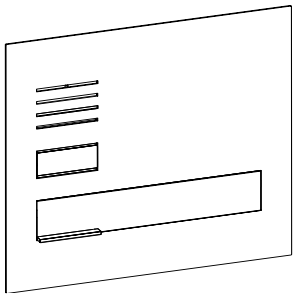
Operating and assembly instructions

ELCOM.



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2D

REL1..Y

Audio letter box front 2-wire

Safety instructions

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

When installing and laying cables, always comply with the applicable regulations and standards for SELV electrical circuits.

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

Design and layout of the device

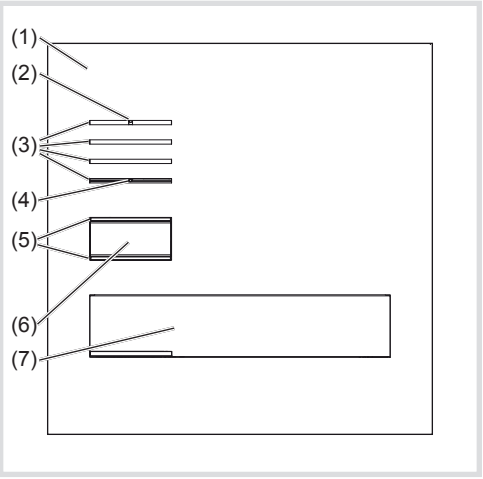


Figure 1: Front

(1) Front plate stainless steel
(2) Microphone
(3) Speaker
(4) twilight sensor for call button
(5) Cover strip for dismantling protection
(6) Button panel with call push-buttons
(7) Mail slot flap

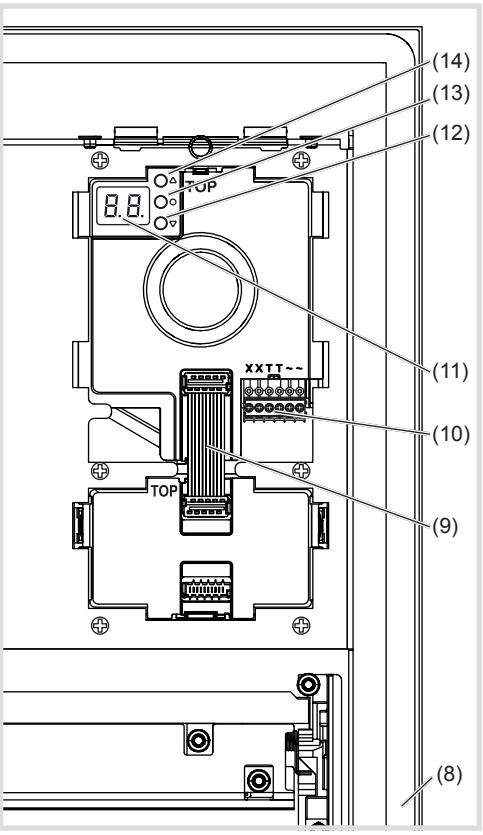


Figure 2: Back

(8) Peripheral wall sealing
(9) Connecting cable module
(10) Connection terminal block
(11) 7-segment display
(12) Adjustment button downwards ▽
(13) Selection button ○
(14) Adjustment button Upwards △

Function

The audio letter box works in the 2-wire bus system and enables communication via sound.

Correct use

- For assembly in pass-through letter boxes
- Not compatible with intercom systems and pass-through letter boxes of other manufacturers
- suitable for use exterior applications

Product characteristics

- completely pre-assembled
- protected against vandalism
- with brushed 2 mm stainless steel front plate
- Letter box according to DIN EN 13724
- Name plate can be changed from the front without any special tools
- One-man commissioning
- Call push-button with acknowledge tone (can be switched off) and tactile feedback
- Call button, light release or door release can be adjusted even without any function
- Durable, homogeneous, white LED call push-button backlighting
- Twilight controlled call push-button backlighting with adjustable switch-on brightness level
- Opening of letter box front only with enclosed opening tool
- break-proof flush-mounted call buttons
- Loudspeaker and microphone protected against sabotage
- Volume and microphone sensitivity settable
- Door release contact on 1 ... 10 s adjustable
- Door release without previous call adjustable in single door systems
- Safety rope as installation aid

Operation

Establish call (ringing)

■ Press the call push-button assigned to the desired subscriber.

If configured, the call push-button activation is confirmed by an acknowledge tone. Addressed indoor stations are called.

Switch-on lights

A call push-button is configured and labelled for lighting control (light insert supplied).

■ Press the call push-button for lighting.

If configured, the call push-button activation is confirmed by an acknowledge tone. The light contact of a line power supply is closed for the set time.

Labelling the call push-button / name plate

- Keep call push-button / name plate pressed on one side.

  On the opposite side, the lever opening (15) is accessible for a screwdriver.
- Position the screwdriver in the lever opening (15) and release the interlock (Figure 3).
- Remove cover with name plate insert.

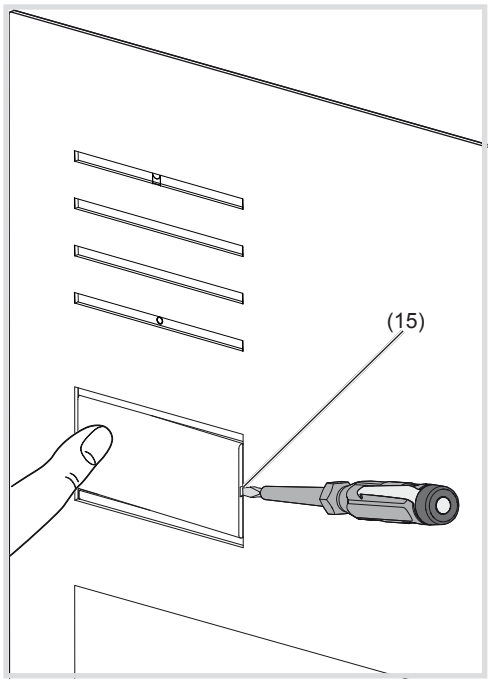


Figure 3: Removing name plate cover

(15) Lever opening

- Label name plate insert if required.
- Insert name plate insert, prepared foil or prepared labelling strip into the cover and press on cover.

ℹ Do not use any paper for the name plate insert, since moisture and UV light will damage the paper and labelling.

ℹ UV-resistant foil with laser printing is suitable for labelling as well as labelling devices for labelling strip:
- small buttons - 12 mm
- medium buttons - 30 mm

Cleaning and care

Commercially available products for stainless steel and car paintwork care containing a wax component for conservation are recommended for cleaning and care.

ℹ Do not use wire wool, wire brushes or any similar products for cleaning. This will prevent damage to the surface and accumulation of flash rust.

Information for electricians

Installation and electrical connection

DANGER!

Touching live parts in the installation environment can result in an electric shock!

An electric shock can be lethal!

Before working on the device or load, disconnect all associated circuit breakers. Cover all live parts in the area!

When installing door communication systems, comply with the general safety regulations for telecommunications systems according to VDE 0800:
- Separate routing of power and door communication cables with a minimum spacing of 10 cm
- Partitions between power and door communication cables in shared cable ducts
- Use of standard telecommunications' cables, e. g. J-Y (St) Y with 0.8 mm diameter

Bus cables

- J-Y(ST)Y or A-2Y(L)2Y
  Use wrapped wire pair.
  Recommendation: white/yellow
- CAT
  Use wrapped wire pair
  Recommendation: orange/white
- YR
  Use adjacent wires

Assembling the letter box front

The pass-through letter box is assembled (see assembly instructions of pass-through letter box). The connection cables and indoor stations are connected to the line power supply while taking the maximum cable lengths and attenuations into account (see operating instructions of the line power supply).

- Assemble the fastening elements (17) supplied with the pass-through letter box. To do this, loosen the nuts on the threaded bolts, slide the 4 elements onto the bolts over the 2 nuts and then tighten.

ℹ Use the socket wrench supplied (16). Tighten the bolts underneath through the openings at the edge of the letter box.

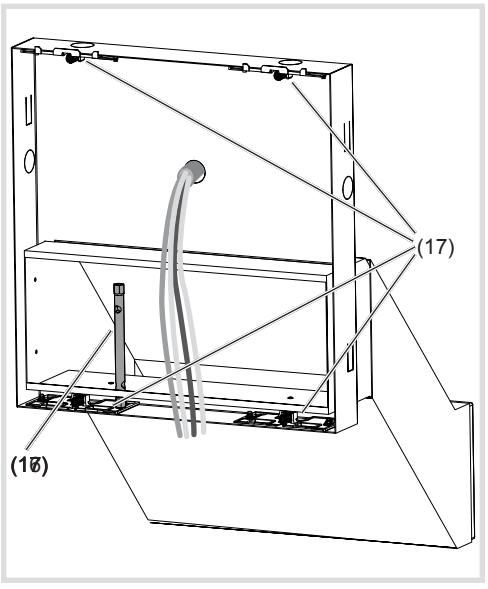


Figure 4: Assembly of the fastening elements

(16) 5.5 mm socket wrench
(17) Fastening elements

ℹ The support bracket (18) of the fastening elements must be located on the wall surface (Figure 5).

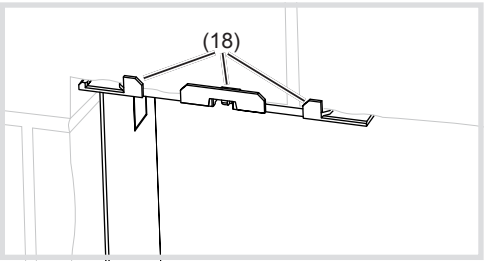


Figure 5: Installation position of fastening elements

(18) Support bracket of the fastening elements

- Insert both opening tools (19) into the mounting device of the lower fastening elements (20) on the housing (Figure 6).

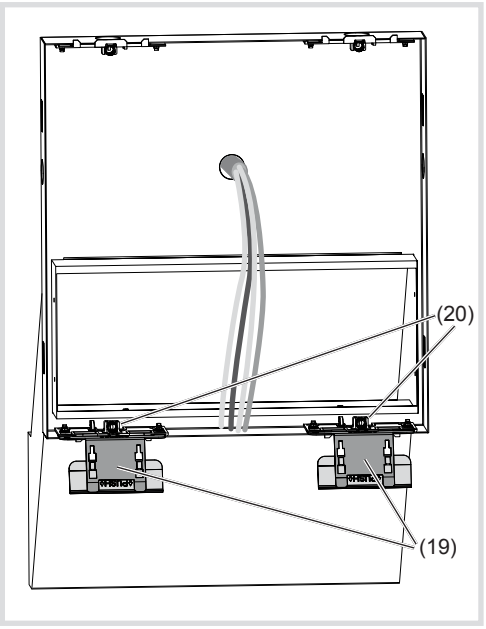


Figure 6: Inserted opening tools

(19) Opening tools
(20) Lower fastening elements

- Attach the loops of the safety rope (21) between the centre upper suspension of the letter box front and right upper fastening element (22) in the housing. Position the audio letter box front to install on the opening tools (Figure 7).

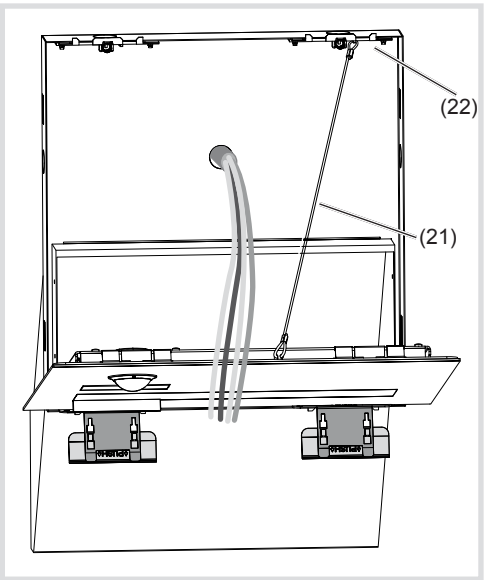


Figure 7: Installation position of audio letter box front

(21) Safety rope
(22) Upper fastening element

Connecting the letter box front

- Shorten connection cable of the letter box front as required and strip the required wires.
- Pull off connection terminal block (10) from the audio insert.
- Connect the 2-wire bus cable to the terminals **XX** of the connection terminal block (Figure 8).
- Connect door release to the terminals **TT** of the connection terminal block (figure 8 and 9) if required.

or

For manipulation-protected installation, connect the door release to the contact of the line power supply (Figure 10).

The door release lead must not be inserted through the letter box door station in order to protect against manipulation.

- For call push-button backlighting and camera heating connect 12 V~ lead from the power transformer to the terminals **~~** of the connection terminal block (Figure 8).

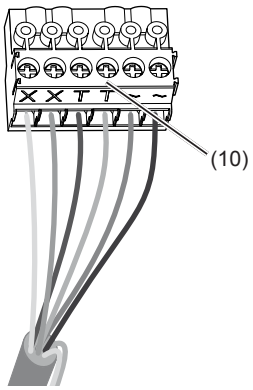


Figure 8: wired connection terminal block

- Attach connection terminal block to audio insert

Circuit symbols and elements of the circuit diagrams

Line power supply RMD

Power transformer

Door release

Audio letter box front

Wrapped wire pair for 2D video devices (recommendation: white/yellow wire pair)

Unwrapped wire pair, for e.g. for door release

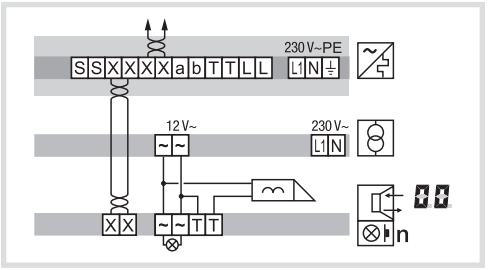


Figure 9: Connection of audio letter box front

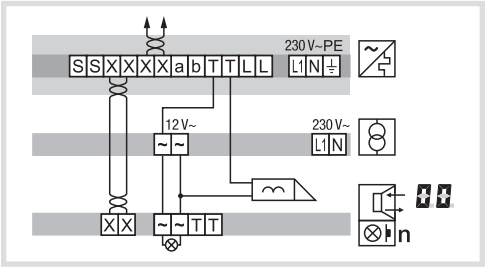


Figure 10: Connection of audio letter box front with manipulation-protected door release

Calling up and changing of system settings

On the back of the audio insert, there are 3 operating buttons and a 2-digit 7-segment display (Figure 2, 11 - 14).

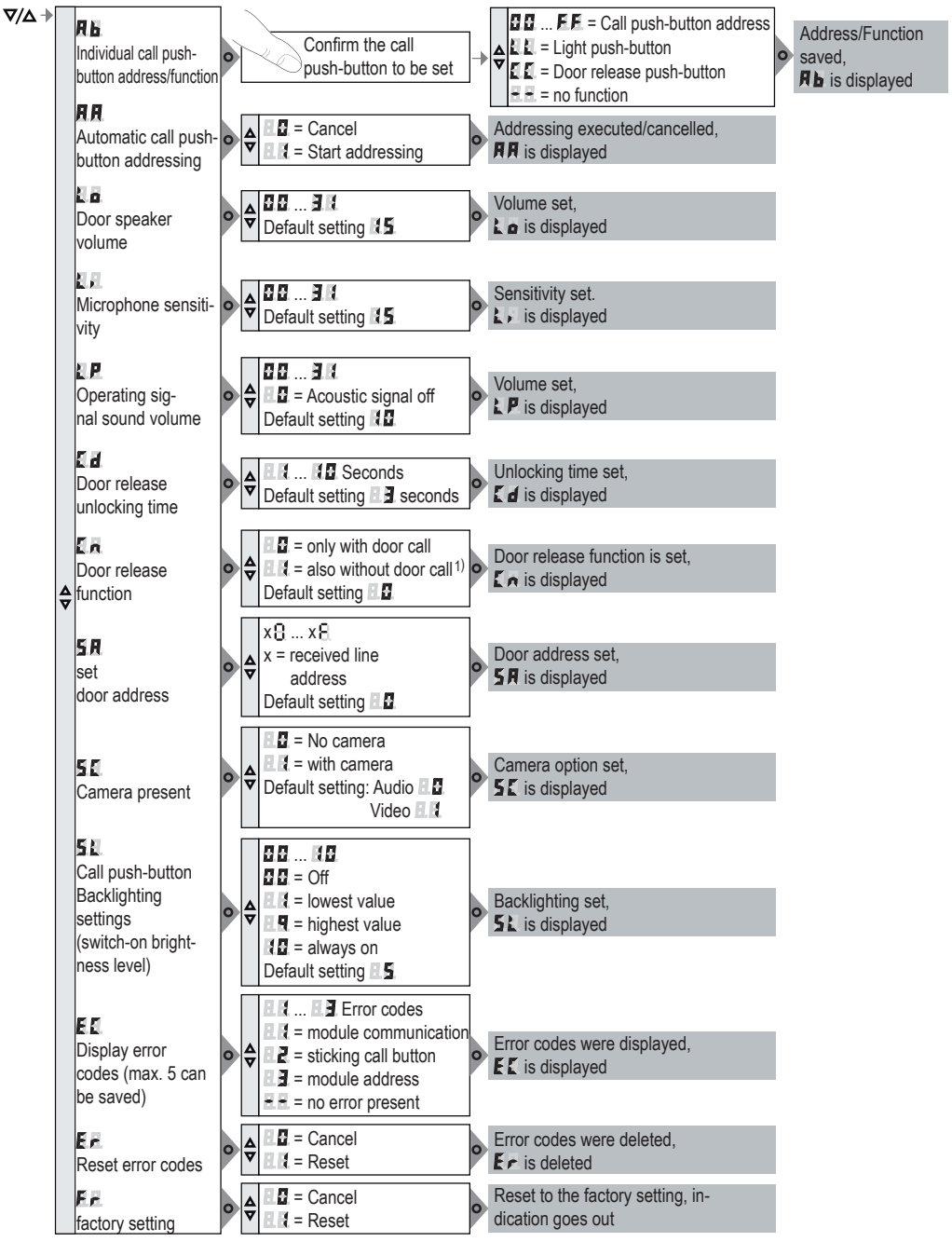
- Press ▽ / △ button.

  Device turns to setting mode. The first menu entry **Ab** is displayed.

The reading directions of the 7-segment display varies by 180° depending on which button ▽ / △ you start with.

- Select the desired menu entry with ▽ / △ (Figure 11).
- Confirm the selection with ○.

The 7-segments display goes dark if there is no actuation for 5 seconds. Settings are applied. The device returns to normal operation.



1) Door release functions without door call only possible single door systems

Figure 11: Overview of system settings

Setting the values

The menu entry to be set is confirmed and flashes alternately with the value to be set.

- Press ▽ / △ button.

  Short button-press: change the value by one step.

  Long button-press: run through values. Scrolling stops when the button is released.
- Confirm set value with ○.

  The device applies the setting and returns to the previous menu entry.

Address call push-button automatically AA

The call push-button and connector on the back are addressed by the automatic call push-button addressing as follows. The addressing takes place starting from the top downwards (Figure 12).

The menu entry AA is selected. AA flashes alternately with the entry 00 for cancel.

- With ▽ / △ select the entry 01 for automatic addressing.
- Confirm with ○.

During the addressing, the display flickers. Afterwards the display returns to the previous menu entryAA.

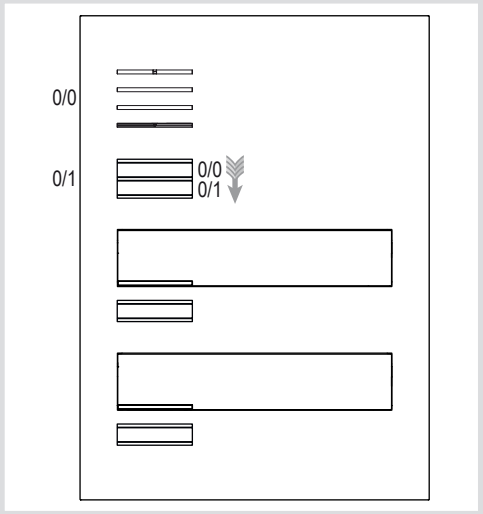


Figure 12: Module address and automatic call push-button addressing

Set individual call push-button address/ function Ab

The menu entry Ab Set individual call push-button address/function is selected and flashes.

- Confirm the call push-button to be set.

  The menu entry Ab flashes alternately with the current address/function.
- With ▽ / △ select the required address 00 ... FF or function LL for light push-button, CC for door release push-button or -- for no function.
- Confirm set address/function with ○.

  The device applies the setting and returns to the previous menu entry. Ab.

Display saved error codes EC

Audio insert and call push-button module errors that occur during operation are stored in the the error memory of the audio insert for diagnosis.

- Select menu entry EC with button ▽ / △ and confirm with ○.

  If no error code exists, -- is displayed for 2 seconds and afterwards EC is displayed again.

  If error codes are saved EC flashes followed by the module address and the error code.
- Press button ▽ / △, to call up further error codes if necessary.
- Press button ○ to return to menu entry EC.

Error code	Error cause	Counter actions
01	Communication error between audio insert and call push-button module. Once the error has occurred 3 times, the system is reset automatically and the error code is generated.	If the error persists, the call push-button module must be replaced and addressed.
02	sticking call button	Check call push-button module, and if there is a defect, replace and address.
03	Writing of the call push-button address in the call push-button module fails.	If the error persists, the call push-button module must be replaced and addressed.

Table 1: Error codes and counter actions

ⓘ The memory should only be deleted once 5 error codes have been stored, so that new error codes can be saved.

ⓘ Identical error codes are only saved once.

Inserting the audio letter box front

The system settings are complete.

- Remove opening tool from housing.
- Insert the letter box front and press down until it clicks audibly into place simultaneously at the top and bottom if possible (Figure 13).

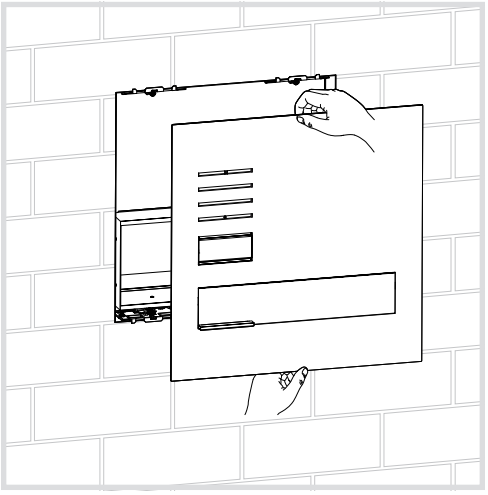


Figure 13: Inserting the letter box front

Replacing the name plate

Dismantling the call push-button module cover

During cleaning or replacement, the call push-button module cover can be dismantled from the front.

- Lever up the interlocking cover strips (5) at the top and bottom using the screwdriver and remove (Figure 14).

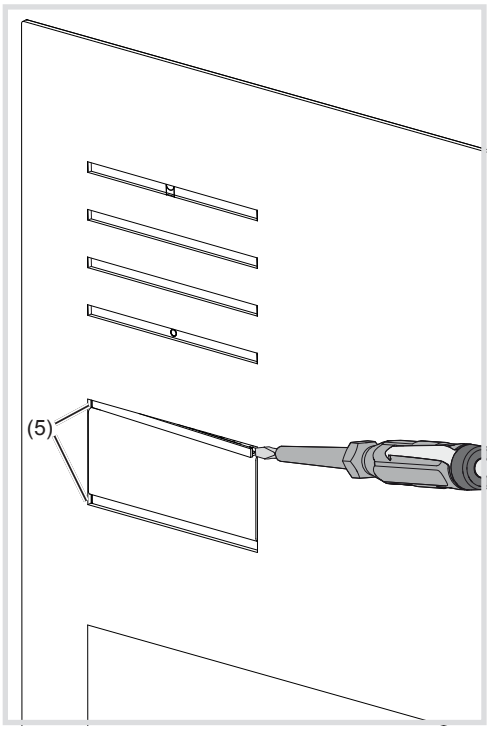


Figure 14: Removal of cover strips

- Press up the call push-button module cover in the bottom lever opening with the screwdriver and guide it forwards (15).

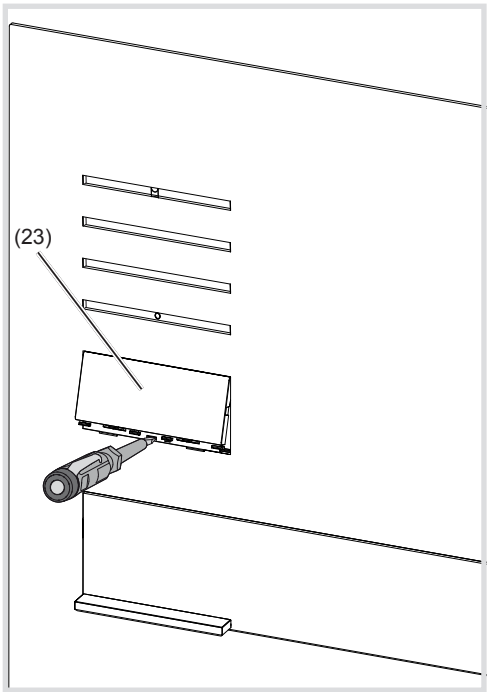


Figure 15: Dismantling the call push-button module cover

(23) Call push-button module cover

ⓘ Defective covers can only be replaced by covers with the same number of push-buttons.

- Remove the module to be replaced and install the new module in reverse order.

Opening the letter box front

- Attach opening tools (24) in accordance with Figure 16 with a spacing of 38 mm to the sides and press upwards (Figure 16).

  The letter box front will spring out of the bottom interlocking mechanism forwards and can be opened.

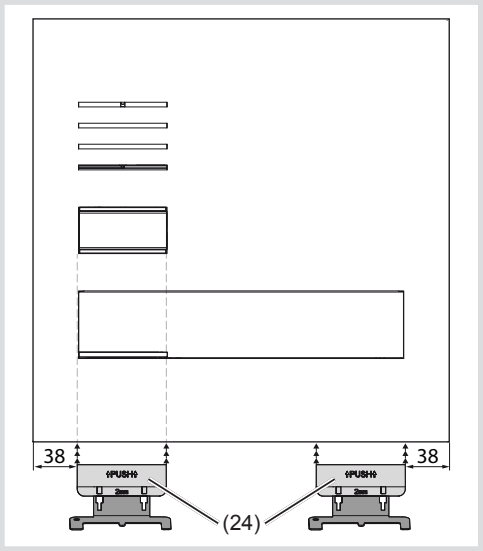


Figure 16: Opening the letter box front

(24) Opening tool

ℹ To open the letter box front 2/1, first move the opening tool from the upper (25) to the lower position (26) (Figure 17).

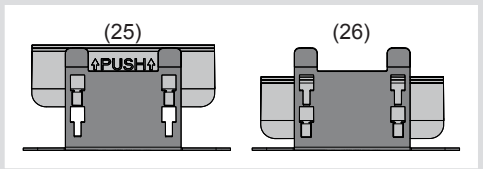


Figure 17: Moving the opening tool

(25) Opening tool for letter box front 1/1
(26) Opening tool for letter box front 2/1

Exchanging the module/insert

Letter box front is disassembled.

- Pull off connection terminal block (10) on the audio insert.
- Pull off connector of the connection cable to the module to be exchanged.
- Loosen screws (27) of the module mounting at the back (28) using a screwdriver and remove the module mounting (Figure 18).

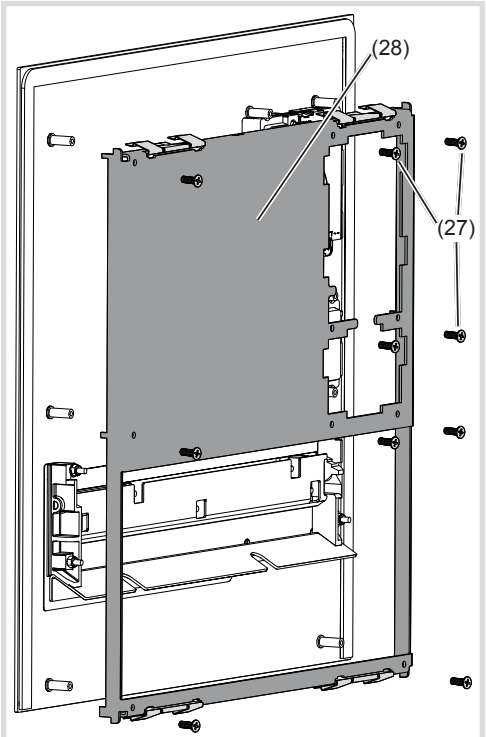


Figure 18: Dismantling module mounting

(27) Screws
(28) Module mounting

- To remove the call push-button module, unlatch the side retaining brackets (29) of the module mounting by carefully lifting up with a screwdriver (Figure 19).

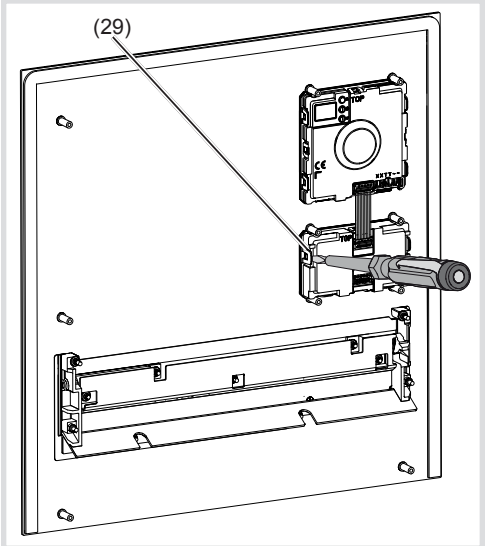


Figure 19: Unlatching the call push-button module insert

(29) Retaining brackets module mounting

After unlatching the module detaches itself from the anchoring.

- Remove the module to be replaced and install the new module in reverse order.

ℹ Automatic or manual addressing of the module is required to operate the door station.

Appendix

Technical data

Operating voltage	22 ... 24 V=
Current consumption audio insert Stand-by	5 mA
Current consumption audio insert Operation	110 mA
Current name plate lighting per call push-button module	45 mA

Menu setting	Backlighting On	Backlighting Off
0	Permanent Off	
1	≈ 750 lx	≈ 1600 lx
2	.	.
3	.	.
4	.	.
5	.	.
6	.	.
7	.	.
8	.	.
9	≈ 60 lx	≈ 110 lx
10	Permanent On	

Table 2: Switch-on brightness level name plate-lighting

Door release contact **T/T** potential-free	max. 24 V/1 A
Door release unlocking time	1 ... 10 s
Degree of protection	IP 44
Degree of protection (degree of impact resistance)	IK07
Relative humidity	0 ... 65 % (no condensation)
Operating temperature	-20 °C … +55 °C
Storage/transport temperature	-30 °C … +80 °C
Connecting terminals for conductor diameter	0.5 ... 0.8 mm
Dimensions:	
Call push-button button small	75.8 x 14.5 mm
Name plate small	72.1 x 12 mm
Call push-button button medium-seize	75.8 x 32.6 mm
Name plate medium-sized	72.1 x 30.1 mm
Width of name plate insert	max. 0.5 mm
Surface compensation	max. 17 mm
Dimensions of audio letter box front (W x H x D):	
1/1	135 x 242 x 2 mm
2/1	135 x 295.8 x 2 mm

Warranty

We reserve the right to realise technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

In case of service issues, please contact your systems‘ engineer.