

MTL 9291-II

Hybrid lock



Connection and installation instructions

Complete version (MAC)

Table of contents

Table of contents	2
1. About the document	3
1.1 Purpose of the document	3
1.2 Target groups	3
1.3 Safety during installation	3
1.4 Warranty	3
1.5 Important	3
1.6 Risk categories	4
1.7 Symbols	4
1.8 ESD-prevention measures	4
1.9 Handling of lithium batteries	4
2. Important information for installation	5
2.1 Checklist to ensure correct function of MTL 9291-II.	5
3. MTL 9291-II hybrid lock	6
3.1 Area of use	6
3.2 Fitting and using mechanical and digital accessories	6
3.3 Classification and Function	6
3.4 Performance	6
4. Technical data	7
4.1 Technical data	7
4.2 Reservation	7
4.3 Certifications	7
4.4 Recommended maintenance	7
5. Installation instruction	8
6. Dimensional drawing for MTL 9291-II	11
5. Disposal / dismantling	12
5.1 Decommissioning / dismantling	12
5.2 Avfallshantering	12
5.3 Battery	12
6. Packaging/return	13
6.1 Preparing a device to be returned	13
6.2 Complete devices	13
6.3 Electronic component assemblies	13
6.4 Returns	13
Notes	14

1. About the document

1.1 Purpose of the document

This document contains the principles for mounting and connecting the dormakaba MTL 929 1-II. The document is intended for the installer of the lock.

1.2 Target groups

Installer of the lock.

1.3 Safety during installation

Testing and commissioning of the product

Before the product is tested and put into operation in non-private doors, inform persons who may be monitoring systems that are affected by alarms that may be triggered during a test.



NOTE

Persons responsible for the installation of the product must have read and understood this manual, especially the product's area of use and purpose, before starting work.



WARNING

The safety function of this product is essential to comply with EN 14846:2008. Any changes or modifications to the product not described in this manual are not permitted.

1.4 Warranty

Guaranteed

The product has a 1 year warranty period unless otherwise agreed. If the product is not assembled in accordance with the manual, the warranty is void.

1.5 Important

Preparation before installation

Before installing the MTL 929 1-II in a door leaf, the function of the door environment should be checked. For the product to function optimally, the following should be checked:

- The door moves freely and does not touch the frame/threshold
- Check that the distance between the door leaf and the frame corresponds to the standard NS 3156 (3mm +/-1mm)
- The latch bolt should be able to move freely without touching the edges of the strike plate. If the latch bolt is obstructed, it may cause the lock to not function properly. This may cause the building to not be locked and secured properly.
- Check that the latchbolts engage the strike plate
- If necessary, adjust the strike plate tongue so that the latch bolt runs freely when the door is closed

Installation in fire or smoke doors

When installing in fire and/or smoke-proof doors, it must be checked that the door's certificate allows the use of electric locking.

Other check

Check that any sealing strips on the door environment do not hinder the function of the lock.

When installing in **double doors**, it must be checked that the lock maintains correct function on the door.

When fitting MTL 929 1-II to **self-locking double doors** with rebate it is important that these doors have door coordination fitted to ensure that the door leaves close in the correct order in accordance with EN 1158. Check that the lock does not prevent the door from operating correctly. This is especially important for fire- and/or smoke-resistant doors.

The lock is not designed for installation in swing doors.



NOTE!

This manual must be followed during installation. After completion of assembly and functional testing, the building owner shall be given a copy of the manual containing maintenance instructions.

1.6 Risk categories

Instructions containing information, instructions and prohibitions to prevent personal injury and property damage are marked with a special symbol. Pay attention to the hazard warnings! They are intended to help prevent and avoid damage.

1.7 Symbols

Depending on what causes the danger, warning symbols with the following meanings are used.




 **General danger!**



 **Explosion hazard!**



 **Risk to electronic components from electrostatic discharge!**

1.8 ESD-prevention measures



NOTE!

Risk for electronic components due to electrostatic discharge.

Incorrect handling of electronic PCBs or components can result in damage which will cause a complete breakdown or sporadic errors..

- General ESD prevention measures must be observed when installing or repairing the product.
- Wear an anti-static wrist strap when handling electronic components. Connect the end of the strap to a discharge box or a non-painted, earthed metal component. This way, static discharges are channelled away from your body safely and effectively.
- Handle a PCB along its edges only. Do not touch the PCB or connectors.
- Place dismantled components on an anti-static surface or in an anti-static shielded container.
- Avoid contact between PCBs and clothing. The wrist strap protects PCBs against an electrostatic discharge voltage from the body only. However, damage can also be caused by an electrostatic discharge voltage from clothing.
- Transport and ship dismantled modules in conductive anti-static bags only

1.9 Handling of lithium batteries



NOTE!

Lithium batteries can explode or detonate explosively.

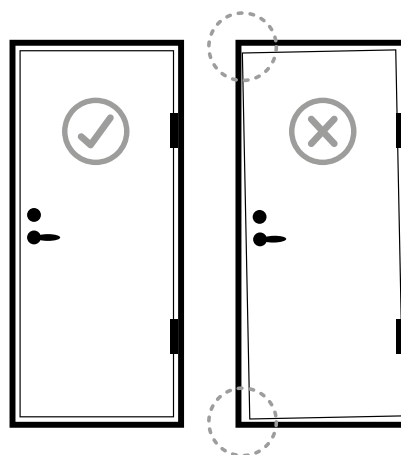
Improper handling of lithium batteries can lead to fires and explosions.

- Only replace lithium batteries with batteries of the same type.
- Do not open, drill through or squash lithium batteries.
- Do not burn lithium batteries or expose them to high temperatures.
- Do not short circuit lithium batteries.
- Do not recharge lithium batteries.

2. Important information for installation

2.1 Checklist to ensure correct function of MTL 9291-II.

Check the door environment BEFORE installation	OK	NOT OK
Make sure the door moves freely and have no conflict with the doorframe or the threshold?		Adjust if needed
Make sure the distance between the door leaf and the door frame corresponds to 3mm +/-1mm.		Adjust if needed
Check AFTER installation of the lock case	OK	NOT OK
Install the lock case into the door leaf, the mechanical strike into the frame, cylinders and lever handles. Make sure the arrows are pointing downwards before installing the cylinders.		Adjust the cylinder follower so that the arrows point downward on both sides of the lock
Check that the hook bolt moves freely in and out of the strike plate. Test by lifting the handle upwards and locking and unlocking with the key.		Check the position of the strike plate in relation to the lock case hook bolt and adjust the strike plate so that the hook bolt moves freely
Make sure the lever latch come out fully into the mechanical strike when closing the door. Try this by closing and open the door.		Check the position of the strike plate in relation to the lock case's lever latch and adjust the strike plate so that the latch springs out when the door is closed.
Make sure the door can be opened easily using the lever handle. If much force is needed when pressing down the lever handle there is a high pressure on the lever latch.		Reduce the list-pressure by adjusting the lip width. In some cases a different model a with less lip width is needed. Contact your local lock smith for support if necessary
If a door-closer is installed on the door, make sure it closes the door completely and that the lever latch comes out fully into the mechanical strike. Adjust the door closer if needed.		If necessary, adjust the door closer so that the door closes correctly. Contact your local lock smith for support if necessary.



3. MTL 9291-II hybrid lock

3.1 Area of use

The MTL 9291-II is a battery-powered hybrid lock that communicates via Bluetooth Low Energy (BLE). The lock is opened via smartphone (Android/Apple operating system). All electronics are integrated inside the lock case and no visible devices need to be mounted on the outside of the door leaf. The lock also works completely mechanically with cylinder and door handle.

3.2 Fitting and using mechanical and digital accessories

MTL 9291-II must be mounted with a door handle that has a double-acting return spring.

To achieve locking class 3 according to SSF 3522, MTL 9291-II must be locked with a key and equipped with double round security cylinders that are certified according to SSF 3522, class 3.

To achieve locking class 2A according to SSF 3522, locking must be done with a key or knob. The lock must be equipped with a round security cylinder on the outside and a round spring-loaded knob on the inside of the door.

3.3 Classification and Function

Classification SSF 3523

Classification according to SSF 3523 edition 1 Class S3 where the digital locking device is operated with the dKey key app, with or without the dormakaba Network Unit. If the dormakaba Smart Home Button and/or Keypad are installed, these must be deactivated.

Class S2 where the dormakaba Smart Home Button is installed on the inside and is activated.

Class S1 where the dormakaba Keypad is installed on the outside and is activated.

Classification SSF 3522

Locking is done with a key from both the inside and outside (SSF 3522, class 3), or with a spring-loaded knob on the inside of the door (SSF 3522, class 2A). See section 3.2 for requirements for cylinders and knobs.

Locking with handle

The inside or outside handle is lifted upwards to fold out the lock case's hook bolt. The door handles are disengaged in connection with this movement.

Unlocking

Unlocking can be done in two ways:

1. Via mobile phone (BLE) which activates the door handle. The latch is then pulled in using the handle movement.
2. The latch is pulled in using a key or knob. The door handle is activated and opening can take place.

Automatic unlocking

The lock is unlocked every time you come to your door after being away from your home. The function is based on so-called geofencing where the lock and the phone communicate when the user's phone passes into the geographical communication area. Communication starts around 200 meters from the door. Unlocking takes place around 5 meters from the door. If the user does not open the door the lock returns to the locked position. Automatic unlocking is activated in the key app.

Automatic locking

After exiting and closing the door, the MTL 9291-II locks automatically by disabling the handles. This function is activated when required from the administrator app.

3.4 Performance

MTL 9291-II is tested and has passed tests according to EN 14846:2008.

MTL9291-II meets the requirements as a component in a locking unit for fixed installation, class 3 in SSF 3522 edition 2.

Ref. report RISE O100402-1116932 rev1 EN 1634-1 (fire resistance). MTL 9291-II is tested in non-insulated single doors made of steel profiles.

Lock recess in SS 81 73 75, NS 3 155, SFS 5208

Dimensions: Lock post 225 mm × 22 mm. Lock depth: 77 mm.

Drill depth: 50 mm.

Material:

Steel alloys 75%, zinc alloy 18%, nylon 7%.

4. Technical data

4.1 Technical data

Description	Value
Operating voltage	3,6V lithium batteries
Battery Lifetime	About 2,000 passes

4.2 Reservation

dormakaba MTL 9291-II hybrid lock:

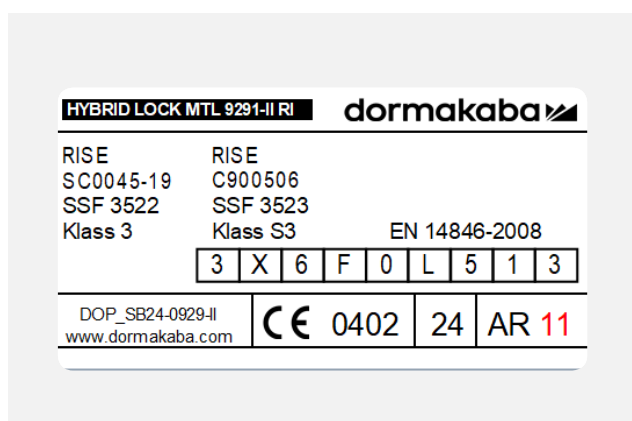
- The MTL 9291-II can be locked with a knob function. If a knob is used, the knob **MUST** have a spring-back function. This is to ensure that the cylinder-rods are always in the correct position. The cylinder-rods are in the correct position when the arrows point downwards on both sides.

4.3 Certifications

The locks are certified in accordance with:

- DoP SB24 09291-II, 0402-CPR-SC0073-19
- SSF 3522:2, class 3 / RISE SC0045-19
- (Burglar-resistant locking devices)
- FG, Approved Class 3
- SSF 3523, class S3 /RISE C900506 / Burglar-resistant product- Digital locking device
-

Fig. 2 SSF / EN certification label



EN14846:2008	MTL 9291-II	Mechanical locks
Category of use	3	Grade 3 – High Use. For use by the public where there is little incentive to exercise care and where there is a high chance of misuse, e.g. doors in public buildings.
Durability	X	Grade X – 200 000 test cycles, 120 N load on latch bolt.
Door mass and closing force	6	Grade 6 – doors above 200 kg or specified by the manufacturer, maximum closing force of 25 N.
Fire/smoke doors	F*	Grade F – Suitable for use on fire/smoke assemblies with a minimum classification time of 120 minutes.
Safety	0	Grade 0 – No safety requirement set.
Corrosion	L	Grade L – High resistance resistance to corrosion, temperature requirement from -25 to +70C.
Security and drill resistance	5	Grade 5 – High security with drill resistance.
Protective effect of the electrical functions.	1	Grade 1 – Status indicator according to 5.9 EN 14846:2008.
Protective effect of the electrical manipulation	3	Grade 3 – , see DIN EN 14846:2008-11 table 7.

*) In accordance to conditions as stated in the report:
RISE O100402-1116932rev1 EN 1634-1



NOTE!

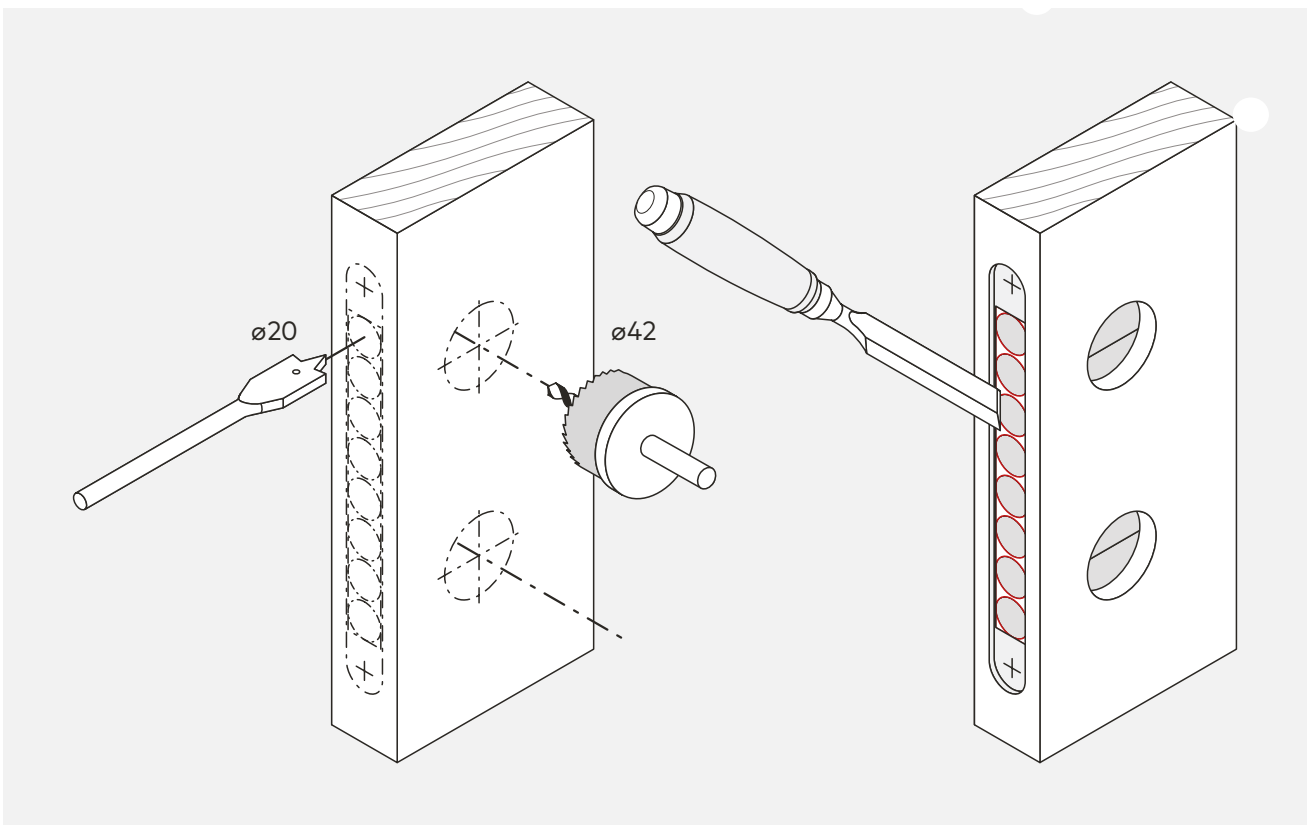
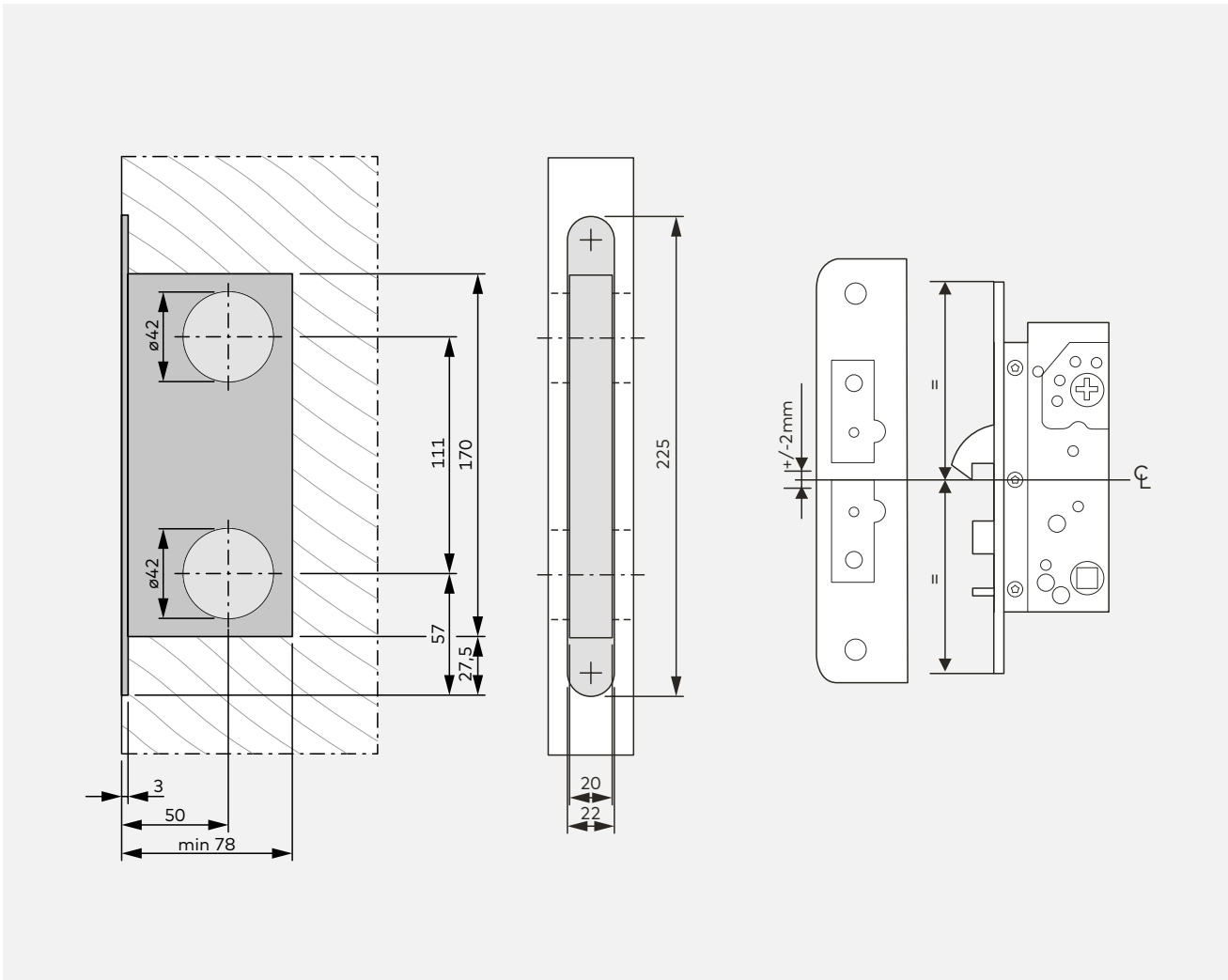
Classification in relation to the values specified in the certificate and the table above. MTL 9291-II can be mounted in wooden, steel, / aluminum or plastic doors. Use screws that are suitable for the door material. Also read the maintenance instructions specified in chapter 3.4 Recommended maintenance.



4.4 Recommended maintenance

Symbol	Description
	All maintenance should be performed twice a year, more if necessary.
	Clean the end plate and parts with a clean cotton cloth.
	Check and tighten if necessary.
	Apply a thin layer of grease – applies to latch bolts only.
	Check and tighten screws.
	Avoid overpainting lock case and parts.
	Maintenance and repairs should only be performed by qualified service personnel.

5. Installation instruction



How to change the lock case to fit fit your right or left-hung door

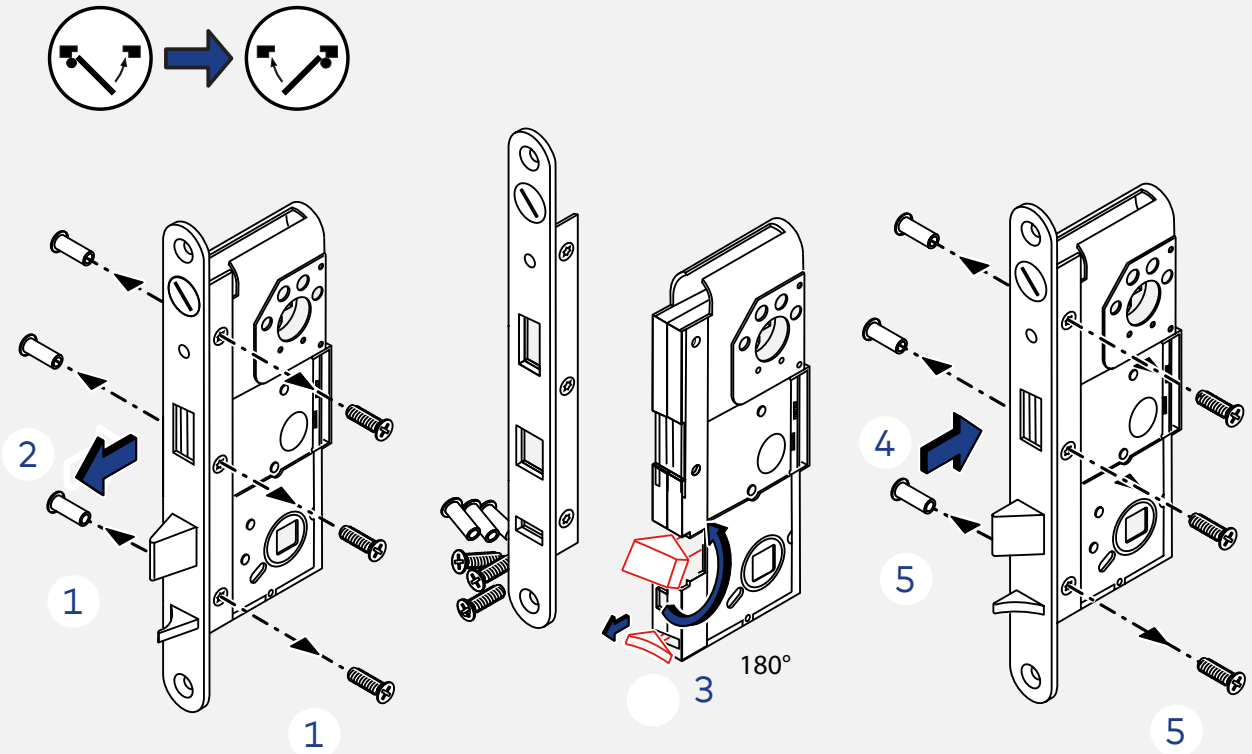
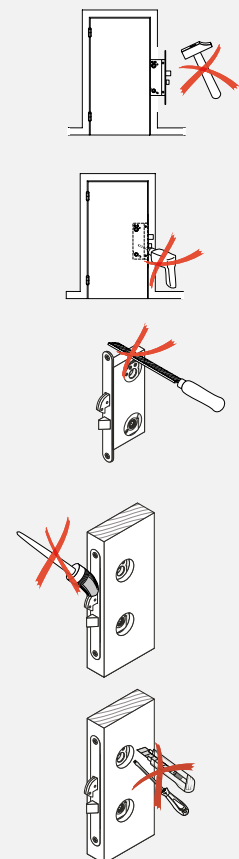
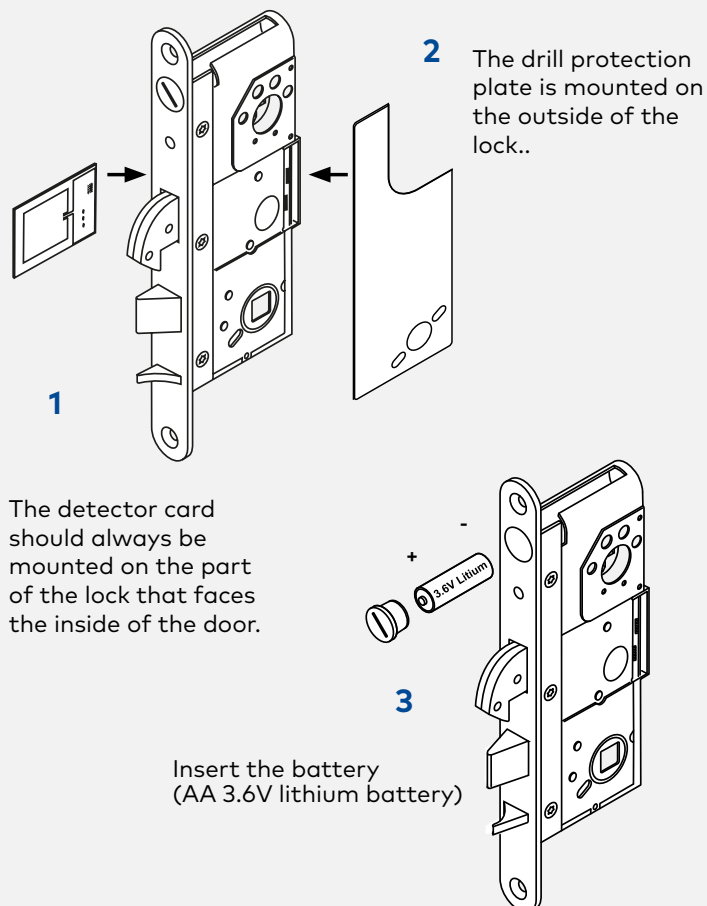
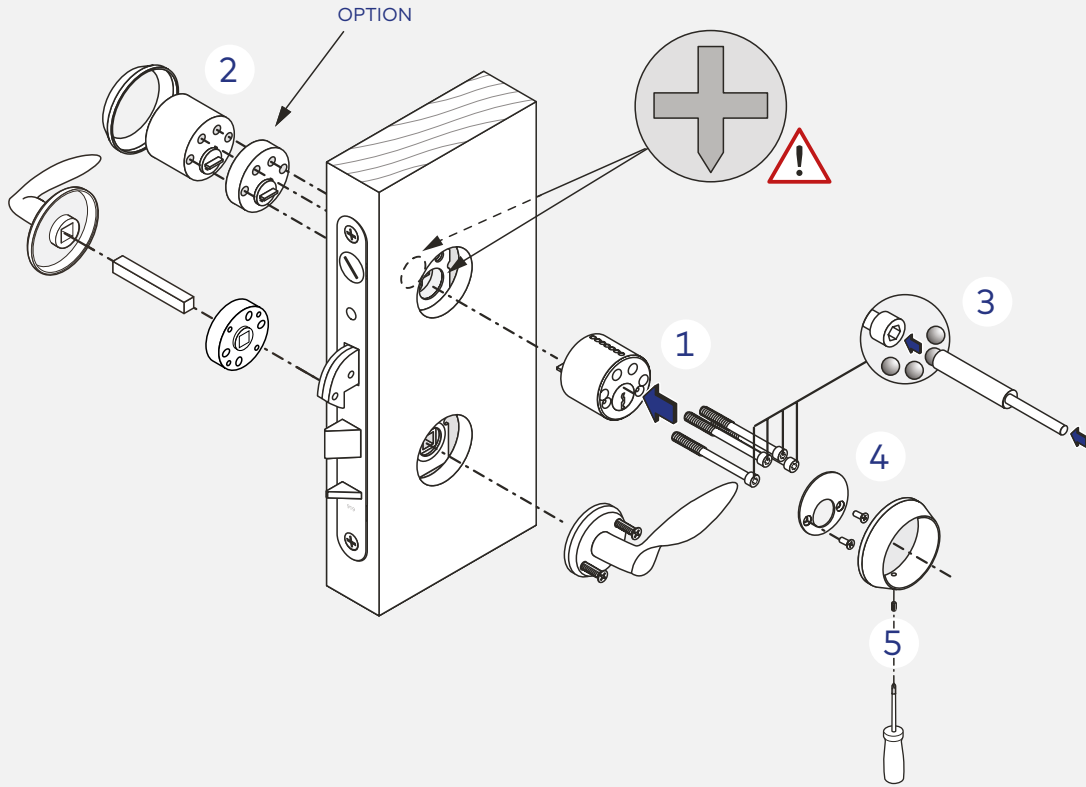


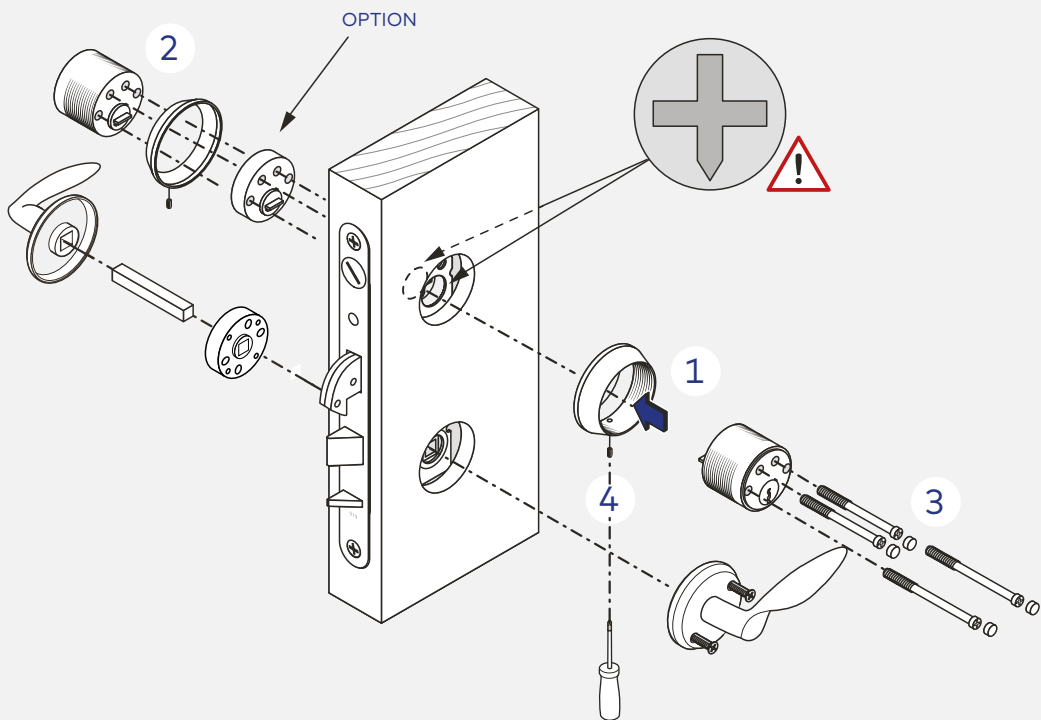
Figure 1-5 shows changing the lock case from a left- to right-hung door.



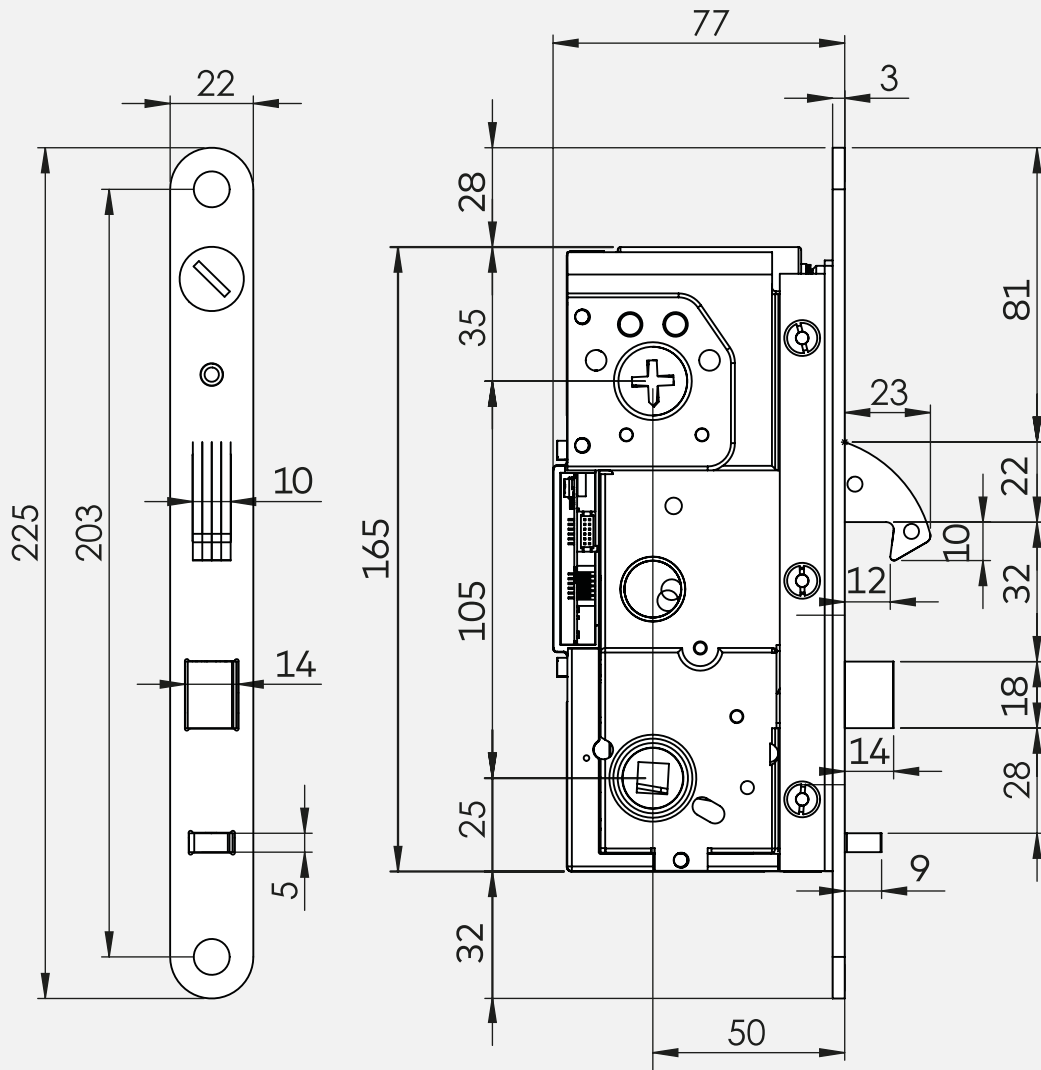
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NO



6. Dimensional drawing for MTL 9291-II



5. Disposal / dismantling

5.1 Decommissioning / dismantling

- Remove or delete the device in the system software.
- Dismantle the device, see Dismantling
- Carry out a reset.
- Remove the battery/batteries.

5.2 Avfallshantering



The device is indicated with the adjacent symbol which means prohibition of its disposal as household waste.



The device's integral components must be separated before they are taken for recycling or disposal. Old and used devices contain valuable recyclable materials which must be recycled. Toxic and hazardous components may cause long-term damage to the environment if you dispose of them incorrectly.

The facility operators are obliged to return electrical and electronic devices to their manufacturer, point of purchase or designated public collection points at the end of their service life.

Disposal in Germany:

dormakaba EAD GmbH will take responsibility for correct disposal of supplied goods once they are no longer in use as per statutory regulations (ElektroG in Germany). The owner of the used electrical appliance bears any costs incurred for transport to the manufacturer's plant.

Disposal in Switzerland:

The device is to be returned to an electrical appliance return point as per the Regulation on Returning, Taking Back and Disposing of Electrical and Electronic Equipment (VREG). In the EU, electrical appliances should be taken for disposal in accordance with the country's respective disposal and environmental guidelines..

Deletion of personal data

The owner/operator is responsible for deleting their personal data.



Dispose of packaging In an environmentally responsible fashion.

The packaging materials are recyclable. Do not dispose of packaging in the household waste; take it to a recycling point instead.

5.3 Battery

To avoid short circuits and the associated heating, lithium batteries must not be stored or transported unprotected. Suitable measures to prevent short circuits include the following:

- Place the lithium battery in its original packaging or a plastic bag.
- Tape the terminals of the lithium battery.



Batteries are marked with the symbol next to them to inform you that it is prohibited to throw them in the household waste. Batteries may contain substances that are harmful to the environment and people. Correct handling protects the environment and people from negative consequences.

The owner is legally obliged to return used batteries. Batteries can be returned free of charge to designated public collection points or to the point of sale. The details are regulated by the national legislation of the respective country.

6. Packaging/return

Improperly packed assemblies and devices may incur costs due to damage during transport. Please observe the following instructions when shipping dormakaba products. dormakaba is not liable for damage to products caused by inadequate packaging.

6.1 Preparing a device to be returned

- Before returning, carry out a reset (INI reset) on the device.
- The battery has been removed. Do not return the lithium battery.
Also see section Transport regulations for lithium batteries.

6.2 Complete devices

The original packaging is specially made for the device. It provides optimum protection against transport damage.



Always use the original packaging to return the device!

If this is not possible, you must provide packaging which will prevent any damage to the device.

- Use a sturdy, thick-walled transport case or a box. The transport case should be large enough to allow 8- 10 cm clearance between the unit and container wall.
- Wrap device in a suitable foil or place in a bag.
- Pad heavily around the device with foam padding or air bags, for example. The device must not be able to move around within the packaging.
- Use dust-free, environmentally friendly fill material.

6.3 Electronic component assemblies



Store, transport and ship ESD-sensitive electronic component assemblies such as PCBs and readers in packaging with suitable ESD protection. Electronic component assemblies must be packed at ESD-protected workstations. This should be carried out by persons who are familiar with and comply with general ESD protection regulations.

Electronic component assemblies must be returned in packaging with sufficient ESD protection to

- make warranty claims in the event of malfunctions of any type.
- Delivery of replacements for electronic PCBs and components in replacement procedure.

Electronic components shipped in packaging without adequate ESD protection will not be analysed or repaired to maintain a high quality standard; they will be taken directly to disposal instead.

6.4 Returns

Including all returns paperwork and labelling the package correctly enables us to process your case quickly. Please ensure that a delivery note is enclosed in each package. The delivery note should contain the following information:

- Number of devices or components in each package.
- Article numbers, serial numbers, designations, order number.
- Address of your company/contact person.
- Reason for return, e.g. repair exchange.
- Accurate description of fault.

Returns from countries outside the EU also require a customs invoice with an accurate customs value and customs tariff number.



Our Sustainability Commitment

We are committed to foster a sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations. Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impact through its entire life cycle, dormakaba provides Environmental Product Declarations (EPD), based on holistic life cycle assessments <https://www.dormakabagroup.com/en/sustainability>

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