Cucumber
Lighting Controls

Datasheet

Switch Interface Unit

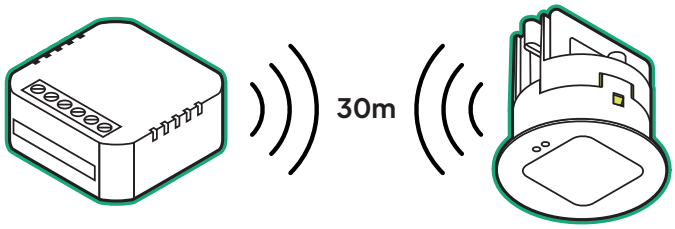
BATTERY POWERED

Innovative lighting controls for industry professionals, by industry professionals.

The switch interface unit can be wirelessly connected to a sensor using our free Cucumber Lighting Controls app on either Android or iOS devices. Need to network devices together? Then not a problem, using the same app, users can set groups of detectors and switches to work together to provide tailor-made solutions.

- Saves on the wiring between devices, reducing installation time and associated costs
- Simple App options reducing time on-site for programming
- Individually configurable supporting switching, dimming and scene recall functions
- Flexibility of connecting different styles of switches
- Compact housing for a wide range of applications
- Suitable for new, refurbishment and listed building projects.

Range between devices

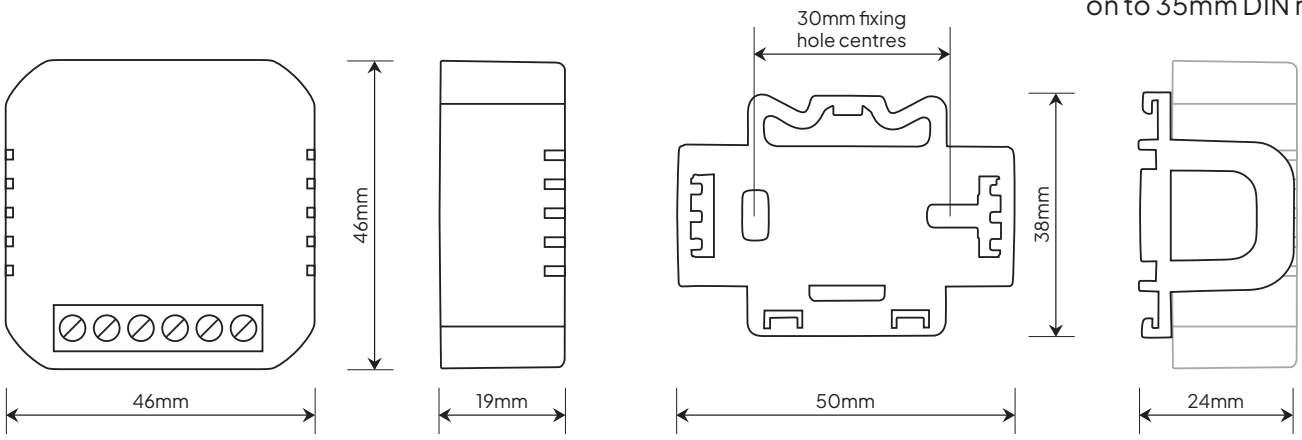


Up to 30m wireless network range between devices

Specifications	
Supply Voltage	3VDC (CR2450 Battery, supplied)
Max Switch Cabling Length	15m
Terminal Capacity	0.5mm² to 1.5mm²
Working Temperature	-10 to +35°C
Unit Weight	0.03kg
Material (Casing)	ABS Dev962 UL 94 VO
Compliance	2014/35/EU Low Voltage Directive 2014/30/EU Electromagnetic Compatibility Directive 2014/53/EU Radio Equipment Directive 2011/65/EU Restriction of Hazardous Substances (RoHS) Directive
BLE (Bluetooth) Transceiver	
Protocol	Bluetooth
Operation frequency	2.4 GHz
Transmission Power	10 dBm
Switch To Sensor Range	30m

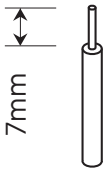
Dimensions

The bracket can be clipped on to 35mm DIN rail.



Wiring

Terminate cables into connections as per wiring diagrams below.



Typical stripping length for terminal connections.

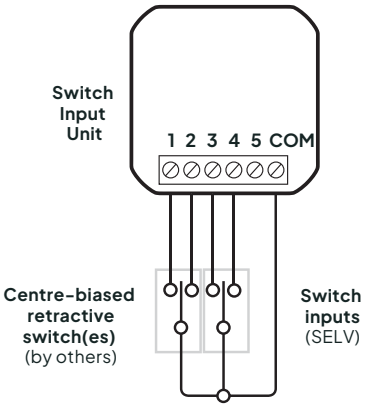


Fig.1 Using centre-biased retractive switch type mechanisms

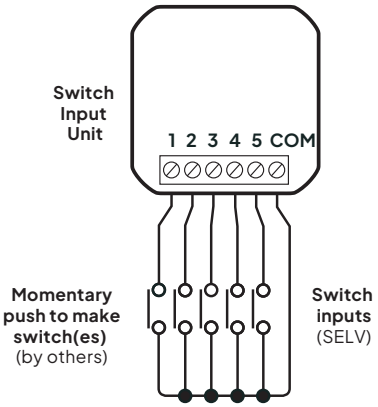


Fig.2 Using single push to make switch type mechanisms

PLEASE NOTE: Latching contact switches cannot be used with the Battery Powered Switch Interface Unit. Please use the Mains Powered Switch Interface Unit instead (SW-IU-230V).

For standard manual switch operation in conjunction with our sensors, control nodes, and LCMs, we recommend using centre-biased retractive switches (see Fig. 1 above).

WARNING: This device should be installed by a qualified electrician in accordance with the latest edition of the UK Wiring regulations.

Installation precautions:

- This device has been designed to be installed either in the backbox behind the switch mechanism(s), or inside a suitable (non-metallic) enclosure.
- Flush-mounting Bluetooth Low Energy (BLE) devices inside metal enclosures is not recommended.
- BLE networking ('meshing') between devices: Although BLE range between devices can be up to 30m in direct line of sight, this distance can be affected by other external factors such as building fabric / materials and 3rd party technology. Therefore we would normally recommend BLE devices to be mounted a maximum of 10m to 20m apart (or closer if possible). If further distance between devices is required, please contact us.
- If possible, please check on quality of mesh network between devices before proceeding with project.
- Please contact us for further design considerations if you are planning to mesh more than 50 BLE sensors and/or devices into the same network.
- If you have any queries with regards to above points please contact us for further details.

Functionality and programming

The Switch Input Unit can be programmed using the Cucumber Lighting Controls app via Bluetooth on your smart device. Please use the QR code below to download our app on either iOS or Android to set up the product. Full funtionality of the product can be programmed using the 'Network setup' menu.

Further information for using the 'Network setup' can be found on our website.

Download our free Cucumber Lighting Controls app to set up the product

To replace CR2450 battery:

1. Gain access to the back of the SW-IU-BATT Switch Input Unit.

2. Using the tip of a small flat bladed screwdriver, gently lever the Switch Input Unit backplate up and off from the main housing as shown in Fig. 3.

3. Gently lift the green PCB out from the main housing, to expose the battery and battery holder.

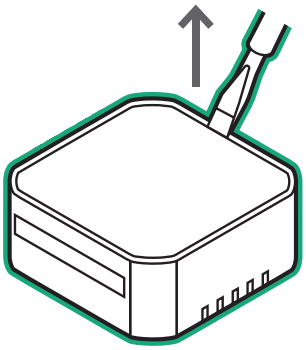


Fig.3

4. Slide the old battery out to the side, and replace with new CR2450 Battery – the Positive side of the battery should be facing towards you (furthest away from the PCB), see Fig. 4.

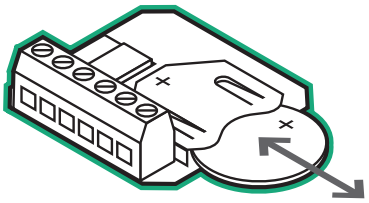


Fig.4

Please Note: Try to avoid touching the flat surfaces of the new battery, when inserting into the battery holder.

5. Re-insert the PCB back into the housing.

6. Click the backplate of the unit back into the main housing to complete the procedure.

Adding the Battery Version Switch Interface Unit (SIU) to a Space with a sensor/node in the Cucumber Lighting Controls App:

To conserve battery life, the SIU remains in sleep mode, waking briefly when a connected switch is activated to send an event to the switch group. Follow these steps when adding or modifying an SIU in a space:

- Ensure sensors/nodes in the space are powered and operational.
- Connect momentary push to make or centre-biased retractive switch(es) to the SIU as shown on Page 2.
- Position the SIU within Bluetooth range of the sensor/node it will interact with.

Provisioning the Battery Version SIU for the First Time:

- In the Cucumber Lighting Controls App, go to **Network Setup > Devices > Scan** to add a device.
- Wake the SIU by pressing a connected switch - **1 quick press (and release) action**.
- The SIU will appear on the scan screen for 60 seconds.
- Follow the steps to add it to a space; provisioning will run automatically.
- Adjust SIU input contacts in the app if needed.

Reconnecting a previously provisioned Battery Version SIU:

(To modify switch functionality after the initial 60-second period has ended)

- In the Cucumber Lighting Controls App, go to **Network Setup > Devices**.
- Wake the SIU by pressing a connected switch - **7 quick presses (and releases) on the same switch contact within 10 seconds**.
- The SIU will be connectable via the app for 60 seconds.
- It will return to sleep mode after disconnection or inactivity.

Note: When using a centre-biased retractive switch, all **7 quick presses must be in the same direction** (up or down) to activate the same input.

Product Code	Description
SW-IU-BATT	Switch Interface Unit - Battery Powered

Cucumber Lighting Controls

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