**Project Type** Instructions
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**Item Number:** 124SC
**Designer:** Nat Siguenza
**PO: 24864-00**
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**Contact:** Graphic's Department
graphics@thermor-ins.com
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N/A: **X**
Artwork is not to be amended or scaled. If any changes are required please send through Thermor office with instructions, and we will amend here and resend artwork through. **PLEASE RETURN WITH SIGNATURE**
Colour Breakdown
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BIOS living

# 124SC - VACCINE DATA LOGGER

## FEATURES

- High accuracy
- 8 million readings logged
- Internal and external sensor readings displayed
- Min and max memory
- Low and high alarm setting
- Flashing light alarm sound
- °C/°F switchable
- Real time display
- Waterproof external sensor
- Low battery indicator
- Removable SD memory card or USB interface for data retrieval
- PDF file data format
- Optional external power supply
- Flip out desk stand




## SPECIFICATIONS

| | |
|---|---|
| **Measuring Range** | External sensor: -50°C to 70°C/-58°F to 158°F (probe bottle)<br>Internal sensor: 0°C to 50°C/32°F to 122°F |
| **Display Accuracy** | ±0.5°C/±0.9°F over full range |
| **Display Resolution** | 0.1° |
| **Display Reading Update** | 10 seconds |
| **Memory** | Removable 2G micro SD card (max. 4G) |
| **Memory Capacity** | 8 million readings |
| **Data Logging Intervals** | Once per minute to once per 720 minutes |
| **Default Alarm Value** | Low: -10°C, High: 50°C |
| **Time Accuracy** | ±1 second per day |
| **Time Display Format** | 12/24 hour format |
| **Calendar Range** | 2018 to 2099 |
| **Batteries Required** | 1.5 volt, 3 x AA batteries (included) |
| **Battery Life** | Approx. 8,000 hours of continuous use with no alarm triggered |
| **Working Ambient Temperature** | 0°C to 50°C/32°F to 122°F |
| **Display Size** | 2.75" x 2.51" |
| **External Sensor Cable Length** | 10 ft. / 3 M |
| **External Sensor Bottle Size** | 0.76" x 1.57" |
| **Product Dimensions** | 3.70" x 4.33" x 0.98" |
| **Accessories Included** | 3 x AA batteries<br>1 x Probe bottle<br>1 x Mini USB cable<br>1 x Adapter<br>1 x Micro SD card USB adapter |

## INSTALLATION

1. Unpack the unit and connect the probe bottle to the logger
2. Open the battery door and pull out the battery insulation strip.
3. Peel off display protective sheet.
4. Put the bottle sensor inside the fridge or freezer on the middle shelf to the left, making sure it's not touching anything.

## OPERATION

**POWER ON/OFF:**

Press [ON/OFF] button once to switch on. Press and hold the same button for about 3 seconds to switch off.

**SET TEMPERATURE UNIT:**

Slide[°C/°F] switch to the desired temperature unit.

**MINIMUM/MAXIMUM READING MEMORY:**

1. Press **[MIN/MAX]** button to display minimum temperature reading.
2. Press the button again to display maximum temperature reading.
3. Press the button once more to return to normal display.
4. To reset the memory, press and hold the **[MIN/MAX]** button until two bars"---.-" are displayed.

**NOTE:** Always reset the memory once before taking new readings.

**SETTING THE DATE AND TIME:**

1. Press **[SET]** and [▼] at the same time until the display shows the hour format "12H".
2. Press [▼] to toggle between 12H and 24H.
3. Press **[SET]** to confirm hour format.
4. Next, the last two digits of the year will start to flash. (The default is "18").
5. Press [▲] or [▼] to the desired year and press **[SET]** to confim.
6. Follow the same steps above to change the month and the day. Pressing **[SET]** after each to confirm.
7. Next the hour will start to flash. Using the [▲] or [▼] buttons, select the desired hour and press **[SET]** to confirm.
8. Follow the same step for the minutes and press **[SET]** to confirm.

**LOW/HIGH ALARM LIMIT AND DATA LOGGING INTERVAL SETTING:**

1. Press and hold **[SET]** until the time display shows "SET" then release the button. The INT (internal low alarm) limit will begin to flash (Default is -10.0 and "Lo" flashes).
2. Press [▲] or [▼] to set the value.
3. Press **[SET]** to confirm.
4. Next, the INT (internal high alarm) limit setting will begin to flash (Default is 50.0 and "HI" flashes).
5. Press [▲] or [▼] to set the value.
6. Press **[SET]** to confirm.
7. Next the EXT (external low alarm) limit will begin to flash (Default is -10.0 and "Lo" flashes)
8. Press [▲] or [▼] to set the value.
9. Press **[SET]** to confirm.
10. Next the EXT (external high alarm) limit will begin flashing (Default is 50.0 and "HI" flashes).
11. Press [▲] or [▼] to set the value.
12. Press **[SET]** to confirm.
13. Next the recording data cycle setting will begin to flash. (Default value "7"- days)
14. Press [▲] or [▼] to set the value.
15. Press **[SET]** to confirm.
16. Next the data logging interval setting will begin to flash. (Default value "1" - one minute)
17. Press [▲] or [▼] to set the value.
18. Press **[SET]** to confirm.

**NOTE:** When the temperature reading is lower or higher than the alarm limit, the alarm will sound for 1 minute. After 1 minute, the alarm will sound for 2 seconds for every minute and the red light will flash. The alarm sound will stop if the reading falls within the alarm limits or any button is pressed. If a button is pressed the "Lo" or "HI" icon and the red light will still be flashing, which indicates that an alarm has been triggered.

If the alarm for the EXT (external sensor) is triggered, the month, date and time and "ON" icon will be displayed for 5 seconds for every 5 seconds. To cancel the icon and red light flashing, press **[ON/OFF]** button once.

Once the alarm values are set, the alarm function will start automatically and the icon "🔔" will be displayed. Press and hold the [▲] or [▼] button will increase or decrease the value automatically.

**ALARM ON/OFF:**

Press **[ON/OFF]** button once to switch the alarm limit off or on.

**DATA LOGGING ON/OFF:**

1. Place the SD card in the designated slot on the left side of the data logger.
2. Press and hold **[SET]** button for about 6 seconds to switch on or off the data logging feature.
3. "ON / rEc" displayed means the data logging feature is on.
4. "OFF / rEc" displayed means the data logging feature is off.

**NOTE :** When the unit is connected to the computer, the data recording function will stop automatically. It is recommended to use AC power adapter in data logging mode to prolong the life of the batteries.

**DATA RETRIEVAL:**

1. Turn off the data logger.
2. Connect the unit to your computer by using the USB cable provided, or open the SD card slot cover, push the card to eject it and install it into the SD card USB adapter. Next, insert the USB adapter into your computer.
3. Once the disc pops up, click on it twice to open the file.
4. View the logged readings.

**RESET DATA LOGGER:**

Press **[RESET]** button on the back of the data logger to reset the unit to factory default settings.

**NOTE:** Do not operate the thermometer if the environmental temperature is lower than 0°C / 32°F or higher than 50°C/122°F, otherwise incorrect readings or damage to the thermometer may result. If the thermometer is not in use for a long period of time then remove the batteries from the battery compartment to avoid battery leakage

**INFO/TROUBLESHOOTING**

| Symbol | Description | Action required |
|---|---|---|
| 🔋 | Low battery voltage | Replace the batteries with the same type |
| No probe | 1) Probe not connected<br>2) Sensor open circuit | 1) Connect the probe<br>2) Return the thermometer to repair |
| LL.L | The reading is out of lower limit (-50°C) | Keep the measurement above lower limit |
| HH.H | 1) Sensor short circuit<br>2) The reading is out of upper limit (70°C) | 1) Return the thermometer for repair<br>2) Keep the measurement below upper limit |
| SD | SD card installed | |
| REC | Data logging is on | |
| FULL | Memory capacity of SD card is full. Data logging would be turned off automatically. | Clear the memory in existing SD card or replace a new SD card |
| SD & ERR | SD card is removed while data logging is turned on. | Replace the SD card immediately |

## ONE YEAR WARRANTY

The Vaccine Data Logger has a 1 year warranty to be free of manufacturing defects in materials and workmanship under normal applications for 1 year of the original owner. If this product becomes inoperable due to defect and requires repair, return the product with all component pieces and proof of purchase to the address listed below. This warranty does not cover any shipping/transport costs. This warranty does not apply if the product is subject to misuse, neglect, rough handling or damage.

Ship the unit prepaid and insured (at owners option) to:
**Thermor Ltd.**
Attn: Repair Department
16975 Leslie Street
Newmarket, ON L3Y 9A1

www.biosmedical.com
Email: support@biosmedical.com