

TERMOLOGGER USB



User Manual

SUMMARY

INTRODUCTION.....	1
DESCRIPTION TERMOLOGGER USB	1
1 - DESCRIPTION TERMOLOGGER USB	2
1.1 DESCRIPCIÓN GENERAL	2
2 - TECHNICAL DATA	2
2.1 - Technical Specifications	2
2 - DEVICE OPERATION INSTRUCTION	2
3 INITIAL USE	2
3.1 CONFIGURATION OPERATION	2
3.2 LOGGER START OPERATION.....	2
3.3 PAUSE OPERATION.....	2
3.4 MARK OPERATION	2
3.5 STOP OPERATION.....	2
3.6 VIEWING OPERATION	3
3.7 MULTIPLE START.....	3
4 - KEY FUNCTION DESCRIPTION	3
5 - BATTERY MANAGEMENT	3
5.1 BATTERY LEVEL INDICATION	3
5.2 BATTERY REPLACEMENT	3
6 - LCD DISPLAY NOTICE	3
7 - APPENDIX 1 - WORKING STATUS DESCRIPTION	4
8 - APPENDIX 2 - OTHER LCD DISPLAY	4
9 - APPENDIX 3 - LCD PAGE DISPLAY	5

INTRODUCTION



In this manual, you will find the necessary information for the correct installation, use, and maintenance of the product. It is recommended to read it carefully and to keep it. This publication is the exclusive property of OSAKA SOLUTIONS, which prohibits reproduction and dissemination, even in part, unless expressly authorized. OSAKA SOLUTIONS reserves the right to make aesthetic and functional changes at any time and without notice. In order to avoid irregular operation of the B4U or malfunction that may create dangerous situations or damage to people, property, or animals, it is important to comply with and keep in mind the safety systems attached, necessary to ensure safety. OSAKA SOLUTIONS and its legal representatives do not assume any responsibility for damages to people, property, or animals resulting from improper handling, misuse, incorrect use, or, in any case, non-compliance with the characteristics of the B4U.

1 – DESCRIPTION TERMOLOGGER USB

1.1 DESCRIPCIÓN GENERAL

This data logger is mainly used to detect the temperature of food, pharmaceuticals, chemicals and other products during transportation or storage. The main features of this product: multiple use, automatically generated PDF report, high waterproof level, battery exchangeable.

2 - TECHNICAL DATA

2.1 - Technical Specifications

Temperature sensor	NTC internal and external optional
Measuring range	-30 °C to +70 °C
Accuracy	±0.5 °C (at -20 °C to + 40 °C)
Resolution	0.1 °C
Data storage	32,000 values
Display	Multifunction LCD
Start setting	Manually by pressing a button or automatically on programmed start time
Recording time	Freely programmable by customer/ up to 12 months
Interval	10s. to 11h. 59m.
Alarm settings	Adjustable up to 5 alarm limits
Alarm type	Single alarm or cumulative
Battery	CR2032 / replaceable by customer
Dimensions	79 mm x 33 mm x 14 mm (L x W x D)
Weight	25 g
Protection class	IP67
System Requirements	PDF Reader
Certification	12830, calibration certificate, CE, RoHS
Software	TempBase Lite 1.0 software / free download
Interface to PC	Integrated USB port
Automatic PDF Reporting	Yes

2 - DEVICE OPERATION INSTRUCTION

- (1) **Install tempbase.exe software**Termologger.exe <https://n9.cl/m7ptm>, insert the Termologger USB logger to the computer via USB port, finish USB driver installation directly.
- (2) Open Termologger USB data management software, after connection the logger with your computer, the data information will be automatically uploaded. Then you can click the “Logger Setting” button to enter the parameter configuration interface and configure the parameters according to specific application.
- (3) After finishing configuration, click the “Save” button to save the parameter setting, then it will open a window

“Parameter Configuration completed”, click OK and close the interface.

3 INITIAL USE

3.1 CONFIGURATION OPERATION

Open tempbase.exe software, after connecting the Termologger USB logger with the computer, the data information will be automatically uploaded. Then you can click the “LoggerSetting” button to enter parameter configuration interface and configure the parameters according to the specific application. After finishing the configuration, click the “Save” button to save the parameter setting, then it will open a window “Parameter Configuration completed”, click OK and close the interface.

3.2 LOGGER START OPERATION

The Termologger USB supports three start modes (manual start, start right now, timing start), the specific start mode is defined by the parameter setting.

Manual start: Press the left key for 4 seconds to start the logger. **ATTENTION:** The command done by the button press, will be accepted by the device if the display has been activated by briefly pressing the left button beforehand.

Start right now: Immediately start after the Termologger USB is disconnected with the computer.

Timing start: Termologger USB starts when the set start time is reached (Note: The set start time needs to be at least one minute).

3.3 PAUSE OPERATION

Double click left key to enter the pause status. Under pause status, the device only records time instead of temperature recording. By double click left key again, the pause operation is canceled and set to normal temperature recording again. **ATTENTION:** The command done by the button press, will be accepted by the device if the display has been activated by briefly pressing the left button beforehand.

3.4 MARK OPERATION

Double click the right key to mark an operation. After finishing marking operation – if quickly pause and pause cancel action is performed - the current marking can be canceled.

ATTENTION: The command done by the button press, will be accepted by the device if the display has been activated by briefly pressing the left button beforehand.

Note:

- ❏ For one recording trip, the device can support a maximum of 10 marks.
- ❏ Under status of pause or sensor disconnected status (when external sensor is configured), the MARK operation is disabled.

3.5 STOP OPERATION

M1 supports two stop modes (stop when reaches the max. record capacity, manual stop), and the specific stop mode is determined by parameter setting.

Stop when reaches the max. record capacity: When record capacity reaches the max. record capacity, the logger will stop automatically.

Manual stop: The device only stops when it is manually stopped except if the battery is under 5%. If the recorded data reaches to its max. capacity, the data will be overwritten (depends on the setting).

ATTENTION: The command done by the button press, will be accepted by the device if the display has been activated by briefly pressing the left button beforehand.

Note:

During the status of data overwriting (ring memory), MARK operation will not be cleared. Saved marks still exist. The max. MARK events are still "10 times" and every marked data will be saved without clearing during the transport cycle.

3.6 VIEWING OPERATION

During Termologger USB is in recording or stopping status, insert the logger to the computer, the data can be viewed by the Termologger USB software or the generated PDF report in the USB device.

PDF reports are different if there is an alarm setting:

- ❖ If no alarm setting is programmed, there is no alarm information column and in data table, no alarm color marking, and at the left upper corner, it displays PDF in the black rectangle.
- ❖ If the alarm is set as upper/lower alarm, it has an alarm information column, and it has three lines of informations: upper alarm information, standard zone information, lower alarm information. The upper alarm recording data is displayed in red, and the lower alarm data is displayed in blue. In the left upper corner, if alarm occurs, the background of the rectangle is red and displays ALARM inside. If no alarm occurs, the background of the rectangle is green and displays OK inside.
- ❖ If the alarm is set as multiple zone alarm in the PDF alarm information column, it could have max. six lines: upper 3, upper 2, upper 1, standard zone; lower 1, lower 2 the upper alarm recording data is displayed in red, and the lower alarm data is displayed in blue. In the left upper corner, if alarm occurs, the background of rectangle is red and displays ALARM inside. If no alarm occurs, the background of rectangle is green and displays OK inside.

Note:

- (1) Under all alarm modes, if data table zone for marked data is indicated in green. If the recorded points are invalid (USB connection (USB), pause data (PAUSE), sensor failure or sensor is not connected (NC)), then the record marking is gray. And in PDF curve zone, in case of USB data connection (USB), data pause (PAUSE), sensor failure (NC), all of their lines will be drawn as bold gray dotted lines.
- (2) If the Termologger USB is connected to the computer during the recording period, it records no data during the connection time.
- (3) During the Termologger USB is connected with the computer, the M1 is generating a PDF report depending on the configuration:

- ❖ If Termologger USB is stopped, it always generates a report when the M1 is plugged in the USB port
- ❖ If Termologger USB is not stopped, it only generates a PDF when it is enabled in the "Logger Setup"

3.7 MULTIPLE START





The Termologger USB supports the function of continuous starting after last logger stopping without the need to reconfigure the parameters.

4 - KEY FUNCTION DESCRIPTION

Left key: Start (restart) Termologger USB, menu switch, pause
Right key: MARK, manual stop

5 - BATTERY MANAGEMENT

5.1 BATTERY LEVEL INDICATION

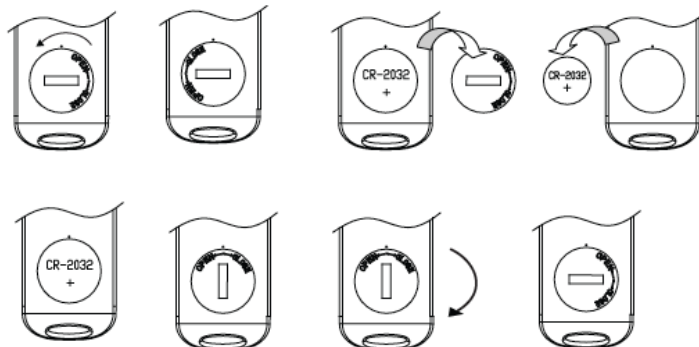
Battery level indication	Battery capacity
	40 % ~ 100 %
	20 % ~ 40 %
	5 % ~ 20 %
 (Flash)	< 5 %

Note:

When the battery capacity is lower or equal to 10%, please replace the battery immediately. If the battery capacity is lower than 5%, the Termologger USB will stop recording.

5.2 BATTERY REPLACEMENT

Replacing steps:



Note:

It is recommended to check the battery status before restarting the logger to ensure that the remaining battery life could finish the recording task. The battery can be replaced before you configure the parameter. After replacement of battery, the user needs to configure the parameter again.

When the logger is connected to computer under the status of recording or pause status, it is prohibited to plug out the Termologger USB without battery power supply.

6 - LCD DISPLAY NOTICE

Alarm LCD display

When LCD display time is configured to 15 s, click left key to activate the display. If over temperature incident occurs, it firstly displays alarm interface for about 1 s, then skips to main interface automatically.

When display time is configured to "forever", over temperature alarm occurs permanently. Press left key to skip to main interface.


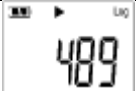
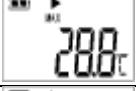


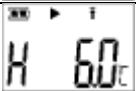
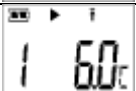
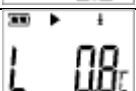
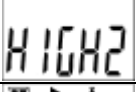
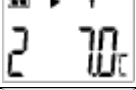


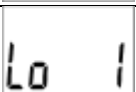
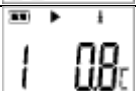
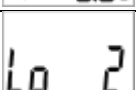
When display time is configured to "0", there is no display available.

7 - APPENDIX 1 - WORKING STATUS DESCRIPTION

Device status	LCD display
1 Start logger	
2 Start delay ➤ is flashing	
3 Recording status During recording status, in the middle of the first line, static display.	
4 Pause In the middle of the first line, blinking display.	
5 MARK success.	
6 MARK failure.	
7 Device stop In the middle of the first line, static display.	
8 USB connection.	

Device status	LCD display
1 Erase data status	
2 PDF generation status PDF file is under generation, PDF is in flash status	
3 Alarm interface Only exceed upper limit	
Only exceed lower limit	
Both upper and lower limit occurs	

Install software **Termologger.exe**
<https://n9.cl/m7ptm>

Device status	LCD display
Page 1 Battery level, current working status (record, stop, etc.) upper/lower limit status, current temperature ⚡ upper limit alarm occurs ⚡ lower limit alarm occurs	
Page 2 Battery level, current working status, recording points	
Page 3 Battery level, current working status, MAX. temperature	
Page 4 Battery level, current working status, MIN. temperature	
Page 5 Upper limit 1	
	
Page 6 Setting temperature of upper limit 1	
	
Page 7 Upper limit 2	
Page 8 Setting temperature of upper limit 2	
Page 9 Upper limit 3	
Page 10 Setting temperature of upper limit 3	
Page 11 Lower limit 1	
Page 12 Setting temperature of lower limit 1	
Page 13 Lower limit 2	
Page 14 Setting temperature of lower limit 2	