

# KFV

## Electro-mechanical systems

GENIUS PANIC

Window systems

Door systems

Comfort systems



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## 1. Introduction

### 1.1 Validity

These instructions describe the operation of the GENIUS 2.1 PANIC multi-point lock and are valid unless revoked.

### 1.2 Target group of this documentation

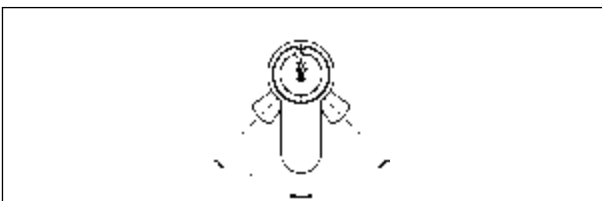
This documentation is intended for use by end users. In order to guarantee the safe use of the GENIUS 2.1 PANIC multi-point lock and to prevent malfunction or damage, please read these operating instructions carefully and completely and refer to the documentation of the manufacturer of the door. Observe the safety instructions specified in the chapter "Safety" in particular.

### 1.3 Correct use

The GENIUS 2.1 PANIC multi-point lock is a special lock for locking and unlocking doors automatically.

The GENIUS 2.1 PANIC multi-point lock can be used as a panic lock in accordance with EN 1125 (version EP or PE) or also as an emergency exit lock in accordance with EN 179 (version EP or EE).

- The GENIUS 2.1 PANIC multi-point lock is a unit consisting of a multi-point lock with the GENIUS 2.1 drive, the actuating hardware in accordance with EN 1125 (horizontal actuating bar) or EN 179 (lever handle) and the frame parts (striker plates, locking rails, bottom bushing, etc.) Only mutually tested and certified components may be installed. Any change of this combination (even a partial change) is inadmissible.
- Use the GENIUS 2.1 PANIC multi-point lock only when it is in a technically sound condition. Do not modify the unit's components in any way.
- Use the GENIUS 2.1 PANIC multi-point lock only with genuine KfV accessories.
- When used in fire escape doors or smoke protection doors, the locks must be used in combination with an uninterruptible power supply (UPS)!
- The GENIUS 2.1 PANIC multi-point lock is suitable for installation in timber, aluminium, steel and PVC entry doors for residential and public buildings.
- The GENIUS 2.1 PANIC multi-point lock may only be used:
  - with cylinder locks with free-running catches in which the catch can always be freely turned
  - with cylinder locks with rigid catch in which the catch is locked in a key withdrawal position inside the range of  $-30^\circ$  to  $+30^\circ$ .



- All assembly and electrical installation work must be carried out according to our assembly and installation instructions by a qualified electrician. Wiring the unit incorrectly can irreparably damage its electronic components.
- The GENIUS 2.1 PANIC multi-point lock can be connected to an external access control system (e.g. wireless, transponder or fingerprint scanner system) via a voltage-free contact (switching time: min. 1 second).

#### 1.3.1 Locking part

- The use of any additional devices to keep the door closed (with the exception of a door closer) is not permitted. If a door closer is installed, it must not impede operation of the door by children, the elderly or infirm.
- Only KfV frame parts with Q adjustment may be used.
- Repair of the GENIUS 2.1 PANIC multi-point lock is not permissible. If the GENIUS 2.1 PANIC multi-point lock is damaged, it must be replaced by KfV or repaired by a service agent authorised by KfV.
- The entire lock must be replaced once it reaches the service life indicated below.
- Primary sash ("active sash") – 1- and 2-sash doors: 200,000 activations of the operating handle
- GENIUS 2.1 drive: 100,000 locking and unlocking actions (motorised)

#### 1.3.2 Transport

- Always transport the door leaf in a vertical position.
- Do not carry the door leaf by the lever handle or hardware when transporting it.

#### 1.3.3 Opening/Closing/Locking

- It must be possible to open and close the door easily. A protruding latch and /or deadbolt must not impede the opening and closing of the door.
- The locking elements must always engage freely in the lock striker of the frame parts.
- If the locking elements do not retract easily, adjust the frame parts or the locking rail and the AT-piece. See „3.11 Adjustment of frame parts and AT piece“ on page 22.



If energy-carrying cables are routed in parallel to data cables (ISDN, DSL, etc.), this could lead to interference e.g. in the speed of the data transmission.

We recommend that you use the shielded KfV cable. See:

[Product catalogue KfV GENIUS and A-opener](#)

## 1.4 Improper use

- The multi-point lock is not designed to accommodate changes to its shape or seal which arise as a result of differences in temperature or changes to the building.
- Cylinder locks with rigid catch in which the catch is locked in a key withdrawal position outside the range of  $-30^{\circ}$  to  $+30^{\circ}$  may not be used. This includes cylinder locks in which the catch position can be adjusted manually so that a catch position outside of the range from  $-30^{\circ}$  to  $+30^{\circ}$  is possible to reach.
- The lock must not be used in doors for wet rooms or rooms in which the air contains aggressive or corrosive components.
- Foreign objects and/or materials which impede or prevent proper use must not be placed within the opening range, the multi-point lock or the striker plates.
- The lock must not be tampered with and/or modified.
- Locking elements must not be misused to hold the door open.
- Movable or adjustable locking pieces (e.g. deadbolt, latch) must not be painted over.

## 1.5 Maintenance and service notes

- All locking elements and frame parts must be lubricated as required and at least once annually.
- In accordance with DIN EN 179 or DIN EN 1125, testing and maintenance of the GENIUS 2.1 PANIC multi-point lock must be conducted at least once a month. The results must be documented.
- Never use cleaning agents that are aggressive or contain solvents, as these could damage the surface of the components.

## 1.6 Dimensions

All measurements are given in mm.

## 1.7 Visual indicators

### 1.7.1 Safety notes

1



### **DANGER!**

2

Inappropriate or unqualified servicing of the GENIUS 2.1 PANIC multi-point lock is inadmissible. This could lead to functional disorder/ failure.

3

In case of functional disorder/ failure of the GENIUS 2.1 PANIC multi-point lock there could be a threat to life in a panic situation, as the escape route is not able to be used.

4

Any servicing of the GENIUS 2.1 PANIC multi-point lock may only be carried out by KfV or a service agent authorised by KfV. Get in touch with your contractual partner for this.

The safety note comprises four areas:

1. The signal word indicates the severity of the hazard.
  - **DANGER!** designates an immediately threatening danger. If this is not prevented, death or severe injuries will be the consequences.
  - **WARNING!** designates a potentially threatening hazard. If this is not prevented, death or severe injuries could be the consequences.
  - **CAUTION!** designates a possibly threatening hazard. If this is not prevented, slight or minor injuries could be the consequences.
  - **NOTICE!** designates a potentially damaging situation. If this is not avoided, the unit or something in its proximity could be damaged.
2. Type and source of the hazard
3. Consequences in case of ignoring the warning
4. Action to alleviate the residual hazard

### 1.7.2 Instructions and symbols



This symbol designates hazards that could damage the product or something in the surrounding area.



This symbol indicates special features and designates facts that require increased attention.

### 1.7.3 Other types of indicators

Below is a list of symbols used in these instructions and their meanings:

- ▶ Items of text with this marking in front of them are instructions that must be followed in the specified order.
- Texts with a preceding dot are lists or enumerations.
- “ ” Items of text in quotation marks are cross-references to other chapters or sections.

## 2. Safety

Read the following safety instructions carefully before you operate the GENIUS 2.1 multi-point lock.

They are designed to keep you safe and prevent hazards, injuries and material damage.

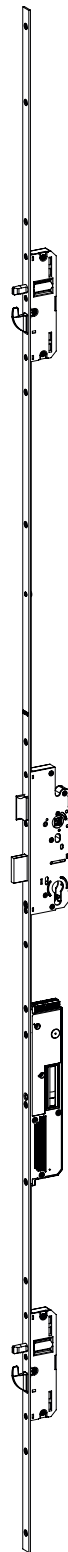
### 2.1 Electricity

Read the assembly instructions carefully before you carry out any work on the GENIUS 2.1 multi-point lock.

- All work on a 230 V AC mains power supply may only be performed by a qualified electrician.
- All work on the 230 V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g., VDE 0100) and any relevant country-specific requirements.
- All-pole safety isolation should be used when fitting the network connection cable on-site.
- Some external access control systems available on the market transmit a brief "open" signal when the operating voltage is switched on. This can mean that the GENIUS 2.1 PANIC multi-point lock will open the door following a power failure. If in doubt, please contact the system manufacturer.

## 2.2 Delivery options

GENIUS 2.1 PANIC (here with EP960)



GENIUS 2.1 PANIC is available in two versions:

### Cylinder operated lock E

The door can be completely opened against the direction of escape with the key or the GENIUS 2.1 PANIC. After using the escape function, access against the direction of escape is blocked again once the door closes and it is not possible to escape back into the building.

#### Operation:

Emergency opening in the direction of escape: Open door using the lever handle or horizontal actuating bar.

Locking part in Night mode: the door is automatically locked.

Opening against the direction of escape: unlock and open the door using the key. Turn the key to the unlocking stop.

Locking part in Day mode: there is no automatic locking. Lock the door with the key. Turn the key to the locking stop to lock the multi-point lock completely.

### Switching function B

Opening the door against the direction of escape using the lever handle is only possible after unlocking with the key or by using the motor unlocking via GENIUS. After using the escape function, access against the direction of escape is blocked again once the door closes and it is not possible to escape back into the building.

#### Operation:

- Emergency opening in the direction of escape: Open door using the lever handle or horizontal actuating bar.
- Locking part in Night mode: the door is automatically locked.
- Manual opening against the direction of escape: unlock and open the door using the key. Turn the key to the unlocking stop. Open door using the lever handle or horizontal actuating bar.
- Timed opening against the direction of escape: GENIUS via Terminal 0/1 or switch the button to Day mode. Open door using the lever handle or horizontal actuating bar.
- Locking part in Day mode: there is no automatic locking. Lock the door with the key. Turn the key to the locking stop to lock the multi-point lock completely.

**[1] Connector pin assignment**

Connections	Function
A, B, C, D	Terminal A/B = Data interface SI - RS 485 Terminal D = Output supply voltage - GND Terminal C = Output supply voltage + 24 V DC
0, 1	Mode switch, day / night mode
2, 3	Operating voltage Terminal 2 = + 24 V DC Terminal 3 = - GND
4	External unlocking signal. If +24 V DC is supplied to this terminal for $\geq 1$ sec., then an opening cycle is performed in both modes of operation
7	Feedback of the locking status

**[2] Buttons with menu LED**

All adjustments of the GENIUS 2.1 multi-point lock are made via this button. You can proceed to the individual menus and program the different functions by pressing different sequences. See „Menu - Handling“ on page 9

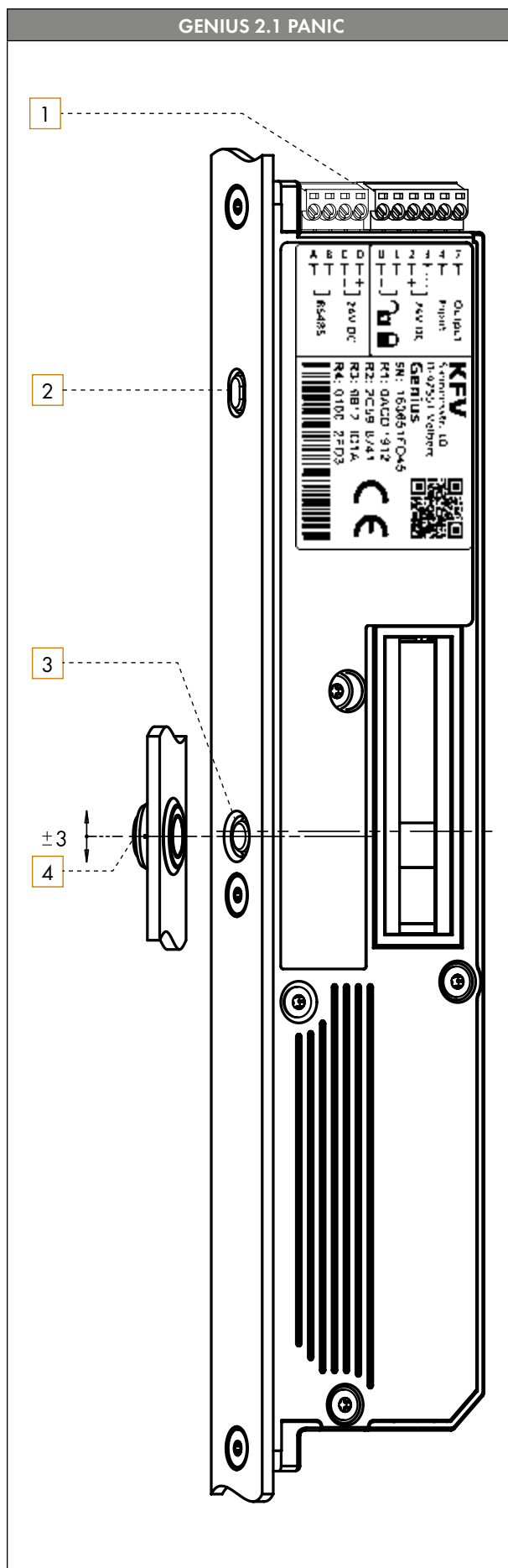
**[3] Status LED**

Indicates the current operating status. For detailed information, see: „3.9 Operating status indicator of the status LED“ on page 20.

**[4] Position of magnet**

The magnetic sensor of the GENIUS 2.1 registers whether the door is closed via the magnets on the frame side.

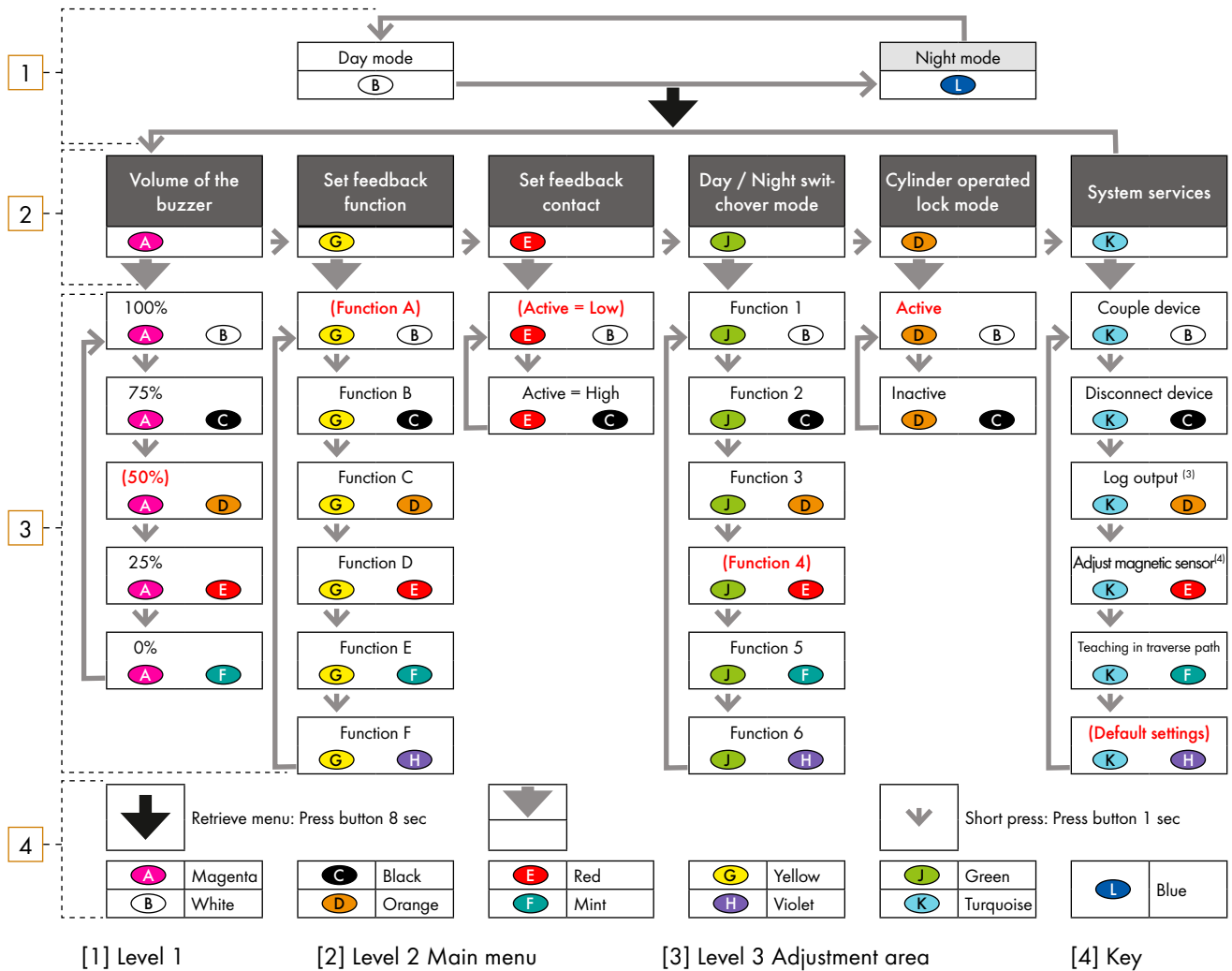
The magnet sensor must be readjusted in case of functional disorders, see: „3.8.1 Adjust magnetic sensor“ on page 19





### 3. Operation

#### 3.1 Menu - Handling

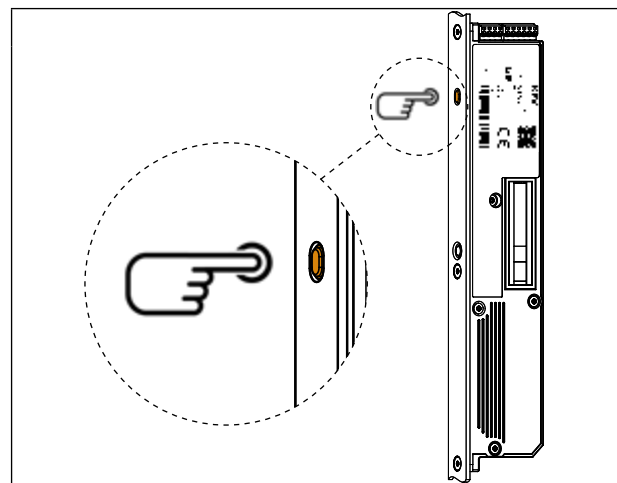


**Button with menu - LED**

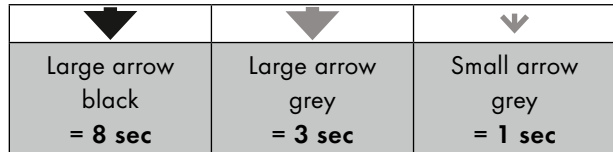
The entire operation and all adjustments are performed via the button with menu - LED.

Press the button. The individual functions are navigated and programmed via the three different holding times (1 sec, 3 sec, 8 sec).

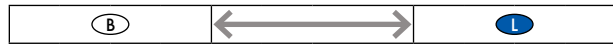
The LED of the button lights up or flashes in different colours. The single colours indicate the position of the user in the menu.



**The three holding times**  
 The three different holding times are designated by three different arrows in these instructions.



**Level 1**  
 After the door has been opened, the menu LED indicates the current status of the GENIUS 2.1 PANIC multi-point lock.  
 The LED indicates level 1 and lights up white (B) or blue (L).  
 If the menu - LED does not light up (timeout mode), the current status can be indicated by pressing the button with the menu - LED once.  
 At level 1, pressing (1 sec) switches between day operation (white) and night operation (blue).



**Change to level 2 main menu**  
 Press button (8 sec)



**Level 2 Main menu**  
 The main menu, consisting of six menu items, is on level II.  
 When you press the button (1 sec), the menu items are retrieved step by step.  
 The second colour of the LED changes with each step. Each colour designates the retrieved menu item.



**Change to Level 3 Adjustment area**  
 If the desired menu item is retrieved, the setting range of the menu item is opened by pressing the button (3 sec).



**Level 3 Adjustment area**  
**Using the example of the menu items "System services" (K):**  
 In level 3, the LED starts to flash. The colour changes between the basic colour of the selected menu item and the colour of the position in the setting range that was saved most recently.  
 This is the position of the default settings in case of commissioning. The default settings are highlighted in red in the tables. The default settings can be found in the system services menu at pos. 6 (H).  
 When you press the button (1 sec), the menu items are retrieved step by step.  
 The second colour of the flashing LED changes with each step. The second colour designates the position in the setting range. The number of positions varies according to the menu item. There are up to six items.



Pos. 1	(K) (B)	White	Couple device
Pos. 2	(K) (C)	Black	Disconnect device
Pos. 3	(K) (D)	Orange	Log output
Pos. 4	(K) (E)	Red	Adjust magnetic sensor
Pos. 5	(K) (F)	Mint	Teaching in traverse path
Pos. 6	(K) (H)	Violet	(Default settings)

**Save and finish**



When you have selected the desired setting, press "Button with menu - LED" for 3 sec. This will save the setting. You will then proceed automatically to level 1.

#### Finish without changes

Close door or wait for timeout (30 sec).  
You will then proceed automatically to level 1.

#### Standby

After 2 min without pressing the button with menu - LED, its light and the light of the status - LED will switch off.



After an opening signal, the latch is retracted and an acoustic signal sounds for up to 7 sec.  
If the door jumps or is opened, the acoustic signal switches off after 2 sec.



The GENIUS 2.1 PANIC multi-point lock emits an acoustic signal for 14 sec in case of a block move.



In case of a continuous activation of terminal 4, an acoustic signal is emitted for 7 sec and then automatically switched off.

### 3.2 Setting day / night mode manually

The GENIUS 2.1 enables use in two different modes of operation.

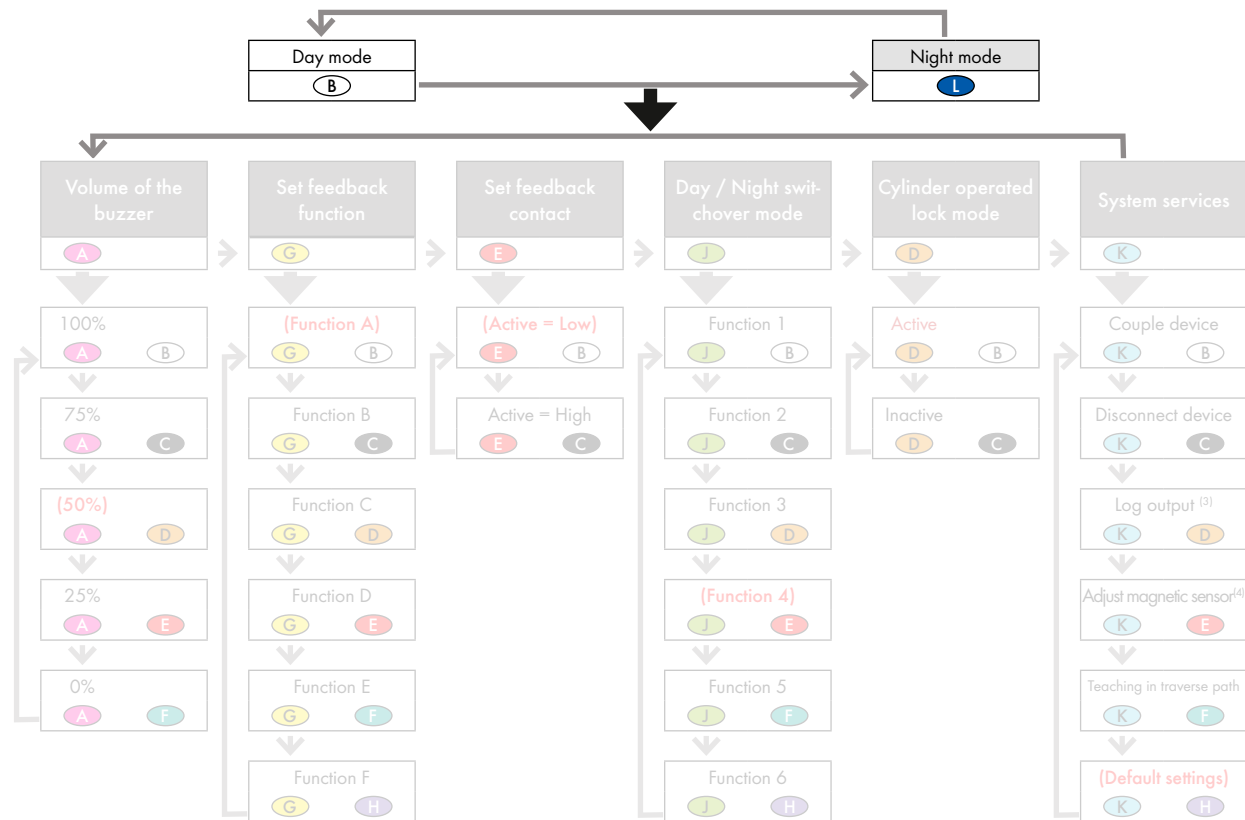
In day mode the door is only used in latch function, the door is not completely locked when it is closed.

This mode of operation is recommended for frequently used doors.

Access without authorisation is possible in combination with an optional day latch.

In night mode the door is locked automatically when it is closed. This mode of operation is recommended for frequently used doors, e. g. in detached houses and apartments.

(Alternative modes see „3.6 Day / Night switchover mode“ on page 16)



	Retrieve menu: Press button 8 sec		Long press: Press button 3 sec Short press: Press button 1 sec		Functions which are only available in the GENIUS 2.1 B								
	Magenta		Black		Red		Yellow		Green		Turquoise		Blue
	White		Orange		Mint		Violet						

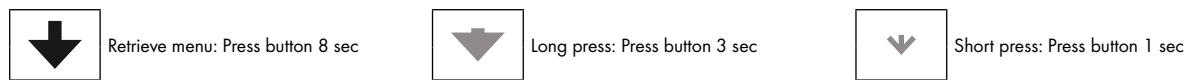
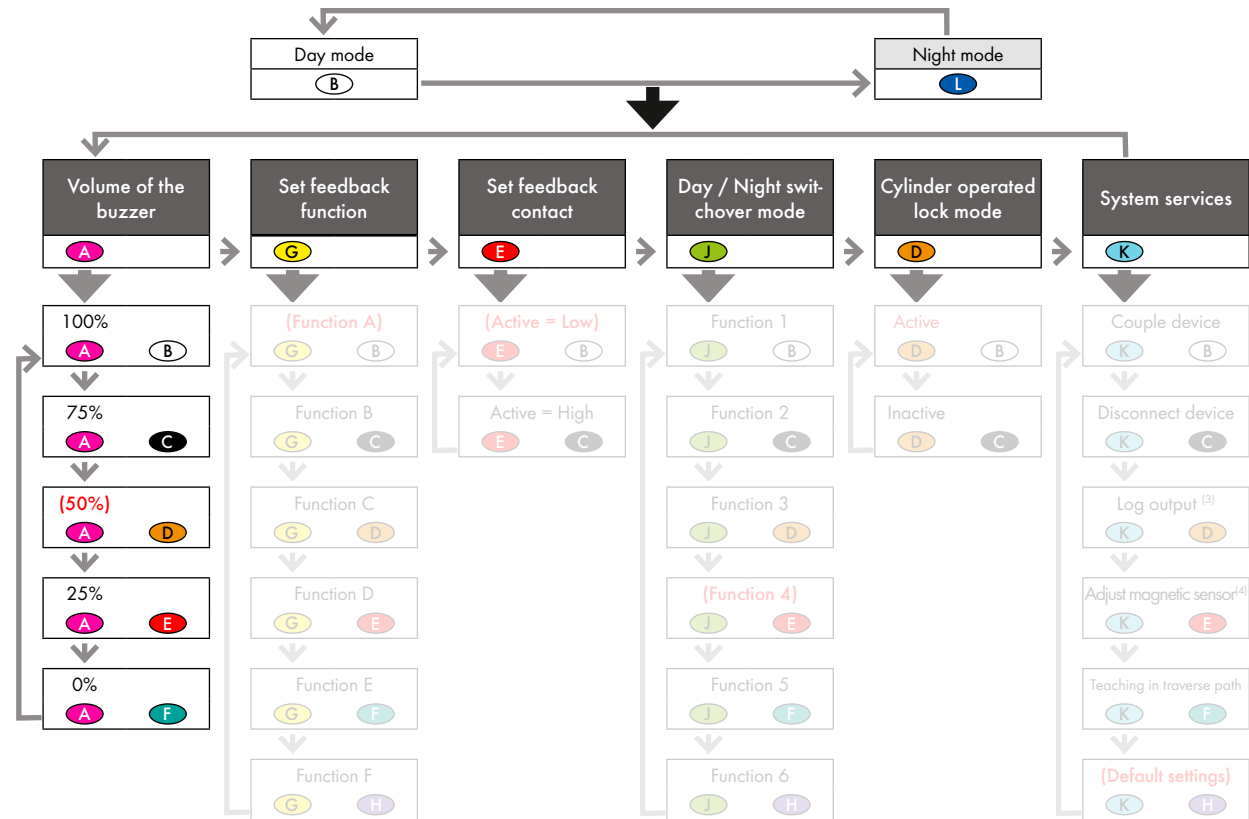
	Switchover between Day and Night mode	Press button just once
	Day mode: E opening function, door is not locked.	LED lights up white
	Night mode: Automatic locking part when door closes	LED lights up blue

### 3.3 Setting the volume of the buzzer

The buzzer delivers the acoustic feedback of the opening process or malfunction.

The volume for the feedback of the opening process is adjustable in five stages from 0 % to 100 %. Coupled to this is the sound volume of the button of the menu - LED with exception of the stage 0%. The volume remains at 25% here.


The volume for the feedback of malfunction is preset.



<b>A</b>	Magenta	<b>C</b>	Black	<b>E</b>	Red	<b>G</b>	Yellow	<b>J</b>	Green	<b>L</b>	Blue
<b>B</b>	White	<b>D</b>	Orange	<b>F</b>	Mint	<b>H</b>	Violet	<b>K</b>	Turquoise		

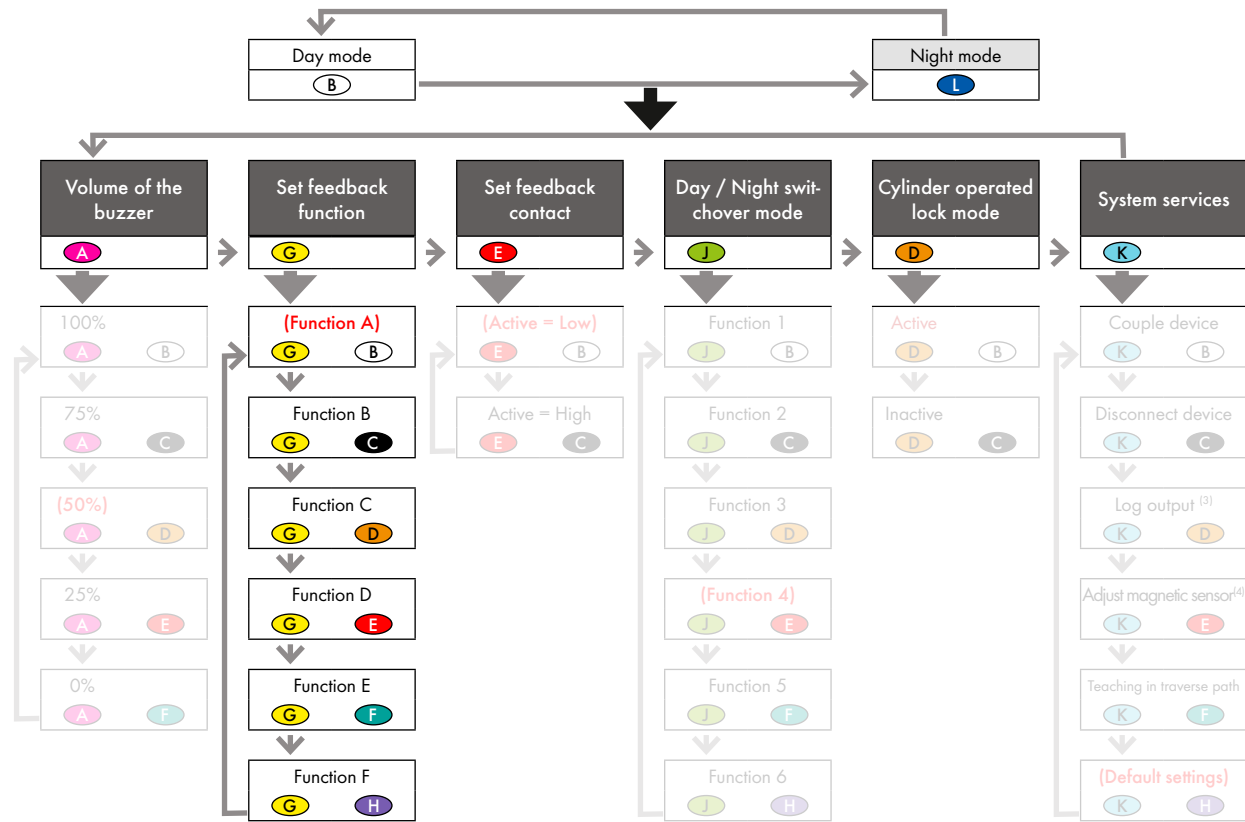
<b>A</b>	Main menu	Press button 1 x 8 sec	Save selection Press button 1 x 3 sec
<b>A</b>	Retrieve adjustment of the volume of the buzzer	Press button 1 x 3 sec	
<b>A</b> <b>B</b>	100%	Press button 1 x 1 sec	
<b>A</b> <b>C</b>	75 %	Press button 2 x 1 sec	
<b>A</b> <b>D</b>	50 %*	Press button 3 x 1 sec	
<b>A</b> <b>E</b>	25 %	Press button 4 x 1 sec	
<b>A</b> <b>F</b>	Off	Press button 5 x 1 sec	

\*Default value on delivery

 In case of a continual opening impulse at terminal 4, the tone output of the buzzer will be switched off after 7 sec at the latest.

### 3.4 Setting feedback function

The feedback contact is an output that actuates when the status of the selected function is fulfilled (e. g. door closed and locked). To achieve this, an optional 24 V DC coupling relay is interconnected between + 24 V DC and terminal 7. This makes a potential-free switching output available for third party systems (e. g. alarm systems).



⬇ Retrieve menu: Press button 8 sec     
 ⬇ Long press: Press button 3 sec     
 ⬇ Short press: Press button 1 sec

<b>A</b>	Magenta	<b>C</b>	Black	<b>E</b>	Red	<b>G</b>	Yellow	<b>J</b>	Green	<b>L</b>	Blue
<b>B</b>	White	<b>D</b>	Orange	<b>F</b>	Mint	<b>H</b>	Violet	<b>K</b>	Turquoise		

<b>A</b>	Main menu	Press button 1 x 8 sec	Save selection Press button 1 x 3 sec
<b>G</b>	Select menu item "Set feedback contact"	Press button 1 x 1 sec	
<b>G</b>	Call up menu item "Set feedback contact"	Press button 1 x 3 sec	
<b>G</b> <b>B</b>	<b>Function A*</b> : Door closed and locked: terminal 7 active	Press button 1 x 1 sec	
<b>G</b> <b>C</b>	Function B: • Daytime mode= Door closed: terminal 7 active • Night mode = Door closed and locked: terminal 7 active	Press button 2 x 1 sec	
<b>G</b> <b>D</b>	Function C: Latch drawn: terminal 7 active	Press button 3 x 1 sec	
<b>G</b> <b>E</b>	Function D • Active error: terminal changes every 0.25 s between active and inactive • Latch drawn or multi-point lock locked or released: terminal 7 changes every 0.5 sec between active and inactive • Locked: terminal 7 is inactive • Not locked: terminal 7 active	Press button 4 x 1 sec	
<b>G</b> <b>F</b>	Function E: Released: terminal 7 active	Press button 5 x 1 sec	
<b>G</b> <b>H</b>	Function F: No active error: terminal 7 active	Press button 6 x 1 sec	

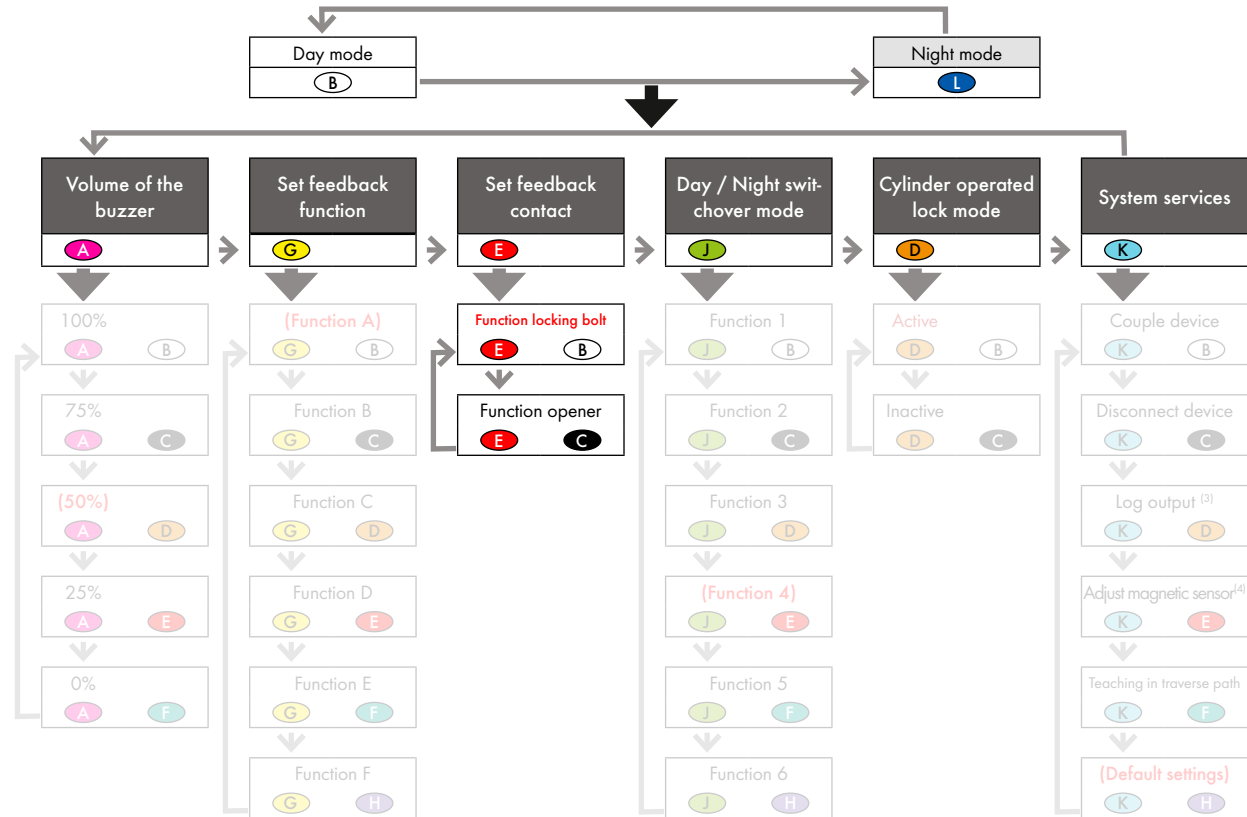
\*Default value on delivery

### 3.5 Setting feedback contact

This menu item is directed towards special application cases. A selection can be made between locking bolt and opener function.

If „Function locking bolt“ is selected, this will switch on the coupling relay when the status of the selected function is fulfilled (e. g. door closed and locked). This setting is appropriate for the majority of feedback application cases.

If „Function opener“ is selected, this will switch on the coupling relay when the status of the selected function is fulfilled (e. g. door closed and locked). This setting is appropriate for the feedback to an alarm system. The coupling relay status will be retained if the supply voltage should fail in this setting.



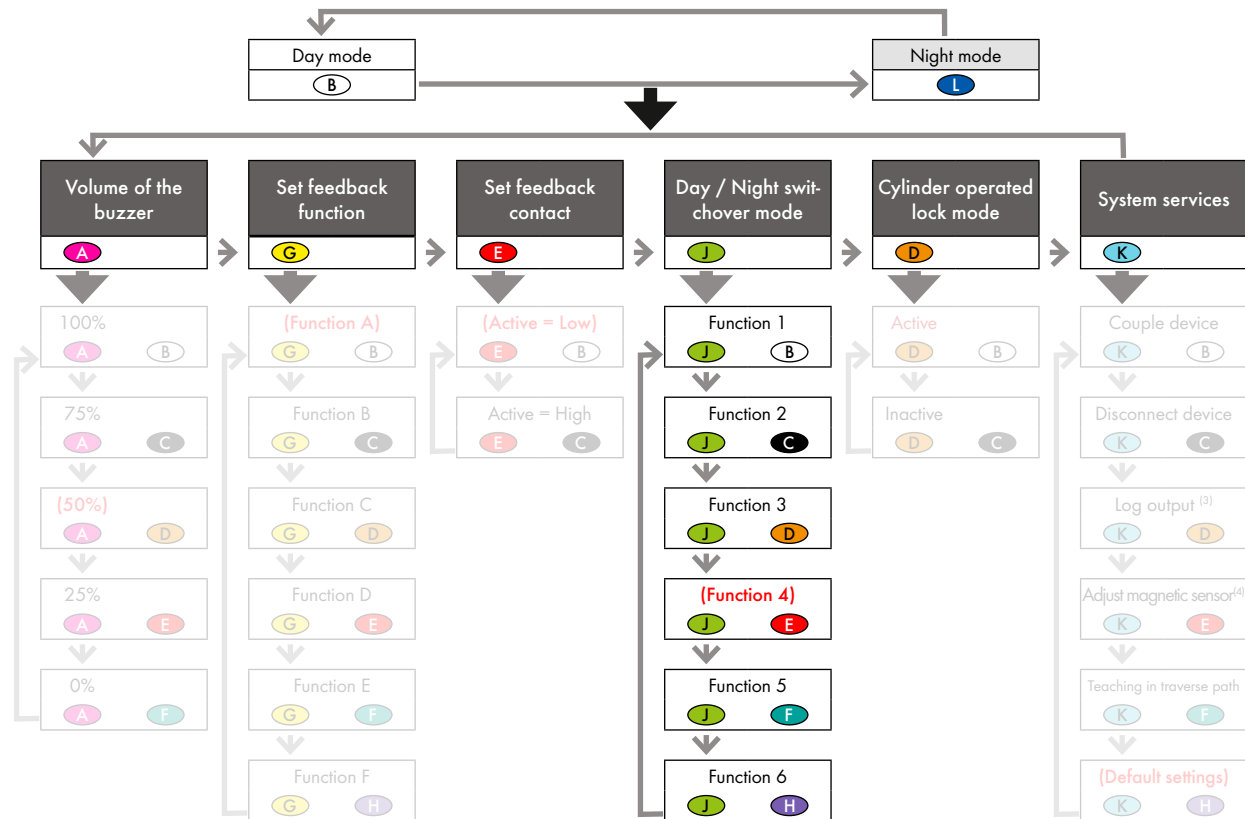
	Retrieve menu: Press button 8 sec		Long press: Press button 3 sec		Short press: Press button 1 sec
<b>A</b> Magenta	<b>C</b> Black	<b>E</b> Red	<b>G</b> Yellow	<b>J</b> Green	<b>L</b> Blue
<b>B</b> White	<b>D</b> Orange	<b>F</b> Mint	<b>H</b> Violet	<b>K</b> Turquoise	

<b>A</b>	Main menu	Press button 1 x 8 sec	Save selection Press button 1 x 3 sec
<b>E</b>	Select menu item "Set feedback contact"	Press button 2 x 1 sec	
<b>E</b>	Call up menu item "Set feedback contact"	Press button 1 x 3 sec	
<b>E</b> <b>B</b>	Function locking bolt*	Press button 1 x 1 sec	
<b>E</b> <b>C</b>	Function opener	Press button 2 x 1 sec	

\*Default value on delivery

### 3.6 Day / Night switchover mode

The Day / Night switchover mode can be activated via the button with menu LED or via the input terminal 0/1. Different presettings can be made. E.g. the button with menu LED can be deactivated and, in return, an external switch activated in order to exclude an unauthorised switchover of the Day/Night mode on the GENIUS 2.1 PANIC multi-point lock. The last status set on the button remains.



⬇ Retrieve menu: Press button 8 sec     
 ⬇ Long press: Press button 3 sec     
 ⬇ Short press: Press button 1 sec

<b>A</b>	Magenta	<b>C</b>	Black	<b>E</b>	Red	<b>G</b>	Yellow	<b>J</b>	Green	<b>L</b>	Blue
<b>B</b>	White	<b>D</b>	Orange	<b>F</b>	Mint	<b>H</b>	Violet	<b>K</b>	Turquoise		

<b>A</b>	Main menu	Press button 1 x 8 sec	Save selection Press button 1 x 3 sec
<b>J</b>	Day / Night switchover mode menu item	Press button 3 x 1 sec	
<b>J</b>	Call up Day / Night switchover mode menu item	Press button 1 x 3 sec	
<b>J</b> <b>B</b>	Function 1: button inactive / terminal 1 inactive	Press button 1 x 1 sec	
<b>J</b> <b>C</b>	Function 2: button inactive / terminal 1 active	Press button 2 x 1 sec	
<b>J</b> <b>D</b>	Function 3: button active / terminal 1 inactive	Press button 3 x 1 sec	
<b>J</b> <b>E</b>	<b>Function 4*</b> button active / terminal 1 active The mode of operation set via button or terminal 1 can be reset both via terminal 1 or via the button again.	Press button 4 x 1 sec	
<b>J</b> <b>F</b>	Function: 5 Day mode via terminal 1 active = single changeover to night mode via button is possible.	Press button 5 x 1 sec	
<b>J</b> <b>H</b>	Function 6 Night mode via terminal 1 active = single changeover to day mode and back to night mode via button is possible.	Press button 6 x 1 sec	

\*Default value on delivery

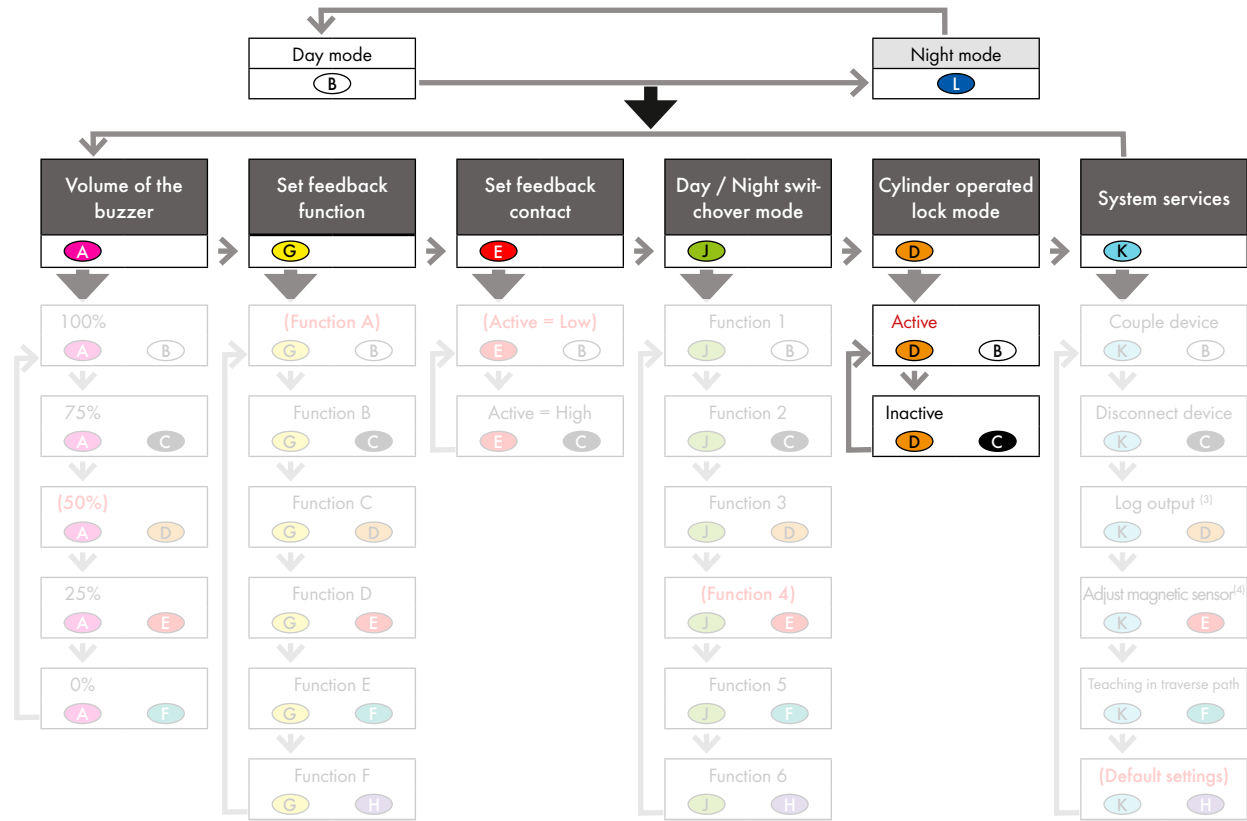


### 3.7 Cylinder operated lock mode



The latch cannot be withdrawn in the cylinder operated lock with the GENIUS 2.1 PANIC multi-point lock in switching function B. Hence this function must be deactivated!

In the menu item „Cylinder operated lock mode“, you can set whether the GENIUS 2.1 PANIC multi-point lock will draw the latch into the cylinder operated lock during the opening process or not.



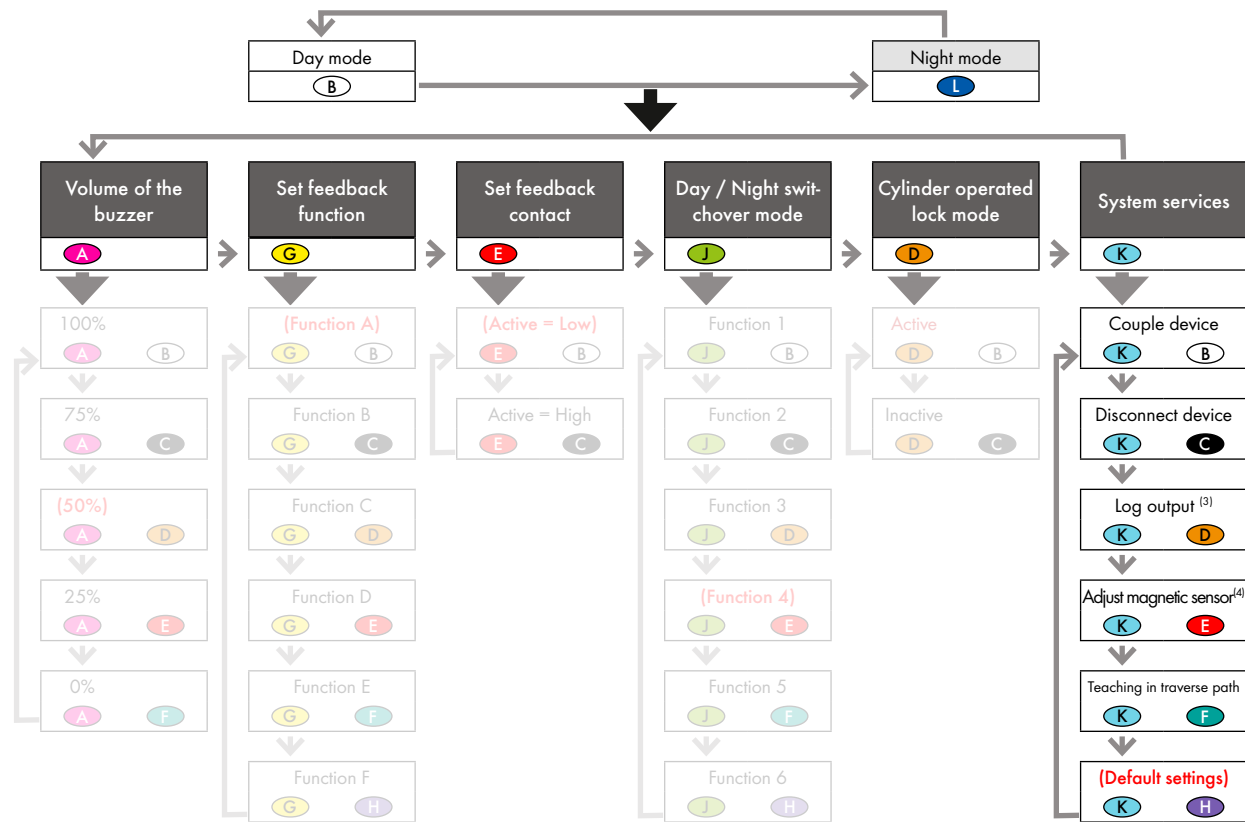
	Retrieve menu: Press button 8 sec		Long press: Press button 3 sec		Short press: Press button 1 sec						
	Magenta		Black		Red		Yellow		Green		Blue
	White		Orange		Mint		Violet		Turquoise		

	Main menu	Press button 8 sec	Save selection: button Press 1 x 3 sec
	Select menu item "Latch in cylinder operated lock"	Press button 4 x 1 sec	
	Call up menu item "Latch in cylinder operated lock"	Press button 1 x 3 sec	
	Active* = latch is retracted with opening impulse	Press button 1 x 1 sec	
	Inactive = latch is not retracted (with GENIUS 2.1 PANIC in the switching function B preset from the factory)	Press button 2 x 1 sec	

\*Default value on delivery

### 3.8 Call up system services

The system services are mainly for the purpose of commissioning or service



Retrieve menu: Press button 8 sec     
 Long press: Press button 3 sec     
 Short press: Press button 1 sec

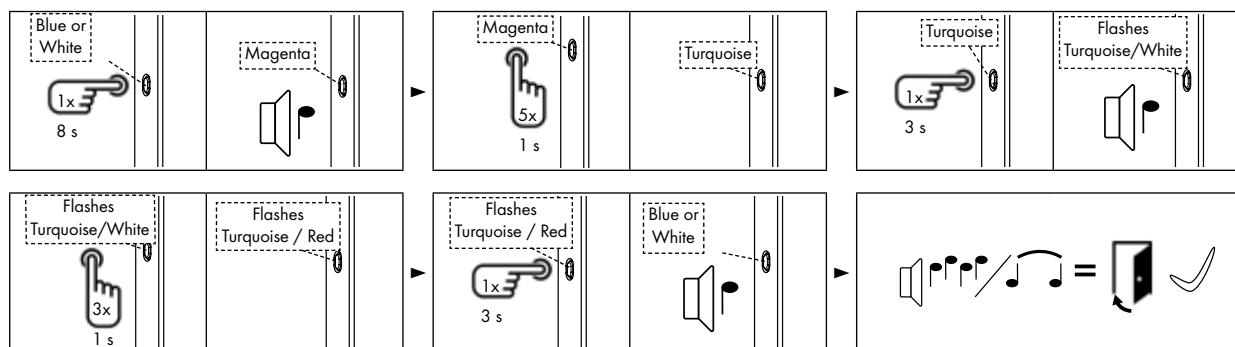
<b>A</b> Magenta	<b>C</b> Black	<b>E</b> Red	<b>G</b> Yellow	<b>J</b> Green	<b>L</b> Blue
<b>B</b> White	<b>D</b> Orange	<b>F</b> Mint	<b>H</b> Violet	<b>K</b> Turquoise	

<b>A</b>	Main menu	Press button 8 sec	Save selection Press button 1 x 3 sec
<b>K</b>	Select menu item "system services"	Press button 5 x 1 sec	
<b>K</b>	Call up menu item „System services“	Press button 1 x 3 sec	
<b>K</b> <b>B</b>	Couple devices (only for SI - RS485 compatible devices)	Press button 1 x 1 sec	
<b>K</b> <b>C</b>	Disconnect devices (only for SI - RS485 compatible devices)	Press button 2 x 1 sec	
<b>K</b> <b>D</b>	Log output per tone sequence	Press button 3 x 1 sec	
<b>K</b> <b>E</b>	Adjust magnetic sensor*	Press button 4 x 1 sec	
<b>K</b> <b>F</b>	Teaching in traverse path	Press button 5 x 1 sec	
<b>K</b> <b>H</b>	Default settings (set standard values)	Press button 6 x 1 sec	

### 3.8.1 Adjust magnetic sensor





















The magnetic sensor need only be adjusted when the GENIUS 2.1 PANIC multi-point lock does not move to the locking position after the door is closed.





The adjustment of the magnetic sensor is carried out after the door has been closed, this will take a few seconds. If the magnetic sensor has been successfully adjusted, the GENIUS 2.1 PANIC multi-point lock will move to the locking position. There is a functional disorder if the GENIUS 2.1 PANIC multi-point lock does not move to the locking position. This can be due to the following reasons:

Description	Action	Comments
<p>No magnet available. According to the frame parts used, a magnet with round bushing [1] or with oval bushing [2] is inserted in the frame part or a round magnet [3] is adhered.</p>	<p>Mount magnet and close the door. If the GENIUS 2.1 PANIC multi-point lock still does not move to the locking position after the door is closed, adjust the magnetic sensor.</p>	<p>Contact your contractual partner for the selection of the matching magnet.</p>
<p>Height position of the magnet is outside the tolerance range.</p>	<p>Reposition the magnet. This is only possible with an adhered magnet or with a magnet with oval bushing [1]. The door must be reset in the case of a permanently installed magnet.</p>	<p>The settings must be carried out by qualified specialists. Get in touch with your contractual partner for this.</p>
<p>Distance between magnet and magnetic sensor is outside the tolerance range.</p>	<p>The magnetic sensor will not be able to detect the magnet if the gap between the door leaf and frame (the so-called airgap) is too great. The door must be reset.</p>	<p>The adjustments must be carried out by qualified specialists. Get in touch with your contractual partner for this.</p>

### 3.9 Operating status indicator of the status LED

LED	Buzzer	Description	Action	Comments	
Green		 Disturbance-free			
Flashes green		 Opening signal is present at terminal 4.			
Flashes yellow		 Faulty contact of the connecting clamps	Check connecting clamps	Contact service partner if the fault persists.	
Yellow		 Limited function		Contact service partner if the fault persists.	
Flashes yellow		 Malfunction magnetic sensor	Adjust magnetic sensor See: „3.8 Call up system services“ on page 18	Contact service partner if the fault persists.	
Flashes yellow-green		 Locking elements extended with opened door	Release door before closing		
Red			Supply voltage defective	Have the supply voltage checked	Contact service partner if the fault persists.
			Operating voltage exceeded	Check the ambient temperature	
			Adjustment of magnetic sensor failed	Check position of magnet	
Red		 Error in the control unit		Contact service partner if the fault persists.	
Flashes red		 Block movement (complete deadbolt projection not possible)	Check for mechanical sluggishness Check the free running of the locking elements	Contact service partner if the fault persists.	


 = LED lights up


 = LED flashes

### 3.10 Locking and release

Lock	
<b>Day mode</b>	<b>Night mode</b>
In day mode the door can be locked manually with the cylinder key. All locking elements are extended in the process.	In night mode the door is locked automatically when it is closed. All locking elements are extended in the process.

Release	
The GENIUS 2.1 PANIC multi-point lock can be unlocked from the inside via the cylinder lock, the lever handle, the horizontal actuating bar or via an optional access control system. To do this, the key must be turned to the unlocking stop or the hardware activated completely	or triggered via an opening impulse from the access control system: All locking elements including the latch are retracted ( <b>exception GENIUS 2.1 PANIC with switching function B</b> ).

- 
  - To lock or unlock the door with the cylinder key, always turn it as far as it will go. The cylinder key must then be turned back some way before it can be removed from the cylinder lock.
  - If the door does not open immediately following automatic release, it will remain released for 7 sec, an acoustic signal will be audible for this period.
  - If the door is opened during this period, the signal tone will switch off.
  - The GENIUS 2.1 will return to the locking position if the door is not opened during this period.

- 
  - The GENIUS 2.1 PANIC multi-point lock will move to the locking position if the door is closed.
  - Opening the door via cylinder lock, lever handle, or horizontal actuating rod is only admissible during motor shutdown.
  - Opening during the locking process leads to cancellation. The GENIUS 2.1 multi-point lock moves to the "unlocked position" and the latch is drawn into the cylinder operated lock. **Not with GENIUS 2.1 PANIC with switching function B!**
  - The door must be opened and closed before it can be locked electro-mechanically. The GENIUS 2.1 PANIC multi-point lock then moves to the 'locked' position.



## Cylinder operated lock E

Opening in the direction of escape possible at any time by activation of the lever handle or the horizontal actuating bar.

Opening the door against the direction of escape is only possible after unlocking and opening with the key or by using the motorised unlocking via the GENIUS 2.1 PANIC multi-point lock. After using the escape function, access against the direction of escape is blocked again once the door closes and it is not possible to escape back into the building.

### Operation

- Emergency opening in the direction of escape: Open door using the lever handle or horizontal actuating bar.
- Opening against the direction of escape: unlock and open the door using the key. Turn the key to the unlocking stop.
- Locking part in Night mode: the door is automatically locked when it is closed.
- Locking part in Day mode: there is no automatic locking part.



## Switching function B

Opening in the direction of escape possible at any time by activation of the lever handle or the horizontal actuating bar.

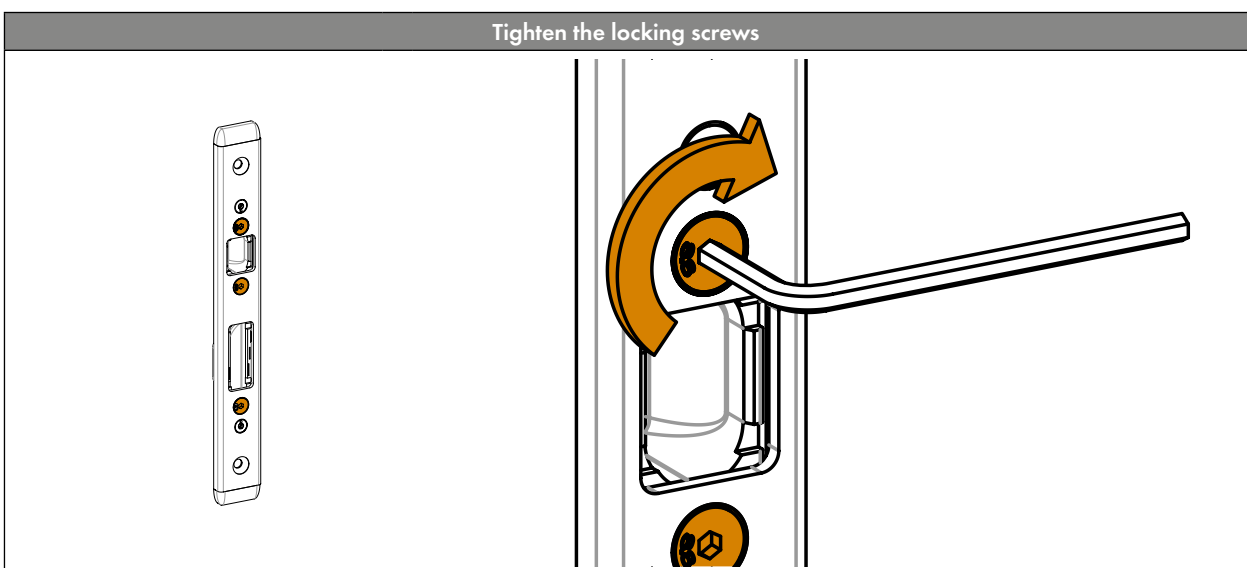
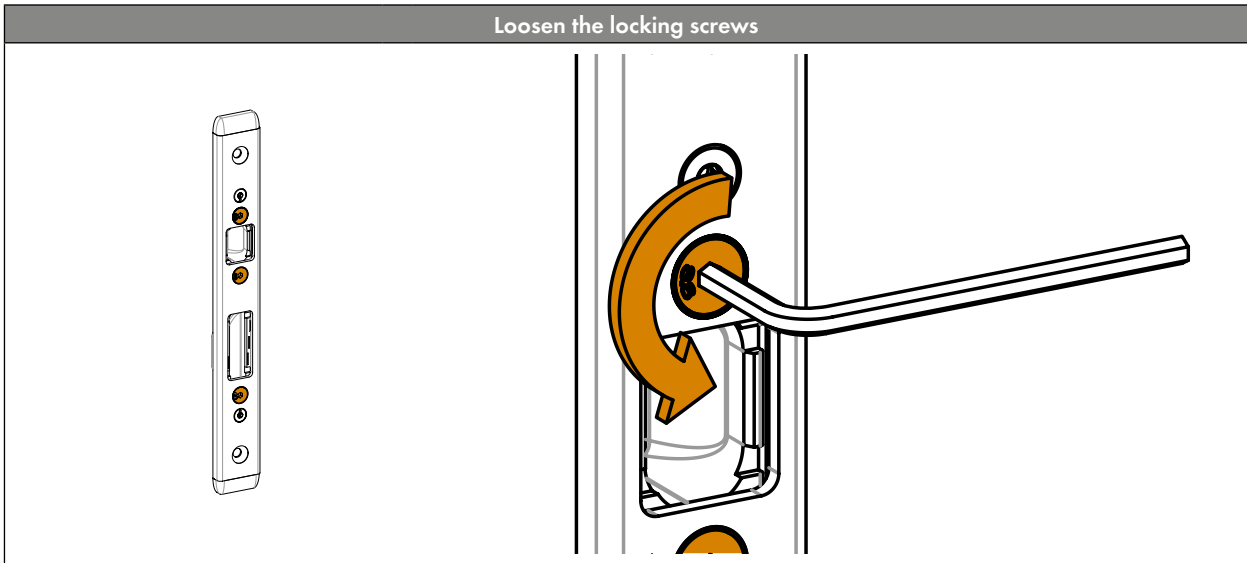
Opening the door against the direction of escape via the lever handle is only possible after unlocking with the key or by using the motorised unlocking via the GENIUS 2.1 PANIC multi-point lock.

### Operation

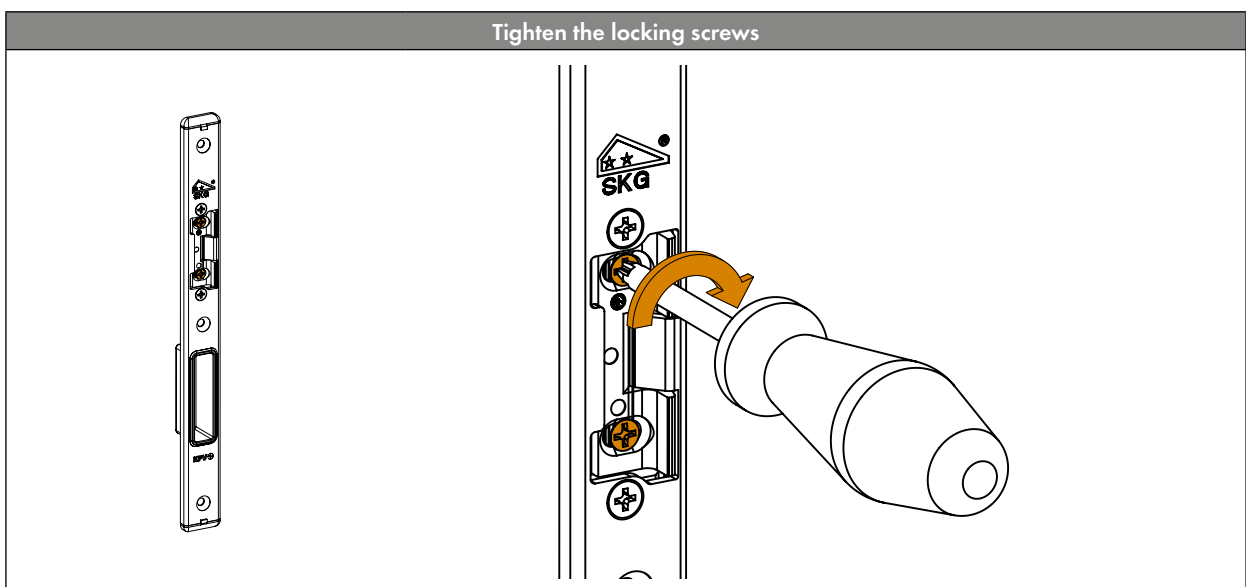
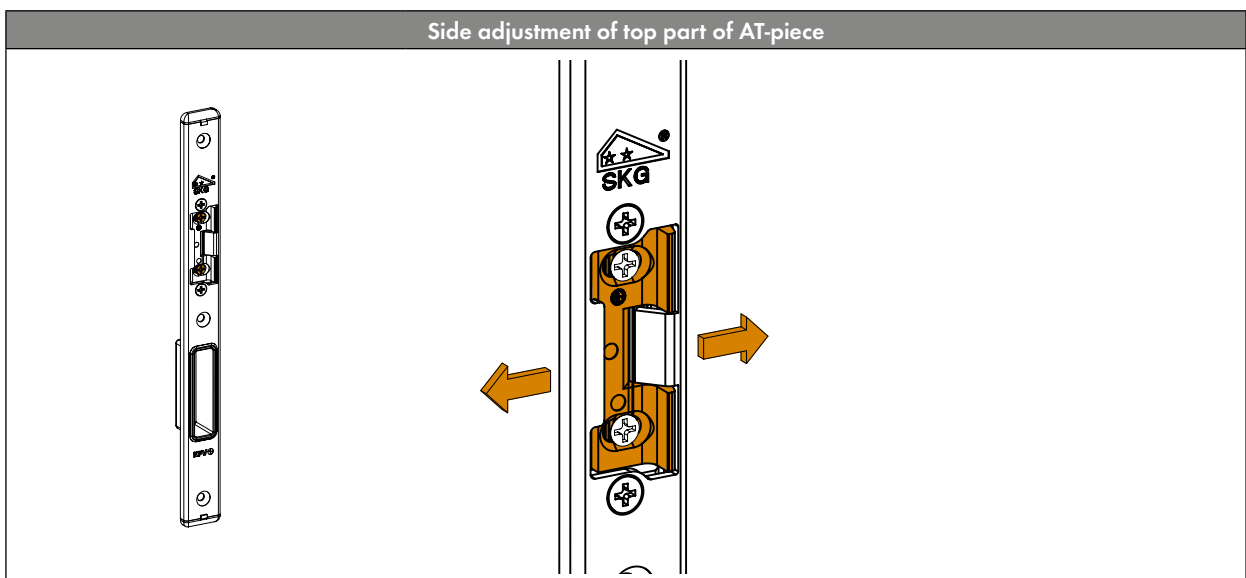
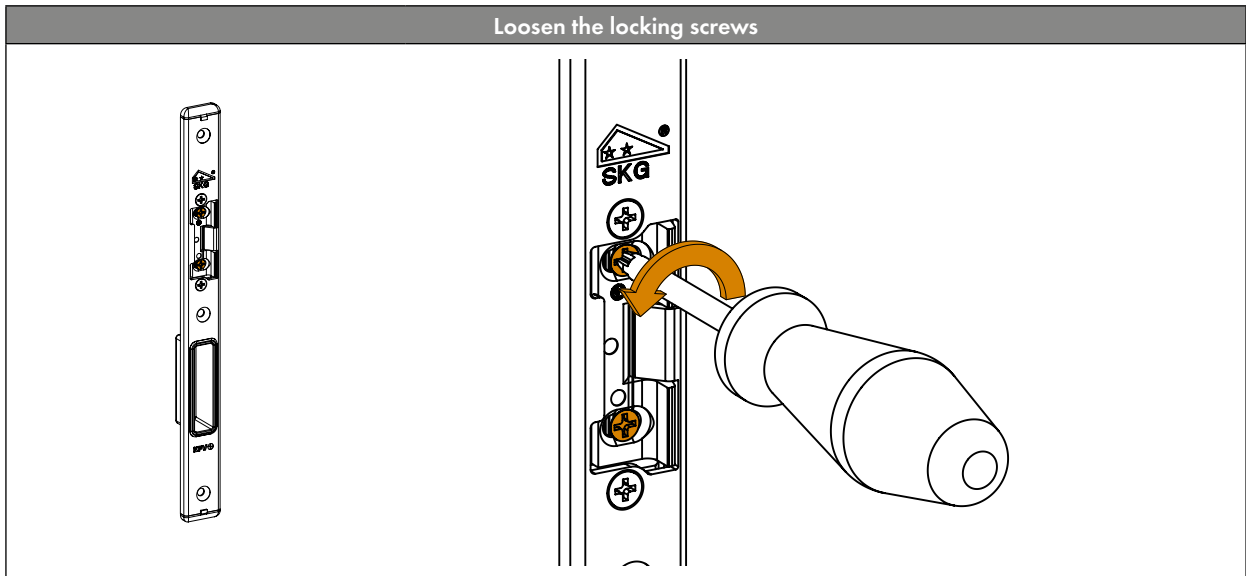
- Emergency opening in the direction of escape: Open door using the lever handle or horizontal actuating bar.
- Opening against the direction of escape: unlock and open the door using the key. Turn the key to the unlocking stop. Opening the door using the lever handle.
- Locking part in Night mode: the door is automatically locked. After using the escape function, access against the direction of escape is blocked again once the door closes and it is not possible to escape back into the building.
- Locking part in Day mode: there is no automatic locking part. Activate the lever handle to open against the direction of escape.

### 3.11 Adjustment of frame parts and AT piece

#### 3.11.2 Adjustment of Q adjustment



### 3.11.3 Adjustment of AT piece



## 4. Maintenance

### 4.1 Monthly testing and maintenance

In accordance with DIN EN 179 or DIN EN 1125, testing and maintenance of the GENIUS 2.1 PANIC multi-point lock must be conducted after 20,000 opening cycles, and once a month at least. The results must be documented. Immediate testing and maintenance must be conducted in the case of vandalism.

#### DANGER!

Any modification of the original delivery status of the GENIUS 2.1 PANIC multi-point lock is inadmissible. The GENIUS 2.1 PANIC multi-point lock would then not function as intended, this could lead to functional disorders / failure.

In case of functional disorder/ failure of the GENIUS 2.1 PANIC multi-point lock there could be a threat to life in a panic situation, as the escape route is not able to be used.

The delivery status of the GENIUS 2.1 PANIC multi-point lock must be restored immediately by KfV or by a customer service agent authorised by KfV. Get in touch with your contractual partner for this.

#### DANGER!

Inappropriate or unqualified servicing of the GENIUS 2.1 PANIC multi-point lock is inadmissible. This could lead to functional disorder/ failure.

In case of functional disorder/ failure of the GENIUS 2.1 PANIC multi-point lock there could be a threat to life in a panic situation, as the escape route is not able to be used.

Any servicing of the GENIUS 2.1 PANIC multi-point lock may only be carried out by KfV or a customer service authorised by KfV. Get in touch with your contractual partner for this.

#### DANGER!

Overtightening of the screwing of the locking box and the GENIUS motor could lead to sluggishness of the mechanical system. The faceplate fixing screws could be overtightened. Both could cause functional disorders/ failure.

In case of functional disorder/ failure of the GENIUS 2.1 PANIC multi-point lock there could be a threat to life in a panic situation, as the escape route is not able to be used.

Tighten all screws until they are hand-tight only (1 Nm). If the screws can no longer be tightened, the screw connection of the GENIUS 2.1 PANIC multi-point lock must be serviced immediately. Get in touch with your contractual partner.

Check for the original status		
<ul style="list-style-type: none"> <li>▶ Check whether supplementary locking systems have been subsequently added.</li> <li>▶ Check whether original components of the GENIUS 2.1 PANIC multi-point lock have been replaced.</li> </ul>	<p>If supplementary locking systems have been added, the GENIUS 2.1 PANIC multi-point lock will not function as intended.</p> <p>If the components of the GENIUS 2.1 PANIC multi-point lock deviate from the originally delivered/approved components, the GENIUS 2.1 PANIC multi-point lock will not function as intended.</p>	<p>In both these cases, the delivery status must be restored immediately otherwise the warranty will expire.</p> <p>Get in touch with your contractual partner.</p>
Check cable and plug connections		
<ul style="list-style-type: none"> <li>▶ Check that all cables are free of damage.</li> <li>▶ Check that all plug connections are free from contamination, corrosion or any form of damage and that all cable connectors are firmly seated in the bushing.</li> </ul>	<p>Damaged cables and contaminated, corroded or loose plug connections can lead to functional disorders/failure.</p>	<p>Damaged cables and plug connections must be replaced immediately.</p> <p>Get in touch with your contractual partner.</p>
Check screwing		



<ul style="list-style-type: none"> <li>▶ Check that the screw connections of the operating elements (lever handle or push bar) are tightened and the operating elements operate free of play.</li> <li>▶ Check that all further screw connections of the GENIUS 2.1 PANIC multi-point lock are firmly tightened.</li> </ul>	<p>When the screws are loosened, the GENIUS 2.1 PANIC multi-point lock works imprecisely, the wear and tear increases, potentially resulting in functional disorder/failure.</p>	<p>Tighten all loosened screws. (hand tighten, max. 1 Nm)</p> <p>If the screws can no longer be tightened (e. g. because they have been overtightened), the screwing must be serviced immediately.</p> <p>Get in touch with your contractual partner.</p>
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**Check locking elements**

<ul style="list-style-type: none"> <li>▶ With the door open, bring the locking elements into the locking position and check the hardware. E. g.:             <ul style="list-style-type: none"> <li>• Deformation</li> <li>• Wear and tear</li> <li>• Breakage</li> </ul> </li> </ul>	<p>Damaged locking elements could inhibit/prevent the locking and unlocking and damage the PVC backing of the frame parts.</p>	<p>The GENIUS 2.1 PANIC multi-point lock must be replaced if the locking elements are damaged.</p> <p>Get in touch with your contractual partner.</p>
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**Check the frame parts**

<ul style="list-style-type: none"> <li>▶ Check frame parts for dirt, foreign objects and damage.</li> </ul>	<p>Dirty, blocked or damaged frame parts obstruct or prevent the locking and unlocking. This will lead to functional disorders/failure.</p>	<ul style="list-style-type: none"> <li>• Clean the frame parts and check the functioning once again. The frame parts must be replaced if the faultless function cannot be restored.</li> <li>• Damaged frame parts must be replaced on principle.</li> </ul> <p>Get in touch with your contractual partner.</p>
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**Check the locking and opening of the door**

<p>▶ Switch the GENIUS 2.1 PANIC multi-point lock to day mode see „3.2 Setting day / night mode manually“ on page 12.</p>		
<ul style="list-style-type: none"> <li>▶ Close the door:</li> </ul>	<ul style="list-style-type: none"> <li>• The door must engage into the frame.</li> </ul>	<p>The door must be adjusted if the frame parts and elements of the multi-point lock grind against each other.</p>
<ul style="list-style-type: none"> <li>▶ Door closed:</li> </ul>	<ul style="list-style-type: none"> <li>• The latch must lock and the door must remain securely locked.</li> </ul>	<p>The door must be adjusted if it opens again.</p> <p>Get in touch with your contractual partner.</p>
<ul style="list-style-type: none"> <li>▶ Lock the door with the key:</li> <li>▶ Open door:</li> </ul>	<ul style="list-style-type: none"> <li>• All locking elements must move freely.</li> <li>• Activate push bar/lever handle. All locking elements and the door must move freely.</li> </ul>	<p>If the locking elements move sluggishly, this can be due to various causes:</p> <ul style="list-style-type: none"> <li>• Side adjustment of the frame parts: The sealing of the door leaf is influenced by distortion of the frame parts. If this is excessive, it can lead to sluggishness see „3.11 Adjustment of frame parts and AT piece“ on page 22.</li> <li>• Insufficient lubrication: see „4.2 Lubrication“ on page 28.</li> </ul> <p>The GENIUS 2.1 PANIC multi-point lock must be serviced if the sluggishness remains.</p> <p>Get in touch with your contractual partner if this situation persists.</p>

Check the electromechanical locking and unlocking		
<p>► Switch the GENIUS 2.1 PANIC multi-point lock to night mode see „3.2 Setting day / night mode manually“ on page 12.</p>		
<p>► Close door: The GENIUS 2.1 PANIC multi-point lock will move to the locking position.</p> <p>► Open door: Activate push bar/lever handle.</p>	<ul style="list-style-type: none"> <li>• All locking elements must lock freely.</li> <li>• All locking elements must unlock smoothly and completely. The door must open easily.</li> </ul>	<p>If the locking elements move sluggishly or the locking process results in a block move (the GENIUS motor moves to the "unlocked" position with excessive resistance and a signal sounds), this can be due to various causes:</p> <ul style="list-style-type: none"> <li>• Side adjustment of the frame parts: The sealing of the door leaf is influenced by distortion of the frame parts. If this is excessive, it can lead to sluggishness see: „3.1.1 Adjustment of frame parts and AT piece“ on page 22.</li> <li>• Insufficient lubrication: see „4.2 Lubrication“ on page 28.</li> </ul> <p>The GENIUS 2.1 PANIC multi-point lock must be serviced if the sluggishness remains.</p> <p>Get in touch with your contractual partner.</p>

Check the activation force		
<p>We recommend checking the activation force required for the release of the GENIUS 2.1 PANIC multi-point lock with a dynamometer.</p> <p>To obtain comparable values, the measurements must always be taken at the same location of the push bar/lever handle.</p>		
<p>► Measurement on the lever handle: Measure monthly at the same location at the pressure end.</p> <p>► Measurement on the push bar: Measure monthly at three same locations.</p> <ul style="list-style-type: none"> <li>• on the left handle</li> <li>• on the right handle</li> <li>• in the middle of the rod</li> </ul> <p>► Document the measured values.</p>	<p>The unlocking of the door will be impeded or prevented if the activating force is too high. The activating force must be designed to ensure that children and elderly, infirm people are also in a position to open the door.</p>	<p>If the measured values deviate considerably from the determined values of the previous month, this deviation can be an indicator of wear and tear.</p> <p>Get in touch with your contractual partner.</p>

Lubrication		
<p>► Check the lubrication for:</p> <ul style="list-style-type: none"> <li>• dirt</li> <li>• dryness</li> <li>• resinification</li> </ul>	<p>If the GENIUS 2.1 PANIC multi-point lock is insufficiently lubricated, contaminated, or hardened due to an inappropriate lubricant, this will lead to sluggishness and wear and tear.</p> <p>Function disorders and failure are the consequences.</p>	<ul style="list-style-type: none"> <li>• Clean the contaminated areas with a dry cloth.</li> <li>• Lubricate all lubrication points with a resin-free, fully synthetic spray lubricant see „4.2 Lubrication“ on page 28.</li> <li>• The use of resinous lubricants is inadmissible. The entire GENIUS 2.1 PANIC multi-point lock must be replaced if resinous lubricants are used.</li> </ul> <p>Get in touch with your contractual partner.</p>

4.1.1 Testing and maintenance log

Check for the original status	Yes	No	Contractual partner contacted
Additional locking systems added			
All components of the GENIUS 2.1 PANIC multi-point lock are compliant with the list of delivered/authorised components.			

Check screwing	Yes	No	Contractual partner contacted
Screwing of operating elements (lever handle or push bar) is tightened. (1 Nm)			
All further screwings of the GENIUS 2.1 PANIC multi-point lock are tightened. (1 Nm)			

Check cable and plug connections	Yes	No	Contractual partner contacted
Cables are free of damage			
Plug connections are free of damage			

Check locking elements	Yes	No	Contractual partner contacted
Locking elements are free of damage			

Check the frame parts	Yes	No	Contractual partner contacted
Frame parts are free of damage			

Check the locking and opening of the door	Yes	No	Contractual partner contacted
Close door: Door engages freely into the frame.			
Door is closed: The latch locks and holds the door securely closed.			
Lock with key: All locking elements must move freely.			
Open door with push bar/lever handle: All locking elements must move freely.			

Check the electromechanical locking and unlocking	Yes	No	Contractual partner contacted
Close door: The GENIUS 2.1 PANIC multi-point lock will move to the locking position.			
Open door with push bar/lever handle: All locking elements and the door must move freely.			

Check the activation force				Yes	No	Contractual partner contacted
EN 1125	Left handle	Centre rod	Right handle			
Measured value						
Deviation from previous month						
EN 179	Lever handle					
Measured value						
Deviation from previous month						

Lubrication	Yes	No	Contractual partner contacted
The GENIUS 2.1 PANIC multi-point lock is cleaned and lubricated according to the instructions of the manufacturer.			
Lubrication	Yes	No	Contractual partner contacted
The GENIUS 2.1 PANIC multi-point lock is sticking due to the use of resinous lubricants.			

Name of inspector	Town/City:	Date:	Signature:

## 4.2 Lubrication

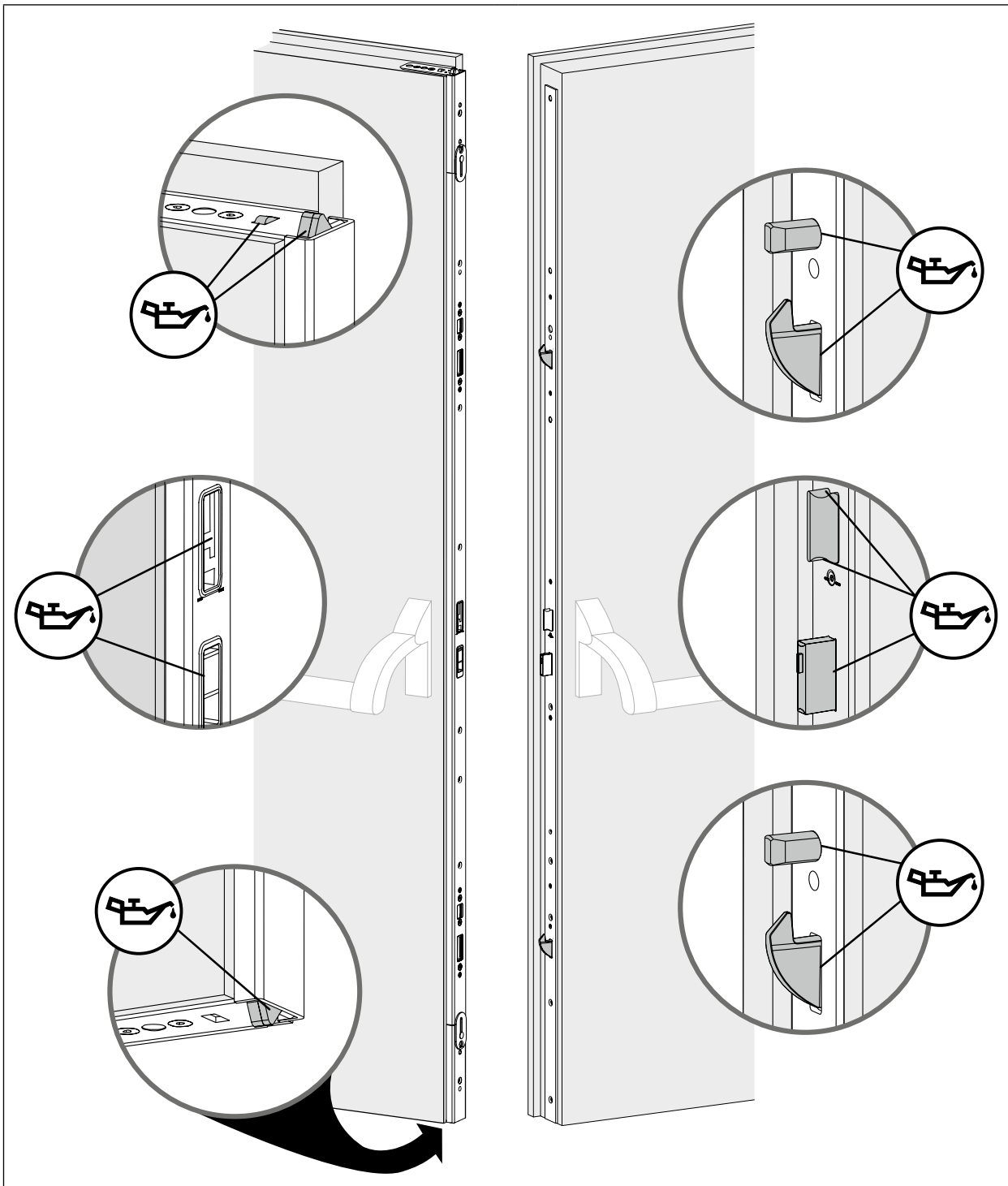
### DANGER!

Multi-functional oils or multi-purpose sprays will rinse off the original lubrication. This could lead to functional disorders/ failure.

In case of functional disorder/ failure of the GENIUS 2.1 PANIC multi-point lock there could be a threat to life in a panic situation, as the escape route is not able to be used.

Use only fully synthetic, resin-free spray-on grease.

All the lubrication points defined below must be lubricated if necessary, and at least once annually. see: „1.3.1 Locking part“ on page 4.



## 5. Appendix

### 5.1 Technical specifications

Environmental conditions		
Ambient temperature range in the door (according to DIN EN 14846 class K,M,L,N,P)	$T_{UM}$	-25 °C ...+70 °C
Relative humidity		20% to 80% (non-condensing)
Protection class		IP 40

Electrical data		
Operating voltage	$U_B$	+24 V DC (+19 V DC ... +32 V DC)
Operating current standby / standby	$I_{St}$	Type 30 mA
Operating current for motor control	$I_B$	Type 500 mA (max. 1000 mA)
Reverse polarity protection	$U_{Verp}$	- 50 V
Output signal terminal 7		
Switches actively against mass (GND)	$I_{KL7}$	$\leq 20$ mA
Internal with Pullup resistance	$R_{Pullup}$	4,7 k $\Omega$
Max. capacitive load	$C_{max}$	$\leq 47$ $\mu$ F
Input signal terminal 4		
Release On	$U_{KL4.ON}$	> 7.0 V DC
Release Off	$U_{KL4.OFF}$	< 4.0 V DC
Internal with Pulldown resistance	$R_{Pulldown}$	4,7 k $\Omega$
Input signal terminal 1		
Night mode	$U_{KL1.Night}$	> 7.0 V DC
Day mode	$U_{KL1.Day}$	< 4.0 V DC
Internal with PullUp resistance	$R_{Pullup}$	4,7 k $\Omega$

Magnetic sensor		
Airgap		4 mm $\pm$ 3 mm (with original magnet and correct adjustment)

Dimensions		
Dimensions	W x L x D	16 mm, 252 mm, 49 mm + faceplate thickness

Cable lengths		
Cable length at 0.14 mm <sup>2</sup>	LIYCY	$\leq 24$ m
Cable length at 0.5 mm <sup>2</sup>	LIYCY	$\leq 50$ m

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brings spaces to life

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