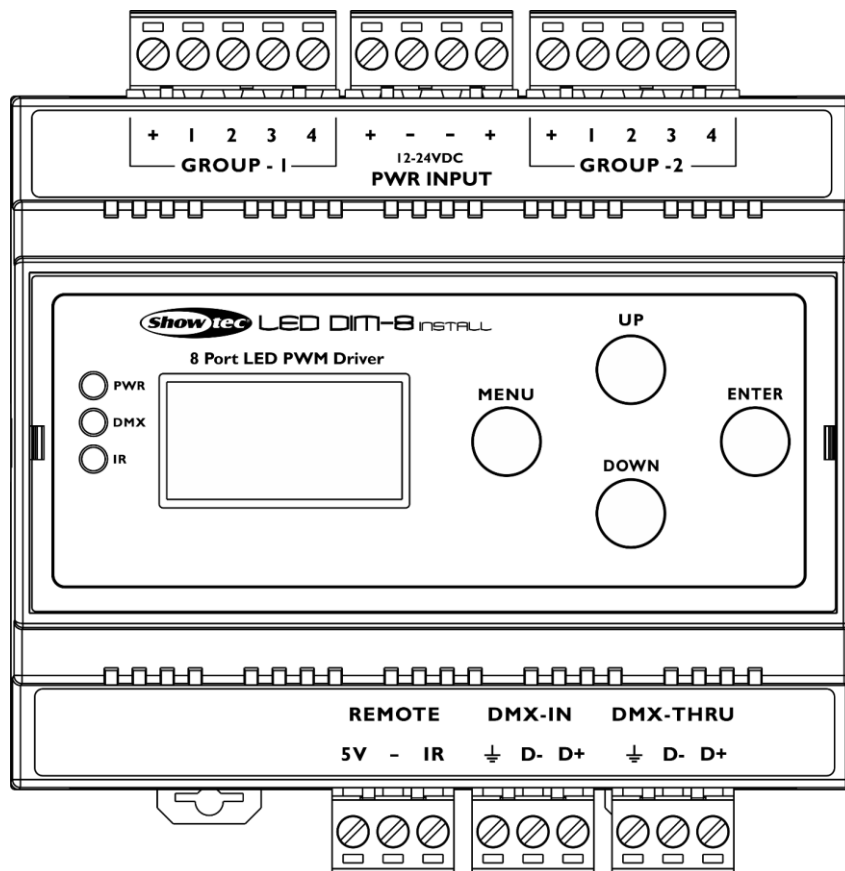




USER MANUAL



ENGLISH

LED Dim-8 Install

V1

Product code: 50413

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.

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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:

- Showtec LED Dim-8 Install
- User manual

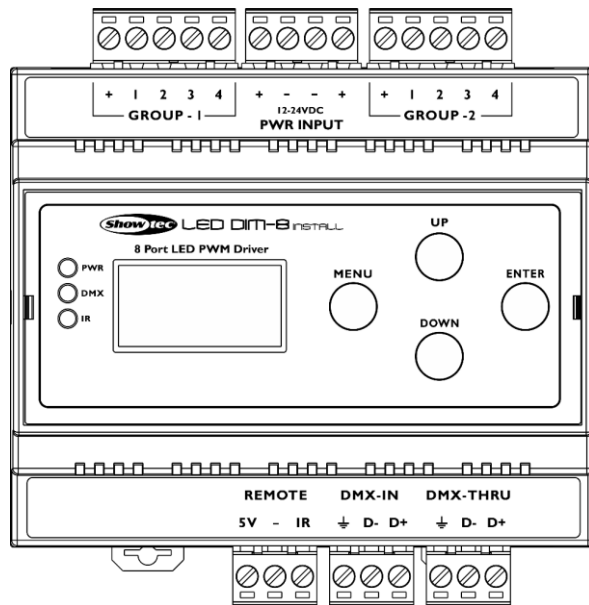


Fig. 01

1.2. Intended Use

This device is designed to be used as a fixed-installation PWM dimmer. It is suitable for indoor installation in an electrical enclosure.

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

1.3. 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 chapters and parts of the device are in bold lettering, for example: "Refer to **2. Safety**", "press the **power switch (03)**"
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.4. 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 an imminently 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.



Provides important information about the disposal of this product.



1.5. Symbols on the Information Label

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

The information label contains the following symbols:



This device is designed for indoor use.



This device is IEC protection class III.



This device shall not be treated as household waste.



Read and observe the instructions in this document.

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



Attention

Power supply

This device falls under IEC protection class III. This device shall be connected to an external power supply.

- Before connecting the device to the external 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 power cable is sufficient for the required power consumption of the device.



Attention

General safety

- Do not block the ventilation openings. Without proper heat dissipation and air circulation, the internal components may overheat. This can result in product damage.
- Do not shake the device. Avoid brute force when installing or operating the device.



Attention

For professional use only

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

This device is designed to be used as a fixed-installation PWM dimmer. It is suitable for indoor installation in an electrical enclosure. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not suitable for households.
- 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 IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance, 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 service 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 to avoid hazards associated with the service 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.

3. Description of the Device

The LED Dim-8 Install is a compact fixed-installation PWM dimmer. You can connect devices using the Phoenix terminal connectors. The LED Dim-8 Install is user friendly and is suitable for various LED strips. It can control 12–24 V constant voltage LED strips with DMX or it can be used as a stand-alone controller for single scenes and chases. The device is ideal for network system integration projects.

3.1. Front View

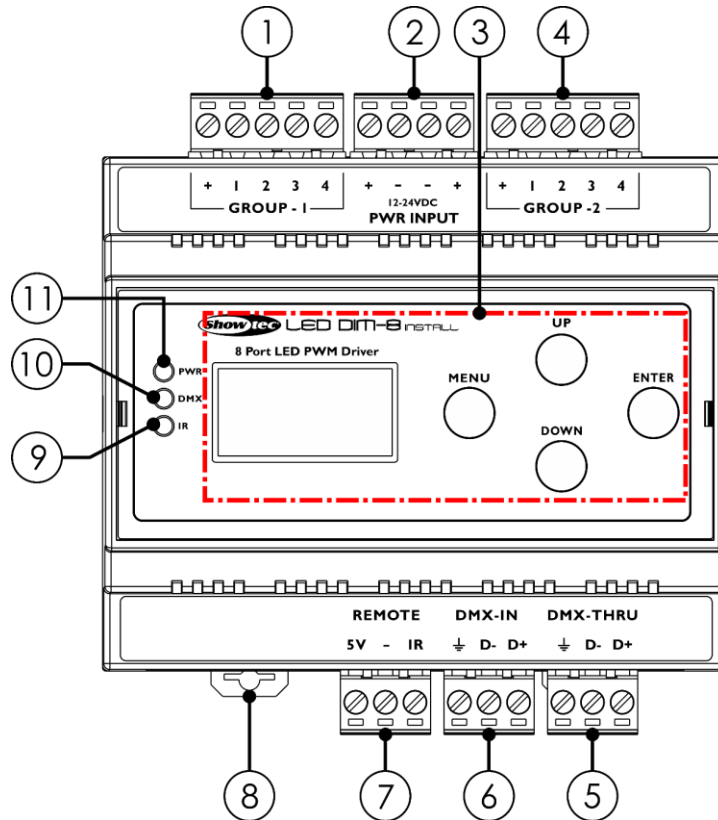


Fig. 02

- 01) 5-pin Phoenix terminal LED strip connector OUT (group 1)
- 02) 12–24 V DC 4-pin Phoenix terminal power connector IN/THROUGH
- 03) OLED display + control buttons
- 04) 5-pin Phoenix terminal LED strip connector OUT (group 2)
- 05) 3-pin Phoenix terminal connector DMX THRU
- 06) 3-pin Phoenix terminal connector DMX IN
- 07) 3-pin Phoenix terminal connector IR sensor IN (5 V)
- 08) DIN rail lock
- 09) IR LED indicator
- 10) DMX LED indicator
- 11) Power LED indicator

3.2. Product Specifications

Model:	LED Dim-8 Install
Electrical:	
Power supply (external):	12–24 V DC
Power consumption:	5 W
Output limit:	25 A max (total)
Physical:	
Dimensions:	105 x 108 x 58 mm (LxWxH)
Weight:	0,18 kg
Operation and control:	
Control protocols:	DMX-512
Control panel:	OLED display and buttons
Control modes:	DMX-512, IR remote control, Manual
Connections:	
Power connections:	<ul style="list-style-type: none"> 12–24 V DC 4-pin Phoenix terminal power connector IN (maximum cable gauge: 1,5 mm² / AWG: 12)
Input connections:	<ul style="list-style-type: none"> 3-pin Phoenix terminal DMX connector IN (maximum cable gauge: 1,5 mm² / AWG: 12) 3-pin Phoenix terminal IR sensor IN (maximum cable gauge: 1,5 mm² / AWG: 12)
Output connections:	<ul style="list-style-type: none"> 2 x 5-pin Phoenix terminal LED strip connector OUT (maximum cable gauge: 1,5 mm² / AWG: 12) 3-pin Phoenix terminal DMX connector THRU (maximum cable gauge: 1,5 mm² / AWG: 12)
Construction:	
Housing:	UL94-V0 flame retardant polycarbonate
Color:	Gray
Mounting:	35-mm DIN rail system (DIN EN43880 form factor; DIN EN60715 rail system)
Mounting size:	6 TE
IP rating:	IP20
Thermal:	
Maximum ambient temperature t_a :	40 °C

3.3. Dimensions

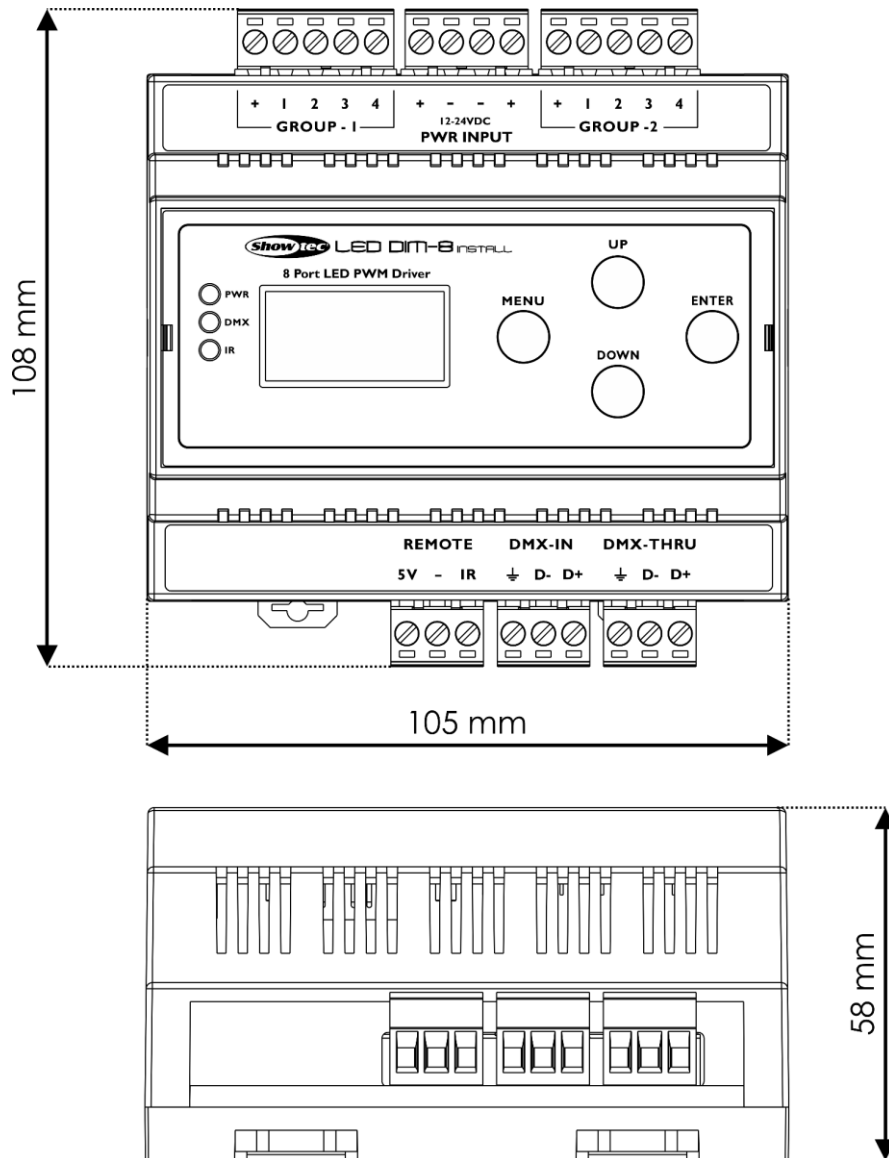


Fig. 03

4. Installation

4.1. Safety Instructions for Installation



WARNING

Incorrect installation can cause serious injuries and damage of property.

The installation of this device shall be carried out only by instructed or skilled persons.

Before installing the device, make sure that the electrical enclosure, where the device will be mounted, is disconnected from power supply.

4.2. Installation Site Requirements

- The device must be installed only indoors.
- The device can be mounted on a 35-mm DIN rail.
- The maximum ambient temperature $t_a = 40\text{ °C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 50 °C.

4.3. DIN Rail Mounting

The device can be mounted on a 35-mm DIN rail.

Make sure that the DIN rail is sufficiently secured to prevent it from becoming unstable or falling off.

To mount the device on a 35-mm DIN rail, follow the steps below:

- 01) Position the device on the DIN rail.
- 02) Push the **DIN rail locks (08)** to mount the device firmly on the DIN rail (see Fig. 04).

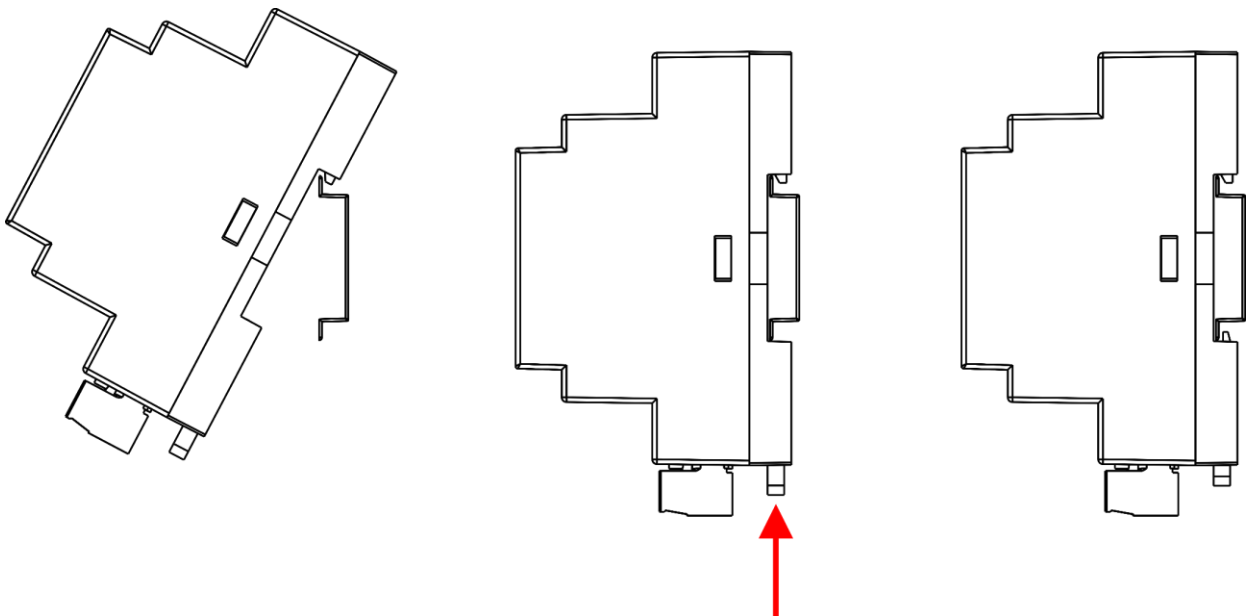


Fig. 04

4.4. Connecting to Power Supply



Attention Power supply

This device falls under IEC protection class III. This device shall be connected to an external power supply.

- Before connecting the device to the external 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 power cable is sufficient for the required power consumption of the device.

01) Remove the **4-pin Phoenix terminal power connector IN/THROUGH (02)**.

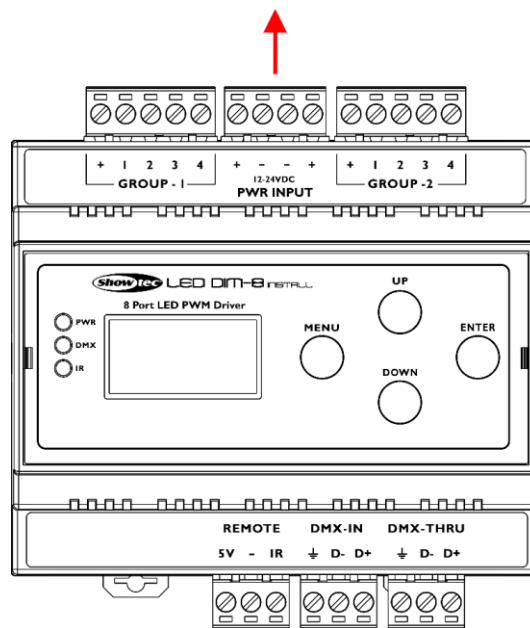


Fig. 05

02) Connect the external power supply to the Phoenix connector. Insert the cables correctly.

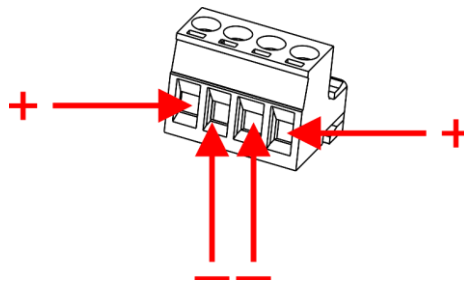


Fig. 06

03) Put the Phoenix connector back in the LED Dim-8 Install.

04) Install the LED Dim-8 Install on a DIN rail. See **4.3. DIN Rail Mounting** on page 11 for more information.

05) Connect the external power supply to the socket-outlet with its power plug.

Note:

In normal operating conditions, with total DC current below 10 A, connect only 2 cables (1 x "+" and 1 x "-"). Use all 4 slots (2 x "+" and 2 x "-") when total DC current exceeds 10 A creating a risk of power loss over distance and, to prevent it, you are using a cable of a larger gauge.

4.5. Power Linking of Multiple Devices

This device supports power linking. Power can be relayed to another device via the **4-pin Phoenix terminal power connector IN/THROUGH (02)**. Insert the cables correctly.

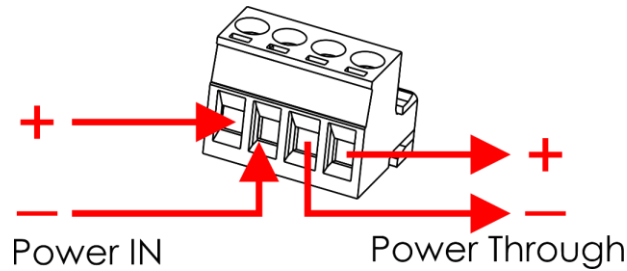


Fig. 07

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.
- 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:

Make sure that the total DC current of all linked devices does not exceed 20 A. The maximum recommended number of linked devices strictly depends on this factor.

5. Setup

5.1. Warnings and Precautions



Attention

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

5.2. Stand-alone Setup

When the LED Dim-8 Install is not connected to a controller or to other devices, it functions as a stand-alone device.

For more information about the control modes, refer to **6.2. Control Modes** on page 19.

5.3. LED Strip Connection

01) Remove both **5-pin Phoenix terminal LED strip connectors OUT (01/04)**.

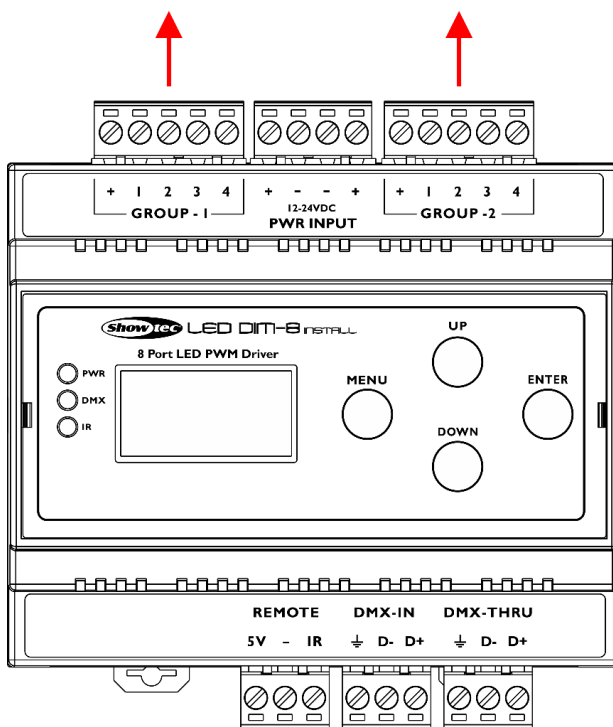


Fig. 08

02) Connect LED strips to the device's **5-pin Phoenix terminal LED strip connectors OUT (01/04)**. Insert the cables correctly.

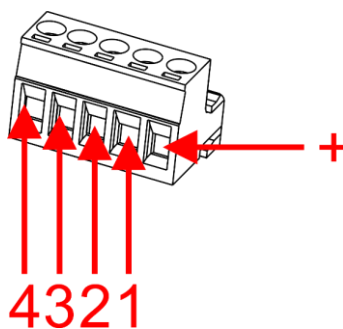


Fig. 09

03) Put the Phoenix connectors back in the device.

5.4. DMX Connection

5.4.1. 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 LED Dim-8 Install has 3-pin DMX signal IN and THRU connectors.

The pin assignment is as follows: pin 1 (ground), pin 2 (-), pin 3 (+).

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

5.4.2. DMX Cables

Shielded twisted-pair cables 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 Fig. 10.

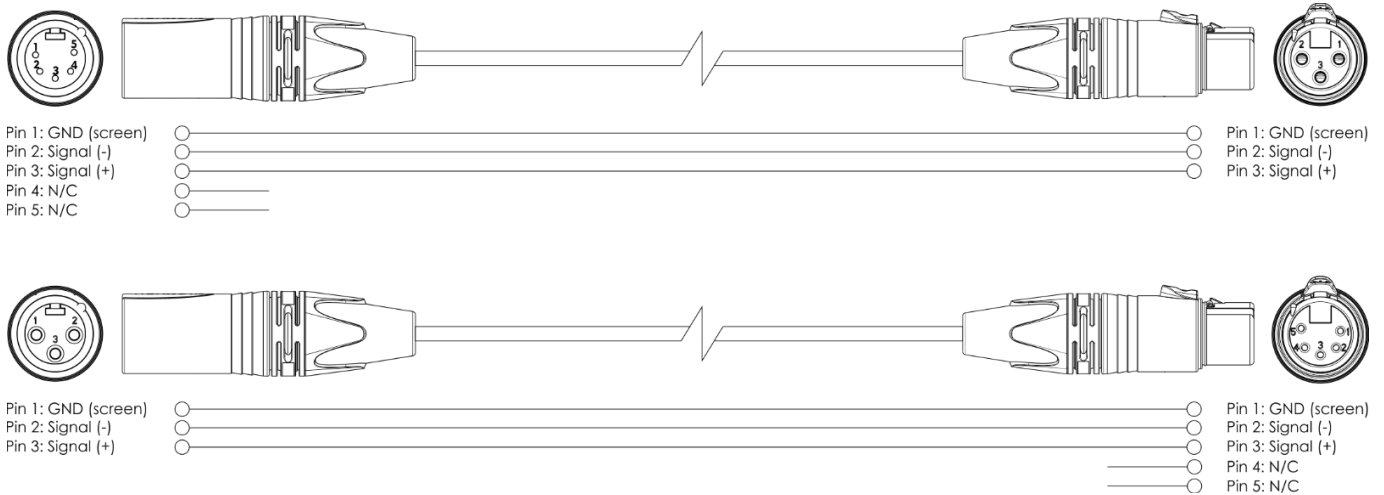


Fig. 10

5.4.3. DMX Linking

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

- 01) Remove the **3-pin Phoenix terminal DMX connector THRU (05)** and the **3-pin Phoenix terminal DMX connector IN (06)**.

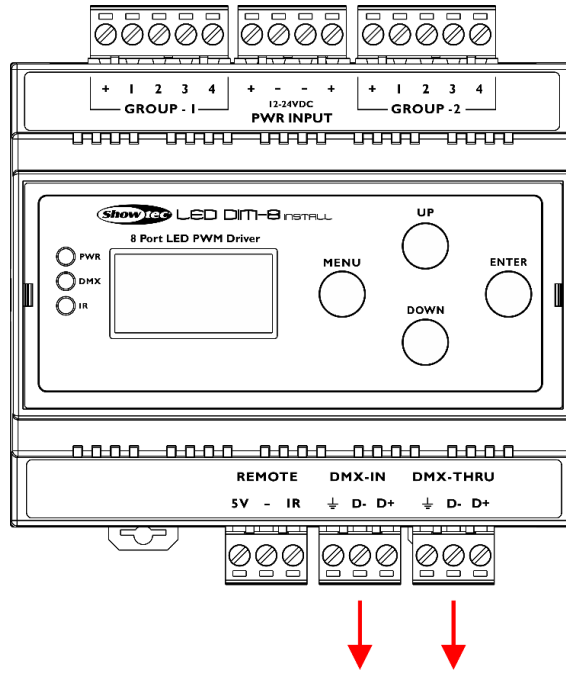


Fig. 11

- 02) Use a DMX cable to connect the DMX OUT connector of the lighting controller to the DMX IN connector of the first device. Insert the cables correctly. See Fig. 12.
- 03) Connect the first device's DMX THRU connector to the second device's DMX IN connector with a DMX cable. Insert the cables correctly. See Fig. 12.

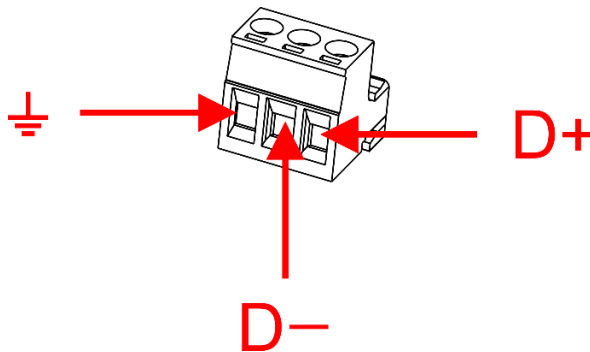


Fig. 12

- 04) Put the Phoenix connectors back in the device.
- 05) Repeat steps 3–4 to connect all devices in a daisy-chain as shown in Fig. 13 on page 17.

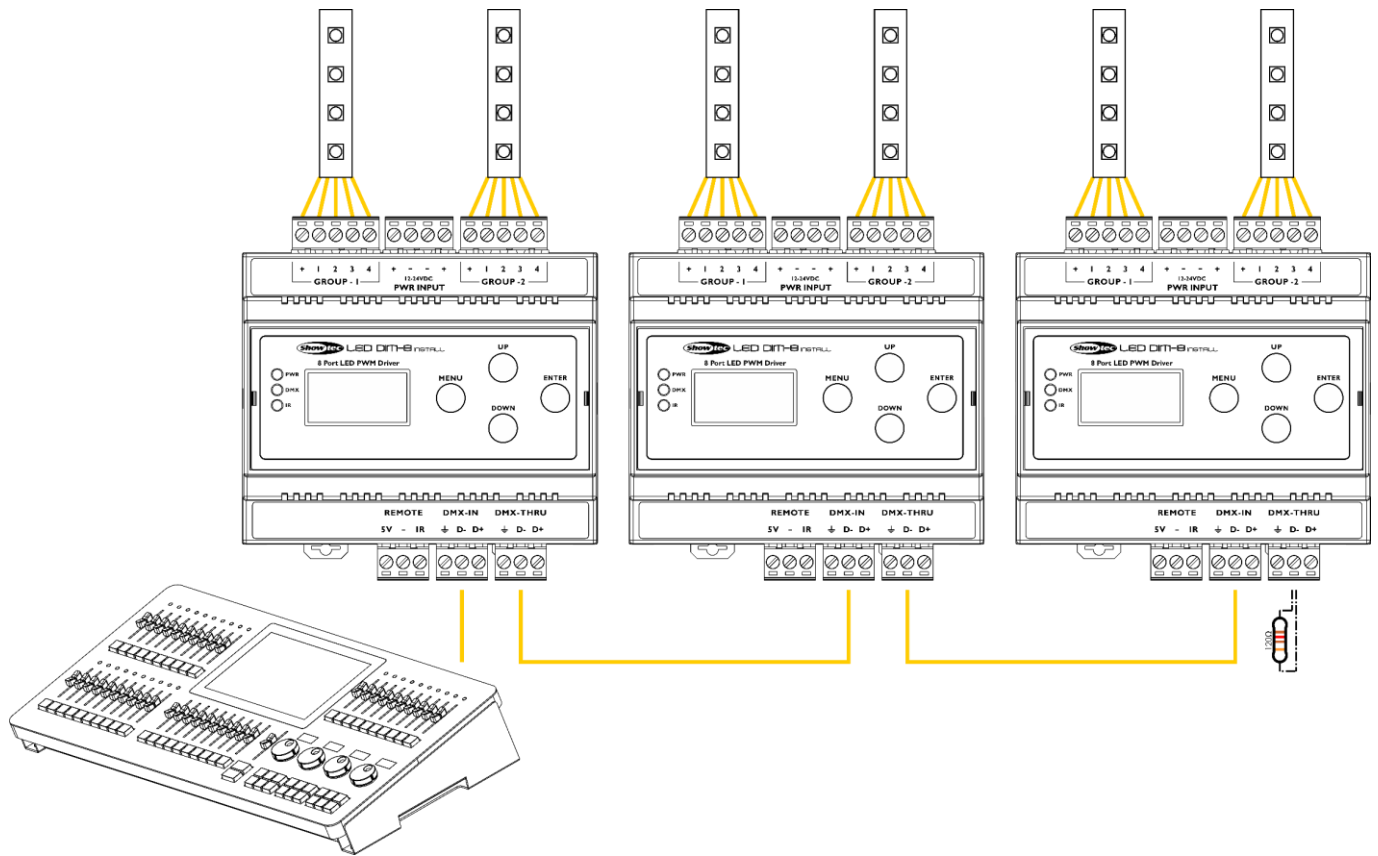


Fig. 13

06) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.

5.4.4. DMX Addressing

In a setup with multiple devices, make sure that you set the DMX starting address of each device correctly. The LED Dim-8 Install has 1 personality: 8 channels.

If you want to connect multiple devices on one data link and use them in 8-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 9 (009), as $1 + 8 = 9$.
- 03) Set the starting address of the 3rd device on the data link to 17 (017), as $9 + 8 = 17$.
- 04) Continue assigning the starting addresses of the remaining devices by adding each time 8 to the previous number.
- 05) Make sure that you do not have any overlapping channels in order to control the LED Dim-8 Install correctly. If two or more devices are addressed similarly, they will work similarly.

5.5. IR Sensor

It is possible to operate the device with an optional remote control. In order for the remote control to work, you need to install an IR sensor. Follow the steps below:

01) Remove the **3-pin Phoenix terminal connector IR sensor IN (07)**.

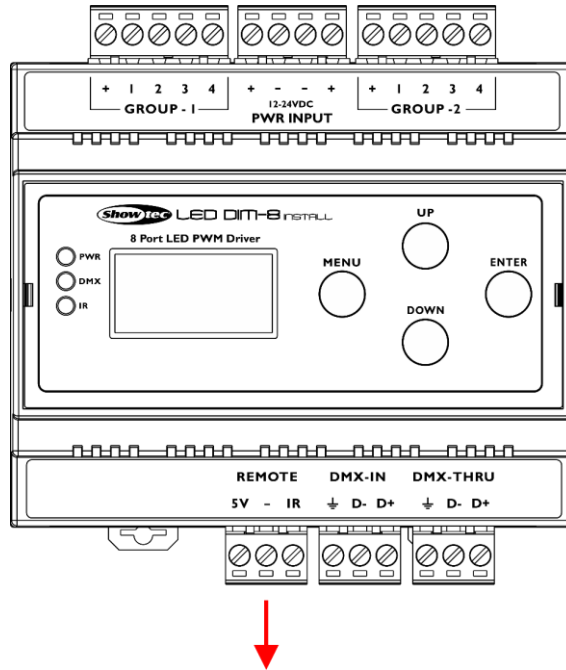


Fig. 14

02) Connect a common available IR sensor to the device's **3-pin Phoenix terminal connector IR sensor IN (07)**. Insert the cables correctly. See Fig. 15.

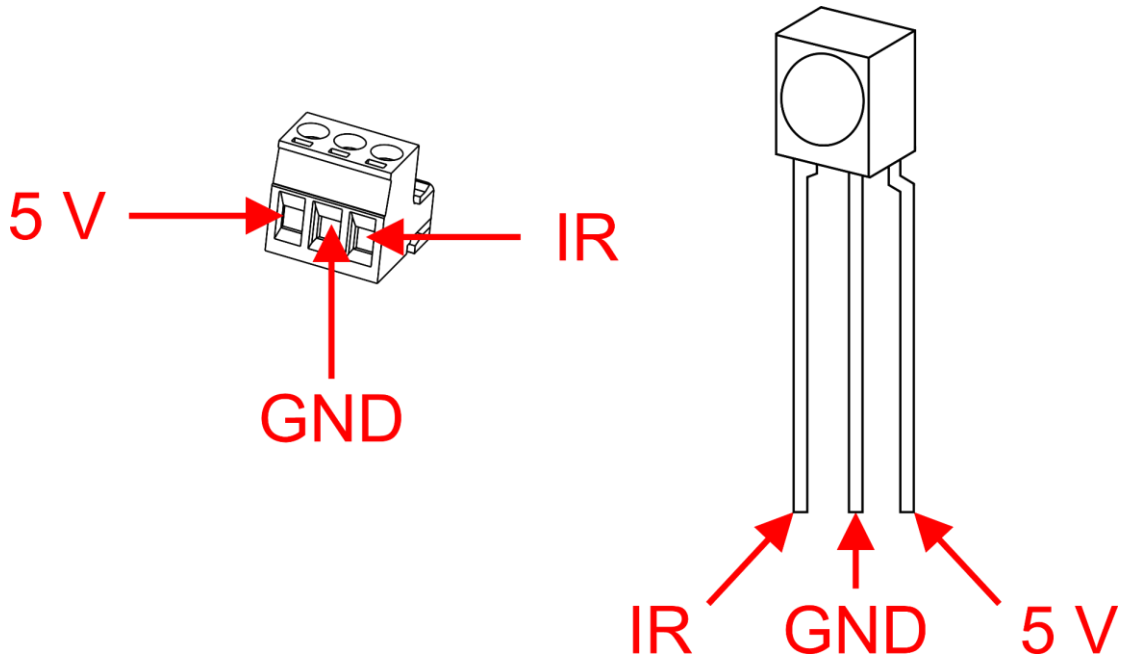


Fig. 15

03) Put the Phoenix connector back in the device.

04) Follow the instructions from **6.8. Remote Control Operation** on page 27.

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 designed to be used as a fixed-installation PWM dimmer. It is suitable for indoor installation in an electrical enclosure. It is not suitable for households.

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 LED Dim-8 Install supports the following control modes:

- Stand-alone: Color, Scene, Chase
- DMX-512 8 channels

For more information about how to connect the devices, refer to **5. Setup** on pages 13–18.

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

- Adjust the colors in Color menu. See **6.7.3.2. Color** on page 23 for more information.

To run programs without a DMX controller:

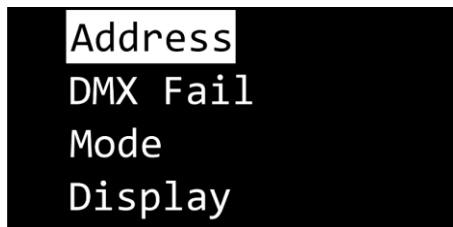
- Program and play your own scenes. See **6.7.3.3. Scene** on page 23 for more information.
- Program and play your own chases. See **6.7.3.4. Chase** on page 24 for more information.

To operate the device with a DMX controller:

- 01) Set the DMX starting address of the device in Address menu. See **5.4.4. DMX Addressing** on page 17 and **6.7.1. Address** on page 22.
- 02) See **6.7.3.1. DMX** on page 23 and **6.9. DMX Channels** on page 28 for complete overview of all DMX channels.

6.3. Start-up

- 01) Power the device up. Upon start-up, the device will show the main menu:



- 02) See **6.7. Main Menu Options** on page 22 for more information.

Note:

If the display is off, press any button to turn the display on. See **6.7.4. Display** on page 25 for more information.

6.4. Control Panel

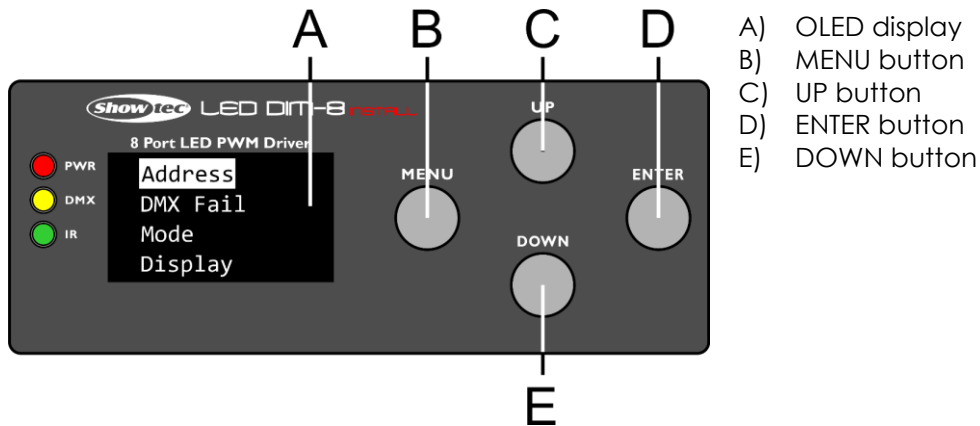


Fig. 16

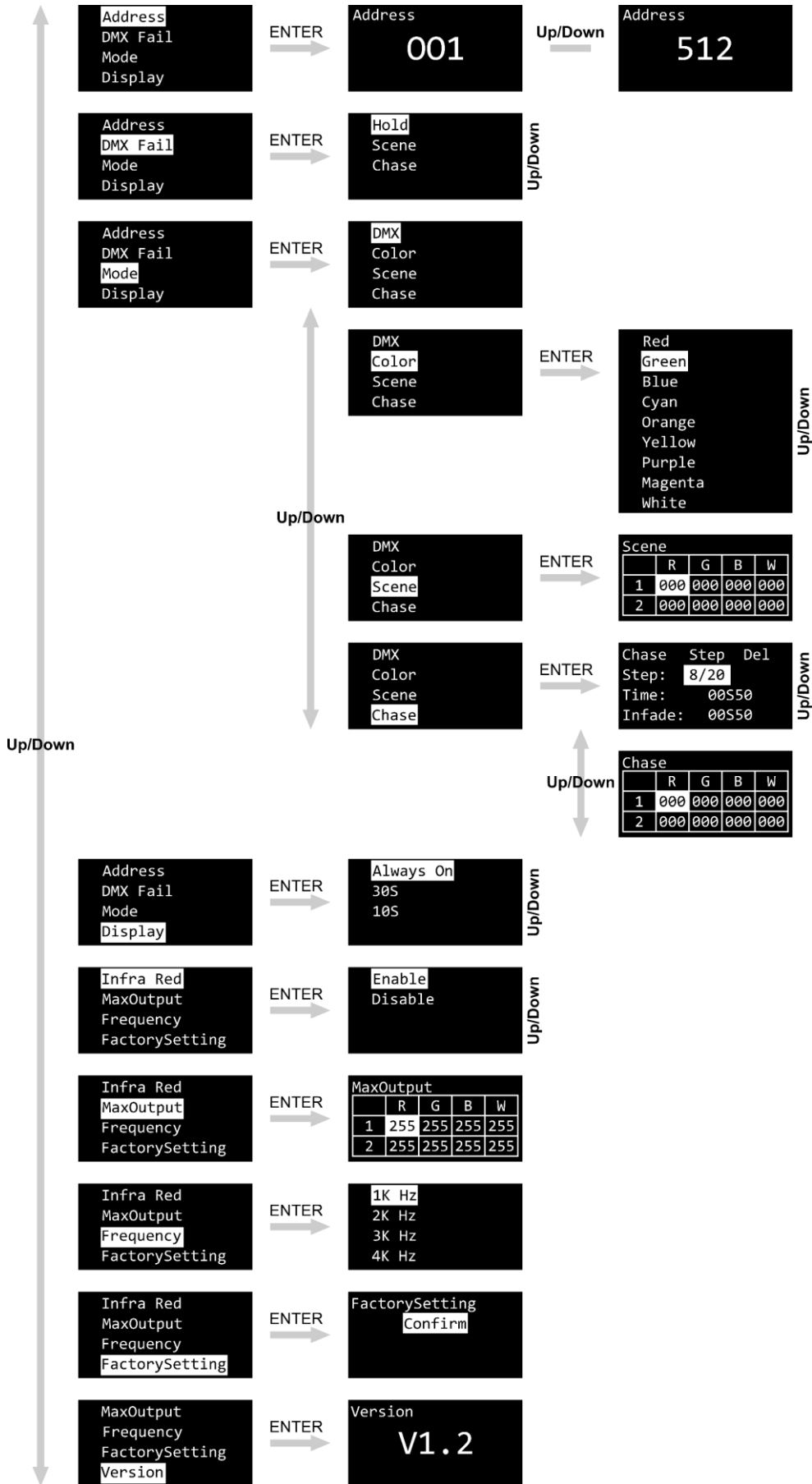
- Use the **MENU** button to open the main menu, to exit the current submenu and to return to the main menu.
- Use the **UP/DOWN** buttons to navigate through the menus and to scroll through the available characters/numbers.
- Use the **ENTER** button to open the desired menu, to confirm your choice or to set the currently selected value.

6.5. LED Statuses

There are **3 LED indicators (09/10/11)** on the control panel of the device. The LED indicators have the following functions:

- **PWR**: If the light is on, the device is powered.
- **DMX**: If the light is on, the device is receiving a DMX signal.
- **IR**: If the light is on, the device is receiving a signal from the remote control.

6.6. Menu Overview



6.7. Main Menu Options



1. Address
2. DMX Fail
3. Mode
4. Display
5. Infra Red
6. Maximum Output
7. Frequency
8. Factory Setting
9. Version

- 01) Press the **UP/DOWN** buttons to toggle through the 9 menus.
- 02) Press the **ENTER** button to open the desired menu.

6.7.1. Address

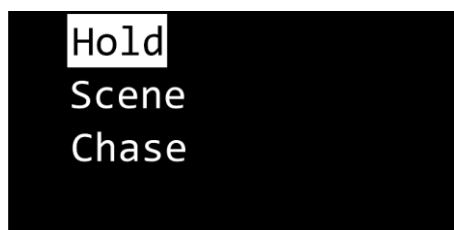
In this menu you can set the desired DMX starting address.



- 01) Press the **UP/DOWN** buttons to set the desired DMX address. The adjustment range is 001–512.

6.7.2. DMX Fail

In this menu you can set the device's behavior in case of a DMX failure.



- 01) Press the **UP/DOWN** buttons to select one of the 3 options:
 - **HOLD:** The device will use last properly received DMX signal, ensuring uninterrupted performance.
 - **SCENE:** The device will switch to Scene mode. See **6.7.3.3. Scene** on page 23 for more information.
 - **CHASE:** The device will switch to Chase mode. See **6.7.3.4. Chase** on page 24 for more information.

6.7.3. Mode

In this menu you can select the desired operation mode.



- 1. DMX
- 2. Color
- 3. Scene
- 4. Chase

- 01) Press the **UP/DOWN** buttons to toggle through the 4 menus.
- 02) Press the **ENTER** button to open the desired menu.

6.7.3.1. DMX

In this menu the device will react to the DMX signal from your DMX controller. See **6.9. DMX Channels** on page 28 for more information.

6.7.3.2. Color

In this menu you can activate one of the 9 color presets.



- 01) Press the **UP/DOWN** buttons to choose one of the 9 color presets.

6.7.3.3. Scene

In this menu you can program your own scene.

Scene				
	R	G	B	W
1	000	000	000	000
2	000	000	000	000

- 01) Press the **UP/DOWN** buttons to set the desired LED (RGBW) from the desired group (1–2).
- 02) Press the **ENTER** button to confirm your choice.
- 03) Press the **UP/DOWN** buttons to set the LED brightness. The adjustment range for each color is 0–255, from dark to brightest.
- 04) Press the **MENU** button to save your settings.
- 05) Repeat steps 1–4 to set the remaining LEDs.
- 06) You can combine Red, Green, Blue and White to create an infinite range of colors (0–255).

6.7.3.4. Chase

In this menu you can program your own chase.

```

Chase Step Del
Step:  8/20
Time:   00S50
Infade: 00S50
  
```

- 01) Press the **UP/DOWN** buttons to select STEP.
- 02) Press the **ENTER** button to confirm your choice. "STEP" will appear at the top of the screen and the step indicator will read "1/0".

Note:

- The step indicator consists of 2 digits, for example "1/0". It means that you are editing step 1 and there are 0 programmed steps.
- In order to be able to set the step duration and fade time, you need to create a step first.

Creating a Step

- 01) When the step indicator is selected, press the **ENTER** button again to create a step. The step indicator will now read "1/1". This means that you are editing step 1 and there is 1 programmed step.

Setting Step Duration

- 01) Press the **UP/DOWN** buttons to select TIME.
- 02) Press the **ENTER** button to confirm your choice. "TIME" will appear at the top of the screen.
- 03) Press the **UP/DOWN** buttons to set the step duration time (seconds).
- 04) Press the **MENU** button to set the step duration.

Setting Fade-In Time

- 01) Press the **UP/DOWN** buttons to select INFAD.
- 02) Press the **ENTER** button to confirm your choice. "FADE" will appear at the top of the screen.
- 03) Press the **UP/DOWN** buttons to set the step fade-in time (seconds).
- 04) Press the **MENU** button to set the fade-in time.

Deleting Steps

- 01) Press the **UP/DOWN** buttons to select DEL.
- 02) Press the **ENTER** button to confirm your choice. "DEL" will appear at the top of the screen.
- 03) Press the **ENTER** button to delete the currently selected step.
- 04) Press the **MENU** button to return to the Chase screen.

Programming Steps

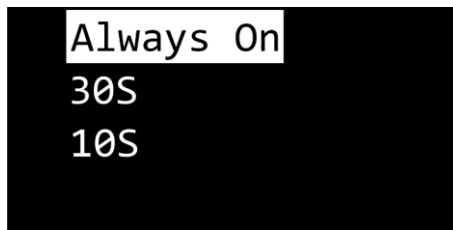
- 01) Repeatedly press the **DOWN** button to proceed to the programming screen.

Chase				
	R	G	B	W
1	000	000	000	000
2	000	000	000	000

- 02) Press the **UP/DOWN** buttons to set the desired LED (RGBW) from the desired group (1-2).
- 03) Press the **ENTER** button to confirm your choice.
- 04) Press the **UP/DOWN** buttons to set the LED brightness. The adjustment range for each color is 0-255, from dark to brightest.
- 05) Press the **MENU** button to save your settings.
- 06) Repeat steps 2-5 to set the remaining LEDs.
- 07) Press the **UP** button until you return to the previous screen where you can program other steps.

6.7.4. Display

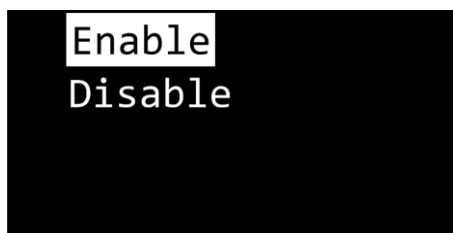
In this submenu you can set the display options.



- 01) Press the **UP/DOWN** buttons to select one of the 3 modes: ALWAYS ON (the display remains continuously on), 30S (the display will turn off if no button is pressed within 30 seconds) or 10S (the display will turn off if no button is pressed within 10 seconds).

6.7.5. Infra Red

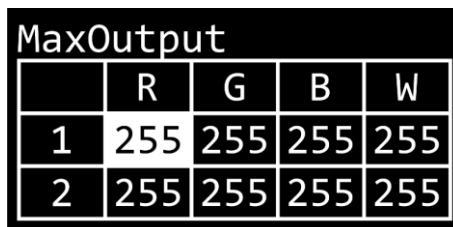
In this submenu you can activate/deactivate the optional remote control.



- 01) Press the **UP/DOWN** buttons to select ENABLE (to activate the remote control) or DISABLE (to deactivate the remote control).

6.7.6. Maximum Output

In this menu you can set the maximum output for each color in both groups. When programming scenes/chases, the LEDs' output cannot be set higher than the settings in this menu.



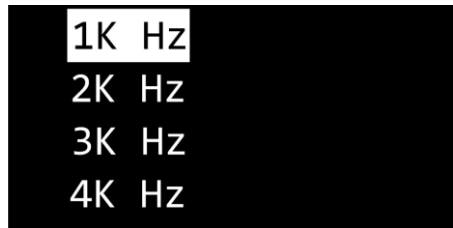
A screenshot of a black display menu with white text. The title 'MaxOutput' is at the top. Below it is a table with 2 rows and 5 columns. The columns are labeled R, G, B, and W. The rows are labeled 1 and 2. All values in the table are 255.

	R	G	B	W
1	255	255	255	255
2	255	255	255	255

- 01) Press the **UP/DOWN** buttons to set the desired LED (RGBW) from the desired group (1–2).
- 02) Press the **ENTER** button to confirm your choice.
- 03) Press the **UP/DOWN** buttons to set the LED's maximum output. The adjustment range for each color is 0–255, from dark to brightest.
- 04) Press the **MENU** button to save your settings.
- 05) Repeat steps 1–4 to set the remaining LEDs' maximum output.

6.7.7. Frequency

In this menu you can set the PWM (Pulse Width Modulation) frequency.



01) Press the **UP/DOWN** buttons to select the desired PWM frequency. The available options are: 1000 Hz, 2000 Hz, 3000 Hz and 4000 Hz.

Note:

The higher the PWM frequency, the lower the dimmer's grayscale.

6.7.8. Factory Setting

In this menu you can restore default factory settings.



01) Press the **ENTER** button (to restore the default factory settings) or the **MENU** button (to return to the previous menu).

Note:

Restoring the default factory settings will also remove your preprogrammed scenes and chases.

6.7.9. Version

In this menu you can view the current software version.



6.8. Remote Control Operation

The device can be operated with an IR remote control. The remote control is not included in the delivery. Purchase the remote control (50547) on the website of Highlite International (www.highlite.com).



DANGER
Do not ingest battery, chemical burn hazard.

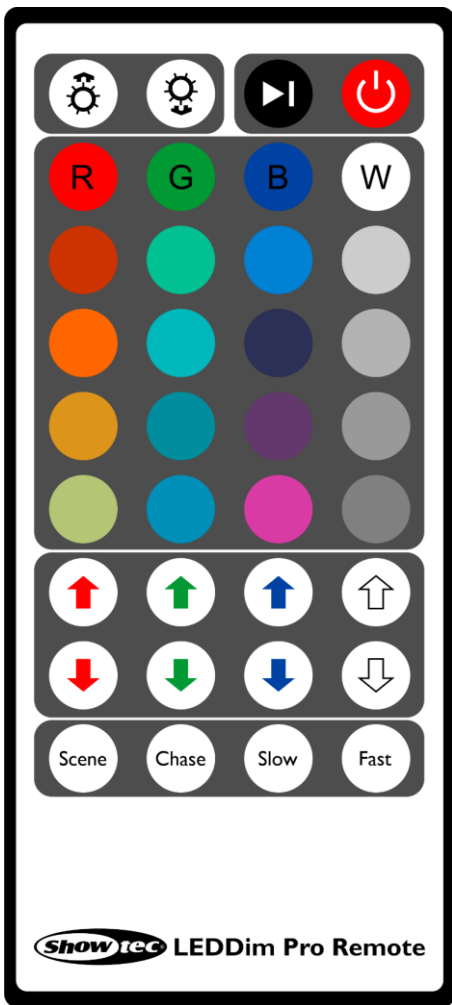
The remote control contains a coin cell battery. If the coin cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

The battery is already installed in the remote control. It is protected against discharge by a transparent plastic foil. Remove the plastic foil before using the remote control for the first time.

When replacing the battery, make sure that the polarity is correct. Incorrect polarity may damage the remote control.

To operate the device with the IR remote control:

- 01) Install the IR sensor. See **5.5. IR Sensor** on page 18 for more information.
- 02) Enable IR remote control operation in the settings. See **6.7.5. Infra Red** on page 25 for more information.
- 03) Point the remote control to the IR sensor.





















Button	Name
	ON/OFF
 	Not functional
	Pause (Chase mode)
 	20 color buttons (color macros)
 	Increase/decrease intensity (Red)
 	Increase/decrease intensity (Green)
 	Increase/decrease intensity (Blue)
 	Increase/decrease intensity (White)
	Scene mode
	Chase mode
 	Increase/decrease speed (Chase mode)

Fig. 17

- Press the **ON/OFF** button to turn the LEDs on.
- Press the **ON/OFF** button again to turn the LEDs off.

6.8.1. Scene Mode

01) Press the **SCENE** button to enter Scene mode. The device will run the last selected color macro. See **6.8.2. Color Macros** on page 28 for more information.

6.8.2. Color Macros

01) Press one of the 20 color buttons to activate the desired color macro.
 02) Press the buttons with arrows to increase/decrease the intensity of the corresponding LEDs.

6.8.3. Chase Mode

01) Press the **CHASE** button to enter Chase mode. The device will run the preprogrammed chase. See **6.7.3.4. Chase** on page 24 for more information.
 02) Repeatedly press the **SLOW** or **FAST** button to decrease/increase the chase speed.
 03) Press the **PAUSE** button to pause the chase. Press the **CHASE** button again to resume the chase.

6.9. DMX Channels

6.9.1. 8 Channels

8 CH	Function	Value	Setting
1	Intensity, Group 1 (Red)	000–255	From low to high intensity (0–100 %)
2	Intensity, Group 1 (Green)	000–255	From low to high intensity (0–100 %)
3	Intensity, Group 1 (Blue)	000–255	From low to high intensity (0–100 %)
4	Intensity, Group 1 (White)	000–255	From low to high intensity (0–100 %)
5	Intensity, Group 2 (Red)	000–255	From low to high intensity (0–100 %)
6	Intensity, Group 2 (Green)	000–255	From low to high intensity (0–100 %)
7	Intensity, Group 2 (Blue)	000–255	From low to high intensity (0–100 %)
8	Intensity, Group 2 (White)	000–255	From low to high intensity (0–100 %)

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"> Check if power is switched on and cables are plugged in Check if the external power supply is connected properly and if it is operating within its specification limits
No DMX data transfer	The factory settings of the device are changed	<ul style="list-style-type: none"> Reset the device's parameters to the default factory settings. See 6.7.8. Factory Setting on page 26
	Bad data link connection	<ul style="list-style-type: none"> Examine connections and cables. Correct poor connections. Repair or replace damaged cables
	The signal is reversed. The DMX OUT of the controller does not match the DMX IN of the device	<ul style="list-style-type: none"> Install a phase-reversing cable between the controller and the device

8. Maintenance

Maintenance and cleaning shall be carried out only by instructed persons.

Follow the maintenance schedule established for the site where the electrical enclosure is installed.

Disconnect power supply before servicing or cleaning.

8.1. Preventive Maintenance

**Attention**

Before 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.
- There are no deformations on housings, fixations and installation points.
- The power cables are not damaged and do not show any material fatigue.

8.1.1. Basic Cleaning Instructions

To clean the device, follow the steps below:

- 01) Disconnect the electrical enclosure from the power supply.
- 02) Clean the device with a soft, lint-free cloth.
- 03) Remove residual dust with an air-duster or air-blower. Keep the air-duster or air-blower at a minimum distance of 30 cm.

**Attention**

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.
- Do not clean the device with a brush.

8.2. Corrective Maintenance

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

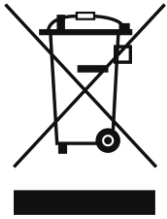
Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

9. Deinstallation, Transportation and Storage

- Disconnect the electrical enclosure, where the device is mounted, from the power supply before deinstallation of the device.
- Use the original packaging to transport the device, if possible.
- Clean the device before storing. Follow the cleaning instructions in chapter **8.1.1. Basic Cleaning Instructions** on page 29.
- 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



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



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