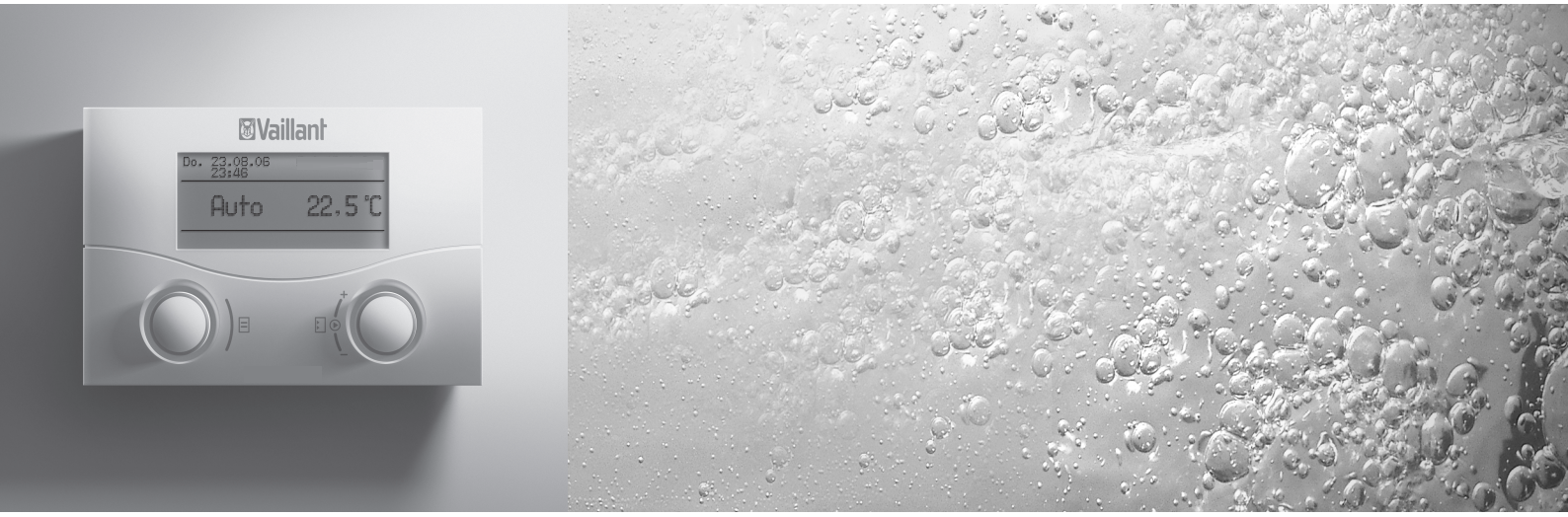
For the operator / for the expert technician

Operating and Installation Manual

VRT 392f



Room thermostat with radio transmission

VRT 392f

GB

For the owner

Operating manual

VRT 392f

Room thermostat

VRT 392f

Contents

Equipment properties

Application
The VRT 392f is a programmable room temperature controller for the heating system. The VRT 392f also controls the hot water generation.

You can use the VRT 392f to specify various room target temperatures (programming) – for different times of the day and for different days of the week.
In automatic mode, the VRT 392f controls your heating in accordance with this input (see Fig. 0.1).

You can also use the VRT 392f to define daily heat-up times for hot water generation.

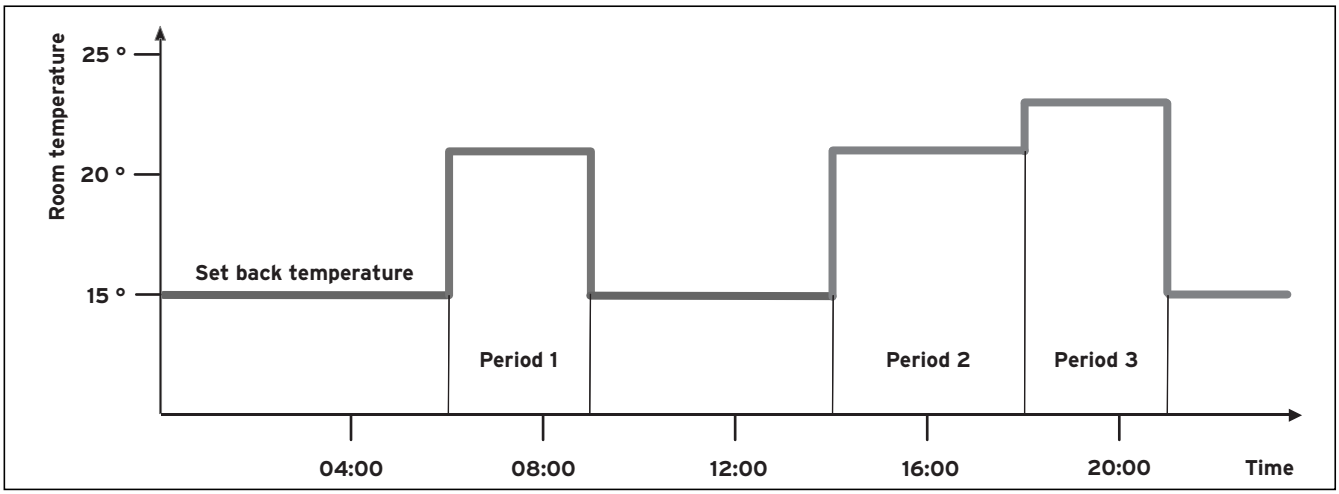


Fig. 0.1 Automatic heating operation: Example of setting the room target temperature for different times of the day

In addition, the VRT 392f can be used to control the following accessory components:
- Circulation pump for water heating in combination with a VR 40 multi-functional module
- Conventional hot water cylinder
- Vaillant layer type storage tank actoSTOR

The VRT 392f can be part of a new heating and hot water system or it can be incorporated into existing heating systems. The appliance must have an eBUS interface.

eBUS is a standard communication method used for the exchange of data between heating technology components.

Product specifications
- eBUS interface
- Wireless communication with a Vaillant appliance
- Illuminated graphical display (display field)
- Operation via both dials in accordance with the principle "Turn and Click"
- The radio receiver unit can be mounted directly on the operating panel of the appliance or separately on the wall
- The controller can be mounted separately on the wall
- Equipped for operation with the Vaillant diagnosis software vrDIALOG 810/2 and the Vaillant Internet Communication System vrnetDIALOG, i.e. remote diagnosis and remote adjustment

1 Notes on the documentation

The following notes are intended to help you throughout the entire documentation. Further documents apply in combination with this operating manual.
We accept no liability for any damage caused by failure to observe these instructions.

Other applicable documents
- Installation instructions for the Vaillant room thermostat VRT 392f (Part 2 of this document; for the expert technician)
- The operating and installation instructions for your heating system
- All instructions for the accessories

Glossary
An explanation of technical terms and important functions is provided in alphabetical order at the end of this document.

1.1 Storage of the documents

Please store this operating manual and all related documents in such a way that they are available whenever required.

1.2 Symbols used

Please observe the safety instructions in this manual for the installation of the appliance!

Danger!
Immediate risk of serious injury or death!

Danger!
Danger of death by electric shock!

Caution!
Danger of burning and scalding!

Caution!
Potentially dangerous situation for the product and environment!

Note
Useful information and tips.

⇒ Symbol for a necessary task

1.3 Validity of the instructions

These operating instructions apply exclusively for equipment with the following part numbers:

0020028510, 0020028511, 0020028512, 0020028513, 0020028514

4024074518083, 4024074518090, 4024074518106, 4024074518113, 4024074518328

The part number of your equipment can be obtained from your expert technician.

1.4 CE label

The CE label confirms that the Vaillant Room Temperature Controller VRT 392f fulfils the fundamental requirements of the following relevant directives.

2 Safety

The VRT 392f may only be installed by a certified expert technician. This person is also responsible for the proper installation and initial operation.

Caution!
Risk of being scalded by hot water!
When the target temperature is above 60 °C, there is a risk of scalding at the hot water taps. Small children and elderly people can be at danger even at lower temperatures.
Risk to persons should be excluded through the selection of an appropriate target temperature (see Section 4.7.4).

Caution!
Risk of being scalded by hot water!
If your expert technician has activated the anti-legionella function for the hot water cylinder, the temperature of the hot water at the draw-off points may exceed 60 °C at specific times.
Find out from your expert technician whether the anti-legionella function has been activated and if so, on what day and at what time.

3 Instructions for operation

3.1 Intended use

The VRT 392f is a state-of-the-art device which has been constructed in accordance with the standard safety regulations.
However, in the event of improper use or use not as intended, impairment of the equipment and other items can arise.

The VRT 392f serves the room temperature and time-dependent control of a heating installation with or without hot water generation/circulation pump in conjunction with a Vaillant appliance and an eBUS interface.
Operation with the following accessories is permissible:

- Circulation pump for water heating in combination with a VR 40 multi-functional module
- Conventional hot water cylinder
- Vaillant layer type storage tank actoSTOR

Any other use or extended use is considered to be use other than intended. The manufacturer or supplier is not liable for any resulting damage. The owner alone bears any risk.
Intended use also includes observance of the Operating and Installation Manual as well as all other applicable documents.

3.2 Ambient conditions

The controller and radio receiver unit may only be installed in dry rooms.

Please make sure:
- that the air in the room can circulate freely around the VRT 392f and the VRT 392f is not covered by furniture, curtains or other objects.
- that all the radiators in the room where the VRT 392f is fitted are fully on.

3.3 Care

Clean the casing of the VRT 392f with a damp cloth.
Do not use abrasive materials or cleaning agents that could damage the operator control elements, parts of the casing or display.

3.4 Manufacturer's guarantee

Vaillant warranty
We only grant a Vaillant manufacturers warranty if a suitably qualified engineer has installed the system in accordance with Vaillant instructions. The system owner will be granted a warranty in accordance with the Vaillant terms and conditions. All requests for work during the guarantee period must be made to Vaillant Service Solutions (0870 6060 777).

Vaillant Service
To ensure regular servicing, it is strongly recommended that arrangements are made for a Maintenance Agreement. Please contact Vaillant Service Solutions (0870 6060 777) for further details.

3.5 Recycling and disposal

Your VRT 392f and its packaging are primarily made of recyclable raw materials.

Appliance
The VRT 392f and its accessories must not be disposed of in the household waste. Make sure the old device and any existing accessories are disposed of properly.

Packaging
Please leave the disposal of the transport packaging to the qualified servicing company which installed the appliance.

Batteries
Batteries must not be disposed of in the household waste. Ensure that the batteries are disposed of properly.

4 Operation

Note
Have your expert technician explain the operator input for the controller once the installation is complete. This will prevent the settings being changed unintentionally.

4.1 Overview operating and display front

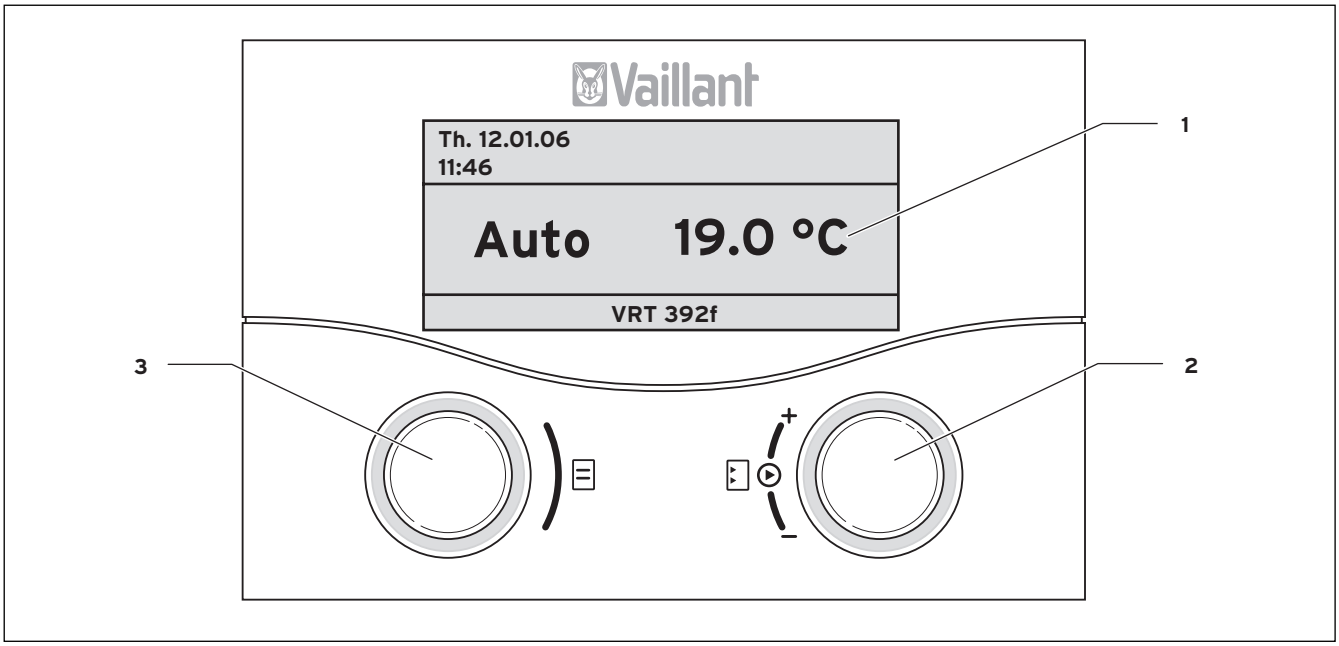


Fig. 4.1 Overview of operator control and display panel

Key
1 Display
2 Operating element of the right-hand dial
3 Operating element of the left-hand dial

Fig. 4.1 shows the default display. The following information can be obtained from the default display:
- the type of operation (automatic, manual or off) of the heating circuit
- the current room temperature

The default display is described in detail in Section 4.3.3.

The functions of both dials are described in Section 4.3.

Note
The display is normally switched off to save power. This increases the service life of the batteries.
The display and lighting are activated as soon as you turn or click one of the dials. If the appliance is not used for more than one minute the basic display returns and switches off after approx. 10 minutes.

Note
When the dial is turned the values to be displayed must first be called up by the radio receiver unit. Until these values are obtained only dashes instead of values will be displayed (--). This generally takes up to two seconds. Depending on the ambient conditions, it may take up to 15 minutes until the current data are called up by the radio receiver unit and are subsequently displayed.
If dashes (--) are displayed continuously, consult your expert technician.

4.2 Overview of the displays

The display and input parameters (operating values) of the VRT 392f are shown on the various screens.
The screens are sub-divided into:
- Default display (Fig. 4.8)
- Basic display (Fig. 4.2)
- Display/input screens for certain parameters in the operator level
- Display/input screens for operating and system-specific parameters at the expert technician level

All the screens are divided into three areas.

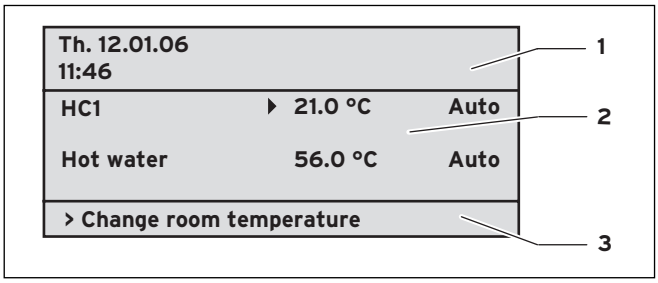


Fig. 4.2 Overview display (example basic display)

Key
1 Area for basic data, title of the screen or status and error messages
2 Area for display and input of parameters
3 Area for display of explanations

The basic data are:
- Current day
- Date
- Time of the day

The title of the screen appears instead of the basic data in the display/input screens for the specific parameters (see Fig. 4.12).

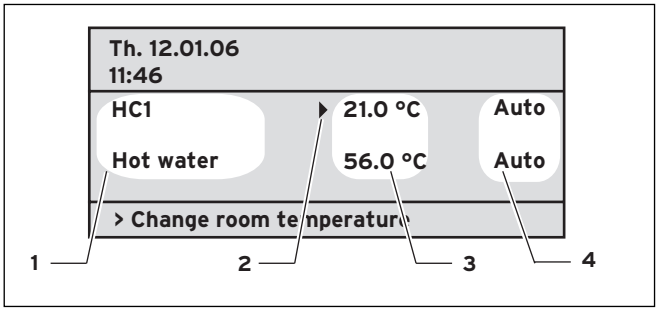


Fig. 4.3 Area for display and input of parameters (example basic display)

Key
1 Parameter name (only display)
2 The cursor ▸ marks the jump to a modifiable value
3 Input field for parameter values; here: target set temperature
4 Input field for parameter values; here: Operating mode

4.3 Operating concept

The operator input in the default display is described in Section 4.3.3.
The operating concept described below applies to the basic display (Fig. 4.2) and to the various different display/input screens of the user level.

The two dials (Fig. 4.1 Items **2** and **3**) function according to the Vaillant "Turn and Click" principle.
When turning (forwards or backwards) the adjusters locate in the next position with a detectable click. Each index step also moves the cursor one position forwards or backwards in the display.
By clicking (pressing) you can highlight or accept changes to a parameter.

	Action	**Result**
Left-hand dial	Turn	Scroll to next screen
Right-hand dial	Turn	Scroll to an input field within a screen (marked by cursor ▸)
	Changing a parameter	
	Clicking (pushing)	Highlight for changing
	Turn	Change the parameter value
	Clicking (pushing)	Acceptance of selected parameter value

Table 4.1 Operating concept

4.3.1 Show various screens

By turning the left-hand dial you can page through the individual screens of the display like a book.

Example:
You are now located in the basic display. A description of how to navigate to the basic display is provided in Section 4.3.3.

⇒ Turn the left-hand dial clockwise by one notch.

The screen ☰ 1 appears in the display together with the basic data setting options.

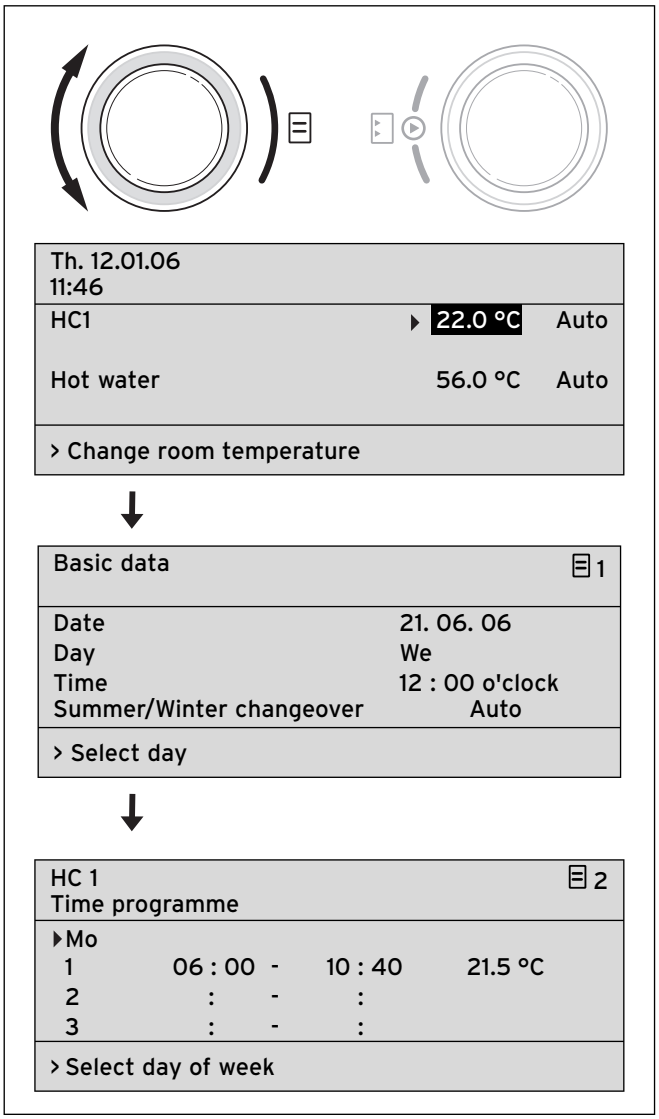


Fig. 4.4 Display of the various screens

4.3.2 Changing parameters

⇒ Turn the right-hand dial to scroll through the parameters within the screen.

The position is indicated by the cursor ▸ (see Fig. 4.5).

If a parameter (e.g. a date with day, month, year) consists of several elements, scroll from one element to the next by turning the right-hand dial.

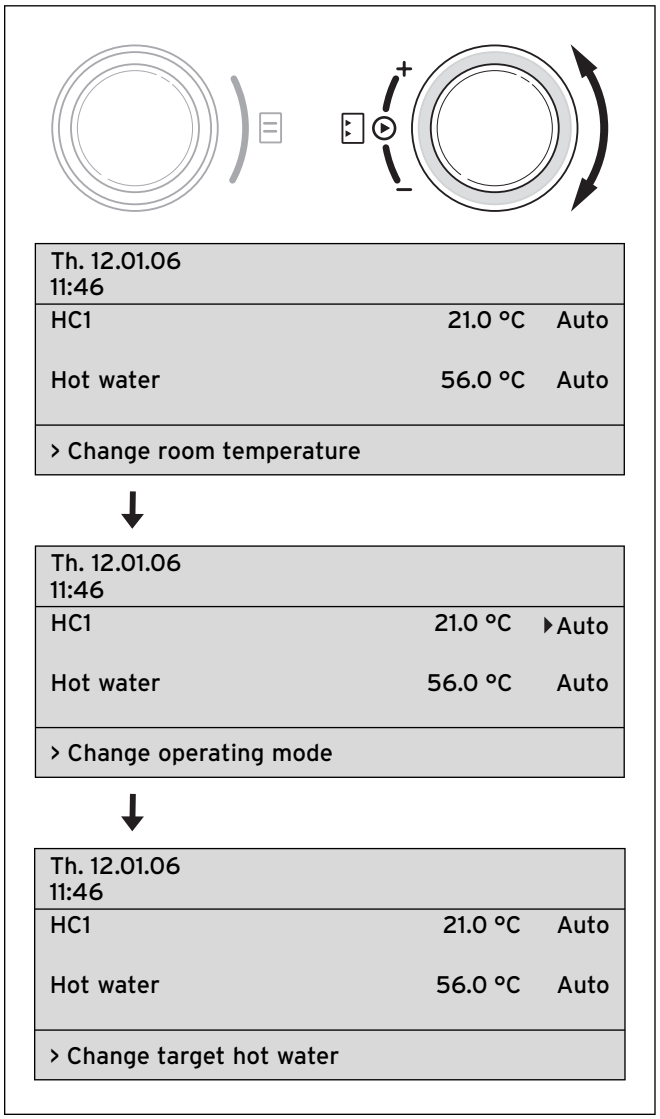


Fig. 4.5 Scroll to various different modifiable parameters

⇒ Click the right-hand dial.

The parameter value marked by the cursor ▸ is inversely displayed.

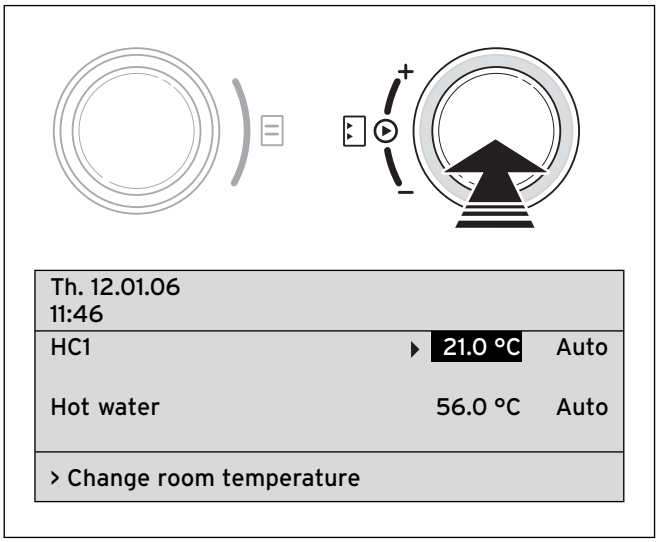


Fig. 4.6 Highlighting a parameter

⇒ Turn the right-hand dial to show the possible values.

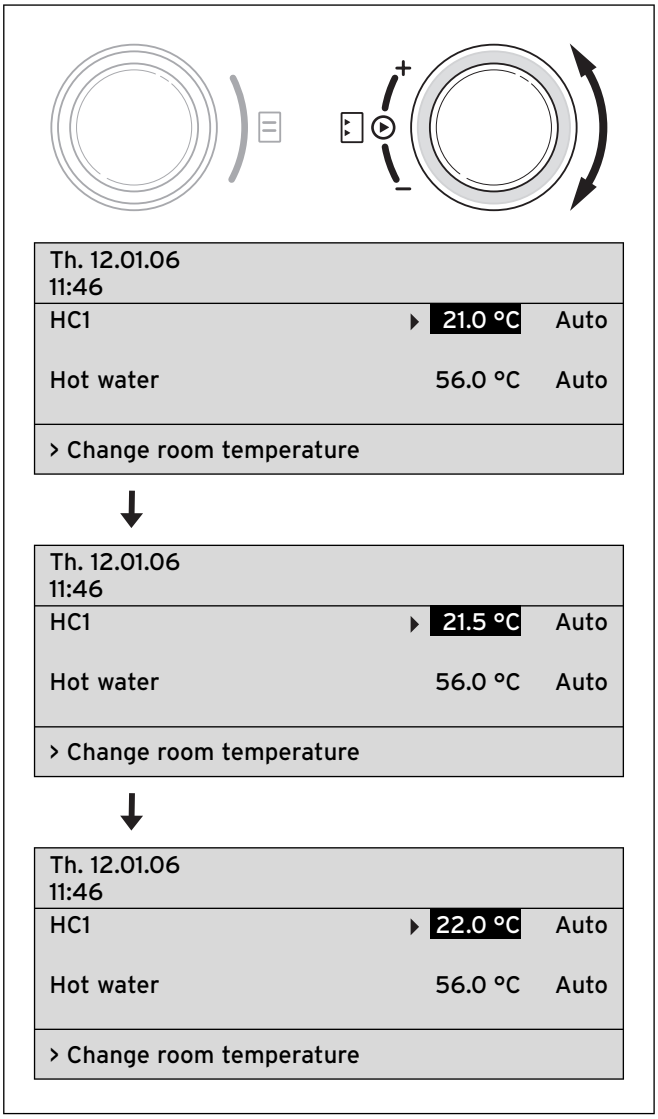


Fig. 4.7 Changing the values of a parameter

⇒ Click the right-hand dial.

The value displayed is confirmed and adopted for control purposes. The value is saved and is no longer highlighted.

Changing parameters in the basic display

	Parameter	Meaning
Heating circuit (HC1)	Room target temperature	The heating is controlled with reference to the modified room target temperature for a specific period that depends on the operating mode selected, also see Section 4.4.
	Operating mode Auto(matic)	The control of the heating unit is carried out in accordance with the preset room set target temperature, the time programmes and other parameters such as e.g. night set back temp. Some of these parameters are set by your expert technician.
	Operating mode Manual	The control of the heating unit depends upon the set room target temperature.
	Operating mode OFF	The appliance is switched off. The room temperature is not displayed and cannot be changed. Frost protection (room set target temperature = 5 °C) is guaranteed.
Hot water	Hot water target set temperature	The water heating is controlled with reference to the modified target hot water value for a specific period that depends on the operating mode selected, also see Section 4.4.
	Operating mode Auto(matic)	The hot water generation is controlled according to the target hot water and time programme settings.
	Operating mode Manual	The hot water generation is controlled with reference to the target hot water setting.
	Operating mode OFF	The hot water is switched off. The target hot water temperature is not displayed and cannot be changed. Frost protection is active.

Table 4.2 Modifiable parameters in the basic display

Example: Change the room set target temperature of the heating circuit (HC1)
Initial condition: You are in the basic display (see Fig. 4.2). A description of how to navigate to the basic display is provided in Section 4.3.3.

⇒ Turn the dial on the right until the cursor ▸ appears in front of the target value (room target temperature) of the heating circuit (HC1).
⇒ Click the right-hand dial.

The input field for the target value is inversely displayed.

⇒ Turn the right-hand dial.

The value for the room temperature changes by 0.5 °C for each index turn of the dial.

⇒ Click the right-hand dial once the required value for the room target temperature has been reached.

The new value is applied. The display changes from inverse back to normal.

This new value applies to the control for a specific period, depending on the operating mode selected; also see Section 4.4.

4.3.3 Operation in the default display

In the simplified basic display (Fig. 4.8) in the central area the operating mode for the heating circuit and the internal temperature are displayed.
The default display also provides you with the option of changing the two most important parameters of your heating system quickly and comfortably:

- By turning the left-hand dial you change the operating mode (automatic, manual, off).

- By turning the right-hand dial you can change between the actual room temperature and the set room temperature.

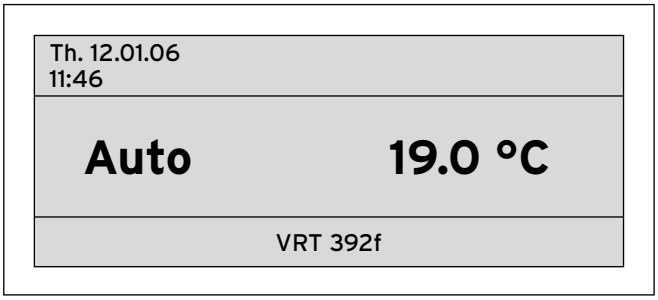


Fig. 4.8 Default display (example)

You can navigate from the default display to the next screen by clicking one or both dials (see Fig. 4.2).

If the controller is not operated for more than one minute, the display changes to the default display.

Changing the operating mode in the default display

Operating mode	Meaning
Auto(matic)	The heating circuit is controlled with reference to the specified room target temperature, the time programme and other parameters, e.g. night set back temp. Some of these parameters are set by your expert technician.
Manual	The control of the appliance depends upon the set room temperature.
OFF	The heating circuit is switched off. The room temperature is not displayed and cannot be changed. Frost protection (room set target temperature = 5 °C) is guaranteed.

Table 4.3 Operating modes of the heating circuit

This is how to do it:

⇒ Turn the left-hand dial.

The operating mode is highlighted.
After a delay of one second, you can select the operating mode.

⇒ Continue to turn the left-hand dial until the desired operating mode is displayed.

The selected operating mode is accepted after a delay of two seconds. The display changes from inverse back to normal.

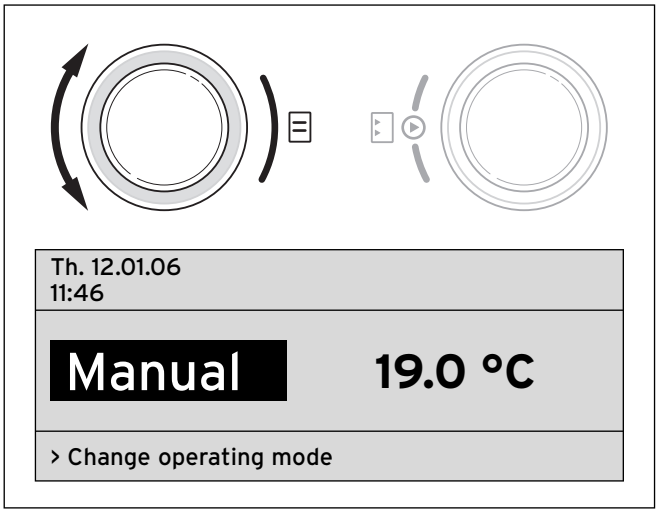


Fig. 4.9 Changing the operating mode in the default display

Changing the room temperature in the default display
The control of the heating unit depends upon the set room target temperature. The control system ensures that the set room temperature is reached rapidly and is retained at this level.
⇒ Turn the right-hand dial.

Instead of the room temperature, the current set room temperature is highlighted. After a delay of one second you can select the new room target temperature:

⇒ Turn the right-hand dial further until the desired room temperature appears.

The selected room target temperature is applied after a delay of two seconds. The representation once again changes from inverse to normal and shows the internal temperature.

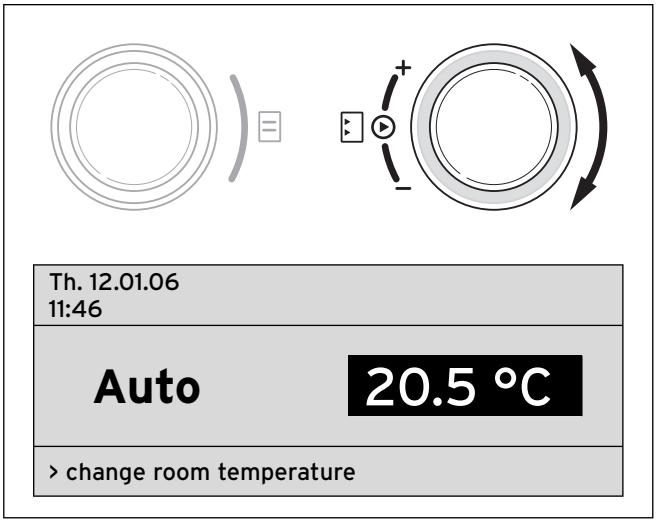


Fig. 4.10 Changing the room temperature in the basic display

This new value applies to the control for a specific period, depending on the operating mode selected; also see Section 4.4.

4.4 Changing the target room temperature

If you change a target value - either the room target temperature or the target hot water - in the basic display or in the default display, the new value overrides the programmed temperatures.

When in „Manual“ mode, the control uses the temporary temperatures until either the operation mode or the temperature is changed.

When in „automatic“ mode, the control uses the temporary temperature until the next time window starts (if you have changed the set target value outside a time window) or until the end of the current time window (if you have changed the set target value within the time window); see Fig. 4.11.

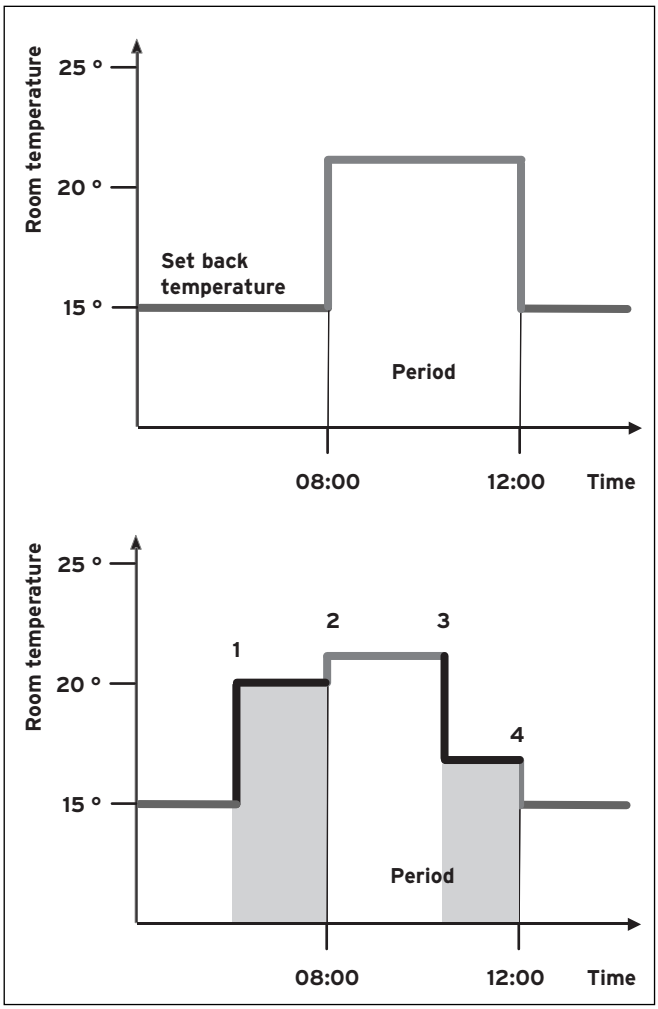


Fig. 4.11 Duration of validity of target value changes (here: Target room temperature)

The upper diagram in Fig. 4.11 shows a programmed time window (see Section 4.7.1) and corresponding room target temperature (21 °C).

In the lower diagram, at (**1**) the value of the room temperature is changed (20 °C). The control system uses this value until the start of the time window. From here (**2**) the control system uses the room temperature of the time window (21 °C).
At (**3**) the value of the room temperature is changed (17 °C).
The control system uses this value up to the end of the time window (**4**).
Once the time window has elapsed, the system is controlled with reference to the set-back temperature (15 °C).

☞ **Note**
The characteristic described also applies to the same extent for the target hot water.

4.5 Operation level for the operator, operation level for the expert technician

The VRT 392f is equipped with two operation levels. Each level contains several screens in which the various parameters can be displayed, adjusted or changed.

- **Operation level for the operator**
  Used to display and set/change the basic parameters. The setting/changing of parameters can be carried out by the user without any special previous knowledge and during normal operation.

- **Operation level for the expert technician**
  Used exclusively by the expert technician to display and set/change specific parameters.

4.6 Screens at the operation level for the operator

The screens at the operation level for the operator are arranged according to the sequence shown in Table 4.4 below.
This table shows you which parameters you can adjust and change.
Examples of this are given in Section 4.7 and in the following sections.

This is the way you get from the simplified basic display to the first display screen "basic data" of the operator level:

⇒ Click one or both dials.

You get to the basic display.

⇒ Turn the left-hand dial by one or two points in the clockwise direction.

Basic data	1
Date	21. 06. 06
Day	We
Time	12 : 00 o'clock
Summer/Winter changeover	Auto
> select day	

Fig. 4.12 Screen "basic data" (example: selecting the day of the week)

By turning the left-hand dial further you will scroll from one screen to the next.
If accessory components are installed and are controlled via the VRT 392f, additional screens apart from those listed in Table 4.4 can be displayed, e.g. 3 or 6.

Screen	Title screen	Adjustable operating values (only display = A)	Remarks	Unit	Min. value	Max. value	Increment/ Selection option	Default value
1	Basic data	Date Weekday Time of the day	Select Day, Month and Year separately; Select Hour and Minutes separately					
		Summer/Winter changeover					Auto, Off	Off
2	HC1 Time programme	Weekday/Block	Select a weekday or a block of days (e. g. Mo-Fr)					
		1 Start/End Time of the day 2 3	There are three time periods available per day or block of days	Hours/ Minutes			10 min	
		Temperature each time period	For each time period, an individual room temperature can be determined	°C	5	30	0,5	20
4	Hot water time programme	Weekday/Block	Select a weekday or a block of days (e. g. Mo-Fr)					
		1 Start/End Time of the day 2 3	There are three time periods available per day or block of days	Hours/ Minutes			10 min	
5	Circulation pump time programmes	Weekday/Block	Select a weekday or a block of days (e. g. Mo-Fr)					
		1 Start/End Time of the day 2 3	There are three time periods available per day or block of days	Hours/ Minutes			10 min	
7	Holiday programming for the total system	Holiday period	Start Day, Month, Year End Day, Month, Year					
		Holiday set target value heating	Room temperature for the holiday time period	°C	5	30	0,5	10
8	HC1 parameters	Set-back temperature	A set-back temperature can be specified for the periods between the time windows.	°C	5	30	0,5	15
10	Hot water parameters	Hot water target set temperature	Target temperature for water heating	°C	35	70	1,0	60
14	Changing the name	Heating circuit 1	Any name having up to 8 characters can be entered					Heating circuit 1
		Hot water						Hot water
15	Release code level	Code number	Access to the level for the installer only by entering the saved code number					1000

Table 4.4 Screens at the operation level for the operator

4.7 Editing screens (examples)

4.7.1 Entering time programmes (example for heating)

Using the time programmes you can allocate up to three time windows per weekday, or block of days (e.g. Mo - Fr). In these time windows, the heating system maintains the room temperature that you have selected, the so-called comfort temperature. Outside the time windows, the room temperature is set back. The set-back temperature can also be changed.

Note
You can save energy without any loss in heating comfort by finding the best possible match between the time windows and your lifestyle.

The example below for heating circuit 1 shows example for the heating circuit. You can define time windows in a similar way for hot water generation and for a circulation pump.

⇒ Turn the left-hand dial until screen 2 (HC1 time programme) is displayed.

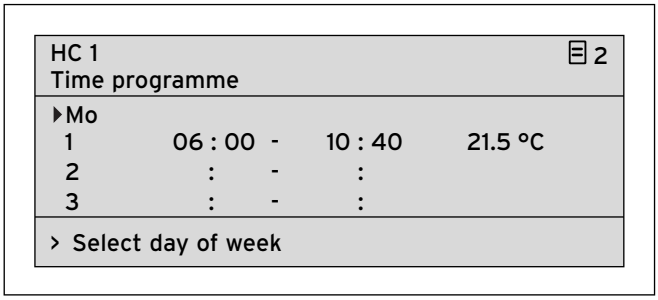


Fig. 4.13 Screen 2 (example)

⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the day or block of days input field.
⇒ Click the right-hand dial.

The field is highlighted.

⇒ Select the required day or block of days by turning the right-hand dial. The following options are available:
- Mo, Tu, ... etc.
- Mo - Fr (Block)
- Sa - Su (Block)
- Mo - Su (Block)

⇒ Confirm the selection by clicking with the right-hand dial.

1, 2 and 3 indicate the "time windows" which you can programme for the selected weekday or block of days. The VRT 392f provides heating in accordance with the corresponding comfort temperature (e.g. 21.5 °C) within a specific time window (e.g. from 06:00 am to 10:40 am).

⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the input field for the starting time of time window 1.
⇒ Click the right-hand dial.

The field is highlighted.

⇒ Set the start time by turning the right-hand dial.

Each step of the dial changes the time by 10 minutes.

⇒ Once the desired starting time is displayed, confirm this by clicking the right-hand dial.

The end time for window 1 should be set similarly.

The comfort temperature for time window 1 is set as follows:

⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the input field for the comfort temperature of time window 1.
⇒ Click the right-hand dial.

The field is highlighted.

⇒ Select the comfort temperature by turning the right-hand dial (one step corresponds to a change of 0.5 °C).
⇒ Once the desired comfort temperature is displayed, confirm this by clicking the right-hand dial.

Note
The VRT 392f assists the operator with the programming of time windows:
The times can only be entered in chronological order. The time period of a subsequent window cannot overlap the previous one.
The time window must be between 0:00 and 24:00.
An existing time window can be deleted as follows: Se the start time and the end time of a time window to the same time.

Note
The same procedure as shown in the example for heating circuit applies when inputting the time programme for hot water generation or for a circulation pump. A comfort temperature does not need to be entered for hot water generation and the circulation pump.

4.7.2 Programming holiday periods

For a longer period of time when you are not at home, you can define a lower room temperature. This will save heating energy. The VRT 392f ensures that the living spaces are only heated with reference to the specified temperature.
You can specify a room target temperature of 15 °C if you wish to go on holiday from 10 - 24 February. The living rooms are only heated up to 15 °C during this period.

Holiday times can be set as follows:

⇒ Turn the left-hand dial until you reach screen 7 "Holiday programming for whole system".

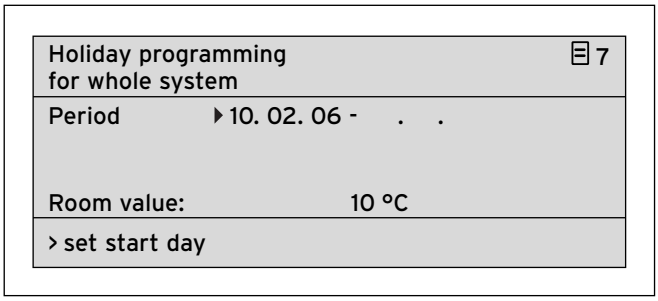


Fig. 4.14 Screen 7 (example)

⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the start date.

The field shows the text "Set starting day".

⇒ Click the right-hand dial.

The field is highlighted.

⇒ Turn the right-hand dial until the desired start day is displayed.
⇒ Click the right-hand dial.

The day date is set. The display changes from inverse back to normal.

⇒ Set the month and year of the start date in the same way.

In the display field for explanation the text "Set starting month“ or "Set starting year" appears.
⇒ Set the end date of the holiday period in the same way.

Enter the room temperature as follows:

⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the room target temperature input field.

The explanation text "Select room temperature" appears.

⇒ Click the right-hand dial.

The field is highlighted.

⇒ Turn the right-hand dial until the desired value is displayed (values from 5 °C to 30 °C in half degree steps are possible).
⇒ Click the right-hand dial.

The desired room set target temperature is set. The display changes from inverse back to normal.

4.7.3 Heating settings

Here you can enter the set-back temperature. The heating is controlled with reference to this temperature outside the specified time window.

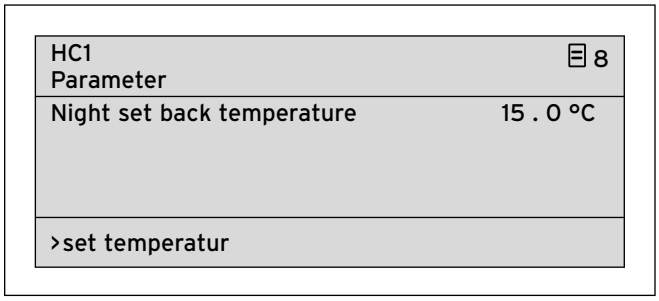


Fig. 4.15 Display screen 8 (example)

The display shows "Select temperature" as an explanation.

⇒ Click the right-hand dial.

The field is highlighted.

⇒ Turn the right-hand dial until the desired value is displayed (values from 5 °C to 30 °C in half degree steps are possible).
⇒ Click the right-hand dial.

The required set-back temperature is set. The display changes from inverse back to normal.

4.7.4 Entering the parameters for hot water generation

If the hot water for your home is generated by the appliance the target temperature can be entered via the VRT 392f.

⇒ Turn the left-hand dial until you reach Screen 10 "Hot water parameters".

The cursor ▸ is positioned in front of the value for the target temperature.

⇒ Click the right-hand dial.

The field is highlighted.

⇒ Turn the right-hand dial until the desired hot water temperature is displayed (values from 35 °C to 70 ° C in one degree steps are possible).
⇒ Click the right-hand dial.

The required target temperature is set. The display changes from inverse back to normal.

Caution!
Risk of being scalded by hot water!
When the target temperature is above 60 °C, there is a risk of scalding at the hot water taps. Small children and elderly people can be at danger even at lower temperatures.
Select the target temperature so that nobody is at danger.

4.7.5 Changing the name of the system components

On screen 14 you can see which names of components you can change.

Changing the name		14
HC1	:	HC1
Hot water	:	▸ Bath 1
	:	
> select		

Fig. 4.16 Display screen 14 (example)

On the right-hand side of the colon you can enter a new name (numbers 0-9, spaces, capital/small letters). This is how to do it:

⇒ Turn the left-hand dial until you reach screen 14 "Change names".
⇒ Turn the right-hand dial until the cursor ▸ is positioned in front of the character you wish to change.
⇒ Click the right-hand dial.
The character is inversely displayed.
⇒ Turn the right-hand dial to select the correct letter or number.
⇒ Click the right-hand dial.

The required character is adopted. The character is displayed normally once again.

⇒ Turn the right-hand dial by one indexing position in the clockwise direction.

The next character is marked by the cursor.

⇒ Click the right-hand dial.

The character is displayed inversely.

⇒ Turn the right-hand dial to select the correct letter or number.
⇒ Continue in this way for the remaining characters of the new name.

Note
Entire names or superfluous characters can be deleted by entering a blank.

5 Status and error messages

Status and error messages are displayed in the second row of the field for basic data.

Status messages

Holiday
Within a set holiday time period the heating is controlled to the room set target temperature for this period.

Service + telephone number of the expert technician
Indicates maintenance for the heating system is required.
In addition, the telephone number of your expert technician appears if he has programmed it in.

Dashes (--) instead of values are displayed at the controller
When the dial is turned the values to be displayed must first be called up by the radio receiver unit. Until these values are obtained only dashes instead of values will be displayed (--). This generally takes up to two seconds. Depending on the ambient conditions, it may take up to 15 minutes until the current data are called up by the radio receiver unit and are subsequently displayed.
If dashes (--) are displayed continuously, consult your expert technician.

Error messages

Error boiler
Informs you about an error in the appliance.
⇒ Contact your expert technician.

Com. Error boiler
The connection between the radio receiver unit and appliance is faulty.
⇒ Contact your expert technician.

No radio communication
Radio communication between the VRT 392f and radio receiver unit is faulty.
⇒ Contact your expert technician.

Change battery
The batteries at the controller are almost empty.
⇒ Change all batteries at the controller.

This is how to do it:
⇒ Pull the controller (**1**) off the wall socket (**2**). This can be done by pushing a screwdriver into the two retaining straps (see Fig. 5.1 arrows).

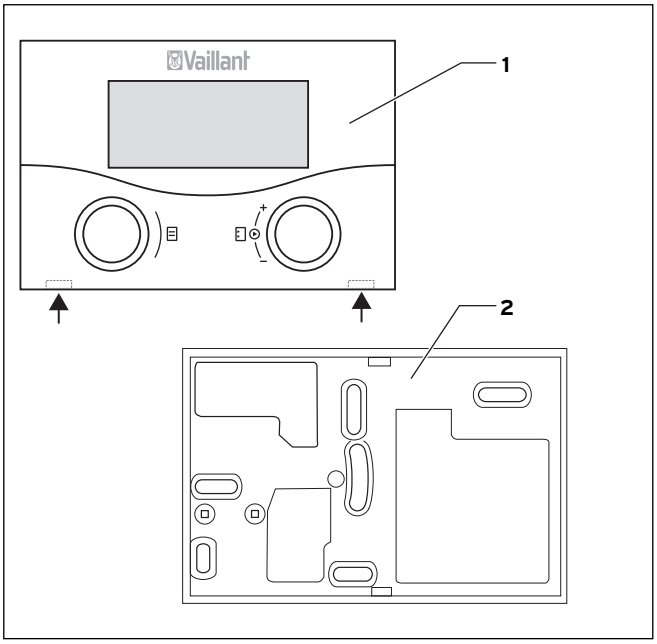


Fig. 5.1 Removing the VRT 392f

Key
1 Controller VRT 392f
2 Wall socket

⇒ Mount four new batteries of the same type for the controller on the reverse side of the controller PCB.

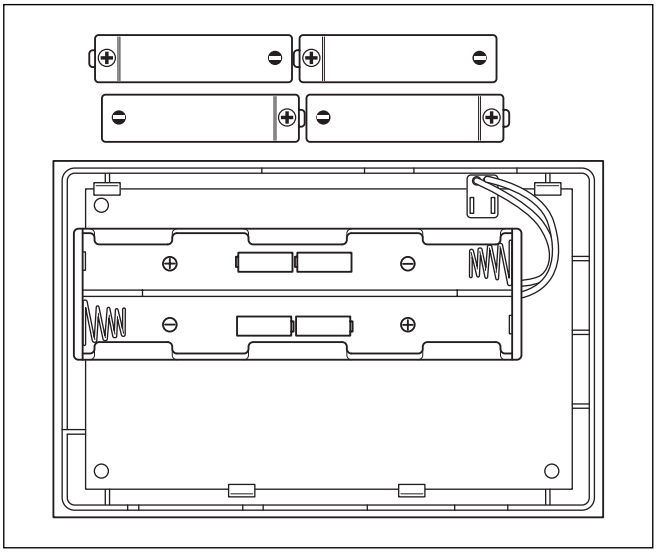


Fig. 5.2 Inserting the batteries

☞ **Note**
Ensure correct polarity of the batteries (see Fig. 5.2).
Always change all batteries at the same time.
Only use the following battery type:
Alkaline AA/LR6 Battery 1.5 V.
Do not use rechargeable batteries.
Depending on use, the batteries last between approx. 1 and 1.5 years.

⇒ Carefully push the controller onto the wall socket (**2**) until it snaps into place.

The display remains dark
The display remains dark although you turn or click one of the dials.

⇒ Change all batteries at the controller.
A description of how to do this is provided in this Section under "Change battery")

☞ **Note**
The display is normally switched off to save power. This increases the service life of the batteries.
The display and lighting are activated as soon as you turn or click one of the dials. If the appliance is not used for more than one minute the basic display returns and switches off after approx. 10 minutes.

Status and fault messages of the radio receiver unit

green LED on:	everything OK
red LED on:	error (no communication with appliance or controller)
red LED flashes briefly:	radio transmission
green LED flashes:	the teach-in process was started via a button (only relevant for parts replacement)

For the expert technician

Installation instructions

VRT 392f

Room thermostat

VRT 392f

Contents

1 Notes on the documentation

The following notes are intended to help you throughout the entire documentation. Further documents apply in combination with this installation manual.
We accept no liability for any damage caused by failure to observe these instructions.

Other applicable documents
- Operating manual for the Vaillant room thermostat VRT 392f
- The operating and installation instructions for your heating system
- All instructions for the accessories

1.1 Storage of the documents

Please pass on this installation manual and all other valid documents and auxiliary equipment to the owner of the installation. He will then determine the method of storage. The documents must be made available upon request.

1.2 Symbols used

Please observe the safety instructions in this manual for the installation of the appliance!

Danger!
Immediate risk of serious injury or death!

Danger!
Danger of death by electric shock!

Attention!
Danger of burning and scalding!

Caution!
Potentially dangerous situation for the product and environment!

Note
Useful information and tips.

⇒ Symbol for a necessary task

1.3 Validity of the instructions

These installation instructions apply exclusively for appliances with the following part numbers:

0020028510, 0020028511, 0020028512, 0020028513, 0020028514

The part number of your appliance can be taken from the identification plate.

2 Description of the device

The VRT 392f is a programmable room thermostat for the heating and control of hot water generation in conjunction with a Vaillant appliance (eBUS-compatible). In addition, the VRT 392f can be used to control the following accessory components:

- Circulation pump for water heating in combination with a VR 40 multi-functional module
- Conventional hot water storage
- Vaillant layer type storage tank actoSTOR

With the VRT 392f power is supplied via 4 batteries (Alkaline AA/LR6 1.5V).
With the VRT 392f data is exchanged via a radio link to the radio receiver unit.

Power is supplied via an eBUS interface which also facilitates the exchange of data between the radio receiver unit and the appliance.

The VRT 392f is equipped for operation with the Vaillant diagnosis software vrDIALOG 810/2 and the Vaillant Internet Communication System vrnetDIALOG , i.e. for remote diagnosis and adjustment.

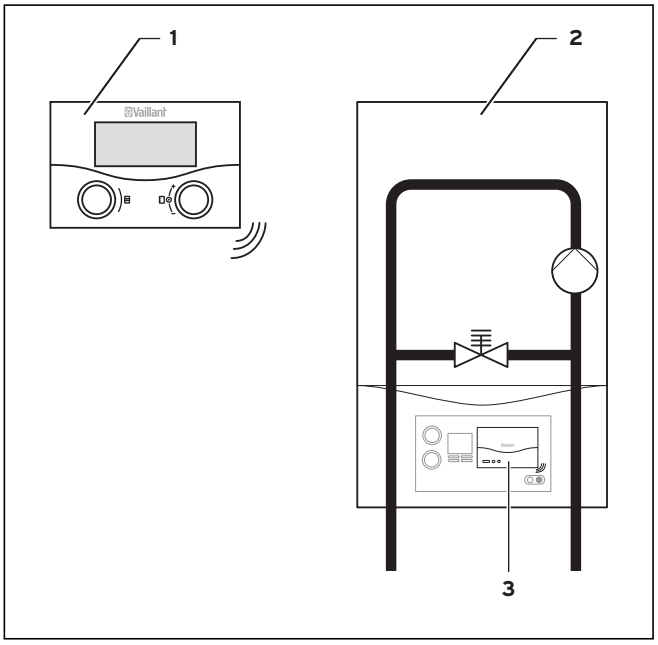


Fig. 2.1 System schematic

Key
1 VRT 392f
2 Heating unit
3 Radio receiver unit

2.1 Identification plate

The identification plate can be found on the back of the controller electronics (PCB).

2.2 CE label

The CE label provides evidence that the Vaillant room thermostat VRT 392f satisfies the basic requirements contained in the following directives:
- Electromagnetic compatibility directive (Guideline 89/336/EEC)
- Low voltage directive (Guideline 2006/95/EEC)
- Directive on Radio Equipment and Telecommunications Terminal Equipment (R&TTE Directive 1995/5/EEC)
- Directive on Electromagnetic compatibility and Radio spectrum Matters (ERM) (Directive ETSI EN 300220-2)

2.3 Intended use

The room thermostats VRT 392f are built using state-of-the-art technology and according to the recognised safety regulations.
However, in the event of improper use or use not as intended, impairment of the equipment and other items can arise.
The room thermostat VRT 392f serves to control a heating installation with or without hot water generation/circulation pump in conjunction with a Vaillant appliance and eBUS interface.

Before you install the appliance, check the intended location for possible functional impairment of the radio signal path by electrical devices or building components. If interference in the signal path is likely an alternative installation location must be found.

Operation with the following accessories is permissible:

- Circulation pump for water heating in combination with a VR 40 multi-functional module
- Conventional hot water cylinder
- Vaillant layer type storage tank actoSTOR

Any other use or extended use is considered to be use other than intended. The manufacturer or supplier is not liable for any resulting damage. The owner alone bears any risk.
Intended use also includes observance of the Operating and Installation Manual as well as all other applicable documents.

3 Safety instructions and regulations

The VRT 392f must be installed by a recognised expert technician company that is responsible for ensuring that existing standards and regulations are observed. We will not accept liability for damage arising from non-observance of this manual.

3.1 Safety instructions

Danger!
Voltage carrying connections!
When working in the control cabinet of the appliance there is a danger to life by electric shock.
Switch the power supply off before working in the control cabinet and secure against re-connection.
Open the control cabinet only when the appliance is potential-free.

3.2 Regulations

During the electrical installation, observe the regulations of your local power supplier.

Use commercially available cables for the wiring.
Minimum cross-section for the Bus line: 0.75 mm^2
The following maximum cable lengths must not be exceeded:

– eBUS line 300 m

In locations where eBUS lines run parallel with 230 V lines over a distance in excess of 10 m, they must be run separately.
Free terminals at the appliances must not be used as support terminals for additional wiring.

The controller and radio receiver unit may only be installed in dry rooms.

Regulations for Switzerland:
In Switzerland the regulations of the Swiss Electrotechnical Association (SEV) must be observed when installing the appliance.

Regulations for Belgium
In Belgium the applicable ARAB regulations must be observed when installing the appliance.

3.3 General requirements

3.3.1 Preliminary remarks for room sealed appliances

This appliance should only be installed in conjunction with either a Vaillant flue system or an alternative approved system (details of flue approval categories can be found in the technical section of the installation manual).

Install the flue system as detailed in the separate flue installation instructions supplied with this boiler.

3.3.2 Related documents

The installation of the boiler must be in accordance with the relevant requirements of Gas Safety (Installation and Use) Regulations 1998, Health and Safety Document No. 635 (The Electricity at Work Regulations 1989), BS7671 (IEE Wiring Regulations) and the Water Supply (Water Fitting) Regulations 1999, or The Water Bylaws 2000 (Scotland). It should also be in accordance with the relevant requirements of the Local Authority, Building Regulations, The Building Regulations (Scotland), The Building Regulations (Northern Ireland) and the relevant recommendations of the following British Standards:
BS 6700: Services supplying water for domestic use within buildings and their curtilages.
BS 6798: Specification for installation of gas fired boilers not exceeding 60 kW input.
BS 6891: Specification for installation of low pressure gas pipework up to 28 mm (R1) in domestic premises (2nd family gas).
BS 7593: Treatment of water in domestic hot water central heating systems.
Institute of Gas Engineers Publication IGE/UP/7/1998: "Guide for gas installations in timber framed housing"
BS. 5482 Pt. 1 Domestic butane and propane gas burning installations.
IGE/UP1 Soundness testing and purging of industrial and commercial gas installation.
IGE/UP2 Gas installation pipework, boosters and compressors on industrial and commercial premises.
IGE/UP10 Installation of gas appliances in industrial and commercial premises.
BS. 6644 Installation of gas fired hot water boilers of rated inputs between 60 kW and 2 MW (2nd and 3rd family gases).
BS. 5449 Forced circulation hot water central heating systems for domestic premises. Note: only up to 45 kW.
BS. 6880 Low temperature hot water heating systems of output greater than 45 kW.
Part 1 Fundamental and design considerations.
Part 2 Selection of equipment.
Part 3 Installation, commissioning and maintenance.
BS. 4814 Specification for: Expansion vessels using an internal diaphragm, for sealed hot water heating systems.
BS. 5440 Installation and maintenance of flues and ventilation for gas appliances of rated input not exceeding 70 kW net (1st, 2nd and 3rd family gases).
Part 1 Specification for installation of flues.
Part 2 Specification for installation and maintenance of ventilation for gas appliances.

All wiring must be in accordance with Building Regulations Part P and BS 7671 (IEE Wiring Regulations), and must be carried out by a suitably qualified person.

4 Assembly

The VRT 392f must be installed in the living area against a wall. The connection with the appliance is made using a radio link.

4.1 Scope of delivery

Using Table 4.1, check the scope of delivery.

Pos.	number	Component
1	1	Room thermostat VRT 392f
2	1	Fixing equipment
3	1	Radio receiver unit
4	1	Wall socket for radio receiver unit
5	1	Battery set (4x AA)
6	1	Operating and Installation instructions

Table 4.1 Scope of delivery VRT 392f

4.2 Accessories

You can use the following add-on accessories with the VRT 392f:

Multi-functional module VR 40

The VRT 392f can control a circulation pump via the VR 40 multi-functional module.

Note
Observe the manuals for the accessory components if the VRT 392f is used with accessories.

4.3 Installation location

⇒ Only install the controller and the radio receiver unit in dry rooms.
⇒ The controller should be fitted so as to ensure problem-free measurement of the room temperature; e.g. on a room wall of the main living room at a height of approx. 1.5 m.
⇒ Check the mounting locations prior to installing the controller and radio receiver unit regarding possible functional impairment of the radio signal path due to electrical appliances or building features. If interference in the signal path is likely an alternative installation location must be found.
⇒ Inform the operator that all radiator valves in the room where the VRT 392f is mounted must be fully opened.

4.4 Installing the radio receiver unit in the appliance

Danger!
Voltage carrying connections!
When working in the control cabinet of the appliance there is a danger to life by electric shock.
Switch the power supply off before working in the control cabinet and secure against re-connection.
Open the control cabinet only when the appliance is potential-free.

This is how to do it:
⇒ Switch off the appliance.
⇒ Turn off the power supply to the appliance and secure the power supply to prevent it from being unintentionally switched back on.
⇒ Remove the front panel on the appliance and remove the cover plate on the control cabinet.
⇒ Push the radio receiver unit into the plug connection provided in the control cabinet using your plug connector.
⇒ Re-connect the power supply to the appliance.
⇒ Switch the appliance on.
⇒ Check whether the green LED lights up at the radio receiver unit after a short period of time.
⇒ Close the front panel of the appliance.

4.4.1 Mounting the radio receiver unit on the wall

Note
It is only necessary to mount the radio receiver unit on the wall if the position of the radio receiver unit needs to be changed in order to establish reliable radio communication with the controller.

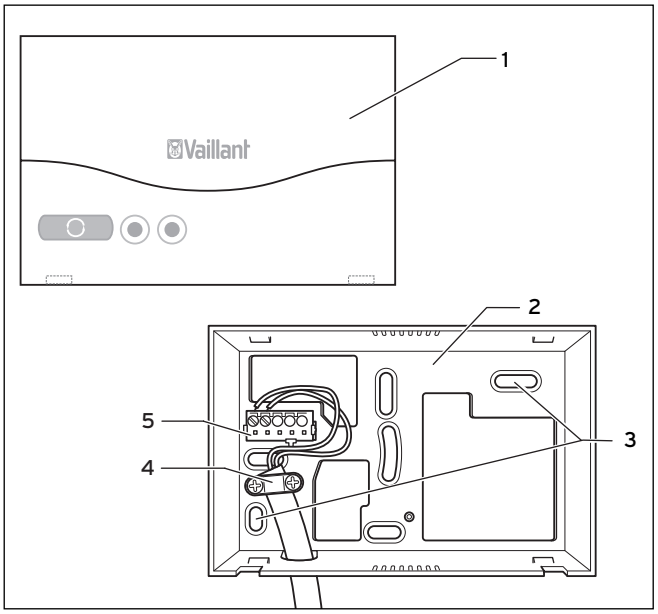


Fig. 4.1 Installation of the radio receiver unit

Key
1 Radio receiver unit
2 Wall socket
3 Mounting apertures
4 Strain relief
5 Terminal strip

⇒ Take the wall socket for the radio receiver unit.
⇒ Mark the position on the wall.
⇒ Drill two holes 6 mm diameter to suit the fixing apertures (**3**).
⇒ Insert the plugs supplied.
⇒ Use the screws supplied to fix the wall socket.
⇒ The electrical installation is carried out as described in Section 5.1.
⇒ Push the radio receiver unit carefully on to the wall socket until it snaps into place. The plug connector on the rear of the radio receiver unit must fit in the plug connector provided on the wall socket.

4.5 Mounting the control on the wall

During initial operation of the appliance in the chosen installation location check that the radio signal path is not adversely affected by electrical devices or building components. If the signal path is impaired an alternative installation location must be found.

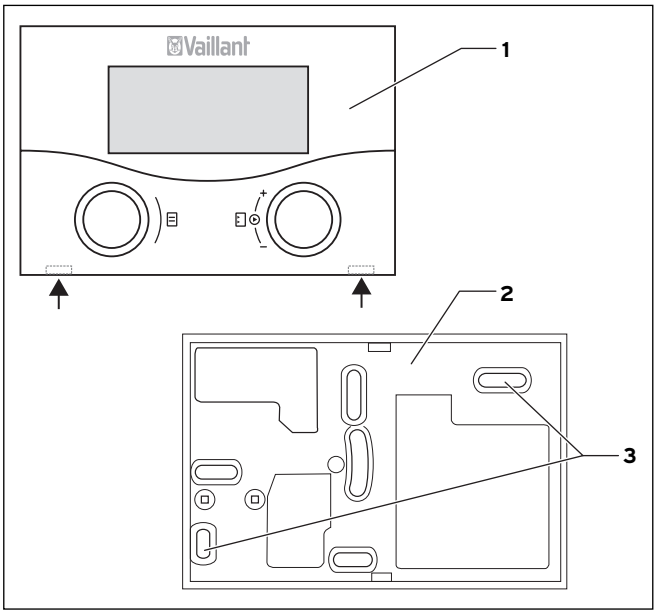


Fig. 4.2 Installation of the VRT 392f

1 Room thermostat VRT 392f
2 Wall socket
3 Mounting apertures

This is how to do it:

⇒ Pull the controller (**1**) off the wall socket (**2**). This can be done by pushing a screwdriver into the two retaining straps (see Fig. 4.2 arrows).
⇒ Mark the position on the wall.
⇒ Drill two holes 6 mm diameter to suit the fixing apertures (**3**).
⇒ Insert the plugs supplied.
⇒ Guide the eBUS cable through one of the cable ducts.
⇒ Use the screws supplied to fix the wall socket.
⇒ Mount four new batteries of the same type for the controller on the reverse side of the controller PCB.

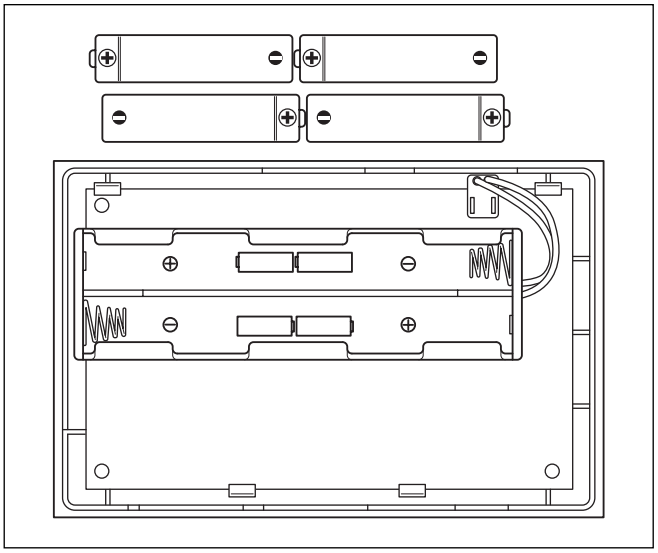


Fig. 4.3 Inserting the batteries

Note
Ensure correct polarity of the batteries (see Fig. 4.3).
Always change all batteries at the same time.
Only use the following battery type:
Alkaline AA/LR6 Battery 1.5 V.
Do not use rechargeable batteries.
Depending on use, the batteries last between approx. 1 and 1.5 years.

⇒ Push the controller carefully on to the wall socket until it snaps into place.
⇒ Check the quality of the radio signal path as described in Section 6.1.

5 Installation

Danger!
Voltage carrying connections!
When working in the control cabinet of the appliance there is a danger to life by electric shock.
Switch the power supply off before working in the control cabinet and secure against re-connection.
Open the control cabinet only when the appliance is potential-free.

If the wireless receiver unit is integrated into the appliance, the electrical connection is established through contact between the plug connector of the controller and the corresponding plug connection in the appliance.

5.1 Electrical installation for the wall-mounted wireless receiver unit

Note
It is only necessary to mount the radio receiver unit on the wall if a more suitable position for the radio receiver unit needs to be found in order to ensure reliable radio communication with the controller.

The power supply to the appliance must be disconnected and prevented from being unintentionally switched back on.

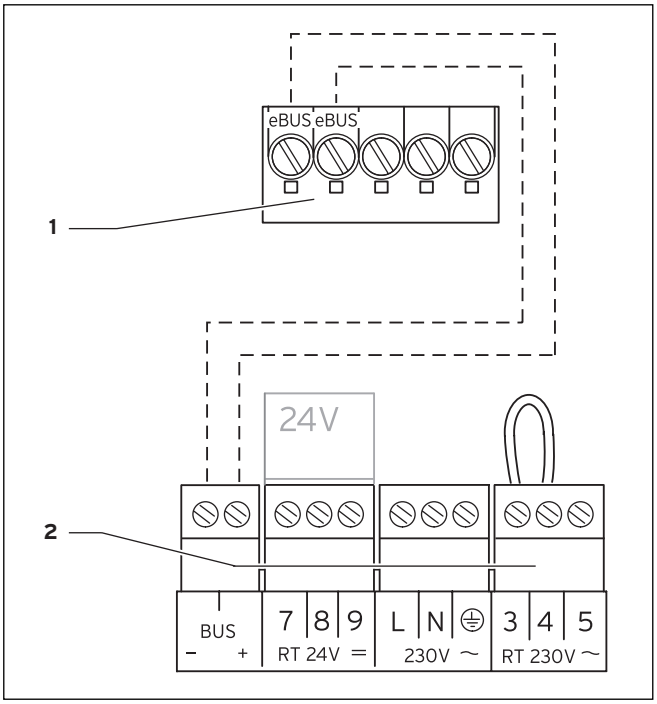


Fig. 5.1 Electrical connection for wireless receiver unit

Key
1 Terminal strip of the wall socket for the radio receiver unit
2 Terminal rail appliance

Note
The jumper between terminals 3 and 4 (see Fig. 5.1) must not be removed.
When connecting the eBUS cable there is no need to observe the correct polarity.
Communication is not adversely affected by swapping the two connections.

This is how to do it:
⇒ Connect the eBUS cable to the terminal strip (**1**) of the wall socket for the radio receiver unit.
⇒ Install the strain relief (**4**, Fig. 4.1).
⇒ Connect the eBUS cable to the terminal strip of the appliance (**2**).

6 Initial commissioning

Initial condition:
The controller calorMATIC 392f and the radio receiver unit are installed correctly.
The appliance is switched on and ready for operation.

Note
To ensure the most effective control by the VRT 392f the position of both rotary knobs on the appliance must be observed:
- **Top rotary knob (outlet/storage temperature of hot water) at maximum setting (limit stop in clockwise direction).**
- **Bottom rotary knob (feed temperature of heating) at maximum required feed temperature.**

The operating concept of the VRT 392 is described in Section 4.3 of the operating manual.

6.1 Installation assistant

When commissioning for the first time you will be supported by the installation assistant. The installation assistant recognises the connected components of the heating system.
Up to six pages are available in the display (A1 to A6) depending on the configuration of the heating system. The most important parameters of the heating system can be entered via the installation assistant.

The installation assistant starts with display screen A1, language selection.

⇒ Select the language in accordance with the operator control concept (operating instructions Section 4.3).
⇒ Turn the left-hand dial clockwise by one indexing position to display additional screen A1.

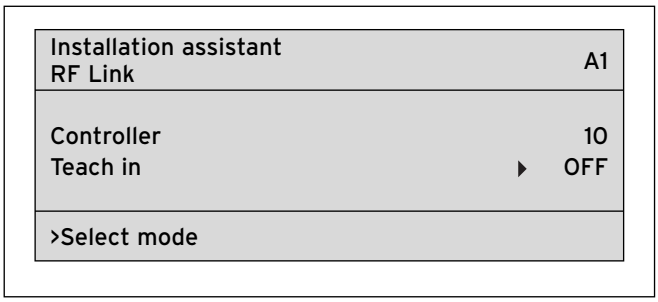


Fig. 6.1 Installation assistant, screen A1

You can read off or check the quality of the radio signal path between the controller or wireless outdoor sensor and radio receiver unit here.

The quality of the wireless data communication for outdoor sensors and controllers is represented by a number between 0 and 10.
0: no reception
1: poor quality
10: excellent quality

Note
If this value is less than 3 you will have to change the installation location of the controller or radio receiver unit. A description of the installation of the radio receiver unit on the wall is provided in Section 4.4.1.

Note
The range of radio transmission within buildings is largely dependent on the local conditions (e.g. the nature of the building). This means that a range of 25 m within the building cannot always be guaranteed. A range of more than 100 m can be achieved outside enclosed spaces (free field).

The quality displayed is updated automatically as soon as changes are made.

Note
The "teach-in" display is only required for teaching in components in the radio network following the replacement of parts.

⇒ Turn the left-hand dial clockwise by one indexing position in order to display page A2.

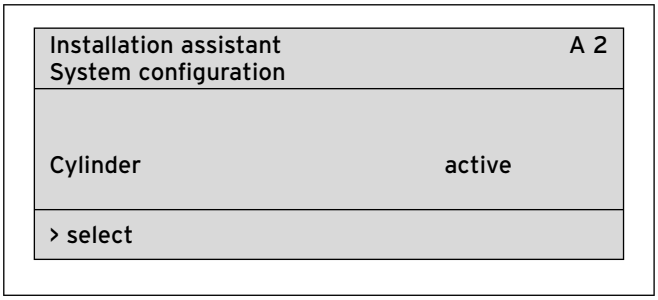


Fig. 6.2 Installation assistant screen A2

The configuration of the heating system is shown in display screen A2.
For the cylinder (storage), you can choose between active and inactive.

If you wish to leave the installation assistant:

⇒ Turn the left-hand dial in a clockwise direction to navigate to screen A6.
⇒ Confirm the end of the installation with "Yes".

Note
If you confirmed completion of the installation with "Yes" you can only reach the installation assistant via the code-protected expert technician level.

After the installation is concluded, you will automatically reach the simplified basic display.

6.2 Operation level for expert technician

Specific operating data can be displayed and adjusted/changed at the expert technician operation level. This means that an optimum match can be found between the controller and the heating system.

The level for the expert technician consists of the display screens C1 to C26 and the display screens A1, A2 and A6 of the installation assistant described above. The screens C1 to C26 in the VRT 392 appear in the sequence shown in Table 6.1 below.
This table shows you which parameters you can adjust and change.

Depending upon the configuration selected in the installation assistant (screen A2), parameters and screens which are not required are hidden.

Setting/changes are made in accordance with the operator control concept as described in Section 4.3 of the operating manual.

To navigate from the default display to the expert technician level proceed as follows:
⇒ Click one or both dials to navigate to the basic display from the default display.
⇒ Turn the left-hand dial clockwise until you get to screen 15.
⇒ Enter the code.

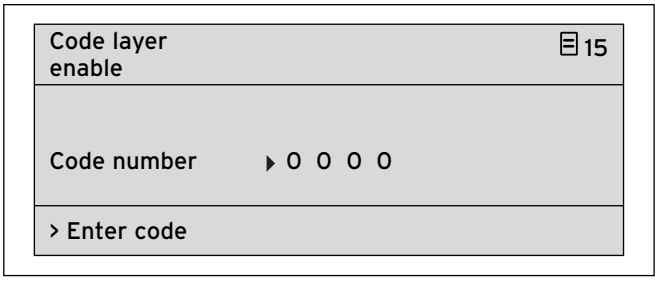


Fig. 6.3 Screen 15

The factory setting of the code is 1 0 0 0.
You can change the code number on screen C24.

After entering the correct code you automatically reach screen C1.

6.3 Resetting the parameters to the factory setting

The works as-delivered condition of the VRT 392f can be restored as follows:

⇒ Push both dials simultaneously for 10 seconds.

This takes you to the factory settings screen.

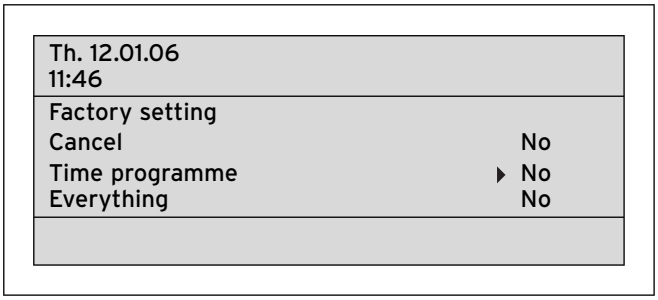


Fig. 6.4 Factory settings screen

Menu point	Input	Result
Aborting	Yes	The set parameters remain effective
Time programme	Yes	All programmed time windows are deleted
Everything	Yes	All set parameters are reset back to the factory setting

Table 6.1 Menu selection of the screen factory setting

Once the input is confirmed the display reverts to the basic display or default display.

Screen	Title screen	Adjustable operating values (only display = A)	Remarks	Unit	Min. value	Max. value	Increment	Default value
C1	HC1 Information	Target flow temperature (A)	Flow temperature target value	°C			1	
C4	Hot water information	Current target hot water (A)	Target temperature of hot water in cylinder	°C			1	
		Cylinder sensor 1 (A)	Actual temperature of hot water in cylinder	°C			1	
		Circulation pump status (A)					On, Off	
C9	HC1 parameters	Set-back temperature	A set-back temperature can be specified for the periods between the time windows.	°C	5	30	1	15
		Control strategy	Determines the type of room temperature control Two point represents on/off control; Similar to a modulating control.				Two-point, analogue	Two-point
		Route matching	For optimum matching to the size of the room or radiator arrangement. (Positive values: slower switching response of controller; negative values: faster switching response of controller).		-5	+5	1	0
C16	Hot water parameters	Legionella protect day	Day or block of days; The cylinder is heated up to 70°C for an hour				OFF, MO, TU, WE, TH, FR, SA, SU, MO-SU	OFF
		Start time of Legionella protection			0:00	24:00	0:10	4:00
C24	Service	Telephone number	Input of telephone number for the purposes of servicing					
		Changing the code number			0000	9999	each 1	1000
		Maintenance date	Day/Month/Year adjustable					
C25	Tools	Room temperature correction	Adjustment of room temperature sensor	R	-3	3	0,5	0
		Display contrast			0	15	1	6
C26	Software versions	Software version per module (A)	Display of version number					

Table 6.2 Screens in the expert technician operation level

6.4 Handover to the operator

The operator of the VRT 392f must receive instruction on handling and functions of the controller.

⇒ Hand the instruction manuals and documents for the appliance over to the operator for safe keeping.
⇒ Inform the operator what the article number is.
⇒ Point out to the operator that the manual must be kept near to the VRT 392f.
⇒ Go through the operating instructions with the operator and answer any questions if necessary.

6.5 Faults

☞ **Note**
If the controller fails the entire system continues to operate via the radio receiver unit on the basis of a fixed target feed temperature of 50 °C.
The room temperature control and the set time window are overridden.

6.6 Special features

Battery economy mode

☞ **Note**
The display is normally switched off to save power. This increases the service life of the batteries.
The display and the lighting are activated as soon as you turn or click one of the dials. If the appliance is not used for more than one minute the basic display returns and switches off after approx. 10 minutes.

Status and fault messages to the radio receiver unit

green LED on:	everything OK
red LED on:	error (no communication with appliance or controller)
red LED flashes briefly:	radio transmission
green LED flashes:	the teach-in process was started via a button (only relevant for parts replacement)

7 Factory customer service, manufacturer's guarantee

Vaillant Service
To ensure regular servicing, it is strongly recommended that arrangements are made for a Maintenance Agreement. Please contact Vaillant Service Solutions (0870 6060 777) for further details.

Vaillant warranty
We only grant a Vaillant manufacturers warranty if a suitably qualified engineer has installed the system in accordance with Vaillant instructions. The system owner will be granted a warranty in accordance with the Vaillant terms and conditions. All requests for work during the guarantee period must be made to Vaillant Service Solutions (0870 6060 777).

8 Recycling and disposal

Both your VRT 392f and its packaging are primarily made of recyclable raw materials.

Appliance
The VRT 392f and its accessories must not be disposed of in the household waste. Make sure the old device and any existing accessories are disposed of properly.

Packaging
The disposal of the transport packaging is undertaken by the installer who installed the unit.

Batteries
Batteries must not be disposed of in the household waste. Ensure that the batteries are disposed of properly.

9 Technical data

Parameter	VRT 392f
Operating voltage Umax	4x1.5 V (AA)
Service life of battery (alkaline)	approx. 1.5 years
Level of protection	IP 20
Protection class	III
Maximum permissible ambient temperature	50 °C
Transmission frequency	868 MHZ
Transmitting power	< 10 mW
Range: in free field in building	 > 100 m approx. 25 m
Height mm	97
Width mm	146
Depth mm	45

Table 9.1 Technical data VRT 392f

Parameter	Radio receiver unit
Operating voltage Umax	max. 24 V
Current consumption	< 60 mA
Level of protection	IP 20
Protection class	III
Maximum permissible ambient temperature	50 °C
Transmission frequency	868 MHZ
Transmitting power	< 10 mW
Range: in free field in building	 > 100 m approx. 25 m
Height mm	97
Width mm	146
Depth mm	45

Table 9.2 Technical data, radio receiver unit

Note
The range of radio transmission within buildings is largely dependent on the local conditions (e.g. the nature of the building). This means that a range of 25 m within the building cannot always be guaranteed. A range of more than 100 m can be achieved outside enclosed spaces (free field).

Glossary

Set-back temperature
The set-back temperature is the reduced interior temperature maintained by your heating system outside of the programmed time window.

Operation level for operator
Used to display and set/change the basic parameters. The setting/changing of parameters can be carried out by the user without any special previous knowledge and during normal operation. The heating system can continuously adapt to the requirements of the operator by making the corresponding basic parameter settings.

Operation level for expert technician
Used to display and set/change specific parameters. This operation level is reserved for the expert technician and is therefore password protected.

Operating mode
The operating modes "Auto" (automatic), "Manual“ and "OFF" exist. You can use the operating modes to specify how you wish your room heating or water heating to be controlled (see operating instructions, Section 4.3.2, Table 4.2).

Heating circuit (HC1)
HC1 indicates heating circuit 1. This refers to the heating of your heating system. You can use a special designation instead of HC1 (see operating instructions Section 4.7.5).

Heating flow temperature
Your appliance heats water which is pumped through your heating system. The temperature of this hot water as it leaves the appliance is referred to as the flow temperature.

Interior temperature
The interior temperature, also referred to as room temperature, is the actual current temperature in your apartment.

Parameter
Parameters are the properties of your heating system. You can influence these properties by altering the value of a parameter, such as, e.g. reducing the value of the parameter "Night set back temp" from 15 °C to 12 °C.

Room target temperature
The room target temperature is the temperature that should prevail in your apartment and is specified at the controller. Your appliance supplies heat until the interior temperature matches the room target temperature. When entering time programmes the room target temperature is also referred to as the comfort temperature.

Set values
The target values are your desired values that you can specify via the controller; e.g. the room target temperature or the target temperature for hot water generation.

Summer/Winter changeover
Under the menu point "Mode selection" in screen ⊟ 1 "Basic data" you can determine whether the changeover from summer to winter and vice-versa should take place automatically (Selection: Auto).
The factory setting (as-supplied condition) is for automatic changeover not to take place (Selection: Off).

Flow temperature
See heating flow temperature.

Water heating
The water in the hot water cylinder is heated to the selected target temperature by the appliance. If the temperature in the hot water cylinder falls by a specific amount the water is heated again until it reaches the target temperature. Time windows for water heating can be programmed.

Time window
Three time windows can be programmed per day for the heating, water heating and circulation pump (see operating instructions Section 4.7.1).
A target value is allocated to each time window programmed for the heating.
In the case of water heating the hot water target temperature applies for all time windows (Screen ⊟ 10 "Hot water parameters").
In the case of the circulation pump the time windows determine the operating times.
In automatic mode the system is controlled is in accordance with the specified values in the time windows.

Circulation pump
Depending on the length of the pipe, there may be a brief delay before hot water flows when the hot water cock is opened. A circulation pump circulates hot water via your hot water pipe. This means that hot water is available instantly when the water cock is opened. Time windows can be programmed for the circulation pump.

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