



# Elitech RC-51H Multi-use Temperature and Humidity User Manual

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Elitech RC-51H Multi-use Temperature

and Humidity User Manual

## RC-51H User Manual Multi-use Temperature&Humidity Data Logger

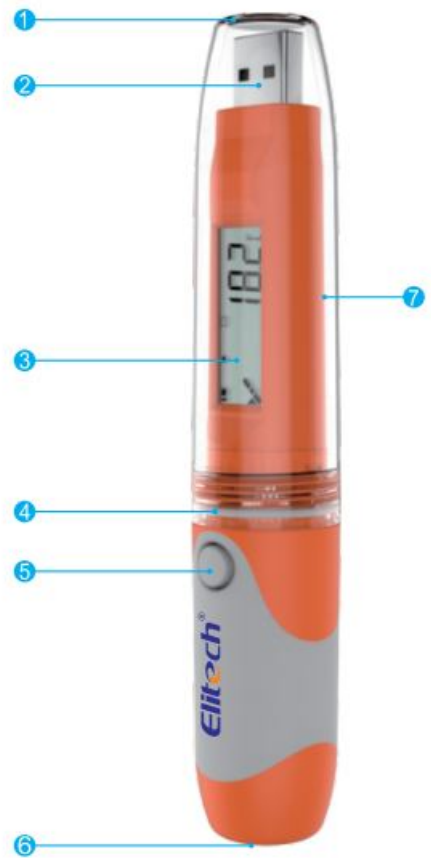
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## Product Overview

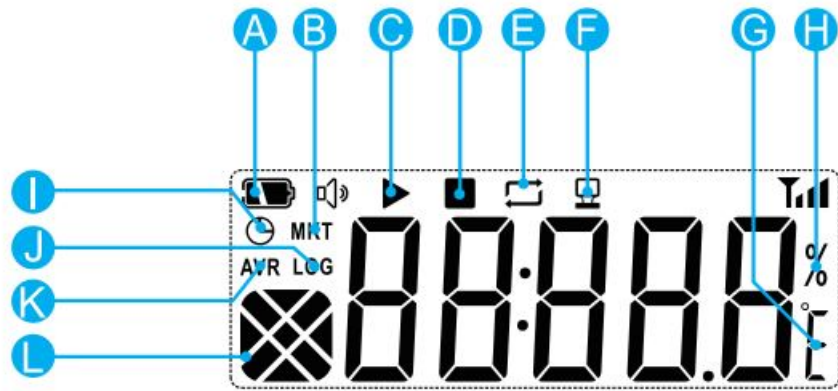
This temperature and humidity data logger is mainly used in the fields or places of medicine, food, life science, flowers , breeding industry, ice chest, container, shady cabinet, medical cabinet, refrigerator, laboratory and greenhouse, etc. RC-51 H is plug and play and It can directly generate the data report, with no need to install data management software. The data can still be read in case battery runs out.

## Structure Description



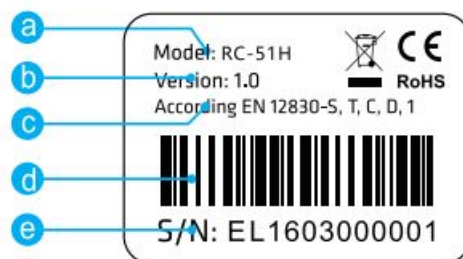
1. Transparent cap
2. USB port
3. LCD screen
4. Seal ring
5. Button & Bi-color indicator (red and green)
6. Sensor
7. Product label

## LCD screen



- A Battery indicator
- B Mean kinetic temperature
- C Start recording indicator
- D Stop recording indicator
- E Cyclic recording indicator
- F Computer connection indicator
- G Temperature unit(°CRF)
- H Humidity unit or Progress percentage
- I Timing indicator
- J Average value indicator
- K Number of records
- L Combined indicator

## Product label



- a Model
- b Firmware version
- C Certification information
- d Barcode
- e Serial number

Picture is for reference only, please take real object as standard.

## Technical Specifications

- Recording Options: Multi-Use

- Temperature Range: -30 to 70
- humidity Range: 10%95%
- Temperature & humidity Accuracy:  $\pm 0.5(-20/+40)$ ;  $\pm 1.0(\text{other range})$   $\pm 3\%RH$  (2520%90%RH)  $\pm 5\%RH(\text{other range})$
- Data Storage Capacity 32,000 readings:
- Software: PDF /Elitech Log Win or Mac (latest version)
- Connection Interface: USB 2.0, A-Type
- Shelf Life/Battery: 2 years1/ER14250 button cell
- Recording Interval: 15 minutes(standard)
- Startup Mode: Button or software
- Stop Mode: Button, software or stop when full
- Weight: 60g
- Certifications: EN12830, CE, RoHS
- Validation Certificate: Hardcopy
- Report Generation: Automatic PDF report
- Temperature & 0.1(Temperature)  
humidity Resolution 0.1%RHcHimidity
- Password Protection: Optional on request
- Reprogrammable: With free Elitech Win or MAC software
- Alarm Configuration: Optional, up to 5 points, Humidity only supports upper and lower limit alarm
- Dimensions: 131mmx24mmx7mm(LXD)

1.Dependent on optimal storage conditions ( $\pm 15$  to  $+23/45\%$  to 75% RH)








## Parameter Instruction

Users can reconfigure the parameters by data management software per actual needs. The the original parameters and

Alarm threshold	This data logger supports 3 upper temperature limits, 2 lower temperature limits, 1 upper humidity limit and 1 lower humidity limit.	
Alarm zone	The zone which beyond the alarm threshold	
Alarm type	Single	The data logger records the single time for continuous over-temperature events.
	Cumulative	The data logger records the cumulative time of all the over-temperature events.
Alarm delay	The data logger does not alarm immediately when the temperature is within the alarm zone. It begins to alarm only when the over-temperature time elapses the alarm delay time.	
MKT	Mean kinetic temperature, which is an evaluation method of the temperature fluctuation effect on the goods in storage.	

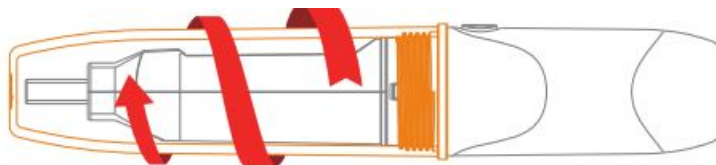
## Operating Instructions

This data logger can be stopped by software. Users can stop the logger by clicking the stop button in the data management software.

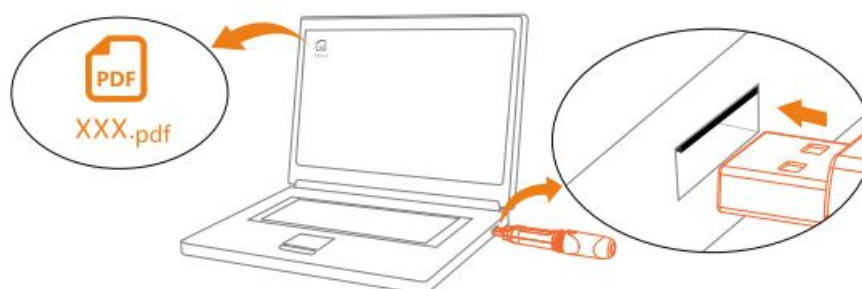
Action	Parameter configuration	Operation	LCD indicator	Indicator
Start	Instant-on	Disconnect to USB		Green indicator flashes 5 times.
	Timing start	Disconnect to USB		Green indicator flashes 5 times.
	Manual start	Press and hold for 5s		Green indicator flashes 5 times.
	Manual start ( delayed )	Press and hold for 5s		Green indicator flashes 5 times.
Stop	Manual stop	Press and hold for 5s		Red indicator flashes 5 times.
	Over-Max-record-capacity stop (disable manual stop)	Reach the Max capacity		Red indicator flashes 5 times.
	Over-Max-record-capacity stop (Enable manual stop)	Reach the Max capacity or press and hold the button for 5s		Red indicator flashes 5 times.
View	Press and release the button Refer to the menu and status indicator			

### View data

When the data logger is inserted into the USB port of the computer, the data report will be created automatically. The red and green indicators flash in turn when the document is being created, and the LCD screen shows the progress of PDF Report creation. The red and green indicators light at the same time immediately after the document is created, then users can view the data report . The document creation will last for no more than 4 minutes.



(1) Rotate the transparent cap in the direction of the arrow and remove it.



(2) Insert the data logger into the computer and view the data report.

### Menu and Status Indicator

#### Description of the indicator flashing status

Status	Action of the indicators	Status	Action of the indicators
Not started	The red and green indicators flash 2 times simultaneously.	Started-alarm	The red indicator flashes once. The red light flashes once per minute automatically.
Start delay Timing	The red and green indicators flash once simultaneously.	Stopped-normal	The green light flashes 2 times.
Started-normal	The green indicator flashes once. The green light flashes once per minute automatically.	Stopped-alarm	The red light flashes 2 times.

## Description of the menus

Menu	Description	Example	Menu	Description	Example
1 <sup>1</sup>	Countdown of the (timing) start	(HH:MM)	6	Average humidity value	45%
	Countdown of the (delayed) start	(HH:MM) <sup>2</sup>	7	Maximum temperature value	98°C
2	Current temperature value	23°C	8	Maximum humidity value	98%
3	Current humidity value	23%	9	Minimum temperature value	27°C
4	Points of the records	32000	10	Minimum humidity value	27%
5	Average temperature value	48°C			

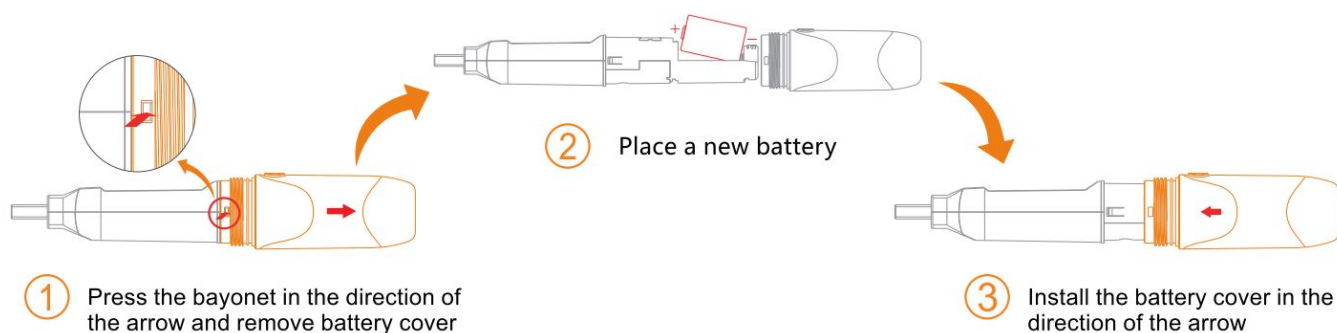
## Description of the combined indicators and other status

Display	Description	Display	Description
(group) <sup>3</sup>	No alarm	(group) rotating	Rate of progress
(group)	Already alarmed		Null value
(group)	Minimum value		Clear data
(group)	Maximum value		In USB communication

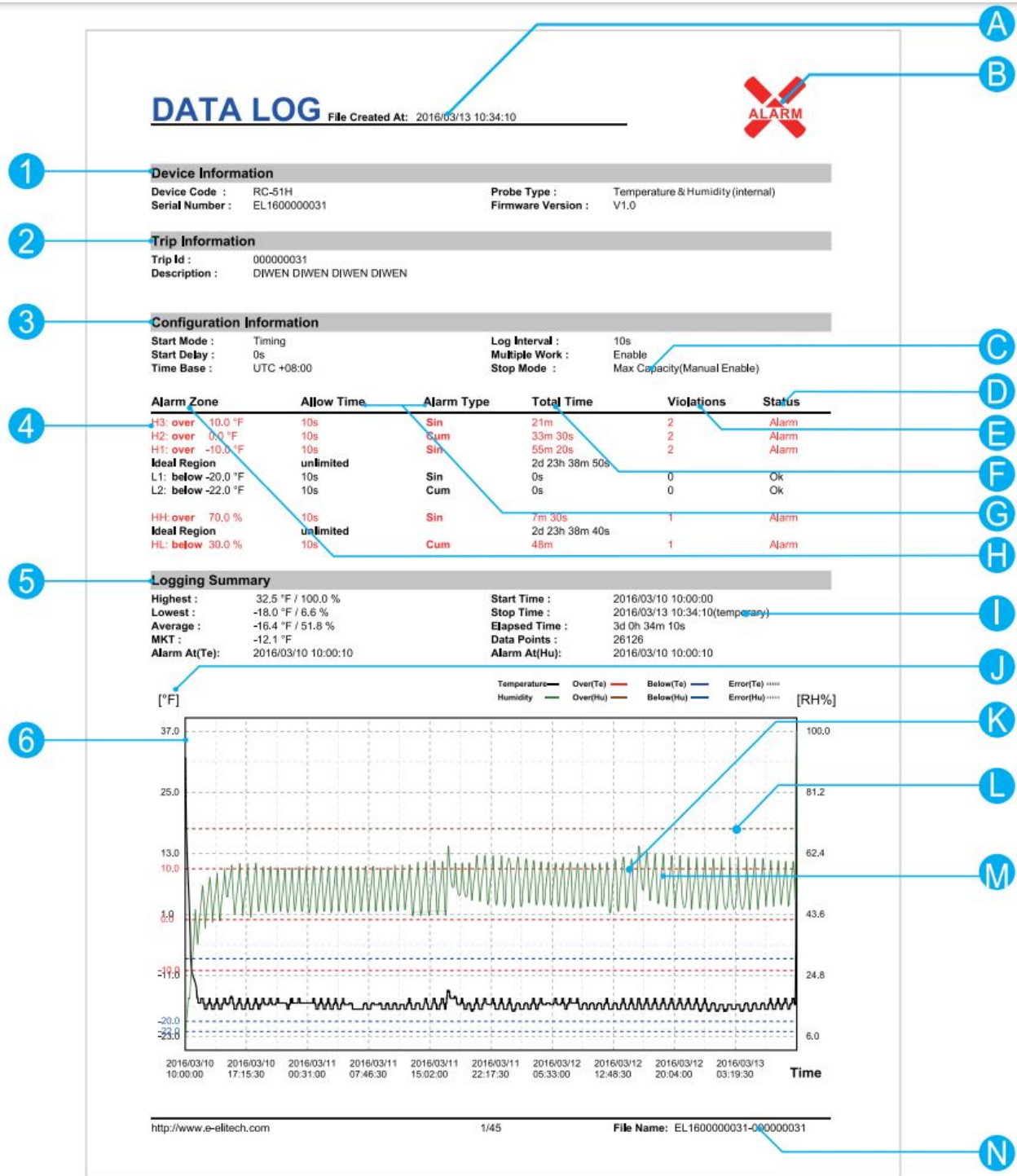
### Note:

- Menu 1 appears only when the corresponding function is selected.
- "▶" should be in a state of blinking.
- The display in the combined indicator area. The same as below.

## Replace battery







10.0030	31.8	7.0%	10.1640	8.1	17.3%	10.3320	-5.2	18.2%	10.5000	-10.4	31.4%	11.0640	-11.7	43.7%	11.2320	-15.1	30.4%
10.0040	31.5	7.0%	10.1650	8.1	17.3%	10.3330	-5.2	18.2%	10.5010	-10.4	31.5%	11.0650	-11.7	43.7%	11.2330	-15.1	30.4%
10.0050	31.5	7.0%	10.1700	7.0	17.3%	10.3340	-5.2	18.3%	10.5020	-10.4	31.5%	11.0700	-11.7	44.7%	11.2340	-15.1	30.3%
10.0060	30.6	7.1%	10.1710	7.0	17.3%	10.3350	-5.6	18.3%	10.5030	-10.4	31.5%	11.0710	-11.7	44.7%	11.2350	-15.1	30.3%
10.0070	29.8	7.1%	10.1720	6.8	17.4%	10.3360	-5.6	18.3%	10.5040	-10.4	31.5%	11.0720	-11.7	44.7%	11.2360	-15.1	30.3%
10.0080	29.2	7.1%	10.1730	6.8	17.4%	10.3410	-5.6	18.7%	10.5050	-10.4	32.0%	11.0730	-11.7	44.2%	11.2410	-15.1	30.0%
10.0090	28.3	7.5%	10.1740	6.8	17.4%	10.3420	-5.6	18.7%	10.5100	-10.4	32.0%	11.0740	-11.7	44.2%	11.2420	-15.1	30.0%
10.0100	28.0	7.5%	10.1750	6.8	17.4%	10.3430	-5.6	19.8%	10.5110	-10.4	32.4%	11.0750	-11.7	44.8%	11.2430	-15.1	30.0%
10.0120	28.0	7.6%	10.1800	5.9	17.7%	10.3440	-5.6	20.6%	10.5130	-10.4	32.5%	11.0810	-11.7	44.8%	11.2490	-15.1	34.8%
10.0130	27.7	8.0%	10.1810	5.9	17.7%	10.3500	-5.6	20.2%	10.5140	-10.4	32.9%	11.0820	-11.7	44.7%	11.2500	-15.1	34.8%
10.0140	28.1	7.6%	10.1830	5.9	17.7%	10.3510	-5.6	20.3%	10.5150	-10.4	32.9%	11.0830	-11.7	44.7%	11.2510	-15.1	34.8%
10.0150	27.7	8.0%	10.1840	5.9	17.7%	10.3520	-6.5	20.3%	10.5200	-10.4	33.0%	11.0840	-11.7	44.7%	11.2520	-15.0	34.8%
10.0200	27.7	8.0%	10.1850	5.9	17.7%	10.3530	-6.5	20.3%	10.5210	-10.4	33.0%	11.0850	-11.7	44.7%	11.2530	-15.0	34.8%
10.0210	26.5	8.1%	10.1900	5.6	17.7%	10.3540	-6.5	20.7%	10.5220	-10.4	33.4%	11.0900	-11.7	44.7%	11.2540	-15.0	34.8%
10.0220	26.5	8.1%	10.1910	5.6	17.7%	10.3550	-6.5	20.7%	10.5230	-10.4	33.5%	11.0910	-11.7	45.1%	11.2550	-15.0	34.8%
10.0230	26.5	8.5%	10.1920	4.7	17.7%	10.3560	-6.5	20.8%	10.5240	-10.4	33.5%	11.0920	-11.7	45.1%	11.2600	-15.0	34.8%
10.0240	25.4	8.5%	10.1930	4.7	17.7%	10.3570	-6.5	21.2%	10.5250	-10.4	33.5%	11.0930	-11.7	45.1%	11.2610	-15.0	34.8%
10.0300	25.4	8.5%	10.1940	4.7	17.7%	10.3620	-6.5	21.2%	10.5300	-10.4	34.0%	11.0940	-11.7	45.1%	11.2620	-15.0	34.8%
10.0310	24.3	9.0%	10.1950	4.7	17.7%	10.3630	-6.5	21.2%	10.5310	-10.4	34.0%	11.0950	-11.7	45.1%	11.2630	-15.0	34.8%
10.0320	24.3	9.0%	10.2000	4.7	17.7%	10.3640	-6.8	21.2%	10.5320	-10.4	34.0%	11.1000	-11.7	45.1%	11.2640	-15.0	34.8%
10.0330	24.3	9.0%	10.2010	4.3	17.7%	10.3650	-6.8	21.3%	10.5330	-11.5	34.5%	11.1010	-12.6	45.1%	11.2650	-15.0	34.8%
10.0340	24.3	9.0%	10.2020	4.3	17.7%	10.3660	-6.8	21.3%	10.5340	-11.5	34.5%	11.1020	-12.6	45.1%	11.2660	-15.0	34.8%
10.0350	24.1	8.1%	10.2030	4.3	17.7%	10.3710	-6.8	21.7%	10.5350	-11.5	34.5%	11.1030	-12.6	45.1%	11.2710	-15.0	34.5%
10.0400	23.2	8.1%	10.2040	4.3	17.7%	10.3720	-6.8	21.7%	10.5400	-11.5	34.5%	11.1040	-12.6	45.1%	11.2720	-15.0	34.5%
10.0410	23.2	8.4%	10.2050	3.4	17.9%	10.3730	-6.8	21.8%	10.5410	-11.5	34.8%	11.1050	-12.6	45.1%	11.2730	-15.0	34.5%
10.0420	23.2	8.4%	10.2060	3.4	17.9%	10.3740	-6.8	21.8%	10.5420	-11.5	34.8%	11.1060	-12.6	45.1%	11.2740	-15.0	34.5%
10.0430	22.9	8.4%	10.2110	3.4	17.9%	10.3750	-6.8	21.8%	10.5430	-11.5	34.8%	11.1110	-12.6	45.1%	11.2750	-15.0	34.5%
10.0440	22.9	8.4%	10.2120	3.4	17.9%	10.3800	-7.7	22.1%	10.5440	-11.5	35.3%	11.1120	-12.6	45.1%	11.2800	-15.0	34.5%
10.0450	22.0	9.6%	10.2130	3.4	17.9%	10.3810	-7.7	22.1%	10.5450	-11.5	35.3%	11.1130	-12.6	45.1%	11.2810	-15.0	34.5%
10.0500	22.0	9.6%	10.2140	3.1	17.9%	10.3820	-7.7	22.3%	10.5500	-11.5	35.4%	11.1140	-12.6	44.7%	11.2820	-15.0	34.5%
10.0510	21.6	10.1%	10.2150	3.1	17.9%	10.3830	-7.7	22.3%	10.5510	-11.5	35.4%	11.1150	-12.6	44.7%	11.2830	-15.0	34.5%
10.0520	21.6	10.1%	10.2200	3.1	17.9%	10.3840	-7.7	22.6%	10.5520	-11.5	35.4%	11.1200	-12.6	44.7%	11.2840	-15.0	34.5%
10.0530	20.7	10.1%	10.2210	3.1	17.9%	10.3850	-7.7	22.6%	10.5530	-11.5	35.6%	11.1210	-12.6	44.7%	11.2850	-15.0	34.5%
10.0540	20.7	10.4%	10.2220	2.2	17.9%	10.3900	-7.7	22.8%	10.5540	-11.5	35.6%	11.1220	-12.6	44.8%	11.2900	-15.0	34.5%
10.0550	20.7	10.4%	10.2230	2.2	17.9%	10.3910	-7.7	22.8%	10.5550	-11.5	35.6%	11.1230	-12.6	44.7%	11.2910	-15.0	34.5%
10.0600	20.3	10.4%	10.2240	2.2	17.9%	10.3920	-7.7	23.1%	10.5600	-11.5	36.3%	11.1240	-12.6	44.8%	11.2920	-15.0	34.5%
10.0610	20.3	10.5%	10.2250	2.2	17.9%	10.3930	-6.1	23.1%	10.5610	-11.5	36.3%	11.1250	-12.6	44.2%	11.2930	-15.0	34.5%
10.0620	19.4	10.5%	10.2300	2.2	17.9%	10.3940	-6.1	23.2%	10.5620	-11.5	36.4%	11.1300	-12.6	44.2%	11.2940	-15.0	34.5%
10.0630	19.4	10.5%	10.2310	1.6	17.9%	10.3950	-6.1	23.2%	10.5630	-11.5	36.4%	11.1310	-12.6	44.3%	11.2950	-15.0	34.5%
10.0640	19.4	10.5%	10.2320	1.6	17.9%	10.3960	-6.1	23.2%	10.5640	-11.5	36.4%	11.1320	-12.6	44.3%	11.2960	-15.0	34.5%
10.0650	19.1	11.0%	10.2330	1.6	17.9%	10.4010	-6.1	23.8%	10.5650	-11.5	36.9%	11.1330	-12.6	43.7%	11.3010	-15.0	34.3%
10.0700	19.1	11.0%	10.2340	1.6	17.9%	10.4020	-6.1	23.8%	10.5700	-11.5	36.9%	11.1340	-13.0	43.7%	11.3020	-15.0	34.3%
10.0710	18.2	11.4%	10.2350	0.9	17.9%	10.4030	-6.1	23.7%	10.5710	-11.5	37.3%	11.1350	-13.0	43.8%	11.3030	-15.0	34.3%
10.0720	18.2	11.4%	10.2360	0.9	17.9%	10.4040	-6.1	23.7%	10.5720	-11.5	37.3%	11.1360	-13.0	43.8%	11.3040	-15.0	34.3%
10.0730	18.2	11.5%	10.2410	0.9	17.9%	10.4050	-6.1	24.1%	10.5730	-11.5	37.4%	11.1410	-13.0	43.3%	11.3050	-15.0	34.3%
10.0740	17.8	11.5%	10.2420	0.9	17.9%	10.4100	-6.1	24.1%	10.5740	-11.5	37.4%	11.1420	-13.0	43.3%	11.3100	-15.0	34.4%
10.0750	17.8	11.5%	10.2430	0.9	17.9%	10.4110	-6.1	24.2%	10.5750	-11.5	37.8%	11.1430	-13.0	43.1%	11.3110	-15.0	34.4%
10.0800	16.9	11.8%	10.2440	0.5	17.7%	10.4120	-6.0	24.8%	10.5800	-11.5	37.8%	11.1440	-13.0	43.1%	11.3120	-15.0	34.4%
10.0810	16.9	11.8%	10.2450	0.5	17.7%	10.4130	-6.0	24.8%	10.5810	-11.5	37.8%	11.1450	-13.0	43.1%	11.3130	-15.0	34.4%
10.0820	16.9	12.0%	10.2500	0.5	17.7%	10.4140	-6.0	24.8%	10.5820	-11.5	37.9%	11.1500	-13.0	42.8%	11.3140	-15.0	34.4%
10.0830	16.9	12.0%	10.2510	0.5	17.7%	10.4150	-6.0	24.7%	10.5830	-11.5	38.3%	11.1510	-13.0	42.8%	11.3150	-15.0	34.4%
10.0840	16.7	12.4%	10.2520	-0.4	17.7%	10.4200	-6.0	24.7%	10.5840	-11.5	38.4%	11.1520	-13.0	42.3%	11.3200	-15.0	34.3%
10.0850	16.7	12.4%	10.2530	-0.4	17.7%	10.4210	-6.0	24.7%	10.5850	-11.5	38.4%	11.1530	-13.0	42.3%	11.3210	-15.0	34.3%
10.0900	15.7	12.5%	10.2540	-0.4	17.7%	10.4220	-6.0	25.2%	10.5900	-11.5	38.7%	11.1540	-13.0	42.2%	11.3220	-15.0	34.3%
10.0910	15.7	12.5%	10.2550	-0.4	17.7%	10.4230	-6.0	25.2%	10.5910	-11.5	38.7%	11.1550	-13.0	41.8%	11.3230	-15.0	34.3%
10.0920	15.7	12.9%	10.2600	-0.4	17.7%	10.4240	-6.0	25.8%	10.5920	-11.5	38.7%	11.1600	-13.0	41.8%	11.3240	-15.0	34.3%
10.0930	15.7	12.9%	10.2610	-0.7	17.7%	10.4250	-6.0	25.8%	10.5930	-11.5	38.7%	11.1610	-13.0	41.1%	11.3250	-15.0	34.3%
10.0940	15.8	13.0%	10.2620	-0.7	17.7%	10.4260	-6.0	25.7%	10.5940	-11.5	38.7%	11.1620	-13.0	41.1%	11.3260	-15.0	34.3%
10.0950	15.5	13.0%	10.2630	-0.7	17.7%	10.4310	-6.0	26.0%	10.5950	-11.5	39.2%	11.1630	-13.0	41.3%	11.3310	-15.0	34.4%
10.1000	15.5	13.4%	10.2640	-0.7	17.7%	10.4320	-6.0	26.7%	11.0000	-11.5	39.4%	11.1640	-13.0	41.2%	11.3320	-15.0	34.4%
10.1010	14.8	13.4%	10.2650	-0.7	17.7%	10.4330	-6.4	26.0%	11.0010	-11.5	39.4%	11.1650	-13.0	40.8%	11.3330	-15.0	34.4%
10.1020	14.8	13.4%	10.2660	-0.7	17.7%	10.4340	-6.4	26.1%	11.0020	-11.5	39.4%	11.1660	-13.0	40.8%	11.3340	-15.0	34.4%
10.1030	14.8	13.5%	10.2710	-1.6	17.7%	10.4350	-6.4	26.2%	11.0030	-11.5	39.7%	11.1710	-13.0	40.7%	11.3350	-15.0	34.4%
10.1040	14.2	13.8%	10.2720	-1.6	17.7%	10.4400	-6.4	26.5%	11.0040	-11.5	39.7%	11.1720	-13.0	40.3%	11.3400	-15.0	34.3%
10.1050	14.2	13.8%	10.2730	-1.6	17.7%	10.4410	-6.4	26.5%	11.0050	-11.5	39.8%	11.1730	-13.0	40.3%	11.3410	-15.0	34.3%
10.1110	14.2	14.3%	10.2740	-1.8	17.4%	10.4420	-6.4	26.7%	11.0100	-11.5	39.8%	11.1740	-13.0	40.2%	11.3420	-15.0	34.3%
10.1120	13.3	14.3%	10.2750	-1.8	17.4%	10.4430	-6.4	26.7%	11.0110	-11.5	39.7%	11.1750	-13.0	40.2%	11.3430	-15.0	34.3%
10.1130	13.3	14.3%	10.2800	-1.8	17.7%	10.4440	-6.4	27.0%	11.0120	-11.5	40.2%	11.1800	-13.0	39.8%	11.3440	-15.0	34.3%
10.1140	13.3	14.3%	10														

## Other Page

1. Basic information
2. Description of the usage
3. Configuration information
4. Alarm threshold and related statistics
5. Statistical information
6. Temperature and humidity graph
7. Temperature and humidity data details
8. A Document creation time (record stop time)



9. B Alarm (Alarm status as shown in the figure above)
10. C Stop mode that has been set.
11. D Alarm status of the temperature alarm zone
12. E Total times of exceeding the temperature alarm threshold
13. F Total time of exceeding the temperature alarm threshold
14. G Alarm delay and alarm type
15. H Alarm threshold and temperature alarm zones
16. I Actual stop mode (different from the item C)
17. J Vertical coordinate unit of the data graph
18. K Alarm threshold line (corresponding to the item L)
19. L Alarm threshold
20. M Record data curve (black indicates temperature, deep green indicates humidity)
21. N Document name (serial number & description of usage ID)
22. O Record time range in the current page
23. P Records when date changes (date & temperature and humidity)
24. Q Records when the date is not changed (time & temperature and humidity)

**Attention:** The data above is only used as explanation of the report. Please refer to the actual document for specific configuration and information

## What's included

- 1 temperature and humidity data logger
- 1 Er14250 battery
- 1 user manual

The product should avoid contact with chemicals like unstable chemical solvents or other organic compounds. Particularly, it should not be stored in or exposed to environments that contain high concentration of ketene, acetone, ethanol, isopropanol, toluene and etc. Please do not use the product in the soil for a long time.

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## Documents / Resources



[Elitech RC-51H Multi-use Temperature and Humidity](#) [pdf] User Manual  
RC-51H, Multi-use Temperature and Humidity

## References

-  [Software – Elitech UK user ico-collapse ic-cross-line-top ic-expand ic-cross-line-top ic-close-circle](#)
-  [Index of /download/software](#)
-  [UK.COM](#)
-  [Elitech UK temperature logger,temperature controller panl - Leader cold chain industry suppliers](#)
-  [Digital Data Logger & HVAC Tools for Cold Chain – Elitech Technology, Inc.](#)