

HS-MS100+ Z-Wave Motion Sensor

OVERVIEW

HS-MS100+ is a compact, easy to install motion sensor. It is designed to control other Z-Wave devices directly or it may be used with a variety of Z-Wave certified home controllers to launch automation events or scenes.

Applications

- Activate Z-Wave wall switches or plug-in modules when motion is sensed.
- Trigger home automation events when motion is sensed.

Configuration

The unit may be powered using the included battery or with a USB power adapter (not included). The unit includes a Z-Wave network button for inclusion/exclusion and a blue LED operation indicator. A magnetic mount allows for very easy installation.

Z-Wave Network Installation

Remove the back cover by rotating counter-clockwise and install 1 CR123A battery (included) inside the unit. Alternately, you may power the unit with a micro USB connection. HS-MS100+ may be included into your Z-Wave network as a “secure” device or as a “non-secure” device. Use the instructions below to **include** or **exclude** HS-MS100+ to/from your Z-Wave network.

Standard Inclusion (recommended for best compatibility)

1. Put your home controller into Z-Wave ‘inclusion’ mode.
2. Quickly press and release the Z-Wave network 2 times. Wait for the inclusion process to finish.

Secure S2 Inclusion (recommended ONLY if your home controller supports “S2” Z-Wave encryption)

1. Put your home controller into Z-Wave ‘inclusion’ mode.
2. Quickly press and release the Z-Wave button 3 times. Wait for the inclusion process to finish.

Repeater Inclusion (recommended ONLY if sensor is powered externally with micro USB adapter)

1. Press the Z-Wave button for 3 to 5 seconds and release. Wait for the inclusion process to finish. The sensor is added as a Z-Wave repeater. Note that you must run the sensor on line power or the batteries will be exhausted quickly.

Exclusion

1. Put your home automation controller into Z-Wave ‘exclusion’ mode.
2. Quickly triple-press the Z-Wave network button. Wait for the exclusion process to finish.

Reset (Use this procedure to reset HS-MS100+ to factory settings when the Z-Wave controller is missing or inoperable).

1. Press and hold the Z-Wave button for 20 seconds. Release the button once the LED stops blinking and glows solidly.

Physical Installation

Install the magnetic mount in the location of your choice using the supplied double-stick tape or screw. Then attach the main unit to the mount and point the sensor dome, the lens, toward the location you wish to monitor.

Motion Sensor Operation

HS-MS100+ is designed to transmit a Z-Wave command when motion is sensed. It will also transmit another command when motion has not been sensed for a period of time. This “motion timeout” interval is adjustable using a Z-Wave parameter (see page 2). The default setting of 600 seconds (10 minutes) should yield a good balance of performance and battery life.

Shock Sensor Operation

The shock sensor is designed to transmit a Z-Wave command when HS-MS100+ has been physically moved. This sensor is especially helpful in determining whether the unit has been removed from its mount or tampered with.

Battery Sensor Operation

The battery sensor is designed to report battery level with a Z-Wave command every 43200 seconds (12 hours). If desired, HomeSeer users can adjust this interval (0-2678400 seconds) by accessing the settings on the Z-Wave tab of the root device. Note: battery sensor operation is disabled on units that are line powered.

Z-Wave Association Information

HS-MS100+ supports Group 1 association. Group 1 reports the sensor's status and battery if running on batteries.

Notes

Important: Line-powered devices function as Z-Wave repeaters. If you'll be powering HS-MS100+ with batteries, include it into

ADVANCED CONFIGURATION (accessible via the "Root device" in a HomeSeer System. Before adjusting these settings, tap the network button 4 times to wake the unit.)

Parameter	Settings
12	Motion Sensor Sensitivity Available: 0-8, 0=motion sensor disabled, 1=low sensitivity, 8=high sensitivity, Default: 8 Size: 1 byte
14	Enable / Disable Basic Set Command Available: 0=disable, 1=enable Default: 0 Size: 1 byte
15	Set Value for Basic Set Command Available: 0=Sends 255 value when motion sensed, sends 0 value when motions times out Available: 1=Sends 0 value when motion sensed, sends 255 value when motions times out Default: 0 Size: 1 byte
17	Enable Shock Sensor Available: 0=disable, 1=enable Default: 1 Size: 1 byte
18	Motion Timeout Interval Available: 0-65525 (seconds) Default=600 Size: 2 bytes
19	Enable Binary Sensor for Motion Available: 0=disable, 1=enable Default: 1 Size: 1 byte
32	Set Value for Low Battery Available: 0-50 (%) Default=20 Size: 1 byte

SPECIFICATIONS

Operating Temp Range	0°C to 40°C For Indoor Use	Power	Requires (1) CR123A Battery
Z-Wave Frequency Range	908 MHz (US) Up To 300 Ft line of sight	Dimensions	Sensor with Mount: 2 x 2 x 2 (inches)
Z-Wave Certification	Z-Wave Plus		

LIMITED WARRANTY

HomeSeer Technologies, LLC will repair or replace, at its option, any part of the device, which proves to be defective in workmanship or material under normal use, in the USA except in the states of Alaska or Hawaii, for a period of one year from the date the device is purchased. During the warranty period, HomeSeer Technologies, LLC will repair and provide all parts necessary to correct such defects, free of charge, provided the device has been operated in accordance with the manufacturer's guidelines. The Customer will return the device to HomeSeer Technologies, LLC for testing and repair or replacement. Should you need service, during warranty period or beyond, contact HomeSeer to obtain return authorization before shipping your device to HomeSeer Technologies, LLC.

This product employs or practices certain features and/or methods of the following U.S. Patents: U.S. Patent Nos.6,891,838, 6,914,893 and 7,103,511.