

# QA-T5 OPERATING INSTRUCTIONS

## I. Product Overview:

This data logger can be used for temperature recording during the storage and transport of food, medicine, chemicals and much more. It is widely used in warehousing, cold storage, refrigerated logistics and laboratories that have a need to track temperature fluctuations over time.

## II. Specifications:

- Dimensions: 3.1" x 1.2" x 0.5"
- Weight: 30g

## III. Technical:

1. Units: °F or °C selectable
2. Range: -22°F to 158°F (-30°C to 70°C)
3. Accuracy: ±0.9°F (-4°F to 104°F) otherwise ±2.0°F
4. Resolution: 0.1°
5. Capacity: 32,000 data points
6. Recording Intervals: 10 seconds to 24 hours (*adjustable*)
7. Sensor: Internal NTC thermal resistor
8. Comm Interface: Built-in USB
9. IP Rating: IP67 Waterproof
10. Power: CR2032 battery or USB
11. Battery Life: 180 days at room temperature (*15 minute interval*)



## IV. Start Up

1. Download and install the free QA-T5 software and USB driver by following the prompts and Installation Tips. (*software is available at [www.QAsupplies.com](http://www.QAsupplies.com)*)
2. Connect the logger to an open USB port and Open the software. The logger will automatically communicate with the software and upload any data. Exit from the connection interface if necessary (*should not be required on initial use*).
3. Click the Parameter Set icon in the tool bar. After choosing the logger settings, click the "Save Parameter" button (*see the help file for details or questions on any setting*).
4. Exit from the parameter interface and disconnect the logger.
5. Once all loggers are programmed using steps 1-4, select Exit from the menu bar to close the QA-T5 software (*see below to Start Recording*).

## V. Data Access:

Recorded data can be easily accessed directly from the logger and this process will NOT clear the logger or stop the recording process.

1. Connect the logger to a computer through an open USB port, the  icon will show on the logger's LCD.
2. Open the software and the logger will automatically display the recorded data. If not, click the Upload Data icon in the tool bar.
3. To view the logger settings click the Connection icon in the tool bar. When finished exit from the connection interface.
4. Select Exit from the menu bar to close the QA-T5 software.

## VI. Functions:

The data logger has two buttons. The left button is to start recording and switch between menu items. The right button is to stop recording and return to the menu.

The data logger display interface includes: Status, Recording Capacity, Time, Date, Max Temperature, Min Temperature, Upper and Lower Alarm Limits.

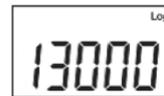
If there is no operation for 15 seconds, the data logger will automatically turn off the display. If the display is turned off, short press the left button to enter the display interface. Each time the left button is short pressed, it will cycle through the display interface in the sequence described in the Figures below.



### Status Display (Figure 1)

After short pressing the left button, it enters the Status display. The temperature shown on the screen is the current ambient temperature.

- If the ► symbol lights up, the data logger is in recording status.
- If the ► symbol flashes, the data logger is in delayed start status.
- If the ■ symbol lights up, the data logger has stopped recording.
- If neither the ► or ■ symbols light up, the data logger has been configured.
- If the ↑ or ↓ symbols light up, the measured temperature exceeded an alarm limit.



### Recording Capacity Display (Figure 2)

When the "Log" symbol lights up, it indicates the recorded data capacity. The number shown in the LCD is the amount of currently recorded temperatures.



### Time Display (Figure 3)

The time display interface shows the hour and minute of the data logger (*time format is 24 hours*).



### Date Display (Figure 4)

The date display interface shows the month ("M") and day ("D") of the data logger.



### Max. Temperature (Figure 5)

The maximum temperature measured since the logger started recording.



### Min. Temperature (Figure 6)

The minimum temperature measured since the logger started recording.



### Upper Alarm Limit (Fig. 7)

Alarm limit values are set by the user in the QA-T5 software.



### Lower Alarm Limit (Fig. 8)

## VII. Operating Instructions:

1. **Start Recording:** After setting the parameters in the software, the logger has **NOT** started recording yet. **To Start, Press and Hold the left button** for more than four seconds. Once the ► symbol lights up, recording has started. If the ► symbol flashes, the data logger has a delayed start time. *\*Resetting and saving parameters in the software will erase all data. Be sure to save data before setting new parameters.*
2. **Stop Recording:**
  - The data logger will automatically stop recording when the recording capacity is full. In the status display, if the ■ symbol lights up, it means recording has stopped.
  - If "permit stopping by pressing button" is set, press the right button for more than four seconds and the ■ symbol lights up, which means recording has stopped.
  - Recording can also be stopped in the software by selecting the Stop Record icon in the tool bar. *\*After the data logger stops recording, it cannot be started again by pressing the left button. It can only be started again by resetting the parameters in the software.*
3. **Switch Menu Items:** By short pressing the left button, the display interface will cycle to the next item.
4. **Return to the Status Display:** By short pressing the right button, the logger will return to the main status display.
5. **Alarm Status:** During recording, if the measured temperature is higher than the upper limit, the ↑ symbol lights up, indicating an upper alarm. If the measured temperature is lower than the lower limit, the ↓ symbol lights up, indicating a lower alarm.
6. **Recording Interval:** This interval is selected in the software. Once the parameter is set, data will be saved according to the chosen interval. After the interval is selected, the time length bar automatically calculates the recording time length.
7. **Recording Time Length:** Describes the total recording time before the memory reaches its full capacity.
8. **Clear The Recorded Data:** Data can be cleared through resetting the parameters in the software or by selecting the Delete Data icon in the tool bar.
9. **Inner Clock and Calendar:** The date and time are adjusted in the software.
10. **Sensor Failure:** When there is a sensor failure or the logger goes over the temperature range, it will display the notifications below.
  - It will display "Err" in the normal temperature position of the LCD.
  - There will be a "Sensor error" warning in the software.
11. **Battery Level Indication:**

Battery level indication	Level
	25%~100%
	10%~25%
	<10%

*\*If the battery level falls below 10%, please replace the battery immediately!*

## 12. Other Functions:

- **Recording Time Delay:** Set the "start delay time" in software, press the left button for more than 4 seconds and the ► symbol flashes, which indicates a delayed start status. Once recording has started, the ► symbol stops flashing.
- **Temperature Unit:** °F or °C can be selected in the software
- **Serial Number / User Information:** Logger details or unique identifiers can be set as needed in the software.

## 13. QA-T5 Data Management Software:

Provides data analysis functionality and allows data to be view graphically or in tables. Data can be also be queried, saved, printed or exported as **Word, Excel, TXT or PDF** formats. The software is available for Windows and Mac. Windows version supports XP or above and the Mac version supports OSX 10.5.6 or above. *\*Both versions of the software can be downloaded at [www.QAsupplies.com](http://www.QAsupplies.com).*

## VIII. Battery Replacement:



Figure 9



Figure 10

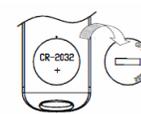


Figure 11



Figure 12



Figure 13

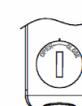


Figure 14

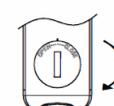


Figure 15

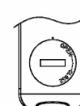


Figure 16

### Replacing the Batteries

1. Rotate the cover counter-clockwise to the position shown in Figure 10.
2. Remove the battery cover
3. Remove the old battery from the slot
4. Put the new battery into the slot (**negative pole down**)
5. Replace the cover as shown in Figure 14
6. Rotate the cover clockwise to the position shown in Figure 16



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