

# Installation and Service Manual

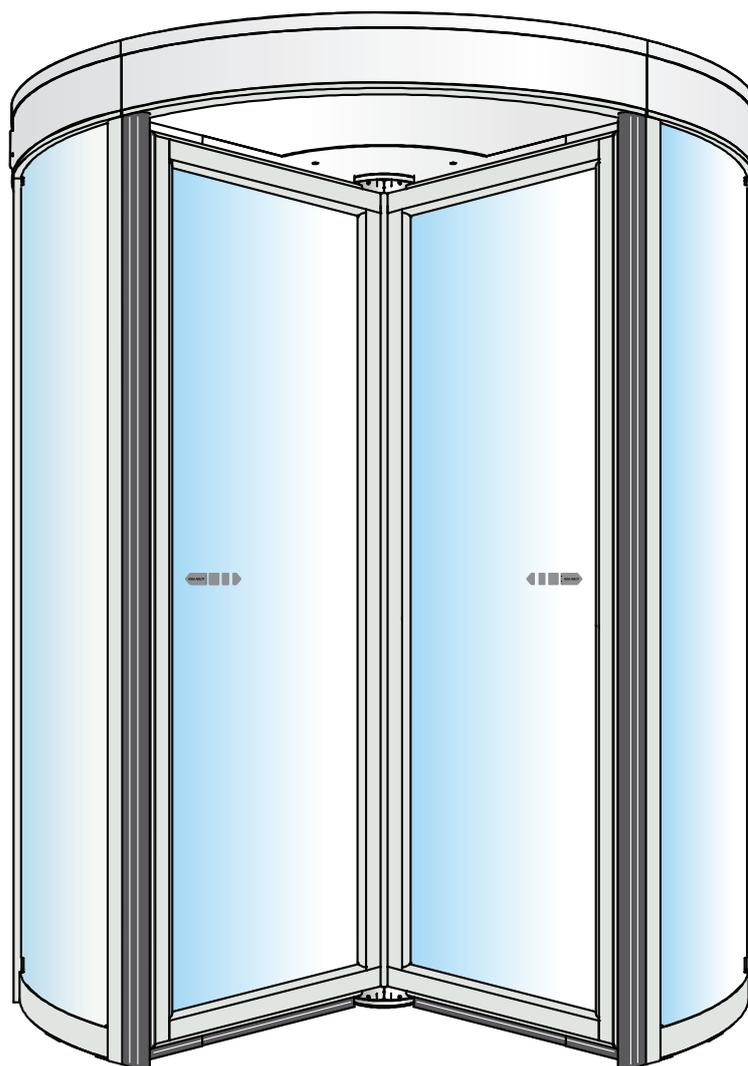
Revolving Door

ASSA ABLOY RD150-3, RD150-4

**ASSA ABLOY**

ASSA ABLOY Entrance Systems

The global leader in  
door opening solutions



ASSA ABLOY as word and logo are trademarks owned by the ASSA ABLOY Group

© ASSA ABLOY Entrance Systems, 2017

*Technical data subject to change without notice.*

Backtrack information: folder:Workspace Main, version:a429, Date:2017-12-05 time:08:12:28, state: Working

---

# CONTENTS - Original instructions

1	Revision .....	6
2	Instructions for safe operation .....	7
3	Important information .....	8
3.1	Intended use .....	8
3.2	Safety precautions .....	8
3.3	Electronic equipment reception interference .....	8
3.4	Environmental requirements .....	9
4	Technical specifications .....	10
5	Identification .....	11
5.1	Main parts .....	11
6	Pre-installation .....	12
6.1	General tips/Safety concerns .....	12
7	Installation .....	13
7.1	Pre-installation check .....	13
7.2	Floor surface .....	14
7.2.1	Mark up .....	15
7.3	Fit the fixing rail and the centre plate .....	16
7.4	Ground ring (option) .....	17
7.5	Outer walls .....	18
7.5.1	Outer wall sections .....	18
7.5.2	Wall ring Frame .....	19
7.5.3	Wall ring Slim .....	20
7.5.4	Safety edges, outer wall .....	20
7.5.5	Brackets .....	21
7.6	Centre beam .....	22
7.7	Drive unit .....	23
7.8	Top ring .....	24
7.9	Night closing doors (Not used in US and Canada) .....	25
7.9.1	Support beam .....	25
7.9.2	Carriage wheel fittings .....	26
7.9.3	Floor guide .....	27
7.9.4	Door leaves .....	28
7.9.5	Slam posts .....	30
7.9.6	Door stop .....	32
7.10	Night closing doors burglar resistance class 3 EN1627:2011 (Not used in US and Canada) .....	33
7.11	Glazing .....	35
7.12	Electrical installation .....	36
7.12.1	Connection box .....	36
7.12.2	Control unit .....	37
7.12.3	Cabling .....	38
7.13	Electrical connection .....	39
7.13.1	Adapter board .....	40
7.14	Centre shaft .....	41
7.15	Adjustment of the motor assembly .....	43
7.16	Door leaves .....	44
7.16.1	Slim centreless .....	45
7.16.2	Adjustment of emergency break-out kit (Not EN16005 compliant) .....	46
7.17	Centre plates .....	47
7.18	Ceiling .....	48
7.19	Fascia .....	49
7.20	Dust protection roof .....	50
7.21	Water resistant roof (option) .....	51
7.22	Fixed screen joint section (option) .....	52
7.23	Insulated fascia (option) .....	55
7.24	Mechanical lock (option) .....	56
8	Signage .....	57

9	ON/OFF switch .....	58
9.1	Start up (Not used in US and Canada) .....	58
9.2	ON  .....	58
9.3	OFF  .....	58
9.4	Reset (Not used in US and Canada) .....	58
10	Start-up .....	59
10.1	Starting the learning procedure .....	59
10.2	Setting home position .....	60
10.3	P-Assist function .....	60
10.4	Push & Go function (Not used in US and Canada) .....	60
10.5	Speed control .....	60
10.6	Auto Park .....	60
11	Local display and key utility .....	61
11.1	General description of the local interface .....	61
11.2	Menu system structure .....	61
11.3	How to login to the operator .....	62
11.4	How to modify parameters .....	62
11.5	How to logout from the operator .....	62
11.6	Status menu loop on local interface .....	62
12	Options .....	63
12.1	Lighting LED with control .....	63
12.2	Additional emergency stop button (Not used in US and Canada) .....	63
12.3	Infrared presence sensing system .....	63
12.4	Pressure sensitive safety edges .....	64
12.5	Activator PIR .....	65
	12.5.1 Mechanical installation .....	65
	12.5.2 Electrical connections .....	65
	12.5.3 Adjustment PIR .....	66
12.6	Activator DSR .....	67
	12.6.1 Adjustment of sensitivity .....	67
12.7	Vertical presence photocell sensor PDR .....	68
	12.7.1 Wiring .....	69
	12.7.2 Setup .....	69
13	Troubleshooting .....	70
13.1	Error indication .....	70
14	Parameters configuration .....	72
14.1	System parameters .....	72
15	Service/Maintenance .....	75
15.1	General service inspection .....	75
	15.1.1 Test of emergency stop button (Not used in US and Canada) .....	77
	15.1.2 Vertical presence photocell sensor PDR .....	78
	15.1.3 Safety devices on the door .....	78
	15.1.4 Mechanical safety devices .....	79
	15.1.4.1 Horizontal pressure sensitive safety edges, door leaves .....	79
	15.1.4.2 How to replace .....	79
	15.1.4.3 Vertical safety edges, door leaves .....	80
	15.1.4.4 How to replace .....	80
	15.1.5 Drive unit .....	80
16	Web interface utility .....	81
16.1	General description of the web interface .....	82
16.2	How to login to the operator .....	83
16.3	Correction of out of range data .....	84
16.4	Make a learn procedure .....	84
16.5	Download/Upload a full configuration via the web interface .....	84
16.6	Web browser compatibility .....	84

---

17	<b>RD Connect app</b> .....	85
17.1	Alternatives for installation of the <b>RD Connect</b> app .....	86
17.2	Run the <b>RD Connect</b> app .....	86

# 1 Revision

**The following pages have been revised:**

Page	Revision -
	This is the first version of RD150-3 and RD150-4 Installation and Service Manual.

## 2 Instructions for safe operation



- Failure to observe the information in this manual may result in personal injury or damage to equipment.
- To reduce the risk of injury of persons - use this door set only as a pedestrian door.
- Do not use the equipment if repair or adjustment is necessary.
- Disconnect supply when cleaning or other maintenance is to be carried out.
- The operator can be used by children over 8 years of age if they have been instructed by a person in charge of their safety.
- The operator can be used by children 8 years of age or younger if they are supervised by a person responsible for their safety.
- The operator can be used by persons with impaired physical, sensory or mental capacity if they have been instructed by a person in charge of their safety.
- Cleaning and user maintenance shall not be made by children.
- Do not let anyone climb on or play with the door or the fixed/remote controls.
- In all instances, where work is being done, the area is to be secured from pedestrian traffic, and the power removed to prevent injury.
- The doorset can be operated automatically by sensors or manually by activators.

## 3 Important information

### 3.1 Intended use

The ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4 are automatic revolving doors developed to provide draught free access to buildings.

The door is designed to offer continuous use, a high degree of safety and maximum lifetime. The system is self-adjusting to the effects caused by normal variations in the weather conditions and to minor friction changes caused by e.g. dust and dirt.

This manual contains the necessary details and instructions for the installation, maintenance and service of the Revolving Doors ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4.

The door can be used indoors or outdoors. Outdoor use with water resistant cover.

For use see User manual 1014896.

Save these instructions for future reference.

### 3.2 Safety precautions

When opening the box check that door leaves have not shifted during transport. Always use tools provided for lifting.

Be sure to complete a risk assessment according to "Guide for installers of Powered Pedestrian Revolving Doors" (PRA-0002) and fill in the "Site Acceptance Test" (PRA-0003) before taking the door into operation.

To avoid bodily injury, material damage and malfunction of the product, the instructions contained in this manual must be strictly observed during installation, adjustment, repairs and service etc. Training is needed to carry out these tasks safely. Only ASSA ABLOY Entrance Systems-trained technicians should be allowed to carry out these operations.

### 3.3 Electronic equipment reception interference

The equipment may generate and use radio frequency energy and if not installed and used properly, it may cause interference to radio, television reception or other radio frequency type systems.

If other equipment does not fully comply with immunity requirements interference may occur.

There is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Relocate the receiver with respect to the equipment.
- Move the receiver away from the equipment.
- Plug the receiver into a different outlet so that equipment and receiver are on different branch circuits.
- Check that protective earth (PE) is connected.

If necessary, the user should consult the dealer or an experienced electronics technician for additional suggestions.

### 3.4 Environmental requirements

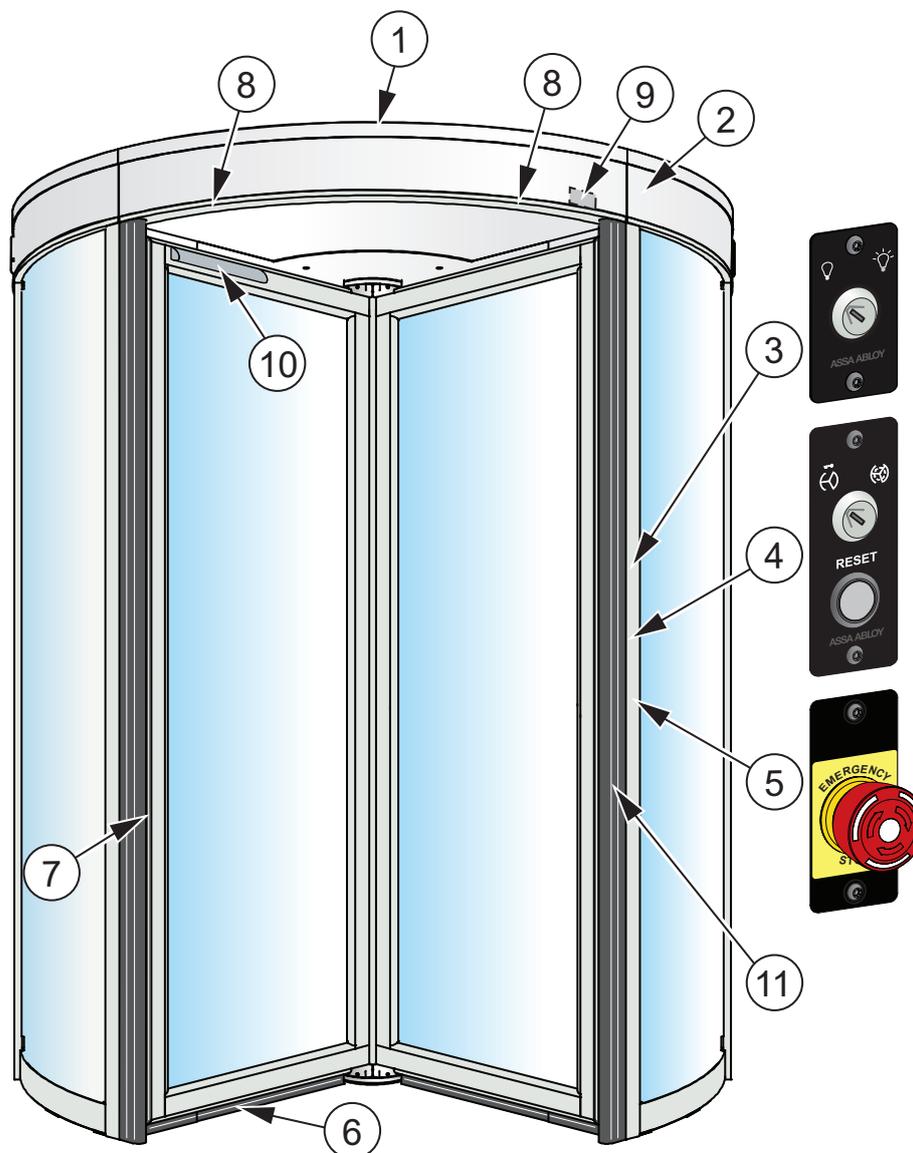
ASSA ABLOY Entrance Systems products are equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Disconnect power before removing electronics and battery and make sure it is disposed of properly according to local regulations (how and where) as was done with the packaging material.

## 4 Technical specifications

Manufacturer:	ASSA ABLOY Entrance Systems AB
Address:	Lodjursgatan 10, SE-261 44 Landskrona, Sweden
Type:	ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4
Mains power supply:	100-240 V AC +10/-15%, 50/60 Hz, mains fuse max 10A (building installation)  <b>Note!</b> The mains supply shall be installed with protection and an all-pole mains switch with isolating capability of Category III, at least 3 mm between contacts, shall be installed according to local regulations. These articles are not provided with the door.
Power consumption:	360W
Mains fuse F1, F2:	2 x T 6,3 AH/250 V
Temperature range:	-20 to +50°C
Degree of protection:	IP20
Degree of protection, control actuators:	IP54
Glass type:	Standard door leaves - clear laminated safety glass 3+0.38+3 mm (EN12600/2B2) Standard outer wall and night closing doors - clear laminated safety glass 4+0.76+4 mm (EN12600/1B1)
Approvals:	Third party approvals from established certification organizations valid for safety in use, see Declaration of Conformity.

## 5 Identification

### 5.1 Main parts



No.	Description
1	Dust protection roof (max. load 0 kg) Do not walk or store any material on the roof!
2	Control unit CDC100 (behind fascia sheets)
3	Lighting LED with control (option)
4	ON/OFF switch
5	Emergency stop button (Not used in US and Canada)
6	Horizontal pressure sensitive safety edges on the door leaves (option)
7	Vertical pressure sensitive safety edges on the door leaves (option)
8	Activation units
9	Vertical presence photocell sensor PDR (option)
10	Infrared presence sensing system (option)
11	Pressure sensitive safety edges on the drum edges

## 6 Pre-installation

### 6.1 General tips/Safety concerns



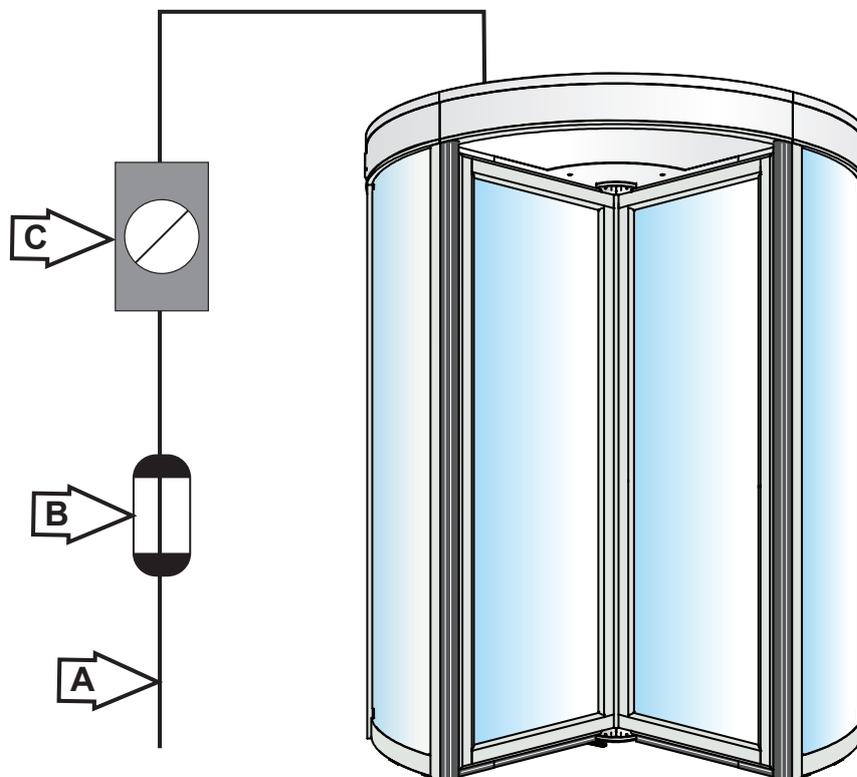
In all instances, where work is being done, the area is to be secured from pedestrian traffic, and the power removed to prevent injury.

- If there are sharp edges after drilling the cable outlets, chamfer the edges to avoid damage to the cables.
- For enhanced security and vandalism protection, always mount the operator access in the interior of a building whenever possible.
- Make sure the ambient temperature is in the range specified in section Technical specification.
- Make sure that the power is off before installing.
- Make sure that the door leaf and the wall are properly reinforced at the installation points.
- Unpack the operator and make sure that all parts are delivered in accordance with the packing note and that the operator is in good mechanical condition.
- Ensure proper material is being used for the door leaves and that there are no sharp edges. Projecting parts shall not create any potential hazards. If glass is used bare glass edges shall not come in contact with other glass. Toughened or laminated glass are suitable glasses.
- At least two persons are required to lift and handle drive parts.
- Ensure that entrapment between the driven part and the surrounding fixed parts due to the opening movement of the driven part is avoided. The following distances are considered sufficient to avoid entrapments for the parts of the body identified;
  - for fingers, a distance greater than 25 mm or less than 8 mm
  - for feet, a distance greater than 50 mm
  - for heads, a distance greater than 200 mm
  - and for the whole body, a distance greater than 500 mm
- Danger points shall be safe guarded up to a height of 2.5 m from the floor level.

## 7 Installation

### 7.1 Pre-installation check

#### Mains supply



	Description
A	Mains power supply
B	Protection (fuse, circuit breaker)
C	Main switch

The mains power supply shall be installed with protection and an all-pole mains switch with isolating capability of Category III, at least 3 mm between contacts, shall be installed according to local regulations. These articles are not provided with the door.

The mains inlet to the door is a point above the door according to illustration. The hole for the cable shall have a diameter of minimum 14 mm.

## 7.2 Floor surface

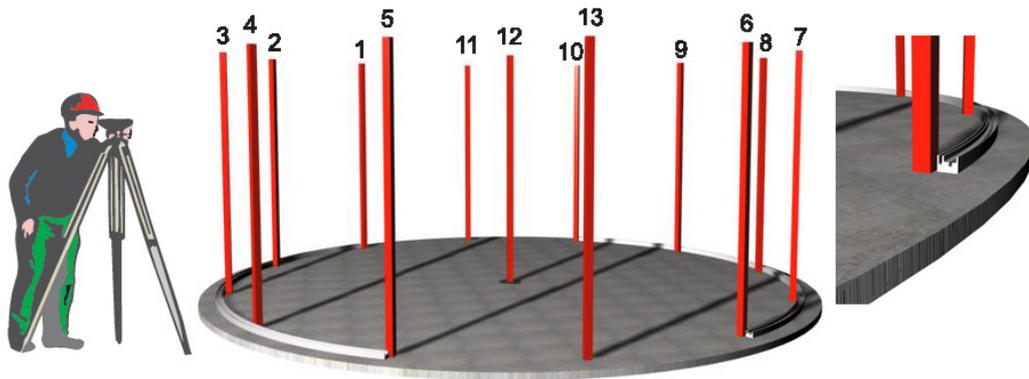
Check if the surface where the door is to be placed is suitable.

Measure the floor surface.

Fill in the table below.

Mark the highest point.

If the difference is more than  $\pm 3$  mm, the contractor needs to be contacted.



Spot	Value	0-spot value	Difference (Max +/- 3mm)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

## 7.2.1

## Mark up

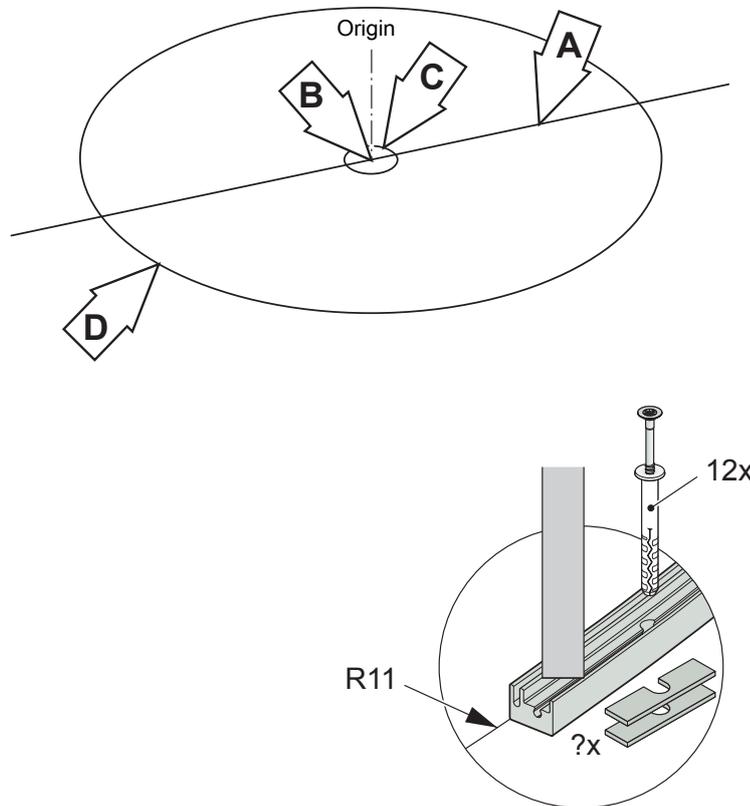
Mark line A. Line A is the centre line of the door between the adjacent walls.

Mark the centre point of the door B along line A.

Mark circle C. Use the centre pivot plate as guide.

Mark circle D. This circle is the inside diameter of the fixing rails. For radius, see table.

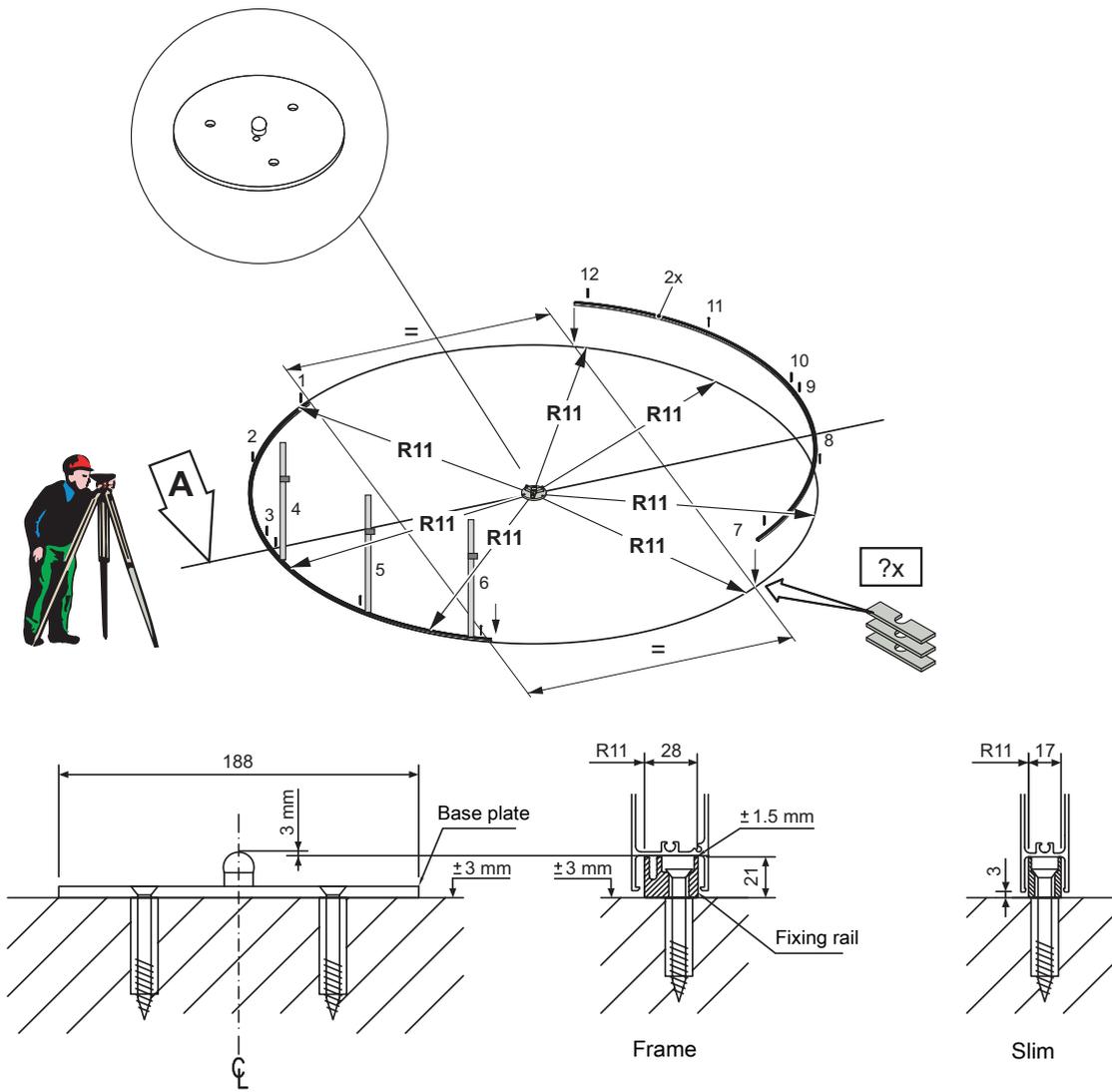
If a ground ring is used, use the centre of the ground ring as a guide for line A and centre B.



Door type	Nominal R11 Frame (inside)	Nominal R11 Slim (inside)
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-18	906	904
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-21	1056	1054
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-24	1206	1204
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-27	1356	1354
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-30	1506	1504

Max. deviation 1 mm

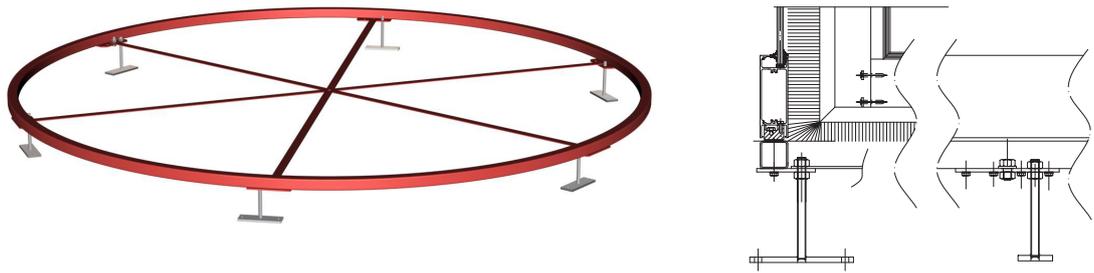
### 7.3 Fit the fixing rail and the centre plate



Fixing bolt size is 7x100 mm.

Spot	Value	0-spot value	Difference Max. +/- 0.5 mm
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
12			

## 7.4 Ground ring (option)



Door type	Article No.	D
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-18	1000990 -18	1880
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-21	1000990 -21	2180
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-24	1000990 -24	2480
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-27	1000990 -27	2780
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-30	1000990 -30	3080

The kit consists of:

- 2x 180° ring parts
- 6x Plates
- 6x Spokes
- 7x Supports
- 6x Screws M6S M12 x 20
- 20x Nuts M6M M12
- 16x Screws RTS ST 6.3 x 19

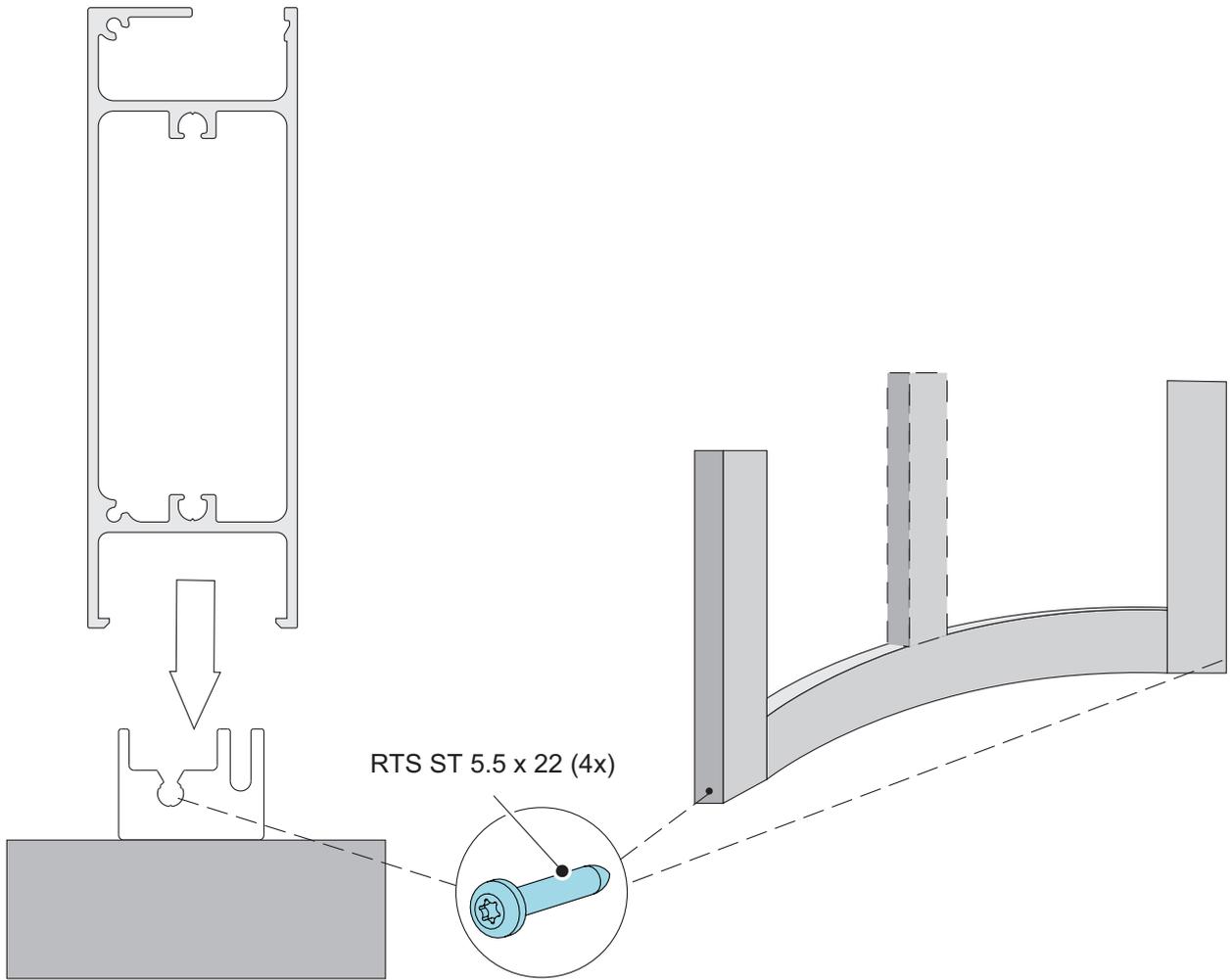
### Mounting



- a Screw the two 180° ring parts together.
- b Mount the spokes and the supports.
- c Put the ground ring in its correct position.
- d Check the roundness of the ground ring.
- e Level the ground ring to its correct height by adjusting the supports.
- f Fix the ground ring to the floor.
- g If necessary, cut the threaded rod on the supports.

7.5 Outer walls

7.5.1 Outer wall sections

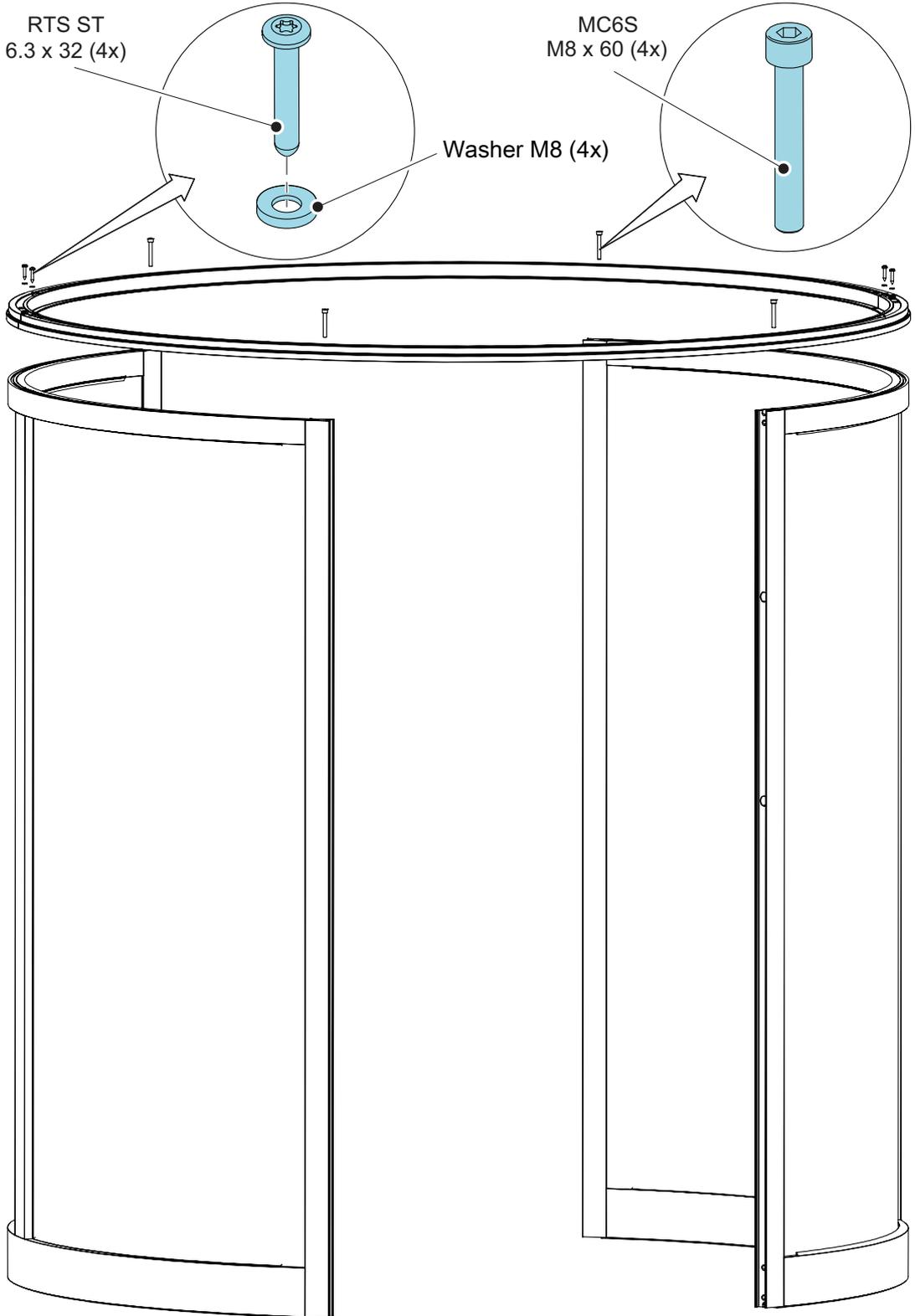


## 7.5.2

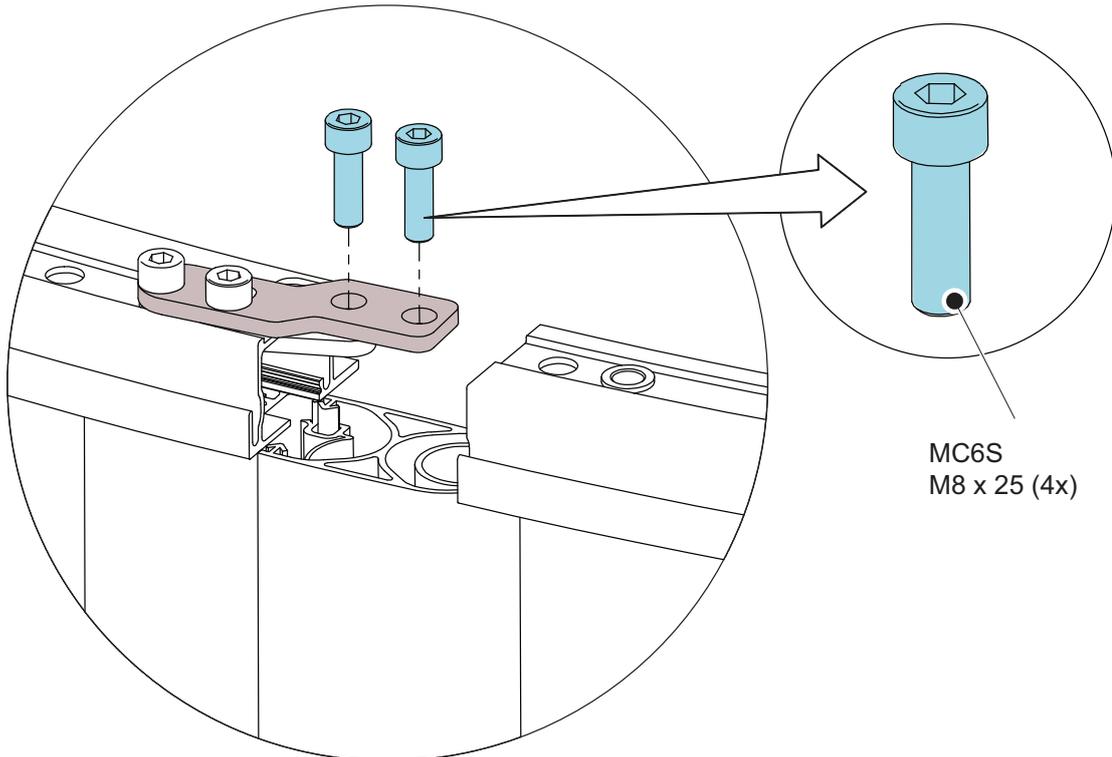
## Wall ring Frame

RTS ST  
6.3 x 32 (4x)MC6S  
M8 x 60 (4x)

Washer M8 (4x)

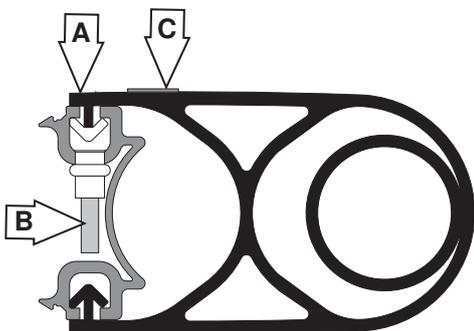


## 7.5.3 Wall ring Slim



## 7.5.4 Safety edges, outer wall

- a Mount the safety edge to the outer wall.
- b Loosen the edge of the rubber (A) to get access to the screw behind it.
- c Tighten the screw (B).
- d Put the rubber back in place.
- e Screw side marked with green dot (C).
- f Two screws are located 10mm from each end of the aluminium fixing profile and one at the middle of the profile length.

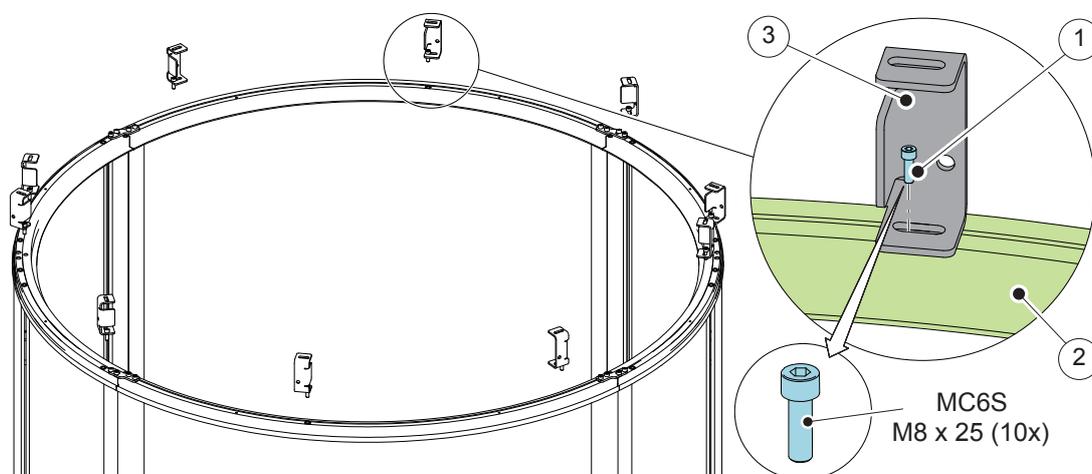


ILL-02255

## 7.5.5

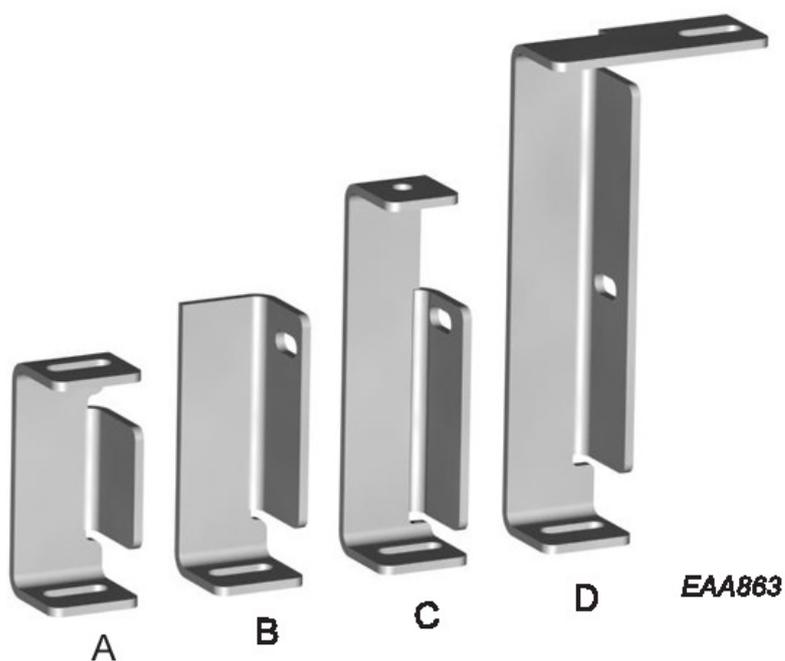
## Brackets

- a Do not tighten the bolts (1) until the wall ring (2) has been installed and adjusted.
- b The brackets (3) close to the openings shall be located above the wall sections.



- 1 Bolt
- 2 Wall ring
- 3 Bracket

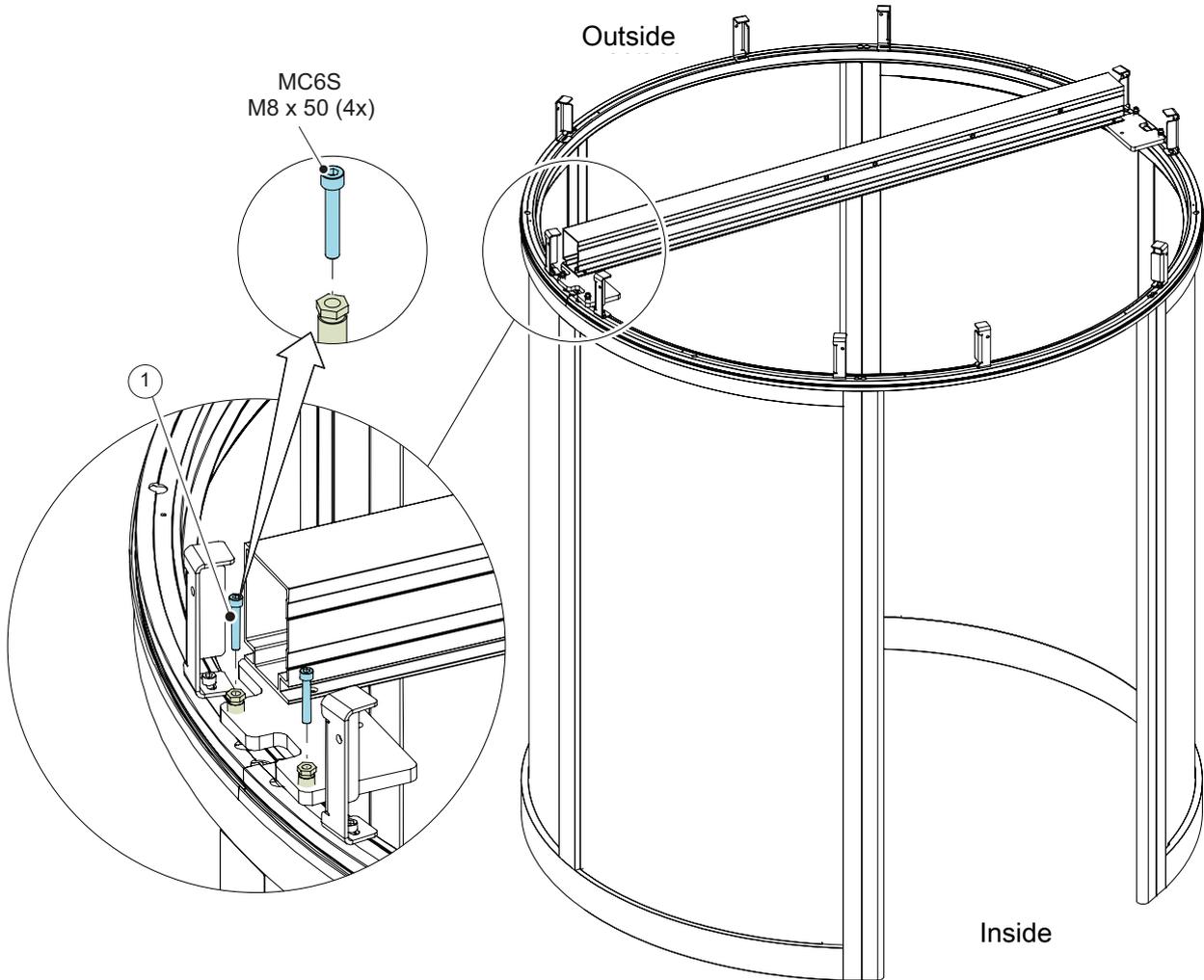
## Brackets



Item	Used where?
A	Door without NCD. Internal half of doors with NCD. Fascia height 200 - 1250 mm.
B	External half of doors with NCD. Fascia height 200 - 210 mm.
C	External half of doors with NCD. Fascia height 211 - 280 mm.
D	External half of doors with NCD. Fascia height 281 - 1250 mm.

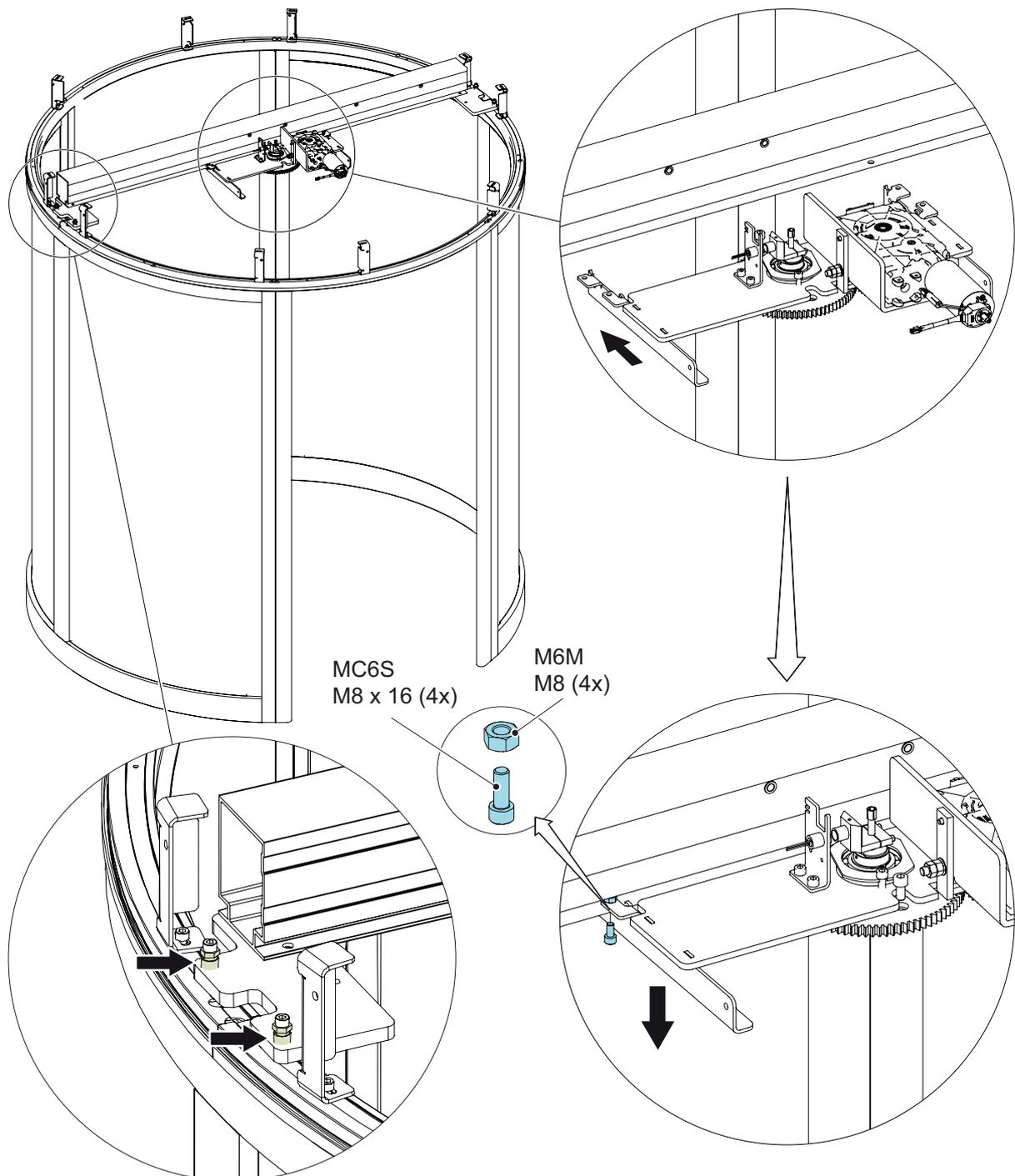
### 7.6 Centre beam

- a Do not tighten the bolts (1) until the centre shaft has been aligned with the outer walls.



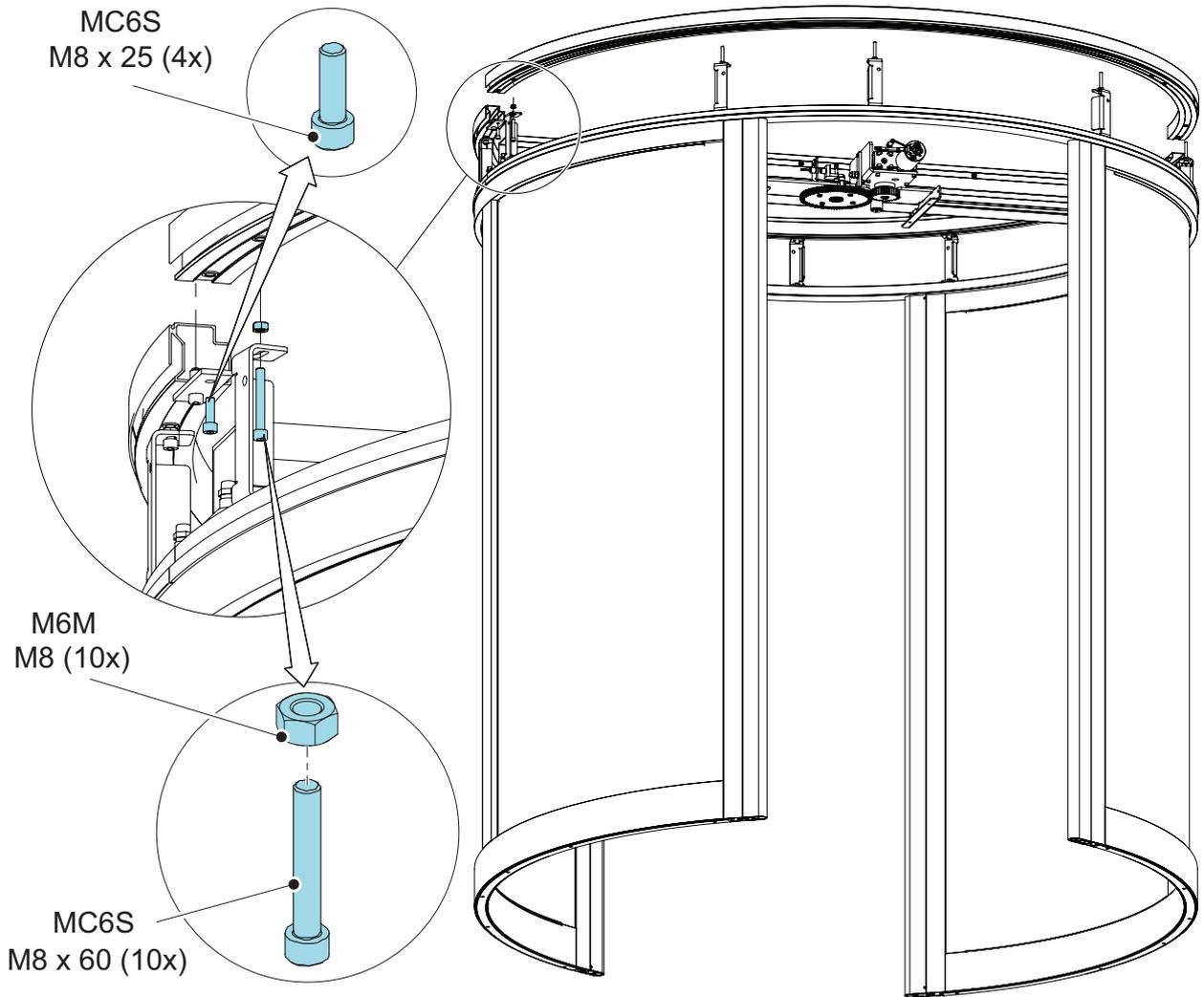
1 Bolt

## 7.7 Drive unit



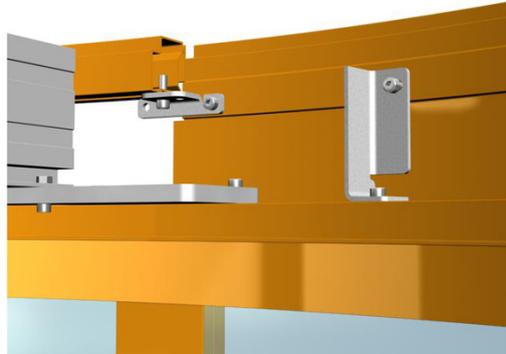
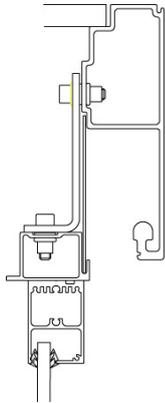
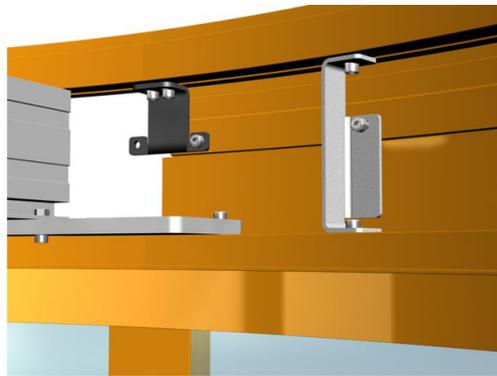
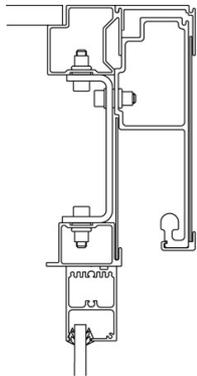
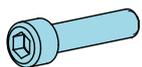
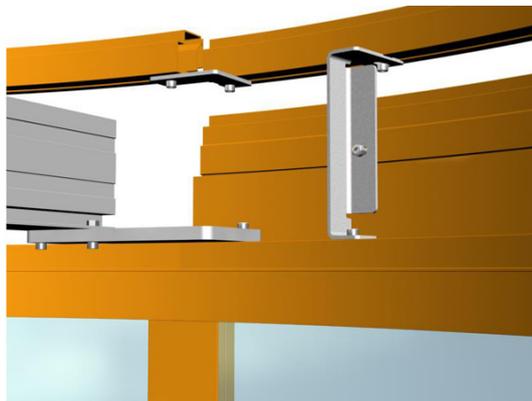
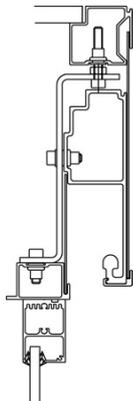
Level the drive unit with the adjustment screws on the centre beam fixing brackets.

7.8 Top ring



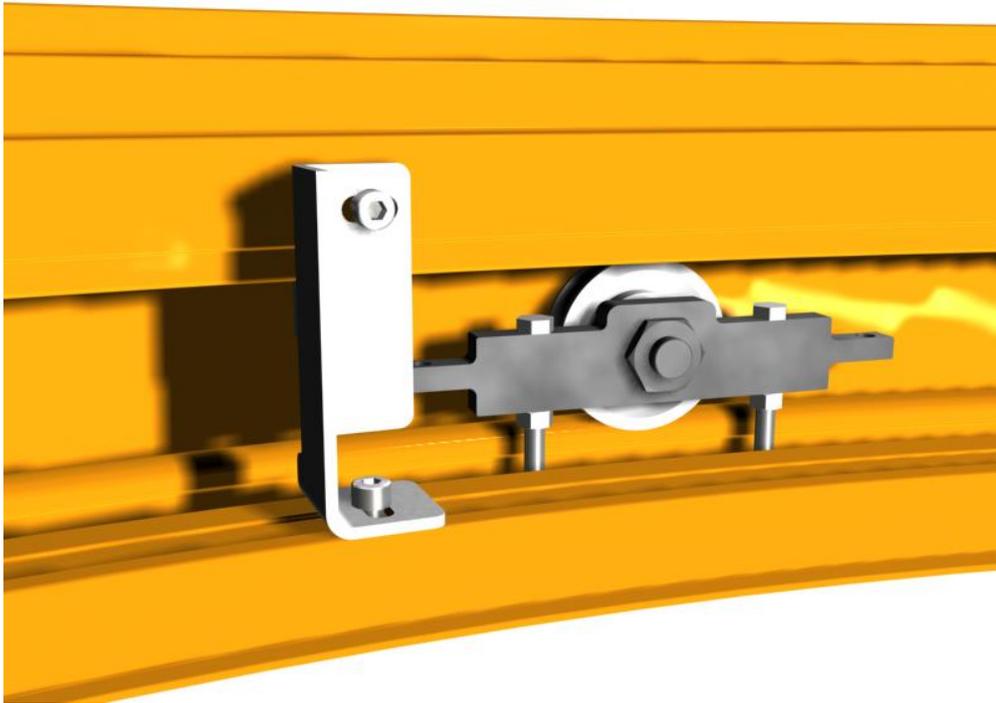
## 7.9 Night closing doors (Not used in US and Canada)

## 7.9.1 Support beam

**Fascia height 200 - 210 mm****Fascia height 211 - 280 mm****Fascia height 281 - 1250 mm**

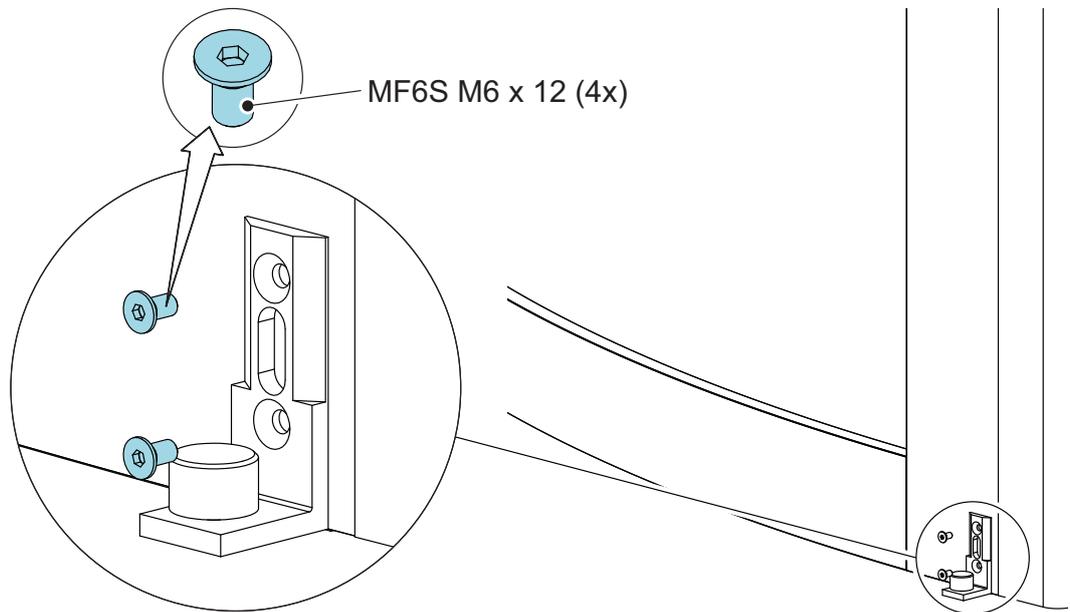
MC6S M8 x 25

7.9.2 Carriage wheel fittings

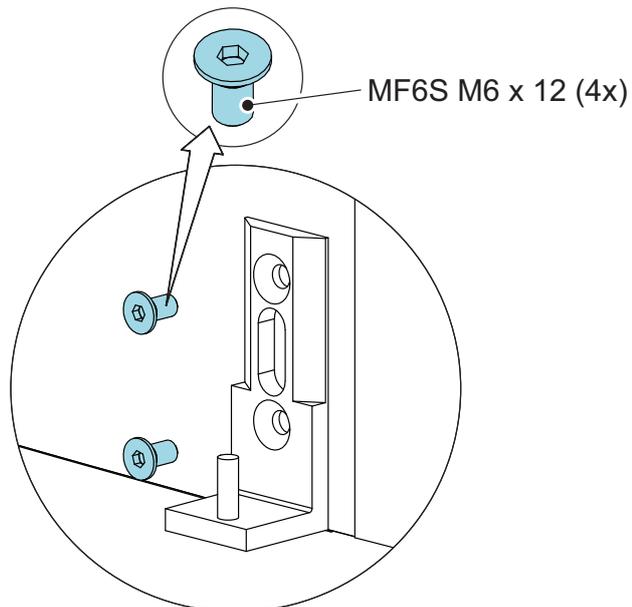


## 7.9.3 Floor guide

## Frame NCD

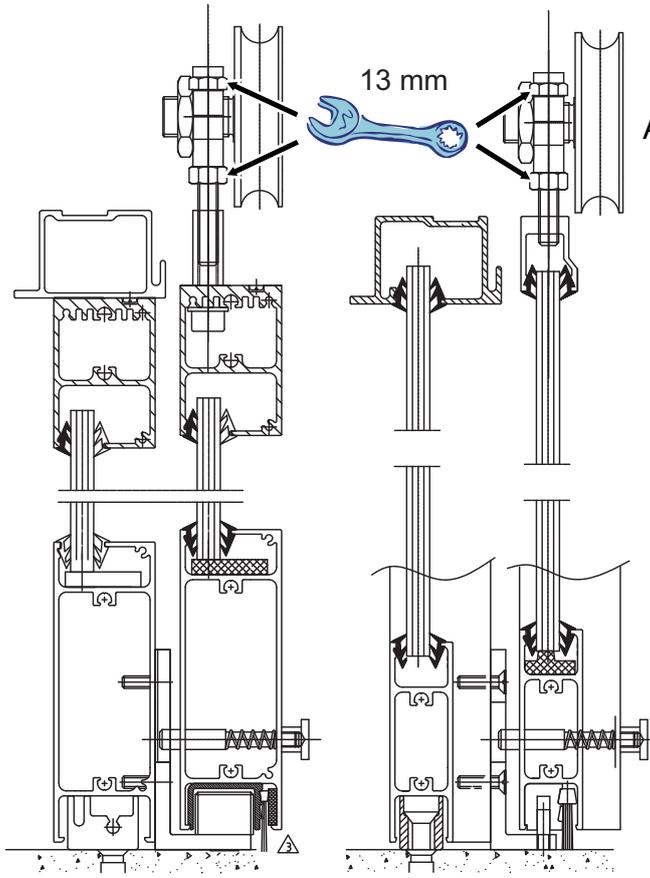
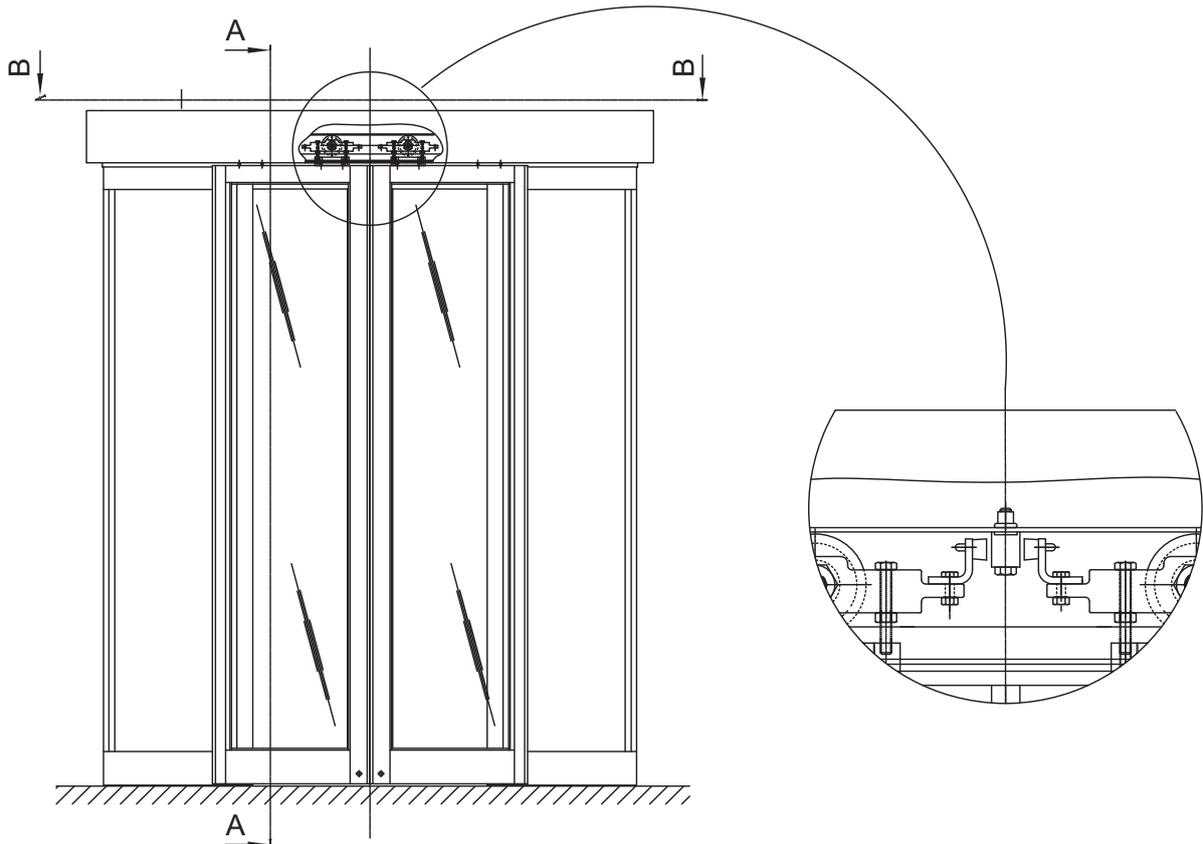


## Slim NCD



7.9.4 Door leaves





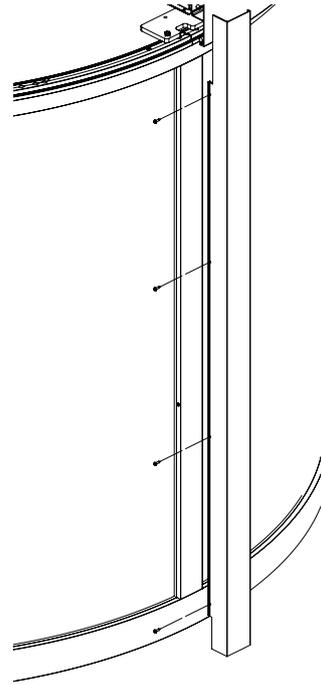
Adjust the height of door leaves.

Frame

Slim

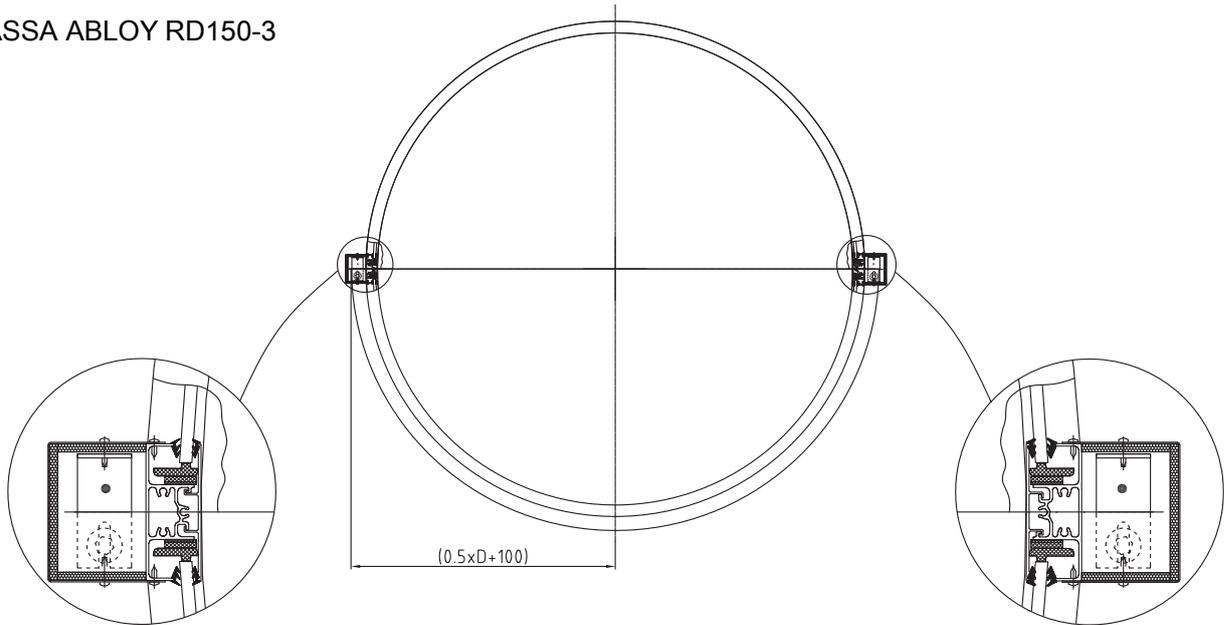
Cut A-A

7.9.5 Slam posts

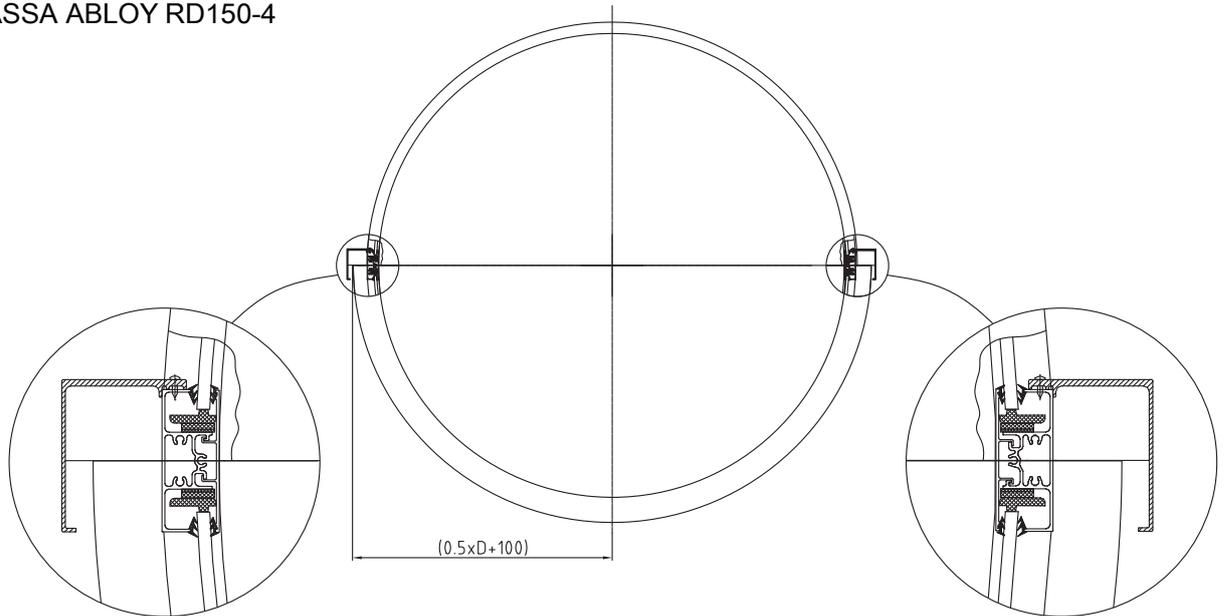


RTS ST 5.5 x 13

## ASSA ABLOY RD150-3

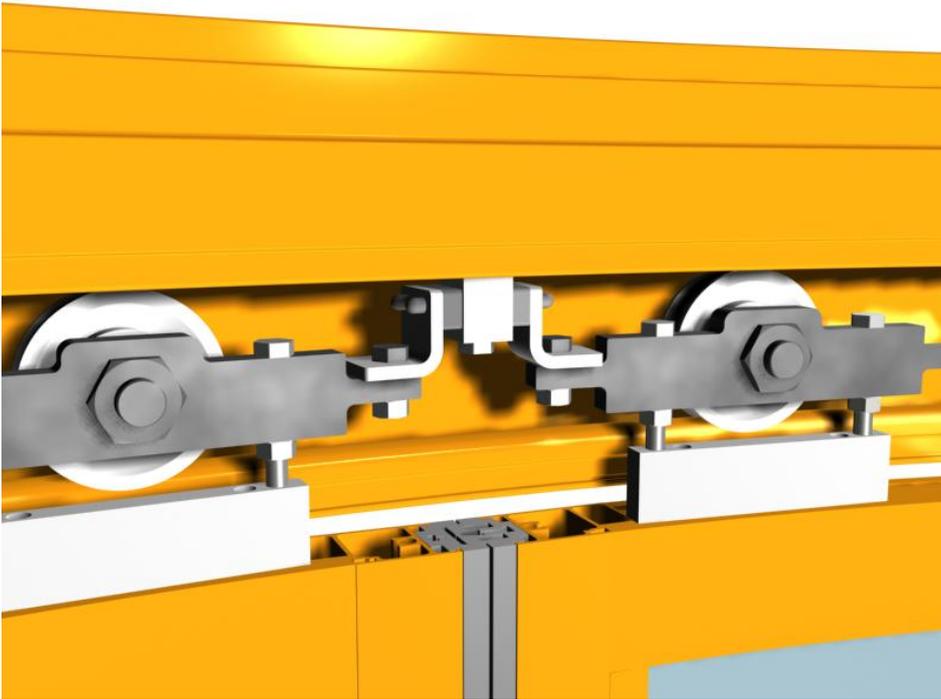


## ASSA ABLOY RD150-4



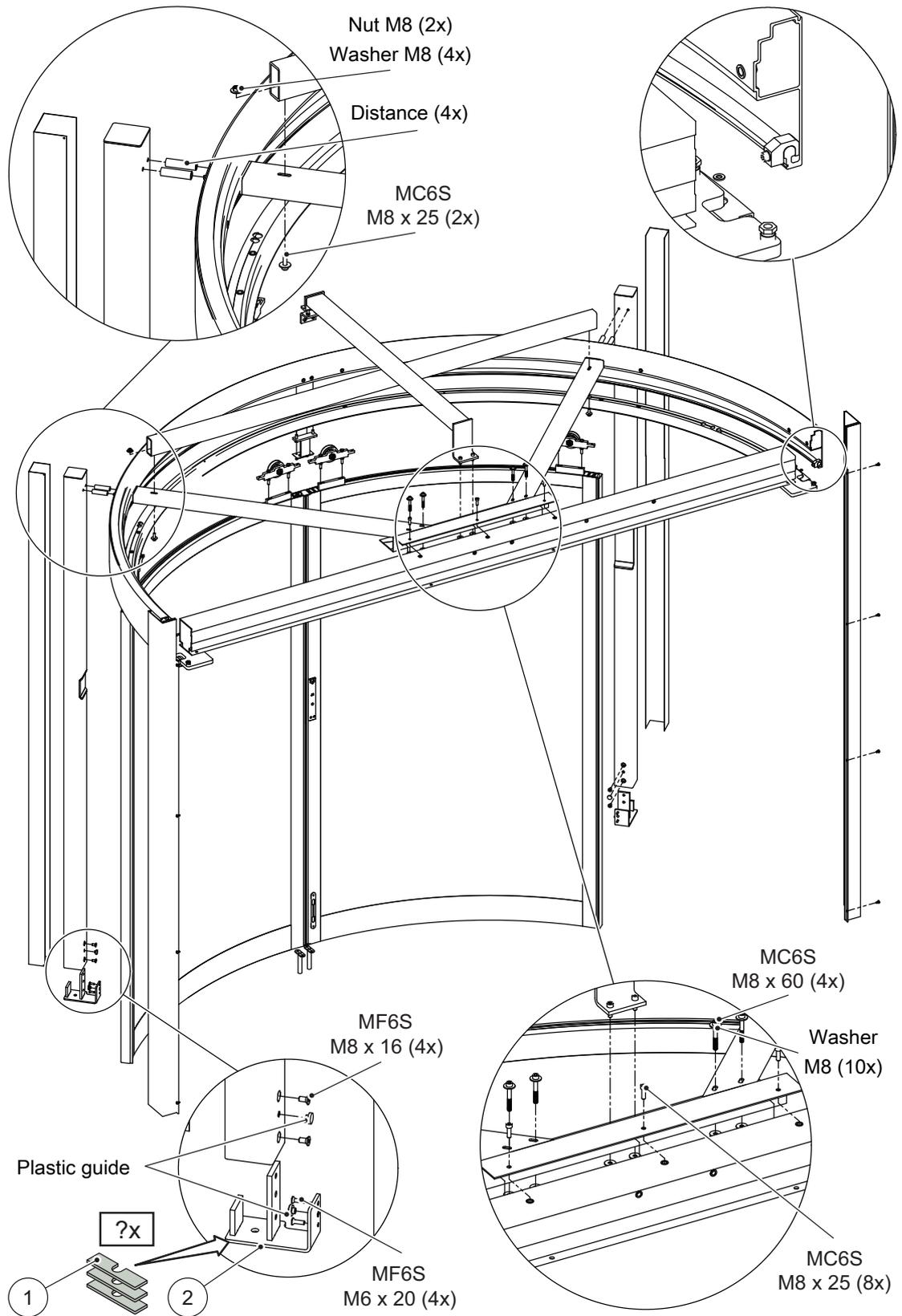
Cut B-B

7.9.6 Door stop

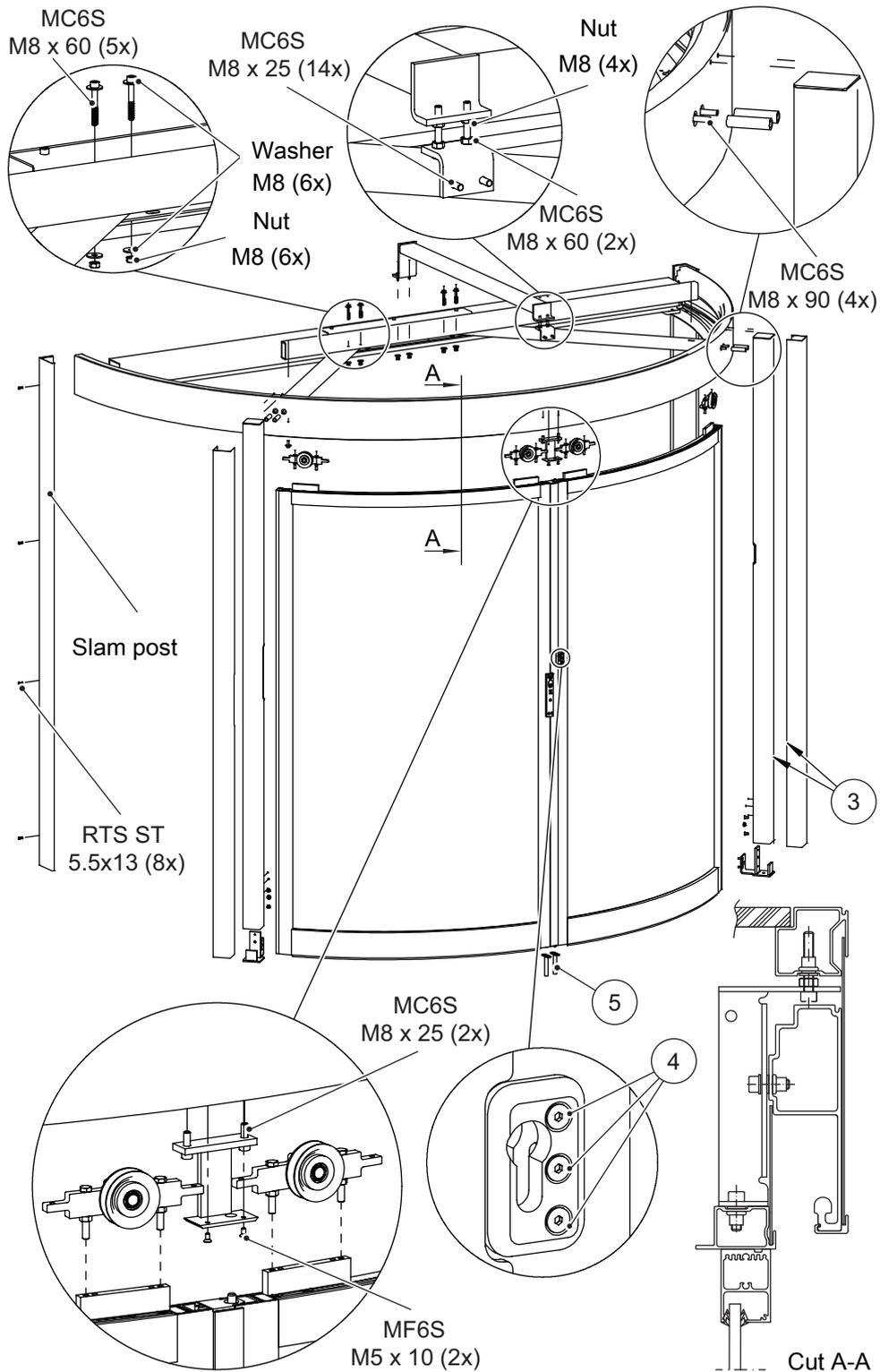


M6M M6  
M6S 8 x 20  
M6S 6 x 35

7.10 Night closing doors burglar resistance class 3 EN1627:2011 (Not used in US and Canada)



- a Put steel spacers (1) to fill the 3mm gap between finished floor and floor guide bracket (2), and tighten the screw into concrete.



- b Glue cladding (3) (when applicable) at site.
- c Screws head (4) shall be drilled to ensure they cannot be removed. Put silicone sealant on the broken screws' head in case of rust.
- d Espagnolette floor guide (5) shall be installed at last for the best fitting. Lock the door, and mark the pin position on concrete. Drill holes and fix the Espagnolette floor guide into the floor.

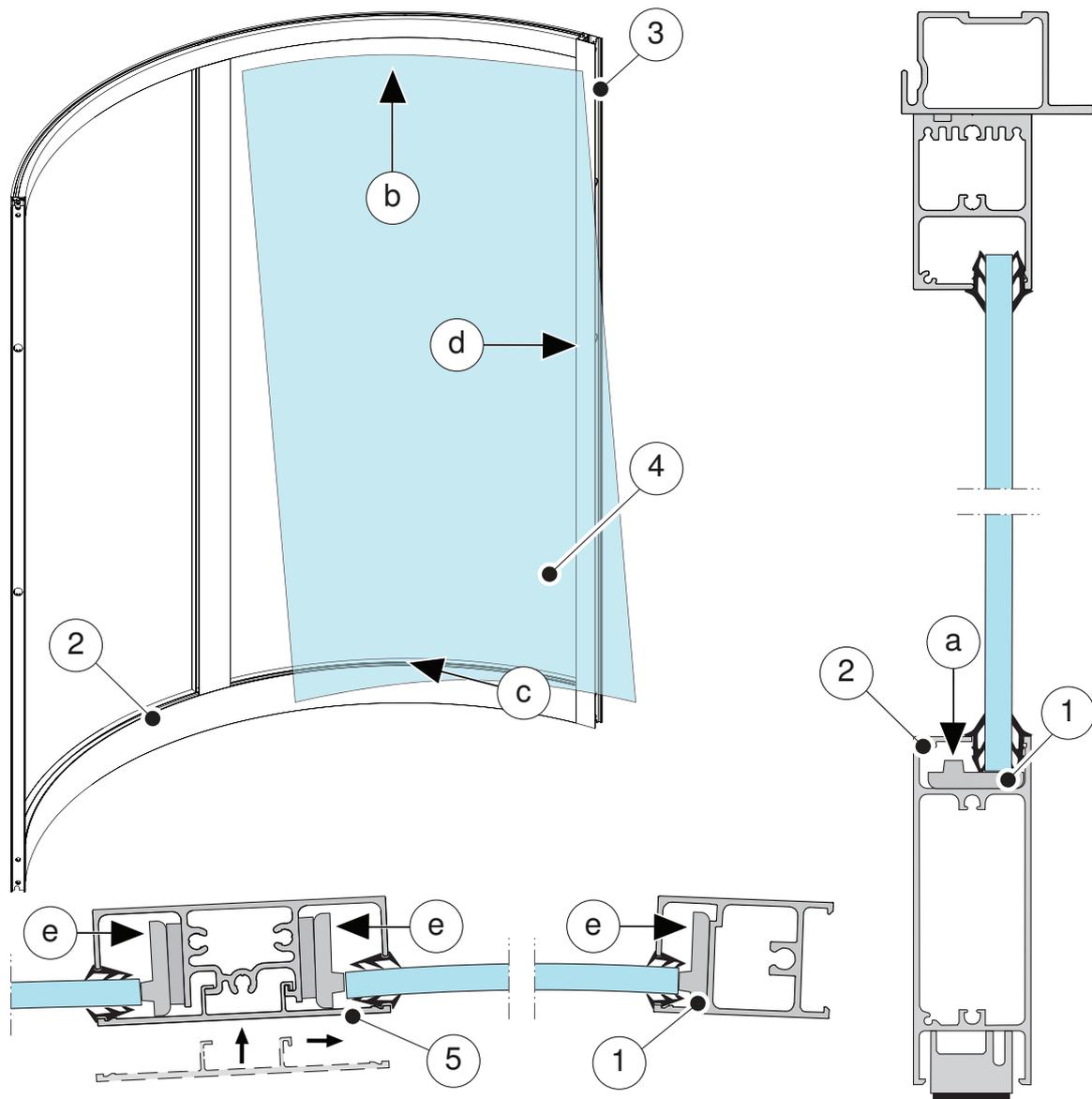


**Note!** To fulfill resistance class 3 EN 1627:2011, all glass, door leaves and outer wall must be glued (Silicone).

## 7.11 Glazing

**Glazing of curved glasses**

- a Mount the glazing blocks (1) in the bottom rail (2) and the entrance post (3).
- b Push the glass (4) into the head profile.
- c Let the glass (4) slide down into the bottom rail (2).
- d Push the glass (4) into the entrance post (3).
- e Mount the blocks between the glass (4) and the vertical glazing bar.
- f When both glasses (4) are in place in the wall section, mount the cover profile (5).
- g Mount the rubber glazing strips.

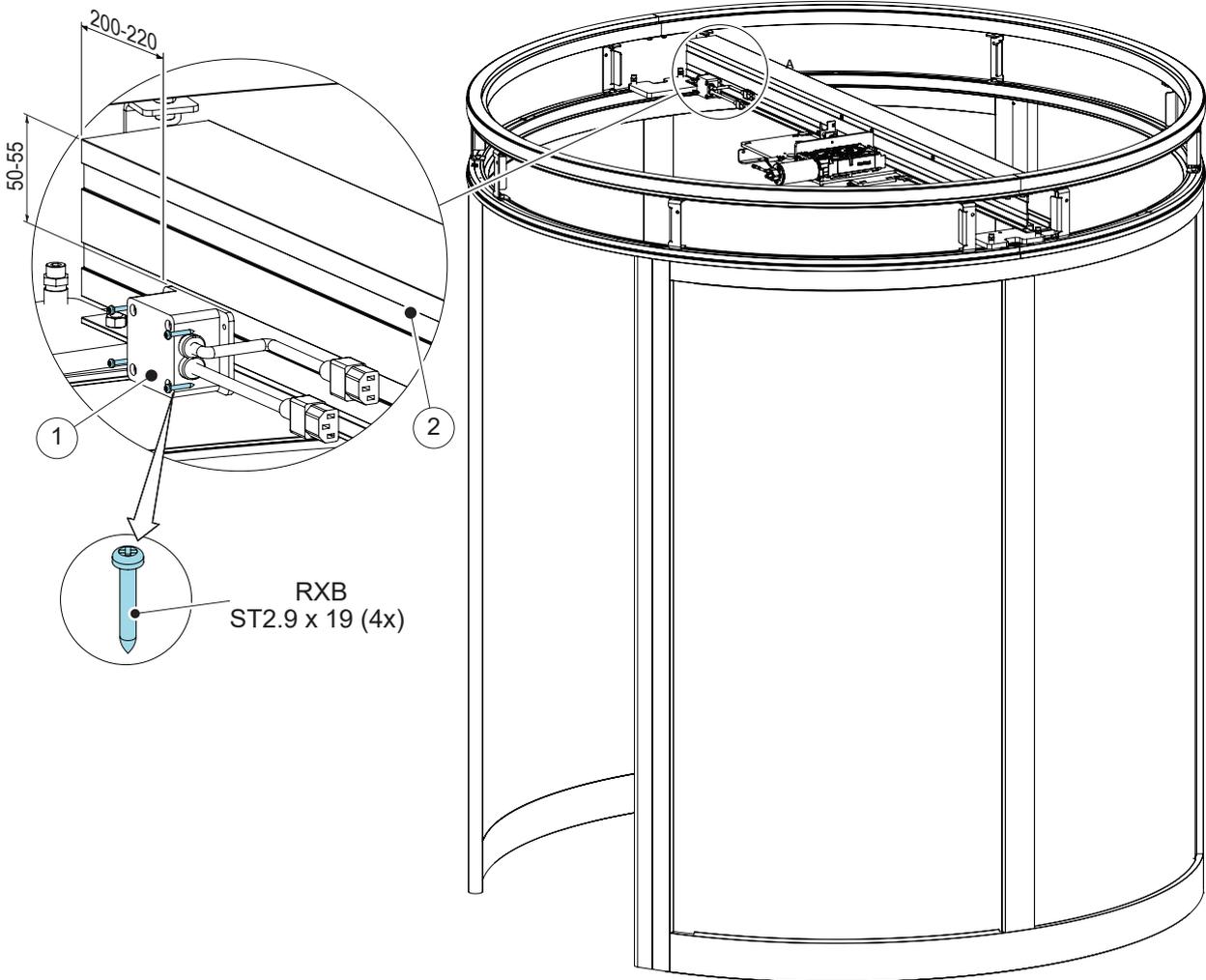


- 1 Glazing block
- 2 Bottom rail
- 3 Entrance post
- 4 Glass
- 5 Cover profile

7.12 Electrical installation

7.12.1 Connection box

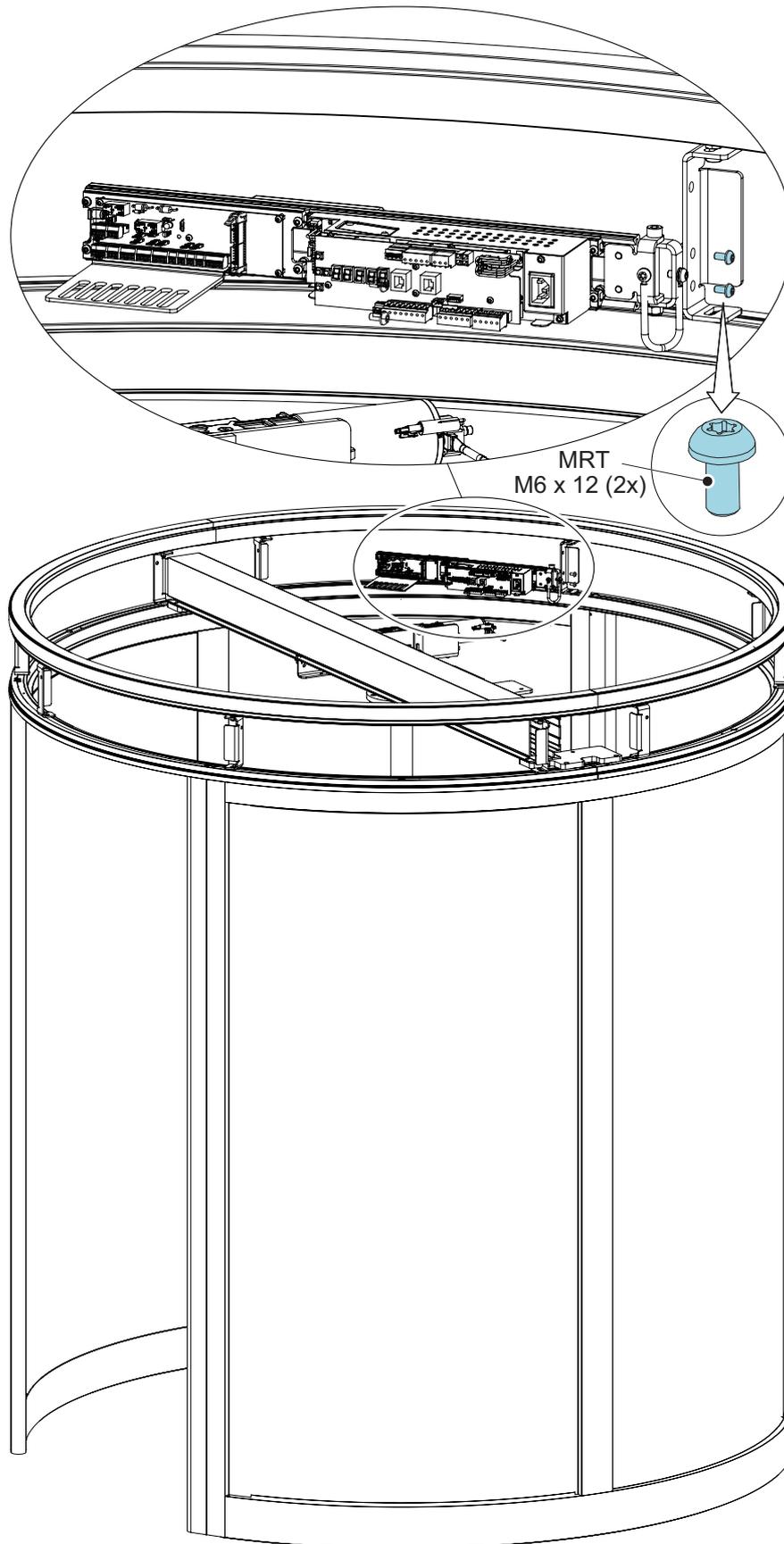
- a Fix the mains connection box (1) to the centre beam (2).



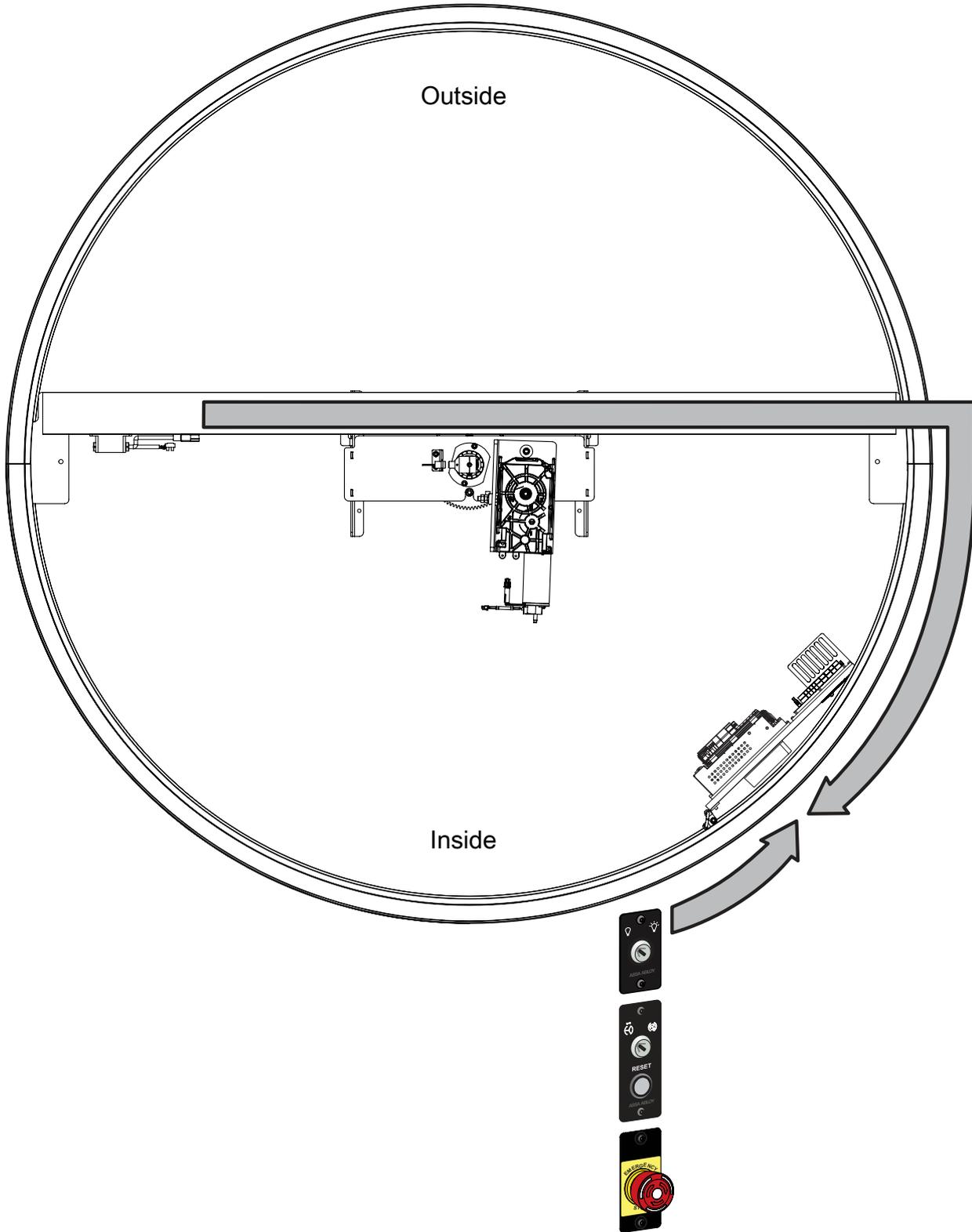
1 Mains connection box

2 Centre beam

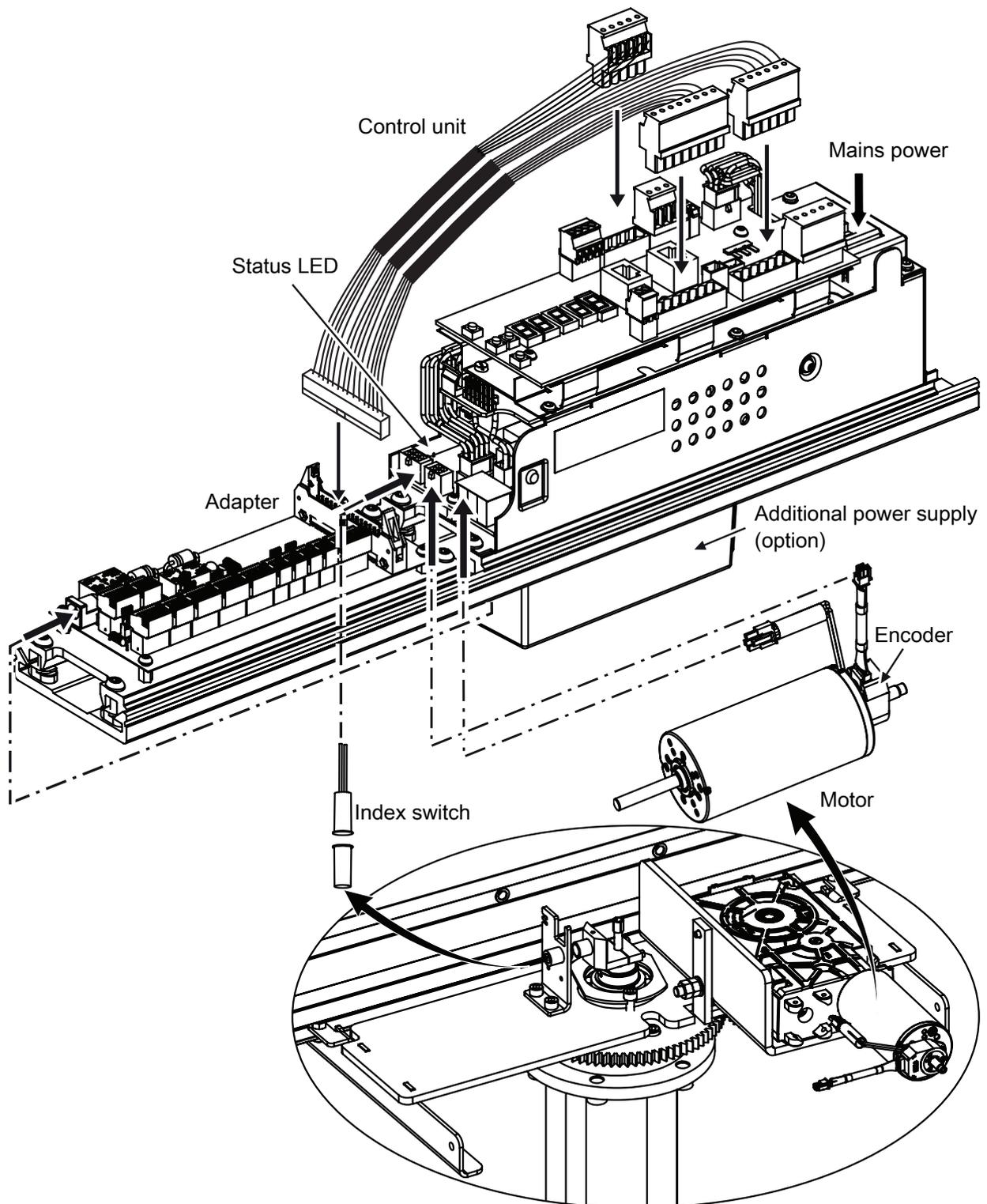
## 7.12.2 Control unit



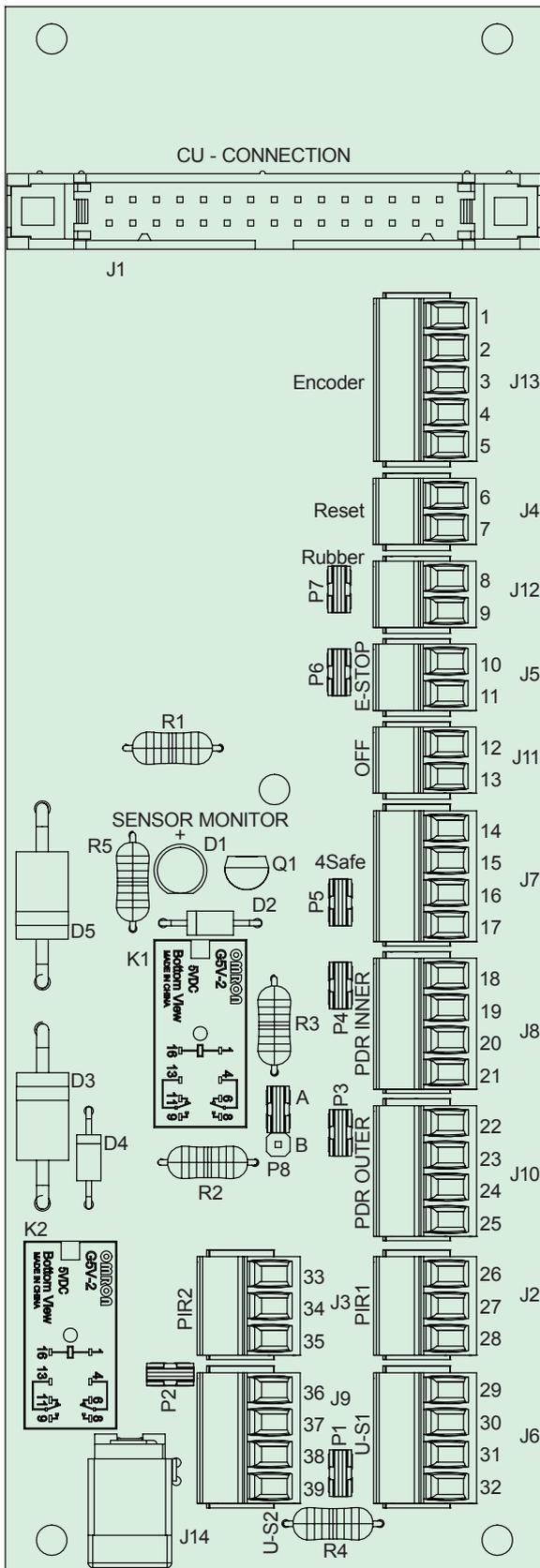
7.12.3 Cabling



## 7.13 Electrical connection



7.13.1 Adapter board



Conn.	Term			Description
J13	1	DC_	DC_	Encoder
	2	B	B	
	3	A	A	
	4	I/Z	I/Z	
	5	+5V	+5V	
J4	6	Fire al. reset	IN	Reset
	7	GND	-	
J12	8	PWM OUT	OUT	Pressure sensitive safety edges on the door leaves
	9	Open	IN	
J5	10	PWM OUT	OUT	Emergency stop
	11	Kill	IN	
J11	12	OFF	IN	ON/OFF switch
	13	GND	-	
J7	14	GND	-	Touchless presence sensors on the door leaves
	15	+24V	+	
	16	NC1_4Safe test	TEST	
	17	PIMP	IN	
J8	18	NO2_PDR test	TEST	Vertical presence photocell sensor PDR 1 (inner)
	19	PDET	IN	
	20	GND	-	
	21	+24V	+	
J10	22	NO2_PDR test	TEST	Vertical presence photocell sensor PDR 2 (outer)
	23	OIMP	IN	
	24	GND	-	
	25	+24V	+	
	26	GND	-	
J2	27	Key	IN	PIR1 (Impulse inner)
	28	+24V	+	
	29	+24V	+	
J6	30	GND	-	Pressure sensitive safety edges on the drum edges (inner)
	31	O/C_VS1	(IN)	
	32	PWM OUT	OUT	
	33	GND	-	
J3	34	Key	IN	PIR2 (Impulse outer)
	35	+24V	+	
	36	+24V	+	
J9	37	GND	-	Pressure sensitive safety edges on the drum edges (outer)
	38	O/C	IN	
	39	O/C_VS1	(IN)	

**Note!** Remove the jumper when device is connected.

Jumpers for:

P7: pressure sensitive safety edges on the door leaves

P6: emergency stop

P5: touchless presence sensors on the door leaves

P4: vertical presence photocell sensor PDR 1 (inner)

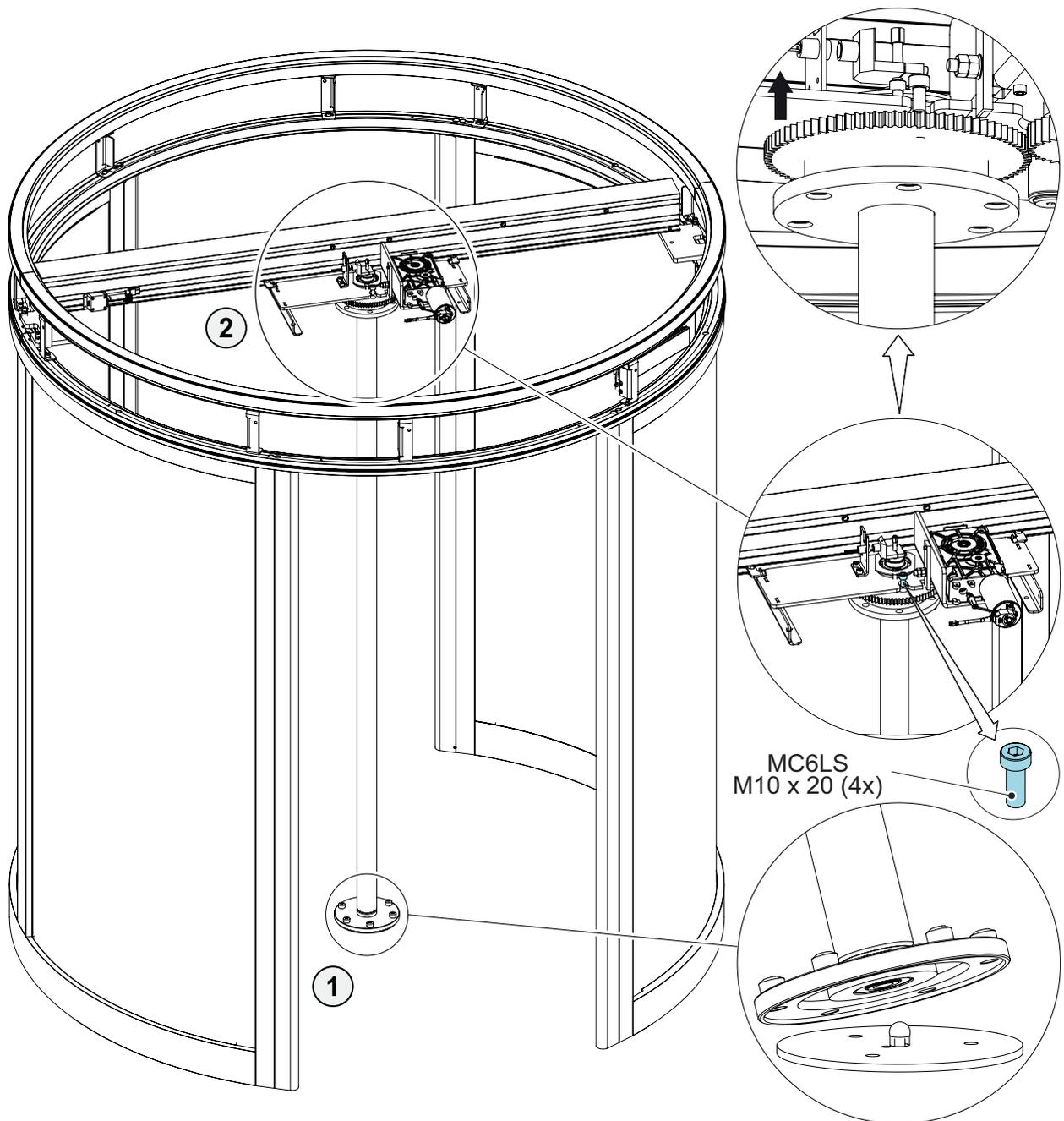
P3: vertical presence photocell sensor PDR 2 (outer)

P2: pressure sensitive safety edges on the drum edges (outer)

P1: pressure sensitive safety edges on the drum edges (inner)

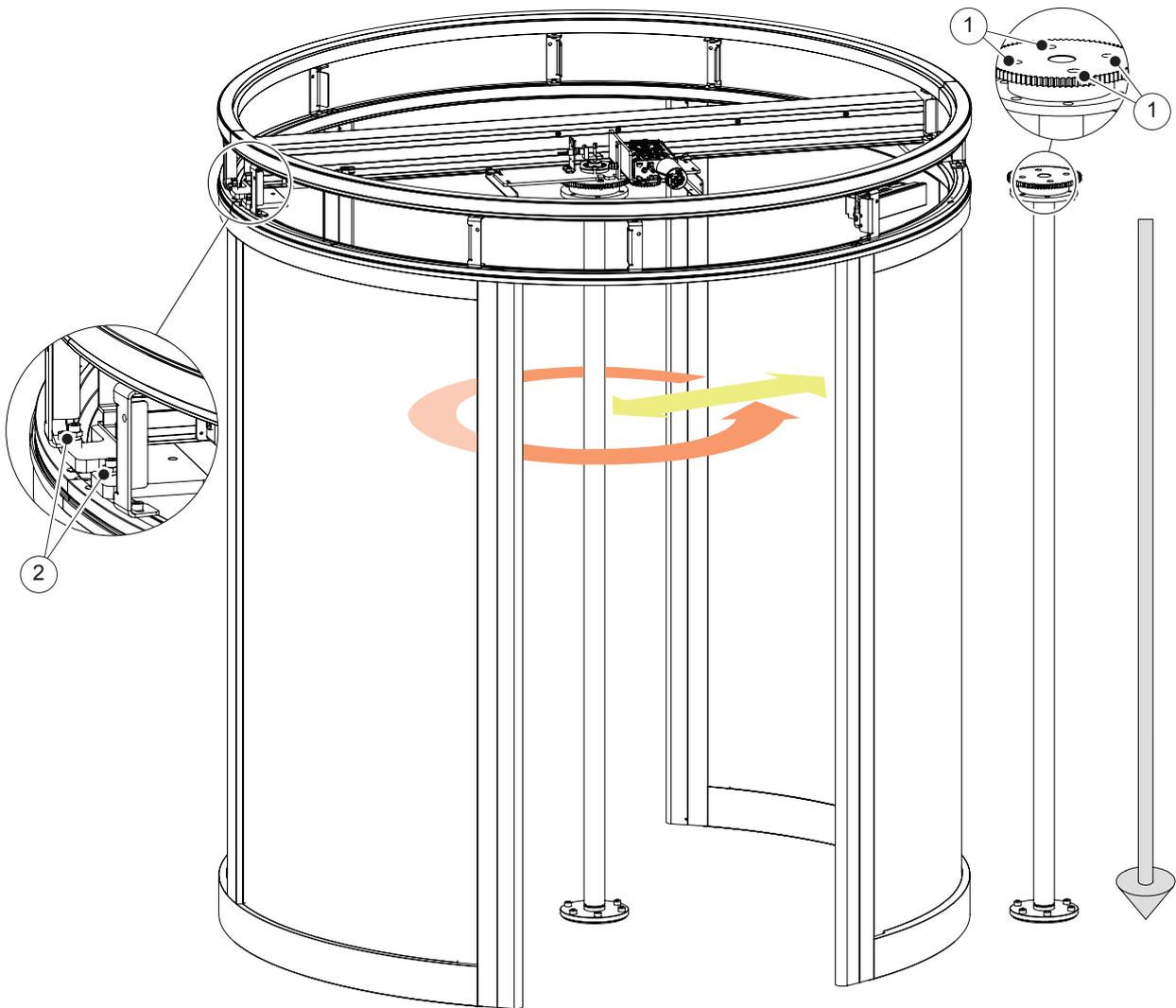
P8: when use sensor TOF/Spot as PDR, switch P8 to position "B" from default position "A".

## 7.14 Centre shaft



**Important:**

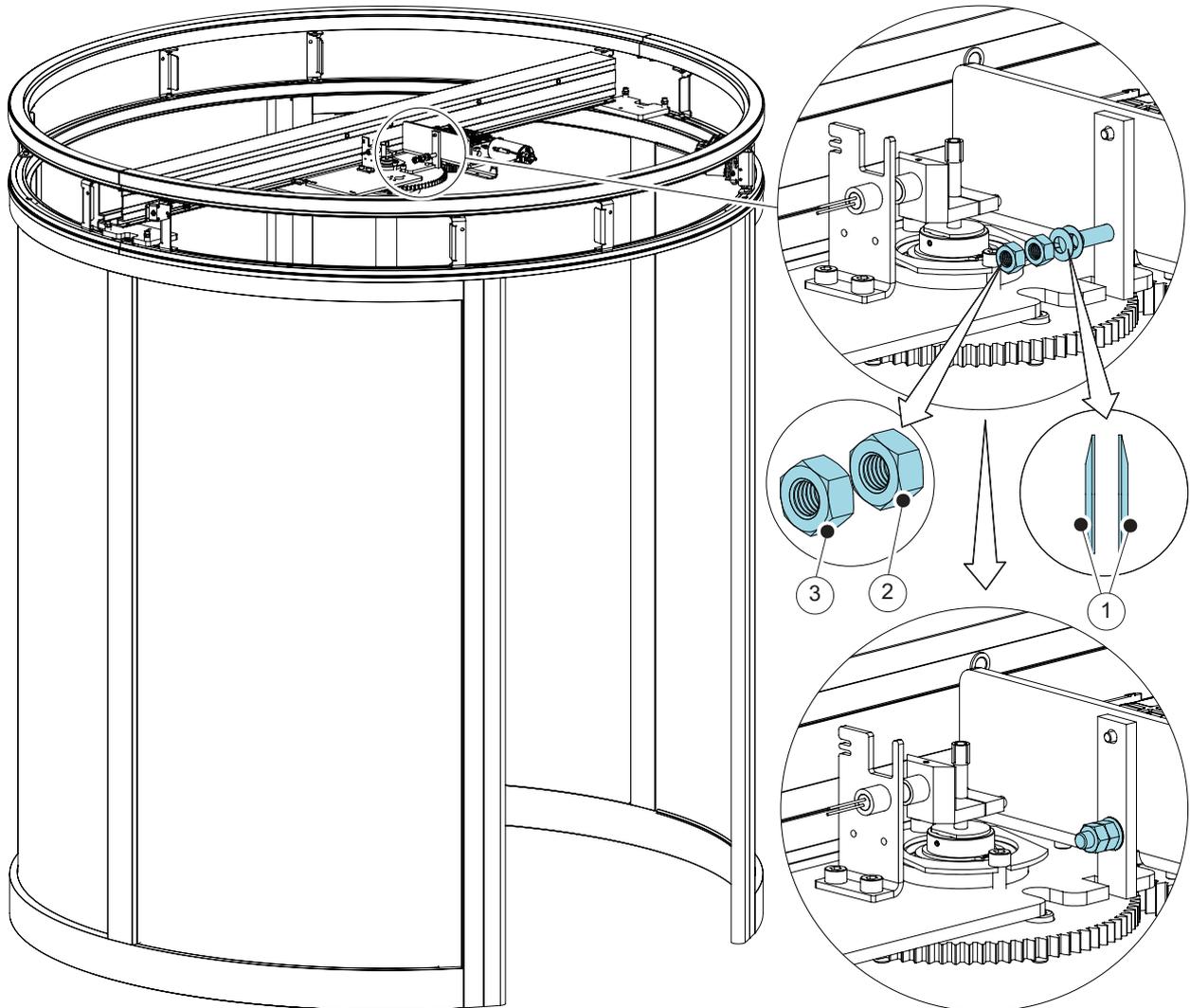
- a Tighten the cogwheel bolts (1).
- b Make sure the centre shaft is centred to the wall before tightening the centre beam bolts (2).



- 1 Cogwheel bolt
- 2 Centre beam bolt

### 7.15 Adjustment of the motor assembly

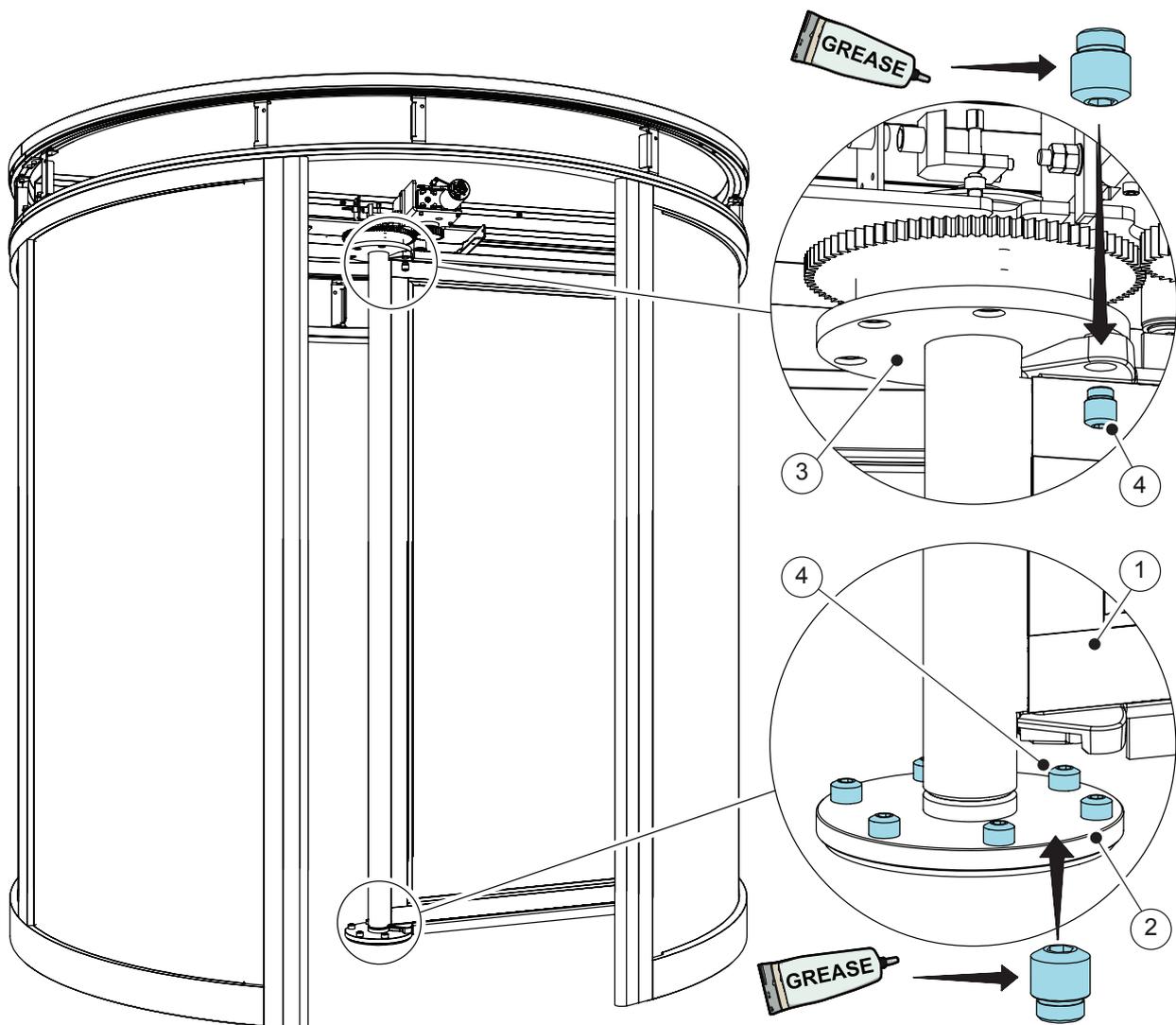
- a Put the two disk springs (1) in place.
- b Tighten the first nut (2) with your fingers plus a 1/2 turn extra.
- c Secure the first nut (2) with the second nut (3).



- 1 Disk spring
- 2 First nut
- 3 Second nut

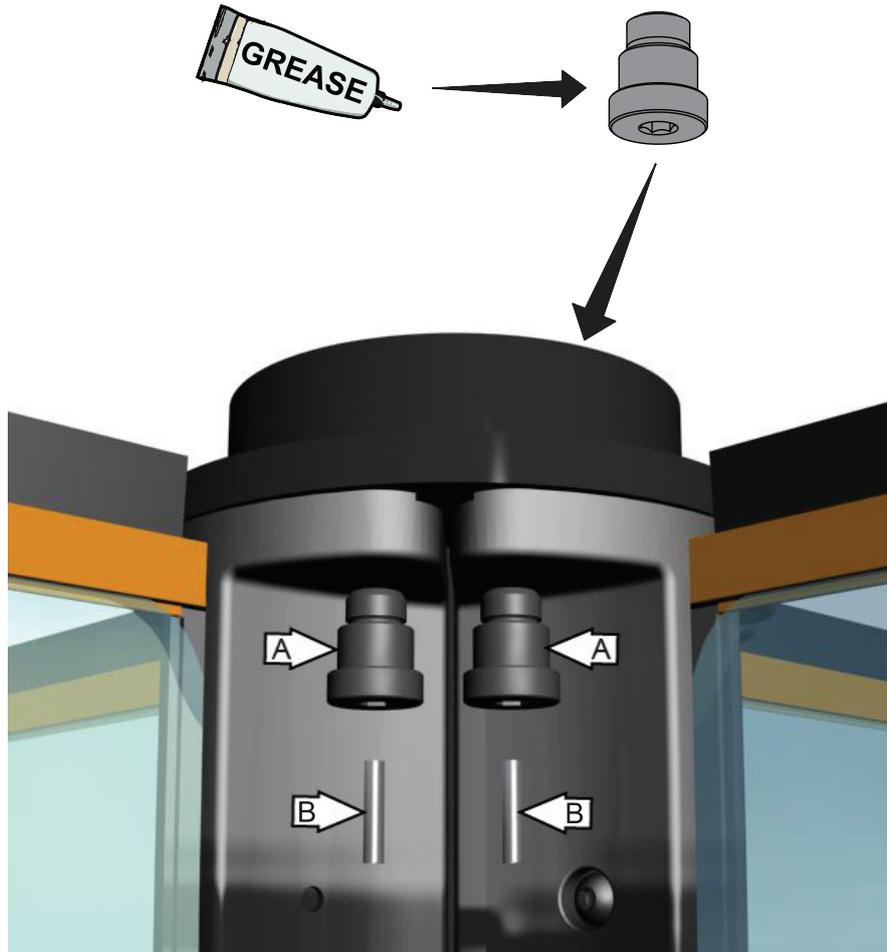
## 7.16 Door leaves

- a Secure the special bolts (4) with Loctite 638 before putting the door leaf (1) on the bottom flange (2).
- b Raise the door leaf (1).
- c Fix the door leaf (1) to the top flange (3) with the special bolts (4). Secure the special bolts (4) with Loctite 638.
- d Lubricate the special bolts and all unpainted surfaces on the door arms with grease.



- 1 Door leaf
- 2 Bottom flange
- 3 Top flange
- 4 Special bolt

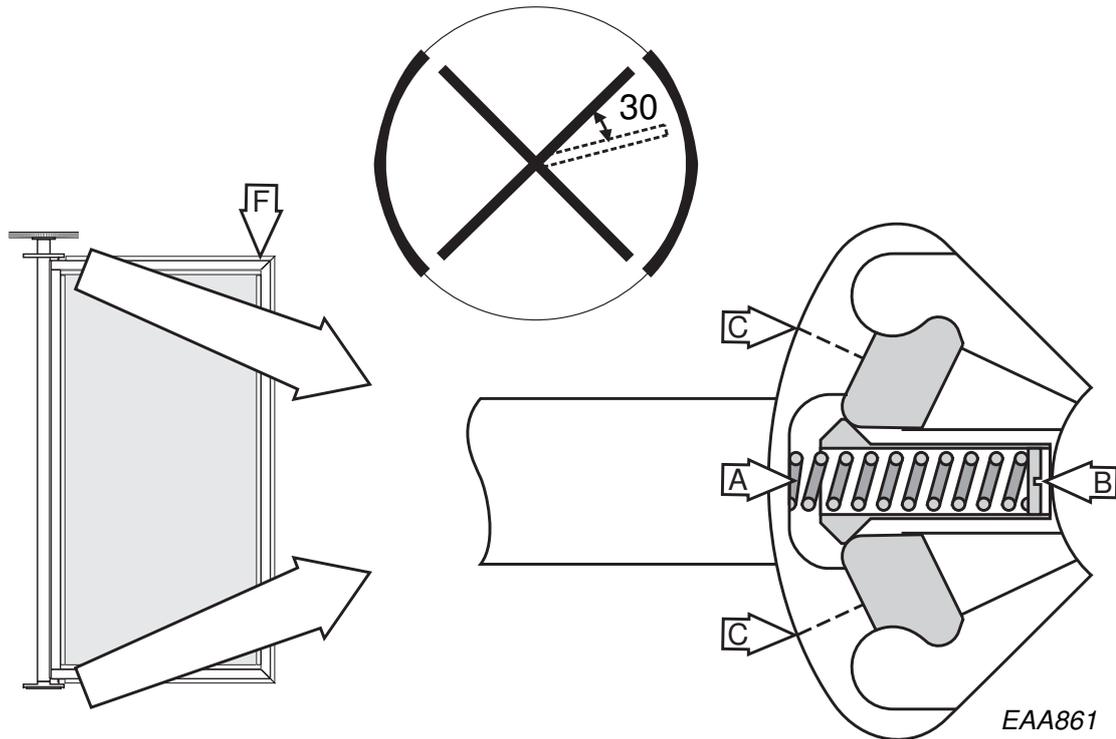
## 7.16.1 Slim centreless



Secure the two top screws (A) on the door leaves facing outwards with 5.3 x 26 mm pins (B).

## 7.16.2 Adjustment of emergency break-out kit (Not EN16005 compliant)

## Door leaves



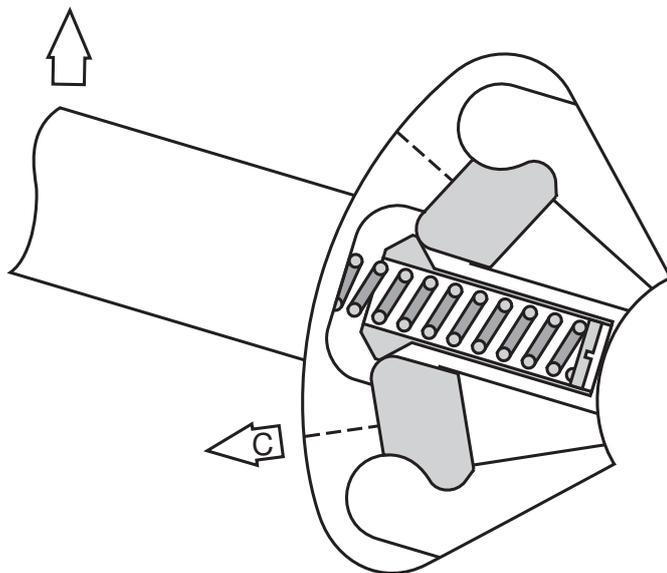
Put the door leaf in app. 30° break-out position (see illustration above).

Tighten the spring marked A with the screw marked B equally at the top and the bottom. The door leaf shall be able to take a load of 60 kg (F).

Close the door leaf. Check the break-out force (570N) and adjust if necessary with the screw marked B equally at the top and the bottom.

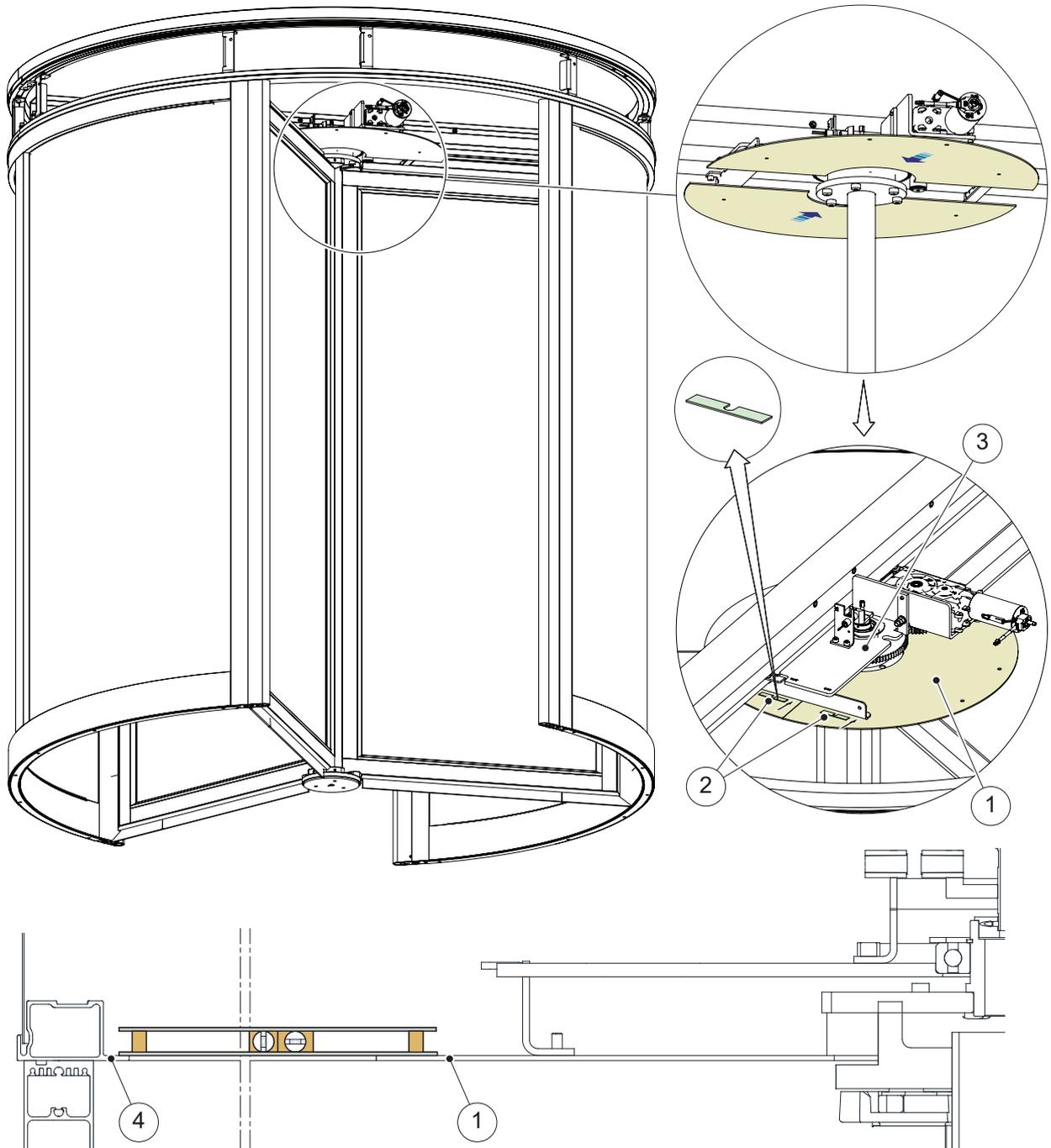
**Note!** After making this adjustment re-check that the door leaf can still take the load of 60 kg.

If the door is not equipped with the emergency break-out kit, tighten the stop screw marked C on the side to which the door leaf shall be broken out to and remove the other one. The door leaves shall be broken out in the opposite to the direction of rotation (backwards).



## 7.17 Centre plates

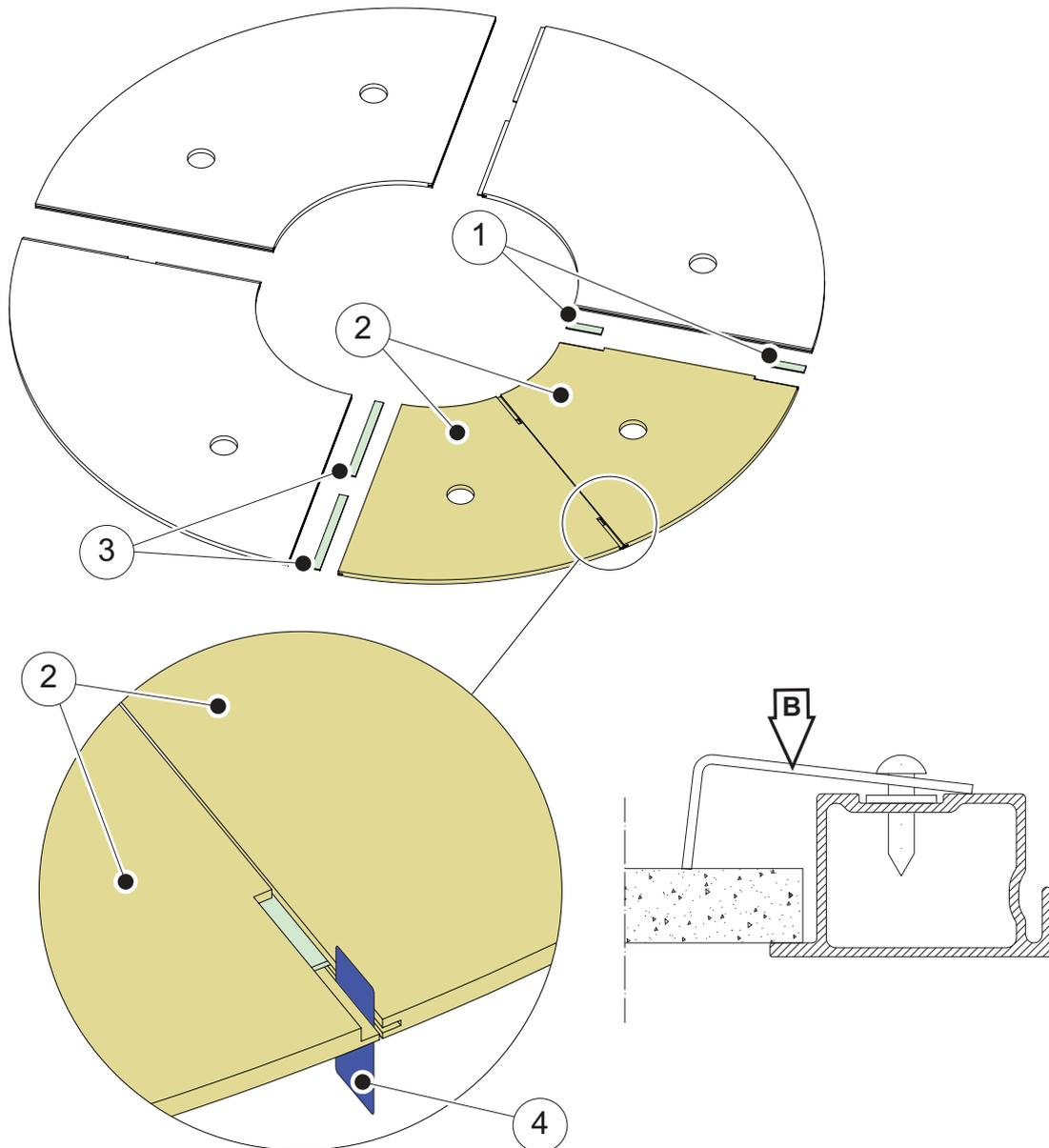
- a Adjust the internal height to the centre plates (1) by putting shims (2) between the drive unit (3) and the centre plates (1).
- b Top surface of the centre plates (1) shall be in level with the wall ring (4).



- 1 Centre plate
- 2 Shim
- 3 Drive unit
- 4 Wall ring

## 7.18 Ceiling

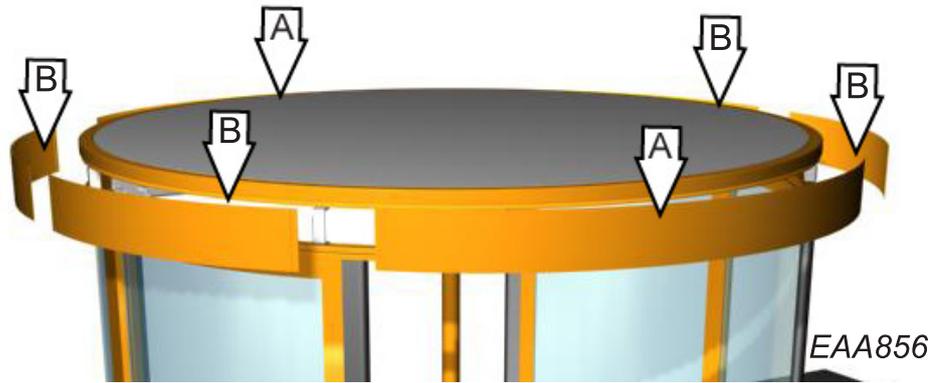
- a Put all parts of the ceiling in place using the edge strips. Use the 100 mm edge strips (1) for the inspection hatches (2) and the 300 mm edge strips (3) for the others.
- b The inspection hatches (2) shall be towards the inside of the building.
- c Adjust and get even joints.
- d Secure with fixing angle (B).
- e To prevent damage during operation or service, secure one of the inspection hatches also with fixing angle (B).
- f Use a credit card (4) to lock and unlock the inspection hatches (2).



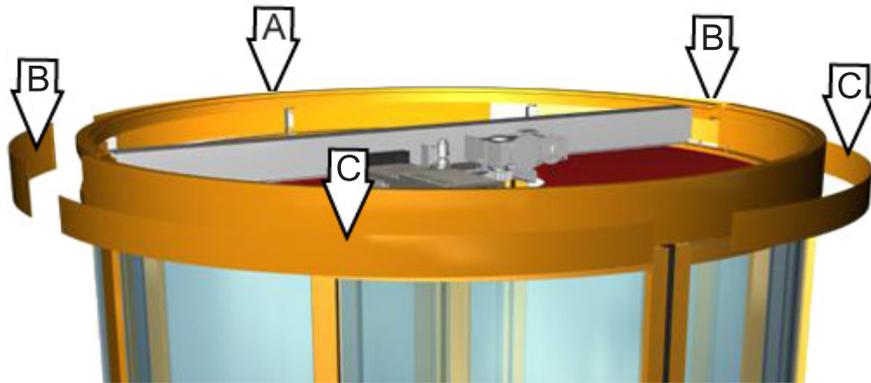
- 1 100 mm edge strip
- 2 Inspection hatch
- 3 300 mm edge strip
- 4 Credit card

7.19 Fascia

Without NCD

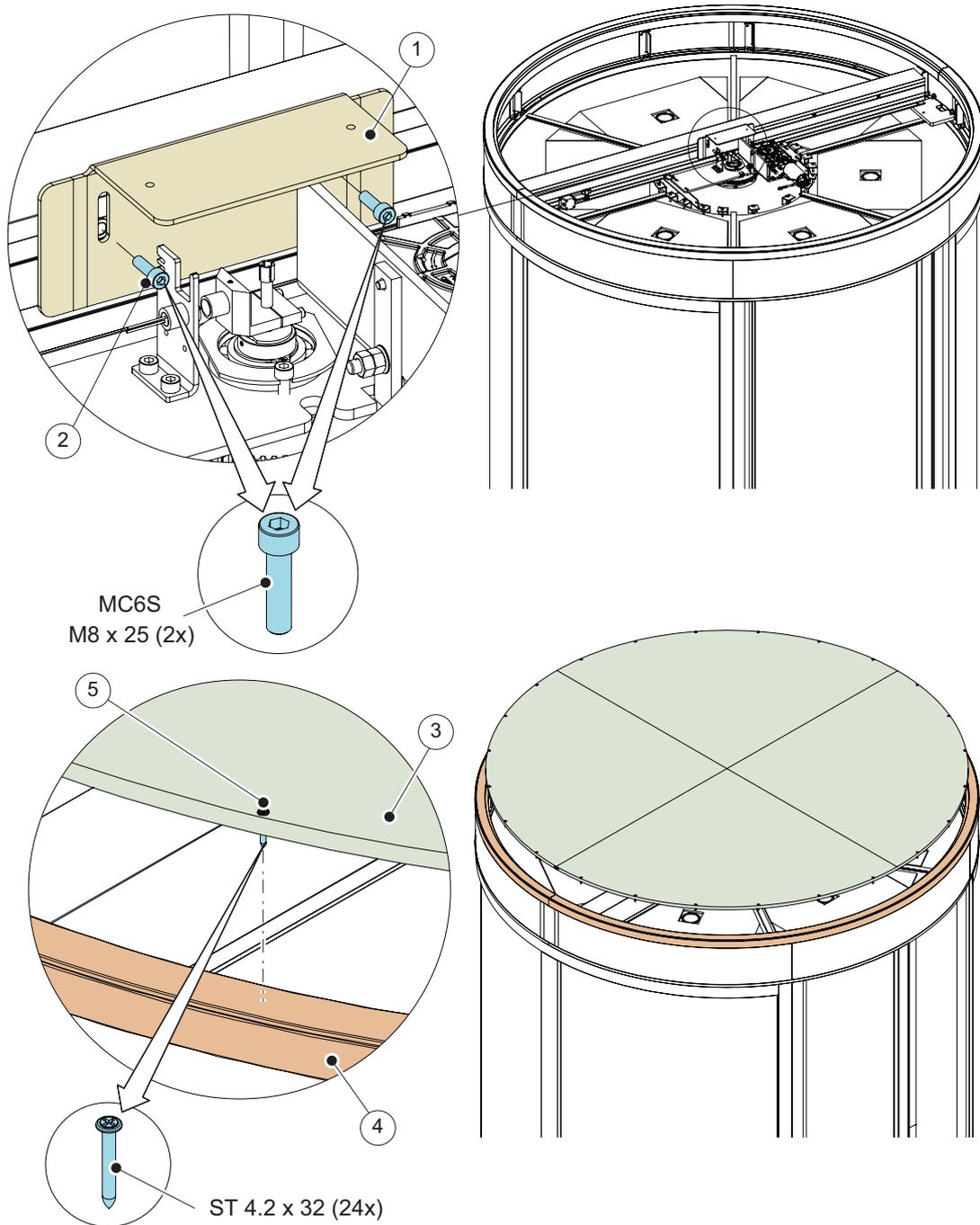


With NCD



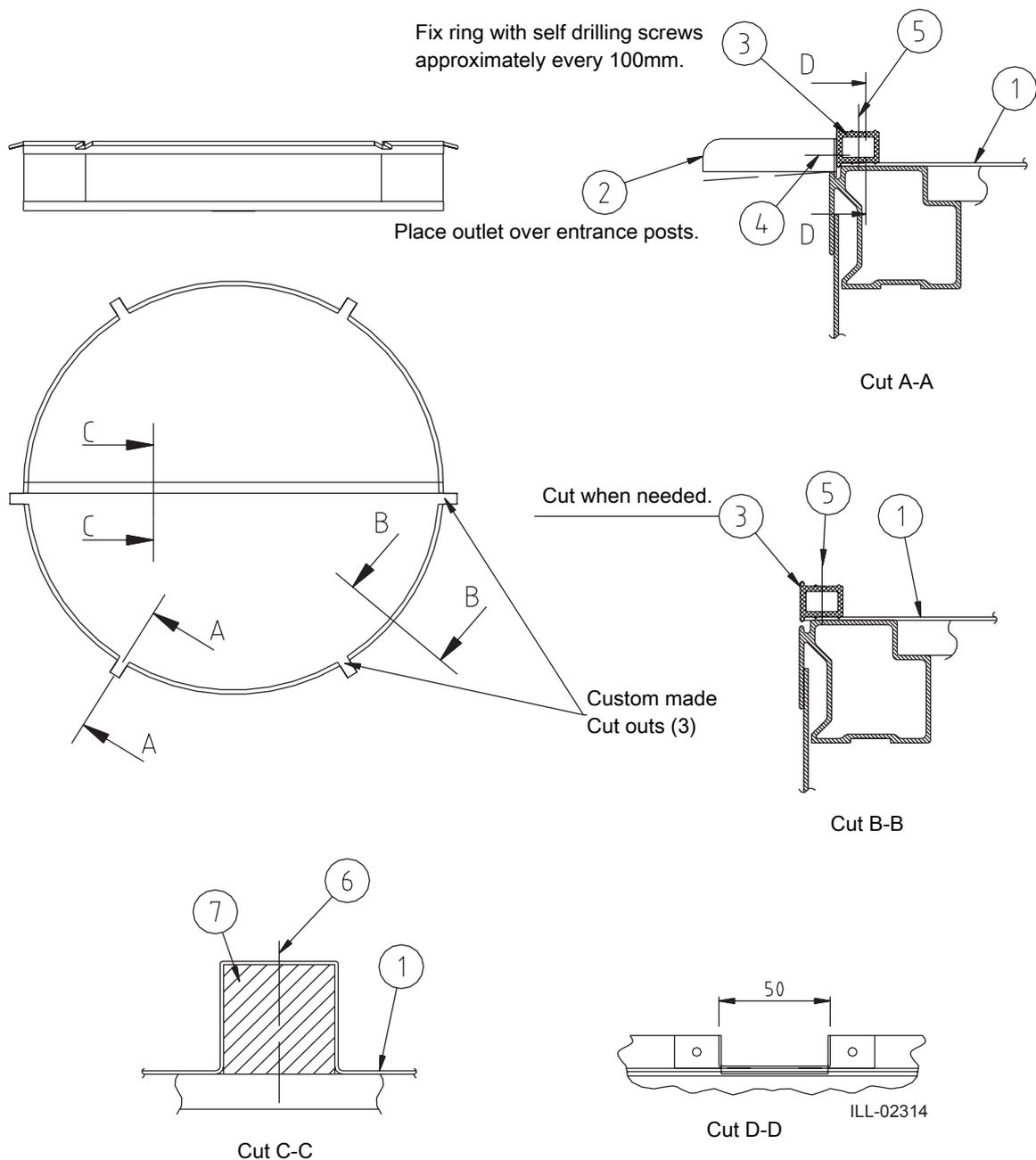
## 7.20 Dust protection roof

- a Fix the bracket (1) with screws (2).
- b Fix the dust roof (3) to the top ring (4) with screws (5).



- 1 Bracket
- 2 Screw
- 3 Dust roof
- 4 Top ring
- 5 Screw

## 7.21 Water resistant roof (option)

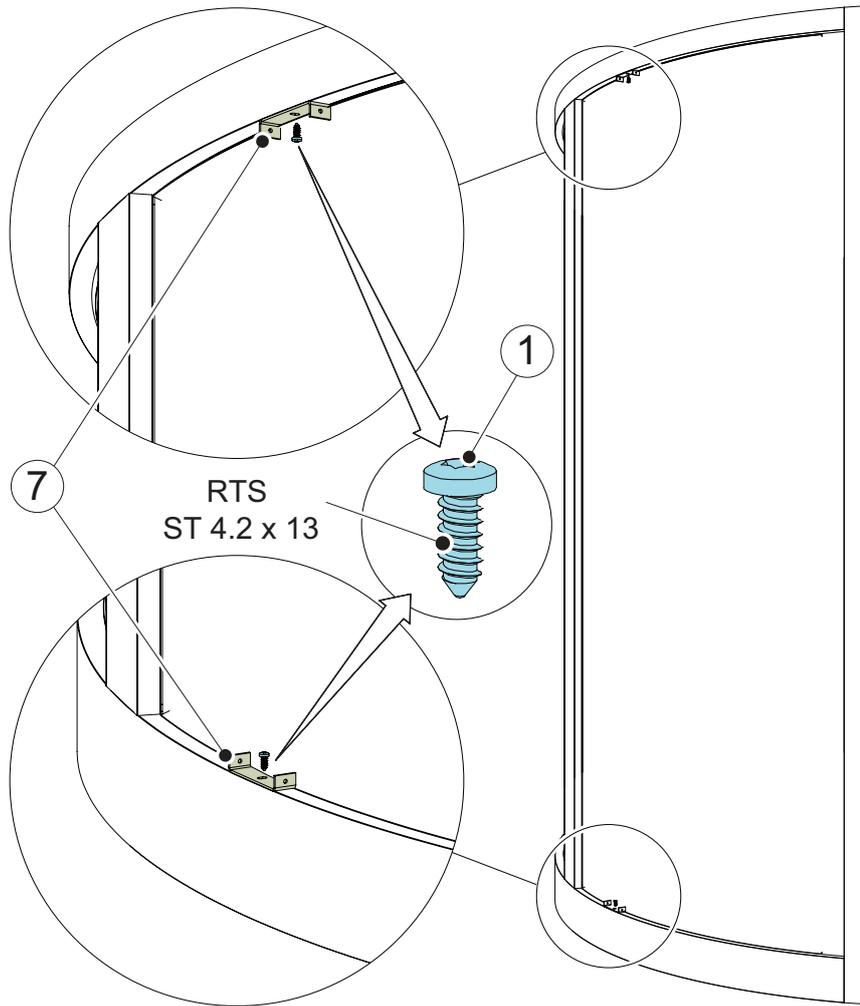


Place wooden beam in connection with outer wall to ease transition between roof and ceiling.

- 1 Rubber blanket
- 2 Outlet
- 3 Ring
- 4 Screw RXB ST 4.8 x 13
- 5 Screw RXB ST 4.2 x 32
- 6 Screw SPAX-S 6.0 x 60
- 7 Wooden beam

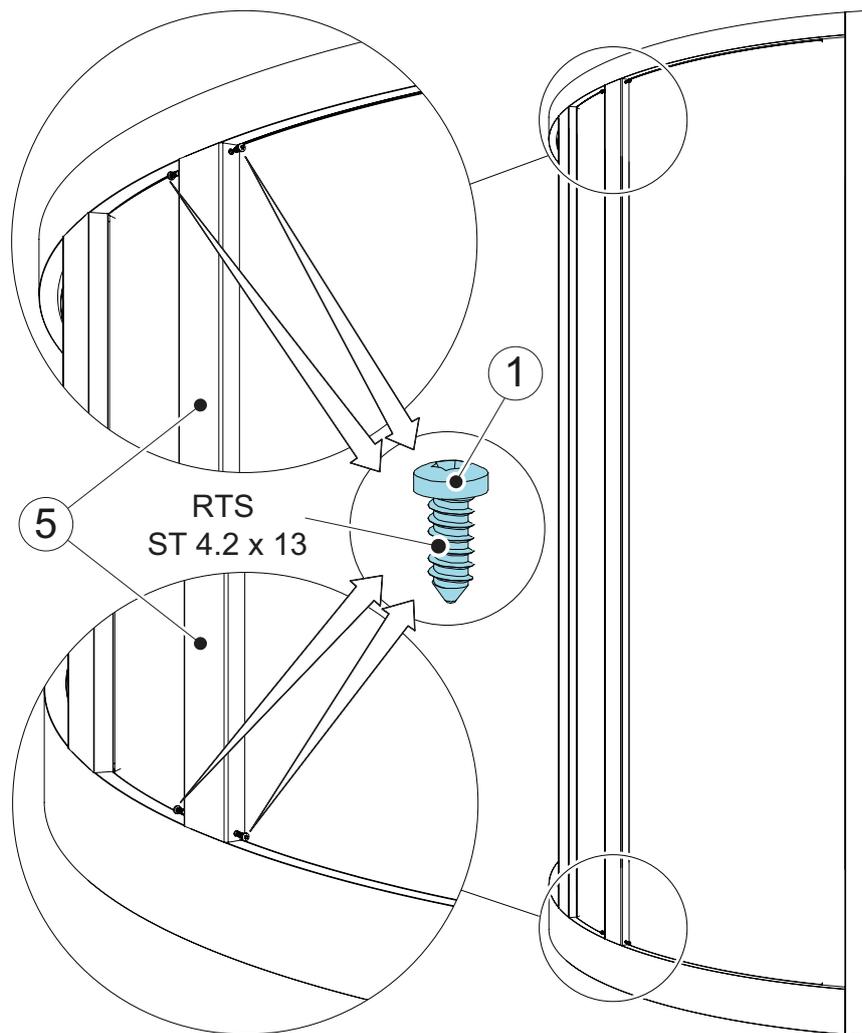
7.22 Fixed screen joint section (option)

- a Fix the brackets (7) with screws (1).



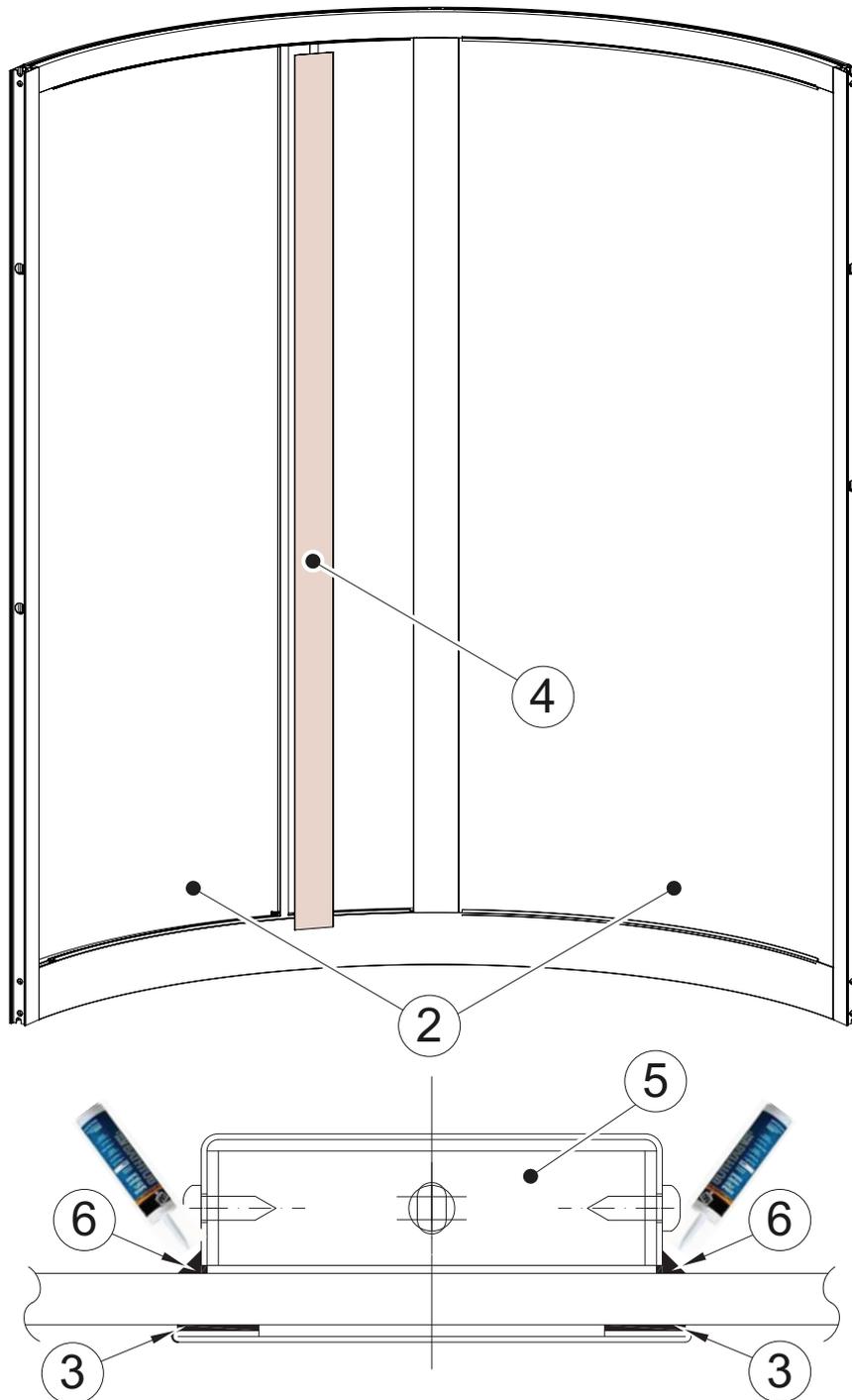
- 1 Screw
- 7 Bracket

b Fix the outer profiles (5) with screws (1).



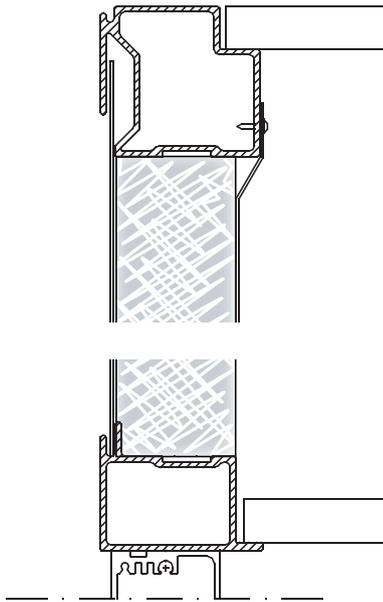
- 1 Screw
- 5 Outer profile

- c Clean the glass (2) inside.
- d Stick tapes (3) on the side of the inner profiles (4).
- e Glue the outer profiles (5) with silicon (6).

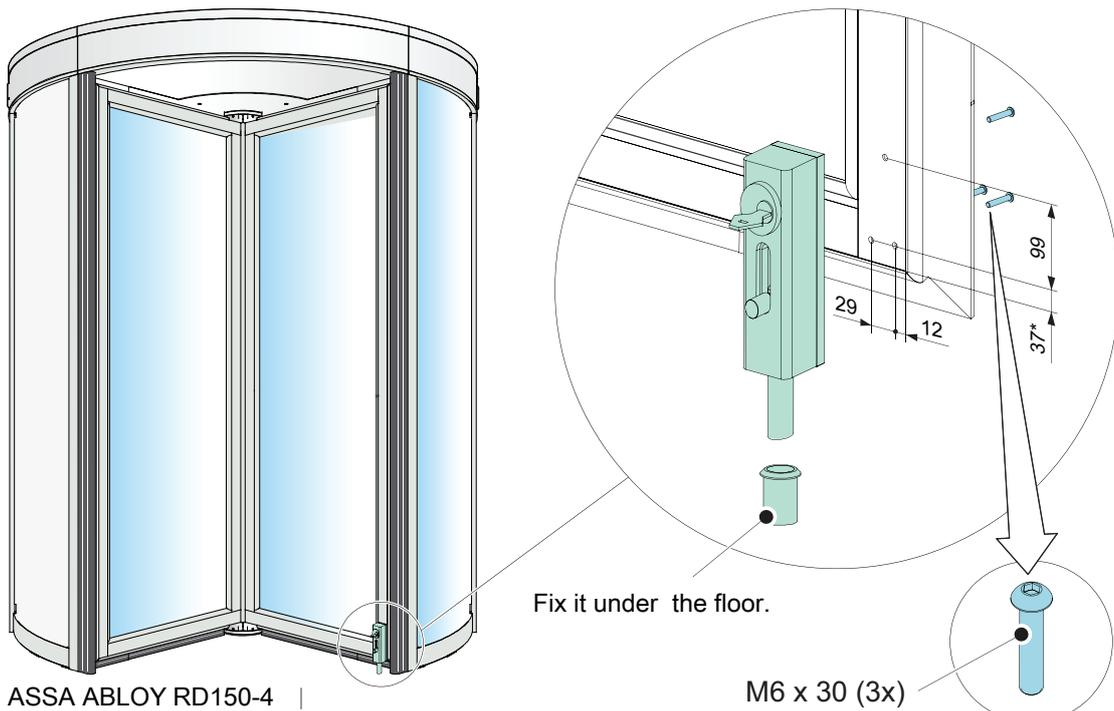


- 2 Glass
- 3 Tape
- 4 Inner profile
- 5 Outer profile
- 6 Silicon

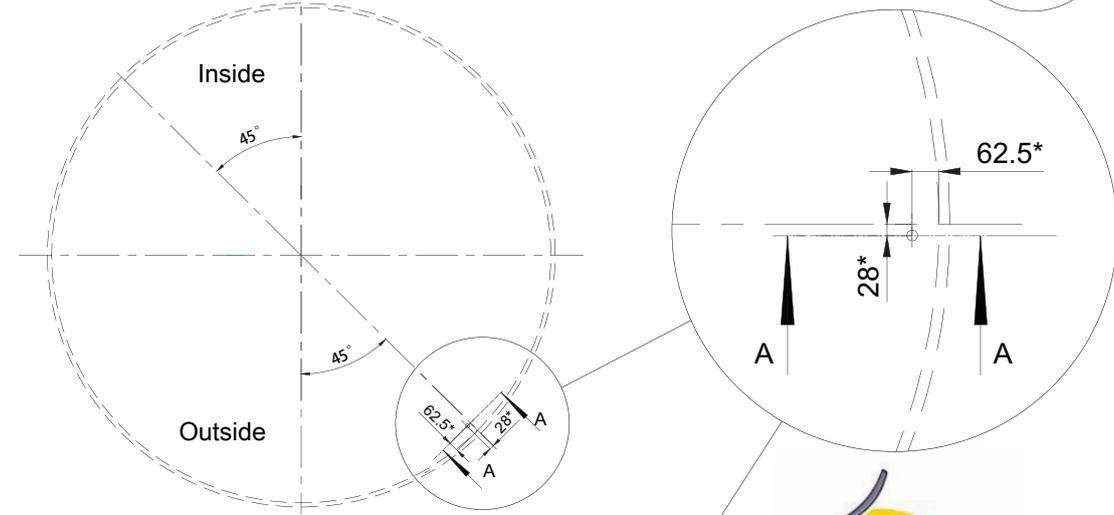
## 7.23 Insulated fascia (option)



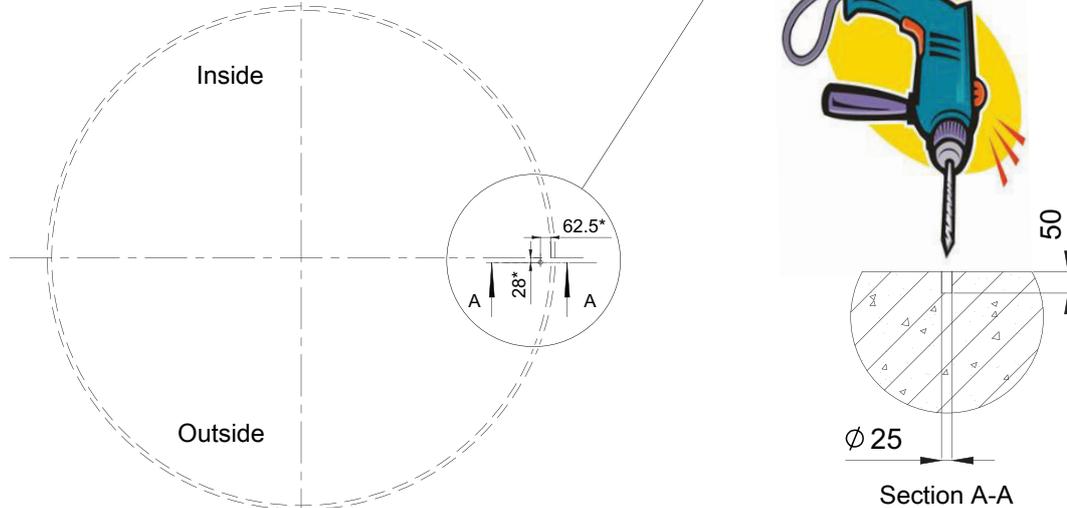
7.24 Mechanical lock (option)



ASSA ABLOY RD150-4



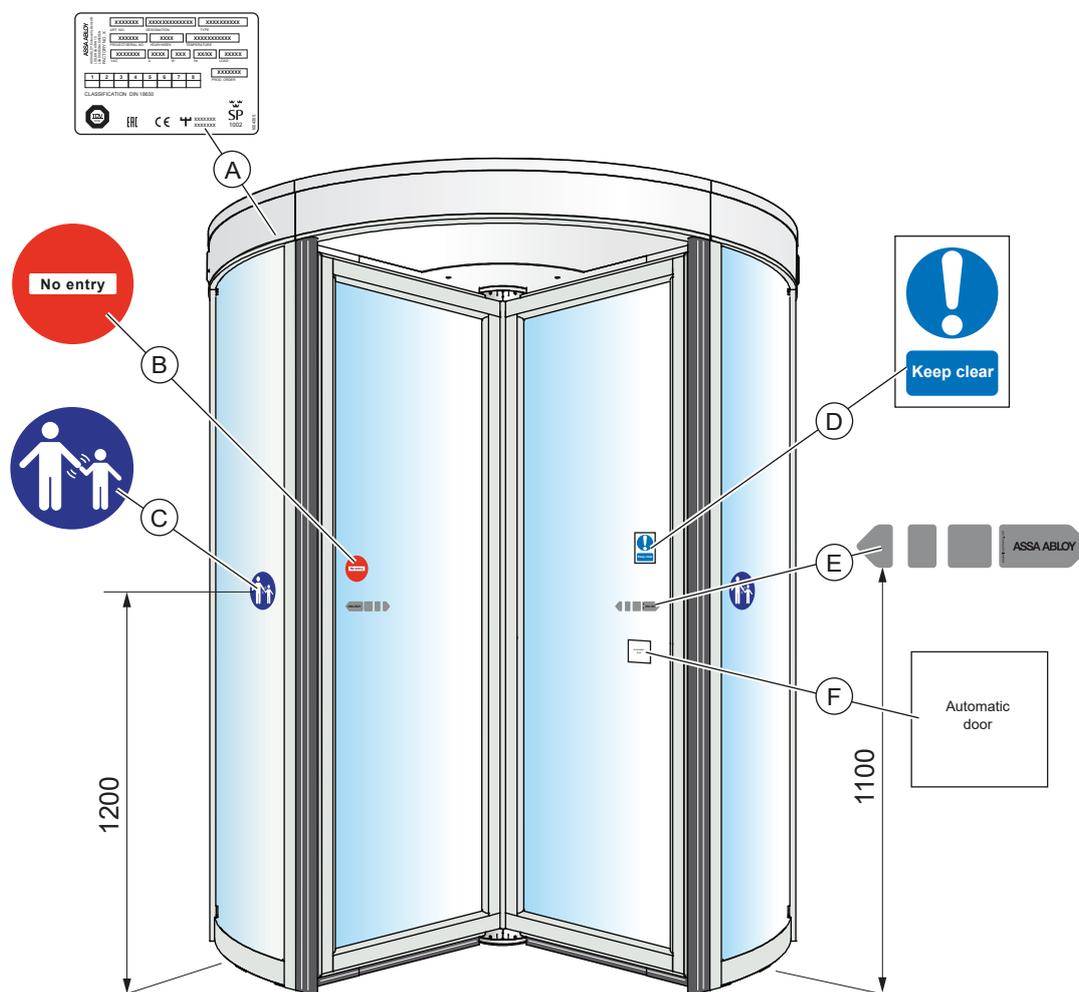
ASSA ABLOY RD150-3



\* Recommended dimension, should consider the site situation.

## 8 Signage

If properly installed and adjusted, attach the product label, which includes the CE mark.



The signs should be applied to both sides of the door in accordance with the illustration.

Check that all required signage is applied and intact.

Mandatory indicates that the signage is required by European directives and equivalent national legislation outside the European Union.

(A)	Product label: Mandatory
(B)	No entry, identifying one-way traffic: Mandatory in GB and US, if applicable, not included in the product.
(C)	Supervision of child: Mandatory, if applicable (applied to both sides of the door). To be placed on entrances where the risk analysis shows use by children, elderly and disabled.
(D)	Keep clear
(E)	ASSA ABLOY Entrance Systems door sticker: Mandatory, if applicable to highlight the presence of the glass (applied to all glass sections that are moving).
(F)	Automatic door

## 9 ON/OFF switch



### 9.1 Start up (Not used in US and Canada)

- Check that the door emergency stop button is released. If not, release the emergency stop button by rotating it in the direction of the arrows and press the reset button.

### 9.2 ON

- Turn the ON/OFF switch to ON.
- Auto start: The door stands still. When the door is activated by the inner or outer activation unit or by pushing (Push and Go), the door rotates at normal speed through three compartments and then stops.

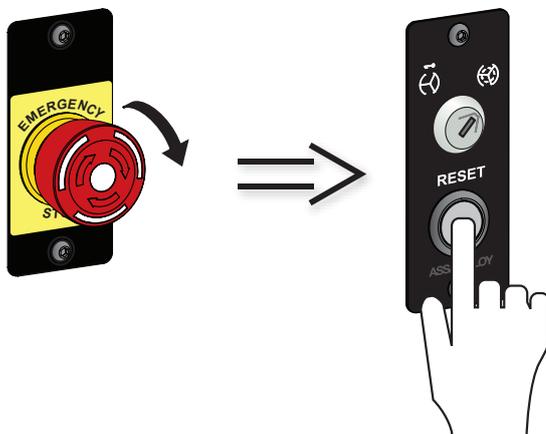
### 9.3 OFF

- Check there is no traffic.
- Turn the ON/OFF switch to OFF.

The door rotates to its home position.

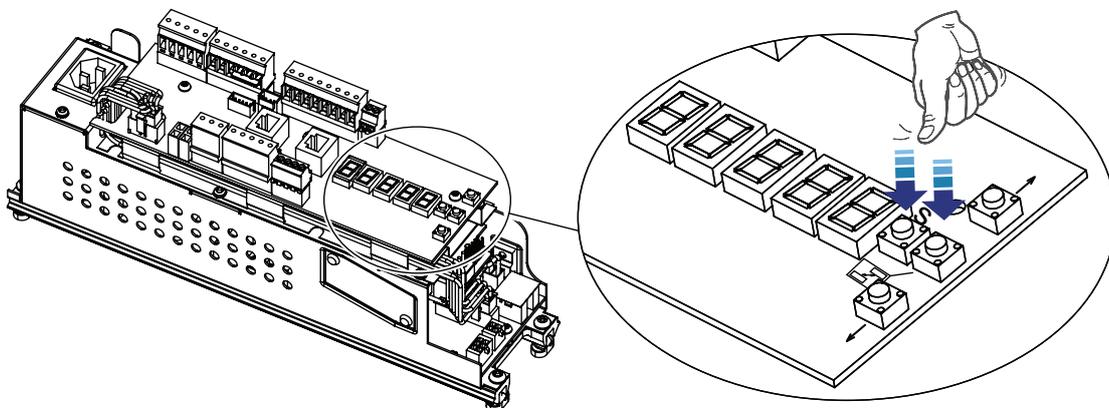
### 9.4 Reset (Not used in US and Canada)

To reset the door to normal operation - release the emergency stop button by rotating it in the direction of the arrows and press reset button.



## 10 Start-up

### 10.1 Starting the learning procedure



A LEARN procedure must be performed when using the control unit for the first time in a revolving door whereby the door friction, inertia and the external gear ratio parameters are measured and stored permanently.

If the door is manipulated in a way that the friction, inertia or the total gear ratio in the door system is affected, a new LEARN is required. Likewise if the door does not park properly at the posts as the reason can be that conditions have changed.

The LEARN procedure can be started at any time by pressing the two buttons (S and ) at the same time for at least two seconds and then releasing them.

The text 'LEARN' is shown on the local display and the red status LED starts flashing while the door rotates until the index pulse has been detected twice or max. 2 minutes.

During the Learn procedure, the door must not be forced by any external force.

Emergency stop is enabled during the LEARN procedure.

If the LEARN procedure goes well, the door positions will be at the next post. The text 'LEARN' on the local display will disappear and the red status LED changes from flashing to be continuously lit.

After a LEARN is made, the door operator can optimize the behavior of the door.

If the LEARN procedure failed, it could have been caused by a stalled or jammed door or lack of index pulse. The LEARN error 'LEr33' appears on the local display and is indicated by 3 tiny and 3 short flashes on the red status LED. Troubleshoot and make a new LEARN.

During a LEARN error the door acts as a manual door with speed control.

The system generates a LEARN error in the below mentioned cases.

- a Using the control unit for the first time on a revolving door.
- b Change in parameter "Rotation Direction".
- c Change in parameter "Number Of Wings".
- d The external gear ratio exceeds the maximal value 4.4.

## 10.2 Setting home position

- a Press the emergency stop button.
- b Login the parameter menu with password on local interface.
- c Pull the door to the target position manually.
- d Set the parameter P09 to 1, then P09 returns to 0 automatically.
- e Release the emergency stop button by rotating it in the direction of the arrows and press the reset button.

## 10.3 P-Assist function

Reduces the force required to push the door manually by applying a configurable positive torque. (P-Assist Torque parameter P28). To prevent an endless rotation if the wind has moved the door, P-Assist torque is reduced to zero after 2 or 3 door compartment distances.

P-Assist is enabled if the push is hard enough to receive a door acceleration of approx. 1.1 rpm/sec. If speed is above 7 rpm, P-Assist torque is reduced to zero.

## 10.4 Push & Go function (Not used in US and Canada)

The Push & Go function is enabled by setting the 'Push & Go' parameter to On. Push & Go function is activated when door is moved in forward direction with a door speed of at least 3 rpm in program modes 2 and 3.

## 10.5 Speed control

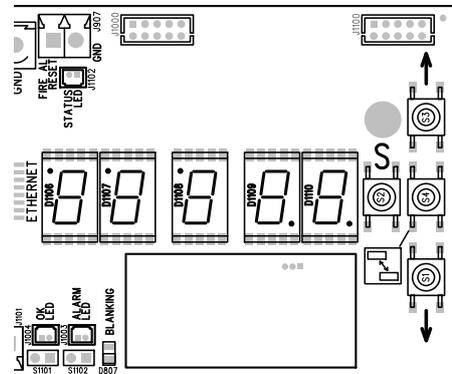
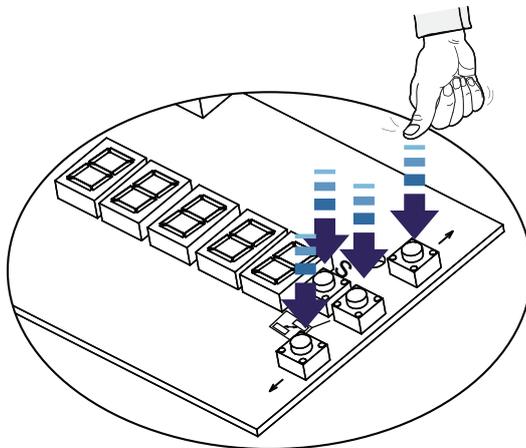
If the door is abused in a way that the speed reaches the configured "Speed Control" limit (see System parameters), the system shall brake with full available braking torque. The speed control function works in both directions and also during index pulse search at power up.

## 10.6 Auto Park

At start up, the system rotates the door at least one revolution to receive 2 index pulses. Once this is completed, the system has obtained the correct value on the number of encoder pulses for one door revolution. Auto Park is now possible. The door will rotate until index position is found and then go one compartment and stop.

# 11 Local display and key utility

## 11.1 General description of the local interface



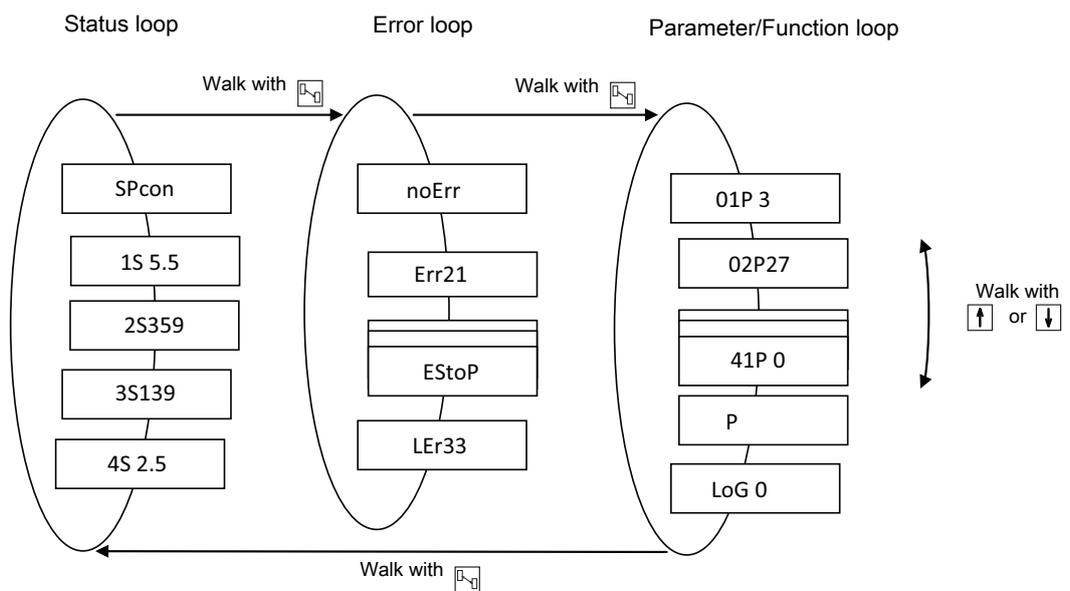
What can be done with the local interface?

- a Inspection of parameters
- b View error information while troubleshooting
- c Modify configurable parameters

## 11.2 Menu system structure

For easy information search, a menu system is used.

- a Status menu loop (see chapter 11.6).
- b Error menu loop (see chapter 13.1).
- c Parameter/Function menu loop (see chapter 14).



### 11.3 How to login to the operator

To modify any parameter one has to be authorized. Select the parameter that is to be modified. Login procedure as follows.

- a Press key **[S]**.  
The text "CodE" scrolls onto the local display for 5 seconds, then "00000" is shown.
- b Enter the 5 digit password, starting with the leftmost digit.  
Press key **[↑]** or **[↓]** to select the right digit (4 digit password, like the default Standard password "1613", is entered with a leading "0", i.e. "01613").  
Press key **[S]** to confirm after each digit.  
If the text "PASS" appears, login is granted. If incorrect password is inserted the text "FAiL" will appear and then text "00000" is shown.
- c Parameter modification can be done if the login is granted.

### 11.4 How to modify parameters

Before any modification can be made, one has to login in accordance with previous chapter.

Press key **[S]** and press key **[↑]** or **[↓]** to choose the correct value. Press key **[S]** again to confirm the modification or press key **[PgDn]** to discard modification and return to the original value. At this time the new parameter value will become active in the operator. During the modification phase, the parameter identification text will slowly flash.

### 11.5 How to logout from the operator

Step to parameter LoG close to the end in the parameter/function menu.

To actively log out, press key **[S]** and **[↓]** to get the value "1". Press key **[S]** again and the logout is performed.

An automatic logout is made after 10 minutes of inactivity.

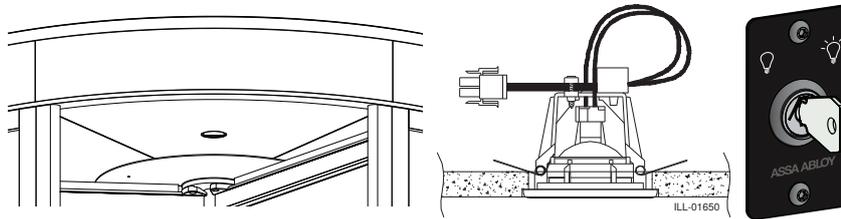
**Note!** Always make an active logout when modification of the parameters is done.

### 11.6 Status menu loop on local interface

Display value	Value number	Description
Program mode selection	SPcon AuPAr PASSt Auto	Program selection mode is presented.
Door speed	1S	Actual door speed in rpm with one decimal.
Door position	2S	Actual door position in degrees.
Door revolution counter	3S	Number of door revolutions in Kilo-unit.
External gear ratio	4S	The external gear ratio due to the cog wheels.

## 12 Options

### 12.1 Lighting LED with control



Colour temp. 3000 K

Lifetime  $\geq 30000$  hours

Lamp 5W

### 12.2 Additional emergency stop button (Not used in US and Canada)

Electrical connection, see page 40.



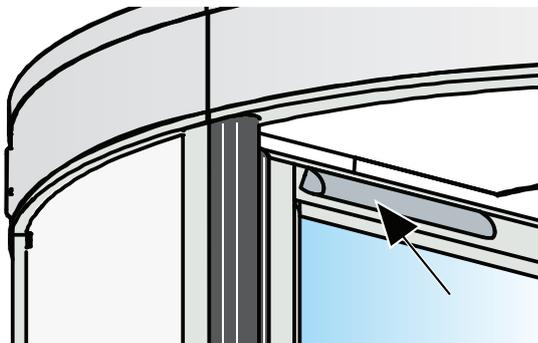
Standard height 1200mm (other height may be stipulated by local demands (Germany 850-1050mm)).

### 12.3 Infrared presence sensing system

Required for door diameter larger than 3m when EN16005 compliant.

See sensor manuals for mounting and adjustments. Protective device shall comply with EN 12978.

Electrical connection according to connection diagram 1014696.

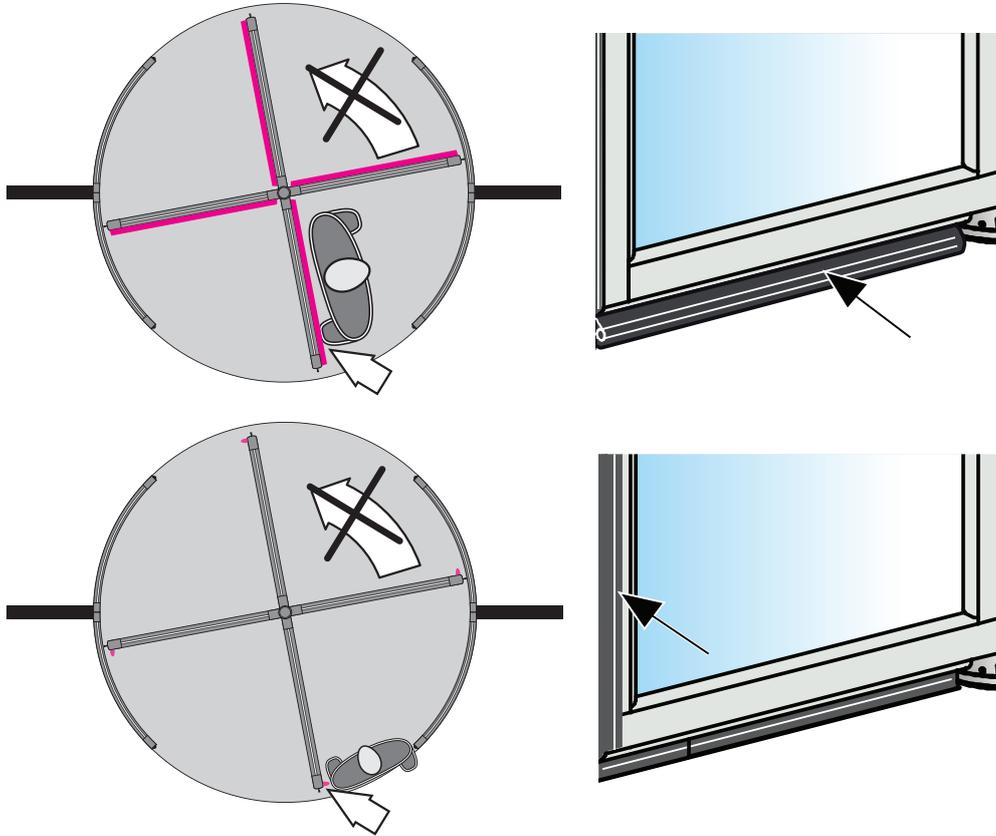


## 12.4 Pressure sensitive safety edges

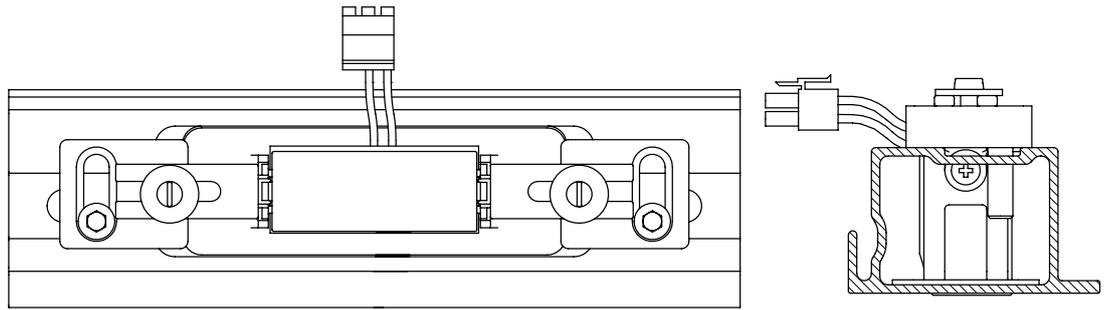
Required when EN16005 compliant.

See sensor manuals for mounting and adjustments. Protective device shall comply with EN 12978.

Electrical connection according to connection diagram 1014703.



## 12.5 Activator PIR



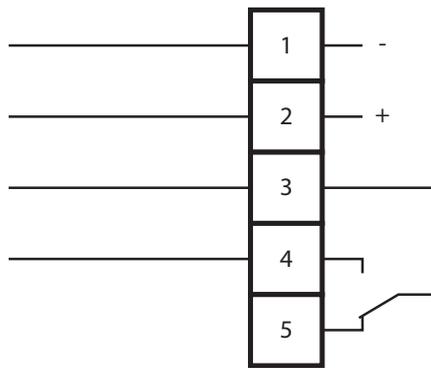
### 12.5.1 Mechanical installation

Mount the PIR attachment on the wall ring above the inside and the outside openings according to picture above.

### 12.5.2 Electrical connections

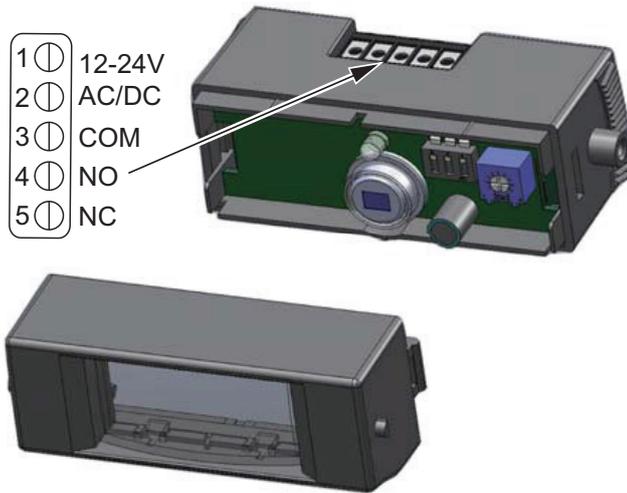
Electrical connections refer to 1013024.

Connection diagrams refer to 1014699 and 1014700.



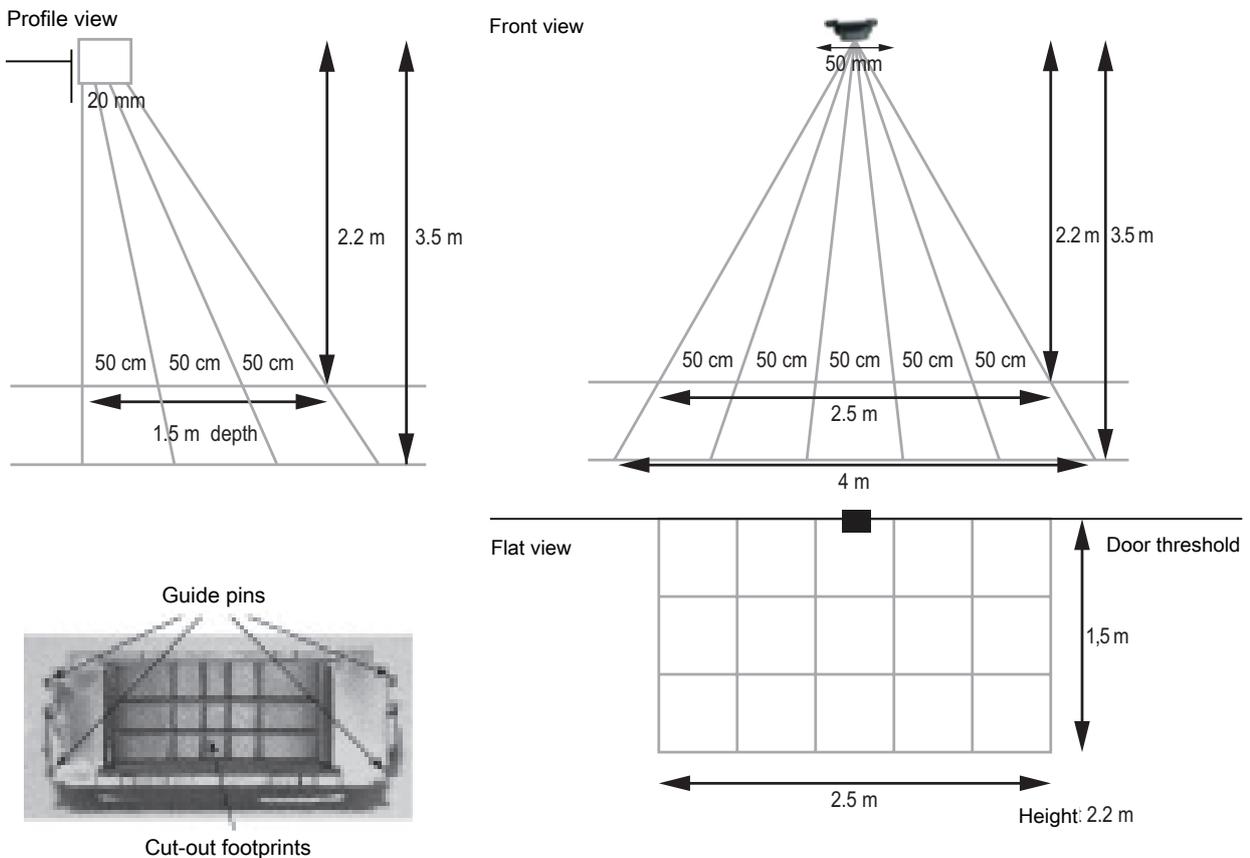
Connection	Colour		Voltage
1	Brown	-	12-24 VAC/DC
2	White	+	
3	Yellow	Common	60 VDC/42 VAC
4	Green	Normally open	30 W/60 VA
5		N/C	

12.5.3 Adjustment PIR  
Setting the sensing field size

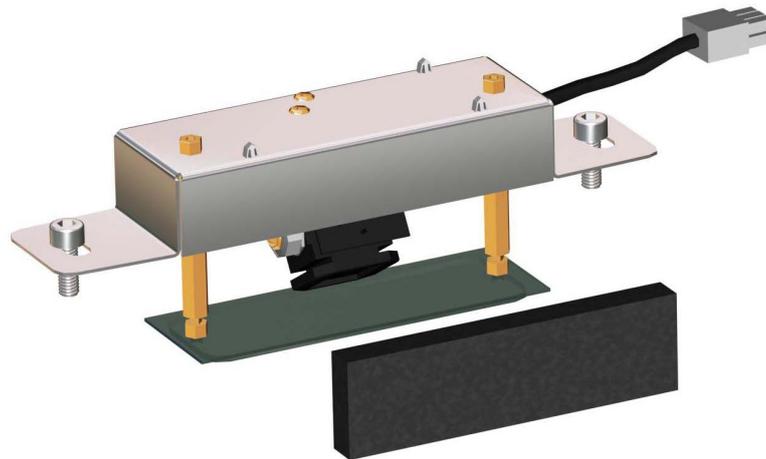


- a To adjust the sensing field according to your specific needs, use the masking delivered in the sensor box. The minimum detection area at mounting height of 2200 mm is 500 mm x 500 mm.
- b To tailor the sensing field, cut segments.

**Note!** Be careful to cut just entire segments. It is necessary to cut at least one segment to get a detection.



## 12.6 Activator DSR



The DSR is factory preset for the ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4.

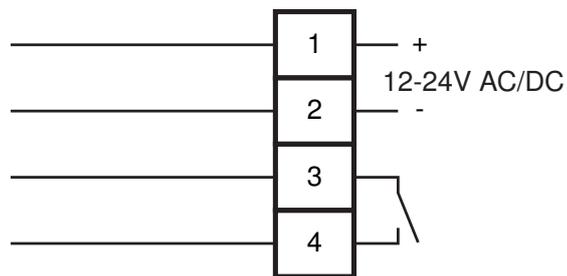
The settings of the DSR can be made with a remote control device.

### Mechanical installation

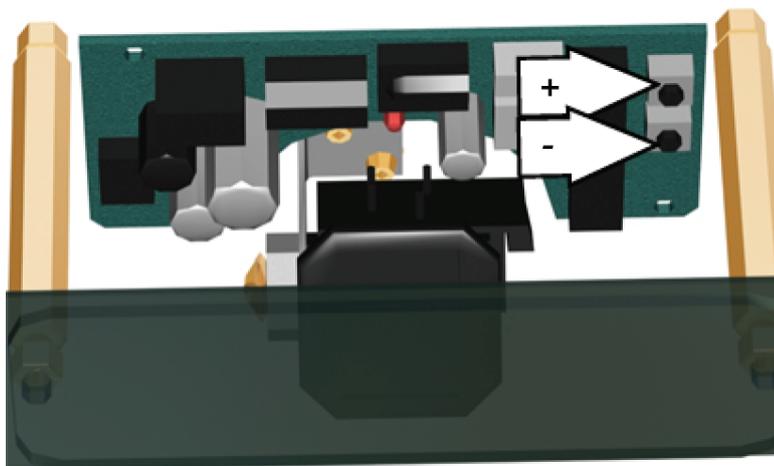
Mount the DSR on the wall ring according to picture above with the cable outlet to the right. Put the foam in with the white side facing the activator.

The picture is shown facing the door.

### Electrical connection



### 12.6.1 Adjustment of sensitivity

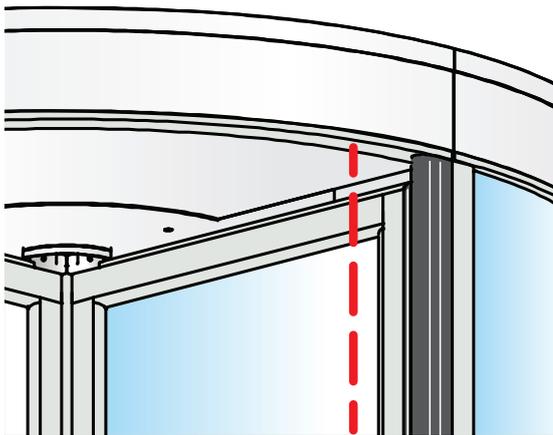


Sensitivity 0 - 9.

Default setting 7.

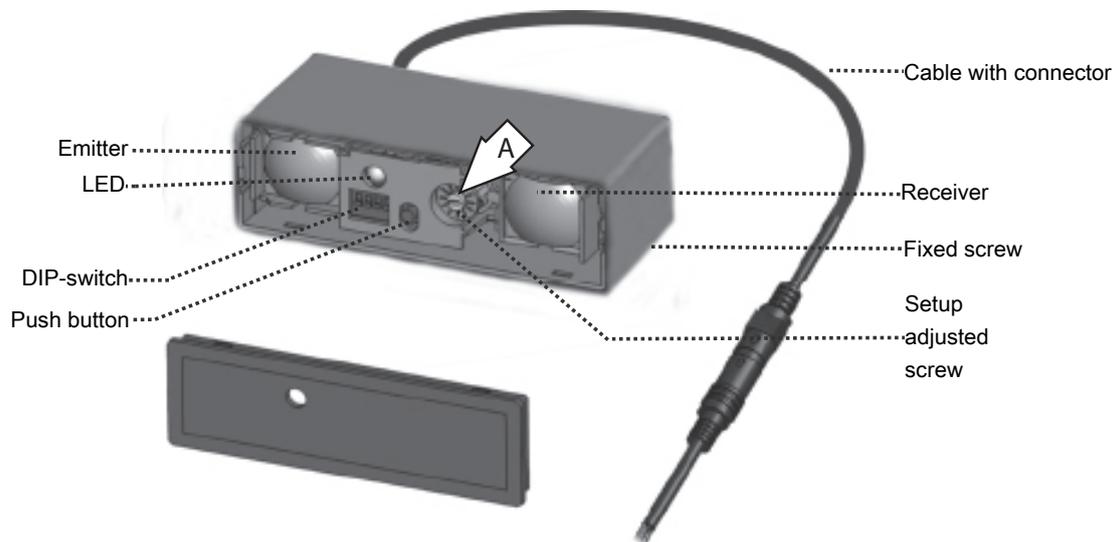
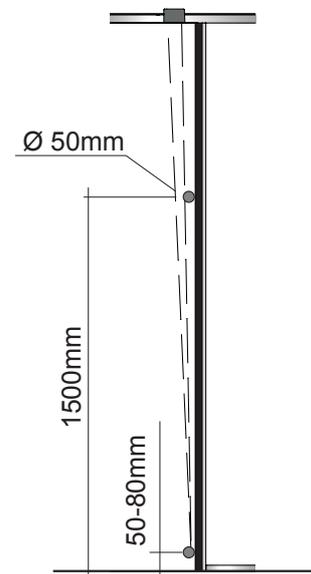
To change the sensitivity press the switches marked + or - to increase or decrease the sensitivity. One push changes the sensitivity one step.

### 12.7 Vertical presence photocell sensor PDR



#### Range

Check the range of the detection zone by moving a test body (diameter 50 mm) downwards along the vertical rubber edge. The PDR should be activated at a distance of 1.5 m from the floor. The detection zone ends about 50-80 mm from the floor. The length of the detection zone can be adjusted with the screw (A) located behind the cover. Turning the screw clockwise gives a longer detection zone.



12.7.1 Wiring



Brown	Power
Green	12-24V AC/DC
Yellow	COM
White	NC
Black	NO
Red	
Blue	Monitoring

	Normally open	Normally closed
	Active logic	Passive logic
	Yellow - Black	Yellow - White
No power		
No detection		
Detection		

12.7.2 Setup

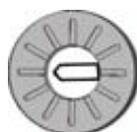
 ON DIP 1 3 4	DIP 1 Setup	DIP 2 Uncovered zone (at 2200 mm)	DIP 3 Frequency	DIP 4 Detection speed
ON	See following	Small (200 mm)	Frequency 2	High (32 ms)
OFF		Big (400 mm)	Frequency 1	Normal (64 ms)

The setup is necessary to adjust the sensor according to its mounting height. You can choose the automatic or manual mode by DIP switch.

Before launching the setup, please make sure you are not in the detection field and do not cover the lenses!



Automatic mode (default)



Recommended:

- mounting height between 1.6 and 3 m
- floor is reflective enough

**Note!** The screw has to be in the middle position as shown.



Press the push button shortly to launch automatic setup.

# 13 Troubleshooting

What's wrong?	Remedies
The motor does not start	Make sure that mains power to the door is on.
	Check the ON/OFF switch, see page 58.
	Check whether the emergency stop button is released.
	Check the main switch and fuse in the building.
The motor starts but door will not rotate	Check that nothing is jammed beneath the door.
	Unlock the mechanical locks.
The door does not close	Check that nothing is jammed beneath the door.
	Check whether the emergency stop button is released.
	Check that there are no objects in the safety detection zone.
If the problem continues, please contact your ASSA ABLOY Entrance Systems representative.	

## 13.1 Error indication

Error	Flash code Local display texts	Description	Behavior
Emergency stop active	1 tiny, 1 short 'EStoP'	Emergency stop is active.	Active brake.
Pressure sensitive safety edges on the drum edges input active	1 tiny, 3 short 'SEn13'	Pressure sensitive safety edges placed on the drum edges input is active.	Active brake.
Pressure sensitive safety edges on the door leaves input active	1 tiny, 4 short 'SEn14'	Pressure sensitive safety edges placed on the door leaves input is active.	Active brake.
Touchless presence sensors on the door leaves input active	1 tiny, 5 short 'SEn15'	Touchless presence sensors on the door leaves input is active.	Active brake.
Vertical presence photocell sensor PDR 1 (inner) input active	1 tiny, 6 short 'SEn16'	Vertical presence photocell sensor PDR 1 (inner) input is active.	Active brake.
Vertical presence photocell sensor PDR 2 (outer) input active	1 tiny, 7 short 'SEn17'	Vertical presence photocell sensor PDR 2 (outer) input is active.	Active brake.
Monitored pressure sensitive safety edges placed on the drum edges	2 tiny, 1 short 'Err 21'	Pressure sensitive safety edges placed on the drum edges input monitoring error.	Active brake.
Monitored pressure sensitive safety edges placed on the door leaves	2 tiny, 2 short 'Err 22'	Pressure sensitive safety edges placed on the door leaves input monitoring error.	Active brake.
Monitored touchless presence sensors on the door leaves	2 tiny, 3 short 'Err 23'	Touchless presence sensors on the door leaves input monitoring error.	Active brake.
Monitored vertical presence photocell sensor PDR 1 (inner)	2 tiny, 4 short 'Err 24'	Vertical presence photocell sensor PDR 1 (inner) input monitoring error.	Active brake.

<b>Error</b>	<b>Flash code Local display texts</b>	<b>Description</b>	<b>Behavior</b>
Monitored vertical presence photocell sensor PDR 2 (outer)	2 tiny, 5 short 'Err 25'	Vertical presence photocell sensor PDR 2 (outer) input monitoring error.	Active brake.
Monitored emergency stop input	2 tiny, 6 short 'Err 26'	Emergency stop input monitoring error.	Active brake.
External 24V Error	3 tiny, 1 short 'Err 31'	Low voltage on External 24V.	Correct voltage will reset.
Index Pulse Error	3 tiny, 2 short 'IPu32'	Missing index pulses.	Index pulse present to reset.
Learn error	3 tiny, 3 short 'LEr33'	LEARN procedure is required.	New LEARN procedure to reset.
Control Unit Error	4 tiny, 1 short 'CU 41'	A set of internal control unit supervisions failed.	Power OFF/ON to reset.
Encoder Error	4 tiny, 2 short 'Enc42'	Missing encoder pulses.	Correct encoder pulses will reset.
Motor Overheat Error	4 tiny, 3 short 'HEA43'	High motor temperature.	Cool down to reset.
Motor polarity Error	4 tiny, 4 short 'PoL44'	Motor cable in wrong contact.	Power OFF/ON to reset.

## 14 Parameters configuration

**Note!** If it is the first time for parameters configuration, please make a load default procedure (set P35=1) before parameters configuration.

### 14.1 System parameters

Menu number	Parameter name	Range Default value bold On=1, Off=0	Description
1	Program Selection	1=Speed control 2=Auto park with speed control <b>3= P-Assist with Auto park and Speed control</b> 4=Auto	Program mode select.
2	Door Diameter	18,21, <b>24</b> , 27, 30	The diameter of the door in dm.
3	Number Of Wings	3 = 3 wing door <b>4 = 4 wing door</b>	The number of door leaves.
4	Rotation Direction	<b>Off = Counter clockwise</b> On = Clockwise	Door rotation direction.
5	Rotation Direction Control (Must remain off in US and Canada)	<b>Off = No Hold torque backwards</b> On = Hold Torque backwards	Selection hold torque backwards function on/off. In all program modes except program mode 1.
6	Push & Go (Must remain off in US and Canada)	<b>Off = Push &amp; Go disable</b> On = Push & Go enable	Push & Go impulse disable/enable in program modes 2, 3 and 4.
7	Safety Zone Offset	10 - 40 door deg <b>Default 10</b>	Safety zone offset is vertical presence photocell sensor PDR active area.
8	Index Impulse In Program 1 ( Speed Control)	Off = No index pulse equipment <b>On = Index pulse equipment connected</b>	Select if index pulse equipment in program mode 1 is connected.
9	Set Home Position	<b>Off = No action</b> On = Set home position	Set home position after moved the door to home position.
10	Home Position Offset	0 - 359 door deg	Index pulse adjustment in door degrees. Read-only parameter!
21	High Speed	0.5 - 6 rpm <b>5.0 rpm</b>	Door speed setting used for normal rotation speed in program mode 4. Door diameter up to 30 dm.
22	Low Speed	0.3 - 2.5 rpm <b>1.5 rpm</b>	Door speed setting used for normal positioning speed in Auto park modes.
23	Speed Control	3 - 10 rpm <b>7.0 rpm</b>	Door speed is limited down to the value.
24	Door Rotation Torque	50 - 100 % of $T_{Max}$ <b>Default 50</b>	Parameter controlling max normal torque in driving direction.
25	Safety Zone Torque	25 - 100 % of $T_{Max}$ <b>Default 25</b>	Parameter controlling max reduced driving torque in safety zone.

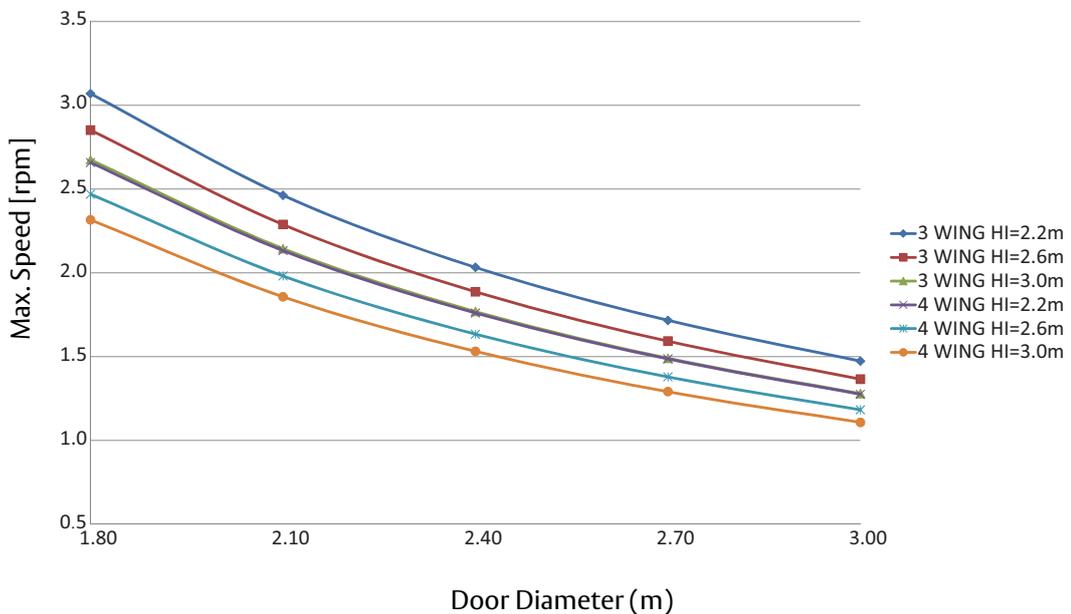
Menu number	Parameter name	Range Default value bold On=1, Off=0	Description
26	Parking Brake Hold Torque	0 - 100 % of $T_{MaxParking}$ <b>Default 0</b>	Max. hold torque when parked at post (standby position). Connect activation unit for torque release, see page 40.
27	Braking Torque	25 - 100 % of $T_{Max}$ <b>Default 100</b>	Braking torque when any safety sensor or emergency stop is activated.
28	P-Assist Torque	0 - 100 % of $T_{Friction}$ <b>Default 0</b>	Assist torque in percent of door friction torque.
29	Touchless Sensor Rotating Activation	Stop/Slow speed <b>Off = Stop</b> On = Slow speed	Stop or slow speed when touchless safety sensors on door leaves are activated.
30	Touchless Sensor Rotating Monitoring	<b>Off = Disable monitoring</b> On = Enable monitoring	Configuring if touchless presence sensors on the door leaves shall be monitored.
31	Touchless Sensor Fixed Monitoring	<b>Off = Disable monitoring</b> On = Enable monitoring	Configuring if vertical presence photocell sensors shall be monitored.
32	Safety Edges Rotating Monitoring	<b>Off = Disable monitoring</b> On = Enable monitoring	Configuring if pressure sensitive safety edges placed on the door leaves shall be monitored.
33	Safety Edges Fixed Monitoring	<b>Off = Disable monitoring</b> On = Enable monitoring	Configuring if pressure sensitive safety edges placed on the drum edges shall be monitored.
34	Emergency Stop Monitoring	Off=Disabled <b>On=Enabled</b>	Configuring if emergency stop input shall be monitored in program modes 2 and 3.
35	Reset To Default Config	<b>Off = No action</b> On = Reset all parameters	When the parameter is set to "1", all other parameters will be returned to the default values.
36	Reset To Default Password	<b>Off = No action</b> On = Initialize the password	When the parameter is set to "1", the password will be returned to "01613".
37	Touchless Sensor Rotating Slow Timer	0.0 - 5.0 sec <b>Default 0.0</b>	This function will be enabled when P29 has selected off, the timer will start when touchless presence sensors on the door leaves are activated. The door leaves will rotate with slow speed during this time and will stop when timeout.
38	Touchless Sensor Fixed Stop Angle	10 - 40 door deg <b>Default 10</b>	The door will stop at this angle when the vertical presence photocell sensor PDR is activated. If the value of P7 greater than the value of P38, this area will be slow speed zone from the vertical presence photocell sensor PDR is activated angle to the stop angle. If the value of P7 is same as the value of P38, there is no slow speed zone.

Menu number	Parameter name	Range Default value bold On=1, Off=0	Description
41	Login Type	<b>0</b>	Parameter range 0-3. 0 = Normal login 1 = Challenge code 1 (Seed 1, forgotten password) 2 = Challenge code 2 (Seed 2, auto selection enable) 3 = Challenge code 3 (Seed 3, unhide selection enable)
P	Password	0 - 9999	Password in the normal in-logging.
		<b>01613</b>	Default value 01613.
LoG 0	Log Out Menu	0	Parameter set to "1" will make an active log out.

Below table is the max. of P24 for door type

Door type	Normal driving torque (P24)
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-18	50%
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-21	60%
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-24	69%
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-27	79%
ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4-30	88%

Kinetic Energy of Rotation - ASSA ABLOY RD150-3 and ASSA ABLOY RD150-4 Frame Doors (Max. Speed)



## 15 Service/Maintenance

Service and adjustments performed by your ASSA ABLOY Entrance Systems-authorized representative will ensure safe and proper operation of your automatic door unit.

Remember to keep “Service Log Book” and “Site Acceptance Test and Risk Assessment” documents (PRA-0003) available. These are used together.

The table below shows the recommended interval in revolutions, when to replace parts during preventive maintenance. Talk to your ASSA ABLOY Entrance Systems representative to learn more about our service offering.

Minimum maintenance interval of once a year. See EN16005.

Part	Revolutions	Action
Drive unit	300.000/1.500.000	Check/Replace
Safety devices	300.000	Check
Impulse devices	300.000	Check
Emergency stop button (Not used in US and Canada)	minimum once a year	Check

### 15.1 General service inspection

Things to be checked during general service inspection:

- Speed settings

#### **Presence detection, function and/or monitoring**

- Horizontal pressure sensitive safety edges on the door leaf 1
- Horizontal pressure sensitive safety edges on the door leaf 2
- Horizontal pressure sensitive safety edges on the door leaf 3
- Horizontal pressure sensitive safety edges on the door leaf 4
- Vertical pressure sensitive safety edges on the door leaf 1
- Vertical pressure sensitive safety edges on the door leaf 2
- Vertical pressure sensitive safety edges on the door leaf 3
- Vertical pressure sensitive safety edges on the door leaf 4
- Touchless presence sensors on the door leaf 1
- Touchless presence sensors on the door leaf 2
- Touchless presence sensors on the door leaf 3
- Touchless presence sensors on the door leaf 4
- Vertical presence photocell sensor PDR 1 (inner)
- Vertical presence photocell sensor PDR 2 (outer)

#### **Emergency stop, function**

- Emergency stop button 1
- Emergency stop button 2

#### **Drive unit**

- No abnormal sound

### **Activation units, function and monitoring**

Adjustment (zone should cover entire entrance)

- Activation units (inner)
- Activation units (outer)
- Mains connection and cabling

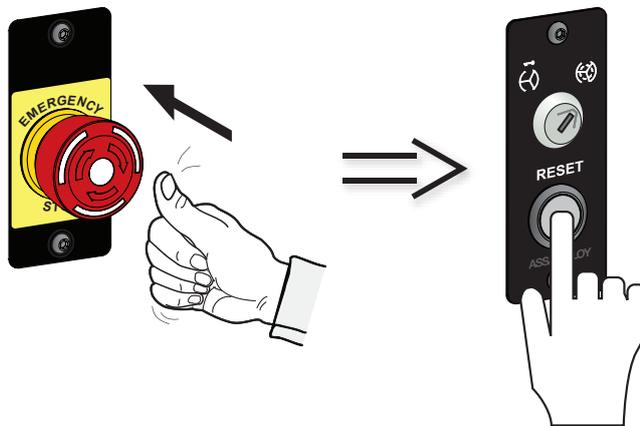
## 15.1.1 Test of emergency stop button (Not used in US and Canada)



Press the emergency stop button, operation shall cease immediately and the local displaying displays "EStoP".

Release the emergency stop button, the revolving door must not start.

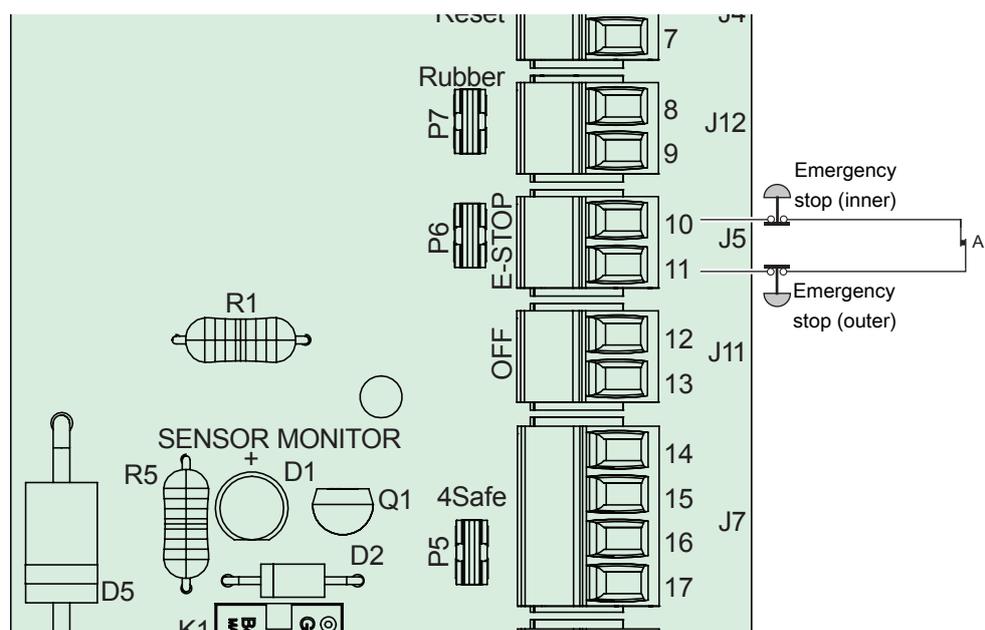
To reset the door to normal operation - release the emergency stop button by rotating it in the direction of the arrows and press reset button.



**Note!** The emergency stop button shall be tested once a year by a trained technician.

If the local displaying displays "EStoP", go to following steps to check.

- a Disconnect A, connect A of emergency stop (inner) to terminal 11 and perform the test.
- b If it is OK, check the cable of emergency stop (outer) in the same way (connect A of outer to terminal 10).



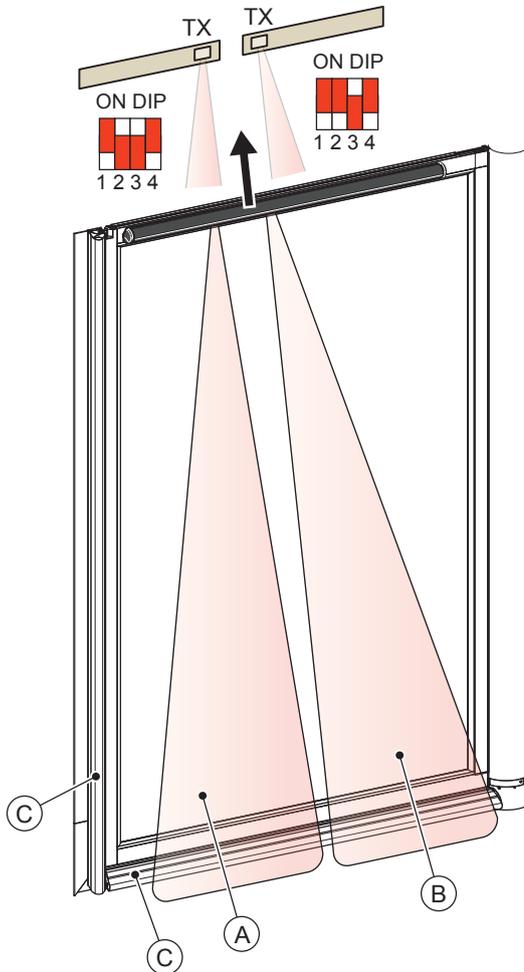
## 15.1.2 Vertical presence photocell sensor PDR

See on page 68.

## 15.1.3 Safety devices on the door

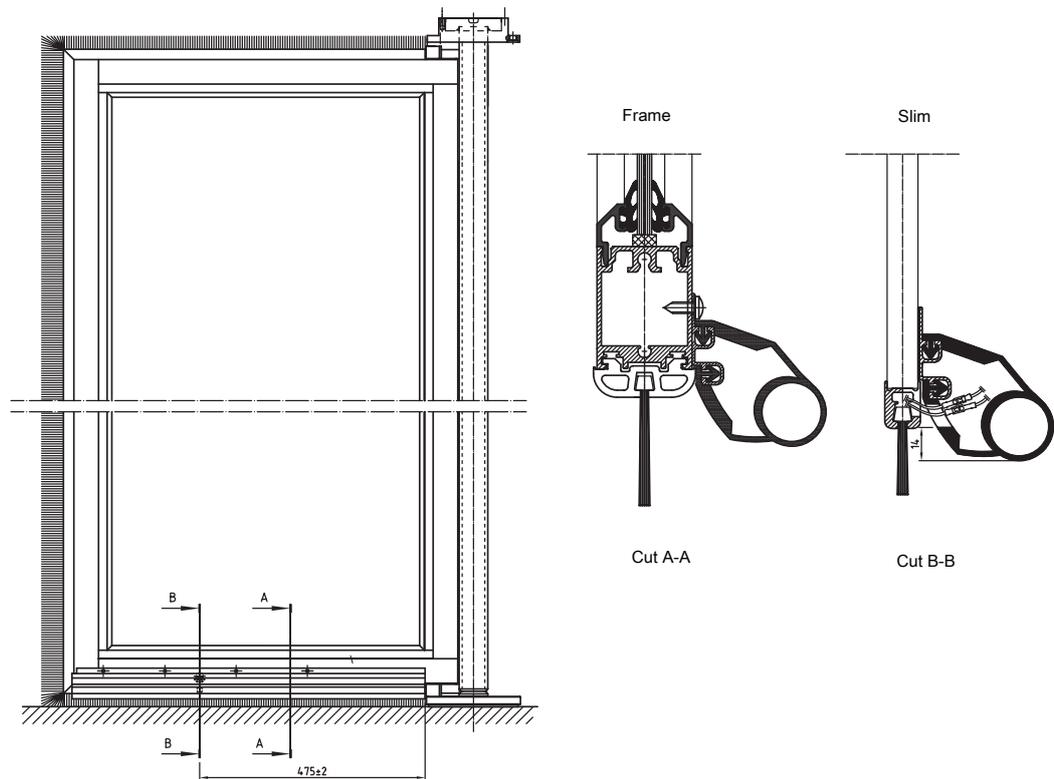
The safety systems are monitored to ensure the high safety level of the door.

The condition of the safety equipment is periodically tested. This monitoring is made during normal running conditions and it does not affect the normal day-to-day operations of the door.



- A Detection zone with one sensor per door leaf.  
Can be configured to stop door when activated or slow down door to creep speed (0.5 rpm).
- B Detection zone for second sensor, if installed.  
Must have same output configuration as sensor A.
- C Vertical and horizontal safety edges  
Stops the rotation of the door when safety edge is compressed.

## 15.1.4 Mechanical safety devices

**Horizontal pressure sensitive safety edges, door leaves**

Check condition of brush.

Remove any litter from the brush.

Check that the rubber is undamaged.

Check that the safety edges are firmly fixed.

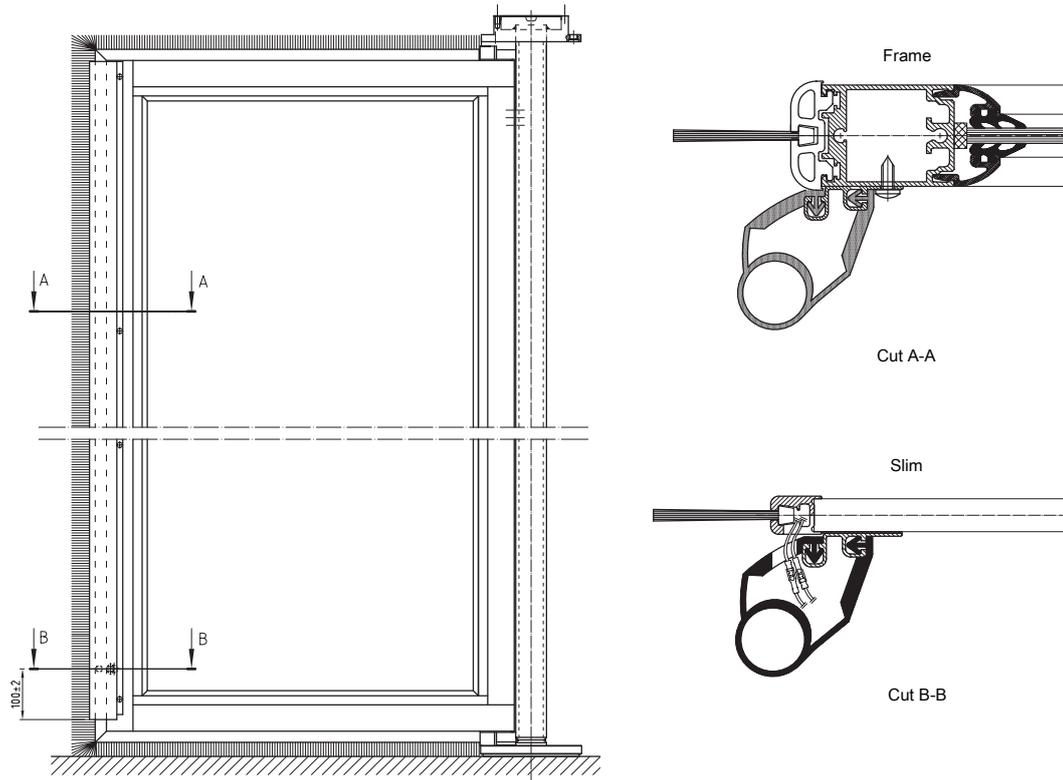
When a safety edge is activated, the door stops.

**How to replace**

Loosen screws.

Disconnect all electrical wires.

**Vertical safety edges, door leaves**

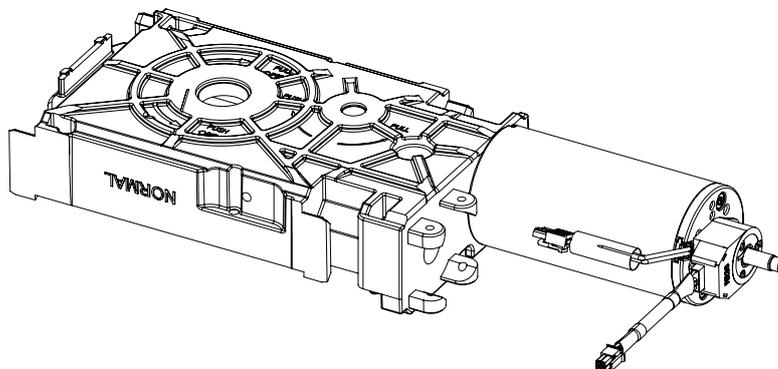


- Check condition of brush.
- Remove any litter from the brush.
- Check that the rubber is undamaged.
- Check that the safety edges are firmly fixed.
- When a safety edge is activated, the door stops.

**How to replace**

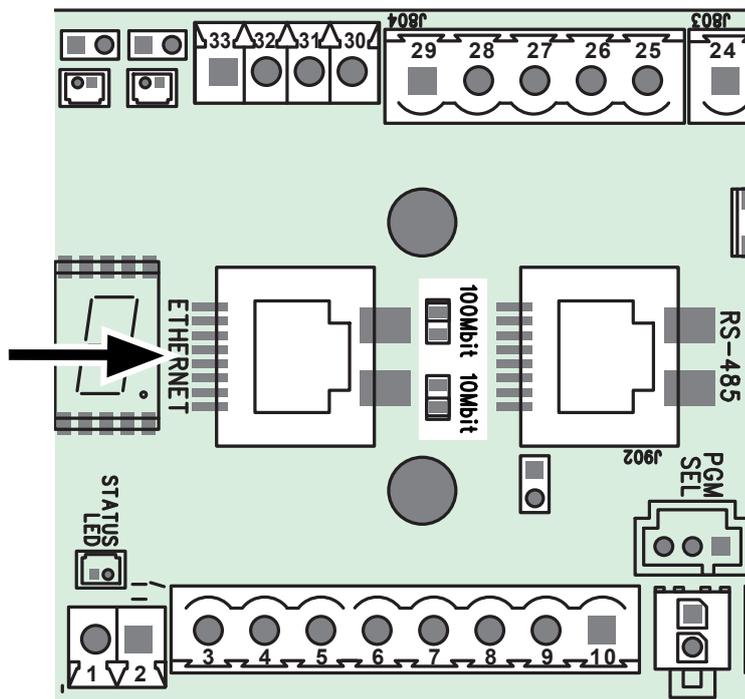
- Loosen screws.
- Disconnect all electrical wires.

**15.1.5 Drive unit**



- Check the cables.
- Check and replace the drive unit (if necessary).

## 16 Web interface utility



To reach the web page of an operator, connect the Ethernet port of the operator to a standard Ethernet/TCP/IP network using a STP/UTP CAT5 (or better) patch cable. After one or two seconds, either the 10Mbit or the 100Mbit LED will light up. At this point, a period of about 10 seconds is required for the operator to retrieve its IP address configuration from the network before it can start communicating. Then type the operator unique web address into the address field of your web browser. The operator unique web address is printed on the control unit label, which is placed close to the five digit display, e.g.:

`http://cdc1000d004e`

Please note that if the operator is connected point to point (i.e. directly to a PC/laptop), the IP address auto configuration may take a little longer time to complete.

In case there are difficulties to establish a connection with the web interface, it is recommended to connect both computer and operator to a router with DHCP enabled.

(Operator connected to a LAN port and computer to another LAN port or via Wi-Fi.)

Use of Android tablets and phones is possible in combination with a Wi-Fi router, the Ethernet port of the operator is connected to a LAN port on the router.

Note that on Android devices it is currently not supported to connect by typing the web address e.g. `http://cdc1000d004e`

Instead use the **RD Connect** app described in chapter 17.

## 16.1 General description of the web interface

When you type in the operator start address, you will be automatically redirected to the status page. This page shows current status and error information, e.g. selected operator program, maintenance cycle counter, current error (if any) and error log.

On the left pane, there are two clickable links which always can be used for navigating between the status and the settings page. On the settings page, you can inspect and/or modify configurable parameters. For modifying any parameter, a login is required. For inspection only, no login is needed.

CDC100 SETUP PAGE
you want to capture:

Program Selection: <span style="border: 1px solid #ccc; padding: 2px;">3 P-Assist</span> 01 Door Diameter: ( dm) <span style="border: 1px solid #ccc; padding: 2px;">24</span> 02 Number Of Wings: <span style="border: 1px solid #ccc; padding: 2px;">4</span> 03 Rotation Direction: <span style="border: 1px solid #ccc; padding: 2px;">CCW</span> 04 Rotation Direction Control: ( must remain off in US and Canada) <input type="checkbox"/> 05 Push And Go: ( must remain off in US and Canada) <input type="checkbox"/> 06 Safety Zone Offset: ( 10,0- 40,0) ° <span style="border: 1px solid #ccc; padding: 2px;">10,0</span> 07 Index Impulse In Program 1 ( Speed Control): <input checked="" type="checkbox"/> 08 Set Home Position: <input type="checkbox"/> 09 Home Position Offset: (non editable) ° <span style="border: 1px solid #ccc; padding: 2px;">0,0</span> 10 High Speed: ( 0,5- 6,0) rpm <span style="border: 1px solid #ccc; padding: 2px;">5,0</span> 21 Low Speed: ( 0,3- 2,5) rpm <span style="border: 1px solid #ccc; padding: 2px;">1,5</span> 22 Speed Control: ( 3,0- 9,9) rpm <span style="border: 1px solid #ccc; padding: 2px;">7,0</span> 23	Door Rotation Torque: ( 25,0- 100,0) % <span style="border: 1px solid #ccc; padding: 2px;">50,0</span> 24 Safety Zone Torque: ( 25,0- 100,0) % <span style="border: 1px solid #ccc; padding: 2px;">25,0</span> 25 Parking Brake Hold Torque ( 0,0- 100,0) % <span style="border: 1px solid #ccc; padding: 2px;">0,0</span> 26 Braking Torque: ( 25,0- 100,0) % <span style="border: 1px solid #ccc; padding: 2px;">100,0</span> 27 P-Assist Torque: ( 0,0- 100,0) % <span style="border: 1px solid #ccc; padding: 2px;">0,0</span> 28 Touchless Sensor Rotating Activation: <span style="border: 1px solid #ccc; padding: 2px;">Stop</span> 29 Touchless Sensor Rotating Monitoring: <input type="checkbox"/> 30 Touchless Sensor Fixed Monitoring: <input type="checkbox"/> 31 Safety Edges Rotating Monitoring: <input type="checkbox"/> 32 Safety Edges Fixed Monitoring: <input type="checkbox"/> 33 Emergency Stop Monitoring: <input checked="" type="checkbox"/> 34 Reset To Default Config: <input type="checkbox"/> 35 Reset To Default Password: <input type="checkbox"/> 36 Touchless Sensor Rotating Slow Timer : ( 0,0- 5,0) sec <span style="border: 1px solid #ccc; padding: 2px;">0,0</span> 37 Touchless Sensor Fixed Stop Angle: ( 10,0- 40,0)° <span style="border: 1px solid #ccc; padding: 2px;">10,0</span> 38
--	--

**You are currently logged out**

Login Type: Standard (05617)

Login Password:  Login

## 16.2 How to login to the operator



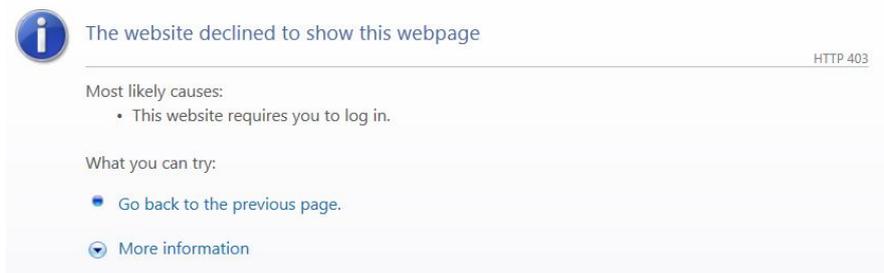
**You are currently logged out**

Login type:  (27138)

Login password:

To modify any parameter you have to be authorized. Select "Standard" from the radio button, type the password (1613) in the password field and click Login. Login is granted if the password is correct and if no other user has logged in on the local interface.

If another user has logged in on the local interface, web interface can not be logged in at the same time, and web page shall show as following.



When you are logged in as standard, it is possible to change and save all editable parameters. When finished, press the "Logout" button. If there's a period of 10 minutes or more of inactivity, the user will automatically be logged out.

### Step 1

Select "Standard" from the radio button, type in the password (1613) in the password field and click Login. If the password is correct and if no local personal has logged in on the local interface, the next step is entered.

### Step 2

Parameter modification can now be done.

### Step 3



Press the "Save" button on the web page. The modified parameters are sent to the operator to be saved and activated. Then the complete setup page with updated parameters will again be shown on the web browser.

**Note!** Do not change parameters from a remote location!

### 16.3 Correction of out of range data

The operator will only accept changed parameter values that are within range. For all parameter value fields on the web page, the entered value will be checked against minimum and maximum allowed value, when the "Save" button is pressed. Any entered value that are out of range will be marked with a red frame around the value field, and the save procedure will be inhibited. The user should now correct these values, and then press "Save" again.

High speed: ( 0,5- 6,0) rpm 40 21

The range checking is performed using a javascript which is executed by the web browser. It is most common that javascript is enabled, but some users may prefer to disable scripts, and then the range check can't be executed by the web browser. In such cases the operator's web server will still perform range checking for all parameters when they are saved, and if any out of range data is found, it will automatically correct the value to fall between min. and max. limits.

### 16.4 Make a learn procedure

Press the "Learn" button to start a LEARN procedure including self-sensing functions during installing of a door. The door friction torque, door inertia and external gear ratio shall be sensed and stored permanent.

**Press Learn to start learn process**

You will be directed to status page

### 16.5 Download/Upload a full configuration via the web interface

A useful function is the 'Copy' and 'Paste' utility. It is possible to download a full configuration (set of parameters) from the operator to a PC and save it in a file. This setup file can later be uploaded into another operator (or several operators consecutively), which may come in handy in large installation.

**Browse and select parameter file to upload**  
 **Press Upload to view and examine parameters. Then press Save button to confirm**  
[\[Download\]](#) **Click to download and save settings on computer**

To access the download functionality, you need to be logged in. When the setup procedure is finished for a particular operator and all parameters are saved and activated, click the download link at the bottom of the settings page, and the setup will be saved to a file on your PC. Different web browsers handle this situation in different ways, please refer to your browser's manual if any doubt. A general tip, however, is to give the parameter file a suitable name, and to remember in which hard drive folder it was saved. Then it can be reused later at any time.

Click the "Browse" button next to the text field and select the correct setup file. Then click the "Upload" button. Now the values from the file are shown on the setup page, **but they are not yet saved and activated**. All values must now be thoroughly examined, and if everything is correct, click the "Save" button.

### 16.6 Web browser compatibility

**Note!** When using Windows 7 together with Internet Explorer 9, we have found some trouble that can cause the operator's web pages to be delayed, and occasionally not shown at all. While this problem is investigated, it's recommended for Windows 7 clients to use Google Chrome instead.

## 17 RD Connect app

The **RD Connect** app makes it easy to access the CDC100 control unit's web interface with an Android tablet and a Wi-Fi router.

The router is connected by cable to the CDC100 Ethernet port and wireless to the tablet.

**Note!** Only connect one control unit at a time to the router.



Most commercial off-the-shelf Wi-Fi routers can be used, provided they have at least one dedicated Ethernet LAN port and are configured so that LAN port and Wi-Fi are assigned IP addresses within the same subnet through DHCP. (Default setting for most routers)

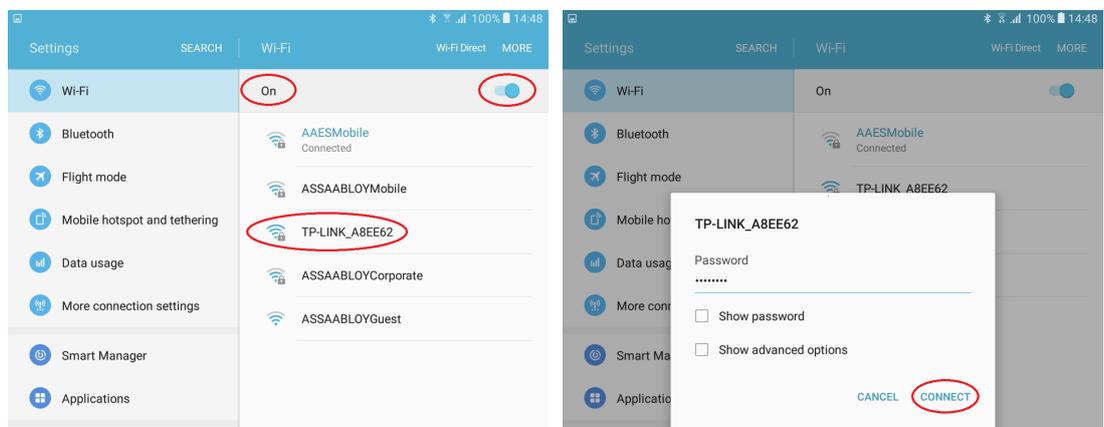
Tested and recommended models are: **TP-LINK TL-WR710N** and **TL-WR810N**.

If the router has a mode selector switch, it shall be set to 'Router'.



Connection to the wireless network is managed through Android system settings.

Select the wireless network name (SSID) of the router and enter the wireless password when prompted, then tap **CONNECT**.

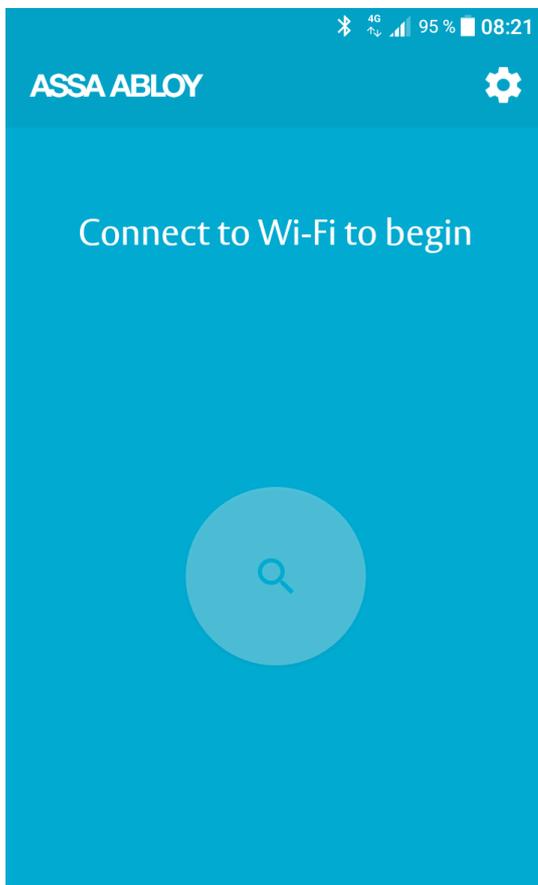


## 17.1 Alternatives for installation of the RD Connect app

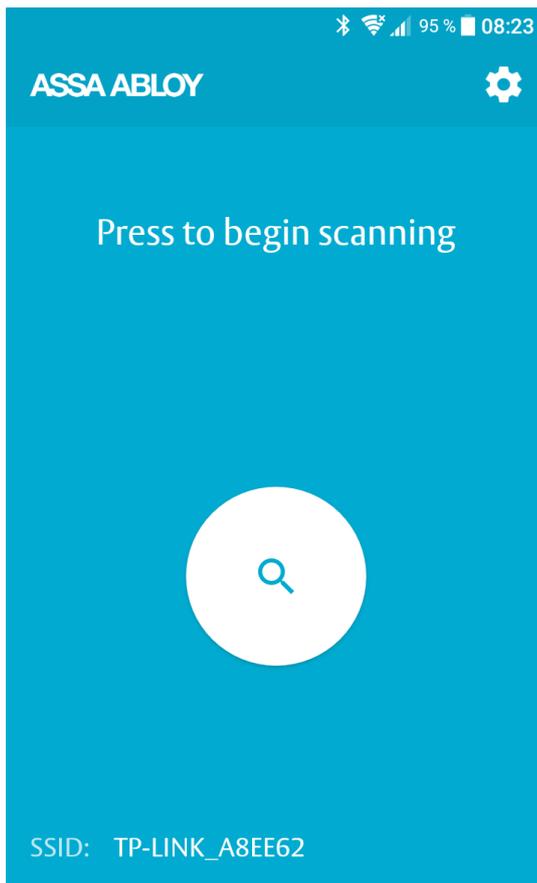
**Note!** The RD Connect app requires Android version 5.0 or higher to install.

- a Entrance Systems tablets managed through MDM (Mobile Device Management)  
Send a request to ServiceDesk and provide email address or user group of the person(s) to receive the app, which will be installed automatically.
- b Non MDM tablets  
Request the file "*1016987-1.0-Software RD Connect.apk*" from technical support and copy it to the tablet (or send it to an email address that can be accessed from the tablet).  
Install by tapping the file and follow the instructions. A prompt to enable 'Unknown sources' might appear, which is normal when installing apps from other sources than Google Play. This option is found under 'Lock screen and security' settings.

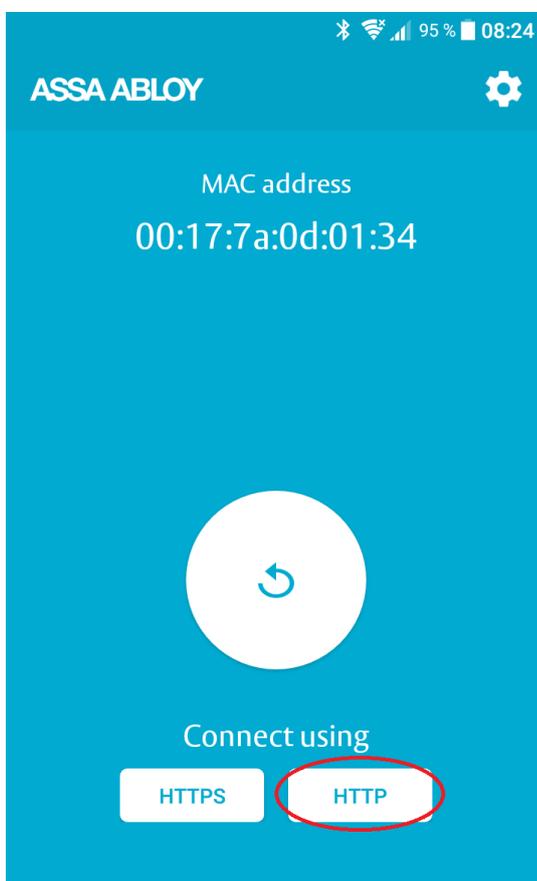
## 17.2 Run the RD Connect app



In case 'Connect to Wi-Fi to begin' is displayed. Make sure that the tablet's Wi-Fi is switched on and that the router is powered and connected to the CDC100 control unit.

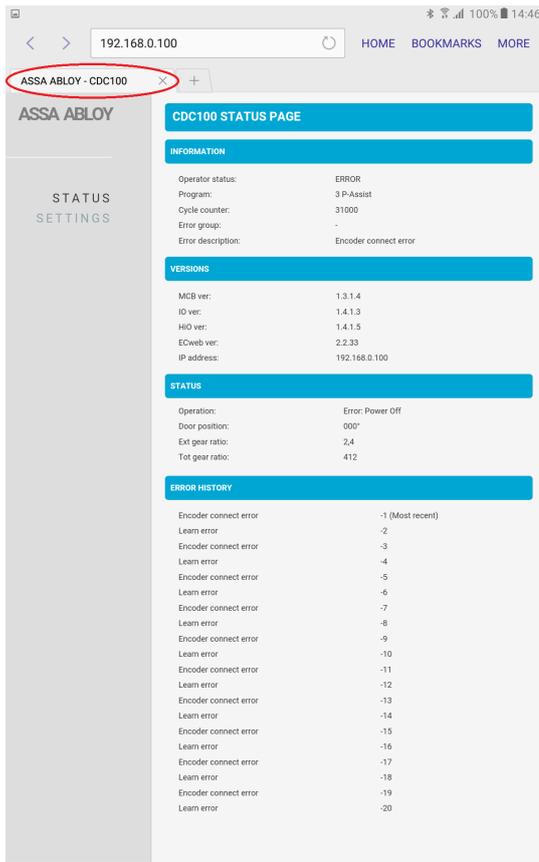


When a wireless network connection has been established, verify that the network name (SSID) is the same as the router's. (In this example TP-LINK\_A8EE62.) Then tap the scan button (magnifying glass).

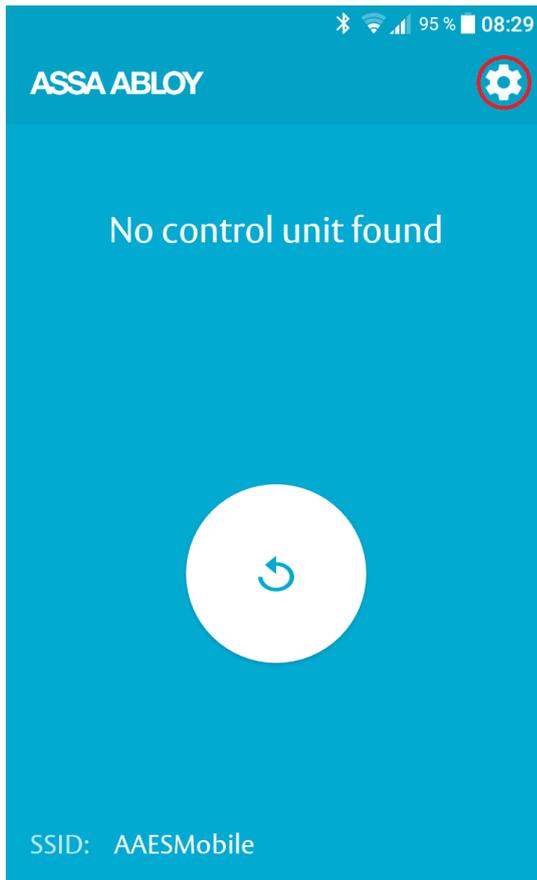


When the MAC address of the control unit is displayed, tap the HTTP button which will open the control unit's web interface in a browser. Tap the repeat scan button (arrow) if another control unit has been connected.

**Note!** The HTTPS button shall not be used to connect with a CDC100 control unit.



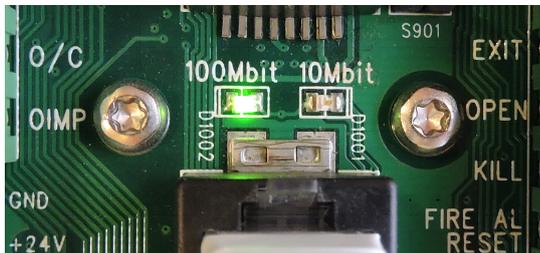
The web interface opens in a new browser tab each time the **RD Connect** app is used. To prevent multiple open tabs, make a habit of closing the tab after each session.

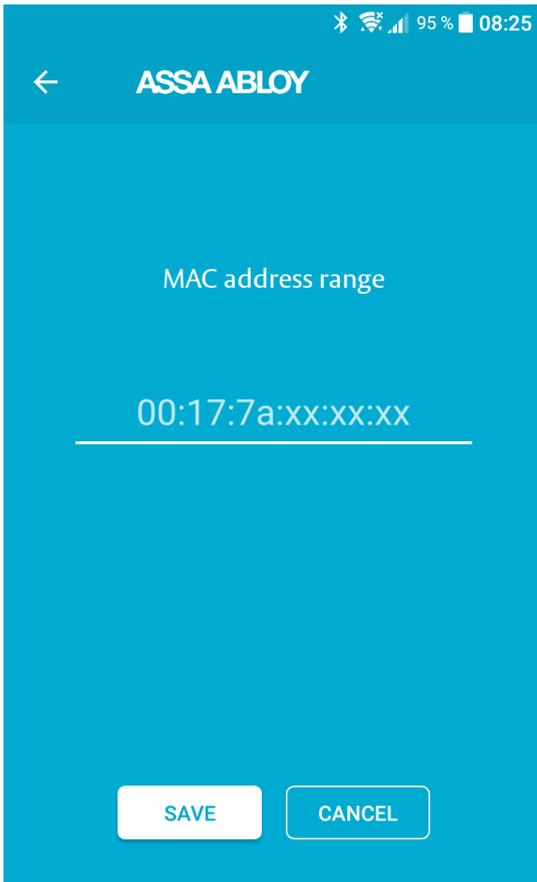


If no control unit is found:

- a Check that the tablet is connected to the router's wireless network. In this example the tablet has connected to another network (AAESMobile).
- b Be patient, after power up of control unit or router, it can take a couple of minutes before the connection is established. Tap the repeat scan button (arrow) to try again.

Also check that the 10 or 100 Mbit LED, near the control unit's Ethernet port, is lit.





Tapping the settings icon (cogwheel) opens the MAC address range settings page.  
The first six digits (00:17:7a) are used to identify ASSA ABLOY units.  
Leave unchanged or else the control units cannot be found!



ASSA ABLOY Entrance Systems is a leading supplier of entrance automation solutions for efficient flow of goods and people. Building on the long-term success of the Besam, Crawford, Albany and Megadoor brands, we offer our solutions under the ASSA ABLOY brand. Our products and services are dedicated to satisfying end-user needs for safe, secure, convenient and sustainable operations. ASSA ABLOY Entrance Systems is a division within ASSA ABLOY.

[assaabloyentrance.com](http://assaabloyentrance.com)



ASSA ABLOY Entrance Systems

Tel: +46 10 47 47 000  
[info.aes@assaabloy.com](mailto:info.aes@assaabloy.com)  
[assaabloyentrance.com](http://assaabloyentrance.com)