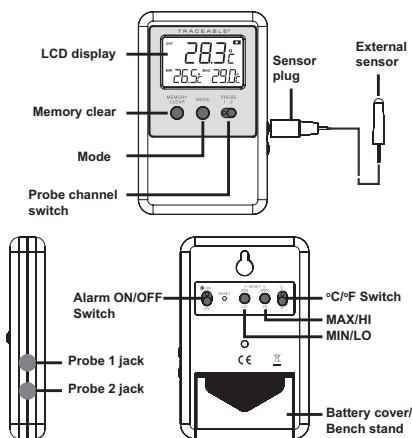


## SPECIFICATIONS

- Sampling Rate: 30 Seconds  
Range: -58.0 to 158.0°F / -50.0 to 70.0°C  
Resolution: 0.1°  
Accuracy: ±0.5°C (-30 to 50°C), ±1°C otherwise  
Features: LCD thermometer, maximum/minimum memory display and high/low alarm



## OPERATION

### Memory Clear Button:

Press to clear all MIN/MAX memory of selected probe

### Mode Button:

Press to toggle between "MIN/MAX DISPLAY MODE" and "ALARM DISPLAY MODE".

### Probe 1/2:

Selects probe channel to display.

### Alarm On/Off:

Enables or disables the Alarm function.

### Reset Button:

Reset HI/LO AL set value, MIN/MAX Memories for both probes.

### MIN/LO Button:

In "MIN/MAX display mode" press to clear the minimum memory of selected probe channel. In "Alarm display mode" press to increment the LO AL (Low Alarm) set value.

### MAX/HI Button:

In "MIN/MAX display mode" press to clear maximum memory of selected probe channel. In "Alarm display mode" press to increment HI AL (High Alarm) set value.

### °C/°F Switch:

Selects temperature unit of measure (Celsius or Fahrenheit).

## MINIMUM AND MAXIMUM TEMPERATURE VALUES ARE NOT PROGRAMMABLE.

### PROBE INSTALLATION

Plug probe sensors into jacks on side of unit, then slide probe channel switch to desired channel.

With probe sensor attached, unit displays current probe temperature & probe MIN/MAX temperatures.

With the probe sensor removed unit displays "--.-".

### PROBES

**Model 4730/4731--** Supplied with 1 bottle probe (4730) or 2 bottle probes (4731), designed for use in refrigerators and freezers. Bottle probes are filled with a patented nontoxic glycol solution that is GRAS (Generally Recognized As Safe) by the FDA (Food and Drug Administration) eliminating concerns about incidental contact with food or drinking water.

The solution filled bottle simulates the temperature of other stored liquids. Velcro® and a magnetic strip are provided to mount the bottle inside a refrigerator/freezer. The included micro-thin probe cable permits refrigerator/freezer doors to close on it. (Do not immerse bottle probes in liquid).

**Model 4732 / 4733--** Supplied with standard plastic probe with cable. Designed for use in air and liquids, the sensor and cable may be completely immersed.

**Model 4734--** Supplied with 1 bottle probe with cable and 1 standard plastic probe with cable.

**Model 4735 / 4736--** Supplied with 1, 5ml vaccine bottle probe (4735) or 2, 5ml vaccine bottle probes (4736). Designed to fit in vaccine trays.

Velcro® and magnetic strip are supplied to mount the bottle to the inside of a refrigerator/ freezer and to mount the display unit to the outside. Micro-cable permits refrigerator doors to close on it.

### RESETTING THE UNIT

Use a pointed object to push the RESET button on the back of unit.

**NOTE:** HI/LO temperature alarm settings and MIN/MAX memories will be cleared after resetting the unit.

### DISPLAY MODES

The unit has two display modes: MIN/MAX DISPLAY MODE and ALARM DISPLAY MODE. To change from one mode to the other press the MODE button once.

MIN/MAX DISPLAY MODE - is indicated by the display of current temperature and the MIN (minimum) and MAX (maximum) temperatures. These values correspond to the probe channel selected with the probe switch.

ALARM DISPLAY MODE - is indicated by the display of current temperature and the HI and LO alarm settings. These values corresponds to the probe channel selected by the probe switch.

### RESETTING MIN/MAX MEMORIES

There are two ways to reset the memories:

1. To reset both minimum and maximum memories - press MEMORY CLEAR button.
2. To reset individual minimum and maximum memories - press either the MIN or MAX button (on back of unit) once to reset the respective memory. The other memory will remain unaffected.

**NOTE:** You must be in MIN/MAX Display Mode to reset the memories.

### DISPLAYING °F OR °C

To display the temperature readings in Fahrenheit (°F) or Celsius (°C) slide the switch on the back of the unit to °F or °C.

### SETTING THE HIGH/LOW ALARM

1. Press the MODE button until the unit is in the ALARM DISPLAY MODE indicated by the display of current temperature and HI and LO alarm settings.
2. To set the HIGH temperature alarm limit press the HI button on the back of unit to increment the limit in 0.1° intervals; press and hold to increment the limit in 1° intervals.
3. To set the LOW temperature alarm limit press the LO button on the back of unit to increment in 0.1° intervals; press and hold to increment the limit in 1° intervals.

### ALARM

The unit will sound the alarm in both MIN/MAX DISPLAY MODE and ALARM DISPLAY MODE.

**Note:** The alarm limits cannot be changed while an alarm is active.

Slide the ALARM ON/OFF switch to ON. When the current temperature display rises above the HI set point, or falls below the LO set point, the alarm will sound for 1 minute and issue a 3 second repeater beep every minute thereafter. The alarm will continue to sound even if the current temperature display returns to an "in range" condition and the LCD will flash.

### ALARM OPERATION

1. To clear the active alarm, press the Memory Clear button or slide the Alarm switch to the OFF position. While in ALARM DISPLAY MODE, pressing either the MIN/LO or MAX/HI button will also clear the

alarm.

2. Alarm conditions will remain active until cleared, even if the temperature value returns to with the alarm limits.
3. The alarm limits cannot be changed while an alarm is active.

### VIEWING THE TEMPERATURE ALARM LIMITS

1. While in the ALARM DISPLAY MODE, slide the PROBE switch to the desired position (1 or 2) to display the temperature sensor readings.
2. Display will show the current temperature and low/high alarm set points for the selected probe.

### ENABLE/DISABLE ALARMS

To enable the alarm function, slide the ALARM switch to the ON position.

When the alarm is enabled, both Probe 1 and Probe 2 alarm channels will be monitored. If either sensor enters an alarm condition, the alarm will activate. It is not possible to enable the alarm for one sensor and disable the alarm for the other sensor.

A disconnected probe does not trigger an alarm state.

To disable the alarm function, slide the ALARM switch to the OFF position.

### ALARM SOUNDING

With the alarm enabled an alarm will sound and the LCD will flash when a temperature is measured outside the alarm limits that have been set. Until it has been acknowledged/silenced (see the "Alarm operation" section), the alarm will sound and the corresponding LCD set point breached will flash continuously for the first sixty (60) seconds. After 60 seconds, the alarm will sound for three (3) seconds every minute.

The unit will continue to alarm and flash the corresponding LCD set point until the alarm has been acknowledged/silenced.

### BENCH STAND

The unit is supplied with a bench stand that is a part of the battery cover. To use the bench stand, locate the small rectangular opening at the bottom of the unit. Place your fingernail into the opening and flip the stand up. To close the stand, simply snap it shut.

### WALL MOUNTING THE UNIT

Set a screw into the wall at the desired location. Do not set the screw flush to the wall, the head of the screw will need to slip into the receptacle on the back of the unit. Once the screw has been properly set, hang the unit in place by sliding the receptacle on the back of the unit over the head of the screw.

### ALL OPERATIONAL DIFFICULTIES

If this thermometer does not function properly for any reason, please replace the battery with a new high-quality battery (see "Battery Replacement" section). Low battery power can occasionally cause any number of "apparent" operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

### BATTERY REPLACEMENT

Low battery symbol, erratic readings, a faint display, or no display are all indications that the battery must be replaced. Slide the battery cover toward the end of the unit. Remove the exhausted batteries and replace with 2 AAA batteries. Replace the battery cover.

### STATIC SUPPRESSOR INSTALLATION

Static generated, radio frequency can affect any cable through the air or by physical contact. To protect against radio frequency, install a suppressor onto your thermometers cable to absorb radio frequency as follows:



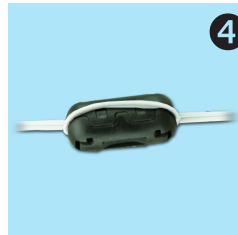
Lay the cable along the center of the suppressor with the connector to your left.



Loop the right end of the cable under the suppressor and back up again laying the cable along the center of the suppressor.



Carefully, snap the two halves together with the looped cable routed through the center.



This completes the installation of the suppressor.

### WARRANTY, SERVICE, OR RECALIBRATION

For warranty, service, or recalibration, contact:

### CONTROL COMPANY

12554 Old Galveston Rd. Suite B230  
Webster, Texas 77598 USA  
Ph. 281 482-1714 • Fax 281 482-9448  
E-mail [sales@control3.com](mailto:sales@control3.com)  
[www.traceable.com](http://www.traceable.com)

Control Company is ISO 9001:2008 Quality-Certified by DNV and ISO/IEC 17025:2005 accredited as a Calibration Laboratory by A2LA.

# TRACEABLE® REFRIGERATOR/ FREEZER THERMOMETER PLUS™ INSTRUCTIONS