

# Instructions for use

Gas Fired Wall Mounted Condensing  
Combination Boiler



## MODEL

Navien NCN-21K(A)  
Navien NCN-25K(A)  
Navien NCN-32K(A)  
Navien NCN-37K(A)

Keep the instructions near the Navien Condensing Combi Boiler for future reference.

Country of destination: GB

# navien

Thank you for choosing a **NAVIEN** heating boiler. From the range of **NAVIEN** products you have chosen the **NCN CE** model. With a suitable hydraulic installation, this gas-fired boiler will provide the ideal level of comfort for your home. You will also be able to enjoy a balanced, economical supply of domestic hot water.

This manual forms an essential part of the product and it must be given to the user. Read the warnings and recommendations in the manual carefully, as they contain important information on the safety, use and maintenance of the installation.

These boilers are to be installed by qualified personnel only, in accordance with the legislation in force and following the manufacturer's instructions.

The start-up of these boilers and any maintenance operations must only be carried out by **NAVIEN**'s Official Technical Assistance Services.

Incorrect installation of these boilers could result in damage to people, animals or property, and the manufacturer will hold no liability in such cases.

If you should move house, please ensure you pass on these instructions to the future user of the boiler.

### **Reference label**

NCN CE boilers have a reference label affixed to the right side of the unit.

The appliance's main technical features are listed on this label, e.g. boiler type, model, serial number, gas type and other important characteristics. This data may be required by the Technical Assistance Service to facilitate maintenance and repair operations.

### **Abbreviations used in these instructions**

**CH:** Central Heating.

**DHW:** Domestic Hot Water.

**LPG:** Liquefied Petroleum Gas (Propane/Butane).

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## 1. Product description

These boilers are designed to provide the following services or operating modes:

### Central Heating (CH):

The boiler provides hot water at the desired temperature for a heating installation connected to it. The temperature can be selected using the boiler's integrated electronic control. Different types of ambient temperature control devices may also optionally be connected to the boiler (room chronothermostat, ambient temperature sensor, etc.), to enable it to control the temperature inside the home. Lastly, an outdoor temperature sensor (optional) may be connected to the boiler to control the comfort temperature of the installation in accordance with the weather conditions outside the home.

### Domestic Hot Water (DHW)

The boiler provides hot water when a tap in the domestic water installation is turned on.

When the boiler is switched on, it automatically provides heating. When a hot tap is turned on, the boiler switches to DHW production mode. DHW production takes priority, and heating production is therefore disabled while it is activated.

### Models

There are three models of NAVIEN boiler, according to the power required:

- NCN CE 21K
- NCN CE 25K
- NCN CE 32K
- NCN CE 37K

## 2. Safety warnings

### 2.1. Safety symbols

All the safety indications in this manual are shown by a warning symbol, which differs depending on the nature of the indication. All the safety messages indicate a potential risk of breakdown or damage and it is therefore very important to carefully follow the instructions given, to prevent any risk of accident or damage to the appliance or to persons.



### **DANGER**

This symbol warns of operations or situations involving imminent danger and which could cause severe damage to persons or property if they are not avoided.



### **WARNING**

This symbol is for warnings that must be taken into account for correct use of the appliance and to prevent malfunctioning that could give rise to hazardous situations for the appliance itself and for persons.



### **CAUTION**

This symbol warns of situations and actions that must be avoided for correct functioning and maintenance of the appliance.



**Note** This indicates particularly useful information and instructions.

## 2.2. Safety warnings

Read and carefully follow the safety warnings and alerts described below. If you should lose these instructions, contact the boiler installer or manufacturer immediately.

### **DANGER**

- **DO NOT** store combustible products such as oil, gas-oil or petrol near the appliance.
- **DO NOT** store easily flammable products (e.g. newspapers or cardboard) near the appliance or fume extraction system (flue).
- **DO NOT** store **OR** use aerosol sprays containing air, paint or any other substance near the fume extraction system or boiler while it is connected to the gas network.
- **DO NOT** store any materials near the boiler combustion gas outlet or air intake if they could obstruct it.
- **DO NOT** tamper with or light the boiler if its front cover is open. Switching on the boiler in these circumstances could give rise to combustion with a hazardous excess of carbon monoxide (CO), which could cause serious damage to persons or property and even death.

### **DANGER**

**Keep flammable material and fuels away from the boiler.**

### **WARNING**

- Ensure the installer shows you where the gas shut-off valve is located and shows you how to turn it off. Turn off this shut-off valve if you observe any signs of overheating, fire, gas leaks, damage to the appliance or any other sign of boiler malfunctioning. **DO NOT** turn on the shut-off valve again until it has been inspected by an Authorised Technical Assistance Service technician.
- Before switching on the boiler, **ensure** it is filled with water and that the gas supply is turned on.
- **Make sure** the cold water supply valve is open before switching on the boiler.
- **DO NOT** use the boiler for any purpose other than those described in this manual.
- **DO NOT** attempt to repair or replace any boiler parts yourself, unless it is specifically indicated in this manual. All maintenance and/or repair operations must be carried out by a Technical Assistance Service authorised by NAVIEN.
- **Make sure** you unplug the boiler from the electrical mains before opening the front cover.
- To prevent scalding, check the water temperature as you are using the boiler.
- **DO NOT** change the DHW temperature while someone is using the boiler.
- All accessories and spares used with the boiler must be those supplied by NAVIEN.
- **DO NOT** use the boiler if it shows signs of abnormal functioning.
- **DO NOT** allow children to use or tamper with the boiler.

## 2.3. EC Conformity Mark

 0051

NAVIEN, hereby declares that the boiler models:

**NCN CE 21K(A), NCN CE 25K(A) , NCN CE 32K(A) , NCN CE 37K(A)**

to which this declaration refers, conform to and comply with the essential requirements of the following applicable European Standards and Directives:

**Gas appliances:** Directive 2009/142/EC  
Standards EN 483, EN 437, EN 625 and EN 677

**Boiler Efficiency:** Directives 92/42/EEC and 93/68/EEC  
Standards EN 483

**Low voltage:** Directives 73/23/EEC and 93/68/EEC  
Standards EN 60335-1, EN 60335-2-30, EN 60335-2-51, EN 50165

**Electro-magnetic Compatibility:** Directive 2004/108/EC  
Standards EN 55014

**Pressure Vessels:** Directive 97/23/EEC

NAVIEN, manufactures its products using a Quality Assurance system in compliance with Standard EN-ISO 9001:2000.

## 2.4. Start-up and adjustment

### **WARNING**

The installation must be made by a qualified authorised installer in compliance with applicable national regulations and standards and any other local regulations that may apply.

Start-up, adjustment, repair and any maintenance operations must only be carried out by an authorised TAS technician.

If the boiler is installed in a small compartment, DO NOT obstruct any of the air intakes or fume extraction ducts, and ensure sufficient space is left around the boiler for maintenance operations to be carried out and to ensure sufficient ventilation.

## 2.5. In case of emergency

### **DANGER**

Boiler malfunctioning may cause gas leaks and the risk of smelling gas, explosion and asphyxia due to carbon monoxide inhalation.

#### If you smell gas:

- DO NOT smoke.
- Avoid any flames or sparks.
- DO NOT turn any light switches or electrical appliances on or off.
- Open doors and windows.
- Turn off the main gas supply valve.
- Turn off all components of the heating system.
- Keep all persons away from the hazard area.
- Carefully follow the safety instructions indicated by the gas supplier and locate the gas meter.
- Notify the boiler installer of the incident, from outside the building or hazard area.

### **DANGER**

#### Fume extraction system

- FAILURE TO FOLLOW the fume extraction system installation instructions given in this manual can affect boiler operating safety. To prevent risk of fire, explosion or asphyxia due to carbon monoxide, never start-up the boiler unless you are sure there is sufficient outdoor ventilation in the premises on which it is installed.
- It is recommended for the fume extraction terminal and the air intake duct to be inspected yearly, to ensure correct combustion.
- Switch off the boiler immediately and DO NOT use it if you observe any damage, seals coming apart, cracks, corrosion or dents in any of the ventilation pipes, the flue and/or the air intake duct.

### **WARNING**

- Faulty installation of the boiler combustion gas removal and air intake system can cause a sudden increase in carbon monoxide emissions (CO). Inhaling carbon monoxide can cause severe brain damage or death. Carefully read and follow the installation instructions to this effect.
- Protect the boiler combustion gas outlet and air intake terminal against obstruction due to accumulation of snow, dirt, dead leaves, weeds, etc.

## 2.6. Modifications

The user must NOT modify or tamper with any of the following boiler installation aspects, under any circumstances:

- Any part of the inside of the boiler.
- The gas, water or electricity supply installation.
- The combustion gas removal system.
- The combustion air intake system.
- The boiler safety valve.
- Any installation safety devices.

No building alterations must be made near the boiler that could affect its operating safety or correct functioning.

DO NOT break or remove any sealing element of any component of the boiler. These components may only be handled by authorised personnel or official TAS technicians.

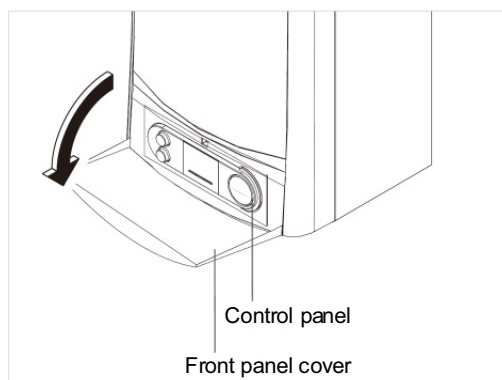
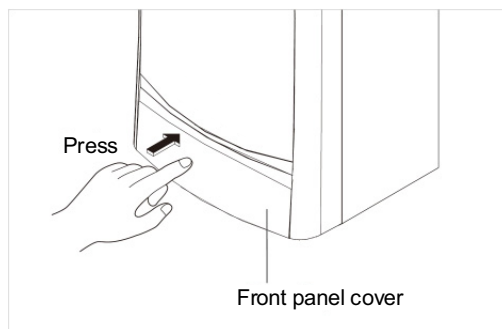
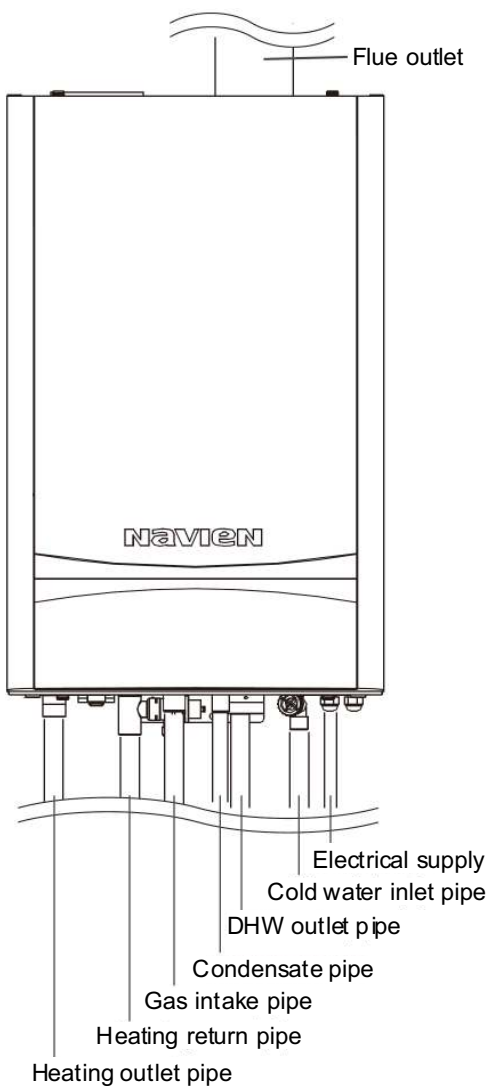
## 2.7. Water leaks

It is recommended to check regularly the installation water's pressure, indicated on the control panel display. If recurrent pressure drops are observed, there may be a leak in the installation. In such cases, contact your nearest Official TAS.

If you observe any water leakage from any of the installation pipes between the boiler and the hot water taps, turn off the general cold water valve of the home and contact an installer to repair the leak as soon as possible.

### 3. Boiler description

#### 3.1. External view

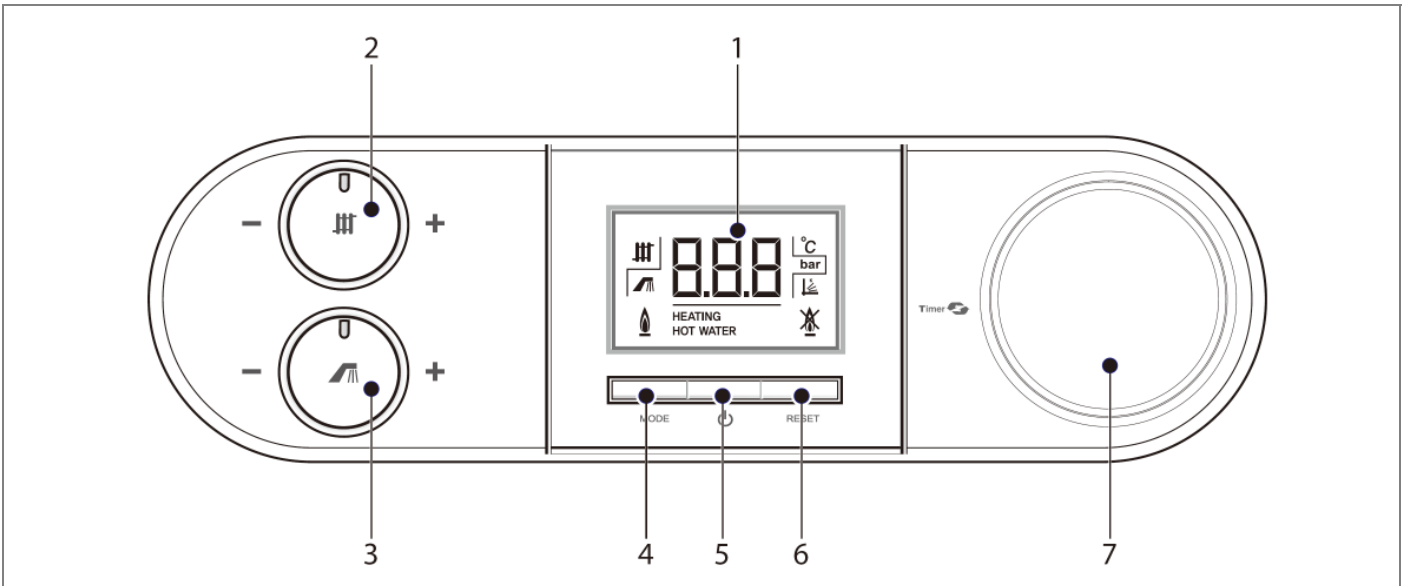


**Note** Before switching on the boiler, ensure that:

- all the valves are totally open.
- the electrical supply is connected.

### 3.2. Control panel

The **NCN CE** boiler has a control panel that automatically controls the functioning of the boiler and installation, and provides information on their status via a digital display located on the control panel itself.



#### 1. Digital display

This display shows all the boiler status and functioning data such as boiler temperature, DHW temperature, pressure, alarms, etc. (See section "Digital display").

#### 2. Heating temperature selector

This dial is for selecting the desired boiler temperature for the heating circuit at any time you wish. It is also used to programme and browse through the parameters on the "Technical Menu".

#### 3. DHW temperature selector

This dial is used to select the desired Domestic Hot Water production temperature at any time.

#### 4. MODE button

This button is used to select display of the user parameters. It is also used to programme and browse through the parameters on the "Technical Menu".

#### 5. Switch on button i

This is the boiler master switch. It is used to switch the boiler on and to turn it to standby mode. In standby mode the boiler will remain off but the anti-frost and pump anti-block functions will remain enabled, provided the electricity supply is not cut off.

#### 6. RESET button

This button is used to restore boiler functioning if it is blocked due to malfunctioning and/or alarm. It is also used to programme and browse through the parameters on the "Technical Menu".

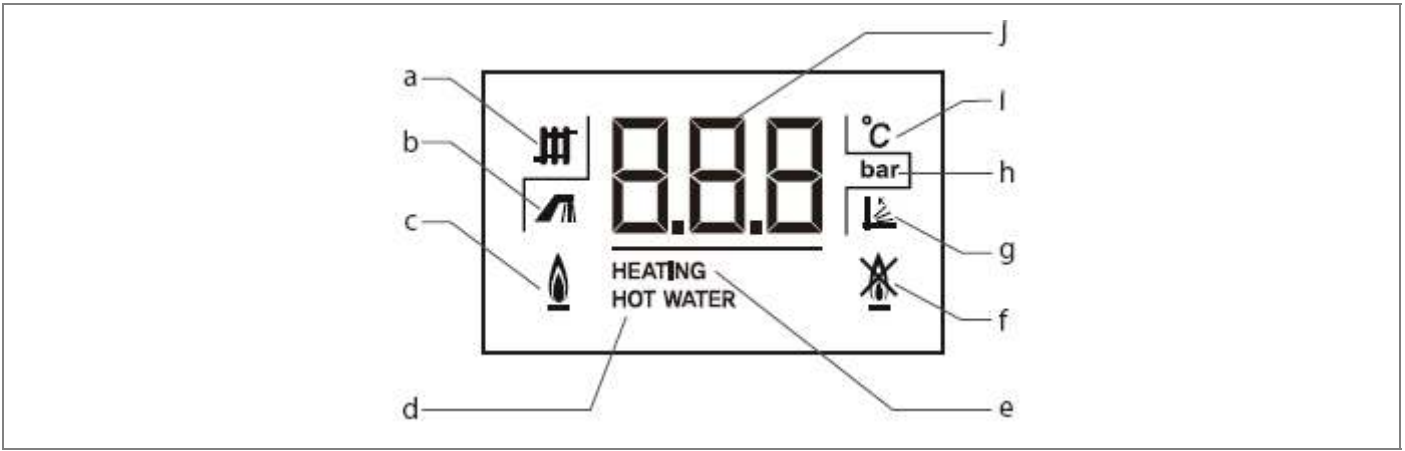
#### 7. Timer cover (optional)

If this cover is removed a timer can be fitted to control the heating functioning periods. The timer is an optional boiler accessory and may be ordered separately if required.



### 3.3. Digital display

The electronic control system of the **NCN CE** boiler includes a digital display located on the control panel, which shows all operating data, parameters and values. This display is also used to access the appliance's user and technical parameters. During normal operating mode (default display), the real boiler temperature is shown. If malfunction occurs, an alarm code will appear on the digital display instead of the temperature.



#### **a** Heating symbol

**On:** This indicates the boiler is in heating production mode. The boiler temperature is shown on the numerical display.

**Flashing:** This indicates the control is in boiler temperature setpoint selection mode. The numerical display shows the boiler setpoint temperature. The desired value can be selected by turning the boiler temperature dial.

#### **b** DHW symbol

**On:** This indicates the boiler is in DHW mode.

**Flashing:** This indicates the control is in DHW temperature setpoint selection mode. The numerical display shows the DHW setpoint temperature. The desired value can be selected by turning the DHW temperature dial.

#### **c** Flame symbol

**On:** This indicates the boiler gas burner is ignited.

#### **d** DHW functioning symbol

**Flashing:** This indicates the DHW preheating function is on.

#### **e** Heating functioning symbol

**On:** This indicates the boiler is running in heating production mode.

#### **f** Block symbol

**On:** This indicates that boiler functioning is blocked. The blockage alarm code appears on the numerical display.

#### **g** Outdoor sensor symbol

**On:** This indicates that an outdoor temperature sensor is connected to the boiler. The outdoor sensor is an optional accessory and is not supplied with the boiler.

#### **h** Water pressure symbol

**On:** The boiler water pressure is shown on the numerical display.

#### **i** Temperature symbol

**On:** The numbers shown on the numerical display correspond to a temperature in °C.

#### **j** Numerical display

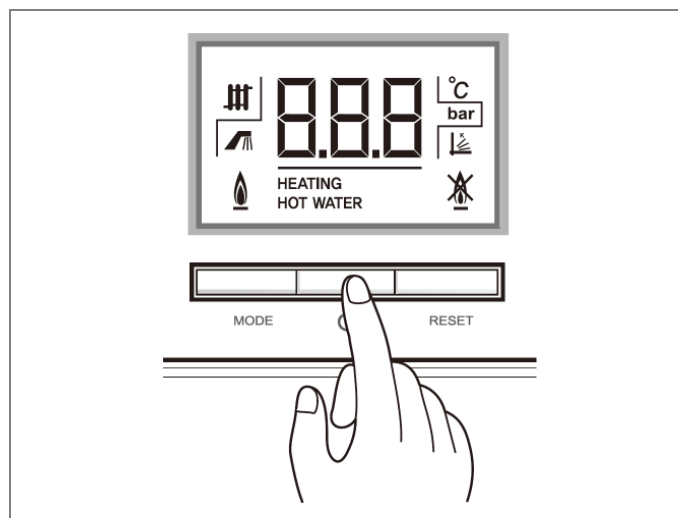
## 4. Switching the boiler on and off

### 4.1. Switching on the boiler

To switch on the boiler, press the button **j**.

When the boiler is switched on, its current operating mode status will appear on the digital display.

To change the operating mode or any of the appliance parameters, carefully read the following sections below, which contain a description of all the DHW and heating function parameters.

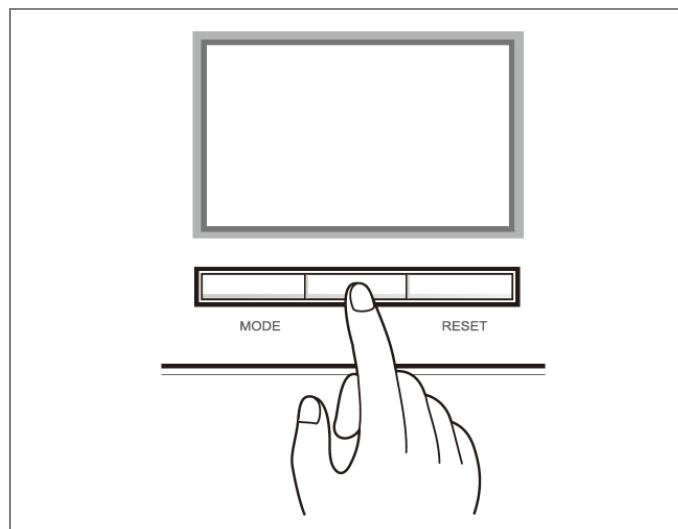


### 4.2. Switching off the boiler and standby

To switch off the boiler, hold down the button **j** for at least 1 second.

The boiler will go into “standby” mode, i.e. all the DHW and heating functions will be turned off except the “anti-frost protection” and “pump anti-block” safety functions.

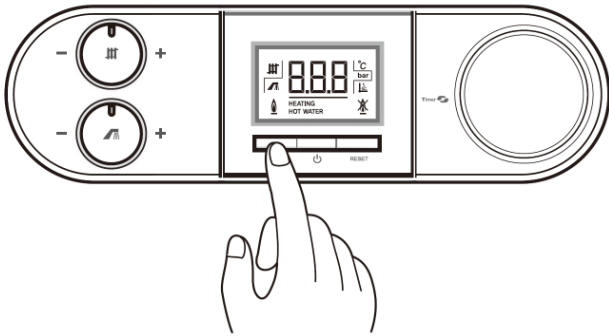
**Note** If the electronic controller detects no boiler activity in a period of 24 hours or more, it will activate the pump anti-block function, starting up the air fan, the valves and the pumps connected to the boiler and allowing them to run for 30 seconds.



## 5. User Menu

The "User Menu" shows the parameters related to boiler current functioning situation on the digital display.

To access this display mode, press the **MODE** button. Press the button repeatedly to browse through the different parameters available. These parameters are listed in the figure below:



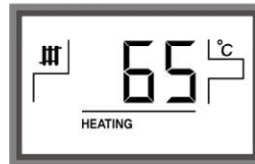
1. DHW temperature setpoint



2. Boiler temperature setpoint



3. Current boiler temperature



4. Water pressure



5. Room temp. setpoint<sup>(1)</sup>



6. Current room temperature<sup>(1)</sup>



7. Real outdoor temp.<sup>(2)</sup>



8. Heating demand



Returns to normal display mode

(1) This is only shown when a remote control (optional) is connected to the boiler.

(2) This is only shown when an outdoor temperature sensor (optional) is connected to the boiler and "functioning according to outdoor temperature conditions" mode is enabled.

## 6. “Heating mode” functioning

This section describes how to use the boiler to provide heating for an installation connected to it (e.g. radiators or underfloor heating).

### 6.1. Boiler temperature selector

To adjust the boiler setpoint temperature, turn the heating temperature selector on the control panel. Turn the selector clockwise to increase the desired temperature and anti-clockwise to reduce it.

While the setpoint temperature is being adjusted, a flashing heating symbol will appear on the digital display. When you have selected the desired temperature, the display will return to normal viewing mode after 5 seconds.

The desired boiler setpoint temperature is the temperature of the primary heating circuit water when it is supplied to the installation connected (the flow temperature in radiator systems).

The following temperature range can be selected:

- Minimum 25°C: selector turned almost to its furthest left position.
- Maximum 85°C: selector turned to its furthest right position.

Depending on the season and the climate in the geographical area where the boiler is installed, the following temperature selector positions are recommended:

- The central third of the range during mild winter weather.
- The right third of the range during harsh winter weather.

### 6.2. Functioning with an outdoor temperature sensor. Adjustment according to weather conditions

If an outdoor temperature sensor is connected to the NCN CE boiler, the electronic control can be used to select the mode where the temperature is automatically adjusted to the weather conditions outside the home. In this operating mode, the boiler setpoint temperature is automatically adjusted by the electronic control according to the temperature outside the home, in accordance with a series of operating curves (K-factor), optimising the setpoint to achieve the greatest possible comfort and energy efficiency.

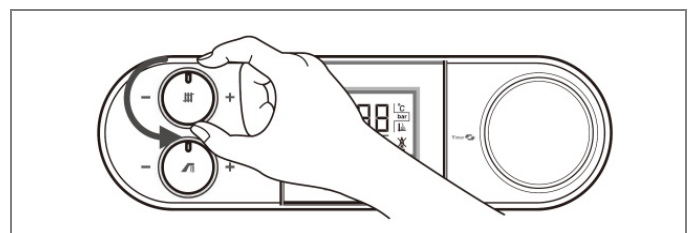
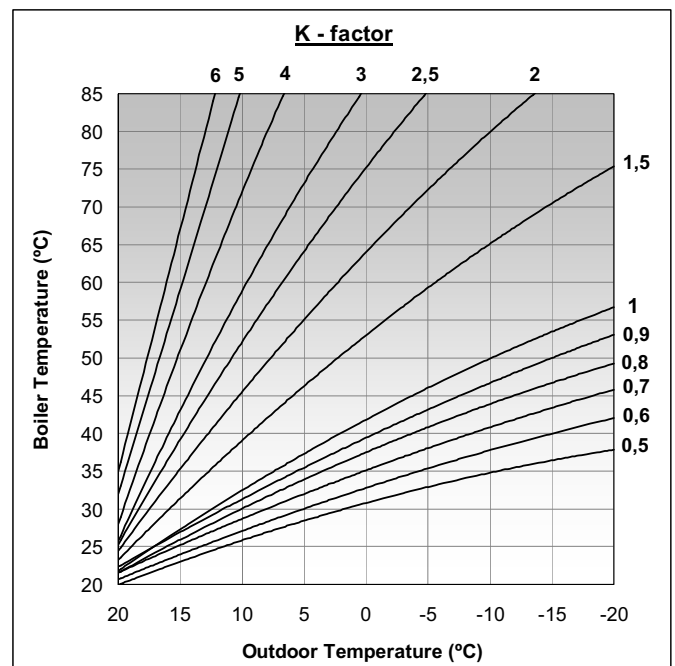
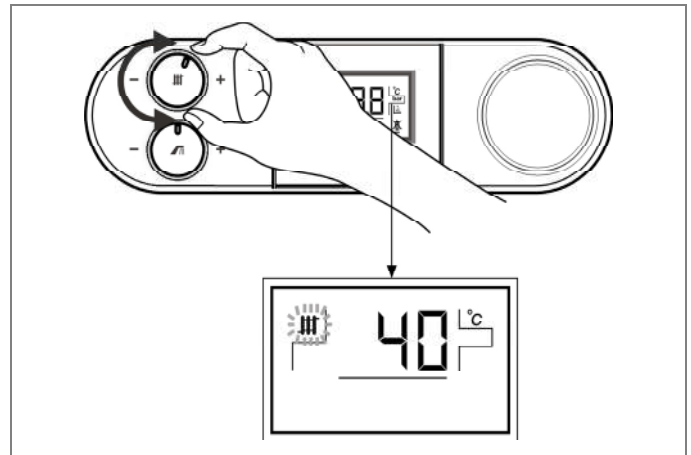
When the curve operating mode is activated, a K-factor operating curve should be selected for the installation using the heating temperature dial, instead of the boiler temperature setpoint. The range of K-factors that can be selected is 0.5 – 6.0.

The K-factor is the ratio of the outdoor temperature reading on the sensor installed outside the home and the boiler temperature setpoint. The graph shows the temperature ratio for each point on the K-factor. To select the most suitable curve for your installation, consult your installer or, failing this, the “installation manual” provided with the boiler.

### 6.3. Disabling “heating mode”

In summer the heating operating mode can be disabled while DHW production mode remains enabled.

To disable boiler “heating mode”, turn the heating temperature dial to its furthest left position.



## 7. Functioning in “DHW mode”

When a hot water tap in the installation is opened (washbasin, bath, shower, etc.), the boiler automatically goes into DHW production mode, providing hot water at the desired setpoint temperature. When DHW functioning mode is activated the heating function is disabled, as DHW production always takes priority.

When the tap is turned off again the boiler switches off, unless there is heating demand and this function is activated, in which case the boiler will continue running and will provide heating.

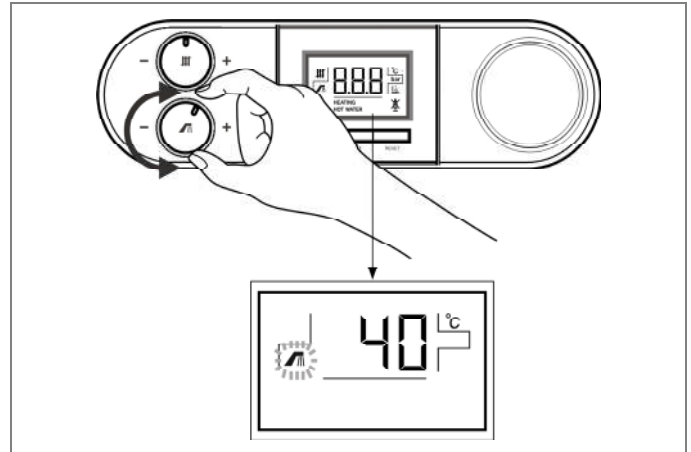
### 7.1. DHW temperature selection

To adjust the DHW setpoint temperature, turn the DHW temperature selector on the control panel. Turn the selector clockwise to increase the desired temperature and anti-clockwise to reduce it.

While the setpoint temperature is being adjusted, a flashing DHW symbol appears on the digital display. When you have selected the desired temperature, the display will return to normal viewing mode after 5 seconds.

The following temperature range can be selected:

- OFF: selector turned to its furthest left position
- Minimum 30°C: selector turned almost to its furthest left position
- Maximum 65°C: selector turned to its furthest right position.



### 7.2. DHW preheating

The NCN CE boiler has a DHW circuit preheating function, which constantly keeps this circuit at the selected DHW set point temperature so that when a tap is turned on hot water is provided as quickly as possible, improving home comfort and optimising water consumption.

When this function is enabled, the burner starts up automatically to keep the DHW inside the boiler hot.

To enable this function, adjust the value of parameter P.15 on the Technical Menu to "ON" (see "Technical Menu" in the installation and operating instructions).

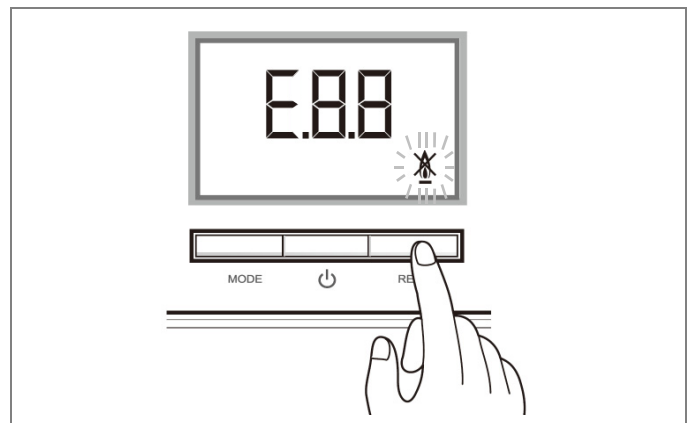
## 8. Resetting the boiler

The NCN CE boiler has an electronic controller which performs continuous self-testing to detect any operating failures in the boiler. When any such failure occurs, the boiler is blocked and stops functioning normally, an alarm code is displayed and the block symbol begins to flash on the digital display.

If you observe that the boiler is blocked, reset it and make sure normal functioning is resumed and that the anomaly has disappeared. If this is not the case and if the failure persists or recurs, switch off the boiler and contact the nearest Official Technical Assistance Service.

To reset the boiler's functioning, press the RESET button.

**Note** It will be very useful for the technical assistance service if you can inform them of the alarm code that has appeared.



## 9. Anti-frost function

This function protects the boiler from freezing up during cold weather. It remains on standby and takes priority over all other boiler functions while the boiler is connected to the electrical mains, i.e. it remains enabled even when the boiler is in standby position.

The anti-frost protection works in 2 stages, depending on the boiler temperature detected:

- 6 - 10°C:

When the boiler temperature drops to below 10°C, while it remains between 6 and 10°C the circulating pump is activated in cycles of 10 minutes on and 1 minute off.

- below 6°C:

If the boiler temperature drops below 6°C, the burner will start up, heating the installation until a temperature of 21°C is reached.

During SHORT periods of absence, particularly in winter and in areas with a high risk of freezing weather, it is recommended NOT to disconnect the boiler from the electrical mains or the gas supply, in order to keep the anti-frost function active and prevent possible bursts due to the water in the pipes freezing.

## 10. During long absences

If the boiler is to be out of use for a long period of time, particularly in winter or when the gas and electricity supply is cut off, the water should be drained from the boiler in order to prevent risk of bursts due to freezing.

To correctly drain the boiler, proceed as follows:

1. Switch off the boiler.
2. Close all the valves.
3. Drain the water from the boiler using the drain valve.
4. When all the water has been drained off, close the drain valve.

## 11. Maintenance and Official TAS

To ensure boiler safety, availability of functioning, durability and a long appliance lifetime, it is essential to make the following checks and annual overhauls regulated by law, at the least. Boiler start-up and maintenance operations must be carried out by an official Technical Assistance Service authorised by NAVIEN.

Periodical maintenance ensures optimum performance and cost-effective functioning of the boiler.

## 12. Troubleshooting

### 12.1. Troubleshooting

| Anomaly   | Possible causes   |
|---|---|
| Nothing appears on the digital display            | Has there been a power cut?<br>Is the main electrical supply to the boiler connected?   |
| No water is coming out.                           | Is the water supply blocked?<br>Has the tap been totally turned on?<br>Has the boiler water frozen?<br>Is there an error code on the digital display? |
| No hot water is being supplied.                   | Are the gas flow valves open?<br>Is the gas supply working correctly?<br>Is the temperature correctly selected on the control panel?                  |
| The desired water temperature cannot be obtained. | Are all the gas flow valves open?<br>Is the temperature correctly selected on the control panel?  |

## 12.2. Alarm codes

Boiler alarms are indicated by a flashing error code on the digital display. The boiler block symbol may also appear. The table below gives a description of each error code. If the alarm is not cleared by resetting the boiler functioning (see "Resetting the boiler") or if it occurs repeatedly, call the nearest Official Technical Assistance Service (TAS), indicating the number of the alarm code appearing on the display.



| Alarm codes | Cause                                       | Action required                        |
|-------------|---|--|
| E02         | Low water pressure                          | If it occurs repeatedly, call the TAS. |
| E03         | Ignition failure                            | Reset the boiler.                      |
| E04         | Flame simulation                            | Call the TAS.                          |
| E05         | Boiler temperature sensor: open             | Call the TAS.                          |
| E06         | Boiler temperature sensor: shorted          | Call the TAS.                          |
| E07         | DHW temperature sensor: open                | Call the TAS.                          |
| E08         | DHW temperature sensor: shorted             | Call the TAS.                          |
| E09         | Fan anomaly                                 | Reset the boiler.                      |
| E10         | Air pressure anomaly                        | Reset the boiler.                      |
| E11         | Water pressure sensor failure               | Call the TAS.                          |
| E12         | Flame failure                               | Reset the boiler.                      |
| E15         | BMC anomaly                                 | Reset the boiler.                      |
| E16         | Heat exchanger overheating                  | Reset the boiler.                      |
| E17         | Switch selection error                      | Reset the boiler.                      |
| E18         | Return temperature sensor: open             | Call the TAS.                          |
| E19         | Return temperature sensor: shorted          | Call the TAS.                          |
| E21         | DCW temperature sensor: open                | Call the TAS.                          |
| E22         | DCW temperature sensor: shorted             | Call the TAS.                          |
| E27         | Air pressure sensor anomaly                 | Reset the boiler.                      |
| E28         | Water leak                                  | Call the TAS.                          |
| E30         | Flue gases outlet overheating               | Reset the boiler.                      |
| E40         | Outdoor temperature sensor: shorted         | Call the TAS.                          |
| E41         | Outdoor temperature sensor: open            | Call the TAS.                          |
| E50         | Automatic fill valve anomaly.               | Reset the boiler.                      |
| E61         | Auxiliary hot water tank thermostat failure | Call the TAS.                          |
| E62         | External safety system                      | Call the TAS.                          |
| E64         | Safety valve anomaly                        | Call the TAS.                          |
| E65         | External pump anomaly                       | Reset the boiler.                      |
| E82         | Boiler communication failure                | Call the TAS.                          |
| E93         | Abnormal functioning of panel buttons       | Call the TAS.                          |

### 13. Technical characteristics

The following table shows the technical data for all the models:

| Specifications  |    | NCN CE 21K    | NCN CE 25K    | NCN CE 32K    | NCN CE 37K    |
|---|----|---------------|---------------|---------------|---------------|
| Heating consumption (Max/Min)                                     | kW | 19.6 / 4.9    | 23.5 / 4.9    | 30.0 / 7.0    | 34.9 / 7.0    |
| DHW heat consumption (Max/Min)                                    | kW | 23.5 / 4.9    |               | 34.9 / 7.0    |               |
| Heating output (Max/Min) at 80/60 °C                              | kW | 19.3/4.8      | 23.1 / 4.8    | 29.5 / 6.8    | 34.2 / 6.8    |
| DHW output (Max/Min)  | kW | 23.1 / 4.8    |               | 34.2 / 6.8    |               |
| Condensing heating output (Max/Min) at 50/30 °C                   | kW | 21.1/5.2      | 25.2 / 5.2    | 32.6 / 7.5    | 37.6 / 7.5    |
| Full load efficiency at Max/Min output, at 80/60 °C               | %  | 98.3/97.4     | 98.1 / 97.4   | 98.4 / 97.6   | 98.0 / 97.6   |
| Full load efficiency at Max/Min output, at 50/30°C (condensation) | %  | 107.9 / 106.9 | 107.2 / 106.9 | 108.6 / 106.9 | 107.7 / 106.9 |
| Partial load (30%) efficiency, with 47 °C return temperature      | %  | 100.7         | 101.6         | 101.8         | 101.9         |
| Partial load (30%) efficiency, with 30 °C return temperature      | %  | 109.6         | 108.4         | 108.4         | 108.3         |
| Heat Loss through the Case with Burner On                         | %  | 0.1           | 0.1           | 0.1           | 0.1           |
| Heat Loss through the Chimney with Burner On                      | %  | 1.6           | 1.8           | 1.5           | 1.9           |



## 14. Use and service conditions

### 14.1. Guarantee conditions

NAVIEN's **commercial guarantee** covers the correct functioning of the products manufactured by Navien, in accordance with the following conditions and time periods:

1. This **commercial guarantee** is valid for the following periods, as from the **start-up** date:

**2 Years** for electric and hydraulic elements, pumps, valves, etc.

**5 Years** for heat exchangers.

**5 Years** for domestic hot water tanks.

During the 2-year period following the start-up date, Navien will carry out any repairs of original flaws or defects totally free of charge.

After these 2 years have elapsed and until the end of the guarantee period, labour costs and call-out charges will be payable by the user.

2. The annual overhaul is not included in the terms of this guarantee.
3. The **start-up** and **annual overhaul** are to be carried out by personnel authorised by NAVIEN.
4. The **commercial guarantee** will be null and void in the following cases:

If the **annual overhaul** by personnel authorised by Navien has not been carried out.

If the boiler has not been installed in accordance with the applicable laws and regulations for this type of appliance.

If the boiler has not been started up immediately after its installation, by personnel authorised by Navien.

Failures due to misuse or incorrect installation, use of non-suitable power or fuel, supply with water with physical or chemical properties causing incrustation or corrosion, incorrect handling of the appliance and, in general, for any reason beyond Navien's control, are excluded from this guarantee.

This guarantee does not affect the consumer's rights as stipulated by law.

Note: Start-up is included in the price of the boiler. **The call-out charge is not included.**

### 14.2. Suitable use

The **NCN CE** boiler is designed with all the necessary safety systems. Unsuitable use of the appliance for a purpose it was not designed for entails risk of damage to the boiler or property, and even of injury or death to the user and other persons.

The **NCN CE** boiler is designed to generate heat for domestic hot water and to be connected to central heating systems. Any use other than the above will be considered unsuitable use of the boiler. In such cases the manufacturer/supplier shall not be liable for any damage caused, and the user will be liable for the damage. Correct use of the boiler includes reading the user and installation instructions and all applicable documents, and complying with the maintenance and inspection conditions.

### 14.3. Everyday care

Clean the outside of the boiler with a damp cloth with a little detergent.

DO NOT USE abrasive products to clean the boiler.

### 14.4. Waste recycling and disposal

Observe the applicable national regulations and standards concerning waste disposal.

#### The boiler

Neither the wall-mounted boiler or its accessories are to be disposed of with the domestic waste. Ensure the appliance and its accessories, where applicable, are suitably disposed of.

#### Packaging

The transport packaging will be disposed of by the specialist technician who made the installation.





# navien

Gas Fired Wall Mounted Condensing  
Combination Boiler

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