Netatmo

Energy

Smart Thermostat and Smart
Radiator Valves user manual

Netatmo

Same home, just smarter

Thank you for choosing Netatmo!

Welcome to the interactive user manual for the Energy range products.

This guide will allow you to discover all the features in order to quickly master your products and our applications.

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Please note the Netatmo applications are constantly evolving. Therefore, the appearance or placement of some features described here may change in order to improve the ergonomics and user experience.

If you have not yet installed your products, here are direct links to our installation support pages:

Installation guide for the Smart Thermostat

Installation guide for the district heating Starter Pack

Installation guide for the Additional Smart Radiator Valve

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Preamble

This manual consists of 3 parts. To go straight to the one that interests you, click on the corresponding logo:

The Smart Thermostat

The Smart Radiator Valve

Features common to all Energy products

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Part one:
The Smart Thermostat

Contents

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1 – Presentation

The Thermostat

« + » button area

e-paper screen

« - » button area

Contact pin (for wired mode)
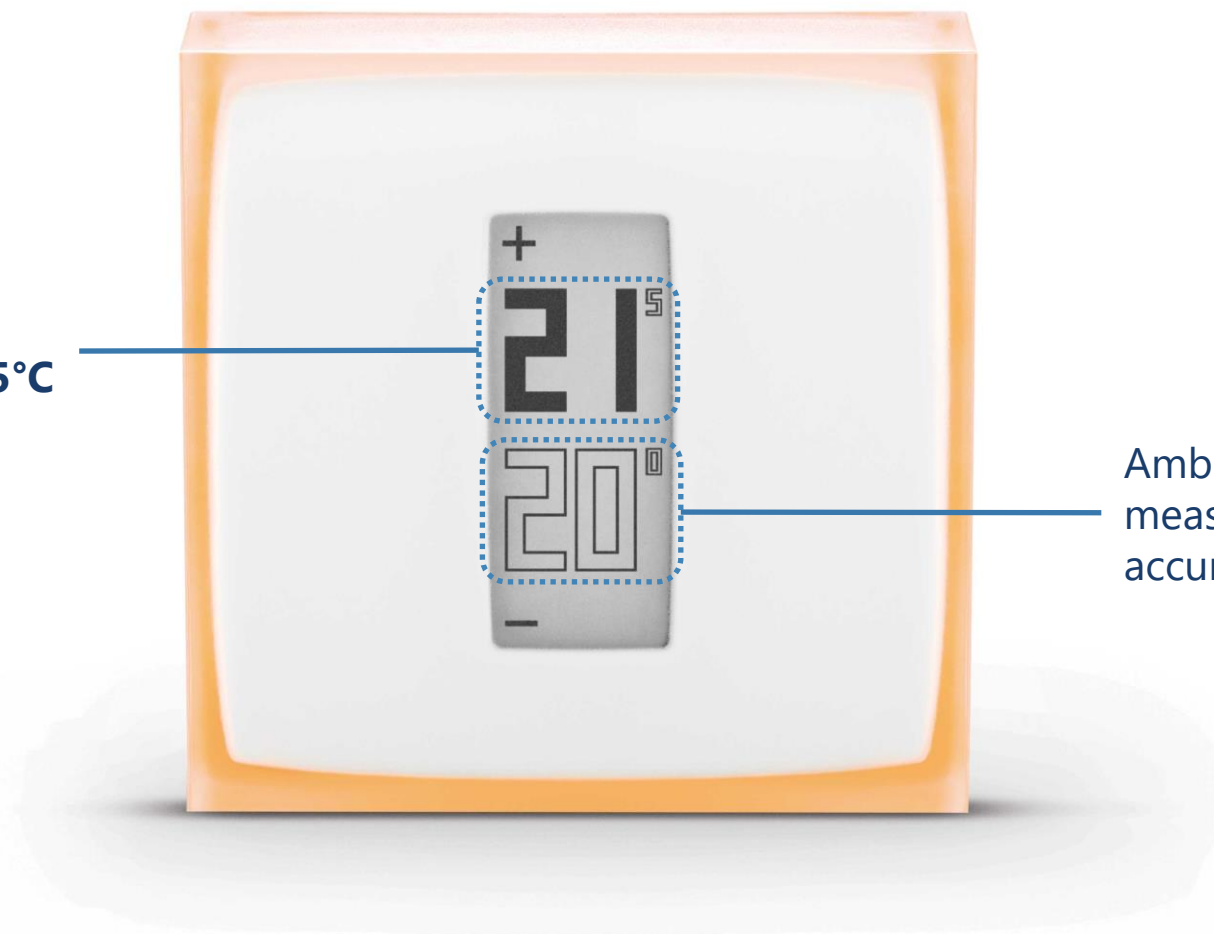
Serial number

Batteries compartment: (3 x AAA, alkaline type)

Video guide to access the batteries

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Setpoint temperature, adjustable by steps of **0.5°C**

Ambient temperature measured with an accuracy of **0.1°C**

The temperature sensor is located in the Thermostat, not in the Relay.

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Buttons

The Thermostat buttons are not touch sensitive but mechanical.
Enough pressure must be exerted on the front panel until you feel a slight "click" to change the set temperature.

Screen

The Thermostat screen uses "**e-paper**" technology. It is a technology that works with ambient light to display information in the same way as conventional paper. This allows it to display text and images indefinitely without the need for energy-consuming backlighting. Consequently, the screen consumes energy only when the display is changed.
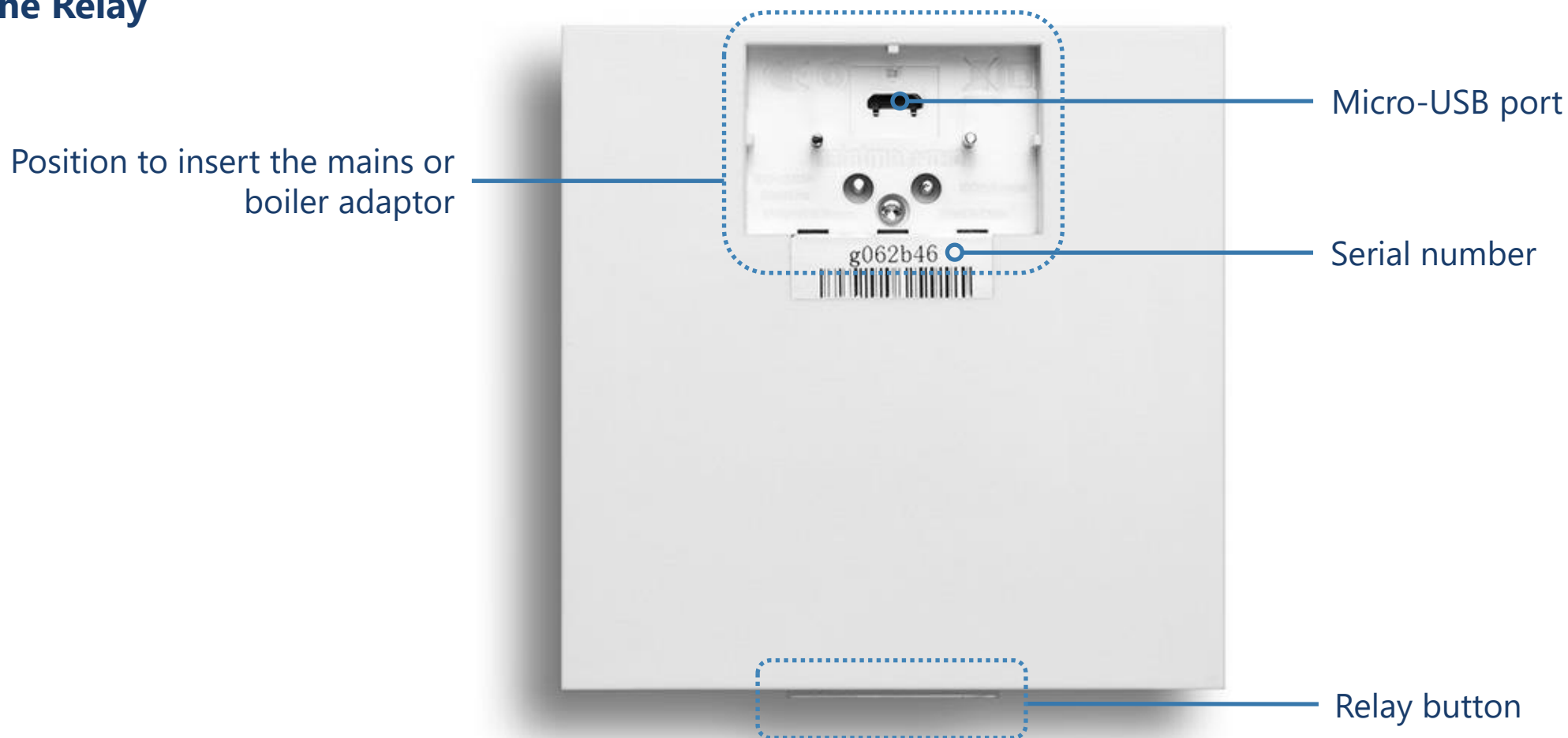
Two observations can therefore be made:

• When the batteries are removed, the screen does not go blank: **the last displayed information remains**.

• At regular intervals and following a change of setpoint, the screen **flashes for a few seconds** to refresh the display to erase the pixels which may have remained in an intermediate state (afterglow).

This screen's characteristics give the Thermostat an excellent battery lifespan of **2 years**.

Note : Thanks to an accelerometer, the orientation of the display automatically adapts to the Thermostat's position.

The Relay

Position to insert the mains or boiler adaptor

Micro-USB port

g062b46
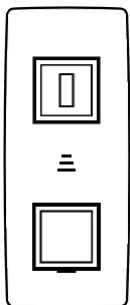
Serial number

Relay button

PLEASE NOTE: the USB port must only be used to connect the Relay to the Wi-Fi network from a computer, and not to power the Relay for normal use.

The Relay is designed to hold firmly to its adaptor.
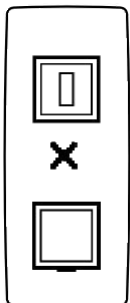If necessary, here is how to separate the Relay from its adaptor.

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2 – Logos

Thermostat start-up

Searching for the Relay

Relay not detected (out of range or not paired)

Thermostat started

Normal display of temperatures

Flame logo: the Thermostat switches the heating on

Low batteries (less than one month of battery life remaining)

Exclamation mark: Relay not detected (loss of radio synchronization between Thermostat and Relay)

Radiator logo: a Valve located in a different room than the Thermostat requires heating
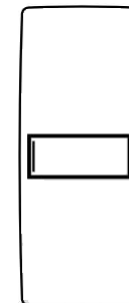
Out of battery: the Thermostat switches the heating off before shutting down

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3 – How it works

The Thermostat is fitted with a dry contact switching relay (on/off) which allows it to control the heating by switching it on and off. It works in the same way as an interrupter that opens and closes an electrical circuit (like for controlling a light).

The Thermostat is able to cleverly regulate the heating requests by changing state (on/off) more or less frequently and for a longer or shorter time depending on the requirements. Its intelligence lies in its ability to anticipate heating needs by taking into account thermal inertia, the home's insulation and outdoor temperatures.

It is possible to install the Thermostat in wired or wireless mode, as desired *(see next page)*.

Notes:

• The Thermostat is not able to command the heating to turn on at intermediate power (30%, 50%, etc.) but only 0 or 100% (ON or OFF).

• **Polarity**: the operating mode can be reversed if the heating reacts in the opposite way (for example, if the heating switches off when the Thermostat is on MAX and switches on when it is in the OFF position). The Thermostat's polarity must then be reversed.
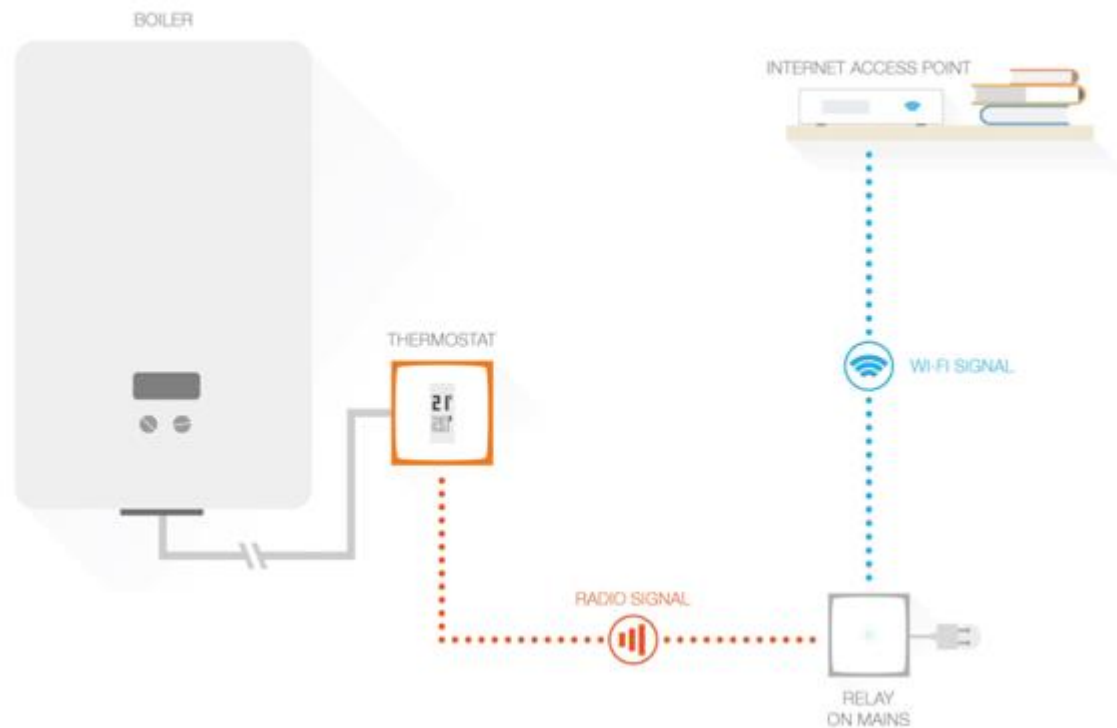**To reverse the polarity, the Wi-Fi setup must be initially completed.** Then go to the Thermostat's Advanced settings menu in the Energy application: *Manage my home > [room where the Thermostat is] >[name of the Thermostat] > Settings > Polarity*

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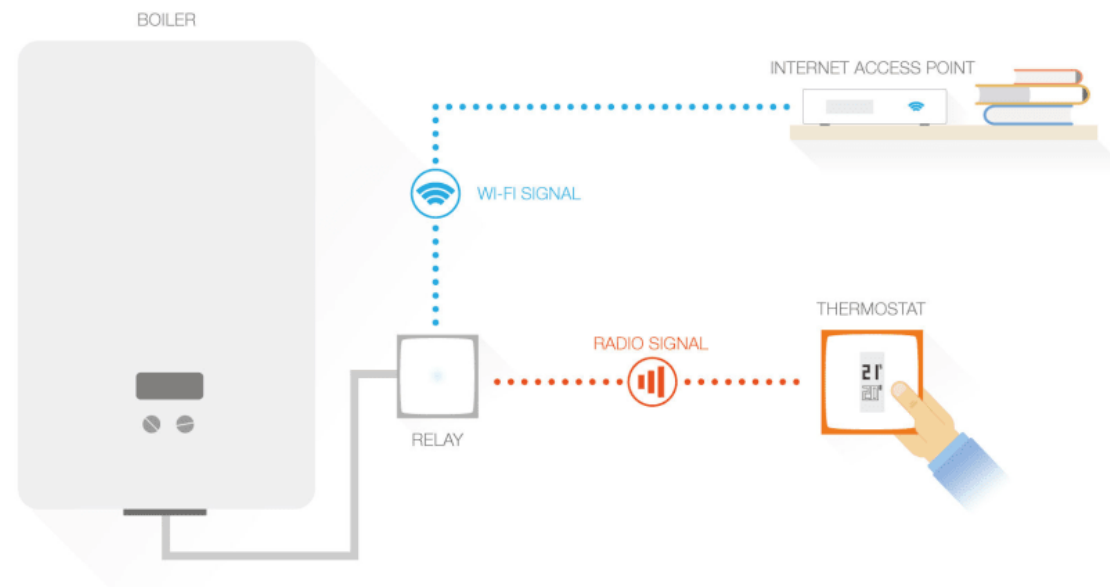# 4 – Communication between the modules

The same switching relay is fitted in the Relay and in the Thermostat, which makes it possible to install the Thermostat in either wired or wireless mode.

Wired Thermostat

BOILER

THERMOSTAT

INTERNET ACCESS POINT

WI-FI SIGNAL

RADIO SIGNAL

RELAY ON MAINS

Wireless Thermostat

BOILER

WI-FI SIGNAL

INTERNET ACCESS POINT

RADIO SIGNAL

THERMOSTAT

RELAY

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5 – Heating algorithms

The algorithm is the intelligence of the Thermostat that allows it to make decisions and turn on the heating at the best time to maintain a given setpoint, depending on:
- the heating history,
- the ambient temperature measured,
- the desired set temperature.

The choice between the 2 heating algorithms of the Thermostat, Hysteresis or Advanced (PID), is made in the settings of the Netatmo Energy application: *Settings > Manage my home > [Room of the Thermostat] > [Name of the Thermostat] > Settings.*

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Hysteresis algorithm

This is the Thermostat's default algorithm.
With this algorithm, when the difference between the setpoint and room temperatures is within a given sensitivity threshold, the Thermostat assumes the setpoint temperature has been reached.
You can adjust the Hysteresis algorithm sensitivity threshold in the Thermostat's advanced settings. If you use smaller thresholds (0.1°C), the Thermostat will be more responsive to room and setpoint temperature changes. With larger thresholds, the Thermostat will be more tolerant to variations in these temperatures and will switch the heating on and off less often.

Example: For a setpoint temperature of 19.0°C and a threshold of 0.3°C, the Thermostat will switch the heating on when the measured room temperature is 18.7°C and will switch it off at 19.3°C.
The threshold can be adjusted in the Energy application settings, between 0.1°C and 2.0°C.
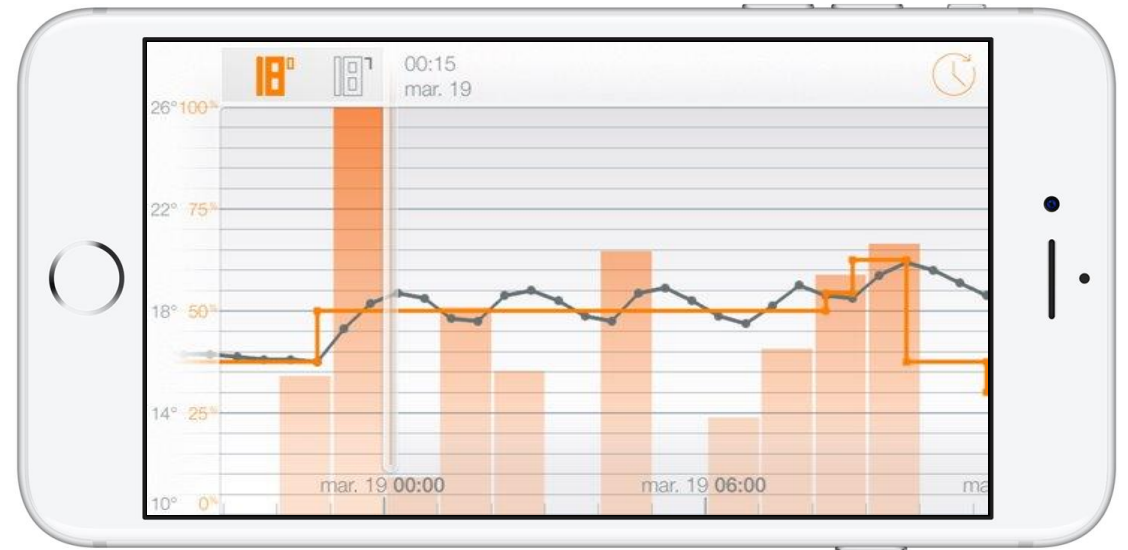
Note: When the setpoint is changed, the Thermostat responds instantly to the new setpoint without needing a threshold to switch the heating on or off.

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Advanced algorithm (PID)

The Advanced heating algorithm (PID: Proportional-Integral-Derivative), smarter than the Hysteresis algorithm, allows a better regulation of the ambient temperature with less oscillations around the setpoint temperature, by taking into account the inertia of the heating system in your home, and greater responsiveness.

During the first weeks of operation (during heating season), the Thermostat will automatically learn the specific characteristics of your heating system and your home, including their thermal inertia and the effectiveness of insulation.

When these parameters are determined after a few days of learning (without any intervention on your part), a notification in the Netatmo Energy application warns you that the Advanced algorithm is ready to be activated (*provided that your heating is compatible - see next page*).

NB: The characteristics of the house continue to be analyzed after the activation of the PID. The algorithms are automatically adjusted every 2 weeks if necessary.
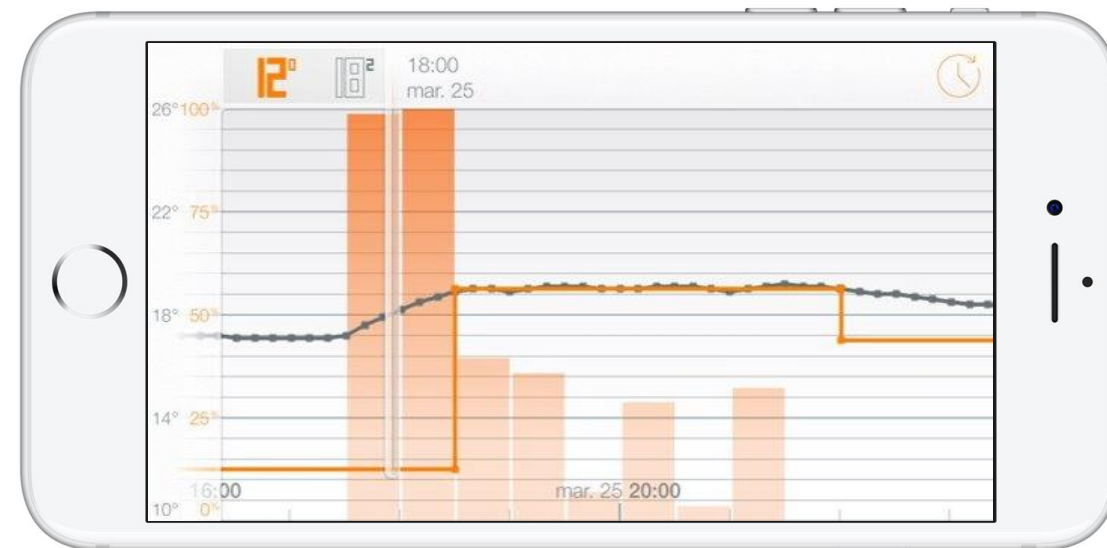
Notes :
- The minimal heating time can be set between 2 and 7 min to suit all types of heating.
- The use of the PID algorithm is automatically suspended for all setpoint temperatures **less or equal to 14°C**. The hysteresis algorithm is then reactivated: it is indeed useless to switch the heating more frequently to improve comfort when an economic setpoint is activated. The PID algorithm is reactivated as soon as the setpoint goes above 14°C.

6 – Energy source selection

The Thermostat adapts its operation to the different energy sources used for heating thanks to optimized profiles. The selection of the energy source is done from the parameters of the Netatmo Energie application:
*Manage my home > Home parameters > My home profile > Energy source*

Choosing one of the five types of energy source only influences the default choice for the heating algorithm: the hysteresis algorithm and its threshold, or the Advanced algorithm (PID) and its minimum ignition time. Devices that are most tolerant to frequently being switched on/off can run with the most reactive settings.

Gas, fuel oil, electric boiler and "I don't know":
the PID algorithm is preferred, with a hysteresis threshold of 0.1°C for the learning period, and a minimum ignition time of 2 minutes for the PID.
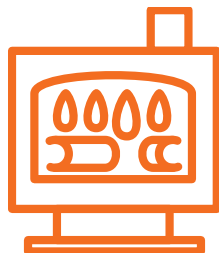
Wood:
the hysteresis mode is preferred, with a threshold of 0.3°C. It is strongly recommended not to use the advanced algorithm (PID) on pellet stoves.

Heat pump:
the PID algorithm is preferred, with a hysteresis threshold of 0.5°C for the learning period, and a minimum ignition time of 7 minutes with the PID.

It is always possible to force the algorithm and threshold of your choice, regardless of the defined energy type. It is recommended to only change these settings if you perfectly understand the consequences.

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7 – Monthly energy savings reports

The reports analyze different parameters over full months of use. For example, if the Thermostat is installed on November 3rd, then the first full month will be December, and the first report will therefore be sent in early January.

An email alerts you of the report availability. All the reports are kept available in the web app (my.netatmo.com), by clicking on the "Learn more" button in the "Track your consumption" column at the bottom right of the main page (see here).

Comparison of hours of heating requests of a month on the other
NB: *The activation time shown may differ from the actual consumption (ex: if the boiler is off or regulating)*

Key factors

Advice and tips
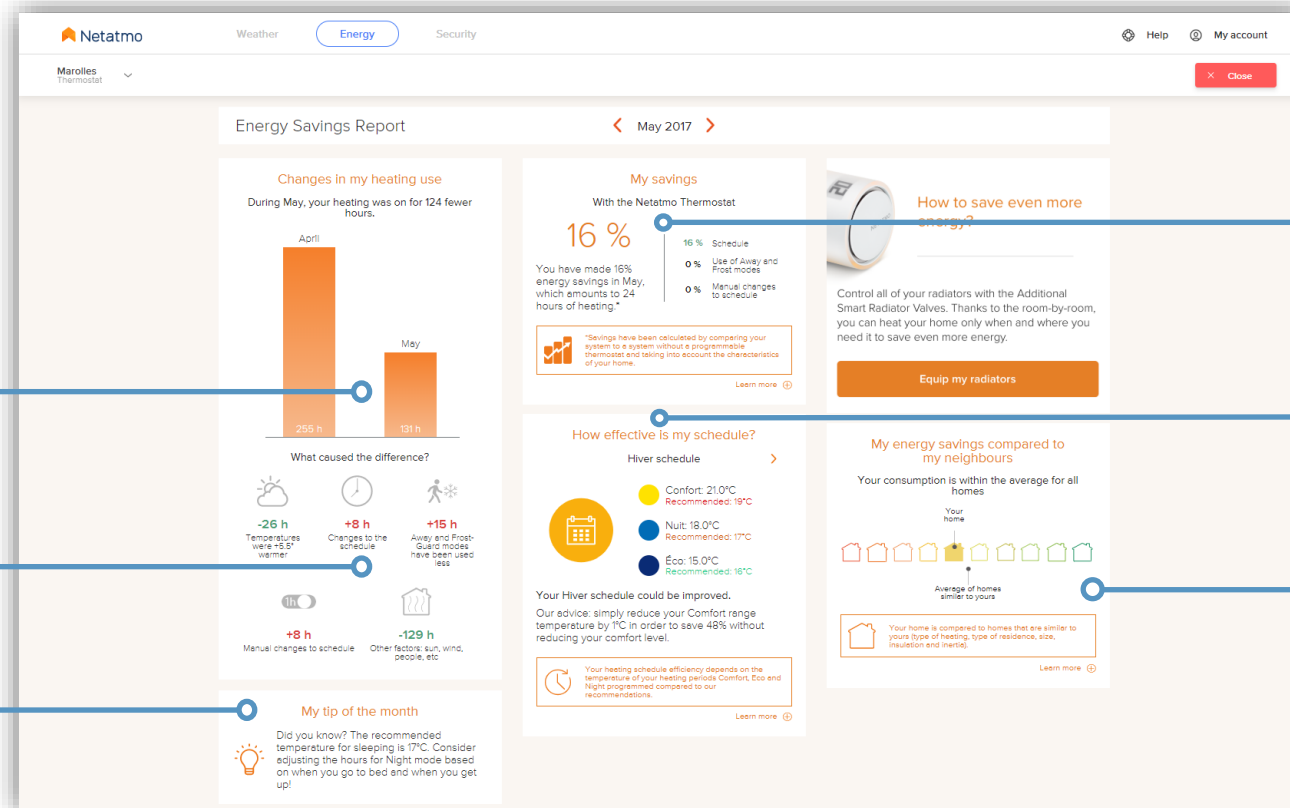
Savings explained

Analysis of weekly schedules

Compared performances

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8 – Positioning tips

For optimal heating regulation, it is strongly recommended to place the Thermostat correctly, and to avoid moving it frequently. To find the best location, be sure to follow the following rules as much as possible:

- The Thermostat must measure the ambient temperature about 1.50 m from the floor,

- It must be positioned far from any heat source (fireplace, radiator, television, wall lamps, bedside lamps, etc.),

- It must be placed away from drafts and direct sunlight,

- It is better not to place it in front of a radiator or stove which radiates heat,

- It should not be covered by curtains or blocked behind furniture,

- It is better to place it in a living room such as a living room or a dining room.

Part two:
The Smart Radiator Valves

Contents

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1 – Presentation

Tightening ring

E-paper screen

Bottom view

Top view

Engine piston

Serial number

Cover

Metal batteries cover
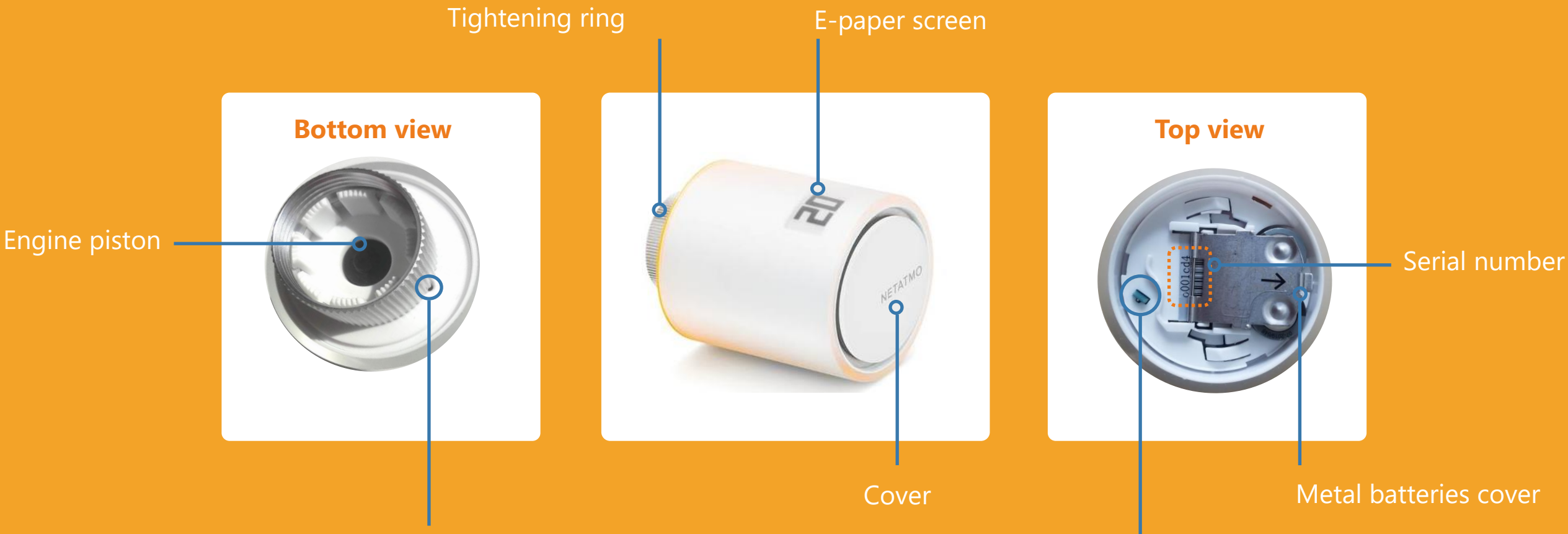
The Valve is equipped with 2 temperature sensors to allow it to make a more accurate estimation of the ambient room temperature

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Buttons

The controls of the Smart Radiator Valves are mechanical and non-tactile.
Turn the Valve until there is a slight "click", to the right to increase the setpoint by 0.5°C and to the left to decrease it.

Demonstration video

Screen

The Valve screen is made of flexible electronic paper (**e-paper**). This type of screen consumes energy only when the state of the blocks (white or black) is changed. Consequently, it is normal that **the display persists** when the batteries are removed.

The characteristics of this screen allow the Valve to have an excellent battery lifespan of **2 years**.

Notes:

• The Valve integrates an accelerometer that allows to automatically display the information on the screen in the right direction of reading. More info on screen technology here: description page of the Thermostat screen.
• The Relay supplied with the Starter Pack works in the same way as that of the Thermostat: see the presentation of the Relay. On the other hand, it cannot be substituted for a Thermostat Relay because it cannot ensure the switching of the heating.

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2 – Logos

Here is the different information that may be displayed on the screen of the Smart Radiator Valves:
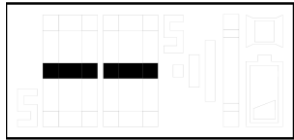
Valve start-up

Searching for the Relay
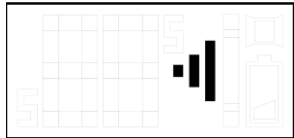
Searching for the Relay + radio identification number
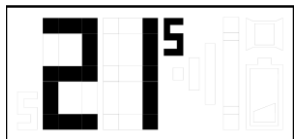
Measured room temperature
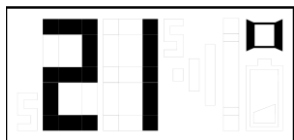
Open window detected. More information here
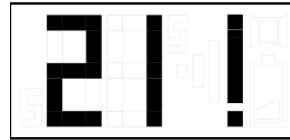
The exclamation mark can mean 3 things:
- Loss of radio connection between the Valve and Relay
- Loss of radio connection between the Thermostat and Relay
- Calibration failed or not performed

NB: the Energy application gives details about the error if the Valve has already been connected.

Setpoint temperature

If the Valve's setpoint is changed when the Thermostat is OFF, the Valve displays two white dashes on a black background
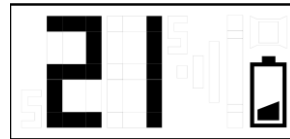
Low batteries (less than one month of battery life remaining)
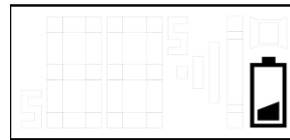
Dead batteries, the Valve has stopped working. It can remain open even without heating request if it no longer has enough power to close the valve body.

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3 – Functioning

Mechanical

Each Smart Radiator Valve has 2 inbuilt temperature sensors. One points towards the radiator while the other points the opposite way to accurately assess the room temperature. The Smart Radiator Valves compare the temperature measured in the room with the setpoint temperature and cleverly regulate each radiator's hot water flow using their motor that functions step-by-step to effectively achieve the desired temperature in the room.

Algorithmic

Following a learning period, an advanced heating algorithm (PID) is automatically applied to allow each Smart Radiator Valve to manage the duration and the moment to open the valve body by taking into account the room's thermal inertia and the radiator's heating power.

Temperature setting

The temperature setpoint applied by the Smart Radiator Valves can be determined:
- By weekly schedule (and Heating Prediction if enabled)
- By activating Away or Frost-Guard modes
- By applying a Manual Boost (from the app or from the Valve directly). If the Valve is paired with a Thermostat, then it will force the heater activation even if the room where the Thermostat is located does not need to be heated.

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4 – Room by room synchronization

All the products installed in the same virtual room are synchronized to:
- display the same measured temperature
- apply the same setpoint temperature
- follow the same schedule

In the Energy application they are therefore grouped together as a single icon on the home screen.

When there are multiple rooms in a Home, it is possible to apply a Manual Boost for all rooms simultaneously using this button:

Netatmo
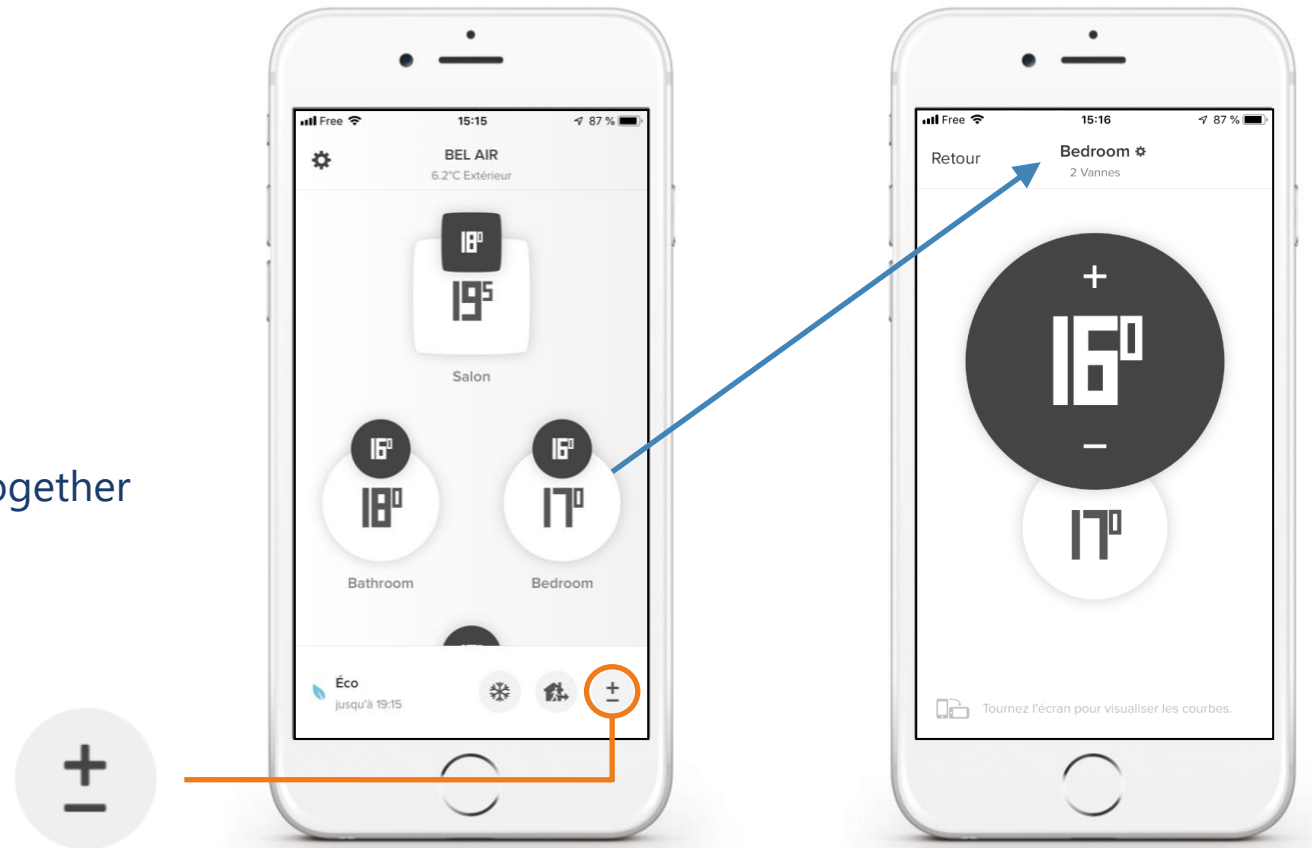
5 – Installation types

Individual heating
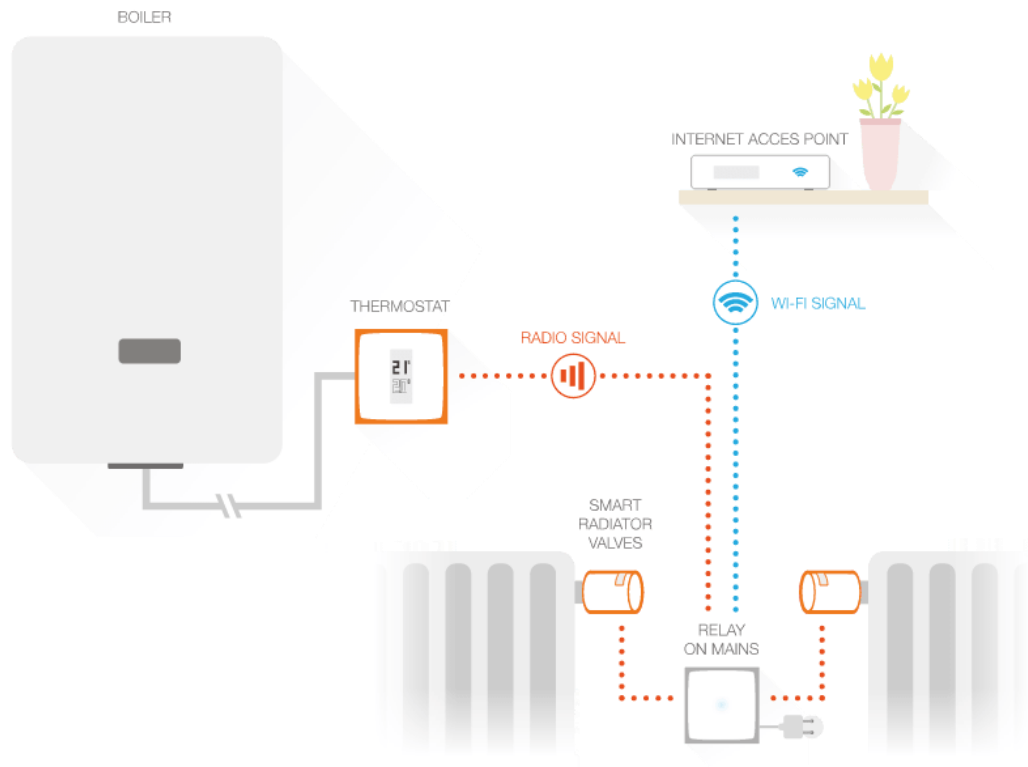
Smart Valves paired with the Relay of the
Smart Thermostat

Collective heating
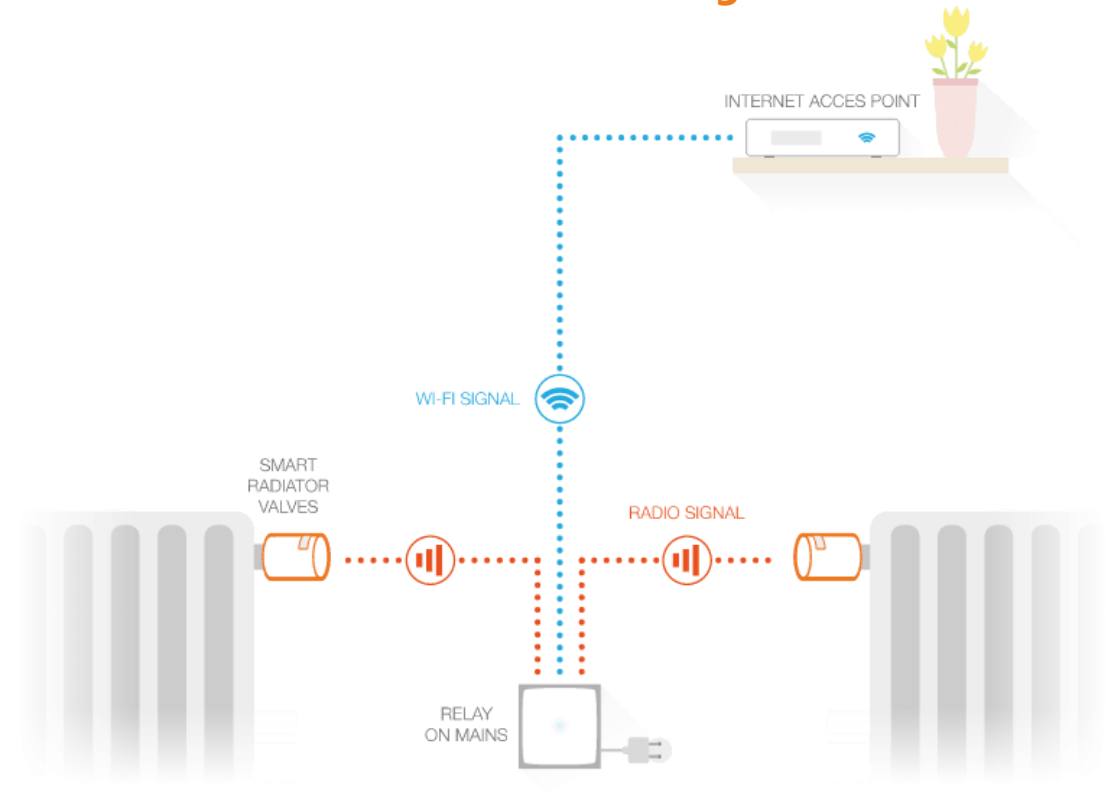
Smart Valves paired with the Relay of the
Starter Pack

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6 – Priority settings

When the Smart Radiator Valves are paired with a Thermostat, it is possible to choose between two operating modes:

- **ECO Priority** (default mode): the rooms equipped with Smart Radiator Valves can only be heated when the Thermostat room is also in heating demand, or if a Manual Boost is applied ([see here](#)). They apply the weekly schedule only as temperature limiters, as in a conventional thermostatic valve installation.

- **COMFORT Priority**: in this mode, the rooms only equipped with Smart Radiator Valves can request the Thermostat to activate the heating for their needs even from a scheduled heating demand, and even if the room temperature is satisfied in the Thermostat room.

To choose the priority settings, go to : *Settings > Operating mode >Priority Settings*

Note: When the Comfort Priority mode is activated, it is recommended to equip the room where the Thermostat is located also with Netatmo Smart Radiator Valves, so they will thereafter limit the heating of this room.
If there is no Netatmo Valve in the Thermostat room, it is advisable to fully open all the radiator valves in this room, whether manual or thermostatic.

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7 – Open Window Detection

The Open Window Detection is a feature of the Netatmo Valves which recognizes sudden changes in a room's temperature and switches off the heating in that room to avoid wasting energy.

The feature can be activated/deactivated for the Home in the Netatmo Energy application's settings: *Settings > Operating mode > Open window detection*.

Open window detection only works if the Netatmo Valves are heating up.

The heating in the room will come back on again:

- If the Valves detect a window has been closed (allow at least 3 minutes).

- After 30 minutes of a window being opened, even if it is still open.

- When you select 'Continue to heat' in the Energy application.

When the heating starts up again, open window detection is disabled for 30 minutes in that room.

Netatmo
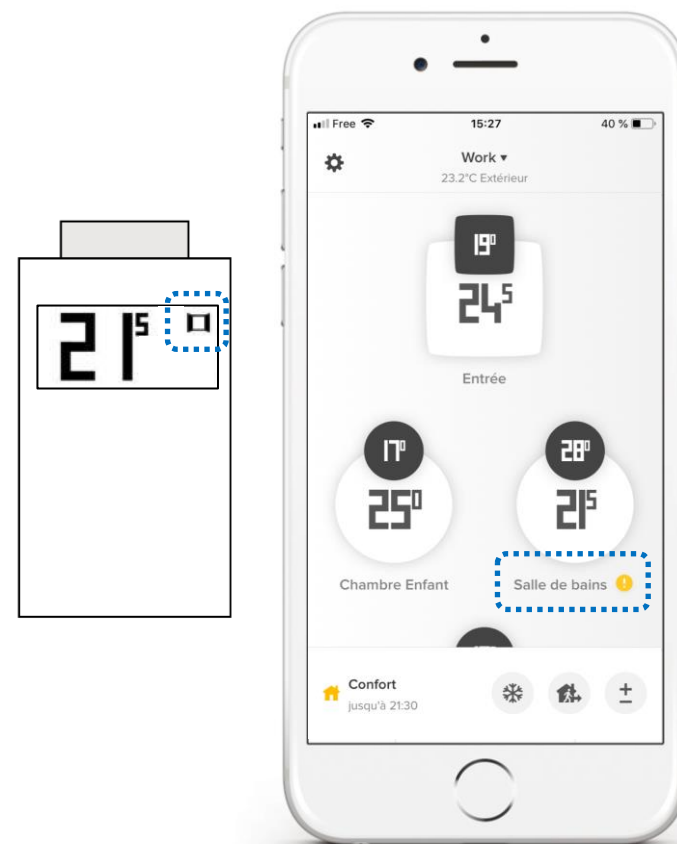
8 – Batteries

The battery life of the Smart Valves is highly dependent on the installation and the conditions of use.

Particularly, a valve body piston that is difficult to push will result in higher energy consumption and reduce the autonomy of the Smart Valve. Do not hesitate to lubricate it with silicone grease to minimize friction, and to actuate it several times to verify its proper functioning. If the valve body is too old or damaged to function properly, consider replacing it with a new one. Seek advice from your usual heating specialist if necessary.

The Smart Valves are designed to work with 1.5V non-rechargeable alkaline batteries. For optimal performance, you can also use 1.5 V **lithium** batteries (non-rechargeable).

Note: When the batteries are depleted, the Smart Valve may fail to close, which may cause the radiator to heat up even when there is no heating demand.

Features common to all Energy products

Contents

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1 – Your Netatmo account

Before you can control your Netatmo products from your smartphone, tablet or computer, a Netatmo account must be created.

Your account will allow you to control an unlimited number of Netatmo products, in one or more Homes from the same application.

You can use your account settings to:

• Configure your e-mail alerts (see opposite)

• Change your e-mail address and password

• Manage third-party applications

MY ACCOUNT

Change my email address	>
Change my password	>
Change my email settings	>
Analytics	>

MY THIRD PARTY APPS

| Amazon Alexa | > |

ACCOUNT

Changed password

Receive an email when your account's password is changed. `on`

New connection

Receive an email when someone logs into your account using your password. `on`

Too many failed attempts

Receive an email when your account is blocked due to too many failed authentication attempts. `on`

THERMOSTAT

Energy Savings Reports

At the beginning of each month, you will receive an email to inform you that your new Energy Savings Report is ready. `on`

Batteries low/depleted alerts

You will be alerted by e-mail when the batteries in your products are low/depleted. `on`

Boiler maintenance errors

Each time your heating equipment is not working as expected, you will receive an email so you are aware of the issue as soon as possible. `off`

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2 – The Energy applications

Mobile applications for smartphone and tablet

Download the Netatmo Energy app on the App Store (iOS) or the Play Store (Android):
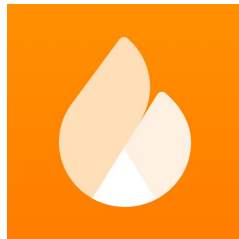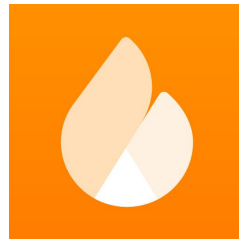
iOS   Android

Web application, for any internet browser and operating system

In the search bar of your web browser, type **my.netatmo.com**

Netatmo
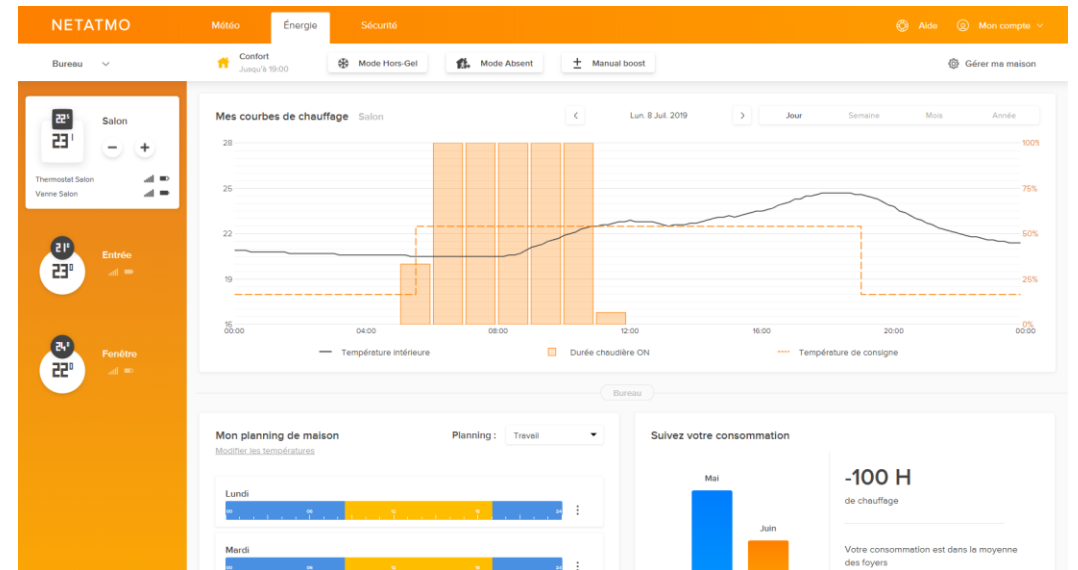
Detailed Views: Mobile App

Home selection
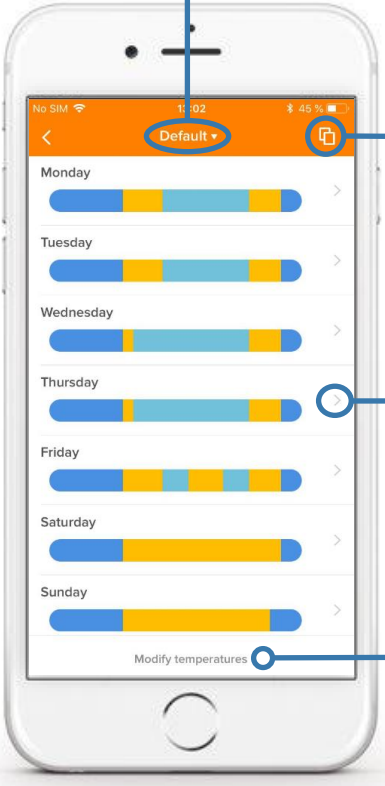
Weekly schedule selection

Copy the schedule from one day to another

See the details of a day

Add/edit temperature sets

Settings

Setpoint temperature

Ambient room temperature

Dashboard

Schedules
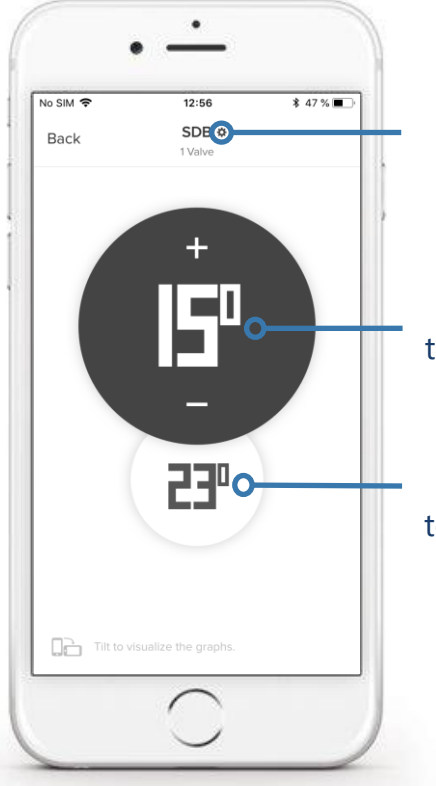
Room with a Thermostat
(with or without Valve)
square display

Room with Valve(s) only
round display

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Detailed views: Web App

Special modes

Account settings

Home selection

Settings

NETATMO   Weather   Energy   Security   Help   My account

Bureau ⌄   🏠 Confort Until 19:00   ❄ Frost-Guard mode   Away mode   ± Manual Boost   ⚙ Manage my home

Rooms of the Home

22⁸ 23³ Salon − + Thermostat Salon

Outside temperature curve *(Netatmo Smart Home Weather Station required, installed in the same Home)*

My heating graphs   Salon   <   Mon, 15 Apr 2019   >   Day   Week   Month   Year

27   100%

21

15

9

3

00:00   04:00   08:00   12:00   16:00   20:00   00:00

— Indoor temperature   ▯ Boiler ON time   ┄ Setpoint temperature   ● Outdoor temperature

20⁵ 25⁰ Chambre

22⁸ 22⁵ Entrée

Active weekly schedule selector

Add/edit temperature sets

My home schedule   Schedule: Travail ⌄

Modify temperatures

Bureau

Access the detailed view of the day

Track your consumption

-35 H
Of heating

The comparison between your home and your neighbours is not available yet because your home heating characteristics have not been computed yet. It will be available after a few day...

Learn more

Monthly reports

Jul   Aug

Weekly schedule editing window

Monday
00   06   12   18   24   ⋮

Tuesday
00   06   12   18   24   ⋮

Wednesday
00   06   12   18   24   ⋮

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Detailed views: Manage my Home

Home settings

NETATMO   Weather   **Energy**   Security   ⚙ Help   ⊙ My account ⌄

Bureau ⌄   ⚙ Operating mode   ⚙ Manage guests   ⚙ Home parameters   ✎ Rename my home   ✕ Close

My rooms and products

Salon
1 Product   ⋮

Chambre
1 Product   ⋮

Entrée
1 Product   ⋮

Window
Empty room   ⋮

+ Add a room

This room devices are handled by the Relay : Relais Bureau   📶   Serial number g0d19c4   Firmware 210   ⋮   Relay settings

[Thermostat image]   **Thermostat Salon**   ⚙ Settings   ⋮   Settings of the Thermostat

📶 🔋   Serial number j0ce788   Firmware 72

Access the parameters of each room

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3 – Heating graphs

Room selection

Data at the read slider level

Read slider

Room temperature

Setpoint temperature

17 □ | **22** □ | sam. 5 **5:30**

SAV

30° 100%

26° 75%

22° 50%

18° 25%

14° 0%

0:00 sam. 5 | 12:00 sam. 5 | 0:00 dim. 6

Note: The setpoint (orange) curve fades out from a certain zoom level to maintain good readability. To make it reappear, just zoom-in to return to a view by day or week.
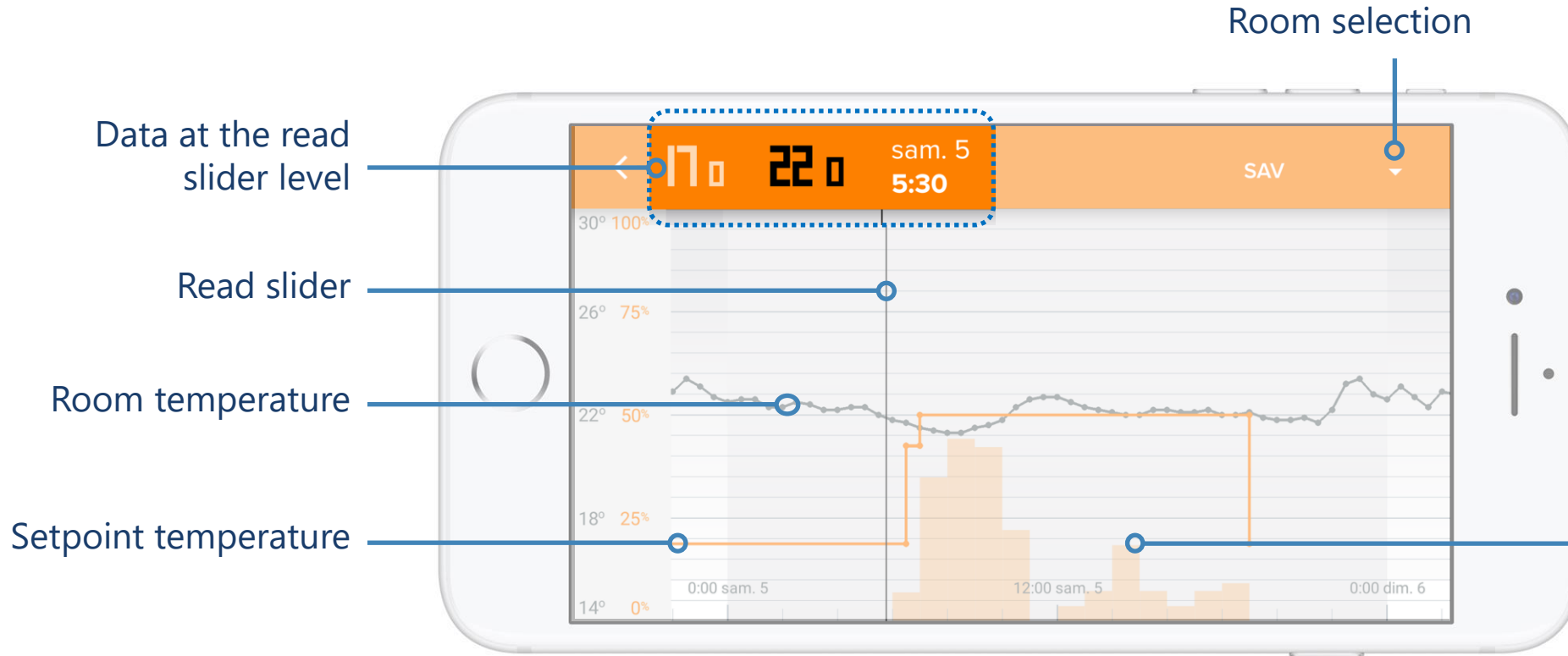
Thermostat heating requests as a percentage of time over a defined period.

Example: on a one-hour slot, if the bar is at 50%, the Thermostat has requested heating for 30 minutes (not necessarily consecutive) over this period.

Notes: For Smart Valves, the orange columns represent the percentage of valve opening over a given period. In a room with **a Thermostat and Valve(s)**, the bars represent the heating requests made by the Thermostat.

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4 – Weekly schedules

The Energy application allows you to optimize your heating by applying a weekly schedule to adapt the heating demands to your lifestyle. New schedules can easily be established from a **5-step questionnaire**.

Up to **10** weekly schedules can be defined by House, which is very useful for creating a different schedule for holidays, or for those with different work patterns from one week to another, etc... Switching from one schedule to another is done in 2 clicks!

For each schedule, it is possible to set custom heating periods, at the temperatures, start and end times of your choice, to the nearest quarter of an hour.

Here are the links to our help videos for creating and editing weekly schedules on each of the Energy application platforms:

App Web   **Android**   **iOS**

Note: When creating a schedule, 3 default temperature sets are automatically created (Comfort, Eco and Night) and distributed throughout the week according to the answers given to the questionnaire.

When a room in the House is of the "Bathroom" type, a 4th "**Comfort+**" mode is also created. The purpose of this mode is to boost the temperature in the bathroom for a short time, at the end of the Night mode and just before it is rescheduled at the end of the day. Just like the others, this mode is customizable to best suit your needs.

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5 – Manual boost (temporary manual setpoints)

It is possible at any time to apply a manual setpoint temperature (**Manual Boost**) for a set period, at the end of which the previous mode is reactivated (weekly schedule or special mode)...

...from the Thermostat or the Smart Valves

The default duration of the setpoint temperature then is the one defined in the Energy application settings (3 hours by default).
Settings > Operating mode > Default time of manual setpoints

...from the Energy application

It is then possible to change the duration for each manual setpoint, between 5 minutes and 12 hours.

White background = heating off

Scale to adjust the duration of the manual setpoint

Orange background = heating on

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6 – Special modes

It is possible to set a permanent setpoint on the Thermostat by applying one of the special modes, without having to modify the weekly schedule:

Away mode: for a short absence, between a few hours and a few days. Setpoint set to 12°C by default.

Frost-Guard mode: for long-term absence. This mode ensures the maximum energy savings while preserving the integrity of the heating system and the house in case of very low outdoor temperatures. Setpoint set to 7°C by default.

OFF [Thermostat only**]:** to make sure that the Thermostat does not activate the heating, regardless of the measured temperature.

MAX [Thermostat only**]:** to force the Thermostat to activate the heating system regardless of the measured room temperature.

The temperature of the Away and Frost-Guard modes can be changed in the settings of the Energy application:
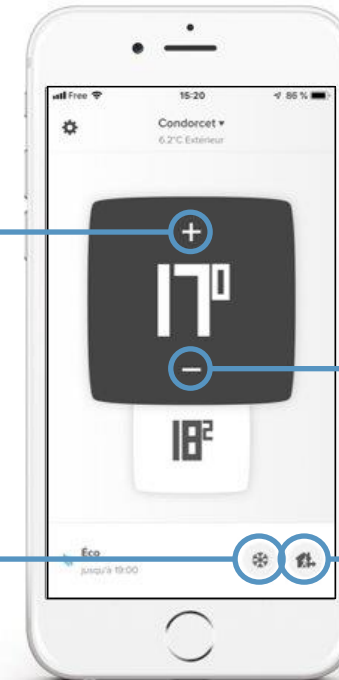***My home schedule > Modify the temperatures.***

MAX: Press the **+** button until "MAX" appears

OFF: Press the **-** button until "OFF" appears

Frost-Guard mode

Away mode

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Set a return date and time for Absent and Frost Guard modes

Activate the desired mode

Click on "Modify"

Indicate the expected return date and confirm with SAVE

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7 – Auto-Adapt *(Heating Prediction)*

The Heating Prediction (Auto-Adapt) is an intelligent function of Netatmo Energy products that allows heating to be started earlier to reach the desired setpoint temperatures at the time indicated in the Home's heating schedule.
Like the advanced heating algorithm (PID), the Auto-Adapt function takes into account the heating performance and the insulation of the house, but it also takes into account the **outdoor temperature**.

The heating prediction is optimized room by room. There are two possible settings:

- **Prediction disabled:** the heating starts at the time indicated in the schedule.

- **Prediction enabled:** the default duration (30 min of anticipation) is applied during the learning period.

After a few weeks of heating, without any action on your part, the duration of the heating prediction will be automatically optimized for all the rooms.

The use of outdoor temperature readings allows optimal regulation:

- **Optimized using local weather forecasts,** according to the geographical location of your Home.

- **Optimized with measures taken by the Netatmo Smart Home Weather Station,** when the two devices are installed in the same Netatmo Home, the temperature reports provided by the Station's outdoor module are automatically retrieved by the Energy products. The prediction is therefore optimal. On the web application, the curve of the outdoor temperatures measured by the Station appears juxtaposed in blue on the temperature curves of the Energy products.

   Note: The maximum prediction duration is 8 hours instead of 3 hours if the setpoint is 14°C or below.

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8 – Temperature offset *(True Temperature)*

Netatmo products are calibrated at the factory to provide you with the most accurate ambient temperature measurement possible.
However, under certain conditions, you may notice a difference between the temperature they measure and that displayed by another thermometer.

For example, if the Thermostat measures 19.0°C while your usual thermometer displays 20.0°C, you can force an offset of +1.0°C in the Energy application so that the Thermostat displays the same value as the thermometer.
To choose the temperature display that best represents that of the room, it is recommended to perform the following procedure when the radiators are hot, placing your reference thermometer in the center of the room and after having waited at least one hour that the temperature stabilizes before applying the correction:

- **Mobile application (*iOS and Android*):**
  - Click on the "Gear" button (iOS) or "3 horizontal lines" (Android) to display the parameters
  - Click on the button "Manage my home"
  - Select the room where an adjustment must be applied
  - In the "Advanced Settings" menu, click on the "True Temperature" button
  - Enter the temperature displayed on the reference thermometer and validate

- **Web Application (*my.netatmo.com*):**
  - Click on the "Manage my house" button to access the settings
  - In the left column, click on the menu button (3 vertical points) of the room in which the offset must be applied
  - Press the "Settings" button
  - In the "True Temperature" menu, click on "Choose the displayed temperature that better represents the room temperature"
  - Enter the temperature displayed on the reference thermometer and validate

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9 – Auto-Care

Thanks to the Auto-Care function, the Smart Thermostat and the Smart Valves inform you as soon as your attention is required to maintain the optimal functioning of your heating system.

Low batteries

A first alert is sent by email and directly via the application 3 to 4 weeks before the batteries run out.

- Thermostat: When the batteries are completely exhausted, the Thermostat makes sure to deactivate the heating before it stops working.

- Smart Valves: As the closing of the valve body requires a certain force, the Valve might fail to achieve the complete closing before the batteries run out. The radiators can therefore be hot even if no heating demand is ordered.

Boiler Maintenance Errors

The alert message is sent automatically by email when Energy products have been measuring a constant or lower room temperature for at least 4 hours while a heating request is in progress.

This generally means that the heating system is not working and allows you to respond quickly to this incident.

Note: By default, these alerts are activated. You can however choose to deactivate them if necessary, from the *Settings of your Netatmo account> Change my e-mail settings*

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10 – Download historical data

To download the data of your Thermostat and/or Valves, go to the [Energy web application](#), then in the menu "Manage my home" (gear icon in the right part of the upper banner):

- In the left column, click on the menu button (the 3 vertical points) of the desired room, then on the "Settings" button.

- In the "Data Management" section, click on "Download your room's data".

It is then possible to select the measurement frequency, the type of data exported and the period to be analyzed.

In the downloaded document, we find different information:

- **Timezone**: date and time according to the timezone in application.

- **Temperature**: measured ambient room temperature.

- **Sp-Temperature**: setpoint temperature.

- **BoilerOn**: number of seconds the Thermostat ordered the heating to activate.

- **BoilerOff**: number of seconds the Thermostat ordered the heating to deactivate.

- **Heating_power_request** (rooms with Valves): opening percentage of Valves.

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11 – Offline behaviour

In the event of an internet outage, the Thermostat and the Valves continue to regulate the heating according to the weekly schedule in application or the last setpoint applied before the shutdown (Away mode, Frost-Guard mode or manual setpoint).

During the outage:

- Remote interaction, changing schedules or settings are no longer possible.

- The physical buttons on the Thermostat or Valves always allow you to force manual setpoints. The duration of these setpoints is then the same which was defined before the outage in the advanced parameters of the *Energy App > Operating Mode > Default time of manual setpoints* (3h by default).

- The Auto-Adapt feature is also disabled because it relies on outdoor temperature readings that are not available offline.

All the functions of the Thermostat and the Valves will be automatically restored as soon as the connection returns.

In case of power outage, both heating system and Netatmo products no longer work. However, our equipment is designed to automatically restart and reconnect when power is restored.

Note: The Netatmo Relay may take a few minutes to reconnect after a power outage.

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12 – How to set the products during summer

- For a prolonged absence, it is recommended to use the **Frost-Guard mode**, in order to guarantee maximum energy savings without risk of deterioration of the accommodation. In fact, the Frost-Guard mode will activate the heating only if the room temperature reaches a critical threshold, in order to prevent the pipes and the heating system from freezing. It is also the mode to favor **during summer**, in order to preserve the generation of the historical curves while ensuring that the heating will be activated in case of absolute necessity (cold regions even in summer, accommodation still unoccupied on return winter, etc …).

Note: Whether for the Thermostat or the Smart Valves, we do not recommend removing the batteries for a long absence, as remote control of the products will no longer be possible, and the temperature curves will not be generated.

- **Anti-seizing:**

  - **Smart Thermostat:** In summer, it may be useful in some cases to define a schedule for the Thermostat with a heating period of 30°C for 15 minutes once a week, to force the activation of the heating and thus prevent the circulator to get stuck after a prolonged stop.
  For more information, consult a professional heating engineer.

  - **Smart Valves:** They calibrate automatically every 2 weeks, which prevents the valve body piston from seizing. So just leave them in **Frost-Guard** mode. In some homes, it is recommended to leave the radiators fully open during the summer. In this case, we suggest that you create a weekly schedule at constant 30°C setpoint, which will allow you to keep the Valves both open and operational. In this case, you will probably receive the Auto-Care alert "Boiler maintenance error"; you can ignore it or deactivate it (menu *My Account> Change my e-mail settings*).

- To ensure that the Thermostat will <u>never</u> turn on the heating, it is possible to activate the **OFF mode** by pressing the "-" button on the physical box or in the application until "OFF" appears on the display.

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13 – Link the products with Apple HomeKit

1. Compatibility

To check the compatibility of your Netatmo Relay with HomeKit, go to the following menu of the Netatmo Energy app for iOS (iPhone, iPod or iPad): *Settings > Manage my home > Relay name*.
The Relay is compatible with Apple HomeKit if the "**Configure HomeKit**" menu is present.

2. Code location

a. General case

The HomeKit code is stuck on the front of the Relay. It is also written on the gray label on its back, following the serial number. A third label is also added in the supplied installation manual.

b. Relay without HomeKit sticker

In this case, the HomeKit code will be displayed on the Thermostat screen instead of the temperatures (*see image on the left*), once the association procedure is initiated from the Netatmo Energy application (see below).

3. Pairing procedure

To proceed with the configuration, you must first have installed and connected the Relay to your Wi-Fi network. If there is a Thermostat paired with the Relay, it must be powered and within radio range of its Relay.

Then just follow this procedure:

1. Go to the settings of the Energy application on the iOS device ("Gear" icon in the top banner)
2. Go to the "Manage My Home" menu
3. Click on the name of the Relay
4. Click on the "Configure HomeKit" button

The instructions are then displayed on the Energy application screen. **The HomeKit code will have to be captured with the camera of your smartphone/tablet** or entered manually.

14 – Interactivity

The voice assistants below allow you to control some features of your heating system via vocal commands without having to open the application. They also allow you to create scenarios that interact with other connected objects.
For more information, click on the icons below:

Works with Apple HomeKit

Works with amazon alexa

works with the Google Assistant
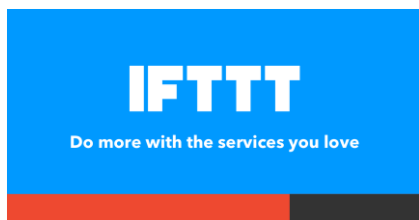
IFTTT is a very simplified task automation service, which allows you to create interactions between different connected devices.
The links take the form of recipes (**applets**) which allow an event ("*If This...*") to trigger an action ("*Then That*").
Example: If "the temperature is changed manually on the Thermostat"> *then* "send a warning e-mail". *It is possible to create many recipes, and to activate / deactivate them at will.*
For more information, click on the logo on the left
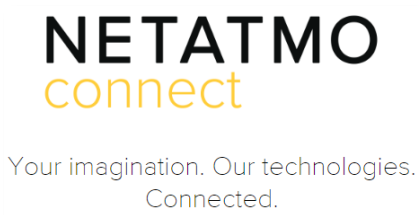
Netatmo Connect is the application programming interface (**API**) of Netatmo. It allows you to create solutions by coding third-party applications that will link our products to your applications and services.
For more information, click on the logo on the left

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15 – Product updates

The update of the internal software (firmware) of the products is carried out automatically. The products are thus equipped with the latest functionalities and optimizations without any intervention on your part being necessary. When an update is available, its deployment is progressive on all connected products and can be spread over several weeks.

Note: Once the Relay has been updated, the modules associated with it (Thermostat and Valves) will be updated one by one. This procedure can take a few days depending on the number of modules and the quality of the radio connection.

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16 – Share product access

To share the access to a Home with another user, go to the application settings:

- Mobile (Android / iOS): *Settings > Manage Guests > Add user*
- Web (my.netatmo.com): *Manage my home > Manage Guests > Add a user*

NB: An e-mail account must be set up in a messaging application on the device used to be able to send the invitation.

Notes: Users invited to control an Energy product have access to all the products of the Home in which it is installed (including Netatmo Smart Cameras if the accommodation is equipped).
All users with access to a Home have the same rights (administrators). It is therefore advisable to share access to Home products only to people you trust.

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17 – I'm moving, what to do with my products

When you change your home, there are two options for your Netatmo products:

1. Leave the products in the former accommodation.
In this case, it is recommended to reset the products to remove all traces of your personal data.
To do this, simply uninstall the Relay: *Settings > Manage my home > [Relay Name] > Uninstall the Relay.*
The new owner will simply have to download the Netatmo Energy application and follow the instructions to install the products as if they were new.

2. Keep the products and install them in the new home.
In this case, it is not necessary to reset the products before moving.
Before physically installing your products in the new home, it is imperative to check the compatibility of the new heating system. To do so, go to our online tool:
check.netatmo.com
Once the products have been installed, go to the Netatmo Energy application to configure your Wi-Fi network.

NB: remember to modify the parameters of your House: *Settings > Manage my home > Home Parameters > Location and Home Profile*

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18 – Online help

For more details on our products...

Help Center > frequently asked questions, explanation of features and solutions.

forum.netatmo.com > get help from other Netatmo enthusiasts.

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