OPERATING MANUAL

FIBARO MOTION SENSOR
FMS-001-USA-A-V1.01

The Fibaro Motion Sensor is a universal Z-Wave multi-sensor. Along with detecting motion from the device measures the temperature and light intensity. The sensor has a built-in accelerometer to detect any impact to the environment of the device. The Fibaro Motion Sensor is battery powered, red and designed to be installed quickly and easily on any surface. The LED indicator signals motion, temperature level, operating mode and can be used to see if device is within the Z-Wave network. The motion sensor can be used for lighting scenes and presence monitoring systems.

SPECIFICATIONS

- Power Supply: CR123A battery, 3.0V DC
- Recommended installation height: 2.4m
- Operational Temperature: 0-40°C
- Measured Temperature Range: 20 to 100°C
- Temperature Measuring Accuracy: ±0.5°C (within 0-40°C range)
- Radio Protocol: Z-Wave
- Radio Frequency: 908 MHz U.S.; 868 MHz ANZ;
- 868 MHz EU; 868 MHz RU;
- Range: Up to 30 m outdoors or up to 3 m indoors (depending on sensor and building structure).

I. WAVE NETWORK INCLUSION

The Fibaro Motion Sensor can be included into the Z-Wave network by using the B-button.

1. Open the sensor's casing.
2. Unlock battery by removing "I'm ready" sticker.
3. Make sure the device is located within direct range of main controller.
4. Press the B-button into learning mode (see main controller's operating manual).
5. Quickly triple click the B-button. LED will glow blue.
6. Fibaro Motion Sensor will be detected and included into the Z-Wave network. Wait for the main controller to configure the sensor.
7. If necessary, wake up the Motion Sensor by triple clicking the B-button. LED diode will glow blue to confirm the sensor was woken up.
8. Close the sensor's casing. Enclosure lock with drilled.

Diagram 1 - B-Button

II. EXCLUDING SENSOR FROM THE Z-WAVE NETWORK

1. Make sure the sensor's battery is unlocked.
2. Slide the main controller switch to the "Learning" main controller status.
3. Quickly, triple click the B-button, located inside Fibaro Motion Sensor's casing.
4. LED diode will glow blue confirming that the device has sent the Node ID into Z-Wave command frame.

III. SENSOR INSTALLATION

1. Include the device into the Z-Wave network (see i). Note the inclusion process may be performed in direct range of the main controller.
2. Install the sensor's holder in desired location.
3. If sensor is already included in the Z-Wave network, wake it up.
   a. Triple click the B-button.
4. Install the sensor's holder.
5. Test the sensor's operation - check whether the LED diode indicator pulsing purple confirms the sensor's operation.
6. Test the Z-Wave network assuring the device is within range.

Diagram 3 - preparing Fibaro Motion Sensor for operation.

IV. DETECTION AREA AND WORKING CONDITIONS

Fibaro Motion Sensor's detection area is shown in diagram 6.

Fibaro Motion Sensor can be installed in a corner or the room or perpendicularly to the doors. Actual range of the sensor can be influenced by environmental conditions. Should motion alarms be reported, check for any moving objects within the sensor's detection area, such as the curtain, that may be causing motion recognition. Motion alarms may be caused by moving areas of air and heat. Also, if the device keeps reporting W. alarms, despite all of the above-mentioned factors have been eliminated, the device in another place may adjust the omnidirectional parameters.

Diagram 5 - Fibaro Motion Sensor's proximity area.

V. INSTALLATION NOTES

Fibaro Motion Sensor cannot be pointed at any source of heat (e.g. radiator, lamp, cooker, etc.) or at any source of light (light project, lamp, etc.). Should sensor be installed in places prone to drafts, sensor can be mounted using screw or the screw.

VI. RESETTING THE FIBARO MOTION SENSOR

The Fibaro Motion Sensor reset erases the memory, including all information on the Z-Wave network and the main controller.

1. Make sure the battery is unlocked and in place.
2. Press and hold the B-button for 4-6 seconds and until the LED glows yellow signaling the 3rd option of the menu mode.
3. Release the B-button.
4. Press the B-button briefly. Successful reset will be confirmed with the LED changing colour to red and blinking.

NOTE

- If the sensor is already included in the Z-Wave network main controller's memory, however, removing the device from the Z-Wave network will reset Fibaro Motion Sensor automatically.

VII. WITHIN THE Z-WAVE NETWORK

Fibaro Motion Sensor has a built-in motion detector, temperature sensor and light intensity sensor, which make it a multi-channel sensor. In the Fibaro Home Center 2 menu it will be available as three devices, depending on the main controller software version.

Diagram 7 - preparing Fibaro Motion Sensor for operation.

VIII. ASOCIATIONS

By using association with Fibaro's devices the Fibaro Motion Sensor can control another Z-Wave network device, e.g. Dimmer, Roller Switch, Roller Shutter, RGBW Controller, Wall Plug, or a scene (scene only through the Home Center 2 main controller).

Fibaro Motion Sensor allows for controlling up to five regular and multi-channel devices. The 3rd association group is recommended for the Z-Wave network devices, depending on the main controller software version.

IX. EARTHQUAKE DETECTOR MODE

Fibaro Motion Sensor can be configured to work as an earthquake detector by setting the Parameter 21 value of the Z-Wave network device to 1. More information on the device will be available in the Belgian 2nd Association Group.

Fibaro Motion Sensor status may be confirmed in the Home Center 2 interface. Red battery icon means the battery needs to be replaced. The Fibaro Motion Sensor's battery life is approximately 2 years at 10°C.
At each wake up the Fibaro Motion Sensor communicates with the PIR motion. After this time period the PIR sensor will be again able to detect motion. The parameter determines the behaviour of tamper and how it shall be reported. The parameter determines the command frames sent in 1st broadcast mode.

9. NIGHT / DAY

The parameter determines the command frames sent in 18th (86 and 87).

1. MOTION SENSOR’S SENSITIVITY

PIR sensor active during the night only.
- PIR sensor always active

Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

2. MOTION SENSOR’S BLIND TIME (INSENSITIVITY)

Do not hallucinate.

3. MOTION SENSOR’S BLIND TIME (INSENSITIVITY)

The value of 225 allows to turn ON a device. In case of the Dimmer, the value of 225 means that the device has to be in the last memorized state, a device turned ON at 30%, i.e. the last memorized state. The parameter supports alarm functions.

4. MOTION SENSOR’S BLIND TIME (INSENSITIVITY)

The parameter supports alarm functions. The parameter determines the command frames sent in 1-st broadcast mode.

1. MOTION SENSOR’S SENSITIVITY

The lower the value, the more sensitive the PIR sensor. The parameter size: 1 (2 pulses)

2. MOTION SENSOR’S SENSITIVITY

The parameter determines the command frames sent in 1st broadcast mode.

12. BASIC COMMAND FRAME CREDENTIALS

The parameter determines the command frames sent in 1st broadcast mode. The parameter determines the command frames sent in Basic Command Class.

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- PIR sensor always active

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Consult the dealer or an experienced radio/TV technician for help.

3. NIGHT / DAY

The parameter determines the command frames sent in broadcast mode, the parameter determines the command frames sent in Basic Command Class.

2. MOTION SENSOR’S BLIND TIME (INSENSITIVITY)

The parameter determines the command frames sent in broadcast mode. The parameter determines the command frames sent in Basic Command Class.

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