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Client: Alarm.com  
Model: ADC-UB-100-AT  
Standards: FCC 15.247/IC RSS-247  
ID's: YL6-143UB100AT/9111A-143UB100AT  
Report #: 2015182

**Appendix K: Manual**

Please refer to the following pages.

# User Guide

## Alarm.com Multisensor

### Summary

The Alarm.com Multisensor is a multi-purpose sensing solution for the connected home, designed to work with a broadband or cellular automation hub. The Multisensor can detect door/window status, PIR motion, and accelerometer activity. Additionally, a push button can be configured to allow the user to manually trigger automation rules for other Z-Wave devices connected to the Hub. The Multisensor can be powered either by two AAA batteries or by a 5V source via the Power / External Sensor Port.

### Interfaces & Components

#### Front Button

The face of the Multisensor has a button used for sending automation signals to Alarm.com. For example, the front button can be programmed to turn on/off a Z-Wave light. The button is also used for calibrating the Multisensor door functionality.

#### Reset Button

The Reset Button, located beneath a pinhole on the bottom face of the Multisensor, is used to initiate either network reset or factory reset (depending on how long it is pressed).

#### Status LED

The Status LED indicates the Multisensor's connection states via green and red LEDs. See Connection States table below.

#### Ring LED

The orange Ring LED provides information to the user when setting a reference for the door sensor.

#### Battery Compartment

The battery compartment is accessed by removing the front-face of the sensor.

#### Power / External Sensor Port

The USB 3.0 micro B Power / External Sensor Port on the bottom of the device provides a power jack as an alternative to using batteries.

### Connection States

#### Device Off

Status LED: Off

The device is not powered and not functioning.

#### Connected

Status LED: Off

The Multisensor is communicating with the Hub.

#### Searching for New Network

Status LED: Quickly flashing red

The Multisensor is searching for a new network to join. Put the Hub into add mode to pair the devices. The Searching for New Network mode can be returned to at any time by performing a network or factory reset. This is the default mode of a sensor that has not been paired with a hub.

#### Attempting to Reconnect to Network

Status LED: Slowly flashing red

The Multisensor is searching for a network that it previously joined. The Multisensor will remain in this state until it either finds the old network or is factory reset.

#### Joining Network

Status LED: Solid green for two seconds

The Multisensor is joining a new network or is reconnecting to a network that it has previously joined.

### Actions

#### Power Device On (Battery)

To turn on the device using battery power, insert two AAA batteries. The battery compartment is accessed by pulling off the front face of the Multisensor out and down. Use AAA batteries only. When removing batteries, take care not to bend the battery terminals.

#### Power Device On (5V)

To turn on the device using a 5V power source, connect a Micro-USB B cable (either versions 2.0 or 3.0) to the left side of the Power / External Sensor Port located on the bottom of the Multisensor. Connect the USB cable to any standard 5V USB AC/DC converter. Batteries do not need to be inserted, as the device will turn on automatically after applying power.

#### Power Device Off

To turn off the Multisensor, remove the batteries and disconnect the 5V power source, if applicable. The battery compartment is accessed by pulling off the front face of the sensor out and down. Take care not to bend the battery terminals when removing the batteries.

#### Network Reset

A network reset will remove any connection to an existing hub, but will not impact the Multisensor's application

configurations. To perform a network reset, push and hold the Reset Button on the back of the Multisensor until the Ring LEDs begin flashing (approximately seven seconds), then release the button. The Status LED should begin quickly flashing red. Note that this procedure will not remove the Multisensor from the Hub. The Multisensor must be removed from the Hub using the web portal or by factory resetting the Hub.

### Factory Reset

A factory reset will reset the Multisensor's application configurations including removing any set reference points, returning sensitivity settings to default, turning on all default applications, and turning off non-default applications. In addition, any network connections will be reset. To perform a factory reset, push and hold the Reset Button until the Ring LEDs flash, continue holding until the LEDs flash again in bursts of two (15 total seconds). Release the Reset Button. The sensor will reset.

### Set Door/Contact Reference (Swinging Door/Window)

A reference point must be set before the door/contact sensor application can be used. The reference point must be taken when the door/window is closed. To take the reference, close the door/window, and remove the batteries from the Multisensor. Securely affix the sensor to the door, and insert the batteries. After the sensor boots, press and hold the front face button until the Ring LED illuminates. Release the button gently. The Ring LED will flash to indicate that the reference has been set. Note that the reference can only be set within the first 60 seconds after inserting the batteries.

### Set Door/Contact Reference (Sliding Door/Window)

Using the door/contact sensor application with sliding doors/windows requires the additional use of a magnet. Securely affix the Multisensor to the door/window and place the magnet on the molding or doorjamb. Align the magnet with the three dots on the side of the Multisensor. The reference point must be taken when the door/window is closed. Close the door/window, and remove the batteries from the Multisensor. After the sensor boots, press and hold the front face button until the Ring LED illuminates. Release the button gently. The Ring LED will flash to indicate that the reference has been set. Note that the reference can only be set within the first 60 seconds after inserting the batteries.

### Installation Tips

Strong magnetic fields may interfere with the operation of the Multisensor. Avoid installing the Multisensor on or near large magnetic objects.

## Regulatory & Certifications

### Multisensor Specifications

**Power Source:** 2xAAA batteries or 5V nominal over USB

**Operating Voltage:** 2.7V - 5.5V

**Expected Battery Life:** Approximately 2 years with alkaline batteries. Battery life varies by use-case depending on certain factors such as signal strength and frequency of sensing events.

**Operating Temperature:** 32 to 120°F (0 to 49°C)

**Storage Temperature:** -30 to 140°F (-34 to 60°C)

**Dimensions:** 2.9" x 2.9" x 0.8"

**Wireless Signal Range:** Greater than 400 ft open air

### Regulatory Information

Changes or modifications not expressly approved by Alarm.com can void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de perturbations, et (2) l'utilisateur de l'appareil doit accepter toutes perturbations radioélectriques subies, même si les perturbations sont susceptibles d'en compromettre le fonctionnement.

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.

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