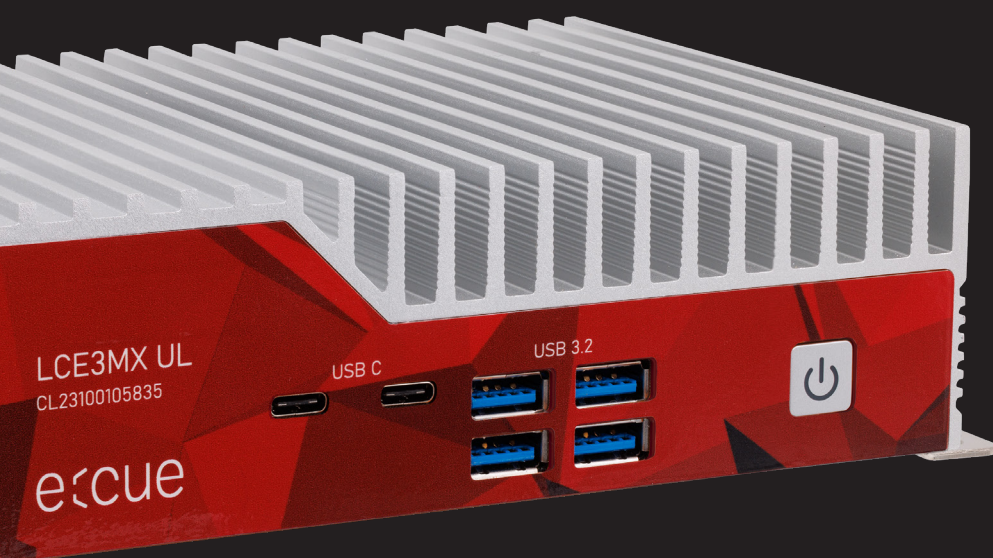# Lighting Control Engine 3 mx UL

Information for Use

Read the Information for Use and the Safety Instructions carefully. Subject to modification without prior notice. Typographical and other errors do not justify any claim for damages. Modification of the product is prohibited.
This document is designed for electricians and system administrators of the product.
All product names and trademarks mentioned in this manual are trademarks of their respective owners.
Except for internal use, relinquishment of the instructions to a third party, duplication in any type or form - also extracts - as well as exploitation and / or communication of the contents is not permitted.

Downloads and more information at:
www.ecue.com

IC: CL23100105835

Edition:
27.05.25 [EN_LCE3mxUL_Setup_v1p1]

Table of Contents

1 Safety instructions

Please read the safety instructions, provided in a separate manual, carefully. Make sure that the environmental, mounting, and installation prerequisites are met. This manual should be kept at a safe place and in reach of the device.

1.1 Symbols

⚠ The exclamation mark warns about possible damage of the device itself, to connected devices, and to the user.

ℹ The information symbol gives general hints and informs about handling and procedures for use of the device.

1.2 General safety instructions

⚠

— To prevent electric shock hazard or damage to the equipment, disconnect the power cord to remove power from the server. Portions of the power supply and some internal circuit remain active until power is removed.

— Device components inside the system can reach high temperatures. Do not open the system while in operation. Repairs may only be carried out by authorized, specially trained personnel. When in doubt, contact Traxon e:cue service.

— To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets, and circuitry.

— Avoid dust and humidity. Do not place the device in any area where it may become wet.

ℹ

— Installation and maintenance of this product must be performed by qualified individuals who are knowledgeable about the procedures, precautions, and hazards associated with the product.

— To prevent the device from overheating, only operate it in well-ventilated environment. Cooling fins may not be obstructed. Do not install next to heat emitting sources or in a place subject to direct sunlight.

— Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.

— If safety instructions are missing, please contact Traxon e:cue to receive a new copy.

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2 General device description

Designed to control small to medium projects, the Lighting Control Engine 3 mx UL (LCE3MX UL) is a high performance server with two e:cue software applications installed. As a central control unit, this versatile lighting control server orchestrates all devices and fixtures within a project. With the ability to output e:net and the capability to integrate various external engines, triggers, and other desired devices and content, the LCE3MX UL is the ultimate solution for medium-sized projects: from automation to DALI projects up to architectural illumination. With e:cue SYMPHOLIGHT and e:cue Lighting Application Suite, the LCE3MX UL offers two fully equipped professional lighting control solutions. The LCE3MX UL can be mounted on DIN rails with the optional DIN rail adapter brackets, on walls, and in 19 inch racks mounted on a rack drawer.

Highlights of the LCE3MX UL

· Equipped with e:cue's SYMPHOLIGHT and e:cue's Lighting Application Suite
· High quality components for reliable uninterrupted operation, certified for industrial use
· Fanless operation, SSD drive, no moving or rotating parts
· Support for a variety of Ethernet-based protocols
· Easily mountable on DIN rail (not included) or on walls
· Supports headless operation (no keyboard and monitor connected)
· e:cue quality: tested and optimized for SYMPHOLIGHT
· SYMPHOLIGHT and LAS licenses included
· Power supply included
· Windows 11 LTSC, 10 years security updates
· 5 years support
· 5 years warranty

2.1 Delivery content

Delivery content of the e:cue Lighting Control Engine 3 mx UL:

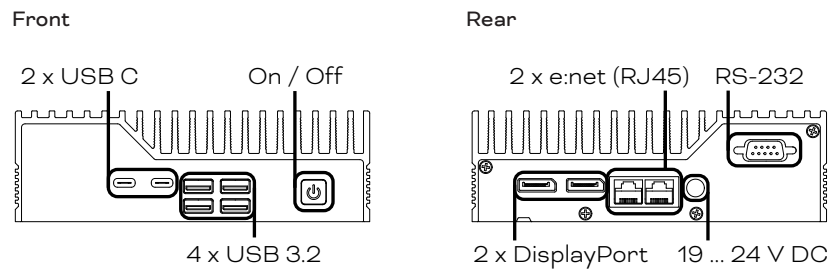1. e:cue Lighting Control Engine 3 mx UL   CL23100105835
2. Microsoft® Windows 11™
3. e:cue SYMPHOLIGHT & License dongle
4. e:cue Lighting Application Suite License dongle
5. Power supply unit
6. Power cords with Schuko, US and UK plugs
7. Welcome card, Safety instructions

2.2 Optional accessories

· Ethernet Data Cable (RJ45)   AA556130055
· SYMPL Switch   AM313830035

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2.3   Connectors and Interfaces

Front

2 x USB C   On / Off

4 x USB 3.2

Rear

2 x e:net (RJ45)   RS-232

2 x DisplayPort   19 … 24 V DC

2.4   Product specifications

Dimensions (W x H x D)	160 x 123 x 50 mm / 6.3 x 4.84 x 1.97 in (excl. mounting brackets)
Weight	1.16 kg / 2.56 lb (excl. mounting brackets)

Power supply	19 … 24 V DC, 5 A
	Power supply unit:
	  input: 100 … 240 V AC, 50/60 Hz, 1.4 A
	  output: 20 V DC, 6 A, 120 W max.

Power consumption	120 W
Operating temperature	0 … 50 °C / 32 … 122 °F
Storage temperature	-10 … 85 °C / 14 … 185 °F
Op. / storage humidity	0 … 90 %
Housing	Aluminum, steel
Mounting	Wall mounting
Battery	Yes (1)
Certifications	FCC, UL

Engine

Operating system	Microsoft® Windows 11™ LTSC
LAN chipset	2 x Gigabit Ethernet, Wake on LAN function
System connection ports	2 x e.net, RJ45 4 x USB 3.2 2 x USB Type C, Thunderbolt 4 2 x DisplayPort 1.4 1 x RS-232
Data storage	128 GByte SSD mSATA HDD
User interfaces	Power button

3 General remarks

3.1   Transport

Only transport the device in its original packaging. This protects the device from damage.

3.2 Unpacking

Only unpack the e:cue LCE3MX UL at its installation location. To protect the device against condensation water, unpack it and wait until all moisture remaining in the device has evaporated. Condensation can occur when the device is moved from a cold to a warm location. Keep the packaging for use in case of further transport. Inspect all parts for completeness regarding chapter „2.1 Delivery content" on page 04. If there is apparent damage to the device or parts are missing from the delivery scope, please contact the Traxon e:cue Support service.

3.3 Warranty regulations

Depending on the product, warranty regulations are of different duration. The warranty time is usually noted in the quote and in the order confirmation. See www.traxon-ecue.com/terms-and-conditions for details. Legal warranty regulations apply in any case.

3.4 Maintenance and Repair

Only external cleaning might be necessary. This cleaning may only be carried out by skilled personnel. To clean the device, disconnect it from the line power supply. Disconnect all devices connected to the server. Do not use any cleaning agents containing solvents (e.g. acetone, alcohol, or thinner) or abrasives. The housing surface can be cleaned with a moist, lint-free cloth. Ensure that no water penetrates into the housing. Otherwise, this could damage the electronics.

> — Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).
>
> — Do not try to repair the device. Return it to your Traxon e:cue distributor for replacement or repair.

In case of returning the LCE3MX UL

When returning the LCE3MX UL for any reason, e.g. for exchange, be sure to watch the following note:

Always care for proper backup of all user data like shows, images and media files. Data backup is responsibility of the user, Traxon e:cue cannot guarantee that user data are kept.

3.5 Disposal

> Batteries and technical appliances must not be disposed of with domestic waste, but should be handed in at the appropriate collection and disposal points.

The proper disposal of packing materials and of the device is the responsibility of the respective user and for his account; in all other matters, the retrieval obligation for packing materials and the device is subject to the statutory regulations.

3.6   Support

In case of technical problems or questions regarding installation and repair please contact:

Traxon Technologies Europe GmbH
Customer Service
Karl-Schurz-Str. 38
33100 Paderborn, Germany
+49 (5251) 54648-0
support@ecue.com

4 Installation

The installation of the LCE3MX UL consists of mounting the device, system ports connections and to power supply. The sequence of cabling is not defined.

⚠️ When adding or removing display and input devices to or from the system, ensure that the power of the LCE3MX UL is turned off before dis-/connecting the devices.

4.1   Mounting

Place the device on a stable surface.
You can mount the LCE3MX UL in racks as well as on walls or on DIN rails. As delivered, the LCE3MX UL is configured for wall mounting. Use the mounting holes to fasten the LCE3MX UL at a secure and well ventilated place. Place the cooling fins in a vertical orientation. Ensure proper strain relief for the connected cables.
When mounting the LCE3MX UL in a rack, ensure that the server rack is sufficiently ventilated.

4.2   Power supply

Connect the LCE3MX UL with the provided power cord to mains. For configuration keep the power switched off until stated otherwise.

5 Configuration

The LCE3MX UL runs on Microsoft® Windows 11™ as operating system. It enables you to run lighting control applications as e:cue's SYMPHOLIGHT and e:cue's Lighting Application Suite (LAS) on the LCE3MX UL. When first powering the LCE3MX UL, a setup of the server is required. Set the network properties for the LCE3MX UL and the lighting control applications afterwards.

5.1   LCE3MX UL initiation

⚠️ When adding or removing display and input devices to or from the system, ensure that the power of the LCE3MX UL is turned off before dis-/connecting the devices.

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Connect a display and input devices (keyboard, mouse) to the LCE3MX UL. Display and input devices are always necessary when accessing any application or settings on the LCE3MX UL. Connect with the power supply and switch on the LCE3MX UL with the power button.

You can hot plug all other peripherals to the LCE3MX UL.

i   Do not switch off the server with the main switch or by removing the power supply, but use the Windows shutdown function to prevent loss of data.

5.2   Setup

Boot the LCE3MX UL by pressing the On/ Off button. Windows starts its usual setup. Follow the instructions. You can change the keyboard layout to your needs and also set your time zone which matters for the lighting show execution.

Windows is set to automatic login. For other cases, these are the login credentials:

The default user name is: **ecue**
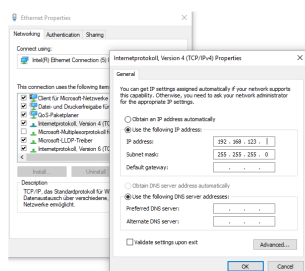
The default password is: **ecue!**

The LCE3MX UL has a second, backup user account prepared for safety or support reasons. Keep the account and do not change its settings: ecueBackup (user name), ecuebackup! (password). Especially in case of a forgotten password for the first account, accessing the user configurations through the backup account resolves the issue.
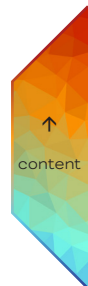
i   — Provide an Internet connection for the LCE3MX UL on setup. If necessary, with a running DHCP server to have an IP address assigned. Update Windows, SYMPHOLIGHT and the LAS. Enable and execute updates whenever available.

— Recommendation: Use the default power plan "ecue". Do not use a power manager modus which includes "sleep" since the LAS does not prevent a system shutdown. As per default, the high performance power management plan does not allow sleep modus.

5.3   Network Settings LCE3MX UL

Additionally to the network connection to the Internet, the LCE3MX UL is equipped with a second network adapter. This enables the integration of the LCE3MX UL into the network of the lighting installation. Configure the network properties for the LCE3MX UL as in every Windows OS, according to your network requirements:

i   Use the preferred dedicated local network range 192.168.123.xxx with one system-internal network adapter.
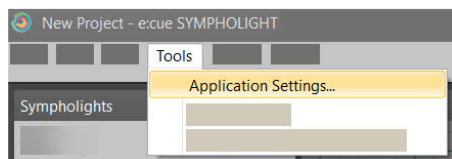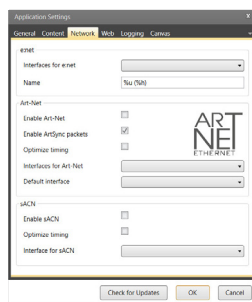
5.4   Network Settings SYMPHOLIGHT

The e:cue SYMPHOLIGHT application is pre-installed on the LCE3MX UL. SYMPHOLIGHT is a software application to design, test, and program medium to very complex lighting designs. Developed with superior usability in mind, e:cue SYMPHOLIGHT is a simple yet powerful lighting control software with an intuitive graphic user interface, based on advanced timeline programming. For SYMPHOLIGHT to communicate with the network devices in the installation, SYMPHOLIGHT has to be adjusted to the same network as all the other network components. The next steps describe how to set the network address in SYMPHOLIGHT. For further information about SYMPHOLIGHT, please refer to the SYMPHOLIGHT User Manual.

1.   Start the SYMPHOLIGHT application.
2.   Click on **_Tools_** in the top left menu and select **_Application Settings_**:

3.   In the pop up window **_Application Settings_** click on **_Network_**:
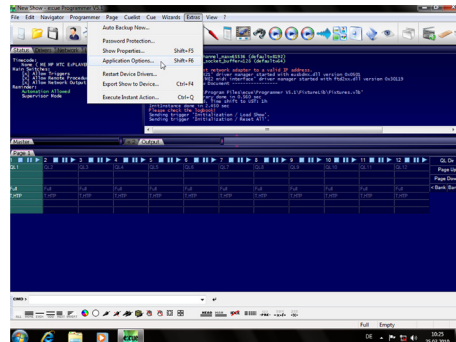

4.   Enter or select the IP address(es) of your network at **_Interfaces for e:net_**.
5.   Click **_OK_** to apply the changes. The pop up window closes and the network settings for SYMPHOLIGHT are now configured.

Notice that only the network settings for the SYMPHOLIGHT application have been set now. If you have further network devices installed, each of these devices have to be configured separately. See the SYMPHOLIGHT Setup Manual for details.
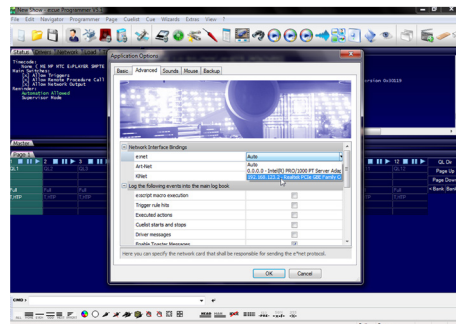
5.5   Network Settings LAS

The e:cue LAS is pre-installed on the LCE3MX UL. The LAS is a software for creating light shows and controlling complex lighting projects, and to control your network and all devices in it. For the LAS to communicate with the network devices in the installation, the LAS has to be adjusted to the same network as all the other components. The next steps describe how to set the network address in the LAS. For further details on the LAS, see the System Manual e:cue LAS.

1. Start the Programmer Enterprise.

2. Click on **_Extras_** and select **_Application Options_**:

3. Under the **_Advanced_** tab, you can specify which network card the programmer software e:net outputs to. You can specify this setting for the Art-Net and KiNet protocols. e:cue recommends only outputting one protocol per network:

4. Click **_OK_** to apply the changes. The network settings for the LAS are now configured.

Notice that only the network settings for the SYMPHOLIGHT application have been set now. If you have further network devices installed, each of these devices have to be configured separately. For further details on the LAS, see the System Manual e:cue LAS.

6 Dismounting

⚠ Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).

Disconnect all attached cables. Dismount the e:cue LCE3MX UL by unfastening the device. The dismounting is completed.
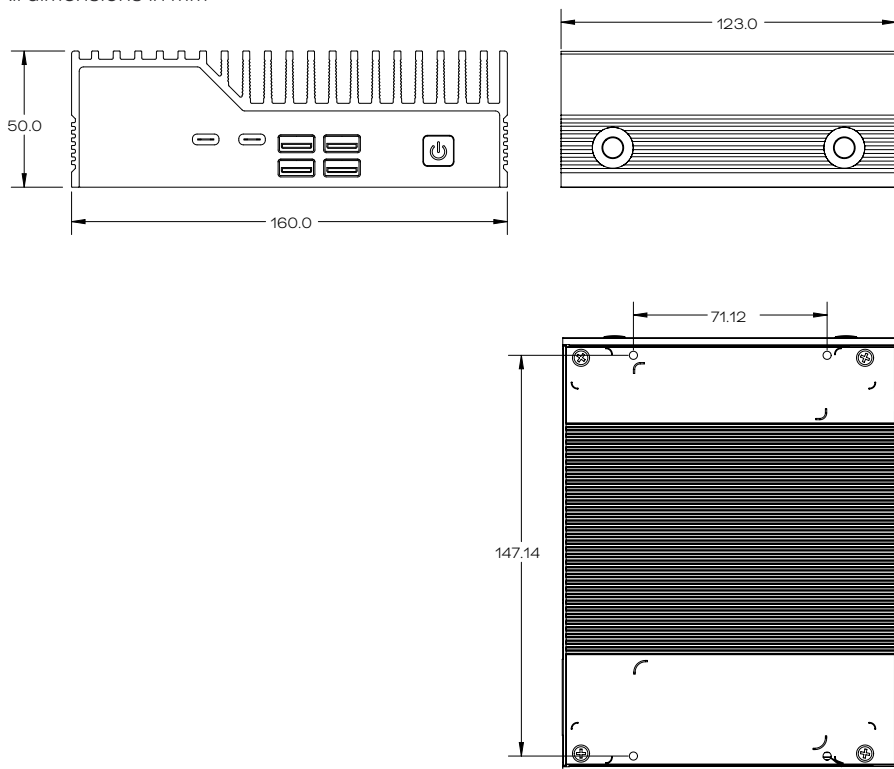
7 Certifications

Conforms to ANSI/UL Std. 62368-1, and 60950-1
Certified to CAN/CSA Std. C22.2 No. 62368-1

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

8 Dimensions

All dimensions in mm

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