

# Quick Start Guide

HMTS1050  
Temperature Sensor



**MOTOROLA**  
*intelligence everywhere™*



## Regulatory Information

FCC ID NUMBER: OU4-XSC501

### INSTRUCTION TO THE USERS (IF DEVICE DOES NOT CONTAIN A DIGITAL DEVICE)

The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### INSTRUCTION TO THE USER (IF DEVICE CONTAINS A DIGITAL DEVICE)

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

This device must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

## Limited Warranty

### Temperature Sensor

Motorola, Inc., Broadband Communications Sector ("Motorola")

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**General Information.** The warranties described in this Section shall not apply: (i) to any Product subjected to accident, misuse, neglect, alteration, Acts of God, improper handling, improper transport, improper storage, improper use or application, improper installation, improper testing or unauthorized repair; or (ii) to cosmetic problems or defects which result from normal wear and tear under ordinary use, and do not affect the performance or use of the Product. Motorola's warranties apply only to a Product that is manufactured by Motorola and identified by Motorola owned trademark, trade name or product identification logos affixed to the Product. Motorola does not warrant to you, the end user, or to anyone else that the Software will perform error free or without bugs. **MOTOROLA IS NOT RESPONSIBLE FOR, AND PROVIDES "AS IS" ANY SOFTWARE SUPPLIED BY 3RD PARTIES. EXCEPT AS EXPRESSLY STATED IN THIS SECTION ("WARRANTY INFORMATION"), THERE ARE NO WARRANTIES OF ANY KIND RELATING TO THE PRODUCT, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE WARRANTY AGAINST INFRINGEMENT PROVIDED IN THE UNIFORM COMMERCIAL CODE.** Some states do not allow for the exclusion of implied warranties, so the above exclusion may not apply to you.

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These matters are governed by the laws of the Commonwealth of Pennsylvania, without regard to conflict of laws principles and excluding the provisions of the United Nations Convention on Contracts for the International Sale of Goods.

Please call the Motorola toll-free number, 1-877-466-8646, for technical support or warranty service.

## Battery Life

For your Motorola Home Monitoring & Control System devices that require batteries, use high quality, non-corrosive batteries designed for use in electronic equipment. Battery life is one year with normal usage. Do not use Rechargeable batteries in any Motorola Home Monitoring & Control System devices.

## Registration

Register your product by accessing this website:

<http://broadbandregistration.motorola.com>

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## Introduction

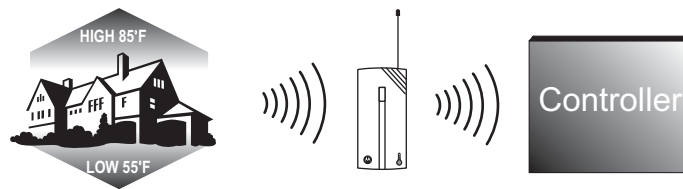
Congratulations on your purchase of the Motorola Wireless Temperature Sensor. The device senses temperature changes ranging between 14°F to 104°F (-10°C to 40°C). The External Temperature Probe, also immersible, extends the range of temperature monitored to -40°F and 140°F (-40°C and 60°C). This Quick Start Guide describes how to set up and troubleshoot your Temperature Sensor.

## Controlling Your Sensor

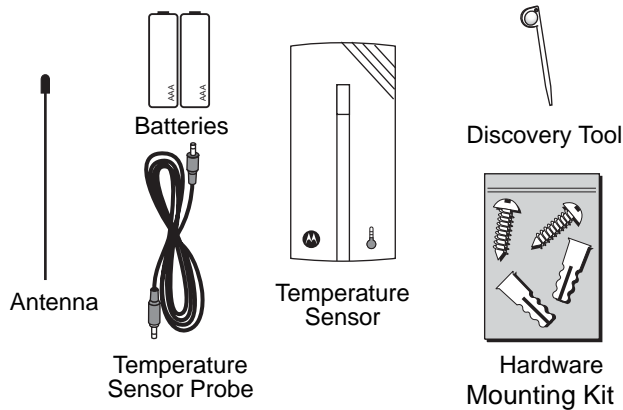
Using your computer and the Gateway, you locally manage your home environment with the Motorola Home Monitoring & Control System. When configured, the system can notify you of any new events by sending an e-mail when your Temperature Sensor detects an event (a temperature change) that moves beyond the user specified limits.

## How It Works

The Sensor monitors ambient temperature and if the temperature moves beyond your set temperature range, it sends an event to your Gateway. When the External Temperature Probe is connected to the Temperature Sensor, the internal sensor element is disabled.



## Package Contents



## Installation Overview

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*The Gateway must be installed before activating your sensor!*

Installing your sensor is a simple two-step process.

- 1 You have to register your sensor with your Gateway using a process called discovery. Your sensor must be powered before you attempt discovery. Refer to your Gateway documentation for instructions on how to discover your Temperature Sensor.
- 2 Mount the sensor.

## Installing the Sensor

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The Motorola Temperature Sensor is constructed of UV resistant ABS plastic allowing for indoor or outdoor use. The spacing between the sensor and the contact should be between 1/10 inch and 1/2 inch (.25 cm to 1.27 cm).

*If you paint your Motorola sensor, use a non-conductive latex paint. Remove the batteries from the sensor before painting and allow adequate time for the paint to dry before reinserting batteries. Make sure you do not let paint run into the openings of the sensors to prevent damage to the electrical circuitry.*

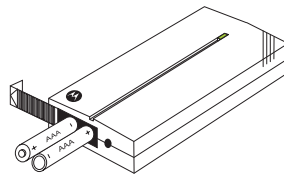
### Insert the Antenna

Locate the antenna and screw it into the top right corner of the sensor, just above the air vents, until it tightly fits. Sharp objects should be stored out of reach of children to prevent injury.



### Insert the Batteries

- 1 On the bottom of the sensor, slide open the door and insert two AAA alkaline batteries. The back of the door of the sensor indicates the polarity (+ and -) of the batteries.



- 2 Close the door.

*The sensor does not support rechargeable NiCad or NiMH batteries. However, the sensor does employ power saving functionality.*

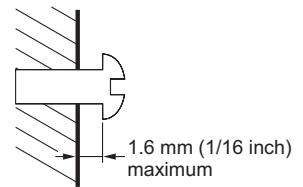
## Mounting Your Temperature Sensor

*It is recommended that you discover your sensor before mounting it.*

- 1 Using the supplied double-sided tape, peel one-side of the paper strip and place it on the back of the sensor. Peel the other side of the tape and place the sensor in the location desired.

You can also mount the sensor more securely using the screws in the hardware kit. Using the drilling template found later in this guide, drill two pilot holes for the screws. Affix the screws to one side of the object (typically the "stationary" side) leaving 1/16" (1.6 mm) space between the screw head and the object. Mount the sensor onto the screws and slide down to lock into place.

- 2 Using the holes on the drilling template, mark the position of the holes to be drilled. For drywall or other composite surfaces use a 7/32" drill bit. Drill a hole for each of the mounting screws and insert a plastic wall anchor into each hole. For other solid surfaces use a 1/16" drill bit. Drill a pilot hole for each of the mounting screws.



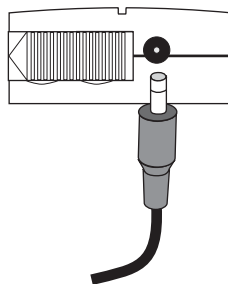
*Warning, when mounting near a window, drilling too close to the glass could break the glass and possibly cause it to shatter. The window extends deeper into the frame than can be seen; therefore, ensure your screw is beyond the glass before drilling.*

- 3 If you used screws, mount the sensor onto the screws and slide down to lock into place.

## Attaching the Temperature Probe

The probe, which attaches to the Temperature Sensor, is immersible and designed to monitor the temperature of air or water. A pool, aquarium, deep freezer, or baseboard radiator are just a few suggested places to monitor ambient air or water temperature.

- 1 Insert the plug into the bottom of the sensor.



- 2 Place the Temperature Probe in the location you wish to monitor.

## Troubleshooting

Problem	Solution
<b>LED does not light up</b>	<ul style="list-style-type: none"> <li>• Ensure the batteries are properly inserted with the correct polarity.</li> <li>• Ensure you are using fully charged AAA batteries.</li> </ul>
<b>Gateway does not recognize the sensor during discovery</b>	<ul style="list-style-type: none"> <li>• Ensure sensor is powered.</li> <li>• Position the sensor in closer proximity to your Gateway and try again.</li> <li>• Ensure there are no other wireless devices interfering with the sensor. The sensor transmits on the 418 MHz frequency.</li> </ul>
<b>Events are not triggered</b>	<ul style="list-style-type: none"> <li>• Is the sensor registered with your Gateway?</li> <li>• Ensure that you have the proper settings configured for the sensor.</li> </ul>
<b>Sensor continually sends an event</b>	<ul style="list-style-type: none"> <li>• Ensure that you have the proper settings configured for the sensor. For example, you have armed the sensor.</li> </ul>

## FAQ

### How far away can the sensor be placed from my Gateway?

Typically 60-80 feet (18 - 24 meters).

### Can I place the sensor in a different room than my Gateway?

Yes, the sensor and gateway use radio frequencies to communicate with each other. These frequencies can go through objects like walls, ceilings and floors.

### How long will the battery last?

The battery is expected to last up to 12 months. This depends on actual use and how often the sensor is triggered. The Motorola Temperature Sensor includes a battery saving feature that causes the sensor to hibernate when there is no activity and wakes-up when the sensor is triggered. Do not use rechargeable batteries.

### How many sensors can I register with my Gateway?

The Gateway supports up to 8 sensors.

### The light on the sensor is not on?

This indicates that the sensor has gone into hibernation mode. It wakes up when the sensor is triggered.

## Features and Specifications

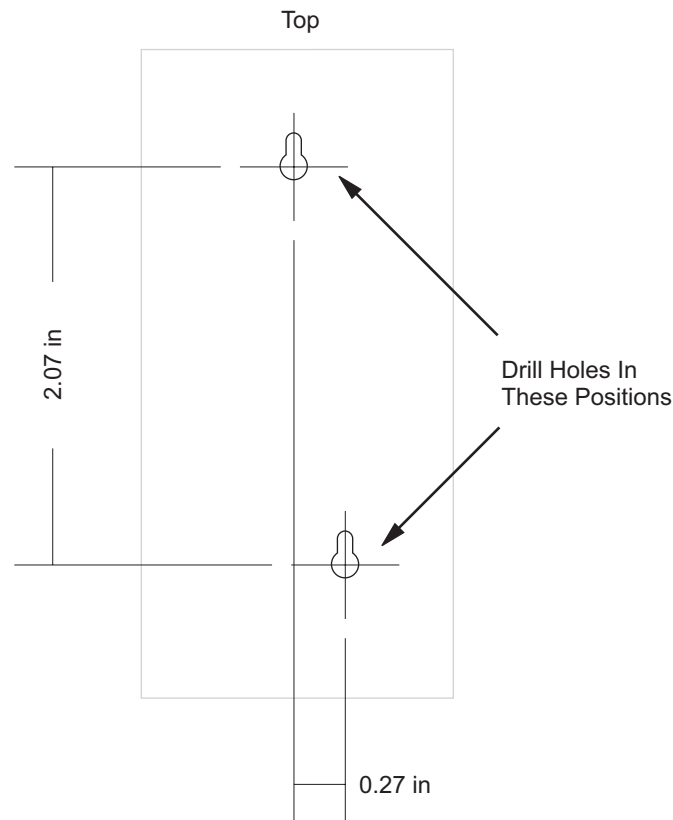
- Attaches to any flat non-metal surface
- Operates on 2-AAA Alkaline batteries
- LED indicator when sensor is triggered
- Frequency Range 418 MHz
- Typical Range Outdoors: 250 feet (76 m), typical range indoors: 60 feet (18 m)
- Sensor size: 1 5/8"W x 3 3/8"H x 1/2" D (4.1 cm W x 8.5 cm H x 1.2 cm D) (not including probe)

## Wall Mounting Drilling Template

Mounting tools: Screwdriver, electric drill or awl. On hard surfaces, Motorola recommends that you pre-drill  $\frac{1}{2}$  inch deep pilot holes with a drill bit slightly smaller than the mounting screws before securing the sensor to the surface. When mounting a sensor on soft surfaces like sheetrock, use an awl to punch holes in the material slightly smaller than the plastic anchors included in the hardware mounting kit.

*The illustrations are drawn to a one-to-one scale which means they provide the exact dimensions required to mount the unit.*

### Sensor Mounting Template



Visit our website at:  
<http://www.motorola.com/homemonitoring>



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