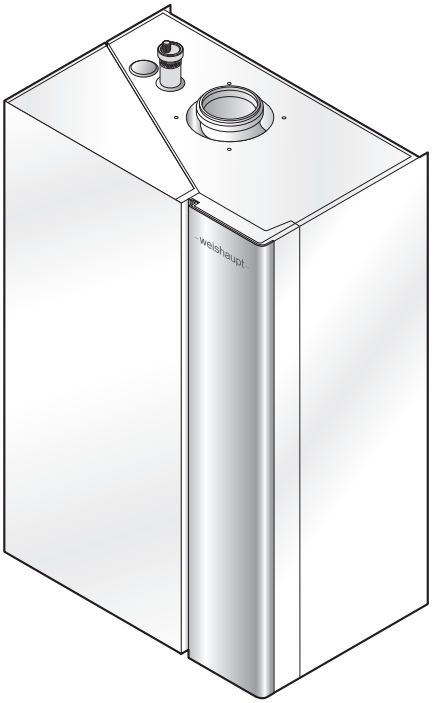
– weishaupt –

Operating notes



Gas condensing unit WTC-G… 15 … 32-B

83305502 ▪ 1/2018-03

1 User instructions

The manual is intended for the operator.
Work on the unit must only be carried out by personnel who have the relevant training and instruction.
Children must not play with the unit.

1.1 Symbols

 DANGER	Immediate danger with high risk. Non observance can lead to serious injury or death.
 WARNING	Danger with medium risk. Non observance can lead to environmental damage, serious injury or death.
 CAUTION	Danger with low risk. Non observance can cause damage to the equipment and injury to personnel.
	Important information
▶	Requires direct action
✓	Result after an action
▪	Itemisation
…	Range of values

2 Safety

2.1 Safety instructions

- Do not open front panel.
- Installation, commissioning, service and repair of the system must only be carried out by qualified personnel.
- If operating in room-air-dependent mode, do not close or reduce the supply air openings.
- The combustion air must be free from aggressive compounds (e. g. Halogens) and free of contaminants (e. g. dust).

2.2 When gas can be smelled

Avoid open flames and spark generation, for example:

- do not operate light switches,
- do not operate electronic equipment,
- do not use mobile telephones.

- ▶ Open doors and windows.
- ▶ Close gas isolating valve.
- ▶ Warn the inhabitants, do not ring door bells.
- ▶ Leave the building.
- ▶ Inform the heating contractor or gas supplier from outside of the building.

2.3 What to do if flue gas can be smelled

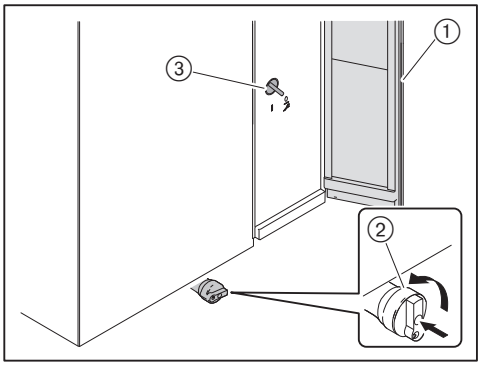
- ▶ Switch off unit and turn of the system.
- ▶ Open doors and windows.
- ▶ Notify your heating contractor or Weishaupt Customer Service.

3 Operation

3.1 Switching the unit on and off

Switching on the unit

- ► Open flap ①.
- ► Open gas isolating valve ②.
- ► Switch on using switch ③.



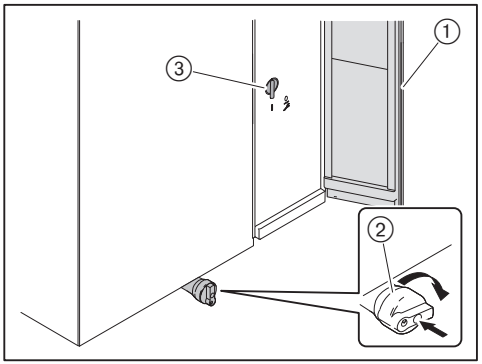
Switching off the unit

CAUTION

Damage to the heating system due to frost
The heating system may freeze while the unit is switched off.

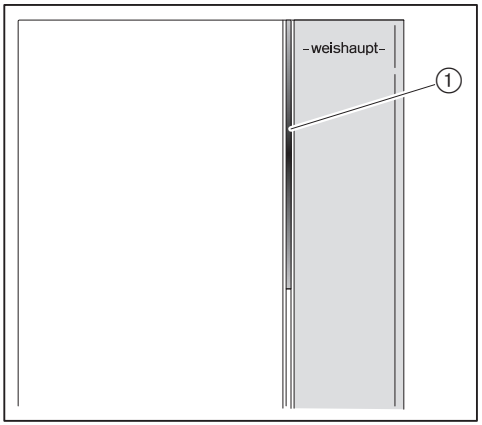
- ► If there is a risk of frost, have the system drained by a heating engineer.

- ► Open flap ①.
- ► Switch off using switch ③.
- ► Close isolating valve ②.



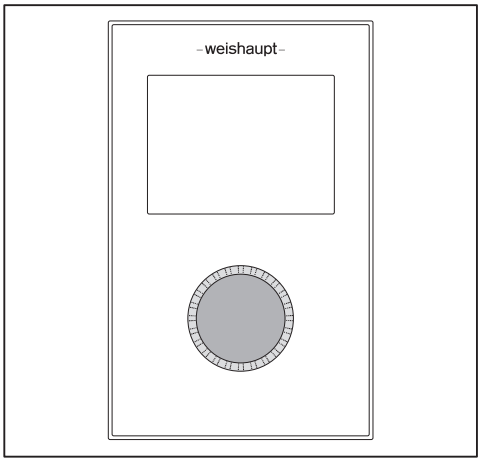
3.2 Operational display

The light bar ① shows the operating status of the condensing unit.



Light bar	Description
OFF	No voltage supply or light bar deactivated
Green	System is fault free
yellow	Warning or fault (system is still in operation)
red	Locked fault (system is in lockout)

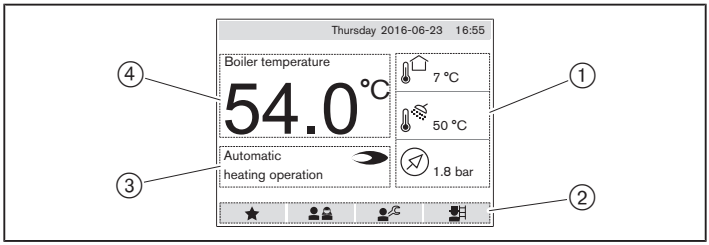
3.3 Display and operating unit



turn	navigation through parameter structure; changing values
press	briefly: confirm or save values approx. 3 seconds: exit value without saving approx. 5 seconds: return to the start screen

3.4 Display

Start screen



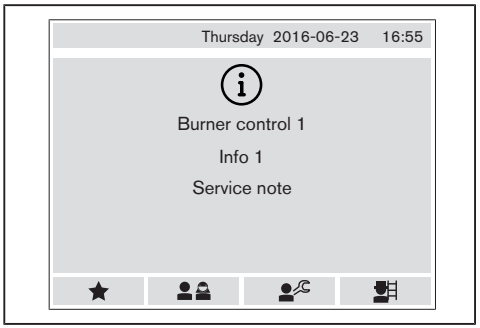
①	Information: Information from menu `Info` in the user level. The upper 2 fields can be assigned as required [ch. 3.6.1]. The bottom field is permanently assigned to the system pressure.
②	Level selection: ▪ Favourites level ▪ User level ▪ Expert level ▪ Chimney sweep function
③	Status display: Current status of the condensing unit.
④	Temperature display: Current boiler temperature of condensing unit.

Symbols

★	Favourites level / Create favourite
	User level
	Expert level
	Chimney sweep function
	Exit display
	Reset value to factory setting
?	Information / Help text
	Flame present

Service

If the service interval of the condensing unit is exceeded, a message appears.



► Notify your heating contractor or Weishaupt Customer Service.

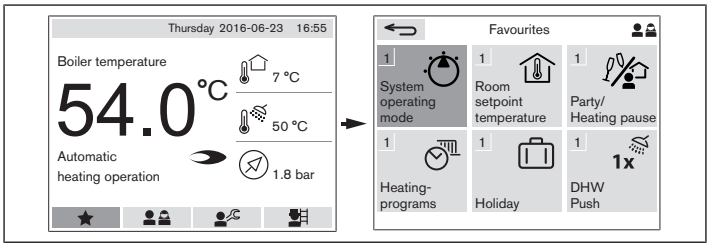
3.5 Favourites level

Frequently used user level parameters can be assigned as favourites.

It is possible to assign a maximum of 6 favourites. Factory pre-assigned favourites can be replaced by parameters from the user level.

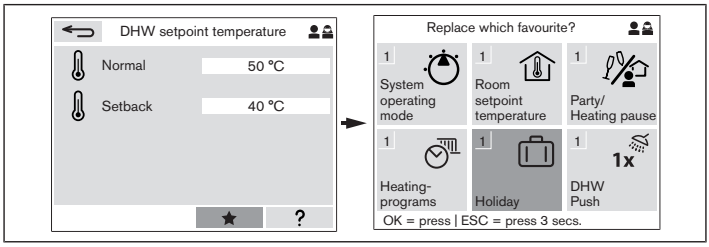
Display favourites

- ► Select Favourites level using dial knob and confirm.
- ✓ Display changes to Favourites level.



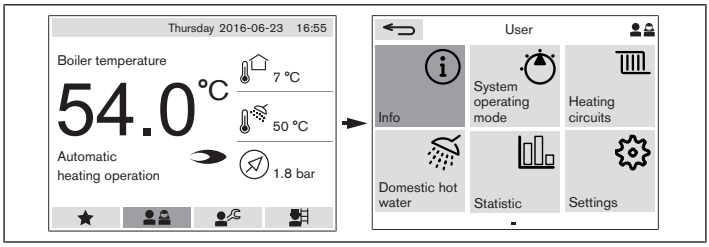
Assigning favourites

- ► Select the desired parameter in the user level .
- ► Select ★ and confirm.
- ► Turn the knob to select an existing favourite and replace by confirming.
- ✓ A new favourite has been assigned.



3.6 User level

► Select User level using dial knob and confirm.
✓ Display changes to the User level.



Depending on the execution, hydraulics and control variations, certain information and parameters are hidden.

3.6.1 Info

In menu Info, the information is read only.

	External temperature	Current temperature at the external sensor.
	DHW temperature	Current temperature at the DHW sensor.
	DHW Actual outlet temperature	Current temperature at the DHW outlet sensor. Only with version C and K (WAS … Power).
	DHW Flow rate	Current DHW flow rate at the water flow sensor of the condensing unit. Only with version C.
	Return flow temperature Circulation	Current temperature at the return flow sensor of the circulation line.
	Heating circuits	
	- Flow temperature	Current temperature at the flow sensor of the corresponding heating circuit.
	- Room temperature …	Current temperature at the corresponding room device or room sensor.
	- Room humidity …	Current room humidity at the corresponding room device 2.
kW	Rating	Current heating capacity of the condensing unit.
	Boiler temperature	Current temperature at the flow sensor of the condensing unit.
	System pressure	Current system pressure.
	Collector output	Current heat output of the solar system.
	Collector temperature	Current temperature at the collector sensor.
	Storage tank temperature bottom	Current temperature at the bottom of the storage tank.

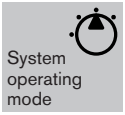
	Buffer storage temperature top	Current temperature at the buffer sensor at the top.
	Buffer storage temperature bottom	Current temperature at the buffer sensor at the bottom.
	De-couple temperature	Current temperature at de-couple sensor.
	Plate heat exchanger temperature	Current temperature at the plate heat exchanger.

The following information can be displayed on the start screen [ch. 3.4].

- ► Select information required and confirm.
- ► Select and confirm `Info on start screen?`.
- ► Select information, which is to be replaced and confirm.

✓ Information on start screen is replaced.

3.6.2 System operating mode



Menu System operating mode determines the operating mode of the entire system.

`Standby`	▪ Frost protection on ▪ Heating off ▪ DHW off
`Summer`	▪ Frost protection on ▪ Heating off ▪ DHW on
`Automatic`(1	▪ Frost protection on ▪ Heating on ▪ DHW on

(1 Factory setting

3.6.3 Heating circuits

Heating circuits

A separate submenu appears for each heating circuit.

Operating mode

determines the type of operation of the heating circuit. If functions (heating, DHW) are deactivated in menu `System operating mode` , the setting has effect [ch. 3.6.2].

`Standby`:
- Frost protection on
- Heating off
- DHW off

`Time program 1 … 3`:
- Frost protection on
- Heating on
  Temperature level according to selected time program. Time programs can be set in parameter `Heating program` .
- DHW on

(Factory setting: `Time program 1`)

`Summer`:
- Frost protection on
- Heating off
- DHW on

`Comfort, Normal, Setback`:
- Frost protection on
- Heating on
  Temperature level according to the operating mode set, independent of the time program.
- DHW on

(1 Factory setting and setting range depending on heating circuit set, see installation and operating manual for condensing unit.


Heating-programs

The heating program is used to stipulate the times of the day when comfort, normal or setback heating is used.

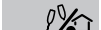
- Time program 1 … 3

The preset time programs can be customised.

Changing a time program:

► Select time program using the knob and confirm.
✓ Time bars are displayed.
► Select week day(s) using the knob and confirm.
✓ Time program can be edited.

The temperature of the level can be set using parameter Room setpoint temperature.
Set time program required in parameter Operating mode .


Party/ Heating pause

The temperature level of the heating program can be temporarily changed (maximum 23:45 hours). After this time the current heating program will be reactivated.

► Select Function and set Party/Heating pause .
► Set level required in Room setpoint temperature .
► Enter Start and End.

If the parameter is set to Off, the current heating program is activated.


Room setpoint temperature

Room setpoint temperature for the temperature level selected.

- Comfort (factory setting: 22.0 °C)
- Normal (factory setting: 21.0 °C)
- Setback (factory setting: 16.0 °C)

The levels can be assigned to specific times of the day using parameter Heating program .


Flow setpoint-temperature

Flow setpoint temperature for the temperature level selected.

- Comfort(1
- Normal(1
- Setback(1

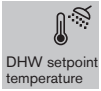
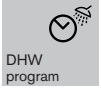
The levels can be assigned to specific times of the day using parameter Heating program .
Only with control variation Constant flow temperature.

(1 Factory setting and setting range depending on heating circuit set, see installation and operating manual for condensing unit.

 Special level	Defines the flow temperature set at special level. The heating program is not effective. When input H1 is closed, the system heats up to the special flow level set. Only if input H1 is configured to `Heating circuit 1: Special level` .
 Holiday	Interrupt heating program for a certain period of time. The level can be set to `Setback` or `Frost` during this time. ▶ Set `Function` to `On`. ▶ Set `Room setpoint temperature` to `Setback` or `Frost`. ▶ Enter `Start date` and `End date`. If the parameter is set to `Off`, the current heating program is activated.
 Heating curve	Flow setpoint temperature dependent on external temperature [ch. 4.2]. The display refers to the room setpoint temperature `Normal`. The heating curve gradient can be changed and / or it can be moved in parallel. ▪ Gradient (1 ▪ Parallel movement (1 Adapting the heating curve [ch. 4.2]: ▪ cold external temperature: change gradient ▪ mild external temperature: change parallel movement Only with control variation `Weather dependent control` or `Weather/Room control`.
 Su/Wi change-over	Configure Summer-Winter change-over. `On` (factory setting): If the damped external temperature (tendentious course) exceeds the `Change-over temperature` (factory setting: `19 °C`), the `Operating mode` changes to `Summer`. `Off`: The operating mode set remains activated, independent of the external temperature.

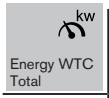
(1 Factory setting and setting range depending on heating circuit set, see installation and operating manual for condensing unit.

3.6.4 Domestic hot water

 DHW setpoint temperature	DHW temperature for normal and setback operation. ▪ `Normal` (factory setting: `50 °C`) ▪ `Setback` (factory setting: `40 °C`) Normal and setback operation can be assigned to specific times of the day using the DHW program. With version C only the DHW setpoint temperature for normal operation is displayed.
 DHW Push	DHW Push is used to cover increased hot water demand, e. g. during setback operation. The DHW tank is heated once to the DHW setpoint temperature set for normal operation.
 DHW program	The DHW program is used to stipulate the times of the day when the DHW tanks is heated to normal temperature or setback temperature. Change a time program: ► Select week day(s) using the knob and confirm. ✓ Time program can be edited.
 Circulation program	The circulation program is used to stipulate the time of day when the circulation pump is switched on. Change a time program: ► Select week day(s) using the knob and confirm. ✓ Time program can be edited.
 DHW operating mode	Deactivate DHW preparation. `On` (factory setting): DHW preparation activated. `Off`: DHW preparation deactivated.

3.6.5 Statistic

In the `Statistic` menu, daily, monthly and annual values relating to the energy generated are displayed.

	Total amount of heat generated by the condensing unit.
	Solar system yield.
	Yield for re-cooling via collector circuit.

3.6.6 Settings

Settings

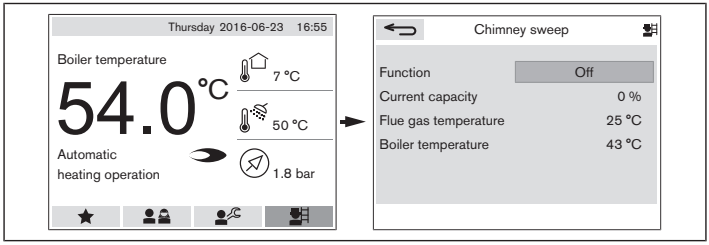
 Time of day	Set current time of day.
 Date	Set current date.
 Summertime	Configure automatic change-over of summertime. ▪ `On` (factory setting) ▪ `Off`
 WEM Portal	activate acces to WEM Portal. The following information is required for access and is displayed here: ▪ `Serial number` ▪ `Access code` Set up WEM portal, see installation and operating manual for condensing unit.
 Light strip	Deactivate light strip on condensing unit. `On` (factory setting): Light strip activated. `Off`: Light strip deactivated.
 Sensor correction	`External sensor` Correction of the current outside temperature. If no optimal placement of the outdoor sensor is possible or a measurement error is to be compensated, the measured outdoor temperature can be corrected.
	`Room sensor` Correction of the current room temperature. If no optimal placement of the room sensor is possible or a measurement error is to be compensated, the measured room temperature can be corrected.

3.7 Chimney sweep function

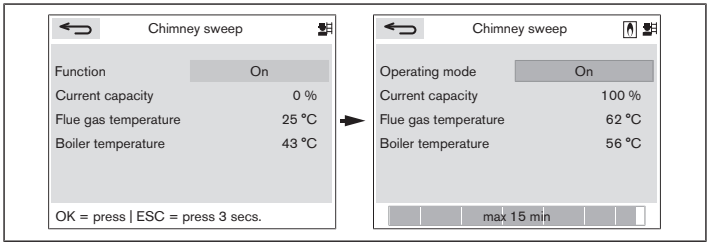
The function is used for flue gas measurement. During the chimney sweep function, the unit runs at maximum capacity.

Activate chimney sweep function

► Select the Chimney sweep symbol and confirm.
✓ Level `Chimney sweep` appears.



► Press dial knob.
► Set`Function` to `On` and confirm.
✓ Chimney sweep function is activated for 15 minutes.



Deactivate chimney sweep function

► Select ⮌ and confirm.

4 Control options

4.1 Constant flow temperature

No additional sensors or thermostats are required for this control.

The flow temperature from the heating circuit is controlled to the flow setpoint temperature set in the user level, see [ch. 3.6.3].
Room frost protection and setting optimisation are not active.

4.2 Weather compensated control

The flow temperature is controlled depending on the external temperature.

An external sensor is required for weather compensated control.

The current flow temperature setpoint is calculated from:

- external temperature,
- Heating curve:
  - Gradient  ,
  - Parallel movement  ,
- Room setpoint temperature.

A higher flow temperature is required to achieve the desired room temperature, when external temperatures are lower. The gradient determines how much the change in external temperature affects the flow setpoint temperature and adjusts the heating curve to the building.

The heating curve can be moved vertically using the parallel movement.

	Room temperature too cold	**Room temperature too warm**
Cold external temperature	▶ Increase gradient.	▶ Decrease gradient.
Mild external temperature	▶ Increase room setpoint temperature – or – increase parallel movement.	▶ Decrease room setpoint temperature – or – decrease parallel movement.

The heating curve and the room setpoint temperature can be set in the user level [ch. 3.6.3].

4.3 Room temperature dependent control

The flow temperature is controlled depending on the room temperature.

A room device or room sensor are required for room temperature dependent control.

The current flow temperature setpoint is calculated from:
- room setpoint temperature,
- current room temperature,
- room sensor influence.

The room setpoint temperature can be set in the user level [ch. 3.6.3].

The room sensor influence can be set in the Engineer level.

4.4 Weather compensated/Room control

The flow temperature of the heating circuit is controlled depending on the external temperature and the room temperature.

An external sensor and room device or room sensor are required for weather compensated control and room temperature dependent control.

The current flow temperature setpoint is calculated from:
- external temperature,
- Heating curve:
  - Gradient  ,
  - Parallel movement ,
- room setpoint temperature,
- current room temperature,
- room sensor influence.

The heating curve and the room setpoint temperature can be set in the user level [ch. 3.6.3].

The room sensor influence can be set in the Engineer level.

5 Servicing

Regular servicing saves energy and protects the environment. Servicing must only be carried out by qualified personnel. The combustion plant should be serviced annually. Depending on site conditions more frequent checks may be required.

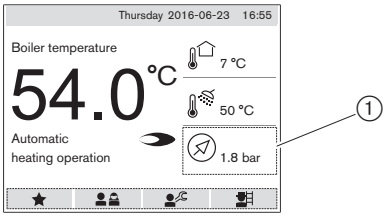
Weishaupt recommends a service contract is entered into to ensure regular inspections.

5.1 System pressure

Check system pressure

The system pressure should be checked regularly. The system pressure is normally 1.0 ... 2.0 bar.

► Read system pressure ① on the display.



Top up heating water

WARNING

Contamination of drinking water
Topping up without system separator can contaminate the drinking water. A direct connection between heating and drinking water is not permitted.

► Top up heating water via system separator.

CAUTION

Damage to the unit due to unsuitable fill water
Corrosion and scale could damage the system.

► Adhere to the requirements for the heating water and the local directives.

If the system pressure is too low, the heating water has to be topped up.

The following information should be obtained from a heating specialist:

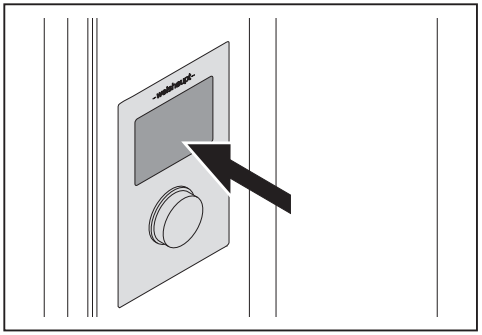
- Which requirements apply to the heating water?
- How is the heating water topped up?
- What needs to be considered?

6 Procedures for fault conditions

► Check prerequisites for operation:
  - Voltage supply available.
  - Heating switch is set to On.
  - System device or room device set correctly.

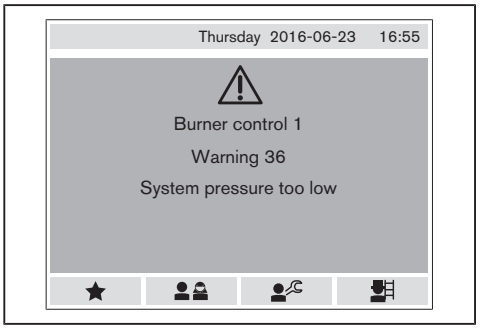
The system device detects and displays irregularities in the system.

The following conditions can occur:
- Warning
- Fault



Warnings

The system does not lock out during a warning. The signal will extinguish automatically as soon as the cause of the warning has been eliminated.

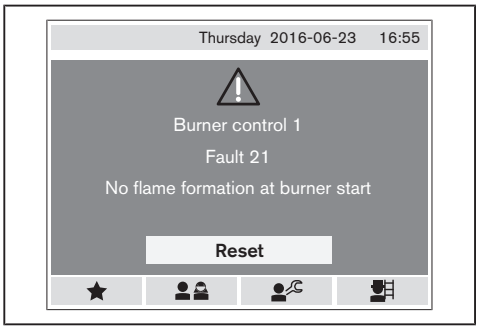


If a warning appears more than once, the system should be checked by qualified personnel.

► Read warning and note down.
► Notify your heating contractor or Weishaupt Customer Service.

Faults

If a fault occurs, the systems goes to lockout, if operational safety can no longer be ensured.
If the system is in lockout, the display shows `Reset`.



Faults must only be rectified by qualified personnel.

- ► Read fault and note down.
- ► Notify your heating contractor or Weishaupt Customer Service.

Resetting

WARNING

Damage resulting from incorrect fault repair
Incorrect fault repair can cause damage to the equipment and injure personnel.

- ► Do not carry out more than 2 lockout resets successively.
- ► Faults must be rectified by qualified personnel.

- ► Select `Reset` and confirm.

✓ The system is reset.

7 Terms

Operating mode

The operating mode determines whether rooms are heated or whether only drinking water is heated. A constant temperature level (comfort, normal, setback) or a time program with changing temperature level can be selected to heat the rooms.

Heating program (time program)

Time-dependent switching of the temperature level (comfort, normal, setback) over the period of a week.

Comfort

Increased temperature level, e. g. during the day when present.

Normal

Normal temperature level, e. g. during the day when present.

Setback

Reduced temperature level, e. g. when absent or asleep.

Room setpoint temperature

Default temperature for a room.

Flow setpoint temperature

Default temperature for the flow of the heating circuit.

heating curve

The heating curve determines the flow temperature of the heating circuit depending on the external temperature.
The colder the external temperature, the higher the flow temperature of the heating circuit.

Summer-Winter change-over

The heating is switched on or off depending on the external temperature. DHW preparation remains in operation.

DHW setpoint temperature

Default temperature for DHW.

DHW program

Time-dependent switching of the temperature level (normal, setback) over the period of a week.

Circulation program

Time-dependent activation of the circulation pump over a period of a week.

Circulation pump
Pump, which circulates the DHW in a ring main between the DHW storage tank and the extraction point (e. g tap). As a result, hot water is immediately available at the extraction point.

Heating circuit
Closed circuit between condensing unit and radiator or underfloor heating, for heat supply.

Heating water
Water for heat transfer in a heating system.

Domestic water
Water suitable for human consumption and use.

Circulation pump
Pump, which supplies the heating water to the radiator, underfloor heating or storage tank.

Supply temperature
Current temperature of heating water, which is supplied to the radiator or underfloor heating.

Return temperature
Current temperature of heating water, which flow back from the radiator or underfloor heating.

System pressure
Pressure of the heating water in the system.

Weather compensated control
The flow temperature is controlled depending on the external temperature.

Room temperature dependent control
The flow temperature is controlled depending on the room temperature.

Weather compensated and room temperature dependent control
The flow temperature of the heating circuit is controlled depending on the external temperature and the room temperature.

Room humidity
Water vapour content in a room.
The optimum room humidity in living areas is 40 ... 60%.

8 Energy saving

Energy consumption can be significantly reduced by actively managing the heating system.

Heating

- Reduce room temperature.
  Each degree the temperature is lowered reduces the energy consumption by up to 6%.
- Heat rooms only when in use.
  If rooms are not used for a long period of time, reduce the room temperature.
  Heat to setback temperature when absent or asleep.
- Avoid cooling.
  Do not let the room temperature drop below 15 ° C in unused rooms.
- Keep doors closed.
  Doors between differently heated rooms should be kept closed.
- Do not obscure radiators.
  Do not obscure radiators with furniture or curtains.

Airing

- Rapid airing
  Open windows for a short time. Do not leave window tilted for permanent airing.
- Turn down thermostat.
  Turn down the thermostat valve on the radiator or room thermostat during airing.

Domestic hot water

- Reduce DHW temperature.
  Set the DHW temperature only as high as required.
- Set circulation pump using time program.
  Set the circulation pump for DHW using the time program in such a way that the pump only runs when hot water is required.

Service

- Maintain service intervals.
  Regular servicing of the system saves energy and protects the environment..

9 Notes

Change of legal form from 22.11.2024: Max Weishaupt SE
Max Weishaupt GmbH · 88475 Schwendi

Weishaupt close by?
Addresses, telephone numbers etc. can be found at
www.weishaupt.de