## **Operating instructions**

Heating controller TopTronic®T



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## **Important addresses** and telephone numbers

Heating installer	
Plumbing installer	
Electrical installer	

### **Technical data**

(To be completed by the heating installer)

Information	for	the	owner	οf	the	SV	stem	
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Deam station sysilable	
Room station available	
Number of heating circuits: 1	□ 2 □ 3
Heating circuits	Heating curve value set
Heating circuit HC =	
Heating circuit MC1 =	
Heating circuit MC2 =	
Enable time program P2, P3:	☐ yes ☐ no

# **Calculation basis for heating system** (To be completed by the heating installer)

Lowest outdoor temperature setting	°C
Thermal output required for central heating	kW
Max. flow temperature	°C
Max_return_temperature	°C

### **Heating system control**

## What is the function of the heating controller TopTronic® T?

The boiler controller is, in conjunction with the temperature sensor connected to it, so to speak, the brain of the heating system. Its main functions are:

- maintaining the desired room temperature independently of the outdoor temperature
- heating the living space when required
- produce warm water (e.g. for showering) only when required
- displaying information

Further functions:

- Input of desired temperatures and operating modes
- Turn the burner ON/OFF
- Temperature monitor

The correct settings for the heating system have already been applied by Hoval, or the installer, during commissioning. Any changes to those settings should only be carried out if you go away on a trip or if your home is to cold or too warm. An overview of the most frequent questions/answers can be found on pages 6 and 12 of these instructions.

#### How you can save energy

#### For your benefit and for the environment

Using energy more efficiently by avoiding unnecessary losses: With little effort you can optimise the operation of your system and make it worth while.

- You can save money. Enough money to pay your oil or gas bill every sixth year
- Every year, you can save the energy equivalent of a bathtub full or heating oil

## In autumn, it is worth while turning the heating off again on warm days

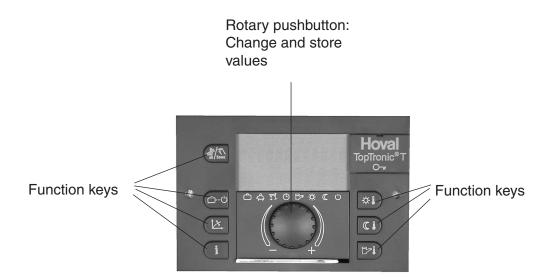
This prevents the heating system from producing unnecessary heat in the morning, due to low outdoor temperatures, and overheating the house. Turning the heating on or off depending on the weather conditions is one of the most effective energy saving measures. If you want to save yourself going down the basement, you may want to consider acquiring a "remote control" from Hoval, which will allow you to operate and control the heating comfortably from your living room.

#### **Basic display**

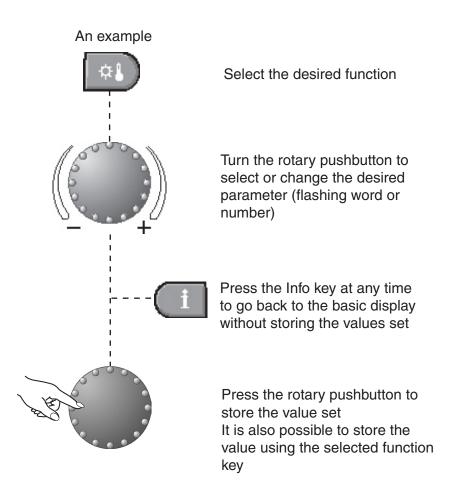
The basic display shows the day of the week, date and time of the day, as well as the current boiler temperature and room temperature (room station)

#### Function of the operating elements

The central rotary pushbutton and the labelled keys are designed for easy and straightforward operation.



#### Basic procedure for changing settings

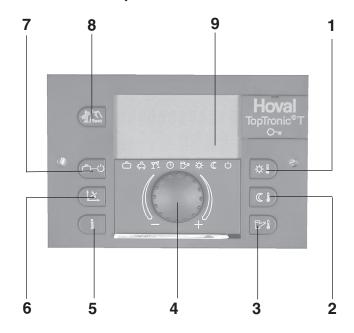


### What to do if ...

The following information can be used as a first level support in frequently occurring situations.

Observation	Remedy
It is too cold	Set a higher value for the room temperature with rotary pushbutton (see page 16).
It is too warm	Set a lower value for the room temperature with rotary pushbutton ( (see page 16 and 20).
From now on, equal day and night temperatures should be maintained continuously	Set the operating mode to "HEATING" with (page 20).
This evening, the heating should remain on for longer	Set the operating mode to \frac{\gamma^q}{} "PARTY" with \tage and set the desired time (page 19).
A larger amount of hot water is required	Press for 3 seconds and set the additional loading time (page 29).
From now on, hot water but no heating is required	Set operating mode to "SUMMER" with (heating off, hot water only) (page 20).
Suddenly, there is no heating or hot water; it is cold.	Check the boiler controller for alarms and consult a heating engineer, if necessary.
The room temperature setpoint requires frequent adjustments because it is too cold or too hot	Change the set heating curve (page 27).  Changing the heating curve is not sensible if your system is fitted with a room sensor (or room station) and an outdoor sensor. The correct settings for the heating curve are then provided automatically
Today, I will be absent for several hours during the day	Set the operating mode to A "ABSENT TIL" with and set the return time (see page 19).
I am travelling for a short period of time (e.g. 3 days)	Set the operating mode to "HOLIDAY TIL" with the return time (see page 19).
I will be travelling for an indefinite period of time	Set the operating mode to ("RED. HEATING" with When returning, set the operating mode to "AUTOMATIC" (see page 20).
In summer, it is too cold or too warm.	indicates that the summer disconnection is active. If it is too cold, set the operating mode to $\bigcirc$ with $\Leftrightarrow$ (see page 20).

### Control elements of the boiler control panel



	Legend	Function
1.	Daytime room temperature	Use this function key to change the desired daytime room temperature
		For further information see page 10
2.	Reduced room temperature	Use this function key to change the desired room temperature in the reduced heating mode
	<b>(8)</b>	For further information see page 11
3.	DHW temperature	Use this function key to set the desired daytime domestic hot water temperature
	[34]	For further information see page 22
4.	Rotary pushbutton	Use the rotary pushbutton to select or change the desired parameters (flashing word or number).  - Clockwise turn (+): increase value  - Counter-clockwise turn (-): decrease value  - Short tap: accept and store the value selected and displayed  - Pressing for approx. 3 seconds: go to programming level (level selection)

Heating system control 4 204 766 / 00

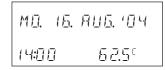
Le	gend		Function		
5.	System informa	tion key	<ul> <li>Show the temperatures and hours of operation on the display</li> <li>Return to the basic display without saving the values, is also possible any time with this function key.</li> </ul> For further information see page 33		
6.	Heating curve s	et-up key	The heating curve shows the flow temperature of a heating system as a function of the outdoor temperature. Use this function key to modify the heating curve.		
			For further information see page 21		
7.	Operating mode selection key	·	Turn off the heating system during the holidays (frost protection)	HŪL I IĀY Ī I L Z IŪB	
		<b>A</b>	Temporarily switch off heating	ABSENT TIL	
		ΥĀ	Extended heating	PARTY TIL	
		<b>(</b>	Automatic heating according to the preset heating times	AUTOMATIE	
			Only DHW Heating off	SUMMER IHW	
		*	Continuous heating mode	HERT:NG	
			Constant reduced heating mode	REIL HERTING	
		Ċ	System switched off Frost protection activated	STANIAY	
			For further information see pages 13-15		

L	egend	Function	
8.	Manual mode and emission measurement key	This is used for emission measurement and may only be used by a chimney sweep or a qualified heating technician!  For further information see page 31	
9.	Display	chimney sweep or a qualified heating technician!	

Heating system control 4 204 766 / 00

#### Main settings

## Changing the room temperature Setting the daytime room temperature

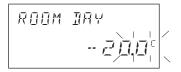


Basic display

These adjustments can also be carried out on a room station, if available.

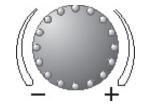


Tap the "Daytime room temperature" key



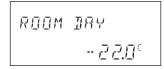
The daytime room temperature setpoint flashes

If "MC1" is shown on the display, you need to select the heating circuit. (Information on which heating circuit to select for your home can be found on page 3 of these instructions).

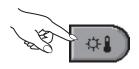


Set the desired room temperature by turning the "rotary pushbutton".

- Setting range 5 - 30°C (Factory setting 20°C)



The new "Daytime room temperature" setpoint appears on the display



Tap the "Daytime room temperature" key to confirm the temperature setpoint

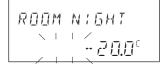
#### Setting the reduced (night time) temperature

MO. 16. AU6. 104 14:00 62.51 Basic display

These adjustments can also be carried out on a room station, if available.

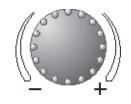


Tap the "Reduced room temperature" key



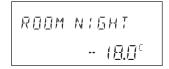
The night time room temperature setpoint flashes.

If "MC1" is shown on the display, you need to select the heating circuit. (Information on which heating circuit to select for your home can be found on page 3 of these instructions).

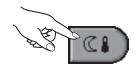


Set the desired room temperature by turning the "rotary pushbutton".

- Setting range 5 - 30°C (Factory setting 16°C)



The new "Reduced room temperature" setpoint appears on the display.



Tap the "Reduced room temperature" key to confirm the temperature setpoint.

#### Holiday, absent, constant reduced heating

Depending on the duration of your absence and what your requirements are in regard to comfort, there are different operating modes available for interrupting or reducing the heating. In any case you will be able to save a lot of energy and money if the rooms are not heated or less heated during your absence. The following table is intended as a guide for finding the best operating mode for each particular case:

Application	Operating mode	Function
You go on holiday for e.g. 1 week and you know the return date	System is off during holidays "HOLIDAY TIL"	<ul> <li>Heating system OFF / Calorifier frost protected (5°C)</li> <li>Room temperature set to minimum (10°C)</li> <li>Setting range: current date + 250 days</li> <li>End of holiday = Return date</li> <li>0:00 o'clock</li> <li>Early return</li> <li>"Press and hold" for 3 sec, then return to "AUTOMATIC" mode</li> </ul>
You leave home in the morning and come back late in the evening	Heating interrupted temporarily "ABSENT TIL"	Heating temporarily interrupted until set time Setting range: 0.524h
You are travelling for an indefinite period of time and want the living area to be at the set reduced temperature on return.	Continuous reduced heating mode  "RED. HEATING"	Continuous reduced heating and DHW mode around the clock
You are away for an indefinite period of time during spring or autumn and you don't mind if your home is cool on return	System switched off - Frost protection activated "STANDBY"	The entire heating system is switched off and frost protected. No DHW mode!

See following pages for a detailed description on how to set the operating modes.

You can return to the "AUTOMATIC" function (normal heating mode) at any time by "pressing and holding" for 3 sec

#### Setting the operating mode

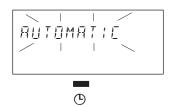
Procedure for activating the operating modes "HOLIDAY TIL", "ABSENT TIL" or "PARTY TIL".



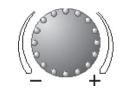
Tap the "Operating mode" key



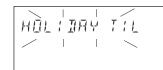
The note "OP. MODE" is displayed for a short time



The currently active operating mode is then shown flashing on the display. An indicator bar at the lower part of the display points to the corresponding symbol.



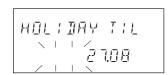
Set the desired operating mode by turning the "rotary pushbutton": "HOLIDAY TIL" or "ABSENT TIL" or "PARTY TIL"



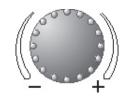
The selected operating mode is shown flashing on the display



Tap the "rotary pushbutton" to confirm the selected operating mode



Today's date ("HOLIDAY TIL") or the current time ("ABSENT TIL", "PARTY TIL") is shown flashing on the display.



Turn the "rotary pushbutton" and select

- for "HOLIDAY TIL", the date of return from holiday
- for "ABSENT TIL", the expected return time (within max. 24h).
- for "PARTY TIL", the time the party is expected to end.



Tap the "rotary pushbutton" to confirm the setting.

Procedure for activating the operating modes "AUTOMATIC", "SUMMER1", "HEATING", "RED. HEATING" and "STANDBY"



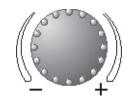
Tap the key "Operating mode"



The note "OP. MODE" is displayed for a short time



The currently active operating mode is then shown flashing on the display



Set the desired operating mode by turning the "rotary pushbutton"



for example "RED. HEATING"



Tap the "rotary pushbutton" to confirm the setting.

<sup>&</sup>lt;sup>1</sup> The operating mode "Summer" can not be selected when each heating circuit is set up separately.

Operating mode	Function		
<b>AUTOMATIC</b> (b)	Automatic control mode acceprogram Factory setting: Heating: Reduced heating: Domestic hot water:	ording to the hea 06:00 - 22:00 22:00 - 06:00 05:00 - 22:00	ting times set in the 1. time
SUMMER	DHW mode only DHW is produced at the time Factory setting for domestic 05:00 - 22:00 Frost protection is active		program (for showering, etc.)  Info: Operating mode "Summer" can not be selected when each heating circuit is set up separately.
HEATING ☆	Continuous heating mode The room temperature is no DHW is produced at the time		
RED. HEATING	Continuous reduced heating mode The rooms are continuously heated at the "ROOM NIGHT" temperature setting.		
STANDBY	No heating mode Heating system is switched off There is no heating and no DHW is produced. Frost protection is active.		

#### Changing the time programs (heating times)

This function allows creating individual time programs for the heating and DHW modes. After selecting the respective heating circuit, the factory-set standard program (P1) is loaded and can then be edited individu-

The standard heating times preset by the manufacturer are, e.g.:

Circuit	Day	Heating from
All heating circuits (HC,MC-1,MC-2)	Mo-Su	06.00 - 22.00
Domestic hot water circuit (DHW)	Mo-Su	05.00 - 22.00

Table for recording individual switching times

Time program for living area (MC1)						
Day	Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to
Мо						
Tu						
We						
Th						
Fr						
Sa						
Su						

Time program for living area (MC2)						
Day	Day Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to
Мо						
Tu						
We						
Th						
Fr						
Sa						
Su						

Time program for living area (HC)						
Day	Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to
Мо						
Tu						
We						
Th						
Fr						
Sa						
Su						

Times program for calorifier (DHW)						
Day	Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to
Мо						
Tu						
We						
Th						
Fr						
Sa						
Su						

Further standard programs can be - or could have been - set-up or enabled for programming by the installer (P1-P3) see page 18.

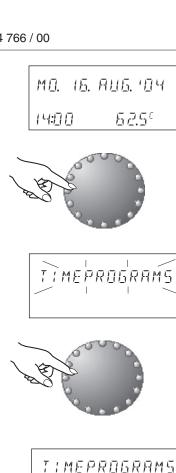
A maximum of 3 heating times per day are







1 heating cycle 2 heating cycles heating cycles



Basic display

Press the "rotary pushbutton" for at least 3 sec.

The note "TIMEPROGRAMS" appears on the display.

Tap the "rotary pushbutton" to confirm

The letters "HC" also appear on the display

Select the heating circuit by turning the "rotary pushbutton". (Information on which heating circuit to select for your home can be found on page 3 of these instructions)

Select Time program P1, P2 or P3, if required - see page 18



Tap the "rotary pushbutton" to confirm the selected heating circuit

2 4 6 8 10 12 14 16 18 20 22 24 Use the "rotary pushbutton" to select the day for which the heating time has to be modified. 0655-0630 Note: The 3rd heating cycle is omitted if the 2nd heating cycle does not contain any switching times. MI -- 1 --

Change - Exit:

Every flashing setting can be corrected using the rotary button, if required, and accepted by tapping. Use the key to go back one step. Use the key or wait for approx. 60 sec. to go back to the basic display.

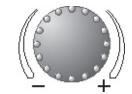
Heating system control 4 204 766 / 00



Tap the "rotary pushbutton" to confirm the day.



The currently set heating start time is shown flashing on the display



Set the desired heating start time by turning the "rotary pushbutton".



Tap the "rotary pushbutton" to confirm the set start time.

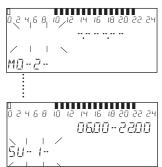
Turn the "rotary pushbutton" to set the time setpoint for the end of the heating mode on the week day shown



The week day is shown flashing on the display. You can now set a second heating time (Mo -2) for this day by turning the "rotary push-button"



by going directly to Tuesday to set the desired heating time.



Instead of introducing each day separately, you can also use the "copy" function - see page 25

This function allows you to copy the switching times from any week day to other days (Mo-Su) or to an entire week (1-7) or to day groups like working days (1-5) or weekends (6-7).



Once you have completed all the changes, tap the operating mode key to confirm the settings and open the basic display

If P1 is displayed, it means that further standard heating times programs are already enabled. If not, P2 and P3 can be enabled by the heating technician..

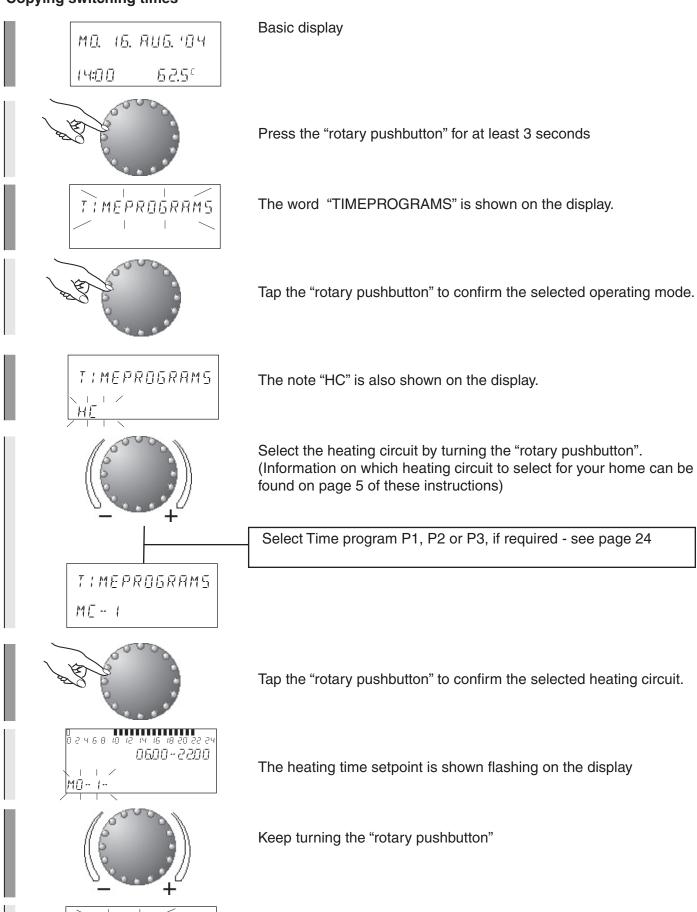
#### Factory setting: Switching times program P2

Circuit	Day	Heating from
	Mo-Th	06.00-08.00 16.00-22.00
All heating circuits (HC,MC-1,MC-2)	Fr	06.00-08.00 13.00-22.00
	Sa-Su	07.00-23.00
	Mo-Th	05.00-08.00 15.30-22.00
Hot water circuit (DHW)	Fr	05.00-08.00 12.30-22.00
	Sa-Su	06.00-23.00

Factory setting: Switching times program P3

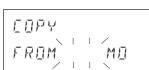
Circuit	Day	Heating from
All heating circuits (HC,MC-1,MC-2)	Mo-Fr Sa-Su	07.00-18.00 reduced
Hot water circuit (DHW)	Mo-Fr Sa-Su	06.00-18.00 reduced

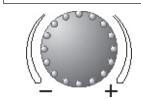
#### Copying switching times



until "COPY", "DAY" appears flashing on the display









Tap the "rotary pushbutton" to confirm the settings

Change - Exit:

Every flashing setting can be corrected using the rotary button and accepted by tapping. Use the key to go back one step. Use the key or wait for approx. 60 sec. to go back to the basic display.

Select the day from which the heating time setting is to be copied by turning the "rotary pushbutton".

Note: The 3rd heating cycle is omitted if the 2nd heating cycle does not contain any switching times

Tap the "rotary pushbutton" to confirm the desired day.

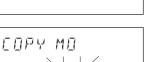


Select the target day(s): Weekdays (MO...SU), whole week (1-7) Working days only (1-5), weekend only (6-7)



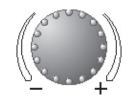
Tap the "rotary pushbutton" to confirm the setting

EOPY IRY OK



Confirmation for correct copying of day(s).

Target range for the next copy process is shown flashing on the display.



Select the next copy range by turning the "rotary pushbutton".



Target range for the copy process is shown again flashing on the display.

Use the same scheme to create any additional copies.



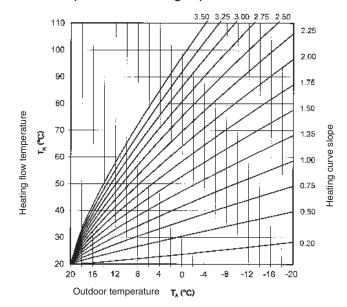
After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

#### **Heating curve (heating characteristic)**

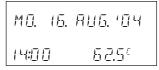
The heating is normally preset by the installer during the commissioning of the heating system. The heating curve should only be changed in small steps and over longer periods of time.

Recommended settings

Floor heating: 0,3...1,0 Radiator heating: 1,2...2,0 Convector heating: 1,5...2,0



The slope of the heating characteristic curve generally describes the ratio between variations in the flow temperature and variations in the outdoor temperature.



Basic display



Press the "Heating curve" key

неят. сия*ке* не оф<del>е</del>́ "Heating curve" display appears

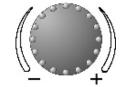
"HC" flashes. In case of several heating circuits you must first select the relevant circuit by turning the "rotary pushbutton"- see page 3, Technical data.



Confirm

неят. сияvе нс одкк

The slope of the heating characteristic curve is shown flashing on the display



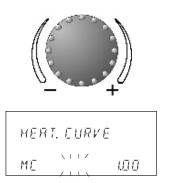
Select the desired value for the slope of the heating characteristic curve by turning the "rotary pushbutton".

HERT. EURVE HE (5

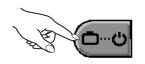
The selected slope of the heating characteristic curve is shown on the display



Tap to confirm

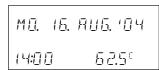


Turn the rotary pushbutton to set up further heating circuits, if required



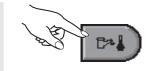
After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

### Setting the domestic hot water temperature

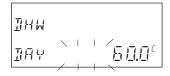


Basic display

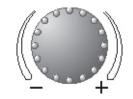
Settings can be conducted at a room station, if this is available.



Tap the "Domestic hot water temperature" key.



The current DHW temperature setpoint is shown flashing on the display.



Set the desired hot water temperature by turning the "rotary pushbutton".

- Setting range 10 - 65°C (Factory setting 60°C)



The selected hot water temperature is shown on the display

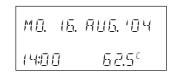


Tap the "Domestic hot water temperature" key to confirm the temperature setpoint.

#### Manual domestic hot water reloading

Outside the time periods during which the DHW mode is available, the calorifier can be manually reloaded within the selected setting range.

The calorifier is reloaded once according to the set daytime DHW temperature. Reloading is limited by the set temperature for all other settings.



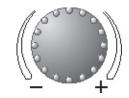
Basic display



Press and hold the "DHW temperature" key for 3 seconds



The DHW reloading time is displayed; the minute-display flashes

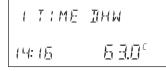


Set the desired additional reloading time by turning the "rotary pushbutton".

Setting range 0 - 240 min



Tap to confirm

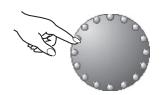


The active reloading process is displayed until the reloading process has been completed

#### Domestic hot water economy temperature (reduced temperature)

MD. 16. AUG. 104

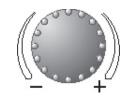
Basic display



Press and hold the "rotary pushbutton" for 3 seconds



"Time programs" is shown on the display.



Turn the "rotary pushbutton"



until "DHW" is shown flashing on the display



Tap to confirm

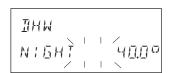


"DHW" flashes on the display.

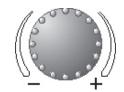
The temperature shown defines the the desired DHW temperature outside the time periods during which the DHW mode is available



Tap to confirm



The night-time DHW temperature flashes



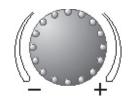
Set the desired temperature value by turning the "rotary pushbutton" and tap to confirm the setting.



After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

### Further settings Setting the time

MD. 15. AUG. 104 1400 52.51	Basic display
ASS OF THE PROPERTY OF THE PRO	Press and hold the "rotary pushbutton" for 3 seconds
T:MEPROGRAMS	"Time programs" is shown on the display
	Turn the "rotary pushbutton"
TIME - INTE	until "Time-date" is shown on the display
San	Tap to confirm
TIME	"Time" flashes
A STORY OF THE PARTY OF THE PAR	Tap to confirm
TIME  INCHES	The "time" flashes



Turn the "rotary pushbutton" to set the desired time and tap to confirm

Turn the "rotary pushbutton" for further adjustments

#### Setting the date



"Year" appears - confirm
Turn to change the year setting - confirm

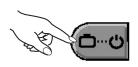


"Day...Month" is shown flashing on the display - confirm Turn to change the Day...Month setting - confirm

## Changing between summer and winter time



"Change" is shown flashing on the display - confirm Turn to change SU-WI ON or OFF - confirm

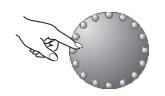


After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

#### Setting the language

You will be prompted for the desired language when switching on the control system for the first time. Changing the language is also possible during normal operation.

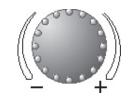
MO. 15. AUG. 104 14:00 62:51 Basic display



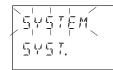
Press and hold the "rotary pushbutton" for 3 seconds



"Time programs" is shown on the display.



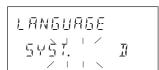
Turn the "rotary pushbutton"



until "System" is shown on the display



Tap to confirm



"Language" appears on the display. Abbreviations for the language are shown flashing

D = German / GB = English I = Italian / F = French



Turn to select the desired language and tap to confirm.



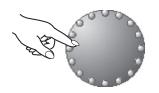
After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

#### Reloading the standard time program - Deleting the own time program

This function allows you to reload all the factory settings.



Basic display



Press and hold the "rotary pushbutton" for 3 seconds



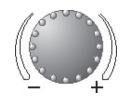
"Time programs" is shown flashing on the display.



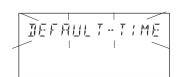
Tap to confirm



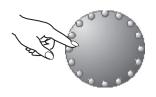
The letters "HC" appear on the display.



Keep turning until "Default-time" appears



"Default-time" is shown flashing on the display.



Tap to confirm



The letters "HC" appear on the display Select the desired heating circuit by turning the "rotary pushbutton"



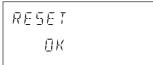
Tap to confirm

RESET HE

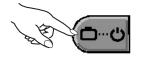
"Reset" appears on the display



Press and hold the "rotary pushbutton" for 3 seconds



"Reset" OK is displayed to confirm



After completing all the changes, tap the operating mode key to confirm the settings and open the basic display.

#### Manual operating mode (in case of faults)

#### The following information is intended for the heating technician only



Maintains the heating and DHW modes in operation in case of a fault.

This function key is also used for emission measurements - see installation instructions; combustion control

All pumps are operating without restrictions. Available mixers are disconnected and can be operated manually, if necessary, depending on the heat demand.

#### **CAUTION:**

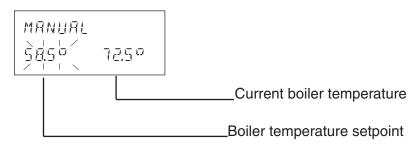
- The DHW temperature reaches the level of the boiler temperature setpoint. Scalding hazard if temperature setting too high!
- To protect underfloor heating systems against invalid overheating during manual operation, it is necessary to implement appropriate safety measures (e.g. safety temperature limiter with pump switch-off).

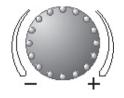
MO. 16. RUG. 104 14:00 62.51

Basic display



Press and hold for 5 seconds





Set the desired heat generator temperature by turning the "rotary pushbutton"

#### Note:

You can leave the manual operating mode and the emission monitoring mode at any time by tapping the operating mode key (C) (Return to basic display).

#### Alarm messages

FLOW ERROR 12-0 Example for sensor alarm messages (short circuit or interruption)
Error code 10-20 and index 0 or 1

HERT GENER. ERROR 30-2 Example for heat generator alarm messages (switching status)
Error code 30-40 and index 2-5

IHW ERROR 30-2

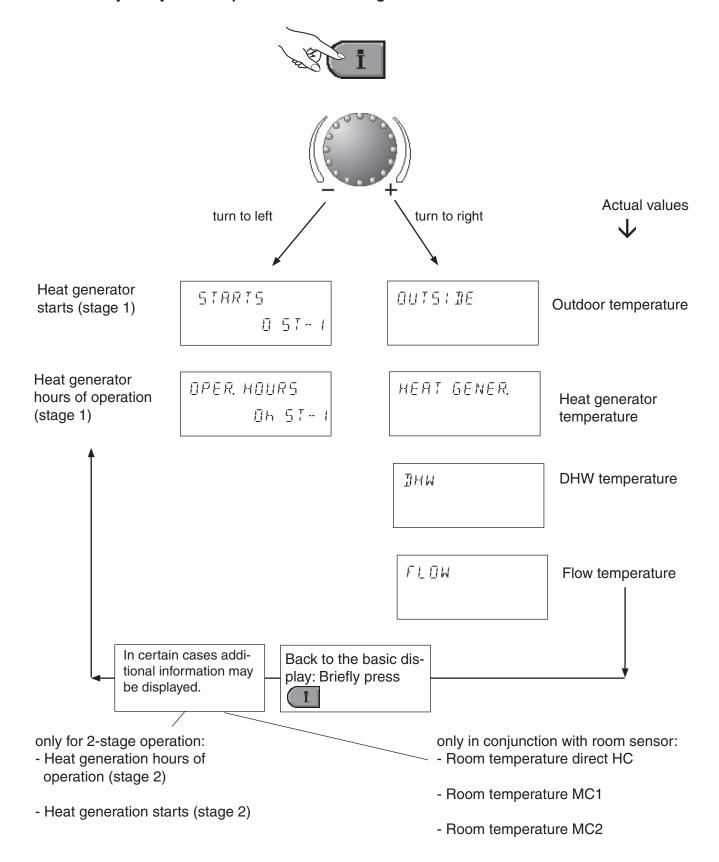
Example for logical alarm messages (control functions) Error code 50-60 and index 2-4

305 ERROR 10-1

Example for data bus alarm messages (address errors on data bus)
Error code 70 and index 0 or 1

The controller comprises a comprehensive alarm logic which displays the fault type by means of the corresponding error code.

# System information Information key for system temperatures and heating circuit information



All temperature values shown represent the current values. Press and hold the "rotary pushbutton" to display the individual setpoints..

#### Special symbols

MD. 16. AUG. 104 \* 14:00 62.51 Ice crystal symbol: Frost protection activated

MQ. 16. AUG. 104 2 14:00 62.5° Umbrella symbol: Summer disconnection active (heating switched off, DHW according to program).

#### Optional accessories Room station RS-T

The Room station RS-T offers additional operating convenience through decentralised monitoring and intervention options, since every heating circuit can be assigned with its own individual room station. Moreover, the central unit contains various control and regulating functions which can only be activated in conjunction with a room station. The following are some of those functions:

- Optimisation functions
- Automatic heating curve adaption

System specific temperatures and switching times can be checked and modified via five control keys, which also enable the creation of individual system programs.

In addition, the unit provides functions such as party switch, program preselection, system parameters with access code, etc.

A clearly laid out display not only provides actual data such as time of the day, date, outdoor and indoor temperature, but also supplies system relevant data (temperature setpoint and actual temperature, parameter values, program display, etc.) and informs about irregular operating conditions (alarm messages).



#### Remote setting device with room sensor RFF-T

This auxiliary device monitors the current room temperature and enables a correction of the desired room temperature.

With the integrated operating mode key you can select between continuous heating, reduced heating or automatic mode according to a preset automatic program stored in the central unit.



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