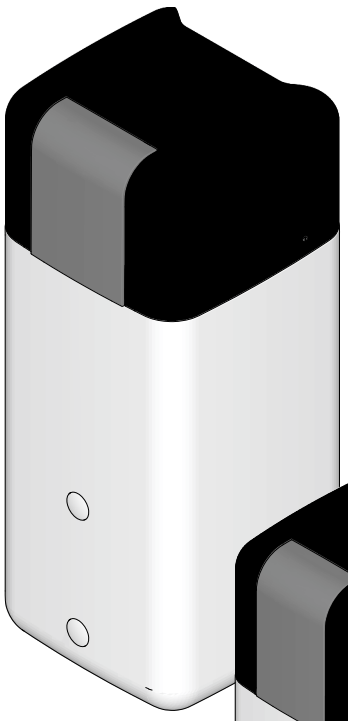
Startup Checklist

☑ check off executed action!

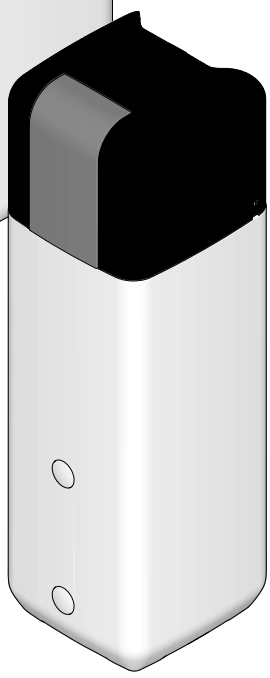
Daikin
- Altherma EHSX
- Altherma EHSXB
- Altherma EHSH
- Altherma EHSHB

-08P50AA
-16P50AA



Daikin
- Altherma EHSX
- Altherma EHSXB
- Altherma EHSH
- Altherma EHSHB

-04P30AA
-08P30AA



Altherma EHS(X/H)

1. **Initialization:** Supply internal device and outdoor unit (if present) with power; pay attention to instructions on the display and follow them.

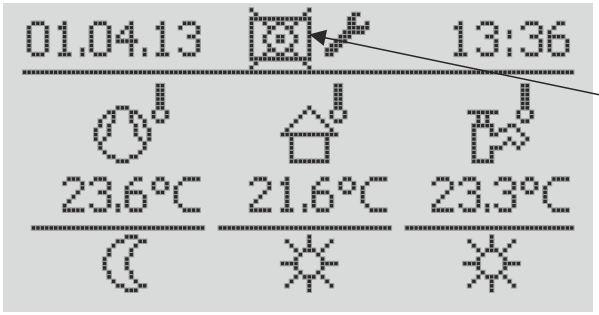
Figure 1-1

Confirm message with Yes ☐

Figure 1-2

Initialization runs, parameters are applied. Wait until standard prompt appears. ☐

Attention: Installations **without** outdoor unit



-Crossed-out outdoor unit

Figure 1-3

- If at the time of startup no outdoor unit is yet present, a crossed-out outdoor unit is shown at the top of the display. This icon has no influence on the startup of the system.
- If the symbol is shown when an outdoor unit is used, there is an error. (Error memory entry 9041).

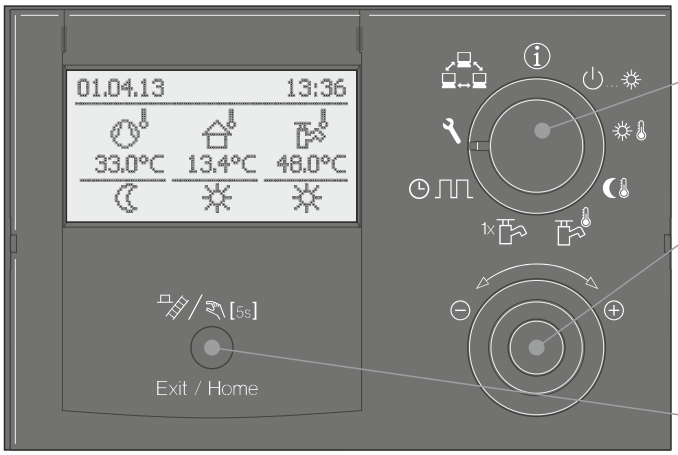
2. **Parameter settings for initial startup**

ATTENTION! Before entering/adjusting the parameter, enter "Expert code" (RoCon HP / Chapter 3.6.1)

The expert code is intended exclusively for the specialized company and may not be passed on to the end customer!

2.1 **Activate Air Purge:**
(RoCon HP / Chapter 3.6.10)

2.2 **Startup- Parameters:** all of the following parameters must necessarily be set – follow the sequence of Table 2-1 (for chapter information, see RoCon HP)



Rotary switch main menu
Select main level

Push/turn control
Select (turn) and confirm (push) menu level 1 / Parameters

Exit button
Return to main level (push)

Figure 2-1 Controls – Control unit

	Parameters				
	Main level	**Prompts on the Display**			
	Rotary switch main menu	**Menu level 1**	**Parameter**	**Setting value**	**Comments**
1.	Configuration	Setup (RoCon HP) Chapter 5.2.1 / Tab.5-1	Outdoor type	XX kW Power of outdoor unit	Set size of outdoor unit (even if it is not yet installed) XX kW see rating plate
2.			Indoor Unit	XXX Type of indoor unit	Set type of indoor unit XXX see rating plate
3.		System Configuration (RoCon HP) Chapter 5.2.2 / Tab.5-2	Power DHW	6 kW	set to 6 kW or maximum value of the built-in Heating Rod
4.			BUH s1 power	3 kW	1st step of the heating support
5.			BUH s1 power	9 kW	2nd step of the heating support
6.		HC Configuration (RoCon HP) Chapter 5.2.3 / Tab.5-3	heating / T-Outside lim day	19°C	Set to desired temperature
7.			Insulation	underdose	Depending on the setting, the external temperature is averaged over a specific time
8.	DHW Set Temp (RoCon HP) Chapter 5.7		T-DHW Setpoint 1	48 °C	Set to desired DHW-target temperature. **Not below 40°C!**
9.	Operating Mode (RoCon HP) Chapter 5.4		heating	activate	Device begins to heat. **Attention:** If the device was on standby, pay attention to the standby time; **see on Page 4.**
10.	Information				Switch to Info level

Tab. 2-1

ATTENTION! If standby was set (Figure 2-2), you have to wait until the symbol "heating" and the flow temperature of the heat source are shown (Figure 2-3).
This process can take up to 5 minutes.

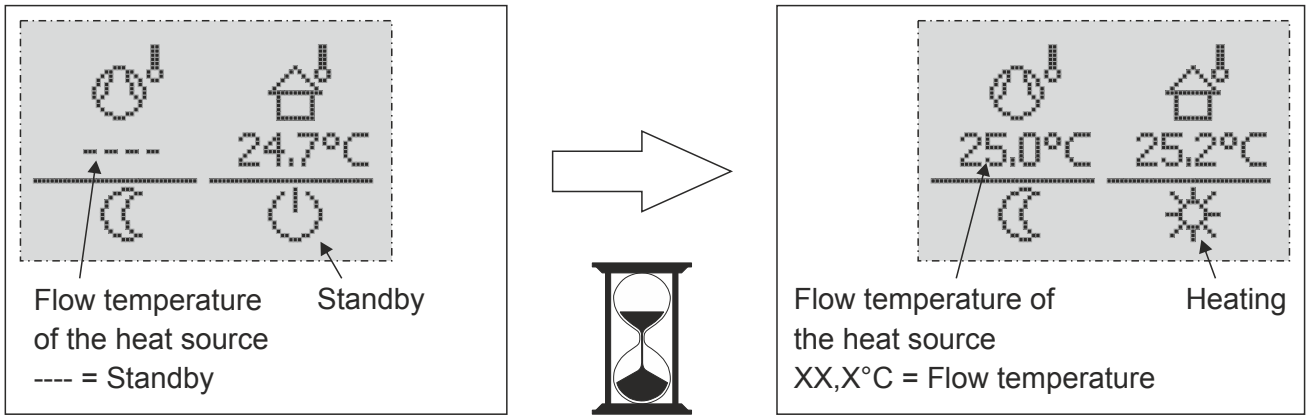


Figure 2-2

Figure 2-3

ATTENTION!
- With external **temperatures under -2°C** and a **storage temperature under 30°C**
- With external **temperatures under 12°C** and a **storage temperature under 23°C**

→ **the compressor does not switch on**.

In this case, the storage is heated using the electronic heating element. For this reason, no compressor symbol (next to the date) is shown on the display.

2.3 Standard prompt for startup

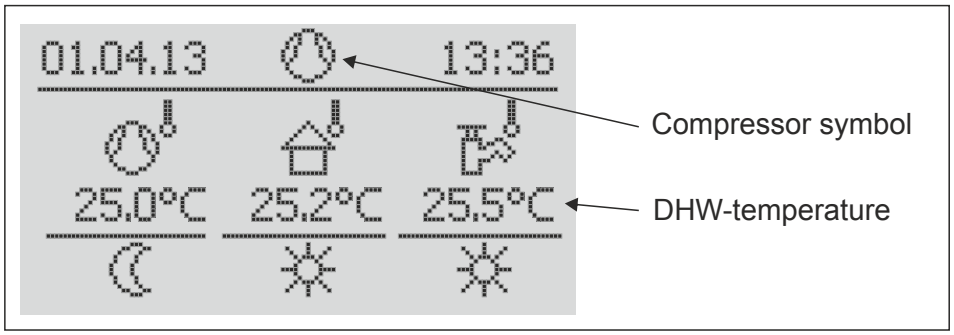


Figure 2-4

The startup is finished when the DHW-temperature is shown on the display to be above 40°C. ☐

2.4 **Screed Program:**
When necessary: Activate floor screed program only after conclusion of the startup, as soon as the storage is warmed to at least 40°C (also possible without outdoor unit).

(On this see 📖 RoCon HP / Chapter 3.6.13)

3. Set operating parameters

If no floor screed function is needed, please check the correct setting of the parameters Heat-Slope, T-Outside lim day, Operating Mode, Set Temp Day, Equilibrium Temp (supported by the electronic heating element in heating mode) and „T-DHW Setpoint“ 1-3 (≥ 40°C).

3.1 Overview of the main operating parameters

It is imperative that you check the settings after the initial startup

Pos.	Parameter	Description / Explanation	RoCon HP
1.	Outdoor type	Set size of outdoor unit (even if it is not yet installed). Read power (xx kW) from rating plate and set.	Ch. 5.2.1, Tab.5-1
2.	Indoor Unit	Set type of indoor unit. Read type XXX from rating plate and set.	
3.	Function Heating Rod	When using an Heating Rod (electronic heating element) to support the heat pump, please set to 1.	
4.	Equilibrium Func	When activated, the electronic heating element for heating support is first triggered below the external temperature set in the parameter "Equilibrium Func".	
5.	Room thermostat	When using a room thermostat (RT), you must set the parameter to "On"; only the RT contacts on the circuit board (Connection J16) also be evaluated (Interlinc fct). As soon as the parameter is activated, the system runs only when the RT contact is closed in heating-/cooling mode / frost protection function.	
6.	Interlinc fct	Flow target temperature is adjusted when the second RT contact (cooling contact, Connection J16) is closed to the value set in parameter “T-Flow CH adj" or “T-Flow Cooling adj” (RoCon HP, Ch. 5.2.2, Tab. 5-2).	
7.	Max Perform Pump	Defines maximum pump output	
8.	Min Perform Pump	Defines minimum pump output	
9.	Power DHW	In order to expedite the heating process without an outdoor unit and ensures the highest warm water comfort, set this parameter to 6 kW, or the maximum value of the built-in electronic heating element.	Ch. 5.2.2, Tab.5-2
10.	BUH s1 / s2 power	Defines the output of the installed electronic heating element, which is connected at the respective stage, and limits the output that is taken for the heating support of the storage tank through the mixing valve. If, during heating support with the electronic heating element, the storage becomes too warm or cools off too much, a sensor drift can occur. This can be counteracted by adjusting the set parameter value according to Tab. 3-4.	
11.	Insulation	Depending on the building insulation, the external temperature is averaged over a specific time. Thus, it can happen that the heat pump does not switch on immediately when the external temperature falls below the parameter value "T-Outside lim day". The averaged external temperature can be seen in the Info level under info value “T-Outside".	Ch. 5.2.3, Tab.5-3
12.	T-Outside lim day	If the averaged external temperature falls below this temperature, a heating operation of the system is enabled (summer shutdown).	
13.	Heat-Slope	Heat curve must be adapted for the respective house.	
14.	Room Influence	When a room controller EHS157034 is used and a room temperature-driven control is desired, this parameter should be selected >0.	
15.	1x Hot Water	After the target value is reached, this parameter MUST be deactivated; otherwise, the storage is always kept at 37°C. Recommendation: Always let this parameter be deactivated (Setting 0)!	Ch.5.3, Tab.5-5

Tab. 3-1 (1/2)

Pos.	Parameter	Description / Explanation	RoCon HP
16.	T-Room 1-3 Setpoint	These parameters affect, in addition to the external temperature, the heat curve and possibly the room temperature detected by the room controller EHS157034 (if present and configured), the flow target temperature for the heating circuit. If these parameters are set incorrectly, this can strongly affect the operation of the heat pump in heating mode.	Ch.5.5, Tab.5-7
17.	T-DHW Setpoint 1	Target value of the warm water temperature. At startup, do not set below 40°C. After startup, never set below 35°C!	Ch.5.7, Tab.5-9

Tab. 3-1 (2/2)

Setting values for the parameters “BUH s1 power" / “BUH s2 power":
Variables for energy withdrawal for equalization of sensor drift or system adjustment:

Parameter set value [kW]	Power rating of the installed electronic heating element [kW]	Removal for heating support through mixing valve [kW]
1	0	1
2	3	2
3	**3**	**3**
4	3	4
5	6	5
6	**6**	**6**
7	6	7
8	9	8
9	**9**	**9**
10	9	10
11	9	11
. . . .	9 . . 9	. . . .

Tab. 3-2

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09/2014