



Product information

Indoor station for hands-free talking with announcement function ISW3230

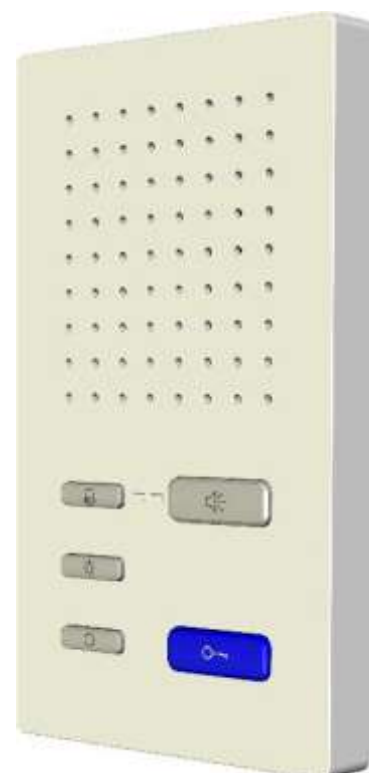


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Scope of delivery

1 x indoor station ISW3230: upper cover, lower cover
product information
instruction manual

Safety instructions

! Attention! Installation, mounting, commissioning and repair of electrical devices has to be carried out only by qualified electricians. The current standard for the installation of door communication systems must be observed!

When installing TCS:BUS systems, the general safety regulations for telecommunication systems according to VDE 0800 must be observed. Inter alia:

- separated cabling of heavy and low current lines,
- minimum distance of 10 cm for common cabling,
- use of separators between heavy and low current lines in shared cable ducts,
- use of standard telecommunication lines, e.g. J-Y (St) Y with 0.8 mm diameter,
- existing lines (modernisation) with deviating cross sections can be used in compliance with the loop resistance.

Installation – protective measures

! With suitable requirements to protect against lightning, it has to be ensured that a voltage of each 32 V DC is not to be exceeded at the connections a, b, P, E.

Inteded use

- ISW3230 are indoor stations for hands-free talking for the TCS:BUS.
- They are suitable for the operation in TCS audio systems and combined audio/video systems.
- They are suitable for surface-mount (installation via flush-mounted socket) or desktop mount with desktop accessory ZIT3030-0010.
- 3-wire technique necessary!

- !**
- The indoor station ISW3230 must not be used in call systems according to DIN VDE 0834 and EN50134.
 - According to DIN 77800, a separate safeguard for emergency call has to be installed.
 - A system equipped with an indoor station ISW3230 is not an emergency call system according to the above mentioned standards.
 - The indoor station ISW3230 must not be used in life-saving or life-sustaining systems.
 - Further the combination of system parts which fulfill the above mentioned standards is not permitted.

Max. number of ISW3230 in 3-wire operation

when using power supply and control unit	max. number ISW3230	
NBV3210, 3 lines	30	
VBVS05 (PSG02), 1 lines	10	









AS front-door station

VS power supply and control unit

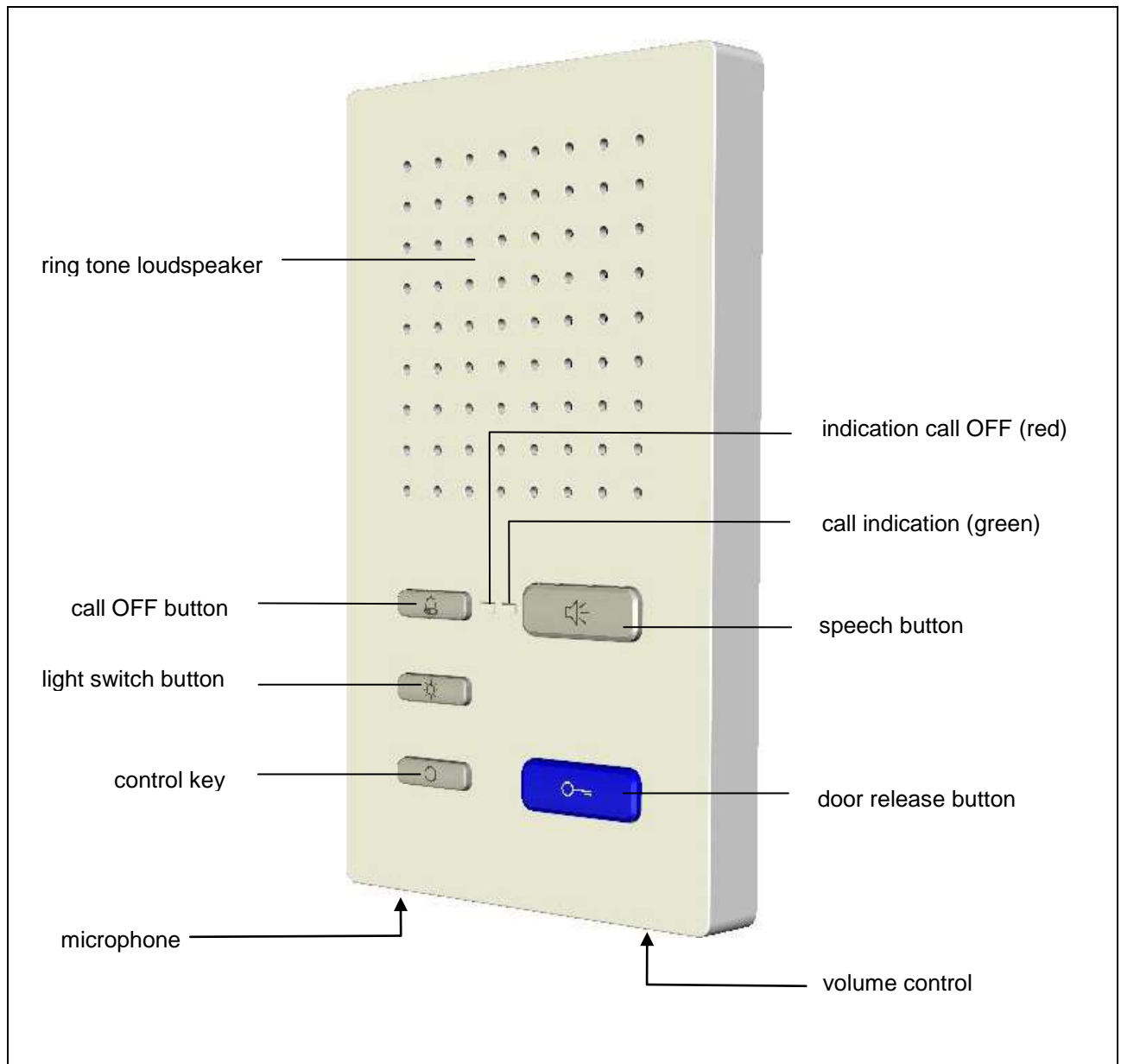
IS indoor station

Note: The number of front-door stations which can be connected is limited. Details are described in respective product information!

Indication and operating elements

	speech button	<ul style="list-style-type: none"> call acceptance, speaking activated, manually controlled duplex communication end speaking
	call OFF button	<ul style="list-style-type: none"> shortly press: ring tone stopper press for 8 sec: initiate ring tone selection
	indication call OFF (red)	<ul style="list-style-type: none"> is ON: call OFF activated Fault indication: both LEDs flash ring tone selection: both LEDs are ON
	control key	<ul style="list-style-type: none"> control function 8 ring tone selection internal call
	call indicator (green)	<ul style="list-style-type: none"> is ON: call, speaking active blinks 3 x: voice channel is busy Fault indication: both LEDs flash ring tone selection: both LEDs are ON
	light switch button	<ul style="list-style-type: none"> switch lights ring tone selection floor call (from the flat door)
	door release button	<ul style="list-style-type: none"> open the door trigger light switch function (if the light switch function is activated at the front-door station) ring tone selection door call from front.door station
	volume control for voice output and ring tone	adjustable in 8 steps: <ul style="list-style-type: none"> when voice communication is established when the handset is cradled (no voice communication)

Device overview



Technical data

supply voltage:	+24 V \pm 8 % (power supply and control unit)
housing:	plastics white
dimensions (in mm):	H 180 x W 100 x D 23
weight	185 g
acceptable ambient temperature:	-5 ...+ 40 °C
degree of protection:	IP30
input current in stand-by:	I(a) = 0.2 mA, I(P) = 0.8 mA
max. input current:	I(Pmax) = 75 mA
3-wire technique necessary!	

Short description

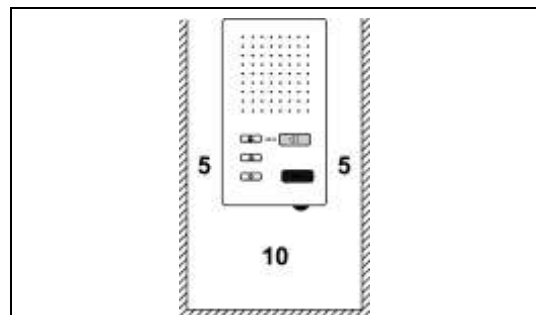
- hands-free talking device, manually controlled duplex communication can be activated
- large, detatched, blue door release buttongroße Sprechentaste
- light switch button
- control key (permanent assigned with control function 8)
- call OFF button for ring tone mute with optical indication
- optical indication of door calls with LED (green)
- optical indication of a busy line when voice communication is established LED (green)
- ring tones can be adjusted by residents, selection of 13 ring tones with improved quality
- voice volume and ring tone volume can be adjusted manually
- acoustic call distinction between 2 front-door stations (via configuration software configo™), flat door (floor door) and internal call
- a parallel call can be activated (via Service Device TCSK-01 or configo™)
- audio privacy function and automatic call cut OFF (after 2 min)
- lower cover with pinned screw terminal, can be equipped alternatively with the door telephone
- optical and acoustic fault detection
- can be functional extended due to mounting places for call relays, activation radio signal device and EnOcean radio interface
- energy-efficient due to low stand-by consumption of only 0.025 W
- automatic hands-free talking (call acceptance) after internal call can be activated
- reproduction of loud tones and announcements possible (also when the ring tone is switched off)

Installation

Installation site

The indoor station is installed in that way, that a minimum distance to walls or other obstacles is guaranteed:

- sideways 5 cm and below 10 cm.



Install the lower cover

- For placing the connection cables without any problems, a flush-mounted socket must be installed behind the device.
Position the flush-mounted socket below the cable conduit.
- Install the lower cover with three screws.



TIPP: Avoid tearing of the straps:

For fixing at the straps do not use counter-head screws rather use flat washers!

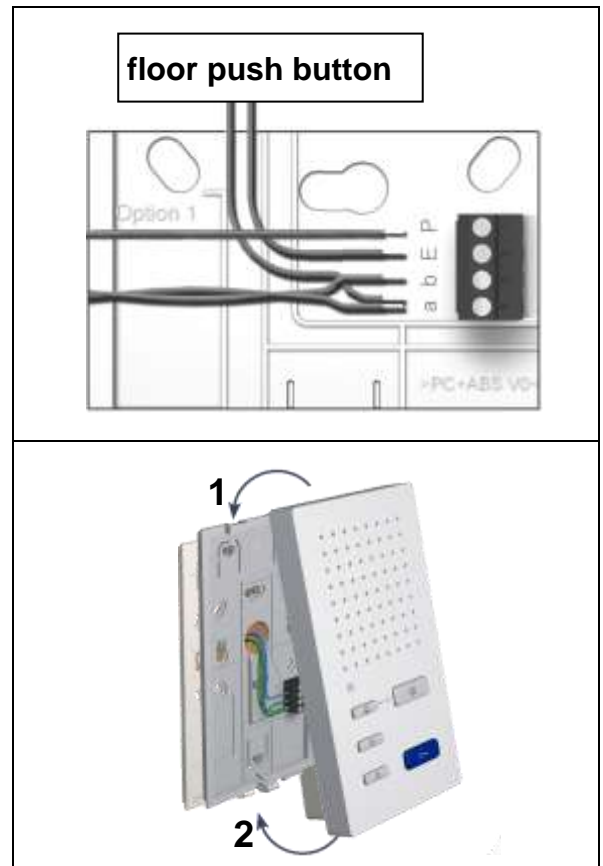
Connect the lines

- Minimize the length of the lines above the lower cover to place the lines without any problems and do not clamp the lines when snapping-on the upper cover.
- Connect the lines according to the labeling: a b E P (from the button to the top), floor push button at a – E.

Wiring example see page 9.

Snap-on the upper cover

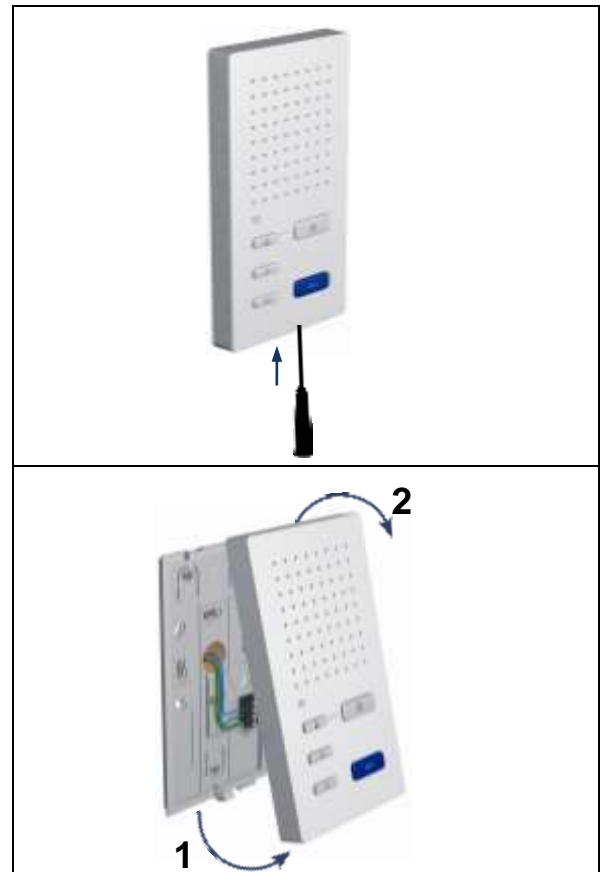
- Set on the upper cover at both adjustment increments of the lower cover (1).
- Snap-on the upper cover below with slight pressure (2)



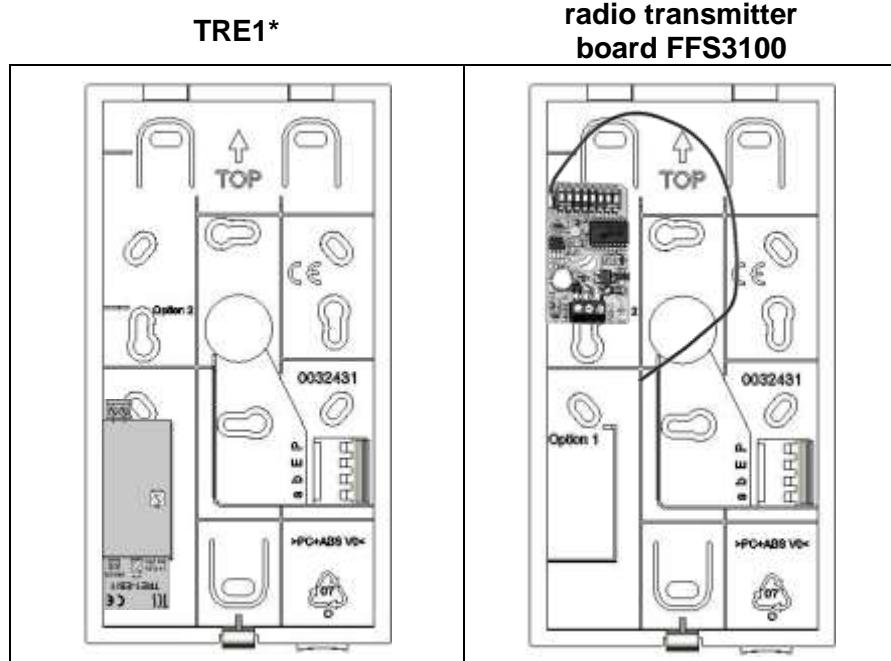
Open the device

- There is a rectangular release opening at the underside of the device. Insert a small screwdriver straight and with slight pressure into this opening.

- The upper cover can be removed at the underside (1).
- Lift the upper cover out of the two upper adjustment increments (2).



Installation of extended functions



- The extended functions (and the antenna) have to be fixed in the indoor station with adhesive pads (see also product information of each extended function).

* Connecting the lines is implemented in analog to the ISH3030 (see product information TRE1-EB/1).

Connect the lines

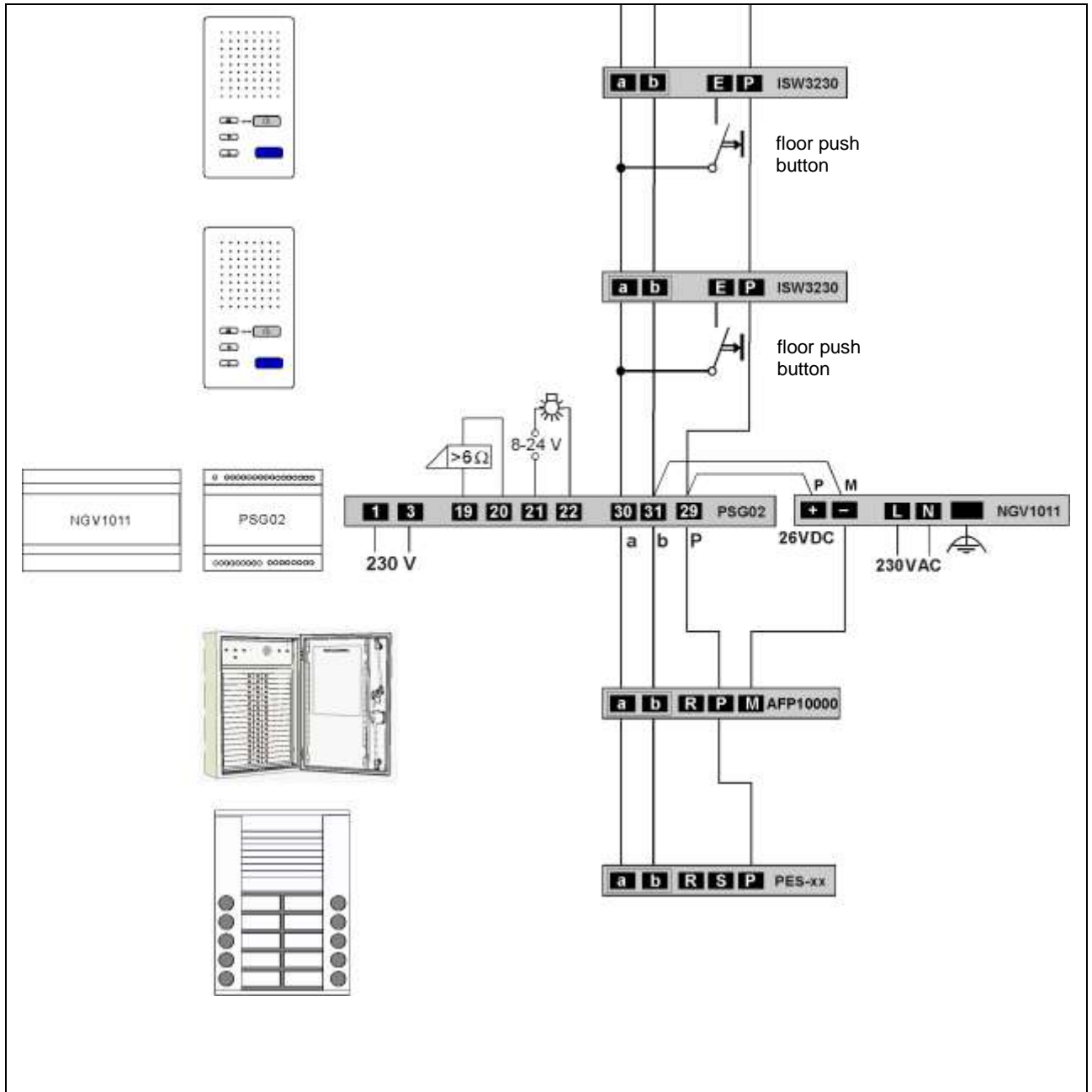
Connecting lines

acceptable cross-section (diameter)	0.08 ... 0.82 mm ² (Ø 0.32 ... 1.0 mm)
max. number of wires per terminal contact	each 2 x 0.8 mm, 3 x 0.6 mm

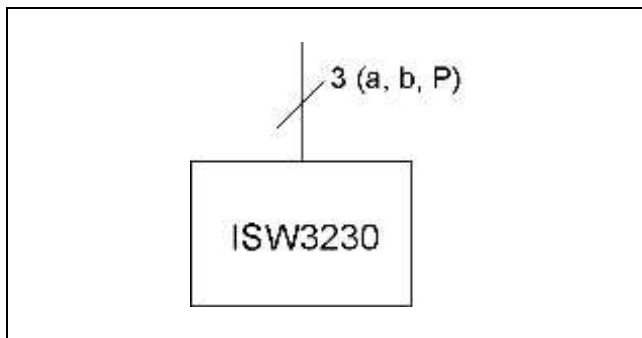
! Further wires have to be connected with auxiliary terminals!

! Use only connecting lines with identical diameter in one terminal contact.

Wiring diagram



Connection diagram 3-wire technique



Commissioning

- Install the devices of the system voltage-free and completely.
- Check the a-, b- and P-wire against each other on short-circuits.
- Switch in the mains voltage.

Note:

If the floor push button does not work, check if it is connected to the a-wire of the power supply and control unit.

Settings

Preset times

communication time	max. 2 min	
flashing period of the green LED, if the voice channel is busy after the voice communication is established	2 sec	3 x blinking
internal stand-by time, if the device is calling or is called	around 30 sec	

Ring tone selection

For 4 different incoming calls (door calls from 2 different front-door stations, floor call, internal call) different ring tones can be selected.

1	End voice communication. Press call OFF button for 8 sec. Both LEDs are ON and an acknowledgement tone sounds, the ring tone selection is activated.	
	By pressing the following buttons, a ring tone can be selected. You can choose between 13 tones.	
2a	select door ring tone of the front-door station *	Press the <i>door release button</i> until the required ring tone sounds. The ring tone selected last will be stored.
2b	select door ring tone of the floor door	Press the <i>light switch button</i> until the required ring tone sounds. The ring tone selected last will be stored.
2c	select internal ring tone	Press the <i>control key</i> until the required ring tone sounds. The ring tone selected last will be stored.
3	Shortly press the call OFF button. Or: If no button is pressed for around 8 sec, the device ends the ring tone selection automatically. Both LEDs go out and an acknowledgement tone sounds, the ring tone selection is deactivated.	

* The ring tone is identical for all front-door stations and can be selected only identically for all.
To select a second ring tone it is necessary to activate the call distinction by changing the audio AS limit.
Changing the audio AS limit is possible only with the configuration software *configo*™.

Adjust the volume

Each adjustable in 8 steps.

voice volume	Turn the ring the volume when a voice communication is established (preset ex works: volume level 4 out of 8)
ring tone volume	Turn the ring tone volume control when no voice communication is established (preset ex works: volume level 6 out of 8)

- A signal tone reproduces the adjusted volume while turning the ring tone volume control.
- If the setting is finished, the adjusted ring tone is reproduced in the adjusted volume.

Configuration options

function	manually	TCSK-01	configo™ as of version 1.6.x
ring tone volume	x	-	-
voice volume	x	-	-
select ring tone for door calls, internal calls and floor calls	x	-	x
ring tone for door call 2	-	-	x
parallel allocation	-	x	x
change audio AS limit	-	-	x
block ring tone output	x	-	-
block ring tone selection			x
unlimited communication time	-	-	x
reset to factory setting	-	-	x
allocation to 3 groups	-	-	x

Programming with the Service Device TCSK-01

- The indoor station is acting as an device for manually controlled duplex communication.
- Use the command "9" to make configurations (see *product information Service Device TCSK-01*).

search telephones	* 52 #
switch ON parallel call	* 99 # Ser.-Nr. # ParSNr #
switch OFF parallel call	* 99 # Ser.-Nr. # 0 #

Ser. No. = the serial number of the indoor station which is to be configured anew

ParSNr. = the serial number of the indoor station, to which the new configured indoor station is allocated to

Configure groups

The device can be allocated to three different groups. Thus, it is possible to realise the **announcement** e.g. on a floor and alternatively in a staircase.

The functions can be configured with the configuration software configo™:

Each indoor station can be allocated to 3 different groups. Factory setting: value of all three 0, can be changed in the range from 1 ... 63.

During an announcement or during a loud tone output the device is blocked for the user, this concerns also door calls, internal calls and floor calls.

General information on the conduit TCS audio systems

The conduit is determined by structural conditions and is only limited by its length.

- Observe when selecting the cables: the loop resistance can amount max. 20 Ω (see table).
- In compliance to the max. permitted loop resistance the cross section can be doubled, which means, that for one wire two lines can be used (illustration). The lines have to be twisted.
- When using shielded cables: connect the shielding with each other and put it one-sided on mass (b-wire) in the power supply.
- optional strand or star formed wiring

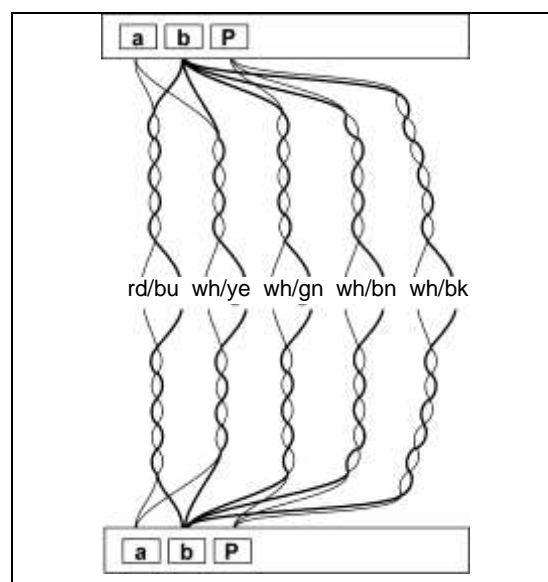
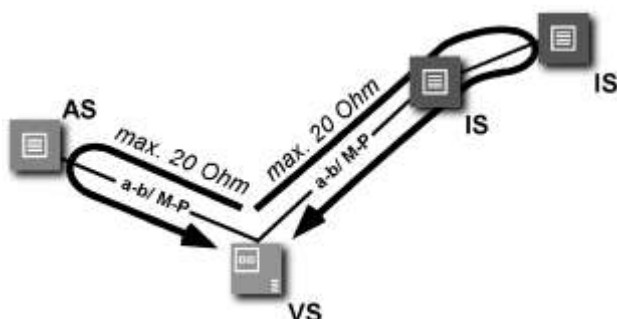


Table: loop resistances

cable length in m	cable diameter	
	0.6 mm	0.8 mm
	loop resistance in Ω	
10	1.28	0.71
20	2.55	1.43
30	3.83	2.14
40	5.10	2.86
50	6.38	3.57
60	7.65	4.29
70	8.93	5.00
80	10.20	5.71
90	11.48	6.43
100	12.76	7.14
150	19.13	10.71
200	25.51	14.29
250		17.86
300		21.43

Principle loop resistance

None of the devices (AS, IS or FE) should ever be located more than 20 Ohm away from the power supply and control unit (VS).

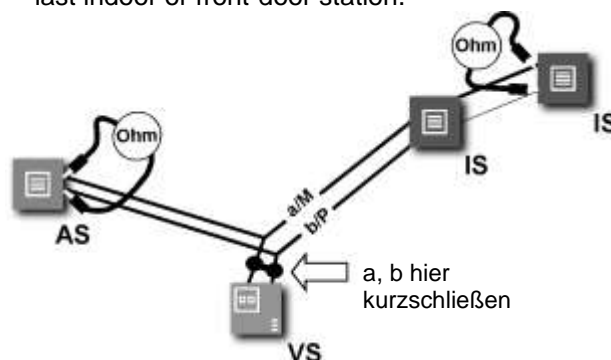


20 Ohm:

max. 160 m distance AS/IS-VS by 0.6 mm diameter
 max. 300 m distance AS/IS-VS by 0.8 mm diameter

Measurement loop resistance

- Switch off the 230 V / 50 Hz of the VS.
- Install the a-b short-circuit at VS.
- Other devices do not disturb the measurement, they can stay connected.
- Measure the resistance on a/b at the strand of the last indoor or front-door station.



AS front-door station
 VS power supply and control unit
 IS indoor station
 FE extended function

Repair

Fault detection and indication

Faults are signalled optically and acoustically: constant flashing and when pressing any button, an error tone sounds. The optical error indication stays active until the error is corrected.

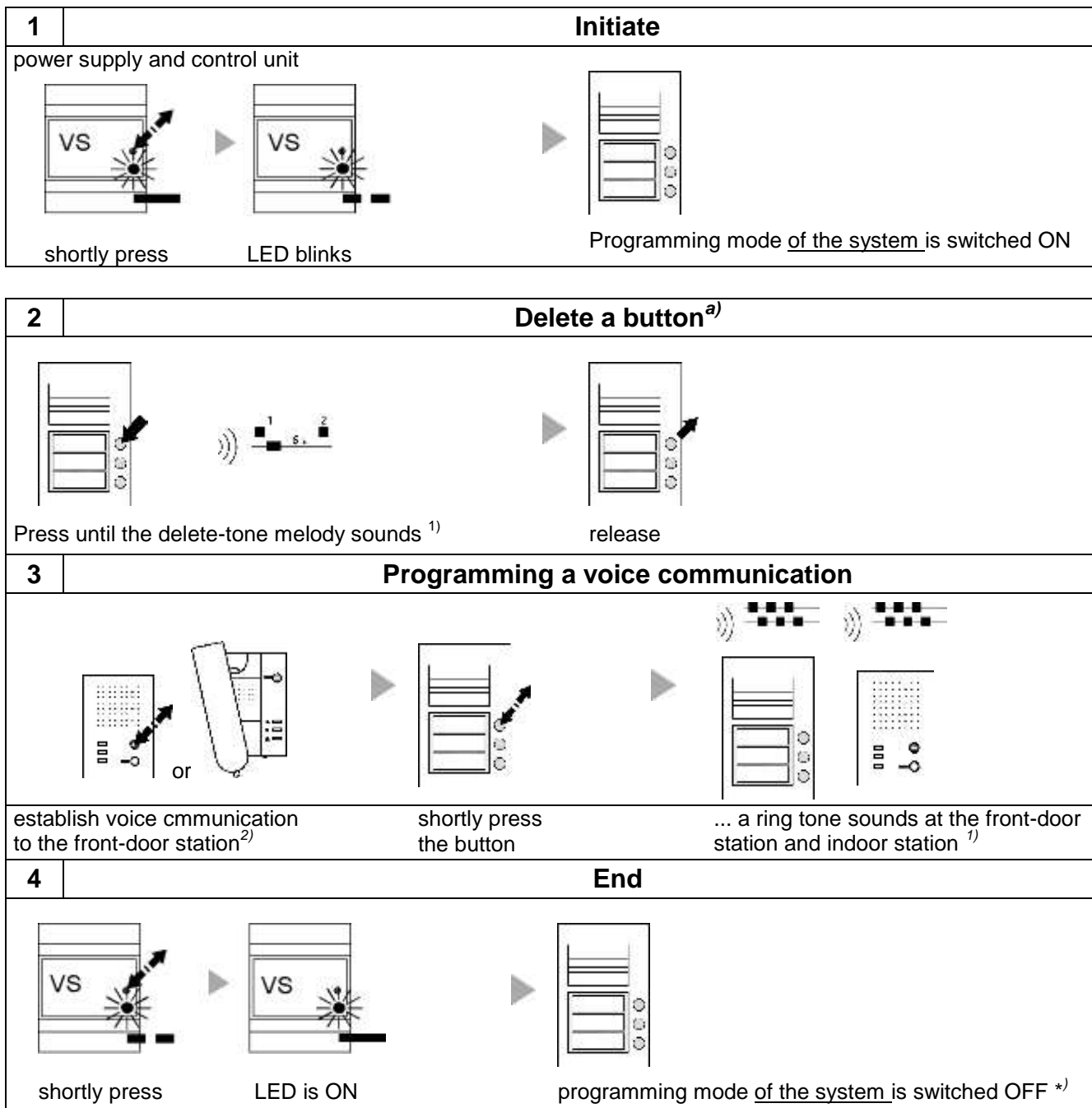
fault causes	display fault mode	fault tone	elimination
a- and P-wire are interchanged or short-circuited			change a- and P-wire or eliminate short-circuit, device is in stand-by mode again
a-wire: not connected or not supplied			connect the a-wire or check the power supply, device is in stand-by mode again
button sticks (press longer than 15 sec)	both LEDs flash		remove button at the device or loosen floor push button, device is in stand-by mode again

Remove an indoor station – programming bell buttons

Basics

- All devices at the TCS:BUS have an unique serial number.
- Programming a bell button means that the serial number of an indoor station is allocated to the bell button of a front-door station and is stored within the EEPROM of the front-door station.
- Ensure that the new indoor station is connected to the TCS:BUS and the mains voltage is switched on (the operation LED at the power supply and control unit is ON) and further, that the access to the flat is granted during the programming.

- This instructions describes the case that a serial number is allocated to the bell button without setting a programming lock. To neutralise a programming lock you need a Service Device TCSK-01 or the configuration software configo™.



a) Not necessary, if the bell buttons have not been programmed, comp. product information of the front-door station.

1) If there sounds a Progsper tone instead, the front-door station is equipped with a programming lock.
The programming lock can be deactivated only with the Service Device TCSK-01 or the configuration software configo™.

2) New developed front-door stations (as of 2009) respond to that with a positive acknowledgement, if the serial number of the indoor station was received (see product information of the front-door station).


*) for device specific indication modes of the front-door station see product information of the front-door station

Cleaning

- ! Avoid water from entering the device!
- Do not use any abrasive detergents!

Clean the device with a dry or slightly moist cloth.
Remove stronger stains with a mild plastic cleaner.

Conformity

 Declarations of conformity are available under www.tcsag.de, Downloads, trade information.

Information on disposal



The adjoining symbol shows that the device has to be disposed separately from domestic waste. The materials used are recyclable. Please do help protecting our environment and dispose the device via a collection point for electronic scrap.



Dispose the parts of the packaging in collecting tanks for cardboard and paper resp. plastics

Warranty

We offer a **simplified processing** in case of warranty for electricians.

Note our **conditions of sale and delivery** for download from www.tcsag.de, Downloads, trade information.

- Please contact us: hotline@tcsag.de.

Spare parts, accessory

short text	article number
10 x lower cover ISx3xxx-x140	E32431
10 pieces cover panel white 120 x 250 x 2 mm	E24340

Service

Please send your questions and inquiries to
hotline@tcsag.de

headquarters

TCS TürControlSysteme AG, Geschwister-Scholl-Str. 7, 39307 Genthin, Germany
E-Mail: hotline@tcsag.de, www.tcsag.de