

# Redwood Sensor Installation Instructions

Model No:  
RS-2G

The Redwood Sensor collects data on light levels, temperature and motion. The Redwood Sensor is easily installed in the ceiling tile or junction box near the fixture. The Sensor communicates with a Redwood Gateway via cabling with pre-terminated RJ25 connectors to send information to the Redwood Engine.

## Specifications

### MECHANICAL

- Dimensions: 1" (25.4 mm) Inner Diameter X 1.8" (45.7 mm) H X 1.6" (40.6 mm) Outer Diameter
- Weight: 0.25lbs (0.11kg)
- For indoor use only
- Operating temp: 32°F to 122°F; 0°C to 50°C
- Storage temp: -4°F to 140°F; -20°C to 60°C
- Operating Humidity: 10% to 80% RH non-condensing
- Storage Humidity: 5% to 95% RH non-condensing

### ELECTRICAL / DATA

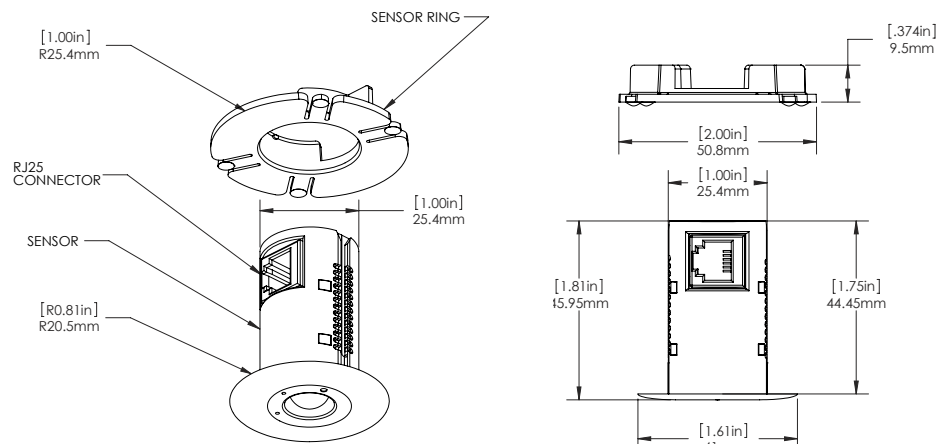
- Input/Output to Redwood Gateway: RJ25 connector
- Power Consumption
  - » Maximum: 10mW
- Sensor capabilities:
  - » Light level sensor for daylight harvesting functionality
  - » Ambient temperature sensor
    - ◇ Accuracy: +/- 1.8°F (+/- 1°C)
    - ◇ Range: 32°F to 212°F (0°C to 100°C)
- Passive Infrared (PIR) sensor for motion detection

### • COMPLIANCE

- Class 2 electrical device
- Designed for California Title 24-2008 compliance
- UL2043, UL8750, and UL60950
- UL/CUL listed
- FCC Class A Part 15
- CE compliant
- RoHS compliant
- Made in the U.S.A.

## Preparation

- The Redwood Sensor must be installed within 6 feet (1.8m) of each Gateway.
- Determine where in the ceiling tile the Redwood Sensor needs to be installed; refer to the diagram on the next page.



### IMPORTANT NOTE

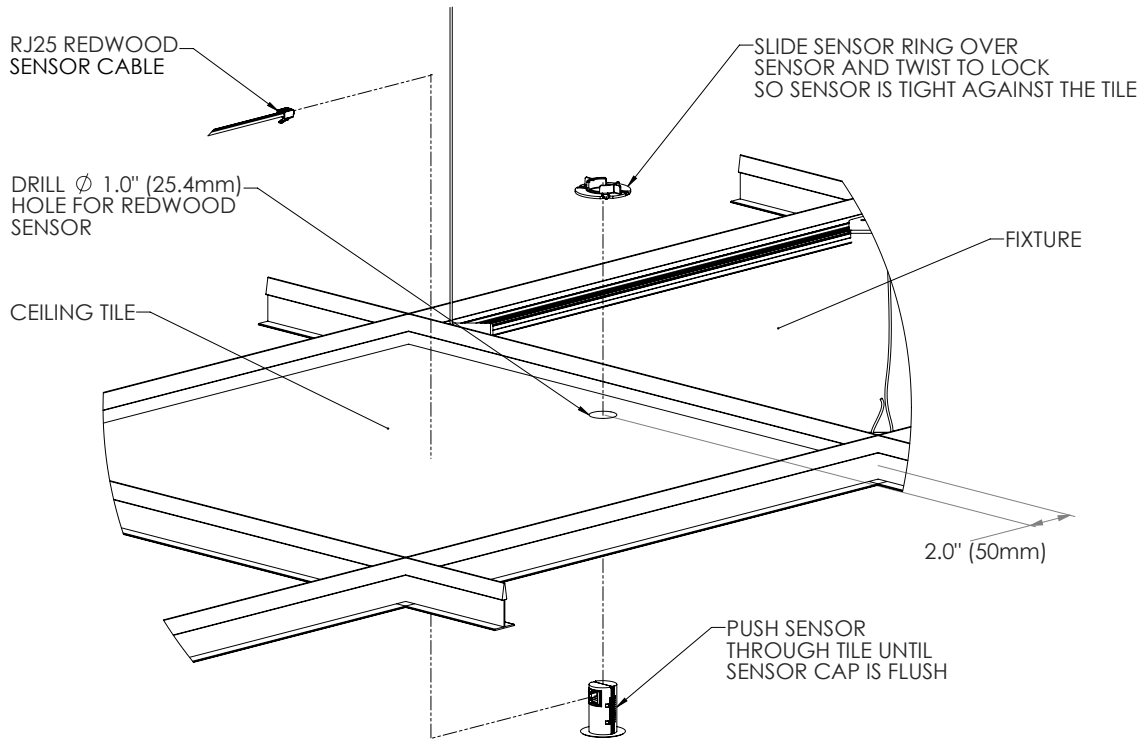


- Be sure the Sensor is clear of any other equipment above the tile.
- The plastic Sensor cap should be tight against the ceiling tile.
- The Sensor may be rotated inside the ceiling tile's hole, but it must remain perpendicular to the tile.
- The Redwood Sensors have been tested by UL to UL2043 which ensure slow smoke-emitting characteristics and suitable fire resistance for equipment that may be installed in environmental air-handling spaces, as described in Article 300.22(c) of the NEC (2008).
- When the product is installed in air-handling spaces, such as above some suspended ceilings, the cabling employed should be suitable under NEC (2008) Article 800.154 and marked accordingly for use in plenums and air-handling spaces with regard to smoke propagation, such as CMP. The products and wiring should be installed in accordance with all applicable local regulations and practices.

## Installation Instructions

- Step 1:** Within 2" (50mm) of the fixture drill a 1" (25.4mm) diameter hole in the ceiling tile.
- Step 2:** Carefully push the Sensor through the ceiling tile.
- Step 3:** Twist and lock the adjusting height Sensor ring to tighten the Sensor against the tile.

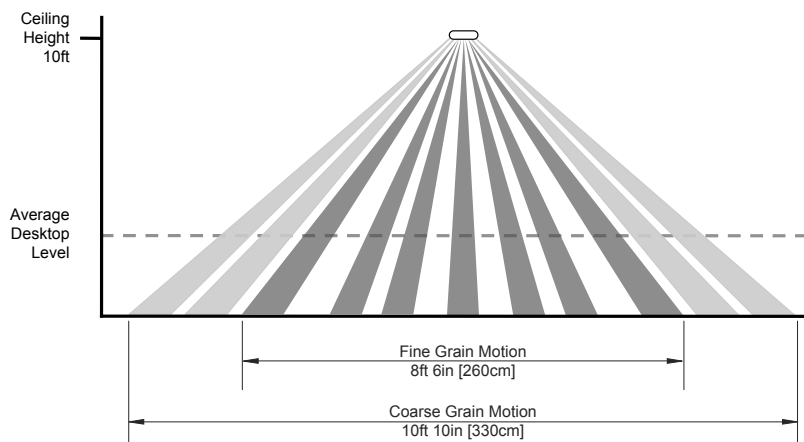
- Step 4:** Connect the Sensor to the Redwood Gateway using the provided RJ25 terminated Redwood Sensor Cable.



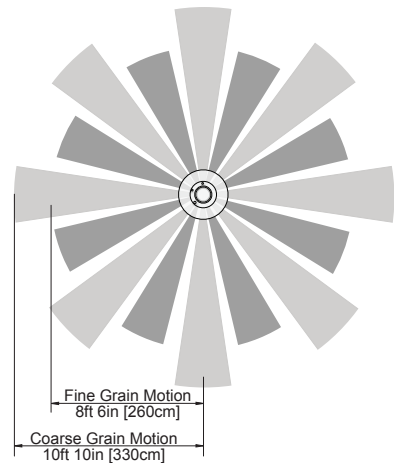
Mounting Instructions for Redwood Sensor

## Coverage Diagrams

The motion coverage pattern diagrams of the Redwood Sensor are included below. These assume that a Sensor is installed in a ceiling that is 10 feet (305cm) in height; the following diagrams illustrate the expected motion sensing coverage for each Redwood Sensor.



Fine and Coarse Grain Detection Ranges at Ceiling Height of 10 ft (305cm)



Fine and Coarse Detection Ranges at Ceiling Height of 10 ft (305cm)

## Ordering Information

Phone Number: (510) 270-5360 (Select Option 2)

SKU Number	Description
RS-2G	Redwood Sensor Redwood Sensor Cable

## Contact Information

Redwood Systems  
 3839 Spinnaker Court  
 Fremont, CA, 94538  
 1-800-840-0709 (USA)  
 1-510-270-5360 (International)  
[www.redwoodsystems.com](http://www.redwoodsystems.com)  
[support@redwoodsystems.com](mailto:support@redwoodsystems.com)

### FCC CLASS A REGULATORY STATEMENT—UNITED STATES

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### FCC CLASS A REGULATORY STATEMENT—EUROPE AND AUSTRALIA

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### LIMITED WARRANTY

Redwood warrants during a warranty period of twelve (12) months from delivery that the products as delivered shall be free of material defects and shall conform in all material respects to Redwood's applicable specifications as set forth in this documentation. As Redwood's sole and exclusive obligation and Buyer's sole and exclusive remedy for material breach of the foregoing warranty, Redwood shall, at its option and in accordance with its standard RMA procedures, refund the purchase price, or repair or replace the nonconforming products, provided proof of purchase and written notice of non-conformance are received by Redwood within the warranty period. This warranty shall not apply to products that Redwood determines have been subjected to testing for other than specified electrical characteristics or to operating and/or environmental conditions in excess of the maximum values established by Redwood, or have been the subject of mishandling, misuse, neglect, improper repair, alteration, damage, assembly, or processing that alters physical or electrical properties, or have been damaged in transit. This warranty excludes all costs of shipping, customs clearance and related charges outside the contiguous 48 United States and Canada. In the event no defect or breach of warranty is discovered by Redwood upon receipt of returned products, the products will be returned at Buyer's expense. Any repair or replacement provided to Buyer will not extend the warranty period for the products in question. Excluded from the foregoing warranty are parts defined by Redwood as "consumable."

**DISCLAIMER OF WARRANTY.** THIS WARRANTY EXTENDS TO BUYER ONLY AND NOT TO BUYER'S CUSTOMERS OR USERS OF BUYER'S PRODUCTS AND IS IN LIEU OF, AND REDWOOD EXPRESSLY DISCLAIMS, ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. This warranty shall not be enlarged, and no obligation or liability shall arise out of Redwood's rendering of technical advice, facilities or services in connection with the delivery of the products. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.