



Nest Thermostat E

Pro Installation Guide - UK only



Let's go!



Welcome to the Nest Thermostat E Pro Installation Guide.

Here you will find everything you need to install Nest Thermostat E so you can help your customers live comfortably and save more energy.

[Simply tap to continue...](#)

Need any help?

Contact the Nest Pro support team on:
0808 178 0546 or pro@nest.com

Monday to Friday – 08:00-19:00
Saturday to Sunday – 09:00-17:00



Jump straight to it



Technical specs

Nest Thermostat E is smart and efficient inside and out.



Installation guide

A step-by-step guide to setting up Nest Thermostat E.



Product expertise

Learn what makes Nest Thermostat E a great product for your customers.



Better together

The benefits of using Nest Thermostat E with other Google Nest products.

Additional information

The installation video and useful links.

[Or simply tap to explore >](#)



Meet Nest Thermostat E

Nest Thermostat E is designed with proven energy-saving features*.

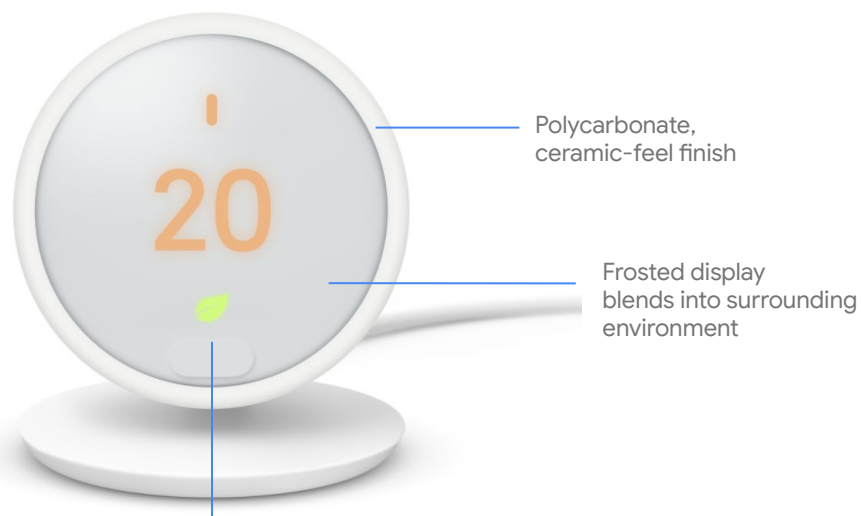
With its built-in stand, Nest Thermostat E can live on a side, table or desk.

The frosted display shows the temperature when someone is close to it and disappears when they walk away.

There's nothing to program – it's all set with a Pre-Set Schedule that's easy to adjust. And your customers can use Auto Schedule, so it learns their temperature preferences and then automatically changes the temperature each day on what it's learned.

It's easy to control. Just change the temperature with the Nest app or tell the Home Assistant to do it. With Home / Away assist, it also turns itself down when your customers leave, to avoid heating an empty home.

And as it supports heating only (no hot water control), it's easy to install.



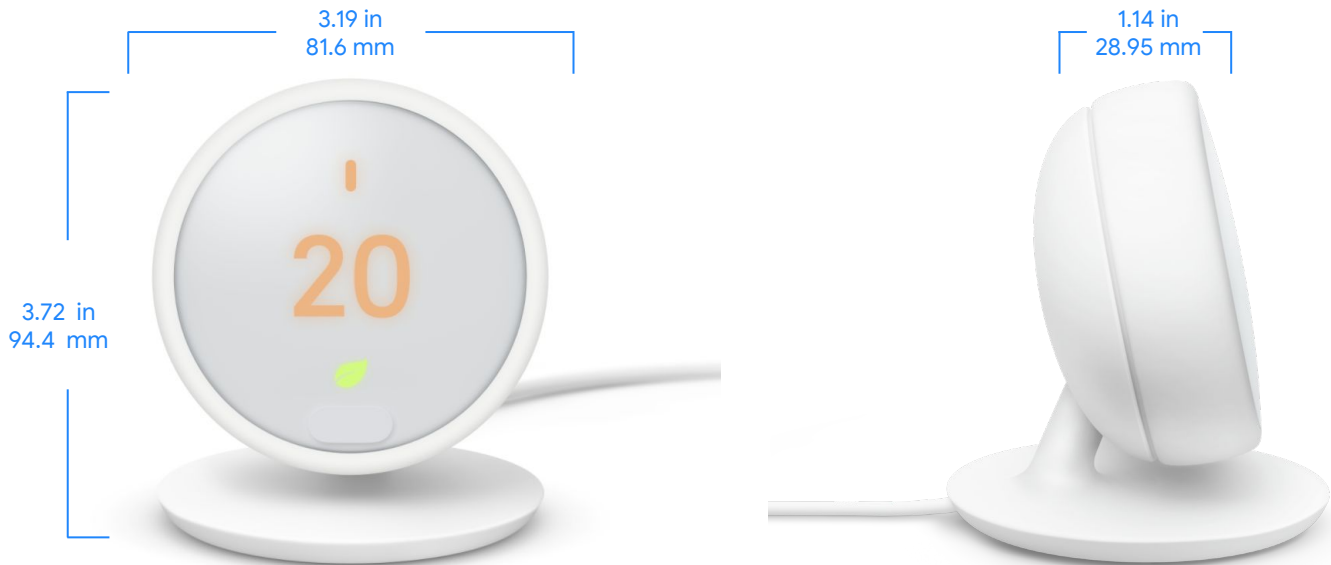
Nest Leaf will appear when the set temperature is helping save energy

What's in the box

- Nest Thermostat E (with a captive USB cable)
- Power Adaptor (captive USB cable) and plug
- Heat Link E
- Trim plate
- Terminal blocks
- Mounting screws and wire labels
- 2 x AA lithium batteries (L91)
- Quick Start Guide
- Welcome Guide



Nest Thermostat E specs



Weight

14.3 oz (408 g)

Colour

White

Display

- 24-bit colour LCD
- 320 x 320 resolution at 182 pixels per inch
- 1.7 in (4.5 cm) diameter

Sensors

- Temperature
- Humidity
- Proximity
- Occupancy
- Ambient light

Power Requirements

Mains power adaptor (included-in box)

Power Consumption

Less than 1 kWh/month

Data Consumption

- 50MB/week upload
- 50MB/week download

Wireless

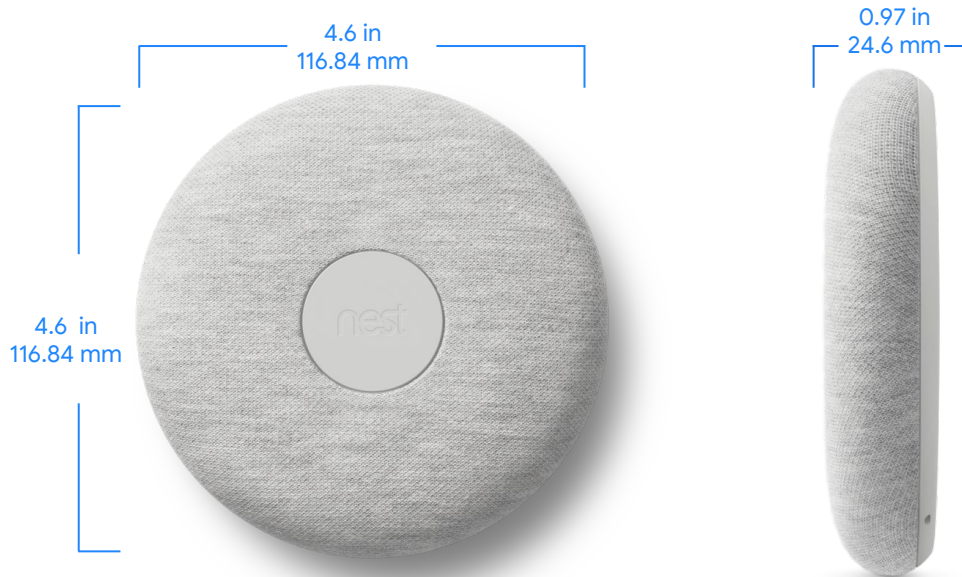
- 802.11 a/b/g/n (2.4GHz/5GHz) Wi-Fi
- 802.15.4 (2.4GHz)
- Bluetooth Low Energy

Warranty

Two-year limited warranty



Heat Link E specs



Nest Thermostat E exclusively uses a wireless Thread connection to Heat Link E.

This is because Nest Thermostat E comes with an integrated stand and isn't designed to be mounted in place of the old thermostat (as seen on the previous page.)

Instead, the Heat Link E is mounted where the old thermostat was and is connected to the existing thermostat wires.

Weight

5.2 oz (147 g)

Colour

Grey

Location

Replaces the existing thermostat

Connection to

[Nest Thermostat E](#)

Wireless

Compatibility

OpenTherm
On/Off

Power Requirements

2 x AA Lithium batteries.
Recommended:
Energizer Ultimate
Lithium AA (L91)

Hot Water Control

No

Temperature Sensor

Built-in

Status lights

2



General installation information

- Does not require access to boiler panel if customer has an existing wired thermostat / programmer.
- Does not require additional wires if customer has an existing wired thermostat/programmer. (wiring required if Heat Link E requires a new connection to the boiler).
- Thermostat is mounted on a stand and powered from a wall plug.
- Supports heating only, see compatibility below.
- Not compatible for hot water control - makes wiring simpler.

System Compatibility:

- **Works with almost all heating systems including:**
 - Combi boilers
 - Heat-only boilers
 - Heat-only heat pumps
 - Zoned systems (one Nest Thermostat E per heating zone)
 - District heating with electrical control valves
 - France only: Electric radiators controlled with fil pilote
- **Control systems:**
 - On/Off
 - OpenTherm
 - France only: Fil pilote
- **Not compatible with:**
 - Hot water control systems
 - Reversible or hybrid heat pumps
 - Electric underfloor heating
 - Electric radiant heating (except for electric radiators controlled with Fil Pilote, in France)
 - Systems that provide cooling

Heat Link E Connections:

- C: Common
- NO: Normally Open
- OT1: OpenTherm
- OT2: OpenTherm
- FP: Fil Pilote (France only)

Networking Requirements:

- Wi-Fi is required for installation, software updates and remote control with Nest app
- Wi-Fi Connection: 802.11b/g/n 2.4 GHz, 802.11a/n 5 GHz
- Wireless Interconnect: 802.15.4 2.4GHz, Bluetooth Low Energy (BLE)



Installation step-by-step

[Before you start, it is important you read these 10 steps to ensure a smooth installation.](#)

1.

We recommend that **the customer is with you during install** as you will need access to their mobile device (**must be Bluetooth - enabled**) to connect the Nest Thermostat E and the Heat Link E, their Nest app account and home WiFi. The Nest Thermostat E can only work if paired to the customer's Nest account.

Tip: Ask the customer to download the Nest app before your arrival and have their WiFi password ready.

2.

Before starting the installation, please **use the Nest app on the customer's mobile device** and follow all of the steps to pair Nest Thermostat E and Heat Link E. We recommend that you only start drilling holes in the walls once the pairing is successful and all the steps in the app are complete.

3.

Whenever pairing is performed, **Bluetooth** needs to be turned **on** on the mobile device (it should turn on automatically on Android, but it needs to be turned on manually on iOS devices). Also make sure that the mobile devices are **not** currently **using any kind of power saving features** or airplane mode.

4.

Make sure to **connect the mobile device** used for pairing **to the same WiFi that the Nest Thermostat E will be connected to**. Avoid having the phone on mobile data while pairing.

5.

Make sure that the **mobile device's OS is up to date** and that the **Nest app is running the latest version**. **Restart the app/phone** in case of pairing issues.



Installation step-by-step

6.

Any pairing issues should be addressed by following the **instructions on the Nest app and Nest Thermostat E display**. If there is an existing setup on the Thermostat E, the Nest app will guide to do a factory reset. On the display double press it, and afterwards long press until the spinning circle shows up - **only do this when the app tells you to**. Factory reset the Heat Link E when needed by pressing the button once to turn on the status light, and afterwards long press the button until the solid yellow/amber light shows up.

8.

Heat Link E location is crucial. The thermostat will test the connection. Here are some of the things that can hurt (metal stuff near it, big metal or large amounts of concrete/brick or distance between the thermostat and Heat Link E) Position the Heat Link E at least 30 cm away from boiler.

7.

If there is an assisting device that the Nest Thermostat E is trying to connect to during pairing, make sure that the **assisting device is awake and within range** (example: if Nest Protect, press its button, if Heat Link E, press it's button, if Nest Cam IQ, bring it closer etc). If pairing fails, restart the assisting device, and the new device that you are trying to add.

9.

Avoid any other **sources of interference in the vicinity** of the Nest devices: wireless interference: microwave, wireless keyboard / mouse, wireless speakers, baby monitors, game console controller, smart watch etc.

10.

Nest Thermostat E and the Heat Link E can only communicate wirelessly, so you need to consider the distance between the two devices and possible sources of interference, as described above.



Installation step-by-step

This is your comprehensive guide to setting up and installing Nest Thermostat E.

Please make sure you have read the previous 10 steps before following the below guide.

Prefer watching videos? Take a look at our [Nest Thermostat E installation video](#).

Step 1: Confirm system compatibility

Before opening the Nest Thermostat E packaging, confirm that the system can accept On/Off or OpenTherm thermostat (or Fil Pilote in France). Use the Compatibility Checker to show you exactly where to connect each wire, click [here](#).

Step 2: Briefly test the heating system

Test the heating system fully with the current controls before installing the Nest Thermostat E so that you can address any existing issues. At times, outdoor weather conditions may prohibit testing. In those cases, inform the customer that you cannot test, and ask the customer about the system's operation.

Step 3: Help your customer set up on the Nest app ready for pairing of the Nest Thermostat E

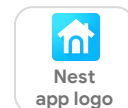
Ask the customer if they have a Nest account.

If they do:

- Make sure that the mobile device's OS is up to date and that the app is running the latest version. Restart the app/phone in case of pairing issues
- Proceed to the next step to add the Thermostat E and Heat Link E to their account.

If they don't:

- Download the 'Nest app' from Google Play or the Apple App Store.
- Open the app and click 'Sign in with Google.' Click on the Google account or create a free account (you will see a button to sign up for an account in the Nest app.) Ask your customer to enter their email address and create a password.
- Create the customer's Nest app profile - Postcode, Location (geo-location service) etc.



Important note as on page 8:

The customer's mobile device **must** be Bluetooth-enabled to link to the Nest Thermostat E. Bluetooth should turn on automatically on Android, but needs to be turned on manually on iOS devices. Also make sure that the mobile device is not currently using any kind of power saving features or airplane mode.



Step 4: Initial set-up of the Nest Thermostat E to your customer's Nest account

- Connect the Thermostat E and Heat Link E **to the customer's account.**
- Tap **“Add product”** on the Nest App home screen and follow the instructions.
 - > If they already have products ‘click Settings’ and ‘Add product’
- The app will ask you to **scan the code / enter the entry key** that you'll find under the base of the Nest Thermostat E.
- Follow the instructions in the Nest App to set up the Thermostat E and configure the following:
 - Configure WiFi (done through Bluetooth)
 - Setting language
 - Configuring & pairing to Heat Link E. Make sure the Nest Thermostat E and Heat Link E are in the same room for set up
 - On the Heat Link E, tap the button and you should see a blue light. If it's green, it has been configured (it needs to reset to factory defaults by long pressing the button until a solid amber/orange light appears). The green waves mean it is in manual mode, no thermostatic control, it's for emergency and testing purposes (press the button once to show the status light, and press again for manual mode).
 - Scan and take a photo.
 - > The Nest Thermostat E will now pair with the Heat Link E
 - Configure control type
 - Adding room labels
 - Configure heating system type (On/Off or Open Therm)
 - Configuring set back temperatures
 - Adding to customers account

Step 5: Once the Nest Thermostat E is connected to the internet, allow time for it to update

If there's a necessary software update, the Nest Thermostat E will start downloading it as soon as it connects to the internet. The update will take several minutes, depending on the speed of the internet connection, so take advantage of this time to explain the benefits of the Nest Thermostat E to the customer (slide 17.)



Now you need to install the Heat Link E to the customers heating system.

Step 6: Turn off power to the system

- Turn off the power to the system and protect yourself and the equipment.
- Locate the fuse board and turn off all heating system circuits.
- If you cannot determine which circuits belong to the heating system, turn off the main circuit after obtaining permission from your customer.
- Confirm the power is off and that the system is safe to work on.

Step 7a: Remove the old thermostat

- Before removing the old thermostat, take a picture of the wiring. It may be a valuable reference.
- Identify and disconnect the wiring before removing the old thermostat. Use the wire labels included in the Nest Thermostat E Guide if needed. Be sure to leave the original thermostat with the customer.

Step 7b: Offer your customers installation finishing options

- You may need to cover up holes, old paint or marks left by the old thermostat.
- Ask your customer if they prefer to repair the wall themselves.

Step 8: Install the Heat Link E

Replacing an existing room thermostat with the Nest Thermostat E and Heat Link E is a simple like for like replacement. There's no need to change the existing wiring, please see the wiring examples in this guide.

Step 9: Restore power to the system

Turn on all circuits that you turned off in step 6 above.

Step 10: Test heating

This is vital to any installation in order to prevent a callback. After setting up the Nest Thermostat E, run the system for a few minutes.

Step 11: Once installed, add your Nest Pro ID on the customer's Nest account

After pairing the Nest Thermostat E to the customer's Nest account, add your Nest Pro ID in the Pro section of the thermostat settings. This will download your company contact information in the thermostat and into the customer's account in the Nest app.

- Press the Thermostat E's ring to access the quick menu
- Select 'Settings'
- Select 'NEST PRO'
- Enter your Pro ID e.g. 12A-3BC



Wiring Diagrams

Nest Thermostat E Connections

Connections:	
C	Common Wire
NO	Normally Open/Call for Heat
FP	Fil Pilote (Normally Closed)
OT1	OpenTherm 1
OT2	OpenTherm 2

On/Off Relay:	
Max Load	2(1) amp
Voltage Input	0-240v

Energy Performance Standards

ErP Class
IV

+2%

when connected through
On/Off

ErP Class
VI

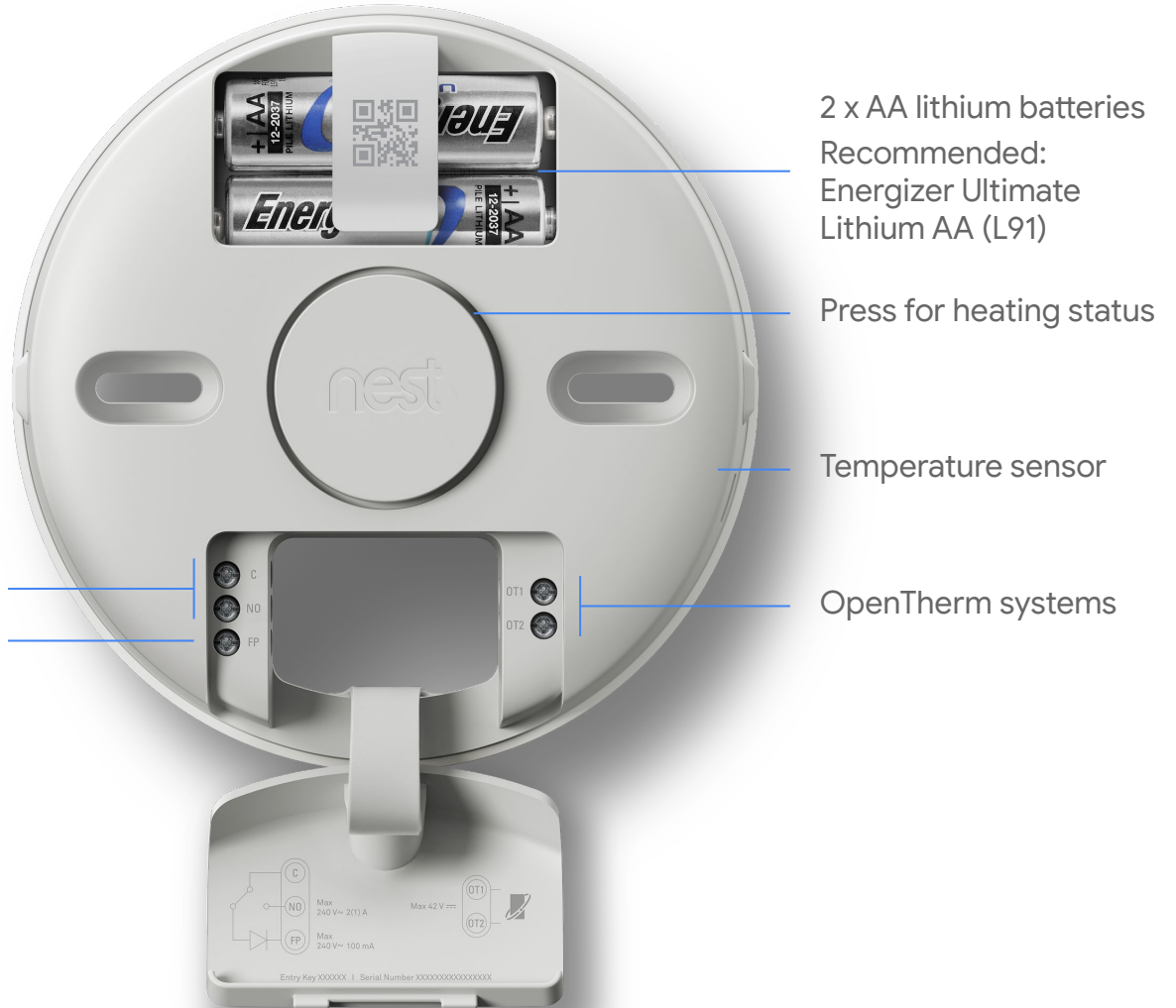
+4%

when connected through
Open Therm



Wiring Diagrams

Inside the Heat Link E





Wiring Diagrams

Open Therm

Label:	Function:
OT1	OpenTherm
OT2	OpenTherm



On/Off

Label:	Function:
C	Common wire
NO	Normally Open/Call for Heat





Troubleshooting tips

Having an issue? Please make sure you have read pages 8 and 9.
Also, here is common issue that may arise during Nest Thermostat E installation.

H151 error

An H151 error message on your thermostat says 'Nest can't connect to the Heat Link E and can't control your heat'. In addition, the Heat Link E's status light will be yellow when it's disconnected from your thermostat. Find out more [here](#).

Restart the Heat Link E

Press once and afterwards hold down the Heat Link E's Nest button until it's light turns off. It should take about eight seconds.

Release the button and wait for your Heat Link E to restart

The status light will pulse blue then turn green when it reconnects to your thermostat. If the status light is yellow, continue to step 2.

Move your thermostat and test the connection

Your thermostat may be too far away from the Heat Link E or there may be something interfering with the wireless Thread connection.

Try moving your thermostat a bit closer to where your Heat Link E is installed.

Check that there isn't anything between your Heat Link E and thermostat like a large mirror, or refrigerator. Large objects made of metal or other dense materials can block wireless signals.

Check the wireless connection:

On your thermostat go to Settings, Equipment. Then select Continue Heat Link Test.

If the test fails, move your thermostat again and re-test. Sometimes moving your thermostat a few centimetres can make a big difference.

Reset the Heat Link E to defaults

Try resetting the Heat Link E and then reconnecting it to your thermostat. Factory reset the Heat Link E by pressing the button once to turn on the status light, and afterwards long press the button until the solid yellow/amber light shows up.

In some cases, you may need to enter the Heat Link E's pairing code into your Nest thermostat. Pull off the Heat Link E's cover. Remove the wire cover's screw. You'll find the code on the back of the wire cover. It's a combination of six letters and numbers.

Stop wireless interference from other electronics



Nest Thermostat E expertise

Learn the basics

The **small number** is the current temperature in the home.

The **large number** is the “target temperature” that thermostat is set to.

You may also see a message like “**less than ten minutes**” that estimates the time it will take the home to reach the **target temperature** that is set on the thermostat.

The thermostat screen will **turn off** if there hasn't been any activity nearby. Just walk up to it and the screen will turn on.

To **change the temperature**, simply turn the thermostat's ring right or left.

The temperature you set will stay in effect until your thermostat has a scheduled temperature to meet. See Use schedules to learn how to do it.

Can help save energy

Nest Thermostat E comes with proven-energy saving features. Here are some steps you can tell your customers that can help reduce their energy use.

Look for the Nest Leaf

The Leaf will appear on the thermostat when the set temperature is helping save energy.

Use Eco Temperatures

The thermostat can automatically switch to energy-saving Eco Temperatures after everyone has left home. But if your customer wants to save energy even when they're home, they can manually set the temperature to Eco Temperatures whenever they like.

Change the settings

When the thermostat is showing the temperatures, press the screen to open the **Quick View** menu. Turn the thermostat ring left or right to the option you want, then press again to select it.

Here's what each option means:



Heat sets the thermostat to heating mode. It will turn on the heater to warm up your customer's home.



Off turns your thermostat off. It won't turn on heating unless it gets extremely cold in the home.



Eco Temperatures sets the thermostat to Eco to help save energy.



Back returns to the thermostat's temperature screen.



Settings lets you change the temperature schedule, Wi-Fi, network, and more.

Use Schedules

Two temperature schedule options are available which can be changed on the thermostat or Nest app.

Auto-Schedule

The thermostat learns your customer's **temperature preferences** so they don't have to program it. Simply set the thermostat to a comfortable temperature whenever they want. In a few days, it will learn a temperature schedule and then **automatically** change the temperature each day on what it's learned.

To get your customers saving energy right away, the Nest Thermostat E comes with a **Pre-set Schedule** - pre-programmed based on a national average efficient schedule that balances energy and comfort.

How to change schedule

Your customers can either:

Adjust on the Nest app.

Or, on the Nest Thermostat E itself. Press the thermostat's ring and choose **Settings**, then select **Schedule**.

Turn the ring and **press** to pick a time to **add** a new temperature or select an existing one to change it or delete it.

For a complete guide on how to get started with the Nest Thermostat E, go to: nest.com/thermostatbasics



Meet the rest of the family. Better together.

Powered by the Google Assistant, Google Nest products come together to build the helpful home for everyone.

How does it work together?

Ask the Google Assistant



Google Wifi, Nest Hub Max, Nest Hub, Home Mini and Nest Mini help make it easier to control your Nest thermostat.

- Change temperature with your voice.
- Enabled with the Google Assistant.



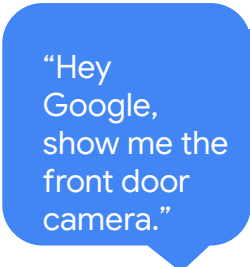
In an emergency, **Nest Protect** and Nest thermostats can work together to stop bad situations from getting worse.

- The number one contributing factor to a CO event is the heating systems aiding in the spread of danger. Nest Protect will disable these systems when detected.



With **Nest cameras** you can check if anyone is in the house and adjust Nest thermostats accordingly.

- See the weather outside or just keep an eye on your garden on your Nest Hub Max and Nest IQ Outdoor camera.



Here are other handy Google Nest products that help create the helpful home.

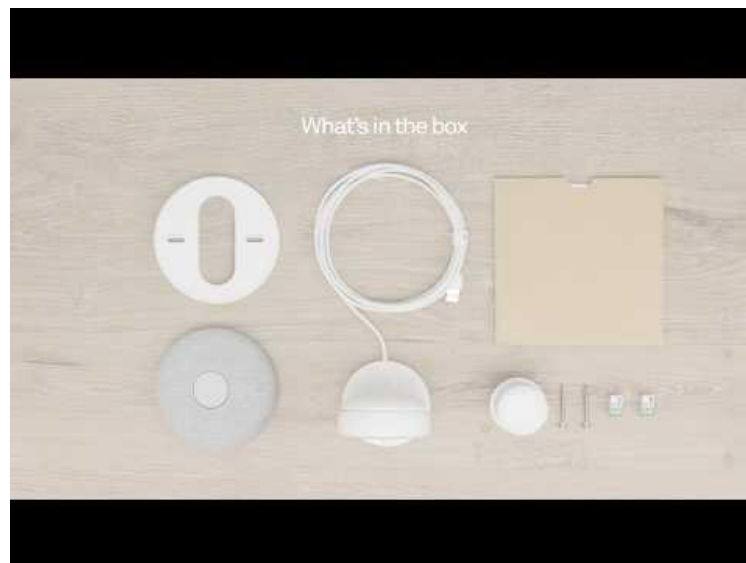


Nest Hello video doorbell



Additional resources

Prefer watching videos? Take a look at our [Nest Thermostat E installation video](#).



[< Head back to the step-by-step guide](#)



Additional resources



Here are some useful Nest Thermostat E links if you need more information:

- Google Store: g.co/dest/thermostat-e
- Google Support: g.co/dest/thermostat-guides
- Heat Link E Google support: g.co/dest/heat-link



Additional resources

For a complete overview of all Google products, visit the Google Store: g.co/store
Help online: g.co/nest/support or at: g.co/nest/pro-uk

Want to know more about:

Home Assistant:

Nest Hub Max? Go to:

g.co/hubmax/explore

Nest Mini? Go to:

g.co/mini/explore

Meet the rest of the family:

Nest Learning Thermostat? Go to:

g.co/nest/thermostat

Nest Wifi? Go to:

g.co/nestwifi/explore

Nest Hello? Go to:

g.co/nest/hello

Nest Protect? Go to:

g.co/nest/protect

Nest cameras? Go to:

g.co/nest/cameras

