MODELS CH-299, CH-399, CH-499

HIGH EFFICIENCY CONDENSING GAS BOILER

CH - USER'S INFORMATION MANUAL

59.0 °F

Actual Setpoint   70.0 °F
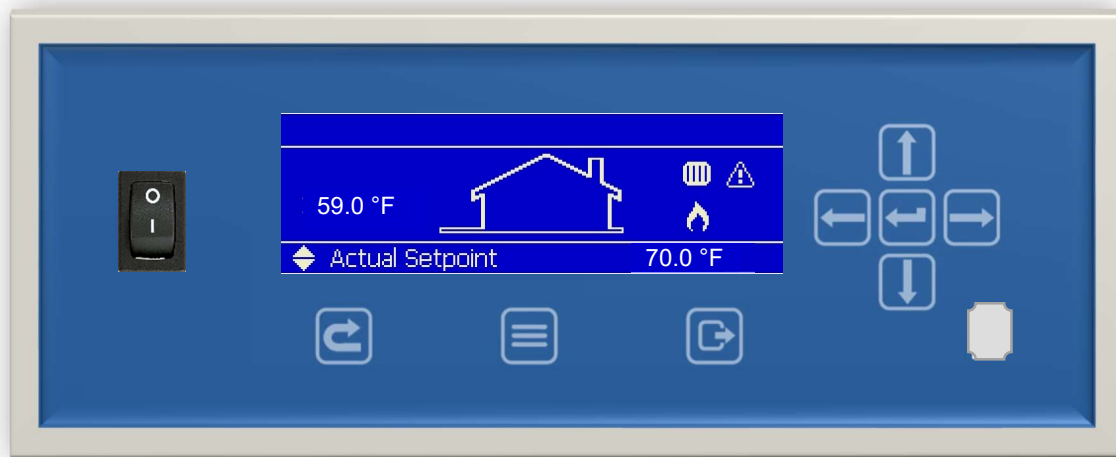
WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

- WHAT TO DO IF YOU SMELL GAS:

  • Do not try to light any appliance.
  • Do not touch any electrical switch; do not use any phone in your building.
  • Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  • If you cannot reach your gas supplier, call the fire department.

- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

This manual must be left with owner and should be hung on or adjacent to the boiler for reference.

AVERTISSEMENT. Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

Ne pas entreposer ni utiliser d'essence ou ni d'autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.

- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ :

  • Ne pas tenter d'allumer d'appareils.
  • Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones dans le bâtiment où vous vous trouvez.
  • Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
  • Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

TABLE OF CONTENTS

IMPORTANT

READ ALL OF THE FOLLOWING WARNINGS AND STATEMENTS BEFORE READING THE INSTALLATION INSTRUCTIONS

⚠️
DANGER

Danger Sign: indicates the presence of an imminently hazardous situation that will cause death, serious personal injury or substantial property damage.

⚠️
WARNING

Warning Sign: indicates the presence of a hazardous situation which can cause death, serious personal injury or substantial property damage.

⚠️
CAUTION

Caution Sign plus Safety Alert Symbol: indicates a hazardous situation which will or can cause minor or moderate personal injury or property damage.

⚡
CAUTION

Caution Sign plus a lightning bolt: indicates the risk of electric shock and the potential of hazards due to electric shock.

❗
NOTICE

Notice Sign: indicates special instructions on installation, operation or maintenance that are important but not related to personal injury or property damage.

⚠️
WARNING

This Boiler must be installed by a licensed and trained Heating Technician or the Warranty is void. Failure to properly install this unit may result in property damage, serious injury to occupants, or possibly death.

1 SAFETY GUIDELINES

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

- If you cannot reach your gas supplier, call the fire department.

C. **Use only your hand to turn the manual gas shutoff valve. Never use tools. If the manual valve will not turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion**

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

OPERATING INSTRUCTIONS

1. **STOP! Read the safety information above on this label.**

2. **Set the thermostat to the lowest setting**

3. **Turn off all electric power to the appliance**

4. This appliance does not have a pilot. it is equipped with an ignition device which automaticly lights the burner. Do not try to light the burner by hand.

5. The manual gas shut off is located beneath the appliance cabinet, in the gas piping.

6. **The manual gas shutoff valve is located beneath the appliance cabinet; turn the handle clockwise to the full OFF position (perpendicular to the gas piping).**

7. **Wait five (5) minutes to clear out any gas. Then smell for gas including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to next step.**

8. **Turn manual gas shutoff valve counterclockwise to ON position (parallel to gas piping)**

9. Turn on all electric power to the appliance.

10. Set the thermostat to the desired setting.

11. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance"and call your service technician or gas supplier.
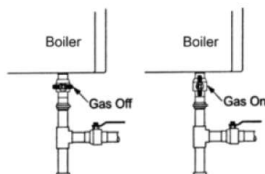
TO TURN OFF GAS TO APPLIANCE

1. **Set the thermostat to the lowest setting.**

2. **Turn off all electric power to the appliance if service is to be performed.**

3. **The manual gas shutoff valve is located beneath the appliance cabinet; turn the handle clockwise to the full OFF position (perpendicular to the gas piping).**

CONSIGNES DE SÉCURITÉ

POUR VOTRE SÉCURITÉ LISEZ AVANT DE METTRE EN MARCHE

AVERTISSEMENT: Quiconque ne respecte pas à la lettre les instructions dans la présente notice risque de déclencher un incendie ou une explosion entraînant des dommages, des blessures ou la mort.

A. Cet appareil ne comporte pas de veilleuse. Il est muni d'un dispositif d'allumage qui allume automatiquement le brûleur. Ne tentez pas d'allumer le brûleur manuellement.

B. AVANT DE FAIRE FONCTIONNER, reniflez tout autour de l'appareil pour déceler une odeur de gaz. Reniflez près du plancher, car certains gaz sont plus lourds que l'air et peuvent s'accumuler au niveau du sol.

QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ
- Ne pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur ; ne pas vous servir des téléphones se trouvant dans le bâtiment.
- Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur, appelez le service des incendies.

C. N'utilisez que votre main pour tourner la vanne d'arrêt manuelle. N'utilisez jamais d'outils. Si la vanne manuelle ne tourne pas à la main, n'essayez pas de la réparer, appelez un technicien sevice qualifié. La force ou la tentative de réparation peut entraîner un incendie ou une explosion.

D. N'utilisez pas cet appareil s'il a été plongé dans l'eau, même partiellement. Faites inspecter l'appareil par un technicien qualifié et remplacez toute partie du système de contrôle et toute commande qui ont été plongés dans l'eau.

INSTRUCTIONS DE MISE EN MARCHE

1. ARRÊTEZ! Lisez les instructions de sécurité sur la portion supérieure (à gauche) de cette étiquette.

2. **Réglez le thermostat à la température la plus basse**

3. **Coupez l'alimentation électrique de l'appareil**

4. Cette apparell ne comporte pas de veilleuse. Il intègre un dispositif d'allumage automatique du brûleur. N'essayez pas d'allumer manuellement le brûleur.

5. L'interrupteur de gaz principal se trouve directement sous la chaudière, sur la conduit d'alimentation en gaz.

6. L'interrupteur de gaz principal se trouve directement sous la chaudière. Tournez l'interrupteur de gaz principal ⌢ dans le sens horaire pour couper l'alimentation en gaz.

7. Attendre cinq (5) minutes pour laisser échapper tout le gaz. Reniflez tout autour de l'appareil, y compris près du plancher, pour déceler une odeur de gaz. Si vous sentez une odeur de gaz, ARRÊTEZ ! Passez à l'étape B des instructions de sécurité sur la portion supérieure (à gauche) de cette étiquette. S'il n'y a pas d'odeur de gaz, passez à l'étape suivante.

8. **Tournez l'interrupteur de gaz principal ⌢ dans le sens antihoraire en position ON (parallèle à la tuyauterie de gaz)**

9. Mettez l'appareil sous tension.

10. Réglez le thermostat à la température désirée.

11. Si l'appareil ne se met pas en marche, suivez les instructions intitulées "Comment couper l'admission de gaz de l'appareil" et appelez un technicien qualifié ou le fournisseur de gaz.
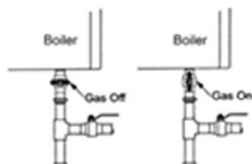
Comment couper l'admission de gaz de l'appareil.

1. **Réglez le thermostat à la température la plus basse**

2. **Coupez l'alimentation électrique de l'appareil s'il faut procéder à l'entretien**

3. L'interrupteur de gaz principal se trouve directement sous la chaudière. Tournez l'interrupteur de gaz principal ⌢ dans le sens horaire pourcouper l'alimentation en gaz.

⚠️ **CAUTION**	This boiler is equipped with a pressure switch in the event of a blocked vent the boiler will lockout. No attempt by the user/owner must be made to put the boiler back intro operation. A qualified service technician must be notified of the issue. The boiler may only be reset by a qualified service technician after they have diagnosed and corrected the issued that caused the safety lockout of the boiler.

⚠️ **DANGER**	"Should overheating occur or the gas supply fail to shut off, do not turn off or disconnect the electrical supply to the circulator. Instead, shut off the gas supply at a location external to the appliance."

! **NOTICE**	Recommended is the installation of a carbon monoxide detector in the boiler room for all installations.

⚠️ **WARNING**	WARNING: There are no user serviceable parts on this boiler. Warranty does not cover defects caused by attempts to service this boiler by someone other than a qualified gas service technician. These attempts could cause property damage, personal injury or loss of life.

⚠️ **WARNING**	⚠️ **Avertissement**
WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury (exposure to hazardous materials) * or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier (who must read and follow the supplied instructions before installing, servicing, or removing this boiler. This boiler contains materials that have been identified as carcinogenic, or possibly carcinogenic, to humans)	AVERTISSEMENT: Une installation, un réglage, une modification, une réparation ou un entretien non conforme aux normes peut entraîner des dommages matériels, des blessures (exposition à des matières dangereuses) ou la mort. L'installation et l'entretien doivent être effectués par un installateur ou un service d'entretien qualifié ou le fournisseur de gaz (qui doivent avoir lu les instructions fournies avant de faire l'installation, l'entretien ou l'enlèvement de la chaudière et les respecter. Cette chaudière contient des matériaux qui ont été identifiés comme étant cancérogènes ou pouvant l'être).

⚠️ **DANGER**	Do not use this boiler if any part has been under water. Immediately call a qualified service technician to inspect the boiler and to replace any part of the control system and any gas control which has been under water

⚠️ **WARNING**	WARNING: **Crystalline Silica** - Certain components in the combustion chamber may contain this potential carcinogen. Improper installation, adjustment, alteration, service or maintenance can cause property damage, serious injury (exposure to hazardous materials) or death. Refer to Section 20.2 of the Installation and service manual for information on handling instructions and recommended personal protective equipment. Installation and service must be performed by a qualified installer, service agency or the gas supplier (who must read and follow the supplied instructions before installing, servicing, or removing this boiler. This boiler contains materials that have been identified as carcinogenic, or possibly carcinogenic, to humans).

To meet commercial hot water requirements, the tank setpoint is adjustable up to 185°F. However, water temperatures over 125°F can cause severe burns instantly or death from scalds. This is the preferred starting point for setting the control for supplying general purpose hot water.

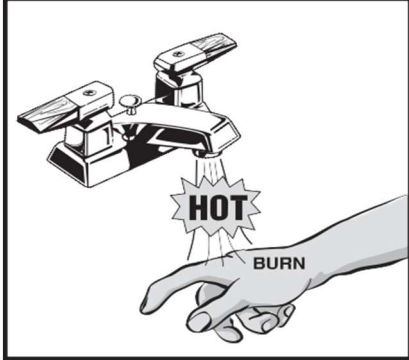| ⚠️ **WARNING**	WARNING: Water temperatures over 125 °F (52 °C) can cause severe burns instantly or death from scalding. The tank temperature is factory set at 140 °F (60 °C) to minimize legionella risk. Before bathing or showering always check the water temperature.

To avoid any potential scald hazard or if codes require specific water temperatures at the hot water faucet, the installer must:
- Install a thermostatic mixing valve at this appliance and ensure it is working properly AND
- Set the domestic hot water temperature to the lowest temperature which satisfies your hot water needs.
- Feel and adjust water temperature before bathing or showering.
- Water drained from the system drain valves may be extremely hot.

TO AVOID INJURY
- Make sure all connections are tight.
- Direct water flow away from any person.
- Failure to comply with these instructions will result in substantial property damage, serious injury, or death.

Water temperature over 125°F can cause instant severe burns or death from scalds.

Children, disabled, and elderly are at highest risk of being scalded.

- Never leave them unattended in or near shower, bathtub or sink

- Never allow small children to use a hot water faucet or draw their own bath

Temperature	Time to Produce Serious Burn
120°F	More than 5 minutes
125°F	1-1/2 to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds
150°F	About 1-1/2 seconds

Table courtesy of Shriners Burn Institute.

Maximum water temperatures occur just after burner has shut off. To find hot water temperature being delivered, turn on a hot water faucet and place a thermometer in the hot water stream and read the thermometer.

Time/Temperature Relationships in Scalds

The temperature of the water in the storage tank can be regulated by setting the temperature at the boiler. To comply with safety regulations, the setpoint was set at its lowest setting before shipment from the factory.

⚠️ **CAUTION**	Hotter water increases the risk of SCALDING!

❗ **NOTICE**	When this boiler is supplying general purpose hot water for use by individuals, a thermostatically controlled mixing valve for reducing point of use water temperature is recommended to reduce the risk of scald injury. Contact a licensed plumber or the local plumbing authority for further information.

2 INTRODUCTION

This manual is written for the installer and service technician.

The manufacturer is not accountable for any damage caused by failure to correctly follow these instructions. For service and repair purposes use only original spare parts.

All documentation produced by the manufacturer is subject to copyright law.

This manual is subject to change without notice.

2.1 Explanations.

CH = Central Heating (for central heating purposes and/or indirect hot water)
DHW = Domestic Hot Water
BCU = burner control unit
PB = display board/ control panel (Pixel Button)
299/399/499 = Model number of the boiler.

2.2 Maintenance and inspection

Visually inspect the venting system for proper size and horizontal pitch and determine there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.

Maintenance and inspection of the boiler should be carried out at the following occasions:
- **When a number of similar error codes and/or lock-outs appear.**
- **At least every 12 months maintenance must be done to ensure safe and efficient operation.**

Damage caused by lack of maintenance will not be covered under warranty

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Ce manuel est écrit pour l'installateur et le technicien d'entretien.

Le fabricant n'est pas responsable de tout dommage causé par ne pas suivre correctement de ces instructions. Pour service et réparation, utiliser seulement pièces de rechange de le fabricant.

Tout documentation produit par le fabricant est sous réserve de la loi sur le droit d'auteur. Ce manuel est sujet à changement sans préavis.

Explications

CH = Chauffage central (pour objectif chauffage et/ ou eau chaude indirect)
DHW = Eau Chaude Sanitaire (ECS)
BCU = commande (burner control unit)
PB = écran (Pixel Button)
299/399/499 = Modèle numéro de chaudière.

Entretien et inspection

Inspecter de façon visuelle le système d'évacuation pour déterminer la grosseur et l'inclinaison horizontale qui conviennent et s'assurer que le système est exempt d'obstruction, d'étranglement, de fuite, de corrosion et autres défaillances qui pourraient présenter des risques.

L'entretien et l'inspection de la chaudière doivent être effectués aux occasions suivantes :
- **Lorsqu'un certain nombre de codes d'erreur et/ou de verrouillage semblables apparaissent.**
- **Au moins tous les 12 mois, l'entretien doit être fait pour assurer un fonctionnement sûr et efficace.**

Les dommages causés par le manque d'entretien ne seront pas couverts par la garantie

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2.2.1 ON A CONTINUOUS BASIS

- Do not store or use flammable vapors or liquids, such as gasoline, in the vicinity of the boiler.
- Do not expose the boiler to dust from construction or woodworking
- Do not store or use in the boiler room and keep the boiler area free from the following items
  - Spray cans containing chloro-/fluorocarbons
  - Ammonium and/or ammonium solutions
  - Permanent wave solutions (hair product)
  - Chlorinated waxes and/or cleaners
  - Swimming pool chemicals based on chlorine
  - Calcium chloride used for thawing
  - Sodium chloride used for water softening
  - Refrigerant leaks
  - Paint or varnish removers
  - Hydrochloric acid/muriatic acid
  - Cements and glues
  - Antistatic fabric softeners used in clothes dryers
  - Chlorine-type bleaches, detergents, and cleaning solvents
  - found in household laundry rooms
  - Adhesives used to fasten building products and other similar products

2.2.2 On a Monthly basis

- Visually inspect the venting system for proper size and horizontal pitch and determine there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
- Inspect around the exhaust vent and air inlet terminations outside the home for obstructions. Keep area clear of snow and debris. Inspect also for any gaps at the wall penetration(s) which could allow vented gasses to reenter the home.
- Visually inspect water and gas pipes for leaks.
- Visually inspect to see that the condensate trap not blocked and is filled with water.
- If there is a condensate neutralizer installed check to see if it has neutralizing media in it.
- Inspect the pressure relief valve for signs of leakage
- If any problems are found during inspection notify a qualified service technician

2.2.3 On an Annual basis (every 12 months)

- Have a qualified service technician perform a complete service and maintenance of the boiler in accordance with the Installation, Operation, and Service manual.

⚠️ **WARNING**	WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury (exposure to hazardous materials) * or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier (who must read and follow the supplied instructions before installing, servicing, or removing this boiler. This boiler contains materials that have been identified as carcinogenic, or possibly carcinogenic, to humans)
⚠️ **WARNING**	WARNING: **Crystalline Silica** - Certain components in the combustion chamber may contain this potential carcinogen. Improper installation, adjustment, alteration, service or maintenance can cause property damage, serious injury (exposure to hazardous materials) or death. Refer to Section 19 for information on handling instructions and recommended personal protective equipment. Installation and service must be performed by a qualified installer, service agency or the gas supplier (who must read and follow the supplied instructions before installing, servicing, or removing this boiler. This boiler contains materials that have been identified as carcinogenic, or possibly carcinogenic, to humans).

3   DISPLAY AND BUTTONS
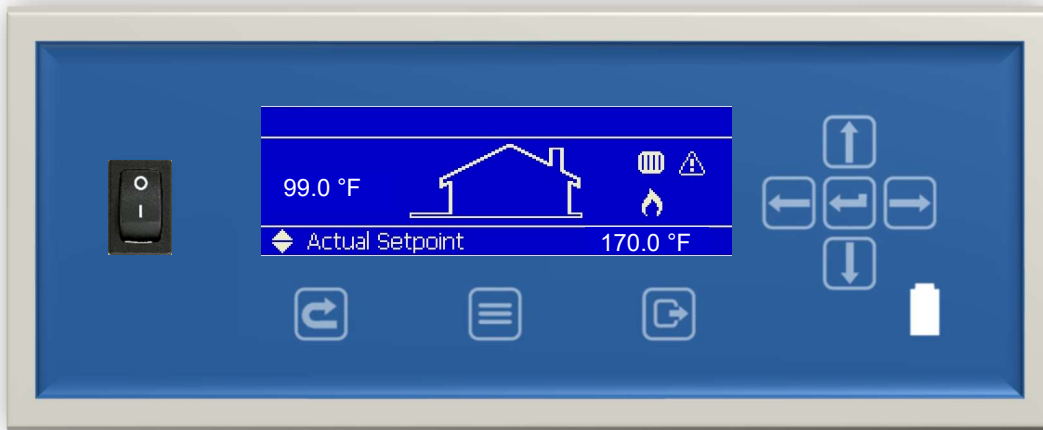
3.1 Explanation of the buttons

On / off switch. Switches electrical power to the boiler
Connector for computer cable
Reset lockout error
Main Menu
Escape / Return to the status overview
Right Enter a menu item or confirm selection in Status overview (when directly setting Actual setpoint or DHW setpoint)
Left Return to previous menu item or Status overview
Up Directly select Actual setpoint of DHW setpoint in the Status overview, push RIGHT to confirm and use UP or DOWN to adjust value.
Down Directly select Actual setpoint of DHW setpoint in the Status overview, push RIGHT to confirm and use UP or DOWN to adjust value.
Enter Confirm a setting or enter a menu item

3.2 Display configuration.

The Status overview has three different sections that show specific information:

Header — Middle section — Footer

59 °F

Actual Setpoint   155 °F
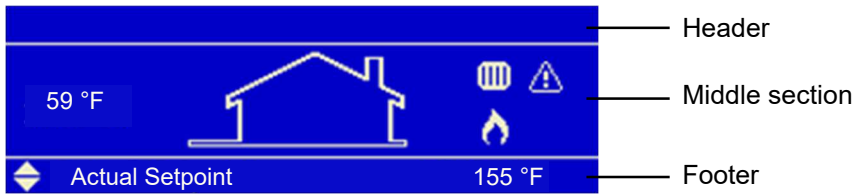
Header
- Left: For cascade systems the cascade icon is shown, with the cascade manager indication (M) or the dependent number.
- Center: Shows the CH and/or DHW disabled icons when CH and/or DHW is disabled
- Right: Shows the time (only if the real-time clock is available).

Icon	Description
	Cascade icon
	CH Disabled
	DHW Disabled

Middle section
- Left: Shows user-configured information (by default only the outside temperature):

Line	Info
Top	Burner state (when enabled)
Middle	Configured/selected temperature (one of the following): ▪ Outside temperature ▪ Demand based (Flow or DHW temperature based on active demand) ▪ Flow temperature ▪ DHW temperature ▪ System temperature (module cascade flow/supply temperature) ▪ Cascade temperature (boiler cascade flow/supply temperature)
Bottom	CH water pressure (when enabled)

- Center: The house icon is always displayed.

- Right side: Shows several status icons:

Icon	Description
	CH demand
	DHW demand
	Emergency mode is active (for cascade systems only)
	Burner is on (and flame is detected)
	Frost protection is active
	Anti-legionella program is active.
	Error is set in the Main Control (see footer for error description)

Footer
- Shows Error/Warning messages when an Error or Warning is set in the Main Control, otherwise a quick menu is displayed where the user can quickly edit setpoints and enable/disable CH or DHW.

Quick Menu / Parameter	Description	Value / Unit	User level
CH Control	Enable/disable Central Heating		0: User
CH Setpoint	Edit Central Heating setpoint (when available)		0: User
Calculated Setpoint	Show the calculated setpoint (when available)		0: User
DHW Control	Enable/disable Domestic Hot Water		0: User
DHW (Store) Setpoint	Edit the DHW (Store) setpoint (when available).		0: User

Note: Cascade dependents will only have the 'Calculated Setpoint' available.

4   STARTING THE BOILER

If the boiler is not on make sure the gas valve beneath the boiler is open and the power to the boiler has been connected and is turned on. Use the on/off button to switch the boiler on. The following screen will occur:

Initializing

This screen is active during power up until communication with the main Control has been established.
After communication has been established the Dair mode starts and the following screen appears:

DAIR RUNNING

The "De-Air" sequence is a safety function that starts at every power-up and is used to remove the air from the heat exchanger. The De-Air sequence takes around 14 minutes to complete. It can be cancelled by pressing the Enter button for over 5 seconds.

After completion or manual ending the "De-Air" sequence one of the following Status overview screens appears:
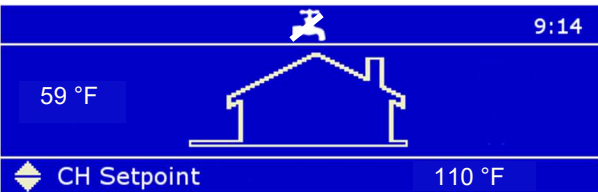
    Central Heating only

OR
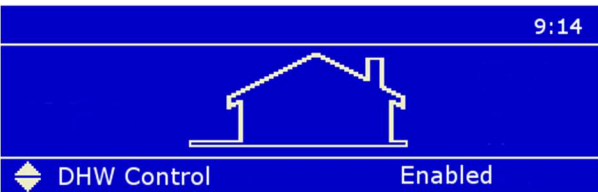
    Central Heating
AND
Domestic Hot Water

4.1 Changing the Setpoint and/or Enabling CH/DHW.

This can be done directly via the Status overview (as shown above) or via the MENU.
When CH is active, you can adjust the Actual setpoint directly on the bottom of the Status overview. When DHW is active, you can adjust the DHW setpoint directly on the bottom of the Status overview.
This means that when CH is active, you cannot set the DHW setpoint directly via the Status overview. When DHW is active, you also cannot set the Actual setpoint (CH setpoint) directly via the Status overview.

4.1.1   CHANGING THE CENTRAL HEATING SETPOINT DIRECTLY.

Press the UP or DOWN button to select the mode:

⬍ CH Setpoint	70.0 °F

70.0 °F is just an example of a possible temperature value.
Use the left/right buttons to move the ⬍ sign to the front of the temperature digits.

CH Setpoint	⬍ 70.0 °F

Use UP/DOWN buttons to increase/decrease the setpoint.
Press the ENTER or RIGHT button to confirm your alteration or press the BACK or LEFT button to cancel

A setpoint is only visible on the main screen when no error or alert is active. In case of an active error or alert, the bottom right part of the PB screen is used to display the error or alert

4.1.2   CHANGING THE DHW SETPOINT DIRECTLY.

Only applicable if this function is available.

Press the UP or DOWN button to select the mode:

⬍ DHW Store Setpoint	57.0 °F

57.0 °F is just an example of a possible temperature value.
Use the left/right buttons to move the ⬍ sign to the front of the temperature digits.

DHW Store Setpoint	⬍ 57.0 °F

Use UP/DOWN buttons to increase/decrease the setpoint.
Press the ENTER or RIGHT button to confirm your alteration or press the BACK or LEFT button to cancel.

A setpoint is only visible on the main screen when no error or alert is active. In case of an active error or alert, the bottom right part of the PB screen is used to display the error or alert

4.1.3   ENABLE / DISABLE CH OR DHW CONTROL.

The CH or DHW Enable/Disable option is available when its set-up in the software (by the installer) only.
Press the UP or DOWN button to select the mode:

⬍ CH Control	********

OR

⬍ DHW Control	********

Use the left/right buttons to move the ⬍ sign to the front of Enable/Disable text.

CH Setpoint	⬍ Enabled

Use UP/DOWN buttons to change from Enabled to Disabled or vice versa
Press the ENTER or RIGHT button to confirm your alteration or press the BACK or LEFT button to cancel

4.2 Changing the setpoint by the menu (Button).

Enter the menu by pressing the MENU   button once. The header in the display shows you are inside the main menu. While scrolling through the menu you will see that the selected menu item is shown in a white rectangle.
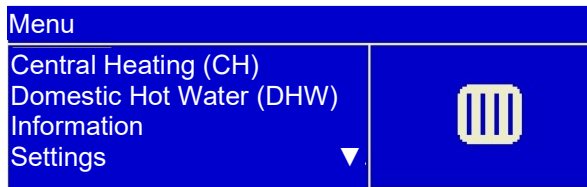
Menu	
Central Heating (CH)	
Domestic Hot Water (DHW)	
Information	
Settings ▼	

Enter a menu item by pressing CONFIRM ⬅ or RIGHT →.
The header shows your location inside the menu, as seen in the following image:

Central Heating (CH)	
CH Setpoint	170.0 °F

If you are inside the menu (or a menu item) and want to return directly to the Status overview press MENU/ESC. If you want to go back one step in the menu press BACK/LEFT. Going to the Start-up screen directly is achieved by pressing the Menu button once.
It's also possible to set the setpoint at this stage by performing the same steps as described at § 4.1.1 and § 4.1.2.

4.2.1   CH WITH OUTDOOR TEMPERATURE SENSOR

If CH-mode is set to:
CH mode 1 – CH with an outdoor temperature reset and thermostat control
          Or
CH mode 2 – Central Heating with full outdoor temperature reset
The following display will appear:
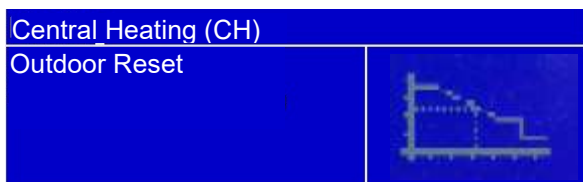
Central Heating (CH)	
Outdoor Reset	

Enter a menu item by pressing CONFIRM ⬅ or RIGHT →
The header shows your location inside the menu, as seen in the following image:

Outdoor Reset	
194	Des. Supply T. 185 °F
	Bas. Supply T. 104 °F
	WW Shutdown 72 °F
32	Bas. Outd. T. 68 °F
-13 T Outside [°F] 95	Des. Outd. T. 23 °F
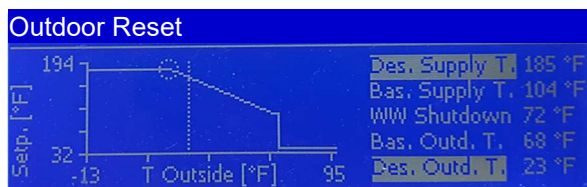
Its now possible to set the Outdoor reset curve by changing the parameters on the righthand of the screen.

If you are inside the menu (or a menu item) and want to return directly to the Status overview press MENU☰ or ESC ⬀ If you want to go back one step in the menu press BACK/LEFT ← .

5 OTHER MENU ITEMS

5.1 Protected menu items

The display supports 3 different access levels; each with its own set of available menu items/parameters:

Level	Description
0: User	Basic info and settings only that are accessible for everyone.
1: Installer	Advanced information and settings; only to be accessed by an experienced installer/person.
2: Factory	Highest level information and settings, only available/relevant for factory Engineers.

Access the Installer level by entering the correct access code (password) for the desired user level. If a certain menu item has been selected, the following password screen will appear where a specific password has to be entered:

```
Password
─────────────────────────

        0  *   *   *

```

⚠️ **WARNING**	Changing protected/safety parameters may only be conducted by experienced, licensed boiler operators and mechanics. Hazardous burner conditions can happen with improper operations that may result in PROPERTY LOSS, PHYSICAL INJURY, or DEATH.

5.2 Language settings

The display supports the following languages:

- Chinese
- Croatian
- Czech
- Dutch
- English
- French
- German
- Greek
- Hungarian
- Italian
- Polish
- Portuguese
- Romanian
- Russian
- Slovak
- Slovene
- Spanish
- Turkish

The following paragraph describes how to change the display language. No matter which language you have set, the menu icons will always remain universal

5.2.1 CHANGE THE LANGUAGE VIA THE MENU

Please follow the next steps, which describe how to set the display to a specific language:

1. From the Status Overview, press the MENU 🗐 button once
2. Select "Settings" (press UP/DOWN ↑↓ to highlight/select) and press the CONFIRM ⬅ button
3. Select "General Settings" (press UP/DOWN ↑↓ to highlight/select) and press the CONFIRM ⬅ button
4. Select "Language" (press UP/DOWN ↑↓ to highlight/select) and press the CONFIRM ⬅ button
5. Select the desired language (press UP/DOWN ↑↓ to highlight/select) and press the CONFIRM ⬅ button

- For Chinese select '中文'.
- For Croatian select 'Hrvatski'.
- For Czech select 'Česky'.
- For Dutch select 'Nederlands'
- For English select 'English'.
- For French select 'Français'.
- For German select 'Deutsch'
- For Greek select 'Ελληνικά'.
- For Hungarian select 'magyar'

- For Italian select 'Italiano'
- For Polish select 'Polski'.
- For Portuguese select 'Português'.
- For Romanian select 'Românesc'.
- For Russian select 'Русский'
- For Slovak select 'Slovenský'.
- For Slovene select 'Slovenščina'.
- For Spanish select 'Español'.
- For Turkish select 'Türkçe'.

Press ESC 🔁 to go back in the menu and return to the Status overview.

The next steps describe how to change the display language via the icons displayed inside the menu, which can be useful if a foreign language is set, causing the user not able to understand the menu.

1. From the Status overview, press the MENU ☰ button once.
    Scroll down until the SETTINGS ⚙ icon appears on the right-side of the display
    (and press ENTER ⏎) :

2. In the following menu, press the SETTINGS icon ⚙ again (and press ENTER ⏎):

3. In the following menu screen, select the LANGUAGE icon A𝛼 (and press ENTER ⏎ to access the Language menu):

4. Select the desired language by scrolling through the list of available languages.
    Press ENTER ⏎ to set the desired language, after you will automatically return to the General settings menu. Press ESC ⏏ a few times until you have reached the Status Overview again.

5.3 Service reminder

The Service reminder will remind you that the appliance needs to be serviced. The "Service_Interval" is factory set at 2000 burn hours. When service is not done within this time, a service reminder will be shown:

• on the screen: "Service is required!" is displayed, alternating with the normal status display;

! **NOTICE**	If the message "Service is required" is shown, the boiler will continue running, but maintenance must be carried out before this message is reset.

5.5 Available Menu items

Menu structure Display:	Access level	Description:
1. Central Heating (CH)	User	Enter the Central Heating (CH) menu
2. Domestic Hot Water (DHW)	User	Enter the Domestic Hot Water (DHW) menu
3. Information	User	Enter the Information menu
4. Settings	User	Enter the Settings menu
5. System Test	Installer	Enter the System Test menu (Installer only).

1. Central Heating (CH)	min.	max.	Default	unit	Access level	Description:
1.1 CH Setpoint	68 (20)	194 (90)	180 (82)	°F (°C)	Installer	Set the CH setpoint when CH mode is 0
1.2 Outdoor Reset					User	Enter the Outdoor Reset menu (when CH mode is 1 or 2)

1.2 Outdoor reset	min.	max.	Default	unit	Access level	Description:
Design Supply Temp	68 (20)	194 (90)	180 (82)	°F (°C)	Installer	Set CH setpoint when outdoor temperature equals Des. Outd. T.
Baseline Supply Temp	68 (20)	194 (90)	120 (49)	°F (°C)	Installer	Set CH setpoint when outdoor temperature equals Bas. Outd. T.
WW Shutdown	32 (0)	95 (35)	95 (35)	°F (°C)	Installer	Set outdoor temperature above which CH demand is locked.
Baseline Outdoor Temp	32 (0)	86 (30)	68 (20)	°F (°C)	Installer	Set the outdoor temperature at which CH setpoint is set to Bas. Supply T.
Design Outdoor Temp	-13 (-25)	77 (25)	20 (-7)	°F (°C)	Installer	Set the outdoor temperature at which CH setpoint is set to Des. Supply T.

2. Domestic Hot Water (DHW)	min.	max.	Default	unit	Access level	Description:
DHW Setpoint	104 (40)	160 (71)	140 (60)	°F (°C)	Installer	Set the DHW setpoint
DHW Store Setpoint	104 (40)	185 (85)	149 (65)	°F (°C)	Installer	Set the DHW store setpoint for DHW mode 1 and 2

3. Information	min.	max.	Default	unit	Access level	Description:
3.1 Software versions					User	Enter the Software Versions menu
3.2 Boiler Status					User	Enter the Boiler Status menu
3.3 Boiler History					User	Enter the Boiler History menu
3.4 Error Log					User	Enter the Error Log menu
3.5 Service					User	Enter the Service menu

3.1 Software versions	min.	max.	Default	unit	Access level	Description:
Display				xxxx	User	Display the software checksum
Boiler				Xxxx	User	Display the boiler software checksum
Device Group				xxxMN	User	Display the boiler group ID

3.2 Boiler status	min.	max.	Default	unit	Access level	Description:
Flow Temperature				°F (°C)	User	Actual supply flow temperature
Flow 2 Temperature				°F (°C)	User	Actual supply 2 flow temperature
Return Temperature				°F (°C)	User	Actual return flow temperature
DHW Temperature				°F (°C)	User	Actual DHW temperature
DCW Temperature				°F (°C)	User	Actual DCW temperature
Outside Temperature				°F (°C)	User	Actual outside temperature
Flue Temp				°F (°C)	User	Actual flue gas temperature
Flue 2 Temp				°F (°C)	User	Actual flue gas 2 temperature
System Temperature				°F (°C)	User	Actual system temperature
0-10 V Input				V	User	Input Voltage for control
Flowrate				l/min	User	Actual DHW flowrate
RT Input				open/clos	User	Actual RT input status
Water Pressure				psi (Bar)	User	Actual CH water pressure
Fan Speed				rpm	User	Actual fan speed
Ionization				µA	User	Actual ionization current
State					User	Actual burner state
Error				#	User	Actual internal error code
Calculated Setpoint				°F (°C)	User	Actual CH setpoint

3.3 Boiler history	min.	max.	Default	unit	Access level	Description:
Successful Ignitions				#	User	Display the number of successful ignitions
Failed Ignitions				#	User	Display the number of failed ignitions
Flame Failures				#	User	Display the number of flame losses
Operation Days				days.	User	Display the total time in operation
CH Burner Hours				hrs.	User	Display the amount of burn hours for CH
DHW Burner Hours				hrs.	User	Display the amount of burn hours for DHW

3.4 Error Log	min.	max.	Default	unit	Access level	Description:
Error Log					User	Display the complete error log
Filter Error Type					User	Set the error log filter
Clear Error Log					Installer	Clear the complete error log

3.5 Service	min.	max.	Default	unit	Access level	Description:
Service history					User	Display the service history
Burn hours since last service				hrs.	User	Display the burn hours since last service
Burn hours till service				hrs.	User	Display the hours remaining until next service
Operation Days				days.	User	Display the total time in operation

4 Settings	min.	max.	Default	unit	Access level	Description:
4.1 General Settings					User	Enter the General Settings menu
4.2 Boiler Settings					User	Enter the Boiler Settings menu

4.1 General settings	min.	max.	Default	unit	Access level	Description:
4.1.1 Language					User	Enter the Language menu
4.1.2 Unit Type					User	Enter the Unit Type menu
4.1.3 Date & Time					User	Enter the Date & Time menu
4.1.4 Cascade Mode					User	Enter the Cascade Mode menu
4.1.5 Other Settings					User	Enter the Other Settings menu

4.1.1 Language	min.	max.	Default	unit	Access level	Description:
English			English		User	Select the English language
Français					User	Select the French language

4.1.2 Unit type	min.	max.	De-fault	unit	Access level	Description:
Metric (°C, bar)				°C/bar	User	Select Metric units
Imperial (°F, psi)			°F/psi	°F/psi	User	Select Imperial units

4.1.3 Date & Time	min.	max.	De-fault	unit	Access level	Description:
Date				dd-mm-yy	User	Set the current date
Time				hh:mm	User	Set the current time
A. Time Zone Settings					User	Enter the time zone settings menu
B. Display Settings					User	Enter the display settings menu

A Time zone settings	min.	max.	De-fault	unit	Access level	Description:
Time Zone Correction					User	Set the time zone correction
Daylight Savings Time					User	Select the daylight savings time mode

B Display settings	min.	max.	De-fault	unit	Access level	Description:
Time Notation			24h	24h/12h	User	Select 24h or 12h time notation
Date Order					User	Select the date-format
Day of Month			2	1 or 2 digits	User	Select how the day of month is displayed
Month					User	Select how the month is displayed
Year			4	2 or 4 digits	User	Select how the year is displayed
Date Separation Character					User	Select the date separation character
Day of Week					User	Select how the day of week is displayed
Seconds			no	yes/no	User	Select if seconds are displayed

4.1.5 Other settings	min.	max.	De-fault	unit	Access level	Description:
Status Overview settings					User	Configure which information is shown on the Status overview
Modbus Address	0	255	1	-	User	Select the Modbus communication address
Modbus Stop bits	1	2	2	-	User	Select the number of Modbus communication stop bits

4.1.5.1 Status Overview Settings	min.	max.	Default	unit	Access level	Description:
Water pressure			On	-	User	Enable/disable the CH water pressure on screen
State			On	-	User	Enable/disable the burner state on screen
Temperature selection ID			On	-	User	Enable/disable the temp. selection ID[Tx] where x is the number of the selection.
Temperature selection					User	Select which temperature is displayed: Outside temperature [T0] Demand based [T1] (Flow or DHW temperature based on active demand) Flow temperature [T2] ; DHW temperature [T3] ; System temperature [T4] (module cascade flow/supply temp.) T5 N.A.

6 ERROR INFORMATION

6.1 General

Errors can be divided in three groups:

- Manual reset locking errors (can only be reset by the reset button).
- Blocking errors (will disappear when error is gone).
- Warnings (will disappear when the warning is gone, not stored in the controls e2prom).

The boiler circulator will continue to run during most locking and blocking error codes. This is to prevent the freezing of the Central Heating circuit when the boiler is in error during the winter period. For some non-volatile lockouts the circulator will not be running, also see the error tables in this chapter for more details.

6.2 How is an error displayed

When an error occurs this error will be shown in the display.
The display will show the following icon.

Figure 6.1

Furthermore the error code and error type will be displayed as well as the date and time.

⚠️ **WARNING**	If you cannot restart your boiler with the reset button, contact your installer. Maintenance and repairs must be carried out by a certified technician/installer.

6.3 Error logging

Errors will be logged for a stand-alone system or for a complete cascade system (based on the cascade settings). The display will monitor the error codes it receives from the boiler(s) and if an error code is a new error code the error will be stored in the error log. An error will be logged with a (real-time clock) time stamp (date and time) when the error was detected and a boiler ID of the boiler on which the error was detected.

The error log can be viewed from the error log menu, which is located in the information menu.

Menu	
Domestic Hot Water (DHW)	
Information	
Settings	**i**
System test	

Figure 6.1

Information	
Boiler Status	
Boiler History	
Error Log	⚠
Service	

Figure 6.2

Error Log	
Error Log	
Filter Error Type	Disabled
Clear Error Log	
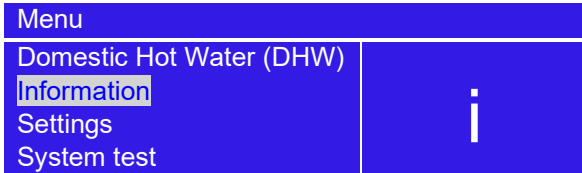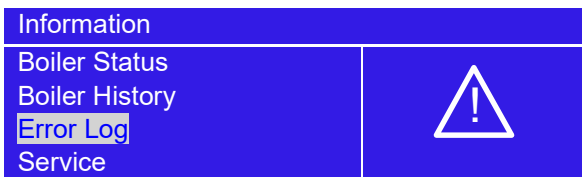
Figure 6.3

(Sub) Menu item	Description
Error Log	Show the error log (based on the selected filter options)
Filter Error Type	Filter errors based on the Error Type (Lockout/Blocking)
Filter Boiler ID (Cascade System only)	Filter errors based on Boiler ID (Managing, Dep2, Dep3, etc.)
Clear Error Log	Clear the error log (protected by password)

When no filtering option is selected (Disabled) the error log will show all errors for that category. So, if both filters are disabled, the error log will show all the errors in the log.

Error Log	
A014 (14) Lockout	
Air Switch Not Closed	
Wed 04-11-2018 14:50	1/32 ▼

Figure 6.4

The error log screen will show on the first line: Boiler ID for which boiler the error was detected (cascade system only), Error Code, (internal) Error Number, Error Type (Lockout/Blocking).
The second line will show the Error Description.
The bottom line will show the Time Stamp (date and time) when the error was detected (in the format as configured in the Date Time Settings menu), and also the selected error index from the total number of errors in the (filtered) error log. Only Time Stamp, Code and Description is displayed.

Example, see Figure 6.4 above.
A014 = Error code.
(14) = Error Number (tracking number, 1-15 errors are stored maximum).
Lockout = Error type.
Air Switch Not Closed = Error description.
Wed 04-11-2018 14:50 = Time stamp when the error occurred.

6.4 Boiler history

The last 15 lockouts and 15 blocking errors are stored in the boiler control. This boiler history can be shown via the Boiler History screen via the installer boiler status menu in one of the advanced displays.

- Successful ignitions
- Failed Ignitions
- Flame Failures
- Operation days
- CH Burner Hours
- DHW Burner Hours

6.5 Lockout codes

⚠ **WARNING**	If you cannot restart your boiler with the reset button, contact your installer. Maintenance and repairs must be carried out by a certified technician/installer.

Lock-out code	Error	Description	Cause	Solving
0	EEPROM Read Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
1	Ignition Error	Five unsuccessful ignition attempts in a row	no gas, wrongly adjusted gas valve	If the boiler does not start after Reset, contact your installer
2	GasValve Relay Error	Failure detected in the gas valve relay	short circuit in coil of the gas valve, water on wiring or gas valve	If the boiler does not start after Reset, contact your installer
3	Safety Relay Error	Failure detected in safety relay	safety relay is not working correctly	If the boiler does not start after Reset, contact your installer
4	Blocking Too Long Error	Control had a blocking error for more than 20 hours	blocking code active for more than 20 hours	Reset and check blocking code
5	Fan Not Running	Fan is not running for more than 60 seconds	electrical wiring not correctly connected, or fan is malfunctioning	If the boiler does not start after Reset, contact your installer
6	Fan Too Slow	Fan runs too slow for more than 60 seconds	electrical wiring not correctly connected, or fan is malfunctioning	If the boiler does not start after Reset, contact your installer
7	Fan Too Fast	Fan runs too fast for more than 60 seconds	electrical wiring not correctly connected, or fan is malfunctioning	If the boiler does not start after Reset, contact your installer
8	RAM Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
9	Wrong EEPROM Signature	Contents of E2prom is not up to date	out dated E2prom	If the boiler does not start after Reset, contact your installer
10	EEPROM Error	Wrong safety parameters in E2prom	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
11	State Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
12	ROM Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
13	Air Switch Not Open	Air pressure switch not opening during pre-purge 0	electrical circuit is short circuited or APS is jammed	If the boiler does not start after Reset, contact your installer
14	Air Switch Not Closed	Air pressure switch not closing during pre-purge 1	no air transport to the burner; flue or air inlet is blocked or APS is jammed or air signal hose is not connected to the air intake pipe or water in hose.	If the boiler does not start after Reset, contact your installer

Lock-out code	Error	Description	Cause	Solving
15	Max. Thermostat Lock Error	The external overheat protection is enabled or the T_Supply sensor measures a temp. of over Prot_Overheat_Temp - SGOverheat_Duplex_Tolerance for a period of Max_Value_Period	The heat exchanger thermal fuse has tripped; loose wire	If the boiler does not start after Reset, contact your installer
16	Max. Flue Lock Error	Flue temperature exceeded the maximum flue temperature	there is no water in the heat exchanger or flue gas sensor is malfunctioning or heat exchanger is overheated.	If the boiler does not start after Reset, contact your installer
17	Stack Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
18	Instruction Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
19	Ion Check Failed	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
20	Flame Out Too Late Error	Flame still present 10 seconds after closing the gas valve	wrong earthing of BCU and boiler	If the boiler does not start after Reset, contact your installer
21	Flame Before Ignition	Flame is detected before ignition	wrong earthing of BCU and boiler	If the boiler does not start after Reset, contact your installer
22	Too Many Flame Failures	Three time flame lost during 1 demand	bad gas supply or CO_2 level is not correct or bad ignition rod	If the boiler does not start after Reset, contact your installer
23	Corrupted Error Number	RAM byte was corrupted to an unknown error code.	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
27	Filling Too Much	Too many automated filling attempts in a short time period	if output is programmed as filling valve and there are too many filling attempts	Check if there is a leak in the central heating system or if the boiler is leaking also check expansion vessel on internal leak
28	Fill Time Error	Filling takes too long	if output is programmed as filling valve and filling takes more than 10 minutes	Check if there is a leak in the central heating system or if the boiler is leaking also check expansion vessel on internal leak
29	PSM Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
30	Register Error	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
32	T. Exchange Diff Error	The 2 exchange sensors deviate too much for more than 60 seconds	there is not enough water flow through the heat exchanger	If the boiler does not start after Reset, contact your installer
33	LWCO/Air intake block	Low water cut off 1 error	there is no water in the heat exchanger or not electrically connected	If the boiler does not start after Reset, contact your installer
34	LWCO 2 Error	Low water cut off 2 error	there is no water in the heat exchanger or not electrically connected	If the boiler does not start after Reset, contact your installer
35	Air Switch Not Closed	Air pressure switch not closing during post-purge 1	no air transport to the burner after heat demand; flue or air inlet is blocked or APS is jammed or air signal hose not connected to the air intake pipe or water in hose	If the boiler does not start after Reset, contact your installer
36	Gas Pressure Error	Gas pressure switch open for more than E2_GPS_Timeout	loose cabling on terminal	check cable bridge between connections 24-25 (low voltage connections)

6.6 Blocking codes

⚠ WARNING	If you cannot restart your boiler with the reset button, contact your installer. Maintenance and repairs must be carried out by a certified technician/installer.

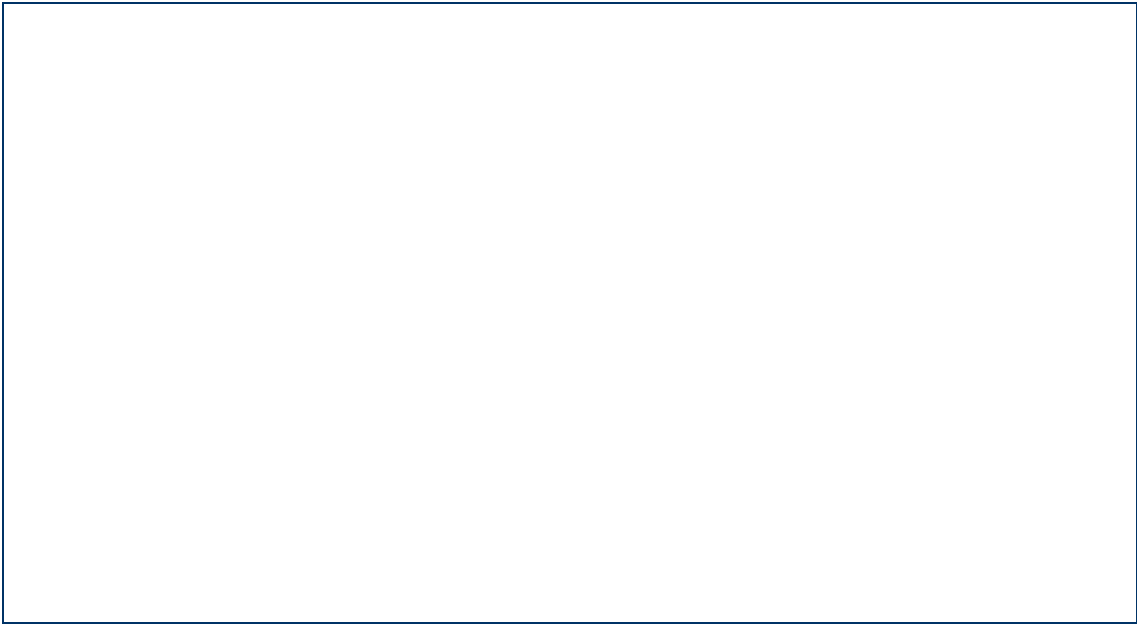| Blocking code	Error	Description	Cause	Solving
100	WD Error Ram	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
101	WD Error Rom	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
102	WD Error Stack	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
103	WD Error Register	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
104	WD Error Xrl	Internal software error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
105	High Temp Error	T_Supply sensor measures over Stay_Burning_Temp for a period of Max_Value_Period.	not enough waterflow over heat exchanger	If the boiler does not start after Reset, contact your installer
106	Refhi Too Hi Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
107	Refhi Too Lo Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
108	Reflo Too Hi Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
109	Reflo Too Lo Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
110	Refhi2 Too Hi Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
111	Refhi2 Too Lo Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
112	Reflo2 Too Hi Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
113	Reflo2 Too Lo Error	Internal hardware error	wrongly programmed BCU or PB	If the boiler does not start after Reset, contact your installer
114	False Flame	Flame is detected in a state in which no flame is allowed to be seen	wrong earthing of BCU and boiler	If the boiler does not start after Reset, contact your installer
116	Low Water Pressure Sensor	Low water pressure, occurs when the pressure drops below Minimal_Pressure, or when the pressure drops below 4.5 psi.	not enough water pressure	fill up the system and check if there are any water leakages
118	WD Communication Error	Watchdog communication error	wrong programmed BCU or PB	If the boiler does not start after Reset, contact your installer
119	T Return Open	Return sensor open	malfunctioning return sensor or not connected	If the boiler does not start after Reset, contact your installer
120	T Supply Open	Supply sensor open	malfunctioning supply sensor or not connected	If the boiler does not start after Reset, contact your installer
122	T DHW Open	DHW sensor open	malfunctioning DHW sensor or not connected	If the boiler does not start after Reset, contact your installer
123	T Flue Open	Flue sensor open	malfunctioning flue sensor or not connected	If the boiler does not start after Reset, contact your installer

Blocking code	Error	Description	Cause	Solving
125	T Outdoor Open	Outdoor sensor open	malfunctioning outdoor sensor or not connected or wrong CH-mode programmed	If the boiler does not start after Reset, contact your installer
126	T Return Shorted	Return sensor shorted	malfunctioning return sensor or short circuiting	If the boiler does not start after Reset, contact your installer
127	T Supply Shorted	Supply sensor shorted	malfunctioning supply sensor or short circuiting	If the boiler does not start after Reset, contact your installer
129	T DHW Shorted	DHW sensor shorted	malfunctioning DHW sensor or short circuiting	If the boiler does not start after Reset, contact your installer
130	T Flue Shorted	Flue sensor shorted	malfunctioning flue sensor or short circuiting	If the boiler does not start after Reset, contact your installer
132	T Outdoor Shorted	Outdoor sensor shorted	malfunctioning outdoor sensor or short circuiting	If the boiler does not start after Reset, contact your installer
134	Reset Button Error	Too many resets in a short time period	reset too many times by user or installer	Wait or disconnect and reconnect power supply
136	T_Exchange Block Error	Exchange temperature exceeded 194 ºF (90 ºC).	water temperature is above 194 ºF (90 ºC).	If the boiler does not start after Reset, contact your installer
155	WD Config Error	Watchdog fan configuration setting error	wrongly program-med BCU or PB	If the boiler does not start after Reset, contact your installer
162	Fill Warning	Error generated directly when pressure drops below Minimal_Pressure. Demand has stopped, but no error is to be stored at this time.	the water pressure is below the minimum pressure level	Refill the system until the pressure is above 1 bar or 14.5 psi
164	Ex. Low Flow Protection	Flow is too low, demand needs to be stopped with fan at ignition speed*, but no error needed to be stored at this time	not enough water flow through heat exchanger	If the boiler does not start after Reset, contact your installer
168	Flue Temperature Too High	Flue temperature is higher than set maximum	Flue side clogging of heat exchanger	Clean the heat exchanger, especially between the coils
169	ADC Unstable	ADC measurements detected too many unstable measurements	Defective sensor or unstable 0-10V input	Check sensors and 0-10V input

6.7 Warnings

Warning no.	Warning	Description	Cause	Solving
200	Comm. Lost with module	Cascade System: Managing cascade control lost communication with one of the depending.	connection between cascaded boilers is interrupted or wiring is broken	Contact your installer
202	App. Selection Error	Unknown appliance model selected	wrongly programmed parameters	Contact your installer
203	Comm. Lost with boiler	Dual Cascade System: Managing cascade control lost communication with one of the depending.	connection between cascaded boilers is interrupted or wiring is broken	Contact your installer
204	T Outdoor Wrong	T_Outdoor sensor measures open/shorted	malfunctioning outdoor sensor or not connected or wrong CH-mode programmed	Contact your installer
205	T System Wrong	T_System sensor measures open/shorted	malfunctioning system sensor or not connected	Contact your installer
206	T Cascade Wrong	T_Cascade sensor measures open/shorted	malfunctioning cascade sensor or not connected	Contact your installer

Your distributor: