ESYLUX

NOVA series

Ceiling lights with tuneable white

Colour temperature 2700 to 6500 K

Detailed operating instructions

ESYLUX

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An der Strusbek 40, 22926 Ahrensburg, Germany

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Doc. no. BA010796_00

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1 Information about the document

These operating instructions contain detailed information about device functions and the processes for commissioning and assembling the specified devices.

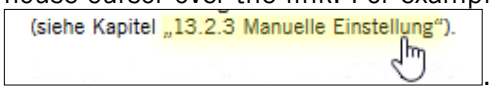
This document is also available online at www.esylux.com and can be printed in A4 format.

Please read the operating instructions through in full and note all safety information and warnings.

Navigating on screen

When you are reading the document on screen, you can use the following functions:

- Linked table of contents: Clicking on the chapter title opens the corresponding chapter.
- List of bookmarks: All chapters can be accessed from the list of bookmarks. You can usually open the list of bookmarks in the PDF software by clicking the symbol.
- Linked references: You can move to specified locations by clicking on the link. Many PDF programs highlight such links when you hover the mouse cursor over the link. For example:



1.1 Manufacturer address

ESYLUX GmbH
An der Strusbek 40
22926 Ahrensburg, Germany

Website: www.esylux.com
Email: info@esylux.com

1.2 Product identification

These operating instructions apply to NOVA-series products with adjustable colour temperature (tuneable white) as listed below. The operating instructions apply to master lights as well as sets. The sets always consist of two master lights and two slave lights.

Summary of the item description

The item designation contains important information about the product. Meaning of the item designation:

PNL	NOV	10	030	8TW	WH	C	L	ELCM	00	B
1	2	3	4	5	6	7	8	9	10	11

Number	Information	Explanation of the abbreviation
1	Product family	PNL: Panel light
2	Series name	ALC: NOVA
3	Dimensions	10: 593 x 593 mm² 11: 618 x 618 mm²
4	Luminosity in watts (equivalent)	030: 30 watts 040: 40 watts With sets, the maximum luminosity is given in watts (equivalent).
5	Colour temperature	8TW: Tuneable white, 2700 K–6500 K
6	Housing colour	WH: White
7	Diffusor	C: Crystal O: Milky
8	Light sensor	L: Light sensor fitted 0: No light sensor
9	Connections	ELCM: ESYLUX light control master ELCS: ESYLUX light control slave ELCX: ESYLUX light control set with master and slave lights
10	Connection	00: Standard connection terminal
11	Operating interface	B: Bluetooth and infrared K: KNX and infrared No entry: Infrared

These instructions apply to the following ESYLUX NOVA lights:

	Item number	Item designation
Master lights	EQ10112782	PNLNOV100308TWWHO0**ELCM**00
	EQ10120589	PNLNOV110308TWWHO0**ELCM**00
	EQ10112638	PNLNOV100308TWWHC0**ELCM**00
	EQ10120442	PNLNOV110308TWWHC0**ELCM**00
Master lights with light sensor	EQ10112843	PNLNOV100308TWWHO**LELCM**00
	EQ10120695	PNLNOV110308TWWHO**LELCM**00
	EQ10112690	PNLNOV100308TWWHC**LELCM**00
	EQ10120558	PNLNOV110308TWWHC**LELCM**00

	Item number	Item designation
Master lights with Bluetooth	EQ10112799	PNLNOV100308TWWHO0**ELCM**00**B**
	EQ10120596	PNLNOV110308TWWHO0**ELCM**00**B**
	EQ10112645	PNLNOV100308TWWHC0**ELCM**00**B**
	EQ10120534	PNLNOV110308TWWHC0**ELCM**00**B**
Master lights with KNX	EQ10121142	PNLNOV100308TWWHO0**ELCM**00**K**
	EQ10121340	PNLNOV110308TWWHO0**ELCM**00**K**
	EQ10121043	PNLNOV100308TWWHC0**ELCM**00**K**
	EQ10121326	PNLNOV110308TWWHC0**ELCM**00**K**
Master lights with light sensor and Bluetooth	EQ10112881	PNLNOV100308TWWHO**LELCM**00**B**
	EQ10120701	PNLNOV110308TWWHO**LELCM**00**B**
	EQ10112737	PNLNOV100308TWWHC**LELCM**00**B**
	EQ10120565	PNLNOV110308TWWHC**LELCM**00**B**
Master lights with light sensor and KNX	EQ10121159	PNLNOV100308TWWHO**LELCM**00**K**
	EQ10121432	PNLNOV110308TWWHO**LELCM**00**K**
	EQ10121135	PNLNOV100308TWWHC**LELCM**00**K**
	EQ10121333	PNLNOV110308TWWHC**LELCM**00**K**
Sets	EQ10111563	PNLNOV100308TWWHO0**ELCX**00
	EQ10110962	PNLNOV110308TWWHO0**ELCX**00
	EQ10111525	PNLNOV100308TWWHC0**ELCX**00
	EQ10110924	PNLNOV110308TWWHC0**ELCX**00
Sets with light sensor	EQ10111587	PNLNOV100308TWWHO**LELCX**00
	EQ10110986	PNLNOV110308TWWHO**LELCX**00
	EQ10111549	PNLNOV100308TWWHC**LELCX**00
	EQ10110948	PNLNOV110308TWWHC**LELCX**00
Sets with Bluetooth	EQ10111570	PNLNOV100308TWWHO0**ELCX**00**B**
	EQ10110979	PNLNOV110308TWWHO0**ELCX**00**B**
	EQ10111532	PNLNOV100308TWWHC0**ELCX**00**B**
	EQ10110931	PNLNOV110308TWWHC0**ELCX**00**B**
Sets with KNX	EQ10110344	PNLNOV100308TWWHO0**ELCX**00**K**
	EQ10110580	PNLNOV110308TWWHO0**ELCX**00**K**

	Item number	Item designation
	EQ10110320	PNLNOV100308TWWHC0**ELCX**00**K**
	EQ10110566	PNLNOV110308TWWHC0**ELCX**00**K**
Sets with light sensor and Bluetooth	EQ10111594	PNLNOV100308TWWHO**LELCX**00**B**
	EQ10110993	PNLNOV110308TWWHO**LELCX**00**B**
	EQ10111556	PNLNOV100308TWWHC**LELCX**00**B**
	EQ10110955	PNLNOV110308TWWHC**LELCX**00**B**
Sets with light sensor and KNX	EQ10110351	PNLNOV100308TWWHO**LELCX**00**K**
	EQ10110597	PNLNOV110308TWWHO**LELCX**00**K**
	EQ10110337	PNLNOV100308TWWHC**LELCX**00**K**
	EQ10110573	PNLNOV110308TWWHC**LELCX**00**K**

1.3 Highlighted information within the text

To make these user instructions easier to read, certain information is highlighted using different formatting. The meaning of this formatting is explained below:

< > indicates remote control menu items

Grey indicates a function

➢ indicates a call for user action

✓ is used to highlight results of actions

i	indicates important and useful additional information

warns of high voltage

1.4 Structure of these instructions

Chapters 2 to 4 include technical data and all information for safe installation and operation of the NOVA lights.

An overview of functions is provided in Chapter 3.1. Chapter 5 explains the operating modes. Understanding the sequence of the operating modes makes it easier to configure the lights.

All lights can be operated by remote control and buttons. Remote control makes it much more convenient to choose the settings and many settings are only possible via remote control.

Remote control

Chapters 6 to 8 cover the remote control menu. The remote control groups the functions according to whether they are used to directly control the lights or to configure the lights:

- Direct control: The corresponding functions are found in the remote control sub-menu <Functions>.
  Direct controls adjust the lights to more unusual situations for which the basic settings are not ideal. Such adjustments to the programmed sequence, for example, changing brightness, are temporary. The adjustments are not saved.
- Configuration: Other than a few exceptions, the basic settings that are sufficient for most situations are made in the remote control menu <Programs>.

Operation via app

Remote control required

Lights with a Bluetooth radio module offer an additional and particularly convenient operating option: Users of Bluetooth-capable devices such as smartphones or tablets can control these lights via the free ESYLUX LIGHT CONTROL app. The universal remote control must only be used once to activate light measurement (see chapter 13.2.3) for Bluetooth lights without light sensors. Operation via app is explained starting from Chapter 9.

1.5 Warnings

Warnings are listed at the start of the relevant chapter if a hazardous situation is likely to occur.

The preceding signal words have the following meanings:

⚠ DANGER!

This signal word denotes a hazard involving a high level of risk. Failure to observe the warning will lead to serious or fatal injury.

⚠ WARNING!

This signal word denotes a hazard involving a moderate level of risk. Failure to observe the warning may lead to serious or fatal injury.

⚠ CAUTION!

This signal word denotes a hazard involving a low level of risk. Failure to observe the warning may lead to minor or moderate injury.

CAUTION!

This signal word warns against situations that could lead to instances of property damage if the information is not observed.

2 Basic safety information

2.1 Intended use

The ESYLUX NOVA louvre lights may only be used for the following purposes:

- Installation in internal areas as recessed surface-mounted ceiling light.
- The light is designed for illuminating working areas, offices or corridors.
- NOVA master lights are ideal for power supply routing. The maximum total current of the mains terminal is 10 A.
- NOVA tuneable white master lights can be used as a control unit for an NOVA tuneable white slave light.
- The NOVA tuneable white slave light is powered and controlled exclusively via the NOVA tuneable white master light. NOVA tuneable white slave lights must only be connected to NOVA tuneable white master lights.

NOVA lights contain in-built LED bulbs. The light source of these lights may only be replaced by the manufacturer or an engineer contracted to the manufacturer or other similarly qualified person.

2.2 Liability and damages

The device must not be changed, modified or painted — doing so will void any warranty claims.

The manufacturer will not accept any liability for instances of personal injury or property damage caused by improper use.

Check the product for damage after unpacking. If the device is damaged in any way, return it to the relevant place of sale.

2.3 Safety instructions

Specialist personnel!

Electrical devices connected to a 230-V mains supply may only be assembled and commissioned by electrical installation technicians or trained electricians, taking country-specific regulations into account.

⚠ DANGER!

Risk of fatal injury from electric shock!

➢ The following five safety rules must always be observed:

1. Disconnect the power supply
2. Secure the power supply from being switched on again
3. Check that the relevant components have been de-energised
4. Set up the earthing and short-circuiting mechanisms as required
5. Cover or isolate neighbouring live parts

PLEASE NOTE:

Incorrect connection will destroy the DALI electronic ballasts!

➢ Note the DALI specifications (IEC 62386)

3 Product description

Introduction

ESYLUX NOVA tuneable white louvre lights with adjustable colour temperature are intended for indoor use as recessed surface-mounted ceiling lights. The built-in LEDs have low energy consumption and ensure optimal lighting.

Parameters can be set only on the NOVA tuneable white master lights. Each master light has its own presence detector and an infrared operating interface. The master lights are also available with the following additional equipment:

Master lights variants

- Light sensor
- Bluetooth operating interface
- KNX module
- Light sensor and Bluetooth operating interface
- Light sensor and KNX module

Set variants

The master lights are available individually and as a Quadro set with two slave lights. In the tuneable white Quadro sets, only one of the two master lights has a presence detector. The sets are also available with the following additional equipment:

- Light sensor
- Bluetooth operating interface
- KNX module
- Light sensor and Bluetooth operating interface
- Light sensor and KNX module

The item numbers of master lights and sets are listed in Section “Product identification” on page 6.

Connectable lights

NOVA tuneable white master lights have DALI and RJ-45 interfaces. The following NOVA lights can be connected via these interfaces:

- DALI: additional master lights with tuneable white, with and without light sensor and Bluetooth
- RJ-45: Slave lights with tuneable white, with and without light sensor

DALI switch

Accessories such as DALI switches can also be connected. For more information on the connection options, see page 22.

3.1 Functions

A presence detector integrated into the master light controls the connected lighting in relation to the ambient light level when presence is detected. The colour temperature of the lights can be set to values between 2700 and 6500 kelvin.

Constant light control

Constant light control only occurs if the presence detector detects the presence of people or animals. Master lights that also have a light sensor measure the ambient light level via the light sensor and not the presence detector because the light sensor can be calibrated, allowing more precise settings.

SymbiLogic™

The NOVA tuneable white lights have another function in addition to constant light control: Thanks to their SymbiLogic™ technology, the lights can change colour temperature and brightness throughout the day so that the lighting corresponds to natural lighting conditions. For more information, see Chapter “8.4 SymbiLogic™”.

DALI

In the DALI system (Digital Addressable Lighting Interface), the master light receives control telegrams via the electronic ballast and simultaneously controls all devices connected in the DALI group.

The table below provides a list of the master light functions. This overview is intended to serve as a decision-making aid for electrical installation technicians and users when configuring the settings at a later point.

> Most settings can be only be adjusted via remote control or app.

Overview of functions

Function	Benefit
Dim lighting	Adjusts the illumination level.
Set colour temperature	Setting the lights to a warmer or colder light.
Constant light control with detected presence	Consistent lighting conditions by automatically adjusting the illumination level to the ambient light levels when people are detected.
SymbiLogic™	Automatic control of the colour temperature and brightness throughout the day according to the natural change in light in a selected location.
Light measurement	The light sensor of the presence detector or an additional light sensor measures the ambient light level and light from reflective surfaces.
Setting the off delay time for lighting	The switch-off delay of the light following the last detected presence can be configured.

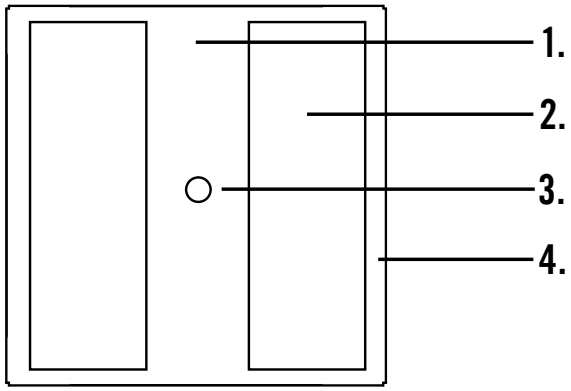
Off warning	Indicates that the off delay time has elapsed.
Set orientation light	Activates or deactivates subtle lighting of rooms and corridors following expiry of the off delay time.
Set duration of orientation light	The duration of the orientation light can be set to hours or a specific time.
Full automatic mode	Automatic control of the lighting when presence is detected.
Semi automatic mode	Automatic control of the lighting when presence is detected must be activated manually via an external button.
Light scenes	Select from four configurable light configurations for room lighting.

For detailed function descriptions, refer to the chapters on operation via remote control or app.

3.2 Mechanical set-up

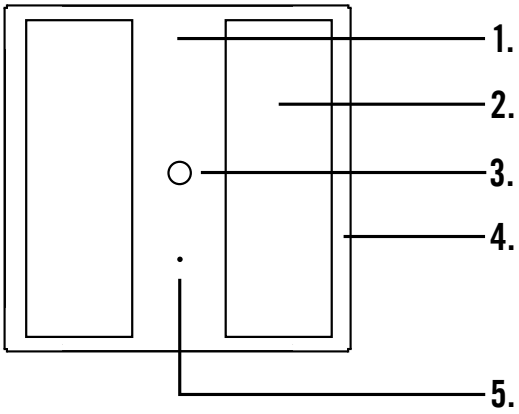
NOVA master light without light sensor

Components



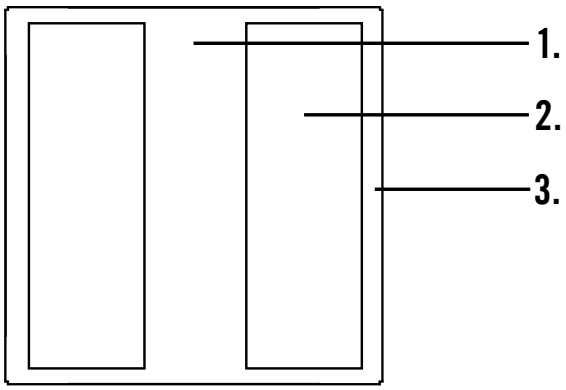
1. Central cover
2. Light surface
3. Presence detector
4. Light border

NOVA master light with light sensor



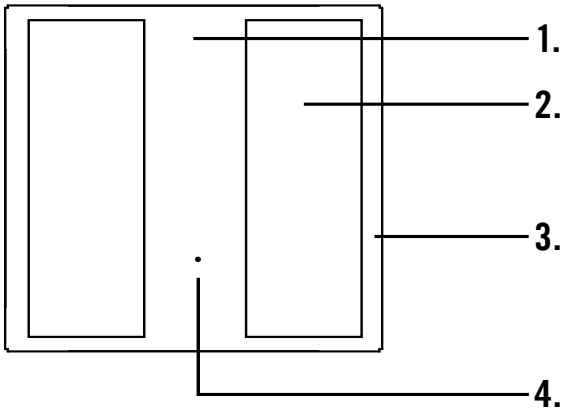
1. Central cover
2. Light surface
3. Presence detector
4. Light border
5. Light sensor

NOVA slave light without light sensor



1. Central cover
2. Light surface
3. Light border

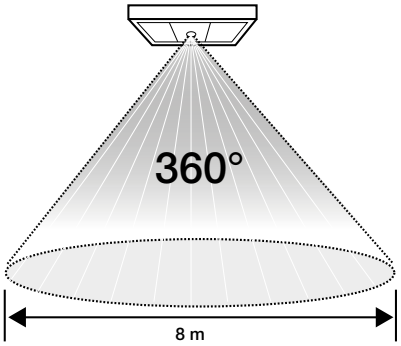
NOVA slave light with light sensor



1. Central cover
2. Light surface
3. Light border
4. Light sensor

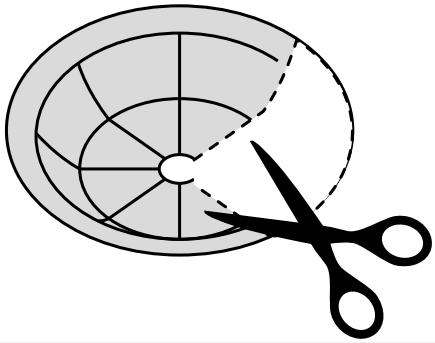
3.3 Presence detector

Field of detection and range



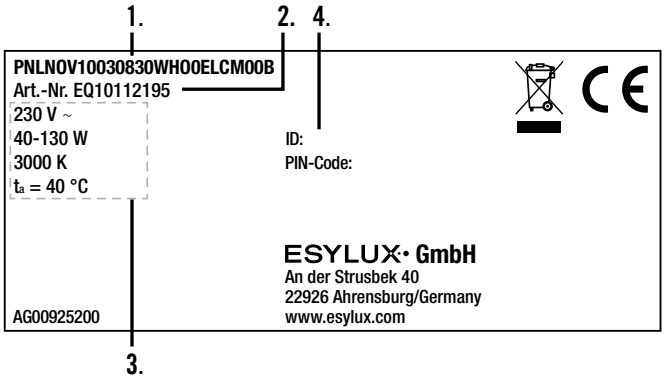
- The field of detection spans 360°
- The field of detection covers approximately 8 m at an installation height of 2.5 m.

Using the lens mask provided, specific areas of detection can be masked out.werden.



3.4 Type plate

Type plate features



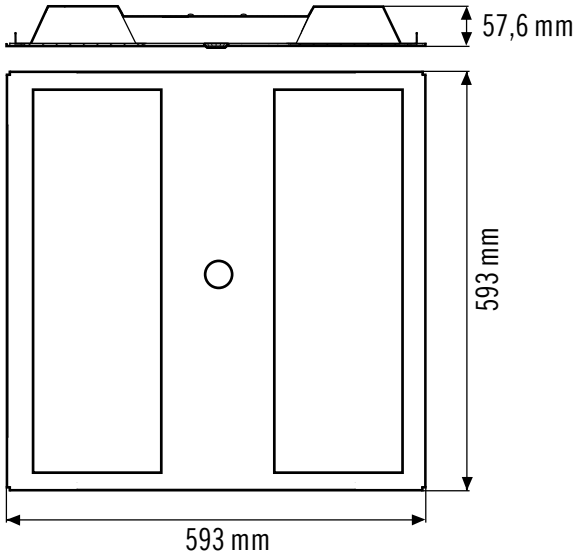
1. Designation
2. Item number
3. Technical information
4. ID and PIN code (master lights with Bluetooth only)

4 Installation

4.1 Dimensions diagrams

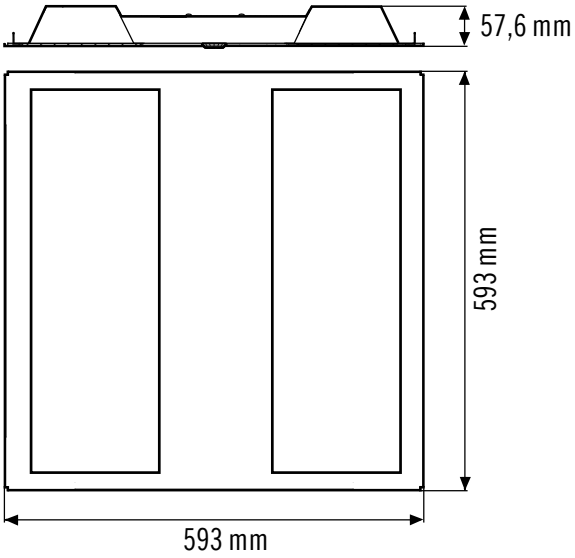
NOVA master

NOVA master lights measuring 593 x 593 mm



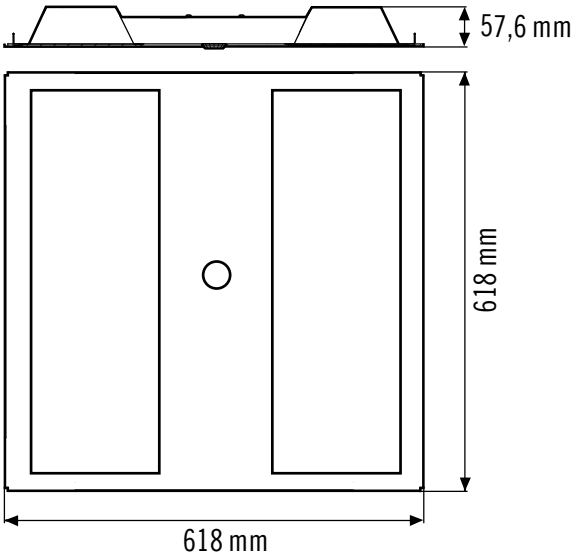
NOVA slave

NOVA slave lights measuring 593 x 593 mm



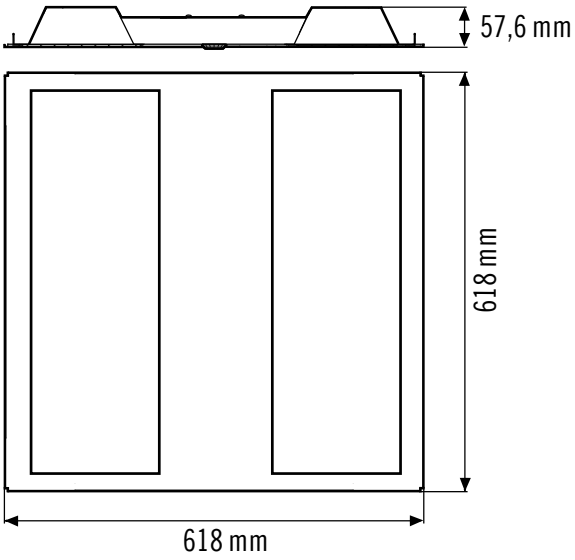
NOVA master

NOVA master lights measuring 618 x 618 mm



NOVA slave

NOVA slave lights measuring 618 x 618 mm



4.2 Recessed ceiling mounting

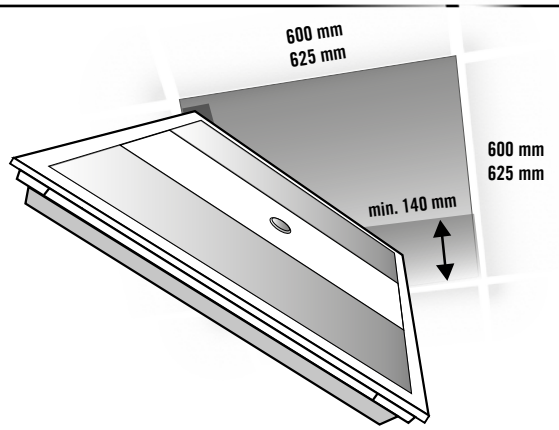
The ESYLUX NOVA series is intended for recessed ceiling mounting for ceiling systems with hidden or visible mounting rails.

➢ Install the NOVA louvre light in a suspended ceiling.

PLEASE NOTE:

Note the necessary ceiling installation height!

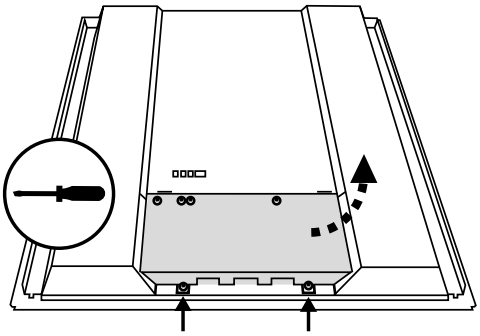
NOVA lights can only be mounted directly in the suspended ceiling without removing the braces if the ceiling installation height is at least 140 mm.

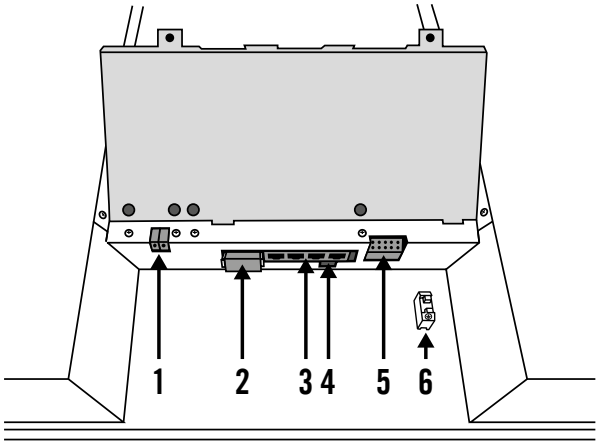


4.3 Connecting the master light

Prerequisite

➢ Remove the screws on the rear of the lights to access the connections.





1. Only Models PNLNOV1x0308x0WHxxELCxxxK: KNX connector
2. DALI connector for connection to DALI devices and other NOVA tuneable white master lights
3. RJ-45 sockets for connection to NOVA tuneable white slave light
4. USB connection, exclusively for service purposes
5. Mains connection terminal
6. Earth conductor

⚠ DANGER!

Risk of fatal injury from electric shock!

➢ Switch off the power to the cable

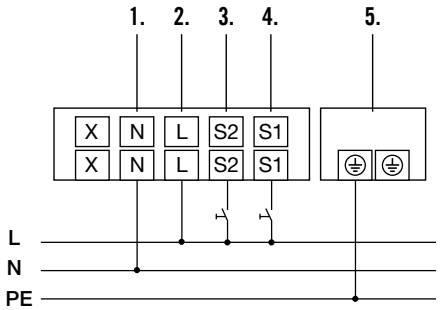
➢ Check that the cable is de-energised

Proceed as follows to connect the master light:

➢ Connect the light as outlined in the wiring diagram.

1. Neutral conductor
2. Phase 230 V AC
3. Button 1
4. Button 2
5. Earth conductor

Wiring Diagram:

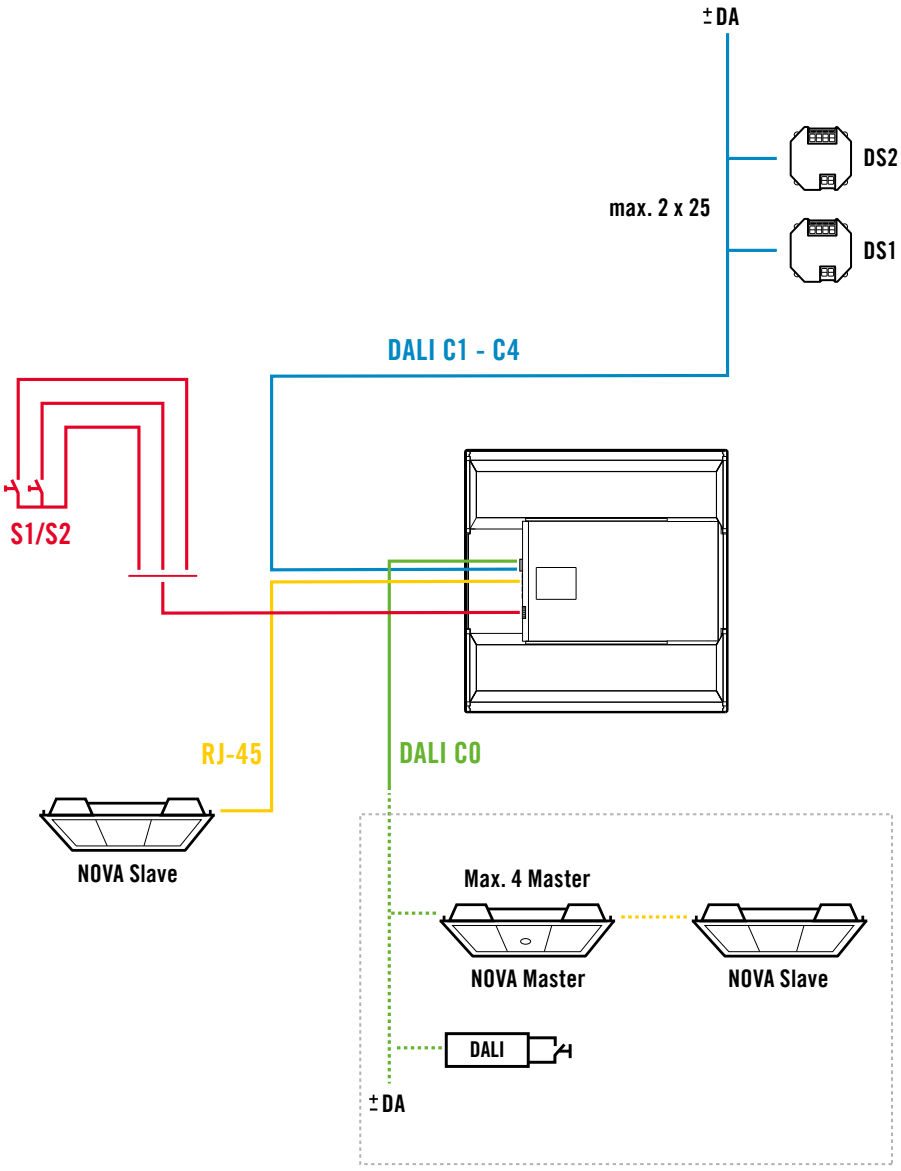


Switch actuations are not transmitted to other master lights via DALI. To trigger a Quadro set, connect the switch in parallel on both master lights.

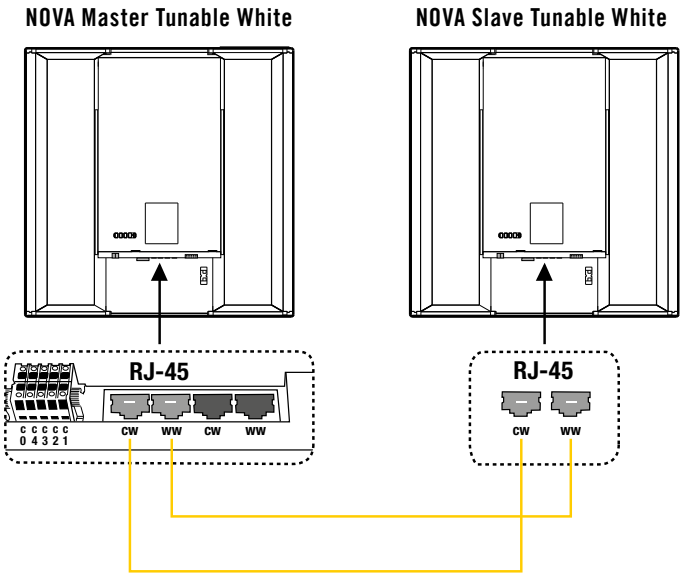
4.4 Master light connection options

The master light can be connected individually, or it can also be used to connect additional lights and devices via the following connections:

- RJ-45 sockets for connecting to an NOVA tuneable white slave light
- DALI connector for connecting DALI devices and additional NOVA tuneable white master lights (maximum of four NOVA master lights).



4.4.1 Connecting NOVA slave lights



RJ-45 jack

Slave lights are powered by the master light via the connection cable. The master light has four RJ-45 interfaces for these connections. One light with controllable colour temperature (tuneable white) is connected to each of the adjacent sockets with the labels "ww" and "cw". The master light itself occupies two of the four RJ-45 sockets. You can connect an NOVA slave light with tuneable white to the two free RJ-45 sockets. You must always insert the cable in sockets with the same label (ww/cw).

Each RJ-45 interface pair is a separate lighting channel (C1, C2), which the master light can control separately. By default, the master light is connected to lighting channel C1. However, you can also connect a slave light to this channel.

RJ-45 cable delivered with sets

The scope of delivery of the sets includes two 5-m RJ-45 patch cables.

Any up-to-date network cable, type Cat5 or higher, can be used as the RJ-45 patch cable.

PLEASE NOTE:

Do not connect cables to incorrect sockets!

Connecting cables to incorrect sockets may lead to incorrect light colours.

Note the maximum cable length!

The RJ-45 connection cable must not exceed 10 metres.

Connection to be used for NOVA lights only!

Only NOVA lights may be connected to the RJ-45 interfaces. Other equipment such as Internet routers or lights designed to be powered via a LAN

cable (power over Ethernet) could be irreparably damaged by connecting them to the RJ-45 jacks.

4.4.2 Master lights in parallel connection

DALI interface

A maximum of four NOVA master lights may be connected to the DALI interface CO in parallel. Both of the DALI connectors labelled “CO” may be used.

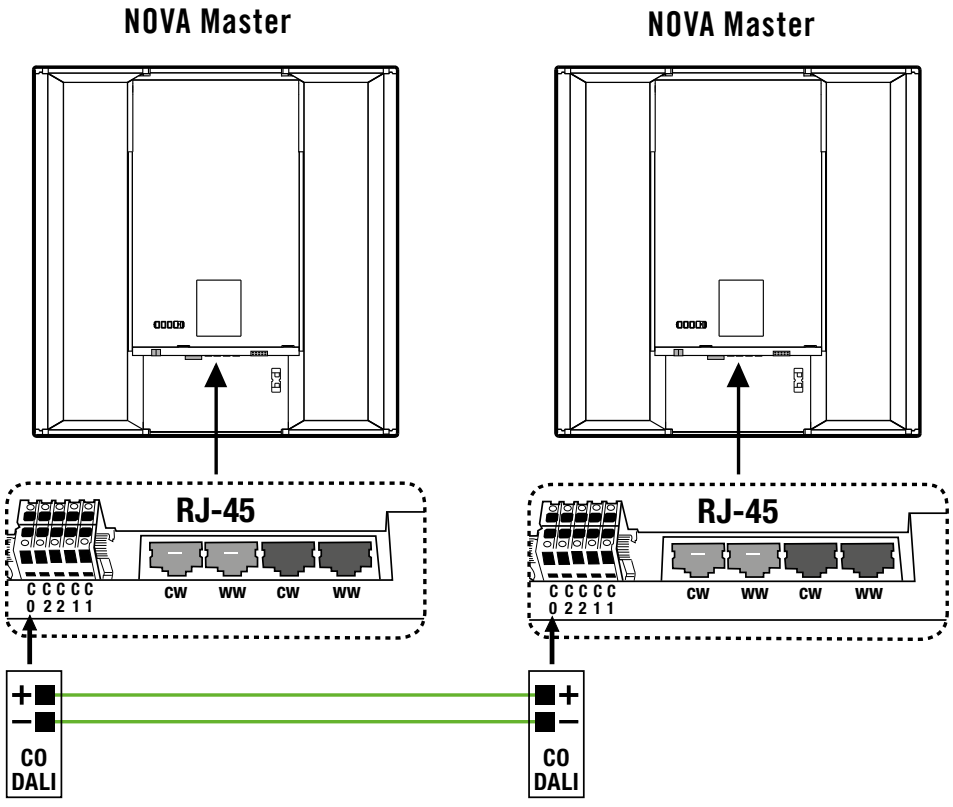
When connecting master lights in parallel, you can determine which master light is responsible for measuring the room lighting. See Section “Light value on/Light value off” on page 67 for more information about this setting.

This setting does not need to be performed for NOVA tuneable white Quadro sets, because only one of the two master lights has a sensor for measuring the room lighting.

CAUTION!

Reversing the polarity can destroy the master lights!

➢ Note the labels on the terminals.



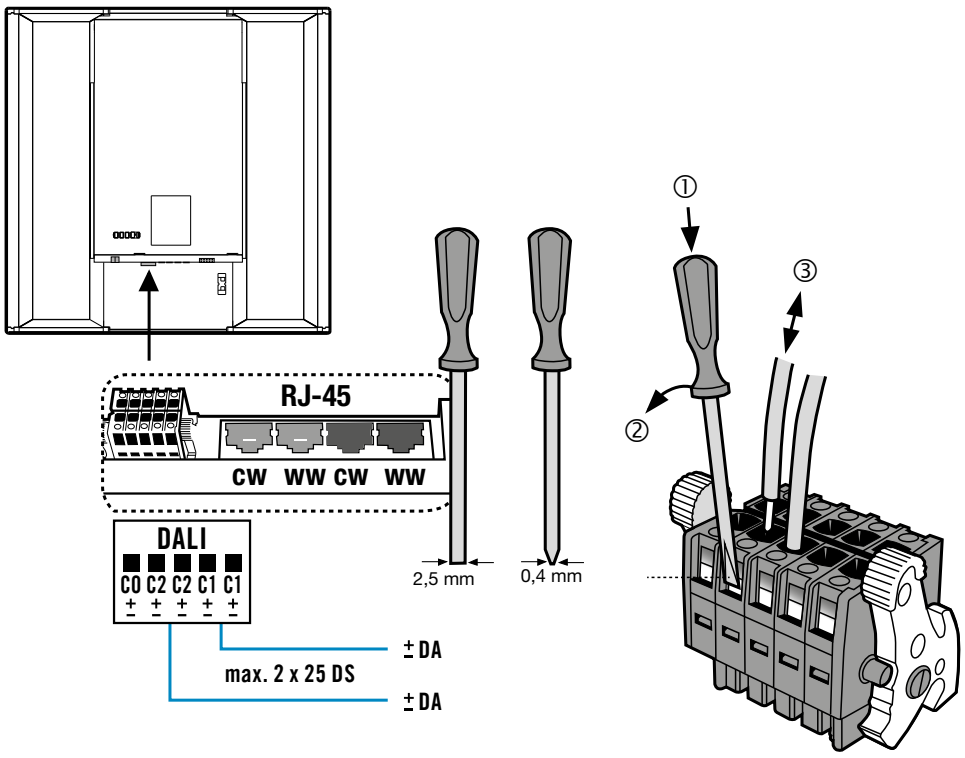
4.4.3 Connecting DALI switch devices

DALI switch devices can also be connected to the DALI interfaces C1 and C2. DALI switch devices can be used to connect non-DALI-compatible equipment such as fans or screen controllers.

The DALI switch devices are available as accessories. By default, the model SW DALI Full Automation (item no. EP10427473) is set to full automatic with a off delay time of 30 minutes. By default, the model SW DALI Semi Automation (item no. EP10427480) is set to semi automatic with a off delay time of six minutes. You can change these factory settings on both models via the remote control. For more information about these devices, see our website www.esylux.com.

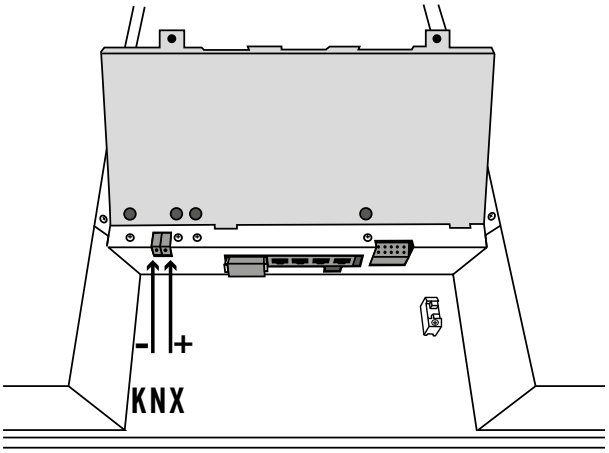
External DALI button

An external DALI button can be connected to the DALI interface C0. The DALI button is an external module that sends standard 16-bit commands (IEC 62386-102:2009). You can, for example, dim the illumination level or select light scenes via the external DALI button. Chapter “15.1 List of DALI commands” contains a list of the possible DALI commands.



4.5 Connecting to KNX bus

Models PNLNOV1x0308TWWHxxELCxxx**K** have a KNX module and can be connected to a KNX bus.



NOTE!

Reversing the polarity of the connections will lead to a loss of functionality in one or more participants.

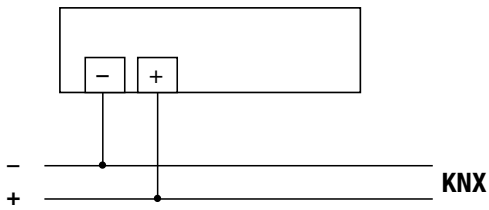
➢ Note the labels on the terminals.

The protection against reverse polarity integrated in the EIB devices will prevent damage.

Proceed as follows to connect the lamp to the KNX bus:

➢ Use a pin connector to connect the KNX bus cable to the KNX connection on the lamp so that the polarity is correct.

Wiring Diagram:



4.6 Warm-up phase

The master light starts the warm-up phase every time the power is switched on.

Light properties during the warm-up phase:

- The light is on
- The red and green LEDs in the presence detector flash alternately five times.
- After approx. 15 seconds, the light is ready for operation and functions in line with the factory settings or the user-defined program.

After the warm-up phase, the LED signals indicate the following: Red LED = remote control command is being received; green LED = presence detected; blue LED = light is in programming mode.

4.7 Factory settings

The master lights are equipped with a default program. These defaults can be changed according to preference. We recommend that you note down the changed settings in the right-hand column of the table.

Settings	Default	Individual
Operating mode	Full automatic	
Brightness target value	500 lux	
Off delay time	5 minutes	
Orientation light	Brightness 10%	
Duration of orientation light	0 minutes	
Off warning channel 1–2	60 seconds	
Colour temperature	4000 kelvin	
SymbiLogic™	off	
DALI channel 1 map	Master channel 1 (C1)	
DALI channel 2 map	Slave channel 2 (C2)	
DALI switch DS1	Active, mode: Full automatic	
Off delay time DS1	30 minutes	
DALI switch DS2	Active, mode: Semi automatic	
Off delay time DS2	30 minutes	
Sensitivity of the presence detector	Sensitive	

5 Overview of operating modes

The master light can control the energy-saving properties of the room lighting by taking into account the presence of people and the brightness of the ambient light. The following information is helpful to speed up access to the desired settings:

- The automatic sequence of the operating modes if the master light does not detect any presence.
- Operating modes of the light that are triggered manually.
- The effect of detected presence on the individual operating modes.

Changes in the ambient light can cause the lighting to switch on or off

automatically depending on the settings. However, changes in the ambient light do not cause the current operating mode to change.

5.1 Sequence of the operating modes

If the master light is switched on and no further presence is detected, it runs through the following operating modes in sequence: 'Normal operation mode' - 'Off warning mode' - 'Orientation light mode' - 'Energy-saving mode'. Operating modes such as switch-off warning mode and orientation light mode may run unnoticed if their duration is set to 0 seconds.

Normal operation mode

Action in normal operation mode	• Illuminates in accordance with the program/factory settings when presence is detected. Note: Deactivation of the lighting may form part of normal operation mode if the light has been programmed to a target light value that is exceeded by the ambient daylight.
Trigger for normal operation mode	• When **Full automatic** is activated: - Presence is detected. - Manual activation via the button or remote control. • When **Semi automatic** is activated: Manual activation via the button or remote control.
Trigger for normal operation mode	• Regardless of semi- or full automatic: Normal operation mode can also be triggered by motion detection during the off warning time (see below) if override mode (see below) was previously active.
Duration	• For such time that motion is detected, plus the off delay time. The off delay time can be set to a value of between one minute and 240 minutes.
Subsequent operating mode	• Off warning mode.

Off warning mode

Action in off warning mode	• Illuminates in accordance with the settings for the orientation light.
Trigger for off warning mode	• Expiry of the off delay time in normal operation or override mode.
Duration	• Depending on the settings, 0 to 240 seconds.
Subsequent operating mode	• Orientation light mode.

Orientation light mode

Action in orientation light mode	• Illuminates in accordance with the settings for the orientation light.
Trigger for orientation light mode	• Expiry of the set time for off warning mode.
Duration	• Depending on the settings. 0 to 240 minutes or according to specific time interval.
Subsequent operating mode	• Energy-saving mode.

Energy-saving mode

Action in energy-saving mode	• Deactivates the lighting.
Trigger for energy-saving mode	• Expiry of the orientation light time.
Duration	• When **Full automatic** is activated: Until presence is detected or the ambient brightness falls below the set value. • When **Semi automatic** is activated: Until normal operation mode is started via the button or remote control.
Subsequent operating mode	• Normal operation mode or override mode.

5.2 Manually triggered operating modes

Other than these operating modes that the lights can automatically switch between, there are other operating modes that are triggered manually or by certain events:

Override mode

Action	• Illumination that differs from normal operation mode owing to manual interventions such as changes to brightness or activation of light scenes. Manual changes are temporary and are not stored. Note: Off delay time settings for normal operation mode also apply to override mode.
Trigger for override mode	• Command via the button, remote control or app during normal operation. • Motion detection during the off warning time if override mode was active before the off warning.
Duration	• For such time that motion is detected, plus the set off delay time.
Subsequent operating mode	• Off warning mode, as after normal operation mode.

Programming mode

Trigger	• Remote control button or app command to start programming mode.
Action	• Saves the settings for lighting conditions, off delay time times, etc. transmitted by remote control or app.
Subsequent operating mode	• When **Full automatic** is activated: Energy-saving mode, transition to normal operation mode following presence detection. • When **Semi automatic** is activated: Energy-saving mode.
Trigger for subsequent operating mode	• Remote control button for ending programming mode or confirming a setting changed via app. • Five minutes of inactivity (programming mode then ends automatically).

Test mode

Trigger	• Remote control button for starting test mode.
Action	• All light channels work at 100%, blue notification LED flashes following detected movement.
Subsequent operating mode	• When **Full automatic** is activated: Energy-saving mode, transition to normal operation mode following presence detection. • When **Semi automatic** is activated: Energy-saving mode.
Trigger for subsequent operating mode	• Remote control button for ending test mode.

Error mode

Action	• All light channels work at 100%.
Trigger	• Defect in the presence detector or DALI power supply.
Subsequent operating mode	• When **Full automatic** is activated: Energy-saving mode, transition to normal operation mode following presence detection. • When **Semi automatic** is activated: Energy-saving mode.
Trigger for subsequent operating mode	• Rectification of the error.

5.3 Operating modes and detected movements

To enable you to configure the light according to your preferences, you also need to know what happens if movement is detected during an operating mode.

Normal operation mode

Effect of detected movement	• Any movement detected during the off delay time causes the off delay time to re-start, which extends normal operation mode.

Subsequent operating mode	• None, normal operation mode remains active owing to detected movement.

Off warning mode

Effect of detected movement	• Ends the off warning mode.
Subsequent operating mode	• Switch to the previous operating mode, which is either normal operation mode or override mode.

Orientation light mode

Effect of detected movement	• Ends the orientation light mode.
Subsequent operating mode	• Normal operation mode.

Energy-saving mode

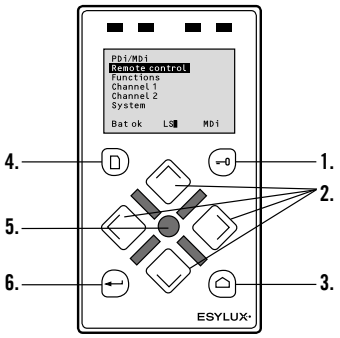
Effect of detected movement	• Depends on the current settings.
Subsequent operating mode	• When **Full automatic** is activated: Normal operation mode. • When **Semi automatic** is activated: Detected movement has no effect; normal operation mode or override mode must be started via the button, remote control or app.

6 Setting via remote control

The master light settings can be input via remote control. If further master lights are connected to a master light, all master lights assume the settings of the first master light.

Universal remote control

The infrared remote control Mobil-PDi/MDi-universal (ep10433993) makes it simple for electricians and users to set parameters and special functions. This remote control is available as an accessory.



1. Key button
2. Navigation buttons , , ,
3. Home button
4. SD button
5. OK button
6. Return button

For optimum reception, point the remote control directly at the master light detector when programming the settings.

In direct sunlight, the standard remote control range of approximately 8 m may be reduced due to the infrared proportion of sunlight.

The Mobil-PDi/MDi-universal remote control offers functionality for virtually all ESYLUX remote controls. If ESYLUX makes improvements to the remote control menus or commands, you can update the universal remote control. Simply download the latest software version for one of the implemented remote controls from the ESYLUX website to an SD card. Unscrew the bottom cover on the rear of the remote control to insert the SD card into the universal remote control. Select the menu item <System/Software> on the universal remote control to update the device.

For the settings of the master lights with tuneable white, select the X-Light Control TW remote control. Following selection, this remains the default remote control.

6.1 Selecting X-Light Control TW remote control

1. Switch on the remote control using the button.
2. On activation, confirm the highlighted menu item <Remote controls> with the button.
3. Press the button to select the remote control <X-Light Control TW> and confirm the selection with the button.
   ✓ The X-Light Control TW is now the active remote control.

Temporary settings to the master light can be made via the menu item <Functions>.

Most permanent settings for the master light can be made via the menu item <Programming>. For the exceptions, see the start of Chapter 7.

Automatic switch-off

The remote control automatically switches off if it has been inactive for one minute.

Fast access to menus

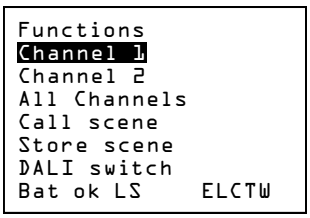
If you change a setting or program multiple times, for example to try and find the optimum setting, you can set up quick access to this setting. To do so, activate the function <Save navigation> in the <System> menu item. The remote control then shows the last used menu item every time it is switched on.
You can undo this setting by selecting the function <Standard navigation> in the remote control menu item <System>.
All instructions in this manual assume that the menu item <Standard navigation> is selected.

6.2 X-Light Control TW menu layout

The following tables provide an overview of the <Functions> and <Programming> menu items. The tables serve as an initial guide and may help you to find a required function more quickly.

The remote control does not show the most recently programmed values as there is no bi-directional communication between the master light and the remote control.
We recommend noting down the settings you make using the template provided on page page 27.

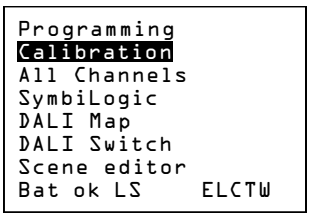
Layout of the <Functions> menu item



Functions		
	Channel 1 Same sub-menu: Channel 2	On
		Off
		Dim start
		Dim stop
		Light value
		CCT Value
		CCT dim start
		CCT dim stop
	All channels	On
		Off
		Dim start
		Dim stop
		Light value
		CCT Value
		CCT dim start
		CCT dim stop
	Call scene	Scene 1
		Scene 2
		Scene 3
		Scene 4
	Store scene	Scene 1
		Scene 2
		Scene 3
		Scene 4
	Dali Switch	DS 1 on
		DS 1 off
		DS 2 on
		DS 2 off
	Reset	
	Test start	
	Test stop	
	KNX Prog. On	
	KNX Prog. Off	

Table 1: “Functions” menu with sub-menus

Layout of the <Programming> menu item



Programming	**Calibration**	Channel 1
		Channel 2
	All channels	Store brightness
		Light set value
		Off delay time
		Off warning time
		Orientation light
		Orient. light mode
		Orient. light in min.
		Orient. light from h.
		Orient. light to h
		Full automatic
		Semi automatic
	SymbiLogic	
	Channel Map	C1
		C2
	DALI map	DALI 1
		DALI 2
	DALI Switch	DS1 connected
		DS 1 not connected
		DS 1 switch-off delay
		DS 1 mode
		DS 2 connected
		DS 2 not connected
		DS 2 switch-off delay
		DS 2 mode
Programming	**Scene editor**	K1 %
		K2 %
		K1 K
		K2 K
		DS 1
		DS 2
		Profile

	Calender	Years
		Months
		Days
		Hours
		Minutes
		Seconds
	Factory Reset	
	Reset Editor	
	Sensitivity	
	Detector LEDs On	
	Detector LEDs Off	
	Light value on	
	Light value off	
	Detector Fact. reset	
	Detector Light Factor	

Table 2: “Programming” menu with sub-menus

7 The <Functions> remote control menu

Settings made in the <Functions> menu item are executed temporarily but not stored as a new basic setting. When settings are made in this menu, the master light is in override mode.

Exceptions: Permanent settings

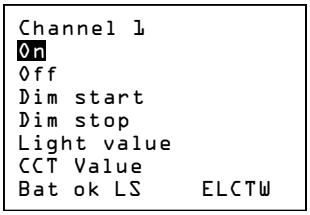
In the <Functions> menu, there are three settings that are not temporary but are stored permanently:

- Changes of the colour temperature
- Scene changes via the <Store scenes> command
- Activate/deactivate the KNX programming mode

7.1 Channels 1 and 2

The sub-menu items for <Channel 1> and <Channel 2> are identical. For each lighting channel, the following functions are possible in the sub-menus:

7.1.1 On/Off



The lighting for each channel is temporarily switched on or off with the <On> and <Off> menu items.

Switching a channel on:

1. Select the <Functions> menu item and confirm the selection with the button.

2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the <On> menu item and confirm the selection with the button.
   ✓ The lighting is switched on.

   To return to the main menu, press the button.

Switching a channel off:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the <Off> menu item and confirm the selection with the button.
   ✓ The lighting is switched off.

   To return to the main menu, press the button.

7.1.2 Start/stop dimming

The **Start dimming/Stop dimming** functions are used to adjust the illumination level in both directions and stop the dimming process.

Dimming the illumination level:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the <Dim start> menu item and confirm the selection with the button.
   ✓ The lighting is adjusted in a specific direction, e.g. from dark to bright.

Changing the dimming direction:

1. Press the button to confirm the <Dim start> menu item again during the dimming process.
   ✓ The lighting is adjusted in a different direction, e.g. from bright to dark.

Stopping the dimming process:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Press the button to select the channel to be dimmed and confirm the selection with the button.
3. Press the button to select the <Dim stop> menu item and confirm the selection with the button once the dimming process has reached the required brightness.
   ✓ The dimming process stops.
   To return to the main menu, press the button.

7.1.3 Light value

The function **Light value** sets the illumination level to a percentage of the maximum brightness.

Changing the Light value:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the button to choose the menu item < Light value> and confirm the selection with the button.
4. Use the or buttons to set the required illumination level and confirm the selection with the button.
   ✓ The lighting is changed to the set percentage.
   To return to the main menu, press the button.

7.1.4 CCT value

The abbreviation CCT stands for **C**orrelated **C**olor **T**emperature. The function **CCT value** sets the colour temperature of the lights to a value between 2700 and 6500 kelvin. The setting is made in 100-degree steps.

Setting the colour temperature value:

1. Select the <Functions> menu item and confirm the selection with the button.

2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the button to choose the menu item <CCT value> and confirm the selection with the button.
4. Use the or buttons to set the required kelvin value and confirm the selection with the button.
   ✓ The colour temperature changes according to your input.
   To return to the main menu, press the button

7.1.5 CCT dim start/stop

With the **CCT dim start and CCT dim stop** functions, you can dim the colour temperature toward warmer or colder light and stop the dimming process.

Dimming the colour temperature:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Channel 1>, for example, and confirm the selection with the button.
3. Select the <CCT dim start> menu item and confirm the selection with the button.
   ✓ The colour temperature is adjusted in a specific direction, for example from warmer to colder light.

Change dimming direction

Changing the dimming direction:

1. Press the button to confirm the <CCT dim start> menu item again during the dimming process.
   ✓ The colour temperature is adjusted in the other direction, for example from colder to warmer light.

Stopping the dimming process:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Press the button to select the channel to be dimmed and confirm the selection with the button.
3. Select the <CCT dim stop> menu item and confirm the selection with

the button once the dimming process has reached the required colour temperature.

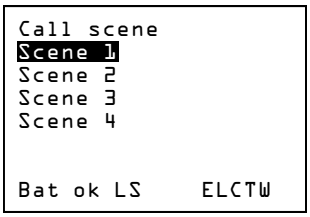
✓ The dimming process stops.

To return to the main menu, press the button.

7.2 All channels

In the menu item <All channels>, you can set general settings for all lighting channels. The menu sub-items are identical to those for channels 1 to 2 as described in 7.1 on page 37.

7.3 Call scene



The menu item <Call scene> activates one of the four light scenes. You can configure each scene according to your preferences.

A light scene consists of up to two lighting channels with separate brightness and colour temperature and two DALI switch devices. The DALI switch devices are connected to a DALI cable to control a non-DALI-compatible lighting channel. The scenes have default factory settings, as described in the following table.

You can customise the light scenes for each lighting channel. See Chapter “Scene editor” on page 62 for more information.

	Sc1	Sc2	Sc3	Sc4
CH1 %	10	100	30	70
CH2 %	10	100	30	70
CH1 K	65	50	40	29
CH2 K	65	50	40	29
DS 1	Off	On	Off	On
DS 2	Off	On	Off	On

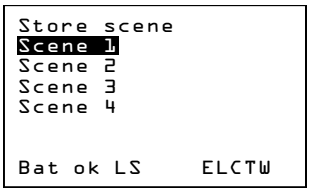
Table 3 Default scene settings

Calling up a scene:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Call scene> and confirm the selection with the button.
   ✓ The sub-menu shows an overview with the four scenes <Scene 1>, <Scene 2>, <Scene 3> and <Scene 4>.

3. Select the button to choose the menu item <Scene 2>, for example, and confirm the selection with the button.
   ✓ The selected scene is activated.
   To return to the main menu, press the button.

7.4 Store scene



You can customise the light scenes for each lighting channel. To do so, change the Light value and colour temperature of one or more channels as described in Chapter “Light value” on page 39 and in Chapter “CCT value” on page 39. You can store these settings as a scene for the respective channel. When you save the setting, the previous scene settings for the channel, for example the default factory settings, are deleted.

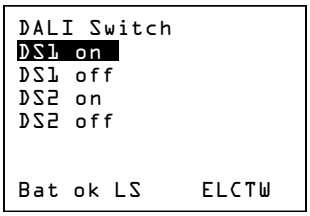
Saving a light scene:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Store scene> and confirm the selection with the button.
   ✓ The sub-menu shows an overview with the four scenes <Scene 1>, <Scene 2>, <Scene 3> and <Scene 4>.
3. Select a menu item, e.g. <Scene 4> and confirm the selection with the button.
   ✓ The setting is saved as <Scene 4>.
4. Press the Return button once to exit the <Store scene> menu.
   To return to the main menu, press the button.

7.5 DALI switch

The <DALI switch> menu item allows you to control additional non-DALI-compatible devices. For example, you can use the DALI switch to switch on non-DALI-compatible blackboard lighting in a classroom. The master lights are configured in the factory to enable them to send commands to connected DALI switches. You can change this setting.

DALI switch devices are available as accessories including SW DALI Full Automation (item no. EP10427473) and SW DALI Semi Automation (item no. EP10427480).



7.5.1 DS1/DS2 on

The menu items <DS1 on> and <DS2 on> are identical.

How to switch on a lighting channel with DS1 or DS2:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
3. Now select the button to choose the menu item <DS 2 on>, for example, and confirm the selection with the button.
   ✓ The DALI switch device switches the lighting on.
   To return to the main menu, press the button.

The DALI switch can be activated and deactivated for any scene.

7.5.2 DS1/DS2 off

The menu items <DS1 off> and <DS2 off> are identical. You can switch off any non-DALI-compatible lighting channels individually.

How to switch off a lighting channel with DS1 or DS2:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
3. Select the button to choose the menu item <DS1> for example, and confirm the selection with the button.
   ✓ The DALI switch device switches the lighting off.
   To return to the main menu, press the button.

7.6 Reset

The reset command has two purposes: It switches off the entire room lighting temporarily. It also deletes any commands that put the light into override mode.

After a reset, the light switches to energy-saving mode. The lighting remains off until the master light detects a presence or receives a command to switch the lighting back on. After presence has been detected or a re-activation command has been received, the light works in normal mode in accordance with the programming.

Triggering a reset:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Reset> and confirm the selection with the button.
   ✓ The entire lighting switches off.
   To return to the main menu, press the button.

7.7 Test start/stop

The **Test start** function tests the detection range of the detector. During the test phase, the lighting is set to maximum brightness.

Activating the test function:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Test start> and confirm the selection with the button.
   ✓ The entire lighting is switched on.
   ✓ The blue LED flashes in the sensor head when motion is detected.

Ending the test function:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Test stop> and confirm the selection with the button.
   ✓ The test lighting switches off.
   To return to the main menu, press the button.

7.8 KNX Prog. On/KNX Prog Off

These remote control commands are for NOVA lights with a KNX module. The command <KNX Prog. On> enables you to assign a physical address to the KNX module.

Activating the KNX program function:

1. Select the <Functions> menu item and confirm the selection with the button .

2. Use the button to select the menu item <KNX Prog. On> and confirm the selection with the button .
   ✓ The KNX module is in programming mode.

Ending the KNX program function:

1. Select the <Functions> menu item and confirm the selection with the button .
2. Use the button to select the menu item <KNX Prog. Off> and confirm the selection with the button .
   ✓ The KNX module is no longer in programming mode.

8 The remote control menu <Programming>

In the <Programming> menu item, you can set permanent settings for the master light.

The settings are retained even when the luminaire is not supplied with current — for example because the power supply in the building is switched off overnight.

8.1 Activate/deactivate programming mode

Activating the programming mode of the master light:

➢ Press the button.
   ✓ The blue LED on the master light illuminates.
   ✓ The lighting is switched to 100% light value.
   ✓ The red LED on the detector flashes twice to confirm each received command.

To exit programming mode, proceed as follows:

Prerequisites:

- The blue LED illuminates in the sensor head.

➢ Press the button.
   ✓ Your settings are saved and programming mode is closed.
   ✓ The blue LED goes out and the light switches the lighting.

If programming mode is not ended via the key button within five minutes of the last entry, the master light switches back to nor-

mal mode. The settings are automatically saved.

8.2 Calibration

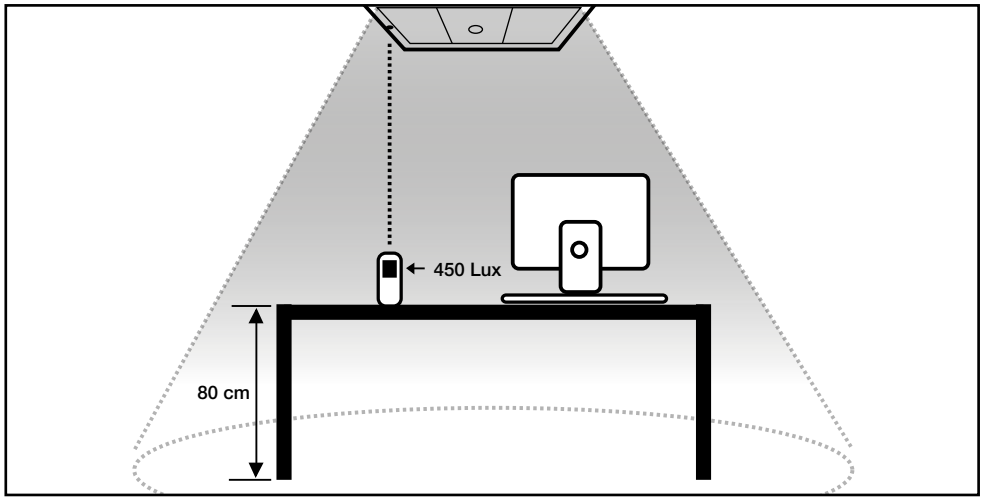
Only lights with light sensor

The **Calibration** function can be used with master lights or slave lights with in-built light sensors. The light sensor is affected by light from reflective work surfaces, walls and floors. Calibration is essential for ensuring that surfaces at a specific height remain evenly lit.

Lux meter

A lux meter is required for calibration. The light values measured with the lux meter can be transferred to the master light by remote control. The measured lux values are reference values that the master light uses for precise comparisons. The calibration allows the master light to calculate more precisely which illumination level is required to retain a constant target brightness.

For more information on setting the target brightness, see Chapter “Light set value” on page 49.



Greater precision through repetition

The light sensor must be calibrated with three measurements at least once per lighting channel. We recommend three measurements per channel for optimum illumination results.

If a lighting channel is extended with DALI louvre lights, position the slave light with the light sensor in the darkest area of the room. This is the only way to ensure even the darkest area is sufficiently lit.

The sub-menu items for <Channel 1> and <Channel 2> are identical. The calibration must be performed individually for each lighting channel. During the calibration, only the lighting channel that is being calibrated is illuminated.

Calibration procedure

Calibrating a light sensor:

1. Select the <Calibration> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Channel 2>, for example, and confirm the selection with the button.
   - ✓ The lighting on channel 2 is switched on at maximum brightness. The other lighting channels are not active. The light sensor measures the brightness.

Measurement 1

3. Use a lux meter to measure the current light value at the desired location, e.g. at a desk. The reading is 600 lux, for example.
4. Enter the lux value using the button and confirm the entry with the button.
   - ✓ The master light receives the value and dims the light value for the next measurement.

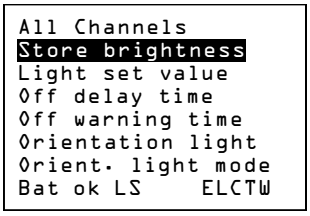
Measurement 2

5. Now measure the light value again using the lux meter. The value is now lower than the first measurement and reads 300 lux, for example.
6. Enter this lux value in the remote control using the or button and confirm the entry with the button.
   - ✓ The master light receives the value and switches the lighting off.

Measurement 3

7. Now measure the current light value using the lux meter. The reading is 40 lux, for example.
8. Enter this lux value in the remote control using the or button and confirm the entry with the button.
   - ✓ This completes the calibration process. The master light switches the lighting on at maximum brightness.
9. Press the button to end calibration.
10. Press the button to close programming mode.
    - ✓ The blue LED goes out in the sensor head.
    - ✓ The lighting goes out. If the brightness falls below the target brightness value, the light sensor brightens the lights on channel 2.

      To return to the main menu, press the button.



8.3 All channels

The menu item <All channels> implements settings for all lighting channels.

8.3.1 Store brightness

The **Store brightness function** saves the current channel light values as the target brightness value. The values act as a reference value for the automatic lighting when presence is detected. The current light values can be entered via the following sensors:

- Master lights without a light sensor capture the current light value using the integrated presence detector.
- Master lights with an integrated light sensor capture the current light value using the light sensor.
- Slave lights with an integrated light sensor send the current light value of their channel to the master light.

If a channel does not have a sensor because only one slave light without a light sensor is working on the channel, the value of the master light is used for this channel.

The required reference value must be set manually before storing the brightness. This is performed in the Functions menu.

Set reference value

Setting the reference values for the store brightness function:

1. Press the button to activate programming mode.
   ✓ The light switches to programming mode and the lights produce maximum brightness.
2. Select the <Functions> main menu and confirm the selection with the button.
3. Select a lighting channel, for example <Channel 1>, and confirm the selection with the button.
4. Select the button to choose the menu item <Light value> and confirm the selection with the button.
5. Enter the percentage value of the maximum light value by pressing the or buttons. Confirm your selection with the button.
   ✓ The illumination level changes according to your input.
6. If there are lights in the room working on channel 2: Select channel 2 and repeat steps 4 and 5 for this channel.
   ✓ The desired brightness is set and can be read in.

7. Press the button to return to the main menu for the other settings.

Adopting the reference value with the Store brightness function:

1. Select <Programming> from the main menu and confirm the selection with the button.
2. Select the button to choose the menu item <All channels> and confirm the selection with the button.
3. Select the <Store brightness> menu item and confirm the selection with the button.
4. Close programming mode with the button.
   ✓ The reference value is now saved.
   To return to the main menu, press the button.

8.3.2 Light set value

The light set value is the target brightness value and acts as the threshold value for the lighting control. If the ambient light level is below the target brightness, the master light controls the illumination level when presence is detected. If the daylight exceeds the value, for example, the light automatically switches off.

The light set value function specifies the brightness in lux for all lighting channels in a room. You can send the desired or measured lux values to the master light via the remote control.

This process gives the best results for lights with a calibrated light sensor.

Setting the light target value:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Light set value> menu item and confirm the selection with the button.
5. Use the or buttons to set the required lux value and confirm

the selection with the button.

6. End programming mode by pressing the button.
   ✓ The light set value is set.
   To return to the main menu, press the button.

If you wish to assign different target values to the channels, you need to use the **Store brightness function**. For information, please see Chapter “Store brightness” on page 48.

8.3.3 Off delay time

The **Off delay time** function determines for how long the light remains switched on after the last detected movement. The off delay time applies to normal mode and override mode, which is a temporary change to normal mode. For more information on operating modes, see Chapter 5.

The master light ends normal or override mode after the off delay time has elapsed. Any movement detected during the off delay time causes the off delay time to re-start, which extends normal mode or override mode.

- The minimum off delay time is one minute.
- The maximum off delay time is 240 minutes.

Setting the delay time:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Off delay time> menu item and confirm the selection with the button.
5. Use the or buttons to set the required off delay time and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The entered duration is now saved.
   To return to the main menu, press the button.

8.3.4 Off warning

The **off warning** indicates that the set off delay time has elapsed. In off warning mode, the lighting uses the brightness value that was set for the orientation light.

If movement is detected during the off warning time, the detector returns to the last active operating mode. This may be normal operation mode or override mode.

The off warning time can be set to a duration of 0 to 240 seconds.

Off warning is disabled if the time is set to 0 seconds.

Example: The illumination level was dimmed manually via an external button and the light is in override mode as a result. The set off delay time has elapsed. The off warning time now starts, which is set to 60 seconds. During this time, the lighting uses the brightness that is set for the orientation light. If presence is detected during this time, the master light returns to override mode.

Setting the off warning:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Off warning> menu item and confirm the selection with the button.
5. Use the or buttons to set the required duration and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The off warning time is now set.
   To return to the main menu, press the button.

8.3.5 Orientation light

The **Orientation light** function provides subtle lighting. You can also set the brightness of the orientation light to values between 10% and 50% of the maximum illumination level. You can also set for how long or from when you want the orientation light to remain active.

Prerequisites

The orientation light only switches on once the set off delay time or a set off warning time have elapsed. The orientation light duration can also be set to zero minutes.

Brightness

Setting the orientation light brightness:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the button to choose the menu item <Orientation light> and confirm the selection with the button.
5. Use the or buttons to set the brightness as a percentage of the maximum brightness and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The brightness for the orientation light is now set.
   To return to the main menu, press the button.

8.3.6 Orient. light mode

Mode duration

The menu item <Orient. light mode> specifies whether the duration for the orientation light is set in minutes or with a fixed start and end time. The following applies:

- If you enable the setting <in minutes>, the settings in the menu item <Orient. light from h> and <"Orient. light to h> are disabled.
- If the you enable the setting <From h to h>, the setting in the menu item <Orient. light in min.> is disabled.

Duration in minutes

Activating minutes mode:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Orient. light mode> menu item and confirm your selection with the button.
5. Confirm the menu item <in minutes> with the button.

6. End programming mode by pressing the button.
   ✓ The duration of the orientation light can now be set in the menu item <Orient. min.>.

For more information on entering the desired number of minutes, see the Section “Orient. light in min.” on page 53 below

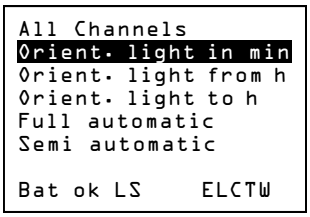
Duration according to times

Activating time mode:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Orient. light mode> menu item and confirm your selection with the button.
5. Select the button to choose the menu item <Until time> and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The duration of the orientation light can now be set with the menu items <Orient. light from h> and <"Orient. light to h>.

For information on setting the desired start and end time, see page 54 onwards.

8.3.7 Orient. light in min.



The <Orient. light in min.> menu item sets the orientation light duration to a value between 0 to 240 minutes.

If the orientation light duration is set to zero minutes, the orientation light is disabled.

Prerequisites:

- The setting <in minutes> is enabled in the menu item <Orient. light mode>. For more information, see Chapter “Orient. light mode” on page 52.

Enter number of minutes

Setting the orientation light duration in minutes:

1. Select the <Programming> menu item and confirm the selection with the button.

2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the button to choose the menu item <Orient. light in min.> and confirm the selection with the button.
5. Use the or buttons to set the required time in minutes and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The duration for the orientation light is now set in minutes.
   To return to the main menu, press the button.

8.3.8 Orient. light from h/Orient. light to h

The menu items <Orient. light from h> and <"Orient. light to h> specify the duration of the orientation light using fixed start and end times.

Thanks to the built-in battery, the configured times are also retained in the event of a power failure.

Prerequisites:

- The correct time must be set in the <Calender> menu. See Section “Calender” on page 63.
- The setting <Until time> in the <Orient. light mode> menu item must be enabled. For more information, see Chapter **Orient.. time mode**.

Enter times

Setting the start and end time:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Use the button to select the <Orient. light from h> menu item and confirm the selection with the button.
5. Use the or buttons to set the start time and confirm the se-

lection with the button.

✓ The start time is now set.

6. Press the button once.
7. Use the button to select the <Orient. light to h> menu item and confirm the selection with the button.
8. Use the or buttons to set the end time and confirm the selection with the button.
9. End programming mode by pressing the button.

✓ The duration of the orientation light is now set with a start and end time.

To return to the main menu, press the button.

Difference from time switching control

Setting a start and end time is not the same as timer control. If the off delay time in normal mode and the off warning time elapse before the start time of the orientation light, the light switches to energy-saving mode without illumination. The time-controlled orientation light is then not activated.
If you want to be sure that the orientation light remains lit overnight, set the start time to a time when movement will still be detected. After the off delay time has elapsed, the light then switches to orientation light mode.

8.3.9 Full automatic

Behaviour of the light when **Full automatic** is enabled:

The lighting automatically switches on if

- The ambient light is below the set target brightness
  and
- the detector detects presence.

The lighting automatically switches off if

- the ambient light is brighter than the set target brightness

or:

- no movement is detected

and

- the set off delay time has elapsed.

Activating Full automatic:

1. Select the <Programming> menu item and confirm the selection with

the button.

2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the button to choose the menu item <Full automatic>, for example, and confirm the selection with the button.
5. End programming mode by pressing the button.
   ✓ Full automatic mode is now active.
   To return to the main menu, press the button.

8.3.10 Semi automatic

If the **Semi automatic** function is active, the lighting can only be activated via an external button. The lighting automatically switches off if the detector does not detect movement during the off delay time.

The lighting automatically switches off if

- the ambient light is brighter than the set target brightness

or:

- no movement is detected

and

- the preset off delay time for the light has elapsed.

Activating Semi automatic:

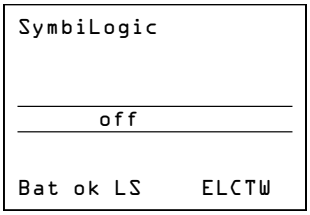
1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <All channels> and confirm the selection with the button.
4. Select the <Semi automatic> menu item and confirm the selection with the button.
5. End programming mode by pressing the button.
   ✓ Semi automatic mode is now active.
   To return to the main menu, press the button.

8.4 SymbiLogic™

The natural daylight of a geographical location has two properties: It has a specific colour temperature that depends on the location's latitude. The second property: Colour temperature and brightness change throughout the day.

How it works

The patented SymbiLogic™ technology of NOVA lights with adjustable colour temperature (tuneable white) can replicate natural lighting conditions by regulating colour temperature and brightness to match the time of day. As a result, in the evening you can be provided with a lighting configuration that supports your biological sleep pattern.



SymbiLogic™ is deactivated by default. If SymbiLogic™ is activated, you can select the following locations under lighting conditions: Hamburg, Rome, New York and Stockholm.

If SymbiLogic™ is activated, SymbiLogic™ takes over the constant light control function. In contrast to simple constant light regulation, SymbiLogic™ also makes slight alterations to the brightness throughout the day as well as altering the colour temperature.

Prerequisites:

- Date and time are set in the menu item <Calender> (see page 63).
- The target brightness is set to a realistic value, for example 500 lux. See “Light set value” on page 49.

Activating SymbiLogic™:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <SymbiLogic> and confirm the selection with the button.
4. Use the or button to select the location whose lighting conditions the lights should replicate. Confirm the selection with the button.
   ✓ SymbiLogic™ is active.

8.5 Channel Map

This function enables you to assign a different channel number to a light. The new channel number must not be assigned to a different light. The remote control helps you to re-sort the channel numbers by preventing any invalid assignments.

If you want to use multiple master lights, execute the Channel Map function before you connect the master lights via DALI.

Assigning a new channel to a light:

1. Select the <Programming> menu item and confirm the selection with the button .
2. Enable programming mode by pressing the button .
3. Use the button to select the menu item <Channel Map> and confirm the selection with the button .
4. Press the button again.
5. Assign the required channel number to the first channel. To do this, press the button to select the channel number and confirm the selection with the button .
6. Return to the channel selection by pressing the button .
7. Use the button to select the next channel and confirm the selection with the button .
8. Assign the required channel number to the channel. To do this, press the button to select the channel number and confirm the selection with the button .
9. Return to the channel selection by pressing the button .
10. Use the button to select the <OK> command and confirm the selection with the button .
11. End programming mode by pressing the button .
    ✓ The channel numbers are reassigned.

8.6 DALI map

The two DALI interfaces of the master light are initially assigned to the lighting channels numerically. For example, DALI interface C2 corresponds to the lighting channel C2.

This allocation can be changed to suit your preferences using the **DALI map** function. You can also assign several DALI interfaces to one lighting channel.

Assigning a different lighting channel to a DALI interface:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <DALI map> and confirm the selection with the button.
4. Press the button to select the desired DALI interface and confirm the selection with the button.
   ✓ The DALI interface is displayed with the current light channel number.
5. Use the or button to choose the light channel to which you wish to assign the DALI interface. Confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The DALI interface is now assigned to the desired light channel.
   To return to the main menu, press the button.

8.7 DALI switch

```
DALI Switch
DS1 connected
DS1 not connected
DS1 off delay time
DS1 Mode
DS2 connected
DS2 not connected
Bat ok LS     ELCTW
```

You can configure DALI switches 1 and 2 under the DALI switch menu item. The settings options for DALI switch 1 and 2 are identical.

8.7.1 DS1/DS2 connected

This function allows the master light to send control commands. By default, **DS1/DS2 connected** is active. As such, you only need this function if you have disabled the command output using the function **DS1/DS2 not connected**.

Activating the output of control commands to DALI switch 1 or 2:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
4. Press the button to select the DALI switch that you wish to register as connected. Confirm the selection with the button.

5. End programming mode by pressing the button.
   ✓ The selected DALI switch is now registered as connected.
   To return to the main menu, press the button.

8.7.2 DS1/DS2 not connected

This function disables the output of control commands to a DALI switch. If this setting is enabled, you can no longer temporarily switch the DALI switch on or off in the functions menu.

Disabling DALI switch 1 or 2:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
4. Press the button to select the DALI switch that you wish to register as disconnected. Confirm the selection with the button.
5. End programming mode by pressing the button.
   ✓ The selected DALI switch is now disconnected.
   To return to the main menu, press the button.

8.7.3 DS1/DS2 switch-off delay

This function sets how long the DALI switches keep the connected devices activated following the last detected movement. You can choose a time of one to 255 minutes.

Setting the off delay time for DALI switch 1 or 2:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
4. Select the button to choose the menu item <DS1 switch-off delay> or <DS2 switch-off delay> and confirm the selection with the button.

5. Use the or buttons to set the required duration and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The off delay time is set for the selected DALI switch.
   To return to the main menu, press the button.

8.7.4 DS1/DS2 mode

This function enables more precise configuration of the DALI switches. The following settings are possible:

Full automatic: When this function is active, the DALI switch switches the connected device on when a presence is detected. This function can also be activated if the master light is operating in Semi automatic mode.

Semi automatic: If this function is active, the DALI switch must be activated manually if the off delay time in normal operation or override mode has elapsed.

Pulse mode k: If this function is enabled, the DALI switch switches devices such as automatic stairwell timers or current impulse relays on with an impulse. The impulse is repeated regularly for as long as movement is detected

Setting the mode for DALI switch 1 or 2:

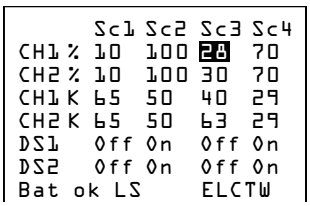
1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <DALI switch> and confirm the selection with the button.
4. Select the button to choose the menu item <DS1 mode> or <DS2 mode> and confirm the selection with the button.
5. Select the or button to choose the desired mode and confirm the selection with the button.
6. End programming mode by pressing the button.
   ✓ The selected DALI switch now operates in the set mode.
   To return to the main menu, press the button.

8.8 Scene editor

In the <Scene editor> menu item, you can enter and save the brightness for a light scene as a percentage as well as the colour temperature in kelvin. You can also set whether a DALI switch should be switched on or off with the scene.

Setting a scene:

The change is made using an example from scene 3 on channel 2.



1. Select the <Programming> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Scene editor> and confirm the selection with the button.
   ✓ The sub-menu shows a matrix with the default light values for each channel and scene. You can customise these values.
3. In the matrix, use the button to navigate to column <Sc3> and the button to navigate to row <C2 %>. Confirm your selection with the button.
4. Change the light value value to 60 % using the button. Confirm your selection with the button.
5. Press the button once.
   ✓ You have now returned to the matrix at the previous position.
6. Use the button to navigate to row <C2 K>. Confirm your selection with the button.
7. Use the or buttons to set the required colour temperature and confirm the selection with the button.
8. Press the button once.
   ✓ You have now returned to the matrix at the previous position.
9. To change the switch status of DALI switch 1 or 2, use the button to navigate to the matrix point DSw1 or DSw2 and confirm the selection with the button.
10. Use the or buttons to set the required switching status and confirm the selection with the button.

11. Press the button once.
    ✓ You have now returned to the matrix at the previous position. The set values must now be transmitted to the light:
12. Use the button to navigate to the line <Scene>.
    ✓ The matrix point <OK> is highlighted.
13. Press the button once.
    ✓ <Send scene...> appears in the display. The remote control sends the new values to the master light.

    To return to the main menu, press the button.

The scene editor saves the last set values. Therefore, to set the same scene in a room, simply enter programming mode and send the desired scene to the light using <OK>.

8.9 Calender

In the <Calender> menu, you can enter the date and time. It is important to set the time if you want the orientation light to start and end at fixed times. The date and time also need to be set for the SymbiLogic™ function. The time should be set once a year.

Thanks to the built-in battery, the configured times are also retained in the event of a power failure.

Setting the date:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <Calender> and confirm the selection with the button.
4. The menu item <Years> is highlighted. Confirm your selection with the button.
5. The input mask is configured for values from the year 2000. Use the or buttons to set the year and confirm the setting with the button.
   ✓ The year is now set.
6. Use the button to return to the Calender menu.

7. Select the button to choose the menu item <Months> and confirm the selection with the button.
8. Use the or buttons to set the month and confirm the setting with the button.
   ✓ The month is now set.
9. Use the button to return to the Calender menu.
10. Select the button to choose the menu item <Days> and confirm the selection with the button.
11. Use the or buttons to set the day and confirm the setting with the button.
    ✓ The day is now set.
12. Press the button to save your changes and exit programming mode.

Setting the time:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <Calender> and confirm the selection with the button.
4. Select the button to choose the menu item <Hours> and confirm the selection with the button.
5. Use the or buttons to set the hour and confirm the setting with the button.
6. Use the button to return to the Calender menu.
7. Select the button to choose the menu item <Minutes> and confirm the selection with the button.
8. Use the or buttons to set the minute and confirm the setting with the button.
9. Use the button to return to the Calender menu.

10. Select the button to choose the menu item <Seconds> and confirm the selection with the button.
11. Use the or buttons to set the seconds and confirm the setting with the button.
    ✓ The time is now set.
12. Press the button to save your changes and exit programming mode.

8.10 Factory Reset

The **Factory reset** function restores the light to its default program settings. For more information on the default factory settings, see Section “Factory settings” on page 27.

Performing a factory reset:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <Factory reset> and confirm the selection with the button.
4. End programming mode by pressing the button.
   ✓ The light is now reset to the default factory settings.
   To return to the main menu, press the button.

8.11 Reset Editor

If you change settings in the scene editor, you can undo these changes using the **Reset editor** function. The values in the scene editor are then reset to the default settings.

The **Reset editor** function does not change the master light settings. The function simply restores the default scene editor values locally in the remote control.

Restoring the original scene editor values:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Reset editor> and

confirm the selection with the button.

3. End programming mode by pressing the button.
   ✓ The values in the scene matrix are reset to the default values.
   To return to the main menu, press the button.

8.12 Sensitivity

The master lights are equipped with a precise and highly-sensitive presence detector. In rare cases, interferences such as hot air currents may cause erroneous presence detection. The **Sensitivity** function adjusts the sensitivity of the presence detector.

Settings values

You can set the sensitivity to:
<sensitive>, <normal>, <reduced> and <sharply reduced>.
By default, the presence detector is set to <sensitive>.

Setting the sensitivity of the presence detector:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Select the button to choose the menu item <Sensitivity> and confirm the selection with the button.
4. Use the or buttons to set the required sensitivity and confirm the selection with the button.
5. End programming mode by pressing the button.
   ✓ The sensitivity of the presence detector is based on the set value.
   To return to the main menu, press the button.

8.13 Detector LED on/Detector LED off

The LEDs in the sensor head of the master light show the status of the presence detector. This function is activated by default. It can be switched on and off via the remote control. The LED signals are:

- The red LED flashes when commands are received from the remote control.
- The blue LED lights up when the detector is in programming mode.
- The green LED flashes when the detector detects movement.

You can deactivate the green LED to stop it flashing every time motion is detected.

Deactivating the green LED in the sensor head:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Detector LEDs off> and confirm the selection with the button.
   ✓ The green LED switches off.
   To return to the main menu, press the button.

Activating the green LED in the sensor head:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Detector LEDs on> and confirm the selection with the button.
   ✓ The green LED switches on.
   To return to the main menu, press the button.

8.14 Light value on/Light value off

If you connect master lights in parallel, choose which master light is responsible for measuring the room lighting using the function **Send light value**. The presence detector of the selected master light then also measures the brightness.

The function **Send light value** is deactivated by default. It is activated with <Light value on>. If the master lights do not have an additional light sensor, you will need to activate the function **Send light value** on one of the master lights. If the master lights are connected in parallel, the function **Send light value** can only be activated on one of the master lights.

Master light with light sensor

For precise lighting with constant brightness, a master light with an integrated light sensor is needed. The light sensor can be further calibrated. The presence detector is then only responsible for detecting presence. For master lights with an additional light sensor, you do not need the functions **Light value on** or **Light value off**.
For more information on calibrating the light sensor, see Section “Calibration” on page 46.

Prerequisites:

- Choose a position as close as possible to being directly underneath the master light that you want to configure.
- Aim the remote control directly at the detector so that only this light receives the remote control signal.

Doc. no. BA010796_00

Activating light measurement on a master light:

1. Select the <Functions> menu item and confirm the selection with the button.
2. Select the button to choose the menu item <Light value on> and confirm the selection with the button.
   ✓ The red LED flashes three times in the sensor head.
3. Press the Return button once.
   To return to the main menu, press the button.

8.15 Detector Fact. reset

The function **Detector Fact. reset** enables you to reset the following settings to the factory settings:

- Send light value
- Sensitivity of the presence detector
- Detector LEDs

The detector factory reset does not change any other settings, e.g. for the switch-off delay time.

Performing a detector factory reset:

1. Select the <Programming> menu item and confirm the selection with the button.
2. Enable programming mode by pressing the button.
3. Use the button to select the menu item <Detector Fact. reset> and confirm the selection with the button.
4. End programming mode by pressing the button.
   ✓ The values stored in the detector are reset to the factory settings
   To return to the main menu, press the button.

8.16 Detector Light Factor

The Nova light measures the brightness using either the integrated detector or an additional light sensor. In both cases, the measurement is taken at some distance from the desk surface. If the brightness provided by daylight at the position of the light and at the position of the desk surface are very different, the desk may not be sufficiently illuminated. In these cases, it can be helpful to adjust the sensor measurement by changing the light value factor.

The light value factor is set to a value of 2.5 ex works. If the desk surface

is not sufficiently illuminated, the light value factor can be reduced, e.g. to 1.5 or 1.

Setting the light value factor:

1. Select the <Programming> menu item and confirm the selection with the button .
2. Enable programming mode by pressing the button .
3. Use the button to select the menu item <Detector Light Factor> and confirm the selection with the button .
4. Use the or buttons to set the required sensitivity and confirm the selection with the button .
5. End programming mode by pressing the button .
   ✓ The light value measurement has been adjusted.
   To return to the main menu, press the button .

9 Operation via Bluetooth

9.1 NOVA lights with Bluetooth

NOVA master lights with an integrated Bluetooth module can be operated using the app and Bluetooth wireless connection, in addition to the infrared remote control.

Bluetooth enables convenient configuration of the lights using your smartphone or tablet, even in locations in which WLAN is not available.

NOVA Bluetooth lights work with the energy-saving standard “Bluetooth low energy”, also known as “Bluetooth Smart” or "Bluetooth 4 LE”. This wireless connection has a range of up to 10 metres.

Prerequisites

To control the lights via Bluetooth, you need:

- A device that can send via Bluetooth and that supports the “Bluetooth low energy” standard. This is usually the case for current Smartphones, Notebooks and tablets. Some manufacturers identify these devices with the logo “Bluetooth Smart Ready”. Devices on which the ESYLUX app can be installed are usually also compatible with this Bluetooth standard.
- The free app ESYLUX LIGHT CONTROL must be installed on the Bluetooth device.

9.2 The ESYLUX LIGHT CONTROL app

The free ESYLUX LIGHT CONTROL app enables you to control and configure the lights without using the infrared remote control.

Remote control required

The universal remote control must only be used once to activate light measurement for lights without light sensors (see “Manual settings” from page 93.)

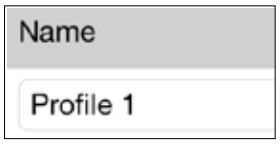
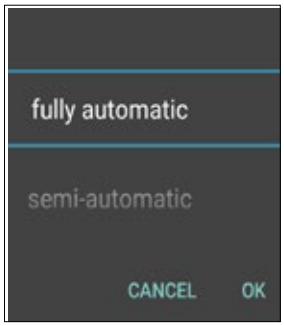
The app is currently available for the following mobile devices:

- Apple devices
  with operating system iOS 9 or above
- Android devices
  with Android version 5.0 or above

The app is available in the Apple Store and Google Playstore.

9.2.1 Using the app

The app is based on traditional operating conventions. The following operating actions are possible:

Control element	Example	Operating action	Effect (example)
Simple button		Tap	Navigate to higher menu; Confirm input
Slide switch		Slide	Switch between values such as 'on' and 'off'
Slide control		Slide	Set values
Text or value field		Tap	Activate fields for input; display keypad or drop-down list for selection
Selection field		Swipe, scroll through a list of values	Select values

In the following operating steps, buttons are indicated in pointed brackets < >.

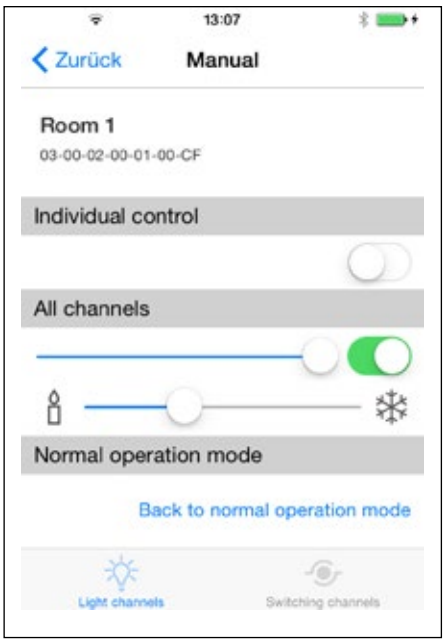
9.2.2 Differences between the Android and iOS app

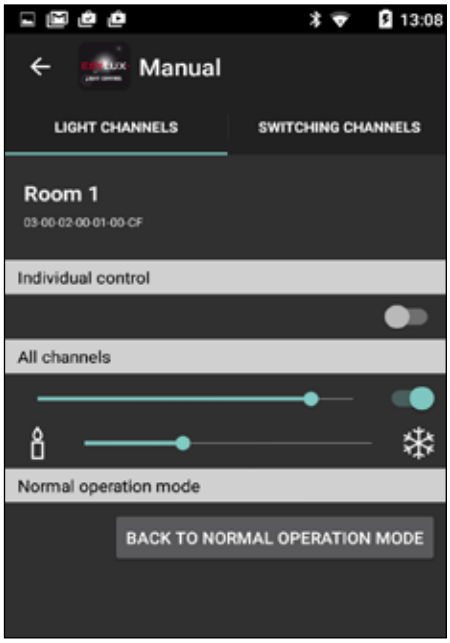
The app has the same functions under both operating systems. However, the names of the buttons may differ in some cases. For example, the confirmation button in the Android app is often labelled <OK>, while the button the Apple app is often labelled <Done>.

There may be further minor differences in the form of icons and buttons. In individual cases, the buttons may be in different places. The Android app also has a different background colour to the iOS app. The background colours may also differ between Android apps that are installed on different devices. The reason: The Android app adapts to the colour scheme of the device on which it is installed.

Differences between Android apps

The differences between the app versions are shown on this settings screen:





Background colours and button colours are different. In addition, the <Light channels>/<Switching channels> buttons appear at the bottom in the Apple app (left) and at the top in the Android app (right).

Screenshots: Apple left, Android right

The screenshots are taken from an iPhone with iOS 9 and a smartphone with Android 5. On a tablet, the distances between the buttons are much greater.
In the following, the iOS screenshots are always on the left and the Android screenshots on the right.

9.3 Setting up a Bluetooth connection

Before you can control an NOVA Bluetooth light using the app, you first have to register the light in the app using the ID code. You only need to do this once.

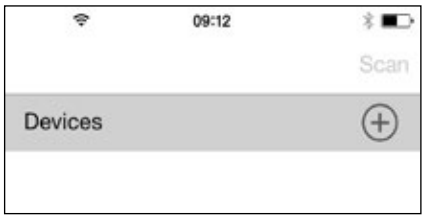
Prerequisites:

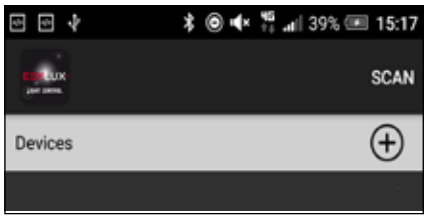
- NOVA Bluetooth light is connected
- Bluetooth is activated on the end device
- The ID code on the name plate is available.

Setting up the Bluetooth connection:

1. Start the ESYLUX LIGHT CONTROL app.
   ✓ The device selection screen appears:

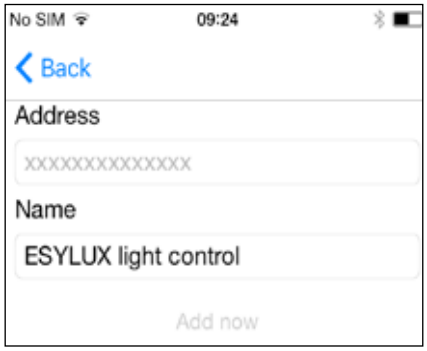
Device selection screen

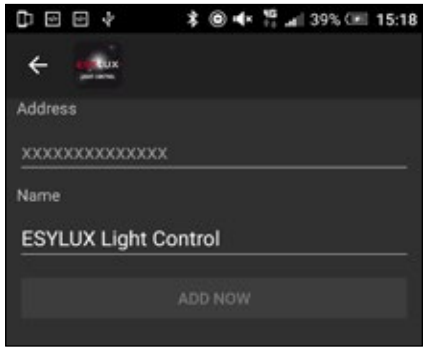




2. Tap on the button <⊕>.
   ✓ The device registration screen appears:

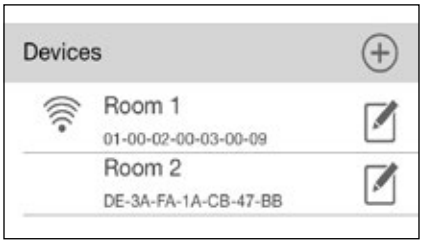
Device registration screen

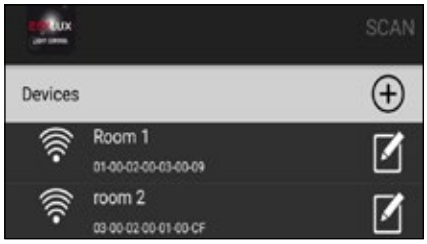




3. Tap in the input field below “address” to enter the ID of the light.
   ✓ The keypad of your end device appears.
4. Enter the ID code for the light without hyphens or blank spaces and tap <Add Now> to confirm your entry.
   ✓ The light is now registered on your Bluetooth device.
   The app is ready to control the light.

After registration, the light is always displayed in the device selection screen of the app. Multiple registered NOVA Bluetooth lights are displayed in a list, for example:





Scan function

Each time the app is started, it automatically searches for the Bluetooth devices in the list. Therefore, the button <Scan> cannot be used immediately after start-up, as the scan process is already active. If a connection to a light exists, this is indicated by the <📶> symbol in front of the device name.

After the first scan, you can trigger further scans by tapping on the <Scan> button. For example, if you wish to operate lights in a different room, you can rapidly update the connections using the scan function.

Number of Bluetooth connections

Only one current Bluetooth connection to the light is possible at any one time. If a different person is currently operating the light via Bluetooth, the app cannot establish a connection.

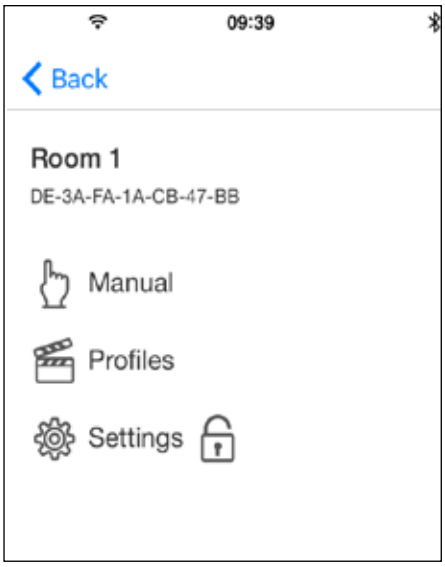
Delete lights from list

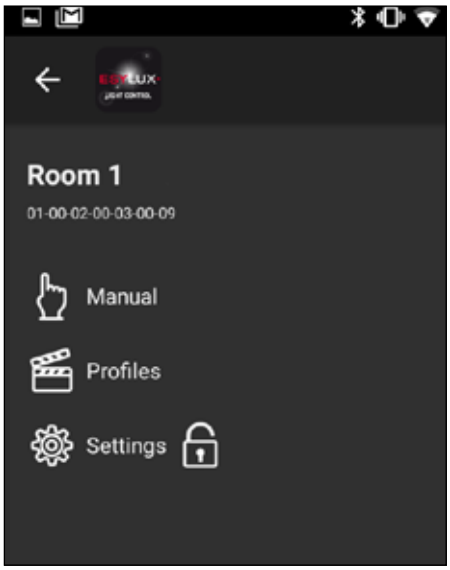
To remove a light from the list, open the Edit menu for the light. The Delete option can be found here. To access the Edit menu, click on the <> button next to the light in the device selection screen.

Rename lights

In the Edit menu, you can assign a different name to the light, for example, the name of a room. To do this, tap in the input field below <Name>, enter the new name and confirm the entry.

10 The app main menu



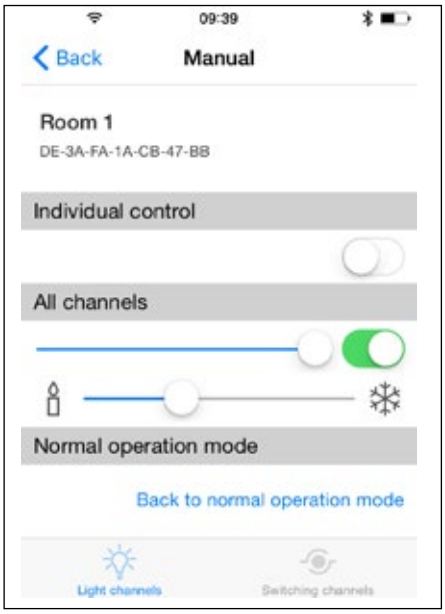


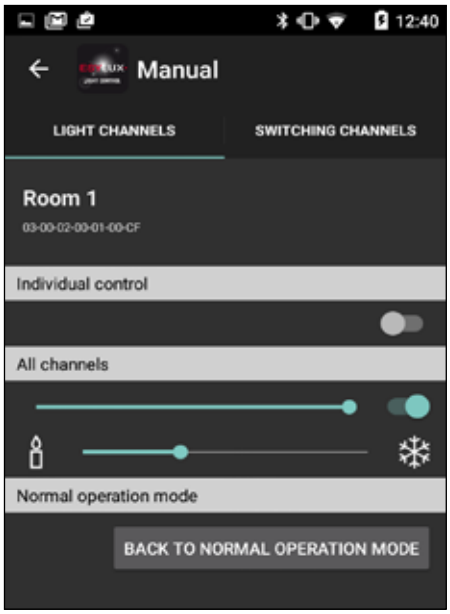
As soon as you have selected a connected light in the device selection screen, the main menu of the app is displayed with the following submenus:

- <Manual>: Here you will find functions with which you can deactivate the programmed settings for a limited time.
- <Profiles>: In this submenu you can call and edit light profiles.
- <Settings>: The first time the lights are switched on, they use the factory settings described in Chapter 4.7. You can adjust the settings as required in this menu item.

All menus and functions are explained in the following chapters.

11 The app menu <Manual>





Lights can be controlled directly using the functions found under the menu item <Manual>. This temporarily deactivates the programmed settings. Commands from this menu instruct the light to work in override mode. For more information on the operating modes, see Chapter 5.

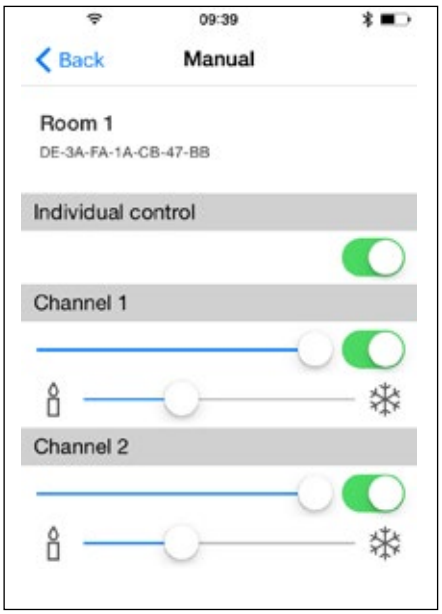
Exception: Colour temperature setting

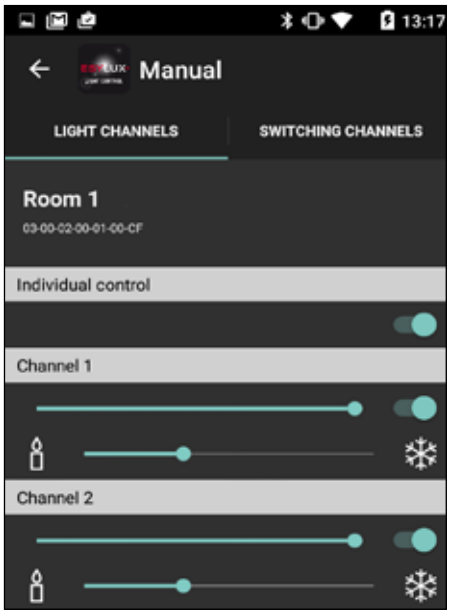
Only one function in this menu is not temporary: The change in colour temperature described below in Chapter 11.2. Changes in colour temperature are saved automatically and are also executed in normal mode.

11.1 Switching channels on and off

You can switch the channels on and off individually or switch all channels together. To select between individual control or all channels, activate ( ) or deactivate ( ) the individual control switch. The screen changes according to the selected setting.

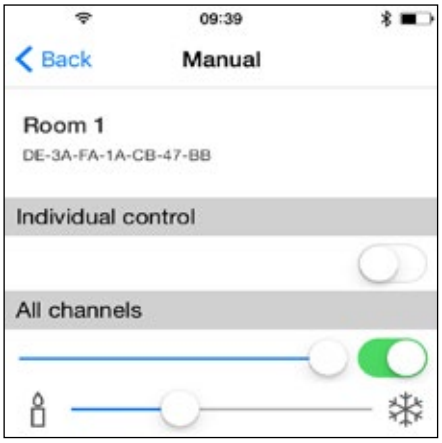
Switching the channels on and off individually:

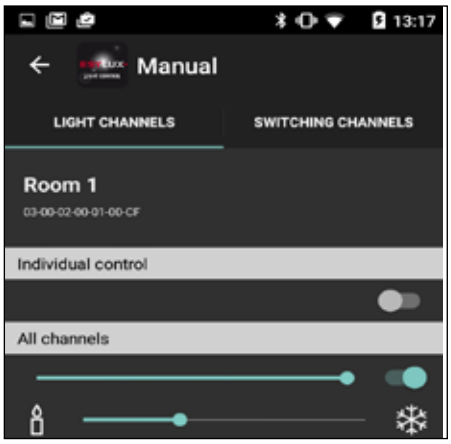




- ➢ Activate individual control ( ).
- ➢ Slide the switch belonging to the required channel to on ( )or off ( ).
  - ✓ The channels are switched on or off as required.

Switching all channels on and off together:





- ➢ Deactivate individual control ( ).
- ➢ Slide the switch under All channels to on ( ) or off ( ).
  - ✓ The channels are switched on or off as required.

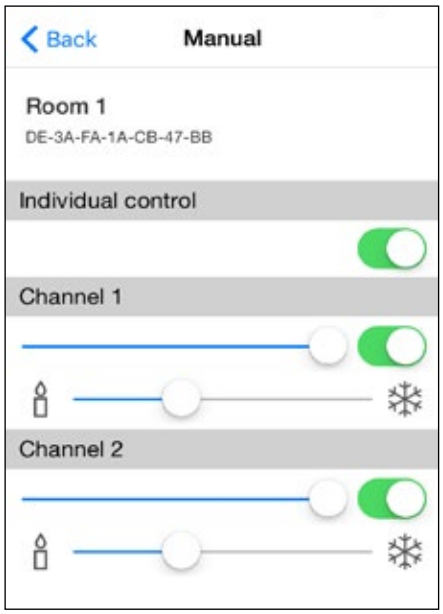
11.2 Changing the brightness and colour temperature

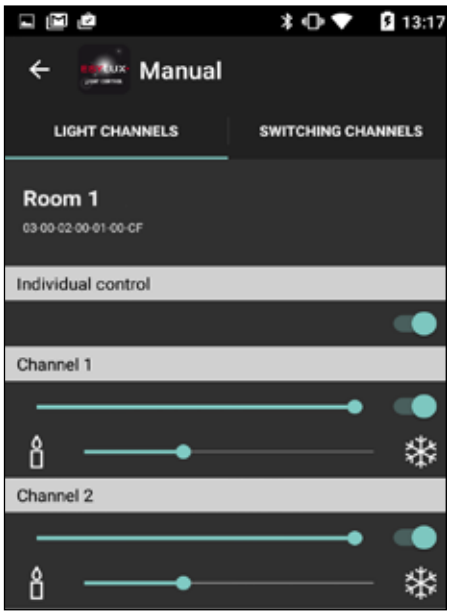
You can set the brightness and colour temperature for all channels individually or for all channels together. To select between individual or collective control, activate ( ) or deactivate ( ) the individual control switch. The screen changes according to the selected setting.

Use the slide controllers to adjust brightness and colour temperature:

- Moving the brightness slide controller to the right increases the brightness; moving it to the left reduces the brightness.
- Moving the colour temperature slide controller towards reduces the colour temperature and the light becomes warmer.
- Moving the colour temperature slide controller towards increases the colour temperature and the light becomes cooler.

Adjusting brightness and colour temperature for each channel individually:





➢ Activate individual control ( ).

➢ Slide the brightness slide controller belonging to the selected channel in the required direction.

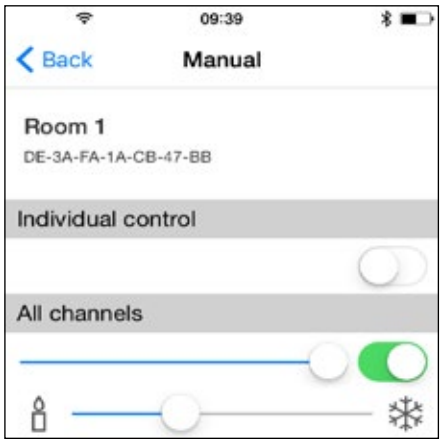
✓ The brightness changes on the selected channel.

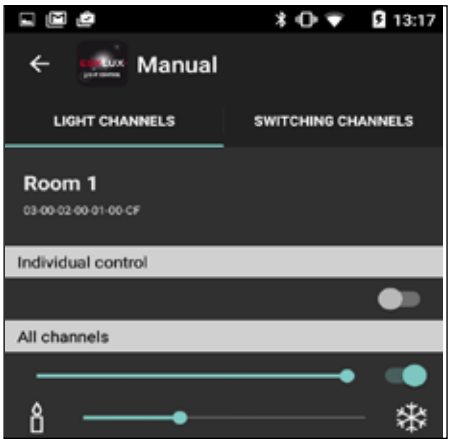
➢ Slide the colour temperature slide controller belonging to the selected channel in the required direction.

✓ The colour temperature changes on the selected channel.

✓ Brightness and colour temperature have been adjusted.

Setting the brightness and colour temperature for all channels:





- ➢ Deactivate individual control ( ).
- ➢ Slide the brightness slide controller in the required direction.
  - ✓ The brightness changes on all channels.
- ➢ Slide the colour temperature slide controller in the required direction.
  - ✓ The colour temperature changes on all channels.
  - ✓ All channels produce the same brightness and colour temperature.

11.3 Back to normal operation mode

Below the channel control, you will see the heading Normal operation mode. If you actuate the button <Back to normal operation mode> below this, the temporary settings you have made will be deleted. The light switches back to normal operating mode and uses the programmed settings.

11.4 Switching the switching channels on and off

You can also turn the switching channels on and off temporarily in the Manual menu.

Switching channel and DALI switch

Switching channels control DALI switch devices that are connected to the C1 and C2 DALI interfaces of the master light. Non-DALI-compatible devices can be connected to the DALI switch devices. For example, you can use the switching channel to switch on non-DALI-compatible blackboard lighting in a classroom. Master lights are factoryconfigured to enable them to send commands to connected DALI switches via the switching channels.

DALI switch devices are available as accessories including SW DALI Full Automation (item no. EP10427473) and SW DALI Semi Automation (item no. EP10427480).

To open the switching channel control screen, tap on the <Switching channels> button on the Manual screen. On Android devices, this is found at the top of the screen and on iOS devices, at the bottom.

Switching the switching channels on and off:

Prerequisites:

- The Manual menu screen is open.

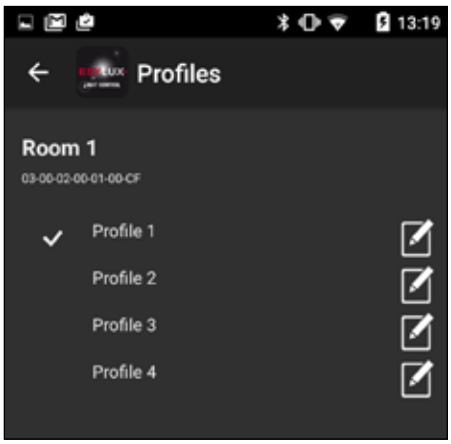
➢ Tap on the <Switching channels> button.

✓ The switching channels screen is displayed.

➢ Turn the switching channels on ( ) or off ( ) as required.

✓ Switching channel settings are now complete.

12 The app menu <Profiles>



Under the main menu item <Profiles>, you can select and edit scenes. You can also give the scenes informative names.

Profile components

A light scene consists of up to two lighting channels with a distinct brightness and colour temperature. A scene can also switch up to two switching channels. Scenes are temporary settings in the same way as the functions in the <Manual> menu.

Activating and deactivating scenes:

➢ In the main menu, tap on the menu item <Profiles>.

✓ The Profiles menu screen appears.

➢ Tap on the name of the scene that you wish to activate.

✓ The scene is activated and marked with the symbol .

➢ To deactivate the active scene, tap on its name.

✓ The light ends the scene and continues in normal operating mode.

✓ The scene is no longer marked as active.

Changing scene settings:

For each scene, the light power and colour temperature of the light channels can be adjusted and switching channels turned on or off.

You can adjust the following values:

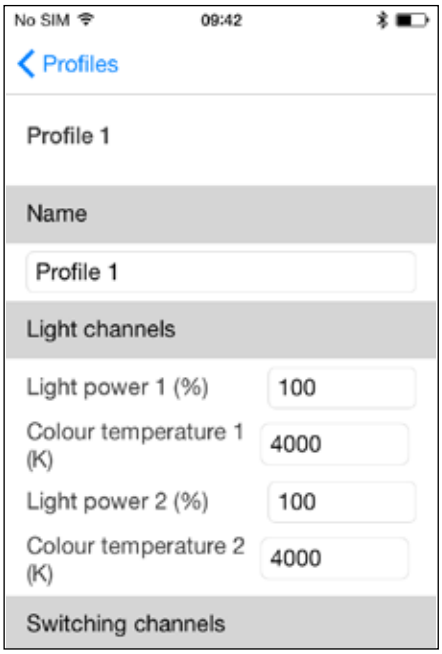
Light power: 0 to 100%

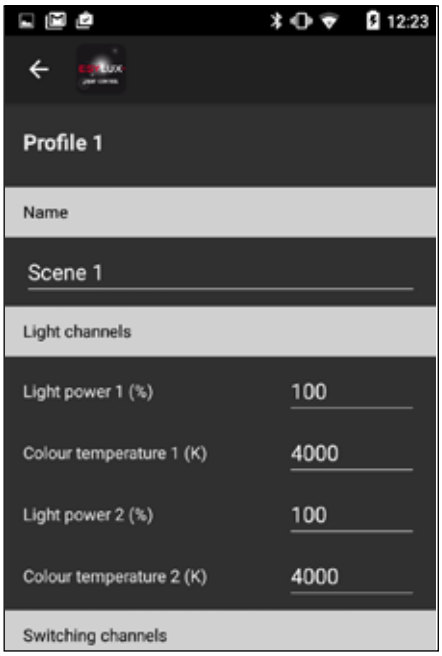
Colour temperature: 2700 to 6500 kelvin

Switching channels 1 and 2: on ( ) and off .

➢ In the Profile menu, tap on the Edit symbol <☑> for the scene you wish to change.

✓ The Profiles settings screen is opened and shows these settings, for example:





➢ Tap the input fields whose values you wish to change.

➢ Change the required value and confirm your input.

✓ Scene settings are now complete.

Changing profile names:

➢ Open the Profile menu and tap on the Edit symbol <☑> of the scene whose name you wish to change.

✓ The scene settings screen opens.

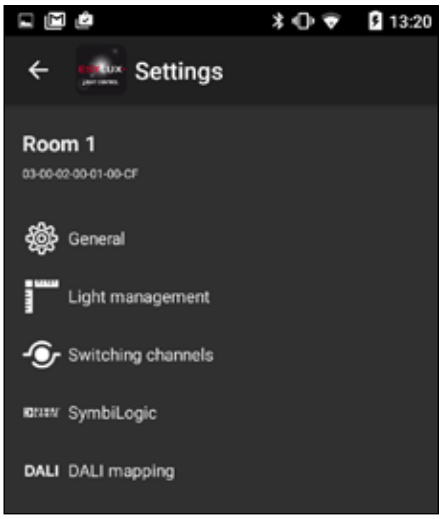
➢ Tap the name field of the scene whose name you wish to change.

✓ The operating device keypad is activated.

➢ Type in the desired name and confirm your entry.

✓ The scene now has the required name.

13 The app menu <Settings>



Password

The **Settings** menu, is used to configure lights, for example, by adjusting factory settings to suit your requirements. To prevent unauthorized persons from altering the programming, this menu requires you to enter a password. The password is the PIN code. You will find this on the name plate of the master light. After you enter the password, the menu symbol changes. An open padlock is shown ( ), which means that settings can now be adjusted.

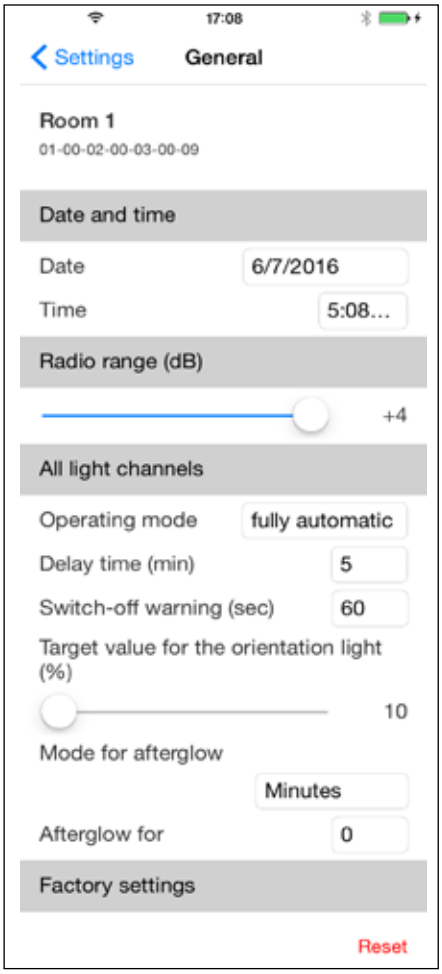
The settings menu remains accessible without requiring a new password. If you want this menu to be accessible only with a password, reactivate password protection. To do this, tap on the open padlock in the main menu and then tap on <Lock>.

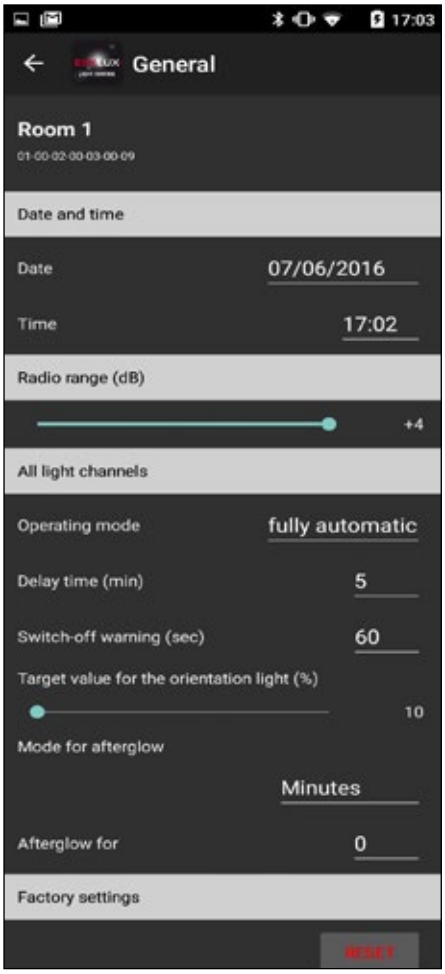
The menu contains the following submenus:

- <General>: General settings for all light channels.
- <Light management>: Functions for setting constant light management and for calibrating the lights with a light sensor.
- <Switching channels>: Switching channel configuration
- <SymbiLogic>: Settings for natural light conditions.
- <DALI mapping>: Assignment of DALI channels to light channels.

The settings are retained even when the luminaire is not supplied with current — for example because the power supply in the building is switched off overnight.

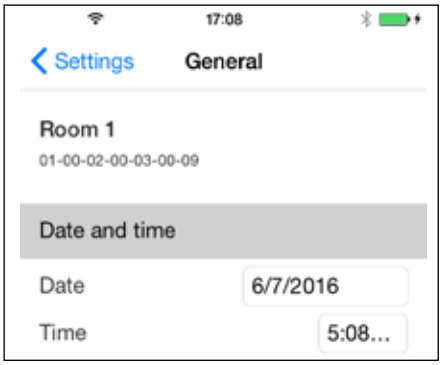
13.1 The General submenu

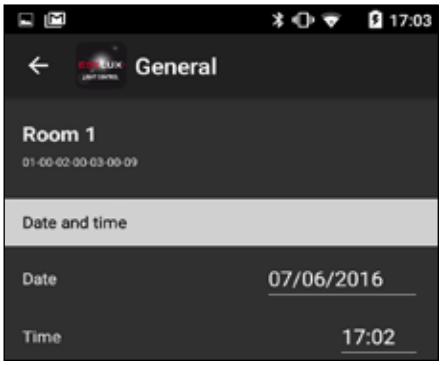




The screenshots show an overview of settings.

13.1.1 Date and time





Several functions require a correct time setting:

- The orientation light timer control, if it uses a start and end time.

- The SymbiLogic™ function, so that it can control brightness and colour temperature according to the time of day. SymbiLogic™ also requires the date to be set correctly.

The time should be set once a year.

Thanks to the built-in battery, the configured times are also retained in the event of a power failure.

Setting the date and time:

➢ Tap in the field displaying the date.

✓ The date settings appear.

➢ Set the current date and confirm your entry.

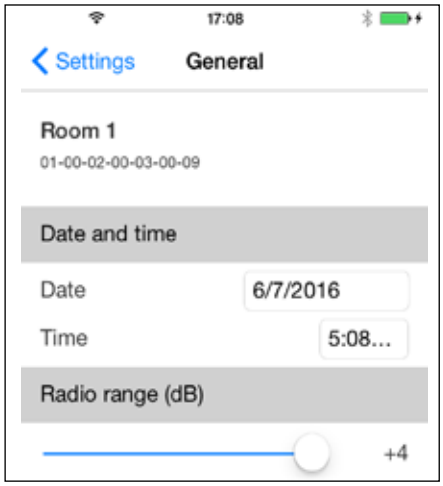
➢ Tap in the field containing the time.

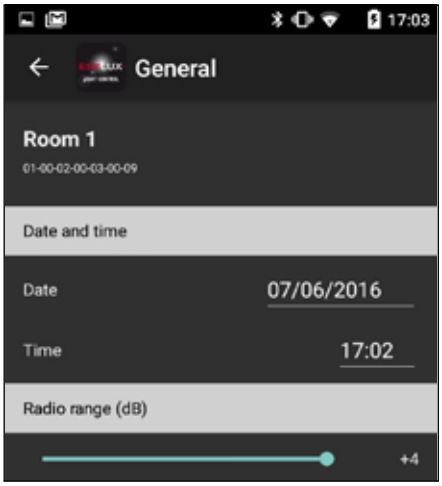
✓ The time settings appear.

➢ Set the current time and confirm your entry.

✓ The date and time of the lights are set.

13.1.2 Adjusting the radio range





NOVA Bluetooth master lights have a maximum radio range of approx. 10 metres if no obstacles obstruct the radio path. This range may be too large: For example, if a smartphone is connected to a light and the smartphone owner takes their device into the next room, the connection may remain established unintentionally. However, an existing connection prevents different devices from connecting to the light.

The **Radio range** function can be used to reduce the range so that only persons in the immediate vicinity can operate the light. The range can be reduced to around two metres.

Note the starting position

Do not stand too close to the light when reducing the radio range. This is because if you accidentally reduce the radio range too far, you will need to

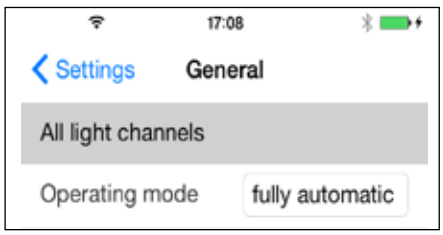
move into even closer proximity to re-establish the connection and correct the radio range.

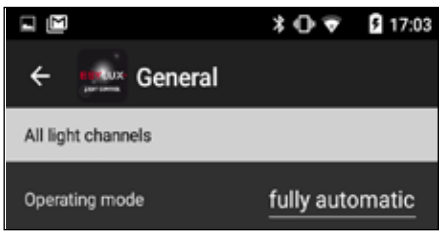
Range reduction does not always restrict the connection to the room in which the lights are located: Persons in the room directly above may sometimes also be able to establish a radio connection to the light.

Adjusting the radio range:

- Position yourself at the distance from the light to which you wish to restrict the radio connection and then move approximately one further metre away from the light.
- Move the slide controller to the left in stages.
- After each movement of the slide controller, send commands to the master light to check whether a connection still exists. For example, you can switch the light on and off.
- If the connection is interrupted, move to the desired distance and check whether the light and the Bluetooth device can connect. To do this, you can switch to the device registration screen and use the <Scan> button.
- If a connection is not made, move closer until the app can re-establish the connection.
- When the connection to the light is re-established, increase the radio range slightly by moving the slide controller to the right.
- Move back to the desired distance and check whether the light and the Bluetooth device can connect. If this is not the case, repeat the two steps above until connection is successful at the desired distance.
  - ✓ The radio range is now adjusted.

13.1.3 Adjusting automatic mode





You can operate the lights in **fully automatic** and **semi-automatic** mode.

fully automatic

Behaviour of the light when **fully automatic** is enabled:

The lighting automatically switches on if

- The ambient light is below the set target brightness
  and
- the detector detects presence.

The lighting automatically switches off if

- the ambient light is brighter than the set target brightness

or:

- no movement is detected

and

The off delay time has expired

Semi-automatic

Behaviour of the light when **semi-automatic** is enabled:

The lighting switches on if

- an external button is actuated.

The lighting automatically switches off if

- the ambient light is brighter than the set target brightness

or:

- no movement is detected

and

- The off delay time has expired

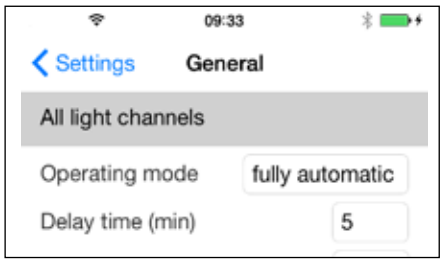
Setting fully automatic or semi-automatic mode:

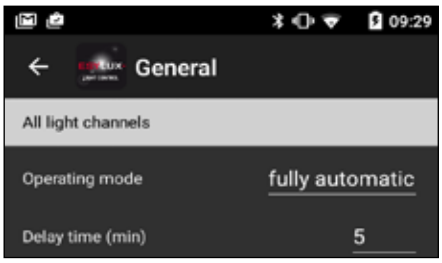
➢ Tap in the selection field that displays either **fully automatic** or **semi-automatic**.

➢ Select the required automation level and confirm your selection.

✓ The required automatic mode is set.

13.1.4 Setting the off delay time





The **off delay time** function determines for how long the light remains switched on after the last detected movement. The off delay time starts again every time a movement is detected.

- The minimum off delay time is one minute.
- The maximum off delay time is 240 minutes.

The off delay time applies to normal operating mode and to override mode. For more information on operating modes, see “Overview of operating modes” from page 27.

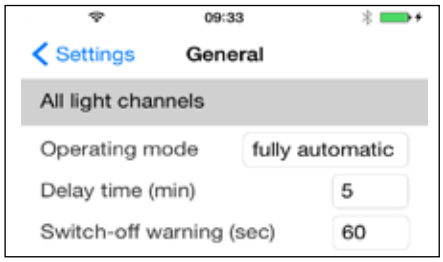
Setting the off delay time:

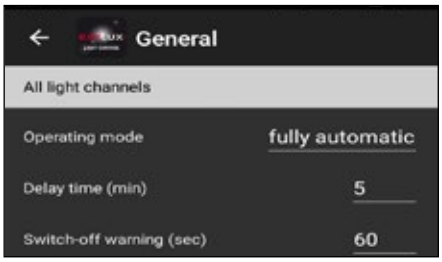
➢ Tap in the time selection field.

➢ Set the required time and confirm your selection.

✓ The off delay time is now set.

13.1.5 Setting the Switch-off warning





The **Switch-off warning** indicates that the set off delay time has elapsed. In switch-off warning mode, the lighting uses the brightness value that was set for the orientation light.

If movement is detected during the switch-off warning time, the detector returns to the last active operating mode. This may be normal operation mode or override mode.

The switch-off warning time can be set to a duration of 0 to 240 seconds.

Switch-off warning is disabled if the time is set to 0 seconds.

Example: The illumination level was dimmed manually via an external button and the light is in override mode as a result. The set off delay time has elapsed. The switch-off warning time now starts, which is set to 60 seconds. During this time, the lighting uses the brightness that is set for the orientation light. If presence is detected during this time, the master light returns to override mode.

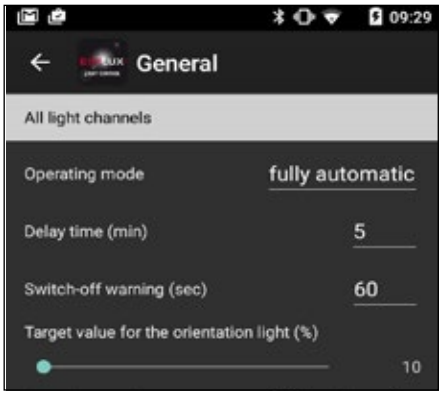
Setting the switch-off warning time:

➢ Tap in the time selection field.

➢ Set the required time and confirm your selection.

✓ The switch-off warning time is now set.

13.1.6 Changing orientation light brightness



The **Orientation light** function provides subtle lighting. You can use the slide controller to set orientation light brightness to values between 10% and 50% of the maximum illumination level.

Prerequisites

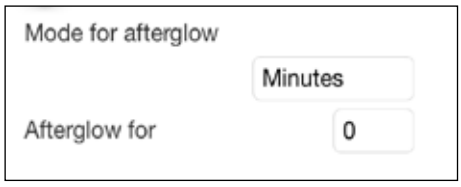
The orientation light only switches on once the set off delay time or a set switch-off warning time have elapsed. The orientation light duration can also be set to zero minutes.

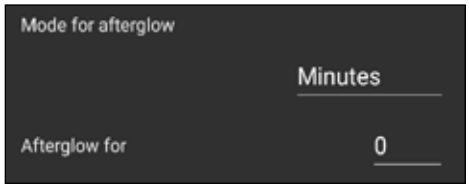
Setting orientation light brightness:

➢ Move the slide controller until the required percentage value is reached.

✓ The target brightness is now set.

13.1.7 Setting orientation light afterglow





The length of time for which the orientation light should be lit is referred to as the “afterglow”. There are two ways to set the afterglow:

- Enter the duration in minutes. Possible values: 0 - 240 minutes.
- Enter the start and end times. Only full hours can be entered as the times.

Thanks to the built-in battery, the configured times are also retained in the event of a power failure.

Select which type of time setting to use in the menu item **Mode for afterglow**. Appropriate input fields are displayed after selection.

Setting the afterglow in minutes:

- ➢ Tap on the button for the menu item **Mode for afterglow**.
  - ✓ A selection menu appears.
- ➢ Choose the <Minutes> setting and confirm your selection.
- ➢ Tap on the button for the menu item **Afterglow for**
  - ✓ A settings menu appears.
- ➢ Set the required duration and confirm your selection.
  - ✓ The afterglow is now set in minutes.

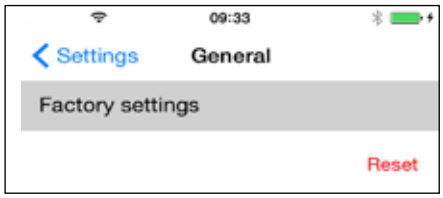
Adjusting the afterglow using a start and end time:

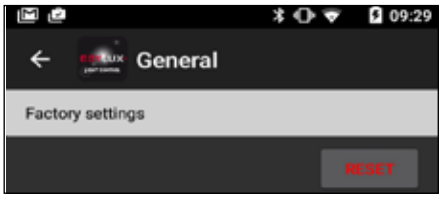
- ➢ Tap on the button for the menu item **Mode for afterglow**.
  - ✓ A selection menu appears.
- ➢ Choose the <Time> setting and confirm your selection.
- ➢ Tap on the button for the menu item **From time**.
  - ✓ A settings menu appears.
- ➢ Set the required start time and confirm your selection.
- ➢ Tap on the button for the menu item **By time**.
  - ✓ A settings menu appears.
- ➢ Set the required end time for the orientation light and confirm your selection.
  - ✓ The afterglow is now set with a start and end time.

Difference from time switching control

Setting a start and end time is not the same as timer control. If the off delay time in normal mode and the off warning time elapse before the start time of the orientation light, the light switches to energy-saving mode without illumination. The time-controlled orientation light is then not activated.
If you want to be sure that the orientation light remains lit overnight, set the start time to a time when movement will still be detected. After the off delay time has elapsed, the light then switches to orientation light mode.

13.1.8 Resetting lights to factory settings





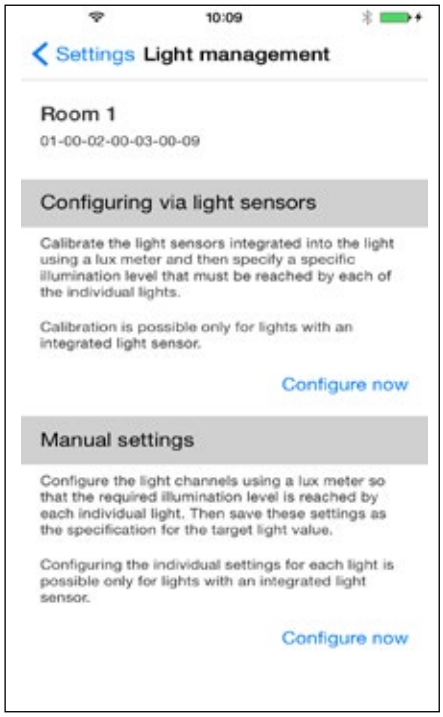
The **Factory settings** function restores the light to its default program set-

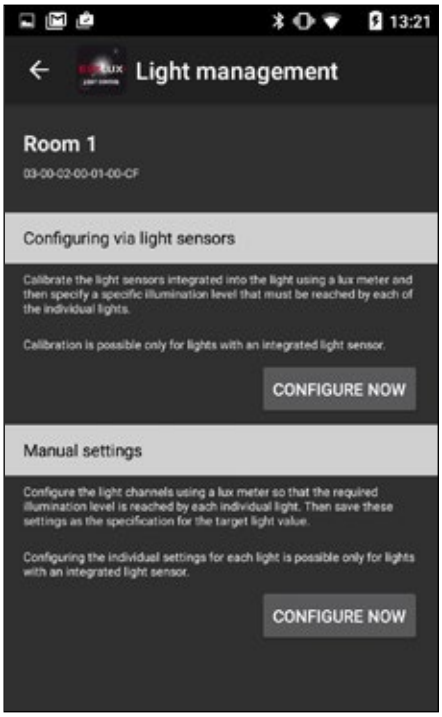
tings. For more information on the default factory settings, see Section “Factory settings” on page 27.

Restoring factory settings:

- ➢ Tap on the <Reset> button and answer the confirmation prompt with <Yes>.
  - ✓ The light goes out and subsequently uses default factory settings.

13.2 Light management submenu





Settings for constant light management are made in the Light management submenu. The type of setting differs depending on whether you are adjusting NOVA lights with light sensors or without light sensors.

The submenu Configuring via light sensors is intended for lights with light sensors. Here, you can calibrate the light sensors and then set the target light value.

The submenu Manual settings can be used to set lights with or without light sensors. Both types of setting and their differences are explained in the following chapters. See the background information above for information on the constant light regulation function.

13.2.1 Constant light management, light target value and light measurement

Constant light management uses the light target value to determine whether, for example, the light power increases in daylight and if a presence is detected, as the daylight is lower than the light target value. It can also determine whether the light switches off because daylight exceeds the light target value. By default, the light target value is set to 500 lux per channel. This can be changed in the two submenus Configuring via light sensors and Manual settings.

Apart from the light target value, constant light management also requires the current light value in order to compare both values. The manner in which NOVA lights measure light depends on their design:

- **Master lights without a light sensor** capture the current light value using the integrated presence detector. One light value measurement must be performed by remote control.
- **Master lights with an additional light sensor** capture the current light value using the light sensor. The presence detector only detects presence. The light sensor can be calibrated.
- **Slave lights without a light sensor** do not measure a light value. If only one slave light without a light sensor is active on a channel, the constant light management for this channel uses the measured light value from the master light on the other channel.
- **Slave lights with light sensors** measure the current light value using the light sensor and report the light value to the master light that performs constant light regulation. The light sensor can be calibrated.

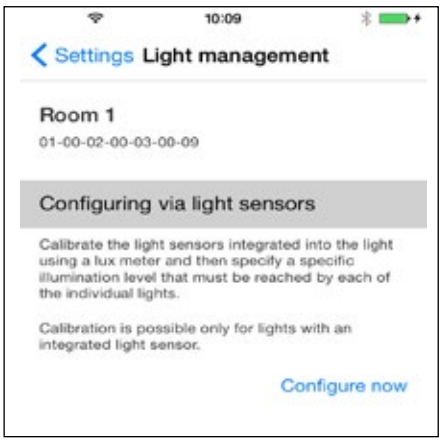
Channels and management of individual lights

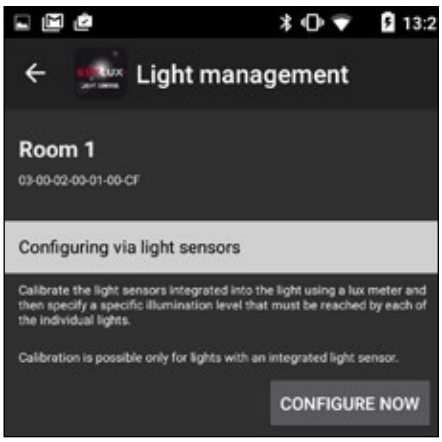
Light target values always apply to one channel. However, constant light management can control different lights on one channel in different ways if these lights have light sensors. If a channel only has lights without light sensors, all lights are regulated to the same brightness value.

13.2.2 Configuring via light sensors

Prerequisites:

- Lux meter
- NOVA lights with light sensors





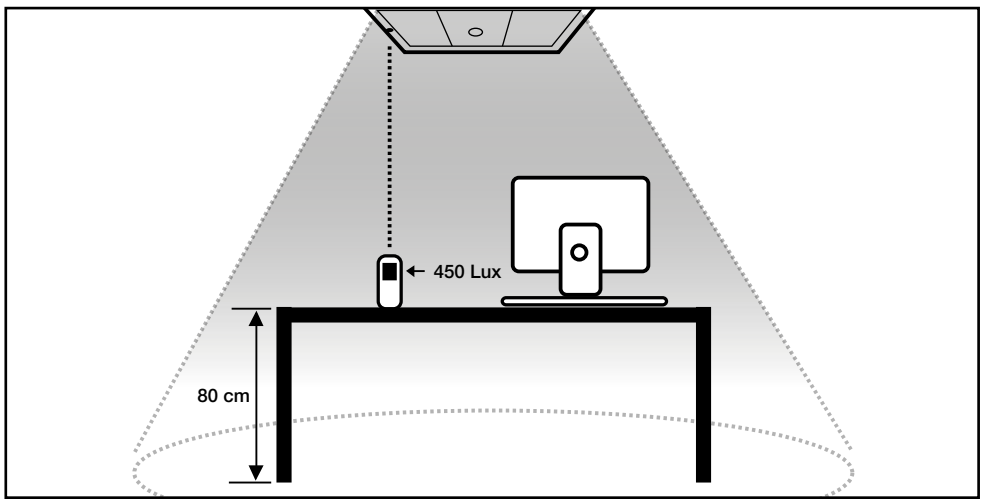
The setting is made in two stages: First, calibrate the light sensors. Then set the light target value in lux for each light channel.

Lux meter

A lux meter is required for calibration. The light values measured with the lux meter are transferred to the master light via the app. The master light compares the lux values at the location of the sensor with the lux values at the location of the lux meter and uses these values to calculate a conversion factor. Calibration allows the master light to calculate the illumination level required to maintain a constant target light value in the required location with greater precision.

Advantage of calibration

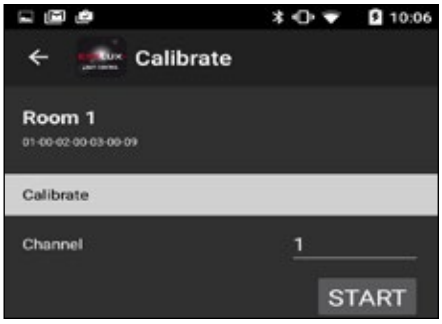
The light sensor is affected by light from reflective work surfaces, walls and floors. Calibration is essential for ensuring that surfaces at a specific height remain evenly lit.



Calibration is performed individually for each lighting channel. During calibration, only the light channel that is being calibrated is active.

Calibrating light sensors:

- Start the calibration process by tapping on<Configure now> under Configuring via light sensors.
  - ✓ The calibration menu is displayed:



- In the selection field, choose the channel for which you wish to calibrate the light sensors and confirm your selection.
- Tap on <Start>

Measurement 1

- Use a lux meter to measure the current light value at the desired location, e.g. at a desk. The reading is 600 lux, for example.
- Enter the lux value in the field for value 1 and confirm your entry.
  - ✓ The master light receives the value and dims the light value for the next measurement.

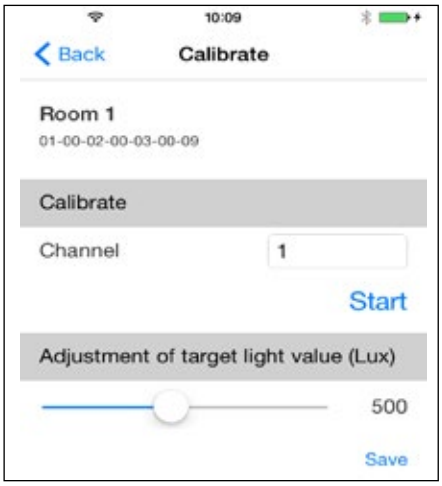
Measurement 2

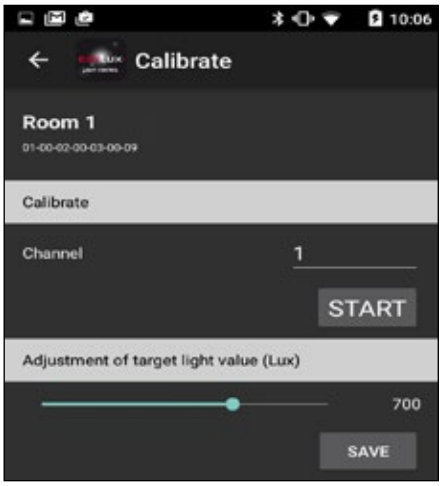
- Now measure the light value again using the lux meter. The value is now lower than the first measurement and reads 550 lux, for example.
- Enter this lux value in the field for value 2 and confirm your entry.
  - ✓ The master light receives the value and dims the light value for the next measurement.

Measurement 3

- Now measure the current light value using the lux meter. The reading is 450 lux, for example.
- Enter this lux value in the field for value 3 and confirm your entry.
  - ✓ The calibration process for the selected channel is now complete. The master light switches the lights off for a short time.
- To exit the calibration menu, confirm the message informing you of successful calibration. You can then set the light target value for this channel:

Setting the light target value in lux:





- ➢ Move the slide controller until the required lux value is shown in the number field.
- ➢ Tap <Save> to save the setting.
  - ✓ The light set value is set.
    Repeat the calibration and setting process for the remaining channels.

13.2.3 Manual settings

Prerequisites:

- Infrared remote control Mobil-PDi/MDi-Universal (item number EP10433993).
- The ambient light is below the required brightness at the time of setting.

Manual settings can be made for lights with and without light sensors. However, for lights with light sensors, ESYLUX recommends setting after calibration.

To set the light target value manually, use the slide controller to set the light value to the required value. The set brightness is then saved as the light target value. No lux value is entered when setting manually. However, you can use a lux meter to check the set brightness.

For lights without light sensors, manual settings are made in two stages:

1. Activate light measurement for the master light using the universal remote control.
2. Set the light target value for each channel using the lux meter or by sight using the slide controller and save the light target value.

Stage 1 is omitted for lights with light sensors.

Only for lights without light sensor

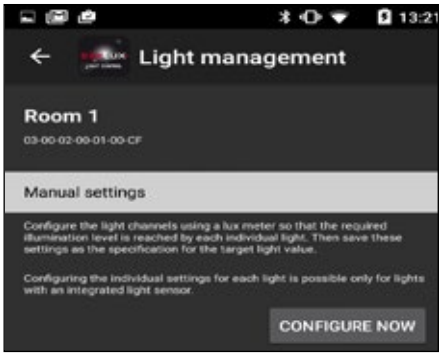
Activating light measurement using the integrated presence detector:

- Switch on the remote control using the button.
- Ensure that the universal remote control displays “X-Light Control TW” in the first display line.
- If it does not: Set the universal remote control to the remote control X-Light Control TW. To do this, follow the steps in Chapter “Selecting X-Light Control TW remote control” on page 34.
- Choose a position as directly as possible underneath the master light for which you wish to activate light measurement.
- Aim the remote control directly at the detector so that only this light receives the remote control signal.

If you are using multiple Quadro sets in one room, you need to decide which master light should perform light measurement. For master lights connected in parallel, only one master light must perform light measurement.
If you are only using one Quadro set, the remote control requires less precise alignment. This is because in Quadro sets, only one of the two master lights has a detector.

- Select the button to choose the menu item <Functions> and confirm the selection with the button.
- Select the button to choose the menu item <Light value on> and confirm the selection with the button.
  - ✓ The red LED flashes three times in the sensor head.
    The detector now measures light values.
    The remote control switches off automatically after a few minutes.

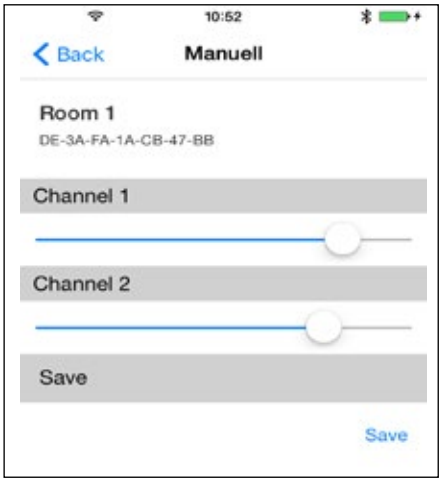
Setting the light target value:

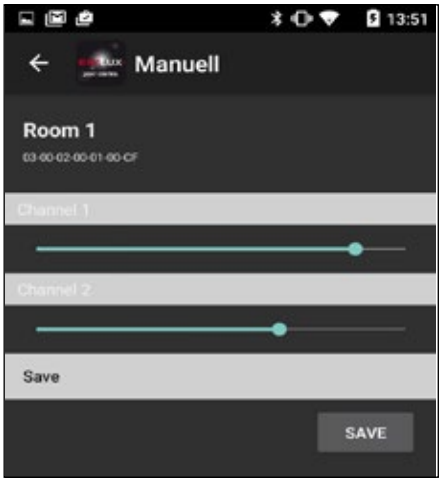


- Start configuration of the light target value in the app by tapping on

<Configure now>. under Manual settings.

✓ The settings menu is displayed:





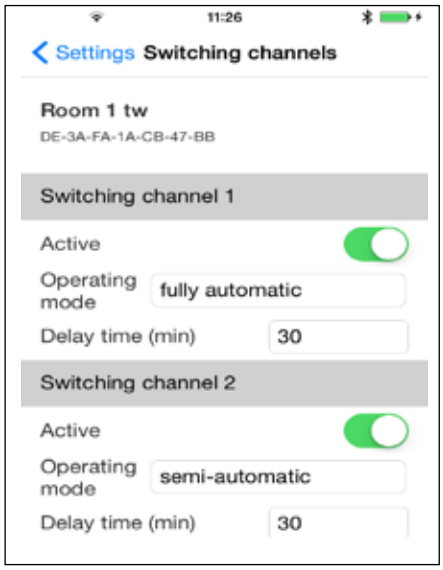
- Position yourself in the area of the room that will be illuminated by the lights assigned to channel 1.
- Slide the top slide controller until the required brightness is reached. If you are unsure whether the set brightness is too low, check the brightness using a lux meter.
- Position yourself in the area of the room that will be illuminated by the lights assigned to channel 2.
- Slide the top slide controller until the required brightness is reached. If you are unsure whether the set brightness is too low, check the brightness using a lux meter.
- Tap <Save>.

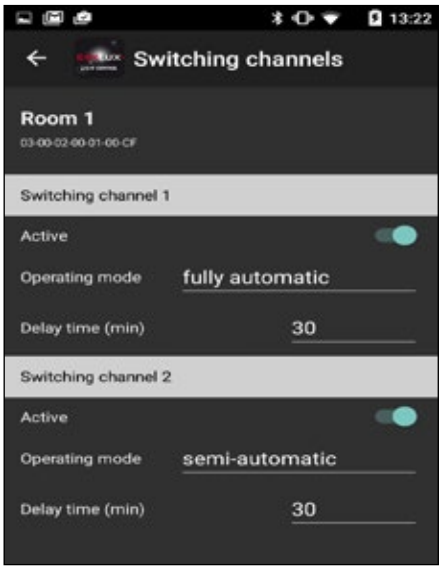
  ✓ After the light target values have been received, the lights will go off briefly.
  The target light values are now saved.

Limitation for lights without light sensors

If lights without light sensors are in use on one channel, the **manual setting** process has one restriction: Although you can still use the slide controllers to set and save different brightnesses for each channel, the lights will still produce the same brightness. The reason: For lights without light sensors, brightness measurement is only performed by the master light. This means there is only one measured brightness value that constant light management uses for all channels.

13.3 Switching channels submenu





Switching channels control DALI switch devices that are connected to the C1 and C2 DALI interfaces of the master light. Non-DALI-compatible devices can be connected to the DALI switch devices. For example, you can use the switching channel to switch on non-DALI-compatible blackboard lighting in a classroom. Master lights are factory-configured to enable them to send commands to connected DALI switches via switching channels. In the Switching channels settings submenu, you can change this setting and other settings.

For information on how to temporarily activate and deactivate the switching channels, see Chapter “Switching the switching channels on and off” on page 78.

The setting options are identical for both switching channels. You can make the following settings:

13.3.1 Switching channel - Active

On. The master light sends control commands.

Off. The master light does not send any control commands.

Activating or deactivating the switching channel:

➢ Slide the switch to the right or left.

✓ The switching channel is activated or deactivated as required.

13.3.2 Switching channel - Operating mode

You can choose from the following operating modes:

Fully automatic: If this function is active, the DALI switch switches the connected device on when a presence is detected. This function can also be activated if the master light is operating in semi-automatic mode.

Semi-automatic: If this function is active, the DALI switch must be activated manually if the off delay time has elapsed in normal operation or override mode.

Pulse mode: If this function is active, the DALI switch switches devices such as automatic stairwell timers or current impulse relays on with an impulse. The impulse is repeated regularly for as long as movement is detected.

Setting the operating mode:

- ➢ Tap to activate the selection field.
- ➢ In the selection field that appears, select the required operating mode and confirm your selection.
  - ✓ The required operating mode is now set.

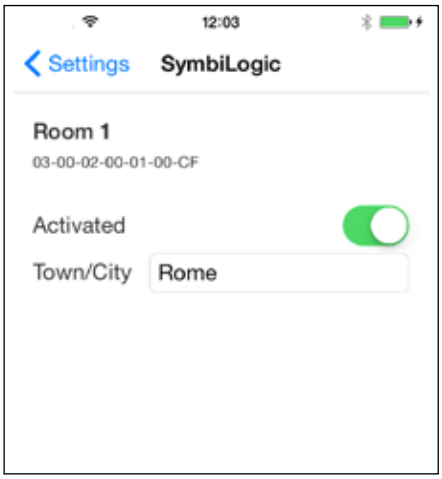
13.3.3 Switching channel - Delay time

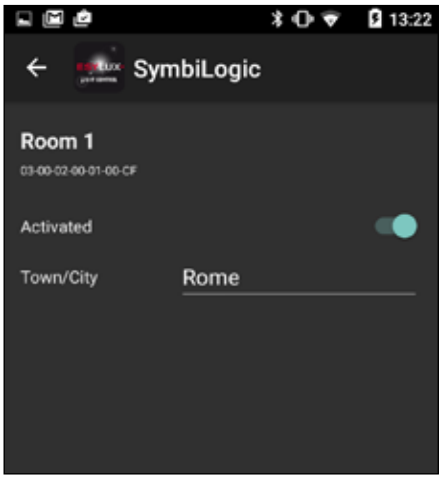
This function sets how long the DALI switches keep the connected devices activated following the last detected movement. You can choose a time of one to 240 minutes.1

Setting the switching channel delay time:

- ➢ Tap to activate the field containing the current delay time.
- ➢ In the selection field that appears, select the required time and confirm your selection.
  - ✓ The delay time is now set.

13.4 SymbiLogic submenu





The natural daylight of a geographical location has two properties: It has a specific colour temperature that depends on the location's latitude. The second property: Colour temperature and brightness change throughout the day.

How it works

The patented SymbiLogic™ technology of NOVA lights with adjustable colour temperature (tuneable white) can replicate natural lighting conditions by regulating colour temperature and brightness to match the time of day. As a result, in the evening you can be provided with a lighting configuration that supports your biological sleep pattern.

SymbiLogic™ is deactivated by default. If SymbiLogic™ is activated, you can select the following locations under lighting conditions: Hamburg, Rome, New York and Stockholm.

SymbiLogic™ and constant light management

If SymbiLogic™ is activated, SymbiLogic™ takes over the constant light control function. In contrast to simple constant light regulation, SymbiLogic™ also makes slight alterations to the brightness throughout the day as well as altering the colour temperature.

Prerequisites:

- The date and time are set in the **General** settings menu.
- The target brightness is set to a realistic value, for example 500 lux. For information, please see Chapter “Light management submenu” on page 89.

Activating or deactivating SymbiLogic™:

➢ Slide the controller to the right to activate SymbiLogic™.

✓ Once the switch is in position , SymbiLogic™ is activated.

➢ Slide the controller to the left to deactivate SymbiLogic™.

✓ Once the switch is in position , SymbiLogic™ is deactivated.

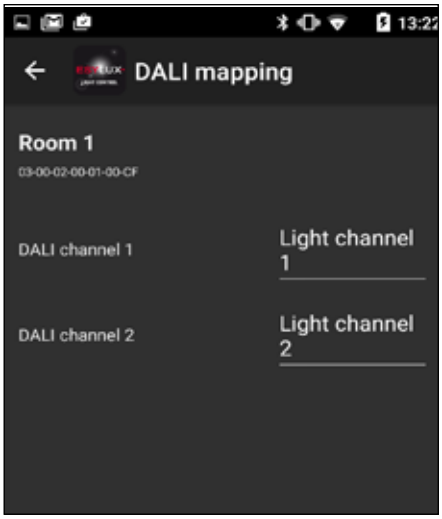
Selecting a location:

➢ Activate the location field by tapping.

➢ In the selection field that appears, select the required location and confirm your selection.

✓ The location whose light conditions are to be mimicked by SymbiLogic™ is now selected.

13.5 DALI mapping submenu



The two C1 and C2 DALI interfaces of the master light are initially assigned to the lighting channels numerically. For example, DALI interface C2 corresponds to the lighting channel C2.

You can change this assignment in the DALI mapping submenu. You can also assign both DALI interfaces to one lighting channel.

Assigning a different lighting channel to a DALI interface:

➢ Tap to activate the light channel field of the DALI channel to which another light channel is to be assigned.

➢ In the selection field that appears, select the required light channel and confirm your selection.

✓ The light channel is now assigned to the DALI channel.

14 Settings via the 230 V button

Switch actuations are not transmitted to other master lights via DALI. To trigger a Quadro set, connect the switch in parallel on both master lights.

14.1 Button S1

The lighting can be switched on or off or dimmed using the S1 button.

14.1.1 Switching the lighting on/off

Switching the light on:

Prerequisites:

- The lighting is off.
- The brightness is below the set target brightness

➢ Press the S1 button.

✓ The lighting switches on.

The light switches to normal mode when the button is pressed. If the brightness is above the target brightness, the light switches off again shortly after pressing the button.

Switching the light off:

Prerequisites:

- The lighting is switched on.

➢ Press the S1 button.

✓ The lighting switches off.

14.1.2 Dim lighting

Adjusting the dimmer in one direction:

Prerequisites:

- The lighting is switched on.

➢ Press and hold the S1 button.

✓ Lighting is dimmed.

The dimming process is interrupted as soon as you release the button.
The light enters override mode during the dimming process, which means the setting is not permanently saved.

Adjusting the dimmer in the other direction:

Prerequisites:

- The lighting is switched on

➢ Press and hold the S1 button.

✓ The adjustment process starts, for example by increasing the brightness.

➢ Briefly release the S1 button and then press and hold it again.

✓ The adjustment process switches direction, for example, the brightness is reduced.

14.2 S2 button: Set colour temperature

With the S2 button, you can set the colour temperature to the lowest and highest value. You can also dim the colour temperature using the S2 button.

Prerequisites:

- The lighting is switched on.

Setting the colour temperature to the minimum value:

➢ Press the external S2 button once.

✓ The lights emit warm light.

Setting the colour temperature to the maximum value:

➢ Press the external S2 button twice within 10 seconds.

✓ The lights emit cold light.

Dimming the colour temperature:

➢ Press and hold the S2 button.

✓ The colour temperature changes from warm to cold.

Changing the dimming direction:

➢ Press and hold the S2 button.

✓ The colour temperature changes from warm to cold.

➢ Release the button when the colour temperature no longer changes then press the button again.

✓ The colour temperature changes in reverse order from cold to warm.

Stopping the dimming process:

➢ Release the button.

✓ The dimming process stops.

15 Settings via DALI button

All lights can be controlled via external DALI buttons. The DALI button is an external module that sends standard 16-bit commands (IEC 62386-102:2009). It is connected to the DALI CO connection (see “4.4 Master light connection options”).

The following commands can be configured and executed via long or short pressing of the button:

- Lighting channel on/off
- Lighting channel brightness dimming up/down
- Colour temperature dimming up/down

A DALI button module for scenes can also call up scenes.

15.1 List of DALI commands

DALI commands (16 bits)	Address	Description
UP	Broadcast	All lighting channels adjust the brightness upwards. No command to DALI switches.
UP	Group 15	All switched-on lighting channels adjust the colour temperature upwards. No command to DALI switches.
UP	Group 0	Channel 1 adjusts the brightness upwards. No command to other lighting channels or DALI switches.
UP	Group 1	Channel 2 adjusts the brightness upwards. No command to other lighting channels or DALI switches.
DOWN	Broadcast	All lighting channels dim the brightness. No command to DALI switches.
DOWN	Group 15	All switched-on lighting channels adjust the light colour downwards. No command to DALI switches.

DALI commands (16 bits)	Address	Description
DOWN	Group 0	Channel 1 dims the brightness. No command to other lighting channels or DALI switches.
DOWN	Group 1	Channel 2 dims the brightness. No command to other lighting channels or DALI switches.
OFF	Broadcast	All lighting channels and DALI switches are switched off.
OFF	Group 15	All switched-on lighting channels adjust the colour temperature to 2700 K. No command to DALI switches.
OFF	Group 0	Channel 1 is switched off. No command to other lighting channels or DALI switch.
OFF	Group 1	Channel 2 is switched off. No command to other lighting channels or DALI switch.
OFF	Group 4	DALI switch full automation is switched off. No command to other lighting channels or DALI switches with semi-automation.
OFF	Group 5	DALI switch semi-automation is switched off. No command to other lighting channels or DALI switches with full automation.
RECALL MAX LEVEL	Broadcast	All lighting channels and DALI switch are switched on.
RECALL MAX LEVEL	Group 15	All switched-on lighting channels adjust the colour temperature to 6500 K. No command to DALI switches.
RECALL MAX LEVEL	Group 0	Channel 1 is switched on. No command to other lighting channels or DALI switch.
RECALL MAX LEVEL	Group 1	Channel 2 is switched on. No command to other lighting channels or DALI switch.
RECALL MAX LEVEL	Group 4	DALI switch full automation is switched on. No command to other lighting channels or DALI switches with semi-automation.

DALI commands (16 bits)	Address	Description
DALI switch Switching on	Group 5	DALI switch semi automation is switched on. No command to other lighting channels or DALI switches with full automation.
Only for DALI button modules for scenes:		
GO TO SCENE 0 / Command 16	Broadcast	Activate scene 1
GO TO SCENE 1 / Command 17	Broadcast	Activate scene 2
GO TO SCENE 2 / Command 1	Broadcast	Activate scene 3
GO TO SCENE 3 / Command 19	Broadcast	Activate scene 4

16 Maintenance

The light does not contain any components that require maintenance. The device can only be replaced as a complete unit.

16.1 Cleaning

CAUTION!

Using the wrong cleaning products will damage the device!

➢ Use a lint-free cloth that is either dry or dampened with water.

16.2 Troubleshooting

Problem solving

Fault	Cause/solution
Lighting is off	• Ambient light level is above the preset twilight switch value • Lighting has been switched off manually • The off delay time has been set too short
Lighting is switched off during the hours of darkness despite the presence of persons	• Ambient light level is above the preset twilight switch value • Lighting has been switched off manually

Fault	Cause/solution
Lighting does not switch off or lighting switches on spontaneously when no persons are present.	• The off delay time has not yet elapsed • Erroneous function triggered by animals or plants. • There are moving objects within the field of detection, such as curtains next to an open window. • There are sources of thermal interference within the field of detection, e.g. heating or air-conditioning.
Detector does not respond.	• Lack of power supply; check the mains voltage.

17 Technical information

Mains voltage	230 V ~/50 Hz
Master light rated output: **Set:**	40 W–70 W (70 W: Maximum value with one slave light) 1 * 40 W + 3 * 30 W
Master light standby consumption: **Set:**	< 4 W < 8 W
Permissible ambient temperature	0°C to +40°C
For illuminants	140 LEDs per light (inclusive)
Ballast	Electronic ballast
Approx. dimensions	PNLNOV**10**xxxxxxxxxxxxxxxx: Width 593 mm * height 593 mm * depth 57, mm PNLNOV**10**xxxxxxxxxxxxxxxx: Width 618 mm * height 618 mm * depth 57, mm
Installation dimension	Installation depth 60 mm; minimum ceiling installation height to allow NOVA lights to be installed directly in the suspended ceiling without removing the braces: 140 mm.
Installation type	Panel light
Terminal	2.5 mm^2/1.5 mm^2
Interfaces	ESYLUX light control, DALI.

Operating interfaces	Models PNLNOVxxxxxxxxxxxxELCMxx and sets PNLNOVxxxxxxxxxxxxELCXxx: Infrared, connection for button Models PNLNOVxxxxxxxxxxxxELCMxx**B** and Sets PNLNOVxxxxxxxxxxxxELCXxx**B:** Infrared, connection for push button, Bluetooth
Integrated presence detector	All master lights except for the second master light in Quadro sets Tuneable white
Field of detection for presence detector	360°
range (at recommended installation height of 2.5 m)	8 m
Light sensor	Only models PNLNOVxxxxxxxxWHX**L**xxxxxx
Housing material	powder-coated metal
Diffusor	PNLNOVxxxxxxxxWH**C**xxxxxxx: Crystal PNLNOVxxxxxxxxWH**O**xxxxxxx: Milky
Weight: **Light** **Set**	 5000 grams 20000 grams
Colour	white, similar to RAL 9003
Protection type	IP 20
Protection class	I (master light)/III (slave light)
Color Rendering Index (CRI)	> 80
Luminous flux (light)	ca. 3000 lm (Milky)/ca. 3300 lm (Crystal)
Colour temperature	2700 K–6500 K (Tunable white)
Glare rating	UGR ≤ 19 (Milky)/ UGR ≤ 16 (Crystal)
Color Quality Scale (CQS)	> 80
Colour tolerance	SDCM < 3
Beam angle	110°
Energy efficiency class	A++ to A
Without illuminant	No
LED service life	50.000h L80B10
Conformity	CE, RoHS, WEEE
Technical and design features may be subject to change. The power output may deviate from the specified value by +/- 10%.	

18 Disposal

As the owner, you are required by law to correctly dispose of used devices. Contact your local town council for more information.

19 EC Declaration of Conformity

CE declaration

The products listed below comply with the following standards:

- EMC 2004/108/EC
- RoHS 2011/65/EU
- LVD 2006/95/EC
- Ecodesign 2009/125/EC

20 ESYLUX MANUFACTURER'S GUARANTEE

ESYLUX products are tested in accordance with applicable regulations and manufactured with the utmost care. The guarantor, ESYLUX Deutschland GmbH, Postfach 1840, 22908 Ahrensburg, Germany (for Germany) or the relevant ESYLUX distributor in your country (visit www.esylux.com for a complete overview) provides a guarantee against manufacturing/material defects in ESYLUX devices for a period of three years from the date of manufacture.

This guarantee is independent of your legal rights with respect to the seller of the device.

The guarantee does not apply to natural wear and tear, changes/interference caused by environmental factors or damage in transit, nor to damage caused as a result of failure to follow the user or maintenance instructions and/or as a result of improper installation. Any illuminants or batteries supplied with the device are not covered by the guarantee.

The guarantee can only be honoured if the device is sent back to the guarantor with the invoice/receipt, unchanged, packed and with sufficient postage, along with a brief description of the fault, as soon as a defect has been identified.

If the guarantee claim proves justified, the guarantor will, within a reasonable period, either repair the device or replace it. The guarantee does not cover further claims; in particular, the guarantor will not be liable for damages resulting from the device's defectiveness. If the claim is unfounded (e.g. because the guarantee has expired or the fault is not covered by the guarantee), then the guarantor may attempt to repair the device for you for a fee, keeping costs to a minimum.