Stellar Instruments

1. Safety instructions

Please read the following information carefully before operating:

(1) The meter can be operated in the environment of -30~65℃, 0~100%RH(non-condensing). The meter may be damaged if used in other environment.

(2) The battery can be used at the temperature of -15~50℃. If you need to use the meter at other temperatures please change the battery.

(3) Please do not disassemble or repair the meter by yourself.

(4) Please remove the battery if the meter is not used for a long time.
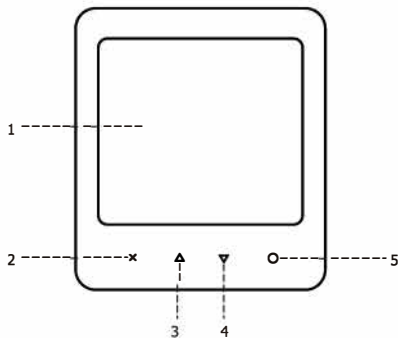
2. Product selection guide A◯ B◯

Model No. Function	TH3010	TH3020
Temperature	●	●
Humidity	●	●
Data logging	○	●

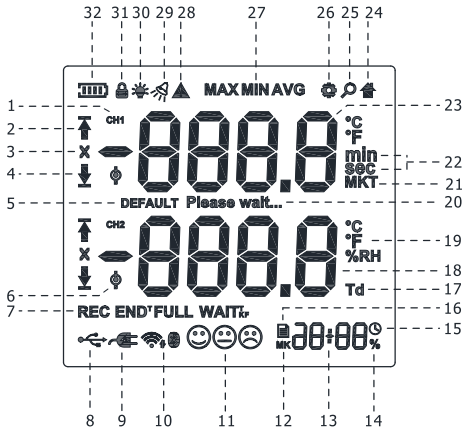● means the product enabled, ○ means the product disabled.

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3. Appearance

1. LCD	5. Power or setting
2. Remove limit violation symbol	6. External probe socket
3. Temperature unit switching or +	7. Reset button
4. View or -	
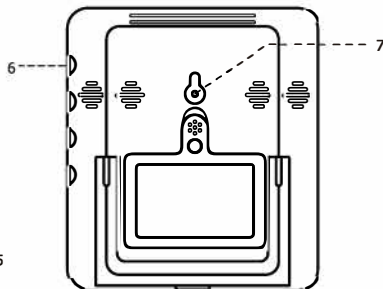
4. LCD Introduction

1. Channel number
2. Upper limit violation indication
3. Limit violation symbol
4. Lower limit violation indication
5. Display when restoring the factory settings
6. External probe symbol
7. Record status indication
8. USB communication symbol
9. display when charging via USB
10. Wireless signal indication
11. Human comfort indicator
12. Mark indication
13. Time
14. Percentage symbol
15. Clock symbol
16. File symbol
17. Dew point temperature symbol
18. Reading 2
19. Temperature/ Humidity unit
20. Wait state
21. Mean kinetic temperature symbol
22. Time unit
23. Reading 1
24. Home interface indication
25. View mode indication
26. Setting mode symbol
27. Minimum / Maximum / Average symbol
28. Warning symbol
29. Buzzer alarm enabled indication
30. Backlight enabled indication
31. Display when key is locked
32. Battery level

↑:Display when exceeding the upper limit currently.

↓:Display when exceeding the lower limit currently.

✗:Display when exceeding the upper or lower limit currently or before.

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5.Specifications

Measurement Parameter	Temperature	Humidity
Measurement Range	-30~65℃(Internal probe) -40~125℃(External probe)	0~100%RH(non-condensing)
Resolution	0.1℃	0.1%RH
Accuracy	±0.3℃(-10~65℃) ±0.5℃(Other range)	±3%RH(10~90%RH , 25℃) ±4%RH(Other range)
Response Time(t90)	15min	15min
Measuring Interval	5s	5s
LCD Refresh Interval	5s	
Memory Capacity	26624 readings(for the model with data logging function)	
Operation Temperature	-30~65℃	
Storage Temperature	-30~65℃(No battery)	
Power Supply	1.5VAAA	
Battery Life	Approx.1year(without backlight and buzzer alarm,25℃)	
Communication Interface	Micro USB, DC 5V/2A	
Size	96 mm*108mm*20mm	
Case Material	ABS	
Weight	Approx.116g(No battery)	
Waterproof	IP20	

6. Operation

The meter will self-lock if not any operation within 15 seconds(the icon 🔒 will be displayed). Hold the key ⟳ for 2 seconds to unlock it. You can hear a sound "di" when pressing a key.

6.1 Power on
(1) The meter will turn on automatically when installing new batteries;
(2) If the meter has been shut down, hold the key ⟳ for 3 seconds to turn it on.

6.2 Power off (invalid during logging)
(1) In home interface, hold the key ⟳ until "off"shows, then the meter will power off.
(2)When battery is low or temperature exceeds the operation temperature, the meter will power off.

6.3 Temperature unit switching (invalid during logging)
Hold the key △ for 2 seconds to switch Fahrenheit and Celsius.

6.4 Dew point display switching
Click the key △ to switch temperature and dew point temperature.

6.5 Time display switching
Click the key ⟳ to toggle the display between year, month, date and time.

6.6 View the maximum, minimum, average, upper and lower limits
Click the key ▽ to view the values, including maximum, minimum, average, upper and lower limits. In view mode(the icon 🔍 will be displayed), it will return to home interface if not any operation within 15 seconds, or you can press ✕ , △ or ▽ to go back to home interface.

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6.7 Clear the statistical data (For the model without data logging function)
Hold the key ▽ for 2 seconds to delete the statistical data, including maximum, minimum and average (the MAX/MIX/AVG symbol will flash once). Then it will restart to calculate the maximum,minimum and average values.

6.8 Turn off the buzzer alarm
If the buzzer alarm has been enabled, the buzzer will be ringing when exceeding the upper/lower limit. Click any key to turn off the buzzer.

6.9 Remove limit violation symbol (invalid during recording)
Hold the key ✕ for 2 seconds, and the limit violation symbol ✖ will be removed after a sound "di".

6.10 Parameter setting(invalid during recording)
In setting mode, you can click the key ⟳ to go into the next setting, or you can click the key ✕ to go back to the previous setting.
(1) Enter setting mode:
   In home interface, hold the key ⟳ until the year value flashes, then you will enter the setting mode(the icon ⚙ will be displayed). Click the key ⟳ to set the following parameters: time, buzzer duration, backlight duration (for the model without data logging function), the upper/ lower limit of each channel, measuring interval, and file format (for the model with data logging function). press the key △ to increase the value or press the key ▽ to decrease the value. "On" means that the function is enabled all the time, "off" means that the function is disabled.

(2) Exit setting mode:
   Click the key ⟳ after finishing the setting, and the meter will save the settings and exit setting mode. In setting mode, if not any operation within 15 seconds, the meter will save the settings and go back to home interface.You can also hold the key ⟳ for 2 seconds to go back to home interface.

6.11 View the serial number
Hold the key ⟳ and the key ▽ at the same time for 2 seconds, and the serial number will be displayed on the screen.

6.12 Restore the factory settings(invalid during logging)
Hold the key ✕ and the key △ at the same time until showing "DEFAULT" and the icon ⚙ .

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6.13 Reset

Click the reset button to restart the meter. Note: Reset during logging will result in partial loss of data recorded in past five minutes.

7. Data logging and files (for the model with data logging function)

7.1 Start logging

Hold the key ▽ for 2 seconds to start logging, and "REC" will be displayed on the screen (For more details, please refer to the status symbol table).

7.2 Stop logging

(1) Hold the key ▽ for 2 seconds to stop logging, and "END" will be showed on the screen.
(2) The meter will stop logging when connecting with a computer("END" , ⟵⟶ , ⟵ will be displayed on the screen).
(3) The meter will stop logging when memory is full("END FULL" will be displayed on the screen).
(4) The meter will stop logging and power off when battery is low.

7.3 Logging files

Logging files are named by the serial number and the time to start logging. Four file formats can be set (For more details, please refer to the file format symbol table). You can view the file on a computer.

7.4 Delete logging files

(1) Format the disk by a computer.
(2) Open the disk on a computer, and remove the logging files.
(3) Restore the factory settings.

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8. Tips and helps

(1) When all the keys cannot respond, it indicates that the meter is undergoing self-calibrating,please wait and try again after 15 seconds.
(2) The meter supports the use of external probe. Please insert the external probe into the external probe socket and restart the meter, and the symbol ⊕ will be displayed on the screen.
(3) When the battery symbol flashes or "oFF" shows on screen, it indicates that the battery is low, and the meter will turn off automatically. Please replace the battery timely.
(4) When the screen shows exception code, please refer to the abnormal code table for the reason. Any questions, please contact with after-sales.

Abnormal code table

Sensor failed to communicate	− − − −
Hardware error	Err0
Abnormal supply voltage	Err2
Operation temperature is too high	HI
Operation temperature is too low	Lo
Less than 2 recording points	NoNE
Insufficient disk space	FULL

File format symbol table

dlg	dL9
txt	tHt
xls	HLS
csv	CSU

Status symbol table

WAIT κ	Wait to start logging
REC	Under record status
END	Stop logging when memory is not full
END FULL	Stop logging when memory is full