



Zwave Questions and Answers

Trouble shooting guide

1) What does the LED do on the Zwave sensors?

- a. *Shows when a transmission is sent with a status change* – Each time a Zwave transmission is sent from the sensor, it will turn on the LED and not turn it off until the sensor receives an acknowledgement from the gateway, OR it times itself out because it never heard from the gateway.

What you WANT to see is a very quick blink when an event happens. That means it quickly sent a transmission and quickly got an “ack” back.

If the LED stays on for a long time after the sensor is activated, it would suggest a range issue or other communication failure.

- b. *Shows if the sensor has a "node id" stored in the sensor* -- Once a Zwave sensor is learned into a gateway, it receives what is called a node id. That node id is specific to the gateway that communicated to the sensor to include the sensor into the network. You can determine the node id state by removing the battery and reinserting the battery. You will see one of two things happen:

- i. The LED will turn on and stay solid for a few seconds and then start to BLINK. If it starts to BLINK it is saying that there is NOT a node id associated with the sensor and it is ready to be learned into a network.
- ii. The LED will turn on and stay solid for a few seconds, then go OUT. This indicates that the sensor DOES have a node id associated in a Zwave network.



2) When I put my gateway in inclusion mode and apply power to the sensor, it does not learn into the gateway. What do I do?

a. *First, make sure you are using a compatible gateway.* The current list of KNOWN compatible gateways include the following:

- i. SmartThings
- ii. Staples Connect
- iii. Vera
- iv. HomeSeer
- v. Nexia
- vi. Piper
- vii. Others? – There are other systems that are “Zwave compatible”, but not all of them allow any and all Zwave sensors to be learned into their system. Because there are many new gateways coming out frequently, you may have to check with the manufacturer of the gateway before you purchase our sensors to verify they allow our product to enter their system.

NOTE: Known systems that do NOT let other Zwave sensors, or certain types of Zwave sensors into their system include:

1. Wink
2. ADT Pulse
3. DSC
4. Interlogix
5. 2Gig
6. Napco
7. Honeywell

b. *Second, refer to item 1, B above and determine if the sensor has received a node id or not.* You want to see the sensor LED BLINK, which tells you it is ready to be learned in. If the sensor LED stays solid even though it did not learn into the gateway, then refer to question 3 to learn how to reset the sensor.

c. *Third, make sure the sensor is within range of the gateway, or if mounted in the final location make sure a repeating node is within range of our Zwave sensor.*

IMPORTANT: MOST battery powered sensors, including ours, are NOT repeaters in the Zwave network. If you are having range problems you will need to install a Zwave device that is AC powered to extend the overall range of your network.



3) How do I “reset” my Ecolink Zwave sensor?

- a. If you have found that for some reason your Ecolink Zwave sensor is indicating it has a node id already, BUT your gateway does not see it, you will need to reset the node id of the sensor to default, which is zero.
 - i. First, you must put your gateway into “exclusion mode”. Because each gateway is different, there is not one way to do this, but check with your gateway manufacturer if you do not know how to perform this task.
 - ii. Second, remove the battery from the Zwave sensor and make sure it is removed for at least 5 seconds.
 - iii. With the gateway in exclusion mode, re-insert the battery into the Zwave sensor. This will trigger the system to reset the Zwave sensor node id to zero. NOTE: Watch the LED on the Zwave sensor and make sure that it starts to BLINK slowly. This indicates that the node id is in fact zero.
 - iv. You should now be able to begin the inclusion process as described in the instructions for the gateway and sensor.

4) What are the screw terminals for on the inside of the Door/Window sensor and Tilt sensor?

- a. These screw terminals are for connecting an EXTERNAL CONTACT. The screw terminals are connected in parallel to the reed switch and tilt switch. That means that in order to use the screw terminals, the other switch in the sensor must be OPEN. For the Door/Window sensor that means do not place a magnet near the internal reed switch. For a Tilt sensor that means the tilt switch must be tilted (easiest to mount the tilt sensor upside down to ensure it is open).



- 5) What kinds of external contacts are compatible with the external connection to the Door/Window and Tilt?
- a. Any UNPOWERED open/close switch will trigger the sensor to transmit an open or closed state. One example would be an external wired door contact.
- 6) How do I change the parameters in the Zwave sensor?
- a. Refer to the ***Ecolink Advanced Configuration*** document for details.
- 7) Where should the sensor be when I include it to the Zwave gateway?
- a. The sensor should be in the final mounting location. This is done for two reasons:
 - i. If you have AC powered Zwave nodes in the house or business already, you will have a repeater network essentially. You want the new Zwave sensor to be in the final location so that it can learn the proper route based on the location of the repeater network. Otherwise you may not benefit from the established AC powered repeater nodes and ultimately not have any extended range.
 - ii. If you are unable to learn the device in from its final location, this may indicate that it is out of range without the use of a repeater. To verify this, you can remove the sensor and bring it close to the gateway at try to include the device. If it includes close to the gateway but would not include at the final location, you will likely need a repeater.
- 8) Why is the battery a special Lithium battery and why is it so large?
- Zwave requires a significant amount of power during transmission and receive operations at the sensor. The high power draw will over tax a small battery, like a coin cell battery. This will be especially true when temperatures get cold, and also as the battery ages. Therefore, to prevent premature low battery conditions in cold temperatures, and to provide as much as 8 years of battery life, we use special Lithium batteries in all of our sensors.