

	CaterTemp Plus:	Therma Plus:
Temp Range:	-58° to 575°F (-50° to 299.9°C)	-148°F to 2502°F (-100°C to 1372°C)
Accuracy:	Meter & Probe ±0.5°F (±0.28°C) from 32°F to 212°F (0°C to 100°C) ±0.72°F (±0.4°C), ±0.1% full range	Meter Only ±0.5°F (±0.28°C) from 32°F to 212°F (0°C to 100°C) ±0.72°F (±0.4°C), ±0.1% full range
Resolution:	0.1°F or °C full range	0.1°F or °C auto ranging at 599.9°F or 299.9°C
Display Units:	°F or °C switchable	
Ambient Range:	-4°F to 122°F (-20°C to 50°C)	
Probe Type:	Type K Thermocouple (1/8" diam x 4" L) reduced tip	Type K Thermocouple
Cold Junction Stability:	±0.025°C/°C maximum	
Response Time:	3-4 seconds to full reading including probe	1 seconds maximum update
Housing:	Extruded aluminum (IP66/67 rated)	
Power:	9V Battery (included)	
Battery Life:	5,000 hours	
Over Range Indication:	'HI'	
Open Circuit (probe damage):	'Err'	
Dimensions:	1.4" x 2.4" x 4.5" (35mm x 60mm x 115mm)	
Weight:	0.5 lbs (244g)	
Warranty:	2-years for meter, 3-months for probe	2-years for meter
Calibration:	NIST-traceable certificate included	

## Instrument Record Card

Model	Order #	Range	Resolution
<input type="checkbox"/> CaterTemp Plus	221-056	-50.0°C to +299.9°C -58.0°F to +575.0°F	0.1°C/°F
<input type="checkbox"/> CaterTemp Plus F/R	221-059	-50.0°C to +299.9°C -58.0°F to +575.0°F	0.1°C/°F
<input type="checkbox"/> Therma Plus	221-071	-100.0°C to +1372°C -148.0°F to +2502°F	0.1/1°C/°F

### Calibration

Test Temperature	0°C/32°F	100°C/212°F	1000°C/1832°F
Instrument Indication			
Serial Number			
Calibrated by			Date

This instrument has been checked or calibrated against reference instrument(s) calibrated by a UKAS Accredited Calibration Laboratory which are traceable via International Agreement to all major National Standards including NPL and NIST.

To BS EN 60584 : 1996

Manufactured in the UK by E.T.I. Ltd. for



**ThermoWorks**

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**ThermoWorks**

## Operating Instructions for

- CaterTemp Plus &**  
 **Therma Plus**

### INSTRUMENT OPERATION

The Instrument is switched on and off by using the 'ON/OFF' button located on the front of the instrument.

Apply the tip of the probe to the substance, medium or surface to be measured. The instrument reading may take seconds to stabilise depending on the nature of the measurement and the sensitivity of the probe.

### SENSORS

Therma Plus instruments should only be used with a 'Type K' thermocouple probe made to BS EN 60584:1996 that is fitted with a suitable miniature thermocouple plug. Go to [www.thermoworks.com](http://www.thermoworks.com) for suitable probes that measure liquids, air, solids, and surface temperatures. Custom probes are also available.

### HOLD

Pressing the 'HOLD' button freezes the display for ease of reading and also illuminates the hold segment on the display. Pressing 'HOLD' again returns the instrument back to normal operation.

### UNITS

The display units can be changed to read in °F or °C. To change the current display units first turn the unit off. While pressing and holding down the **HOLD** button turn the meter on. Keep the **HOLD** button pressed (about 7 seconds) until the units change on the display. Release **HOLD** button.

### RESOLUTION

The instrument automatically changes range from 0.1° measurements to 1° measurements after 299.9°C or 599.9°F respectively.

### AUTO-OFF

The instrument will turn off 20 minutes after the last button press.

### UNDER-RANGE

If you are attempting to measure below the instruments specified temperature range, LO will be displayed.

### OVER-RANGE

If you are attempting to measure above the instruments specified temperature range, HI will be displayed.

### OPEN-CIRCUIT

If no probe is fitted (Therma Plus) or there is a fault with the probe then the display reading will rise until eventually displaying Err.

### BATTERY REPLACEMENT

LO BAT indicates that the batteries will need replacing soon. The instrument continues to measure accurately while in that 'Lo Bat' condition but we recommend that the battery be changed at the earliest convenience. After some further usage the instrument will detect that there is insufficient battery voltage left to measure accurately. At this point the instrument will display 'Flat' and then 'Bat' and then shut down. The batteries will need to be replaced at this time to continue instrument use.

To change the battery, remove the instrument bottom cover using a crosshead (Phillips) screwdriver. Once opened push the battery to one side to release and remove it and then fit the new battery into the battery clips taking into account the polarity. The battery should be a PP3, MN1604 or a direct 9-volt equivalent.

When refitting the bottom cover ensure that the seals are not damaged and are correctly positioned. Tighten the battery cover screws firmly to ensure that the seals are compressed and will provide a water-resistant seal.

### EMC/RFI

Readings may be affected if the unit is operated within a radio frequency electromagnetic field strength of approximately 3 volts per metre, but the performance of the instrument will not be permanently affected.

### ENCLOSURE

The enclosure is manufactured from extruded aluminum and is rated to IP66/67 water resistant rating.

### REPLACING PROBES (CaterTemp)

The hard-wired probes in the CaterTemp can be easily replaced if damaged. We recommend returning the unit to ThermoWorks for this probe replacement. At that time we will recalibrate the CaterTemp with the new probe attached so your "system accuracy" is within the original specification. Probes can be replaced in the field by the user if you remove the top end cap and unplug the probe from the circuit board. However, your unit may not meet the original "system accuracy" specification unless a "system calibration" is performed. Contact ThermoWorks for further questions.

### PRODUCT WARRANTY & GUARANTEE

This instrument carries a two-year warranty and guarantee against defects in either components or workmanship. In cases where the instrument has a fixed probe then the length of the warranty for the probe is 3 months. During this period, products that prove to be defective will, at the discretion of ThermoWorks, be either repaired or replaced without charge. The product warranty and guarantee **does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification**, or use with non-ThermoWorks hardware/software. No warranty of fitness for a particular purpose is offered and the user assumes the entire risk of using the product. Any liability by ThermoWorks is limited only to the replacement of defective materials or workmanship, and ThermoWorks accepts no responsibility for consequential loss. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.