

# FAST READ DIGITAL CLINICAL THERMOMETER


## INSTRUCTIONS FOR USE

Please read carefully before using

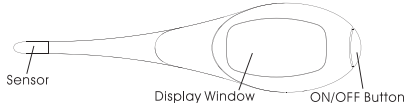
KD-2050

Fever Flash® THERMOMETER


## FEATURES

1. Fast oral and rectal temperature measurement in around 10 seconds with proper use.
2. ThermoTrend helps you better understand your health by showing the trend of last 3 temperatures measured.
3. Memory displays for the last temperature taken.
4. Very sensitive unit, best for quick oral or rectal measurement.
5. Easy to read digital LCD (liquid crystal display).
6. Compact, accurate and durable LSI (large scale integration) unit.
7. Temperature can be taken orally or rectally.
8. If the thermometer is inadvertently left on after temperature stabilization, it will automatically shut off in about 30 seconds.
9. Small, light weight unit. Universal use for the whole family, especially ideal for children.
10. ABS resin body presents no hazard compared to broken 'mercury-in-glass' thermometers.
11. Low battery indicator: when the symbol "  " appears, the battery needs to be replaced.
12. This unit is water resistant.

## PARTS DESCRIPTION



## SPECIFICATIONS


Range	: 89.6–111.1°F (32.0–43.9°C)	
	Below 89.6°F (32.0°C) displays L°F(°C)	
	Above 111.1°F (43.9°C) displays H°F(°C)	
Resolution	: 0.1 °F (°C)	
Accuracy	: ± 0.2°F (98.0°F - 102.0°F) ± 0.1°C (37.0°C - 39.0°C)	
	± 0.3°F (96.4°F - 97.9°F) ± 0.2°C (35.8°C - 36.9°C)	
	± 0.3°F (102.1°F - 106.0°F) ± 0.2°C (39.1°C - 41.0°C)	
	± 0.5°F less than 96.4°F ± 0.3°C less than 35.8°C	
	± 0.5°F greater than 106.0°F ± 0.3°C greater than 41.0°C	
Display	: Liquid crystal display 3 1/2 digits	
Battery	: CR2032 (3V) (included)	
Power Consumption	: 0.40 milliwatts in measurement mode	
Battery Life	: More than 160 hours of continuous operation	
Dimensions	: Approx. 117 X 30 X 16 (mm)	
Weight	: Approx. 20 grams including battery	
Beeper	: Approx. 10 seconds sound signal when peak temperature reached	
Memory	: Built-in memory enabling display of previously measured value	
Working Conditions	: Temperature: 50 ~ 104°F (10 ~ 40°C)	
Relative Humidity	: 15 ~ 95% non condensing	
Storage Conditions	: Temperature: -13 ~ 131°F (-25 ~ 55°C)	
Relative Humidity	: 15 ~ 95% non condensing	
Guarantee of Quality	: Cert. ISO 13485, Complies w/ ASTM-E1112, EN12470-3, EN60601-1	
Product Classification	: Type BF  equipment	

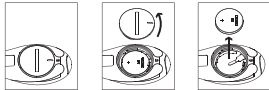
Reading in °F	Reading in °C	Back Light Color
UP TO 96.7	UP TO 35.9	NO COLOR
96.8 - 98.8	36.0 - 37.1	GREEN
98.9 - 99.4	37.2 - 37.4	ORANGE
99.5 - 111.1	37.5 - 43.9	RED
111.2 AND UP	44.0 AND UP	NO COLOR

## PRECAUTION

1. For best results, we do not recommend using the fast read thermometer for axillary (underarm) measurement. Only use it for taking oral and rectal temperatures.
2. Do not boil the probe. Instead, clean the unit by wiping it with a dry cloth and disinfect the probe with rubbing alcohol.
3. Do not drop or expose thermometer to electric shock as this may adversely affect its performance.
4. Do not bite the probe.
5. Do not store the unit in direct sunlight, or at a high temperature, or in high humidity or dust. Performance may be degraded.
6. Stop using the thermometer if it operates erratically or it displays malfunctions.
7. Keep out of the reach of unsupervised children.
8. Clean the thermometer probe before storing.
9. Do not attempt to disassemble the unit except to replace the battery.
10. If the thermometer has been stored at below-freezing temperatures, allow the thermometer to warm naturally to room temperature before using.
11. Performance of the device may be degraded if operated or stored outside stated temperatures and humidity ranges or the patient's temperature is below the ambient (room) temperature.



## BATTERY REPLACEMENT

1. When the symbol "  " appears, the battery needs to be replaced.
2. Using a coin, unlock the battery cover by turning it counter-clockwise and carefully remove the battery with a non-metal instrument from the battery holder. Avoid using any sharp metal object in this operation.
3. Responsibly discard old battery.
4. Clean battery contacts and also those of the device prior to battery re-installation.
5. Replace the battery with a 3V, CR2032 Lithium type or equivalent in the chamber with the negative (-) side down and the positive (+) side up.
6. Using a coin, replace and secure the battery cover by turning it clockwise.



Warning: Discard old battery, out of reach of young children. Swallowing the battery may be fatal. If the battery is swallowed, contact a hospital immediately to have it removed. Do not dispose of the battery in a fire. It may explode. For proper battery disposition, please consider your local disposal laws and regulations.

## HOW TO USE

1. Disinfect the probe with rubbing alcohol before using.
2. Depress the ON/OFF button. The display will read  or  with Fever Flash® flashing (Red → Orange → Green).
3. Release the power switch and the display will show L°F(°C) with °F(°C) flashing.
4. Place the probe in the appropriate position (oral, rectal or axillary).
5. Once the degree sign °F(°C) on the display stops flashing, the correct temperature is indicated and Fever Flash® will light up color according to the measured temperature. The temperature reading will not change after the °F(°C) stops flashing.
6. The unit will automatically turn off in 30 seconds (approx.). However, to prolong battery life, it is best to turn the thermometer off by pressing the ON/OFF button once the temperature has been noted.

### Special Features:

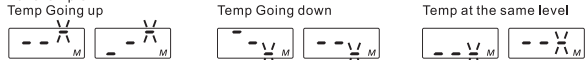
**Normal Temperature Alarm:** An alarm will sound when the peak temperature has registered and is ready-to-read. The "Normal Temperature" alarm (four quick beeps followed by a pause) will sound repeatedly for approximately 10 seconds.

**Last-Temperature Memory Recall:** When the ON/OFF button is depressed to activate the thermometer, hold down for approximately 2 seconds. The display of 188.8 will change to show the last measured temperature. This reading is displayed as long as the button is held down. When the button is released, the thermometer will be in "ready-to-measure" mode and the recalled temperature will be erased.

**ThermoTrend:** It will show for 4 seconds (1) after last temperature recall (2) after measurement completed, with the last-temperature bar (right bar) blinking. The right bar shows the trend of last measurement, by comparing with 2nd last measurement, if last measurement is bigger (smaller) by 0.4°F (0.2°C) than 2nd last measurement, the bar will level up (down) one stage.

The middle bar shows the trend of 2nd last measurement, by comparing with the 3rd last measurement. The left bar shows the trend of 3rd last measurement, by comparing with the 4th last measurement.

For example:



**For Models with Fever Alarm:** If the temperature registers higher than 99.5°F (37.5°C), the fever alarm (a quick beeping sound which occurs continuously for about 10 seconds) will sound when the peak temperature has registered. Also, the result will keep flashing until the thermometer is turned off.

**To change the scale from Fahrenheit (°F) to Centigrade (°C):** After turning the thermometer on, immediately press the ON/OFF button again and hold until the °F changes to a °C. After releasing the ON/OFF button the display will show an L with a flashing °F or °C. The device is now ready to record and display a temperature. Follow the same directions to switch back from Centigrade to Fahrenheit.

**NOTE:** Always disinfect the thermometer before and after each use.  
**NOTE:** In Step 2, if the room temperature is greater than 89.6°F (32.0°C), it will be displayed rather than L°F (L°C).

**NOTE:** In Step 3, you may put a sanitary plastic probe shield on the sensor tip to help prevent cross-infection and contamination. Use of the probe cover may result in a 0.2°F (0.1°C) difference from actual temperature. Dispose of any used probe shield and store the unit in a safe place.

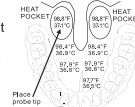
## RELIABLE METHODS TO MEASURE TEMPERATURE

**THE TAKING OF BODY TEMPERATURES:** Change in body temperature is one of the most important indicators of illness. It is important that accurate temperatures be taken. Even though the digital thermometer is used in similar manner to the glass thermometer, it is important that the simple instructions for use of this thermometer be followed closely and that the person taking the temperature understands body temperature.

**BODY TEMPERATURE:** A person's body temperature will usually be several tenths to one full degree lower in the morning than it is in the late afternoon. Therefore, if your temperature is 97.9°F (36.6°C) in the morning, it could be 98.4°F (36.9°C) or more in the late afternoon and still be normal. To determine what your normal body temperature is you should take your temperature both in the early morning and in the late afternoon over several days. Children have the same normal temperature range as do adults. A fever for both children and adults is typically defined as a temperature over 99.5°F (37.5°C) (oral reading). Exercise, excessive clothing, hot bath, hot weather, warm food and drink can cause mild elevations of up to 100.4°F to 101.1°F (38.0°C to 38.4°C) in oral temperature. If you suspect one of these to be the cause of an elevated reading, eliminate the possible cause and retake the temperature in a half hour.

### ORAL USE

Place the probe well under the patient's tongue. Instruct the patient to keep their mouth closed while the thermometer is reading. A normal temperature by this method is usually considered between 96.8°F to 99.5°F (36.0°C to 37.5°C).



### RECTAL USE

If rectal temperature is recommended by your doctor, you may use a probe shield. Insert thermometer into the probe shield. Lubricate the probe cover with a water soluble jelly for easier insertion. Do not use petroleum jelly. Insert tip of probe no more than 1/2 inch into rectum. STOP if you meet any resistance. The sensing unit is on the very tip of the probe and there is no need to insert the probe deep into the rectum. In general, the rectal temperature is around 1.0°F to 2.0°F (0.5°C to 1.0°C) higher than oral temperature.

### AXILLARY USE

Wipe armpit with a dry towel. Place probe in the patient's armpit and keep the patient's arm pressed firmly against the body. In general, the axillary temperature is around 1.0°F to 2.0°F (0.5°C to 1.0°C) lower than oral temperature. Note that in order to achieve better axillary temperature measurement result, a minimum measuring time of 3-5 minutes is recommended regardless of the beep sound.

**NOTE:** Children should be attended by an adult during the entire temperature recording process. After use, the digital thermometer should be stored in a safe place, out of reach of young children. If you compare temperatures between two thermometers, it is possible to have two different readings even if both thermometers are within their accuracy tolerances. Differences in how you take each reading and the thermometer's tolerance range can account for nearly 0.2°F (0.1°C) variability.

## CLEANING INSTRUCTIONS

To clean the thermometer, wash the tip with a solution of mild detergent and cool water. Disinfect the thermometer by wiping the sensor and lower stem with a cloth dipped in a household antiseptic solution such as rubbing alcohol.

## FCC Statement

**NOTE: POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for U.S.A. Only)**

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.

This product 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. The product 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 the product does cause harmful interference to radio or television reception, which can be determined by turning the product on and off, 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 product and the receiver.
- \* Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by 180 INNOVATIONS may void the user's authority to operate this device.

## LIMITED WARRANTY

This device (batteries excluded) is guaranteed for one year from the date of purchase against manufacturer's defect under normal use and without evidence of tampering. If the thermometer does not function properly, first check the battery (see battery replacement instructions). Replace if necessary.

### WARRANTY EXCLUSIONS:

- \* Device is not properly operated according to the instructions as described in this manual.
- \* Device shows any signs of tampering or attempted modification.
- \* Evidence of improper handling or storing, such as dropping, electric, heat, liquid or cleaner damage.
- \* Natural disasters (i.e., fire, flood, earthquake, lightning)
- \* No receipt or proof of purchase showing date of purchase.

Following the instructions closely will ensure years of dependable operation.

If the device does not function properly, please contact 180 INNOVATIONS at [info@180innovations.com](mailto:info@180innovations.com) or call 1-877-299-6700. Our representative will provide further instruction to correct the trouble or will ask you to return it along with proof of purchase for repair or replacement.

Thank you for purchasing a 180 INNOVATIONS product.

Distributed by: 180 INNOVATIONS LAKEWOOD, CO 80215

Manufactured by: K-Jump Health co., Ltd.

Made in China [www.180innovations.com](http://www.180innovations.com)

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Manufactured under U.S. Patent No. : US 6,379,039