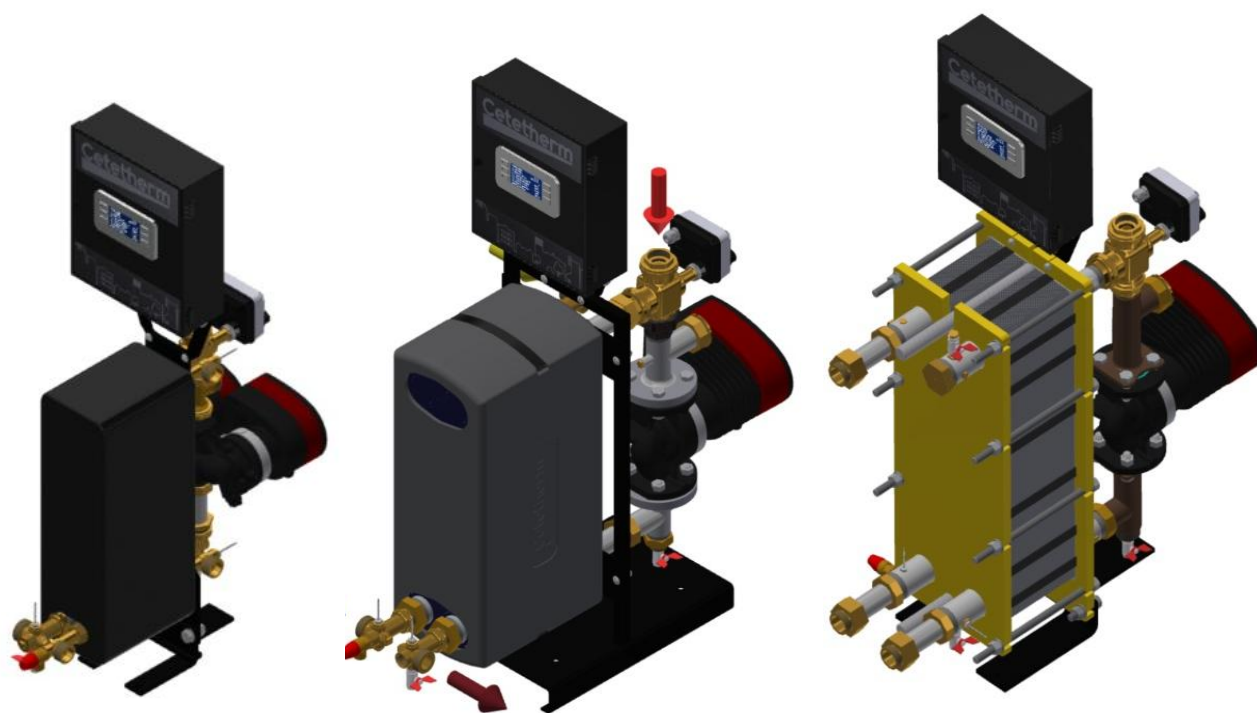


Installation, use and maintenance instructions Cetetherm URANUS 2 - steps

Domestic hot water heater



EN

Table of Contents

1.	Overview	4
1.1	Operating principle	5
1.2	Main components	6
2.	Installation	7
	Unpacking/Preparation/Assembly	8
	Commissioning	8
	Instantaneous installation Flowchart	9
	Instantaneous Installation with primary tank Flowchart	10
	Primary water storage limits the generator's instantaneous power	10
	Instantaneous with Primary tank Flowchart: Combitherm system	11
	Variant using the ASTB KIT - Flowchart	12
	UCB100 Instantaneous drawing	13
	UCB500 Instantaneous drawing	13
	U6000 Instantaneous drawing	14
	U9000 Instantaneous drawing	14
3	Electrical installation	15
	Control box Components	15
	Electrical wiring diagram	16
4.	Using the Temperature Controller	20
	Home screen Display:	20
4.1	Display Settings (HMI)	21
6.2	Setting Date and time	21
5.	End user mode	22
5.1	Simple DHW setpoint setting	22
5.2	Safety function	22
6	Technician level access	23
6.1.	Login	23
6.2.	Log out	24
6.3.	Main Menu	24
6.4.	S1 Sensor Menu	25
	Temperature Setpoint(s) and clock program(s)	25
	S1 Temperature controller	27
6.5.	S2 menu	28
6.6.	Delta T (S3-S2) Function	28
6.7.	Thermal Treatment Function	29
6.8.	Safety function	30
6.9.	ECO / Booster Functions	31
6.10.	Fouling function	32
6.11.	Pump(s) Menu	33
6.12.	S4 Temperature limitation function menu	35
6.13.	Extended functions	35
	Pilot On/Off function, 1 sensor or KITASTB	35
	Primary tank PT1 +PT2 function. Combitherm system	37
6.14.	Test sequence	39
6.15.	Menu Communication Modbus RTU	40
6.16.	Wired Inputs / Outputs Menu	42

7	Configuration menu	43
	7.1. Login.....	43
	7.2. Logout	44
	7.3. Configuration menu	44
8	Alarms/Functions and Acknowledgements Menu.....	46
	8.1. Alarms	46
	8.2. Functions.....	47
	8.3. Events' list	47
9	Production Reset.....	48
10	Troubleshooting	49
11	Maintenance and repairs	50
	11.1. Cleaning of gasketed plate heat exchangers.....	50
	11.2. Cleaning of copper brazed heat exchangers	52
	11.3. Opening the electrical control box	53
	11.4. Fuse Replacement.....	54
	11.5. Pump replacement / addition	54
	11.6. Connecting Relays 1, 2 and 3.....	61
	11.7. Adding a temperature sensor	61
	11.8. Remote Control contacts	61
12	Spare parts	62
	12.1 UCB100.....	62
	12.2 UCB500.....	63
	12.3 U6000 / U9000	64
13	Commissioning Report	65
14	Declaration of Conformity.....	66
15	Guarantee	67
	How to contact Cetetherm	67

1. Overview

Cetetherm Uranus Neo Two-steps are compact domestic hot water (DHW) heaters including a two-step heat exchanger, a motorized control valve and a single or double primary pump depending on the version. They are equipped with a control box with a printed circuit board (PCB) and a dedicated communicating temperature controller.

The units are equipped with 3 temperature sensors: DHW outlet (S1), CW inlet (S2) and primary outlet (S3).

The piping is made of specially designed brass parts that allow the use of flat gaskets for easy assembly and maintenance.

Each device has been electrically and hydraulically tested at the factory.

URANUS 2-steps are available in 3 different plate sizes:

- UCB100 series (CB60 type double pass brazed heat exchangers).
- UCB500 series (brazed heat exchangers type CB110 in double pass).
- U6000 and U9000 series (double-pass removable plate and gaskets heat exchangers).

All models are available in different types and number of pumps on primary.

On the UCB100 models, the S2 sensor is a surface temperature sensor to be positioned on the cold water inlet.

On the models with plates and gaskets (U6000 and U9000), 3 removable sleeves with flat gaskets allow easy dismantling of the plate and the reinforcement to be able to carry out cleaning or maintenance operations on the plates. These operations are described later in this manual.

Options:

- PT1 and PT2 additional probes for primary tank load management: Combitherm system
- Or an additional ASTB kit for the management of the stratification of a primary vessel with orientation of the primary returns according to their temperature
- Variable Speed Primary Pump(s)

Cetetherm Uranus appliances must be connected to a primary heat source such as a boiler, a heat exchanger or a primary tank that can be heated by a heat pump.

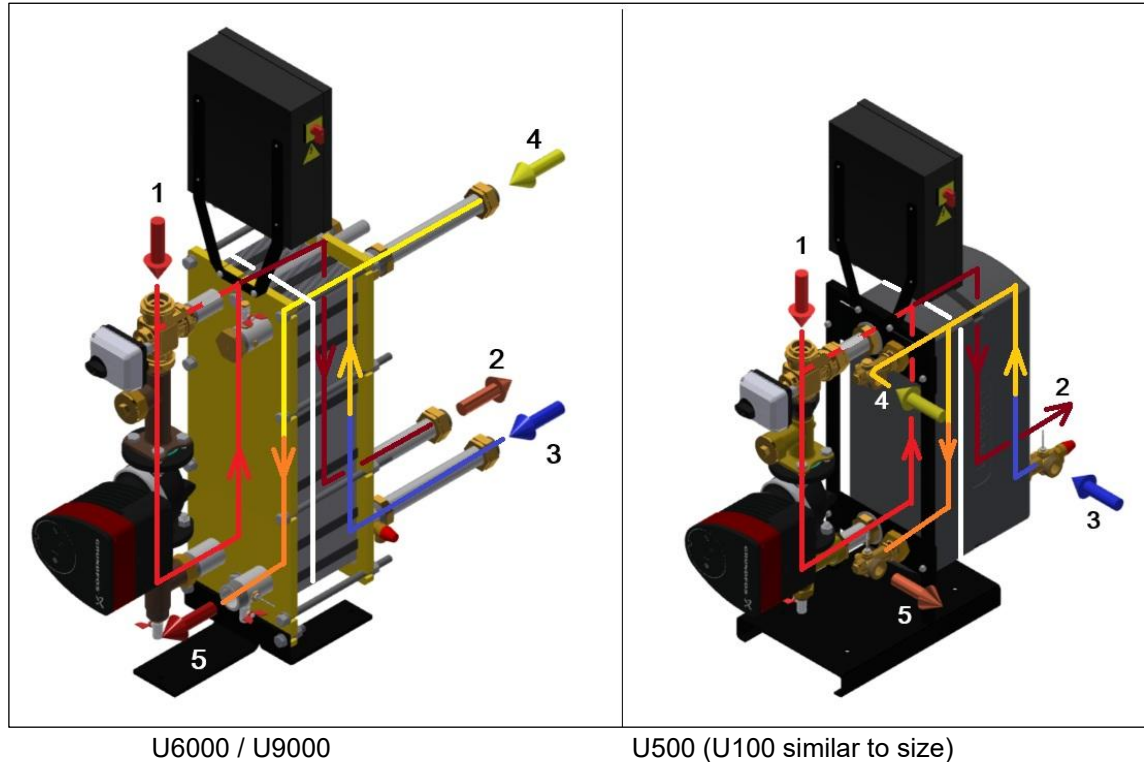
The secondary side is connected to a cold-water inlet and the domestic hot water network: loop and DHW outlet. See the schematic diagrams for more information.

All heat exchangers, with plates and gaskets or copper brazed, are double-stepped.

1.1 Operating principle

Rep.	Description	Rep.	Description	Rep.	Description
1	Primary Inlet	3	Cold water inlet	5	DHW Outlet
2	Primary Outlet	4	Recycling inlet		

The white line on the heat exchanger shows the separation of the steps.



On the primary side:

If there is no demand, the 3-way mixing valve is closed in 1 and the primary loops back on itself, thus returning to the 3-way valve and the primary pump.

If consumption, the 3-way valve gradually opens in 1 and the cycling path of the 3-way valve (in red dotted lines) closes further, gradually sending the fluid to the 2nd step (brown lines). The primary flow then gradually evacuates in 2, dropping in temperature very quickly because it is cooled by the cold-water inlet.

Thus, during periods of non-withdrawal, the exchanger keeps the recycling loop at temperature. The 3-way valve is then very slightly open, creating a "leakage" flow rate at the temperature of the loophole $+2^{\circ}\text{C}$, because there is no cold water to cool it.

From very low withdrawals to the peak DHW flow rate, the primary outlet flow rate increases as well as the cold-water flow, which allows the primary outlet temperature to be cooled very quickly and very efficiently in 2.

Secondary side:

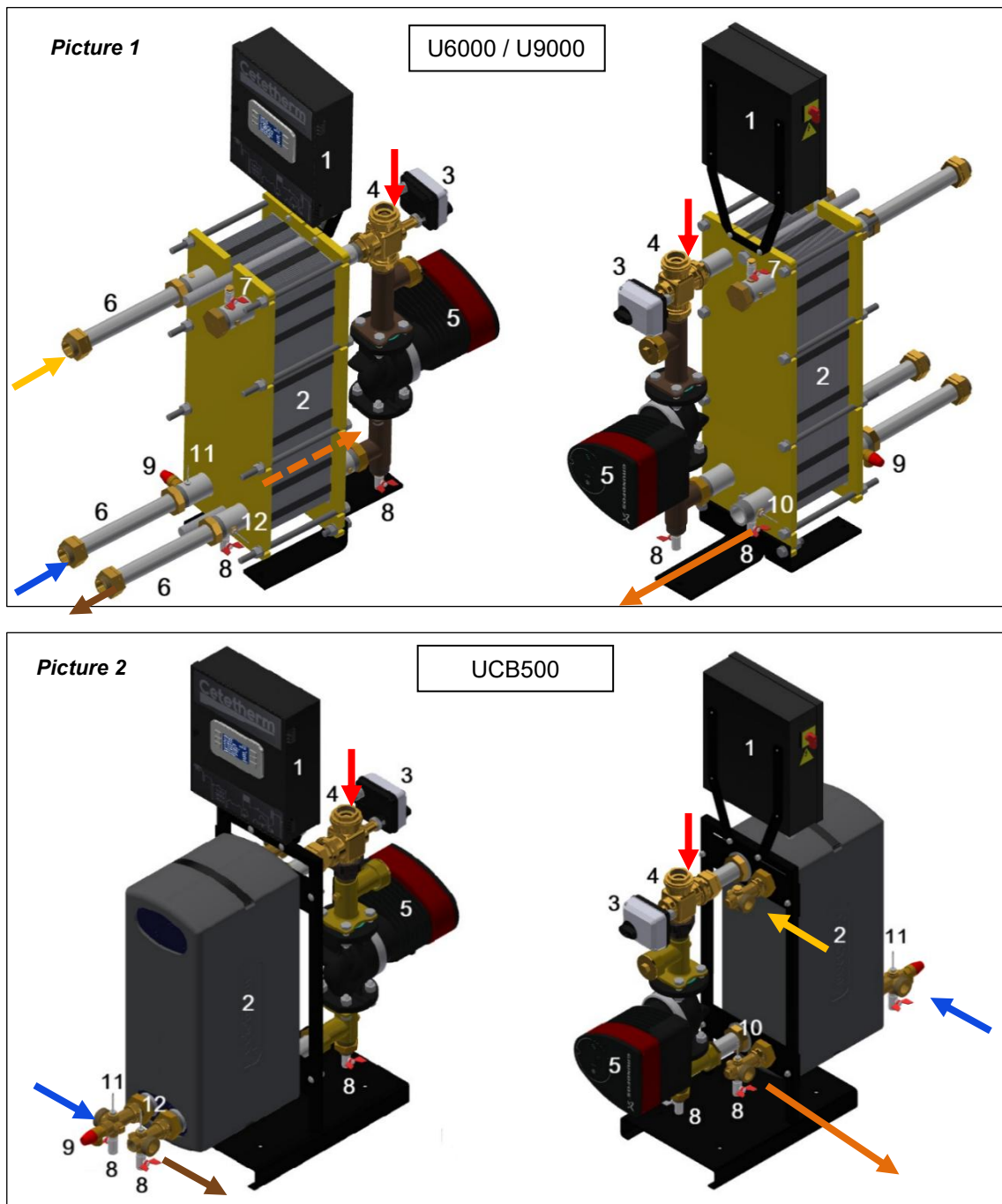
Cold water is admitted in 3 and is pre-heated in the 2nd pass.

If no tapping, there is no flow in this step. During tapping, it is preheated by the primary circuit. The DHW recycling loop enters on connection No.4 permanently and arrives at the entrance of step No.1. The latter permanently heats up to the entire DHW flow rate during peak withdrawals.

This mode of operation ensures

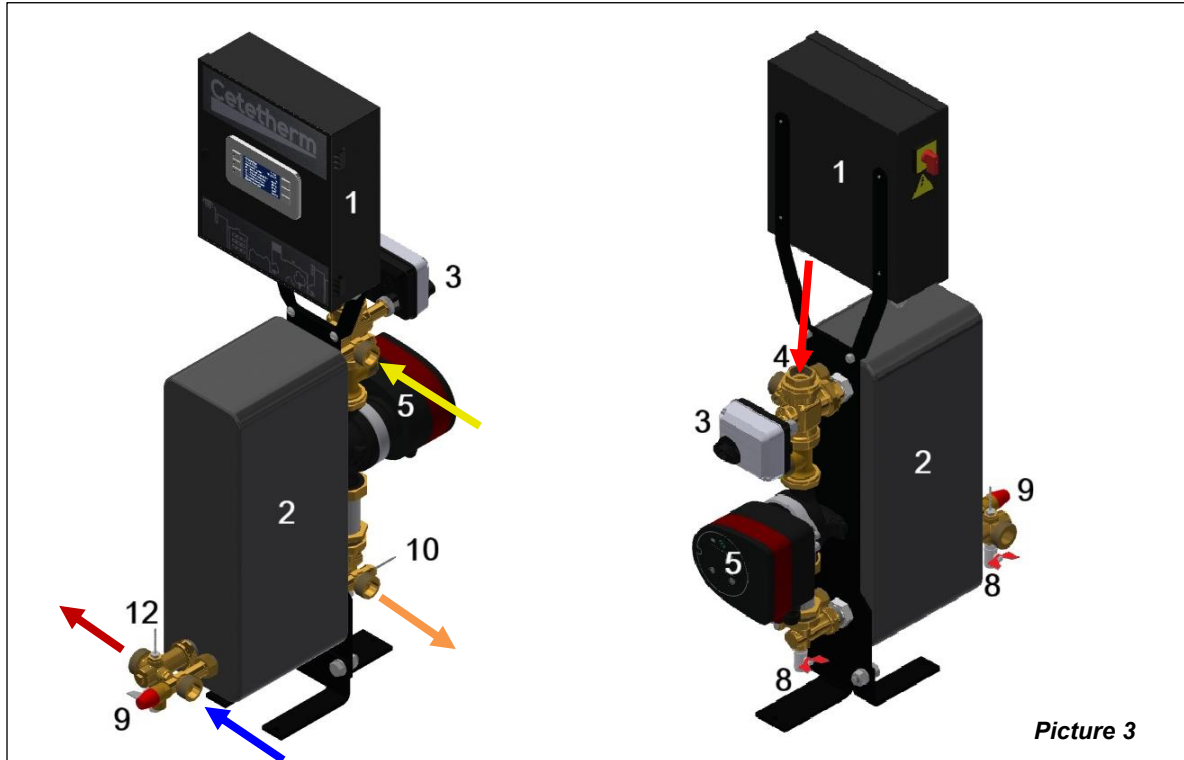
- The lowest possible primary inlet temperature on the exchanger due to the 3-way mixing valve and reduces the risk of thermal shock as much as possible
- The lowest possible primary outlet temperature.

1.2 Main components



Rep.	Description	Rep.	Description
1	Control box	7	High-point air purge with valve (U6/9000)
2	Two-steps heat exchanger	8	Drain (ball valve)
3	Valve's actuator 15 Seconds	9	Safety valve on CW inlet
4	3-port mixing control valve	10	S1 Temperature sensor
5	Single or double primary pump	11	S2 Temperature sensor
6	Maintenance sleeves (x3) on U6000 and U9000 models only.	12	S3 Temperature sensor
	Primary Inlet (Red)		Cold water inlet (blue)
	Primary Outlet (Brown)		Recycling loop inlet (Yellow)
①: Common nomenclature for all devices			DHW outlet (orange)

UCB100 :



Rep.	Description	Rep.	Description
1	Control box	8	Drain (ball valve)
2	Two-steps heat exchanger	9	Safety valve
3	Valve's actuator 15 Seconds	10	S1 Temperature sensor S1
4	3-port mixing control valve	11	S2 temperature sensor
5	Single or double primary pump	12	S3 Temperature sensor (not on the unit)
	Primary Inlet (Red)		Cold water inlet (blue)
	Primary Outlet (Brown)		Recycling loop inlet (Yellow)
①: Common nomenclature for all devices			DHW output (orange)

2. Installation



The installation must be carried out by a qualified service provider.



The device is designed for indoor installation, typically in a technical room accessible only by qualified personnel. The room temperature should be between 0 °C and 40 °C, the humidity should not exceed 85% RH without condensation.



The temperature and pressure of the water can be high. Only qualified technicians are authorized to operate the device. Improper use can cause significant personal injury and damage to the building.



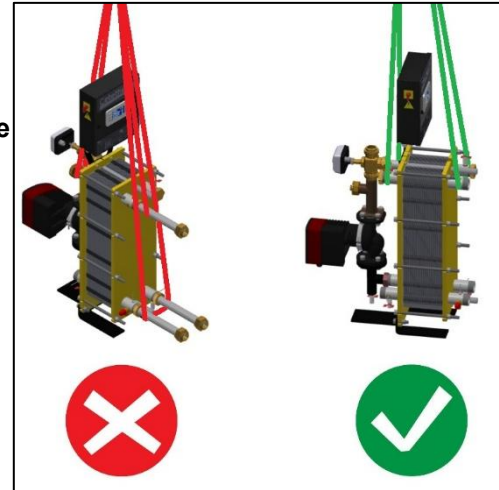
Minimum Pressure/Temperature on the primary side: 1.0 barg/2 °C
Maximum pressure/temperature on the primary side: 10 barg/100 °C
Maximum pressure/temperature on the secondary side: 10 barg/85 °C

Unpacking/Preparation/Assembly

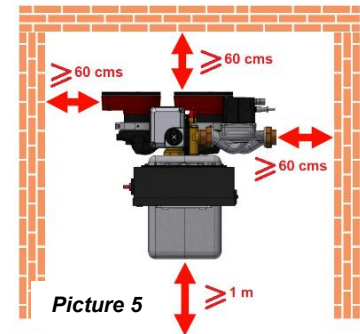


Do not handle, move or lift the device by the connection sleeves! Risk of damage to the connections.

Picture 4



- Rinse the hoses in the system before connecting them to the appliance.
The piping may contain solid particles that can block the modulating valve or prevent it from functioning properly.
- Also check:
 - The presence and location of air traps
 - The presence of a sludge filter or pot on the primary side
 - Compliance with the capacity of the generator, as well as the hydraulic diagram
 - Primary vessel, mixing bottle or upstream bypass to remove any differential pressure
 - The presence of a secondary setting valve for semi-instantaneous devices or recycling pump
 - Accessibility to the device and its components: **leave at least 60 cms on the sides and behind. The front panel must be fully accessible.**
- Connect the primary and secondary circuits of the module.
- Gradually fill both sides with water.
- Purge the air from the upper parts.
- Purge the pump bodies.
- UCB100 only: Install the S2 surface probe on the cold-water inlet tubing
- Connect the power supply to the control box.
- Check the regulator setting and activate the required functions.



Picture 5

Commissioning

Before commissioning, read the manual carefully.

The regulator has been configured at the factory.

If a function needs to be adjusted, the values can be changed in accordance with this manual.

Initially, the commissioning procedure must be carried out with the factory settings.

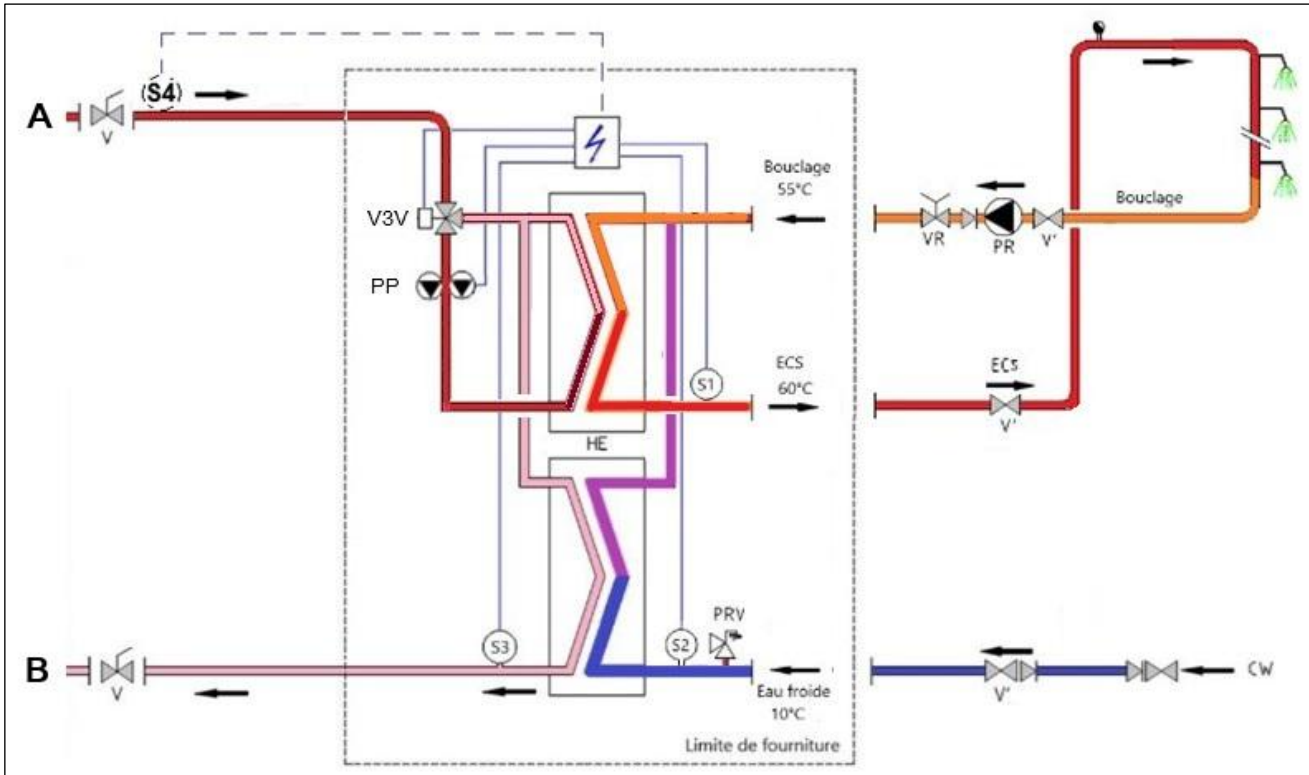
Complete the commissioning report in the chapter [13 Commissioning Report](#).



Do not turn the head(s) of the circulators.

Instantaneous installation Flowchart

The devices must be installed according to the following diagrams.



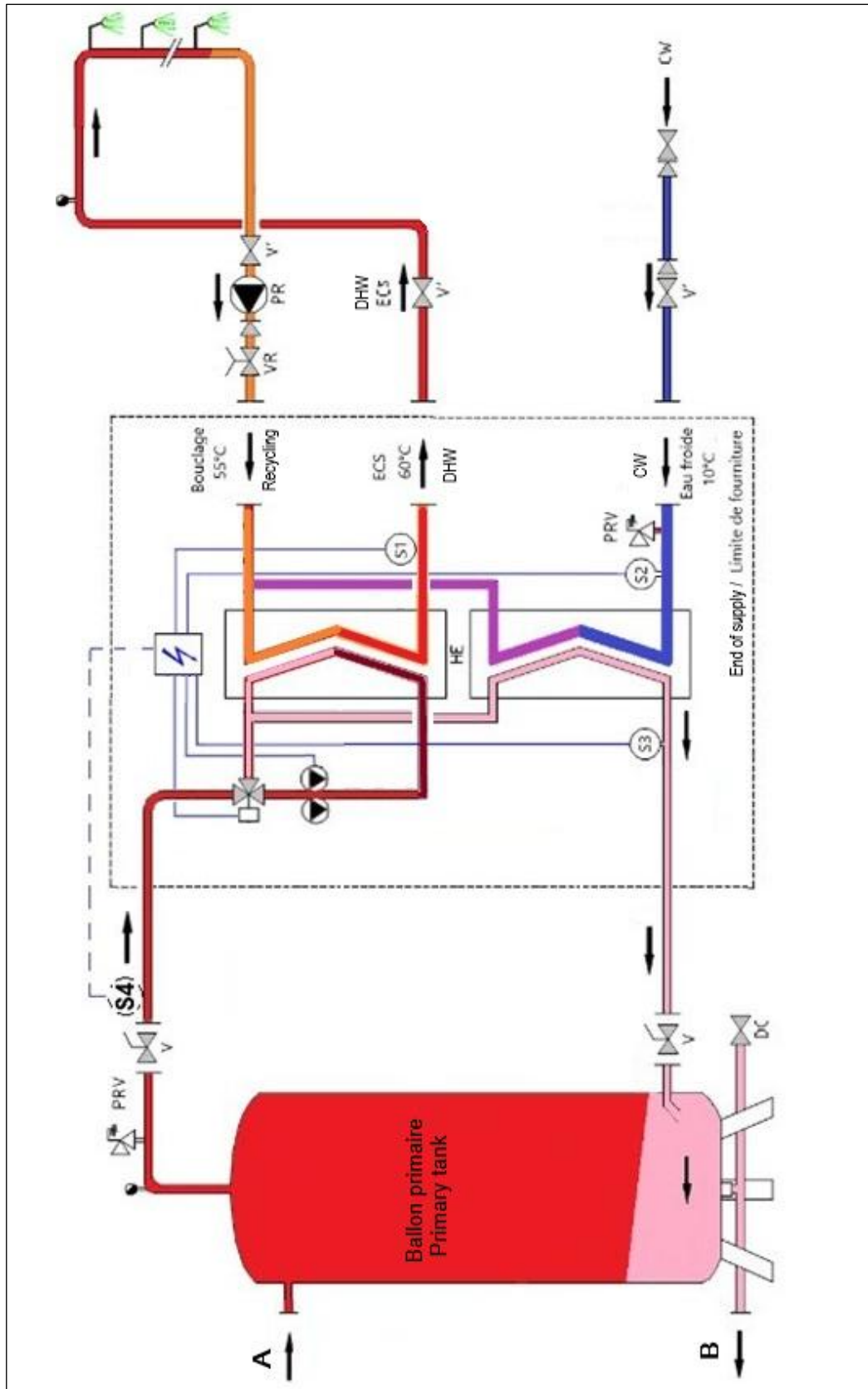
Picture 6

REP.	DESIGNATION	REP.	DESIGNATION
Has	Primary Inlet	HE	Plate heat exchanger
B	Primary Outlet	PP	Primary Pump (Single/Double)
CW	Cold water Inlet	PR	Recycling pump
V3V	3-port control valve with actuator	V/V'	Gate valve
PRV	Safety valve	S1	DHW Temperature sensor (Main)
S2	Cold water inlet temperature sensor	S3	Primary Outlet Temperature sensor
S4	Primary Inlet Temperature sensor*	Pt1	Primary Tank lower Temperature sensor*
Pt2	Primary tank upper temperature sensor*	PC	Primary tank charging pump*

* Optional

Instantaneous Installation with primary tank Flowchart.

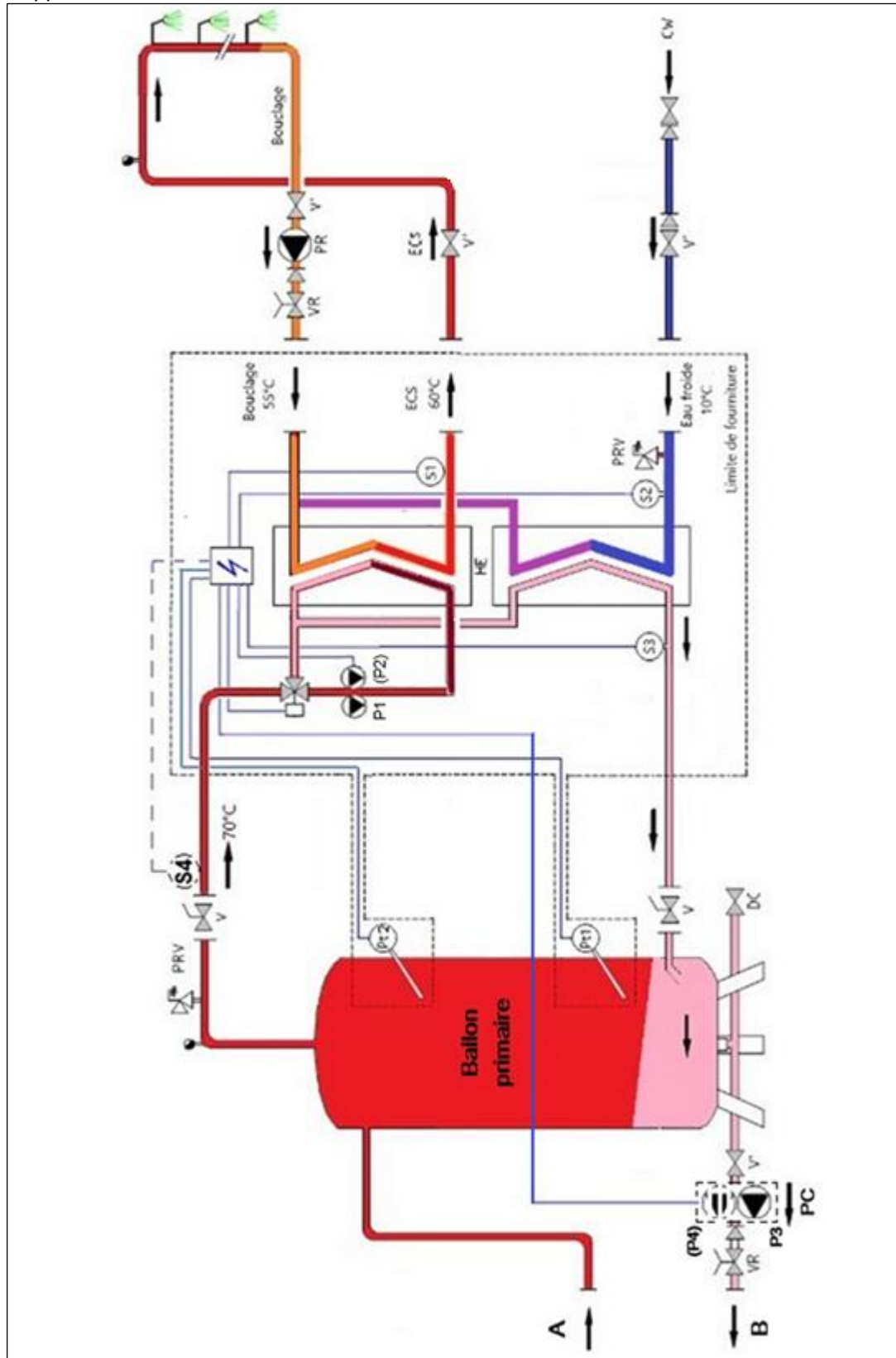
Primary water storage limits the generator's instantaneous power. The devices must be installed according to the following diagrams.



Picture 7

Instantaneous with Primary tank Flowchart: Combitherm system

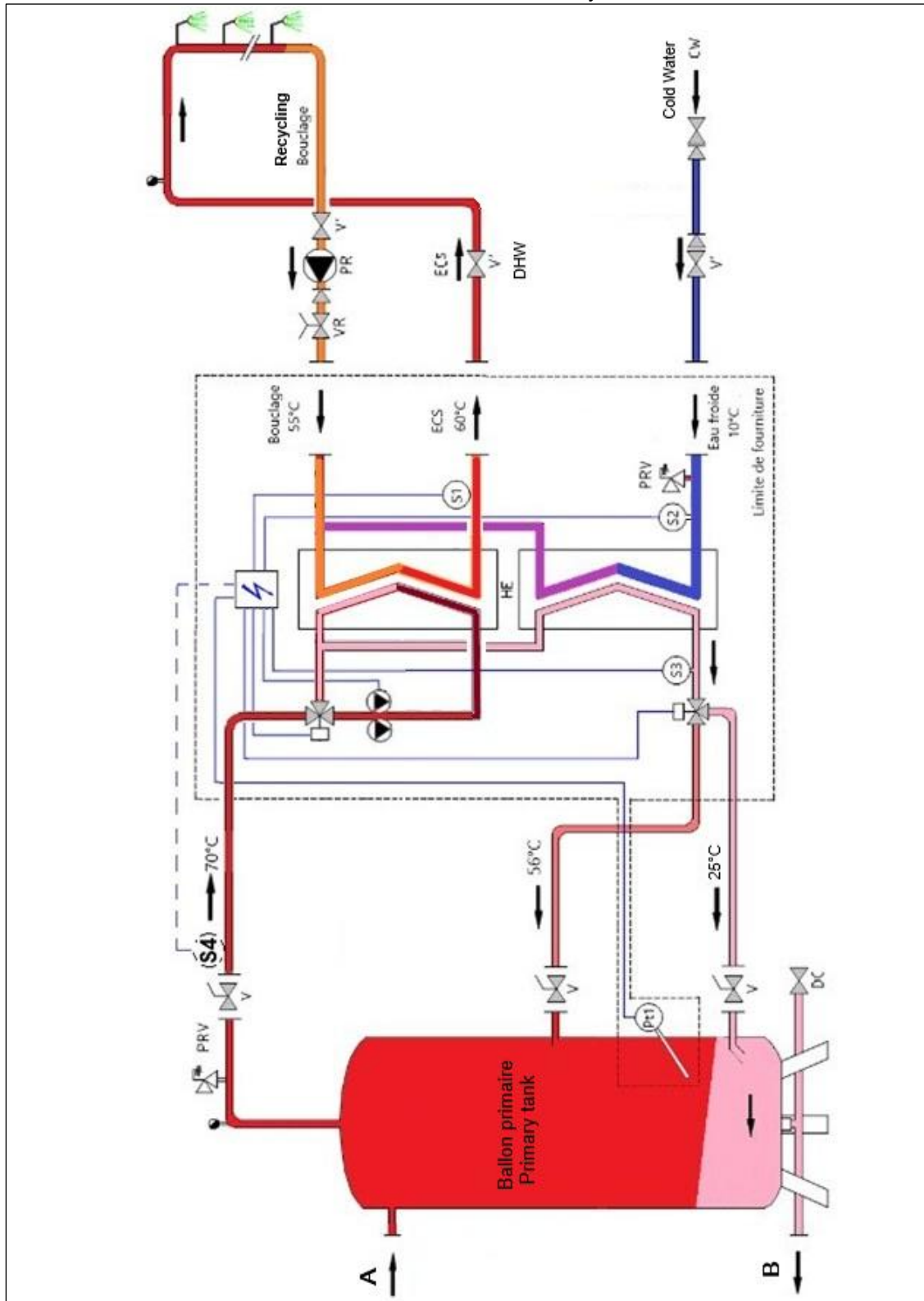
The device can be combined with the Combitherm system consisting of one or two Pt1+Pt2 probes, as well as a single or double primary tank charge pump (PC).
When the tank is cold, PC is running. When it is at temperature, the charge pump is then stopped.



Picture 8

Variant using the ASTB KIT - Flowchart

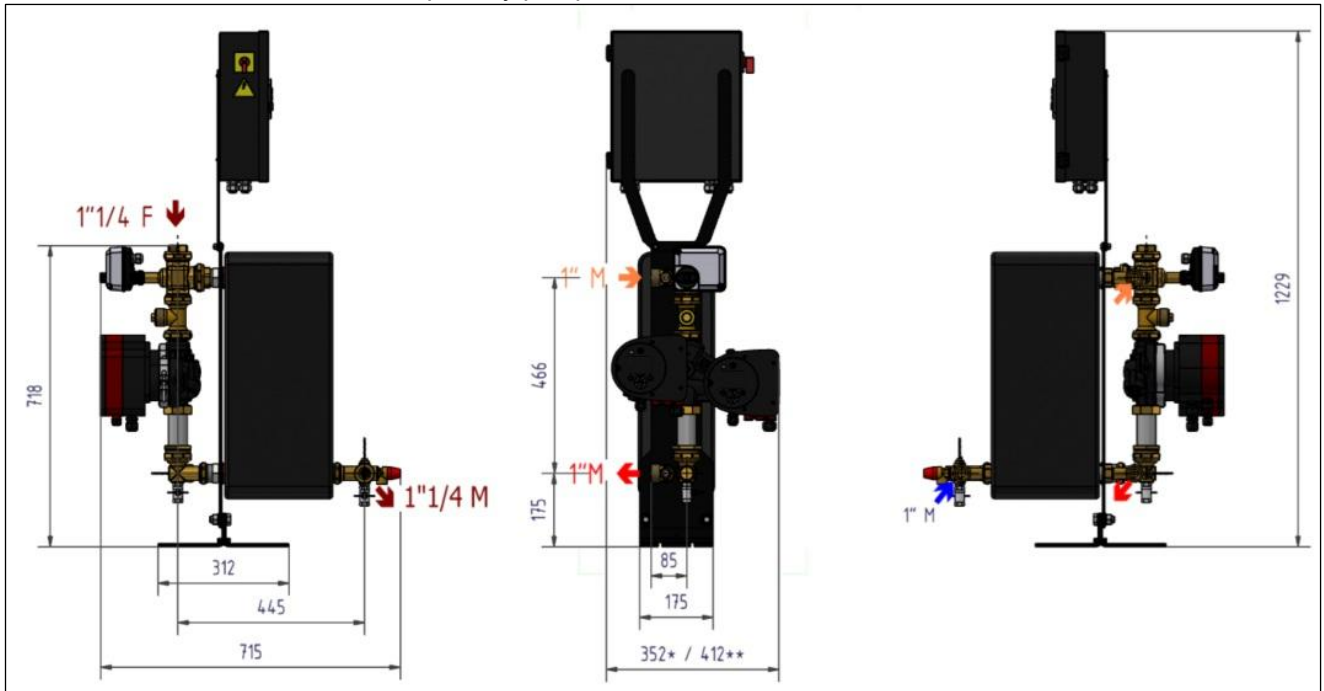
During periods of no or very low withdrawal, the primary returns can exit at high temperatures (around recycling inlet + 2°C) but at very low flow. The ASTB kit allows these returns to be injected into the middle of the tank in order to maintain temperature stratification. During higher drawdowns, the returns drop quickly and the output flow, which is much colder, is oriented towards the bottom of the tank, which therefore always remains cold.



Picture 9

UCB100 Instantaneous drawing

Model shown: Twin primary pump



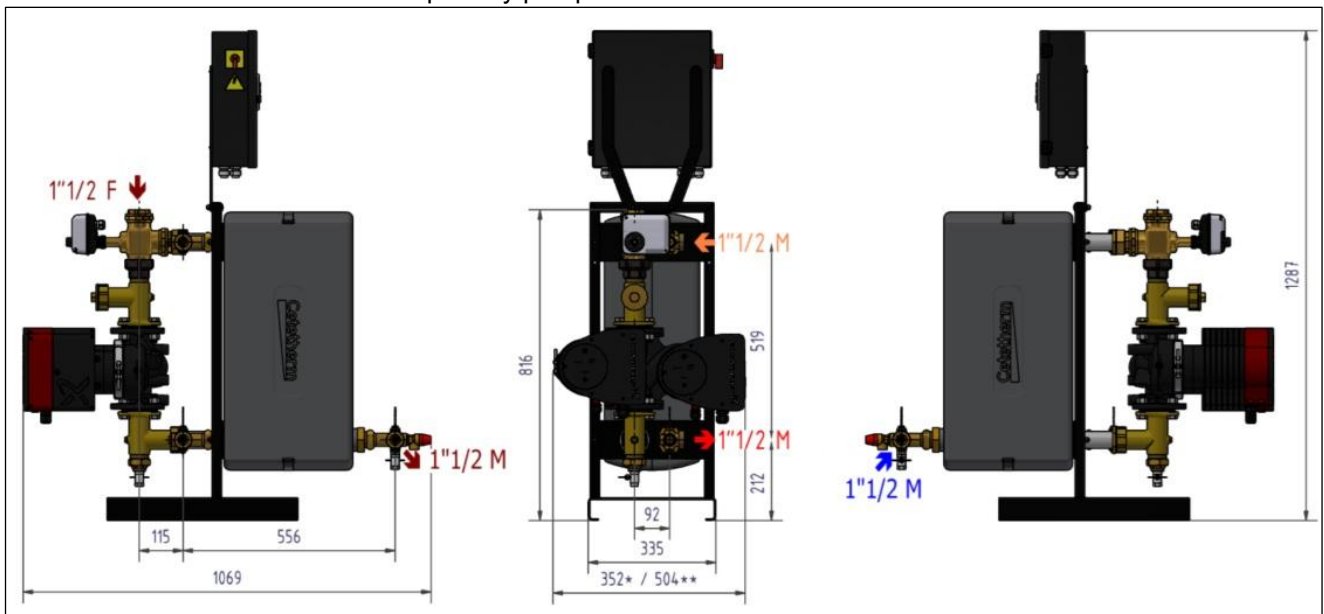
Picture 10

* Single primary pump / ** Twin primary pump

Weight: from 37 to 58 kg.

UCB500 Instantaneous drawing

Model shown: Twin primary pump



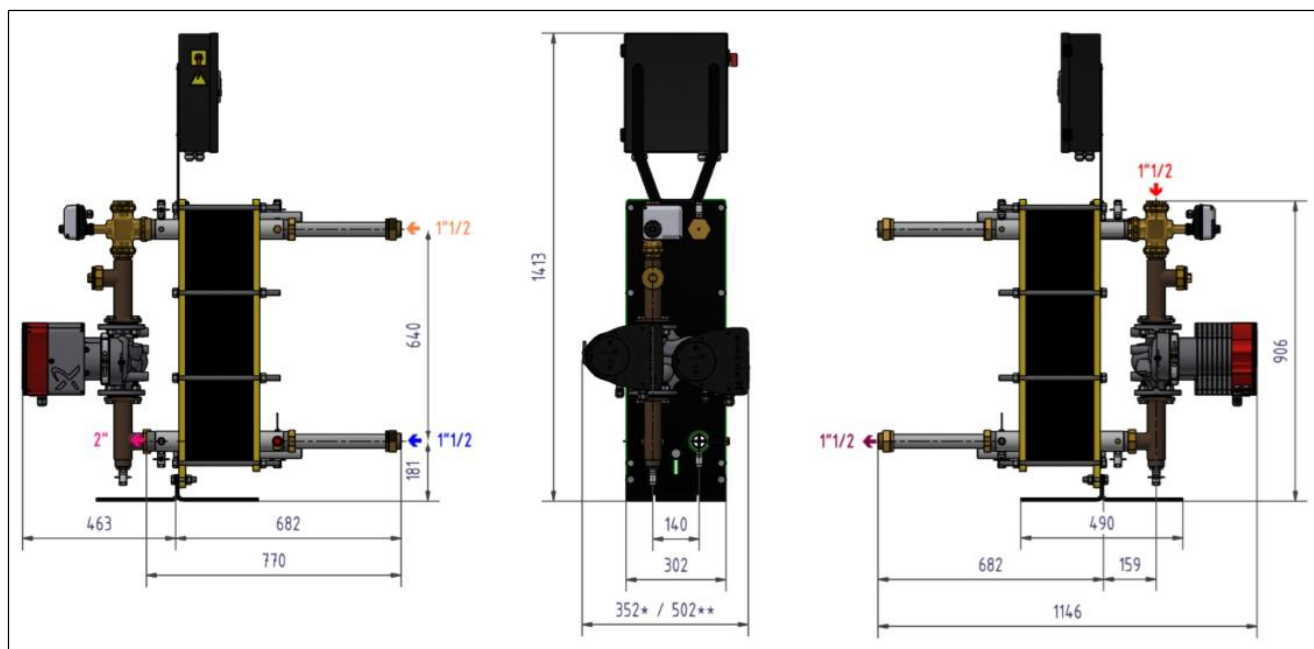
Picture 11

* Single primary pump / ** Twin primary pump

Weight: from 95 to 123 kg.

U6000 Instantaneous drawing

Model shown: Twin primary pump



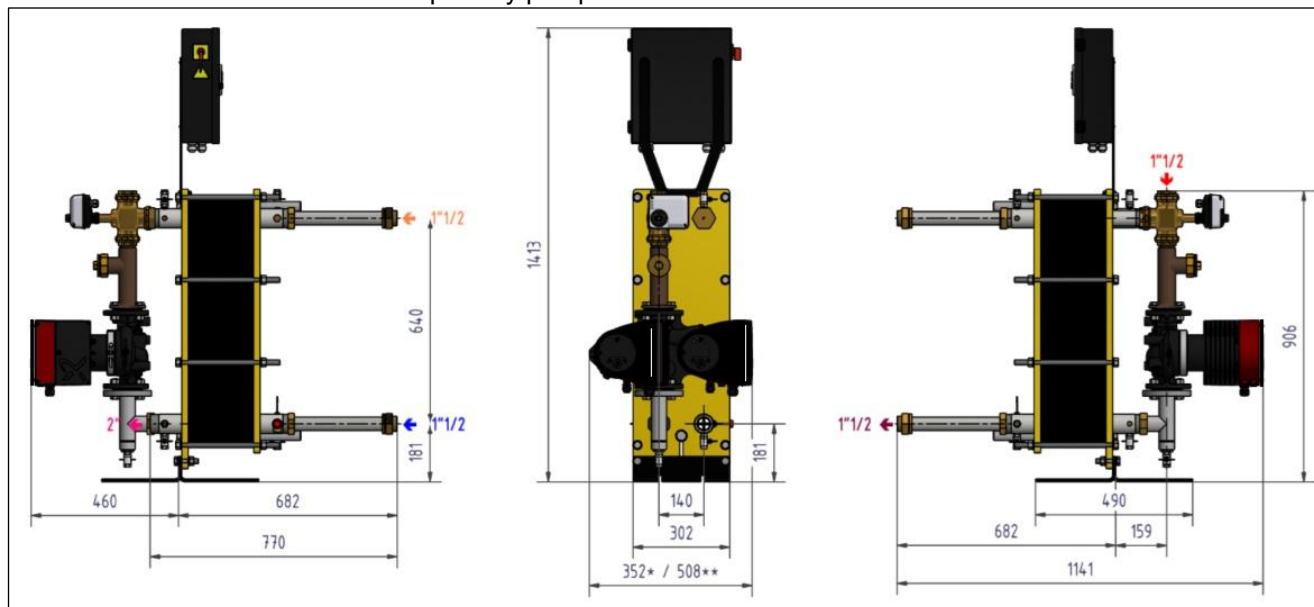
Picture 12

* Single primary pump / ** Twin primary pump

Weight: from 138 to 173 kg

U9000 Instantaneous drawing

Model shown: Twin primary pump.



Picture 13

* Single primary pump / ** Twin primary pump

Weight: from 168 to 200 kg.

3 Electrical installation

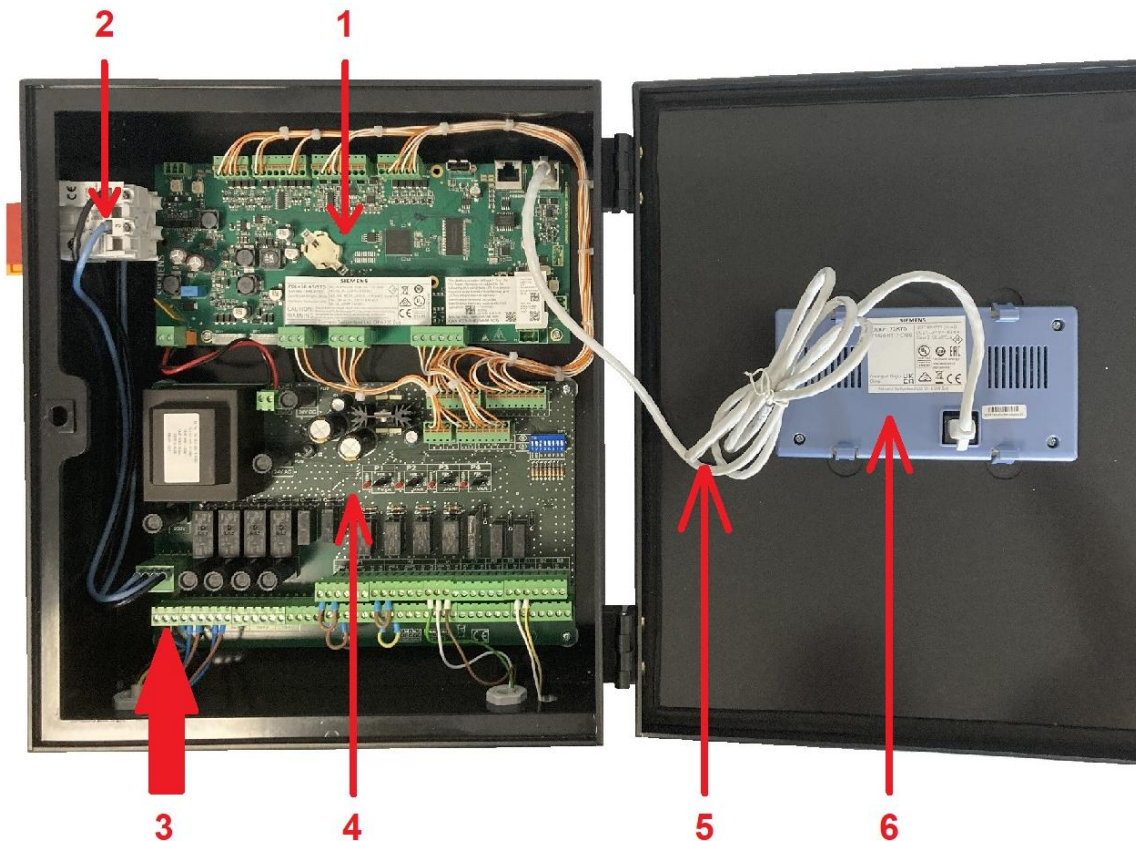


Power supply the control box with 230V 50 Hz + Earth, using electric protection in the main electric power box. The TWS control box is a secondary electrical control box. Human protections and protections against short circuits and over intensity must be installed in the main electric box.



Earth (Ground) must be wired to the control box to avoid any risk of electrical shock when touching the unit. Neutral and Phase must be respected: do not invert.

Control box Components



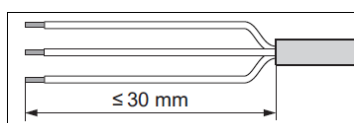
Picture 14

- | | | | |
|---|--|---|----------------------------|
| 1 | Micro 4000 Controller | 4 | ADE-432 Power board |
| 2 | Main switch, bipolar | 5 | Display cable |
| 3 | Protected customer power supply (N, L, Earth) | 6 | Display or HMI (rear view) |



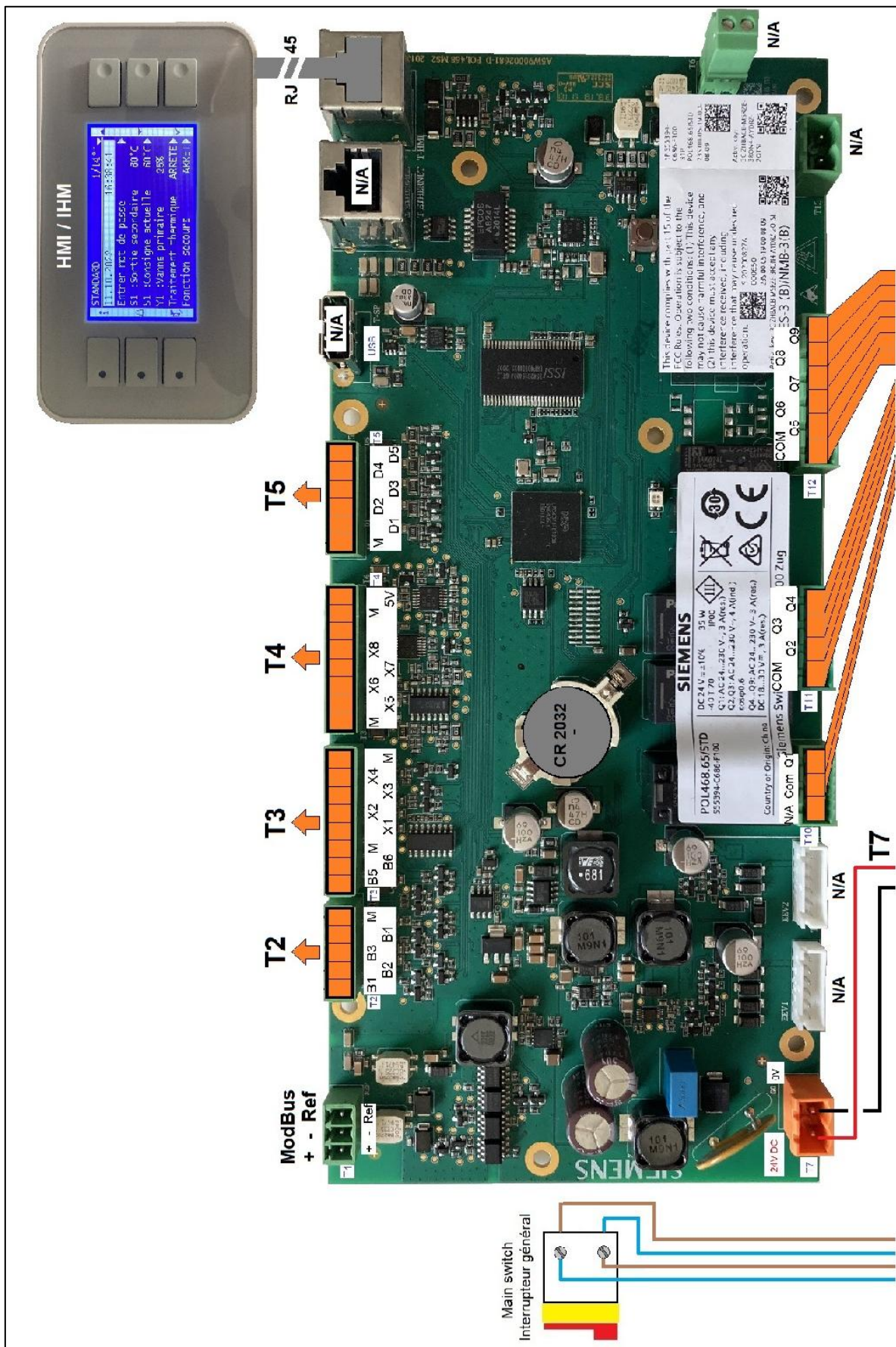
Use a 3-poles power supply cable with a yellow/green earth conductor of the following type: H05-VVH2-F, H05-V2V2-F, H05-V2V2H2-F, H05-Z1Z1-F, H05-Z1Z1H2-F, H05-RR-F, H05-VV-F. Wire Section: 2.5mm².

Do not tin wire end caps that will be exposed to contact pressure in the terminal blocks.

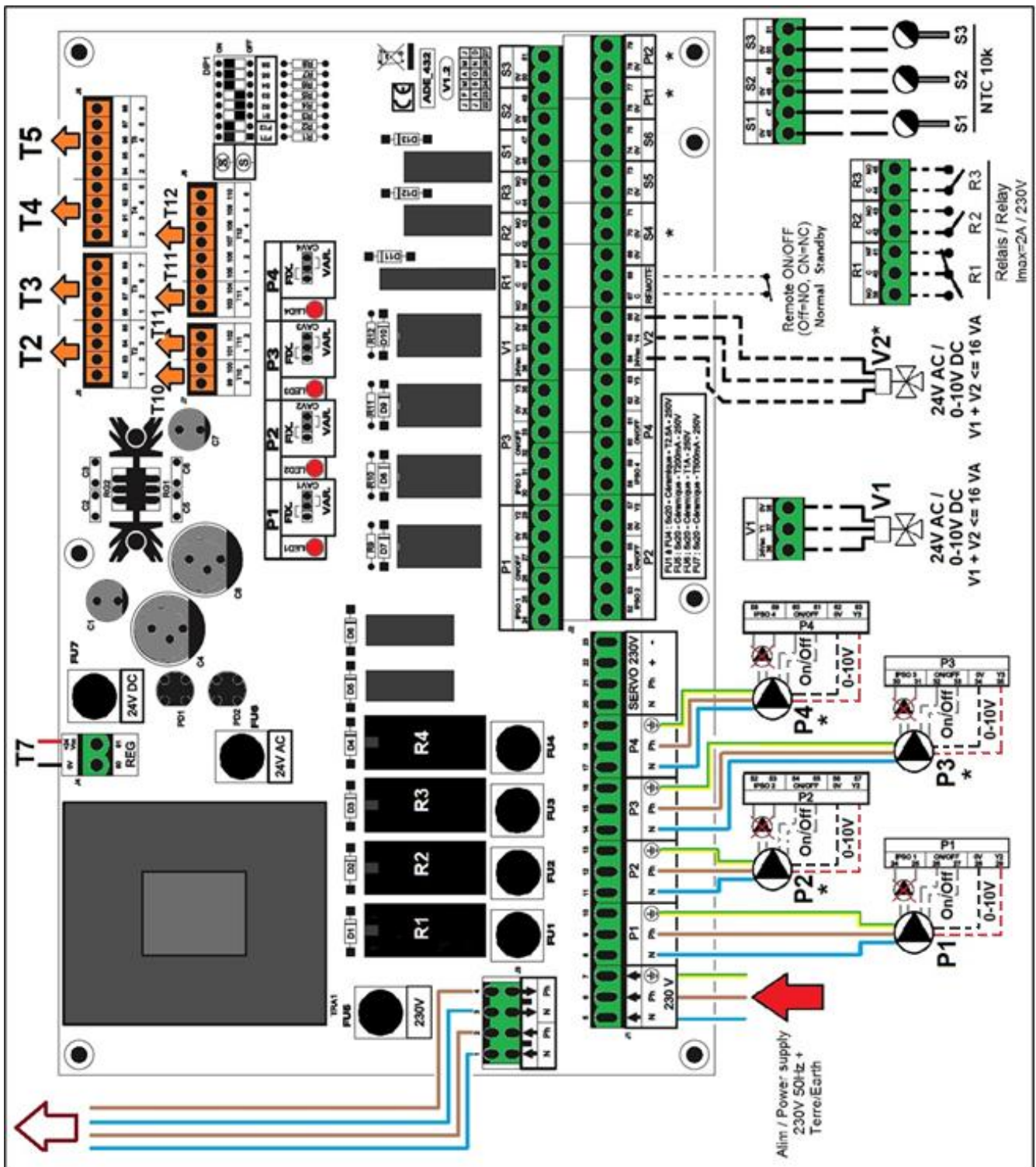


Strip the cables as shown. Be careful not to damage the insulation of the various electrical wires.

Electrical wiring diagram



Picture 15



Picture 16

* Dotted lines for variable speed pumps only



The ground must be connected to terminal 7 of the PCB.
Protect the upstream power supply of the product by means of a fixed connection and a separator with a cut-off interval of at least 3mm (fuse or switch)
Input: 30A, $I_{\Delta n}$:30mA, Trigger Characteristic: C



*:Option. The pumps fitted as standard are fixed speed. However, it is possible to use variable speed pumps with start/stop control (ON/OFF contacts) and 0-10 volt signal (terminals 0 and Yn) as an option.

Wiring Details:

Power terminal block on PCB (left bottom of cabinet)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
N	Ph	N	Ph				N	Ph	±	N	Ph	±	N	Ph	±	N	Ph	±
↑	↑	↓	↓	↑	↑	↑	Pump 1 (Primary)			Pump 2* (Primary)			Pump 3* (Recycling or Combitherm)			Pump 4* (Combitherm)		
Main Switch (already wired)				N	Ph	±												



Power supply of the 230V 50Hz + Ground at terminals 5, 6 and 7.

Terminals 8 to 19 supply up to 4 pumps P1, P2, P3, P4 (*depending on equipment)



Do not exceed 2.5 A per pump.

	UCB100	UCB500	U6000	U9000
Power consumption single pump	225 - 332* W	400 - 775* W	224 - 418* W	493 - 970* W
– double pump*:	2,0 - 2,9* A	2,2 - 3,9* A	2,1 - 3,6* A	2,6 - 4,7* A

* With safety function on the go (the 2 motors are powered)

If a recycling pump is connected, add its power and power consumption.

3-points actuator terminal block on PCB (middle bottom of the cabinet)

20	21	22	23
N	Ph	+	-
3-points actuator			



This terminal block is not used in standard versions.

The actuator is operated in 230V pulses between terminals 20 (N) and 22 (+) for opening and terminals 20 (N) and 23 (-) for closing.

Note that terminal 21 (Permanent phase) can be used for actuators with a return to zero due to lack of electricity.



The 3-point 230V actuator signals are only effective if they are activated in the configuration menu, unlike the 0-10V servo motor signal which works continuously.

Low-voltage outputs terminal on PCB (lower right part of the enclosure)

Pump(s) Inlets/Outlets

24	25	26	27	28	29	30	31	32	33	34	35
IPSO 1	On/Off*	0V*	Y2*			IPSO 3	On/Off*	0V*	Y3*		
Pump 1						Pump 3*					
52	53	54	55	56	57	58	59	60	61	62	63
IPSO 2	On/Off*	0V*	Y2*			IPSO 4	On/Off*	0V*	Y3*		
Pump 2*						Pump 4*					

IPSO=Pump Fault Contact
On/Off=Pump Start/Stop
Contact*
Y2=signal 0-10v P1/P2*
Y3=signal 0-10V P3/P4*

* Depending on equipment



By default, only IPSO contacts are used by constant speed pumps. On/Off contacts and 0V/Y2 and 0V/Y3 signals only apply to variable speed pumps.

Valve(s) Control Signals terminal on PCB

36	37	38
24V AC	Y1	0V
Valve 1		

Valve 1= Primary Control Valve.
Actuator power between terminals 38 and 36 (24V AC).
Actuator control signal (Y1) between terminals 38 and 37 (0-10V DC).

64	65	66
24V AC	Y4	0V
Valve 2*		

*Valve 2= Control valve used for Pilot/Pilot+ or KITASTB extended functions (see chapter "Extended functions"). Actuator power between terminals 66 and 64 (24V AC). 0-10V DC actuator signal (Y4) between terminals 66 and 65.



The total power available for 2 valve servo motors is 12VA.

Relay Contacts terminal on PCB

39	40	41	42	43	44	45
NO	C	NF	C	NO	C	NO
Relay 1			Relay 2		Relay 3	

Refer to the "Configuration" menu to check or change the relay assignment.
Do not exceed 250V 2.5A per relay.

Temperature sensor inputs' terminal on PCB

46	47	48	49	50	51
0V	S1	0V	S2	0V	S3
S1		S2		S3	



Use only Cetetherm NTC10k probes. No polarity.

69	70	71	72	73	74	75	76	77	78	79
0V	0V	S4	0V	S5	0V	S6	0V	Pt1	0V	Pt2
S4*			N/A		N/A		Pt1*		Pt2*	

* Depending on equipment



If a probe is added, connect the probe wires to the corresponding terminals marked S4 and/or Pt1 and/or Pt2.

Contact Remote for standby function terminal on PCB

67	68
C	
Remote	



Contact free of potential, do not feed.
Open contact (default) = normal operation
Closed contact = device on standby = pump(s) stopped and no temperature regulation.

Modbus T1 terminal block on PCB (upper left corner of the box)



The Modbus cable wires must be connected directly to the T1 terminal block located on the controller board. Refer to the "Modbus" chapter.

4. Using the Temperature Controller

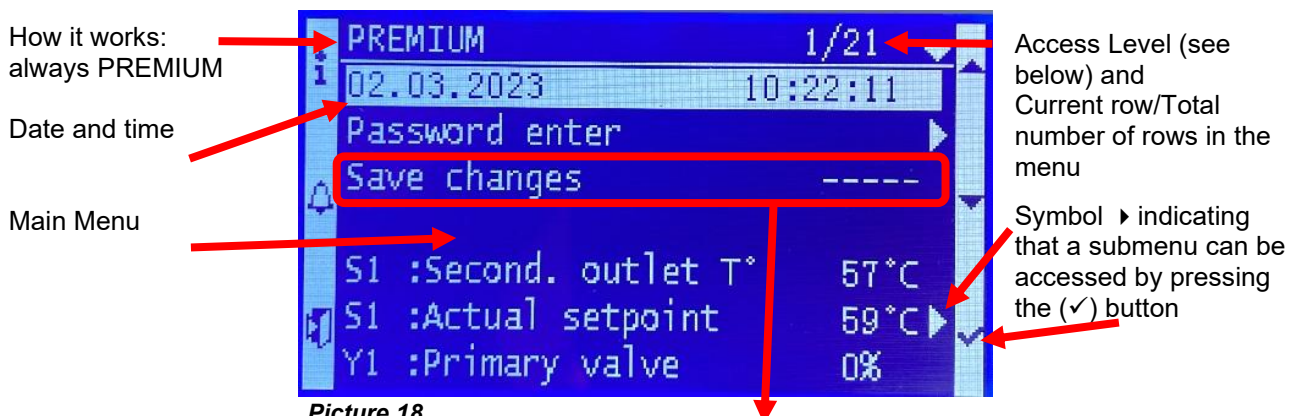
When the unit is power supplied, wait one minute before navigating into the menu.



Picture 17

Rep	Designation
1	① key to display firmware/software versions. It is equipped of a orange LED if point in manual OR Green flashing if modbus connection with BMS writing priority. Please refer to specific chapters.
2	Alarm(s)/Function(s) key, refer to specific chapters. Equipped with a LED. In case of pending alarm a red LED is flashing. In case of pending function (like thermal treatment, Eco...), led will green flash. In case of multiple functions, it will orange flash until last function has ended.
3	«Escape» key, to step backwards into the menu structure or to cancel pending parameter value. Long press to access HMI settings.
4	▲/+ key, to access to previous menu line OR to increase setting value.
5	▼/- key, to access to next menu line OR to decrease setting value.
6	Enter (✓) key, to validate a parameter value or a choice (like On or Off). Long press to enter password and log in / log out.
7	Display (1 title line + 7 menu lines of 30 characters).
8	Keys' functions

Home screen Display:



Picture 18



For any modification of the setpoint(s), parameter(s) or function(s), it is mandatory to make a backup under penalty of loss of the changes in the event of a power cut. Press the Enter key (✓) to save.

An automatic backup is also performed every day at 1:00 a.m.

4.1 Display Settings (HMI)

1. Press a few seconds on « Escape » key to access to HMI settings: Then press (✓) key	1 / 2 HMI settings Local connection
2. Press on ▼ key then on ✓ key to change backlight colour. There are 2 possible choices: White or Blue. Change colour by pressing ▼ and ▲ keys. Once done, press on ✓ to validate the choice. Press on ▼ key to access to next line.	HMI settings 2 / 6 Vxx.xx xxxx Backlight color Blue ...
3. Press on ✓ key to change backlight duration. Use ▼ and ▲ keys to change the value and press ✓ key to validate. 0 (default value) = permanent backlight 300 = Backlight stop after 300 seconds (5 mins) if no key pressed. Note: When backlight is off, pressing any key will activate it for the defined duration. Press ▼ key to access to next line	HMI settings 3 / 6 ... Backl.turn off ti. 0 ...
4. Process the same way to adjust contrast and brightness if needed.	HMI settings 4-5 / 6 Contrast 60 Brightness 60
5. The last line is not effective. Keep the value to « No ».	HMI settings 6 / 6 ... Firmware Update No
6. Press « Escape» key, then ▼ to point « Local Connection» line and press ✓ key to exit from HMI settings and get back to the main menu (home screen).	2 / 2 HMI settings Local connection

6.2 Setting Date and time

1. Go to Line #1. This can be done by pressing several times « Escape » key or by pushing ▲ key several times if needed.	PREMIUM 1/14 11.10.2022 14 :06 :57 ...
2. Press on ✓ key and using ▲ and ▼ keys, change the current date. Then, press on ✓ key to change the month and process the same way to change the year if needed.	PREMIUM 1/14 11.10.2022 14 :06 :57 ...
3. Setting hour. Process the same way as above to change hours, minutes and seconds still by using ▲ / ▼ keys and confirming by pressing ✓ each time. When settings are done, line #1 remains highlighted.	PREMIUM 1/14 11.10.2022 14 :06 :57 ... PREMIUM 1/14 11.10.2022 14 :06 :57 ...
4. It is now possible to navigate into the menu by pressing ▲ / ▼ keys.	

5. End user mode

The following changes can be made in end-user mode:

- Simple setpoint adjustment
- Activating safety Function

These changes are indicated by the logo « ► » at the end of corresponding line.

5.1 Simple DHW setpoint setting

Please set a hot water production temperature that complies with applicable national guidelines and legislation (DTU, EN, ISO standards, etc.).

All countries have their own rules regarding hot or cold domestic water.

Cetetherm recommends a hot water temperature of at least 55 °C and a hot water loop of more than 50 °C.

At a temperature below 50 °C, there is a risk of bacterial growth.

Note that at a temperature above 60°C, the risk of burns increases.

Values above 63 °C lead to an increased risk of scale build-up on heat exchanger surfaces.

The default set point has been set at 60°C. To change it, follow these instructions:

1. From the main menu and using the ▲ / ▼ keys, go to line 6 as shown opposite : then press ✓ key	PREMIUM 6/t S1: Current set point 60°C
2. The S1 menu appears, select the 2nd line using the button ▼. Press 2 times ✓ key	S1 MENU 2/ 2 S1 Setpoint 58°C ►
3. Then adjust the set value using the ▲ / ▼ keys and confirm by pressing ✓. To cancel, press the "Esc" key	60 °C 0°C ↓ 85°C
4. Press "Esc" twice to return to the main menu.	[---][---][---][---][---][---][---][---][---][---]



If the green led of ① key is flashing, it is not possible to change the setpoint. To solve this, access to technician level (see further on), go to "Communication" sub-menu and select « Modbus RTU », then press ✓ key. Go to the last line « Writing priority » and select « POL468 » then press ✓ key. The green LED will stop flashing. You can now change the setpoint. When done, do not forget to go back to Communication\Writing priority and to select "BMS".

5.2 Safety function

This function power supplies the 4 pumps' relays (even if there are no 4 pumps connected) and then all connected pumps without checking if the pump is faulty or not.

Furthermore, pump(s) signals (for variable speed ones) and actuator signal are also forced to a preset value.

Valve signal is 50%, (5V) and Pump(s) signal is 100%, 10V

Settings:

1. From the main menu and using the ▲ / ▼ keys, go to line "Safety function" as shown opposite, then press ✓	PREMIUM I/t Safety function OFF ►
2. To activate the safety function, press on ✓ key	Safety function 1/3 Enable OFF
3. Then select "ON" using ▼ key and press on ✓ key	✓OFF ON
4. Now, display has changed to « Enable ON » and the function key green flashes, indicating a function is on-going: Note : It is possible to view the actual function by pressing ① key. Please refer to « Alarm(s)/ Function(s) button » part	Safety function 1/3 Enable ON Pump signal setpoint 100%* Valve signal setpoint 50%*

5. To stop the function from line#1 of safety function menu, press twice on ✓ key (OFF state on display). The alarm/function button stops flashing (except if another alarm/function is on-going). Exit this sub-menu by pressing « Esc » key.

* **NOTE:** * It is not possible at this access level to change pump and valve signal setpoint values

6 Technician level access

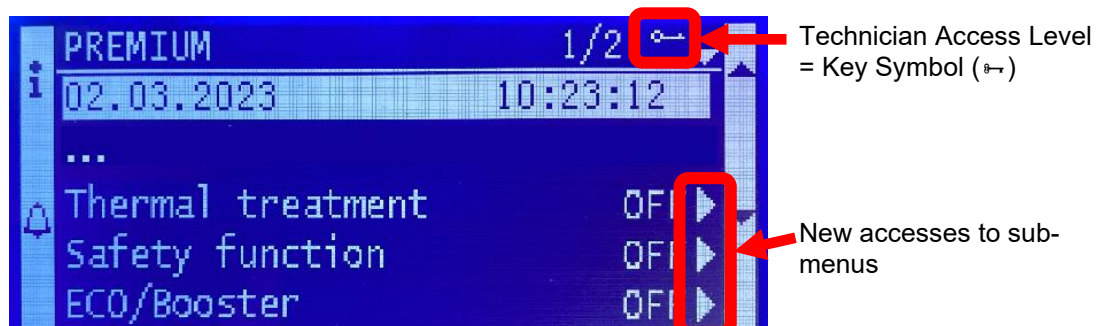
The technician level allows to:

- Enable all sub-menu access (not possible from end-user access level)
- Adjust temperature setpoint(s) as per clock program(s)
- Enable/Disable functions like Eco, Booster, Thermal treatment...
- Check and/or force contact(s) or signal(s) output(s)
- Access to extended functions for specific applications, like primary tanks' charging pump(s) management or heat recovery for solar or geothermal applications
- Enable/Disable Modbus communication with priority or not to BMS writing.

6.1. Login

The access code is 1000.

1. From the main menu, go to line#2: Password enter ▶. Then press ✓ key
OR Press a few seconds on ✓ key
2. Display indicates « Login » and a cursor is placed on **0 - - -**
3. Using ▲ / ▼ keys (meaning + / -), enter the 1st digit and validate by pressing ✓ key. The 1st digit must be 1. So you have to display **1 - - -** by pressing once the + key, then pressing ✓ key.
4. Now comes the 2nd digit that must be 0 (zero). Just press on ✓ key as the default digit value is already zero.
5. Repeat the same operation for 3rd and 4th digits that must be zero also. For that, just press twice the ✓ key.
6. Once correct code is entered, information display appears (hardware/software versions, controller reference...). Press « Esc » key to come back to the main menu.
The display now shows one key on its top right corner, indicating technician access level is activated. Now, most of the lines show « ▶ » at their end, meaning their access is now possible:



Picture 19

Note: The program returns to user mode (i.e. restricted) after 10 minutes if no key is pressed.

6.2. Log out

To avoid waiting 10 minutes, it is possible to disconnect at any time. To do this:

1. Press a few seconds on ✓ key
2. Select « Log off » by pressing ▼ key
3. Press ✓ key
4. The key symbol disappears from the display. Access level is now back to end-user.
5. If any change done, Save Data On line 3



Except for specific reasons, DO NOT log off if points let in manual mode (with the ⓘ button orange lit). Please refer to « Wired inputs-outputs » sub-menu.

6.3. Main Menu

Access line 1 by pressing "Esc" OR ▲ key several times.

Display	Meaning
PREMIUM n/t ↔	Premium mode (always). n=No of curent line, t=total lines'number (variable, as per sensor(s)'number and activated extended funct)
jj.mm.aaaa hh:mm:ss	Date and time
Password enter ▶	Log in / Log out
Save changes 	At any parameter(s) change or activated function(s), press on "✓" and select "Yes" to save.
S1 : Second. Outlet T° 60°C	S1 (DHW) temperature sensor, reading only
S1 : Actual setpoint 60°C ▶	Access to S1 sub-menu
Y1 : Primary valve nnn%	Primary control valve signal to the actuator, reading only
S2 : Second. Inlet T° nn°C ▶	S2 temperature reading + access to S2 sub-menu.
S3 : Primary outlet T° nn°C	S3 temperature sensor, read-only.
S4 : Primary Inlet T° * nn°C	S4 temperature sensor, read only. *Option, if S4 is not activated, this line is hidden
Pt1: Top prim.tank T° nn°C**	: **Visible only if extended function selected. Consult the corresponding chapter.
Pt2: Bot. prim. Tank T° nn°C**	
Delta.T°(S3-S2) nn°C ▶	Reading of the delta T (S3-S2).
Thermal treatment OFF ▶	Access to thermal treatment sub-menu
Safety function OFF ▶	Access to safety function sub-menu
ECO / BOOSTER OFF ▶	Access to ECO/Booster function(s)' sub-menu
Fouling function NORMAL ▶	Access to fouling function sub-menu
Pump(s) menu P1/P2/P3/P4 ▶	Access to pump(s) menu + configured pump(s)' number
S4 T°Limit.function * OFF ▶	Access to S1 setpoint limitation function using S4 sensor
Extended functions ▶	Access to extended functions sub-menu.
Test sequence ▶	Access to test sequence sub-menu
Communication ▶	Access to Modbus RTU communication sub-menu
Wired inputs – outputs ▶	Access to inputs / outputs reading / writing sub-menu

Refer to the following pages for details of the different menus and functions.



All functions: Thermal treatment, Eco, Booster, Fouling, Safety are disabled.
Each installation is different. Functions 'parameters have to be set according to the site and then can be enabled if required

6.4. S1 Sensor Menu

This menu allows you to

- Adjust one or more daily or weekly temperature setpoint(s) as per clock program(s).
- Adjust high and low temperature alarm setpoints
- Adjust PID parameters

Temperature Setpoint(s) and clock program(s)



If the green led of ① key is flashing, it is not possible to change the setpoint(s). To solve this, access to technician level (see further on), go to "Communication" sub-menu and select « Modbus RTU », then press ✓ key. Go to the last line « Writing priority » and select « POL468 » then press ✓ key. The green LED will stop flashing. You can now change the setpoint. When done, do not forget to go back to Communication\Writing priority and to select "BMS".

1. From the main menu and using the ▲ / ▼ keys, go to line 6 as shown opposite :P then tighten the key ✓ to access the S1 probe menu	PREMIUM 6 / t → S1 : Actual setpoint 58°C ▶
2. Press ▼ to go to line 2	S1 MENU 2 / 9 →
3. ① : In DHW application, always select "FIXED" . Do not change the setting.	Setpoint selection FIXED
4. Press twice the ▼ key to access the following lines	✓FIXED CURVE
5. Press ✓ to access the set point(s) and timetable(s) settings.	S1 MENU 4 / 10 → S1 setpoint 60°C ▶

From line 4 by pressing ✓, the screen on the right appears: There are 2 methods of setting the setpoint on S1: a) Default setpoint if no time program defined → b) Different setpoints or not depending of week day and hours of the day. It is possible to get up to 6 different setpoints per day and different from day to day. We describe here the 2nd method, the first one being described in the end-user access level (simple setpoint without clock program). ① : The current day is indicated by a cross (X) on the display.	S1 setpoint schedule 1/11 → Setpoint w/o Schedule 60°C Monday 60°C Tuesday x 60°C Wednesday 60°C Thursday 60°C Friday 60°C Saturday 60°C Sunday 60°C Copy Monday from Tue. To Sun Activate copy NO
Differentiated time programming. Consider the following example: • S1 setpoint 60°C from 6h00 to 22h00 Monday to Friday • S1 setpoint 55°C from 22h00 to 6h00 Monday to Friday • S1 setpoint 55°C the week-end, all day (Saturday+Sunday) Acces to line #2 and press ✓ key. ALWAYS START ON MONDAY TO COPY THE TIME PROGRAMS TO THE OTHER DAYS OF THE WEEK	S1 setpoint schedule 2/11 → S1 Sp without schedule 60°C Monday 60°C ...
Display looks like this: * : * means all the time=the whole day. If the same temperature setpoint is required during all day, let « * : * » and just indicate the setpoint temperature. ① : 0°C value means last current setpoint will be used. If all days get 0°C, the simple temperature setpoint will be used (60°C by default).	d01 : Monday 1/12 → Time 1 * : * Value 1 0°C ... Time 6 * : * Value 6 0°C
Press on ✓ key and use ▲ / ▼ keys to display 0 (0 hour or midnight) then press ✓ key to validate. Next, set minutes that can also be changed using ▲ / ▼ keys. Here we want 0 minute, so press on ▲ key to remove the star and display 0 then press ✓ key.	Time 1 0 : * Time 1 0 : 00 Time 1 0 : 00

Cetetherm Uranus 2-Steps

Installation, use and maintenance instructions

Then press ∇ key to go to next line. Here, we input the temperature setpoint (55°C). Press $\checkmark$ key and using Δ / ∇ keys, display 60 (60°C) then press $\checkmark$ key to validate. Display indicates:	Value 1 0°C Value 1 55°C
Press ∇ key to access next line. Here, we indicate the 2 nd time progr.: Process the same way as before to change time. Here we indicate 6h00. Then press on ∇ key to access to next line. Here, we input 2 nd setpoint value (60°C). Process the same way as before to change S1 temperature setpoint. Display indicates :	Time 2 * : * Time 2 6 : 00 Value 2 60°C
Press ∇ key to access next line. Here, we indicate the 3rd time progr.: Process the same way as before to change time. Here we indicate 22h00. Then press on ∇ key to access to next line. Here, we input 3rd setpoint value (55°C). Process the same way as before to change S1 temperature setpoint. Display indicates :	Time 3 * : * Time 3 22 : 00 Value 3 55°C
Then press « Esc » key to get back one step and press several times ∇ key to go to line No.10: Press $\checkmark$ key. In ours ample, we want to duplicate values except Saturday and Sunday. So we have to select « Tue. To Fri. ». To do this, press $\checkmark$ key. Note: If you want to duplicate all the days of the week, select "Tue. To Sun. » instead. Display indicates: Go to next line Press $\checkmark$ key, select « YES » and press $\checkmark$ key to validate.	Copy Monday from Tue.to Sun. Tue. To Fri. $\checkmark$ Tue. To Sun. Copy Monday from Tue.to Fri. Activate copy NO
Now go to Saturday and press $\checkmark$ key. Required setpoint is 55°C all the day, so let * : * or input 0h00 for Time 1. Go to line #2. Press $\checkmark$ key and using Δ / ∇ keys, display 55°C, corresponding to required setpoint. Press « Esc » key and select now Sunday line. Repeat same procedure as for Saturday, required setpoint being 55°C all day.	Saturday 60°C Time 1 0h00 Value 1 0°C Value 1 55°C Sunday 60°C Sunday 55°C
Clock program is now completed and effective. Press « Escape » key twice to go back to S1 menu.	

High temperature alarm:

The controller includes a security closing the primary control valve AND stopping primary pump(s) in case of too high S1 measured temperature, compared to the S1 temperature setpoint. 2 parameters define this alarm :

- Delta T (DT) high alarm, 10°C by default above S1 setpoint. This delta T follows the current setpoint. If setpoint is 60°C, high alarm condition will appear if S1>70°C (60+10°C).
- High alarm temporization, 1 minute by default. If delta T is exceeded, the temporization starts. When it ends, if delta T still exceeded, the high temperature alarm will be effective: Primary pump(s) stopped and primary control valve signal at 0% (request for closing). Alarm button will red flash and event stored into memory. Furthermore, relay 1 and 2 will be activated by default as relay 1 is general default and relay 2 is high temperature alarm. Temporization is the same for high and low temperature alarms.
- Acknowledgement type: acknowledgement can be manual or automatic, depending of local rules. Manual restart = need to acknowledge default on site (or via modbus if connected). Automatic restart = if temperature drops down, the unit will start.

Low temperature alarm :

- The same way, an alarm indicates if S1 temperature is too low. Alarm condition = S1 < S1 setpoint – DT after the temporization. This alarm acknowledges automatically (automatic restart by default), doesn't stop pump and doesn't close the primary control valve.
- Alarm button will red flash and event stored into memory. Furthermore, relay 1 will be activated by default as relay 1 is general default. Temporization is the same for high and low temperature alarms.

Alarms parameters' settings

1. Go to line #5 of S1 Menu and press ✓ key to access to high alarm Delta T setting. Press ▲ / ▼ keys to change the value. Setting range: 0 to 50°C. ① : The 10°C default value suits almost all cases. Only few installations can motivate a value change.	S1 MENU 5 / 10 → ... DT° High alarm Sp. 10°C ...
2. Then press ✓ to confirm or « Escape » to cancel value change 3. Press ▼ key to go to next line	
4. Low temperature alarm delta T is set the same way. Setting range: 0 to 50°C. ① : The -10°C default value suits almost all cases. Only few installations can motivate a value change.	S1 MENU 6 / 10 → ... DT° Low alarm Sp. -10°C ...
5. Then press ✓ to confirm or « Escape » to cancel value change 6. Press ▼ key to go to next line	
7. High and Low alarm delay before it activates. Press ▲ / ▼ keys to change the value. Setting range: 0 to 60 mins. ① : This delay ensures the actuator has had sufficient time to close (high alarm) or open (low alarm) before alarm occurs. For slow actuators (>60 secs) it is recommended to increase the value higher than actuator's running time.	S1 MENU 7 / 10 → ... Alarm delay 1.0min ...
8. Then press ✓ to confirm or « Escape » to cancel value change 9. Press ▼ key to go to next line	
10. This parameter is set to acknowledge high temperature alarm AUTOMATICALLY or MANUALLY. Press ✓ key and use keys ▲ / ▼ to change the value NO<>YES. Validate by pressing ✓ key. ① : Please refer to local rules to check if Automatic restart is allowed.	S1 MENU 8 / 10 → ... High Al.T° AutoReset NO ...
11. Press ▼ key to go to next line	

S1 Temperature controller

This is the main PID control loop of the unit, connected to S1 temperature sensor and acting on primary control valve and primary pump speed. Default values are suitable for most of installations and might not be changed. Only particular installations may need parameters' change.

1. Go to line 9 of the S1 menu. The number on the right indicates the current PID output.	S1 MENU 9 / 10 → S1 T° controller nnn% ▶
2. Then press the button ✓ to access the settings	
3. Press the key ✓ to change the value of the proportional band using the ▲ / ▼ keys to change the value and the ✓ key to validate or "Esc" to cancel. Setting value: from 0 to 100°C.	S1 T° controller 1/ 6 → Proportional band : 40.0°C 40 °C 0°C ↓ 100°C [--- --- --- --- --- --- --- --- --- ---]
4. Then press the button ▼ to go to the next line	
5. Press the ✓ key to change the value of the integral by using the ▲ / ▼ keys to change the value and ✓ key to validate or "Esc" to cancel. Setting value: from 0 to 200s.	S1 T° controller 2/ 6 → Integral factor: 15s 15 s 0s↓ 200s [--- --- --- --- --- --- --- --- --- ---]
6. Then press the button ▼ to go to the next line	

Cetetherm Uranus 2-Steps

Installation, use and maintenance instructions

7. Press the ✓ key to change the value of the derivative using the ▲ / ▼ keys to change the value and the ✓ key to validate or "Esc" to cancel. Setting value: from 0 to 100s.	S1 T° controller 3/ 6 ↗ Differential factor: 2s 2 s 0s↓ 100s [--- --- --- --- --- --- --- --- --- ---]
8. Then press the button ▼ to go to the next line Lines No.4 to 6 are read only informations. Line 4 : Measured S1 temperature Line 5: S1 current setpoint temperature Line 6: S1 PID controller output in %	S1 T° controller 4-6 / 6 ↗ Present value: 60°C Setpoint : 60°C Controller output: nnn%
9. Press twice "Esc" key to return to the main menu	

6.5. S2 menu

This menu allows you to adjust the temperature gradient function to S2

How the Gradient function works:

This function is based on the temperature variations of the S2 sensor and allows to anticipate sudden temperature variations by removing the time constants of the exchanger and the S1 sensor. It has no effect for small variations (below the set value), but helps to keep nominal DHW temperature during peak consumptions.

Settings:

1. From the main menu and using the ▲ / ▼ keys, go to line "S2: Secondary input": Press ✓ key to access the S2 submenu	PREMIUM 8/ t ↗ S2: Second. Inlet T° nn°C ▶
2. The first line shows the current value of S2. Press ▼ to access the line that indicates the current temperature change measured in S2 (°C/sec). (read-only).	S2 MENU 2/t ↗ ... S2 Gradient T° n°C/s ...
3. Press the key ▼ to go to the next line.	S2 MENU 3/ t ↗ S2 Gradient factor 0.75 0.75 0↓ 7200 [--- --- --- --- --- --- --- --- --- ---]
4. Press ▼ 2 times to access line 5, "S2 Gradient factor": 5. Press ✓ to adjust the value using the ▲ / ▼ keys and press ✓ to validate or "Esc" to cancel. Adjustment range: 0 to 7200. ⓘ : <i>This value amplifies the generated signal to a greater or lesser extent</i>	S2 MENU 4/t ↗ S2.Gradient setpoint n°C/s 5 °C -5°C ↓5°C [--- --- --- --- --- --- --- --- --- ---]
6. Press the key ▼ to go to the next line.	S2 MENU 5/t ↗ Influence nnn% 100 % 0% 100%↓ [--- --- --- --- --- --- --- --- --- ---]
7. Press the key ✓ to change the gradient value using the ▲ / ▼ keys and press ✓ to validate or "Esc" to cancel. Adjustment range: -5°C to 5°C.	S2 MENU 6/t ↗ S2 Gradient signal nnn%
8. Press the key ▼ to go to the next line.	
9. Press the key ✓ to change the influence of the function using the ▲ / ▼ and press ✓ keys to validate or "Esc" to cancel. Adjustment range: 0% to 100%. ⓘ : <i>It is recommended that you do not change this value</i>	
10. Press the key ▼ to go to the next line.	
11. Line 6: Current value of the generated gradient signal.	
12. Press "Esc" to return to the main menu.	

6.6. Delta T (S3-S2) Function



This function must remain on OFF because it is done physically through the two-steps heat exchanger which always guarantees the lowest possible outlet temperature, which makes it possible to improve the efficiency of installations based on condensing boilers or renewable energies for which the lower the return temperature, the more energy can be recovered (solar, geothermal or heat pumps).

Settings:

1. From the main menu, use the ▲ / ▼ keys to access the line opposite: Press the key ✓ to access the DT(S3-S2) submenu	PREMIUM n/t → Delta.T°(S3-S2) nn°C ▶ ...
2. The function must be set to the OFF position. If necessary, press twice the ✓ button. The deltaT regulator output (line3) then changes to 0%.	Delta.T° (S3-S2) 1/3 → Enable OFF ...
3. Press "Esc" 2 times to return to the main menu.	

6.7. Thermal Treatment Function

Working principle:

This function increases temperature setpoint (70°C by default) as per a clock program for a certain time to define, depending of secondary flow rate and storage vessel volume (in general, this duration is between 1 and 2 hours). When treatment starts, the Ⓛ button green flashes (except if pending alarm).

Function includes an alarm which indicates that temperature level has not been reach, exception of tolerance (2°C by default, settable). In this case, the Ⓛ button red flashes.

Example : If S1 temperature doesn't reach 68°C for a 70°C treatment setpoint, alarm will start after function duration.

When function stops, normal S1 temperature setpoint replaces thermal treatment setpoint and high temperature alarm is inhibited for a settable time (if thermal treatment setpoint >70°C and high buffer tank volume, it will take time to cool down and it could be S1 higher than high temperature level).



If the green led of Ⓛ key is flashing, it is not possible to change the thermal treatment setpoint. To solve this, access to technician level (see further on), go to "Communication" sub-menu and select « Modbus RTU », then press ✓ key. Go to the last line « Writing priority » and select « POL468 » then press ✓ key. The green LED will stop flashing. You can now change the setpoint. When done, do not forget to go back to Communication\Writing priority and to select "BMS". .

Settings:

1. From the main menu and using ▲ / ▼ keys, go to line "Thermal treatment" as shown here: Then press ✓ key to access this sub-menu	PREMIUM l/t → ... Thermal treatment OFF ▶
2. Press ✓ key to enable (ON) / disable (OFF) the thermal treatment, using ▲ / ▼ keys and pressing ✓ to confirm.	Thermal treatment 1 / 6 → Enable OFF
3. Press ▼ key to go to next line.	...
4. Press ✓ key to change setpoint value, using ▲ / ▼ keys and pressing ✓ to confirm. Setting range: 60°C to 80°C. Ⓛ : Primary inlet temperature should be at least 7 to 10°C higher than this setpoint to reach thermal treatment temperature setpoint. If not the case, thermal treatment failure alarm may appear at the end.	Thermal treatment 2 / 6 → Setpoint 70°C 60°C 70 °C 80°C [--- --- --- --- --- --- --- --- --- ---]
5. Press ▼ key to go to next line.	
6. Press ✓ key to access to clock program.	Thermal treatment 3 / 6 → Schedule ▶
7. Use ▲ / ▼ keys to change value and ✓ key to confirm date(s) and time(s). DATES / TIMES FORMATS EXPLANATIONS « * » symbol means « all ». For a daily treatment at 2h00, you need to input: Date= *. *. *. **** (all the days of the week, all the monthes, all the year.) and Time= 02.00 (2 h 00) For a weekly treatment , every Monday at 2h00(recommended frequency), you need to input:	Date *. *. *. **** (dw.dd.mm.yyyy) Time *. * (hh.mm) Date *. *. *. **** Time *. * Date Mo. *. *. ****

Cetetherm Uranus 2-Steps

Installation, use and maintenance instructions

For a monthly treatment, each 1st of the month at 2h00, without taking care of the day it is, you have to input: Date= *.01. *.**** and Time=02.00 (not the best frequency) 8. Press « Escape » key to get back to thermal treatment sub-menu 9. Press $\checkmark$ key to go to next line.	Time 02.00
10. Press $\checkmark$ key to change treatment's duration. Duration is voluntary set to zero, as you have to estimate tank/installation loading time, depending of nominal secondary flow rate, recycling loop flow rate and storage tank volume. Duration setting : 0 to 240 min (4 hours) Example : Sec. Flow rate $Q=2\text{m}^3/\text{h}$, Tank volume $500\text{L}=V=0,5\text{m}^3$ and recycling flow rate $=q=1000\text{ l/h}$. Tank loading time, so minimal treatment duration = $V/(Q-q)$ Let $0,5/(2-1)=0,5$ hour. If you wish to maintain at this temperature for 1 hour, you need 1h30 duration (0.5h+1h) or 90 minutes. 11. Press $\checkmark$ key to access to next line.	Thermal treatment 4 / 6 $\rightarrow$... Duration 0min 0 min $\downarrow$0min 240min [--- --- --- --- --- --- --- --- --- ---]
12. Press $\checkmark$ key to change tolerance value. Use Δ / ∇ keys to change value and $\checkmark$ key to validate. Setting values : 0 to 10°C. <i>ⓘ : If setpoint temperature – tolerance is not reached, an error message will appear at the end of treatment duration.</i> 13. Press $\checkmark$ key to access to next line.	Thermal treatment 5/ 6 $\rightarrow$... Tolerance 2°C 2 °C 0°C $\downarrow$ 10°C [--- --- --- --- --- --- --- --- --- ---]
14. Press $\checkmark$ to change S1 high temperature alarm inhibition time. Press Δ / ∇ keys to change value and $\checkmark$ key to validate. 15. Setting values : 0 to 240 minutes.	Thermal treatment 6/ 6 $\rightarrow$ Inhibition time 30min
16. Press the "Esc" key to exit the heat treatment menu and return to the ppal menu.	



When the heat treatment function starts, the Alarm/Function button will flash green.

6.8. Safety function

Principle of the function:

This function allows the 4 pumps to be powered, whether they are present or not, by forcing the 4 power relays of the electronic turntable.

The values of the pump(s) / valve(s) signals are editable unlike the user access level.

If the device is equipped with P1/P2 pump(s) with variable speed in the primary, it is also possible to adjust their 0-10V (Y2) signal (100%, i.e. 10V by default).

This function also forces the servo motor signal (Y1) to an adjustable value (50%, or 5V by default).

Settings:

1. From the main menu and using Δ / ∇ keys, go to line "Safety function" as shown here: Then press $\checkmark$ key to access this sub-menu	PREMIUM 1 / t $\rightarrow$ Safety function OFF $\rightarrow$
2. To activate the function, press $\checkmark$ key	Safety function 1/3 $\rightarrow$ Enable OFF
3. Select « ON » using ∇ key then press $\checkmark$ key	$\checkmark$OFF ON
4. Display indicates « Enable ON » and the alarm/function button red flashes, showing a function is on-going: <i>ⓘ : It is possible at any time to check the on-going function(s) (or alarm(s)) by pressing Δ button, please refer to "Alarm/function button part."</i>	Safety function 1/3 $\rightarrow$ Enable ON Pump signal setpoint 100% Valve signal setpoint 50%
5. Press ∇ key to access to next line.	

6. Press ✓ key to change P1 to P4 signal value (Y2+Y3 signals). Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values: 0 to 100%. ① : <i>If not 0-10V primary pump(s), no effect.</i>	Safety function 2/3 ⇌ Pump signal setpoint 100% 100 % 0°C 100%↓ [--- --- --- --- --- --- --- --- --- ---]
7. Press ▼ key to access to next line.	
8. Press ✓ key to change primary valve signal value (Y1 signal). Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values: 0 to 100%.	Safety function 3/3 ⇌ Valve signal setpoint 50% 50 % 0°C ↓ 100% [--- --- --- --- --- --- --- --- --- ---]
9. To stop the function, go to line#1 and press twice ✓ key (state OFF on display). The alarm button then stops flashing, except if other alarm(s) or/and function(s) are pending.	
10. Press « Esc » key to get back to main menu. Press again "Esc" to point 1 st line of Main menu.	



When the safety function is ON, the Alarm(s)/Function(s) button green flashes

6.9. ECO / Booster Functions

Eco function principle:

When control valve is sufficiently closed (valve signal ≤ "Y1 setpoint") during a sufficient long time ("switch-on delay"), primary pump(s) switch(es) off and primary mixing valve closes down.

The system is switched ON when S1 temperature has gone down more than the S1 setpoint value – "Hysteresis" parameter. It is normal that the primary control valve starts to open during the function. This to anticipate valve opening when the pump will start again.

If secondary pumps are connected (SS/DS/DD series) they are still in operation during the Eco function.

NOTE: ECO function needs at least one primary pump. If not the case (2 port control valve systems for example, the function disappears from the menu.

Settings:

1. From the main menu and using the ▲ / ▼ keys, move to the line as shown opposite: Press the key ✓ to enter the submenu	PREMIUM 1 / t ⇌ ECO/Booster OFF ▶
2. To activate ECO function, press ▼ key and then press ✓ key	ECO/Booster 2 / t ⇌ Enable OFF
3. Select « ON » using ▼ key then press ✓ key	✓ OFF ON
4. Display indicates « Enable ON » Press ▼ key to access to next line.	ECO/Booster 2 / t ⇌ Enable ON
5. Press ✓ key to change the switch-on delay. Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values : 0 to 20 minutes. ① : <i>Delay to be adjusted as per installation characteristics.</i>	ECO/Booster 3 / t ⇌ Switch-on delay 5min 5 min 0min ↓ 20min [--- --- --- --- --- --- --- --- --- ---]
6. Press ▼ key to access to next line.	
7. Press ✓ key to change the hysteresis value on S1. Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values : 0 to 20 °C. ① : <i>To avoid repetitive and frequent pump start/stop, select a value above 5°C.</i>	ECO/Booster 4 / t ⇌ Hysteresis 5°C 5 °C 0°C ↓ 20°C [--- --- --- --- --- --- --- --- --- ---]
8. Press ▼ key to access to next line.	
9. Press ✓ key to change the Y1 setpoint value (max allowed signal on the valve to allow the function to start). Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values : 0 to 80%. ① : <i>Do not input too high value. The pump would be stopped under medium-high load!</i>	ECO/Booster 5 / t ⇌ Y1 setpoint 10% 10 % 0% ↓ 80% [--- --- --- --- --- --- --- --- --- ---]

Installation, use and maintenance instructions



When ECO function is running, display indicates « ECO function **RUNNING** », the main menu indicates “ECO/Booster **RUNNING**” and the Alarm(s)/Function(s) key green flashes.

If DHW temperature is dropping down faster than "S1Gradient setpoint" parameter, the second primary pump (if existing) is energized, to increase the primary flow rate and raise faster the secondary outlet temperature S1.

NOTE: Booster function requires 2 primary pumps installed on the unit, P1+P2 (séries ID/DS/DD). If not the case, the function will be hidden from menu.



When Booster function starts, the main menu indicates “ECO/Booster **RUNNING**” and the Alarm(s)/Function(s) key green flashes.

Function Principle:

It is based on S3 (primary outlet temperature sensor) scrutation. If S3 gets higher than defined setpoint (65°C, settable) that means heat exchanger is fouled. A temporization (10 hours, settable) eliminates potential transitory temperatures, like thermal treatment which could interfere. If fouling conditions are reached, this will generate an alarm and will make the alarm button flashing.

Settings:

1. From the main menu and using ▲ / ▼ keys, go to line "Fouling function" as shown here: Then press ✓ key to access this sub-menu	PREMIUM I/t → ... Fouling function NORMAL ▶
2. To activate the function, press ✓ key and ▼ key, then press ✓ key	Fouling function 1/3 → Enable OFF
3. Select « ON » using ▼ key then press ✓ key	✓OFF ON
4. Display indicates « Enable ON » Press ▼ key to access to next line.	Fouling function 1/3 → Enable ON
5. Press ✓ key to change the fouling temperature setpoint on S3. Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values : 30 to 80 °C.	Fouling function 2/3 → S3 fouling setpoint 65°C 30°C 65 °C 80°C ↓ [--- --- --- --- --- --- --- --- --- ---]
6. Press ▼ key to access next line.	
7. Press ✓ key to change the temporization before activating the alarm. Use ▲ / ▼ keys to change its value and press ✓ key to validate or "Esc" key to cancel change. Setting values: 0 to 240 hours.	Fouling function 3/3 → Switch-on delay 10h 10 h 0h↓ 240h [--- --- --- --- --- --- --- --- --- ---]
8. To stop the function, scroll-up to line 1 and press twice on ✓ key (state OFF on display).	
9. Press « Esc » key to get back to main menu. Press again "Esc" to point 1 st line of Main menu.	



If function criteria are reached, the fouling state is active and display indicates "DEFAULT » on corresponding line and Alarm/Function button red flashes.

6.11. Pump(s) Menu



This menu appears if at least one pump is declared. Otherwise it is not visible into the main menu. Furthermore, depending of pumps' number, some lines will appear or not.

Settings:

1. From the main menu and using ▲ / ▼ keys, go to line "Pump(s) Menu" as shown here: *Note that declared pump(s) is(are) displayed on the right side. Then press ✓ key to access this sub-menu	PREMIUM I/t → ... Pump(s) menu P1/P2/P3/P4* ▶ ...
2. Full menu pump represented here: * Depending of pumps' number, menu length (nn) varies from 3 up to 12 lines. ** If only 1 configured pump (only P1 or only P2 /only P3 or only P4) this line doesn't appear *** No effect if P1/P2/P3/P4 not 0-10V controlled	Pump(s) Menu 1 / nn* → - P1P2- Minimum speed*** 25% Maximum speed*** 100% Priority pump choice ** AUTO Cycling time** 12h Overlap time** 6s -P3P4- Minimum speed*** 25% Maximum speed*** 100% Priority pump choice ** AUTO Cycling time** 12h Overlap time** 6s
3. Press ▼ key to access next line.	

Cetetherm Uranus 2-Steps

Installation, use and maintenance instructions

4. Press ✓ key to change the minimum speed. Use ▲ / ▼ keys to change its value and press ✓ key to validate or “Esc” key to cancel change. Setting values : 0 to 100%	Pumps(s) menu 2/nn → - P1P2- Minimum speed 25% ...
5. Press ▼ key to access next line.	
6. Press ✓ key to change the maximum speed. Use ▲ / ▼ keys to change its value and press ✓ key to validate or “Esc” key to cancel change. Settings values : 0 to 100%	Pumps(s) menu 3/nn → ... Maximum speed 100% ...
7. Press ▼ key to access next line.	
8. Press ✓ key to change P1/P2 pump priority (only if 2 primary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: AUTO / P1 /P2. AUTO = allows to shift pumps (or pump's motors) P1 = No permutation. Only P1 will be used (locked) P2 = No permutation. Only P2 will be used (locked)	Pumps(s) menu 4/nn → ... Priority Pump Choice AUTO ✓ AUTO P1 P2
9. Press ▼ key to access next line.	
10. Press ✓ key to change P1/P2 operating hour(s) (only if 2 primary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: 0 to 24h (12h default value).	Pumps(s) menu 5/nn → ... Cycling time 12h ...
11. Press ▼ key to access next line.	
12. Press ✓ key to change P1/P2 overlapping time (only if 2 primary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: 0 to 60s (6s default value).	Pumps(s) menu 6/nn → ... Overlap time 6s ...
13. Press twice ▼ key to access to line+2.	
 Next lines appear ONLY IF P3 and/or P4 activated into Configuration menu. This should be the case if recycling pump (P3) or if Combitherm extended function using P3 or P3+P4 has been activated. See next chapters.	
14. Press ✓ key to change the minimum speed. Use ▲ / ▼ keys to change its value and press ✓ key to validate or “Esc” key to cancel change. Setting values : 0 to 100%	Pumps(s) menu 8/nn → - P3P4- Minimum speed 25% ...
15. Press ▼ key to access next line.	
16. Press ✓ key to change the maximum speed. Use ▲ / ▼ keys to change its value and press ✓ key to validate or “Esc” key to cancel change. Settings values : 0 to 100%	Pumps(s) menu 9/nn → ... Maximum speed 100% ...
17. Press ▼ key to access next line.	
18. Press ✓ key to change P3/P4 pump priority (only if 2 secondary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: AUTO / P3 /P4. AUTO = allows to shift pumps (or pump's motors) P3 = No permutation. Only P3 will be used (locked) P4 = No permutation. Only P4 will be used (locked)	Pumps(s) menu 10/12 → -P3P4- Priority Pump Choice AUTO ✓ AUTO P3 P4
19. Press ▼ key to access next line.	
20. Press ✓ key to change P3/P4 operating hour(s) (only if 2 secondary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: 0 to 24h (12h default value).	Pumps(s) menu 11/12 → ... Cycling time 12h ...
21. Press ▼ key to access next line.	
22. Press ✓ key to change P3/P4 overlapping time (only if 2 secondary pumps). Use ▲ / ▼ keys to change value and press ✓ key to validate or “Esc” key to cancel change. Setting values: 0 to 60s (6s default value).	Pumps(s) menu 12/12 → ... Overlap time 6s
23. Press « Esc » key to get back to main menu.	

6.12. S4 Temperature limitation function menu



This menu appears ONLY if S4 has been activated into the configuration menu, as it requires optional S4 temperature sensor placed on the primary inlet. Please refer to the configuration menu in next pages.

Working principle:

This function compares current S1 temperature setpoint with S4, primary inlet temperature. If $S4 < S1$ setpoint-Delta T setpoint, then S1 setpoint is decreased to S4-Delta T setpoint. This function allows to charge quicker installations with primary tank as heating source without disturbing too long the secondary supply. Delta T is called "setpoint" into this menu.

Example: For a set point $S1=60^{\circ}\text{C}$ and a delta $T=5^{\circ}\text{C}$, if S4 goes down to 64°C , the set point S1 goes to 59°C . If S4 goes down to 60°C , the S1 set point goes down to 55°C ... This allows installations with primary tank(s) as a heat source to be charged more quickly, without disrupting the distribution to the secondary for too long. The Delta T is named "Setpoint" in the menu.

Settings:

1. From the main menu and using $\uparrow$ / $\downarrow$ keys, go to line "S4 T°Limit.function" as shown here: Then press $\checkmark$ key to access this sub-menu	PREMIUM S4 T°Limit.function OFF $\rightarrow$
2. To activate the function, press $\checkmark$ key and $\downarrow$ key, then press $\checkmark$ key	S4 T°Limit.function 1/2 $\rightarrow$ Enable OFF
3. Select « ON » using $\downarrow$ key then press $\checkmark$ key	$\checkmark$ OFF ON
4. Display indicates « Enable ON »	S4 T°Limit.function 1/2 $\rightarrow$ Enable ON
5. Press $\downarrow$ key to access to next line.	...
6. Press $\checkmark$ key to change setpoint value. Use $\uparrow$ / $\downarrow$ keys to change value and press $\checkmark$ key to validate or "Esc" key to cancel change. Setting values: 0 to 50°C (10°C default value).	S4 T°Limit.function 2/2 $\rightarrow$ Setpoint 10°C
7. Press « Esc » key to get back to main menu. Press again "Esc" to point 1 st line of Main menu.	



When the limitation function is on, the display indicates "S4 T° Limit. Function ON" on the corresponding line and the Alarm/Function button green flashes.

6.13. Extended functions



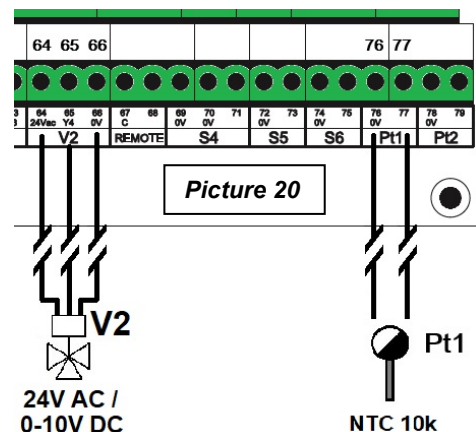
Extended functions require the addition of PT1 and/or PT2 temperature sensor(s) that must be connected to terminals M and X3 for PT1 and M and X4 for PT2. Refer to the electrical diagram.

Pilot On/Off function, 1 sensor or KITASTB

Supply:

The optional KITASTB consists of a 3-port diverting valve with 24V actuator operating in all or nothing (0V or 10V signal) and an additional Pt1 temperature sensor. Fittings and gaskets are also provided as the cables for connecting Pt1 and the actuator.

Wiring connections to be made on ADE432 power board according to diagram opposite $\rightarrow$



Operating principle (refer to the schematic diagram below):

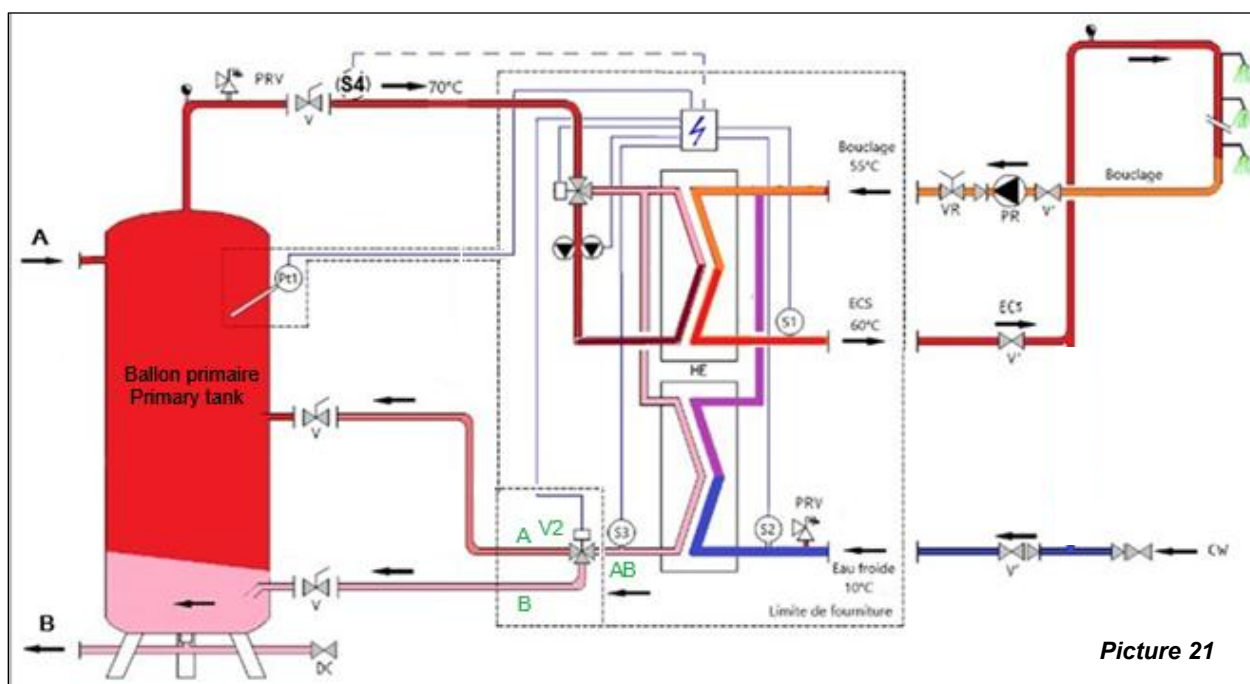
If the temperature in S3 is lower than the temperature in Pt1- ΔT (ΔT adjustable, 5°C by default), the primary returns (AB gate) are oriented towards the bottom of the tank (B gate).

Conversely, if the returns measured in S3 are higher than the temperature in Pt1- ΔT , the returns are directed to the upper 1/3 of the storage tank (gate A), in order to maintain a stratification in the tank and guarantee the coldest temperature at the bottom of the tank and to put as little strain on the generator as possible. This also prevents short heating cycles as much as possible, especially for heat pumps.

The colder the temperature in S3, the more efficient the system.

Schematic diagram

Rep.	Description	Rep.	Description
A	To the middle/top of the tank	Pt1	Upper 1/3 tank temperature sensor
B	To the bottom of the tank	S3	Primary Outlet Temperature sensor (AB gate)
V2	KITASTB motorized valve	Other benchmarks unchanged from the standard	



Picture 21

Settings:

1. From the main menu, press the ∇ key several times to access the "Extended functions" line and press the $\checkmark$ button.	PREMIUM I/t $\rightarrow$ Extended functions $\rightarrow$
2. Press the $\checkmark$ button.	Extended functions 1/2 $\rightarrow$ $\checkmark$ NO
3. Press twice ∇ to choose "2 :PILOT ON/OFF" and press $\checkmark$.	... 2: PILOT ON/OFF
4. Press ∇ key to access next line. Press $\checkmark$ key then ∇ key to put indicator on ON state	Extended functions 1/2 $\rightarrow$ Function selection 2 : PILOT On
5. Press $\checkmark$ key to restart the controller.  It is MANDATORY to restart the controller. Otherwise, extra sensor and defined function won't be effective and not visible into the menus. Wait the controller restarts before going on.	>Restart required! OFF $\checkmark$ OFF ON
6. On reboot, a new line appears in the main menu, showing the reading of the Pt1 probe:	PREMIUM I/t $\rightarrow$ PT1: Top Prim.tank T° yy°C
7. Press several times on ∇ key to access to « Extended functions » line and press $\checkmark$ key to enter sub-menu	PREMIUM I/t $\rightarrow$ Extended functions $\rightarrow$
8. Using ∇ key, go to line 3 and press $\checkmark$ key to eventually adjust the valve output signal inversion*	Extended functions 3/4 $\rightarrow$ Pilot inverted NO

9. Use ▲ / ▼ keys to change value NO YES and press ✓ key to validate or "Esc" key to cancel change.	✓ NO YES
10. Press ▼ key to go to next line.	
11. Press the key ✓ to change the delta T setpoint.	Extended Functions 4/4 →
12. Use the ▲ / ▼ keys to change the value and press ✓ to validate or "Esc" to cancel. Adjustment range: 0 to 40°C (5°C default).	Delta.T°Min.setpoint 5°C 0°C ↓ 5 °C 40°C [--- --- --- --- --- --- --- --- --- ---]
13. Press "Esc" to return to the main menu. Press "Esc" again to return to the 1st line.	



The function is now enabled.

*: The Pilot inverted parameter is used to reverse signal as some valve+actuator brands operate reversely.

In Pilot mode signal is 0V or 10 volts (no intermediate values).

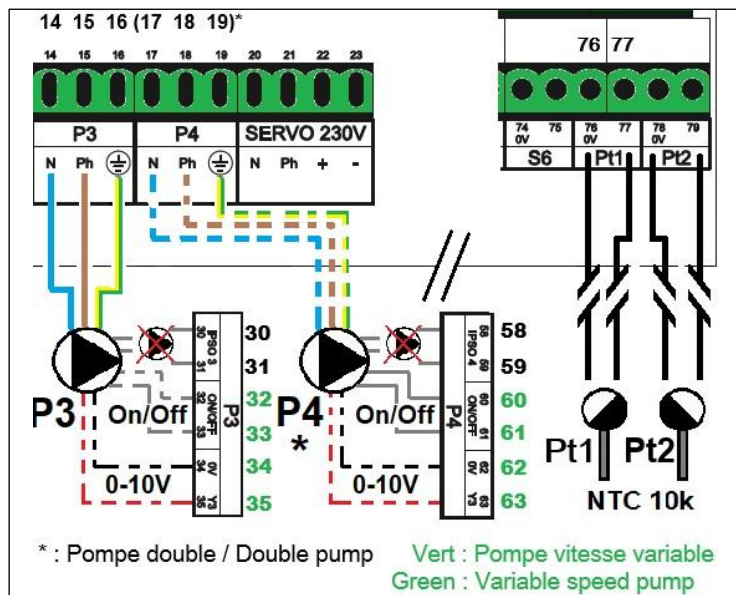
If current Y4 signal is 0V, setting "Pilot inverted" parameter from NO to YES will change Y4 to 10 volts.

At the opposite, If current Y4 signal is 10V, setting "Pilot inverted" parameter from NO to YES will change Y4 to 0 volt.

Primary tank PT1 +PT2 function. Combitherm system

Supply:

The Combitherm system with 2 sensors consists of a primary tank charging pump modelled according to load flow and manometric head, two temperature sensors Pt1 and Pt2, as well as accessories such as electrical cables, fittings and seals. Circulator and temperature sensors are to be connected to the power board according to the diagram below:



Picture 22

Principle of the function:

This function allows to manage a primary tank load, source of accumulated energy using P3 and/or P4 pumps. It uses 2 optional temperature sensors, Pt1 and Pt2.

Cetetherm Uranus 2-Steps

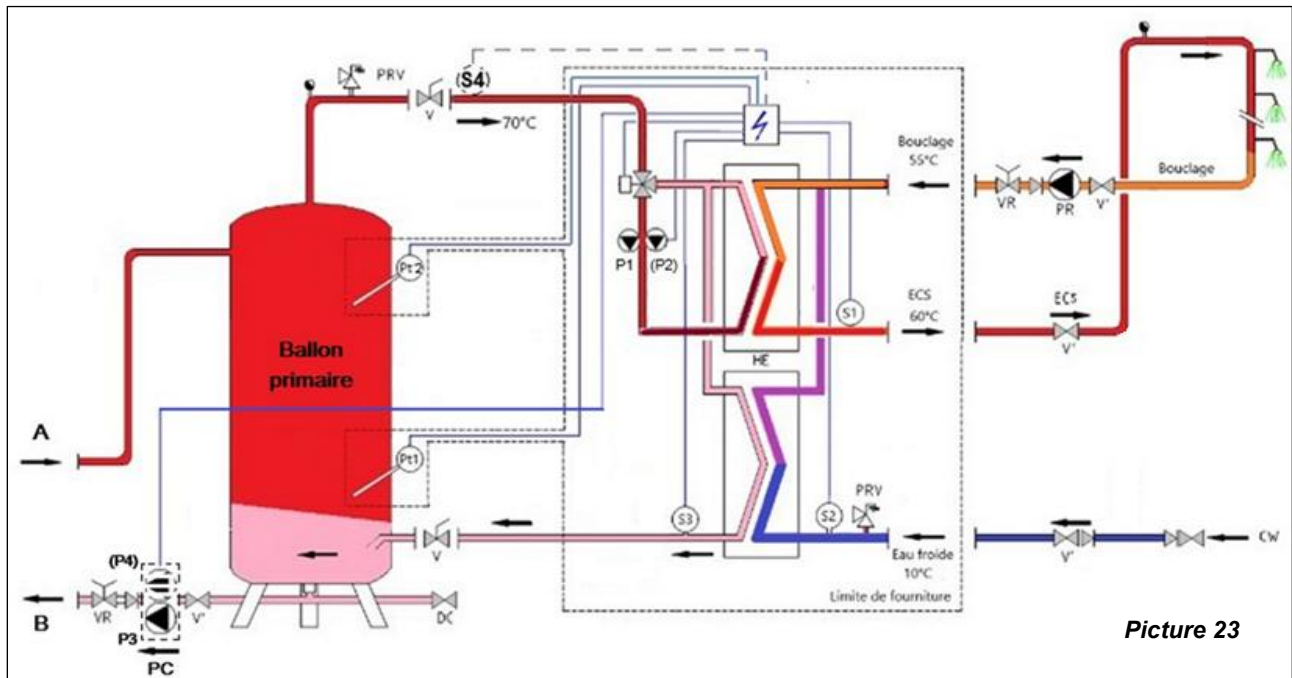
Installation, use and maintenance instructions

When tank is discharged (meaning cold), P3/P4 is energized until water in the tank top is hot enough (measured by PT1 sensor) AND tank bottom is also hot enough (measured by PT2 sensor) as the tank is loaded from top to bottom.

Loading pump(s) P3/P4 stops when $PT1$ and $PT2 \geq PT2$ setpoint. If use of variable speed pump(s) -not in standard delivery-, before stopping, P3/P4 pumps' speed will decrease when approaching from the temperature setpoint as per a PID control loop.

When tapping occurs, tank discharges in energy and $PT2$ cools down first (the tank flow from the tap water system is from bottom to top when discharging) until tank top ($PT1$) cools down also. The charging pump will start when $PT1 \leq PT2$ setpoint – Delta T. A new cycle begins.

Schematic diagram:



Settings:

1. First of all, enter the password 2000 to access the CONFIGURATION menu to activate P3 and/or P4. For more details, see the Configuration menu later in the manual.	Configuration 8 / 18
2. Once this is done, press the "Esc" key to return to the main menu.	P3/P4 Pump(s) selector None ✓P3 P4 P3+P4
3. From the main menu, press the button several times to access the "Extended Functions" row and press the key	PREMIUM 1 / t
4. Press the key again	Extended functions
5. Press 5 times key and then to activate the Primary Tank function "5: VP PT1+PT2".	Function selection NONE ✓NO ...
6. Then press the button to go to the next line. Press the key and then to turn the indicator to ON	5: PT1+PT2 VP
7. Press the button to restart the controller. It is MANDATORY to restart the controller. Otherwise, Pt1, Pt2 sensors and defined function won't be effective and not visible into the menus. Wait the controller restarts before going on.	Extended functions 2/n Function selection 5:P.Tank Pt1Pt2 >Restart required! OFF ✓OFF ON
8. We notice the appearance of 2 new lines in the main menu, relating to the PT1 and PT2 sensors:	PREMIUM 1 / t PT1 :Top prim.tank T° xx°C PT2 :Bot. Prim.tank T° yy°C
9. Press several times on key to access to « Extended functions » line and press key to enter sub-menu	PREMIUM 1 / t Extended functions

10. Using ▼ key, go to line #3 and press ✓ key to eventually adjust delta T value.	Extended functions 3/5 ↩
11. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel change. Setting range: 0 to 40°C (5°C default).	Delta.T°Min.setpoint 5°C
12. Press ▼ key to go to next line.	0°C ↓ 40°C
13. Press ✓ key to eventually adjust PT2 temperature setpoint.	[--- --- --- --- --- --- --- --- --- ---]
14. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel change. Setting range: 10 to 90°C (65°C default).	Extended Functions 4/5 ↩
15. Press ▼ key to go to next line.	PT2 T° setpoint 65°C
	10°C ↓ 90°C
	[--- --- --- --- --- --- --- --- --- ---]
16. Press ✓ to access the PID controller for Pt2	Extended functions 5/5 ↩
 Combitherm uses fixed-speed pumps. This submenu therefore has no impact.	...
17. Press "Esc" to return to the main menu.	PT2 T° controller nnn% ▶



The function is now effective.

When the function is on, the indicator light on the Alarms/Functions button will flash green.
By pressing the Alarms/Function button, the operation is indicated by the text "CHARGE FCT 5: ON or OFF"

6.14. Test sequence



This function is used at the factory and is part of manufacturing process of the unit to check control valve, pump(s), relays are operating. However, we recommend using the « Wired inputs-outputs » sub-menu for a deeper inputs/outputs tests, especially for commissioning or maintenance operations.

Settings:

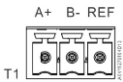
1. From main menu, use ▲ / ▼ keys to go to « Test sequence » line, then Press ✓ key	PREMIUM I/t ↩
2. To activate the sequence, press ✓ key then ▼ key to select ON and press ✓ key. Then controller activates outputs (contacts and signals) in the following order : All signals to 0V → Relay R1 → Command P1 → Command P2 → Command P3 → Command P4 → 230V 3pts → 230V 3pts → Relay R2 → Relay R3 → Y1 to 10V → Y2 to 10V → Y3 to 10V → Y4 to 10V → End of sequence and back to normal control.	Test sequence ▶
3. Press ▼ key to go to next line.	Test Sequence 1 / 4 ↩
4. Press ✓ key to change pumps' test duration. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel change. Setting range: 0 to 60 secondes (4 sec by default).	Enable OFF
5. Press ▼ key to go to next line.	✓ OFF
6. Press ✓ key to change 0-10V signals' duration. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel change. Setting range: 0 to 60 secondes (4 sec by default).	ON
7. Press ▼ key to go to next line.	Y1=Actuator 0-10V control signal Y2=Primary pump(s) 0-10V ctrl signal Y2=Second. pump(s) 0-10V ctrl signal Y4=Actuator#2 (used on some extended fcts) 0-10V control signal
8. Press ✓ key to change contacts' tests duration. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel change. Setting range: 0 to 60 secondes (4 sec by default).	Test Sequence 2/4 ↩
9. Press « Esc » key to get back to main menu. Press again "Esc" to point 1 st line of Main menu.	Enable OFF
	Pump test time 4s
	...
	Test Sequence 3/4 ↩
	...
	Signal test time 4s
	...
	Test Sequence 4/4 ↩
	...
	Relay test time 4s

6.15. Menu Communication Modbus RTU



Be sure modbus cable wires are connected on T1 terminal corner of the control box) to get Modbus communication.
Wiring made on terminals labelled A+ and B-. If cable length is more than 100 meters, it is recommended to use a shielded cable, connecting shield to REF terminal.

Picture 24



(upper left corner of the control box)

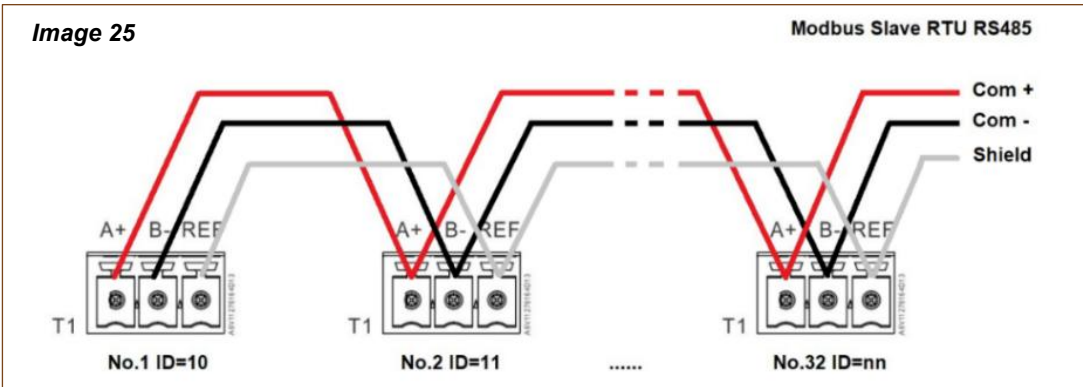
Settings:

1. From main menu, use ▲ / ▼ keys to go to « Communication » line: Then Press ✓ key	STANDARD I / t Communication ▶
2. Press ▼ key, then ✓ key to check/modify communication parameters. If at least one parameter is modified, you have to RESTART the controller. For that, go to line#1 and press ✓ key, then select ON by pressing ▼ key and finally press ✓ key.	Communication 1 / 2 Restart OFF Modbus RTU(RS485) COM.OK
3. Press ✓ key to access communication parameters. Use ▲ / ▼ keys to select line and press ✓ to access line.	
4. Use ▲ / ▼ keys to change value, ✓ to validate or “Esc” key to cancel. Explanations below: Controller adress from de 0 to 32 (10 by default) Communication speed from 600 to 115200 baud (default=19200) Parity : Even/Odd/None (by default) Bit stop number : 1 (by default) / 2 For any change, RESTART controller (same as previous screen) See below :	Modbus RTU (RS485) 1/6 Slave Adress 10 Baud rate 19200 Parity None Stop 1 bit Restart required ! OFF Writing priority POL468
5. Writing priority: POL486 (by default) / BMS If priority let to controller (POL468), it is not possible to write value from BMS, but only possibility to read values. If it is necessary to write values from BMS to controller, select « BMS ». In this case, it is not possible to modify these values from controller: • S1 temperature setpoint • Thermal treatment setpoint	Writing priority POL468 POL 468 BMS
6. If no restart is required, press twice "Esc" key to return to the main menu.	

Connection of several control boxes:

The address of the controller can be changed up to 32 (10 by default), so it is possible to connect 32 devices to each other. In this case, respect the wiring of the Modbus wires according to the diagram below:

Image 25



Communication settings and Modbus points list:

MODBUS POINTS / POINT MODBUS

MODBUS PARAMETERS / PARAMETRES MODBUS :		Speed / Vitesse :	19200	* In case of multiple controllers, change ModBus slave number * Si plusieurs appareils connectés, changer le N° d' esclave du Modbus ** On some BMS, add/substract one ** sur certains superviseurs, ajouter/soustraire 1 All point are Holding Registers / Tous points en "Holding Register"		
		Bit number / Nbre de bits :	8			
		Stop bit / Bit de stop :	1			
		Parity / Parité :	None / Aucune			
		Mode :	RTU			
		Adresse* :	10			

ModBus Points (English)	Points ModBus (Français)	MODBUS adress** Adresse ModBus**	Type	Mode	Value Valeur	Comment Commentaire
Read Only digital / Lecture seule Digitaux						
P1 Command	Commande P1	14	HR_16	R	0=Off, 1=On	Command(e) P1
P2 Command	Commande P2	15	HR_16	R	0=Off, 1=On	Command(e) P2
P3 Command	Commande P3	16	HR_16	R	0=Off, 1=On	Command(e) P3
P4 Command	Commande P4	17	HR_16	R	0=Off, 1=On	Command(e) P4
P1 Alarm	Alarme P1	18	HR_16	R	0=OK, 1=Alarm	P1 Fault / Défaut P1
P2 Alarm	Alarme P2	19	HR_16	R	0=OK, 1=Alarm	P2 Fault / Défaut P2
P3 Alarm	Alarme P3	22	HR_16	R	0=OK, 1=Alarm	P3 Fault / Défaut P3
P4 Alarm	Alarme P4	23	HR_16	R	0=OK, 1=Alarm	P4 Fault / Défaut P4
High S1 T° Alarm	Alarme T° S1 Haute	26	HR_16	R	0=OK, 1=Alarm	S1 High Temp Alarm/Alarme haute S1
General Default	Alarme de Synthese	27	HR_16	R	0=OK, 1=Alarm	General default / Défaut synthèse
Fouling Alarm	Alarme Encrassement	29	HR_16	R	0=OK, 1=Alarm	Fooling alarm (S3) / Alarme encrassement (S3)
ThermTr Alarm	Alarme Trait.Thermique	31	HR_16	R	0=OK, 1=Alarm	Therm.Treat. Failed / Echec traitement therm.
Th_Tr_running	Trait.Therm. en cours	35	HR_16	R	0=Off, 1=On	Therm.Treat. On going / Trait. Therm. En cours
Remote contact	Contact remote	36	HR_16	R	0=Off, 1=On	1=Unit in standby / 1=Appareil en standby
BOOSTER function	fonction BOOSTER	40	HR_16	R	0=Off, 1=On	BOOSTER active
ECO function	Fonction ECO	41	HR_16	R	0=Off, 1=On	ECO activated
Pump(s) Fault	Défaut pompe(s)	42	HR_16	R	0=Off, 1=On	Synthesis pump(s) fault / Défaut synthèse pompe(s)
S4 limitation on S1sp	Limitation Csgne S1 par S4	70	HR_16	R	0=Off, 1=On	S1 Sp limitation fct activated / Fct limitation consigne active
Safety function	Fonction Secours	75	HR_16	R	0=Off, 1=On	Safety function / Fonction Secours
(16 bit integer/Entier 16 bit)*						
Read Only Analogic / Lecture seule Analogiques						
Software version	Version logiciel	33	HR_16	R		Software version / Version logiciel
P1P2 Nbr of pump	Nombre de pompe(s) P1P2	71	HR_16	R	0/1=P1/2=P2/3=P1+P2	Primary pumps' number / Nbre de pompe(s) primaire
P3P4 Nbr of pump	Nombre de pompe(s) P3P4	72	HR_16	R	0/1=P3/2=P4/3=P3+P4	Second. pumps' number / Nbre de pompe(s) second.
Signal P1P2	Signal pompe(s) P1P2	44	HR_16	R	%	Primary pump signal Y2 / Signal pompe primaire Y2
Signal P3P4	Signal pompe(s) P3P4	45	HR_16	R	%	Secondary pump signal Y3/ Signal pompe secondaire Y3
Signal Valve	Signal servomoteur Vanne	46	HR_16	R	%	Control valve 1 signal Y1/ Signal servomoteur 1, Y1
Signal Valve2	Signal servomoteur Vanne2	47	HR_16	R	%	Control valve 2 signal Y4 / Signal servomoteur 2, Y4
S1	S1	49	HR_16	R	°C	Sensor 1 measurement / Mesure Sonde S1
S2	S2	50	HR_16	R	°C	Sensor 2 measurement / Mesure Sonde S2
S3	S3	51	HR_16	R	°C	Sensor 3 measurement / Mesure Sonde S3
S4	S4	52	HR_16	R	°C	Sensor 4 measurement / Mesure Sonde S4
S5	S5	53	HR_16	R	°C	Sensor 5 measurement / Mesure Sonde S5
S6	S6	54	HR_16	R	°C	Sensor 5 measurement / Mesure Sonde S6
Pt1	Pt1	55	HR_16	R	°C	Sensor Pt1 measurement / Mesure Sonde Pt1
Pt2	Pt2	56	HR_16	R	°C	Sensor Pt2 measurement / Mesure Sonde Pt2
Relay1 Fct	Fonction Relais 1	62	HR_16	R	0=Nothing/Rien 1=General alm/Déf.synthèse 2=High T° Alm/Alrme T° haute	
Relay2 Fct	Fonction Relais 2	63	HR_16	R	3=Low T° Alm/Alm T°basse 4=ECO fct/Fct ECO 5=Clock/Horloge 6=Th.Tr./Tr.Th.	
Relay3 Fct	Fonction Relais 3	64	HR_16	R	7=N/A 8=P fault/Défaut P 9=Fool.HE/Ech.encr. 10=S4 Low/basse	
Extended Fcts	Paramétrage Fct étendues	65	HR_16	R	0=Nothing/Rien 1=Pre-heat/Préchauffage 2=Pilot01 3=N/A	
Mode	Mode	66	HR_16	R	4=Combitherm Pt2 5=Combitherm Pt1+Pt2 6=N/A 7=N/A	
(16 bit integer/Entier 16 bit)*						
Read-Write digital / Lecture-Ecriture Digitaux						
Alarm(s) acknowledge	Acquit.alarme(s)	200	HR_16	R/W	1=Reset fault. Pulse point necessary 30 seconds On/Off	
(16 bit integer/Entier 16 bit)*						
1=Acquittement. Fréquence impulsion max On/Off=30 secondes						
Read-Write Analogic / Lecture-Ecriture Analogiques						
S1 T° Setpoint	Consigne T° S1	210	HR_16	R/W	°C	S1 fixed setpoint (DHW) / Consigne fixe S1 (ECS)
Pilot+ external Sp	Csgne externe Pilot+	211	HR_16	R/W	°C	Pilot+ external setpoint / Consigne externe Pilot+
Therm.Treat. setpoint	Consigne Trait.Therm.	212	HR_16	R/W	°C	Thermal treatment setpoint / Consigne trait. thermique
(16 bit integer/Entier 16 bit)*						

Picture 26

6.16. Wired Inputs / Outputs Menu



This sub-menu is very useful to commission or to diagnostic a unit: control valve opening/closing, check that pump(s) is(are) running with speed adjustment, or check contacts' relays. It is more powerful than the « Test sequence » sub-menu.

Settings:

1. From the main menu, use ▲ / ▼ keys to go to the line « Wired inputs – outputs », then press ✓ key.	PREMIUM I/t Wired inputs-outputs
2. Press ▼/▲ keys to access to selected line and press ✓ to enter. AI=Analog inputs=temperature sensors AO=Analog outputs=Y1, Y2, Y3, Y4 0-10V signal(s) DI=Digital inputs=Pump(s) fault + Remote contact DO=Digital outputs=Command pump(s) + Relays contacts + 230V 3pts contacts	Wired inputs – outputs 1 /4 Analog Inputs Analog Outputs Digital Inputs Digital Outputs
Analog inputs Inputs (like outputs) are gathered on the controller by blocks labelled T1 to T12. On these blocks, each terminal is labelled. Example: S1 sensor is connected to terminals B1 of T2 block All inputs are read only, no possibility to change a sensor value. * Optional sensor(s). These sensors are activated into the « Configuration » and/or into the « Extended functions » sub-menus. Please refer to corresponding chapters.	Analog Inputs 1/12 ----- T2 CONNECTOR ----- B1 :S1 : 60°C B2 :S2 : 20°C B3 :S3 : 37°C B4 :S4* : 0°C ----- T3 CONNECTOR ----- B5 :--- : 0°C B6 :--- : 0°C X1 :--- : 0°C X2 :--- : 0°C X3 : PT1* : 70°C X4 : PT2* : 70°C
Analog outputs Navigate into the display using ▲ / ▼ keys and press ✓ key to change value. Signal Y1 = Primary Valve control signal, 0 to 10 volts. Signal Y2 = Primary pump signal P1/P2, 0 to 10 volts (used with variable speed pump(s) only) « AUT » value indicates the controller controls this signal nnn% indicates the actual signal value (0%=0V up to 100%=10V). PASS INTO MANUAL MODE It is possible to override the original signal. To do that, select the line and press ✓ key. Now, using ▲ / ▼ keys, change from « AUT » to «MAN» value, meaning «MANUAL». Now press ✓ key and using ▲ / ▼ keys, input the signal value you want. Example: To check the actuator is moving and the primary valve fully closes, enter 0%. At the opposite, to check it fully opens, input 100%. To reput a point into automatic mode, select MAN and by pressing ▲ or ▼, display «AUT» and validate by pressing ✓ key, then press « Esc ».	Analog Outputs 1/5 ----- T4 CONNECTOR ----- X5 :Y1 SIGNAL : AUT-nnn% X6 :Y2 SIGNAL : AUT-nnn% X7 :Y3 SIGNAL* : AUT-nnn% X8 :Y4 SIGNAL** : AUT-nnn% * : Only if P3 or P3+P4 pump(s) declared ** : Only for extended function Pilot On/Off AUT → MAN → nnn% To find back a point let in manual mode corresponding to our example, you can see the « » symbol : Wired inputs – outputs 1 /4 Analog Inputs Analog Outputs Digital Inputs Digital Outputs



Once at least 1 point is in manual mode, button is orange lit. DO NOT FORGET TO PUT THE POINT(S) IN AUTO BEFORE LEAVING THIS SUB-MENU. To see easily which point(s) are in manual mode, a « » logo is displayed on the corresponding line:

Binary (or digital) inputs All inputs are read only, no possibility to change a sensor value. * Depending of pump(s)'number. If no pump, display indicates '---' External stop = remote contact. If ON, Remote is active and the unit is in standby mode.	Digital Inputs 1/6 ↗ ----- T5 CONNECTOR ----- D1 :P1 Alarm : NORMAL D2 :P2 Alarm* : NORMAL D3 :P3 Alarm* : NORMAL D4 :P4 Alarm* : NORMAL D5 :External stop : OFF								
Binary (or digital) outputs As for analog outputs, it is possible to force these contacts to ON or OFF. To do that, pass from AUTO to MANual mode. R1=Relay 1, R2=Relay 2, R3=Relay 3. *Pn Command (1 to 4) commands corresponding pump ON/OFF. If no pump, display indicates '---' Com. FER.Y1 = Closing contact for 230V 3 points actuator (-) Com. OUV.Y1 = Opening contact for 230V 3 points actuator (+) Example: We want to Start P2 pump (considering it is present). Select line #5, press ✓ key, press ▼ key then ✓ key and press ▼ then ✓ key to pass from OFF to ON. Do not forget to repass in automatic mode after the test.  Once at least 1 point is in manual mode, ⓘ button is orange lit. DO NOT FORGET TO PUT THE POINT(S) IN AUTO BEFORE LEAVING THIS SUB-MENU. To see easily which point(s) are in manual mode, a « ⌘ » logo is displayed on the corresponding line → Press « Esc » key to get back to main menu. Press again "Esc" to point 1st line of Main menu.	Digital Outputs 1/12 ↗ ----- T10 CONNECTOR ----- Q1: R1 COMMAND : AUT-OFF ----- T11 CONNECTOR ----- Q2: P1 COMMAND : AUT-ON Q3: P2 COMMAND* : AUT-OFF Q4: P3 COMMAND* : AUT-ON ----- T12 CONNECTOR ----- Q5: P4 COMMAND* : AUT-OFF Q6: Y1 CLOSE.COM.: AUT-ON Q7: Y1 OPEN.COM. : AUT-OFF Q8: R2 COMMAND : AUT-OFF Q9: R3 COMMAND : AUT-OFF Wired inputs – outputs 1 /4 ↗ <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Analog Inputs</td><td style="text-align: right;">▶</td></tr> <tr> <td>Analog Outputs</td><td style="text-align: right;">▶</td></tr> <tr> <td>Digital Inputs</td><td style="text-align: right;">▶</td></tr> <tr> <td>Digital Outputs</td><td style="text-align: right;">⌘ ▶</td></tr> </table>	Analog Inputs	▶	Analog Outputs	▶	Digital Inputs	▶	Digital Outputs	⌘ ▶
Analog Inputs	▶								
Analog Outputs	▶								
Digital Inputs	▶								
Digital Outputs	⌘ ▶								

7 Configuration menu

Configuration requires another access level, identical to technician level EXCEPT it displays an extra « Configuration » sub-menu.

The configuration menu allows to configure sensor(s)' number and also pump(s)' number. It is a part of the factory manufacturing process, as each unit must have its sensor(s)/pump(s) configured.

7.1. Login

The access code is **2000**.

1. From the main menu, go to line#2: Password enter ▶. Then press ✓ key
OR
Press a few seconds on ✓ key
2. Display indicates « Login » and a cursor is placed on **0 - - -**
3. Using ▲ / ▼ keys (meaning + / -), enter the 1st digit and validate by pressing ✓ key. The 1st digit must be 2. So you have to display **2 - - -** by pressing the + key, then pressing ✓
4. Repeat the same operation for other digits that must be zero also. For that, just press 3x ✓ key.
5. Once correct code is entered, information display appears (hardware/software versions, controller reference...). Press « Esc » key to come back to the main menu.
The display now shows 2 keys on its top right corner, indicating configuration sub-menu is now accessible.

Remark: After 10 minutes without pressing any key, the software logs out, the keys disappear, and the software is back to end-user access level.

7.2. Logout

It is not necessary to wait 10 minutes until logging out. It is possible to log out at any time.

For that:

1. Press a few seconds on ✓ key
2. Select « Log off » by pressing ▼ key
3. Press ✓ key
4. The key symbol has disappeared from the display. Access level is now back to end-user.

7.3. Configuration menu

Note! Once the controller has been reset or for a spare regulator, the number of sensors/pumps will have to be configured via this submenu.

Settings:

1. From the main menu, use ▲ / ▼ keys to go to the line « Configuration »: Then press ✓ key.	PREMIUM n/t → → Configuration ▶
2. Press ✓ key to change daylight saving time parameters. By default it set on automatic mode	Configuration 1/ 18 → → Daylight sav.time
Here is the description of possible settings : Use ▲ / ▼ keys to change line or value, ✓ key to validate or “Esc” to cancel. Enable/Disable auto time change. Keep on yes. Time to add/subtract, should be kept to 1 hour Month for summer time (should be kept to March) Day for summer time (should be kept to Sunday) Do not change Time change will occur at 2h00 at night Month for winter time (should be kept to October) Day for winter time (should be kept to Sunday) Do not change Time change will occur at 3h00 at night UTC reference time (European UTC by default)	Daylight sav.time 1/11 → → Enable Yes Time 1h Start month Mar Start week day Su Start offset 4 Start hour 2h End month Oct End week day Su End offset 4 End hour 3 UTC difference -60min
4. Press Esc to get back to the configuration sub-menu.	
5. Press twice ▼ key then ✓ key to select PREMIUM. If STANDARD is indicated, put on premium mode using ▲ / ▼ keys and ✓ key to validate.	Configuration 3/ 18 → → Model selection PREMIUM
6. Press ▼ key to access to next line.	
7. Press ✓ key to change actuator's type. Use ▲ / ▼ keys to change value and ✓ key to confirm or “Esc” key to cancel. Select Aq.E.① : Other values correspond to other products.	Configuration 4/ 18 → → Actuator type Aq.E ... ✓ Aq.E
8. Press ▼ key to access to next line	
9. Keep on OFF state. Press ▼ key to access to next line	Configuration 5/ 18 → → Cooling Mode OFF
10. Press ✓ key to enable/disable S4 temperature sensor. Press ▲ / ▼ keys to change value to YES/NO and press ✓ key to validate or “Esc” key to cancel. ① : S4 activation enables the limitation function.	Configuration 6/ 18 → → ... S4 Activation NO ...
11. Press ▼ key to access to next line	
12. Press ✓ key to define primary pump(s)'number. Use ▲ / ▼ keys to change value NONE/P1/P2/P1+P2 and press ✓ key to confirm.  THIS STEP IS MANDATORY TO GET AN OPERATING UNIT!	Configuration 7/ 18 → → P1P2 pump selector None/P1/P2* ... * Actual configuration appears on the right side of the line
13. Press ▼ key to access to next line	
14. Press ✓ key to define primary pump(s)'number. Use ▲ / ▼ keys to change value NONE/P3/P4/P3+P4 and press ✓ key to confirm.  THIS STEP IS MANDATORY TO GET AN OPERATING UNIT!	Configuration 8/ 18 → → P3P4 pump selector None/P3/P4* ...

15. Press ▼ key to access to next line	* Actual configuration appears on the right side of the line
16. Press ✓ key to change relay 1 function. Use ▲ / ▼ keys to change value and ✓ key to validate. Default value is General alarm: will be activated for any default Possible values are:	Configuration 9/ 18 ⇌ ⇌ Relay 1 function General alarm ... Nothing ✓General alarm High T° alarm Low T° alarm ECO function Timer** Th.Tr activated Tank loaded Pump default HE fouled S4 T° Limit.Function
17. Press ▼ key to access to next line	
18. Press ✓ key to change relay 2 function. Use ▲ / ▼ keys to change value and ✓ key to validate. Default value is High T° alarm: will be activated if high temp alarm Possible values are the same as relay 1, see above (step 13)	Configuration 10/ 18 ⇌ ⇌ Relay 2 function High T° alarm ... ✓High T° alarm
19. Press ▼ key to access to next line	
20. Press ✓ key to change relay 3 function. Use ▲ / ▼ keys to change value and ✓ key to validate. Default value is nothing (no action). Possible values are the same as relay 1, see above (step 13)	Configuration 11/ 18 ⇌ ⇌ Relay 3 function Nothing ... ✓Nothing
21. Press ▼ key to access to next line	
22. Press ✓ key to enable 230V 3 points output. Use ▲ / ▼ to change value OFF/ON, press ✓ to enable or « Esc » to cancel. ① : Keep OFF as 230V 3 points output is not used on standard.	Configuration 12/ 18 ⇌ ⇌ ... 3 points valve on Y1 OFF
23. Press ▼ key to access to next line	
24. Press ✓ key to modify 3 points valve opening time. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel. ① : No action if 3 points valve is set to OFF.	Configuration 13/ 18 ⇌ ⇌ ... - Opening time 30s
25. Press ▼ key to access to next line	
26. Press ✓ key to modify 3 points valve closing time. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel. ① : No action if 3 points valve is set to OFF.	Configuration 14/ 18 ⇌ ⇌ ... - Closing time 30s
27. Press ▼ key to access to next line	
28. Press ✓ key to change the display language. Use ▲ / ▼ keys to change value and press ✓ key to validate or "Esc" key to cancel. ① : All menus will be displayed in the selected language***	Configuration 15/ 18 ⇌ ⇌ ... Language selection English
29. Press ▼ key to access to next line	
30. Press ✓ key to production reset the controller. Use ▲ / ▼ keys to change value NO/YES and press ✓ key to validate or "Esc" key to cancel.  At the opposite of restart found in some sub-menus, this production reset put all parameters by default, as described into this manual, putting the controller in its original state, before factory configuration of pump(s) and sensor(s). It will be necessary to reconfigure these last ones.	Configuration 16/ 18 ⇌ ⇌ ... Production reset NO ...
31. Press ▼ key to access to next line	
32. Software version. Read only. Also visible by pressing the ① key.	Configuration 17/ 18 ⇌ ⇌ Software version V.nn
33. Press ▼ key to access to next line	
34. Press ✓ key then use ▲ / ▼ to change value OFF/ON, press ✓ to enable or « Esc » to cancel.  ANY CHANGE INTO THIS MENU, EXCEPT LANGUAGE SELECTION REQUIRES A CONTROLLER RESTART!	Configuration 18/ 18 ⇌ ⇌ ... Restart required ! OFF ...
35. Press « Esc » key to get back to main menu. Press again to point 1 st line of Main menu.	

** Setting a relay to Clock adds a row to the menu. It is a weekly time program with 6 definable time slots to put the corresponding relay on or off. Its programming is identical to that of the S1 time program.

There is no need to restart if you just change the display language.

8 Alarms/Functions and Acknowledgements Menu

8.1. Alarms



Alarms are indicated and displayed by the button  that flashes red. To acknowledge an alarm, press twice on  key, press  key, then on  key (Execute) and finally on  key to confirm. If several alarms are displayed but not active anymore, they will all be cleared and their status passes from FAULT to NORMAL.

The different possible alarms are listed below

Display		Meaning
Alarm history	nn/tt	Nn=number of alarm(s), tt=total number of menu lines
Acknowledge		Press  , then  and finally  to acknowledge ALL alarms
S1 150°C	▶	S1 sensor is faulty or wires disconnected.
S2 150°C	▶	S2 sensor is faulty or wires disconnected.
S3 150°C	▶	S3 sensor is faulty or wires disconnected.
S4 150°C*	▶	S4 sensor is faulty or wires disconnected.
PT1 150°C*	▶	Pt1 sensor is faulty or wires disconnected.
PT2 150°C*	▶	Pt2 sensor is faulty or wires disconnected.
P1 FAULT Alarm	▶	Primary pump 1 default.
P2 FAULT alarm*	▶	Primary pump 2 default.
P3 FAULT alarm*	▶	Pump 3 default (secondary or primary tank charge pump as per config.).
P4 FAULT alarm*	▶	Pump 4 default (secondary or primary tank charge pump as per config.).
S1 high T° FAULT	▶	High temperature alarm measured by S1 temperature sensor.
S1 low T° FAULT	▶	Low temperature alarm measured by S1 temperature sensor.
Therm. treat. FAILURE	▶	Thermal treatment temperature not reached as per fct parameters
Fouled exch. FAULT	▶	Fouling function activated and too high S3 temperature measured

* As per equipment.

To get alarm detail (date and time it occurred), select requested alarm into the list and press  key.

8.2. Functions

Running functions are indicated with  button led green flashing. Pressing  button indicates the last function event, with its occurrence details (date and time).



It is not possible to acknowledge an active alarm or function.

The different functions are listed below:

Display	Meaning
Alarm list detail nn/tt	Nn=number of alarm(s), tt=total number of menu lines
SAFETY ACTIVE ▶	Safety function running
SAFETY INACTIVE ▶	End of safety function
Therm. Treat. Started ▶	Thermal treatment running
Therm. Treat. Stopped ▶	End of Thermal treatment
ECO MODE STARTED ▶	ECO function running
ECO MODE STOPPED ▶	End of ECO function
MODE BOOSTER STARTED ▶	BOOSTER function running
MODE BOOSTER STOPPED ▶	End of BOOSTER function
S4 T°Limit. Function ON ▶	T°S4 Limitation Function on
S4 T°Limit. Function OFF ▶	Function T°S4 Limitation off
CHARGE FCT 5 ON ▶	Function 5 (Tank Charge Pt1+Pt2) in operation
CHARGE FCT5 OFF ▶	Function 5 (Tank Charge Pt1+Pt2) off
STANDBY ACTIVE ▶	Standby function activated. Remote contact closed, unit in standby
STANDBY INACTIVE ▶	Standby function not active. Unit operating normally

To get the details of the function (date and time of occurrence), select it from the list and press .

8.3. Events' list

If  button is not flashing, press it once. If flashing, press it 3 times to access to events' list. The last 50 events are displayed from more recent to oldest. To get more info, select one and press  key to get occurrence date and time.

9 Production Reset



After performing a RAZ Production, it is imperative to reconfigure the device and in particular the number of sensor(s) and pump(s) installed.

For this, see [Configuration](#).

The access code is 2000.

1. From the main menu, go to line#2: Password enter ▶. Then press ✓ key
OR Press a few seconds on ✓ key
2. Display indicates « Login » and a cursor is placed on 0 - - -
3. Using ▲ / ▼ keys (meaning + / -), enter the 1st digit and validate by pressing ✓ key. The 1st digit must be 2. So you have to display 2 - - - by pressing once the + key, then pressing ✓ key.
4. Now comes the 2nd digit that must be 0 (zero). Just press on ✓ key as the default digit value is already zero.
5. Repeat the same operation for 3rd and 4th digits that must be zero also. For that, just press twice the ✓ key.
6. Once correct code is entered, information display appears (hardware/software versions, controller reference...). Press « Esc » key to come back to the main menu.
The display now shows two keys on its top right corner, indicating the factory level access is activated. Now, most of the lines show « ▶ » at their end, meaning their access is now possible and the configuration menu can be accessed now.
7. Go to "Configuration" line and press ✓ key.
8. Go to "Production Reset" line and press ✓ key.
9. Press ▼ key to select YES and press ✓ key to confirm
10. Controller restarts
11. Repeat steps 1 to 7 to access again to Configuration sub-menu
12. Adjust parameters: AT LEAST Model type and pumps' number: P1/P2 and P3/P4
13. Then go to the last line "Restart required!", press ✓ key, then ▼ and ✓ key to restart.
14. Controller restarts with new configuration

Note: After 10 minutes without pressing any key, the software logs out from factory level, the key disappears and the software is back to end-user access level.

OR

1. Press a few seconds on ✓ key
2. Select « Log off » by pressing ▼ key
3. Press ✓ key
4. The key symbol has disappeared from the display. Access level is now back to end-user.

10 Troubleshooting

FINDINGS	PROBABLE CAUSES	REMEDIES
Controller doesn't start	No power from mains or PCB transformer	Check FU5 (230V transfo), FU7 (24VDC transfo) and mains supply
Pump not operating	Locked rotor or damaged	Force to rotate. Replace if required
	Corresponding led is not lit on PCB	Check FU5 and FU6 fuses
	Pump relay damaged	Replace Power Board
	Pump protection fuse blown	Check then replace if necessary
	High Alarm condition detected	Clear alarm then reset system
	No voltage to control board terminals	Check power supply cable and fuses
	No voltage to pump motor terminals	Check protection fuse on main board, cable condition and connections
	Controller improperly set	Check pumps' configuration into Configuration menu
Low temp alarm condition	Primary pump stopped	See "Pump not operating"
	Too low primary temperature	Check for a closed valve on the primary side
	Too high tap water flow rate (SI)	Reduce buffer vessel charging flow rate
	S1 set point too high	Adjust setpoint into S1 Menu
The modulating valve does not work Modulating valve does not operate	Control valve remains closed	See "Modulating valve does not operate"
	Damaged or broken actuator	Test and replace if necessary
	Broken or improperly tightened coupling	Check and replace if necessary
	Valve blocked	Replace
	No signal from the controller	Check FU6 then replace if necessary
	Supply wires improperly tightened	Check wires, re-tighten connections
High Temperature Alarm High alarm condition detected	Actuator stroke restricted	Dismount then clean the valve
	Charging pump stopped (SI versions)	Refer to "Pump not operating" above
	Low recirculation flow rate (I versions)	Check and fix problem
	Alarm differential too low	Check and set the controller into S1 Menu
	Actuator not closing	Refer to "The actuator does not operate".
Correct temperatures not obtained at the exchanger. The valve and pumps are working properly Correct temperatures across the exchanger not obtained. Valve and pumps operating satisfactorily	Too much differential pressure across the control valve	Check the way the TWM is piped-up. Eventually install small bypass before the unit to break DP
	Excessive exchanger scaling at the primary or secondary side	Open and clean the exchanger according to cleaning instructions
	Primary pipe work obstructed or strainer upstream clogged	Inspect primary pipe work. Clean strainer on the primary side
	Shut-off valves closed	Open shut-off valves
	Air presence in the primary circuit	Purge. Check no high parts where air could be trapped exist

11 Maintenance and repairs

Cetetherm Uranus does not require any specific maintenance.
The frequency of the checks depends on the hardness, temperature and water consumption.

- Monthly inspection to check for leaks in pipes or components.
- Monthly inspection to ensure the stability of the functional control systems and the absence of temperature fluctuations. Temperature variations accelerate the wear of valves, actuators
- The control box does not require any special maintenance. Check the tightness of electrical connections annually.
- Annual inspection to check that the control valve is not leaking.
- Regular checks for traces of limescale on the connections and components of the secondary circuit. Periodicity according to the quality of the water: pH, Th and temperature levels mainly.

Scaling of the secondary circuit will be highlighted by:

- A high pressure drop on the secondary side of the exchanger. This one should not exceed 50 kPa on all models (heat exchanger only)
- Improper temperature range on the secondary side of the exchanger
- Low temperature difference between inlet and outlet on the primary side of the exchanger when the control valve is fully open.
- An alarm message if fouling function is set correctly and activated.



Only replace any defective parts with the **original** spare parts.
Please contact your Cetetherm distributor for spare parts, note serial number and model designation.



Maintenance work should be performed by a professional technician.



Hazard of severe electrical shock or burn.
Before cleaning and servicing, disconnect power supplies.



Risk of burns. Let the pipes and exchanger cool down before starting out with maintenance work.

11.1. Cleaning of gasketed plate heat exchangers

The disassembly of the exchanger is quick if the following procedure is followed:

1. Insulate primary and secondary hydraulic systems.

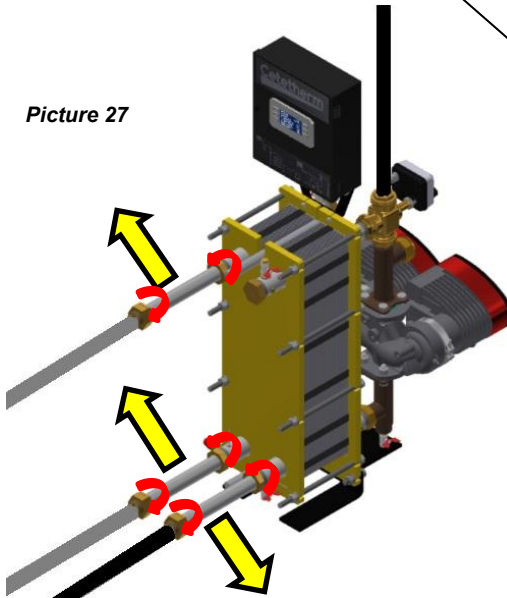


Risk of burns. Wear protective gloves. Wait for the water in the system to cool down.

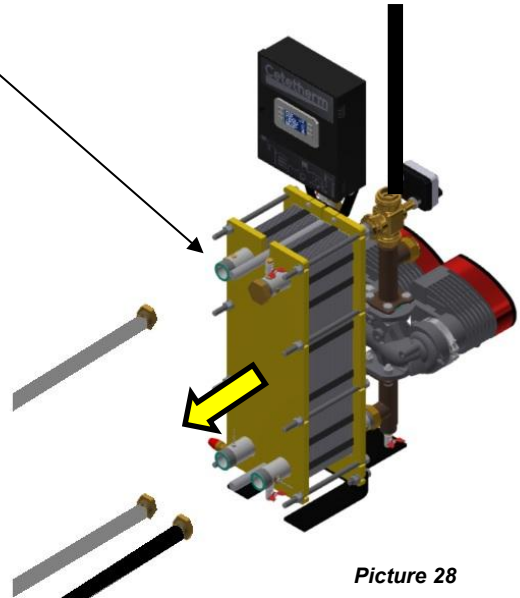
2. Open the drain valves to relieve the internal pressure on each side.
3. Measure the distance between the two frames of the exchanger (Plate pack thickness) and note it down.
4. Unscrew the 3 flat joint maintenance sleeves according to the diagram below, to allow the pressure plate and the connection plate to be removed

5. Open the exchanger by unscrewing the compression bolts from the frame and sliding the movable pressure plate and the connection plate together.

Picture 27



Picture 28



Plates' pack thickness PHE in between frames :

UI6000

Number of SS316 plates	21	29	45	63
Plate set thickness (mm)	50	68	103	143

U9000

Number of SS316 plates	59	73	85
Plate set thickness (mm)	134	165	191



Plate sets are specific. Indeed, the exchanger is composed of a first pass, then a separation plate with only 2 ports and finally a second pass with plates of different profile. The number of plates in each pass is also different.



To avoid the risk of injury due to sharp edges, it is recommended to always wear protective gloves when handling protective plates and protective plates (such as those used for insulation).

6. Remove the plates without damaging the gaskets and note their orientation and position.
7. Clean the plates with a soft plastic brush and water or with a dilute acid solution, according to the general cleaning instructions of the heat exchanger.



DO NOT use hydrochloric acid or any other acid that may corrode stainless steel plates.



DO NOT use water containing more than 300 ppm Cl for the preparation of cleaning solutions.



Nitric acid (for calcium carbonate), sulfamic acid (for calcium sulphate) or citric acid (for silt clay) can be used. The concentration must not exceed 4% at 60°C. Gloves and goggles should always be worn during these operations.

8. Then gently rinse the plates with clean water.
9. Reassemble the plates in the same order and position.
10. Screw the frames to the same distance (dimension of the thickness of the set of plates).
11. Clean the thermowell of the sensor.

11.2. Cleaning of copper brazed heat exchangers

Access to the interchange is quick by following the following procedure:



Make sure that you have insulated the exchanger by closing the primary and then secondary isolation valves according to the schematics.

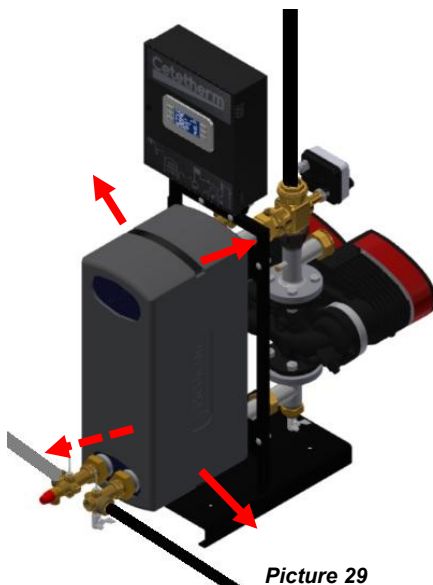


Risk of burns. Wear protective gloves. Wait for the water contained in the system to cool down and then drain the circuits to drop the pressure and drain the water contained in the device.

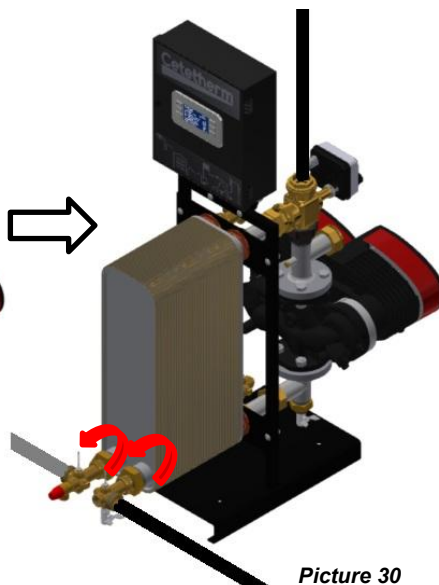


Use suitable equipment, as well as adequate cleaning solutions for brazed heat exchangers or any stainless steel. It is strongly recommended to wear protective gloves during this operation.

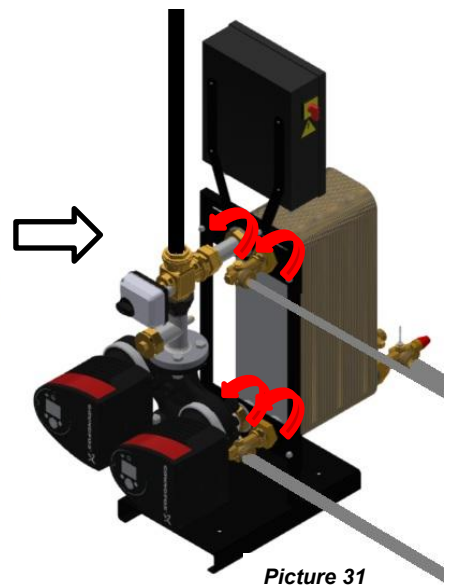
1. Unclip the 2 top and bottom fasteners of the heat exchanger and remove the 2 half-insulation shells according to the diagram below.
2. Unscrew the front and back of the exchanger connections. The fittings are made by flat joints allowing the exchanger to be extracted without touching the connecting parts or the pipework.



Picture 29



Picture 30



Picture 31

3. The exchanger can then either be cleaned or replaced while waiting for a subsequent cleaning of the old one.

4. If the exchanger is replaced, do not forget to remove the 2 washers used to fix the heat exchanger to the frame.

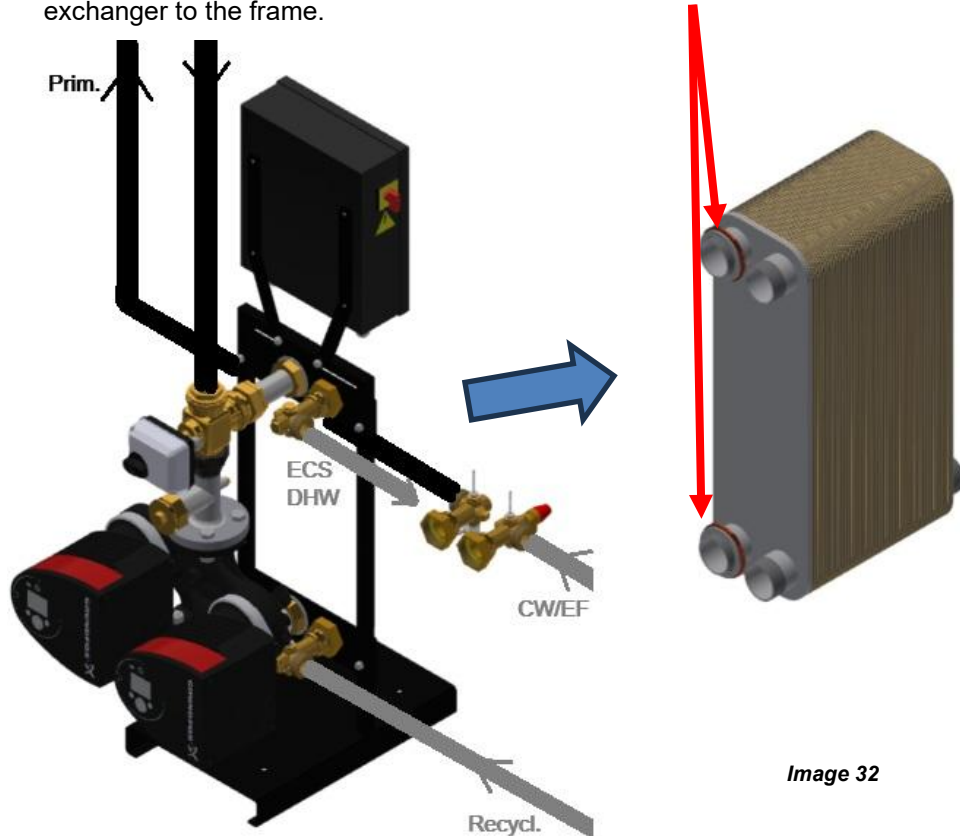


Image 32

5. Put these washers back on the new exchanger and screw them as much as possible to the bottom of the thread
6. Screw back on the connections described in point 2. Then screw in the washers that will fix the exchanger to the frame by making a lock nut.

Cetetherm recommends the use of a clean-in-place (CIP) unit combined with an eco-environmental cleaning solution. There are several types of solutions depending on the type of cleaning required. Once this is done, use a neutralization solution before rinsing.

For more information, contact a company specialising in heat exchanger cleaning.



DO NOT use hydrochloric acid or any other acid that may corrode stainless steel plates.



DO NOT use water containing more than 300 ppm Cl for the preparation of cleaning solutions. Nitric acid (for calcium carbonate), sulfamic acid (for calcium sulphate) or citric acid (for silt clay) can be used. The concentration must not exceed 4% at 60°C. Gloves and protective eyewear must be worn during these operations. After treatment, rinse the exchanger with clean water.

11.3. Opening the electrical control box

Open the door by turning the locking knob counterclockwise.



Picture 33

11.4. Fuse Replacement

The control box is fitted with a set of fuses to protect the different components against overload.

Extra fuses are included in the control box for quick servicing.



Maintenance should be performed by a professional technician.
Turn off the power before starting any work.

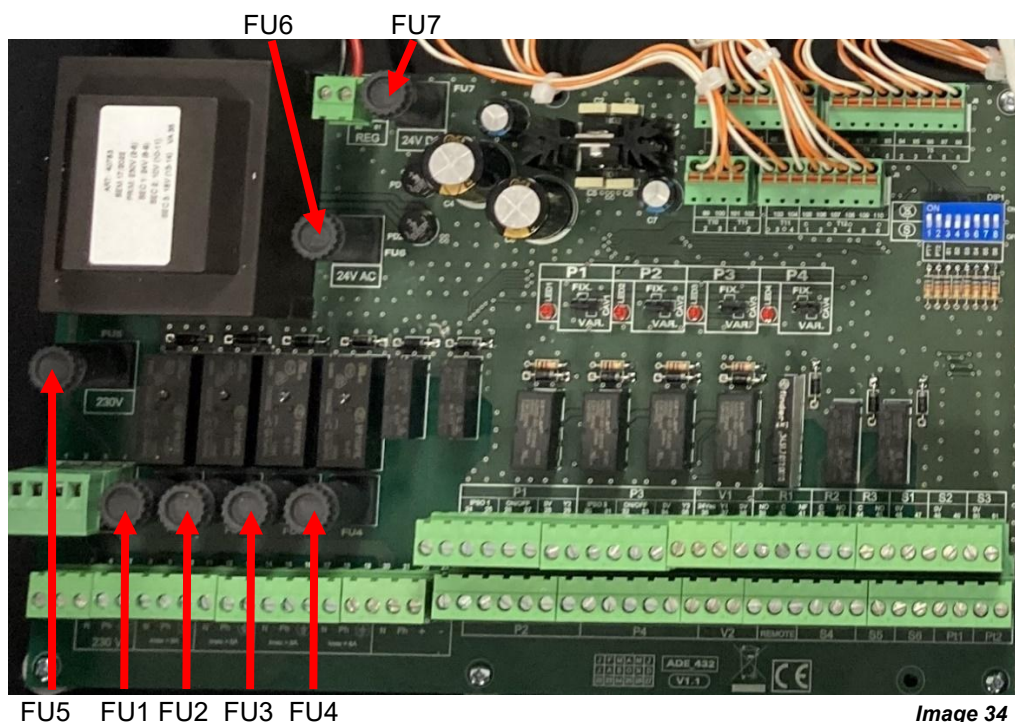


Image 34

Fuse Protection	FU1 P 1	FU2 P 2	FU3 P 3	FU4 P 4	FU5 230V transfo. primary (PCB Protection)	FU6 24V AC Actuator	FU7 24V DC Controller
Size	5 x 20	5 x 20	5 x 20	5 x 20	5 x 20	5 x 20	5 x 20
Caliber	2,5 A	2,5 A	2,5 A	2,5 A	200 mA	1 A	500 mA
Voltage	250 V	250 V	250 V	250 V	250 V	250 V	250 V

11.5. Pump replacement / addition

Pumps' configuration and connections are factory made. It could happen a pump is added (recycling pump on P3 typically). In a servicing situation the correct pump must be identified. The below table gives pump used depending of the unit.

Configuration	Connected pump(s)
Instantaneous Single pump	P1 or P2
Instantaneous Double pump	P1+P2
Instantaneous Single + Recycling	(P1 or P2) + (P3 or P4)
Instantaneous Double + Recycling	P1+P2+ (P3 or P4)
Instantaneous Single + Combitherm	(P1 or P2) + (P3 or P4)
Instantaneous Double + Combitherm	P1+P2+ (P3 or P4)

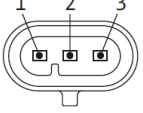


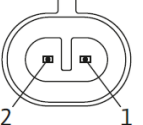
Check the fuse gauge which must be compatible with the current of the pump.
Their consumption must not exceed 2.5 A.

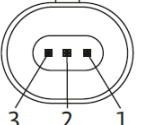
To add / replace a pump:
1. Switch off main power

2. Open the control box and pump cover (Grundfos only).
3. Wire pump power supply from the power terminal in the control box.

WILO pump Para Maxo 30-180, only for IS versions :

Mains wiring				Wilo Para Maxo (P1 only)
	N	Ph	⊥	 <i>Picture 35</i>
Power PCB	8	9	10	
Plug No.	3	1	2	
Wire Color	Blue	Brown	Gr/Ye	

Fault Contact (SSM) wiring			Wilo Para Maxo (P1 only)
	Common	Contact	 <i>Picture 36</i>
Power PCB	24	25	
Plug No.	1	2	
Wire Color	Brown	Blue	

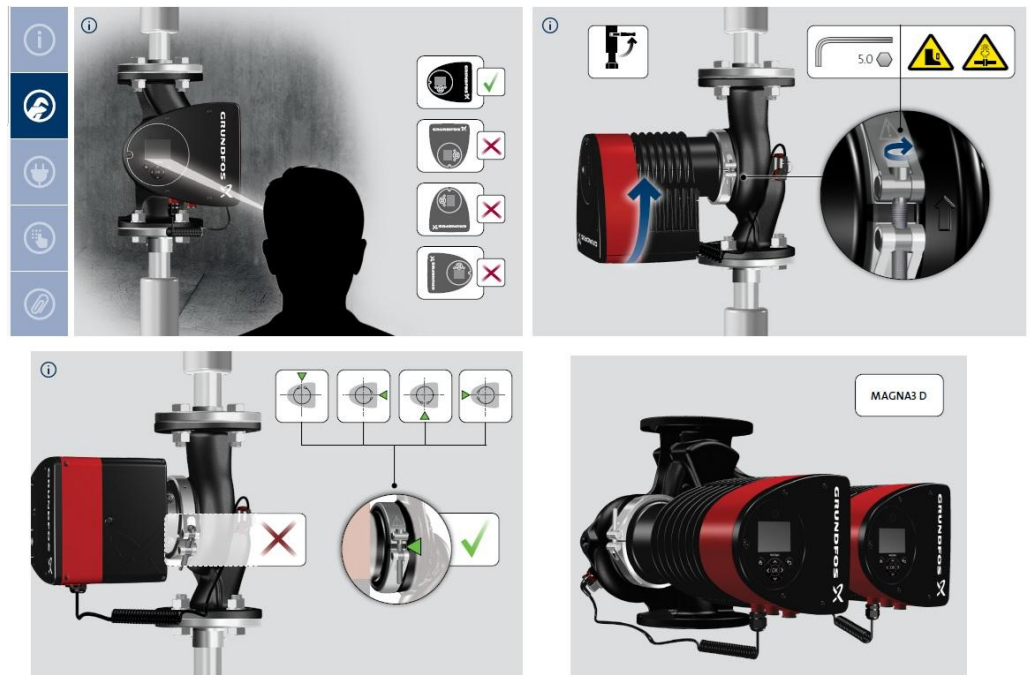
0-10V signal wiring				Wilo Para Maxo (P1 only)
	GND	0-10V		 <i>Picture 37</i>
Power PCB	28	29	N/A	
Plug No.	2	1	3	
Wire Color	Blue/Grey	Brown		

Grundfos pump, Magna 3 :

Installation :



If replacing a Grundfos Magna 3 pump, It is mandatory to turn the head of the pump. To do this, loosen the clamp and turn the head so that you get the vertical Grundfos label with the G at the top. In addition, position the hose clamp so that the holes are in the up, down and left or right position. This corresponds to the clamping screw placed to the left (9h) or right (3h) of the pump housing. Instructions are illustrated below.



Picture 38

Power supply wiring:

Connection on PCB terminal				Connection on Magna 3 pump
	N	Ph	⊥	
Pump 1	8	9	10	
Pump 2	11	12	13	
Pump 3	14	15	16	
Pump 4	17	18	19	

Picture 39

Pump fault contact wiring.

NC and C are alarm output. There is no polarity. NO terminal not used.

Connection on PCB terminal			Connection on Magna 3 pump
	C	NC	
Pump 1	24	25	
Pump 2	52	53	
Pump 3	30	31	
Pump 4	58	59	

Picture 40

ON/OFF (or Start/Stop) contact wiring

No polarity. Must be a potential-free contact.

Connection on I/O terminal			Connection on Magna 3 pump
	⊥	S/S	
Pump 1	24*	25	
Pump 2	51*	52	
Pump 3	30*	31	
Pump 4	57*	58	

Picture 41

0-10V Contact on Grundfos pump

Respect the polarity.

Connection on I/O terminal			Connection on Magna 3 pump
	0V ⊥	0/10V IN	
Pump 1	28	29	
Pump 2	56	57	
Pump 3	34	35	
Pump 4	62	63	

Picture 42 Connect ⊥ and IN.

Once pump is electrically wired, remember to declare it into "Configuration" menu.
Also don't forget to set the pump (see further on for Magna3 pumps)

4. Select the pump type

On the right side of the printed circuit board, PCB; find the selector for the actual pump. Place the pump type selector according to pump type.

	Pump No.
	Pump type selector.
	If Wilo pump, use Left position (●=●●).
	If Grundfos pump, use right position (●●=●).
Pict. 43 If lit, the corresponding pump is energized.	

It is possible to power supply a recycling pump. This one must be connected to P3 or P4. If this pump does not have a fault contact out, shunt terminals 30 and 31 for pump P3 and 58 and 59 for pump P4.

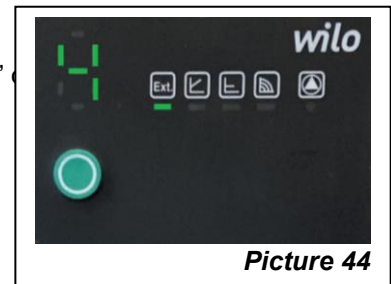
5. Once pump is installed and wired, power supply the unit. If a pump has been replaced, it is already declared. **If a pump has been added (like recycling pump), Declare the pump into the Configuration menu for it to be effective and then restart the controller. Please refer to Configuration menu for that.**

6. Wilo Para Maxo pump settings

- Make sure the pump has been plugged in and the P1 jumper has been set to "FIX". See the previous pages.

Pump is already set. In case of replacement, follow the bellow setting procedure:

- Turn on the unit. The pump is powered after a few seconds. If this is not the case, check that it is declared in the "Configuration" menu and restart the controller to activate it. If declared, acknowledge any pending default(s).
- Using the unique button, press it several times to display "4" on the led display:
- Press 3 seconds to light "Ext" light (0-10V input) as shown:
- Press 9 seconds to lock pump setting.
- You can also press 9 seconds to unlock pump setting.



Picture 44

Pump behaviour as per 0-10V signal input

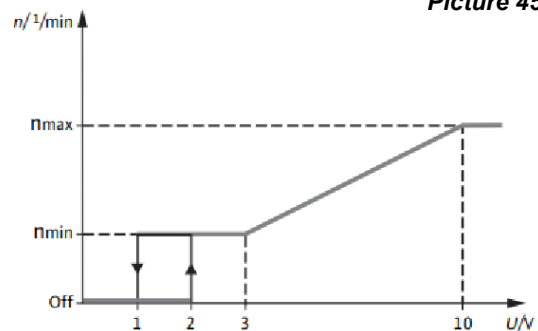
- If signal decreasing from high value (between 10V and >3V), pump speed decreases linearly as per Y2 voltage value.
- If Y2 signal decreasing below 3 volts, pump operates at min speed.
- If Y2 < 1 volt, pump stops.
- If signal increasing pump starts at 2 volts from min to 3 volts, pump operates at min speed
- If signal increasing above 3 volts, pump speed increases linearly as per Y2 voltage value.

Note :

Unless you lower min speed signal down to 10% into pumps' menu, the pump will never stop, except using ECO function.

Analogue signal input (V)	Pump reaction
< 1	Pump stops.
1 ... 3 (operation)	Pump runs at minimum speed.
2 ... 3 (starting)	Pump runs at minimum speed.
3 ... 10	The speed of the pump increases linearly from n_{min} to n_{max} .

Picture 45



Pump status:

Green lit: No fault. Pump is operating normally.



Red/Green flashing: warning. Default contact stays closed. No information to the controller.



Red flashing: alarm. Default contact opens and controller gets information.



7. Grundfos Magna 3 pump settings



Pumps of delivered units have all been factory programmed.
This guide is more applicable in case of adding a pump or pump replacement for which it is not set.

Picture 46

Button	Function
	"Home" menu.
	Returns to the previous action.
	Navigates between main menus, displays and digits.
	Navigates between submenus.
	Saves changed values, resets alarms and expands the value field.

Setting pump control mode

Note: Cetetherm recommend to use, Constant Curve and with setpoint 100%.

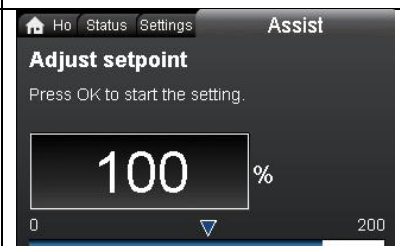
1. Navigate from "Home" to "Assist".
2. Select the line "Assisted pump setup".
3. Press [OK] then twice



4. Go to the submenu "Select control mode".
5. Select the line "Constant curve".
6. Press [OK] to save.

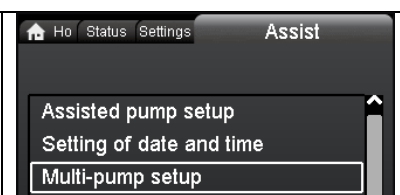


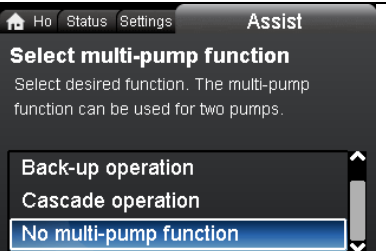
7. Go to the submenu "Adjust setpoint", press [OK] to start the setting.
8. Select digit with and adjust with .
9. Press [OK] to save.



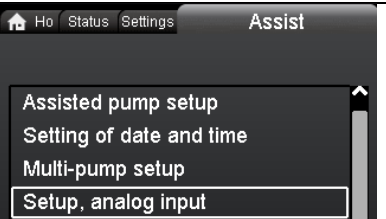
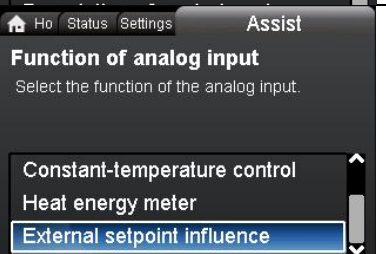
Settings for double pumps

1. Navigate from "Home" to "Assist".
2. Select the line "Multi-pump setup".
3. Press [OK].

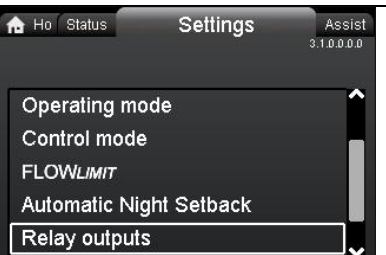
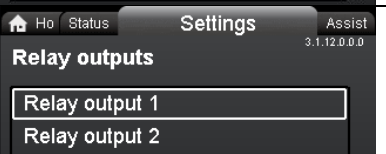
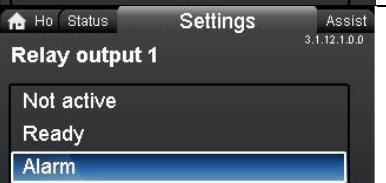


4. Go to submenu "Select multi-pump function". 5. Select the line "No multi-pump function". 6. Press [OK] to save the setting.	
--	---

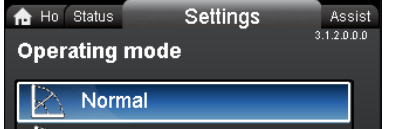
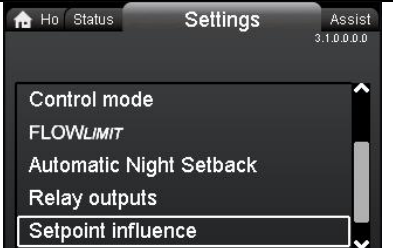
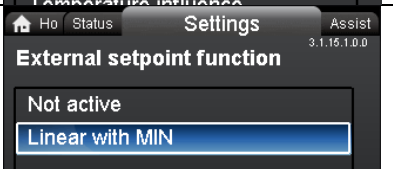
Setup analog input

1. Navigate from "Home" to "Assist". 2. Select the line "Setup, analog input" and press [OK]	
3. Go to the submenu "Function of analog input". 4. Select the line "External setpoint influence". 5. Press [OK].	
6. Go to the submenu "Electrical signal". 7. Select the line "0-10V". 8. Press [OK] to save the setting.	

Setup Relay1 output

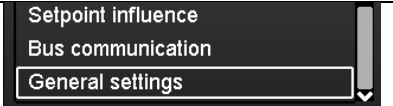
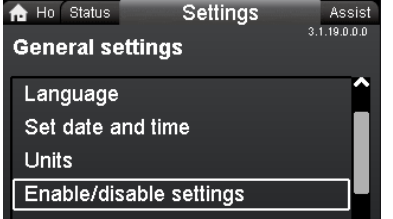
1. Navigate from "Home" to "Settings". 2. Select the line "Relay outputs". 3. Press [OK].	
4. Select the line "Relay output 1". 5. Press [OK]. <i>ⓘ: Relay#2 is not used</i>	
6. Select "Alarm". 7. Press [OK] to save the setting.	

Setpoint influence settings

1. Navigate from "Home" to "Settings". 2. Select the line "Operating mode". 3. Press [OK].	
4. Select "Normal". 5. Press [OK] to save the setting.	
6. Return to the main menu "Settings". 7. Select the line "Setpoint influence". 8. Press [OK].	
9. Select "External setpoint function". 10. Press [OK].	
11. Select "Linear with MIN". 12. Press [OK] to save the setting. Note: The operating mode must be set to "Normal" before a control mode can be enabled.	

Enable/disable settings (keys' lock)

The possibility of making settings can be disabled for protective reasons.

1. Navigate from "Home" to "Settings". 2. Select the line "General settings". 3. Press [OK].	
4. Select the line "Enable/disable settings". 5. Press [OK].	
6. To lock the pump, use ^ v and select "Disable". 7. Press [OK] to save the setting. The pump will now be locked for settings. Only the "Home" display will be available. To unlock the pump and allow settings, press both ^ v simultaneously for at least 5 seconds.	

11.6. Connecting Relays 1, 2 and 3

Relay 1 is NO/NC (Normally Open or Normally Closed), Relays 2 and 3 are NO only (normally open).

Relay number	Operating mode	Connection on PCB terminal		
		C	NO	NC
1	NO/NC	40	39	41
2	NO	42	43	
3	NO	44	45	



See the paragraph *Electrical wiring diagram*.

If a 230V AC phase passes through one of these relays, do not exceed 2A.

11.7. Adding a temperature sensor



See the paragraph *Electrical wiring diagram*.

The probes are of the NTC10k type. Don't forget to declare any new probe in the Configuration (S4) and Extended Functions (PT1, PT2) menus.

Sensor	Location	PCB terminal	
		0V	Sn
S1	Secondary outlet (DHW)	46	47
S2	Secondary inlet (CW/Recycling),	48	49
S3	Primary outlet	50	51
S4*	Primary Inlet	70	71
PT1*	Multiple, used for Primary tank Pt1 + Pt2 (Combitherm) or Pilot On/Off (KITASTB) extended functions	76	77
PT2*	Used for Primary tank Pt1+Pt2 (Combitherm) extended function	78	79

11.8. Remote Control contacts

The system can be placed in remote standby mode. To do this, a dry contact must be connected to the PCB ADE 432 terminal block at terminals 67 and 68.



See the paragraph *Electrical wiring diagram*.

DO NOT feed this contact! Potential-free contact only.

Operation:

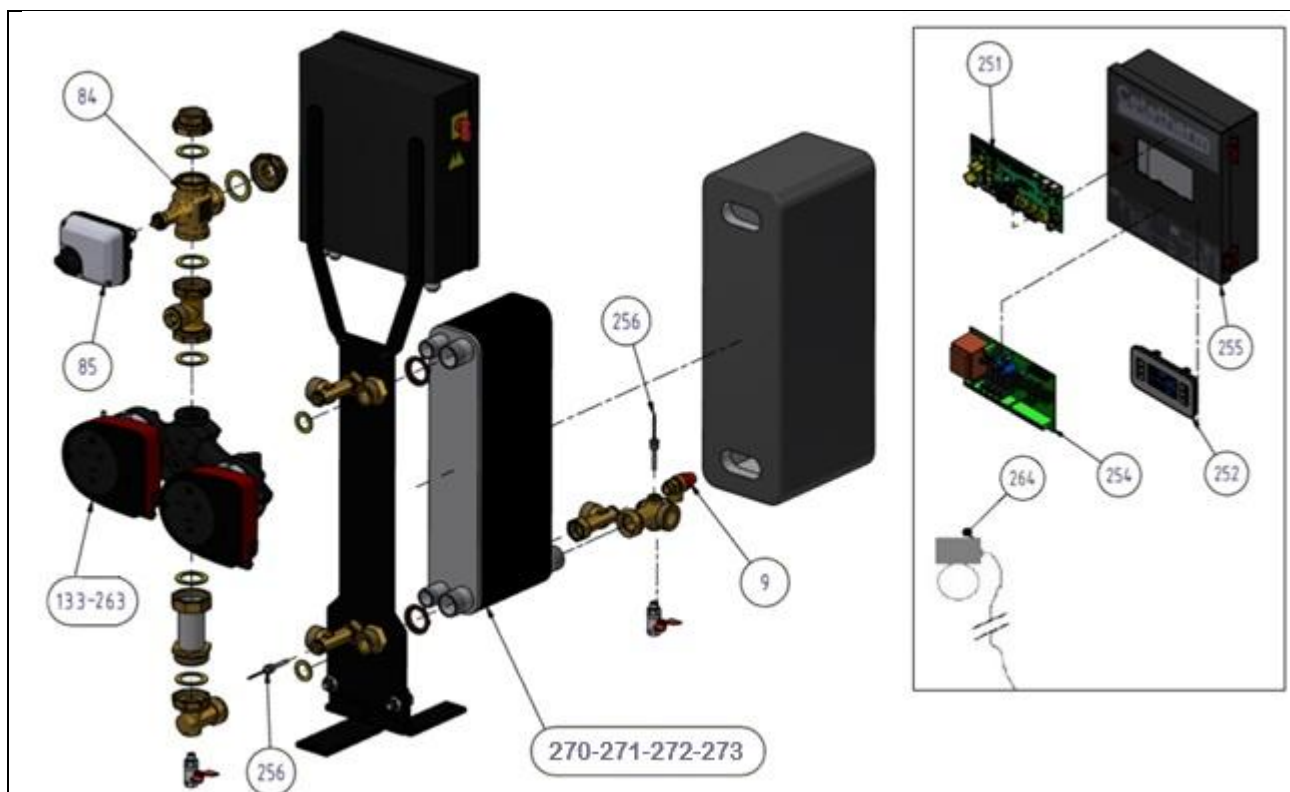
When the contact is opened (default configuration), the system is operating normally.

If the contact is closed, the primary and secondary pumps are stopped and the control valve(s) close with a 0 volt signal. The device is then in standby mode. Note that the regulator is still active. The  button green flashes and when pressed, it reads "STANDBY ACTIVE".

12 Spare parts

12.1 UCB100

Replace only defective parts with original **parts**. Contact your local Cetetherm office.

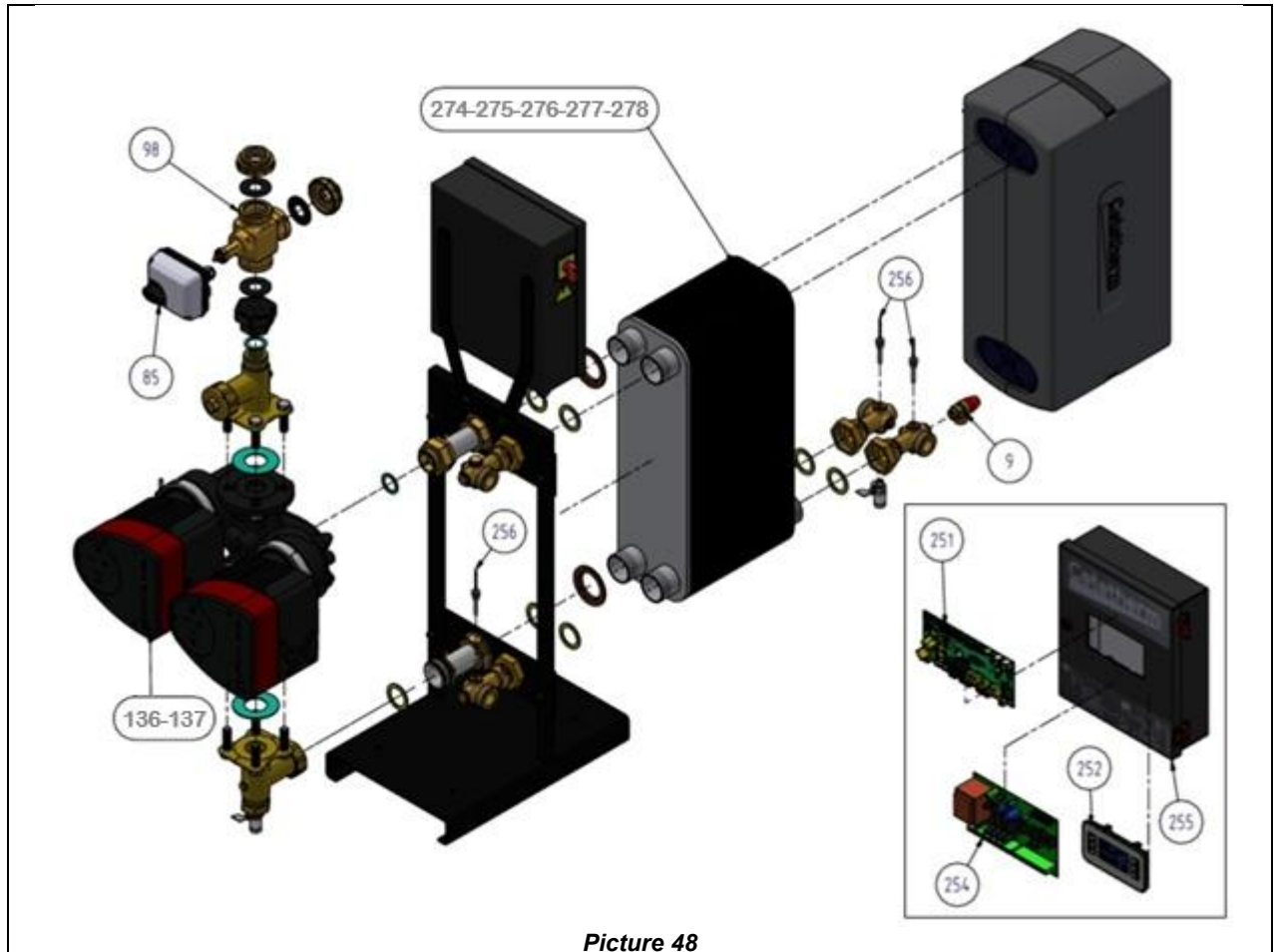


Picture 47

Rep.	Description
251	Micro 4000 Regulator
252	HMI display for Micro 4000 with RJ45 cable
254	ADE_432 interface board and connector kit
255	Empty control box
256	Micro 4000 Temperature Probe
264	Micro 4000 surface-mounted temperature probe
9	Safety valve 15/21 10B
270	Brazed Copper (CB) Exchanger 40 plates for UCB100
271	Brazed Copper (CB) Exchanger 52 plates for UCB100
272	Brazed Copper (CB) Exchanger 80 plates for UCB100
273	Brazed Copper (CB) Exchanger 100 plates for UCB100
263	WILO 1*230V circulator, single pump
133	GRUNDFOS Magna 3D 1*230V double pump
84	DN32 3-way valve body
85	Valve motor 15 seconds, signal 0-10 volts power supply 24V AC

12.2 UCB500

Replace only defective parts with original **parts**. Contact your local Cetetherm office.

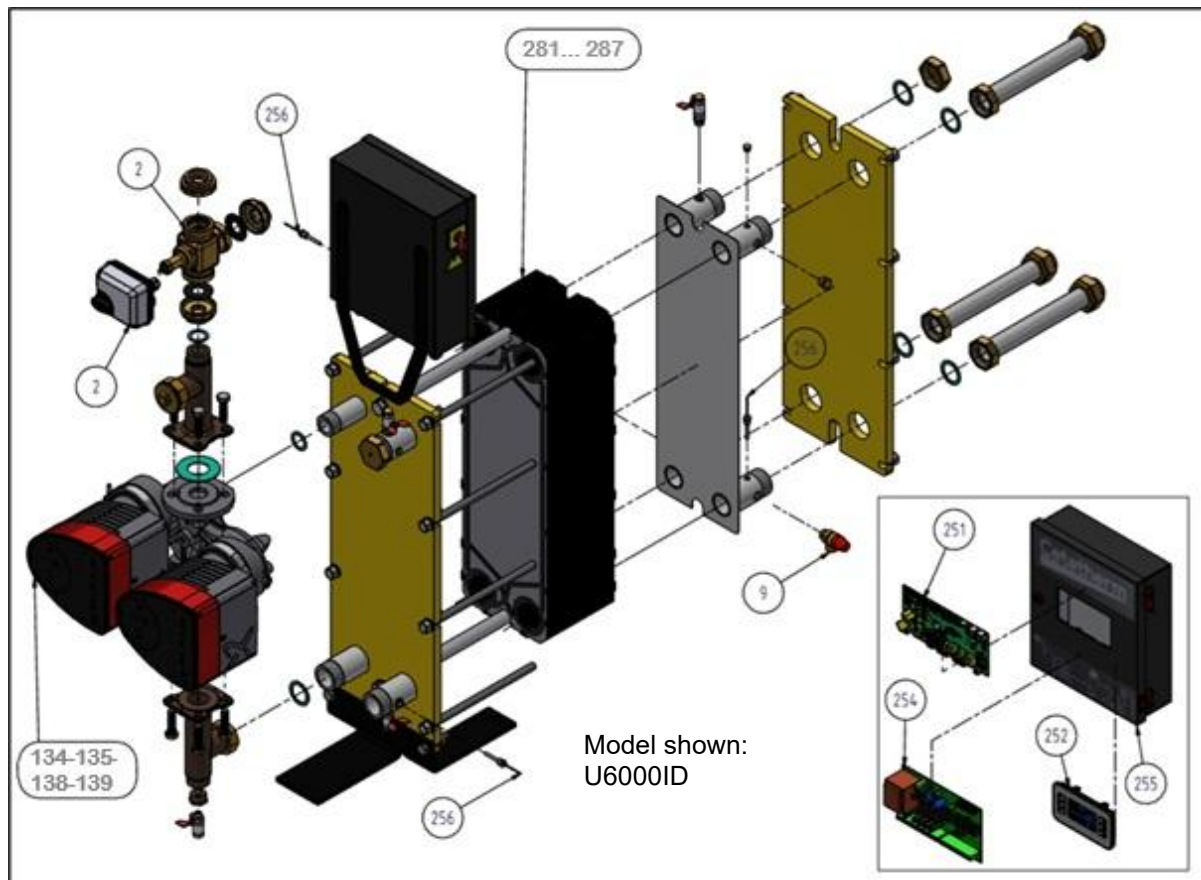


Picture 48

Rep.	Description
251	Micro 4000 Regulator
252	HMI display for Micro 4000 with RJ45 cable
254	ADE_432 interface board and connector kit
255	Empty control box
256	Micro 4000 Temperature Probe
9	Safety valve 15/21 10B
136	DN40 Single Primary Circulator 1x230V all models UCB500
137	DN40 Double Primary Circulator 1x230V all models UCB500
274	Braze Copper (CB) Exchanger 42 plates for UCB542
275	Braze Copper (CB) Exchanger 56 plates for UCB556
276	Braze Copper (CB) Exchanger 70 plates for UCB570
277	Braze Copper (CB) Exchanger 86 plates for UCB586
278	Braze Copper (CB) exchanger 110 plates for UCB5110
98	3-Way Valve Body DN40
85	Valve Motor 24V 0-10 Volt 15 Seconds

12.3 U6000 / U9000

Replace only defective parts with original parts. Contact your local Cetetherm office.



Picture 49

Rep.	Description
251	Micro 4000 Regulator
252	HMI display for Micro 4000 with RJ45 cable
253	Power ADE_430 Card
255	Empty control box
256	Micro 4000 Temperature Probe
9	Safety valve 15/21 10B
134	DN40 1*230V Single Primary Circulator for U6000
135	DN40 1*230V Double Primary Circulator for U6000
138	DN40 1*230V Single Primary Circulator for U9000
139	DN40 1*230V Double Primary Circulator for U9000
281	Complete plates pack – 21 plates
282	Complete plates pack – 29 plates
283	Complete plates pack – 45 plates
284	Complete plates pack – 59 plates
285	Complete plates pack – 63 plates
286	Complete plates pack – 73 plates
287	Complete plates pack – 85 plates
85	Valve Motor 24V 0-10 Volt 15 Seconds
98	DN40 3-way valve body
279	Screw + extension assembly kit for up to 57 plates
280	Screw + extension assembly kit for up to 85 plates

13 Commissioning Report

COMMISSIONNING REPORT			
Installation			
Tightening dimension control			
Air vent position			
Settling Pot presence on primary			
Heat source Brand, Type and Capacity			
Mixing bottle required / Presence			
Close drain valves			
Primary conformity:			
Secondary conformity:			
Accessibility of unit and components			
Configuration			
Sensors			
Pumps			
Combitherm	KITASTB		
Other			
Primary Pumps:			
Pump 1		0-10V sign:	
Pump 2		0-10V sign:	
Secondary Pumps:			
Pump 3		0-10V sign:	
Pump 4		0-10V sign:	
Control valve working		Pumps operating correctly	
Settings			
DHW secondary outlet T° setting: S1			
PID setting			
High alarm setting		Manual	
Thermal Treatment		Auto	
Type		Setting	
Eco function activation		Booster function activation	
Other functions activated			
Relay 1 function			
Relay 2 function			
Relay 3 function			
Modbus activated			
Volt free Remote contact wired or not			
Other comments:			
Identification of the unit:			
Unit ID N°	Installer / Company Name	Installation site	Date

Picture 50

14 Declaration of Conformity

PED 2014/68/EU art. 4.3, LVD, EMC, RoHS

Declaration of Conformity

Declaration of Conformity

Declaration

Declaration of Conformity

Manufacturer / Fabricant / Hersteller / Fabrikant:

Cetetherm SAS

Route du Stade ZI du Moulin, 69490 Pontcharra sur Turdine, France

- Heat exchanger unit, for heating and/or Domestic Hot Water
- Heat exchanger, domestic hot water heating system or heating circuit
- Compact district heating stations for heating and/or domestic hot water
- Heat exchanger unit, district heating system for heating water and/or domestic hot water

Products / Produits / Produkte / Producten	Models / Modèles / The Variant / The Model
URANUS BI-ETAGE	UCB100 – UCB500 – U6000 – U9000

- Above mentioned products are in article 4.3 according to PED 2014/68/EU
- The above-mentioned products are listed in Article 4.3 in accordance with the PED 2014/68/EU
- The above-mentioned products fall under Article 4.3 of the PED 2014/68/EU
- The above products are in accordance with article 4.3 of the Pressure Equipment Directive 2014/68/EU

Used directives / Directives utilisées / Angewandte Direktiv / Gebruikte richtlijnen :

- EDP 2014/68/EU
- LVD 2014/35/EU
- EMC 2013/35/EU
- RoHS 2011/65/EU

Used other standards and specifications / Autres normes et specifications utilisées / Weitere angewendete Standards / Andere gebruikte standaarden en specificaties:

- EN 60335-1 partly / EN 60335-1 en partie / EN60335-1 teilweise / EN6335-1 partly
- EN 60204-1 partly / EN 60204-1 en partie / EN 60204-1 teilweise / EN60204-1 partly

Conformity Assessment procedure:

Certification procedure:

Conformity assessment procedure:

Conformity assessment procedure :

Sound Engineering practice

Best of the art

Good engineering practice

Rules of good workmanship

Jean-Michel Montoni

Pontcharra sur Turdine, May 2026

Jean-Michel Montoni

Product Manager / Chef de produit / Bevollmächtigter / Compliance Manager

15 Guarantee

Our equipment is guaranteed for a period of 24 months from the date of shipment.

The manufacturer's liability is limited to the replacement of any defective part that cannot be repaired. No other financial compensation can be claimed under the warranty in any case.

The nature and probable cause of the defect should be reported to the manufacturer before taking any action. The defective part must then be returned to our factory in France, for evaluation, unless Cetetherm has given its written consent to proceed otherwise. The conclusions of the assessment indicate only whether or not the terms of the warranty apply.

Exclusion factors:

Non-compliance with installation, configuration and maintenance instructions:
Overpressure, water hammer, scaling, non-compliant water quality.

The following items are also excluded from the warranty:

- Installation costs, reinstallation costs, packaging, transport, any equipment or accessories not manufactured by Cetetherm, only covered by a warranty supported by third-party manufacturers.
- Any damage caused by connection errors, insufficient protection, incorrect application, improper use or careless handling.
- Equipment dismantled or repaired by a person or entity other than Cetetherm.

Failure to pay will result in the termination of all operational warranties covering the equipment provided.

How to contact Cetetherm

You can find our up-to-date contact information on our website www.cetetherm.com

Cetetherm sas
ZI du Moulin, Route du Stade
69490 Pontcharra sur Turdine
France