

## RC-20/20A/20B Temperature Data Logger Instructions

### Product information:

RC-20/20A/20B is a Temperature Data Logger with high performance versus lower price ratio, which specializes in such features as easy operation, reliable capability, low power consumption, data reservation after electricity being cut off and upstanding water-proof design. The Data Processing (DP) software of RC-20/RC-20A/RC-20B has friendly interface and can be easily used.

The Data logger can be widely used in food, medicine, refrigeration chain transportation and the walks of life, which are accordant with HACCP. It also can be applied to the locals such as labs where need temperature supervision.

### Specifications:

Max. Length: 104.5mm

Max. Width: 66.5mm

Max. Height: 20mm

### Technical parameters

1. Power supply: 2.4Ah 3.6V one non-chargeable battery (when the Data Logger is availably connected to the computer, power is supplied through the USB port)
2. Temperature measuring rang: External sensor:  $-40.0^{\circ}\text{C} \sim 70.0^{\circ}\text{C}$   
Inner sensor:  $-20.0^{\circ}\text{C} \sim 50.0^{\circ}\text{C}$
3. Accuracy of temperature measuring: at normal temp.  $\pm 0.5^{\circ}\text{C}$  ( $-20^{\circ}\text{C} \sim 20^{\circ}\text{C}$ )  
at  $\pm 1^{\circ}\text{C}$  (other ranges)
4. Resolution:  $0.1^{\circ}\text{C}$
5. Recording cycle: 2s~24h continuous set or 1 week ~ 6 months distributed automatically
6. Sensor: NTC
7. Real-time transfers: the Interval time (10s~ 24h) adjustable.
8. Recording capacity: RC-20: 3900 points RC-20A: 8000 points RC-20B: 16000 points.
9. Applicable environment: Temperature:  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$  Humidity: 15%~85%
10. Data output: Connect the computer with the USB port to transfer data
11. Safe level: IP65

### Main Functions:

RC-20/ RC-20A/ RC-20B take on the function of user information setting: include user information, stand number, upper and lower limit alarming parameters, working status indication; single button operation, status indicator light can indicate each working status, start recording, select to stop recording; in comply with HACCP requirements; fixed ways of temperature sensor: the Internal and the External.(external as default). Furthermore, it can set recording interval, upper and lower temperature limit, logger clock and properties of logger and user's information. The data software possesses data analysis function, it marks exceeding alarming points by displaying diagram cures. The historical data can be acquired, saved, printed and output in Word form. Clock and calendar function, permitted to require the battery voltage status through the computer software.

'B	'E%
'E	25E¥100E¥
Orange	10E¥125E¥
™	Ž

### Software & USB Driver Installment:

1. System requirement: Microsoft Windows98, NT, 2000, XPoperation system.

2. Software installment: insert the installation disc into the disc driver, start installing the logger software following the installation prompt interface.

3. Installment hardware:

connect the USB wire to the computer USB port

connect the USB wire to the RC-20/RC-20A/RC-20B temperature logger

4. USB driver installment:

When the computer is connected to the temperature logger, Windows can detect the logger automatically. At first it appears the "Discover a new hardware" dialogue, click on the "Next" button, the temperature is discovered as USB equipment on the "Hardware Driver Installment" interface.

Installment process is as the following: click on the "Next" button, select "Search the applicable hardware driver (recommend)", click on the "Next" button again, on the "Find out the hardware driver" interface, select "CD-ROM driver". Click on the "Finish" button.

### Specification of operation:

1. Functions of key-operator:

The indication light blinks for twice, indicates that the logger is under not start status.

The indication light blinks for 3 times, indicates that the logger is under not start status.

The indication light blinks for 4 times, indicates that the logger is under not start status.

Pressing the button for 4s under not start status and the indication light blinks for 3 times, then can start recording.

Pressing and then releasing the button, the indicator does not light on, indicates that the battery voltage is below acceptable operating level or is under abnormal working status.

Start recording: set the instrument parameters through the computer software, press the button for 4s to start recording.

End recording: End recording through the computer software at any time

End recording automatically after the storage space is full.

Set to permit key-stroke end recording, press for 4s continuously to end recording.

2. Data transfer and process:

Please transfer data to the computer with the USB connecting wire forwarded as an enclosure. (Notice: the end with magnetic link connects to the computer, and the other connects to the temperature logger).

After installment and running the recording software, click on the "Connect" button and then the user can choose other selections.

3. Other functions:

For other items, please execute referring to "Help" file in the recording software.

### Notices of operation:

1. Change the battery

When the display of the battery is overly low ( $<10\%$ ), changing the battery is advised for the influence of the measuring accuracy. Open the back-lid, "-" part is the cathode, and "+" part is the anode. Please note the polarity of the battery. After changing the battery, re-connect the computer in order to confirming whether the time needs adjusting or not.

2. Sensor error

Remember the error code when exceeding the temperature measuring range, short-circuit or open-circuit, can be required through the computer software.

### Equipment lists:

Contain one USB communication lead, one Temperature sensor (2 meters link enclosed), one CD for computer software installing, one specification, one Data logger, and one fixed shelf.