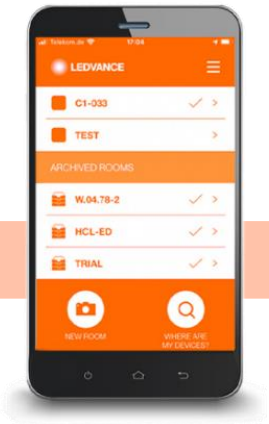
LEDVANCE

HUMAN CENTRIC LIGHTING
BIOLUX G2

INSTALLATION GUIDE

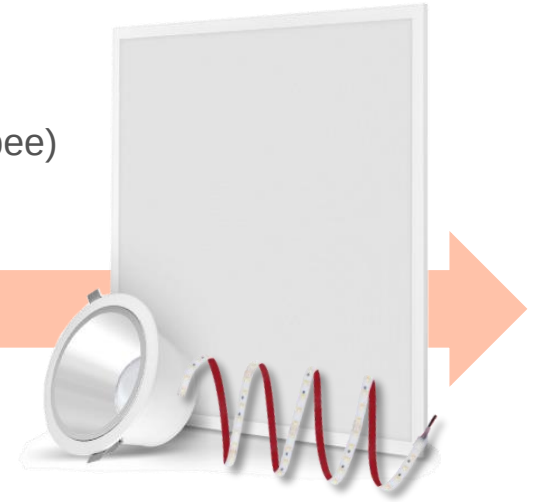
LEDVANCE BIOLUX – Human Centric Lighting
System setup



COMMISSIONING:
fast and simple via Smart phone App and QR Code

CONTROL:
intuitively via unique Control Unit and pre-programmed lighting scenes

INSTALLATION:
pragmatic and fast thanks to wireless technology (via zigbee)

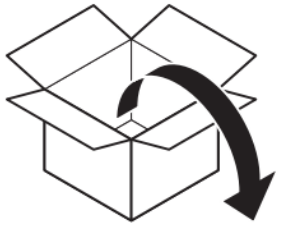


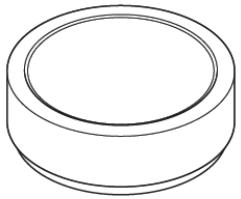
FUNCTIONALITY:
no registration or cloud access needed

INSTALLATION

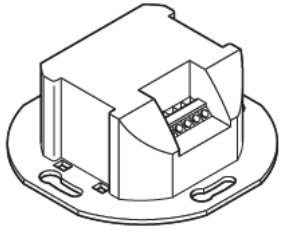
BIOLUX HCL CONTROL UNIT

Content of packaging box

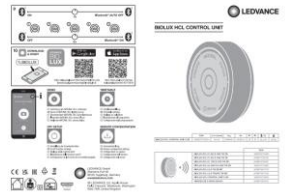




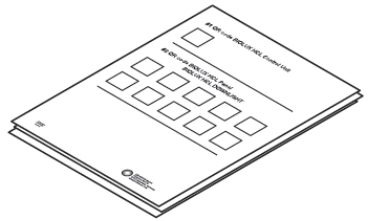
Control unit



Control unit power supply



User Instruction



QR code leaflet

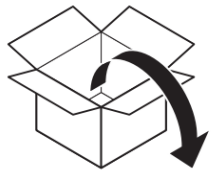
INSTALLATION

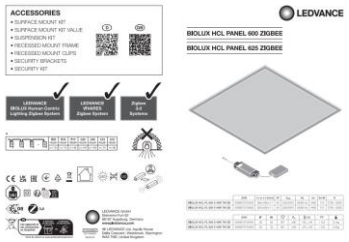
BIOLUX HCL Luminaires

Content of packaging box

BIOLUX HCL PANEL 600 ZIGBEE

BIOLUX HCL PANEL 625 ZIGBEE





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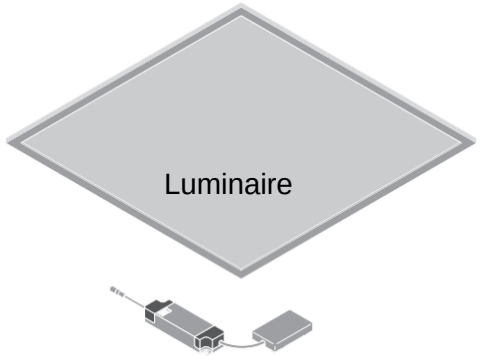
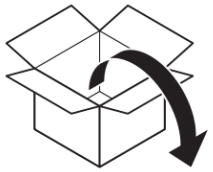
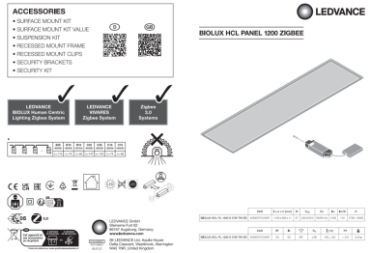


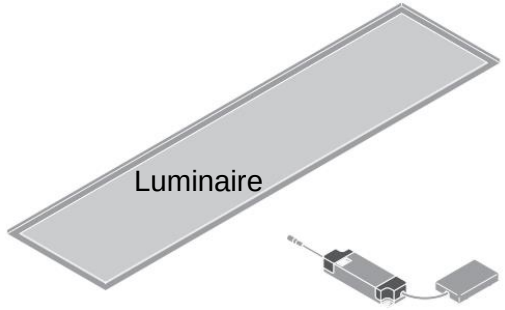
Driver & connector box

BIOLUX HCL PANEL 1200 ZIGBEE



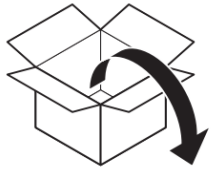


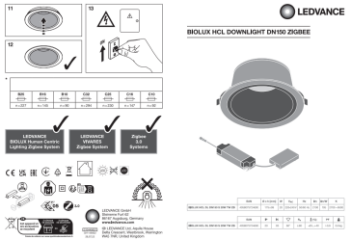
User Instruction



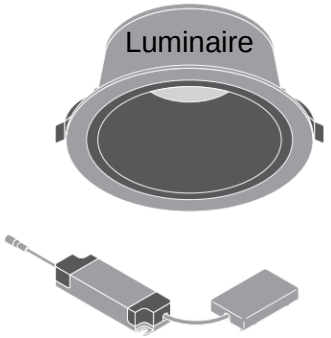
Driver & connector box

BIOLUX HCL DOWNLIGHT DN150 ZIGBEE





User Instruction



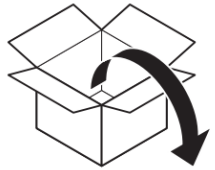
Driver & connector box

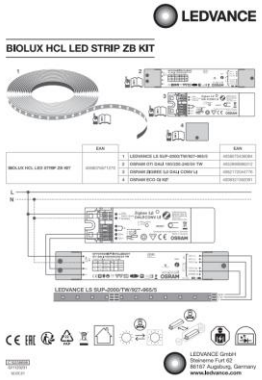
INSTALLATION

BIOLUX HCL
LED Strip Kit

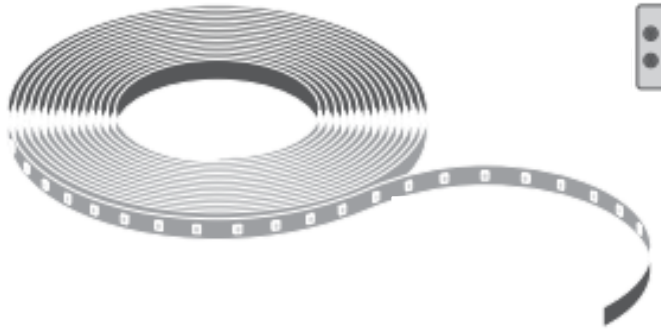
Content of packaging box

BIOLUX HCL LED STRIP ZB KIT



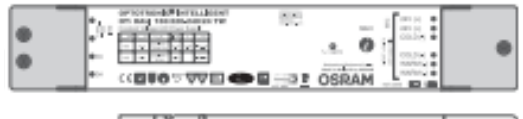


User Instruction



LED Strip
Tunable White

DALI Tunable White driver



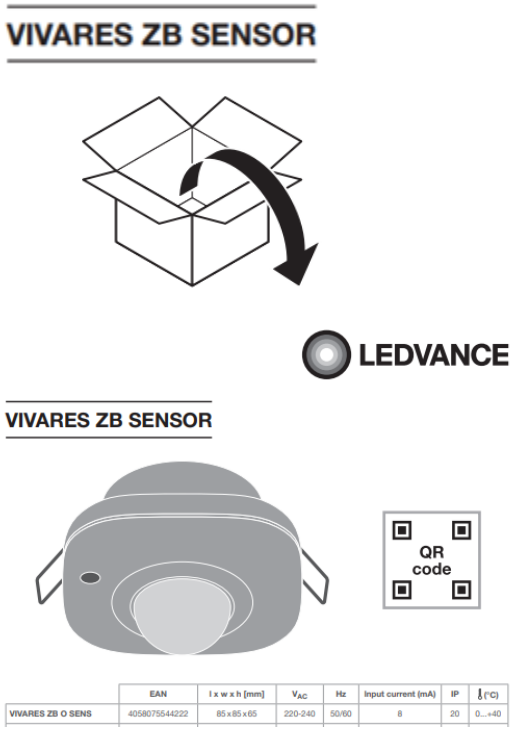
Endcap for
converter

Zigbee to DALI
converter

INSTALLATION

VIVARES ZB
Occupancy Sensor

Content of packaging box



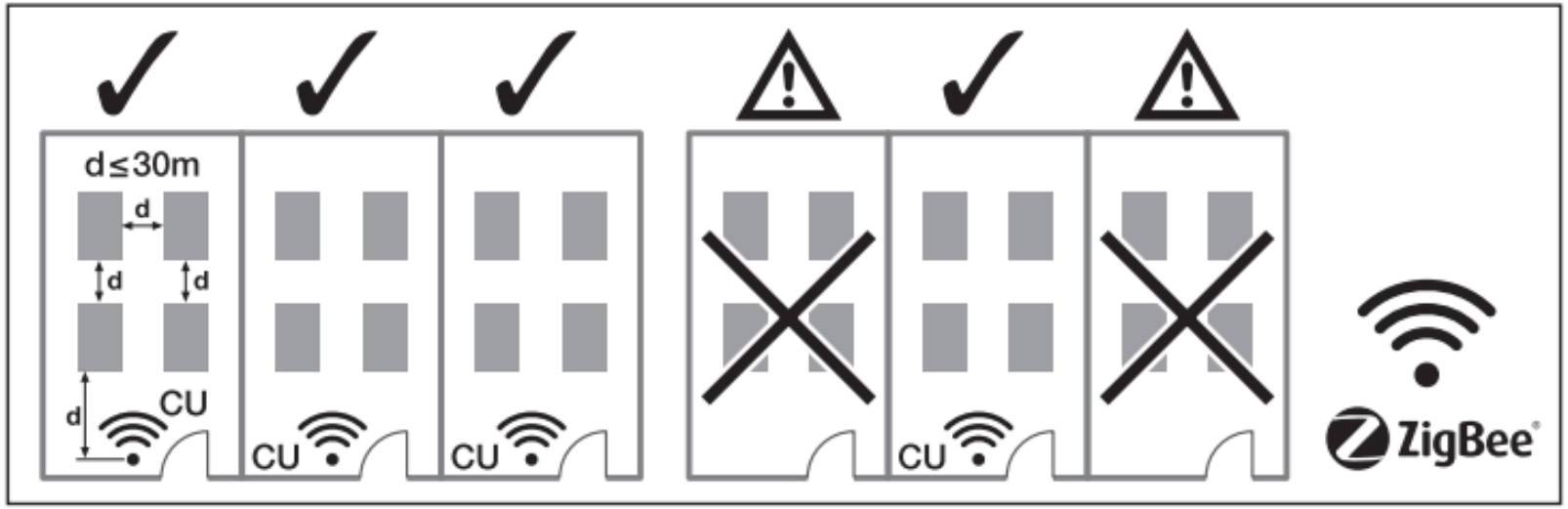
User Instruction

Sensor

INSTALLATION

BIOLUX HCL
System

General information

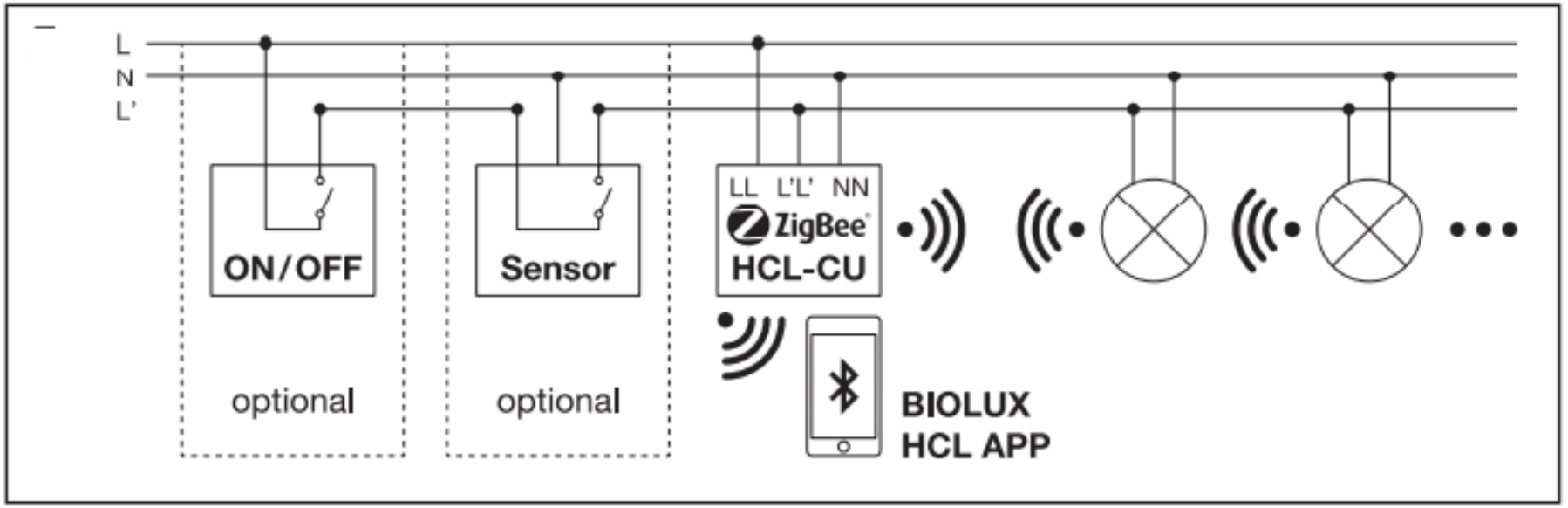


One Control Unit for luminaires in one room.
Max free air distance from Control Unit to first luminaire: 30m
Max free air distance from luminaire to luminaire: 30m
Max number of devices (luminaires, sensors, led strip kits) in one system: 48 pcs

INSTALLATION

BIOLUX HCL
System

Wiring diagram
Option 1



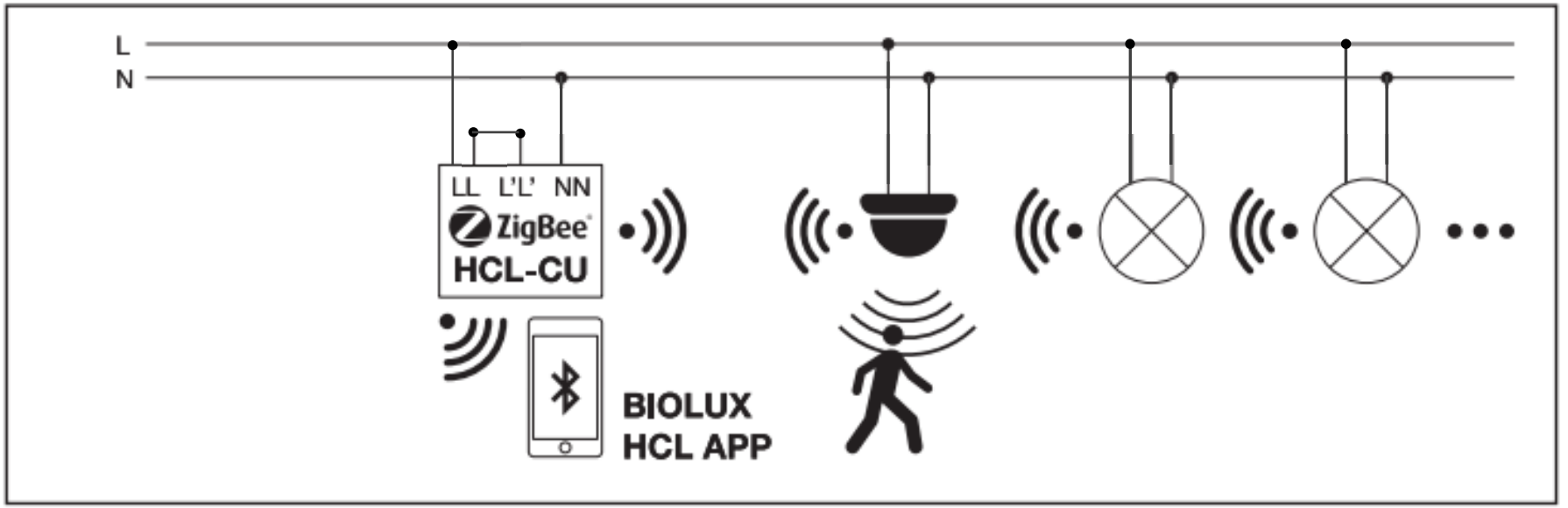
The Control Unit shall be permantly connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is stable working.

If a switching sensor (optional) or a switch (optional) is used, L‘ needs to be set to 230V (connected to L) via the switch or the switching sensor. Then L‘ will be switched on and off together with the luminaires. When L‘ is not connected to L, the Control Unit goes in a sleep mode.

INSTALLATION

BIOLUX HCL
System

Wiring diagram
Option 2



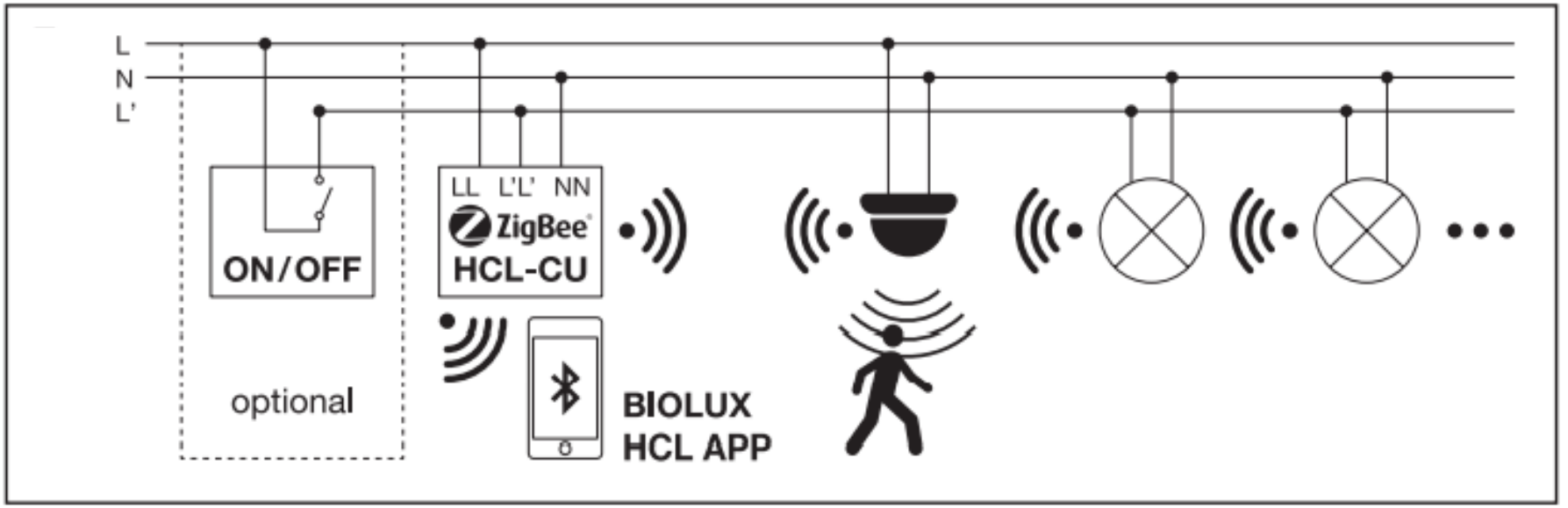
The Control Unit shall be permantly connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is working stable.

In case that no switching sensor and no switch is used, L‘ needs to be set as well to 230V (L and L‘ connected) permanently. When L‘ is not connected to L, the Control Unit goes in a sleep mode.

INSTALLATION

BIOLUX HCL
System

Wiring diagram
Option 3



The Control Unit shall be permantly connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is stable working.

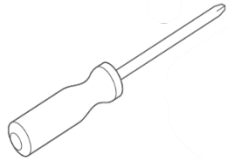
If a switch is used in addition to the wireless sensor, L‘ needs to be set as well to 230V via the switch. Then L‘ can be switched on and off together with the luminaires.
When L‘ is off, the Control Unit goes in sleep mode, but remains powered.

INSTALLATION

BIOLUX HCL CONTROL UNIT

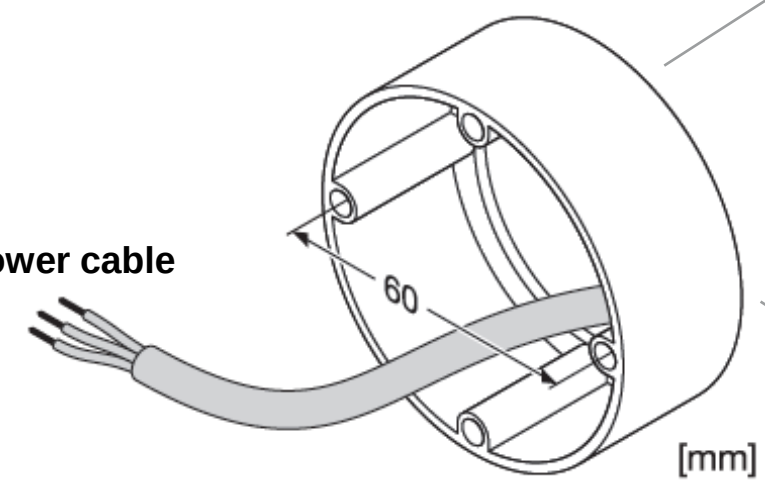
Required for the installation

Standard flush-mounted box (60mm)
which is typical used for light switches



Screwdriver

Power cable



Smart phone
or
tablet

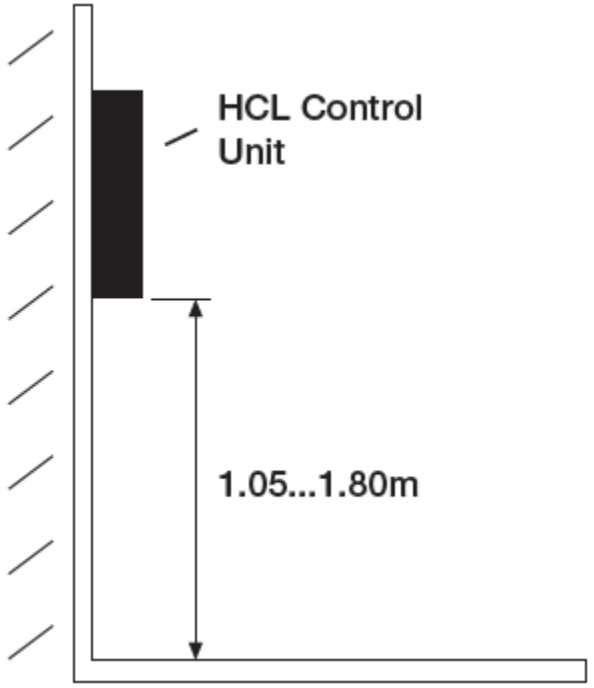
For Dry Walls
Ø x D: 68 mm x 47 mm

For massive stone walls
Ø x D: 60 mm x 46 mm

INSTALLATION

BIOLUX HCL
Control Unit

Installation of flush mounting box



For ergonomic reasons installation height should be between 1.05 and 1.80 m

INSTALLATION

BIOLUX HCL System

BIOLUX HCL System

For safety reasons make sure to turn mains off before installation

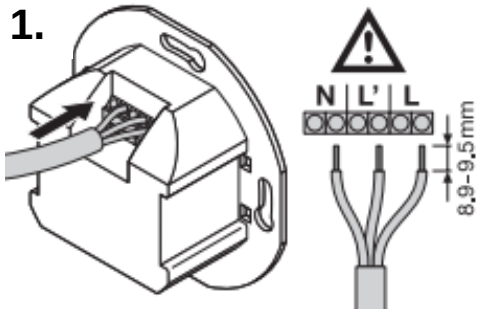
INSTALLATION

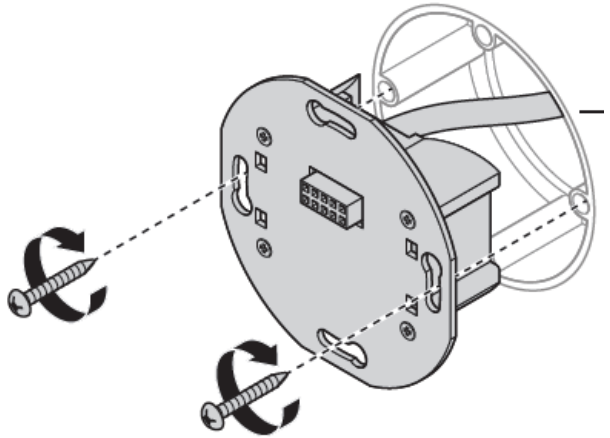
BIOLUX HCL Control Unit

Installation of Control Unit in a flush-mount box

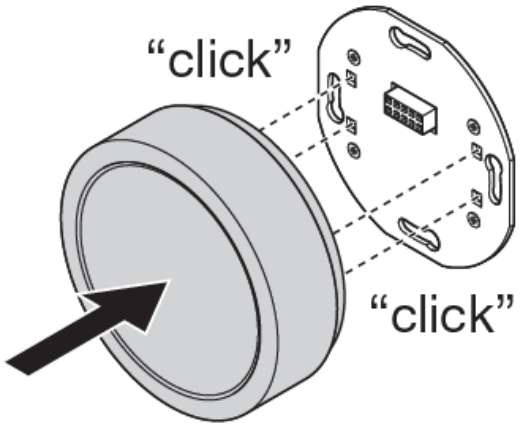
1. Electrical connection of HCL Control Unit – see also wiring diagrams

1.





2. Fix HCL power supply in flush-mount box



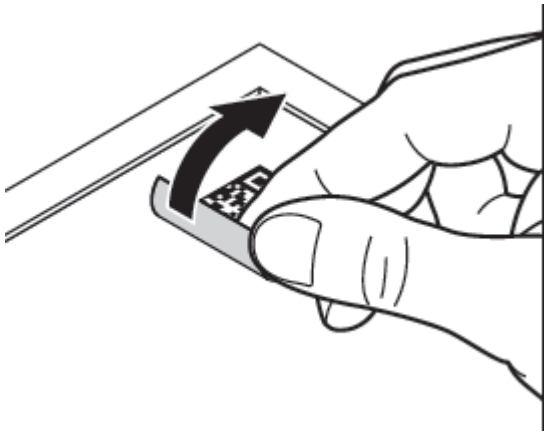
3. Click the HCL Control Unit into the HCL power supply

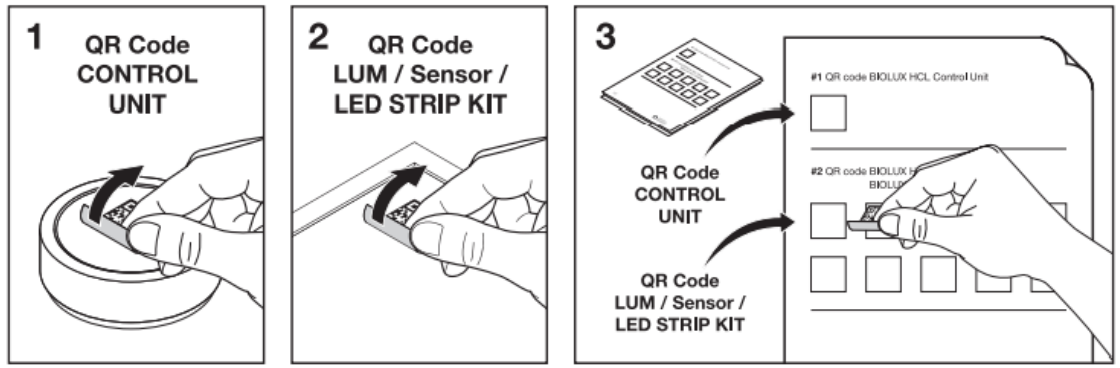
INSTALLATION

BIOLUX HCL products

QR code handling

Take QR codes from the BIOLUX HCL products and stick them on the QR code leaflet.





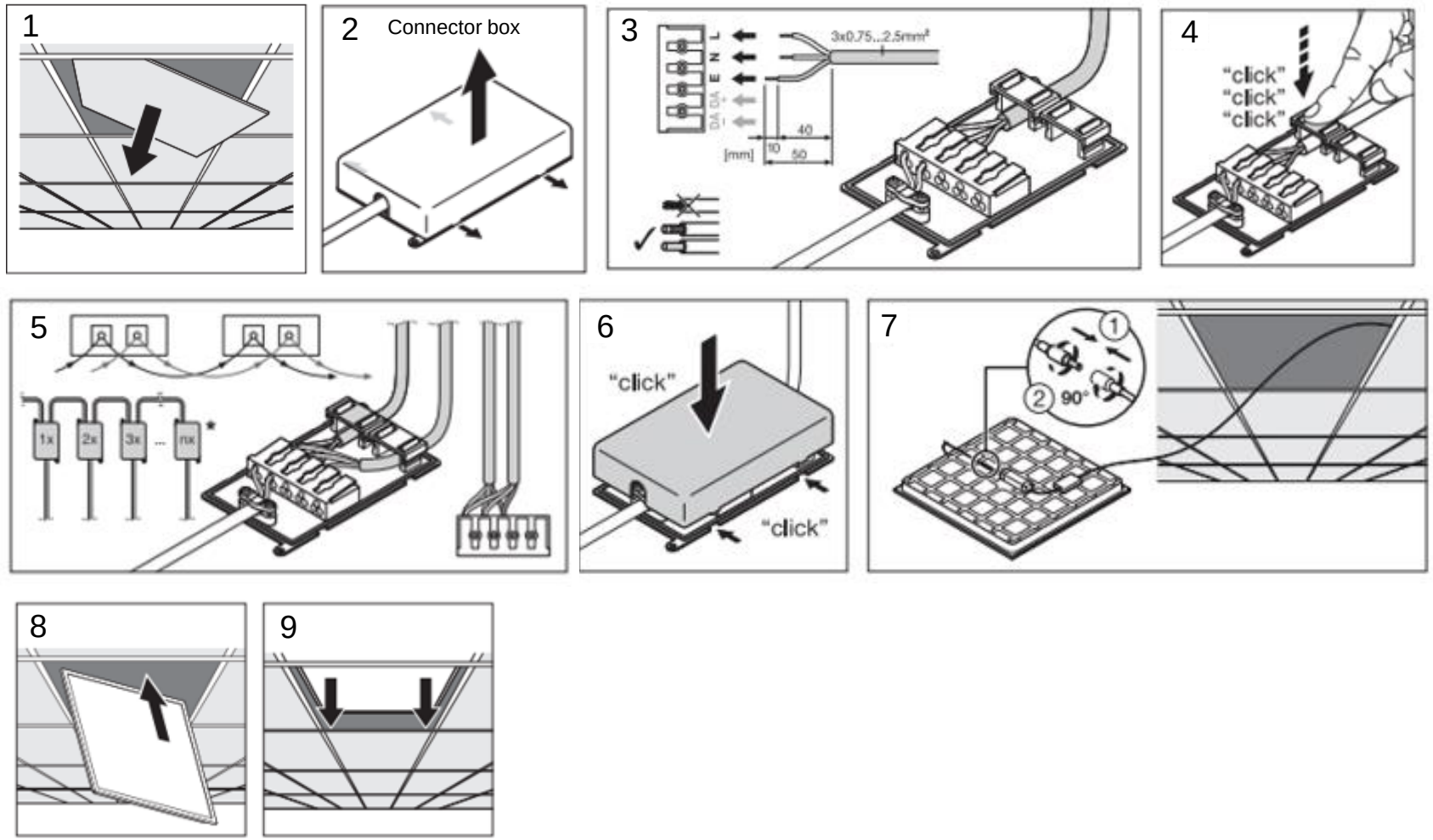
The QR code leaflet is for the later connection between the HCL products required.

If QR codes on the leaflet are linked to the floorplan of the installation area, the position of each HCL product in the installation can be easier identified in case of modifications or maintenance.

INSTALLATION

BIOLUX HCL LUMINAIRES

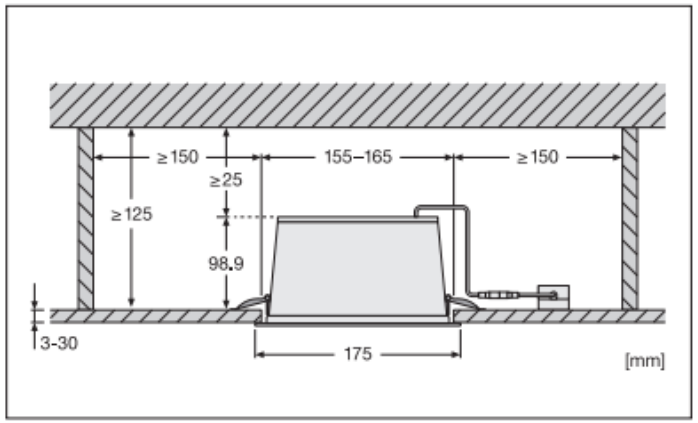
Panel luminaire

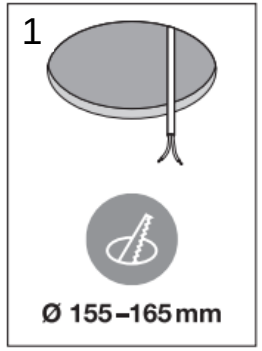


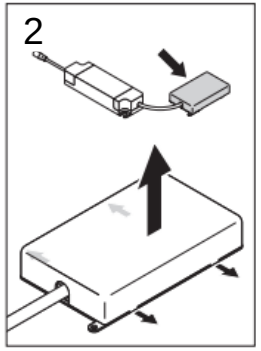
INSTALLATION

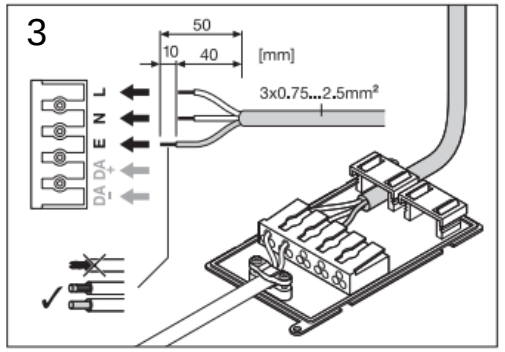
BIOLUX HCL LUMINAIRES

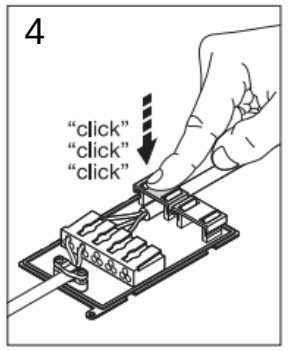
Downlight

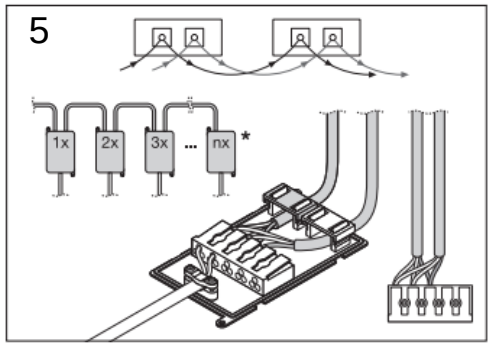


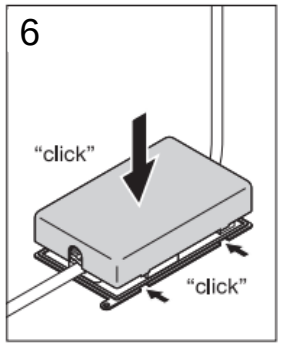


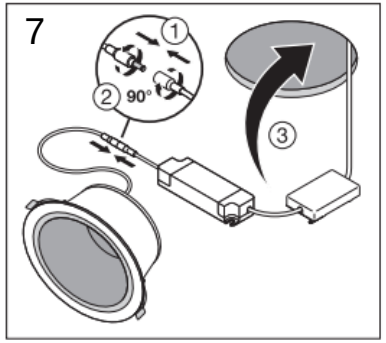


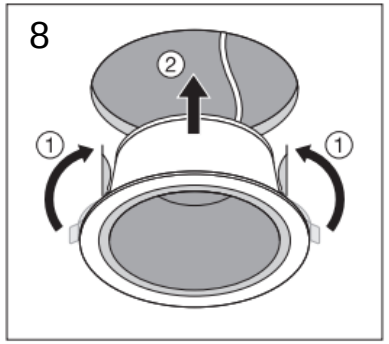








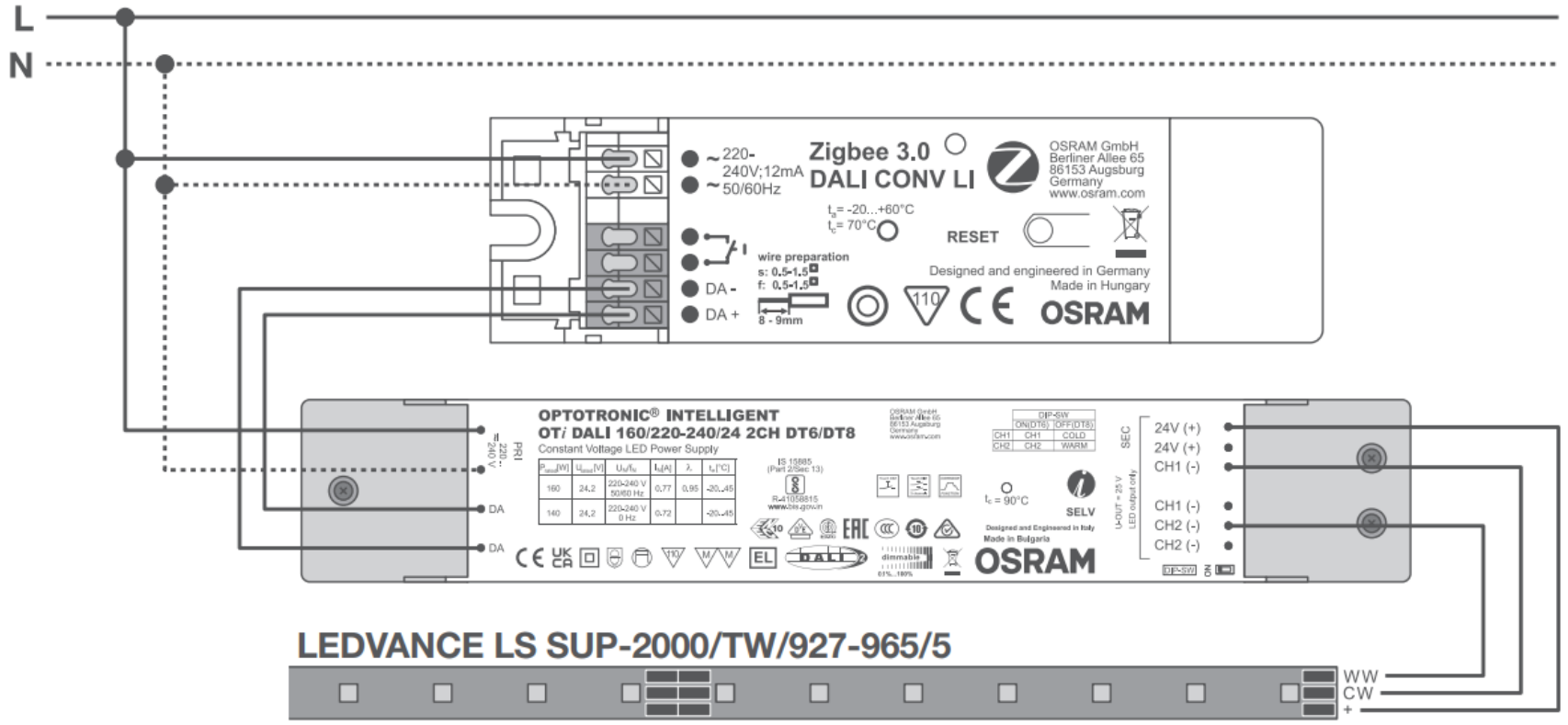




INSTALLATION

BIOLUX HCL
LED Strip Kit

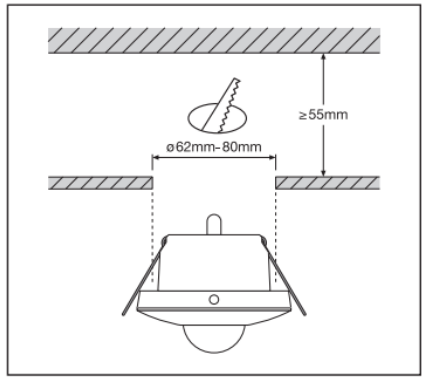
HCL LED Strip Kit wiring diagram

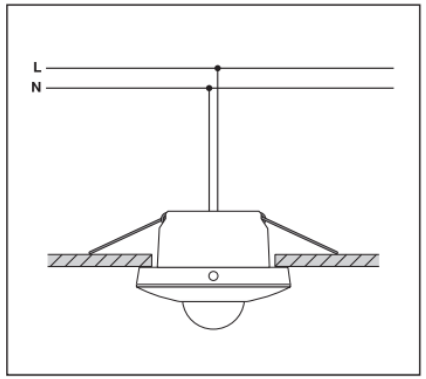


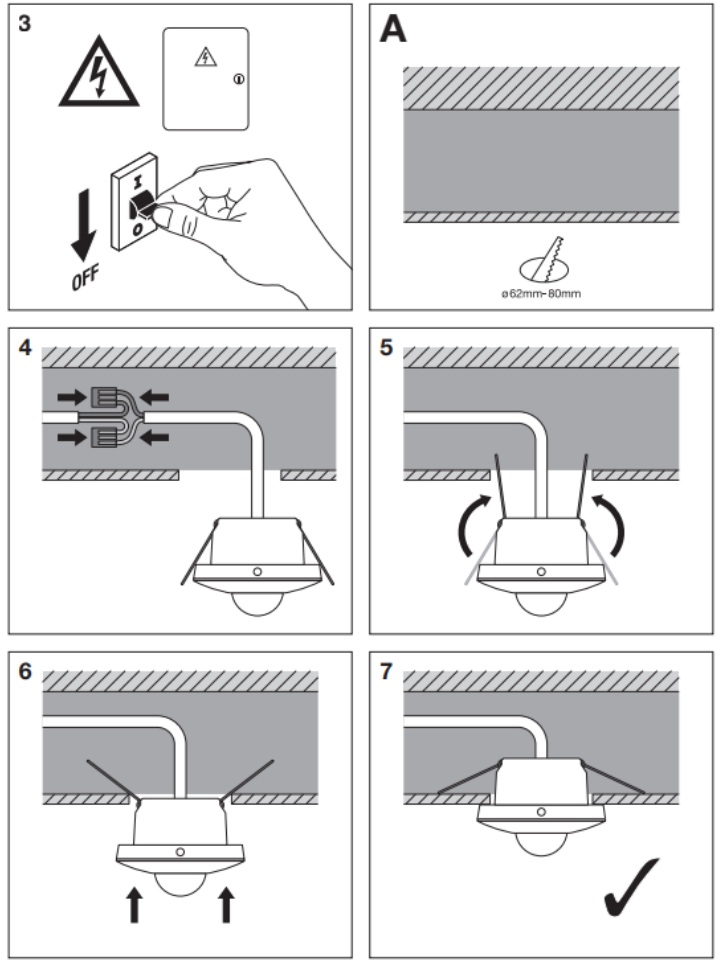
INSTALLATION

VIVARES Zigbee Occupancy Sensor

Occupancy Sensor



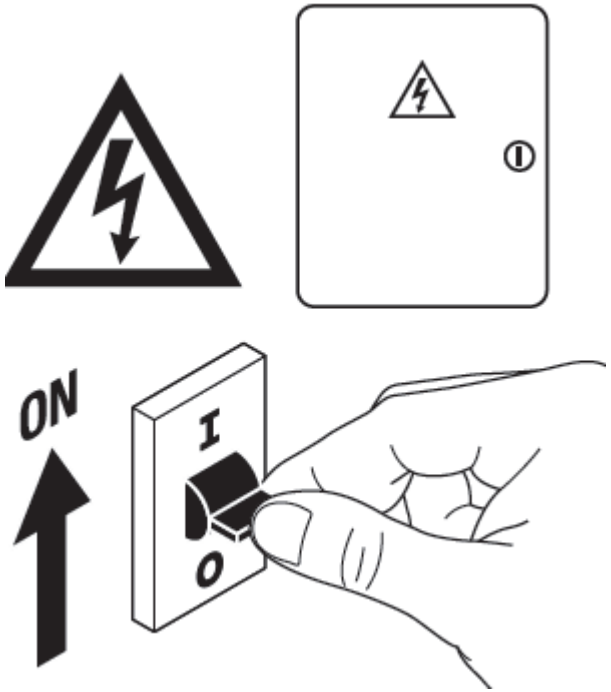




INSTALLATION

BIOLUX HCL
System

Installation finished



Turn power to „ON“

Commissioning

System setup

Wireless connection of installed HCL products via BIOLUX App

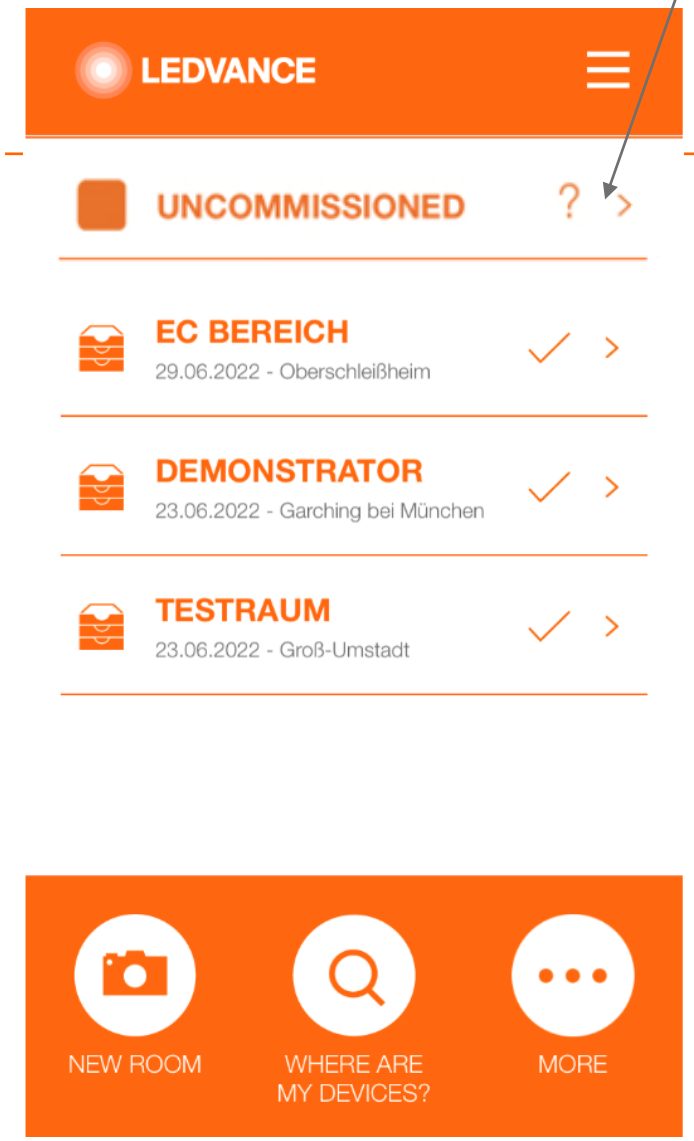
The purpose of the App is to join (wirelessly connect) the installed HCL products (luminaires, sensors, led strips) to the HCL Control Unit

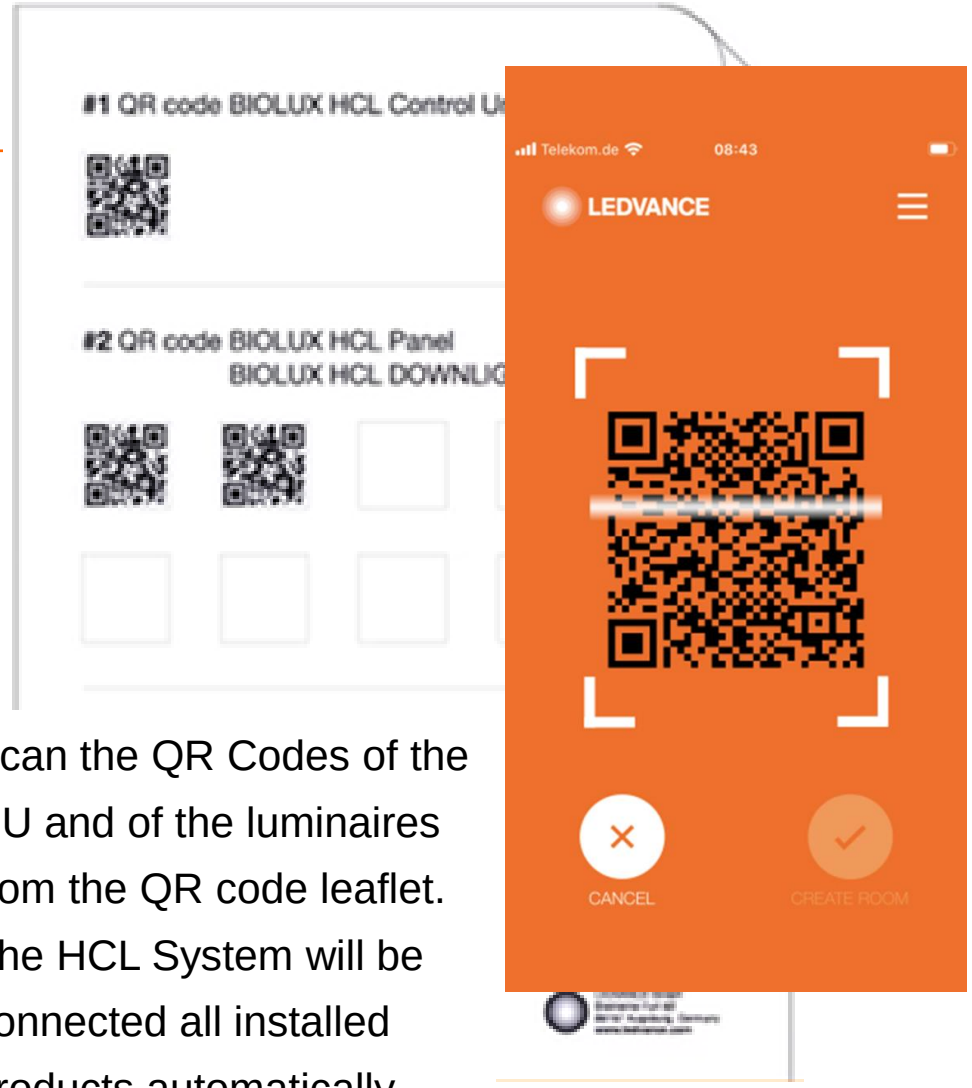
1. Download the BIOLUX APP on your mobile device (Smartphone or Tablet)
2. Start the App
3. Follow the instructions

Commissioning

via BIOLUX app

Select the „UNCOMMISSIONED“ Control Unit,
Create a new room and provide a room name.

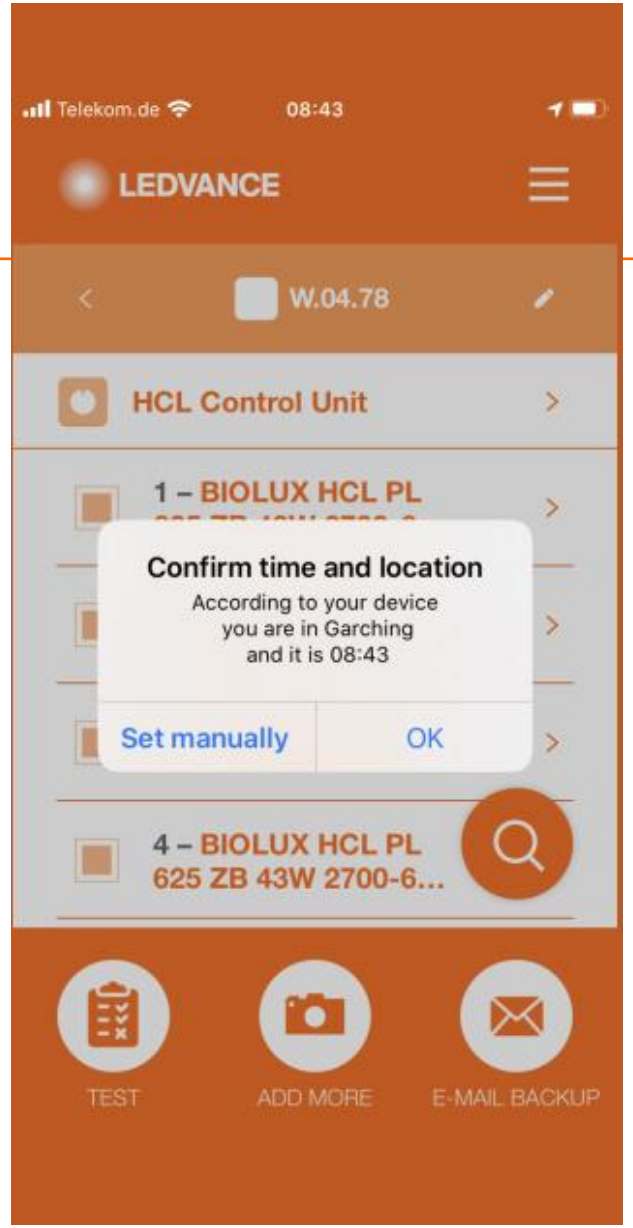




Scan the QR Codes of the CU and of the luminaires from the QR code leaflet. The HCL System will be connected all installed products automatically.

Commissioning

via BIOLUX app



No manual programming is required:

Location and time is automatically transferred from the mobile to the Control Unit via the BIOLUX HCL app.

You need to allow using the GPS data of the mobile to the app. Or enter the location manually.
Internet connection is required to get the local map.

After the commissioning,
The artificial light will change according to natural light at the place where the BIOLUX system is installed.

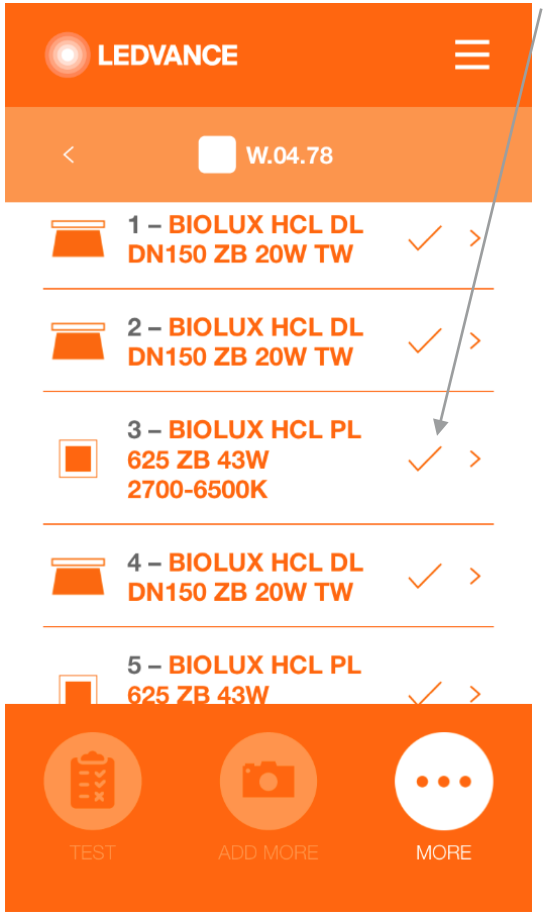
Commissioning

via BIOLUX app

Connection of installed HCL products via BIOLUX App

Product is in joining process

Product is connected with the Control Unit



The system creates a ZigBee network between the installed HCL products.

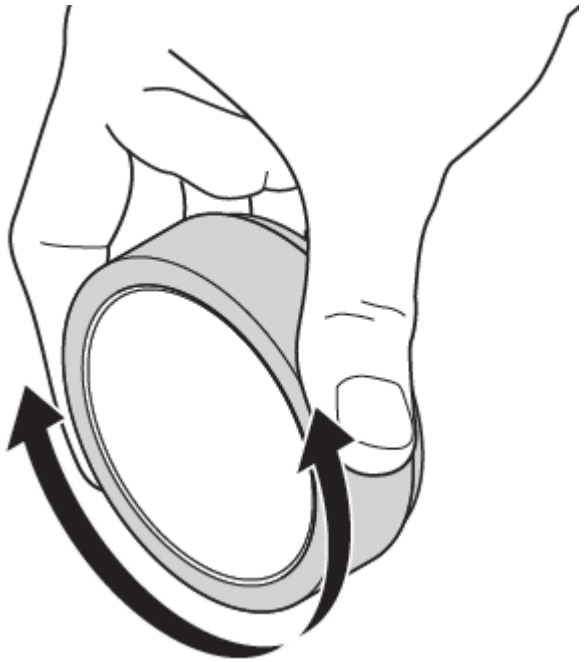
Luminaires are briefly flashing four times when the connection is established.
After all luminaires have connected, the system is ready.

The HCL system is now completly installed and ready to use.

Commissioning

BIOLUX HCL
Control Unit

Information



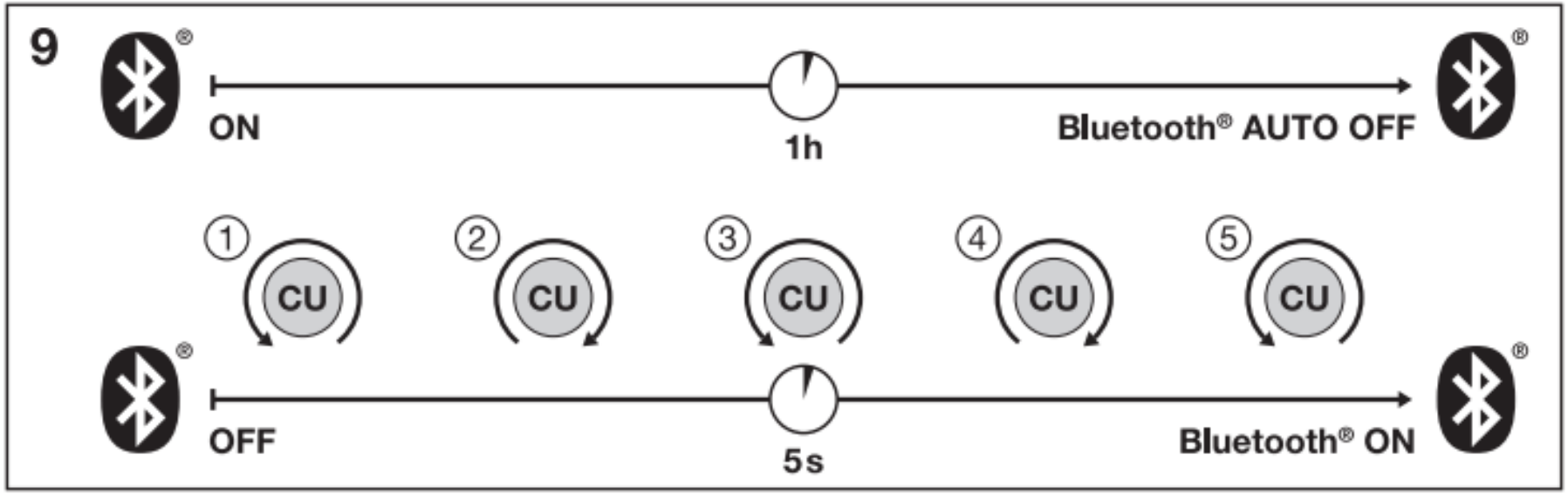
After the first installation and when the CU was powered off it can take up-to 10min before a stable Zigbee network is available.

After the installation is done, the CU should always remain powered in order to avoid the waiting time before the network is established.
Steady state power consumption is less than 0,5W.

Commissioning

Bluetooth connection

Information



The bluetooth conncetion is switched off, if the App on the mobile phone was not connected with the Control Unit for about 60min.
For reactivation of the bluetooth connection the Control Unit must be rotated 5 times to left and right hand side.

Setup

BIOLUX HCL App
Further App functions

DEMO

(D) Vorführung der NATURAL HCL Lichtszene
(GB) Demo of NATURAL HCL lighting scene
(F) Démonstration NATURAL HCL scène lumineuse
(I) Il riportare NATURAL HCL scena di luce
(E) Adelantar NATURAL HCL escena de luz

TIMETABLE

(D) Zeitplaneinstellung
(GB) Timetable settings
(F) Réglage du calendrier
(I) Impostazione del programma
(E) Configuraciòn de la programaciòn

OFF SETUP

(D) Einstellung der Ein-/Ausfunktion
(GB) On/off function settings
(F) Réglage de la marche/arrèt
(I) Impostazione della funzione on/off
(E) Configuraciòn de la funciòn de encendido/apagado

SENSOR CONFIGURATION

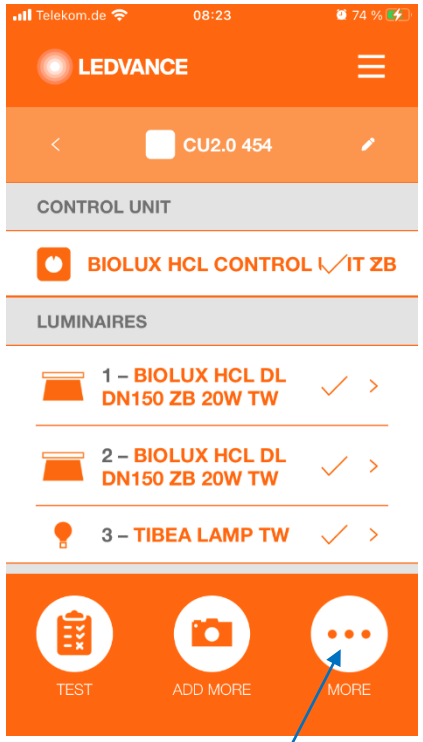
(D) Sensoreinstellung
(GB) Sensor configuration settings
(F) Configuration du capteur
(I) Configurazione del sensore
(E) Configuraciòn del sensor

SET UP

Demo Mode

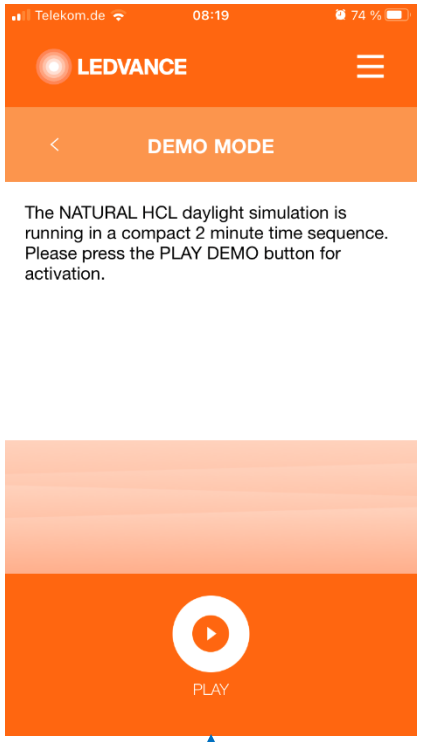
BIOLUX HCL App

Demo Mode simulates a day in two minutes in NATURAL mode

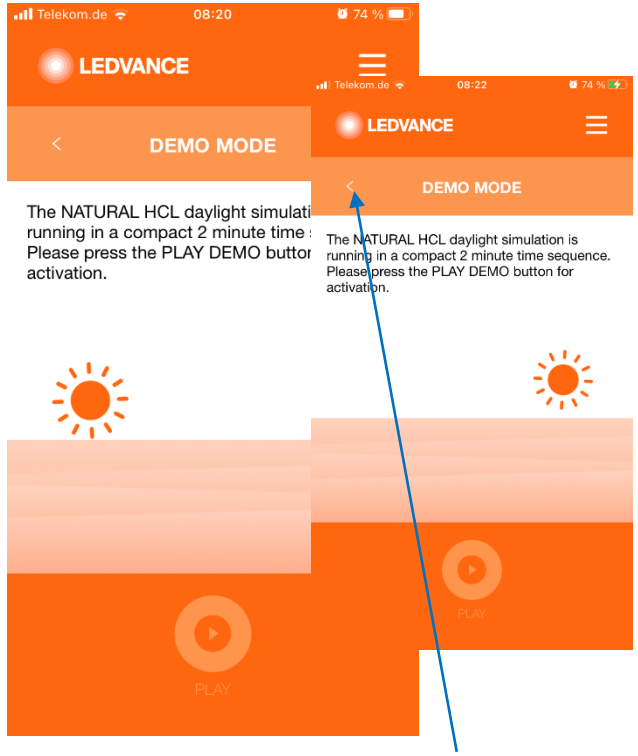


Select room and tab on MORE

Select DEMO MODE



Tab on PLAY to start demo

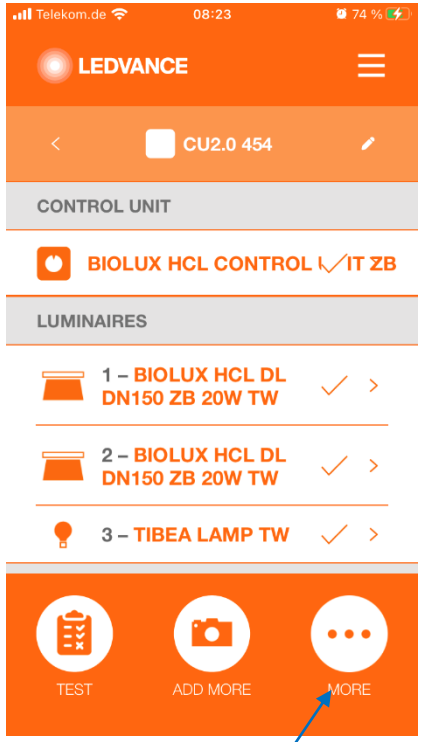


Demo runs for 2 minutes and changes lights. A sun-icon moves and indicates the Demo.
To stop earlier, tab on „<“ (back) or rotate on the CU

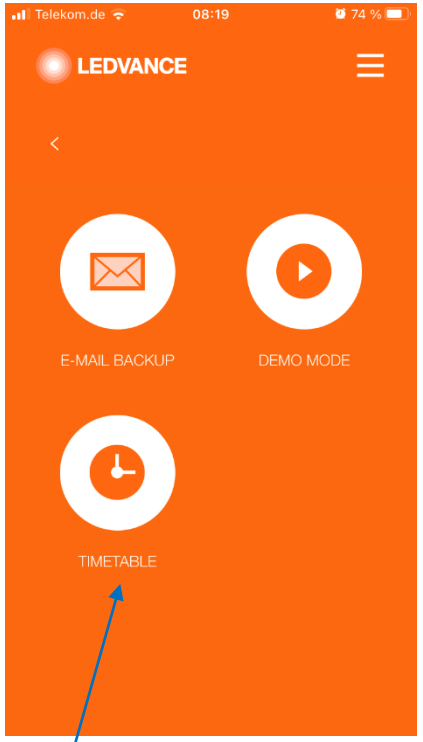
SET UP

Timetable

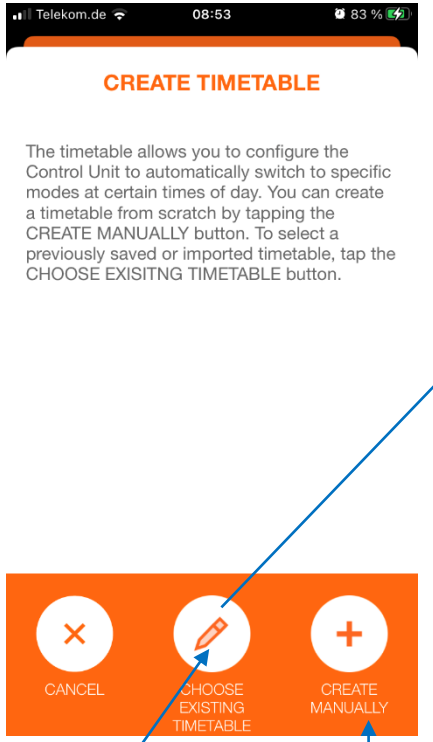
BIOLUX HCL App
TIMETABLE functions / selecting and creating timetables



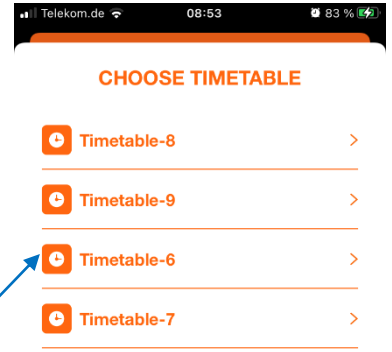
Select room and tab on MORE

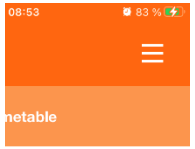


Select TIMETABLE

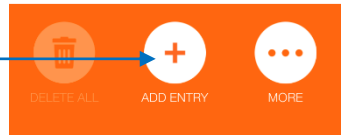


CHOSE EXISTING Timetable, select TT and tab on „USE TIMETABLE“





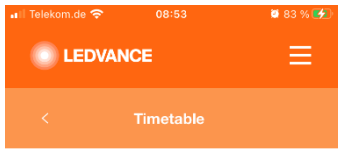
<u>Or</u>
CREATE MANUALLY a new timetable and ADD ENTRY

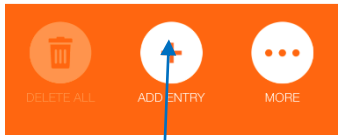


SET UP

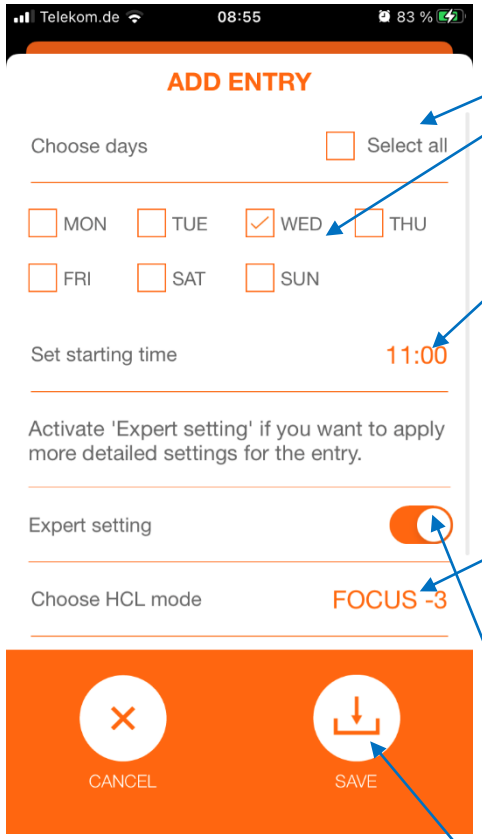
Timetable

BIOLUX HCL App
TIMETABLE TT functions (select and create TT - continued)





Add new entry



Add your entries

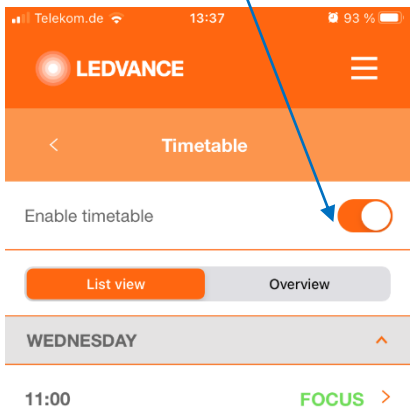
Select one, or more, or all days

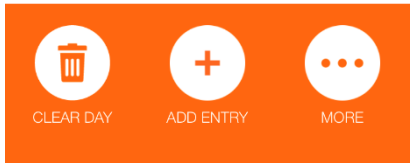
Set the starting time the setting will persist until the next event is set or until the user rotates the CU

Select the mode OFF, RELAX … BOOST If required enable Expert setting and select submode (-3...0…+3)

Tab SAVE

TT must be enabled to be active





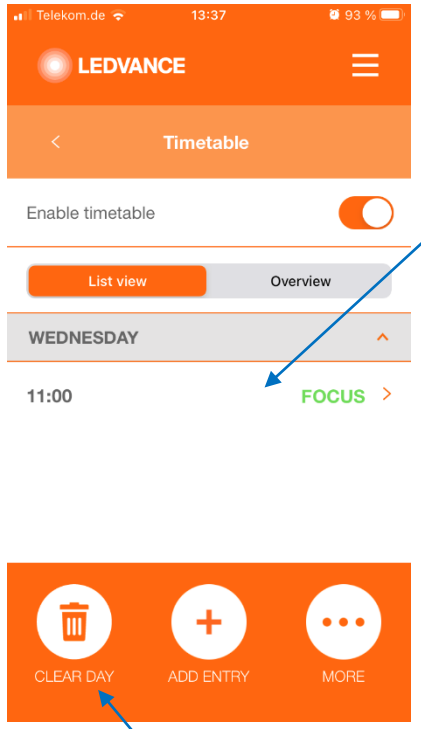
The saved setting will be shown in the list view.

Continue with next entry

SET UP

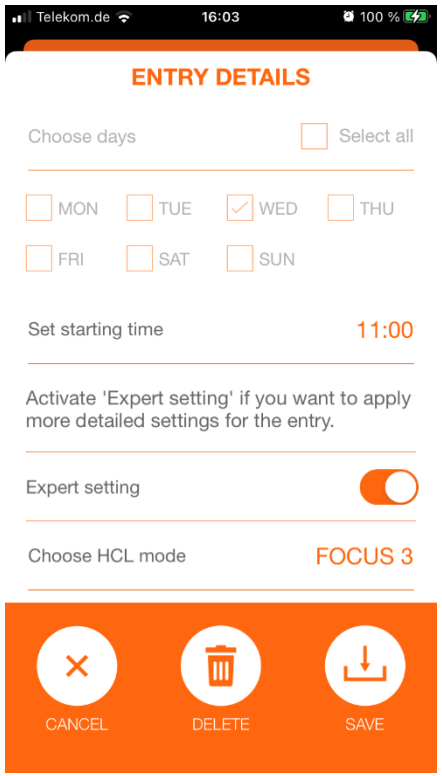
Timetable

BIOLUX HCL App
TIMETABLE TT functions (deleting entries)



In the list view you can clear all entries for the selected day

Or tab on an entry to select it.

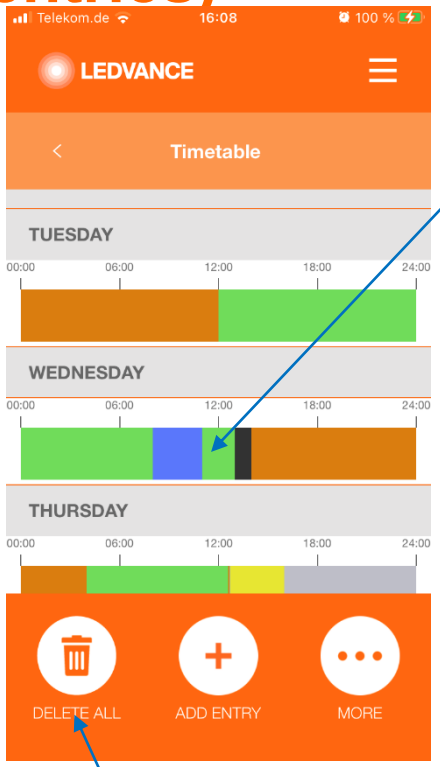


You can delete this entry or modify it and SAVE

SET UP

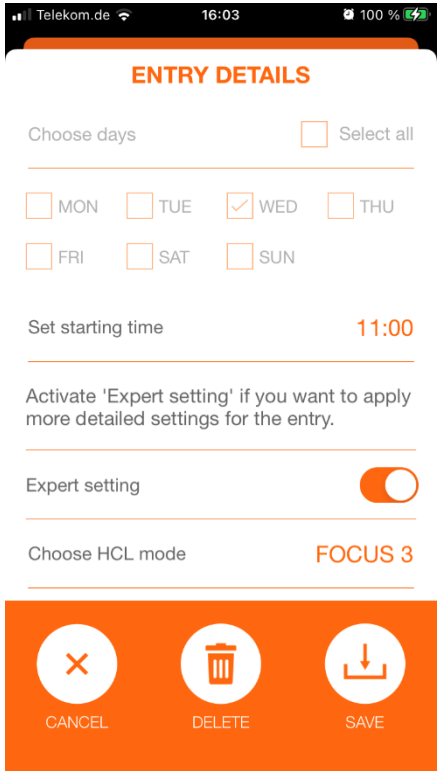
Timetable

BIOLUX HCL App
TIMETABLE TT functions (deleting entries)



In the overview you can delete all entries for all days (complete TT)

Or tab on an entry to open it.



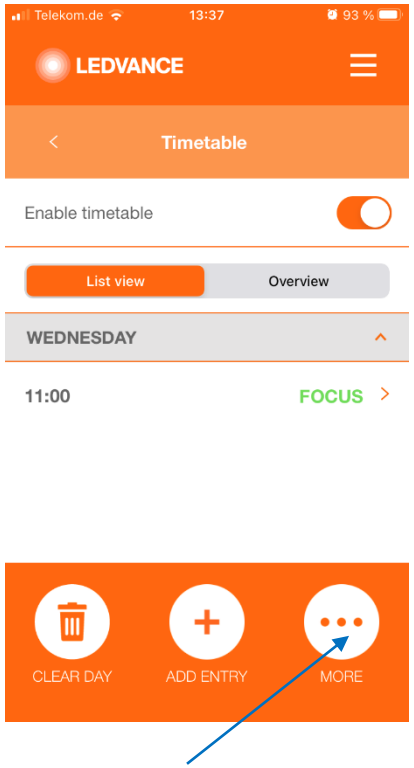
You can delete this entry or modify it and SAVE

- A timetable entry defines the starting time for a new setting (mode)
- The CU changes slowly from the current setting to the new setting at the defined time.
- The new setting will be active until a future timetable event changes the light again
  Or until the user rotates on the CU to define a new setting.
- User interactions have always priority.

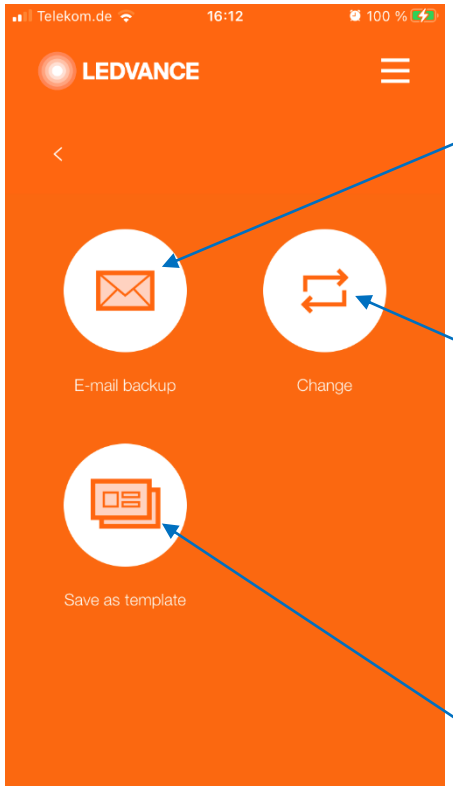
SET UP

Timetable

BIOLUX HCL App
TIMETABLE TT functions (saving/deleting timetables)



In the list view and in the overview you can click on MORE to open further options for the timetable



The current settings can be saved as csv-file and sent by email for future use (see editing csv-files)

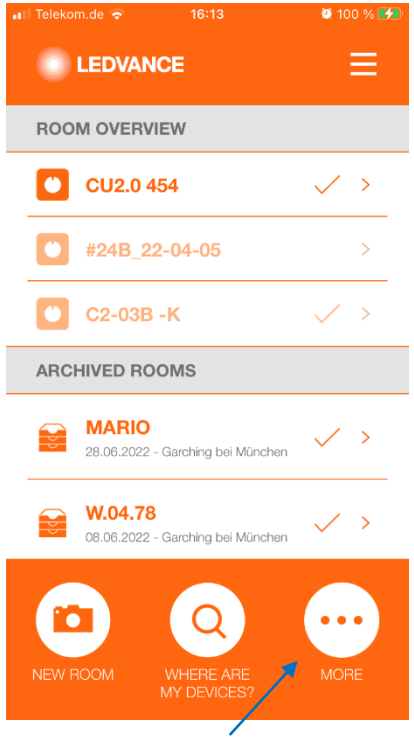
A saved timetable can be loaded in the CU for use.
Tab Change, select TT and tab „Use timetable“.
The active TT is lost, when not saved as template before

The current settings can be saved as template for future use

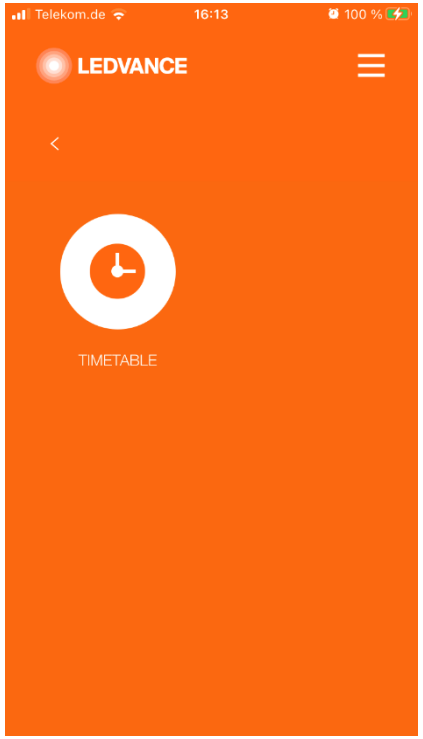
SET UP

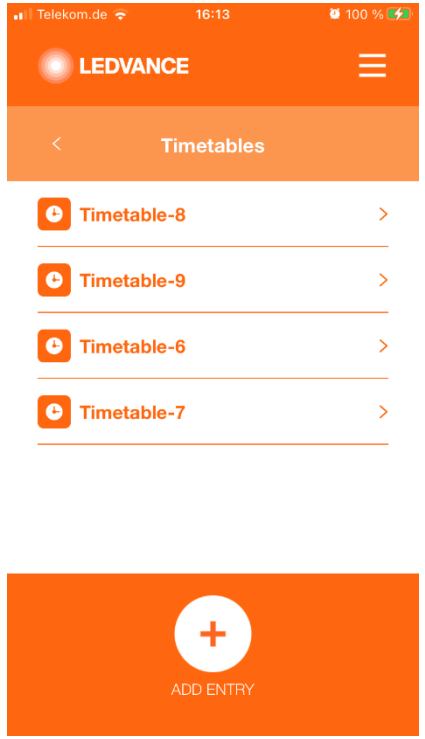
Timetable

BIOLUX HCL App
TIMETABLE functions (saving/deleting timetable-templates)



In the room overview you can tab on MORE to open further options for the timetable





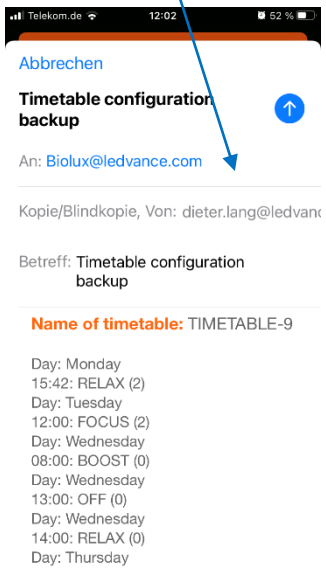
- Select a timetable to view or edit it and overwrite the template without loading it to the Control Unit.
  This needs to be done after selecting a room.
- Wipe a timetable to the left to delete the whole template. The active timetable in the CU remains.

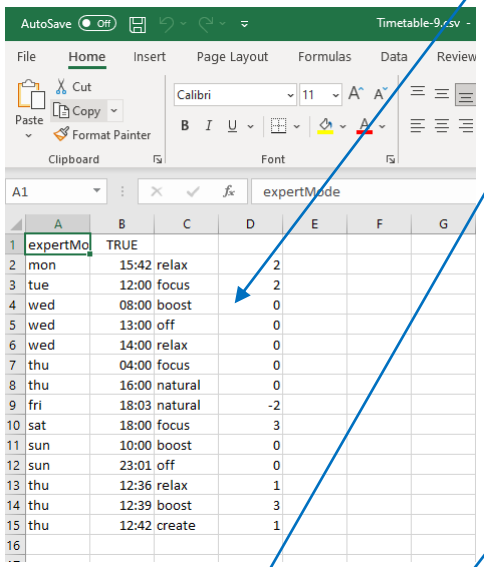
SET UP

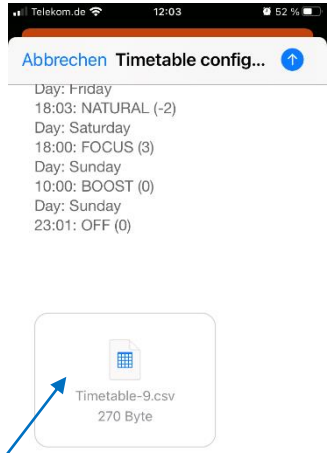
Timetable

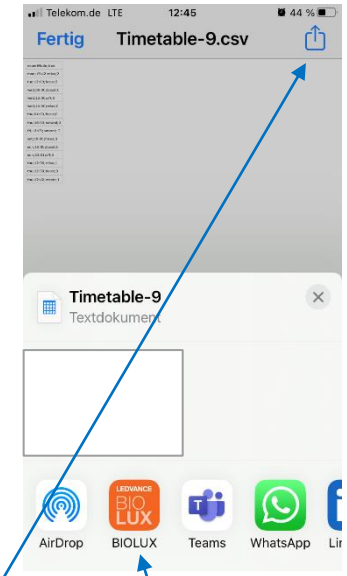
BIOLUX HCL App
TIMETABLE TT functions (editing and sharing csv-files)

In the room overview you can tab on MORE to open further options for the timetable and then tab on Email backup to send the timetable as email text and as csv-file to an email account. The email recipient can open and edit the csv-file, add new entries, modify or delete existing entries and save as csv-file.









Send the csv-file to an email account which can be opened on the mobile having the BIOLUX app installed.
Open the recieved email on your mobile, select the csv-file and share it with the BIOLUX app.
Save the timetable, select the room for which it shall be used and open the saved timetable.

SET UP

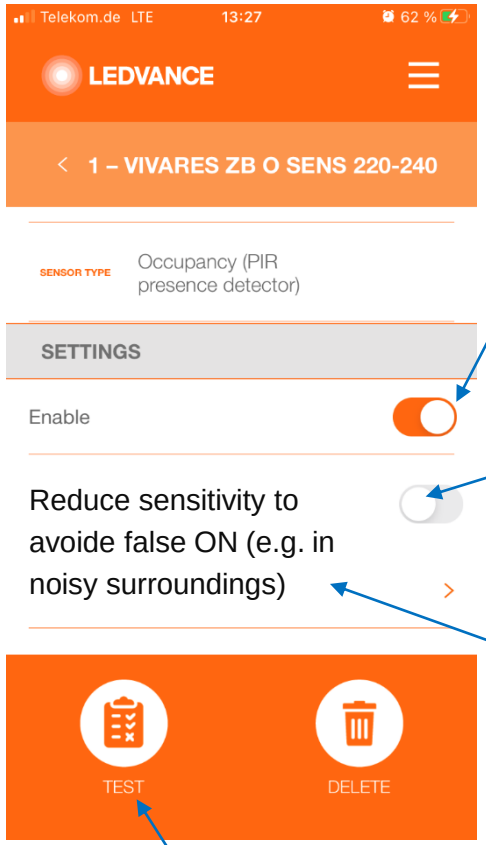
Sensor configuration

Bluetooth

BIOLUX HCL App

Further App functions (Zigbee Sensor Setup and configuration)

In the room overview, section SENSORS, select the sensor



Tabbing on TEST lets a red light on the sensor flash for 15 seconds to indicate that the sensor is in the Zigbee-network

Sensor must be enabled if function is demanded

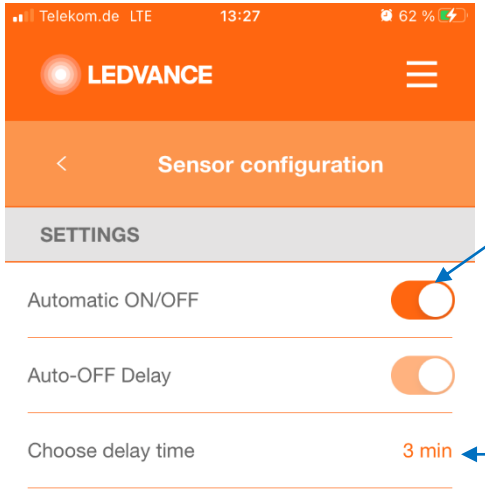
If the sensor is reacting too strong in noisy environments, low sensitivity can be enabled to avoid false ON

Tab on sensor configuration
See next page

SET UP

Sensor configuration

BIOLUX HCL App
Further App functions (Zigbee Sensor Setup and configuration)



Enable automatic ON/OFF for standard sensor behavior,
Turn ON, if presense is detected, turn OFF if no presense detected.
When disabled, the sensor will only turn OFF the lights when no presense is detected. Turning on needs to be done manually, by rotation of the Control Unit

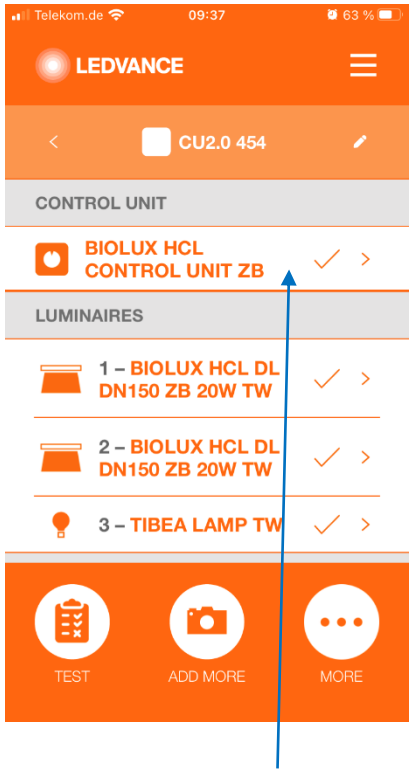
The sensor delay time defines after what time the sensor turns the lights OFF, when no presense was detected during this time.

Tab on SAVE

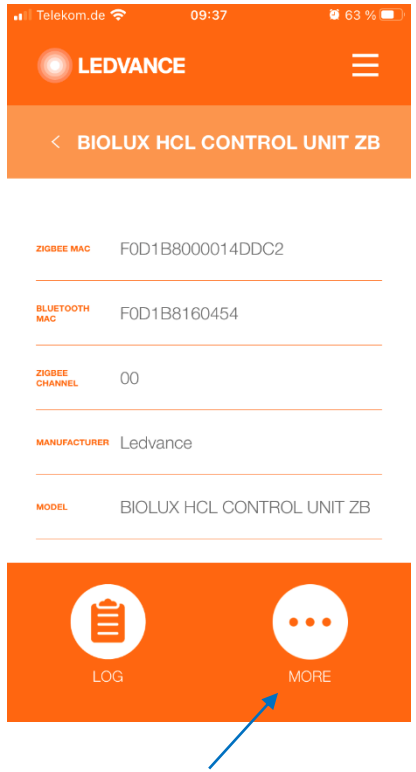
SET UP

Off setup

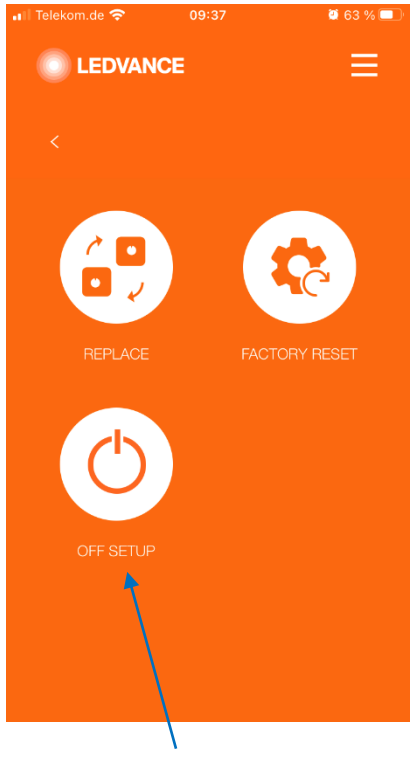
BIOLUX HCL App
Further App functions



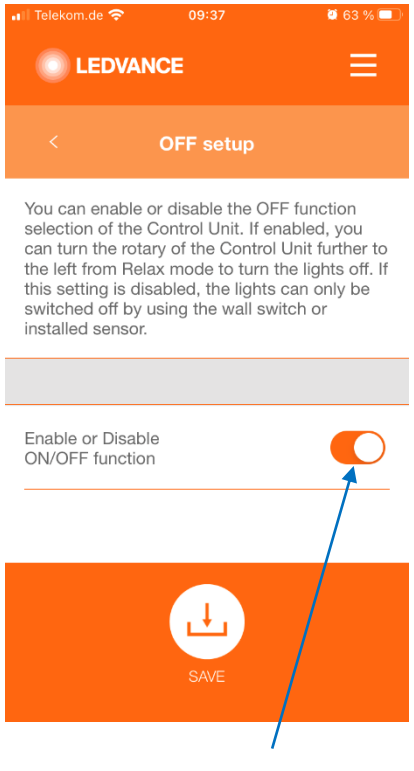
From the room view, select the Control Unit



Select MORE



Select OFF SETUP



Enable (slider to the right hand side) or Disable the manual OFF and tab on SAVE

LEDVANCE

THANK YOU