

# Model C-315

Thermo-Hygrometer with Integral Probe

# Instruction Manual

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MAX HOLD A REL

 $\sim$  60 ° (  $\sim$  140 ° F

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# Features

- Compact thermo-hygrometer with integral probe for convenient one-hand operation
- Dual LCD readout shows ambient temperature and relative humidity
- User selectable °F / °C
- Min/Max memory for both functions
- Data hold and Relative functions
- Auto power off



# **Specifications:**

Display:	Dual display
Measurement Range:	
Humidity:	1%RH ~ 99%RH
Temperature:	-20°C ~ 60°C ( -4°F ~ 140°F)

#### Accuracy at 23°C ± 5°C

Range	Accuracy
5%RH ~ 95%RH	±3%RH
-20°C ~ 60°C	±0.8°C
-4°F ~ 140°F	±1.6°F

Resolution:	0.1%RH, 0.1°C / 0.1°F
Response Time:	(@ t90)
Humidity:	180 sec (In slowly moving air)
Temperature:	10 sec (In slowly moving air)
Operating Condition:	0°C ~ 40°C (< 80% RH )
Storage Condition:	-10°C ~ 60°C (< 70% RH )
Altitude:	Up to 2000 meters.
Sample Rate:	2.5 times per second
Battery:	9 V Battery,
	NEDA 1604 or JIS 006P or IEC6F22
	Battery Life: (with alkaline battery)
	Continuance operating approx 85-hours.
Dimensions:	240 × 54 × 34mm (9.5" × 2.1" × 1.3")
Weight:	Approx.180g
Accessory:	Battery, Instruction Menu



# Symbols & Buttons:

- 1 Dust mask
- 2 LCD display
- 3 ON/OFF button
- 4 MAX MIN button
- 5 HOLD button
- 6 RELATIVE button
- 7 °C, °F control button
- 8 Battery cover







# **Operation Instructions:**

## Power-Up:

Press the  $\mathbf{O}$  key to turn the Humidity Temperature Meter ON or OFF.

#### Selecting the Temperature Unit

When the meter is first powered on, the default scale setting is set at Celsius (°C) scale. The user may change it to Fahrenheit (°F) by pressing "°C/°F" button and vice versa to return to Celsius. Next time you power on, the scale setting will be the same as you last powered off.

#### Data-Hold Operation

The user may hold the present reading and keep it on the display by pressing the "**HOLD**" button. When the hold data is no longer needed, one may release the data-hold operation by pressing "**HOLD**" button again. When the meter is under Data Hold operation, the "**REL**", "**MAX/MIN**" and "°**C**/°**F**" button are disabled.

#### **Relative Operation**

Pressing the "**REL**" button, allows the meter to memorize the present reading and the difference between the new reading and the memorized data will be shown on the display. Press the "**REL**" button again to exit the Relative operation

#### MAX/MIN Operation

Pressing the "**MAX/MIN**" button places the meter in the MAX/MIN mode. Under this mode the maximum value and minimum value is kept in the memory simultaneously and updated with every new data.

When the **MAX** symbol is display, the Maximum is shown on the display. Press **MAX/MIN** again, then the **MIN** symbol is on the display and also the minimum reading.

Press **MAX/MIN** again, **MAX**, **MIN** will blink together. This means that all these data is updated in the memory and the reading is the present temperature and humidity.



Press the MAX/MIN button to circulate the display mode among these options. When the meter is under MAX/MIN operation, "REL" and "°C/°F" are disabled. To exit the MAX/MIN mode, press and hold the MAX/MIN button

for two seconds.

# Auto Power Off

By default, when the meter is powered on, it is under auto power off mode. The meter will power itself off after 30 minutes if no key operation is performed. To disable the auto power off feature, press and hold the "HOLD" button and then power on the meter. The auto power off symbol will disappear to indicate that auto power off is disabled.

### Low Battery Condition

When the battery voltage is under proper operation requirement, the symbol will show on the LCD and the battery needs to be replaced with a new one.

#### **Calibration Point**

Room temperature:	23°C ± 5°C
Temperature calibration point:	0°C to 40°C
Humidity calibration point:	32.8%RH@25°C
	75.3%RH@25°C



#### **Calibration Procedure**

We do recommend the operator to calibrate temperature before humidity.

#### Temperature Calibration

- 1. Turn the meter off.
- Press "HOLD" and "°C/°F" keys then push on "POWER" to turn on the meter. The LCD will blink and within 3 seconds the operator will have to press "°C/°F" to enter calibration mode.
- 3. When the meter enters the calibration mode, the meter will show "CAL 1" in the LCD window.
- 4. Place the probe in a stable 0°C environment for 10 minutes then press "MAX/MIN" key to start the adjusting. Calibration will be done after a long beep. The user can skip this calibration point by pressing "POWER" key.
- 5. After "CAL 1" the meter will display "CAL 2" to calibrate the second calibration point.
- 6. Place the probe in a stable environment at 40°C for 10 minutes then press "MAX/MIN" key to start the adjusting. Calibration will be done after a long beep. The operator can also skip this step by pressing "POWER" key. After the calibration, the meter will go back to normal operation mode.

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#### Humidity Calibration:

- 1. Turn the meter off.
- Press "HOLD" and "°C/°F" keys then push on the "POWER" to turn on the meter. The LCD will blink and within 3 seconds the operator will have to press "REL" to enter calibration mode.
- 3. When the meter enters the calibration mode, the meter will show "CAL 1" in the LCD window.
- 4. Put the meter in a stable environment of 32.8%RH@25°C for 30 minutes then press "**MAX/MIN**" key to start the adjusting. Calibration will be done after a long beep. The user can skip this calibration point by pressing "**POWER**" key.
- 5. After "CAL 1" the meter will display "CAL 2" to calibrate the second calibration point.
- 6. Put the meter in a stable environment of 75.3%RH@25°C for 30 minutes then press "MAX/MIN" key to start the adjusting. Calibration will be done after a long beep. The user can skip this calibration point by pressing "POWER" key. After calibration the meter will go back to normal mode.

#### Recall company calibration data:

- 1. Turn the meter off.
- Press and hold "HOLD" and "°C/°F" keys then turn on the meter. The LCD will blink and within 3 seconds the user have to repress "MAX/MIN" key to recall company calibration data.
- 3. After a long beep, the calibration data has reset to company setting

#### **Optional Accessories:**

33%RH Humidity standard 75%RH Humidity standard

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