

USER MANUAL for MODEL RH200W

Wireless Hygro-Thermometer

Thank you for selecting the Extech RH200W Wireless Hygro-Thermometer with Self-Calibration & Auto Night Light. This device is shipped fully tested and calibrated and, with proper use, will provide years of reliable service. Please visit our website (www.extech.com) to check for the latest version of this User Manual, Product Updates, and Customer Support.

DESCRIPTIONS

MAIN UNIT

1. Backlight key

In normal mode, short press for 5 seconds of backlighting. Pressing other keys will reset the 5-second timer

2. OUT (CHANNEL) / + key

In calibration mode, short press to increase the value

In normal mode, short press to switch between INDOOR, Channel 1~8

In normal mode, long press to enter auto-cycle (Channel 1~8 and INDOOR readings will alternately display at 4-second intervals and the icon  will display). From auto-cycle mode, short press to return to normal mode.

3. M (MODE) key

In calibration mode, short press for options.

In calibration mode, long press to clear data

4. MIN-MAX / - key

In calibration mode, short press to decrease value

In normal mode, short press to check maximum/minimum temperature and humidity records. Short press to return to normal mode

With MAX or MIN displayed, long press to reset the displayed values

5. CAL key

In normal mode, long press to enter calibration mode

In calibration mode, long press to return to normal mode

6. Auto night-light switch

Slide to ON position to activate night-light (the light will automatically turn on in dark areas). The brightness is weaker than normal backlight. Slide to OFF position to turn off the night-light function

7. °C / °F key - Short press to toggle temperature units °C/°F

8. SENSOR key

In normal mode, short press to activate the receiver for the current channel. The unit will receive signals for 5 minutes

9. RESET key

Short press for a factory default reset. Perform a reset if the display freezes or the unit otherwise malfunctions.

WIRELESS SENSOR

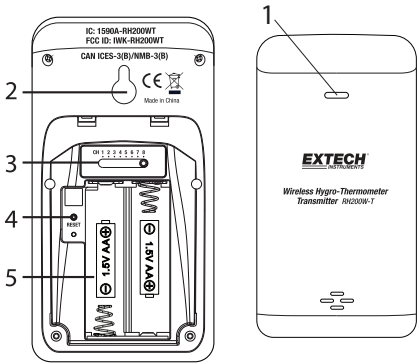
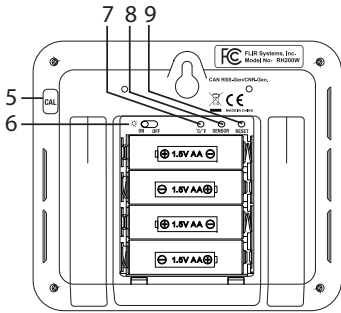
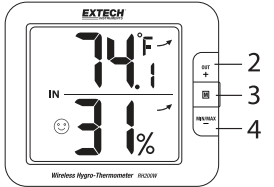
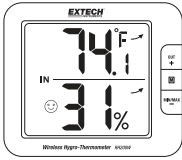
1. Transmission status LED (flashes when sensor is transmitting)
2. Wall mount
3. CHANNEL slide switch (assign sensor to Channel 1 ~ 8)
4. RESET key (short press to reset the sensor)
5. Battery compartment (2 x AA batteries)

OPERATION

POWERING THE WIRELESS SENSOR

1. Remove the battery door of the sensor
2. Insert 2 ‘AA’ batteries, observing correct polarity
3. Close the battery door

Notes: Once a sensor is assigned a channel using the channel slide switch, you can only re-assign a channel by removing the batteries or resetting the unit. Avoid placing the sensor in direct sunlight or inclement weather.



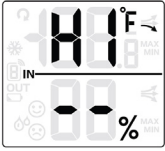
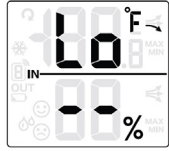
POWERING THE MAIN UNIT

1. Remove the battery door of the main unit
2. Install 4 ‘AA’ batteries observing correct polarity; then use a paper clip to press the **RESET** key
3. Close the battery door
4. All LCD segments will switch on

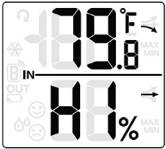
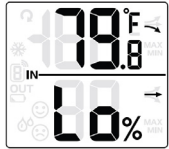
*Note: To avoid a pairing failure, power up the sensor first, and then press the **RESET** key on the main unit only.*

INDOOR TEMPERATURE/RELATIVE HUMIDITY

1. Short press **OUT** until ‘IN’ is displayed. The unit is now displaying indoor temperature °C / °F and Relative Humidity %.
2. Short press °C / °F to switch between °C and °F
3. When the temperature is <-40°F/°C or > 158°F (70°C), **Lo** or **HI** will be displayed respectively. The humidity display will show dashes:



4. When the humidity is < 1% or > 99%, **Lo** or **HI** will be displayed:



COMFORT INDICATION

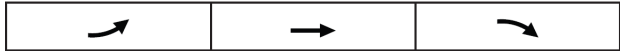
The comfort indication feature is an icon-based system showing comfort level based on indoor air temperature and humidity ranging from Excessive Cold (left icon below) to Comfortable (center icon) to Excessive Heat (right icon).



Note: Comfort indication can vary even when measuring the same temperature because of the strong effect humidity has on comfort. There is no comfort indication when temperature is < 0°C (32°F) or > 60°C (140°F).

TEMPERATURE TRENDING ARROWS

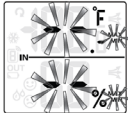
The temperature trend indicator illustrates the temperature change over time. Arrows indicate rising (left icon shown below), steady (center icon), or falling temperatures (right icon).



MAX/MIN RECORDING

View the MAX/MIN temperature and humidity readings since the last reset.

1. In normal mode, short press **MIN-MAX** to show the current maximum temperature and humidity values (diagram on left below); press again to show the minimum values (diagram in center); press again to exit the mode (the unit automatically exits the mode after approximately 5 seconds).
2. Perform a manual reset (clear MAX/MIN readings) by long pressing **MIN-MAX** when the unit is displaying the MAX/MIN records (diagram on right).

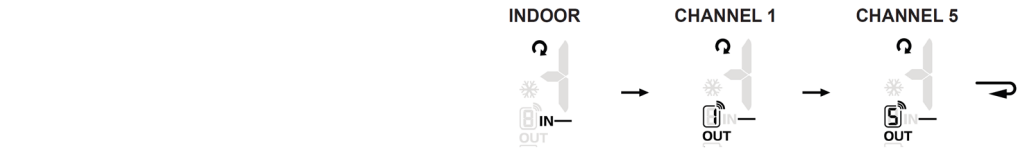


RECEIVING WIRELESS SENSOR SIGNALS

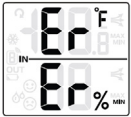
1. In normal mode, short press **SENSOR** to start receiving data.
2. The signal icon  will flash (diagram on left below) until reception occurs. After 5 minutes, the icon will disappear if reception fails (center diagram).
3. Receiving a wireless signal after a manual reset or when **SENSOR** is pressed will cause dashes to display in the readings area when waiting for signal.
4. For successful reception, the signal icon will appear as shown in the diagram below on right. The selected channel number appears in the box below the icon.



1. In normal mode, short press **OUT** to switch the display between INDOOR and CHANNEL 1~8.
2. In normal mode, long press **OUT** to toggle auto-cycle mode ON/OFF. Auto-cycle alternately displays the channels at 4-second intervals (the icon  will show when auto-cycle is active). In auto-cycle mode only the actively communicating channels will appear. Short press **OUT** to exit mode.
3. To check the signals from multiple wireless sensors, short press **OUT** repeatedly in normal mode.



4. If the signal for Channel 1~8 is lost and does not recover within 1 hour, the signal icon will disappear. The temperature and humidity will display “Er” for the corresponding channel.
5. If the signal does not recover within 48 hours, replace the batteries of the “Er” channel’s sensor and then press **SENSOR** on the main unit to pair with the sensors for each “Er” channel again.



Note To initiate reception after installing new batteries in the wireless sensor, press **SENSOR**; otherwise, the main unit will fail to receive the sensor’s signal.

THE SNOW ICON ❄️

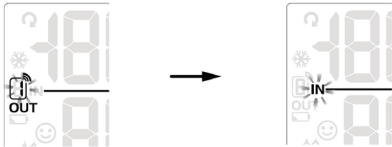
When the outdoor temperature is 37.4°F (3.0°C) or below, the snow icon will display.

LOW BATTERY CONDITION

If the main unit or the sensor batteries are low, the low battery icon 🔋 will display. The icon will only appear when the corresponding channel is displayed. For example, if the CHANNEL 1 sensor battery is low, the icon will show only when CHANNEL 1 is displayed. Replace the batteries by following instructions in sections *Powering the Wireless Sensor* and *Powering the Main Unit*.

TEMPERATURE/HUMIDITY CALIBRATION

1. In normal mode, long press the **CAL** key to enter the calibration mode. The current outdoor channel or “IN” (indoor) icon will flash. Short press **OUT** to choose Indoor (IN) or a Channel number 1~8.



2. Short press **M** (MODE) to step through the temperature calibration, humidity calibration, and channel selection modes.
3. In temperature calibration mode, use the [+] [-] keys to adjust the value in 0.1° steps. Long press to scroll quickly.



4. In humidity calibration mode, use the [+] [-] keys to adjust the displayed value in 1% steps. Long press to scroll quickly.



5. Long press **M** at the temperature or humidity calibration screens to revert to the previous calibration value for the selected channel.
6. To exit calibration mode, long press **CAL** or wait 60 seconds for the unit to exit and return to the normal mode automatically.
7. If the reading for the selected channel is showing either dashes (flashing) or the **HI/Lo** indicators, adjustment will not be possible; return unit for service.

Note: Comfort indication is a calculation based on calibrated temperature and humidity measurements.

IMPORTANT NOTES

Attention! Please dispose of batteries and unit in an ecologically safe manner. Always place the unit away from interfering sources such as monitors, computers, appliances, and other devices. Avoid placing the unit on, or next to, metal plates or surfaces

FCC STATEMENT

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.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

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 complies with Industry Canada License-exempt RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

FCC Responsible party:
Company Name: FLIR Commercial Systems, Inc.
Address: 9 Townsend West, Nashua NH 03063 USA; Phone: 1- 603-324-7842

IC ID: 1590A-RH200WT; FCC ID: IWK-RH200W-T; CAN RSS-Gen/CNR-Gen.

SPECIFICATIONS

MAIN UNIT

Indoor temperature range/resolution: 23°F ~ 122°F (-5°C ~ 50°C) / 0.1°F/°C
Temperature Accuracy: ±3.6°F (2.0°C), < 32°F (< 0°C); ±1.8°F (1.0°C), 32~104°F (0~40°C); ±3.6°F (2.0°C), > 104°F (> 40°C)
Humidity range/resolution: 1% ~ 99 % / 1%
Humidity Accuracy (at 77°F [25°C]): ±8%RH (20~39% RH); ±5%RH (40~70% RH); ±8%RH (71~90% RH)
Power: 1.5V AA X 4 (alkaline battery recommended)
Dimensions: 5.1 (W) x 4.4 (H) x 1.1 (D) in. (130 x 112 x 27.5mm)
Weight: 0.65 lbs. (295g)

WIRELESS SENSOR

Outdoor temperature range: -40°F ~140°F (-40°C ~ 60°C)
Outdoor humidity range 1% ~ 99 %
Temperature resolution: 0.1°F/°C
Relative humidity resolution: 1%
Accuracy: See accuracy specs for Main Unit above
Wireless sensor signal frequency: 433MHz
No. of remote sensors: Eight (8) units max.
RF transmission range: 98.4 ft. (30m) maximum
Power: 1.5V AA X 2 batteries (alkaline recommended)
Dimensions: 2.4 (W) x 4.5 (H) x 1.5 (D) in. (61 x 113.6 x 39.5mm)
Weight: 0.3 lbs. (136g)

Warranty

*FLIR Systems, Inc. warrants this Extech Instruments brand device to be free of defects in parts and workmanship for **one year** from date of shipment (a six month limited warranty applies to sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department for authorization. Visit the website www.extech.com for contact information. A Return Authorization (RA) number must be issued before any product is returned. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. FLIR Systems, Inc. specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. FLIR’s total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.*

Calibration, Repair, and Customer Care Services

FLIR Systems, Inc. offers repair and calibration services for the Extech Instruments products we sell. We offer NIST traceable calibration for most of our products. Contact our Customer Service Department for information on calibration service availability. Annual calibrations should be performed to verify meter performance and accuracy. Technical support and general customer service is also provided, refer to the contact information provided below.

Support Lines: U.S. (877) 239-8324; International: +1 (603) 324-7800

Technical Support: Option 3; E-mail: support@extech.com

Repair & Returns: Option 4; E-mail: repair@extech.com

Product specifications are subject to change without notice

Please visit our website for the most up-to-date information

www.extech.com

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