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Product Manual

ABB-free@home™

LS-1.1 Light Switch

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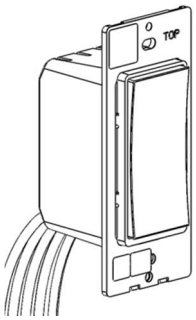
1 The Device

The Light Switch is used to switch electrical loads ON and OFF. It can be integrated to the ABB-free@home™ Smart Home system allowing remote operation, i.e. by mobile devices (free@home System Access Point required).

A binary input allows the connection of a mechanical switch in order to create a 3-way installation.

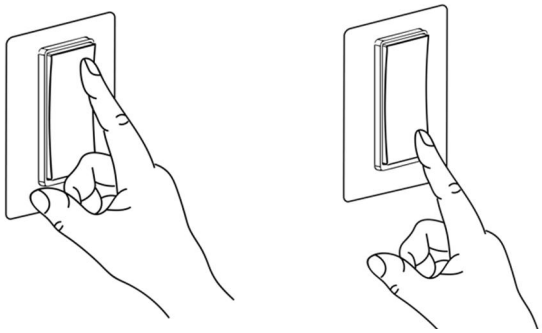
Note: A neutral wire is required.



1.1 Basic Operation

To turn ON: Press the top of the rocker switch.

To turn OFF: Press the bottom of the rocker switch.



LED Indicator: The LED is lit when the connected lighting is ON.

1.2 Advanced Operation

The Light Switch can be configured to perform many convenient features for the user.

See Configuring the Light Switch for instructions on the features listed below:

- **Lamp Settings**
- **Rocker Settings**
- **Motion Detection**
- **LED Switch-ON Brightness Night**
- **LED Switch-ON Brightness Day**
- **LED Orientation Light**
- **LED Status Indication**

2 Adding the Light Switch

This section describes how to add the Light Switch to the system.

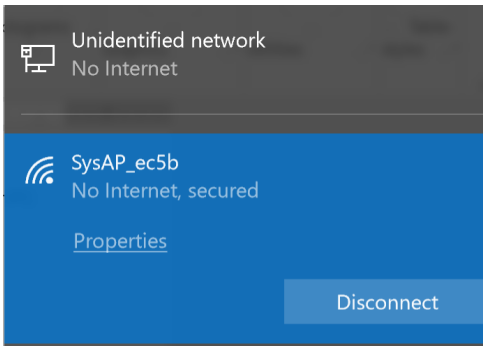
STEP 1: Install the Light Switch

Install the device by following the Operating Instructions included in the original packaging.

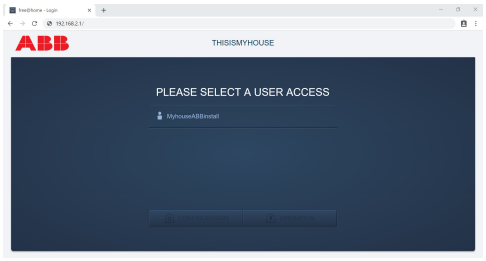
Note: After installation, the Light Switch will immediately allow the lamp to function. To control the switch wirelessly, it will need to be added to the free@home network. If the Light Switch has been assigned to a different SysAP, it will need to be reset. Please see here for instructions.

STEP 2: Open configuration and search for the Light Switch

Ensure that the SysAP is in Access Point mode by pressing the button on the SysAP. The indicator light will turn solid blue. Connect to the SysAP by selecting it from the list in your wireless network.



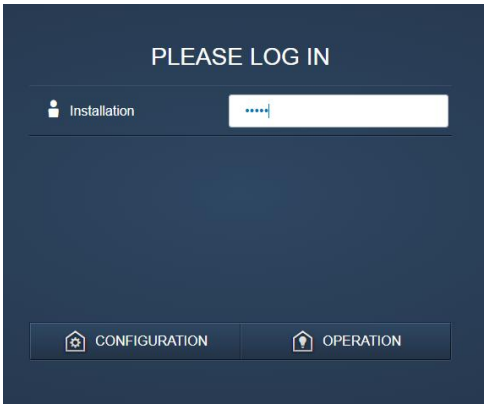
Once connected, open a browser and enter 192.168.2.1 in the address line.



If you have a tablet, use the free@home App.

Note: It is not possible to set up the Light Switch by using a smartphone.

Log in as a user that has configuration rights.



Start Go to Settings > free@home radio > Search for wireless devices

The SysAP will now search for the Light Switch.

Note: The Light Switch can only be found if the search starts within 30 minutes after the Light Switch was connected to power. If 30 minutes has elapsed, the user must turn the power OFF and back ON again to restart the 30 minutes.

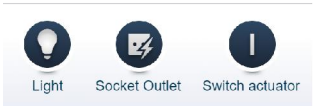
The Light Switch will be found automatically and will be inserted into the configuration software.

Please wait until the Light Switch configuration is read. This may take up to 10 minutes.

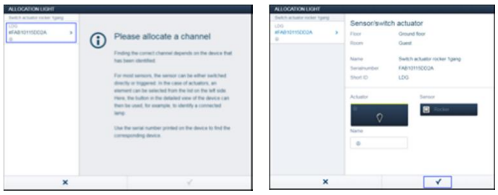
STEP 3: Add the Light to the floor plan

A. Go To “Devices”.

B. Click on “Light” (or whatever new element was wired to the Light Switch).



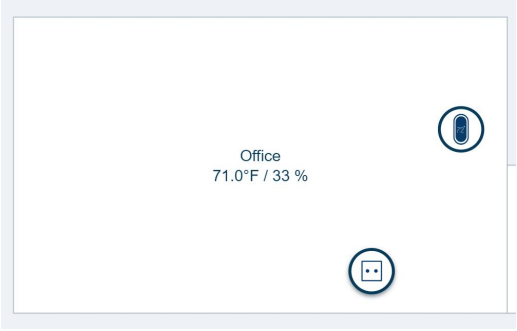
C. Drag the light bulb symbol (or other element) into the floor plan.



D. Choose the device from the list.

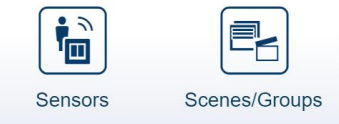
Note: The device can be identified by its serial number or 3-digit code.

E. A new symbol will appear in the floor plan corresponding to the element that was placed into the floor plan, (the Socket Outlet is pictured below).

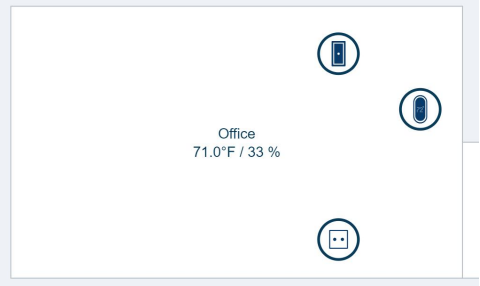


Step 4: Add the Rocker Switch to the floor plan

A. Click on “Sensors”.

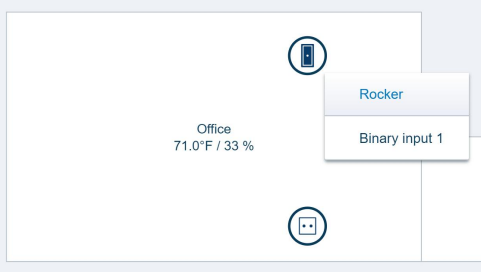


B. Drag the “Rocker” element into the floor plan. A new symbol will appear in the floor plan corresponding to the Rocker.

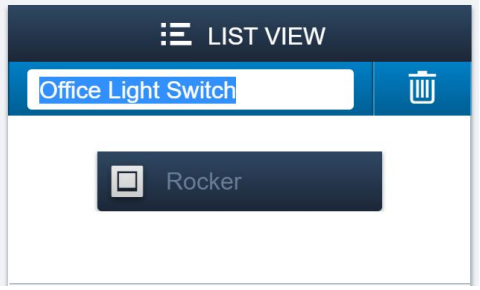


Step 5: Connect the Light Switch to the Light

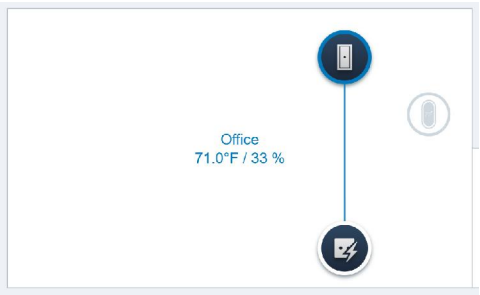
A. Click on Rocker in the floor plan. Select “Rocker” from the drop-down menu that pops up.



B. In the menu on the right-hand side of the screen, click on the button that says “Rocker”.



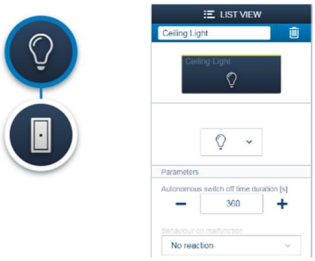
C. Click on the Light (or other element) in the floor plan. This creates a link between the two devices. (A link between a Rocker and Socket Outlet is shown below).



3 Configuring the Light Switch

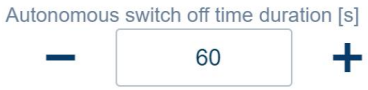
STEP 1: Lamp Settings

Click on the lightbulb symbol to show the lamp settings.



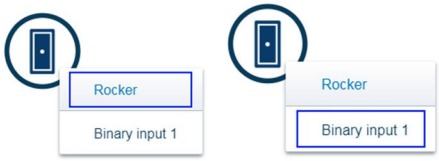
Define a name for this lamp.

3.1 Light Switch Settings

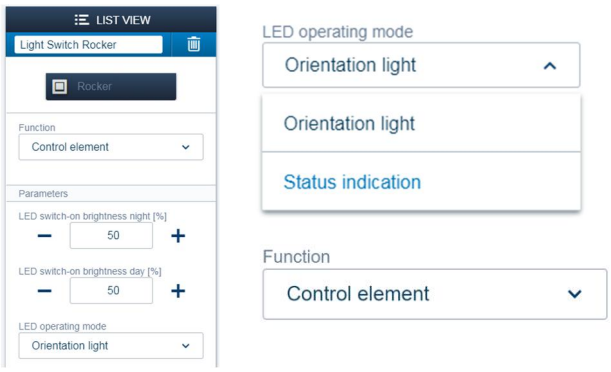
Setting	Description	Options	Image
Autonomous switch off time duration [s]	This setting is only used in combination with a motion detector. Light Switch will automatically switch OFF after time has elapsed.	30 to 1800	
Behavior on malfunction	Defines the reaction in case of power failure.	This setting is locked at “No reaction”	

STEP 2: Rocker Settings

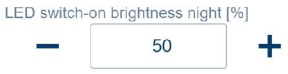
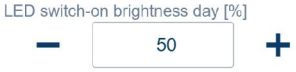
After clicking on the rocker symbol, select “Rocker”.



“Binary Input” is only used when the Binary Input is connected, (i.e. in a 3-way installation).



3.2 LED Settings

Setting	Description	Options	Image
LED switch-on brightness night [%]	User can adjust brightness of LED	n/a	
LED switch-on brightness day [%]	User can adjust brightness of LED	n/a	
LED mode	Defines the reaction of the LED on the rocker.	· "Orientation light": LED is always ON to find Light Switch at night · "Status indication": LED shows status of light, i.e. LED is ON when switch is ON, and OFF when switch is OFF	

4 Technical Data

4.1 Technical Data

Description	Value
Operating Voltage	120 V AC, 60 Hz
Operating Voltage Range	103 VAC to 121 VAC
Connection	L-wire and N-wire Required
Binary Input Voltage	120 VAC Nominal
Maximum Power Consumption	< 1 W
Standby* Power Consumption	< 300 mW
Transmission Protocol	free@home, 2.400 - 2.483 GHz, meshed
Transmission Power	< 15 dBm
Protection Type	IP 20
Ambient Temperature Range	23° F to 113° F (-5° C to 45° C)
Storage Temperature Range	-40° F to 140° F (-40° C to 60° C)

*If output is OFF and no active wireless communication

4.2 Load Table

Load Type	Value
Incandescent or Halogen Lamp	15 A (1800 W)
Magnetic Low-Voltage Transformer (MLV)	8 A (960 W)
Electronic Low-Voltage Transformer (ELV)	15 A (1800 W)
Fan, Maximum 1 Fan Allowed	400 W
Fluorescent Lamps, without Compensation or Ballast	12 A (1440 W)
LED Lamps, Maximum 20 Lamps Allowed	180 W

5 Resetting the Device

Reset the Light Switch if it was previously assigned to a different System Access Point (SysAP). The reset will remove any previous connection and enable the device to connect to a new SysAP.

Reset procedure:

A) Press and hold the bottom of the rocker for at least 20 seconds.

B) The bottom LED light will start flashing after 10 seconds.

C) After another 5 seconds, the LED will start flashing rapidly. After another 5 seconds, the LED light will turn off.

D) Release the bottom of the rocker within the next 10 seconds.

E) Then press the bottom of the rocker. The lower LED light will stay on. Press the bottom of the rocker again. The previous actions must be completed within 5 seconds.

F) The device will now return to factory settings and restart.

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800-816-7809
7:00 am – 5:30 pm, CST, Mon-Fri
elec_custserv@tnb.com

Technical Support:
888-385-1221, Option 1
7:00 am – 5:00 pm, CST, Mon-Fri
freeathome_techsupport@us.abb.com

For information about the many functions of this device, see the system manual at
abb.com/us/freeathome

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