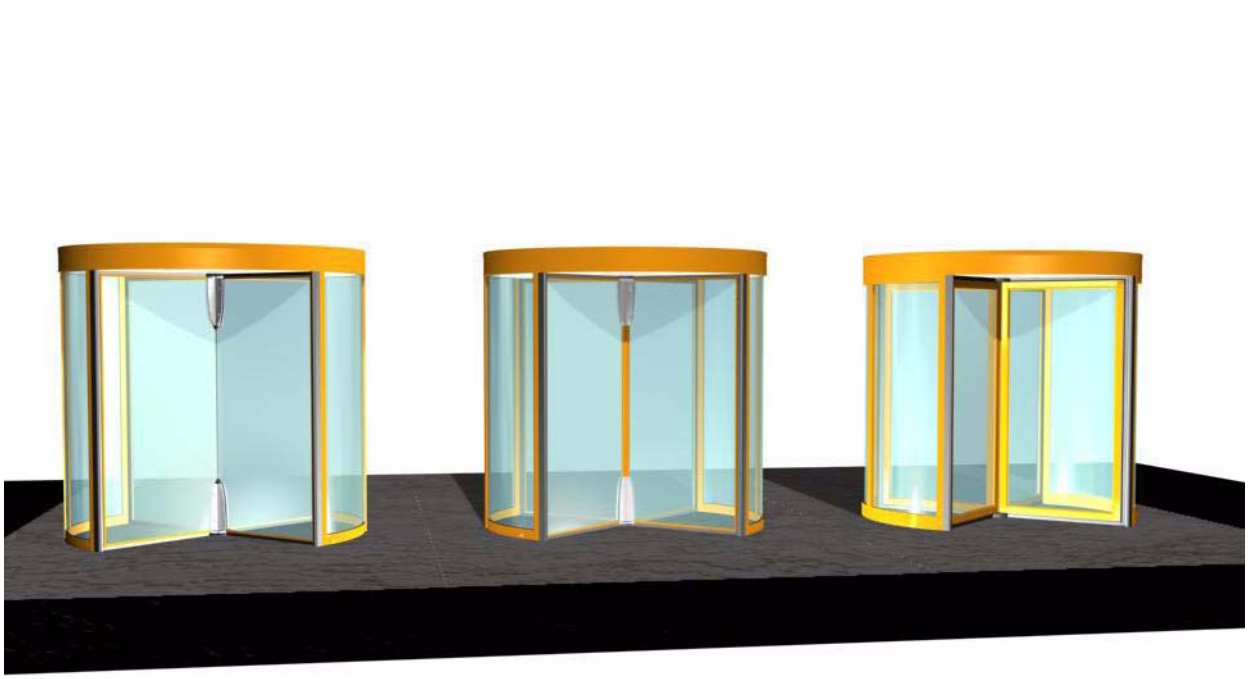
besam

ASSA ABLOY

Installation and Service Manual
Besam Revolving Door

RD3/RD4, RD3A1/RD4A1, RD4A2



1004466-EI-2.0 – Issued 2008-02-19

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1 Revision

The following pages have been revised:

Page	Revision
—	This is the first version of Installation and Service Manual, No. 1004466-EI-2.0, issued 2008-02-19, for Besam 3 and 4 winged Resolving Doors.

2 Important information

2.1 Important notice

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. Only Besam-trained technicians should be allowed to carry out these operations. Save these instructions.

2.2 Radio and television reception

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, it may cause interference to radio, television reception or other radio frequency type systems. It has been designed to comply with the emission limits in accordance with EN 61000-6-3 (US market FCC Part 15), which are designed to provide reasonable protection against such interference in a residential installation. However, 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 radio/television technician for additional suggestions.

2.3 Environment

This operator is equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Remove this material from the operator before it is scrapped and make sure that it is disposed of safely along with the packaging.

3 Introduction

This manual contains the necessary details and instructions for the installation, maintenance and service of Besam 3 and 4 winged Revolving Doors.

The Besam Revolving Doors are easy to install for both new construction and retrofit applications and they can be adapted to a wide range of door requirements. A Besam Revolving Door shall always be equipped with a safety system that suits the application. Besam Revolving Doors can be combined with the full range of Besam safety systems.

Each installation is unique and must therefore be equipped and adjusted for the application-relevant safey requirements, just like maintenance must be performed as specified for the selected product.

4 Technical specifications

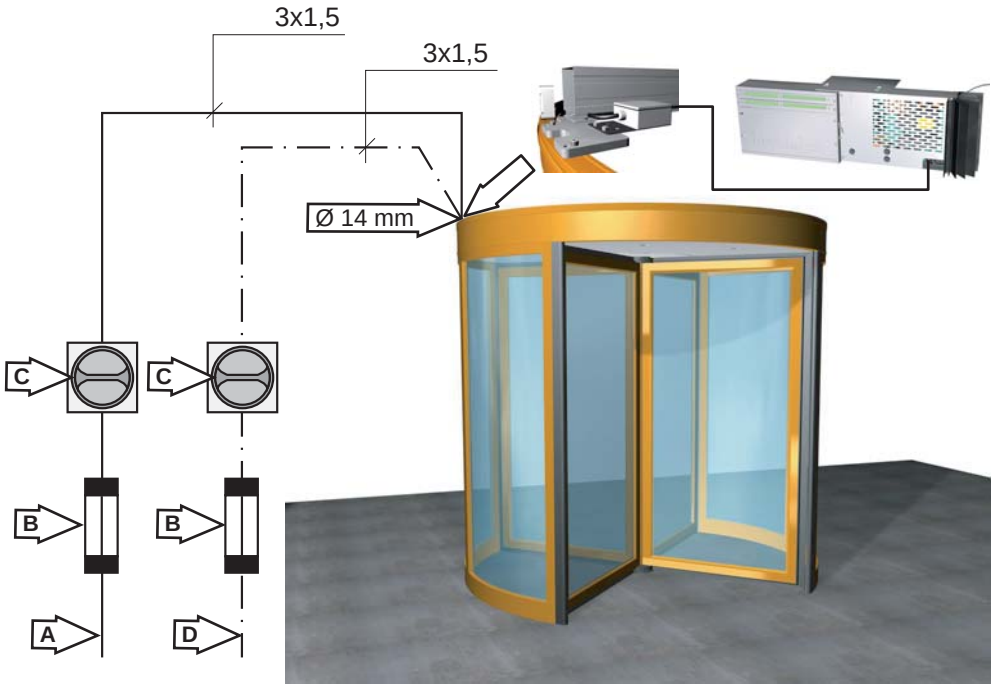
- Power supply: 100 - 240 V, 50 - 60 Hz
- Power consumption: 400 W
- Lighting: 12 V, 120 W
- Mains fuse: 10 A

5 Installation

5.1 Pre-installation check

5.1.1 Mains supply

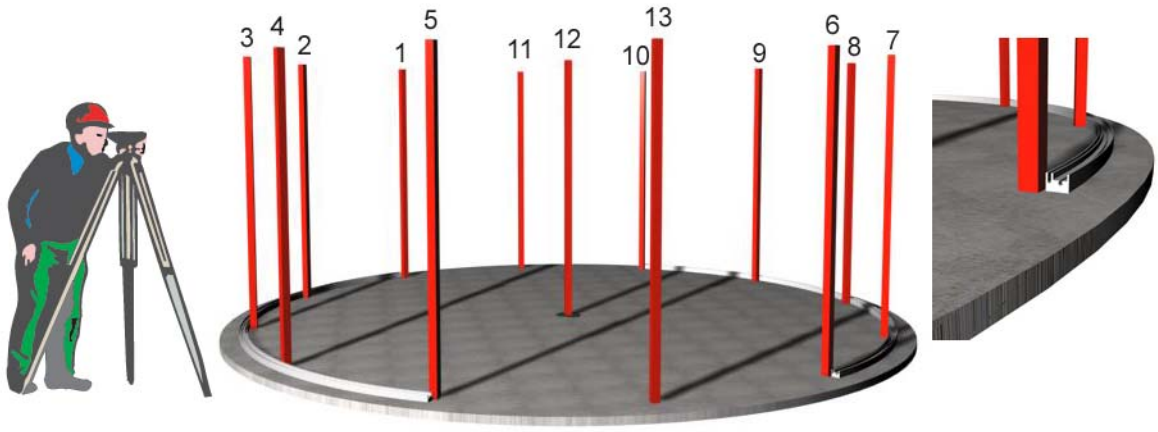
See connection diagram 1001420-05



EAB094

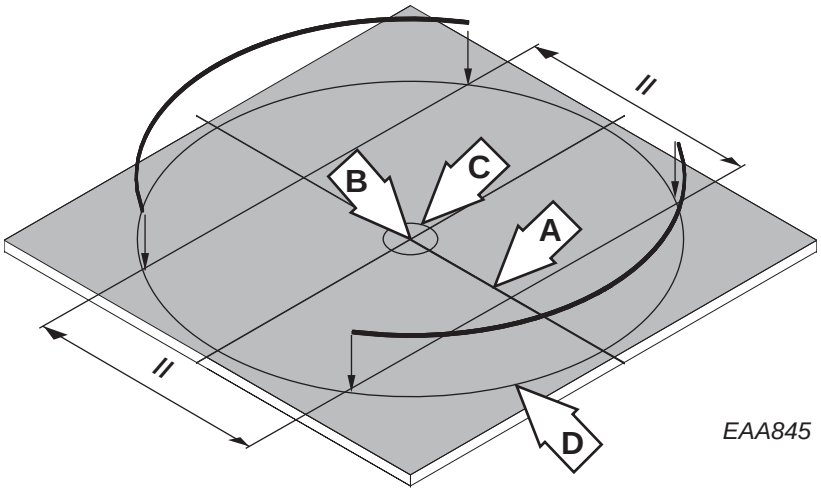
	Description
A	100/115/230V, 50/60Hz, 10A, mains fuse max 10A Power consumption 600W
B	Fuse
C	Main switch (by others) An all pole mains switch having a contact separation of, at least, 3 mm shall be incorporated in the mains wiring in accordance with national wiring regulations.
D	Power supply for spotlights (option). Mains fuse 10A.

5.2 Floor surface



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

5.2.1 Mark up



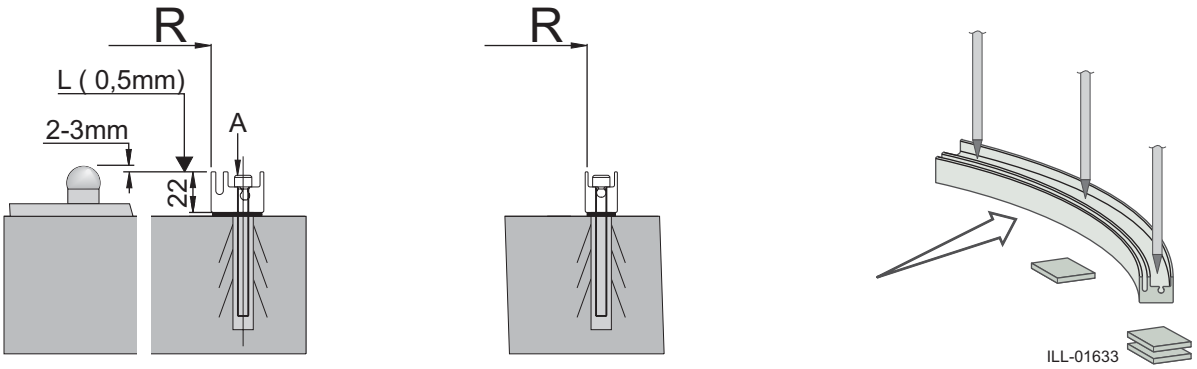
Mark line A. Line A is the centre line of the door between the adjacent walls.

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

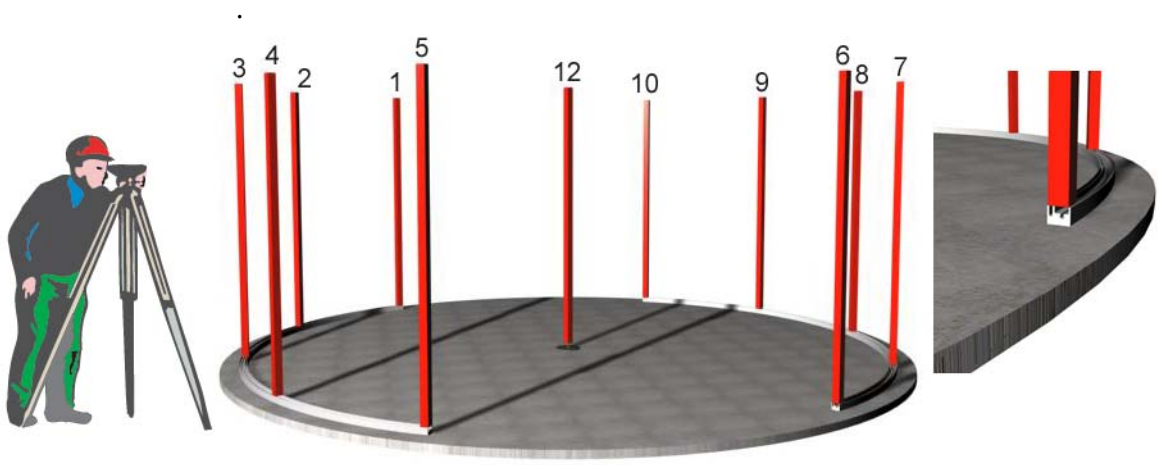


Door type	Nominal R Frame	Nominal R Slim
RD3/4-18	906	904
RD3/4-21	1056	1054
RD3/4-24	1206	1204
RD3/4-27	1356	1354
RD3/4-30	1506	1504
RD3/4-36	1806	1804

Max. deviation 1 mm

5.2.2 Fit the fixing rail and the centre pivot plate

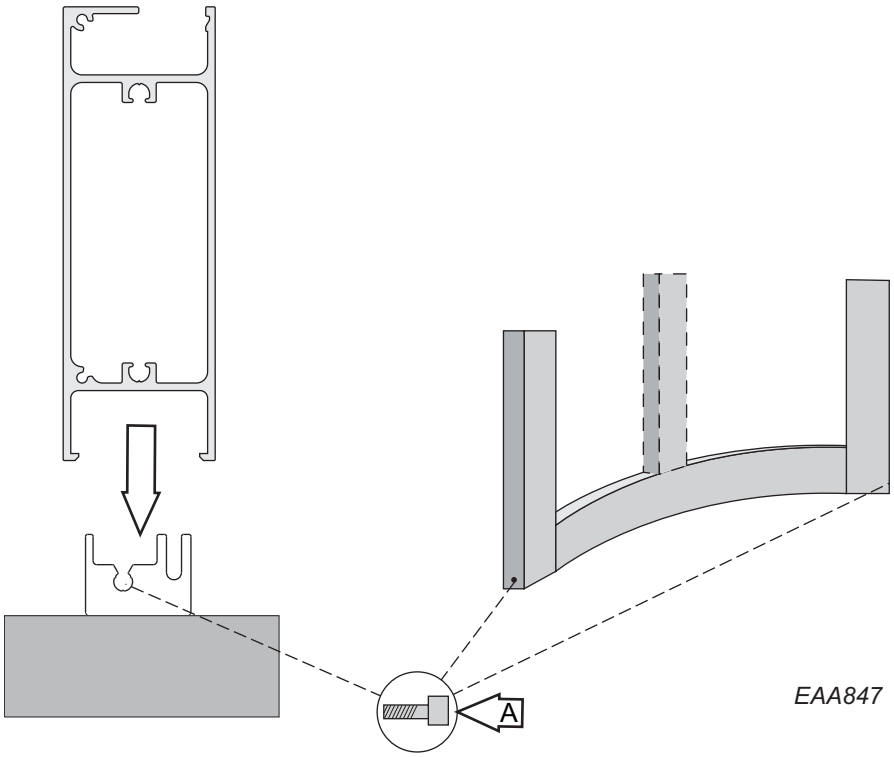
.



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

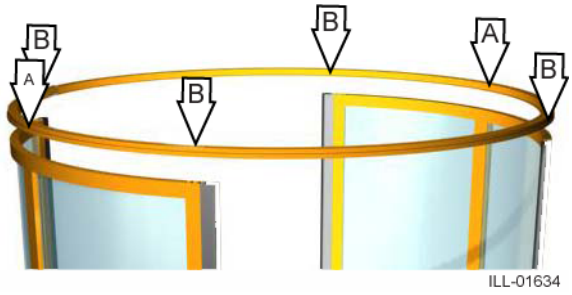
5.3 Outer walls

5.3.1 Outer wall sections



RTS ST 5.5x22

5.3.2 Wall ring Frame



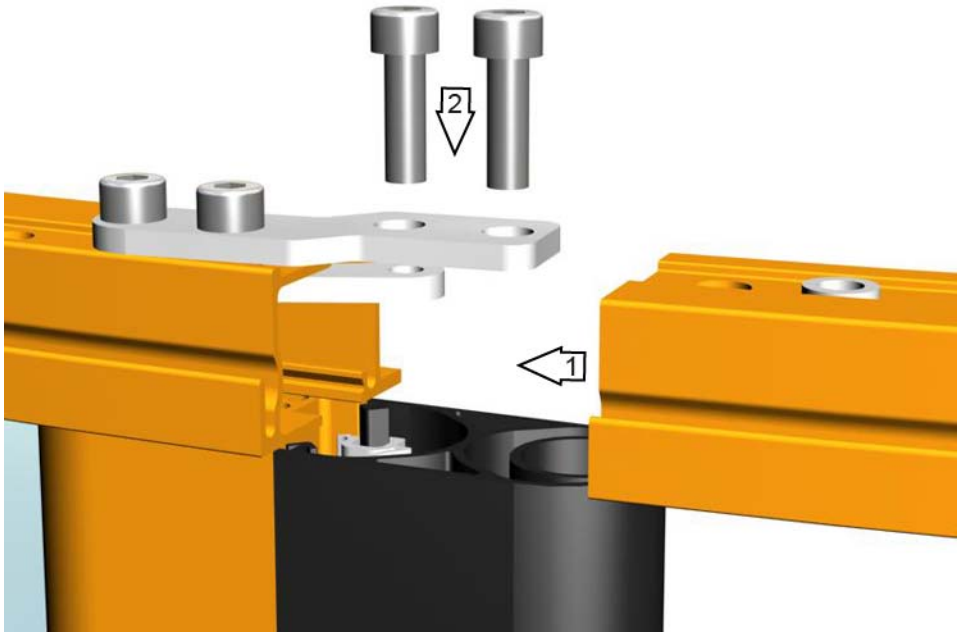
A

RTS ST 6.3x32.
BRB 6.4

B

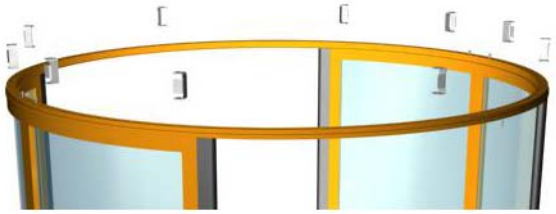
MC6S 8x60

5.3.3 Wall ring Slim



MC6S 8x25

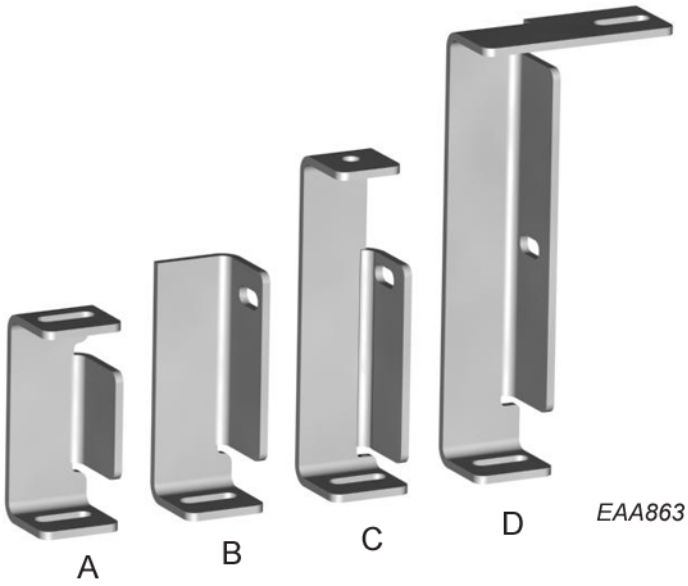
5.3.4 Brackets



MC6S 8x25

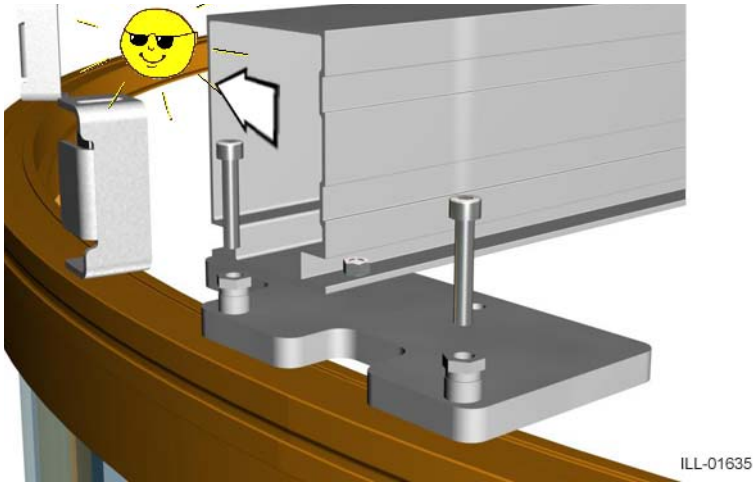
Do not tighten the bolts.
The brackets close to the openings shall be located above the wall sections.

Brackets



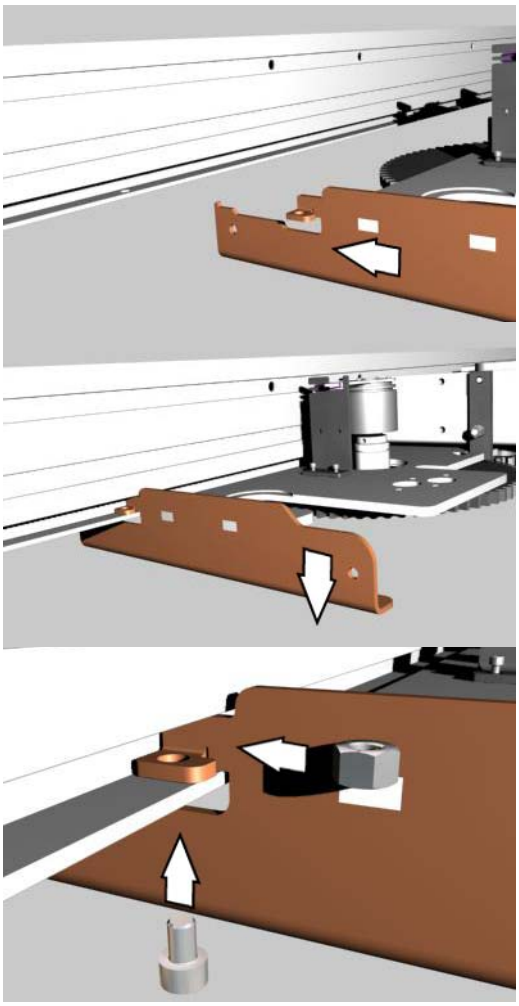
Item	Used where?
A	Door without NCD. Internal half of doors with NCD. Fascia height 200 - 1250 mm.
B	External half of doors with NCD. Fascia height 200 - 210 mm.
C	External half of doors with NCD. Fascia height 211 - 280 mm.
D	External half of doors with NCD. Fascia height 281 - 1250 mm.

5.4 Centre beam

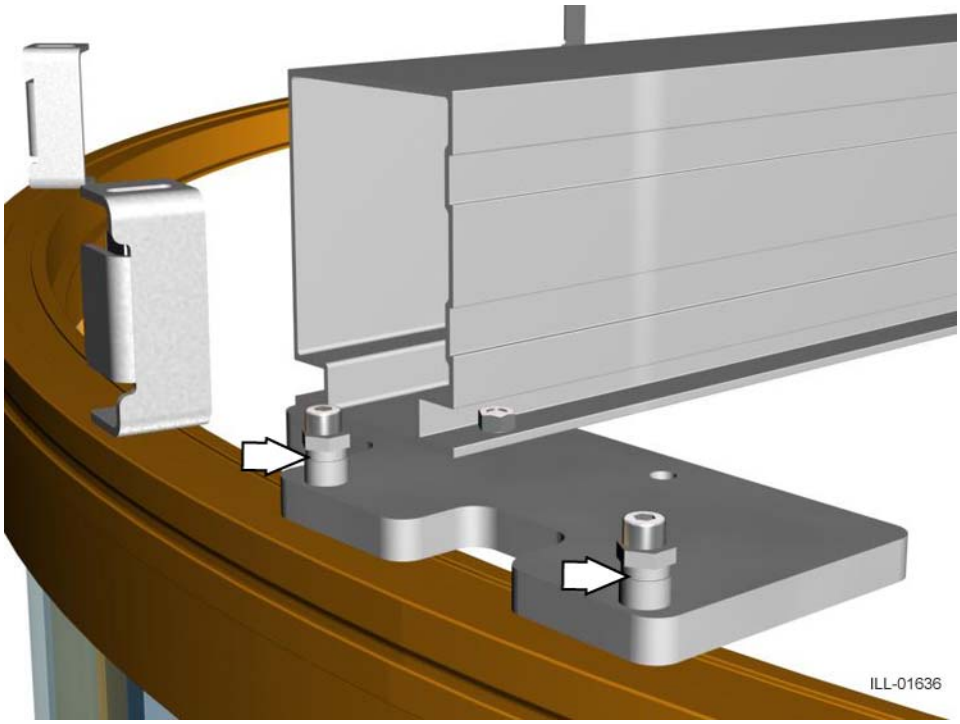


MC6S 8x50
Do not tighten the bolts.

5.5 Drive unit

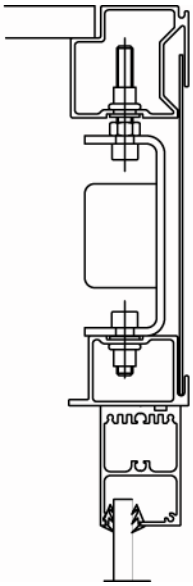


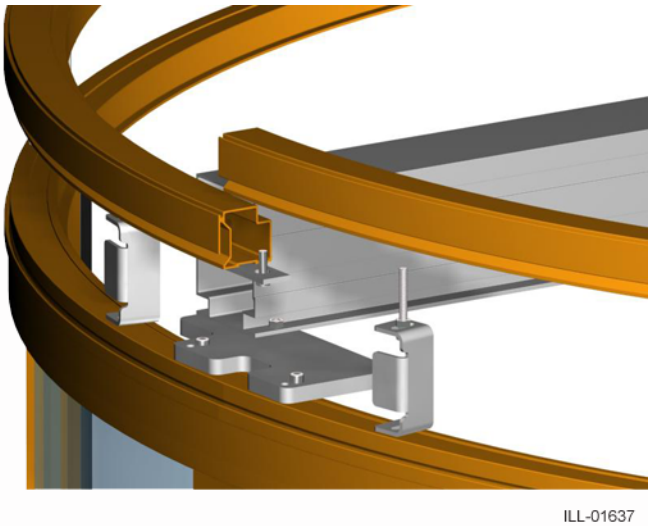
MC6S 8x16
M6M M8



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

5.6 Top ring





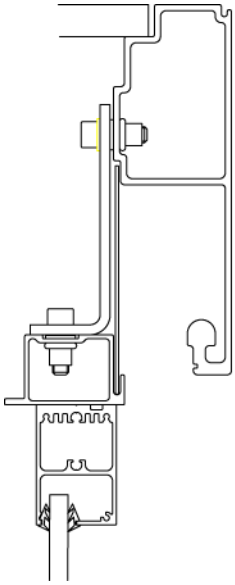
MC6S 8x60
M6M M8
MC6S 8x25

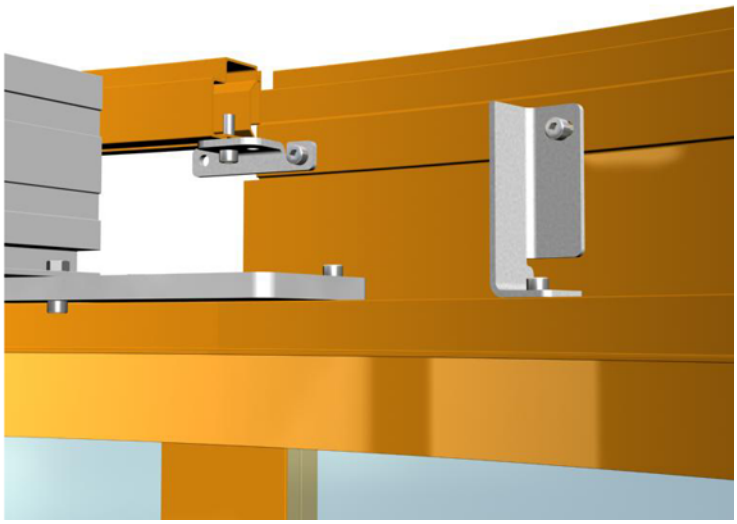
5.7 Night closing doors (NCD)

5.7.1 Support beam

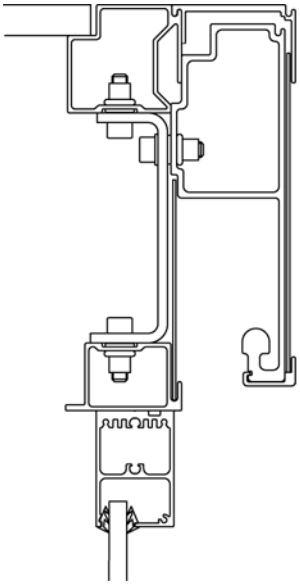
MC6S 8x25

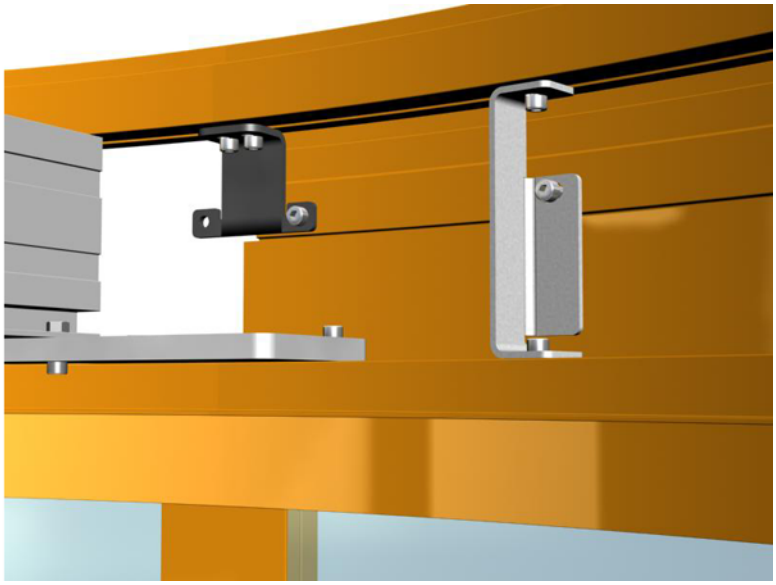
Fascia height 200 - 210 mm



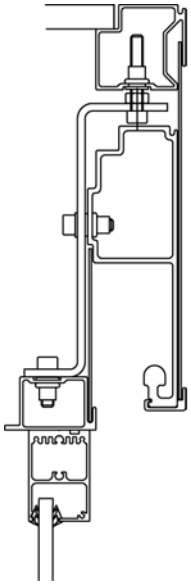


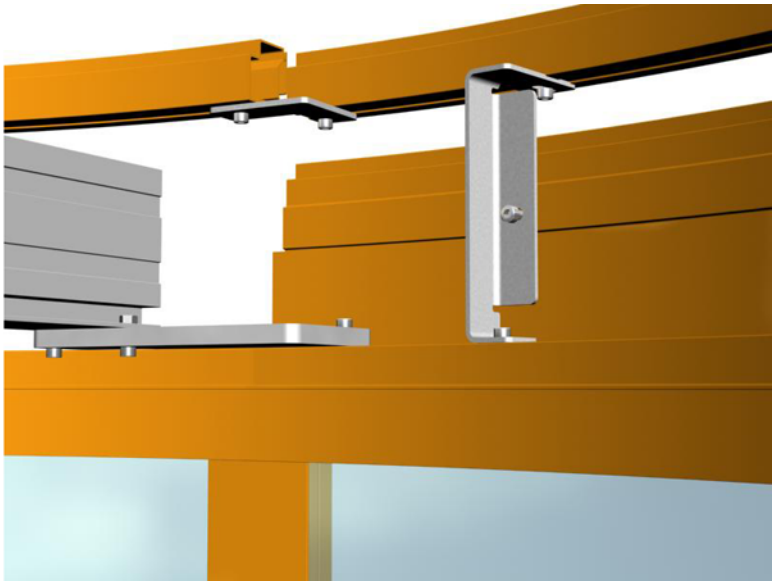
Fascia height 211 - 280 mm





Fascia height 281 - 1250 mm





5.7.2 Carriage wheel fittings

5.7.3 Floor guide

MF6S 6x20

5.7.4 Door leaves

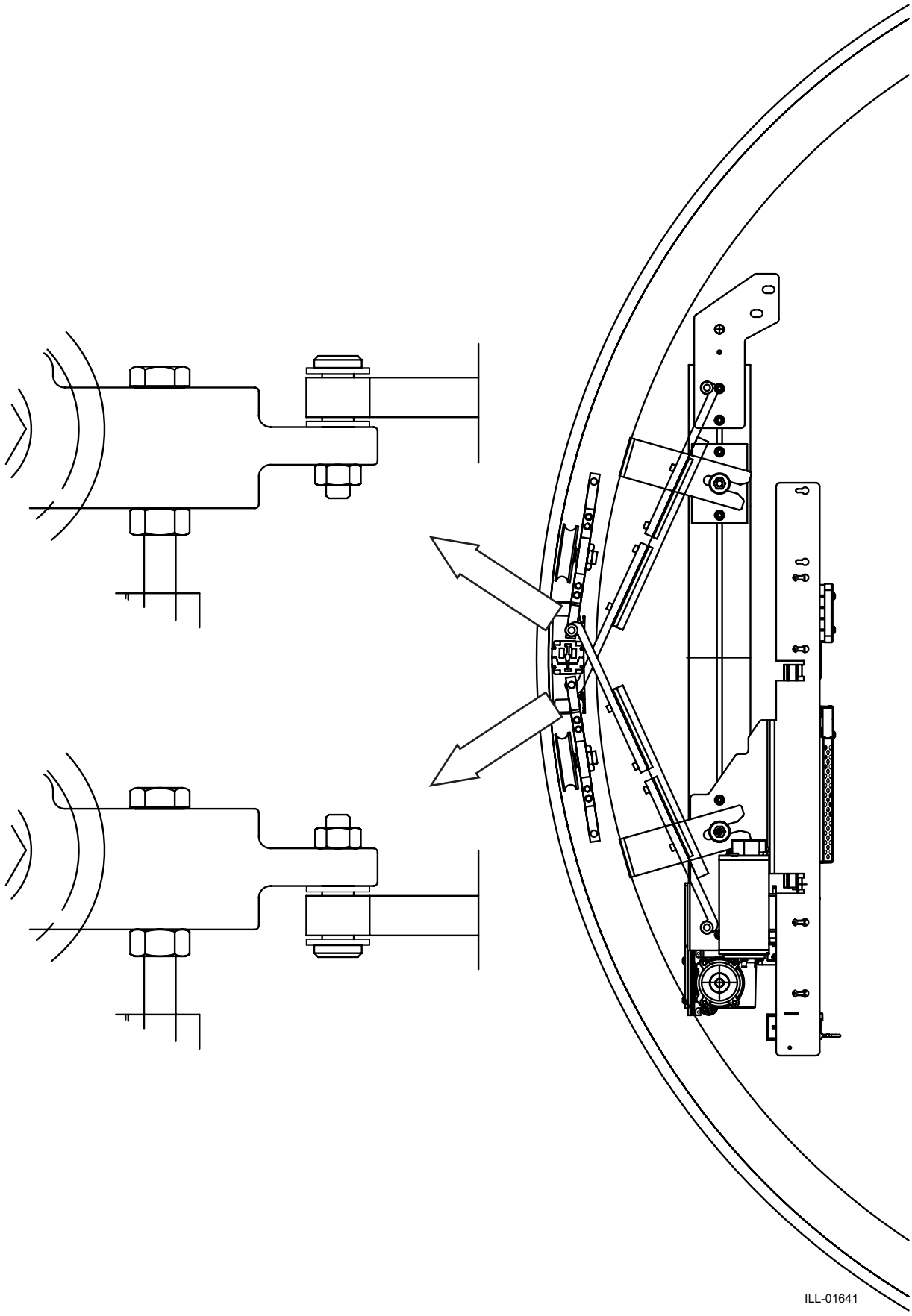
5.7.5 Slam posts

RXS ST 3.5x13

5.7.6 Door stop

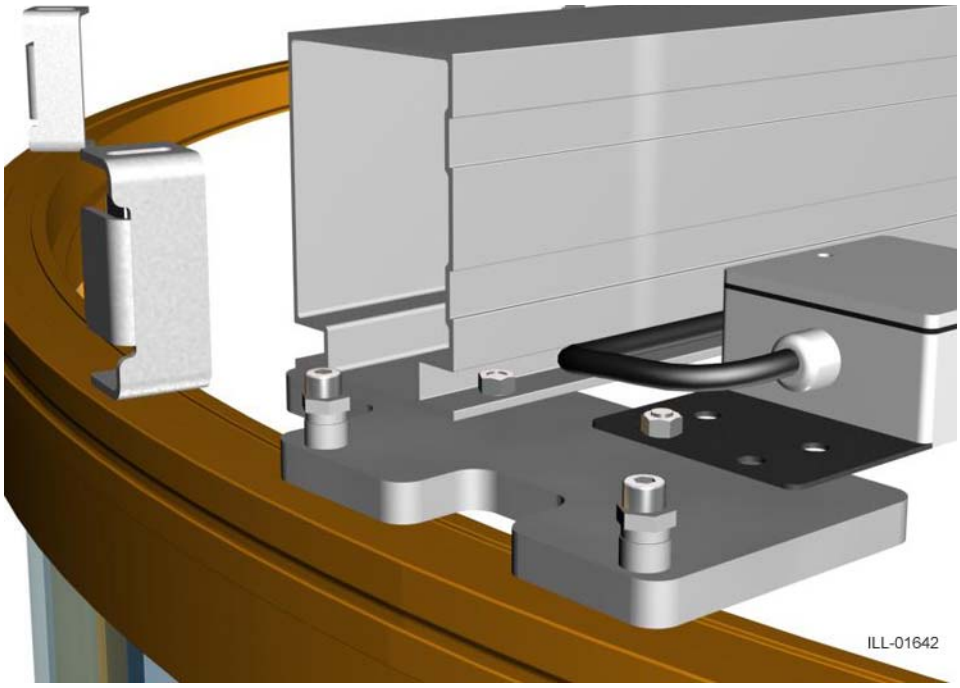
M6S 8x20
M6S 6x35
M6M 6

5.7.7 Automatic NSD



5.8 Electrical installation

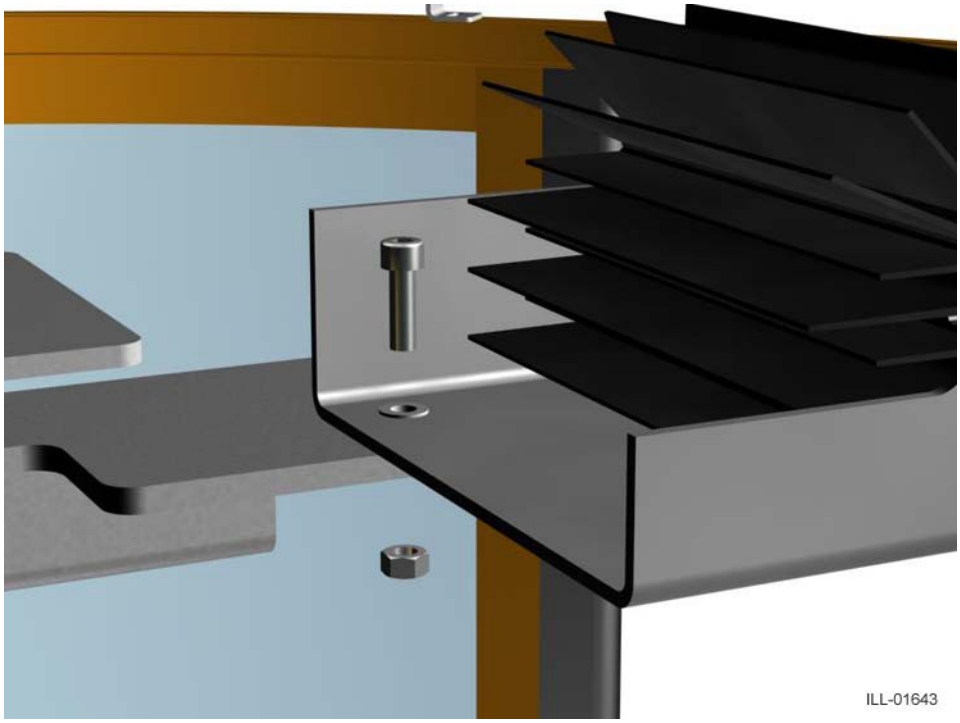
5.8.1 Connection box



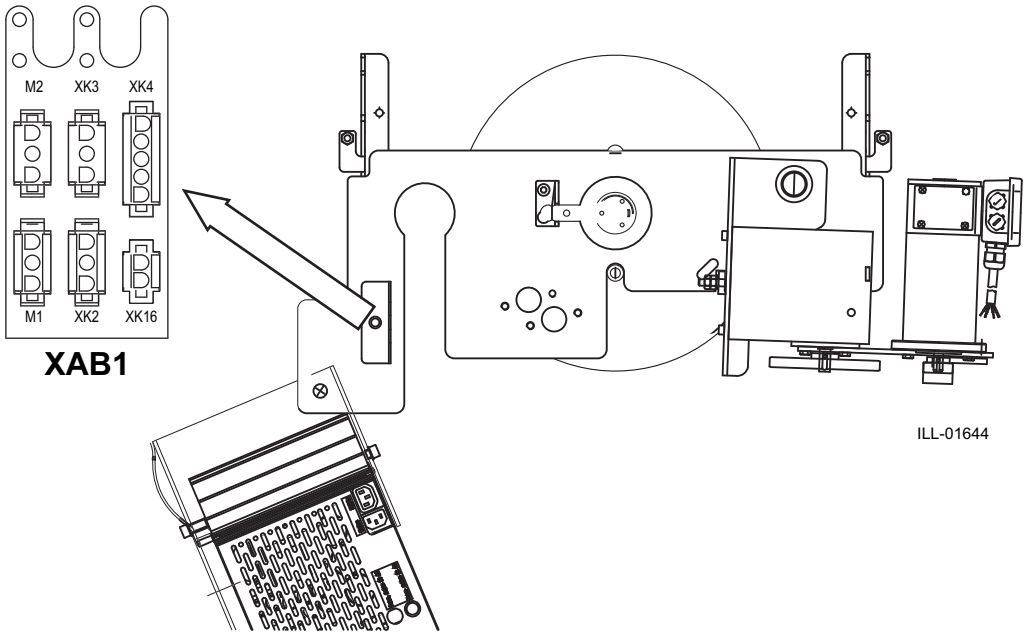
MC6S 8x25
M6M M8

Fix the mains connection box firmly to the centre beam fixing bracket.

5.8.2 Control box

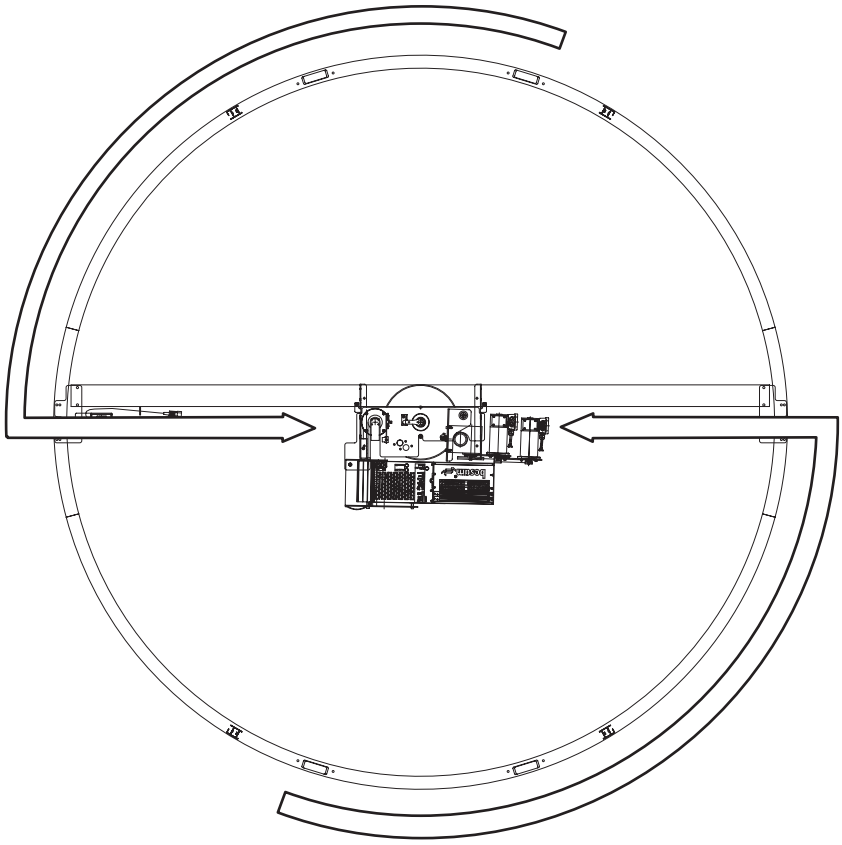


5.8.3 Connection box XAB1

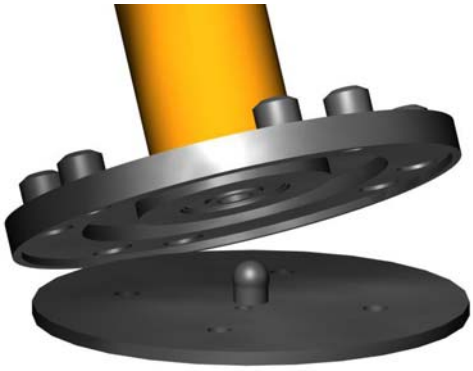


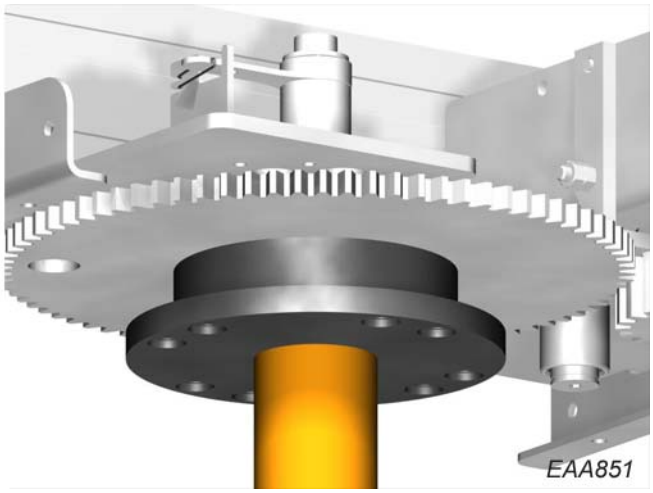
A single motor shall be connected to connection M1.

5.8.4 Cabling

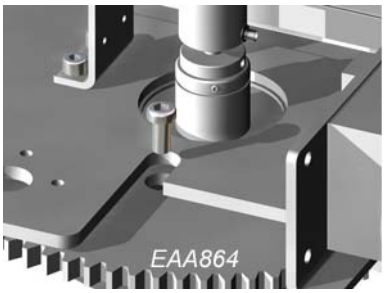


5.9 Centre shaft

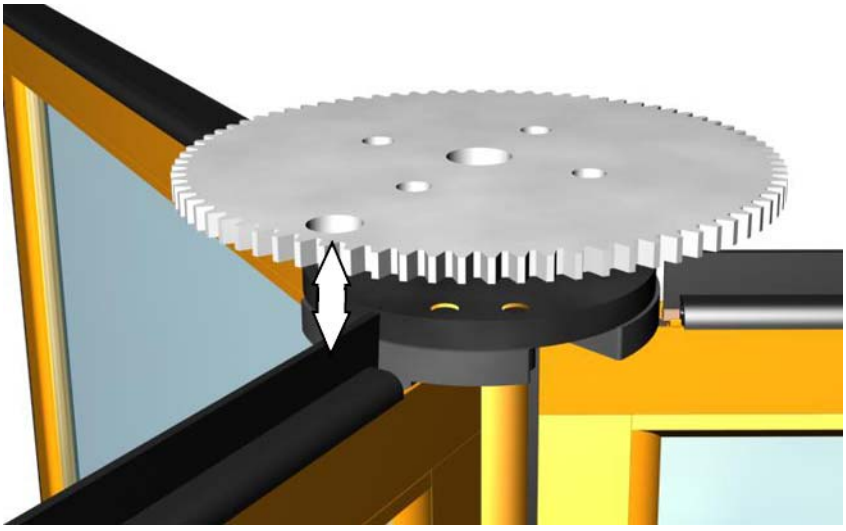




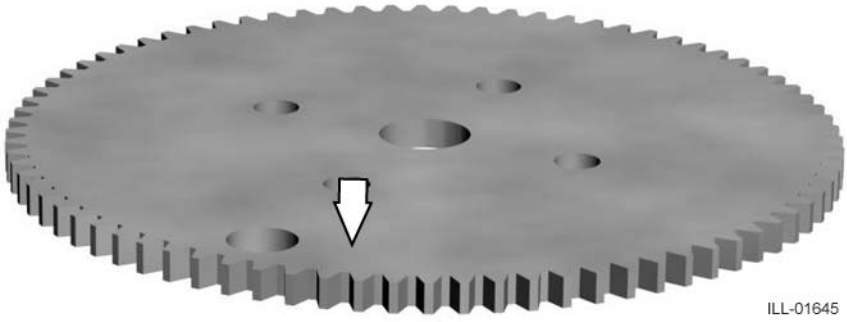
MLC6S 10x20



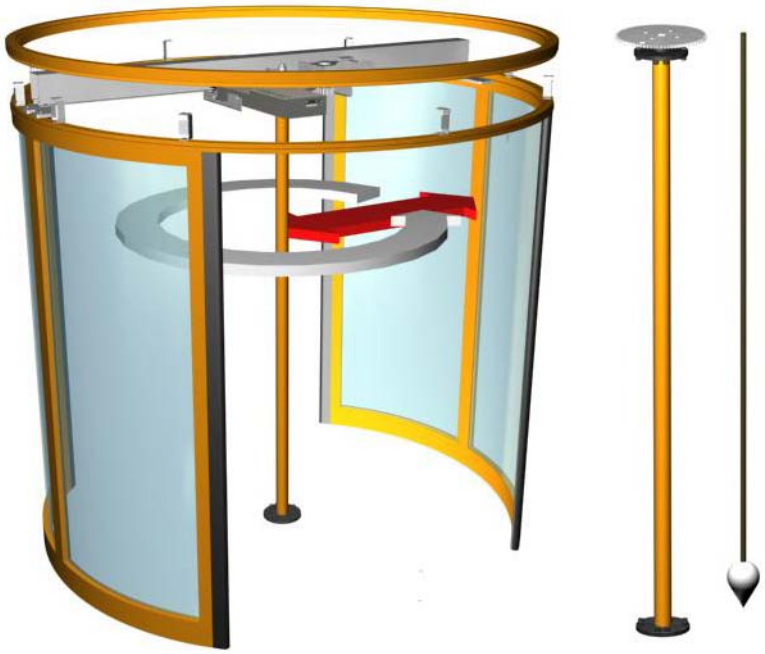
Important:



Make sure that the hole for the lock lines up with one of the door leaves.

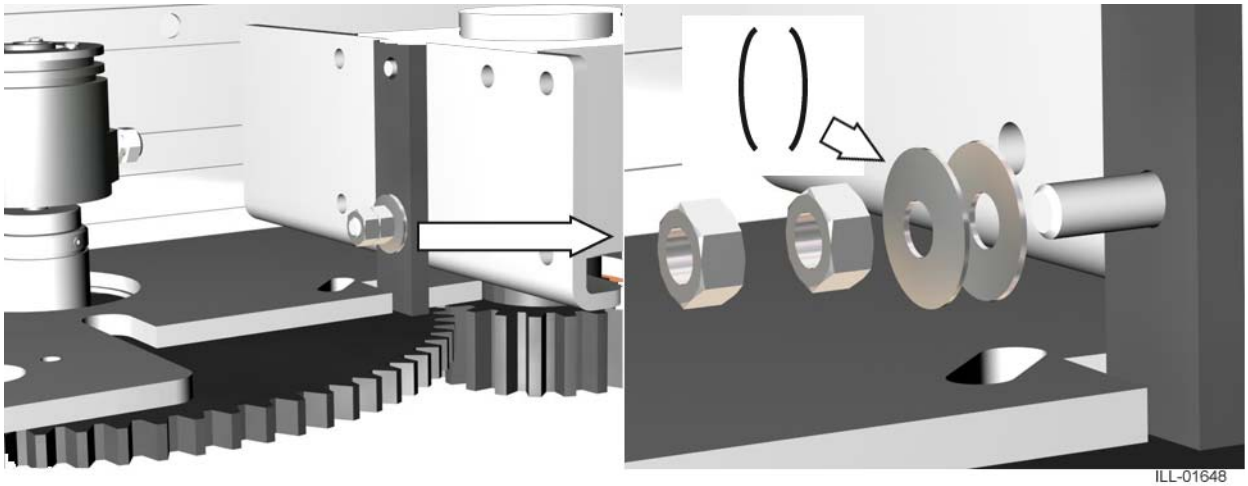


Grease the teeth on the cogwheel and the area in front of the hole for the lock



Tighten the centre beam bolts.

5.10 Adjustment of the motor assembly



Put the two cup shaped washers in place (note the orientation).
Tighten the first nut with your fingers plus a 1/2 turn extra.
Secure the first nut with a second nut.

5.11 Door leaves

Put the door leaf on the bottom flange of the centre shaft.

Raise the door leaf.

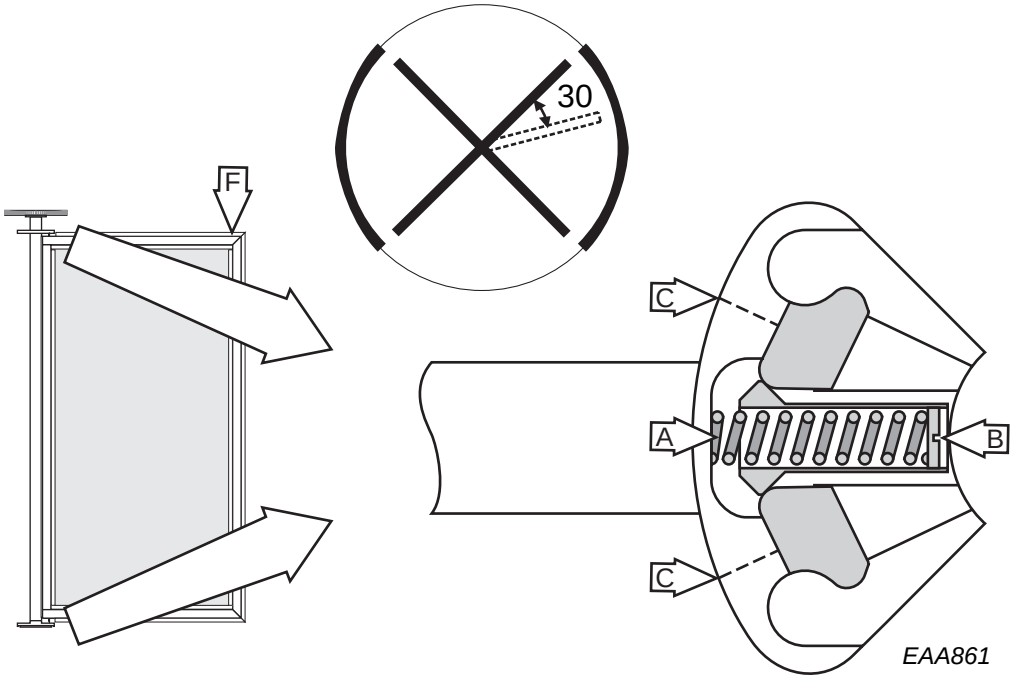
Fix the door leaf to the top flange of the centre shaft with the special bolts (A). Secure the bolts with Loctite 638.

5.11.1 RD Slim centerless

Secure the two top screws (A) on the door leaves facing outwards with 5.3x26 mm pins (B).

5.11.2 Adjustment of emergency break-out kit

Door leaves

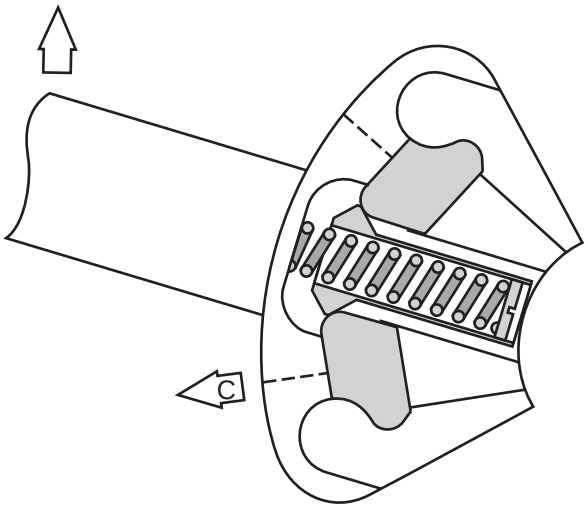


Put the door leaf in app. 30º break-out position (see illustration above).

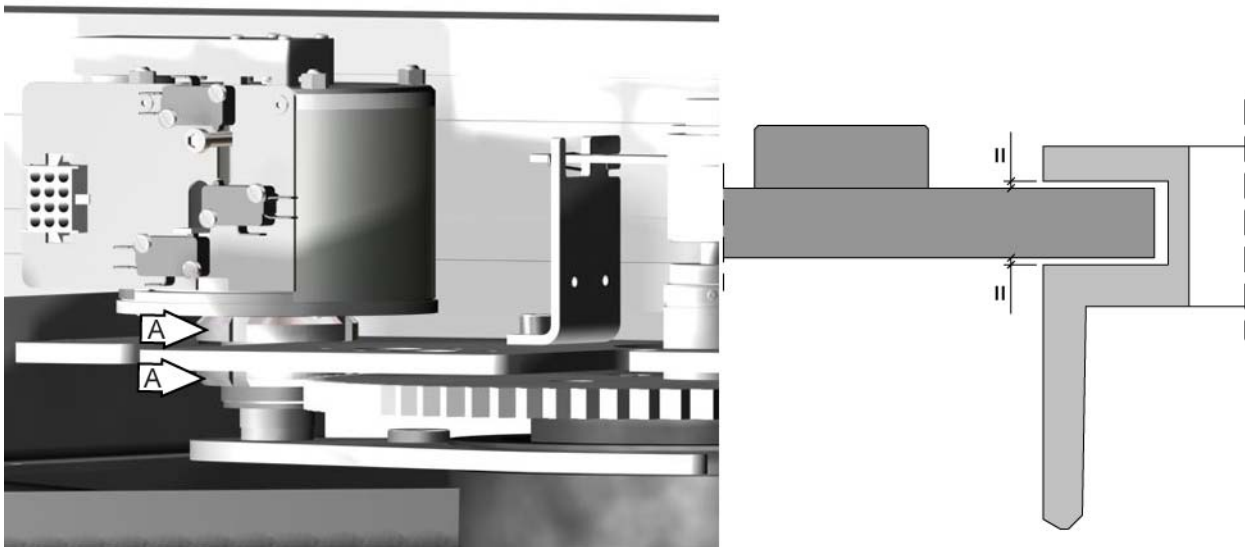
Tighten the spring marked A with the screw marked B equally at the top and the bottom. The door leaf shall be able to take a load of 60 kg (F).

Close the door leaf. Check the break-out force (<150N) 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).

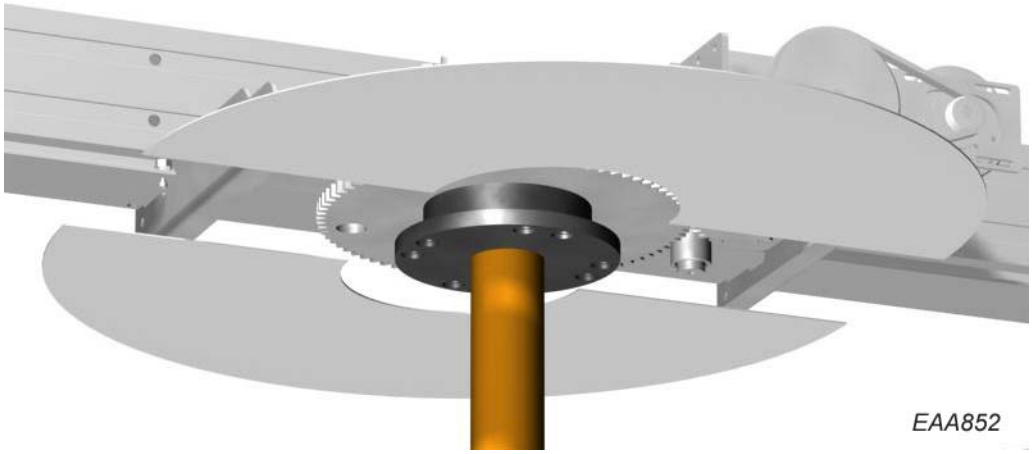


Locking ring

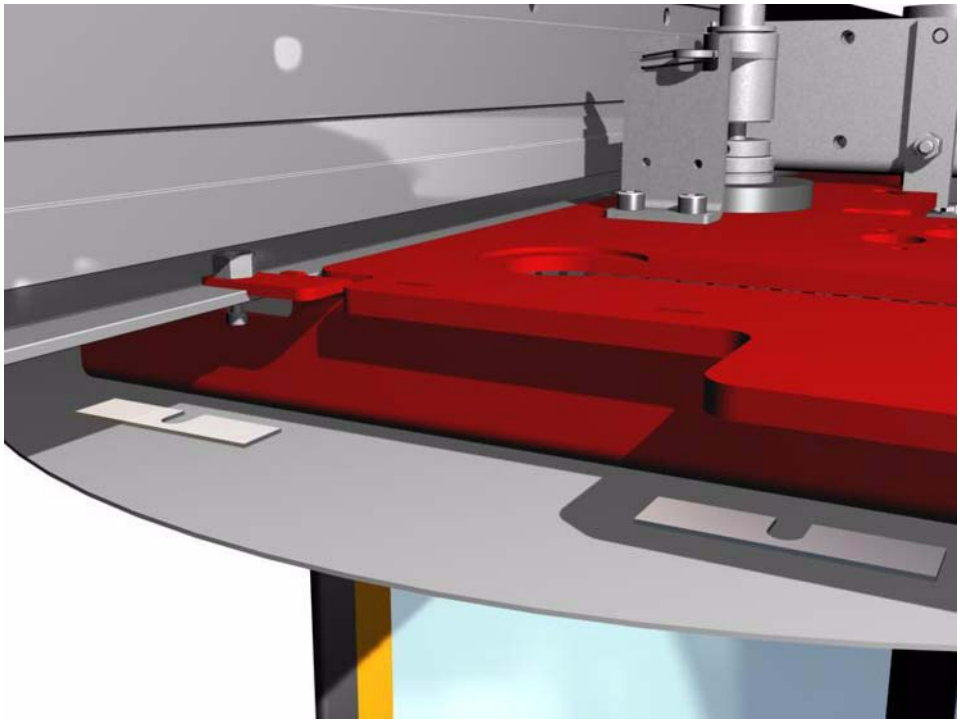


Adjust the height level of the lifting fork to make the distance between the lifting fork and the groove in the locking ring equal by adjusting the nuts (A).

5.12 Centre plates

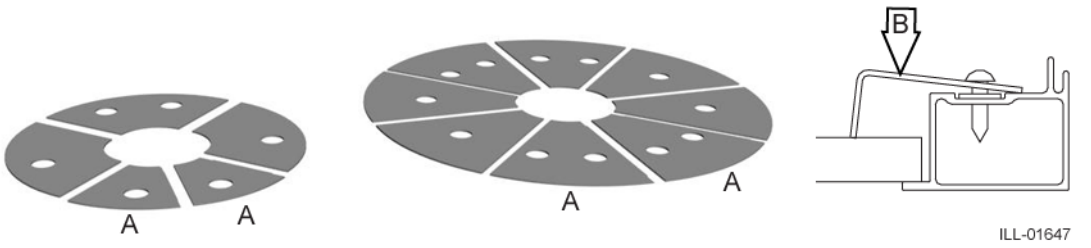


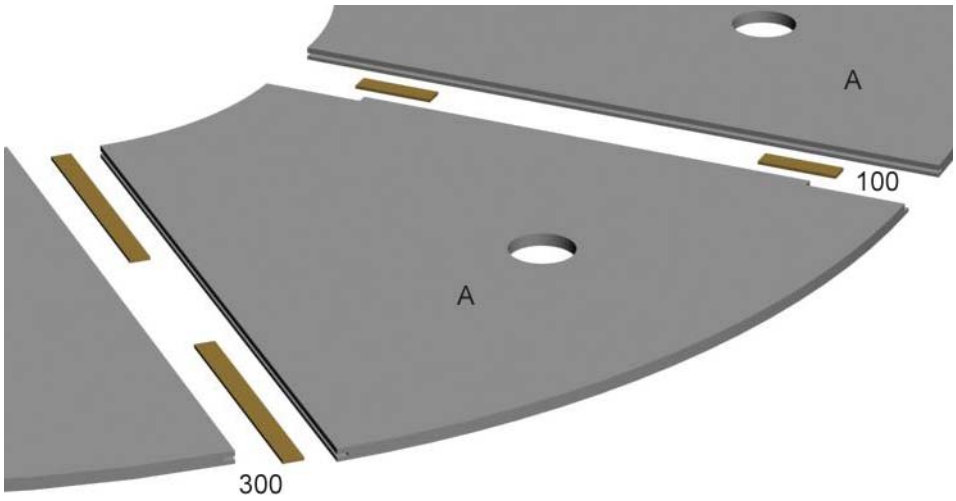
M6M M6.



Adjust the internal height to the centre plates by putting shims between the drive unit and the centre plates.

5.13 Ceiling





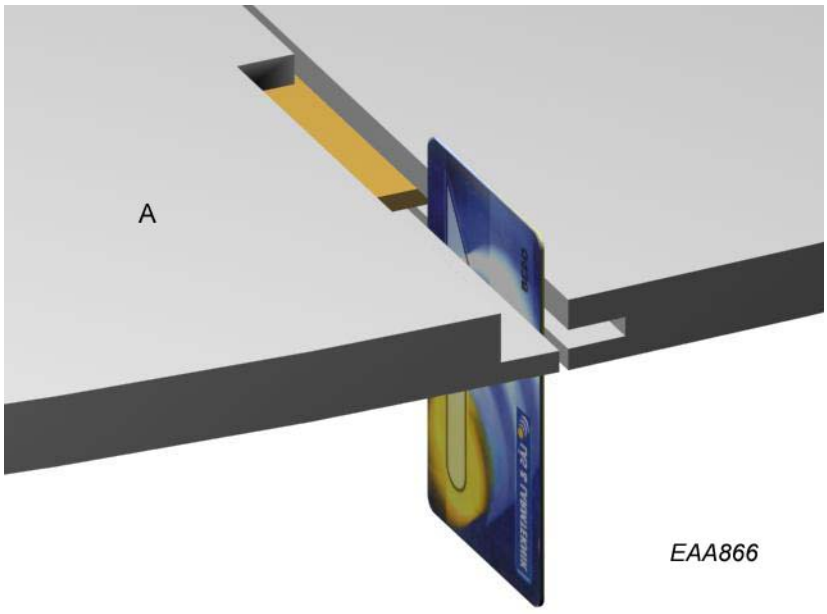
Put all parts of the ceiling in place using the edge strips. Use the 100 mm edge strips for the inspection hatches and the 300 mm edge strips for the others.
The inspection hatches (marked A) shall be towards the inside of the building.

Adjust and get even joints.

Secure with fixing angle (B)

To prevent damage during operation or service, secure one of the inspections hatches also with fixing angle (B).

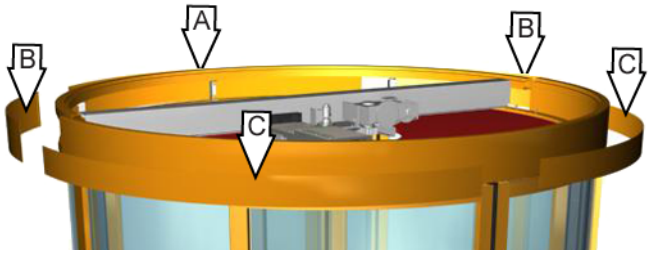
Use a credit card to lock and unlock the inspection hatches.



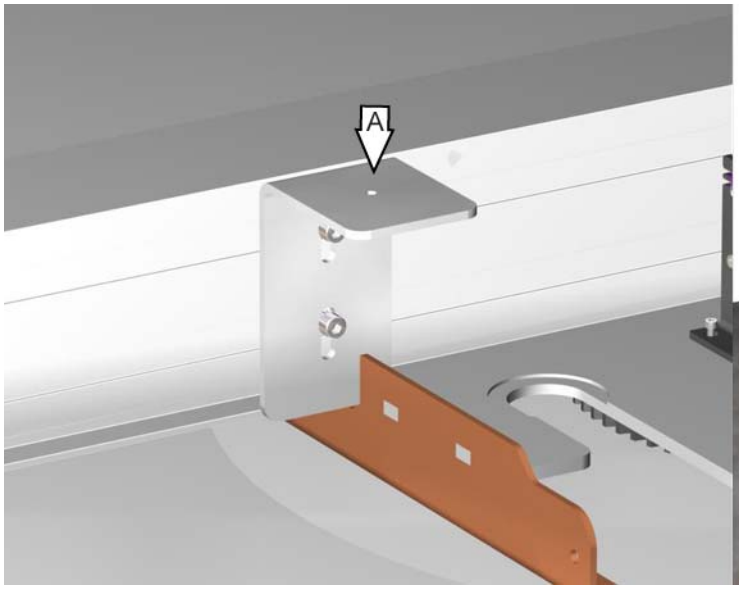
5.14 Fascia

Without NCD

With NCD



5.15 Dust protection roof

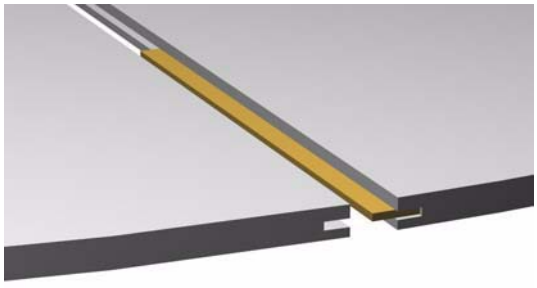


2 No. A = 4 No. screws MC6S 8x25

Push the parts together using the guiding tongues.

Screw the dust roof to the canopy ring (ST 4.2x32).

Note! Roof load: 0 kg (if not reinforced)

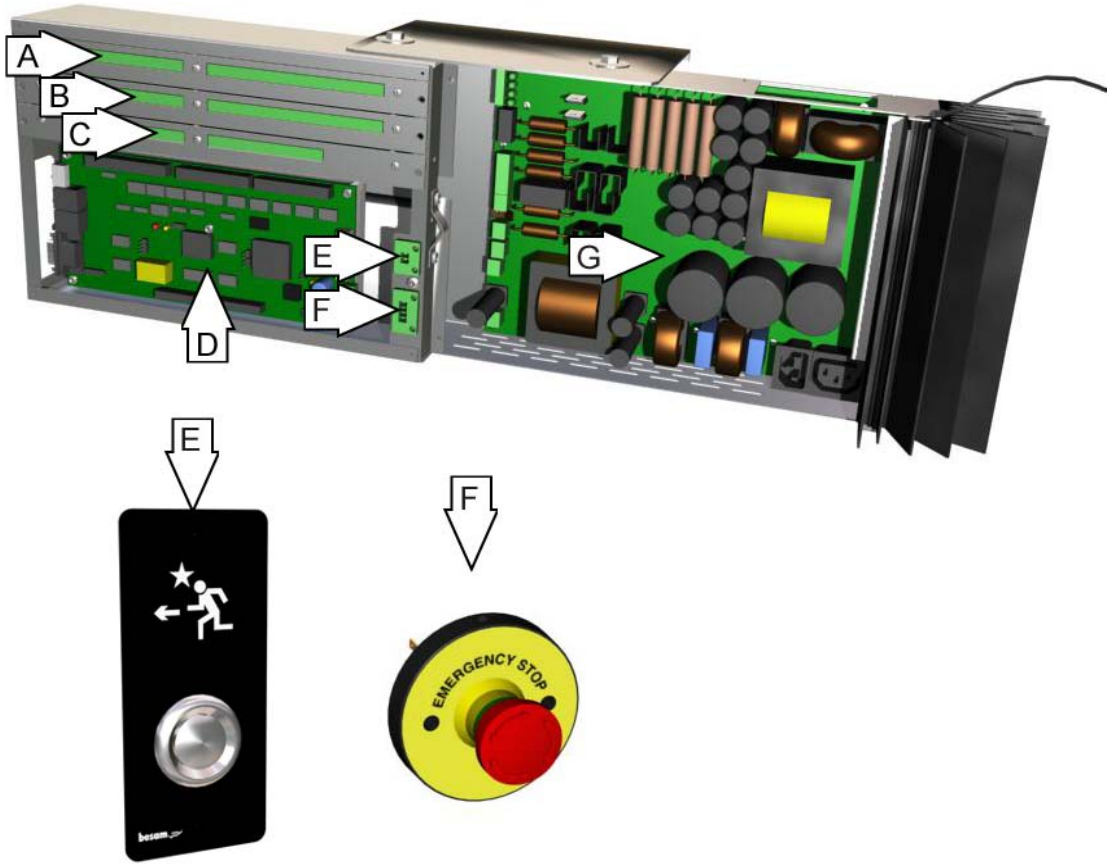


6 Signage and Safety equipment

Ⓐ	Product label: Mandatory
Ⓑ	Emergency break-out: Mandatory, if applicable
Ⓒ	No entry, identifying one-way traffic: Mandatory in GB and US, if applicable
Ⓓ	Emergency open push button, if applicable
Ⓔ	Programme selector PCD
Ⓕ	Emergency stop push button, mandatory
Ⓖ	Push button for disabled
Ⓗ	Besam door sticker: Mandatory, if applicable (applied to both sides of the door). To be used if there is no other signs on a full-glass door.
Ⓙ	Supervision of child: Mandatory, if applicable (applied to both sides of the door). To be placed on entrances where the risk analysis shows majority use by children, elderly and disabled.
Ⓚ	Automatic door: Only mandatory in GB
Ⓛ	Keep clear: Only mandatory in GB
Ⓜ	Push buttons inside door

7 Control system

7.1 Identification



Item	Description
A	IOA 1 terminals
B	IOA 2 terminals
C	IOB terminals (Access doors only).
D	MPU Main processing unit
E	Evacuation push button
F	Emergency stop push buttons (2)
G	DPC-board

7.2 Status codes

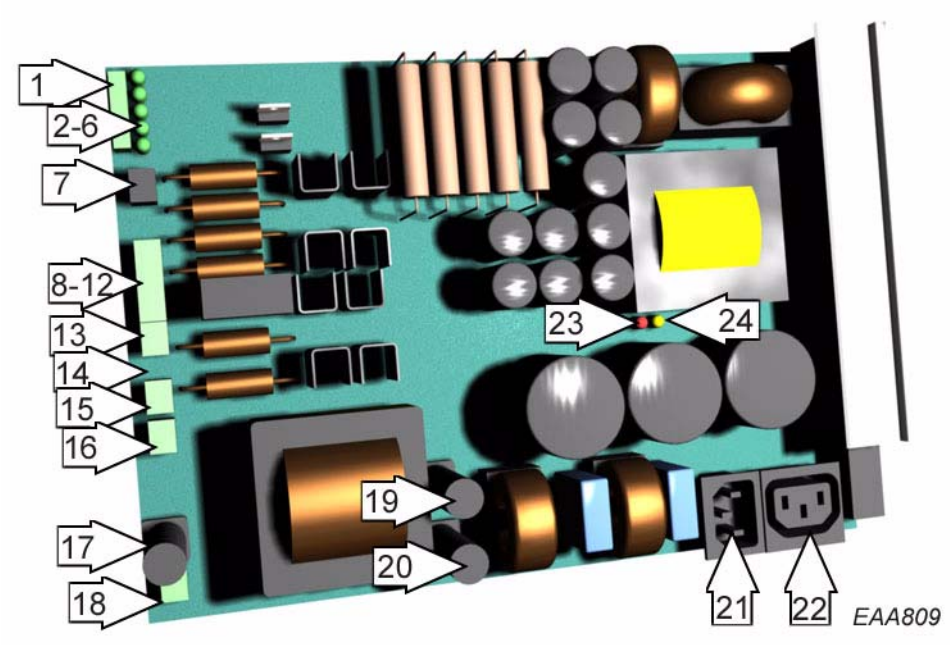
Control unit CDC

Diagnostic out-put

It is possible to monitor the system by looking at the red and yellow out-put LED's on the control unit CDC.

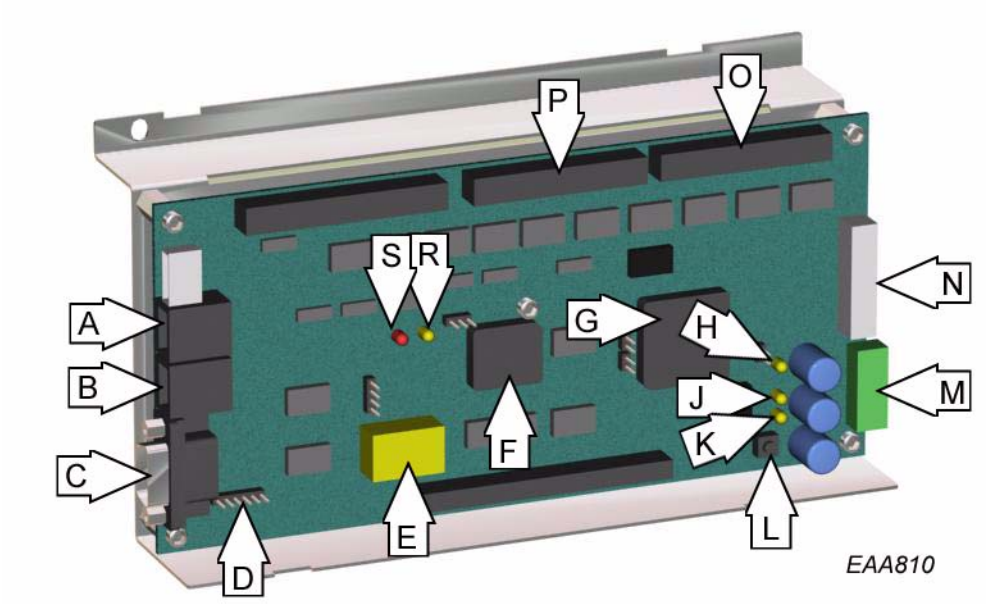
	Cause	**I/OA-1 (red LED)**	**I/OA-2 (yellow LED)**
10	Safety stop	Fixed light	
20	Emergency stop		Fixed light
30	Blocked door	Fixed light	Fixed light
21-22	Vertical sensors activated	Flashing light	
C2	BOK magnet		Flashing light
9A	Overheat	Flashing light	Flashing light
11	Electromechanical lock	Fixed light	Flashing light
06-07	Encoder error	Flashing light	Fixed light

7.3 DPC-board



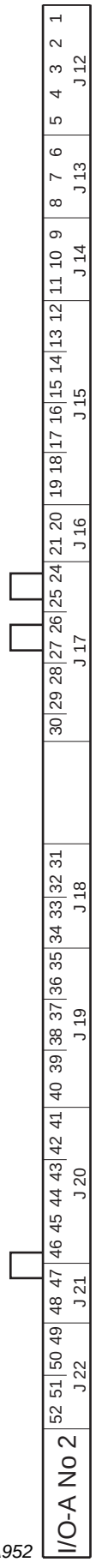
Item	Description
1	Connector, to MPU-board (J 10)
2	LED green, -12V
3	LED green, +5V
4	LED green, +12V
5	LED green, +24V
6	LED green, +42V
7	Connector, evacuate function (J11)
8	Connector, -12V (J 2)
9	Connector, 0V (J 2)
10	Connector, +5V (J 2)
11	Connector, +12V (J 2)
12	Connector, +24V (J 2)
13	Connector, motor M1 (J 4)
14	Earth
15	Connector, motor M2 (J 8)
16	Connector, emergency stop (J 15)
17	Fuse, battery 16 AT (slow) (F 3)
18	Connector, battery in (J 13)
19	Fuse, mains power 10 AT (slow) (F 2)
20	Fuse, mains power 10 AT (slow) (F 1)
21	Mains power (J 1)
22	Power outlet for lighting (J 9)
23	LED red, thermal overload indicator
24	LED yellow, mains power indicator

7.4 Main processing unit, MPU



Item	Description
A	Connector, PCD B (J 7)
B	Connector, PCD A (J 6)
C	Connector, COM port (J 5)
D	Programming connector (J 11)
E	Ram memory and battery backup
F	Flash memory
G	Main processor CPU
H	LED3, indicator 24V (PCD)
J	LED2, indicator 12V Logic
K	LED1, indicator 5V Logic
L	Reset button
M	Connector, power from DPC-board (J 1)
N	Connector, signals to DPC-board (J 4)
O	Connector, to IOA 1 (J 9)
P	Connector, to IOA 2 (J 10)
R	LED Error frequent reset.
S	LED Watchdog on in normal condition

7.5 IOA 1-board



EAA952

Conn	Term		Description RD	Description RD Access
J12	1	+	Encoder	
	2	IN	Encoder 0-puls	
	3	IN	Encoder A-puls	
	4	IN	Encoder B-puls	
	5			
J13	6	+	Vertical sensor PDR1 (inside)	
	7	IN		
	8	-		
J14	9	+	Vertical sensor PDR2 (outside)	
	10	IN		
	11	-		
J15	12	IN	Not used	System OK inner
	13			
	14	IN	Not used	System OK outer
	15			
	16	IN	Slow drive	
	17			
	18	IN	Stop drive	
	19			
J16	20	IN	Not used	Freewheel released
	21			
J17	24	OUT	Safety loop out	External jumper
	25	(IN)		
	26			External jumper
	27	(IN)		
	28		Safety loop code 10	
	29	IN		
	30		Not used	
J18	31	IN	Not used	Freewheel command
	32			
	33	IN	Not used	Fire alert
	34			
J19	35	IN	El-mech. lock locked	Freewheel motor closed
	36			
	37	IN	El-mech. lock open	Freewheel motor open
	38			
	39		El-mech. lock motor	Freewheel motor
	40			
J20	41	+	Not used	
	42	OUT		
	43	+	Not used	Security level inner
	44	IN		
	45	+	PDR test	
	46	OUT		
J21	47		Not to be used	
	48			
J22	49		Error signal 1	
	50	OUT		
	51	OUT	Door status	
	52			

Digital inputs. IOA 1-board

Terminal 2. 0-pulse

Incremental encoder 0-pulse input.

Terminal 3. A-pulse

Incremental encoder A-pulse input.

Terminal 4. B-pulse

Incremental encoder B-pulse input.

Terminal 7. Vertical sensor PDR 1, inside

The door is stopped when input is activated by presence in the safety zone.

Terminal 10. PDR 2, outside

The door is stopped when input is activated by presence in the safety zone.

Terminal 16. Slow

Door speed is reduced to ”Creep speed” when input is activated. ”Creep speed” is held until 1 s after input deactivation.

Terminal 18. Stop

The door is stopped when input is activated. The door starts again 1 s after input deactivation.

Terminal 20 (RD Access). Free wheel released

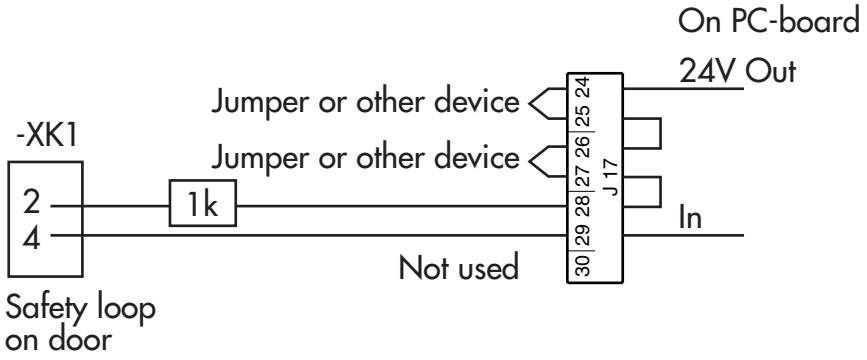
Note! Short circuit connection 20 and 21 with a jumper if no free wheel is installed.

Terminal 24. Safety loop output

Terminal 29. Safety loop input

The safety loop is supervised with a 1k resistor as reference value.

The door is stopped. The door starts again 1 s after the input is deactivated.



Terminal 31 (RD Access). Free wheel command

Terminal 33 (RD Access). Fire alarm

Note! Short circuit connection 33 and 34 with a jumper if no fire alarm is installed.

Terminal 35 (RD). El-mech. lock closed indication

Input is activated when the electromechanical lock is in locked position.

Terminal 35 (RD Access). Free wheel closed

Input is activated when the electromechanical lock is in locked position.
Note! Short circuit connection 35 and 36 with a jumper if no electromechanical lock is installed.

Terminal 37 (RD). El-mech. lock open indication

Input is activated when the electromechanical lock is in open position.
Note! Short circuit connection 37 and 38 with a jumper if no electromechanical lock is installed.

Terminal 37 (RD Access). Free wheel open

Input is activated when the electromechanical lock is in open position.

Digital outputs IOA 1-board

Terminal 39. Electromechanical Lock Power

Output +24 V when the electromechanical lock motor travels to closed position and 0 V when the electromechanical lock motor travels to open position.

Terminal 40. Electromechanical Lock Power

Output 0 V when the electromechanical lock motor travels to closed position and +24 V when the electromechanical lock motor travels to open position.

Terminal 46. PDR test

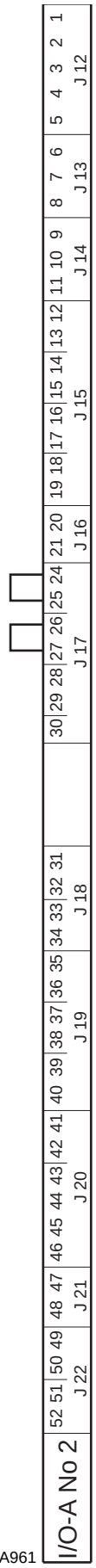
Function test of the PDR (if installed).

Terminal 50 (RD). Error signal 1

Terminal 51-52. Door status

Potential free contact.
Output is activated when the door is rotating or is standing in locked position.
(To be chosen in configuration option flag 21)

7.6 IOA 2-board



EAA961

Conn	Term		Description RD	Description RD Access
J12	1	+		
	2	IN		
	3	IN		
	4	IN		
	5	-		
J13	6	+	High speed impulse inner	
	7	IN		
	8	-		
J14	9	+	High speed impulse outer	
	10	IN		
	11	-		
J15	12	IN	Low speed impulse	
	13			
	14	IN	Locked door command	
	15			
	16	IN	Error clear	
	17			
	18	IN	Auto command	Security 3 inner
	19			
J16	20	IN	Key impulse	Security 3 outer
	21			
J17	24	OUT	Emergency stop out	External jumper
	25	IN		
	26	OUT	Emergency stop 2 loop out	
	27	IN	Emergency stop 2 loop in	
	28	OUT	Emergency stop1 loop out	
	29	IN	Emergency stop1 loop in	
	30			
J18	31	IN	Rotation lock command	High security command
	32			
	33	IN	Break-out armed	
	34			
J19	35	IN	Break-out lower pos.	
	36			
	37	IN	Break-out top pos.	
	38			
	39	OUT	Break-out motor	
	40	OUT		
J20	41	OUT	Break-out magnet	
	42	IN		
	43	OUT	Rotation lock	Security level outer
	44	IN		
	45		Break-out motor relay	
	46			
J21	47	OUT	Not used	
	48	IN		
J22	49	OUT	Error signal 2	
	50	IN		
	51		General alert	
	52			

Digital inputs IOA 2-board

Terminal 7. High Speed Start Inner

Activation PIR or DSR, the door rotate 270º.

Terminal 10. High Speed Start Outer

Activation PIR or DSR, the door rotate 270º.

Terminal 12. Low Speed Start Inner

If the door is rotating at a higher speed when input is activated, the speed is immediately reduced to ”Low speed” for the rest of the rotation cycle or minimum 270º if start is reactivated.

Terminal 14. Lock door command.

The door rotate to closed position (home position). Electromechanical, if fitted, will be activated and lock.

Terminal 16. Error Clear

Error reset push button input.
Same function as “C”-button on the PCD.

Terminal 18. Auto command.

Outside and Inside impulse will activate the door.
Unlock electromechanical (if fitted).

Terminal 20. Key impels.

Unlock electromechanical lock if fitted and the door will rotate 360º and lock again.

Terminal 24. Emergency stop loop output

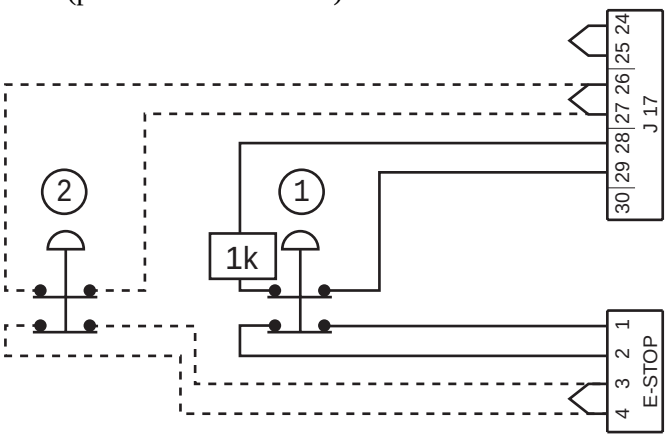
Terminal 29. Emergency stop loop input (error code 20)

Stop button 1 located inside is mandatory and is equipped with a build-in 1k resistor.

The emergency stop button shall have a double normally closed contact.

Connector J17 connection 26, 27 and connector E-stop connection 3, 4 - Jumper or stop button 2.

The door is stopped with active brakes when the input is activated. The door starts again when the input is deactivated and the error condition is manually reset (press "***C***" on the PCD)



EAA825

Terminal 31. Roto lock command.

Input for Activation of Rotolock

Terminal 33. Break-out kit

Micro switch indication that brake-out kit is armed.

Terminal 35. Break-out kit

Micro switch indication lower position

Terminal 37. Break-out kit

Micro switch indication upper position

Terminal 39. Break-out kit

Motor

Terminal 40. Break-out kit

Motor

Digital outputs IOA 2-board

Terminal 42. Brake-out kit

Magnet

Terminal 43. Brake-out kit

Magnet

Terminal 44. Rotation brake

Rotation brake magnet.
Activated by configuration option 35
Rotolock in parked position and input 31 Rotolock command.

Terminal 46. Brake-out kit

Motor relay

Terminal 50.

Error signal 2

Terminal 51-52. General Alert

Potential free contact.

Output is activated instantly for all error codes and with a 10 second delay for all status codes.

7.7 IOB - board (RD Access only)

Conn	Term		Description
J2	1	IN	Card reader inner
	2	-	
	3	IN	Card reader outer
	4	-	
	5	IN	Push button inner
	6	-	
	7	IN	Push button outer
	8	-	
	9	IN	Security 1 inner
	10	-	
J3	11	IN	Security 1 outer
	12	-	
	13	IN	Security 2 inner
	14	-	
	15	IN	Security 2 outer
	16	-	
	17	IN	Hang sensor
	18	-	
	19	IN	Master access
	20	-	
J4	21	RE1	Card reader detect inner
	22		
	23	RE2	Card reader detect outer
	24		
	25	RE3	Passage detected inner
	26		
	27	RE4	Passage detected outer
	28		
	29	RE5	Green light inner
	30		
J5	31	RE6	Red light inner
	32		
	33	RE7	Green light outer
	34		
	35	RE8	Red light outer
	36		
	37	RE9	Vocal message start
	38		
	39	Jumper	Access alert
	40		

8 Program Control Device PCD, settings, operation

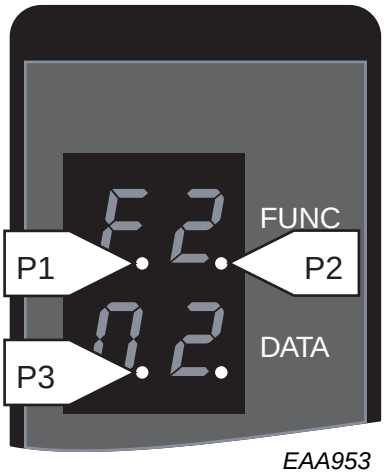
NOTE!
During all changes in settings the revolving door must be allowed to rotate 360° to enable the changes to be completed.

Key	Function
0-9	Numeric inputs
#	Confirm access code input
È	Setpoint selection upwards
Í	Setpoint selection downwards
+	Setpoint value change upwards
–	Setpoint value change downwards
F	Function selection
S	Setpoint confirmation and storage
C	Error reset Clear display Leave menu
	Lock door command to be connected to IOA 2 connection 14, 15

The PCD display blanks 10 or 30 seconds after the last key stroke but still remains in the current function menu (see “Configuration options RD” on page 55).

Information prompts on PCD display

Prompt	Description
P1	Locked door command ON
P2	Service request To be shown after 300.000 revolutions (factory setting)
P3	Real time operation ON



PCD Function menu

The following functions can be controlled from the PCD:

F2 Change operating mode
F3 Adjust setpoints
F4 Change access code
F5 System configuration
F6 Diagnostic functions
F7 Real time clock functions
F8 Optional functions
F9 System functions

8.1 Login/logout on PCD

To be able to make changes in the system it is necessary to login.

Login on PCD

1. Type **#** to clear the display.
2. Type the access code (4 digits). The display shows **----**.
3. Type **#** to confirm the input.
   If the access code is correct the display shows LI (Log In) and the present access level.

If four unauthorized attempts to access the PCD are made in a row it takes five minutes before a new attempt can be made.

Logout on PCD

1. Type **#** to clear the display.
2. Type the access code (4 digits). The display shows **----.**
3. Type **#** to confirm the input.
   If the access code is correct the display shows L0 (Log Out) and the present access level**.**

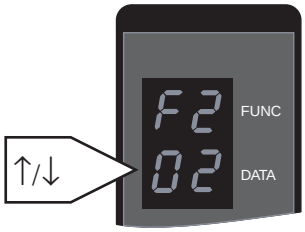
Automatic logout occurs ten minutes after the last key stroke. The automatic logout can be inhibited (see “Other PCD commands” on page 65)

8.2 Change operation mode RD

Type ***F2***. The display shows F2

Use ↑ or ↓ to change operating mode.

Confirm the change by typing ***S***.

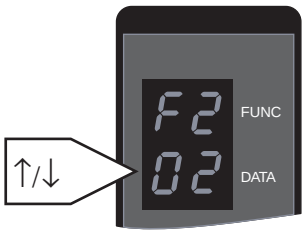


Number	Operation mode	Function
01	Lock door	The door rotates to closed position. If an electromechanical lock is fitted, the lock is activated.
02	Automatic operation, start from open position	The door is parked in open position when there is no traffic. As soon as the outside or inside activation units detect approaching traffic, the door starts rotating.
06	Continuous rotation	The door rotates at low speed. As soon as the outside or inside activation units detect approaching traffic, the door accelerates to normal speed. The door returns to low speed when there is no traffic.
07[a]	Manual operation	The door rotates forward as long as the + key is depressed and reverse as long as the – key is depressed.

a. During manual operation safety devices 10, 21, 22, 25, 26 are disconnected.

8.3 Change operation mode RD Access

Type ***F2***. The display shows F2
Use ↑ or ↓ to change operating mode.
Confirm the change by typing ***S***.



RD 3-wing

Number	Operation mode	Function
01	Lock door	The door rotates to closed position. If an electromechanical lock is fitted, the lock is activated.
02		
03		
04	Access control Entry Free Exit	
05	No Entry Free Exit	
06	Free Entry Free Exit	The door is parked in open position when there is no traffic. As soon as the outside or inside activation units detect approaching traffic, the door starts rotating.
07[a]	Manual operation	The door rotates forward as long as the + key is depressed and reverse as long as the – key is depressed.

a. During manual operation safety devices 10, 21, 22, 25, 26 are disconnected.

RD 4-wing

Number	Operation mode	Function
01	Lock door	The door rotates to closed position. If an electromechanical lock is fitted, the lock is activated.
02	Access control Entry Access control Exit	
03	No Entry Access control Exit	
04	Access control Entry Free Exit	
05	No Entry Free Exit	
06	Free Entry Free Exit	The door is parked in open position when there is no traffic. As soon as the outside or inside activation units detect approaching traffic, the door starts rotating.
07[a]	Manual operation	The door rotates forward as long as the + key is depressed and reverse as long as the – key is depressed.

a. During manual operation safety devices 10, 21, 22, 25, 26 are disconnected.

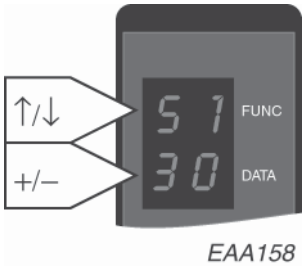
8.4 Adjustment RD

Type ***F3***. The display shows S1.
Use ↑ or ↓ to select setpoint number,

Use + or - to change setpoint value.

Type ***S*** to confirm the new setting.
The display shows SSSS and then blanks.

Press ***C*** to leave the setpoint menu without changing any settings.



Setpoint	Description	Setpoint value
S1	High speed setpoint	1-6 rpm
S2	Low (handicap) speed setpoint	0.2-2.5 rpm
S3	Creep speed setpoint	Fixed at 0,5 rpm
S4	Continuous speed setpoint	1.0-2.5 rpm
S5	Manual speed setpoint	0.2-2.0 rpm
S9	Door force parameter[a]	01-09

a. Used to set the balance between force/acceleration and detection of blocked door (error code 30) Default 06.

Note! For safe speed setting see STI 04-014 (Sales and Technical Information)

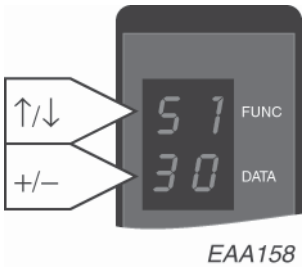
8.5 Adjustment RD Access

Type ***F3***. The display shows S1.
Use ↑ or ↓ to select setpoint number,

Use + or - to change setpoint value.

Type ***S*** to confirm the new setting.
The display shows SSSS and then blanks.

Press ***C*** to leave the setpoint menu without changing any settings.



Setpoint	Description	Setpoint value
S1	High speed setpoint	1-6 rpm
S2	Low (handicap) speed setpoint	0.2-2.5 rpm
S3	Creep speed setpoint	Fixed at 0.5 rpm
S4	Continuous speed setpoint	1.0-2.5 rpm
S5	Manual speed setpoint	0.2-2.0 rpm
S9	Door force parameter[a]	01-09
10	Push button inner enable time	00-20 sec
11	Push button outer enable time	00-20 sec
12	Start delay inner	00-10 sec
13	Start delay outer	00-10 sec
14	Hold before reverse time	00-10 sec

a. Used to set the balance between force/acceleration and detection of blocked door (error code 30) Default 06.

Note! For safe speed setting see STI 04-014 (Sales and Technical Information)

8.6 Change access code

To enable door operation from the PCD it is necessary to have an access code. The access code also determines which service level that is obtained.

At delivery the access code to level 1 is 1234. To change the access code do as follows:

Login with the existing access code.

Type ***F41***. The display shows F4/L1.

Type the new access code.

Type ***S*** to confirm.

Type the new access code a second time.

Type ***S*** to confirm.
If the new access code has been accepted, the display shows CCCC and then blanks.
If the new access code not has been accepted, the display shows EEEE and then blanks.

8.7 Set home position

Make sure that the encoder is firmly fixed.

Home position is the same as locked position.

Move the door to home position/locked position by hand or by manual operation.

Type ***F514***. The display shows 1401.

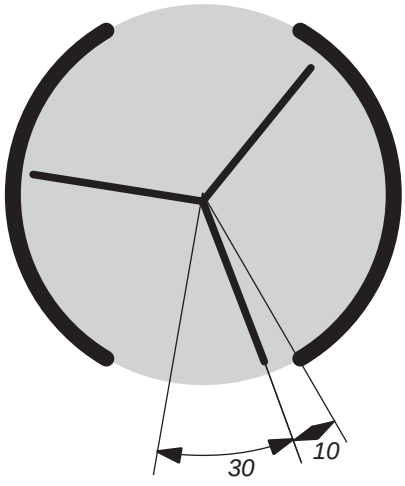
Type ***S*** to confirm. The display shows SSSS and then blanks.

EAA159

8.8 Adjust safety zone

Only for doors with optional PDR

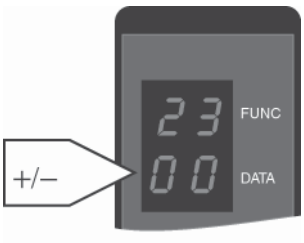
The safety zone has a fixed segment of 10° and an adjustable segment of 30°. The sensors are active until the door leaf has passed the drum edge.



Type ***F523***. The display shows 23 and the present adjustable safety zone.

Press + or - to select new safety zone within the adjustable 30° segment.

Type ***S*** to confirm the new setting. The display shows SSSS and then blanks.



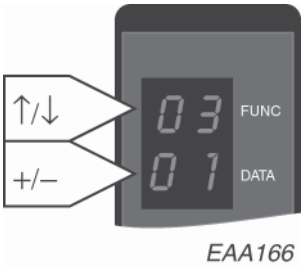
8.9 Configuration options RD

Type ***F53***. The display shows an option number and its setting, e g: 03 01.

Use ↑ or ↓ to select option number.

Press + or - to select setting 00 or 01, see ”Option settings” below.

Type ***S*** to confirm the new setting.



Option no.	Description	Default setting	Remark
02	Summertime	01	00=No; 01=Yes
04	Lights OFF in locked position	01	00=No; 01=Yes
06	Short PCD edit timeout	01	00=30 sec.; 01=10 sec.
17	Electromechanical lock installed	00	00=No; 01=Yes
18	Display default PCD message ”ON”	01	00=No; 01=Yes
20	Event log printer on MDT channel	00	00=No; 01=Yes
21	Door status output active door running	01	00=on when door is locked 01=on when door rotate
22	Service prompt always visible	01	00=No; 01=Yes
30	3-wing option	00	00=No; 01=Yes
31	PDR installed	00	00=No; 01=Yes
32	PCD installed	00	00=No; 01=Yes
33	Safety zone 360^{o}	00	00=No; 01=Yes
34	Rotolock installed	00	00=No; 01=Yes
35	Active rotolock in parked position	00	00=No; 01=Yes
36	Break-out kit installed	00	00=No; 01=Yes
37	Emergency operation option	00	00=No; 01=Yes
38	Second motor installed	00	00=No; 01=Yes
39	Door in escape route	00	00=No; 01=Yes

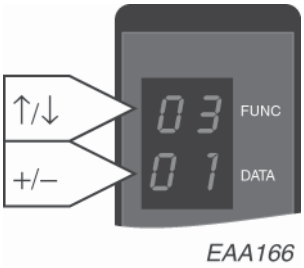
8.10 Configuration options RD Access

Type ***F53***. The display shows an option number and its setting, e g: 03 01.

Use ↑ or ↓ to select option number.

Press + or - to select setting 00 or 01, see ”Option settings” below.

Type ***S*** to confirm the new setting.



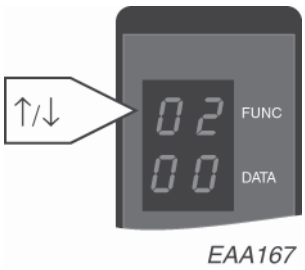
.

Option no.	Description	Default setting	Remark
01	Battery installed	01	00=No; 01=Yes
02	Summertime	01	00=No; 01=Yes
04	Lights OFF in locked position	01	00=No; 01=Yes
06	Short PCD edit timeout	01	00=30 sec.; 01=10 sec.
18	Display default PCD message ”ON”	01	00=No; 01=Yes
20	Event log printer on MDT channel	00	00=No; 01=Yes
21	Door status output active door running	01	00=on when door is locked 01=on when door rotate
22	Service prompt always visible	01	00=No; 01=Yes
30	3-wing option	00	00=No; 01=Yes
31	PDR installed	00	00=No; 01=Yes
32	PCD installed	00	00=No; 01=Yes
33	Safety zone 360^{o}	00	00=No; 01=Yes
36	Break-out kit installed	00	00=No; 01=Yes
37	Emergency operation option	00	00=No; 01=Yes
38	Second motor installed	00	00=No; 01=Yes
39	Door in escape route	00	00=No; 01=Yes
40	Touchless ESPE installed	00	00=No; 01=Yes
41	Freewheel in OFF condition	00	00=No; 01=Yes
42	Queue function enabled	01	00=No; 01=Yes
43	Traffic light function	01	00=No; 01=Yes
44	BOK release in emergency position	00	00=No; 01=Yes
45	Antipiggyback In installed	00	00=No; 01=Yes
46	Antipiggyback Out installed	00	00=No; 01=Yes

8.11 Check of Input and output status RD

Type ***F611*** for IOA 1 or ***F612*** for IOA 2. The display shows a input channel number and the present status of the channel.

Use ↑ or ↓ to display the desired input channel number and its present status.



Display	Status
00	Low input, steady
01	High input, steady

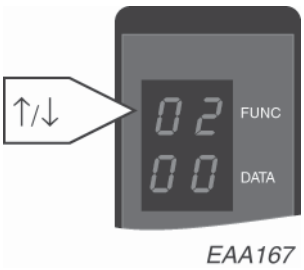
Press ***C*** to leave the menu.

Channel number	IOA 1	IOA 2
02	Encoder 0-pulse	Not used
03	Encoder A-pulse	Not used
04	Encoder B-pulse	Not used
07	Vertical sensor PDR1	High speed impulse inner
10	Vertical sensor PDR2	High speed impulse outer
12	Not used	Low speed impulse
14	Not used	Locked door command
16	Slow drive input (CFD)	Error clear “C”
18	Stop drive input (CFD)	Auto command
20	Not used	Key impulse
29	Safety input	Emergency stop 1
31	Not used	Rotation lock command
33	Not used	Break-out armed
35	El-mech. lock locked	Break-out lower pos.
37	El-mech. lock open	Break-out top pos.
39	El-mech. lock motor	Break-out motor
40	El-mech. lock motor	Break-out motor
42	Not used	Break-out magnet
44	Not used	Rotation lock
46	PDR test	Break-out motor relay
50	Error signal 1	Error signal 2
51	Door status	General alert

8.12 Check of Input and output status RD Access

Type ***F611*** for IOA 1, ***F612*** for IOA 2 or ***F613*** for IOB. The display shows a input channel number and the present status of the channel.

Use ↑ or ↓ to display the desired input channel number and its present status.



Display	Status
00	Low input, steady
01	High input, steady

Press ***C*** to leave the menu.

Channel number	IOA 1	IOA 2	IOB
01	Not used	Not used	Card reader in
02	Encoder 0-pulse	Not used	Card reader out
03	Encoder A-pulse	Not used	Not used
04	Encoder B-pulse	Mechanical lock	Not used
05	Not used	Not used	Push button in
07	Vertical sensor PDR1	High speed impulse inner	Push button out
09	Not used	Not used	Security 1 in
10	Vertical sensor PDR2	High speed impulse outer	Not used
11	Not used	Not used	Security 1 out
12	Not used	Low speed impulse	Not used
13	Not used	Not used	Security 2 in
14	Not used	Locked door command	Not used
15	Not used	Not used	Security 2 out
16	Slow drive input	Error clear “C”	Not used
17	Not used	Not used	Hang sensor
18	Stop drive input	Not used	Not used
19	Not used	Not used	Master access
20	Free wheel released	Not used	Not used
21	Not used	Not used	Card reader detect in
23	Not used	Not used	Card reader detect out
25	Not used	Not used	Passage detect in
27	Not used	Not used	Passage detect out
29	Safety input (S 10)	Emergency stop (E 20)	Green light in
31	Free wheel command	Not used	Red light in
33	Fire alert input	Break-out armed	Green light out
35	Freewheel motor closed position	Break-out lower pos.	Red light out
37	Freewheel motor open position	Break-out top pos.	Vocal message start
39	Freewheel motor	Break-out motor	Access alert
40	Freewheel motor	Break-out motor	Not used
42	Not used	Break-out magnet	-
44	Not used	Not used	-
46	PDR test	Break-out motor relay	-
50	Error signal 1	Error signal 2	-
51	Door status	General alert	-

8.13 Real time clock

The CDC system has a real time clock build in. The clock is used for log records and for real time settings when the door is running.

The real time clock is set during installation. After three, four months the clock is calibrated.

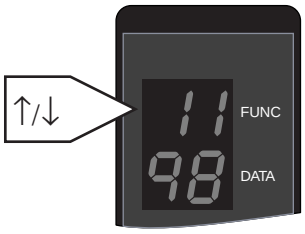
Normally it is only necessary to calibrate the clock once.

8.13.1 Read real time clock

Type ***F71***. The display shows 11 and present parameter value relating to year.

Use ↑ or ↓ to select parameter number and display the parameter value.

Press ***C*** to leave the menu.



EAA168

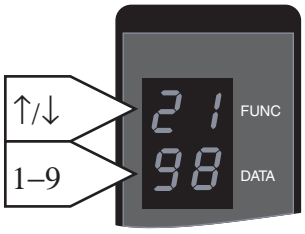
11	Year
12	Month
13	Date
14	Hour
15	Minute
16	Second

8.13.2 Set real time clock

Before setting date and time, set ”Summertime” to ”Yes” or ”No” in “Configuration options RD” on page 55.

Type ***F72***. The display shows 21 and present parameter value relating to year.

Use ↑ or ↓ to select parameter number and display the parameter value.



EAA169

21	Year
22	Month
23	Date
24	Hour
25	Minute
26	Second

Use the number keys ***1–9*** to change the parameter value.

Type ***S*** to confirm each new setting.

Press ***C*** to leave the menu.

8.13.3 Calibrate real time clock

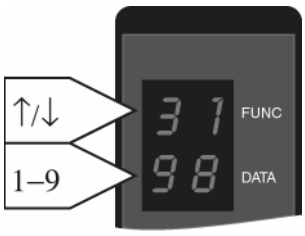
Type ***F73***. The display shows 31 and present parameter value relating to year.

Use ↑ or ↓ to select parameter number and display the parameter value.

Use the number keys ***1–9*** to change the parameter value.

Type ***S*** to confirm each new setting.

Press ***C*** to leave the menu.



EAA170

31	Year
32	Month
33	Date
34	Hour
35	Minute
36	Second

8.14 Log functions

The event log records and time stamps 600 events in a circular buffer in the CDC system.

As an option a printer can be connected to the COM port to print out the system events.

Refer to code list on opposite page for flag numbers.

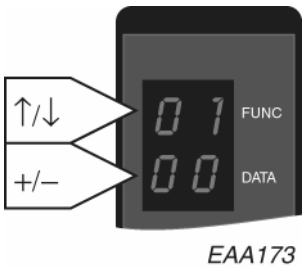
8.14.1 Set event log flags

Type ***F541***.
The display shows the flag number and the present flag status, 00=OFF and 01=ON.

Use ↑ or ↓ to select flag number and display its present status.

Use + or - to change the flag status.

When all event log flags have been set, type ***S*** to confirm the new setting. The display shows SS41 and then blanks.



8.14.2 Set event print flags

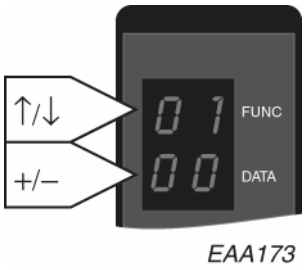
Events to be printed or shown on screen (not saved in event log).

Type ***F542***.
The display shows the print flag number and the present print flag status, 00=OFF and 01=ON.

Use ↑ or ↓ to display the select print flag number and display its present status.

Use + or - to change the print flag status.

When all event print flags have been set, type ***S*** to confirm the new setting. The display shows SS42 and then blanks.



8.14.3 Code list

Code	Description	Type	Action
In	Door initiation run	Status	Looking for 0 pulse. If the door do not operate with this code, check that the door is not set to manual mode 07
On	Normal condition	Status	If the door do not operate with this code, check that the door is not set to manual mode 07
05	Power fail test	Error (24 hour test)	Reset. If error code appears again check cable MPU to DPC next replace DPC
06	A/B pulse	Error	Missing A or B pulse from encoder. Check cabling and slip ring
07	Zero pulse	Error	Missing 0 pulse from encoder. Check cabling and slip ring
10	Safety stop	Status	Check safety loop.
11	El-mech. lock	Error	Check micro switch, for lock in open position.
17	Door manually pushed	Event	Log only
18	Rotation direction error	Error	Wrong cabling on A/B pulse from encoder or wrong motor cabling.
19	Over speed	Error	Door pushed to speed over 5 rpm.
20	Emergency stop	Error	Turn emergency stop button, restart by press “C”. If cables for stop button are damage and in contact with ground, error 20 will also appear.
21	Vertical sensor 1PDR (inner)	Status	Adjust sensor above entrance. (see “Vertical PDR” on page 120).
22	Vertical sensor 2 PDR (outer)	Status	Adjust sensor above entrance. (see “Vertical PDR” on page 120).
25	Slow drive input	Status	Eyetech Information.
26	Stop drive input	Status	Eyetech Information.
29	General alert output	Status	Output on IOA/2 connection 51-52. Log only.
30	Blocked door	Error	Push the door by hand to check so there is no mechanical reasons obstacles in the door, gearbox, brake, belt or lock problem. If the door can be moved by hand, check that motor cables are connected. Check connection “E-STOP” correct connection to 1-2 and 3-4 emergency stop button. Only one emergency button = jumper between 1-2 or 3-4.
31	Fire alarm input	Status	If not used, jumper between 33-34.Must be potential free contact from fire alarm system.
32	Power fail	Status	Lost of power supply.
36	Battery error	Error	Battery not connected or not charged. Charge the battery for approx. 48 hour.
39	Security stop	Status	Security stop request
41	Freewheel	Error	Check micro switch
42	Freewheel Command	Event	Log only
43	Freewheel Released	Status	Deactivate Freewheel command I/O-A 1 J18 connection 31-32
44	Security start in from MDT	Event	Log only
45	Security start out from MDT	Event	Log only
46	PSE calibrate	Event	
47	PSE system in ok	Status	
48	PSE system out ok	Status	
49	PSE high security	Event	
4A	Security 3 in	Event	

Code	Description	Type	Action
4B	Security 3 out		
56	Motor deactivation	Error (20 min test)	Reset, if error code appears again after 20 min., replace DPC board. (Code 56 can appear if door is pushed during it's test.).
57	Brake distance	Error	Check brakes function
58	Safety loop input	Error	Reset, if error code appears again replace IOA/1.
59	Emergency stop loop	Error	Reset, if error code appears again replace IOA/2.
69	20 minutes test	Event	Log only.
71	MPU prom	Error	Reset. If error code appear again replace MPU.
72	MPU internal RAM	Error	Reset. If error code appear again replace MPU.
73	MPU external RAM	Error	Reset. If error code appear again replace MPU.
74	MPU watchdog	Error (20 min test)	Reset. If error code appear again replace MPU.
75	Watchdog supervisor Init	Error	Reset. If error code appear again replace MPU.
76	Watchdog supervisor Timing	Error	Reset. If error code appear again replace MPU.
77	Reset F911 or reset button	Event	Log only
78	Flash Loading	Event	Log only
79	24 hour test	Event	Log only
81	Lock door	Mode	Log only
82	Auto open	Mode	Log only
86	Continuous	Mode	Log only
87	Manual	Mode	Log only
89	Real Time	Event	Log only
91	High speed start inner	Impulse	Log only
92	High speed start outer	Impulse	Log only
93	Low speed start	Impulse	Log only
95	Key	Impulse	Log only
97	Evacuate	Impulse	Log only
98	Lock door command	Mode	Log only
99	Service request	Even	Log only
9A	Motor overheated	Error	Check the motors.
9D	Internal EEPROM	Error	Reset. If error code appears again change MPU.
9F	Motor signals	Error (20 min test)	Reset. If error code appear again change MPU.
A1	Card reader in	Event	Log only
A2	Card reader out	Event	Log only
A3	Push button in	Event	Log only
A4	Push button out	Event	Log only
A5	Security 1 in	Event	Log only
A6	Security 1 out	Event	Log only
A7	Security 2 in	Event	Log only
A8	Security 2 out	Event	Log only
A9	Hang sensor	Event	Log only
AA	Master access	Event	Log only
AB	Card reader detect in	Event	Log only
AC	Card reader detect out	Event	Log only
AD	Passage detect in	Event	Log only
AE	Passage detect out	Event	Log only

Code	Description	Type	Action
C2	BOK magnet no current	Status	Check break-out kit
C3	BOK not armed		Check the lower microswitch on the break-out kit.
D0	Watch dog AVR	Error (20 min test)	Reset. If error code appear again change MPU.
D1	Battery load test	Error (20 min test)	If it's appear during installation charge the battery. If battery is 2-3 years old Change battery.
D2	Motor current measure	Error	Difference between M1 and motor 2 is to big, Check the motors (carbon)
D3	Motor regulator	Error	
D4	PDR 1 vertical sensor test signal	Error	Check cabling and PDR
D5	PDR 2 vertical sensor test signal	Error	Check cabling and PDR
D6	Emergency stop button TEST	Error	Appear only in log, if test of stop button command F938 is done and the test fail.
D7	M16C ROM	Error	Cut power and start again. If error code appear again replace MPU.
D8	M16C RAM	Error	Cut power and start again. If error code appear again replace MPU.
D9	Link error timeout	Error	Cut power and start again. If error code appear again replace MPU.
DA	SPI overflow	Error	Cut power and start again. If error code appear again replace MPU.
DB	CRC	Error	Cut power and start again. If error code appear again replace MPU.
DC	SPI msg. too long	Error	Cut power and start again. If error code appear again replace MPU.
DD	System SPI	Error	Cut power and start again. If error code appear again replace MPU.
DE	Over current	Error	Cut power and start again. If error code appear again replace MPU.
DF	Queue overflow	Error	Cut power and start again. If error code appear again replace MPU.
E0	BC I2T	Error	Speed slows down until brake resistors have normal temp.
E1	BC I2T	Error	Change DPC board.
E2	BOK	Error	Reset 2 times. If error code appear again check the top and the middle microswitch on the break out kit.
E3	BOK magnet no current	Status	Check break-out kit
E4	BOK not armed	Status	Check break-out kit
E5	Rotolock switch	Status	Rotolock switch activated.

8.14.4 Print out of event log

To avoid problems, use a printer recommended by Besam. The printer is then correctly setup and with a suitable cable.

Set configuration option no. 20 to 01=Yes (see “Configuration options RD” on page 55)

Connect the printer to the COM port connector at the side of the CDC-unit. (see “Main processing unit, MPU” on page 41)

Print out of the entire log (up to 600 events)

Type ***F545***

Stop print out

Type ***F546***

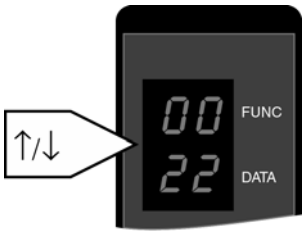
Print out of one selected event code

Type ***F543***
The display shows the event code.

Use ↑ or ↓ to select the event code to print.

Type ***S*** to confirm.

Type ***F544*** to print out the selected event code.



8.14.5 Print out of selected events

To be able to identify problems that happens just now and then it is possible to leave the printer connected to the system and print out a selection of events during a longer period of time. The selected events will then be printed when they are logged.
Select events to be printed by setting event print flags (see “Set event print flags” on page 60)

8.15 Other PCD commands

F543	Select event code to print
F544	Print selected events
F545	Print entire event log
F546	Abort event log printing
F547	Select event log display format
F551	Display MPU program version
F552	Switch MDT channel ON
F553	Switch MDT channel OFF
F556	Real time operation mode ON
F557	Real time operation mode OFF
F561	Automatic logout inhibit
F562	Clear revolution counter
F563	Clear event log
F564	Clear service prompt and start new period
F565	Calibration ON
F566	Calibration OFF
F911	System reset
F921	Restore all access codes
F922	Restore speed setpoints
F923	Restore config option flags
F924	Restore safety. Start position offset
F925	Restore event log flag
F931	Disconnect battery

9 Main Diagnostic Terminal MDT, operation

To adjust settings and perform maintenance on the CDC system a VT100 Terminal or a PC can be connected and used as a Main Diagnostic Terminal instead of the PCD.

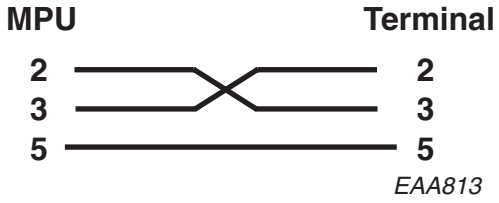
9.1 Connection

The MDT is connected directly at the COM port at the side of the CDC-unit.

To enable usage of a PC as MDT

1. Start Hyperterminal under Accessories
2. Make the following settings
   - 8 bits data
   - No parity
   - One stop bit
   - 9600 baud

Use a standard Null Modem cable (9 pin).



9.2 Software update

An update can only be performed on a CDC4 system already running an operational version of the CDC4 application software, in other words, MDT login must be possible, if this is not the case, skip to the section describing initial software load.

Normal door operation is not possible during the update procedure, so it should be positioned in its escape position or closed for access.

IMPORTANT!

The old version must reside in flash memory bank P1 or the update will fail.
Start by checking where the program is installed, P1 or P0.

Login to the CDC via comport and check under the CDC Main Menu the information software release. The program change automatically from download to P0 next P1 next P0 etc.
To have a successful updating next time, install the latest version two times so it ends in P1.

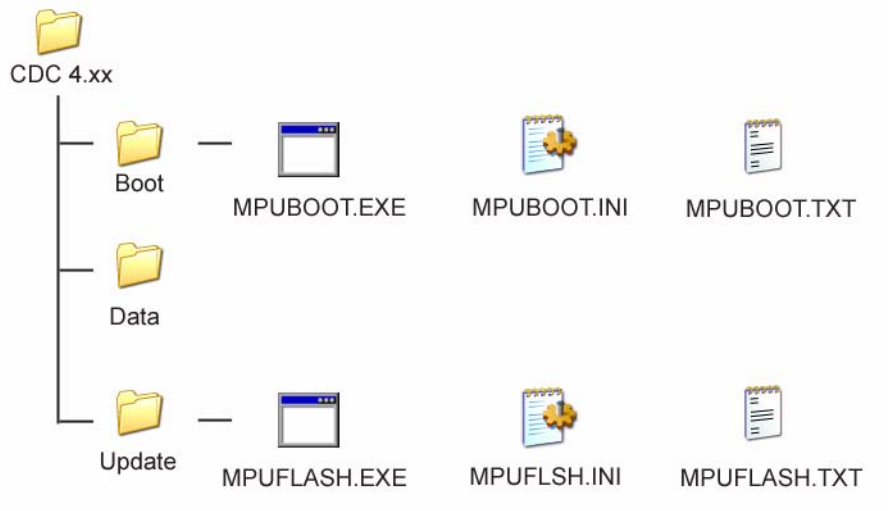
This example is OK

```
                  CDC Main Menu

Door Type           : RD3/4 - CDC42
Software Release    : Ver 4.01 B 13 P1 #FA8C
```

In this cases the update will fail!

```
                  CDC Main Menu

Door Type           : RD3/4 - CDC42
Software Release    : Ver 4.01 B 13 P0 #FA8C
```

9.2.1 Update procedure

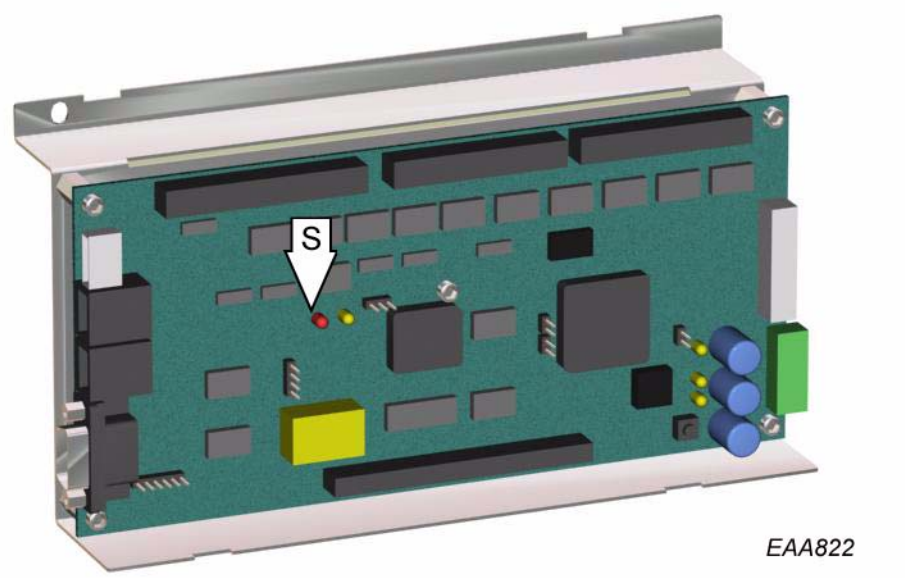


1. Close down the communication before download.
2. Open the CDC 4.xx folder
3. Open the update folder
4. Start the MPUFLASH.EXE program
5. Follow the on screen instructions (press space or return).

```
MPU Flasher version 1.04
Application    : CDC.A07
Comport        : COM1
Bauderate      : 9600
Downloadmode   : S
Flash Code     : 1234567890

To start :     If nobody is logged in press SPACE else reset
               the MPU and then press RETURN

To quit:       Press Escape
```

The download starts automatically

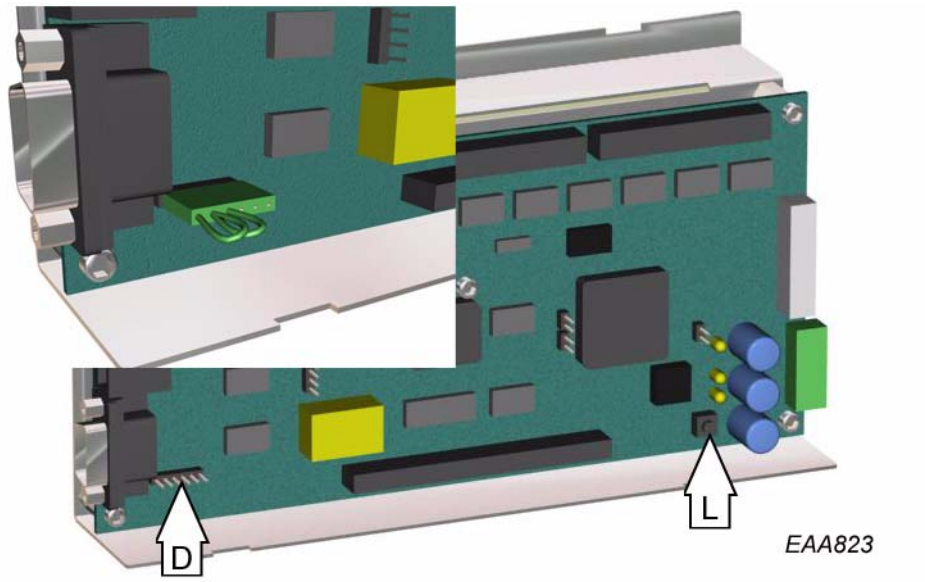
```
(A4CC)
Wait for CDC to be ready
3 2 1 0
Enter flash programming mode ********** OK
FL V1.05 Page 0
Changing baudrate to 19200 baud...OK
Erase...OK
Download in binary format...
Size of application is 207760 bytes
0%------------------------------------------------------------
--100%
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXX
OK
Writing checksum...(A4CC)
OK
Ver-
ify...OK
Config =
09
Reset...OK
Resetting...
DONE!

To start :  If nobody is logged in press SPACE else reset
            the MPU and then press RETURN

To quit:    Press Escape
```



The watchdog supervisor indicator LED (S) is shining if the update was successful. Download the update once more in the P1 memory bank.

9.2.2 Initial software load (Boot load)

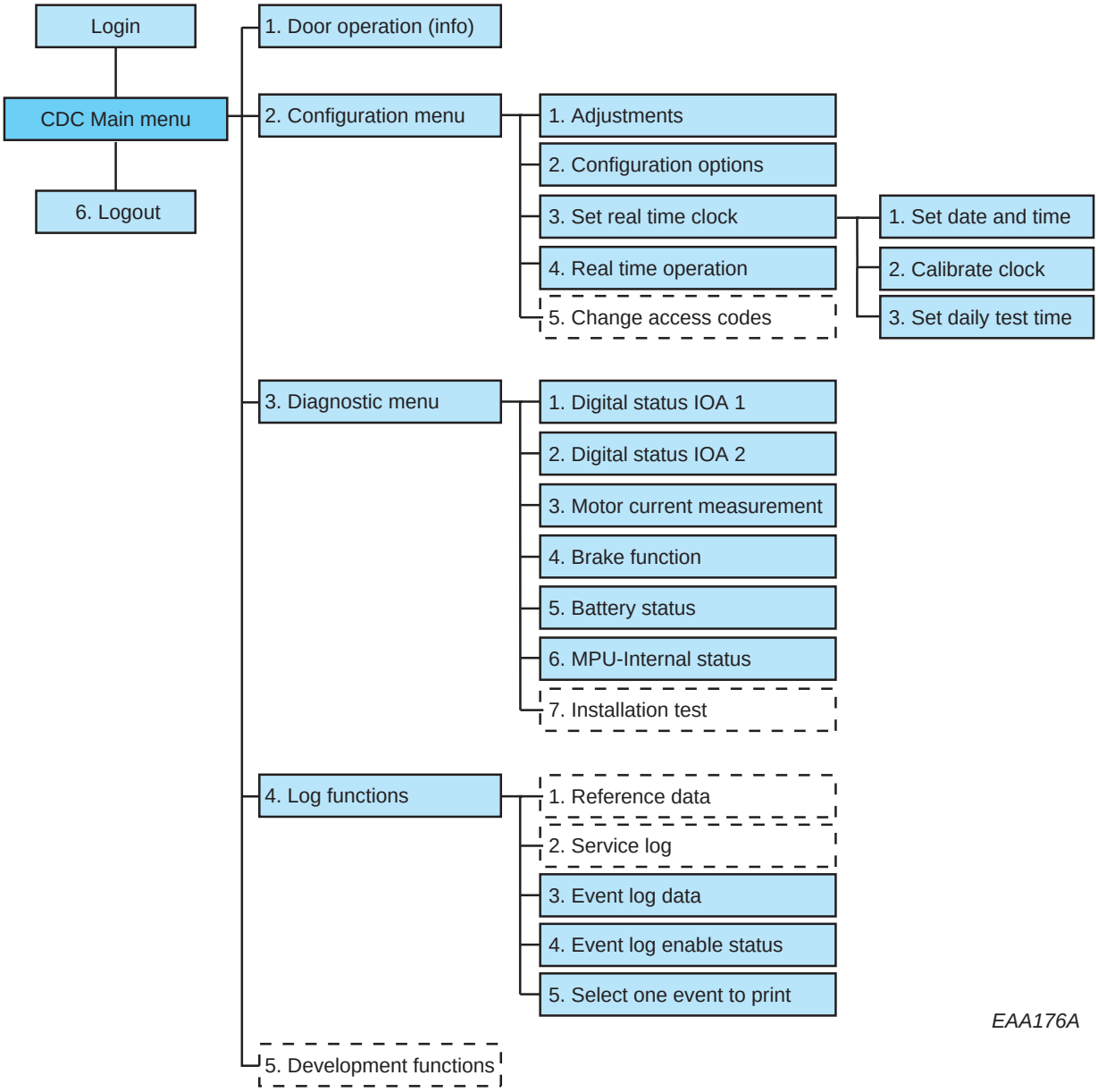
If there is no program loaded or if the update fails (the watchdog supervisor indicator LED did not lit up), the program has to be boot loaded.



1. Apply a programming contact to connector J11 (D).
2. Press the reset button (L).
3. Follow the procedures described in the previous chapter (update procedure) but with the MPUBOOT.EXE-file located in the Boot-library instead of the MPUFLASH.EXE-file.
4. Remove the programming contact.
5. Press the reset button (L).

9.3 MDT Display hierarchy

Software release 4.11



9.4 Login

To enable login on the MDT the PCD must be logged out.

Enter access code: **** OK

The CDC Main Menu appears on the display.

If the display show: ! ! ! ! the PCD is logged in

9.5 Main menu

```
                      CDC Main Menu

Door Type             : RD3/4 - CDC42
Software Release      : Ver  1.01.21 P1 #D352 2007-05-27
M16C H/S Release      : Ver  1.01.10

Press key to select function:

1: Door Operation
2: Configuration
3: Diagnostic Functions
4: Log Functions
5: Development Functions
6: Logout
```

Press the number key relating to the number in front of the desired submenu to select.

Press ***ESC*** to go to this menu from any sub-menu.

9.6 Door operation RD

```
                          CDC Door Operation Page
Error/Status Display:             ON
Operating Mode:                   2        sPCD In AUTO
Door Speed (RPM/10):              30

Revolution Counter:               3697
Date & Time:                      Tuesday   2007-05-25  10:29:08

Operating modes:
1: Lock Door
2: Auto = Start from open position



6: Continuous Rotation
7: Manual Operation
8: Summer Position
9: Automatic Service Doors

Press function key:               C: Error Clear
                                  I: Key Impulse

                                  R: Real Time Operation ON/OFF
```

To select operation mode, press the key relating to desired operation mode.

Press ***Enter*** to confirm changes.

Press ***ESC*** to return to main menu.

9.6.1 Other information on Door operation screen

sPCD

In OFF
In Auto
In Continuous

Service request

The door have been running for 300.000 revolutions.
Type ***F564*** on the PCD to clear service prompt and reset the service period.

Real time

Real time operation is active

Type ***R*** to toggle between real time operation ON/OFF.

9.7 Door operation RD Access

9.7.1 3-wing

```
                        CDC Door Operation Page
Error/Status Display:           ON
Operating Mode:                 2
Door Speed (RPM/10):            30

Revolution Counter:             3697
Date & Time:                    Tuesday   2007-05-07 11:12:08

Operating modes:
1: Lock Door


4: Security In - Free Out
5: Closed In - Free Out
6: Free In - Free Out
7: Manual Operation


Press function key:             C: Error Clear

                                O: Outer Access signal
                                M: Master Access
                                R: Real Time Operation ON/OFF
```

Press the number key relating to the number in front of the desired operation mode to select.

Press ***Enter*** to confirm changes.

Press ***ESC*** to return to main menu.

9.7.2 4-wing

```
                        CDC Door Operation Page
Error/Status Display:           ON
Operating Mode:                 2
Door Speed (RPM/10):            30

Revolution Counter:             3697
Date & Time:                    Tuesday   2007-05-07 11:12:08

Operating modes:
1: Lock Door
2: Security In - Security Out
3: Closed In - Security Out
4: Security In - Free Out
5: Closed In - Free Out
6: Free In - Free Out
7: Manual Operation


Press function key:             C: Error Clear
                                I: Inner Access Signal
                                O: Outer Access signal
                                M: Master Access
                                R: Real Time Operation ON/OFF
```

To select operation mode, press the key relating to desired operation mode.

Press ***Enter*** to confirm changes.

Press ***ESC*** to return to main menu.

9.7.3 Other information on Door operation screen

Service request

The door have been running for 300.000 revolutions.
Type ***F564*** on the PCD to clear service prompt and reset the service period.

Real time

Real time operation is active

Type ***R*** to toggle between real time operation ON/OFF.

9.8 Configuration menu

```
CDC Configuration Menu
Press key to select function:

1:   Adjustments
2:   Configuration Options
3:   Real Time Clock
4:   Real Time Operation
5:   Change Access Codes (not used)
```

To select operation mode, press the key relating to desired operation mode.
Press ***ESC*** or ***X*** to return to main menu.
Real time operation (see “Real time operation” on page 92)

9.8.1 Adjustments RD

```
CDC Adjustment Page

High Speed                          (RPM/10)      60
Low Speed                           (RPM/10)      25
Creep Speed                         (RPM/10)      5
Continuous Speed                    (RPM/10)      30
Manual Speed                        (RPM/10)      20



Safety Zone Offset                                0


Door Force Parameter (1-9)                        5

Door Diameter (dm)                                36
```

Use Tab-key to select value to change.

Use number keys to enter new value.

Press ***Enter*** to confirm each change.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

Setpoint	**Setpoint value**
High speed	1-6 rpm
Low (handicap) speed	0.2-2.5 rpm
Creep speed	Fixed at 0.5 rpm
Continuous speed	1.0-2.5 rpm
Manual speed	0.2-2.0 rpm
Door force	1-9

Door diameter

Type the door size (1.8-3.6).

9.8.2 Adjustments RD Access

```
CDC Adjustment Page

High Speed                          (RPM/10)      30
Low Speed                           (RPM/10)      15
Creep Speed                         (RPM/10)      5

Continuous Speed                    (RPM/10)      10
Manual Speed                        (RPM/10)      10

Safety Zone Offset                                10
Door Force (1-9)                                  5
Door Diameter (dm)                                21

Push Button In Enable Time (s)                    20
Push Button Out Enable Time (s)                   20
Start Delay In (s)                                10
Start Delay Out (s)                               10
Hold Before Reverse Time (s)                      10
```

Use Tab-key to select value to change.

Use number keys to enter new value.

Press ***Enter*** to confirm each change.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

Setpoint	**Setpoint value**
High speed	1-6 rpm
Low (handicap) speed	0.2-2.5 rpm
Creep speed	Fixed at 0.5 rpm
Continuous speed	1.0-2.5 rpm
Manual speed	0.2-2.0 rpm
Door force	1-9
Door diameter	18-24 dm.
Push button in enable time	00-20 sec
Push button out enable time	00-20 sec
Start delay in	00-10 sec
Start delay out	00-10 sec
Hold before reverse time	00-10 sec

9.8.3 Configuration options RD

```
CDC Configuration Options Page 1

 2:   Summertime                                  1
 4:   Lights Off In Locked Position               1
 17:  Electromechanical Lock Installed            0
 18:  Display Default PCD Message ON              1
 20:  Event Log Printer on MDT Channel            0
 21:  Door Status Output Active Door Running      1
 22:  Service Prompt Always Visible               1

CDC Configuration Options Page 2

 30   3 Wing Option                               0
 31   PDR Installed                               0
 32   PCD Installed                               0
 33   Safety Zone 360°                            0
 34   Rotolock Installed                          0
 35   Active Rotolock in Parked Position          0
 36   Break Out Kit Installed                     0
 37   Emergency Operation Option                  0
 38   Second Motor Installed                      0
 39   Door In Escape Route                        0
```

Use ***Tab***-key to select value to change.
Use number keys 1 or 0 to enter new value.
Press ***Enter*** to confirm each change.
Type ***N*** to display next page.
Type ***P*** to display previous page.
Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.8.4 Configuration options RD Access

```
CDC Configuration Options Page 1

1:   Battery Installed                              1
2:   Summertime                                     0
4:   Lights Off In Locked Position                  1
6:   Short PCD Edit Timeout                         1
18:  Display Default PCD Message ON                 1
20:  Event Log Printer on MDT Channel               0
21:  Door Status Output Active Door Running         0
22:  Service Prompt Always Visible                  1

CDC Configuration Options Page 2

30   3 Wing Option                                  0
31   PDR Installed                                  0
32   PCD Installed                                  1
33   Safety Zone 360°                               0
36   Break Out Kit Installed                        0
37   Emergency Operation Option                     0
38   Second Motor Installed                         0
39   Door In Escape Route                           0
40   Touchless ESPE Installed                       0
41   Freewheel in OFF Condition                     0
42   Queue Function Enabled                         1
43   Traffic Light Function                         1
44   BOK Release in Emergency Position              0

CDC Configuration Options Page 3

45   Anitpiggyback In installed                     0
46   Anitpiggyback Out installed                    0
```

Use ***Tab***-key to select value to change.
Use number keys 1 or 0 to enter new value.
Press ***Enter*** to confirm each change.
Type ***N*** to display next page.
Type ***P*** to display previous page.
Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.8.5 Set real time clock

```
CDC Real Time Clock Menu
Press key to select function:

Date & Time: Tuesday   2005-05-24  10:32:50

1:   Set Date and Time
2:   Calibrate Clock
3:   Set Daily Test Time
```

Set date and time

```
CDC Set Real Time Clock Menu
Date & Time: Saturday 2000-01-01 00:08:40

Enter New Date (yyyy mm dd):   20000501
New Date Entered =             2000-05-01

Enter New Time (hh mm ss):     070000
New Time Entered =             07:00:00

Summertime Active (Y/N)?: y
SummerTime ON

Accept change? (Y/N)
```

Use number keys to enter new date and time.
Date format yyyymmdd without space.
Time format hhmmss without space.

Press ***Enter*** to confirm each change.

Press ***Y*** to accept change.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

Calibrate clock

```
CDC Calibrate Clock Menu
Date & Time: Thursday   2000-06-01 07:00:31

Current Calibration Factor = 0

Enter New Date (yyyy mm dd):          20010501
New Date Entered =                    2001-05-01

Enter New Time (hh mm ss):            070131
New Time Entered =                    07:01:31
Summertime Active (Y/N)?: y
SummerTime ON

Accept change? (Y/N)
```

Use number keys to enter new date and time.
Date format yyyymmdd without space.
Time format hhmmss without space.

Press ***Enter*** to confirm each change.

Press ***Y*** to accept change.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.9 Diagnostic Menu RD

```
CDC Diagnostic Menu

Press key to select function:

1:   Display Digital Status IOA1
2:   Display Digital Status IOA2
3:   Motor Current Measurement
4:   Brake Function
5:   MPU Internal Status
```

Press the number key relating to the number in front of the desired sub menu to select.

Press ***ESC*** or ***X*** to return to main menu.

9.9.1 Digital status IOA 1

0 = Low in/output steady
1 = High in/output steady

```
CDC Digital Status Page IOA1

IOA1 Input Status                    IOA1 Output Status
=========================            =========================
2: Encoder 0-Pulse          0        39:Lock Motor Pos Direction  0
3: Encoder A-Pulse          0        40:Lock Motor Neg Direction  0
4: Encoder B-Pulse          0        42:Not Used
7: Vertical Sensor PDR 1    1        44:Not Used
10:Vertical Sensor PDR 2    1        46:PDR Test                  0
12:Not Used                 0        48:Not Used
14:Not Used                 0        50:Error Signal 1            0
16:Slow Drive Input         1        51:Door Status Output        0
18:Stop Drive Input         1
20:Not Used                 0
29:Safety Input (S 10)      1
31:Not Used                 0
33:Not Used                 0
35:Lock In Locked Position  0
37:Lock In Open Position    1
```

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.9.2 Digital status IOA 2

0 = Low in/output steady
1 = High in/output steady

```
CDC Digital Status Page IOA2

IOA2 Input Status                    IOA2 Output Status
============================         ============================
2: Not Used                  0       39:BOK Motor Pos Direction   0
3: Not Used                  0       40:BOK Motor Neg Direction   0
4: Not Used                  0       42:BOK Magnet                1
7: High Speed Start Inner    0       44:RotoLock                  0
10:High Speed Start Outer    0       46:BOK Motor Relay           0
12:Low Speed Start           0       48:Not Used
14:Lock Door Command         0       50:Error Signal 2            1
16:Error Clear               0       51:General Alert             1
18:Auto Command              1
20:Key Impulse               0
29:Emergency Stop (E 20)     1
31:RotoLock Command          0
33:BOK Armed                 0
35:BOK Lower Position        0
37:BOK Upper Position        1
```

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.9.3 MPU Internal test

```
CDC Internal Status Page

Power Fail Input          0
Evacuate Input            1

Motor Power On            0
Lights On                 1
```

Power fail input
Signal from DPC indicating power failure (status code 32)(0).

Evacuate input
Signal from evacuate push button DPC J11(1).

Motor power on
Signal from MPU to DPC motor relay(0 = Door not running)
(1 = Door running)

Lights on
Signal from MPU to DCP lights relay (0 = Lights off)
(1 = Lights on)

9.10 Diagnostic Menu RD Access

```
CDC Diagnostic Menu

Press key to select function:

1:   Display Digital Status IOA1
2:   Display Digital Status IOA2
3:   Display Digital Status IOB
4:   Motor Current Measurement
5:   Battery Status
6:   MPU Internal Status
```

Press the number key relating to the number in front of the desired sub menu to select.

Press ***ESC*** or ***X*** to return to main menu.

9.10.1 Digital status IOA 1

0 = Low in/output steady
1 = High in/output steady

```
CDC Digital Status Page IOA1

IOA1 Input Status                    IOA1 Output Status
=========================            ==========================
2: Encoder 0-Pulse                   39:F-wheel Motor Pos Dir     0
3: Encoder A-Pulse                   40:F-wheel Motor Neg Dir     0
4: Encoder B-Pulse                   42:Not Used
7: Vertical Sensor PDR 1     1       44:Security Level Inner
10:Vertical Sensor PDR 2     1       46:PDR Test                  1
12:System OK Inner                   48:Not Used
14:System OK Outer                   50:Error Signal 1            0
16:Slow Drive Input          1       51:Door Status Output        0
18:Stop Drive Input          1
20:Freewheel released        0
29:Safety Input (S 10)       1
31:Freewheel Command         0
33:Fire Alert Input          1
35:F-wheel Motor Closed Pos  0
37:F-wheel Motor Open Pos    1
```

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.10.2 Digital status IOA 2

0 = Low in/output steady
1 = High in/output steady

```
CDC Digital Status Page IOA2

IOA2 Input Status                        IOA2 Output Status
============================             ============================
2: Not Used                              39:BOK Motor Pos Direction     0
3: Not Used                              40:BOK Motor Neg Direction     0
4: Mechanical Lock             1         42:BOK Magnet                  1
7: High Speed Start Inner      0         44:Security Level Outer
10:High Speed Start Outer      0         46:BOK Motor Relay             0
12:Low Speed Start             0         48:Not Used
14:Lock Door Command           0         50:Error Signal 2              0
16:Error Clear                 0         51:General Alert               0
18:Security 3 Inner
20:Security 3 Outer
29:Emergency Stop (E 20)       1
31:Not Used
33:BOK Armed                   0
35:BOK Lower Position          0
37:BOK Upper Position          1
```

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.10.3 Digital status IOB

0 = Low in/output steady
1 = High in/output steady

```
CDC Digital Status Page IOB

IOB Input Status                         IOB Output Status
============================             ============================
1: Card Reader In              0         21:Card Readre Detect In       0
3: Card Reader Out             1         23:Card Reader Detect Out      0
5: Push Button In              1         25:Passage Detect In           0
7: Push Button Out             0         27:Passage Detect Out          1
9: Security 1 In               0         29:Green Light In              0
11:Security 1 Out              0         31:Red Light In                0
13:Security 2 In               0         33:Green Light Out             0
15:Security 2 Out              0         35:Red Light Out               0
17:Hang Sensor                 1         37:Vocal Message Start         0
19:Master Access               0         39:Access Alert                0
```

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.11 Motor current Measurement

```
CDC Motor Test Page

Motor 1 i2t Value                    0
Motor 2 i2t Value                    0

Motor 1 Current                      2
Motor 2 Current                      3


Motor 1 i2t Value At Error 9A        0
Motor 2 i2t Value At Error 9A        0
```

When the door is running constantly (3-3.5 rpm) the motor current value should be between 2.5 and 4.0 A. The current should be equal on motor 1 and motor 2 if a second motor is installed.

Motor i2t Value At Error 9A/D2

This value is the value that was saved when error code 9A (Motor overheated) or D2 (Motor current measure occurred. The motor with the highest value is the faulty one.

9.12 Log functions

```
CDC Log Menu

Press key to select function:

1:   Event Log Data
2:   Event Log Enable Status
3:   Select One Event to Print
```

To select operation mode, press the key relating to desired operation mode.

Press ***ESC*** or ***X*** to return to main menu.

Note
No function behind 1: Reference Data and 2: Service Log.

9.12.1 Event log data

Display the 600 last events recorded in the log.

```
CDC Event Log Page

134  Event     10:  2005-May-24 09:45:38    ON
135  Event     20:  2005-May-24 09:45:49    ON
136  Event     92:  2005-May-24 09:45:53    ON
137  Event     83:  2005-May-24 09:49:50    ON
138  Error     59:  2005-May-24 09:52:01    ON
139  Error     30:  2005-May-24 09:52:04    OFF
140  Event     77:  2005-May-24 09:59:30    ON
141  Error     30:  2005-May-24 10:00:18    ON
142  Event     77:  2005-May-24 10:00:45    ON
143  Event     77:  2005-May-24 10:05:52    ON
```

Type ***L*** to display the last 10 events in the log.

Type ***N*** to display the next 10 events in the log.

Type ***P*** to display the previous 10 events in the log.

Type ***F*** to display the first 10 events in the log.

Type ***E*** to print the entire log.

Type ***W*** to toggle pause on/off.

Type ***S*** to print selected event.
To select event to be printed type ***X*** to go to the previous menu. Select ***5***. Type the event to be printed e.g. 30. Press ***Enter***. Type ***X*** to go to previous menu. Type ***3*** to return to the Event log data page and then type ***S***.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

9.12.2 Event log enable status

CDC Event Log Enable Flags Page 1

Type	Code	Lstat	Pstat	Type	Code	Lstat	Pstat
Not Used	05			Error	57	1	1
Error	06	1	1	Error	58	1	1
Error	07	1	1	Error	59	1	1
Error	11	1	1	Not Used	62		
Error	18	1	1	Not Used	63		
Error	19	1	1	Not Used	64		
Error	20	1	1	Not Used	65		
Error	30	1	1	Error	71	1	1
Not Used	34			Error	72	1	1
Not Used	36			Error	73	1	1
Not Used	50			Error	74	1	1
Not Used	51			Error	75	1	1
Not Used	52			Error	76	1	1
Not Used	53			Error	9A	1	1
Not Used	54			Not Used	9B		
Not Used	55			Not Used	9C		
Error	56	1	1	Error	9D	1	1

Lstat = Log Enable Status Pstat = Print Enable Status

No value = not available

CDC Event Log Enable Flags Page 2

Type	Code	Lstat	Pstat	Type	Code	Lstat	Pstat
Error	9F	1	1	Error	DF	1	1
Not Used	C1			Error	E0	1	1
Error	D0	1	1	Error	E1	1	1
Not Used	D1			Error	E2	1	1
Error	D2	1	1				
Not Used	D3						
Error	D4	1	1				
Error	D5	1	1				
Error	D6	1	1				
Error	D7	1	1				
Error	D8	1	1				
Error	D9	1	1				
Error	DA	1	1				
Error	DB	1	1				
Error	DC	1	1				
Error	DD	1	1				
Error	DE	1	1				

Lstat = Log Enable Status Pstat = Print Enable Status

CDC Event Log Enable Flags Page 3

Type	Code	Lstat	Pstat	Type	Code	Lstat	Pstat
Status	10	0	0	Status	E5	0	0
Not used	12						
Status	21	0	0				
Status	22	0	0				
Status	23						
Status	25	0	0	Event	17	1	1
Status	26	0	0	Not Used	68		
Status	29	0	0	Event	69	0	0
Not used	31			Event	77	1	1
Not used	32			Event	78	1	1
Not used	33			Not Used	79		
Not used	37			Event	89	0	0
Not used	A0			Not Used	90		
Not used	B0			Event	99	1	1
Not used	C0			Not Used	B1		
Status	C2	1	1				
Status	C3	1	1				

Lstat = Log Enable Status Pstat = Print Enable Status

CDC Event Log Enable Flags Page 4

Type	Code	Lstat	Pstat	Type	Code	Lstat	Pstat
Mode	81	0	0	Impulse	91	0	0
Mode	82	0	0	Impulse	92	0	0
Not Used	83			Impulse	93	0	0
Not Used	84			Not Used	94		
Not Used	85			Impulse	95	0	0
Mode	86	0	0	Not Used	96		
Mode	87	0	0	Impulse	97	0	0
Not Used	88						
Not Used	8A						
Mode	98	0	0				

Lstat = Log Enable Status Pstat = Print Enable Status

```
CDC Event Log Enable Flags Page 5
```

Type	Code	Lstat	Pstat	Type	Code	Lstat	Pstat
Error	41	1	1	Access	A1	0	0
Event	42	0	0	Access	A2	0	0
Status	43	0	0	Access	A3	0	0
Access	44	1	1	Access	A4	0	0
Access	45	1	1	Access	A5	1	1
Event	46	1	1	Access	A6	1	1
Status	47	1	1	Access	A7	1	1
Status	48	1	1	Access	A8	1	1
Access	49	1	1	Access	A9	0	0
Access	4A	1	1	Access	AA	0	0
Access	4B	1	1	Access	AB	0	0
Not Used	4C			Access	AC	0	0
Not Used	4D			Access	AD	0	0
Not Used	4E			Access	AE	0	0
Not Used	4F			Not Used	AF		

```
Lstat = Log Enable Status              Pstat = Print Enable Status
```

Type ***N*** for next page.

Type ***P*** for previous page.

Use ***Tab***-key to select value to change.

Use number keys ***1*** or ***0*** to enter new value.

Press ***Enter*** to confirm each change.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

Description of codes (see “Code list” on page 61)

Lstat = logstatus
600 events recorded in a circular buffer
To be recorded 1=Yes, 0=No

Pstat = Printstatus
Events given printstatus 01 appear on the screen or printed on printer.

To constantly print an event with printstatus 01, set configuration option No. 20 to 1 (see “Configuration options RD” on page 79). Connect the printer to the COM port (see “Main processing unit, MPU” on page 41).

10 Real time operation

The CDC system has three different day schedules. Each day schedule may contain up to 10 different operation modes. The week schedule informs the system of which day schedule to run and in what order during a week. It is possible to make up to 16 exceptions from this week schedule for e.g. public holidays e.t.c.

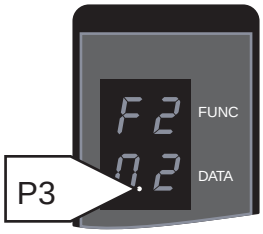
10.1 Real time operation via PCD

10.1.1 Activation

Type ***F556*** (Real time operation ON)

Prompt P3 lit's up.

The door operates according to schedule.



10.1.2 Deactivation

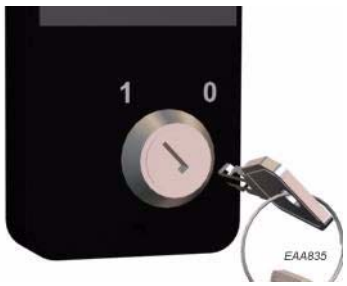
Type ***F557*** (Real time operation OFF)

Prompt P3 lit's down.

The door operates according to manually set operation mode.

10.1.3 Key switch

Activation of the key switch (locked door command) on the PCD overrides real time operation. When the key switch is deactivated the door resume settings.



10.1.4 Manually setting of operation mode

If the door is running in real time operation mode and the operation mode is manually changed, real time operation mode is automatically deacivated. To resume real time operation mode it has to be reactivated by typing ***F556***

10.2 Real time operation via MDT

Type ***R*** to toggle between real time operation ON/OFF (see “Door operation RD” on page 73).

10.3 Settings (via MDT only)

Minimum access level = 3.

```
CDC Real Time Operation Page

     DAYSCHEDULE 1      DAYSCHEDULE 2      DAYSCHEDULE 3      WEEKSCHEDULE
1    0700 LOCKED LION   0800 LOCKED LION                      MON DAYSCHEDULE 1
2    0800 CONTINOUS     2000 LOCKED LIOF                      TUE DAYSCHEDULE 1
3    0900 AUTO                                                WED DAYSCHEDULE 1
4    1800 LOCKED LION                                         THU DAYSCHEDULE 1
5    2200 LOCKED LIOF                                         FRI DAYSCHEDULE 1
6                                                             SAT DAYSCHEDULE 2
7                                                             SUN DAYSCHEDULE 2
8
9
10


LN  START EXPT  END   EXPT  SCHED LN  START EXPT END  EXPT SCHED EDIT FUNCTIONS
1   2001-04-13  2001-04-13  DS 2  9                             1= DAYSCHEDULE 1
2   2001-04-16  2001-04-16  DS 2  10                            2= DAYSCHEDULE 2
3   2001-05-01  2001-05-01  DS 2  11                            3= DAYSCHEDULE 3
4   2001-05-24  2001-05-24  DS 2  12                            4= WEEKSCHEDULE
5                               13                            5= EXCEPTIONS
6                               14
7                               15
8                               16
```

Use number key ***1, 2*** or ***3*** to make or edit day schedule 1, 2 or 3.

Use number key ***4*** to make or edit the week schedule.

Use number key ***5*** to make or edit exceptions.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

10.3.1 Day schedule

```
Edit DAYSCHEDULE Menu:

     DAYSCHEDULE 1
 1   0700 LOCKED LION
 2   0800 CONTINOUS
 3   0900 AUTO
 4   1800 LOCKED LION
 5   2200 LOCKED LIOF
 6
 7
 8
 9
10

Enter line number to edit: 4

Line entered =     4
Enter New Time: 2100
New Time Entered = 2100
Press SPACE to browse Mode: LOCKED LIOF
Entry Line = 4 New Time = 2100 New Mode = LOCKED LIOF Accept change? (Y/N)
```

Underlined figures are input values.

The different operation modes has to be in time order.

Use number key to select line number to make or edit.

Press ***Enter*** to confirm.

Use number key to enter time.

Press ***Enter*** to confirm.

Use ***space*** to browse between the different operation modes.

Available operation modes:

Locked Lights OFF
Locked Lights ON
LOCKED LIOF = Locked Lights OFF
LOCKED LION_ = Locked Lights ON
SECIN SECOT = Security IN and OUT
HSECI HSECO_ = High Security In and OUT
CLOIN SECOT = Closed IN Security OUT
HCOI HSECO = High Security losed IN, High Security OUT
SECIN FREOT_ = Security IN Free OUT
HSECI HFREO_ = High Security IN, High Free OUT
CLOIN FREOT = Closed IN Free OUT
FREIN FREOT_ = Free IN Free OUT

Clear entry (to erase the event from the day schedule)

Press ***Enter*** to confirm

Type ***Y*** or ***N*** to accept or not accept changes.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

10.3.2 Week schedule

```
Edit WEEKSCHEDULE Menu:

   WEEKSCHEDULE
1  MON DAYSCHEDULE 1
2  TUE DAYSCHEDULE 1
3  WED DAYSCHEDULE 1
4  THU DAYSCHEDULE 1
5  FRI DAYSCHEDULE 1
6  SAT DAYSCHEDULE 2
7  SUN DAYSCHEDULE 3

Enter line number to edit: 7
Line entered =          7
Enter New Day Schedule (1-3): 3
New Day Schedule Entered = 3
Line 7 DAYSCHEDULE 3

Accept change? (Y/N)
```

Underlined figures are input values.

Use number key to select line number to make or edit.

Press ***Enter*** to confirm.

Use number key to enter day schedule.

Press ***Enter*** to confirm.

Type ***Y*** or ***N*** to accept or not accept changes.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

10.3.3 Exceptions

```
Edit EXCEPTIONS Menu:
LN    START  EXPT   END    EXPT   SCHED  LN    START  EXPT   END    EXPT   SCHED
1     2001-04-13   2001-04-13   DS 2   9
2     2001-04-16   2001-04-06   DS 2   10
3     2001-05-01   2001-05-01   DS 2   11
4     2001-05-24   2001-05-24   DS 2   12
5                                       13
6                                       14
7                                       15
8                                       16

Enter line number to edit: 5
Line entered =          5
Enter New Start Time (yyyy mm dd): 20011224
New Start Time Entered =2001-12-24
Enter New End Time (yyyy mm dd): 20011224
New End Time Entered = 2001-12-24
Enter New Exception Schedule (1-3): 2
New Exception Entered = 2
Line 5 Start Time = 2001-12-24 End Time = 2001-12-24 DAYSCHEDULE 2
Accept change? (Y/N)
```

Underlined figures are input values.

Use number key to select line number to make or edit.

Press ***Enter*** to confirm.

Use number key to enter start date.
Date format yyyymmdd without space.

Press ***Enter*** to confirm.

Use number key to enter end date.
Date format yyyymmdd without space.

Press ***Enter*** to confirm.

Use number key to select day schedule.

Press ***Enter*** to confirm

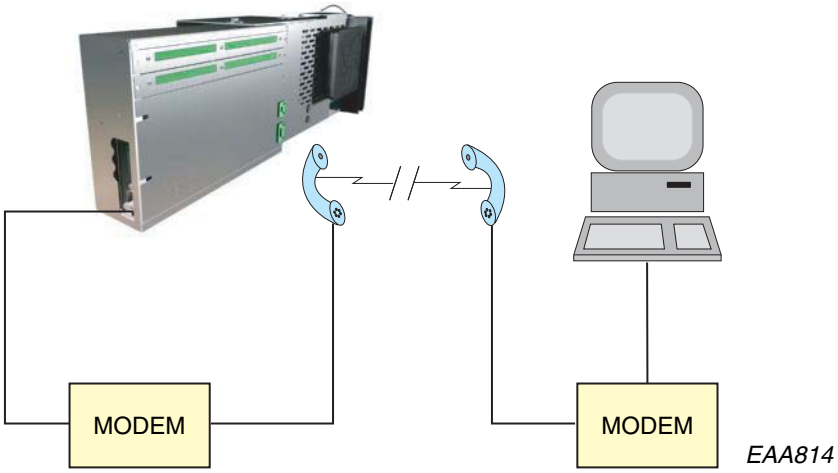
Type ***Y*** or ***N*** to accept or not accept changes.

Type ***X*** to return to the previous menu or ***ESC*** to return to main menu.

11 Remote Control Operation

11.1 Connection

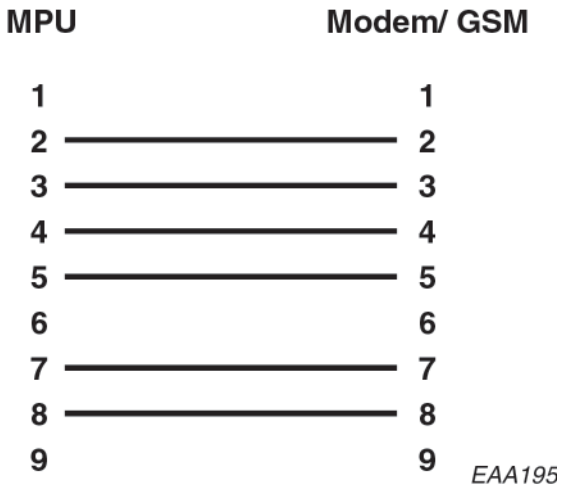
To enable remote control of the CDC system a telephone modem is connected to the COM port on the CDC-unit. The modem is then connected either to a cellular phone or to the common telephone line to establish contact with a VT100 -terminal or a PC placed elsewhere.



11.2 Operation

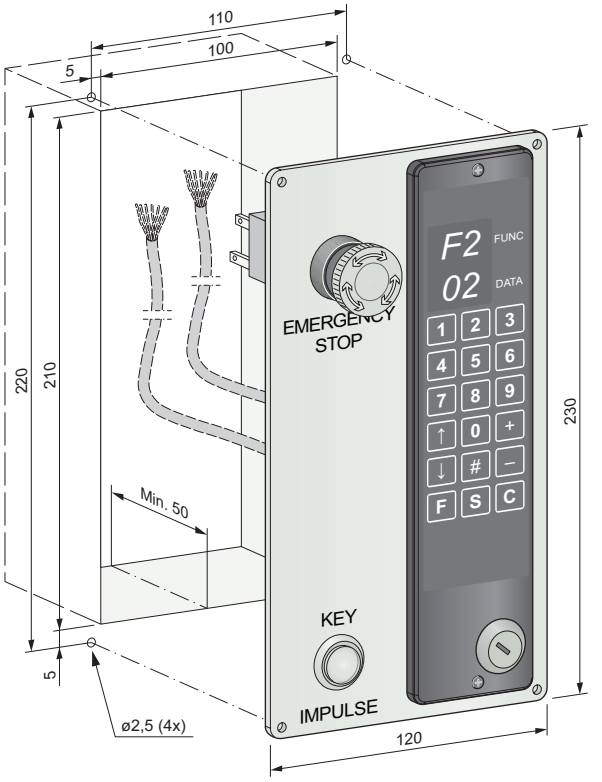
Remote control operation is performed the same way as operation via an MDT (see “Main Diagnostic Terminal MDT, operation” on page 66).

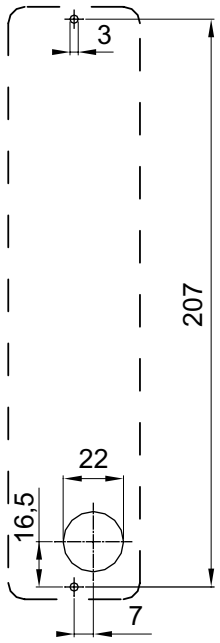
Cable from Mpu to Modem/ GSM



12 Options

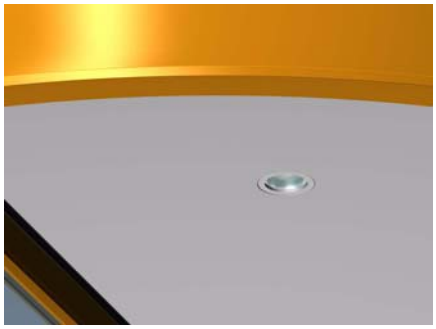
12.1 Cut out for PCD/Reception plate

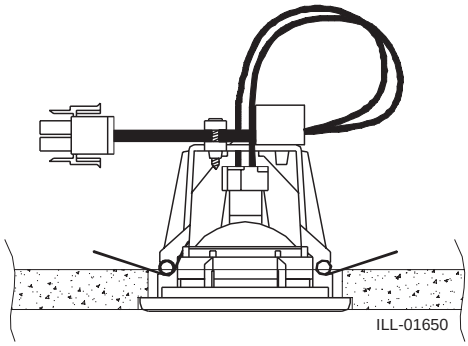




Cable 2 x 8 x 0.25 mm² LIYCY and alternative Cable 2 x UTP CAT5

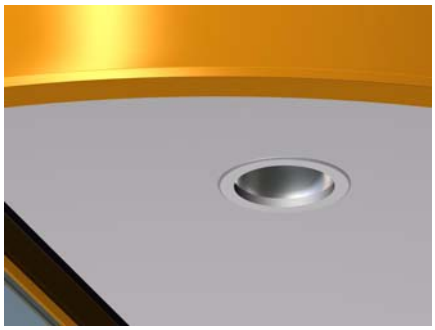
12.2 Spotlights

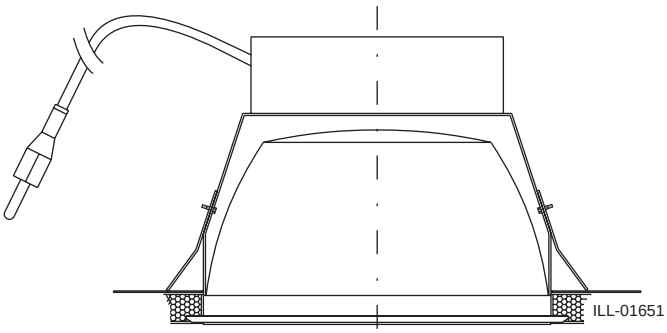




Colour temp. 3050 K
Lifetime 3000 hours
Lamp 20 W

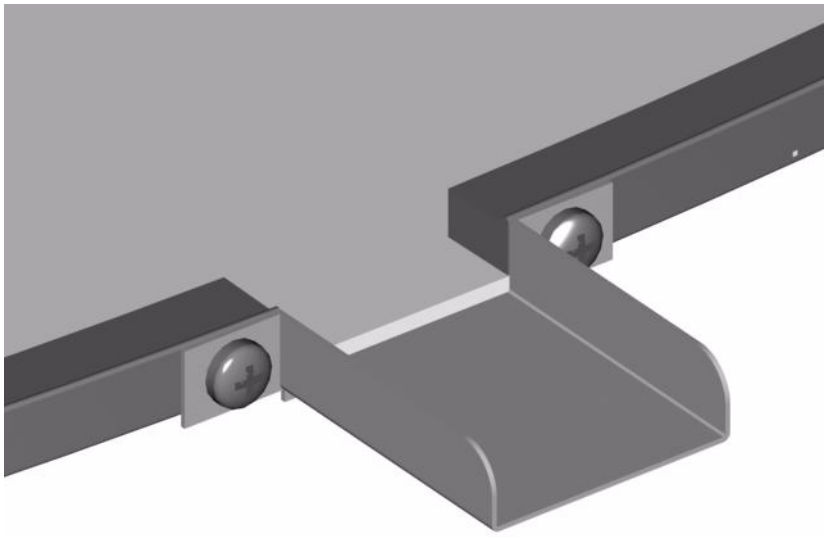
12.3 Downlights

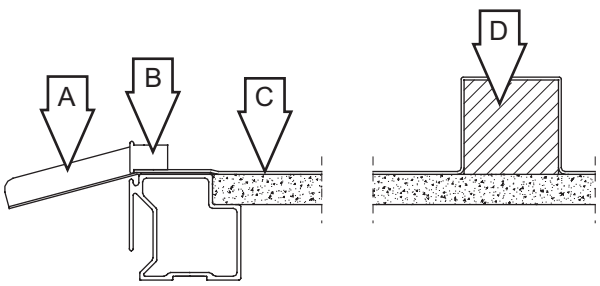




Colour temp. 3000 K
Lifetime 10000 hours
Lamp 18 W

12.4 Water resistant roof





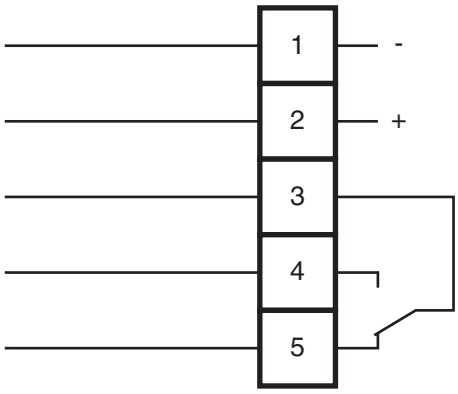
Item	Description
A	Water outlet
B	Aluminium extrusion (16x20 mm)
C	Roofing rubber
D	Wooden beam

12.5 Activator PIR

12.5.1 Mechanical installation:

Mount the PIR-30 attachment on the wall ring above the inside and the outside openings.

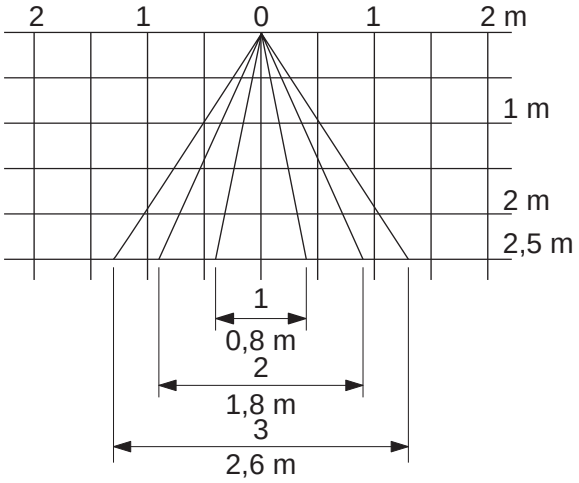
12.5.2 Electrical connections



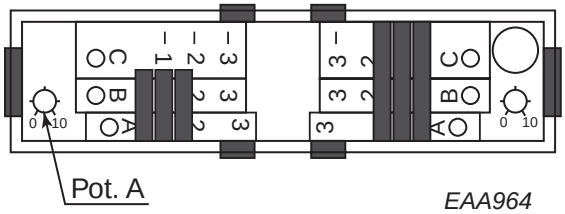
Connection	Colour		Voltage
1	White	-	12-30VDC 12-24 VAC
2	Brown	+	
3	Green	Common	48 VAC/DC 30W/60VA
4	Yellow	Normally open	
5	Grey	Normally closed	

12.5.3 Adjustment PIR-30.

Pot. A Sensitivity of the sensor system (min=0 and max=10).



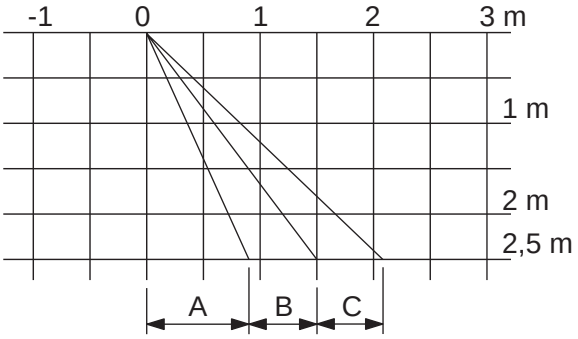
Scanning pattern graduations

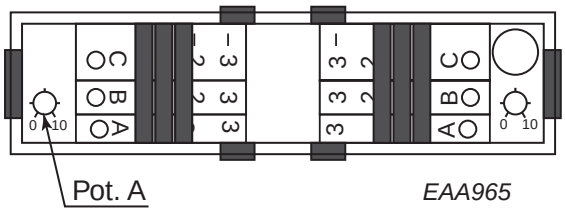


EAA964

Sideways adjustment.

Three scanning pattern graduations for coverage of the lateral zones 1-3. (Lenses which are covered by slides are inactivated).

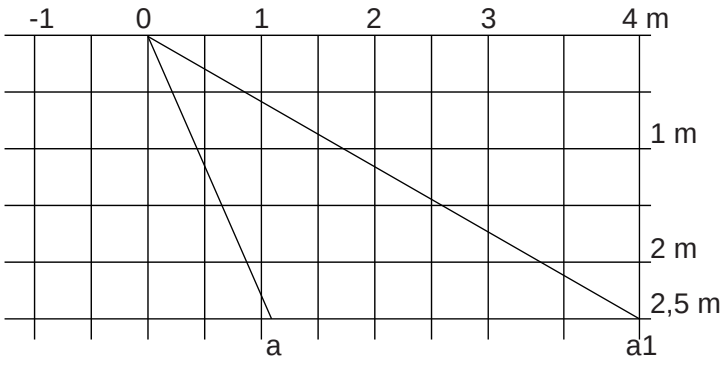




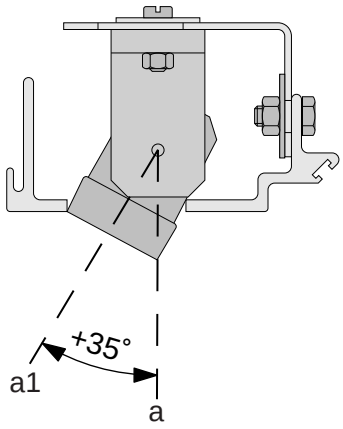
EAA965

Frontal adjustment

Frontal slides, for adjustment of scanning depth C-A.



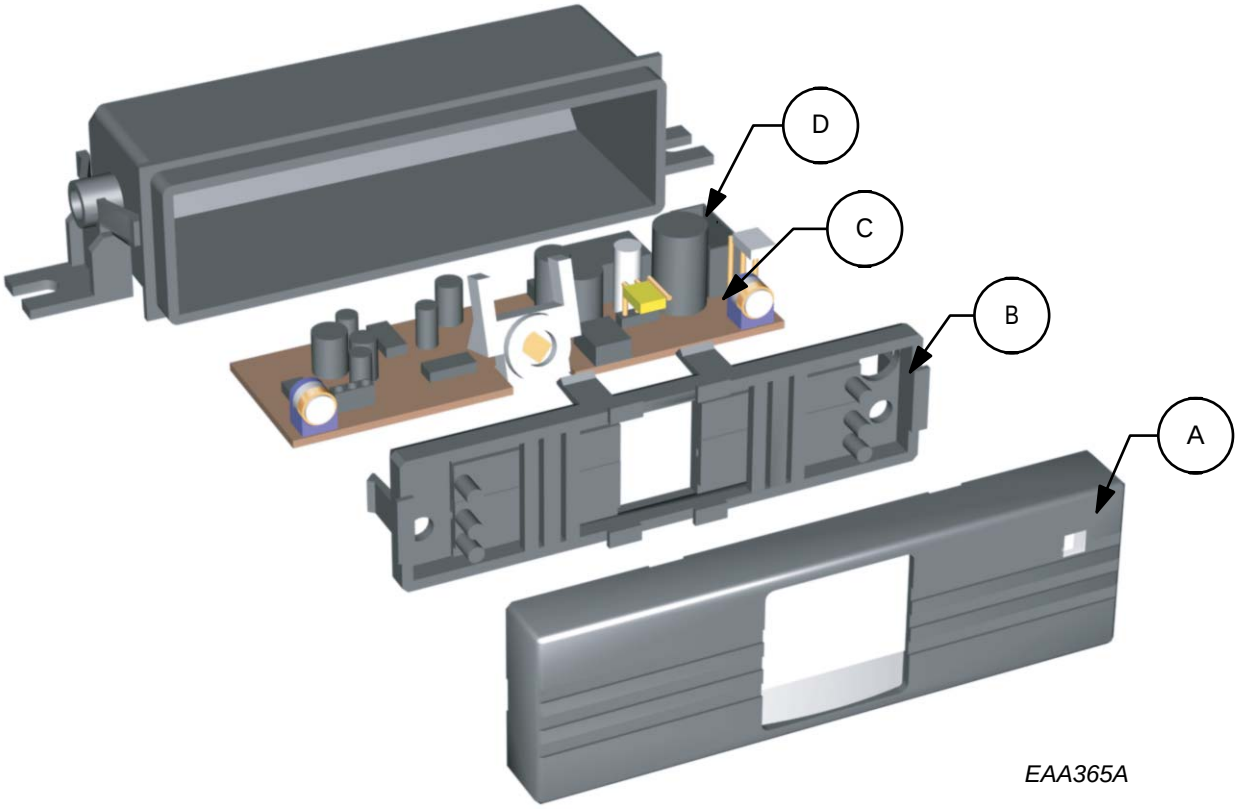
EAA369



Max + horizontal swing

Frontal adjustment by swivelling the unit by graduations of 5º. For shifting along the depth of the entire scanning field.

12.5.4 Replacing PIR-30

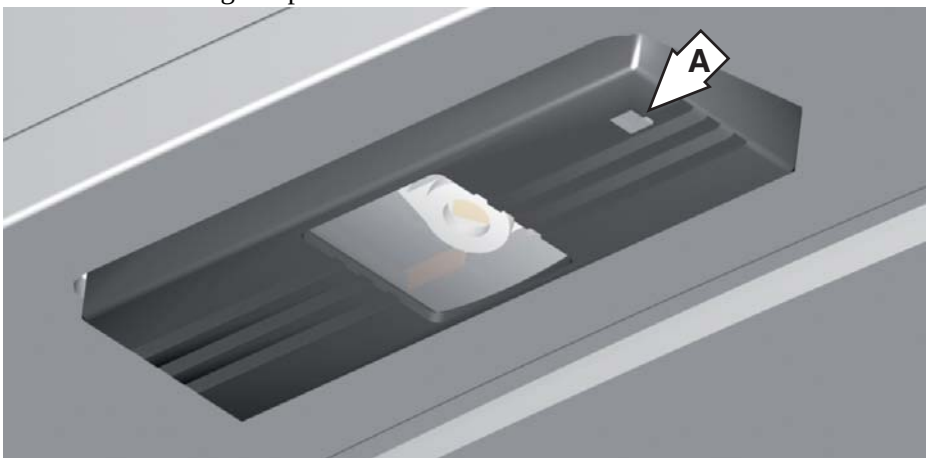


Replacing PIR-30

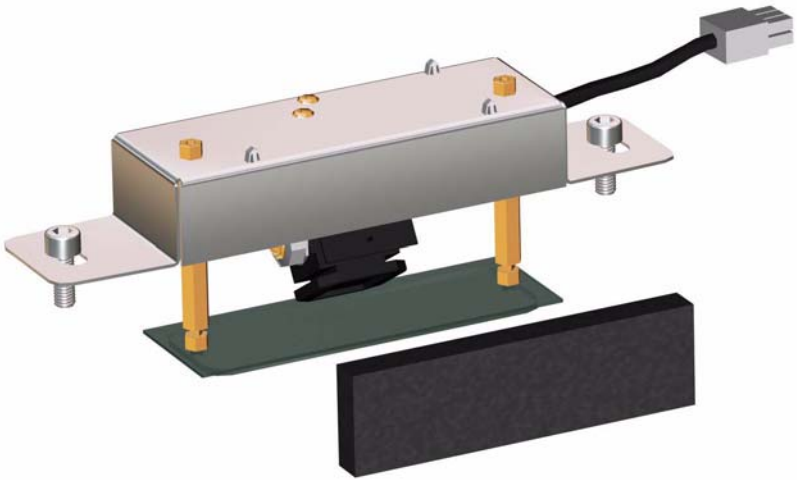
When replacing a used PIR, it is normally not necessary to replace the housing and cabling, only the PC-board.

Do as follows:

1. Remove the front cover A (can be made from “the outside” without taking down the fascia sheets).
2. Remove the slider frame B.
3. Pull out the PC board C and disconnect the wires D and replace the PC-board.
4. When reassembling make sure that the LED and the LED window (A) are located at the right top corner of the PIR.



12.6 Activator DSR



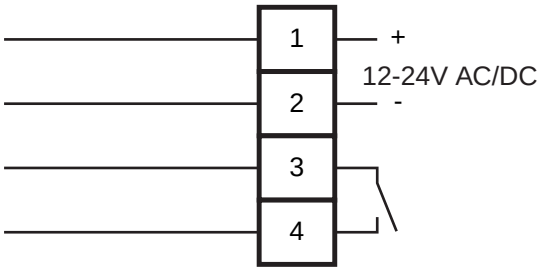
The DSR is factory preset for the RD3/4.
The settings of the DSR can be made with a remote control device.

Mechanical installation:

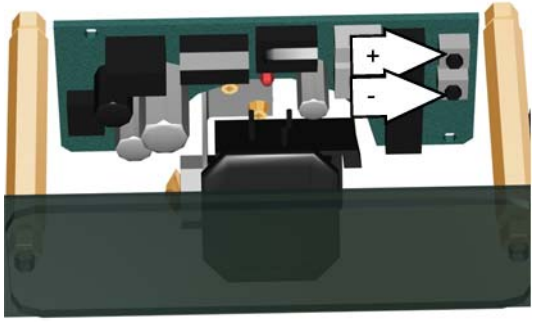
Mount the DSR on the wall ring according to picture above with the cable outlet to the right. Put the foam in with the white side facing the activator.

The picture is shown facing the door.

Electrical connection



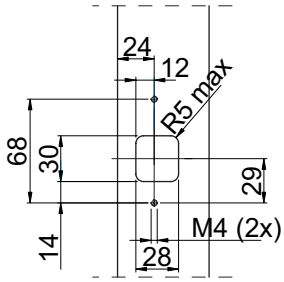
12.6.1 Adjustment of sensitivity



Sensitivity 0 - 9.
Default setting 7.
To change the sensitivity press the marked + or - to increase or decrease the sensitivity. One push changes the sensitivity one step.

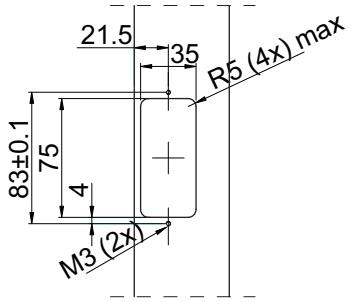
12.7 Emergency stop button

Electrical connection (see “IOA 2-board” on page 45).



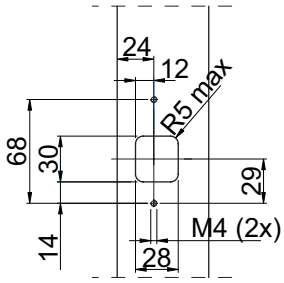
12.8 Push button for disabled

Connect the push buttons to the inner/outer low speed impulse on the IOA 2-board (see “IOA 2-board” on page 45).



12.9 Emergency opening button

Electrical connection according to connection diagram.

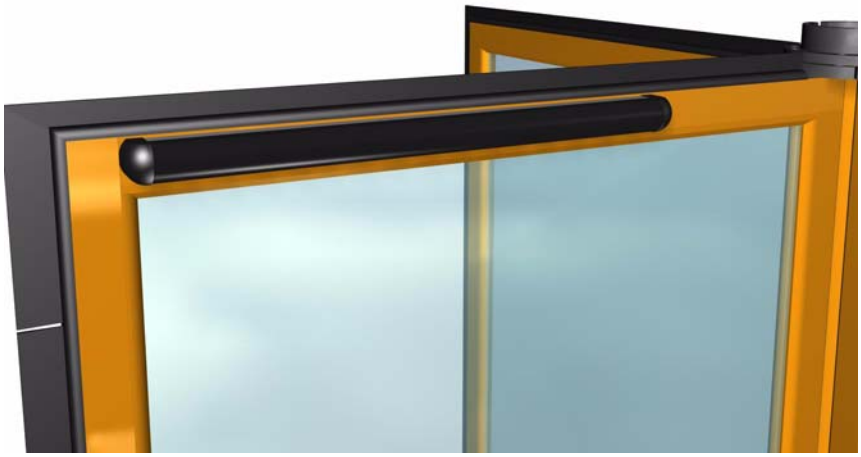


12.10 Compressible safety switches

Electrical connection according to connection diagram.

12.11 Eye-Tech

Electrical connection according to connection diagram.



12.12 Vertical PDR

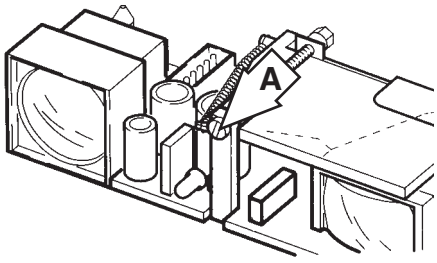
Range

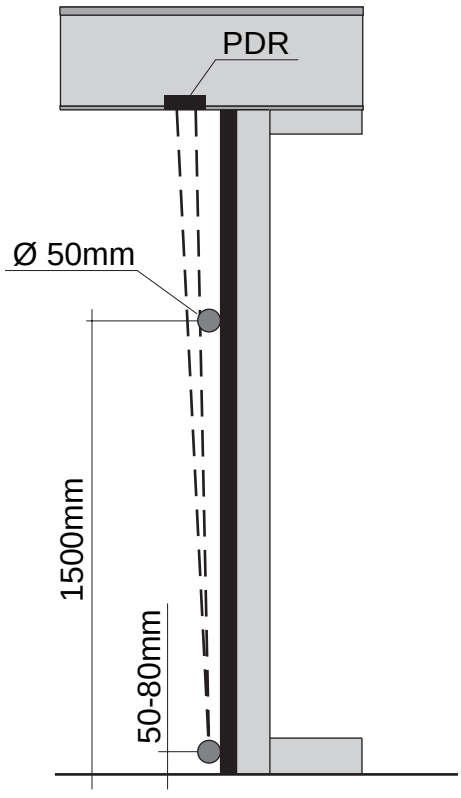
Check the range of the detection zone by moving a test body (diameter. 50mm) downwards along the vertical rubber edge.

The PDR should be activated at a distance of 1.5 m from the floor.

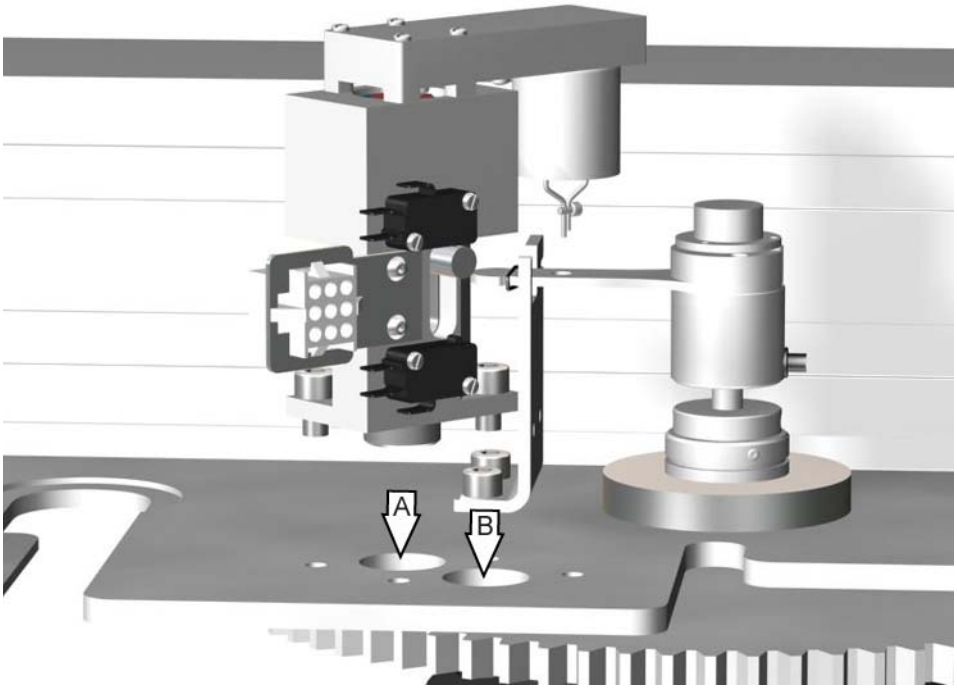
The detection zone ends about 50-80 mm from the floor.

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.





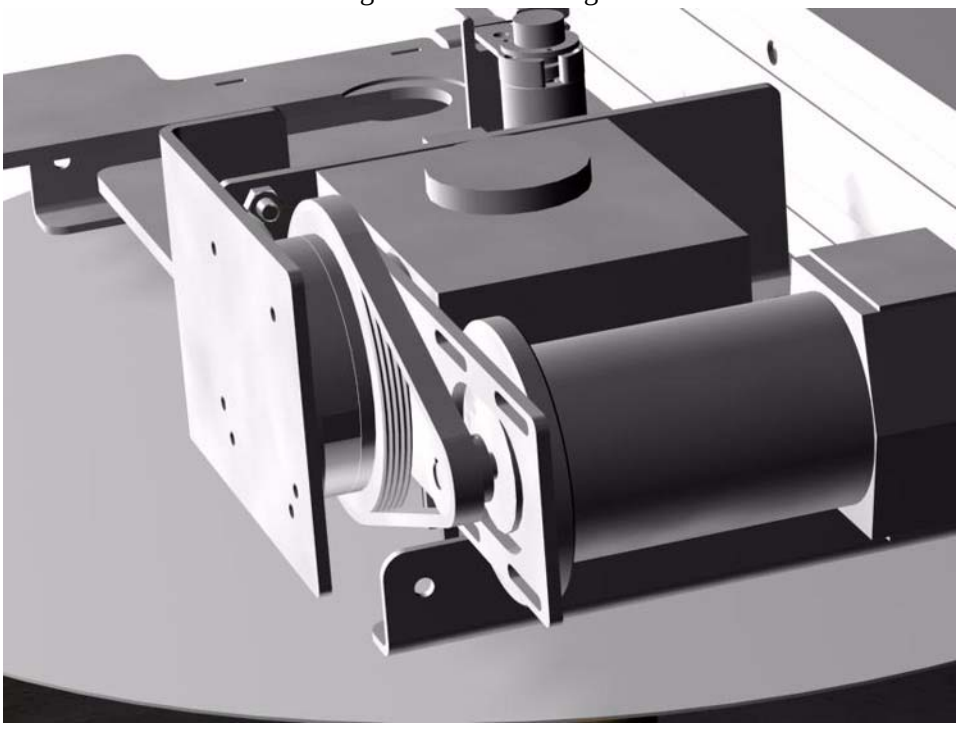
12.13 Electromechanical lock



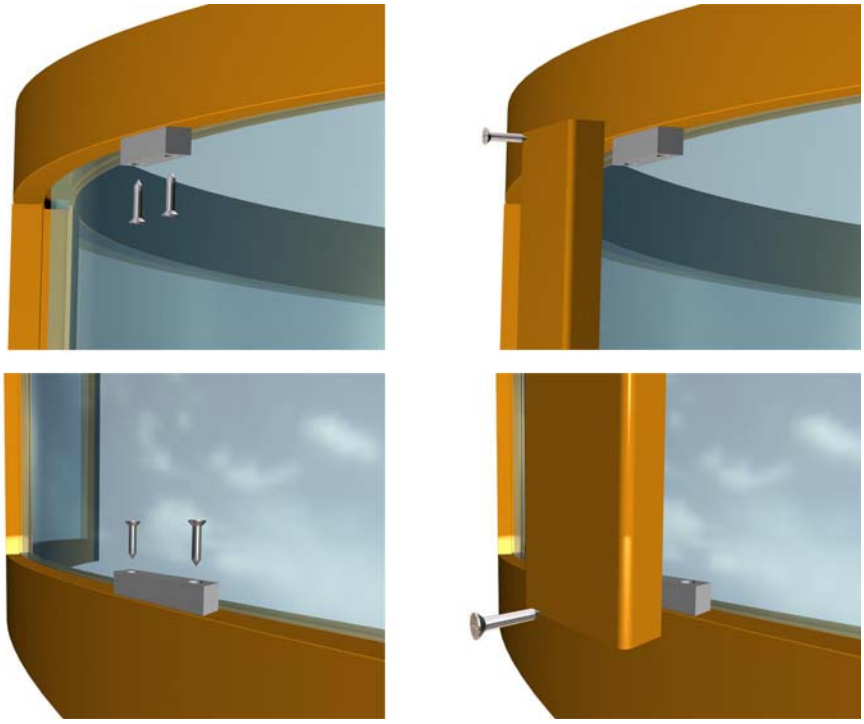
Mount the electromechanical lock on the drive units mounting plate.
Position A - 4-wing doors.
Position B - 3-wing doors.

12.14 Rotation lock

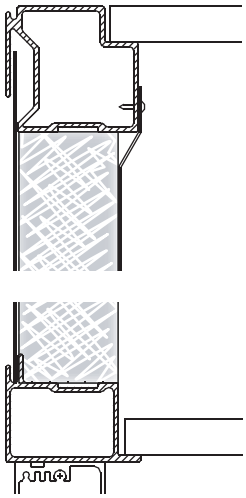
Electrical connection according to connection diagram.



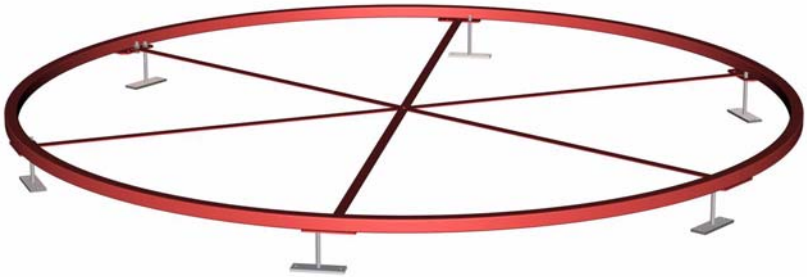
12.15 Fixed screen joint section



12.16 Insulated fascia



12.17 Ground ring

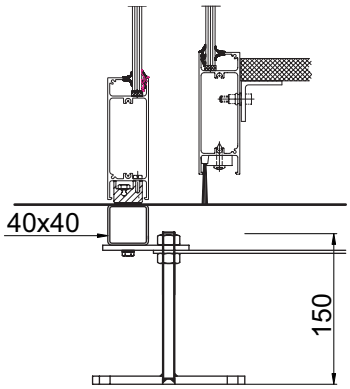


The kit consists of:

2 No.	180º ring parts
6 No.	Spokes
7 No.	Supports
6 No.	Screws M6S 12x20
8 No.	Nuts M6M 12
12 No.	Screws RTS ST 6.3x19

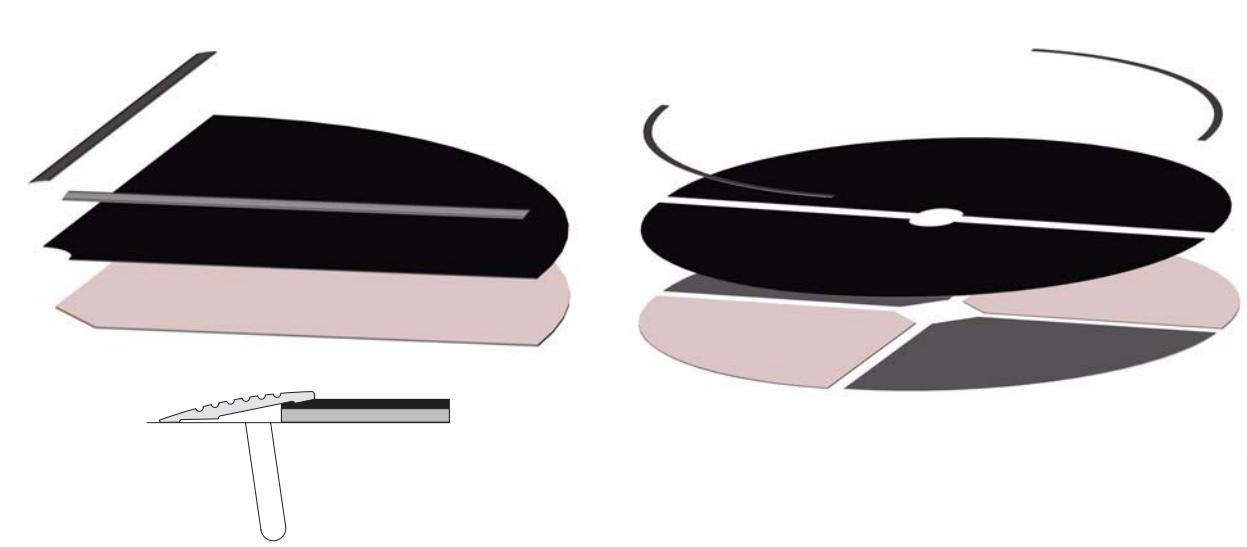
Mounting

1. Screw the two 180º ring parts together.
2. Mount the spokes and the supports.
3. Put the ground ring in its correct position.
4. Check the roundness of the ground ring.
5. Level the ground ring to its correct height by adjusting the supports.
6. Fix the ground ring to the floor.
7. If necessary, cut the threaded rod on the supports.



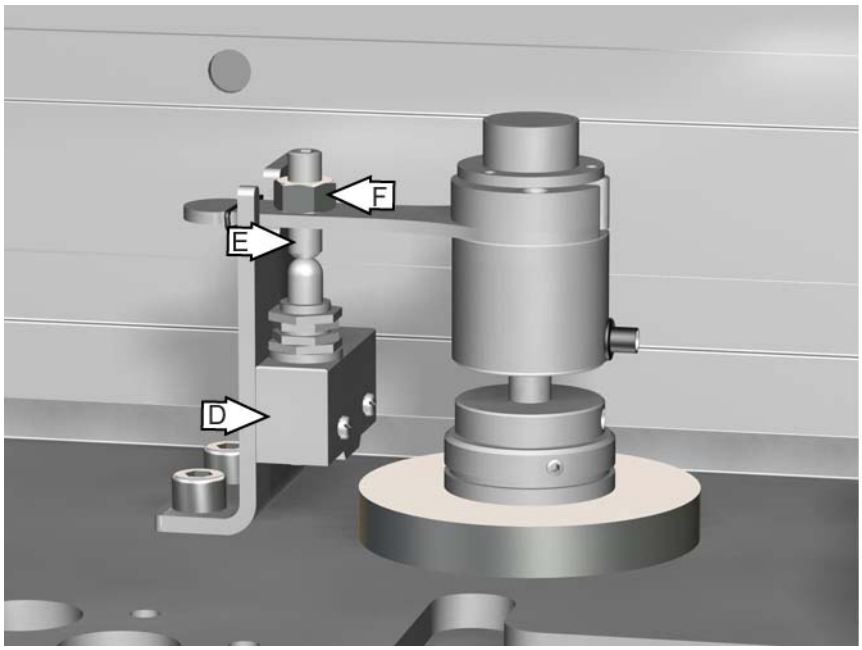
12.18 Contact mat

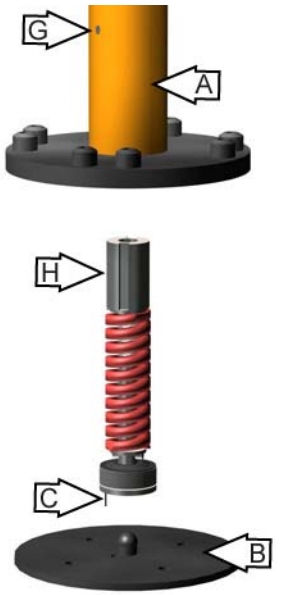
Electrical connection according to connection diagram



12.19 Modem options

12.20 Hang sensor





Put the drive shaft (A) on top of the central floor disc (B). Make sure that the guide (C) slides in the adjacent hole.

Mount the drive shaft to the gear wheel.

Mount the micro switch (D) on the encoder bracket.

Adjust the screw (E) so the micro switch just close.

Mount the door leaves.

Connect a test buzzer to the connector.

Put an allen key through the 9 mm adjustment hole (G) into one of the slots in the adjustment nut (H).

Turn the drive shaft and door leaves clockwise until the micro switch open plus two extra turns.

Adjust the adjust screw (E) so it just touch the micro switch. Secure the screw with the nut (F).

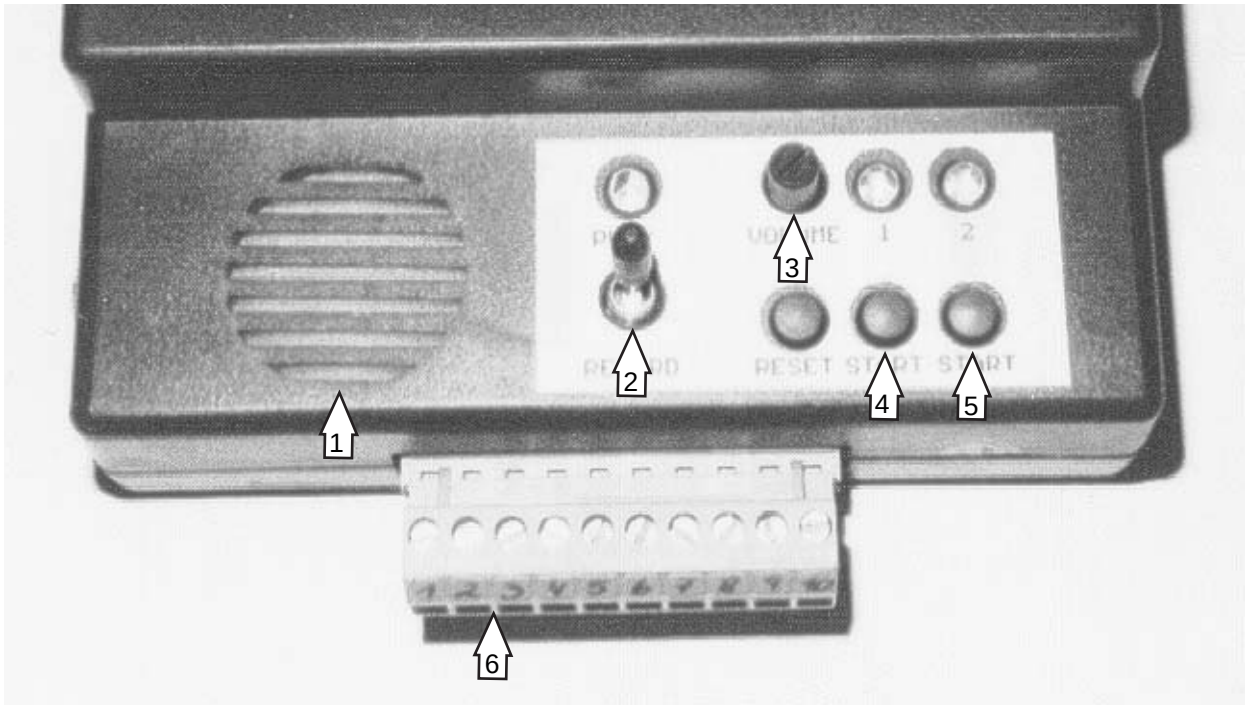
Check the function and adjust the weight necessary to activate the hang sensor if necessary.

Put an allen key through the 9 mm adjustment hole (G) into one of the slots in the adjustment nut (H).
To increase the weight, turn the drive shaft and door leaves clockwise.
To decrease the weight, turn the drive shaft and door leaves counter clockwise.

Disconnect the test buzzer.

Electrical connection according to connection diagram.

12.21 ROM-corder



1. Microphone
2. Selecting switch
3. Volume control
4. Start button message 1
5. Start button message 2
6. Terminal

Connection	Description
1	Power supply + 24V DC
2	Power supply - 24V DC
3	Start message 1 +
4	Start message 1 -
5	Start message 2 +
6	Start message 2 -
7, 8	Loud speaker 1 (8¾)
9, 10	Loud speaker 2 (8¾)

12.21.1 Recording message 1

1. Put the ”select switch (2)” in position RECORD.
2. Press and hold down ”start button message 1 (4)”.
3. Speak into the microphone (1) from a distance of approximately 100mm, and clearly state Your message. The message can be up to 60 seconds long.
4. Release ”start button message 1 (4)”.
5. To record message 2 use the same procedure as for message 1, but instead of pressing and holding down ”start button message 1 (4)” press and hold down ”start button message 2 (5)”

12.21.2 Play message 1

1. Put the ”select switch (2)” in position PLAY.
2. To check the recorded message 1, press ”start button message 1 (4)”.
3. For remote start of message 1 put a voltage between connection 3 and 4 on the terminal (6).

To check the recorded message 2, press ”start button message 2 (5)”.

For remote start of message 2 put a voltage between connection 5 and 6 on the terminal (6).

The volume of the played message can be adjusted with the ”volume control (3)”.

This unit has a battery back up. This means that a message can be recorded without having the unit connected to the power supply, but the recorded message can not be checked or remote started without connection to the power supply (connection 1 and 2 on the terminal).

13 Maintenance

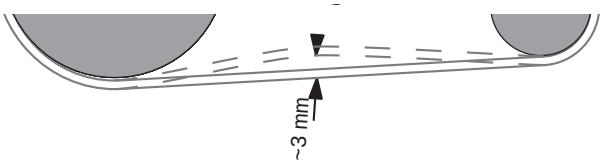
- Speed settings of the door according to "STI 04-014 Revolving doors - safety instructions"
- Handicap speed settings

If the door is equipped with brake-out kit, the function must be tested. Put grease on pins that hold door leaves.

If door are equipped with optional safety the function of these must be tested.

Drive unit and transmission

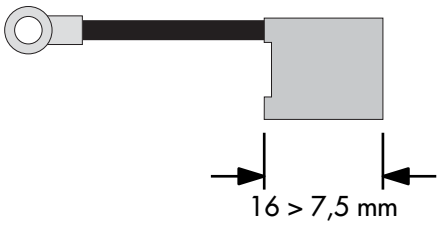
- Bolt connections, frame
- Carbon motor
- Belt tension
- Motor attachment
- No abnormal sound, motor
- No abnormal sound gearbox



- Check the adjustment of the drive belt, using the belt tightener tool (B) (part No. 248385).

The procedure for adjusting the belt is described in FI 009. When a force of app. 20N is applied to the belt, the deviation shall be approx. 3 mm.

- Check the cables.



- Check the commutator brushes. Minimum length 7.5 mm.
- Clean the commutator

Emergency stop, function

- Stop button 1
- Stop button 2

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