

UNI-T A56 BT Temperature Humidity Datalogger User Manual

Models: A56 BT, A57 BT

1. INTRODUCTION

The UNI-T A56 BT and A57 BT are advanced temperature and humidity dataloggers designed for precise environmental monitoring. These devices feature a large data storage capacity of 64,000 sets, Bluetooth connectivity for seamless communication with PC and mobile applications, and robust IP54 protection. They are ideal for various applications requiring accurate and reliable temperature and humidity data logging, such as food processing, cold-chain transportation, and warehouse monitoring.

2. KEY FEATURES

- High Accuracy:** Measures temperature with an accuracy of $\pm 0.3^{\circ}\text{C}$ and humidity with $\pm 2.5\%\text{RH}$.
- Large Data Storage:** Capable of storing up to 64,000 sets of temperature and humidity data.
- Bluetooth Connectivity:** Enables wireless data transfer and configuration via Bluetooth to a mobile application (TempLink) or PC analysis software.
- Audible and Visible Alarm:** Provides alerts for out-of-limit temperature and humidity conditions.
- IP54 Protection:** Offers protection against dust and splashing water, suitable for various environments.
- Magnetic Wall-Mounted Design:** Allows for flexible and secure placement.
- Adjustable Record Interval:** Logging intervals can be set from 10 seconds to 24 hours.
- Multi-language Support:** User interface available in English, French, German, Italian, Spanish, Swedish, Polish, and Czech.
- Long Battery Life:** Powered by a single-use Li-ion battery (3.6V 2700mAh ER14505) with up to 2 years of life (room temperature, 15min record interval).



A56 BT

Bluetooth Temperature Humidity Datalogger

A56 BT Bluetooth Temperature Humidity Datalogger is using high-accuracy digital temperature humidity module as the sensor, and with low-power microprocessor. It features high accuracy, large storage capacity, auto record, time display, LED sound-light alarm, ultra-low temperature record and etc. Meanwhile, it supports to set parameter, view data and export PDF report via the mobile App or PC software. The datalogger can satisfy high-accuracy measurement and long-time temperature humidity record requirement in different conditions, widely used in the food processing, cold-chain transportation, storage and etc.



Bluetooth APP



64000 Data Storage



±0.3°C High Accuracy



PC Analysis Software



Audible and Visible Alarm



Waterproof Dustproof

Figure 2.1: Overview of UNI-T A56 BT Datalogger key features including Bluetooth APP, 64000 Data Storage, High Accuracy, PC Analysis Software, Audible and Visible Alarm, and Waterproof Dustproof (IP54).



Figure 2.2: Detailed features including simultaneous large-screen display, wide measurement range (-40°C to 85°C), adjustable record interval, over-limit alarm, and magnetic wall-mounted design.

3. SETUP

3.1. Initial Inspection

Upon unpacking, verify that all components are present and undamaged. The package typically includes the A56 BT datalogger, a gift box, a quick start guide, a safety instruction, download operation guide, battery, wall-mounted screws*2, expandable rubber plug*2, and a USB cable.

3.2. Battery Installation

The datalogger uses a single-use Li-ion battery (3.6V 2700mAh ER14505). Refer to the quick start guide for specific instructions on how to open the battery compartment and correctly insert the battery. Ensure proper polarity.

3.3. Software Installation

Download the UNI-T TempLink mobile application from your device's app store or the PC analysis software from the official UNI-T website. Follow the on-screen instructions for installation.

3.4. Mounting the Datalogger

The A56 BT features a magnetic wall-mounted design. Choose a suitable location for monitoring, ensuring it is within Bluetooth range of your control device if wireless operation is desired. Use the provided screws and plugs for secure wall mounting if needed.



Figure 3.1: Front view of the A56 BT Datalogger, displaying current temperature and humidity readings.

4. OPERATING INSTRUCTIONS

4.1. Connecting via Bluetooth

1. Ensure Bluetooth is enabled on your smartphone or PC.
2. Open the TempLink app or PC software. The software will automatically search for nearby A56 BT/A57 BT dataloggers.
3. Select your datalogger from the list of discovered devices to establish a connection.

4.2. Configuring Logging Parameters

Using the TempLink app or PC software, you can configure various logging parameters:

- **Logging Interval:** Set how frequently data is recorded (e.g., 10s, 1min, 1h).
- **Alarm Thresholds:** Define upper and lower limits for temperature and humidity to trigger audible and visual alarms.
- **Start/Stop Logging:** Initiate or terminate data recording.
- **Unit Selection:** Choose between °C and °F for temperature display.

4.3. Starting and Stopping Data Logging

Once configured, you can start logging directly from the app/software. The datalogger will begin recording data at the specified interval. To stop logging, use the corresponding function in the application.

4.4. Data Retrieval and Analysis

After logging, connect the datalogger to the TempLink app or PC software. You can then download the recorded data. The software allows for graphical analysis of the data and export into various formats such as XLSX (Excel), CSV, or TXT for further processing.

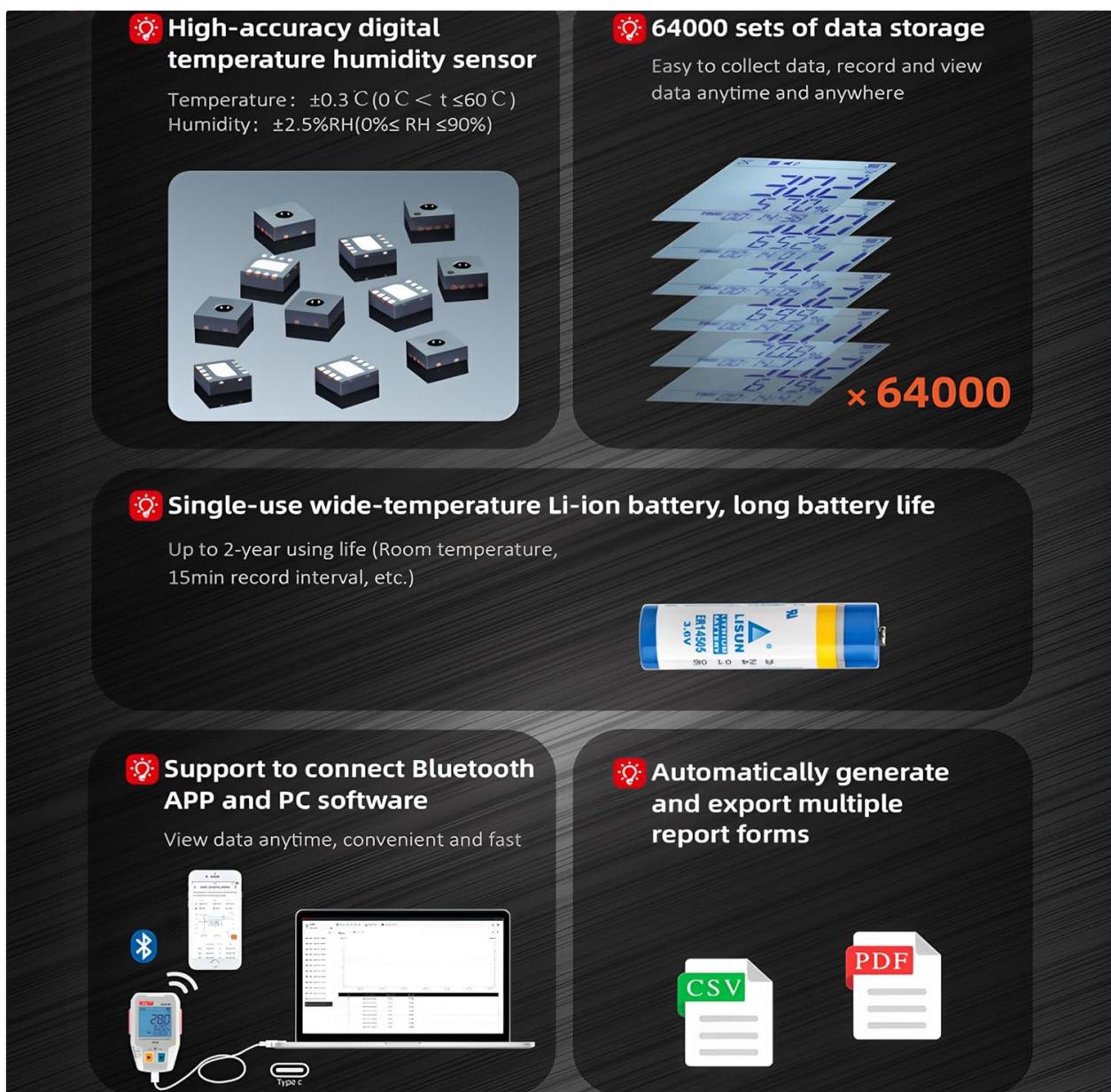


Figure 4.1: Illustration of the datalogger's capabilities, including 64000 data storage, Bluetooth APP and PC software support, and automatic generation of multiple report forms (PDF, CSV).

5. MAINTENANCE

5.1. Battery Replacement

When the battery indicator on the display shows low power, replace the battery promptly to ensure continuous operation and data integrity. Use only the specified battery type (3.6V 2700mAh ER14505 Li-ion battery).

5.2. Cleaning

Wipe the datalogger with a soft, dry cloth. Do not use abrasive cleaners or solvents. While the device has IP54 protection, avoid submerging it in water or exposing it to excessive moisture.

5.3. Storage

Store the datalogger in a cool, dry place away from direct sunlight and extreme temperatures when not in use for extended periods. Remove the battery if storing for several months to prevent leakage.

6. TROUBLESHOOTING

- **Device not connecting via Bluetooth:** Ensure the datalogger is powered on and within range (up to 100 feet). Check that Bluetooth is enabled on your smartphone or PC. Restart both the datalogger and the application.
- **Inaccurate readings:** Verify that the datalogger is placed in an environment free from direct heat sources, strong air currents, or excessive moisture that could affect sensor performance. Ensure the sensor opening is not obstructed.
- **Data logging not starting:** Confirm that logging parameters have been correctly configured and the 'Start' command has been issued through the application. Check battery level.
- **Display not working:** Check the battery level and replace if necessary. If the issue persists, contact customer support.

7. SPECIFICATIONS

Functions		
Temperature Range		-40°C~85°C (-40°F~185°F)
Humidity Range		0%~100% RH
Temperature	Range	Accuracy
	0°C≤ t ≤60°C	±0.3°C
	-40°C≤ t <0°C	±0.5°C
	60°C< t ≤85°C	±0.5°C
	32°F≤ t ≤140°F	±0.6°F
	-40°F≤ t <32°F	±0.9°F
Humidity	Range	Accuracy
	0%≤ RH ≤90%	±2.5%RH (25°C)
	90%≤ RH ≤100%	±3.5%RH (25°C)
Temperature/Humidity Resolution	0.1°C(0.1°F)/0.1%RH	
Record Capacity	64000 sets	
MAX/MIN/AVG	√	
LED Indicators	√	
Backlight	√	
Buzzer Alarm	√	
PC Software	√	
Mobile App	√(TempLink)	
Record Interval	10s~24h (Set through the PC/App)	
Working Time	2yr(Room temperature, Test interval 15min, 15s screen off, Buzzer off, Indicators/Backlight Bluetooth off)	
Hangings Way	Rear magnetic or Wall mounting	
Working Temperature and Humidity	-40°C~85°C , ≤99%RH	
IP Rating	IP54	
Characteristics		
Battery	Single-use Li-SOCl2 Battery 3.6V 2700mAh(ER14505)	
Product size	104x62x25mm	
Product net weight	About 110g	
Standrad accessories	Gift box, quick start guide, safety instruction, download operation guide, battery, wall-mounted Screws*2, expandable rubber plug*2,USB cable	
Standard quantity per carton	20pcs	

Applications



Figure 7.1: Detailed table of functions, ranges, accuracy, and other characteristics of the A56 BT Datalogger.

Feature	Specification
Product Model	YH-A56 BT
Temperature Range	-40°C ~ 85°C (-40°F ~ 185°F)
Temperature Accuracy	±0.3°C (0°C < t ≤ 60°C)
Humidity Range	0% ~ 100% RH
Humidity Accuracy	±2.5%RH (0% ≤ RH ≤ 90%)
Record Capacity	64,000 sets
Record Interval	10s ~ 24h (Adjustable via App/PC)
Connectivity	Bluetooth APP (TempLink), PC Analysis Software
Alarm	Audible and Visible

Feature	Specification
Protection Rating	IP54
Battery Type	Single-use Li-SOCl2 Battery 3.6V 2700mAh (ER14505)
Working Time	2 years (Room temperature, 15min record interval, screen off, indicators/Bluetooth off)
Mounting	Rear magnetic or Wall mounting
Product Size	104 x 62 x 25 mm
Product Net Weight	About 110g
Product Dimensions	6.5 x 4.33 x 4.72 inches
Item Weight	2.2 pounds (approx. 1 kg)
Manufacturer	UNI-Trend

8. WARRANTY AND SUPPORT

Warranty information for the UNI-T A56 BT/A57 BT Temperature Humidity Datalogger is typically provided with the product packaging or available on the official UNI-T website. Please refer to these resources for detailed warranty terms and conditions.

For technical support, product inquiries, or service, please visit the official UNI-T website or contact their customer service department through the contact information provided in your product documentation.