# TracSafe MAX
User Manual

Multi-Use Data Logger

The CSafe TracSafe MAX shipment monitor is used to monitor and record temperature and location data associated with temperature-sensitive product shipments. The data can be viewed without disturbing the protective thermal packaging by employing Bluetooth Low Energy technology that allows touchless temperature checks of in-transit shipments using a smartphone or tablet via the CSafe TracSafe APP (iOS or Android). It enables direct monitoring of temperature-sensitive products during the shipment or storage phases and can easily identify if the temperatures have been maintained at the end destination.

The TrcaSafe MAX also has an integral LCD screen to view the temperature status and notifications via the recessed function buttons. The device also includes a USB port that can be used to directly download the shipment data or configure the shipment alarm limits prior to the shipment using a PC, for users without access to a smartphone or tablet.

Device Details

1. USB cap
2. Light sensor
3. LCD screen
4. Start / Stop button
5. Internal sensor
6. External probe
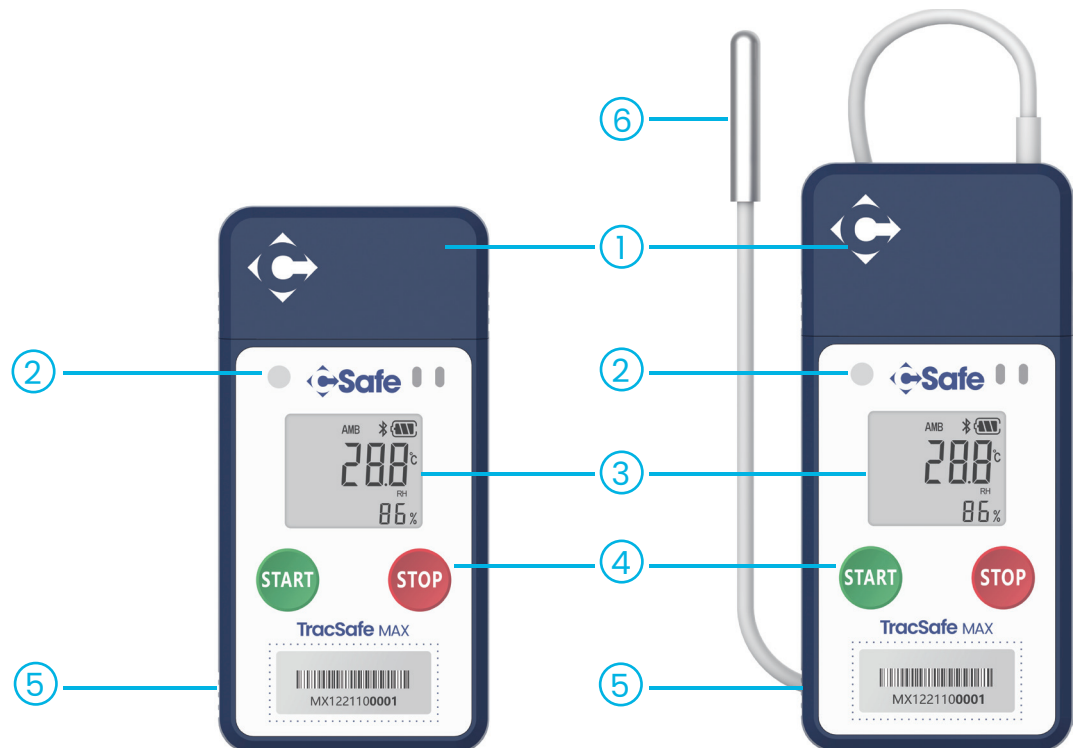
1. **Measurement range:**
   - Internal temperature: -30°C to 70°C
   - Internal humidity: 0% RH to 100% RH
   - External temperature: -200°C to 150°C
   - Shock: 0g to 16g
   - Light: >80Lux

2. **Accuracy arrange:**
   - Temperature: ±0.3°C (-20°C to 40°C); ±0.5°C (50°C to 85°C); ±1°C (-100°C to 150°C); ±2°C (others)
   - Humidity: ±3% RH (25°C, 20% RH to 80% RH); ±5% RH (others)
   - Shock: ±0.5g
   - Light: ±5%

3. **Resolution:**
   - Temperature: 0.1°C
   - Humidity: 1% RH
   - Shock: 0.1g

4. **Memory storage capacity:** 32,000 data points (MAX)

5. **Logging interval:** 3 to 60 min

6. **Start mode:** Button push, immediate start, or start delay, use TracSafe APP or CSafe pc software

7. **Stop mode:** Button push, stop when inserted into pc, stop when memory is full, use TracSafe APP or CSafe PC software

8. **Alarm limits:** 1 high and 1 low limit for temperature / 1 high and 1 low limit for humidity

9. **Alarm type:** Single, Cumulative

10. **Alarm delay time:** 10s to 24H

11. **Connection:** USB, bluetooth

12. **Battery life / type:** 12 month operating life; lithium replaceable battery

13. **Environmental protection:** IP65 (non-probe version), IP54 (probe version)

14. **Dimensions:**
   - 96.3 mm(L) x 47.5 mm(W) x 19 mm(H) (non-probe version)
   - 103.3mm(L) x 47.5 mm(W) x 19 mm(H) (probe version)

15. **Weight:** 68g

1. Download CSafe software

2. Configure parameter
   - Plug the device into the computer, until "USB" symbol is shown on the LCD screen.
   - Using CSafe software to configure parameter:
     - If users don't need to change the default parameter, you can click "Summary" and then click "Quick Reset" to synchronize time.
     - If use need to change the parameter, you can click "Parameter", click "Save Parameter" after configuration.

Note: *To avoid time/time zone errors, please click Quick Reset or Save Parameters before the first use or after replacing the battery to ensure that the local time is configured into the recorder.*

3. Start modes
   - Press button:
     - Press START button for 3 seconds, ▶ shows on the LCD screen.
     - Use CSafe APP/software to start.

Note: ▶ *symbol blinks continuously, it indicates start delay has been set.*

4. Stop modes
   - Press button: Press STOP button for 3 seconds, ■ shows on the LCD screen;
   - Auto stop: Stop when memory is full;
   - USB stop: Device stops automatically when plugged into computer;
   - Use CSafe APP or software to stop.

Note: *Press button to stop is default option. This function can be changed if necessary.*

5. Download data
   - Plug device into computer and wait until USB symbol shows on the LCD screen:
     - User can review the PDF and CSV report in the drive which is generated by the device.
     - Using CSafe software to download the data: The data will be uploaded to CSafe's platform automatically after downloaded via software. If it fails to upload data automatically, please click "Loading" to upload manually.

6. Reuse
   - User can re-configure and start logging after stopping device or exporting the complete data.

Note: *History data will be cleared after saving parameter. User can click "History" in CSafe to review the history data if user forgets to save/download data.*

1. Turn on bluetooth
   - Press START and STOP buttons simultaneously for 3 seconds until the two LED lights blink at the same time and 🔵 shows on the LCD screen.

2. Download CSafe APP
   - The user can download the CSafe TracSafe APP in iOS APP store or Google Play for Android
   - User needs to register according to the prompts.

3. Configuration and logging
   - Click "Loggers" tab to review the device list that are within range.
   - Press the stop button then the device will be moved to the top of the device list and the background would become orange.

- Click "Config" to configure the parameters then click "Save".
- Click "OK →" to finish configuration.
- After configuration, click the device and then click "Start" tab to start logging.
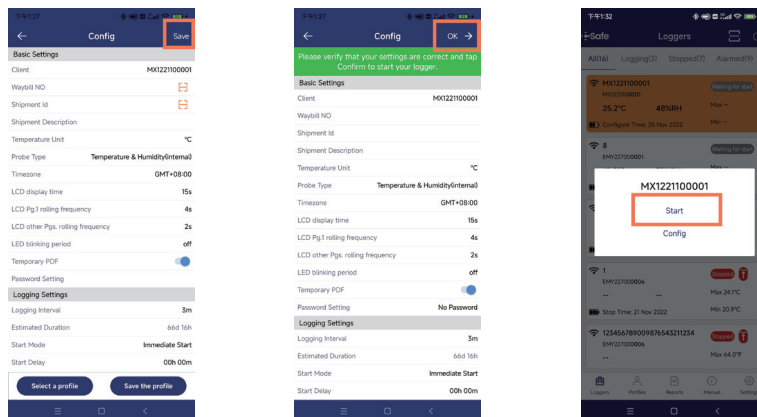
4. Read and download data

- Click ↻ in Loggers page to refresh the device list and click "Read data".
- After the data has been read completely, click "stop" to stop logging; Click "Data" tab to review the history data; user can download PDF and CSV reports by clicking "Download data" tab.
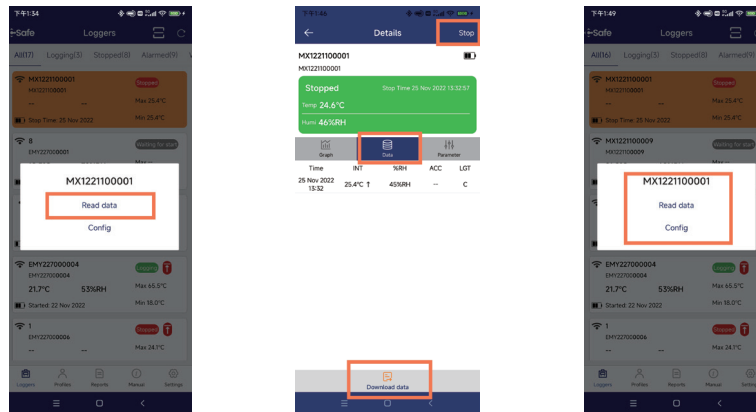
5. Quick operations via scanning the bar code on the device

- In "Loggers" page, click the ⊟ to scan the bar code on the device and then user can start quick operations (Start, Config, Read data)
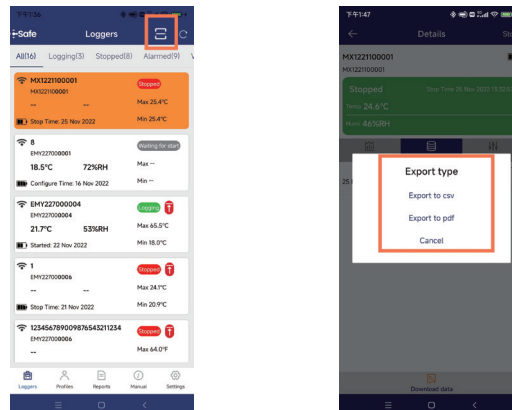
Button functions

Function	Operation	LED
Start logging	Press START button for 3s	■ blink 5 times
Stop logging	Press STOP button for 3s	■ blink 5 times
Turn on/off bluetooth	Press START and STOP buttons simultaneously for 3s	■■ red and green blink 5 times simultaneously
Switching the LCD pages	Press START button	■ (or ■) blink once (or twice)
Back to LCD main page	Press STOP button	■ (or ■) blink once (or twice)

LCD screen

1. Status of logging
2. MAX, AMB, MIN
3. Bluetooth
4. Battery
5. Temperature value
6. Sample #
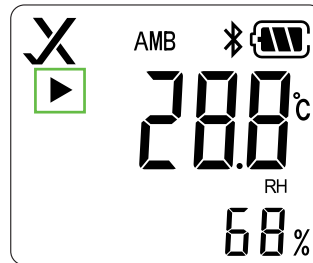7. Humidity value/total sampling points
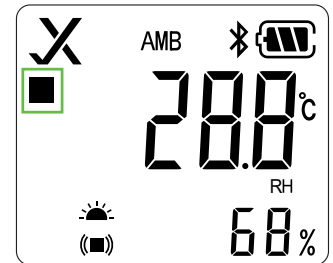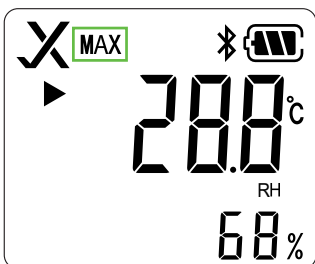8. Shock
9. Status of external probe
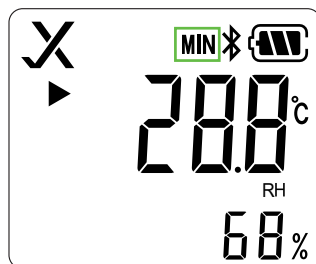10. Light
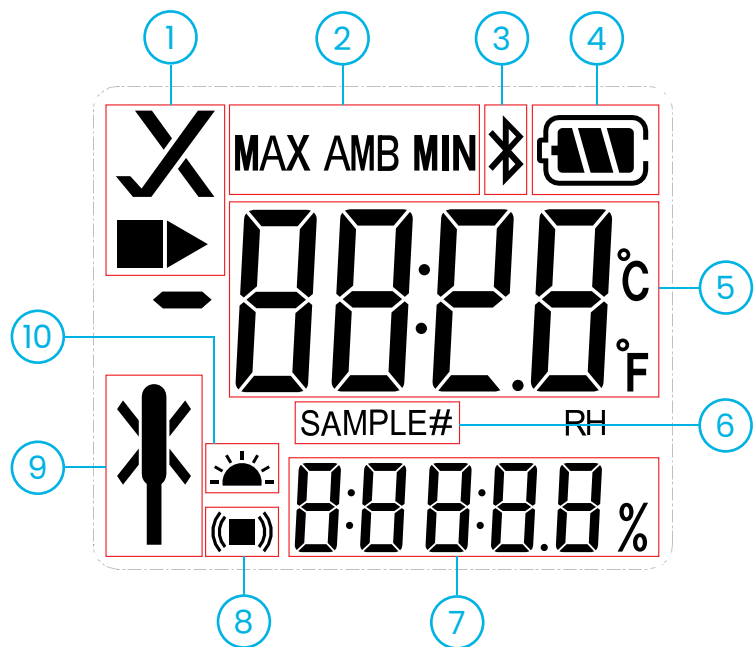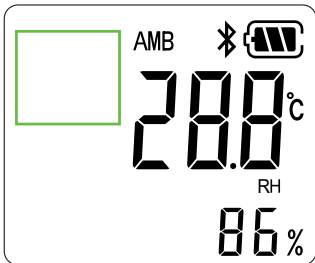
1. Not started
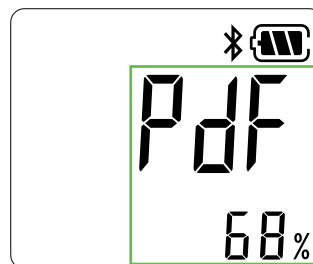

2. Start delay

3. Started

4. Stopped

5. MAX
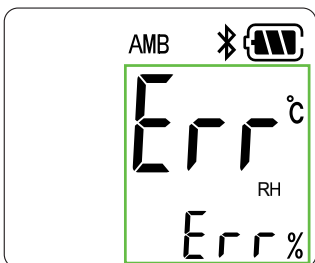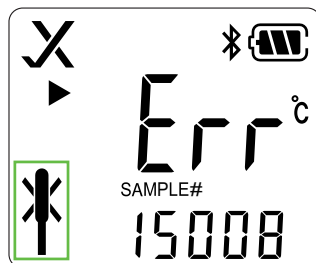

6. MIN

7. Generating reports

8. USB connected

9. Internal sensor error

10. External sensor error

11. Re-save parameters

Symbol	Function
▶	Started
■	Stopped
✓	No alarm
✗	Alarm
❘	External probe is connected
✕	External probe error
✱	Bluetooth is turned on

Notes:

1. Please store the device in a room temperature environment.
2. When using the device for the first time, be sure to connect the computer for parameter configuration to synchronize time.
3. Please do not take out the battery when recording.the screen again if necessary.
4. If there is no button operation for 15 seconds the LCD screen will automatically be off. Press any button to light up the screen again if necessary.
5. After configuration, the history data will be cleared. Please read and save the historical data of the device before configuration.
6. To ensure humidity accuracy, please avoid contacting unstable chemical solvents or other chemical compounds, especially avoid long-term storage or exposure to high concentrations of ketene, acetone, ethanol, isopropanol, toluene and other environments.
7. When the battery symbol on the LCD is less than two bars, please do not use it for long-distance transportation.
8. Please enable the Bluetooth function before connecting the device via TracSafe APP.

Items	Default parameter	Note
Logging interval	5 minutes	
Start mode	Press button to start	
Start delay	No start delay	
Press button to stop	Enabled	
Temporary PDF	Enabled	
Temperature units	ºC	
LCD display time	15 seconds	
LCD main page display time	60 seconds	
LCD other pages display time	3 seconds	
LED blink	No blinking	
Time zone	UTC-05:00	
Light sensor	Not enabled	
Shock sensor	Not enabled	
Probe type	Probe: External & Internal temperature Device: Internal temperature	
Alarm type	Single	
Alarm delay	No delay	
Temperature high limit H1	8ºC	
Temperature low limit L1	2ºC	
Humidity high limit	Not enabled	
Humidity low limit	Not enabled	