

User Guide

Thermia Legend



The English language is used for the original instructions.
Other languages are a translation of the original instructions.
(Directive 2006/42/EC)

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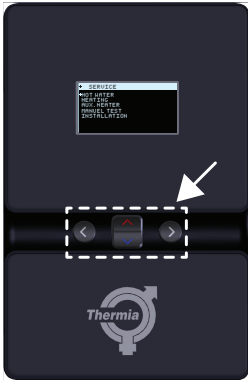
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1 Common settings

1.1 Quick guide

Use the buttons to manoeuvre the menu.



Enter/set



Back/exit








Up/increase temperature (+)



Down/decrease temperature (-)


Below is a summary of the most common settings you may need to make as owner of this heat pump.

- **Adjusting the indoor temperature is easy by adjusting the ROOM value:**
- Press  or  buttons once to open and change the **ROOM** value.
- Adjust by pressing the  or  buttons, one step will alter the indoor temperature approximately 1°
- Wait 10 seconds or press the left button  to exit the menu

Note! If it is to warm (or cold) in the house, it is important to regulate the indoor temperature by adjusting the settings in the heat pump display. Avoid turning down radiator thermostats or floor heating thermostats to reduce room temperature. With open thermostats you will extend the lifespan of the heat pump and you often also save more money as the heat pump will run more efficient.

Observe that the effect of the adjustment takes up to approximately 24 hours to be noticeable, depending on the heating system and insulation of the building etc.

- **Display notifications (Alarms) or no hot water**

If an event occurs that triggers the alarm, this is indicated in the display with the text "**ALARM**" and relevant alarm message. Make a note of the alarm message, the alarm can often be reset once by setting the heat pump to operating mode  **OFF** and then back to desired operating mode. For more information about alarms go to the Alarm chapter.

2 Foreword

Buying a heat pump from Thermia is an investment in a better future.

A Thermia heat pump is classed as a renewable energy source, which means that it is considerate of our environment. It is a safe and convenient solution that provides sustainable heating, hot water and, in certain cases, cooling for your home at a low energy consumption.

We thank you for the confidence that you have shown in us by buying a heat pump from Thermia. We hope that you will benefit from it for many, many years to come.

With best wishes

Thermia Heat Pumps

3 Safety precautions

3.1 Important information

Warning



This appliance can be used by children aged 8 years and above, and by persons with reduced physical, sensory or mental capabilities or lack of experience or knowledge, provided that they are supervised or have been instructed in the safe use of the appliance and understand the hazards involved.

Cleaning and user maintenance must not be carried out by children, except under adult supervision. Children are not permitted to play with the product.

The system can be considered maintenance-free but certain checks are necessary.
Contact your installer for any service work.
The front of the heat pump must only be opened by qualified installers.

3.2 Installation and maintenance

Only qualified installers may install, operate and carry out maintenance and repair work on the heat pump.

The appliance shall be stored and installed so as to prevent mechanical damage from occurring.

Due to safety regulations, only qualified electricians may modify the electrical installation and only qualified refrigeration technicians may work on the refrigerant circuit.

This applies to modifications on the following components:

- The heat pump unit
- The pipes for the refrigerant, brine and water
- The power supply
- The safety valves

It is not permitted to carry out construction installations that may affect the operational safety of the heat pump.

Make sure to never block the connection to the safety valves' overflow pipes.

The following safety precautions apply to the hot water circuit's safety valve with corresponding overflow pipe:

- Water expands when it is heated, which means that a small amount of water is released from the system via the overflow pipe.
- The water that exits the overflow pipe can be hot!
Therefore, allow it to flow to a floor drain to prevent any risk of burning yourself.

4 About your heat pump

4.1 Product description

This heat pump is a heating system for both heating and hot water production. It has a compressor which is customised for heat pumps.

The heat pump is equipped with control equipment which is presented in a graphic display. The heat pump is also prepared for monitoring via the internet. (Accessory Online)

Heating is collected from a ground collector and is provided to the building via a water-borne heating system. The heat pump (compressor) supplies as much of the heat demand as possible before auxiliary heating is engaged to assist. If cooling is installed, the heat pump can also provide cooling.

The heating unit consists of some different components:

Heat pump unit

The heat pump consists of e.g.:

- Scroll compressor
- Stainless steel heat exchanger´s
- Speed controlled, low energy circulation pumps for collector system and heating system
- Inbuilt stainless water heater
- Internal electrical immersion heater
- The Duo heat pump has a separate water heater. The temperature in the water heater is controlled by temperature sensors.

Control equipment

The control equipment controls the incoming components of the heating appliance (compressor, circulation pumps, auxiliary heating, exchange valves and external functions available as accessories, if installed) and keeps track of when the pump should start and stop, as well as whether it should produce heating or hot water.

The control equipment consists of:

- Control display.
- Temperature sensors e.g. (outdoor, supply line, return line, brine and hot water).
- Pressure switches.

Heating system

In your heating system, water is constantly circulating from the heat pump through radiators or floor heating and back again to provide heating to the building, except during summer when there is no need for heating. If you have cooling installed, the cooling is supplied in a similar way, often to fan coils or under floor systems prepared for cooling.

Heat settings & supply line temperature

The heat pump is automatically calculating how much heat it has to produce to keep a comfortable indoor climate based on the measured outdoor temperature and the settings made on the so called "heat curve" in the heat pump display.

The temperature of the water supplied from the heat pump to the heating system is called "supply line temperature" as it is the temperature that is supplied from the heat pump to the heating system.

The supply line temperature needs to be increased when the outdoor temperatures gets lower because more heat is required from the heating system when it gets colder outside to keep the same indoor temperature. This is what the "heat curve" makes sure.

The heat curve settings are normally adjusted by the heat pump installer, but fine tuning to the specific house conditions and individual preferences may be required after some time to obtain desired indoor climate in all weather conditions.

A correctly set heat curve saves energy, gives a very good indoor climate and often also reduces the need of maintenance.

Note! It is important to regulate the indoor temperature by adjusting the temperature in the heat pump display instead of turning of the radiators by using e.g. thermostats. This way you extend the lifespan of the heat pump and you save more money as the heat pump will run more efficient.

General guidance:

In order to increase the indoor temperature with 1 degree, the **supply line** temperature should often be increased by 2-3°C.

(To decrease indoor temperatures, lower the temperature settings correspondingly.)

When the heat curve is set properly, the **ROOM** value adjustment will work as a easy adjustment to increase/decrease the indoor temperature, affecting the indoor temperature with approx 1°C / step by changing the supply line temperature with 3° (regardless of outdoor temperature).






For further information. See heat settings.

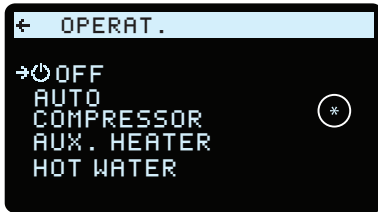
5 Settings and adjustments

A qualified installer sets the heat pump's basic settings upon installation. The adjustments that may be made by the end user are described below. Sometimes no adjustments are needed at all.


Never change control unit settings unless you are aware of what effects the changes may have. Make a note of the default setting and be aware that some changes may take some time to take effect due to the nature of a heating system.

5.1 Selecting operating mode

Set the heat pump to the desired operating mode in the menu:  **OPERAT.** > (* shows current mode) Select mode by using  or  buttons. Press right button  to confirm choice. Press right button twice  to exit the menu.



Operating modes, symbols and descriptions:

-  **OFF:** The installation is fully switched off (risk of freezing). This mode is also used to acknowledge and reset alarms.
- **AUTO :** The heat pump automatically controls the heat pump and auxiliary heater. (Normally recommended mode.)
- **COMPRESSOR:** In this mode the aux heater is blocked and will never assist. (=e.g. no backup heating in case of alarms and no anti legionella top up heating of hot water). Therefore this setting is not recommended for use as a permanent operating mode, or when the property is unattended. (Risk of freezing.)
- **AUX. HEATER:** The control system only permits the auxiliary heater to be in operation, can be used in the event of certain alarms or to provide heating or hot water before the brine circuit is installed.
- **HOT WATER:** In this mode the heat pump only produce hot water. No heat is directed to the heating system. (Risk of freezing.)

5.2 Heating settings

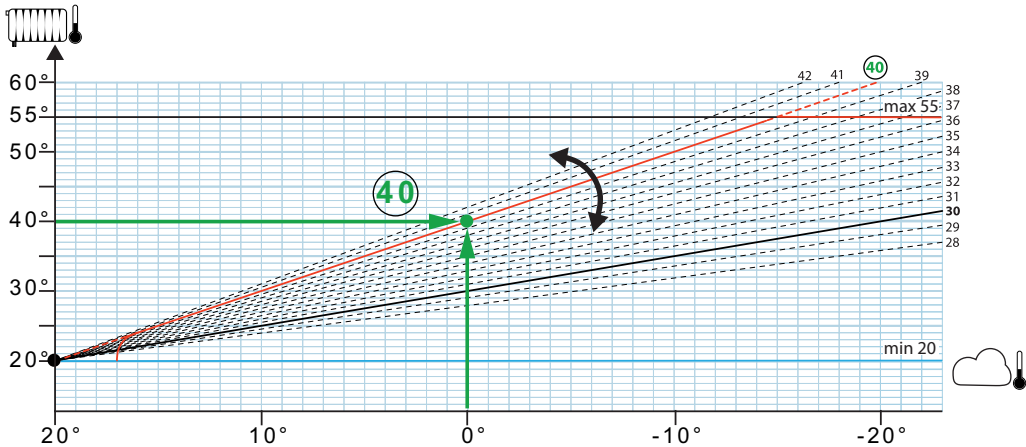
5.2.1 Heating settings, general

The indoor temperature is adjusted by changing the heat pump's heat curve and room settings. The heat curve is used for the controller to calculate and make sure that the heat pump supply heating, based on the outdoor temperature. A colder outdoor temperature results in more heat being supplied to the heating system to obtain a pleasant indoor temperature in any weather condition. A correctly set heat curve reduces maintenance and saves energy.

To insure a long lifetime and avoid operational disturbances, avoid regulating heating with thermostats and adjust the temperature on the heat pump instead. (Applies especially for system without volume or buffer tank.)

A typical heat curve "40" is shown below, as an example. At an outdoor temperature of 0°C the target average supply temperature will be 40 degrees with heat curve 40 (at room setting 20).

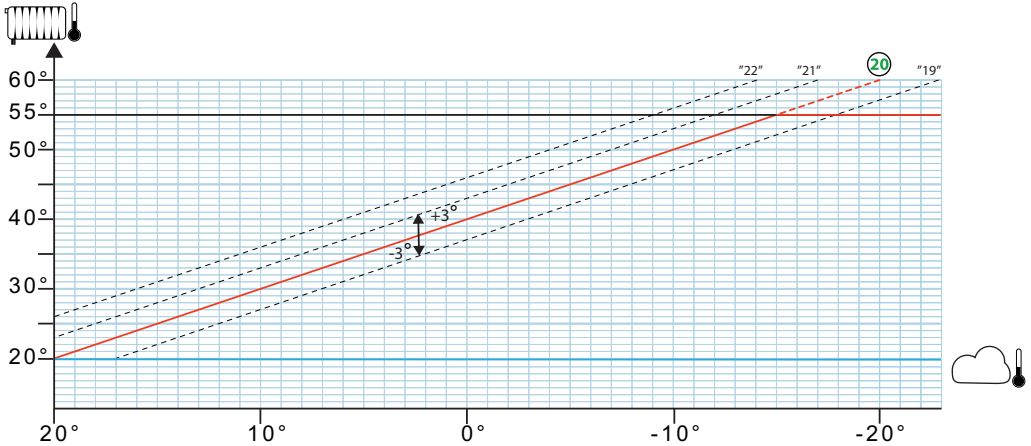
Curve adjustment curve 40 example (at room setting 20)



The illustration for heat curve 40 (red line) shows that at outdoor temperatures colder than 0°C, supply water hotter than 40°C is sent out to the radiators. At outdoor temperatures greater than 0°C, supply water cooler than 40°C is sent out. When the CURVE value is increased, the heat curve will become steeper and when the value is reduced, it will become flatter. If the heat curve is set correct (normally to provide 20 degrees indoor temperature), the room setting (at the start screen) can be used to easily adjust indoor temperature up or down approx 1 degree / step. (For floor heating systems, heat curve 30 (black line in picture above) is shown as example.)

Room adjustment example at room 20 (with heat curve 40)

The ROOM value (marked as (20) below) is used to lift or lower the heat curve (keeping the same inclination) with 3 degrees / step. This means that the indoor temperature will change approx 1 degree per step up or down on room value change. The Room value should be considered as a reference to make the basic heating adjustment more intuitive, and may not always reflect actual indoor temperature.



General guideline for adjustment:

Provided that the heat curve is initially adjusted for the heating system, the following general & simplified recommendations can be used as guideline:

If the outdoor temperature is warmer than -5°C and the indoor temperature is not as desired, change the ROOM setting one step up or down to change the indoor temperature ~1 degree up or down.

If the outdoor temperature is lower than -5 degrees and the indoor temperature is not as desired (but it was OK at warmer out door temperatures), change the HEAT CURVE setting 1-2 degrees up or down to change the indoor temperature approximately 1 degrees up or down.

If the temperature is as desired in general, but not around +5/0/-5 degrees out door temperatures, the heat curve can also be fine-tuned just around these temperatures. In many cases an increase of 1-2 degrees may be suitable at these out door temperatures to compensate for effects by wind and unstable weather conditions.

By adjusting the heat curve & room setting correctly (as low as possible provided that the desired indoor temperature still can be kept), the savings efficiency and life time of the heat pump is maximised.






5.3 Adjusting the indoor temperature - Heat settings

Adjustment, to change the indoor temperature, quick settings if the heat curve is correctly set.

To increase or decrease of the indoor temperature, adjust the **ROOM** value.

Change the ROOM value as follows:



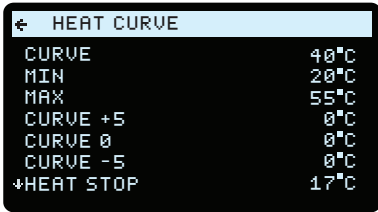
1. Press either the  or  button once to open and change the **ROOM** value.
2. Increase or decrease the **ROOM** value using the  or  buttons to change the indoor temperature.
3. Wait 10 seconds or press the left button  once to exit the menu.







One step up or down compares to approximately 1°C indoor temperature. If the temperature in the house is to high: Lower the **ROOM** value or **HEAT CURVE**. (Avoid closing the thermostats to lower room temperature.)

The "room" temperature setting may not reflect to the actual room temperature, but is intended as a reference intuitive adjustments. Do not change room temperature more than +/-3°.

Observe that the effect of the adjustment may take up to approximately 24 hours to be noticeable, depending on the heating system and insulation of the building etc.

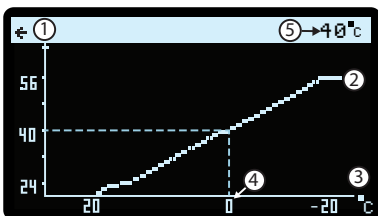
5.4 Adjusting the Heat Curve



1. Open the **HEAT CURVE** menu in the **INFORMATION** menu.
2. Select the parameter required using the  or  button.
3. Open the parameter by pressing the right button once .
4. Increase or reduce the value with the  or  button.
5. Press the left button three times  to exit.

Note! If your house has under floor heating and heat sensitive floors, the supply line temperature must not exceed certain temperatures. Otherwise the floor might get damaged.

Parameter	Description
CURVE	If the CURVE value is increased, the heat curve will become steeper; if the value is reduced, it will become flatter and less heat will be supplied when it gets colder. Raise to increase indoor temperatures, reduce to lower indoor temperatures. (The factory setting is 40 for radiator systems and 30 for floor heating.)
MIN	Lowest setpoint for supply temperature. (Normally 20°C.)
MAX	Highest setpoint for supply temperature. (Caution - high supply line temperature may cause damage to e.g. floors with floor heating.)
CURVE 5	Used to fine tune the heat curve at an outdoor temperature of +5°C.
CURVE 0	Used to fine tune the heat curve at an outdoor temperature of 0°C.
CURVE -5	Used to fine tune the heat curve at an outdoor temperature of -5°C.
HEAT STOP	This function stops all production of heat when the outdoor temperature is equal to, or higher than, the heat stop value currently set.
REDUCTION	This function is not used in standard applications, but when used, this setting is used to set desired reduction of ROOM value when the external control is active. (Also hot water production may be affected when the external signal is active.)
ROOM FACTOR	Used to adjust the influence of the ROOM value. Default 3. (2 can be used for e.g. floor heating). Also used for room sensor influence (if installed).



- 1 Supply temperature (°C)
- 2 Maximum setpoint value
- 3 Outdoor temperature (°C)
- 4 0°C
- 5 Set value (standard 40°C)

5.5 Hot water

The hot water settings are set from factory (or by installer for any installation specific requirements) for high hot water comfort & availability with high savings efficiency. Therefore no adjustments are required. Automatic top up (anti-legionella) is with factory setting performed in a one week interval in operating mode Auto.

For special occasions, when maximum availability of hot water is desired, a one-time top up heating **"EXTRA HOT WATER"** may be initiated.

To activate, press > select **"HOT WATER"** and then **"EXTRA HOT WATER"**.

If the operation mode **"COMPRESSOR"** is set when the function is activated, the top up will be done only on compressor.

If operation mode Auto is set when the function is activated, both compressor & auxiliary heater will be used to provide maximum amount of hot water.

Note! The function is only possible to activate when the hot water tank is not already considered as fully charged by the controller.

5.6 System information

Check applicable operating data described in the tables below. The information can be found in the sub-menu **INFORMATION > TEMPERATURE > Operating data, temperature**

Sensor	Explanation
Outdoor	Shows the temperature on the outdoor sensor.
System supply line	Optional. Depending on system application.
Desired supply line	Shows the calculated requirement value for the supply line.
Hot water	Shows the temperature of the hot water sensor, if hot water production is permitted.
Supply line (HP)	Shows temperature of outgoing radiator temperature from heat pump.
Return line (HP)	Shows temperature of incoming radiator temperature to heat pump.
Brine in	Shows the current temperature of brine in to the heat pump.
Brine out	Shows the current temperature of brine out from the heat pump.

Operating time

The information can be found in the sub-menu **INFORMATION > OPERAT.TIME >**

	Explanation
COMPRESSOR	Shows the number of hours that the heat pump has been in operation.
AUX. HEAT 1	Shows the number of hours that the immersion heater step 1 has been in operation.

	Explanation
AUX. HEAT 2	Shows the number of hours that the immersion heater step 2 has been in operation. (Step 3= Step 1 + step2)
HOT WATER	Shows the number of hours that hot water has been produced.

Default settings in the control unit

The left column in the table below shows the parameters that can be adjusted by the user.

The middle column shows the factory settings.

The right column shows the settings made by the installer when the heat pump was installed.

Parameter	Factory setting	Any customer-specific settings
Heat curve	40/30°C	
Min desired system supply temp.	20°C	
Max desired system supply temp.	60/45°C	
Heating - Seasonal stop	17°C	

6 Accessories

6.1 Accessories

There are a number of accessories available to be installed with this heat pump. Below is a list of the most commonly used accessories. Not all options or combinations may be available for your heat pump. Contact your installer if you have any specific requests.

Installed accessories will make settings available in the display. Example of available accessories include:

- Pool heating
- Online supervision
- Extra shunt group
- External auxiliary heater
- Passive cooling
- Active cooling
- Power limiter
- Flow guard
- Buffer tank control
- Room sensor
- Etc.

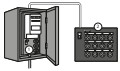
7 Alarms

7.1 Alarms

If an event occurs that triggers an alarm this is indicated in the display with the text ALARM and an alarm message. Below is a list of the most common alarms and what you can do.

When alarms are active, the heat pump will in most cases stop producing hot water. This is made to draw attention to the alarm. Hot water production will start again when the problem is solved (and alarm is reset by setting operating mode off, confirm and then back to desired operating mode).

If the problem can not be solved, hot water and heating can in most cases be produced in operating mode Auxiliary heater. (note that operating mode aux heater will increase the energy consumption.)



Motor protection alarm: This is often caused by a broken (main) fuse in the property.

1. Check fuses, replace if necessary.
2. Set the heat pump to operating mode **OFF** and confirm, to reset alarm.
3. Set the heat pump to operating mode **AUTO**.

If the problem persists, contact your installer as the motor protection may need a manual reset.



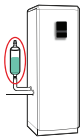
Overheat protection alarm: May be caused by air/low pressure in the heating circuit or no flow.

1. Check pressure in heating circuit and bleed air from the heating system if required. (See description in regular checks chapter.) If required, fill up to recommended pressure.
2. Set the heat pump to operating mode **OFF** and confirm.
3. Turn off the electric main supply to the heat pump and then carefully remove the front of the heat pump using a flat screw driver on the top locking mechanism. Fold the front carefully forward and lift it off (be careful with the display cable).
4. Reset the overheating protection by pressing the button (quite hard) in the left corner. See picture, T1 is overheat protection.
5. Re-fit the heat pump front and then turn on the electrical supply again. Turn on electric main supply.
6. Set the heat pump to operating mode **AUTO**



High pressure alarm: Check system pressure (see description in regular checks). Also check that any thermostats on radiators & floor heating are open, and vent heating system for air.

1. Set the heat pump to operating mode **OFF** and confirm to reset alarm.
2. Check system pressure (see description in regular checks). Also check that any thermostats on radiators and floor heating are open, and vent heating system for air.
3. Set the heat pump to operating mode **AUTO**.
4. If the alarm goes off again, set the heat pump to operating mode auxiliary heater (to get hot water) and contact your installer.



Low pressure alarm: Usually caused by air or no flow in the brine circuit.

1. Check the brine level in the vessel (must not be empty, should normally be ~2/3 full). If the fluid level is too high or low, contact your installer if you are uncertain how and with what to fill.
2. If the brine level is ok, reset the alarm ONCE. If the alarm goes off again, set the heat pump to operating mode auxiliary heater and contact your installer.

For any alarms re-occurring, please contact your installer for advice.

8 Regular checks

8.1 Regular checks

Even if the heat pump requires very little maintenance, some regular system checks are recommended. In general for most heating systems, it is recommended to adjust the heating on the heat pump controller and avoid closing thermostats in the heating system, as far as possible and suitable. In many cases adjusting the heat in the heat pump controller instead of closing thermostats will reduce the need of maintenance and extend the lifespan of the heat pump. As a correctly adjusted heat pump will run more efficient, it will often also consume less energy.

8.2 Check the water pressure in the heating circuit

The system pressure of the installation should at regular basis be checked. Ensure that the heating system has the necessary pressure, according to the installers advice (often approximately 1 bar), but never more than 3

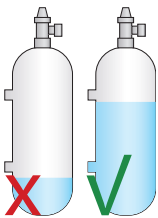


You can often use normal tap water when topping up the heating system. In certain exceptional cases the water quality may be unsuitable for filling the heating system (corrosive or calciferous water). In case of doubt how to fill, contact your installer.

Do not use any additives for treatment of the water in the heating system, unless you have a written consent from Thermia!

8.3 Check level of brine

If the level of brine is lower than 1/3 filling is recommended. Contact your installer if you are in doubt how till fill.



8.4 Checking safety valves

The safety valves for the installation (placed outside the heat pump unit) should be checked at least four times per year to prevent lime deposits clogging the mechanism.

The safety valve of the water tank protects the enclosed heater against over pressure. It is mounted on the cold water inlet line. If the safety valve is not checked regularly, there is a risk that the water tank may sustain damage. It is normal for the safety valve to let out small amounts of water when the water tank is being charged, especially if a lot of hot water was used previously.

The safety valves can normally be checked by turning the cap a quarter of a turn clockwise until water comes out of the overflow pipe. If a safety valve does not work properly, it must be replaced. Contact your installer.

The opening pressure of the safety valves is not adjustable.

Note that it may be normal that small amounts of water may exit from the hot water tank safety valve when the hot water is heated up. This is because that water expands when heated and needs to be released to avoid damage on the hot water tank.

Make sure to never ever block the connection to the safety valves' overflow pipes. Any excessive pressure must always be able to escape.

8.5 In the event of leakage

In the event of leakage in the hot water pipes between the heat pump and water taps, close the shut-off valve on the cold water inlet immediately. Then contact your installer.

In the event of leakage in the brine circuit, turn off the heat pump and call your installer.

8.6 Cleaning the filters for the heating and brine circuits

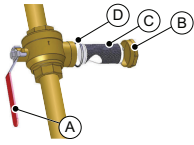
Contact your installer if you are not sure how to perform the filter cleaning.

The cleaning of filters may cause air ingress to the brine or heating system that may cause operational disturbances. For cleaning magnetite filters, please refer to the filter manufacturers instructions.

Heating circuit:

Check and clean the filters at least twice the first year after installation. The interval can be extended if there is evidence that cleaning twice a year is not necessary.

Have a cloth at hand when opening the filter cover as a small amount of water usually escapes.



- A Shut-off tap
- B Cover
- C Filter
- D O-ring

Clean the filter as follows:

1. Switch off the heat pump.
2. Turn the shut-off tap **(A)** to the closed position.
3. Unscrew the cover **(B)** and remove it.
4. Remove the filter.
5. Rinse the filter **(C)**.
6. Reinstall the filter.
7. Check that the O-ring **(D)** on the cover is not damaged.
8. Screw the cover back into place.
9. Turn the shut-off tap **(A)** to the open position.
10. Start the heat pump.

Brine circuit:

For the brine circuit filter, please contact your installer for advice.

9 Appendix








9.1 Display symbol description

9.1.1 Symbol description

Symbol description

The display shows information about the heat pump's operation, status and alarms.

Symbols that show the heat pump status:

Symbol	Meaning
	COMPRESSOR – Indicates that the compressor is in operation. Flashing = Brine monitoring active (Compressor temporarily stopped.)
	LIGHTNING BOLT – Indicates that the electrical immersion heater is in operation. The number indicates which additional step is activated.
	HOUSE – Indicates that the heat pump produces heat for the heating system.
	TAP – Indicates that the heat pump produces heat for the water heater. A lightning symbol next to this symbol indicates peak heat charging (anti-legionella function).
F	FLOW SENSOR – An F indicates that there is sufficient flow. (Only if flow/level guard is connected.)
	TANK – Indicates the level of hot water in the water heater. When hot water is produced, this is indicated by a flashing icon for the tank.
	SQUARE – Either indicates that the operating pressure switch has deployed, or that the pressure pipe temperature has reached its maximum temperature. (Compressor may temporarily stopped.)
	COOLING – Displayed if cooling is produced. A = Active cooling. (Accessory)

The following operating information may also appear:

Message	Meaning
ROOM	Shows the set ROOM value. Standard value: 20°C. If the room sensor (accessory) is installed it shows the actual temperature, while the desired indoor temperature is shown in brackets.
START	Indicates that there is a need for heat or hot water production and that the heat pump will start.
EVU STOP	Indicates that the additional function EVU (Elektrizitätsversorgungsunternehmen) is active. This means that the heat pump is off as long as EVU is active.
NO HEAT DEMAND	Indicates that there is no demand for heating or hot water production. (Compressor temporarily stopped.)
COMPRESSOR START --XX MIN	Indicates that there is a need for heat or hot water production and that the heat pump will start in XX minutes.

Message	Meaning
COMPRESSOR+ IMM.HEAT	Indicates that heat production is active with both compressor and immersion heater.
START_MIN	Indicates that there is a demand for heating or hot water production but that a start delay is active.
IMMERSION HEATER	Indicates that there is an auxiliary heater demand.
COOLING	Displayed when passive cooling is produced.
ACTIVE COOLING	Displayed when active cooling is produced.

10 Checklist

Location

- Surface adjustment
- Drainage

Pipe installation, hot and cold side

- Pipe connections in accordance with the diagram
- Flexible hoses (does not apply for all models)
- Expansion and bleed vessel
- Filter, hot and cold side
- Pipe insulation
- Open radiator valves
- Leak test, hot and cold side

Electrical Installation

- Circuit breaker
- Fuse
- Positioning of the outdoor sensor

Commissioning

- Bleeding, hot and cold side
- Settings control system
- Manual test heat curve
- Manual test different operating conditions
- Noise check
- Function test safety valves
- Function test mixer valve
- Trimming the heating system

___ °C. Fill in the measured freezing point of the collector circuit's brine fluid.

Customer information

- Contents of this manual
- Safety precautions
- Controller, function
- Settings and adjustments
- Regular checks
- Reference to service requirement
- Warranties and insurances

11 Installation carried out by:

Piping installation

▪ Date:

▪ Company:

▪ Name:

▪ Tel. No:

Electrical Installation

▪ Date:

▪ Company:

▪ Name:

▪ Tel. No:

System adjustment

▪ Date:

▪ Company:

▪ Name:

▪ Tel. No:





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