What is Included
You will find the following items inside the Wireless Motion Sensor package:

- One (1) Wireless Motion Sensor
- One (1) Wireless Control/Display Device (see screenshot below).
- One (1) 9V Alkaline Battery

Installation Guide

1. Battery Installation
Install the 9V battery into the rear of the motion sensor (see figure below). After the battery is connected the motion sensor’s red LED (visible through the motion sensor window) will blink for approximately 5 (five) minutes while a wireless connection is established with the Control4 system. NOTE: The motion sensor requires a warm up time of approximately 60 seconds before it can reliably detect motion.

After powering up the unit, the walk test LED (red LED) is automatically enabled for five (5) minutes, allowing the red LED to indicate when motion is detected (See "walk test and adjustment" below). This allows the installer time to adjust the motion sensor positioning and perform walk tests to verify that motion detection is functioning as desired.

2. Add to Composer Project
To add the Wireless Motion Sensor to your Composer project, select the Search Tab, and choose "Motion Sensor" in Device Type (see screenshot below). The Wireless Motion Sensor is identified to the Control4 system in the same manner as all other Card Access devices. When powered up to identify the unit, depress the button inside the Wireless Motion Sensor’s battery compartment four (4) times. The green LED will blink twice to confirm the ID has been sent to the Control4 system and the MAC address of the device will be added to the appropriate field. To configure Composer Project events based on the Wireless Motion Sensor, please refer to Control4 Composer documentation.

3. Low Battery Indication
Battery Low and Battery Critical events are generated by the Control4 system when the battery level on the Wireless Motion Sensor drops to a certain level. These events can be configured within Card Access Composer to signal the installer and/or the homeowner that battery replacement is needed.

4. Mounting
Select a mounting location for the Wireless Motion Sensor. When choosing an appropriate location the following should be considered:

- A mounting height of six (6) to eight (8) feet is recommended.
- A mounting angle of 10 degrees or less is best.
- The Wireless Motion Sensor should not be placed outdoors, since a false trigger may occur if the Motion Sensor is exposed to weather conditions.
- The angle of the Wireless Motion Sensor may be adjusted, in increments of 5 degrees (e.g., -5 degrees to 10 degrees). (It is recommended that you do NOT adjust the Motion Sensor to less than a 12 degree angle). Maximum range may not be desired if the Motion Sensor is placed outdoors, since a false trigger may occur if the Motion Sensor is set to detect motion in the distance. Motion sensitivity is also adjustable on the Properties page in Composer and Advanced Settings for information on adjusting the sensitivity.

5. Walk Test and Adjustment
It is important to perform a Walk Test after mounting the Wireless Motion Sensor in order to determine if the sensor is properly detecting motion in the desired areas. The Walk Test mode will indicate whether or not the sensor is detecting by illuminating the red LED on the Wireless Motion Sensor. The Walk Test mode is automatically activated for a 5-minute period after the unit is first powered up, or any time the ID button of the Wireless Motion Sensor is pressed (see figure below). After 5 minutes, the Motion Sensor will exit the mode automatically.

The angle of the Wireless Motion Sensor may be adjusted, in order to control how far the Motion Sensor can "see." To reduce the detection range, simply tilt the sensor downward. To increase the range, tilt the sensor upward. Range is maximized when the sensor is tilted 12 degrees. (It is recommended that you do NOT adjust the Motion Sensor to less than a 12 degree angle). Maximum range may not be desired if the Motion Sensor is placed outdoors, since a false trigger may occur if the Motion Sensor is set to detect motion in the distance.

6. Occupancy Hold Time
When motion is detected within the monitored area, the Wireless Motion Sensor sends a ‘motion detected’ event to the Control4 system. When no motion has been detected for the designated time (see "Occupancy Hold Time") a ‘no motion’ event will be sent to the Control4 system.

Using the slider on the Properties Page in Composer, the Occupancy Hold Time may be adjusted to values ranging from five (5) seconds to 60 minutes. Use the Occupancy Hold Time for the length of time required for the event or the amount of time for a device to be controlled. For example, if you are controlling a light in a particular room, set the Occupancy Hold Time for amount of time you want the light to stay on after NO MOVEMENT is detected. Then use the "No Motion" alert event to shut off the controlled light. The higher the Occupancy Hold Time setting, the longer the battery life of the Wireless Motion Sensor.

Supported Models and Requirements

This documentation applies to the following Card Access products:

- WMS10-2: Wireless Motion Sensor—EmberNet (Requires Control4® Release 1.7.2 or greater)
- WMS10-2-ZP: Wireless Motion Sensor—ZigBee PRO®, (Requires Control4® Release 1.8.0 or greater)

Features

The Card Access Wireless Motion Sensor works with your Control4® system and combines the features of a passive infrared (PIR) motion sensor with ambient light sensing detection into a single unit. The Wireless Motion Sensor uses two integrated photoelectric cells (one in the front, one in the back) to provide better motion sensing reliability than a single sensor. The Wireless Motion Sensor features tight integration with Control4. A feature-rich Composer Properties Page enables high levels of control without requiring a deep knowledge of the Composer software.

Features:

- Sensor drops to a certain level.
- These events can be configured within Card Access Composer to signal the installer and/or the homeowner that battery replacement is needed.

Specifications

<table>
<thead>
<tr>
<th>Model Number(s)</th>
<th>WMS10-2, WMS10-2-ZP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Detection Method</td>
<td>Passive Infrared (PIR)</td>
</tr>
<tr>
<td>Coverage</td>
<td>110° - 180° Wide Angle Lens 50-50 8 ft (3m-15m) depending on sensitivity setting, mounting angle and temperature. Motion Sensors may be cascaded together to improve coverage.</td>
</tr>
<tr>
<td>Recommended Mounting Height</td>
<td>7 ft nominal (2.1m). Variable dependent upon desired application.</td>
</tr>
<tr>
<td>Internal Light Sensor Measurement Range</td>
<td>10-1 to 10,000 lux</td>
</tr>
<tr>
<td>LED Indicator</td>
<td>Red LED to indicate motion upon initial power up or after a programming change is sent from Composer. Green LED for radio test (EmberNet only).</td>
</tr>
<tr>
<td>Unit Dimensions</td>
<td>3 x 2.25 x 0.54 in (8 x 63 mm x 13.7mm)</td>
</tr>
<tr>
<td>Power Source</td>
<td>9V alkaline (included) or lithium battery. 2-24V AC/DC Power Adapter (Model No. WPS10A) also available from Card Access.</td>
</tr>
<tr>
<td>Power Usage</td>
<td>≤1Ma Idle, ≤1mA active</td>
</tr>
<tr>
<td>Estimated Battery Life</td>
<td>1 to 2 years depending on usage (standard 9V alkaline battery). Lithium battery will provide longer operation.</td>
</tr>
<tr>
<td>Environmental</td>
<td>Water resistant, IP44 (Splash Proof) rated. The Wireless Motion Sensor is NOT waterproof and must be kept out of direct contact with water. The product must NOT be immersed.</td>
</tr>
<tr>
<td>Operational Temperature</td>
<td>−20°F to 158°F (−28°C to 70°C)</td>
</tr>
<tr>
<td>Humidity</td>
<td>5% to 95% Non-Condensing</td>
</tr>
<tr>
<td>Control4 Version Support</td>
<td>WMS10-2, Version 1.7 or greater. WMS10-2-ZP, Version 1.5 or greater.</td>
</tr>
<tr>
<td>Wireless Specifications</td>
<td>IEEE 802.15.4 ZigBee Mesh Networking</td>
</tr>
</tbody>
</table>

NOTE: Make sure the Wireless Motion Sensor is positioned for good ZigBee wireless reception by (1) ensuring it is within 100 feet of another Zigbee device and (2) avoiding other electrical equipment that may cause interference with the ZigBee signal (such as 2.4GHz cordless telephones).
Motion Sensor Sensitivity Adjustment

The sensitivity of the Motion Sensor is adjustable via the Composer Properties Page. Controls light level and time required before light mode is toggled.

Advanced Settings

The Composer Properties Page allows for advanced configuration of Motion Sensor and Light Sensor properties. Several characteristics of the Wireless Motion Sensor can be programmed and are described in the following diagram:

1. **Indicates current motion sensor status**
2. **Indicates current amount of light detected**
3. **Indicates current mode of operation (Day/Night)**
4. **Controls light level and time required before light mode is toggled**
5. **Click to program settings into the device**
6. **Instructs the Wireless Motion Sensor to send an updated light level to the Zigbee network when light level changes by at least the specified percent. Lower values can compromise battery life**
7. **Instructs the Wireless Motion Sensor to be disabled when in Day or light mode (also conserves battery life)**

Troubleshooting

To remove the Wireless Motion Sensor from a ZigBee PRO network and restore factory settings:

1. Release the ID button. The Motion Sensor is now restored to factory configuration.
2. If the Wireless Motion Sensor is not working properly:
   - Restart the Motion Sensor by removing the batteries or power supply and then returning power.
   - If the Wireless Motion Sensor is not working properly:
     - Restart the Motion Sensor by removing the batteries or power supply and then returning power.

For detailed Zigbee PRO specific information:

Please see the latest Zigbee PRO Upgrade and Installation Guidelines document, available for download at http://www.cardaccess-inc.com/support/

Regulatory Compliance

The Card Access Wireless Motion Sensor complies with standards established by the following regulatory bodies: Federal Communications Commission (FCC), Conformité Européene (CE), and Restriction of Hazardous Substances (RoHS).

FCC ID: MHIWMS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Product Registration

Please visit www.cardaccess-inc.com/inhome/registration to register your new product. Along with your contact information, you must provide the following additional information:

- Product Name (Wireless Motion Sensor)
- Model Number (WMS10-2 or WMS10-2-ZP)
- Date of Purchase
- Place of Purchase
- Serial Number (this is the "MAC ID" located on the sticker attached to the inside of the back cover)

To notify Card Access of any breach of the foregoing limited warranty and to obtain warranty service, contact Card Access Customer Support by e-mail at support@cardaccess-inc.com or by calling 801-748-4900, extension 15, to obtain a Return Materials Authorization ("RMA") number and instructions for returning your defective product to Card Access.

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