

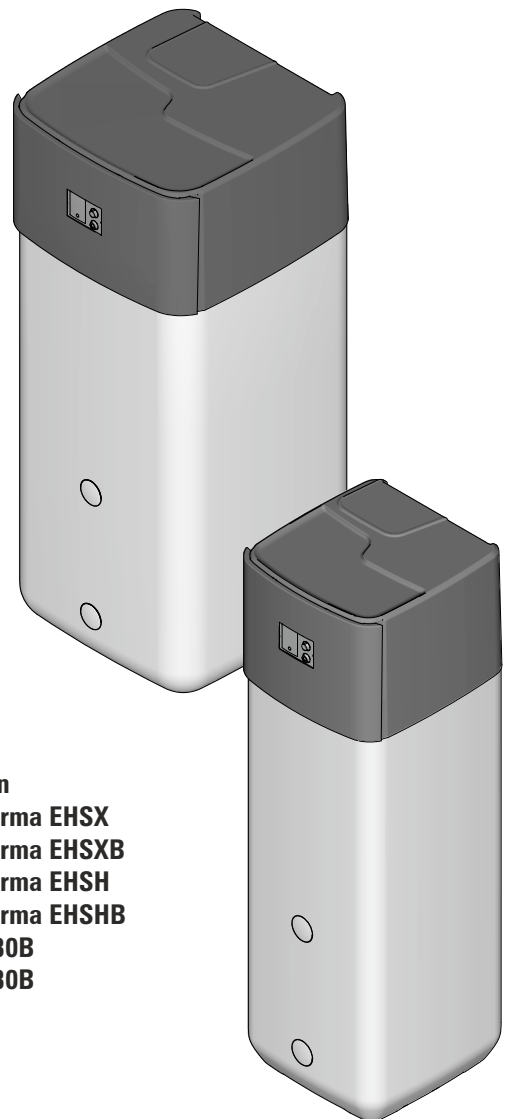


Startup Checklist

check off executed action!



- Daikin**
- Altherma EHSX
 - Altherma EHSXB
 - Altherma ESH
 - Altherma ESHB
 - 08P50B
 - 16P50B



- Daikin**
- Altherma EHSX
 - Altherma EHSXB
 - Altherma ESH
 - Altherma ESHB
 - 04P30B
 - 08P30B



- 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

„Select the desired language“
Confirm message



Figure 1-2

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



Attention: Installations **without** outdoor unit

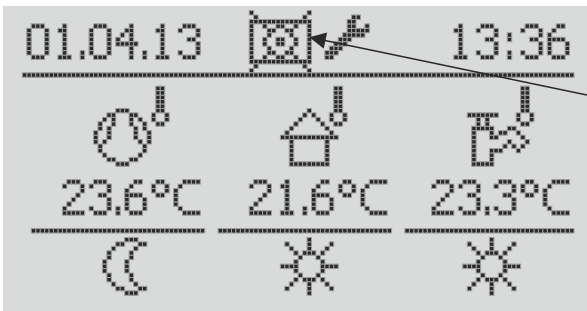



Figure 1-3

-Crossed-out outdoor unit

- 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)

2.1.1 Checking the temperature display ( FA Daikin Altherma / Chapter 5.1.4)

2.1.2 Check the minimum flow rate ( FA Daikin Altherma / Chapter 5.1.5)

2.1.3 Check the water pressure ( FA Daikin Altherma / Chapter 5.1.4)

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)

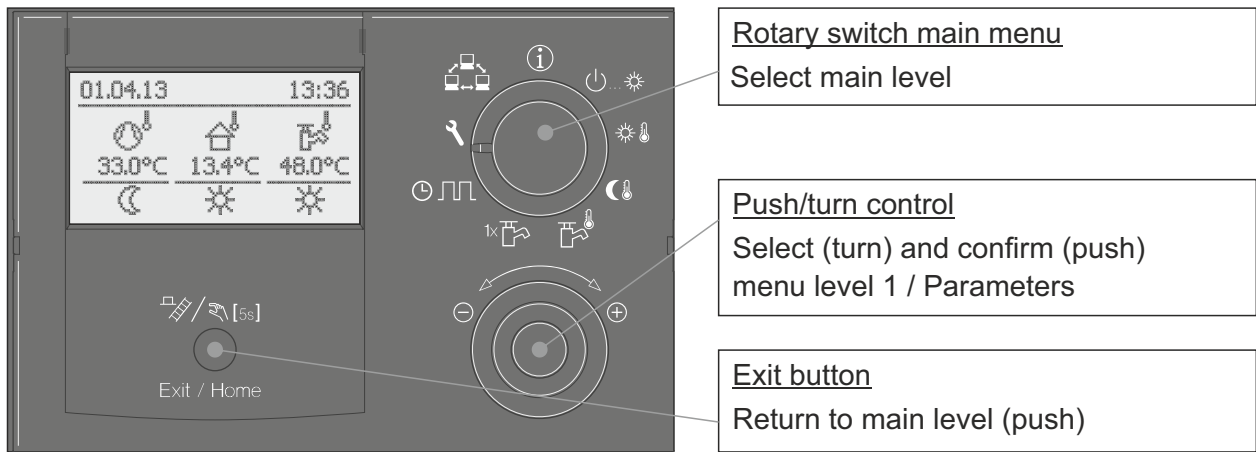


Figure 2-1 Controls – Control unit

		Parameters					
Main level		Prompts on the Display					
	Rotary switch main menu	Menu level 1	Parameter	Setting value	Comments		
1.	Configuration 	Setup (RoCon HP) <u>Chapter 6.2.1 / Tab.6-1</u>	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	<input type="checkbox"/>	
2.			Indoor Unit	XXX Type of indoor unit	Set type of indoor unit XXX see rating plate	<input type="checkbox"/>	
3.			HP Version	Version XX	Version of the EHS(X/H) indoor unit	<input type="checkbox"/>	
4.			Function Heating	0-3	Customize settings installed auxiliary heater	<input type="checkbox"/>	
5.			HZU	On /Off		<input type="checkbox"/>	
6.		System Configuration (RoCon HP) <u>Chapter 6.2.2 / Tab.6-2</u>	Power DHW	6 kW	set to 6 kW or maximum value of the built-in Heating Rod	<input type="checkbox"/>	
7.			BUH s1 power	3 kW	(On this see KA EHS BUxx)	<input type="checkbox"/>	
8.			BUH s1 power	9 kW	(On this see KA EHS BUxx)	<input type="checkbox"/>	
9.			HC Configuration	heating / T-Outside lim day	19°C	Set to desired temperature	<input type="checkbox"/>
10.			Insulation	underdose	Depending on the setting, the external temperature is averaged over a specific time	<input type="checkbox"/>	
11.	DHW Set Temp (RoCon HP) <u>Chapter 6.7</u>		T-DHW Setpoint 1	48 °C	Set to desired DHW-target temperature. Not below 40°C!	<input type="checkbox"/>	
12.	Operating Mode (RoCon HP) <u>Chapter 6.4</u>		heating	activate	Device begins to heat. Attention: If the device was on standby, pay attention to the standby time; see on Page 4.	<input type="checkbox"/>	
13.	Information				Switch to Info level	<input type="checkbox"/>	

Tab. 2-1



i **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.

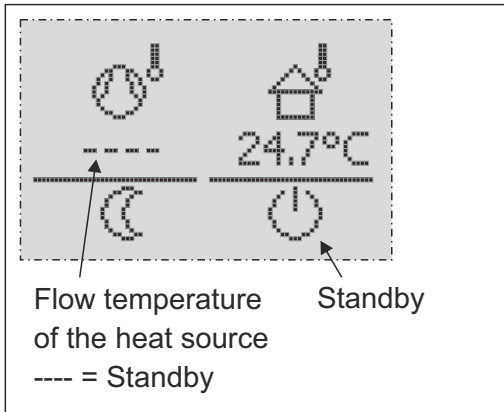


Figure 2-2

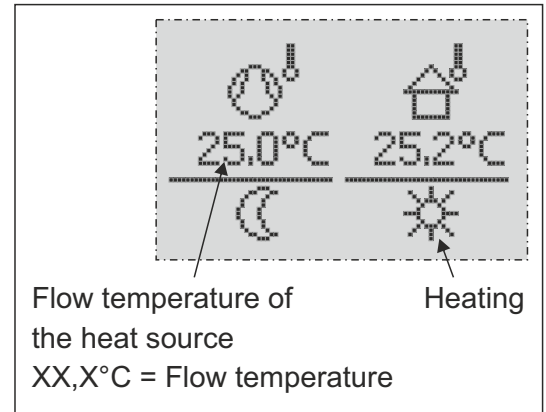
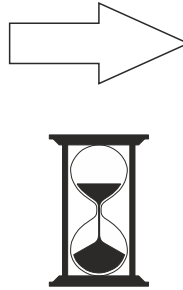


Figure 2-3

2.3 Standard prompt for startup

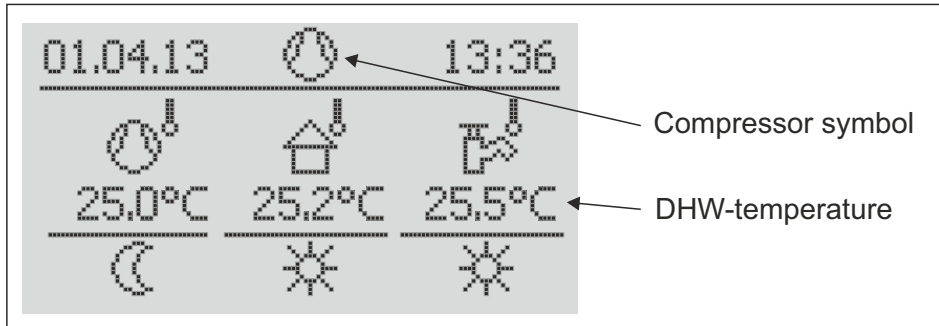


Figure 2-4

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

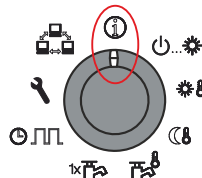
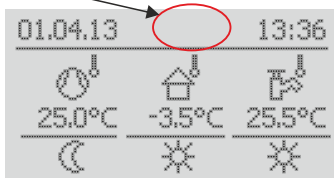


i **ATTENTION!**

- 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 is shown on the display.



Mode:	☀	Pump:	100%
Ext:	---	EHS:	3kW
RT:	---	BPV:	0%

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. 6.2.1, Tab.6-1
2.	Indoor Unit	Set type of indoor unit. Read type XXX from rating plate and set.	
3.	HP Version	Version of the EHS(X/H) indoor unit 4: Version 4 5: Version 5	
4.	Function Heating Rod	When using an Heating Rod (electronic heating element) to support the heat pump, please set to 1.	
5.	Equilibrium Func	When activated, the electronic heating element for heating support is first triggered below the external temperature set in the parameter "Equilibrium Func".	
6.	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.	
7.	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. 6.2.2, Tab. 6-2).	
8.	Max Perform Pump	Defines maximum pump output	Ch. 6.2.2, Tab.6-2
9.	Min Perform Pump	Defines minimum pump output	
10.	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.	
11.	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.	Ch. 6.2.3, Tab.6-3
12.	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".	
13.	T-Outside lim day	If the averaged external temperature falls below this temperature, a heating operation of the system is enabled (summer shutdown).	
14.	Heat-Slope	Heat curve must be adapted for the respective house.	
15.	Room Influence	When a room controller EHS157034 is used and a room temperature-driven control is desired, this parameter should be selected >0.	

Tab. 3-1 (1/2)



Pos.	Parameter	Description / Explanation	 RoCon HP
16.	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.6.3, Tab.6-5
17.	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.6.5, Tab.6-7
18.	T-DHW Setpoint 1	Target value of the warm water temperature. At startup, do not set below 40°C. <u>After startup, never set below 35°C!</u>	Ch.6.7, Tab.6-9

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	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

