



**Step 1**  
Completely programmable by users

**Step 2**  
Leave it in any place.

**Step 3**  
Press Start key 5 seconds to activate

**Step 4**  
Press Stop key 5 seconds to stop. You may press "Mark" to make bookmark

**Step 5**  
Press key to review max. & min. value of logged data.

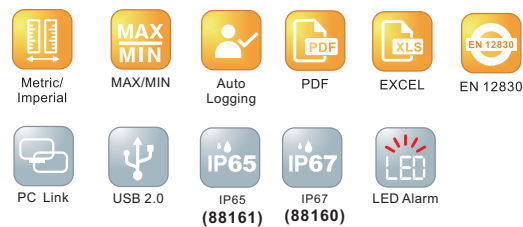
**Step 6**  
Plug into PC to generate PDF and Excel report.

**Ordering Code**  
**VZ88160AZ, 88160 logger**  
**VZ88161AZ, 88161 logger (w/o probe)**  
**VZ87P6AZ1, Temp. Probe for 88161**  
**VZ87P6AZ2, Temp. Probe for 88161**  
**VZ87P6AZ3, Vaccine Temp. Probe for 88161**

\*Available for EB project

## USB Temperature logger w/PDF report 88160/88161

- Upgraded to 9 month battery life time
- Plug & Play. PC software and driver are not required
- Automatically generate PDF/Excel report. Report contains summary, graph and detailed data
- Completely user re-programmable: 6 languages, sampling interval, start delay, alarm delay, unit, alarm range, alarm type, password and user name
- One key operation to know leftover battery life time



| Model                 | 88160  | 88161                     |
|-----------------------|--|---------------------------|
| Temp. range           | NTC thermistor, -30~70°C , -22~158°F   |                           |
| Temp. resolution      | 0.1°C , 0.1°F  |                           |
| Temp. Accuracy        | +/-0.5°C   |                           |
| Ext. Temp. range      | NTC thermistor, -30~70°C , -22~158°F   |                           |
| Ext. Temp. resolution | 0.1°C , 0.1°F  |                           |
| Ext. Temp. Accuracy   | +/-0.5°C   |                           |
| Sampling points       | 48000 readings   | 24000 Int. and 24000 Ext. |
| Meter size            | 110(L)*45(W)*17(T) mm  |                           |
| Operating temp.       | -30~70°C (Logging status); room temp.(PC mode)   |                           |
| Operating RH%         | Humidity < 90%   |                           |
| Storage temp.         | -40~85°C   |                           |
| Storage RH%           | Humidity < 90%   |                           |
| Weight                | ~50g   |                           |
| Battery               | 2PC 3.0V CR2032<br>9 months life time while alarm function is OFF<br>3 months life time while alarm function is ON |                           |
| Sampling interval     | 30 seconds, 5, 10, 30, 60, 90, 120 minutes   |                           |
| Start delay           | 0, 5, 30, 45, 60, 90, 120 minutes and 24 hours   |                           |
| Alarm range           | Programmable from -30 to 70°C  |                           |
| Alarm delay           | 0, 5, 30, 45, 60, 90, 120 minutes  |                           |
| Alarm type            | Single Event, Cumulative, Disable  |                           |
| Operation keys        | 3 Keys (Start/Stop key & Mark key & Count key)   |                           |
| LED indicator         | REC, High / Low alarm  |                           |
| Standard package      | Logger, batteries, manual, paper box   |                           |
| Optional accessory    | VZ87P6AZ1 or VZ87P6AZ2 or VZ87P6AZ3 external temp. Probe   |                           |



**EXTERNAL TEMP. PROBE**  
 P/N: VZ87P6AZ1  
 Color: Black  
 Size: 15cm stainless probe w/handle  
 3.8mm diameter probe  
 Cable: 116cm W/3.5mm Jack



**EXTERNAL TEMP. PROBE**  
 P/N: VZ87P6AZ2  
 Color: black  
 Size: 2cm stainless probe w/o handle  
 3.8mm diameter probe  
 Cable: 200cm w/3.5mm jack



**VACCINE STORAGE PROBE**  
 P/N: VZ87P6AZ3  
 Vial: Empty transparent glass  
 Color: black  
 Size: 2cm stainless probe w/o handle  
 3.8mm diameter probe  
 Cable: 200cm w/3.5mm jack

Please fill glycol (car antifreeze) locally

