



## Guardian Thermometer Detailed Instructions

*TIPTEMP Note: Above is a diagram of the Guardian Thermometer and its display window. Below is a simple explanation of the purpose of each button and each area of the display screen. On page 3 you'll find the steps to set up the Guardian Thermometer to use it for the first time. A printed set of basic operation is also included in the Guardian Thermometer package - but wanted to clarify a few points - so we're taking advantage of this opportunity to give you detailed instructions.*

1. This button selects minimum or maximum temperature on display. When reviewing recorded temperatures, you can push Button #1 to toggle back and forth between seeing high and low temps.
2. Push this button to choose whether temperature is displayed in Fahrenheit or Centigrade.
3. Push 3 to step back through data, one interval (i.e. 1 minute, 1 hour, or 1 day) at a time. To move through the data rapidly, just keep holding this button down. If you want to jump straight to the beginning of the recorded data, hold down Button # 3 and while pushing Button # 4. You will know you are at the beginning of the data if you see lines flashing at the top and bottom of the screen along the left hand side.
4. Push 4 to step forward through the data. (Hold the button down if you want to more rapidly through the data.) If you want to jump straight to the last of the recorded data, hold down Button # 4 while pushing # 3. If you see lines flashing at the top and bottom along the right hand side, this means you are viewing the end of the recorded data.
5. The scale on the left hand side of the screen indicates temperature in Fahrenheit.
6. The left side scale of the screen shows a "graphic display" of min and max temperature at each time interval. **It does not represent the actual temperature value.** Bars on the screen indicate temperature range. If there is a temperature range during a particular time increment, this is shown by bars stacked on top of each other. For example, if your freezer is holding steady at 0 degrees Fahrenheit, there will be one bar at the 0 level. However, if during that unit of time your freezer temp fluctuated from -6 to 6 degrees, you will see bars stacked on top of each other, starting at the -6 level and

topping out at the 6 degree level. Each horizontal line represents about 2 degrees Celsius or 6 degrees Fahrenheit (relative). If you have set your thermometer to display temps in Fahrenheit, look to the left to see the Fahrenheit scale (shown at #5). If you have set to display temps in Celsius, look to the right for the Celsius scale (shown at # 8).

7. When you're scrolling through the history of recorded temperatures, an arrow at the bottom of the screen points to the graphical display for the time unit being shown. (To the left of the cursor you'll see the temps prior to that time unit; to the right you'll see the temps following that unit of time.) The min and max temps are also listed in the lower right hand corner (see #10). The actual time (or date and time, depending on what you've chosen during set-up) is shown in the window at #13.

Note: When the memory is full (i.e. you've already recorded 100 temperatures) the bars will rise to the top of the screen, with the topmost bar flashing. (This only happens when the display is in standby mode - after no buttons have been pushed for about 30 seconds.)

8. The scale on the right indicates temperature in Celsius.

9. This indicates whether min or max temp is being displayed. (In the picture above, both the words "min" and "max" are shown, but in reality only one or the other will appear.) You can switch back and forth between viewing minimum and maximum temperatures by pressing Button #1 - see above.

10. This is where you will see the min or max temp for the time frame shown at #7.

11. The memory mode is shown here. (You choose your memory mode during the set-up procedure - instructions follow.)

A full loop, as shown in the picture, indicates "Loop Overwrite" mode - meaning that once the memory is full, the data will continue recording over the earliest data. Therefore data for the most recent 100 days, hours, or minutes is saved. A partial loop means you're in "Stop on Full" mode - so only the first 100 intervals are saved, and no data is recorded after the memory is full.

12. Indicates whether F or C units are being displayed. (You can change the display with button #2 - see above.)

13. Indicates which time interval is being used. D = days, H = hours, M = minutes. (The picture above shows all three letters, but in reality only one letter will display, based on which interval you've chosen during set-up.)

14. This shows the year, month, date, and time indicator. During the set-up procedures, you choose at which time interval you wish to record. (Set-up instructions follow.) In the picture above, Year, Month, Date, and Time are all listed. However, in reality... If you have chosen to record in intervals of hours or minutes, only time will be displayed (not date, month, or year).

If you have set-up to record in "Date" mode, you can see the month and date by holding down the #3 and #4 buttons together. After about a second, the display will switch back to showing the time.

15. This is the reset pinhole. You can use a straightened paperclip to reset time, date, and other settings. (Instructions for all of this are under Set-Up below.)

16. This indicates whether you have a low battery.

## **Set-Up / Battery Replacement Procedure**

**( Note: replacing batteries will wipe out / erase all stored data )**

1. Unscrew back battery cover and insert two AAA batteries. It's important to use good-quality alkaline batteries. Inferior batteries do not function as well at low temperatures.
2. Take a straightened paperclip and insert it into the pinhole (15) for 1 second.
3. To program the date and time: Use (3) and (4) to select HOUR (3) to go an hour forward, 4 to go back). Press (1) to save your setting. Now use (3) and (4) to select MINUTE. Press (1). Use (3) and (4) again to select DAY. Press (1). Finally, use (3) and (4) to set the year. Press (1) to save your setting.
4. Use (3) and (4) to select "Loop Overwrite" mode or "Stop on Full" mode for either "D" (day) mode, "H" (hour) mode, or "M" (minute) mode. Press (1) to save your selection.
5. When you're viewing data after recording in the freezer, you can read the LCD screen most clearly after allowing it to warm up to room temperature.

## **Clearing Data**

If you want to clear your data *and* change your settings for mode, time, or date, just insert a straightened paperclip into the pinhole, and repeat the Set-Up instructions above.

If you want to retain your settings for mode, time, and date, but clear all the data and start a new session of recording, just hold down the (1) button for three seconds, then press (3) and (4) at the same time.

## **Freezer / Refrigerator Alarm Set Up**

Press (2) for three seconds. When "AL.0" appears at (10), toggle to ON ("AL.1"), using the (4) button. If you want to toggle back to OFF ("AL.0"), press (4) again. Press the (2) button to save the setting.

## **Alarm Tone is Generated when following conditions exist.**

**TG-100 Freezer Model:** Temperature above 29°F for more than two hours.

Example: if the any model experiences a temperature above it's programmed threshold it triggers a timing function. This function requires that the temperature remains above the threshold for 2 complete hours.

**TG-200 Wine Fridge/Cellar Model:** Temperature above 72°F for more than two hours.

**TG-300 Refrigerator Model:** Temperature above 45°F for more than two hours

**TG-301** – Is the same as the TG-300 with the alarm turned off.

## **Refrigerated Product Safety Note**

An important note on refrigerated product safety and tracking temperature:

Temperatures vary within different areas of a freezer or fridge, and the Guardian Thermometer temperature logger records only specifically where it is placed. So, if it is placed in the lowest back part of a fridge or freezer, it will probably show the coldest temperatures. Conversely, to show the warmest temperatures, it should be placed at the highest front point. If you have the Guardian Thermometer recording in the coldest part of the freezer, don't take this as an indicator of overall freezer temperature.

*When used in a refrigerator / freezer application the Guardian Thermometer is intended as a trend indicator, not an indicator of product safety.* If the Guardian Thermometer indicates a warming trend, take this as a sign that you need to investigate further, and use your common sense in checking out what is actually happening in your fridge or freezer. If you have any doubt as to the safety of your product (whether or not the Guardian Thermometer indicates unfavorable conditions have taken place), it

is better to err on the side of caution.

### **Condensation**

For fridges that have a lot of condensation, you might consider sealing the Guardian Thermometer in our plastic container CAPACC002

### **Troubleshooting**

If your Guardian Thermometer fails to power up, first confirm that both batteries are good and are inserted correctly. If they are, you may need to reset the battery terminals. To do this:

1. Remove both batteries.
2. Use a metal object to short out the battery terminals **INSIDE** the Guardian Thermometer for about 5 seconds. - i.e. connect positive terminal to negative terminal using two small screwdrivers, a piece of wire or a bent paperclip. (Don't short out the batteries themselves - only the connectors inside the unit.)

Note: the terminals to short out are the inner metal spring and contact plate - i.e. the set closest to the screen, **NOT** the ones at the outer end.

3. Then re-insert the batteries correctly.

### **Limited Warranty:**

1. Warrantor: Dealer, Distributor, Retailer, and Manufacturer

#### 2. Warranties and Remedy

We believe that this is a high quality product. Although we test all products for proper functionality, we cannot guaranty that there will never be a defective unit. For this reason, it must be clear that the Warrantors are not insuring your product/premises or guaranteeing that there will not be damage to your person or property if you use this Product. If this warranty is unacceptable please return the unused product for a full refund.

One Year Limited Warranty - TIPTEMP warrants this product to be free from defects in material and workmanship under normal use for one year, and is not responsible for consequential damage or installation costs of any nature. In event that the Product does not conform to this Warranty at any time during the period of one year from original purchase date, Warrantor will repair the defect and return it to you at no charge. Important: The Warranty is limited to replacement of the Product **ONLY**.

This warranty shall terminate and be of no further effect at the time the Product is 1) damaged by extraneous causes such as fire, water, etc. or not maintained as reasonable and necessary: 2) modified: 3) improperly installed: 4) repaired by someone other than the Warrantor: 5) used in a manner or purpose for which the Product was not intended.

**WARRANTORS' OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT ONLY. THIS WARRANTY DOES NOT COVER PAYMENT OR PROVIDE FOR THE REIMBURSEMENT OF PAYMENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

It must be clear that the Warrantors are not insuring your products/premises or guaranteeing that there will not be damage to your person or property if you use this Product. The Warrantors shall not be liable under any circumstances for damage to your person or property or some other person or that person's property by reason of the sale or use of this Product, or its failure to operate in the manner in which it is designed. The Warrantor's liability, if any, shall be limited to the original cost of the Product only. Use of this Product is at your own risk.

#### 3. Procedures for obtaining performance for Warranty:

In the event that the Product does not conform to this Warranty, the Product should be shipped or delivered freight prepaid to a Warrantor with evidence of original purchase. If in any way you are not comfortable with the product or its Limited Warranty, we encourage you to return it unused for a full refund.

**DO NOT DISASSEMBLE THIS PRODUCT.** It does not contain any user serviceable components.

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