Congratulations
Thermapen Mk4 is a precision thermometer used for many applications, including cooking. With proper care, it will offer accurate measurements for many years. Thermapen Mk4 includes several new features, including: intelligent backlight, auto-rotating display, user-selectable sleep interval, motion-activated wake-up mode, and added water resistance.

Instrument Operation
The unit is switched on by unfolding the thermocouple probe until the display comes on. Conversely, the unit is turned off by folding the probe away and lightly pressing the tip into the rubber probe retainer located at the bottom rear of the instrument. It is recommended to store the probe in the closed position when not in use.

Do not force the probe further than 180° when opening or damage to the rotating hub may occur.

The micro-thermocouple sensor is located at the tip of the probe shaft. Minimum immersion is only 1/8" (3 mm). For best results, immerse or penetrate the probe into the food item so the probe tip is in the place you want to measure. In food, this should normally be at the center of the thickest part.

The Thermapen will read to within 1°F of the actual temperature of an ice bath within three seconds. Reading times in other foods may vary slightly.

Do not immerse the probe all the way to the plastic rotating hub. Avoid getting flour, moisture, or oil on the hub itself. Although there is an O-ring seal, oils can work their way past the seal and accumulate inside the hub and may cause failure. The probe tip is sharp. Use caution to avoid injury. Do not “stab” the material to be measured. Use steady force to penetrate meats or semi-solids. Avoid bone. Do not lift or flip heavy meats with the probe tip. The probe shaft is hollow and contains a sensor. If bent, it may fail.
Instrument Configuration
You can personalize your Thermapen by changing several factory default settings including:

- Temperature display from °F to °C
- Display resolution from 1° to 1.0°
- Screen Rotation
- Auto-Off/Sleep Mode

To change any of these settings, loosen the battery cover screw using a Phillips screwdriver and remove the battery cover. Open the probe to turn the unit on. The Thermapen Mk4 has two small buttons inside the battery compartment: MENU, which is used to enter, save settings, and exit the menu; and SET, which is used to select desired settings. Settings are saved once ‘END’ is displayed at the end of the menu options. To abort settings, close the probe. Press the MENU button to cycle through the following settings:

Temperature Display Units, °F to °C
Press the MENU button until ‘C or F’ is displayed. Press SET to toggle between ‘°F’ and ‘°C’ as displayed in the upper right hand corner of the display. When the selection is complete, press MENU to store setting.

Display Resolution, 1° to 1.0°
Press the MENU button until the current resolution setting ‘0.1°’ or ‘1°’ is displayed. Press SET to toggle between ‘0.1°’ and ‘1°’. When the selection is complete, press MENU to store setting.

Screen Rotation
Press the MENU button until ‘DISPLAY’ is shown at the top of the display. Press SET to select ‘360°’ for full 4-way rotation, ‘180°’ for 2-way rotation (horizontal only), or choose to lock the display in a specific orientation when ‘Loc’ is displayed. Press MENU to store the rotation setting.

Auto-Off/Sleep Mode
Press the MENU button until ‘SLEEP’ is shown at the top of the display. Press the SET button to step through the sleep interval settings from ‘10’ seconds to ‘180’ seconds in 10-second intervals, or to turn the sleep function ‘off.’ Press MENU to store the sleep interval and the unit will enter sleep mode at the specified number of seconds without movement detected. END will flash momentarily to show that all settings are saved.

Note: When the probe is open and the unit is in sleep mode, any motion detected by the Thermapen will conveniently wake the instrument and turn it back on.

When you are done adjusting settings, replace the battery cover and tighten the battery cover screw with a Philips screwdriver. Do not overtighten.

Calibration
Each Thermapen is individually factory-calibrated using very high-precision temperature standards that are traceable to NIST (national standards). A certificate with actual test data is supplied with your Thermapen. However, if you have any doubt about its accuracy, you can check it yourself in a properly prepared ice bath. If it reads correctly in the ice bath, it is almost certainly accurate at other temperatures.

Making a Proper Ice Bath
Fill a cup or glass with ice. Add just enough water to fill the gaps between the ice. (If the ice is floating, the water beneath the ice will be at a higher temperature.) After a few moments, immerse the tip of the Thermapen probe to the middle of the ice and gently stir. Within 3 or 4 seconds the Thermapen will read 32°F within 1°F. Do not let the tip of the probe rest against an ice cube or it will read a lower temperature (it’s that fast and sensitive). If the reading is within the published specification, the Thermapen is accurate. You can also test
the Thermapen in boiling water but you must first know the correct temperature of boiling water at your altitude and at the current atmospheric pressure. A calculator can be found at www.thermoworks.com/bpcalc to quickly find that temperature for your zip code.

Instructions to use the Trim Adjust to tune your Thermapen calibration are downloadable from the Thermapen Mk4 web page. You should not need to do this under normal use. A complete factory re-calibration, including a certificate, is also available from ThermoWorks for a fee.

Intelligent Backlight
When the Thermapen is turned on, a light sensor (small round window located just to the right of the main display) continuously monitors ambient light levels. As it gets darker, the intelligent backlight comes on automatically to read the digits in any light condition. Covering the light sensor will also turn on the backlight except in well-lit areas. The backlight will remain on for a minimum of 10 seconds. If the unit is displaying the low battery symbol, the backlight brightness will be reduced to prolong battery life.

Batteries
Each unit includes one pre-installed AAA (1.5V) battery located inside the sealed battery compartment. An illuminated battery symbol (_battery) in the LCD display indicates that the battery should be replaced soon. The instrument will continue to measure accurately, but it is recommended to replace the batteries immediately (in low battery condition, the backlight brightness will be reduced to prolong battery life). Once the battery is too low to display readings, the display will be replaced with ‘Flat’ then ‘Bat’ and then shut down. To continue using the instrument, replace the battery.

Replacing the Battery
The battery is pre-installed on your new Thermapen Mk4 and should last up to 3,000 hours. Should you need to replace the battery, loosen the battery cover screw using a Phillips screwdriver to remove the battery cover. Pull up on the spring-loaded battery clip and tip the unit to allow the battery to slide out. Replace with a single AAA battery noting the polarity (positive goes in first, retaining clip rests on negative). Tighten the battery cover screw until the battery cover is snug onto the seal. Do not overtighten.

Cleaning and Maintenance
To avoid potential bacteria growth and cross-contamination, wipe the probe after each use and regularly clean the entire Thermapen body. Oils and grease should be wiped off the body and the rotating hub. We recommend sanitizing wipes or a damp paper towel with an anti-microbial cleaning solution. Protected from dust and immersion in water to 39” depth for up to 30 minutes. The probe should not be rotated while the body is submerged or under a stream of water. Protect the plastic body from high temperatures. DO NOT LEAVE THE THERMAPEN IN AN OVEN OR ON A HOT SURFACE. Not dishwasher safe.

Warning
IPA and other solvents may cause damage to the case and screen of this instrument.

Error Messages
- ‘Lo’ is displayed if measurements are being made below the instrument range.
- ‘Hi’ is displayed if measurements are being made above the instrument range.
- ‘Err’ is displayed if the probe develops a fault. Call for details.

For all other error messages, contact ThermoWorks’ Technical Support at 1-800-393-6434 or techsupport@thermoworks.com.
What is NSF Certification?
The NSF mark indicates that the design, materials, production process, and quality controls used in the production of the Thermapen Mk4 have been verified and certified for food safety by NSF International, an independent standards organization.

Repair Services
ThermoWorks offers a full repair service for Thermapens damaged for any reason. Contact Technical Support at 1-800-393-6434 or email techsupport@thermoworks.com.

Additional Technical Information
For more information on using the Thermapen Mk4, consult the included Guidebook and visit our blog and Help Center for helpful tips and videos at www.thermoworks.com/blog and help.thermoworks.com.

Product Warranty
This instrument carries a two-year warranty against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ThermoWorks, be either repaired or replaced without charge. This warranty does not apply to probes, where a six-month period is offered. Full details of liability are available within ThermoWorks’ Terms & Conditions of Sale at www.thermoworks.com/product-warranty.

Thermapen Accessories (available at www.thermoworks.com)