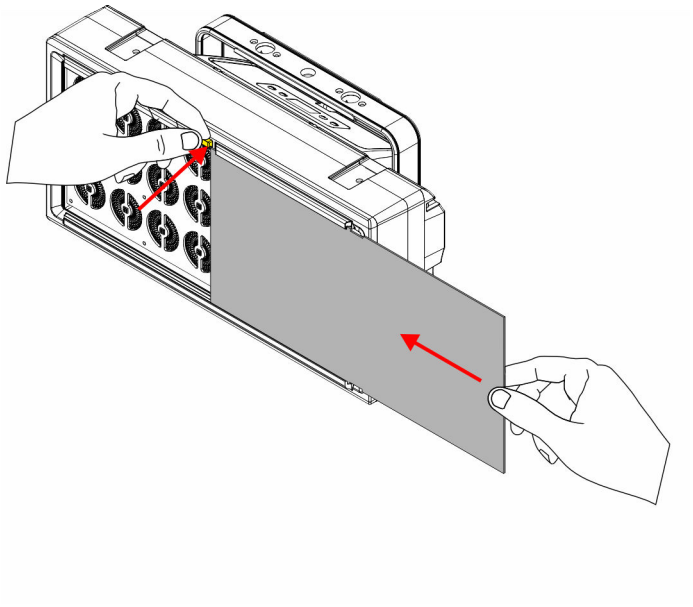
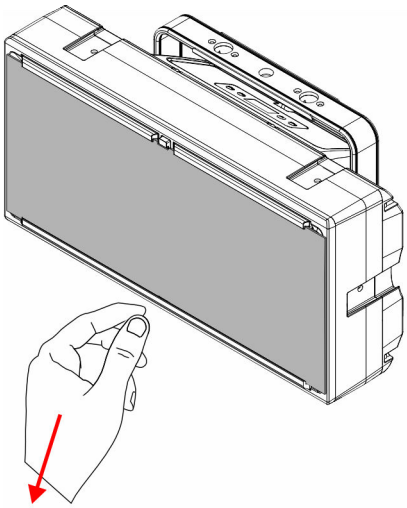


Figure 9



4.6.2. Titan Connection Block Installation

The titan connection block allows you to connect multiple devices to each other.

To create a setup with multiple devices, you need to connect the devices vertically and horizontally.

4.6.2.1. Vertical Installation

By the vertical installation, 2 devices are connected below one another.

To connect vertically 2 devices, follow the steps below:

01) Put the 2nd device below the 1st device, as shown in Fig. 10.
02) Insert the titan connection block into the **locking mechanism (18)**, until its half way in, as shown in Fig. 11.
03) Press the button on the titan connection block to be able to slide the titan connection block further, as shown in Fig. 12.
04) Release the button once the titan connection block is in place, as shown in Fig. 13.

Figure 10

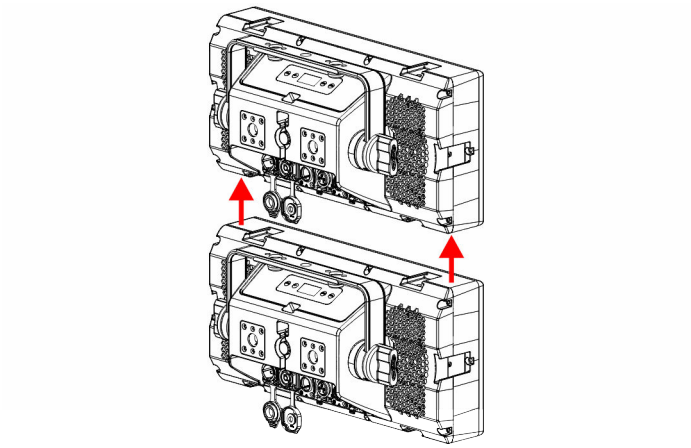


Figure 11

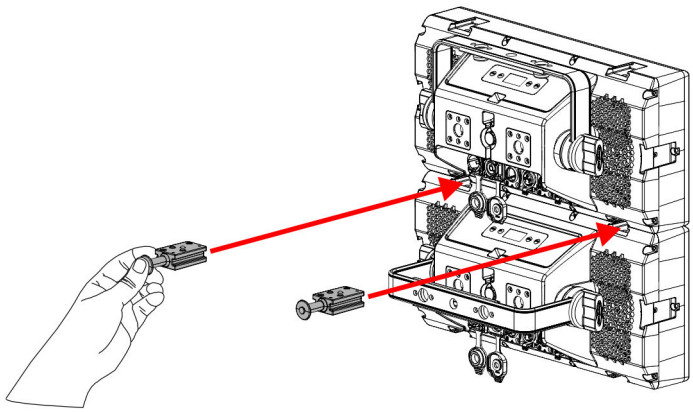


Figure 12

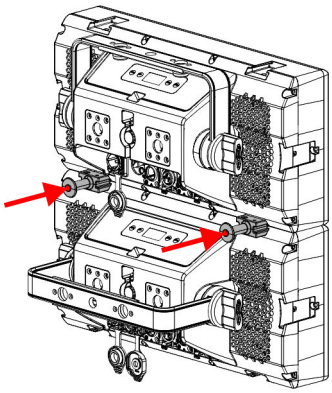
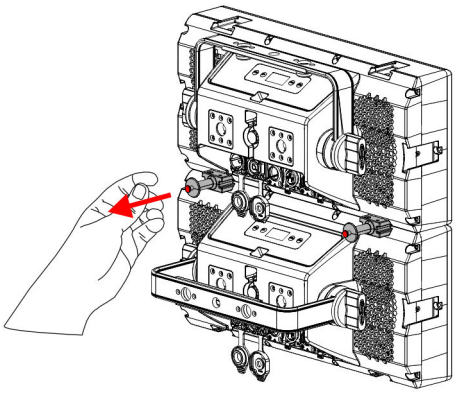


Figure 13



4.6.2.2. Horizontal Installation

By the horizontal installation, 2 devices are connected below one another.

To connect horizontally 2 devices, follow the steps below:

01) Put the 2nd device next to the 1st device, as shown in Fig. 14.
02) Insert the titan connection block into the **locking mechanism (09)**, until its half way in, as shown in Fig. 15.
03) Press the button on the titan connection block to be able to slide the titan connection block further, as shown in Fig. 16.
04) Release the button once the titan connection block is in place, as shown in Fig. 17.

Figure 14

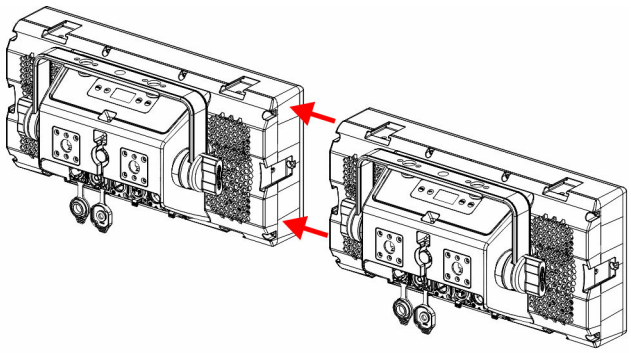


Figure 15

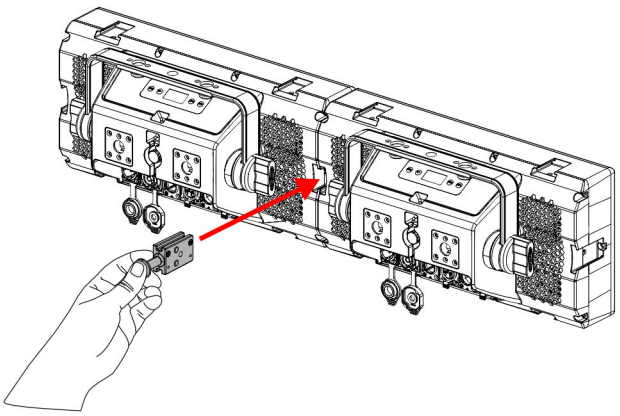


Figure 16

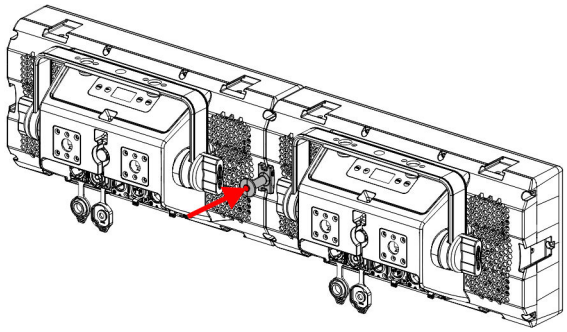
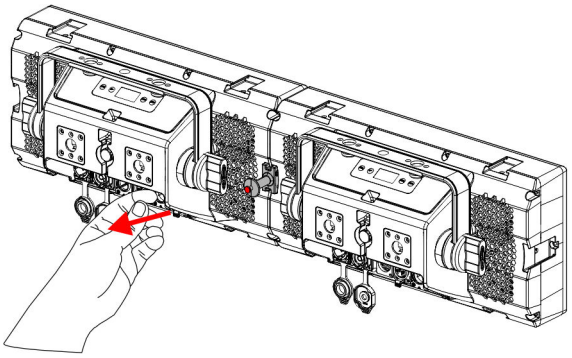


Figure 17



4.7. 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 a 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.

4.8. 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: 2 devices Titan Matrix FX
- at 200–240 V: 5 devices Titan Matrix FX

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 Titan Matrix FX 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 27).

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 Titan Matrix FX 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

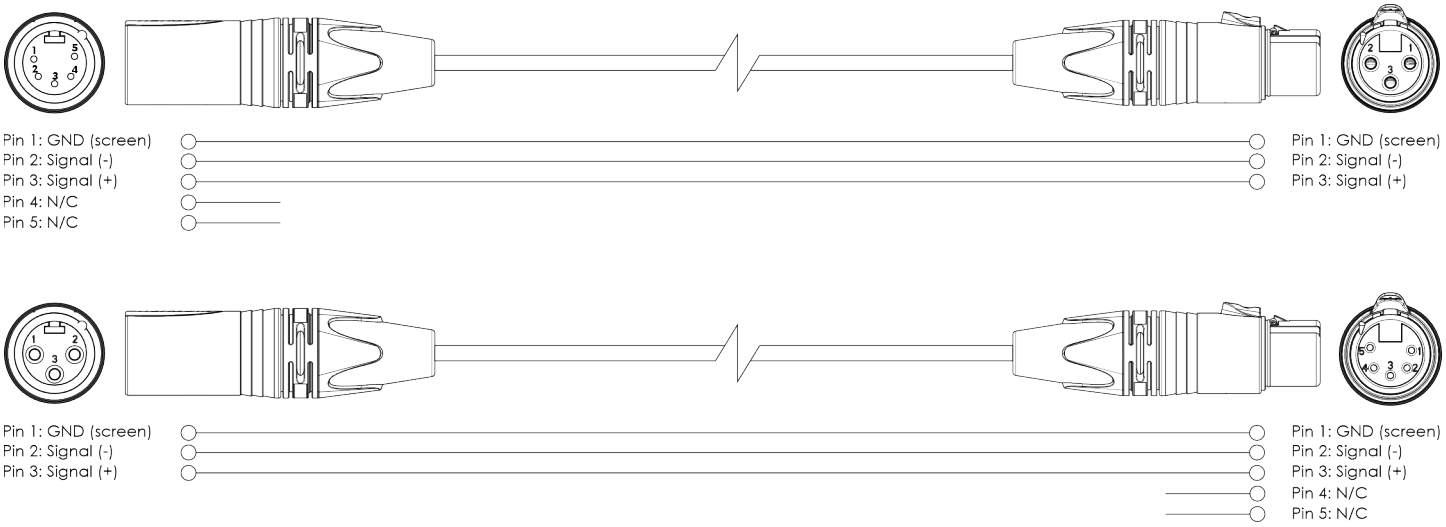
5.3.2. DMX Cables

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 18

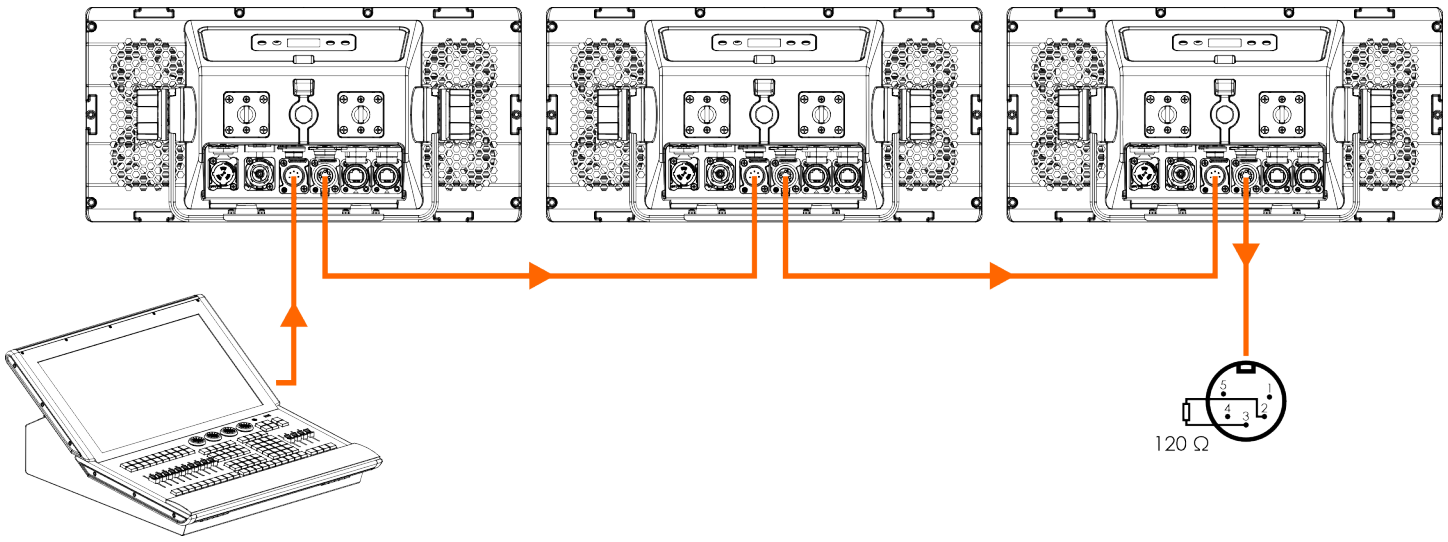


5.3.3. DMX Linking

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 1st device.
02) Connect the DMX OUT connector of the 1st device to the DMX IN connector of the 2nd 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 19



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 Titan Matrix FX has 5 personalities: 18 channels, 24 channels, 42 channels, 192 channels, 202 channels.

If you want to connect multiple devices on one data link and use them in 42-channel mode, for example, follow the steps below:

01) Set the starting address of the 1st device on the data link to 1 (001).
02) Set the starting address of the 2nd device on the data link to 43 (043), as 1 + 42 = 43.
03) Set the starting address of the 3rd device on the data link to 85 (085), as 43 + 42 = 85.
04) Continue assigning the starting addresses of the remaining devices by adding 42 to the previous number each time.

When addressing multiple devices on one data link, make sure that there are no overlapping channels. You cannot control devices individually if they have overlapping channels.

Note:

DMX connection is limited to 512 channels. For larger setups, connect the devices via Art-Net or sACN protocols (see 5.4. Ethernet Connection on page 24).

5.4. Ethernet Connection

5.4.1. 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.

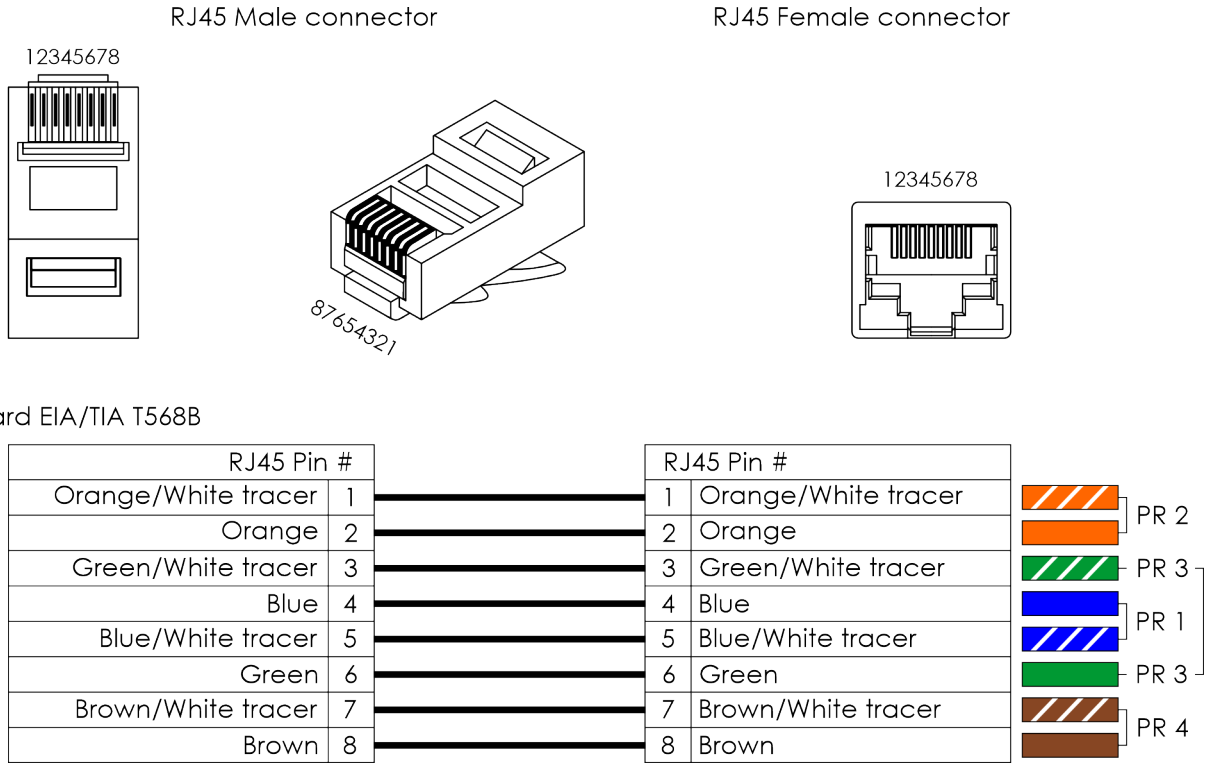
sACN (streaming Architecture for Control Networks), also known as ANSI E1.31, is a protocol developed by ESTA (Entertainment Services and Technology Association) for sending DMX-512 data over IP networks. It supports up to 63999 universes and uses multicasting.

5.4.2. Network Cables

Standard twisted-pair Ethernet cables (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 20

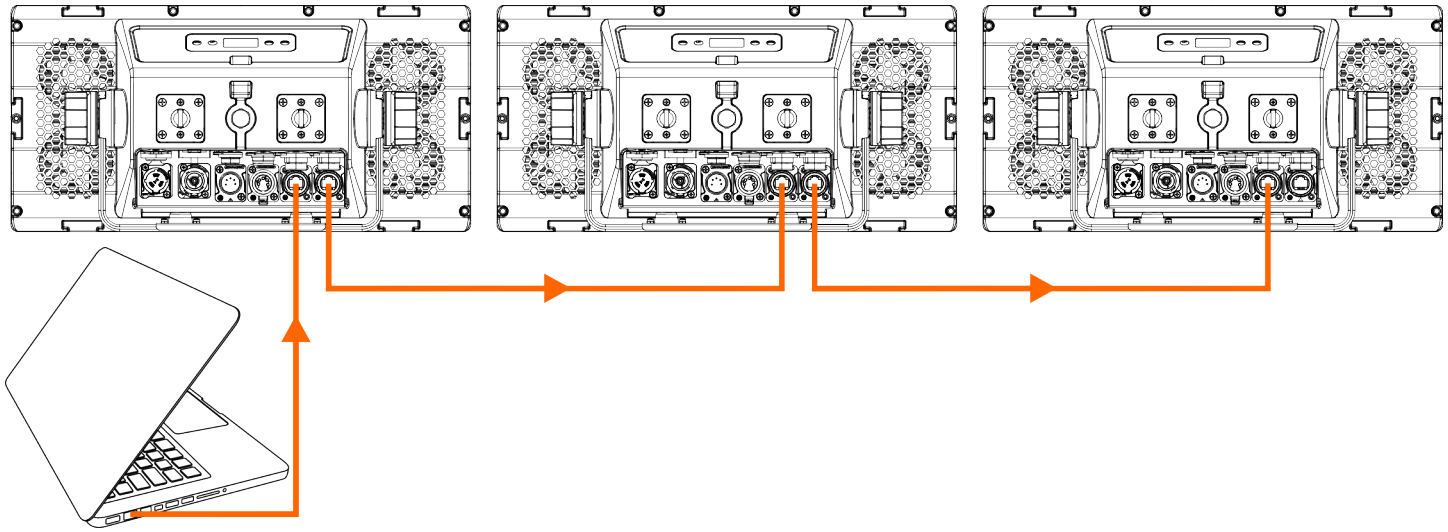


5.4.3. Art-Net/sACN Linking

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

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

Figure 21



5.4.4. Art-Net Settings

To operate the device using Art-Net protocol:

01) Configure the network address of your computer/lighting controller in the correct range (IP 2.x.x.x, 10.x.x.x or 192.168.x.x and Subnet 255.0.0.0). You can configure the IP address and Subnet mask of the device in the Network Configuration menu (see 6.6.2. Ethernet Functions on page 33). Make sure that all devices in the network have unique IP addresses.
02) Set the universe in the ArtNet Universe submenu (see 6.6.2.2. ArtNet Universe on page 33). For more information refer to Universe Numbering (see 5.4.6. Universe Numbering on page 26).

5.4.5. sACN Settings

To operate the device using sACN protocol:

01) Set the IP address of your computer/lighting controller. sACN does not have restrictions on the IP address.
02) Set the universe in the sACN Universe submenu (see 6.6.2.3. sACN Universe on page 34). For more information refer to Universe Numbering (see 5.4.6. Universe Numbering on page 26).

5.4.6. Universe Numbering

If you want to connect 5 or more devices on one data link and use them in 202-channel mode, you need to address the devices on different universes.

01) Set the DMX starting address of the first 5 devices (see 5.3.4. DMX Addressing on page 23).
02) Set the universe number of the 6th device to 001 and the DMX starting address to 001.
03) Continue addressing the devices, each time increasing the universe number, after you reach the limit of 512 channels in one universe.

There are 512 channels (1–512) in one universe. 16 consecutive universes (0–15) make up one sub-net. 16 sub-nets (0–15) make up one net. There are 128 nets (0–127) in total.

Note:

- In Art-Net, universes are called Port Address and number from 0 to 32767. There are 32768 unique numbers.
- In sACN, universes number from 1 to 63999.

15-bit Port Address	Net (0–127)	Sub-net (0–15)	Universe (0–15)
0	0	0	0
1	0	0	1
2	0	0	2
...	...	...	...
15	0	0	15
16	0	1	0
17	0	1	1
...	...	...	...
31	0	1	15
32	0	2	0
33	0	2	1
...	...	...	...
255	0	15	15
256	1	0	0
257	1	0	1
...	...	...	...
32766	127	15	14
32767	127	15	15

When addressing multiple devices on one data link, make sure that there are no overlapping channels. You cannot control devices individually if they have overlapping channels.

Note:

If you use an Art-Net controller that supports Art-Net I or Art-Net II, you need to set the Art-Net net to 0. The net number is available in Art-Net 3 and higher versions of the Art-Net protocol.

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 an LED luminaire for stage lighting. 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 Titan Matrix FX can be operated with a DMX controller or as a stand-alone device.

The Titan Matrix FX supports the following control modes:

- Stand-alone: Manual operation
- DMX-512: 18 channels, 24 channels, 42 channels, 192 channels, 202 channels

For more information about how to connect the devices, refer to Setup (see 5. Setup on page 21).

To operate the device as a stand-alone device:

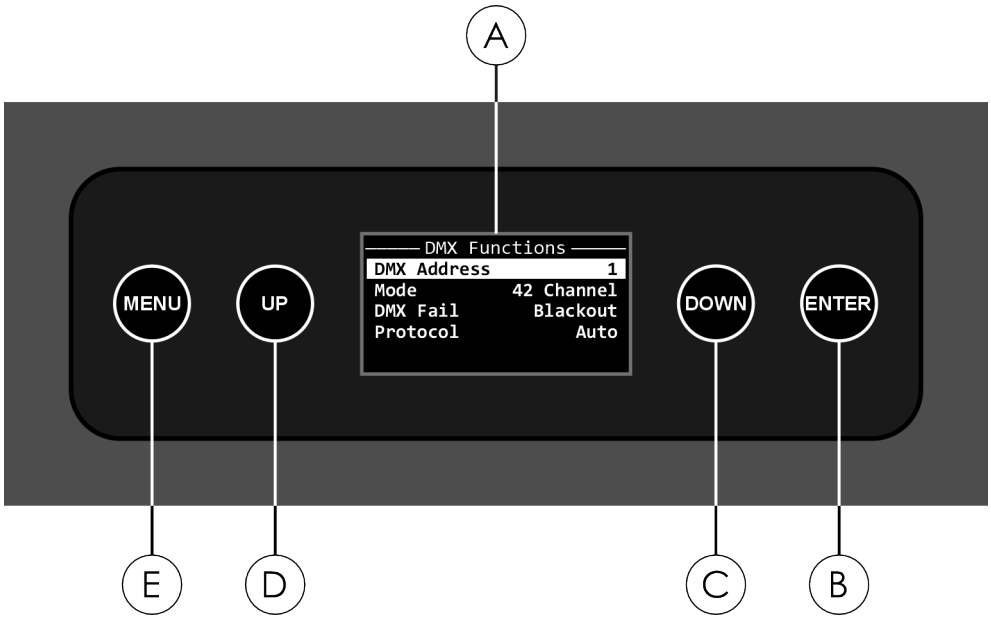
- Select manual mode (see 6.6.3.2. Manual Mode on page 35)

To operate the device with a DMX controller:

01) Select the DMX channel mode in the DMX Mode menu (see 6.6.1.2. DMX Mode on page 32). Refer to the DMX chart for a complete overview of all DMX channels.
02) Set the DMX starting address of the device in DMX Address menu (see 6.6.1.1. DMX Address on page 31).
03) Set the behavior of the device in case there is no DMX signal in the DMX Fail menu (see 6.6.1.4. DMX Fail on page 32).

6.3. Control Panel

Figure 22



A) OLED display
B) ENTER button
C) DOWN button
D) UP button
E) MENU button

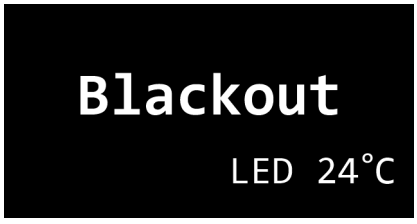
- Use the **DOWN button (C)** and the **UP button (D)** to navigate through the menus or decrease/increase numeric values.
- Use the **ENTER button (B)** to open the selected menu, confirm your choice or set the currently selected value.
- Use the **MENU button (E)** to exit the current submenu and return to the Main Menu.

6.4. Start-up

Upon start-up, the display shows a splash screen with the Showtec logo and the name of the device.



Immediately afterwards, the display shows the start screen. The start screen provides information about the current DMX mode, the DMX signal, the DMX address and the temperature of the LEDs.



Note:

If no button is pressed, after 40 seconds the backlight of the display turns off. You can change this setting in the Backlight submenu (see 6.6.4. Fixture Settings on page 36). If the DMX signal is lost, the display blinks.

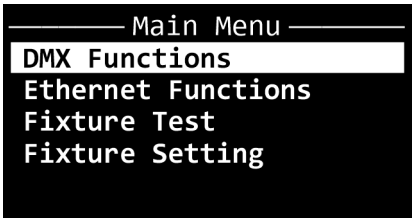
6.5. Menu Overview

Level 1	Level 2	Level 3	Level 4
DMX Functions (see 6.6.1. DMX Functions on page 31)	DMX Address	001–512	
	Mode	18 Channel	
		24 Channel	
		42 Channel	
		192 Channel	
		202 Channel	
	DMX Fail	Blackout	
		Hold	
	Protocol	Auto	
		DMX	
		ArtNet	
		sACN	
Ethernet Functions (see 6.6.2. Ethernet Functions on page 33)	IP Address	Default	
		Manual	
		Netmask	
	ArtNet Universe	0–32767	
	sACN Universe	1–32000	
	sACN Priority	0–200	
Fixture Test (see 6.6.3. Fixture Test on page 34)	Auto Test		
	Manual	1. Dimmer Dot	000–255
		2. Strobe Duration	000–255
		3. Strobe Speed	000–255
		4. Strobe Type	000–255
		5. Red Dot	000–255
		6. Green Dot	000–255
		7. Blue Dot	000–255
		8. White Dot	000–255
		9. Pattern Color	000–255
		10. Patterns Dot	000–255
		11. Pattern Rota	000–255
		12. Dimmer Pix	000–255
		13. Strobe Duration	000–255
		14. Strobe Speed	000–255
		15. Strobe Type	000–255
		16. Red Pix	000–255
		17. Green Pix	000–255
		18. Blue Pix	000–255
		19. White Pix	000–255
		20. Pattern Color	000–255
		21. Patterns Pix	000–255
		22. Pattern Rota	000–255
Fixture Settings (see 6.6.4. Fixture Settings on page 36)	Dimmer Curve	Linear	
		Square Law	
		Inverse Squ	
		S-Curve	
	Dimmer Speed	LED	
		Halogen	
	LED Refresh Rate	35KHz	
		17KHz	

Level 1	Level 2	Level 3	Level 4
		8KHz	
		4KHz	
		2KHz	
		1KHz	
	Fan mode	Auto	
		Silent	
		Full	
	Display Inverse	No	
		Yes	
	Backlight Auto Off	No	
		Yes	
	Display Contrast	0–10	
	Fixture Information	RDM UID:	29B4:119xxxxx
		Fixture Hour	
		Firmware Version	CPU-A V 1.0 B 1.0
			CPU-B V 1.0 B 1.0
		Temperature	CPU
			LED1
			LED2
	Factory Default	No	
		Yes	

6.6. Main Menu Options

The main menu has the following 4 options:



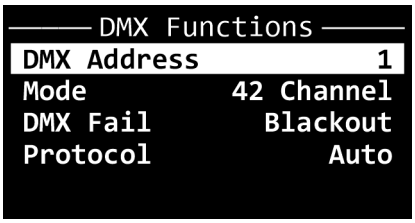
DMX Functions
Ethernet Functions
Fixture Test
Fixture Setting

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

6.6.1. DMX Functions

In this menu you can configure the DMX settings of the device.

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



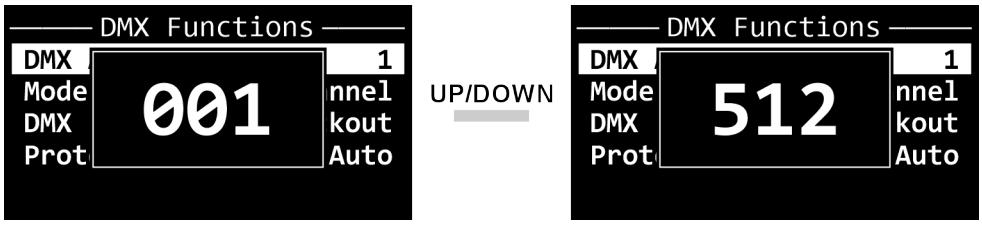
- DMX Address (see 6.6.1.1. DMX Address)
- DMX Mode (see 6.6.1.2. DMX Mode)
- DMX Fail (see 6.6.1.4. DMX Fail)

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

6.6.1.1. DMX Address

In this pop-up submenu, 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 selection range is 001-512.

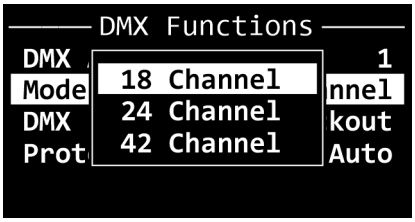


02) Press the **ENTER** button to confirm the selection.

6.6.1.2. DMX Mode

In this pop-up submenu, you can select the DMX channel mode.

01) Press the **UP/DOWN** buttons to the DMX channel mode. There are 5 options:



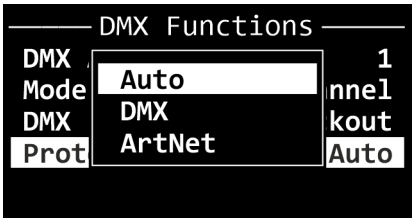
- 18 channels
- 24 channels
- 42 channels
- 192 channels
- 202 channels

02) Press the **ENTER** button to confirm the selection. For more information, refer to the DMX chart (see 6.7. DMX Channels on page 39).

6.6.1.3. Protocol

In this pop-up submenu, you can determine the mode of the device.

01) Press the **UP/DOWN** buttons to select one of the 3 options:



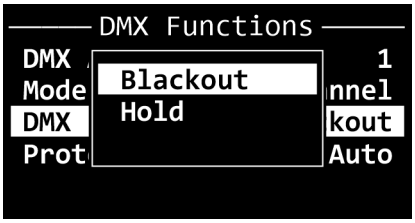
- Auto
- DMX
- ArtNet

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

6.6.1.4. DMX Fail

In this pop-up submenu, you can determine the behavior of the device in case there is no DMX signal.

01) Press the **UP/DOWN** buttons to select one of the 2 options:



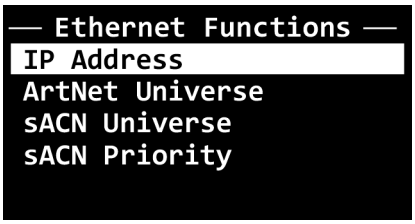
- Blackout: The device blacks out the light output
- Hold: The device uses the last DMX signal correctly received

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

6.6.2. Ethernet Functions

In this menu you can configure the ethernet settings of the device.

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



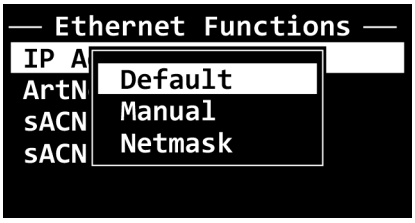
- IP Address (see 6.6.2.1. IP Address)
- ArtNet Universe (see 6.6.2.2. ArtNet Universe)
- sACN Universe (see 6.6.2.3. sACN Universe)
- sACN Priority (see 6.6.2.4. sACN Priority)

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

6.6.2.1. IP Address

In this pop-up submenu, you can set the IP address of the device.

01) Press the **UP/DOWN** buttons to select the IP address of the device. There are 3 options:



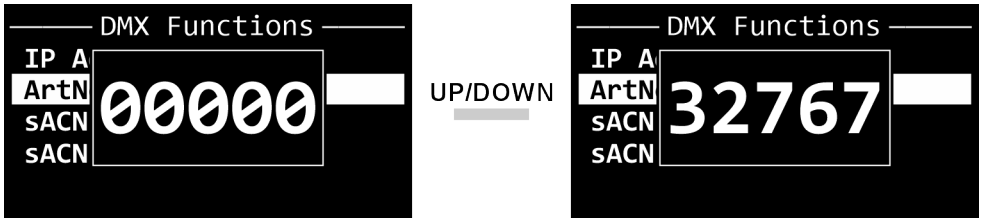
- Default
- Manual
- Netmask

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

6.6.2.2. ArtNet Universe

In this pop-up submenu, you can set the ArtNet universe of the device.

01) Press the **UP/DOWN** buttons to select the ArtNet universe of the device. The selection range is 0000-32767.

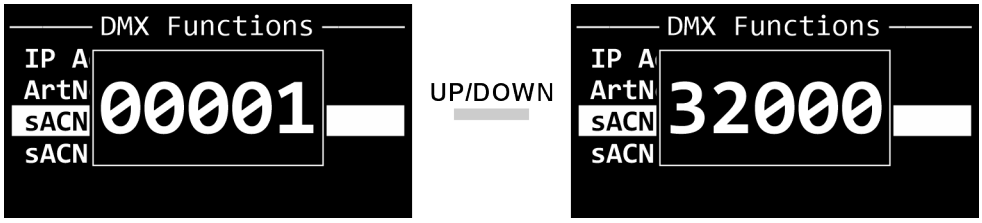


02) Press the **ENTER** button to confirm the selection.

6.6.2.3. sACN Universe

In this pop-up submenu, you can set the sACN universe of the device.

01) Press the **UP/DOWN** buttons to select the sACN universe of the device. The selection range is 0000-32000.

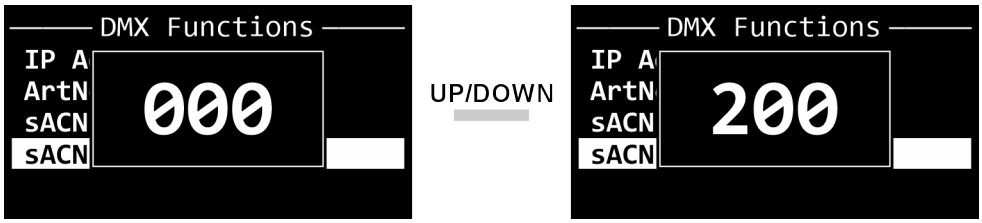


02) Press the **ENTER** button to confirm the selection.

6.6.2.4. sACN Priority

In this pop-up submenu, you can set the sACN priority of the device.

01) Press the **UP/DOWN** buttons to select the sACN priority of the device. The selection range is 000-200.

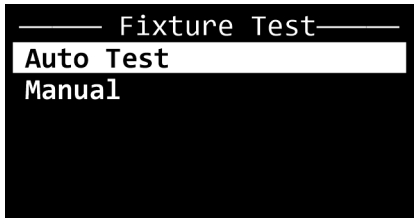


02) Press the **ENTER** button to confirm the selection.

6.6.3. Fixture Test

In this menu you can perform a test of the parameters of the device and manually adjust the color and the dimmer and strobe values.

01) Press the **UP/DOWN** buttons to select one of the following 2 options:



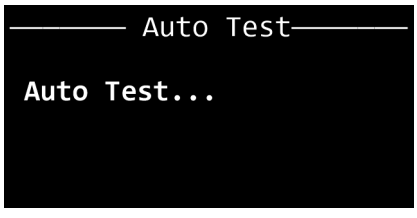
- Auto Test: The device performs an auto test of its parameters See Auto Test Mode (see 6.6.3.1. Auto Test) for more information
- Manual Defined: See Manual Mode (see 6.6.3.2. Manual Mode) for more information

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

6.6.3.1. Auto Test

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

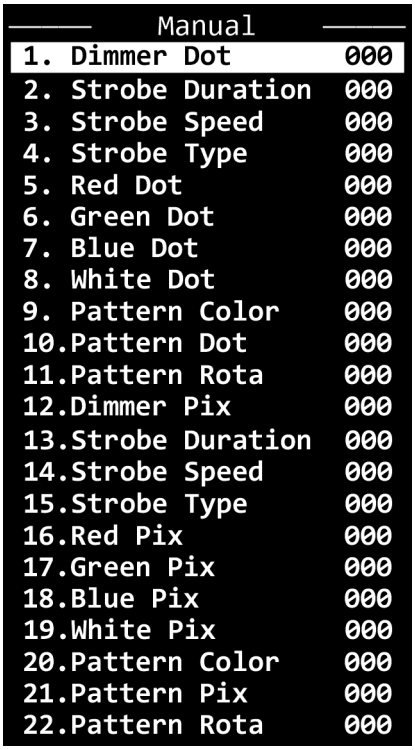
(If you have selected Auto Test in the previous menu and pressed the **ENTER** button) The device automatically runs an auto test of the functions of the device and the display shows:



6.6.3.2. Manual Mode

In this submenu, you can select colors and set their values.

01) Press the **UP/DOWN** buttons to select one of the 22 options:



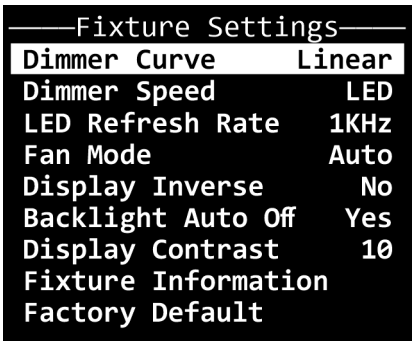
- Dimmer Dot: The adjustment range is 0–255, from low to high intensity
- Strobe Duration: The adjustment range is 0–255, from 7–500ms
- Strobe Speed: The adjustment range is 0–255, from slow to fast (0–25 Hz)
- Strobe Type: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Red Dot: The adjustment range is 0–255, from low to high intensity
- Green Dot: The adjustment range is 0–255, from low to high intensity
- Blue Dot: The adjustment range is 0–255, from low to high intensity
- White Dot: The adjustment range is 0–255, from low to high intensity
- Pattern Color: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Pattern Dot: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Pattern Rotation: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Dimmer Pix: The adjustment range is 0–255, from low to high intensity
- Strobe Duration: The adjustment range is 0–255, from 7–500ms
- Strobe Speed: The adjustment range is 0–255, from slow to fast (0–25 Hz)
- Strobe Type: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Red Pix: The adjustment range is 0–255, from low to high intensity
- Green Pix: The adjustment range is 0–255, from low to high intensity
- Blue Pix: The adjustment range is 0–255, from low to high intensity
- White Pix: The adjustment range is 0–255, from low to high intensity
- Pattern Color: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Pattern Pix: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)
- Pattern Rotation: The adjustment range is 0–255, refer to the DMX chart (see 6.7. DMX Channels on page 39)

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

6.6.4. Fixture Settings

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

01) Press the **UP/DOWN** buttons to select one of the 9 options:



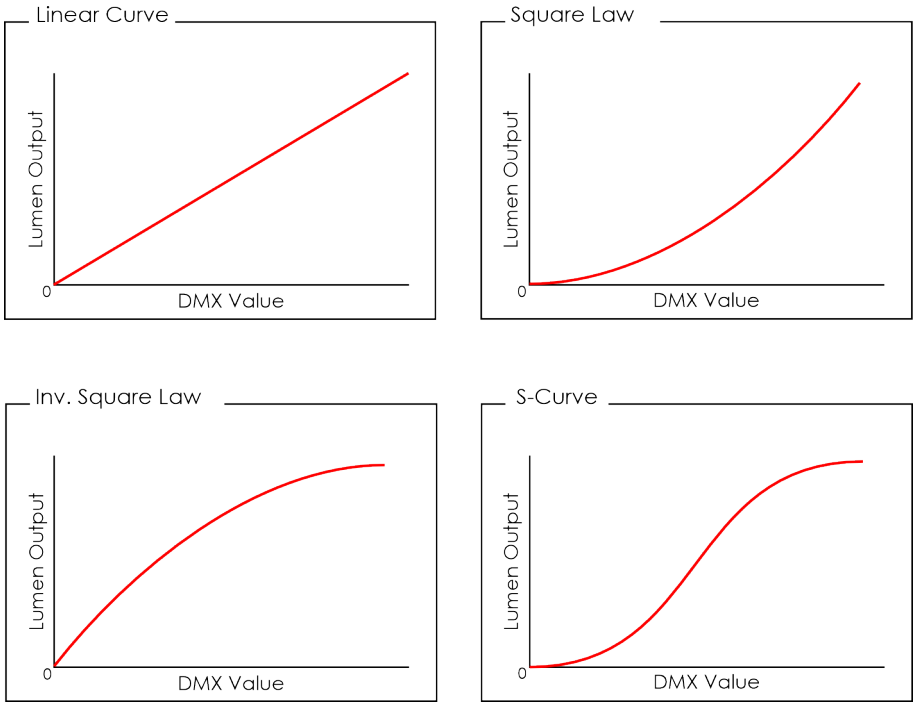
- Dimmer Curve: Select the dimmer curve. See Dimmer Curve (see 6.6.4.1. Dimmer Curve) for more information.
- Dimmer Speed: Select the dimmer speed. There are 2 options available: LED (instant dimming without delay) and Halogen (delayed dimming, imitating the behavior of a halogen lamp
- LED Refresh Rate: Select the PWM Frequency (Pulse Width Modulation): 1kHz, 2 kHz, 4 kHz, 8 kHz, 17 kHz, 35 kHz PWM of LED Refresh rate
- Fan Mode: Select the current speed of the fans. See Fan Mode (see 6.6.4.2. Fan Mode) for more information.
- Display Inverse: The OLED display is rotated at 180° (No/Yes)
- Backlight Auto Off: The backlight of the OLED display does not turn off automatically after 30 seconds of inactivity (No/Yes)
- Display Contrast: The adjustment range is 00-10 (from low to high contrast, 00=OFF)
- Fixture Information: Shows the UID, the LED operating hours, the firmware version and the temperature of the LEDs/CPU. See Fixture Information (see 6.6.4.3. Fixture Information) for more information.
- Factory Default: Reset the settings of the device to the default factory settings (No/Yes)

02) Press the **ENTER** button to open the submenu and view the parameters.

6.6.4.1. 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.

6.6.4.2. Fan Mode

In this submenu, you can select the fan mode.

01) Press the **UP/DOWN** buttons to choose one of the 3 options:
- Auto: Automatic fan
- Silent: Slow fan
- Full: Fast fan

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

6.6.4.3. Fixture Information

In this submenu you can view the UID, the LED operating hours, the firmware version and the temperature of the LEDs/CPU.

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

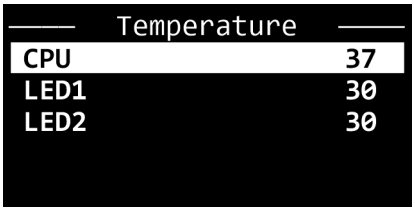


- RDM UID: Shows the unique identification (UID) number of the device
- Fixture Hour: Shows the operating hours of the LED
- Firmware Version: Shows the current firmware version
- Temperature: Shows the current temperature of the CPU and the LEDs

02) Press the **ENTER** button to open the submenu to view the firmware version:

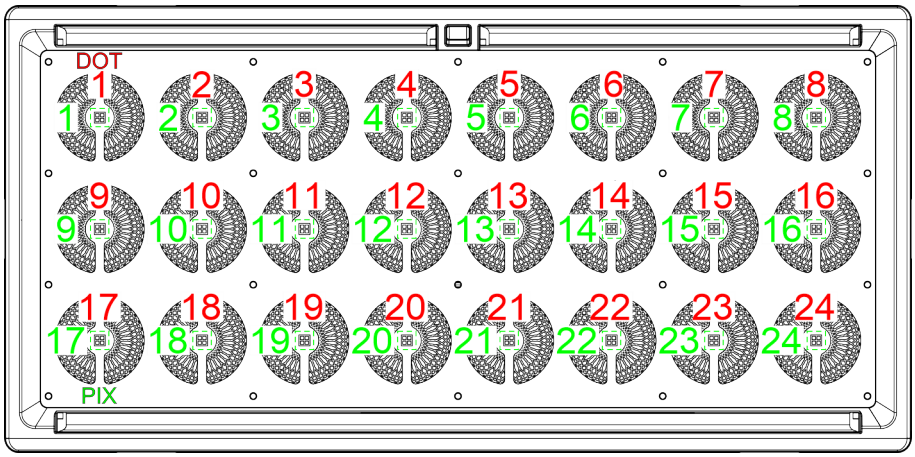


03) Press the **ENTER** button to open the submenu to view the current temperature of the CPU and the LEDs:



6.7. DMX Channels

6.7.1. 18 channels, 24 channels, 42 channels, 192 channels, 202 channels



18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
1	1	1		1	**Dimmer dots**	000–255	From low to high intensity (0–100 %)	0	255
2	2	2		2	**Dimmer fine dots**	000–255	16-bit adjustment	/	/
3	3	3		3	**Strobe duration dots**	000–255	7–500 ms	0	/
4	4	4		4	**Strobe dots**	000–255	No function	0	0
						000–255	From slow to high frequency		
5	5	5		5	**Strobe FX dots**	000–005	Linear strobe, from low to high frequency	0	/
						006–042	Ramp up		
						043–085	Ramp down		
						086–128	Ramp up to ramp down		
						129–150	Random strobe, from low to high frequency		
						151–171	Random sectional		
						172–214	Lighting		
						215–255	Spikes		
6	6	6	1	6	**Red dot 1**	000–255	From low to high intensity (0–100 %)	255	255
7	7	7	2	7	**Green dot 1**	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	3	8	**Blue dot 1**	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	4	9	**White dot 1**	000–255	From low to high intensity (0–100 %)	255	255
6	6	6	5	10	**Red dot 2**	000–255	From low to high intensity (0–100 %)	255	255
7	7	7	6	11	**Green dot 2**	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	7	12	**Blue dot 2**	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	8	13	**White dot 2**	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	9	14	**Red dot 3**	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	10	15	**Green dot 3**	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
8	8	12	11	16	**Blue dot 3**	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	12	17	**White dot 3**	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	13	18	**Red dot 4**	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	14	19	**Green dot 4**	000–255	From low to high intensity (0–100 %)	255	255
8	8	12	15	20	**Blue dot 4**	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	16	21	**White dot 4**	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	17	22	**Red dot 5**	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	18	23	**Green dot 5**	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	19	24	**Blue dot 5**	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	20	25	**White dot 5**	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	21	26	**Red dot 6**	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	22	27	**Green dot 6**	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	23	28	**Blue dot 6**	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	24	29	**White dot 6**	000–255	From low to high intensity (0–100 %)	255	255
6	6	18	25	30	**Red dot 7**	000–255	From low to high intensity (0–100 %)	255	255
7	7	19	26	31	**Green dot 7**	000–255	From low to high intensity (0–100 %)	255	255
8	8	20	27	32	**Blue dot 7**	000–255	From low to high intensity (0–100 %)	255	255
9	9	21	28	33	**White dot 7**	000–255	From low to high intensity (0–100 %)	255	255
6	6	18	29	34	**Red dot 8**	000–255	From low to high intensity (0–100 %)	255	255
7	7	19	30	35	**Green dot 8**	000–255	From low to high intensity (0–100 %)	255	255
8	8	20	31	36	**Blue dot 8**	000–255	From low to high intensity (0–100 %)	255	255
9	9	21	32	37	**White dot 8**	000–255	From low to high intensity (0–100 %)	255	255
6	6	6	33	38	**Red dot 9**	000–255	From low to high intensity (0–100 %)	255	255
7	7	7	34	39	**Green dot 9**	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	35	40	**Blue dot 9**	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	36	41	**White dot 9**	000–255	From low to high intensity (0–100 %)	255	255
6	6	6	37	42	**Red dot 10**	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
7	7	7	38	43	Green dot 10	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	39	44	Blue dot 10	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	40	45	White dot 10	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	41	46	Red dot 11	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	42	47	Green dot 11	000–255	From low to high intensity (0–100 %)	255	255
8	8	12	43	48	Blue dot 11	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	44	49	White dot 11	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	45	50	Red dot 12	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	46	51	Green dot 12	000–255	From low to high intensity (0–100 %)	255	255
8	8	12	47	52	Blue dot 12	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	48	53	White dot 12	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	49	54	Red dot 13	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	50	55	Green dot 13	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	51	56	Blue dot 13	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	52	57	White dot 13	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	53	58	Red dot 14	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	54	59	Green dot 14	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	55	60	Blue dot 14	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	56	61	White dot 14	000–255	From low to high intensity (0–100 %)	255	255
6	6	18	57	62	Red dot 15	000–255	From low to high intensity (0–100 %)	255	255
7	7	19	58	63	Green dot 15	000–255	From low to high intensity (0–100 %)	255	255
8	8	20	59	64	Blue dot 15	000–255	From low to high intensity (0–100 %)	255	255
9	9	21	60	65	White dot 15	000–255	From low to high intensity (0–100 %)	255	255
6	6	18	61	66	Red dot 16	000–255	From low to high intensity (0–100 %)	255	255
7	7	19	62	67	Green dot 16	000–255	From low to high intensity (0–100 %)	255	255
8	8	20	63	68	Blue dot 16	000–255	From low to high intensity (0–100 %)	255	255
9	9	21	64	69	White dot 16	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
6	6	6	65	70	Red dot 17	000–255	From low to high intensity (0–100 %)	255	255
7	7	7	66	71	Green dot 17	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	67	72	Blue dot 17	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	68	73	White dot 17	000–255	From low to high intensity (0–100 %)	255	255
6	6	6	69	74	Red dot 18	000–255	From low to high intensity (0–100 %)	255	255
7	7	7	70	75	Green dot 18	000–255	From low to high intensity (0–100 %)	255	255
8	8	8	71	76	Blue dot 18	000–255	From low to high intensity (0–100 %)	255	255
9	9	9	72	77	White dot 18	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	73	78	Red dot 19	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	74	79	Green dot 19	000–255	From low to high intensity (0–100 %)	255	255
8	8	12	75	80	Blue dot 19	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	76	81	White dot 19	000–255	From low to high intensity (0–100 %)	255	255
6	6	10	77	82	Red dot 20	000–255	From low to high intensity (0–100 %)	255	255
7	7	11	78	83	Green dot 20	000–255	From low to high intensity (0–100 %)	255	255
8	8	12	79	84	Blue dot 20	000–255	From low to high intensity (0–100 %)	255	255
9	9	13	80	85	White dot 20	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	81	86	Red dot 21	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	82	87	Green dot 21	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	83	88	Blue dot 21	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	84	89	White dot 21	000–255	From low to high intensity (0–100 %)	255	255
6	6	14	85	90	Red dot 22	000–255	From low to high intensity (0–100 %)	255	255
7	7	15	86	91	Green dot 22	000–255	From low to high intensity (0–100 %)	255	255
8	8	16	87	92	Blue dot 22	000–255	From low to high intensity (0–100 %)	255	255
9	9	17	88	93	White dot 22	000–255	From low to high intensity (0–100 %)	255	255
6	6	18	89	94	Red dot 23	000–255	From low to high intensity (0–100 %)	255	255
7	7	19	90	95	Green dot 23	000–255	From low to high intensity (0–100 %)	255	255
8	8	20	91	96	Blue dot 23	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
9	**9**	**21**	**92**	**97**	**White dot 23**	000–255	From low to high intensity (0–100 %)	255	255
6	**6**	**18**	**93**	**98**	**Red dot 24**	000–255	From low to high intensity (0–100 %)	255	255
7	**7**	**19**	**94**	**99**	**Green dot 24**	000–255	From low to high intensity (0–100 %)	255	255
8	**8**	**20**	**95**	**100**	**Blue dot 24**	000–255	From low to high intensity (0–100 %)	255	255
9	**9**	**21**	**96**	**101**	**White dot 24**	000–255	From low to high intensity (0–100 %)	255	255
	10				**Backlight pattern color dot**	000–004	No function	0	0
						005–017	White (R000, G000, B000, W255)		
						018–030	Red (R255, G000, B000, W000)		
						031–043	Green (R000, G255, B000, W000)		
						044–056	Blue (R000, G000, B255, W000)		
						057–069	Yellow (R255, G149, B000, W000)		
						070–082	Magenta (R209, G000, B255, W000		
						083–095	Cyan (R000, G255, B162, W000)		
						096–108	Pink (R248, G000, B070, W007)		
						109–121	Light Pink (R197, G000, B049, W058)		
						122–134	Light Blue (R000, G000, B209, W046)		
						135–147	Turquoise (R000, G255, B038, W000)		
						148–160	Light Green (R043, G234, B000, W021)		
						161–173	Dark Yellow (R255, G030, B000, W000)		
						174–186	Light Orange (R255, G021, B000, W000)		
						187–199	Light Red (R233, G000, B000, W021)		
						200–212	CTO (R219, G069, B000, W036)		
						213–225	CTB (R000, G047, B167, W088)		
						226–255	Black (R000, G000, B000, W000)		
	11				**Backlight pattern dot**	000–015	No function	0	0
						016–021	Pattern 1		
						022–027	Pattern 2		
						028–033	Pattern 3		
						034–039	Pattern 4		
						040–045	Pattern 5		
						046–051	Pattern 6		
						052–057	Pattern 7		
						058–063	Pattern 8		
						064–069	Pattern 9		
						070–076	Pattern 10		
						076–081	Pattern 11		

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
						082–087	Pattern 12		
						088–093	Pattern 13		
						094–099	Pattern 14		
						100–105	Pattern 15		
						106–111	Pattern 16		
						112–117	Pattern 17		
						118–123	Pattern 18		
						124–129	Pattern 19		
						130–135	Pattern 20		
						136–141	Pattern 21		
						142–147	Pattern 22		
						148–153	Pattern 23		
						154–059	Pattern 24		
						160–165	Pattern 25		
						166–171	Pattern 26		
						172–177	Pattern 27		
						178–183	Pattern 28		
						184–189	Pattern 29		
						190–195	Pattern 30		
						196–201	Pattern 31		
						202–207	Pattern 32		
						208–213	Pattern 33		
						214–219	Pattern 34		
						220–225	Pattern 35		
						226–231	Pattern 36		
						232–237	Pattern 37		
						238–243	Pattern 38		
						244–249	Pattern 39		
						250–255	Pattern 40		
	12				**Pattern rotation dot**	000–049	Gobo indexing	128	/
						050–125	CW rotation, from fast to slow		
						126–129	Stop		
						130–205	CCW rotation, from slow to fast		
						206–255	Bounce, from slow to fast		
10	**13**	**22**		**102**	**Dimmer pix**	000–255	From low to high intensity (0–100 %)	0	255
11	**14**	**23**		**103**	**Strobe duration pix**	000–255	7–500 ms	0	/
12	**15**	**24**		**104**	**Strobe pix**	000–004	No function	0	0
						005–255	From slow to high frequency		
13	**16**	**25**		**105**	**Strobe FX pix**	000–005	Linear strobe, from low to high frequency	0	/
						006–042	Ramp up		
						043–085	Ramp down		
						086–128	Ramp up to ramp down		
						129–150	Random strobe, from low to high frequency		
						151–171	Random sectional		
						172–214	Lighting		
						215–255	Spikes		

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
14	17	26	97	106	Red pix 1	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	98	107	Green pix 1	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	99	108	Blue pix 1	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	100	109	White pix 1	000–255	From low to high intensity (0–100 %)	255	255
14	17	26	101	110	Red pix 2	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	102	111	Green pix 2	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	103	112	Blue pix 2	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	104	113	White pix 2	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	105	114	Red pix 3	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	106	115	Green pix 3	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	107	116	Blue pix 3	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	108	117	White pix 3	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	109	118	Red pix 4	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	110	119	Green pix 4	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	111	120	Blue pix 4	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	112	121	White pix 4	000–255	From low to high intensity (0–100 %)	255	255
14	17	34	113	122	Red pix 5	000–255	From low to high intensity (0–100 %)	255	255
15	18	35	114	123	Green pix 5	000–255	From low to high intensity (0–100 %)	255	255
16	19	36	115	124	Blue pix 5	000–255	From low to high intensity (0–100 %)	255	255
17	20	37	116	125	White pix 5	000–255	From low to high intensity (0–100 %)	255	255
14	17	34	117	126	Red pix 6	000–255	From low to high intensity (0–100 %)	255	255
15	18	35	118	127	Green pix 6	000–255	From low to high intensity (0–100 %)	255	255
16	19	36	119	128	Blue pix 6	000–255	From low to high intensity (0–100 %)	255	255
17	20	37	120	129	White pix 6	000–255	From low to high intensity (0–100 %)	255	255
14	17	38	121	130	Red pix 7	000–255	From low to high intensity (0–100 %)	255	255
15	18	39	122	131	Green pix 7	000–255	From low to high intensity (0–100 %)	255	255
16	19	40	123	132	Blue pix 7	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
17	20	41	124	133	White pix 7	000–255	From low to high intensity (0–100 %)	255	255
14	17	38	125	134	Red pix 8	000–255	From low to high intensity (0–100 %)	255	255
15	18	39	126	135	Green pix 8	000–255	From low to high intensity (0–100 %)	255	255
16	19	40	127	136	Blue pix 8	000–255	From low to high intensity (0–100 %)	255	255
17	20	41	128	137	White pix 8	000–255	From low to high intensity (0–100 %)	255	255
14	17	26	129	138	Red pix 9	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	130	139	Green pix 9	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	131	140	Blue pix 9	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	132	141	White pix 9	000–255	From low to high intensity (0–100 %)	255	255
14	17	26	133	142	Red pix 10	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	134	143	Green pix 10	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	135	144	Blue pix 10	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	136	145	White pix 10	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	137	146	Red pix 11	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	138	147	Green pix 11	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	139	148	Blue pix 11	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	140	149	White pix 11	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	141	150	Red pix 12	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	142	151	Green pix 12	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	143	152	Blue pix 12	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	144	153	White pix 12	000–255	From low to high intensity (0–100 %)	255	255
14	17	34	145	154	Red pix 13	000–255	From low to high intensity (0–100 %)	255	255
15	18	35	146	155	Green pix 13	000–255	From low to high intensity (0–100 %)	255	255
16	19	36	147	156	Blue pix 13	000–255	From low to high intensity (0–100 %)	255	255
17	20	37	148	157	White pix 13	000–255	From low to high intensity (0–100 %)	255	255
14	17	34	149	158	Red pix 14	000–255	From low to high intensity (0–100 %)	255	255
15	18	35	150	159	Green pix 14	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
16	19	36	151	160	Blue pix 14	000–255	From low to high intensity (0–100 %)	255	255
17	20	37	152	161	White pix 14	000–255	From low to high intensity (0–100 %)	255	255
14	17	38	153	162	Red pix 15	000–255	From low to high intensity (0–100 %)	255	255
15	18	39	154	163	Green pix 15	000–255	From low to high intensity (0–100 %)	255	255
16	19	40	155	164	Blue pix 15	000–255	From low to high intensity (0–100 %)	255	255
17	20	41	156	165	White pix 15	000–255	From low to high intensity (0–100 %)	255	255
14	17	38	157	166	Red pix 16	000–255	From low to high intensity (0–100 %)	255	255
15	18	39	158	167	Green pix 16	000–255	From low to high intensity (0–100 %)	255	255
16	19	40	159	168	Blue pix 16	000–255	From low to high intensity (0–100 %)	255	255
17	20	41	160	169	White pix 16	000–255	From low to high intensity (0–100 %)	255	255
14	17	26	161	170	Red pix 17	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	162	171	Green pix 17	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	163	172	Blue pix 17	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	164	173	White pix 17	000–255	From low to high intensity (0–100 %)	255	255
14	17	26	165	174	Red pix 18	000–255	From low to high intensity (0–100 %)	255	255
15	18	27	166	175	Green pix 18	000–255	From low to high intensity (0–100 %)	255	255
16	19	28	167	176	Blue pix 18	000–255	From low to high intensity (0–100 %)	255	255
17	20	29	168	177	White pix 18	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	169	178	Red pix 19	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	170	179	Green pix 19	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	171	180	Blue pix 19	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	172	181	White pix 19	000–255	From low to high intensity (0–100 %)	255	255
14	17	30	173	182	Red pix 20	000–255	From low to high intensity (0–100 %)	255	255
15	18	31	174	183	Green pix 20	000–255	From low to high intensity (0–100 %)	255	255
16	19	32	175	184	Blue pix 20	000–255	From low to high intensity (0–100 %)	255	255
17	20	33	176	185	White pix 20	000–255	From low to high intensity (0–100 %)	255	255
14	17	34	177	186	Red pix 21	000–255	From low to high intensity (0–100 %)	255	255

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
15	**18**	**35**	**178**	**187**	**Green pix 21**	000–255	From low to high intensity (0–100 %)	255	255
16	**19**	**36**	**179**	**188**	**Blue pix 21**	000–255	From low to high intensity (0–100 %)	255	255
17	**20**	**37**	**180**	**189**	**White pix 21**	000–255	From low to high intensity (0–100 %)	255	255
14	**17**	**34**	**181**	**190**	**Red pix 22**	000–255	From low to high intensity (0–100 %)	255	255
15	**18**	**35**	**182**	**191**	**Green pix 22**	000–255	From low to high intensity (0–100 %)	255	255
16	**19**	**36**	**183**	**192**	**Blue pix 22**	000–255	From low to high intensity (0–100 %)	255	255
17	**20**	**37**	**184**	**193**	**White pix 22**	000–255	From low to high intensity (0–100 %)	255	255
14	**17**	**38**	**185**	**194**	**Red pix 23**	000–255	From low to high intensity (0–100 %)	255	255
15	**18**	**39**	**186**	**195**	**Green pix 23**	000–255	From low to high intensity (0–100 %)	255	255
16	**19**	**40**	**187**	**196**	**Blue pix 23**	000–255	From low to high intensity (0–100 %)	255	255
17	**20**	**41**	**188**	**197**	**White pix 23**	000–255	From low to high intensity (0–100 %)	255	255
14	**17**	**38**	**189**	**198**	**Red pix 24**	000–255	From low to high intensity (0–100 %)	255	255
15	**18**	**39**	**190**	**199**	**Green pix 24**	000–255	From low to high intensity (0–100 %)	255	255
16	**19**	**40**	**191**	**200**	**Blue pix 24**	000–255	From low to high intensity (0–100 %)	255	255
17	**20**	**41**	**192**	**201**	**White pix 24**	000–255	From low to high intensity (0–100 %)	255	255
	21				**Backlight pattern color pix**	000–004	No function	0	0
						005–017	White (R000, G000, B000, W255)		
						018–030	Red (R255, G000, B000, W000)		
						031–043	Green (R000, G255, B000, W000)		
						044–056	Blue (R000, G000, B255, W000)		
						057–069	Yellow (R255, G149, B000, W000)		
						070–082	Magenta (R209, G000, B255, W000		
						083–095	Cyan (R000, G255, B162, W000)		
						096–108	Pink (R248, G000, B070, W007)		
						109–121	Light Pink (R197, G000, B049, W058)		
						122–134	Light Blue (R000, G000, B209, W046)		
						135–147	Turquoise (R000, G255, B038, W000)		
						148–160	Light Green (R043, G234, B000, W021)		
						161–173	Dark Yellow (R255, G030, B000, W000)		

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
						174–186	Light Orange (R255, G021, B000, W000)		
						187–199	Light Red (R233, G000, B000, W021)		
						200–212	CTO (R219, G069, B000, W036)		
						213–225	CTB (R000, G047, B167, W088)		
						226–255	Black (R000, G000, B000, W000)		
	22				**Backlight pattern pix**	000–015	No function	0	0
						016–021	Pattern 1		
						022–027	Pattern 2		
						028–033	Pattern 3		
						034–039	Pattern 4		
						040–045	Pattern 5		
						046–051	Pattern 6		
						052–057	Pattern 7		
						058–063	Pattern 8		
						064–069	Pattern 9		
						070–076	Pattern 10		
						076–081	Pattern 11		
						082–087	Pattern 12		
						088–093	Pattern 13		
						094–099	Pattern 14		
						100–105	Pattern 15		
						106–111	Pattern 16		
						112–117	Pattern 17		
						118–123	Pattern 18		
						124–129	Pattern 19		
						130–135	Pattern 20		
						136–141	Pattern 21		
						142–147	Pattern 22		
						148–153	Pattern 23		
						154–059	Pattern 24		
						160–165	Pattern 25		
						166–171	Pattern 26		
						172–177	Pattern 27		
						178–183	Pattern 28		
						184–189	Pattern 29		
						190–195	Pattern 30		
						196–201	Pattern 31		
						202–207	Pattern 32		
						208–213	Pattern 33		
						214–219	Pattern 34		
						220–225	Pattern 35		
						226–231	Pattern 36		
						232–237	Pattern 37		
						238–243	Pattern 38		
						244–249	Pattern 39		
						250–255	Pattern 40		
	23				**Pattern rotation pix**	000–049	Gobo indexing	128	/
						050–125	CW rotation, from fast to slow		
						126–129	Stop		

18CH	24CH	42CH	192CH	202CH	Function	Value	Setting	Default	Highlight
						130–205	CCW rotation, from slow to fast		
						206–255	Bounce, from slow to fast		
18	**24**	**42**		**202**	**Control**	000–017	No function	0	/
						018–034	Dimmer curve Linear		
						035–051	Dimmer curve Square Law		
						052–068	Dimmer curve Inverted Square		
						069–085	Dimmer curve S-Curve		
						086–102	No function		
						103–119	PWM 1 KHz		
						120–136	PWM 2 KHz		
						137–153	PWM 4 KHz		
						154–170	PWM 8 KHz		
						171–187	PWM 17 KHz		
						188–204	PWM 35 KHz		
						205–221	No function		
						222–238	Dimmer speed LED		
						239–255	Dimmer speed Halogen		

6.8. RDM Information

This device supports RDM (see 6.8.1. RDM Details).

6.8.1. RDM Details

- Responder: 29B4:119xxxxx
- Manufacturer's ID: 29B4
- Manufacturer Label: Infinity
- Model Description: Titan Matrix FX
- Model ID: 119
- Device Label: Titan Matrix FX

Note:

An RDM responder ID consists of 3 parts:

- 1st part – 4 digits – Manufacturer's ID
- 2nd part – 3 digits – Model ID
- 3rd 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.

6.8.2. Supported RDM PIDs (Parameter IDs)

Parameter ID	Value	Required	GET	SET
SUPPORTED_PARAMETERS	0x0050	*	*	
DEVICE_MODEL_DESCRIPTION	0x0080		*	
MANUFACTURER_LABEL	0x0081		*	
DEVICE_LABEL	0x0082		*	*
DMX_PERSONALITY	0x00E0		*	*
DMX_PERSONALITY_DESCRIPTION	0x00E1		*	
DMX_START_ADDRESS	0x00F0	*	*	*
SENSOR_DEFINITION	0x0200		*	
SENSOR_VALUE	0x0201		*	*
RECORD_SENSORS	0x0202			*
DEVICE_HOURS	0x0400		*	*

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	• Make sure that the device is connected to the power supply and the cables are plugged in
	The internal fuse is blown	• Disconnect the device and contact your Highlite International dealer
The device responds erratically	The factory settings of the device are changed	• Reset the parameters of the device to the default factory settings (see 6.6.4. Fixture Settings on page 36)
The device does not respond to DMX control	The controller is not connected	• Connect the controller
	The signal is reversed. The 5-pin DMX OUT of the controller does not match the DMX IN of the device	• Install a phase-reversing cable between the controller and the device
	The controller is defective	• Try using another controller
The device responds erratically to DMX control	Connections are defective	• Examine connections and cables. Correct defective connections. Repair or replace damaged cables
	The data link is not terminated with a 120 Ω termination plug	• Insert a termination plug in the DMX OUT connector of the last device on the link
	Incorrect addressing	• Make sure that the address settings are correct
	In case of a setup with multiple devices, one of the devices is defective and disturbs data transmission on the link	• To find the defective device, bypass one device at a time until normal operation is restored
No light or LEDs cut out intermittently	LEDs are damaged	• Disconnect the device and contact your Highlite International dealer
	The input power parameters of the device do not match local AC voltage and frequency	• 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

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 connectors with a damp cloth.



Attention

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.
- Make sure that the connectors are fully dry before using them.

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.

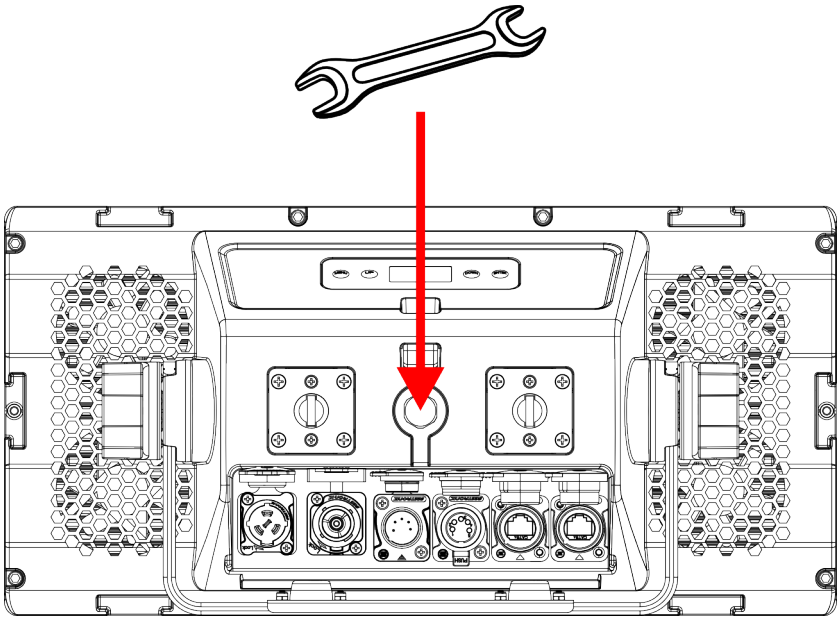
8.3.1. Draining Condensation Water

The Titan Matrix FX 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 (08)** 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 (08)**. Make sure that you do not overtighten.

Figure 23



9. Deinstallation, Transportation and Storage

9.1. Instructions for Deinstallation

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

- Let the device cool down before dismounting.
- 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 53).
- Store the device in the original packaging, if possible.

10. Disposal



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

CE

Check the respective product page on the website of Highlite International (www.highlite.com) for an available declaration of conformity.