

Landtek MILA37300

Landtek 4-Channel K/J/T Type Thermocouple Thermometer Data Logger (MILA37300) User Manual

Model: MILA37300

1. INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of your Landtek 4-Channel K/J/T Type Thermocouple Thermometer Data Logger. This device is designed for accurate temperature measurement across multiple channels and includes data logging capabilities for various applications.

Please read this manual thoroughly before operating the device to ensure safe and efficient use.

2. KEY FEATURES

- **Four Channels:** Simultaneous measurement with K-type, J-type, and T-type thermocouples.
- **Data Logging:** Stores up to 5000 groups of temperature data internally and supports unlimited USB data logging to PC software.
- **Wide Temperature Range:**
 - K-type: -328 to 2501°F (-200 to 1372°C)
 - J-type: -328 to 2192°F (-200 to 1200°C)
 - T-type: -328 to 752°F (-200 to 400°C)
- **ADJ Temperature Compensation:** Minimizes errors for precise readings in challenging conditions, with a compensation range of -16 to 48°F (-9 to 9°C).
- **User-Friendly Display:** HD Large LCD screen with backlight, switchable °C/°F units.
- **Alarm Functions:** Audible and visual alarms for programmable high/low temperature limits.
- **Additional Functions:** Multi-sampling rates, data hold, Max/Min/Average display, auto power-off with disable function.

3. PACKAGE CONTENTS

Upon opening the package, please verify that all items listed below are present and in good condition:

- Datalogger Thermometer Unit
- K Type Probes (4 pieces)
- USB Cable
- Protective Pouch
- User Manual



Image: The Landtek 4-Channel Thermocouple Thermometer, along with four K-type probes, a USB cable, and a protective carrying pouch.

4. SETUP

4.1. Battery Installation

1. Locate the battery compartment on the back of the device.
2. Open the battery cover by sliding it or unscrewing it, depending on the model.

3. Insert three (3) AA 1.5V batteries, ensuring correct polarity (+/-).
4. Close the battery cover securely.



Image: The rear view of the thermometer with the battery cover removed, showing the three AA battery slots.

4.2. Thermocouple Connection

1. Identify the four thermocouple input jacks at the top of the device.
2. Connect the K-type, J-type, or T-type thermocouples to the corresponding input jacks (T1, T2, T3, T4). Ensure a firm connection.
3. The device supports simultaneous measurement across all four channels.



Image: The Landtek 4-Channel Thermocouple Thermometer, with four K-type thermocouples connected, each immersed in a separate glass of water, displaying individual temperature readings.

5. OPERATION

5.1. Power On/Off

- Press the **Power button** to turn the device on.
- Press and hold the **Power button** to turn the device off.
- The device features an auto power-off function to conserve battery life. This can be disabled if continuous operation is required.

5.2. Selecting Thermocouple Type (K/J/T)

- Press the **ADJ/TYPE** button to cycle through K, J, and T thermocouple types.
- Ensure the selected type matches the connected thermocouple for accurate readings.

5.3. Temperature Unit Selection (°C/°F)

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

5.4. Data Hold Function

- Press the **REC/HOLD** button briefly to freeze the current readings on the display.
- Press it again to release the hold and resume live readings.

5.5. Max/Min/Average Readings

- Press the **MAX/MIN** button to cycle through maximum, minimum, and average temperature readings recorded since the function was activated.
- To reset the Max/Min/Average values, press and hold the **MAX/MIN** button.

5.6. ADJ Temperature Compensation

- This function allows for fine-tuning of temperature readings to compensate for probe variations or environmental factors.
- To adjust, press and hold the **ADJ/TYPE** button. Use the up/down arrow buttons to modify the compensation value.
- The compensation range is -16 to 48°F (-9 to 9°C).
- Release the button to save the setting.

5.7. Data Logging

The device supports two methods of data logging:

5.7.1. Internal Data Logging (Up to 5000 Groups)

1. To start internal data logging, press and hold the **REC/HOLD** button for 2 seconds. The "REC" icon will flash on the display.
2. To stop logging, press and hold the **REC/HOLD** button again for 2 seconds.
3. The logging interval can be configured via the device settings (refer to the full manual for advanced settings).

5.7.2. USB Data Logging to PC

1. Install the provided PC software (compatible with Windows 7, 8, 10, and 11 systems).
2. Connect the thermometer to your computer using the supplied USB cable.
3. Launch the software to view real-time data, configure logging settings, and export data in Excel or BMP formats.

SOFTWARE SYSTEM WITH UNLIMITED MEMORY LOGGING

View Real-time data sheets and data charts
using the software system



Export data in excel or
bitmap format



System compatible with Windows 7, 8, 10 and 11

Image: The Landtek thermometer connected via USB to a laptop, showing the data logging software interface with real-time temperature graphs.

Your browser does not support the video tag.

Video: A demonstration of the Landtek 4-Channel Thermocouple Thermometer's data logging capabilities and software interface.

5.8. Alarm Function

- The device features both audible and visual alarms.
- Upper and lower temperature limits can be programmed. When a measured temperature exceeds these limits, the alarm will activate.
- Default values: Upper Limit 1300°C (2372°F), Lower Limit -200°C (-328°F). These can be adjusted via settings.



FEATURES

-  4 Channels
-  Colorful LCD
-  Data Hold
-  Battery Indicator
-  °C/°F switch
-  Max/Min value
-  5000 Groups Memory
-  Sound & Light Alarm

Image: The thermometer's display showing indicators for visual and audible alarms, highlighting the alarm features.

6. MAINTENANCE

- **Cleaning:** Wipe the device clean with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use for extended periods, remove the batteries to prevent leakage. Store the device in its protective pouch in a cool, dry place.
- **Probe Care:** Handle thermocouples carefully. Avoid bending or kinking the wires sharply, as this can damage the probes and affect accuracy.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Device does not power on.	Low or dead batteries; incorrect battery installation.	Replace batteries with new ones, ensuring correct polarity.
Inaccurate temperature readings.	Incorrect thermocouple type selected; damaged thermocouple; no ADJ compensation applied.	Verify thermocouple type setting; inspect probes for damage and replace if necessary; apply ADJ compensation if needed.
Data logging to PC not working.	Software not installed or incompatible; USB cable not connected properly; driver issues.	Ensure software is correctly installed and compatible with your OS (Windows 7/8/10/11); check USB connection; reinstall drivers if necessary. Refer to the software manual for detailed instructions.
Alarm not activating.	Alarm limits not set; alarm function disabled.	Configure upper and lower alarm limits in the device settings; ensure alarm function is enabled.

8. SPECIFICATIONS

Parameter	Detail
Brand	Landtek
Model	MILA37300
Display Type	Digital LCD with Backlight
Thermocouple Types	K-type, J-type, T-type
Channels	4
K-type Range	-200 to 1372 °C (-328 to 2501 °F)
J-type Range	-200 to 1200 °C (-328 to 2192 °F)
T-type Range	-200 to 400 °C (-328 to 752 °F)
Resolution	0.1°
Main Unit Accuracy	±0.2% + 0.7°C
K-type Probe Range (Included)	-50 to 300 °C (-58 to 572 °F)
ADJ Compensation Range	-9 to 9 °C (-16 to 48 °F)
Data Logging Capacity	5000 groups (internal)
Connectivity	USB
Power Source	3 x AA 1.5V Batteries or USB Power
Response Time	0.5 seconds
Dimensions (Approx.)	17.7 cm (Length) x 7 cm (Width)

Parameter	Detail
Weight (Approx.)	189g
Outer Material	Acrylonitrile Butadiene Styrene (ABS)

SOUND AND LIGHT ALARM


Visual Alarm


Audible Alarm

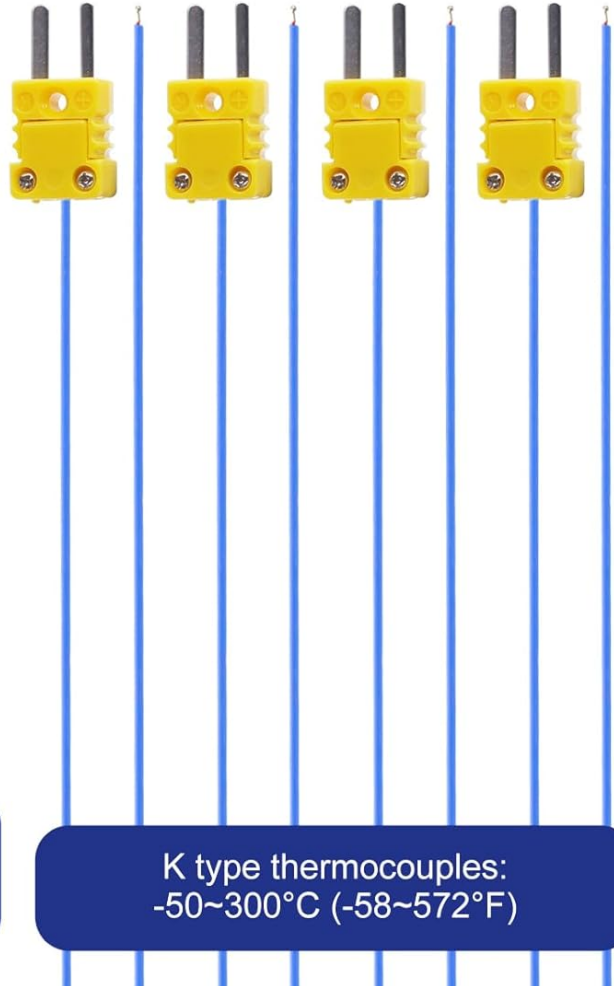
Upper Limit Alarm
Default Value:
1300°C

Lower Limit Alarm
Default Value:
-200°C



Image: The thermometer's display showing the wide temperature range capabilities for K, J, and T-type thermocouples, alongside four K-type probes.

WIDE TEMPERATURE RANGE



Main Measuring Range:
K-Type: -200~+1372°C (-328~+2501°F)
J-Type: -200~+1200°C (-328~+2192°F)
T-Type: -200~+400°C (-328~+752°F)

K type thermocouples:
-50~300°C (-58~572°F)

Image: The Landtek thermometer with its approximate dimensions (17.7cm length, 7cm width) and weight (189g) indicated.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Landtek customer service through their official website or the retailer where the product was purchased.

For software downloads and additional resources, please visit: <https://cd50.net/37/>

