



APP GUIDE

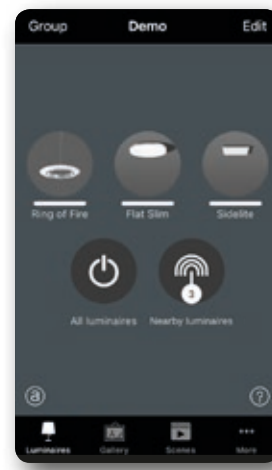
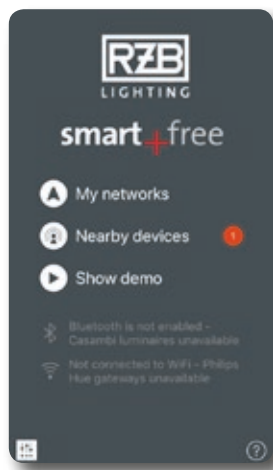
smart+free

FEATURES

SMART+FREE

Light management

- Light management system for Bluetooth®-based wireless lighting control
- 3-wire cabling sufficient
- Wireless networking via Bluetooth® Low Energy
- Operation using standard push buttons, smartphones and tablet PCs
- Control possible using Android / iOS device
- Free app available for download
- Light and motion sensors can be integrated
- Tunable white and RGB applications possible
- Its small size makes it ideal for installation inside luminaires



Switching luminaires on and off

Bluetooth® makes it convenient to switch your luminaires on and off.



Dimming lights

You can dim the appropriate luminaires by swiping horizontally. The setting can be saved and loaded any time with a single click.



Luminaires and groups

If several luminaires often need to be switched on/off at the same time, you can create groups.



Gallery

Operate your luminaires from a photo. Simply take a picture of your room and link the appropriate luminaires by marking the photo. Then you can also control your lights simply by clicking on the photo.



Scenes

Create a lighting scene for every occasion. Just one click to quickly and easily select the right lighting for each occasion.

**Changing colour temperature**

Adjust the colour temperature of your Tunable White luminaires by swiping vertically.

**Changing colours**

Colour settings for RGB and RGBW luminaires can easily be set using a colour wheel. The selected colour can of course also be saved.

**Timer**

The timer gives you the option of switching a luminaire or an entire scene on or off at certain times and on certain days.

**Animations**

Here you can create and start the sequences you want from the various scenes.



FIRST STEPS

The Casambi app is easy to get up and running. Simply follow these steps:

1. Download the app from the Apple app store or Google Play.
2. Switch on all the **smart+free** luminaires.
3. Open the app.
4. The app will automatically find all the **smart+free** luminaires that are switched on.
5. Tap “Add all luminaires to...” my network.
6. The app links all the luminaires to a network and automatically opens the “Luminaires” menu.

Standard gestures

You can control your lighting using the following gestures on the app.



- Tap the luminaire symbol to switch the luminaires on or off.



- Swipe horizontally over the luminaire symbol to adjust the brightness.



- Swipe vertically over the luminaire symbol to adjust the colour temperature.



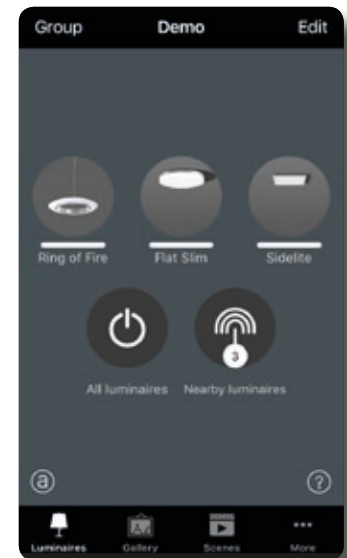
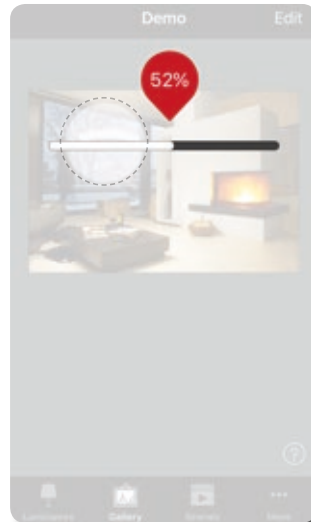
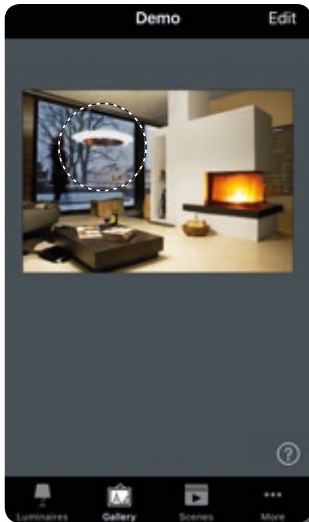
- Hold the luminaire symbol down to select the light colour and save it to your colour palette.

GALLERY

The Gallery feature in the app is the most intuitive way to control your luminaires.

Take a picture of your surroundings with your luminaires and position the light control right on the luminaires in the photo. You can also create a panorama featuring several luminaires.

1. Add a photo to your Gallery by tapping "Edit" followed by "+".
2. Once you have added the photo, position the controls for your luminaire in the picture. To do this, tap "+", select a luminaire and then tap "Done". A circle with dotted circumference will appear on the picture. You can move it over your luminaire and change its size. Tap "Done".



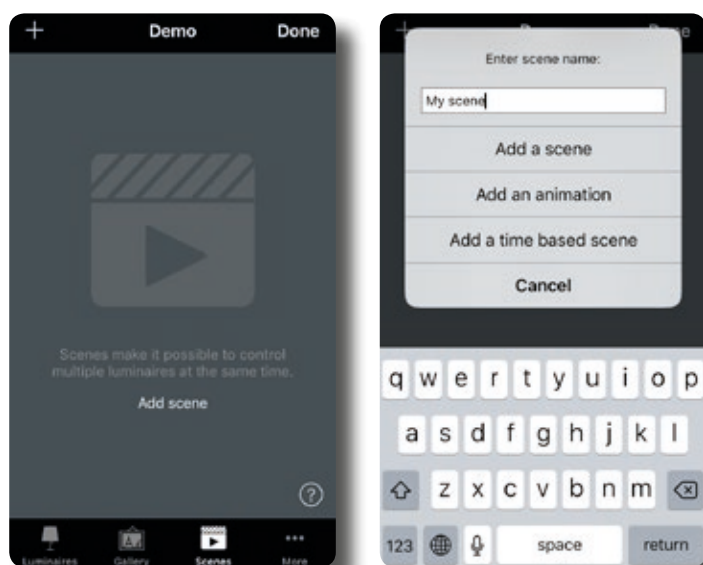
3. Once you have added all luminaires controlled by Casambi, tap "Done".
4. You can then control all luminaires from the photo thus eliminating the risk of confusion.



SCENES AND ANIMATIONS

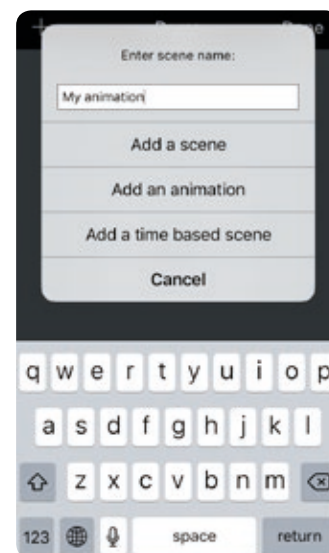
Light scenes to suit different occasions can be created in "Scenes". Control several luminaires with just one click to create the perfect ambiance. The same luminaire can be incorporated into several different scenes.

1. Tap "Scenes" in the navigation bar, then "Edit". Add a new scene by tapping "+". Enter a name. Then tap "Add a scene".
2. Tap one or more luminaires to add them, then tap "Done" to create the scene. Tap the new scene to alter the individual luminaires, e.g. adjust the colour or brightness. Finally, tap "Done" twice to finish editing and activate the scene.
3. Tap once to load or close your scene.
4. To create further scenes, select the "Scenes" menu and tap "Edit" followed by "+".



Animations can also be created in the "Scenes" tab. Animations connect scenes dynamically, so you can switch from one scene to another, for example. They are used just like normal scenes. Animations can also be looped endlessly.

1. Tap "Edit" in the top right-hand corner, then select "+".
2. Enter a name and then tap "Add animation".
3. Add scenes and waiting times. Example:
 - Select the Red scene, "Done". Tap 1:00 to select the fading time. "Done".
 - Add hold time – set the time, "Done".
 - Select the Blue scene, "Done". Set the fading time. "Done".
 - Close editing mode by tapping "Done".

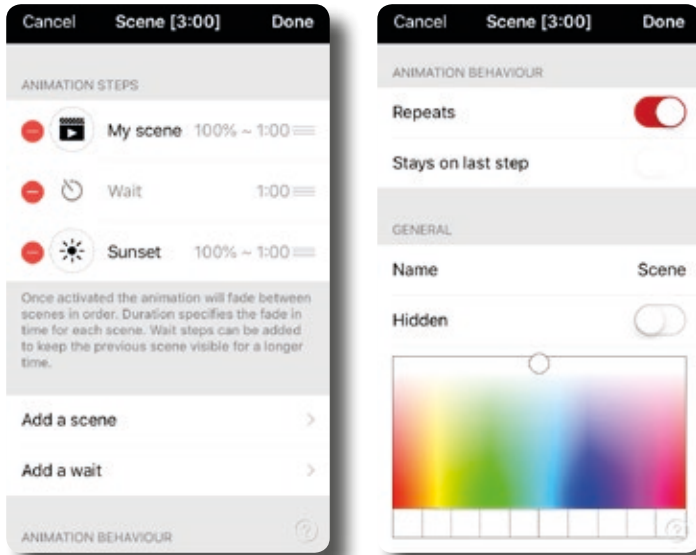


Tap "Done" to finalise the animation. Start it by tapping the symbol.

Red takes **10 seconds** to reach full brightness and is held for 1 minute before taking 10 seconds to change to blue.

4. Further settings include: "Repeats" and "Stays on last step".

5. Close all settings by tapping "Done".



CREATE GROUPS

There are two ways to create groups in the luminaire overview:

1. Using the "Group" button

- Select all luminaires to be combined in the group.
- After selecting all luminaires, press the folder symbol.

2. Using the "Edit" button

- Select the picture of a luminaire to be included in the new group.
- Drag the picture of the luminaire over the picture of another luminaire to be added to the new group.
- Drop the symbol.

You can rename groups by double-clicking the new group. Then choose the text field in the upper area and enter the new name. To finish group creation, click on the "Close" button and then "Done".


These steps can also be used to add additional luminaires to existing groups.

To remove groups, select either the "Edit" or "Groups" button in the luminaire overview, and then press the X above the group symbol. The lights are not removed from the network.



CREATE DAYTIME BASED COLOR SEQUENCES

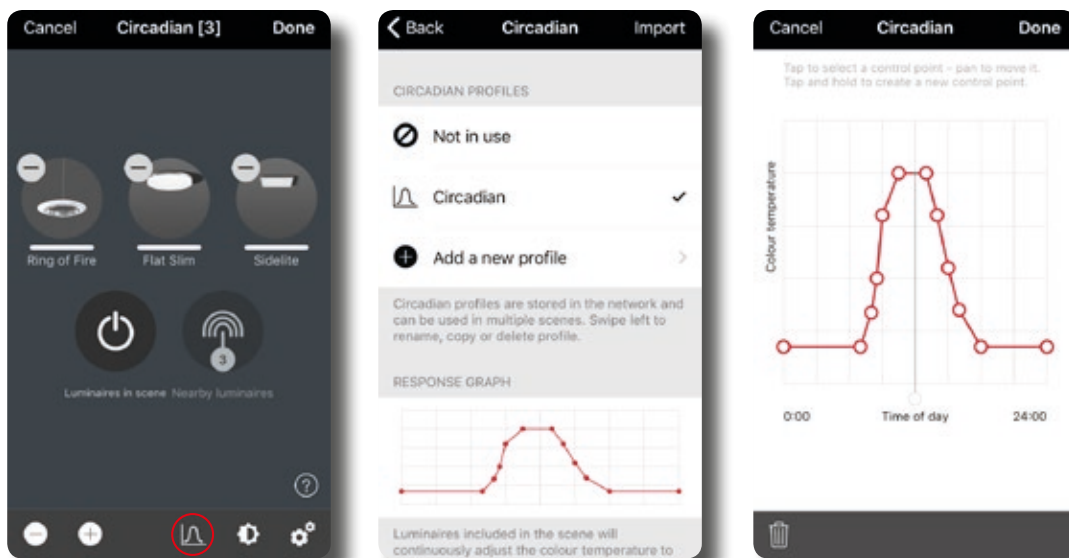
Circadian sequences can be configured individually for each scene.

1. Tap on "Scenes" in the menu bar, then "Edit" and add a scene with "+". Enter a name. Then tap "Add a scene".
2. Tap to add one or more luminaires and then select "Circadian" .
3. Afterwards you can select an already created or new profile.
4. By tap on the displayed graph, the temporal course of the colour temperature can be edited.
5. Additional checkpoints can be added by long pressure on the graph.
6. These checkpoints can be removed again by selecting and pressing the recycle bin symbol.

To add a circadian rhythm to existing scenes, select the „Edit“ button in the scene overview and then select the desired scene.

The settings under "Circadian"  only affect luminaires with tunable white control.

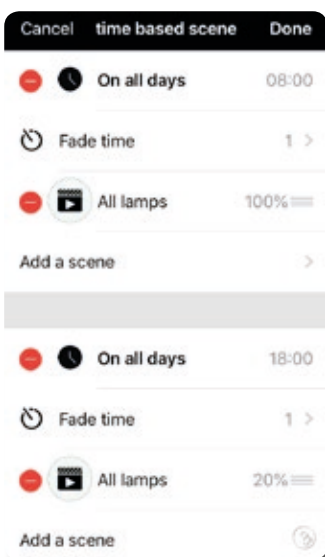
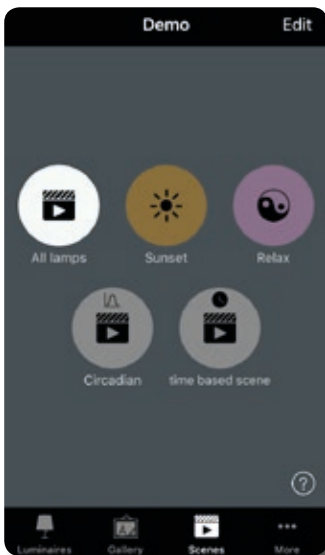
Luminaires with fixed colour temperature and RGB luminaires are not affected by this function.



TIME BASED SCENE

Time based scenes are used for example to adjust the dimming levels of scenes according to time. In contrast to timers, this setting can also be used in combination with sensors.

1. To create a time based scene, go to the scene overview and then select the button "Edit".
2. When creating a new scene, press the field "Add a time based scene".
3. Then you can create any number of conditions. The start time (day + time), the fade-in time and the used scene can be defined individually for each condition. The dimming level can be set by short press on the scene. If a brightness control is used in the scenes, this is also applied to the time-conditioned scene.
4. A movement dependent activation can be set via the menu item "More" > "Sensors".



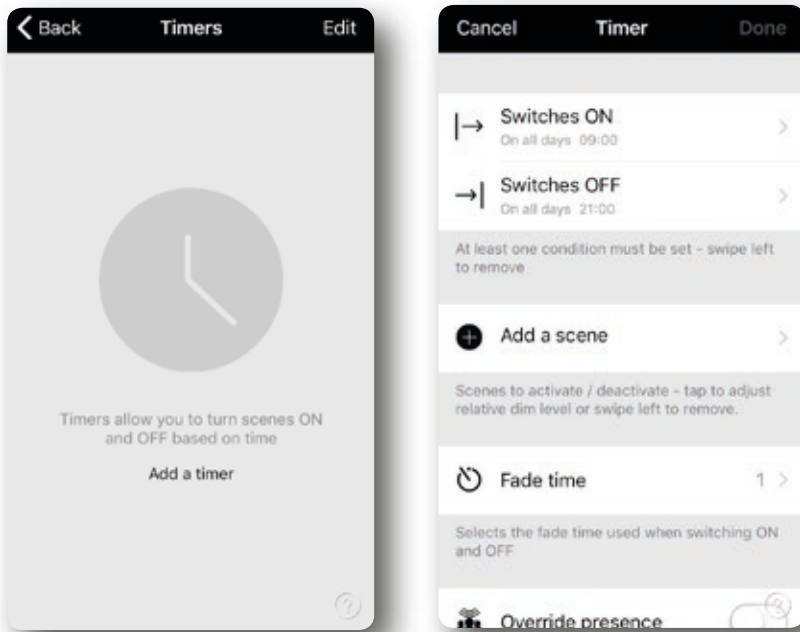
Example: During the day a scene shall be activated with 100 % dimming level. In the evening the dimming level should be only 20 %.



TIMER

Use the Timer function to set one or more timers for switching time-based **existing** scenes and animations on and off.

1. Tap "... More" > "Timers" > "Edit" > "+".
2. Tap "Add a scene" and choose a scene or animation. Tap "Done".
3. Tap "Switches ON" to specify the switch-on time. Tap individual days of the week to turn them on and off. Tap "Switches OFF" to specify the switch-off time.
4. You can also select a "Fade time" during which the timer slowly loads the scene.
5. To activate the timer, tap "Done".



NETWORK AND SHARING

If you want to operate your luminaires from several smartphones or tablets, you can alter the share option in your network configuration. Since a network is standard set to "Do not share", it is only stored on the device used for setup.

1. Select "More" > "Network setup" and tap "Sharing settings".
2. Tap "Sharing".
3. You have 4 options to choose from. "Not shared"; "Administrator only"; "Password protected" and "Open". The network is uploaded to the cloud for the "Administrator only" or "Password protected" options to enable other users to access it.
4. An e-mail and password must be entered. The e-mail is needed for remote access and to reset the password.
5. Then tap "Save".

Each sharing setting offers different possibilities:

Not shared

The created network can only be controlled by the device on which it was created. It cannot be used with other mobile devices. It is not necessary to enter an email address or a password. This setting is recommended when setting up the network to prevent synchronization problems within the network.

Administrator only

The created network can be controlled by several devices if the corresponding email address and password have been entered for authentication. Any terminal that has access to the network can make changes to the settings and create scenes/timers. It is not possible to control the luminaire without administrator access. It is necessary to enter an email address and a password.

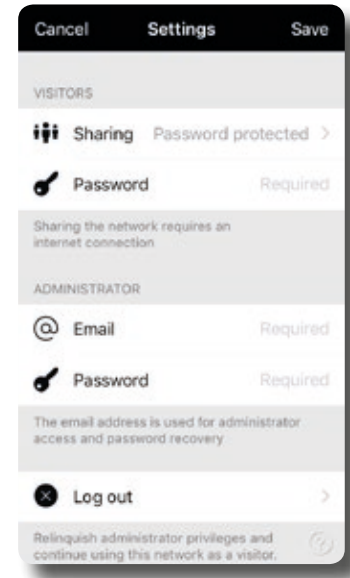
Password protected

Under this setting, 2 access levels are set up. In addition to the administrator access (see "Administrator only"), an additional password is created. This 2nd password can be used to switch luminaires in the network and activate scenes, but no network settings can be changed or scenes created.

The email address and one of the two passwords are required for logging in to the network. Depending on the entered password the device receives Administrator or guest rights.

Open

The network is visible for all devices and can be used without login. Every device can connect to the network but only the administrator can change the network configuration and create scenes.



EVOLUTION NETWORK

“Evolution“ describes the latest software generation for smart+free modules which enables additional features for your network.

There are two different network types for smart+free:

Classic

The “older” network firmware is called Classic. All features described in this guide (except this chapter) are available with the Classic firmware.

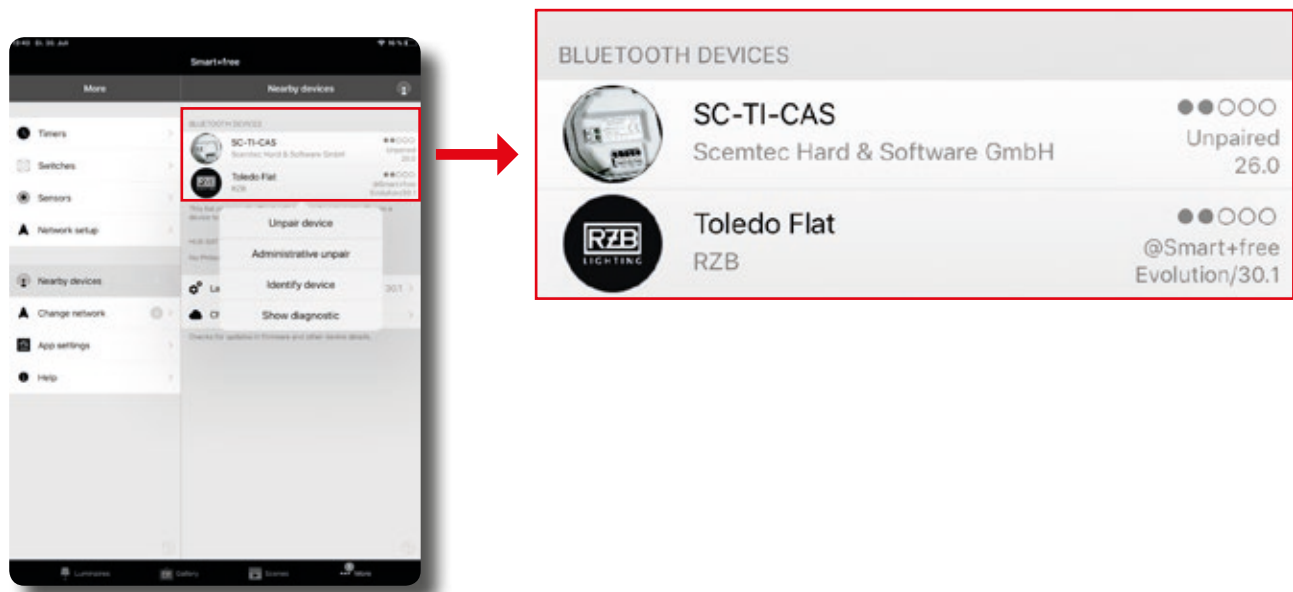
Evolution

The extended firmware version is called Evolution. Besides the features of the Classic firmware, it enables additional features which are explained in this chapter.

A change between both versions can be done in the App by updating the firmware. Older modules only support the Classic network.

The currently used firmware of a module is indicated by the version; all modules with version 30 or higher are using the Evolution firmware.

You can check the status of each module in the app under “More” -> “Nearby devices”.



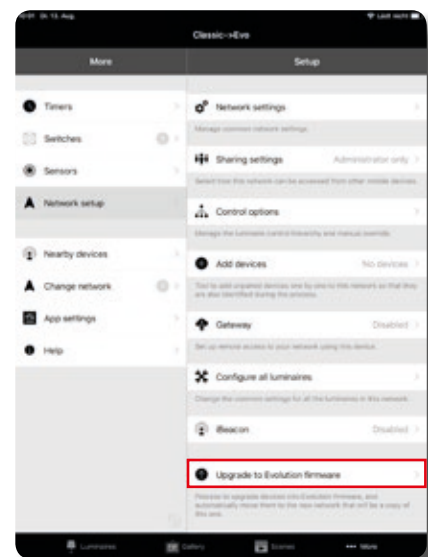
New features

- Up to 250 devices per network
- Additional security options
- Additional authorisation level
- Additional network settings

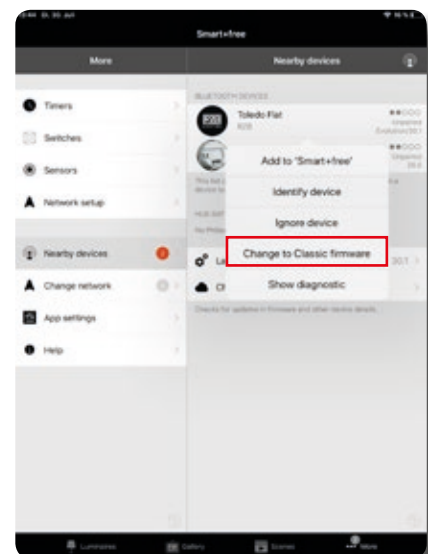
Switching between Classic and Evolution firmware

To switch your existing network from Classic to Evolution open the network settings under **"More"** -> **"Network setup"** and select **"Upgrade to Evolution firmware"**. A downgrade from an Evolution network to Classic is not possible. You have to create a new network and add the modules individually, if needed.

Please make sure that all modules used in the network are able to upgrade to Evolution firmware. Otherwise the older modules have to be removed from the network in order to upgrade and cannot be added afterwards.



Changing the firmware of a single module is also possible. The module has to be unpaired in order to be upgraded. Go to **"More"** -> **"Nearby devices"**, select the module and choose **"Change to Classic firmware"** or **"Change to Evolution firmware"**.



EVOLUTION NETWORK

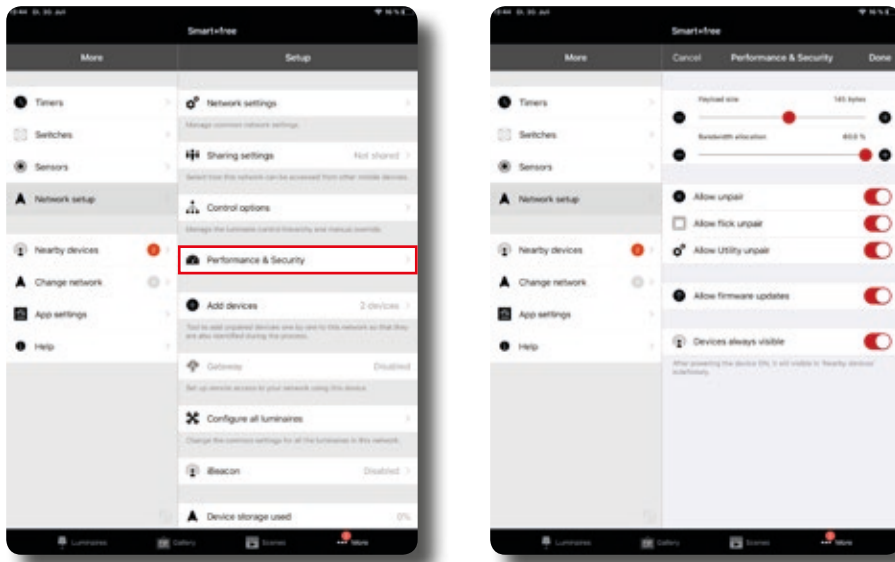
Additional Security options

Using an Evolution network, the menu “network configuration” was extended by the option “Performance & Security”.

You can disable the options to unpair the luminaires in your network via flick or the utility app.

It is also possible to decline further firmware updates and the visibility of your modules under “Nearby devices”.

Please note, that after turning off this option, you are able to select a period in which your luminaires will be visible after powering up (minimum 1 minute). This option assures that even after losing access to the network the modules could still be used afterwards in a different network.



Additional authorization level

Besides the “user” and “Adminstrator” introduced in the chapter Network and sharing the Evolution firmware introduces an additional authorization level: the **Manager**.

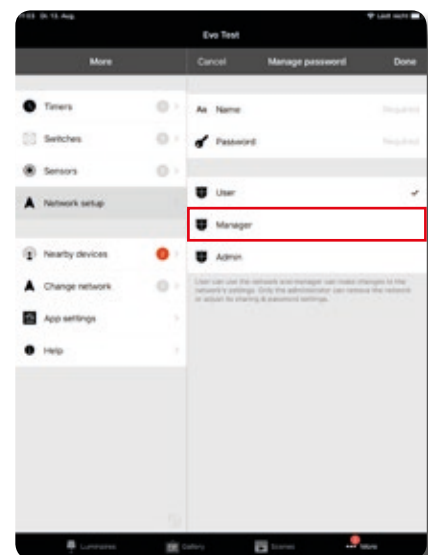
Users are only allowed to turn luminaires on/off, change the dim-level and activate scenes or groups.

The manager is also able to create new scenes and configurations except the network setup and adding/changing any passwords.

These features are limited to the administrator level.

With the new firmware it is also possible to add different passwords so every user can have his own login.

The total number of passwords is limited to 10.





DISCONNECTING A LUMINAIRE

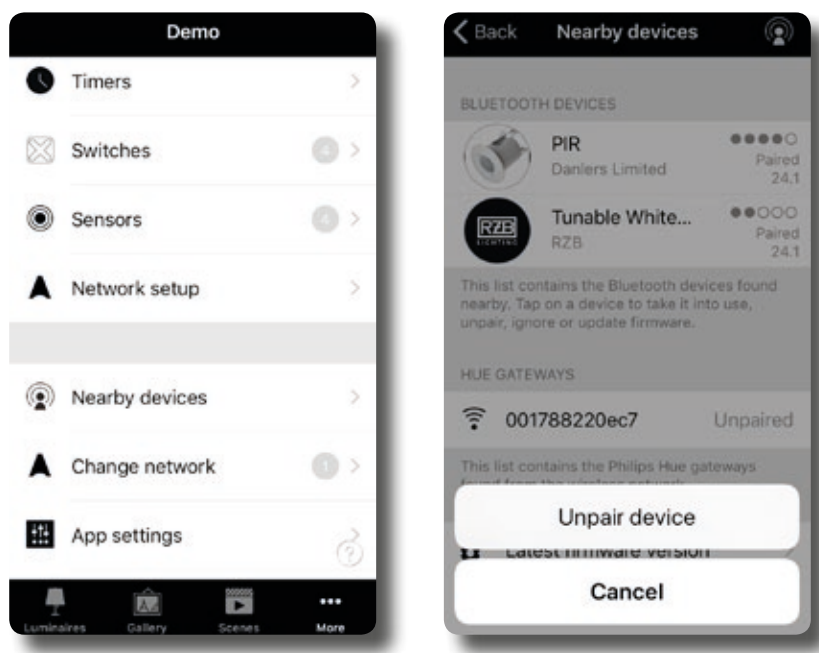
If you want to use a luminaire in a different network, you must first disconnect it from your network.

Luminaires operated with **smart+free** can only be connected to one network at any time.

If the app is unable to detect any luminaires operated with **smart+free** when they are switched on, the luminaires may already be connected to another network and you therefore cannot access them. You will need to disconnect the luminaire first.

To do this, tap **"More"** > **"Nearby devices"**, tap the relevant luminaire and select **"Unpair device"**. The luminaire will only be disconnected if you are correspondingly authorised to perform such modifications.

If you do not have the necessary authorisation, you will only be able to trigger the disconnection by removing the power supply to the luminaire. To do this, tap **"Unpair device"** followed by **"Start"**. A time bar appears. While the time bar is displayed, you must switch the luminaire off and on again within the space of one second. Confirmation of successful disconnection is displayed.

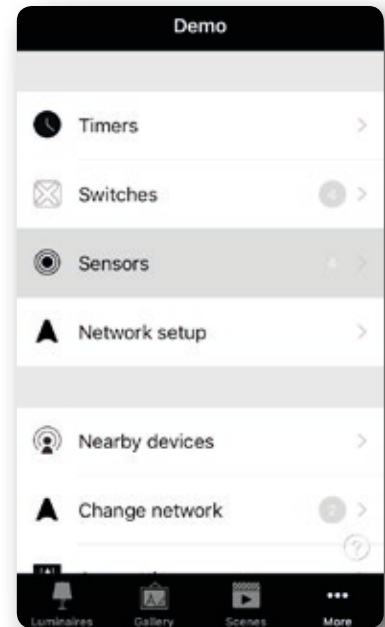
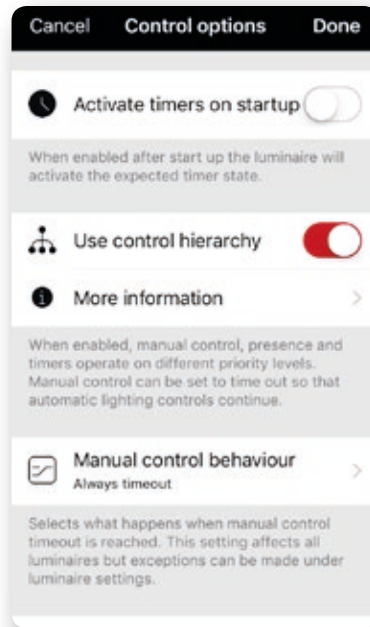
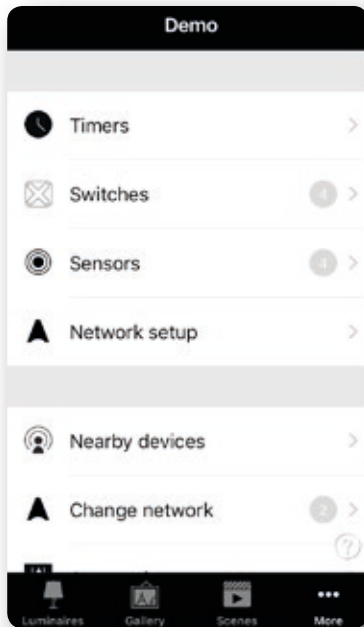


SENSOR

To use sensors without interference in a network, you must first activate "Use control hierarchy" in the control options by selecting "...More" > "Network configuration" > "Control options".

You can then configure the sensors connected to the network by selecting "More" in the menu, followed by "Sensors" in the sub-menu.

smart+free light and presence sensors can be configured to perform both functions.



PRESENCE SENSOR

The following configurations can be selected in the movement sensor menu:

Movement

- A scene is loaded if movement is detected.
Once movement is no longer detected and the follow-on time has expired, the scene fades out.

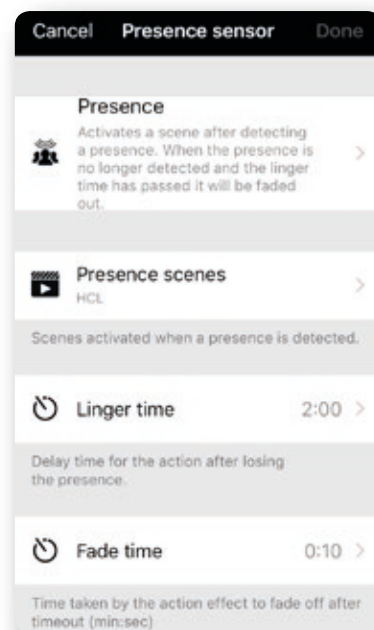
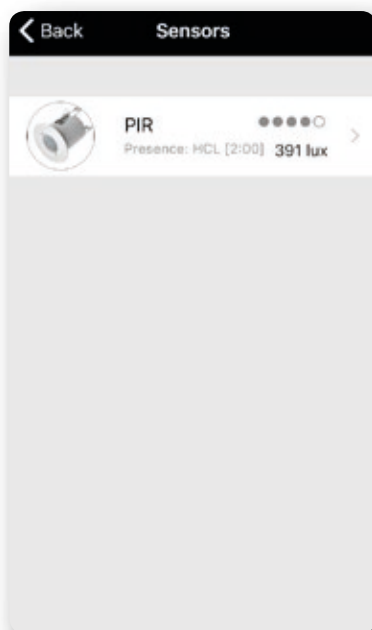
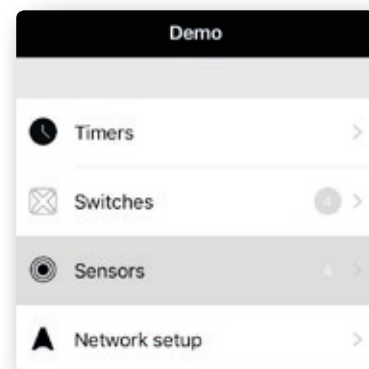
Movement / Absence

- A scene is loaded if movement is detected.
Once movement is no longer detected and the follow-on time has expired, the Absence scene fades in.

Absence

- This function cannot be directly controlled.
Users must switch the lighting on manually or using daylight controllers, etc. As soon as no further users are detected within the range and the follow-on time has expired, the scene ends automatically.

You then need to select the appropriate Presence scene and confirm with "Done".



Hold time

- Defines how long a scene remains active once movement is no longer detected.

Fade time

- Defines how long the luminaire takes to dim down.

End manual control

- If this function is active, the light is automatically switched off as soon as no further presence is detected and the follow-on time has expired, even if the light was switched on manually, which generally takes precedence.

The selection must be confirmed with "Done".

LIGHT SENSOR

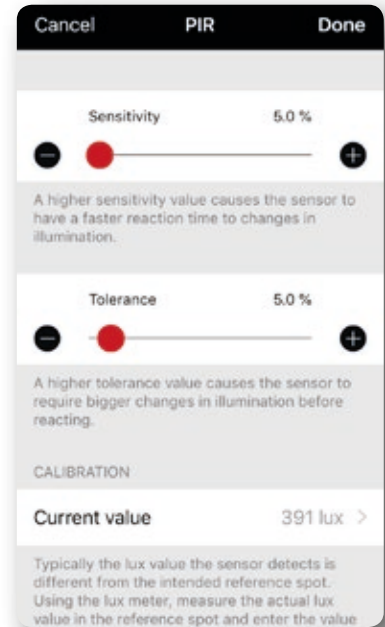
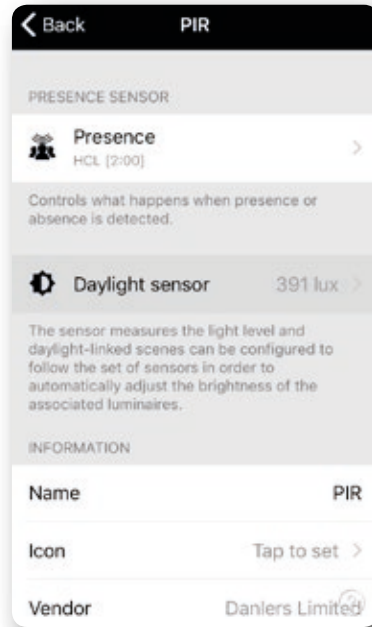
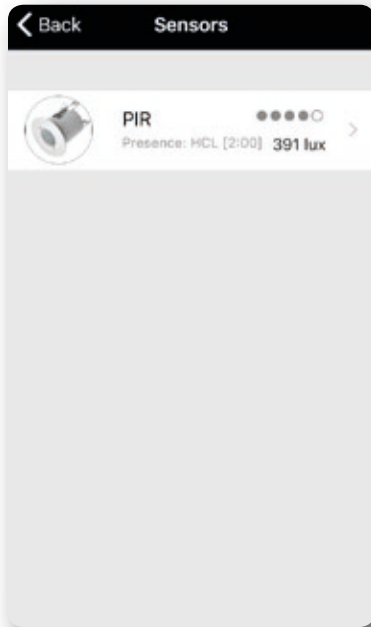
The appropriate sensor can be configured and calibrated in the Daylight sensor menu.

Sensitivity

- Higher sensitivity readings cause the sensor to respond more quickly to changes in light.

Tolerance

- The greater the tolerance, the greater must be the change in brightness measured by the sensor before it responds.



LIGHT SENSOR

The brightness sensor can be activated in any scene.

When creating or editing the scene, tap the sensor symbol.

First, you must select a mode of sensor operation. You can choose from the following options:

Basic (on/off)

- The luminaires are switched on and off on the basis of two configurable thresholds.

Open loop

- Based on sensor feedback control, the luminaires are gradually dimmed up and down to reach the required light intensity. Sensors must be influenced by luminaires.

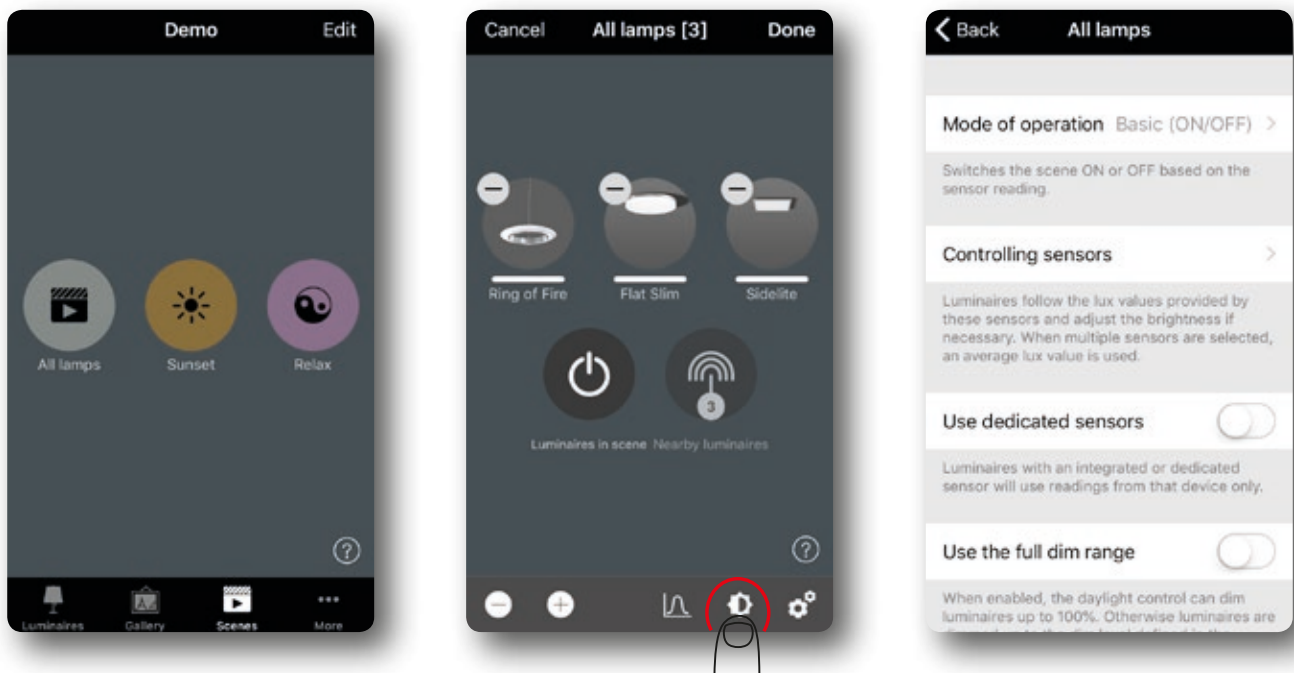
Closed loop

- Based on sensor feedback control and response graph, the luminaires are gradually dimmed down. Sensors must not be influenced by the luminaires in the network; this mode can be used in the control hierarchy.

Select the required sensor in the network under **Control sensor**.

Once you have programmed all settings, tap **“Back”**. Once you have finished setting up the scene, select **“Done”** from the navigation bar.

Important: You must activate the scene to be able to use the sensor to control brightness.



BUTTON COUPLER

To set the button's functions, select "More" - "Switches" from the menu.

A function can be stored in the "Button" field for each button input.

Control a luminaire

- Selecting this function requires selection of the luminaire you want to control in the "Luminaire" field that then appears.

Control a scene

- Selecting this function requires selection of the previously created scene in the "Scene" rider that then appears.

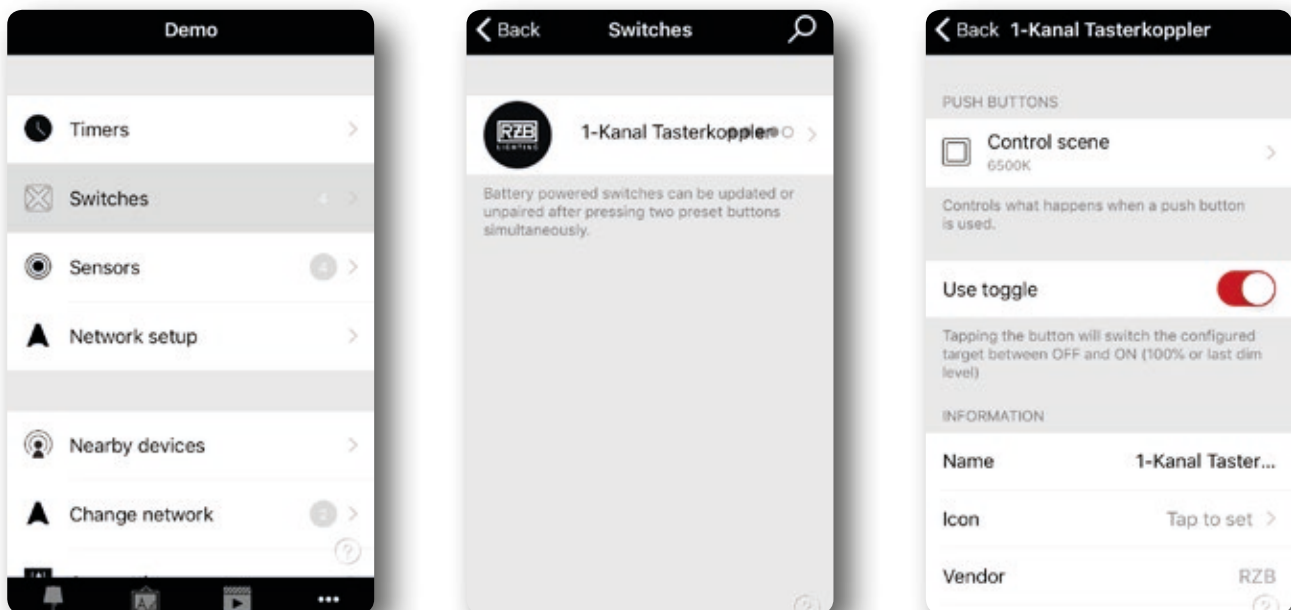
Control all luminaires

- No further steps are needed when selecting this function.

The key functions:

A function can be stored in the "Button" field for each button input.

Important: When you have finished, tap the "Done" rider to save your selection!

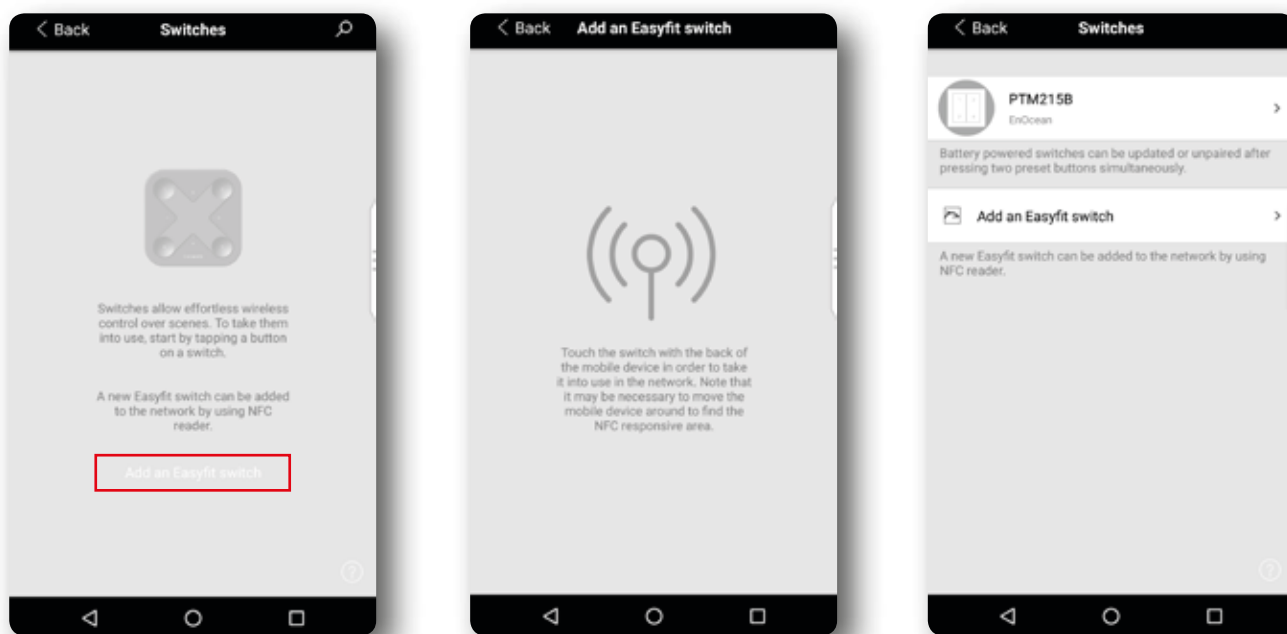


ENOCEAN PUSH BUTTON

Push buttons using the EnOcean technology can only be integrated into **smart+free** network, if they support the Bluetooth® Standard. You can find the fitting push button in our portfolio with the order number 982619.002.

For the integration of the push button in a **smart+free** network an Android device with NFC is necessary. After adding the switch to your network it can be configured by any device running the Casambi app.

To pair an EcOcean push button to your network, open the switch menu on your android device under “More” -> “Switches” and tap on “Add an Easyfit switch”. Then you have to tap the switch with your device in order to pair it to your network. After the push button was added successfully the screen will turn back to the switch menu.



When the push button appears in the switch menu every device with the Casambi app is able to configure it by tapping on the symbol.

By tapping on the image or by selecting the “faceplate” the layout of the push button can be changed.

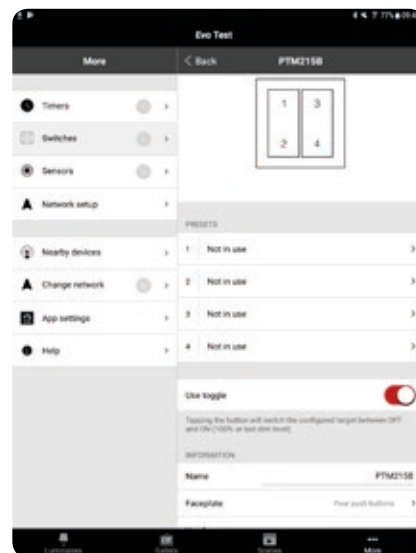
After selecting the correct layout you are able to configure every button or rocker according to your use case.

You can control a single luminaire, a group, a scene or all luminaires in the network.

EnOcean push buttons can be used in multiple networks simultaneously. Please note that it is necessary to use the same frequency spectrum and radio setting “balanced” in all networks.

You can replace the frame and faceplate of the switch by the following design lines:

BERKER	S.1, B.1, B.3, B.7 Glas
GIRA	Standard 55, E2, E3, Event, Esprit, ClassiX
Jäger Direkt	Opus 55 Inform, Opus 55 Kubus, Opus 55 Fusion
JUNG	AS 500, A 500, A plus, A creation, A creation Glas
MERTEN	1-M, M-Smart, M-Arc, M-Plan, M-Creativ, M-Pure





SWITCH

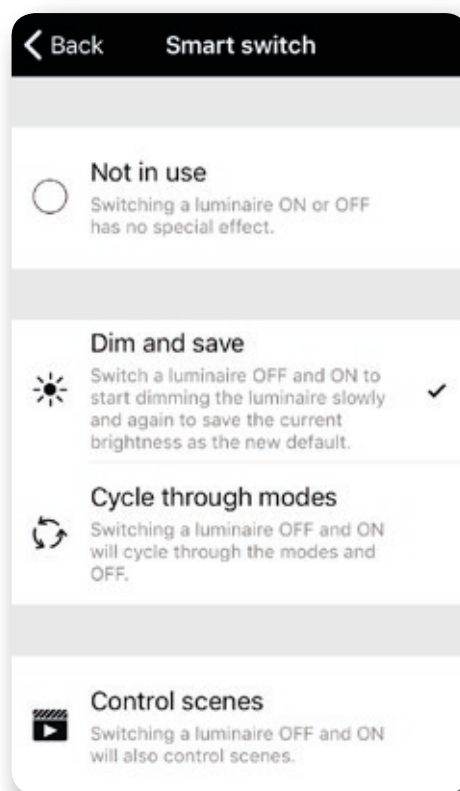
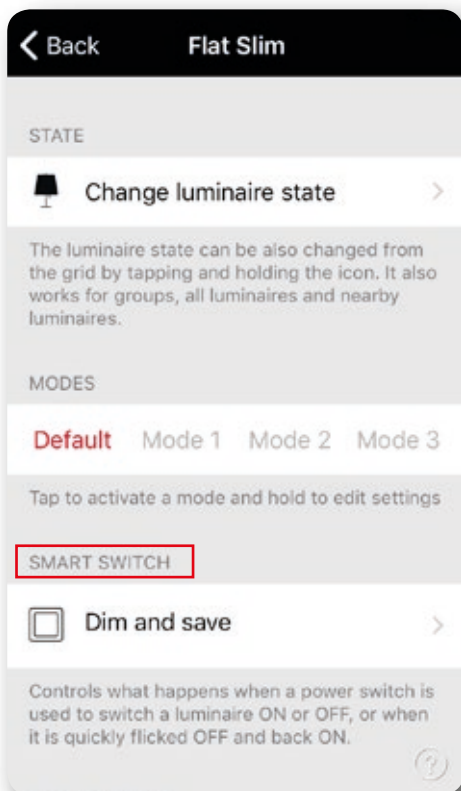
Using smart+free modules with a switch

All smart+free-modules can be used together with conventional wall switches. When doing so, however, remember that the modules can only be operated when the app is switched on.

The response when activating the wall switch can be programmed for each installed module in the Casambi app.

To assign a function to the module in a luminaire, open the module's Settings window and select "Smart switch".

You can assign various functions to the "Smart switch":



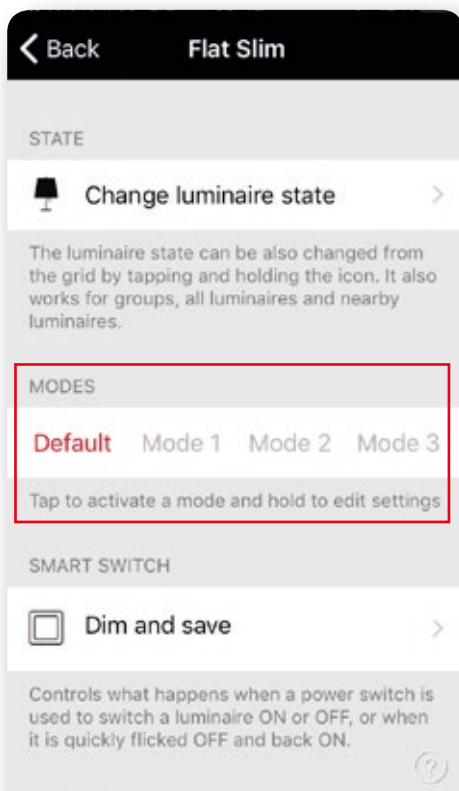
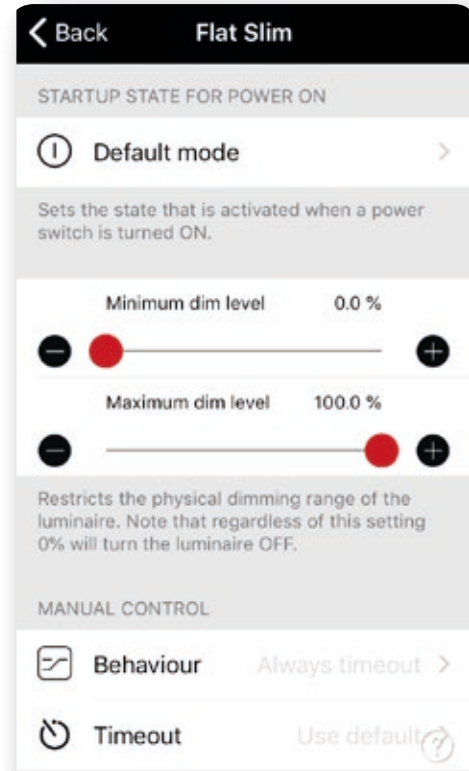
SWITCH

Dim and store

This is the standard setting for all smart+free-modules. When switched on, the luminaire is dimmed to the level set in the app. The dimming level can also be set using the switch, without a smartphone.

To set the dimming level, switch the luminaire ON and then OFF and ON again, without interruption. The luminaire should then automatically start the dimming process. To set the required dimming level as the new standard, switch the luminaire OFF and straight back ON again at the required luminous flux.

You can repeat this procedure as often as you want. If you wish to reinstate maximum brightness when you switch the luminaire on, let the luminaire dim to maximum luminous flux when you first switch it on. This level is then automatically set as the standard when switching the light on.



Change mode

Use this setting to toggle between as many as 4 pre-programmed luminaire configurations.

Once colour temperature and dimming level are set to the required level, press the required mode for a long time before selecting "Save". Alternatively, you can select the required mode first, and then configure it.

To toggle between modes, turn the switch off and straight back on again. The luminaire with the module will then toggle in defined order between the 4 modes and OFF.

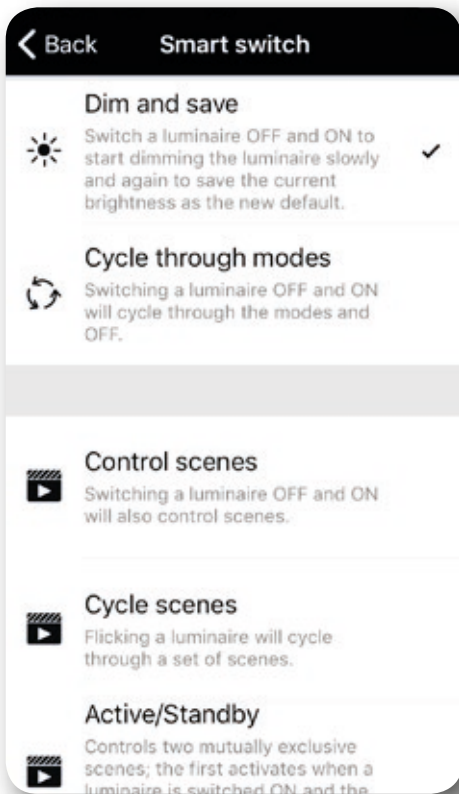
SWITCH

Control a scene

Use this setting to start a scene when the switch is pressed. All luminaires belonging to the relevant scene are switched on as well.

Change scene

You can toggle between different scenes, just like the dimming levels in "Change mode". The setup procedure and toggle functions are the same.



Active/Standby

Use this setting to assign a scene to each switch position. When you switch off, not all the luminaires in the scene are turned off. Instead, they switch to the configuration of the Standby scene you have selected. This function can be used for staircases, for example.

Deactivated

You must select this option if you do not want to use any of the pre-programmed settings.

REFERENCES

„Casambi Daylight Control- Konfiguration einer Daylight control im Basis Mode (ON/OFF)“

„Casambi Units und Bewegungssensoren - Beispiele wie Sie die CBU-ASD und CBU-TED mit Bewegungsmeldern nutzen können“ Version 1.1

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