CEStronics

CES OMEGA FLEX

Electronic handle sets

Long shield ILS

Assembly and Operating Instructions

English

Version VD

BRO2262-2

Contents

1 About this manual

This Assembly and Operating Instructions, hereinafter referred to as "manual", will help you to assemble and use the purchased electronic handle set safely and conveniently for the intended purpose. Each person, who assembles, administers, maintains, or disposes of electronic handle sets must have read and understood the complete contents of this manual.

If you do not understand the functions of the OMEGA FLEX system, please contact you CES partner for further information.

1.1 Design characteristics

Refers to other documents

Marks additional information and tips

Marks warnings in step-by-step instructions and specially important information

1.2 Target group of this manual

This manual is intended for

- Trained assembly personnel
- Maintenance personnel
- Operator

The necessary expertise regarding the intended use of the product are presumed for the use of this manual.
The necessary product training is conducted by your CES partner. In case it has not yet been done, please contact your CES partner to get the product training.

1.3 Validity of this manual

This manual applies to:

- **CES OMEGA FLEX Long shield ILS**

in all variants (see "Variants of OMEGA FLEX locking devices" on page 9) .

Always use the latest version of this manual. The version number of this manual is shown on the cover page. You can get the latest version free of cost under **www.ces.eu**.

1.4 Manufacturer and Service

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For service assistance please contact your CES partner.

1.5 Notes on trademark protection

2 About the OMEGA FLEX system

2.1 What is OMEGA FLEX?

OMEGA FLEX is a group of products consisting of various electronic locking devices and locking media, which can be combined arbitrarily with each other. Also a combination with mechanical locking cylinders is possible without problems.

The combination of OMEGA FLEX components chosen by you builds your personal **OMEGA FLEX system**, which can be extended or altered at any time.

2.2 How does the OMEGA FLEX work?

OMEGA FLEX is based on wireless communication between locking media and battery driven locking devices. Each locking media contains a transponder, which can transmit to and receive information from the locking devices wirelessly.

You can equip your door simply with an **electronic locking device** (e.g. Electronic cylinder) from the OMEGA FLEX system instead of a mechanical locking cylinder. Thereupon, the doors can be opened with an authorised **locking media** (e.g.with a key fob or an identity card, which contains a transponder).

If an authorised locking media is held in the reading field of a locking device, it couples and the door can be opened. After an interval (= "Opening duration") the locking device disengages automatically. As a result, the latchbolt and the deadbolt are not retracted when the locking device is actuated, and the door can no longer be opened.

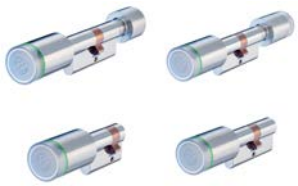
Depending upon the intended purpose, OMEGA FLEX can fulfil a variety of complex tasks. So, e.g. besides the authorisations assigned for the locking media, also time slots can be defined within which these authorisations are valid (see "OMEGA FLEX system functions" on page 63).

2.3 Which system components are included in the OMEGA FLEX?

The OMEGA FLEX system comprises various locking devices, locking media and administration devices.

2.3.1 Locking devices

Locking devices are installed in or close to the door and they control the access there:



Electronic cylinder

Electronic handle sets

Wall terminals

Wireless switch

Locking devices are available in different **variants** (see "Variants of OMEGA FLEX locking devices" on the facing page) .

The electronic handle set **Long shield ILS** is also available as mechanical locking device (Long shield MLS). This allows you to combine the electronic and mechanical handle sets with each other in a uniform design.

2.3.2 Locking media

The locking media can open the doors equipped with OMEGA FLEX locking devices:

Key fob

Key fob Slim line

Key fob Premium

Identity card

Combination key

Wireless key

A combination key is a mechanical key with integrated transponder to combine mechanical locking cylinder with electronic locking devices in a locking system.

2.3.3 Administration devices

Administration devices serve to manage the OMEGA FLEX system:

Master media

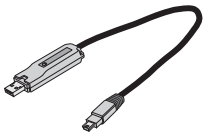
RF-Stick

Desktop-Reader and Desktop-Writer

Access-Point and repeater

PC with OMEGA Suite

Programming Adaptor



Programming cable

2.3.4 Update-Terminals

With Update-Terminals, the users can program and validate their locking media in V-Net themselves.

Key-Point

Update-Terminals (no locking device function)

Wall terminals (Wall terminal variant /VA, no programming function)

2.3.5 Variants of OMEGA FLEX locking devices

The different **variants** of the locking devices differ in the firmware that is located in the device. The variant determines whether a locking device is suitable for a particular purpose or for an administration type. Thus, e.g. only NET and VA locking devices can connect to a wireless online network.

Variants and their relevance

	Variant	Meaning	Programming via..	Online/ Offline
LINE (Authorisations are stored in the device)	/N	"NoTime" (No time profiles, no events available)	Master media and an RF-Stick	Offline
	/T	"Time" (Time profiles and events available)	Master media and an RF-Stick	Offline
	/NET	"Net" (Wireless online network, Time profiles and events available)	Master media, RF-Stick and Access-Point	Online
V NET (Authorisations are Stored in the locking media)	/NV	“NoTime” in V-NET (No time profile, no events are available)	RF-Stick	Offline
	/TV	“Time” in V-Net (Time profiles and events available)	RF-Stick	Offline
	/VA	"Validation" (Validation function, wireless online network, time profiles and events available)	RF-Stick and Access-Point	Online

Availability of variants for different locking devices

Variant	Electronic-Electronic cylinder	Electronic-Handle set	Wall terminals	Controls (Wireless switch)
N	✓	✓	✓	✕
T	✓	✓	✓	✕
NET	✓	✓	✓	✕
NV	✓	✓	✓	✕
TV	✓	✓	✓	✕
VA	✕	✕	✓	✕

2.3.5.1 Altering the variant of a locking device

By **extending the license** you can upgrade and downgrade the current variant of a locking device with the OMEGA Client and an RF-Stick, provided the new variant for the locking device is available. see "Availability of variants for different locking devices" above. Please contact your CES partner for the required license extension.

A detailed manual is available in the **OMEGA Suite Help**.

2.4 About OMEGA FLEX electronic handle sets

The handle set is an electronic handle set for easy equipping and retrofitting of the existing mechanical door locks.

Mechanical emergency opening

The mechanical emergency opening of the door is possible if the handle set was used together with a mechanical locking cylinder.

⚠ Since the battery module is located on the inside of the door, **Long shield ILS** without mechanical locking cylinder should only be assembled if the room has more than one access option.

Assembly

The assembly of the handle set in door locks is possible with or without Euro profile cylinder. Only little effort is required to assemble the handle set.

Signalling

The handle set emits optical to indicate different events during programming, operation and maintenance.

3 For your safety

3.1 Declaration of Conformity

The Declaration of Conformity is available online via **www.ces.eu**

3.2 Intended use

The electronic handle sets serves to authorised opening and closing of doors with locks having a latch function. It is exclusively intended this purpose and may only be used for this. Electronic handle sets may never be altered in any way without the written permission from C.Ed. Schulte GmbH Zylinderschlossfabrik.

All other uses are considered as improper use and may lead to material damages or even personal injuries. The C.Ed. Schulte GmbH Zylinderschlossfabrik assumes no liability for damages caused by improper use.

3.3 Safety instructions in this manual

NOTICE "Notice" warns against hazards that may lead to material damages.

⚠ CAUTION "Caution" warns against hazards which may result in minor to moderate injuries.

3.4 Basic safety instructions

The handle set has been built with the state-of-the-art technology and established safety regulations. Nevertheless, its use may constitute function-related hazards for the user or third parties or impairments of the handle set and other material assets.

Follow the warnings and instructions in this assembly and Operating Instructions while assembling administering and using the handle set.

3.4.1 Danger of personal injury

Danger of explosion

- Live parts of the handle set may cause explosion. Do not use handle set in potentially explosive areas.

3.4.2 Danger of damage to material assets

Transportation

- Do not drop the handle set on the floor, on hard surfaces or objects.

Admissibility of doors and locks

- The handle set may not be used in locks with split follower.
- Special regulations apply to approved doors. Check the permissibility before you bore holes in the door or through the door.
- Check in doors in escape and rescue routes, whether locks and handle sets are suitable for equipping the door.

Assembly

- The handle set contains highly sensitive electronic components, which can be damaged or destroyed through electrostatic charges. Therefore, do not assemble the handle set in areas affected by electrostatic charge.
- Do not use electrical drill or battery operated cordless electric screwdriver for assembly.
- For assembly and disassembly, use only the tool specified in the "Assembly" chapter.
- While assembling, make sure that the door and the lock are in perfect condition. Malfunction of the lock may impair the function of the handle set.
- While assembling, make sure that the handle set can be assembled without jamming and use of force. If this not possible then align the lock and the handle set with each other to avoid the jamming and deformation of handle set during assembly.

Operation

- Protect the electronic components of the handle set against water and other fluids.

Maintenance

- Always leave the repairs performed to qualified personnel.
- Use only the accessories and spare parts recommended by CES.
- Do not use any lubricant or oils for the handle set.

Danger through climatic influences

- Do not use handle set in corrosive atmosphere (chlorine, Ammonia, Lime water)
- Do not use the handle set in areas with high dust formation.
- Do not use the handle set near heat sources.
- Observe the maximum permissible temperatures as well as the air humidity data during the use of the handle set, see "Technical data" on page 99.

3.5 Notes on dealing with batteries

- Only the batteries specified by CES for the handle set may be used (Energizer Ultimate Lithium 1,5V AA).
- Always insert new batteries only. Never mix old and new batteries together.
- Before inserting the batteries, check whether the contacts in the device and on the batteries are clean. Otherwise, clean them. Do not touch the contacts after the cleaning process.
- When inserting the batteries, ensure that the polarity is correct (+/-).
- Never try to recharge the batteries. There is a risk of explosion!
- Do not short circuit the batteries.
- Store batteries in a cool and dry place. Direct heat may damage the batteries. Therefore, do not expose batteries to any strong heat source and do not dispose off the batteries into fire.
- If you do not use devices for longer time, take out the batteries.
- Remove the leaking batteries immediately from the device. Clean the contacts before inserting new batteries. There is danger of acid burns from the battery acid!
- Remove the empty batteries from the device.
- Recycle the empty batteries.

3.6 Emergency key for the fire brigade key depot (FKD)

The OMEGA FLEX System offers master media **Emergency-Key** for use in case of fire and other emergencies (see "Which master media are available?" on page 68). The emergency key is suitable for the fire brigade key depot (FSD).

Independent of the actual programming of a locking device, the emergency-Key opens every locking device. After the emergency key is held in the locking device, it is opened permanently (see "Access in emergency situations (Emergency mode)" on page 89).

⚠ Prior to its first use, the emergency key must be authorised for **each** locking device which it is supposed to operate (see "Authorising additional master media" on page 111).

3.7 Manufacturer's warranty

The following damages are not covered by the manufacturer warranty:

- Damages to the exterior mechanical parts as well as subsequent damages arising from normal wear and tear.
- Damages caused by external events or influences

- Damages caused by deficient installation
- Damages caused by deficient maintenance
- Damages caused by false operation
- Damages caused by overvoltage
- Damages caused by fire, water or smoke

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4 Assembly

4.1 Important notes on assembly

⚠ CAUTION **Risk of injury while working on the punched metal parts.**

The electronic handle sets contain punched metal parts, which can have sharp edges.

- Wear work gloves during the assembly work.

NOTICE **Damage to the handle set is possible if not assembled properly.**

The handle set can be damaged if not assembled properly.

- The handle set may only be assembled by competent persons. These persons must have been trained on the product by CES or a CES partner.

NOTICE **Lock out possible.**

The door can slam shut during assembly and you can no longer open the door.

- Secure the door against slamming shut during assembly.
- Ensure that you have an authorised locking media.

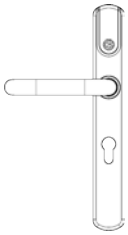
4.2 Preparations for assembly

4.2.1 Check the scope of delivery

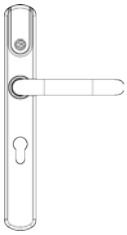
1. Remove the fitting from the packaging and remove all packaging materials such as films, filler material and the packing box.
2. Check the scope of delivery ; see the relevant chapter on the respective handle sets and versions.
3. Check the new equipment for transport damages and report these to your CES partner immediately.

4.2.2 Check the coupling module

The lever handle position of the handle set is pre-set at the factory.

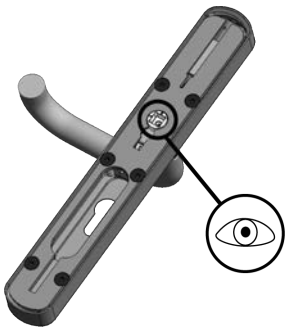


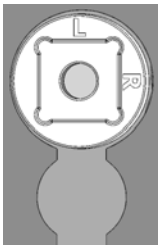
Left lever handle position



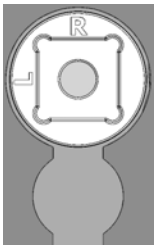
Right lever handle position

To ensure that the handle set functions properly, the position of the coupling follower must correspond with that of the lever handle:





Left lever handle position: "L" is on top.



Right lever handle position: "R" is on top.

⚠ If the coupling socket does not match the alignment of the fitting you must turn the coupling socket back into the correct position. If the coupling socket is twisted a fitting cannot couple or engage in the socket! If the coupling follower does not correspond with the lever handle position of the handle set, you need to turn the coupling follower back to the correct position.

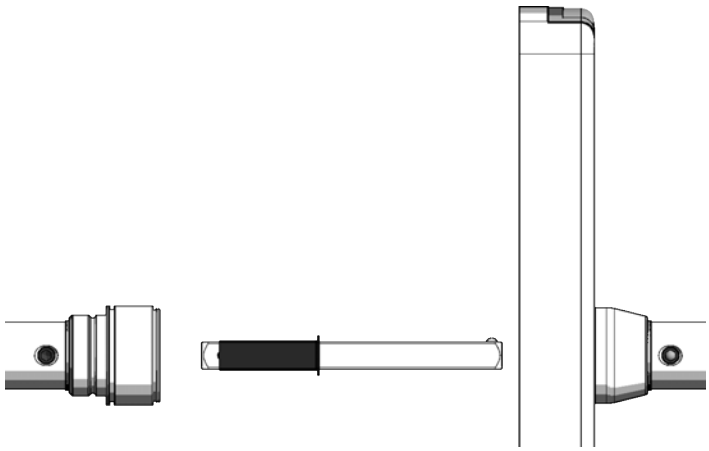
4.3 Adaptor sleeves for square spindle

The size of the supplied square spindle depends on the size of the lock follower. You need to use an adaptor sleeve for certain square spindle sizes.

Overview of adaptor sleeves

Square spindle size	Required adaptor sleeve	
7 mm	Special square spindle (7 mm square, reinforced to 8 mm on one side, for 8 mm coupling follower) Adaptor sleeve from 7 mm to 9 mm on the insider lever handle side	
8 mm	Adaptor sleeve from 8 mm to 9 mm on the inside lever handle side	
9 mm	-	
10 mm	Special square spindle (each 9 mm outside, centre reinforced to 10 mm) No adaptor sleeve required	

Position of the adaptor sleeves

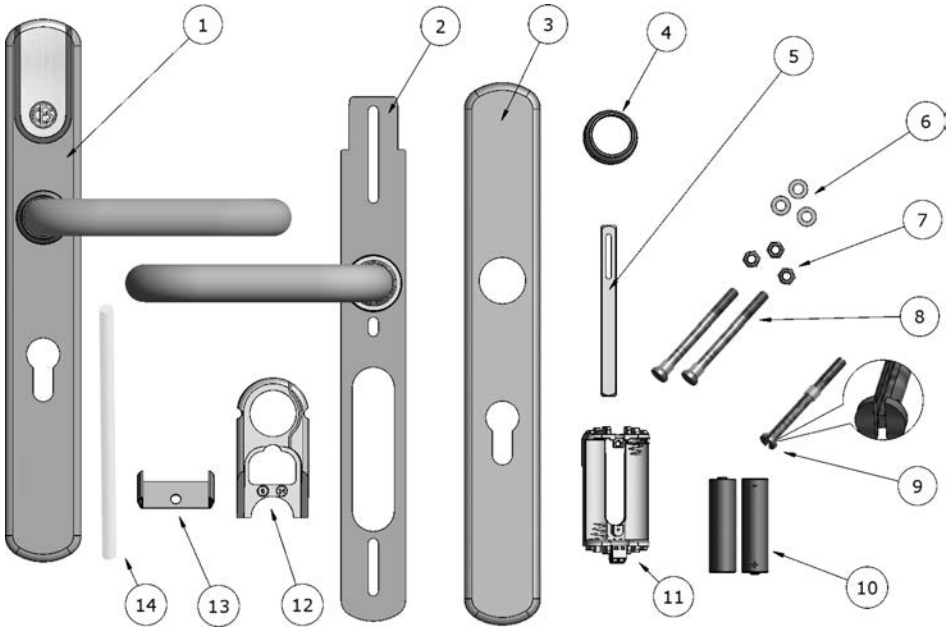


4.4 Overview of assembly options

ILS version	Width	Which existing holes you can use for the assembly?
Basic version	Narrow	**Long shield ILS holes** "Assembling basic version (for Long shield holes)" on the next page
Option S	Narrow	**Short shield holes:** "Assembly Option S (for Short shield holes)" on page 34
Basic version	Wide	**Rosette holes:** "Assembling wide shield (for rosette-holes)" on page 46 **Long shield holes:** "Assembling basic version (for Long shield holes)" on the next page
Option S	Wide	**Rosette holes:** "Assembling wide shield (for rosette-holes)" on page 46 **Short shield holes:** "Assembly Option S (for Short shield holes)" on page 34

4.5 Assembling basic version (for Long shield holes)

4.5.1 Scope of delivery Long shield ILS basic version



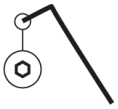
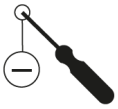
1	1 Outside fitting, pre-assembled with outside lever handle, coupling module and e-module
2	1 Assembly plate, pre-assembled with inside lever handle
3	1 Inside shield
4	1 Fixture ring
5	1 Square spindle
6	3 Washers (for fixing screws)
7	3 Locking nuts (for fixing screws)
8	2 Fixing screws without cable slit (with fixing rings)
9	1 Fixing screw with cable slit (with fixing ring)
10	2 Batteries Energizer Ultimate Lithium 1,5V AA
11	1 Battery module
12	1 Support frame
13	1 Spring clip (only for handle sets without a PZ hole)
14	1 Installation tube

4.5.2 Assembling Long shield ILS basic version

The reading side of the fitting is assembled on the outside of the door; the non-reading side is assembled on the inside.

⚠ The handle set cannot be assembled on split follower locks!

Tools required:

Tool		Required for	Part of the assembly set*
	ILS spanner (8 mm)	Fixing screws nuts	✓
	3 mm Allen-key	Grub screws of the inside shield lever handle, in the case of the outer shield also for countersunk head screws of the outside shield	✓
	0.4 mm x 2.0 mm slot head screwdriver	Screwing the cables	✗
	CES ring spanner	Fixture ring	✓

"The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.

Assembly preparation for Long shield ILS basic version

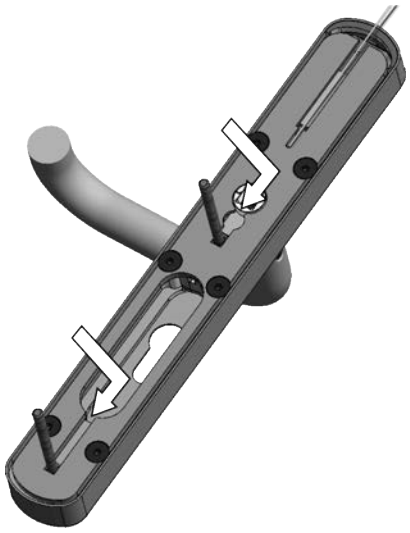
Before assembling the hardware, check for correct fit of the coupling module; see "Check the coupling module" on page 17

1. **If a handle set is already existent in the door, dismantle it. An existing Euro profile cylinder, provided it is of appropriate length, can continue to be used with the Long shield ILS.**

   If the door does not have a Euro profile cylinder, it is advisable to assemble it **before** assembling the Long shield ILS.

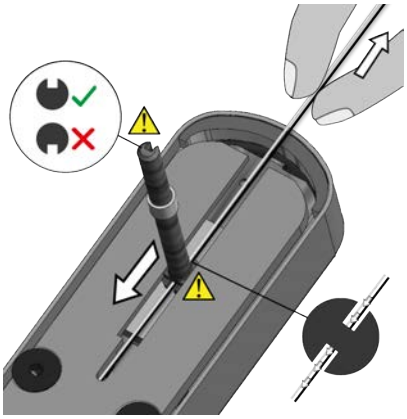
You can now start with the assembly.

Assembly on the outside of the door



1. **Push the two** FIXING SCREWS WITHOUT CABLE SLIT **in the lower and the middle screw placement slot of** OUTSIDE FITTING**.**

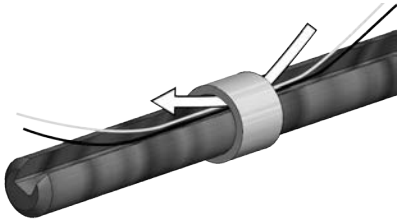
   The fixing rings on the head of the screws serve to fix the screws in the position that matches the existing holes.



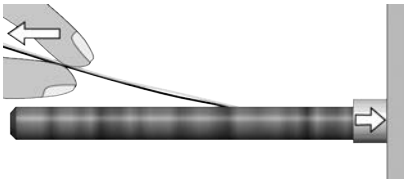
2. Hold the cables upwards and slide the FIXING SCREW WITH CABLE SLIT **in the top most screw placement slot.**

⚠ Ensure that the cable slit of the fixing screws faces upwards.

⚠ Ensure that the cables run through the recess in the screw head.

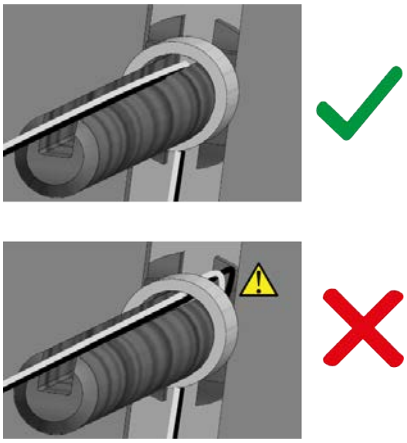


3. Guide the CABLES **through the** FIXING RING**.**

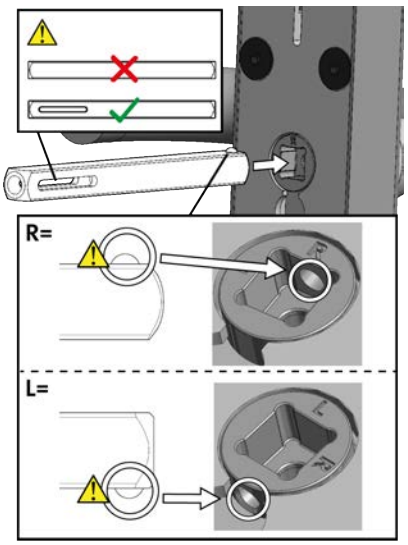


4. Push the FIXING RING **on the handle set to fix the screw in the position that matches the existing holes.**

- While doing so, hold the CABLES tight, so that they do not get pinched or jammed.



⚠ Ensure that the cables are not jammed by the fixing ring!

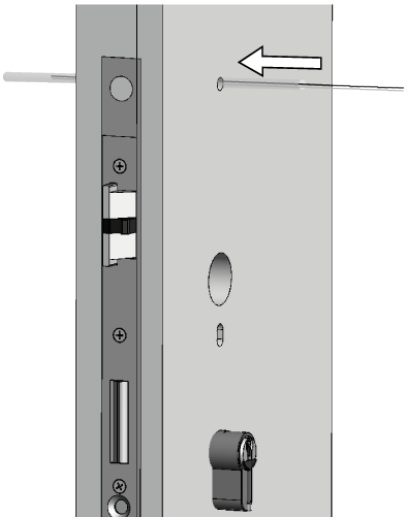


5. Insert the SQUARE SPINDLE **in the coupling follower.**

⚠ Make sure that the elongated hole is level.

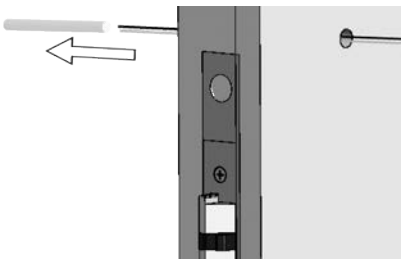
⚠ Make sure that the ball of the square spindle in the drill hole latched in the coupling follower.

6. Feed both cables into the INSTALLATION **tube.**

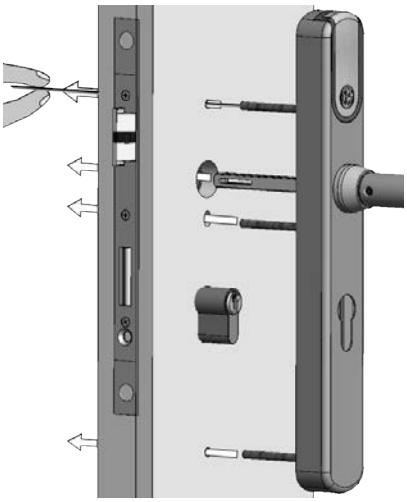


7. Run the cables with the help of the INSTALLATION TUBE **through the corresponding screw hole in the door.**

- Turn the installation tube to and fro slightly while feeding it in, so that it moves forwards more easily.

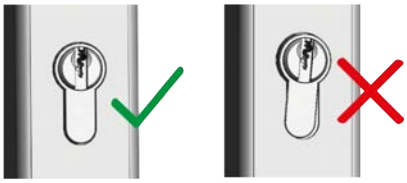


8. **Pull the** INSTALLATION TUBE **on the opposite side of the door.**



9. **Guide the** OUTSIDE FITTING **through the Long shield holes of the door. Push the square spindle through the lock follower.**

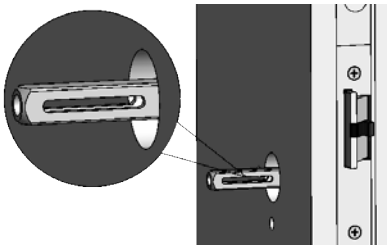
⚠ While guiding, keep the cables tout so that they lie correctly in the cable slit. The cables must not get squeezed or jammed!



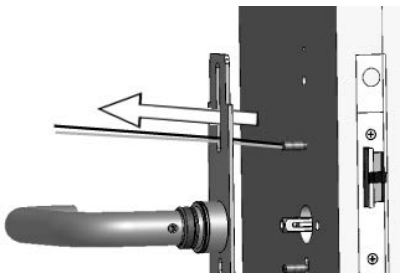
10. **Align the Euro profile cylinder, if it does not sit correctly in the outside fitting.**

The outside fitting is now temporarily fixed, so that you can continue with assembly of the inside fitting.

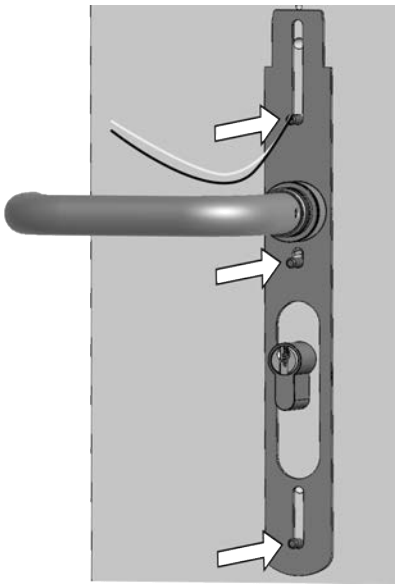
Assembly on the inside of the door



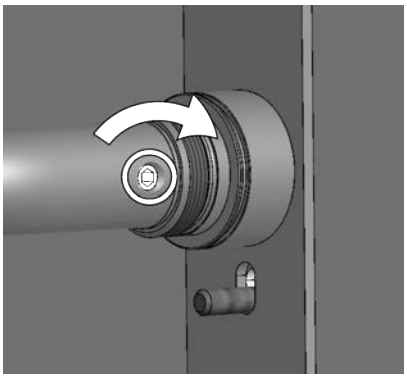
ℹ Depending on the size of the lock follower, you may possibly need adaptor sleeve for the square spindle (see "Adaptor sleeves for square spindle" on page 18). Use adapter sleeves in this case.



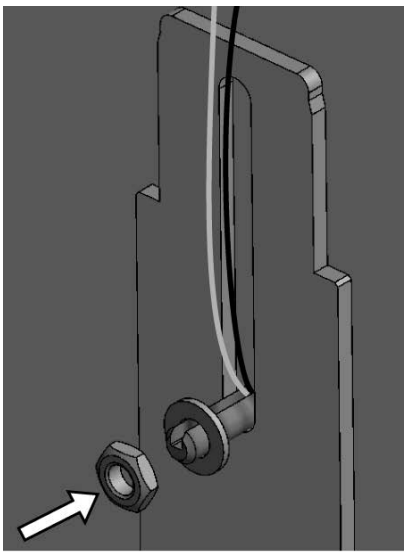
1. **Guide the cables through the top elongated hole of the** ASSEMBLY PLATE **.**



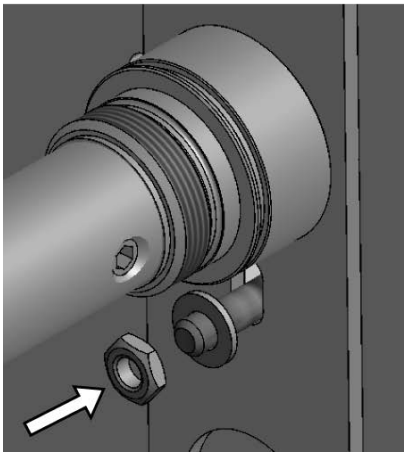
2. **Place the** ASSEMBLY PLATE **on the** FIXING SCREWS **and press the square hole of the** INSIDE LEVER HANDLE **on the** SQUARE SPINDLE**.**

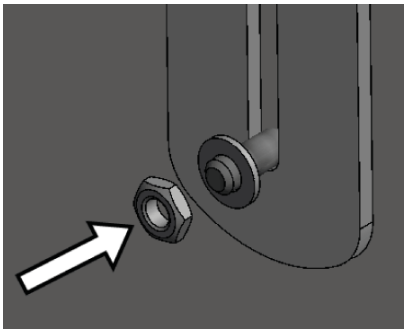


3. **Use the Allen key** TO SCREW THE G**rub screw into the inside lever handle,** TO SECURE T**he square** SPINDLE.



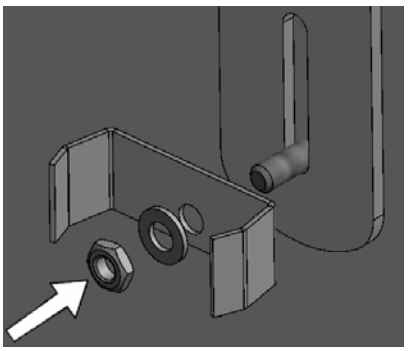
4. Put a WASHER **and a** NUT **each on the top and the middle** FIXING SCREW**.**





5. Depending upon whether the Euro Profile cylinder is assembled or not, the spring clip will be assembled.

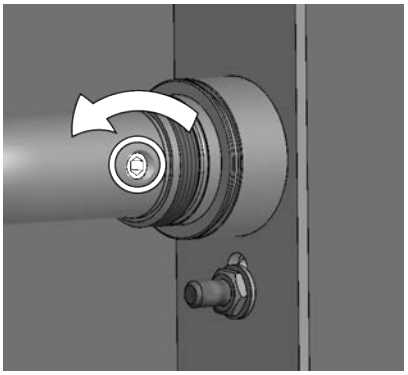
a) In case the Euro profile cylinder is assembled, the spring clip will **not** be assembled. Put only the WASHERS and NUTS on both of the lower FIXING SCREWS.



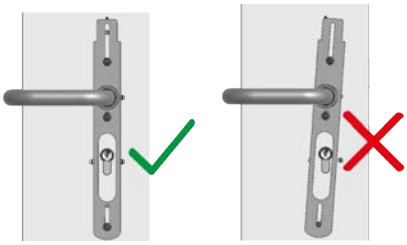
b) In case **no** Euro profile cylinder is assembled, then the spring clip will be assembled. Put the SPRING CLIPS, WASHERS and NUTS on the lower FIXING SCREWS.

6. Tighten NUTS **by hand.**

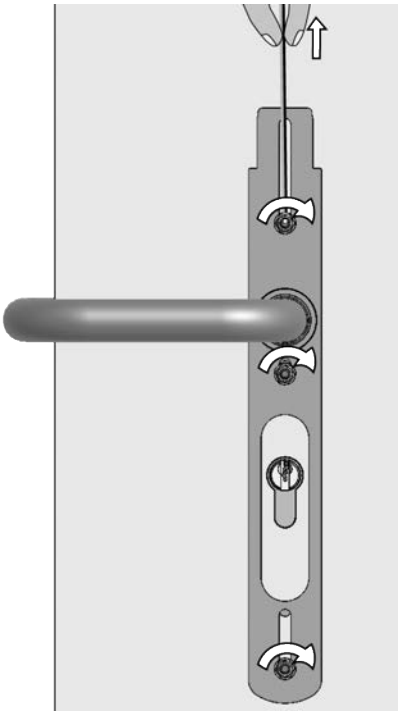
⚠ While tightening the FIXING SCREW WITH CABLE SLIT hold the cables upwards, so that these are not jammed!



7. Undo the grubsCREW FROM THE **inside lever h**ANDLE SLIGHT**ly, to remove any possible stress from the square spindle.**

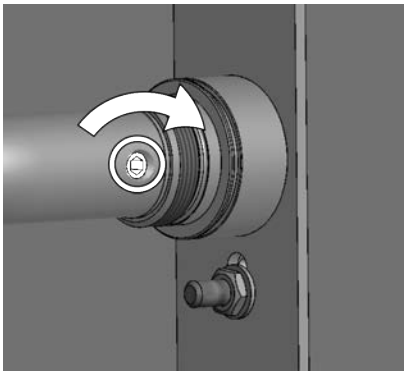


8. Check whether the handle set is correctly aligned.

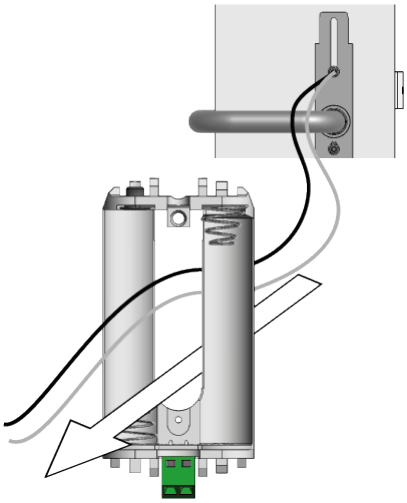


9. Tighten the NUTS with the wrench (max. 1.2 Nm).

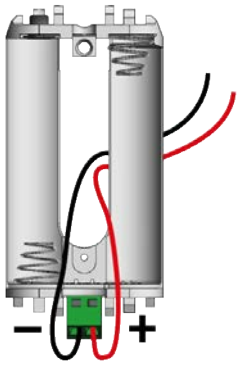
⚠ While tightening the FIXING SCREW WITH CABLE SLIT hold the cables upwards, so that these are not jammed!



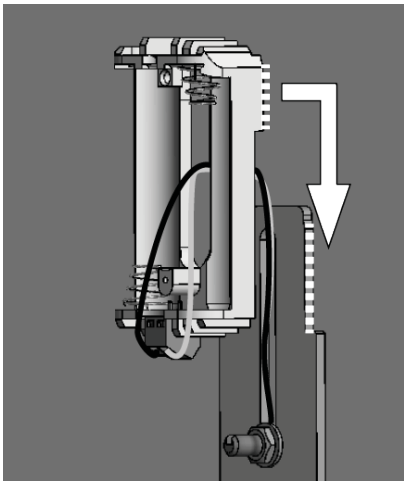
10. Re-tighten the GRUBSCREW OF The INSIDE LEVER Handle.



11. Run the cables through the middle of the BATTERY MODULE**.**

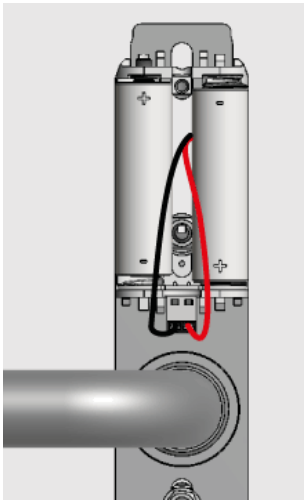


12. Use the slot-head screwdriver to screw the red cable onto the positive terminal (+) and the black cable onto the negative terminal (-).



13. Slide the BATTERY MODULE **from top to bottom on the** ASSEMBLY PLATE**, until it snaps in.**

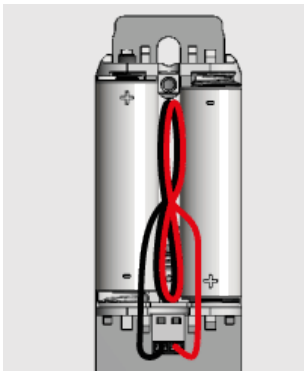
- Should the top most FIXING SCREW be in the way, then, instead of sliding it from top to bottom, you can also press the battery module into the recess of the mounting plate from the front.



14. Insert the batteries with the correct polarity (see Figure).

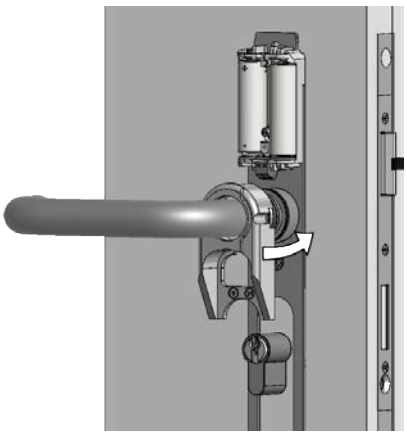
Use only the Energizer Ultimate Lithium 1,5V AA batteries.

Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 91.

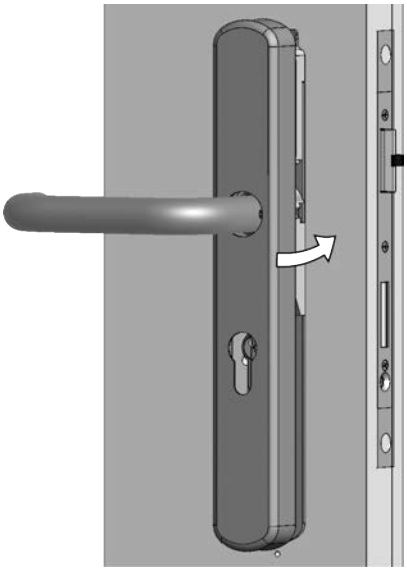


15. Twist the cables and push them between the batteries to avoid jamming of the cables.

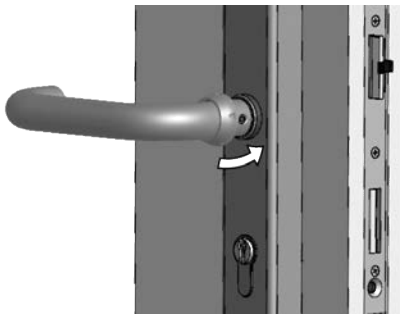
16. Use a master media or locking media to check at the OUTSIDE FITTING**, whether the handle set reads the media.**



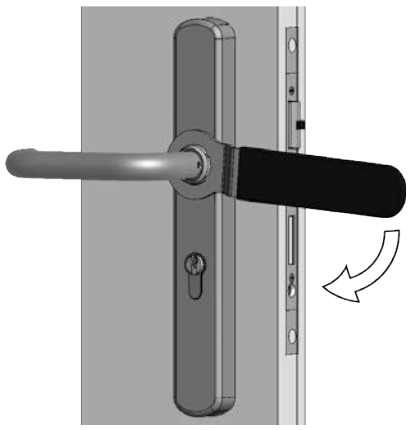
17. Guide the SUPPORT FRAME **over the** INSIDE LEVER HANDLE **up to the** ASSEMBLY PLATE**.**



18. Guide the INSIDE SHIELD **over the** INSIDE LEVER HANDLE **and push it up to the** ASSEMBLY PLATE**.**



19. Guide the FIXTURE RING **over the inside** INSIDE LEVER HANDLE **and push it up to the end of the inside lever handle.**



20. Pull the FIXTURE RING **hand tight** WITH THE **CES ring spanner (max. 12 Nm)**

⚠ Do not over-tighten the fixture ring with too much force! Otherwise you may damage the handle set.

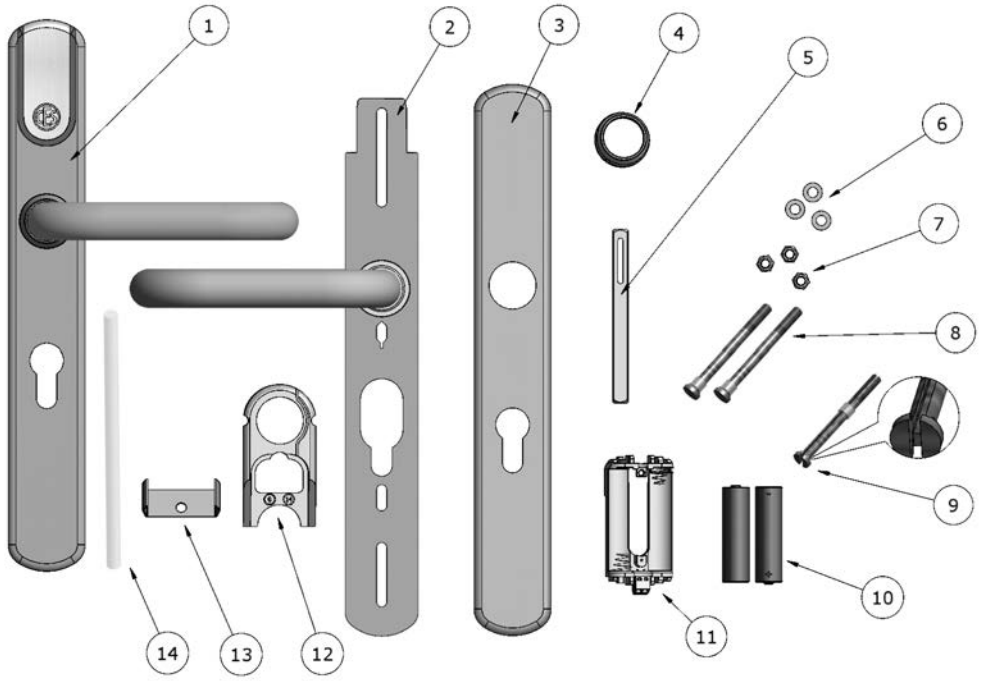
21. Check whether the fitting operates friction-free with the lock and locking cylinder.

Assembly of the handle set is now complete.

4.6 Assembly Option S (for Short shield holes)

The **Long shield ILS - Option S** is suitable for utilising the existing **short shield** holes for assembly.

4.6.1 Scope of delivery - Long shield ILS Option S



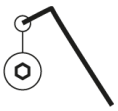
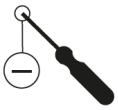
1	1 Outside fitting, pre-assembled with outside lever handle, coupling module and e-module
2	1 Assembly plate, pre-assembled with inside lever handle
3	1 Inside shield
4	1 Fixture ring
5	1 Square spindle
6	3 Washers (for fixing screws)
7	3 Locking nuts (for fixing screws)
8	2 Fixing screws without cable slit (with fixing rings)
9	1 Fixing screw with cable slit (with fixing ring)
10	2 Batteries Energizer Ultimate Lithium 1,5V AA
11	1 Battery module
12	1 Support frame
13	1 Spring clip (only for handle sets without a PZ hole)
14	1 Installation tube

4.6.2 Assembling Long shield Option S

The reading side of the fitting is assembled on the outside of the door; the non-reading side is assembled on the inside.

⚠ The handle set cannot be assembled on split follower locks!

Tools required:

Tool		Required for	Part of the assembly set*
	ILS spanner (8 mm)	Fixing screws nuts	✓
	3 mm Allen-key	Grub screws of the inside shield lever handle, in the case of the outer shield also for countersunk head screws of the outside shield	✓
	0.4 mm x 2.0 mm slot head screwdriver	Screwing the cables	✗
	CES ring spanner	Fixture ring	✓

ℹ "The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.

Assembly preparation - Long shield ILS

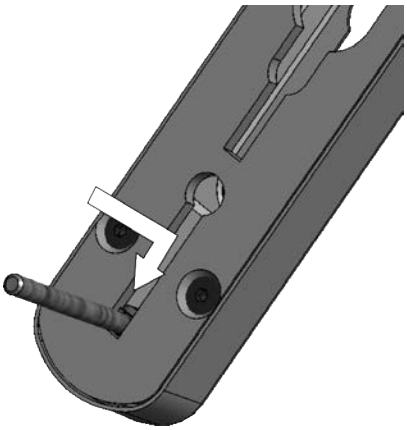
Before assembling the hardware, check for correct fit of the coupling module; see "Check the coupling module" on page 17

1. **If a handle set is already existent in the door, dismantle it. An existing Euro profile cylinder having appropriate length, can continue to be used with the Long shield ILS - Option S.**

If the door does not have a Euro profile cylinder yet, it is advisable to assemble it **before** assembling the long shield ILS Option S.

You can now start with the assembly.

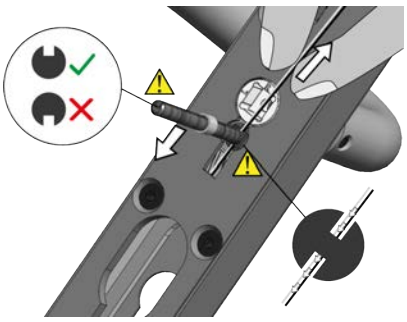
Assembly on the outside of the door



1. **Push one of the** FIXING SCREWS WITHOUT WIRING SLIT **in the lower screw placement slot of** OUTER FITTING**.**

The fixing rings on the head of the screws serve to fix the screws in the position that matches the existing holes.

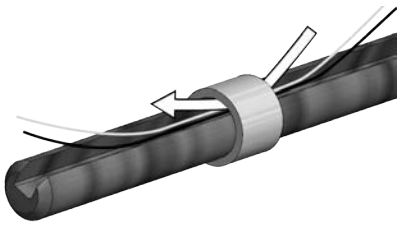
2. **Optional: If a hole already exists at the appropriate location in the door, you may push the third fixing screw without wiring slit in the top most screw hole.**



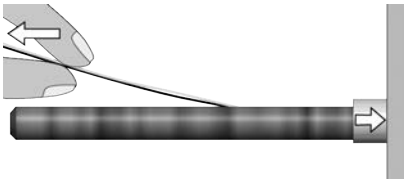
3. **Hold the** CABLES **upwards and slide the** FIXING SCREW WITH WIRING SLIT **in the middle screw placement slot of the** OUTSIDE FITTING**.**

Ensure that the cable slit of the fixing screws faces upwards.

Ensure that the cables run through the recess in the screw head.

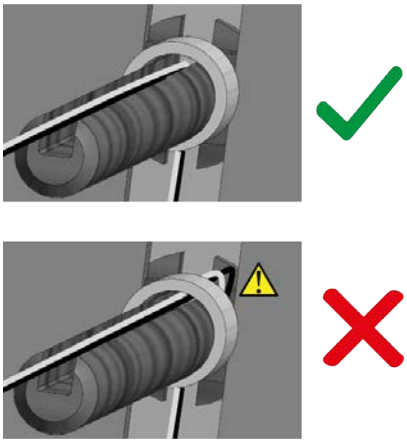


4. Guide the CABLES through the FIXING RING.

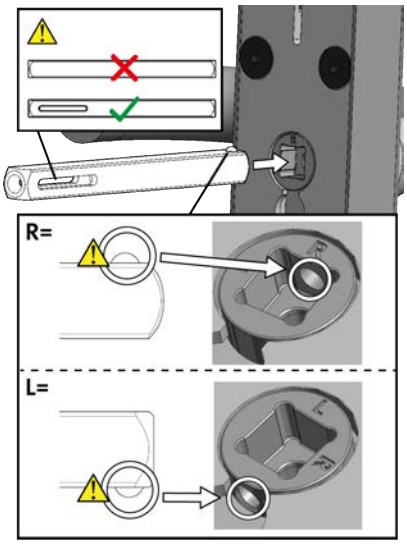


5. Push the FIXING RING on the handle set to fix the screw in the position that matches the existing holes.

- While doing so, hold the CABLES tight, so that they do not get pinched or jammed.



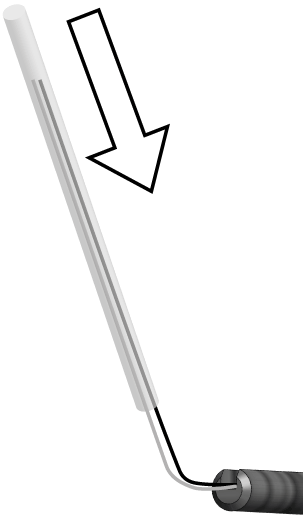
⚠ Ensure that the cables are not jammed by the fixing ring!



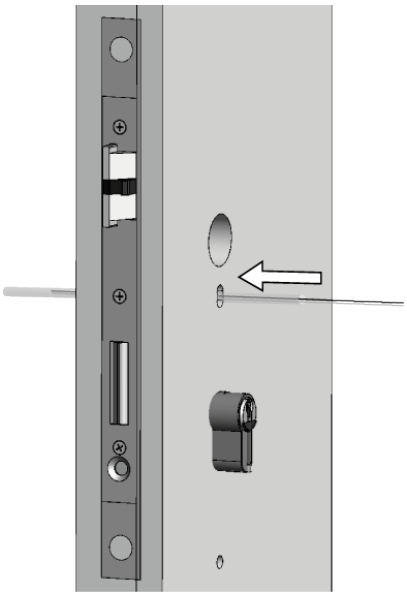
6. Insert the SQUARE SPINDLE in the coupling follower.

⚠ Make sure that the elongated hole is level.

⚠ Make sure that the ball of the square spindle in the drill hole latched in the coupling follower.

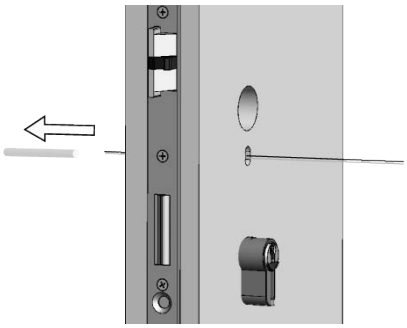


7. Feed both cables into the INSTALLATION tube.

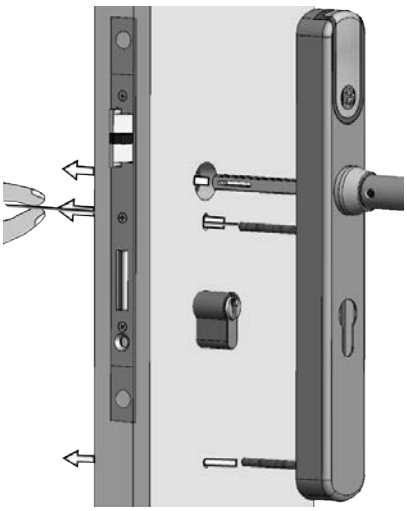


8. Run the cables with the help of the INSTALLATION TUBE through the corresponding screw hole in the door.

- Turn the installation tube to and fro slightly while feeding it in, so that it moves forwards more easily.

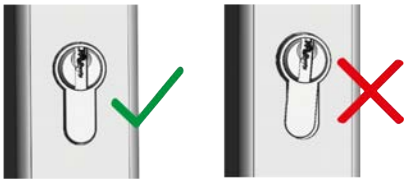


9. Pull the INSTALLATION TUBE on the opposite side of the door.



10. Guide the OUTSIDE FITTING **through the Long shield holes of the door. Push the** SQUARE SPINDLE **through the lock follower.**

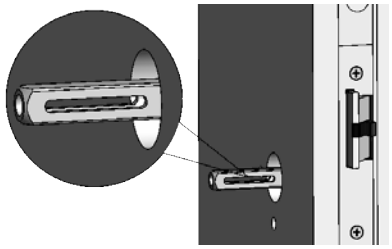
While guiding, keep the cables tout so that they lie correctly in the cable slit. The cables must not get squeezed or jammed!



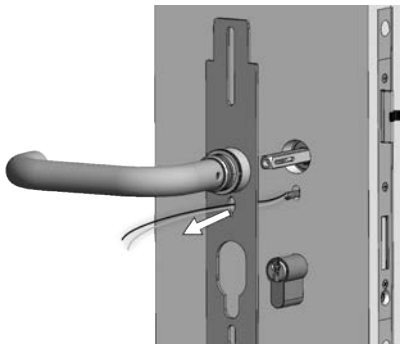
11. Align the Euro profile cylinder, if it does not sit correctly in the outside fitting.

The outside fitting is now temporarily fixed, so that you can continue with assembly of the inside fitting.

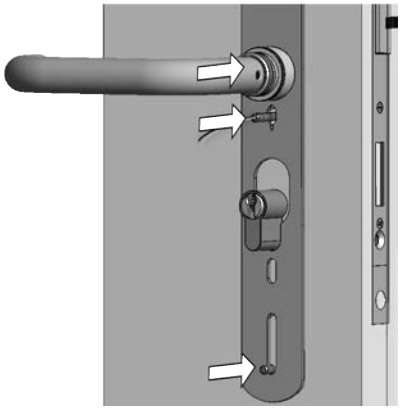
Assembly on the inside of the door



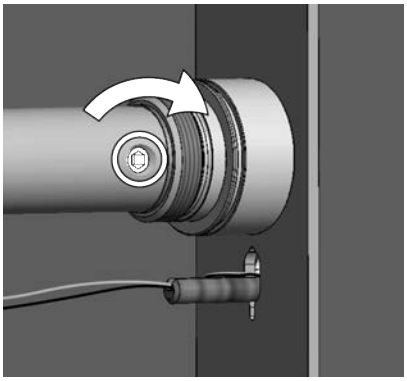
Depending on the size of the lock follower, you may possibly need adaptor sleeve for the square spindle (see "Adaptor sleeves for square spindle" on page 18). Use adapter sleeves in this case.



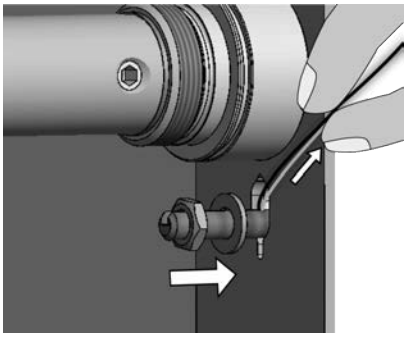
1. Run the cables through the elongated hole of the ASSEMBLY PLATE**, that is located below** THE **inside lever handle.**



2. Place the ASSEMBLY PLATE **on the** FIXING SCREWS **and press the square hole of the** INSIDE LEVER HANDLE **on the** SQUARE SPINDLE**.**

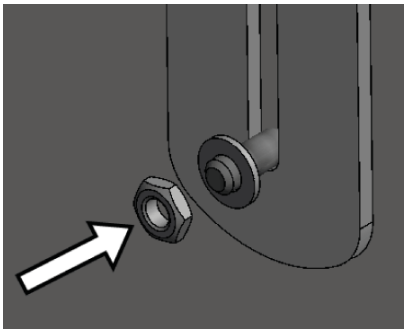


3. Use the Allen key to screw the grub screw into the INSIDE LEVER HANDLE**, to secure the** SQUARE SPINDLE.



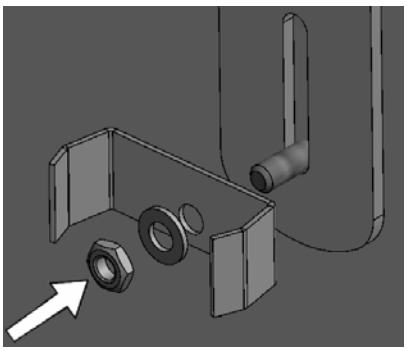
4. Put a WASHER **and a** NUT **on the** FIXING SCREW WITH WIRING SLIT**.**

⚠ While doing so, keep the cables upwards, so that they do not get squeezed!

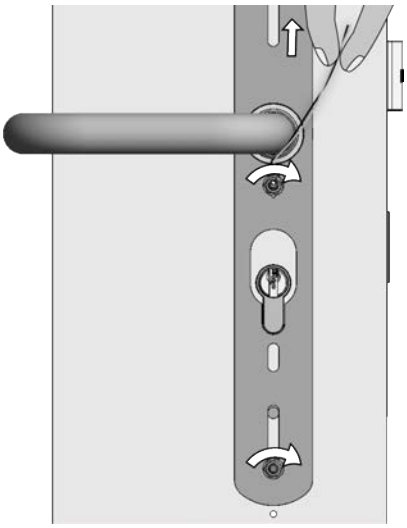


5. Depending upon whether the Euro Profile cylinder is assembled or not, the spring clip will be assembled.

a) In case the Euro profile cylinder is assembled, the spring clip will **not** be assembled. Put only the WASHERS and NUTS on both of the lower FIXING SCREWS.

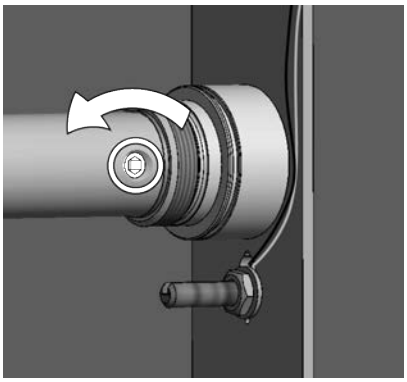


b) In case **no** Euro profile cylinder is assembled, then the spring clip will be assembled. Put the SPRING CLIPS, WASHERS and NUTS on the lower FIXING SCREWS.

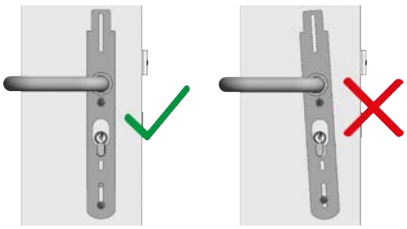


6. Tighten NUTS **by hand.**

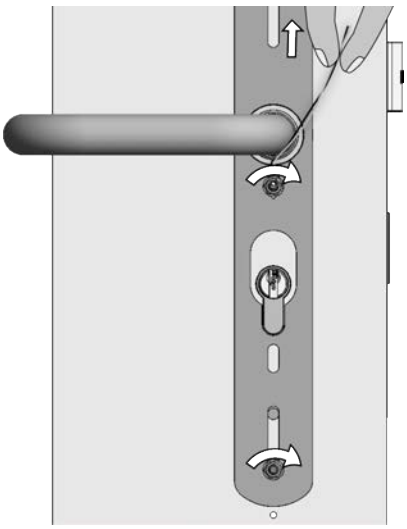
⚠ While tightening the FIXING SCREW WITH CABLE SLIT hold the cables upwards, so that these are not jammed!



7. Loosen the grub screw from the INSIDE LEVER HANDLE**slightly to remove any potential mechanical stress from the** SQUARE **spindle.**

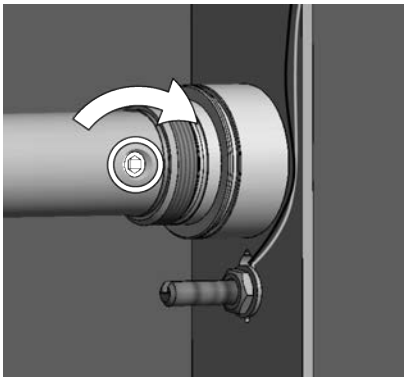


8. Check whether the handle set is correctly aligned.

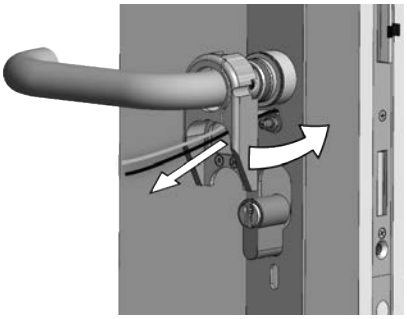


9. Tighten the NUTS with the wrench (max. 1.2 Nm).

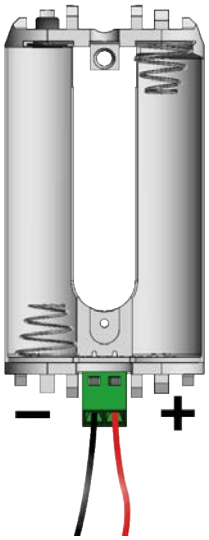
⚠ While tightening the FIXING SCREW WITH CABLE SLIT hold the cables upwards, so that these are not jammed!



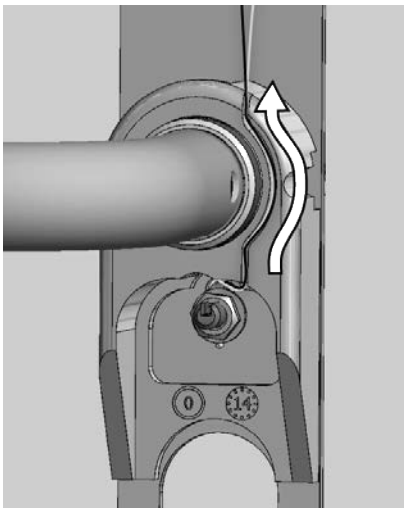
10. Tighten the grub screw of the INSIde lever handLE again.



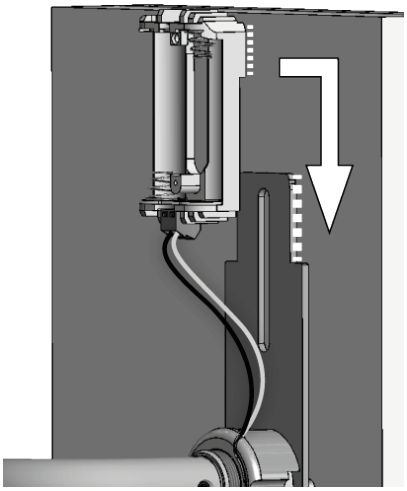
11. Guide the SUPPORT FRAME over the INSIDE LEVER HANDLE up to the MOUNTING PLATE. Thereby guiding the cables through the recess in the support frame.



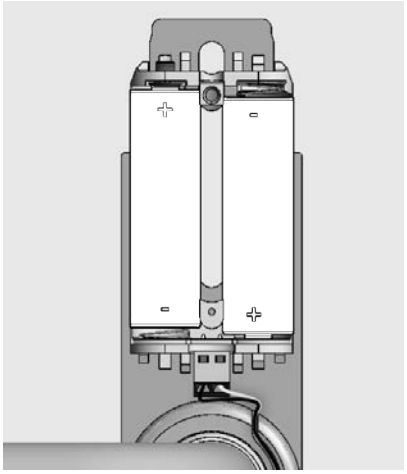
12. Screw with the Slot head screwdriver the red cable to the positive terminal (+) and the black cable to the negative terminal (-) of the battery module.



13. Push the cables in the support frameSLOT**.**



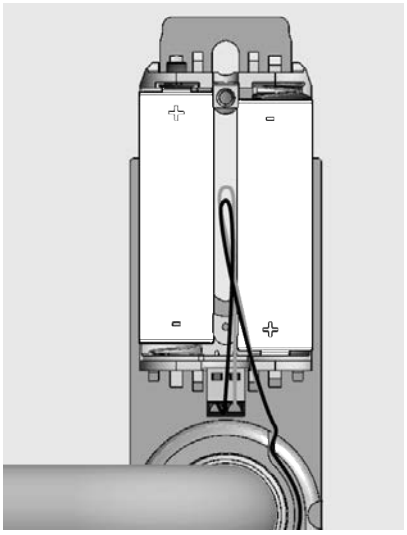
14. Slide the BATTERY MODULE **from top to bottom on the** ASSEMBLY PLATE**, until it snaps in.**



15. Insert the batteries with the correct polarity (see Figure).

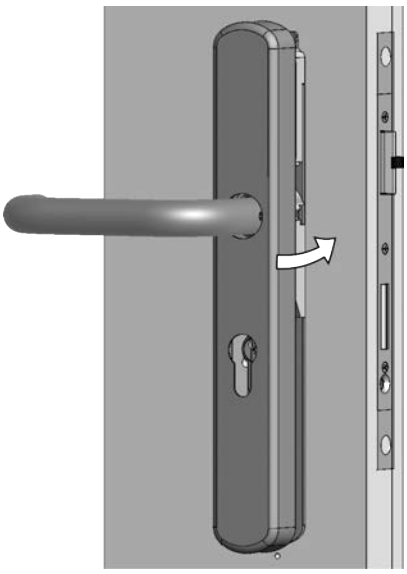
Use only the Energizer Ultimate Lithium 1,5V AA batteries.

Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 91.

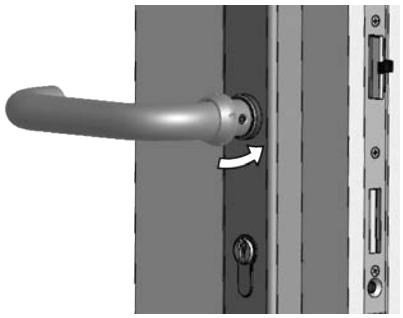


16. If the CABLES ARE **protruding, twist and push these between the batteries to prevent jamming.**

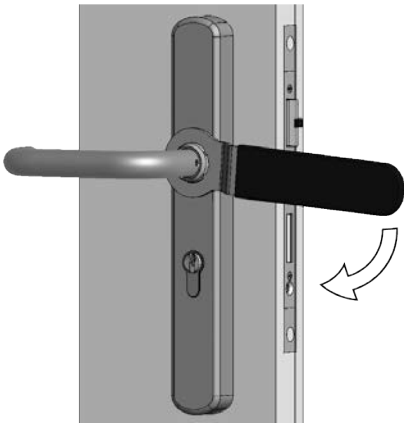
17. Use a master media or locking media to check at the OUTSIDE FITTING**, whether the handle set reads the media.**



18. Guide the INSIDE SHIELD **over the** INSIDE LEVER HANDLE **and push it up to the** ASSEMBLY PLATE**.**



19. Guide the FIXTURE RING **over the inside** INSIDE LEVER HANDLE **and push it up to the end of the inside lever handle.**



20. Pull the FIXTURE RING **hand-tight** WITH THE **CES ring spanner (max. 1.2 Nm).**

⚠ Do not over-tighten the fixture ring with too much force! Otherwise you may damage the handle set.

21. Check whether the fitting operates friction-free with the lock and locking cylinder.

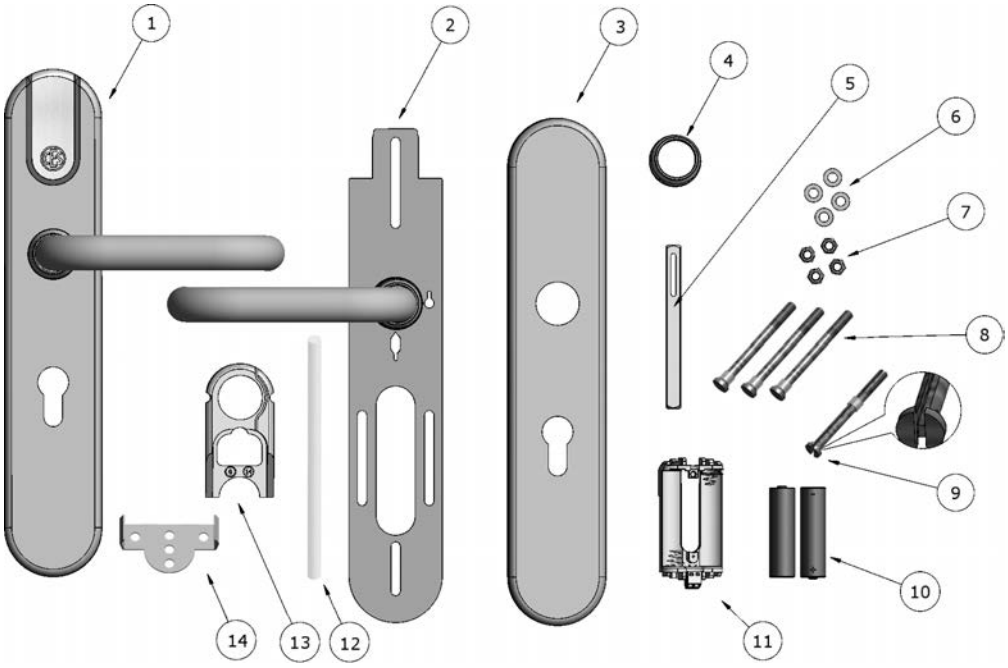
Assembly of the handle set is now complete.

4.7 Assembling wide shield (for rosette-holes)

The wide shield implementation of the **Long shield ILS** (both in the basic version and in S option) allows use of already existing **rosette holes** for assembling the handle set.

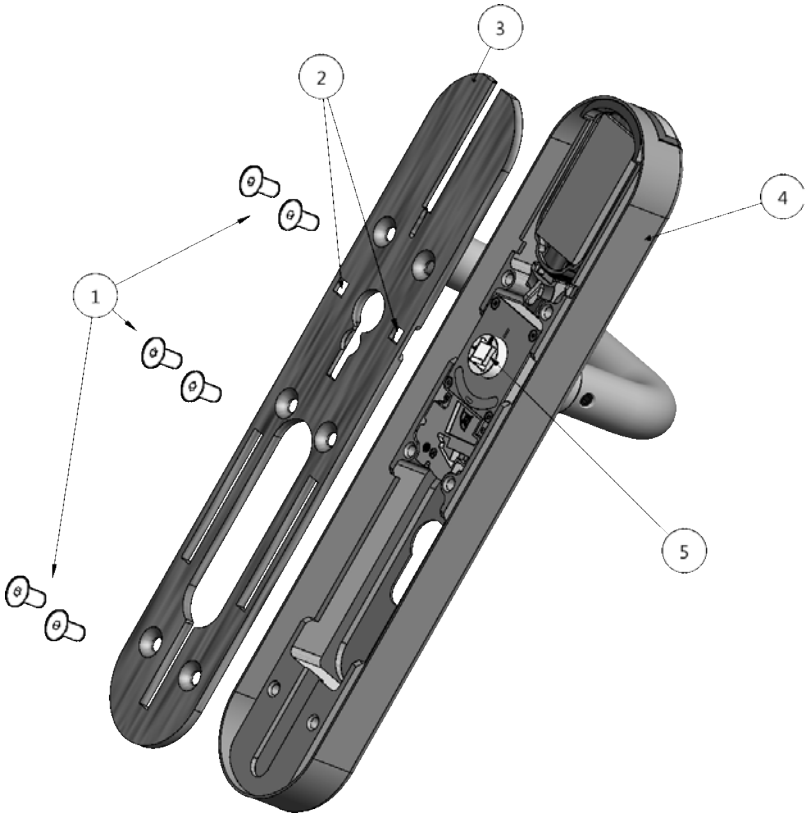
Die Breitschild-Ausführung das Langschilds ILS kann auch an Langschild- oder Kurzschild-Bohrungen (Option S) montiert werden. Befolgen Sie in diesem Fall bitte die Anleitung "Assembling basic version (for Long shield holes)" on page 20 bzw. "Assembly Option S (for Short shield holes)" on page 34.

4.7.1 Scope of delivery Long shield ILS wide shield



1	1 Outside fitting, pre-assembled with outside lever handle, coupling module and e-module
2	1 Assembly plate of inside fitting, pre-assembled with inside lever handle
3	1 Inside shield of inside fitting
4	1 Fixture ring
5	1 Square spindle
6	4 Washers (for fixing screws)
7	4 Locking nuts (for fixing screws)
8	3 Fixing screws without cable slit (with fixing rings)
9	1 Fixing screw with cable slit (with fixing ring)
10	2 Batteries Energizer Ultimate Lithium 1,5V AA
11	1 Battery module
12	1 Installation tube
13	1 Support frame
14	1 Spring clip (only for handle sets without a PZ hole)

4.7.2 Parts name Long shield ILS wide shield



1	Counter sunk screw
2	Rosette holes
3	Assembly plate of the outside fitting
4	Outside shield of the outside fitting
5	Coupling follower

4.7.3 Assembling Long shield ILS wide shield on rosette holes

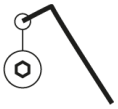
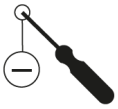
The reading side of the fitting is assembled on the outside of the door; the non-reading side is assembled on the inside.

The wide shield versions of the Long shield ILS can also be assembled on Long shield or Short shield (option S) holes. In this case, please follow the manual "Assembling basic version (for Long shield holes)" on page 20 or "Assembly Option S (for Short shield holes)" on page 34.

The manual describes the assembly on rosette holes taking the basic version of the Long shield ILS as an example. The Long shield ILS assembly follows the same procedure.

The handle set cannot be assembled on split follower locks!

Tools required:

Tool		Required for	Part of the assembly set*
	ILS spanner (8 mm)	Fixing screws nuts	✓
	3 mm Allen-key	Grub screws of the inside shield lever handle, in the case of the outer shield also for countersunk head screws of the outside shield	✓
	0.4 mm x 2.0 mm slot head screwdriver	Screwing the cables	✗
	CES ring spanner	Fixture ring	✓

"The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.

Assembly preparation - Long shield ILS on rosette holes.

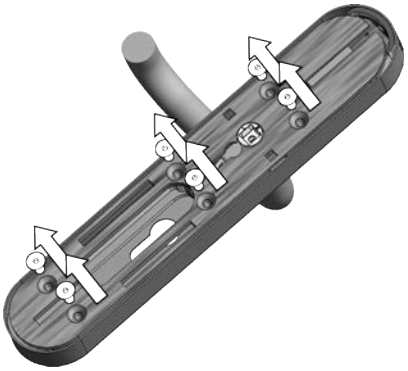
⚠ Before assembling the hardware, check for correct fit of the coupling module; see "Check the coupling module" on page 17

1. **In case a (rosette) handle set is already existent in the door, disassemble it. An existing Euro profile cylinder, provided it is of appropriate length, can continue to be used with the Long shield ILS.**

ℹ If the door does not have a Euro profile cylinder, it is advisable to assemble it **before** assembling the Long shield ILS.

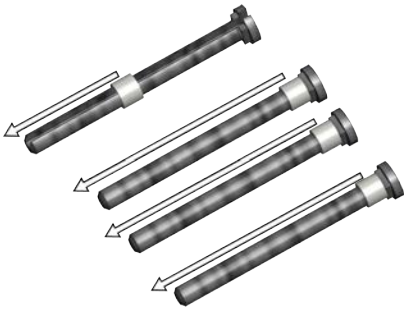
You can now start with the assembly.

Assembly on the outside of the door

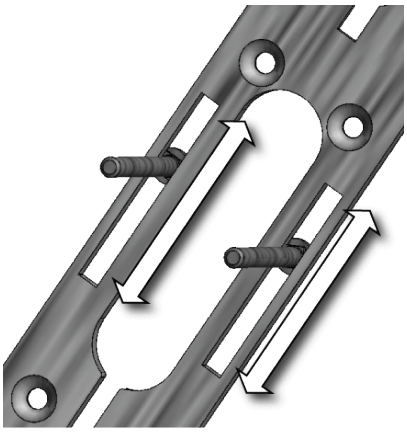


1. **Unscrew the counter sunk screws of** OUTSIDE SHIELD **with the Allen key and raise the** ASSEMBLY PLATE **of the outside shield.**

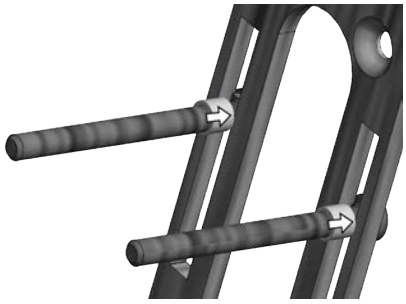
2. **Run the cables through the right rosette hole of** ASSEMBLY PLATE OF THE OUTSIDE SHIELD**.**



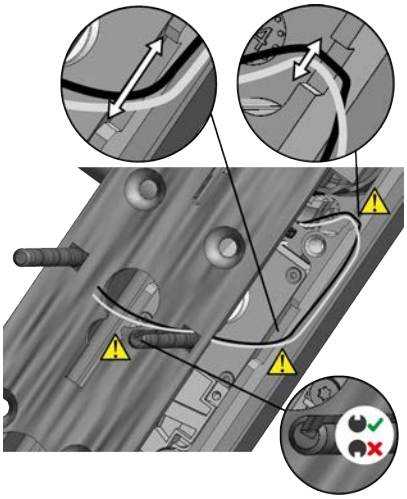
3. **Remove the fixing rings from all** FIXING SCREWS**.**



4. **Insert the other two** FIXING SCREWS WITHOUT CABLE SLITS **in the lower elongated holes of the** ASSEMBLY PLATE OF OUTSIDE SHIELD**.**



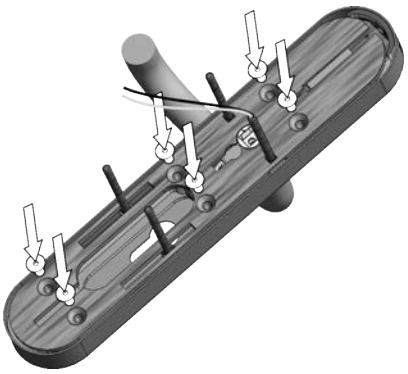
5. **Place the fixing rings on the on both the lower** FIXING SCREWS **and push it up to the assembly plate to fix it in the position the matches the existing holes.**



6. **Insert a** FIXING SCREW WITHOUT A CABLE SLIT **in the left rosette hole and the** FIXING SCREW WITH CABLE SLIT **in the right rosette hole of** ASSEMBLY PLATE OF OUTSIDE SHIELD**.**

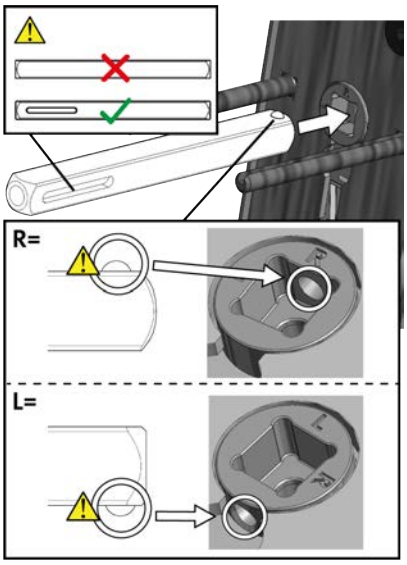
⚠ Ensure that the cables run through the grooves on the edge.

⚠ Make sure that the cable slit of the fixing screw faces upwards and the cables lie exactly in the cable slit.



7. Screw the assembly plate of the outside shield again to the outside fitting.

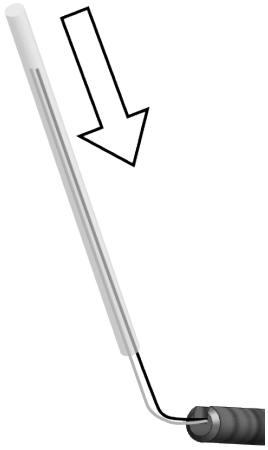
⚠ Make sure thereby that the cables are not pinched or jammed.



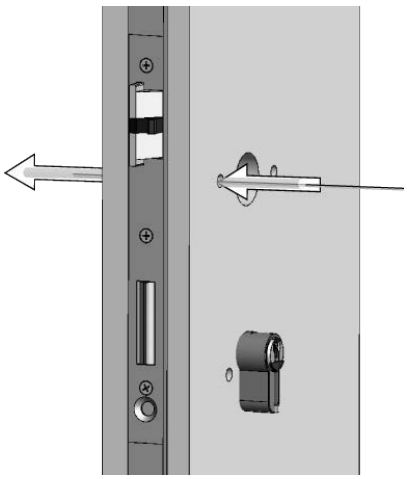
8. Insert the SQUARE SPINDLE **in the coup**LING FOLLOWER**.**

⚠ Make sure that the elongated hole is level.

⚠ Make sure that the ball of the square spindle in the drill hole latched in the coupling follower.

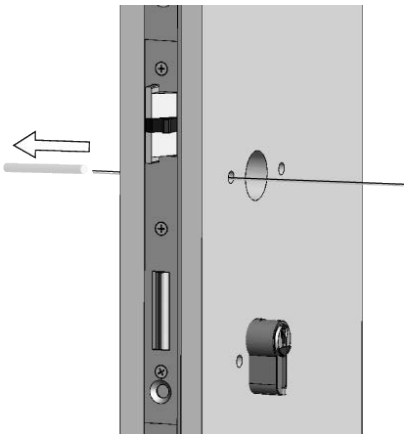


9. Feed both cables into the INSTALLATION **tube.**

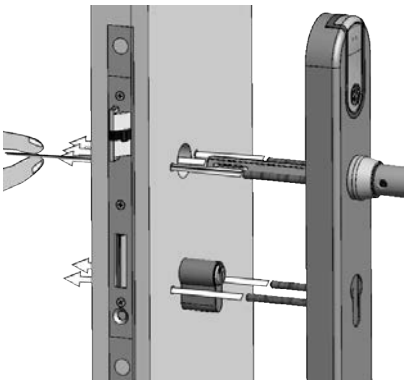


10. Run the cables with the help of the INSTALLATION TUBE **through the corresponding screw hole in the door.**

- Turn the installation tube to and fro slightly while feeding it in, so that it moves forwards more easily.

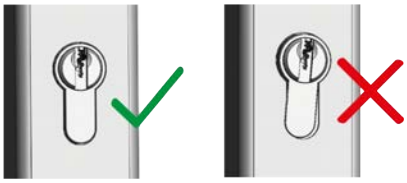


11. Pull the INSTALLATION TUBE **on the opposite side of the door.**



12. Guide the OUTSIDE FITTING **with both of the top** FIXING SCREWS **through the rosette holes of the door and both the lower fixing screws through the PZ holes. Push the** SQUARE SPINDLE **through the lock follower.**

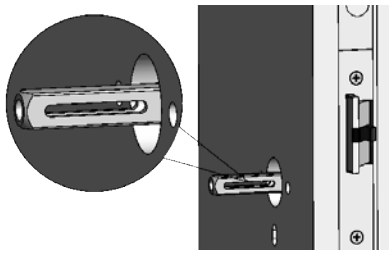
While guiding, keep the cables tout so that they lie correctly in the cable slit. The cables must not get squeezed or jammed!



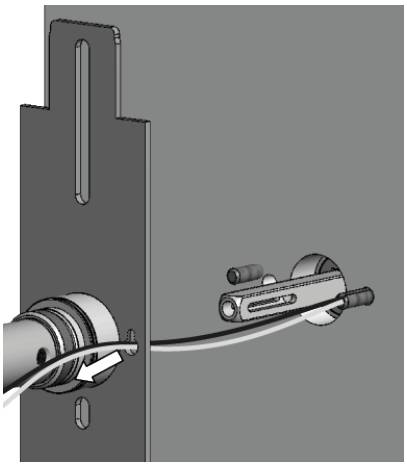
13. Align the Euro profile cylinder, if it does not sit correctly in the outside fitting.

The outside fitting is now temporarily fixed, so that you can continue with assembly of the inside fitting.

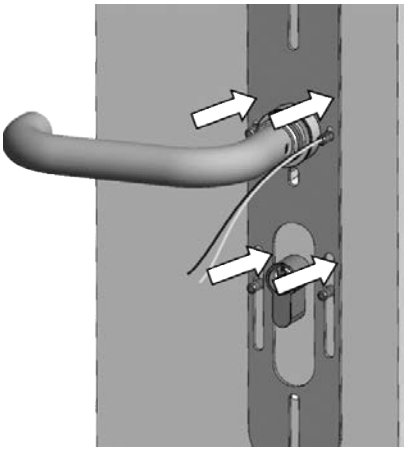
Assembly on the inside of the door



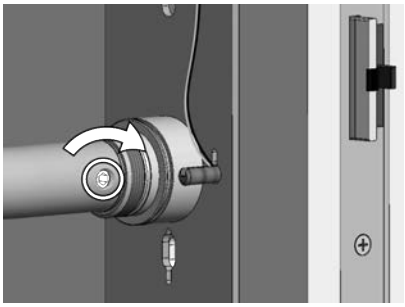
Depending on the size of the lock follower, you may possibly need adaptor sleeve for the square spindle (see "Adaptor sleeves for square spindle" on page 18). Use adapter sleeves in this case.



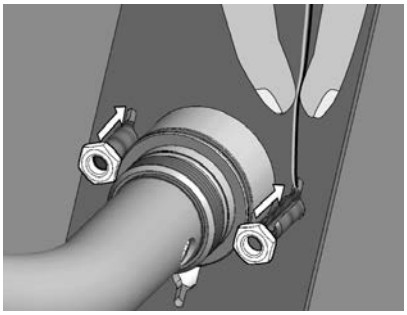
1. Run the cables through the right rosette hole of ASSEMBLY PLATE OF THE INSIDE FITTING**.**



2. Place the ASSEMBLY PLATE **on the** FIXING SCREWS **and press the square hole of the** INSIDE LEVER HANDLE **on the** SQUARE SPINDLE**.**

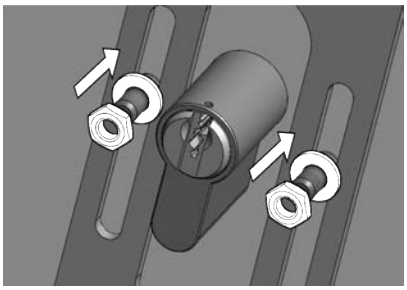


3. Use the Allen key to screw the grub screw into the INSIDE LEVER HANDLE**, to secure the** SQUARE SPINDLE.



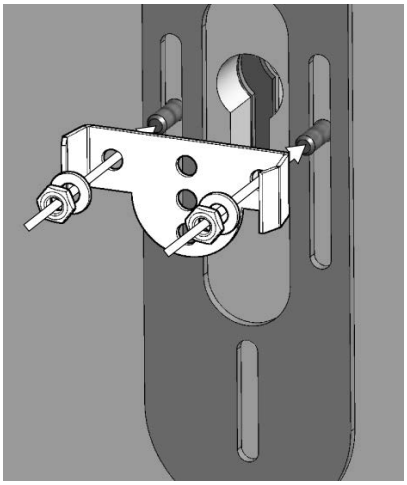
4. Put the NUTS **on both of the upper** FIXING SCREWS**.**

⚠ While doing so, keep the cables upwards, so that they do not get pinched or jammed!

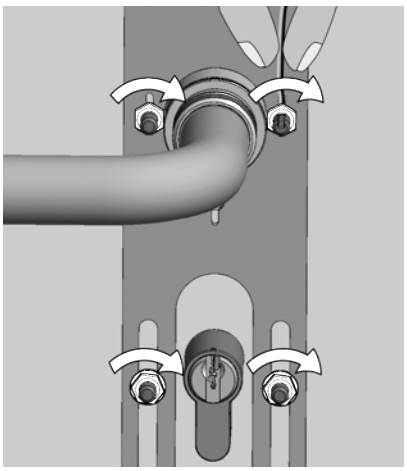


5. Depending upon whether the Euro Profile cylinder is assembled or not, the spring clip will be assembled.

a) In case the Euro profile cylinder is assembled, the spring clip will **not** be assembled. Put only the WASHERS and NUTS on both of the lower FIXING SCREWS.

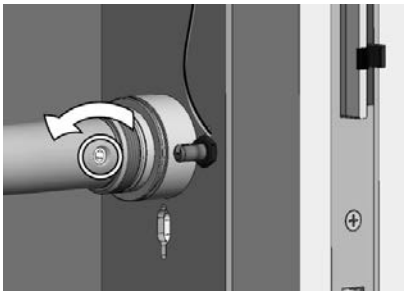


b) In case **no** Euro profile cylinder is assembled, then the spring clip will be assembled. Put the SPRING CLIPS, WASHERS and NUTS on both of the lower FIXING SCREWS.

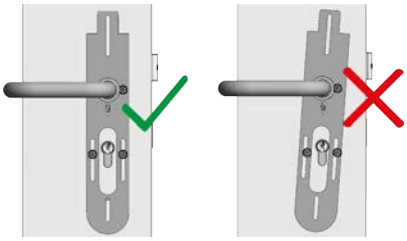


6. Tighten NUTS by hand.

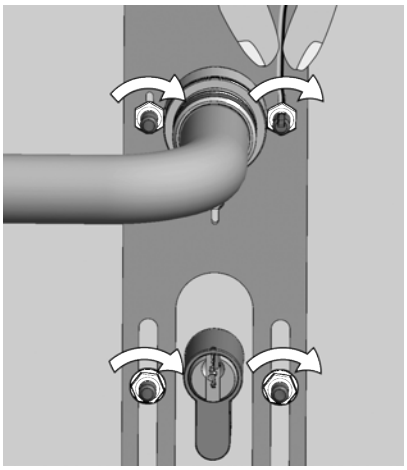
⚠ While tightening the FIXING SCREW WITH CABLE SLIT hold the cables upwards, so that these are not jammed!



7. Loosen the grub screw from the INSIDE LEVER HANDLEslightly to remove any potential mechanical stress from the SQUARE spindle.

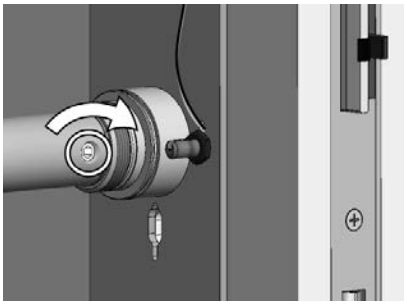


8. Check whether the handle set is correctly aligned.

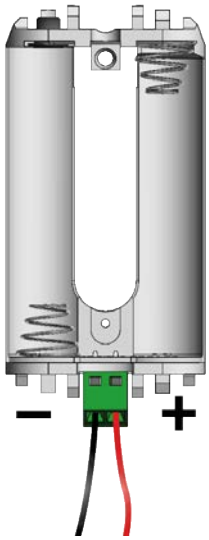


9. Tighten the NUTS with the wrench (max. 1.2 Nm).

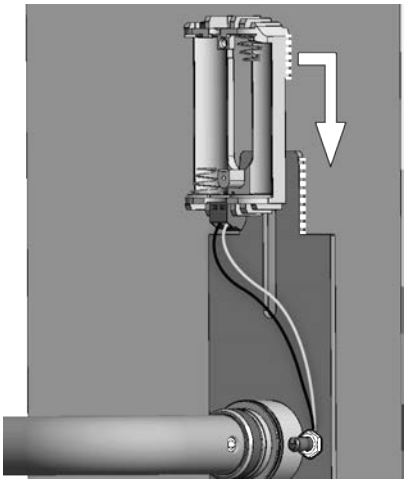
⚠ Halten Sie während des Festziehens der BEFESTIGUNGSSCHRAUBE MIT LEITUNGSSCHIENE die Leitungen nach oben, damit diese nicht eingeklemmt werden!



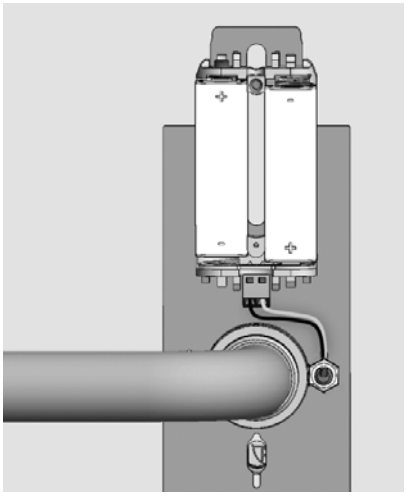
10. Tighten the grub screw of the INSIde lever handLE again.



11. Use the slot-head screwdriver to screw the red cable onto the positive terminal (+) and the black cable onto the negative terminal (-).



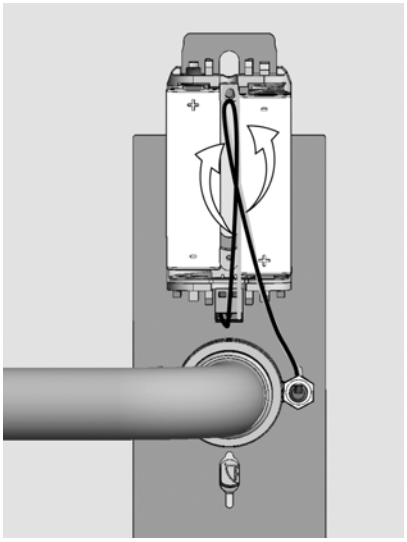
12. Slide the BATTERY MODULE from top to bottom on the ASSEMBLY PLATE, until it snaps in.



13. Insert the batteries with the correct polarity (see Figure).

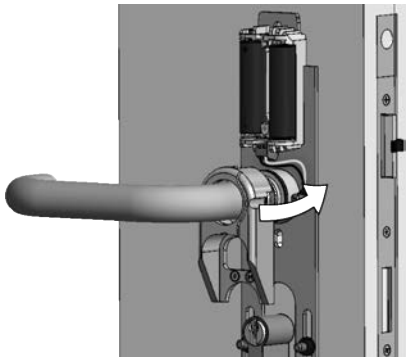
Use only the Energizer Ultimate Lithium 1,5V AA batteries.

Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 91.



14. If the CABLES ARE **protruding, twist and push these between the batteries to prevent jamming.**

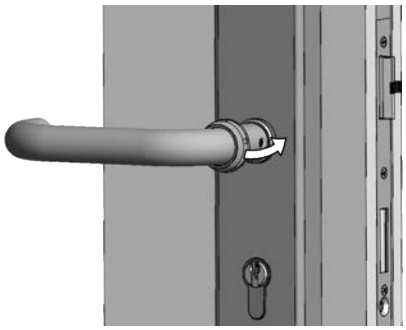
15. Use a master media or locking media to check at the OUTSIDE FITTING**, whether the handle set reads the media.**



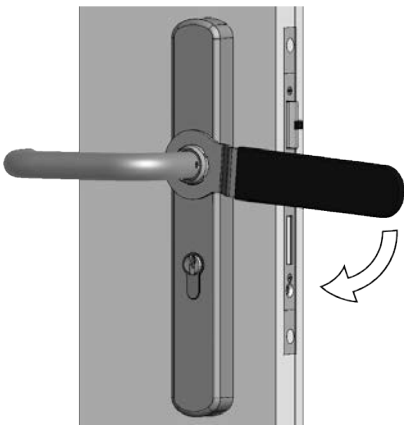
16. Guide the SUPPORT FRAME **over the** INSIDE LEVER HANDLE **up to the** ASSEMBLY PLATE**.**

17. Guide the INSIDE SHIELD **over the** INSIDE LEVER HANDLE **and push it up to the** ASSEMBLY PLATE**.**

⚠ Make sure thereby that the cables are not pinched or jammed.



18. Guide the FIXTURE RING **over the inside** INSIDE LEVER HANDLE **and push it up to the end of the inside lever handle.**



19. Pull the FIXTURE RING **hand-tight** WITH THE **CES ring spanner (max. 1.2 Nm).**

⚠ Do not over-tighten the fixture ring with too much force! Otherwise you may damage the handle set.

---

20. Check whether the fitting operates friction-free with the lock and locking cylinder.

Assembly of the handle set is now complete.

5 Administration

NOTICE **Inadvertent state of your system possible**

If you are not fully aware of the capabilities of your system, it may execute unexpected functions.

- If you are administrating a OMEGA FLEX system, you must be well aware of the consequences of programming and settings. Otherwise, unexpected results are possible.
- Always confirm that your programming will achieve the desired results.

5.1 OMEGA FLEX system administration basics

5.1.1 System families

The **family of systems** is the top most differentiating level for the OMEGA FLEX systems. It specifies which transponder technology (LEGIC or MIFARE) is used in the system:

- OMEGA FLEX MIFARE
- OMEGA FLEX LEGIC

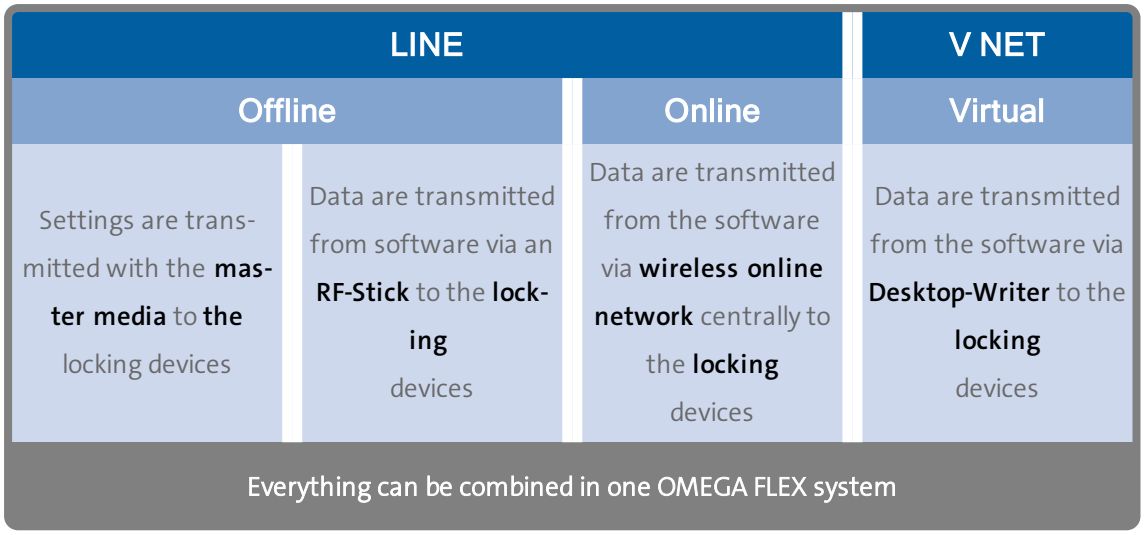
5.1.2 Operating modes: LINE vs V-NET (only MIFARE)

The **operating mode** specifies, where the locking media authorisations are stored. There are two operating modes for the OMEGA FLEX MIFARE systems:

- **LINE**: Authorisations are stored in the locking device
- **V-NET**: Authorisations are stored in the locking media

5.1.3 Types of administrations (only MIFARE)

Within the two operating modes LINE and V-NET different **administration types** are possible:



LINE

Offline with master media	No software is deployed. Settings are transmitted via master media to the locking devices (see "Administration with master media" on page 68)..
Offline with an RF-Stick	Settings are specified in the OMEGA Client software and transmitted via an RF-Stick to the locking device (see "Administration with an RF-Stick" on page 72)..
Online with wireless online network	Settings are specified in the OMEGA Client software and transmitted via wireless online network to the locking device (see "Administration via wireless online network" on page 76).

V NET

Virtual	Settings are specified in the OMEGA Client software and are not transmitted to the locking device but to the locking media (see "Administration via V-NET" on page 78).

5.1.4 ID-Techniques (only MIFARE)

The **ID technology** of locking devices and locking media differ in term of the used security technology used. For OMEGAFLEX MIFARE systems, the following ID techniques are distinguished:

Locking media

Classic locking media	MIFARE Classic and ISO Locking media
DESFire Locking media	With 3DES encrypted DESFire Locking media

Locking devices

CS Locking devices (CS = "Classic Support")	Reading Classic and DESFire Locking media
D Locking devices (D = "DESFire")	Reading only DESFire Locking media

Operating mode compatibility of ID techniques in MIFARE systems

				MIFARE Locking media			
				LINE		**V NET**	
				Classic	DESFire	Classic	DESFire
MIFARE-Locking devices	**LINE**	/N /T /NET	CS	✓	✓	✓	✓
			D		✓		✓
	V NET	/NV /TV /VA	CS			✓	✓
			D				✓

5.2 OMEGA FLEX system functions

OMEGA FLEX systems offer many functions which are not possible in the mechanical locking systems, e.g.

- **Specifying opening duration** of locking devices
- **Activating** release mode or **block** mode
- **Creating** time profiles (e.g. specifying that certain locking media loose their authorisation after 19 Hours)
- **Reading** events (e.g. Which locking media was used to get access at which time)
- Specifying **the validation** intervals
- **Specifying** validity of locking media
- **Office function** activation or deactivation (i.e. the users can activate the release mode themselves)

Which functions are possible in your OMEGAFLEX system depends on the license you acquired, the operating mode (LINE or V-NET), and the type of administration (Online, Offline or virtual).

5.2.1 Overview of possible administration jobs by types of administration

	Master media	RF-Stick	Wireless online network	V NET
Opening duration	✓	✓	✓	✓
Release and block mode	✓	✓	✓	✓
Time profiles	×	✓	✓	✓
Events	×	✓	✓	✓
Validation (only V-NET)	×	×	×	✓
Validity	×	×	✓	✓
Office-function	×	✓	✓	✓

5.2.2 Opening duration

The opening duration is the length of time during which the locking device remains coupled, after an authorised locking media was held in the reading field of the locking device.

The longer the opening duration, the more time people have to operate the locking device after the authenticating with a locking media. The maximum opening duration is 180 seconds.

The opening duration can be set via master media (see "Setting opening period" on page 121) and via CEStronics SuiteA detailed manual is available in the **OMEGA Suite Help**.

5.2.3 Release and block mode

A locking device which is in **release mode** remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

A locking device **in block mode** remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

Details on this and further opening modes can be found under "Opening mode of the locking devices" on page 83.

The release and block mode is set via master media (see "Activating release mode" on page 122 and "Activating block mode" on page 124).

5.2.4 Time profiles

This function requires the use of the OMEGA Suite software.

There are three types of time profiles:

1. **Release times** (up to three time slots for every weekday and a special day within which the locking device is released, i.e. the door is always open)
2. **block times** (up to three time slots for every weekday and a special day within which the locking device is blocked, i.e. the door cannot be opened)
3. Up to 29 **individual time profiles** (for each time profile up to three time slots per weekday and an additional special day; the locking media is authorised to open the locking device only at times set there)

Time profiles are set via the CEStronics Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.2.5 Events

This function requires the use of the OMEGA Suite software.

Technical processes in the OMEGA FLEX system are stored as **events** in the locking device (for V-NET in locking media) and are read-out in the OMEGA Client. This, for example includes, which locking media has been authorised when for which locking device; which locking media gained access when to which locking device, battery warnings etc.

If desired, the recording of events can be completely deactivated.

Events are displayed and evaluated in the CEStronics Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.2.6 Validity of the locking media

This function requires the use of the OMEGA Suite software.

With the **validity** you can specify a time period within which the locking media can be used.

Example: You want to issue a locking media to a new employee already before the commencement of his work, however, the locking media should only be usable from his first working day.

In addition, the end-date of the validity ensures that from a chosen time onwards, no access can be made.

Locking media must be valid so that they can

- open locking devices
- can be validated

The validity is specified in OMEGA Client. Both, the V-NET and the LINE Locking media can be assigned a validity. However, it is not mandatory to specify the validity for a locking media.

In the V-NET, the validity data can be transmitted through a Desktop-Writer or an Update-Terminal to a locking media. After expiry of validity, a locking media must be reprogrammed so that it can be used again.

In the case of LINE a programming job is automatically created after the validity has expired. If a wireless online network is used, the programming jobs are automatically transmitted to the locking devices.

The validity is set via the CEStronics Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.2.7 Validation of the locking media

This function requires the use of the OMEGA Suite software.

The **validation** is a backup function in the V-NET. It specifies an **expiry date** for the locking media. From this date onwards, the locking media cannot be used any more.

Through the validation devices (Wall terminals, Key-Points and Update-Terminals) the expiry date can be extended. How frequently the expiry date must be extended is determined by you in that you specify the **validation interval** in the OMEGA Client.

Example: Company employees must validate their locking media every day at a Wall terminal at the company entrance, so that their locking media are usable.

Wall terminals and Update-Terminals are connected to the OMEGA Server via wireless online network; Key-Points via LAN. This enables all validation devices to read all events stored in the locking media and transmit it to the OMEGA Server. Key Points additionally transmit all other pending programming jobs to the locking media (e.g. alterations in the locking authorisations) during validation.

A regularly necessary validation ensures that a locking media that has fallen into the hands of unauthorised persons, can be **blocked** quickly and easily by the validation devices. Blocked locking media are not accepted by the locking devices as a rule.

Only locking media which are in service, can be validated.

Example: A locking media is **valid**for one year, however, it must be **validated** every day anew.

The validation is done via the CEStronics Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.2.8 Office-function

This function requires the use of the OMEGA Suite software.

The office function in locking media can put locking devices **into** office mode. In the office mode, locking devices are released for a certain period of time, i.e.during this time, the door can be opened even without the locking media. After expiry of the time period, the locking device reverts back to normal mode automatically. In V-NET, the office mode is not limited by time, i.e. a locking device remains coupled until the office mode is deactivated by the locking media again.

To be able to use the office function, both locking device and locking media must be set up for the office function in OMEGA Client. The OMEGA Client therefore specifies

- which locking devices shall command the office function
- which locking media are authorised to invoke the office function
- in which time period these locking media can use the office function, for example, Monday to Friday from 8 to 17 hrs.

The office function is set via the CEStronics Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.3 Administration with master media

5.3.1 About the master media

Master media serve various purposes

1. You can use master media as a **fully-fledgedadministration type** (e.g. Authorising locking media). Advanced functions such as specification of time profiles, however, are not possible and require the use of OMEGA Client software.
2. There are master media which are **required for other types of administration** e.g. to establish communication between a locking device and an RF-Stick.
3. The master media Emergency-Key serves as an **Emergency-Key** and always allows the opening of locking devices even though their current programming prohibits an opening.

5.3.2 Which master media are available?

There are three types of master media:

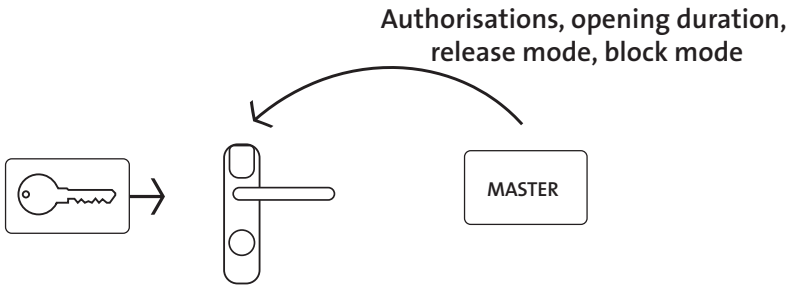
1. Cross functional master media
   These master media can be used independent of the chosen administration type.
2. Master media for the administration with master media
   These master media facilitate additional functions if you manage your OMEGA FLEX system exclusively with master media. If you use the OMEGA Client software, these functions can be set via the software.
3. Master media for other types of administration
   You require these master media for other administration types, e.g. to put the locking devices in the online.mode.

The System-Master is always delivered with every OMEGA FLEX system. You may procure further master media through your CES partner.

Cross functional master media	
System-Master	The System-Master represents the **highest level of** master media. All further master media are authorised by the System-Master. There is always only one valid System-Master for each OMEGA FLEX system.
Emergency-Key	The Emergency-Key is a master key, which, independent of **all** settings on your locking devices, **is always** authorised to lock. Keep the Emergency-Key at a safe place and do not let it fall into unauthorized person's hands! With an Emergency-Key, you can switch your locking device to **emergency mode** , see "Emergency mode" on page 83. The Emergency-Key key has always the top most priority and can also open devices that have been put into block mode, see "Hierarchy of the opening modes" on page 84. Maximum 100 Emergency-Keys per OMEGA FLEX system are possible. In contrast to all other master media, the Emergency-Key is not only available as master media but also as combination key and key-chain.
Master media for the administration with master media	
Program-Master	The Program-Master is used to authorise and delete the authorisation of **locking media** again. Maximum ten Program-Masters per OMEGA FLEX system are possible.
Time-Master	With a Time-Master, you can specify the **opening period** of a locking device (see "Setting opening period" on page 121). Maximum ten Time-Masters per OMEGA FLEX system are possible.
Release-Master	With the Release Master, you can switch your locking device to **release mode** (see "Activating release mode" on page 122).(see "Activating release mode" on page 122). Maximum ten Release-Master per OMEGA FLEX system are possible.
Block-Master	With the Block-Master, you can switch your locking device to **block mode** (see "Activating block mode" on page 124).(see "Activating block mode" on page 124). Maximum ten Block-Masters per OMEGA FLEX system are possible.
Master media for other types of administration	
RF-Stick-Master	You only need the RF-Stick-Master if you use an RF-Stick for your administration (see "Administration with an RF-Stick" on page 72).

	With the RF-Stick-Master you can establish connection between an RF-Stick and a locking device. Maximum ten RF-Stick-Master per OMEGA FLEX system are possible. Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.
RF-Ini-Master	You require the RF-Ini-Master if you are running a wireless online network for your administration (see "Administration via wireless online network" on page 76). Apart from that, the RF-Ini-Master is required for the use of **RF-devices** (RF-locking devices or radio switch). Using the RF-Ini-Master you can activate the **online mode** of a locking device. (see "Administration via wireless online network" on page 76) Unlimited number of RF-Ini-Master can be deployed per OMEGA FLEX system to activate the online mode. For an RF-locking device or wireless switch however, only one RF INI master per device can be authorised.
RF-Trace-Master	You require the RF-Trace-Master only if you a running a wireless online network (see "Administration via wireless online network" on page 76). Using the RF-Trace-Master, you can assess the **quality of the wireless connection** between locking devices and access-points in online mode.. Unlimited number of RF-Trace-Master per OMEGA FLEX system are possible.

5.3.3 Principle of administration with master media



Administration with master media is done offline, i.e. no wireless connection is needed. Master media must be authorised individually for each locking device.

Basic procedure for administration with master media:

1. You authorise the System-Master of your OMEGAFLEX system on a new locking device (see "Deleting System-Master" on page 115).

2. You authorise one of the other master media using the System-Master (see "Authorising additional master media" on page 111).
3. You do the required settings with an authorised Media master; for example, authorise a locking media with the Program-Master.

All administration tasks that you can fulfil with master media can be found at "Overview: Master media usage" on page 108.

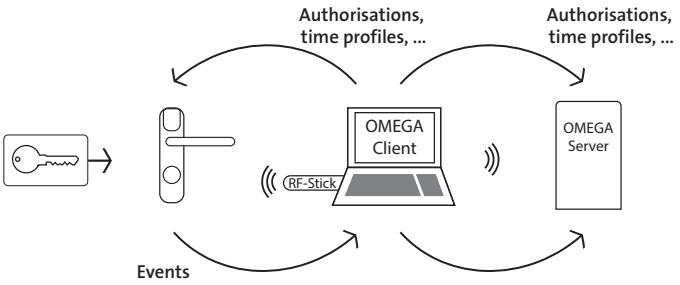
5.4 Administration with an RF-Stick

5.4.1 About RF-Stick

The RF-Stick provides communication between the OMEGA Client software and the locking devices by establishing a wireless link between a PC on which the OMEGA client is installed, and the locking device. For this purpose, the PC with the RF-Stick must be located near the locking device. The wireless range of the RF-Stick is approximately 10 meters.

For detailed information about an RF-Sticks please refer to **OMEGA FLEX RF-Stick manual**.

5.4.2 Principle of administration with an RF-Stick



Administration with an RF-Stick is done offline, i.e. without a permanent online radio link. An RF-Stick establishes connection between the locking device and OMEGA Client for the duration of the transmission of programming job. For this purpose, the PC with the OMEGA Client must be located close to the locking device. In contrast to the administration with master media, while administering with an RF-Stick., you can use the OMEGA Suite software functions (e.g. Time profile).

You can deploy any number of RF-Sticks for the administration of your OMEGA FLEX system.

If you administer your OMEGA FLEX system with an RF-Stick, you will require at least the following administration devices and master media:

- RF-Stick
- PC with OMEGA Client installed
- System-Master
- RF-Stick-Master

Basic procedure for administration with an RF-Stick:

1. You read all required OMEGA FLEX components in the OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.

2. You initialise an RF stick on your PC so that it can work with the OMEGA Client software (see "Installing RF-Stick for the OMEGA client" below).
3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.
4. Proceed to a locking device with a PC and an RF-Stick connected to it.
5. You establish the connection between the locking device and the RF-Stick through an RF Stick-Master and transmit the generated programming jobs to the locking device (see "Transmitting programming jobs with an RF-Stick to a locking device" below). The connection between the locking device and an RF-Stick is automatically disconnected thereafter.

5.4.3 Installing RF-Stick for the OMEGA client

Required administration devices:

- RF-Stick
- PC with OMEGA Client installed

Procedure:

1. Insert the RF-Stick into a free USB socket of a PC with OMEGA Client installed on it.

The RF-Stick driver will be installed automatically.

2. Start the OMEGA Client and log in with your user name and password.

The OMEGA Client detects the RF-Stick automatically. "RF-Stick ready" is displayed now on the lower bar of OMEGA Client.

The RF-Stick is now initialised.

Troubleshooting:

Problem/Signalling	Reason	Solution
The OMEGA Client displays "RF-Stick not authorised".	The RF-Stick belongs to another system and cannot be use for the administration of your OMEGA FLEX system.	Use an RF-Stick with system identification code for your OMEGA FLEX system.

5.4.4 Transmitting programming jobs with an RF-Stick to a locking device

Required master media and administration devices:

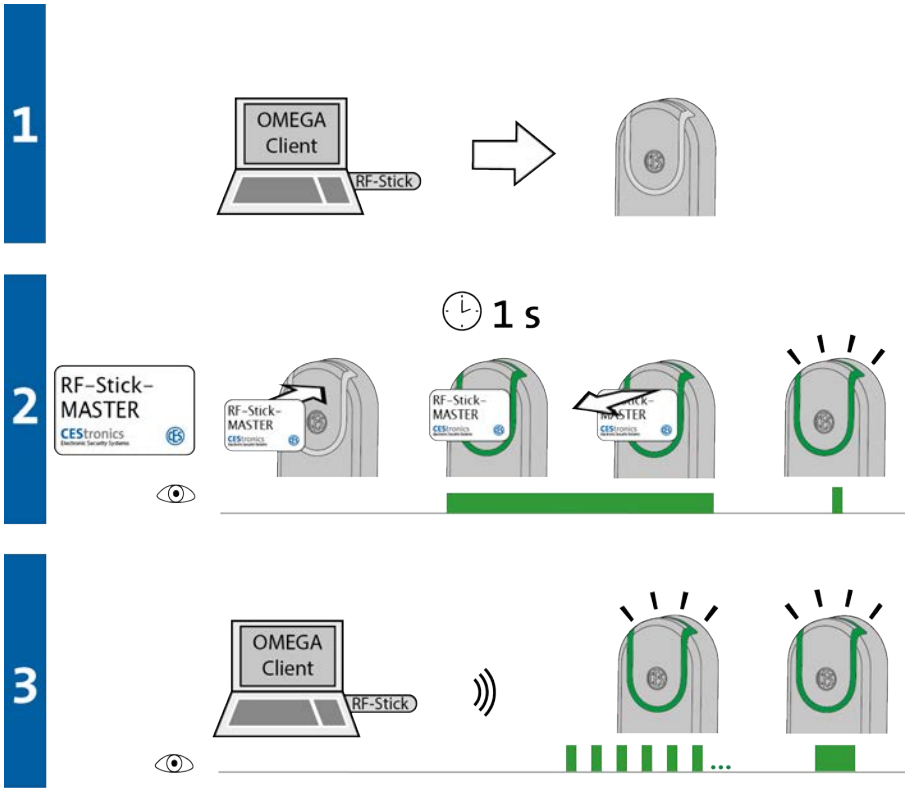
- RF-Stick-Master
- RF-Stick
- PC with OMEGA Client installed

The RF-Stick-Master must first be authorised for all locking devices on which it is to be used (see "Authorising additional master media" on page 111). Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.

Procedure for creating programming jobs:

1. **Start the OMEGA Client and log in with your user name and password.**
2. **Set the desired changes in the OMEGA Client.**
3. **Start your changes accordingly as a change programming or new programming, e.g. through** PROGRAMMING > PROGRAM ALL CHANGES.
   The status display of the OMEGA Client shows now "programming required". The individual programming jobs are shown under "Programming status".

Procedure for transmitting programming jobs via an RF-Stick:



1. **Proceed with your PC and the RF-Stick connected to it to the locking device into which the programming jobs are to be transmitted.**

If you want to transmit the programming jobs into multiple locking devices, you can freely choose the sequence in which you look for the locking devices.

2. Hold the RF-Stick-Master briefly in the reading field of the locking device.

The following signal appears:

1x short green

3. The locking device searches now for an RF-Stick nearby.

The distance between the locking device and the RF-Stick may not exceed ten meters.at the maximum.

As soon as the RF-Stick has been detected, the transmission begins. During transmission, the locking device flashes green.

During transmission the following happens:

- All programming jobs for this locking device are transmitted to this locking device. During programming, the programming status display shows the progress in percentage.

- All events stored in the locking device, which were not available to the OMEGA Client yet, will be copied into the OMEGA Client.

- The clock is set.

If no programming jobs are available, only the events are copied and the clock is set. In this case, the locking device does not flash during the transmission.

After all data has been transmitted, the RF-Stick and the locking device are disconnected automatically. After transmission completion, the programming job is deleted from the "Programming status" list.

The programming job transmission is completed when the locking device signals 1x long green 1x long beep.

Troubleshooting:

Signalling	Reason	Solution
During step 2:		
	The locking device cannot detect any RF-Stick nearby.	Move with a properly connected RF-Stick closer to the locking device and try to transmit the programming jobs once again.

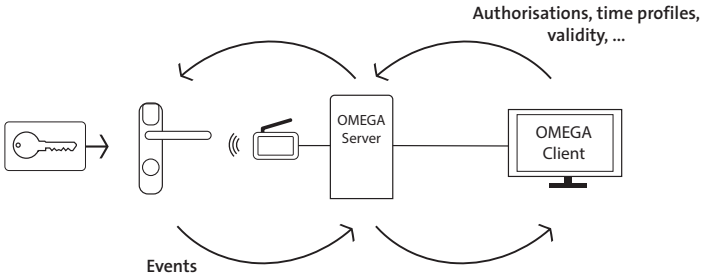
5.5 Administration via wireless online network

5.5.1 Wireless online networks

A wireless online network provides a permanent connection between locking devices and the OMEGA Server. A wireless online network is established via **Access-Points** whose range can be extended through **repeater** or **outdoor antenna** .

Device	Maximum range
Access point	25 m
Access-Point with outdoor antenna	40 m
Repeater	extends Access-Point range by 25 m.

5.5.2 Principle of administration via wireless online network



The administration via a wireless online network is done through a permanent online connection. The administration is done centrally by the OMEGA Client, i.e. the programming jobs are transmitted **automatically** via wireless online connection to the online locking devices.

If you administer your OMEGA FLEX system with an RF-Stick, you will need at least the following administration devices and master media:

- PC with OMEGA Client installed
- Access-Point(s)
- System-Master
- RF-Ini-Master

Basic procedure for administration via V-Net:

1. You build a wireless online network with Access-Points.
2. You read all required OMEGA FLEX components in the OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.

3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.
4. The programming jobs are automatically transmitted via the wireless online network to the online locking devices.

5.5.3 Master media for administration via wireless online network

You will require the following master media for administration via wireless online network:

- **RF-Ini-Master**
  - to activate the online mode of the NET locking devices,see "Activating online mode" on page 128
  - to deactivate the online mode of the NET locking devices, see "Deactivating online mode" on page 130
- **RF-Trace-Master**, to check the quality of the radio link, see "Checking quality of wireless connection" on page 131.

5.6 Administration via V-NET

5.6.1 About OMEGA FLEX V-NET

V-NET refers to a virtual network of locking media and locking devices. Locking authorisations thereby are not stored in the locking device but rather in the locking media. Communication between locking devices and locking media also provides for additional information exchange e.g. whether a locking medium is to be blocked or the transmission of events.

Example: An employee looses his locking media. A replacement media will be issued to him that can be used immediately. During each authentication at locking device, the replacement media transmits the information that the lost predecessors media must be blocked if case an access attempt is made at the locking device.

If additional validation devices (Key-points and Wall terminals) are used, the V-Net enables use of the **validation** of locking media.

5.6.1.1 Replacement media

A **replacement media** is a locking media in V-NET which contains the data of its predecessor media. If a replacement media is used on locking devices, it transmits information to the locking devices that its predecessor media must be blocked. If the replacement media is used on these locking devices, then the replacement media will be blocked and cannot be used on any locking device.

5.6.2 Principle of administration via V-NET

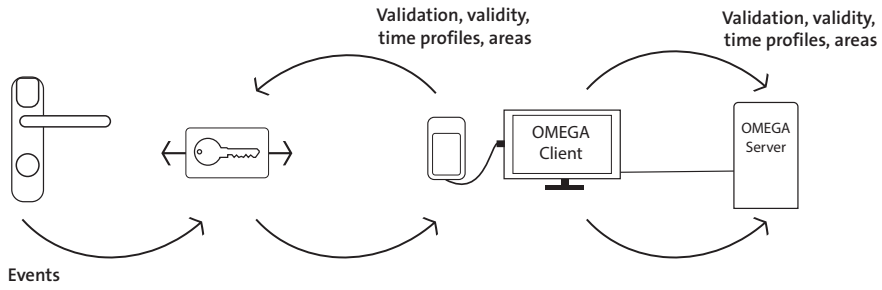
In the V-NET, the administration takes place via locking media. Authorisations and other settings are not stored in the locking device but rather in the locking media.

The connection between the locking media and the OMEGA Client can be established in two ways:

- Without the validation devices, the connection between the locking media and the OMEGA Client is done exclusively via the Desktop-Writer.
- With validation devices, the connection between the locking media and OMEGA Client can also be established by means of validation devices.

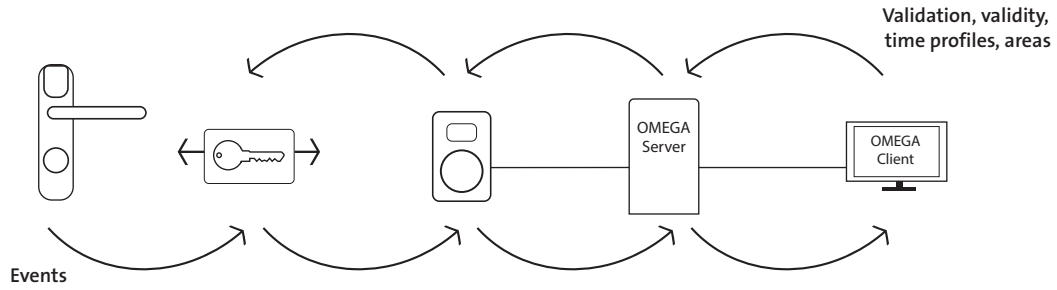
For details on validation see "Validation of the locking media" on page 66.

Without Validation devices



Programming jobs created in OMEGA Client are forwarded via the Desktop-Writer to the locking media.

With validation devices



Validation devices (Wall terminals or Key-Points), which are connected to the OMEGA server via a wireless online network, receive and forward programming jobs to the locking media. Electronic cylinders and handle sets are always offline in V-NET and therefore are not connected to the OMEGA Server.

If you administer your OMEGA FLEX system with an RF-Stick, you will need at least the following administration devices and master media:

- PC with OMEGA Client installed
- System-Master
- Desktop-Writer
- RF-Stick
- For V-NET with validation devices, if exclusively Key-Points are used: Key-Points
- For V-Net with validation devices when exclusively or additionally
  Wall terminals are deployed: Validation devices, Access-Point(s), RF-Ini-Master

Basic procedure for administration via V-Net:

1. You format the locking media in OMEGA Client using a Desktop-Writer .
2. You read all the other required OMEGAFLEX components into the OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.
3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.
4. Programming jobs are created automatically from these settings.
5. Transmit the programming jobs with a **Desktop-Writer** or **Key-Point** to the locking media.
6. If you have created or altered the time profiles, transmit these with an RF-Stick into the locking devices.

All administrative jobs such as programming the locking media, blocking the locking media etc. are carried out within the OMEGA Client, which is part of the software modules collection OMEGA Suite. A detailed manual is available in the **OMEGA Suite Help**.

5.7 Use of the OMEGA Client software

OMEGA Suite

The **OMEGA Suite** is a collection of software modules for the administration and maintenance of your OMEGA FLEX system. Besides the OMEGA Client, the OMEGA Suite includes further tools e.g. for Firmware-Updates, Server configuration etc.

OMEGA Client

The **OMEGA Client** is the software with which you can administer your entire OMEGA FLEX system.

Each setting in the OMEGA Client (e.g. changes in the locking authorisations, adding time profiles etc.) creates a **programming job**. Programming jobs must either be transmitted to the locking device or to the locking media (V-NET only). Once the programming jobs have been transmitted, the settings are stored.

The display in OMEGA Client “Programming required”, tells you that programming jobs are pending.

The **OMEGA Client** is required for all types of administration except for administration with master media.

5.7.1 Client-Server-Principle

In order to be able to use OMEGA Client, you require an OMEGA Server to store the data. The OMEGA Client allows you to access these data and set up all functions of your OMEGA FLEX system.

The OMEGA Server can be installed locally (on the same PC on which the OMEGA Client is also installed) as well as on an external server.

For administration with an RF-Stick, it is sufficient to install the server locally, provided you are the only user of the OMEGA Client. If multiple OMEGA Clients have to have access to the server, you require an external server which can be accessed permanently.

5.7.2 OMEGA Client functions

Administrative jobs can be handled more conveniently with OMEGA Client software than by pure master media based administration.:

- **Authorising** multiple locking media at a time and **deleting individual** locking media without the locking media being in your possession.

- **Authorising** master media for locking devices (see "Master media while using OMEGA Client" below)
- **Specifying opening duration** of locking devices comfortably

A detailed manual is available in the **OMEGA Suite Help**.

In addition, OMEGA client offers further functions:

- **Creating** time profiles (see "Time profiles" on page 64)
- **Reading** events (see "Events" on page 65)
- Using the **office function** (see "Office-function" on page 67)
- Specifying **Validation** intervals (for V-NET) (see "Validation of the locking media" on page 66)
- **Specifying** the validity of locking media (see "Validity of the locking media" on page 65)

A detailed manual is available in the **OMEGA Suite Help**.

5.7.3 Master media while using OMEGA Client

5.7.3.1 Authorising master media via OMEGA Client

When you add master media to the OMEGA Client (see "Administration" on page 61), then, along with the **new programming**, these are also transmitted to the locking device and are thus authorised for the locking device.

This applies to **all** master media **except the Program-Master**. Although this can be read into OMEGA Client, it is not transmitted to the locking device (see "Dispensing with the use of Program-Master" below).

Through the transmission of the master media from OMEGA Client to the locking device, all master media which are **not** known to the software will also be deleted from the locking device. It is therefore advisable to read the master media into OMEGA Client.

5.7.3.2 Dispensing with the use of Program-Master

If you are using the OMEGA Client, you should dispense with the Program-Master, because the OMEGA Client itself acts as “Program-Master” while awarding locking authorisations. Since the locking media can only be authorised and deleted by the same Program-Master, therefore, although the Program-Masters can be read into OMEGA Client but cannot be transmitted to the locking device.

It means that:

1. The authorisations assigned by Program-Master will **not be displayed in OMEGA Client**. As a consequence, the locking plan displayed in OMEGA client is out of sync

with the actual locking authorisations.

2. Individual or dedicated deletion of authorisations assigned by the Program-Master is not possible via software; instead, to delete you have to use the **Program-Master** or reprogram the locking device.
3. A **reprogramming** of locking devices automatically results in deletion of all authorisations created by a Program-Master.

5.8 Opening mode of the locking devices

5.8.1 About the different opening modes of the locking devices

Block mode

A locking device **in block mode** remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

Release mode

A locking device which is in **release mode** remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

Emergency mode

The **emergency mode** is similar to the release mode: The locking device remains permanently coupled so that the door can always be opened without necessitating the use of a locking media.

In contrast to the release mode, the emergency mode cannot be cancelled by the Release-Master, but only through the Emergency-Key and has the highest priority amongst all opening modes. see "Hierarchy of the opening modes" on the next page.

Office mode

The office function in locking media can put locking devices **into** office mode. In the office mode, locking devices are released for a certain period of time, i.e.during this time, the door can be opened even without the locking media. After expiry of the time period, the locking device reverts back to normal mode automatically. In V-NET, the office mode is not limited by time, i.e. a locking device remains coupled until the office mode is deactivated by the locking media again.

Normal mode

A locking device in **normal mode** can be opened with an authorised locking media. Unauthorised locking media are rejected.

5.8.2 Simultaneous activation of multiple opening modes

An opening mode remains activated until it is deactivated with the corresponding master media or until the time set for the time profile has expired. The office mode is activated by the locking media and deactivated automatically when the block mode, release mode or emergency mode or a block time profile or enable time profile is activated.

For the opening modes, which were activated by the master media, applies: the activation of a further opening mode does not deactivate the current mode. Therefore, if hierarchy permits, different opening modes can also overlap (see "Hierarchy of the opening modes" below). In order for an opening mode to be activated in addition to an already active opening mode, the new opening mode must have a **higher** hierarchical level than the current opening mode.

Example: You put a locking device first in the release mode and than in the block mode - without deactivating the release mode. Thereupon,the block mode is active. If you now deactivate the block mode, the locking device returns to the release mode. If you deactivate the release mode with a Release-Master, the device returns to the normal mode.

5.8.3 Hierarchy of the opening modes

1 = highest priority, 7 = lowest priority

1	Emergency mode (activated by Emergency-Key)
2	Block mode (activated by Block-Master)
3	Block time (activated by time profile in OMEGA Client)
4	Release mode (activated by Release mode)
5	Enable time (activated by time profile in OMEGA Client)
6	Office mode (set in the OMEGA Client, activated by locking media)
7	Normal mode (opened by locking media)

6 Operation

This chapter is intended for persons who operate the locking devices using locking media.

6.1 Opening doors

6.1.1 Opening the door from the inside.

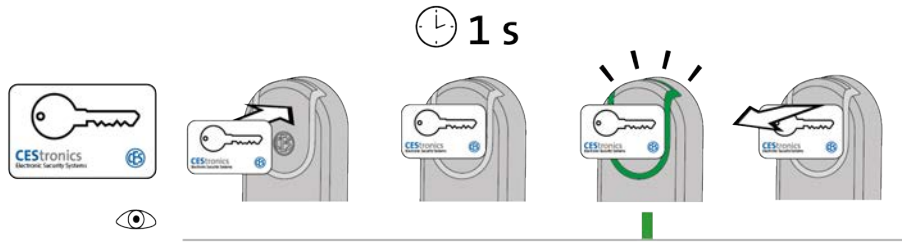
To operate the handle set from the inside, you do not require any locking media. The door can always be opened from the inside by operating the lever handle (door handle).

6.1.2 Opening the door from the outside

To operate the handle set from the outside, you require an authorised locking media. Although without the locking media, the lever handle of the handle set can be pushed down, but the door cannot be opened.

⚠ Do not cover the reading field of the handle set with metallic materials. Otherwise, no locking media can be read.

Procedure:



1. **Hold an authorised locking media for ca. 1 second in the reading field of the locking device (maximum distance ca. 10 mm).**
   The following signal appears:
   1x short green

   You can open the door by pressing the lever handle for a certain period. The length of the time period depends upon the **opening period** *set.*

ℹ During the opening period no further locking media or master media are read. Only after you hear that the coupling of locking device has disengaged, you can hold another locking media in the reading field of the locking device.

Troubleshooting:

Signalling	Reason	Solution
The locking media cannot	The locking media was not held close enough to the reading field of the locking	Hold the locking media longer in the reading field of the locking device.

Signalling	Reason	Solution
be read (No signal).	device.	
	The reading field is shielded by metallic materials.	Remove the metallic materials from the reading field of the locking device.
	Shortly before, another authorised locking media was held in the reading field of the locking device and the opening period of the locking device has not yet expired.	You can open the door without having to have your locking media read.
	The battery is empty.	Replace the batteries (see "Maintenance" on page 91).
	b) The locking media is defective.	Have a new locking media issued by the administrator of the OMEGA FLEX system.
	The locking media is not authorised.	Have the locking media authorised by the administrator of the OMEGA FLEX system.
	The locking media is authorised but the block time or block mode is active.	If the block time or block mode is active, a locking device cannot be opened by an authorised locking media.
	The locking media is authorised and the locking device is currently in release mode.	You can open the door also without an authorised locking media.

6.2 Using the Office function

In order to use the office function, the administrator must first set it up with the OMEGA Client software (see "Office-function" on page 67).

The office function in locking media can put locking devices **into** office mode. In the office mode, locking devices are released for a certain period of time, i.e.during this time, the door can be opened even without the locking media. After expiry of the time period, the locking device reverts back to normal mode automatically. In V-NET, the office mode is not limited by time, i.e. a locking device remains coupled until the office mode is deactivated by the locking media again.

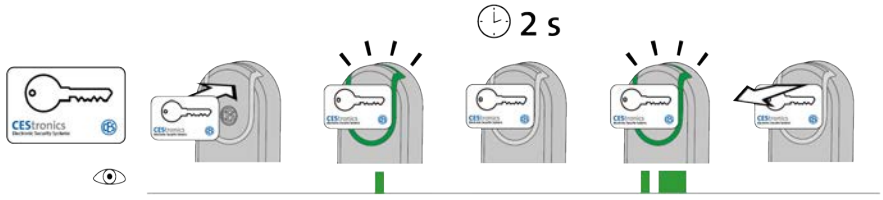
Example: You can activate the office mode from Monday to Friday from 8 to 17 Hrs. If the office function is activated, it automatically reverts back to its normal mode at 17 Hrs. that is, authorised locking media must be used to open the door.

6.2.1 Activating the office mode

Required devices and locking media:

- Locking media, which is authorised for the office function
- Locking device, which is authorised for the office function

Procedure:



1. **Hold the locking media authorised for the office function for ca 2 seconds in the reading field of the locking device.**
   As soon as the locking media is in the reading field, the following signal appears:
   1x short green

   After ca 2 second, another signal appears:
   1x short green , 1x long green

   The office mode is now active. The door can now be opened until the end of the office hours without locking media. LINE locking device reconnects automatically at the end-time set in the OMEGA Client.

⚠ Since there are no start and end-times for the Office function in the V-NET, there is no end-time at which the locking device automatically reconnects. Therefore, the office mode in V-NET must be deactivated with an authorised locking media.

Troubleshooting:

Problem/Signalling	Reason	Solution
No signal after ca 2 seconds. The office mode is not active. The coupling of the locking device engages, but disengages again after expiry of the opening duration.	The locking device is not authorised for the office function.	Have the locking device authorised for the office function by the system administrator.
	The office function is not available at this time.	Enquire with the system administrator, when the office function in this locking device can

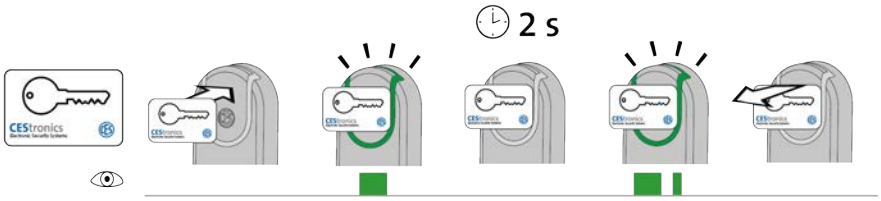
Problem/Signalling	Reason	Solution
		be activated.
	The locking media is not authorised for the office function.	Have the locking media authorised for the office function by the system administrator.

6.2.2 Deactivating the office mode

Required devices and locking media:

- Locking media, which is authorised for the office function
- Locking device, which is authorised for the office function

Procedure:



1. **Hold the locking media authorised for the office function for ca 2 seconds in the reading field of the locking device.**

   As soon as the locking media is in the reading field, the following signal appears:

   1x long green

   After ca 2 second, another signal appears:

   1x long green , 1x short green

   The office mode is now deactivated. The door can be opened now only with authorised locking media.

Troubleshooting:

Signalling	Reason	Solution
After 2 seconds  not shown.	The office mode cannot be deactivated because the locking media is not authorised for the office function.	Have your locking media authorised for the office function by the system administrator.

6.3 Access in emergency situations (Emergency mode)

6.3.1 Activating emergency mode

The **emergency mode** is similar to the release mode: The locking device remains permanently coupled so that the door can always be opened without necessitating the use of a locking media.

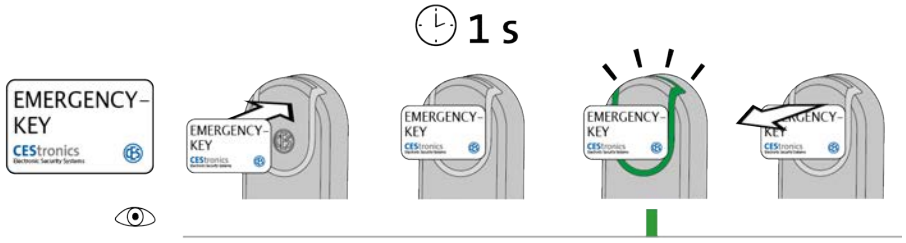
In contrast to the release mode, the emergency mode cannot be cancelled by the Release-Master, but only through the Emergency-Key and has the highest priority amongst all opening modes. see "Hierarchy of the opening modes" on page 84.

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 111).

Procedure:



1. Hold the locking media before the reading field of the locking device.

After ca. 1 second, the following signal appears:

1x short green

If the locking device already lights up green **while** the Emergency-Key is being read, but no green flashing signal appears after one second, emergency mode is already active.

2. Remove the Emergency-Key from the reading field of the locking device.

The locking device is now in emergency mode. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The emergency mode can be deactivated by Emergency-Key only.

Troubleshooting:

Signalling	Reason	Solution
	The Emergency-Key could be read but is not authorised for this locking device.	Authorise the Emergency-Key.

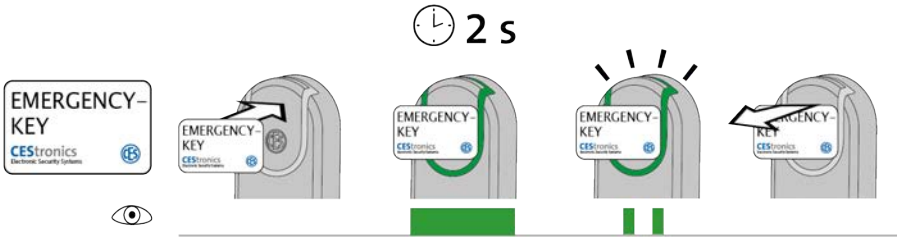
6.3.2 Deactivating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 111).

Procedure:



1. **Hold the locking media before the reading field of the locking device that is in emergency mode.**
   After ca. 2 second, the following signal appears:
   2x short green
2. **Remove the Emergency-Key from the reading field of the locking device.**
   The emergency mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

Signalling	Reason	Solution
	The Emergency-Key could be read but is not authorised for this locking device.	Authorise the Emergency-Key.

7 Maintenance

7.1 Routine maintenance work

- It is recommended to have the handle set serviced on half yearly basis exclusively through CES or CES partner and check for fault-free operation.
- Replace the batteries in accordance with a predefined maintenance schedule.
- Procure spare batteries in time.

7.2 Device care

You can clean the exterior, accessible parts of your locking devices such as knobs, knob sleeves, covers, signs, etc. with a soft, slightly damp cloth.

⚠ Do not use any lubricant or oils for cleaning and maintenance of the locking devices.

⚠ Solvent-based cleaning agents can damage the surfaces of the locking devices. Therefore, do not use any solvent-based cleaning agent.

7.3 Service

For service assistance please contact your CES partner.

7.4 Notes on transportation

If the locking devices have the batteries inserted in them, **they can get discharged**, if

- the locking devices are lying **within 10 cm** from each other
- the locking devices are lying **within 10 cm** from the locking media

To prevent mutual interaction between locking devices during transport, please observe the following conditions

- Take out the batteries when the handle set is not in use.
- If possible, transport the locking devices in original packaging.

7.5 Battery management

7.5.1 Battery warning system

When the battery power becomes weak, the locking device displays additional signals if

- authorised or unauthorised locking media were held in the reading field of the locking device or
- the locking device couples, e.g. after the release or emergency mode was activated.

These additional signals are the **battery warnings**.

If you are using the OMEGA Client software, you can have the battery warnings sent automatically by e-mail notification.

A detailed manual is available in the **OMEGA Suite Help**.

The battery capacity always depends upon the discharge hitherto and the current temperature.

Warning levels of the battery alarms

⚠ CAUTION **Lockout possible!**

If the battery is empty, the door cannot be opened any more.

- Therefore, replace the battery immediately **at warning level 1**!

Warning level	Signalling the battery alarm	Reason	Required action
1		Battery capacity low	Replace the battery
2		Battery capacity is nearly exhausted A device failure is possible now!	Replace the battery immediately
3		Battery is empty A device failure is possible now at anytime!	Replace the battery immediately

7.5.2 Important notice for battery replacement

NOTICE

Wrong batteries may cause damages

The use of wrong batteries can cause irreparable damages to the locking device.

- Use only Energizer Ultimate Lithium 1,5V AA batteries.
- Insert the batteries only with correct polarity in the locking device.
- In case the batteries were inserted with wrong polarity, have your locking device checked by your CES partner.

NOTICE

Damages caused by foreign objects used as aid while exchanging the battery.

The battery, the housing of the battery module or the electronic can be damaged if you extract the battery with a foreign object from the battery compartment.

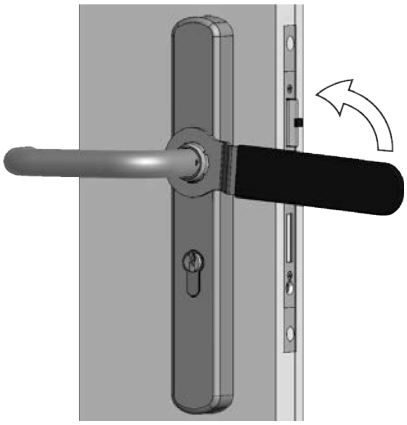
- Remove the battery only by hand., do not use any foreign objects for this.

7.5.3 Replacing the batteries

After the battery is removed, programming is retained in the memory of the locking device.

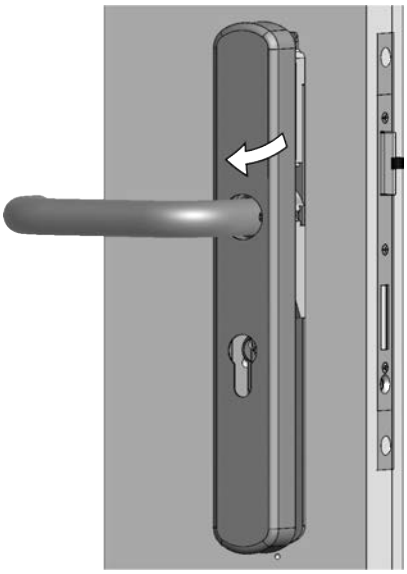
After removal of the battery, the date and time are maintained for ca ten minutes. If the battery is taken out for longer period, the date and time of the day must be set again.

Battery replacement Long shield ILS

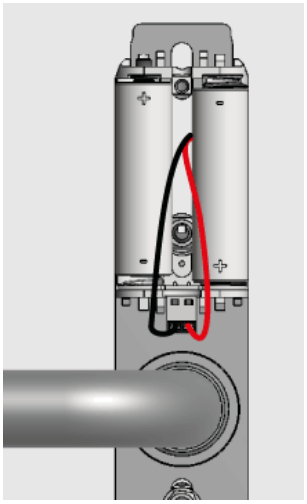


1. **Loosen the** FIXTURE RING **with the** CES RING SPANNER.

2. **Remove the** FIXTURE RING**, in that you guide it over the** INSIDE LEVER HANDLE **.**



3. **Remove the** INSIDE SHIELD**, in that you guide it over the** INSIDE LEVER HANDLE **.**



4. Remove the old batteries.

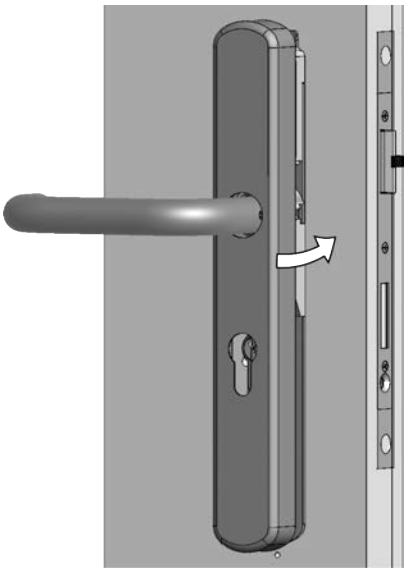
Remove the batteries only by hand. Do not use any foreign objects for this.

5. Insert the new batteries with correct polarity in the battery compartment.

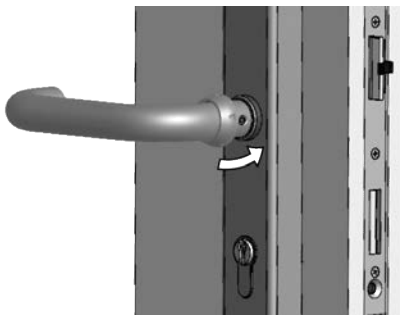
Use only the Energizer Ultimate Lithium 1,5V AAbatteries.

The correct polarity is indicated in the battery compartment.

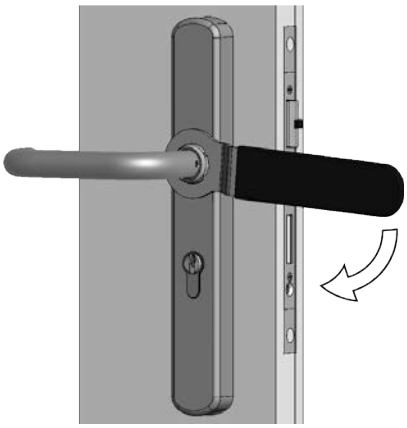
6. Use a master media or locking media to check at the OUTSIDE FITTING**, whether the handle set reads the media.**



7. Guide the INSIDE SHIELD **over the** INSIDE LEVER HANDLE **and push it up to the** ASSEMBLY PLATE**.**



8. **Guide the** FIXTURE RING **over the inside** INSIDE LEVER HANDLE **and push it up to the end of the inside lever handle.**



9. **Pull the** FIXTURE RING **hand tight** WITH THE **CES ring spanner.**

⚠ Do not over-tighten the fixture ring with too much force! Otherwise you may damage the handle set.

The battery replacement is completed successfully.

7.5.4 Signalling after battery insertion

Signalling	Meaning
	Start sequence for offline locking devices: No error
	Start sequence for online locking devices: Device is online and is connected to the Access-Point
	Start sequence for online locking devices: Device is online but no connection to Access-Point is possible
	Firmware error. Execute a firmware update. If the problem persists, contact your CES partner.
	ℹ In case a system error exists, it will be displayed immediately after the start sequence, see "System error" on page 107.

8 Disposal

8.1 Notes on disposal

Handle set

- Never dispose of the handle set, batteries or parts of the handle set in the normal household waste.
- Always observe the applicable national and regional regulations.

- Enquire with your city or municipal administration about the possibilities of recycling and an environmentally friendly and proper way for the disposal of the device and its constituent parts.

Package

The packagings of the OMEGA FLEX components are made of environmentally friendly, reusable materials. Specifically, these are:

- Outer packaging and inlays of cardboard
- Inlays and protective foils of Polyethylene (PE)

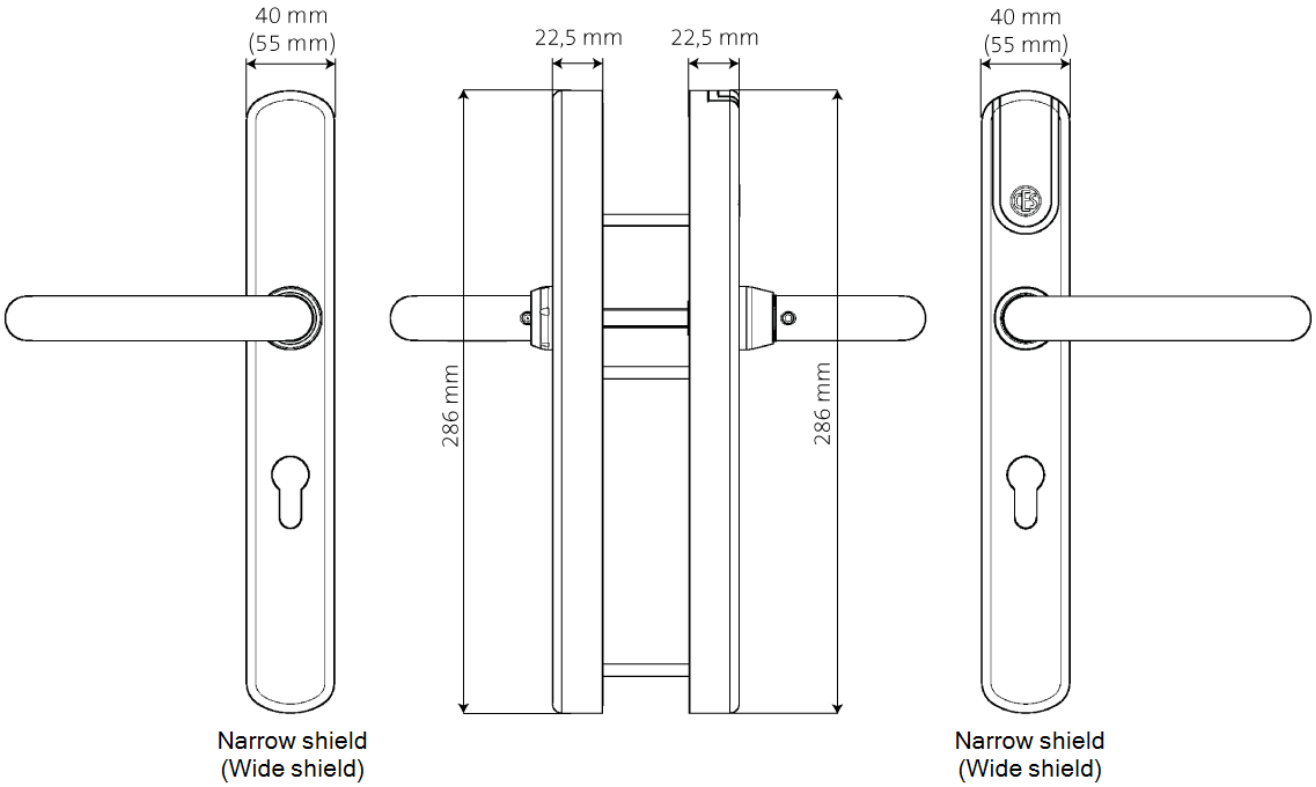
- Please dispose of the packaging in an environmentally friendly way through waste separation streams.

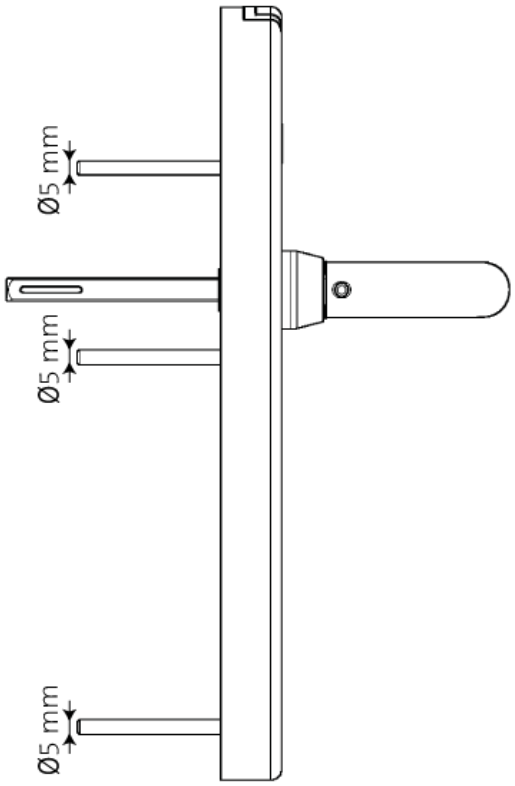
9 Technical data

9.1 Features

Part numbers	ILS / x
Suitable locking media	
LEGIC	All locking media of the type LEGIC prime and LEGIC advant, all locking media to ISO 14443
MIFARE®	MIFARE® Classic® (1k/4k), MIFARE® DESFire® EV1 and EV2 (UID to ISO 14443 and application), all locking media ISO 14443 (except MIFARE Ultralight® C)
Reading range	Approx. 20 mm
Online radio frequency	868 MHz
RF range to Access-Point	Max. 25 m
Encrypted data transmission	128 bit/AES
Variants	Narrow shield for use on narrow stile doors, wide shield for use on flush doors, combinations of the two types. Narrow shield to DIN EN 1125, wide shield to DIN EN 1125 The design of the shields enables prep-free installation on replacement of most fittings prepared to DIN/EN standards.
Power supply	Battery: 2 x Energizer Ultimate Lithium 1,5V AA
Number of locking media	Max. 5.000
Number of events	Max. 2.000
Number of Master media	Max. 1 System-Master, max. 10 Program-Master, max. 10 Time-Master, max. 10 Release-Master, max. 10 Block-Master, max. 10 RF-Stick-Master, max. 100 Emergency-Keys, RF-Ini-Master unlimited, RF-Trace-Master unlimited
Outdoor shield temperature	–25 °C to +65 °C for the electronics, in weatherproof standard
Indoor shield temperature	–25 °C to +65 °C
Prohibited atmospheres	Not suitable for use in corrosive atmospheres (chlorine, ammonia, lime water)
Service life of the ILS	Conforming to DIN EN 1906, Grade 7, 200.000 cycles
Service life of the battery	Approx. 100.000 locking cycles at 20 °C
Programming	With Master media, Offline via radio with RF-Stick, CEStronics RF-NET radio network, CEStronics V-NET virtual network
Uses	Conforming to DIN EN 179 and DIN EN 1125 with different locks and panic bars
Fire resistance rating	120 minutes conforming to DIN EN 1634-1 and 18273 (T120)
Special designs	Burglar resistance, various lever handle designs, various thumb turns, mechanical ILS without electronics
Door thicknesses	From 35 mm to 165 mm
Backsets	From 25 mm
Distances	From 55 to 100
Handle square hole	9 mm
Available spindles	7 mm, 8 mm, 8,5 mm, 9 mm und 10 mm
Cylinder profile apertures	Without (00), Euro (PZ), CH (RZ), UK (OZ)
Safety classes	Optionally conformity to DIN EN 18257 ES2 or to NEN SKG***, DIN EN 1906 Grade 3
CE testing	EN 300 220-1-2; EN 300 330-1-2; EN 301 489-1, 3; EN 60950-1, EN 62311
Ordering information	
Required cylinder lenght	22,5 mm + door thickness + 22,5 mm

9.2 Dimensions





10 Help and troubleshooting

10.1 Loss of a master media

⚠ CAUTION **Manipulation of the OMEGA FLEX system possible**

If unauthorised persons gain possession of a master media, the OMEGA FLEX system can be manipulated.

- Keep all your master media at a safe place.
- Make sure that these are not accessible to unauthorised persons.

⚠ The measures described here to restore the security of your OMEGA FLEX system should only be carried out CES or by CES partner trained on the product.

If you have lost one of the following master media, you must delete that master media from the locking devices:

- Emergency-Key
- Program-Master
- Time-Master
- Release-Master
- Block-Master
- RF-Stick-Master

⚠ To be able to delete the System-Master you must have access to it. If you have lost the System-Master of your OMEGA FLEX system, contact your CES partner immediately!

ℹ The RF-Trace-Master and the RF-Ini-Master cannot be deleted from a locking device because they are not authorised beforehand.

10.1.1 Deleting master media from a locking device

⚠ If you delete one of the master media, which is capable of putting a locking device in a different mode, the mode of the locking device is retained after deletion.
Exception: Deletion of System-Master. Deletion of the System-Master reverts the locking devices back to the normal mode.

Example: The locking device is in block mode. You delete the Block-Master from of the locking device. After deletion, the locking device will still be in block mode.

10.1.1.1 Deleting all master media from a locking device

1. **Remove the System-Master from the reading field of the locking device (see** "Deleting System-Master" **on page 115).**
   By deleting the System-Master all master media authorisations are deleted from this locking device. The locking device automatically reverts back to the normal mode, if it was in a different mode (e.g. block mode).

10.1.1.2 Deleting individual master media from locking devices using OMEGA Client software.

1. **Delete the master media from the OMEGA Client software (see** "Deleting master media" **on page 113).**
2. **Carry out a new programming of the desired locking devices.**
   The master media is now deleted from all newly programmed locking devices.

⚠ Note that the programming jobs are transmitted automatically only to the locking devices in the online mode. You must transmit the programming jobs to the offline locking devices individually with an RF-Stick.

10.2 Loss of a locking media

If a locking media has been lost, then depending on the operating mode (Line or V-NET), you can restore the security of your OMEGA FLEX system in various ways, For procuring new locking media, please contact your CES partner.

10.2.1 Loss of a locking media for administration via master media

If you are administering your OMEGA FLEX system exclusively with master media, then in case of loss of a locking media you must delete at *each* locking device *all* locking authorisations, because without the OMEGA Client software you cannot delete locking authorisations individually, if you do not have the corresponding locking media any more.

There are two ways to delete the locking media authorisations from a locking device:

1) You delete all **locking media authorisations** using the Program-Master (see "Deleting all locking media authorisations simultaneously" on page 120)

2) You delete the **Program-Master**(see "Deleting master media" on page 113) from the locking device. This automatically deletes all locking media authorisations which were added with this Program-Master.

Note that in case you are using multiple Program-Masters: in both cases only those locking media authorisations are deleted, which were added by the **same** Program-Master, which is used for deletion!

10.2.2 Loss of a locking media for administration with an RF-Stick

A detailed manual is available in the **OMEGA Suite Help**.

1. **Delete the locking media from the OMEGA Client.**
   Programming jobs are created automatically which remove the authorisations from the relevant locking devices.
2. **Go to the affected locking devices and transmit the programming jobs via the RF-Stick to the locking devices.**
   The locking media cannot be used now on the affected locking devices any more.

If you have additionally authorised the locking media by means of a Program-Master for locking devices, these authorisations were not deleted. Carry out a reprogramming of all locking devices, for which you have authorised the locking media with a Program-Master.

10.2.3 Loss of a locking media for administration via wireless online network

A detailed manual is available in the **OMEGA Suite Help**.

1. **Delete the locking media from the OMEGA Client.**
   Programming jobs are created automatically which remove the authorisations from the relevant locking devices.

   The relevant locking devices are programmed via the wireless online network. The locking media cannot be used now on the affected locking devices any more.

If you have authorised the locking media additionally by means of a Program-Master for locking devices, these authorisations were not deleted. Carry out a reprogramming of all locking devices, for which you have authorised the locking media with a Program-Master.

10.2.4 Loss of a locking media for administration via V-NET

In V-NET, the locking media which are not supposed to be in use are not deleted but rather **blocked**. The information that a locking media is blocked is stored in the locking media. Locking

devices have **block lists** , which contain the blocked locking media. Each authorisation attempt triggers the following:

- The locking device checks whether the locking media is blocked. Only unblocked locking media are accepted.
- If a locking media is unblocked but is on the block list, the locking device transmits information to the locking media that this locking media is blocked.

There are two ways to block a lost locking media:

1) via the **block lists** in the locking devices (for administration without validation devices)

2) via blocking through **Wall terminals**

10.2.4.1 Loss of a locking media for V-NET without validation devices

A detailed manual is available in the **OMEGA Suite Help**.

1. **Put the lost locking media on the block list.**
2. **Transmit the block list to the locking devices, at which the lost locking media must get authorisation, e.g. all locking devices on the outer shell of the building. You have three options to choose from:**

   Option A

   Create a **replacement media**. By using the replacement media at locking devices, the information that the predecessor media must be blocked will be transmitted to the locking device (see "Replacement media" on page 78).

   Option B

   Create from a blank locking media a **block list media**, containing the block list. Go with the block list media to the locking devices and transmit the block list into the locking devices by holding the block list media in front of it. Read the block list media after that into OMEGA Client again, so that the OMEGA FLEX system synchronises itself, i.e. the information that the programming jobs were executed is transmitted to the OMEGA Client.

   Option C

   Transmit the block list by means of the RF-Stick to the locking devices

All locking devices, to which the block list was transmitted, now block the locking media as soon as it is held within its reading range. Hereafter, the locking media cannot be used on any locking device of the OMEGA FLEX system any more.

10.2.4.2 Loss of a locking media for V-NET with validation devices

A detailed manual is available in the **OMEGA Suite Help**.

1. **Put the lost locking media on the block list.**

   Programming jobs for the validation devices will be created automatically.

2. **As soon as the locking media is held within the reading range of the validation devices, the locking media will be blocked by the validation device.**

   The information that the locking media is blocked is now in the locking media.

   Thus, the locking media cannot be used on any locking device of the OMEGA FLEX system any more.

10.3 Error signalling

Signalling	Reason	Solution
After reading a master media:		
	Master media error: a) The master media is not authorised. b) For master media, which control the opening modes: An opening mode with higher priority is active (see "Hierarchy of the opening modes" on page 84). c) The master media cannot be read because of the locking device variant (e.g. Program-Master for V-NET devices).	 a) Authorise the master media. b) Deactivate the opening mode with the higher priority. c) Check whether the master media can be used with the concerned device types.
After reading a master media or locking media:		
	1 The media is not authorised for this device. or 2. The media could not be read completely because: a) it was not held long enough in the reading field . b) The master media or the V-NET locking media has wrong system Identification code. c) a LINE locking media was held in the reading field of a V-NET device.	1. Authorise the media for this device or 2a) Keep the media for a longer period in the reading field of the locking device. 2b) Use a master media or V-NET locking media with the right system identification code. 2c)LINE locking media could not be read by V-NET devices.
Additionally after reading the authorised or unauthorised locking media:		
 or  or 	The battery alarm indicates that the batteries are going to be empty soon (see "Maintenance" on page 91).	Replace the batteries(see "Maintenance" on page 91).

System error

If system errors are present, they are signalled after to the following actions:

- after reading the authorised locking media
- after attempting to put handle set in release mode or emergency mode
- after the start sequence (insertion/connecting the batteries)

Signalling	Reason	Solution
	System error: Communication with the actuator is not possible.	Check the wiring and contacts. If you cannot fix the error by yourself, contact your CES partner.
	System error: The actuator of the locking device is malfunctioning.	Check if the actuator has jammed. If you cannot fix the error by yourself, contact your CES partner.
	System error: Communication could be established but was not successful.	In the case of electronic cylinders, check whether the knob and the blocking mechanism have the same UID or system identification. If you cannot fix the error by yourself, contact your CES partner.

11 Overview: Master media usage

11.1 Authorising System-Master

Each locking device of an OMEGAFLEX system must first become familiar with the System - Master of the system so that the System-Master is authorised to authorise additional master media for this locking device.

Each OMEGA FLEX system has only **one** System-Master. Through the system identification code which is stored in the locking device and in the System-Master, it is ensured that only the System-Master belonging to a given system can be authorised for the locking devices of that system.

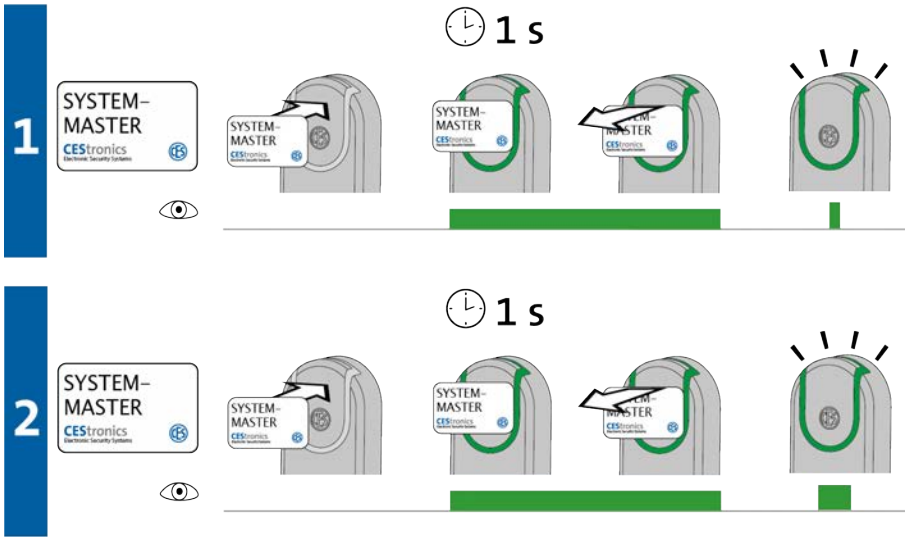
⚠ For security reasons, you should authorise the System-Master on **all** locking devices.

ℹ If you are using the OMEGA Suite: Ensure that the System-Master has been read into the OMEGA Client. As a result, it is automatically authorised for the locking device during the initial reprogramming of the locking device.

Required master media:

- System-Master

Procedure:



1. **Hold the System-Master for ca 1 second in the reading field of the locking device and then remove it from the reading field.**
   The following signal appears:
   1x short green

2. Hold the System-Master again for ca 1 second in the reading field of the locking device and then remove it from the reading field.

The following signal appears:

1x long green

The System-Master is now authorised for this locking device.

Troubleshooting:

Signalling	Reason	Solution
During step 1: 	The System-Master does not have the correct system identification code.	Use the System-Master with correct system identification code.
During step 2: 	Another System-Master has already been authorised for this locking device.	 Since, at any given time only one System-Master exists which can be authorised on the basis of individual system identification code for a locking device, there is reason to suspect manipulation. Contact your CES partner immediately!

11.2 Authorising additional master media

All master media must be authorised prior to their first use. The only exceptions are the RF-Ini-Master (in NET and VA devices) and the RF-Trace-Master.

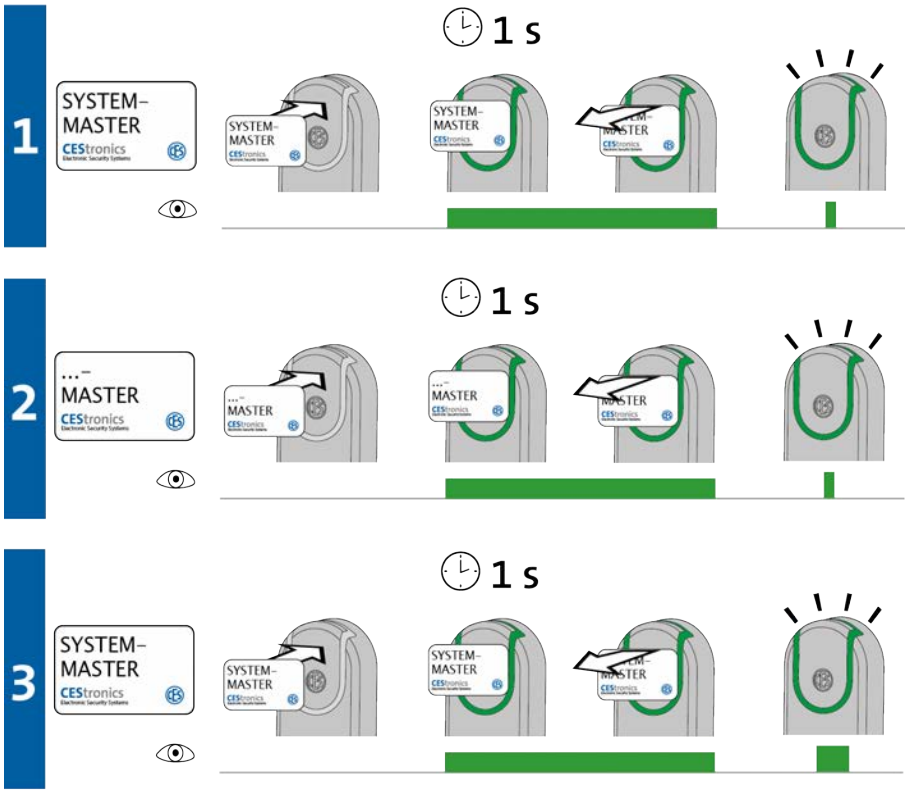
If you are administering your OMEGA FLEX system exclusively with master media, you must authorise each master media for each locking device for which you wish to use the master media.

If you use OMEGA Client software, you can also conveniently authorise master media via OMEGA Client. A detailed manual is available in the **OMEGA Suite Help**.

Required master media:

- System-Master
- Any master media that needs to be authorised

Procedure:



1. **Hold the System-Master for ca 1 second in the reading field of the locking device to start the "authorise mode" of the locking device.**
   The following signal appears:
   1x short green

2. **Now you can authorise any number of master media one after the other by holding each master media for ca 1 second in the reading field of the locking device.**
   The following signal appears for each master media:
   1x short green

3. **Hold the System-Master for ca 1 second in the reading field of the locking device to end the "authorise mode.**
   The following signal appears:
   1x long green

The "authorise mode" will end automatically after 5 seconds. Die new authorisations remain stored.

All master media, which were held before reading field, are now authorised to make settings for this locking device.

Troubleshooting:

Signalling	Reason	Solution
During step 2:		
	The master media could be read but could not be authorised:	
	a) You have tried to authorise a Program-Master for a V-NET locking device.	a) Program-Master cannot be authorised for V-NET devices.
	b) The master media has the wrong system identity code	b) Use a master media with the correct system identification code.
	c) You have used a locking media instead of a master-media.	c) Use a master media.
	d) you have tried to authorise an RF-Trace-Master or an RF-Ini-Master.	d) RF-Trace-Master and RF-Ini-Master cannot be authorised.

11.3 Deleting master media

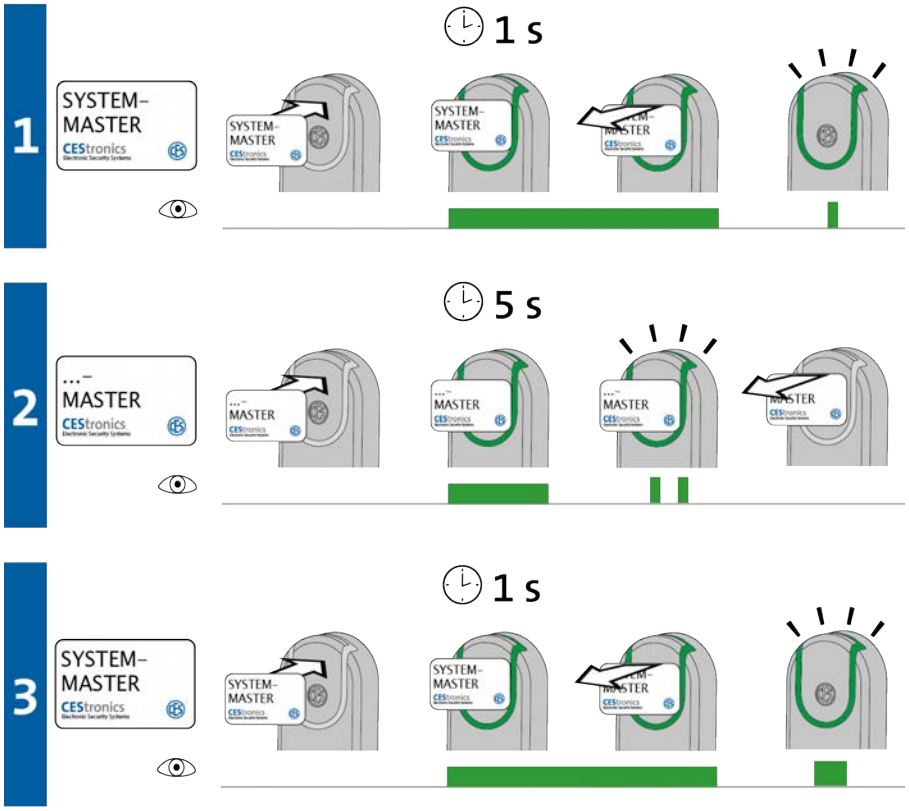
The deletion of a **Program-Master** deletes all locking authorisations which were assigned with this Program-Master.

The opening duration set with the**Time-Master** remains intact even after deletion of the Time-Master.

Required master media:

- System-Master
- Any master media, that needs to be deleted

Procedure:



1. **Hold the System-Master for ca1 second in the reading field of the locking device to start the “delete master media” mode of the locking device.**
   The following signal appears:
   1x short green

2. **Now you can delete any number of master media one after the other by holding each master media for ca 5 second in the reading field of the locking device.**
   The following signal appears for each master media:
   2x short green

3. **Hold the System-Master for ca 1 second in the reading field of the locking device to end the "delete master media" mode.**
   The following signal appears:
   1x long green

The "delete master media mode" will end automatically after ca 5 seconds. The master media which were previously held before the locking device will be deleted.

All master media, which were held in the reading field, are now no longer authorised to make settings for this locking device.

Troubleshooting:

Signalling	Reason	Solution
During step 2:		
	The master media cannot be deleted because it does not belong to the master media, which mist be authorised.	The RF-Ini-Master (for NET and VA devices) and the RF-Trace-Master do not have to be authorised and therefore cannot be deleted.
	The master media was held too short in the reading field of the locking device. The authorisation was not deleted.	Keep the master media longer in the reading field of the locking device.

11.4 Deleting System-Master

Deletion of System-Master serves to restore the security of OMEGA FLEX system and is not necessary under normal use, see also "Help and troubleshooting" on page 101.

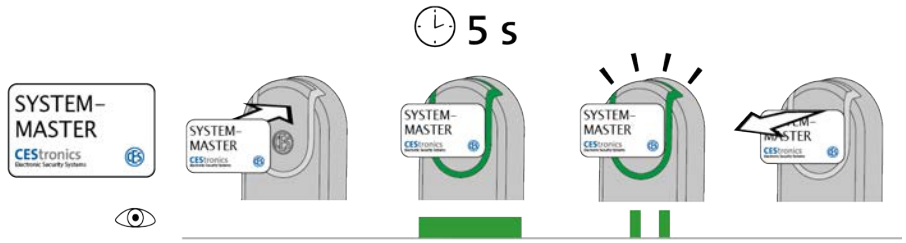
Effects of deletion of System-Master

- Deletion of the System-Master results in deletion of all master media and locking authorisations from a locking device.
- All settings in the locking device, which were made with the OMEGA Client software (e.g. Time profiles, locking media authorisations etc.), remain intact after deletion of the System-Master.
- Deletion of the System-Master deactivates all active opening modes of a locking device. Online devices remain in online mode though.
- The opening period set with the Time-Master remains intact after deletion of the Time-Master.

Required master media:

- System-Master

Procedure:



1. **Hold the System-Master for ca. 5 seconds in the reading field of the locking device.**
   The following signal appears:
   2x short green

2. **Remove the System-Master from the reading field of the locking device.**
   It is automatically ensured that no access is possible in that if the coupling of the locking device was engaged, disengages.

   The System-Master is now deleted from this locking device.

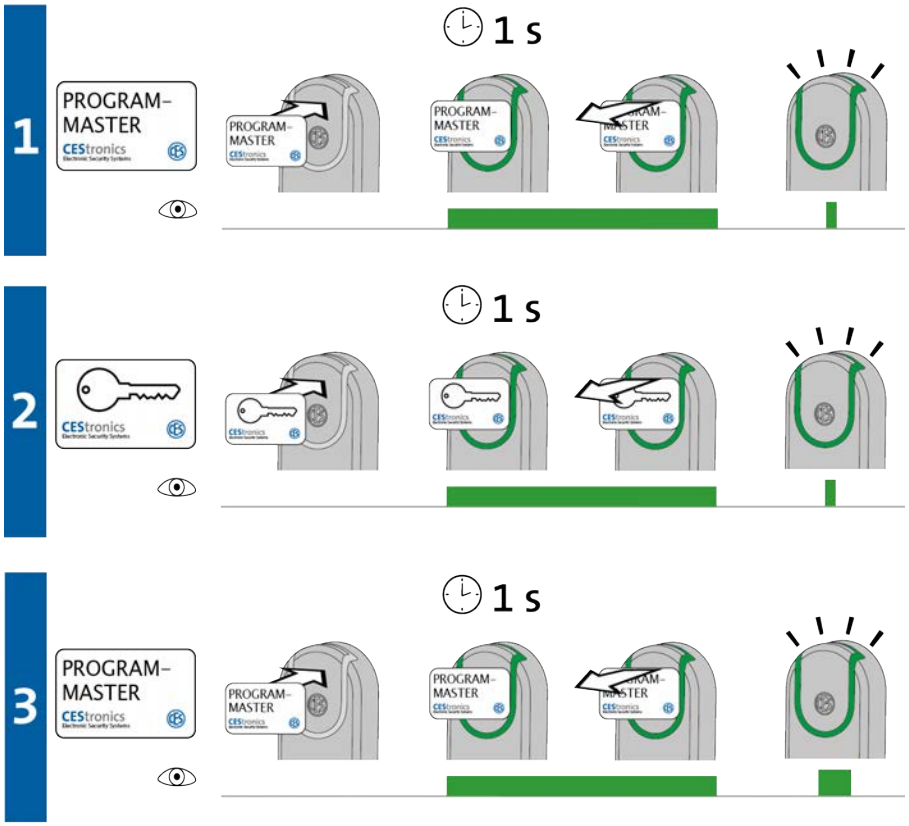
11.5 Authorising locking media

Required media:

- Program-Master
- Any locking media that needs to be authorised

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. **Hold the Program-Master for ca 1 second in the reading field of the locking device to start the “authorise mode.**
   The following signal appears:
   1x short green

2. **Now you can authorise any number of locking media one after the other by holding each locking media for ca 1 second in the reading field of the locking device.**
   The following signal appears for each locking media:
   1x short green

3. Hold the Program-Master for ca 1 second in the reading field of the locking device to end the "authorise mode.

The following signal appears:

1x long green

The "authorise mode" will end automatically after 5 seconds. Die new authorisations remain stored.

All locking media, which were held in the reading field, are now authorised to open this locking device.

A locking media can be deleted from a locking device only with the *same* Program-Master with which it was authorised.

Troubleshooting:

Signalling	Reason	Solution
During step 1:		
	The program-Master could be read but is not authorised for this locking device.	Authorise the Program-Master. Note that you cannot authorise any Program-Master for the V-NET devices.
During step 2:		
	a) The locking media was already authorised with another Program-Master or via the OMEGA Client software. b) Instead of a locking media, a master media was held in the reading field.	a) Locking media can only be authorised with *a* Program-Master or via the software. b) Use a locking media.

11.6 Deleting locking media authorisations

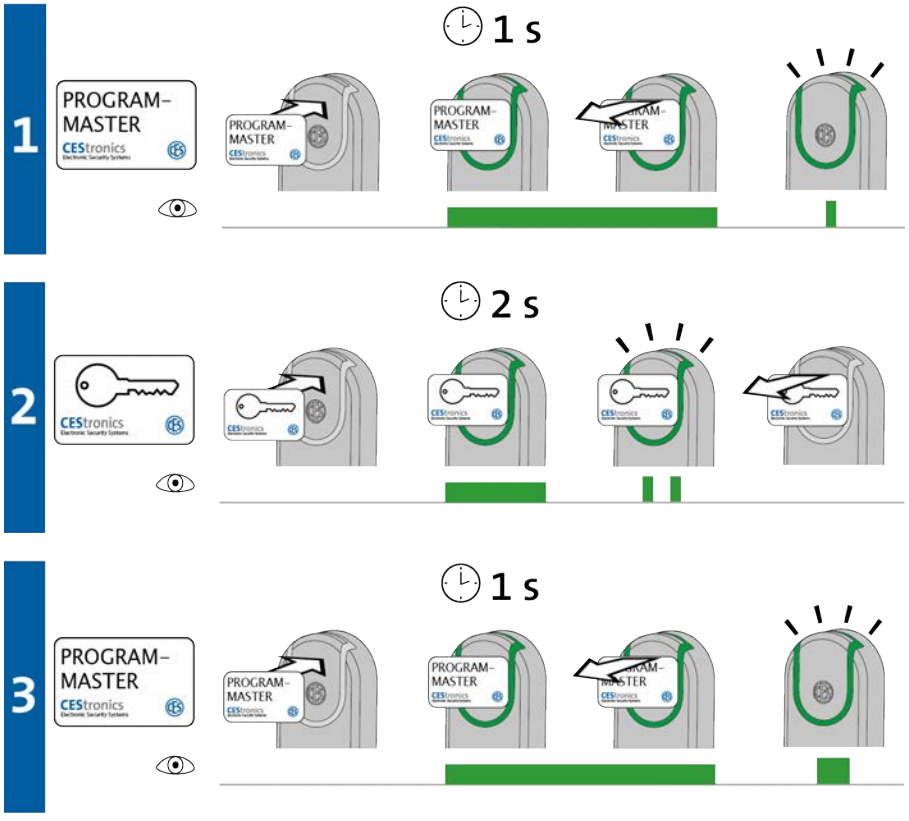
If you are administering your OMEGA FLEX system exclusively with master media, you can only delete individually authorised locking media if you own the corresponding Locking media. If the locking media no longer exists, you must delete the authorisations for all locking media, see "Loss of a locking media" on page 102

A locking media can be deleted from a locking device only with the *same* Program-Master with which it was authorised.

Required media:

- Program-Master with which the locking media was authorised
- Authorised locking media, whose authorisation is to be deleted.

Procedure:



1. **Hold the Program-Master for ca 1 second in the reading field of the locking device to start the “delete locking media” mode.**
   The following signal appears:
   1x short green

2. **Now you can delete any number of locking media one after the other by holding each locking media for ca 2 second in front of the reading field of the locking device.**
   The following signal appears for each locking media:
   2x short green

3. **Hold the Program-Master for ca 1 second in the reading field of the locking device to end the "delete locking media" mode**
   The following signal appears:
   1x long green

The "delete locking media mode" will end automatically after 5 seconds. The locking media which were previously held before the locking device will thereby be deleted from the locking device.

All locking media, which were held in the reading field, are now no more authorised to open this locking device.

Troubleshooting:

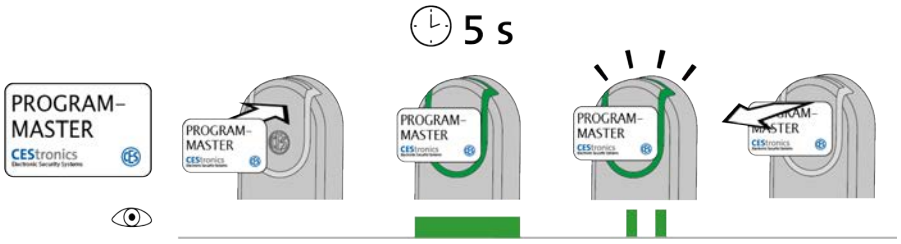
Signalling	Reason	Solution
During step 1:		
	The program-Master was not yet authorised for this locking device.	Authorise the Program-Master.
During step 2:		
	The locking media was not authorised with the Program-Master used	Use Program-Master with which the locking media was authorised
	The locking media was held for too short a period in the reading field of the locking device. The authorisation was not deleted.	Hold the locking media longer in the reading field of the locking device.

11.7 Deleting all locking media authorisations simultaneously

Only those locking media authorisations are deleted, which were added by the same Program-Master, which is also used for deletion.

This step by step instruction shows how to delete all locking media authorisations, the Program-Master itself however remains stored in the locking device. As an alternative, you can also delete the Program-Master from the locking device, this also deletes all locking media authorisations which were added by this Program-Master (see "Deleting master media" on page 113

Procedure:



1. Hold the Program-Master before the reading field of the locking device.

   After ca. 5 second, the following signal appears:
   2x short green

1. **Remove the Program-Master from the reading field of the locking device.**
   All locking media authorisations from this locking device are now deleted, which were added with this Program-Master.

11.8 Setting opening period

The opening duration is the length of time during which the locking device remains coupled, after an authorised locking media was held in the reading field of the locking device.

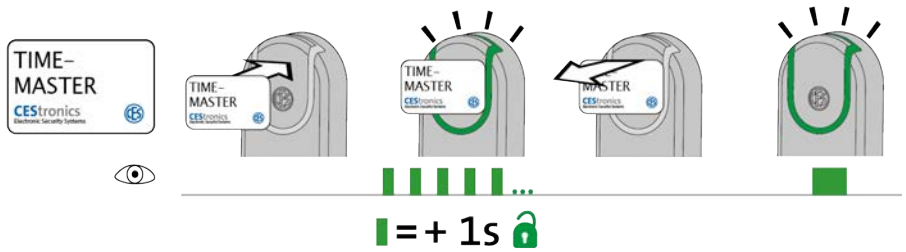
The longer the opening duration, the more time people have to operate the locking device after the authenticating with a locking media. The maximum opening duration is 180 seconds.

Required master media:

- Time-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. **Hold the Time-Master before the reading field of the locking device.**
   The locking device starts to transmit flashing signals. Each flashing signal represents 1 second opening period.
2. **Hold the Time-Master before the locking device until the desired opening period is reached. If, for example, you desire an opening period of 20 seconds, wait for 20 flash signals**
3. **Remove the Time-Master from the reading field.**
   A signal confirming the setting follows:
   1x long green

   The opening period is now set

The minimum opening period is 2 seconds. If you remove the Time-Master after 1 second from the reading field, the opening period will be set to 2 seconds.

The maximum opening duration is 180 seconds. Even if you hold the Time-Master longer in the reading field, the opening period will be set to 180 seconds.

11.9 Activating release mode

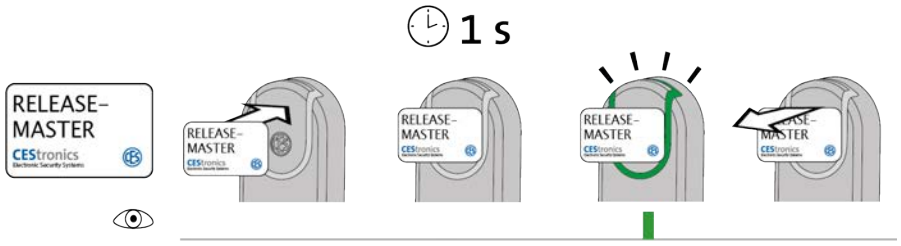
A locking device which is in **release mode** remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

Required master media:

- Release-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. Hold the Release-Master before the reading field of the locking device.

After ca. 1 second, the following signal appears:

1x short green

If the locking device already lights up green **while** the Release-Master is being read, but no green flashing signal appears after one second, release mode is already active.

2. Remove the Release-Master from the reading field of the locking device.

The release mode is now active. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The release mode has no time limit.

Altered signalling in release mode: In release mode, the locking device signals 1x long green (instead of 1x short green) after reading from an authorised locking media.

Troubleshooting:

Signalling	Reason	Solution
	A higher-priority opening mode is currently active (see "Hierarchy of the opening modes" on page 84).	b) Deactivate the opening mode with the higher priority.
	The Release-Master is not authorised.	Authorise the Release-Master.

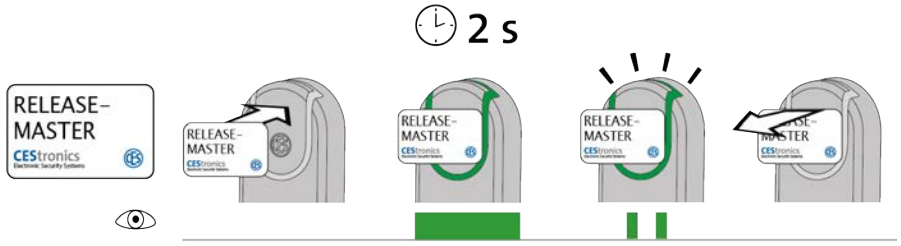
11.10 Deactivating release mode

Required master media:

- Release-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. **Hold the Release-Master before the reading field of the locking device.**

   After ca. 2 second, the following signal appears:

   2x short green

   The release mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

Signalling	Reason	Solution
	A higher-priority opening mode is currently active (see "Hierarchy of the opening modes" on page 84).	Deactivate the opening mode with higher priority.
	The Release-Master is not authorised.	Authorise the Release-Master

11.11 Activating block mode

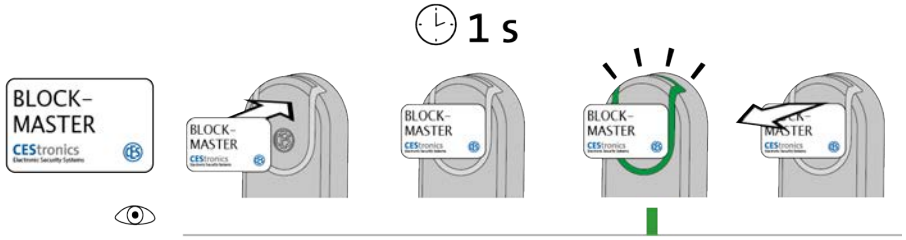
A locking device **in block mode** remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

Required master media:

- Block-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. Hold the Block-Master before the reading field of the locking device.

After ca. 1 second, the following signal appears:

1x short green

If the locking device already lights up green **while** the Block-Master is being read, but no green flashing signal appears after one second, block mode is already active.

2. Remove the Block-Master from the reading field of the locking device.

The block mode is now active. An access is not possible now even with an authorised locking media because the coupling of the locking devise is permanently disengaged. The block mode has no time limit.

Using an Emergency-Key, a locking device can still be opened in block mode.

Troubleshooting:

Signalling	Reason	Solution
	A higher-priority opening mode is currently active (see "Hierarchy of the opening modes" on page 84).	b) Deactivate the opening mode with the higher priority.
	The Block-Master is not authorised.	Authorise the Block-Master

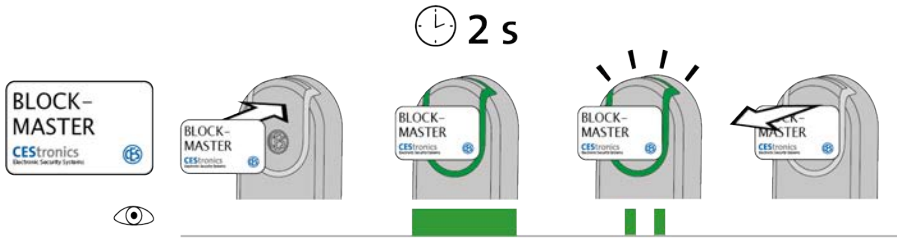
11.12 Deactivating block mode

Required master media:

- Block-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 111

Procedure:



1. **Hold the Block-Master before the reading field of the locking device.**
   After ca. 2 second, the following signal appears:
   2x short green

2. **Remove the Block-Master from the reading field of the locking device.**
   The blocking mode is now deactivated. An access with an authorised locking media is now possible again.

Troubleshooting:

Signalling	Reason	Solution
	A higher-priority opening mode is currently active (see "Hierarchy of the opening modes" on page 84).	Deactivate the opening mode with higher priority.
	The Block-Master is not authorised.	Authorise the Block-Master

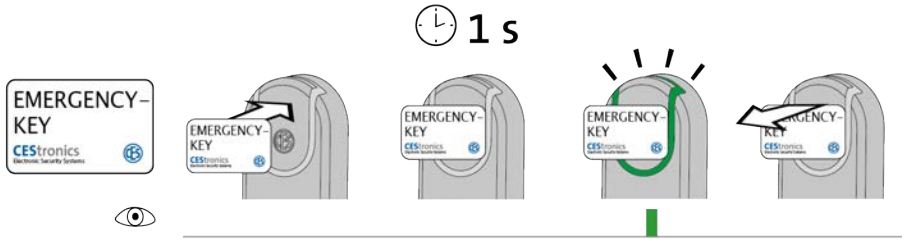
11.13 Activating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 111).

Procedure:



1. Hold the locking media before the reading field of the locking device.

After ca. 1 second, the following signal appears:

1x short green

If the locking device already lights up green **while** the Emergency-Key is being read, but no green flashing signal appears after one second, emergency mode is already active.

2. Remove the Emergency-Key from the reading field of the locking device.

The locking device is now in emergency mode. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The emergency mode can be deactivated by Emergency-Key only.

Troubleshooting:

Signalling	Reason	Solution
	The Emergency-Key could be read but is not authorised for this locking device.	Authorise the Emergency-Key.

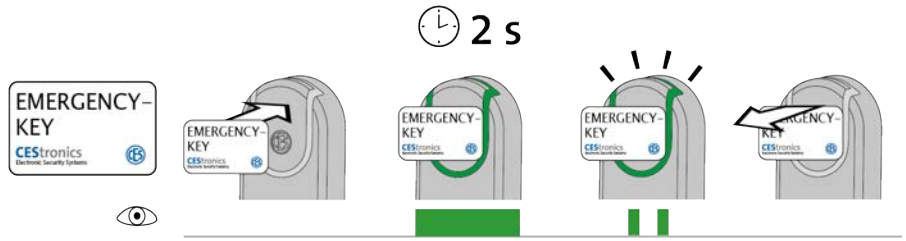
11.14 Deactivating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 111).

Procedure:



1. **Hold the locking media before the reading field of the locking device that is in emergency mode.**
   After ca. 2 second, the following signal appears:
   2x short green
2. **Remove the Emergency-Key from the reading field of the locking device.**
   The emergency mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

Signalling	Reason	Solution
	The Emergency-Key could be read but is not authorised for this locking device.	Authorise the Emergency-Key.

11.15 Activating online mode

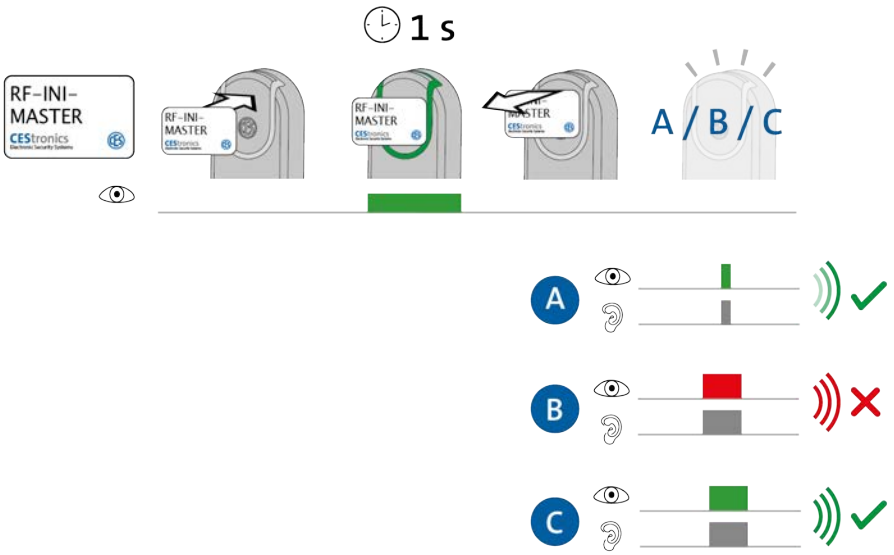
The online mode can only be activated for variant NET and VA locking devices (see "Variants of OMEGA FLEX locking devices" on page 9).

Required master media:

- RF-Ini-Master

For the activation of online mode it is *not* necessary to authorise the RF-Ini-Master in advance.

Procedure:



1. **Hold the RF-Ini-Master for ca 1 second in the reading field of the locking device.**

   Following signals appear:

   A: 1x short green

   = successfully connected to the Access-Point

   B: 1x long red

   = no connection to the Access-Point possible

   C: 1x long green

   = Connection to the Access-Point existed already

2. **Remove the RF-Ini-Master from the reading field.**

   The online mode is now deactivated.

Even if no connection to the Access-Point was possible, the locking device is now in online mode. Once an Access-Point is found, it will connect itself automatically.

Troubleshooting:

Signalling	Reason	Solution
While the RF-Ini-Master is held in the reading field:		
	The locking device does not belong to the variant NET or VA .	The online mode is not available for this locking device.

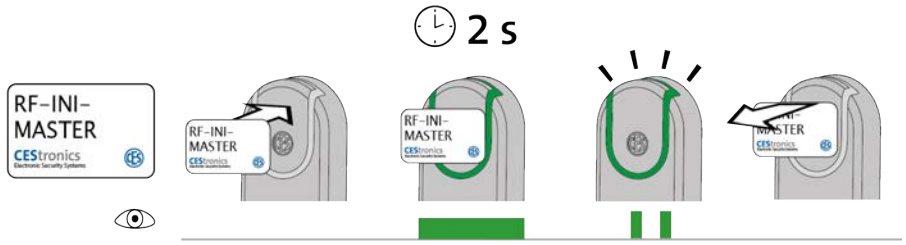
11.16 Deactivating online mode

Required master media:

- RF-Ini-Master

For the deactivation of the online mode it is *not* necessary to authorise the RF-Ini-Master in advance.

Procedure:



1. **Halten Sie den RF-Ini-Master ca. zwei Sekunden lang vor das Lesefeld des Schließgeräts.**
   The following signal appears:
   2x short green

2. **Remove the RF-Ini-Master from the reading field.**
   The online mode is now deactivated.

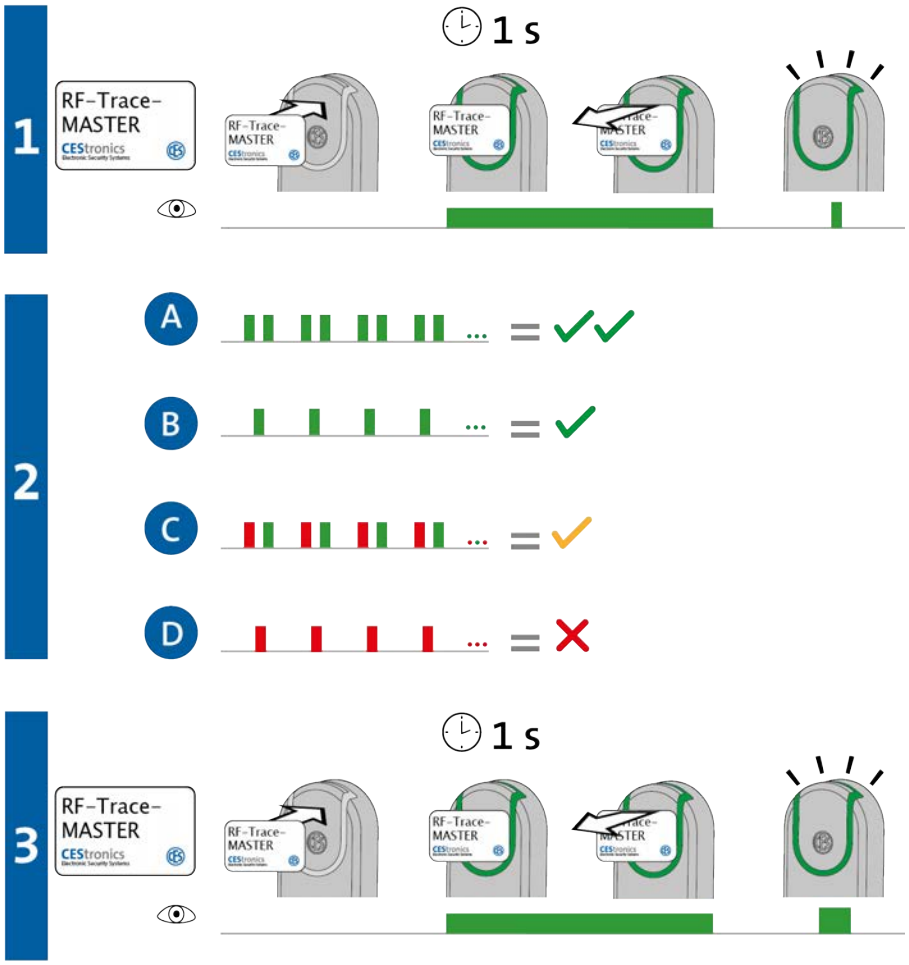
11.17 Checking quality of wireless connection

Required master media:

- RF-Trace-Master

The RF-Trace-Master is ready for immediate use and does not have to authorised first.

Procedure:

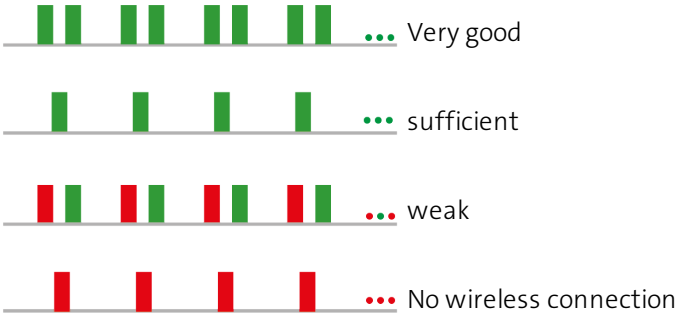


1. Hold the RF-Ini-Master for ca 1 second in the reading field of the locking device.

The following signal appears:

1x short green

2. The locking device shows now the quality of the wireless connection:



The Access-Point associated with the Update-Terminal shows during wireless connection test the quality of the wireless connection with the same signalling as the locking device.

3. Hold the RF-Trace-Master ca 1 second in the reading field to end the wireless connection quality display.

The following signal appears:

1x long green

The testing of the wireless connection quality is finished herewith.

After 3 minutes, the wireless connection quality display will end automatically.

Troubleshooting:

Signalling	Reason	Solution
	The locking device does not belong to the variant NET or VA .	Der RF-Trace-Master kann nur an NET- und VA-Geräte verwendet werden.

11.18 Transmitting programming jobs using RF-Stick to a locking device

Required master media and administration devices:

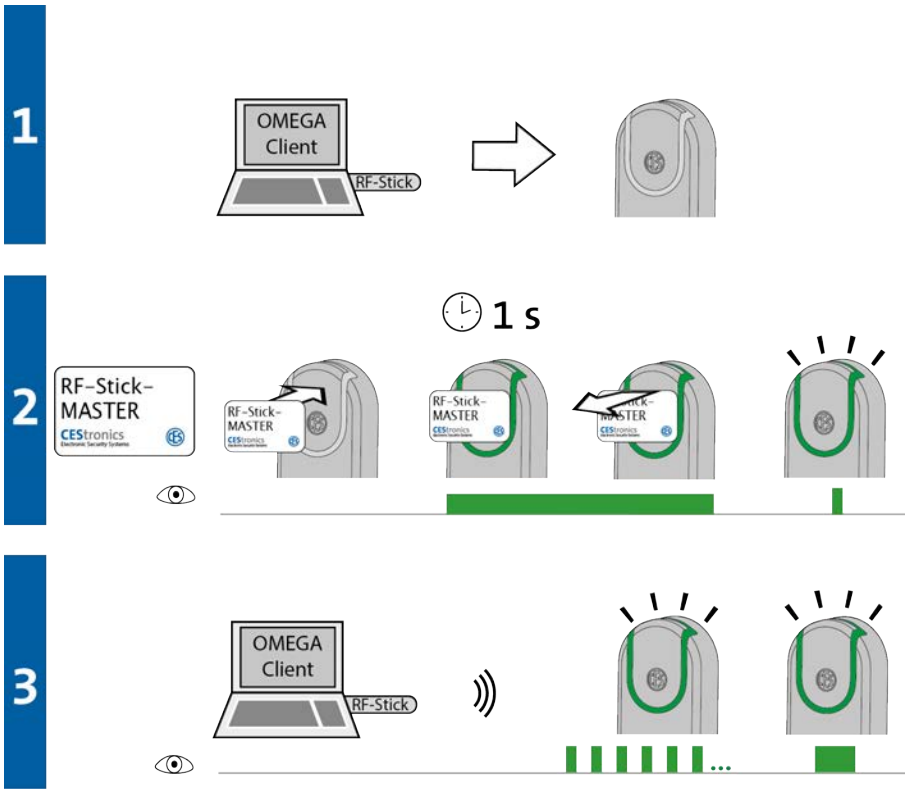
- RF-Stick-Master
- RF-Stick
- PC with OMEGA Client installed

The RF-Stick-Master must first be authorised for all locking devices on which it is to be used (see "Authorising additional master media" on page 111). Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.

Procedure for creating programming jobs:

1. **Start the OMEGA Client and log in with your user name and password.**
2. **Set the desired changes in the OMEGA Client.**
3. **Start your changes accordingly as a change programming or new programming, e.g. through** PROGRAMMING > PROGRAM ALL CHANGES.
   The status display of the OMEGA Client shows now "programming required". The individual programming jobs are shown under “Programming status”.

Procedure for transmitting programming jobs via an RF-Stick:



1. **Proceed with your PC and the RF-Stick connected to it to the locking device into which the programming jobs are to be transmitted.**

   If you want to transmit the programming jobs into multiple locking devices, you can freely choose the sequence in which you look for the locking devices.

2. **Hold the RF-Stick-Master briefly in the reading field of the locking device.**

   The following signal appears:

   1x short green

3. **The locking device searches now for an RF-Stick nearby.**

   The distance between the locking device and the RF-Stick may not exceed ten meters.at the maximum.

   As soon as the RF-Stick has been detected, the transmission begins. During transmission, the locking device flashes green.

   During transmission the following happens:

- All programming jobs for this locking device are transmitted to this locking device. During programming, the programming status display shows the progress in percentage.

- All events stored in the locking device, which were not available to the OMEGA Client yet, will be copied into the OMEGA Client.

- The clock is set.

If no programming jobs are available, only the events are copied and the clock is set. In this case, the locking device does not flash during the transmission.

After all data has been transmitted, the RF-Stick and the locking device are disconnected automatically. After transmission completion, the programming job is deleted from the "Programming status" list.

The programming job transmission is completed when the locking device signals 1x long green 1x long beep.

Troubleshooting:

Signalling	Reason	Solution
During step 2:		
	The locking device cannot detect any RF-Stick nearby.	Move with a properly connected RF-Stick closer to the locking device and try to transmit the programming jobs once again.

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