Installation and operating instructions for the following SLT security fitting versions:

SLT-LCA-S/SP, SLT-LCPxA-S/P,

SLT-LCA-AFP, SLT-LCPxA-AFP, SLT-LCA-EF/P, SLT-LCPxA-EF/P

SLT-LCA-IK/P, SLT-LCPxA-IKP, SLT-LCA-IF/P, SLT-LCPxA-IFP

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1. Limitating conditions, general information and battery advice

The lock must have a changing function.

The spring of the lock has to be relatively strong. If necessary, replace the lock.

The distance between cylinder axle and lower edge of lock may not be greater than 40 mm.

The distance between cylinder axle and upper edge of the lock may not be greater than 150 mm. Please check the lock and remove it before drilling in the door.

Heavy doors: for heavy doors a „special lever axle for heavy doors“ is offered. It will be screwed together against the armoured plate of the exterior fitting. Delivery in excess length for door thickness up to 95 mm.

For smaller door width: cut off the lever pin to get it to the correct size.

Fallenriegelschlösser (für DIN L / R Montage) weisen meist nicht die notwendigen Ausschnitte für die Montagebohrungen auf. Please exchange with a relevant lock.

Tin doors: For soft tin doors which deform at a solid screw connection, additionally 2 tin screws and 2 adapters have to be used (not included in the delivery). In case of installation on fire doors, please refer to the guidelines/rules applicable in your country.

Panic locks / self-locking panic locks: the SLT can only be used in combination with panic locks which do not require a predefined position of the cam.

General Information:

This product meets the requirements of applicable European and national guidelines. Conformity has been established and the relevant statements and documents are kept on file by the manufacturer. To maintain this state of affairs and ensure safe operation, the user must follow these assembly instructions. The product should not be changed or modified. Finger contact with the board should also be avoided.
ABUS Security-Center GmbH & Co. KG accepts no liability for loss or damage due indirectly or directly to these instructions or any damage alleged to have been caused due to them. The contents of these instructions may be altered without prior notice.

If the programming is done using the software ABUS Seccor Key Manager, it is strongly advised to avoid any further manual programming afterwards, because these actions will not be seen in the software.

Security instructions:

In order to prevent fire and injuries, please respect following points:

- Install the product in a dry place.
- Take care for a good ventilation of the product.
- Do not expose the product to temperatures below -20°C (outer cap), or over 60°C.
- The maximum air moisture should not exceed 80% (without condensation).
- Do not input any metallic objects in the product.
- Do all the work on the product without electricity.

Battery advice:

The unit is powered with DC via a 6V lithium battery that is included in the delivery. When inserting the battery, ensure the polarity is correct. To ensure long life and to prevent fire and injury, comply with the following instructions:

- Under the Battery Disposal Regulation, the disposal of batteries in household waste is prohibited. They must be handed in at designated collection points.
- Batteries may not be exposed to direct sunlight or other heat sources or stored in places exposed to very high temperatures.
- Keep batteries away from children.
- These batteries are not rechargeable.
- Batteries must not be dismantled, pierced or otherwise damaged. They must not be burned, come into contact with water or be short circuited.
- If batteries are replaced, take note of temperature details specified by the manufacturer.

Technical data:

Scope of delivery:	Security fitting SLT, drilling jig, Lithium-Battery (CR P2), installation material	
Memory capacity:	max. 511 authorisations (chip keys / codes)	
Power supply:	6 Volt lithium battery (Type: CR P2)	
Operating conditions:	External: -20 °C to +60 °C / IP44	
	Internal: -10 °C to +60 °C, max 80% rel. moisture, non-condensing	
Material:	Zinc die-casting with various finish versions	
Dimensions:	Outer fitting:	275 x 58 x 55 mm (H x W x D including knob)
	Inner fitting:	275 x 62 x 50 mm (H x W x D including knob)

2. Scope of delivery

- Complete outer fitting
- Inner cap and coupling system including electronics and battery
- Handle
- Drilling jig

Installation material:

Drawing No.	Quantity	Description
(1)	1	Cylinder adapter
	1	Cylinder screw M6
(3)	1	Lever axle, square 8 x 8 mm, 80 mm long
	1	Nut for level axle
(37)	1	Adapter sleeve 8 by 10 mm, 15 mm long
(2)	1	Cylinder axle, square 6 x 6 mm, 85 mm long
(13)	1	Driving axle with lock washer, square 6 x 6 mm, 130 mm long
(19)	1	Hexagon socket screw, M 8 x 40, for upper / lower screw joint [*a]
(19)	1	Hexagon socket screw, M 8 x 60, for upper / lower screw joint [*a]
(20)	1	Hexagon socket screw, M 8 x 45, for upper / lower screw joint [*a]
(20)	1	Hexagon socket screw, M 8 x 65, for upper / lower screw joint [*a]
	6	Washer ring for upper/lower screw joint
	1	Hexagon socket screw, M 6 x 40, for centralized screw point [*b]
	1	Hexagon socket screw, M 6 x 60, for centralized screw point [*b]
	2	Washer ring for screw M6 (various sizes)
(17)	1	Sleeve nut for centralized screw point

[*a] Only one of the two screws will be needed. Use the screws depending on the door width, so that they can be screwed at least 5 times in the outer cap.

[*b] Centralized screwing is sometimes required by the german organisation VdS.

3. Installation types

The security fitting SLT can be mounted in 3 different ways: Centric installation, Shifted installation to the right, Shifted installation to the left. DIN left / DIN right can be adjusted during the installation.

The centric installation is suitable for locks with a backset larger than 40 mm. For locks with a smaller backset the shifted installation is advised, whereas the exterior fitting is shiftly attached against the cylinder axle by 12 mm towards the middle of the door. The interior fitting is situated centric towards the cylinder axle. The shifted version is therefore only reasonable at doors which open to the inside.

The ABUS fittings are delivered for centric installation. However, they can be adjusted to the shifted installation on site. The drilling jig is identical in width and height to the exterior fitting. The drilling jig can be attached as an experiment to the cylinder axle and lever axle to be able to decide in advance, if the centric or shifted installation has to be used.

Distance between cylinder and handle: The ABUS fittings are prepared and delivered for a centre of 72 mm. If needed, they can be adjusted easily on site to a centre of 92 mm. Differing distance measurements have to be specially ordered.

Installations differing from standard

Lever square hole:

Lever axle 8 mm for square hole 8. At square hole 8,5 / 9 / 10 an adapter sleeve must be used.

Door thickness:

The delivered standard screws are compatible for a door thickness from 35 to 70 mm. For a door thickness > 70mm: use longer screws (Ref-Nr. SLT-Z-ETS-0 for 70 – 100 mm or SLT-Z-ETS-1 for 80 – 140 mm). Cylinder axle and driving axle are delivered in excess length for door thickness up to 95 mm and have to be shortened accordingly.

4. Installation tools

Drilling jig (Standard accessory, plastic). Optionally we offer a professional drilling jig.

Metal drill 8 and 13 mm (for wood and metal doors)

Socket wrench 17 mm

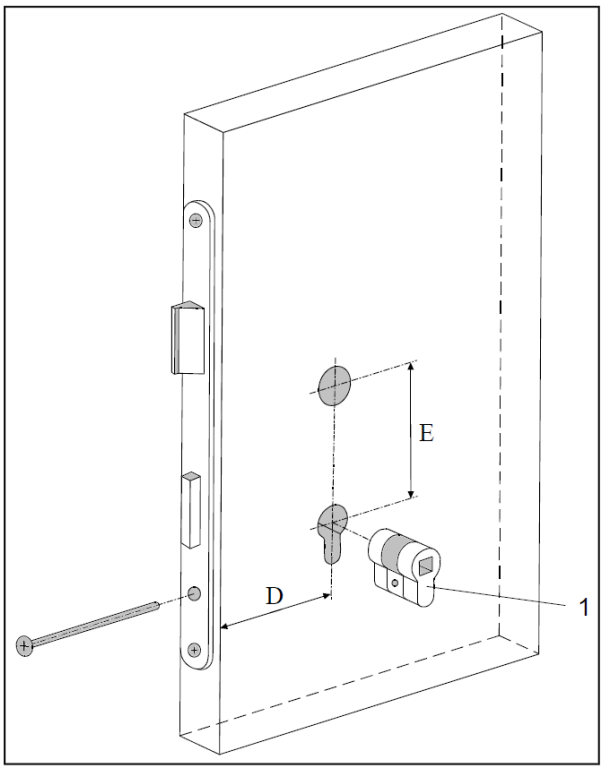
Screw clamps

Allen key: 3 mm, 5 mm and 6 mm

While using the „special lever axle for heavy doors“, a fast hardening adhesive for fixing the adapter sleeve is needed.

5. Preparing the installation

Cylinder adapter preparation: (Drawing 1)



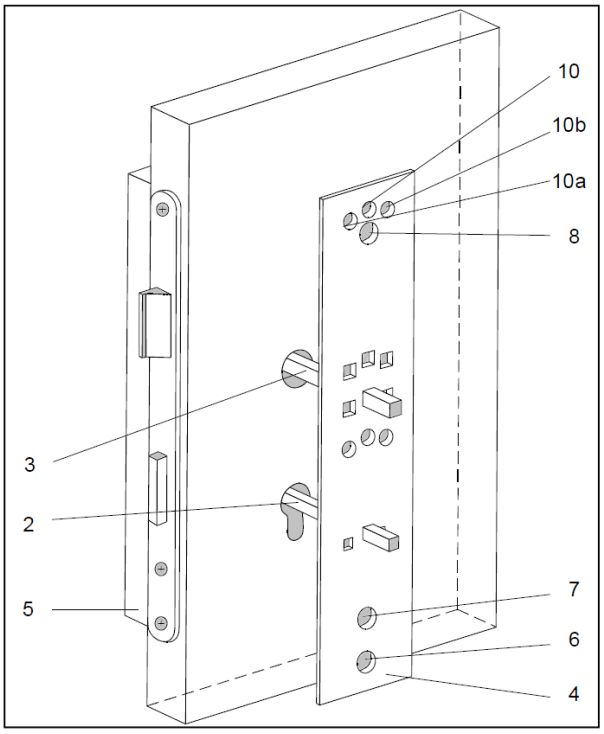
Place cylinder adapter (1) into the lock.

Please check that the cam is moving freely. You can check this with a building key or with the cylinder pin included in the delivery of the SLT.

E = Distance between handle and cylinder

D = Distance between cylinder and door side

Drilling: (Bild 2)



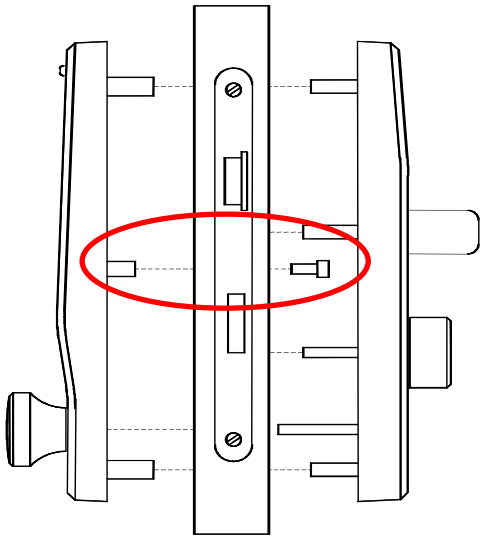
Please check before the drilling if the holes to be drilled are meeting the case.

Drilling is only possible if the lock is equipped with a vertical slot. If the width of the slot is < 13 mm the lock must be removed for the drilling.

In this case the shifted version is not possible. Should the shifted version be essential due to the small backset, the so called centralized screwing has to be used. Please check that no remains from the boring enter the lock.

Centric screwing of the coupling system

For all locks, which case is higher than 150mm (measured from the middle of the cylinder), is the installation above the case not possible. This can be the case for multiple locking and Biffar locks. Here are the possible alternative installations:



a) Biffar

ABUS security fittings should always be installed shifted on Biffar locks. The protection plate of the outer cap of the SLT should be exchanged with the one in the accessories set (ref-Nr.: SLT-Z-Biffar).

Screw above the handle axis through a hole in the lock. Screw sleeve nut with internal thread M8 into the appropriate position of two possible positions on the outer protective plate. Insert aluminum plate from the accessories set on the inside in the coupling system and screw through this aluminum plate with M8 screw against the protective plate. The lower screwing takes offset. The lower gear must be put for the purpose in the left or right position. Another screw passes through the upper metal plate of the coupling system in the door leaf. To do this, use a reducer of 8.5 to 4.2 mm.

It should be noted that the lock has to be prepared by Biffar plant accordingly.

b) Locks with a higher lock box and a distance measure 92 mm

Screw through a through hole in lock 21,5 mm below the handle axis. Sleeve nut (M6) into the appropriate position of 3 possible positions of the outer protective plate. Insert aluminum plate on the inside of the coupling system and screw against the outside through this aluminum plate through a screw (M6). It can be mounted centrally, offset left or right. With an offset mounting the lower gear of the coupling system is to be mounted in the appropriate position. Another screw passes through the upper metal plate of the coupling system in the door leaf. Insert the adapter sleeve 8.5 to 4.2 mm (included in accessories set: SLT-Z-ES1).

For distance measure 72 or 92 mm

Put the cylindrical pin (2) into the cylinder adapter and handle spindle (3) in the lever square hole, the door outside outstanding. A jig (4) onto the centre or offset from the outside on both pins (Figure 2). Align jig, they must be parallel to the face plate, both pins must be at right angles to the door leaf. Attach jig with clamps. It is recommended that on the inside of the door a board (5) is also screwed, so that the door leaf is not scratched. Drill from both sides. For this purpose, the jig must be mounted again on the other side of the door leaf.

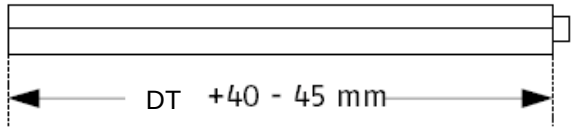
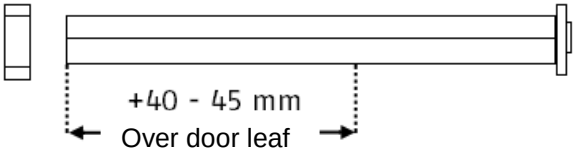
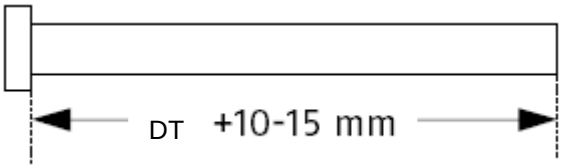
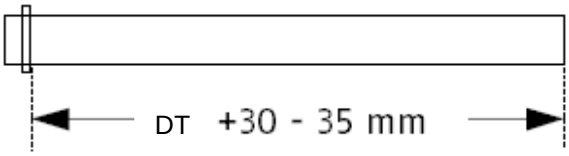
For another distance measure (neither 72 nor 92 mm)

Cylinder pin (2) into the cylinder adapter stuck to the door inside outstanding. A jig (4) onto the outside of the cylinder pin centrally or offset. Further process as previously described (In distance measure 72 or 92 mm).

Drillings: (Drawing 2)

Centralized installation	**Installation shifted to the right**	**Installation shifted to the left**
Drilling 13 mm: Pos. 6, 7, 8 Drilling 8 mm: Pos. 10	Drilling 13 mm: Pos. 6, 7, 8 Drilling 8 mm: Pos. 10a	Drilling 13 mm: Pos. 6, 7, 8 Drilling 8 mm: Pos. 10b

6. Adapting the installation material

	Special lever axle (3a) for heavy doors: Insert lever axle into the lever square hole; Length = door thickness (DT) + 40 to 45 mm; Mark and cut off
	Special lever axle (3) for normal doors: Insert lever axle into the lever square hole: the lever axle must stick out over and above the door; Length = door thickness + 40 to 45 mm; Mark and cut off
	Cylinder axle (2) Length = Thickness of the door + 10 to 15 mm; Mark and cut off.
	Driving axle (13) Length = Thickness of the door + 30 to 35 mm; Mark and cut off. Please remember that the driving axle has a predetermined breaking point against manipulations. Pay attention while cutting, that pressure on the axle is gentle!

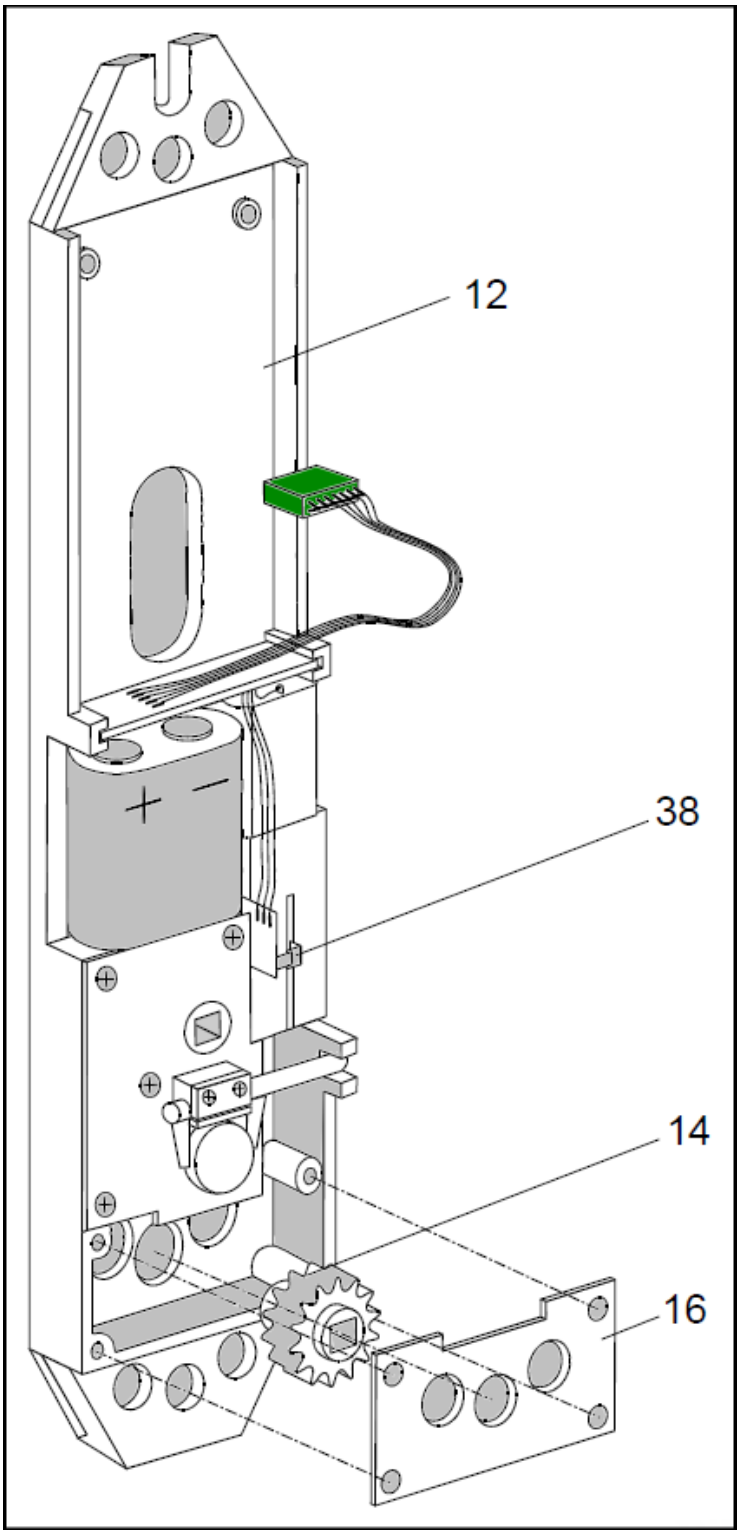
Screwing

Use cylinder screws with hexagon socket screws with DIN 912 stability category 8.8. (M8x40, M8x45, M8x60, M8x65 mm). For VdS –proofed installation, the centralized installation is required (M6x40 o. M6x60 mm) In case longer screws are needed, those must respect the specifications. Choose screws which can be screwed with 5 times rotation in the outer cap of the fitting. If this is not possible, you can alternatively add washers to avoid shortening the screws:

- Upper screw joint: max. 4 washers
- Lower screw joint: max. 2 washers

7. Shifted installation

(Drawing 4)

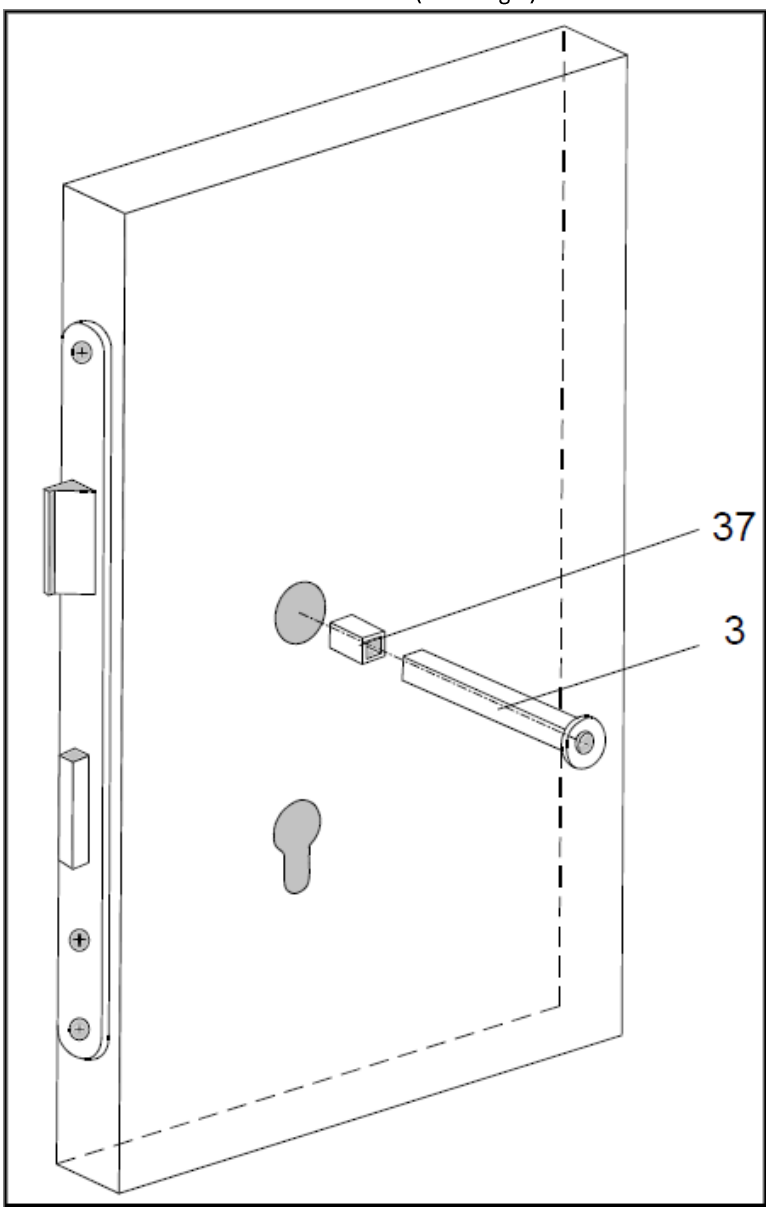


The lower cogwheel (14) is at delivery standardwise positioned in the center.

For a shifted installation, screw off the lower lid (16) of the gearbox, insert lower cogwheel (14) into the desired position and screw the lower lid (16) back.

8. Installing the lever axle

Installation for thin / normal doors (Drawing 5)

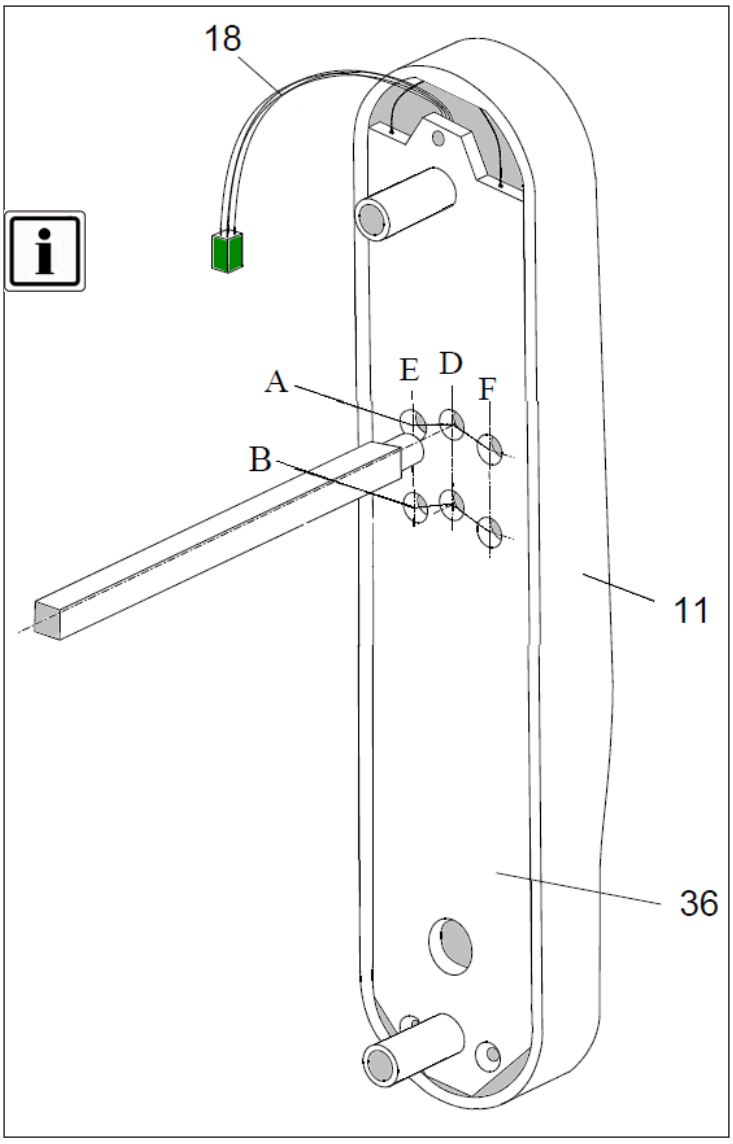


Insert lever axle (3) from outside into the lever square hole.

At lever square hole size with edge length 9 respectively 10 mm: slide on fitting adapter sleeve (37) with the size 9 mm to 8 mm respectively 10 mm to 8 mm onto the lever axle (3) (Drawing 5).

Screw on nut of the lever axle by help of a socket wrench 17 mm from the inside.

Installation on heavy doors (Drawing 6)



This installation is only possible on doors with 92 mm range.

Use special lever axle (3a).

For this type of installation, the drilling has to be very precise.

Screw in special lever axle (3a) into the desired position on the protection plate (36):

If range = 92 mm: line A

If range = 72 mm: line B

For centralized installation: column D

For shifted installation to the left: Column E

For shifted installation to the right: Column F

The special lever axle must be able to rotate up to 90°.

For lever square hole sizes with edge length 9 or 10 mm:

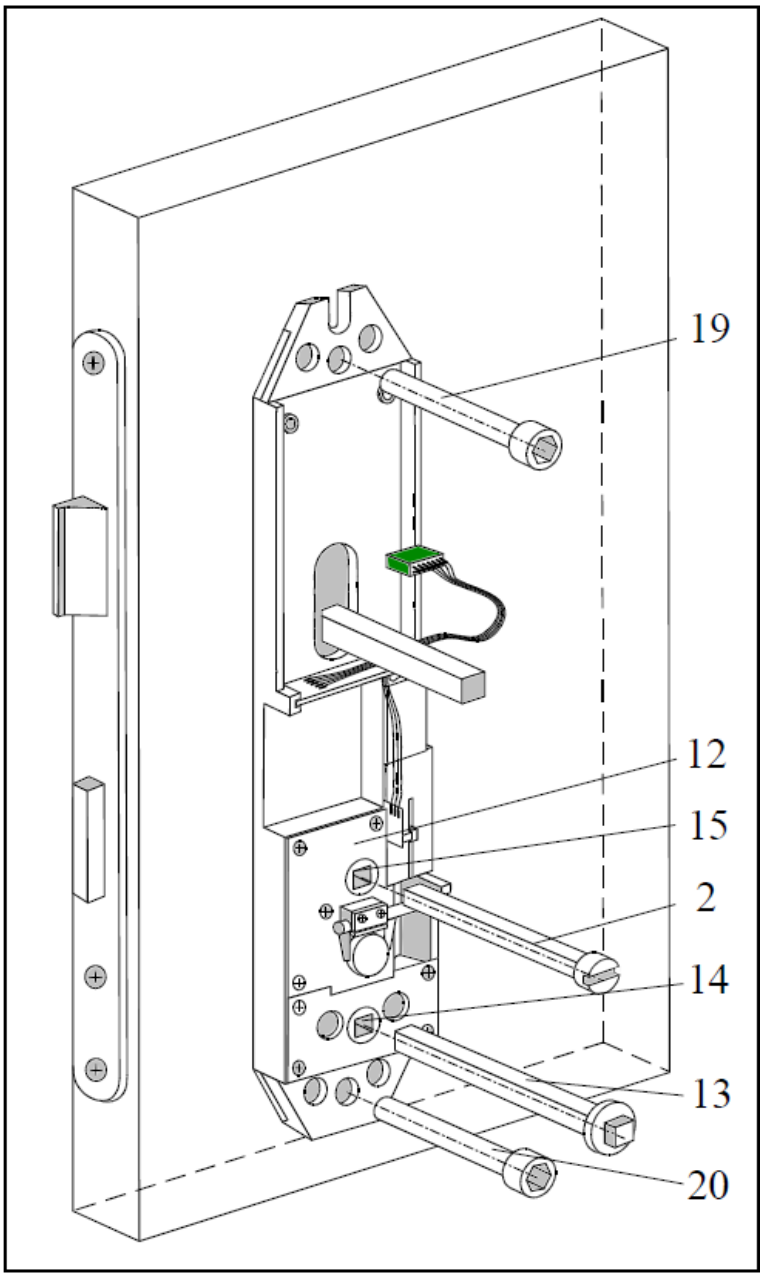
Slide on the relevant adapter sleeve (37) onto the lever axle (3a) and glue onto the lever pin.

Further installation steps (Drawing 6)

Put in connection cable (18) through the upper 8 mm hole. While approaching the exterior fitting to the door, pull lightly the connecting cable (18) in order to ensure that it will not be jammed under the protection plate (36).

The 8 mm bore for the connection cable (18) has to be sealed in order to prevent condenser water formation in the exterior fitting.

9. Installing the gear box
(Picture 7)



Important: before the gearbox (12) is put on, the cylinder adapter (1) must be tilted so that its cam is completely idle and the falling latch moves back after retraction.

Place the gear box (12) onto the inside of the door and complete the upper screw joint (19) as well as the lower screw joint (20).

By tin doors, the connection screws M8 may not be fastened too strongly, because the doors can get deformed.

Put in cylinder axle (2) in the upper cogwheel (15) and driving axle (13) in the lower cogwheel (14). Tighten lightly the screw connections (19) and (20).

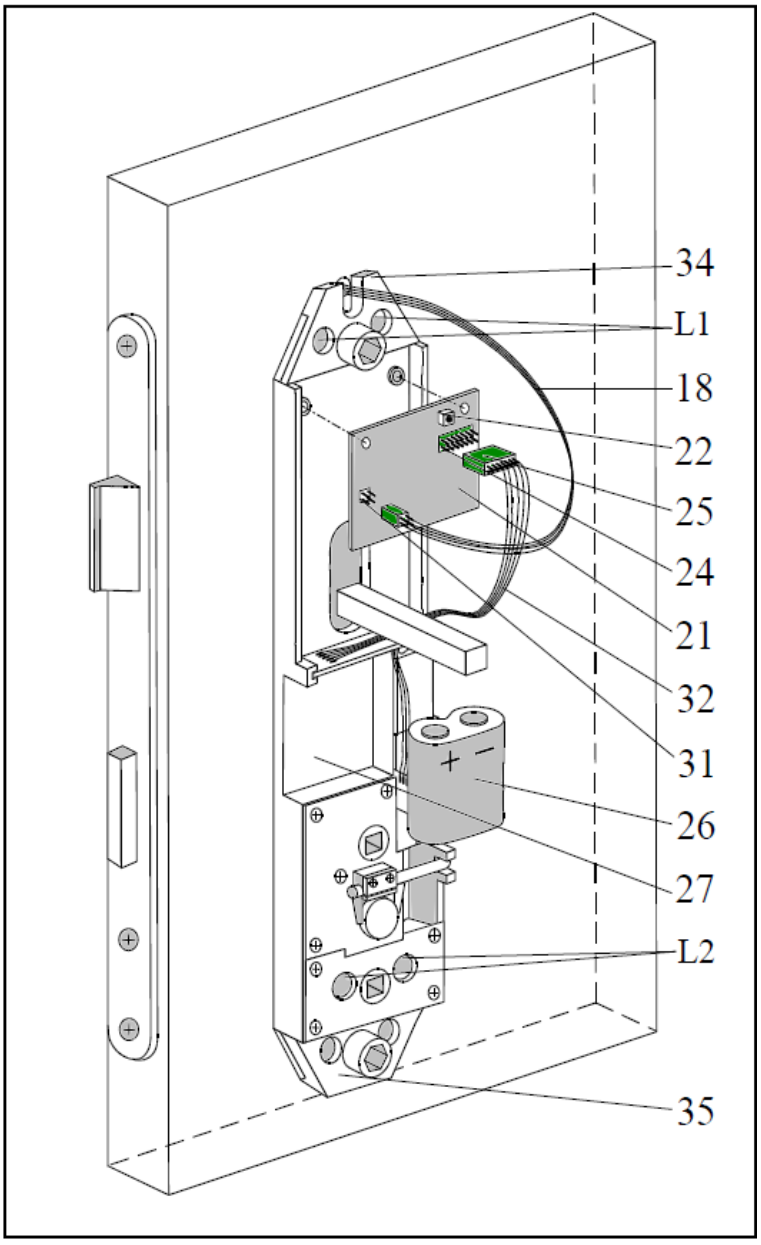
Please check mechanical function for mobility, especially of the latch bolt. If not mobile: loosen again screw connections (19) and (20) and move gear box (12) a bit until easy mobility is reached.

Screw the gearbox on the door with a tin screw each on the top and the bottom against the tin door. Hole adapter (Included in special accessory SLT-Z-ES1, Ref-Nr.: 501706) for size adjustment of the openings in the gearbox:

Insert hole adapter on top respectively on the bottom in a free hole L1 / L2 (Drawing 8). Bore hole with 4 mm drill in order to create a centre for the following bore and continue with a 2,5 mm drill.

10. Installation of the electronic parts

(Picture 8)



Screw the electronic circuit board (21) to the inner fitting.

Put in connection cable (1) of the exterior fitting into the 4-poled socket (31): Pay attention to the colour marking: Attach connection cable (18) in a way, that the white marked side of the cable lays on the same side as the white marking of the board.

Insert battery (26) into the battery housing (27): labelled side must remain visible. Pay attention to the markings „+“ and „-“ regarding correct position of battery.

Insert connection cable (32) of the gearbox (12) into the 14-poled socket (24).

Adapting the side for comfort locking:

Lock on the left (looking at it from outside):

White marked side of plug (25) to the top.

This is the original status. The unlocking is done clockwise.

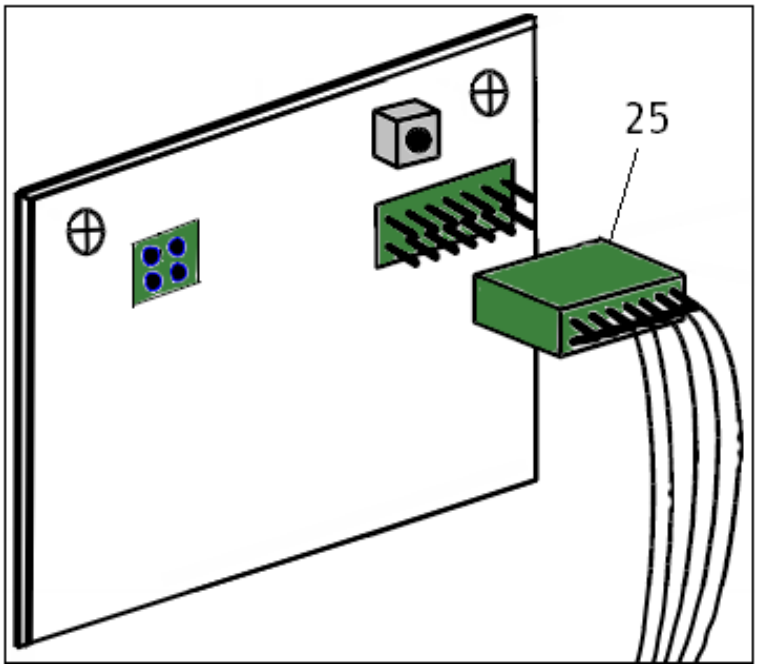
Lock on the right (looking at it from outside)**:**

White marked side of plug (25) to the top.

The unlocking is effected clockwise.

System must be adjusted in the opposite direction.

This is how the change is done:

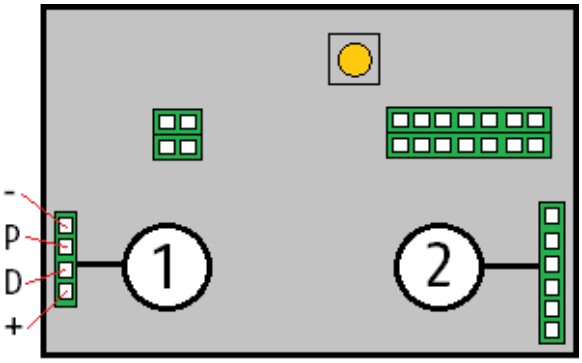


- Take out plug (25), turn 180° (= white marked side to the bottom), mount again.
- Insert valid key (user key, not programming key) or enter valid code
- Wait 6 sec.
- Again insert valid key (user key, not programming key) or enter valid code.

Now, the system is changed over to the other operating direction.

11. Connecting the security fitting to the alarm system

Important:
For the ARMED and DISARMED functions using the evaluation unit AE255 or AE255F, you will need to program user media also in the evaluation unit itself.



Connexion SLT to alarm system:

Important: the versions SLT-EK, SLT-EKP, SLT-IK, SLT-IKP (cabled) **do not have a battery warning**, so they should not be used in a stand-alone context.

Connexion to evaluation unit AE255:

WHITE (1) to (-)

BROWN (1) to P

GREEN (1) to D

YELLOW (1) to (+)

IMPORTANT: this not valid in case of inductive transmission, only for cabled installations.

Optional:

For alarm systems with **inductive transmission**, please connect the antenna board P/A-E/SLT with cables connectors (1) and (2) on the SLT electronic. Please check the correct connection, before adding the battery in the system.

Attention: in Stand-alone-use, the antenna board should not be plugged in.

Optional:
For alarm systems with **3m radio connection**, please connect the radio sending electronic SLT-E-E-FS with cable connectors (1) and (2) on the SLT electronic. Please check the correct connection, before adding the battery in the system.

Attention: in Stand-alone-use, the radio sending electronic should not be plugged in.

12. Registering the systems with wireless receiver FE for evaluation unit AE255F or AEBasic

The security fittings SLT (SLT-xx-AFP or SLT-xx-EF/P) are factory-set to stand-alone service. A logging-in procedure to the FE, AEBasic or FR must be carried out. Each door system must be registered individually.

Authorised locking media must also be saved in the evaluation unit for the arming and disarming switching function in connection with the AE255F evaluation unit.

12.1 Radio channel selection

Please refer to the relevant sections of instructions for FE (AE255F), AEB or FR.

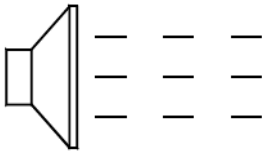
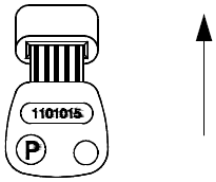
Carry out a new registration of the registered SLT when changing the radio channel.

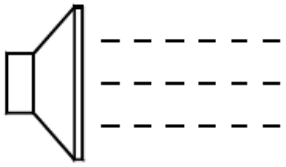
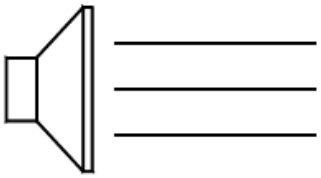
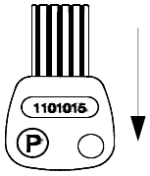
12.2 Registration to FE (AE255F), AEBasic

Function FE / AEB	Control element	Operation	Display
1. Start menu	Button T1	Press 1 x	LED D1 blinks for max. 60 s

The registration described under 12.3 must be carried out whilst D1 is flashing.

12.3 Registering SLT with FE (AE255F) or AEBasic

	1. Insert the programming key 1x into the chip key reader on the SLT fitting and then remove it.
	2. Slow acoustic signal indicates “readiness for programming”.
	3. Insert the programming key and leave it in.

	4. During quick acoustic signal: wait.
	5. Afterwards a long-lasting acoustic signal can be heard.
	6. During latest: remove the programming key.

Display FE or AEBasic

Displayed	**Meaning**
LED D1 is lit up	Registration was successful
LED D1 is still flashing	Registration unsuccessful. Reduce the distance between SLT and FE or AEBasic. Perform the registration again
Leuchtdiode **D1** und **D7** leuchten	Speicher für Türsysteme der FE oder AEBasic voll. Einzelne Systeme abmelden.

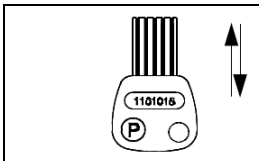
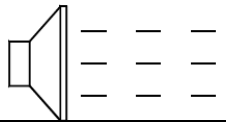
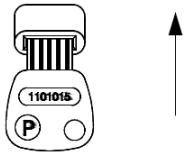
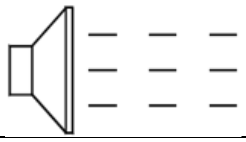
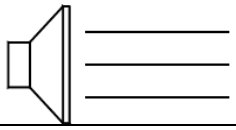
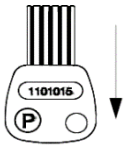
13. Delete the connection of SLT to FE (AE255F) or AEBasic

13.1 Deleting process

Function FE / AEB / FR	**Control element**	**Operation**	**Display**
1. Start menu	Button T1	press x 3	LED D4 blinks for max. 60 s

The deleting process described under 13.2 must be carried out whilst D4 is flashing.

13.2 Deleting SLT out of FE (AE255F) or AEBasic

	1. Insert the programming key 1x and remove it.
	2. A slow acoustic signal indicates the „readiness for programming“.
	3. Insert the programming key and leave it in.
	4. During quick acoustic signal: wait.
	5. Afterwards a long-lasting acoustic signal can be heard.
	6. During latest: remove the programming key.

Display for FE (AE255F) or AEBasic

Display FE/ AEBasic / FR	Meaning
LED **D4** is lit up for 20 s	Deleting process was successful
LED **D4** is still flashing	Deleting process was unsuccessful. Reduce the distance between SLT and FE or AEBasic. Repeat the deleting process once again.

14. Testing the reception strength

The reception strength can be tested in order to check the radio connection between the SLT and FE (AE255F) or AEBasic.

Function FE, AEBasic or FR	Control element	Operation	Display
1. Start menu	Button T2	press x 1	LED D1 - D8 blinks for max. 60 s
2. Show reception strength	Valid locking medium, registered door system (remote only rotate the outer knob)	Present the locking medium	The LEDs D1 - D8 might light up. The more LEDs that light up, the stronger the reception signal

Secure data transfer is only possible if outside interference on a frequency of 868 MHz are excluded.

15. Possible malfunctions

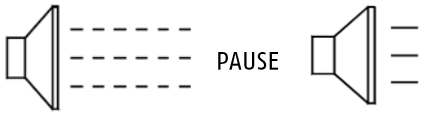
Malfunction occurring	Acknowledgment on CLX	Cause
Standard negative	9x red flashing	No arming/disarming permission.
Special negative	9x red flashing, pause, 1x red flash	Feedback EMZ does not de-energise during disarming switching attempt. No radio connection to AEB.
	3x red flashing After 10/15 s	No EMZ feedback during arming switching attempt.
	5x red flashing	Blocking magnet / bolt contact is not active
LED D8 (AEBasic or FE) flashes	-/-	Disturbance in the radio link or External source of disturbance for the radio signal or Defect in the door system's radio transmitter circuit board

16. Actions to take in case of radio connection disturbance

In case of a power failure at the FE or AEBasic, interruption of the radio link or lack of feedback from alarm system, it can be necessary to carry out an emergency opening.
This requires a special negative acknowledgment (see 20. Malfunctions)

The alarm system can be switched to armed. A transfer of the alarm system state to the coupled door system does not take place. There is the risk of triggering an alarm.

Special negative acknowledgement

	Quick acoustic signal – PAUSE – Quick acoustic signal after tentative of alarm deactivation.

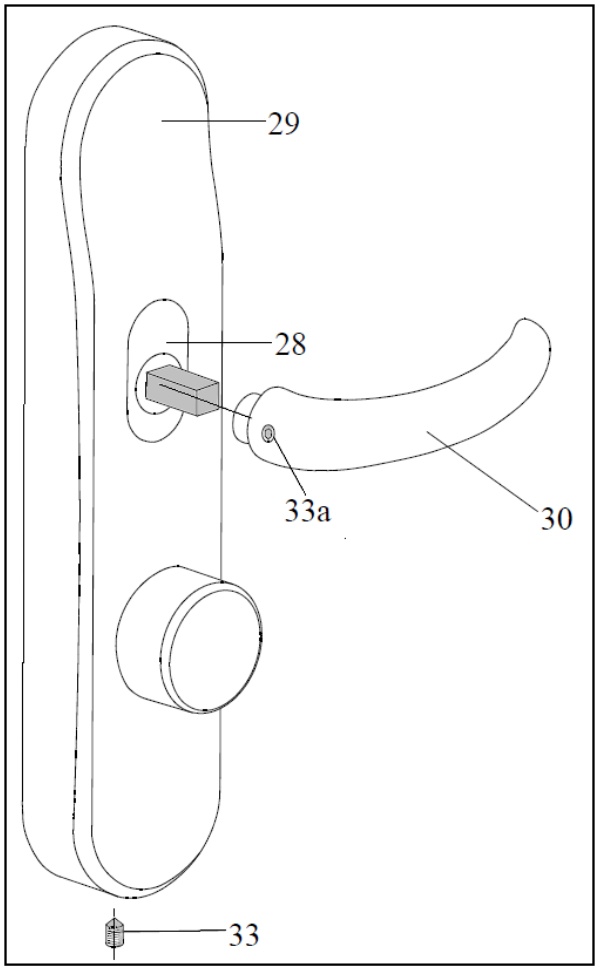
Procedure:
Present an authorised locking medium during the pause in the special negative acknowledgment. Repeat this process eight times. After the eighth time, the door system couples for a pre-set coupling period of 6 or 12 seconds.

17. Mechanical function test

a) Put a screwdriver on the groove of the cylindrical pin (2) and turn it until the latch is returned. This must move freely, the cam must spring back well. If not, loosen the screws (19) and (20), and adjust the position of the coupling system (12), until a smooth function is achieved. Screw tightly again.

b) The outer knob must rotate freely when turned.

Putting on the interior housing cover (picture 9)



The lever bearing (28) is standardwise installed in the position for centre 72 mm.

For centre 92 mm: screw out lever bearing and turn it 180° and put it back.

Installation of interior housing cover (picture 9): Restore interior housing cover (29) at the upper edge (34) of the gearbox and screw it by help of the thread pin (33) against the lower edge (35) of the gearbox.

Put lever (30) onto lever axle (3) respectively (3a) and screw on with grub screw (33a).

Electrical check: (Please note. Interior housing cover has to be mounted. Otherwise the photo electric barrier of the motor control cannot function reliably).

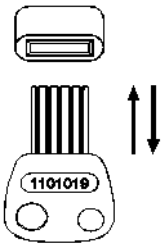
Insert and remove the programming key. Now you can hear an acoustic signal tone signalling the programming mode. During the latter, insert and remove any key.

Test the newly programmed key.

18. General operation with media

Throughout the operating instructions, the insertion and removal of the chip key - as well as the presentation and removal of the transponder - is indicated by the word **"to present"**.

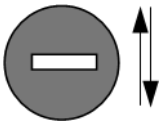
1. ABUS Chip key (ACS)



To operate, the ABUS chip key is inserted into the reader module (reading slot on the outer knob) and taken out again.
The ABUS chip key is reversible; the plug-in direction is variable.

Important: Operation approval only occurs after the key has been removed.

2. Proximity / Hitag1 / Hitag2-Transponder:



To operate using a Proximity / Hitag1 / Hitag2 transponder, touch the centre of the reading module with the transponder. During programming: Place the transponder on the reading module on the outer knob.

A rapidly blinking green light confirms the reading of a valid locking medium. The locking medium must be removed from the reading module (at least 100 mm distance) before further reading can be started. During the coupled period no other reading with a locking medium is possible.

Every input of a valid locking medium produces an approval for 6 or 12 seconds: during this time the door can be unlocked and opened. The system then goes back to the free-running state.

For further functions you require a recording system (SLT-LCA-**SP**), the transfer device and the ABUS Seccor Key Manager Software:

- Recording function, setting the time,
- Defining time limitations,
- Automated changeover to summer/winter time
- Time-controlled activation/deactivation of permanent access (ZAAP)

->NOTE: Keys and locking media should always be kept safe so that only authorised persons have access to them. If you lose the key, follow the steps outlined in this manual immediately so that third-party use of the lost key can be avoided.

3. CODE input: a valid authorisation can be created with a 4, 5 or 6 digit code on the SLT fitting (a 6 digit code must be used in a **VdS** environment).

➔**NOTE:** Select codes that cannot be found out by trial and error. Avoid:

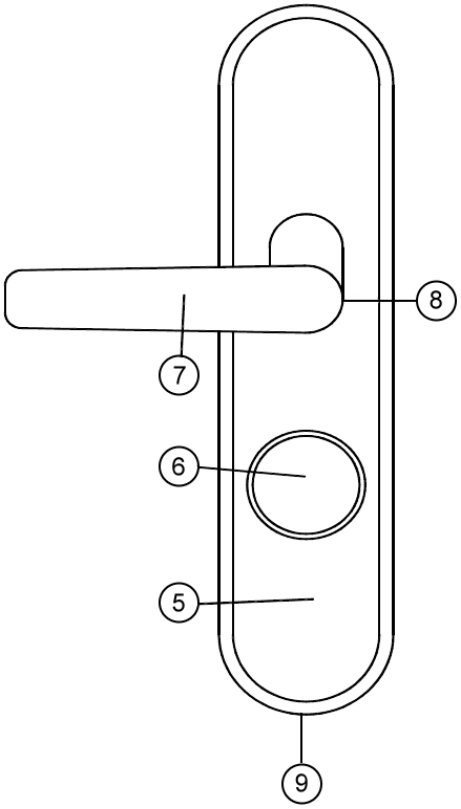
- **Several of the same digits (e.g. 3333, 8888 etc.)**
- **Digit chains that arise due to keypad arrangement**
- **Common codes (e.g. 4711, 0815 etc.)**
- **Numeric sequences (e.g. 1234, 6789 etc.)**
- **Birthdates (e.g. 280769 for 28th July 1969)**
- **Write the code down and keep the document safe**
- **Check the code several times before shutting the door to make sure you do not get shut out.**

There are 511 memory spaces available. Each memory space can store a locking medium or code. Locking media and codes can be used on their own or as combination codes.
The following describes the operation of the first two locking media types. Later in the manual, examples of the operation of the ABUS chip key will be described.

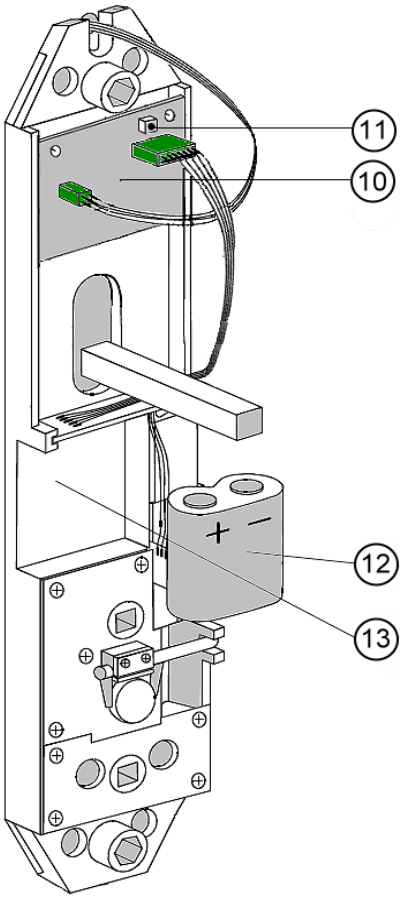
19. Setting up operation

For this operation, the Reset button (11) must be free and easy to access. The handle and the inner cap must be removed. The CR-P2 battery (12) must be installed.

picture 1

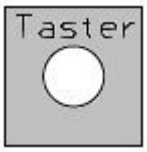
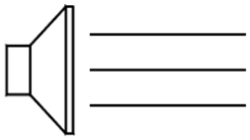
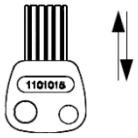
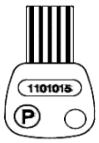


picture 2

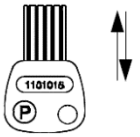
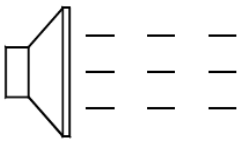
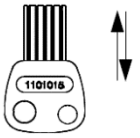


- Dismantle screw of handle (8). Remove handle (7).
- Unscrew the screw (9) on the inner cap (5). Remove the interior housing cover in above direction.
- Install the battery (12) inside.
- Now the fitting is ready for the first programmation.

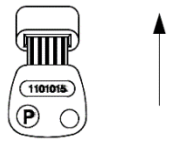
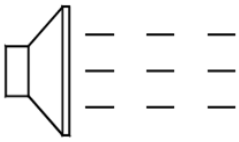
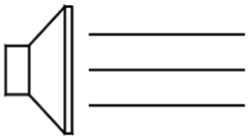
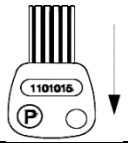
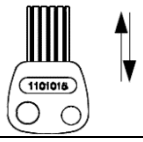
19.1 Creation of a programming key

	7. Press on the Reset button (11) for approx. 1 sec.
	8. You can hear a lasting acoustic signal.
	9. Insert, then withdraw any chip key. The signal stops. This new chip key is now the programming key for the fitting.
	10. Add a „prog“ sticker to this chip key in order to differentiate it from other chip keys.

19.2 Creation of user chip key

	1. Insert and withdraw the programming key.
	2. You can hear a **slow**, interrupted sound indicating „programming mode on“.
	3. Insert a chip key and remove it. Sound stops. The chip key is now programmed. For more security, test the new user key with an open door.

19.3 Creation of a user chip key with the „permanent access“ function

	1. Insert the programming key and leave it in.
	2. Wait during the whole slow, interrupted sound.
	3. Then it is replaced by a long-lasting sound.
	4. During this sound: withdraw the programming key.
	5. Insert and withdraw a new chip key. This one should **not** be already programmed as a user chip key! The sound stops.

19.4 Creation of a new user code

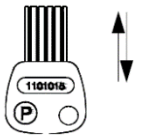
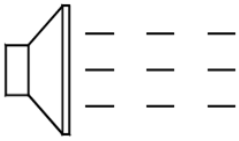
Preliminary remarks on the use of codes.

- The digits 0-9 are required for code input.

- This button represents the „STOP function“. Pressing this button will stop the code entry (f.i. in case of a mistake). This action is confirmed by 2 beep sounds.

- The PROG button confirms the programming of a code. This action is confirmed by 1 beep sound.

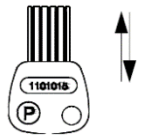
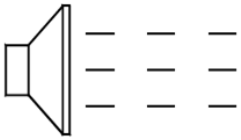
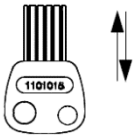
Creation of a new code

	1. Insert, then remove the programming key.
	2. You can hear a **slow**, interrupted sound indicating „programming mode on“.
	3. Press on the first digit of the code: the sound stops. Continue the code entry. Codes can be 4, 5 or 6 digits long.
	4. Press „PROG“ to confirm the creation of the new code.

Test the new user code on an open door, to avoid being stuck outside in case of a mistake.

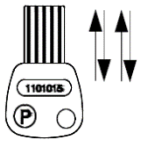
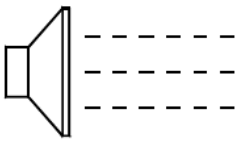
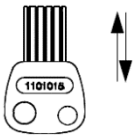
19.5 Creation of a new combination code "Code + chip key"

It is recommended that for every user chip key, an additional combination code is also created. This has the advantage of allowing you to individually delete any lost keys later on if required. (This is done with the help of the keypad codes that you created together with the key as a combination code).
Use a 4 to 5-digit keypad code for each chip key.
Keep a record of the combination codes created. Record the key, the code and the user, e.g. line by line in a table.

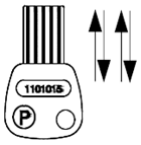
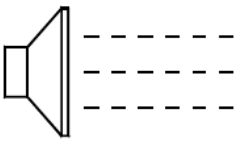
	1. Insert, then remove the programming key.
	2. You can hear a **slow**, interrupted sound indicating „programming mode on".
	3. During this sound, enter your 4 to 5 digits code, after the first digit the sound stops.
	4. Directly after the code, enter the user chip key to associate with this code. This confirms the creation and in this case you do not need to press PROG.

20. Deleting single locking media

20.1 Chip key to delete is available

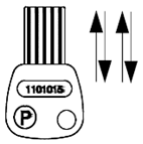
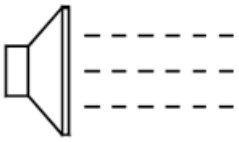
	**1.** Insert and remove the programming key twice.
	**2.** You can hear a **quick**, interrupted sound indicating „deleting mode on“.
	**3.** During this sound: insert and remove the user chip key to delete.

20.2 Code available

	1. Insert and remove the programming key twice.
	2. You can hear a **quick**, interrupted sound indicating „deleting mode on“.
	3. Enter the code to delete – after the first digit, the sound stops.
	4. Confirm this actionby pressing the PROG button once.

20.3 Chip key not available (f.i. lost)

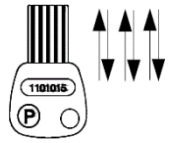
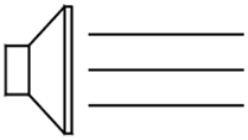
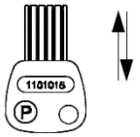
You can delete a lost key individually if had you associated it with a code as explained on point 19.5

	1. Insert and remove the programming key twice.
	2. You can hear a **quick**, interrupted sound indicating „deleting mode on“.
	3. During this sound, enter the code associated to the chip key you wish to delete – after the first digit, the sound stops.
	4. Confirm this actionby pressing the PROG button once.

After that, the chip key is deleted and has no access rights any more in the SLT.

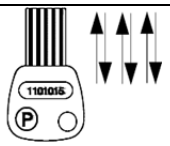
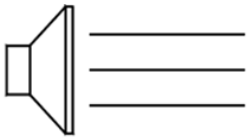
Quick check: If you want to check whether the locking medium has really been deleted: Repeat the above deletion process. When you press the “PROG” button you will hear a short acknowledgement sound. This is evidence that both the locking medium and the combination code have been deleted. If you do not hear any sound, please repeat the deletion process.

20.4 Deleting all user chip keys

	1. Insert and remove the programming key 3x.
	2. A long lasting sound indicates the „deletion warning“.
	3. Confirm the deletion by inserting and removing the programming key a fourth time.

Now all the locking media aside from the created individual codes, combination codes and the programming key have been deleted. You can delete all media and the programming key by initialising the SLT (see creation of a new programming key).

20.5 Deleting all codes

	1. Insert and remove the programming key 3x.
	2. A long lasting sound indicates the „deletion warning“.
	3. Confirm the deletion of all codes by pressing the „PROG“ button once.

Deleting the codes does not delete any keys. Keys which were created along with a combination code cannot be individually deleted after carrying out “Delete all codes”, but they are still authorised. They must be individually deleted.

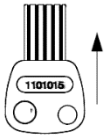
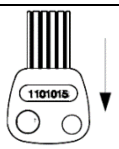
21. Operation

21.1 Operation from inside

To lock/unlock the door from the inside, you do not need any locking media. Simply turn the inside knob on the security fitting SLT-LCA.

21.2 Operation from outside

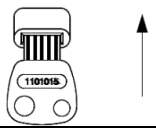
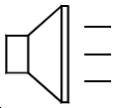
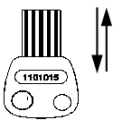
From ourside, unlocking the door can only be done after using a locking media (chip key or code). After identification, turn the outside knob.
Locking from outside is possible without any locking media thanks to the "*comfort locking" of the SLT:* simply turn the outside knob in the locking direction.

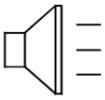
	1. Insert a programmed user chip key or enter a user code (or combi code).
	2. Remove the chip key (for code entry, wait 2 sec). The system couples in and allows unlocking for 6 or 12 seconds depending on the configuration.

21.3 Manual activation of the „permanent access" mode

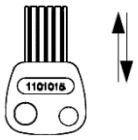
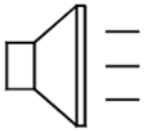
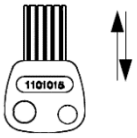
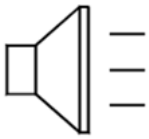
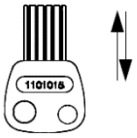
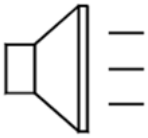
The manual activation of permanent access is only possible with keys that were awarded the additional function of "permanent access" during programming.

The combination of permanent access and evaluation units for alarm systems with the following SLT references: SLT-LCA-AFP, SLT-LCA-EF, SLT-LCA-EFP and SLT-LCA-IK.

	1. Insert the user chip key with permanent access function and leave it in.
	2. A first short sound can be heard.
	3. Insert and remove the user chip key again.

	4. The permanent access mode is confirmed by a second short sound.

21.4 Manual deactivation of the "permanent access" mode

	1. Insert and remove the user chip key with the permanent access function.
	2. A first short sound can be heard.
	3. Insert and remove the user chip key again.
	4. Another short sound can be heard.
	5. Insert and remove the user chip key again.
	6. A last short sound can be heard. The permanent access is now deactivated.

22. Switching to ARMED, DISARMED, opening with ABUS evaluation units

Switching to DISARMED and opening is possible with any valid locking medium.
The locking medium must also be authorised in the evaluation unit when using AE255F.

If the burglar alarm centre (EMZ) switches to ARMED after the end of authorisation input (insert and remove chip key twice), this will be confirmed by a sound (= positive acknowledgement).
If the burglar alarm centre (EMZ) switches to DISARMED after the end of authorisation input (insert and remove chip key twice), this will be confirmed by a sound (= positive acknowledgement). This positive

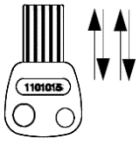
acknowledgement can take place immediately after the end of input or - depending on the EMZ - after up to 10 seconds of delay.
The door can be opened after the alarm was switched to DISARMED.

Please refer to the instructions for evaluation devices AEBasic or AE255F.

22.1 Swith to ARMED using SLT and evaluation unit AE255/F or AEBasic

First, please lock the security fitting SLT.

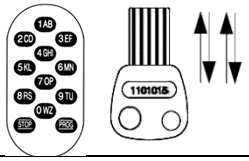
Switch to ARMED via chip key

	1. Insert and remove chip key 2x.

Switch to ARMED via code

	1. Enter a valid code.
	2. Wait 1 sec, then press PROG.

Switch to ARMED via combi code

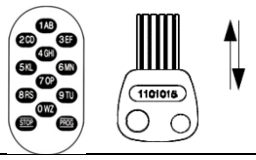
	1. Enter a valid code. 2. Insert and remove the associated chip key 2x. Waiting time before the two insertions: 1-4 sec.

22.2 Swith to DISARMED using SLT and evaluation unit AE255/F or AEBasic

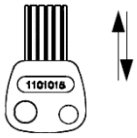
Switch to DISARMED via code (Jumper A on evaluation unit AE255/F)

	1. Enter a valid user code.

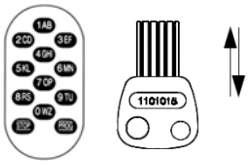
Switch to DISARMED via combi code (Jumper A on evaluation unit AE255/F)

	1. Enter a valid user code. 2. Insert and remove the associated chip key.

Switch to DISARMED via chip key (Jumper B/C on evaluation unit AE255/F)

	1. Insert and remove 1x a valid chip key.

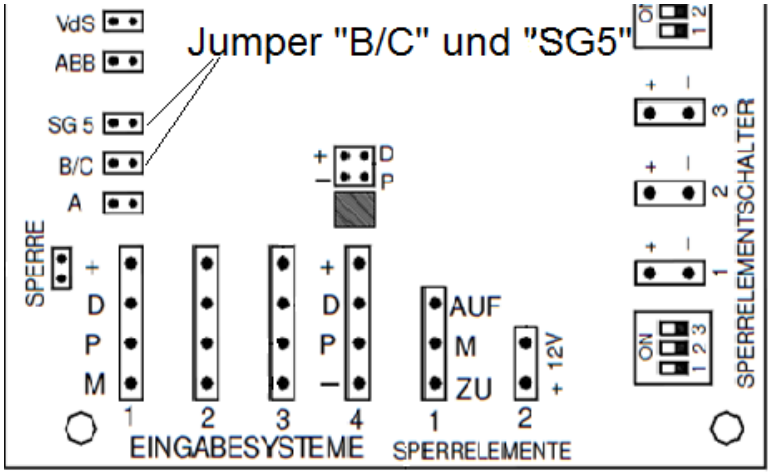
Switch to DISARMED via 6-digits code + chip key (Jumper SG5 on evaluation unit AE255/F): there are no "combi codes" or pairs. Code and ABUS chip key must not be associated before.

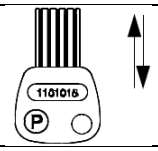
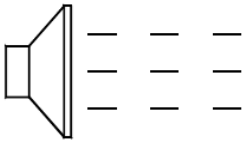
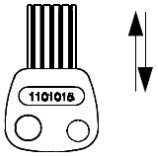
	1. Enter a valid user code. 2. Insert and remove a valid chip key.

22.3 Creating a "special key for guard duty" (only in combination with an AE255/F)

A special key can be created for guard duty. This does not open the door system unless an alarm goes off.

For this, the **Jumper „B/C" and „SG5" must be set on the evaluation unit AE255 / AE255F.** Jumpers „A", „ABB" and „VdS" stay free.



	1. Insert and remove programming key 1x.
	2. You can hear a **slow**, interrupted sound indicating „programming mode on".
	3. Insert and remove user chip key to program, the sound stops. This user chip key is now programmed with "guard duty" functtion.

Place the jumpers on their original spot back again (see instruction manual for AE255 or AE255F).

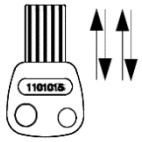
The following functions can be carried out using the special key for guard duty:

- In the DISARMED state: Switch to ARMED
- In the EXTERNAL ARMED state and an alarm is triggered: Switch to DISARMED
- In the INTERNAL ARMED state and an alarm is triggered: Switch to DISARMED

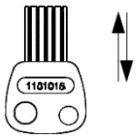
22.4 Use of the special chip key with guard duty function on the SLT (only with AE255/F)

The following functions can be carried out using the special key for guard duty:

In the DISARMED state: Switch to ARMED.

	1. Insert and remove chip key 2x.

In the EXTERNAL ARMED state and an alarm is triggered: Switch to DISARMED and access the premises
In the INTERNAL ARMED state and an alarm is triggered: Switch to DISARMED and access the premises

	1. Insert and remove chip key 1x.

22.5 Switch to INTERNAL ARMED (only with AE255/F)

Lock the door first. With the special code to switch to INTERNAL ARMED, it is not possible to switch to DISARMED.

	1. Enter the special code programmed for INTERNAL ARMED mode.

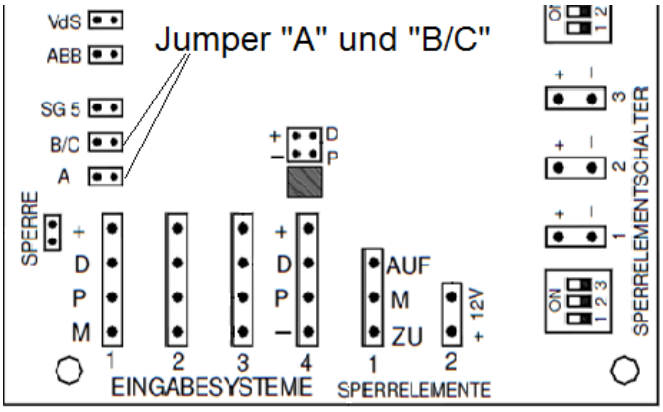
22.6 Switch to INTERNAL DISARMED (only with AE255/F)

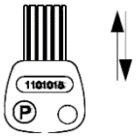
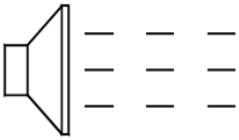
Follow the same procedure to swith to INTERNAL DISARMED as to switch to DISARMED.

22.7 Create a code for a silent alarm (only via evaluation unit AE255/F)

If a SLT fitting is connected to a AE255/F evaluation unit, then a silent alarm can be triggered using the code keypad. To do so, a special 6-digit code must be specially created.

For this action, please set the Jumpers „A“ and „B/C“ on the AE255 / AE255F. The Jumper „SG5“, „ABB“ and „VdS“ stay free.



	1. Insert programming key 1x.
	2. You can hear a **slow**, interrupted sound indicating „programming mode on“.
	3. Start entering the 6-digit code. The first digit stops the sound.
	4. Pressing on the PROG button confirm the creation.

After the successful programming, please replace the jumpers on their original spot on the evaluation unit.

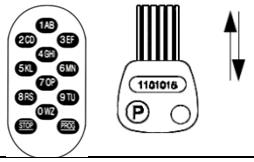
22.8 Trigger silent alarm and switch to DISARMED (only with AE255/F)

To set off a silent alarm, this must first have been created as a special code in the evaluation unit. Please refer to the instructions for evaluation devices.

Trigger silent alarm (Jumper A set on AE255/F)

	1. Enter in the "Silent alarm" special code.

Trigger silent alarm (Jumper SG5 set on AE255/F)

	1. Enter in the "Silent alarm" special code. 2. In the next 4 sec, insert a valid chip key and remove it.

Trigger silent alarm in DISARMED mode

	1. Enter in the "Silent alarm" special code.

23. Additional functions with AEBasic

23.1 Locking function

If the installer sets the operating mode "locking function" in the AEBasic configuration, the SLT-AFP is connected to an externally locking system via the AEBasic. As long as the external locking system is active, the SLT-AFP remains locked. In this locked state, even valid inputs are not allowed access. Locking is signalled on the SLT-AFP by a short sound repeated 3 times.

23.2 Switching function

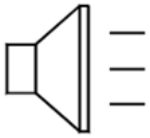
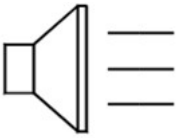
If the installer sets the operating mode "switching function" during AEBasic configuration, the switching function on the AEBasic will be activated by any valid input parallel to the door opening.

23.3 Combination switching + locking function

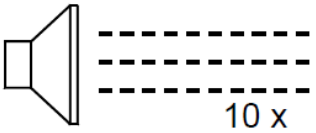
If the installer sets the operating mode "switching function + locking" during AEBasic configuration, the switching function on the AEBasic will be activated by any valid input - as long as no lock is applied - parallel to the door opening. As long as the externally locking system is active, the SLT-AFP remains locked. In this locked state, even valid inputs do not allow access or activate the switching function. Locking is signalled on the SLT-AFP by a short sound repeated 3 times.

24. Possible acknowledgements

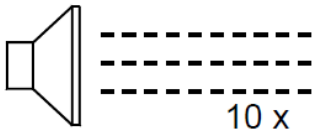
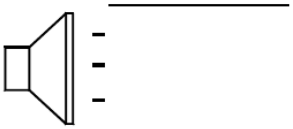
Positive acknowledgement switching to ARMED/DISARMED

	1. Alarm system switches to DISARMED. A short sound is a positive acknowledgement.
	2. Alarm system switches to DISARMED. A sound lasting 3 sec can be heard as a positive acknowledgement.

Possible 10x repeated sound as negative acknowledgement after attempt to switch to DISARMED

	**Meaning:** The locking media used (chip key, code) entered is not valid for DISARMING.

Possible special negative acknowledgement after attempt to switch to DISARMED

	1. 10x repeated sound, occuring 3 – 10 sec after the code entry.
	2. 4 sec Pause 1 last sound.

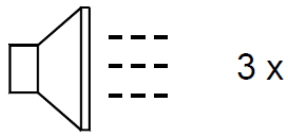
Possible meanings:

- SLT has no connection to AEBasic or AE255F evaluation units.
- Alarm system is not DISARMED.

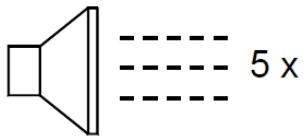
If such a negative acknowledgement is signalled, the SLT can be opened after using an authorised locking medium 8 times - regardless of the status of the evaluation unit (possibly also **causing an alarm to be triggered**). The locking medium must be presented in the 4 second pause after the 10th tone. This process should be repeated 8 times. The SLT can be opened again after the 8th time.

If the locking medium is presented too late during this emergency opening action (f.i. the sound starts again already after the 4 second pause), the locking medium must again be presented 8 times (whole process to repeat).

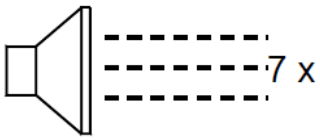
Possible 3x sound as negative acknowledgement after attempt to switch to ARMED

	3x sound, can be heard until 10 sec after use of chip key/code. Possible cause: No feedback from EMZ (alarm system).

Possible 5x sound as negative acknowledgement after attempt to switch to ARMED

	5x repetitive sound immediately after use of chip key / code. Possible cause: EMA/EMZ not ready for switching to ARMED (block magnet). Check the ARMED switching conditions within the premises.

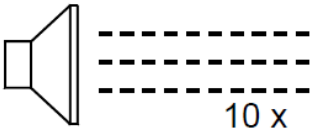
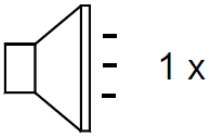
Possible 7x sound as negative acknowledgement after attempt to switch to ARMED

	7x repetitive sound immediately after use of chip key / code. Possible cause: EMA/EMZ not ready for switching to ARMED (lock contact). Check the ARMED switching conditions within the property.

Possible 10x sound as negative acknowledgement after attempt to switch to ARMED

	10x sound, can be heard immediately or until 10 sec after use of chip key/code. Mögliche Ursache: Nicht spezifiziert. Informieren Sie Ihren Fachhändler.

Possible special negative acknowledgement after attempt to switch to ARMED

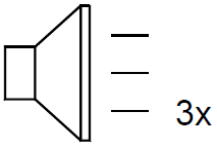
	1. 10x sound, until 3-10 sec after using chip key / code, followed by 4 sec pause.
	2. 1 last tone. Possible meaning: SLT has no connexion to the evaluation unit.

25. Time blocking

After 6 wrong code attempts, the system will be locked for 10 minutes. If entered incorrectly again, the system will again be locked for 10 minutes. The time block can be cancelled using a valid key or the programming key. The timed blocking is signalled by a slow repetitive sound. The programming key interrupts the timed blocking so that one-time entry is possible. See details in the error descriptions at the end of the manual.

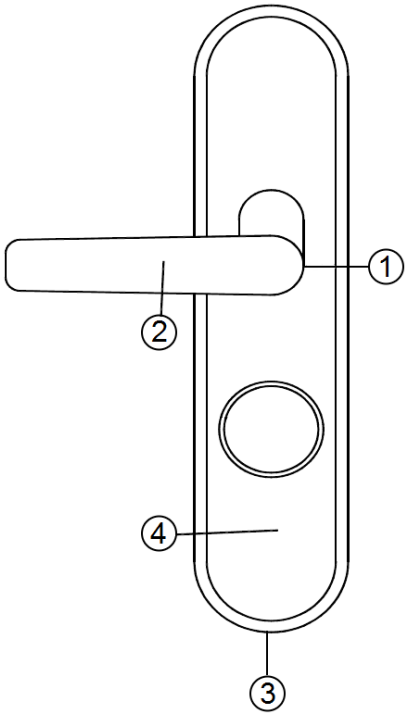
26. Changing the battery

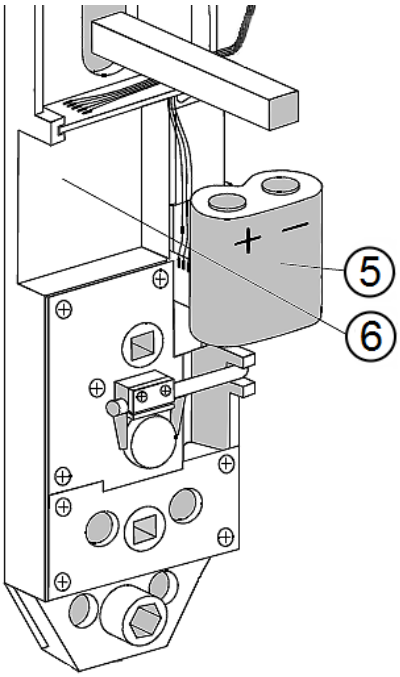
The electronics check the battery status during every valid authorisation input. If this drops below a threshold value, the user will hear a 3x repetitive sound before opening.



At first this warning signal will only occur sporadically as the stress state initially oscillates around the threshold value. The warning signal will occur after every valid input if the threshold value is consistently not met. We advise immediate replacement of the battery.

If the battery is fully low, the system will not react anymore.
Use the emergency power supply tool (ESE-EN) from outside in order to get in and replace the battery.





Unscrew the handle screw (1) from the handle (2) and remove both.

Unscrew (3) the inner cap (4) and remove it.

Remove the low battery CR-P2 (5) and add a new one in the battery compartment (6).

Check the good function of the SLT before closing the inner cap again.

All saved keys and codes are preserved during battery change. However, errors related to the time and date may occur for the products with protocol electronic (Ref- Nr. Including "-SP").
The time must therefore be reset. To do this, use the update function of the SKM software and the transfer device (TG-SKM-EN).

27. Elimination of possible malfunctions

Malfunction encountered	Possible cause	Action
Permanent access cannot be turned on with the use of a chip key with permanent access function.	Locking medium is already programmed as a user chip key in the SLT.	Delete the chip key and reprogram it with the permanent access function
The individual deletion of a lost locking medium (without software) is not possible.	The locking medium failed to be created with an additional combi code	Delete all locking media. Then recreate existing locking media and also create a combination code with each locking medium.
The transfer device is not transferring any data to the SLT.	• Version of the transfer device is too old • The connection cable is defective • There is no data in the TG transfer device	• Update the transfer device with the newest version. • Exchange the connection cable • Reload the transfer device
Short sound every 2 seconds, no code input possible	Timed lockout after multiple inputting of an incorrect code	Operate 1x with an authorised key or programming key
3x short sounds immediately after code or chip key input	CR-P2 battery is low	Change the battery and if needed, reset time and date using the TG-SKM-EN transfer device.

Elimination of possible installation problems

Malfunction encountered	Possible cause	Action
Upper drill is meeting the lock case	Lock case is oversized in height	Lock case has a vertical slot: drill through the slot. Lock case does not have a vertical slot: for distance E of 92: use the centric installation (SLT-Z-ES1, Art.-Nr. 501706).
Lever pin has too much free space	• Lever square hole has length 9 • Lever square hole has length 10 • Lever square hole has too much free space in the lock.	• Use adapter sleeve 9 to 8. • Use adapter sleeve 10 to 8. • Use the „special lever pin for heavy doors", included in accessory set small, Ref-Nr. SLT-Z-ES2, Art.-Nr. 501874.
It is always possible to open the door.	Configuration of the unlocking direction was not done	Configure the locking direction of the outer knob
System does not really couple in when function tests are done	Photocell of motor is blocked by the incident light	Add the inner cap on the SLT before processing to function tests
No sound can be heard while resetting the product	No battery or battery installed in the wrong direction (polarity). Cable coming from the outer cap is wrongly installed.	Replace the battery in the correct position, install the cable from the outer cap as described in this manual (white part direction above).
Cam of the mortice lock is blocked	Drillings Nr. 6, 7 or 8 were not precisely realised.	Adjust the inner parts again: both square pins should not be blocked/uptight. If this is not enough: expand holes 6 and/or 8.
Outer knob is running freely in both directions, also after using a valid locking medium	Driving axle (13) cut too short	Use a new driving axle in the correct length

28. Maintenance indications

Electronic locking systems should be controlled and serviced at least once a year. In an atmosphere with a high dust and dirt level, or when the system is used very frequently, it can be possible that the system needs a more frequent service and check of the following:

Visual control of any possible damage

Good installation/placement and fixed seat of the products

Good installation/placement and fixed seat of the electrical connections

Control of battery level

Cleaning and oiling of the product

Function test

Any noticed misfunction must be repaired immediately. If this is not possible, then please avoid using the system any further. Replace the system by another one or a reliable replacement solution. Faulty systems must be marked as such and stored in a secure place. It must be guaranteed, that these are not mistakingly used again.

Cleaning, Oiling and Care:

The system must be cleaned, particularly the internal components needing to be oiled.

Electronic locking systems must be kept away from resinous products. Please only use care products which do not cause corrosion.

Graphite or products containing graphite should not be used in order to avoid short-circuit, because graphite is conductive.

Do not use different cleaning products together. Unpredictable chemical reactions could occur.

Please use chemical products which are compatible with plastic.

Read the instructions from the supplier.

Oil advice:

Universal-oil HANSELINE 100ml,

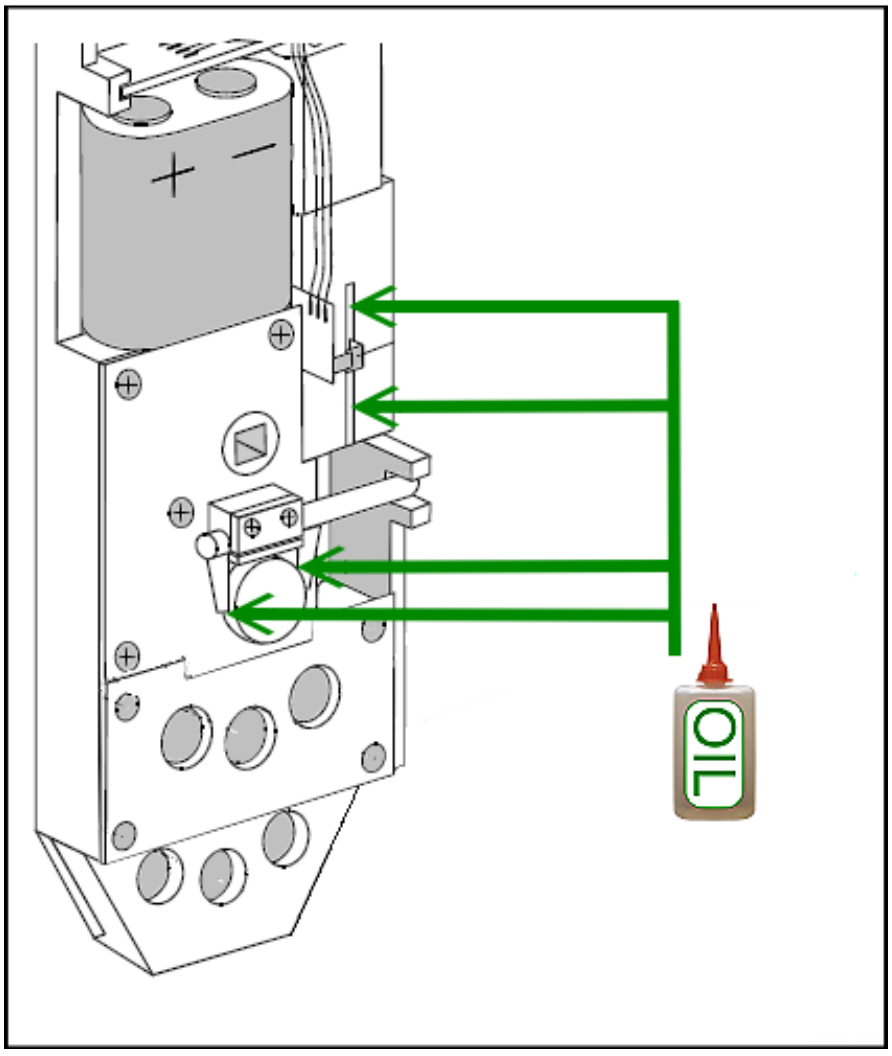
Supplier.-Nr.: 630100, EAN / GTIN: 4002376301008

Surfaces:

Surfaces can be cleaned with a mild, usual cleaning product. Before its use, you might check the reactions on a small unobstrusive zone. Products with acide or scrubing components can damage the surface of the fitting. Please read the instructions of the product´s supplier.

Please add oil as follows (green arrows) and only there. Oil must be used in an economical way (drops) and never as a spray.

We point to the fact that the use of non-compatible cleaning products or on non-compatible components might cause damage on the products and prevent its normal function.



Disposal

Devices with this symbol must not be disposed of with household waste. Dispose of the product according to statutory requirements at the end of its lifespan.
Please contact your dealer or dispose of the product at a communal collection point for electronic waste.

ABUS Security-Center GmbH & Co. KG
Linker Kreuthweg 5
86444 Affing (Germany)

Please contact your dealer with technical queries and for technical support.