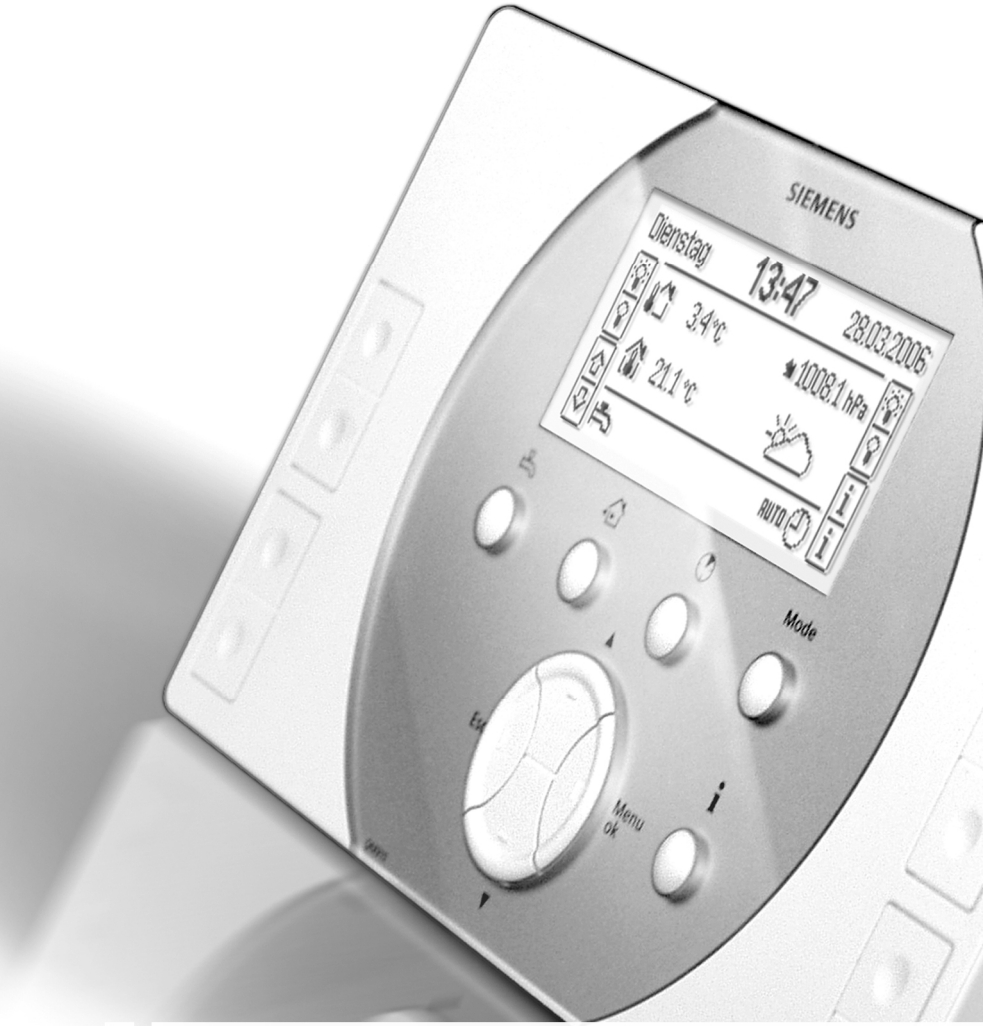
SIEMENS



Synco™ 900

KNX

Operating instructions

Edition 2.0
Controller series B
CE1B2707en
05.07.2007

We congratulate you …

… on the selection of the Siemens Synco 900 system and thank you for your purchase of the central apartment unit!

The present Operating Instructions describe how to operate the central apartment unit and the other system components.

Symbols used

The symbols appearing on the display of the central apartment unit are explained in section “Symbols on the display” on page 18. In addition, the following symbols are used in this document:

This symbol draws your attention to important information which must be observed to ensure safe operation of plant.

The info symbol refers to additional information, notes and practical tips regarding settings and operation of the various units and the system.

This symbol refers to disposal notes.

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Safety notes

Product liability

- The products may only be used in building services plant and only on the applications described
- Local safety regulations (installation, etc.) must be complied with
- Do not open the devices. If not observed, warranty by Siemens becomes void
- If a device is defective or damaged, immediately disconnect it from power and replace it
- Application-related technical data are only guaranteed in connection with the Siemens Synco 900 system. When using products of other manufacture not specified by Siemens, functionality must be ensured by the user. In that case, Siemens will not render any services and will not provide any warranty

System overview

System functions

The Synco 900 system offers you a host of choices. In addition to room climate and DHW heating control, the system enables you to control lights and blinds and to monitor fire detectors and door / window contacts.

Central unit

Central apartment unit QAX910
The heart of the system is the QAX910 central apartment unit. It facilitates operation of the entire system and ensures communication between the different devices.

Heating control

The central apartment unit has 12 individually adjustable 7-day time switches which are used to operate up to 12 different rooms.
Each of these time switches can be programmed for operation at 3 different levels (Comfort, Precomfort and Economy) with 6 switching times.

All rooms are combined to one apartment for which the operating mode and a holiday / special day program can be set.

The central apartment unit collects the heat requests from the various rooms to deliver the total heat request to the heat generation controller.
It transmits the actual values of the room temperatures and the room temperature setpoints to the heating circuit controllers and radiator control actuators which then calculate the positioning signals required for the actuators.

The positioning signals for the multifunctional relays of the heating circuit controllers are generated by the central apartment unit.

For room temperature control, the following system components are available:

Room unit QAW910
On the room unit, the required room operating mode can be selected, the room setpoint temperature readjustment can be made, and the room timer function can be set.
The room unit also acquires the current room temperature. All data are transmitted to the central apartment unit via radio.

Room temperature sensor QAA910
The sensor acquires the room temperature and sends it to the central apartment unit via radio signal.

Heating circuit controllers RRV912 and RRV918
The controllers receive the setpoints and actual values of the various rooms from the central apartment unit (via radio signal) and forward the resulting positioning signals to the wire-bound actuators.
They also facilitate the direct connection of an apartment pump and of DHW heating.

Radiator control actuator SSA955
The actuator receives the setpoint and the actual value (provided a room sensor or room unit is present) of the respective room from the central apartment unit via radio signal and readjusts the radiator valve accordingly.
If no room sensor or room unit is installed, the radiator control actuator uses its own measured value of the room temperature as the actual value.

Door / window contact wave AP 260
When a door or window is left open, the stroke of the radiator valves in the respective room is limited to the current position in order not to waste energy. The function acts on the wire-bound actuators used with the RRV912 / RRV918 heating circuit controllers and the wireless SSA955 radiator control actuators.

DHW heating

The central apartment unit controls DHW heating of a locally connected DHW storage tank or facilitates remote operation of a DHW storage tank connected to the heat generation controller or some other central apartment unit.

For that purpose, the central apartment unit is equipped with a DHW 7-day time switch with 6 switching times for changeover between Normal mode and Reduced mode.

The central apartment unit can also be used for triggering manual forced charging of the DHW storage tank. The current DHW temperature appears on the display of the central apartment unit.

Release of ventilation

Relays can be used to enable or disable ventilation stages. Ventilation is enabled with the help of switching groups.

Weather station

The central apartment unit receives the outside temperature and the atmospheric pressure from the meteo sensor.

Meteo sensor QAC910
The meteo sensor acquires the outside temperature and the absolute atmospheric pressure and transmits both via radio signal to the central apartment unit.

The current measured values of outside temperature and atmospheric pressure as well as the pressure trend can be shown in the quiescent picture. The change of atmospheric pressure over the last 3 hours is displayed with an arrow.

In addition, based on the changes and the absolute value of the atmospheric pressure, the weather trend (sunny, partly cloudy, rainy) is determined and shown with a symbol in the quiescent picture.

The progression of outside temperature and atmospheric pressure over the last 24 hours can be made to appear on 2 info pages.

Light and blinds control

Light control

Connected lamps can be dimmed and switched either via the central apartment unit or external switches (transmitters).
All the various light settings can be stored as a scene and retrieved at a later point in time, if required.

In addition to manual light settings, the settings can also be made via the built-in time switch, presence simulation or events.

Blind control

Using the central apartment unit or external switches (transmitters), blinds can be adjusted in steps, or they can be fully closed or opened by pressing a button.
All blind positions (fully open or fully closed) can be stored as a scene and retrieved at a later point in time, if required.

In addition to manual blind settings, the settings can also be made via the built-in time switch or events.

The light settings and blind positions can be jointly stored as a scene or jointly readjusted when calling up a scene.

Operation of lights and blinds

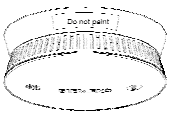
The lights and blinds can be controlled with the central apartment unit's softkeys.

Prerequisite for this operation is that the light and blind actuators used have a binding facility for KNX-RF
(Siemens GAMMA wave or Hager tebis TX Funk) or KNX TP1.

Supervisory functions

The central apartment unit monitors the connected window contacts, door contacts and smoke detectors.

Door / window contact wave AP 260
The door / window contacts detect an open door or open window and transmit this information via radio signal to the central apartment unit. They can also be used as detached digital inputs (e.g. for monitoring the door of a domestic freezer).



DELTA reflex smoke detector with smoke detector module wave UNI M 255
The smoke detector detects instantly the smoke generated by a fire and sets off an alarm (flashing LED and acoustic signal on the device, smoke signal via radio to the central apartment unit).

Alarms

If a fault occurs (smoke detector, window contact, heating, etc.), it is shown on the display of the central apartment unit. In addition, the central unit can generate an acoustic signal and forward it via bus (KNX TP1), or it can close a contact for activating an external signal source.

Supervision of devices

The connected wireless, communicating devices are monitored at regular intervals. When there is no transmit signal or when batteries are close to exhaustion, an error message will appear on the display of the central apartment unit.

System components

The following components can be used in the Synco 900 system or can be combined with it:

Synco

	QAX910	Central apartment unit
	QAW910	Room unit
	QAA910	Room temperature sensor
	QAC910	Meteo sensor
	RRV918	Heating circuit controller, controls up to eight 2-position actuators
	RRV912	Heating circuit controller, controls one 3-position or two 2-position controllers
	SSA955	Radiator control actuator
	ERF910	RF repeater (retransmitter)

GAMMA wave

	DELTA reflex smoke detector with smoke detector module wave UNI M 255
	Door and window contact wave AP260 (wireless)
	GAMMA wave light and blind actuators, switchable sockets and handheld transmitters can also be used

Hager tebis TX Funk

hager	Light and blind actuators from Hager can be used

The central apartment unit can also control light and blind actuators via KNX TP1 (S-Mode). In that case, configuration with the ETS (EIB tool software) is required.

Central apartment unit QAX910

Operating elements

All operating elements are located on the front of the unit.

The buttons and softkeys provide the following functions:

DHW button
For selecting the DHW operating mode (Auto / Normal / Reduced / Protection), and for manually triggering one-time forced charging of the DHW storage tank (long push).

Absence / Supervision button
The Absence / Supervision button allows you to set absence (present / absent) and the supervision type (inactive / partly monitored / all monitored). For details, see pages 24 and 25 (Absence, supervision).

Apartment timer button
For selecting and activating the timer function for specific rooms. During the periods of time the timer function is active, the rooms are heated to the Comfort setpoint.

Mode button
For selecting the heating mode for the apartment (Auto / Comfort / Precomfort / Economy / Protection).

Info button
For scrolling through the info pages, and for calling up Help text on the menu level.

Arrow up button
For navigating upward within a menu level, for scrolling backward on the info pages, and for setting (increasing) values.

Arrow down button

For navigating downward within a menu level, for scrolling forward on the info pages, and for setting (decreasing) values.

Esc button

For navigating backward to the next higher menu level, for quitting the main menu, and for canceling entry of a value.

Menu / ok button

For entering the main menu, for navigating to a lower menu level, and for confirming entry of a value.

Pair of softkeys 1 - 4

For triggering the switching group functions defined during commissioning (e.g. switching or dimming lights), or for calling up predefined info pages.

1A, 1B	Softkeys 1A and 1B
2A, 2B	Softkeys 2A and 2B
3A, 3B	Softkeys 3A and 3B
4A, 4B	Softkeys 4A and 4B

Display

Backlit display

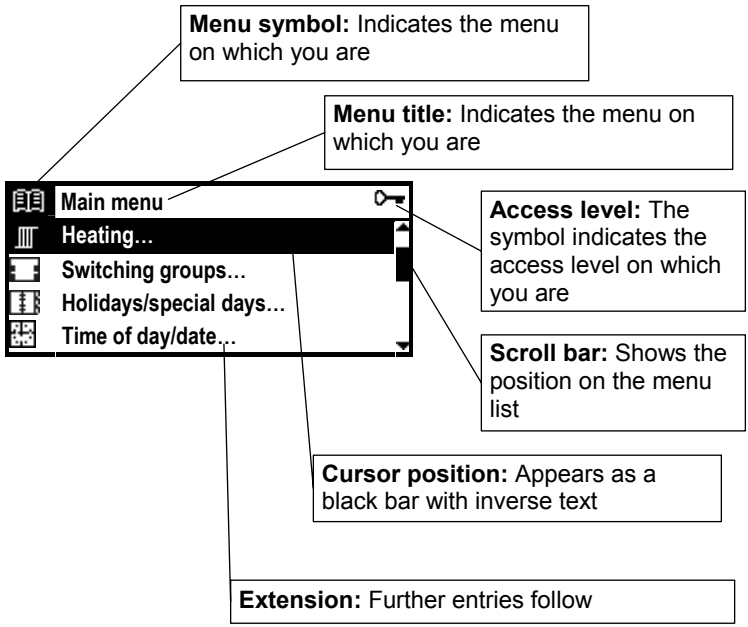
When pressing any of the buttons, the backlit display is switched on for a certain period of time.

When pressing the **Esc** button, the **Menu / ok** button, the **Arrow** button or **Info** button, the backlit display is switched on with no impact on the display itself.

The brightness of the backlit display can be adjusted to suit individual needs (refer to page 53).

Display

The display offers a choice of presentations. The example below shows a menu.



Navigating on the display / information about paths

Navigation is made possible with the 2 **Arrow** buttons, the **Menu / ok** button and the **Esc** button (refer to description of the operating elements on page 15).

In the description of functions, the location of the function is given in *Italics* in the form of a path.

Example: *Main menu* > *Time of day/date*

To reach the function from the quiescent picture, press the **Menu / ok** button first (you reach the main menu). Then, select menu entry “Time of day / date“ with the **Arrow** buttons and press the **Menu / ok** button.

You are now in function “Time of day / date“ and you can select the parameter to be changed (time of day, date, year) using the **Arrow** buttons. The parameter setting principle is described on page 21 ff.

You return to the quiescent picture by pressing the **Esc** button several times.

Symbols on the display

Heating states / cooling mode

	Comfort mode	AUTO	Automatic operation
	Precomfort mode	MAN	Manual operation
	Economy mode		Summer operation
	Protection		Cooling mode
	Apartment timer function active		Apartment pump in operation
	Setpoint limitation		

DHW operating states

	Normal operation	AUTO	Automatic operation
	Reduced operation	MAN	Manual operation
	DHW Protection		Flashing: Manual forced charging of DHW active
	DHW heating enabled		

Other operating states

	Fault		Absent
	Flashing: Fault, acknowledgement required		Present
	Holiday mode		Special day

Supervision

	Door open		Window open
	Flashing: Supervised door opened		Flashing: Supervised window opened
	Windows / doors Partly monitored		Windows / doors All monitored

Temperatures, atmospheric pressure and weather trend

	Room temperature		Atmospheric pressure steady
	Outside temperature		Atmospheric pressure rising
	Weather trend: Sunny		Atmospheric pressure strongly rising
	Weather trend: Partly cloudy		Atmospheric pressure falling
	Weather trend: Rainy		Atmospheric pressure strongly falling

The symbols used for the weather trend only indicate the direction in which the weather will change.

Assignment of softkeys

I	Switching group on		Light on / brighter
0	Switching group off		Light off / darker
S	Scene		Blinds opening
i	Selection of info pages		Blinds closing

Device directory

✓	Device in order		Device faulty
	Battery low		

Menu levels

	Main menu		Faults
	Heating		Inputs / outputs
	DHW		Settings
	Switching groups		Device information
	Holidays / special days		Data backup
	Time of day / date		Commissioning

Access levels

	Service level		Expert level

Operation

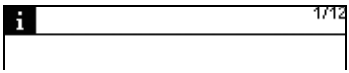
Quiescent picture

The display shows the quiescent picture as long as no button is pressed. There are 6 formats of quiescent pictures with different degrees of detail available. The settings required for the desired quiescent picture format are described on page 54 ff.

Info pages

The info pages give an overview of the plant's most important data. Values cannot be readjusted on the info pages.

The info pages can be called up with the **Info** button. Each time the **Info** button is pressed the next info page appears. The **Arrow** buttons can be used to scroll forward and backward. To return to the quiescent picture, press the **Esc** button.



When you are on the info level, the respective symbol appears in the corner at top left.

At top right, the current info page plus the total number of available info pages are displayed.

The following info pages are available:

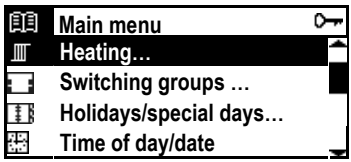
Windows / doors (configurable)
Progression of outside temperature (configurable)
Progression of atmospheric pressure (configurable)
Light state (configurable)
Apartment
Room (configurable)
…
…
DHW (configurable)
Business card (configurable)
Assignment of buttons
(always, except when quiescent picture format = 5)
Device state
Fault status message bus (configurable)

The type and number of available info pages depend on your plant (number of rooms, switching groups, etc.).

The info pages can also be called up via appropriately assigned softkeys (refer to page 41).

Menu level

Press the **Menu / ok** button to go from the quiescent picture or the info page to the menu level (main menu). Press the **Esc** button to return to the quiescent picture.



Heading “Main menu“ with the associated symbol appears, followed by the list with the available menus.

Setting principle

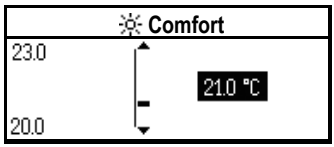
General rules

Values are always readjusted in an additional window on the display (edit pop-up). The range of action (cursor) always appears inverse.

Readjustments are made in individual steps with the **Arrow** buttons (up / down). Longer pushes on the buttons speed up the process. Confirm the setting by pressing the **Menu / ok** button. To cancel the process or to navigate back to the next higher menu level, press the **Esc** button.

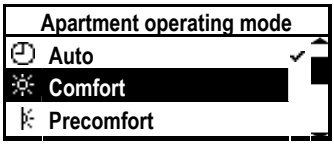
The following examples illustrate the different setting choices.

Setting a numerical value



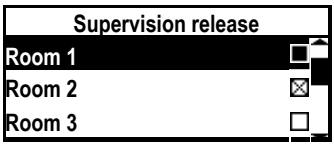
With numerical values, the setting range is shown on the left (upper and lower limit). The current setting value appears inverted on the right.

Selecting the selection list



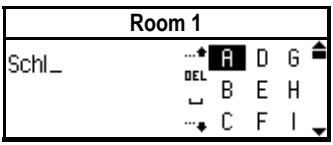
For a number of functions, a selection list is available. The selection made is identified by a tick "✓". Only one element of the list can be activated at a time.

Selecting options



On the option list, one or several options can be marked with a cross by pressing the **Menu / ok** button. When pressing the **Esc** button, a final dialog appears to store the new value (**Menu / ok** button) or to cancel the setting (**Esc** button).

Creating / editing text



Use the **Arrow** buttons to select the individual characters from the character set and the 4 permanently displayed special fields. To confirm the characters or special fields, press the **Menu / ok** button.

The special fields have the following functions:

- **…↑** Scrolls the character set upward by 9 characters
- DEL Deletes the last character in the current text
- ␣ Inserts a blank
- **…↓** Scrolls the character set downward by 9 characters

When pressing the **Esc** button, a final dialog appears to store the new text (**Menu / ok** button) or to cancel the text (**Esc** button).

Setting values and predefined settings

When commissioning the system, the activated parameters are loaded in the form of predefined settings. The documentation differentiates between guide values and factory settings.

Guide value	Setting recommended for most types of plant.
Factory setting	Setting that should be adapted depending on user- or plant-specific requirements.

Use the predefined fields for entering your own settings.

Access levels

To select the access level, press the **Esc** button and the **Menu / ok** button simultaneously. A pop-up window appears. Press the **Arrow** buttons to select the required access level and confirm the selection with the **Menu / ok** button.

User level

The user level shows the settings most frequently used. Normally, these settings are sufficient for operating the plant.

Service level

This operating level contains extended settings that are only rarely used. For changing to the service level, a password is required, if such a password has been assigned (refer to page 55). Confirm entry of your password with the **Menu / ok** button.

Expert level

The settings of the expert level can only be accessed after entry of a password. For a description of the functions, refer to document “Mounting and Commissioning“ (CE1C2707en).

If no button is pressed on the expert level for a certain period of time, the central apartment unit will automatically return to the user level.

Keep the passwords of the service and expert level in a safe place where you can easily find them again.
Should you lose the service password, you need to contact the expert.
Loss of the expert password necessitates a new configuration of the central apartment unit, or a service visit!

Settings

The settings described below are to be made only after the Synco 900 system has been commissioned by the expert.

The operating lines actually displayed are dependent on the plant's basic configuration. Operating lines that are not required for the configured plant is hidden.

If, with a selected parameter, the **Info** button is pressed, the path and full text of the respective parameter will appear.

General

Absence

If you leave the house for a few hours, you can press the **Absence / Supervision** button to inform the central apartment unit about your departure. Shortly pressing the **Absence / Supervision** button opens the presence window which allows you to enter the desired state "Absent" or "Present" via the **Arrow** buttons or the **Absence / Supervision** button**.**

If supervision functions are configured, the supervision window opens immediately after the absence window to allow you to enter the desired supervision pattern (see next page).

If "Absent" is entered, only the absence symbol appears on the display.

Pressing the **Absence / Supervision** button again opens the absence window, and selecting "Present" deactivates the absence function and the related impact.

Your absence has the following impact on the system:

- During the period of absence, space heating and DHW is controlled in accordance with the operating mode selected for absence
- A presence simulation program – if selected – is started
- Switching groups set for the event "Absence on" (= going) will operate accordingly (switching / dimming, blinds open / closed, scenes)

For additional descriptions, refer to the following pages:
Heating mode during absence (page 30).
DHW operating mode during absence (page 39).
Presence simulation for switching groups (page 46).
Triggering a switching group via an event (page 43).

Supervision

Briefly pressing the **Absence / Supervision** button opens the absence window followed immediately by the supervision window. Press the **Absence / Supervision** button longer than 0.4 s to open the supervision window immediately. This window allows you to select between the following supervision patterns by pressing the **Absence / Supervision** button or the **Arrow** buttons:

Inactive	The supervision function is inactive.
Partly monitored	The windows (rooms) and doors selected in the "Partly monitored" option lists are supervised.
All monitored	The windows (rooms) and doors selected in the option lists "All monitored" are supervised.

The supervision window appears only if windows or doors are enabled for supervision. See "Release of supervision“ page 58.

When supervised windows and doors are open and when supervision is activated, an associated display appears and a constant signal is sounded.
During the set supervision delay, you can close the corresponding doors and windows.

After all supervised windows are closed, the constant signal sound turns into a beep whose interval doubles during the last 15 seconds of the set supervision delay.

If a supervised window or door is opened during the supervision period, an associated fault message is triggered and other predefined actions are initiated (with an adjustable message delay for doors).

Detailed descriptions:

Trigger a switching group via an event page 43.
Set the supervision delay page 58.
Event buzzer and status output page 61.
Setting the supervision release (page 58).
Setting the message delay (page 60).

Apartment

Apartment timer function

By pressing the **Apartment timer** button (), you can force the heating system to maintain the Comfort temperature for an adjustable period of time. When pressing the button, the apartment timer window opens. Use the **Arrow** buttons or the **Apartment timer** button to set the required period of time for Comfort mode.

For each room you can select whether the apartment timer function should be performed (refer to ”Apartment timer influence“ on page 34).

The apartment timer function can also be selected via the following operating line:

Main menu > *Heating* > *Apartment* > *Apartment operating mode* > *Apartment timer:*

If you want to switch off the apartment timer before the adjusted period of time has elapsed, press again the **Apartment timer** button and set the time to ”00.00“.

In the case of a manual change of operating mode via the **Mode** button, the apartment timer function will also be deactivated.

Apartment operating mode

When pressing the **Mode** button, an additional window appears (Mode pop-up). Now, you can select the required apartment operating mode (heating) with the **Arrow** buttons or the **Mode** button.

The apartment operating mode can also be selected via the following operating line:

Main menu > *Heating* > *Apartment* > *Apartment operating mode* > *Preselection:*

Auto	The room control loops maintain their setpoints in accordance with the respective operating modes. The associated time programs and the holiday / special day program are active.
Comfort	All heating circuits maintain their respective Comfort setpoints.
Precomfort	All heating circuits maintain their respective Precomfort setpoints.
Economy	All heating circuits maintain their respective Economy setpoints.
Protection	All heating circuits maintain their respective Protection setpoints.

The individual room operating modes only act in apartment operating mode “Auto“.

Apartment operating mode switch

You can select the heating mode to which the controller should change when the external operating mode switch closes its contact (e.g. teleswitch for remote control via the telephone).
Operating mode changeover via the external switch overrides all other preselected operating modes.

Input function “Heating mode“ must be appropriately configured when commissioning the plant.

Main menu > Heating > Apartment > Apartment operating mode > Optg mode contact:

Factory setting	Protection
Your setting	☐ Comfort ☐ Precomfort ☐ Economy ☐ Protection

Summer operation of heating

Select the point in time your heating system should switch to summer mode. In summer mode, all room operating modes switch to Protection, the valves travel to the position defined for summer operation and DHW heating switches to the electric immersion heater, if installed.

In the case of summer changeover via the external switch, this parameter has no impact (hidden).
Input function “Summer operation“ must be appropriately configured when commissioning the plant.

Main menu > Heating > Apartment > Summer operation > Preselection:

Auto	Automatic summer / winter changeover when the summer / winter changeover temperature is attained (refer to page 28) or the date (beginning of summer, end of summer, refer to page 28) is reached.
Winter	Continuous winter operation
Summer	Continuous summer operation

Factory setting	Auto
Your setting	☐ Auto ☐ Winter ☐ Summer

State of winter operation / summer operation

The current operating state of the heating system (summer / winter operation) can be queried:

Main menu > Heating > Apartment > Summer operation > State:

Beginning of summer / end of summer

From the beginning to the end of summer, the heating system maintains summer operation, provided heating mode has been set to ”Auto“ (refer to page 27) and no other changeover criterion (e.g. summer / winter changeover temperature) has become active.

- *Main menu > Heating > Apartment > Summer operation > Summer start:*
- *Main menu > Heating > Apartment > Summer operation > Summer end:*

	Beginning of summer	End of summer
Factory setting	01.01. (inactive)	01.01. (inactive)
Your setting		

If the date settings for the beginning and the end of summer coincide, there is no date-dependent changeover to summer operation.

Summer / winter changeover temperature

The central apartment unit compares the attenuated outside temperature with the adjusted summer / winter changeover temperature and changes the heating mode accordingly, provided no other changeover criterion (e.g. beginning of summer / end of summer) has become active.

Main menu > Heating > Apartment > Summer operation > Su/Wi changeover:

Factory setting	---- (inactive)
Your setting	

Antilime function

To prevent valves and pumps from seizing, the controller periodically drives all valves to their fully open positions and activates all connected pumps in a stepwise fashion at predefined points in time.

- *Main menu > Heating > Apartment > Antilime > Antilime function:*
- *Main menu > Heating > Apartment > Antilime > Weekday:*
- *Main menu > Heating > Apartment > Antilime > Time of day:*

	Antilime function	Weekday	Time of day
Guide value	All-year	Monday	10:00
Your setting	☐ --- (never) ☐ All-year ☐ In winter operation ☐ In summer operation	☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday ☐ Sunday	…… : ……

Rooms 1 – 12

Room operating modes

In addition to the operating mode for the entire apartment, each room has its own operating mode which you can select to suit your needs.

Main menu > Heating > Room X > Room operating mode > Preselection:

Auto	The room is controlled in accordance with the time program and the holiday / special day program.
Comfort	The room is maintained at the Comfort setpoint.
Precomfort	The room is maintained at the Precomfort setpoint (for short periods of absence, e.g. when shopping).
Economy	The room is maintained at the Economy setpoint (e.g. for night setback).
Protection	The room is maintained at the Protection setpoint (for longer periods of absence, e.g. during holidays).

The individual room operating modes are only active in apartment operating mode “Auto“.

State of room operating mode

The state of the current room operating mode can be displayed.

Main menu > Heating > Room X > Room operating mode > State:

Reason for room operating mode

If the current room operating mode of a specific room does not satisfy your needs, you can have the reason for the operating mode displayed:

Main menu > Heating circuit > Room X > Room operating mode > Cause:

The following functions and situations can have an impact on the operating mode of the room:

- Commissioning
- Absence / holidays / special day
- Time switch
- Room operating mode / apartment operating mode / operating mode switch
- Room timer / apartment timer
- Summer
- Optimum start control / optimum stop control

Room operating mode during absence

The room operating mode required during absence (refer to page 24) can be selected for each room.

🔑 *Main menu > Heating > Room X > Room operating mode > Optg mode absence:*

Room number	1	2	3	4	5	6
Room name						
Factory setting						
Setting	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂

Room number	7	8	9	10	11	12
Room name						
Factory setting						
Setting	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂	☐ --- ☐ ☼ ☐ ⚷ ☐ ☾ ☐ ⌂

--- = no impact (according to the time program)
☼ = Comfort
⚷ = Precomfort
☾ = Economy
⌂ = Protection

ℹ Changeover of the respective room operating mode takes place only if the room operating mode during absence is set to a lower level than the room operating mode for normal operation.

Room temperature setpoints

You can adjust the room temperature setpoint for each individual room (Comfort, Precomfort, Economy, Protection). The central apartment unit maintains the respective setpoint, depending on the selected apartment / room operating mode and / or time program.

Main menu > Heating > Room X > Room setpoints >...

Operating mode	Comfort	Precomfort	Economy	Protection
Guide values	21 °C	20 °C	15 °C	12 °C
Room 1				
Room 2				
Room 3				
Room 4				
Room 5				
Room 6				
Room 7				
Room 8				
Room 9				
Room 10				
Room 11				
Room 12				

When adjusting the Protection setpoint, give consideration to domestic animals and delicate materials or objects in the house (plants, paintings, etc.). Extremely low room temperatures can cause damage beyond repair!
Too high room temperatures lead to higher heating costs.

Readjustment of room unit

The room temperature setpoint readjustment (+/- 3 K) made on the room unit can be displayed on the central apartment unit for each room:

Main menu > Heating > Room X > Room setpoints > Readjustm room unit:

The readjustment made on the room unit only acts on the Comfort and the Precomfort setpoint.

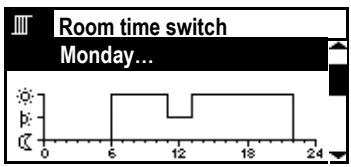
Setting the time switch of a room

In automatic mode, the central apartment unit controls the heating of the individual rooms based on the respective room operating mode and / or the time switch, the holiday or special day program.

Selecting the weekday

If you wish to set the time switch, first select the weekday for the respective room for which the settings should apply:

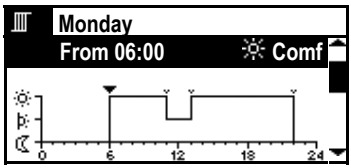
Main menu > Heating > Room X > Room time switch > Weekday:



In addition to the weekdays (Mo - Su), a special day is made available. Use the **Arrow** buttons for navigation.

Displaying switching times

At the required weekday, press the **Menu / ok** button to display the associated switching times and setpoints.

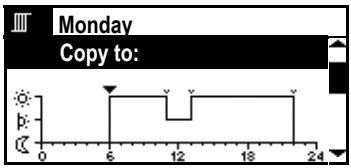


Use the **Arrow** buttons to change between the individual switching points.

The factory settings of the switching times of all weekdays are 06:00 (changeover to Comfort mode) and 22:00 (changeover to Economy mode).

Copying switching times

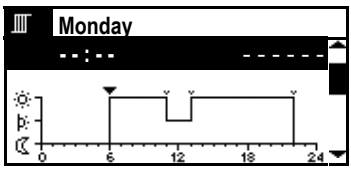
When you scroll to the end of the switching point list, option “Copy to:“ will appear.



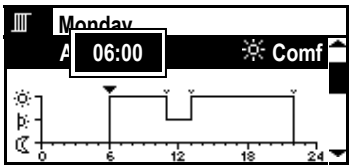
You can copy the switching times of the respective day to any other weekday (including the special day) or to a number of weekdays (Mo – Fr or Mo – Su).

Setting new switching points

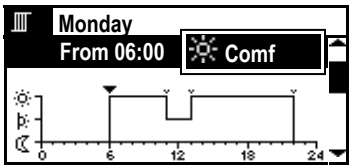
For every weekday and the special day, you can set and define up to 6 switching points where the room temperature setpoint should change.



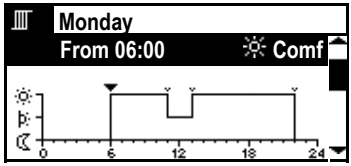
To define a new switching point, press the **Arrow down** button until an empty switching point appears (--:--, after the existing switching points). Now, press the **Menu / ok** button.



Use the **Navigation** buttons to set a value between 00:00 and 23:59. Confirm the setting with the **Menu / ok** button.

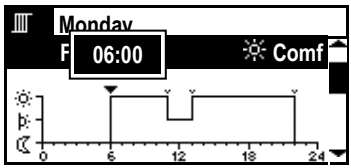


Now, adjust the room temperature setpoint (Comfort, Precomfort or Economy) that should apply after this switching time.

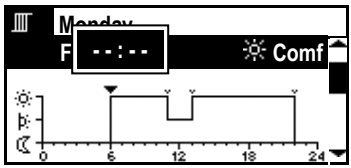


To complete the setting, press again the **Menu / ok** button. The display returns to the menu.

Adapting and deleting switching points



To change an existing switching point, select it with the **Arrow** buttons and then press the **Menu / ok** button. Use the **Arrow** buttons to change the value.



To delete a switching point, press the **Arrow** buttons until "- - : - -" appears (before 00:00 and after 24:00).

Actual value of the room temperature

The central apartment unit can display the actual value of the room temperature:

Main menu > Heating > Room X > Room state > Act val room temp:

Room temperature setpoint

The present room temperature setpoint can be queried:

Main menu > Heating > Room X > Room state > Current RT setpoint:

Setpoint limitation

This operating line shows you whether a setpoint limitation is currently acting on the room (triggered by the central communication unit and transmitted via wire-bound bus).

Main menu > Heating > Room X > Room state > Setpoint limitation:

Valve position

The current valve position in each room can be queried:

Main menu > Heating > Room X > Room state > Valve position:

Apartment timer influence

Define whether or not the apartment timer function of the central apartment unit (refer to page 26) should act on the selected room.

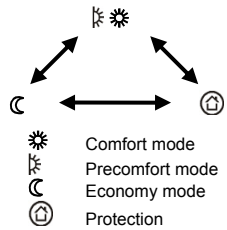
⊶ *Main menu > Heating > Room X > Room settings > Ap timer influence:*

Room number	1	2	3	4	5	6
Room name						
Factory setting	Yes	Yes	Yes	Yes	Yes	Yes
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

Room number	7	8	9	10	11	12
Room name						
Factory setting	Yes	Yes	Yes	Yes	Yes	Yes
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

Optimum start / stop control

Optimum start / stop control brings forward in time changeover of the operating level against the programmed times, which means that consideration is given to the house's thermal dynamics (heating up and cooling down times). This ensures that the required temperature level is reached at exactly the programmed time (e.g. at the end of the holiday period). If that is not the case (too early or too late), a new changeover time is calculated, which is used on the next day.
Optimum start / stop control acts between all operating levels, except when switching between Precomfort and Comfort:



The optimization time (forward shift) can be limited to a maximum value, separately for optimum start and optimum stop control (optimum start control 48 hours / optimum stop control 06.00 hh.mm). When setting the optimization time to ---- or 00.00, the function is deactivated.

- *Main menu > Heating > Room X > Room settings > OptStartCtrl max:*
- *Main menu > Heating > Room X > Room settings > OptStopCtrl max:*

Room number	1	2	3	4	5	6
Room name						
Factory setting	----	----	----	----	----	----
Opt start						
Opt stop						

Room number	7	8	9	10	11	12
Room name						
Factory setting	----	----	----	----	----	----
Opt start						
Opt stop						

Room temperature supervision

The controller is capable of continuously monitoring the individual room temperatures. If the room temperature exceeds “Max temp alarm“ (0..35 °C) or falls below “Min temp alarm“ (0..35 °C), an error message is displayed. Setting “----“ deactivates temperature supervision of the respective room.

- *Main menu > Heating > Room X > Room settings > Max temp alarm:*
- *Main menu > Heating > Room X > Room settings > Min temp alarm:*

Room number	1	2	3	4	5	6
Room name						
Factory setting	----	----	----	----	----	----
Max temp. alarm						
Min temp. alarm						

Room number	7	8	9	10	11	12
Room name						
Factory setting	----	----	----	----	----	----
Max temp. alarm						
Min temp. alarm						

Window airing function

As soon as the central apartment unit detects an open window, the window airing function is activated. In that case, the radiator control valve is limited to its current travel, even if the room temperature drops. The window airing function is aborted as soon as all window contacts in the respective room have closed again, or after the maximum time of the window airing function has elapsed.

The required maximum time of the window airing function (00.00 – 06.00 hh.mm) can be defined for each room. On completion of the period of time set, the window airing function is canceled, even if a window contact of the respective room is still open.

🔑 *Main menu > Heating > Room X > Room settings > Window airing:*

ℹ Setting “00.00“ deactivates the window airing function.

Room number	1	2	3	4	5	6
Room name						
Factory setting	00.30	00.30	00.30	00.30	00.30	00.30
Setting						

Room number	7	8	9	10	11	12
Room name						
Factory setting	00.30	00.30	00.30	00.30	00.30	00.30
Setting						

Silent mode

The SSA955 radiator control actuator can also be operated in silent mode when used in noise-sensitive rooms (e.g. in the sleeping room).

ℹ Silent mode increases the actuator’s power consumption, thus reducing battery life.

🔑 *Main menu > Heating > Room X > Room settings > Silent mode:*

Room number	1	2	3	4	5	6
Room name						
Factory setting	Off	Off	Off	Off	Off	Off
Setting	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On

Room number	7	8	9	10	11	12
Room name						
Factory setting	Off	Off	Off	Off	Off	Off
Setting	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On	☐ Off ☐ On

Actuator calibration

The radiator control actuators are automatically calibrated when commissioning the plant or when changing batteries. If desired, calibration can also be triggered via the following operating line:

⚿ *Main menu > Heating > Room X > Room settings > Actuator calibration:*

Actuator calibration is started within 5 minutes after manual triggering.

Sensor readjustment

In case your room temperature sensor is installed in an unfavorable location, you can match it to the specific room conditions via sensor readjustment (-4.5..4.5 K).

⚿ *Main menu > Heating > Room X > Room settings > Sensor readjustment:*

Room number	1	2	3	4	5	6
Room name						
Factory setting	0	0	0	0	0	0
Readjustment						

Room number	7	8	9	10	11	12
Room name						
Factory setting	0	0	0	0	0	0
Readjustment						

DHW operating mode

To change the DHW operating mode, press the **DHW** button on the central apartment unit. In the DHW pop-up window, you can now select the required DHW heating mode:

Auto	DHW is heated up to the Normal setpoint, the Reduced setpoint or the Protection setpoint in accordance with the DHW time program or the holiday program.
Normal	The DHW temperature is maintained at the Normal setpoint.
Reduced	The DHW temperature is maintained at the Reduced setpoint.
Protection	The DHW temperature is maintained at the frost Protection setpoint.

The selection can also be made via the menu:

Main menu > DHW > Operating mode > Preselection:

Forced DHW charging

With a long push on the central apartment unit's **DHW** button, one-time forced charging of the DHW storage tank to the Normal setpoint is triggered. During the time forced charging is active, the DHW symbol on the display flashes ((🚿)).

Manual forced charging of the DHW storage tank can also be triggered via the following operating line:

Main menu > DHW > Operating mode > Forced charging man:

State of DHW operating mode

The present state of the DHW operating mode can be displayed (Auto, Normal, Reduced, Protection).

Main menu > DHW > Operating mode > State:

Reason for DHW operating mode

If the current DHW operating mode does not satisfy your needs, the reason for the operating mode can be displayed:

Main menu > DHW > Operating mode > Cause

Possible reasons for the current operating state:

- Commissioning
- Electrical heating
- Forced charging
- DHW charging lock
- Legionella program
- DHW operating mode (if not “Auto“)
- Special day / holidays / absence
- DHW time switch
- Summer operation

DHW operating mode during absence

The DHW operating mode required during absence can be selected:

🔑 *Main menu > DHW > Operating mode > Optg mode absence:*

Factory setting	---
Your setting	☐ --- (no impact, according to time program) ☐ Normal ☐ Reduced ☐ Protection

DHW temperature setpoint

If the DHW temperature is too high or too low, you can change the setpoint:

Main menu > DHW > Setpoints > Normal setpoint:
Main menu > DHW > Setpoints > Reduced setp:

	Normal setpoint	Reduced setpoint
Factory setting	55 °C	40 °C
Your setting		

DHW time switch

In DHW operating mode “Auto“, the central apartment unit controls DHW charging in accordance with the DHW time program.

Main menu > DHW > Time switch > Weekday X:

You can set up to 6 switching points for each weekday plus one special day. You can also define the DHW temperature setpoint (Normal or Reduced) to be used at each switching point.

The switching points can be set, deleted or copied to some other weekday. The settings are made analogously to the room time switch settings (refer to page 31).

The central apartment unit is supplied with the following factory settings for all weekdays: 05:00 for changeover to the Normal setpoint, 22:00 for changeover to the Reduced setpoint.

Actual value of the DHW temperature

The actual value of the DHW temperature can be displayed:

Main menu > DHW > DHW state > Act val DHW temp:

DHW temperature setpoint

The current DHW temperature setpoint can be queried:

Main menu > DHW > DHW state > DHW temp setpoint:

Operating state of charging pump and electric immersion heater

The current operating state of the charging pump and the electric immersion heater can be displayed:

Main menu > DHW > DHW state > Charging pump:

Main menu > DHW > DHW state > El immersion heater:

Plant operation

The current operating state of DHW heating (Off / Ready / Charging) can be displayed:

- *Main menu > DHW > DHW state > Plant operation:*

Reason for DHW plant operation

The reason for the current DHW plant operation can be displayed (commissioning / frost / legionella function / time switch):

- *Main menu > DHW > DHW state > Cause:*

Limitation of charging time

This display shows whether limitation of the charging time is currently inactive or active. The maximum permissible charging time was preset when the plant was commissioned.

- *Main menu > DHW > DHW state > Charging time limit:*

Changeover to electric immersion heater

Select whether in summer operation the DHW should be heated by the electric immersion heater.

Yes	When the plant switches to summer operation (refer to page 27), the DHW is heated by the electric immersion heater. This means that heat generation can be switched off in the summer.
No	DHW is heated by the heat source in the summer also. This means that heat generation in the summer remains in operation (emergency operation).

If no charging pump is defined, the electric immersion heater is always released (no charging via the heat source).

Main menu > DHW > Settings > Change el imm heat:

Factory setting	Yes
Your setting	☐ No ☐ Yes

Supervision of the DHW temperature

The controller is capable of continuously monitoring the DHW temperature. If the DHW temperature exceeds “Max temp alarm“, or falls below “Min temp alarm“, an error message is displayed. When using setting “----“, temperature supervision is deactivated.

Main menu > DHW > Settings > Max temp alarm:

Main menu > DHW > Settings > Min temp alarm:

	Max temp alarm	Min temp alarm
Factory setting	---- (inactive)	---- (inactive)
Your setting		

Switching groups

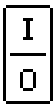
Operating the switching groups

Switching groups 1 – 4 can be operated via the 4 pairs of softkeys on the central apartment unit.

The functions of the switching groups (e.g. switching or dimming lights, opening or closing blinds, calling up info pages or scenes) were defined when the plant was commissioned.

Switching groups 5 – 8 have no buttons for direct access. Manual triggering of these switching group functions is only possible via the respective operating lines on the central apartment unit.

The selected function of the pairs of softkeys is displayed in the form of a symbol.

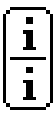


Switching group function **Switch**
When pressing the key at the top or bottom, the light is switched on or off.

Switching group function **Dim**
Pressing the key at the top or bottom briefly switches the light on or off. Pressing the keys for > 0.4 seconds increases or decreases the intensity of light.

Switching group function **Blind**
Pressing the keys briefly adjusts the blinds in steps. Pressing the keys for > 0.4 seconds fully opens or closes the blinds.

Switching group function **Scene**
When pressing the keys for < 0.4 seconds, all actuators are driven to the positions set for the respective scene (A or B). The key at the top is used for scene A, the key at the bottom for scene B. When pressing the keys for > 3 seconds, the current positions of the actuators are stored under the respective scene (A or B). Storage is confirmed by a short acoustic signal.



Switching group function **Info**
When pressing the key at the top or bottom, the info page assigned to the key is displayed.

The switching groups can also be triggered via the operating lines.

You operate a switching group configured for **Switch, Dim** or **Blind** under:

Main menu > Switching groups > Switching group X > Trigger:

You operate a switching group defined as **Scene** under:

Main menu > Switching groups > Switching group X > Scene A or B > Trigger scene:

The text displays for scenes A and B can be adjusted to suit your needs (refer to page 43).

Scenes

When commissioning the plant, the softkeys of the central apartment unit (switching groups 1 – 4) can be programmed for triggering scenes (scene symbol appears on the display of the key assignment).

Scenes can be used to store certain states of all actuators involved and to retrieve them again, if desired.
One example would be the differently dimmed lights and the blind positions that you would consider adequate for a certain event / at certain times.

Creating scenes

For the switching groups, a scene A and scene B can be created.

Enter the required name of the scene at the central apartment unit:

🗝 *Main menu > Switching groups > Switching group X > Scene A or B > Scene A or B:*

Then, use local actuator control to drive all actuators to the required position.

After that, store the scene by pressing the respective softkey for at least 3 seconds. Storage is confirmed by the central apartment unit in the form of a short acoustic signal.

You trigger the stored scenes by a short push on the respective softkey.

The scenes can also be stored and retrieved via operating parameters:

Main menu > Switching groups > Switching groups X > Scene A or B > Trigger scene:

Triggering switching groups via an event

In addition to manual triggering, the function of a switching group can be automatically triggered via one or several events.

Select the event (or the events) that triggers a switching group configured for **Switch** or **Dim**:

Main menu > Switching groups > Switching group X > Events on cmd:
Main menu > Switching groups > Switching group X > Events off cmd:

Select the event (or the events) that triggers a switching group configured for **Blind**:

Main menu > Switching groups > Switching group X > Events up cmd:
Main menu > Switching groups > Switching group X > Events down cmd:

Select the event (or the events) that triggers a switching group configured for **Scene**:

Main menu > Switching groups > Switching group X > Scene A or B > Events scene:

The following events are available for triggering switching group functions:

No.	Designation	Meaning
1	Absence ON	Execution of command when changing from "Absence OFF" to "Absence ON" (= going).
2	Absence OFF	Execution of command when changing from "Absence ON" to "Absence OFF" (= coming).
3	Twilight switch dark	Execution of command when the twilight switch changes from BRIGHT to DARK.
4	Twilight switch bright	Execution of command when the twilight switch changes from DARK to BRIGHT.
5	Twilight switch dark + absent	Execution of command when the twilight switch changes from BRIGHT to DARK and when "Absence ON", or when changing from "Absence OFF" to "Absence ON" and twilight switch signals DARK.
6	Twilight switch bright + absent	Execution of command when the twilight switch changes from DARK to BRIGHT and when "Absence ON".
7	Smoke	Execution of command when the smoke detector detects smoke.
8	Window / door supervision	Execution of command when window / door supervision is triggered (see page 58).
9	Fault input 1	Execution of command when an event is detected at fault input 1 (contact not in the normal position).
10	Fault input 2	Execution of command when an event is detected at fault input 2 (contact not in the normal position).
11	Fault input 3	Execution of command when an event is detected at fault input 3 (contact not in the normal position).
12	Fault input 4	Execution of command when an event is detected at fault input 4 (contact not in the normal position).

Time switch for switching groups

Control of the individual switching groups takes place either manually or according to the associated time switch. Available for each switching group are 7 weekdays and one special day, each with up to 8 switching points.

The time switch settings are made analogously to those of the room time switch (refer to page 31).

Main menu > Switching groups > Switching group X > Time switch >

Time switch release

Define for each switching group if the time switch is to be enabled always or only for absence.

Main menu > Switching groups > Switching group X > Time switch release:

Always	The time switch of the switching group is always considered.
If absent	The time switch of the switching group is considered only for absence.

Switching group	1	2	3	4
Factory setting	Always	Always	Always	Always
Your setting	☐ Always ☐ If absent	☐ Always ☐ If absent	☐ Always ☐ If absent	☐ Always ☐ If absent

Switching group	5	6	7	8
Factory setting	Always	Always	Always	Always
Your setting	☐ Always ☐ If absent	☐ Always ☐ If absent	☐ Always ☐ If absent	☐ Always ☐ If absent

Abs Time switch

The setting "If absent "allows you to prevent from being locked out by automatically closing blinds when you are sitting on the balcony or in the yard for example.

Simulation of presence

Time switch for simulation of presence

During absence (absence function activated), you can control the switching groups via a special time switch (T'swi) in a way that presence is simulated. When presence simulation is activated, the switching groups are switched on and off randomly in dependence of the selected function (Random / Continuously On).

This function is only available with switching groups that afford **Switch** or **Dim**.

The time program defines the periods of time during which presence simulation is active. Available are 7 weekdays and one special day, each with up to 6 switching points.

Main menu > Switching groups > Time swi presence simulation >…

The central apartment unit is supplied with the following factory-set switching times for all weekdays: 06:00 (start of presence simulation), 08:00 (end of presence simulation), and 17:00 (start of presence simulation), 23:00 (end of presence simulation).

Using the special day, define whether and for what periods of time during holidays and special days you want presence simulation.

The periods of time defined apply jointly to all switching groups.

Activating simulation of presence

The effect of presence simulation (release and function) can be set individually for each switching group:

Release

"Release" allows you to control switching groups in dependence of a time switch or as a combination of time switch and twilight switch.

Main menu > Switching groups > Switching group X > Presence simulation > Release:

The following settings are available:

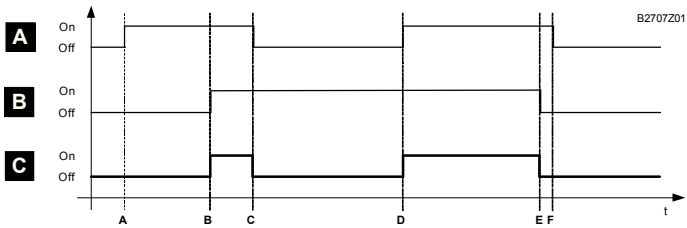
---	Inactive – no presence simulation for this switching group
With time switch (T'swi)	Presence simulation enabled according to "Time swi presence simulation"
With time swi + twilight swi (T'swi + twil)	Presence simulation enabled according to "Time swi presence simulation" and twilight switch signals DARK

Switching group	1	2	3	4
Factory setting	---	---	---	---
Your setting	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil

Switching group	5	6	7	8
Factory setting	---	---	---	---
Your setting	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil	☐ --- ☐ T'swi ☐ T'swi+ twil

T'swi Time switch
Twil Twilight switch

Example of release according to the time switch:



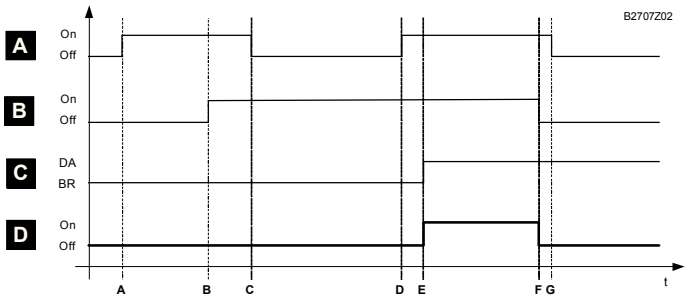
A Time program presence simulation (On, Off)

B Absence (On, Off)

C Release of simulation (On, Off)

t Time

Example of release according to the time switch and the twilight switch:



A Time program presence simulation (On, Off)

B Absence (On, Off)

C Twilight (DA = DARK, BR = BRIGHT)

D Release of simulation (On, Off)

t Time

Function

"Function" allows you to control switching groups by at random or constant switch-on of a switching group. The setting is effective only if the presence simulation of the corresponding switching group as described above is enabled.

Main menu > Switching groups > Switching group X > Presence simulation > Function

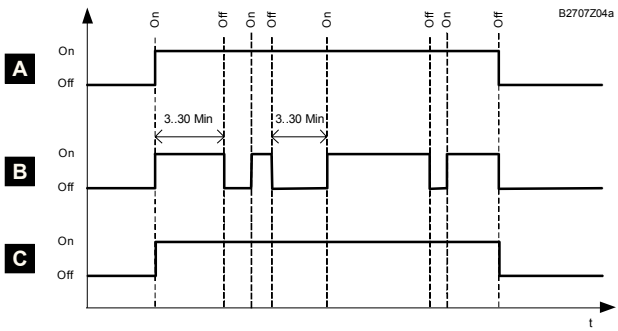
The following settings are available:

Random	The switching group actors are switched on or off within the set period at random intervals of 3 to 30 minutes. The first switch-on of each switching group also is at random. The switching points of the individual switching groups differ.
Continuously On (Contin on)	The switching group is switched on constantly. This allows you to ensure that at least one light is on during the presence simulation.

Switching group	1	2	3	4
Factory setting	Random	Random	Random	Random
Your setting	☐ Random ☐ Contin on	☐ Random ☐ Contin on	☐ Random ☐ Contin on	☐ Random ☐ Contin on

Switching group	5	6	7	8
Factory setting	Random	Random	Random	Random
Your setting	☐ Random ☐ Contin on	☐ Random ☐ Contin on	☐ Random ☐ Contin on	☐ Random ☐ Contin on

The settings Release and Function become effective as soon as the central apartment unit is set to "Absent" via **Absence** / **Supervision** button":



A Simulation release (On, Off)

B Light (On, Off) with function "Random"

C Light (On, Off) with Function "Contin on"

t Time

The presence simulation is ended as soon as the central apartment unit is set to "Present".

Calendar

Setting holidays / special days

If you are absent for one or several days, or if your occupancy pattern is different on certain days (e.g. on public holidays), you can define a holiday period or a special day. For each of the 16 entries made, start, end and the reason (holidays or special day) can be entered.
In that case, you can also define whether the event is repeated every year (* with entry of year), or whether it should be deleted again after the event took place (entry with indication of year).
Every entry can be deleted.

Main menu > Holidays/special days > Calendar > Entry X:

During holiday periods, the selected room operating mode and the holiday DHW operating mode apply.

For a description of the room operating mode settings required and the DHW operating mode during holidays, refer to page 50.

During special days, the special day time program of the respective rooms and of DHW is used.

The special days with room and DHW time switches can be used for programming public holidays that fall on working days (Mo – Fr), for example.
For such days, you probably wish to use a temperature profile similar to Sundays.
With the special day of the switching group time switches, it is possible to determine which functions should be triggered during special days and holidays.

Main menu > Heating > Room X > Room time switch > Special day:

Main menu > DHW >Time switch > Special day:

Main menu > Switching groups > Switching group X > Time switch > Special day:

If the supervisory functions, presence simulation, etc., should be available during the holiday period / special days, the absence function must also be activated (refer to the following section).

Holidays and absence simultaneously

The holiday program only acts on the space heating and the DHW operating mode. Also press the **Absence** button if, in addition to the holiday program, you want to take advantage of the absence functions (presence simulation, supervisory function, etc.).

When the holiday and absence functions are simultaneously active, the central apartment unit controls space heating and DHW heating in accordance with the holiday operating mode.

At the end of the holiday period / special day, room and DHW operating mode will switch from ”Holidays“ to ”Absence“.
This means that on return from holidays, the absence function must be deactivated again by pressing the **Absence** button.

During absence, ensure that the temperature level will not be too low (“Precomfort“ or “no impact“) to make certain that on completion of the absence period the Comfort setpoint is quickly reached again. Slow heating systems (e.g. underfloor heating systems) require more time until the desired room temperature is reached.

Holiday operating mode

Room operating mode during holidays

Select the required room operating mode for the apartment during the holiday period:

Main menu > Holidays/special days > Rm optg mode holid.:

Guide value	Economy
Your setting	☐ Economy ☐ Protection

DHW operating mode during holidays

Select the required DHW operating mode for the holiday period or the special day:

Main menu > Holidays/special days > DHW optg mode holid:

Guide value	Protection
Your setting	☐ --- (no impact) ☐ Normal ☐ Reduced, ☐ Protection

Time settings

Date / time of day

You can make the settings for the date and the time of day by using the following paths:

Main menu > Time of day/date > Time of day:
Main menu > Time of day/date > Date:
Main menu > Time of day/date > Year:

Faults

Error / fault status messages

The central apartment unit stores up to 10 current fault status messages according to priority. They can be retrieved at any time. The lowest fault status message number represents the fault with the highest priority. If priorities are equal, the faults are listed in chronological order.
Both the central apartment unit's internal faults and the faults of the other devices contained in the system are taken into consideration.

Each device only transmits its most severe fault to the central apartment unit. As soon as that fault has been rectified, the next fault is transmitted.

The faults acquired are written to the "Current list of faults".

Main menu > Faults > Faults current > Fault X:

With each fault status message, a fault number and fault text are displayed.

The faults can be linked to internal or external fault relays. The relevant relay is energized when the fault occurs (refer to page 57).

Fault status messages bus

The fault that occurred last on the wire-bound bus is saved with the fault number, fault text and the associated device address.
These fault status messages are only visible if they were enabled at the time of configuration:

Main menu > Faults > Fault status message bus:

Acknowledging faults

The current fault status messages can be jointly acknowledged.

🔑 *Main menu > Faults > Acknowledge faults:*

ℹ A fault that has not yet been acknowledged appears on the display with a flashing fault symbol. As soon as the fault is acknowledged, the fault symbol will stop flashing.

Inputs / outputs

Displaying input signals

The current input signals can be displayed via the following operating line:

Main menu > Inputs / Outputs > Inputs > …

The following values – if available – are displayed:

- Actual value of the outside temperature
- DHW temperature sensor
- Heating mode
- Summer operation
- H/C changeover
- Absence
- Twilight
- Fault input X (per fault input 1 - 4)

Displaying output states

The states of the outputs can be displayed via the following operating line:

Main menu > Inputs / Outputs > Outputs > …

The following values – if available – are displayed:

- DHW pump / valve
- Electric immersion heater
- Switching group X (relay per switching group 1 - 8)
- Fault output X (per fault output 1 and 2)
- Heat demand relay
- Heat demand DC 0..10 V
- Apartment pump
- Summer operation
- Status output
- Window / door state

Device

Language

The unit is supplied with English preselected as the operator's language. You can select the language you prefer:

🗝 *Main menu > Settings > Device > Language:*

Then, the path can be reached in the language selected by you.

Elevation above sea level

To ensure display of accurate weather forecasts in the quiescent picture, the absolute atmospheric pressure acquired by the meteo sensor is converted to pressure at sea level.
For this reason, the plant's location above sea level must be known. Enter the plant's elevation above sea level on the following operating line:

🗝 *Main menu > Settings > Device > El above sea level:*

Factory setting	0 m above sea level
Your setting	

Time-of-day format

The format for display of the time of day can be selected (24 h or 12 h am / pm):

🗝 *Main menu > Settings > Device > Time format:*

Factory setting	24 h
Your setting	☐ 12 h ☐ 24 h

Backlit display / display contrast

Adjust the brightness of the backlit display and the display contrast to suit your needs:

🗝 *Main menu > Settings > Device > Backlit display:*

🗝 *Main menu > Settings > Device > Display contrast:*

	Backlit display	Display contrast
Factory setting	100 %	50 %
Your setting		

Quiescent picture

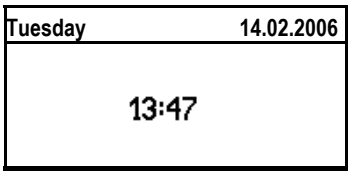
Display format

You can select the display format required for the quiescent picture.

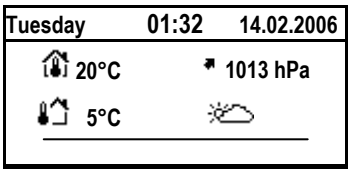
Main menu > Settings > Quiescent picture > Display format:

The following display formats are available:

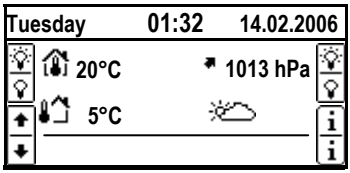
Display format 0



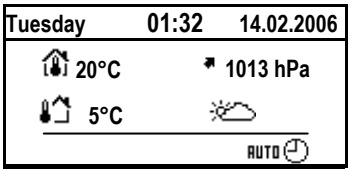
Display format 1



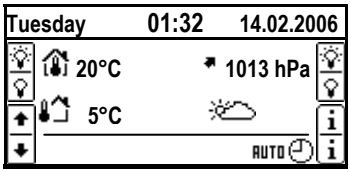
Display format 2



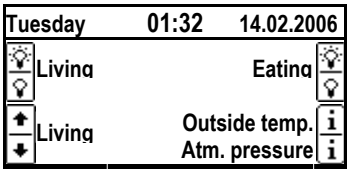
Display format 3



Display format 4



Display format 5



Factory setting	Display format 4
Your setting	

Temperature display

Select the room (rooms 1 – 12) whose temperature should be displayed in the quiescent picture.

Main menu > Settings > Temp display:

Factory setting	Room 1
Your setting	

Passwords

Password for the service level

The unit comes supplied with no password protection on the service level. Password protection is available as an option (1 – 9999). Use the following path to enter your password and confirm it by pressing the **Menu / ok** button:

🔑 *Main menu > Settings > Passwords > Service:*

Factory setting	---
Your setting	

For more information about the various access levels, refer to page 23.

Info page selection

Direct selection of info pages

When commissioning the plant, the softkeys of the central apartment unit (switching groups 1 – 4) can be programmed for the display of info pages (the info symbol appears on the display of the key assignments).

Note that the number of info pages – and thus the info page number of a certain component / function – is dependent on the configuration of the central apartment unit. You can see the current numbering of the info pages when scrolling with the **Info** button.

For numbering the softkeys (switching groups 1 – 4), refer to the following illustration:

1A, 1B	Softkeys of switching group 1
2A, 2B	Softkeys of switching group 2
3A, 3B	Softkeys of switching group 3
4A, 4B	Softkeys of switching group 4

With the softkeys defined as info pages, you can select the info pages that should be displayed when pressing the keys.

- *Main menu > Settings > Info page selection > Info page button 1A:*
- *Main menu > Settings > Info page selection > Info page button 1B:*
- *Main menu > Settings > Info page selection > Info page button 2A:*
- *Main menu > Settings > Info page selection > Info page button 2B:*
- *Main menu > Settings > Info page selection > Info page button 3A:*
- *Main menu > Settings > Info page selection > Info page button 3B:*
- *Main menu > Settings > Info page selection > Info page button 4A:*
- *Main menu > Settings > Info page selection > Info page button 4B:*

Faults

Fault inputs 1 – 4

Faults of external plant components can be communicated to the central apartment unit by closing a contact. There are 4 fault inputs available.

The fault inputs must have been activated when commissioning the plant, and the required input must be connected to the central apartment unit so that the settings described here can be made. For the relevant descriptions, refer to document ”Mounting and Commissioning (CE1C2707en)“.

For each fault input, following can be selected or set:

- Fault text (text that should be displayed at the respective fault input when the fault occurs)
- Fault priority (urgent or Not urgent)
- Fault release (always or only during absence)
- Fault status message delay (time span 00.00 – 60.00 m.s., until a pending fault generates a fault status message)
- Normal position: It can be selected here whether an open or closed contact should be used to indicate a faulty condition. Normally open means that an open contact is considered to indicate ”normal operation”

- *Main menu > Settings > Faults > Fault input X > Fault text:*
- *Main menu > Settings > Faults > Fault input X > Fault priority:*
- *Main menu > Settings > Faults > Fault input X > Fault release:*
- *Main menu > Settings > Faults > Fault input X > Fault stat mess dly:*
- *Main menu > Settings > Faults > Fault input X > Normal position:*

Fault input	1	2	3	4
FS fault text	Fault inp 1	Fault inp 2	Fault inp 3	Fault inp 4
Fault text				
FS fault priority	Not urgent	Not urgent	Not urgent	Not urgent
Fault priority	☐ Urgent ☐ N. urg.	☐ Urgent ☐ N. urg.	☐ Urgent ☐ N. urg.	☐ Urgent ☐ N. urg.
FS fault release	Always	Always	Always	Always
Fault release	☐ Always ☐ DA	☐ Always ☐ DA	☐ Always ☐ DA	☐ Always ☐ DA
FS fault stat mess dly.	00.05	00.05	00.05	00.05
Fault status message delay				
FS normal position	Open	Open	Open	Open
Normal position	☐ Open ☐ Closed	☐ Open ☐ Closed	☐ Open ☐ Closed	☐ Open ☐ Closed

FS Factory setting
N. urg. Not urgent
DA During absence

Fault outputs 1 and 2

To forward fault status messages or to indicate them on the control panel with a lamp, for instance, 2 fault outputs can be configured.

The fault outputs must have been activated when commissioning the plant, and the required relay output must be connected to the central apartment unit so that the settings described here can be made. For the relevant descriptions, refer to document ”Mounting and Commissioning (CE1C2707en)“.

- *Main menu > Settings > Faults > Fault output X > Fault priority:*
- *Main menu > Settings > Faults > Fault output X > Fault source:*

For each fault output, the following settings can be made:

- Fault priority: The priority (urgent or Not urgent) with which the relay should be energized can be selected here
- Fault source: Defines whether the relay should respond only in the case of internal faults or only in the case of external faults (faults transmitted via bus)

Maximum one bus fault status message can be handled. If both relays are set as bus relays with different priorities, only one of them can be energized at a time, even if several faults with different priorities are pending on the bus! It is therefore recommended to configure only one relay as a bus fault relay.

Fault relay	1	2
FS fault priority	All	All
Fault priority	☐ Urgent ☐ Not urgent ☐ All	☐ Urgent ☐ Not urgent ☐ All
FS fault source	Internal	Bus
Fault source	☐ Internal ☐ Bus	☐ Internal ☐ Bus

FS Factory setting

The fault relay remains energized until the fault is acknowledged.

Supervision of doors and windows

Supervision delay

You can set a supervision delay to avoid generating a message upon supervision activation and simultaneously open window / door.

If supervised windows are open when supervision is activated, a constant beep is sounded. The Info page Windows / Doors provides information on which rooms contain open windows or doors.

Any open windows and doors can now be closed.

After you close the supervised window, the constant signal becomes a beep that doubles in the last 15 seconds of supervision delay. The remaining supervision delay time is also displayed on the central apartment unit.

You can set the desired delay time (00.00 – 59.55 m/s) via the following command sequence:

🔑 *Main menu > Settings > Supervision > Supervision delay:*

The set delay time applies to all windows and doors.

Factory setting	05.00 m.s
Your setting	

You can set the volume of the signal / beep as desired (0..100%). While you adjust the volume, a constant beep is sounded at the selected volume.

🔑 *Main menu > Settings > Supervision > Volume supervis dly:*

Factory setting	15 %
Your setting	

Setting 0 % deactivates the signal sound / beep during supervision delay .

Release of supervision

Indicate in the central apartment unit the doors and windows that are to be "partly monitored" or "all monitored". These two functions provide for two different types of supervision, e.g. for short absences when you want to keep open some windows for ventilation and thus exclude them from supervision. And for longer absences (e.g. vacation) when you want to supervise all windows and doors.

Windows

The option list contains all rooms. Select the rooms with windows to be supervised. If a supervised window is opened, the message "Window open" appears. In addition, the buzzer, the status output, and a switching group function can be activated.

The "Window open" fault message remains active until supervision is changed, even after all supervised windows are closed.

🗝 *Main menu > Settings > Supervision > Windows > Rel "Partly monit":*

Room number	1	2	3	4	5	6
Room name						
Factory setting	No	No	No	No	No	No
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

Room number	7	8	9	10	11	12
Room name						
Factory setting	No	No	No	No	No	No
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

🗝 *Main menu > Settings > Supervision > Windows > Rel. "All monit ":*

Room number	1	2	3	4	5	6
Room name						
Factory setting	No	No	No	No	No	No
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

Room number	7	8	9	10	11	12
Room name						
Factory setting	No	No	No	No	No	No
Setting	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes

Doors

You can supervise up to two doors. The doors you want to supervise can be selected in the option list.

🗝 *Main menu > Settings > Supervision > Doors > Rel "Partly monit":*

Door number	1	2
Door name		
Factory setting	No	No
Your setting	☐ No ☐ Yes	☐ No ☐ Yes

🗝 *Main menu > Settings > Supervision > Doors > Rel "All monit":*

Door number	1	2
Door name		
Factory setting	No	No
Your setting	☐ No ☐ Yes	☐ No ☐ Yes

Message delay

IF a supervised door is opened, the fault message "Door open" appears only after expiration of a set message delay time. In addition, the buzzer, status output and a switching group function can be activated.

The "Door open" fault message remains active until supervision is changed, even after all supervised doors are closed.

You can set the duration of the message delay time (00.00..59.55 m/s):

Main menu > Settings > Supervision > Doors > Message delay:

Factory setting	05.00 m.s
Your setting	

You must deactivate supervision before the message delay time has expired to avoid the fault message "Door open" and the alarm sound. To do this, set the message delay time to ensure that you have sufficient time to go to the central apartment unit and deactivate supervision when returning home. See page 60.

When a supervised door is opened, a beep is sounded whose frequency doubles in the last 15 seconds of the message delay time. You can set the volume of the beep (0..100%) or deactivate it by entering setting 0%.
When you set the volume, a permanent beep is sounded at the corresponding volume.

Main menu > Settings > Supervision > Doors > Volume mess delay

Factory setting	15 %
Your setting	

If event "Window / door supervision" is active at the buzzer (see parameter below), the actual alarm is sounded

Event buzzer and status output

Decide with which event the buzzer and / or the status output is to be activated (smoke, window / door supervision or fault input 1 – 4). It is possible to select several simultaneous events:

- *Main menu* > *Settings* > *Supervision* > *Signaling* > *Events buzzer:*
- *Main menu* > *Settings* > *Supervision* > *Signaling* > *Events status outp:*

	Events buzzer	Events status output
Factory setting	☒ Smoke ☒ Window / door supervision	☒ Smoke ☒ Window / door supervision
Setting	☐ Smoke ☐ Window / door supervision ☐ Fault input 1 ☐ Fault input 2 ☐ Fault input 3 ☐ Fault input 4	☐ Smoke ☐ Window / door supervision ☐ Fault input 1 ☐ Fault input 2 ☐ Fault input 3 ☐ Fault input 4

Signal duration

Signal duration for the buzzer and the status output can be selected (1 – 60 minutes, "--- " unlimited). When the set signal time has elapsed, the buzzer stops and the status output's relay drops out again, even if the triggering event is still pending.

- *Main menu* > *Settings* > *Supervision* > *Signalization* > *Signal duration:*

Factory setting	3 minutes
Your setting	

As soon as one of the buttons on the central apartment unit is pressed, both buzzer and status output will immediately be deactivated again – independent of the set signal duration.

Texts

Plant name

Assign the plant or the apartment a self-explanatory name, e.g. ”Main street 22“:

⊶ *Main menu > Settings > Text > Plant name:*

Room names 1 – 12

Assign the rooms self-explanatory names, e.g. Living, Eating, Parents, Children, Bathroom, etc.:

⊶ *Main menu > Settings > Text > Rooms > Room X:*

Switching group names 1 – 8

Assign the switching groups self-explanatory names, e.g. Living, Eating, Parents, Children, Bathroom, etc.

⊶ *Main menu > Settings > Text > Switching groups > Switching group X:*

Door names 1 - 2

Assign a meaningful name to the doors, e.g. entry door, garage door, etc.

⊶ *Main menu > Settings > Texts > Doors > Door X:*

Lamp names 1 – 4

Assign the lamps self-explanatory names, e.g. Living, Eating, etc.:

⊶ *Main menu > Settings > Text > Light state > Lamp X:*

Info lines

The central apartment unit provides information for readout:

Main menu > Device information > Plant name:
Main menu > Device information > File name:
Main menu > Device information > Device type:
Main menu > Device information > Software version:
Main menu > Device information > Hardware version:

Room unit QAW910

Operation

All operating elements are arranged on the front of the unit. The function button is located in the battery compartment. The room unit communicates via radio signals and has no connection terminals.

The settings made on the room unit only have an impact on the room to which the room unit is assigned. They have no influence on any other rooms.

The settings made on the room unit are automatically synchronized with the settings of the central apartment unit.

Room operating modes

By pressing the **Mode** button, you can select the required room operating mode.
The display shows the hourglass symbol which disappears again as soon as the central apartment unit and the room unit have adopted the new settings.

AUTO	The room is controlled in accordance with the time program and the special day program.
MAN ☼	The room is maintained at the Comfort setpoint.
MAN	The room is maintained at the Precomfort setpoint.
MAN ☾	The room is maintained at the Economy setpoint.
MAN ⌂	The room is maintained at the Protection setpoint.
⊟ ☼	Overriding by the central apartment unit to maintain the Comfort setpoint.
⊟	Overriding by the central apartment unit to maintain the Precomfort setpoint.
⊟ ☾	Overriding by the central apartment unit to maintain the Economy setpoint.
⊟ ⌂	Overriding by the central apartment unit to maintain the Protection setpoint.

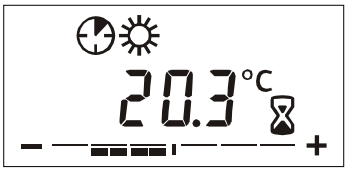
The time program and the special day program are set on the central apartment unit.
In the case of overriding by the central apartment unit, the display shows the symbol of the central apartment unit and the symbol of the active operating level.

Room timer function

Using the **Room timer** button (), you can force the heating system to maintain the Comfort temperature for an adjustable period of time. When pressing the button, the room timer symbol, the symbol of the Comfort setpoint and the duration of the selected Comfort mode (00:00) will appear on the display.

With every push on the **Room timer** button, the duration of Comfort mode is extended by 30 minutes. Pressing the button speeds up the setting.

If no button is pressed for 4 seconds, the setting is adopted and Comfort mode is displayed.



The display shows the hourglass symbol which disappears again as soon as the central apartment unit has adopted the settings made on the room unit.

When the room timer function is active and the **Room timer** button is pressed, the timer's remaining time is displayed. It can be set to 30 minutes by pressing again the **Room timer** button and each additional push of the button extends the time by another 30 minutes.

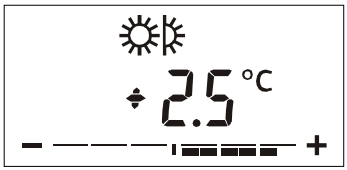
An active room timer function can be aborted by setting the extension time to 00:00, or by pressing the **Mode** button.

For the room timer function to be activated, the apartment operating mode must be set to "Auto". In addition, no absence or holiday function for the apartment may be active.

Readjustment of the room temperature setpoint

Room temperature setpoint readjustments by a maximum of +/- 3 K can be made with the setting knob. When turning the knob one step, the display shows the current room temperature setpoint readjustment. Each step represents another readjustment of 0.5 K.

The readjustments made on the individual room units can be displayed on the central apartment unit (refer to page 31).



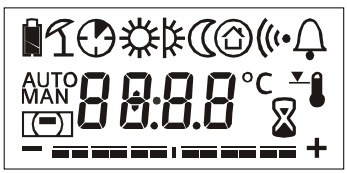
The room temperature setpoint readjustment is displayed with a readjustment bar.

When controlling to the Precomfort or Comfort setpoint, the readjustment bar continues to be displayed also after leaving the room temperature setpoint readjustment.

The room temperature setpoint readjustment made only acts on the Comfort or the Precomfort setpoint.

Display

Full display



When commissioning the unit, the full display appears for 2 seconds, enabling you to check it.

Possible displays

Symbol	*Description*
	Status display of battery: If the batteries' capacity is sufficient, the symbol is briefly displayed when pressing the function button.
	Status display of battery: If the batteries' capacity drops below a certain level, the symbol is constantly displayed, independent of the unit's operating state.
	Summer operation active
	Room timer function active
AUTO	Display of automatic mode. Current operating level in accordance with the central apartment unit's time program
MAN	Display of manual mode. Current operating level in accordance with the settings made on the room unit
	Control to the Comfort setpoint
	Control to the Precomfort setpoint
	Control to the Economy setpoint
	Control to the Protection setpoint
	Overriding by the central apartment unit: Apartment operating mode different from "AUTO" (e.g. due to active holiday program, absence, active apartment timer, or summer operation)
	Binding test, communication error, binding
	Device fault: Sensor with short-circuit or open-circuit, communication error
	Room setpoint limitation active (refer to page 33)
	Updating the room operating mode. Hourglass is displayed when transmitting / querying the current / resulting room operating mode.
°C	Unit of room temperature
	Readjustment bar indicates an active room temperature setpoint readjustment.

Error messages

Device faults are transmitted to the central apartment unit in the form of error messages and are then displayed with the error symbol.
Device faults are communication breakdowns or short-circuits / open-circuits of sensors in the room unit.
The error symbol disappears as soon as device errors are no longer present.

If communication with the central apartment unit is interrupted, the connection and error symbols are displayed until communication is reestablished.

In the event of communication errors, check the central apartment unit's power supply. If power supply is in order, a radio repeater might be required.

Maintenance

Monitor batteries

The battery-powered devices (room unit, room temperature sensor, meteo sensor, radiator control actuator, door / window contact and smoke detector) constantly monitor their batteries' capacity. If batteries are low, a message is forwarded to the central apartment unit. In that case, the central apartment unit switches from the quiescent picture to info page "Device state" to show the device with the exhausted batteries (provided there is no more severe fault). After a certain period of time, the display will return to the quiescent picture and show the error symbol .

On the battery-powered devices themselves – with the exception of the room unit, the door / window contact and the smoke detector – the result of automatic battery monitoring is not displayed.

Room unit QAW910

The room unit indicates when its batteries are close to exhaustion.

If the batteries are exhausted in about 3 months' time, the "low" symbol is displayed.

Door / window contact wave AP 260

If batteries must be replaced, the LED will briefly flash every 10 seconds.

DELTA reflex smoke detector

If batteries must be replaced, the LED will briefly flash 3 times every 48 seconds and a short acoustic signal is given.

Manual capacity check

With the room temperature sensor, the meteo sensor and the radiator control actuator, battery capacity is also checked when a binding test is made (refer to page 72).
If, during the binding test, the green LED of the respective device is lit, battery capacity is sufficient.
If, during the binding test, the red LED of the respective device is lit or is dark, battery capacity is insufficient.

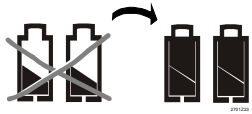
Replace batteries

To ensure trouble-free operation of the battery-powered devices, replace the batteries as soon as they are close to exhaustion.

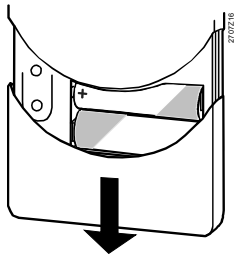
⚠ Avoid complete discharge of batteries, as otherwise batteries may leak. For this reason, replace the battery as soon as the display tells you to.

Room unit QAW910, room sensor QAA910 and meteo sensor QAC910

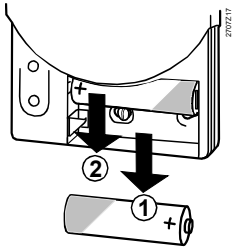
Have 2 new Alkaline AA batteries ready for insertion (LR6 / 1.5 V).



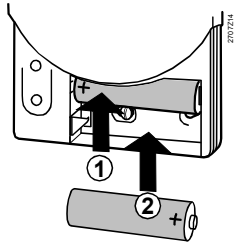
Remove the battery compartment cover.



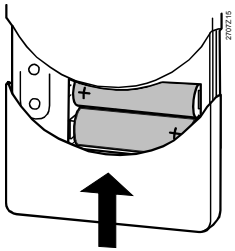
Remove the exhausted batteries.



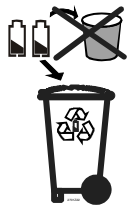
Insert the new batteries. Ensure that polarity is correct!



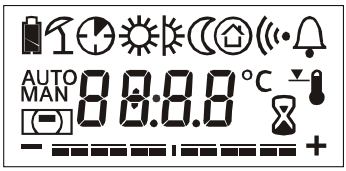
Replace the battery compartment cover.



Dispose of the old batteries in compliance with environmental regulations.



Room unit QAW910



After insertion of the new batteries, the full display appears for 2 seconds. Then, the room unit changes to Normal operation.

The room operating mode settings are interrogated by the central apartment unit. Any active room timer function will not be reactivated.

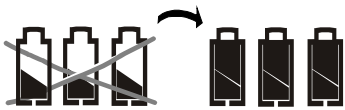
Room sensor QAA910 and meteo sensor QAC910

After insertion of the new batteries, the batteries' capacity is checked. During the check, the green LED lights up for 2 seconds, provided the batteries have sufficient capacity.

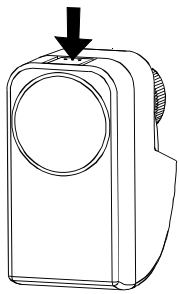
After the battery check, the devices directly switch to Normal operation. The LED will extinguish again.

Radiator control actuator SSA955

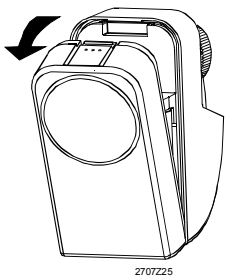
Have 3 new Alkaline AA batteries ready for insertion (LR6 / 1.5 V).



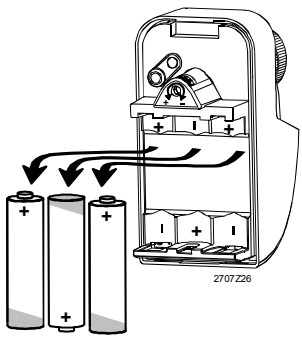
Press on the snap-on cover…



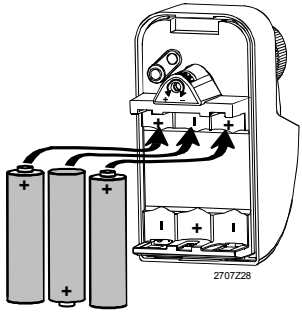
… and remove the battery compartment cover.



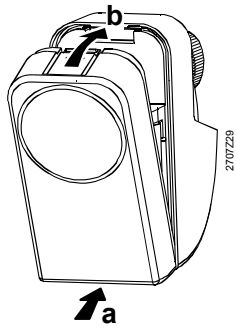
Remove the old batteries.



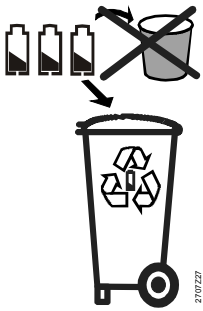
Insert the new batteries. Ensure that polarity is correct!



Replace the battery compartment cover.



Dispose of the old batteries in compliance with environmental regulations.



After insertion of the new batteries, the batteries' capacity is checked. During the check, the green LED lights up for 2 seconds, provided the batteries have sufficient capacity.

After the check, the radiator control actuator checks its settings as a master or slave. If set as a master, the red and green LED flashes 3 times; if set as a slave, the LED remains dark. Then, the device will perform automatic calibration.

After that, the device will assume Normal operation.

Door / window contact wave AP 260 and DELTA reflex smoke detector

For changing the batteries of the door / window contacts and the DELTA reflex smoke detectors, please refer to the Operating and Mounting Instructions supplied with these devices.

Binding tests

The binding tests on the individual devices are triggered by briefly pressing the function button (located under the battery compartment cover).

On the central apartment unit, every successful binding test is confirmed by 3 short acoustic signals. Also, the display shows an additional window with information about the test just made.

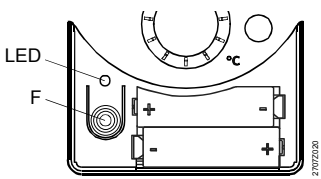
The additional window stays on the display until it is confirmed with the **Menu / ok** button or the **Esc** button, or until it is replaced by the new additional window next time the binding test is made.

During the binding tests, the LED on the individual devices is used for indicating the batteries' capacity or, in the case of the radio repeater, for indicating mains voltage (refer to page 68).

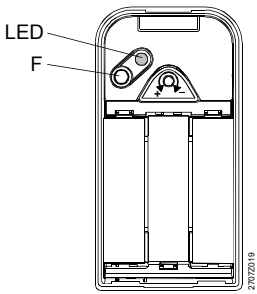
Binding tests can be triggered on the following types of devices: Room unit, room temperature sensor, meteo sensor, radio repeater, radiator control actuator, and heating circuit actuator.
After the binding test, the radio repeater indicates telegram traffic with an orange LED flashing for 2 hours.

Function button on the room unit, room sensor, meteo sensor, radio repeater and radiator control actuator

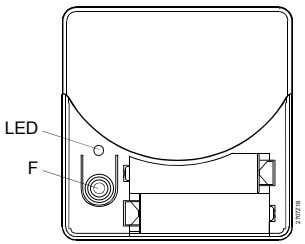
Room unit QAW910



Radiator control actuator SSA955



Room sensor QAA910, meteo sensor QAC910, and radio repeater ERF910

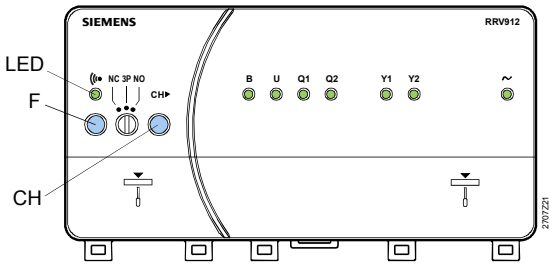


F = function button
LED = light emitting diode

Function button on the heating circuit controllers RRV912 and RRV918

The binding test of the heating circuit controllers is made on each channel. Use the channel selection button to select the channel whose binding should be checked. The LED associated with the selected channel will flash. Then, press briefly the function button.

E.g. on the RRV912 heating circuit controller:



F = function button
LED = light emitting diode
CH = channel selection button

Maintenance and cleaning

When cleaning the central apartment unit, use a soft cloth, slightly moistened with water. Never use alcohol.

Disposal

Dispose of the central apartment unit and the associated partner devices as electronic scrap in compliance with European directive 2002/96/EEC (WEEE) and not together with municipal waste. Observe all relevant national regulations using the correct disposal channels. Comply with local and currently valid legislation. Dispose of discharged batteries in compliance with relevant environmental regulations.

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