USER MANUAL for MODEL RH200W
Wireless Hygro-Thermometer

Thank you for selecting the Extech RH200W Wireless Hygro-Thermometer with User-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 (User Calibration)
   - Place the meter into a temperature and humidity controlled environment for at least 1 hour.
   - Enter calibration mode to manually adjust the temperature and humidity readings using the Mode (3) key and the OUT(2) and MIN-Max(4) keys.
   - 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

Note: 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 AND HUMIDITY TRENDING ARROWS
The temperature and humidity trend indicator illustrates the temperature and humidity change over time. Arrows indicate rising (left icon shown below), steady (center icon), or falling temperatures (right icon).

<table>
<thead>
<tr>
<th>Arrow indicator</th>
<th>Trend</th>
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<tbody>
<tr>
<td></td>
<td>Rising</td>
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<tr>
<td></td>
<td>Steady</td>
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<tr>
<td></td>
<td>Falling</td>
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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.

5. In normal mode, short press OUT to switch the display between INDOOR and CHANNEL 1~8.
6. 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.
7. To check the signals from multiple wireless sensors, short press OUT repeatedly in normal mode.

LOW TEMPERATURE ICON
When the outdoor temperature is 37.4°F (3.0°C) or below, the low temperature icon ‘LO’ flashes on the 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.

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.
**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

**SPECIFICATIONS**

**MAIN UNIT**

Indoor temperature range/resolution: -5°C ~ 50°C (23°F ~ 122°F) / 0.1°C/°F

Temperature Accuracy: ±2°C (3.6°F), < 0°C (< 32°F)
±1°C (1.8°F), 0~40°C (32~104°F)
±2°C (3.6°F), > 40°C (> 104°F)

Humidity range/resolution: 1% ~ 99% / 1%

Humidity Accuracy (at 25°C [77°F]): ±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: 130 (W) x 112 (H) x 27.5 (D) mm (5.1 x 4.4 x 1.1 in.)

Weight: 295g (0.65 lbs.)

**WIRELESS SENSOR**

Outdoor temperature range: -40°C ~ 60°C (-40°F ~140°F)

Outdoor humidity range: 1% ~ 99%

Temperature resolution: 0.1°C/°F

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: 30m (98.4 ft.) maximum

Power: 1.5V AA X 2 batteries (alkaline recommended)

Dimensions: 61 (W) x 113.6 (H) x 39.5 (D) mm (2.4 x 4.5 x 1.5 in.)

Weight: 136g (0.3 lbs.)

**Two-year Warranty**

Teledyne FLIR LLC warrants this Extech brand instrument to be free of defects in parts and workmanship for two years from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: http://www.extech.com/support/warranties.

**Calibration and Repair Services**

Teledyne FLIR LLC offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

**Contact Customer Support**

Customer Support Telephone List: https://support.flir.com/contact
Calibration, Repair, and Returns: repair@extech.com
Technical Support: https://support.flir.com

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