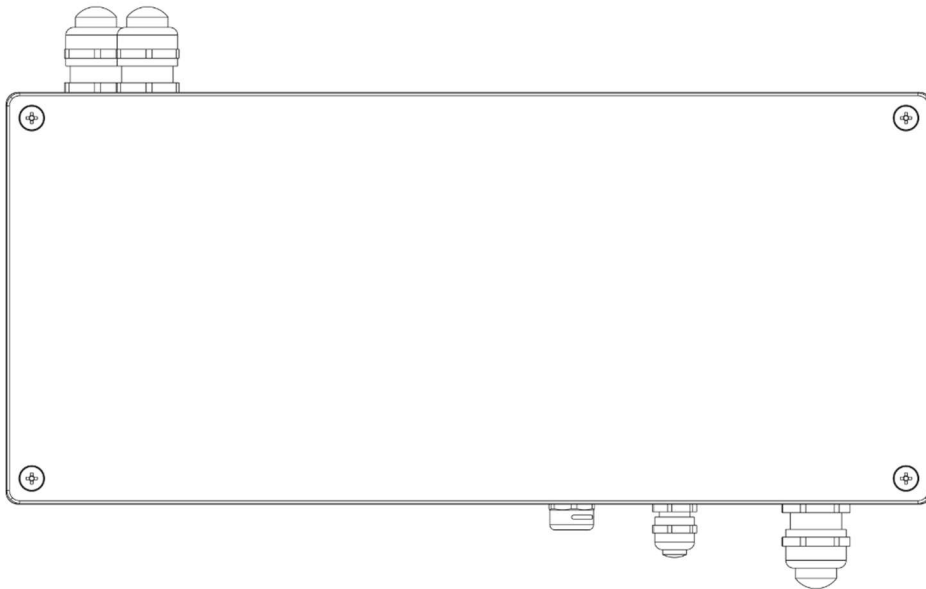


E-box Remote Basic



QR code for user manual



E-box Remote Basic

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1. Safety information

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE POWERING OR INSTALLING YOUR E-BOX REMOTE BASIC!
Save it for future reference.**

DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT!

Make sure that the available voltage is not higher than stated on the fixture.

Always disconnect the fixture from AC power before removing its cover.

Make sure that the supply cables are not damaged by sharp edges. Check the fixture and the cables from time to time.

Do not install the fixture near an open flame.

This fixture falls under protection class I. Therefore, this fixture has to be connected to a mains socket outlet with a protective earthing connection.

Do not connect this fixture to a dimmer pack.

Do not cover the fixture with cloth or other materials.

The fixture is designed for outdoor use and it is intended for professional application only. It is not for household use.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat or dust.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

Operate the fixture only after having familiarized yourself with its functions. Do not permit operation by persons not qualified to operate the fixture. Most damages are the result of unprofessional operation!

Please consider that unauthorized modifications on the fixture are forbidden due to safety reasons!

Please use the original packaging if the fixture is to be transported.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the warranty becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock etc.

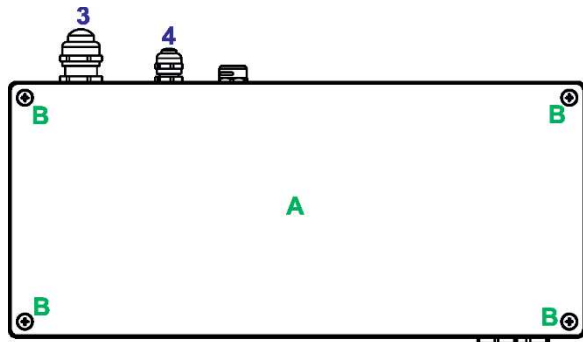
Immunity of the equipment is designed for electromagnetic environments E1, E2, E3 according to the standard EN55103-2 ed.2 Electromagnetic compatibility. Product family standard for audio, video, audiovisual and entertainment lighting control apparatus for professional use. Part 2: Immunity.

The product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m

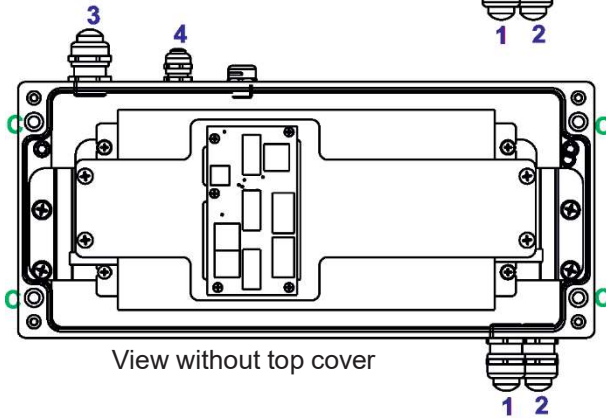
The installation company should check levels of possible interferences above the tested levels E1, E2, E3 given by this standard (e.g., transmitters in surrounding area) before installing the equipment.

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.

2. Fixture description

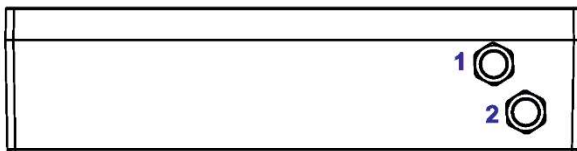
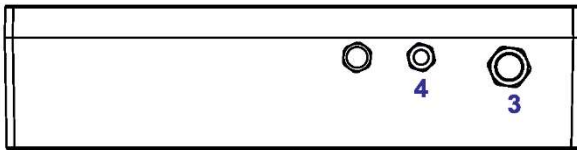


- A - Top cover
- B - Top cover screws
- C - Mounting holes

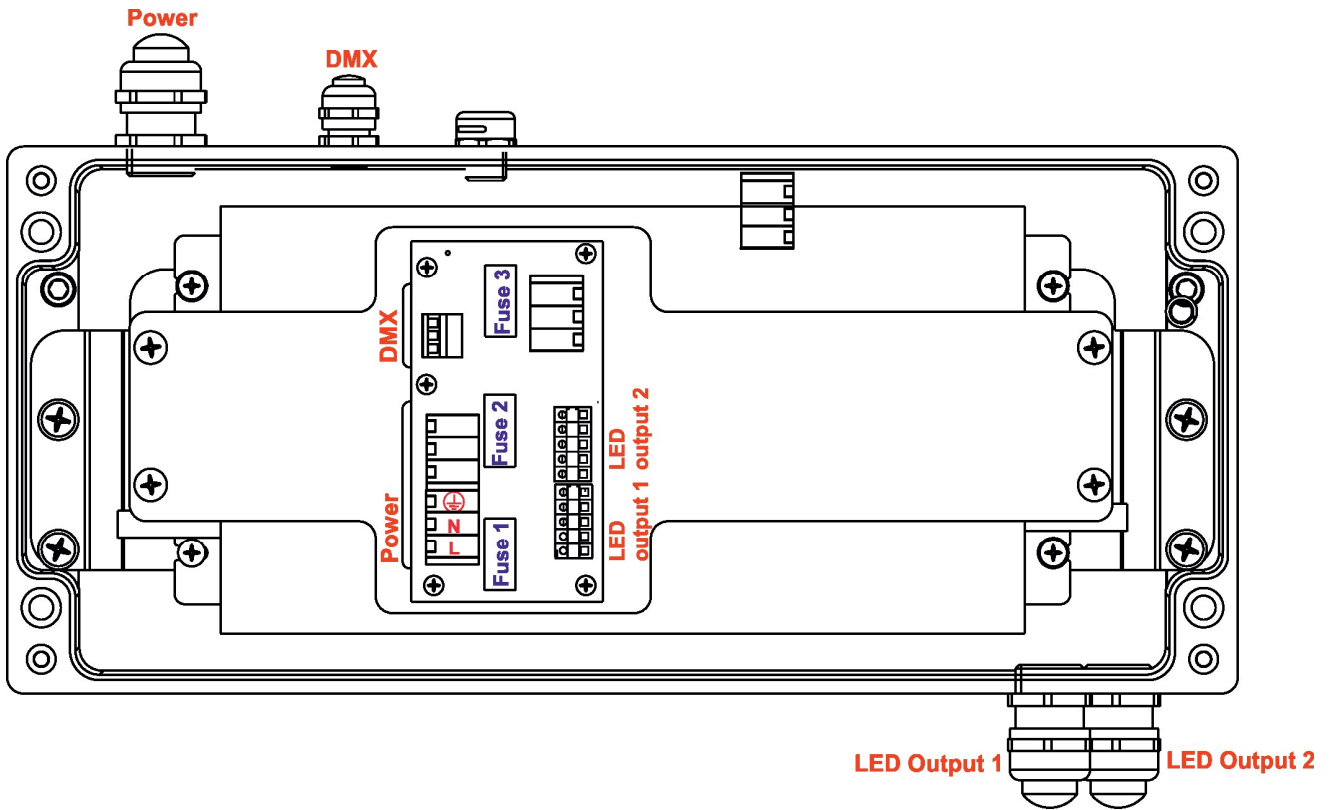


- 1 - LED Output 1 (cable gland M20x1.5)
- 2 - LED Output 2 (cable gland M20x1.5)
- 3 - Power IN (cable gland M20x1.5)
- 4 - DMX IN (cable gland M12x1.5)

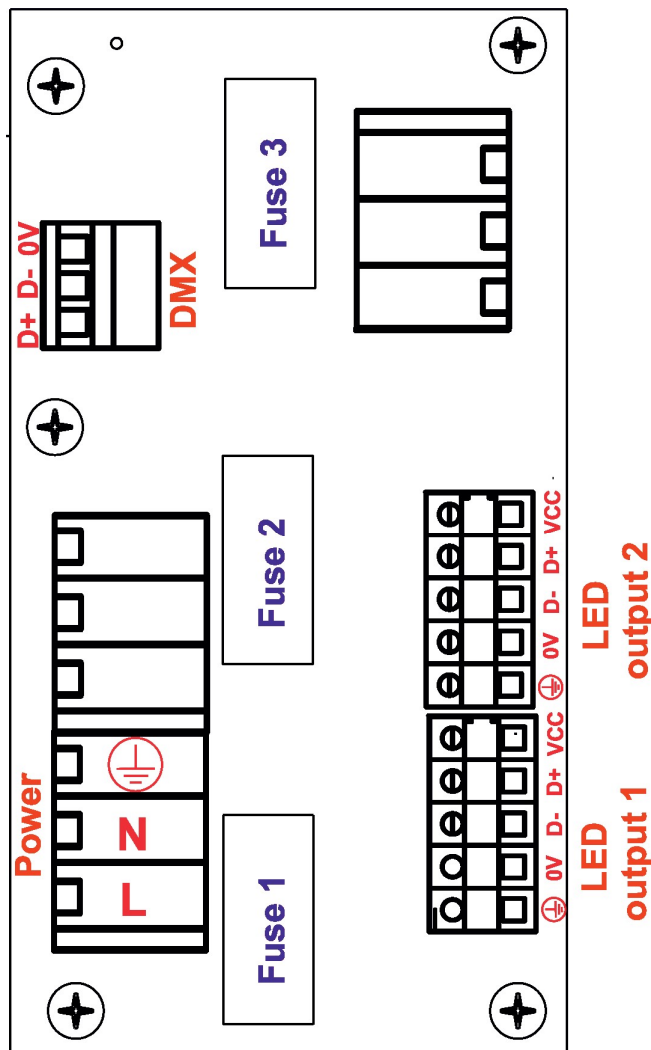
View without top cover



Connection points



Detail of PCB



3. Mounting

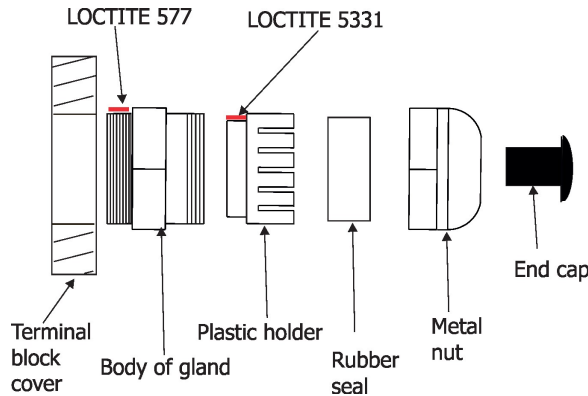
Fixture must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.

Setting and addressing the E-BOX REMOTE BASIC without top cover can be done by a qualified person only!

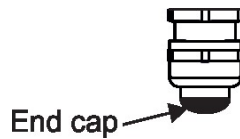


Note for cable glands.

We recommend applying an adequate layer of the paste LOCTITE 5331 on the plastic holder of the cable gland before inserting it into the body of the gland and an adequate layer of the paste LOCTITE 577 on the thread of the gland body.



1. Remove the top cover (A) from the E-box Remote Basic by unscrewing four fastening screws (B) in order to get access to the terminal boxes.
2. Fasten the E-box Remote Basic on a non-flammable flat surface via four mounting holes (C) of a diameter of 7 mm in its housing.
3. Remove end caps from cable glands before passing cables. To keep declared IP rating of the device, every cable gland has to be covered with the end cap if the cable gland is not used.



5. Pass cable for DMX through cable glands M12x1.5 and connect it to the terminal block and tighten the cable in the cable gland.
6. Pass cables for Power and LED outputs through cable glands M20x1.5 and connect them to the terminal blocks and tighten the cables in the cable glands.
Cable glands serve for cables of the following diameters:
Cable gland M12x1.5 (DMX) - for cable of a diameter of 3-7mm.
Cable gland M20x1.5 (Power IN, LED Output) - for cable of a diameter of 7-13mm.
7. Check that all screws and cable glands are firmly tightened.
8. Screw the cover (A) back on the box.

ALWAYS DISCONNECT THE E-BOX REMOTE BASIC FROM MAINS BEFORE CONNECTING/DISCONNECTING LED MODULES

This device falls under protection class I. Therefore, every E-box Remote Basic has to be connected to a mains socket outlet with a protective earthing connection

Power connection

	L	N	
Core (CE)	Brown	Blue	Green/yellow
Core (US)	Black	White	Green

DMX connection

D+	D-	0V
Data +	Data -	Data ground (shielding)

Eminere Remote connection

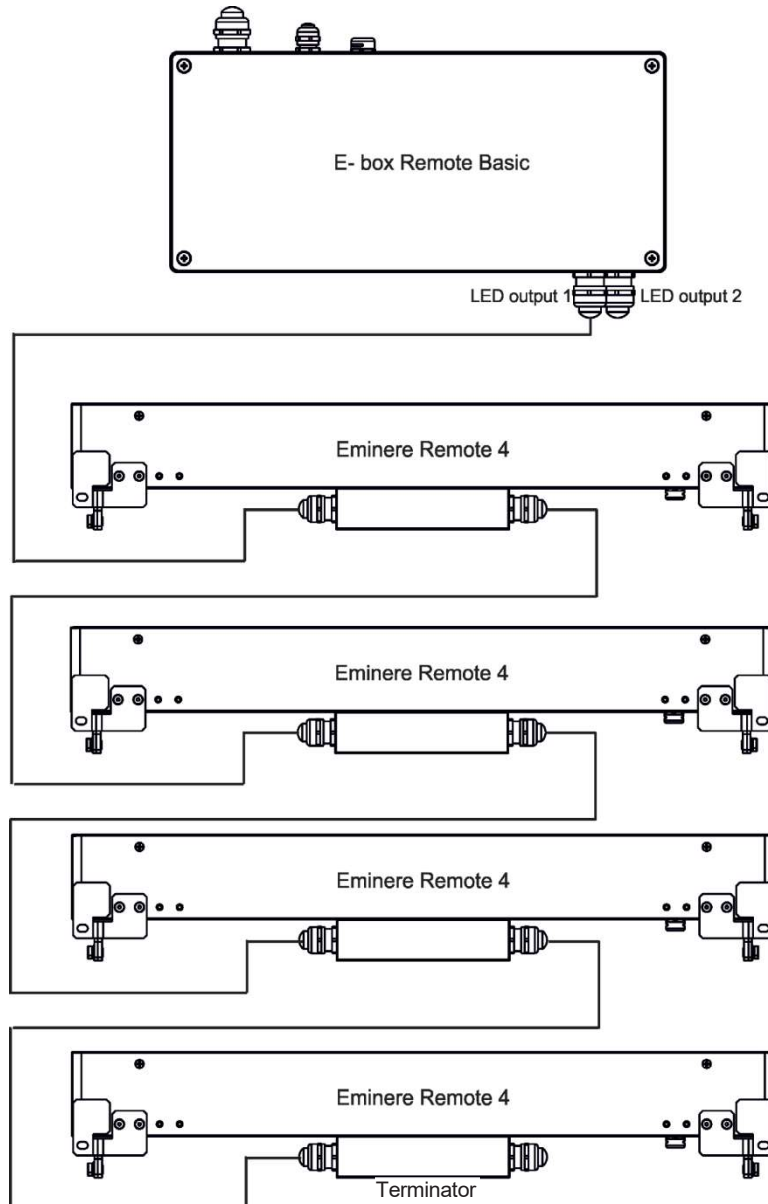
CE version:

Mark	Function	Wire
Vcc	LEDs +	Red
D+	DATA +	Orange
D-	DATA -	Black
0V	LEDS -	White
⊕	Ground	Not connected

US version:

Mark	Function	Wire
Vcc	LEDs +	Red
D+	DATA +	Orange
D-	DATA -	Black
0V	LEDS -	White
⊕	Ground	Green

Example of connection

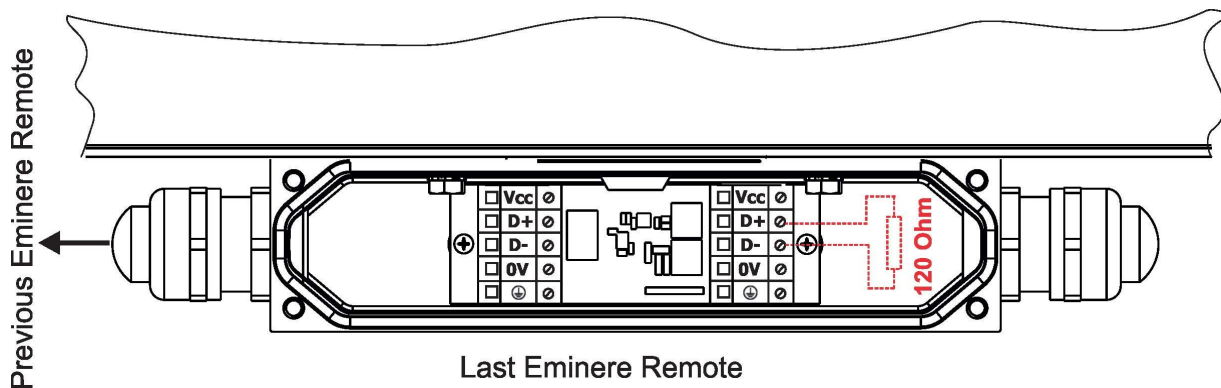


Each line of Emineres Remote connected to the LED output of the E-box Remote Basic has to be terminated at the last fixture.

EITHER connect a 120 Ohm resistor between terminals D+ and D- as shown, **OR** terminate via RDM as described on page 11.



Ensure **ONLY** the last fixture in the line is terminated using **ONE** of the above methods!

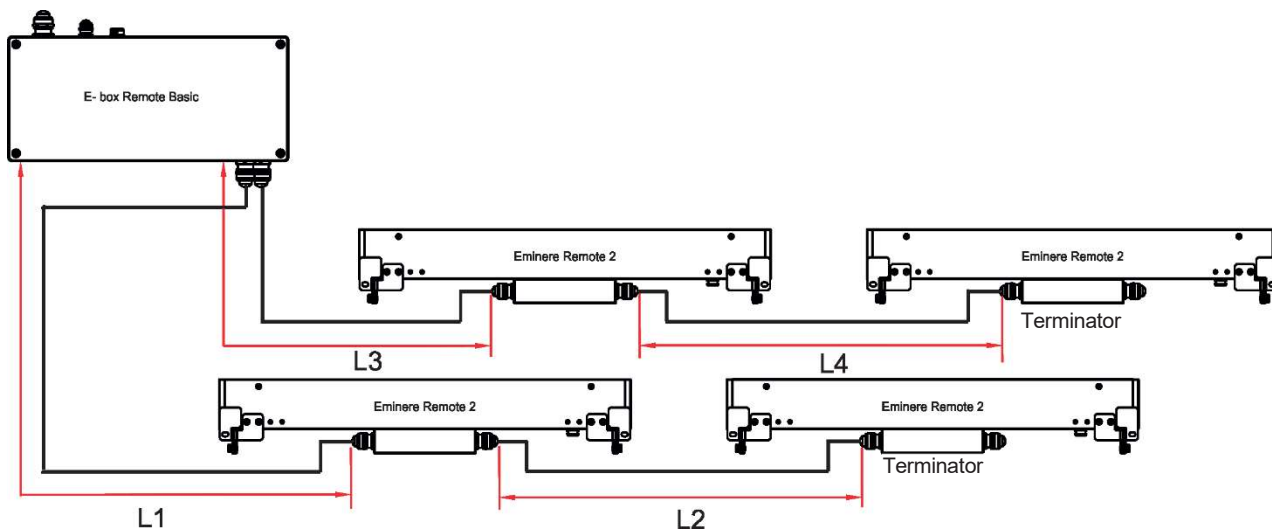


The number of Emineres Remote connected to one LED output of the E-box Remote Basic depends on the type of Emineres Remote and cable length.

The table states max. number of Emineres Remote connected to the E-box Remote Basic.

Cable length *	Max. number of Emineres Remote connected to the E-box Remote Basic			
	Emineres Remote 1	Emineres Remote 2	Emineres Remote 3	Emineres Remote 4
25 m	20	10	6	5
50 m	16	8	5	4
75 m	13	6	4	3
100 m	10	5	3	2

* Cable length is the total cable length between E-box Remote Basic and last connected Emineres Remote.
Example: Total cable length=L1+L2+L3+L4



Max. number of Emineres Remote modules connected to the one output of the E-box Remote Basic is stated in the following table.

Max. number of Emineres Remote connected to the one output of the E-box Remote Basic			
Emineres Remote 1	Emineres Remote 2	Emineres Remote 3	Emineres Remote 4
16	8	5	4

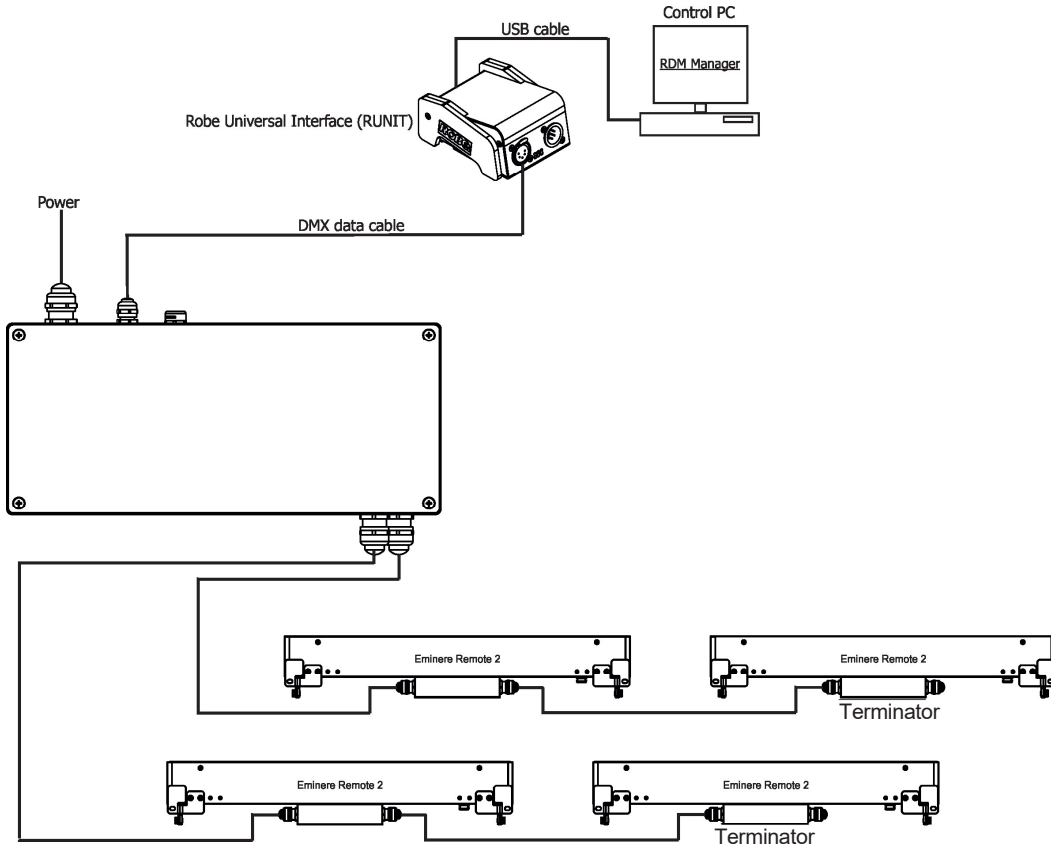
Example: if you want to connect 20 Emineres Remote 1 to the E-box Remote Basic, you may connect 16 Emineres Remote 1 to output 1 and 4 Emineres Remote 1 to output 2 (at total cable length of 25 m).

4.RDM manager

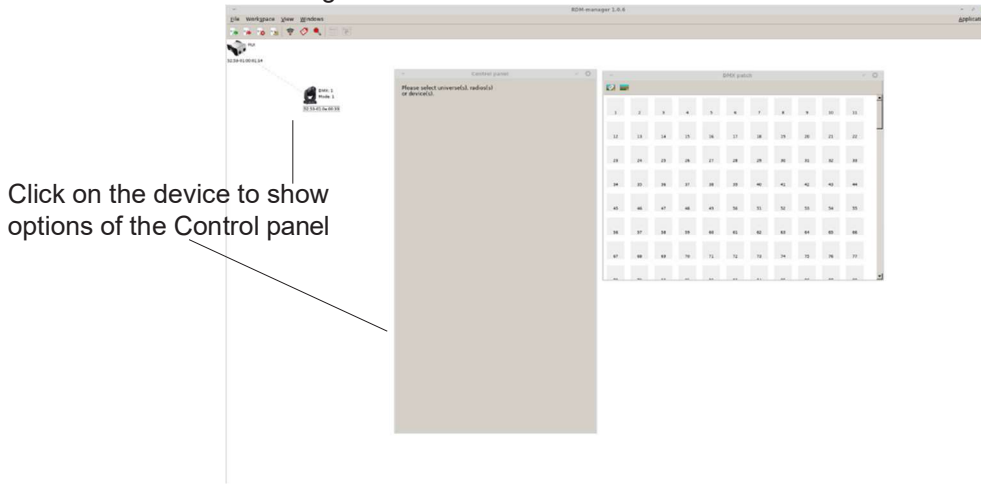
The RDM manager allows you to read information about connected LED modules and set their behaviour. The Emineres Remote can be controlled in the Pass Through mode only.



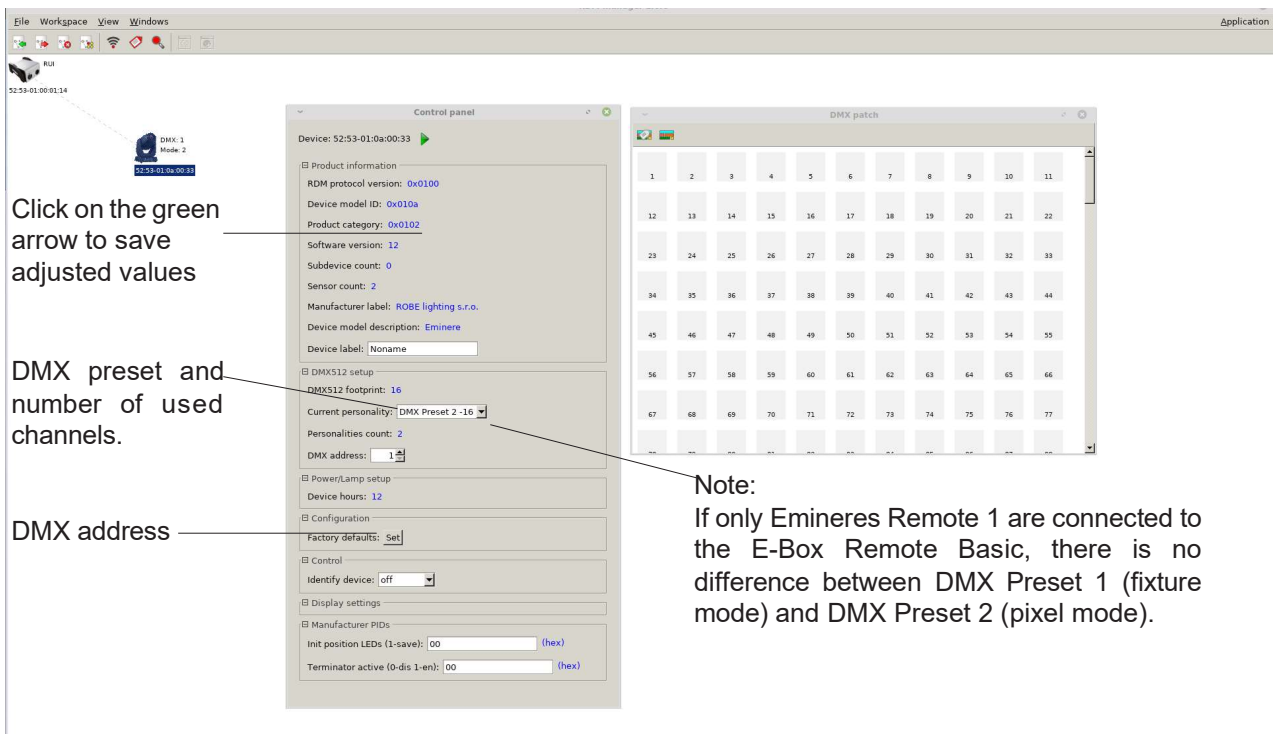
RDM Manager and DMX controller cannot be connected at the same time.



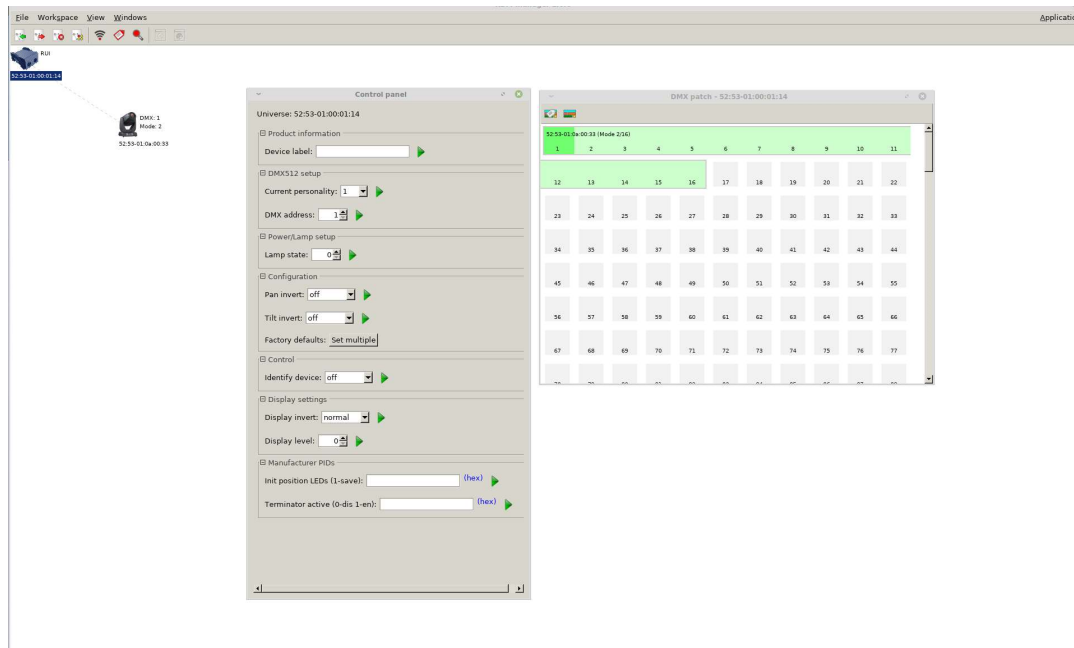
Examples of RDM manager screenshots for one connected LED module.
Initial screen of the RDM manager:



Options in the Control panel allows you to set DMX address and Personality for each LED module.



Occupied channels are displayed in the window DMX patch on the right side of the Control panel.



Options in the control panel:

Control panel

Device: 52:53-01:0a:00:77

Product information

RDM protocol version: 0x0100

Device model ID: 0x010a

Product category: 0x0102

Software version: 10

Subdevice count: 0

Sensor count: 2

Manufacturer label: ROBE lighting s.r.o.

Device model description: Eminere

Device label: Eminere

DMX512 setup

DMX512 footprint: 16

Current personality: DMX Preset 9 -16

Personalities count: 12

DMX address: 1

Power/Lamp setup

Device hours: 8

Configuration

Factory defaults: Set

Control

Identify device: off

Display settings

Manufacturer PIDs

Wireless Unlink 1-unlink: (hex)

Pixel swap (0-dis 1-act): 00 (hex)

Init position active (0-dis 1-act): 00 (hex)

Demo mode(0-dis 1-act): 01 (hex)

Init position LEDs (1-save): 00 (hex)

Gamma correction (0.40/0x25 - 2.55/0xFF): 64 (hex)

Terminator active (0-dis 1-en): 00 (hex)

Possible numbers of connected LED modules for each E-box mode are stated in the chapter "3. Mounting".

If no DMX is received, the unit will turn on the predefined Demo mode. You can modify it by setting the unit to a desired look via DMX and then save this via RDM by setting the "Init position LEDs" to 1:

Manufacturer PIDs

Init position LEDs (1-save): 00 (hex)

Terminator active (0-dis 1-en): 00 (hex)

Last Eminere on each DMX line may be terminated by setting the 'Manufacturer PID' 'Terminator active' to '1',



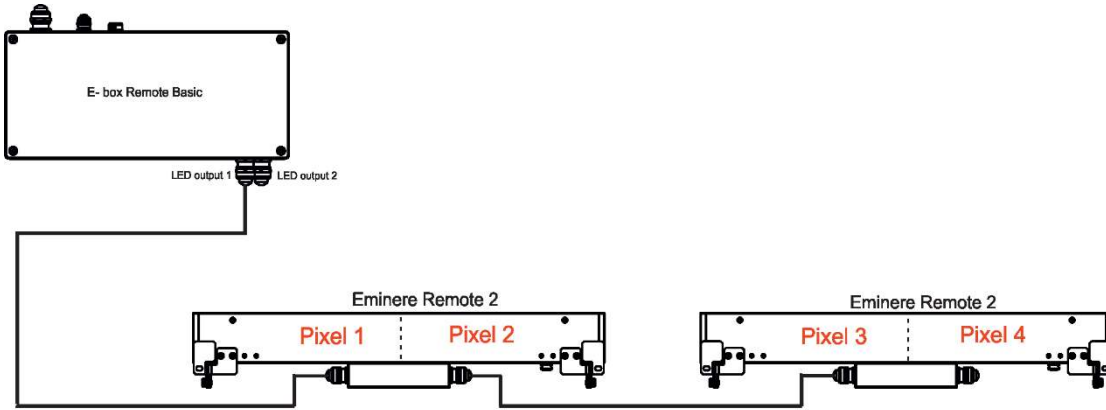
But ensure that the fixture is not already terminated with a 120 Ohm resistor as described on page 8.

Manufacturer PIDs

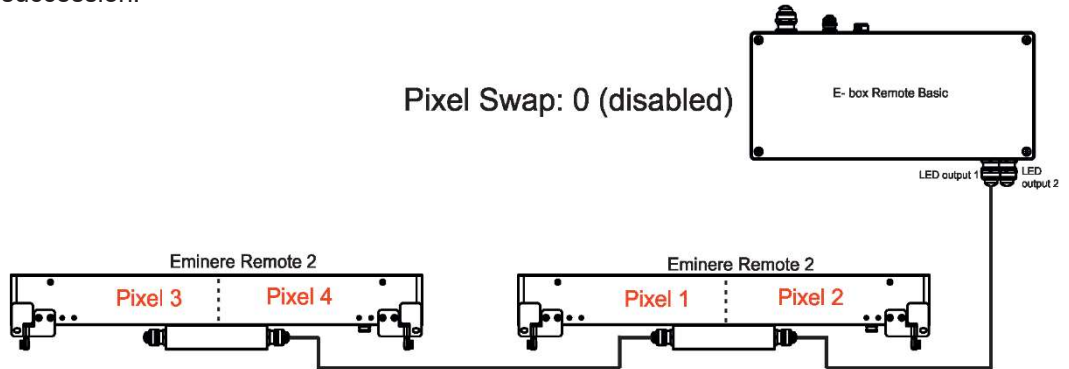
Init position LEDs (1-save): 00 (hex)

Terminator active (0-dis 1-en): 00 (hex)

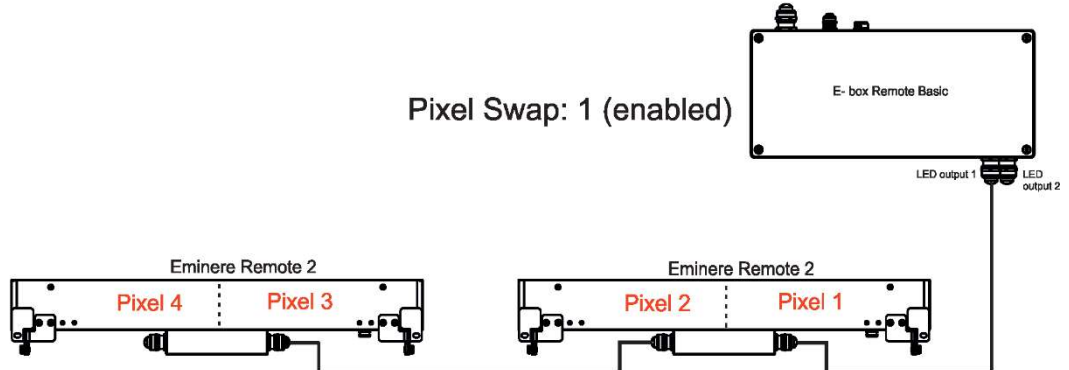
The function "Pixel swap" from RDM control panel allows you to swap a pixel order.
Example:



In case of reconnecting the E-box Remote Basic on the other end of Emineres Remote line, the pixel order is not in succession:



By means of the function "Pixel swap" you can rearrange pixels in order.

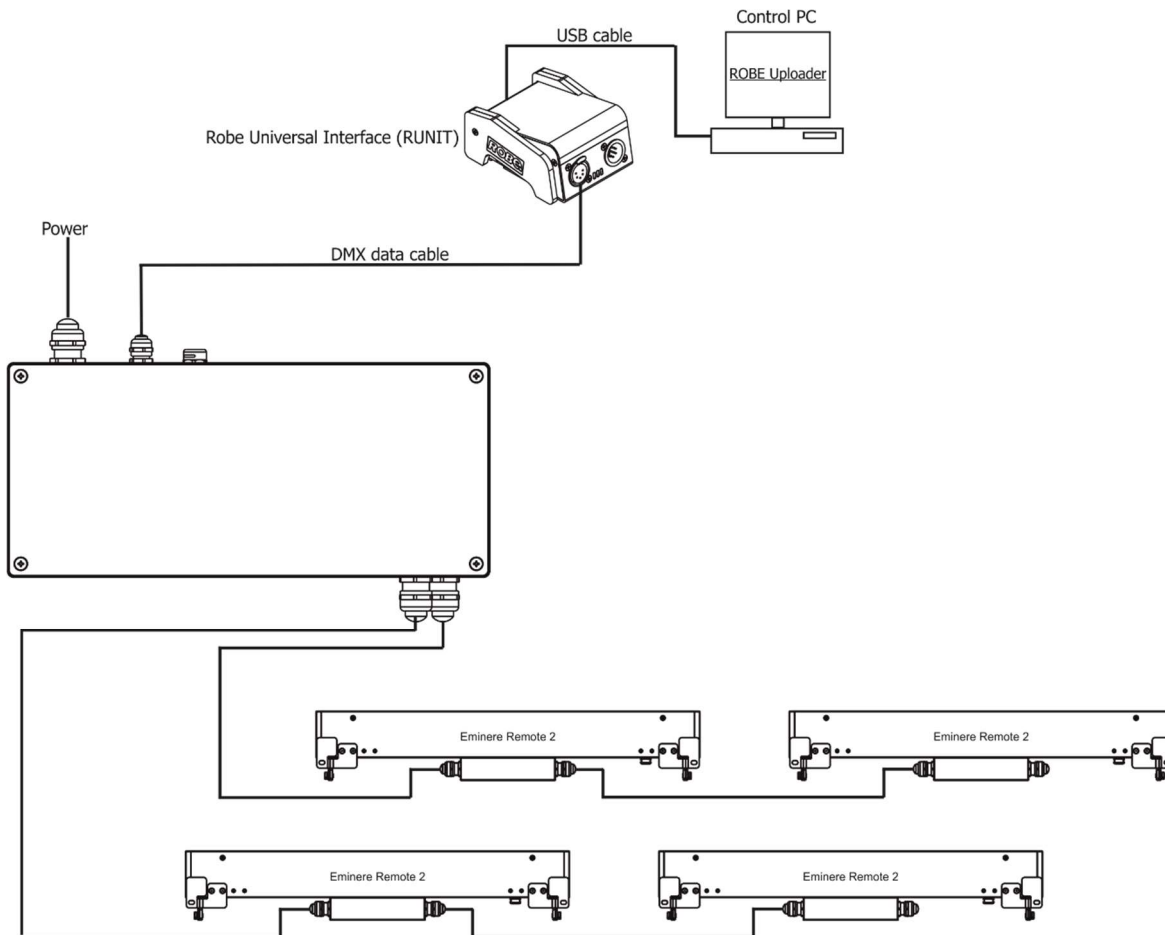


5. Software update of connected LED modules

The software update of connected LED modules can be done by the Robe Universal Interface (or Robe Universal Interface WTX) and the ROBE RDM Uploader software.

The ROBE Uploader is a software for automatized software update of ROBE fixtures. The ROBE Uploader switches E-box Remote to the update mode automatically.

Please see <https://www.robe.cz/robe-uploader/> for more information about the ROBE Uploader.

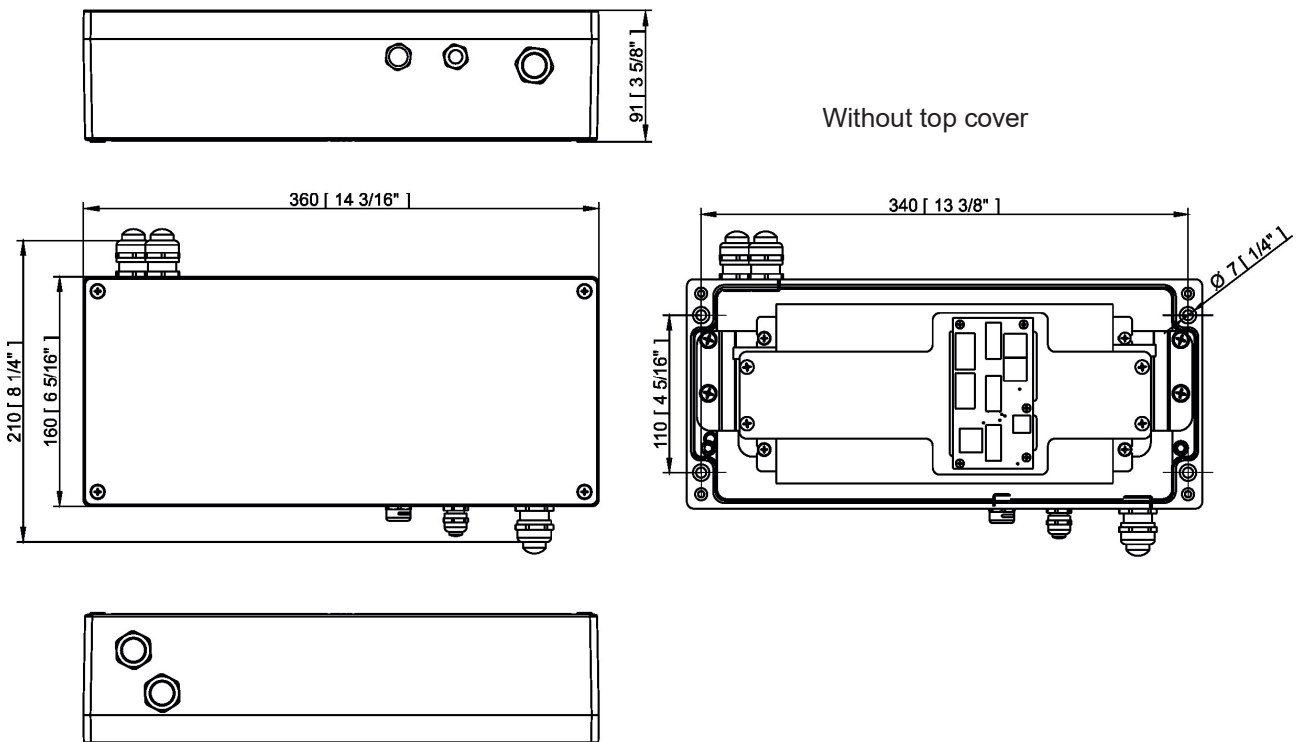


You have to use the file Eminere.lib in the ROBE Uploader for LED modules update.

6. Technical specifications

Input voltage	120-240 V AC; 277V AC
Frequency	50/60Hz
Power consumption:	520W
Fuse 1	T 6.3A/500V AC
Fuse 2	T 8A/250V AC
Fuse 3	T 8A/250V AC
LED Output	
Number of outputs	2
Voltage	48V DC
Max output power	380W per output
Total Output power	480W max. per fixture
Connection	
Power	terminal block
DMX	terminal block
LED Outputs	terminal block
Operating ambient temperature range	-20/+40°C (-4°F / +104°F)
Cooling System	convection
Protection factor	IP65 (CE), Suitable for Wet Locations (US)
IK Rating	IK10
Weight:	5 kg (11.02 lbs)

Dimensions
mm [inch]



7. Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

8. Change Log

This section summarizes changes in the user manual.

Version of the manual	Date of issue	Description of changes
1.1	01/12/2021	Connection improved
1.2	18/01/2022	120 Ohm terminator added
1.3	26/01/2022	Marking of connection blocks modified
1.4	24/02/2022	Information about 120 Ohm terminator changed
1.5	14/03/2022	Design of the user manual changed
1.6	07/04/2022	Connection of Eminere Remote changed
1.7	28/04/2022	Connection of Eminere Remote changed
1.8	21/07/2022	LED modules software update added

July 21, 2022

Specifications are subject to change without notice.

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