Helvar

freedom in lighting

freeDim App Configuration Guide

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freedom in lighting

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Overview

Welcome to the freeDim app – our app designed to work with Helvar's freeDim system to give you personalised light and provide you with the optimal lighting conditions for an efficient working day.

The freeDim app is available for both iOS and Android devices. You can download it from App Store and Google Play.

This guide describes how to use the app to set up and configure a freeDim system.

Requirements

To configure your freeDim systems with the freeDim app, you need a Bluetooth®-enabled device, such as a smartphone or a tablet, running one of the following operating systems:

- Android 4.3 or later
- iOS 7 or later

System architecture

A freeDim system comprises of one master luminaire and, optionally, up to 10 follower luminaires.

All the master luminaires have two sensors: a PIR presence detector and a light sensor. The PIR presence detector helps to minimise energy consumption in unoccupied areas. The light sensor is used for daylight harvesting when the **Adapt** scene is selected.

Helvar's freeDim app communicates with the system's master luminaire using Bluetooth® wireless connectivity. The master controls the followers using an auxiliary IEEE 802.15.4 wireless connection.

This arrangement allows you to easily configure and control the entire system from a single Bluetooth®-enabled device. You can adjust and personalise both the light intensity and the colour temperature of individual luminaires.

The following diagram shows a typical freeDim system. The dashed lines represent wireless interfaces.

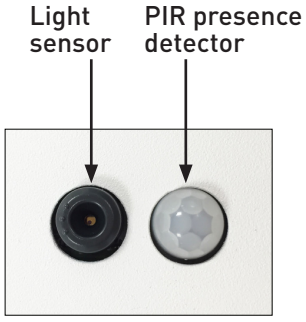

Figure 1. Sensors in the master luminaire

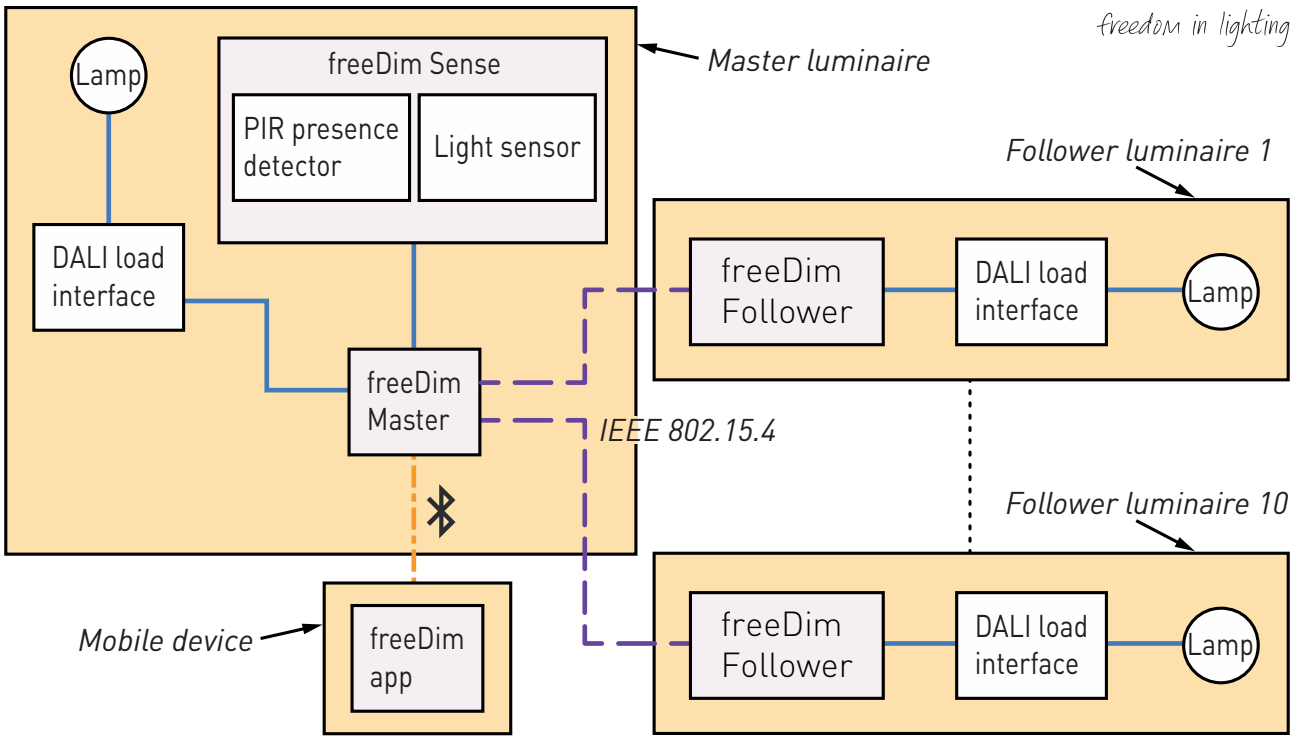

Figure 2. freeDim system architecture

Enabling configuration

Start by launching the freeDim app on your device. Then do one of the following to display the main menu (Figure 3):

- Tap the three-lined button in the upper-left corner.
- Swipe the screen from the left-hand edge.

  Next tap **Settings** to display the **Settings** menu (Figure 4).

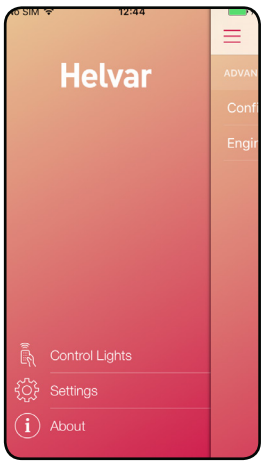

Figure 3. Main menu (without Configuration option)

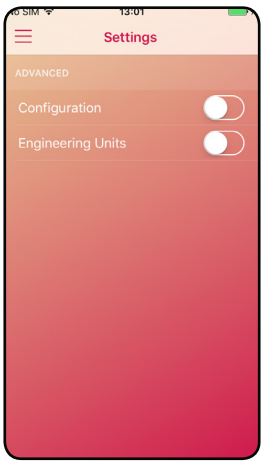

Figure 4. Settings menu

Turn on **Configuration** with the slide switch, and the **Configuration Mode** dialog box will appear (Figure 5).

Tap **OK** to confirm your selection, and the **Configuration** function will become available in the main menu (Figure 6).

*Note: The **Configuration** mode disables the automatic connection.*

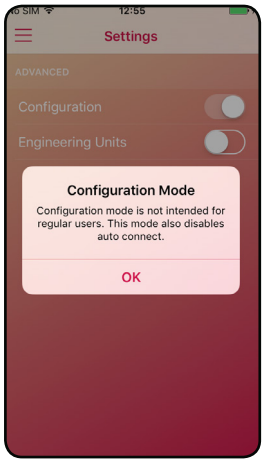

Figure 5. Configuration mode confirmation

Setting up the system

To configure a freeDim system you need to perform the following tasks in the order listed:

- Identify the master luminaire
- Set up the master luminaire
- Connect the follower luminaires
- Set up the follower luminaires
- Adjust the default settings

Identifying the master luminaire

To establish Bluetooth® communication between your device and the freeDim system, first walk into the area covered by the master luminaire's PIR detector.

If Bluetooth® is not enabled on your device, the freeDim app will automatically prompt you to turn it on.

If you're not within Bluetooth® range, or if no movement is detected, a screen will indicate that no lights have been found.

To search for a freeDim system, go to the main menu (Figure 6) and tap **Configuration**.

The names of the available master luminaires will appear (Figure 7). Initially, these will be the factory IDs of the detected master luminaires, but they can be replaced later with names of your choice (see next section).

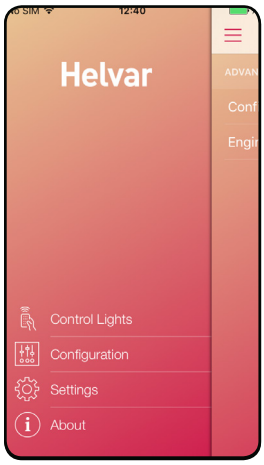

Figure 6. Main menu with Configuration option

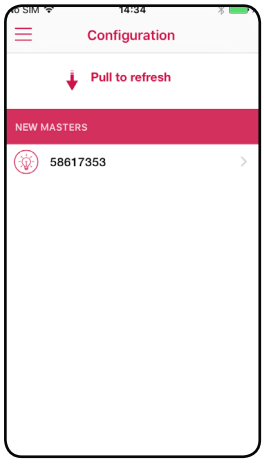

Figure 7. New Masters

Setting up the master luminaire

From the **New Masters** screen (Figure 7), tap the factory ID of the master luminaire that you want to set up, and the **Configuration** menu will appear (Figure 8).

Tap **Master** to display its screen (Figure 9), and then enter the project name that you want to use for the configuration. This name will be included in any reports that you generate (see Generating reports on page 8). You may want to use the name of the facility, company, installation, etc. Only letters and numbers are allowed.

Next, name the master luminaire. The text you type will replace the factory ID.

Now type the master luminaire's maximum power consumption.

Then choose a four-digit security PIN. The PIN protects the freeDim system's configuration from unauthorised changes. It is stored in the master luminaire, is unique to it and will be required each time you enter the **Configuration** mode for that freeDim system.

Retype your PIN in order to confirm it.

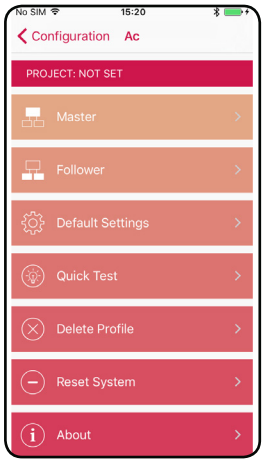

Figure 8. Configuration menu

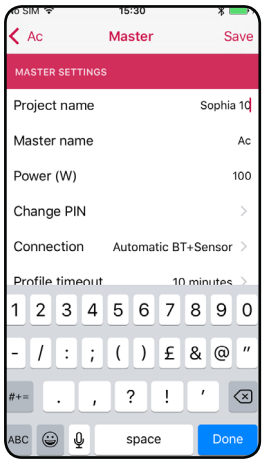

Figure 9. Master

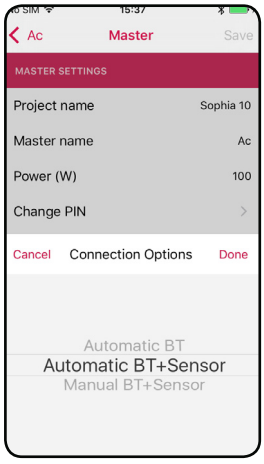

Figure 10. Connection Options

Selecting the connection method

The **Connection** option in Figure 9 allows you to select how users will connect to the current freeDim system. There are three ways to connect:

- **Automatic BT**: The system connects and switches on the lights as soon as a Bluetooth® communication is established between a user's device and the system. The system does not need to detect any presence. The user must have a profile stored in the current master luminaire. Otherwise, no automatic connection will be established.
- **Automatic BT + Sensor**: The system only switches on the lights if Bluetooth® communication is established *and* the PIR presence sensor detects movement.
- **Manual BT + Sensor**: Users must manually connect to the system using the freeDim app. This setting is appropriate, for example, for conference and meeting rooms where several participants are present, each with a stored profile. If the system automatically connected to the device of the first participant to arrive, the leader of the meeting would have no possibility to control the lighting.

Setting the profile time-out

The **Profile timeout** option in Figure 9 determines how long a freeDim system must maintain a user profile after the Bluetooth® connection is lost.

During this time, the system won't automatically connect to any other user's devices. However, other users will be able to connect manually as long as the previous user remains out of the Bluetooth® range. If no manual connection is established, the system will retain the previous device settings until the time-out has expired.

When you're finished with the master configuration settings, tap **Save** in the upper-right corner of Figure 9.

Now the master luminaire is ready to make connections to the follower luminaires.

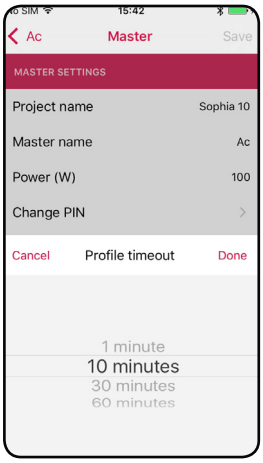

Figure 11. Profile time-out

Connecting the follower luminaires

Once you've configured the master luminaire, you can add follower luminaires to the freeDim system.

To do this, tap the **Follower** option in the **Configuration** menu (Figure 8). The **Configure followers** menu will display all the available follower luminaires within communication range of the master luminaire. The follower luminaires are identified by their factory IDs. This list of follower luminaires is sorted so that the follower luminaire with the best connection to the master appears at the top.

Since a freeDim system can have several follower luminaires, it may be important to identify them individually. To do this, tap the lamp icon located to the left of the follower luminaire's factory ID (Figure 12). The luminaire will flash twice.

To select the luminaires that you want to add to the current freeDim system, check the circles to the right of their factory IDs.

If you want to rename a follower luminaire, select it, tap its serial number, and then type the new name. Descriptive names will allow users to easily identify each follower luminaire.

When you're finished, tap **Save** (at the upper right corner) to apply your settings.

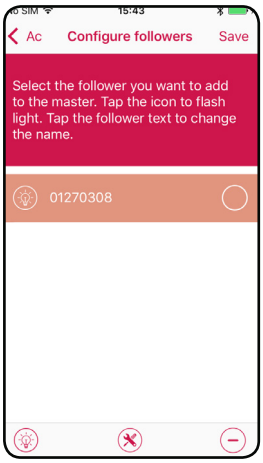

Figure 12. Configure followers (factory ID)

The list may contain a number of follower luminaires that you don't want to add to the current freeDim system. For example, those located in a different room but still within communication range of the master luminaire. To avoid any confusion during configuration, you can temporarily hide any follower luminaires in the list by selecting them and then tapping the minus sign at the lower-right corner of the screen. The selected follower luminaires will then remain hidden for two minutes. During this time, they can't be added to the current system.

Follower luminaires that are already connected to a master luminaire won't appear in the list.

Setting up the follower luminaires

Select the follower luminaire that you want to set up. Then tap the icon with the wrench and the screwdriver at the bottom of Figure 13 to display its settings (Figure 14).

Next type the maximum power consumption of the luminaire.

Then type the offset of the luminaire. This is the intensity level offset used in the **Adapt** scene. If you set the **Adapt follower offset** to 0 %, the follower luminaire will use the same dimming levels as the master luminaire. If you set it to ±15 %, the follower luminaire will have a dim level 15 % higher or 15 % lower than the master luminaire.

This feature is intended for when follower luminaires are placed at different distances from incidental daylight. For example, follower luminaires close to a window could be set at –15 %, and those farther away from the window at +15 %. For information on the **Adapt** scene, refer to the *User Guide*.

When you're finished with the settings of the follower luminaires, tap **Save**.

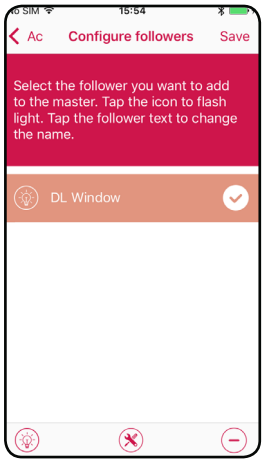

Figure 13. Configure followers (descriptive name)

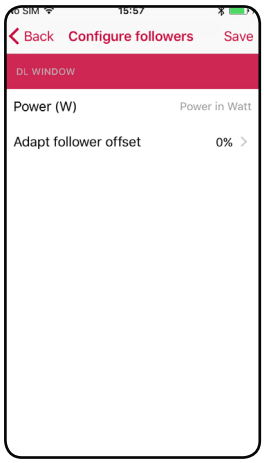

Figure 14. Follower luminaire's settings

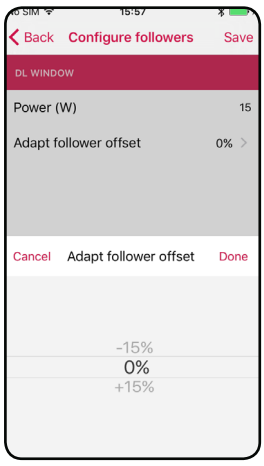

Figure 15. Adapt follower offset

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Adjusting the default settings

Users without a Bluetooth®-enabled device, or without the freeDim app installed on their devices, can still get lighting based on the system's default settings. The system will switch on the lights when presence is detected, and then switch them off again after a set time.

To access the **Default Settings** screen (Figure 16), tap **Default Settings** from the **Configuration** menu (Figure 8).

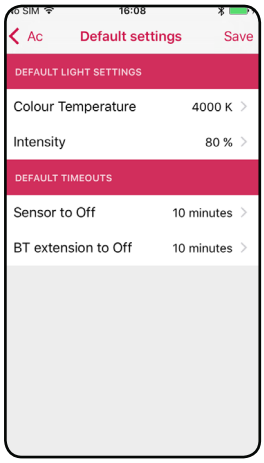


Figure 16. *Default settings*

Setting the default light

Under **Default Light Settings** (Figure 16), you can set the default colour temperature and intensity. The same intensity and colour temperature will be used for the master and follower luminaires.

Setting delay times to OFF

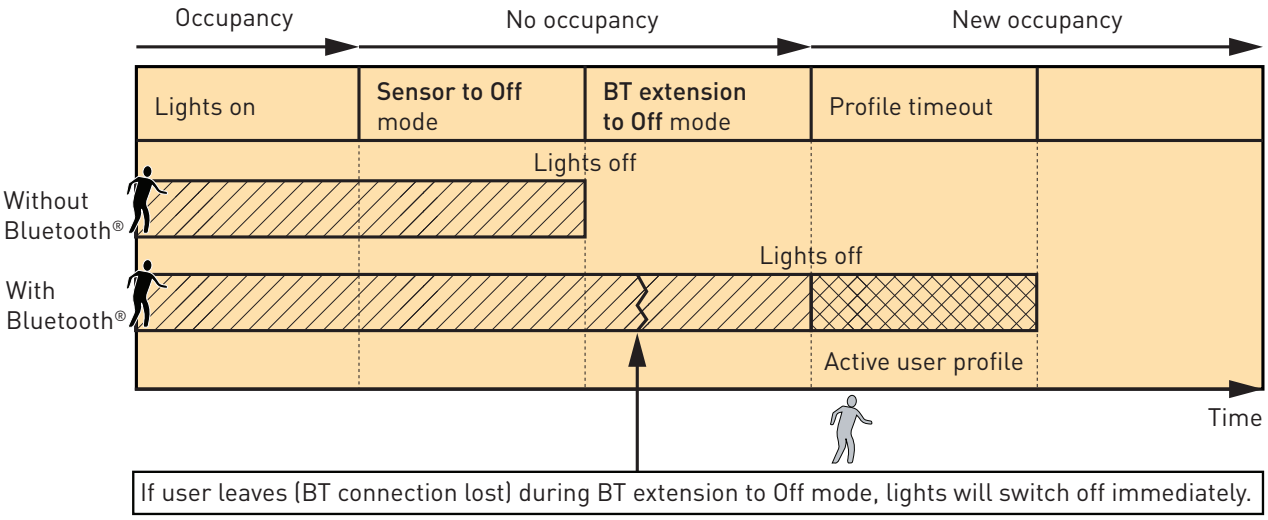
The **Sensor to Off** option allows you to set how long the freeDim system must remain on after the last presence detection. The system resets this time-out period each time presence is detected.

BT extension to Off extends the time that the light will remain on after the last detection, provided that there is a Bluetooth®-enabled device connected and in range.

Normally, it's best to set a long **BT extension to Off** time and a short **Sensor to Off** time. So if the room isn't lit and someone comes in briefly, the luminaires will switch on and then switch off soon after that person has left the room. If a connected Bluetooth®-enabled device is active in the room, the system will remain on much longer after the last presence detection.

When you're finished with the settings, tap **Save**.

Figure 17. *Delay times*



Performing a quick test

By tapping **Quick Test** from the **Configuration** menu (Figure 8), the master luminaire and all the connected follower luminaires flash. This test is useful to check that you've included all the required luminaires in the current freeDim system.

Deleting profiles

You can delete specific profiles or all the profiles stored in a freeDim system's master luminaire.

From the **Configuration** menu (Figure 8), tap **Delete Profile** to display the **Delete Profiles** screen (Figure 18).

To delete a specific profile, tap the symbol next to its name. If you want to delete all the profiles stored in the master luminaire, tap **Delete all profiles**.

In the confirmation dialog box, tap **OK** to confirm your selection.

Once deleted, a profile can't be restored.

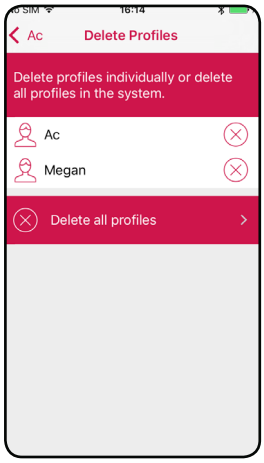


Figure 18. Delete Profiles

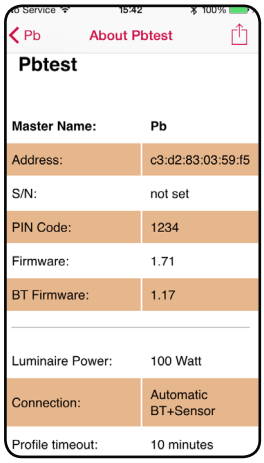


Figure 19. Report

Generating reports

The freeDim app can generate a report for the currently connected freeDim system. This report contains the system's details, such as the software versions, the configuration settings and the PIN required to enter **Configuration** mode. You can export the report into an email and send it to a facility owner, department manager, etc.

From the **Configuration** menu (Figure 8), tap **About** to display the report (Figure 19).

Scrolling down the screen will reveal further data.

If you want to send the report as an email attachment, tap the **Share** button in the upper-right corner. This will open your device's email application with the report's text inserted in an email ready to be sent.

Resetting the system to factory settings

From the **Configuration** menu (Figure 8), tap **Reset System** to display all the luminaires in the current freeDim system (Figure 20).

To reset an individual luminaire, tap the symbol next to its name.

To reset the entire system to factory settings, tap **Reset Master and System**. Then confirm your selection by tapping **OK** in the **Factory Reset** dialog box (Figure 21).

Resetting the system to factory settings permanently deletes all the profiles and configuration – these can't be restored.

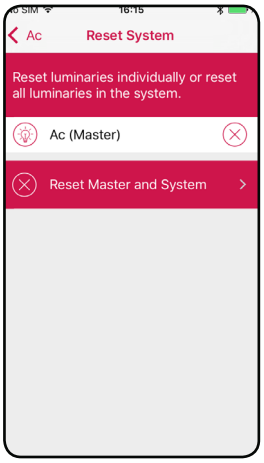


Figure 20. *Reset system*

Resetting the system without a device

If a freeDim system becomes unresponsive, you can reboot it by briefly pressing the small ring around the master luminaire's light sensor.

You can also perform a factory reset by pressing and holding the ring for at least 10 seconds. This may be useful, for example, if you have forgotten the system's PIN.

Resetting the system to factory settings permanently deletes all the profiles and configuration – these can't be restored; you'll need to configure the system from scratch.

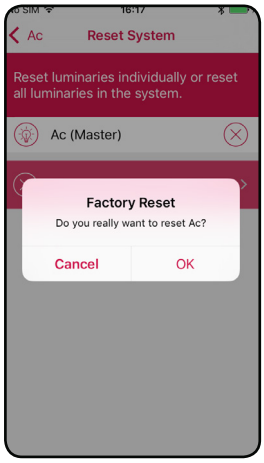


Figure 21. *Factory Reset*