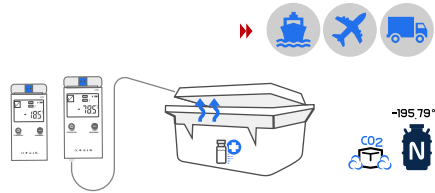


User Guide - Tempilot-Multi-use/Single-use Dry Ice Logger

VS Series Temperature Data Logger



Tempilot (multi) series could monitor the temperature for different applications which support a minimum temperature of -35°C, -50°C, -100°C, -200°C respectively. Without installing any software, end-user could quickly acquire detailed data reports in both PDF and CSV format.

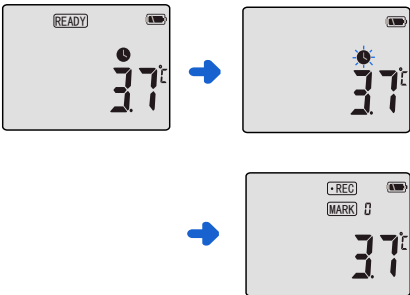
I. Inspecting the Logger



Single press any button or to wake the device, "READY" means logger is OK for a start. The battery indicates the power of the logger.

- Full power, easy using.
- Low power, not suggest using, be aware the device may possibly stop during monitoring.
- Empty power, cannot be started.

II. Start the Logger



Device programmed a start-delay:

Press and hold "START/STOP" button for more than 4 secs until the "CLOCK" icon appears then release the button within 2 secs, once see the clock flashing indicates start successfully. After delay ends, the device will record, and the LCD will turn to "REC." automatically.



Hi: Start-delay means a period that device is starting/working but not recording after delay passed the device will start recording automatically. In other words, when you see the clock flashing or "REC" both means start successfully.

Device not programmed a start-delay:

If the logger doesn't programme a "start-delay", the LCD will show "REC." directly, which means start successfully and is recording now.

III. Mark and View in Transit



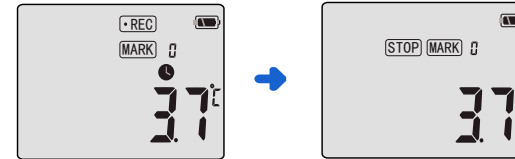
Tempilot loggers provide an option that user could double press "VIEW/MARK" button to mark an event at any time during the logger recording period; the mark will show in the report, the number beside the indicates the times that has marked, the maximum mark is 8 times. This optional function mostly used for some important events or urgent matters happen.



Single-press "VIEW/MARK" button to check the time has been recorded and the **MIN / MAX / AVG / MKT** temperature since recording. (Single-press shows in turn)

The example shows: The logger has been recording 10 days 20hrs 30mins.

IV. Stop the Logger



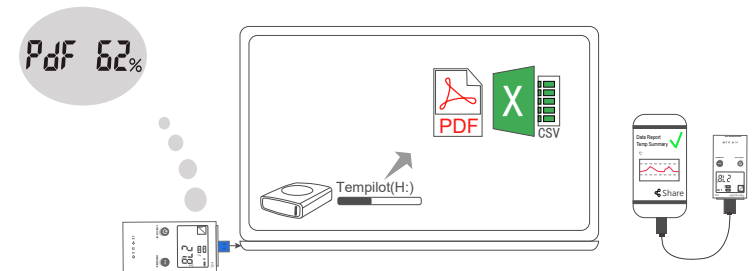
Press and hold "START/STOP" button for more than 4secs until the "CLOCK" icon appears, then release the button within 2secs to stop, then LCD will show "STOP" which indicates stop successfully.

Note: if the logger is not stopped manually, the device will continue to record the data until it is plugged into a USB port on a PC or until the programmed trip length is reached.



Hi: To Start or Stop the device: when hold and press the START/STOP button, a clock will show firstly; Release the pressing means execute the action. If continue pressing, the clock will disappear shortly afterwards which means cancel the action.

V. Get the Reports



Connect the unit to PC, and the LCD will show the progress % of generating. Once the progress reaches **100%** the file generating process is complete, then a flash disk named "Tempilot" will pop up automatically with data reports. Also via an OTG line user could acquire the reports through an Android Smartphone.



Hi: Please do not pull off the logger during the process of generating!

VI. Tempilot-Software

The screenshot shows the Tempilot Software V2.4 interface with the following sections:

- DEVICES INFORMATION (3):** S/N: VS5080467, Temp. Type: °C, Start Type: Auto, Start Mode: Delay, Start Delay: 1 Min, Timing: 2019-03-26 12:40:48, Time Zone: UTC+8, Log Interval: 10 Min, Log Cycle: 30 Day, Points: 4320.
- TEMP ALARM (4):** Alarm type: Single, Alarm Delay: 5 Min, Alarm Low: 2 °C, Alarm High: 8 °C.
- HUMIDITY ALARM:** Alarm type: Cumula, Alarm Delay: 5 Min, Alarm Low: 30.0 %, Alarm High: 70.0 %.
- OTHER FUNCTIONS (6):** Forbid Manual Stop: , Restart: , Auto Config: .
- TRIP INFORMATION (5):** Product: Temp data loggers, Customer: xx, order no.:123abcd. (240 characters maximum, currently characters remaining: 149)
- OPERATE:** Submit button.
- Notice:** device state OK! (2)

1. Device Examination 1 2

"Tempilot-Software" innovative inspecting function could effectively ensure the safe use of the device after configuration. "Double click" Software icon to enter and then connect the device to your computer, the software will automatically examine the device including battery power, hardware, and connection status. Red light means error; green light means OK to start a configuration.



Hi: Sometimes due to an aging of PC USB port, or not connect USB port entirely will lead to a missing. If this happens, please double check the PC USB port or try another port.

2. Device Configuration

Device information area , each unit has a unique serial number, and user could configure the device on their preference.

a) Start Type:

Manual: after configured successfully, the device need manually press button to start.

Auto : after configured successfully, the device will auto-execute.

b) Start Mode:

Delay: after the delay period passed, the device will start recording automatically (if no need delay, select 0 min)

Timing: the logger will auto-start on a given time.

Temperature: the logger will auto-start recording once meet the selected range.

c) Temp Alarm:

Select a temperature range, alarm type and delay time for the alarm settings.



Hi: Temp Alarm is not when temperature exceeds the selected range will alert in the way of sounding, but to indicates on the LCD screen and the reports. If no need then un-select the function then won't show the alarm information. (Image 3)

3. Other Functions

a) Trip Information:

Type any information in area 5, the info will be presented on the generated reports. The info could be: customer, location, order number, etc.

b) Forbid Manual Stop:

After selected, user cannot stop the device manually only by connecting the device to a PC and after configured the LCD will show a lock icon:



c) Restart:

After selected, user doesn't need config the device every time. To restart is the same as start operation.

Note: the original data will be formatted once restart, please acquire the reports before restarting.

d) Auto Config

When user need to config many units at one time, for time efficiency, select the required configuration, and then choose "Auto Config", the software will config the units automatically: just plug in and out, which no need any more operations.

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VII. Technical Specification

Model	-35°C-multi	-50°C-multi	-100°C-multi	-200°C-multi
Type	Multi-use			
Sensors	NTC	External RTD (1m or longer on request)		
Range	-35°C~+70°C (-31°F~+158°F)	-50°C~+80°C (-58°F~+176°F)	-100°C~+80°C (-148°F~+176°F)	-200°C~+80°C (-328°F~+176°F)
Accuracy	±0.3°C(±0.54°F)	±0.3°C(±0.54°F)	-100°C~+80°C ±0.5°C(±0.9°F)	-100°C~+80°C ±0.5°C(±0.9°F) Rest ±1.0°C(±1.8°F)
Resolution	0.1			
Capacity	16000 points			
Battery	3.6v Li			
Battery Life	2-3 years or longer			
Calibration	Factory Calibration and NIST CNAS			
Certification	CE、RoHS、DO160、IATA PI970 II			
Warranty	1 year			
Size	106*51*18mm			
Weight	65g	82g(including external probe)		
Water-proof	IP65			
Connection	USB 2.0			
Software	Tempilot-Software			

VIII. Important Notes

Usage:

- The temperature range is for the external sensor, and the body minimum is -35 °C. using out of range will damage the device.
- During the time of reports generating, please do not pull off the logger.
- To make sure the long-term effectiveness of logger, please store at regular temperature before using.
- It might be shorting the shelf life of the logger when using out of measurement range.
- Please recycle or dispose of the logger under local laws and regulations.

Battery:

- Do not throw devices with batteries in the fire or expose to extreme temperature and may lead to a destruction of the battery and may cause injuries.
- Do not short-circuit or reload batteries: Safety and hidden risk!
- Batteries are to be kept away from children.

Security Note:

- Do not use under microwaves, there is an explosion risk.
- X-ray can damage the logger.

Liability:

The manufacturer shall not be held liable:

- If the device was used beyond the manufacturer's given limitations
- For any claims due to the improper storage and use of the device
- For any problems with the cooling unit
- For the lousy quality of the monitored goods, if any.
- For incorrect readings, if the device was used with activated low battery sign.

Attention: The Tempilot loggers monitor temperature exposure and not product quality. Its purpose is to signal if product quality evaluation/testing is required.