ThermoWorks

RayTemp 2 Plus
Infrared Thermometer

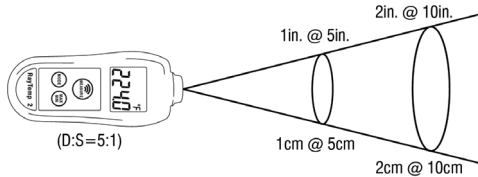**ThermoWorks**

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Operating Instructions

INSTRUMENT OPERATION - Simply aim the RayTemp 2 Plus at the target and press the MEASURE button to measure the surface temperature. When the button is released the reading is automatically held for 30 seconds and 'HOLD' will be displayed, after which the thermometer will shut down.

MEASUREMENT ZONE/TARGET DISTANCE - The measurement zone is proportional to the distance the RayTemp is away from the target. The RayTemp 2 Plus is equipped with a 5:1 lens. If the target is 5 inches away, the measurement zone will be 1 inches across.

(D:S=5:1)
1in. @ 5in.
2in. @ 10in.
1cm @ 5cm
2cm @ 10cm

MIN/MAX - The Max/Min function will display the Max and Min values of the readings previously taken. Press the MAX/MIN button once to display the maximum reading and twice to display the minimum reading. Press MAX/MIN once more to exit that mode and continue normal operation.

EMISSIVITY - The RayTemp 2 Plus is supplied with variable emissivity from 0.10 to 1.00 (default 0.95). To display the current emissivity setting, turn the instrument on by pressing the MEASURE button, then press the MODE button once. Press the MEASURE button to adjust emissivity setting. It will read SET on the display. You can now use the MODE button to decrease the value or the MAX/MIN button to increase. Holding down either of these buttons increases/decreases the value in 0.01° steps. Press the MEASURE button to save setting. When finished press MODE five times to exit the menu and return to normal operation. For information relating to the emissivity of specific materials, please visit our website *thermoworks. com/emissivity_table*.
Please note: Non-contact infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

AMBIENT - To view the ambient temperature, turn the instrument on by pressing the MEASURE button, then press the MODE button twice to display the ambient temperature. Press MODE four more times to exit the menu and return to normal operation. The ambient operating range is –4 to 122°F (–20 to 50°C).

°C/°F - To change the thermometer between °C and °F, first turn the instrument on by pressing the MEASURE button, then press the MODE button three times. The display will show 'CorF', now press the MEASURE button to change between °C and °F. Press MODE three more times to exit the menu and return to normal operation. '°C' or '°F' will be displayed in the top right corner of the LCD when in normal operation.

RESOLUTION - To select between 1° or 0.1° resolution, first turn the instrument on by pressing the MEASURE button, then press the MODE button four times to display '1°' or '0.1°'. Press the MEASURE button to change between the resolutions and then press the MODE button twice to exit the menu and return to normal operation.

SCREEN ROTATION - To select LCD rotation, first turn the instrument on by pressing the MEASURE button, then press the MODE button five times until 'Display' is shown. Use the MEASURE button to scroll through and select rotation. Press the MODE button once to exit the menu and return to normal operation.

BACKLIGHT - To toggle the backlight on or off press the MODE button while taking measurements. By default the backlight is on and will turn off 15 seconds after the last button press.

LCD ERROR MESSAGES - If the ambient temperature falls below –4°F (–20°C) or exceeds 122°F (50°C), then either 'Ambient Lo' or 'Ambient Hi' will be displayed. This will continue until the ambient temperature has returned to the operating temperature. The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature. 'Hi' or 'Lo' will be displayed when the temperature being measured is outside of the measurement range.

BATTERY REPLACEMENT - Replace the batteries when the battery icon ' ▭ ' is displayed. This meter will continue to measure accurately, but after further usage, the meter will display 'flat bat' and shutdown. Unscrew the battery cover screw on the back of the meter and replace the three AAA batteries, ensuring the polarities are correct.

INSTRUMENT CLEANING - Clean the entire probe shaft with a probe wipe after each use to prevent bacteria growth. Clean instrument body with a damp, soapy cloth and dry thoroughly. The sensor lens is the most delicate part of the thermometer and should be kept clean at all times. Care should be taken when cleaning the lens, using only a cotton swab dipped in rubbing alcohol. Allow the lens to fully dry before using it. *(NOTE: cleaning wipes and solvents containing Isopropyl Alcohol (IPA) may cause damage to the instrument enclosure and display screen, and will void the warranty)*