AB444230035

SYMPL dali Node

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 system administrators of the product.
All product names and trademarks mentioned in this manual are trademarks of their respective owners.

Downloads and more information at:
www.ecue.com

Table of Contents

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, 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 security instructions

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

— For electrical safety reasons it is not allowed that SYMPL dali Nodes share the same power supply with other SYMPL nodes, such as SYMPL dmx Node etc.
Please make sure to use one dedicated power supply unit only for the DALI devices.

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

— The maximum length of each connected cable is 30 m.

ℹ
— If safety instructions are missing, please contact Traxon e:cue 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.

The e:cue SYMPL dali Node is a single line DALI interface. It provides a DALI interface for up to 64 DALI devices in one line including bus power and full support for DALI ballast and OSRAM sensors / inputs. The SYMPL dali Node is powered by an external power supply. It is easily mounted on standard 35 mm DIN rails, or with a key hole in the housing base on walls or on any stable vertical surface. Via SYMPHOLIGHT, DALI commands like linear dimming curve (DT6), RGB, RGBW, and Color Temperature (DT8) are supported. The SYMPL dali Node is a simple, reliable and easy to use interface solution for e:cue lighting control solutions with SYMPHOLIGHT

ℹ
— 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.

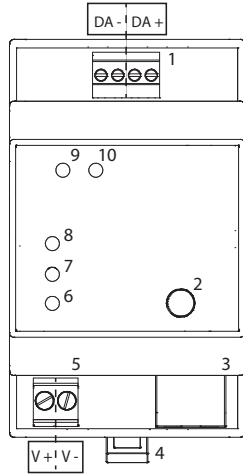— e:cue SYMPL dali Node is not hot-pluggable.

2.1 Delivery content

Delivery content for the e:cue SYMPL dali Node (AB444230035):

1. e:cue SYMPL dali Node
2. Safety instructions
3. Welcome note (English)

2.2 Connectors and interfaces

View from top

1	DALI interface (left to right : DA -, DA +)
2	Identify button
3	e:net / Ethernet
4	DIN rail handle
5	Power supply (left to right : V +, V –)
6	Status LED (Device status)
7	e:net LED (Ethernet, LAN activity)
8	Test / Error LED
9	Active LED
10	Bus LED

2.3 User interface: LEDs

The SYMPL dali Node has five LEDs. The five LEDs show the basic states of the SYMPL Node.

LEDs

Status	On: If constantly on, the device is online. Server application is in operation. Blinking: If blinking in one second intervals, the device is offline, no connection to a SYMPHOLIGHT server or Core is available. If blinking more rapidly, the device is in bootloader mode
e:net	Off: no link available. On: link established. Blinking: e:net traffic.
Test / Error	Off: no error detected. Short-short-long sequence: Test mode active. On: If constantly lights in red, an error occurred. This can be an internal error or malfunction of the device, or an external error, e.g. a shortcut of interface connections or alien power supply. Switch the device off and on. If the error persists, check the wiring or contact Traxon e:cue Service.
Status + Test / Error	The Status and Test / Error LED blink simultaneously to identify the SYMPL Node (enabled "Identify Interface Mode" in SYMPHOLIGHT).
Active	Yellow blinking: data output from the DALI Node to the fixtures. Blue blinking: incoming data to the DALI Node.
Bus	Off: SYMPL dali Node is not connected to DALI bus. On: DALI bus ready to operate. Blinking: alien power supply detected.

2.4 Identify button: Identification & Reset & Testing

The Identify button has four functions: to send an Identify message (A), to reset the Node (B), to test the installation (C), and to exit the error state (D).

(A) A short press during operation in online mode sends an Identify message to the server. This helps to assign the Node 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. 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) Use the Identify button also to test the connected fixtures to ensure their correct installation.

- Access the Test mode of the SYMPL Node by double-pressing the Identify button during operation. The Test / Error LED signals the Test mode by blinking short-short-long repeatedly.

- Single-press the Identify button to switch between the following Test patterns:
1. All ballasts on maximum value.
2. All ballasts on minimum value.
3. All ballasts toggle between 0 and 255.

- Exit the Test mode any time by double-pressing the Identify button again. The device proceeds to normal operation. The Test / Error LED is off.

(D) Short press the Identify button if an error occurs and you want to exit the error mode. The device will switch back to normal activity if the cause of error is eliminated. The Node might reboot.

↑
content

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 dali Node 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.

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 SYMPL dali Node consists of mounting the device, connections to DALI devices, to e:net and to power supply.
The sequence of cabling is not defined. Supply the SYMPL dali Node 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 Node is designed to mount onto a 35 mm DIN rail (EN 60715) in a vertical position.
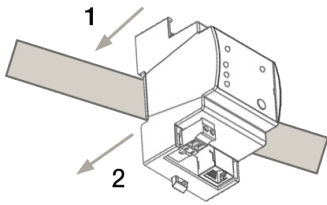
1. Clip the device to the rail from top.

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

You can also mount the e:cue SYMPL Node 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.

The e:cue SYMPL dali Node provides connectivity to Ethernet via e:net and to DALI fixtures via the DALI bus. A separate power supply unit as external power source has to be attached to the dali Node.

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 dali Node 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 DALI connection

The e:cue SYMPL dali Node offers a 2-pin assigned screw terminal plug for the DALI output. Use a screw driver to open and close the terminal for attaching the two DALI bus wires. Connect the wires according to the pin assignment on the label.

The Node provides two terminals for each pin if the wires exceed the gauge of the terminal plugs. In this case, please divide the wire's end into two and attach both cable heads in juxtaposition with each other and according to the pin assignment to the terminal plugs.

4.5 Power supply

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

To connect the SYMPL dali Node to a power supply unit, the dali Node provides a 2-pin screw terminal plug. Use an electrostatic sensitive screw driver to open and close the terminal for attaching the two power supply wires of a 24 V DC power supply. Connect the wires according to the pin assignment on the label.

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

The dali Node runs a power supply check automatically but only at the first instant after switching on. The power supply check scans the DALI bus system for alien power supply and incorrect voltage. In case of alien power supply or incorrect voltage, the DALI bus will not be powered.

> ⚠️ — For electrical safety reasons it is not allowed that SYMPL dali Nodes share the same power supply with other SYMPL nodes, such as SYMPL dmx Node etc. Please make sure to use one dedicated power supply unit only for the DALI devices.
>
> — The SYMPL dali Node 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 dali Node.

> ℹ️ — Detach from the power supply whenever working on the DALI bus or any attached DALI devices. DALI bus related changes can cause damage to the installation and are only detected after switching on the SYMPL dali Node. A power supply check for the DALI bus system executes.

A Mean Well DR-15-24 power supply unit is recommended.

5 Network configuration

The configuration of the e:cue SYMPL dali Node 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 dali Node are preconfigured. The 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 dali Node. Via the web interface extended DALI settings are configurable.

5.1 Default network properties

The SYMPL dali Node has as factory setting the default IP address 192.168.123.1.
DHCP is enabled by default.

Login credentials for the web interface of the SYMPL dali Node:
The default password is: **ecue**

To change the network configuration use either SYMPHOLIGHT or the web interface of the SYMPL dali Node:

5.2 Network configuration with SYMPHOLIGHT

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

2. Select "Configure Network":
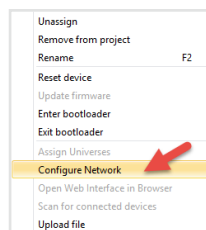
3. Define the IP address, the subnet mask and the DHCP settings to your needs:
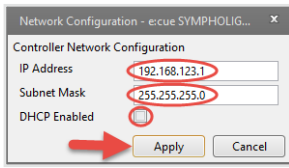
4. Click "Apply" to submit the changes.

The network configuration of the SYMPL dali Node is completed.

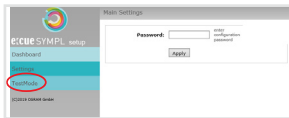## 5.3   Network configuration with the web interface

1. Open a common web browser on a connected PC. Enter the SYMPL dali Node's IP address into the address bar:
e.g. http://192.168.123.1
The web interface of the SYMPL dali Node is displayed:

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

3. Click "Apply". The Settings page is displayed:
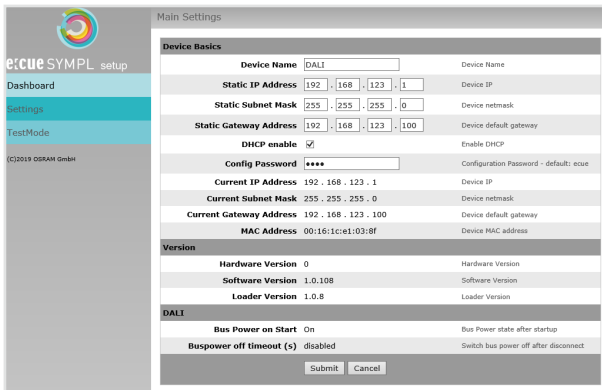
4. Define the network settings at "Device Basics" to your needs. You can also change the password for entry to the web interfaces of the SYMPL dali Node here.

5. Click "Submit" to apply the settings.

The network configuration of the SYMPL dali Node is completed.

i — 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 dali Node's configuration page and the device name of the SYMPL dali Node at "Settings" page. Do not forget the new password.

5.4 Extended DALI settings

DALI settings are configured via SYMPHOLIGHT at the properties of the SYMPL dali Node in the Setup Tab. Is the Node not connected to SYMPHOLIGHT, extended DALI settings take effect.

Over the web interface of the SYMPL dali Node you can define the extended DALI properties for:

Properties

Bus Power on Start	Define whether the SYMPL dali Node provides DALI bus power to the connected DALI devices on its startup. Useful in emergency cases when the SYMPL dali Node is powered prior to the connected devices and SYMPHOLIGHT's DALI bus power command is not available on startup. ON: DALI bus power provided. The connected devices switch to their Power On Level. OFF: DALI bus power disabled. The connected devices display their System Failure Level.
Bus Power off timeout (s)	Define the time in seconds after which the DALI bus power will be switched off after the SYMPL dali Node got disconnected from SYMPHOLIGHT's DALI bus power commands (30s + x). Connected devices will then switch to their System Failure Level. To disable the timeout and to continuously provide DALI bus power from the Node, set the timeout to 0s. Connected devices will then display their last active output.

These properties are only configurable when the device is not assigned to a show. SYMPHOLIGHT must have had control once over the Node for the settings to take effect.

To access the web interface, open a common web browser on a connected PC. Enter the device's IP address into the address bar:
e.g. http://192.168.123.1.

6 Test mode

- SYMPHOLIGHT v5.0 or higher needed-

The SYMPL dali Node provides a Test mode for the connected DALI devices. The Test mode is designed for DALI luminaires and sends broadcast commands. There are two kinds: using the Identify button and using the web interface of the SYMPL dali Node.
Please note that the Test mode overwrites all other DALI output like running shows for the time of testing.
The Node does not revert to its previous DALI output state after exiting the Test mode.
The Test mode is indicated by the blinking Test / Error LED.

Test mode via Identify button
See section (C) on page 05 at "2.4 Identify button: Identification & Reset & Testing".

Test mode via Web interface

The web interface of the SYMPL dali Node provides four different test patterns. To access the web interface, open a common web browser on a connected PC. Enter the SYMPL dali Node's IP address into the address bar:
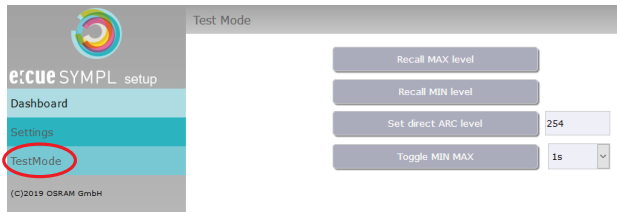
e.g. http://192.168.123.1.

Open the Test mode page by selecting "TestMode" on the left side of the web interface of the SYMPL dali Node:

Click a button to run the chosen test:

Property	Description
Recall MAX level	Sets all devices to their maximum value level.
Recall MIN level	Sets all devices to their minimum value level.
Set direct ARC level	Sets all devices to the defined direct ARC level. Set the level at the right drop-down field.
Toggle MIN MAX	Toggles between 0 and the maximum value level. Set the toggle time interval at the right drop-down field.

Exit the Test mode by leaving the Test mode page, e.g. go to "Dashboard", or by double-pressing the Identify button.

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7   Firmware Update

To update the SYMPL dali Node, a connection of the SYMPL dali Node to SYMPHOLIGHT is required.

Updating with SYMPHOLIGHT

Use the usual update options in the Device Tree of the Setup tab in SYMPHOLIGHT: select "Update firmware" in the context menu of the SYMPL dali Node or click the Update button ⟳ in the head toolbar.

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8   Dismounting

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

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

9   Product specifications

Product number	AB444230035
Dimensions (W x H x D)	53.5 x 90 x 62 mm / 2.1 x 3.6 x 2.4 inch (excl. fastening clip)
Weight	100 g / 0.22 lb
Power supply	24 V DC (screw terminal) wire gauge: 0.5 ... 6 mm² (0.5 ... 2.5 mm² for ferrules)
Power consumption	max. 6.5 W
Operating temperature	-20 ... 50 °C / -4 ... 122 °F
Storage temperature	-20 ... 70 °C / -4 ... 158 °F
Op. / storage humidity	0 ... 80% RH, non-condensing
Protection class	IP20
Electrical safety class	SELV (Ethernet), basic insulation (DALI, Power)
Housing	Self extinguishing blend PC/ABS, UL E140692
Mounting	on 35 mm DIN rails (EN 60715), width: 3 units or wall mount with 1 x 3 ... 3.5 mm screw
Certificates	CE, ETL, UKCA

Interface specifications

DALI	1 x DALI master, max. 64 devices Conformal to EN 62386-101 ed 1.0 2-pin screw terminal plug wire gauge: 0.08 ... 1.31 mm² DALI current max. I_{DALI} = 250 mA DALI bus current max. 128 mA with max. 64 devices (2 mA per device) DALI voltage max. V_{DALI} = 17 V DALI short circuit protection current: I_{DALISC} = 12 mA
Ethernet port	1 x e:net 10/100 Mbit/s, RJ45 CAT5 shielded
User interfaces (UI)	LEDs for Ethernet activity, device status, DALI status, Bus, Test/Error Identify button

10   Certifications

Conforms to ANSI / UL Std. 62368 -1

Intertek

4000805   Certified to CSA Std. C22.2 NO. 62368 -1

DALI-2   Approval pending

11   Dimensions

All dimensions in mm

53.5

62

90.5

content

Please check for the latest updates and changes on the Traxon website.

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