Occupancy Sensor – Wall Mounted

Specifications

- **Power Supply**: Solar harvesting, supplemental battery option
- **Transmission Range**: 80 ft. (25 m)
- **Radio Frequency**: 315 MHz
- **Light Required to Maintain Operation**: 15 lux for 6 transmissions/hour, 50 lux for 30 transmissions/hour, 100 lux for 60 transmissions/hour
- **Charge Time to Startup**: 1 minute @ 15 lux, 5 seconds @ 200 lux
- **Charge Time to Fully Charge**: 6 hours @ 200 lux (after startup)
- **Fully Charged Operating Life in Darkness**: 48 hours
- **Dimensions**: 5.83” L x 2.52” W x 1.8” D (148mm x 64mm x 45.7mm)
- **Weight**: 4.09oz. (116 g)
- **Environment**: Indoor use only, 14° to 131°F (-10° to 55°C), 20% to 95% relative humidity (non-condensing)
- **Agency Compliance**: FCC and IC

Product Description

The Verve wall-mounted Occupancy Sensor saves energy and adds convenience by accurately detecting when an area is occupied or vacant. It is a wireless, solar-powered sensor that detects occupancy using passive infrared (PIR) heat and motion sensing. The sensor transmits RF messages to Verve lighting, HVAC, and outlets to use energy more efficiently.

Features Include:

- Sends wireless messages to other devices whenever motion is detected
- Harvests ambient solar energy to power the sensor and wireless communication
- Mounts flush on the wall or in a corner; adjustable ceiling corner bracket sold separately
- Works with other sensors for enhanced occupancy tracking
- Interchangeable lenses for tailored sensor coverage
- Built-in tests to confirm operation at installed location
- Supplemental battery option for extreme low-light failover

Planning

Take a moment to plan for the sensor’s successful operation and optimal communication with other system components.

**Tips**:
- To quickly ensure the sensor energy storage is fully charged, insert a CR2032 battery for 30 seconds.
- Ensure the location provides consistent and adequate light
- Install with the appropriate lens for the required coverage
- Locate the sensor where traffic moves across the detection pattern, not in and out
- Provide a minimum clearance of 4 ft. (1.2m) away from heat sources, light bulbs, forced air, or ventilation systems
- Consider the construction materials in the space and obstacles that may interfere with RF signals

Installing

**Estimated time: 20 minutes**

1. Remove the mounting plate from the sensor assembly.
2. Using a level and a pencil, lightly mark two small dots to align the upper edge of the mounting plate.
3. Decide which of the two installation options is appropriate.

**Flush to the Wall**

- Orient the mounting plate using the pencil marks. Mark the two mounting screw drill points.
- Drill two holes with a 3/16" drill bit and insert the wall anchors.
- Insert the first screw loosely and level the mounting plate.
- Insert the second screw and then hand-tighten the first screw.

**Angled in a Corner**

- Orient the mounting plate using the pencil marks.
- Carefully drill through two of the four blind holes on the angled sides of the mounting plate (one on each side).
- Mark the two mounting screw drill points and drill two pilot holes with a 3/16" drill bit and insert the wall anchors.
- Insert the two screws and hand-tighten them.

5. Fit the sensor into the groove at the bottom of the mounting plate and close the top.
To change the lens:

1. If the sensor is mounted, press the top tab and remove it from the mounting plate.
2. Unscrew the small screw on the back at the bottom and remove the front cover.
3. If light levels are very low where the sensor is installed, auxiliary battery power (CR2032) can be used to supplement the solar energy harvester.
4. Remove the installed lens by gently squeezing it to ease one side out of its groove, and then the other.
5. Insert the lens you want to use by aligning the notch with the top on the front cover.
6. Orient the smooth side facing out, and the textured side facing the sensor.
7. Hold both edges of the lens, flex it gently and push until it pops into the grooves. Make sure the edges are flush.

Troubleshooting

Problem

The sensor does not generate a wireless message

Solution Checklist

• Verify the LED blinks when motion is detected
• Verify the solar cell is charged properly

The sensor is activated when there is nothing to detect

• Verify there is 4 ft, (1.2m) clearance from heat sources that may disturb sensing
• Reduce the sensitivity setting by moving the switch on the back of the sensor to the left-hand position

The linked device does not respond to wireless messages

• Check for environment or range issues
• Verify the device is linked
• Check the transceiver connection and the wiring for errors
• Check if appropriate devices are linked according to good system planning

Installing Supplemental Battery (optional)

If light levels are very low where the sensor is installed, auxiliary battery power (CR2032) can be used to supplement the solar energy harvester.

1. Remove the sensor from the mounting plate.
2. Unscrew the battery cover and identify the battery holder on the circuit board.
3. Insert the battery under the clip with the positive pole (+) up and press it in place.
4. Replace the cover and remount the sensor on the wall.

FCC RF

Notch

Solution Checklist

• The 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.

Limited Warranty

Verve™ Products Limited Warranty. Subject to the other terms of this warranty, Liberty Hardware Mfg. Corp. (“Liberty Hardware”) warrants you, the original purchaser that this Verve™ product will be free from defects in material and workmanship for five years from the date of purchase of the product. If the product does not comply with this limited warranty, Liberty Hardware will, at its discretion, repair or replace the product. Repair or replacement is your sole remedy under this or any other warranty of the product, whether express or implied.

Coverage Limitations. This limited warranty extends only to the original purchaser and does not apply to any buyer or user to whom the product is resold, rented, leased, transferred or otherwise disposed of. Liberty Hardware is not responsible for any damage resulting from any product installed improperly or in an improper environment, overloaded, misused, abused, altered in any manner.


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