System control for TopVent® C-SYS

Operating Manual

TopTronic® C

System control for
TopVent® C-SYS

4 216 689-en-01

Hoval

1 Use

1.1 Intended use

The zone controller with operating panel is an operator terminal making it simple to operate and monitor decentralised Hoval indoor climate systems. It gives users access to all information and settings of the TopTronic® C control system that are necessary for normal operation:

- Display and setting of operating modes
- Display of temperatures and setting of the room temperature set values
- Display and programming of the weekly calendar
- Display and handling of alarms
- Password protection

Intended use also includes compliance with the operating instructions. Any usage over and above this use is considered to be not as intended. The manufacturer can accept no liability for damage resulting from improper use.

1.2 User groups

There are 2 operator levels:

Operator level	User group	Access rights	Access
GUEST	Untrained users	■ Read rights	free
USER	Trained users	■ Read rights ■ Write rights – Calendar – Set values – Operating parameters – Alarm processing	Protected by a password Factory setting password: **12345**

2 Basic principles

2.1 Operating elements

The device is operated via a 8-line display and 6 keys:

Icon	Meaning
⚠	Call up alarm list (press shortly) Reset alarms (press key and hold it down for 3 seconds) ■ Key flashes: A new alarm has occurred. ■ Key lights up: An already acknowledged alarm is still present.
⊙	Open activated function fields Call up Main menu Save/delete switching points
↩	Return to the overview Exit without saving
↑	Navigate upwards in multi-page menus Increase values
↵	Navigate to the next function field Confirm values
↓	Navigate downwards in multi-page menus Decrease values

2.2 Display elements

Icons in general

Icon	Meaning
	Guest operator level
	User operator level
	System info
	Alarm ■ Symbol flashes: A new alarm has occurred. ■ Symbol lights up: An already acknowledged alarm is still present.

Icons in the alarm list

Icon	Meaning
	Displays an alarm that must be acknowledged.
	Displays an acknowledged alarm in which the error has not yet been rectified.
	Displays a temporary alarm that must be acknowledged.

2.3 Abbreviations

Category	Abbreviation	Meaning
Unit types	REMU	Supply air units
	RECU	Recirculation units
Zone operating modes	AUTO	Automatic mode
	CPR	Cooling protection
	DES	Destratification
	ES	Forced off (zone)
	EXT	External control by building management system
	NCS	Night cooling
	OPR	Overheat protection
	OPTC	Start optimisation cooling
	OPTH	Start optimisation heating
	REC	Recirculation
	REC1	Recirculation speed 1
	SA1	Supply air speed 1
	SA2	Supply air speed 2
	ST	Standby
Unit operating modes	L_AUTO	Automatic mode
	L_DEL_REC	Follow-on drying cooling coil (local)
	L_DOOR	Air curtain (local)
	L_ES	Forced off (local)
	L_FCD	Emergency operation (local)
	L_OFF	Off (local)
	L_REC	Recirculation (local)
	L_REC1	Recirculation speed 1 (local)
	L_SA1	Supply air speed 1 (local)
	L_SA2	Supply air speed 2 (local)

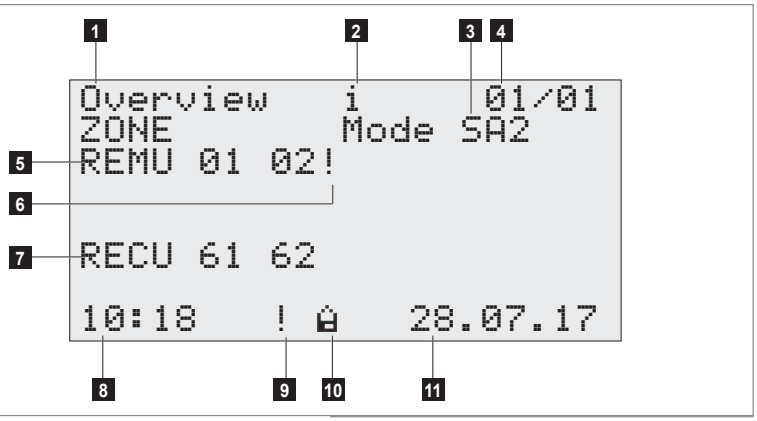
2.4 Operating modes

Code	Operating mode	REMU	RECU
REC	**Recirculation** On/Off recirculation operation with TempTronic algorithm: During heat or cool demand, the unit draws in room air, heats or cools it and blows it back into the room. The room temperature set value day is active. The flow rate is controlled in 2 stages.	●	●
DES	■ Destratification: To avoid heat build-up under the ceiling, it may be appropriate to switch on the fan when there is no heat or cool demand (either in permanent operation or in on/off operation depending on air temperature under the ceiling, as desired).	●	●
REC1	**Recirculation speed 1** The same as REC, but the unit operates only at speed 1 (low air flow rate)	●	●
DES	■ Destratification: The same as for REC, but the unit operates only at speed 1	●	●
SA2	**Supply air speed 2** The unit blows fresh air into the room. The fresh air ratio is adjustable. Heating/cooling is controlled according to the heat/cool demand. The room temperature set value day is active. The unit operates at speed 2 (high air flow rate).	●	
SA1	**Supply air speed 1** The same as SA2, but the unit operates at speed 1 (low air flow rate)	●	
ST	**Standby** The unit is normally switched off. The following functions remain active:	●	●
CPR	■ Cooling protection: If the room temperature drops below the set value for cooling protection, the unit heats up the room in recirculation operation.	●	●
OPR	■ Overheating protection: If the room temperature rises above the set value for overheating protection, the unit cools down the room in recirculation operation. If the temperatures also permit fresh air cooling, the units automatically switches to night cooling (NCS) to save energy.	●	●
NCS	■ Night cooling: If the room temperature exceeds the set value for night cooling and the current fresh air temperature permits it, the unit blows cool fresh air into the room and extracts warmer room air.	●	
L_OFF	**Off** (local operating mode) The unit is switched off. Frost protection remains active.	●	●
–	**Forced heating** The unit draws in room air, warms it and blows it back into the room. For example, forced heating is suitable for heating the hall before taking the control system into operation or if the controller fails during the heating period.		
	■ Forced heating can be activated and set as required by the Hoval service technician.	●	
	■ Forced heating is activated by connecting the unit to a power supply (only if there is no bus connection to the zone controller).		●

Notice
If needed, operation in 'Destratification' mode is set up by the Hoval technician during commissioning.

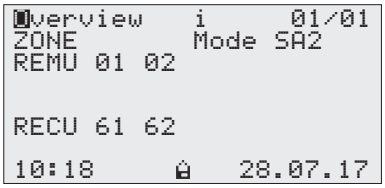
2.5 System overview

In **Overview** the following information is displayed:



1	Menu title	7	Recirculation units No. 61 – 70
2	System info	8	Time
3	Current zone operating mode	9	Collective alarm
4	Page number	10	Operator level
5	Supply air units No. 01 – 06	11	Date
6	Alarm status of unit No. 02		

2.6 Entering password



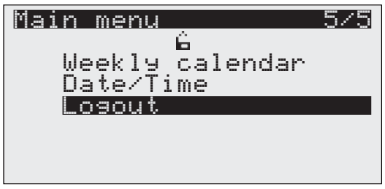
- In **Overview** (with the cursor on the 'O') press the ⊙ key.

- Enter the 1st digit of the password with ↑ ↓ (factory setting 12345).
- Navigate to the next digit with ↵.
- Enter the next digit with ↑ ↓, and so on.

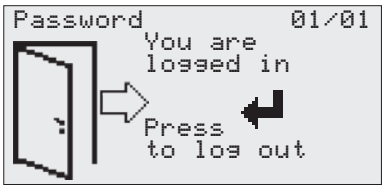
- Confirm the finished password with ↵.
- USER operator level becomes active.
- The **Main menu** appears.

Notice
The user is automatically logged out if 15 minutes elapse without a key being pressed. GUEST operator level becomes active.

2.7 Logging off

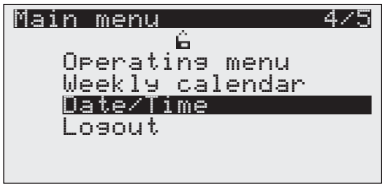


- In **Main menu**, navigate to 'Logout' with ↑ ↓.
- Confirm with ↵.

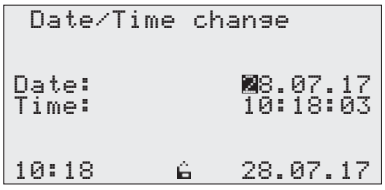


- Log off with ↵.
- Back to **Overview** with ↩.
- GUEST operator level becomes active.

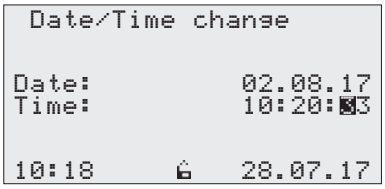
2.8 Setting date and time



- In **Main menu**, navigate to 'Date/Time' with ↑ ↓.
- Confirm with ↵.



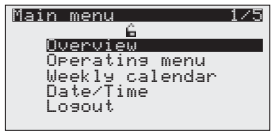
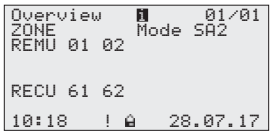
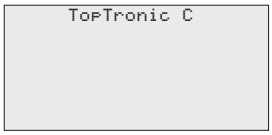
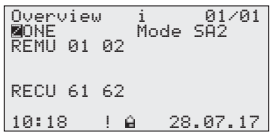
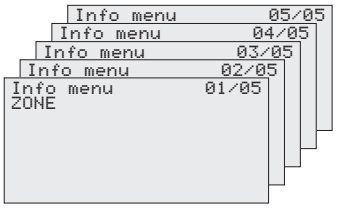
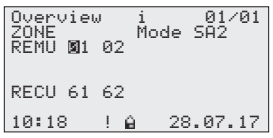
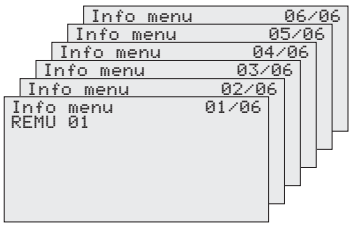
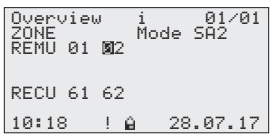
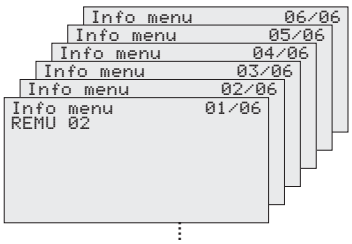
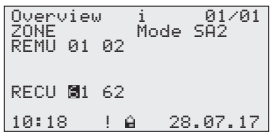
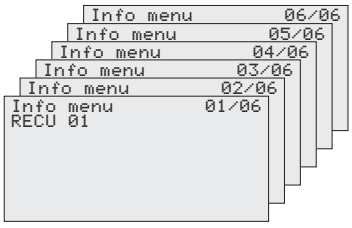
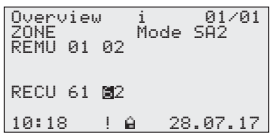
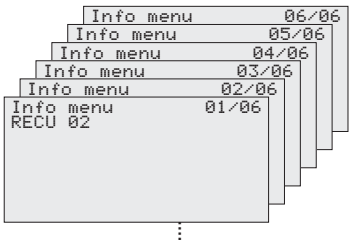
- Navigate to the next day with ↵.
- Set value with ↑ ↓.
- Navigate to the month with ↵.
- Set value with ↑ ↓, an so on.

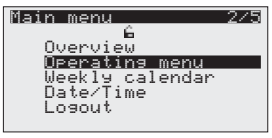
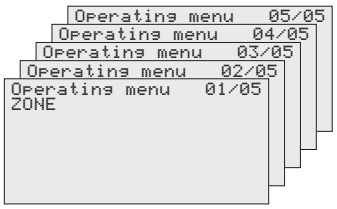
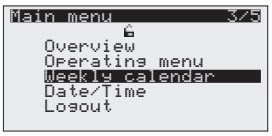
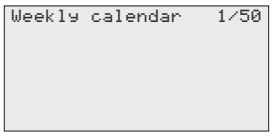
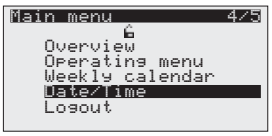
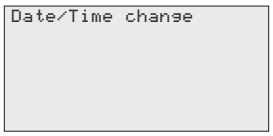
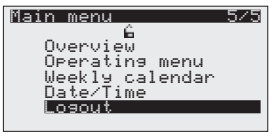
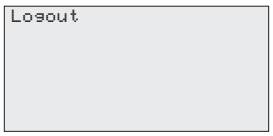
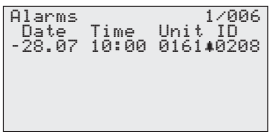


- Confirm the entry with ↵.
- Back to **Main menu**: Press ⊙.
  or
- Back to **Overview**: Press ↩.

3 Menu tree

Notice
The elements actually shown on the display may differ from this depiction. They are depending on the installed unit types and options.

Main menu	Overview	Submenus	Remarks
			The system info contains important information for Hoval customer service.
All submenus in **Overview** are accessible in the operator levels GUEST and USER.			Info menu zone Pages 01 – 05
			Info menu supply air unit No. 01 Pages 01 – 06
			Info menu supply air unit No. 02 Pages 01 – 06 Further supply air units No. 03 – 06
			Info menu recirculation unit No. 61 Pages 01 – 06
			Info menu recirculation unit No. 62 Pages 01 – 06 Further recirculation units No. 63 – 70

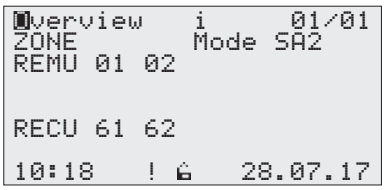
Main menu	Submenus	Remarks
		Operating menu zone, pages 01 – 05 Accessible in USER level only
		Weekly calendar Accessible in USER level only
		Date/Time Accessible in USER level only
		Logging off Accessible in USER level only
		Alarm list Display in GUEST + USER level Editing in USER level only

4 Operating examples

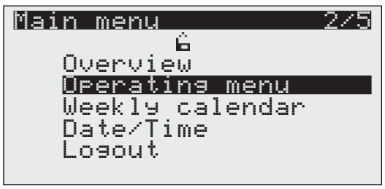
4.1 Switching operating modes

Example:
The zone is to be set to automatic mode according to the calendar.

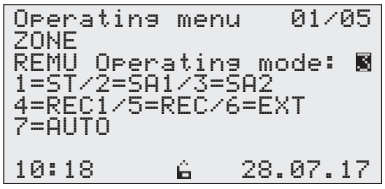
Precondition: The USER operator level is active (password entry see section 2.6).



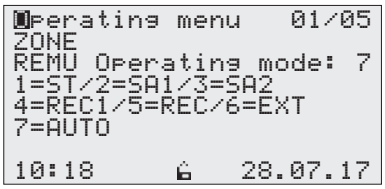
- In **Overview** (with the cursor on the 'O') press the ⊙ key.
- The **Main menu** appears.



- In **Main menu**, navigate to 'Operating menu' with ↑ ↓.
- Confirm with ↵.



- In **Operating menu**, navigate to the input field with ↵.
- Set the value '7' with ↑ ↓.
- Confirm the entry with ↵.



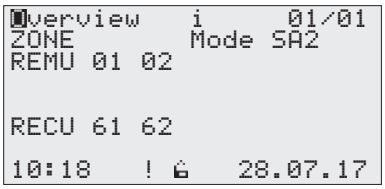
- Back to **Main menu**: Press ⊙.
  or
- Back to **Overview**: Press ↩.

Notice
For detailed information about operating modes see section '2.4 Operating modes'.

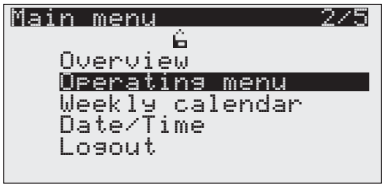
4.2 Setting the room temperature setpoint

Example:
The room temperature setpoint is to be set to 22 °C.

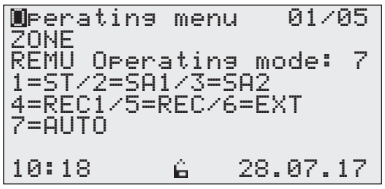
Precondition: The USER operator level is active (password entry see section 2.6).



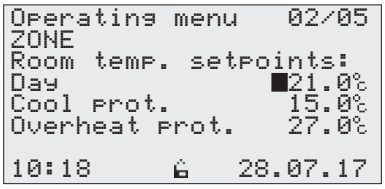
- In **Overview** (with the cursor on the 'O') press the ⊙ key.
- The **Main menu** appears.



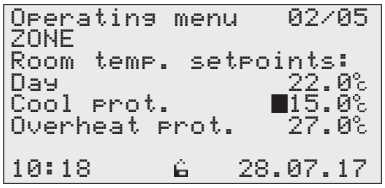
- In **Main menu**, navigate to 'Operating menu' with ↑ ↓.
- Confirm with ↵.



- Navigate to page 2 of the operating menu with ↓.



- On page 2, navigate to the input field for room temperature setpoint day with ↵.
- Set the value '22.0' with ↑ ↓.
- Confirm the entry with ↵.



- Back to **Main menu**: Press ⊙.
  or
- Back to **Overview**: Press ↩.

4.3 Programming the weekly calendar

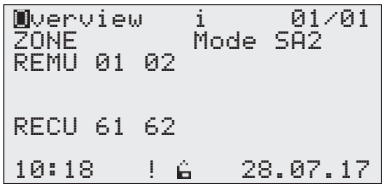
The weekly calendar is used to define regular weekly switching times and operating modes. You can enter up to 50 switching points.

Notice
If both supply air units and recirculation units are installed in a plant, the weekly calendar applies for supply air units. The recirculation units are switched on depending on heat or cool demand.

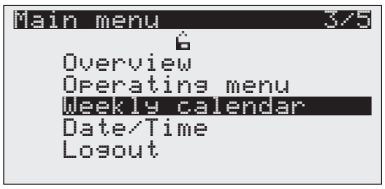
Example:
The following operating modes are to be switched:

Day	Time	Operating mode
Mo – Fr	06:30	SA2
Mo – Fr	17:00	ST

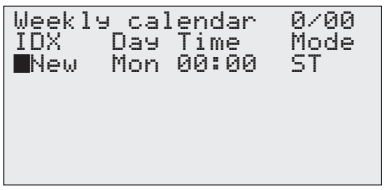
Precondition: The USER operator level is active (password entry see section 2.6).



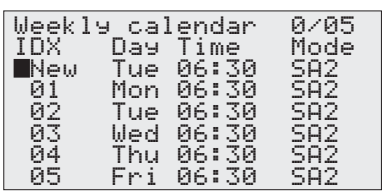
- In **Overview** (with the cursor on the 'O') press the ⊙ key.
- The **Main menu** appears.



- In **Main menu**, navigate to 'Weekly calendar' with ↑ ↓.
- Confirm with ↵.

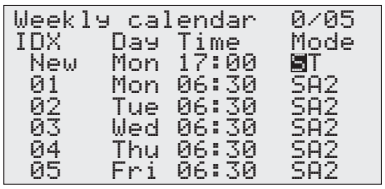


- In **Weekly calendar**, navigate to the day with ↵.
- Set the value 'Mon' with ↑ ↓.
- Navigate to the hour with ↵.
- Set the value '06' with ↑ ↓.
- Navigate to the minute with ↵.
- Set the value '30' with ↑ ↓.
- Navigate to the operating mode with ↵.
- Set the value 'SA2' with ↑ ↓.
- Save the switching point with ⊙.

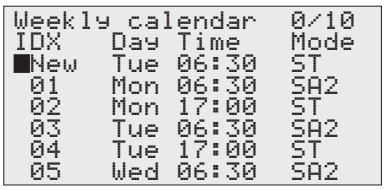


- Navigate to the day with ↵.
- Set the value 'Tue' with ↑ ↓.
- Save the switching point with ⊙.

In the same way, enter the switching points for Wednesday to Friday.



- Navigate to the day with ↵.
- Set the value 'Mon' with ↑ ↓.
- For hour, minute and operating mode, set '17', '00' and 'ST' one after another.
- Save the switching point with ⊙.

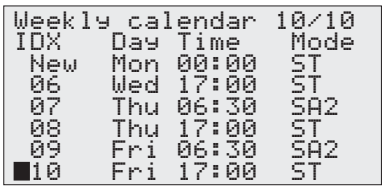


- Navigate to the day with ↵.
- Set the value 'Tue' with ↑ ↓.
- Save the switching point with ⊙.

In the same way, enter the switching points for Wednesday to Friday.

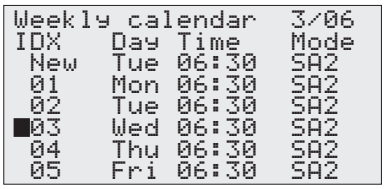
- After completing the weekly calendar go back to **Overview** with ↩.

Checking the weekly calendar



- Navigate to the 1st column with ↵.
- Scroll through the display with ↑ ↓.

Deleting switching points



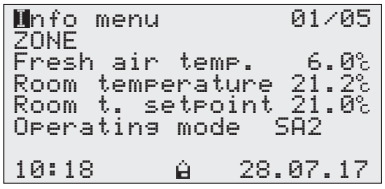
- Navigate to the desired switching point with ↑ ↓.
- Delete the switching point with ⊙.

5 Info menus

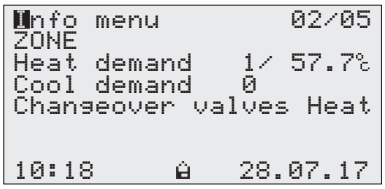
Notice
The elements actually shown on the display may differ from this depiction. They are depending on the installed unit types and options.

5.1 Info menu zone

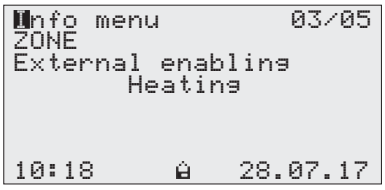
- Navigate to the next page with ↓.



Displays:
- Current fresh air temperature
- Current room temperature
- Room temperature setpoint
- Current zone operating mode

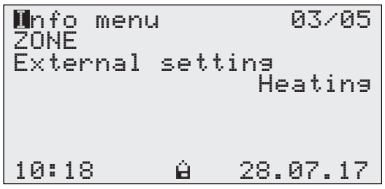


Displays:
- Enable heating
- Heating demand
- Enable cooling
- Position of changeover valves heating/cooling



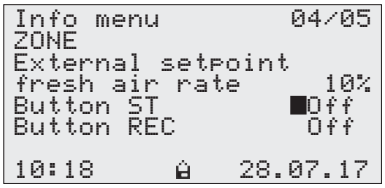
Displays:
- External enabling heating/cooling

(applies to automatic changeover)



Displays:
- External setting heating/cooling

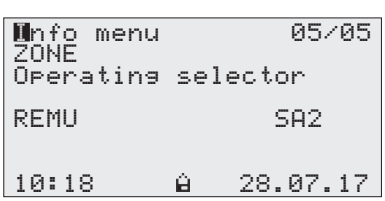
(applies to manual changeover)



Displays:
- External setpoint fresh air rate
- Operating selector button ST
- Operating selector button REC

Switching an operating selector button:
- Navigate to the button with ↵.
- Activate/deactivate with ⊙ (On/Off).

The units work in the selected operating mode for 30 minutes and then switch back to automatic mode. (The runtime is adjustable in the operating menu.)

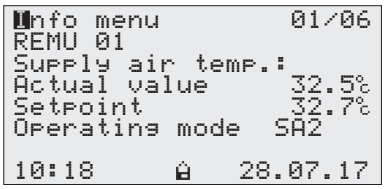


Displays:
- External operating selector switch

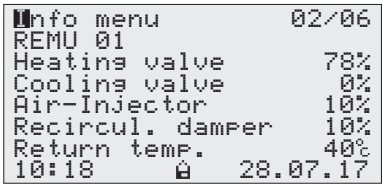
The units work in the displayed operating mode until the external switch is moved back to 'Auto'.

5.2 Info menu supply air unit

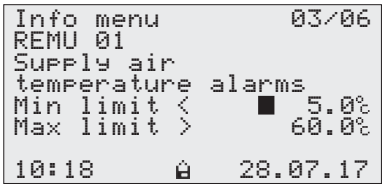
- Navigate to the next page with ↓.



Displays:
- Current supply air temperature
- Supply air temperature setpoint
- Current operating mode of the unit



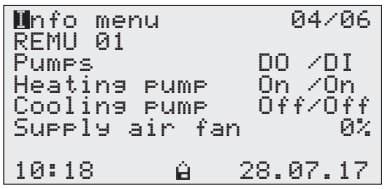
Displays:
- Position of the heating valve
- Position of the cooling valve
- Position of the Air-Injector
  0 % = Vertical air supply
  100 % = Horizontal air supply
- Position of the recirculation damper
- Return temperature



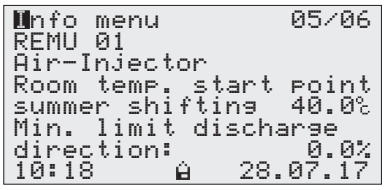
Displays:
- Lower limit of supply air temperature
- Upper limit of supply air temperature

An alarm is triggered if the supply air temperature is outsides these limits.

Setting the limits:
- Navigate to the limit with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

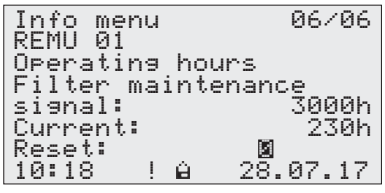


Displays:
- Heating pump: switching command and feedback
- Cooling pump: switching command and feedback
- Current air flow rate
  (in % of the nominal air flow rate)



Displays:
- Start point for summer shifting:
  From this room temperature the twist is reduced and the air is blown more vertically downwards. The cooling effect becomes more strongly felt.
- Min limit discharge direction:
  A minimum value limiting the downward discharge angle of the air flow can avoid draughts in the occupied area.

Adjusting the air distribution:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.



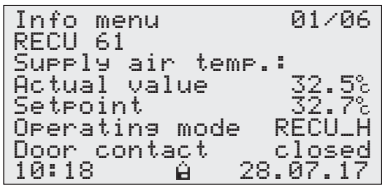
Displays:
- Operating hours for maintenance reminder
- Time that has elapsed since the last filter exchange

Setting the maintenance reminder:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

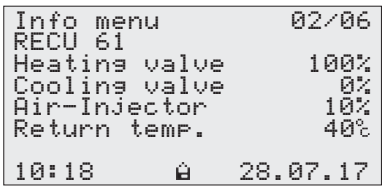
Reset elapsed time to 0:
- Navigate to 'Reset' with ↵.
- Set the value to '1' with ↑.
- Confirm with ↵.

5.3 Info menu recirculation unit

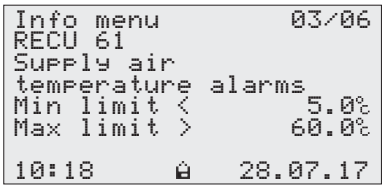
- Navigate to the next page with ↓.



Displays:
- Current supply air temperature
- Supply air temperature setpoint
- Current operating mode of the unit
- Position of door contact



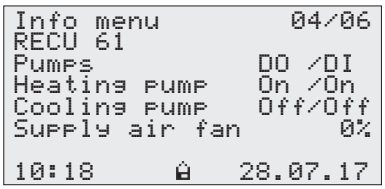
Displays:
- Position of the heating valve
- Position of the cooling valve
- Position of the Air-Injector
  0 % = Vertical air supply
  100 % = Horizontal air supply
- Return temperature



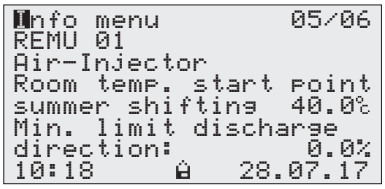
Displays:
- Lower limit of supply air temperature
- Upper limit of supply air temperature

An alarm is triggered if the supply air temperature is outsides these limits.

Setting the limits:
- Navigate to the limit with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

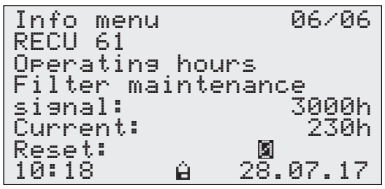


Displays:
- Heating pump: switching command and feedback
- Cooling pump: switching command and feedback
- Current air flow rate
  (in % of the nominal air flow rate)



Displays:
- Start point for summer shifting:
  From this room temperature the twist is reduced and the air is blown more vertically downwards. The cooling effect becomes more strongly felt.
- Min limit discharge direction:
  A minimum value limiting the downward discharge angle of the air flow can avoid draughts in the occupied area.

Adjusting the air distribution:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.



Displays:
- Operating hours for maintenance reminder
- Time that has elapsed since the last filter exchange

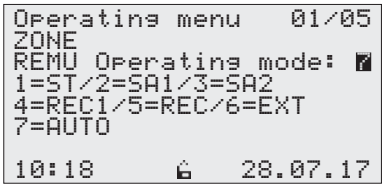
Setting the maintenance reminder:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

Reset elapsed time to 0:
- Navigate to 'Reset' with ↵.
- Set the value to '1' with ↑.
- Confirm with ↵.

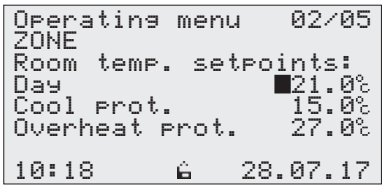
6 Operating menu zone

Precondition: The USER operator level is active (password entry see section 2.6).

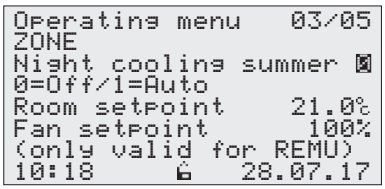
- Navigate to the next page with ↓.



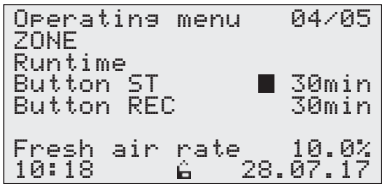
Selecting the operating mode:
- Navigate to the input field with ↵.
- Set the desired operating mode with ↑ ↓.
- Confirm with ↵.



Setting room temperature setpoints – Day / Cooling protection / Overheating protection:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.



Setting night cooling – Enabling, Room setpoint and Fan setpoint:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

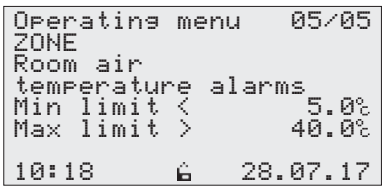


Setting the runtime of the operating selector buttons:
- Navigate to the button with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

When a button is activated the units switch back to automatic mode after this runtime.

Setting the fresh air rate:
- Navigate to the input field with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

(only for supply air units)



Setting the lower and upper limits of room temperature:
- Navigate to the limit with ↵.
- Set value with ↑ ↓.
- Confirm with ↵.

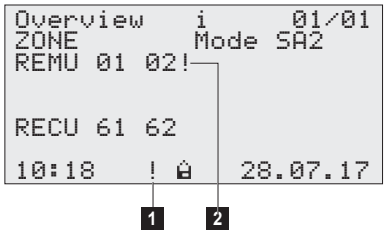
An alarm is triggered if the room air temperature is outsides these limits.

7 Alarms

All the alarms are registered in the alarm list and must be acknowledged by the user. Depending on the alarm cause, they are then automatically deleted after the fault has been rectified, or a reset is also required.

7.1 Alarm display

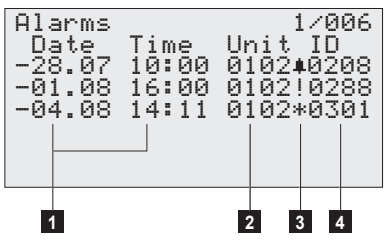
In the system overview



1 Collective alarm:
- Symbol flashes: A new alarm has occurred.
- Symbol lights up: An already acknowledged alarm is still present.

2 Alarm status of unit No. 02

In the alarm list



1 Date and time of the alarm

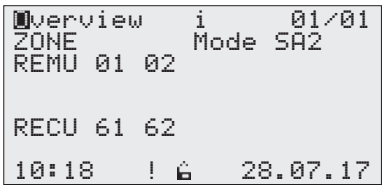
2 Number of the affected unit

3 Alarm status:
- 🔔 Displays an alarm that must be acknowledged.
- ! Displays an acknowledged alarm in which the error has not yet been rectified.
- * Displays a temporary alarm that must be acknowledged.

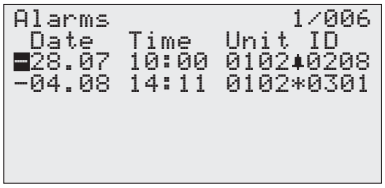
4 Alarm ID

7.2 Alarm processing

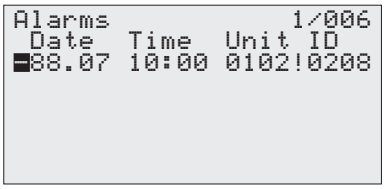
Precondition: The USER operator level is active (password entry see section 2.6).



Calling up the alarm list from any menu:
- Shortly press the button ⚠.
- The alarm list appears.



- Navigate to the alarm with ↑ ↓.
- Confirm with ⊙.
- Navigate to the next alarm to be confirmed with ↑ ↓.
- Confirm with ⊙, and so on.



- The icon for the alarm status changes to '!'.
- Rectify fault.
- If required, contact Hoval customer service.

Alarms reset:
- Press ⚠ key and hold it down for 3 seconds.
- Back to **Overview**: Press ↩.

7.3 Alarm list

The following table contains an overview of all alarms and their cause. Contact Hoval customer service to have faults rectified.

ID	Alarm	Cause	System reaction	Remedy
1	Frost protection (supply air)	The supply air temperature has dropped below 13 °C.	The mixing valve heating opens continuously. The (optional) heating pump switches on.	Check the heat supply and the unit hydraulics, rectify error. Reset alarm.
		The supply air temperature has dropped below 8 °C.	The frost protection alarm (supply air) is tripped. The heating mixing valve opens 100%. The unit switches off.	
2	Frost protection (water return)	The return temperature has dropped below 15 °C.	The mixing valve heating opens continuously. The (optional) heating pump switches on.	
		The return temperature has dropped below 7 °C.	The frost protection alarm (water return) is tripped. The heating mixing valve opens 100%. The unit switches off.	
3	Fault supply air fan 1	The fan motor has a fault or the corresponding circuit breaker has tripped.	The unit switches off.	Switch on automatic circuit breaker again.
5	Main switch off	The main switch is set to '0'.	–	Set main switch to position '1'.

ID	Alarm	Cause	System reaction	Remedy
6	Frost protection	The temperature has fallen to below 11 °C after the heating coil.	The mixing valve heating opens continuously. The (optional) heating pump switches on.	Check the heat supply and the unit hydraulics, rectify error. Reset alarm.
		The temperature has fallen to below 5 °C after the heating coil.	The 'frost protection' alarm is tripped. The heating mixing valve opens 100%. The unit switches off.	
9	Forced switch-off unit	An external signal has activated the forced switch-off function.	The unit switches off.	Deactivate the external signal. Reset alarm.
10	Forced switch-off zone	An external signal has activated the forced switch-off function.	All units in the zone switch off.	
202	Fresh air filter maintenance (operating hours)	The operating hours for the maintenance reminder have been reached.	–	Check the filter and renew it if necessary. Reset alarm.
206	Filter maintenance (operating hours)	The operating hours for the maintenance reminder have been reached.	–	Check the filter and renew it if necessary. Reset alarm.
208	Air filter maintenance	The pressure difference for filter monitoring was exceeded for more than 2 minutes.	–	Change the filter. Reset alarm.
220	Fault supply air temperature sensor shortcut	The sensor or the cabling has a short circuit.	The unit switches to L_REC operating mode and controls using the extract air temperature. The unit switches off if the extract air sensor fails at the same time.	Rectify fault. Reset alarm.
221	Fault supply air temperature sensor open	The sensor or the cabling has an interruption.		
222	Fault fresh air temperature sensor short circuit	The sensor or the cabling has a short circuit.	The system operates at a fresh air temperature of 0 °C.	Rectify fault. Reset alarm.
223	Fault fresh air temperature sensor interruption	The sensor or the cabling has an interruption.		
232	Fault return temperature sensor shortcut	The sensor or the cabling has a short circuit.	The unit continues to operate with a return temperature of 99 °C. Functions controlled using this sensor are not active.	Rectify fault. Reset alarm.
233	Fault return temperature sensor open	The sensor or the cabling has an interruption.		
234	Fault room temperature sensor 1 shortcut	The sensor or the cabling has a short circuit.	– If there is only 1 sensor present: All units in the zone switch to L_REC mode and operate without room temperature. – If there are several sensors: The defective sensor is masked out. All units in the zone use the value of the other sensors.	Rectify fault. Reset alarm.
235	Fault room temperature sensor 1 open	The sensor or the cabling has an interruption.		
236	Fault room temperature sensor 2 shortcut	The sensor or the cabling has a short circuit.	The defective sensor is masked out. All units in the zone use the value of the other sensors.	Rectify fault. Reset alarm.
237	Fault room temperature sensor 2 open	The sensor or the cabling has an interruption.		
238	Fault room temperature sensor 3 shortcut	The sensor or the cabling has a short circuit.		
239	Fault room temperature sensor 3 open	The sensor or the cabling has an interruption.		
240	Fault room temperature sensor 4 shortcut	The sensor or the cabling has a short circuit.		
241	Fault room temperature sensor 4 open	The sensor or the cabling has an interruption.		
287	Fault heating pump	The pump has a fault or the corresponding circuit breaker has tripped.	At cold outside temperatures, the unit switches to L_REC operating mode.	Rectify fault.
288	Fault cooling pump	The pump has a fault or the corresponding circuit breaker has tripped.	The unit continues to run without cooling.	Rectify fault.
289	Fault heat generation	Fault heat supply	At cold outside temperatures, all units in the zone switch to REC operating mode.	Rectify fault.

ID	Alarm	Cause	System reaction	Remedy
290	Fault cold generation	Fault cold supply	All units in the zone continue to run without cooling.	Rectify fault.
291	Fault condensate pump	The pump has a fault or the corresponding circuit breaker has tripped.	The unit continues to run without cooling.	Rectify fault.
300	Max limit room temperature	The room temperature has exceeded the maximum warning limit.	–	Reduce the room temperature below the warning limit or adjust the limit value.
301	Min limit room temperature	The room temperature has dropped below the minimum warning limit.	–	Increase the room temperature above the warning limit or adjust the limit value.
302	Max limit supply air temperature	The supply air temperature has exceeded the maximum warning limit.	–	Eliminate the reason why the supply air temperature was exceeded or adjust the limit value.
303	Min limit supply air temperature	The supply air temperature has dropped below the minimum warning limit.	–	Eliminate the reason why the supply air temperature was undershot or adjust the limit value.
325	Fault external setpoint extract air/recirculation damper	The signal or the cabling has a fault.		
327	Fault external operating mode signal mixed air units	The signal or the cabling has a fault.		
328	Fault external operating mode signal recirculation units	The signal or the cabling has a fault.		
600	Feedback alarm heating valve	The valve is sticking or the actuator is defective or a manual intervention is in progress.	–	Check the mechanical and electrical systems of the valve and actuator, rectify the error. Reset alarm.
601	Feedback alarm cooling valve			
605	Feedback alarm recirculation damper	The damper is sticking or the actuator is defective or a manual intervention is in progress.	–	Check the mechanical and electrical systems of the damper and actuator, rectify the error. Reset alarm.
606	Feedback alarm actuator Air-Injector	The Air-Injector is sticking or the actuator is defective or a manual intervention is in progress.	–	Check the mechanical and electrical systems of the Air-Injector and actuator, rectify the error. Reset alarm.
607	Feedback alarm heating pump	The control for feedback has a fault or a manual intervention is in progress.	–	Rectify fault. Reset alarm.
608	Feedback alarm cooling pump			
613	Feedback alarm changeover valves heating			
614	Feedback alarm changeover valves cooling			
721	Local protection mode L_REC active	Protection mode was activated as the result of another alarm.	The unit continues to run in L_REC protection mode.	Rectify fault.
722	Central protection mode REC active	Protection mode was activated as the result of another alarm.	All units in the zone continue to run in protection mode REC.	Rectify fault.
723	Emergency operation active	An external signal has activated the emergency operation function.	The unit runs in emergency operation.	Deactivate the external signal.
900	Zone offline	There is no longer any communication with this zone.	All units in the zone run in offline mode. Online functions are not active.	Check IP network. Rectify fault.
901	Unit offline	There is no longer any communication with this unit.	The unit runs in offline mode with predefined parameters. Online functions are not active. The frost protection function is not ensured.	Check cabling. Rectify fault.
902	Recirculation unit offline			
903	Forced datapoint	There is manual intervention on a data point.	The system or the unit is working with the forced data point.	Call Hoval customer service.
907	Expansion offline	There is no longer any communication with this controller.	Not all functions are active.	Call Hoval customer service.
908	Fault universal I/O port	There is a signal fault on a controller connection.	Not all functions are active.	Call Hoval customer service.

ID	Alarm	Cause	System reaction	Remedy
911	Battery replacement required	The backup battery is empty.	The date is wrong after an interruption to the power supply.	Correct the date. Call Hoval customer service.
912	BACnet client offline	The client has not communicated with the zone controller in the last 300 s.	The system continues to run with the last-received values.	Check the BACnet communication. Rectify fault.

8 Adjustable parameters

The following list shows the parameters that can be set in the operator level:

Parameters	Setting range	Default value	Unit
Alarm room temperature MAX limit	5 … 60	55	°C
Alarm room temperature MIN limit	5 … 60	5	°C
Alarm supply air temperature MAX limit	0 … 70	60	°C
Alarm supply air temperature MIN limit	0 … 70	5	°C
Duration of temporary REC operation	1 … 9999	30	min
Duration of temporary ST operation	1 … 9999	30	min
Fan setpoint night cooling	50 … 100	100	%
Min limit discharge direction	0 … 100	0	%
Operating hours filter exchange	0 … 99999	3000	h
Operating selector switch RECU recirculation unit	ST/ REC/REC1/EXT/AUTO	ST	–
Operating selector switch REMU mixed air unit	ST/REC/REC1/SA1/SA2/EXT/AUTO	ST	–
Room temperature setpoint cooling protection	5.0 … 40.0	19	°C
Room temperature setpoint day	5.0 … 40.0	21	°C
Room temperature setpoint overheat protection	5.0 … 40.0	25	°C
Room temperature start point for summer shifting	20 … 40	40	°C
Selector switch night cooling	0 = OFF / 1 = AUTO	1	–
Set value fresh air ratio (only with REMU)	0 … 100	10	%
Setpoint room temperature night cooling	15 … 50	21	°C
Weekly calendar recirculation unit	50 entries ST / REC / REC1 / SA1 / SA2		–
Weekly calendar recirculation unit/curtain	50 entries ST/REC/REC1		–

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