

## ngnsky Matter Smart Thermostat

# ngnsky Matter Smart Thermostat for Electric Heating User Manual

Model: Matter Smart Thermostat

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your ngnsky Matter Smart Thermostat for Electric Heating. Please read this manual thoroughly before installation and use to ensure proper function and safety.

### Key Features:

- **Matter Compatibility:** Seamless integration with certified smart home platforms like Apple HomeKit and Amazon Alexa.
- **LAN Control:** Reliable operation even without internet connectivity for Matter-certified devices.
- **Energy Saving:** Programmable 7-day schedule with 6 phases per day to optimize energy consumption.
- **High Accuracy:** Precise temperature control with  $\pm 1^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ ) accuracy.
- **Modern Design:** White LED display with capacitive touch buttons, integrated into the wall for a sleek appearance.
- **Easy Installation:** Designed for straightforward DIY installation.
- **Multi-Functional:** Includes child lock, Wi-Fi auto-reconnection, clock display, backlight adjustment, and app/voice control.

## 2. SAFETY INFORMATION

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**WARNING: Electrical shock hazard. Installation must be performed by a qualified electrician or trained service personnel in accordance with all local and national electrical codes.**

- Always disconnect power at the circuit breaker before installing or servicing the thermostat.
- Ensure wiring connections are secure and comply with local electrical codes.
- Do not operate the thermostat with wet hands.

- This thermostat is designed for electric heating systems only. Do not use with other heating types.
- Keep the device away from water and high humidity environments.

### 3. PACKAGE CONTENTS

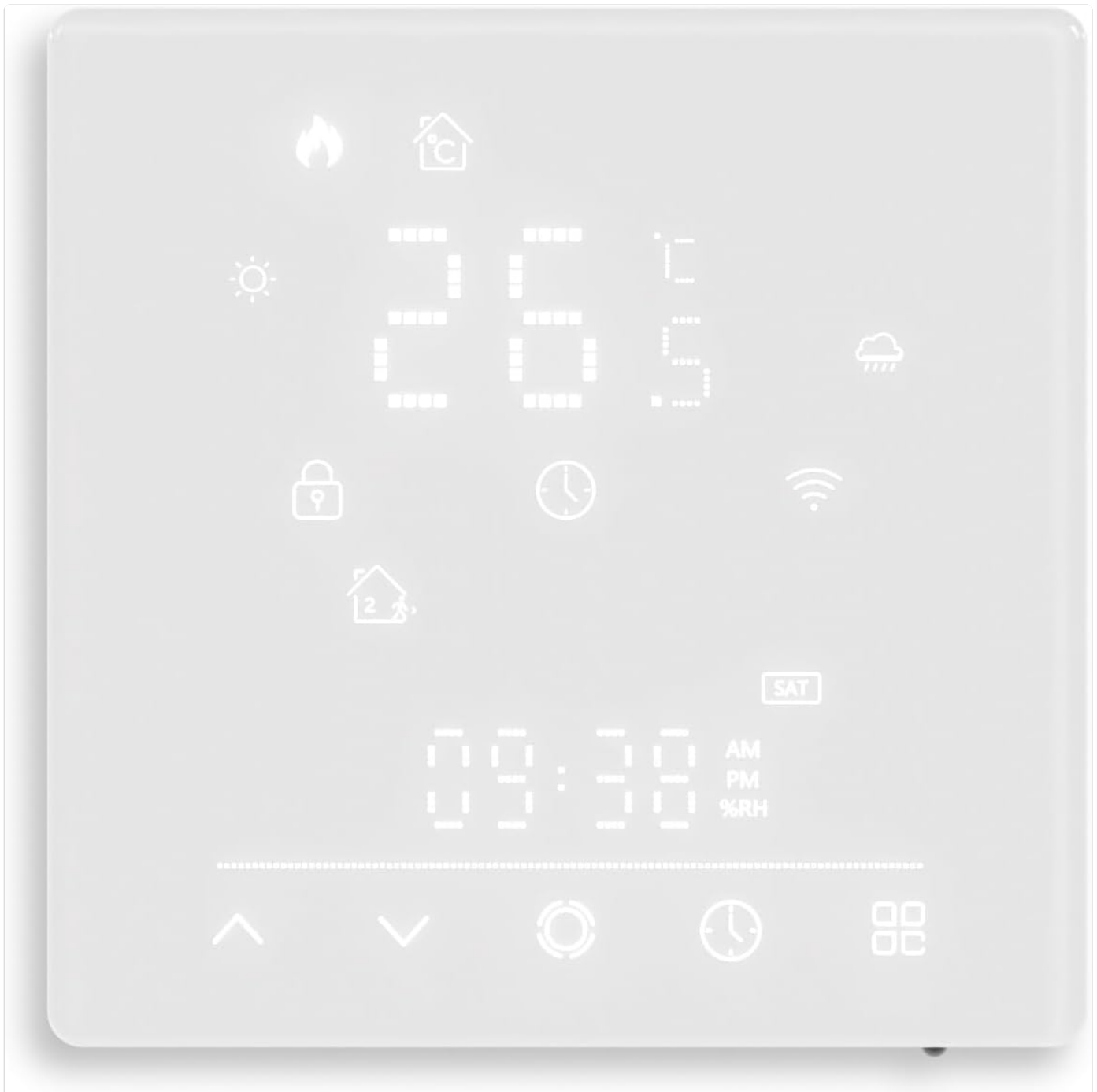
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- ngnsky Matter Smart Thermostat
- User Manual (this document)
- Mounting Screws

### 4. PRODUCT OVERVIEW

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The ngnsky Matter Smart Thermostat features a minimalist design with a clear LED display and intuitive touch controls.



**Figure 4.1:** Front view of the ngnsky Matter Smart Thermostat. The display shows the current temperature (26.5°C), time (09:38 AM), and various status icons for heating, home mode, sun (day), lock, Wi-Fi, and schedule.

## Display and Controls:

- **LED Display:** Shows current temperature, set temperature, time, and operational status.
- **Capacitive Touch Buttons:** For navigation and setting adjustments.
- **Icons:**
  - Heating Indicator
  - Home Mode
  - \* Day Mode
  - Child Lock
  - Clock/Timer
  - Wi-Fi Connectivity
  - Weekly Program
  - Play/Pause
  - ↑ Up Arrow (Increase Value)
  - ↓ Down Arrow (Decrease Value)
  - Settings/Mode

## 5. INSTALLATION AND SETUP

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This section guides you through the physical installation and initial setup of your thermostat.

### 5.1 Wiring Diagram

The thermostat is designed for 16A electric heating systems. Ensure correct wiring to prevent damage or hazards.

*(Note: A detailed wiring diagram is typically provided in the physical manual. Consult a qualified electrician if unsure.)*

### 5.2 Mounting

1. Turn off power to the heating system at the circuit breaker.
2. Remove the front panel of the thermostat to access the mounting holes.
3. Mount the backplate to a standard 86x86mm square electrical box using the provided screws.
4. Connect the electrical wires according to the wiring diagram.
5. Attach the front panel back onto the mounted backplate.
6. Restore power at the circuit breaker.

### 5.3 Initial Power-On and Wi-Fi Connection

Upon first power-on, the thermostat will enter pairing mode. Follow the instructions in the companion mobile application to connect the thermostat to your Wi-Fi network and integrate it with Matter-compatible smart home platforms.

# APP Remote Control



**Figure 5.1:** Illustration of APP Remote Control. The image shows a smartphone with the MOES app, demonstrating how to remotely control the thermostat and set temperatures from anywhere.

The thermostat supports Wi-Fi automatic reconnection, ensuring it re-establishes connection after power outages or network interruptions.

## 6. OPERATION

### 6.1 Manual Temperature Control

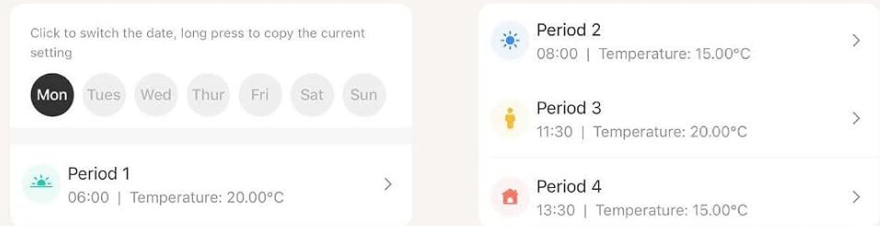
Use the ↑ (Up) and ↓ (Down) arrow buttons on the thermostat to adjust the desired temperature. The new setting will be displayed and applied immediately.

### 6.2 Weekly Programmable Function

The thermostat supports a 7-day programmable schedule with 6 distinct time periods per day. This allows for automated temperature adjustments to suit your daily routine and save energy.

# Weekly Programmable Function

5+2/6+1/7 days, the thermostat supports different temperature setting accordingly with 6 time-modes daily



Easy setup, one-time configuration, lasting convenience.



6:00	8:00	11:30	13:30	17:00	20:00
20°C	15°C	18°C	15°C	20°C	20°C

**Figure 6.1:** Weekly Programmable Function. This image illustrates how to set a 5+1+1 day weekly schedule with 6 time modes daily, showing different temperatures for various periods like morning, day, and evening.

To set the weekly program, access the programming menu via the thermostat's interface or the companion mobile application. You can customize settings for weekdays (5 days), Saturday (1 day), and Sunday (1 day) or a uniform 7-day schedule.

## 6.3 App Control

Control your thermostat remotely using the dedicated mobile application. This allows you to adjust settings, view current temperature, and manage schedules from anywhere.

# APP Remote Control

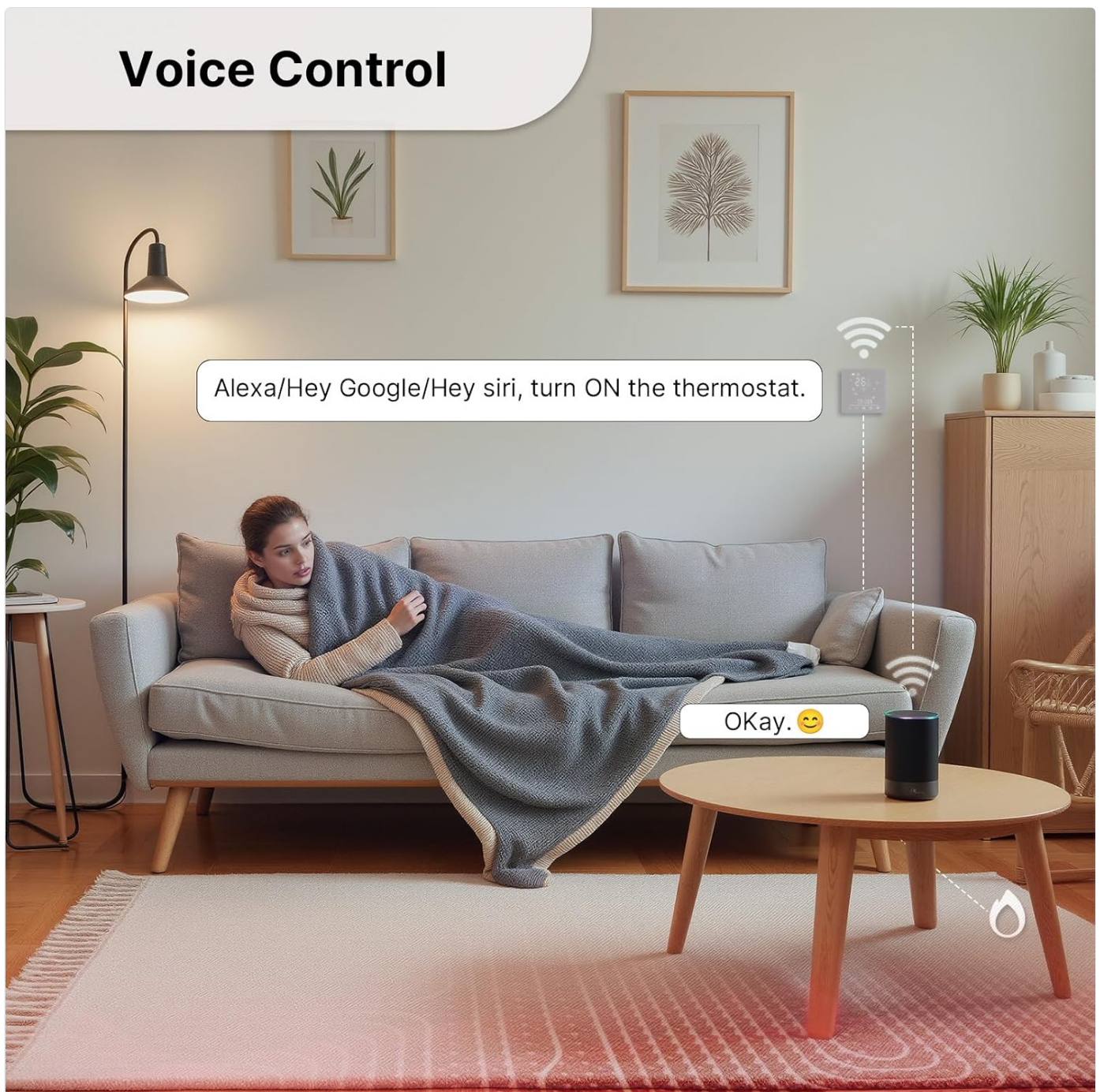


**Figure 6.2:** App Remote Control. The image shows a smartphone with the MOES app, demonstrating how to remotely control the thermostat and set temperatures from anywhere.

## 6.4 Voice Control

Integrate your thermostat with Amazon Alexa or Apple HomeKit for convenient voice control. Use simple commands to adjust the temperature or check the current status.

# Voice Control

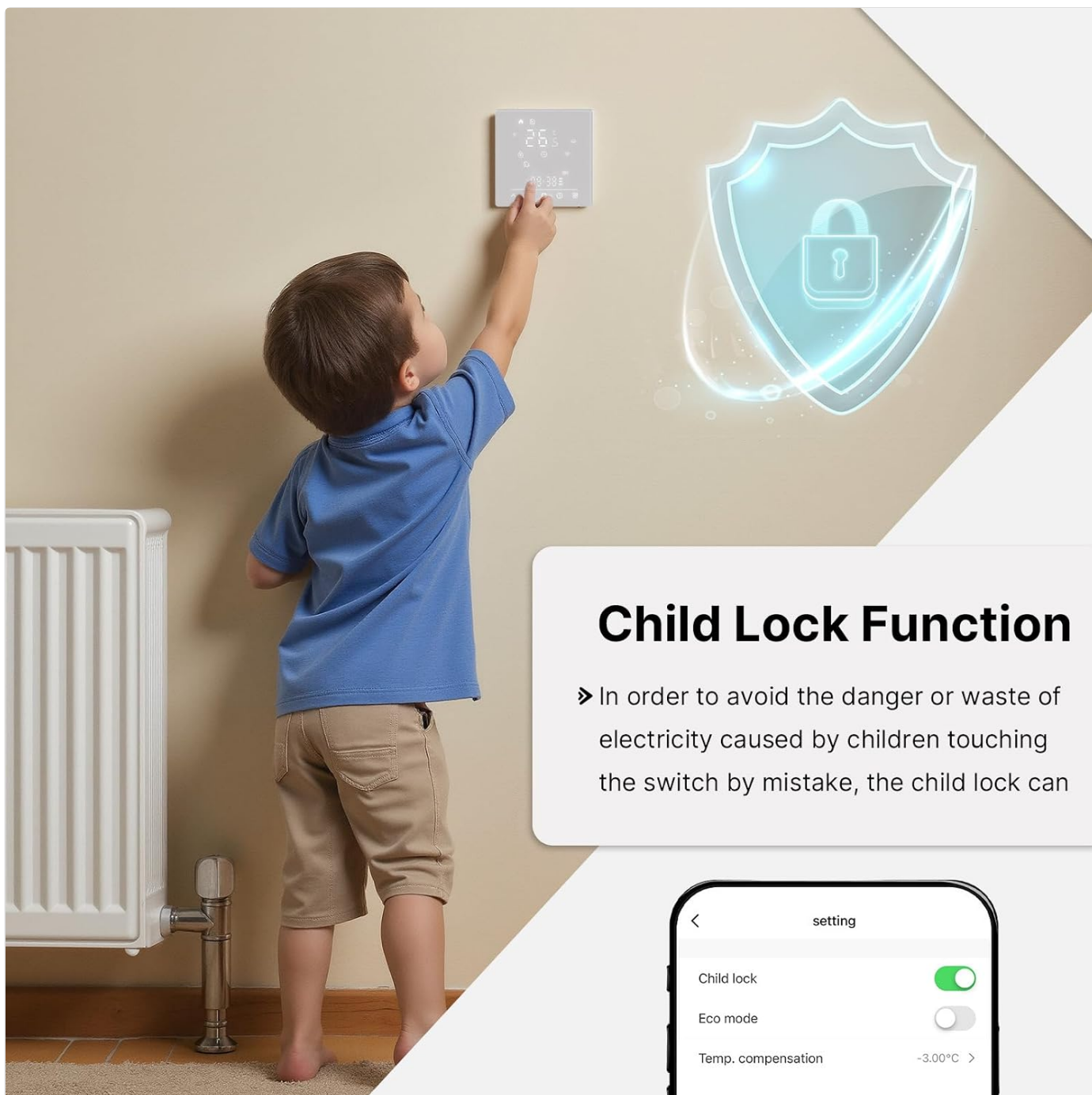


**Figure 6.3:** Voice Control in action. A user is shown controlling the thermostat using voice commands through a smart speaker, illustrating integration with Alexa, Google Assistant, and Siri.

## 7. ADVANCED FEATURES

### 7.1 Child Lock Function

Activate the child lock to prevent accidental changes to settings by children. This feature can be enabled or disabled via the thermostat's settings menu or the mobile application.



**Figure 7.1:** Child Lock Function. This image shows a child attempting to interact with the thermostat, while a digital shield icon and app screenshot highlight the child lock feature, preventing unintended adjustments.

## 7.2 Temperature Calibration

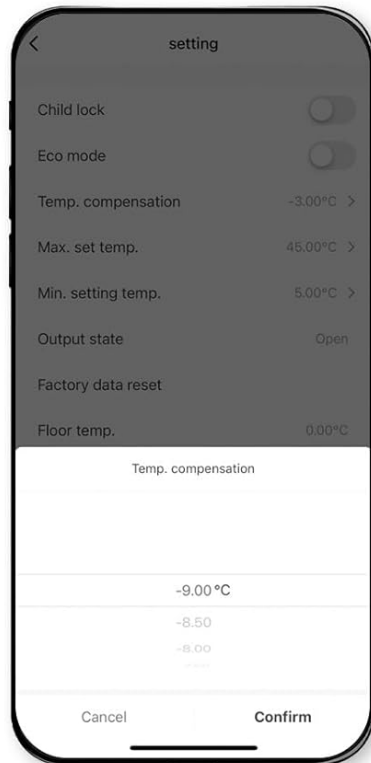
If there is a discrepancy between the thermostat's reported temperature and the actual room temperature, you can calibrate the sensor via the mobile application. This ensures the thermostat operates according to your desired comfort level.

# Temperature Calibration

In case of the temperature variation between the floor and the air, you can set the calibration value by App, to make sure the final temperature reaches your ideal value.

The range of temperature compensation

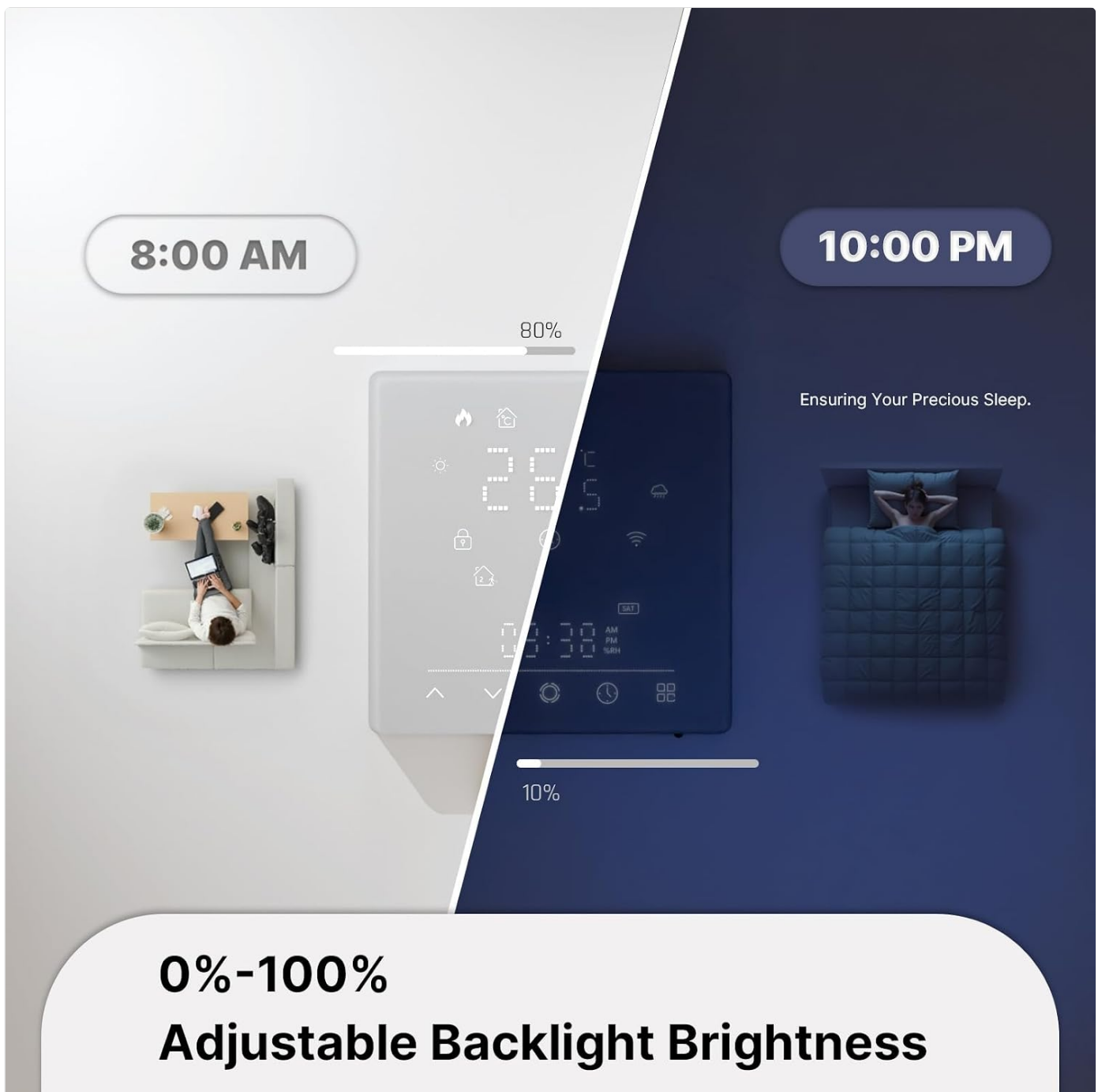
**-9°C to 9°C**



**Figure 7.2:** Temperature Calibration. The image shows the app interface for temperature compensation, allowing users to adjust the thermostat's reading within a range of -9°C to 9°C to match actual room temperature.

## 7.3 Adjustable Backlight Brightness

The thermostat's backlight brightness can be adjusted from 0% to 100% to suit your preference and environment, ensuring comfortable viewing day or night.



**Figure 7.3:** Adjustable Backlight Brightness. This image demonstrates the thermostat's backlight adjustment feature, showing the display at 80% brightness for daytime and 10% for nighttime, optimizing for visibility and comfort.

## 8. MAINTENANCE

- Clean the thermostat's screen and body with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- Ensure the thermostat is free from dust and debris to maintain optimal performance.
- No user-serviceable parts inside. Do not attempt to open or repair the device yourself.

## 9. TROUBLESHOOTING


Problem	Possible Cause	Solution
Thermostat not powering on.	No power from circuit breaker; incorrect wiring.	Check circuit breaker. Verify wiring connections. Consult an electrician.

Problem	Possible Cause	Solution
No heating.	Thermostat set too low; heating system issue; wiring problem.	Increase set temperature. Check heating system. Verify wiring.
Wi-Fi disconnected.	Router off; network issues; incorrect Wi-Fi password.	Check router and internet connection. Re-enter Wi-Fi credentials in the app.
Inaccurate temperature reading.	Sensor calibration needed; thermostat location.	Use the temperature calibration feature in the app. Ensure thermostat is not near heat sources or drafts.
Cannot control via app/voice.	No Wi-Fi connection; app not linked; incorrect voice commands.	Ensure Wi-Fi is connected. Verify app is linked to thermostat. Use correct voice commands.

## 10. SPECIFICATIONS

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Technical details for the ngnsky Matter Smart Thermostat.



The thermostat display shows a temperature of 25.5°C, a time of 09:30 AM, and the day SAT. It features various icons for home, sun, lock, clock, Wi-Fi, and a menu.

zigbee

works with  
**Tuya**

works with  
**MOES APP**

works with  
**Smart Life**


Works with  
**Apple Home**

works with  
**Google Home**


works with  
**alexa**

Works with  
**Samsung SmartThings**


1. APP Remote Control: Through MOES APP, you can remotely monitor and control home temperature anytime and anywhere.
2. Voice Control: Working with Alexa and Google Home, voice control is achieved. With just one voice command, smart thermostat valve comes into operation freeing your hands.
3. Weekly Programmable: Can set schedules according to the user's needs and habits, to adjust the room temperature at regular intervals, providing a personalized experience.
4. Energy Saving: From various humanized design to realize our concept of heating energy saving, MOES App settings to help you optimize energy usage, choose the most suitable and economical mode of heating.
5. Glass Panel Design: Different from the thermostat with acrylic panel, our matter thermostat uses a glass panel, which improves the texture and design, making the product design smoother and more exquisite.




Support  
Matter Protocol




Energy  
saving




Week  
programming




Voice  
control




Remote control




Child lock




Temperature  
calibration



Settable  
backlight



Settable  
modes



Exquisite  
Glass Panel

### SPECIFICATIONS

Model:	WHT-S02
Current Load:	5A (water heating, water/gas boiler) 16A (electric heating)
Sensor:	±1°C
Accuracy:	NTC3950, 10K
Set Temp. Range:	5-70°C
Room Temp. Range:	5-35°C
Display Temp. Range:	5 ~ 70°C
Ambient Temp.:	5 ~ 95 % RH (Non Condensing)
Ambient Humidity:	0~ 45°C
Want Storage Temp.:	-5~ 45°C
Power Consumption:	<1. 5W
Timing Error:	< 1%

**Figure 10.1:** Product Features and Specifications Overview. This image provides a summary of the thermostat's capabilities and technical data.

Feature	Detail
Model Name	Matter Smart Thermostat
Brand	ngnsky
Power Rating	95-240VAC, 3600W
Current Load	16A (Electric Heating)
Temperature Range (Set)	5~70°C (41~158°F)
Room Temperature Range	5~35°C (41~95°F)
Display Temperature Range	5~70°C (41~158°F)

Feature	Detail
Accuracy	±1°C (±1°F)
Sensor	NTC3950, 10K
Material	PC + ABS (Fireproof), Toughened Glass Surface
Screen	LED, Touch Screen
Buttons	Capacitive Touch Buttons
Storage Humidity	5 ~ 95%RH (Non-condensation)
Install Size	86x86x35mm Square
Control Mode	APP / Manual / Voice
Connectivity Technology	Wi-Fi, Matter
Certifications	CE, RoHS

## 11. WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the documentation provided with your purchase or contact ngnsky customer service through their official website or the retailer where the product was purchased.

Please have your product model number (Matter Smart Thermostat) and purchase date available when contacting support.

