

DEW POINT METER

AH-192D

This Dew Point Meter is small in size, light in weight, easy to carry. Although complex and advanced, it is convenient to use and operate. Its ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

1. FEATURES

- * Used the exclusive MICRO-COMPUTER LSI circuit and crystal time base to offer the high accuracy measurement & fast measuring time.
- * Wide measuring range & high resolution.
- * Digital display gives exact reading with no guessing or errors.
- * The last values/max. values/min. values of both Humidity and Temperature will be automatically stored in memory and can be displayed by turn.
- * The use of durable, long-lasting components, including a strong, light weight ABS-plastic housing assures maintenance free performance for many years. The housing has been carefully shaped to fit comfortably in either hand.

2. SPECIFICATIONS

2.1 General Parameters

Display: LCD(Liquid Crystal Display)
with function annunciation

Parameters Measured:

Humidity, Temperature, Wet Bulb
Temperature, Dew Point Temperature

Sampling Time : 0.4 second

Memory: Last values, Max. Values, Min values

Battery : 4x1.5V AAA (UM-4) battery

Size: 140x70x30mm 6.7x2.8x1.2inch

Weight: 145g (Not Including Batteries) 5.11oz

Accessories:

Carrying case 1pc.

Operation manual 1pc.

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2.2 Technical Parameters

Sensor type:

Humidity: Capacitor

Temperature: Resistor

Dew Point Temp. range:

-40°C~40°C (-40°F~104°F)

Dew Point Temp. resolution: 0.1°C / 0.1°F

Dew Point Temp. accuracy: ±1°C

R.H range: 10%~95%

R.H resolution: 0.1%R.H

R.H accuracy: 2.5 %±1%R.H

Temp. range: -10°C~60°C (14°F~140°F)

Temp. resolution: 0.1°C / 0.1°F

Temp. accuracy: ±0.5°C

Wet Bulb Temp. range: -10°C~60°C (14°F~140°F)

Wet Bulb Temp. resolution: 0.1°C / 0.1°F

Wet Bulb Temp. accuracy: ±0.5°C

9. HUMIDITY CORRECTION FUNCTION

9.1 The instrument has humidity correction function.

9.2 When it is necessary to correct the humidity value, press and hold the Humidity Key (3-5) for about 5 seconds, a beep. Then release the key, the coupling signal ‘(●)’ , the value ‘0.0’, and the humidity unit ‘RH%’ are displayed on the screen.

9.3 For each press the Humidity Key (3-5), the correction value is increased by 0.5. For each press the Temp. Key (3-9), the correction value is decreased by 0.5. The correction value can be set from -7.0 to 7.0.

9.4 After the adjustment of the correction value, press the Power / Max. Hold Key (3-4) to save and quit.

10. TEMPERATURE CORRECTION FUNCTION

10.1 The instrument has temperature correction function.

10.2 When it is necessary to correct the temperature value, press and hold the Temp. Key (3-9) for about 5 seconds, a beep. Then release the key, the coupling signal ‘(●)’ , the value ‘0.0’, and the temperature unit ‘°C’ are displayed on the screen.

10.3 For each press the Humidity Key (3-5), the correction value is increased by 0.3. For each press the Temp. Key (3-9), the correction value is decreased by 0.3. The correction value can be set from -2.1 to 2.1.

6. MAX. VALUE HOLD FUNCTION

Press and hold the Power / Max. Hold Key (3-4) for about 1 second, then release it. The ‘Max. Value Indicator’ on the display indicates it is in Max. Value Hold Mode.

7. HUMIDITY / TEMPERATURE ALTERNATELY DISPLAY FUNCTION

7.1 Press and hold Power / Max. Hold Key (3-4) for about 5 seconds. ‘Γ Urn’ sign is shown on the display. Then release the key. Humidity and Temperature is alternately displayed.

7.2 At this time, use the Humidity Key(3-5), Temperature Key(3-9), Wet Bulb Temperature Key(3-10), or Unit Conversion Key(3-6) to call out the intended data.

7.3 To quit this mode, press and hold Power / Max. Hold Key (3-4) for about 5 seconds. ‘Γ Urn’ sign is shown on the display. Then release the key.

8. BATTERY REPLACEMENT

8.1 When it is necessary to replace the battery, the battery symbol will appear on the Display.

8.1 Slide the Battery Cover (Fig. 1 , 3-8) away from the instrument and remove the batteries.

8.3 Install the batteries (4x1.5v AAA/UM-4) correctly into the case.

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3. PRONT PANEL DESCRIPTIONS

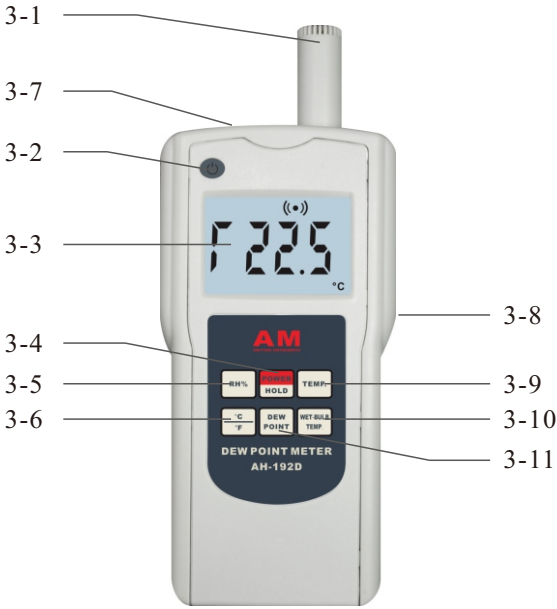


Fig. 1

- | | | | |
|-----|---------------------|------|---------------------------|
| 3-1 | Sensor | 3-7 | RS-232 Interface |
| 3-2 | Power Key | 3-8 | Battery Cover on the Back |
| 3-3 | Display | 3-9 | Temp. Key |
| 3-4 | Power/Max. Hold Key | 3-10 | Wet Bulb Temp. Key |
| 3-5 | Humidity Key | 3-11 | Dew Point Temp. Key |
| 3-6 | Unit Conversion Key | | |

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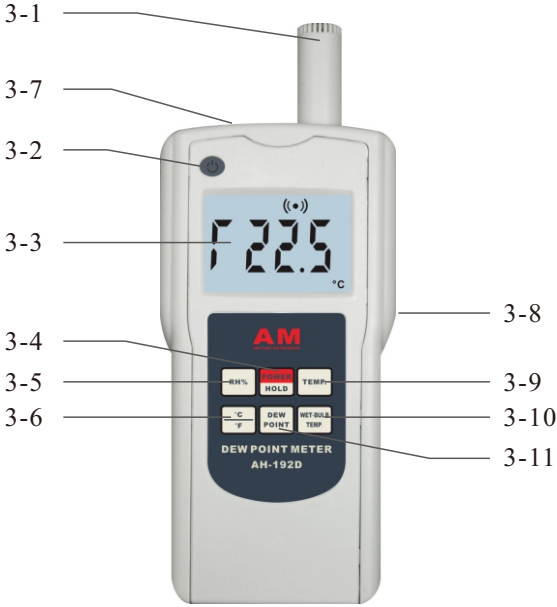


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| 3-6 | Unit Conversion Key | | |

4. MEASURING PROCEDURE

4.1 Humidity Measurement

4.1.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.1.2 Press the Humidity Key(3-5).

4.1.3 The humidity value is shown on the display and 'RH%' is the humidity unit.

4.1.4 It takes minutes to stabilize if the environment is changed.

4.1.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

4.2 Temperature Measurement

4.2.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.2.2 Press the Temp. Key(3-9).

4.2.3 The Temperature value is shown on the display and '°C' or '°F' is the temperature unit.

4.2.4 It takes minutes to stabilize if the environment is changed.

4.2.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

4.3 Dew Point Temperature Measurement

4.3.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.3.2 Press the Dew Point Temp. Key(3-11).

4.3.3 The Dew Point Temperature value is shown on the display and '°C' or '°F' is the temperature unit.

4. MEASURING PROCEDURE

4.1 Humidity Measurement

4.1.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.1.2 Press the Humidity Key(3-5).

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4.3 Dew Point Temperature Measurement

4.3.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.3.2 Press the Dew Point Temp. Key(3-11).

4.3.3 The Dew Point Temperature value is shown on the display and '°C' or '°F' is the temperature unit.

4.3.4 It takes minutes to stabilize if the environment is changed.

4.3.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

4.4 Wet Bulb Temperature Measurement

4.4.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.4.2 Press the Wet Bulb Temp. Key(3-10).

4.4.3 The Temperature value is shown on the display and '°C' or '°F' is the temperature unit.

4.4.4 It takes minutes to stabilize if the environment is changed.

4.4.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

5. AUTO POWER OFF / MANUAL POWER OFF

5.1 Auto Power Off

5.1.1 Press and hold the Power Key (3-1) or Power / Max. Hold Key (3-4) for about 9 seconds, the indicator 'AUTO' is displayed on the screen. Release the key, the value '10' or '0' is displayed.

5.1.2 The value '10' indicates that the instrument will be powered off automatically in 10 minutes if there is no operation. While the value '0' indicates no auto power off.

5.1.3 Press the Humidity Key (3-5) or the Temp. Key (3-9) to convert between the value '10' and the value '0'.

4.3.4 It takes minutes to stabilize if the environment is changed.

4.3.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

4.4 Wet Bulb Temperature Measurement

4.4.1 Press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power on the Meter.

4.4.2 Press the Wet Bulb Temp. Key(3-10).

4.4.3 The Temperature value is shown on the display and '°C' or '°F' is the temperature unit.

4.4.4 It takes minutes to stabilize if the environment is changed.

4.4.5 After the measurement, press the Power Key (3-2) or Power / Max. Hold Key (3-4) to power off.

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