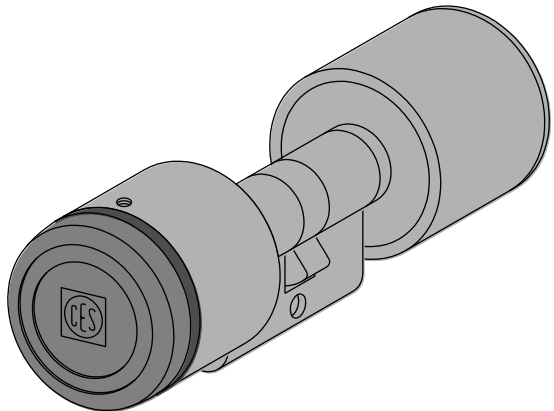


Electronic double knob cylinder OMEGA 815 DK-M

Fitting and Operating Instructions



Translated fitting and
operating instructions
version 1.61, 03/2013

Preface

These Fitting and Operating Instructions will help you fit and use the electronic double knob cylinder 815 DK-M (locking cylinder)

- as intended,
- safely, and
- advantageously.

Any person who

- fits,
- programs,
- operates, or
- disposes of

this locking cylinder must have read and understood the entire contents of these Fitting and Operating Instructions.

These Fitting and Operating Instructions should be kept near the locking cylinder at all times.

Notes on the layout

In these Fitting and Operating Instructions, various elements are highlighted with defined layout features so you can identify at a glance whether a passage contains

standard text,

- a list, or
- ▶ individual steps in a sequence of actions.



Notes highlighted with this symbol contain additional information on the efficient use of the locking cylinder.

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For your safety

Basic safety instructions

Observe all warnings and notes in these Fitting and Operating Instructions when fitting, programming and using the locking cylinder. Always keep these Fitting and Operating Instructions near the locking cylinder.



Make sure you are using the latest version of this manual. The manual is available free of charge at www.ces.eu.

To prevent danger to life and limb, the following safety instructions must be observed:

Danger to life

- Do not use the locking cylinder for doors with anti-panic function, such as escape doors, for which a knob cylinder is not permitted. Otherwise people may not be able to open the door in emergencies and may be injured or killed.
- Only use the locking cylinder for door locks for which knob systems are permitted. In case of doubt, please contact the manufacturer of the door or the door lock and satisfy yourself that the locking cylinder is suitable for your door system.

Danger of explosion

- Live parts of the RF-Master-Set may cause an explosion. Do not use the RF-Master-Set in potentially explosive atmospheres.

Danger of suffocation

- Never allow children to play with packaging material and/or plastic bags. There is a risk that children pull them over their head and suffocate.

Danger of poisoning

Always keep the locking cylinder out of reach of children. There is a risk that children swallow small parts such as batteries or screws.

Danger of property damage

To prevent property damage, the following safety instructions should be observed:

- Always have repairs performed by properly qualified personnel.
- Only use accessories and spare parts recommended by CESTronics.
- Do not use any drilling machines or cordless screwdrivers when fastening the locking cylinder.
- Only use the proper tools to open the locking cylinder.
- When fitting the locking cylinder, make sure that the lock and the plate/rose are in a perfect condition. Malfunctions of the lock may impair the functioning of the locking cylinder.
- Make sure that the cylinder can be inserted through the profile cylinder hole of the plate/rose and the lock without jamming and without using force during the installation. If this is not possible, align lock and plate/rose so as to prevent jamming and/or bending of the locking cylinder during its installation.
- Do not use any lubricants or oils for the locking cylinder.
- Do not drop the locking cylinder on the floor, on hard surfaces or on hard objects.
- Protect the electronic components of the locking cylinder against water and other liquids.

- The locking cylinder contains highly sensitive electronic parts that may be damaged or destroyed through static charges. Do not disassemble the locking cylinder in rooms with built up static charge.

Danger through environmental conditions

- Do not use the locking cylinder in corrosive atmospheres (chlorine, ammonia, lime water).
- Only use the locking cylinder in rooms in which the humidity does not exceed 95 %.
- Do not use the locking cylinder in rooms with a high level of dust formation.
- Do not use the locking cylinder near sources of heat.
- The outside knob may only be exposed to temperatures between $-25\text{ }^{\circ}\text{C}$ and $+70\text{ }^{\circ}\text{C}$.
- The inside knob may only be exposed to temperatures between $0\text{ }^{\circ}\text{C}$ and $+50\text{ }^{\circ}\text{C}$.

Danger of malfunctions

- The reading units in the locking cylinder must not be covered with any metallic material.

Notes on the handling of batteries

- Keep batteries out of reach of children. If a battery was swallowed, consult a physician without delay.
- Always insert new batteries. Never insert old and new batteries at the same time.
- Never mix the battery types. Always replace batteries by batteries of the same or an equivalent type.
- Before inserting the batteries, check that the terminals in the device and at the batteries are clean. Clean them if necessary.
- Observe the correct polarity (+/-) when inserting the batteries.
- Never attempt to recharge non-rechargeable batteries. There is a risk of explosion!
- Never short-circuit the batteries.
- Always store batteries at a cool, dry place. Direct heat may damage the batteries. Do not expose any battery-powered devices to strong sources of heat.
- Never throw any batteries into a fire.
- If you do not use your devices for a longer period, take out the batteries.
- Always remove leaked batteries immediately from the device. Clean the terminals before inserting new batteries. There is a danger of acid burns through battery acid!
- Remove flat batteries directly from the device.
- Be sure to send back the batteries to orderly disposal.

Explanation of the safety notes

These Fitting and Operating Instructions include safety notes of the following types:



DANGER

DANGER notes warn against hazards that may directly result in severe or fatal injuries.



CAUTION

CAUTION notes warn against hazards that may result in slight or medium injuries.

Attention



ATTENTION

Attention notes warn against possible property or environmental damage.

Intended use

The locking cylinder serves to lock and unlock doors with locks for which knob systems are permitted. It is exclusively intended and may only be used for that purpose. The knob of the locking cylinder must not be used for opening the door.

Any other use is considered to be improper and may result in property damage or even personal injury.

CEStronics GmbH does not accept any liability for any damage resulting from improper use.

CE Declaration of Conformity

CEStronics
Electronic Security Systems



Declaration of Conformity

We, the manufacturer

CEStronics GmbH
Electronic Security Systems
Friedrichstraße 243
D-42551 Velbert
Germany
Phone: +49(0)2051 204-444
Fax: +49(0)2051 204-245

declare on our own responsibility, that the product:

Name: **Double knob cylinder**
Type: **OMEGA Mifare**
Product: **815DK-M, 715DK-M 615DK-M, in all varieties and types**

is in compliance with following standards:

1999/5/EC	R&TTE directive
2004/108/EC	EMC directive
2006/95/EC	Low voltage directive

Applied standards:

EN 300 220-1 V2.2.1 (2006-04)
EN 300 220-2 V2.1.2 (2006-04)
EN 300 330-1 V1.5.1 (2006-04)
EN 300 330-2 V1.3.1 (2006-04)
EN 301 489-1 V1.8.1 (2008-04)
EN 301 489-3 V1.4.1 (2002-08)

EN 60950-1 (2006-11)

A technical documentation for the product is fully available from the manufacturer. The information provided in the user information is available.

Velbert, 2009/07/28



Dipl.-Ing. Richard Rackl
- Managing Director -

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Sitz der Gesellschaft: Velbert
Registergericht: Amtsgericht Wuppertal
Register-Nr. HRB 18895
U.Nr.-Nr. 4046437000004
USt-IdNr. DE 814236458

Zertifizierung nach
DIN EN ISO 9001
Ein Unternehmen
der CES Gruppe

Remarks

This mounting and fitting instructions are only valid for:

- **CEStronics electronic double knob cylinder 815 DK-M**

Manufacturer

The manufacturer of the locking cylinder is:

CEStronics GmbH

Friedrichstr. 243

42551 Velbert

Tel: +49 (0) 2051-204-0

Fax: +49 (0) 2051-204-105

www.ces.eu

Service

For support in case of service please contact your CESTronics partner.

Introduction

Description

The electronic double knob cylinder 815 DK-M is part of the OMEGA system. It is based on Mifare transponder technology.

This locking cylinder has a freely rotating knob. Access is granted after an authorized transponder has been held in front of the knob.

The locking cylinder may not be used for outdoor application.

The locking cylinder is intended for installation in locks prepared for profile cylinders. The installation of the locking cylinder does not require any additional effort and no wiring is required at the door.

The locking cylinder can only be operated with authorized locking media. You authorize a locking medium for your locking cylinder with Master media (see page 15, "Optional Master media").

To operate the locking cylinder, you move an authorized locking medium within reading range of the outside knob. The reader module in the outside knob recognizes your authorized locking medium. In response, the outside knob and the follower are coupled, and the door can be opened by rotating the outside knob.

All Mifare transponder media and media according to ISO 14443A and DESFire EV1 can be programmed at the locking cylinder and used as authorized locking media. Mifare locking media are read within a reading range of about 20 mm.

The locking cylinder responds to various events during programming, operation and maintenance with different visual and acoustic signals.

The locking cylinder can be programmed manually with the appropriate transponder cards (SYSTEM-MASTER, PROGRAM-MASTER, optional Master cards, see page 15, Chapter "Optional Master media").

Features of the locking cylinder:

- A freely rotating knob
- Mifare-Classic transponder technology
- Optional 868 MHz radio frequency
- Integrated evaluation unit with memory for:
 - Up to 1000 transponder keys
 - Up to 3000 events with date and time (at correct programmed time).
- Reading distance of up to 20 mm
- Six different Master media available as an option to increase the functionality of the cylinder (see page 15 ff.)
- Online programming via additional OMEGA Mifare software (not included in the scope of delivery)
- Interface for emergency power supply
- Two-colour LED light ring for visual signalling
- Beeper for status indication and feedback.



The number of possible locking media is not restricted to 1000. An extension of the internal locking media table is possible, but leads to performance penalties.

Optional Master media

Optional Master media allow you to set additional functions manually without requiring additional aids such as a PC or programmer.

SYSTEM-MASTER



The SYSTEM-MASTER grants all authorizations on the highest level. For each locking system, there is one and only one valid SYSTEM-MASTER.

With the SYSTEM-MASTER, you can authorize up to ten PROGRAM-MASTERS. In its basic version, a locking system requires one SYSTEM-MASTER and one PROGRAM-MASTER each to program your locking devices. The SYSTEM-MASTER is also used to authorize the following additional Master media for your locking cylinders and wall terminals:

- TIME-MASTER

PROGRAM-MASTER



The PROGRAM-MASTER is used to authorize and delete the authorization of your locking media.

TIME-MASTER



With the TIME-MASTER, you set the opening time of the locking cylinder or access terminal. During the opening time, your locking device allows free access.

- For locking cylinders, this is the period during which the knob is coupled with the follower time.
- For wall terminals, this is the period during which the relay is pulled up.

When the locking cylinder or access terminal detects the TIME-MASTER, it starts beeping at one-second intervals. The number of beeps determines the opening time.

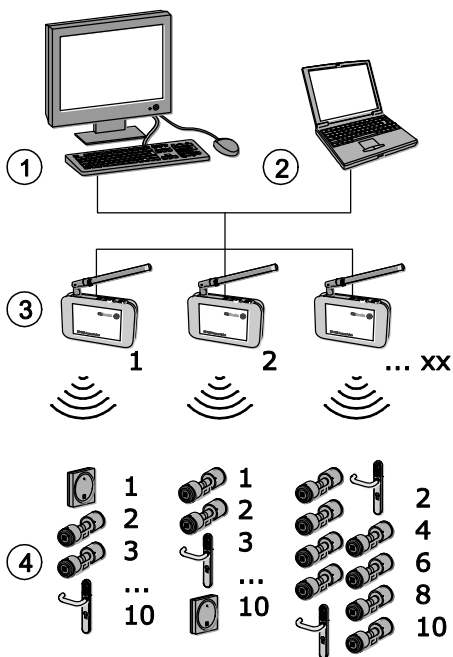
Programming with OMEGA software

You can also control and manage your locking systems online via a radio frequency link or via the programming cable.

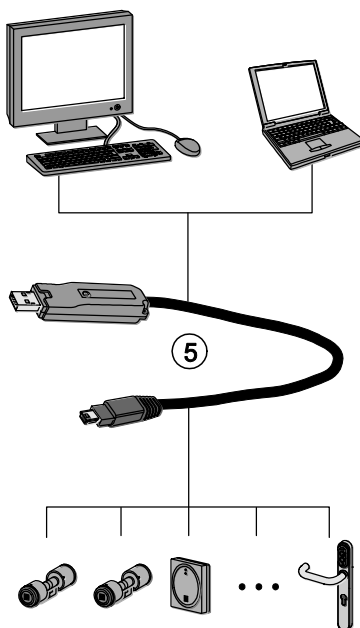
The following components are required for this system:

- State-of-the-art standard PC (No. 1,2) with Windows XP™ or Windows 7™ operating system, 1 GHz processor or higher, at least 1 GB of RAM, at least 1 GB of free hard disk space
- Network interface card with TCP/IP protocol (for the installation with Access Points)
- CD-ROM drive for installing the software from data media
- One free USB port for the use of the programming cable (optional)
- Existing Internet connection for using OMEGA-Quicksupport
- Monitor with a resolution of 1,024 × 768 pixel or higher, or a resolution of 1,024 × 600 pixel (netbook)
- CESTronics Suite software
- A valid licence for CESTronics Suite software
- OMEGA MIfare RF-NET Access Point (No. 3, maximum of ten devices per Access Point)
- At least one locking device (No. 4, locking cylinder, IES, wall terminal).
- Programming cable (No. 5, optional)

Setting up a online radio network



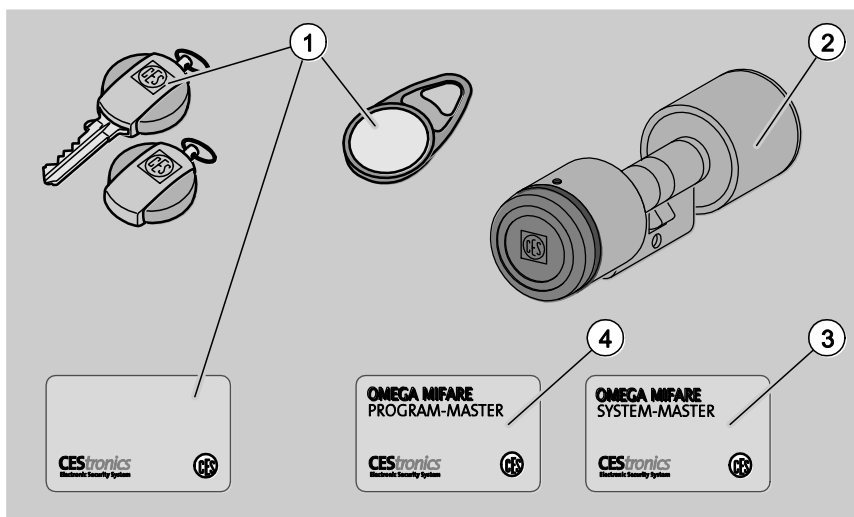
Setting up a system for wireless manual programming



For further information, please refer to the User Manual of the CESTronics Suite which is available free of charge at www.ces.eu.

System components

i You can purchase various locking media from a CEStronics partner to match your specific requirements.



- 1** Locking media: You can operate the locking cylinder with the following locking media:
 - transponder key
 - key fob
 - key fob slimLine
 - card.
- 2** Locking cylinder
- 3** SYSTEM-MASTER: The SYSTEM-MASTER is used to authorize the PROGRAM-MASTERS for the system. Each system has one and only one SYSTEM-MASTER.
- 4** PROGRAM-MASTER: The PROGRAM-MASTERS are used to authorize locking media to operate the locking cylinder.



You can combine mechanical locking cylinders and RF-Master-Sets and/or access terminals in one and the same locking system. In this case, you can use transponder keys for both mechanical and electronic locking cylinders from CESTronics.

Versions and their functions

The shield is available in the following versions:

Type	Functions
/N	NoTime, programming with programmer, programming without time zones and events
/T	Time, programming with programmer, programming with time zones and events
/NET	With RF-modul, for use within CESTronics-RF-networks

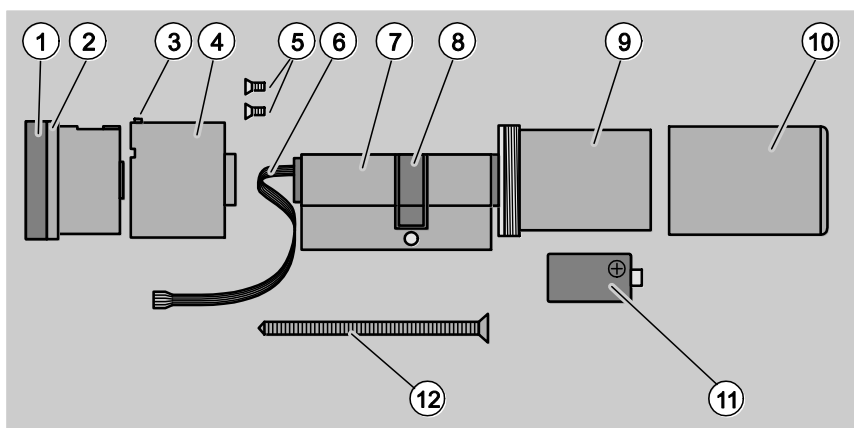
In preparation:

/N-V	NoTime in virtual network, programming without time zones and events
/T-V	Time in virtual network, programming with time zones and events (Key Point)

Scope of delivery

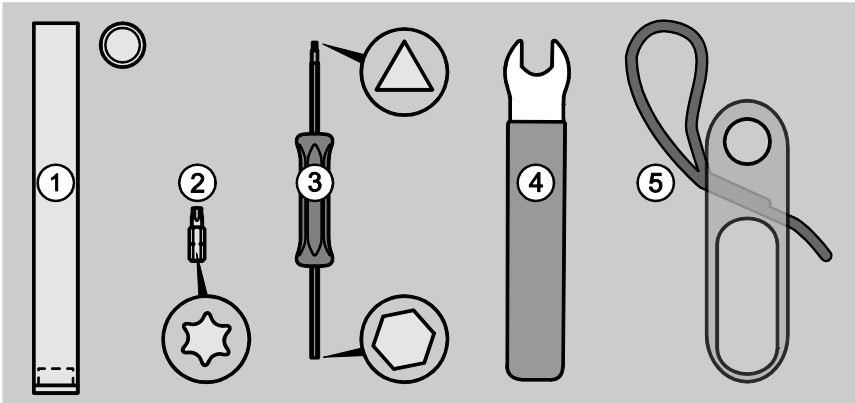
- ▶ Before fitting and commissioning, please check the contents of the package and the scope of delivery.
- ▶ Check new devices for transport damage and inform your dealer promptly if any damage is found.

Overview



- | | |
|-----------|--|
| 1 | Reader module with beeper |
| 2 | Light ring |
| 3 | Fastening screws for the reader module |
| 4 | Outside knob |
| 5 | Fastening screws for the outside knob |
| 6 | Flexprint cable for the connection between the inside and the outside electronics |
| 7 | Cylinder body |
| 8 | Follower |
| 9 | Electronics module with battery compartment |
| 10 | Inside knob |
| 11 | Battery: Type „Power one™“, „Varta PowerOne“, „Panasonic Industrial Lithium“, CR-2 Lithium, 3.0 V, 850 mAh |
| 12 | Special fixing screw |

Tools



- | | |
|----------|--|
| 1 | Fitting aid / box for combination tool |
| 2 | Combination tool (three-square / hexagon socket key) |
| 3 | TORX bit (for fixing screw) |
| 4 | 14 mm flat wrench |
| 5 | Belt grip |



The combination tool, the flat key and the TORX bit are supplied with the RF Master Set. The tools are also available independent of the RF Master Set and can be ordered separately.

Fitting the locking cylinder in a door lock



ATTENTION

The locking cylinder may be damaged if not fitted properly.

- ▶ Only skilled personnel may fit the locking cylinder.

This personnel must have been trained on the product by CESTronics or a CESTronics partner.



- ▶ Before fitting, verify that the cylinder body has the correct length for the door lock by measuring the thickness of the door leaf and the length of the cylinder body.

The locking cylinder is supplied preassembled and with the battery inserted. Before fitting, the locking cylinder must first be disassembled.

The following tools are required for the disassembly and the fitting:

- combination tool
- screw driver with TORX bit
- fitting aid
- 14 mm flat wrench.

**DANGER**

In case of malfunctions, it may not be possible to open the door in emergency situations which could result in personal injury or even death.

- ▶ Always satisfy yourself that the RF-Master-Set is suitable for your door system.
- ▶ Only fit the locking cylinder in door locks for which knob systems are allowed.
- ▶ Contact the manufacturer of the door or the door lock in case of doubt.

**DANGER**

In case of malfunctions, it may not be possible to open the door in emergency situations which could result in personal injury or even death.

- ▶ Never fit the locking cylinder in doors with anti-panic function, such as escape doors.
- ▶ Only fit the locking cylinder in door locks for which knob systems are allowed.

Unpacking the locking cylinder

- ▶ Take the locking cylinder from the package and remove all packaging material such as films, padding and packaging board.

Note on fitting the cylinder

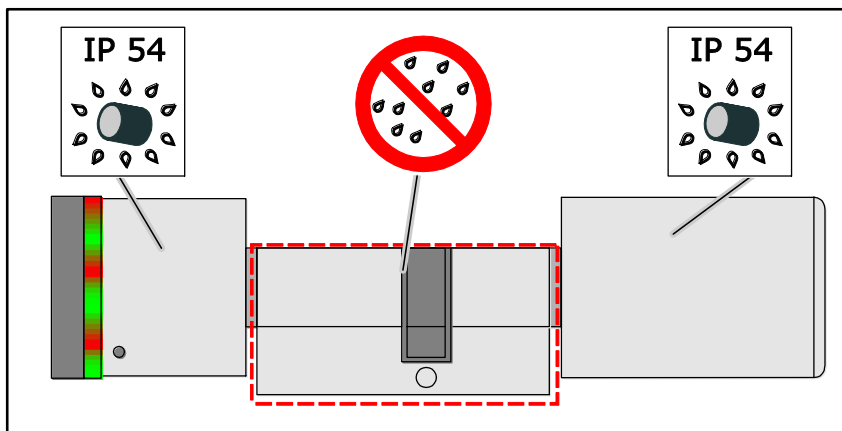


NOTICE

The locking cylinder may be damaged by the ingress of rain water.

The IES may be damaged by the ingress of rain water.

- ▶ Ensure that the door is not exposed to driving rain.
- ▶ Do not leave the door open when it is raining.



IP 54

Protection against touching with tools, wires, etc., protection against internal dust accumulation, protection against splashing water from any direction



As an option, your locking cylinders are also available with a weatherproof outside knob. Please contact your professional partner.

Removing the reader



ATTENTION

The locking cylinder contains sensitive electronic components that may be damaged or destroyed through static charges.

- ▶ Do not disassemble the RF-Master-Set in rooms with a high built-up static charge.
-

The reader module is fitted in the outside knob and fastened to the outside knob with two screws. Proceed as follows to remove the reader module:

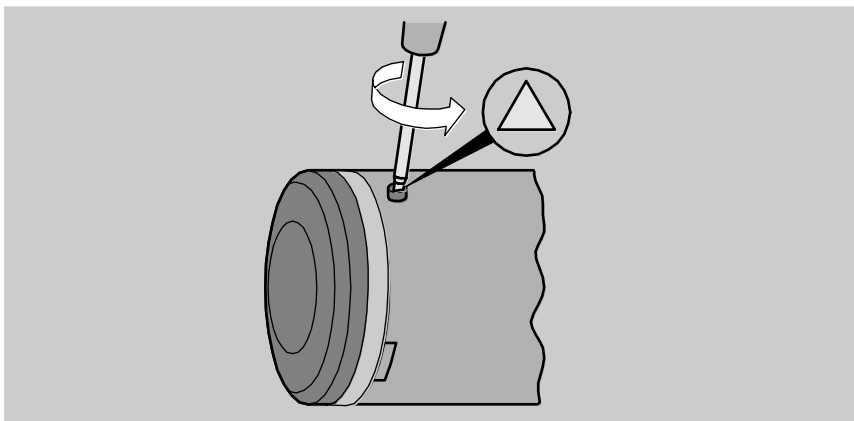


ATTENTION

The Flexprint connection cable attached to the reader module may be damaged when the reader module is pulled out.

- ▶ Always pull the reader module slowly and carefully out of the outside knob.
 - ▶ Avoid mechanical strain on the Flexprint cable.
 - ▶ Make sure not to squeeze the Flexprint cable.
-

- ▶ Release the two opposite screws on the outside knob with the combination tool (three-square screwdriver).



These screws cannot be completely screwed out but will always be held in the outside knob.

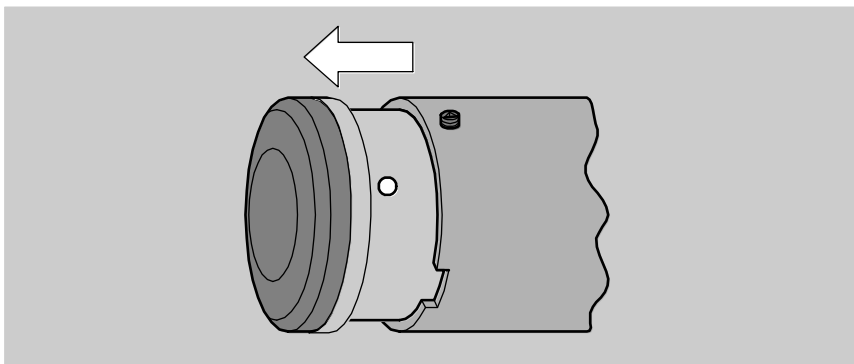


ATTENTION

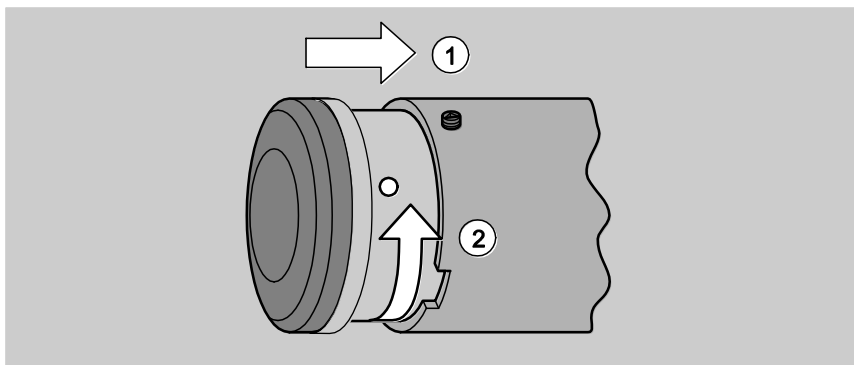
The connection cable attached to the reader module may come off when the reader module is pulled out.

- ▶ Be sure to exercise caution when pulling the module out of the outside knob.
-

- ▶ Pull the reader module out of the outside knob until you feel the stop.

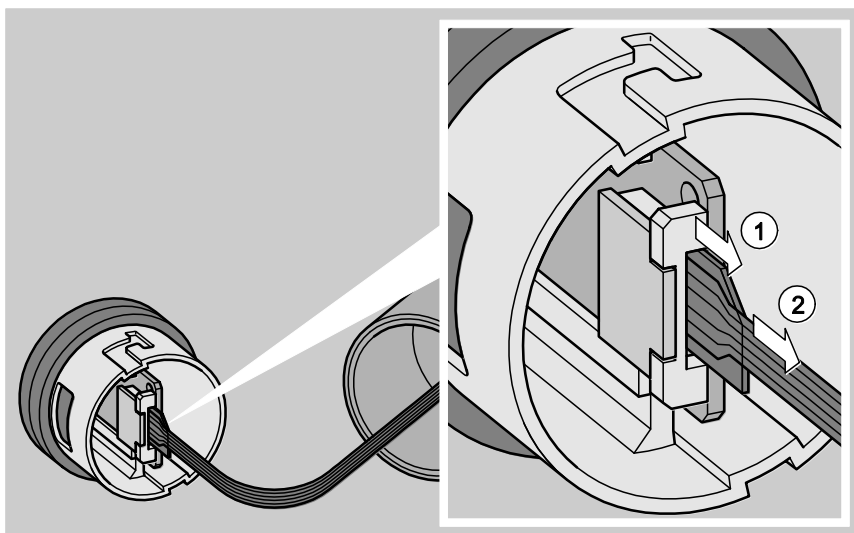


- ▶ Now push the reader module back into the outside knob by about 5 mm (1) and rotate the reader module in the direction of the arrow (2).
- ▶ Take out the reader module carefully.



The reader module is connected with the electronics module of the inside knob by a connection cable (Flexprint). This connection cable is plugged in at the reader module. The plug is locked by a clamping bridge. To release the connection, proceed as follows:

- ▶ Carefully pull the clamping bridge in the direction of the arrow (1) to release it from the socket of the reader module.
- ▶ Now pull the plug of the connection cable out of the socket of the reader module (2).
- ▶ Note the fitting position of the connection cable.

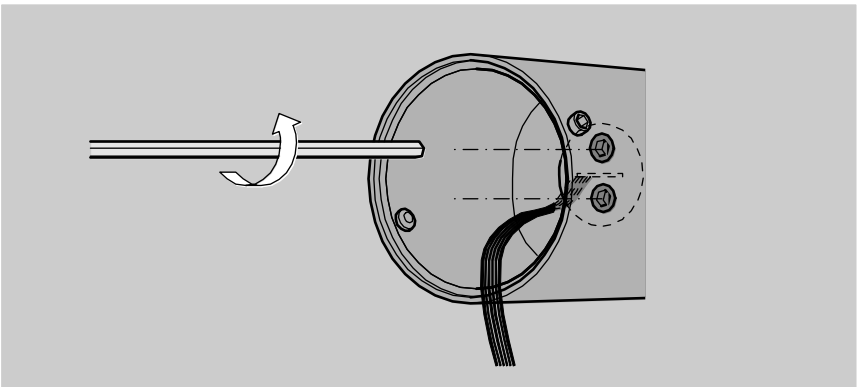


Releasing the outside knob from the cylinder body

The outside knob is fastened to the cylinder body with two screws. These two screws are arranged in the interior of the outside knob.

To release the outside knob from the cylinder body, proceed as follows:

- ▶ Release the two screws in the interior of the outside knob with the combination tool (hexagon socket screwdriver).



ATTENTION

The connection cable attached to the reader module may be damaged when the outside knob is pulled off.

- ▶ Always pull off the outside knob slowly and carefully.

Fitting the cylinder body

The cylinder body is inserted into the profile cylinder hole of the door lock.



CAUTION

The door may accidentally close while you are fitting the cylinder and it may not be possible to open the door again.

- ▶ Secure the door against accidental closing.
 - ▶ Ensure that a locking medium authorized for this cylinder is available.
-

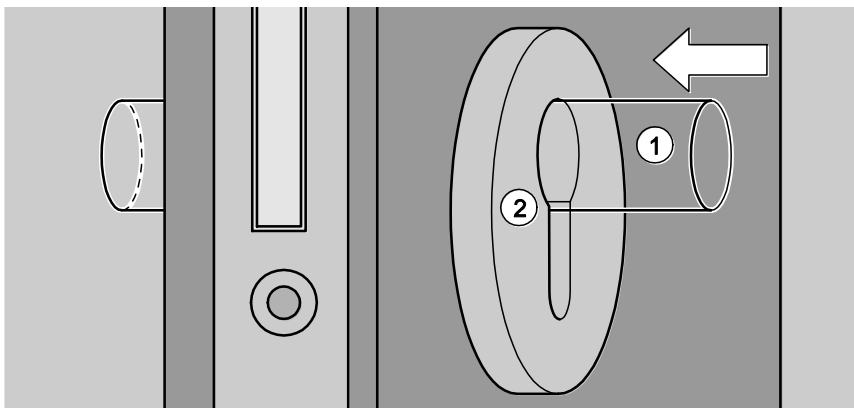


- ▶ Make sure that the authorizations for the locking cylinder concerned are granted correctly.

Please refer to the enclosed Programming Instructions for information on how to authorize a locking medium.

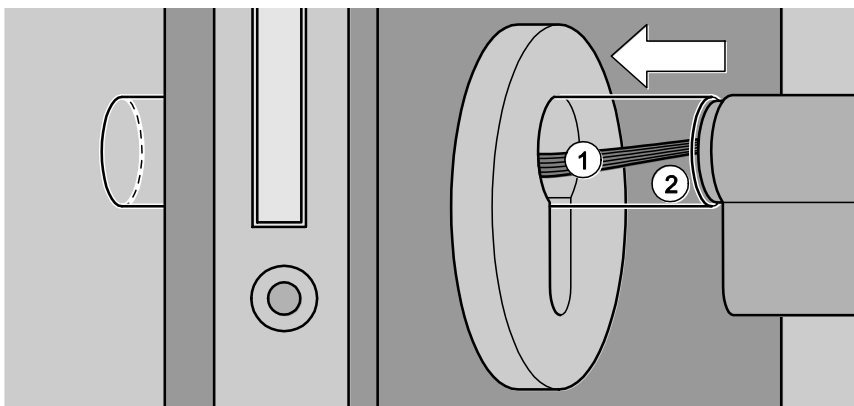
To check the position of the door fitting and the door lock, proceed as follows:

- ▶ Remove the lids of the fitting aid on both sides.
- ▶ Insert the fitting aid (1) into the profile cylinder hole (2) until it projects on both the inside and the outside of the door lock.

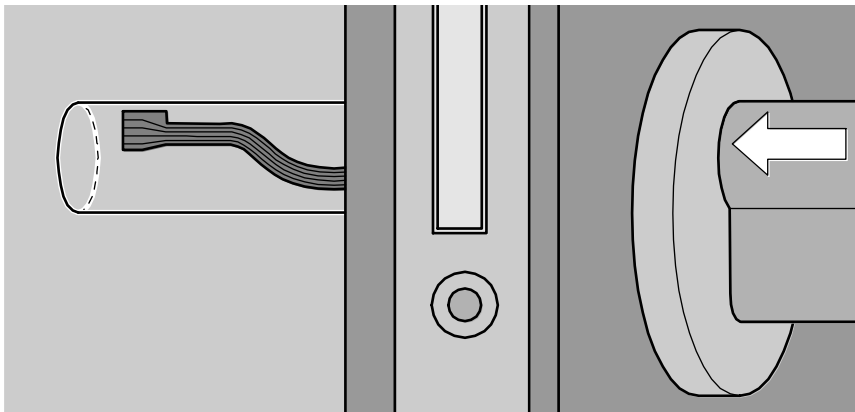


If the fitting aid can be inserted smoothly in the profile cylinder hole, you can continue with the installation of the cylinder body. If not, proceed as follows:

- ▶ Pull the fitting aid out of the profile cylinder hole.
- ▶ Correct the position of the door lock. If required, contact the manufacturer of the lock.
- ▶ Again check the position of the door fitting and the door lock using the fitting aid.
- ▶ Insert the connection cable (1) from the inside into the open end of the fitting aid (2).



- ▶ Pull the fitting aid out of the profile cylinder hole from the outside.

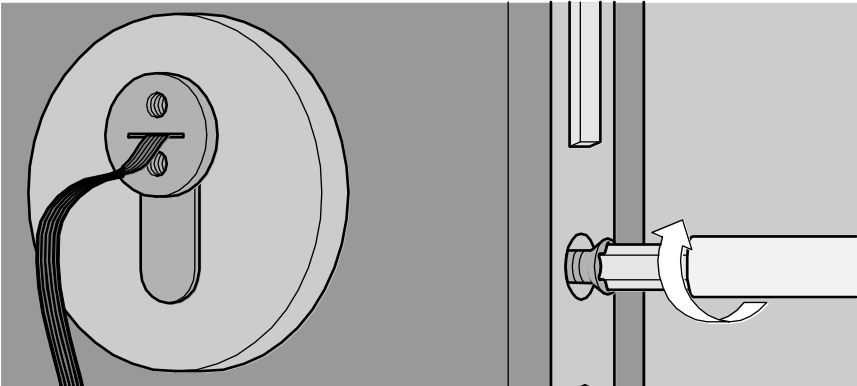


- ▶ Insert the cylinder body into the profile cylinder hole of the door lock.
- ▶ Rotate the inside knob to verify that the follower can move free of friction.
- ▶ If the movement of the follower is impeded by friction, remove the cylinder body again from the profile cylinder hole.
- ▶ Verify the proper functioning of the door lock.
- ▶ If the door lock does not operate properly, please contact the lock manufacturer.
- ▶ Repeat the steps described above to fit the cylinder body.

**ATTENTION**

If a drilling machine or a cordless screwdriver is used to fasten the locking cylinder, the locking cylinder may be damaged.

- ▶ Do not use a cordless screwdriver or drilling machine for fitting the RF-Master-Set.
 - ▶ Only use the tool specified for this purpose.
-
- ▶ Insert the fixing screw into the door lock and initially screw it in only until it is flush with the striking plate.

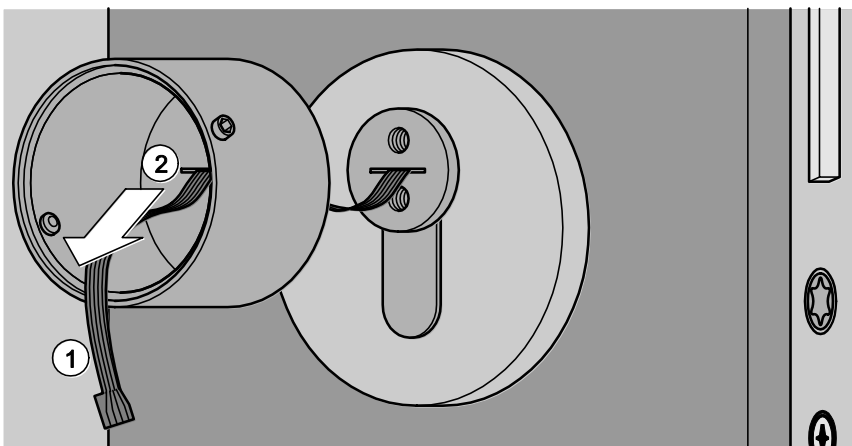


Do not yet tighten the fixing screw at this point. This will enable you to verify that the follower moves without friction after the fitting of the locking cylinder has been completed.

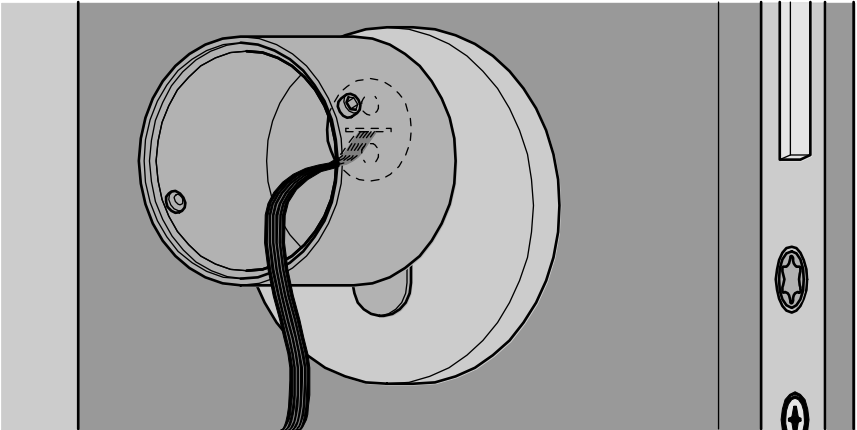
Fastening the outside knob to the cylinder body

Once the cylinder body has been fitted in the door lock, the outside knob must again be attached to the cylinder body. Proceed as follows:

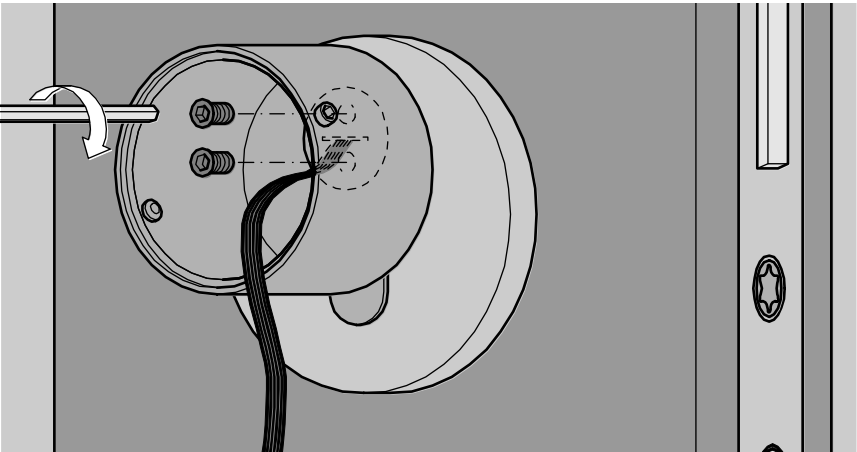
- ▶ Thread the connection cable (1) through the opening (2) at the bottom of the outside knob.



- ▶ Push the outside knob onto the shaft at the cylinder body.



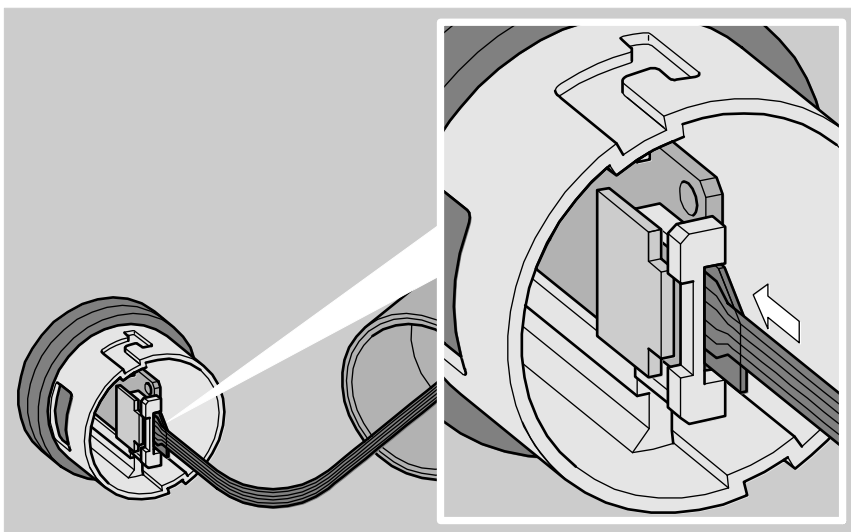
- ▶ Hand-tighten the two screws in the interior of the outside knob with the combination tool (hexagon socket screwdriver).



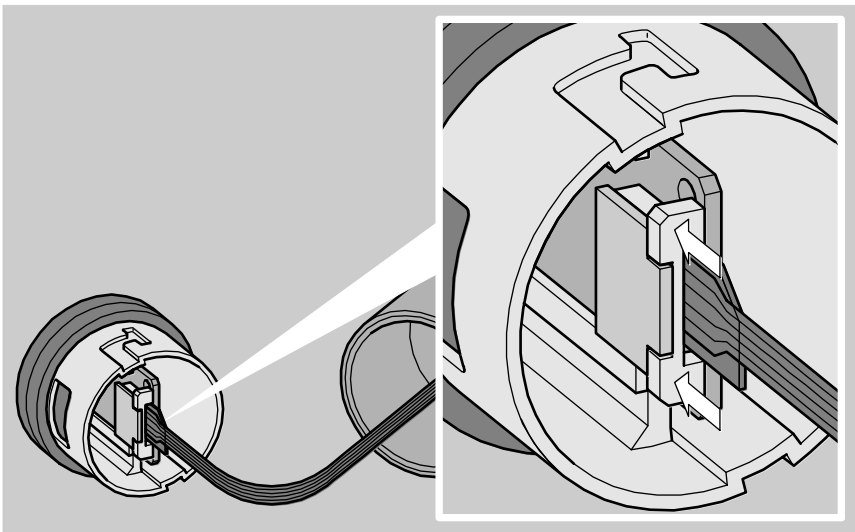
Installing the reader module in the outside knob

After the outside knob has been fastened to the cylinder body, you can again insert the reader module into the outside knob. Proceed as follows:

- ▶ Push the plug of the Flexprint connection cable into the socket at the reader module, as shown in the figure.
- ▶ Observe the correct fitting position of the connection cable.



- ▶ Push the clamping bridge in the direction of the arrow onto the clamp joint to lock the clamp joint.

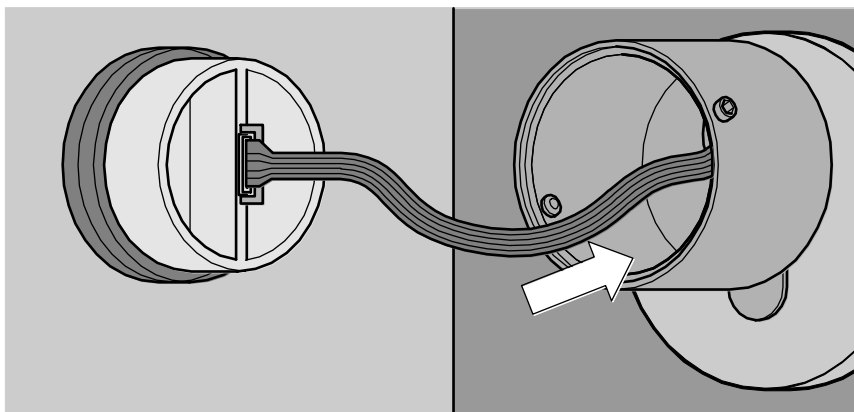


ATTENTION

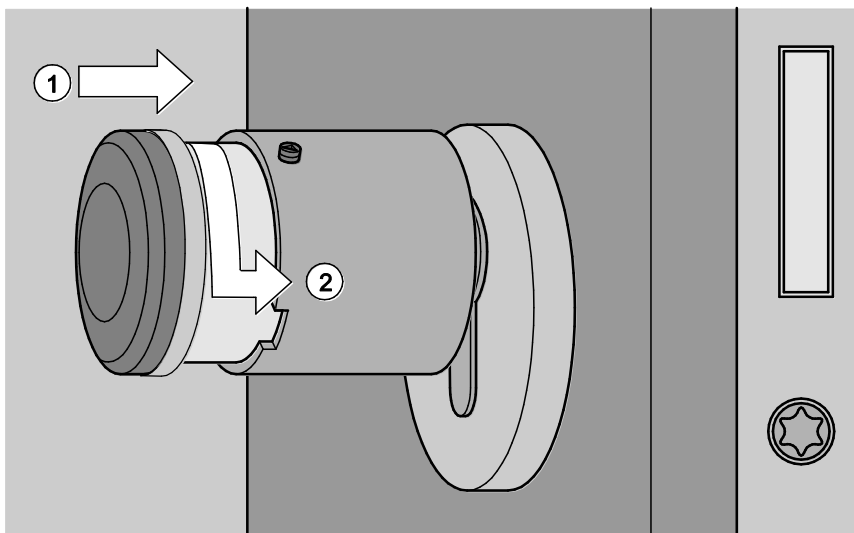
The connection cable may be damaged when the reader module is inserted into the outside knob.

- ▶ Always push the reader module into the outside knob slowly and carefully.
- ▶ Make sure that the connection cable is neither kinked nor squeezed.

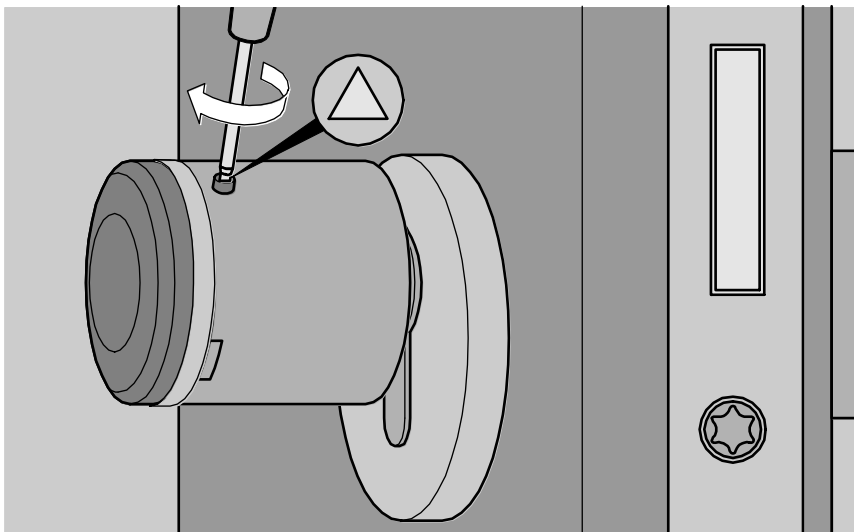
- ▶ Push the connection cable carefully into the outside knob and insert the reader module into the outside knob.



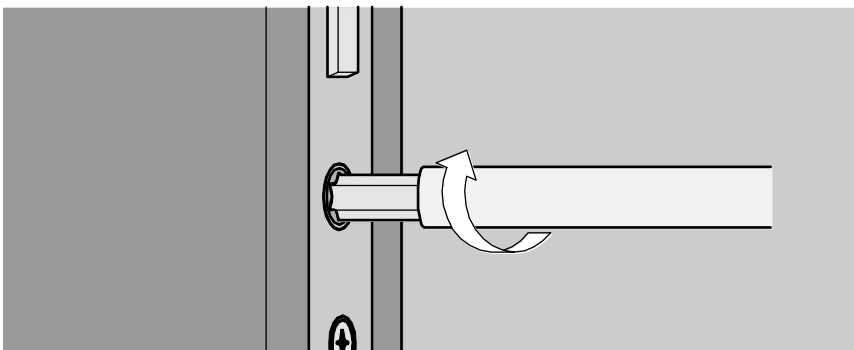
- ▶ Push the reader module into the outside knob until you feel the stop (1).
- ▶ Rotate the reader module while exerting a slight pressure in the direction of the arrow (2).



- ▶ To fasten the reader module, hand-tighten the two opposite screws using the combination tool (three-square screwdriver).



- ▶ Rotate the inside knob so as to verify the easy movement of the follower.
- ▶ If the follower moves easily, hand-tighten the fixing screw.



Please refer to the following chapter "Operating the door lock" on how to commission the locking cylinder.

Operating the door lock

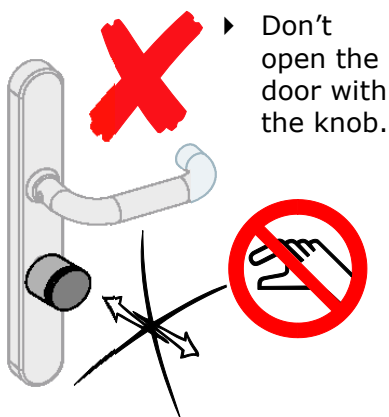
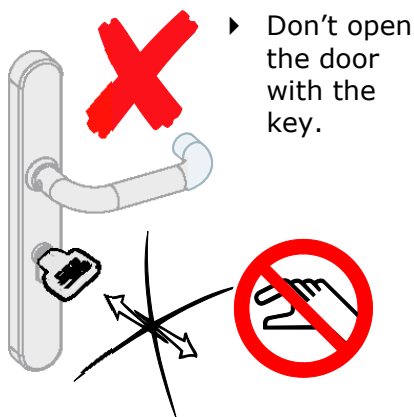
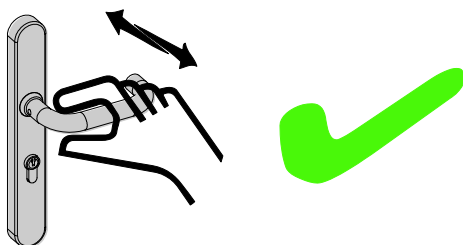
Correct door operation



ATTENTION

Damaging the double knob cylinder by false door operation possible.

- ▶ Use only the door handle for opening and closing the door, like shown in the illustration.

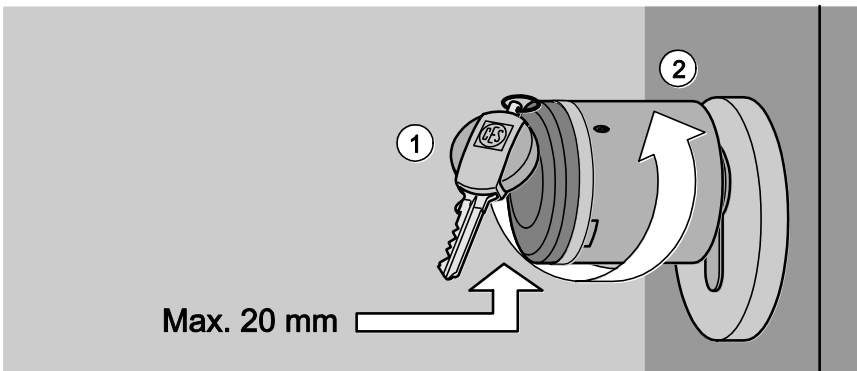


The locking cylinder is equipped with a reader which enables you to operate the door lock from the outside.

To operate the door lock from the outside, you need a locking medium that is authorized for this locking cylinder. Please refer to the enclosed Programming Instructions on how to authorize locking media.

Mifare locking media

- ▶ Move with your authorized locking system (1) into the reading range of the locking cylinder. This range is about 20 mm.



The reader module in the outside knob identifies the locking medium.

The locking cylinder sends a short signal to signal the enable status.

During the opening time you can open the door. During this opening time, the locking cylinder does not respond to any other locking media.

- ▶ To open the door lock, rotate the outside knob in the corresponding direction (2).
- ▶ Release the knob immediately after the door has been opened. You do not have to turn the knob back into its original position.

If you are using a locking medium that is not authorized to enable this locking cylinder, the light ring of the locking cylinder flashes red four times and you hear four successive beeps. In this case, the outside knob is not coupled with the follower. The outside knob rotates freely but the door lock cannot be operated.

DESFire EV1 Transponder (locking media)

You use DESFire EV-1 locking media in two different modes:

DESFire EV-1 in security mode (optional)

Locking devices and locking media operating in the security mode (1) are manufactured exclusively by CESTronics and programmed with individual keys and special firmware.

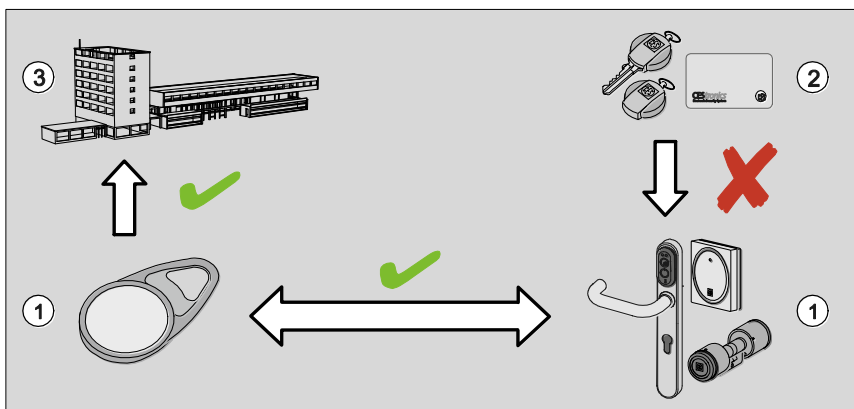
The data transmission between the locking device and the locking medium is encrypted. Only locking media that are authenticated by the device are authorized to lock or unlock.

This ensures a very high protection against manipulation.

These locking devices (1) will not accept any foreign transponders (2); they do not respond to any locking or unlocking attempt with other locking media.

A DESFire EV-1 locking medium manufactured by CESTronics operating in the security mode can be used in other systems (3) requiring this type of transponder.

This ensures the multi-application capability of the locking medium.

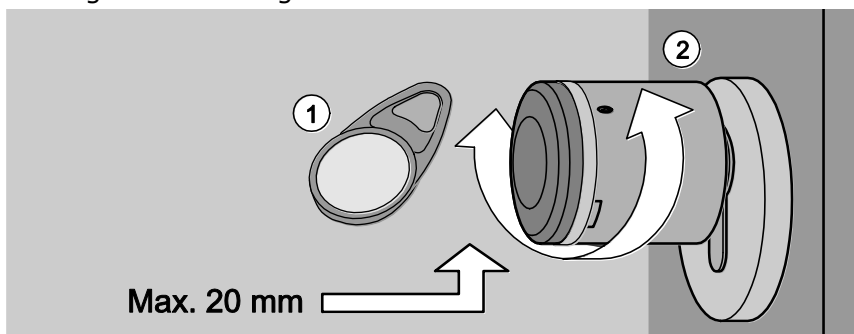


DESFire EV-1 in standard mode

Locking media operating in the standard mode behave like any other ISO 14443 transponders. For authorization, the UID of the locking medium is used.

If you manage your systems with the CESTronics software, you can use both DESFire EV-1 variants with the CESTronics software.

- ▶ Move your authorized locking medium into the reading range of the fitting. This distance is about 20 mm.



The reader module in the outside knob identifies the locking medium.

The locking cylinder sends a short signal to signal the enable status.

During the opening time you can open the door. During this opening time, the locking cylinder does not respond to any other locking media.

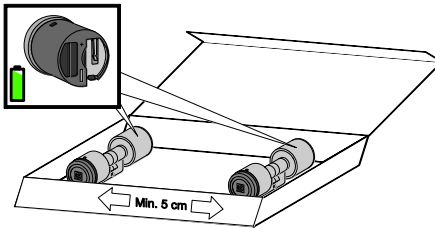
- ▶ To open the door lock, rotate the outside knob in the corresponding direction (2).
- ▶ Release the knob immediately after the door has been opened. You do not have to turn the knob back into its original position.

If you are using a locking medium that is not authorized to enable this locking cylinder, the light ring of the locking cylinder flashes red four times and you hear four successive beeps. In this case, the outside knob is not coupled with the follower. The outside knob rotates freely but the door lock cannot be operated.

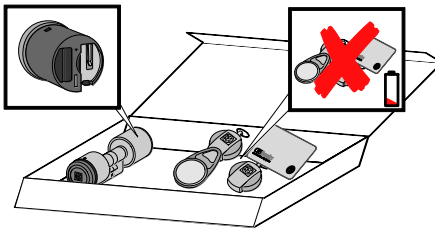
Transport notes

Locking cylinders may interact if they are placed too close to one another or too close to locking media. This will discharge the battery.

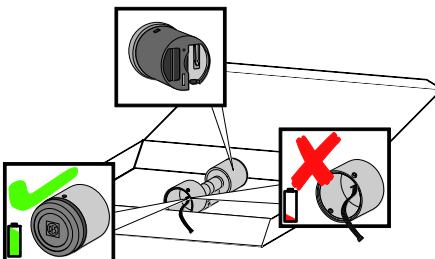
To prevent interaction between cylinders during transport, please observe the following notes:



- ▶ Always keep locking cylinders at least 5 cm apart.
- ▶ If this is not possible, remove the battery of the locking cylinder (please refer to page 47).



- ▶ Do not transport locking cylinders together with ID cards or locking media.
- ▶ If this is not possible, remove the battery of the locking cylinder (please refer to page 47).



- ▶ Only transport locking cylinders with the reader fitted.
- ▶ If this is not possible, remove the battery of the locking cylinder (please refer to page 47).

Replacing the battery of the locking cylinder

When the Low Battery alarm sounds, the battery of the locking cylinder must be replaced. The Low Battery alarm starts sounding when the battery capacity is falling. In this case, you will hear a very long beep with every locking attempt.

The battery is inserted in the electronics module in the inside knob. To replace the battery, the locking cylinder must be pulled out slightly so that you can apply the flat key to release the cover. Proceed as follows:



ATTENTION

The door cannot be opened again once the battery is completely empty.

- ▶ Always replace the battery after the first Low Battery alarm.



ATTENTION

Incorrect disposal from empty batteries possible.

- ▶ Be sure to send back the batteries to orderly disposal.



If the battery is completely empty, the door must be opened with an Emergency Power Supply (see page 55, Chapter "Emergency Opening").



In RF mode you do not have to re-set the time of day, as the current time will be transmitted by the OMEGA software.

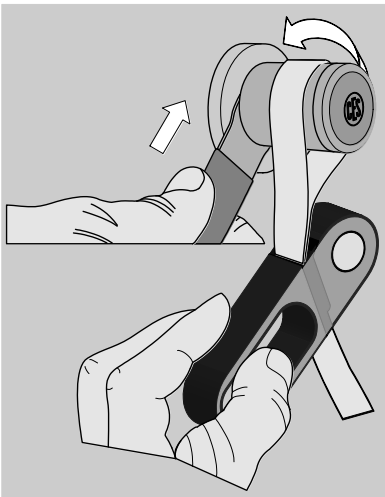
**ATTENTION**

The housing of the electronics module or the electronics of the locking cylinder may be damaged.

- ▶ Only use batteries of the CR2 type with 3 V.

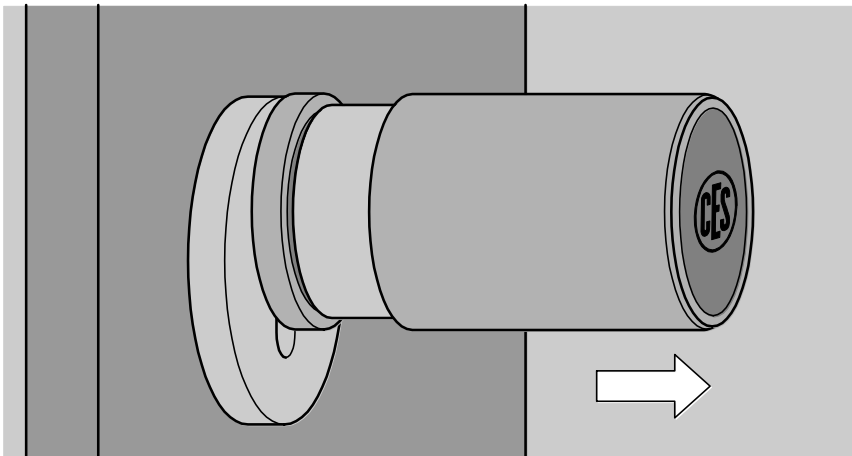
To replace the battery, the locking cylinder must be pulled out slightly so that you can apply the flat key to release the cover. Proceed as follows:

- ▶ Apply the flat key behind the inside knob as shown in the figure.
- ▶ Use the belt grip to release the cover.



- ▶ Release the cover of the inside knob by counter-clockwise rotation.

- ▶ Carefully pull off the cover in the direction of the arrow.

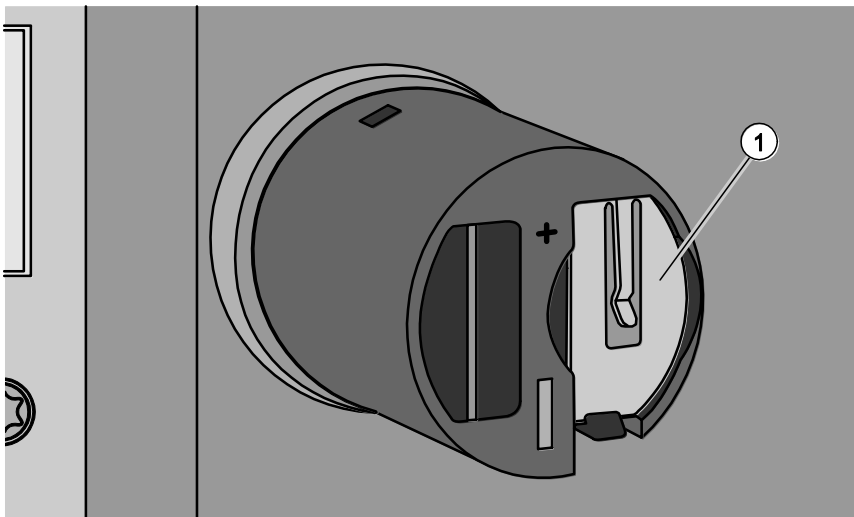


ATTENTION

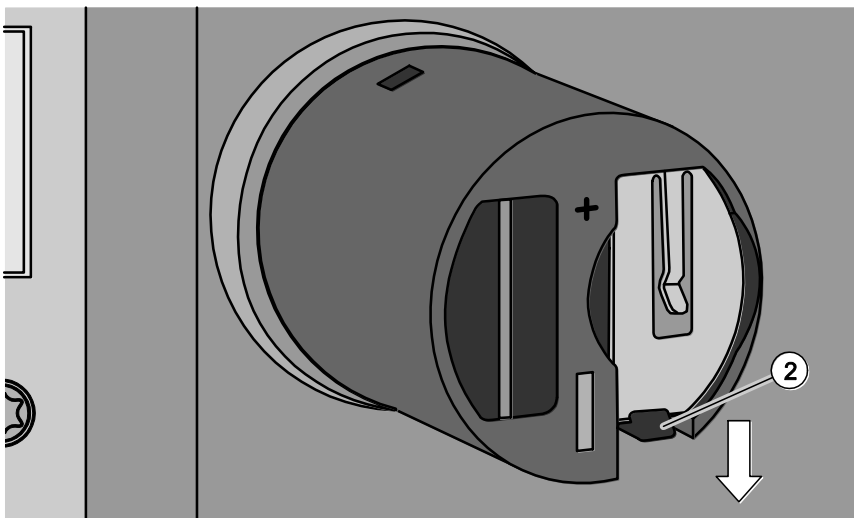
The battery, the housing of the electronics module, and/or the electronics may be damaged if you try to pry out the battery with an object.

- ▶ Only use your hand to remove the battery.
- ▶ Do not use any objects for this purpose.

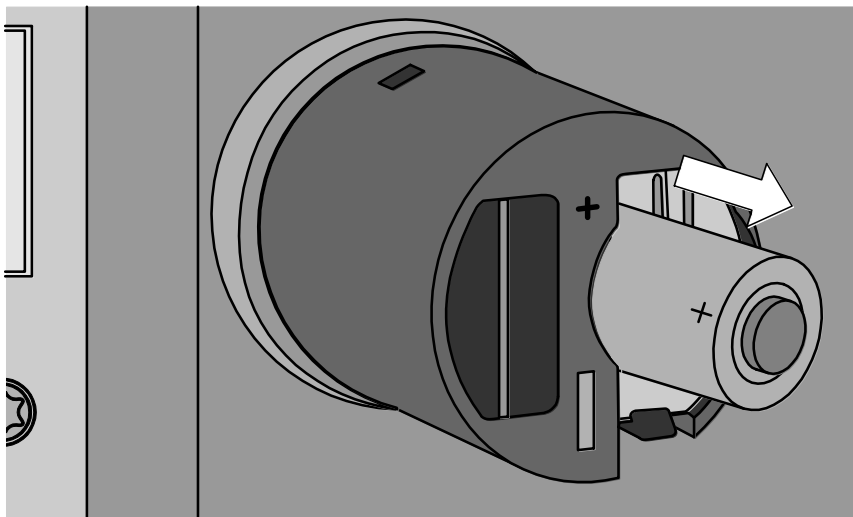
- ▶ Put your finger lightly on the contact plate (1) to prevent the battery from being pushed out.



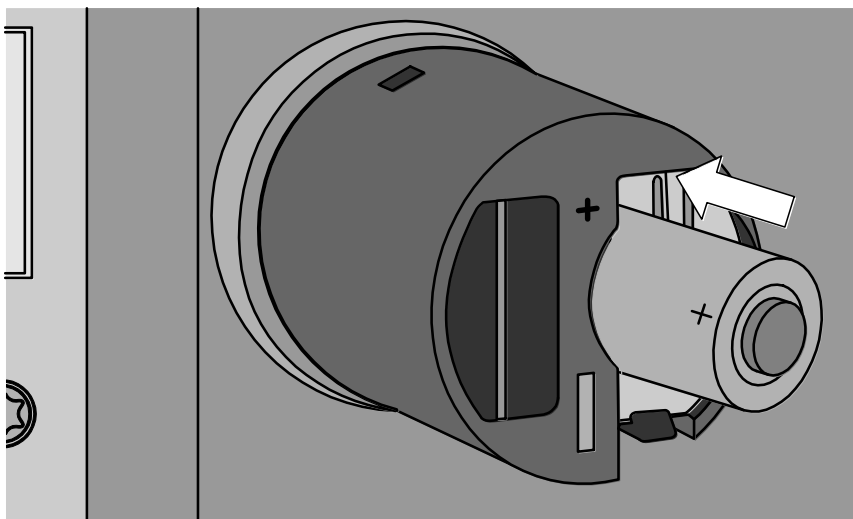
- ▶ Carefully release the catch (2) in the direction of the arrow until the contact plate is loose.
- ▶ Remove the contact plate.



- ▶ Take the battery out of the battery compartment.



- ▶ Insert the new battery with the correct polarity into the battery compartment.

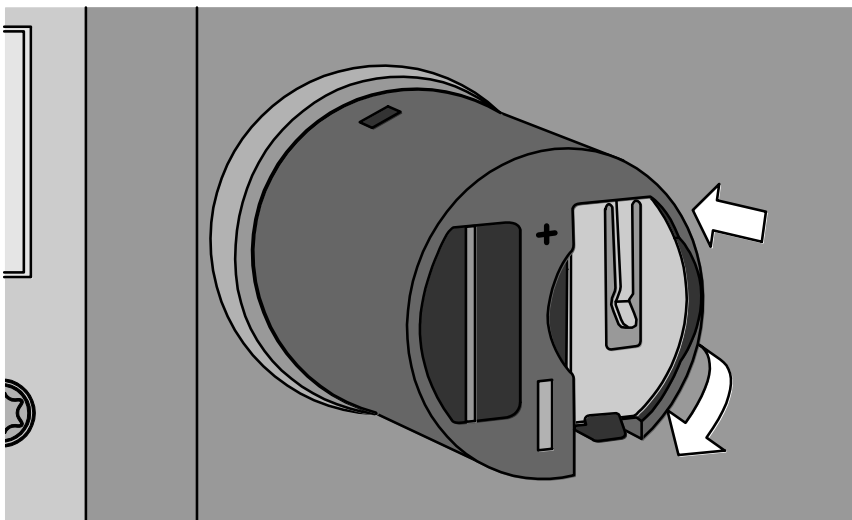


**CAUTION**

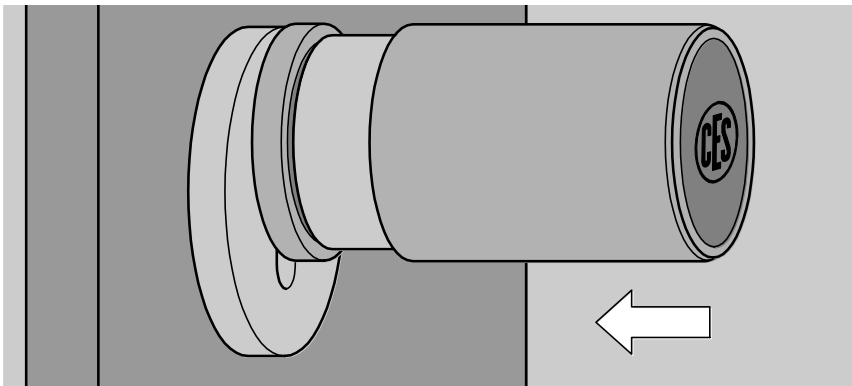
Incorrectly inserted batteries may cause irreparable damage to your locking cylinder.

- ▶ Always insert the batteries with the correct polarity into your locking cylinder.
- ▶ If a battery has been inserted incorrectly, have the locking cylinder checked by a CESTronics partner.
- ▶ Only use batteries of the CR2 type (Lithium) with 3 V.

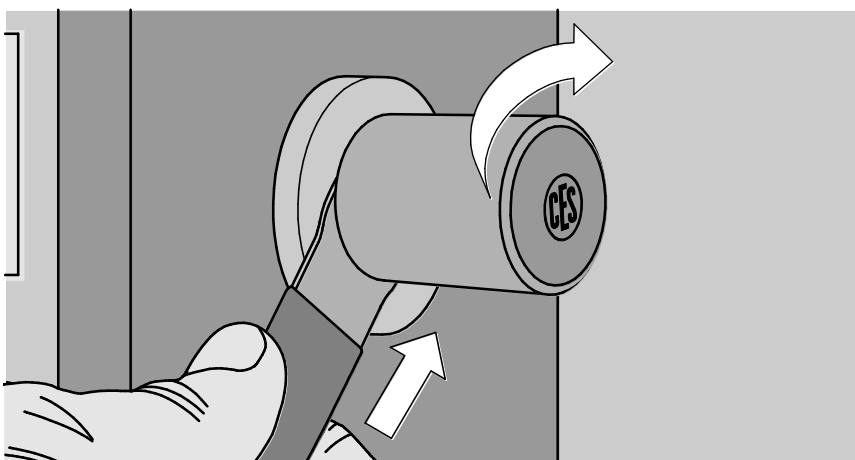
- ▶ Reinstall the contact plate on the battery compartment.



- ▶ Push the inside knob again onto the electronics module.



- ▶ Satisfy yourself that the sealing gasket sits perfectly on the thread of the electronic module.
- ▶ Manually screw on the cover (clockwise rotation).
- ▶ Tighten the cover with the flat key.
- ▶ Apply the flat key behind the inside knob as shown in the figure.
- ▶ Fit the cover again.



Lost master or locking medium



ATTENTION

An unauthorized person may gain possession of a Master medium and manipulate the locking system.

- ▶ Always keep all Master media at a safe place.
 - ▶ Make sure that these are not accessible to unauthorized persons.
-



ATTENTION

When a Master medium is lost, the potential finder may manipulate the locking system.

- ▶ If a Master medium has been lost, have the locking cylinder and/or the access terminal only initialized by persons trained on the product by CESTronics or a CESTronics partner.
-



During an initialization, all authorizations for this locking cylinder are deleted.

- ▶ If one of the locking media is lost, please contact a CESTronics partner.

Emergency opening

If the battery is empty, you can connect an Emergency Power Supply with the locking cylinder to provide the required voltage. To open the door, you also require the authorized locking medium to confirm that you have authorized access.



The Emergency Power Supply is not part of the scope of delivery of the locking cylinder. To order it, please contact your CESTronics partner.

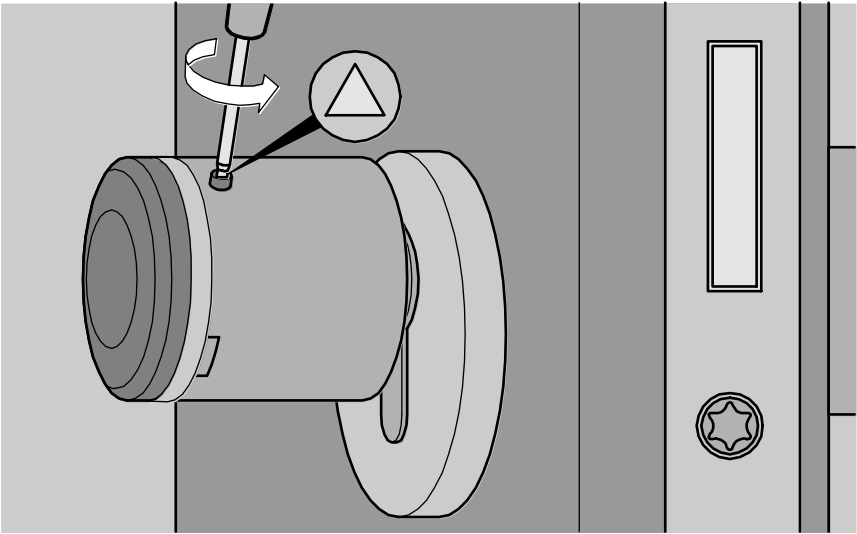


ATTENTION

When the module is pulled out of the outside knob, the connection cable attached to the reader may be damaged.

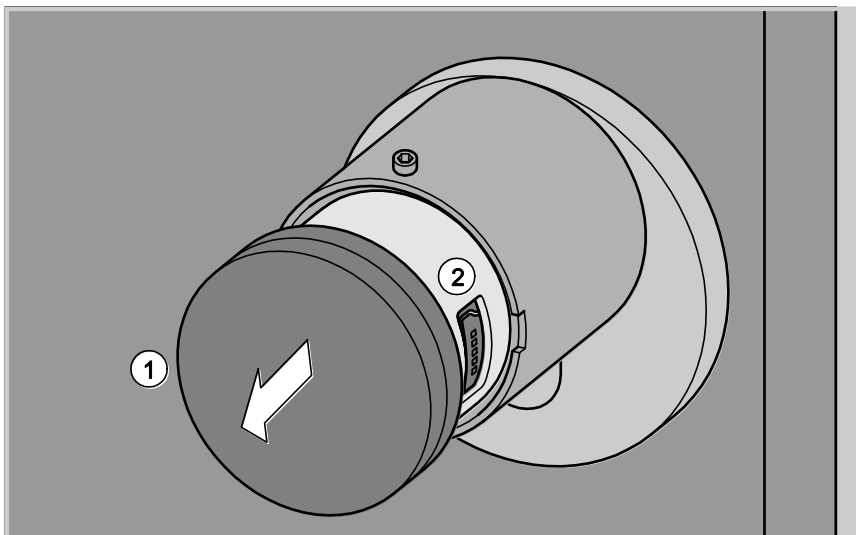
- ▶ Always pull the module out of the outside knob slowly and carefully.

- ▶ Release the two opposite screws on the outside knob with the combination tool (three-square screwdriver).



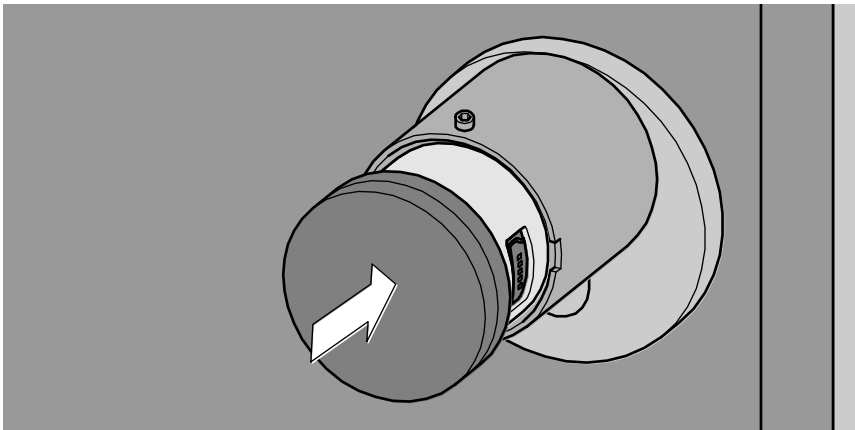
These screws cannot be completely screwed out but will always be held in the outside knob.

- ▶ Pull the reader module out of the outside knob until you feel the stop (1).

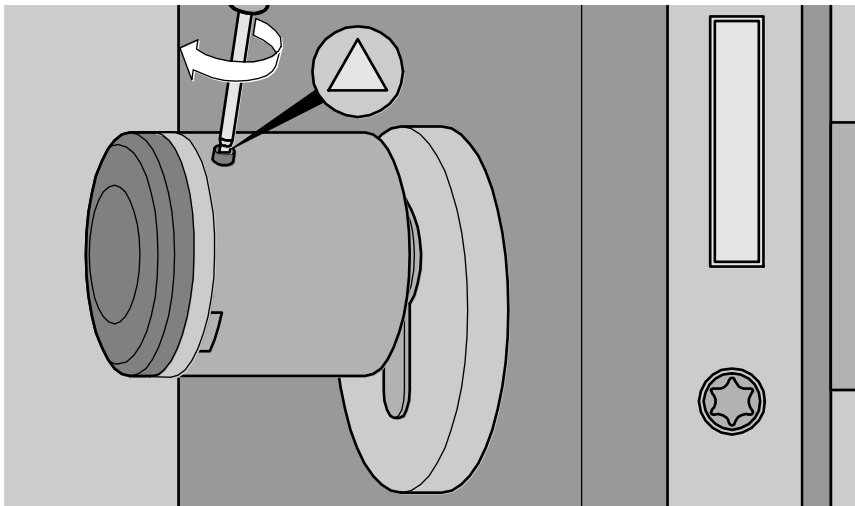


- ▶ Connect the Emergency Power Supply with the interface (2) on the reader module.
- ▶ Observe the notes and instructions in the Operating Instructions of the Emergency Power Supply.
- ▶ Use your authorized locking medium to open the door.
- ▶ After you have opened the door, disconnect the connection between the reader module and the Emergency Power Supply.

- ▶ Push the reader module back into the sleeve of the outside knob.



- ▶ To fasten the reader module, hand-tighten the two opposite screws with the combination tool (three-square screwdriver).



- ▶ Replace the battery of the locking cylinder after each emergency opening (see page 47, chapter "Replacing the battery of the locking cylinder").

Care

The outer accessible parts of your locking devices such as knobs, knob sleeves, covers, fittings, etc. can be cleaned with a soft, slightly moist wipe.



NOTICE

Risk of damage to surfaces of the OMEGA FLEX cylinder!

- ▶ Never use solvent-containing cleaning agents to avoid damage to your locking devices.

Maintenance

- ▶ Have the locking cylinder serviced and its perfect functioning verified every six months by CESTronics or by a CESTronics partner only.
- ▶ Replace the batteries in line with a defined maintenance schedule.
- ▶ Make sure to have replacement batteries ready in good time.

Spare Parts

The locking cylinder does not require any spare parts for you to change.

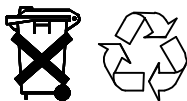
- ▶ If you need service, please contact your professional CES partner.

Trouble-shooting

Symptom	Possible cause and remedy
The door lock cannot be opened although a locking medium is held in front of the outside knob.	The locking medium is not authorized for this cylinder. Use an authorized locking medium.
	The battery is empty. Replace the battery of the locking cylinder with a new one (see page 47).
	The locking medium is not within the range of the reader in the outside knob of the locking cylinder. Hold the locking medium nearer to the outside knob.

If the door lock still cannot be opened, please contact your CESTronics partner.

Disposal



Neither the locking cylinder, nor the batteries nor parts of the locking cylinder may be discarded with the normal household waste. Ask your local authorities about recycling and/or the proper disposal of the device in line with environmental regulations. Used batteries should be delivered at a collection centre.

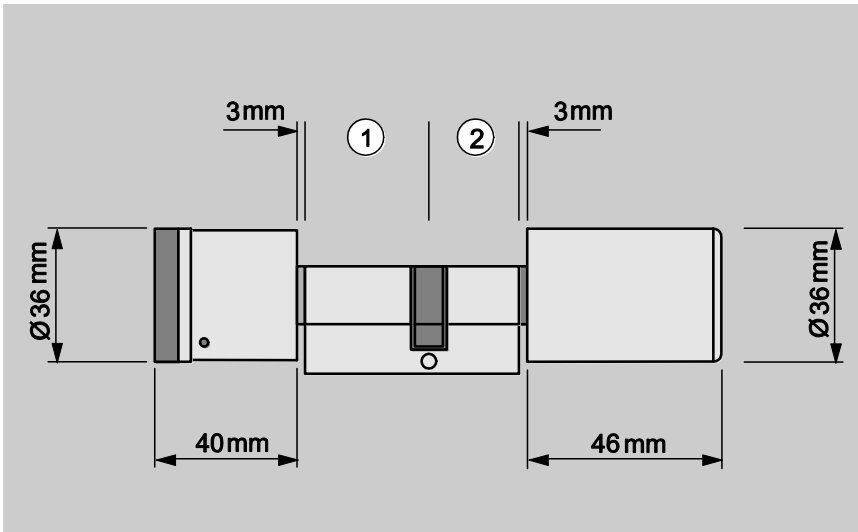


ATTENTION

Incorrect disposal from empty batteries possible.

- ▶ Be sure to send back the batteries to orderly disposal.

Technical data



- | | | | |
|---|------------------------|---|--------------------|
| 1 | Outside (locking side) | 2 | Inside (knob side) |
|---|------------------------|---|--------------------|

Dimensions of outside knob	Length: approx. 40 mm, Diameter: approx. 36 mm
Dimensions of inside knob	Length: approx. 46 mm, Diameter: approx. 36 mm
Power supply	Battery: Type „Power one™“, „Varta PowerOne“, „Panasonic Industrial Lithium“, CR-2 Lithium, 3.0 V, 850 mAh
Number of locking media	max. 1000, expandable (max. 100 at Master-Mode)
Number of master media	max. 1 SYSTEM-MASTER
	max. 10 PROGRAM-MASTERS
Permissible temperature at outside knob	-25 °C to +70 °C
Permissible temperature at inside knob	0 °C to +50 °C
Prohibited atmospheres	Not suitable for use in corrosive atmosphere (chlorine, ammonia, lime water)
Service life of the locking cylinder	According to DIN/EN
Service life of the battery	One year at 80 locking cycles per day (30,000 locking cycles)
Data transfer	Encrypted, 128 Bit/AES
Reading area	approx. 20 mm
CE-Certification	EN 300 220-1; EN 300 330-1; EN 301 489-1; EN 60950-1

Glossary

Flexprint	Connection cable between the reader module in the outside knob and the electronics module in the inside knob of the locking cylinder.
Reader module	The reader module is installed in the outside knob of the locking cylinder. It identifies locking media.
Master media	Media for programming the RF-Master-Set.
Emergency Opening	Opening of the electronic locking cylinder in case of a flat battery. For emergency opening you need an Emergency Power Supply.
Profile cylinder hole	Recess in the door lock for accommodating a profile cylinder.
PROGRAM-MASTER	Master medium that is authorized to program locking media.
Locking medium	Medium enabling you to lock and unlock an electronic locking cylinder.
SYSTEM-MASTER	A master medium that enables you to authorize PROGRAM-MASTERS for the system. Each system has one and only one SYSTEM-MASTER.
Transponder	A transponder is a wireless communication and control device that receives signals and automatically responds to them.

Overview of the signals

Normal operation with locking media

Meaning	Signal type	Signal
Authorized access	Beeper LED green	1 × short 1 × short
Unauthorized access attempt	Beeper LED red	4 × short 4 × short

Programming with Master media

Meaning	Signal type	Signal
Start of programming	Beeper LED green	1 × short On as long as medium is within range
End of programming	Beeper LED green	1 × long On as long as medium is within range
Acknowledgement of programming	Beeper LED green	1 × short On as long as medium is within range
Acknowledgement of deletion	Beeper LED green	2 × short, after 2 s. On as long as medium is within range
Unauthorized programming attempt	Beeper LED red	2 × short 2 × short
Error message in case of incorrect programming	Beeper LED red	1 × long 1 × long

Enabling and disabling the Office function		
Meaning	Signal type	Signal
Enabling with locking medium	Beeper LED green	1 × long 1 × short
Disabling with locking medium	Beeper LED green	1 × short 1 × long

Programming in radio network		
Meaning	Signal type	Signal
Enabling RF mode	Beeper LED green	1 × short, after leaving reading range On as long as medium is within range
Disabling RF mode	Beeper LED green	1 × long, after leaving reading range On as long as medium is within range
Acknowledgement of disabling of RF mode	Beeper	2 × short
Data transmission (Programming)	LED green	1 × very short
TRACE signal good	LED green	2 × very short
TRACE signal still usable	LED green	1 × very short
TRACE signal bad	LED red	1 × short

Programming with RF-Master-Set		
Meaning	Signal type	Signal
Enabling learning mode	Beeper	1 × short, after leaving reading range
	LED green	On as long as medium is within range
Disabling learning mode	Beeper	1 × long, after laving reading range
	LED green	On as long as medium is within range
Learning mode enabled	LED green	1 × short
Acknowledgement of learning mode	LED green	1 × long

Trouble and error messages		
Meaning	Signal type	Signal
Low Battery warning after unlocking attempt	Beeper	1 × long
	LED red	1 × long
Motor blocked when uncoupling	Beeper	8 × short
	LED red	8 × short
Motor blocked despite authorization	Beeper	10 × short
	LED red	10 × short

Notes on the manufacturer's warranty

As stated in our Standard Terms and Conditions, the manufacturer's warranty does not extend to the following types of damage:

- damage to outer mechanical parts and damage resulting from normal wear and tear
- damage as a consequence of external events or influence
- damage as a consequence of improper operation
- damage as a consequence of omitted maintenance work.
- damage as a consequence of excess voltage
- damage as a consequence of fire, water or smoke.

All technical data and features are subject to changes without notice.

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