

ARCTIC
HAYES

DIFFERENTIAL THERMOMETER

DUAL INPUT
User Manual



AHTH

Before using the instrument, please read this manual carefully, and save for future reference.

In order to use the thermometer correctly, please read the instructions carefully before use, noting any safety information. It is recommended that you keep this instruction manual safe for future reference.

Before using the thermometer inspect the case.

- **Do not** use the thermometer if it appears damaged. Look for cracks or missing plastic. Pay particular attention to the insulated wires on any thermocouple/probes used.
- **Do not** use the thermometer if it operates abnormally. When in doubt, have the thermometer serviced/checked by an approved service engineer.
- **Do not** operate the thermometer around explosive gas, vapour, or dust.
- **Do not** use the thermometer and probes on or near live apparatus.
- **Do not** place the thermometer handset near to hot objects.

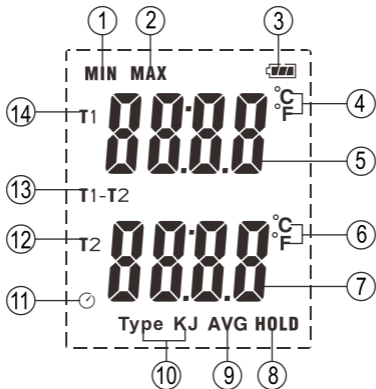
Reflective objects result in lower than actual temperature measurements. These objects pose a burn hazard.

Replace the batteries as soon as the battery indicator appears. The possibility of false readings can lead to personal injury.

When the instrument is not in use for a long time, please take out the batteries to prevent damage caused by leakage.

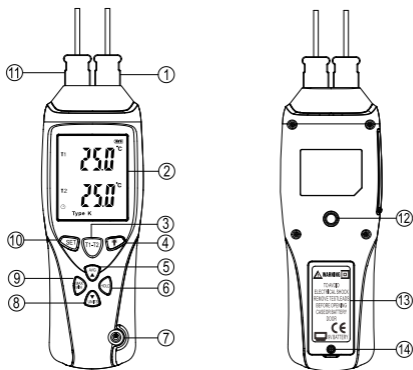
Never attempt to open the unit and perform any repairs, this will automatically void the warranty.

Physical Appearance



- | | |
|---------------------|---------------------------|
| 1. Min icon | 10. Type K/J thermocouple |
| 2. Max icon | 11. Auto power off icon |
| 3. Low battery icon | 12. T2 icon |
| 4. Temp unit icon | 13. T1-T2 icon |
| 5. T1 reading | 14. T1 icon |
| 6. Temp unit icon | |
| 7. T2 T1/T2 reading | |
| 8. Data hold icon | |
| 9. Avg icon | |

Physical Appearance



- | | |
|-------------------------------------|-------------------------------------|
| 1. T1 thermocouple input connection | 10. SET button |
| 2. LCD display | 11. T2 thermocouple input connector |
| 3. T1-T2 function button | 12. Tripod nut |
| 4. Backlight button | 13. Battery cover |
| 5. AVG button | 14. Battery cover screw |
| 6. HOLD button | |
| 7. Power ON/OFF | |
| 8. °C/ °F selection | |
| 9. MAX/MIN button | |

Specification

| General specification | | |
|-----------------------|--|--|
| Range | Type K | -200°C~1370°C(-328°F~2498°F) |
| | Type J | -200°C~1100°C(-328°F~2012°F) |
| Accuracy | Type K | -200°C~0°C(-328°F~32°F) ±(0.5% rdg +2°C / 3.6°F) |
| | | 0°C~1000°C(32°F~1832°F) ±(0.15% rdg +1°C / 1.8°F) |
| | | 1000°C~1370°C(1832°F~2498°F) ±(0.5% rdg +1°C / 1.8°F) |
| | Type J | -200°C~0°C(-328°F~32°F) ±(0.5% rdg +2°C / 3.6°F) |
| | | 0°C~1000°C(32°F~1832°F) ±(0.15% rdg +1°C / 1.8°F) |
| | | 1000°C~1100°C(1832°F~2012°F) ±(0.5% rdg +1°C / 1.8°F) |
| Resolution | 0.1°C / °F <1000, 1°C / °F >1000 | |
| AVG | The average value for latest 10 readings | |
| Power supply | 9V battery | |
| Power life | At least 30 hours | |
| Operating conditions | -20°C~60°C, 10%RH ~ 90%RH | |
| Storage conditions | -20°C~60°C, 10%RH ~ 75%RH | |
| Dimensions | 185 x 66 x 33mm | |
| Weight | 245g | |

Connect thermocouples and press Power Button to start measurement. Pressing the Power button for 3 seconds will turn the power off.

Press the Select button to choose K-type or J-type measurement.

Press the T1-T2" button once and the T1-T2 icon appears on the LCD display, the DIF value for T1-T2 will be displayed at the T2 display area. Press this button again to enter into T2 measurement mode.

Press the Backlight button to turn on/off the backlight. The meter will be automatically power off after 30 seconds inactivity.

Press the Hold button to hold the reading on the display, press it again to return to normal mode.

Press AVG button and the Average icon appears, then the LCD displays the last 10 measuring readings.

Press this button again to return to normal mode.

Press the MIN/MAX button once to view the current MAX/MIN reading, keep pressing the MIN/MAX button for 3 seconds to return to normal mode.

Press UNIT button to select °C or °F

During measuring, the tip of the temperature sensor must be fully connected to the object to be measured.

Turn off the power supply of the instrument, and remove any thermocouples that are attached. Remove the battery cover by removing the battery cover screw. Remove the old battery and replace with new battery of the same specification. Please note the polarity of the battery.

Replace the battery cover.


Calibration

To maintain the integrity of measurements, Arctic Hayes recommends that the multimeter is calibrated annually at an approved Calibration Laboratory.

Arctic Hayes can offer this service, please contact sales@arctic-hayes.com or call +44(0)113 271 5245 to arrange.

Limited warranty

1 year warranty against any manufacturing defects or faulty workmanship. This warranty does not cover fuses, disposable batteries or damage from accident, neglect, misuse, alteration, contamination or abnormal conditions of operation or handling.

 **WEEE Directive 2012/19/EU At the end of the product life, dispose of the instrument & batteries in a corresponding recycling centre. Do not dispose of the unit with the usual domestic refuse. Do not burn the product.**



Arctic Hayes Ltd
9 Millshaw Park Ave | Leeds
LS11 0LR | United Kingdom
sales@arctic-hayes.com
www.arctic-hayes.com
+44(0)113 271 5245

Arctic Hayes Ltd
Ipco B.V, Spinel 400
3316 LG Dordrecht
The Netherlands
info@arctic-hayes.eu
+44(0)113 271 5245