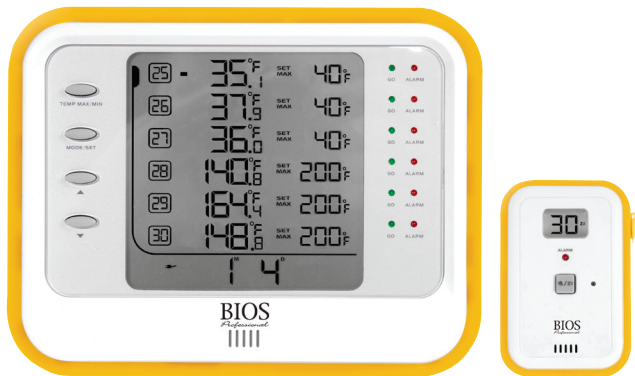


BIOS

Professional



WIRELESS HACCP TEMPERATURE MANAGER INSTRUCTION MANUAL

IMPORTANT INFORMATION TO READ BEFORE OPERATING THIS UNIT

System Requirements:

Windows: 2000, XP & Vista

Excel: 2002, 2003, & 2007

Before first use, check contents of box for the following components:

Monitor



Adaptor – 204TC



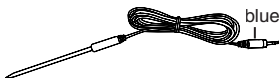
6 x Temperature Sensors – 201TC



Datalogger Software – 209TC



4 x Cold Probes – 203TC (each)



Screwdriver



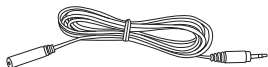
2 x Hot Probes – 202TC (each)



6 x Wall Mount Adhesive Strips 210TC



2 x 14' Extension Cords – 208TC (each)



18 x AAA Batteries 4 x AA Batteries



1.0 Introduction

Congratulations on your purchase of the BIOS Professional Wireless HACCP Temperature Monitor. This unit was designed with food safety and convenience in mind.

Monitoring temperature of hot and cold foods throughout the day can be time consuming and costly. This unit does all of the work, with accurate and precise readings stored so that data can be uploaded onto a personal computer, and kept for future reference.

1.1 Benefits of using the BIOS Professional HACCP Temperature Monitor

- Reduce costs associated with managing HACCP
- Allows users to store detailed historical data
- Helps to reduce the risk of serving hazardous food
- Monitors the time food is in a food temperature danger zone

1.2 Features

The BIOS Professional Wireless HACCP Temperature Monitor is a wireless digital temperature device which is capable of reading, displaying and monitoring current temperatures from up to 30 temperature sensors. These long range sensors can transmit data through floors and from “out of sight” storage areas.

Aside from current temperatures, the monitor’s **LCD screen** displays a real time clock and calendar, as well as maximum and minimum pre-set temperature settings.

An **audible alarm** sounds when temperatures fall out of the pre-programmed range. In addition to the audio alert, green and red LED lights indicate temperature status for each sensor. The delay function defers the alarm for a user specified period of 0, 15, 30, 45 or 60 minutes.

Every 15 minutes, **PC uploadable** temperature data for each sensor is logged. Logged data is retrieved through the USB port and PC download software, as provided.

1.3 Care of the Device

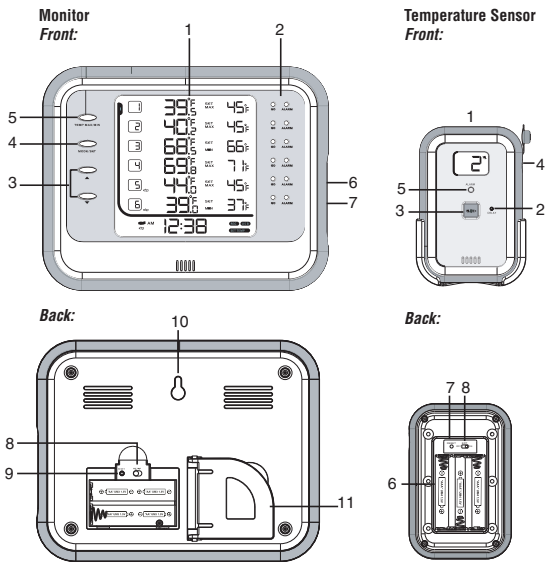
- Always wear a heat resistant glove to touch the stainless steel probe if being used in an area where temperature is high.
- Wash stainless steel probes between uses, drying thoroughly.
- Do not submerge the probe in water. Moisture inside the probe's plug or the thermometer might cause an incorrect temperature reading. Always wipe the probe's plug dry before plugging it into the sensor.
- Do not subject the unit to excessive force, shock, dust, temperature or humidity that may result in malfunction, shorter electronic life span, or damage to the unit.
- Do not place the monitor in direct sunlight, or let it come into contact with moisture or hot surfaces.
- The probe is a sharp metal object. Take care when handling to avoid injuries.
- Probes with red plugs are designed for monitoring high temperature while probes with blue plugs are designed for monitoring low temperature. Do not mix the usage of the two probes.
- Do not expose any part of the probe directly to open flames. This will damage the temperature sensor.
- Clean the probe with water and a mild detergent. Do not use corrosive or abrasive materials. Do not clean the probe in a dishwasher.
- To clean the monitor or temperature sensor, wipe with a damp cloth.
- Do not immerse the monitor or temperature sensor unit in water. If you spill liquid over the monitor or temperature sensor unit, dry immediately with a soft, lint-free cloth.
- Do not tamper with the internal components of the monitor or temperature sensor units.

2.0 Getting Started

Power up the monitor using the AC/DC adaptor included with the kit, before attempting to program. Insert 4 x AA batteries in the battery compartment on the back of the monitor for back up purposes.

2.1 About the Wireless HACCP Temperature Monitor

This section describes the components of the unit.



Monitor

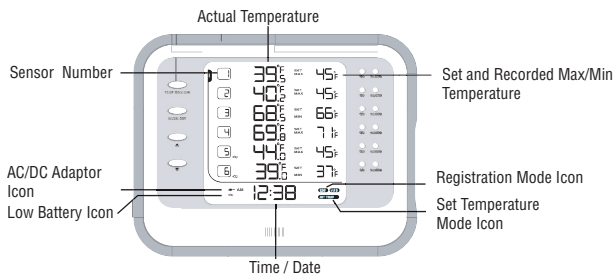
1. LCD Screen
2. Green/Red LED Light
3. Scroll Buttons
4. Mode/Set Button
5. Temperature Max/Min Button
6. USB Port
7. AC/DC Socket
8. °C/°F Switch
9. Reset Button
10. Wall Mount Hole
11. Swing Out Stand

Temperature Sensor

1. LCD Screen with Sensor Number
2. Alarm Delay Button
3. Mute/Sleep Button
4. Probe Socket
5. Red LED Light
6. Battery Compartment
7. Reset Button
8. Extension On/Off Slide Switch

2.2 About the LCD Screen on Monitor

The LCD screen displays the sensor temperatures along with their actual and set Max/Min temperatures. It also displays a real time clock and calendar, low/no battery icon, AC/DC adaptor icon, **REG**istration mode icon, and **SET TEMP** mode icon.



3.0 Time & Date Setting

NOTE: To maximize the benefits of this unit, accurate time and date should be set.

1. Press and hold **MODE/SET** until you hear a beep and the "24" begins to flash.
2. Use the ▲ or ▼ arrow to choose either a 24 or 12 hr clock.



3. Press **MODE/SET** to confirm.
4. Once the clock begins to flash, repeat steps 2 and 3 to program the time.
5. The year will begin flashing. Use the ▲ and ▼ arrows to choose the correct year.
6. Press **MODE/SET** to confirm.
7. "M" (month) and "D" (day) will begin to flash. Use the ▲ and ▼ arrows to select the format in which you would like the date to be displayed. Press **MODE/SET** to confirm.
8. Use the ▲ and ▼ arrows to program the month and day.
9. Press **MODE/SET** to confirm.

4.0 Using an Extension Cord

An extension cord can be used if the cord on the probe is not long enough to reach the desired area from where the sensor is mounted.

1. Plug extension cord into temperature sensor.
2. Plug probe into extension cord.
3. Use the slide extension ON/OFF switch to select Ext. ON.


NOTE: If an extension cord is added after the sensor is registered, reset the sensor by removing and re-inserting one battery.

5.0 Registering Temperature Sensors to Monitor

By registering each sensor to the monitor, you ensure that no cross communication will occur. Each sensor will act independently to communicate its temperature to the monitor.



NOTE: Ensure probe is fully inserted in sensor before registering. If using extension cord, ensure cord is inserted in sensor and probe is inserted in the extension cord. Remove the back panel (using the screwdriver provided) from all sensors that will be registered before starting registration.

1. Press **MODE/SET** once on the monitor, the **REG** icon () will appear.
2. Press and hold **MODE/SET** to enter registration mode. You will hear a beep once it is confirmed.
3. The current sensor number and dashes (---) will flash on the monitor.
4. Insert 3 x AAA batteries into the back of the sensor.
NOTE: If no temperature sensor is registered within 1 minute the monitor will go back to normal mode.
5. Once the batteries are inserted into the sensor you will hear a long beep from the sensor. If registration was successful, a number will appear on the LCD screen of the sensor. This number is the number of the sensor (see section 12.0 Troubleshooting if a number is not displayed).
6. Once the sensor is registered, the current temperature will be displayed on the monitor and the **SET MAX** temperature will flash. Use the ▲ and ▼ arrows to adjust the maximum temperature limit.* Press **MODE/SET** to confirm.



7. The **SET MIN** temperature will begin to flash. Use the ▲ and ▼ arrows to adjust the minimum temperature limit.* Press **MODE/SET** to confirm.

8. Repeat steps 4-7 to register remaining sensors.
9. Once registration is completed, press and hold **MODE/SET** to exit registration mode.
 *Press and hold ▲ or ▼ arrow for fast increment and decrement movement.
NOTE: If at any time the monitor goes back to normal mode, follow steps 1 and 2 to get back to registration mode.
 Once registering is complete, ensure monitor and sensor are in an upright position (see section 10.0 for wall-mount instructions).

6.0 Deleting a Registration

Sensors will need to be de-registered if they are no longer required, or if they will be used for a location different than that which it was previously programmed for.

IMPORTANT: Both the monitor and sensor will need to be de-registered.

1. In registration mode (refer to section 5.0), press and **hold** both arrows on the monitor (▲ ▼) for 2 seconds to activate the de-registration function. Digits on the first row will flash.
2. Press ▲ or ▼ to select the sensor to be de-registered. The digits of that selected sensor will flash. Press **MODE/SET** to confirm, numbers will turn into dashes.




3. Once de-registration is complete, press and hold both arrows (▲ ▼) to return to registration mode OR press and hold **MODE/SET** to return to normal mode.
4. To de-register the sensor, remove 1 battery from the sensor.
5. While pressing the **MUTE/SLEEP** button on the front of the sensor, insert the battery back into the battery compartment. You will hear a beep. **Continue to hold the MUTE/SLEEP button while the beep sounds. Let go of button after beep stops.**
6. You will then see (- -) in the sensor display instead of a sensor number. When the dashes are displayed the sensor has been de-registered successfully.
NOTE: If you are not going to re-register a sensor, remove all batteries. Sensor will then be ready for registration when required.

7.0 Max/Min Temperature Setting

You can set each sensor with a maximum and minimum temperature alarm. Once a sensor falls out of the programmed range, both the sensor and monitor will beep. A red light will flash on the monitor to indicate which sensor is out of range.

NOTE: The Min/Max temperature setting is done when the sensors are being registered for the first time. To change the Min/Max temperature settings follow the steps below.

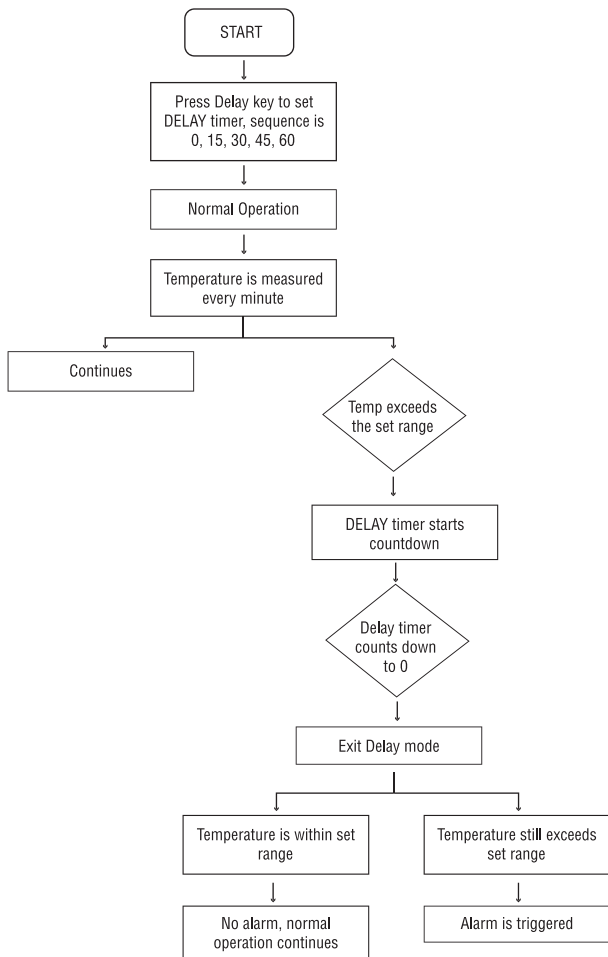
1. In normal mode, press **MODE/SET** until SET TEMP icon () appears.
2. Press and hold **MODE/SET** to enter temp setting mode.
3. When the digits on the first row flash, press ▲ or ▼ to select which sensor is to be set.
4. Press **MODE/SET** to confirm.
5. SET MAX temperature will begin flashing. Use the ▲ and ▼ arrows to adjust the maximum temperature limit. * Press **MODE/SET** to confirm.
6. SET MIN temperature will begin flashing. Use the ▲ and ▼ arrows to adjust the minimum temperature limit. * Press **MODE/SET** to confirm.
7. Repeat steps 3 through 6 to adjust the minimum/maximum temperature limits for other sensors.
8. Press and hold **MODE/SET** to exit temp setting mode.
* Press and hold ▲ or ▼ arrow for fast increment and decrement

8.0 Alarm delay operation

Users have the option of setting an alarm delay, so that once temperature falls out of the programmed range, a timer will start counting down and the audio alarm will not sound. If the temperature does not go back into the programmed temperature range within the pre-set delay period, the alarm will sound once the timer hits zero. This allows for temporary fluctuations.

1. Press the DELAY key on the sensor to toggle between 0, 15, 30, 45 and 60 minutes. Select the delay time desired, display will show the delay time and confirm automatically after 5 seconds.
2. When sensor detects temperature has exceeded the programmed range, the delay timer is triggered and begins counting down. The audio alarm will not be triggered within the delay period.
3. Sensor will show "dE" by flashing every 0.5 seconds to indicate the delay function is running. If temperature continues to exceed set range after the delay period (e.g. 31 min), the alarm will sound on monitor and sensor.
NOTE: Once alarm is triggered, the red LED on the sensor will flash every second for the first 2 minutes, and every 5 seconds after.
4. If temperature resumes within the programmed range during the delay period, it will stop the delay timer immediately.
NOTE: Monitor will show "dE" when temperature exceeds set range so that the user will know the delay period is running. Green LED will still flash to show the operation is fine. If temperature continues to exceed set range after the delay period (e.g. 31 min), monitor will show "Low" or "Hi" and red LED will flash to indicate temperature is out of range.


Alarm delay sequence



9.0 Display on Temperature Sensor

Each Temperature Sensor has a small LCD screen, which upon registration displays a number. The corresponding number can be found on the monitor, where the temperature of that sensor is displayed.

Zz – Sensor is in sleep mode. To temporarily stop transmission from the sensor to the monitor, press and hold the Zz button on the sensor until a beep is heard.

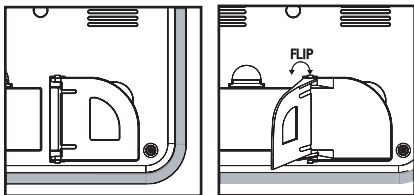
 – Press the Zz button on sensor to mute the sensor and avoid an audio alarm. When the sensor is set to mute, the only indication of an alarm is the red LED light.

 – When the low battery icon appears, batteries should be replaced.

10.0 Sensors and Monitor Placement

IMPORTANT: To ensure no signals are lost from sensor to monitor, make sure that the monitor and sensors are always in an upright, vertical position.

NOTE: To stand monitor on flat surface, use built in stand located on the back of the unit.



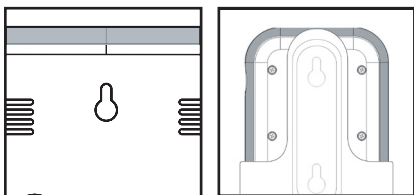
For positioning using a nail, screw or hook:

1. Fasten nail, screw or hook (not included) to wall.
2. When positioning the monitor, remove rubber stopper in the wall mount hole located at the back of the monitor.
3. Hang unit on the wall using the wall mount hole on the monitor, and/or on the wall mount bracket included with the sensor.

For positioning using double sided tape (sensor only):

IMPORTANT: before positioning monitor or sensors, ensure wall surface is clean and residue free.

1. Remove one piece of double sided tape from the sheet provided.
2. Stick the tape vertically across the center of a sensor.
3. Peel off the backing paper from the tape.
4. Position by pressing sensor firmly against the wall.



Monitor

Sensor

NOTE: when installing the sensors in large refrigerators and/or freezers, it is best to use the extension cord to mount the probe in the back half of the area being monitored. Approximately half way from the floor to ceiling will give optimal readings.

11.0 PC Download

IMPORTANT: If you are using a Windows Vista operating system, follow the directions below **before** installing the “Datalogger” software:

1. Click on your Start menu button.
2. Click on Control Panel.
3. Double click on User Accounts.
4. The line, “Turn User Account Control On or Off” will be displayed. Click on this.
5. “ Use User Account Control (UAC) to help protect” will be displayed. Remove the check mark from the box.
6. Restart your computer, then follow the rest of the instructions below.

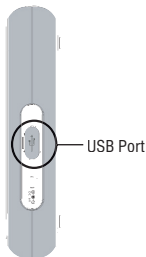
Installing Software

1. Insert CD into your PC.
2. A window will open on the desktop.
3. Follow the steps to install the software.

NOTE: If the window doesn’t open, click on the Start Menu. Click on My Computer. The “Datalogger” software will be listed under Devices with Removable Storage.

Connecting Unit to PC

1. Once software is installed, plug the USB cable into the BIOS monitor and then into your PC.



2. Click on your Start menu button, go to “All Programs”, click on “Datalogger”
3. On the bottom right corner of your PC monitor screen you will see the Datalogger icon (◆).
4. The Datalogger icon will be grey when the monitor is not connected to the PC. Once the monitor is connected to the PC the Datalogger icon will turn green.
5. Right click on the icon, a menu bar will open. Click on “Start Upload”.
6. The data will start to upload from the monitor to the PC.
7. Once the upload is finished, open your “My Documents” folder. In this folder there will be a folder named “Datalogger”. Open the “Datalogger” folder.
8. Open the Excel file named “Datalogger”. An excel document will open with a

blank template of the software sheet. A menu will open asking to Disable or Enable Macros, click on Enable Macros.

9. A new excel document will open with the uploaded data. Ensure document is saved before closing.

NOTE: The Excel document will be named using the year, month, day and time the upload was made. For example, if you uploaded the data on Dec. 12, 2007 at 3:06pm the file will be named 200712121506.xls

10. To insert the name of sensor locations, such as "Refrigerator", find the "Location" field on each worksheet. Type in the name of the sensor location.
11. To send a copy of a log file via email, open your email program. Start a new email message and attach the file before sending to desired recipient.

12.0 Troubleshooting

Unit	Display	Meaning	Action
Monitor	----	Sensor is not registered for that particular channel	Enter registration mode and connect to sensor unit
	P	Probe is not connected	Ensure probe is properly connected to sensor. If it is not, de-register the sensor (section 6.0) and register again.
	LS	Lost signal	Check battery of sensor. Restart the temperature sensor. Check that the correct probe is being used. i.e.: Blue probe for cold measurements and red probe for hot measurements
	HI	Temperature exceeds the display range or the probe range	Check the actual temperature of the sensor location
	Lo	Temperature is below the display range or the probe range	Check the actual temperature of the sensor location
Temperature Sensor	----	Sensor is not registered	Enter registration mode on monitor and re-insert batteries in the sensor for registration
	A	Alarm is on	Check sensor location. Press MUTE/SLEEP to resume normal operation
	Z ^Z	Sensor is in sleep mode	To exit sleep mode, press and hold button on sensor until a beep is heard
"Datalogger" Temperature Log	HHH	Current temperature reading is over probe's max. temperature capacity	---
	LLL	Current temperature reading is lower than probe's min. temperature capacity	---

13.0 Specifications

Temperature Range:	-20°F to 300°F/-28°C to 148°C
Data Update Time:	15 minutes
Memory Capacity:	2 days for 30 sensors, 10 days for 6 sensors
Power Source:	Monitor: 120V AC/DC 15mA adaptor (included)
	4 x AA batteries, 1.5V batteries
	Sensor: 3 x AAA batteries, 1.5V batteries
Transmission Range:	100m (300 feet) in open area
Software Compatibility:	Windows: 2000, XP & Vista
	Excel: 2002, 2003, & 2007

14.0 One Year Warranty

If this instrument proves to be defective in material or workmanship within one year of purchase, it will be repaired or replaced without charge. This warranty does not cover damage from misuse or tampering, including damage caused by:

- use contrary to the intended purpose of the device, or failure to observe the instruction manual and/or the care instructions
- accidents or normal wear
- use of unsuitable accessories
- external influences such as damage during transport, damage caused by vibration, excess heat, water, moisture or acids

NOTE: This warranty expires if repairs or modifications are undertaken by third parties or unauthorized persons.

To place a warranty claim, contact Customer Service at the address and phone number below.

Thermor Ltd.
16975 Leslie Street
Newmarket, ON L3Y 9A1
www.thermor-ins.com
1-800-387-8520

15.0 FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

DECLARATION OF CONFORMITY

The following information is not to be used as contact for support or sales. Please call our customer service number (listed on our website at www.oregonscientific.com), or on the warranty card for this product) for all inquiries instead.

We

Name: Oregon Scientific, Inc.
Address: 19861 SW 95th Ave., Tualatin, Oregon 97062 USA
Telephone No.: 1-800-853-8883

declare that the product

Product No.: 200TC
Product Name: HACCP Wireless Temperature Monitor
Manufacturer: IDT Technology Limited
Address: Block C, 9/F, Kaiser Estate, Phase 1, 41 Man Yue St.,
Hung Hom, Kowloon, Hong Kong

is in conformity with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference. 2) This device must accept any interference received, including interference that may cause undesired operation.