KKnoon TA612C

KKnoon TASI TA612C 4-Channel K/J Type Thermocouple Thermometer

User Manual

1. Introduction

The TASI TA612C is a portable digital thermometer designed for precise temperature measurement using K/J type thermocouples. This model supports four channels, allowing simultaneous measurement of multiple points. It features a VA digital color display, data hold function, MAX/MIN value tracking, extensive data storage capabilities, an alarm buzzer, and automatic shutdown for convenient and efficient operation. The TA612C also includes a USB interface for data upload and real-time measurement.

2. Package Contents

Please check the package contents upon unboxing to ensure all items are present and undamaged.

- 1 x TASI TA612C Thermometer
- 4 x K-type Thermocouple Probes
- 1 x USB Cable
- 1 x Storage Bag
- 1 x User Manual (English)

Figure 2.1: TASI TA612C Thermometer with its complete set of accessories, including K-type probes, USB cable, storage bag, and user manual.

3. Product Features

- **4-Channel Measurement:** Simultaneously monitor temperatures from up to four different locations using K/J type thermocouples.
- **Wide Temperature Range:** Measures temperatures from -200°C to 1372°C (-328°F to 2501°F).
- **VA Digital Color Display:** Provides clear and easy-to-read temperature values and operational status.
- **Data Hold Function:** Freezes the current temperature reading on the display.
- **MAX/MIN Value Tracking:** Records and displays the maximum and minimum temperatures measured during a session.
- **Extensive Data Storage:** Stores up to 5000 groups of temperature data.
- **USB Data Logger:** Allows data upload to a computer and real-time measurement monitoring via USB connection.
- **Adjustable Probe Error Compensation (ADJ):** Compensates for probe inaccuracies within a range of -9°C to 9°C.
- **High/Low Temperature Alarm:** Configurable alarm limits (default 1300°C/-200°C) with dual sound and light alerts.
- **Automatic Shutdown:** Conserves battery life by automatically turning off after a period of inactivity.

Figure 3.1: The VA color display of the TASI TA612C, offering clear visibility of temperature data and operational modes.

4. Setup

4.1 Power Supply

The TA612C thermometer can be powered by three AA/LR06 batteries (not included) or via a 5V 1A USB power source. Ensure batteries are inserted with correct polarity. For continuous operation or data transfer, connect the device using the provided USB cable.

4.2 Connecting Thermocouple Probes

The device supports K/J type thermocouples. Four K-type probes are included in the package. Connect the thermocouple probes to the corresponding input jacks (T1, T2, T3, T4) at the top of the device. Ensure a secure connection for accurate readings.

Figure 4.1: The thermometer actively measuring temperature with a K-type probe connected to an external object.

5. Operating Instructions

5.1 Power On/Off

- Press the **Power button** (⏻) to turn the device on.
- Press and hold the **Power button** for approximately 2 seconds to turn the device off.

5.2 Display Overview

The VA color display provides comprehensive information. Refer to the diagram below for key indicators:

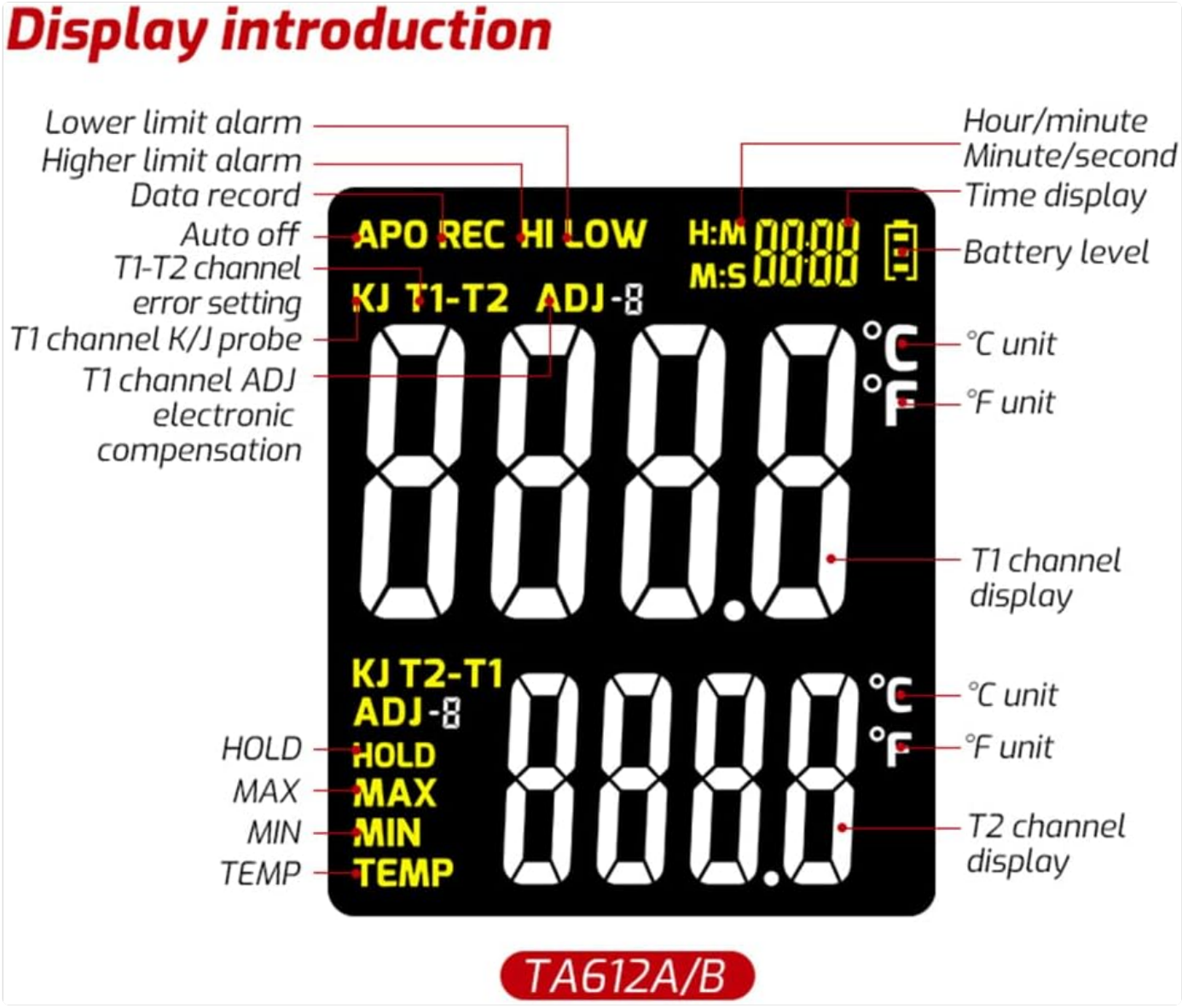

Figure 5.1: Detailed breakdown of the display elements, including temperature units, channel readings, and status indicators.

5.3 Basic Measurement

Once powered on and probes are connected, the device will automatically begin displaying temperature readings for each active channel. The sampling rate is approximately 1 time per second.

5.4 Data Hold

Press the **REC > 2s HOLD** button briefly to activate/deactivate the data hold function. The 'HOLD' indicator will appear on the display when active.

5.5 MAX/MIN Value

Press the **MAX MIN** button to cycle through current, maximum (MAX), and minimum (MIN) temperature readings. The corresponding indicator will show on the display.

5.6 Unit Switching (°C/°F)

Press the **°C**/**°F** button to switch between Celsius and Fahrenheit temperature units.

5.7 Data Storage

The TA612C can store up to 5000 groups of temperature data. To manually record data, press and hold the**REC > 2s HOLD** button for more than 2 seconds. The 'REC' indicator will flash, and the data group number will increment. The device stores the temperature values of the thermocouple channels, not ambient temperature.

Figure 5.2: The thermometer's display showing active temperature readings and the data storage capacity.

5.8 Alarm Settings

The device has default high/low alarm limits of 1300°C and -200°C. Consult the full user manual for detailed instructions on how to adjust these alarm thresholds. When an alarm condition is met, the device will provide both sound and light alerts.

5.9 Probe Error Compensation (ADJ)

The TA612C allows for probe error compensation (ADJ) within a range of -9°C to 9°C. This feature helps to fine-tune the accuracy of readings for specific probes. Refer to the detailed user manual for steps on how to access and adjust this setting.

6. Data Management (USB)

The TA612C model features a USB interface for data connectivity. Connect the thermometer to a computer using the provided USB cable. This allows for:

- **Data Upload:** Transfer stored temperature data from the device to your computer for analysis and record-keeping.
- **Real-time Measurement:** Monitor live temperature readings on your computer screen, which can be useful for long-term

logging or detailed observation.

Software for data management is typically available from the manufacturer's website, as indicated in the included user manual.

7. Maintenance

7.1 Cleaning

To clean the device, use a soft, damp cloth. Do not use abrasive cleaners, solvents, or immerse the device in water. Ensure the device is powered off and disconnected from any power source before cleaning.

7.2 Storage

When not in use, store the thermometer and its probes in the provided storage bag in a cool, dry place, away from direct sunlight and extreme temperatures. Remove batteries if the device will not be used for an extended period to prevent leakage.

7.3 Battery Replacement

When the battery indicator shows low power, replace the three AA/LR06 batteries. Ensure the device is powered off before opening the battery compartment and observe correct polarity when inserting new batteries.

8. Troubleshooting

- **Device does not power on:** Check battery installation and ensure batteries are not depleted. If using USB power, verify the cable and power source.
- **Inaccurate readings:** Ensure thermocouple probes are correctly and securely connected. Check for any visible damage to the probes. Consider using the ADJ compensation feature if a known offset exists.
- **Display is blank or flickering:** Replace batteries or connect to USB power. If the issue persists, contact customer support.
- **Data transfer issues:** Ensure the USB cable is properly connected to both the device and the computer. Verify that the correct software/drivers are installed on your computer.
- **Alarm not working:** Check alarm settings to ensure limits are correctly configured and the alarm function is enabled.

For issues not covered here, please refer to the comprehensive user manual or contact KKnoon customer support.

9. Technical Specifications

Parameter	Specification
Model	TA612C
Channel	4 Channels
Data Storage	5000 Groups
Data Upload & Real-time Measurement	Supported (USB)
Material	ABS (Acrylonitrile Butadiene Styrene), PC (Polycarbonate)
K/J Type Measurement Range	-200~1372℃ / -328~2501℉
Accuracy	±0.2% + 0.7℃
High/Low Alarm Limit (Default)	1300℃ / -200℃

Parameter	Specification
ADJ Compensation Range	-9℃ ~ 9℃
Sampling Rate	Approx. 1 time/s
Power Supply	3 x AA/LR06 Batteries (not included) or USB 5V 1A
Item Size	177 x 70 x 35 mm (6.97 x 2.76 x 1.38 inches)
Item Weight	565 g (1.25 lbs)
Display Type	Digital VA Color Display
Connectivity Technology	USB

10. Safety Information

Please read and understand all safety instructions before using this device. Failure to follow these instructions may result in electric shock, fire, or personal injury.

- Do not operate the device if it appears damaged or is not functioning properly.
- Do not attempt to repair or modify the device. Refer all servicing to qualified personnel.
- Ensure the correct type of thermocouple probes (K or J) are used and properly connected.
- Avoid exposing the device to extreme temperatures, humidity, or direct sunlight.
- Keep the device away from strong electromagnetic fields.
- Remove batteries if the device is not used for a long period to prevent battery leakage.
- Dispose of batteries and the device according to local regulations.

11. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the contact details provided in the original product packaging or visit the official KKnoon website. Keep your purchase receipt as proof of purchase for warranty claims.