

dormakaba c-lever pro

Options: Wireless, door monitoring, s-module,
Button, Door handle contact, TouchGo, Mobile
Access

Technical Manual

HAC Standard fixing - 06/2018

EN

dormakaba 

dormakaba Schweiz AG
Hofwisenstrasse 24
8153 Rümlang
Switzerland
T: +41 (0)44 818 93 11
www.dormakaba.com

dormakaba Schweiz AG
Mühlebühlstrasse 23
8620 Wetzikon
Switzerland
T: +41 (0)44 931 61 11
www.dormakaba.com

dormakaba EAD GmbH
Albertistrasse 3
78056 Villingen-Schwenningen
Germany
T: +49 7720 60 30
www.dormakaba.com
Registered in: Heiligenhaus

Copyright © dormakaba 2018
All rights reserved.

No part of this document may be reproduced or used in any form or by any means without prior written permission of dormakaba Schweiz AG.

All names and logos of third-party products and services are the property of their respective owners.

Subject to technical changes.

Table of contents

1	About this document	7
1.1	Validity	7
1.2	Target group	8
1.3	Contents and purpose	8
1.4	Availability of the documents	8
1.5	Supplementary documents	9
1.6	Abbreviations/definition of terms	10
1.7	Hazard categories	11
1.8	Notes	11
1.9	Symbols	11
2	Basic safety instructions	12
2.1	Designated use	12
2.2	Product changes	12
2.3	Assembly and installation	12
2.4	Service and maintenance	12
2.5	ESD prevention measures	13
2.6	Handling of lithium batteries	14
2.7	Escape doors, fire protection, mortise locks	14
3	Product description	15
3.1	Overview	15
3.2	Structure	17
3.3	Scope of delivery	18
3.4	Technical data	20
3.4.1	Dimensions	22
3.4.2	Conformity	23
4	Installation	24
4.1	Installation requirements	24
4.1.1	General	24
4.1.2	Door thickness	24
4.1.3	Mortise lock	24
4.2	Replace c-lever with c-lever pro	24
4.3	Spindle standoff	25
4.4	Drilling fixing holes	25
4.4.1	With drill jig / door side 1	26
4.4.2	With drill jig / door side 2	27
4.4.3	With drilling template / door side 1	28
4.4.4	With drilling template / door side 2	29
4.5	Installing the cylinder support	30
4.5.1	Removing the backplate, swivelling the cover out	30
4.5.2	Inserting the cylinder support	31
4.5.3	Positioning the cylinder support	32
4.5.4	Fitting the cover	32
4.6	Preparing the external fitting	34
4.7	Insert direction pin and spindle	34
4.8	Inserting and connecting the coupling unit	36
4.9	Installing the external fitting	38
4.9.1	Standard fixing	38
4.10	Determining screw length	39
4.11	Preparing the internal fitting	40
4.12	Installing the internal fitting	43
4.12.1	c-lever standard variant	43
4.13	Checking the installation	47

4.14	Dismantling	48
4.14.1	Disassembling the internal fitting	48
4.14.2	Disassembling the external fitting	50
5	Configuration	51
5.1	Adjusting BLE transmission power	51
6	Program/configure a component	52
6.1	Programming TouchGo products	52
6.2	Initial programming of MRD components	52
6.3	Master media	52
6.4	User media	53
6.5	Program structures	54
6.5.1	A/B structure	54
6.5.2	B structure	54
6.6	Programming with media	55
6.6.1	Define highest Master medium	55
6.6.2	Create A/B structure	56
6.6.3	Grant access permissions	57
6.6.4	Revoke individual access permissions	58
6.6.5	Delete Master Bs from the component	59
6.6.6	Revoke all access permission assigned by Master B	60
6.6.7	INI reset with Master media	60
7	Initialisation	61
8	Operation	62
8.1	Operating TouchGo products	62
8.2	Opening with user media	62
8.3	Opening with a mobile device	64
9	S-module	65
9.1	S-module functionality	66
9.2	Installation diagram (example without TouchGo)	67
9.3	Installation diagram (example with TouchGo)	68
9.4	Installation lines	69
9.5	Installing the S-module	69
10	Door monitoring	72
10.1	Connections	72
10.2	Install connection board	73
11	Maintenance	75
11.1	Maintenance table	75
11.2	Cleaning	75
12	Service	76
12.1	Serial number	76
12.2	Replacing batteries	76
12.3	Replacing the TouchGo media battery	78
12.4	Connecting the programmer	79
12.5	Configuration and traceback	80
12.6	Reset (INI reset)	80
12.6.1	INI reset with Master media	81
12.6.2	Reset with programmer 1460	82
12.6.3	Reset using tweezers	84
12.7	Firmware update	86
12.8	Emergency opening	87
12.8.1	Opening with an external power supply	87
12.9	Replacing the antenna	88

13	Troubleshooting	90
13.1	Error analysis	90
13.2	TouchGo applications error analysis	92
13.2.1	Operation error analysis	92
13.2.2	Programming error analysis	93
14	Disposal / dismantling	94
14.1	Decommissioning / dismantling	94
14.2	Disposal	94
15	Packaging/return	95
15.1	Preparing a device to be returned	95
15.2	Complete devices	95
15.3	Electronic component assemblies	95
15.4	Labelling	95

1 About this document

This section contains information for the proper use of this document.

1.1 Validity

This document describes the product:

Product designation:	dormakaba c-lever pro
Types:	262...
Variant:	Standard fixing

TouchGo option

Product designation:	dormakaba c-lever pro
Types:	262y-K6/MRD/E310/HAC 262y-K6/TGO/E110/HAC
Variant:	TouchGo

Mobile Access option

Product designation:	dormakaba c-lever pro
Types:	E340 E360 E361
Variant:	Mobile Access

S-module option

Product designation:	dormakaba c-lever pro
Types:	E M
Variant:	S-module

Wireless option

Product designation:	dormakaba c-lever pro
Types*:	E320 E360
Variant:	Wireless

*without door monitoring

Door monitoring option

Product designation:	dormakaba c-lever pro
Types:	E321 E361
Variant:	Door monitoring

Button option

Product designation:	dormakaba c-lever pro
Types:	T

Variant: Button

Door handle contact option

Product designation: dormakaba c-lever pro

Types: TD

Variant: Door handle contact

This document describes all product versions and all optional features and functions. Options are subject to a charge and therefore only available if purchased.

1.2 Target group

This quick start guide is intended for skilled persons only.

The descriptions are intended for skilled persons trained by the manufacturer. The descriptions are no replacement for product training.

For reasons of equipment safety, the installation, maintenance and service measures described in this documentation should only be carried out by skilled persons in accordance with EN 62368-1 (Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements).

Skilled person is the designation for people who have the appropriate technical training and experience in setting up the equipment. Skilled persons are expected to use their training and experience to identify any risks to themselves and others that may arise while carrying out these activities, and to minimise these risks as far as possible. It is the skilled person's responsibility to ensure that the conditions stated by the manufacturer and the applicable regulations and standards are complied with when carrying out these actions.

This documentation is also used to provide information for persons with the following tasks:

- Project planning and project implementation
- Commissioning the product within the network
- Connecting the product to user software by programming customer applications
- Customer-specific adjustments with product parametrisation

1.3 Contents and purpose

The contents of these instructions are limited to the installation, operation, maintenance and servicing of the product.

1.4 Availability of the documents

Supplementary documentation is available on the Kaba website. Technical manuals can be found in a secured area of the website.

- Access is only granted after a valid login.
- An account must be set up before logging in for the first time.

Opening login screen:

1. Open your internet browser and go to <http://www.kaba.com>.
2. Choose your language in the top right-hand corner of the screen.
3. Under 'Products', choose either the 'Access Management' or 'Workforce Management' product division.
4. In the top right-hand corner of the screen, click on the following symbol:



5. Enter your email address and password to log in or create a new account (see below).

⇒ The technical manuals can be found under 'Downloads'.

Creating an account:

1. Click 'Create account'.

2. Fill in the data fields and confirm your entries.

⇒ A confirmation link will be sent to your email address.

3. Click on the confirmation link in your email to activate your account.

1.5 Supplementary documents

- Programmer 1460 technical manual
- Documentation for the system software used
- evolo system description

Wireless option

- Wireless planning guideline

TouchGo option

- Operating manual for dormakaba TouchGo c-lever
- dormakaba TouchGo system description



Mobile Access option

- Mobile Access planning guidelines

1.6 Abbreviations/definition of terms

To make this document easier to read, the following short designations are used for the product designations, as well as the following symbols:

Short designation	Product designation
c-lever	c-lever pro
Product	c-lever pro
Device	c-lever pro
Actuator	c-lever pro
Programmer	Programmer 1460
S-module	S-module for c-lever pro
KEM	Kaba evolo Manager
MRD	Multi RFID device
HAC	Handle above cylinder
HBC	Handle below cylinder
NFC	Near Field Communication
BLE	Bluetooth Low Energy
Component	c-lever pro
Mobile device	Device on which the DOOR app is installed

Symbols	
	Acoustic signal
	Visual signal

1.7 Hazard categories

Instructions with information on what to do and not to do to prevent injury and material damage are denoted specially.

Please follow all hazard instructions. These are intended to help prevent accidents and prevent damage.

These instructions are divided into the following categories:



CAUTION

Low risk

Denotes a potentially dangerous situation that could lead to minor injury.



NOTICE

Important information on the correct use of the product.

Failure to comply with these instructions could lead to malfunctions. The product and/or objects in the local vicinity could be damaged.

1.8 Notes

Information is denoted by this symbol.



Tips on using the product are useful pieces of information. They help to make best use of the product and its functions.

1.9 Symbols

Symbols with the following meanings are used for hazards (depending on hazard source.)



General hazard



Hazard from electric shock



Risk of explosion



Risk to electronic components from electrostatic discharge

2 Basic safety instructions

This product has been built to state-of-the-art standards and in line with established safety regulations. However, hazards for persons and property may arise when handling the product.



Read and observe the following safety instructions before using the product.

2.1 Designated use

This product is intended for use as specified and explained in the Product description section only. Any other use is considered non-designated use. The manufacturer is not liable for any damage or injury due to non-designated use. The user/facility operator is the sole person to bear risks for non-designated use.

2.2 Product changes



NOTICE

No changes should be made to the product, unless in accordance with changes described in the instructions.

2.3 Assembly and installation

Check the device for visible damage caused by transport or wrong storage. Do not start up any damaged device!

Assembly and installation of the product may only be done by skilled personnel (see chapter 1 Target group).

When installing/inserting the product in end-use equipment all requirements of the mentioned test standards must be fulfilled.

The product should only be installed in locations which fulfil the environmental and technical conditions specified by the manufacturer.

The manufacturer is not liable for damage arising due to improper handling or incorrect installation.

2.4 Service and maintenance

Conversions and modifications to the product may only be done skilled personnel (see chapter 1 Target group). Any conversions and modifications performed by other persons will exempt us from any liability.

Opening the device will lead to exclusion of all liability and warranty.

This excludes replacing the batteries.

The elimination of faults and maintenance work may only be performed by skilled personnel (see chapter 1 Target group).

2.5 ESD prevention measures



NOTICE

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.
-

2.6 Handling of lithium batteries



NOTICE

Lithium batteries can explode or burst 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.
-

2.7 Escape doors, fire protection, mortise locks

- Make sure that the regulations for emergency exits and escape routes are observed.
- Make sure that local regulations are observed for fire door assemblies.
- Make sure that only standardised mortise locks are used.

3 Product description

This section provides an overview of the product and gives information on technical details.

3.1 Overview

c-lever pro is an electronic door fitting. The external fitting contains an antenna and a mechatronics unit (coupling unit). Following identification of an authorised medium, the door can be opened manually. The access authorisation is signalled visually but also acoustically if this option is required.

The device can be operated with one of the following options:

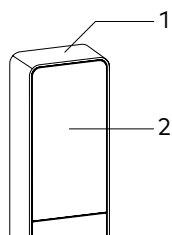
- Wireless module (wireless option)
- S-module with S-module functionality (S-module option)

c-lever pro with wireless module and activated wireless function:

the device communicates via wireless gateway with the host system.

The system software determines the supported functions.

See also the wireless planning guideline and instructions for the system software



- 1 Internal fitting
- 2 Plastic cover

S-module option

S-module functionality

The behaviour of the device can be changed by means of the contact connected to the input of the S-module. The contact overrides the authorizations and activates the behaviour defined in the system software.

External power supply

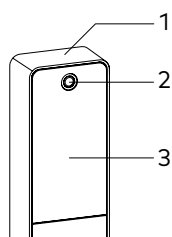
The S-module has a connection for an external power supply to supply the device.

See also Chapter S-module

TouchGo option

The TouchGo option allows you to unlock doors without having to hold a key or user medium in your hand. Touching the door handle by hand will enable the fitting to detect whether the individual is carrying an authorised user media. Following identification of an authorised medium, the door can be opened manually. The access authorisation is signalled visually but also acoustically if this option is required.

Button option



- 1 Internal fitting
- 2 Button
- 3 Plastic cover

Functions which require the button:

- Pass Mode
- Pass-Lock
- Escape return
- Closing the room from the inside with the button

See also the system description and planning guidelines.

Door handle contact option

The door handle contact is used to monitor the inside lever handle. The door handle contact is installed in the internal fitting.

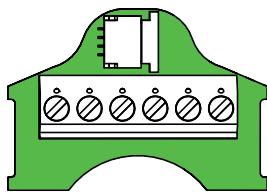
Functions which require the door handle contact:

- Escape return
- Door monitoring including door handle contact

See also the system description and planning guidelines.

Door monitoring option

Door monitoring is carried out via the connection board.



Connections to the connection board:

- Frame contact
- Deadbolt contact (mortise lock)
- Cylinder contact (mortise lock)
- Connection to the wireless module

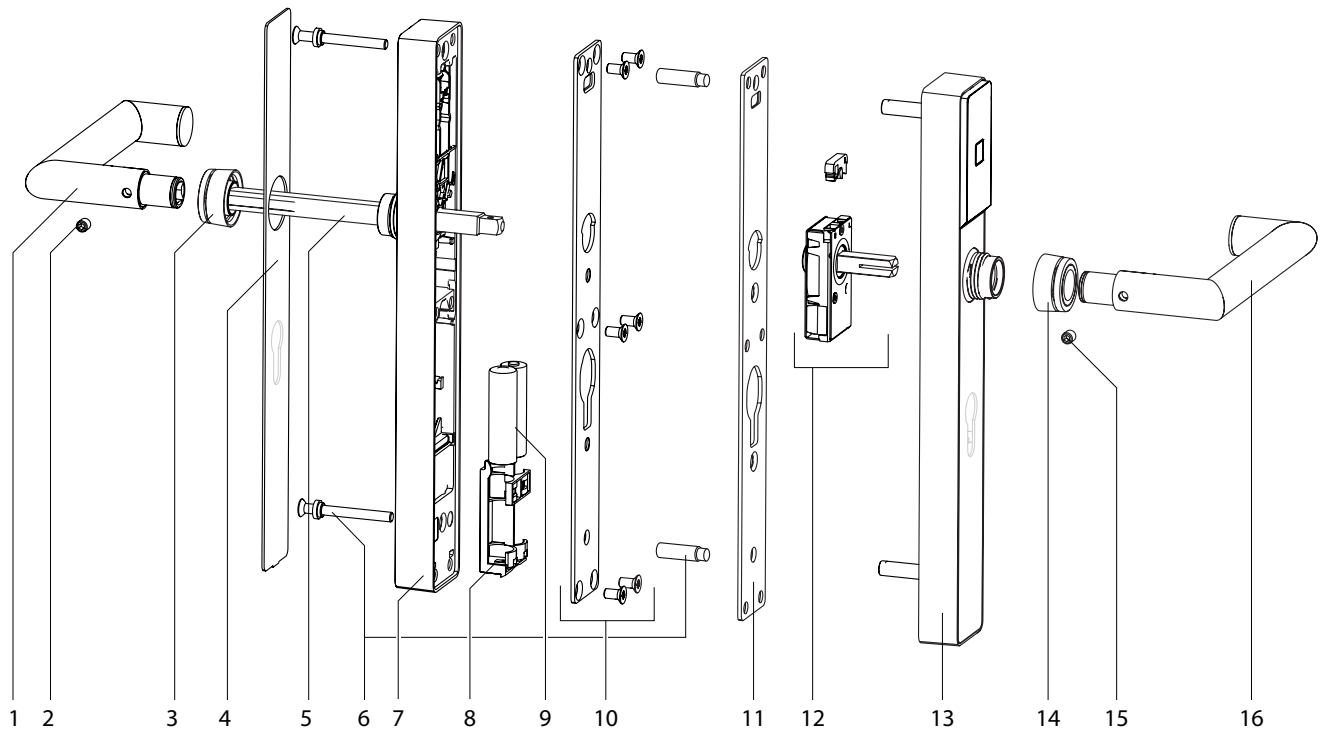
The system software determines the supported functions.



See Chapter

Mobile access applications

In mobile access applications, a mobile device is used to gain access. The lock/door can be opened manually with the access authorisation. Access authorisation is given both optically and acoustically.

3.2 Structure



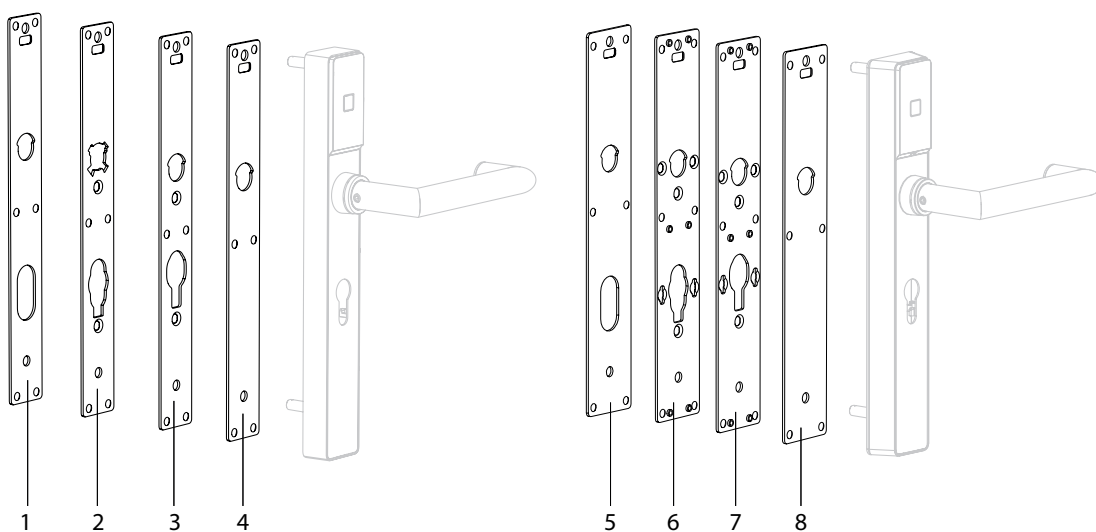
Item	Internal fitting.	Item	External fitting.
1–10	Internal fitting	11–16	External fitting
1	Internal lever handle	11	Backplate
2	Threaded pin	12	Coupling unit with direction pin
3	Union nut	13	Frame
4	Cover	14	Union nut
5	Spindle (square pin)	15	Threaded pin
6	M5 screws (2 pieces) with special washers (2 pieces) Elongations (2 pieces)	16	Outside lever handle
7	Frame		
8	Battery holder		
9	Batteries, AA lithium (2 pieces)		
10	Backplate with screws		
TouchGo option			
	 Plastic sleeve for spindle (Delivered assembled)		 Plastic sleeve for connection mandrel (Delivered assembled)

3.3 Scope of delivery

- 1 inside unit
- 1 external fitting
- 1 coupling unit
- 1 direction pin
- 1 spindle
- 1 inside lever handle
- 1 outside lever handle
- 1 antenna cable
- 2 batteries, AA lithium
- 1 drilling template
- Screws and elongations depending on variant
- Crimping tool (option)
- Adapter for programmer 1460-20 (option)

Overview of backplates

The backplates of the internal fitting are the same as the ones for the external fitting. "Narrow-wide variant": The backplates of the internal fitting and the external fitting are different.



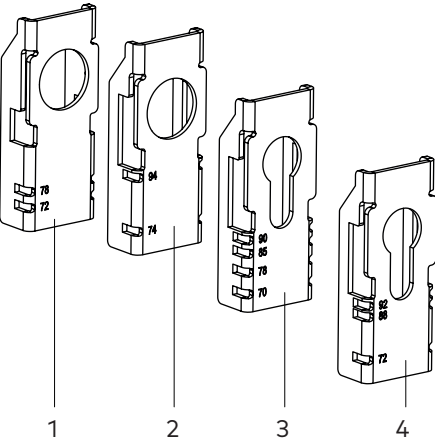
Item	Backplate designation (profile hole measurement in mm)
1	PZ 98 / SK 105
2*	PZ 85, 88, 90, 92 RZ 94 AU 90
3	PZ 70, 72, 78 RZ 74, 78
4	Blind
5	PZ 98, SK 105
6*	PZ 85, 88, 90, 92 RZ 94
7	PZ 70, 72R, 78 RZ74, 78
8	Blind
*	*Version described in this document

Key

Abbreviation	Meaning
PZ	17 mm Europrofile
RZ	22 mm Swiss round profile
SK	Scandinavian oval
AU	Australia oval
JP	Japanese round profile

This document describes the PZ version.

Overview of cylinder support
(Option)



Item	Cylinder support	
	Profile	Hole spacing, centre distance (mm)
1	RZ	72, 78
2	RZ	74, 94
2	PZ	70, 78, 85, 90
4*	PZ	72, 88, 92
*Version described in this document		

3.4 Technical data

Data transfer		
	RFID	
TouchGo c-lever E310 version:	RCID and RFID	
TouchGo c-lever E110 version:	RCID (no RFID)	
	Wireless option:	IEEE 802.15.4
Mobile Access option:	BLE and NFC	

S-module option	
External power supply	
Without TouchGo option	12–24 V AC or 12–24 V DC, ≥ 0.4 A
With TouchGo option	12–24 V AC, ≥ 0.4 A (Use FN2060-1 mains filter, manufacturer: Schaffner)



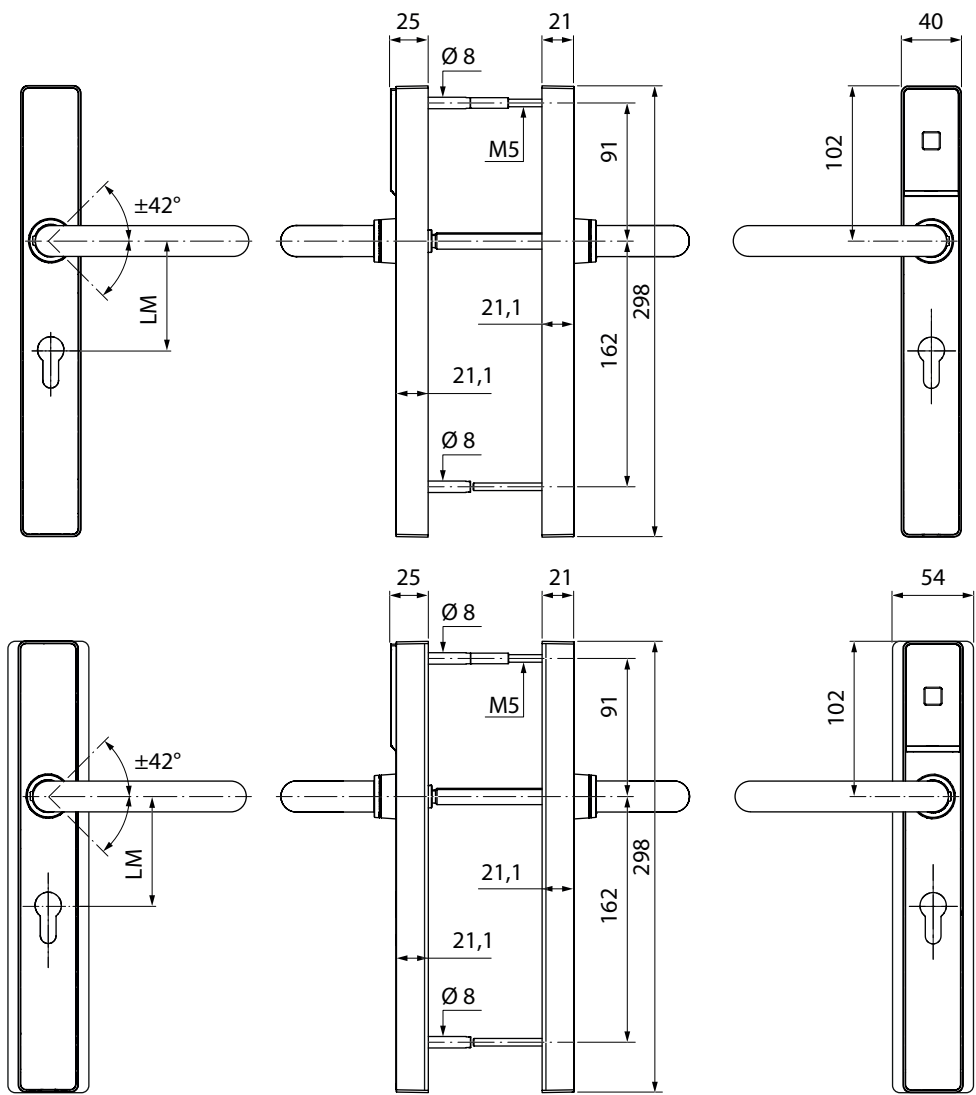
Only power supply units that fulfil the following requirements may be used for power supply: LPS (Limited Power Source) and SELV (Safety Extra Low Voltage) in accordance with IEC/EN/UL/CSA 60950-1 or ES1 and PS2 in accordance with IEC/EN/UL/CSA 62368-1.

Hardware		
Lever handle	Stainless steel	
Frame	Zinc	
Cover	Stainless steel	
Antenna cover	Synthetic material	
Power supply		
Batteries	1.5 V, AA lithium	
Ambient conditions ¹		
Protection type	External fitting	IP55
	Internal fitting	IP40
Temperature	External fitting	-25°C – +70°C
	Internal fitting	0 °C – +50 °C The temperature range can be reduced based on the specification of the batteries used.
Humidity	0%–95% rH, non-condensing	
Climate	Unsuitable for use in highly corrosive atmospheres (chlorine, ammonia).	
Rooms	Not to be used in potentially explosive environments.	
Media technology		
RFID	LEGIC	advant
		prime
	MIFARE	DESFire
		classic

TouchGo c-lever version:	RCID	
Standards		
Fire protection	DIN 18273 tested in accordance with EN 1634-1 EI ₂ 90-C	DO 20.31
EN 179	According to test certificate:	¹ 0432 - BPR - 0061 (Kaba); ¹ 0432 - BPR - 0003 (BKS); 0432 - BPR - 0005 (Dorma)
Protection class	EN 1906 class 0	
	¹ EN1906 class 2 for ES1 - TBD	
	¹ In accordance with DIN 18257	
	¹ WB2 in accordance with B5351	Austria
Usage class	EN1906 class 4	
Cycles		
Battery life at 20°C	approx. 150,000 cycles (configuration: whitelist without acoustic signal)	The configuration influences the battery life

¹ Certification not yet complete.

3.4.1 Dimensions



3.4.2 Conformity



This product conforms to the EU directives

2014/53/EU

Radio Equipment Directive

2011/65/EU

RoHS Directive



You can download the original declaration of conformity in PDF format at www.kaba.com/conformity.

4 Installation

This chapter describes the installation of the product.

4.1 Installation requirements

4.1.1 General

An accurate installation of all components is a basic requirement for a properly functioning device. The following installation instructions must be adhered to.

4.1.2 Door thickness

Requirements

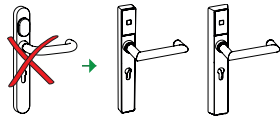
- Minimum door thickness: 38 mm
- Maximum door thickness: 100 mm

See also section Determining screw length.

4.1.3 Mortise lock

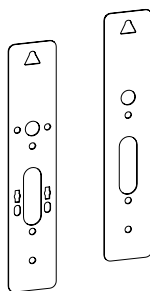
- Make sure that a mortise lock with key-operated latch function is used. Mortise locks with key-operated latch function enable mechanical opening via the locking cylinder.

4.2 Replace c-lever with c-lever pro



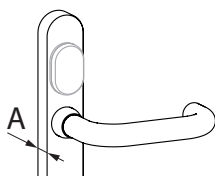
Replacement plate

- If the c-lever being replaced in the upper area leaves marks on the door, a replacement plate can be used. Thickness of the replacement plate: 1.5 mm



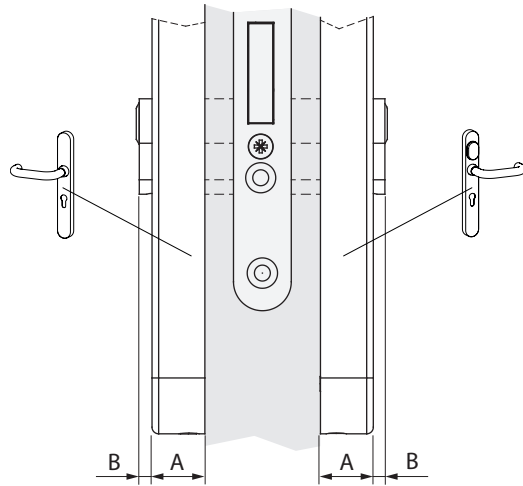
Check whether the existing locking cylinder can be used

- Measure dimension A on the c-lever being replaced (inner and outer side).



- A = 23.3 mm: The existing locking cylinder can be used.

- A = 18.3 mm: Measure cylinder standoff B on the c-lever being replaced and compare it with the minimum dimension in the table.



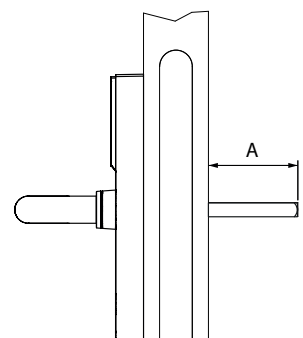
	c-lever pro	
	Without replacement plate	With replacement plate
Minimum cylinder standoff B:	2.7 mm*	4.2 mm*

- If the measured cylinder standoff B is less than the *minimum dimension of the inside or outside, the locking cylinder must be replaced.

4.3 Spindle standoff

- The door thickness, backplates and lever handle type must be taken into account when determining the length of the spindle.

Lever handle type	"A" spindle standoff mm
HA	46 – 70
HB	46 – 63
HC, HO, HQ	46 – 50
HD	46 – 71
HL	46 – 92
HM	46 – 68
HN	46 – 85
HP	46 – 72
KD	46 – 46
KD angled	46 – 56



4.4 Drilling fixing holes

(Only for standard fixing)

4.4.1 With drill jig / door side 1

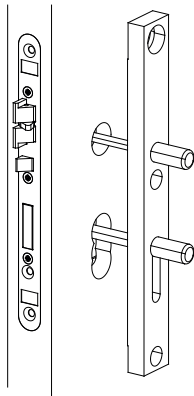


NOTICE

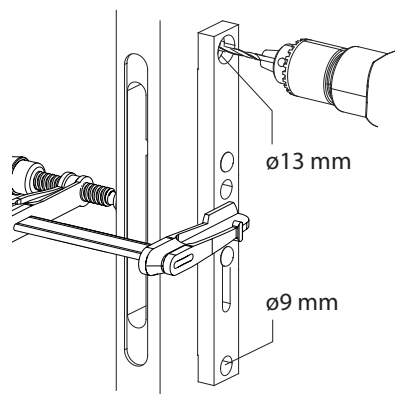
The integrated mortise lock may be damaged or destroyed.

To avoid damage, remove the lock from the mortise before drilling.

- ✓ Existing fitting is removed
 - ✓ Mortise lock is installed
1. Position the drill jig with guide pin for cylinder (without mount) on the door from the outside.



2. Insert the pin for the spindle through the lock hub.
3. Fasten the drill jig to the door with a C-clamp.
 - ⇒ The drill jig is connected securely to the door leaf.
4. Remove the guide pin for the cylinder and the pin for the spindle.
5. Remove the mortise lock.
6. **Note: Do not drill through the door.**
Drill the fastening hole Ø13 mm up to the lock mortise.



7. Drill the fastening hole Ø9 mm up to the lock mortise.
8. Remove the drill jig and C-clamp.
9. Clean the lock mortise.
10. Insert the mortise lock.

4.4.2 With drill jig / door side 2



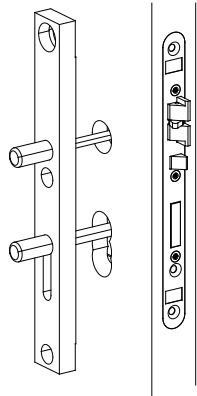
NOTICE

The integrated mortise lock may be damaged or destroyed.

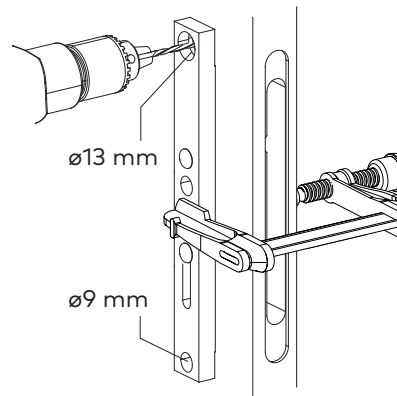
To avoid damage, remove the lock from the mortise before drilling.

✓ Mortise lock installed

1. Position the drill jig with guide pin for cylinder on the door.



2. Insert the pin for the spindle through the lock hub.
3. Fasten the drill jig to the door with a C-clamp.
 - ⇒ The drill jig is connected securely to the door leaf.
4. Remove the guide pin for the cylinder and the pin for the spindle.
5. Remove the mortise lock.
6. Drill the fastening hole $\varnothing 13$ mm up to the lock mortise.



7. Drill the fastening hole $\varnothing 9$ mm up to the lock mortise.
8. Remove the drill jig and C-clamp.
9. Clean the lock mortise.
10. Insert the mortise lock.

4.4.3 With drilling template / door side 1

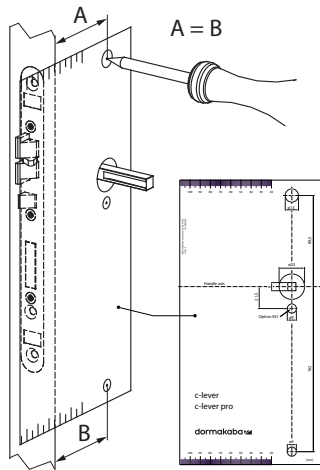


NOTICE

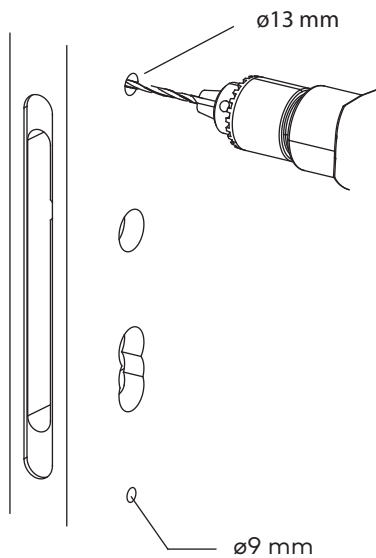
The integrated mortise lock may be damaged or destroyed.

To avoid damage, remove the lock from the mortise before drilling.

- ✓ Existing fitting removed
- ✓ Mortise lock installed



1. Place the spindle through the lock hub.
2. Position the drilling template over the spindle and align it parallel to the forend.
3. Mark the drill holes.
 - ⇒ Drill holes for the fastening holes are marked on the door leaf.
4. Remove the mortise lock.
5. **Note: Do not drill through the door.**
Drill the fastening hole Ø13 mm up to the lock mortise.



6. Drill the fastening hole Ø9 mm up to the lock mortise.
7. Clean the lock mortise.
8. Insert the mortise lock.

4.4.4 With drilling template / door side 2

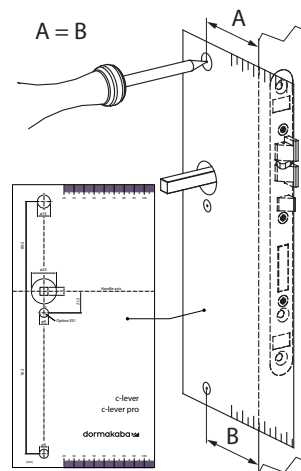


NOTICE

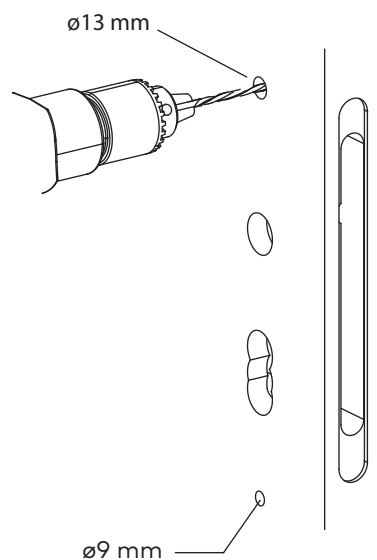
The integrated mortise lock may be damaged or destroyed.

To avoid damage, remove the lock from the mortise before drilling.

- ✓ Existing fitting removed
- ✓ Mortise lock installed



1. Place the spindle through the lock hub.
2. Position the drilling template over the spindle and align it parallel to the forend.
3. Mark the drill holes.
 - ⇒ Drill holes for the fastening holes are marked on the door leaf.
4. Remove the mortise lock.
5. Drill the fastening hole $\varnothing 13$ mm up to the lock mortise.



6. Drill the fastening hole $\varnothing 9$ mm up to the lock mortise.
7. Clean the lock mortise.
8. Insert the mortise lock.
 - ⇒ The fastening holes for the fitting are drilled on both sides of the door.

4.5 Installing the cylinder support

(Option)

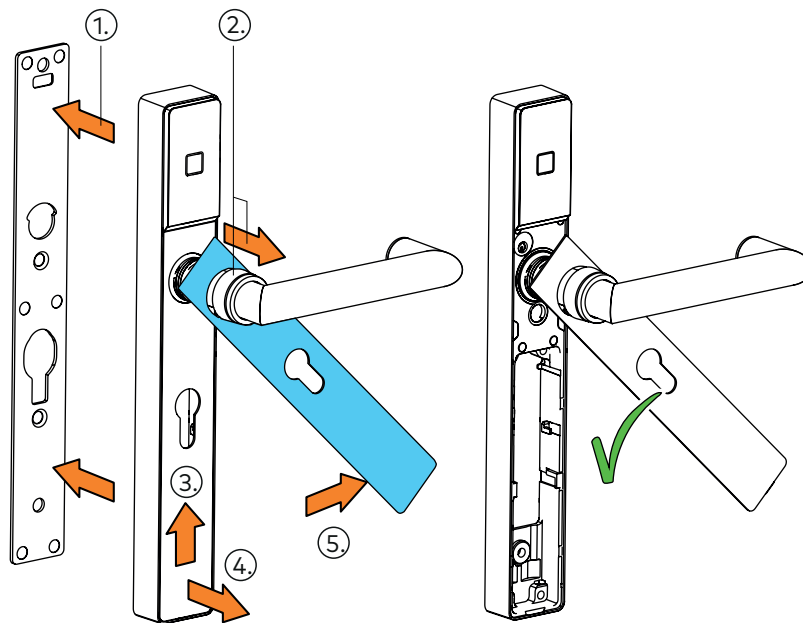
The hole spacing and the cylinder profile determine the cylinder support to be used. See Product description.

Requirements

- The external fitting is not installed.
- The multitool is available.
- The cylinder support is present.

4.5.1 Removing the backplate, swivelling the cover out

- Remove the backplate of the external fitting (1.).



NOTICE

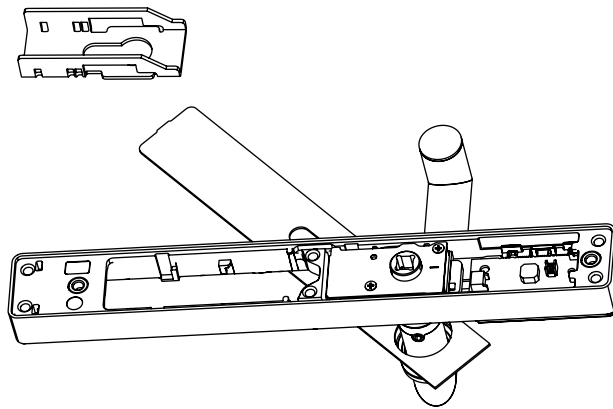
Damage to the union nut

When loosening the union nut and pushing it aside, make sure that it does not touch the threaded pin.

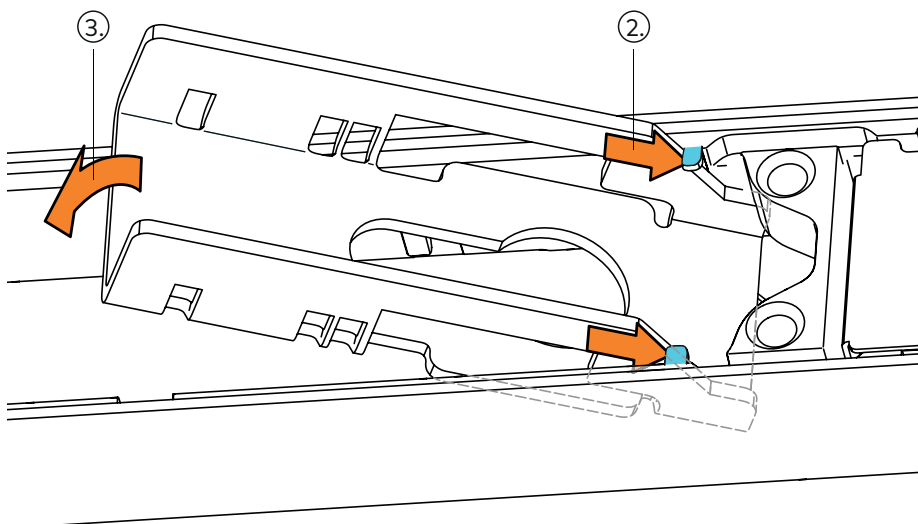
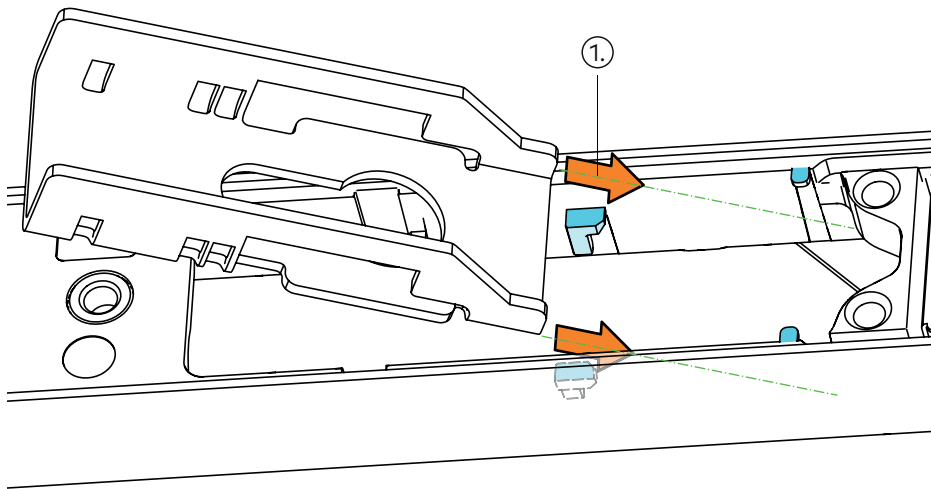
- Using the multitool, fully loosen the union nut of the internal fitting.
- Slide the union nut in the direction of the lever handle (2.).
- Make sure that the cover of the antenna is not scratched by the subsequent actions.
- Push the cover at the bottom out of the groove (3.), pull it forwards slightly (4.) and swivel it out (5.).

4.5.2 Inserting the cylinder support

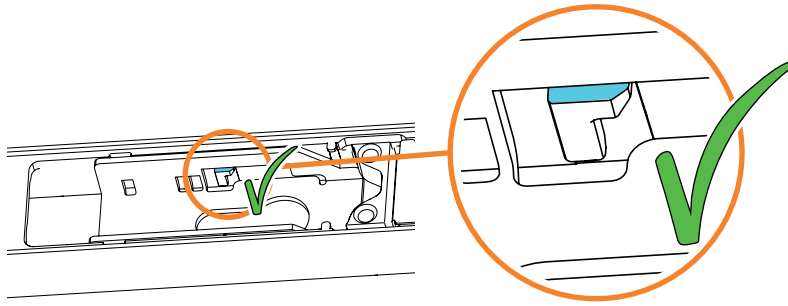
- Place the external fitting on a base.



- Position the cylinder support in the frame as shown (1. - 2.).

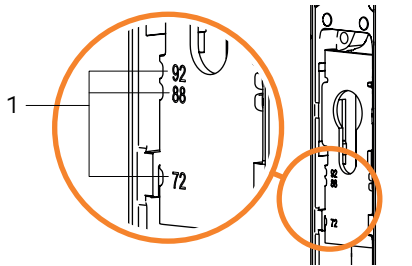


- Swivel the cylinder support into the frame (3.).



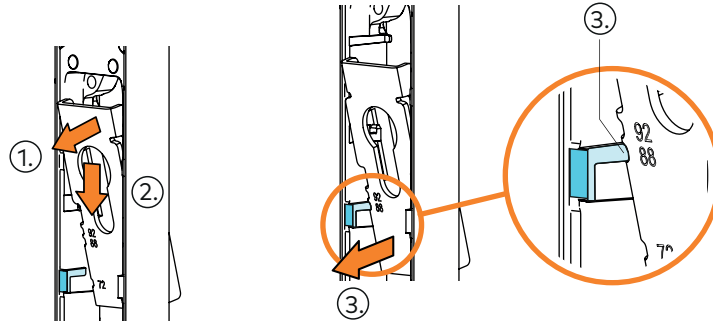
4.5.3 Positioning the cylinder support

The cylinder support can be used for various hole spacings. The desired hole spacing is set with the aid of the engraved hole spacing figures (1).

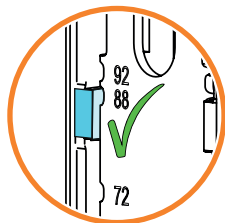


Procedure

- With one hand, hold the internal fitting and the cylinder support and rotate them so that the marked hole spacings are visible.
- Lift the cylinder support slightly (1.), move it (2.) and insert it into the lug (blue) at the desired position (3.).



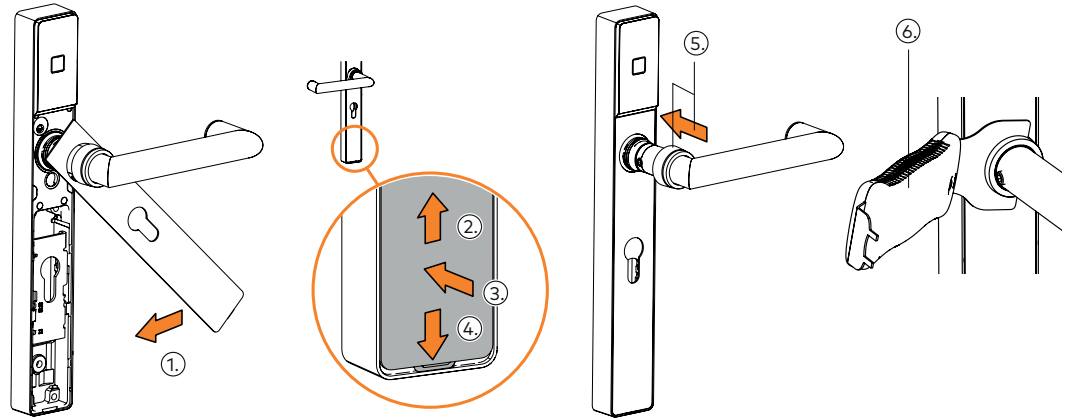
Example for a hole spacing of 88 mm:



4.5.4 Fitting the cover

- Make sure that the cover of the antenna is not scratched by the subsequent actions.
- Align the cover (1.).

- Move the cover as shown (2.), press it against the frame (3.) and at the same time insert it into the groove (4.).



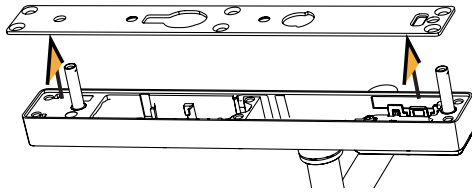
NOTICE

Damage to the union nut

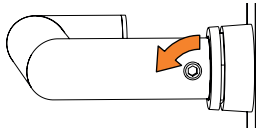
When moving and tightening the union nut, make sure that it does not touch the threaded pin.

- Slide the union nut in the direction of the frame.
- Tighten the union nut using the multitool.

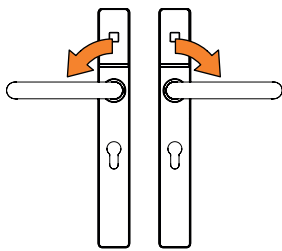
4.6 Preparing the external fitting



1. Remove the backplate.
2. Loosen the pin screw on the lever handle.

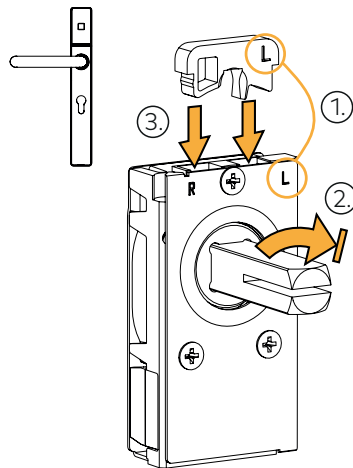


3. Align the lever handle.



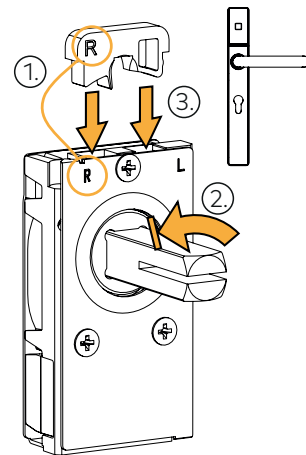
4.7 Insert direction pin and spindle

Variant 'Outside lever handle turns left'

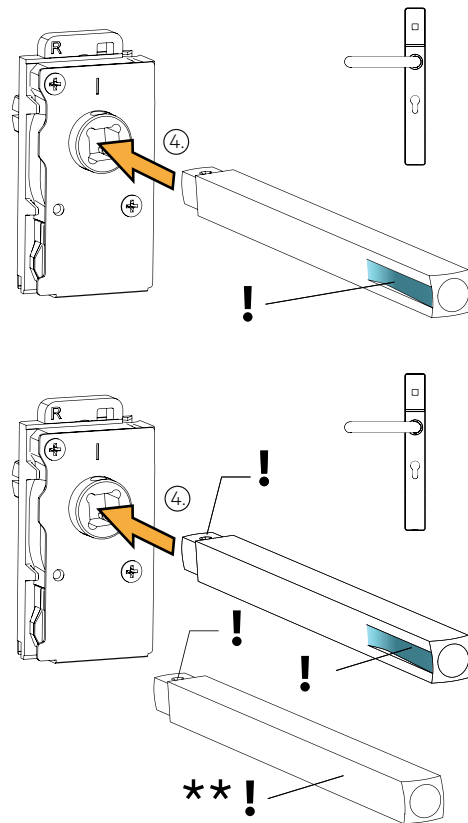


1. Align the direction pin as per the figure.
2. Turn the spindle to the **right** as far as it will go and hold in this position.
3. Insert the direction pin.
4. Align the spindle according to the lever handle direction and insert it into the coupling unit.

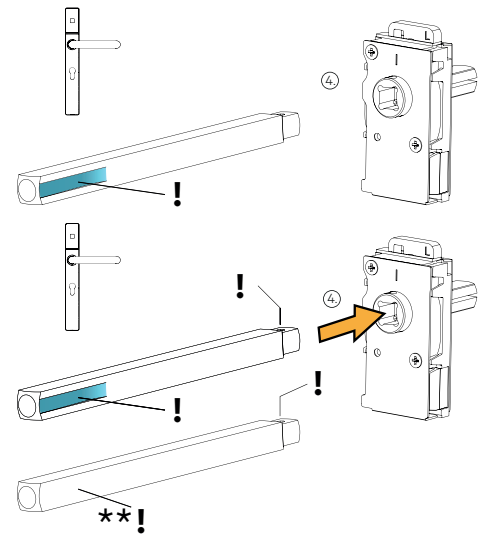
Variant 'Outside lever handle turns right'



1. Align the direction pin as per the figure.
2. Turn the spindle to the **left** as far as it will go and hold in this position.
3. Insert the direction pin.
4. Align the spindle according to the lever handle direction and insert it into the coupling unit.



5. Screw the spindle in place with the threaded pin.



5. Screw the spindle in place with the threaded pin.

** TouchGo option: Ensure that there is no groove present on the side of the spindle marked with **.

4.8 Inserting and connecting the coupling unit



NOTICE

There is a risk of crushing or shearing injuries from cables as a result of improper installation or routing.

Ensure that the cables are routed in such a way that there is no risk of crushing or shearing injuries.

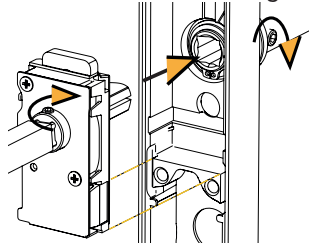


NOTICE

Danger of damage to electronic components from electrostatic discharge.

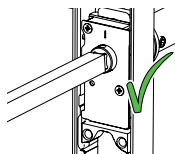
If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.
- Guide the spindle into the square of the outside lever handle and insert the coupling unit into the external fitting.

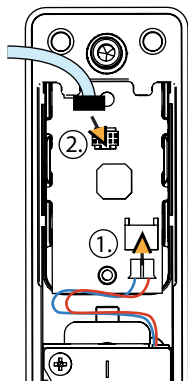


TouchGo: Maximum torque: 1.0 Nm

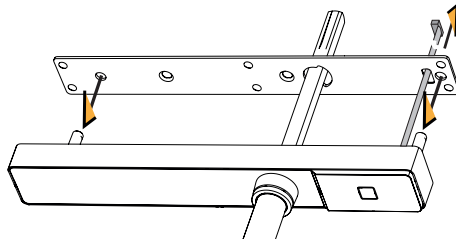
- Press the coupling unit lightly against the lever handle and at the same time screw the threaded pin of the outside lever handle into place.
The coupling unit is installed and secured in the external fitting.



- Insert the coupling unit plug into the white socket (1.).



- Insert the antenna cable into the black socket (2.).



- Guide the antenna cable through the backplate.
- Attach the backplate.

4.9 Installing the external fitting



NOTICE

There is a risk of crushing or shearing injuries from cables as a result of improper installation or routing.

Ensure that the cables are routed in such a way that there is no risk of crushing or shearing injuries.



NOTICE

Danger of damage to electronic components from electrostatic discharge.

If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.

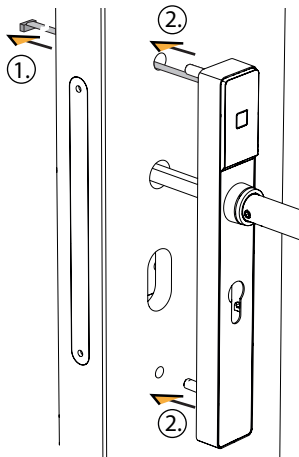
4.9.1 Standard fixing

HAC version (lever handle above the cylinder)

Requirements

- The existing fitting is removed
- The drill holes are present
- The mortise lock is installed
- If present, the locking cylinder is inserted into the mortise lock and the forend locking stud is screwed in, but has not yet been fully tightened

Procedure




- Guide the antenna cable through the fixing hole in the door (1.).
- Place the external fitting on the outside of the door (2.).
-> The external fitting is inserted into the door but not yet secured.

4.10 Determining screw length

The internal and external fittings are screwed together.
If necessary, the screws are extended with elongations.

- Determine the screw length and the number of elongations using the table.

Clamping length* (mm)		Screw length M5 x	Number of elongations 
from	to		
38	54	40 mm	-
54	64	50 mm	-
64	72	60 mm	-
72	80	40 mm	1
80	90	50 mm	1
90	100	60 mm	1
*Clamping length = door thickness + thickness of the replacement plate(s)			

4.11 Preparing the internal fitting

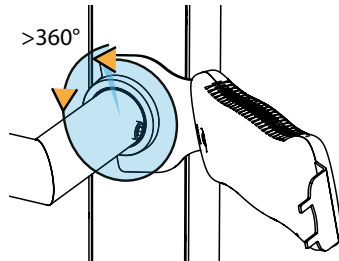


NOTICE

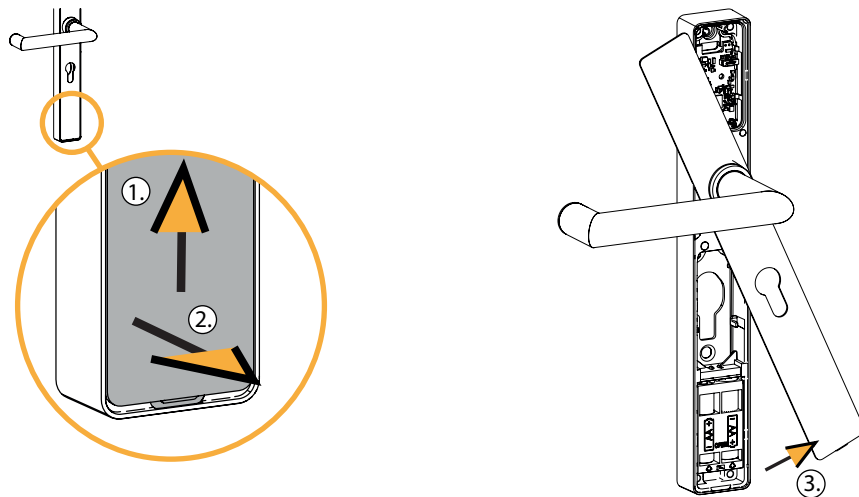
Damage to the union nut

When loosening the union nut, make sure it does not touch the threaded pin.

- Using the multitool, loosen the union nut from the internal fitting ($>360^\circ$).

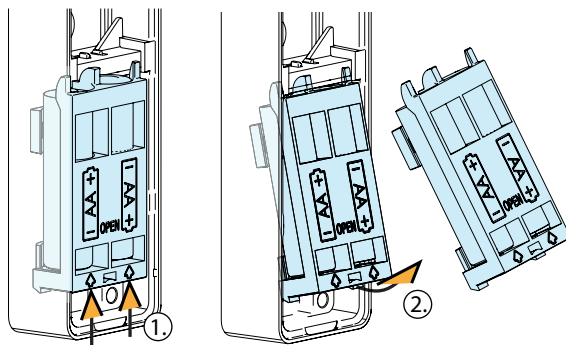


- With locking cylinder: If necessary, loosen the forend locking stud.
- Push the cover out of the groove (1), pull it forwards slightly (2) and turn (3).



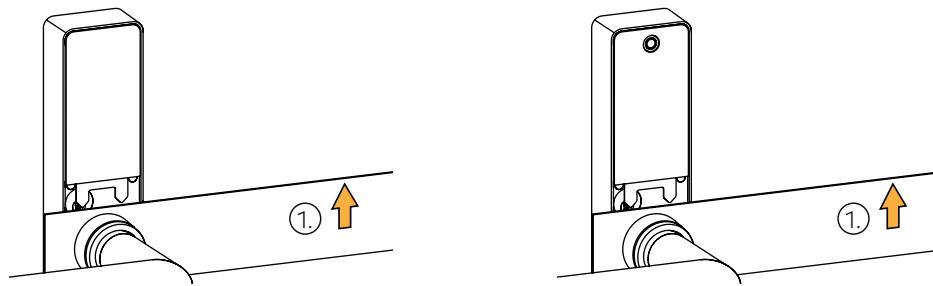
If the c-lever pro is already programmed, the clock settings are lost approx. 45 seconds after the battery is removed.

- Push the battery holder in the direction shown (1.) and at the same time swivel it forwards (2.).

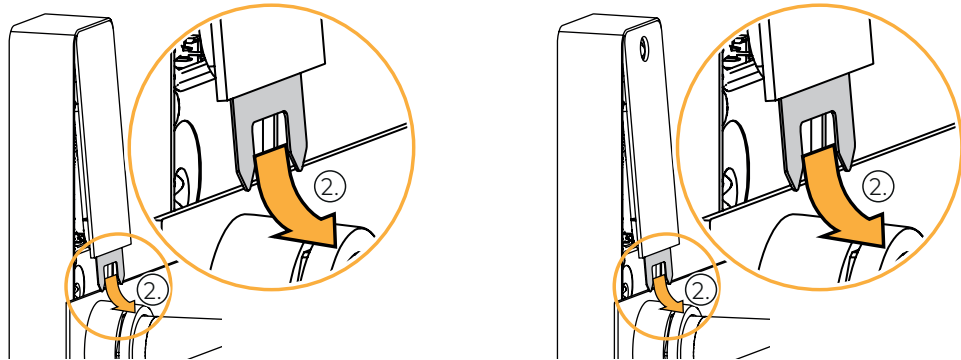


Wireless/button option:

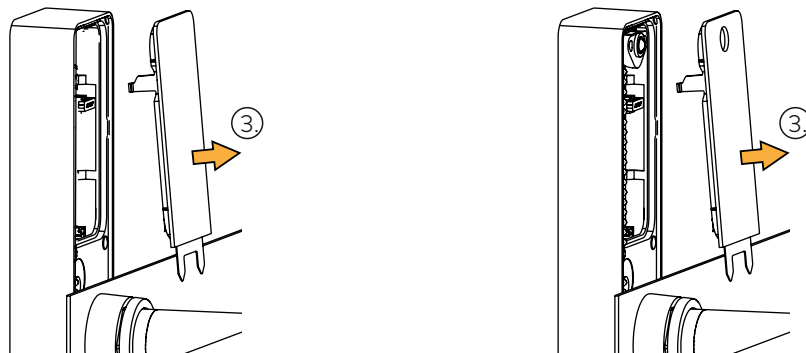
- Turn the cover (1.)



- Pull the plastic cover in the direction of the arrows towards the lever handle (2.)

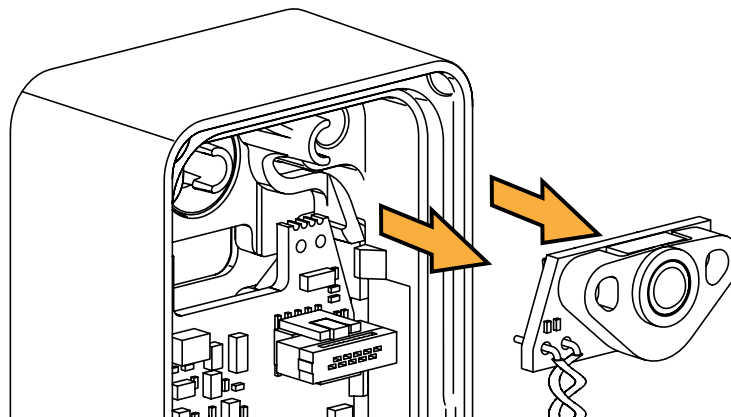


- Lift the plastic cover off (3.)

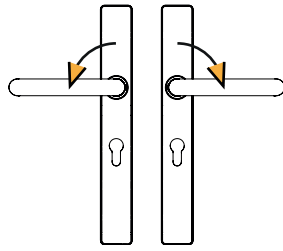


Button option:

- Photograph the parts to be removed and the connected cables.
- Remove the button.



- Align the lever handle.



4.12 Installing the internal fitting



NOTICE

Danger of damage to electronic components from electrostatic discharge.

If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.



NOTICE

There is a risk of crushing or shearing injuries from cables as a result of improper installation or routing.

Ensure that the cables are routed in such a way that there is no risk of crushing or shearing injuries.

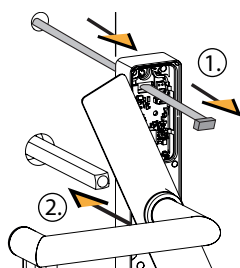
4.12.1 c-lever standard variant

Requirements

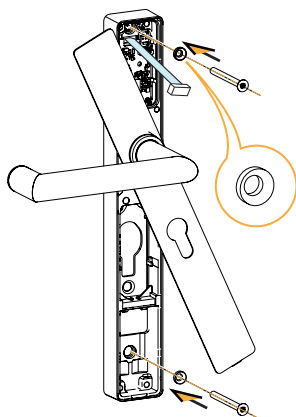
- The drill holes are present
- S-module option: The S-module is installed. See Chapter S-module > Installing the S-module.
- Door monitoring option: The connection board is installed. See Chapter Door monitoring > Installing the connection board.
- The external fitting has been placed on the door
- The antenna cable has been routed to the inside of the door
- The mortise lock is installed
- With locking cylinder: The locking cylinder is inserted into the mortise lock and the forend locking stud is screwed in but has not yet been fully tightened.

Procedure

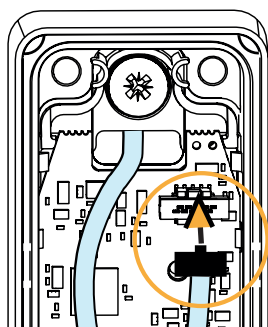
- Guide the antenna cable through the internal fitting (1).



- Place the internal fitting onto the spindle (and the locking cylinder) (2).
- Place the special washers onto the screws.

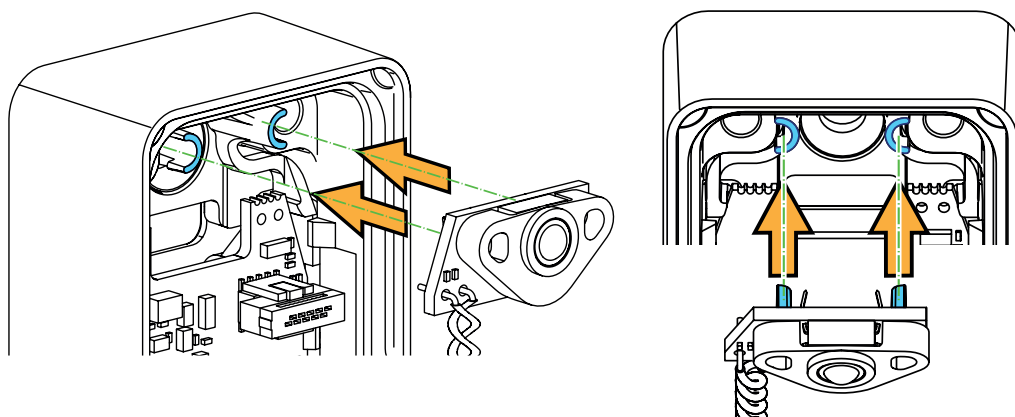


- Align the external fitting and screw it in place (maximum torque: 2.5 ± 0.5 Nm).
- Insert the antenna cable.



Button option:

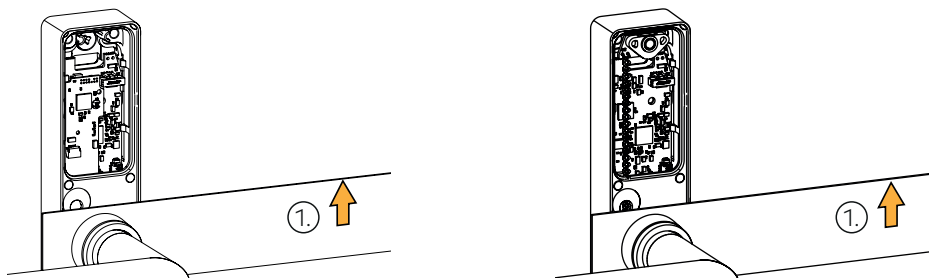
- Install the button.



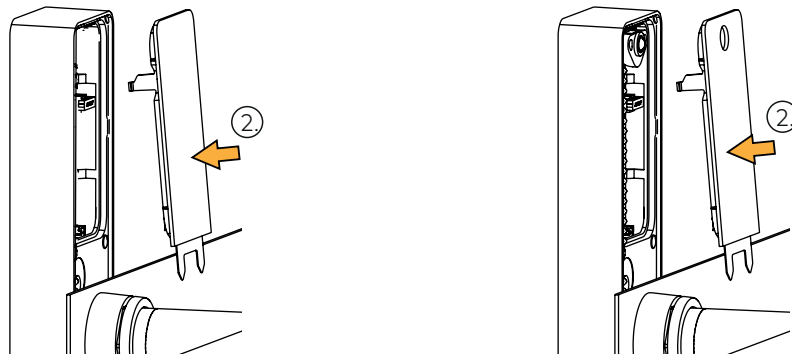
- Lay the cables in the positions shown in the photograph.

Wireless/button option: Inserting the plastic cover

- Turn the cover (1.)

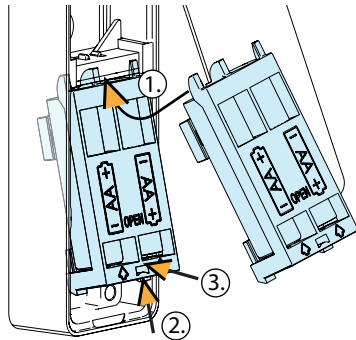


- Insert the plastic cover (2.) into the frame.



Inserting the battery holder

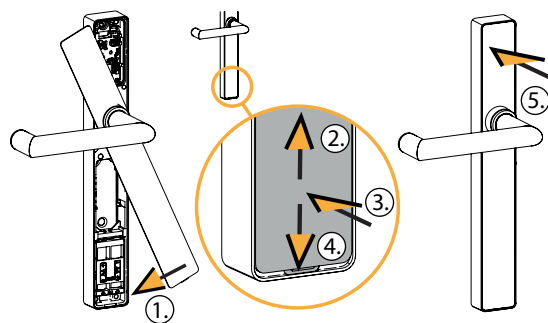
- Insert the battery holder (1), push it towards the lever handle (2) and at the same time swivel it into the frame (3).



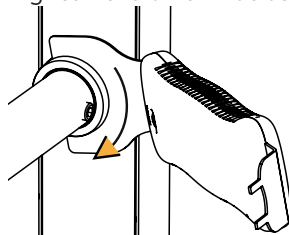
- If present: Remove the contact protection film.

Installing the cover

- Align the cover (1).
- Move the cover in the sequence shown (2–3) and insert it into the groove (4).
-> The cover protrudes on the side opposite the groove.
- Press the protruding cover against the frame (5) and hold down.

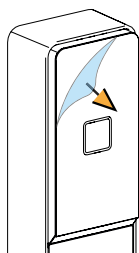


- Tighten the union nut using the multitool.



- Let go of the cover.
- Tighten the threaded pin on the lever handle. TouchGo option: Maximum torque: 1.0 Nm
- Tighten the forend locking stud.

- Carry out a function check; see Operation [▶ 8](#).
- Remove the protective film on the external fitting.



4.13 Checking the installation

Carry out the following checks after the installation and after service and maintenance activities:

- Make sure that the device and the mortise lock have been correctly installed mechanically.
- Make sure that the device and the mortise lock are working properly.
- After programming: Carry out a function check, see Operation [▶ 8](#)].

4.14 Dismantling

4.14.1 Disassembling the internal fitting

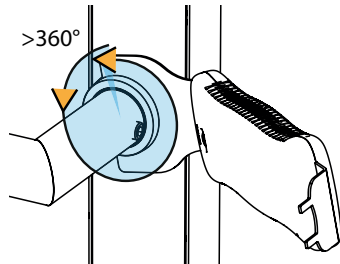


NOTICE

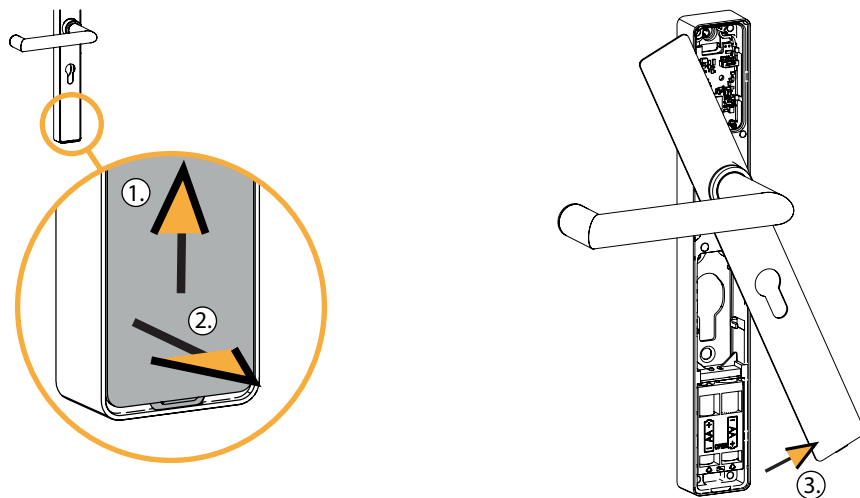
Damage to the union nut

When loosening the union nut, make sure it does not touch the threaded pin.

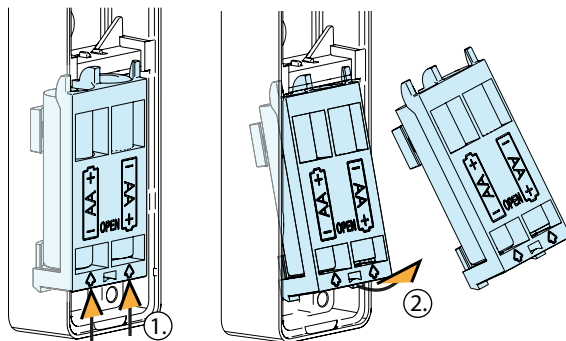
- Using the multitool, loosen the union nut from the internal fitting ($>360^\circ$).



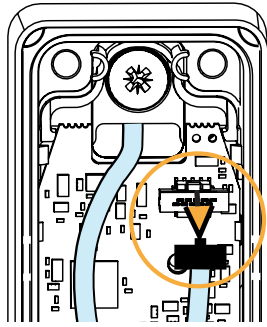
- With locking cylinder: If necessary, loosen the forend locking stud.
- Push the cover out of the groove (1), pull it forwards slightly (2) and turn (3).



- Push the battery holder in the direction shown (1.) and at the same time swivel it forwards (2.).



- Unplug the antenna cable.

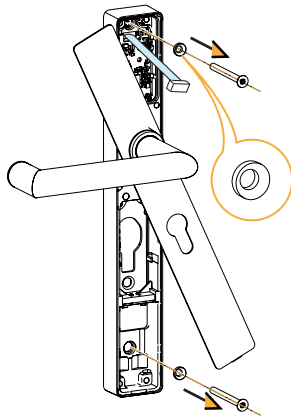


NOTICE

Improper disassembly may lead to a risk of pinching or shearing of cables.

Remove the cables in such a way that there is no risk of pinching or shearing.

- Loosen the screws and remove them along with the special washers.
- Remove the internal fitting from the spindle (and locking cylinder).
The internal fitting is dismantled.



4.14.2 Disassembling the external fitting

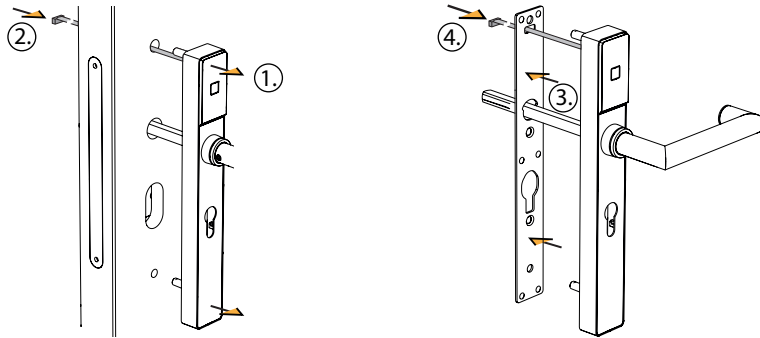


NOTICE

There is a risk of crushing or shearing injuries from cables as a result of improper installation or routing.

Ensure that the cables are routed in such a way that there is no risk of crushing or shearing injuries.

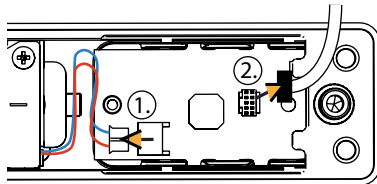
- Remove the external fitting from the door (1) and at the same time guide the antenna cable through the fixing hole in the door (2).



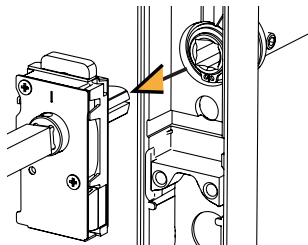
- Remove the backplate (3).
- Pull the antenna cable out of the backplate (4).

Remove coupling

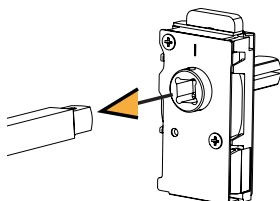
- Pull the coupling unit plug out of the white socket (1).



- Remove the antenna cable from the black socket (2).
- Loosen the threaded pin in the outside lever handle.



- Remove the coupling unit from the external fitting.



- Loosen the threaded pin and remove the spindle.

5 Configuration

5.1 Adjusting BLE transmission power

- Devices without wireless connection:
Adjust the BLE transmission power in the host system and transfer this to the device using the programmer.
- Wireless devices:
Adjust the BLE transmission power in the host system and transfer this to the device via the wireless gateway.

See also Mobile Access planning guideline

6 Program/configure a component

By programming/configuring the component, access permissions and other permissions are assigned.

Methods for programming and configuring the component

- Using the system software, see
 - System description
 - Documentation of the system software used
 - Programmer 1460 technical manual
 - Planning guidelines for wireless
- Wireless components require wireless commissioning prior to initial use. See wireless documentation

Methods for programming the component

- Using Master and user media, see section "Programming with media".

6.1 Programming TouchGo products

Programming TouchGo products with RCID

Products with RCID	Firmware	Transmission technology
c-lever proTouchGo	E310	RCID and RFID
c-lever proTouchGo	E110	RCID

See: dormakaba c-lever TouchGo operating instructions

Programming TouchGo products with RFID

Products with RFID	Firmware	Transmission technology
c-lever proTouchGo	E310	RCID and RFID

See next Chapter.

6.2 Initial programming of MRD components

Multi RFID (MRD) components are set to a defined technology by an initial presentation of Master LEGIC or MIFARE media. Once presented, the component will be set to the permission types LEGIC (LEA) or MIFARE (MID).

Note: After an INI reset the technology must be set again.

6.3 Master media

The components are programmed with Master A media and Master B media. Master Bs are organised under a Master A. The Master media have no access permissions.



6.4 User media

All user media are organised under a Master B.



NOTICE

Unauthorised access with lost medium

Remove lost medium from components:

- Revoke all access permissions with the Master (remove from the whitelist), see section "Revoke all access permissions assigned by Master B."
 - Grant the still-valid user permissions (add to whitelist), see section "Grant access permissions."
 - Repeat the process on all components to which the lost medium has access.
-

6.5 Program structures

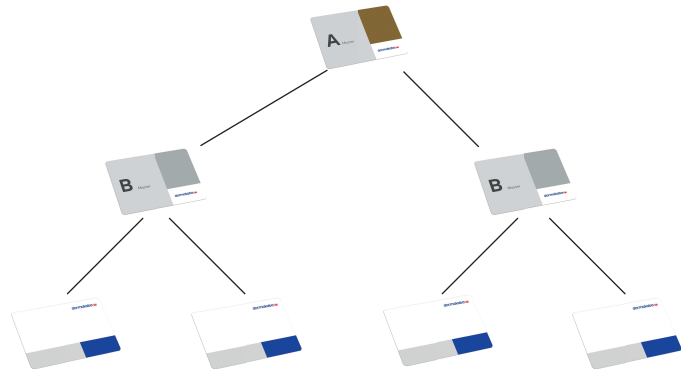
Organisation of the components in an A/B structure or a B structure.

6.5.1 A/B structure

Master A

Master B

User media



Master A:

- Create at most 200 Master Bs
- No programming of user media
- No programming of access permissions
- For additional applications, see the following section

Master B:

- Assignment and revocation of access permissions

User media:

- At most 4,000 user media
- The distribution of the users to different Master Bs is arbitrary

Example of 1 component of a system

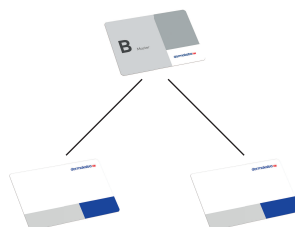
- Master B1: 50 users
- Master B2: 3,950 users

Total = 4,000: Maximum number of users has been reached.

6.5.2 B structure

Master B

User media



Master B:

- Assignment and revocation of access permissions
- For additional applications, see the following section

User media:

- At most 4,000 user media
- Distribution of the users to multiple Master Bs is **not** possible.

6.6 Programming with media



Holding up a Master medium (approx. 1 s) activates programming mode.

Leaving programming mode:
Automatic, 20 s after the last medium was held up (timeout) or
by holding up the Master medium again (approx. 1 s).

6.6.1 Define highest Master medium

- The highest Master medium is the highest medium of a component.
- Each component must be assigned 1 highest Master medium.
- Each component can only be assigned 1 highest Master medium.
- The first Master medium that is held up to a component will be registered as the highest Master medium.

A/B structure

- In an A/B structure, the highest Master medium must be a Master A.
- A Master A can grant permissions to Master Bs. See section "Create A/B structure."
- A Master A can revoke permissions from Master Bs. See section "Delete Master Bs from the component"
- An INI reset can be initiated with a Master A, see section "INI reset with Master media"


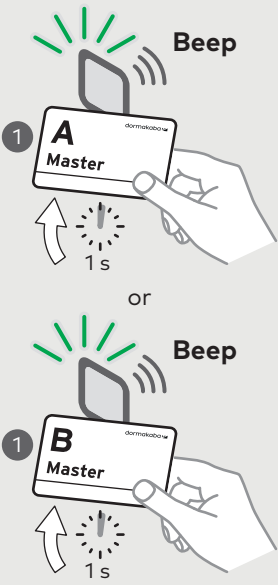
B structure

- In a B structure, the highest Master medium must be a Master B.
- An INI reset can be initiated with a Master B, see section "INI reset with Master media"

Prerequisites

- The component has factory settings assigned, see INI reset.

Procedure

		
	<p>Hold Master medium (A or B) up to the antenna for approx. 1 second.</p> <p>-> Glows green. -> 1 short signal sounds. -> Green goes out. -> The upstream Master medium has been registered as the highest Master medium.</p>	<p>1x short</p>

6.6.2 Create A/B structure

After holding up the Master A, the component receives the following temporary permission:


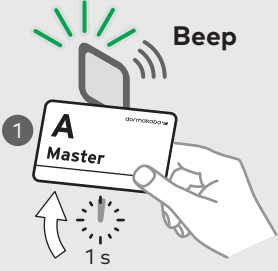


- Grant the Master B held up the permission to assign access permissions to user media.

After holding up the Master A again, the temporary permission for the component is revoked.

Prerequisites

- The Master A held up is the highest medium of the component.
See section "Define highest Master medium"

Procedure

		
	<p>Hold Master A up to the antenna for approx. 1 second.</p> <ul style="list-style-type: none"> -> Glows green. -> 1 short signal sounds. -> Green goes out. 	1x short
	<p>If no medium is held up for 20 seconds, the process is automatically terminated:</p> <ul style="list-style-type: none"> -> The changes have been applied and 1 long signal sounds. 	
	<p>Hold Master B up to the antenna for approx. 1 second.</p> <ul style="list-style-type: none"> -> Glows green. -> 1 short signal sounds. -> Green goes out. -> Master B has the permission to assign access permissions to user media. -> The A/B structure has been created. 	1x short
	If needed, hold up other Master Bs.	
	<p>Hold Master A up to the antenna for approx. 1 second.</p> <ul style="list-style-type: none"> -> Glows green. -> 1 long signal sounds. -> Green goes out. 	1x long

6.6.3 Grant access permissions

After holding up the Master B, the component receives the following temporary permission:



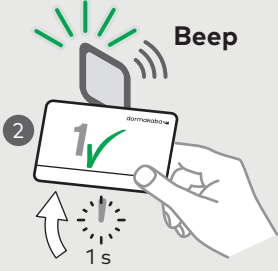
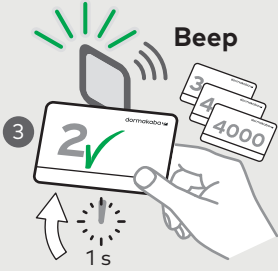

- Grant access permissions to the user medium held up (enter it on the whitelist).

After holding up the Master B again, the temporary permission for the component is revoked.

Prerequisites

- A/B structure or
- B structure is present

Procedure

		
	Hold Master B up to the antenna for approx. 1 second . -> Glows green. -> 1 short signal sounds. -> Green goes out.	1x short
	If no medium is held up for 20 seconds, the process is automatically terminated: -> The changes have been applied and 1 long signal sounds.	
	Hold user medium up to the antenna for approx. 1 second . -> Glows green. -> 1 short signal sounds. -> Green goes out. -> The user medium has been added to the whitelist. The user medium has access to the component.	1x short
	If needed, add other user media to the whitelist: Repeat step 2.	1x short
	Hold Master B up to the antenna for approx. 1 second. -> Glows green. -> 1 long signal sounds. -> Green goes out. -> The changes have been applied.	1x long
	If needed, grant access permissions with another Master B.	

6.6.4 Revoke individual access permissions

After holding up the Master B, the component receives the following temporary permission:




- Revoke access permissions from the user medium held up (remove it from the whitelist).

After holding up the Master B again, the temporary permission for the component is revoked.

Prerequisites

- User medium with access permission.
- A/B structure or
- B structure is present

Procedure

		🔊
	<p>Hold Master B up to the antenna for approx. 1 second.</p> <p>-> Glows green. -> 1 short signal sounds. -> Green goes out.</p>	1x short
	<p>If no medium is held up for 20 seconds, the process is automatically terminated:</p> <p>-> The changes have been applied and 1 long signal sounds.</p>	
	<p>Hold user medium up to the antenna for approx. 3 seconds.</p> <p>-> Glows green. -> 2 short signals sound. -> Green goes out. -> The user medium has been removed from the whitelist. The user medium does not have access to the component.</p> <p>If needed, hold up other user media.</p>	2x short
	<p>Hold Master B up to the antenna for approx. 1 second.</p> <p>-> Glows green. -> 1 long signal sounds. -> Green goes out. -> The changes have been applied.</p>	1x long

6.6.5 Delete Master Bs from the component

After holding up the Master A, the component receives the following temporary permissions:


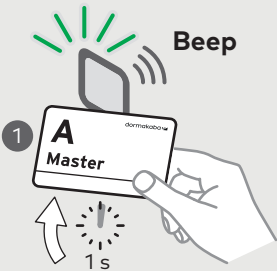

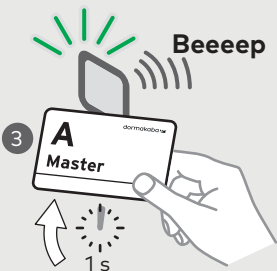
- Revoke all access permissions granted by the Master B held up (remove from the whitelist.)
- Revoke the permission to grant access permission from the Master B held up.

After holding up the Master A again, the temporary permissions for the component are revoked.

Prerequisites

- The Master B receives its permission through the Master A
- A/B structure is in place

Procedure

		
	<p>Hold Master A up to the antenna for approx. 1 second.</p> <p>-> Glows green. -> 1 short signal sounds. -> Green goes out.</p>	1x short
	<p>If no medium is held up for 20 seconds, the process is automatically terminated:</p> <p>-> The changes have been applied and 1 long signal sounds.</p>	
	<p>Hold up Master B to the antenna (approx. 10 seconds) until 2 short signals sound.</p> <p>-> Green glows as long as Master B is held up.</p> <p>If needed, hold up other Master Bs.</p>	2x short
	<p>Hold Master A up to the antenna for approx. 1 second.</p> <p>-> Glows green. -> 1 long signal sounds. -> Green goes out. -> The changes have been applied.</p>	1x long

6.6.6 Revoke all access permission assigned by Master B

After holding up the Master B, the component receives the following temporary permission:

- Revoke all access permissions granted by the Master B (remove from the whitelist.)

Note: The Master B receives the permission to grant access permissions.

Procedure



NOTICE

Data loss

If the Master B is inserted for longer than 10 seconds, the INI reset is initiated. The INI reset deletes all the settings and data saved in the component.

	Hold Master B up to the antenna for approx. 10 seconds . -> Glows green. -> 1 long and 2 short signals sound (firmware version 42xx and higher). -> (Before firmware version 42xx: 2 short signals sound.) -> Green goes out. -> All access permissions assigned by the Master B have been revoked.	Firmware version 42xx and higher: 1x long 1x short
		Before firmware version 42xx: 2x short

6.6.7 INI reset with Master media

See section "Service" > "INI reset with Master media"

7 Initialisation

For Mobile Access applications

Prerequisites

- The launch app is installed on the mobile device.
- A master medium is present.
- Mobile Access component without a wireless connection:
The data was transferred from the host system to the programmer.

Procedure

Mobile Access component without a wireless connection	Mobile Access component with a wireless connection
Specifying media technology <ul style="list-style-type: none"> • Hold the master medium in front of the antenna for approx. 1 s. The media technology from the Master medium (Legic or MIFARE) has now been transferred to the device. 	Specifying media technology <ul style="list-style-type: none"> • Hold the master medium in front of the antenna for approx. 1 s. The media technology from the Master medium (Legic or MIFARE) has now been transferred to the device.
*Activating and parametrising BLE/NFC <ul style="list-style-type: none"> • Hold the master medium in front of the antenna for approx. 1 s. • Connect the programmer to the device. • Transfer the configuration from the programmer to the device. BLE/NFC was activated and parametrised in the device. 	Activating and parametrising BLE/NFC Transferring BLE/NFC key to the device <ul style="list-style-type: none"> • Hold the master medium in front of the antenna for approx. 1 s. • Connect the programmer to the device. • Using the programmer, set up the connection to the gateway. The BLE/NFC keys are written to the device via the gateway.
*Transfer BLE/NFC key to the device <ul style="list-style-type: none"> • Hold the master medium in front of the antenna for approx. 1 s. • Open the Launch app on the mobile device. The BLE/NFC keys are written to the device. • Hold the master medium in front of the antenna for approx. 1 s. • Note: If no master medium is held up within 20 seconds, programming mode ends automatically and one long signal sounds. 	
* The sequence can be reversed	

The device is initialised.

8 Operation

This section describes operation of the product.

8.1 Operating TouchGo products

Operating TouchGo products with RCID

Products with RCID	Firmware	Data transmission used
TouchGo c-lever pro	E310	RCID
TouchGo c-lever pro	E110	RCID

See: dormakaba c-lever TouchGo operating instructions

Operating TouchGo products with RFID

Products with RFID	Firmware	Data transmission used
TouchGo c-lever pro	E310	RFID

See next Chapter.

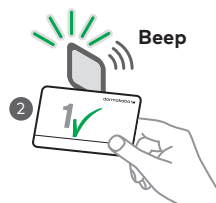
8.2 Opening with user media



1. Hold authorised user medium in front of the antenna of the fitting.

-> The acoustic and visual signals¹ confirm access authorisation.

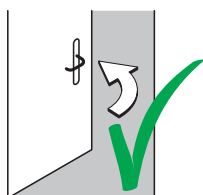
Note: The c-lever's opening time is limited; after this time has elapsed, the c-lever closes automatically. Upon delivery, the opening time is approx. 6 s, but this can be adjusted using the 1460 programmer or the system software.



2. Activate the lock by pushing the lever handle.



3. The door can be opened.





If there is an attempt to gain access using unauthorised user media, the acoustic¹ signal will sound four times and the red¹ light will briefly flash four times.

Key:

- ¹ If the function(s) have been activated using the programmer 1460 or the system software.

8.3 Opening with a mobile device

For Mobile Access applications

Prerequisites

- The device was initialised.
- The access rights were transferred from the host system to the mobile device.

Procedure

- Open the DOOR app.

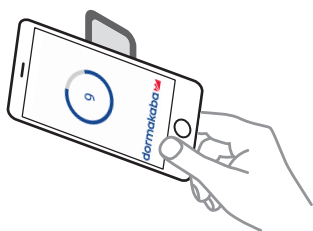


- Tap the key.



The time set in the DOOR app begins to pay back.

- Hold the mobile device in front of the device.



Signalling

The mobile device displays the access authorisation.

Devices with signalling

The device signals the access authorisation acoustically¹ and visually¹.



Signalling if user medium is unauthorised: 4 x short acoustically¹ and 4 x short red¹

¹ If the function(s) have been activated using the programmer or the system software.

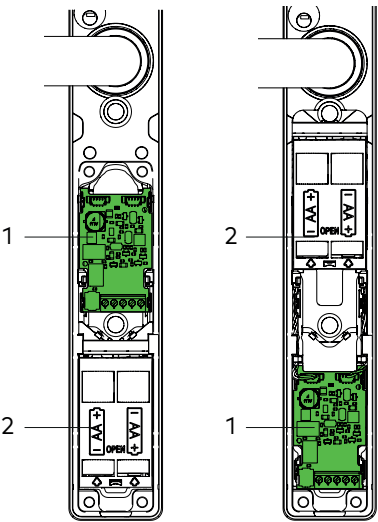
Note: The opening time is restricted. The device closes automatically after the opening time has elapsed. Upon delivery, the opening time is approx. 6 s. The opening time can be adjusted using the 1460 programmer or in the host system.

- Activate the lock by pushing the lever handle.

9 S-module

See also Product description > Overview > S-module option.

Possible S-module positions:



1	S-module
2	If present: Battery holder

9.1 S-module functionality

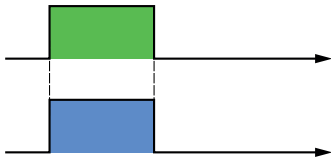
The behaviour of the device can be changed by means of the contact connected to the input of the S-module. The contact overrides the authorizations and activates the behaviour defined in the system software.

Possible contact: switch, time switch or building control system (e.g. alarm system)

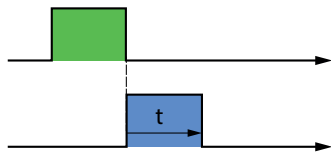
Behaviours that can be selected in the system software

'Active if:'

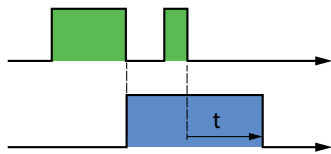
While the input is active (green), the programmed behaviour is active (blue).



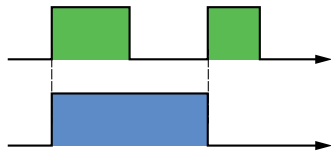
Period limited
The measurement of the duration starts once the input is disabled.



If the input is reactivated before the set duration has elapsed, the programmed behaviour is extended correspondingly.



Pulse mode
With the first flank of the input as active the programmed behaviour becomes active, with the next flank as active the behaviour is deactivated.



Legend



Input active (green)



Programmed behaviour active (blue)

'If active:'

- Always open
- Always closed
- Open with any medium
- Disable TimePro

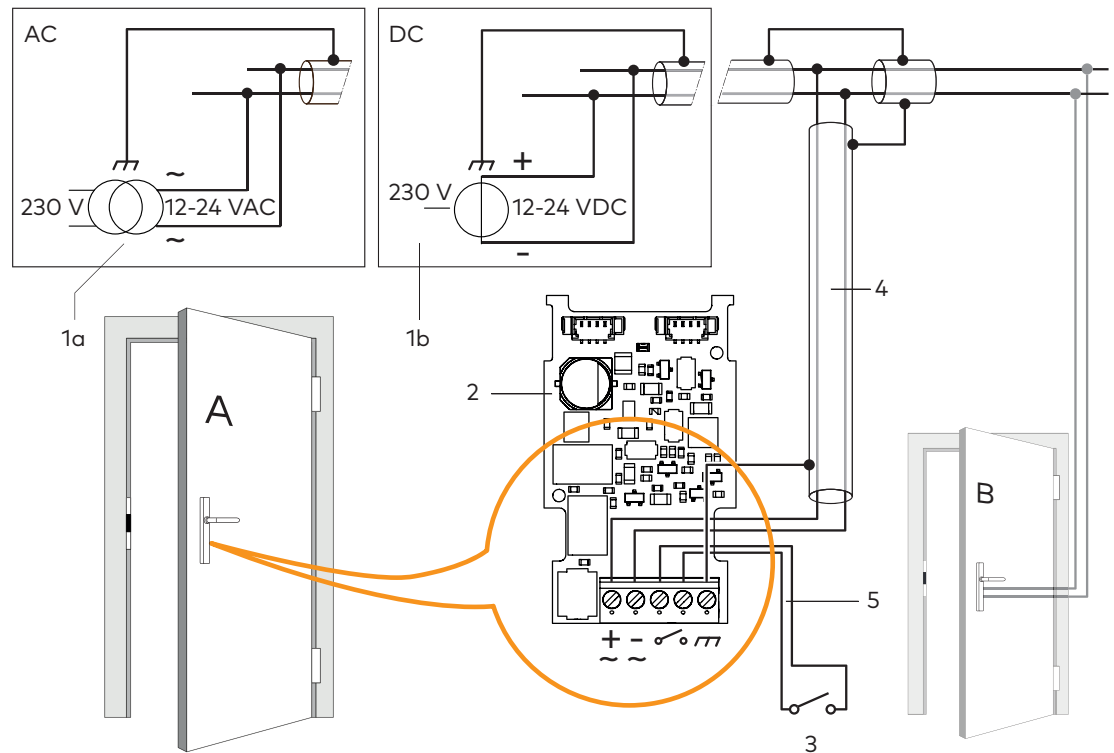
Effect

- Always open
- Always closed, access not possible
- Can be opened with any medium (writes UID of the medium to traceback)
- TimePro is disabled

Defining the logic

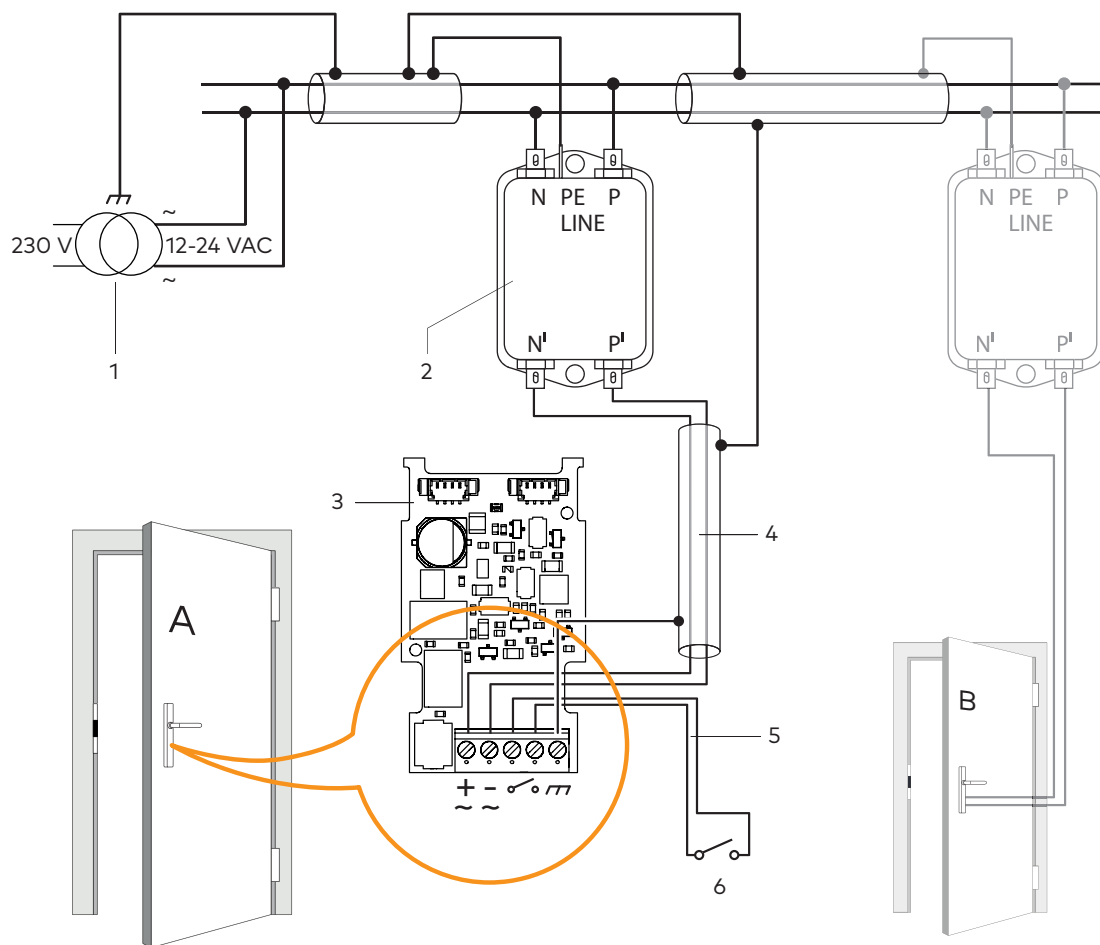
The S-module functionality includes an auto-learn function. Upon initialization (INI reset) of the device, the current position of the contact is interpreted as the base position. If the position of the contact changes, the behaviour programmed under 'Activation' is activated. This is how a closing or opening contact can be defined.

9.2 Installation diagram (example without TouchGo)



Position	
1	Power supply
1a	Safety transformer*
1b	Switched-mode power supply*
2	S-module
3	Contact Examples: switch, button, time switch or building control system (alarm system)
	Installation lines
4	Power supply line
5	Line to contact
A	Door A
B	Door B
*	See Technical Specifications

9.3 Installation diagram (example with TouchGo)



Position	
	Power supply
1	Safety transformer*
2	FN2060-1 filter
3	S-module
	Installation lines
4	Power supply line
5	Line to contact
6	Contact Examples: switch, button, time switch or building control system (alarm system)
A	Door A
B	Door B
*	See Technical Specifications

9.4 Installation lines

Power supply line and line to external contact

Cable cross-section: $\geq 0.25 \text{ mm}^2$ (core diameter: $\geq 0.56 \text{ mm}$)

Length: 30 m maximum

Shielded

9.5 Installing the S-module

Note: The cable connected to the S-module (power supply and line to the external contact) is hereinafter referred to as the S-module cable.

Requirements

- The external fitting has been placed on the door.
- The S-module cable has been routed to the inside of the door.
- The battery holder has been removed.



Only power supply units that fulfil the following requirements may be used for power supply: LPS (Limited Power Source) and SELV (Safety Extra Low Voltage) in accordance with IEC/EN/UL/CSA 60950-1 or ES1 and PS2 in accordance with IEC/EN/UL/CSA 62368-1.

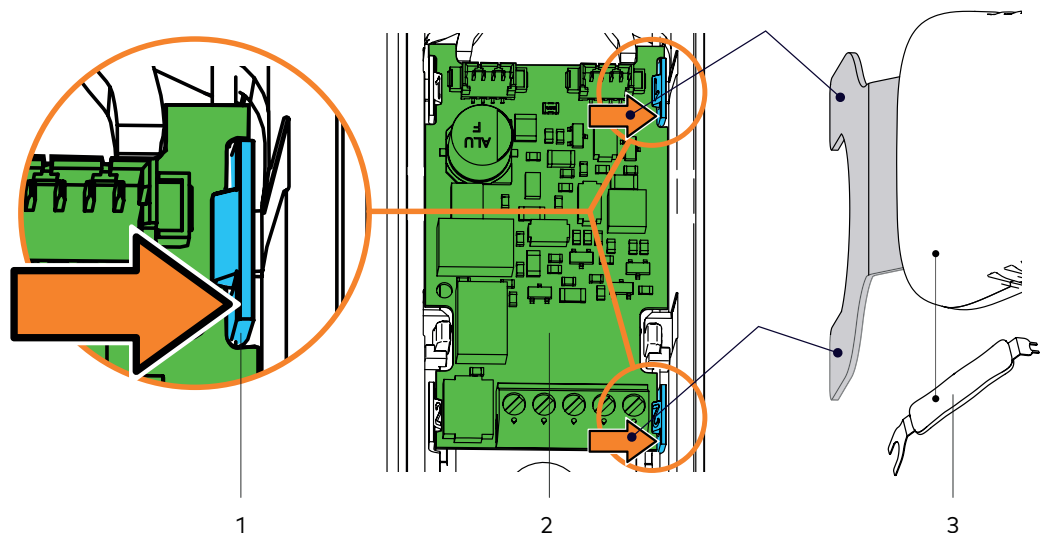
Procedure



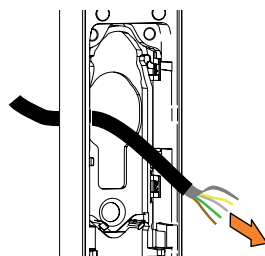
Only make connections when the power is switched off.

Note: The battery holder is not pictured in the images below.

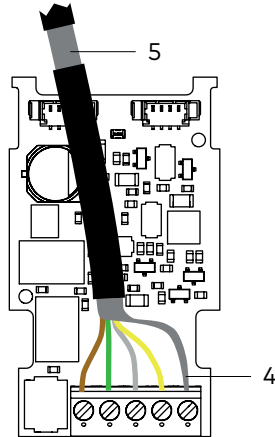
- Photograph the S-module and the cables connected to it.
- Push the two clips (1) towards the frame using the multitool (3) and at the same time remove the S-module (2).



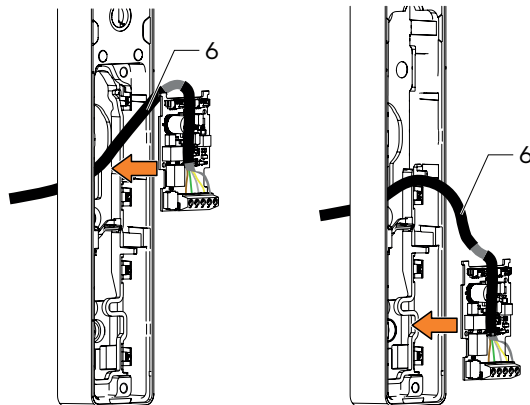
- Guide the S-module cable through the backplate.



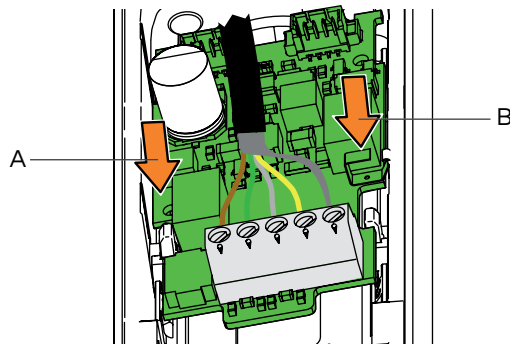
- Guide the antenna cable through internal fitting; see Chapter Installing the internal fitting.
- Slide the internal fitting onto the spindle.
- Shorten the S-module cable to the required length.
- Connect the S-module cable to the S-module; see installation diagram.
- Connect the shielding (4) to the S-module (earth).



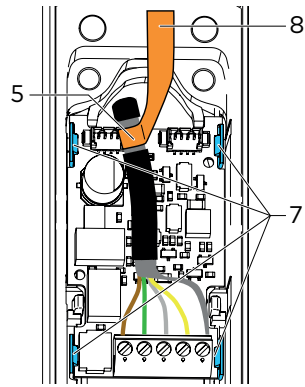
- Remove the shielding insulation on the S-module (5).
- Lay the S-module cable (6) as shown.



- Lay the other cables in their original positions.
- Insert the S-module - first on side A then on side B - into its original position in the frame.



The S-module locks into the four clips (7).



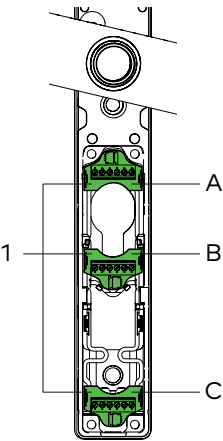
- Connect the exposed shielding (5) to the frame or backplate using the copper tape (8).
- If present: Insert the battery holder. See Chapter Installing the internal fitting > Inserting the battery.
- Installing the cover. See Chapter Installing the internal fitting > Installing the cover.

10 Door monitoring

Door monitoring is carried out via the connection board.

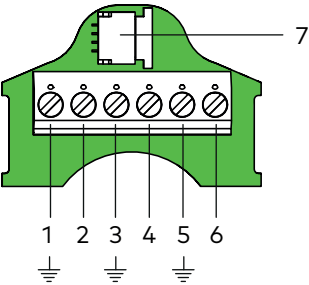
See also Product description > Overview > Door monitoring option.

Possible positions of the connection board:

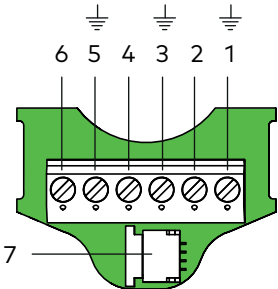


1	Connection plate
A–C	Connection board positions

10.1 Connections



Position: A



Position: B and C

Position	
1–2	Frame contact
3–4	Deadbolt contact (mortise lock) (Bolt)
5–6	Cylinder contact (mortise lock) (Cyl)
7	Connection to the wireless module

10.2 Install connection board

Delivery condition:

- The connection board is assembled in the frame.
- The connection board is connected to the wireless module.

Note:

- The cables to the frame, deadbolt and cylinder contacts are hereinafter referred to as 'cables'.
- The cable colours shown are arbitrary.

Requirements

- The external fitting has been placed on the door.
- The cables have been routed to the inside of the door.
- The battery holder has been removed.

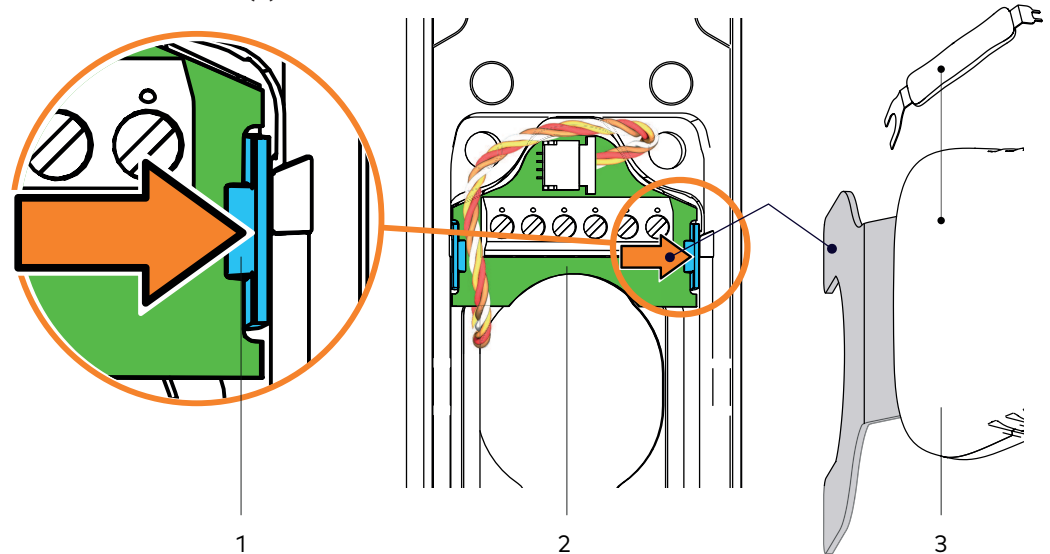
Note: These instructions describe the expansion/installation of the connection board at Position A.

Procedure

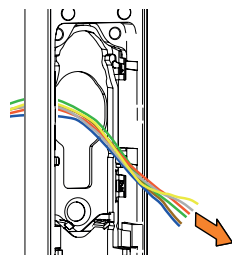


Only make connections when the power is switched off.

- Photograph the connection board and the connected cables.
- Push the clip (1) towards the frame using the multitool (3) and at the same time remove the connection board (2).

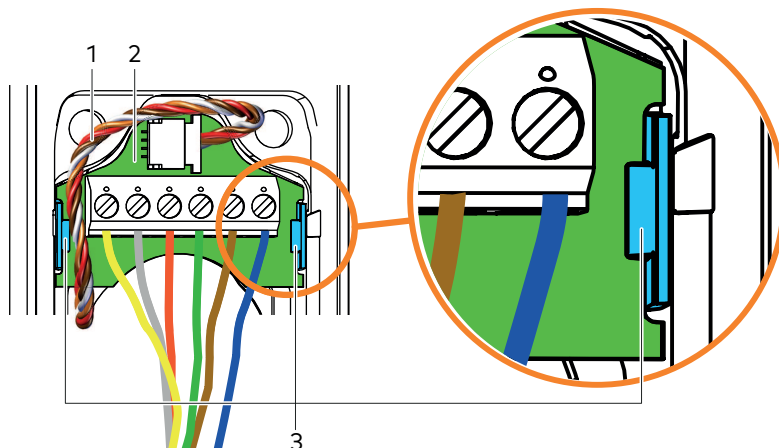


- Guide the cable through the backplate.



- Guide the antenna cable through internal fitting; see Chapter Installing the internal fitting.
- Slide the internal fitting onto the spindle.
- Shorten the cables to the required length.

- Observe the lock suppliers' colour coding.
Connect the cables to the connection plate; see Chapter Connections.
- Lay the cables.
- Lay the cables to the wireless module (1) in their original position.
- Insert the connection board (2) into its original position in the frame.
The connection board (2) locks into the two clips (3).



- If present: Insert the battery holder. See Chapter Installing the internal fitting > Inserting the battery.
- Installing the cover. See Chapter Installing the internal fitting > Installing the cover.

11 Maintenance

This section describes product maintenance.

11.1 Maintenance table

The component's mechanism and/or electronics do not require any maintenance.



NOTICE

Opening the mechatronic unit.

Opening the mechatronic unit releases the manufacturer from any liability under the guarantee.

Components	Measures	Interval
All components	Function check in accordance with instructions	12 months
	Replacing the batteries	24 months ¹
Clock (components)	Check and set clock time with the system software	12 months
Firmware update	To modify functionality See the system description	as required
Door handle contact	Replace the door handle contact and support of the mainboard	after 100,000 cycles

Legend:

¹ With lithium batteries

11.2 Cleaning



Only disinfection agents that are explicitly formulated for cleaning delicate metal surfaces and plastics may be used. The use of unsuitable cleaning agents or methods can damage the components' surface.

1. Use a soft, damp cloth to clean the surface.

12 Service

12.1 Serial number

The serial number with QR code is located on the backplate of the internal fitting.

12.2 Replacing batteries

Requirement

- 2 new batteries 1.5 V AA lithium are available.
- The multitool is available



NOTICE

Danger of damage to electronic components from electrostatic discharge.

If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.



Whilst the battery is being changed, all the data (access authorisations, configurations and traceback) is retained in the battery-independent memory. The clock settings are lost after 45 seconds.

Procedure

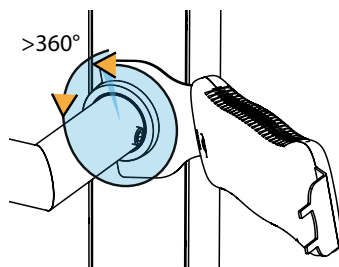


NOTICE

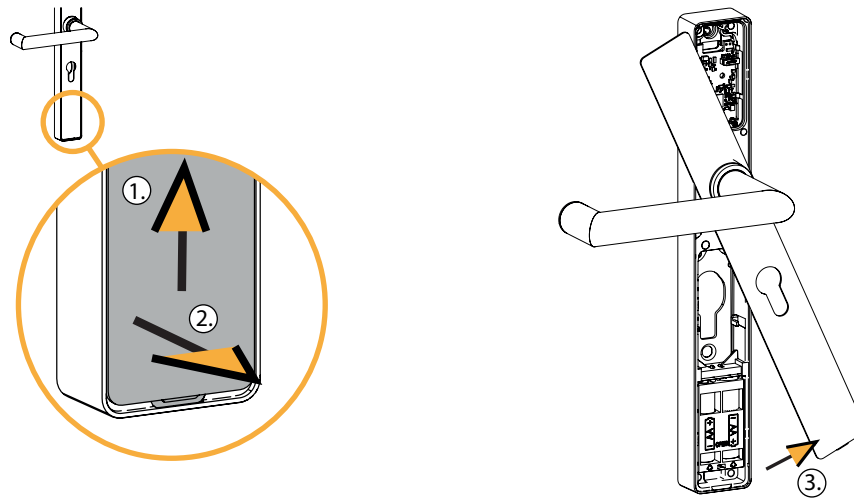
Damage to the union nut

When loosening the union nut, make sure it does not touch the threaded pin.

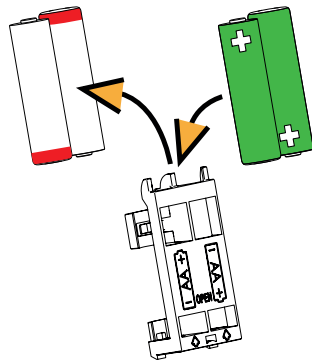
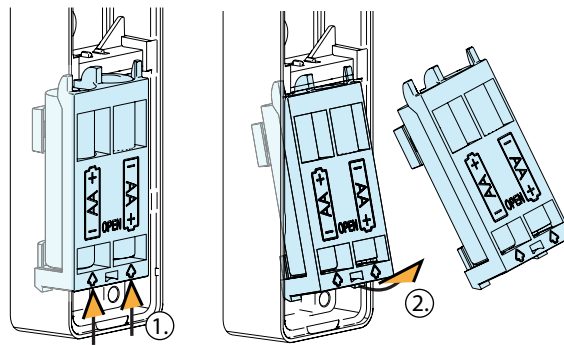
- Using the multitool, loosen the union nut from the internal fitting (>360°).



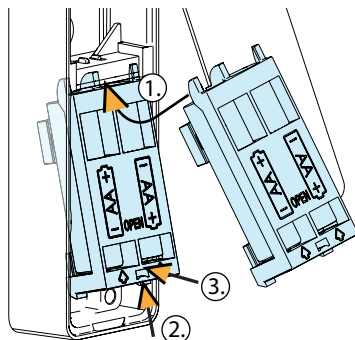
- With locking cylinder: If necessary, loosen the forend locking stud.
- Push the cover out of the groove (1), pull it forwards slightly (2) and turn (3).



- Push the battery holder in the direction shown (1.) and at the same time swivel it forwards (2.).

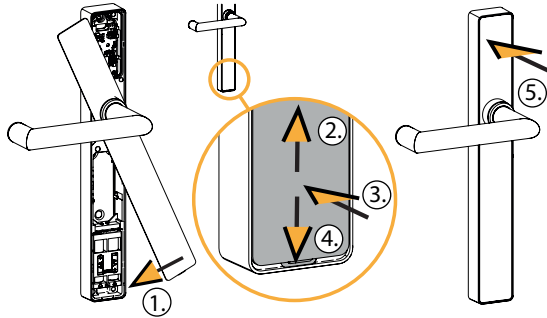


- Remove the spent batteries.
- Insert the new batteries, observing the polarity.
- Insert the battery holder (1), push it towards the lever handle (2) and at the same time swivel it into the frame (3).

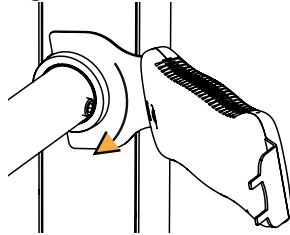


- If present: Remove the contact protection film.

- Align the cover (1).
- Move the cover in the sequence shown (2-3) and insert it into the groove (4).
-> The cover protrudes on the side opposite the groove.
- Press the protruding cover against the frame (5) and hold down.



- Tighten the union nut using the multitool.



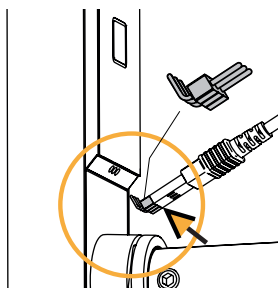
- Let go of the cover.
- Carry out a function check, see Operation [▶ 8](#).

12.3 Replacing the TouchGo media battery

See dormakaba c-lever TouchGo operating instructions

12.4 Connecting the programmer

- Connect the c-lever and programmer using the programming cable and the adapter (1355-42B) for the programmer cable (grey).



12.5 Configuration and traceback



For correct time management, the clock time and the date on the device must be up-to-date.

c-lever pro with wireless module and activated wireless option:

Configuration, updates (e.g. the clock time) and traceback read-outs are performed by the system software via wireless gateway.

c-lever pro with wireless module and deactivated wireless function:

Configuration, updates (e.g. the clock time) and traceback read-outs are performed using the programmer.

The traceback is transmitted from the programmer to the system software for evaluation.
See also > Programmer

c-lever pro without wireless module:

Configuration, updates (e.g. of the clock time) and traceback read-outs are performed using the programmer.

The traceback is transmitted from the programmer to the system software for evaluation.
See also > Programmer

12.6 Reset (INI reset)

Consequences of an INI reset

- All parameter settings and data are deleted and returned to their original values (factory settings).
- The access point is blocked during the INI reset.



NOTICE

Loss of data

The INI reset deletes all settings and data saved on the device.

A reset can be performed in the following ways:

- With master media
See INI reset with Master media
- With programmer 1460, see Reset with programmer 1460
- With tweezers, see Reset using tweezers



12.6.1 INI reset with Master media

Consequences of an INI reset


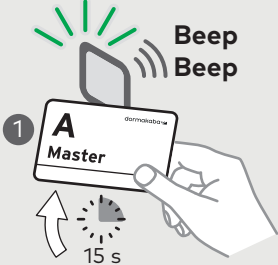
- All parameter settings and data are deleted and returned to their original values (factory settings).
- The access point is blocked during the INI reset.
- All access permissions, Master media and traceback are deleted.
- The passage is locked after the INI reset.

12.6.1.1 Whitelist

In Master B structure


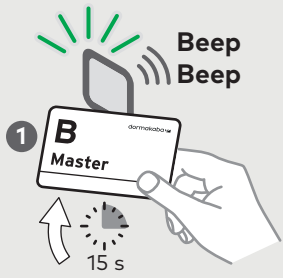
INI reset with Master B		
	<p>Hold Master B up to the antenna for approx. 15 seconds.</p> <p>-> Glows green. -> Successive signals sound. -> After 15 seconds the INI reset is carried out. -> Green goes out.</p>	<p>After 10 seconds:</p> <p>1x long, 1x short, after 15 seconds, 2x short</p>

In Master A/B structure


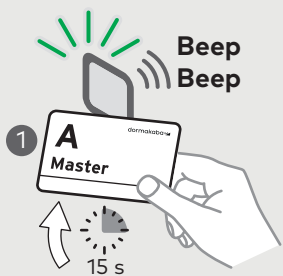
INI reset with Master A		
	<p>Hold Master A up to the antenna for approx. 15 seconds.</p> <p>-> Glows green. -> Successive signals sound. -> After 15 seconds the INI reset is carried out. -> Green goes out.</p>	<p>After 10 seconds:</p> <p>1x long, 1x short, after 15 seconds, 2x short</p>

12.6.1.2 Cardlink

With Master B

INI reset with Master B		
	<p>Hold Master B up to the antenna for approx. 15 seconds.</p> <ul style="list-style-type: none"> -> Glows green. -> After 15 seconds the INI reset is carried out. -> 2 short signals sound. -> Green goes out. 	2x short

With Master A

INI reset with Master A		
	<p>Hold Master A up to the antenna for approx. 15 seconds.</p> <ul style="list-style-type: none"> -> Glows green. -> After 15 seconds the INI reset is carried out. -> 2 short signals sound. -> Green goes out. 	2x short

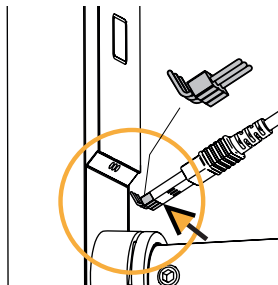
12.6.2 Reset with programmer 1460

Requirements

- A programmer 1460 is available.
- An authorised user medium or a master medium is available.
- The batteries are inserted.

12.6.2.1 Connecting the programmer

- Connect the c-lever and programmer using the programming cable and the adapter (1355-42B) for the programmer cable (grey).



12.6.2.2 Carrying out a reset

- Hold an authorized user medium or master medium in front of the antenna.
- Open the **Settings** menu on the programmer.
- Select **Actuator**.
- Select **INI reset**.
- Select **Yes**.

Two signals will sound following a successful reset.

A detailed description can be found in the programmer operating instructions.

12.6.3 Reset using tweezers



NOTICE

Danger of damage to electronic components from electrostatic discharge.

If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.

Requirements

- The multitool is available
- Electrically conductive tweezers are available.
- The batteries are inserted

Procedure

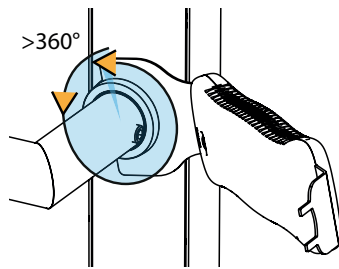


NOTICE

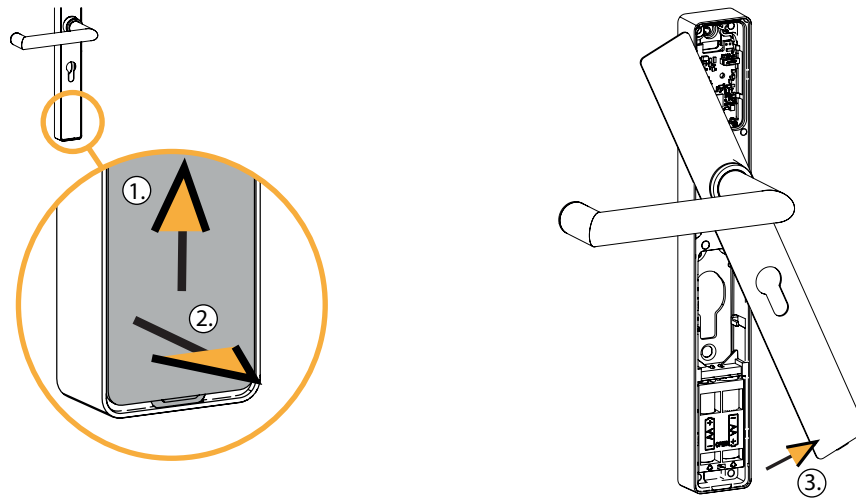
Damage to the union nut

When loosening the union nut, make sure it does not touch the threaded pin.

- Using the multitool, loosen the union nut from the internal fitting (>360°).



- With locking cylinder: If necessary, loosen the forend locking stud.
- Push the cover out of the groove (1), pull it forwards slightly (2) and turn (3).



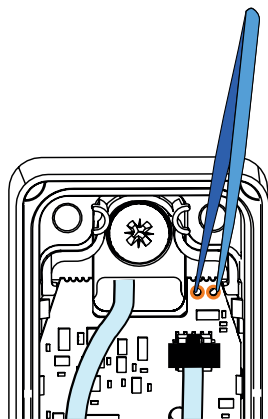
NOTICE

Danger of damage to electronic components from electrostatic discharge.

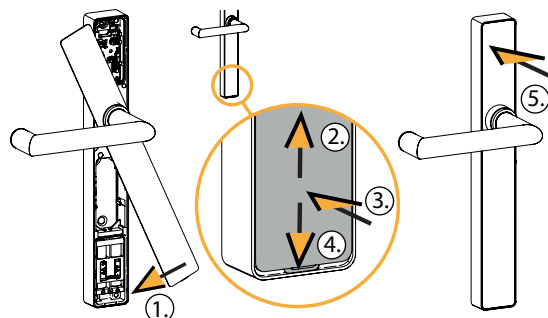
Damage may occur if electronic printed circuit boards and components are handled incorrectly, which leads to complete breakdown or malfunctions of the device.

- Adhere to and use the general ESD protective measures when handling electronic components.

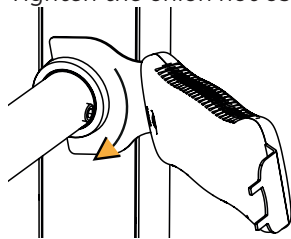
- Connect the contacts shown here with electrically conductive tweezers for 3 seconds. Two signals will sound following a successful reset.



- Align the cover (1).
- Move the cover in the sequence shown (2–3) and insert it into the groove (4).
-> The cover protrudes on the side opposite the groove.
- Press the protruding cover against the frame (5) and hold down.



- Tighten the union nut using the multitool.



- Let go of the cover.

12.7 Firmware update

See Programmer 1460 user manual.

12.8 Emergency opening

If the battery is 'Empty' or the batteries are completely dead, the door can be opened using an emergency opening.

The emergency opening can be performed in the following ways:

- Lock with latch function:
Open door using the locking cylinder
- Lock without latch function:
See next Chapter.

12.8.1 Opening with an external power supply

The external power supply comes from the battery emergency opening device or the programmer.



Devices with TouchGo option

The external power supply is only possible with the battery emergency opening device.

Prerequisites

- Battery emergency opening device/programmer is present
- Programming cable is available
- Adapter is available for the programming cable
- There is an authorised user medium
- New batteries are available for the device
- The multitool is available

Procedure

- Connect the device and external power supply using the programming cable and the adapter; see Connecting the Programmer chapter.

With battery emergency opening device	With programmer
Press the button for approx. 1 s on the battery emergency opening device.	On the programmer, select Settings > Emergency Power Supply and follow the instructions.

- Make a booking with the authorised user medium.
The lever handle on the external fitting engages and remains engaged until new batteries are used.
- Engage the lever handle and open the door.
- Replace the batteries in the device; see 'Replacing batteries' chapter.
- Disconnect the device and the external power supply.
- Set the time.
- Carry out a function check; see Operation chapter.

12.9 Replacing the antenna



NOTICE

Danger of damage to electronic components from electrostatic discharge.

If electronic printed circuit boards and components are handled incorrectly, damage may occur which leads to their complete breakdown or sporadic faults.

- When installing and repairing the product, the general ESD protective measures are to be observed.



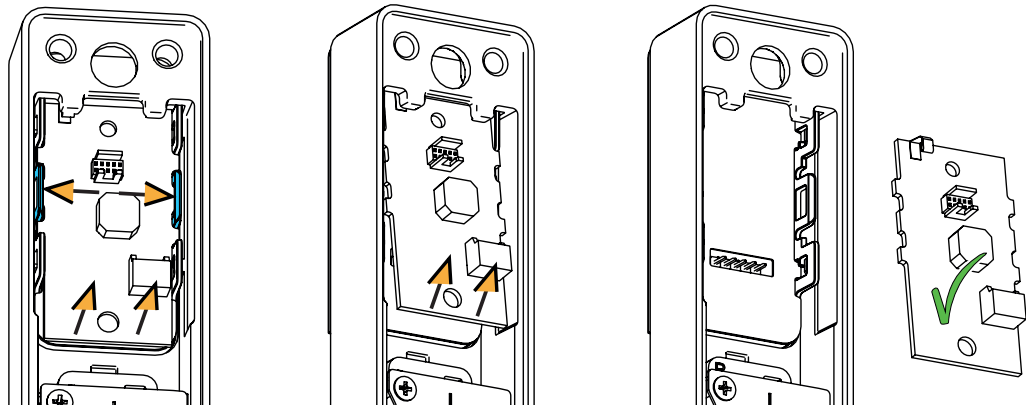
NOTICE

There is a risk of crushing or shearing injuries from cables as a result of improper installation or routing.

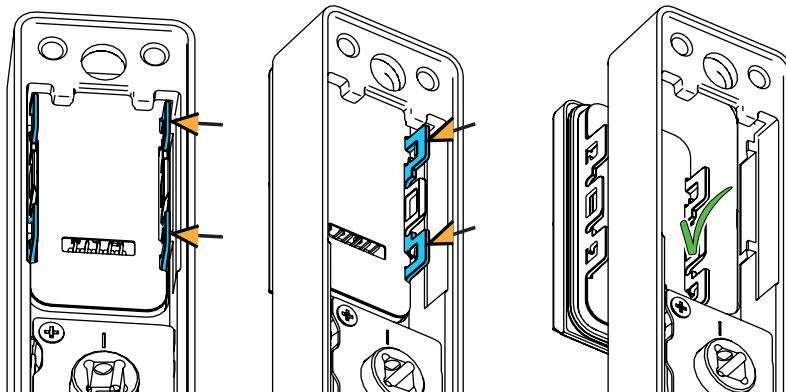
Ensure that the cables are routed in such a way that there is no risk of crushing or shearing injuries.

Remove antenna

- Dismantle the internal fitting. [\[▶ 4.14.1\]](#)
- Dismantle the external fitting (the coupling must not be removed). [\[▶ 4.14.2\]](#)
- Push the two middle clips outwards and at the same time lift the board.

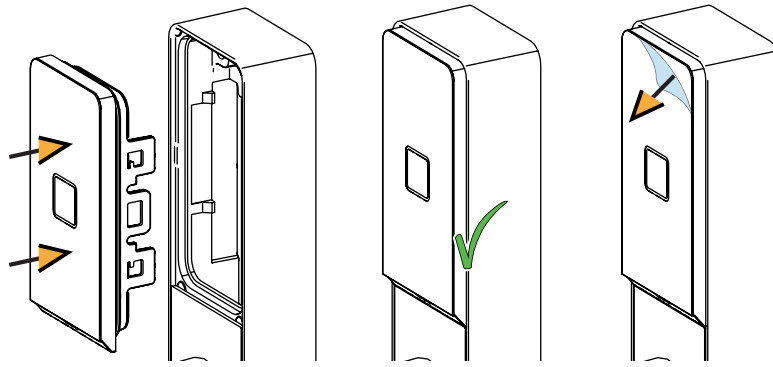


- On one side, push the two clips inwards and at the same time slide the antenna out of the frame.



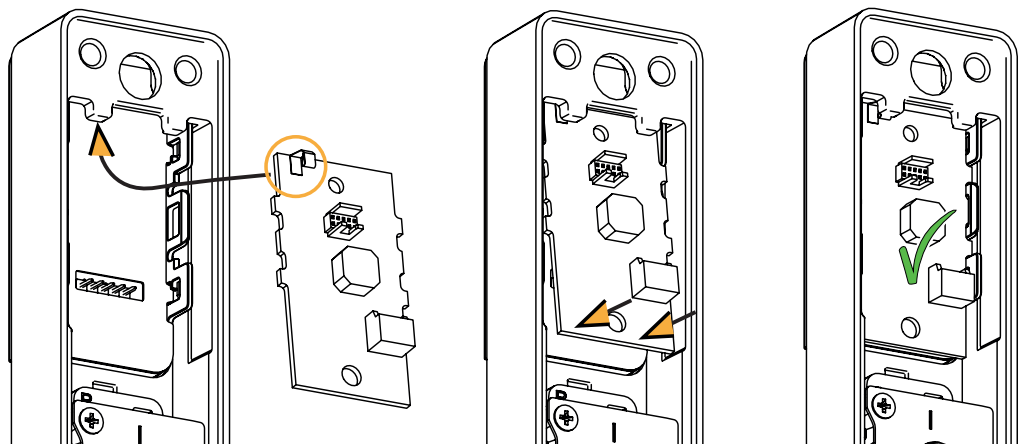
Install the antenna

- Place the new antenna with seal into the frame and press against the frame. You will be able to hear the antenna click into place.
- Remove the protective film.

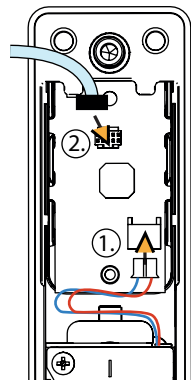


Install the antenna board

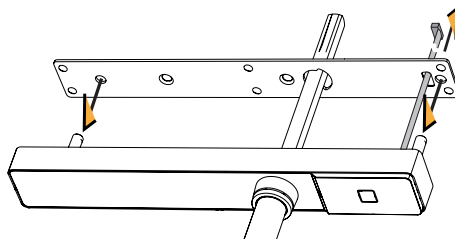
- Slide the antenna board onto the antenna.
- Press the antenna board against the antenna.
- Ensure that the antenna board snaps into place on the antenna.



- Insert the coupling unit plug into the white socket (1.).



- Insert the antenna cable into the black socket (2.).



- Guide the antenna cable through the backplate.
- Attach the backplate.
- Install the external fitting. [▶ 4.9.1](#)
- Install the internal fitting. [▶ 4.12.1](#)

13 Troubleshooting



This chapter provides important information on rectifying product errors.

TouchGo option

TouchGo product error analysis can be found after the next chapter.




13.1 Error analysis

Symptoms			Possible causes	Measures
The use of a master or user medium is confirmed via various acoustic and/or visual signals by the components	1 x very short	9 x flashes red	– Battery "Low" (V4 from FW 42.XX)	– Replace the batteries
Door does not open: authorisation via an authorised user medium is confirmed by acoustic signals	1 x very long	—	– Alarm — Battery "Empty"	– Replace the batteries
Door does not open: no response to authorisation via an authorised user medium	—	—	– Battery fully discharged – Component not programmed yet	– Emergency power supply, replace the batteries – Program the component
Door does not open: authorisation by an authorised user medium is confirmed via acoustic and visual signals	8 x short	8 x short red	– Self-test could not be completed	– Check or replace the coupling unit
Door does not open: authorisation by an authorised user medium is confirmed via acoustic and visual signals	4 x short	4 x short red	– Medium not programmed – Outside the time window	– Program medium – Check time profiles
Door does not open: authorisation by an authorised user medium is confirmed via acoustic and visual signals	1 x long 1 x short 1 x long	1 x short green	– Internal clock in component has failed	– Check programming and clock time
User medium cannot be programmed	—	—	– 4000 media or groups already programmed in the e-module – Faulty medium – Not the correct technology	– Contact customer service
Master medium cannot be programmed	1 x short	1 x red	– E-module already programmed	– Carry out INI reset for e-module
Master medium is not detected	—	—	– Antenna not connected to e-module – No power supply	– Establish connection or power supply
Other errors	3 x short	1 x short red 1 x short green	– Unintentional re-start	—



Symptoms			Possible causes	Measures
		1 x short red		
Door is always open: the lever handle on the outside is always engaged	—	—	<ul style="list-style-type: none"> – TimePro function activated – Faulty coupling unit 	<ul style="list-style-type: none"> – Deactivate TimePro function – Replace coupling unit
The use of a master or user medium is not confirmed by the component	—	—	<ul style="list-style-type: none"> – Antenna connection error or faulty electronics 	<ul style="list-style-type: none"> – Check connection between antenna and electronics
Door is always open: door does not open or close at programmed time	—	—	<ul style="list-style-type: none"> – Time is missing on e-module or is not correctly set – Incorrect programming 	<ul style="list-style-type: none"> – Set time, check programming – Replace coupling unit

13.2 TouchGo applications error analysis

13.2.1 Operation error analysis

Symptoms	Signalling			Possible causes	Measures
	Device		Medium		
					
Door slow to open	1 x very long	9 x very short red 1 x green (open)	-	Battery in the device is 'low'	Replace battery
	3 x long then	1 x green (open)	2 x red every 10 s	Battery in the medium is 'low'	Replace battery
Door cannot be opened with a medium	4 x short	4 x red	-	Medium not programmed	Program medium
	1 x very long	-	-	Battery in the device is 'empty'	Use the emergency opening and replace the device's battery
	-	-	-	Medium or device battery completely empty	Replace medium and/or device battery
	8 x short	8 x red	-	Faulty device/coupling	Operating the device again
	1 x short	1 x green	-	Device faulty	
Door is always open. The lever handle on the outside is permanently engaged.	-	-	-	Device faulty	If the fault recurs, call a qualified technician and use the emergency opening.
	-	-	-	Device is in Office or Pass Mode, fault in device	
The lever handle on the outside engages accidentally	1 x short	1 x green	-	Device detects an authorised user medium	Increase distance between user medium and device

13.2.2 Programming error analysis

Symptoms	Signalling on the device		Possible causes	Measures
				
Programming mode cannot be activated with Programming mode	1 x long	1 x red	Programming master used is not the administrator for the door	Use the programming master with an administrator right or Carry out a reset and program the programming master as the administrator
	-	-	Device battery or Programming master empty	Replace battery
User medium cannot be programmed	-	-	Medium battery empty	Replace battery
	1 x long	Green permanently, as long as medium in range, then 1 x red	Maximum number of programmable media reached	Ensure that the number of programmed media has not been exceeded in the key plan

14 Disposal / dismantling

14.1 Decommissioning / dismantling

- Remove or delete the device in the system software.
- Dismantle the device, see Dismantling [▶ 4.14](#)
- Carry out a reset.
- Remove the battery/batteries.

14.2 Disposal



This product complies with the WEEE Directive and is labelled with the "crossed-out wheeled bin" WEEE symbol as German Industrial Standards (DIN) EN 50419.

The symbol indicates that electrical and electronic devices must be returned separately in EU member states.



You must not dispose of the device in the household waste as per the European WEEE Directive.

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.

Legislation (such as the Electrical and Electronic Equipment Act [ElektroG] in Germany) dictates that 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 life cycle.

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 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.

15 Packaging/return

Improperly packed assembly groups and devices may produce extra costs due to damage during transport.

Please observe the following instructions when sending dormakaba products.

dormakaba is not liable for damage to products which is due to inadequate packaging.

15.1 Preparing a device to be returned

- Before returning, carry out a reset (INI reset) on the device.

15.2 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.

15.3 Electronic component assemblies



ESD-sensitive electronic component assemblies such as PCBs and readers should be stored, transported and shipped in suitable anti-static packaging. 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.

15.4 Labelling

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.