User's Guide # Big Digit Remote Probe Hygro-Thermometer
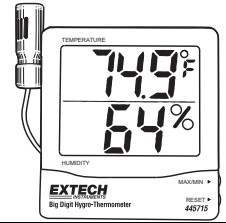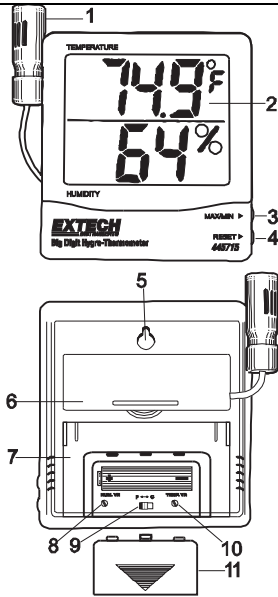

Model 445715

Introduction

Congratulations on your purchase of Extech's Big Digit Remote Probe Hygro-Thermometer. It features Humidity and Temperature adjustments plus optional calibration salt bottles (445580-C). The remote probe (with 18" cable) conveniently mounts on the meter or extends for measurements in ducts or remote locations. This professional meter, with proper care, will provide years of safe reliable service.

Meter Description

1. Temperature-Humidity Sensor
2. LCD Display
3. Max/Min
4. Max/Min Reset
5. Wall Mount
6. Sensor cable storage
7. Stand
8. Humidity calibration adjust
9. Temperature units switch (ºF/ºC)
10. Temperature calibration adjust
11. Battery compartment cover

Operation

1. Open the battery compartment by pushing the cover on the rear of the instrument downward as indicated by the arrow. Remove the battery safety strip and the protective cover on the LCD display. The instrument is now ready for use.
2. The temperature units (ºF/ºC) can be selected via the switch located in the battery compartment.
3. The upper display indicates the temperature. The lower display indicates humidity.
4. Displaying the minimum and maximum values.
   a. Press the MAX/MIN button. The highest value measured since the Reset button was last pressed appears on the display.
   b. Press the MAX/MIN button again to display the lowest value measured since the Reset button was last pressed.
   c. Press the MAX/MIN button again to return to normal display operation.
5. Resetting (clearing) the MAX/MIN memory.
   a. Press and hold the RESET button for 1 second while in the MAX/MIN display mode to clear the memory and start recording new max/min values.
6. The unit can be wall-mounted or placed on a flat surface using the fold-out footing.
7. The low battery flag will appear on the display when the battery voltage is low. Replace the battery when this occurs.

Battery Replacement

Open the battery compartment by sliding the battery cover on the rear of the instrument downward as indicated by the arrow. Replace the 1.5V 'AA' battery and replace the cover.

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Calibration

The following verification and calibration procedure requires a humidity chamber or the optional 33% and 75% RH reference bottles (445580-C).

RH Accuracy Verification

Checking the 33% or 75% RH Calibration

1. Insert meter's sensor into the 33% or 75% salt reference bottle or humidity chamber.
   Note: Slowly rotating the bottle will assist in placing it over the sensor.
2. Allow the meter to stabilize for 1 hour at the reference RH and then verify that the reading is within the accuracy specification.

RH Calibration

1. Insert meter's sensor into a 75% salt reference bottle or humidity chamber.
2. Check the reading after 1 hour.
3. Adjust the RH calibration pot in ½ turn increments, waiting for the display to update after each adjustment, until the reading is within the accuracy specification.
4. Repeat the RH accuracy verification procedure.

Note: If the salt at the bottom of the calibration bottles appears dry, the bottles should be replaced.

Temperature Calibration

1. Place the sensor in a stabilized environment of approximately 70**°**F (21**°**C).
2. Check the reading after 1 hour.
3. Adjust the temperature calibration pot in ½ turn increments, waiting for the display to update after each adjustment, until the reading is within the accuracy specification.

Specifications

	Range	Accuracy
Temperature	-10 to 60°C 14 to 140°F	$\pm$ 1.0^{o}C within -10°C to 50°C $\pm$ 1.8^{o}F within 14°F to 122°F
Humidity	10% to 99%	$\pm$ 4% RH within 25% to 85% RH and 0 to 50°C or 32 to 122°F
Battery	1.5V 'AAA' cell	

Calibration/Repair Services

Extech offers complete repair and calibration services for the products we sell. For periodic calibration, NIST certification or repair of any Extech product, call customer service for details on services available. Extech recommends that calibration be performed on an annual basis to ensure calibration integrity.

Warranty

Support line (781) 890-7440
Technical support: Extension 200; E-mail: support@extech.com
Repair & Returns: Extension 210; E-mail: repair@extech.com
Product specifications subject to change without notice
For the latest version of this User's Guide, Software updates, and other up-to-the-minute product information, visit our website: www.extech.com