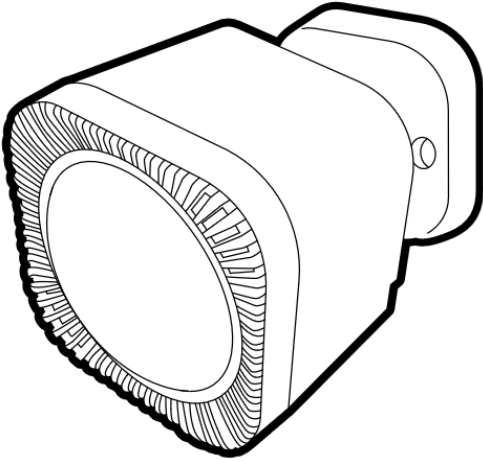


MultiSensor 7 user guide

Modified on: Mon, 26 Apr, 2021 at 6:57 PM



Aeotec MultiSensor 7 was developed to detect ambient values and movement and to transmit them with [Z-Wave Plus](http://aeotec.com/z-wave-plus) (<http://aeotec.com/z-wave-plus>). It is powered by Aeotec's [Gen7](https://aeotec.com/z-wave-home-automation/z-wave-gen7.html) (<https://aeotec.com/z-wave-home-automation/z-wave-gen7.html>) technology. You can find out more about [MultiSensor 7](https://aeotec.com/z-wave-sensor/) (<https://aeotec.com/z-wave-sensor/>), by following that link.

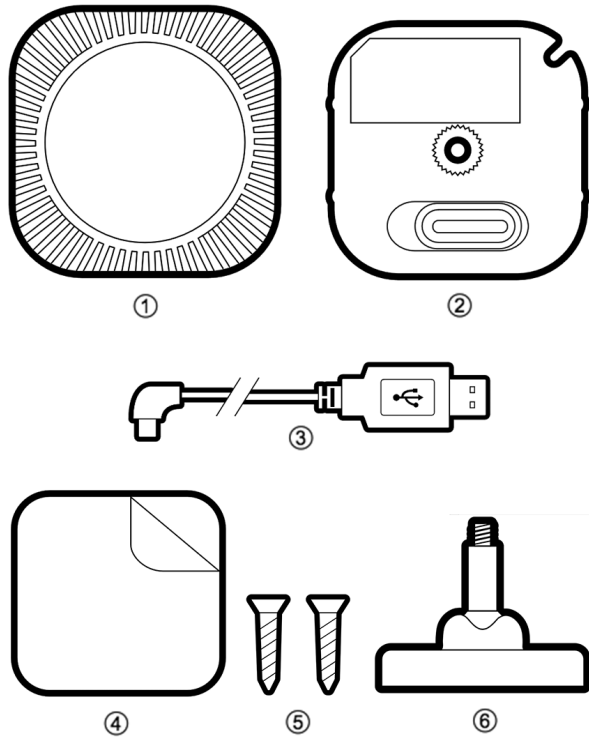
To see whether MultiSensor 7 is known to be compatible with your Z-Wave system or not, please reference our [Z-Wave gateway comparison](http://aeotec.com/z-wave-gateways) (<http://aeotec.com/z-wave-gateways>) listing. The technical [specifications of MultiSensor 7](https://help.aeotec.com/a/solutions/articles/6000246153) (<https://help.aeotec.com/a/solutions/articles/6000246153>) can be viewed at that link.

Get to Know your MultiSensor.

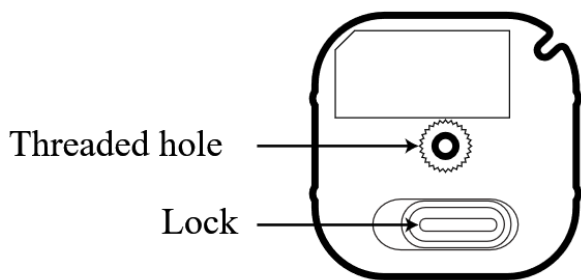
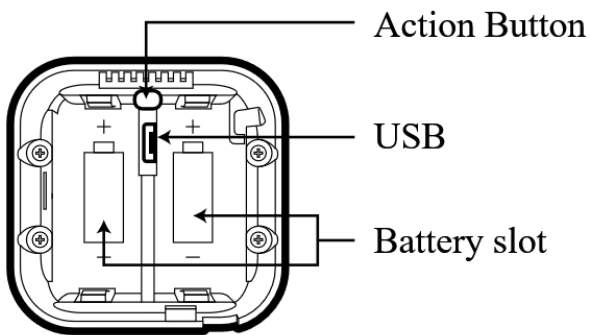
Your MultiSensor comes packaged with a number of accessories that will help with its installation and operation.

Package Contents:

1. MultiSensor
2. Battery Cover
3. USB Cable
4. Double-Sided Tape
5. Screws (×2)
6. Back Arm Mount



MultiSensor 7 diagram:



Button Functions.

Action button press	LED Status	Function
1x Tap (when factory reset)	Solid Yellow	Pair Mode Enters Z-Wave pair mode, flashes white/green 4 times within 2 seconds upon success.

1x Tap (when already paired)	Solid Purple	Sends NIF / Excludes device if Z-Wave controller is in unpair mode, starts blue LED fade in/out if unpaired and factory reset successfully.
Press and hold [1, 2 seconds)	No LED	N/A
Press and hold [2, 5 seconds)	Solid Red	Quick Wakeup LED will disappear as soon as you release its button. The MultiSensor 7 will send a wakeup report to your Z-Wave Controller to take in any queued z-wave commands waiting in your controller.
Press and hold [5, 9 seconds)	Solid Orange	Long Wakeup Mode LED will remain solid Orange upon release of its button for 5 minutes maximum (or until told to sleep by user or z-wave controller). This will allow you to easily configure this device while the sensor is used with battery power assuming your Z-Wave controller does not queue the command.
Press and hold [9, 15 seconds)	Solid Cyan	Communication Health Test (Direct gateway communication - does not test through repeaters). This will test your MultiSensor 7 direct communication to your Z-Wave Controller. It will remain Cyan while it is testing. Once finished it will become a solid color for 2 seconds as red, yellow, or green to indicate health: Red = Bad health, can't communicate at all. Yellow = Moderate health, could use improvement, some communication missed. Green = Great health
Press and hold [15, 20 seconds)	Blinking Red	Release here to cancel Factory Reset.
Press and hold [20+ seconds)	Blue fade in/out for 2 seconds.	Factory Reset.

Important safety information.

Please read this and other device guides carefully. Failure to follow the recommendations set forth by Aeotec Limited may be dangerous or cause a violation of the law. The manufacturer, importer, distributor, and/or reseller will not be held responsible for any loss or damage resulting from not following any instructions in this guide or in other materials.

MultiSensor 7 is intended for use in dry locations only. Do not use in damp, moist, and/or wet locations.

Do not use rechargeable CR123A batteries.

Keep product and batteries away from open flames and extreme heat. Avoid direct sun light or heat exposure. Always remove all batteries from products that are being stored and not used. Batteries may damage the appliance if they leak. Do not use rechargeable batteries. Ensure correct polarity when inserting the batteries. Improper battery use

may damage the product.

Contains small parts; keep away from children.

Quick Start.

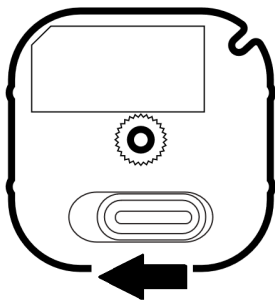
Determine the power type.

MultiSensor 7 can be a sleeping battery device or a repeater as a USB powered device. Make sure you select your preferred power type before you start pairing.

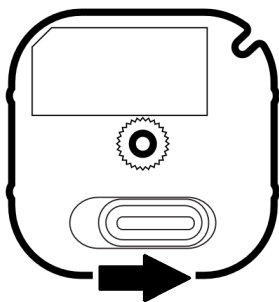
Any time you change the input power type (ie. Battery to USB power), you must re-include as your Z-Wave hub will only understand if it is a sleeping device or a Repeater device upon its first pair into your controller.

For a USB powered installation (acts as a repeater upon initial pair):

1. Remove the battery cover by sliding the Unlock button LEFT, then pull the cover off.

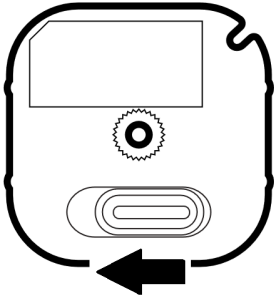


2. Insert the microUSB of the provided USB cable into your sensor's microUSB port.
3. Insert the larger end of the USB cable into a computer or any 5V adapter which will immediately power your MultiSensor 7.
4. Make sure to seat the Battery Cover back onto the MultiSensor 7 and lock it in by sliding the Unlock button RIGHT.

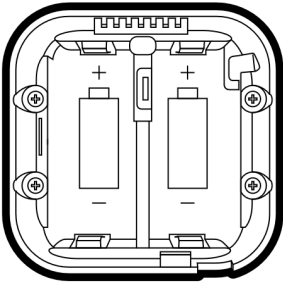


For a battery powered installation (acts as a sleeping device upon initial pair):

1. Remove the battery cover by sliding the Unlock button LEFT, then pull the cover off.



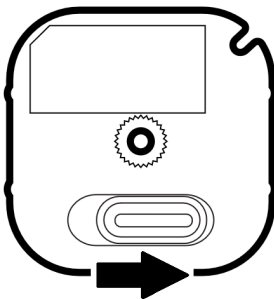
2. Insert two CR123A lithium batteries orientated according to the diagram within your sensor. Try inserting the batteries flat rather than at an angle.



Note: MultiSensor 7 can be powered by a single CR123A (doesn't matter which port), though batteries will require changing more frequently (half the expected battery life).

WARNING: Not compatible to rechargeable CR123A batteries (3.6V).

3. Make sure to seat the Battery Cover back onto the MultiSensor 7 and lock it in by sliding the Unlock button RIGHT.



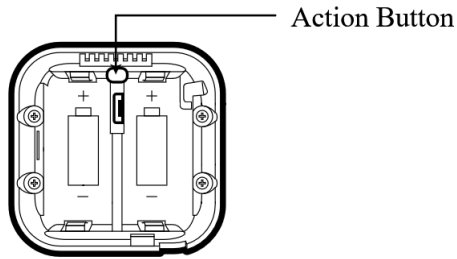
Adding your MultiSensor 7 into a Z-Wave Network.

With it powered on, it's now time to add your MultiSensor 7 to a Z-Wave network. To pair MultiSensor 7, you are not limited to only the Z-Stick or Minimote. You may use any Z-Wave Gateway to pair MultiSensor 7, but compatibility and how the sensor shows ultimately depends on the gateway and software integration of products.

Using an existing gateway:

You may need to refer to your gateway's method of including devices if you do not know how to pair a Z-Wave device.

1. Set your Z-Wave gateway into Z-Wave pair (Inclusion, pair, connect) mode.
2. Tap the Action Button on your MultiSensor once.



3. It will be solid **yellow** during inclusion, and flash **white/green** 3 times if paired successfully. If it fails, it will flash **white/red** instead.

Advanced Functions.

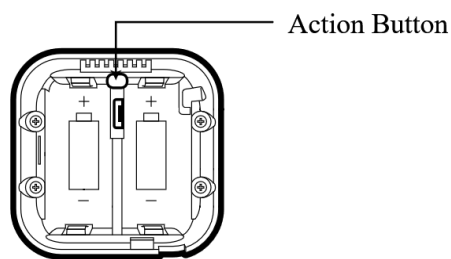
Z-Wave Resetting MultiSensor 7.

Your MultiSensor can be removed from your Z-Wave network at any time. You'll need to use your Z-Wave network's main controller to do this and the following instructions tell you how to do this. If you are using other products as your main Z-Wave controller, please refer to the part of their respective manuals that tells you how remove devices from your network.

Using an existing gateway:

You may need to refer to your gateway's method of including devices if you do not know how to pair a Z-Wave device. You may use any gateway to perform an unpair/removal on MultiSensor 7 even if they are not paired together to factory reset MultiSensor 7.

1. Set your Z-Wave gateway into Z-Wave unpair (exclusion) mode.
2. Tap the action button once; the **purple** led will light up.

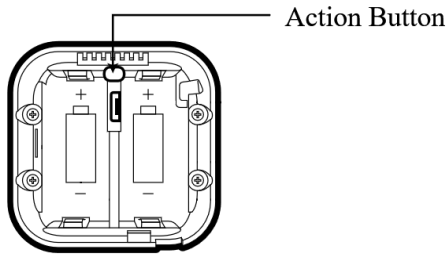


3. If removed successful, the **blue** led will fade in and out to indicate it is ready to be paired to a new hub.

Manual Hard Resetting MultiSensor 7.

This method is not fully advised unless your gateway has failed, if paired to your network, performing these steps will factory reset your MultiSensor 7, but may leave a hard to remove phantom/ghost device in your working Z-Wave network.

1. Make sure the device has been powered.
2. Press and hold the button for 20 seconds. When the red led flash, the device will enter factory reset mode.



3. If reset successful, the **blue** led will fade in and out to indicate it is ready to be paired to a new hub.

Waking up MultiSensor 7.

In order to configure Multisensor 7, you must either (1) wake up Multisensor 7 using the below button press function, or (2) temporarily put your Multisensor 7 on USB power.

This section will go over manual wakeup of this sensor for the case you don't want to wait for configuration.

Quick Wakeup.

1. Press and hold Multisensor 7 Action button
2. Wait until the LED turns into a **Red** Color (1 - 2 seconds)
3. Release Multisensor 7 Action Button, the LED should turn off right away. Any queued commands in your Z-Wave Controller will be sent over.

Long Wakeup.

1. Press and hold Multisensor 7 Action button
2. Wait until the LED turns into a solid **orange** color (2 - 5 seconds)
3. Release Multisensor 7 Action Button, the LED should remain solid **orange** while it is awake. Send any configurations from your hub (assuming the commands are not queued).
 - If the MultiSensor 7 LED **orange** LED turns off right away, this would indicate that your hub is putting your device to sleep. Try unpowering your hub temporarily, follow steps 1-3 again, then power up your hub again.
4. Tap the Action Button on Multisensor 7 to put Multisensor 7 back to sleep, or wait 5 minutes. (recommended to manually put it back to sleep to conserve battery life).

Advanced settings of MultiSensor 7.

There are further advanced parameter settings and group association settings not listed in this guide. You can find the attachment of the advanced engineering sheet of the MultiSensor 7 which will give you all possible functions of the MultiSensor 7 that may be missing in this guide.

The PDF guide will feature these missing advanced settings:

- Parameter settings (Configuration Command Class)
- Group Association (Association Command Class)

You may download the engineering sheet below: