



Glow•worm

The energy you need

Instructions for use

Installation and Servicing

SYSTEMPRO



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1 Notes on the documentation

1.1 Observe other applicable documents

- Observe absolutely all operating instructions that are included with other components of your system.

1.2 Storing documents

- Store these operating instructions and all other applicable documents, for future reference.

1.3 Applicability of the instructions

These instructions apply exclusively to:

Type overview	
Product	Article number
SYSTEMPRO	0020128489

2 Safety

2.1 Basic safety instructions

2.1.1 Danger due to improper use

Danger of scalding due to the hot water!

There is a danger of scalding at the hot water draw-off points if the hot water temperatures are higher than 60°C. Young children and elderly persons are particularly at risk, even at lower temperatures.

- Select the temperature so that nobody is at risk.

2.1.2 Danger of personal injury and material damage due to improper maintenance and repair

Only competent persons with appropriate qualifications are trained to install products properly, inspect, maintain, repair and clean them. Non-qualified persons can make mistakes, that can lead to life-threatening situations, including poisoning, electric shock, fires and explosions. You can also cause damage to property, such as water, fire or explosion damage.

- Make sure that only a competent person installs, inspects, maintains and repairs the product.
- Never open the casing.

2.1.3 Risk due to changes in the surroundings of the product

Certain home improvements may adversely affect the operation of your product.

- Consult your installer for advice before carrying out any work.

2.2 Intended use

The product is a state-of-the-art product which has been constructed in accordance with recognised safety regulations. Nevertheless, there is still a risk of injury or death to the user or others or of damage to the product and other property in the event of improper use or use for which it is not intended.

The product is intended as a heating appliance for sealed central heating installations and for hot water production.

Intended use includes the following:

- observing the included operating, installation and maintenance instructions for this product and any other parts and components of the system
- complying with all of the inspection and maintenance conditions listed in the instructions.

This product is not intended for use by persons (including children) having limited physical, sensory or mental capacities or who have inadequate experience and/or knowledge, unless supervised by a person responsible for their safety or who has been given instructions from them as to how to operate the product.

Children must be supervised to ensure that they do not play with the product.

Any other use than the use described in the instructions at hand or any use extending the described use is not intended.

Any direct commercial or industrial use is also deemed to be improper. Neither the manufacturer nor the supplier will be responsible for complaints or damages resulting from incorrect usage. All risk is assumed by the user.

Any incorrect use is forbidden

2.3 CE label

The CE mark shows that this product has been designed according to the safety techniques and rules in force.

The compliance of this product with the relevant standards has been certified.

3 Description and operation of the product

- Refer to the appliance Quick Start Guide.

4 Recycling and disposal

4.1 Recycle the packaging

- Arrange for the qualified professional who installed the product to dispose of the transport packaging.

4.2 Recycle or dispose the product and its components

- Do not dispose of your product or any of its accessories in the household waste.
- Make sure the old unit and any accessories are disposed of properly.
- Observe all relevant regulations.

5 Guarantee and customer service

- For information and manufacturer's guarantee, contact the address given on the back of the instructions.


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1 Notes on the documentation

1.1 Symbols used

The symbols used in the text are explained below:

Warning sign	Explanation
	Symbol that denotes useful tips and information
•	Symbol for a required action

The warning notes are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

Warning sign	Signal word	Explanation
	Danger!	Immediate danger to life or risk of severe personal injury
	Danger!	Risk of death from electric shock
	Warning.	Risk of minor personal injury
	Caution.	Risk of material or environmental damage

1.2 Observe other applicable documents

- Observe absolutely all operating and installation instructions enclosed with the product, for the various parts and components of the system.

1.3 Storing documents

- Pass these installation instructions and all other applicable documents and, if necessary, any required aids to the system operator..

The operator will store the instructions and aids so that they are available when required.

1.4 Applicability of the instructions

These installation instructions are only valid for boilers with the following article numbers:

Type overview	
Product	Article number
SYSTEMPRO	0020128489

2 Safety

2.1 Basic safety instructions

- Before to read this chapter, also read the general safety advice of the operating instructions.

2.1.1 Danger to life by electric shock

Touching live connections can cause serious personal injury.

- Before carrying out any work on the product, switch off the power supply.
- Secure the power supply against being switched on again.

2.1.2 Danger to life due to missing or not properly working safety devices

Missing safety devices can cause life-threatening scalding and other injuries, for example by burst pipes.

The information contained in this document do not show all schemes required for a professional installation of safety devices.

- Install the necessary safety devices in the system.
- Inform the user about the function and location of safety devices.
- Never deactivate any safety device.
- Do not attempt to adjust them.
- Observe the relevant national and international laws, standards and guidelines.

2.1.3 Danger due to improper use

Nonprofessional work on the product can cause damage to the installation and as a consequence even personal injury.

- Only work on the product if you are a competent person.

2.1.4 Risk of material damage caused by unsuitable tools

The use of unsuitable tools or improper use thereof may cause damage, such as gas or water leaks.

- When tightening or loosening threaded connections, always use suitable opened spanners, but do not use pipe wrenches, extensions, etc.

2.2 Intended use

The product is a state-of-the-art product which has been constructed in accordance with recognised safety regulations. Nevertheless, there is still a risk of injury or death to the user or others or of damage to the product and other property in the event of improper use or use for which it is not intended.

The product is intended as a heating appliance for sealed central heating installations and for hot water production, designed to consume a minimum of energy and optimise your energy bills.

Intended use includes the following:

- observing the included operating, installation and maintenance instructions for this product and any other parts and components of the system
- installing and fitting the product in accordance with the product and system approval
- complying with all of the inspection and maintenance conditions listed in the instructions.

The appliance should be installed in a location where it will not be exposed to humidity or water splashing. Comply with the electrical protection rating (IP) given in the technical data.

Any other use than the use described in the instructions at hand or any use extending the described use is not intended.

Any direct commercial or industrial use is also deemed to be improper.

2.3 Rules and regulations (guidelines, laws, standards)

During the installation and activation of the control unit, the decrees, directives, technical regulations, standards and clauses hereafter must be complied with in the versions that are currently in force.

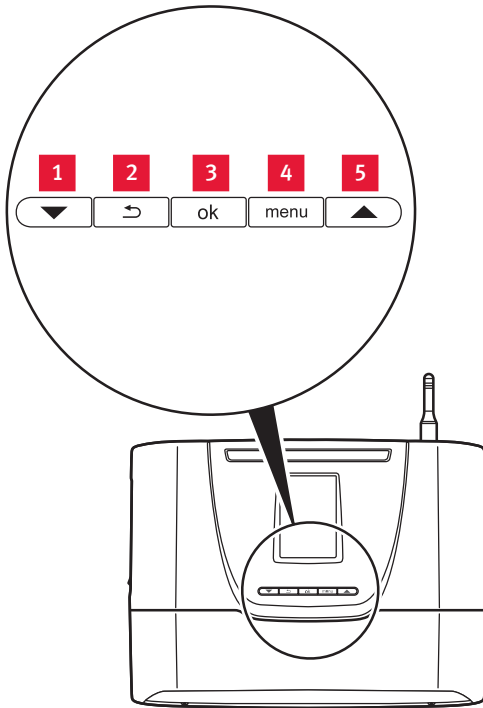
2.4 CE label

The CE mark indicates that the equipment described in this manual are in compliance with the following directives:

- European Directive Num. 2004-108 of the European Parliament and the Council regarding electromagnetic compatibility
- European Directive Num. 2006-95 of the European Parliament and the Council regarding low voltage
- Directive regarding telecommunications equipment (Directive R & TTE 99/5/EEC of the Council of the European Community)




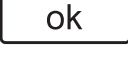

3 Product description

3.1 Overview



- Key
- 1 «Down» arrow button
 - 2 Back button
 - 3 OK button
 - 4 Menu button
 - 5 “Up” arrow button

3.2 Description of buttons

Buttons	Description
 	<p>Up / down buttons</p> <p>The buttons allow:</p> <ul style="list-style-type: none"> - To browse menus. - To decrease / increase value to be adjusted. - To reset the control unit (factory setting by pressing simultaneously both buttons for 10 seconds).
	<p>Back button</p> <p>The button allows:</p> <ul style="list-style-type: none"> - To return to the previous menu. - To return to the previous setting.
	<p>OK button</p> <p>The button allows</p> <ul style="list-style-type: none"> - Confirmation of the selection or setting.
	<p>Menu button</p> <p>The button allows:</p> <ul style="list-style-type: none"> - To access the installation menu. - To access the maintenance menu. - To return to the installation and maintenance menus (at any time). - To return to the main user screen by pressing for 3 seconds.

3.3 Priority of the different functions

Function	
1	Anti-freeze protection
2	Domestic hot water
3	Central heating
4	Cooling

4 Mounting and installation



All the dimensions shown of the illustrations are expressed in millimetres (mm).

4.1 Check scope of delivery

- Please check the scope of delivery for completeness.
- Control unit eBUS
- 2 bags of screws and plugs
- 2 sachets of 7 strain relief connectors (one strain relief connector in place)

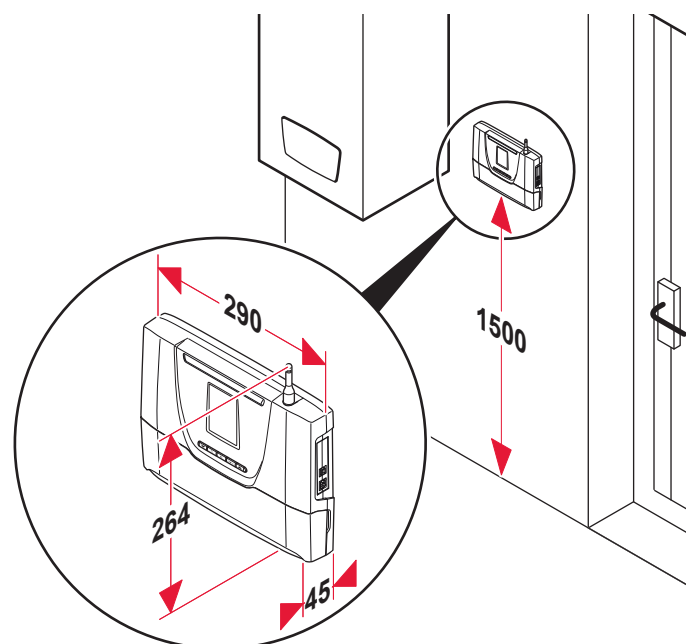
4.2 Control unit location

Install the system:

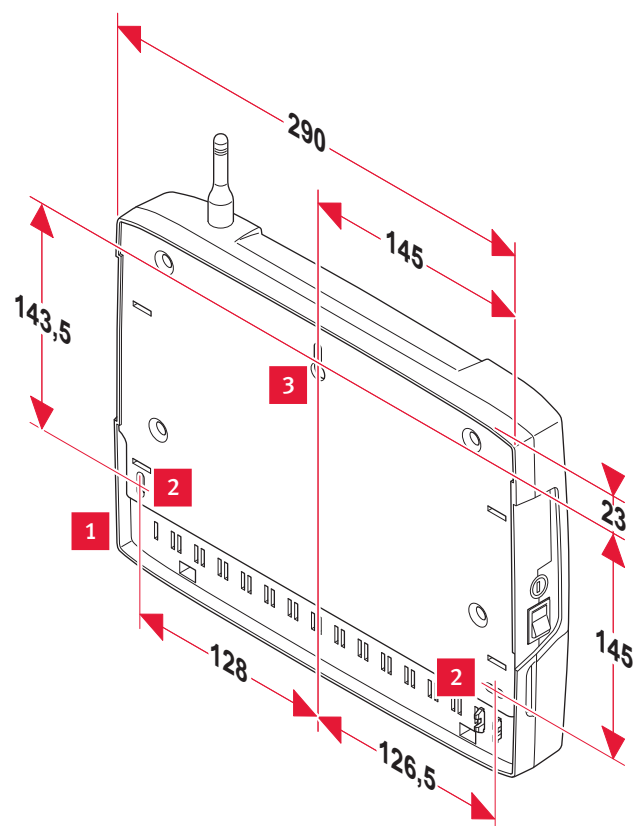
- in a room protected from frost,
- at 1.50 metres from the ground (according to current regulations) to ensure a accessibility for reading.
- near to the appliances, in compliance with the appliances accessibility and safety requirements.

Do not install the control unit:

- close to heat sources such as radiators, chimney walls, televisions, sun rays,
- above a cooking device capable of generating steam and grease,
- in a room with a lot of dust or with a corrosive atmosphere.



4.3 Wall-mounting of the product

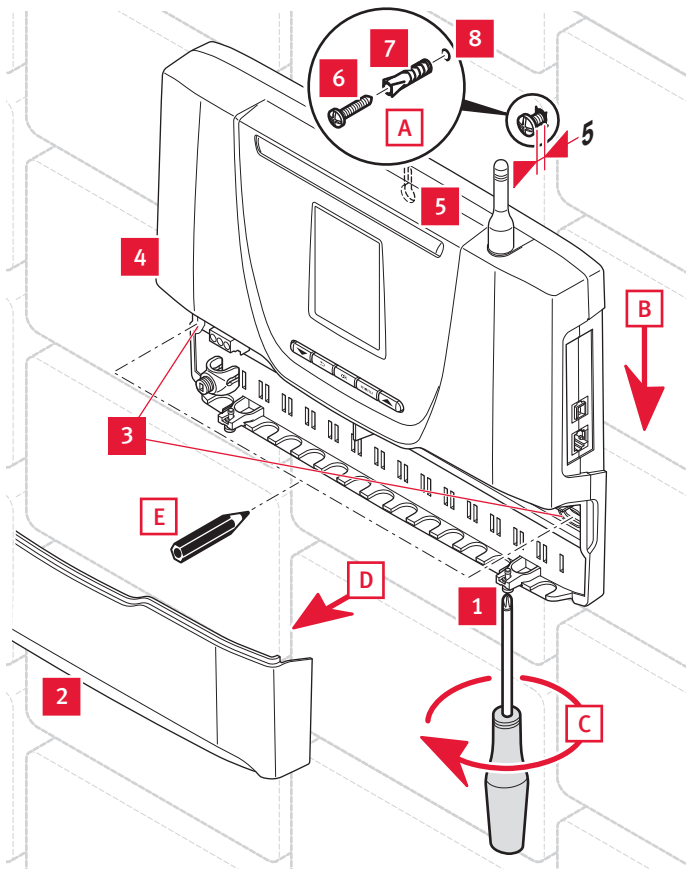


Key

- 1 Control unit
- 2 Lower attachment holes
- 3 Upper attachment holes

4.3.1 Wall mounting

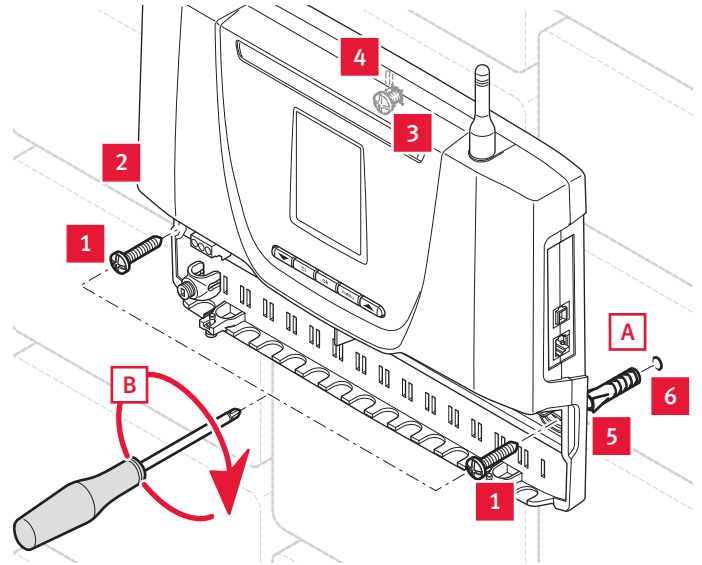
Step 1



- Key
- 1 Hatch screw
 - 2 Control unit hatch
 - 3 Lower attachment holes
 - 4 Control unit
 - 5 Upper attachment holes
 - 6 Upper screw
 - 7 Plug
 - 8 Holes

- Position the appliance following the steps from (A) to (E).

Step 2



- Key
- 1 Lower screws
 - 2 Control unit
 - 3 Upper screw
 - 4 Upper attachment holes
 - 5 Plug
 - 6 Holes

- Remove the eBus controller (2), sliding it along the wall to drill the holes (A).
- Attach the appliance (B).

4.4 Electrical installation



Danger !
 Risk of electric shock due to an improper electrical connection!
 Improper electrical connection can cause electric shock or might negatively affect the operational safety of the product and might cause material damage.

- The electrical connection of the product must be carried out only by a suitably qualified person.



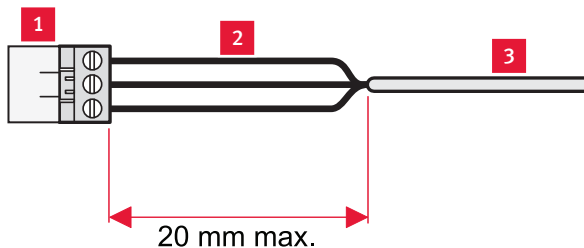
Danger !

- Use 0.75 mm² section cables for the electrical connections to the control box.



Danger !

- Risk of electric shock.
 Break the grommets necessary for passing the cables.



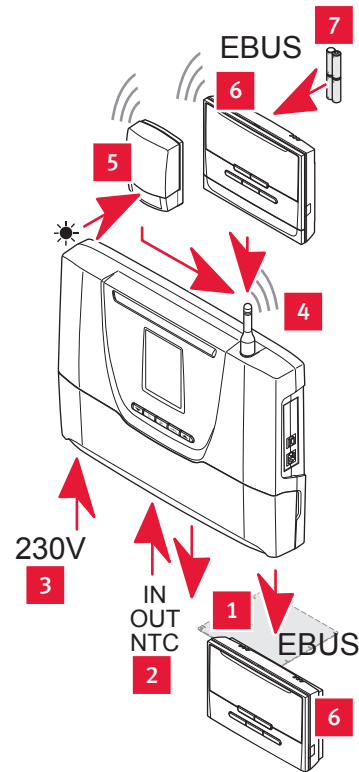
Key

- 1 Connector
- 2 Electrical wires
- 3 Casing

- Maintain a maximum distance of 20 mm between the connector and the outer insulation.

4.4.1 Connection descriptions

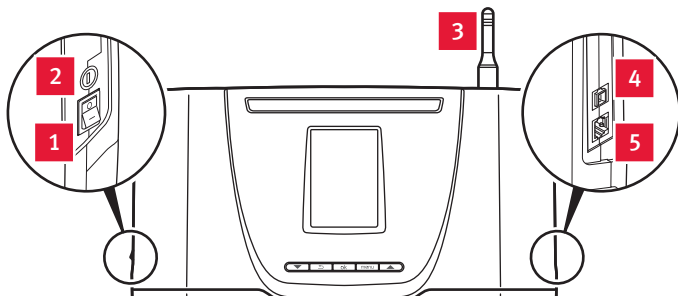
individual installation



Key

- 1 Wired eBUS Connection
- 2 Input/Output, sensors
- 3 230 V power supply
- 4 Connections eBUS wireless of the unit controller eBUS
- 5 Outside wireless temperature sensor
- 6 Room thermostat eBUS wireless or wired
- 7 Batteries
- 8 Wired outdoor sensor

4.4.2 External connection



- Key
- 1 Switch On (I) / Off (O)
 - 2 Fuse 1AT 20mm
 - 3 Antenna
 - 4 RJ9 eBUS socket
 - 5 RJ11 eBUS socket

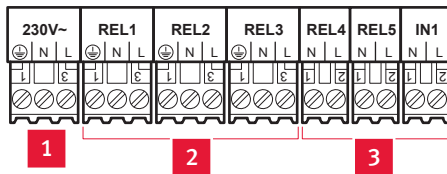
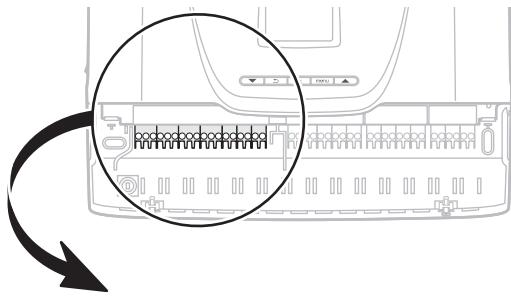
The switch (1) is employed to cut the power supply before making any changes to the electrical connection.

The electrical circuit of the equipment is protected internally by a fuse (2).

The antenna is used for wireless connection with the Climapro2 RF and the outdoor sensor.

4.4.3 Internal connection

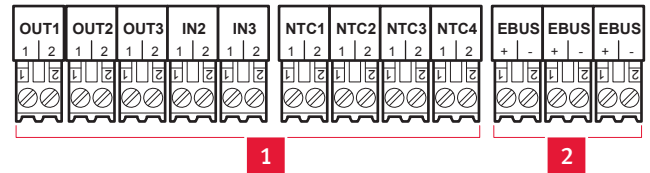
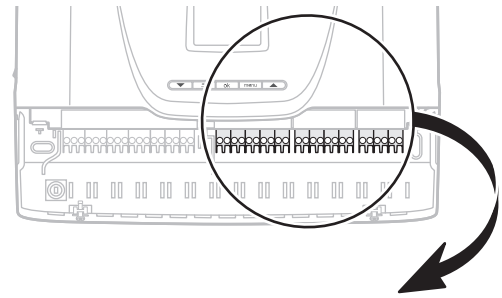
230V connectors



- Key
- 1 230 V connector (3-pin: earth / neutral / live)
 - 2 Connectors (3 pins: earth / neutral / live): REL1, REL2 and REL3
 - 3 Connectors (2 pins: live / neutral): REL4, REL5 and IN1

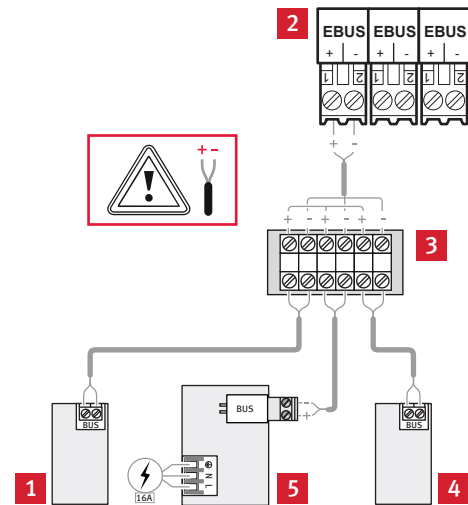
The connector (1) is employed to connect the electricity supply.

24V connectors



- Key
- 1 Connectors (2 pins)
OUT1, OUT2, OUT3, IN2, IN3, NTC1, NTC2, NTC3 and NTC4
 - 2 eBUS connectors (2 pins)

Example of multiple connections on an eBUS connector



- Key
- 1 wired outdoor sensor
 - 2 eBUS Connectors (2 pins)
 - 3 Connector block
 - 4 Wired room thermostat
 - 5 Boiler

4.4.4 Connecting the power input (mains connection)



Caution.
Risk of damage from high voltage.
At mains voltages higher than 253 V, electronic components may be destroyed.

- Make sure that the rated voltage of the mains is 230 V.

- Disconnect the household power supply before performing the electrical connection.
- Protect the electrical installation by following the guidance indicated in the “Technical data” chapter.

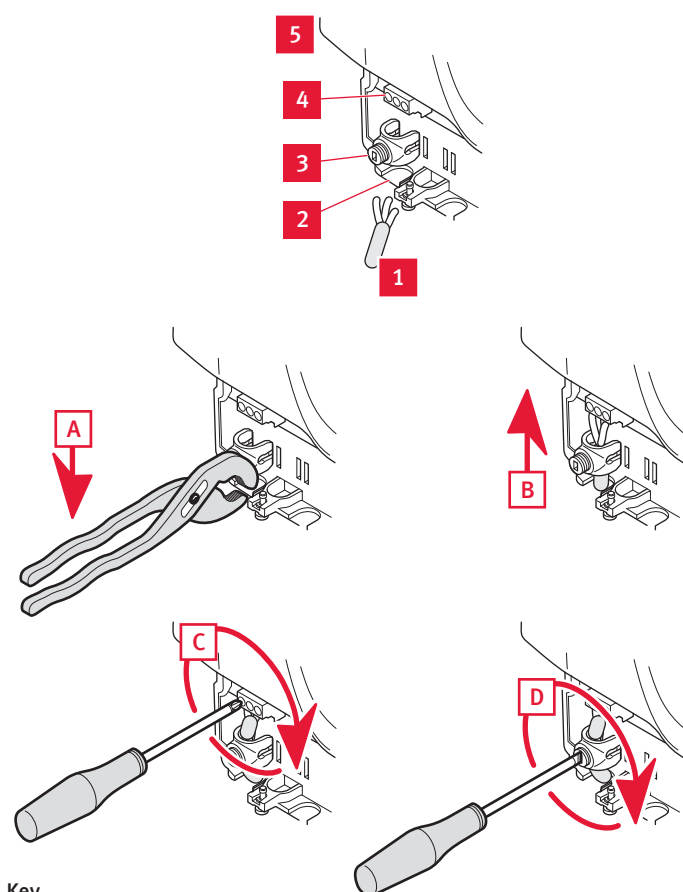


Danger !

- The length of the power supply cable must not exceed 10 metres.

- The electrical installation in the dwelling must permit the power supply to the equipment to be isolated by a double pole isolation switch and be fused. The double pole isolation switch must incorporate a gap of 3mm between the contacts.

230V power supply



- Key
- 1 230 V power cable
 - 2 Break out tab
 - 3 Anti-tamper connection
 - 4 Power connection
 - 5 Control unit eBUS

- Connect the control unit following the order (A) to (D).

4.4.5 Other connections following the electrical installation diagram

- Consult the system manual for electrical connections following installation.
- Protect access to live parts, attach all cables to the control unit with anti-tamper connectors.

5 Commissioning

When connected for the first time, the installation menu is displayed.

- Consult the system manual in order to install and start-up the system.

5.1 Pairing with wireless outdoor sensor

- Consult the outdoor sensor’s installation manual in order to carry out the operation.

6 User information

After completing the installation:

- Explain the system operation to the user.
- Draw special attention to the safety instructions which the user must follow.
- Inform the user of the necessity to ensure that the system is regularly maintained (maintenance contract)..
- Answer any questions the user may have.

7 Trouble-shooting



The breakdowns described in the system manual must be handled by a qualified professional and, if necessary, by the after-sales department.

7.1 Fault diagnosis

The following checks should be performed before proceeding onto specific diagnostics:

- Ensure that it has not been disconnected from the electricity network and that the control unit is connected correctly.

7.2 System failure codes

The fault status may be “inactive” (disappeared) “active” (still affects the installation).

The installation can operate partially with a fault “active”. It is not necessarily “blocking”. An alarm (not supplied) can be added to the installation to signal certain faults. System failure codes are described in the table of system failure codes (see chapter 10.2).

7.3 Control unit eBUS failures

Description	Cause	Solution
No display on screen	The power supply is faulty. The fuse is damaged.	Make sure that the electricity supply has not been interrupted. Check that 230V supply is turned on and present. Check the position of the control unit switch. Check the control unit's fuse.

7.4 Resetting the control unit eBUS

This function allows you to reset the control unit (factory setting).

This restarts the installation assistant.



Caution.

- The resetting of factory settings is irreversible. Any customised configuration of the control unit will be lost.

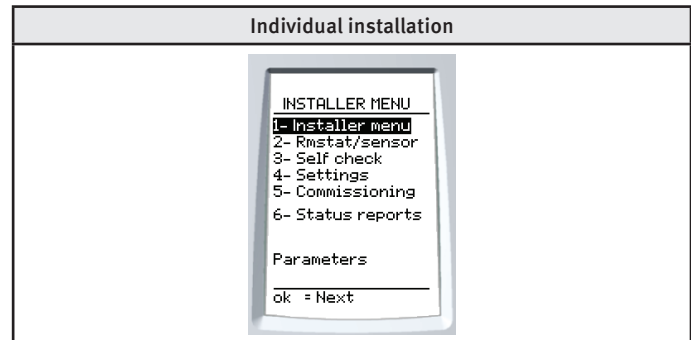
- Simultaneously press the buttons **▼** **▲** for 10 seconds.
- Confirm by pressing **ok**.

7.5 Installation menu

The installation menu is still accessible after commissioning. Menus and functions are described in the table of menus and functions (see chapter 10.1).

Access to the installation menu

- Press the button **menu** for 7 seconds.
- Enter the installer access code 96.
- Press the button **ok** to confirm.

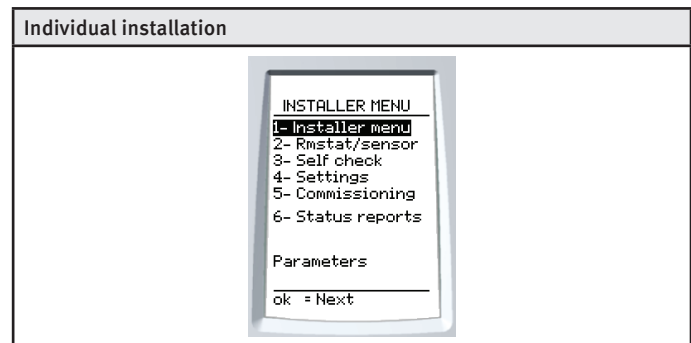


- Check the proper operation of external control items (room thermostat, outside sensor...).

7.6 Maintenance menu

Access to the maintenance menu

- Press the “menu” button for 7 seconds.
- Enter the installer maintenance access code 35.
- Press the button **ok** to confirm.



The maintenance menu includes the installation menu function, plus 2 additional functions:

- "System tests", within the maintenance menu,
- "After sales service Info", in the options.

7.6.1 System tests

This menu allows you to test the operation of all the appliances and the system (boiler, HP, valve,) present in the installation.

Each element can be controlled centrally by activating its normal start-up function or by individual component.

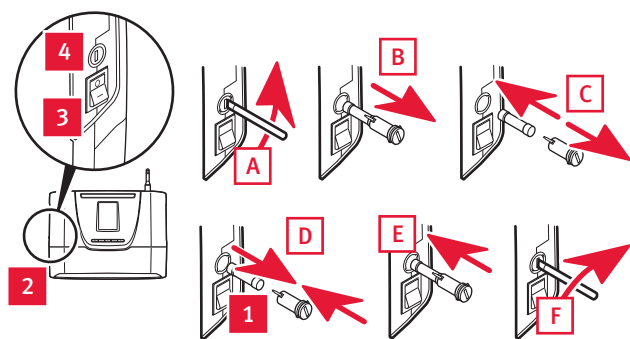
By entering the test menu, the control unit displays the following message: “the system is currently stopped” No further heating control operations are affected. Control is resumed upon exiting the menus.

7.6.2 After sales service info

This menu provides access to After sales Service information:

- date of last access to installer menus
- the name of the company which provides the after sales service, if entered during installation.
- the telephone number of the company which provides the after sales service , if entered during installation.

7.7 Replacing a fuse



Key

- 1 Fuse
- 2 Control unit
- 3 Switch On (I) / Off (O)
- 4 Fuse holder

- Turn off the control unit (2) with the switch (3) in position (O).
- Turn off the power supply to the control unit (2) at the isolating switch.
- Replace the fuse following the order (A) to (F).
- Turn on the power supply to the control unit (2) at the isolating switch.
- Turn on the control unit (2) with the switch (3) in position (I).

8 Recycling and disposal

8.1 Recycle the packaging

- Sort the waste to separate those which can be recycled (cartons, plastics...) from those that cannot (strapping ...).
- Recycle the product packaging according to all relevant regulations.

8.2 Recycle or dispose the product and its components

- Do not dispose of your product or any of its accessories in the household waste.
- Make sure the old unit and any accessories are disposed of properly.
- Observe all relevant regulations.

9 Technical data

Description	Unité	Control unit
Transmission / reception frequency	MHz	868
Transmission / reception frequency with outdoor sensor	MHz	15
Transmission / reception frequency with room thermostat	MHz	10
Average radio signal range in open air (*)	m	100
Average radio signal range indoors (*)	m	25
Control unit dimensions:		
Height	mm	264
Length	mm	290
Depth	mm	45
(*) Depends on the installation's conditions and the electromagnetic environment.		
Electricals		
Power-supply voltage	VAC/Hz	230/50
Power cable gauge	mm ²	3 x 0.75
eBUS connection cable gauge	mm ²	2 x 0.75
Current	A	4.35
Delay fuse	A	1
Electrical protection		IP20
Electrical classification		I
Surge category		II
Pollution rating		2
Contact outputs fed work	A	8
	V	230
Action auto		type 1.C

10 Appendix

10.1 Table of menus and functions

The available settings are different depending on the installation layout and the options selected.

Menus and functions (☺ available depending on configuration)	Installation
	individual
Installation	
Modifying the installation (*) This menu allows you to change the diagram number when modifying the installation's configuration.	-
Modification options (*) This menu allows you to enable or disable the options available in the selected installation diagram.	-
Installation (*) This menu is used to reinitialise the control box and restart the installation assistant (factory settings) A diagram number is assigned to each possible installation, with various options available. The number is indicated in the system manual.	☺
Thermostat/sensor	
Thermostat connection(s)	☺
Sensor connection	☺
Ext. temperature correction	☺
Outdoor sensor (Wired)	
Ext. temperature correction	☺
Automatic test	
eBUS inputs	☺
NTC inputs	☺
Wireless thermostat connection	☺
Wired thermostat(s) connection	☺
The outdoor sensor radio connection	☺
Parameters	
Heating	
Shut-off T°	☺
Programming	☺
Max. heating outlet T°	☺
Min. heating outlet T°.	☺
Convector fan T°	☺
Fixed convector fan start setting	☺
Auto heating curve	☺
Manual heating curve	☺
Advance heating	☺
Hot water	
Programming	☺
Max. domestic hot water temperature	☺
Recirculation procedure	☺
Recirculation Program	☺
Anti-Legionella procedure	☺
Cooling	
Convector fan start conditions	☺
Cold water outlet temperature setting	☺
Fixed convector fan start setting	☺
Humidity sensor	☺
Cold water outlet calculation mode setting (fixed or variable)	☺
Offset (Epsilon)	☺
Circulation pump purge setting	☺

Menus and functions (☺ available depending on configuration)	Installation
	individual
Heat Pump Management	
T° heat pump shutdown outside temperature	☺
Energy management	
Energy ratio setting	☺
Resetting parameters	
The resetting of factory settings is irreversible. Any customised configuration of the control unit will be lost.	
Commissioning	
This menu allows you to carry out the necessary operations on the appliances following installation (refilling, bleeding, flow rate control...).	☺
System start	
Installation start	-
Component information (**)	
This menu enables real-time access to: - the status of the appliances responding to a demand (ON / OFF) - the reading the different information available from the appliances (temperature, pressure, flow,) - the register of last 5 faults recorded for each appliance (date, time, code and description of faults). - resetting the fault report.	
Options	
Date	(***)
Time	(***)
Automatic winter/summer time change	☺
Languages	☺
Screen (brightness / contrast)	☺
About	
This function is used to display the versions of the various electronic components attached to the management box.	

(*) On entry into the menus installation modification and options modification, the management box warns that "the system is shutting down". "the system is currently stopped" No further heating control operations are effected. ... Setting will restart after leaving these menus.
 (**) Refer to the system fault codes section to find the description of the fault code displayed on the screen.
 (***) In an installation equipped with a room thermostat, the date and time are set from the room thermostat.

10.2 Table of system failure codes

Code	Description	Cause	Solution
001	Failure in eBUS communication between with the boiler	The boiler is not connected to the control unit. The cable polarity is reversed. The boiler is off.	Check that the boiler is connected to the control unit. Check the connection's + / - polarity. Ensure that there is no interruption to the electricity network and that the boiler is properly connected and turned on.
002	Failure in eBUS communication between with the heat pump		
003	Failure in eBUS communication between with the hydraulic module		
004	Mixer manager I/O card (extension card) communication fault		
010	Heating circuit flow temperature sensor failure (open circuit)	The sensor is defective or not properly connected to the control unit management or hydraulic module.	Check the sensor's connections. Verify that the position and the operation of the sensor are correct. Check the sensor's resistance.
011	Heating circuit flow temperature sensor failure (short circuit)	The sensor is shorted.	
012	Heating circuit flow temperature sensor failure low temperature (open circuit)	The sensor is defective or not properly connected to the control unit.	Check the sensor's connections. Verify that the position and the operation of the sensor are correct. Check the sensor's resistance.
013	Heating circuit flow temperature sensor failure low temperature (short circuit)	The sensor is shorted.	
014	Domestic hot water tank upper sensor fault (open circuit)	The sensor is defective or not properly connected to the control unit.	Check the sensor's connections. Verify that the position and the operation of the sensor are correct. Check the sensor's resistance.
015	Domestic hot water tank upper sensor fault (short circuit)	The sensor is shorted.	
016	Domestic hot water tank lower sensor fault (open circuit)	The sensor is defective or not properly connected to the control unit.	
017	Domestic hot water tank lower sensor fault (short circuit)	The sensor is shorted.	
020	Pressure sensor failure	The sensor is defective or not properly connected to the hydraulic module.	Check that there are no leaks. Drain the heating circuit. Remove air. Fill the installation.
021	Pressure too low <0.5 bar	There is a leak in the heating circuit.The venting was not carried out correctly.	
030	Failure in communication with the zone 1 room thermostat.	Wireless room thermostat: The room thermostat is too far from the control unit. There is a problem with the batteries in room thermostat.	Wireless room thermostat: Check the location of the thermostat. Check that the thermostat's batteries are installed in their compartment. Make sure the battery polarity is not reversed. Make sure the batteries are not dead. If so, replace them with new batteries
031	Failure in communication with the zone 2 room thermostat.		
032	Failure in communication with the zone 3 room thermostat.	Wired room thermostat : The room thermostat is not properly connected to the control unit.	
036	Failure in communication with the wireless outdoor sensor	The wireless outdoor sensor is too far from the control unit.	Check the location of the outdoor sensor. Check that the sensor's power supply is correctly provided by a photovoltaic cell. The outside sensor has no battery to be replaced.

2703312 REV0



Subject to engineering changes

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Supplier / Manufacturer

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Because of our constant endeavour for improvement, details may vary slightly from those shown in these instructions.

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