Installation, programming and use manual.

Hi, Comfort T300-I

Hi, Comfort T300-I is compliant with:

- Electromagnetic Compatibility Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU

These instructions are an integral part of the booklet for the appliances on which the accessory is installed. Please see this booklet for all general warnings and important safety information.

The T300-I must be installed and programmed by professionally qualified personnel.

At the end of its life, the product must not be disposed of as urban solid waste. Please take it to a waste recycling centre.

NOTE:

If the documentation is lost, a copy can be downloaded by scanning the QR code or visiting www.hi-comfort.com.

Sections for both the installer and the user

CONTENTS

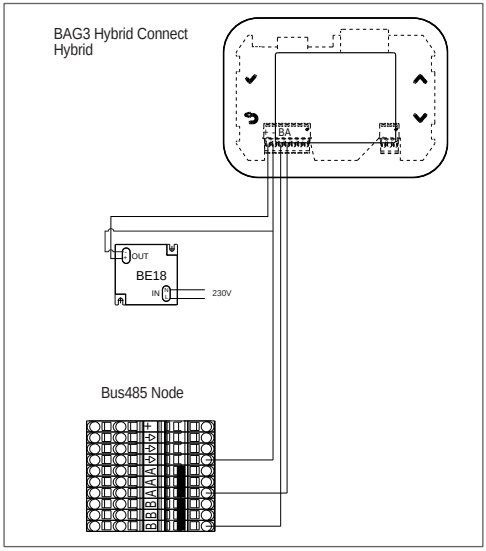
1. CONNECTION DIAGRAMS

WARNINGS

- The recommended length for the connection between T300-I and the heat pump is ≤ 30 m.
- We recommend using conductors with a wire cross-section between 0,5 and 1,0 mm^2.
- To connect the BUS 485, we recommend using shielded cable in case the signal runs near other electrical conductors or conductors at mains voltage (230V).
- The control panel connection cable should have no splices; if splices are needed, they should be tinned and properly protected.
- Any ducting of the connection cable must be separate from live cables (230 V.a.c.).

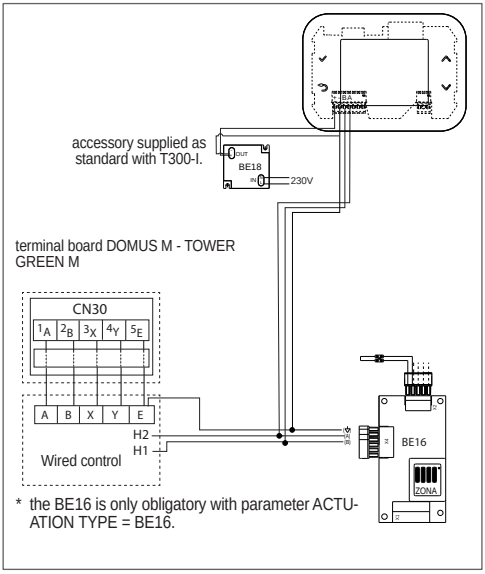
1.1 BAG3 HYBRID - CONNECT HYBRID

Connect terminals A, B, + and – (earth) of the 4 T300-I-pole connector to the 485 Bus node terminal board.



1.2 DOMUS M - TOWER GREEN M

- Connect the 230Vac power supply (F-N) to terminal IN of the BE18 power supply.
- Connect the 24Vdc power supply terminals of the 4 T300-I-pole connector to the OUT terminal of the BE18 power supply, taking care not to reverse the +/- polarity.
- connect terminals A, B and – (earth) of the 4 T300-I-pole connector to the specific terminals on the Wired control
- Connect the WIRED CONTROL TO THE HEAT PUMP.

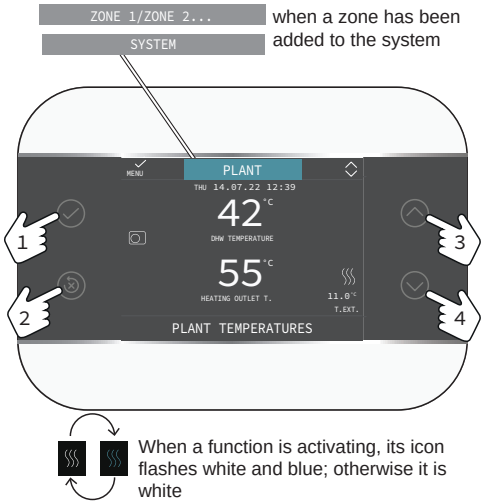


⚠ On the heat pump's remote control, it is necessary to:

- set the time, date and language when first switching on;

For further details, refer to the instruction manual of the heat pump's remote control.

2. T300-I DISPLAY AND FUNCTIONS



The T300-I touch interface, icon display and dropdown menus make the product easy to use. Use the 4 buttons described below to navigate, edit and confirm or cancel your choices.		
1		Confirm
2		Cancel selection / Return to previous screen / Return to main screen (press > 2 sec.)
3		To navigate in the submenus, change values and change pages PLANT - ZONE / E - SYSTEM
4		

ZONE 1 / ZONE...	Shown when one or more zones have been added in addition to the main zone.
	Operating status OFF. Any request to switch on is ignored except for the anti-freeze function.
	HEATING AND HOT WATER operating mode (HEATING function active). The icon flashes if a heating request is in progress from a zone.
	COOLING function active. The icon flashes if a cooling request is in progress from a zone.
	When the “heating hourly programme” function is enabled, this icon indicates that the relative zone is heated according to the set hourly programme (AUTO mode). If we are outside the heating activation time slots, the icon is crossed out.
	When the “heating time programme” function is enabled, this icon indicates that the relative zone is NOT being heated according to the set time programme but is instead always active (MANUAL mode).
	These icons indicate that the relative zone is NOT being heated according to the set time programme. Heating is in MANUAL mode until the next time slot change.
OFF	This icon indicates that the zone, when the “heating time programme” function is not enabled, has been set to HEAT OFF (not active).
	This icon indicates that heat pump management is enabled. When the heat pump is in operation, the icon flashes.
	Fault detected

	Only with a combi boiler: this icon indicates the presence of a storage tank and a heat pump enabled for domestic hot water. The icon is crossed out when the system operates outside the heat pump's activation time slots for DHW, while it flashes when the heat pump is in operation to fill the storage tank. The letter B above the boiler icon indicates the DHW BOOST function is enabled.

The configuration MENU is organised in a multi-level tree structure.

- The TECHNICAL level is password-protected as it contains parameters inaccessible to the end user.

3. GENERAL INFORMATION

The T300-I is the system's user interface and can also be used to control the temperature in the room where it is installed. See the specific section on usage as an ambient controller.

1) Operation as a machine interface

In this use mode, the user interface allows the operation of the system components to be managed.
In this case, the heating and cooling requests are managed using an external ambient thermostat or a room sensor (accessories to be purchased separately) as indicated in the SYSTEM DIAGRAMS with the addition of the dedicated accessory for zone control.

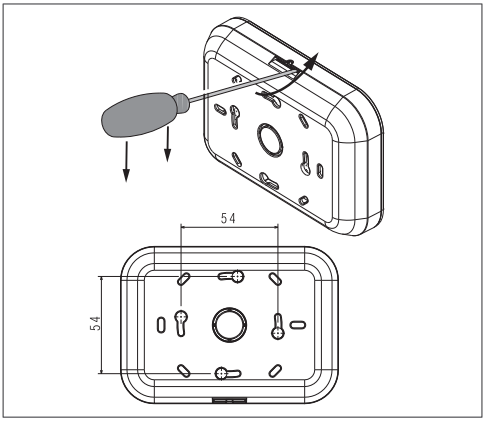
2) Operation as MACHINE INTERFACE + room temperature control

In this use mode, in addition to the system interface functions, the T300-I is also able to control the temperature of the room in which it is installed. Refer to the SYSTEM DIAGRAMS.
As such, refer to the specific paragraphs based on the function performed by the user interface.

After powering on, the room sensor requires a stabilisation time of about 20 minutes. During this time, the ambient temperature displayed on the T300-I may not be correct.

WARNINGS

- The user interface must be installed in the room that is most accessible to you for controlling the ambient temperature.
- For easy reading, the user interface must be installed 1,5 above floor level as required by regulations.
- The user interface is powered by low voltage.
- The user interface must be kept away from heat sources or drafts: these can compromise the accuracy of the readings from the room thermostat built into the panel.



Do not fully insert the screwdriver to avoid causing electrical damage or problems with the display.

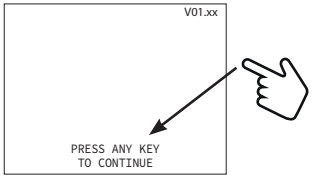
- Do not open the panel for any reason: it does not require any maintenance.
- Do not exert pressure on the liquid crystal display, as this could damage the glass and cause display issues.
- Use a dry cloth only to clean the display: any infiltration could damage the liquid crystal.

4. INITIAL SETTINGS

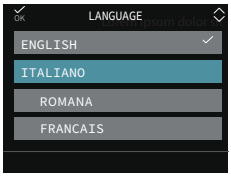
The first power-up must be performed by authorised personnel from an authorised service centre.

Before use, ensure that all parts of the system are connected and powered.

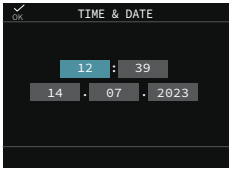
The display will show the start page:

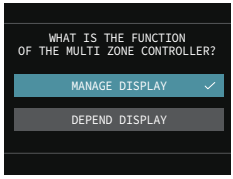


and will then ask for the LANGUAGE - TIME & DATE and the system type to be set



The default language set on the system is ENGLISH. Select your desired language.





After selecting the MANAGE DISPLAY option, wait a few seconds for the T300-I to prepare for operation.

To configure the T300-I SLAVE, select DEPEND DISPLAY mode.

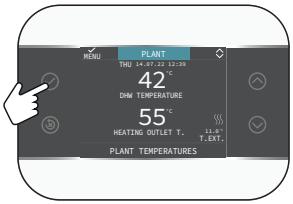
5. NAVIGATING INSIDE THE T300-I

Summary of button functionality		
1		Confirm
2		Cancel selection / Return to previous screen / Return to main screen (press > 2 sec.).
3		To navigate in the submenus, change values and change pages PLANT - ZONE / E - SYSTEM
4		

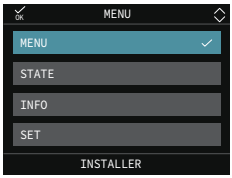
5.1 SETTING THE PASSWORD

To access the password setting screen (installer and service) from the main screen:

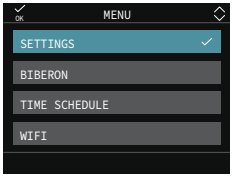
- press and access MENU;



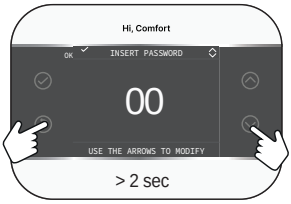
- Select



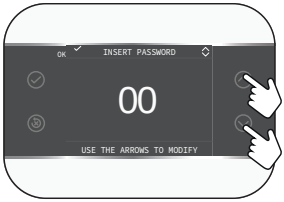
MENU
└ SETTINGS



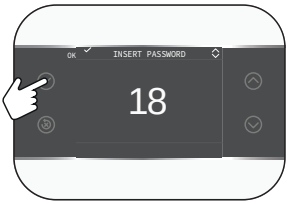
Press and hold buttons and simultaneously to enter the password menu (about 5 secs).



Use the and buttons to set the desired password (INSTALLER - 18 or SERVICE).



Press to confirm.



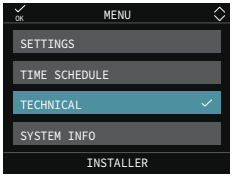
The password-protected parameters are intended solely for qualified technicians. The manufacturer is not responsible for damage caused by improper access/modification of such parameters by the end user.

5.2 ACCESSING A TECHNICAL

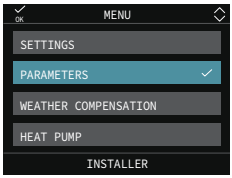
- Select

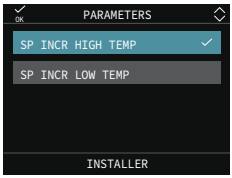
  MENU
  └── TECHNICAL

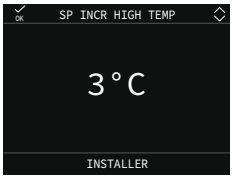
using the buttons as indicated in the summary table



Choose a menu item.
Example PARAMETERS

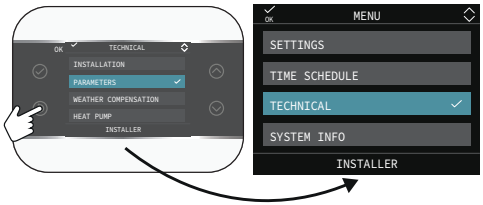






5.3 RETURNING TO PREVIOUS SCREEN - CANCELLING A SELECTION

it is possible to return to the previous screen or cancel a selection by pressing ⊗:



5.4 RETURNING TO MAIN SCREEN

it is possible to return to the main screen at any time by holding down ⊗ for at least 2 sec.

NOTE:

The parameters in the TECHNICAL menu are accessible after setting the password. Refer to the T300-I technician menu, “Access level” column to find out the type of password to be set: INSTALLER 18 or SERVICE.

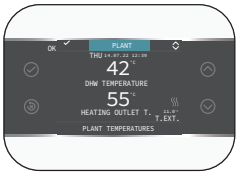
In the paragraphs below, the need to set the password is highlighted by the pictogram.

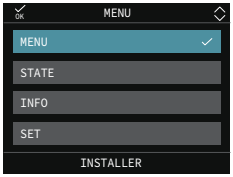
which indicates the need to follow the procedure described in paragraph "5.1 Setting the password" pag. 9.

5.5 T300-I

T300-I with the integrated gateway connects to the home router to access the Internet and use the Hi, Comfort app.
Type in www.hi-comfort.com or scan the QR code

to access the app page and download the Hi, Comfort app from APP STORE and GOOGLE PLAY.
On the main screen, press ✓ to access MENU:





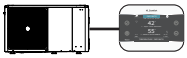
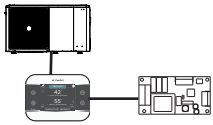
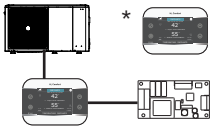
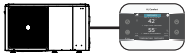
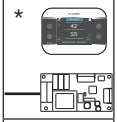
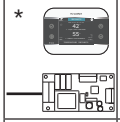
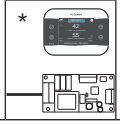
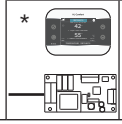
and then

MENU
└ WIFI

The following parameters are available:

WIFI SERIAL	shows the Wi-Fi ID
WIFI INFO	indicates the Wi-Fi signal percentage
WIFI NOME	(when connected) indicates the name of the connected network
WIFI AP MODE	answer the question "Are you activating AP Mod?" to generate a local Wi-Fi network to pass the home Wi-Fi credentials to.

6. T300-I

	MAIN ZONE ACTUATION TYPE= HP REQUEST TYPE= T300-I MASTER The MAIN ZONE (direct type) is managed by the HP	MAIN ZONE + ZONE 1 and ZONE 2 MANAGED BY BE16 MAIN ZONE: ACTUATION TYPE= BE16 REQUEST TYPE= T300-I MASTER ZONE 1 and ZONE 2: - ACTUATION TYPE: BE16 - REQUEST TYPE: T300-I SLAVE The MAIN ZONE and ZONE 1 and ZONE 2 are managed with BE16 with the possibility of managing zone DIRECT ZONE / MIXING ZONE with a pump.	MAIN ZONE + ZONE 1 and ZONE 2 MANAGED BY BE16 MAIN ZONE: ACTUATION TYPE= BE16 REQUEST TYPE= T300-I SLAVE ZONE 1 and ZONE 2: - ACTUATION TYPE: BE16 - REQUEST TYPE: T300-I SLAVE The MAIN ZONE and ZONE 1 and ZONE 2 are managed with BE16 with the possibility of managing zone DIRECT ZONE / MIXING ZONE with a pump.	MAIN ZONE + ZONE 1 MANAGED BY HP MAIN ZONE: ACTUATION TYPE= HP REQUEST TYPE= THER-MOSTAT ZONE 1: - ACTUATION TYPE: HP - REQUEST TYPE: T300-I SLAVE The MAIN ZONE and ZONE 1 are managed directly by the heat pump.
		MAIN ZONE = MIXING ZONE or DIRECT ZONE ZONE 1 = MIXING ZONE or DIRECT ZONE ZONE 2 = MIXING ZONE or DIRECT ZONE Max 3 zones including main zone	MAIN ZONE = MIXING ZONE or DIRECT ZONE ZONE 1 = MIXING ZONE or DIRECT ZONE ZONE 2 = MIXING ZONE or DIRECT ZONE Max 3 zones including main zone	MAIN ZONE = DIR ZONE 1 = MIX
MAIN ZONE				
ZONE 1				
ZONE 2				

To manage up to 7 zones, refer to the T200 manual;
* T300-I SLAVE

7. T300-I

MENU	Factory-set default value	Minimum value	Maximum value	Notes
TECHNICAL				INSTALLER
INSTALLATION				INSTALLER
ZONES MANAGER				INSTALLER
MODIFY ZONE	MAIN	MAIN / ZONE...		INSTALLER
ACTUATION TYPE	BE16 / HP	HP / BE16 / T200		INSTALLER main zone only
REQUEST TYPE	THERMOSTAT	THERMOSTAT TEMPERATURE SENSOR (only if ACTUATION TYPE = BE16) T300-I MASTER - T300-I SLAVE - RF		INSTALLER
BE16 ADDRESS	--	1	6	INSTALLER: only zones with ACTUATION TYPE =BE16
HYDRAULIC CONF	DIRECT ZONE	DIRECT ZONE	MIXING ZONE	INSTALLER: only zones with ACTUATION TYPE =BE16
ZONE TYPE	HIGH TEMP	HIGH TEMP	LOW TEMPERATURE	INSTALLER
MIN CH SET	25°C	25°C	MAX CH SET	INSTALLER
MAX CH SET	65°C (AT) 45°C (BT)	MIN CH SET	65°C	INSTALLER
CHANGE NAME				INSTALLER
PI - PROPORTIONAL	5	0	99	SERVICE: mix zones only with ACTUATION TYPE = BE16
PI - INTEGRAL	10	0	99	SERVICE: mix zones only with ACTUATION TYPE = BE16
VALVE RUN	120 sec	0 sec	240 sec	SERVICE: mix zones only with ACTUATION TYPE = BE16
CLOSING AT POWER ON	140 sec	0 sec	240 sec	SERVICE: mix zones only with ACTUATION TYPE = BE16
OUTLET OVER	55°C	0°C	100°C	SERVICE: BT zones only with ACTUATION TYPE = BE16
OUTLET OVER TEST TIME	0min	0min	240min	SERVICE: BT zones only with ACTUATION TYPE = BE16
OUTLET OVER WAIT TIME	2min	VALVE RUN	240min	SERVICE: BT zones only with ACTUATION TYPE = BE16
OUTLET OVER REST TIME	2min	0min	240min	SERVICE: BT zones only with ACTUATION TYPE = BE16
FREEZE PROT TEMP	6°C	-10°C	50°C	SERVICE: only zones with ACTUATION TYPE = BE16
FREEZE PROT OFFSET	5°C	1°C	20°C	SERVICE: only zones with ACTUATION TYPE = BE16
FREEZE PROT T EXT	10°C	0°C	100°C	SERVICE: only zones with ACTUATION TYPE = BE16
POR	0	0	1	INSTALLER not available if REQUEST TYPE T300-I MASTER or room sensor
RF	PAIRING (coupling)/ LEAVE (decoupling)			INSTALLER only available if ACTUATION TYPE = T200 or REQUEST TYPE = RF
DELAY START HEATER	20 sec	0sec	600sec	INSTALLER only available if ACTUATION TYPE = T200
CH HYST ON	0.5	0.1	2.0	INSTALLER (not available if REQUEST TYPE = THERMOSTAT)
CH HYST OFF	0.5	0.1	2.0	INSTALLER (not available if REQUEST TYPE = THERMOSTAT)
COOL HYST ON	0.5	0.1	2.0	INSTALLER (not available if REQUEST TYPE = THERMOSTAT)
COOL HYST OFF	0.5	0.1	2.0	INSTALLER (not available if REQUEST TYPE = THERMOSTAT)
ADD ZONE				INSTALLER
DELETE ZONE (if more than 1 zone)				INSTALLER
SENSOR CALIBRATION	0.0°C	- 6.0°C	6.0°C	INSTALLER
SYSTEM RESET				INSTALLER
PARAMETERS				INSTALLER
SP INCR HIGH TEMP	0°C	0°C	10°C	SERVICE if at least one AT zone
SP INCR LOW TEMP	0°C	0°C	6°C	SERVICE if at least one BT zone

MENU	Factory-set default value	Minimum value	Maximum value	Notes
DECR COOLING SP	0°C	0°C	10°C	SERVICE if cooling active
WEATHER COMPENSATION				INSTALLER
CLIMATIC CURVES	MAIN	MAIN / ZONE...		INSTALLER
FIXED SET POINT	65°C	MIN CH SET	MAX CH SET	INSTALLER when thermoregulation not enabled
NIGHT COMP	FUNCTION NOT ACTIVE	FUNCTION NOT ACTIVE	FUNCTION ACTIVE	INSTALLER when thermoregulation enabled
CURVE SLOPE	2.0	1.0	3.0	INSTALLER: REQUEST TYPE TA and AT zone type
	0.4	0.2	0.8	INSTALLER: REQUEST TYPE TA and BT zone type
	2.0	0.1	5.0	INSTALLER: if REQUEST TYPE room sensor, T300-I or T200
AMBIENT INFLUENCE	10	0	20	INSTALLER: if REQUEST TYPE room sensor, T300-I or T200
OFFSET	20°C	20°C	40°C	INSTALLER: if REQUEST TYPE room sensor, T300-I or T200
COOLING	18°C	4°C	25°C	INSTALLER
COOLING CURVE	1	1	2	INSTALLER: if cooling curves activated
BUILDING TYPE	5min	5min	20min	INSTALLER
OUTDOOR REACTIVITY	20	0	255	INSTALLER
ENABLE HEATING CURVES / DISABLE HEATING CURVES				INSTALLER
ENABLE COOLING CURVES / DISABLE COOLING CURVES				INSTALLER: if HP enabled for COOLING
ANTILEGIONELLA				INSTALLER
ACTIVATE FUNCTION / DEACTIVATE FUNCTION	DEACTIVATE FUNCTION	DEACTIVATE FUNCTION	ACTIVATE FUNCTION	
ANTILEGIO TEMP	70°C	55°C	70°C	INSTALLER: if ANTILEGIONELLA function active
MAX TIME	210min	90min	300min	Only if ANTILEGIONELLA function active
HIGH T TIME	15min	5min	60min	Only if ANTILEGIONELLA function active
DHW PUMP RETURN	0	0	1	Only if ANTILEGIONELLA function active
WATER TANK HP				INSTALLER
WATER TANK SETPOINT	50°C	20°C	60°C	INSTALLER
TANK FROST PROTECT	7°C	0°C	100°C	SERVICE
TANK FR PROT OFFSET	5°C	1°C	20°C	SERVICE
DHW BOOST	0	0	1	INSTALLER
HEAT PUMP				INSTALLER
ENABLE COOLING / DISABLE COOLING	DEACTIVATE FUNCTION	FUNCTION ACTIVE	DEACTIVATE FUNCTION	INSTALLER
ENABLE NIGHT REDUCT / DISABLE NIGHT REDUCT	FUNCTION NOT ACTIVE	FUNCTION ACTIVE	FUNCTION NOT ACTIVE	SERVICE
REDUCED FREQUENCY	0	0	1	INSTALLER If ENABLE NIGHT REDUCT
NIGHT MODE START TIME	20:00	00:00	23:30	INSTALLER If ENABLE NIGHT REDUCT
NIGHT MODE STOP TIME	09:00	00:00	23:30	SERVICE: if night-time reduction active
WARNING VALIDATION	60sec	1sec	300sec	INSTALLER
ZONE PUMP DELAY	0 sec	0 sec	255 sec	SERVICE: only zones with ACTUATION TYPE =BE16
ENABLE ERROR HISTORY (in the first 2 hours of power-on)				SERVICE
ERROR HISTORY (if 2 operating hours have elapsed)				INSTALLER
SYSTEM INFO				SERVICE

8. INSTALLATION TECHNICIAN MENU

8.1 ZONES MANAGER

This menu is used to programme zone parameters.
The main zone is already loaded on the system by default, so if only one zone is being set up only the relative parameters need to be set.
If other zones are to be included in the system, a supplementary zone must be added.
To add a supplementary zone:

Select:

MENU
└ TECHNICAL
└ INSTALLATION
└ ZONES MANAGER
└ ADD ZONE

- assign a name to the new zone by scrolling through the letters on the graphical keyboard using buttons ⌃ and ⌄. Then confirm with ✓.

Then set up the heating zones

└ ZONES MANAGER
└ MODIFY ZONE

by setting the following parameters:

ACTUATION TYPE

System requests can be managed as follows:

1) If ACTUATION TYPE

HP
└ REQUEST TYPE
└ THERMOSTAT / T300-I MASTER / T300-I SLAVE / RF

2) If ACTUATION TYPE

BE16
└ REQUEST TYPE
└ THERMOSTAT / TEMPERATURE SENSOR / T300-I MASTER / T300-I SLAVE / RF

3) If ACTUATION TYPE

T200
└ REQUEST TYPE
└ RF (not changeable)

REQUEST TYPE (only if ACTUATION TYPE different from T200)

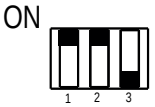
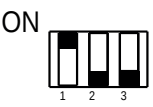
To specify the type of heat request, you can choose one of the following options:

- THERMOSTAT: the heat request is generated with an ON/OFF thermostat;
- TEMPERATURE SENSOR only if ACTUATION TYPE= BE16): the heat request is generated by a room sensor;
- T300-I MASTER: the heat request is generated by the T300-I MASTER; in this case the T300-I assumes the dual function of MACHINE INTERFACE and regulator AMBIENT - see paragraph "12. T300-I as AMBIENT CONTROLLER" pag. 30;
- T300-I SLAVE: the heat request is generated by the T300-I SLAVE.
- RF: the heat request is generated by the T200.

If ACTUATION TYPE = T200 parameter REQUEST TYPE is forced by the system to RF and cannot be changed.

BE16 ADDRESS

(only if ACTUATION TYPE = BE16. See point 2).
To define the physical address of board BE16 associated with the zones, which must be set in order for the system to operate correctly.
Set the parameter according to the following diagram:

MAIN ZONE	ZONE 1
	

HYDRAULIC CONFIGURATION

(only if ACTUATION TYPE = BE16).
To specify the hydraulic configuration of the zone in question, you can choose one of the following options:

- DIRECT ZONE (factory setting)
- MIXING ZONE.

ZONE TYPE

To specify the type of zone to heat, you can choose one of the following options:

- HIGH TEMP (factory setting);
- LOW TEMPERATURE.

MIN CH SET

This parameter specifies the minimum admissible HEATING setpoint (range 25°C - 65°C, default 25°C for high temperature systems - range 25°C - 45°C, default 25°C for low temperature systems).

NOTE:

MIN CH SET < MAX CH SET.

MAX CH SET

This parameter specifies the maximum admissible HEATING setpoint (range 25°C-65°C, default 65°C for high temperature systems - range 25°C-45°C, default 45°C for low temperature systems).

NOTE:

MAX CH SET > MIN CH SET

CHANGE NAME

To assign a specific name to the heating zone.

PI - PROPORTIONAL

Weight of the proportional action of the PID control for the mixing valve MIXING ZONE.

PI - INTEGRAL

Weight of the integral action of the PID control for the mixing valve MIXING ZONE.

VALVE RUN

Mixer valve closure time.

CLOSING AT POWER ON

Mixing valves closure time at power on.

OUTLET OVER

Value of the delivery temperature in the zone beyond which the system shuts down the pump related to the zone.

OUTLET OVER TEST TIME

Time after which the system shuts down the pump related to the zone, after the delivery temperature in the zone has exceeded the OUTLET OVER value.

OUTLET OVER WAIT TIME

Time for which the pump stays off after the delivery temperature in the zone has exceeded the OUTLET OVER value.
After this time, the pump is reactivated.

OUTLET OVER REST TIME

Time after which the control cycle reactivates, after the pump has been reactivated due to OUTLET OVER temperature exceeded.

FREEZE PROT TEMP

Zone delivery temperature below which, if ZONE DELIVERY < FREEZE PROT TEMP, the zone anti-freeze function activates.

FREEZE PROT OFFSET

Offset value to be considered on the anti-freeze temperature to deactivate the zone anti-freeze function.

FREEZE PROT T EXT

Outdoor temperature below which, if OUTDOOR TEMP < FREEZE PROT T EXT, the zone anti-freeze function activates.

The ZONE DELIVERY parameter is displayed differently depending on the zone:

MAIN ZONE OUTLET	Main zone
ZONE 1 OUTLET	Zone 1
ZONE 2 OUTLET	Zone 2

POR

To enable heating time programming for the zone in question

- **Time programming not enabled = 0.**
  When the room thermostat is on call, the heat request is always met without time limitation.
- **Time programming enabled = 1.**
  When the room thermostat is on call, the heat request is enabled according to the set time programming.

NOTE:

ensure in this case that the operating mode of the zone is set to AUTO.

RF

When ACTUATION TYPE = T200 or REQUEST TYPE = RF, the heat request is generated by a temperature sensor connected via radio frequency to the T300-I (device Hi, Comfort T200).
Use the RF command to complete the association between the two devices:

- PAIRING (coupling) to request the coupling of the T300-I to the radio device;
- LEAVE (decoupling) to remove the coupling of the T300-I to the radio device.

Complete the PAIRING / LEAVE operations on the T200 device (refer to the relevant instruction manual).

DELAY START HEATER

When ACTUATION TYPE = T200, this parameter is used to set the delay in seconds with which T300-I processes the heat request generated by T200 to allow the complete opening of the relevant zone valve.

CH HYST ON

Through the value of this parameter, it is possible to set the temperature offset to be subtracted from the heating setpoint for activating the heating request.

CH HYST OFF

Through the value of this parameter, it is possible to set the temperature offset to be added to the heating setpoint for deactivating the heating request.

COOL HYST ON

Through the value of this parameter, it is possible to set the temperature offset to be added to the cooling setpoint for activating the cooling request.

COOL HYST OFF

Through the value of this parameter, it is possible to set the temperature offset to be subtracted from the cooling setpoint for deactivating the cooling request.

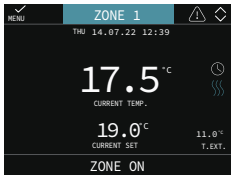
8.1.1 ZONE DEACTIVATION

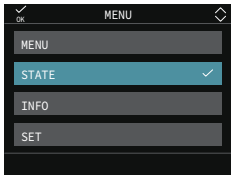
To deactivate a zone, select it with buttons ⌃ and ⌄, then indicate the season in which you wish to deactivate the zone

MENU
└ STATE
└ SYSTEM
└ HOT WATER ONLY or HEATING AND HOT WATER

and subsequently indicate:

MENU
└ STATE
└ HEAT OFF





8.2 SENSOR CALIBRATION

When the T300-I is also used as an AMBIENT CONTROLLER, it may make sense to calibrate its ambient temperature sensor.

Select

MENU
└ TECHNICAL
└ INSTALLATION
└ SENSOR CALIBRATION

set the desired ambient temperature correction offset.

SYSTEM RESET

The system configuration operations must be carried out by professionally qualified personnel from the technical support service.

Factory settings can be restored when necessary by resetting the system:

Select

MENU
└TECHNICAL
└INSTALLATION
└SYSTEM RESET

NOTE:

After resetting, the system must be configured again. The T300-I will display a series of screens to allow you to set up

- TIME & DATE
- LANGUAGE
- MANAGE DISPLAY or DEPEND DISPLAY

8.3 PARAMETERS

MENU
└TECHNICAL
└PARAMETERS

The following parameters are available:

- SP INCR HIGH TEMP
  offset to be applied to the delivery setpoint when a heat request for heating comes from high temperature systems.
- SP INCR LOW TEMP
  offset to be applied to the delivery setpoint when a heat request for heating comes from low temperature systems.
- DECR COOLING SP
  Allows for the introduction of a programmable negative offset on the zone cooling setpoint calculated before it is sent to the heat pump.

8.4 SETTING HEATING THERMOREGULATION

Select

MENU
└TECHNICAL
└WEATHER COMPENSATION

Thermoregulation in HEATING can operate at a fixed point even with an external sensor connected.
The temperature value detected by the external sensor is displayed on the main screen at the bottom right.
When thermoregulation is enabled, the algorithm for the automatic calculation of the delivery setpoint depends on the type of heat request.
In any case, the thermoregulation algorithm will not directly use the measured outdoor temperature value, but rather a calculated outdoor temperature value that takes the building insulation into account: in well-insulated buildings, variations in outdoor temperature have less influence on the ambient temperature compared to those that are less insulated.

Through the T300-I, it is possible to set the desired climatic curve and adjust the related parameters:

MENU
└TECHNICAL
└WEATHER COMPENSATION
└CLIMATIC CURVES

CLIMATIC CURVES
FIXED SET POINT

Heating zone delivery setpoint when thermoregulation not enabled.

NIGHT COMP

Parameter for enabling continuous heating request with night compensation when thermoregulation is enabled and ambient temperature control is not enabled (i.e. when REQUEST TYPE = TA).

CURVE SLOPE

Curve slope value used in the thermoregulation algorithm to calculate the heating delivery setpoint when the external sensor is connected.

AMBIENT INFLUENCE

Influence of the difference between “desired ambient temperature” and “measured ambient temperature” in the thermoregulation algorithm when the external sensor is connected and ambient temperature control is enabled (i.e. when REQUEST TYPE = T300-I or T200).

OFFSET

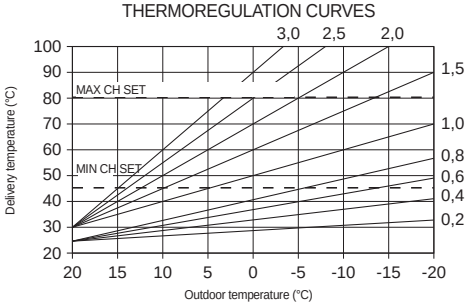
Value to be added to the heating delivery setpoint calculated by the thermoregulation algorithm when ambient temperature control is enabled (i.e. when REQUEST TYPE = T300-I or T200).

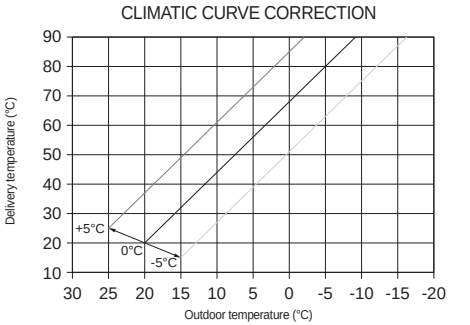
BUILDING TYPE

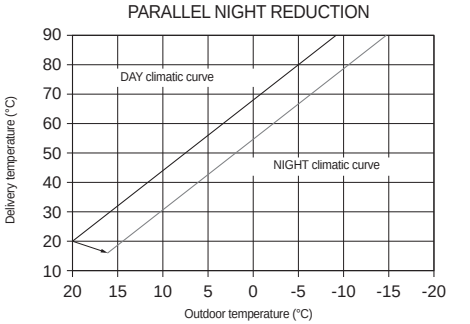
is indicative of the frequency with which the outdoor temperature value calculated for thermoregulation is updated.
A low value is used for poorly insulated buildings.

OUTDOOR REACTIVITY

is indicative of the speed at which variations in the measured outdoor temperature influence the calculated outdoor temperature for thermoregulation.
Low values indicate high speeds.







8.4.1 REQUEST FROM ROOM THERMOSTAT

In this case, the delivery setpoint depends on the outdoor temperature value to achieve a reference temperature in the room of 20°C.
There are 2 parameters that contribute to the calculation of the delivery setpoint:

- Slope of the compensation curve (KT);
- Offset on the reference ambient temperature.

CHOOSING THE COMPENSATION CURVE

The heating compensation curve ensures a theoretical temperature of 20°C in the room at outdoor temperatures ranging from +20°C to –20°C. The choice of curve depends on the minimum project outdoor temperature (and thus the geographical location) and the project delivery temperature (and thus the type of system) and must be carefully calculated by the installer, using the following formula:

$$KT = \frac{\text{Project delivery T.} - \text{Tshift}}{20 - \text{Min. project outdoor T}}$$

Tshift = 30°C standard systems
Tshift = 25°C standard systems

If the calculation results in an intermediate value between two curves, it is advisable to choose the compensation curve closest to the obtained value.
Example: if the value obtained from the calculation is 1.3, it lies between curve 1 and curve 1.5. In this case, choose the closest curve, i.e. 1.5.
The KT values that can be set are as follows:

- standard system: 1,0÷3,0
- underfloor system 0,2÷0,8.

OFFSET ON THE REFERENCE AMBIENT TEMPERATURE

The user can still indirectly alter the HEATING setpoint value by entering an offset on the reference temperature value within the range -5 ÷ +5 (offset 0 = 20°C).

NIGHT COMP

MENU
└TECHNICAL
└WEATHER COMPENSATION
└CLIMATIC CURVES
└MAIN

If a timer is connected to the ROOM THERMOSTAT input, the NIGHT COMP function can be enabled from the path indicated above.

In this case, when the CONTACT is CLOSED, the heat request is made by the delivery sensor, based on the outdoor temperature, to achieve a nominal temperature in the room at DAY level (20°C).

THE OPENING OF THE CONTACT does not determine HEAT OFF, but instead reduces (parallel translation) the climatic curve on the NIGHT level (16°C).
Here too, the user can indirectly alter the HEATING setpoint value by entering an offset on the reference DAY (20°C) or NIGHT (16°C) temperature value within the range [-5 ÷ +5].

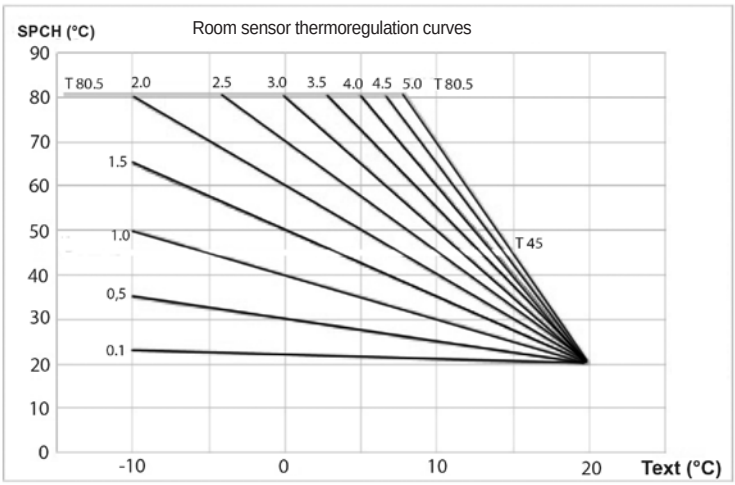
8.4.2 REQUEST FROM T300-I MASTER OR T300-I SLAVE OR RF OR WIRED ROOM SENSOR

In this case, the delivery setpoint depends on the outdoor temperature and the ambient temperature.
There are 3 parameters that contribute to the calculation of the delivery setpoint:

- CURVE SLOPE;
- AMBIENT INFLUENCE;
- OFFSET;

as set out in the following formula

$$SP_{Delivery} = \left\{\left\{\left[(SP_{Amb}-T_{Amb})\bullet Infl_{Amb}\right] + T_{Amb}\right\} - T_{Ext}\right\}\bullet Elbow + Offset$$



SPAmb: 20°C
Offset: 20°C
Ambient influence: 0

SPCH: delivery setpoint
Text: external temperature
SPAmb: ambient setpoint

Legend	Description
$SP_{Delivery}$	Delivery setpoint
SP_{Amb}	Ambient setpoint
T_{Amb}	Ambient temperature
$Infl_{Amb}$	Ambient influence (KORR)
T_{ext}	Outdoor temperature
Elbow	Climatic curve
Offset	Offset

⚠ The above parameters are visible in the technician menu - thermoregulation - climatic curves and heating only if an external sensor is connected.

CURVE SLOPE

The T300-I calculates the delivery temperature based on the climatic curve set in parameter “CURVE CHOICE”.
As the set value increases, the slope of the climatic curve increases, consequently the delivery temperature rises.
The function uses the outdoor temperature as its input parameter (x-axis).

AMBIENT INFLUENCE (KORR)

Weather compensation with ambient influence is used to correct the value calculated by the climatic curve, taking into account the temperature difference between the ambient setpoint and the room sensor.
By increasing the parameter towards maximum, the influence of the setpoint deviation on the control is increased.

OFFSET

Value to be added to the heating delivery setpoint calculated by the thermoregulation algorithm.

8.5 SETTING DELIVERY TEMPERATURE FOR ZONES IN COOLING (IF HEAT PUMP IS ACTIVATED IN COOLING)

Thermoregulation in COOLING can operate at a fixed point even with an external sensor connected.
To activate/deactivate the thermoregulation curves in cooling

and then

MENU
└ TECHNICAL
  └ WEATHER COMPENSATION
    └ ENABLE COOLING CURVES / DISABLE COOLING CURVES

If the thermoregulation curves in cooling are deactivated, the system operates at a fixed point.
If the thermoregulation curves in cooling are activated, the delivery setpoint in cooling is automatically calculated according to an algorithm that takes account of the set climatic curve and the measured outdoor temperature. Bear in mind that, as for heating, the thermoregulation algorithm for cooling will not directly use the measured outdoor temperature value, but rather a calculated outdoor temperature value that takes the building insulation into account.

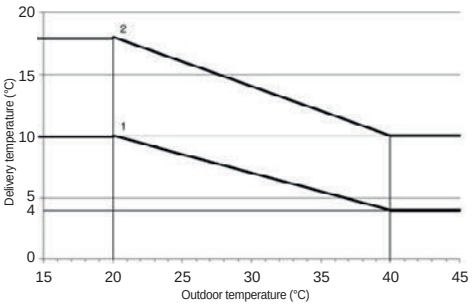
NOTE:

The value of the calculated outdoor temperature used by the thermoregulation algorithm can be viewed in the INFO menu under FILTERED OUTDOOR TEMP.

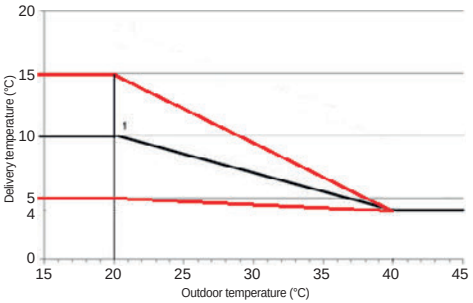
OFFSET ON THE CALCULATED DELIVERY TEMPERATURE

The user can still directly alter the calculated COOLING setpoint value by changing the slope of the curve (climatic curve correction graphs 1-2), entering an offset within range -5 ÷ +5, which is added to the maximum cooling setpoint envisaged by the curve.

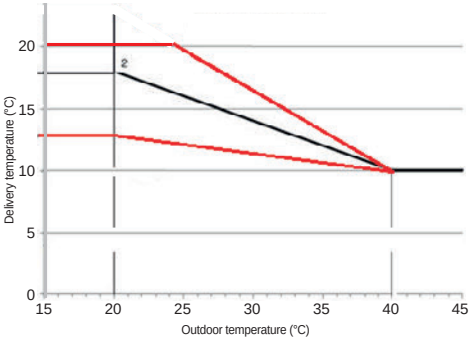
COOLING CURVE



CLIMATIC CURVE CORRECTION 1



CLIMATIC CURVE CORRECTION 2



8.6 WATER TANK HP

MENU
└ TECHNICAL
└ BOLLITORE PDC

WATER TANK SETPOINT

The parameter allows you to set the temperature of the hot water stored in the storage tank; the temperature is reached by the heat provided by the heat pump.

TANK FROST PROTECT

If the BOILER SENSOR < TANK FROST PROTECT, a DHW request is sent to the heat pump until the DHW temperature stored in the storage tank is >TANK FROST PROTECT + TANK FR PROT OFFSET.
T300-I displays the scrolling message “TANK FROST PROTECTION IN PROGRESS”.

TANK FR PROT OFFSET

Settable difference from the TANK FROST PROTECT value to exit the function.

DHW BOOST

This parameter allows you to activate the DHW BOOST function.

8.7 HEAT PUMP

MENU
└HEAT PUMP

ENABLE COOLING / DISABLE COOLING

This parameter allows you to activate/deactivate the cooling operation of the heat pump.

ENABLE NIGHT REDUCT

This parameter is used to reduce the noise of the heat pump by limiting the maximum operating frequency of the compressor during the time slot set in parameters NIGHT MODE START TIME and NIGHT MODE STOP TIME.

REDUCED FREQUENCY (IF ENABLE NIGHT REDUCT)

This parameter is available after having activated the night-time reduction and allows two reduction levels to be set.

NIGHT MODE START TIME (IF ENABLE NIGHT REDUCT)

This parameter is used to set the start time of the frequency limitation period of the heat pump compressor when the night reduction function is enabled.

NIGHT MODE STOP TIME (IF ENABLE NIGHT REDUCT)

This parameter is used to set the end time of the frequency limitation period of the heat pump compressor when the night reduction function is enabled.

WARNING VALIDATION

This parameter is used to set the validation time for heat pump alarm status before it is signalled by the T300-I

ZONE PUMP DELAY

This parameter allows you to set a delay for the BE16's pump to start following the heat request.

8.8 ANTILEGIONELLA

MENU
└TECHNICAL
└ANTILEGIONELLA

The system has an automatic ANTILEGIONELLA function, which activates so as to destroy any bacterial growth in the domestic hot water tank.
See the heat pump manual for further information.

Parameters ANTILEGIONELLA.

- FUNCTION NOT ACTIVE, the function is not performed.
- ANTILEGIO TEMP is the anti-legionella temperature, the default value is 70°C.

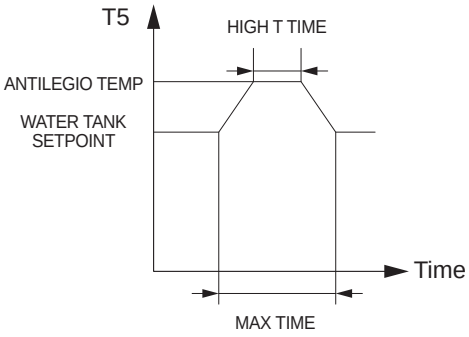
NOTE:

Recommended temperature setting of 60°C where there is no heating element.

- MAX TIME indicates the total duration of the ANTILEGIONELLA operation.
  Set to a higher value that HIGH T TIME.
- HIGH T TIME indicates the maximum time for which the ANTILEGIO TEMP is maintained.

Table B	
ANTILEGIO TEMP	cycle duration
ANTILEGIO TEMP < 58°C	180min
58°C < ANTILEGIO TEMP < 62°C	60min
62°C < ANTILEGIO TEMP < 66°C	30min
66°C < ANTILEGIO TEMP < 70°C	15min

- DHW PUMP RETURN for activating or deactivating the DHW recirculation pump during the ANTILEGIONELLA.



8.9 FUNCTION DHW BOOST.

MENU
└ TECHNICAL
└ BOLLITORE PDC
└ DHW BOOST

The DHW BOOST function, once activated by the INSTALLER or USER, forces the system to heat the water in the domestic hot water tank, making it available for use as quickly as possible.
The boiler setpoint temperature is automatically set to 60°C. By setting the BOOST ACTIVE TIME parameter, it is possible to fix the maximum time for which the DHW BOOST function stays active, after which the setpoint returns to that set in the WATER TANK SETPOINT parameter.
When the DHW BOOST function is activated, the letter B is displayed on the screen, and when the function is in progress, both the B and the storage tank icon flash.

The function is not active in OFF state.

MENU
└ SET
└ HEATING
└ COOLING
└ WATER TANK SETPOINT
└ BOOST ACTIVE TIME

Factory-set default value	Minimum value	Maximum value	Notes
65°C (AT) 45°C (BT)	MIN CH SET	MAX CH SET	
0°C	-5°C	+5°C	USER if USER active and REQUEST TYPE = TA
18°C	5°C	25°C	when working with fixed setpoint
0	-5	+5	if COOLING CURVES active and REQUEST TYPE = TA
50°C	20°C	60°C	USER
15min	1min	30min	if DHW BOOST active

8.10 ALARMS HISTORY

MENU
└TECHNICAL
└ERROR HISTORY

The ERROR HISTORY function only enables automatically after the system has been powered for at least 2 consecutive hours; during this period any alarms that trigger are not stored in the “alarms history”.
Alarms can be displayed in chronological order, from the most recent to the oldest, up to a maximum of 50 alarms.
For each alarm, a sequential number, fault code, and the date and time when the alarm occurred will be displayed.

NOTE:

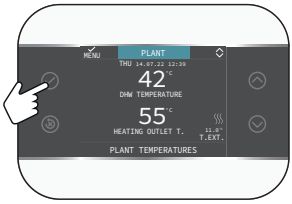
Once enabled, the ERROR HISTORY function can no longer be disabled; there is also no procedure for resetting the alarms history.
If an alarm is triggered several consecutive times, it is only stored once.

8.11 SYSTEM INFO

The SYSTEM INFO menu gives information on the hydraulic configuration, type and firmware revision of the boards in the system.

9. INFO

The INFO button on the T300-I display allows you to view a list of information relating to system operation.
On the main screen press and access MENU



and then access

MENU
└INFO

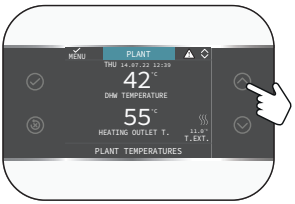
to view a list of information relating to system operation.

Some Info may not be available depending on system configuration.

- HW TANK HIGH
- FILTERED OUTDOOR TEMP
- MAIN ZONE OUTLET
- SET MAIN ZONE
- HP OUTLET
- HP RETURN
- HP OUTDOOR TEMP
- LOW PRESS TUBE REFR
- HIGH PRESS TUBE REFR
- CONDENSER REFR
- EXCHANGER REFR
- HP OPERATIVE MODE
- HP FREQUENCY
- HP COMPRESSOR TIME
- HP CAPACITY
- ACTUAL HP CAPACITY
- ENERGY CONSUMPTION

10. ANOMALIES

In the event of an anomaly, the T300-I display shows a screen featuring the symbol ⚠.



Press the ⌃ button until the ⚠ symbol is highlighted to access the anomaly description screen.

NOTE:

- See the heat pump installation manual for the list of heat pump faults.
- The T300-I only displays the alphanumeric codes relating to the alarm, the description of which can be found in the heat pump's installation manual and/or directly on the Service interface (access restricted to qualified technicians).

List of zone faults

ERROR CODE	DESCRIPTION OF ALARM TYPE
E077	WATER THERMOSTAT MAIN ZONE or ZONE 1 / ZONE 2
E081	AMBIENT PROBE ANOMALY ZONE 1
E082	AMBIENT PROBE ANOMALY MAIN
E082	AMBIENT PROBE ANOMALY ZONE 2
E084	SUPPLY ZONE 1
E086	SUPPLY MAIN ZONE
E086	SUPPLY ZONE 2
--	COMMUNICATION LOST MAIN / ZONE 1 / ZONE 2
-	ZONES CONFIGURATION NOT COMPLETED

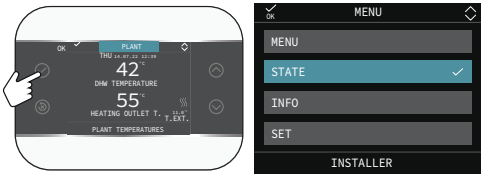
List of heat pump faults

ERROR CODE	DESCRIPTION OF ALARM TYPE
.....	SEE SPECIFIC ALARMS ON HP
--	COMMUNICATION LOST HEAT PUMP

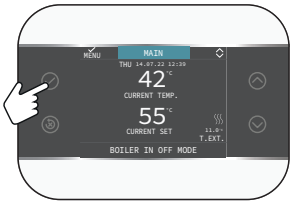
Some faults auto-reset (see heat pump manual).
Operation can be restored by switching the heat pump power supply off and back on again.
If the error persists, contact Technical Assistance.

11. SWITCH-OFF

If you are away (e.g. for the weekend or a short trip), set the system status to HEAT OFF by selecting



STATE
SYSTEM
OFF



The ⏻ symbol is displayed on the screen. With the electric power supply remaining active, the system is protected by the systems:

- zone anti-freeze (only valid if ACTUATION TYPE= BE16): the function starts if the temperature detected by the delivery sensor goes below 6°C. In this phase a heat request is generated until the delivery water temperature rises to a value equal to the ZONE ANTI-FREEZE OFFSET
- DHW tank anti-freeze: the function starts if the temperature detected by the tank sensor goes below 6°C. In this phase a heat request is sent to the HEAT PUMP, which runs until the water temperature reaches 12°C.
- heat pump anti-freeze: the function starts if the temperature detected by the external or delivery sensor is below the trigger threshold. There are two trigger thresholds for this function: a first threshold that only activates the pump and a second threshold that also activates the compressor. A heating request would take priority and would cancel any anti-freeze function in progress; the anti-freeze function is signalled by T300-I with a scrolling message at the bottom.

Shutdown for long periods

If the system is not to be used for a long period, the following operations are carried out:

- Set the system status to HEAT OFF by selecting STATE, SYSTEM, OFF in the main menu.
- Set the system's power switch to “HEAT OFF”.
- Shut off the water cocks of the heating and DHW system.

In this case, the antifreeze and anti-block systems are disabled.
Drain the heating and DHW system if there is a risk of frost.

12. T300-I AS AMBIENT CONTROLLER

AMBIENT CONTROLLER = MACHINE INTERFACE + ambient temperature control and time programming

In addition to the machine interface functions described above, the T300-I controls the ambient temperature and time programming.

When the T300-I is used as an AMBIENT CONTROLLER, in addition to the main MACHINE INTERFACE screen described previously, an AMBIENT CONTROLLER display for the controlled zone is also activated.
To set the T300-I as an ambient controller

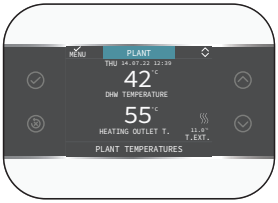
and set parameter ACTUATION TYPE as indicated in paragraph "8.1 ZONES MANAGER" pag. 15 and select REQUEST TYPE= T300-I MASTER.

Depending on the set operating status, the T300-I will generate a heating request if the detected ambient temperature is lower than the desired ambient temperature (HEATING AND HOT WATER) or a cooling request if enabled and if the detected ambient temperature is higher than the desired ambient temperature (HOT WATER ONLY).

See paragraph "14.13 Using T300-I as ambient controller" pag. 37 for instructions.

13. USER LEVEL ACCESS

The USER level is always available to allow for quick use of the functions



Use the buttons to navigate within the menus	
	Confirm
	CANCEL selection / Return to previous screen / Return to main screen (press > 2 sec.)
	To navigate in the submenus, change values and change pages PLANT - ZONE / E - SYSTEM

13.1 PLANT

This item indicates to which zone the data shown on the initial screen refer and to which zone the settings accessible with other functions refer.

The presence of one or two zones in addition to PLANT depends on the installation configuration. For this reason, one or more zones mentioned below may not be included in your configuration or may be identified differently.

To change zone, use the and buttons, the other zones can be selected in the following sequence:

- PLANT
- MAIN ZONE (if managed from T300-I or room sensor)
- ZONE 1 - ZONE..... (if configured)

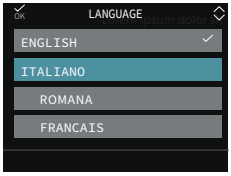
The information given in the INFO menu is independent of the active zone.
Selecting MAIN or ZONE 1/ZONE... no DHW parameter can be set.

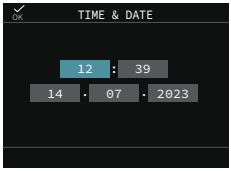
14. COMMISSIONING

The installation of the device and any other assistance and maintenance work must be carried out by a qualified technician in accordance with current regulations.

Before programming, ensure that all parts of the system are connected and powered.

You may be asked to set

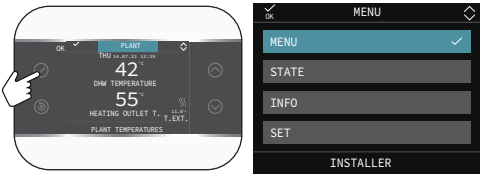




NOTE:

The default language is English. Select your desired language using the arrows and confirm with ✓.

On the main screen, press ✓ to access MENU:



and then

MENU
└ SETTINGS

14.1 TIME & DATE

For setting the desired hours, minutes, day, month

NOTE:

The device automatically changes between GMT and summer time and vice versa

14.2 DAYLIGHT SAVINGS TIME

Select FUNCTION ACTIVE to enable the automatic change between GMT and summer time and vice versa.

14.3 LANGUAGE

To select the desired language. The default language is English.

14.4 BACKLIGHT

If no button is pressed on the display for a certain period, it will enter screen saver mode. The display shutdown time can be set in parameter BACKLIGHT.

14.5 WIFI

See paragraph "5.5 T300-I" pag. 11.

14.6 TIME SCHEDULE

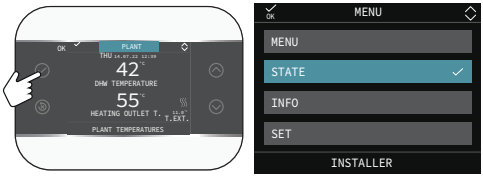
See the dedicated paragraph "14.10 Time programming" pag. 36.

MENU
- SETTINGS
  - TIME & DATE
  - DAYLIGHT SAVINGS TIME
  - LANGUAGE
  - BACKLIGHT
- WIFI
  - WIFI SERIAL
  - WIFI INFO
  - WIFI NOME
  - WIFI AP MODE
- TIME SCHEDULE
  - MAIN
  - ZONE 1
  - DHW HP

Factory-set default value	Minimum value	Maximum value	Notes
FUNCTION ACTIVE	FUNCTION NOT ACTIVE	FUNCTION ACTIVE	
	ENGLISH / ITALIANO /.....		
5 min	1 min	15 min	
			only if POR = 1
			only if POR = 1 and added zone

14.7 SETTING THE OPERATING MODE

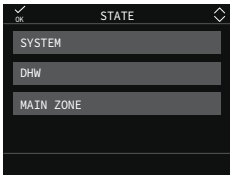
On the PLANT screen, press ✓ and access MENU



Select

MENU
└─STATE

Set parameters SYSTEM, DHW, MAIN ZONE / HEAT PUMP according to use.



NOTE:

MAIN ZONE is only visible in this menu if the zone is managed by a room thermostat.

SYSTEM

To select the operating mode

OFF	HEAT OFF
HOT WATER ONLY	Domestic hot water production and cooling if enabled. Heating is not active.
HEATING AND HOT WATER	Domestic hot water production and heating

DHW

Selecting DHW accesses the menu for modifying parameter DHW BOOST. See "8.9 Function DHW BOOST." pag. 26 for details on the BOOST function.

MAIN ZONE

On selecting this function, you can set the status of the main zone by selecting one of the following options:

A) If time programming is not enabled

ZONE ON	Zone requests are met.
HEAT OFF	Zone requests are not met.

B) If time programming is enabled, the menu shows

AUTO	Zone requests are met according to TIME SCHEDULE
MANUAL	Zone requests are met.
HEAT OFF	Zone requests are not met.

- STATE
  - SYSTEM
  - DHW
    - DHW BOOST
  - MAIN ZONE
  - HEAT PUMP
    - ENABLE NIGHT REDUCT / DISABLE NIGHT REDUCT
    - NIGHT MODE START TIME
    - NIGHT MODE STOP TIME

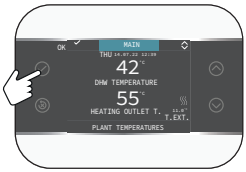
Factory-set default value	Minimum value	Maximum value	Access level
OFF	OFF / HOT WATER ONLY / HEATING AND HOT WATER		USER
0	0	1	USER
MANUAL	AUTO / MANUAL / HEAT OFF (if parameter POR= 1 - Set by installer)		USER
ZONE ON	ZONE ON / HEAT OFF (if parameter POR= 0 Set by installer)		
			USER
DEACTIVATE FUNCTION	FUNCTION ACTIVE	DEACTIVATE FUNCTION	USER
20:00	00:00	23:30	USER only if night-time reduction active
09:00	00:00	23:30	USER only if night-time reduction active

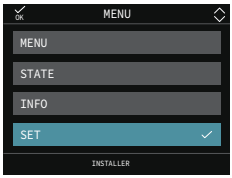
14.8 INFO

See paragraph "9. INFO" pag. 27 .

14.9 SETTING THE SETPOINTS

On the PLANT screen, press ✓ and access MENU

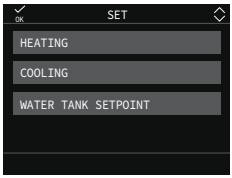




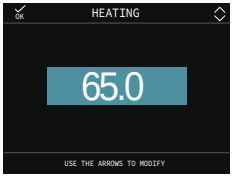
Select

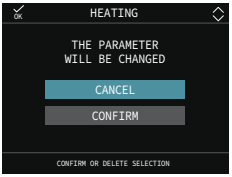
MENU
└SET

to change the HEATING, COOLING (if activated) and WATER TANK SETPOINT - BOOST ACTIVE TIME setpoints (if DHW boost activated by installer).



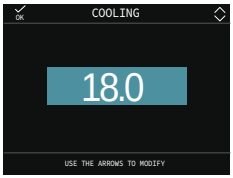
HEATING

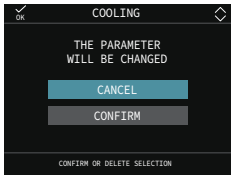




If an external sensor is installed, the delivery temperature is automatically selected by the system based on the thermoregulation curve set in the dedicated parameter, which rapidly adjusts the ambient temperature as the outdoor temperature changes. If you wish to increase or decrease the temperature calculated automatically by the electronic board, change the HEATING setpoint to a value within the desired comfort range (-5 ÷ +5).

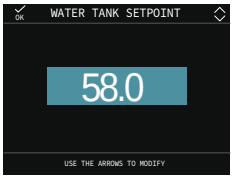
COOLING





If cooling thermoregulation is active, the delivery temperature is automatically selected by the system based on the set curve, which rapidly adjusts the ambient temperature as the outdoor temperature changes.
If you wish to increase or decrease the temperature calculated automatically by the electronic board, change the COOLING setpoint to a value within the desired comfort range (-5 ÷ +5).

WATER TANK SETPOINT



BOOST ACTIVE TIME

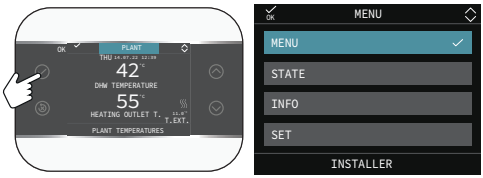
By setting the BOOST ACTIVE TIME parameter, it is possible to fix the maximum time for which the DHW BOOST function stays active.

- SET
  - HEATING
  - COOLING
  - WATER TANK SETPOINT
  - BOOST ACTIVE TIME

Factory-set default value	Minimum value	Maximum value	Notes
65°C (AT) 45°C (BT)	MIN CH SET*	MAX CH SET*	
0°C	-5°C	+5°C	USER if USER active and REQUEST TYPE = TA
18°C	5°C	25°C	when working with fixed setpoint
0	-5	+5	if COOLING CURVES active and REQUEST TYPE = TA
50°C	20°C	60°C	USER
15min	1min	30min	if DHW BOOST active

14.10 TIME PROGRAMMING

Accessing



MENU
└─TIME SCHEDULE

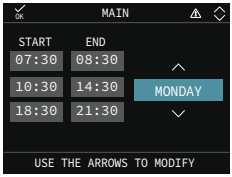
allows you to change the set time programmes according to system configuration:

- MAIN (heating)
- ZONE 1 / ZONE... (heating - if zone(s) configured)
- DHW HP (heat pump DHW)

You can set a time programme for heating and cooling, and for filling the domestic hot water tank based on the system diagram.

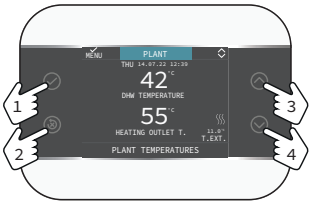
The heating time programme is available if the installer has set parameter POR = 1.

Up to 4 slots can be set, with a start time and an end time, on each day of the week.



Two time programmes are available with the heat pump: one for Winter and one for Summer. Select the desired season (HOT WATER ONLY or HEATING AND HOT WATER) from MENU/STATE/SYSTEM and then programme DHW HP parameter for each season.

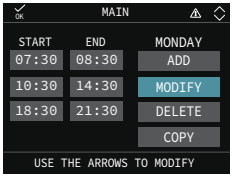
Using the main buttons



	CONFIRM
	DELETE Return to main screen (press > 2 sec.)
	Scroll up
	Scroll down

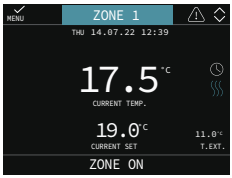
Navigate to the TIME SCHEDULE menu and set up the time slots. The following options are available

ADD	To add a new time slot to the selected day.
MODIFY	To change an existing time slot in the selected day.
DELETE	To delete an existing time slot in the selected day.
COPY	To replicate the TIME SCHEDULE of the selected day to other days.



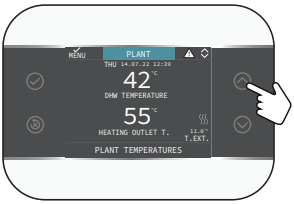
Example

The main zone is set to a time programme and heating is on - active time slot.

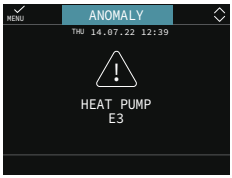


14.11 FAULTS

In the event of an anomaly, the T300-I display shows a screen featuring the symbol ⚠.



Press ⌃ to access the anomaly description screen.



Some faults auto-reset (see heat pump manual).
Operation can be restored by switching the heat pump power supply off and back on again.
If the error persists, contact Technical Assistance.

14.12 SWITCH-OFF

If you are away (e.g. for the weekend or a short trip), set the system status to HEAT OFF by selecting STATE, SYSTEM in the main menu and then OFF.
With the electric power supply remaining active, the system is protected by the anti-freeze systems.
If you are away for a long period, the following operations are recommended:

- Set the system status to HEAT OFF by selecting STATE, SYSTEM, OFF in the main menu.
- Set the system's power switch to “HEAT OFF”.
- Shut off the water cocks of the heating and DHW system.

In this case, the antifreeze and anti-block systems are disabled.

Have a qualified technician drain the heating and DHW system if there is a risk of frost.

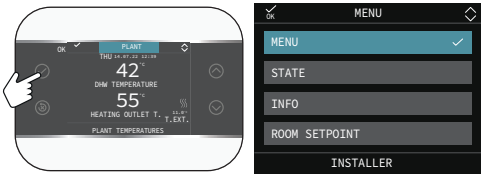
14.13 USING T300-I AS AMBIENT CONTROLLER

AMBIENT CONTROLLER = MACHINE INTERFACE + ambient temperature control and time programming

In addition to the machine interface functions described above, the T300-I controls the ambient temperature and time programming.

Depending on the operating status set by the installer, the T300-I will generate a HEATING request if the detected ambient temperature is lower than the desired ambient temperature (HEATING AND HOT WATER) or a COOLING request if enabled and if the detected ambient temperature is higher than the desired ambient temperature (HOT WATER ONLY).
In AMBIENT CONTROLLER mode, the main screen displays information related to the zone.
Use the ⌃ and ⌄ buttons to move from one screen to another.

On the MAIN screen, press ✓ to access MENU; the following parameters can be set:
MENU
STATE
INFO
ROOM SETPOINT



MENU

In MENU function, you can access SET BOILER configuration (only if the system is working with a fixed setpoint), SETTINGS and TIME SCHEDULE.

STATE

To set the status of functions HEAT PUMP (ENABLE NIGHT REDUCT / DISABLE NIGHT REDUCT) and MAIN ZONE (AUTO, MANUAL, HEAT OFF).

- AUTO: ambient temperature control follows the set weekly time programme;
- MANUAL: zone control is always active (24h);
- HEAT OFF: a heating request is never activated for the zone, but a minimum ambient temperature of 8°C is guaranteed.

INFO

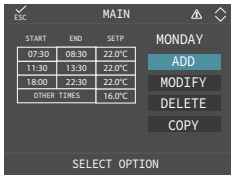
This page shows the values of the system inputs or other calculated quantities (such as the heating setpoint calculated based on the set climatic curves). The displayed values are refreshed every 5 seconds.

ROOM SETPOINT

Selecting ROOM SETPOINT it is possible to change the temperature required in the indoor room

14.14 TIME PROGRAMMING T300-I SET AS AMBIENT CONTROLLER

Time programming follows the same rules as those previously described in paragraph "14.10 Time programming" pag. 36, but in this mode, in addition to setting the start and end times for each time slot, it also includes the setting of an ambient temperature setpoint (SETP).
Up to 4 slots can be set, with a start time and an end time, on each day of the week.



NOTE:

If the zone is controlled by a room sensor, the same settings as T300-I MASTER can be set in the screen of the relevant zone.

14.15 DHW REQUEST

DHW requests can be met with the system in HEATING AND HOT WATER or HOT WATER ONLY state; they cannot be met when the system is in OFF state.

⚠ Under normal conditions, with the appliance in OFF state, the heat pump may activate due to the activation of an anti-freeze function. In both cases, the activation of the heat pump is indicated by the relevant icon and the scrolling message at the bottom of the T300-I.

15. WIRING DIAGRAMS AND HYDRAULIC DIAGRAMS

For further details on the terminal board of the indoor unit, refer to its installation manual.

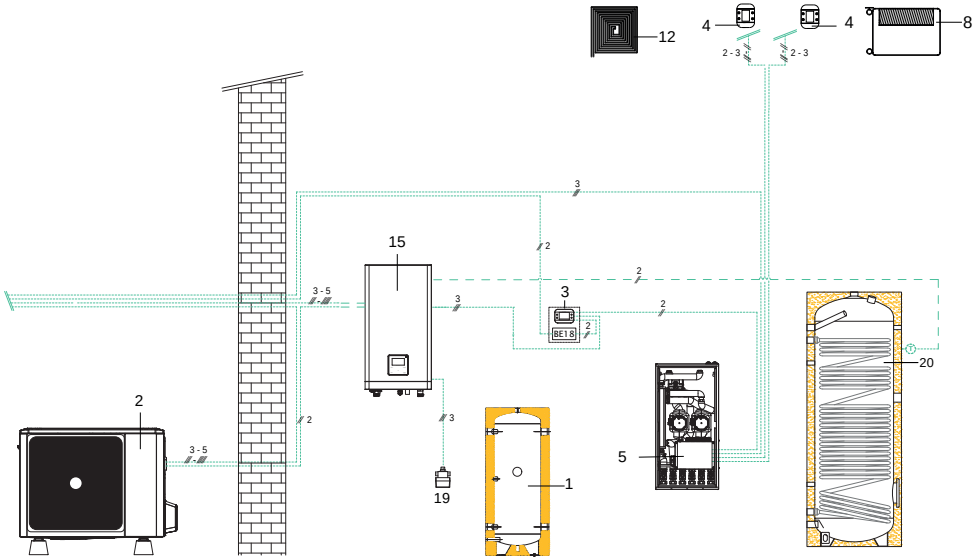
⚠ The diagrams shown below are examples and do not represent the full range of the applications.

Legend of hydraulic diagrams

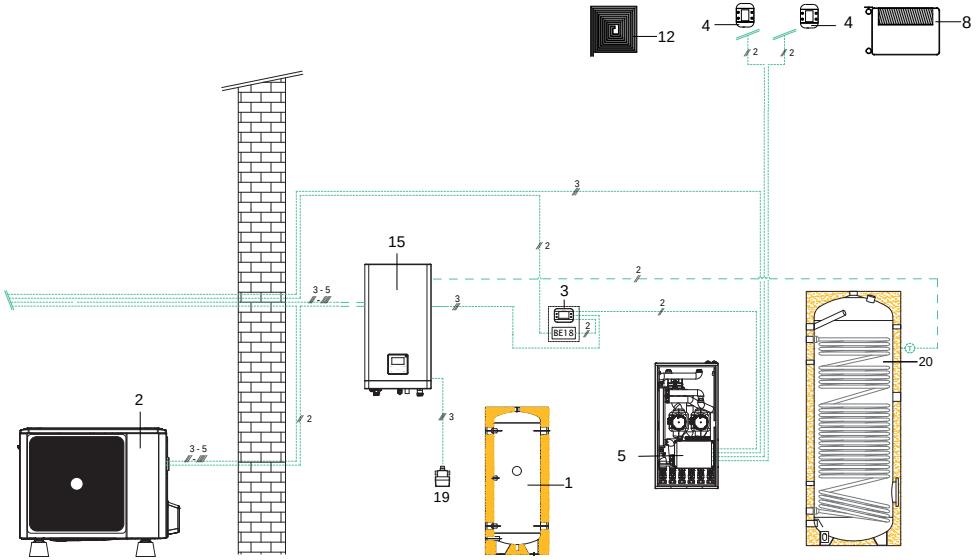
1. Inertia tank (install on the return)
2. Heat pump with RS485 BUS
3. T300-I MASTER
4. T300-I SLAVE (BE18 required) / T200 / T100 / room sensor/room thermostat
5. Hydraulic distributor kit (available in versions 1 direct, 2 direct and 1 direct + 1 mixed)
6. Shut-off valve
7. Filter
8. Fan coil/direct zone
9. Deaerator
10. Safety valve
11. Expansion vessel
12. Mixed zone
13. Check valve (available with the hydraulic distributor)
14. DHW expansion tank (accessory)
15. Split heat pump indoor unit
16. DIR hydraulic module
17. MIX hydraulic module
18. Bypass valve
19. Diverter valve
20. Domestic hot water boiler

15.1 T300-I WIRING DIAGRAM WITH HYDRAULIC DISTRIBUTOR KIT

For unit with base

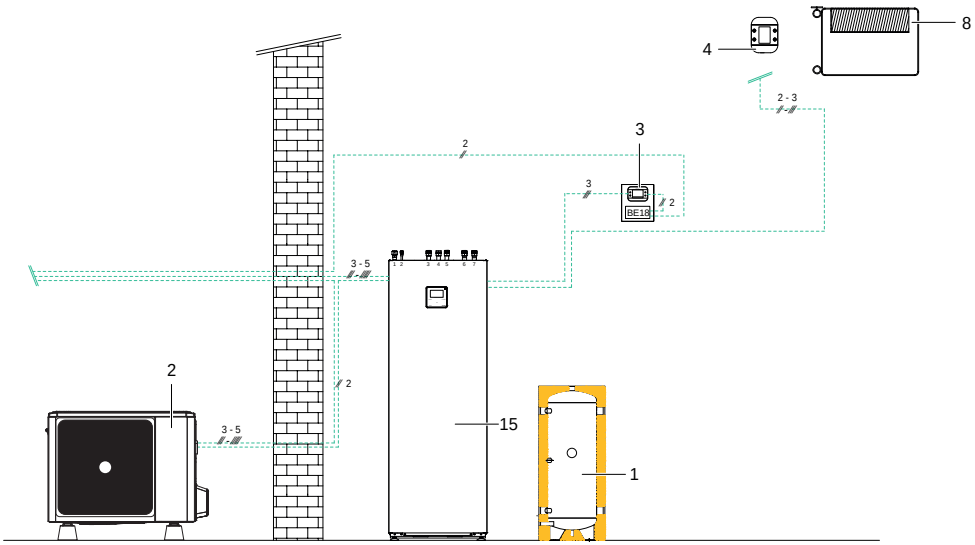


For wall unit

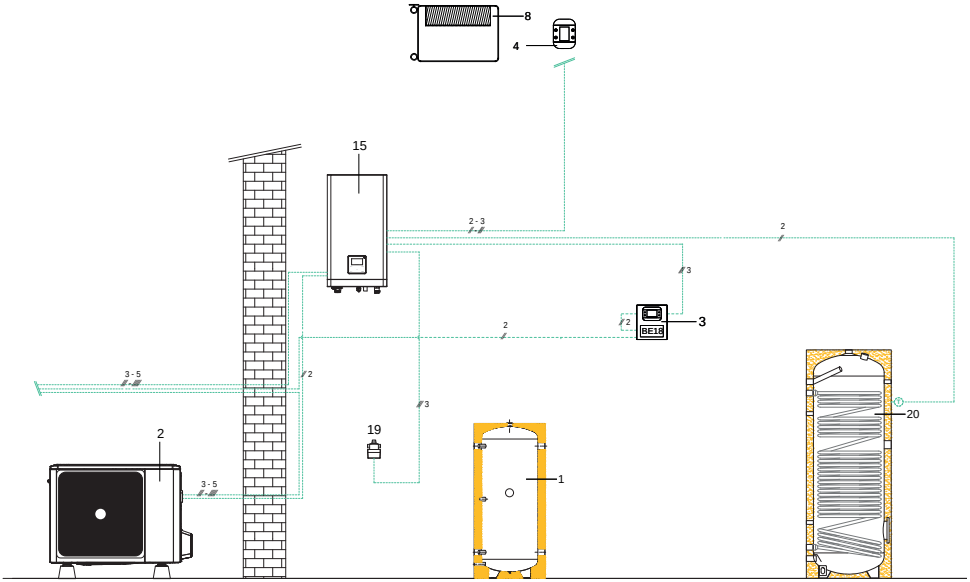


15.2 T300-I WIRING DIAGRAM WITH DIRECT ZONE

For unit with base

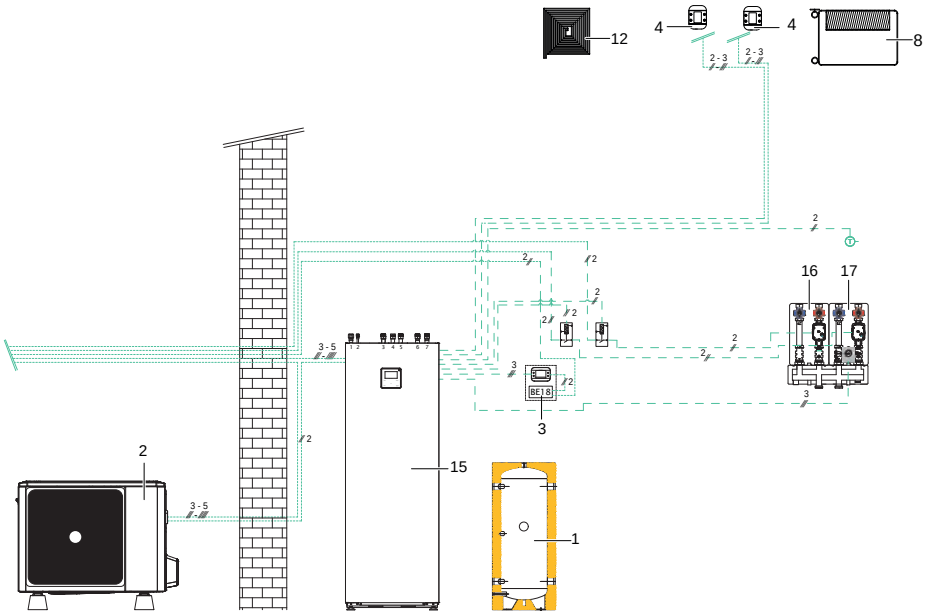


For wall unit

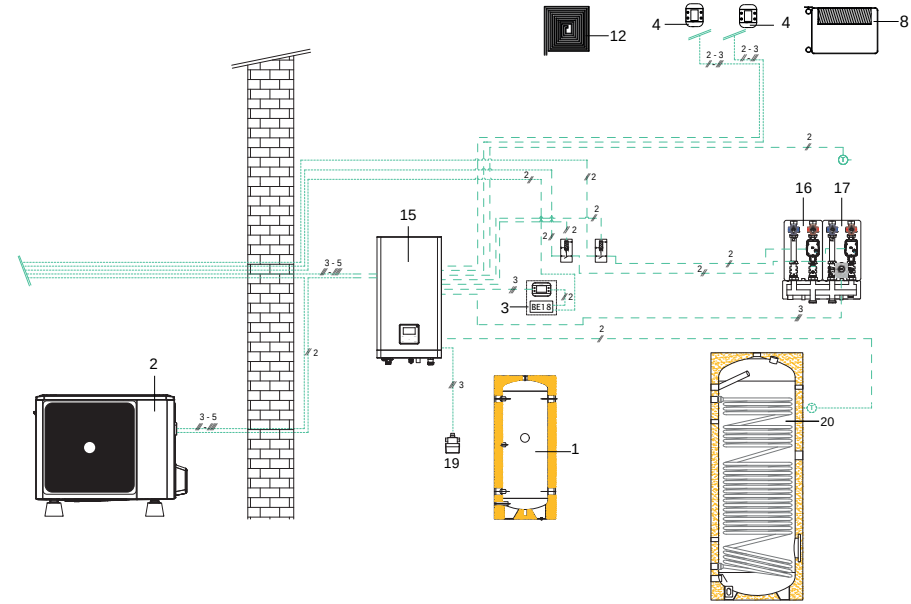


15.3 T300-I WIRING DIAGRAM WITH HYDRAULIC MODULES

For unit with base

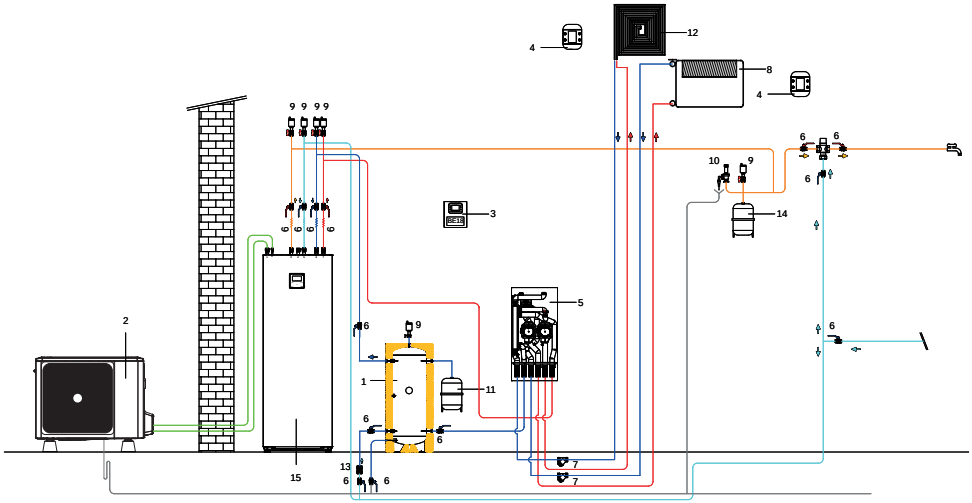


For wall unit

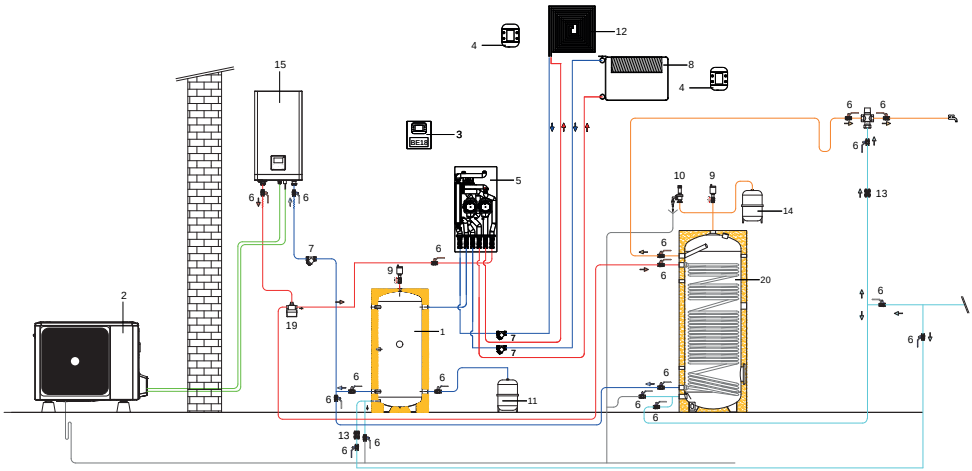


15.4 T300-I HYDRAULIC DIAGRAM WITH HYDRAULIC DISTRIBUTOR KIT

For unit with base

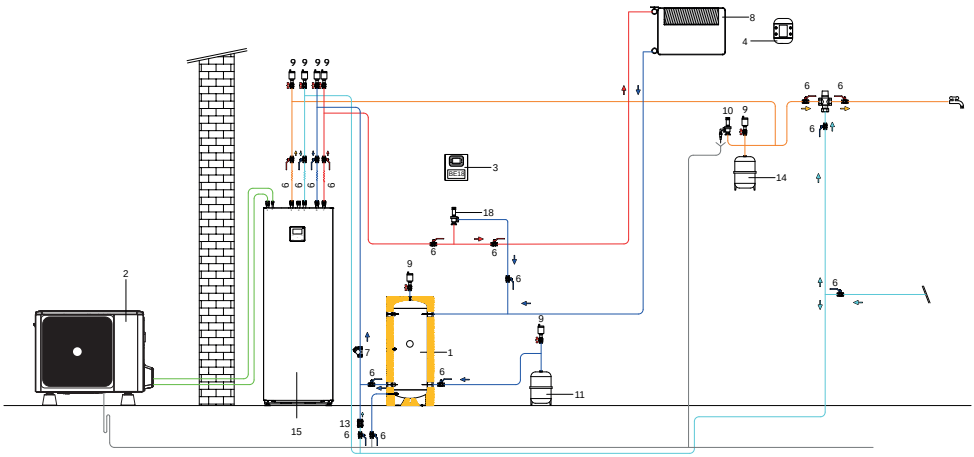


For wall unit

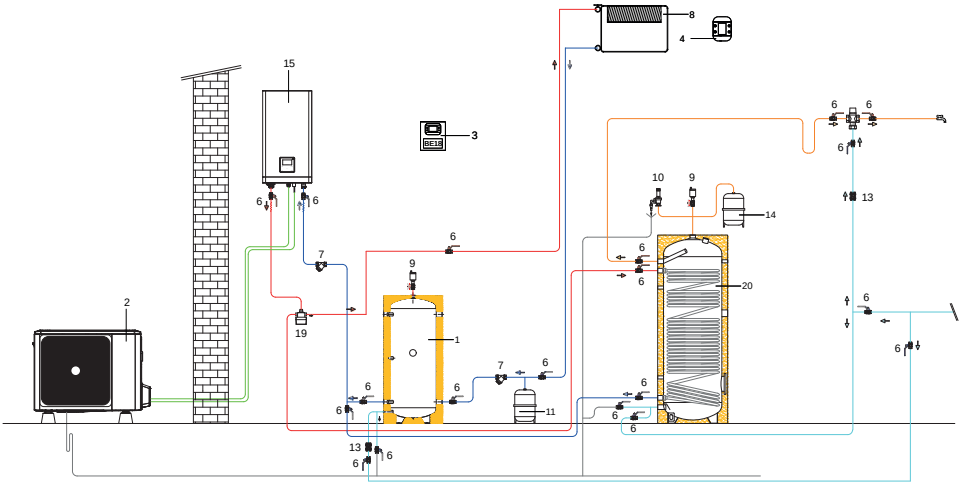


15.5 T300-I HYDRAULIC DIAGRAM WITH DIRECT ZONE

For unit with base

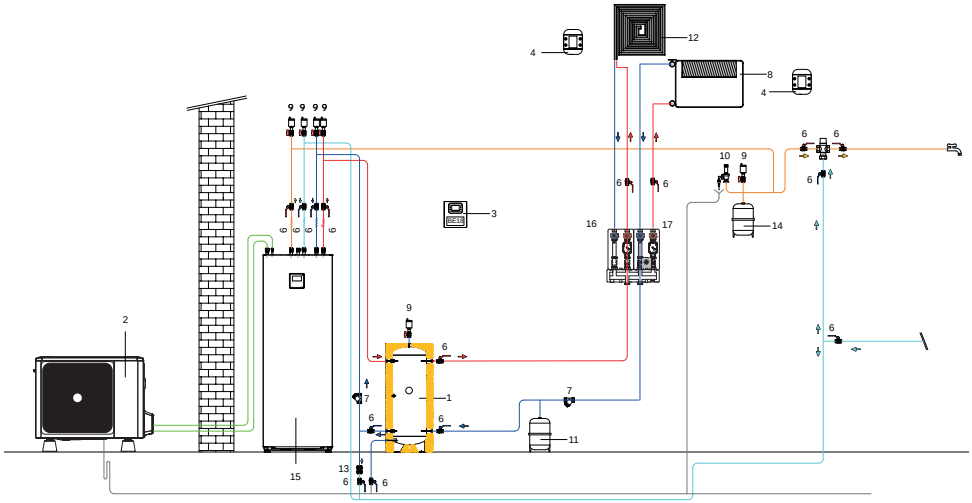


For wall unit

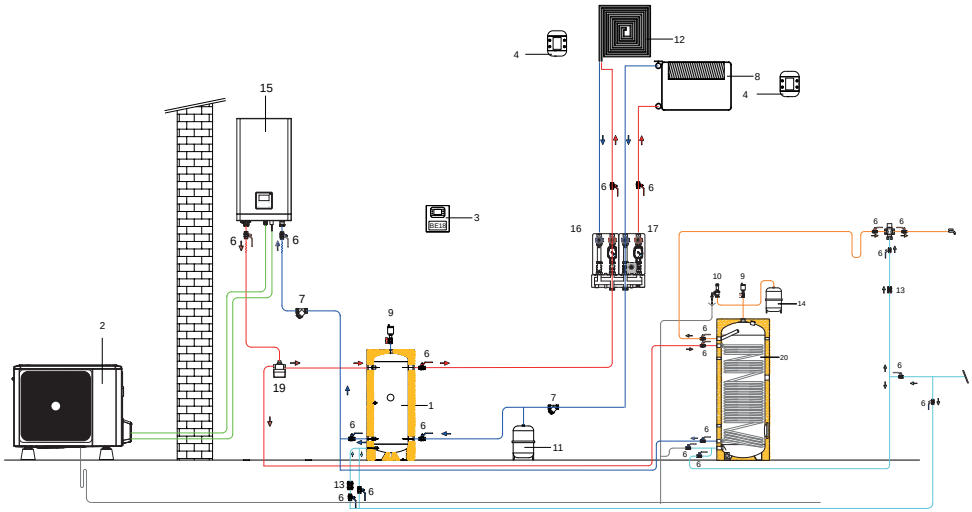


15.6 T300-I HYDRAULIC DIAGRAM WITH HYDRAULIC MODULES

For unit with base



For wall unit



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