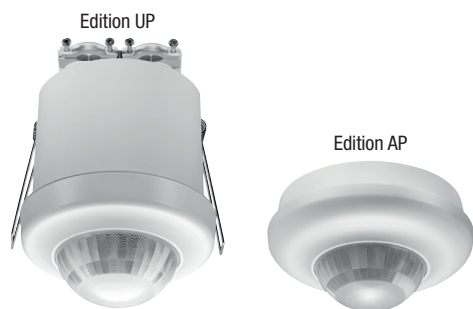
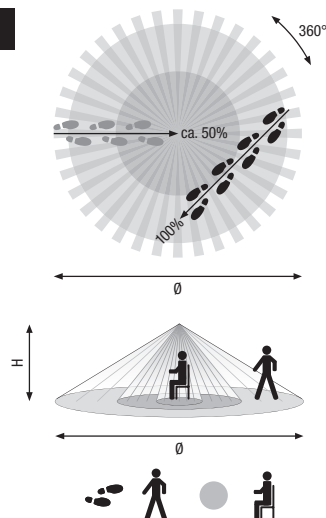


Swiss Garde 360 PresenceDALI Master A-Comfort 24 m



1



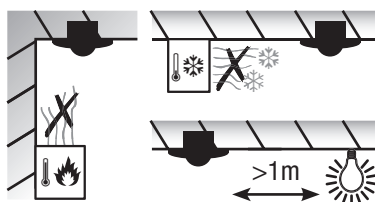
Art.-Nr. 41750, 41751

H	Ø	Ø
2,0 m	2,0 m	16 m
2,5 m	3,5 m	20 m
3,0 m	6,0 m	24 m
3,5 m	6,0 m	24 m

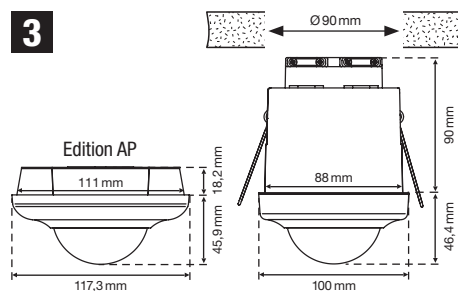
Art.-Nr. 41761

H	Ø	Ø
3,5 m	—	14 m
4 m	—	16 m
5 m	—	20 m
6 m	—	24 m
7 m	—	28 m
8 m	—	32 m

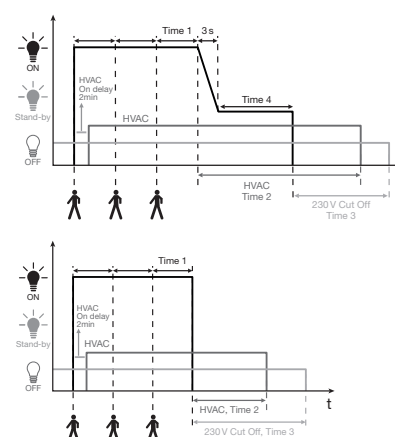
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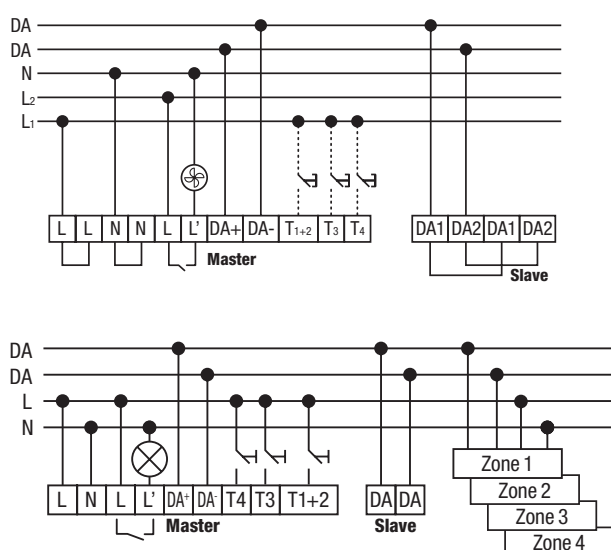
3



4



5



6



P-IR remote control
DALI addressable
Art.-Nr. 41934

7



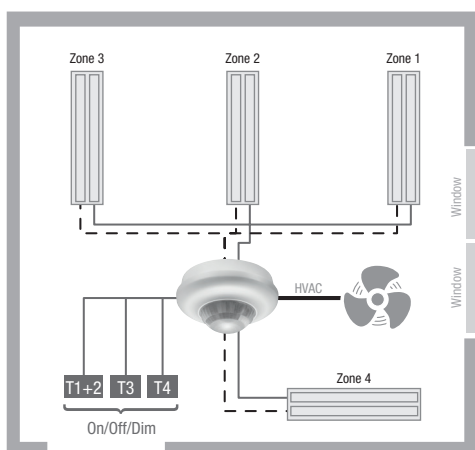
DALI input module
Art.-Nr. 70020

8



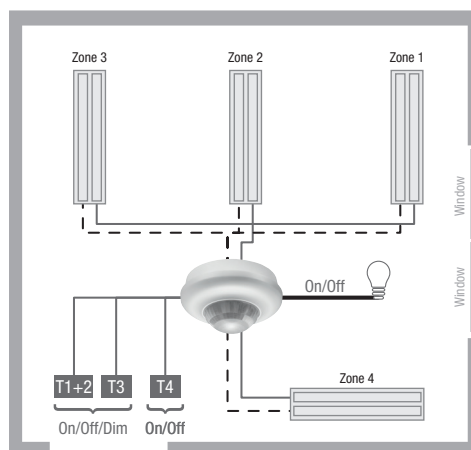
Twilight switch PC 24
Art.-Nr. 7520

9 Mode 1



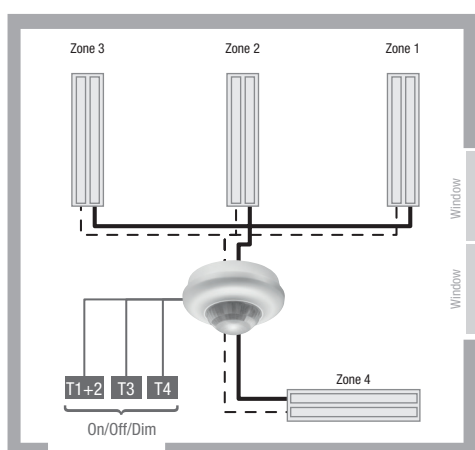
DALI 230V Relais 230V

10 Mode 2



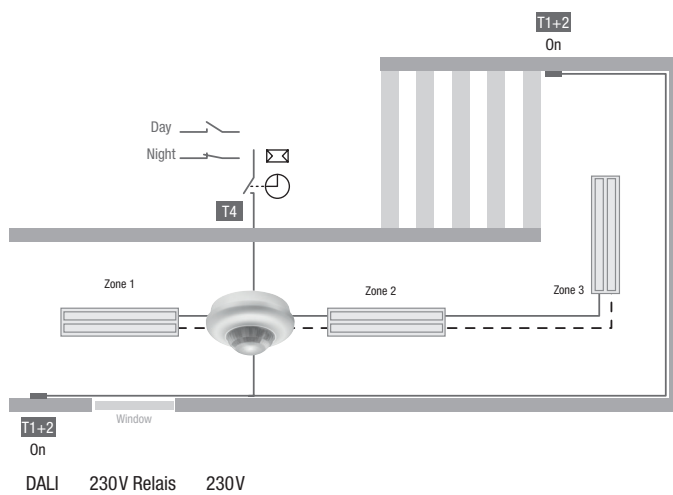
DALI 230V Relais 230V

11 Mode 3



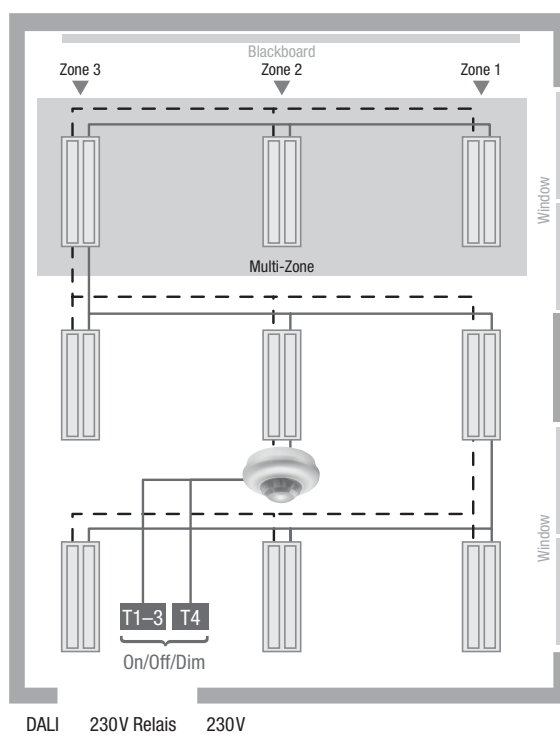
DALI 230V Relais 230V

12 Mode 4



DALI 230V Relais 230V

13



DALI 230V Relais 230V

EN INSTALLATION INSTRUCTIONS

1. PRESENCE DETECTOR

1.1 Use

The presence detector controls the lighting of a daylight group (up to 3 zones) with constant lighting control and up to 2 secondary zones (On/Off). Additionally, the built-in relay allows for light switching (secondary zone), HVAC control or isolating DALI devices from 230 V mains (cut-off). Manual control may be assumed either by external 230 V push-buttons (5) and/or low voltage push-buttons via DALI input module (7).

The presence detector detects the movements and the presence of persons using a passive infrared sensor (PIR). It reacts most sensitively to movements tangential to the monitored area. Movements directly towards the presence detector are detected with a reduced sensitivity of approx. -50%. The switching duration is extended as long as movements (entire area) or the presence of persons (presence area) are detected (1). The detection area may be increased with up to 10 Slave-detectors Swiss Garde 360 Presence DALI Slave A-Comfort 24 m.

The detector may also be used as a presence-independent constant light controller **item 2.10**.

The communication is based on the addressable DALI standard pursuant to EN 62386-101/102. The built-in DALI power supply provides up to 200 mA allowing for up to 64 DALI devices to be connected.

Note: The maximum amount of DALI devices to be connected may be lower depending on power consumption.

The detector is designed for ceiling installation in offices, schools and public buildings.

1.2 Application

The presence detector may be operated in 4 different basic modes **item 2.3**

Mode 1: Constant light control (CLC) of a daylight group (zones 1 to 3) and up to 2 secondary zones (zones 3 and 4) as well as relay output for HVAC **(9)**

Mode 2: Constant light control (CLC) of a daylight group and secondary zones according to mode 1, but with relay output for lighting (zone 4) on/off (factory default) **(10)**

Mode 3: Constant light control (CLC) of a daylight group and secondary zones according to mode 1, but with relay output for cut-off (230 V isolation) **(11)**

Mode 4: CLC daylight group as Mode 1 but with corridor function controlled by Day/Night Twilight switches **(8)** to T4 (see below **Day/Night ***), relay output HVAC **(12)**.

i The secondary zones always switch independent of ambient light. Zone 1 always encompasses the luminaires closest to ambient light entry (windows), zone 2 includes those in the centre of the room while zone represents the luminaires furthest away from daylight entry.

Mode 1 (HVAC relay)	Push-button T1+2	Push-button T3	Push-button T4	CLC (day light)	Light ON/OFF/Dim	HVAC	Cut-Off	Standby lighting
Zone 1	x			x	x			x
Zone 2	x			x	x			x
Zone 3		x		(x)	x			(x)
Zone 4			x		x			
Relay						x		

Mode 2 (Zone 4 relay)	Push-button T1+2	Push-button T3	Push-button T4	CLC (day light)	Light ON/OFF/Dim	HVAC	Cut-Off	Standby lighting
Zone 1	x			x	x			x
Zone 2	x			x	x			x
Zone 3		x		(x)	x			(x)
Zone 4			x		x			
Relay			x					

Mode 3 (Cut-Off relay)	Push-button T1+2	Push-button T3	Push-button T4	CLC (day light)	Light ON/OFF/Dim	HVAC	Cut-Off	Standby lighting
Zone 1	x			x	x			x
Zone 2	x			x	x			x
Zone 3		x		(x)	x			(x)
Zone 4			x		x			
Relay							x	

Mode 4 (Corridor day/night relay HVAC)	Push-button T1+2	Push-button T3	Push-button T4	CLC (day light)	Light ON/OFF/Dim	HVAC	Cut-Off	Standby lighting
Zone 1	x			x	ON			x
Zone 2	x			x	ON			x
Zone 3		x		(x)	x			(x)
Day/Night*			x					
Relay						x		

Day/Night*: activation with twilight switch **(8)** to T4 (open = day, 230 V = night). On the day (T4 = open) is the constant-light-control active with standby light. During the night (T4 = 230 V) fixed brightness level in [%] for the presence and absence.

1.3 Quick Guide

Use the following quick guide for a swift setup of the presence detector (also see the Quick Guide on our products website):

1. Install presence detector **(2)**.
2. Wire presence detector according to the wiring diagram **(5)**. After mains voltage has been applied, the presence detector will be in setup mode «Out-of-the-Box» **item 1.6**
3. Check the installation for errors and potentially missing light fittings.
4. Initialise all DALI devices and allocate ballasts to zones **item 2.2**
5. Select «Mode» if a different mode than factory default is desired **item 2.3**
6. Choose the number of daylight zones, 2 or 3 **item 2.4**
7. Configure AUTO or SEMI-AUTO switching mode for daylight group and secondary zones **item 2.5**
8. Choose whether the daylight group should retain minimum lighting or switch off in case of sufficient daylight and movement **item 2.6**
9. Define the desired LUX setpoint for the daylight group **item 2.7**
10. Define the delay times **(4)** **item 2.9**
11. Configure standby lighting On/Off **item 2.11**
12. Start burn-in function if fluorescent lamps will be used **item 2.13**

1.4 Safety notes



Ensure that the electrical lines are de-energised before installation.
Installation is only permitted by electricians in compliance with local legislation.

1.5 Installation

Placement

The detector responds to movements and heat in its environment. Avoid an installation in close proximity to stoves, electrical heaters, fans or other moveable objects as they may trigger an unintended activation **(2)**. The presence detector is designed for ceiling mounting.

Range

To reduce the detection area the enclosed half-shells can be clamped between lens and cover. The detector's recommended mounting height is 2 to 3,5 m **(1)**.

The range of the presence detector may be increased with up to 10 slave presence detectors edition UP Art. No 41752 or edition AP Art. No 41753. Ensure an approximate 30% overlap of the detection areas for disruption-free detection when using several detectors.

Wiring

Wire the presence detector according to the wiring diagram **(5)**. All DALI devices are wired in parallel. The Master device automatically recognises connected DALI devices. Do not connect additional DALI power supplies nor multiple Master devices as it would damage the DALI coils as well as the presence detectors.



The presence detector contains an in-built DALI power supply. Do not connect an external DALI power supply.

1.6 Setup mode «Out of the box»

Connect the presence detector to mains voltage only after the installation is completely wired. Respect an approx. 40 s warm-up delay after mains connection for the detector be operational. The DALI ballasts will be automatically recognised by the presence detector. As soon as the detector is connected to mains voltage, all connected lights switch on and the presence detector works in On/Off mode. The delay time is set to 15 min. All zones may be switched on and off via the connected 230 V push-buttons or via the P-IR remote control. All 230 V push-buttons will have the same functionality.

Note: All LEDs (red, blue, yellow, green) flash alternately, showing that the presence detector is in «Out-of-the-box» mode.

1.7 Factory settings (Out-of-the-box)

- Function: Mode 2, daylight control and lighting relay output On/Off
- Switching characteristics: AUTO for the daylight group and SEMI-AUTO for the secondary zones
- Zones: Daylight group (zone 1,2) und 2 secondary zones (zones 3,4)
- Lux: 300 lx
- Time 1 (delay time): 15 min
- Time 2 (HVAC): 30 min
- Standby light active
- Time 3 (cut-off): 60 min
- Time 4 (standby lighting): 10 min
- Min/Off: Minimum, the daylight zones remain at minimum in case of excess lighting.
- Sensitivity: High sensitivity, all sectors

1.8 External Push-Button

Up to three external 230 V push-buttons may be connected directly. In addition to that, low-voltage push-buttons may be connected via DALI input module **(7)** for manual control via the DALI bus.

An external push-button must be connected in SEMI-AUTO mode as the lights must be switched on via push-button. An external push-button is optional in AUTO mode because lights will be switched on automatically at motion detection. Lights may be switched on and off via push-button at all times (manual control). The operating mode (ON or OFF) is extended at each motion detection and remains active for the predefined delay time after the last motion detection.

Keep push-button pressed for >2 s to dim lighting up or down or vice versa in case of pressing the push-button again. The newly selected artificial brightness value is retained as long as motion is detected, but not stored (constant light control inactive). At renewed activation of the light, the original LUX value will be restored and constant lighting control activated.

At actuation of 230 V push-button T1+T2 for >10 s, lighting in the daylight group will be set to minimum and maximum respectively, followed by two flashes of the daylight group and remains on or off respectively for 2 h + delay time. The red LED in the detector will light up continuously to display the active function. Press the push-button again to quit the 2 h ON/OFF mode. Tap the push-button to quit the 2 h ON/OFF mode.

- Press push-button 0.1–0.5 s ♦ manual ON/OFF (toggle) at presence plus delay time
- Press push-button >2 s ♦ manual DIM (toggle up/down) at presence plus delay time (constant light control deactivated)
- Press push-button >10 s ♦ 2 h ON/OFF (toggle) plus delay time (in case of motion detection) only via 230 V push-button T1+T2

All zones may be manually switched on or off or dimmed via 230 V push-button or DALI input module. Whenever manual override is active, constant lighting control is deactivated and may be reactivated as follows:

- Press «Auto» on the remote control (accessory, item no. 41934)
- Switch light off and on again via external push-button (T1+T2)
- Await delay time expiry (Time 1)
- Select Scene 15 which is programmed to an input of the DALI input module.


 With the setting zone 3 = daylight zone (**item 2.4**) the push-button T3 has no function.

1.9 Use of DALI Input Module (7)

The DALI input module (accessory, item no. 70020) provides the possibility to select lighting scenes. The scenes must be defined via a DALI programming interface. The presence detector remains active during motion detection plus delay time after scene selection (zones 1 to 4).

The function of the push-buttons is set via the group address i.e. the scene numbers of the DALI input module:

- Group 10 provides the same functionality as push-buttons 1+2
- Group 11 provides the same functionality as push-button 3
- Group 12 provides the same functionality as push-button 4
- Scene 15 resets the daylight group to AUTO mode
- Scenes 1–14 activates the respective scenes

 If two push-buttons of the DALI input module (**7**) are programmed with the same group address, the push-button programmed first will send only ON and the other push-button only OFF commands.

 **Other DALI commands such as Broadcast are not permitted.**

Note: Lighting scenes programming is stored in the DALI ballasts. Remember to re-program scenes after the replacement of any DALI ballasts.

The number of DALI input modules is unlimited as long as the maximum current of 200 mA is not exceeded. Several DALI input modules may be configured for the same function, e.g. the control of zone 4.

1.10 Operation and Maintenance

Lens pollution may impair the correct function of the detector. Therefore, the lens should be kept tidy and clean. Use a moist cloth and a little water together with standard cleaning agent. Do not exert too much pressure on the lens. Should the lens or other components be defective, they will have to be replaced.

In case of failure and subsequent replacement of a single DALI ballast, its renewed allocation to a zone will not be necessary. The detector will automatically recognise and address the replacement ballast. If two or more ballasts are defective, manual allocation of the replacement ballasts will be necessary.

1.11 Technical Data

Supply voltage	230V/50 Hz
Standby power	0,45 W
Switching power	2300 W/10 A resistive (cos φ 1,0) 1200 VA/5,2 A inductive (cos φ 0,5) 350 VA/1,5 A LED
DALI devices	1–64
DALI power supply	max. 200 mA
DALI cable length	Ø 2.5 mm² < 300 m Ø 1.5 mm² < 150 m Ø 1.0 mm² < 100 m
Max. no. of Slave devices	10
Detection area	360°
Detection range	Art.-Nr. 41750, 41751: max. Ø 6 m presence, approx. Ø 24 m at a height of 3 m Art.-Nr. 41761: approx. Ø 24 m at a height of 6 m
Installation height	Art.-Nr. 41750, 41751: 2–3,5 m Art.-Nr. 41761: 3,5–8 m
Lux level control	100–2000 lx
Timer control	5 min to ∞
Standby lighting	Off, 5 min to ∞, level 0.1 to 51%.
Protection class	IP54
Temperature range	–5 bis +50 °C
Dimensions	Edition UP: Ø 100x46.4 mm (visible dimensions) Edition AP: Ø 117.3x45.9 mm (visible dimensions)
Flush-mount drilling	Ø 90 mm
Colour	RAL9010

2. P-IR REMOTE CONTROL (6)

Programming and configuration are done via the P-IR remote control DALI addressable Art.-Nr. 41934.

The detector's status is displayed by the green LED:

- Green LED off: detector in operating mode
- Green LED on: detector in programming mode
- Green LED flashing 1x: command received

Note: At the following example sequences for the remote control, a long or short push of the button is distinguished by the line thickness of the button symbol:

Function	Time	Symbol
Short push	0.5 s	
Long push	4 s	

Note: See detail for further settings such as corridor function, multi-zone, lighting scenes, status, etc. in the manual „P-IR Manual DALI addressable 41934“ on our product website.

2.1 Lock/Unlock

Press «Lock/Unlock» once to put the presence detector into programming mode. Repress «Lock/Unlock» to return to operating mode. The detector must be unlocked for all configuration except for «Status», «1», «2», «3», «4», «On/Off», «Auto», «Dim +» and «Dim -». If no button is pushed for 5 min, the detector automatically returns to operating mode. Changes already made will be stored.

2.2 Initialisation of DALI devices

All DALI ballasts must be allocated to a lighting zone. Different lighting zones are required if a room is not evenly illuminated by ambient light (e.g. window front on one side). The detector individually adjusts the zones (constant light control) to achieve a homogenous room illumination. If a ballast is replaced after initialisation, the replacement ballast is automatically programmed with the values of its predecessor. As from 2 defective ballasts, replacements must be allocated manually.

2 different types of zones exist:

- Daylight group (constant light control)
 - Zone 1 always encompasses the luminaires closest to ambient light entry (windows), zone 2 includes those in the centre of the room while zone 3 represents the luminaires furthest away from daylight entry. Zone 3 may also be defined as a secondary zone, in which case only zones 1 and 2 belong to the daylight group.
- Secondary zone (On/Off)
 - Zone 3 may be configured as part of the daylight group or as a secondary zone **item 2.4**. Zone 4 may be configured as On/Off, HVAC or cut-off **item 1.2**.

Allocation of zones, initialisation of luminaires

All DALI ballasts are addressed and allocated to zones as follows:

1. Connect mains power • all ballasts switch on
2. Briefly press «Lock/Unlock» • programming mode
3. Press «Init» for approx. 4 s • green and red LEDs flash alternately
 - automatic addressing starts¹⁾
 - each addressed light fitting is switched off
 - addressing is finished as soon as all light fittings are switched off
4. First light fitting is switched on again
5. Define zone by pressing «1», «2», «3» or «4»²⁾
 - Green LED flashing: zone allocation successful, red LED lighting: zone unsuccessful
6. Press «Next»
7. Next light fitting is switched on (return to step 5 until all light fittings have been allocated to a zone)
8. End addressing with «Lock/Unlock» • operating mode

Note¹⁾: The red LED lights up for 1 s if the detector does not recognise a DALI ballast after 10 attempts. Check correct wiring and DALI ballast functionality.

Note²⁾: If the red LED briefly flashes during zone allocation, the DALI ballast could not be successfully allocated to a zone. Repeat zone allocation.

Zone allocation sample sequence:



i If all DALI ballasts are addressed, the orange LED lights up after pressing «Next».

Assignment of the DALI relay module

- If the DALI relay module is to be used to switch conventional lighting, it is assigned in the addressing the same way as a lamp.
- If the DALI relay module is to function as an HVAC switch, it has to be addressed with "Mode" + "1".
- If the DALI relay module is to function as a cut-off switch, it has to be addressed with "Mode" + "3".

Automatic calibration

To ensure proper functioning of the constant light control, the detector must be calibrated.

Calibration will automatically start during darkness (< 100 lx) where no movement is detected during the Time 1 delay time (typically at night) and the Time 4 standby lighting time has expired.

Manual recalibration is recommended for unfurnished, newly furnished or reorganised spaces **item 2.9**.

Reallocation of a ballast into a different zone

If a ballast should be allocated to a different zone, perform the following steps:

1. Press «Lock/Unlock» → programming mode
2. Briefly press «Init.», all ballasts will switch off with the exception of the one recognised first, which will switch on at 100% light output.
3. Press «Next» as often as required to have the desired ballast light up to 100%.
4. Press «1» to allocate ballast to zone 1 or «2», «3», «4» to allocate to zones 2 to 4 respectively.
5. Press «Lock/Unlock» → operating mode

Zone 3 allocation sample sequence:



2.3. Operation mode setup

The detector's basic functionality is selected through mode setup. The presence detector may be operated in 4 different modes item 1.2.

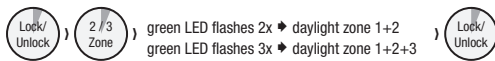
Setting mode 1 sample sequence:



2.4 Number of daylight zones

Zone 3 may be configured either in daylight zone or as a secondary zone.

Setting zone 3 as secondary zone sample sequence (green LED flashes 2x):



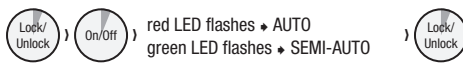
2.5 AUTO/SEMI-AUTO switching characteristics

Set the switching characteristics via the P-IR remote control's On/Off button.

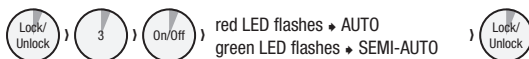
Daylight group: Press «On/Off» in programming mode.

Secondary zones 3 and 4: Select the respective zone via number buttons first.

Daylight group sample sequence:

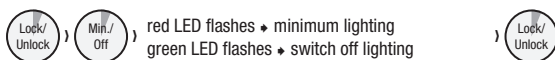


Secondary zone 3 sample sequence:



2.6 Toggle between minimum lighting and switch-off

The daylight group may be set up to completely switch off the luminaires or remain at minimum lighting in case of sufficient ambient light to attain the required illumination level. Press «Min/Off» to toggle between those two functions.



2.7 LUX setpoint setup and maximum illumination

The daylight group's brightness level controlled by constant lighting is defined by the LUX setpoint. Press «1000 lx» for 4 s to define 2000 lx.

The required lux value depends on site conditions and the installed lighting output. Constant light control may overshoot if the daylight group provides too much light output, in which case the maximal light output needs to be set. After each change of the LUX setpoint the maximum illumination must be set again.

Set LUX setpoint to 200 lx sample sequence:



The maximum illuminance is the brightness measured in lux for maximum light output (manual Dim+ set to maximum).

Set maximum light output to 800 lx sample sequence



i During the setup procedure, the maximum illuminance must always be set after the LUX setpoint. This is because the maximum illuminance is automatically set to the same value as the LUX setpoint whenever the latter is changed.

Note: The secondary zones always switch independent of ambient light.

2.8 Fine adjustment of preset LUX setpoint (daylight group only)

If certain daylight zones are too brightly or dimly lit, zone-specific adjustments can be made using the «Dim -» and «Dim +» push-buttons. The fine adjustment of illuminance is, however, limited to a relatively narrow range.

 Fine adjustment has to be performed on completion of calibration.

Increase daylight zone 2 illuminance sample sequence:



Note: The detector works on the basis of actual daylight measurement. After the conclusion of programming with «Lock/Unlock», several minutes may pass before the constant light control accepts the changes and adjusts the lighting.

2.9 Manual calibration

Recalibration of the zones in the daylight group can be initiated manually. Calibration will automatically start during darkness (< 100 lx) where no movement is detected during the Time 1 delay time (typically at night) and the Time 4 standby lighting time has expired. During calibration, the lighting is switched on for 2 min. Each zone is then individually dimmed and the impact on the light measurement recorded.

Initiate calibration sample sequence:



To verify that calibration has been performed, the status must be checked.

Check calibration status sample sequence:



2.10 Time settings TIME

The following timer functions are available:

- Time 1: delay time lighting
- Time 2: HVAC
- Time 3: cut-off
- Time 4: standby lighting

Some timer functions may only be effective in certain modes **item 1.2**.

Set lighting delay time to 5 min sample sequence:



Note: The detector may also be used as a presence-independent constant light controller by setting Time 1 to ∞. The light will switch on after mains connection. OFF/ON via external push-button T1+2.

2.11 Deactivate standby lighting and set standby level

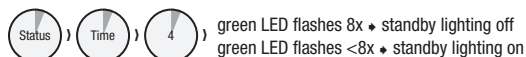
Standby lighting is activated for the set duration (Time 4) after the delay time (Time 1) has expired **item 2.10**. The standby lighting function may be deactivated.

Activate/deactivate standby lighting sample sequence:



Check the status of Timer 4 to ensure that standby lighting is deactivated.

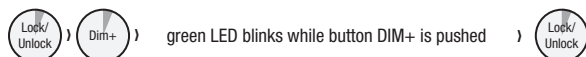
Checking Timer 4 sample sequence:



The standby level is set in the programing mode by Dim+/Dim-. The level for standby light is 0.1 to 51%.

Pressing the Dim key briefly causes a change of 5%. If you press and hold the Dim switch, the value changes in the smallest increments (fine tuning).

Increase standby level sample sequence:

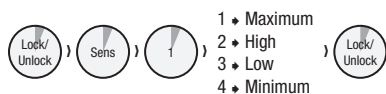


2.12 SENS setup

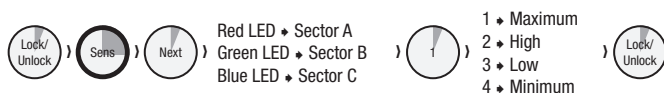
The 360° detection range is split into 3 sectors A – B – C of 120° each.

Sensitivity may be adjusted either for all three sectors or for each individual sector. Sectors may be completely deactivated.

Sensitivity setup for all 3 sectors sample sequence:



Sensitivity setup for an individual sector sample sequence:



Note: Individual sectors may be deactivated with «On/Off» (enabled 1x flash, disabled 2x flash). It is recommended to check the sensitivity in test mode after configuration. Each sector is thus indicated by its respective LED colour code. The LED remains off in case of deactivated sectors.

2.13 Test Mode

Use test mode to check the device's detection area and sensitivity. Sectors detecting motion are identified by their respective LED colour flashing **item 2.12**.

Test mode sample sequence:



2.14 Reset to Factory Default

Perform the following steps to reset the presence detector to factory default, i.e. «Out-of-the-box» mode:

1. Press «Lock/Unlock» → programming mode
2. Depress «Fact. set» for approx. 4 s until the green LED briefly switches off twice.
3. Press «Lock/Unlock» → operating mode

The presence detector was returned to factory default and needs to be newly configured, i.e. all DALI ballasts need to be re-initialised **item 2.2**.

2.15 Burn-in Activation (100 hours)

The commissioning or replacement of fluorescent tubes requires a burn-in to optimise the luminaires operating life. The light output is set to 100% during burn-in. Daylight control is deactivated as long as burn-in is active and motion is detected. The presence detector automatically returns to daylight control after burn-in is completed. Light dimming is not possible during burn-in, neither via push-buttons nor via P-IR remote control.

The number of hours during which burn-in was performed will be stored in case of power outages with the presence detector automatically resuming the operation as soon as power is back on. Burn-in activity is displayed by the yellow LED flashing once per second if the presence detector is in operating mode.



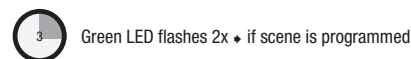
Note: In operation mode both LED (red and green) are activated if burn-in is active.

2.16 Programming and selecting scenes

Programming scene 3 sample sequence:



Selecting scene 3 sample sequence:

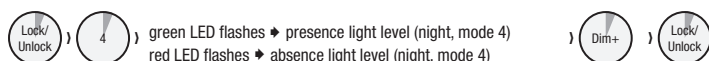


Note: A scene remains active (CLC switched off) for as long as movement is detected and during the delay time.

2.17 Setting of presence/absence light level (night, mode 4)

In mode 4 = corridor function controlled by day/night twilight switch (8) a fixed brightness level [in %] can be set for presence and absence at night (T4 = 230V). The night light level can be set in programming mode with Dim+/Dim-.

Increase absence night light level sample sequence:



2.18 Multi-zone (13)

Luminaires in the CLC daylight group that are allocated to multi-zone 4 can also, as for a secondary zone, be overridden using push-button T4 (CLC is then deactivated).

In the case of manual push-button operation, the previously pressed button will determine the mode activated for the multi-zone. In the case of on/off operation with push-button T4, the multi-zone will behave like a secondary zone without CLC.

After 2 short presses of push-button T1&2, the multi-zone will switch back to the daylight group with active CLC.



Note: Multi-zone is only possible in modes 1 to 3.

3. STATUS CHECK

Use «Status» to display the state of individual parameters on the presence detector. Parameters are only displayed in operating mode.

Status display is indicated by flashing LEDs. Await the flashing signal before performing other remote control activities.

If no LED is activated, the detector is not initialized.

3.1 Status – Time (4)

Press «Status» followed by «Time» to display individual time settings.

- Time 1: delay time lighting
- Time 2: HVAC
- Time 3: cut-off
- Time 4: standby lighting

Depending on what time status should be displayed, press «1» for Time 1 or «4» for Time 4. The presence detector displays the set time by the respective number of LED flashes.

Time (min)	5	10	15	30	45	60	∞	OFF
Number of flashes, green	1	2	3	4	5	6	7	8

Example: Display lighting delay time 1: Press «Status» followed by «Time» and «1». The green LED flashes three times, indicating that the delay time is set to 15 min.

3.2 Status – Lighting Output

«Press Status» followed by «Lux» to display LUX level setpoint. The presence detector displays the LUX level setpoint by the respective number of LED flashes.

Lux (lx)	100	200	300	400	600	800	1000	2000	user defined
Number of flashes, green	1	2	3	4	5	6	7	8	9

Example: Display LUX level setpoint: Press «Status» followed «Lux». The green LED flashes three times, indicating that the LUX level setpoint is set to 300 lx.

3.3 Status – Sensitivity

Press «Status» followed by «Sens.» to display sensitivity. The presence detector displays the sensitivity by the respective number of LED flashes..

Sensitivity	Maximum	High	Low	Minimum
Number of flashes, green	1	2	3	4

Example: Press «Status» followed by «Sens.». The green LED flashes twice, indicating that the sensitivity is set to high.

3.4 Status – Burn-in

Press «Status» followed by «Burn-in». The presence detector displays the remaining burn-in time in 10 hour intervals by the respective number of LED flashes.

A red LED indicates inactive burn-in.

Burn-in	≤10 h	≤20 h	≤30 h	≤40 h	≤50 h	≤60 h	≤70 h	≤80 h	≤90 h	≤100 h
Number of flashes, green	1	2	3	4	5	6	7	8	9	10

Example: Press «Status» followed by «Burn-in». The green LED flashes twice, indicating that the remaining burn-in time is 20 h.

3.5 LED Status

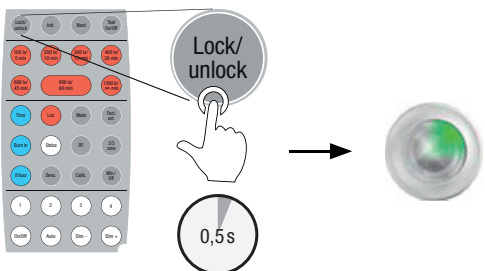
Indication	Status	Comment
All LEDs (red, blue, yellow and green) flash alternately.	Out-of-the-box	The detector is connected, though not yet initialised.
The green LED is on.	Unlock	The detector is in programming mode and ready for setup using the P-IR remote control.
All LEDs are off.	Lock	The detector is in operating mode and the last programmed changes have been stored.
The red and green LEDs flash continuously.	Initialisation	The red and green LED flash (1 s on and 1 s off) during initialisation.
	Zone allocation	The green LED briefly goes off after correct selection. If the green LED goes off for 1 s and the red LED goes on for 1 s, then the unit has not been allocated to the correct zone. The yellow LED goes on for 1 s when all units have been addressed.
The red LED flashes in response to movement.	Test mode Sector A	The red LED flashes when activity is detected in Sector A.
The green LED flashes in response to movement.	Test mode Sector B	The green LED flashes when activity is detected in Sector B.
The blue LED flashes in response to movement.	Test mode Sector C	The blue LED flashes when activity is detected in Sector C.
The green LED flashes 1x.	P-IR remote control	If the detector is in programming mode, the green LED briefly goes off to acknowledge the receipt of a correct signal from the P-IR remote control. In operating mode, the green LED flashes 1x.
The green LED flashes when a button is pressed	Dim + or Dim -	The light is dimmed via remote control.
The red LED is permanently on.	2h ON/OFF	The daylight group flashes 2x upon activation. The red LED then stays on for as long as the function is activated.
The yellow LED flashes continuously.	Burn-in	The yellow LED flashes (1 s on and 1 s off) when the function is activated.
The blue LED flashes continuously.	Constant HVAC output (8 h)	The blue LED flashes (1 s on and 1 s off) when the function is activated.
The yellow LED flashes 3x	Invalid IR command	IR command incomplete or invalid. If the problem occurs repeatedly, check whether the version is compatible with the IR command.



The crossed-out wheeled dust bin symbol indicates that products must be collected and disposed of separately from household waste. Use an official collecting point or contact your retailer where the product was purchased.

Commissioning

1



Lock/unlock

0,5s

Put the detector into programming mode.
(out-of-the-box installed and all wires/ballast are connected)

2

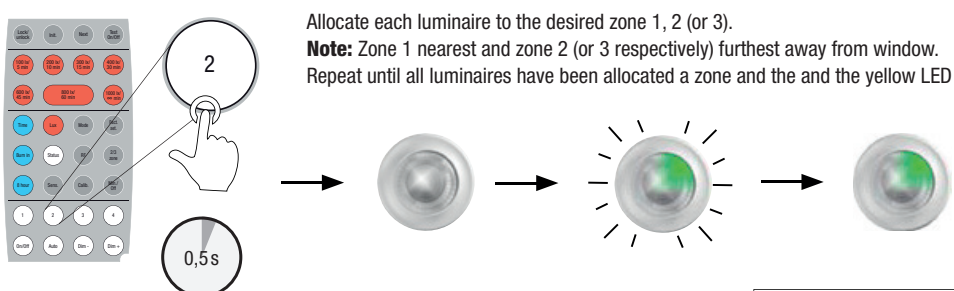


Init.

4s

Initialisation/Allocation of luminaires.
The identified DALI ballasts are switched off one by one.
Please wait until all luminaires have been identified and the first lights up again to prompt zone allocation.

3

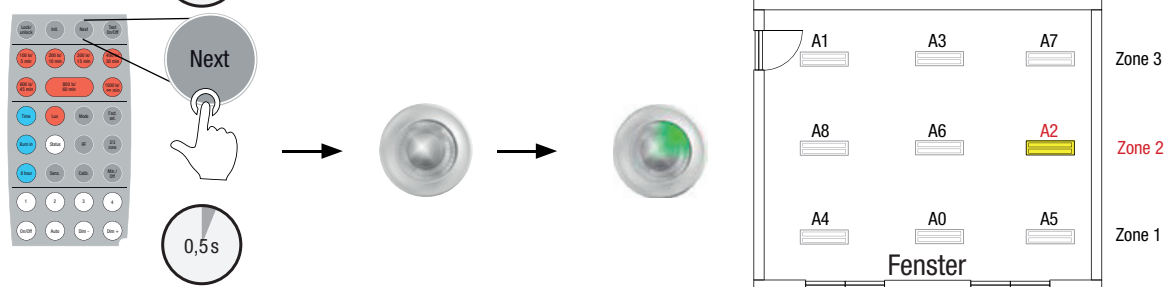


2

0,5s

Allocate each luminaire to the desired zone 1, 2 (or 3).
Note: Zone 1 nearest and zone 2 (or 3 respectively) furthest away from window.
Repeat until all luminaires have been allocated a zone and the yellow LED flashes up.

4



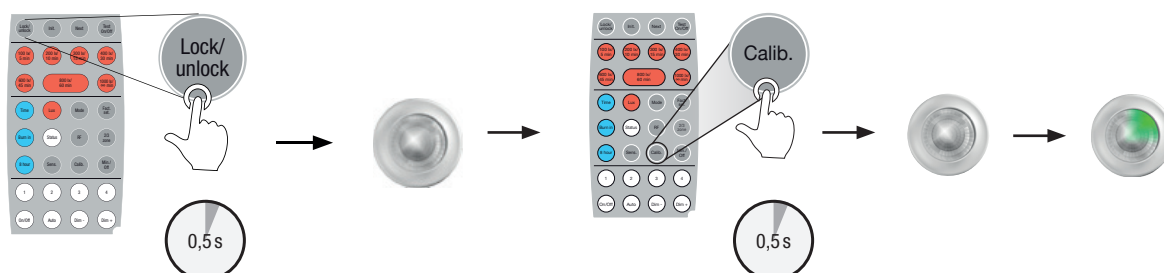
Next

0,5s

Floor plan diagram showing zones 1, 2, and 3 with luminaires A0 through A8. Zone 1 is nearest the window (Fenster), Zone 2 is middle, and Zone 3 is furthest.

5

To ensure proper functioning of the constant light control (CLC), the detector must be calibrated.
Calibration will automatically start during darkness (< 100 lx) where no movement is detected during the Time 1 delay time (typically at night) and the Time 4 standby lighting time has expired.
Manual recalibration is recommended for unfurnished, newly furnished or reorganised spaces.



Lock/unlock

0,5s

Calib.

0,5s

Factory default settings

Note: Contrary to other Züblin detectors, the DALI Comfort and Basic devices do not flash at motion detection unless in testing mode!

After initialisation, the detector will have the following the following settings:

Function: Mode 2, daylight control and lighting relay output on/off

Switching characteristics: AUTO for the daylight group and SEMI-AUTO for the secondary zones

Zones: Daylight group (zone 1,2) und 2 secondary zones (zones 3,4)

Lux setpoint: 300 lx

Time 1 (delay time): 15 min

Time 2 (HVAC): 30 min

Time 3 (cut-off): 60 min

Time 4 (standby / orientation lighting): 10 min

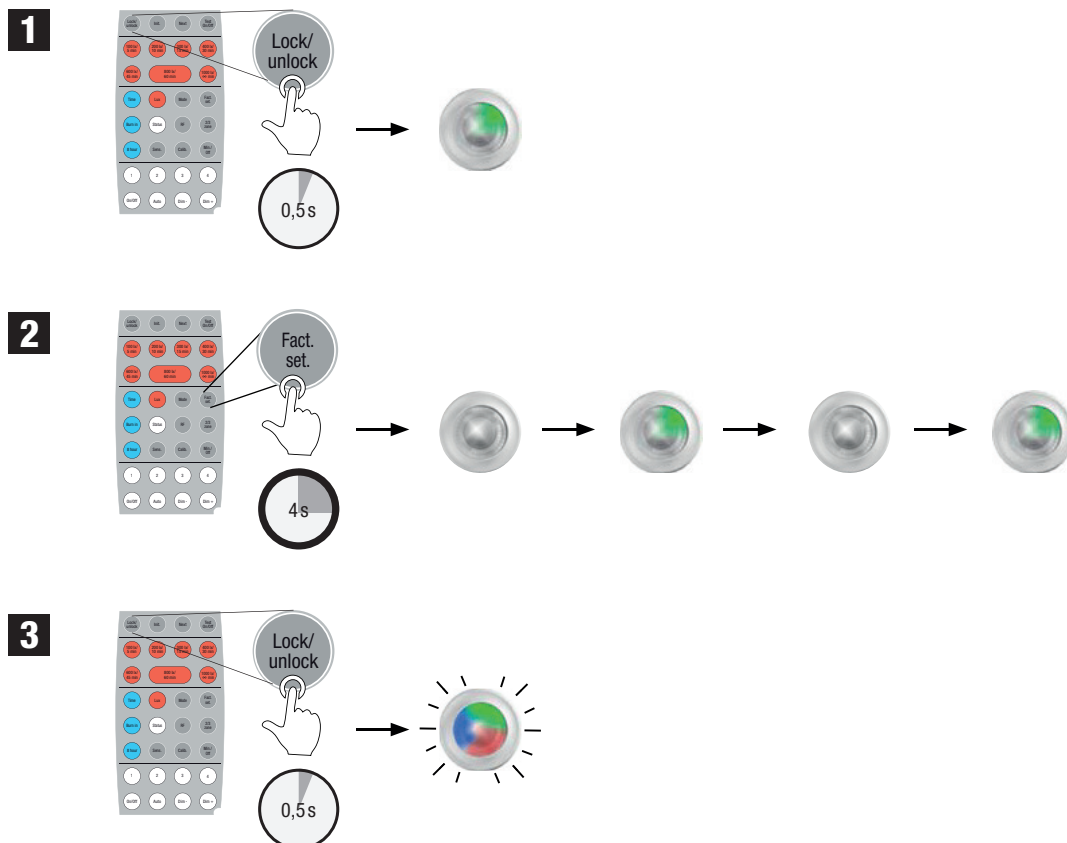
Standby light active

Min./Off: minimum, daylight zones provide minimum lighting at all time

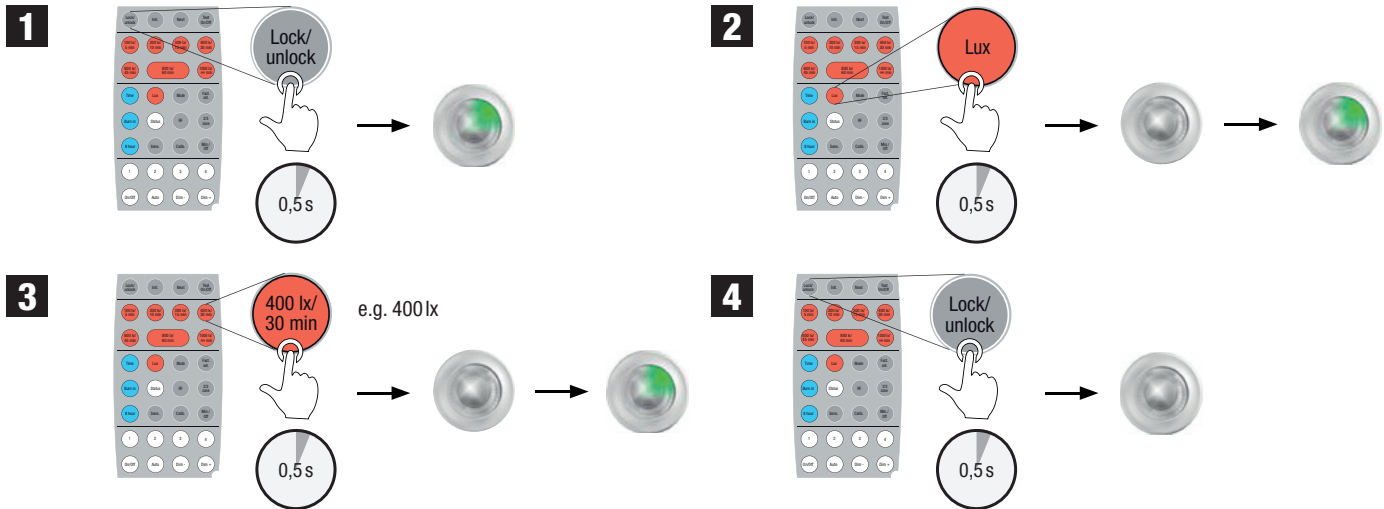
Sensitivity: high, all sectors

Reset to factory default settings

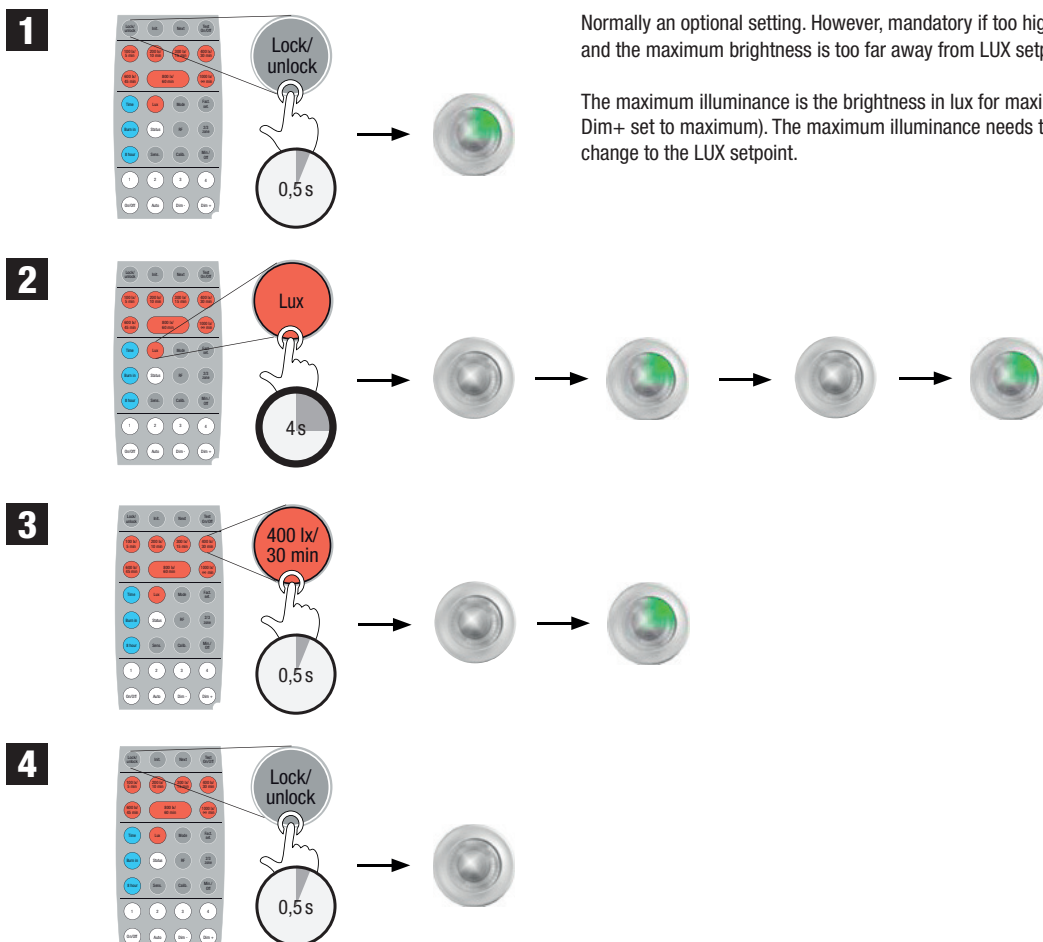
In case of erroneous settings, reset to factory default settings and restart the commissioning:



Set LUX setpoint



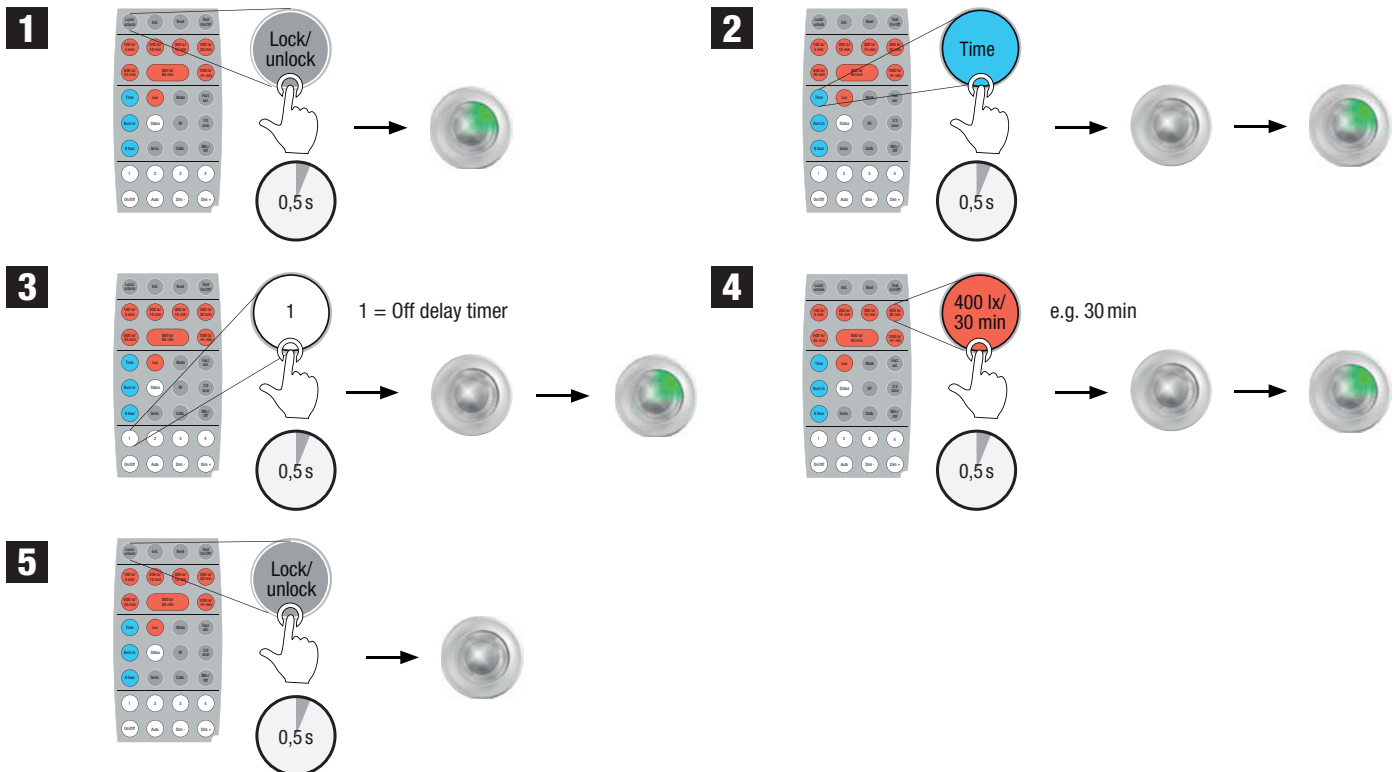
Maximum illumination



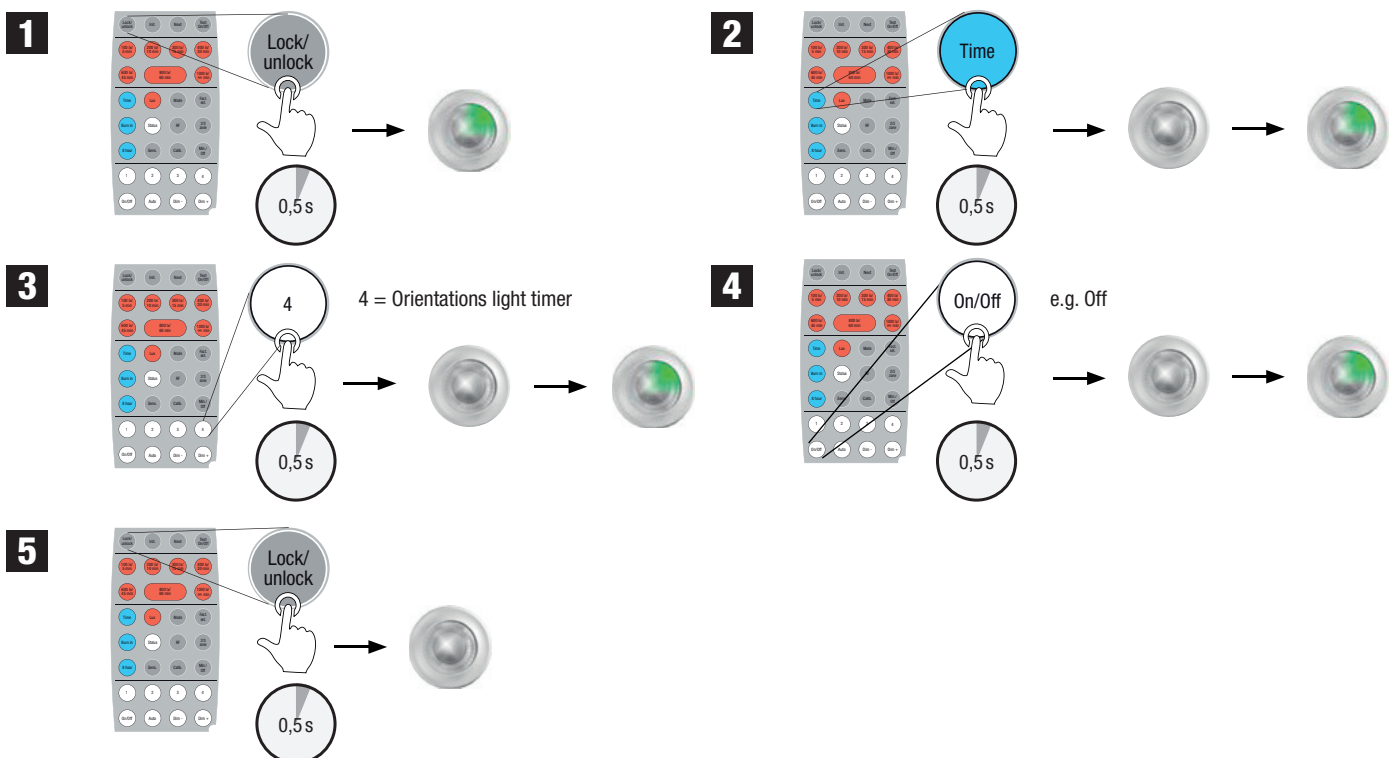
Normally an optional setting. However, mandatory if too high light outputs are installed and the maximum brightness is too far away from LUX setpoint.

The maximum illuminance is the brightness in lux for maximum light output (manual Dim+ set to maximum). The maximum illuminance needs to be reset after every change to the LUX setpoint.

Set daylight delay time (Time 1)



Deactivate standby lighting



Setting of AUTO/SEMI-AUTO switching characteristics

