### Light is OSRAM



Our Brand

e:cue



AB447060035

### e:cue SYMPL Core S

Setup Manual

AB447060035 e:cue SYMPL Core S Setup Manual (original issue) e:cue SYMPL Core S Installationsanleitung (Originalversion) Edition/Ausgabe: 23.08.19 [EN\_DE\_SYMPL\_Core\_S\_Setup\_v2p0]

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## English

# 1 Security 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 installation.

### 1.1 Symbols



The exclamation mark warns about possible damage of the device itself or connected devices.



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

### 1.2 General security instructions



Connect cables and data only when the device is powered down.



The device must be supplied by a separate certified SELV Class 2 power supply.



The maximum length of each connected cable is 30 m.



If safety instructions are missing, please contact OSRAM to receive a new copy.

## 2 General device description

e:cue SYMPL Nodes are a system of interfaces for e:cue SYMPHOLIGHT only. They provide various connection types like DMX512, DALI, digital inputs and outputs etc. SYMPL Nodes always operate in online mode, as a device interface for SYMPHOLIGHT. All interactions are initiated and controlled by SYMPHOLIGHT. Connections between servers, Cores and Nodes are always made with e:net via Ethernet.

e:cue SYMPL Core S is a stand-alone engine for e:cue SYMPHOLIGHT with SYMPL Nodes as interfaces. It executes SYMPHOLIGHT shows in small to medium-sized shows and controls all available SYMPL Nodes. As a user interface it utilizes the Action Pad of SYMPHOLIGHT with all usual web browsers. The connection between SYMPL Core S, external systems and the Nodes is a standard Ethernet network. Shows can be transferred to the SYMPL Core S from a SYMPHOLIGHT server or uploaded from many sources.

> To operate SYMPL Nodes a SYMPHOLIGHT version 2.0 or higher is mandatory. Earlier versions do not support the SYMPL Nodes. SYMPL Nodes are not supported by the e:cue Lighting Application Suite.

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e:cue SYMPL Core S is not hot-pluggable.

### 2.1 Delivery content

Delivery content for the e:cue SYMPL Core S (AB447060035):

- 1. e:cue SYMPL Core S
- 2. Safety instructions
- 3. Installation guide (English only)

General device description

### 2.2 Connectors and interfaces

View from top

	1	Master/Slave LED
6	2	Error/Status LED
	3	Ethernet link LED (e:net, LAN activity)
1 0	4	Power LED
1 2 0	5	Identify button
3 0 0 5	6	micro SD card slot
4 ()	7	Power supply
		(Vcc-, Vcc+ left to right)
7 8 9	8	e:net/Ethernet
	9	USB 2.0 socket

### 2.3 User interface: LEDs

The SYMPL Core S has four LEDs. The four LEDs show the basic states of the SYMPL Core S.

#### LEDs

Master/Slave	Blue: This SYMPL Core S is master in a master/slave	
	group.	
	Yellow: This SYMPL Core S is a slave in a master/slave	
	group.	
Error/Status	Green: Signals system activity.	
	Orange: System load reaches 100%.	
	Red: A system error occurred. Restart the system by	
	disconnecting the power supply. If the error persists,	
	contact OSRAM Service.	

Ethernet link	Off: No network connection available.	
	On: If constantly alight, network connection available.	
	Flashing: Data traffic over network.	
Power	On: Device is in operation.	

#### 2.4 Identify button: Identification & Reset & Update

The Identify button has four functions: to send an Identify message (A), to reset the SYMPL Core S (B), and to update the firmware of the SYMPL Core S (C).

(A) A short press during operation in online mode sends an Identify message to the server. This helps to assign the SYMPL Core S in the Layout in SYMPHOLIGHT.

**(B)** The Identify button can also be used to reset the device to factory state or to stay in bootloader mode:

• Keep the Identify button pressed while powering up, Status and Test / Error light up at first. Bootloader mode is signaled by a fast blinking Status LED. Release the button now. The device stays in bootloader mode to download a new firmware.

To exit the bootloader mode, short press the Identify button again.

• Press the Identify button until Status and Test / Error LEDs blink alternating, then blink together. Releasing the button now resets the device to its factory settings. The password and other settings are reset to their default values. Please note that the Offline Content cannot be reset. To employ a reset Startup behavior, a restart of the device is required.

• Keeping the button pressed further on, the device proceeds to normal operation. No changes apply.

**(C)** The Identify button is also part of the firmware update process using an USB flash drive. **See for further information.** 

## 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 SYMPL Core S 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 07. If there is apparent damage to the device or parts are missing from the delivery scope, please contact the OSRAM Support service.

### 3.3 Warranty regulations

Depending on the product, guaranty regulations are of different duration. The warranty time is usually noted in the quote and in the order confirmation. See "Services"  $\rightarrow$  "OSRAM Guarantee" at www.osram.com for details. Legal warranty regulations apply in any case.

#### 3.4 Maintenance and Repair

This device requires no maintenance.



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 OSRAM distributor for replacement or repair.

### 3.5 Disposal

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.



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

### 3.6 Support

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

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

## 4 Installation

The installation of the SYMPL Core S consists of mounting the device, connections to e:net, and to power supply.

The sequence of cabling is not defined. Supply the SYMPL Core S with power after all cabling is completed; it starts booting.



Connect cables and data only when the device is powered down.



Each cable should not exceed a length of 30 m.

### 4.1 Installation conditions

Installation position:	Terminals on top and bottom
Horizontal spacing:	No spacing necessary
Minimum vertical rail grid spacing:	115 mm (90 + 25 mm) (excluding conduit)
Recommended vertical rail grid spacing:	160 mm (with 40 mm conduit)
Installation location	Indoor

#### 4.2 Mounting process

The e:cue SYMPL Core S is designed to mount onto a 35 mm DIN rail (EN 60715) in a vertical position.



1. Clip the device to the rail from top.

2. Gentle pressure is then applied to the top front to snap it in place. The SYMPL Core S has been mounted successfully.

You can also mount the e:cue

SYMPL Core S on any flat vertical surface. Use a 3 to 3.5 mm screw for the hanger hole.

For mechanical stability, mounting on a rail is recommended.

### 4.3 Ethernet connection

The pin-assignment of the Ethernet port corresponds to RJ45 standards. You can use every common Ethernet component, like cable, splitters, and switches. Connect the SYMPL Core S at the designated Ethernet interface with a patch cable (RJ45, CAT5).

- Never connect more than one SYMPL Node in factory state to a network. The identical IP addresses will conflict and disturb proper communication.
- The Ethernet port of the SYMPL Node is not designed for inter-building connections with power and lighting transients. Use only intra-building networks to connect the SYMPL Nodes and Cores.

#### 4.4 Power supply

Connect the SYMPL Core S to a certified NEC Class 2 24 V DC power supply unit. Present power supply equates to the status "On" or running of the SYMPL Core S.

To connect the device to a power supply unit, use the provided 2-pole terminal and lay the wires as stated on the front label. The voltage assignment is left V+ and right V-.

Turn the power on when all cables are connected to the SYMPL Core S. The device starts booting. The device has finished booting and is in operation when the LED Error/Status is flashing.



The SYMPL Core S is not suited for powering over a DC power supply network. Use a separate certified SELV Class 2 power supply unit in the control cabinet for supplying 24 V DC to the SYMPL Core S.

## 5 Network configuration

The configuration of the e:cue SYMPL Core S is completely done via e:cue SYMPHOLIGHT. See the SYMPHOLIGHT System Manual for details on configuration, available at www.ecue.com.

The network properties of the SYMPL Core S are preconfigured. The

Network configuration

successful installation of the power supply is required for changing the network configuration. You can either adjust the network settings with SYMPHOLIGHT or using the web interface of the SYMPL Core S. Via the web interface extended DMX/RDM settings are configurable.

#### 5.1 Default network properties

The SYMPL Core S has as factory setting the AutoDHCP enabled.

Define your login credentials for the web interface of the SYMPL Core S on first access.

To change the network configuration use either SYMPHOLIGHT or the web interface of the SYMPL Core S:

### 5.2 Network configuration with SYMPHOLIGHT

1. Open the context menu of the SYMPL Core S in the Setup tab of SYMPHOLIGHT by a right-click on the device.

2. Select "Configure Network":



3. Define the Network Mode (DHCP settings), the IP address, and the

subnet mask to your needs:

Sympholight Network Configuration		
Network Mode AutoDhcp		
IP Address	0.0.0.0	
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	
Password		
Apply Cancel		

4. Click "Apply" to submit the changes.

The network configuration of the SYMPL Core S is completed.

#### 5.3 Network configuration with the web interface

1. Open a common web browser on a connected PC. Enter the SYMPL Core S's IP address into the address bar:

e.g. http://192.168.123.1

The remote console of the SYMPL Core S is displayed:



2. Select "Configuration" and the dashboard of the SYMPL Core S is displayed:

	System Status	
	Device Name:	e:cue SYMPL Core S
	Model:	e:cue SYMPL Core S
e:cue sympholight	System Version:	2.20.12204.0
	License Level:	Full Version
Dashboard	Engine Status:	Running at 30.0 fps
	Uptimes	00:08:42
Show file	Core Temperature:	35 °C
Remote Control	Chassis Temperature:	30 °C
Show Output	CPU Load:	1% (running on 4 processors at 900 MHz)
silon output	Memory Usage:	145 MB of 936 MB used
Devices	Online Input / Output devices:	0
Settings	Network issues:	0 packets were sent after their deadline
Network	Show Information	
Maintenance	Show Name:	<errpty></errpty>
	Save date:	unknown
	Patch information:	0 layouts with 0 fotures, containing 0 pixels and 0 DMX channels
	Input / Output devices:	0 in the show, 0 are online
	Sequences:	0 in the show, 0 are running, 0 are finishing
Network Information Name: net1		
		net1
	Hardware Address:	88:27:EB:CD:05:1C
	Status:	Up
	IP Address:	192.168.123.111
	Subnet Mask:	255.255.255.0

3. On the left side, select "Settings" and enter the default password **ecue**.

Network configuration

4. Click "Apply". The Settings page is displayed:

	Main Settings		
	Device Name:	e:cue SYMPL Core S	Name of the device, that is also visible in SYMPHOLIGHT. You can embed You for the current user name and Yoh for the current host name.
	Engine FPS:	30 18	The desired number of frames per second rendered by the engine. Valid range: 1-60, default: 30
Jashboard	AutoRestore Show:	8	Automatically restore the show on error and power loss. Default: Yes for SYMPL Cores.
Remote Control	Automatic Node Replacement Mode:	8	Automatically replace offline nodes with available nodes of the same type. Default: Yes for SYMPL Cores.
how Output	Maximum logfile age:	90 18	Maximum age of stored log files in days. Older log files are deleted. Minimum: 1, default: 90
Devices	Log Debug messages to logfile:		Logging debug messages to the log file may help eccue support to identify problems. Default: No for SYMPI Cores.
letwork	Enable Data Collection:	0	Activates or deactivates the data collection.
faintenance	Data Collection Server URL:		The URL of the REST Server which manages the collected data in format http://123.456.789.123:1234 /RestService.svc
		Reset Apply	
Date and Time Settings			
	Time Zone: (UTC) Coordinated Universal Time - Apply		Apply
	Date and Time (DD.MM.YY, HH:MM:SS):	23 9 8 9 2019 9	Set

Define the network settings at "Device Basics" to your needs. You
can also change the password for entry to the web interfaces of the
SYMPL Core S here.

6. Click "Submit" to apply the settings.

The network configuration of the SYMPL Core S is completed.

The employment of a discrete network is recommended.

 Note down all employed and, if applicable, reserved IP addresses. Keep the information for future network configurations.

You can change the login password to the SYMPL Core S's configuration page and the device name of the SYMPL Core S at "Settings" page. Do not forget the new password.

## 6 Firmware Update

To update the SYMPL Core S, a connection of the SYMPL Core S to SYMPHOLIGHT is required.

Download the SYMPL Core S Updaterfrom the e:cue website and save it on your local drive. Double-click to execute the Updater.

#### HowTo update SYMPL Core S with an USB memory stick

😽 SYMPL Core	S Updater ×	
	SYMPL Core 5 Updater Version 2.0.12004 (Build 2016/12/21) © 2016 Osram GmbH	
Create USB Stick	Create Image File for SD Card	
You can use a specially prepared USB Stick to update your SYMPL Core. Please insert an USB stick (1734 MB or bigger) into one of your USB ports, then press Start Consult the SYMPL Core documentation for further details.		
USB stick to pr	epare:	
Initialize USB st	ick O	
Check USB stic	* O	
Copy Files to L	SB stick O	
Options:         Request a Factory Reset after updating           Verify contents on USB stick after successful creation         Unload USB stick after successful creation           Unload USB stick after successful creation         Close		

You will need a USB memory stick with at least 8 Gbytes capacity. Plug the USB memory stick into your PC. If the Updater found no USB memory stick, it will show an error message. If it found one or more USB memory sticks, you have a list to select the

appropriate USB memory stick.

You can even plug in the USB memory stick while the Updater runs. Set the check marks, if you want the contents of the USB memory stick to be verified, and if you want the system to remove the USB memory stick after the process. After the Updater has finished the process, the USB memory stick has a complete image of the SYMPL Core S firmware.

• Please backup the Show File from the SYMPL Core S WebUI before starting the update process in case any issue comes up during the update process.

- Disconnect the SYMPL Core S from power.
- Plug in the USB memory stick into the SYMPL Core S.

Firmware Update

- Keep the Identify button pressed and reconnect the power supply.
- The Master/Slave LED will start to blink.
- Release the button immediately.

After the update, the SYMPL Core S will restart and return to normal operation.

#### HowTo update SYMPL Core S image directly to SD card

Follow these steps in order:

- 1. Open file SymplCoreUpdater\_\*.exe.
- 2. Switch to tab "Create Image File for SD Card".
- 3. Select a location on your local disk and start the process.



4. Download and install Win32 Disk Imager (or another image-writing tool). See link in dialog.

5. Open Win32 Disk Imager, choose the image file which you created under 4.

6. Select the drive letter of the SD card.

ATTENTION: This will unrecoverably wipe all data on that drive. So double

(better triple!) check to choose the drive letter matching your SD card!

👒 Win32 Disk Imager	
Image File	Device
C:/temp/image_sympl_core_s.img	
Copy MD5 Hash:	0
Progress	
Version: 0.9.5 Cancel	Read Write Exit

7. Check again if the drive letter corresponds to the SD card. If so, confirm overwriting.



8. When done, power off the SYMPL Core S. Insert the SD card and power it on.

Be patient on the first boot, it might take longer up to ~3 minutes.

When Master/Slave LED of SYMPL Core S lights in blue, the device has booted and is operational.

# 7 Dismounting

Disconnect all attached cables. Dismount the e:cue SYMPL Core S from the rail by pulling the black DIN rail handle and unhitching the SYMPL Core S. The dismounting is completed.



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

## 8 Product specifications

Product number	AB447060035
Dimensions (W x H x D)	71.5 x 90.5 x 62 mm
	0.28 x 0.30 x 0.20 in
	(without fastening clip)
Weight	170 g
Power supply input	24 V DC on screw terminal
	wire gauge: 0.25 2.5 sqmm
	(0.5 sqmm for flexible wires with
	ferrules)
Power consumption	max. 12 W incl. external USB load
Operating temperature	0 40 °C / 32 104 °F
Storage temperature	-10 70 °C / 14 158 °F
Operating / storage humidity	0 80%, non-condensing
Protection class	IP20
Electrical safety	SELV
Housing	Self extinguishing blend PC / ABS
	UL document E140692

Mounting	on 35 mm DIN rails
	EN 60715, width: 3 units
	or wall mount with 1 x 3 $\dots$ 3.5 mm screw

#### Interface specifications

User interface	4 LED indicators (Master/Slave, Error/Status,
	Ethernet link, Power)
	1 push button
System interfaces	1 x e:net / Ethernet, RJ45 CAT5 shielded
	USB 2.0 Type A
	microSD card with SYMPHOLIGHT software

### 9 Certifications



e:cue SYMPL Core S is certified according to EN 55022, EN 55024, 62368-1 Ed. 2

Conforms to ANSI / UL Std. 60950-1 Certified to CSA Std. C22.2 NO. 60950-1

# **Dimensions / Abmessungen**

All dimensions in mm / Alle Abmessungen in mm



Downloads and more information at: www.ecue.com and www.traxontechnologies.com

OSRAM GmbH Sales Operations Karl-Schurz-Str. 38 33100 Paderborn, Germany +49 5251 54648-0 support@ecue.com www.ecue.com

Head office / Zentrale: Marcel-Breuer-Strasse 6 80807 Munich, Germany Phone +49 89 6213-0 Fax +49 89 6213-2020 www.osram.com

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