

Safety instructions

Electrical equipment must 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.

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

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

Design and layout of the device

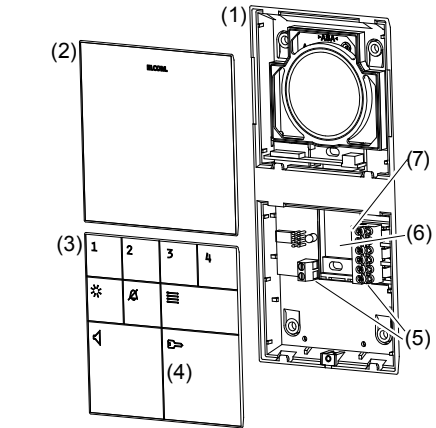


Figure 1: Design and layout of the device

- (1) Bottom part
- (2) Loudspeaker cover
- (3) Button cover
- (4) Operation buttons
- (5) Connecting terminals
- (6) Cable entry / terminal area
- (7) Video terminator to the connecting terminals XX (i2-BUS 2-wire video)

Function

The Comfort intercom can communicate with door stations and other intercoms, can unlock door openers and execute special functions. The Comfort intercom is available for installation in the i2-BUS 2-wire and 6-wire video system.

Correct use

- Visual and acoustic signalling of door, storey and internal calls
- Opening doors
- Not compatible with intercom systems of other manufacturers
- Only suitable for use in indoor areas, no drip or spray water

Product characteristics

- Connection for storey call bell push-button
- Light button, e.g. for stairwell or courtyard light (Elcom automatic light required)
- 16 ring tone melodies
- Ring tone melody can be switched off with control LED
- Half duplex operation settable temporarily and permanently
- System of up to 256 intercoms (video and audio) possible
- Internal calls possible
- Internal connection to other intercoms without their call acceptance
- Call waiting during current calls

- All buttons with LED display
- Cleaning mode
- Change to special functions lockable using DIP switches
- Call forwarding to other intercoms and to telephones using telephone interface
- Parallel call function - calls to another intercom are signalled
- Parallel switching of max. 3 video/audio intercoms
- 4 special functions can be configured
- Door opener direct function to open door without incoming call
- Portamat settable for storey call and door call
- Also suitable for installation on a wall box according to DIN 49073

Term	Definition
Door call	Bell push-button actuation at a door station
Storey call	Bell push-button actuation at an apartment door
Internal call	Call from another intercom
Portamat	Automatic door opener

Definition of terms

Operation

The intercom is operated using capacitive buttons (Figure 2). A light touch of the button panels is acknowledged with a tone. The buttons trigger different actions, according to the active state of the intercom. Active and activatable special functions are displayed via the navigation buttons LED if necessary.

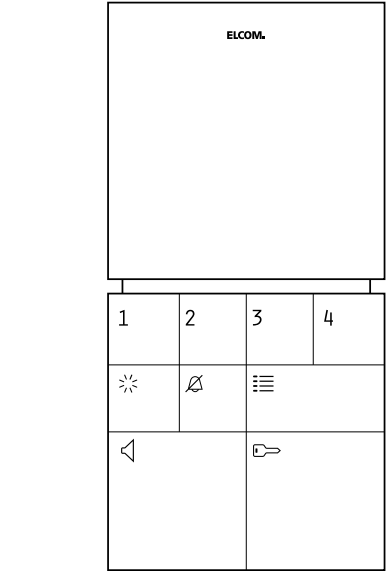


Figure 2: Button assignment, Comfort intercom

- 1 Function button 1
- 2 Function button 2
- 3 Function button 3
- 4 Function button 4
- ⬡ Light button
- ⬢ Button to turn off the ring tone melody
- ≡ Menu button
- 🔊 Speak/listen button
- 🚪 Door opener button

Establishing a connection/opening the door

A door call is signalled when the assigned bell button on the door station is pressed. The door call of a door station is signalled by the ring tone melody, the flashing LED of the 🔊 button and the illuminated LED of the 🚪 button.

📄 The LEDs signal the door call for 90 seconds. A door call is signalled.

- Press the 🚪 button to activate the door opener. The door of the calling door station is unlocked and can be pushed open. The call is terminated automatically, 10 seconds after the unlocking operation.

or:

- Press the 🔊 button to set up a call to the door station. The LED of the 🔊 button lights up. The call connection is established for a maximum of 3 minutes. Pressing the 🔊 button again terminates the connection.

- 📄 An accepted door call to another intercom terminates the call connection.
- 📄 On the door station, DIP switches can be used to set whether the door opener can be also be actuated without a door call.

Switching the ring tone melody on/off

- Press the ⬢ button to switch the ring tone melody on or off.
- When the ring tone melody is switched off, the LED of the ⬢ button flashes.

Calling up cleaning mode

Clean by wiping the surfaces with a moist, soft, lint-free cloth. In the case of stronger soiling, use a soapy household cleaner diluted with water (e.g. detergent).

- Press the ≡ button for a long time (> 3 s). The cleaning mode is activated for 60 s and the LEDs of the operation buttons flash.
- 📄 Incoming calls terminate cleaning mode.

Switching on the stairwell light

- The Elcom automatic light is installed.
- Press the ⬡ button briefly (< 3 s). The stairwell light is switched on for the set delay time.

or:

- Press the ⬡ button for a long time (> 3 s). The stairwell light is switched on continuously.
- 📄 Pressing the button again in continuous light restarts the delay time.

Audio settings

Audio settings are only possible if the house telephone has already been called.

- Press the ≡ button briefly (< 3 s). The LED of the ≡ button lights up and the LEDs of the ⬢, 🔊 and ⬡ buttons flash.
- Set the value.

Using the 🔊 button, set the ring tone volume to one of 3 levels. With button ⬢ set one of 16 ringtone melodies for the last calling source.

Using the ⬡ button, set the button volume to one of 4 levels.

- 📄 Pressing the appropriate button plays back the current setting.
- Press the ≡ button for a short time. The device applies the setting and the LEDs go dark.
- 📄 The setting mode is terminated after 60 seconds without any actuation. The LEDs go dark and the settings are saved.

Setting the microphone sensitivity

- During a call, press the ≡ button for longer than 3 s. The currently set microphone sensitivity is displayed by the appropriate function button LEDs. 1=Minimum to 4=Maximum.
- Select the sensitivity with the appropriate function button.
- Press the ≡ button for a short time. The device applies the setting and the LEDs go dark.

Configuring special functions

Up to 4 special functions can be configured. The special function can be opened directly using the configured function button.

For configuration, DIP switch 3 is set to OFF.

- Press the ≡ button briefly (< 3 s). The LED ≡ lights up and the LEDs ⬢, 🔊 and ⬡ flash.
- Press the ≡ button for a long time (> 3 s). The LEDs ≡ and 🔊 light up and the LEDs of function buttons 1-4 flash. A function button can be selected.

1. Selecting a function button

- Select the function button to be configured. The LED of the selected function button flashes.
- Confirm the selection with the ≡ button. The LEDs ⬡ and ≡ light up. The function code can be entered.

2. Setting the function code

- Set the function code by selecting/deselection the appropriate function buttons (Table 1). The flashing of the function button LEDs displays the function code.
- Confirm the function code with the ≡ button. The LEDs ⬢ and ≡ light up. The parameter for the function code can be entered.

3. Setting the parameters

- Set the parameter by selecting/deselection the appropriate function buttons (Table 1). The flashing of the function button LEDs displays the parameter.
- Confirm the parameter with the ≡ button. The LEDs ≡ and 🔊 light up and the LEDs of function buttons 1-4 flash. An additional function button can be selected.
- Select another function button and configure it as described from 1. onwards.

or:

- Exit configuration with the ≡ button.
- 📄 To avoid operating errors, set DIP switch 3 to ON after configuration.

Executing special functions

The special function is configured.

























































- Press the configured function button. The special function is executed.

But-ton	Configured special function
1	
2	
3	
4	

6D VIDEO **BVF-240 Intercom Comfort**
Art. no.: 171.240.x

2D VIDEO **BVF-540 Intercom Comfort**
Art. no.: 171.540.x

Operating and assembly instructions

Special function	Program- ming code	Function	Parameters/information	LED of the configured button
Off/Delete	   	No function/Delete function	-	-
Portamat	   	Automatic unlocking of the system's internal door opener after a door call.	Portamat Unlocking time 1-8 s Parameter LED 0-7	Lights up after portamat activation
SP Portamat		Automatic unlocking of a storey door opener using BER relay after a storey call.	SP Portamat Unlocking time 1-8 s Parameter LED 8-F	Lights up after SP portamat activation
Call forwarding	   	Door, storey and internal calls are forwarded to an intercom with an identical group address.	Subscriber address (blue rotary switch) of the other intercom.  Works only in its own line and is not transmitted to other lines via coupler.	Lights up after activation of call forwarding
Parallel call	   	Door calls to another intercom with the same group address are also signalled.	Subscriber address (blue rotary switch) of the other intercom.  Works only in its own line and is not transmitted to other lines via coupler.	Lights up after activation of parallel call
i2-relay	   	Activation of a i2-relay in function relay mode.	Relay address (grey rotary switch) of the i2-BUS relay  Works only in its own line and is not transmitted to other lines via coupler.	Lit for as long as the relay contact is closed. (Can be switched off)
SP portamat KK	   	Automatic activation of the intercom's internal relay after a storey call.	SP portamat KK unlocking time 1-8 s Parameter LED 0-7	Lights up after activation on SP portamat KK
Relay KK		Activation using configured button.	Relay KK switch-on time 1-7 s F=On/Off Parameter LED 8-F	Lit for as long as the relay contact is closed.
Internal call F	   	Allows internal calls to intercoms with the group address F.	Subscriber address (blue rotary switch) of the other intercom.  Works in the 2D video system only in its own line and is not transmitted to other lines via coupler.  Works in the i2 audio and 6D video system with multiplex couplers in the concierge line.	-
Internal call	   	Allows internal calls to intercoms with an identical group address.	Subscriber address (blue rotary switch) of the other intercom.  Works only in its own line and is not transmitted to other lines via coupler.	-
Door opener direct	   	Activates a specific door opener directly, without a previous door call.	Door address (red rotary switch) of the door station  Works only in its own line and is not transmitted to other lines via coupler.	-
Internal connection	   	Immediate voice connection to an intercom with an identical group address.	Subscriber address (blue rotary switch) of the other intercom.  No parallel operation to intercoms to be activated.  Only possible with the intercoms BFT- and BVF-210/240/510/540  Works only in its own line and is not transmitted to other lines via coupler.	-
Manual on	   	Switch-on of the configured door station without prior door call.	Door address (red rotary switch) of the first door station  Manual switch-on from the Comfort intercom is only possible if it was called once by all the door stations after configuration.  Works only in its own line and is not transmitted to other lines via coupler.	Lit during the door call of the configured door station





































































		Address parameter															
		0	1	2	3	4	5	6	7	8	9	A	W	C	D	E	F
Parameters	1																
	2																
	3																
	4																
Portamat unlocking time [s]										SP portamat unlocking time [s]							
1 2 3 4 5 6 7 8										1 2 3 4 5 6 7 8							
SP portamat KK unlocking time [s]										Relay KK switch-on time [s]							
1 2 3 4 5 6 7 8										1 2 3 4 5 6 7 On/Off							

Table 1: Special functions and parameters

 Special functions with address parameter.

 Special functions with time parameter.

 If the special functions **SD Portamat** and **Relay** are not configured, then the internal relay KK works as a call contact for external signal generators.


 Contact Elcom regarding special functions when couplers are used.

Information for electricians

Installation and electrical connection

Installing the appliance

- Select a suitable installation location on a flat surface.

 Installation recommendation: use a flush-mounted wall box

- Hold the supplied drilling template on the wall at the recommended installation height of 1.5 m, and mark the fixing holes.

- Drill at the drawn-on markings and push anchors into the drillholes.

- Insert the stripped cable into the housing (Figure 1, 6).

- Fasten the bottom part of the intercom (Figure 1, 1) to the wall with screws.

- Connect the stripped wires to the connecting terminals (Figure 1, 5) according to the supplied installation instructions.


When installing i2-BUS systems, comply with the general safety regulations for telecommunications systems according to VDE 0800:

- Separate routing of power and i2-BUS cables with a minimum spacing of 10 cm.
- Partitions between power and i2-BUS cables in shared cable ducts.
- Use of standard telecommunications' cables, e. g. J-Y (St) Y with 0.8 mm diameter.

Avoid interference!

The 13-MHz video carrier frequency used for two-wire video door communication systems can cause reciprocal interference with other devices, such as radios, routers and WLAN devices.


- Use of standard telecommunications cables, e. g. J-Y (St) Y with 0.8 mm diameter.
- It is essential to comply with the applicable regulations during planning and installation.
- Route cables, wire the devices, and in particular implement shielding and earthing measures as described below.

 The connection cable may only be located in the terminal area (Figure 1, 6).

- On an i2-BUS 2-wire video end device, connect the video terminator (Figure 1, 7) in parallel to the 2-wire cable, according to the cabling, or remove it in a pass-through device.

- On the button cover, set the group address 0-F of the black rotary encoding switch (Figure 3, 8) according to the setting on the BTE-116 button expander.

- On the button cover, set the subscriber address of the blue rotary encoding switch (Figure 3, 9) according to the door call connection on the BTE-116 button expander.

 A maximum of 3 intercoms with the identical address setting may be installed (parallel operation).

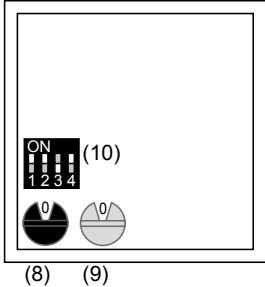


Figure 3: Rotary and DIP switch setting

- Set the DIP switch for operating modes (Figure 3, 10) according to Table 2 below.








Switches	Function	Function ( = Factory setting)
1	OFF	Full duplex speech mode
	ON	Half duplex speech mode
2	OFF	Storey call forwarding blocked
	ON	Storey call forwarding to max. 2 intercoms with the same address.
3	OFF	Configuration / change of special function possible
	ON	Configuration / change of special function blocked
4	OFF	Normal operation (no parallel call to subscriber address 0)
	ON	Parallel call to max. 2 intercoms to subscriber address 0 with an identical group address


Table 2: DIP operating mode switch, settings

 In full duplex speech mode, the change-over between listening and speaking takes place automatically according to the volume. The changeover behaviour can be optimised by adjusting the microphone sensitivity. This allows reduction of external background noise. Pressing the  button for longer than 2 seconds can switch to half duplex speech mode temporarily in the current call.

 In half duplex speech mode, the change-over between listening and speaking is made using the  button. Press the  button to speak and release it to listen. Brief actuation of the  button terminates the call. Half duplex speech mode is sensible if there is continuous background noise.

- Hook the bottoms of the button cover and loudspeaker clover (Figure 4) into the the bottom part and push them up until the locking hooks engage.

- Remove the protective film of the button and loudspeaker cover.

 To dismantle the covers, unlock the locking hooks (Figure 4) using a screwdriver.

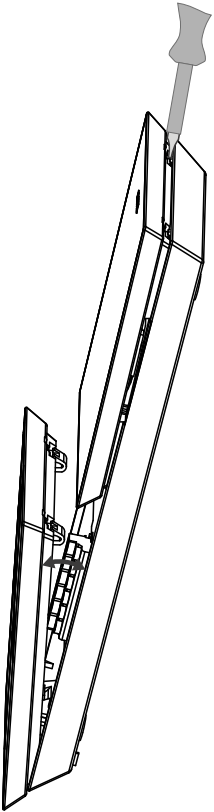


Figure 4: Assembly / Dismantling

If interference occurs in telecommunications systems, radio services or other systems during the operation of existing video door communication systems, measures for shielding and earthing the cables and for filtering must be implemented.

- For this purpose, connect all of the drain wires of the cables in a star shape using a terminal.
- Connect all drain wires to the PE rail in the distribution box.

Appendix

Technical data

BFT-240 (i2-BUS 6-wire video)

Supply voltage a/b 17-22 V

Standby current consumption a/b approx. 10 mA

BFT-540 (i2-BUS 2-wire video)

Supply voltage X/X 19-25 V

Standby current consumption X/X approx. 10 mA

Connectable terminator Z=100 Ω

BFT-240 (6-wire) and BFT-540 (2-wire)

Internal relay KK potential-free , max. 24 V/1A

Degree of protection IP 30

Relative humidity 0-65% (no condensation)

Operating temperature +5°C ... +40°C

Storage/transport temperature -20°C ... +60°C

Maximum cable length see installation instructions

Connecting terminals for conductor diameter 0.5 ... 0.8 mm

Dimensions W x H x D 96 x 196 x 21 mm

Accessories (extract)

Refer to the catalogue and system manual for more accessories.

For i2-BUS 2-wire video and i2-BUS 6-wire video

TKU-210/240 Universal desk console 230.130.0

BTE-116 Button expander 170.311.6

NTR-812 Power transformer for door opener 120.100.4

BLA-100 Automatic light 190.110.0

For i2-BUS 2-wire video

BTC-500 Camera/door loudspeaker 181.650.0

NGV-500 Video power supply 231.415.0

BSV-500 Line power supply 170.415.0

For i2-BUS 6-wire video

ELA-100 Door electronics 170.212.0

BSV-100 Line power supply 170.411.0

Cleaning information

Clean by wiping the surfaces with a moist, soft, lint-free cloth. In the case of stronger soiling, use a soapy household cleaner diluted with water (e.g. detergent).

Troubleshooting

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

If you are a certified systems' engineer, please contact the Hager Hotline.

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.