CENTER® 31
HYGRO THERMOMETER

Instruction Manual

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Introduction

This is a digital multi-function hygrometer. It measures humidity, temperature, and dew point. It also includes buzzer alarm function to notify users when humidity or temperature limits have been exceeded. Large LCD provides an easy-to-read interface. It can be simply standing on a desk, or mounted on a wall.

Specifications

Display:	Dual display
Measurement Range:	Humidity: 0~100%RH;
	Temperature: -20~60°C, -4~140°F
	Dew Point Temperature: -20~60°C, -4~140°F
Resolution:	0.1%RH; 0.1°C; 0.1°F
Measurement Rate:	20 sec.
Operating:	Temperature: -20~60°C / Humidity: 0~55°C
Storage Conditions:	-10~70°C(14~160°F); 0~70%RH
Accuracy:	(at 23°C)

Figure 1.

● **Probe: RP-31** (15⌀ X 82 mm)

<10%RH, >90%RH	±5.0%RH
10%RH~90%RH	±3.0%RH
15~35°C, 60~95°F	±0.8°C / ±1.5°F
<15°C, >35°C, <60°F, >95°F	see Figure 1.

Temperature Accuracy (RP-31)
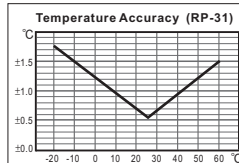
● **Probe: RP-32** (15⌀ X 94 mm)

<10%RH, >90%RH	±5.0%RH
10%RH~90%RH	±2.0%RH
-20~+60°C, -4~+140°F	±0.8°C / ±1.5°F

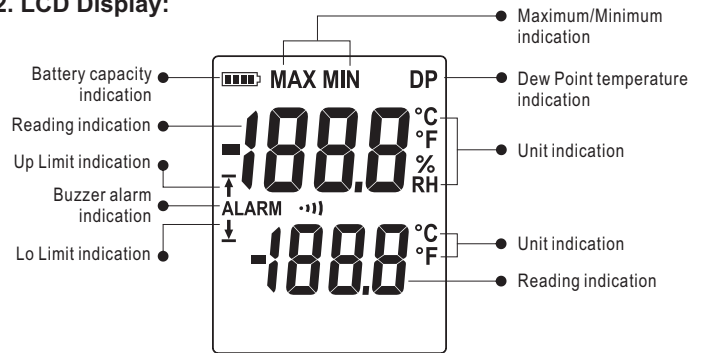|	
Temperature Coefficient:	0.1 X (specified accuracy)/°C(< 23°C or > 23°C)
Battery:	4 each AAA/R03 batteries
Battery Life:	Approx. One year (with alkaline battery)
Dimension / Weight:	140×105×26mm (5.5"×4.1"×1.0") / Approx. 265g
Accessories:	Battery, instruction manual, (Option: extension cable)

Symbol Definition & Button Location

1. Name of Parts & Position:

HYGRO THERMOMETER
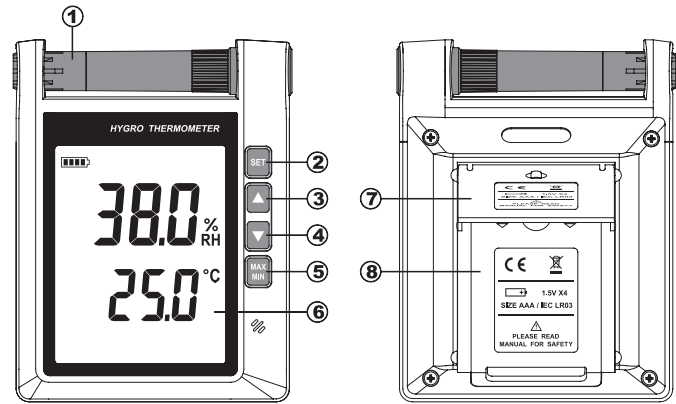
|	
① Sensor	⑤ MAX/MIN Key
② SET Key	⑥ LCD Display
③ UP Key	⑦ Tilt Stand
④ DOWN Key	⑧ Battery Cover

2. LCD Display:

- Maximum/Minimum indication
- Battery capacity indication
- Reading indication
- Up Limit indication
- Buzzer alarm indication
- Lo Limit indication
- Dew Point temperature indication
- Unit indication
- Unit indication
- Reading indication

Maintenance

1. Battery Replacement

The battery indicator shows the status of battery power. As the power consumes continuously, the number of bars will decrease. Once the symbol shows only the battery frame, the measurement might be incorrect. Please replace new batteries immediately.

4 each AAA/R03 batteries
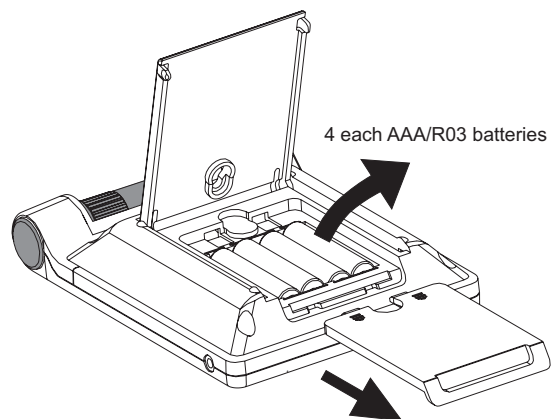
2. Attention

Do not touch the sensor probe to avoid affecting its sensitivity.

3. Cleaning

In order to ensure the accuracy of the hygro thermometer for a longer period of time calibration should be performed once a year.

Clean the device and the window of the display with a clean, lint-free, antistatic and dry cleaning cloth.

⚠ Do no use cleaning agents that contain carbon or benzenes, alcohol or anything similar to clean the product since these substances damage the surface of the measuring instrument. Moreover, these fumes are hazardous to health and explosive. Do not use tools with sharp edges, screwdrivers, metal brushes or anything similar to clean the device.
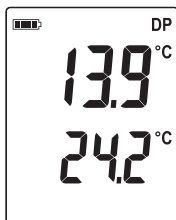
Operation Instructions

The LCD will display a self-checking screen for about 2 seconds right after the batteries are inserted.
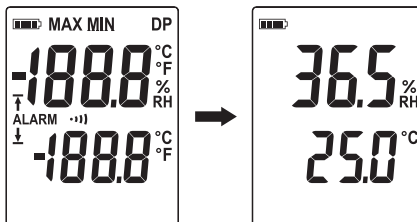
(1) Switch between Relative Humidity (RH) and Dew Point (DP) Mode:

By default, the LCD displays relative humidity (RH). Press ▲ button to switch between RH and DP mode. When displaying dew point, the DP symbol will appear.

(2) Turn On/Off Alarm Function:

To turn on, press ▼ button. The **ALARM·))** symbol will show up. To turn off, press ▼ button again. The **ALARM·))** symbol disappears.

(3) MAX/MIN Operation:

Press 🔲 button to enter MAX/MIN mode. Under this mode the maximum value and minimum value is kept in the memory simultaneously and updated with every new data reading.

Press 🔲 button, **MAX** indicator will display and the Maximum value shows on the display. Press 🔲 again, **MIN** indicator will display and the Minimum value shows on the display. Press 🔲 again, **MAX** and **MIN** indicators will blink together. This means that these data have been updated in the memory and the reading is the present temperature and humidity.

To exit the MAX/MIN mode, press and hold 🔲 for two seconds.
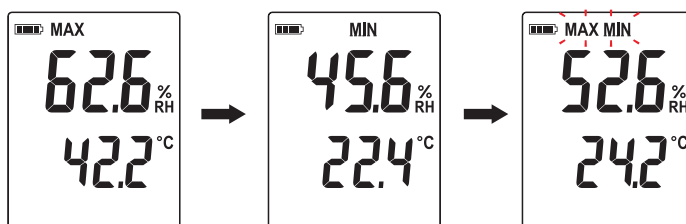
(4) Enter Settings Mode:

Press 🔲 button to enter settings mode. Each time 🔲 was pressed, it enters next **setting** as follows:

> Set °C/°F ➡ set highest RH limit ➡ set lowest RH limit ➡ set highest Temp limit ➡ set lowest Temp limit ➡ Quit setup mode
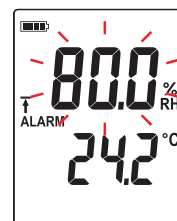
4-1. Set °C/°F:

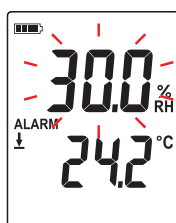When °C (or °F) symbol blinks, press ▲ button to switch between °C and °F. Press 🔲 button to next setting.
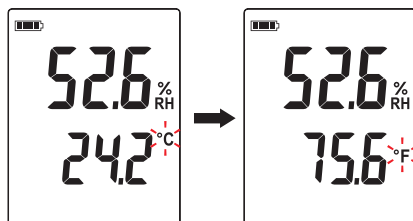
4-2. Set Up Limit RH:

When RH blinks, press ▲ or ▼ button to adjust limit value. Press 🔲 button to next setting.

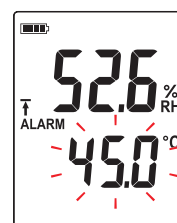**4-3. Set Lo Limit RH:**

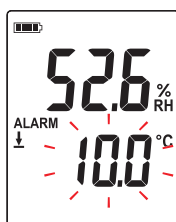When RH blinks, press ▲ or ▼ button to adjust limit value. Press 🔲 button to next setting.

4-4. Set Up limit Temperature:

When Temperature blinks, press ▲ or ▼ button to adjust limit value. Press 🔲 button to next setting.

4-5. Set Lo Limit Temperature:

When Temperature blinks, press ▲ or ▼ button to adjust limit value. Press 🔲 button to next setting.

4-6. Press SET to quit setting mode:

Note:
Default Up Limit RH: 80.0 %RH
        Lo Limit RH: 30.0 %RH
        Up Limit Temperature: 45.0 °C
        Lo Limit Temperature: 10.0 °C
        Buzzer Alarm Function: OFF

Connection between probe and Main unit :

The probe can be connected or disconnected from the main unit by the fastening screw as shown in the graph. Rotate only the fastening screw rather than the probe body to prevent damage the probe.