Wall Module SDW 20
QUICK OPERATION REFERENCE GUIDE
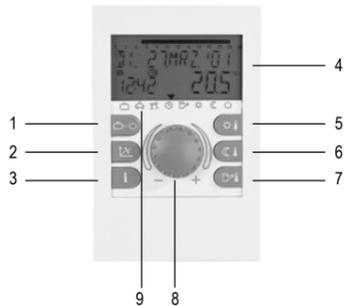
1 "Operating mode" key (basic display)
2 "Heating characteristics" key
3 "Information" key
4 Display
5 "Daytime room temperature" key
6 "Night-time room temperature" key
7 "DHW temperature" key (domestic hot water)
8 Rotary pushbutton (press/turn)
9 Operating mode symbols

Rotary pushbutton with key function – General

With this pushbutton you can change and store selected set-points and parameters.

Turning to the right (+): increases the relevant value
Turning to the left (–): decreases the relevant value

Push: accepts the selected and displayed value

Press and hold: jumps to the programming level (level selection), returns to the previous menu level

Basic display

Weekday, date, time
Heat generator temperature
Cursor shows the actual operating mode

Special displays

Ice crystal symbol:
Frost protection active

Sunshade symbol:
Summer switch off active (Heating off, DHW as pro-grammed)

Error indication (e.g. warm water)
changes with basic display – Please notify service company!

Setting desired daytime room temperature

Push 🌞i key.

Change temperature:

Adjustment range 5.0 to 30 °C

Accept changes:

Push ☞ or 🌞i, or automatically after the set info time.

Setting desired night-time room temperature

Push ☾i key.

Change temperature:

Adjustment range 5.0 to 30 °C

Accept changes:

Push ☞ or ☾i or automatically after the set info time.

Note: If control mode 2 is active, select the concerned heating circuit and confirm by pushing the rotary pushbutton before setting daytime or night-time room temperature.

Setting desired daytime DHW temperature

Push ➛i key.

Change temperature:

Adjustment range:
10 °C to WW-Max

Accept changes:

Push ☞ or ➛i, or automatically after the set info time.

Heating characteristics

With heating characteristics you can adjust the heating power according to the outdoor temperature and the type of building.

Please choose the following initial values:

Heating system	Climate zone I	Climate zone II	Climate zone III
Floor heating	1.10	1.00	0.90
Radiator	1.70	1.55	1.45
Convector	2.20	2.00	1.85

For heat-requirement calculation, the climate zone is assumed as the coldest outside temperature expected and can be obtained from the service company.

Correcting heating characteristic

Push ∠ key.

Select heating circuit:
HC = unmixed heating circuit
MC1 = mixing circuit 1
MC2 = mixing circuit 2

Accept: ☞

Correct characteristic:

Room temperature too warm:
Reduce value

Room temperature too cold:
Increase value

Accept changes: ☞ or ∠ .

If necessary repeat this process with the next circuit.

⚠ ATTENTION
Correct only in small steps after a reasonable period of time!

Finish (Return to basic display): ∠

Operating modes (🏠 👤 🍸 🕐 🚿 ☼ ☾ ⏻)

The following operating modes can be selected with ☐–○ :

1. Short-term modes:

HOLIDAY 🏠 Heating and domestic hot water (DHW) will be switched off with frost protection for the whole duration of the holiday.

ABSENCE 👤 Heating will be temporarily switched off in case of a brief period of absence.

PARTY 🍸 For the specified date, heating will be extended beyond the regular reducing time.

2. Automatic modes:

AUTOMATIC 🕐 Automatic heat- and setback operation according to time program.

SUMMER 🚿 Only DHW operation with time program, heating system switched off with frost protection.

3. Constant modes:

HEATING ☼ Continuous heating mode with no time limit.

REDUCED ☾ Continuous reduced mode with no time limit.

STANDBY ⏻ Frost protected mode for heating and DHW

Selecting operating mode

After pressing the ☐–○ key the last chosen operating mode is flashing. All other modes can be selected with the rotary push-button. The cursor is pointing at the selected mode.

The mode will then be activated by pushing the rotary pushbutton.

Example: Select the automatic mode and confirm.

Push ☐–○ key and select Automatic.

Confirm:
☞ or ☐–○

If a short-term program is selected, the respective accompany-ing periods such as the return date (HOLIDAY), return time (ABSENCE) or extended heating mode (PARTY) can be speci-fied.

Example: Holiday

Push ☐–○ key and select Holiday.

Confirm:
☞ or ☐–○

Change:

Confirm adjusted value:
☞ or ☐–○ .

System Information

After pressing the information key, system temperatures and setpoints can be queried one after another via the rotary pushbutton.

Press:
– System temperatures (setpoints)

NOTE: This information will appear if the corresponding functions and outputs are available in this type of controller.

Switching time programming

The programming of switching times is explained with the following scheme. For further information, please look also in the "SDC/DHC Operating Instructions", form no. EN2H-0220.

Every flashing value can be adjusted by turning and will be confirmed by pushing the rotary pushbutton.

The ⓘ key will lead you one step back, the operating mode key ☐–○ will lead you back the basic display automatically after the set info time.

Parameter menu selection: ☞ approx. 3 seconds long

Start for switching program: ☞

1. Select circuit, reload default programs, copy programs

Adjustment range: unmixed circuit (HC), mixing circuit 1 (MC1), mixing circuit 2 (MC2), domestic hot water (DHWs), default programs, copy of heating circuits

More: ☞

2. Select time program

Appears only when enabled in system parameter menu
Adjustment range: P1, P2, P3

More: ☞

3. Select weekday and heating cycle, copy (block building)

Sequence: Mo 1st cycle – Mo 2nd cycle, Tu 1st cycle, Tu 2nd cycle ... Su 2nd cycle; Copy single days (Mo...Su) working day group (1...5) or weekend group (6...7).

NOTE: If second heating cycle is used there is a third cycle available.

More: ☞

4. Heating start (switch-on time)

Adjustment range: 0.00 to 24.00 o´clock
NOTE: The switch-on time is displayed as a flashing segment in the above timeline.

More: ☞

5. Heating end (switch-off time)

Adjustment range: 0.00 to 24.00 o´clock
NOTE: The switch-off time is displayed as a flashing segment in the above timeline.

More: ☞

6. Cycle temperature of the selected circuit and the selected day

Adjustment range: For heating circuits (HC, MC1, MC2): 5.0 to 30 °C
  For DHW: 10.00 to 80 °C (or high limit)

⚠ CAUTION
If day and DHW temperatures are changed by means of the 🌞i and ➛i keys, then only the relative change is added to or substracted from the corresponding cycle temperatures!

More: ☞

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7. Select weekday and heating cycle, copy (block programming)

Select next heating cycle or weekday if necessary as described under 3. and adjust accordingly.

Operation of digital wall devices SDW 20

Function

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BUSADDRESS

          11
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A digital wall device SDW 20 can be connected to the control device.

With a digital wall device remote control for a central device (e.g. from a living room) is possible in addition to the room temperature detection. Settings can be carried out for all the existing heating circuits.

The bus address of the wall device is used to specify on which heating circuit the wall module is to act.

When an SDW 20 is connected for the first time to the bus system, the address is selected for the heating circuit to which the SDW 20 is to be assigned (bus address).

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DATABUS

MK-1    ZG-1
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For later bus address changing, press and hold the push and turn bottum while you clip on the wall module to the socket.

After the input has been confirmed, a feedback is output to which heating circuit (DK, MK-1, MK-2) and which central device (ZG) the digital wall device has been assigned.

Assignment is carried on the basis of the following table:

Address	Address ZG	Assignment
11	10	ZG 1 – Direct heating circuit
12	10	ZG 1 – Mixing circuit 1
13	10	ZG 1 – Mixing circuit 2
21	20	ZG 2 – Direct heating circuit
22	20	ZG 2 – Mixing circuit 1
23	20	ZG 2 – Mixing circuit 2
31	30	ZG 3 – Direct heating circuit
32	30	ZG 3 – Mixing circuit 1
33	30	ZG 3 – Mixing circuit 2
41	40	ZG 4 – Direct heating circuit
42	40	ZG 4 – Mixing circuit 1
43	40	ZG 4 – Mixing circuit 2
51	50	ZG 5 – Direct heating circuit
52	50	ZG 5 – Mixing circuit 1
53	50	ZG 5 – Mixing circuit 2

⚠ **CAUTION**

The assignment of the same bus address to more than a single SDW 20 will result in interference during data transmission and thus controller malfunction.

Mounting Instructions

Mounting Location

The SDW 20 should be mounted at a location approx. 1.2 to 1.5 meters above floor level at a neutral site representative, with regards to temperature, for all rooms. The optimal location is a partition of a room with the coolest daytime temperature.

The SDW 20 must **not** be mounted:

- at locations exposed to direct sunlight (seasonal variations should be taken into account);
- close to heat-producing appliances (e.g. televisions, refrigerators, radiators, etc.);
- on walls heated by under-plaster heating pipes or chimneys;
- on outside walls;
- in corners behind curtains or shelves (due to insufficient ventilation);
- close to doors of unheated rooms (due to the influence of low temperatures);
- on unsealed under-plaster wiring boxes.

Mounting

After removing the front panel, the SDW 20 can be mounted at the desired location using the accompanying screws and dowel pins. The cable for the bus connection must be led through the hole at the middle of the housing.

Electrical Connection

Electrical connection is effected at the two connection terminals. Recommended cable: J-Y (ST) Y 2x2x0.6 mm².

⚠ **CAUTION**

Do not reverse the polarity of terminals A and B!

After connecting the data bus cable and selecting the bus address, replace the front panel.

Common Wiring Scheme

depicts the connection of one or more SDW 20's with a central controller.
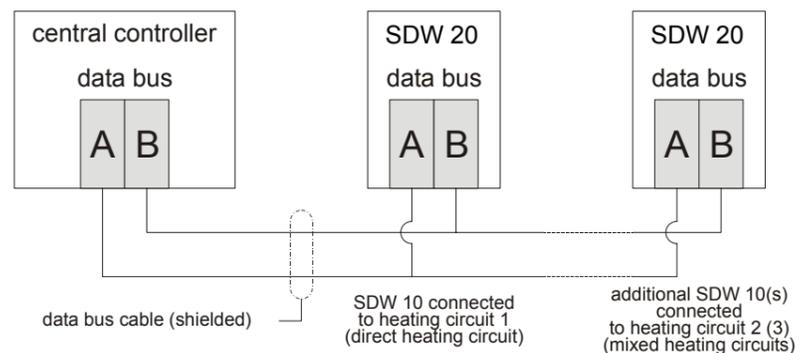
Fig. 1: Connection of SDW 20 wall modules to central controller