

FI 33TH-2

Operating Manual



Hygro_Thermometer

I. Overview

FI33TH-2 Series Digital Hygro-Thermometers (hereafter referred to as "the Meter") adopts highly-precise hygro-thermo sensor and super-low power consumption micro-processor in its design, featuring high accuracy, manual and auto storage, USB data transfer, suitable time display, etc, which cover various demand for high-accuracy measurements and long-time hygro-thermo monitoring.

II. Unpacking Inspection

Battery	4 pcs
Disc	1 pc
USB Data Cable	1 pc

III. Safety Information

⚠ Warning

A warning identified conditions and actions that pose hazards to the user. To avoid electrical shock or personal injury, follow these guidelines:

- Before using the Meter inspect the case. Do not use the Meter if it appears damaged. Look for cracks or missing plastic. Pay particular attention to the insulation around the connectors.
- Replace the batteries as soon as the battery indicator (Ea) appears. The possibility of false readings can lead to personal injury.
- Do not use the Meter if it operates abnormally. Protection may be impaired. When in doubt, have the Meter serviced.
- Do not operate the Meter around explosive gas, vapor, or dust.
- When servicing the Meter, use only specified replacement parts.
- Do not use the Meter with any part of the case or cover removed.
- Do not clean the sensor located at top of the Meter. Turn to close the protective sensor cover when not in use. To avoid damage to the device, please use with care.
- Never charge the battery;
- Use the approved alkaline battery (AAA 1.5V) only;
- Pay attention to "+" and "-" marks when installing the batteries.
- Close the sensor cover and remove the batteries if the instrument is not used for a long time.

IV. Meter Description

- Meter Structure(See Figure1)



Figure 1

No.	Description
①	Protective cover of sensor (turn to open or close).
②	Display screen.
③	Turn on/off the power save mode.
④	Press to display Max/Min value among current readings. Long press to exit the function(also used ▲ button).
⑤	Press to save data. It is used together with ▼▲. See "Using the Meter -- Store and Recall Data" for details.
⑥	To set the meter. It is used together with ▼▲ buttons. See "Setting the Meter" for details.
⑦	Turn on/Turn off the background light.
⑧	Press to freeze the displayed readings. Press again to exit the function.(also used as ▼ button).
⑨	Press to view data. It is used together with ▼▲ buttons. See "Using the Meter -- Store and Recall Data" for details.
⑩	Dew-point temperature selection key (also used as confirm button).

- Display Screen (See Figure 2)

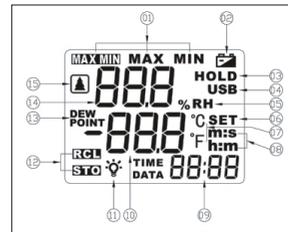


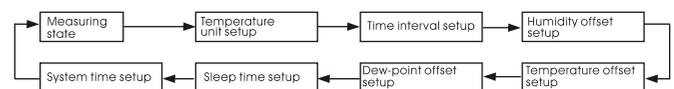
Figure 2

No.	Description	No.	Description
①	Max/Min function indicator	⑨	Time display zone
②	Battery indicator	⑩	Temperature display zone
③	Display of holding time	⑪	Backlight indicator
④	Online indicator	⑫	Data recall/store indicator
⑤	Humidity unit	⑬	Dew-point temperature
⑥	Indicator of setup mode	⑭	Humidity display zone
⑦	Temperature unit	⑮	Power save mode
⑧	Indicator of time format		

V. Setting the Meter

● SETUP Options

Press SETUP button to enter into setting mode, "SET" flashes on LCD, continue to press the button to step through and save the following setup options and exit the mode.



● Performing the Setups

1. Setting Temperature Unit

Press SETUP to access Temperature Unit setup mode, "Unt" shows on LCD. Press ▼(HOLD)/▲(Max/Min) to select C or F unit.

2. Setting Time Interval

Press SETUP to switch to time interval mode, "int" shows on LCD. Press ▼▲ to change the interval for automatic data storage. Long press ▼▲ to increment the time quickly. The interval can set up to 59:59 and down to 00:00(auto data storage disabled at 00:00).

3. Setting Humidity Offset

Press SETUP to switch to humidity offset mode, "H-O" icon shows. Press ▼▲ to change the offset value that ranges within -6~+6.

4. Setting Temperature Offset

Press SETUP to switch to temperature offset mode, "t-o" icon shows. Press ▼▲ to change the offset value that ranges within -6~+6.

5. Setting Dew Point Offset

Press SETUP to switch to dew point offset mode, "d-o" icon shows. Press ▼▲ to change the offset value that ranges within -6~+6.

6. Setting Sleep Mode

Press SETUP to switch to sleep offset mode, "SLP" icon shows. Press ▼▲ to set up sleep time(5~60mins). Long press ▼▲ to increase the time quickly; When the set time is < 5mins, "OFF" icon shows and sleep function is disabled.

7. Setting System Time

Press SETUP to switch to system time mode, "S-t" icon shows. Press ▼▲ to set up system time. Long press ▼▲ to increase the time quickly; Press ENTER to select time format "h:m" or "m:s". To make it easy to user, "m:s" format will be automatically converted into "h:m" after the system time exceeds 60 seconds.

VI. Using the Meter

• Turn on/off Power Save Mode

1. Press yellow button to turn on the Meter;
2. When the Meter turns on, it defaults at factory setup.
3. with the meter already turned on, press yellow button again will go into power save mode ("A" shows on LCD upper left corner). Repress to exit the mode.
4. Set the sleep mode, the Meter will enter power save mode if no button is active within the set time.
5. To ensure an accurate result, the user is recommended to wait for a while before taking the readings if the measured humidity & temperature change dramatically.

• Data Hold

Press HOLD button to freeze the reading, "HOLD" appears on LCD. Press again to quit the function.

• Turn on/off Backlight

Under normal measurement status, press "☼" button to turn on the backlight. Press again to turn it off. (backlight is off under power save mode).

• View Max/Min Reading

Press MAX/MIN button to check Max. and Min. readings. Long press the button to exit the mode.

• View Dew Point Temperature

Press ENTER to check dew point temperature, "DEW POINT" icon indicated on LCD. Press again to quit the function.

• Store and Recall Data

Press STORE button, the Meter will save the data into its memory and store up to 100 sets of data (00-99).

The recorded data are those shown on the primary display. Press the button again to exit the function.

Press RECALL to review the data stored in the memory. Press again to exit the function.

1. Store Data

Press STORE button and "DATA" icon shows on upper part of LCD. There are two ways to store data.

Manual Method: Preset time interval for auto storage at 00:00 (refer to "Setting Time Interval" section), then get into STORE mode, press ENTER once to save current reading into current address of the memory, press ENTER again to save into next address. Press ▼▲ to change the address to store. "----" shows for blank address.

Auto Method: Preset time interval not at 00:00, then get into STORE mode, press ENTER once, ":" icon flashes and the Meter will save the data in order into the memory by beginning with current address and storing at a interval previously set. Press ENTER again to pause the operation and ":" stops flashing. Repress ENTER to continue.

2. Recall Data

Press RECALL to check recorded data, "DATA" icon flashes. Press ▼▲ to scroll through recorded readings. The Meter defaults at the reading saved last time you exit the STORE mode. Pressing ENTER under RECALL mode can quickly review from No.00 to 99 data and also allow you to transfer data to PC through USB. After quick review, the number stops at 99.

3. Clear Data

Press STORE to go into STORE mode, "DATA" icon shows. Then long press STORE for 2 seconds and "CLR" icon appears on the LCD, pressing ENTER will clear all 100sets of data. Clearing item by item is not allowed. "- - -" shows for empty memory.

Note: All 100 sets of data will be completely cleared once the function is enabled. Step-by-Step clearing is not allowed. To avoid any data loss, please think it twice before you use the function.

• Transfer Data

The Meter will transfer data to PC under following two circumstances:

1. Enter into RECALL status, pressing ENTER button will not only allow you to review the data quickly but also transfer the data automatically to PC.
2. When PC is running the supplied software and has been already connected to the Meter, the measured data will be automatically transferred to PC.

VII. Maintenance

• Replacing the Battery (See Figure 3)

When the Meter indicates "🔋", please replace the battery timely. Follow the steps as below:

1. Unscrew the battery and remove it from the meter.
2. Replace the batteries with new 4xAAA batteries;
3. Rejoin the battery cover and tight up the screw.

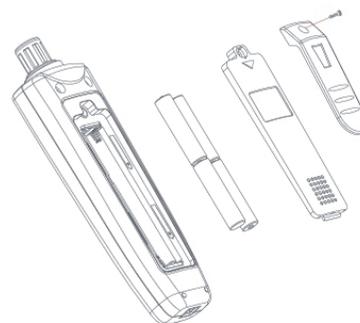


Figure 3

• Cleaning the Casing

When it becomes necessary to clean the surface of the Meter, clean it with soft cloth or sponge dampened with just a little of water, soap water or mild detergent. Prohibit washing the Meter with water directly, which may damage the circuits inside.

VIII. CE Certification

The Hygro-Thermometer conforms to the following standards.

EN61326: 2006
EN55022: 2006
EN55024: 1998+A1+A2

IX. Technical Specifications

Function	F133TH-2
Measuring range time	Temperature: -20°C ~ 60°C Humidity: 0%RH ~ 100%
Resolution	Temperature: 0.1°C Humidity: 0.1%RH
Measuring accuracy	Temperature: 0°C to 40°C : ±0.5°C -20°C to 0°C : ±1.0°C 40°C to 60°C : ±1.0°C Humidity: ±2.5%RH (10%RH to 90%RH) ±5.0%RH (<10%RH or >90%RH)
Response	About 10 seconds (25°C, 1m/s air)
Time	Real-time time
Data storage	0 to 99
Setup Functions	Temperature unit, auto-save time interval, humidity offset, temperature offset, dew-point offset, sleep time setup and system time.

END

This operating manual is subject to change without notice.