

INSTRUCTION MANUAL

Infrared Thermometer

SK-500016

SKYRC

INTRODUCTION

Thank you for purchasing SkyRC Infrared Thermometer. This is a non-contact infrared thermometer specifically designed for use with R/C engines, electronic speed controllers, motors, battery packs, battery chargers and etc.

Simply aim the infrared thermometer at the target and press the measurement button to quickly and easily display the surface temperature!



FEATURES

- High accuracy and high speed infrared sensor
- Four modes for temperature records: Quick Mode / Scan Mode / Max. Value / Min. Value
- Celsius and Fahrenheit scale selectable
- Testing a wide range of temperature from $-40^{\circ}\text{C}(-40^{\circ}\text{F})$ to $380^{\circ}\text{C}(716^{\circ}\text{F})$
- The infrared emissivity coefficient can be adjusted
- A large LCD can display temperature, emissivity coefficient and battery's capacity, etc., and applied with back light, which make it easy to operate and read
- Low power consumption and powered by 2 x AAA batteries (Battery Excluded)
- 1 minute auto-off timer to save battery's life

MEASURING TEMPERATURES

There are four methods to begin measuring temperatures. Point the aluminum cup located on the top end of the gauge directly at the object to be measured, and do one of the following:

1. Quick Mode

Press the "MEASURE" button once for an instantaneous temperature reading to be shown on-screen.

2. Scan Mode

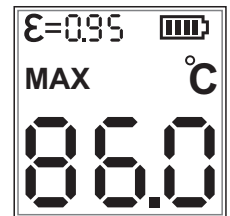
Moving the aluminum cup as close as possible to the target.

Press and hold the "MEASURE" button to read temperatures continually. The temperature onscreen will be updated continually. Release "MEASURE" button will cause the last reading to remain locked on-screen.

This thermometer can temporarily store maximum or minimum temperatures. Turn the unit on by pressing the "MEASURE" button. Then, press the "MODE" button once for the maximum function or twice for minimum. The appropriate MAX or MIN icon will display in the screen.

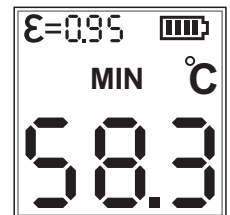
3. Maximum Temperature Mode

Point the aluminum cup to the object being measured, and press and hold the "MEASURE" button and the thermometer will display and locked the hottest or MAX temperature that is observed while the button is being held.



4. Minimum Temperature Mode

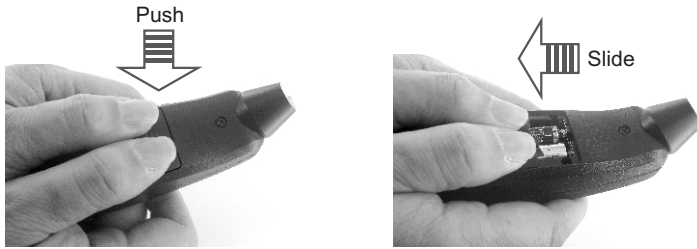
Point the aluminum cup to the object being measured, and press and hold the "MEASURE" button and the thermometer will display and locked the coolest or MIN temperature that is observed while the button is being held.



GENERAL OPERATION

1. Battery installation

This thermometer is powered by 2 x AAA batteries. (Battery Excluded)
With thumbs on battery compartment cover push down and slide.



2. Battery replacement

When the battery power indicator is low, you should change battery immediately. Low battery will affect the accuracy of measurement. Open the battery compartment and replace 2 X AAA battery.



3. Determine the appropriate measurement distance from your target.

Best measurements are made when the cup is in contact with the target, so that the infrared sensor's field of view is fully focused on the object.



4. Change display measurement units.

Turn on the device by pressing the "MEASURE" button, then simply press the "°C/°F" button, and the unit of measure shown on screen will be changed from Celsius to Fahrenheit or vice versa.

5. Change emissivity coefficient value.

The emissivity of a material (usually written ϵ) is the relative ability of its surface to emit energy by radiation. It is the ratio of energy radiated by a particular material to energy radiated by a black body at the same temperature. Different types of materials have different emissivity values.

Emissivity Coefficients of some common Materials for RC products

SURFACE MATERIAL	EMISSIVITY COEFFICIENT
Aluminum Anodized	0.77
Plastics	0.91
Rubber, hard glossy plate	0.94
Carbon pressed filled surface	0.98

In general, if you are not comfortable to change emissivity value, it is best NOT to change it. Factory default emissivity value is 0.95 which will provide accurate temperature measurements for most materials.

To change emissivity setting, first turn on the gauge on by pressing the "MEASURE" button, and hold "MODE" + "°C/°F" buttons simultaneously. The emissivity value on the screen will blinking. Push "MODE" button to increase emissivity value and push "°C/°F" button to decrease emissivity value.

SPECIFICATION

- Operation Voltage: AAA battery X 2
- Operation Current: $\leq 40\text{ma}@2.0\text{V}$
- Operation Temperature: 0-40°C
- Current Drain: $\leq 25\text{ua}@3\text{V}$
- Precision: -40°C-0°C +/-1°C 0°C-60°C +/-0.5°C 60°C-120°C +/-1°C
120°C-180°C +/-2°C 180°C-240°C +/-3°C 240°C-360°C +/-4°C
- Adjustable Range for Infrared Emission Frequency: 0.01-1
- Dimension: 121x40x39.6mm
- Weight: 75g

WARRANTY AND SERVICE

THIS WARRANTY IS ONLY VALID IN THE COUNTRY OF PURCHASE AND THROUGH FORMAL DISTRIBUTOR.

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

For any repair or replace service, please contact your dealer in the first instance, who is responsible for processing guarantee claims. This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.



Manufactured by
SKYRC TECHNOLOGY CO., LTD.
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