FLOOR
# SENTRY

BY WAGNER METERS


# INSTRUCTION MANUAL

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# CONGRATULATIONS!

With the Floor Sentry, you have purchased an advanced, state-of-the-art device that operates from directly inside your wood floor. The Floor Sentry monitors temperature and relative humidity (RH) and serves as a data logging device that creates a historical record of temperature and RH.

If either the temperature or the RH falls outside the desired range for proper floor care and/or avoiding potential floor damage, the Floor Sentry alerts you by automatically delivering notifications wirelessly to your mobile device. Just like your mobile device, the Floor Sentry is Bluetooth-equipped, so you must be

within Bluetooth® range to receive Floor Sentry notifications for either temperature or RH-related issues.

## WHY FLOOR SENTRY?

Installing a Floor Sentry with your new wood floor helps protect your investment. Wood flooring may be at risk of damage or catastrophic failure if exposed to unfriendly ambient conditions. This unwanted exposure can occur either from inside your home or building or from the underside of the flooring (what is often called the subfloor).

Your natural, wood-based floor is really part of an overall system that consists of (1) the finished floor itself, (2) the subfloor that the flooring is installed over, (3) the

ambient environment above the flooring (the inside environment of the room or building), and (4) the environment that the underside of the subfloor is exposed to (typically, a crawl space or concrete slab foundation).

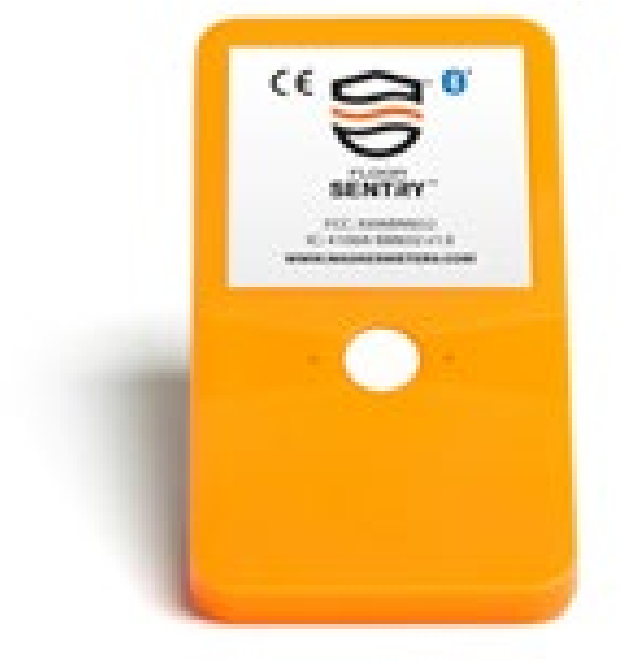
**Keep in mind:** If ambient conditions, primarily temperature and RH, go beyond safe limits for extended periods of time, significant damage to your wood flooring may occur. Types of damage may include cupping, splitting, crowning, etc.

The Floor Sentry's purpose is to help prevent serious wood flooring problems. With its advanced technology, the Floor Sentry continuously monitors

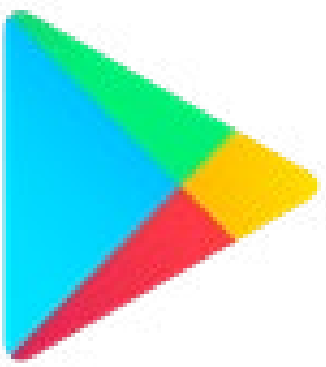
the temperature and RH of the wood flooring and the underlayment/subfloor. Installing the Floor Sentry in your floor gives peace of mind that you will automatically receive alerts or notifications on your mobile device if environmental conditions go beyond safe limits.

# QUICK START

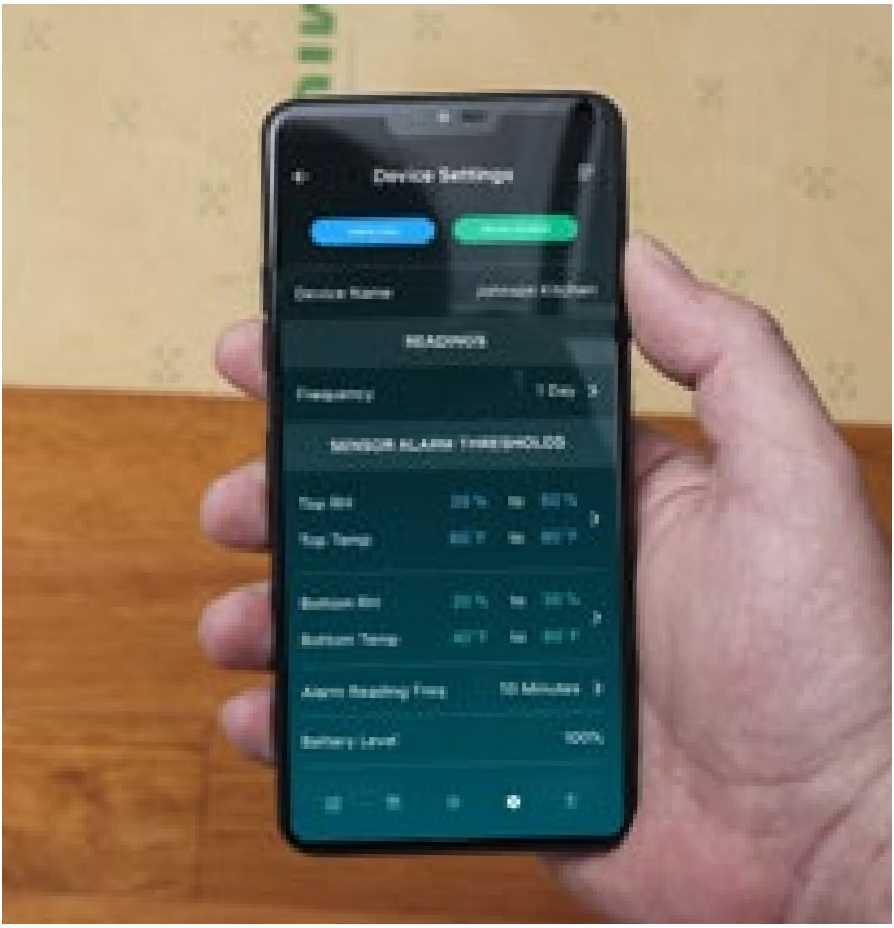
Getting started with your new Wagner Floor Sentry is as easy as 1-2-3.




**Step 1.** Install the Floor Sentry in your wood flooring using the included installation template. Simply follow the instruction procedures and dimensions provided with the template.



**Step 2.** Download the Wagner Sentry app from either the Apple App Store or Google Play.




**Step 3**. Open the app, give your Floor Sentry device its own unique name, adjust the default settings (as needed), click the **Device Installed** button on the Device Settings screen, and you are ready to begin monitoring temperature and RH at whatever frequency you desire.

# INSTALLATION

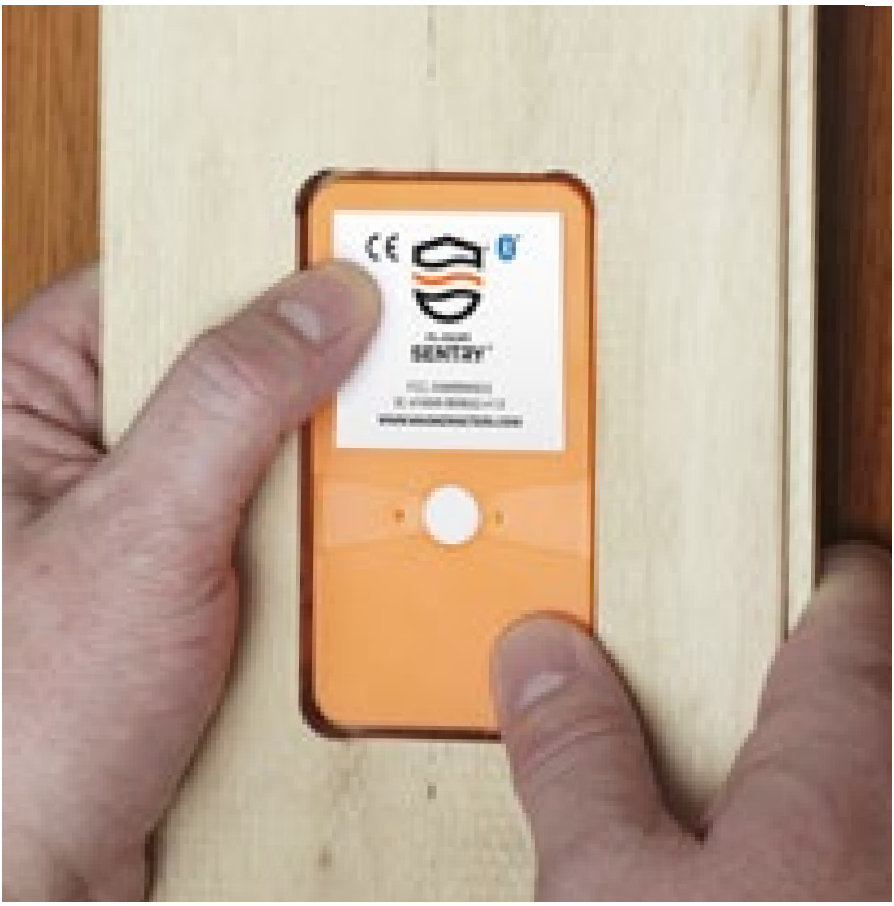
The Floor Sentry is small enough to be installed in a cavity in the underside of one floor plank. A cavity is created by routing using a woodworker's router tool. The Floor Sentry is installed in this cavity and then the plank is installed as normal.

**Guidelines for determining the number of Floor Sentry devices to install:** Place one Floor Sentry for every 1,000 square feet, and at least one on each story or level. If the floor has radiant heating zones, then install one Floor Sentry for each heating zone.

1. Use the installation template included with your Floor Sentry as a guide to rout out a cavity in the underside of a wood flooring plank. Rout the cavity from the middle of the board (not from the side) using a 0.5" diameter plunge router bit. Ensure at least 0.125" (1/8") of top flooring material is left above the cavity, to help prevent undue stress if walked upon after installation. Install the Floor Sentry in an area that is expected to receive at least some foot traffic, such as a hallway. In high-use areas, it is recommended that the Floor Sentry be installed off to the side and not in the main line of traffic. Be sure to install away

from area rugs, furniture, or other heavy objects. The dimensions of the cavity to rout should be at least 2.1" (5.3 cm) wide, 3.8" (9.7 cm) long, and 0.38" (9.5 mm) deep. Wagner Meters does not recommend installation in boards with thicknesses less than ½ inch.

2. Once the cavity has been routed and cleaned of sawdust or other debris, first “dry fit” the Floor Sentry into the cavity to ensure proper clearance. Then remove the release liner from the butyl seal and install into the cavity with the butyl seal side adhering to the wood at the bottom of the cavity.



the floor plank into the rest of the floor system, make sure that no adhesives or other construction-related materials interfere with the underside of the Floor Sentry. Keep in mind that each side (both top and bottom) of the Floor Sentry contains a sensor. Be sure to note and record the location of the Floor Sentry installation for future reference.

# USING THE WAGNER SENTRY APP

To receive notifications that your wood flooring is at risk due to unfriendly ambient conditions, you will need to use the Floor Sentry device with the Wagner Sentry app. The app can be downloaded for free from either the Apple App Store or Google Play.

For step-by-step instructions on using the app, please consult "How to Use the Wagner Sentry Mobile App" at: *www.wagnermeters.com/wagner-sentry-tutorial*

# SUMMARY OF FLOOR SENTRY FEATURES

- Top and bottom sensors that measure temperature and RH
- Bluetooth capability
- Free, highly intuitive Wagner Sentry app for both iOS and Android devices
- Alerts or notifications when RH or temperature are outside the user-defined alarm threshold
- Installation template with instructions and dimensions
- Capability to store over 16,000 readings
- Long-life pre-installed battery
- Battery health indicator (see Settings page)
- 1-year warranty
- Lifetime customer support

# SPECIFICATIONS

| | |
|---|---|
| Frequency | 2.4 GHz |
| Protocol | BLE 5 |
| Typical Read Range | up to 20 ft or 6 meters |
| Dimensions | 51 mm x 95.45 mm x 9 mm |

| | |
|---|---|
| Weight | 37.75 g,<br>1.33 oz. |
| Lifetime of Battery Pack | Up to<br>8 years<br>(depending on frequency of logging) |
| Storage Capacity | 16,384 readings |
| Measurement Interval | 1 second<br>to 136 years |

# SENSOR SPECIFICATIONS

| Humidity | |
|---|---|
| Accuracy Tolerance[1] | ±3% RH (typ.) |
| Resolution | 0.1% RH |

| Temperature | |
|---|---|
| Accuracy Tolerance[1] | ±0.1° C (typ. 20° C to 60° C) |
| Resolution | 0.1° C (typ.) |
| Repeatability[2] | 0.04° C (high, typ.) |

From Sensirion datasheet:

[1]For definition of typical and maximum accuracy tolerance, please refer to the Sensirion Sensor

Specification Statement found at http://bit.ly/SensirionPDF

[2]The stated repeatability is 3 times the standard deviation of multiple consecutive measurements at the stated repeatability and at constant ambient conditions. It is a measure for the noise on the physical sensor output. Different measurement modes allow for high/medium/low repeatability.

# WARRANTY

Wagner Meters' warranty offers this product protection against defects in material and workmanship for one (1) year from the date of purchase on your Floor Sentry, subject to the following terms and conditions:

Wagner Meters' liability under this warranty shall be limited, at Wagner Meters' option, to the repair or replacement of this product or any part thereof, which is demonstrated to be defective.

To exercise this warranty, visit www.wagnerrepairs.com for instructions. This limited warranty does not apply if Wagner Meters

determines that the product has been damaged by accident, negligent handling, misuse, alteration, damage during shipment, or improper service not attributed solely to the actions of Wagner Meters. Wagner Meters' liability for any defect in material or workmanship in this product shall be limited to the amount of purchase price of the product.

With proper care and maintenance, the Floor Sentry's top and bottom sensors should maintain their accuracy; however, because Wagner Meters has no control over the manner in which the unit will be used, it makes no guarantee that the sensors will maintain their accuracy for any specific period of time.

**Warning:** High relative humidity (RH) conditions of 90% or higher could cause irreparable damage to this device. Exposure to these conditions will void this warranty.

This warranty is in lieu of all other warranties, whether oral or written, express or implied. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. WAGNER METERS HEREBY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Under no circumstances shall Wagner Meters be liable for any incidental or consequential damages. Agents and employees of Wagner Meters are not authorized to make

modifications to this warranty or additional warranties binding on Wagner Meters. Accordingly, additional statements, whether oral or written, except written statements from an officer of Wagner Meters, do not constitute warranties and should not be relied upon by the customer.

# TECHNICAL SUPPORT AND REPAIR CONTACT

**Call Worldwide Toll-Free:**
**(844) 755-3364**

# GLOSSARY OF TERMS

**Relative Humidity (RH):** The amount of water vapor in the air, expressed as a percentage of the maximum amount that the air could hold at the given temperature.

**Temperature:** The degree or intensity of heat present in a substance or object, especially as expressed according to a comparative scale and shown by a thermometer or perceived by touch.

# NOTES

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