



MIDMARK RTLS

# FCC User Guide

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### ***Proprietary Information***

**FCC STATEMENT:**

1. 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.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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:

- Reorient or relocate the receiving antenna.
  - 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.
3. FCC Radiation Exposure Statement  
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**Document Control**

<i>Version</i>	<i>Meeting Date</i>	<i>Contributors</i>	<i>Topics Discussed</i>
1.0	12-30-2020	BW	Initial draft of FCC user guide.
1.1	1-5-2021	BW	Updated
1.2	1-14-2021	BW	Updated
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## I. Introduction

### A. Purpose of This Guide

This document is intended to provide the information required to install the hardware component of a Midmark VER-5800 BLE-Plug-In Sensor.

## II. System Description

The Bluetooth Low Energy – Access Controller Sensor (BLE-AC) provides a way for indoor positioning. The Midmark VER-5800 BLE- Plug-In Sensor acts as a gateway with an integrated WIFI wireless communication technology to forward the traffic to the cloud. The Midmark BLE Plug-In Sensor scans for BLE devices nearby to gather location information then uploads these messages to the cloud servers. To configure the sensor there is a Midmark app for iPhone and Androids that assigns the WIFI credentials and sets the sensor cloud connection. The cloud connection passes the data along to the indoor mapping location application.

## III. Asset Tracking Platform Parts List

The table below lists all current available Asset Tracking Platform hardware components and their related part numbers:

Part Number	Description
VER-5800 BLE-Plug-In	Sensor to scan for BLE signals

## **IV. Asset Tracking Platform Component Overview**

### **A. Signaling Devices and Supplies**

#### **1. BLE Tags**

The VER-5800 BLE-Plug-In Sensor scan nearby BLE devices to gather information via Bluetooth. Once it reads the data from the different BLE tags it uploads this information to the cloud via WIFI.

## **V. Asset Tracking Sensor Placement Guidelines**

### **A. Use the following guidelines for sensor placement in an available 110v outlet:**

- The distance between sensors should be less than 25 feet
- The height from the floor should be between 1 and 12 feet in a wall mounted receptacle
- Room sensor placement preference is away from corridors and room entry doors
- Corridor sensor placement preference is away from doors for rooms with a sensor
- Sensors should be 9 to 30 feet away from floor transitions (e.g., stairs, escalators, and elevators)

## **VI. Controlling Relay**

### **A. For the initial release of the sensor, the relay is set to the on state with no option to control it.**

When relay is set, power is passed through.

## VII. Specifications

### 1. Basic Specifications

<b>Wireless technology</b>	BLE, WI-FI
<b>Input voltage</b>	120VAC
<b>Output voltage</b>	120VAC
<b>Impulse Voltage</b>	1500 V
<b>Max load current</b>	15A
<b>Max load</b>	1800W
<b>Operating temperature &amp; humidity</b>	0°C~40 °C/10%~90%
<b>Plug type</b>	North America
<b>Dimensions</b>	42x38x69mm

### 2. Wi-Fi Specifications

<b>Wi-Fi protocol</b>	802.11b/g/n
<b>Frequency band</b>	2.4Ghz
<b>Transmission power</b>	11n: MCS7 13dB 11b: 14dB

### 3. Bluetooth Specifications

<b>BT standard</b>	V4.2 BLE
<b>Receiving sensitivity</b>	-97dB

### 4. Button Specifications

<b>5 second long press</b>	Trigger OTA update
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### 5. LED Indicator

<b>OTA update</b>	Cycles RGB led's
<b>Detecting packets</b>	Flashes Blue, stops after 60 seconds.
<b>Packets sent to cloud</b>	Flashes Green, stops after 60 seconds.



## 6. UL

**“Type 1 Enclosure”,**

**Purpose of control: Operating Control;**

**Construction of control: Portable Direct Plug In Type;**

**Type 1 Action;**

**Pollution Degree: 2;**

## VIII. Product Appearance


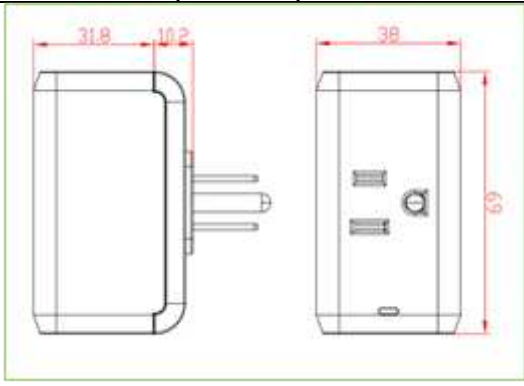
Product Photo	Dimensions (in mm)
	

Figure 1 Example Caption and Scree