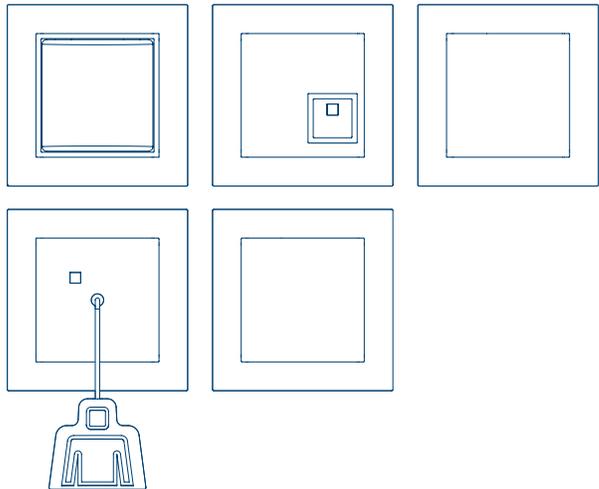**Operating and installation instructions**

Clinical installation Emergency call set

Emergency call set with frame
WAE1011WG

$C\,E$

:hager

:hager

01 Safety

01.01 Safety instructions

Electrical equipment may only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, regulations, directives and safety and accident prevention directives of the country.

Failure to comply with these installation instructions may result in damage to the device, fire or other hazards.

When installing call systems, comply with the general safety regulations for telecommunications systems according to DIN VDE 0800.

These operating instructions are an integral component of the product, and must be retained by the end user.

02 Design and layout of the device

The emergency call set is a wired call system consisting of the following devices:
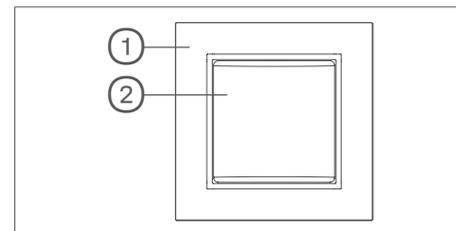
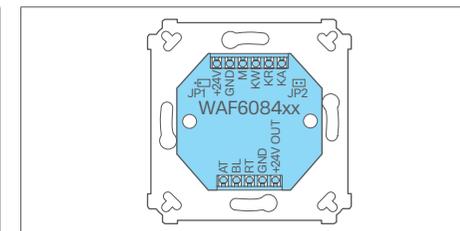## 02.01 Pilot lamp with frame (LS)

Figure 1: Pilot lamp cover with frame

Figure 2: Rear view of pilot lamp insert

Design and layout of the device:

①	Frame
②	Pilot lamp cover with intermediate ring

Connections:

AT	Shut-off push-button	
BL	Call LED red	
RT	Call push-button	
GND	Output voltage - secured	
+24V OUT	Output voltage + secured	
+24V	Input voltage +	
GND	Input voltage -	
M	Signal line to duty room unit	
KW	Potential-free relay* base contact	KR KA
KR	Relay, NC contact	
KA	Relay, NO contact	KW
JP1	Closed: Pilot lamp buzzer activated Open: Pilot lamp buzzer deactivated (factory setting)	
JP2	Closed: Call LED and buzzer continuous tone (also on duty room unit) (factory setting) Open: Call LED and buzzer flashing/pulsing (including on duty room unit)	

* Potential-free contact 24 V/1 A for connecting external devices, e.g. telephone dialler.

Tip: The use of a deep wall box is recommended for the pilot lamp.
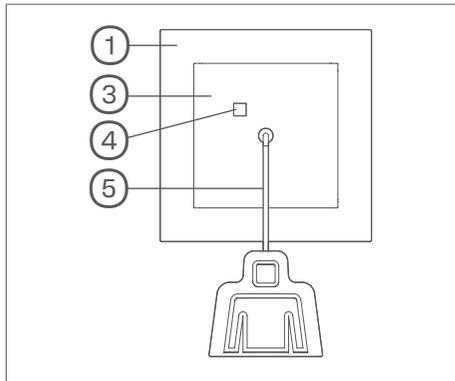
02.02 Pullcord push-button with frame (ZT)
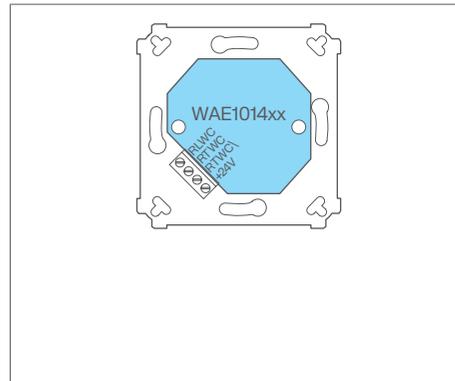

Figure 3: Pullcord push-button cover with frame

Figure 4: Rear view of pullcord push-button insert

Design and layout of the device:		Connections:	
①	Frame	+24 V	Supply voltage +
③	Centre plate	RTWC/	Call push-button OUT
④	Reassurance LED red (weak orientation light in idle state)	RTWC	Call push-button IN
⑤	Pullcord	RLWC	Call LED (pilot lamp)

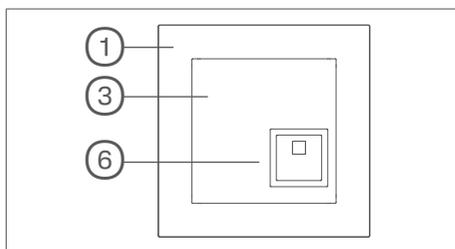## 02.03 Shut-off push-button with frame (AT)
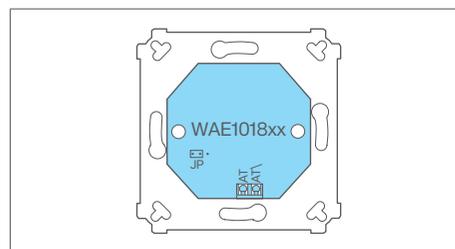

Figure 5: Shut-off push-button cover with frame

Figure 6: Rear view of shut-off push-button insert

Design and layout of the device:		Connections/settings:	
①	Frame	AT	Supply voltage +
③	Centre plate	AT\	Call push-button OUT
⑥	Green shut-off button without LED	JP	Jumper right working current (factory setting) or left quiescent current (no function)

02.04 Power supply unit with frame (NT)
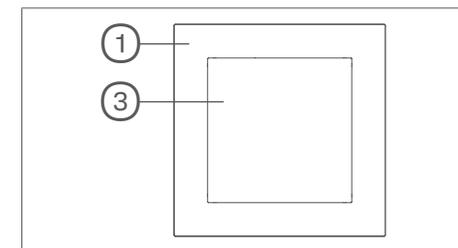
Figure 7: Power supply unit cover with frame
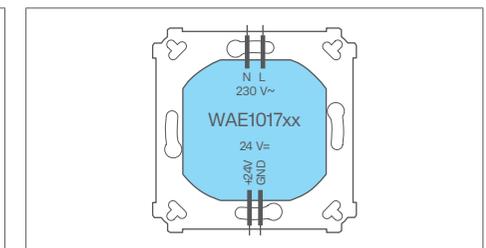
Figure 8: Rear view of power supply unit insert

Design and layout of the device:		Connections:	
①	Frame	230 V~	Primary AC voltage, input
		L	Phase IN white
		N	Neutral conductor IN white
③	Centre plate	24 V=	Secondary DC voltage, output
		+24 V	+ conductor OUT red
		GND	Ground conductor OUT black

Tip: The use of a deep wall box is recommended for the power supply unit.

02.05 Uninterruptible power supply (UPS)
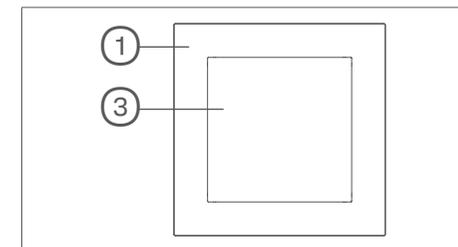
Figure 9: UPS cover with frame
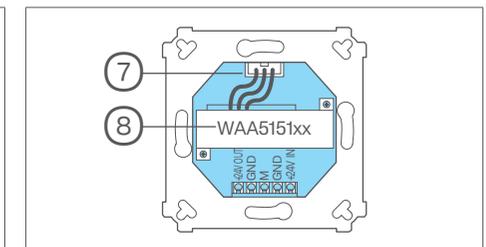
Figure 10: Rear view of UPS insert

Design and layout of the device:		Connections:	
①	Frame	+24V OUT	Output voltage +
③	Centre plate	GND	Output voltage -
⑦	Storage battery connector	M	Signal line to the pilot lamp
⑧	Storage battery	+24V IN	Input voltage +
		GND	Input voltage -

03 Supplementary products

03.01 Call push-button (RT)
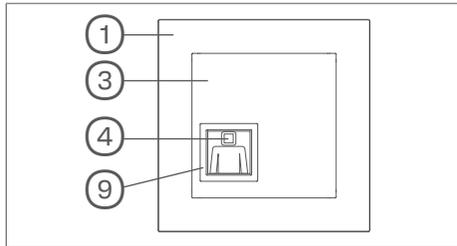
Figure 11: Call push-button cover with frame
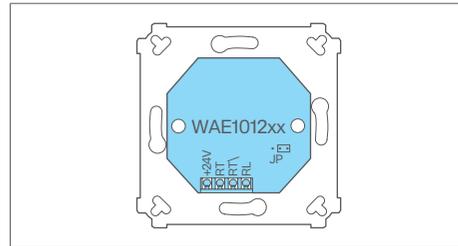
Figure 12: Rear view of call push-button insert

Design and layout of the device:		**Connections/settings:**	
①	Frame	+24 V	Supply voltage +
③	Centre plate	RT	Call push-button IN
④	Reassurance LED red (weak orientation light in idle state)	RT\	Call push-button OUT
⑨	Call button red	RL	Call LED (pilot lamp)
		JP	Jumper right: Quiescent current (contact-monitored, factory setting)
			Jumper left: Working current (not monitored)

03.02 Duty room unit (DE)
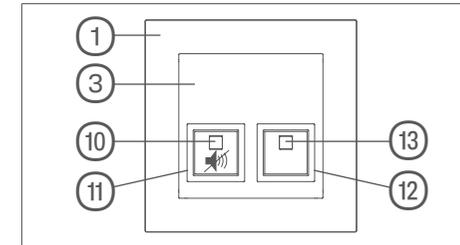
Figure 13: Duty room unit cover with frame
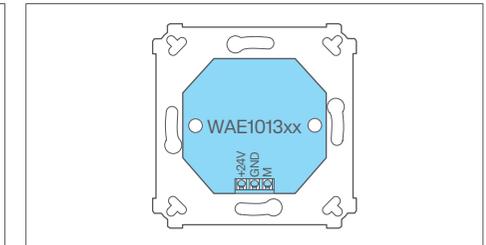
Figure 14: Rear view of duty room unit insert

Design and layout of the device:		**Connections:**	
①	Frame	+24 V	Supply voltage +
③	Centre plate	GND	Supply voltage, ground
⑩	Call LED red, lights up as long as an emergency call is pending (even when mute is activated)	M	Signal line to the pilot lamp
⑪	Mute button yellow, suppresses the duty room unit buzzer for 20 seconds		
⑫	Presence button green activation		
⑬	Presence LED green lights up when activated		

04 Function

04.01 Correct use

The emergency call set is suitable for applications in which the installation of an emergency call system according to DIN VDE 0834 is not explicitly specified, but its use is strictly recommended due to sufficient hazard potential.

This applies in particular to WCs in publicly accessible buildings such as offices, restaurants and department stores or in medical facilities such as doctors' practices and nursing homes, and also to public WCs in swimming pools. The installation of the emergency call set is recommended wherever people without visual or acoustic contact with the environment can get into emergency situations.

– Flush-mounting in wall box according to DIN 49073
– Separate cable routing of mains voltage and extra-low voltage
– Fire-safe installation in escape routes
– Emergency call system for disabled WCs in public buildings according to DIN VDE 0834

04.02 Product characteristics

– Pilot lamp buzzer ON/OFF, continuous tone/pulsing, adjustable via jumper
– Potential-free relay contact, e.g. for forwarding the emergency call to a telephone dialler (not included in the scope of delivery)
– Maintenance of a triggered call or confirmation of presence in the event of power failure and recovery
– Monitoring of call-triggering devices for wire-break, displayed by permanent red and, if set, also by continuous acoustic tone at the pilot lamp

04.03 How the system components work

Alarms can be triggered and displayed with the emergency call set in order to get help in case of an emergency. If the pullcord or call push-button is pressed during an emergency call, its reassurance LED lights up and the red pilot lamp lights up outside the room, which can also be supported by the integrated buzzer.

The emergency call set can be expanded with additional pull, call and cancel buttons or duty room units that send, cancel or receive emergency calls and can provide audible and visual alerts, e.g. in a duty room.

The buzzer tone of the duty room unit can be suppressed for approx. 20 seconds using the yellow mute button. However, the emergency call can only be cancelled via the green shut-off push-button at the location of the emergency. A triggered call is retained after a power failure.

05 Operation

05.01 Using the emergency call set

- In an emergency situation, pull on the cord of the pullcord push-button (Figure 3, 5) or press the red button of the optional call push-button (Figure 11, 9).

  The red reassurance LED (Figure 3/11, 4) lights up brightly.
  The red pilot lamp outside the room flashes, and is supported by a buzzer tone when this setting is enabled.
  Furthermore:
  If installed, the call for help is signalled in the duty room or a central unit by the red LED in the yellow button and a buzzer tone on the duty room unit.

- Press the yellow mute button in the duty room (Figure 13, 11).

  The buzzer tone of the duty room unit is suppressed for approx. 20 seconds.

> ℹ **Information**
> Presence is only marked once the green button is pressed, meaning that a buzzer tone sounds on the duty room unit in an emergency.

- When you have arrived at the location of the emergency, press the green shut-off button (Figure 5, 6).

  The emergency call is shut off.

06 Information for electricians

06.01 Installation

Installation heights in accordance with DIN VDE 0834 (call systems in hospitals, care homes and similar facilities) must be observed.

Pullcord push-button
– At least 20 cm above the maximum shower head height
– Allow the pullcord to hang a maximum of 10 cm above the ground so that it
  can be reached when lying down

Operating sections (call push-button, shut-off push-button, duty room unit)
– 0.7 to 1.5 m above the ground

Signal lights (pilot lamp)
– 1.5 to 2.2 m above the ground

> **ⓘ Information**
>
> Please comply as required with the installation height of the operating sections of 0.85 m for wheelchair users according to DIN 18024-2 **Construction of accessible buildings**.
>
> The knob at the end of the pullcord of the pullcord push-button must be secured with a double knot.

06.02 Connecting the emergency call set

> **⚠ Danger!**
>
> Risk to life from electric shock.
>
> If live parts are touched, an electric shock may result in death.
>
> • Before working on the device, disconnect all associated miniature circuit breakers, check that they are volt-free and secure them against restarting.

The basic equipment of the emergency call system must be installed in the WC and in front of the WC door.

• Select locations for installation as required.

> **ⓘ Information**
>
> Make sure that the pilot lamp is placed outside the room, is clearly visible to other people and is freely accessible to the electrician.

• Connect devices according to wiring diagram (Figure 15).
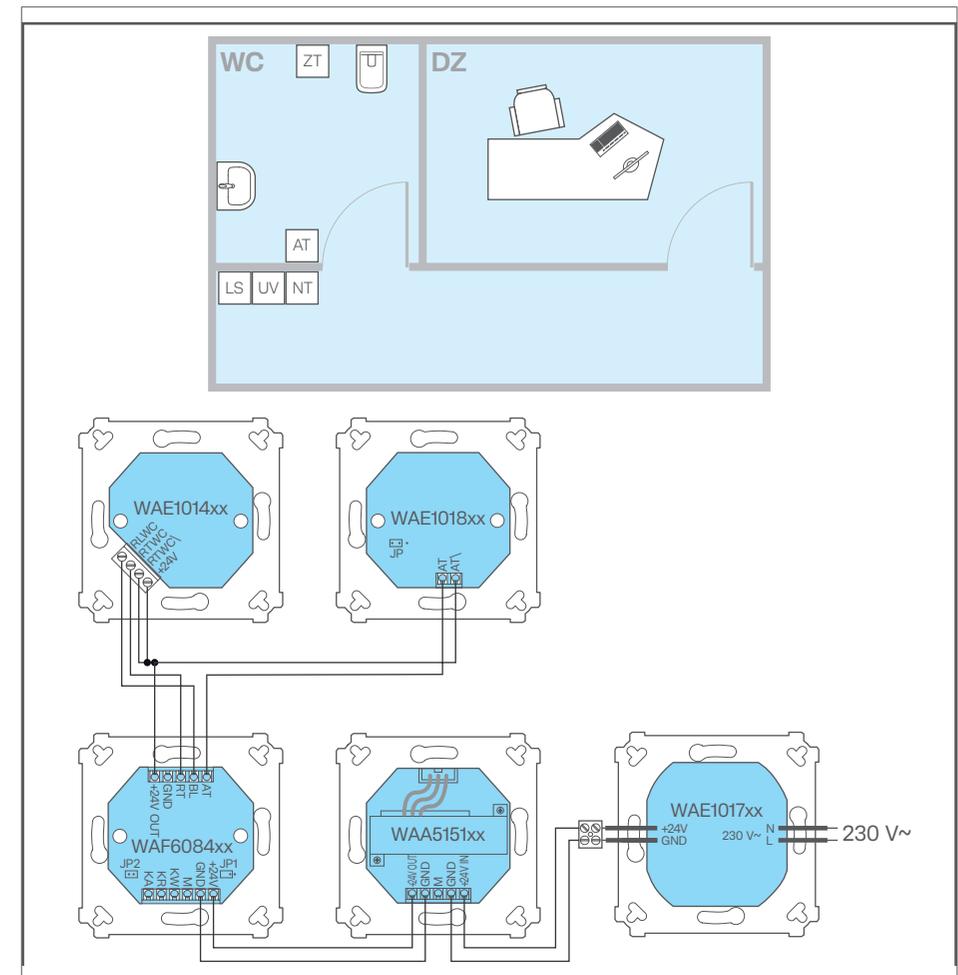• Mount devices in wall box in accordance with DIN 49073.

Figure 15: Wiring of standard WC system

- Install the power supply unit into the wall box so that the connection of the 230-V cables is kept separate from the 24-V cables. To do this, use the power supply unit for isolation (Figure 16).
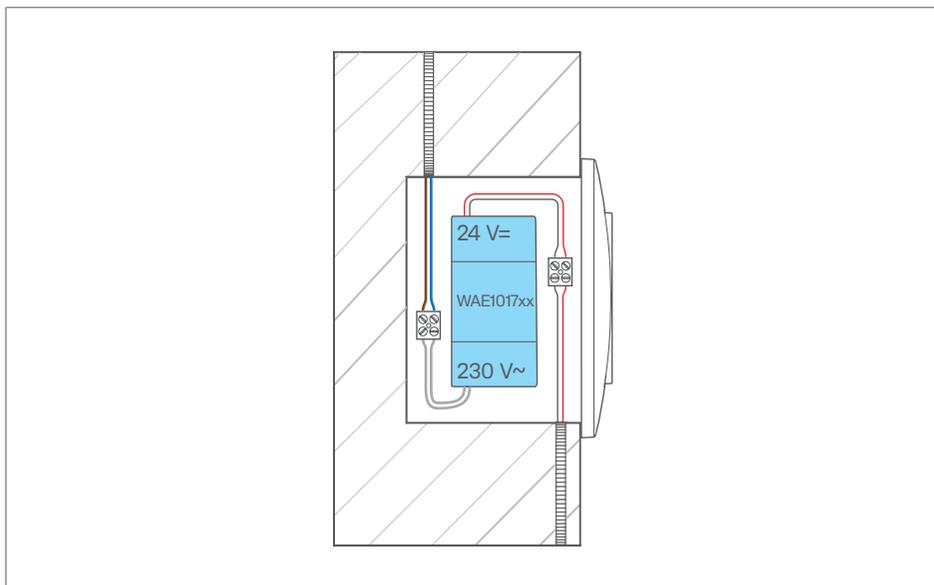

Figure 16: Isolation 230 V~ and 24 V= by means of power supply unit

06.03 Extending the emergency call set

Extension with pullcord push-buttons, call push-buttons, shut-off push-buttons and duty room unit

The installation can be supplemented with additional pullcord push-buttons or call push-buttons at a location that is at risk of an emergency, e.g. to place an emergency-triggering operating section in the shower area as well as in the toilet or wash basin area. For example, adjacent WC and shower rooms (DU) can also be connected to an emergency call system in this way. A shut-off push-button must be provided in each room.

- Connect supplementary devices according to wiring diagram (Figure 8). Multiple pullcord/call push-buttons are wired in series, multiple shut-off push-buttons are wired in parallel.

If an emergency call signal is not only to be displayed in the hallway, but also in a more distant central unit (Z) or a duty room (DZ), one or more duty room units can also be connected.

- Connect one or more duty room units (Figure 8, shown with a dotted line) in accordance with the wiring diagram.

> **ⓘ Information**
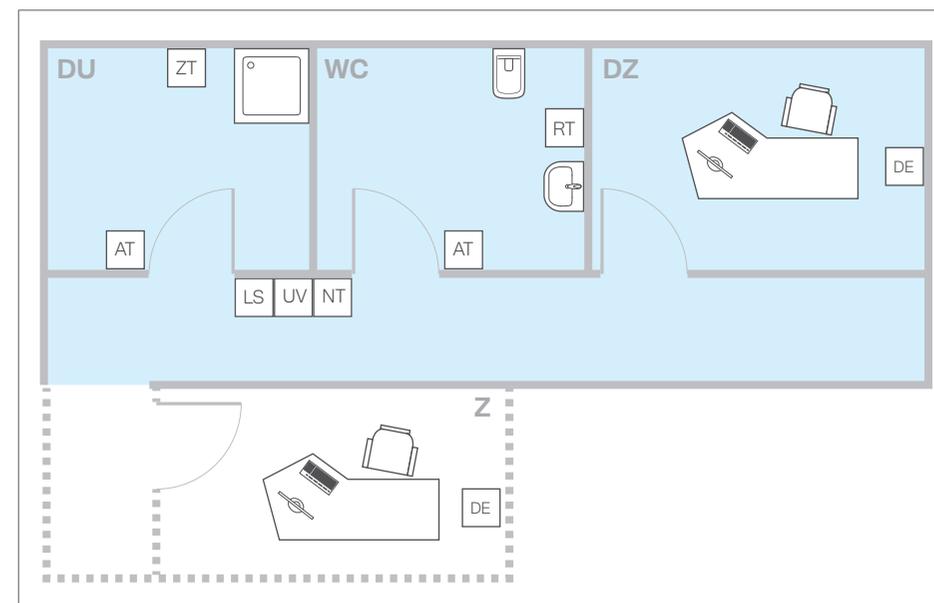> The distance between the pilot lamp and duty room unit must not exceed 500 m.

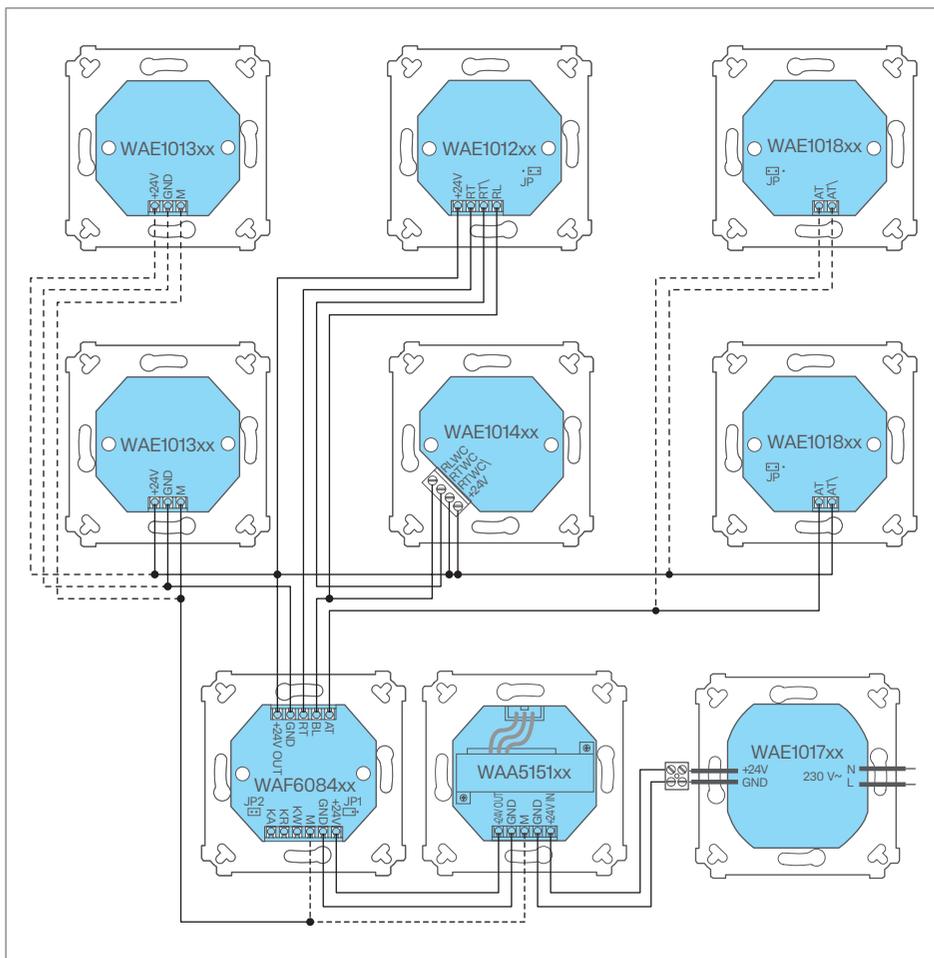Figure 17: Floor plan of emergency call set extension

Figure 18: Extension with pullcord push-button, call push-buttons, shut-off push-buttons, duty room unit

Application with uninterruptible power supply

Without a higher-level emergency power supply, the power supply unit of the emergency call set should be extended with an uninterruptible power supply (UPS) (Figure 17 and 18) so that functioning of the emergency call set is guaranteed in the event of a power failure. The uninterruptible power supply does not reach full emergency power readiness until the supply voltage has been applied for 6 hours. In the event of a mains voltage failure, the emergency call

set continues to be supplied with the necessary voltage without interruption for approx. 15–60 minutes, depending on the load. Operating statuses are signalled on connected and switched-on duty room units via the signalling contact (M):

– UPS active
   The 24-V supply voltage from the power supply unit of the emergency call set is not present.
   1 signal tone of 1 second in length, repeated approx. every 10 seconds.
– Storage battery empty, not connected or faulty
   The 24-V supply voltage from the power supply unit of the emergency call set is present.
   2 signal tones of 1 second in length, repeated approx. every 10 seconds.

⚠ **CAUTION!**

Observe the connection sequence.

The storage battery could be damaged through deep discharge.

• The 24-V input voltage must be connected before the storage battery is connected to the insert using the connector.
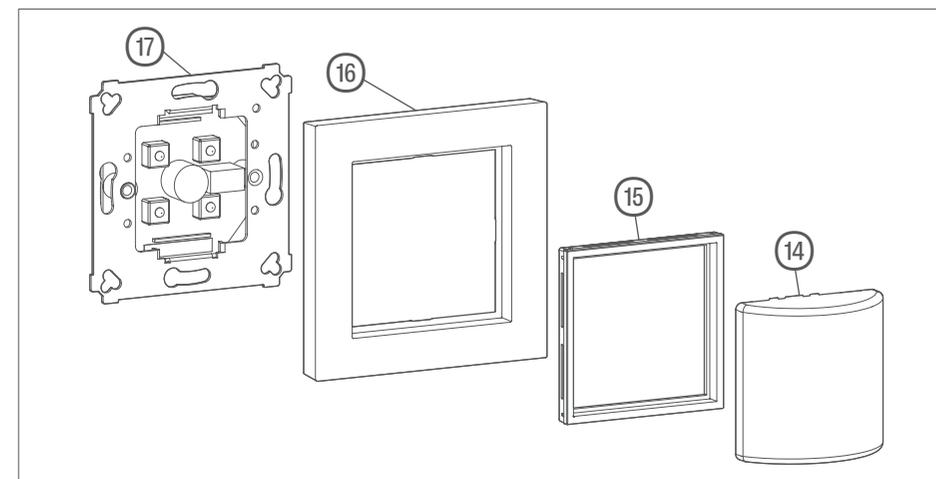
Assembling the device

Figure 19: Assembly, shown using the pilot lamp as an example

⑭ Cover, pilot lamp
⑮ Adapter ring

⑯ Frame
⑰ Pilot lamp insert
- Screw insert (Figure 19, 17) of the device on the supporting ring to the wall box. A deep wall box is recommended for the pilot lamp.
- Hold the frame and adapter ring over the supporting ring and attach the central plate (Figure 19, 14–16).

06.04 Commissioning

Setting of the call signals

On the pilot lamp board, there are two jumpers that can be used to connect the acoustic signal and change the pilot lamp and buzzer tone.

Jumper 1 (Figure 1, JP1):
– Closed: Buzzer activated
– Open: Buzzer deactivated (factory setting)

Jumper 2 (Figure 1, JP2):
– Closed: Pilot lamp/buzzer with continuous signal (factory setting)
                   – including in duty room
– Open: Flashing/pulsing pilot lamp/buzzer – including in duty room

Performing a functional test
- The value of the measured supply voltage must not fall below 21.6 V.
- The red LED on the pullcord push-button and call push-button must light up weakly (orientation light)
- Before commissioning, trigger and check all functions and displays (see Using the emergency call set).

07 Appendix

07.01 Accessories

All devices of the emergency call set can be ordered individually to supplement the installation or if a replacement is required.

Pilot lamp with frame	WAF6084xx
Pullcord push-button with frame	WAE1014xx
Shut-off push-button with frame	WAE1018xx
Power supply unit with frame	WAE1017xx
Call push-button with frame	WAE1012xx
Duty room unit with frame	WAE1013xx
Uninterruptible power supply (UPS) with frame	WAA5151xx
Replacement storage battery for UPS	WAA5152

07.02 Technical data

Operating temperature	+5 to +40°C
Storage temperature	-25 to +70°C
Distance of pilot lamp to duty room unit	max. 500 m
Supply voltage	DC 24 V=
24-V connection, single stranded	0.3 to 1.4 mm
Connecting terminals	Screw terminals
24-V cable	J-Y(St)Y, 2 x 2 x 0.6 mm / 4 x 2 x 0.6 mm

Power supply unit

Input voltage	AC 100 to 240 V~
Mains frequency	50/60 Hz
Input current	180 mA
Output voltage	DC 24 V=
Output current	max. 250 mA
Ambient temperature	-25 to +50°C
EU approvals	EN 60950, EN 60335

Current consumption of the devices

Device	Standby [mA]	Active [mA]	With active buzzer [mA]
Pilot lamp	8	48	65
Pullcord push-button	1.1	17.6	
Shut-off push-button	0	1.6	
Call push-button	3	19	
Duty room unit	5	25	57

Note

Storage batteries must be exchanged annually according to DIN VDE 0834. Use the storage battery spare part as specified under Accessories.

Immediately remove empty batteries and dispose of in an environmentally acceptable manner. Do not throw away batteries in household waste. The local authorities provide information about environmentally friendly disposal. According to statutory requirements, the end consumer is obliged to return used batteries.

Hager Controls
BP10140

67703 Saverne Cedex
France

+33 (0) 3 88 02 87 00

info@hager.com

hager.com

11.2025