

Z-Wave Command Classes:

COMMAND_CLASS_ASSOCIATION_GRP_INFO

COMMAND_CLASS_ASSOCIATION_V2

COMMAND_CLASS_BATTERY

COMMAND_CLASS_CONFIGURATION

COMMAND_CLASS_DEVICE_RESET_LOCALLY

COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2

COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2

COMMAND_CLASS_NOTIFICATION_V4

COMMAND_CLASS_POWERLEVEL

COMMAND_CLASS_SECURITY

COMMAND_CLASS_SENSOR_MULTILEVEL_V7

COMMAND_CLASS_VERSION_V2

COMMAND_CLASS_WAKE_UP_V2

COMMAND_CLASS_ZWAVEPLUS_INFO_V2

Configuration – Temperature

	Size	VALUE		Default
Parameter 1	1	°C	0x00	°C(0x00)
		°F	0x01	
Parameter 2	1	1~50 (Set up from 0.1°C~5°C)		1 (°C)

Configuration – Humidity

	Size	VALUE	Default
Parameter 3	1	1~50 (Set up from 1%~50%)	10%

Configuration – Light

	Size	VALUE	Default
Parameter 4	1	0,5~50 (Set up from 0 for Off or 5%~50%)	10%

Configuration – Motion Sensor:

	Size	Value
Parameter 5	1	1 ~ 255 (unsigned decimal) Minutes (default: 3 minutes)
Parameter 6	1	1 ~ 7 (default: 4)

(Table 1)

(Parameter 5) Re-trigger duration: User can change value from 1 to 255 minutes to setup the re-trigger time when there is no movement detected in the period of time. Default is 3 minutes.

(Parameter 6) Infrared sensor sensitivity adjustment, 7 levels sensitivity, 1 = most sensitive, 7 = most insensitive, default values= 4

Configuration – LED Mode:

	Size	Value (Default: Mode 3)
Parameter 7	1	1 ~ 3 (Mode 1 ~ Mode 3) Mode 1 è LED Turn Off (Both Temp./PIR Trigger) Mode 2 è Temp. (Breathing Light Mode) PIR (Quick Flash)

		Mode 3 è LED Quick Flash (Temp./PIR Trigger)
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(Caution: Mode 2 will shorten the battery life due to the Breathing Light Mode.)

Installation

Notice: If you are installing the entire Z-Wave™ system for the first time, please refer to the installation guide of Z-Wave™ Interface Controller before installing ZP3111.

1. Release cover tab to open the cover and insert two AAA battery into the battery compartment and close the cover back to sensor.
2. Press the program switch, the LED will flash 5 times which means the sensor has not been “included” yet or flash once which means the sensor has been “included” already.
3. **For “Inclusion (Auto-Inclusion)”** in (adding to) a network: To add the ZP3111 to your Z-Wave network (inclusion), place your Z-Wave primary controller into inclusion mode and the distance between sensor and controller is suggested to be in one meter. Press the Program Switch of ZP3111 for sending the NIF. After sending NIF, Z-Wave will send the auto inclusion, otherwise, ZP3111 will go to sleep after 20 seconds.
4. **For “Exclusion”** from (removing from) a network: To remove the ZP3111 from your Z-Wave network (exclusion), place your Z-Wave primary controller into “exclusion” mode, and following its instruction to delete the ZP3111 to your controller. Press the Program Switch of ZP3111 once to be excluded.

For “Association”: Press the program switch for sending NIF, the LED will flash once and send the Wake Up Notification in 5 seconds. Put the Z-Wave™ Interface Controller into “association”, and following its instruction to associate the ZP3111 with other device. Support grouping identifier=1. Support one association group (5 nodes). “Association” is used for other grouping devices chain reaction. Red LED will flash once when trigger.

5. **Auto Wake Up:**

Use “Wake Up” command to set up the awaking time (from 10 minutes to 1 week) and send the wake up notification to controller

6. **Battery Capacity Detection:**

- * Use “Battery Get” command to have the battery capacity back in %
- * It will detect the battery capacity automatically
- * Low Battery Auto Report when power is lower than 2.6V +/- 0.1V

7. **Temperature**-If the present temperature is different with the sensor record and exceed the setting program, the sensor will report the present temperature. LED flash every 3 minutes to represent the temperature or wake up by press the Program SW.

Temperature	LED Color
Under 15°C	Green
15~23°C	Blue
23~28°C	Yellow/YellowGreen
28~36°C	Purple
Over 36°C	Red

Multilevel Sensor Report	
Sensor Type	0x01
Scale	0x00 (°C) 0x01 (°F)
Size and Precision	2

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8. **Humidity Report**- If the present humidity is different with the sensor record and exceed the setting program, the sensor will report the present humidity.

Multilevel Sensor Report	
Sensor Type	0x05
Scale	0x00 (%)
Size and Precision	2

9. **Light Report**- If the present illumination is different with the sensor record and exceed the setting program, the sensor will report the present illumination.

Multilevel Sensor Report	
Sensor Type	0x03
Scale	0x00 (%)
Size and Precision	2

10. **Factory Default Reset:** Remove cover to triggered tamper switch, LED flash once & send out Alarm Report. Press Program Switch 10 times within 10 seconds, ZP3111 will send the “Device Reset Locally Notification” command and reset to the factory default. (Remark: This is to be used only in the case of primary controller being inoperable or otherwise unavailable.)

Operation

1. Using adhesive tape to mount ZP3111 at 2 meters above surface. To enhance proper operation, place ZP3111 on the location which can detect the room widely.

2. Walk in front of ZP3111, sensor will send Basic set On (0xFF) , Red LED will flash once and please refer to status report as table below.

3. If no movement detected in three minutes (default is 3 minutes - based on user’s configuration setting, refer Table 1 (Parameter 5) will send Basic Set OFF (0x00), Red LED will flash once, and refer to table for status.

4. The ZP3111 sensor equipped with tamper switch. If the tamper switch is triggered (or remove the cover), the ZP3111 sensor will send Alarm Report, LED will flash once and refer to table for status.

5. If the tamper switch is closed (or closed the cover), ZP3111 will send Alarm Report, and refer to table for status.

	Alarm V1 (Movement & Tamper Switch)	Notification V4 (Movement)	Notification V4 (Tamper Switch)
Alarm Type	0x07		

Alarm Level	0x00 (No movement after 3 mins) 0xFF (Motion detected)		
Notification Type		0x07	0x07
Notification Event		0x08(Motion Detected)/ 0x00 (no movement after 3 mins)	0x03(remove cover)/ 0x00 (cover closed)
Notification Event Parameter		0x08	0x03

6. Support OTA Firmware update from controller. Please refer to your controller manual and use COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2. To proceed the OTA process.