

## Quick Start Guide for the Limitless™ Series WPMM Monitor *used in conjunction with the Limitless™ Switch Series*

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### **WARNING** **PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.  
**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING**

Honeywell does not recommend using devices for critical control applications where there is, or may be, a single point of failure or where single points of failure may result in an unsafe condition. It is up to the end-user to weigh the risks and benefits to determine if the products are appropriate for the application based on security, safety and performance. Additionally, it is up to the end-user to ensure that the control strategy results in a safe operating condition if any crucial segment of the control solution fails.  
Honeywell customers assume full responsibility for learning and meeting the required Declaration of Conformity, Regulations, Guidelines, etc. for each country in their distribution market.  
**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING** **RF EXPOSURE**

To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna used for this transmission must not be co-located in conjunction with any other antenna or transmitter.

**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING**

The WPMM must be installed in accordance with the requirements specified in this document. See Section 3&4 for EIRP requirements. Only the specified EIRP power settings, antenna types and gains and cable lengths (attenuation) as outlined in this document are valid for WPMM Series installations.

### **CAUTION**

Power to the WPMM should not be applied (ensure battery is removed) during installation of antenna as damage could occur to the WPMM electronics.

This WPMM Series quick start installation guide provides basic installation instructions for the WPMM used in conjunction with a Limitless™ switch. If necessary, refer to the WPMM or Limitless™ switch (i.e WGLA, WLSA, etc.) Installation and Technical Manual for further detailed information regarding installation.

## 1.1 Antenna Connection

### **WARNING**

#### **RF EXPOSURE**

\* To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm [7.87 in] or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna used for this transmission must not be co-located in conjunction with any other antenna or transmitter.

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### **CAUTION**

Power to the WPMM should not be applied (ensure battery is removed) during installation of antenna as damage could occur to the WPMM electronics.

A **direct mount antenna** (either straight or tilt & swivel) can be easily mounted by threading the mating RP-SMA plug of the antenna to the RP-SMA jack on the WPMM. Tighten the connection until finger tight.

A **remote mount antenna** requires the use of an extension cable to allow the antenna to be mounted in a different location than the WPMM location. The extension cable will need to have one end with a RP-SMA plug connector which will mate with the WPMM connector jack under the same mounting procedure as the direct mount antenna. The other end of the extension cable will need to mate with antenna connector directly.

## 1.2 Electrical Connections

**⚠ WARNING**  
**RISK OF ELECTRICAL SHOCK**  
\* Potential shock hazard where HAZARDOUS LIVE voltages greater than 30 Vrms, 42.4 Vpeak, or 60 Vdc may be accessible.  
**Failure to comply with these instructions could result in death or serious injury.**

**ⓘ ATTENTION**  
Do not run the electrical wires in parallel and close proximity to the antenna or antenna cable.

**Power supply connections:** The WPMM has three 0.25 in quick connect terminals on the bottom of the housing. A regulated voltage supply of 10 Vdc to 30 Vdc needs to be connected to the terminals identified with a “V+” and “V-”. See Figure 1.

**NPN output connections (optional):** The WPMM is supplied with a NPN normally open current sinking output. The customer has the option of connecting their NPN current sinking-compatible circuitry to the terminals identified with an “OUT” and “V-”. See Figure 1.

Figure 1. Limitless™ WPMM terminals



## 1.3 Start-up or Re-start Sequence

Turn-on the power to the “V+” and “V-” terminals (after proper connection described in Section 1.2) which will initiate a check of the LEDs and buzzer on the WPMM. If properly working, red, amber, and green LEDs illuminate along with the buzzer sounding for approximately three seconds.

The following describes how the WPMM LEDs will indicate that the WPMM is ready for use:

**Zero switches paired (per Section 1.4) to the WPMM:** The green LED will illuminate indicating power is being supplied to the WPMM and the unit is ready to use.

**One or more switches paired (per Section 1.4) to the WPMM:** The WPMM will enter a System Check Mode for up to two minutes. The red, amber, and green LEDs illuminate sequentially until the system check is successfully completed at which time the green LED will illuminate indicating power is being supplied to the WPMM and the unit is ready to use.

**ⓘ ATTENTION**  
If there are multiple WPMMs being used in the application, apply power to previously paired WPMMs first (if any) and then to one WPMM at a time. **Allow time for each WPMM to complete its start-up sequence before applying power to the next WPMM.**

## 1.4 Pairing Mode

Pairing is required to initiate and establish an RF communication link between each single WPMM and a single Limitless™ switch. The Limitless™ switch will be shipped from the factory with two identification labels (1) that are recommended to be completed and applied to the Limitless™ switch housing during the pairing mode. As there are up to 16 Limitless™ switches that can be paired to a single WPMM, these labels will be used to identify the Limitless™ switch in the sequence of #1 to #16. The initial Limitless™ switch paired to the WPMM will be Sequence #1; the second Limitless™ switch paired will be Sequence #2 and so on. If replacing a Limitless™ switch that has been purged (see section 6.5 of the WPMM Installation and Technical Manual), identify the correct replacement Sequence # on the identification labels.



### ATTENTION

The operation and LED functions for the WPMM are visually depicted and described in Section 5.4 of the WPMM Installation and Technical Manual. This file is also located as a separate file on this CD or at [www.honeywell.com/sensing](http://www.honeywell.com/sensing).



### ATTENTION

The operation and LED functions for the WPMM are visually depicted and described in Section 5.4 of the WPMM Installation and Technical Manual. This file is also located as a separate file on this CD or at [www.honeywell.com/sensing](http://www.honeywell.com/sensing).

The battery will need to be activated in the Limitless™ switch and proper power applied to the WPMM (green ② LED illuminated) before proceeding with this pairing procedure. Once the pairing is completed, the Limitless™ switch selected will only communicate with the WPMM it was paired to and no other device.

Step	Action
1	Completely read this procedure before starting in order to understand the timing of events that need to be performed.
2	Limitless™ switch: Remove (if required) the two screws ⑥ on the housing cover (See Figure 2) of the Limitless™ switch and locate the function button ⑦ to be used in Step 4.
3	WPMM: Press the Function button ④ on WPMM (See Figure 3) for more than four seconds and less than eight seconds at which time the green ② and amber ③ LEDs will be flashing which indicates to release the function button immediately as it has entered the pairing mode.
4	Limitless™ switch: Within a 30 second interval of Step 3, depress the Limitless™ switch function button ⑦ (See Figure 4) and hold depressed for more than one second and less than 12 seconds at which time the orange ⑧ LED turns on. While in pairing mode, the orange led will flash on for 100 ms every second. The orange ⑧ LED flashes three times 100 ms on, 100 ms off when pairing succeeds. If pairing does not succeed, the orange ⑧ LED will turn off and user will need to repeat steps starting with Step 3.
5	Limitless™ switch: Successful pairing will be indicated by the green ② and amber ③ LEDs (See Figure 3) ceasing to flash and remaining on for a few seconds before turning off. A short buzzer beep will also occur.
6	To confirm proper pairing between the Limitless™ switch and WPMM, actuate the Limitless™ switch, and the red LED ⑤ should illuminate along with a buzzer sound.
7	Record the Limitless™ switch Sequence # on identification labels ① and apply to the Limitless™ switch housing in desired locations (See Figure 5).
8	Repeat Steps 2-7 to add additional Limitless™ switch. Up to 16 Limitless™ switches can be paired to a single WPMM.

Figure 2. Limitless™ Switch Housing

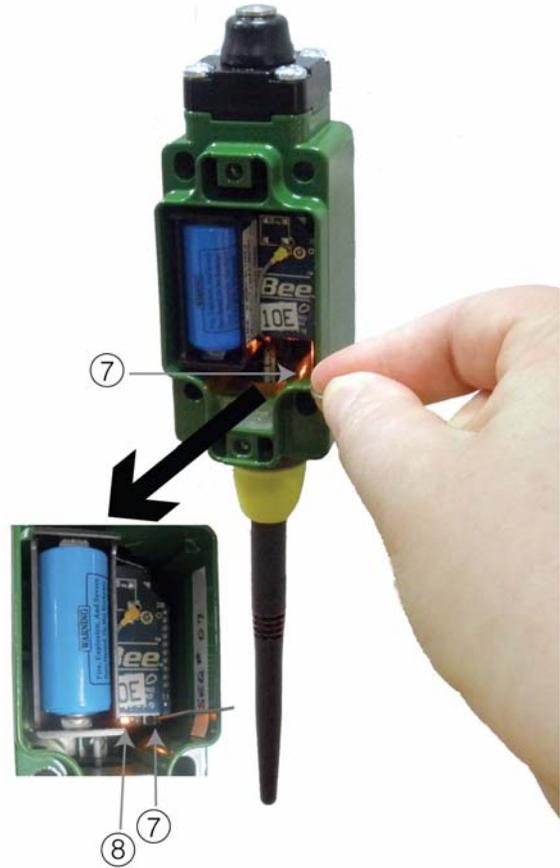


Figure 3. Limitless™ Switch Housing



**NOTE:** Use a blunt object, such as a paper clip or tooth pick to actuate the function switch ④.

Figure 4. Limitless™ Switch with Function Button Depressed



**NOTE:** Use a blunt object, such as a paper clip or tooth pick to actuate the function switch ⑦.

Figure 5. Limitless™ Switch Label Placement



## 1.5 WPMM Mounting

The WPMM is intended to be inserted into a 0.95 in x 1.45 in [24,13 mm x 36,83 mm] panel cut-out. Installation should have the correct cut-out or a panel-mount bracket may be used. Honeywell part number WPB1 is an alternative (See Section 9.3 in WPMM Technical and Installation Manual).

Insert the housing into the panel or panel-mount bracket so that the bezel is firmly seated against the panel surface as shown in Figure 6. The retainer clip (supplied with unit) will then need to slide over the back of the housing and lock against the underside of the panel as shown in Figure 2. The other mounting alternative is to use the two mounting holes located in the front bezel (see Figure 8) and attach with #6-32 (not supplied). Also reference Section 9.3 of the WPMM Technical and Installation Manual.

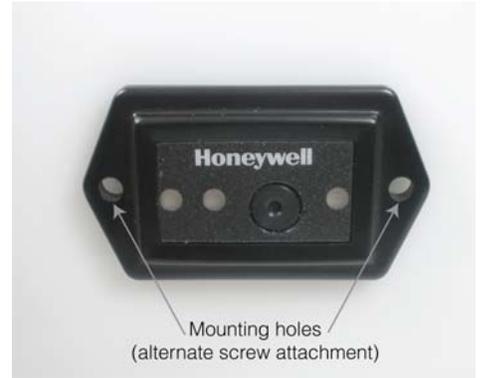
**Figure 6. WPMM Panel Mount – Back View**



**Figure 7. WPMM Panel Mount – Back View In Place**



**Figure 8. WPMM Panel Mount – Front View**



## 1.6 Antenna Adjustment

The antenna of the WGLA and WPMM should be oriented with respect to each other such that they are parallel. This will in most cases allow the longest range and highest RF communication link/signal. The least RF signal is normally in a direction in-line with the top of the antenna, so it is best to avoid having the antennas pointed directly toward each other, or directly away from each other. An acceptable RF signal is also indicated by the WPMM. This can be checked by making sure the red ⑤ LED turns on when the WGLA is actuated but the amber ③ LED is off.

Figure 9. Limitless™ WGLA and WPMM in parallel



Figure 10. Limitless™ WPMM LED display



**NOTE:** Use a blunt object, such as a paper clip or tooth pick to actuate the function switch ④.

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# Limitless™ WPMM Series

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## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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