

## **Connect Mesh Remote Control Version 2.0**



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### 1. Change History

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1.0 06/2020 Initial Documentation2.0 05/2021 Added new functions

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### HAFELE

#### **Table of contents**

. Change History			
2. Connect Mesh Remote Control (Mesh Mode)	4		
2.1. What is the Connect Mesh Remote Control?			
2.2. What is the Mesh Mode?			
2.3. Functions Overview			
2.4. Setup	5		
2.5. Changing the Channels	6		
2.6. Switching a Group On/Off	6		
2.7. Changing Brightness / Saturation	6		
2.8. Changing Temperature / Hue (Color)	6		
2.9. Scenes	6		
2.10. Update Mode	7		
2.11. Reset	7		
2.12. Status LED	7		
3. Connect Mesh Remote Control (Standalone Mode)	8		
3.1. What is the Standalone Mode?	8		
3.2. Creating a new Mesh Network	8		
3.3. Provisioning and Configuration of a Connect Mesh 6 way distributor	6		
3.4. Controlling Lights in Standalone Mode	6		
3.5. Standalone Mode Channel 7	_10		
3.6. Remote Control Standalone Mode adding Wall Switch	10		

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#### 2. Connect Mesh Remote Control (Mesh Mode)

#### 2.1. What is the Connect Mesh Remote Control?

The Connect Mesh Remote Control is a smart wireless multi-purpose controller for BLE Mesh devices such as:

- lights (Monochrome, Multi-White/ Tunable-White, RGB)
- motors (eDrives, Lifts, Furniture-Locks)

The Remote Control offers direct control of the most important lighting settings (brightness, color temperature, color and saturation) for 6 individual groups and allows to store and activate three individual scenes (buttons A,B and C)

#### 2.2. What is the Mesh Mode?

The standard mode of the Connect Mesh Remote Control is Mesh mode. In this mode, the Remote Control device can be added to a new BLE Mesh network like any other BLE Mesh device using the smartphone App.

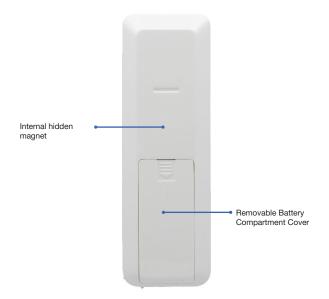
With Bluetooth® Mesh, several Bluetooth® devices are combined to a meshed network. This means that each device (node) in the network is connected to one or more devices and can communicate. Devices that belong to a network work even if they are not in direct range of one another. It just has to be ensured that a member of the network is within range to forward the data packages.

#### 2.3. Functions Overview

Please find a quick overview of the Connect Mesh Remote Control functions in the following images 1-3:



[Image 1]



#### [Image 2]

#### 2.4. Setup



#### [Image 3]

Open the battery compartment on the backside and insert two button cell batteries (CR2032). The LED of the first channel flashes regularly. Open the Connect Mesh app and tap on "Add devices". The remote control will be displayed in the list of devices found. Tap the remote control to start the provisioning mode. Follow the instructions in the app.

After provisioning, you can assign the individual functions of the remote control in the App. For further details, please refer to the Häfele Connect Mesh App Operation Manual.



#### 2.5. Changing the Channels

Every Connect Mesh Remote Control has 6 channels symbolized by the 6 numbers on top. Each channel can be individually assigned to a group in the Häfele Connect Mesh App and allows to control all devices in the group afterwards.

Use the buttons on top to change the active channel of your Connect Mesh Remote Control. Press on the "<" button to switch to the previous channel. Use the ">" button to switch to the next channel. The LED always shows the currently selected channel.



#### **EXAMPLES**

#### A typical use case could be for example:

- Group with all lights assigned to channel 1
- Group with all ceiling light assigned to channel 2
- Group with all furniture lights assigned to channel 3
- Group with all footer lights assigned to channel 4
- Group with all multi-white (tunable white) lights assigned to channel 5
- Group with all RGB lights assigned to channel 6

#### 2.6. Switching a Group On/Off

You can toggle the active channel/group by pressing the ON/OFF power button.

#### 2.7. Changing Brightness / Saturation

You can control the brightness of devices in the same group by keeping "up" and "down" button pressed. "Up" increases the brightness, while "down" reduces the brightness until the lights turns off completely.

To control the saturation of RGB lights, you can double press and hold "up" to increase the saturation and double press and hold "down" to reduce it.

#### 2.8. Changing Temperature / Hue (Color)

You can control the temperature of devices in the same group by keeping "left" and "right" button pressed. "Right" makes the light temperature colder, while "left" makes the temperature warmer. Releasing the press will set and lock the current state of the lights.

To control the hue (color) of RGB lights, you can double press and hold "right" to increase the hue and double press and hold "left" to reduce it.

#### 2.9. Scenes

The scene buttons A, B and C allow to save and restore three individual scenes. By default, the scenes triggered by "A", "B" and "C" are the same scenes as available as the first three scenes of the selected group that you defined in the App.

#### **Activating Stored Scenes**

Press A/B/C to activate a scene that was previously saved on this scene-button. Please note, that the scene is applied only to the devices that are in the currently selected group (channel 1 to 6).

#### **Saving New Scenes**

Press a scene button longer than 2 seconds to store the current lighting-settings on this button.



#### 2.10. Update Mode

In case the firmware is outdated, the user will be notified in the Connect Mesh App. Then the user can start and perform the firmware update of the mesh device. More information in the specific *Häfele Connect Mesh App*.

#### Option 1: Update via App

If the Mesh device is provisioned, the update can be done by:

- 1. Click on Mesh device and click on edit icon and scroll down to the bottom of the page. You can find the "Update Device icon".
- 2. Click on this icon to update the Firmware.

#### Option 2: Manual Update via Reset Button

- 1. Press and hold the Reset Button on the Mesh device and at the same time, connect the Mesh Device into Power supply. This will bring the Mesh device in OTA- Update mode.
- 2. Press "Menu" icon, click on "Settings" and click on "Extended Settings" and then click on "Search device in Update Modus".
- 3. The Mesh device will be displayed. Select Mesh device to start the Firmware Update.

#### 2.11. Reset

#### Option 1: Reset via App

If the Mesh device is provisioned the reset can be done by:

- 1. Click on Mesh device and click on edit icon and scroll down to the bottom of the page.
- 2. You can find the "Delete Device" icon.
- 3. Click on this icon and select "Reset" option to reset the mesh device.

#### Option 2: Manual Reset by Reset Button

- 1. Press the Reset button for at least 8 seconds and release it.
- 2. The Mesh device will be reset and ready for Provisioning again in the Häfele Connect Mesh App.

#### 2.12. Status LED



#### [Image 4]

The **LED of channel 1** is used as status LED when the device is not in normal operations mode.

Status LED 1 Behaviour	Meaning
Off	The Connect Mesh Remote Control is either in built-in energy save mode or its battery is empty.
Blinking	The Connect Mesh Remote Control is in provisioning mode and is ready to be added to an existing Bluetooth® Mesh network.
Fast Blinking	The Connect Mesh Remote Control is in OTA update mode. If it is OTA update mode, it will remain in OTA update mode for 60 seconds or until the power is uninterrupted.
On	Signifies the channel number you are currently using.

# 732.28.426

#### 3. Connect Mesh Remote Control (Standalone Mode)

#### 3.1. What is the Standalone Mode?

The Standalone-Mode of the Connect Mesh Remote Control is its optional mode of operation. In this mode the Remote Control device can be added to a new BLE Mesh network by self provisioning without the Connect Mesh App. Once the user created a new BLE Mesh network using the Connect Mesh Remote Control, it can further be used to provision and configure Connect Mesh 6 way distributors in provisioning mode.

#### 3.2. Creating a new Mesh Network

To create a Mesh Network in Standalone mode, all the devices which should be in unprovisioned State (Status LED should be blinking). If the LED is not blinking, reset the device.



#### [Image 5]

To start the *Provisioner-Mode* of the Connect Mesh Remote Control, press and hold the two channel buttons for 4 seconds. All channel LEDs will be turned on, if the Remote Control is in Provisioner Mode. The Remote Control is now waiting for further user input.



#### **IMPORTANT**

Hold the Remote Control in your hand and do not place it on a solid surface, otherwise the unit will go into power save mode!



#### 3.3. Provisioning and Configuration of a Connect Mesh 6 way distributor



#### [Image 6]

As soon as the Connect Mesh Remote Control is in Provisioner Mode, you can select one of the following buttons to provision and configure BLE Connect Mesh 6 way distributors within reach. The Connect Mesh 6 way distributor you would like to add to your network has to be in Provisioning Mode.

A Configuration: Monochrome
The Connect Mesh 6 way distributor will be configured with 6 single channels.

B Configuration: Multi White The Connect Mesh 6 way distributor will be configured with 3 multi white channels.

C Configuration: RGB
 The Connect Mesh 6 way distributor will be configured with 2 RGB channels.

After a configuration has been selected, the remote control starts provisioning the first Connect Mesh 6 way distributor within range. The status LEDs indicate provisioning with a running light. After the first Connect Mesh 6 way distributor has been successfully provisioned, the remote control searches for the next Connect Mesh 6 way distributor. This process must be cancelled manually when all desired Connect Mesh 6 way distributors have been configured.

To leave the provisioning mode, please press any button. This will immediately stop the search for further mesh devices.

#### 3.4. Controlling Lights in Standalone Mode

Depending on how the Connect Mesh 6 way distributors were configured, lights are controlled differently with the remote. Refer to the table below to see what the control looks like for your configuration.

Monochrome	Channel 1-6 mirror the Channels in the same order.
Multi White	Channel 1: Multi White Light attached to channel 1 and 2. Channel 2: Multi White Light attached to channel 3 and 4. Channel 3: Multi White Light attached to channel 5 and 6.
RGB	Channel 1: RGB Light attached to channel 1, 2 and 3. Channel 2: RGB Light attached to channel 4, 5 and 6.

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#### 3.5. Standalone Mode Channel 7

The remote control has been added an additional 7th channel (in Standalone Mode only!). To reach the 7th channel, you can click next to the 6th channel or left before the 1st channel.



[Image 7]

All LEDs will be ON and identify the 7th channel.

The 7th channel is controlling all groups at the same time. This means by turning the 7th channel on and off, all connected lights will turn on and off.

#### 3.6. Remote Control Standalone Mode adding Wall Switch

The Wall Switch will be added when the Remote Control is searching for new devices in the Standalone Mode. This happens when the Remote Control is searching for Mesh Boxes to be provisioned (with Monochrome-, Multi-White-or RGB-Lights), as described in section 3.2 of this technical documentation.

Provisioning the Wall Switch using the Standalone Mode of the Remote Control will provision the Wall Switch with the following described functions:



[image 8]

The Wall Switch behaves as group 7 on the Remote Control

Button	Group or Scene	Action
Upper Left	Group 7 (All Lights) On/Off	Toggle On/Off (click) Dimm (long press)
Upper Right	Scene A (of all lights)	Trigger Scene (click) Dimm Group (long press)
Lower Left	Scene B (of all lights)	Trigger Scene (click) Dimm Group (long press)
Lower Right	Scene C (of all lights)	Trigger Scene (click) Dimm Group (long press)