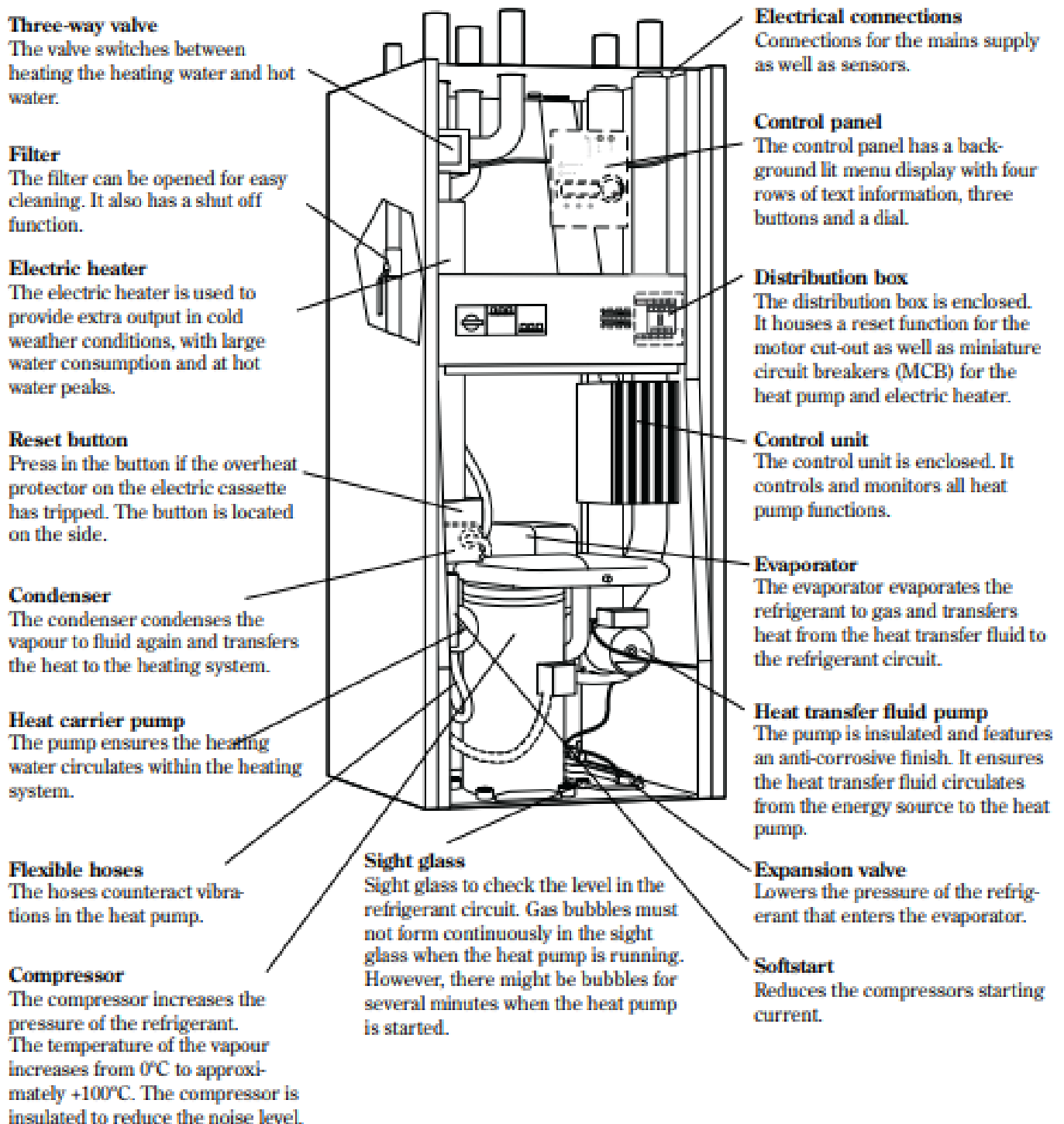


Understanding the heat pump:

Component parts of the heat pump

Greenstore System



Understanding the control panel:

Control panel

All settings are made on the control panel. It also displays heat production statistics and information about different alarms. When you have made your settings, the control panel makes sure they are saved in the control unit.

Controls and status indicators



Power switch (ON/OFF)

Indicator on: Mains power ON.
Indicator flashes: Mains power OFF.



Operating status

Indicator on: The heat pump (compressor) is operational.



Electric heater status

Indicator on: The heat pump is using additional heat from an electric heater.



Hot water status

Indicator on: The heat pump is heating DHW in the cylinder.
Indicator flashes: The heat pump has a hot water peak or is producing extra DHW.



Alarm status

Indicator flashes: A fault has occurred in the heat pump.
Indicator on: The alarm has been acknowledged by the end user, but the fault remains. (See section; What to do if a fault occurs).

Temp. incr. /
decr.



Heat

Pressing once gives a shortcut to the most frequently used temperature settings.

Info



Info

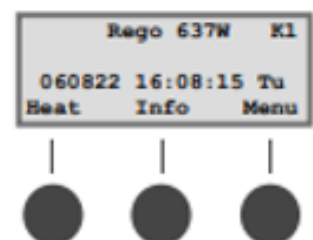
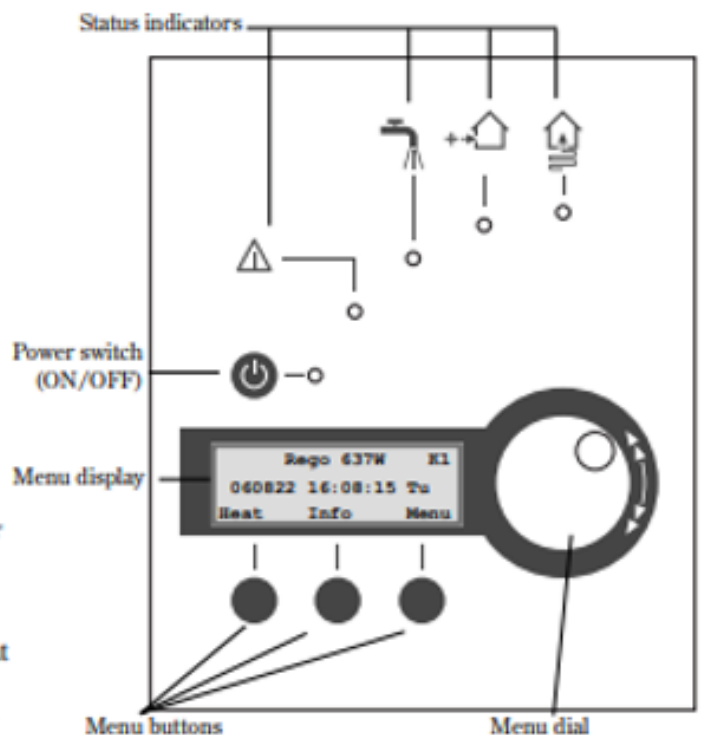
Pressing once gives continuous information about the heat pump and electrical heater operating conditions.

Menu



Menu

Press once to enter the main menu.
The main menu contains all the setting menus and temperature displays.



Understanding the temperature sensors:

All menus relating to temperature sensors

All menus relating to temperature sensors

All the menus associated with the heat pump temperature sensors are shown below. Note that the user cannot make any changes to the settings in these menus, only read the current values. Some menus are standard for all models while others are only available in combination with different accessories. The sensors give an alarm if the temperature is outside of the permitted range/values.



Note

All sensors are not included as standard on the heat pump, some are available as accessories for different application areas. See more information under respective menus.

Temperature readings
Return radiator GT1
Off 41,3° Now 40,3°
Return

The menu shows the return temperature in the heating system, i.e. the water from the radiators back to the heat pump. The temperature varies with the outdoor temperature.

Temperature readings
Out GT2
14,0°
Return

The menu shows the outdoor temperature. Some deviation compared to the true temperature may occur due to thermal radiation from the house to the installed outdoor sensor.

Temperature readings
Hot water GT3
Set 51,0° Now 50,0°
Return

The menu shows the set and present temperature in the lower section of the outer jacket of the hot water cylinder T4 (GT4). The temperature is approximately 5°C lower than the temperature of the domestic hot water inside the inner cylinder.

Temperature readings
Shunt, flow GT4
Tgt 40,3° Now 43,0°
Return

The menu is only applicable together with a flow sensor. If an extra curve with mixing valve is used, for example, for an underfloor heating system, you can see the temperature on the flow water in the circuit. The temperature varies with the outdoor temperature.

Temperature readings
Room GT5
Tgt 20,0° Now 19,5°
Return

The menu is only applicable together with a room sensor. The menu shows the set point value and present temperature in the room where the sensor is fitted.

Temperature readings
Compressor GT6
90,0°
Return

The menu shows the compressor's working temperature. The temperature varies between 70°C and 125°C during operations.

Temperature readings
Heat trfluid out GT8
45,0°
Return

The menu shows the flow temperature of the central heating water as it leaves the heat pump. It varies depending on the outdoor temperature and whether the heat pump is in domestic hot water (DHW) heating mode.

Temperature readings
Heat tr fluid in GT9
40,3°
Return

The menu shows the temperature of the water that is fed into the heat pump. It varies depending on the outdoor temperature and whether the heat pump is in domestic hot water (DHW) heating mode. The heat pump stops at 57°C for safety reasons.

Temperature readings
Ht trfd(coll)inGT10
0,0°
Return

The menu shows the temperature of the heat transfer fluid that is fed into the heat pump from the collector system. It can vary between -5°C to +15°C during a year.

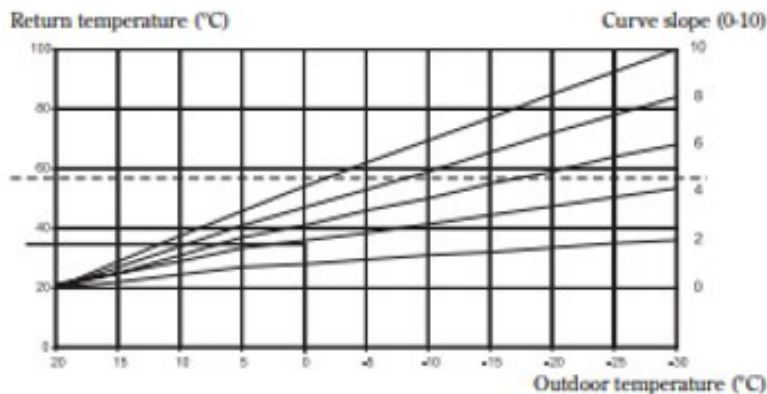
Temperature readings
Httrfd(coll)outGT11
-4,0°
Return

The menu shows the temperature of the heat transfer fluid that is fed out of the heat pump to the collector system. Normally, during operations, it is 1.5 - 5.0 degrees lower than the heat transfer fluid that is fed into the heat pump.

Understanding how to change the heat:

Change the curve slope

The heat pump's production of heat is adjusted by increasing or decreasing the curve slope in the Temp. incr. / decr. menu. This is especially effective in cold weather conditions.



Dashed line:

If the return temperature exceeds 57°C an alarm is given and the compressor switches off. The heat pump starts automatically when the return temperature falls below 57°C.

Curve slope:

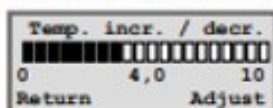
- 2-4 Normal setting for floor heating.
- 4-6.5 Normal setting for radiators.
- 7-10 Abnormal high setting.

Curve slope 4 gives a return temperature of +35°C when it is 0°C outdoors. If the outdoor temperature drops the return temperature increases. The colder the outdoor temperature the higher the return temperature. At an outdoor temperature of approximately -30°C the curve slope has nearly reached the limit value (+57°C) for the return temperature.

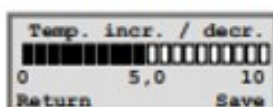
In cold weather (below +5°C):

If the indoor temperature, when it is colder than +5°C outdoors, is not satisfactory, the slope of the heat curve should be changed as follows:

1. Press the Heat button in the initial menu.



2. Press the Adjust button.
3. Turn the menu dial clockwise to increase the heating.
Turn the menu dial anti-clockwise to lower the heating.
(Adjust in small increments, 0.2-0.6 units, is usually enough.)



4. Save the new value by pressing the Save button.



Note

Wait at least one day when increasing or decreasing the heating before making a new adjustment.

If it is still difficult to get a comfortable indoor temperature at an outdoor temperature around 0°C, despite several attempts, adapt the heat curve.

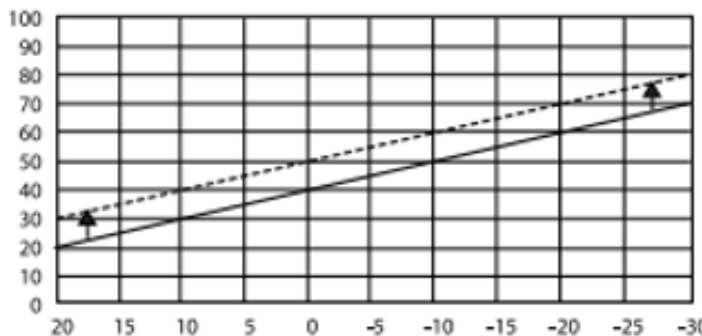
Read about how to adapt the curve in the section Extra functions – Customer level 2 / Temperature settings / Adapting the heat curve.

Understanding how to refine the temperature:

Fine-tune the heat curve

The heat curve can also be fine-tuned. Fine-tuning means that the heat curve is offset in parallel. Fine-tuning is done from the Temp. fine-tune menu. The diagram for fine-tuning shows how the dashed line has been offset upwards in parallel. This means the heating has been fine-tuned in a positive direction and the heat pump will be instructed to maintain a higher temperature on the return water at all outdoor temperatures.

Return temperature (°C)

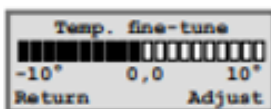


By using the menu dial on the control panel the fine-tuning line has been moved up so the heat pump produces more heat.

In warm weather (above +5°C):

If the indoor temperature is not satisfactory when it is above +5°C outdoors, the curve may be offset in the Temp. fine-tune menu as follows:

1. Press the Heat button in the initial menu.
2. Turn the menu dial clockwise until you reach the menu Temp. fine-tune.



3. Press the Adjust button.
4. Turn the menu dial clockwise to increase the heating. Turn the menu dial anti-clockwise to lower the heating. Adjust in small increments, 0.2-0.6 units, is usually enough.
5. Save the new value by pressing the Save button.