Last version of this manual
IP2159EN • 2025-09-25



Ditec DAB105

Technical Manual

Swing doors

(translation of the original instructions)

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Key



This symbol indicates instructions or notes regarding safety, to which special attention must be paid.



This symbol indicates useful information for the correct functioning of the product.

General safety precautions

ATTENTION! Important safety instructions.
Please follow these instructions carefully. Failure to observe the information given in this manual may lead to severe personal injury or damage to the equipment.
Keep these instructions for future reference.
This manual and those for any accessories can be downloaded from www.ditecautomations.com.

This installation manual is intended for qualified personnel only •Installation, electrical connections and adjustments must be performed by qualified personnel, in accordance with Good Working Methods and in compliance with the current regulations • Read the instructions carefully before installing the product. Wrong installation could be dangerous • Before installing the product, make sure it is in perfect condition • The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger • Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard • Make sure that the temperature range indicated in the technical specifications is compatible with the installation site • Before installing the motorization device, make sure that the existing structure, as well as all the support and guide elements, are up to standards in terms of strength and stability. Verify the stability and smooth mobility of the guided part, and make sure that no risks of fall or derailment subsist. Make all the necessary structural modifications to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas • The motorization device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorized, or for any deformation during use • The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account the applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorized door or gate • The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorized door or gate. Display the signs required by law to identify hazardous areas. Each installation must bear a visible indication of the data identifying the motorized door or gate • Before connecting the power supply, make sure the plate data correspond to those of the mains power supply. An omnipolar disconnection switch with a contact opening distance of at least 3mm must be fitted on the mains supply. Check that there is an adequate residual current circuit breaker and a suitable overcurrent cutout upstream of the electrical installation in accordance with Good Working Methods and with the laws in force • When requested, connect the motorized door or gate to an effective earthing system that complies with the current safety standards • Before commissioning the installation to the end user, make sure that the automation is adequately adjusted in order to satisfy all the functional and safety requirements, and that all the command, safety, and manual release devices operate correctly • During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts • The protection cover of the operator must be removed by qualified personnel only.
The electronic parts must be handled using earthed antistatic conductive arms. The manufacturer of the motorization declines all responsibility if component parts not compatible with safe and correct operation are fitted • Only use original spare parts for repairing or replacing products • The installer must supply all information concerning the automatic, manual and emergency operation of the motorized door or gate, and must provide the user with the operation and safety instructions.

Declaration of incorporation of partly completed machinery

(Directive 2006/42/EC, Annex II-B)

We:
ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declare under our sole responsibility that the type of equipment with name:
Ditec DAB105 swing door operator

Comply with the following directives and their amendments:

2006/42/EC	Machinery Directive (MD), particularly the following essential health and safety requirements: 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.2.3, 1.2.4.2, 1.2.6, 1.3.9, 1.4.3, 1.7.2, 1.7.3, 1.7.4, 1.7.4.1, 1.7.4.2.
2014/30/EU	Electromagnetic Compatibility Directive (EMCD)
2011/65/EU	Restriction of hazardous substances (RoHS 2)
2015/863/EU	Restriction of hazardous substances (RoHS 2 Amendment)

Harmonised European standards that have been applied:

EN 60335-1:2012+A11:2014	EN ISO 13849 -1:2015	EN 61000 -6-2:2005
EN 60335-2-103:2015	EN 16005:2012/AC:2015	EN 61000 -6-3:2007+A1:2011

Other standards or technical specifications that have been applied:
IEC 60335-1:2010, IEC 60335-2-103:2011, EN 1634-1:2008

EC type examination or certificate issued by a notified or competent body concerning the equipment:
RISE SC0250-14

The manufacturing process ensures the compliance of the equipment with the technical file.

The equipment must not be used until the final installed automatic entrance system has been declared in compliance with the machine directive 2006/42/EC.

Responsible for technical file:

Matteo Fino
Ditec S.p.A.
Largo U. Boccioni, 1
21040 Origgio (VA)
Italy

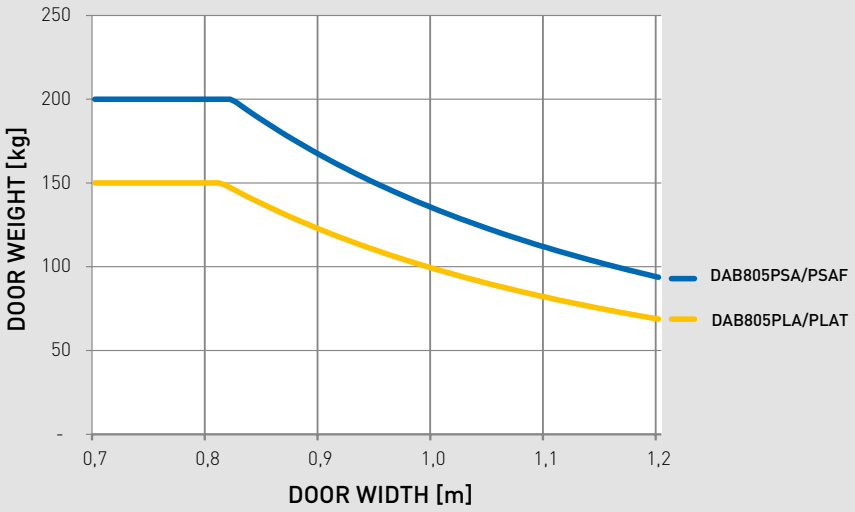
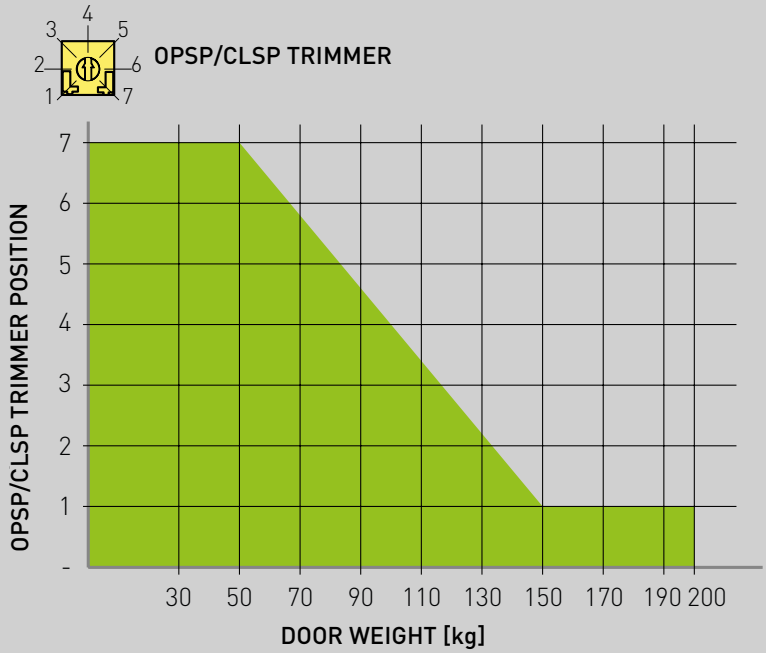
Signed for and on behalf of ASSA ABLOY Entrance Systems AB by:

Place	Date	Signature	Position
Origgio	2025-09-25	Matteo Fino	CEO Ditec

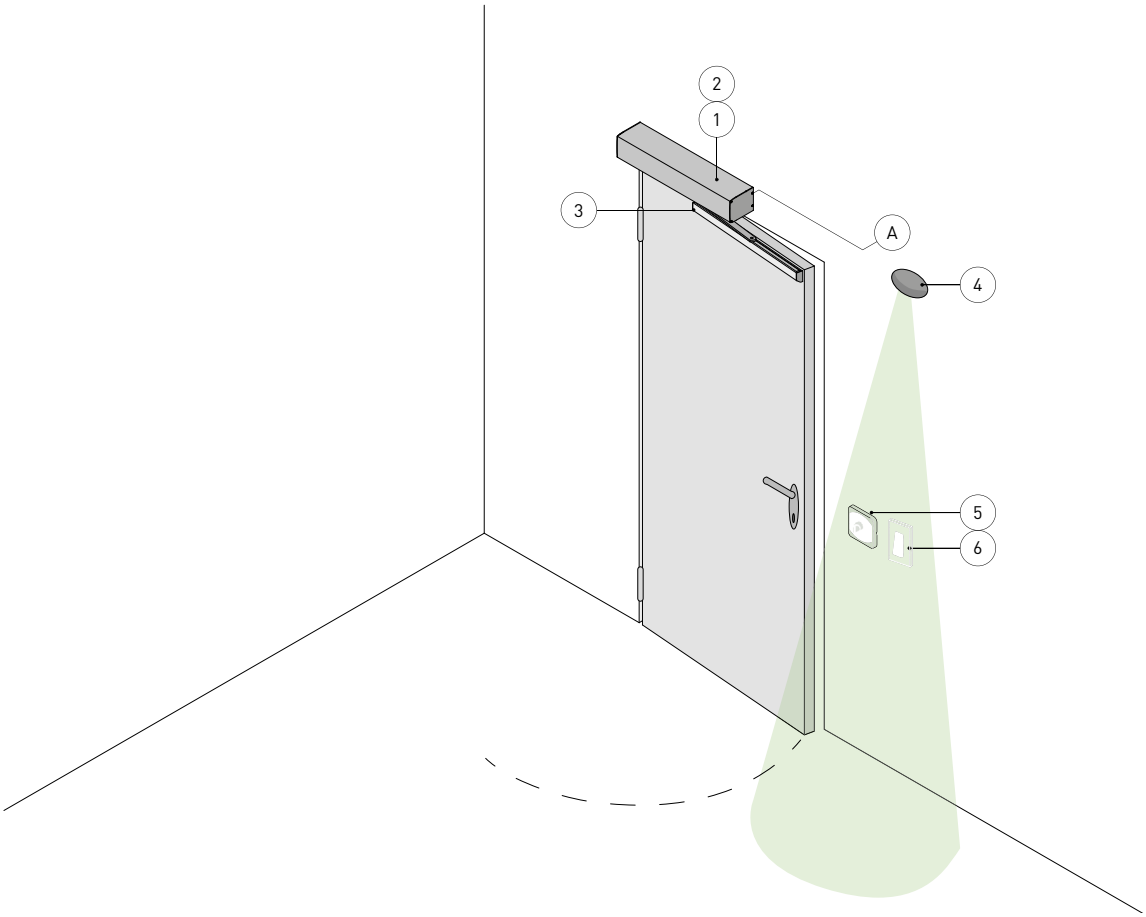


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1. Technical specifications

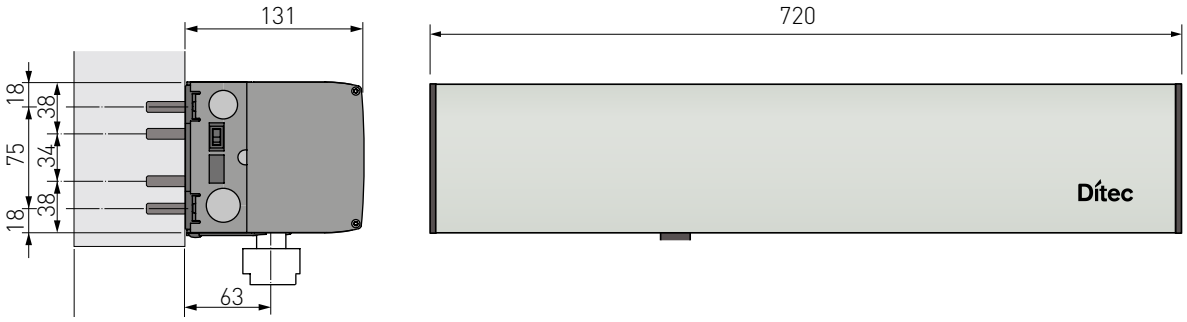
	Ditec DAB105
Power	100-240V~ +10/-15% 50/60 Hz
Consumption	max. 75W
Power supply for accessories	24V ⎓ 400 mA max.
Power supply fuse F1-F2	2xT6.3A 250 V
Opening time	min. 3s / 0°-80° max. 6s / 0°-80°
Closing time	min. 3s / 90°-10° max. 6s / 90°-10°
Door wing opening angle	DAB805PSA / DAB805PSAF / DAB805PLA/ DAB808PLAT : min 80°, max 110°
Max. inertia (J / kg²) Inertia J = $\frac{\text{door weight x [door width]}^2}{3}$ **DAB805PSA/PSAF**: 45kg m² **DAB805PLA/PLAT**: 33 kg m²	
	
Type of operation	Motor opening Spring-plus-motor closure
Fire barriers	Applied using the arm DAB805PSAF , rif EN 1154, size 4
Maximum wing weight (see inertia graph)	150 kg DAB805PLA/PLAT 200 kg DAB805PSA
Door wing width	700 ÷ 1200 mm (DAB805PLA); 550-1200 mm (DAB805PSA -DAB805PSAF)
Minimum number of manoeuvres in AVERAGE conditions of use	1,000,000 cycles
Temperature	min. -20°C max. +45°C
Degree of protection	IP20 (FOR INTERNAL USE ONLY)

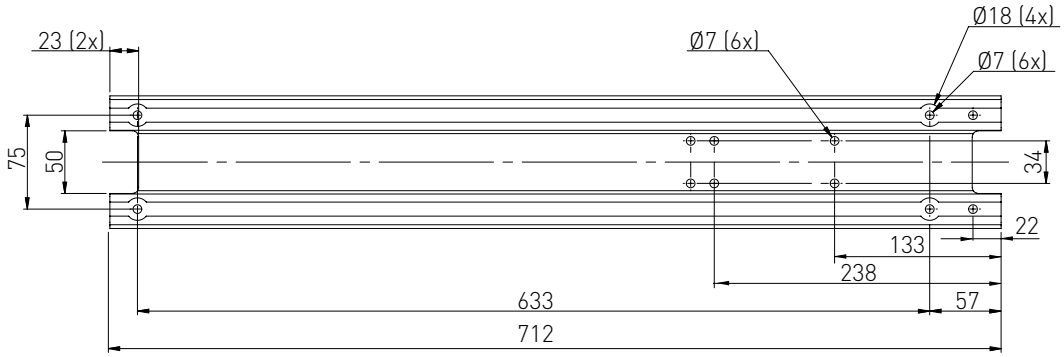
2. Standard installation

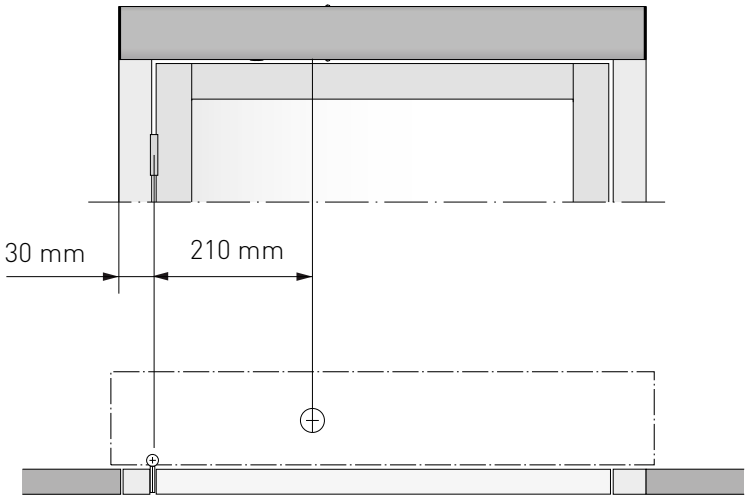


Ref.	Code	Description
1	**Ditec DAB105**	Electro-mechanical actuator
2		Control panel
3	**DAB805PSA-PSAF** **DAB805PLA** **DAB805PLAT** **DAB805PLAB**	Articulated movement arm (DAB805PSAF for applications on fire barriers) Sliding movement arm Movement arm with three levers Sliding movement arm (break-out/anti-panic)
4		Opening sensor
5	**COM400MHB** **COM400MKB**	Function selector switch
6		Command button
A		Connect the power supply to a type-approved omnipolar switch, with a contact opening distance of at least 3 mm (not supplied). Connection to the mains must be via an independent channel, separate from the connections to the control and safety devices.

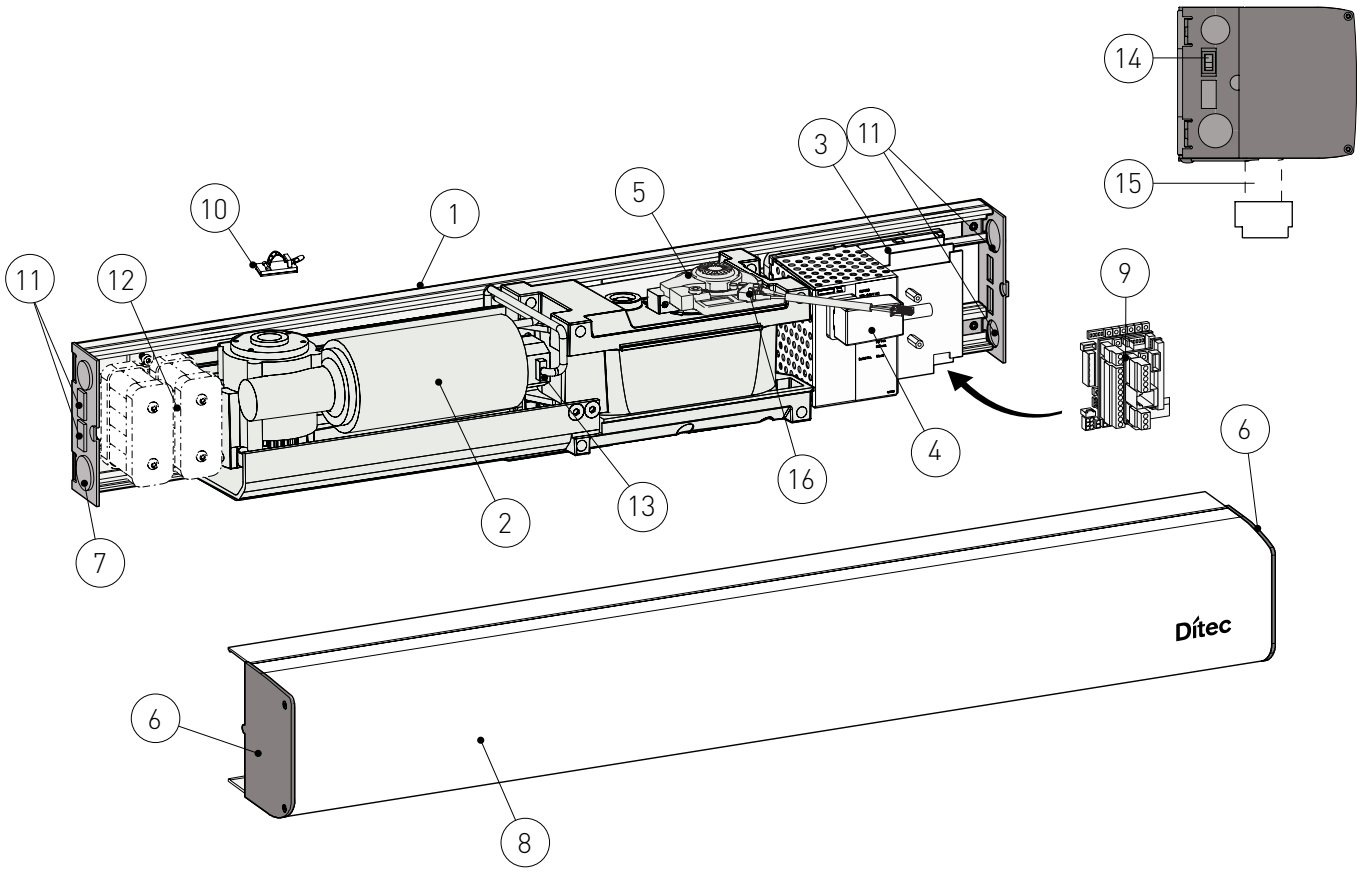
3. Dimensions

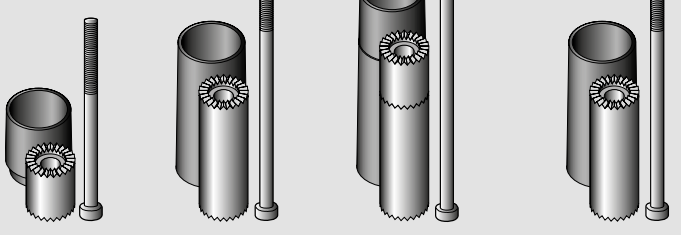






4. Main components



Ref.	Code	Description
1		Base plate
2		Gearmotor
3	**DAB105CU**	Control panel
4		Power
5		End stop
6		Upper head
7		Lower head
8		Casing
9	**DAB905ESE** **DAB905ESA**	Safety and pulse extension card (optional) Extension card for safety functions (optional)
10		Cable fastener
11		Cable transit slits
12	**DAB905BAT**	Battery kit
13		Encoder
14		ON/OFF/HOLD OPEN switch
15	**DAB805SE2** **DAB805SE5** **DAB805SE7** **DAB805SE5F**	Shaft extension kit 20mm 50mm 70mm 50mm  DAB805SE2 DAB805SE5 DAB808SE7 DAB805SE5F
16		Lock kick microswitch.

5. Installation

The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.
Unless otherwise specified, all measurements are expressed in mm.

5.1 Preliminary checks

Check the stability and weight of the door wing. Make sure it moves smoothly, without any friction (reinforce the frame if necessary).
Any "door closers" must be removed or completely annulled.

- Once you have made the slits for the cables to pass through, check the edges and smooth them if they are sharp, as they could damage the cables.
- To improve the degree of safety and the protection against vandalism, install the automation access inside the building if possible.
- Make sure the ambient temperature falls within the parameters indicated in the "Technical specifications" paragraph.
- Before you begin the installation, make sure the mains power supply is not connected.
- Check that the door wings and wall are adequately reinforced in the fixing points.
- Unpack the automation and make sure both it and its components are in good condition.
- Check the door wings have been built with suitable materials, and that there are no sharp corners. Any protruding parts must not create potential hazards. Sharp glass edges must not come into contact with other glass parts. You are advised to use tempered or stratified glass.
- Make sure there is no risk of getting trapped between the moving parts and the adjacent fixed ones when the door is opening. The following distances are considered sufficiently safe to avoid trapping the body parts indicated:
  - for the fingers: more than 25mm or less than 8mm
  - for the head: more than 200mm
  - for the feet: more than 50mm
  - for the whole body: more than 500mm

Fixing requisites

Material	Minimum requisites for the wall profile
Steel	5mm (reinforce with threaded rivets if the thickness is less than this)
Aluminium	6mm (reinforce with threaded rivets if the thickness is less than this)
Reinforced concrete	min. 50mm from the lower side
Wood	50mm
Brick	Anchor plug min. M6X85 UPAT PSEA B10/25 - min. 50mm from the lower side

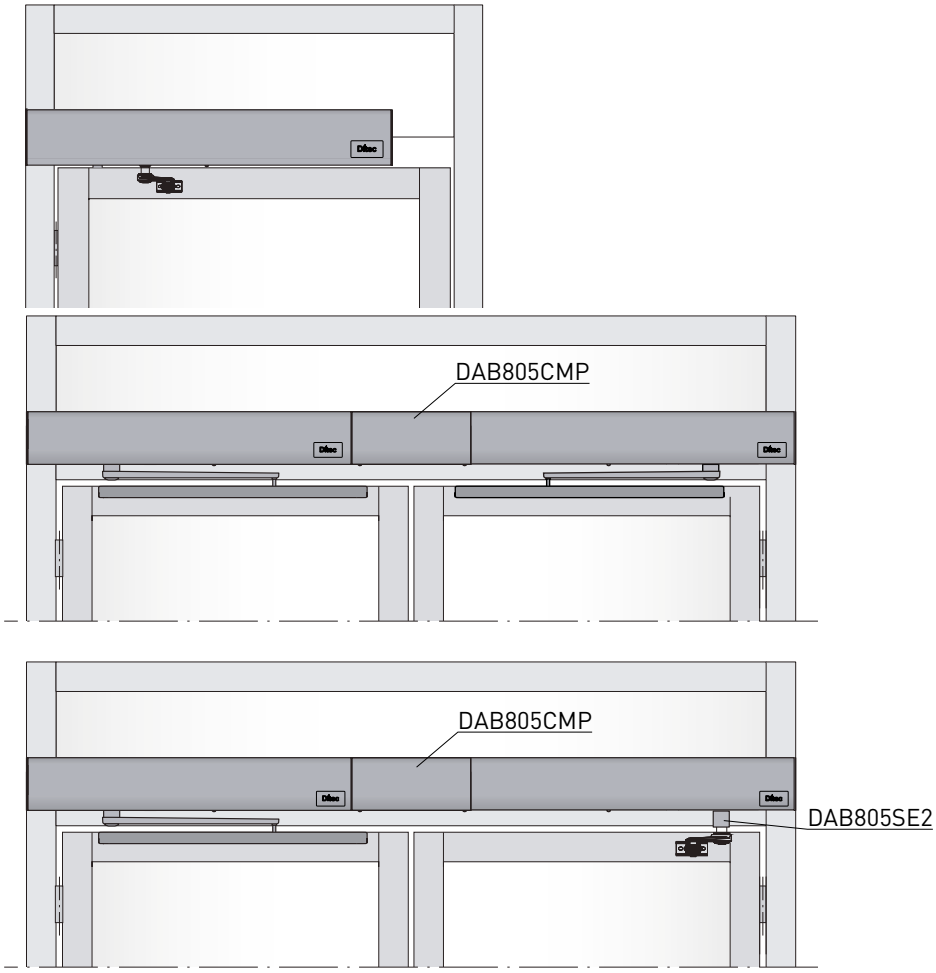
5.2 General information

The DAB105 automation for swing doors can use articulated or sliding arms to open the doors.
The door is closed by a spring system, combined with the force of the motor.
The spring is pre-tensioned at 210°.

Do not alter the pre-tensioning of the spring unless it is strictly necessary.

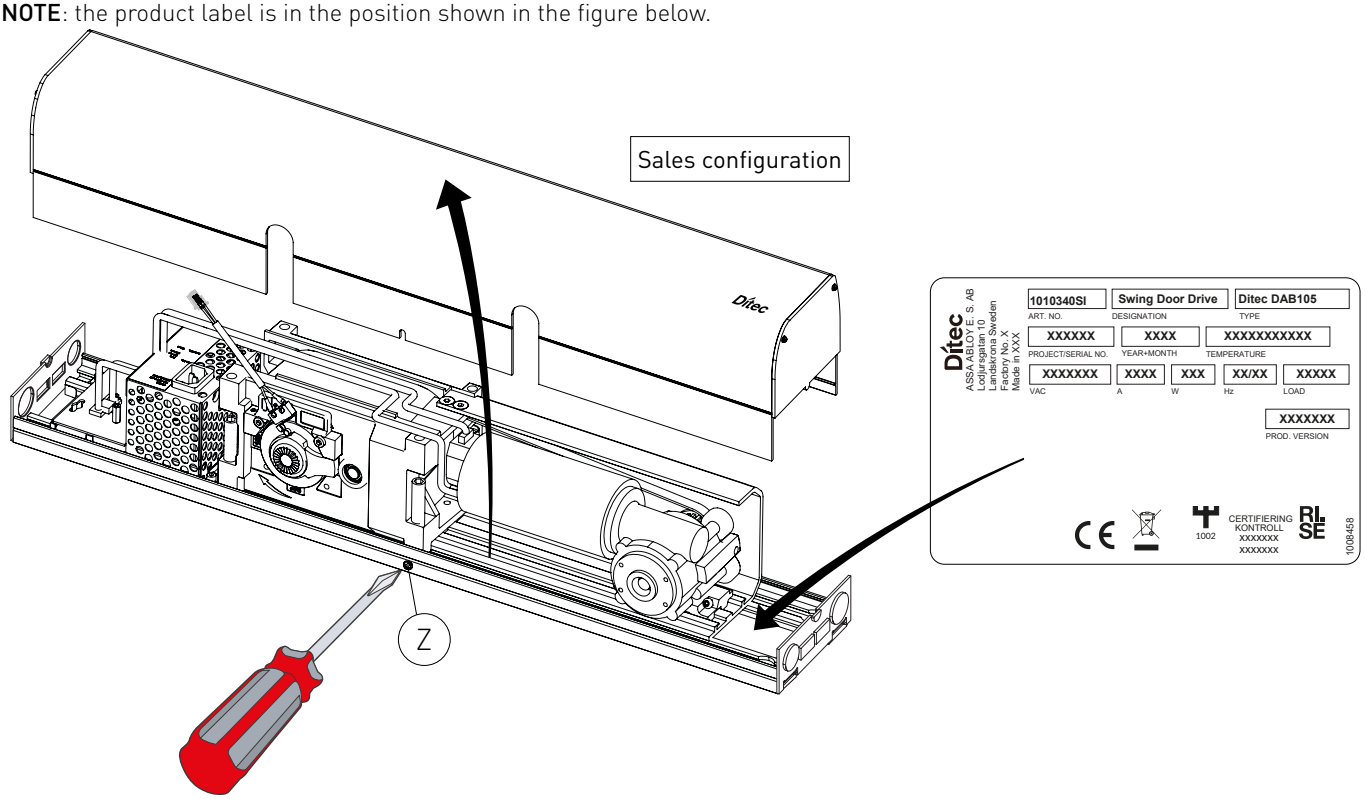
5.3 Installation examples

The DAB105 automation for swing doors can be installed on one swing door, on two swing doors, or on two swing doors with a double exit.



5.4 Removing the cover

Remove the casing [8] by loosening the screw [Z].
NOTE: the product label is in the position shown in the figure below.

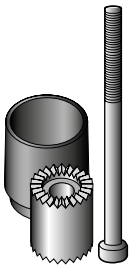


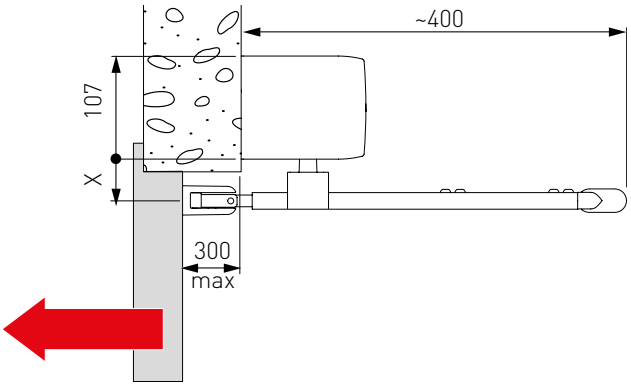
6. Automation with articulated arm.

6.a DAS805PSA

Use the articulated arm for doors that open outwards (as seen from the automation side).

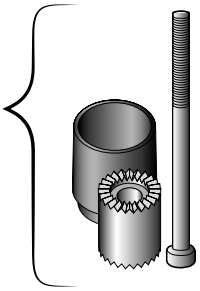
Shaft extension	X
/	30
DAB805SE2	50
DAB805SE5	80
DAB805SE7	100

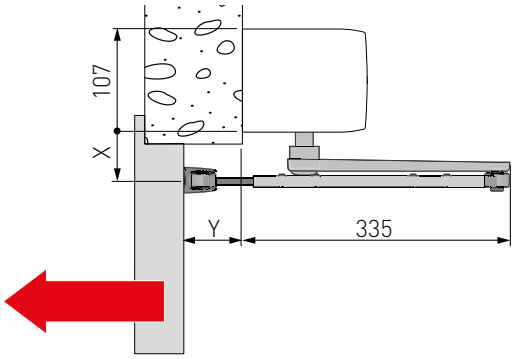




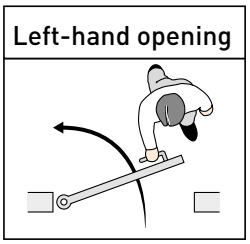
6.b DAB805PSAF (for applications on fire doors)

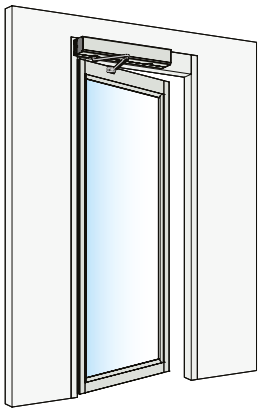
Shaft extension	X
/	48
DAB805SE5F	98
Arm expansion	**Y**
/	0-100
DAB805TFL	100-215
DAB805TFS DAB805TKJ	215-305



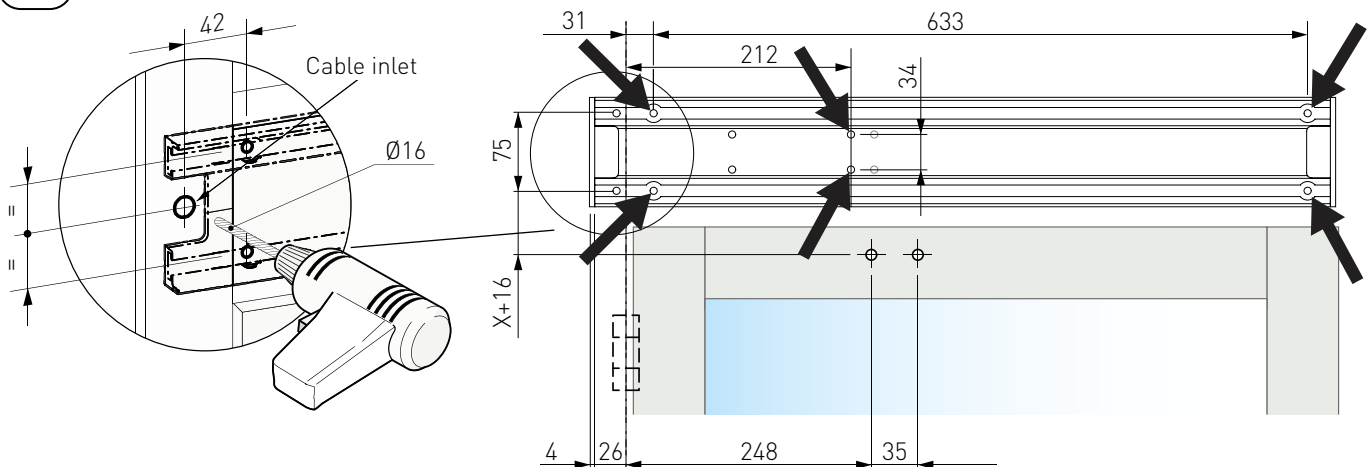


Automation preparation and fastening (Left-hand opening)



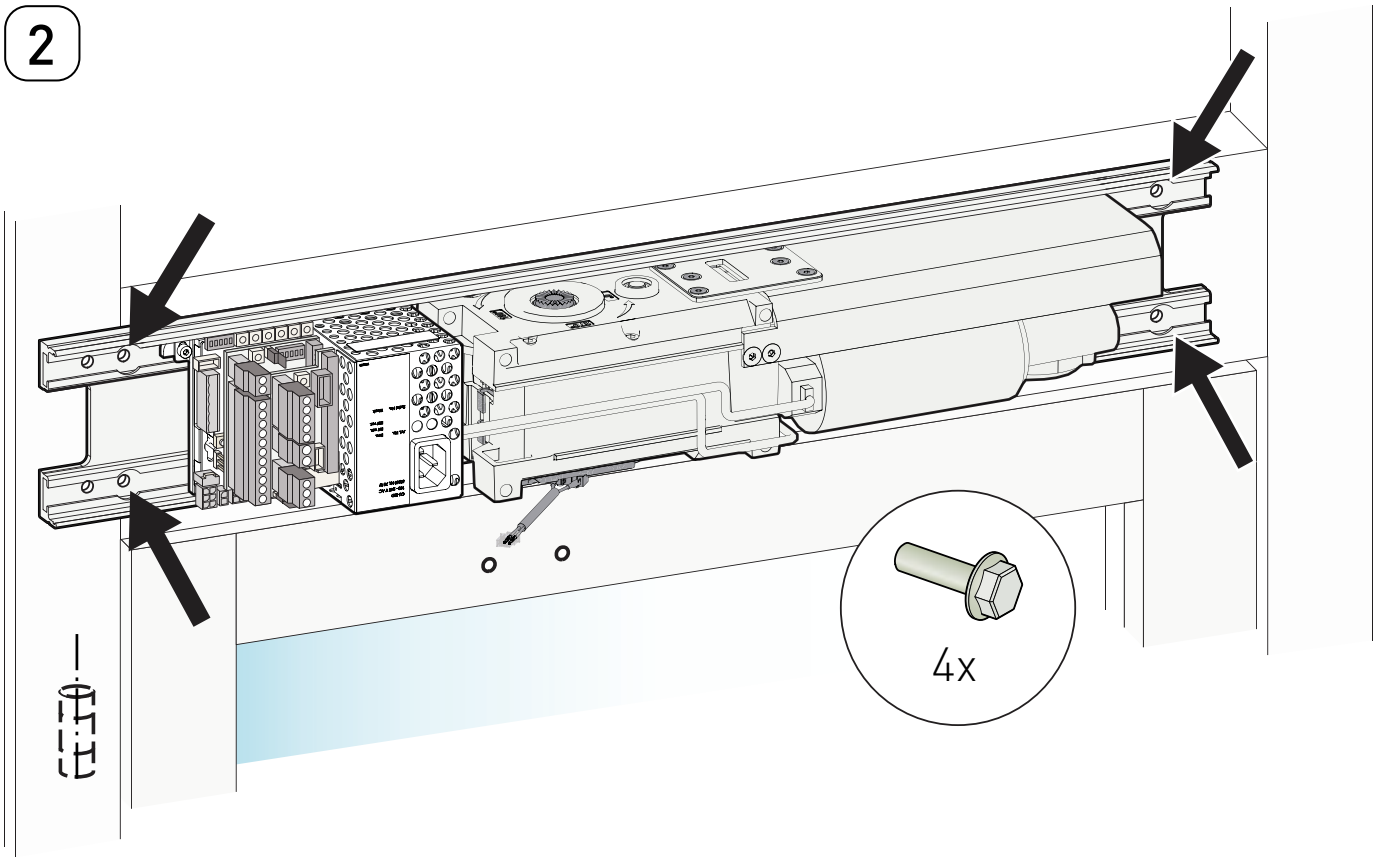


1

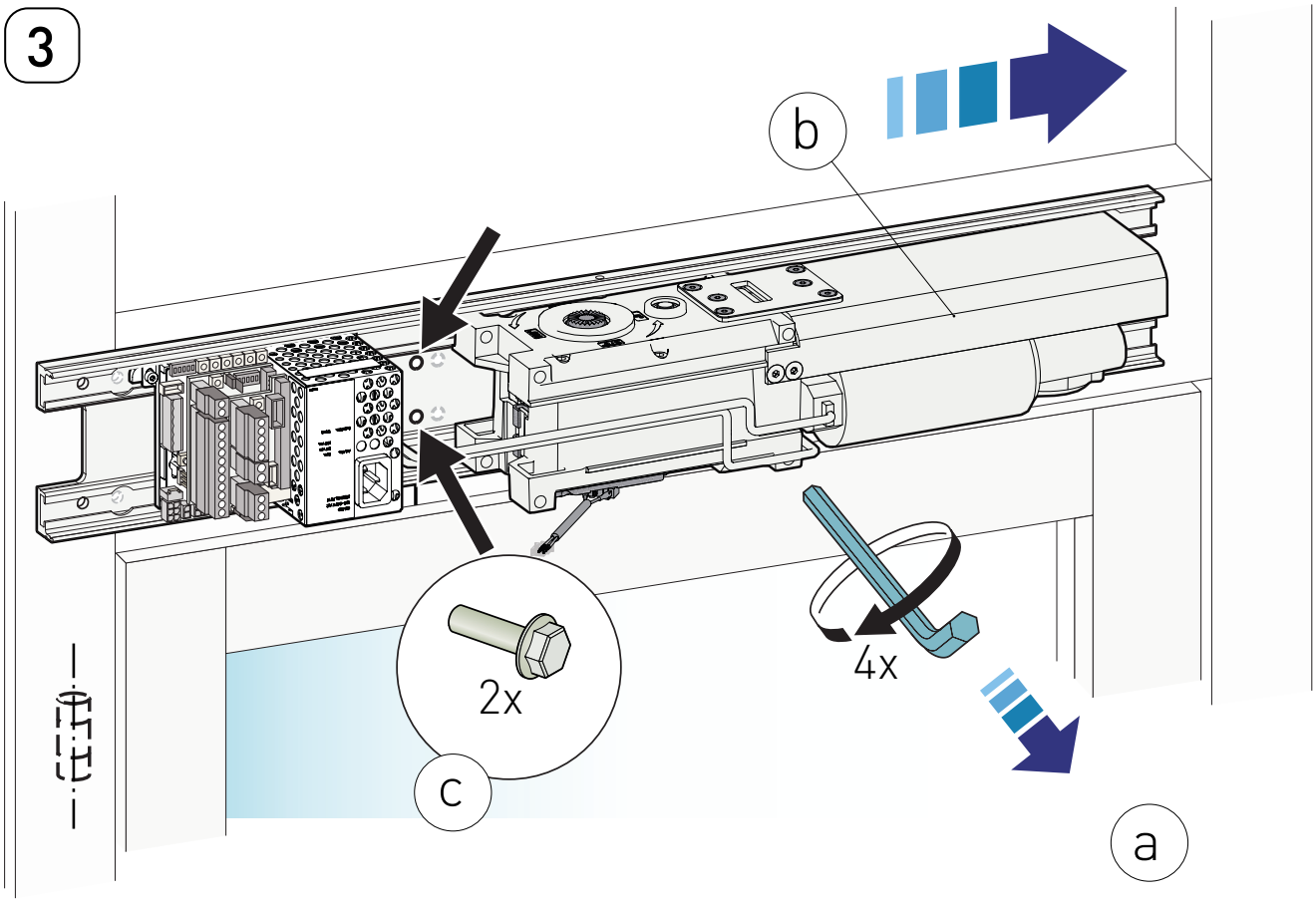


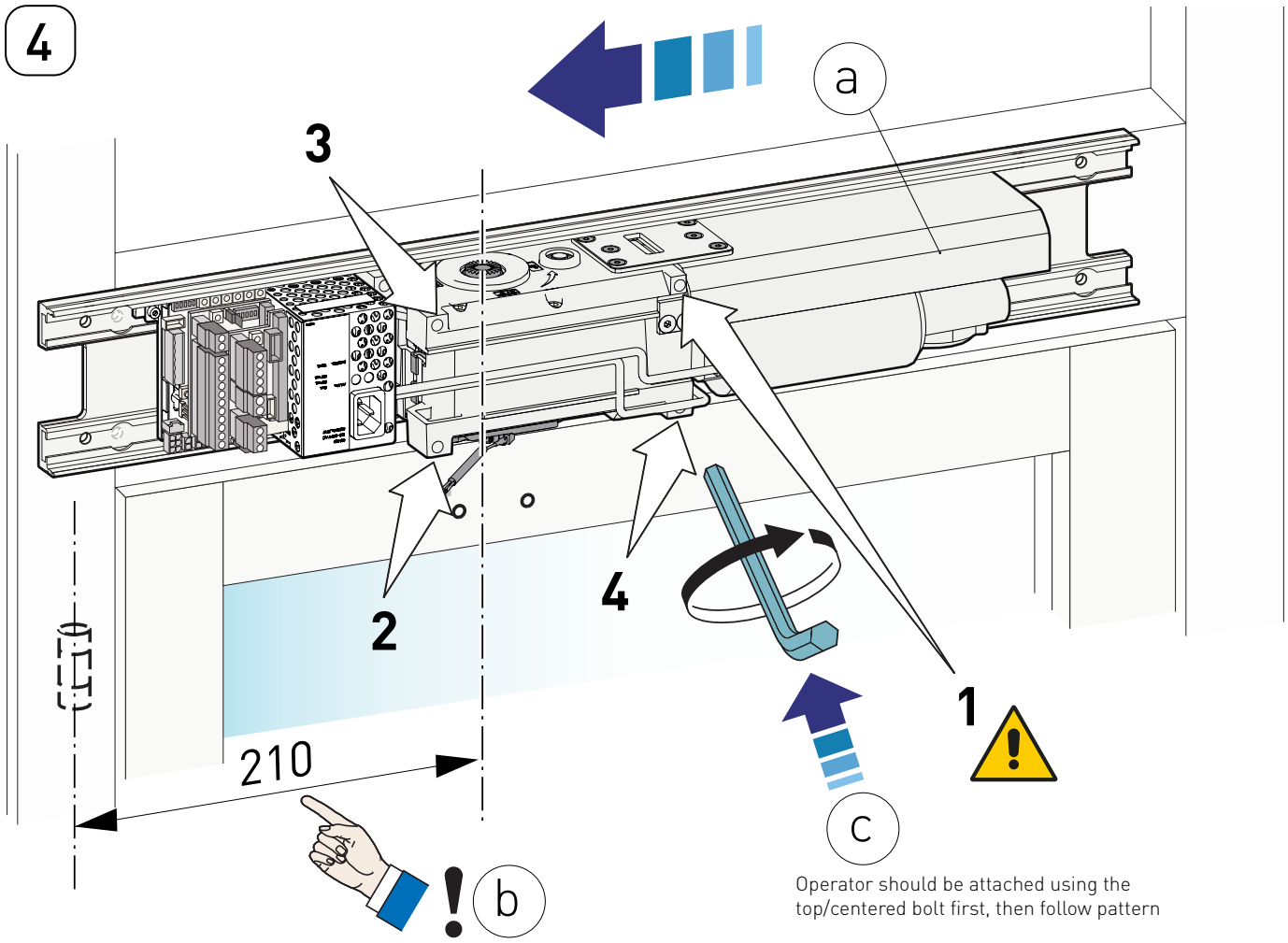
- Prepare the set-up for fixing the automation to the wall, respecting the measurements shown in the figures above (with reference to the hinge axis).
- Drill a hole in the door wing, in line with the fixing for the articulated arm.
- If necessary, use the DAB805SE2/SE5/SE7 extensions to increase the X measurement between the automation and the arm fixing points.

2

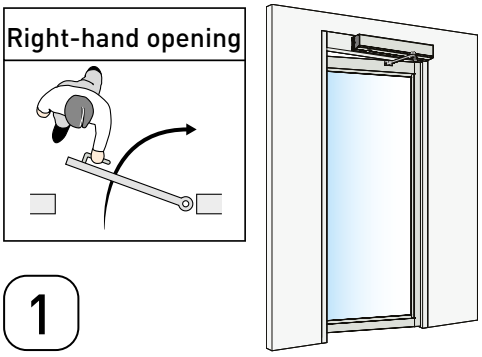


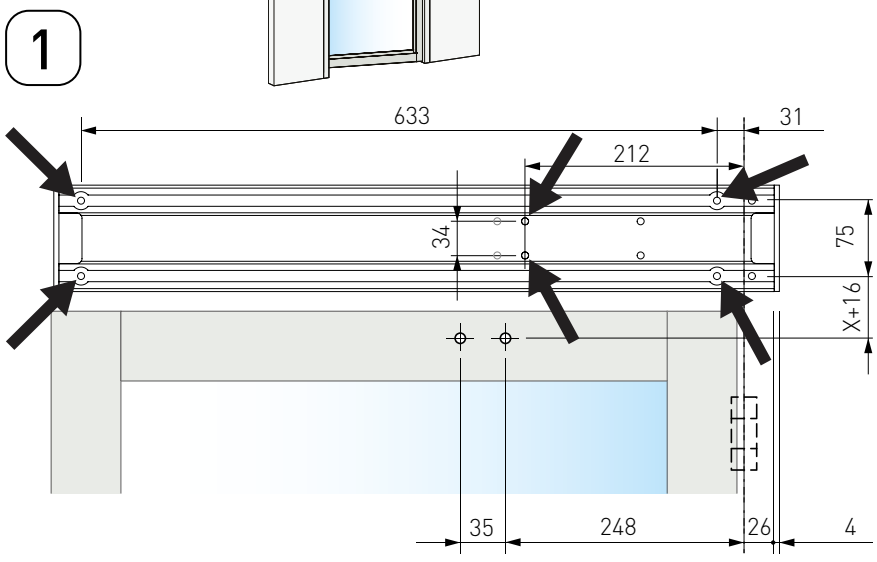
3





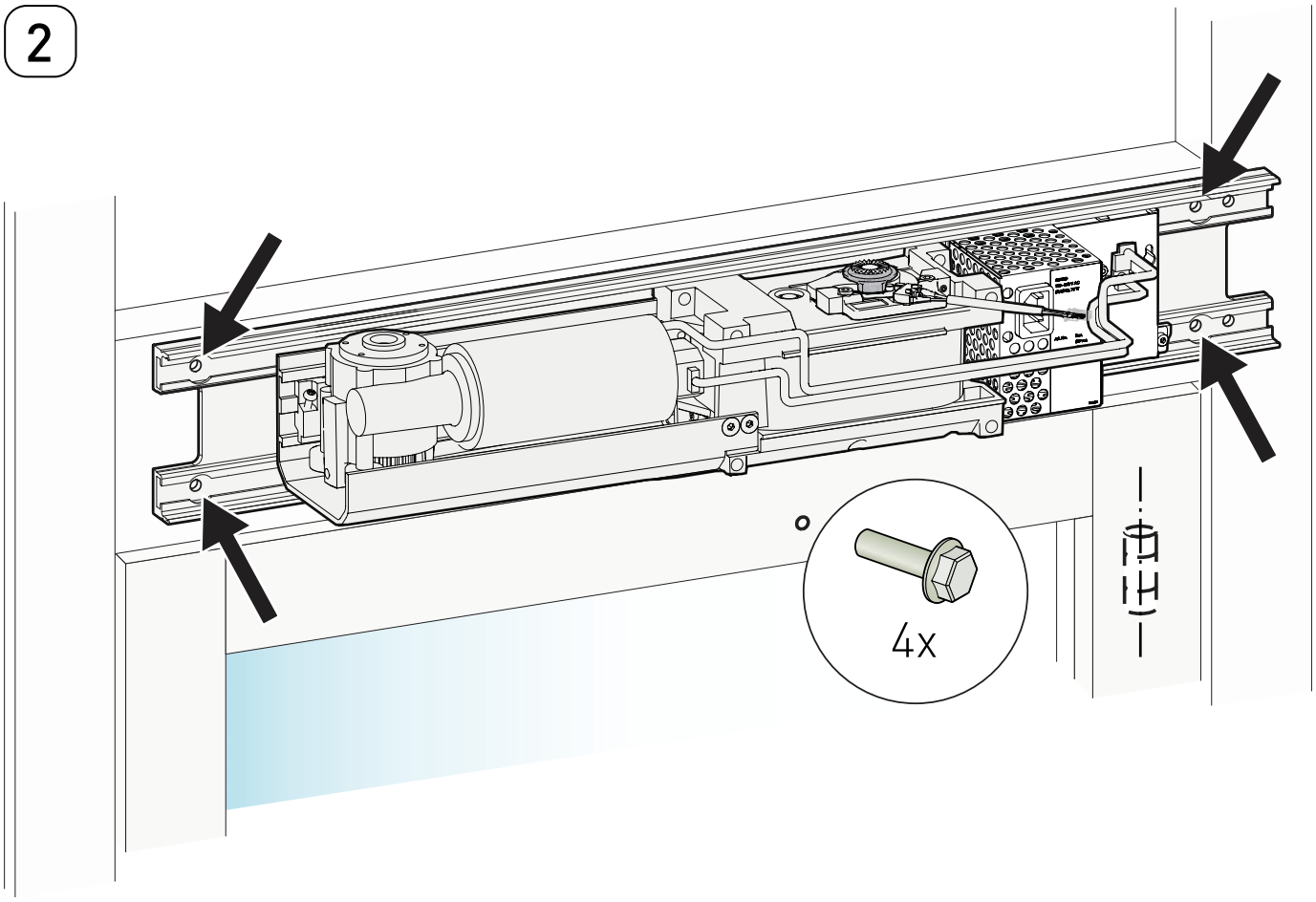
Automation preparation and fastening (right-hand opening)



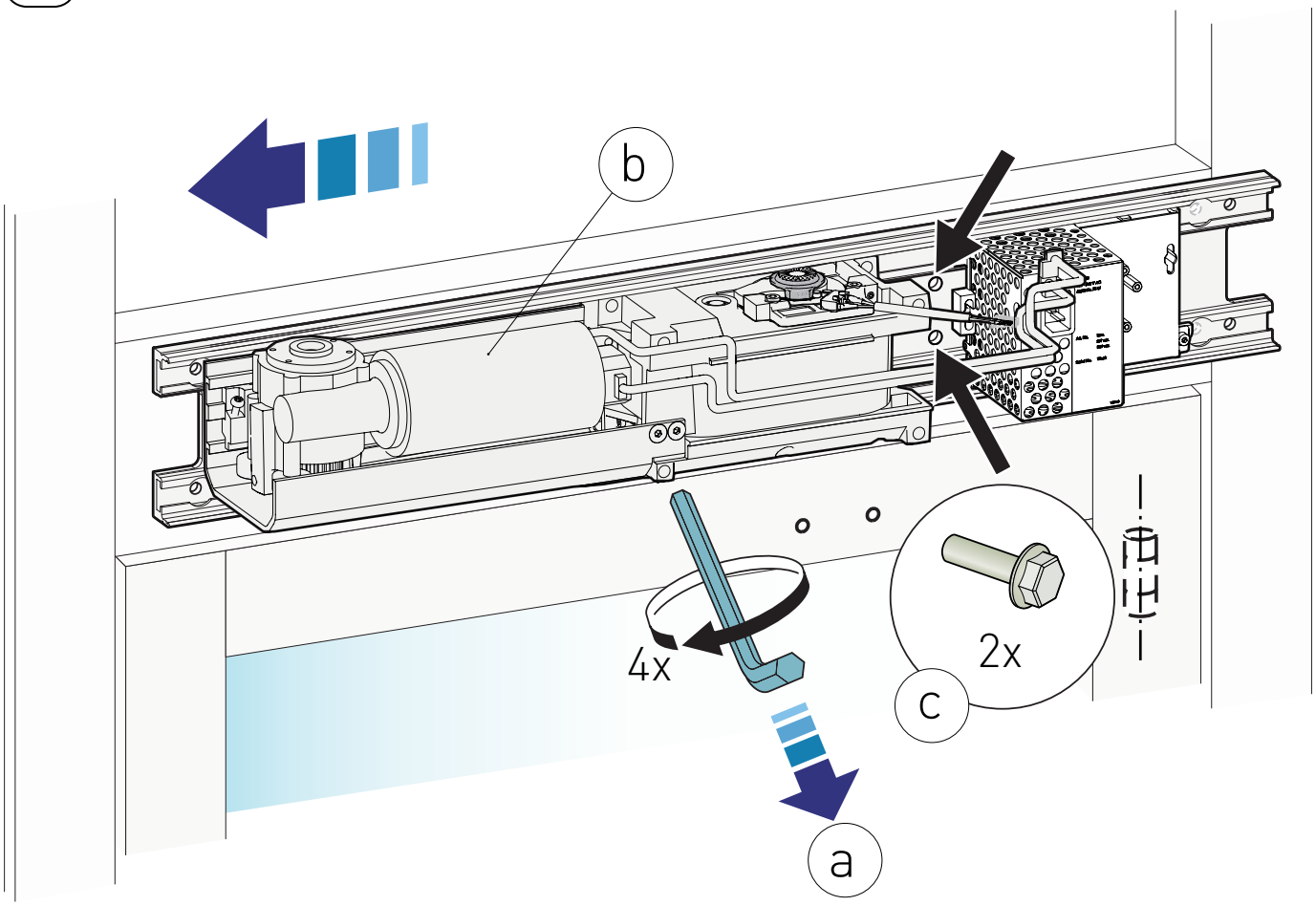


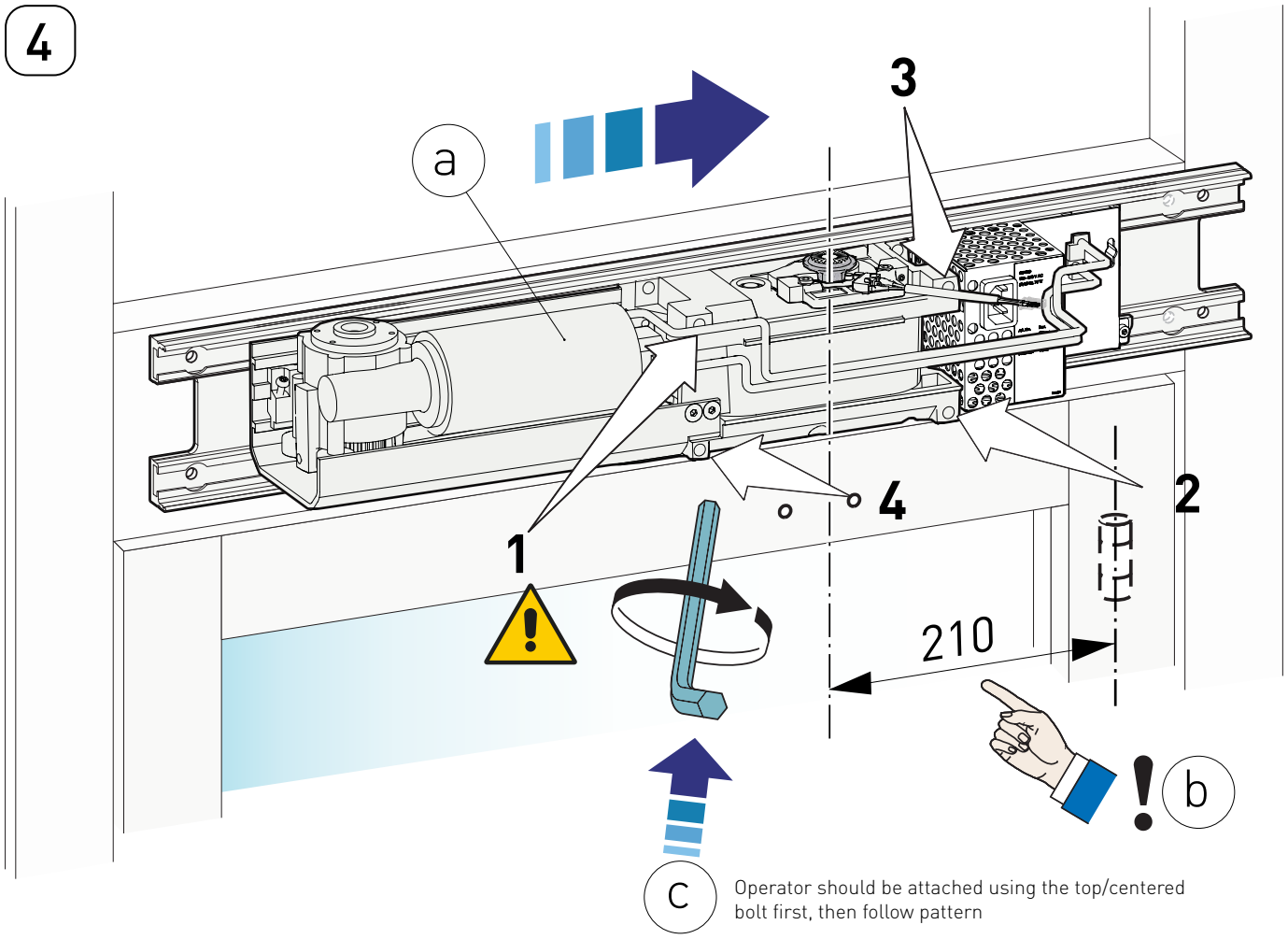
- Prepare the set-up for fixing the automation to the wall, respecting the measurements shown in the figures above (with reference to the hinge axis).
- Drill a hole in the door wing, in line with the fixing for the articulated arm.
- If necessary, use the DAB805SE2/SE5/SE7 extensions to increase the X measurement between the automation and the arm fixing points

2

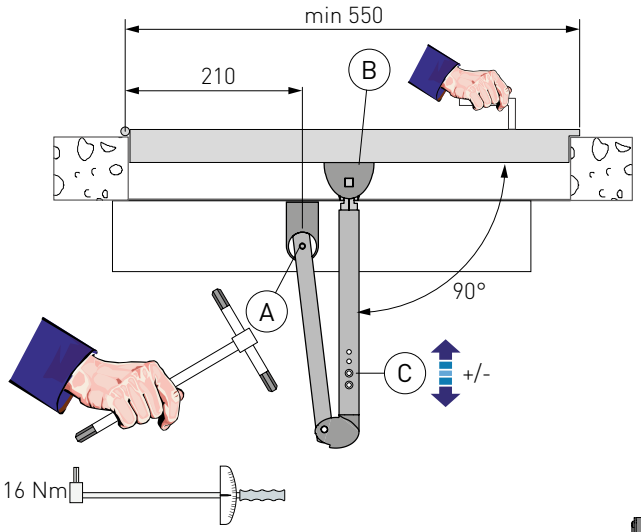


3

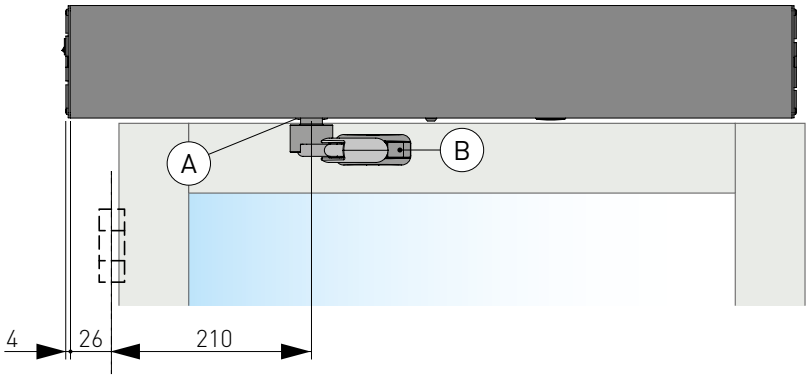




6.a.1 Fixing the arm DAB805PSA

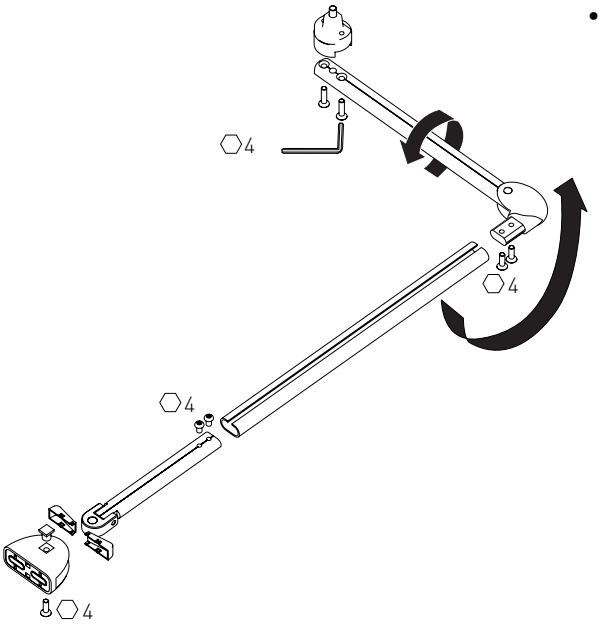


NOTE: open the door slightly and tighten the screw of the arm support seat [A] at 16 Nm (as shown in the figure).
If a torque wrench is not available, use a hexagon wrench of the type shown in the figure, gripping it on the long side and A tightening very firmly.



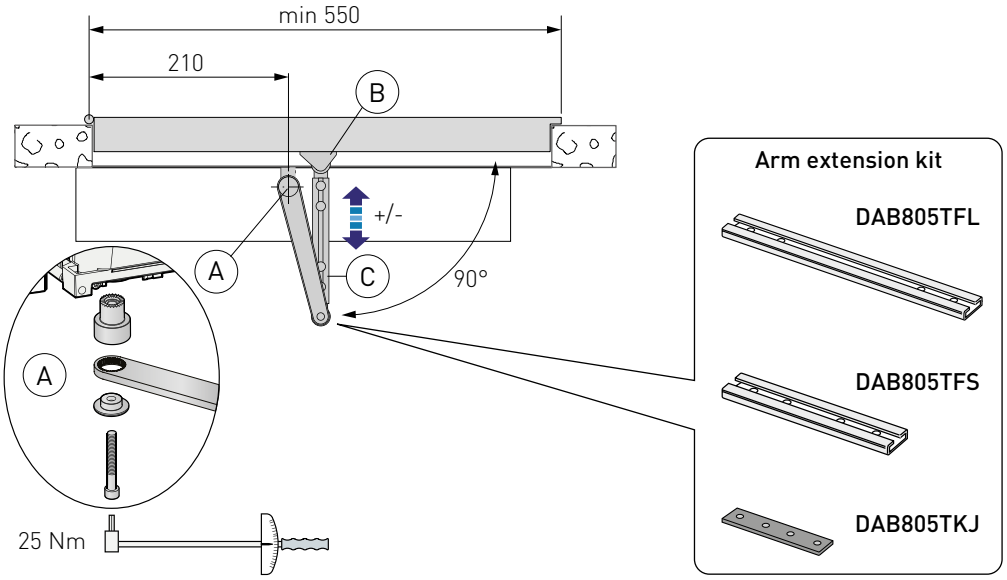
- Move the door manually to check it opens and closes correctly, without any friction.
- With the door closed, fix the arm to the arm support [A] on the automation.
- Fix the bracket [B] to the door wing, forming an angle of 90°. Lengthen or shorten the arm [C] if necessary.

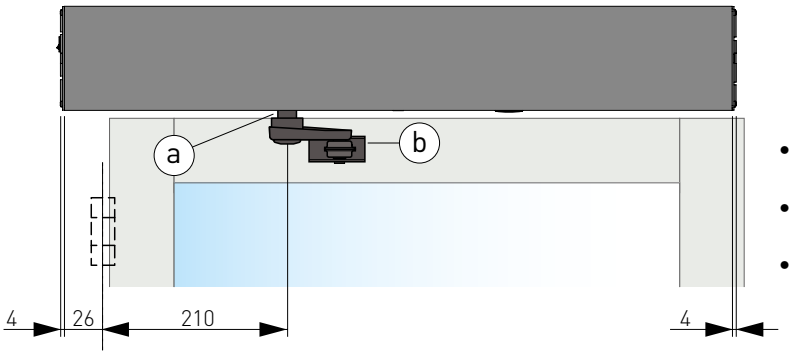
6.a.2 Assembling the left-hand articulated arm



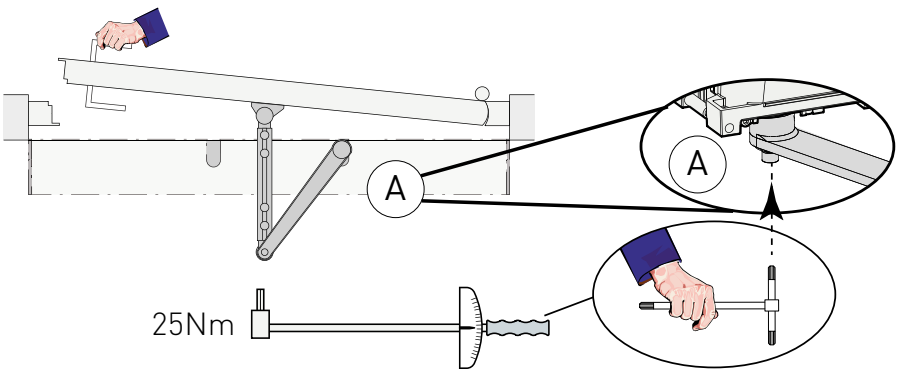
- In the case of automations with left-hand opening, you must invert the assembly of the articulated arm as shown in the figure.

6.b.1 Fixing the arm DAB805PSAF





- Move the door manually to check it opens and closes correctly, without any friction.
- With the door closed, fix the arm to the arm support [A] on the automation.
- Fix the bracket [B] to the door wing, forming an angle of 90°. If necessary, lengthen (using the arm lengthening kit) or shorten the arm [C].

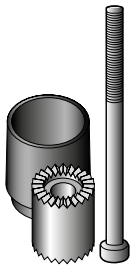


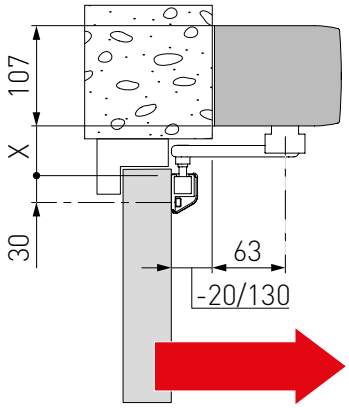
NOTE: open the door slightly and tighten the screw of the arm support seat [A] at 25Nm (as shown in the figure).
If a torque wrench is not available, use a hexagon wrench of the type shown in the figure, gripping it on the long side and tightening very firmly.

7. Automation with sliding arm DAB805PLA

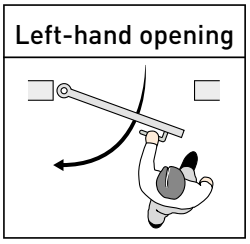
Use the sliding arm for doors that open inwards (as seen from the automation side).

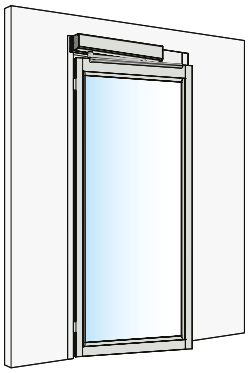
Shaft extension	X
/	50
DAB805SE2	70
DAB805SE5	100
DAB805SE7	120



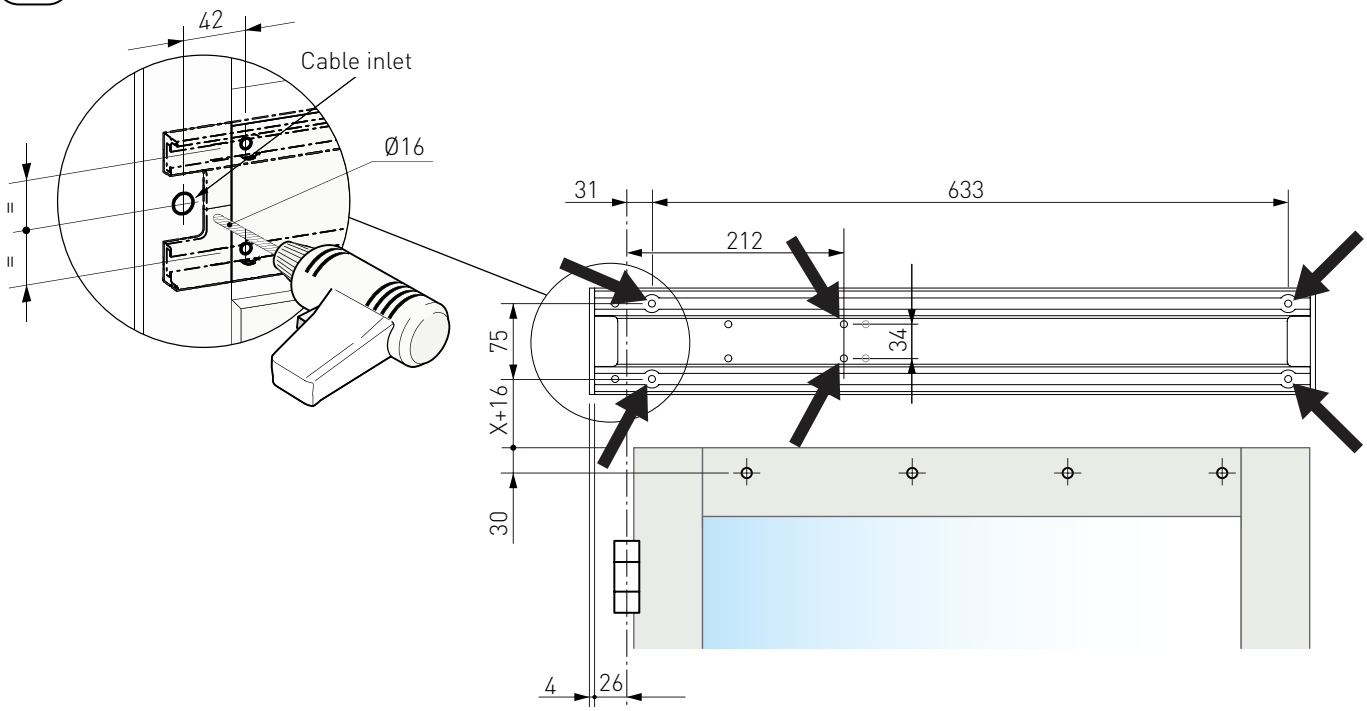


Automation preparation and fastening (left-hand opening)



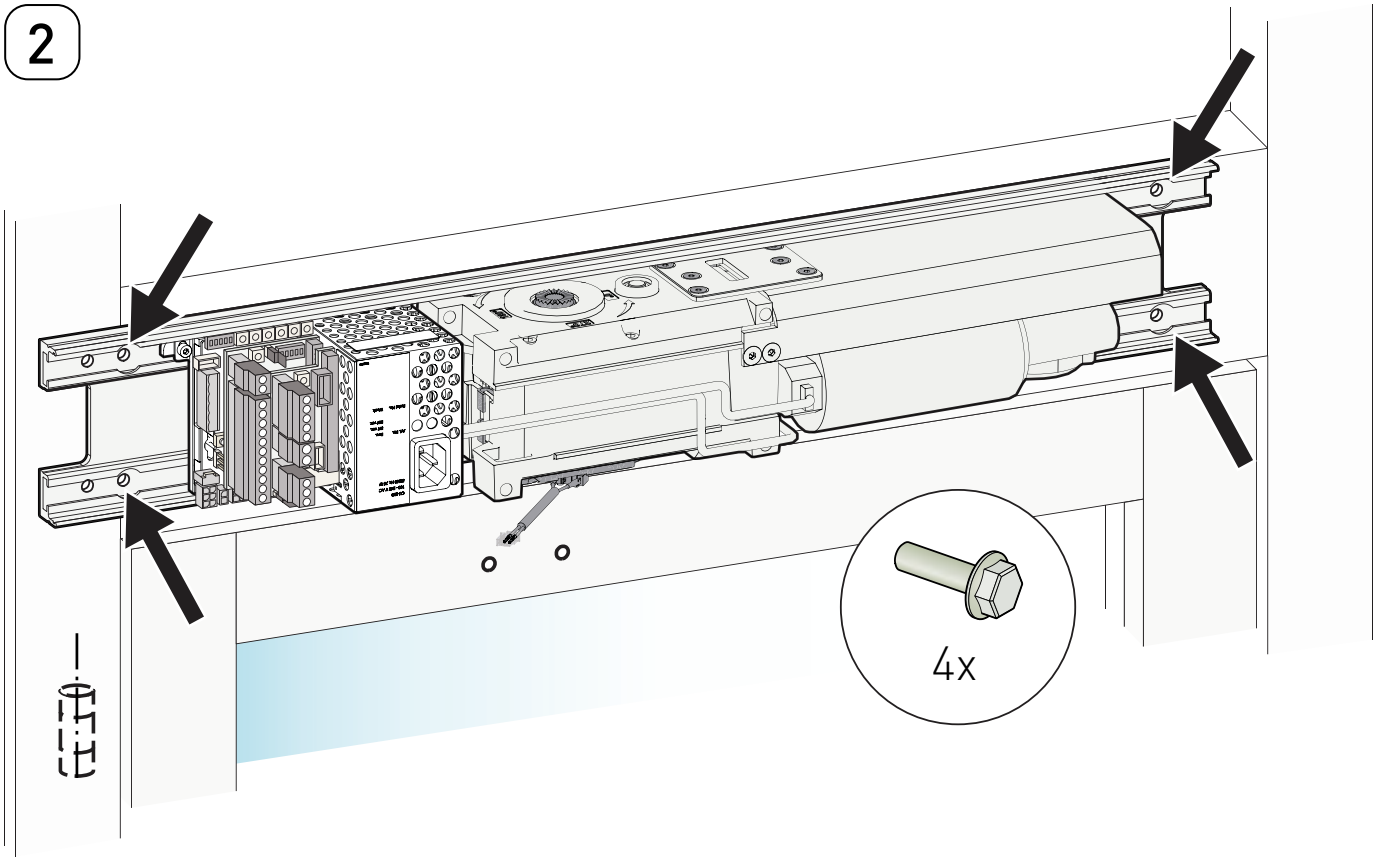


1

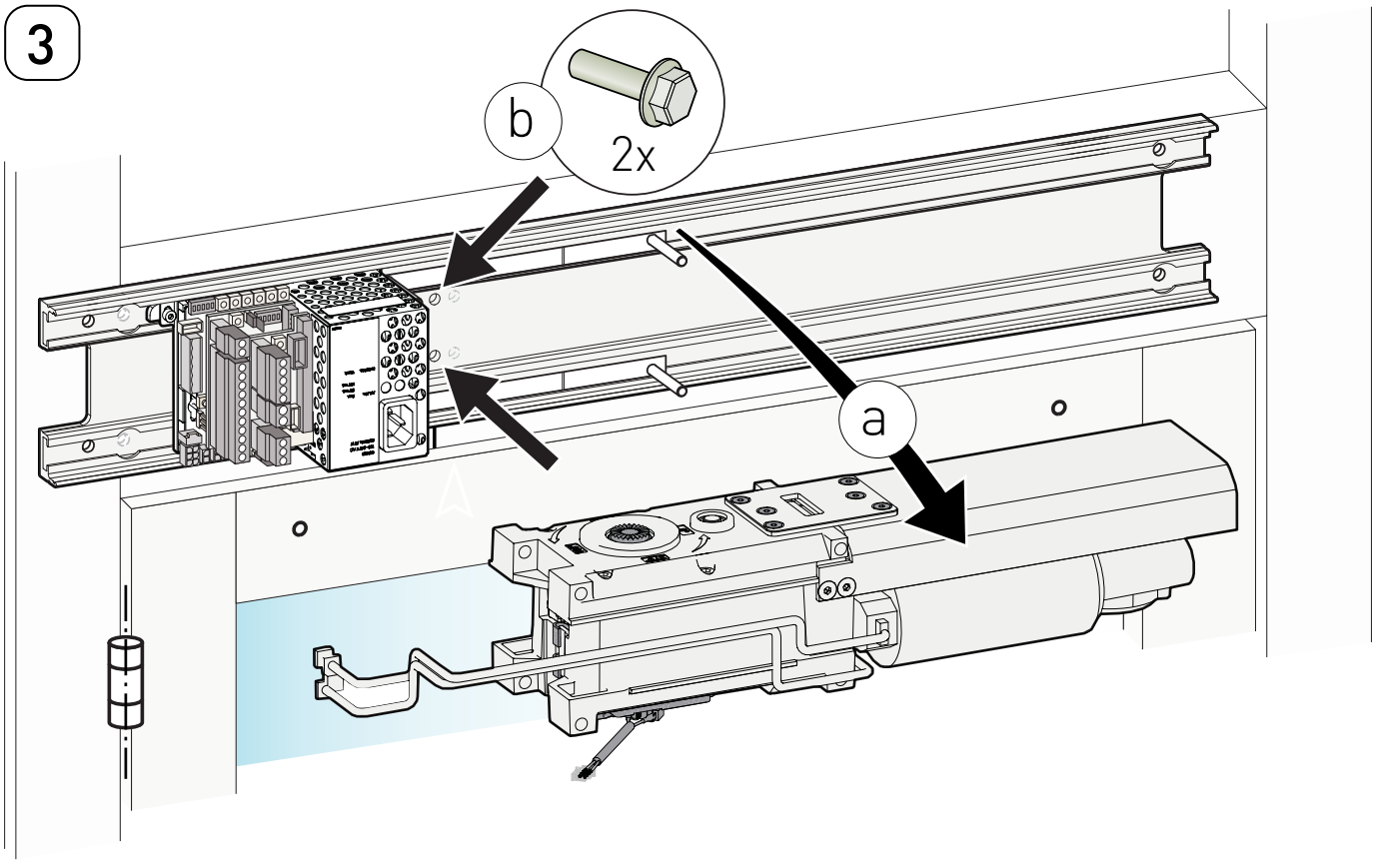


- Prepare the set-up for fixing the automation to the wall, respecting the measurements shown in the figures above (with reference to the hinge axis).
- Drill a hole in the door wing, in line with the fixing for the sliding arm.
- If necessary, use the DAB805SE2/SE5/SE7 extensions to increase the X measurement between the automation and the arm fixing points.

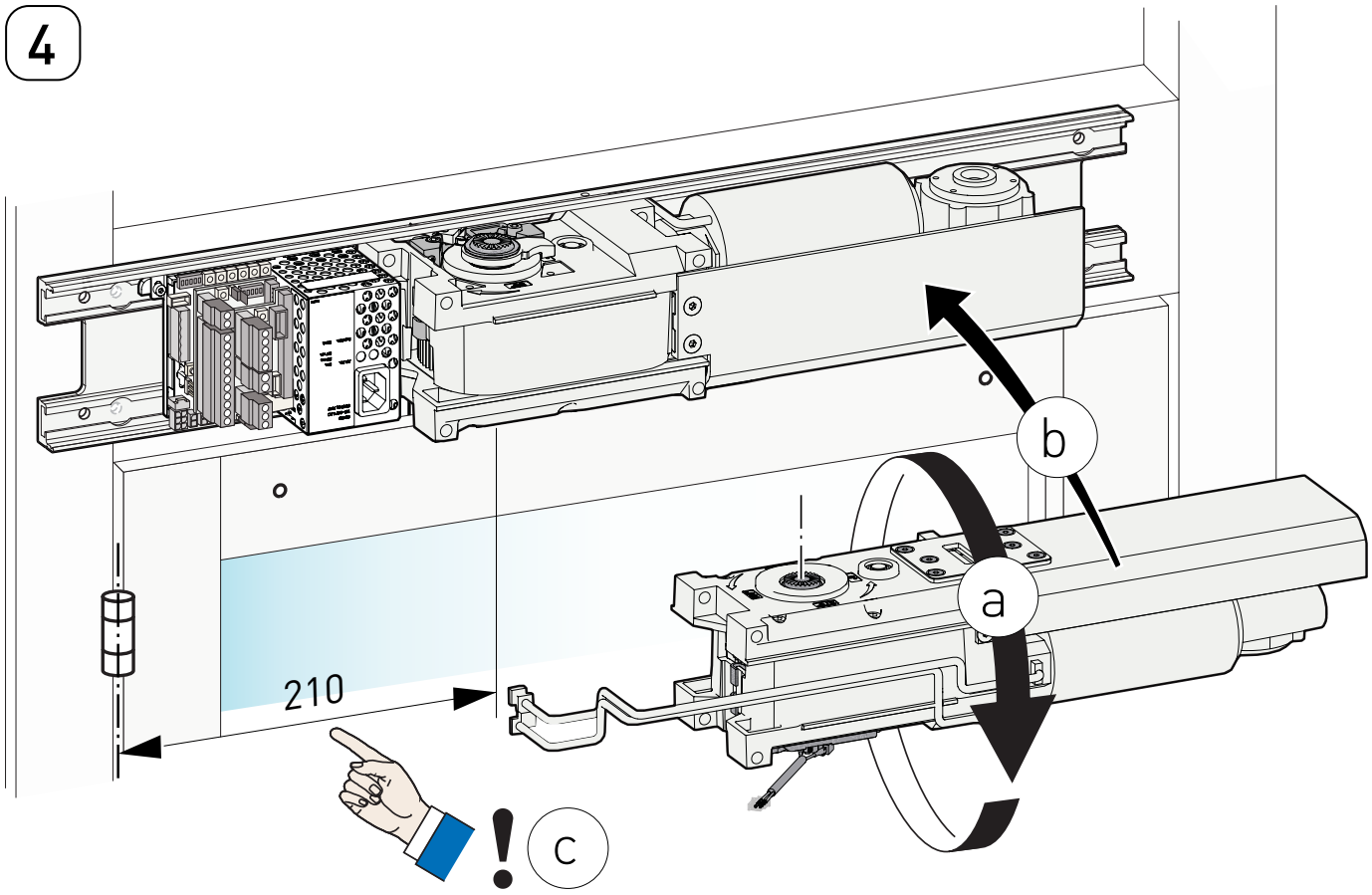
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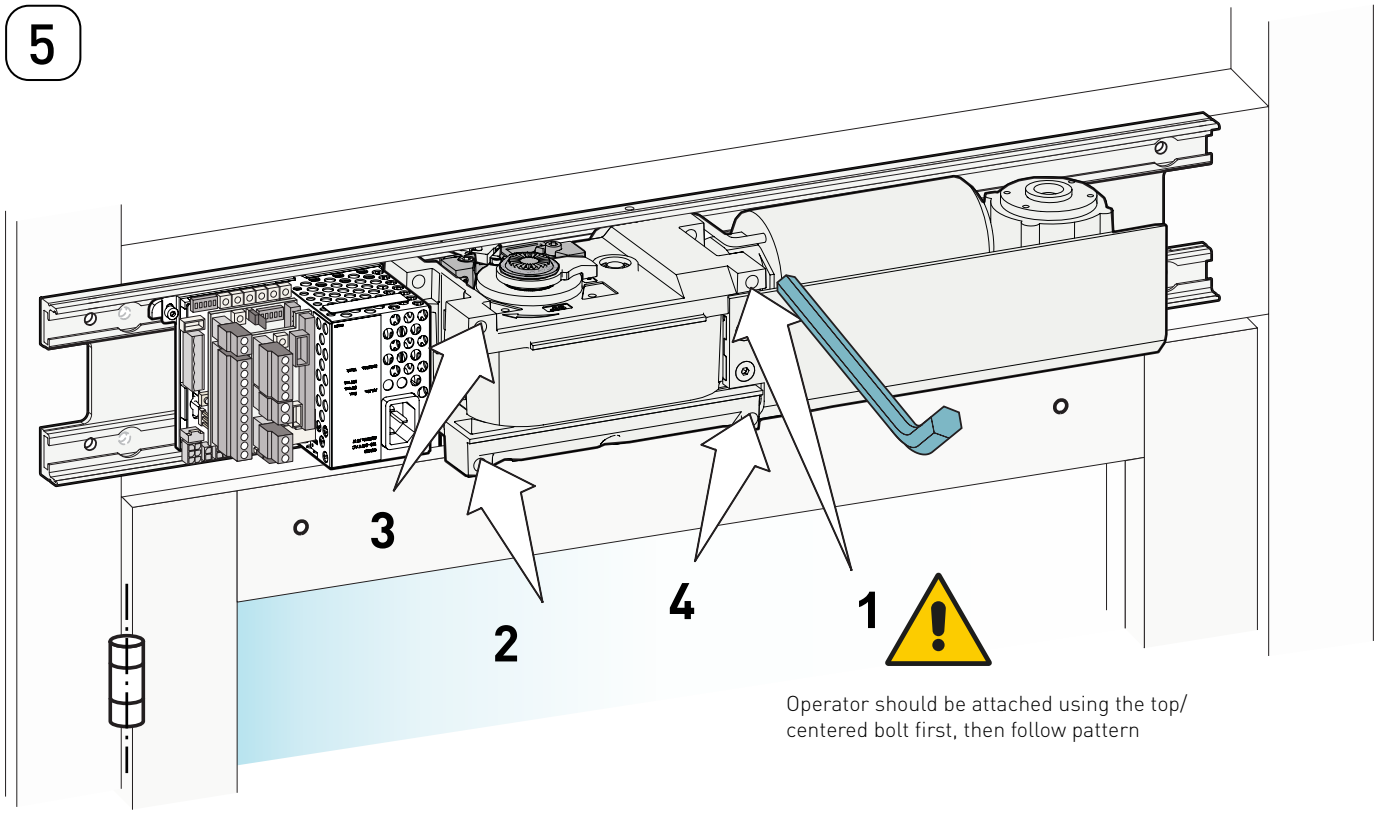
3



4

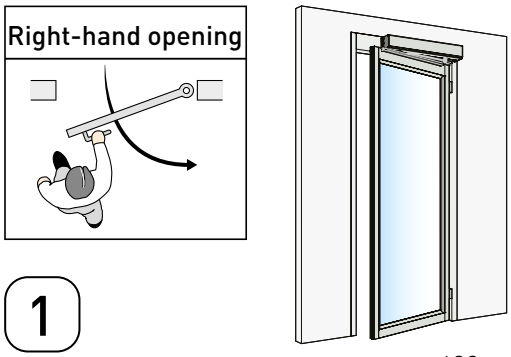


5

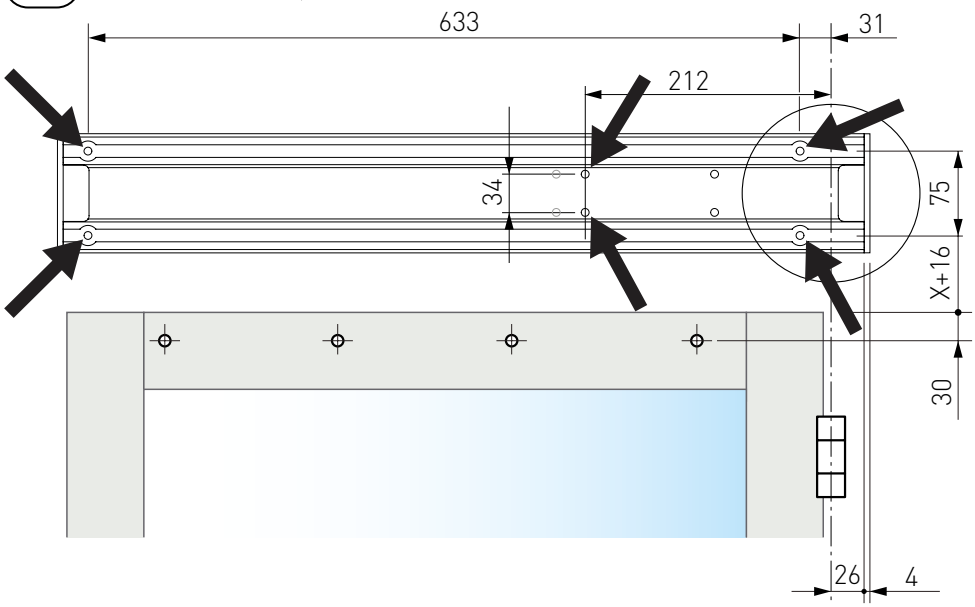


Operator should be attached using the top/ centered bolt first, then follow pattern

Automation preparation and fastening (right-hand opening)

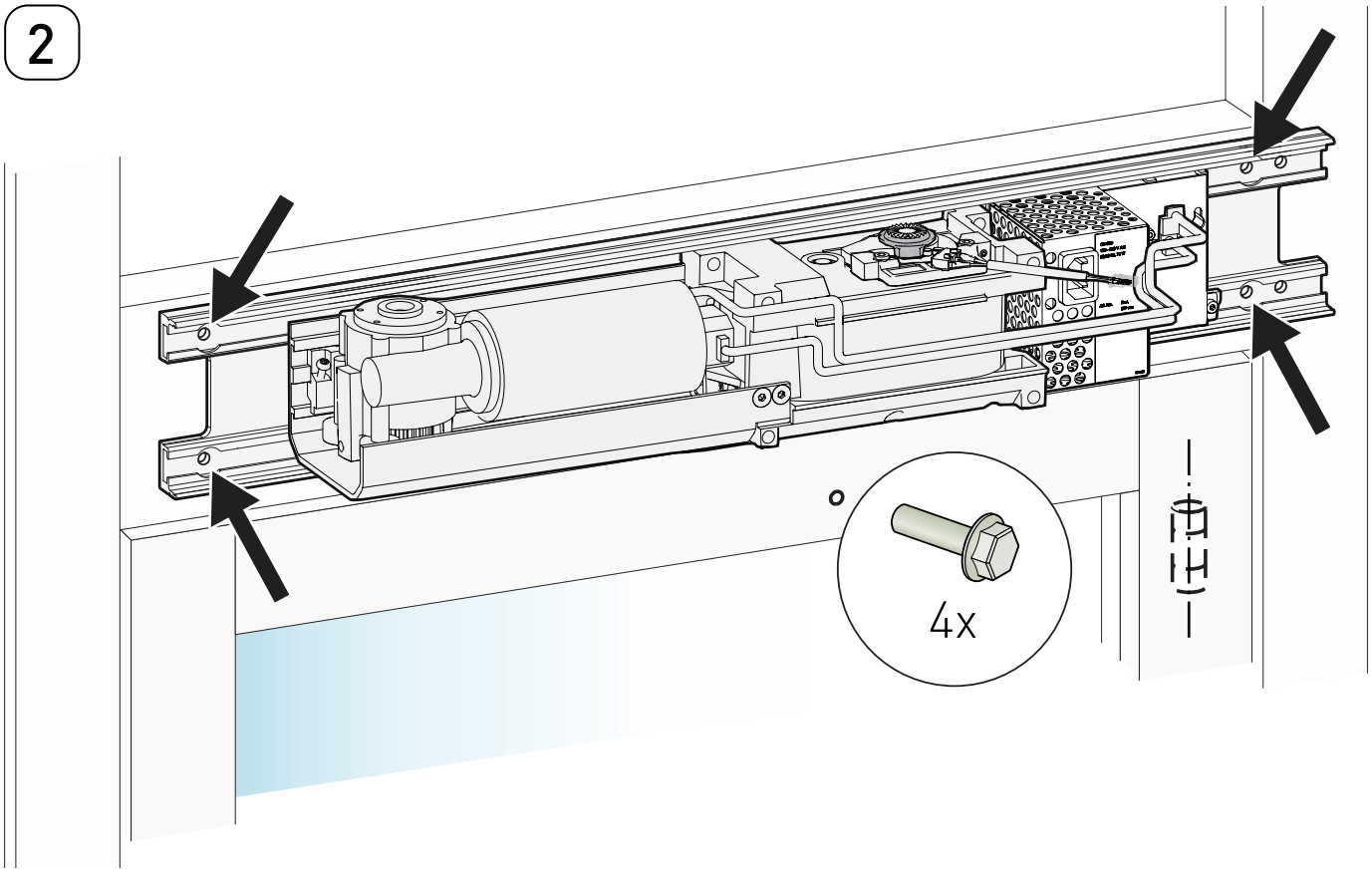


1

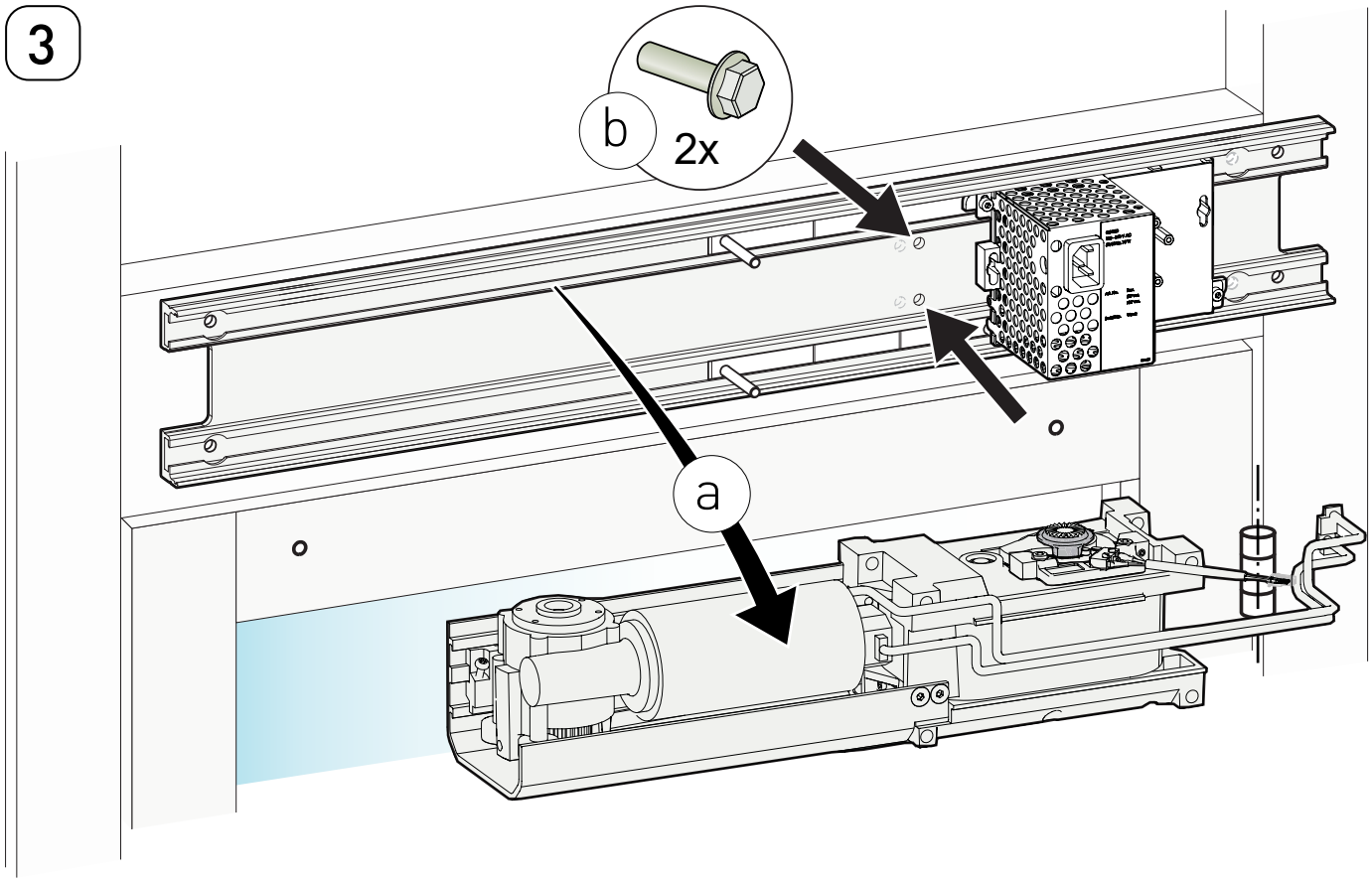


- Prepare the set-up for fixing the automation to the wall, respecting the measurements shown in the figures above (with reference to the hinge axis).
- Drill a hole in the door wing, in line with the fixing for the sliding arm.
- If necessary, use the DAB805SE2/SE5/SE7 extensions to increase the X measurement between the automation and the arm fixing points

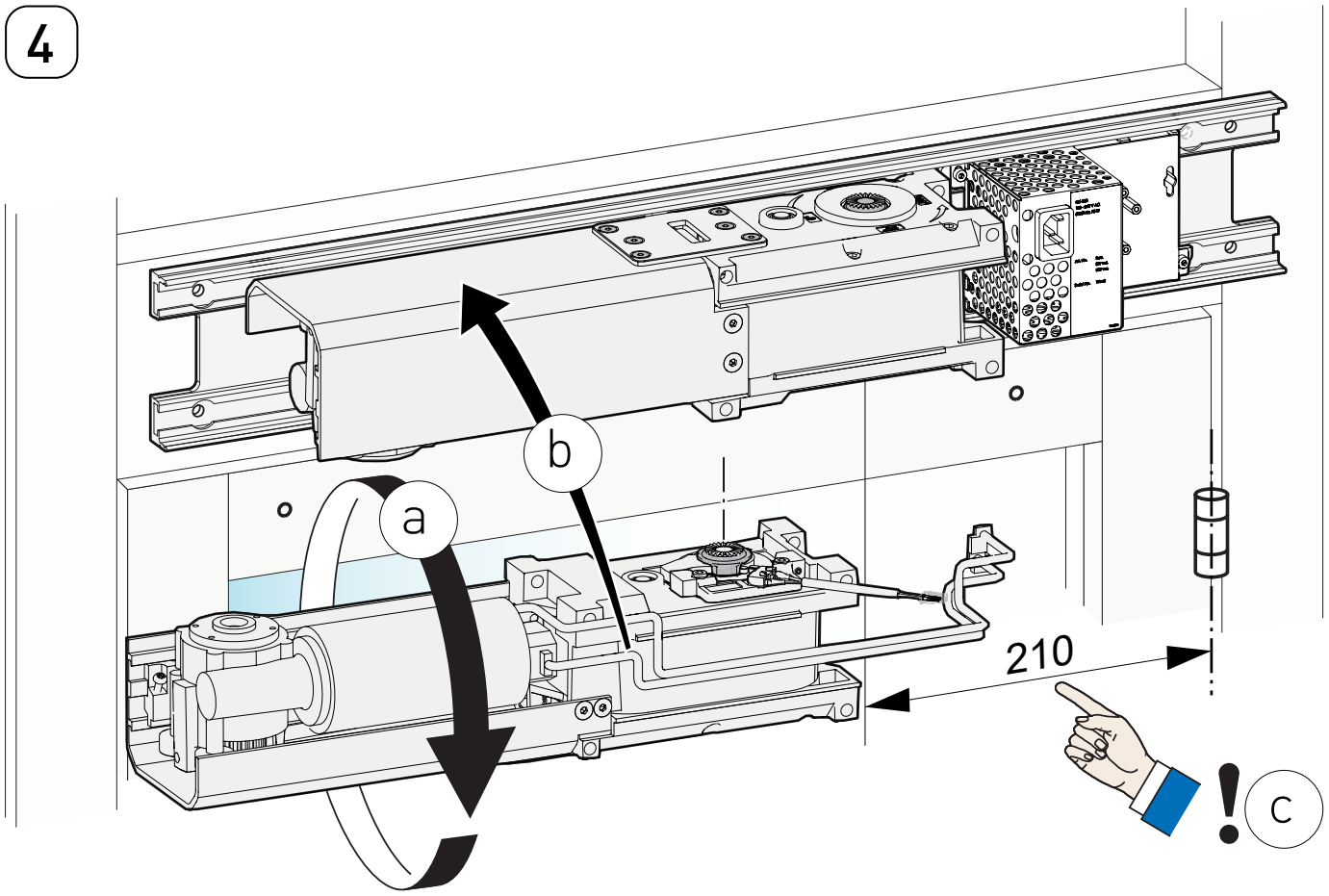
2



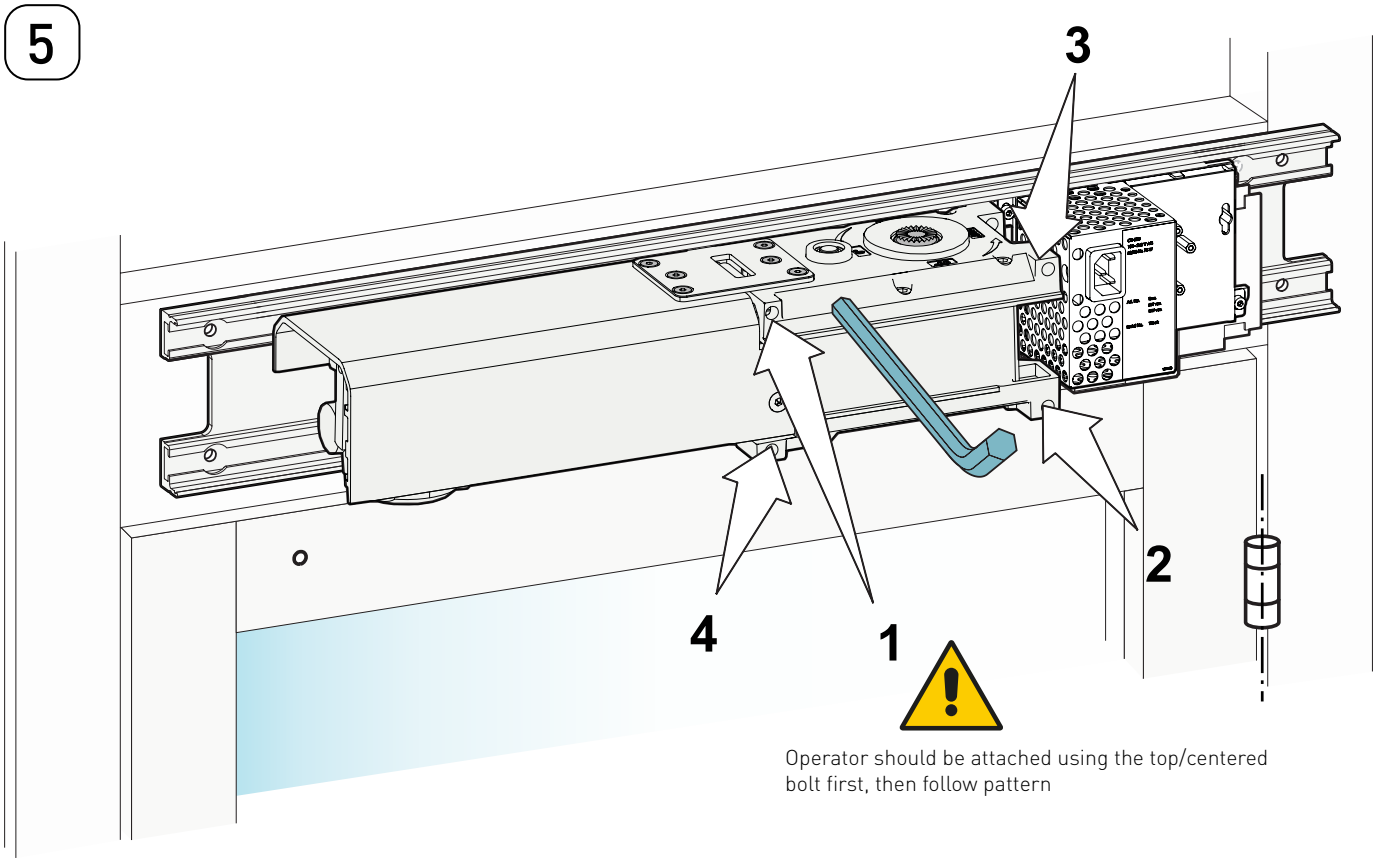
3



4



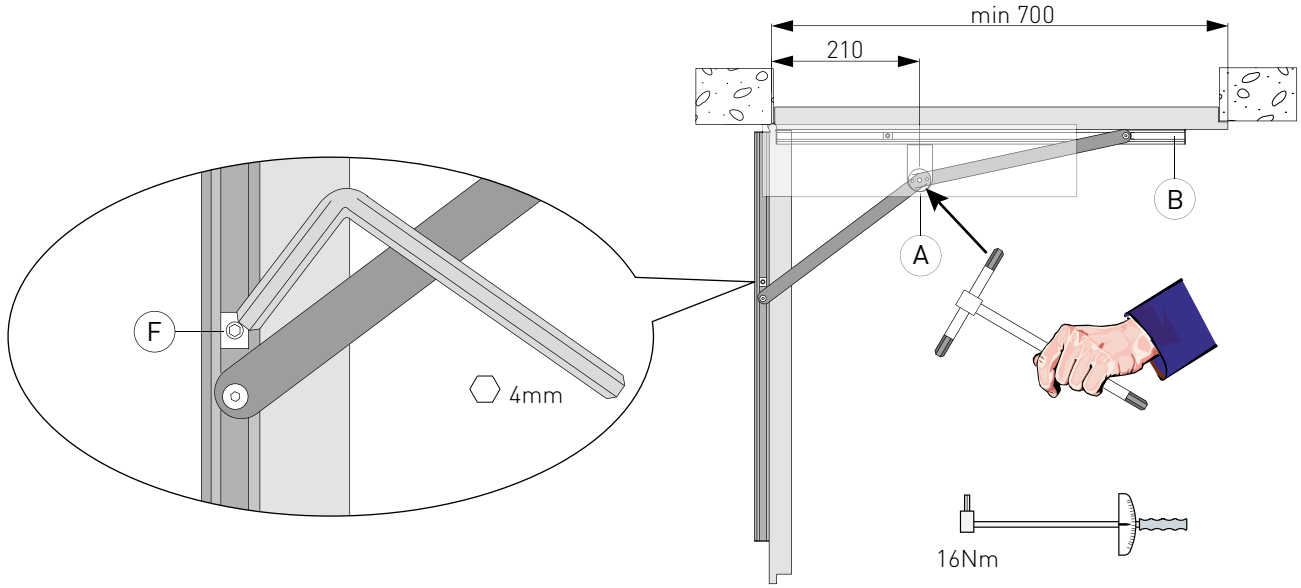
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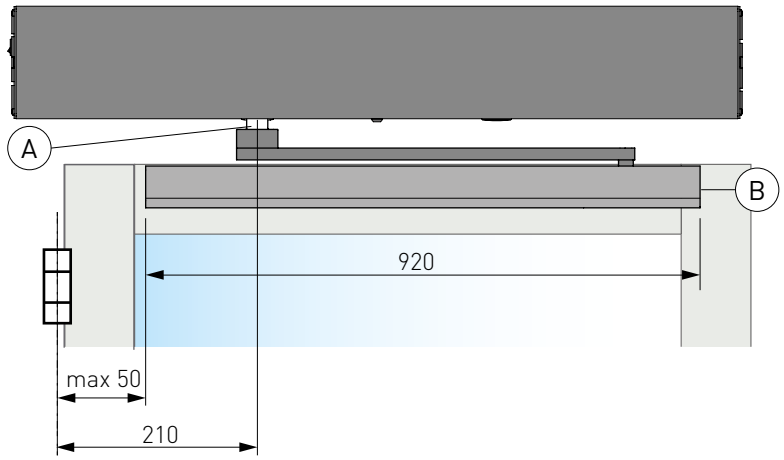


Operator should be attached using the top/centered bolt first, then follow pattern

NOTE: Do not change door stop for pull application. Adjust the open door stop [F], as indicated in paragraph 8.2.

7.1 Fixing the sliding arm DAB805PLA



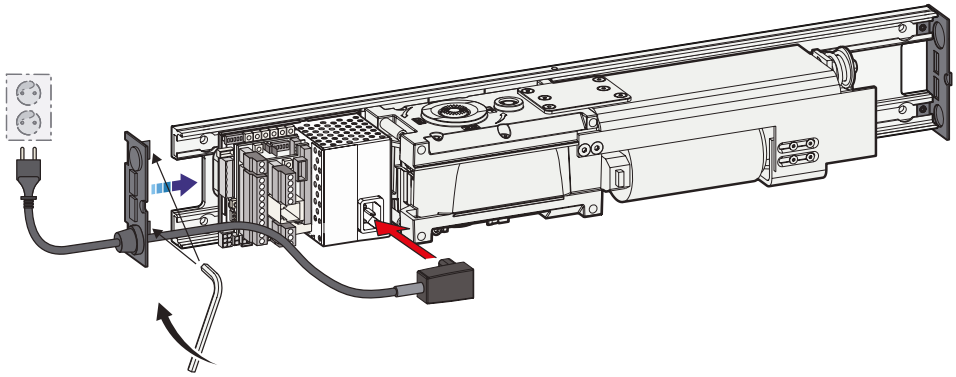


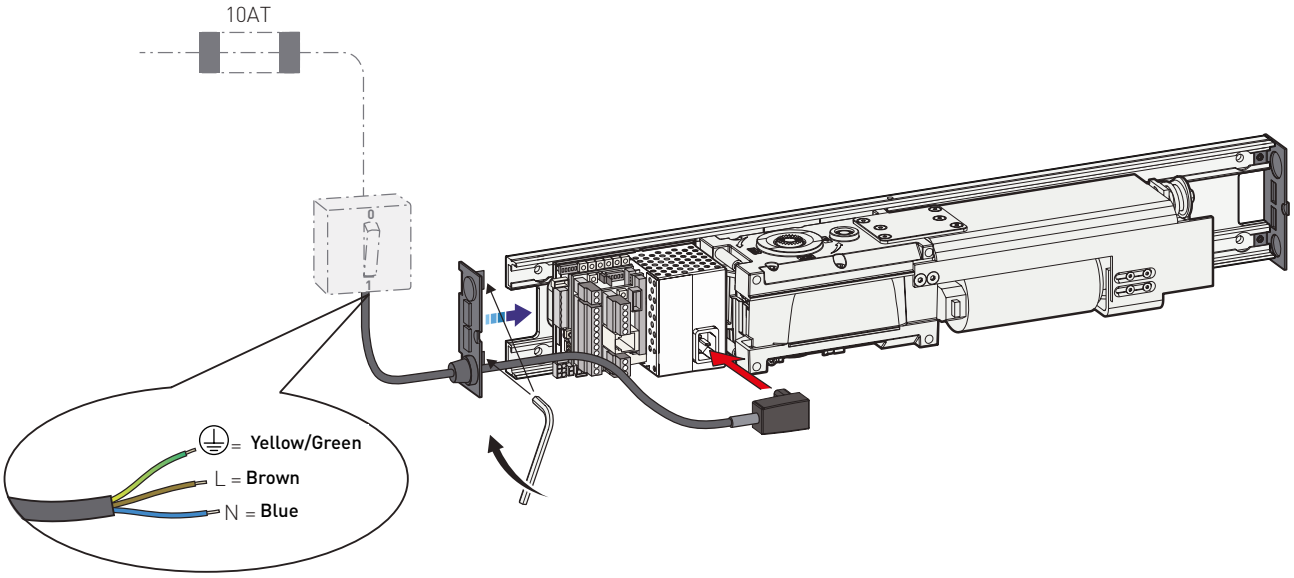
NOTE: open the door slightly and tighten the screw of the arm support seat [A] at 16 Nm (as shown in the figure).
If a torque wrench is not available, use a hexagon wrench of the type shown in the figure, gripping it on the long side and tightening very firmly.

- Move the door manually to check it opens and closes correctly, without any friction.
- With the door closed, fix the arm to the arm support [A] on the automation.
- Fix the guide [B] to the door wing, cutting off the excess part if necessary

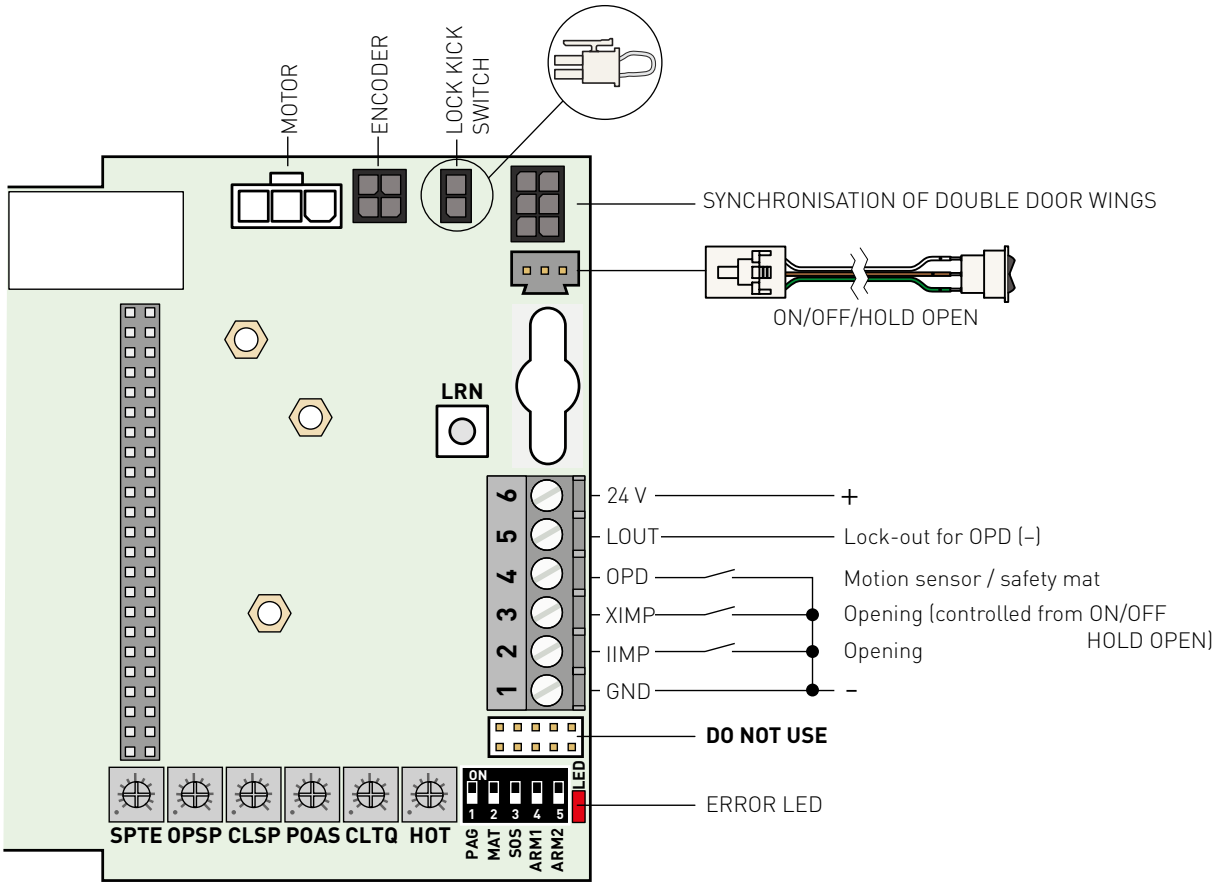
8. Connecting to the electricity supply

Before connecting the power supply, make sure the plate data correspond to that of the mains power supply.
An omnipolar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply.
Check there is an adequate residual current circuit breaker and overcurrent cut-out upstream of the electrical system.
Use a H05RN-F 3G1,5 or H05RR-F 3G1,5 type electric cable.
In the section outside the automation, the connection to the mains power supply must be via an independent channel separate from the connections to the control and safety devices.
Make sure there are no sharp edges that may damage the power supply cable.

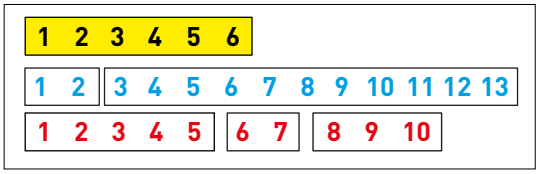




9. Electrical connections DAB105CU



Fix the label to the terminal board, taking care to apply it in the correct direction (see the figure above).



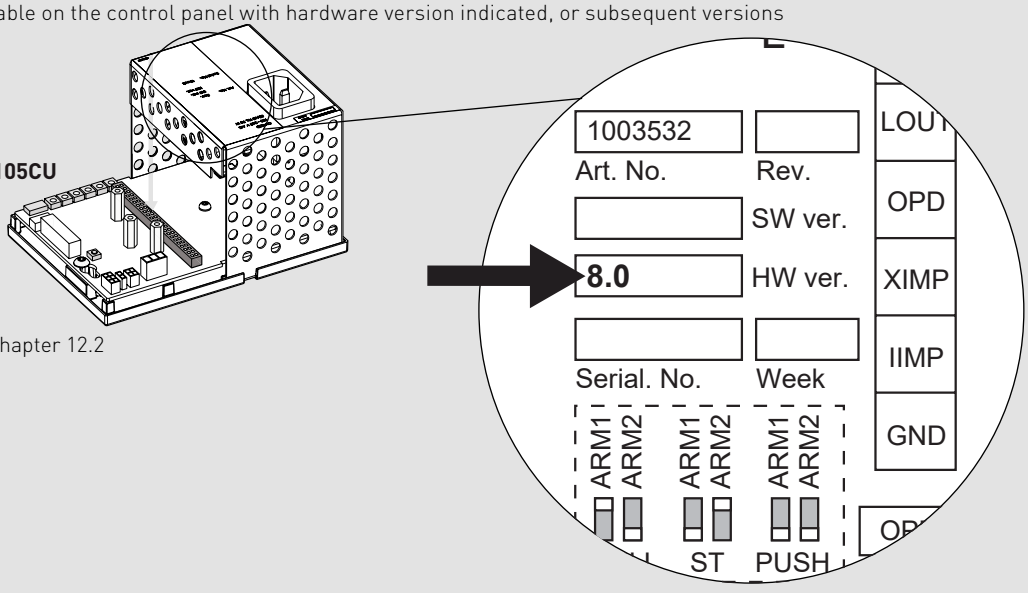
Optional extension units can be connected to the DAB105CU control panel: the DAB905ESE extension unit, or the DAB905ESA one, or both, depending on the required functions.

9.1 Commands

Contact		Function / Accessory	Description
1-2 GND-IIMP	N.O.	OPENING - INNER SIDE	Contact closure activates the opening operation. The contact is always active if the ON-OFF-HOLD OPEN switch is present. The contact is controlled by the COM400MHB/MKB function selector switch (if present).
1-3 GND-XIMP	N.O.	OPENING - OUTER SIDE, MANAGED BY THE ON-OFF-HOLD SWITCH	Contact closure activates the opening operation. The contact is only active if the ON-OFF-HOLD OPEN switch is present. DO NOT USE contact 1-3 or the ON-OFF-HOLD OPEN switch if the COM400MHB/MKB function selector switch is installed.
1-4 GND-OPD	N.O.	Overhead presence detector (OPD), frame mounted	Overhead presence detector (OPD), frame mounted When an OPD sensor is mounted on the frame or operator cover just above the swing side of the door, it will–when activated–either keep the door open or closed. The sensor is not active during opening and closing. • a closed door will not open, if the OPD detects activity in the field. • an open door will not close, if the OPD detects activity in the field. • during opening, the door will continue to open, even if the OPD detects activity in the field. • during closing, the door will continue to close, even if the OPD detects activity in the field. • the OPD is not active in program mode OFF, manually opened door or during battery operation (Power Save Mode).

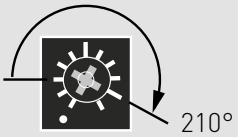
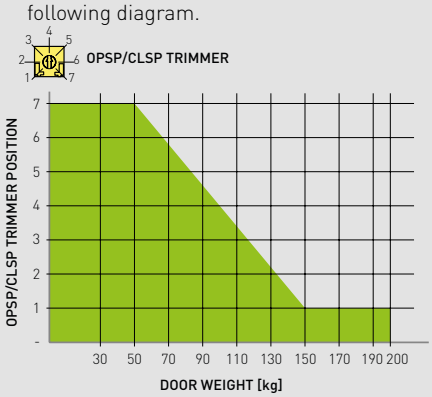
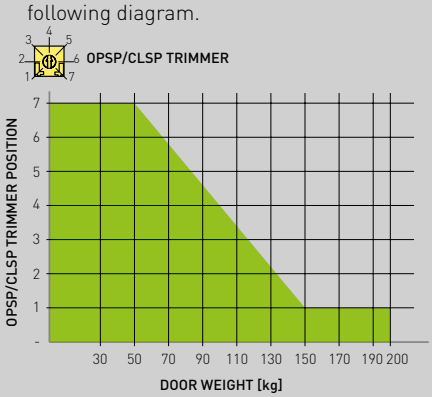
Contact		Function / Accessory	Description
1-4 GND-MAT (DIP2=ON)	N.O.	Mat safety	Mat safety means that: • a closed door will not open, if someone steps on the mat • an open door will not close, if someone steps on the mat • during opening, the door will continue to open, even if someone steps on the mat • during closing, the door will continue to close, even if someone steps on the mat • opening impulses are prevented during closing, if someone steps on the mat • the mat is not active in program mode OFF, manually opened door or during battery operation (Power Save Mode)
5 LOUT	(-)	Lock-out for OPD (–)	The external lock signal (LOUT) is available as it is required by some OPD sensors for proper operation.
LRN	**Automatic self-learning.** If any of the parameters SPRING PRE-TENSION, CLOSING TORQUE (CLTQ) and LOCK RELEASE (DIP-switch No.3 on DAB905ESE) are changed after performing a learn, a new learn must be carried out. Make sure the door is fully closed. Move away from the door as soon as you have pressed the LRN button. The door has no safety settings during the automatic self-learning procedure. The door could suddenly slam shut. See chapter 12.3.		

9.2 Outputs and accessories

Output	Description
1 ... 6 GND +24V	**Output for the power supply to the accessories 24V ⎓ 400mA max.** **NOTE**: the maximum absorption of 400 mA corresponds to the sum of all the accessories installed.
MOTOR	**Motor connection**
ENCODER	**Encoder connection**
N.C. / SWITCH	**Connection for lock kick microswitch. Connect instead of the N.C. contact** Available on the control panel with hardware version indicated, or subsequent versions **DAB105CU**  See chapter 12.2
SYNC	**Connection for cable for synchronisation between two swing doors.** For details about the operation, refer to chapter 18.
ON/OFF/HOLD	**Connection of the ON/OFF/HOLD switch** ON: The IIMP and XIMP opening contacts are enabled. OFF: The XIMP opening contact is excluded. HOLD OPEN: Door open.

9.3. Adjustments

Trimmer

Trimmer	Description
SPTE 	**Door start-up** The SPTE trimmer is used to make adjustments for the acquisition of the opening/closing stops when the door starts up.
	Spring tension adjustment The spring pre-tensioning is factory-set at 210°. The maximum pre-tensioning of the spring is 210°. A greater tension could damage the spring or overheat the motor. To reduce/increase the pre-tensioning: • Loosen and remove the door stop (see chapter 12.1) • Rotate the trimmer clockwise until the door opens at 45° • Loose the fixing screw of the actuation arm • Move the door towards the open position to reduce the spring tension • Move the door towards the closed position to increase the spring tension (this operation is only possible if the spring has a pre-load less than the factory setting (210°) and no more than 210°). • Tighten the fixing screw of the actuation arm • Rotate the trimmer to minimum • Open the door to the required open position plus about 15mm, by rotating the trimmer clockwise • Fix the door stop. For the fine adjustment, refer to chapter 12.1. • Rotate the trimmer to minimum • Press the LRN button to begin the door self-learning procedure
OPSP	**Adjustment of the opening speed time (from 3 to 6s).** Rotate the trimmer clockwise to increase the opening speed. **ATTENTION**. The opening and closing speeds are regulated according to the weight of the wing, as shown in the following diagram. 
CLSP	**Adjustment of the closing speed time (from 3 to 6 s).** Rotate the trimmer anticlockwise to reduce the closing speed. **ATTENTION**. The opening and closing speeds are regulated according to the weight of the wing, as shown in the following diagram. 
POAS	**Adjustment of the servo-assisted movement during the manual opening of the door.** With the trimmer at its minimum, the door is not servo-assisted. By rotating the trimmer clockwise, the motor increases the servo-assistance when the door is opened manually.
CLTQ	**Closing force adjustment.** With the trimmer at its minimum, the door closes with the force of the spring. By rotating the trimmer clockwise, the motor increases the closing force. Increase the closing force on doors installed in environments with different pressure levels or subject to strong gusts of wind.
HOT	**Adjustment of the automatic closing time (from 1.5 to 30s)** Adjust the time that passes between the end of the opening operation and the start of the closing operation. The count begins with the door fully open.

Dip-switches

DIP	Description	OFF	ON
DIP1 - PAG	**Push & Go** The manual pushing of the door activates an automatic opening operation. When the door is closed, a closure thrust is maintained by the motor or the spring. Push and Go is not active in program selector setting DOOR CLOSED.	Disabled	Enabled
DIP2 - MAT	**Safety mat**	Disabled	Enabled
DIP3 - SOS	**Obstacle during opening**	**Stall** If an obstacle is detected during the opening operation, the door continues to push and then closes after the time lapse set with the HOT trimmer.	**Stop** If an obstacle is detected during the opening operation, the door stops its movement and closes after 2 s.
DIP4 - ARM1 **DIP5 - ARM2**	**Selection of the arm type. See the following table.**		

The factory configuration is set for an articulated arm.
To alter DIP4 and DIP5, disconnect the mains power supply.
Select the arm type.
Restore the power supply.

Articulated arm DAB805PSA-PSAF (FACTORY SETTING)	DIP4 OFF	DIP5 OFF
Sliding arm DAB805PLA-PLAB 3-lever arm DAB805PLAT	DIP4 ON	DIP5 OFF

9.4 Signals

	ON	OFF	FLASHING
LED	Normal operation	No mains power supply	Alarm (see the alarms table)

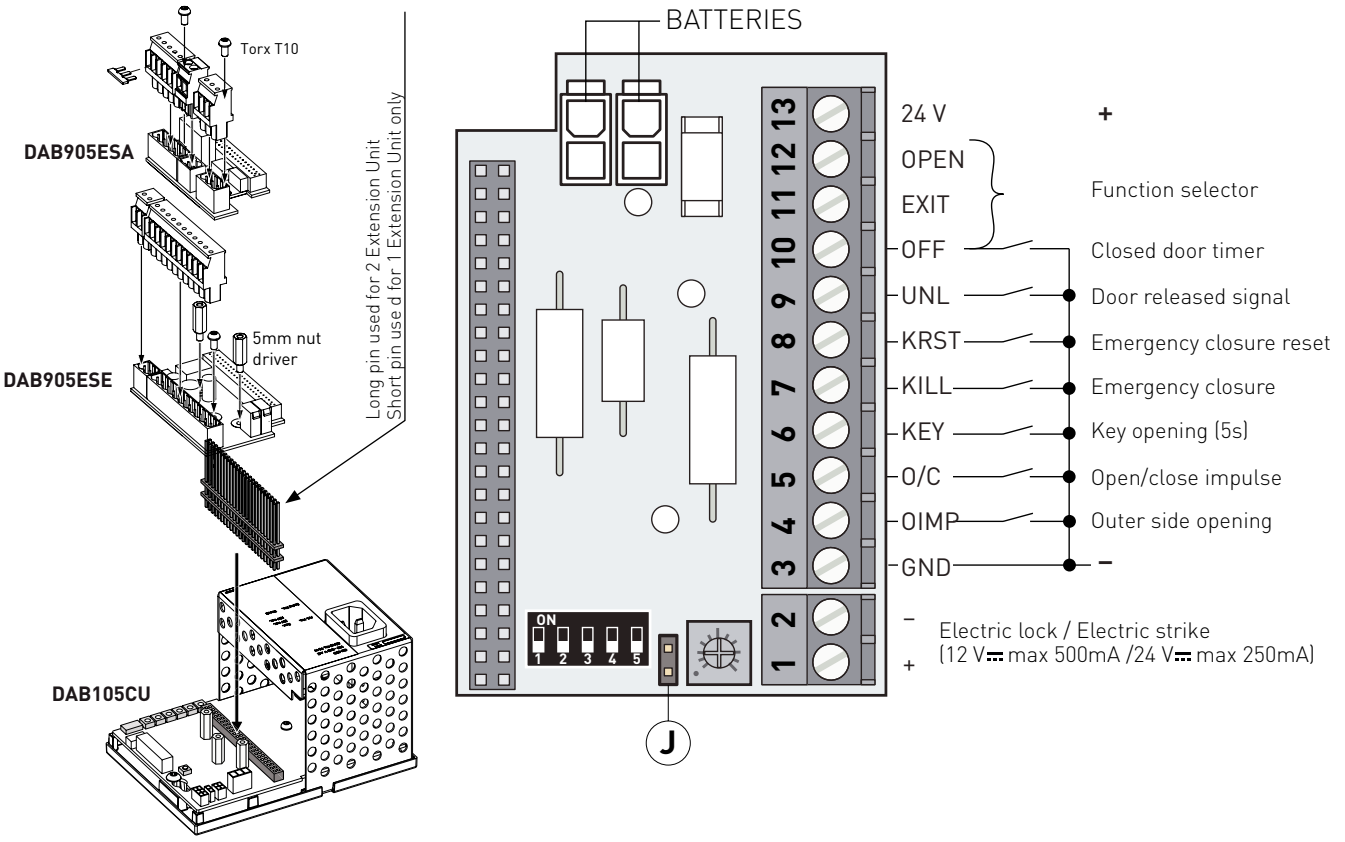
9.5 Alarms (RED ERROR LED)

= flashing 0,3s

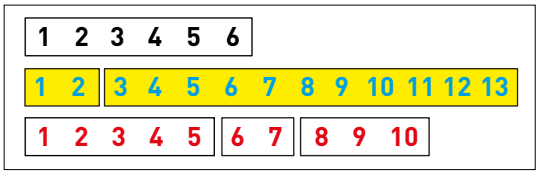
LED	CAUSE	SOLUTION
(1)	+24V⎓ external error or sensor monitoring error	Check for short-circuiting or a damaged sensor
(2)	Faulty battery	Replace the battery
(3)	Faulty control panel	Replace the control panel
(4)	Encoder error	Check the encoder cable. Manually open and close the door, then check the automatic function. If the problem persists, replace the control panel.
(5)	Faulty blocking device	Check for short-circuiting in the blocking device
		Replace the blocking device
	Faulty DAB905ESE unit	Replace the DAB905ESE unit
(6)	Synchronisation cable not connected, or faulty (parallel doors only)	Connect the cable
		Replace the cable
(7)	SLAVE control panel faulty (parallel doors only)	Check the frequency of the flashes on the SLAVE LED, and adopt the necessary measures on the basis of this table
(8)	Overheated motor	Wait for the motor to cool down
(9)	Door blocked and repetitive command. The door does not complete the opening maneuver within 30s. due to friction / obstacles and there is a permanent open command or selector set on door open position	Remove friction or obstacles and deactivate the open command

10. Extension unit DAB905ESE (optional)

There is a command extension card for managing the electric lock / electric strike, function selector, batteries, key selector switch and night-time closure.

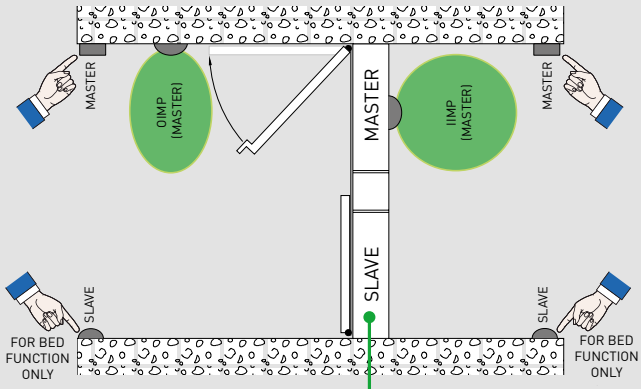
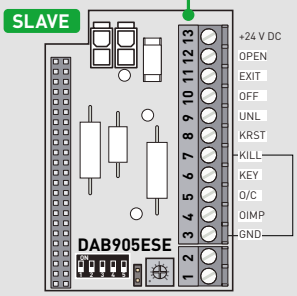


Applicare l'etichetta alla morsettiera, facendo attenzione al senso di applicazione (vedi figura sopra).



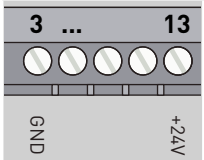
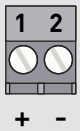
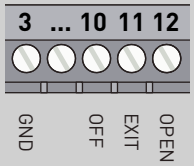
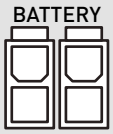
10.1 Commands

Contact		Function - Accessory	Description
3 — 4 **GND-OIMP**	N.O.	OUTER SIDE OPENING	**Contact for connection of external detection radar.** The closure of the contact activates an opening operation. **NOTE**: this command is only active with the COM400MKB-MHB function selector switch.
3 — 5 **GND-O/C**	N.O.	OPEN/ CLOSE IMPULSE	**The closure of the contact activates an opening operation. The door stays open until a new command is given.** If the door does not receive any command, it closes automatically after 15 minutes of inactivity. Automatic closing cannot be adjusted using the HOT trimmer; it is factory-set. The automatic closing time can be modified from 15 min to endless (∞), setting the precon-figured parameter 2 as explained in chapter 14. With the ON/OFF/HOLD OPEN switch, the O/C command is always active except in the HOLD OPEN Position. With the program selector COM400MHB/MKB the O/C command usually functions in BIDIRECTIONAL mode. If necessary, set the pre-configured parameter 8 as explained in chapter 14, the O/C com-mand will function in BIDIRECTIONAL / MONO-DIRECTIONAL / DOOR CLOSE mode.
3 — 6 **GND-KEY**	N.O.	KEY OPENING	**The closure of the contact activates an opening operation.** This command is always active, even when the COM400MHB/MKB function selector switch or ON-OFF-HOLD OPEN switch is installed. The automatic closure time is set to 5 s when the door is open regardless of HOT trimmer adjustment. Can be used for opening from night/CLOSED mode.

Contact		Function - Accessory	Description
3 —/— 7 **GND-KILL**	N.O.	EMERGENCY CLOSURE (FIRE BARRIERS)	**The closure of the contact activates an emergency closure operation.** **This command is active** in every situation, and has priority over every other command. When the contact has reopened (with JUMPER J=ON), the door resumes operating as set by the selector. **WARNING**: if an EMERGENCY CLOSURE is activated, all the safety functions are ignored and the door closes. People or objects in the path of the door during the closing operation could suffer serious injury or damage. This function is generally used to cut off a specific area in the case of a fire. **NOTE**: this command can be combined with an emergency button. The output contact can be changed from NO to NC by altering the pre-configured parameters, as explained in chapter 13. The operation of the block during the emergency closure can be selected from the pre-set parameters explained in chapter 13. In a double door application, KILL is only connected to the master operator.
3 —/— 7 **GND-KILL**	N.O.	"NURSE & BED" FUNCTION	**Available on the control panle version indicated, or subsequent versions.** In installations with parallel doors, the "NURSE & BED" function can be enabled by connecting a switch to contacts 3-7 on the SLAVE door control panel.  **SOLUTION 1** Connect a bridge between 3 and 7 on the slave DAB905ESE. Use any impulse on master to open master door. Use O/C impulse on Slave to open both doors.   **SOLUTION 2** Connect a bridge between 3 and 7 on the Slave DAB905ESE. Set dip switch PAG on Master board to ON. Use any impulse on master to open master door. Push slave door manually and it will open up automatically and stay open until master door is closing. **SOLUTION 3** Connect an ON/OFF switch between 3 and 7 on the Slave DAB905ESE. Switch in pos. ON, impulses on master will open only master door. Switch in pos. OFF, impulses on master will open both doors. **SOLUTION 4** Connect a bridge between 3 and 7 on Slave DAB905ESE. Set dip switch PAG on Slave board to ON. Any impulse on the master control unit: - Shorter than 2s opens only master door. - Longer than 2s opens both doors. **NOTE**:How to connect KILL input is determined by chosen parameter group at the slave, be sure that chosen group has KILL impulse configuration Normally Open. If KILL has to be Normally Closed, terminal 3 and 7 should be disconnected instead of connected.

Contact		Function - Accessory	Description
3 — 7 **GND-KILL**	N.O.	INTERLOCKED DOORS	Applications with interlocked doors are possible. For the connections, see paragraph 20.
3 — 8 **GND-KRST**	N.O.	EMERGENCY CLOSURE RESET	If JUMPER=ON, the panel makes an automatic reset after an emergency closure. A DAB905RSD reset device can be connected to restore normal door operation following an emergency closure (JUMPER=OFF).
3 — 9 **GND-UNL**	N.O.	DOOR RELEASED SIGNAL	UNL function is active in programme selection EXIT and OFF Input to unlock signal from lock. Potentiometer for opening delay is to be set to max. As soon as unlock signal is received the door will start to open. The output signal shall be active low.
3 — 10 **GND-OFF**	N.O.	DOOR CLOSED	Contact for connecting a closed door timer.

10.2 Outputs and accessories

Output	Description
	**Output for the power supply to the accessories 24V ⎓ 400mA max** **NOTE**: the maximum absorption of 400 mA corresponds to the sum of all the accessories installed.
	**Output for connecting an electric lock / electric strike (12 V ⎓ max 500 mA / 24 V ⎓ max 250 mA)** Select the type of power supply using the DIP1 and the type of electric lock / electric strike using the DIP2. With DIP2 in OFF (electric lock / electric strike Normal), and no COM400MHB/MKB function selector switch (or the latter in BIDIRECTIONAL mode), output 1-2 is permanently powered (default setting) = door closed not locked. (referring status 1 chapter 14.2), for this reason, locks with mechanical reset cannot be used. If, on the other hand, you want to lock the door wing with the door closed, set the selector to MONODIRECTIONAL mode or make a jumper GND-EXIT (3-11). In this condition, output 1-2 is powered throughout the operation from opening until complete closure, for this reason, locks with mechanical reset cannot be used. With DIP2 in ON (electric lock / electric strike Anti-panic), the behaviour will be the same except for the fact that output 1-2 will always be unpowered in BIDIRECTIONAL mode and throughout the open/close operation in MONODIRECTIONAL mode. **NOTE**: For locks with mechanical reset and for different setting see Chapter 14.2. Management of electric lock / electric strike power supply.
	**Output for connecting the function selector switch.** If the function selector switch is on OFF, the Push and Go function is disabled. If a function selector switch is installed, disconnect the ON/OFF/HOLD switch (if present). Per maggiori informazioni fare riferimento al manuale del selettore COM400MKB-MHB.
	**BATTERY KIT** If no mains power supply is available, the battery kit will guarantee operation in "energy-saving" mode. If no mains power supply is available, the door only operates with the key switch connected to 3 GND -6 KEY. In "energy-saving" mode, the door can remain stationary for up to a week while waiting for the KEY command. The following sensors are not active during "energy saving" operation: -OPD motion sensor -PIMP reversal safety contact -PDET opening safety device In this mode (on automations connected in parallel), connect the batteries only to the MASTER automation fitted with DAB905ESE. By changing the pre-configured parameter group, you can set the battery kit to CONTINUITY mode. If no mains power supply is available, the door operates normally until the batteries are fully discharged. In this mode, on automations connected in parallel, connect the batteries on both automations equipped with DAB905ESE. **NOTE**: for charging purposes, the battery kit must be connected to the control panel at all times. A new kit with fully-charged batteries can usually open and close a door consecutively in CONTINUITY mode. If you want to check the battery kit is working correctly, set DIP5=ON. In the event of a battery alarm, the DAB105CU control panel LED will flash twice. Monitoring of batteries must always be reset when batteries are replaced. To RESET press and hold the LRN button while battery mode is active (with mains power supply disconnected. An acoustic/light alarm signal can be connected to terminals 6-7-8 on the DAB905ESA card

10.3 Adjustments

Trimmer

Trimmer	Description
	**Adjustment of the opening delay time, from 0 s to 3 s.** With DIP3=ON, the door release is active throughout the opening delay.

Dip-switch

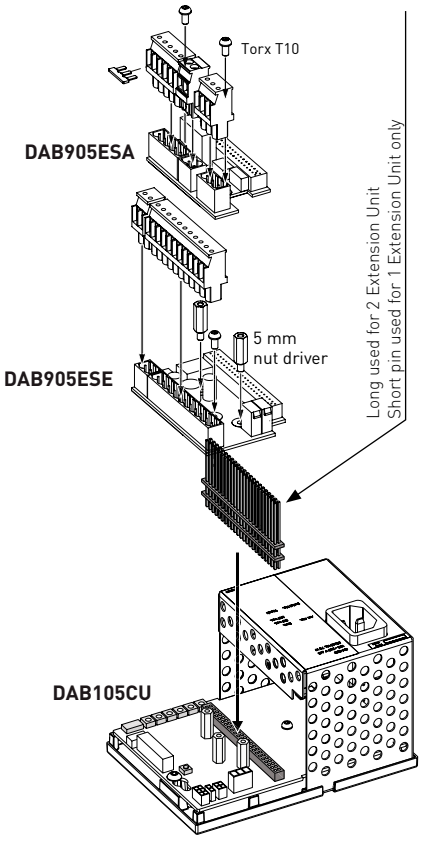
DIP	Description	OFF	ON
DIP1	**Power supply to the electric lock / electric strike**	12 V ⎓ max 500 mA	24 V ⎓ max 250 mA
DIP2	**Type of electric lock / electric strike** **NOTE**: For locks with mechanical reset see chapter 14.2	**Normal** When it is powered, the door can be opened	**Anti-panic** When it is unpowered, the door can be opened
DIP3	**Electric lock / Electic strike release function**	**Disabled**	Prior to the opening, a closure thrust is made simultaneously with the electric lock / electric strike activation impulse. The LOCK RELEASE is active during the opening delay time set by the potentiometer. For PAIR OF DOORS installations, the LOCK RELEASE works in sequence: First the MASTER then the SLAVE.
DIP4	**Electric lock / electric strike coupling**	**Disabled**	**Enabled** When it approaches the closing stop, the door increases its force/speed to ensure correct closure on the electric lock / electric strike.
DIP5	**Test batteria**	**Disabled**	**Enabled**

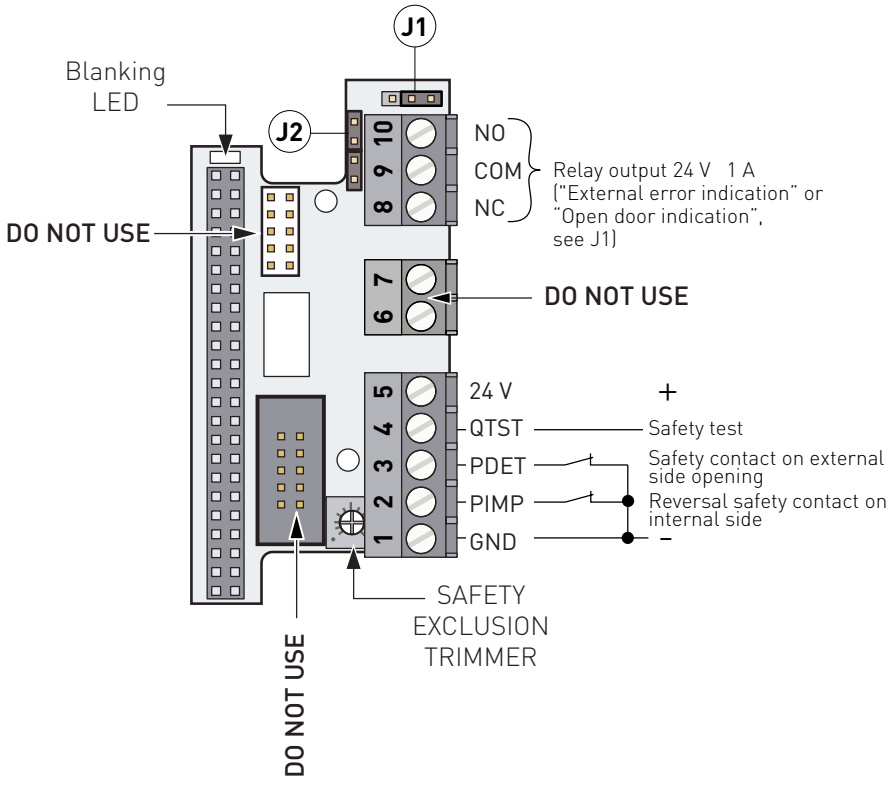
Jumper

	Description	OFF	ON
J	Emergency closure reset (FIRE DOORS ONLY)	Manual	Automatic

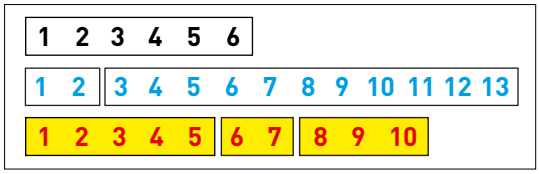
11. Extension unit DAB905ESA (optional)

There is a command extension card for managing motion sensors, alarm indications and door status.





Fix the label to the terminal board, taking care to apply it in the correct direction (see the figure above).

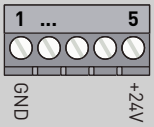
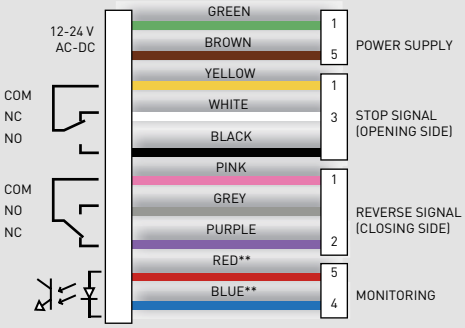


Remove the jumpers if a safety sensor is connected to terminals 1-2 and 1-3.

11.1 Commands

Contact		Function - Accessory	Description
1 — 2 **GND-PIMP**	N.C.	REVERSAL SAFETY CONTACT INTERNAL SENSOR	The opening of the contact during the closure manoeuvre causes the movement to invert (reopening). **NOTE**: the opening of the contact of the motion sensor installed on double doors causesboth doors to re-open. The sensor is not active in DOOR CLOSED mode (set via the function selector switch), or when the door is opened manually due to a power failure or emergency closure (KILL
1 — 3 **GND-PDET**	N.C.	OPENING SAFETY DEVICE EXTERNAL SENSOR	The opening of the contact causes the movement to stop during the opening phase. If the contact closes again within the automatic closer time, the door resumes its opening operation and, once open, it closes after the automatic closure time. If the automation is closed, the opening of the contact prevents the opening operation. Adjust the safety exclusion trimmer so that the sensor does not detect the wall during the opening phase. During the opening phase, the safety sensor takes priority over the motion sensor. **NOTE**: the opening of the contact of the motion sensor installed on double doors causes both doors to stop, except in the case of double exit doors. Modify the operation of the double doors by changing the pre-configured parameters as explained in chapter 13. The sensor is not active in DOOR CLOSED mode (set via the function selector switch), or when the door is opened manually.
5 — 4 **24V-QTST**		SAFETY TEST	Connect the QTST terminal of the control panel to the corresponding test terminal on the safety device. A test will be carried out on the safety device before every operation.

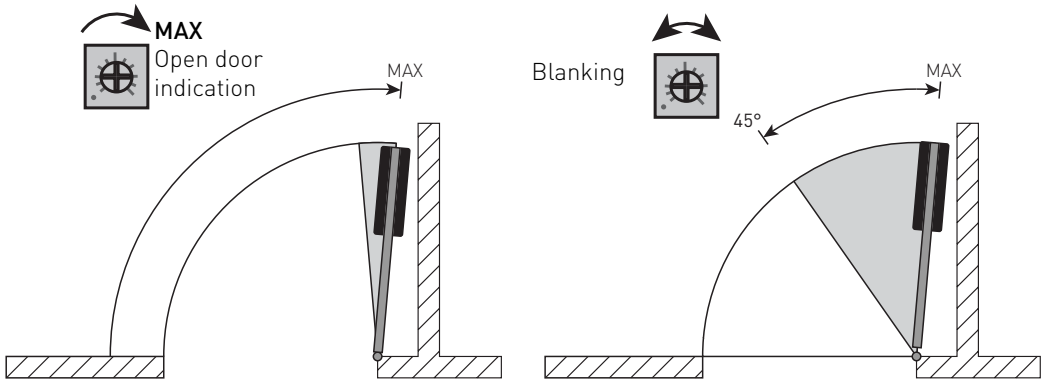
11.2 Outputs and accessories

Output	Description
	**Output for the power supply to the accessories 24V ⎓ 400 mA max.** **NOTE**: the maximum absorption of 400mA corresponds to the sum of all the accessories installed.
SAFETY SENSOR	**Connect a self-checking safety sensor on the door wing.** Connect the closing side sensor to terminals 1-2 (GND-PIMP). Connect the opening side sensor to terminals 1-3 (GND-PDET).  **NOTE**: in the event of a safety sensor fault during opening, the door closes and stays closed. It can only be opened manually. In the event of a safety sensor fault during closing, the door stays open. By switching the function selector switch to DOOR CLOSED, the door can operate in Low Energy mode. It can only be opened manually. Remove jumpers 1-2 and 1-3. For more information, refer to the REM sensor manual
	**DO NOT USE**
	**Relay contact 24 V 1A** See J1 at chapter 11.3.

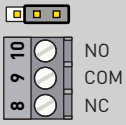
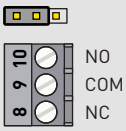
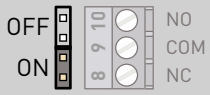
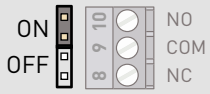
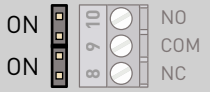
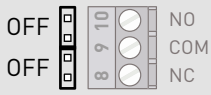
11.3. Adjustments

Trimmer

Trimmer	Description
	Adjustment of the opening safety exclusion (blanking), from 45° to fully open. During the door opening phase, this excludes the functioning of the safety device installed on the door wing, so that the wall is not detected. When the safety device is excluded, the LED lights up.



Jumper

J1		Error indication. A potential free contact COM/NO/NC for external error indication
		Open door indication, A relay output is used to indicate an opening cycle or a specific position of the door. The indication position is set by adjusting the inhibit/blanking potentiometer.
J2		Test on external sensor (GND-PDET)
		Test on internal sensor (GND-PIMP)
		No test
		Test on internal and external sensors (GND-PIMP / GND-PDET)

11.4 Signals

	ON	OFF
LED	Opening safety device disabled	Opening safety device enabled

12. Start-up

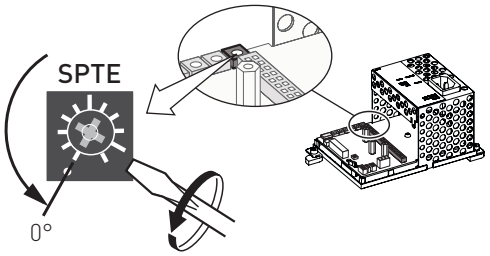
The spring pre-tension is factory set to 210° and is normally not necessary to adjust. If adjustment has to be carried out, see 9.3.

12.1 Adjusting the door stop

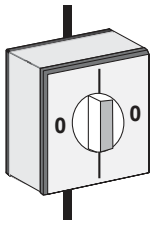
a. Close the door



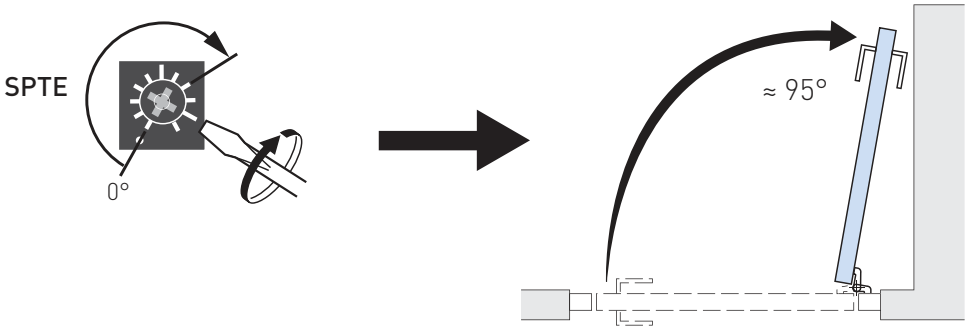
b. Turn the potentiometer SPTE to 0° (if not already on 0°).



c. Switch on the mains (the operator will find its closed position).

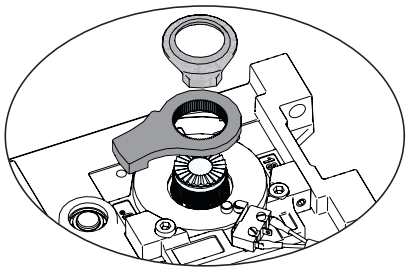


d. Open the door to required open position, plus approx. 15mm by turning the potentiometer SPTE, clockwise.

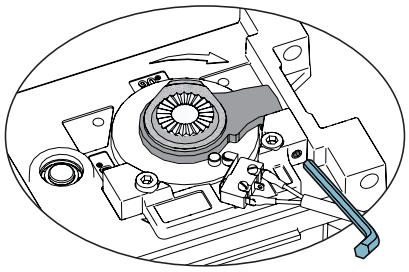


e. Lift the lock kick cam and the door stop arm up, mount the stop arm on the splines, as close as possible to the stop block 1). Fine-adjust if necessary with the screw on the stop block 2)

1)

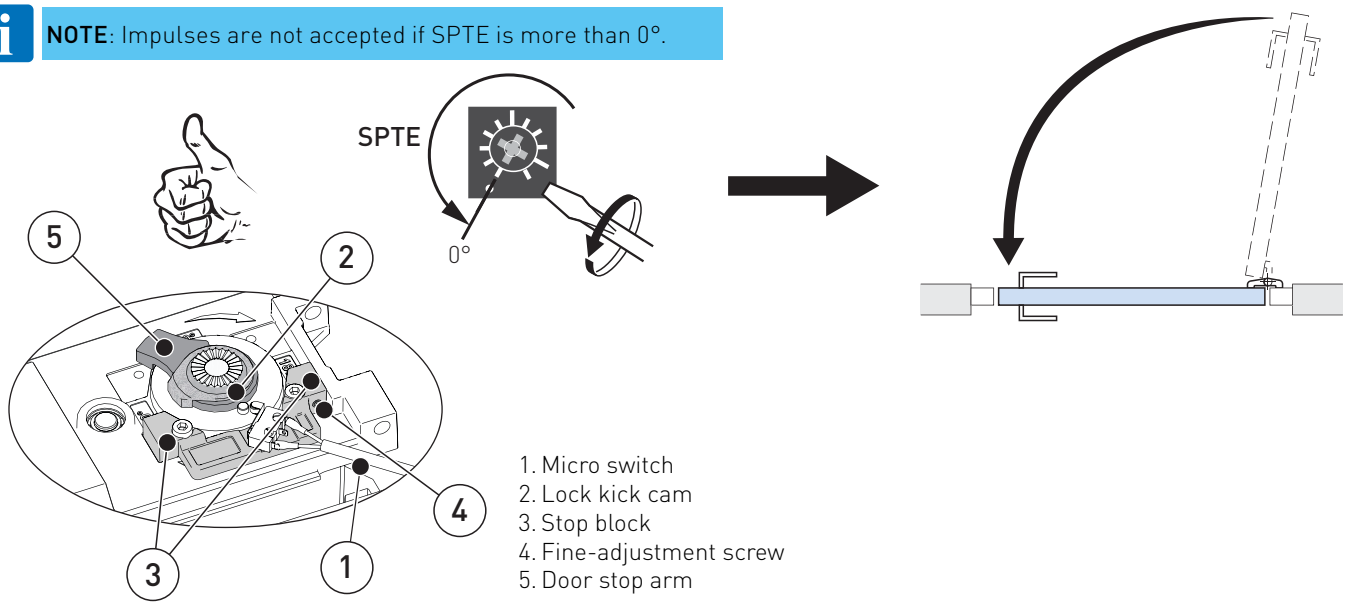


2)



f. Close the door by turning the potentiometer SPTE to 0° and let the door close.

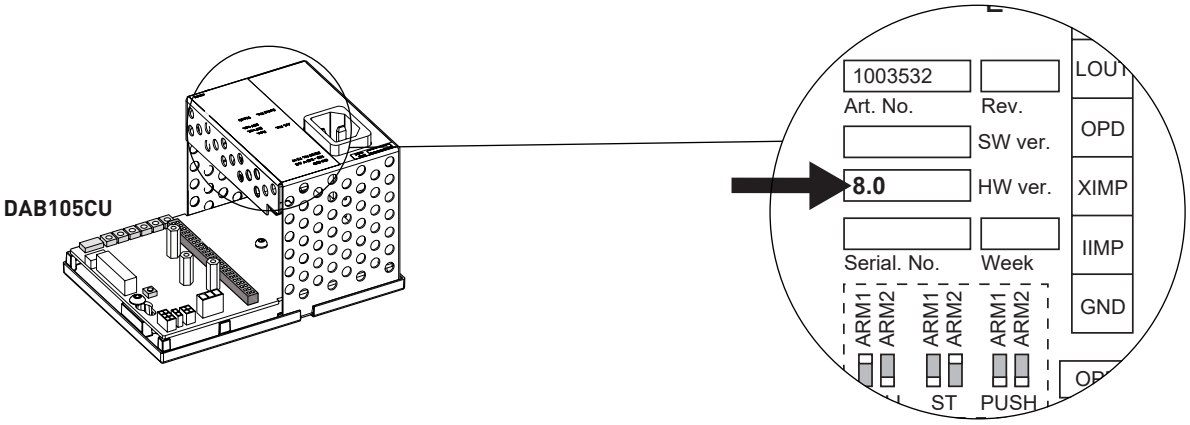
NOTE: Impulses are not accepted if SPTE is more than 0°.



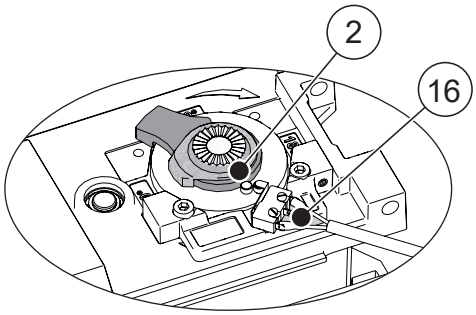
1. Micro switch
2. Lock kick cam
3. Stop block
4. Fine-adjustment screw
5. Door stop arm

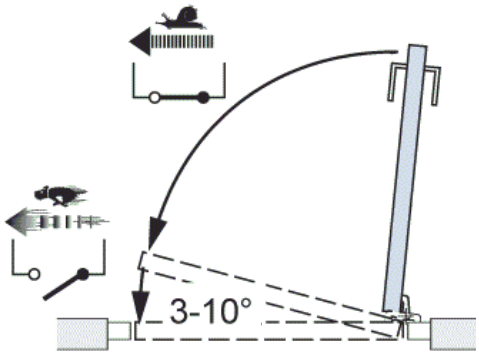
12.2 Lock kick microswitch (16)

Available on the control panel with hardware version indicated, or subsequent versions.



Control the lock kick by turning the lock kick cam (2) when power is off. This lock kick gives a lock kick at power failure for the last 3-10 degrees of closing to make sure that the door will fully close and latch.

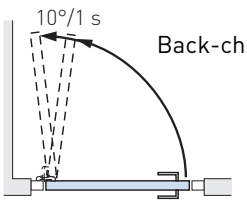


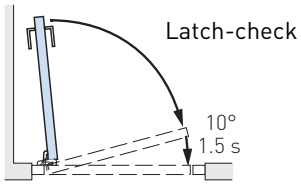


12.3 Auto-learn – automatically sets back and latch check

This learning is performed by pushing the LEARN BUTTON (LRN).

- Before the learning procedure starts, make sure that the door has been properly closed i.e., not by force.
- If any of the parameters SPRING PRE-TENSION, CLOSING TORQUE (CLTQ) and LOCK RELEASE (DIP-switch No. 3 on DAB905ESE) changed after performing a learn, a new learn must be carried out.
- Learn can be carried out with activation units and locks connected.
- The back-check will be automatically adjusted to 10° and 1 second before open position. The latch-check will be automatically adjusted to 10° and 1.5 seconds before closed position.

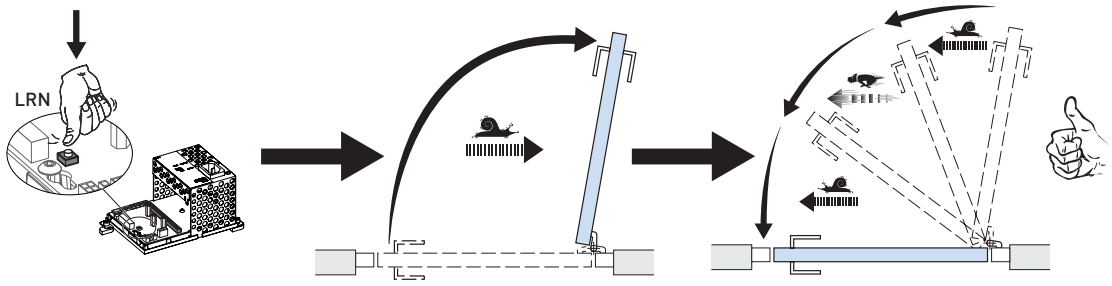




12.3.1 One push / two pushes on the LEARN BUTTON (LRN)

NOTE: Remain clear of swing path of door, as door may close rapidly. The door has no safety during auto-learn cycle.

- **One push (delayed opening**)
  Push the button once. The door will open after 2 seconds and adjust the back-check and latchcheck automatically.
- **Two pushes (direct opening**)
  Push the button twice. As above, but the door starts to move directly.



12.3.2 Double doors

For double doors, theMASTER door must be learned first and thereafter the SLAVE door. When the SLAVE door is learned, the MASTER door will open up to fully open position during the learning phase of the SLAVE door.
The doors can also be learned separately before connecting the sync cable. In case of rebated and separate learning, the MASTER door must be held open before the SLAVE door learn is carried out.

12.4 General adjustment

a. Set the hold open time with the potentiometer (HOT) on the control unit.
b. Adjust the opening speed (OPSP). Turning clockwise increases the speed.
c. Adjust the closing speed (CLSP). Turning counter-clockwise decreases the speed.
d. Connect the required activation units.

13. Pre-configured parameters

The DAB105 automation has 10 groups of pre-configured system-loaded parameters.
The group of parameters set in the factory corresponds to number 1.
To modify the group of parameters:

1. Disconnect the batteries (if installed).
2. Disconnect the mains power supply.
3. Press the LRN self-learning button, and keep it pressed.
4. Enable the power supply - the LED will light up **3s** **1s** **3s** Release the LRN self-learning button - the LED will switch off.
5. The LED flashes for a number of times corresponding to the number of the group of parameters (see the table).
6. Press the LRN button to pass to the next group of parameters after the set one. When you have reached the maximum limit of the parameters, you will restart from number 1.
7. Press the LRN button until you reach the required group of parameters. Ensure that the requested group of parameters has been selected by counting the number of flashes.
8. Disconnect the mains power supply.
9. When the mains power supply is reconnected, the automation will use the new group of parameters.

Parameter group	1 (default)	2	3	4	5	6	7	8	9	10
Time of door open contact 3-5 ESE card (a)	15 min	infinito	15 min	15 min	15 min	15 min	15 min	15 min	15 min	15 min
Battery use	Energy savings	Energy savings	Continuity	Energy savings	Energy savings	Energy savings	Energy savings	Energy savings	Energy savings	Continuity
Block mode with KILL command active	Blocked	Blocked	Blocked	Block managed by selector	Blocked	Blocked	Blocked	Blocked	Block managed by selector	Blocked
Obstacle during closure (b)	Closure	Closure	Closure	Closure	Reversal	Closure	Closure	Closure	Closure	Reversal
Motion sensor installed on synchronised doors. (c)	Separate detection	Separate detection	Separate detection	Separate detection	Separate detection	Common Limit	Separate detection	Separate detection	Separate detection	Separate detection
Block attempt on closure (d)	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Disabled	Enabled	Enabled	Enabled
O/C command opening/closing (e)	TWO-WAY mode	TWO-WAY mode	TWO-WAY mode	TWO-WAY mode	TWO-WAY mode	TWO-WAY mode	TWO-WAY mode	TWO-WAY / DOOR CLOSED / ONE-WAY mode	TWO-WAY mode	TWO-WAY mode
Configuration of emergency closure contact (KILL)	N.O.	N.O.	N.O.	N.O.	N.O.	N.O.	N.O.	N.O.	N.C.	N.O.

NOTES:
(a) If the door stays open following an O/C open command, the control panel will launch a closure command after 15 minutes of inactivity.
(b) If set in "CLOSURE" mode, the automation will stop if an obstacle is detected.
If set in "REVERSAL" mode, the automation will re-open. It continues to attempt the closure operation until the obstacle is removed.
With parameters set on 1 (factory setting), if there is a problem with block coupling during the closure phase, the door will attempt to enable the coupling twice in automatic mode, then once more in manual mode. This function can be disabled (see Parameter 7).
(c) In the case of synchronised doors, the motion sensor can intervene independently on each door, or simultaneously.
(d) If there is a problem with block coupling during the closure phase, the door will again close and attempt to enable the coupling.
(e) With the ON/OFF/HOLD switch, the O/C command is always active except in the "HOLD - Door open" position.
With the program selector, the O/C command usually functions in TWO-WAY mode.
With Parameter 8 selected, the O/C command functions in TWO-WAY / ONE-WAY / DOOR CLOSED mode.

14. Advanced settings available on the control panel version indicated, or subsequent versions



14.1 Increased thrust force on closure when an electric lock is fitted

1. Disconnect batteries if any.
2. Disconnect the mains.
3. Press the LEARN BUTTON (LRN) and keep it depressed.
4. Connect the mains.
5. Watch the ERROR LED.

3s **1s** 3s **1s** 3s **1s** 3s **1s** 3s

6. Release the LEARN BUTTON after 5 flashes (LED is out).
7. Identify the current lock kick status:
   The ERROR LED flashes an amount of short flashes that correspond to the status number.
   After a short pause the LED will repeat the status number and so on.
8. Changing the status:
   If you push the LEARN BUTTON once, the status number will increase.
   When you have reached the highest status number it will start at number one again.

- Push the button until you get the requested lock kick status, 1=Basic (default), 2=Enhanced
- Disconnect the mains

Next time the mains is connected, the operator will use the new status setting

14.2 Management of electric lock / electric strike power supply

Only valid for Normal electric lock (DIP2 = OFF).

1. Disconnect batteries if any.
2. Disconnect the mains.
3. Press the LEARN BUTTON (LRN) and keep it depressed.
4. Connect the mains.
5. Watch the ERROR LED.

3s **1s** 3s **1s** 3s **1s** 3s **1s** 3s **1s** 3s

6. Release the LEARN BUTTON after 6 flashes (LED is out).
7. Identify the current lock unlocked status:
   The ERROR LED flashes an amount of short flashes that correspond to the status number.
   After a short pause the LED will repeat the status number and so on.
8. Changing the status:
   If you push the LEARN BUTTON once, the status number will increase.
   When you have reached the highest status number it will start at number one again.

- Push the button until you get the requested status.
  1= With DIP2 in OFF and no COM400 function selector switch (or the latter in two-way mode), output 1-2 is permanently powered (default setting) = door closed not locked, for this reason, locks with mechanical reset cannot be used.
  If, on the other hand, you want to lock the door wing with the door closed, set the selector to MONODIRECTIONAL mode or make a jumper GND-EXIT (3-11). In this condition, output 1-2 is powered throughout the operation from opening until complete closure, for this reason, locks with mechanical reset cannot be used.
  2= With DIP2 in OFF and no COM400 function selector switch (or the latter in two-way mode). The output 1-2 is permanently powered when the door is closed. When the operator received an open command, output 1-2 is powered through the first 10° of door opening and through the last 10° of closing; for this reason, locks with mechanical reset cannot be used.
  With the selector on MONODIRECTIONAL mode or with a jumper GND-EXIT (3-11), the output 1-2 is powered only through the first 10° of door opening; for this reason, locks with mechanical reset **can be used**.
- Disconnect the mains.

Next time the mains is connected, the operator will use the new status setting

15. Door requisites for “Low Energy” use

The DAB105 automation is factory supplied with the setting “maximum performance”.
For Low Energy use modify the classification as shown in the table
1. Disconnect the batteries (if installed).
2. Disconnect the mains power supply.
3. Press the LRN self-learning button, and keep it pressed. Enable the power supply.
4. The LED will light up 3s **1s** 3s **1s** 3s.
5. Release the LRN self-learning button after 3 flashes (LED is out).
6. The LED flashes as many times as the classification number (see table).
7. Press the LRN button to pass to the next classification number after the set one.
8. Press the LRN button until you reach the required classification.
9. Disconnect the mains power supply.
10. When the mains power supply is reconnected, the automation will use the new setting.

CLASSIFICATION	1 - Maximum performance (Default)	2 - Low energy
Standard	/	In accordance with DIN18650-2 (EN16005:2012)
Opening speed	3-6 s	Automatic limit 1,69J
Closing speed	3-6 s	Automatic limit 1,69J

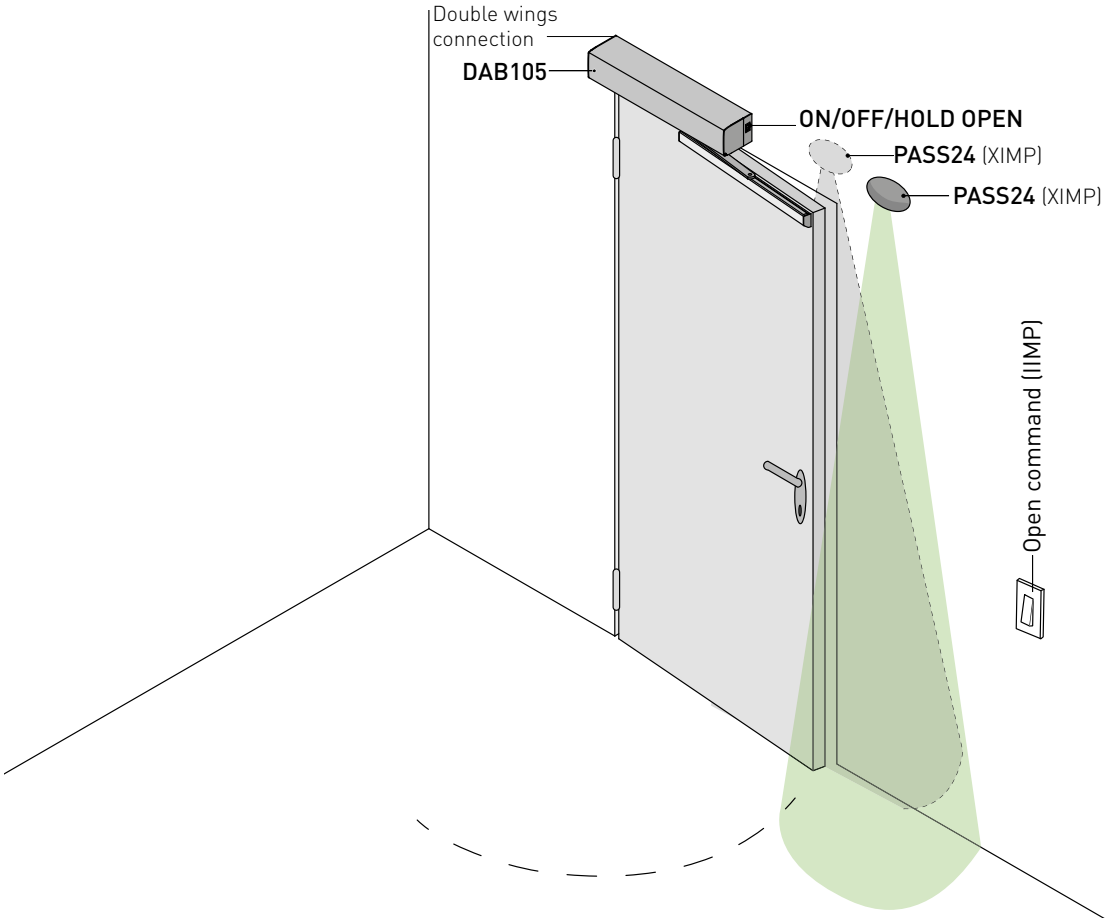
The maximum setting for the opening speed and closing speed is automatically limited to the value indicated in the table; consequently, the speed may only be reduced.

Launch the automatic self-learning procedure (LRN button) after every parameter s i etting modification.

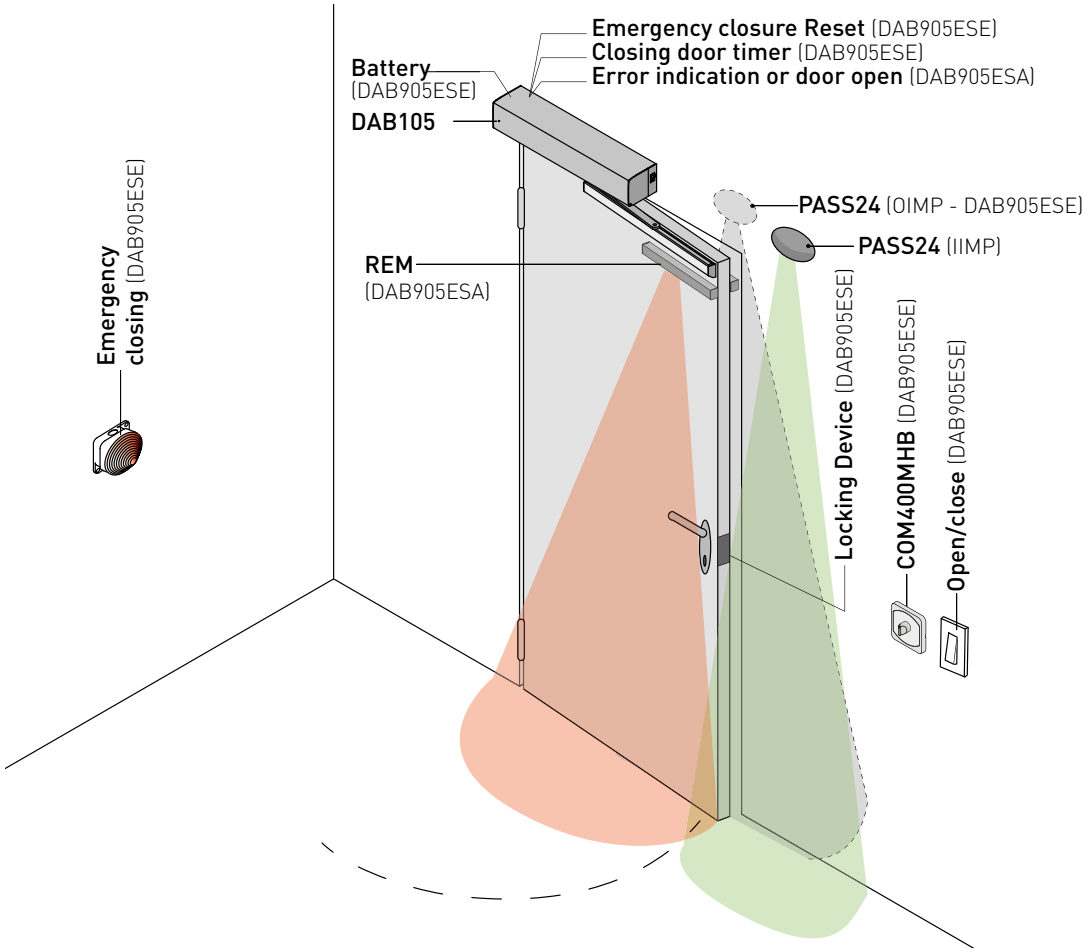
If necessary, adjust the OPSP and CLSP trimmers so that the opening and closing times are the same or longer than those indicated in the table in accordance with EN16005:2012 and ANSI 156.19 (the information in brackets refers to DIN 18650-2).
The table shows the minimum opening times for opening of up to 80° and the minimum closing times for openings from 90° to 10°.

		Door wing weight [kg]				
		50	60	70	80	90
Door wing length [mm]	750	3,0 s (3,0 s)	3,0 s (3,2 s)	3,0 s (3,2 s)	3,0 s (3,3 s)	3,5 s (3,5 s)
	850	3,0 s (3,1 s)	3,0 s (3,1 s)	3,5 s (3,2 s)	3,5 s (3,4 s)	4,0 s (3,6 s)
	1000	3,5 s (3,2 s)	3,5 s (3,4 s)	4,0 s (3,7 s)	4,0 s (4,0 s)	4,5 s (4,2 s)
	1200	4,0 s (3,8 s)	4,5 s (4,2 s)	4,5 s (4,5 s)	5,0 s (4,8 s)	5,5 s (5,1 s)

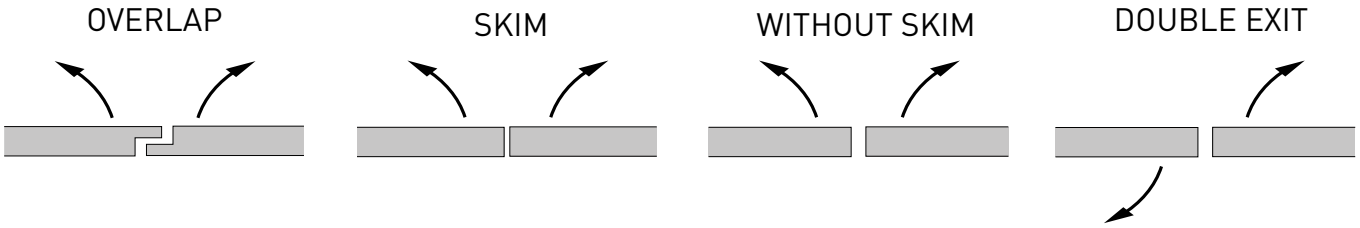
16. Example of an application with a standard control panel



17. Example of an application with optional extension units

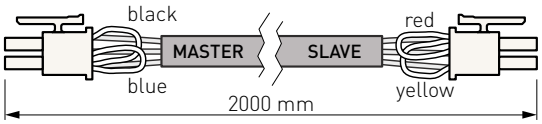


18. Synchronized doors (DAB905SYN)



Connect the two automations to the plug on the control panel, using the synchronisation cable (DAB905SYN).
Depending on the type of installation, cut the jumpers on the MASTER or SLAVE cable, as shown in the table:

The MASTER automation is the one that opens first.



Function		Door design				Cut the jumper with color	
Opening	Closing	Rebated	Jamming	No Jamming	Double egress	MASTER side	SLAVE side
Synchronous	Synchronous	/	/	YES	/	/	/
Synchronous	Asynchronous	YES	/	YES	/	BLACK	/
Asynchronous	Asynchronous	YES	YES	/	/	/	RED
Synchronous	Synchronous	/	/	/	YES*	BLACK	RED

(*) The operators works separately when received commands from installed safety sensors.

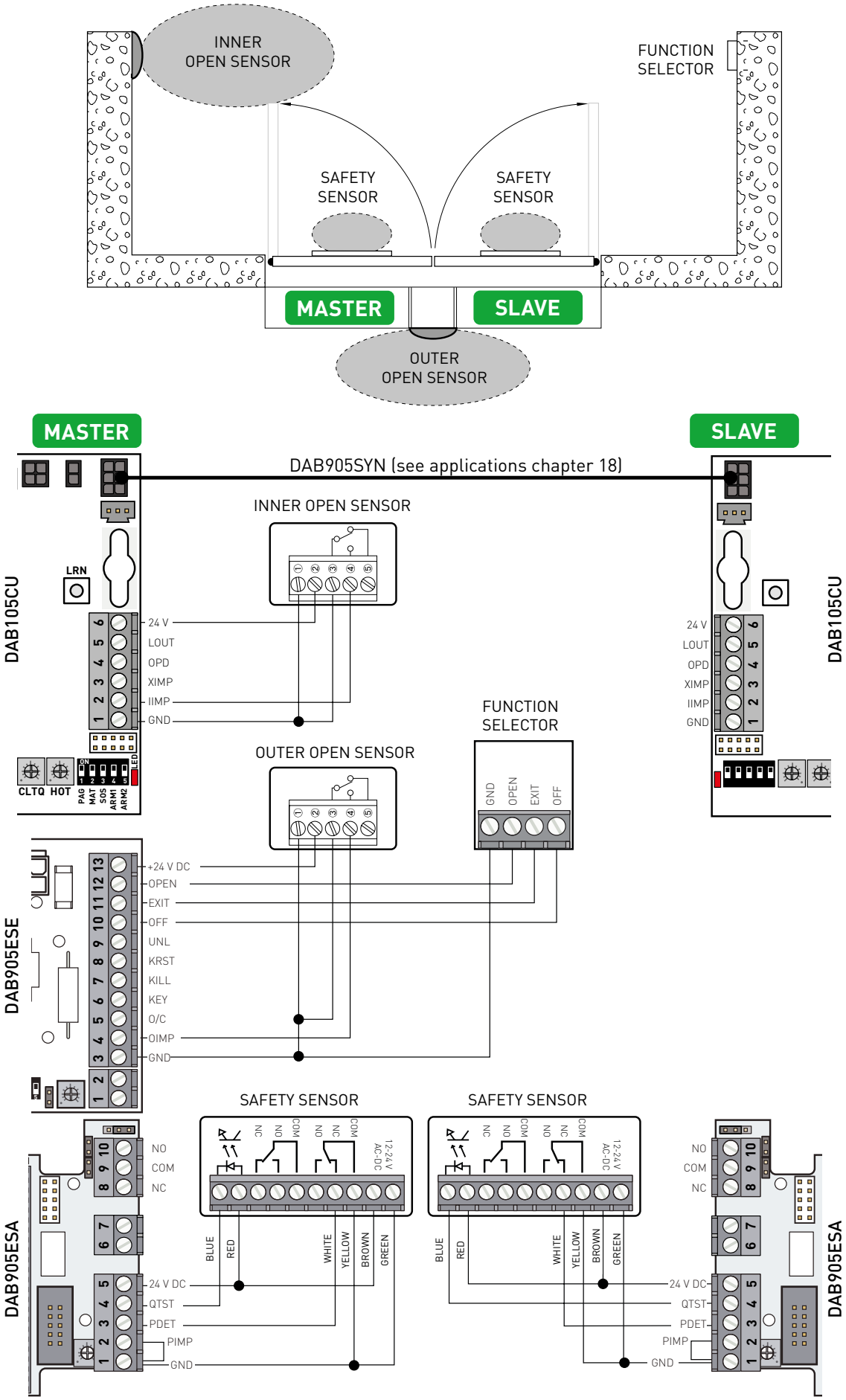
18.1 Settings

Operating mode	Settings	
	MASTER	SLAVE
Program selection	X	
Opening time	X	
Closure time	X	
Closure time adjustment	X	
Closure / Opening attempt when the door is obstructed	X	
Enable / Disable PAG	X	
Level of servo-assistance	X	X (*)
Closure force	X	X (*)
Pulse of motion sensor or mat	X	
Selection of operating mode during battery functioning	X	
Lock/release signal tension	X	X
Block powered / Unpowered	X	X
Enable / Disable block release	X	X
Open door delay	X	X
Enable / Disable snap block	X	X

(*) In double exit doors, these functions have to be set separately on the MASTER and SLAVE doors because the arm system and air pressure may differ.

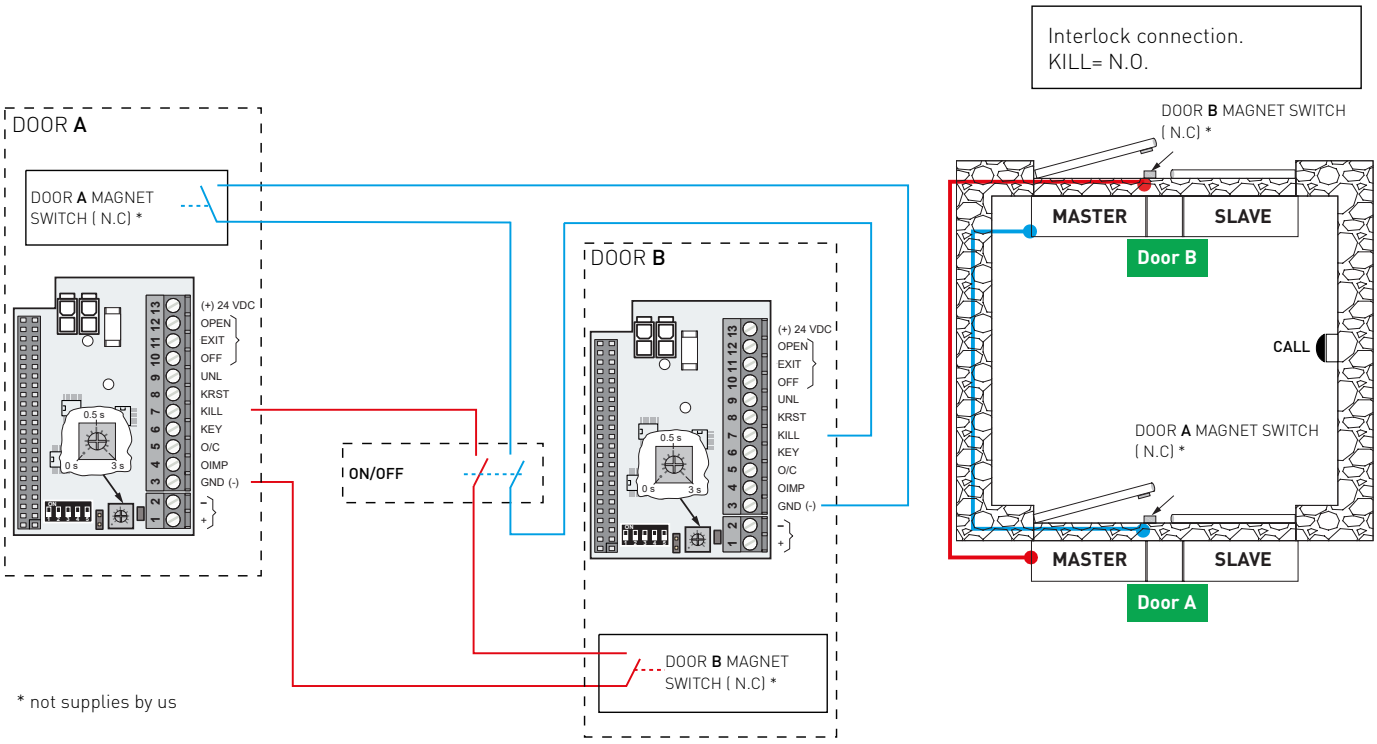
- The electric locks / electric strikes must be connected to the MASTER and SLAVE control panels.
- The opening devices must be connected to either the MASTER or SLAVE control panel, or to both.
- The OPD motion sensor must be connected to the MASTER control panel except for double exit doors where each OPD motion sensor must be connected to the corresponding control panel
- The sensors fitted on the wing must always be connected to the corresponding control panel.

19 Example of installation of synchronized doors (DAB905SYN)



20. Interlocked automations

This interlock function cannot be used if security is required



NOTE: the best solution is to install an intercommunication system or an emergency call button (CALL) on the inside, between the two doors.

In applications for interlocked doors, a micro switch must be installed on the MASTER A automation in order to disable opening of the MASTER B automation and vice versa.

When both doors are closed, the 3-GND 7-KILL contact is open. The first automation that opens closes the contact and prevents the other automation from moving.
When the first automation has closed, the second automation can open by way of a second opening command.

NOTE: If a KILL command is given to the SLAVE automation, only the SLAVE door will stop.

NOTE: If single interlocked doors are installed, the same connections indicated above are used.

21. Routine maintenance plan

Perform the following operations and checks every 6 months, according to the intensity of use of the automation.
Disconnect the power supply and batteries (if present), and position the ON-OFF switch on OFF:

- Clean and lubricate the moving parts.
- Check the securing screws are firmly in place.
- Check all the electrical connections.
- Make sure the batteries are in good working order.

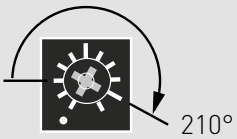
Restore the power supply and batteries (if present), and position the ON-OFF switch on ON:

- Check the stability of the door, and make sure it moves smoothly.
- Check the condition of the pivots or hinges.
- Make sure all the command and safety devices are working properly.

NOTE: for spare parts, see the spares price list.

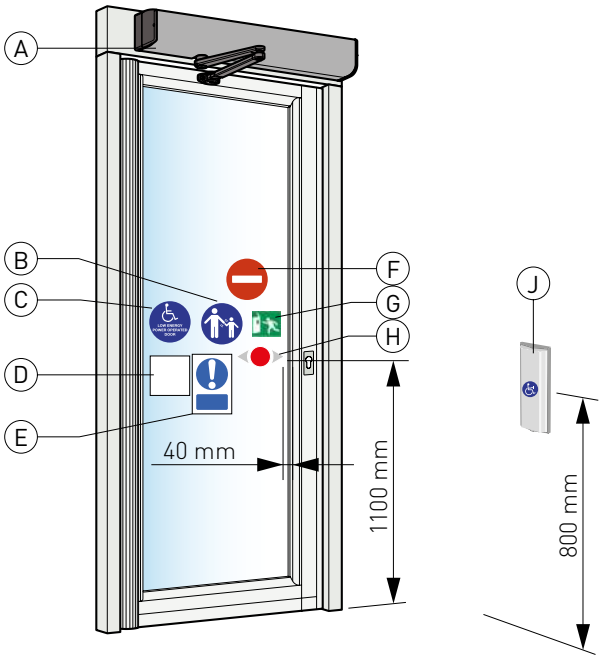
Only use original spare parts when repairing or replacing products.
The installer must supply all information concerning the automatic, manual and emergency operation of the motorised door, and must provide the user with the operating instructions.
The installer must prepare and keep a maintenance record showing all the routine and extraordinary maintenance work carried out.

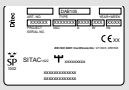
22. Troubleshooting

Problem	Possible cause	Solution / Explanation
The door does not open		
a) The motor does not start	The function selector is set on OFF	Change the function selector setting
	There is no mains power supply	Check the mains power supply
	The command unit does not work	Check the connections of the command accessories
	The motion sensor has been activated	Remove any objects from the detection area
	Emergency closure activated	Deactivate the emergency closure
	SPTE trimmer not set to 0°	Rotate the SPTE trimmer to 0°
b) The motor starts	Mechanical lock blocked	Release the lock
	Obstacle	Remove any obstacles
	Door stop jammed	Select block release
	The arm system is coming loose	Rotate the SPTE trimmer until the door stop is on the limit switch. Bring the door to its open position. Tighten the arm system. Rotate the SPTE trimmer to 0°
The door does not close	The selector is set on DOOR OPEN	Change the function selector setting
	The motion sensor contact has been activated	Remove any objects from the detection area
	Obstacle	Remove any obstacles
The spring pre-tensioning on the automatic system is unrecognised	Too many adjustments have been made	1. Rotate the SPTE trimmer until the end stop can be loosened. 2. Remove the end stop and the arm system. 3. Disconnect the mains power supply. 4. Disconnect the motor cable 5. Replace the arm system and locate the non-pretensioning point by moving the door wing backwards and forwards. 6. Loosen the arm. 7. Reconnect the motor cable. 8. Reconnect the mains power supply. 9. Adjust the SPTE trimmer at 210° and wait for the shaft to stop rotating.  10. Fix the end stop on the closure limit switch. 11. Set the SPTE trimmer to 0°. THE AUTOMATIC SYSTEM HAS RETURNED TO THE FACTORY SETTINGS. 12. Repeat the door start-up operations explained in chapter 12

23. Signs

Make sure the signs are in good condition, and attach them.
Obligatory indicates that this sign is required by the European directives and equivalent national legislation outside the EEC.



Ref.	Description	
A		Product label. Obligatory.
B		Supervision of children. Obligatory, if applicable. Attach to both sides of the door. Attach to doors used by children, the elderly and disabled (as shown by a risk analysis).
C		Automation suitable for the transit of disabled people. Recommended, if applicable. Attach to both sides of the door.
D		Automatic door. Obligatory in the UK only.
E		Do not block the passageway. Obligatory in the UK only.
F		No access. Indicates one-way transit. Obligatory in the UK, if applicable.
G		Emergency break-out. Obligatory if approved for escape routes.
H		Door label. Obligatory, if applicable. Warns of the presence of glass door wings. Attach to all mobile glass door wings.
J		The automation can be activated by disabled people. Recommended, if applicable.

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