

Tempevin® User Guide

Safety warning

Tempevin contains a small, readily available, CR2032 button battery.

Like all batteries, this can be extremely dangerous if swallowed - especially by a child.

Keep all batteries away from small children.

Tempevin is not water proof - do not immerse it in water (or wine)!

It is illegal to dispose of used batteries in household waste - take them to your local supermarket or electrical store.

First use

Tempevin comes with the battery installed. Pull out the plastic strip to connect the battery to the internal components.

The battery should last for a very long time in normal use. Instructions for replacing the battery are shown below.

On first use, or when the battery is replaced, Tempevin will display its version number (e.g. "V10") and its emissivity setting (normally "0.98"). There is more about emissivity below.

Normal use

- Press and release the button to turn Tempevin on.
- Place Tempevin against the bottle or over a glass of wine.
- The temperature of the surface will be displayed.

Tempevin will timeout and turn itself off after 10 seconds - but this can be changed - see below.

Tempevin displays the average temperature of the surface it can see - the area below its curved base. Placing it over mismatching surfaces, or simply pointing it around at random, will display unreliable results.

Options

Tempevin may be used as a general purpose surface temperature thermometer and it has several options which are not normally required when measuring wine temperatures.

Options are selected by pressing and holding the button when Tempevin is displaying a temperature.

The display will step through the options available - release the button when the required option is shown, for example, "C-F" to swap between Centigrade and Fahrenheit display. After release Tempevin will show any option selected. E.g. -F- if Fahrenheit has been selected.

Battery life

Tempevin turns itself off automatically to maximise battery life but can also be turned off by pressing the button when a temperature is displayed.

Using a long timeout, or a high setting for display brightness, will reduce battery life.

For maximum battery life, select:

- Short timeout - 10 seconds.
- Low brightness.
- No decimal point display.

When the battery falls below an acceptable level the display will show "LO" when the button is pressed. If the battery is totally exhausted the display will not come on at all when the button is pressed.



Note: the Tempevin switch is designed to be quite firm to prevent the unit being turned on by accident. It is best to place Tempevin on a firm surface, like a table or desk, when selecting options so the button may be held down firmly during option menu selection.

Hold the button down then release it when the option you require is shown.

Option	Description
OFF	Turn Tempevin off before the timeout.
S - L	Select a timeout from short (10 seconds) to long (60 seconds) in steps of 10 seconds (see below).
0 - 0	Switch between showing the temperature with or without a decimal point.
H - L	Switch between high and low brightness display. High brightness reduces battery life.
C - F	Switch between Centigrade and Fahrenheit display.
A - 0	Switch between displaying ambient temperature (background) and the temperature of the object as seen by Tempevin.
- V -	Display the battery voltage which should be between 2.5V and 3.0V
- E -	Display the current emissivity value (see below).

S - E Enables you to change the emissivity value (see below).

VXX Displays Tempevin's version number.

Selecting timeout

Tempevin automatically turns itself off to save battery power.

The length of time it remains on depends on a timeout value from 10 to 60 seconds - the default is 10 seconds.

To change the timeout value:

- Select the S-L option from the menu (see above).
- The display will step through values from 10 to 60 seconds increasing by 10 seconds each time.
- Press and hold the button down when the required value is displayed.
- Release the button when the display goes blank.
- Tempevin will display the value you selected then return to displaying the temperature.

Note: long timeouts will reduce the life of the battery because the display consumes power. A 10 second timeout should be sufficient to check the temperature of wine in the bottle or in the glass.

The best advice is to set a longer timeout if you need it for a specific purpose (demonstrating it or taking photos for example) and then set it back to 10 seconds afterwards.

Emissivity

Different surfaces give off different amounts of heat as infrared radiation - this is measured by Tempevin.

For example, shiny aluminium foil gives off almost no heat radiation while human skin is very good at giving off heat radiation.

The amount of heat given off by a surface is called its "emissivity" and this is measured as value from 0.00 to 1.00. Most surfaces have emissivity in the range 0.90 to 1.00 so 0.98 is the default used by Tempevin - perfect for measuring wine temperature in the bottle or glass.

If you have a special surface to measure, and you know its emissivity, you can change the setting used by Tempevin.

Turn Tempevin on by pressing and releasing the button to display a temperature.

When the temperature is displayed hold down the button until the display shows S-E then release the button.

Note: you will need to keep the button held down firmly until the S-E option is shown - then release it.

The display will count down for the first digit of the required emissivity.

Press and hold the button down when the required digit is shown. E.g. 8.

The first value shown will be 10 for an emissivity of 1.00. No second digit is required if you select this

Release the button so the display can count down for the second digit.

Press and hold the button down when the required digit is shown. E.g. 2.

The display will confirm the value you have selected, 82 in the example above.

You can check the emissivity value being used by selecting the -E- option using the button.

Changing the battery



Unscrew the two Pozi screws in the base.

Carefully lift off the front of the case.

Take care!

The membrane button is connected to the printed circuit board with a short cable so take care when lifting off the front of the case.

The cable is long enough for you to put the front to one side while you change the battery.

Make sure the cable is replaced in the same way after you have changed the battery.

Gently lever out the CR2032 battery.

Fit the new battery by putting the left side in over the two “prongs” then pressing down the other side.

Tempevin will display its version number once and its emissivity setting (“98”) twice as soon as the battery is in place.

Take care!

Carefully refit the front. The screws should go in easily with no force. Check the alignment of the top with the base by looking at the slots in the sides where the original plastic strip emerged from under the battery. Wiggle the alignment slightly until the screws go in easily - don't force them!

Cleaning the sensor

Tempevin provides very accurate results when the round sensor in its base is clean. Avoid touching the sensor and keep Tempevin away from dust.

Use a soft clean cloth to wipe the sensor if necessary. Take care to avoid scratching or marking the surface in any way.