



Technical specification

3-in-1 Sensor

The purpose of 3-in-1 Sensor is to detect the motion of a person and monitor the current illumination and temperature. It is for indoor use only.

The 3-in-1 Sensor is a battery powered all-in-one motion sensor, temperature sensor, and lighting sensor. When the sensor detects motion in front of its viewing window, it will send wireless signal to the network. The sensor can report current temperature, and lighting levels in the immediate vicinity.

It is the Z-Wave plus product and it supports the security, OTA. Those are newest features of the Z-Wave technology.

Add/Remove from Z-Wave™ Network

There are two tamper keys in the device, one is in the back side and another is in the front side. Both of them can add, remove, reset or association from Z-Wave™ network.

In the first time, add the device into the Z-Wave™ network. First, make sure the controller is in the add mode. And then power on the device, just take out the insulation Mylar in the back side of the device. The device will auto start the NWI (Network Wide Inclusion) mode. It should be included in 5 seconds. You will see the LED light ON one second.

Notice: Including a node ID allocated by Z-Wave™ controller means “**Add**” or “**Inclusion**”. Excluding a node ID allocated by Z-Wave™ controller, means “**Remove**” or “**Exclusion**”.

Type:
3-IN-1 Sensor

Ordering code:
CKNPED1

Date: 04.03.2018
Document: Cockpit SL_3-in-1_MultiSensor_user manual_eng_V.1B

Function	Description
Add	<ol style="list-style-type: none"> 1. Have Z-Wave™ controller entered inclusion mode. 2. Pressing tamper key three times within 1.5 seconds to enter the inclusion mode. 3. After add successful, the device will wake up to receive the setting command from Z-Wave™ controller about 20 seconds.
Remove	<ol style="list-style-type: none"> 1. Have Z-Wave™ controller entered exclusion mode. 2. Pressing tamper key three times within 1.5 seconds to enter the exclusion mode. Node ID has been excluded.
Reset	<p>Notice: Use this procedure only in the event that the primary controller is lost or otherwise inoperable.</p> <ol style="list-style-type: none"> 1. Pressing tamper key four times within 1.5 seconds and do not release the tamper key in the 4th pressed and the LED will light ON. 2. After 3 seconds the LED will turn OFF, after that within 2 seconds, release the tamper key. If successful, the LED will light ON one second. Otherwise, the LED will flash once. 3. IDs are excluded and all settings will reset to factory default.
Association	<ol style="list-style-type: none"> 1. Have Z-Wave™ controller entered association mode. 2. Pressing tamper key three times within 1.5 seconds to enter the association mode. <p>Note: The device supports 2 groups. The group 1 is for receiving the report message, like triggered event, temperature, illumination etc. The group 2 is for light control, the device will send the “Basic Set” command to this group. And each group support 8 nodes maximum.</p>
<ul style="list-style-type: none"> • Failed or success in add/remove the node ID can be viewed from Z-Wave™ controller. 	

Notice 1: Always RESET a Z-Wave™ device before trying to add it to a Z-Wave™ network

Notice 2: When the device into NWI mode, the sensor functionality will useless. The NWI modes will timeout after 30 seconds. You can press the tamper key 3 times to abort the NWI mode.

Z-Wave™ Notification

After the device adding to the network, it will wake-up once per day in default. When it wake-up it will broadcast the “Wake Up Notification” message to the network, and wake-up 10 seconds for receive the setting commands.

The wake-up interval minimum setting is 30 minutes, and maximum setting is 120 hours. And the interval step is 30 minutes.

If the user wants to wake-up the device immediately, please remove the front cover, and press the tamper key once. The device will wake-up 10 seconds.

Operation Mode

There are two modes “Test” and “Normal”.

“Test Mode” is for the user to test the sensor function at installation.

“Normal Mode” for the normal operation.

When the event is triggered, normally the LED won't indicate, unless the battery is in the low level, the LED will flash once. But in the “Test Mode” the LED will also light ON for one second.

When the event triggered, the device will report the messages to the nodes in the group 1. The messages also include the battery level, the temperature and the illumination level. The user can switch the report by setting the configuration NO.5 bit4 (illumination), bit5 (temperature), and the configuration NO.7 bit6 (battery).

When the event is triggered and the environment luminance is less than the setting of the value of the configuration NO. 4, the device will emit the signal to turn ON the lighting equipment, those nodes are in the group 2. And delay a while to turn OFF the lighting equipment. The delay time is setting by the configuration NO. 9.

The PIR motion re-detected interval in the “Test Mode” is fixed to 6 seconds. In the “Normal Mode” it is according to the setting of the configuration NO. 8.

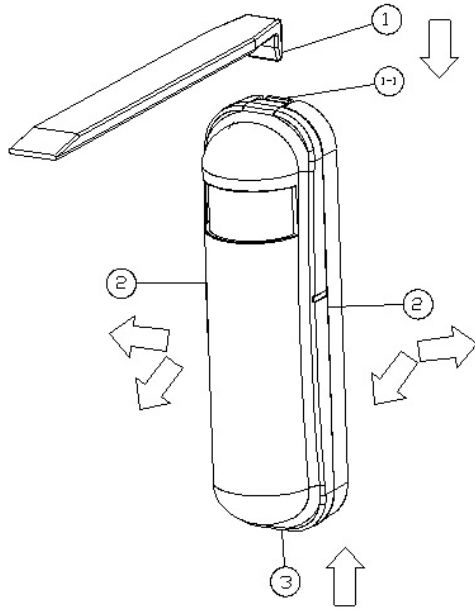
Notice: When the tamper key of the back side is released, the device is always in the “Test Mode”, no matter the DIP switch setting.

Battery Installation

When the device reports low battery message, the user should replace the battery with new one. The battery type is CR123A, 3.0V.

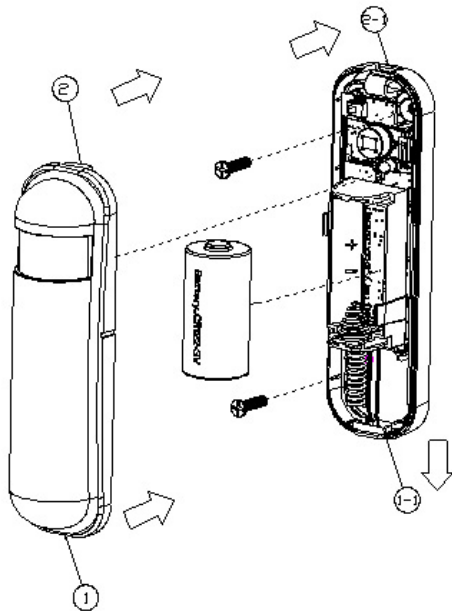
Please, follow below steps to open the front covers.

1. Using a tool press the 1-1 position and release the cover.
2. Hold the front cover and pull back
3. Hold the front cover and pull up



Replace the new battery and install the cover back.

1. Put the front cover bottom to 1-1 and press down.
2. Push the front cover top to 2-1.



Choosing a Suitable Location

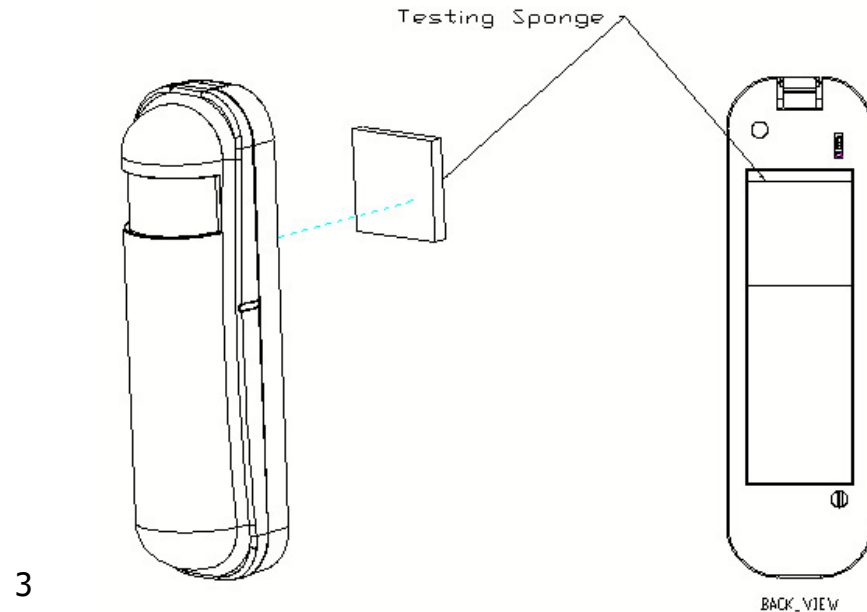
1. The recommended mounting height is 160cm
2. Don't let the device facing the window or the sunlight.
3. Don't let the device facing the source of heat (e.g. heater or air-conditioner).

Installation

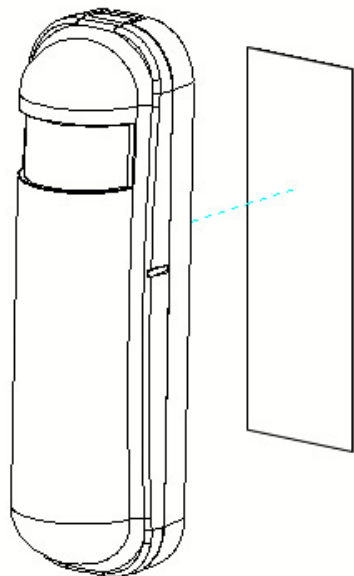
1. In the first time, add the device into the Z-Wave™ network. First, make sure the controller is in the inclusion mode. Then power on the device, just take out the insulation Mylar in the back side of the device. The device will auto start the NWI (Network Wide Inclusion) mode. It should be included in 5 seconds. LED light goes ON for one second.

2. Let the controller associate with the device into the first group, any light switch that intend to be turned on when the device trig please associate with the device into the second group.

3. In the accessory pack. There are two types of double coated tape, one is thicker (hereinafter referred to as A tape) and another is thinner (hereinafter referred to as B tape), you can use A tape for the test at the beginning. The right way for A tape installation is stick it to the position below tamper key. The thicker tape won't let the tamper key pressed, so the sensor will enter the test mode. You may test if installed position is good or not by this way.



After the test is finished and you decide to fix sensor, you can remove tape A, and mount the sensor by using tape B. The tamper key will be pressed and let the sensor enter normal mode.



Z-Wave Supported Command Class

COMMAND_CLASS_ZWAVEPLUS_INFO_V2
 COMMAND_CLASS_BATTERY
 COMMAND_CLASS_NOTIFICATION_V4
 COMMAND_CLASS_ASSOCIATION_V2
 COMMAND_CLASS_CONFIGURATION
 COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
 COMMAND_CLASS_VERSION_V2
 COMMAND_CLASS_SENSOR_BINARY_V2
 COMMAND_CLASS_SENSOR_MULTILEVEL_V5
 COMMAND_CLASS_WAKE_UP_V2
 COMMAND_CLASS_ASSOCIATION_GRP_INFO
 COMMAND_CLASS_POWERLEVEL
 COMMAND_CLASS_DEVICE_RESET_LOCALLY
 COMMAND_CLASS_MULTI_CMD

COMMAND_CLASS_SECURITY
 COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2

Technical Specifications

Power supply	CR123A lithium battery
Frequency Range	868.42 MHz
Operation temperature	-10 ~ 40°C
Operation humidity	85%RH max
Distance	App. 30m indoor
Dimensions (WxHxD)	28mm x 96mm x 23mm
Weight	39g

**Specifications are subject to change without notice due to continuing product improvement.*

FCC ID: RHPST02

WARNING:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.



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