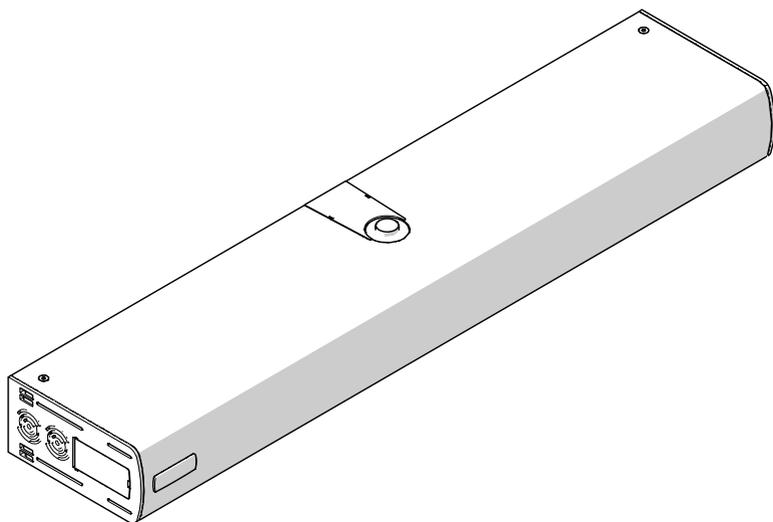


A952

EN



    EN16005

FAAC



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EN

Translation of the original instructions

These instructions are for boards starting from firmware version **3.1**. They will then be valid until a new version is released.

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1. INTRODUCTION TO THE INSTRUCTIONS MANUAL

This manual provides the correct procedures and requirements for installing A952 and maintaining it in a safe condition.

In Europe, the automation of a door falls under the Machinery Directive 2006/42/EC and the corresponding harmonised standards. Anyone automating a door (new or existing) is classified as the Manufacturer of the Machine. They are therefore required by law, among other things, to carry out a risk analysis of the machine (automatic door in its entirety) and take protective measures to fulfil the essential safety requirements specified in Annex I of the Machinery Directive.

FAAC S.p.A. recommends that you always comply with the EN 16005:2012 standard and in particular that you adopt the safety criteria and devices indicated, without exception.

This manual contains references to European standards. The automation of a door must fully comply with any laws, standards and regulations applicable in the country where installation will take place.

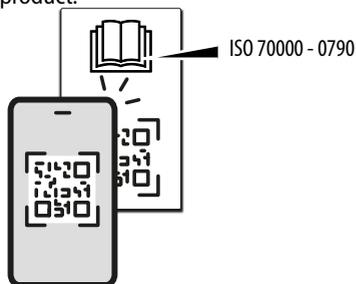
 Unless otherwise specified, the measurements provided in the instructions are in mm.

1.1 SAFETY WARNINGS FOR THE INSTALLER

Before starting, read and comply with the installation instructions and the "Safety warnings for the installer" booklet, supplied with the product.

ONLINE INSTRUCTIONS

When you receive your goods, to go directly to the specific instructions page for the product, scan the QR code associated with the ISO 70000 - 0790 icon on the product.



1.2 MEANING OF THE SYMBOLS USED

NOTES AND WARNINGS ON THE INSTRUCTIONS



WARNING - Details and specifications which must be respected in order to ensure that the system operates correctly.



RECYCLING and DISPOSAL - Components and structural materials, batteries and electronic components must not be disposed of together with household waste. They must be taken to authorised disposal and recycling centres.



FIGURE E.g.:  1-3 see Figure 1 - detail 3.



TABLE E.g.:  1 see Table 1.



CHAPTER/SECTION E.g.: §1.1 see section 1.1.



APPENDIX E.g.:  1 see Appendix 1.

1.3 PROTECTION AGAINST DOOR MOVEMENT HAZARDS

Swing type pedestrian doors fall within the scope of the type "C" harmonised European Standard, EN 16005. It is assumed that automation systems manufactured in accordance with this standard also comply with the essential safety requirements of the Machinery Directive 2006/42/EC.

This however does not exempt the manufacturer from carrying out a risk analysis in order to implement appropriate measures for those risks that are not covered by the standard or by the manufacturers of the components.

As a guideline only, in order to protect against risks related to moving parts, the standard EN 16005 requires that:

- The opening and closing movement must take place in "LOW ENERGY" mode, which means that the kinetic energy of the leaf must not exceed 1.69 joules and the maximum static force must not exceed 67 N.
- Alternatively, for doors that open onto heavy traffic areas or when any contact with the user is unacceptable because many of the users are elderly, sick, disabled or children, additional protective devices are to be used.

Among the possible solutions provided, the installation of ESPE equipment is recommended, which complies with EN 12978 CAT.2 (according to EN 13849), to monitor the full width of the door in both directions of movement.

2. A952

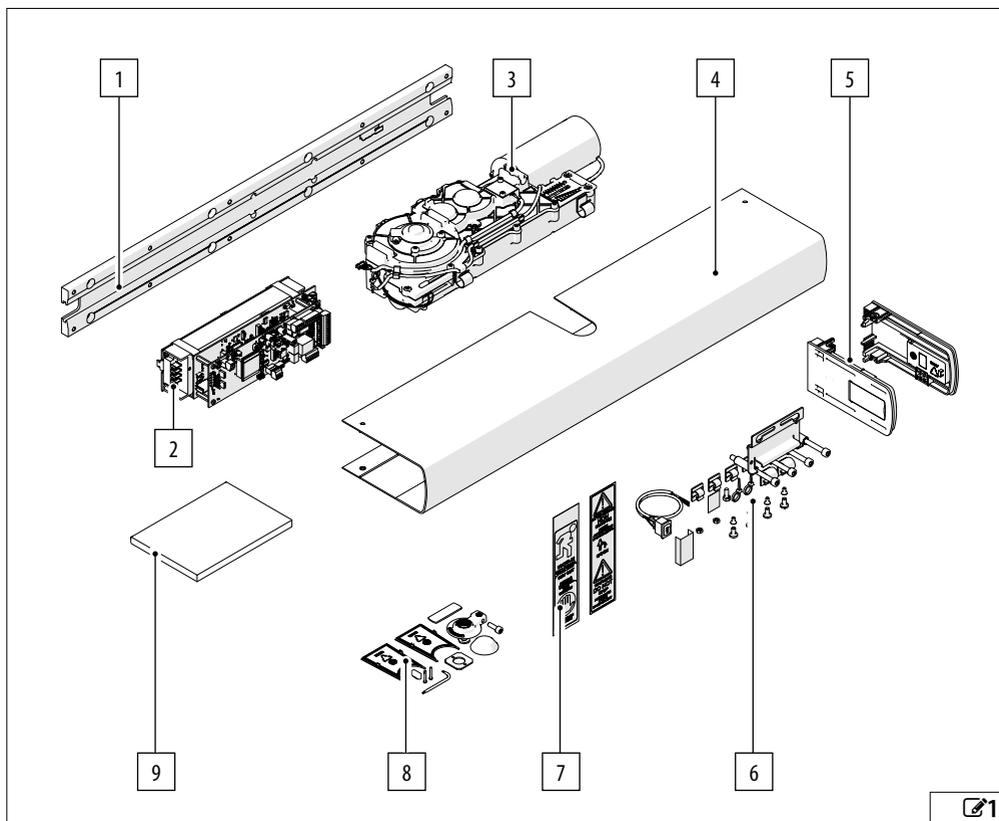
1.4 STORAGE

Keep the product in its original packaging, in a dry place indoors, away from direct sunlight, dust and corrosive substances. Protect from mechanical stresses. If storing for longer than 3 months, periodically check the condition of the components and the packaging.

- Storage temperature: from 5 °C to 30 °C.
- Storage humidity: from 30% to 70%

1.5 UNPACKING AND HANDLING

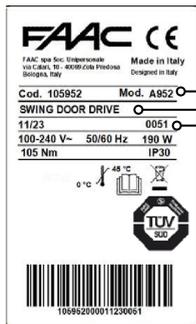
1. Open and remove all packaging elements.
2. Check that all components are present and intact.



A952

- | | |
|---|--|
| 1 | Support plate |
| 2 | Electronics assembly |
| 3 | Gearmotor |
| 4 | Cover |
| 5 | Side covers assembly |
| 6 | Mounting accessory assembly |
| 7 | Stickers |
| 8 | Integrated mechanical stop unit and covers |
| 9 | Documentation |

2.1 PRODUCT IDENTIFICATION AND WARNING LABELS



Sale code and model

Product name

Identification number:

Month/year of production

+

Progressive number for the month of production

Example:

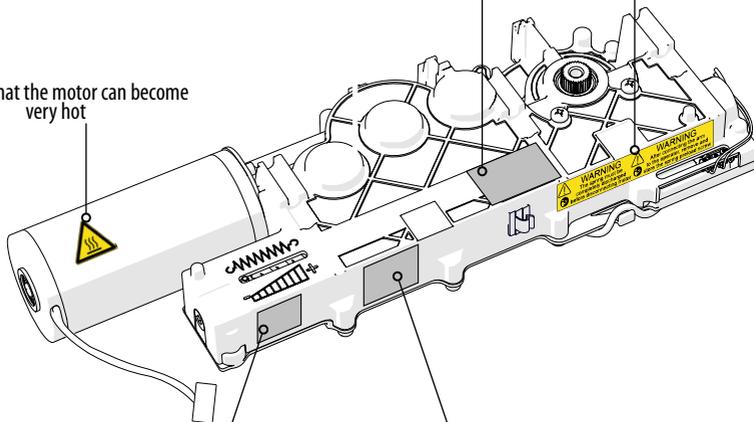
11/23 0051 (produced in November 2023 S/N 51)

Warning to unload the spring before disconnecting the motor

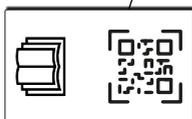
Warning about the removal and storage of the spring preload screw after connecting the operator arm



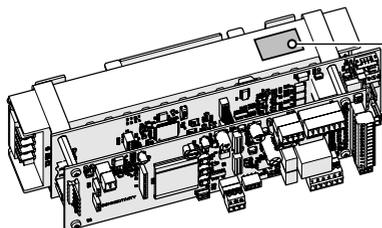
Warning that the motor can become very hot



Label with QR code for direct access to the online instructions.



Classification label
DIN 18650-1 and component
traceability



Component traceability label

2.2 INTENDED USE

The FAAC A952 electromechanical operator is designed to operate pedestrian swing doors with horizontal movement.

The A952 is designed to motorise standard entrances, escape routes, smoke and/or fire doors.

The A952 is suitable for indoor installation or outdoor installation if protected from the elements.

The A952 it is considered suitable for use in countries with a constant hot and humid climate. It can also be used in other countries.

One operator must be installed on each leaf.



Any other use that is not expressly specified in these instructions is prohibited and could affect the integrity of the product and/or represent a source of danger.

2.3 APPLICATION LIMITS

FAAC transmission arms have to be used to motorise the door (to be chosen according to the application).

The A952 is not suitable for recessed installations.

The A952 it is not suitable for installations on leaves that incorporate pedestrian doors.

The door must fall within the size and weight limitations indicated in the technical data section.

The presence of weather conditions such as snow, ice and strong wind, even occasional, could affect the correct operation of the automation, the integrity of the components and be a potential source of danger (see § Emergency use).

A952 is not designed to be a security (break-in protection) system.

Implementing the automation requires the installation of the necessary safety devices, identified by the installer through an appropriate risk assessment of the installation site.

2.4 UNAUTHORISED USE

- Uses other than the intended use are prohibited.
- It is prohibited to install the automation outside of the limits specified in the Technical Data and Installation Requirements sections.
- It is prohibited to install the automation system in environments in which there is a risk of explosion and/or fire: the presence of flammable gases or fumes is a serious safety hazard (the product is not ATEX certified).
- It is prohibited to power the system with energy sources other than those specified.
- It is prohibited to install the A952 for marine applications.
- It is prohibited to use the A952 in the following conditions:
 - direct exposure to the elements,
 - water jets of any type or size,
 - outside the technical limitations set out.
- It is prohibited to install the A952 on:
 - doors with vertical movement,
 - lift doors,
 - vehicle doors,
 - motorised doors or gates used mainly for vehicle traffic or goods access,
 - doors used in industrial processes,
 - partitions,
 - doors that are out of people's reach (such as crane gates and bridge cranes),
 - traffic barriers,
 - turnstiles,
 - doors next to subway / railway platforms.
- Risks relating to applications other than those intended have not been considered.
- It is prohibited to integrate commercial systems and/or equipment other than those specified or use them for purposes not intended and authorised by their respective manufacturers.
- It is prohibited to use and/or install accessories which have not been specifically authorised by FAAC S.p.A.
- It is prohibited to use the automation before performing commissioning.
- It is prohibited to use the automation in the presence of faults which could compromise safety.
- It is prohibited to use the automation with the fixed and/or mobile guards removed or altered.
- Do not allow water jets of any type or size to come into direct contact with the operator.
- Do not expose the door operator to corrosive

chemicals or atmospheric agents.

- Do not enter/remain in the area of operation of the automation while it is moving.
- Do not try to prevent the movement of the automation.
- Do not climb onto, hold onto or let yourself be pulled by the door.
- Do not allow children to approach or play in the area of operation of the automation.
- Do not allow the control devices to be used by anyone who is not specifically authorised and trained to do so.
- Do not allow the control devices to be used by children or persons with mental and physical deficiencies unless they are supervised by an adult who is responsible for their safety.

2.5 EMERGENCY USE

In emergencies or if there is a fault, turn off the power supply to the automation. If the door can be moved safely by hand, use the **MANUAL OPERATION** mode; otherwise place the automation out of service until it has been reset/repaired.

In the case of a breakdown, the automation must be reset/repaired exclusively by the installer/maintenance technician.

2.6 MANUAL OPERATION

The leaf can be operated manually in any of the following conditions:

- **MANUAL** mode selected
- Power supply disconnected.

A952 is a reversible door operator and is therefore not fitted with a release device that has to be actuated before the leaf is moved manually. If there is a lock, make sure that it has been unlocked before moving the leaf manually.

During manual operation, gently guide the leaf the whole way, do not push it and let it slide freely.

2.7 TECHNICAL SPECIFICATIONS

The A952 is an electromechanical operator that can be installed **on an architrave or a door**. It moves the door via a **shoe arm or articulated arm**.

The maximum weight of the leaf according to its width is shown in the graphs below, for each of the intended applications. The maximum opening angle is also indicated in the graphs. The maximum depth of the doorpost is also shown for each application.

The installation positions can be found in the installation diagrams (1-7).

The A952 consists of a **reversible kinematic mechanism** driven by a **direct current motor** fitted with an **encoder**, an **adjustable tension spring** and **integrated control electronics**. The function of the spring is to open or close the door (according to the type of installation) with an **adjustable speed**, in the absence of power or in manual mode.

The A952 can control a lock or an electromagnet to lock the door.

The A952 automates a single leaf and using a **canbus connection** between units, it is possible to automate **double-leaf doors, interlocked doors and doors configured in PRIMARY/SECONDARY mode (Intermode)**.

The A952 is fitted with an **electronic anti-crushing system** that is activated when an obstacle is detected during door movement:

- if an obstacle is detected during closing, the door reopens
- if an obstacle is detected during opening, the door stops for a few seconds and then continues to open.

Obstacle detection **sensitivity** can be **adjusted** for both opening and closing.

The opening and closing **speeds** are **adjustable**.

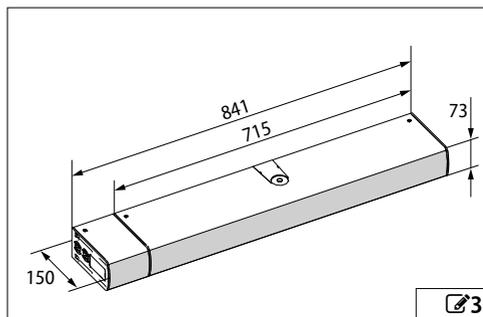
Many operating modes are available, which can be selected via the built-in rocker switch or via an external device.

The **PUSH AND GO** function allows the door to be pushed open (motorised or manual) with automatic reclosing.

The **POWER ASSIST** function reduces the resistance when opening the door to make it easier to operate by hand.

The accessory **battery kit**, to be installed on the side of the automation, allows movements to be carried out in the absence of mains power.

DIMENSIONS



Power supply voltage	switching power supply 110-240 V~ @50/60 Hz
Nominal absorbed power	190 W
Absorbed power in standby without accessories	7.3 W
Use frequency	100%
Ambient operating temperature *	-20 °C to +45 °C
MAX door weight	see graphs
Door width	see graphs
Doorpost depth MAX	see types of installation
Maximum opening angle	see types of installation
Installation	on architrave or door
Weight	12 Kg
Protection rating	IP30 (IP44 with specific kit)
Grade EN17372	articulated arm: 3-6 shoe arm: 1-5
LPA	< 70 dB(A)

* If the door is used as an escape route, the ambient operating temperature is 0°C +45°C

2.8 WEIGHT AND WIDTH LIMITS

The maximum weight of the leaf according to its width is shown in the graphs below.

All the points on the curve and all the points below the curve are valid weight and length combinations. Points above the curve correspond to weight and length combinations that cannot be automated using the A952.



The maximum opening angle or range of opening angles are indicated in each graph by the symbol \sphericalangle .

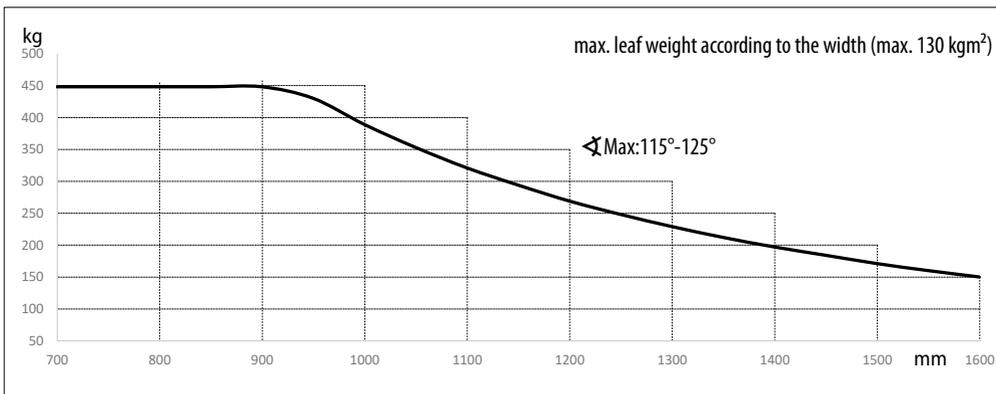
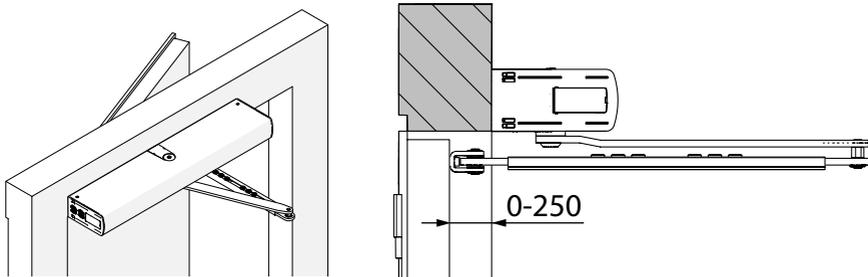
The maximum depth allowed between the surface of the door and the architrave is also shown for each application. The configuration parameter (α) to be set in basic programming is shown in brackets.

■ SHOE ARM

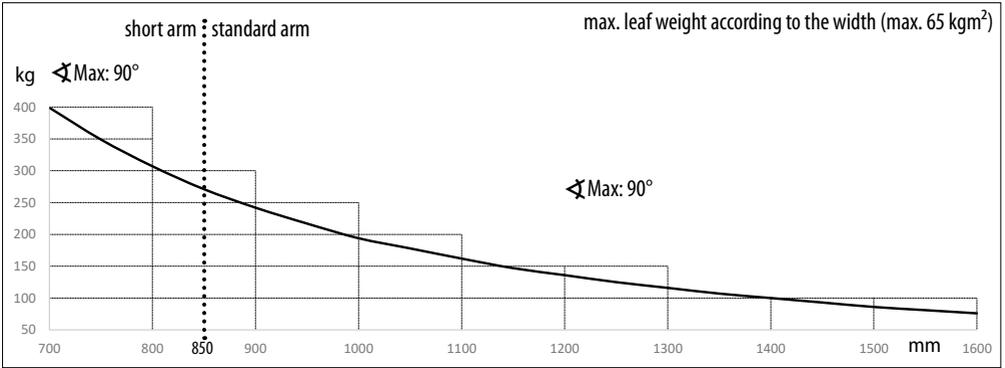
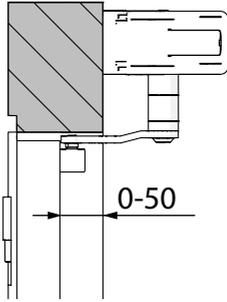
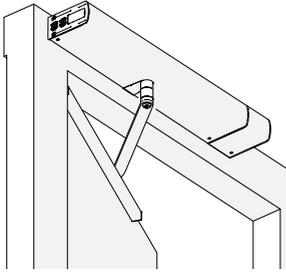
In the graphs relating to the shoe arm, the curve is divided into two sections corresponding to the use of the short arm and the long arm.

ARCHITRAVE-MOUNTED

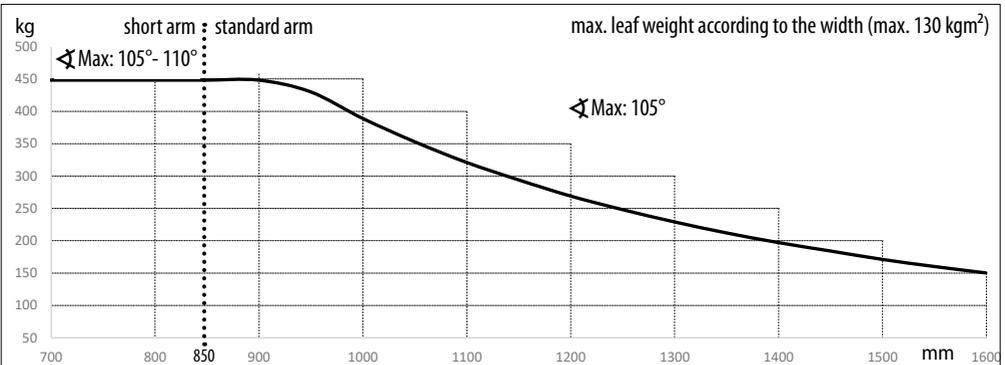
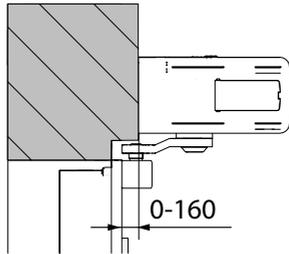
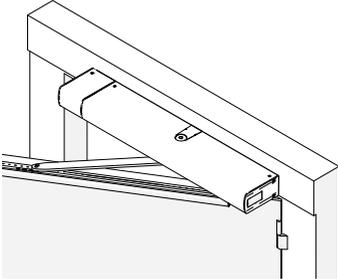
■ ARTICULATED ARM ($\alpha=3$)



■ SHOE ARM (α=2)



■ SHOE ARM (α=1)

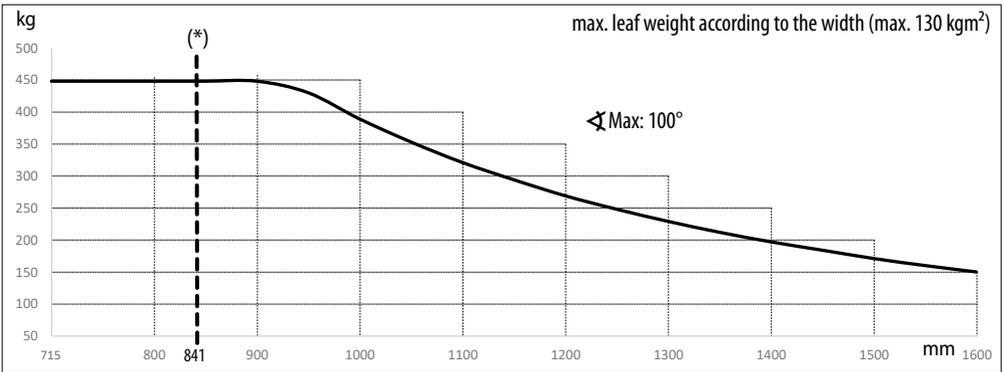
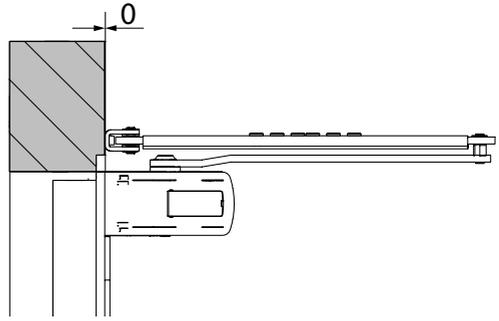
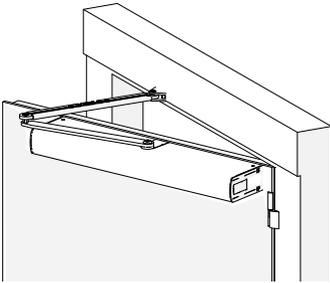


LEAF-MOUNTED

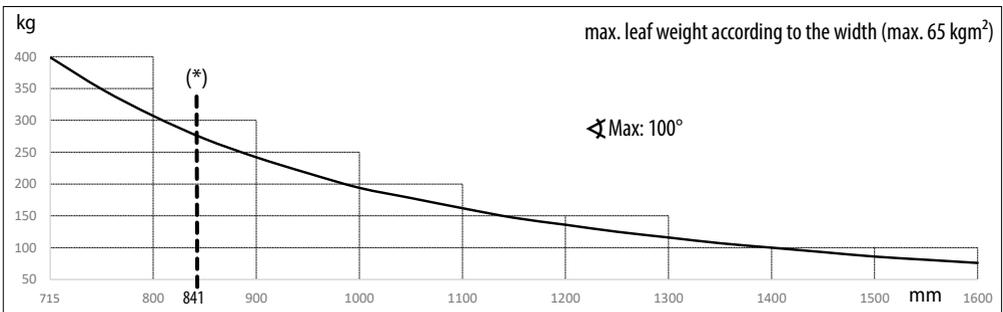
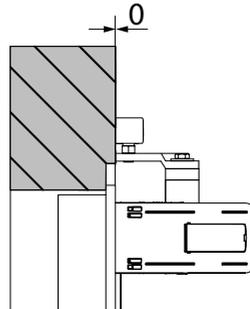
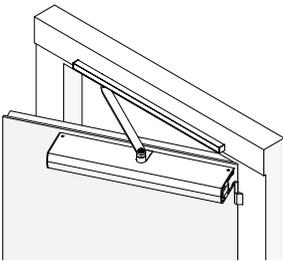


(*) The minimum leaf width for the A952 with a battery is 841 mm.

■ ARTICULATED ARM (α=3)



■ STANDARD SHOE ARM (α=2)



2.9 MAXIMUM SPEED LIMITS

The graph below shows the maximum speed level that can be selected during programming, according to the inertia of the door.

The formula for calculating the inertia of the door is as follows:

$$\text{Inertia [kgm}^2\text{]} = [\text{door weight} \times (\text{door length})^2] / 3$$

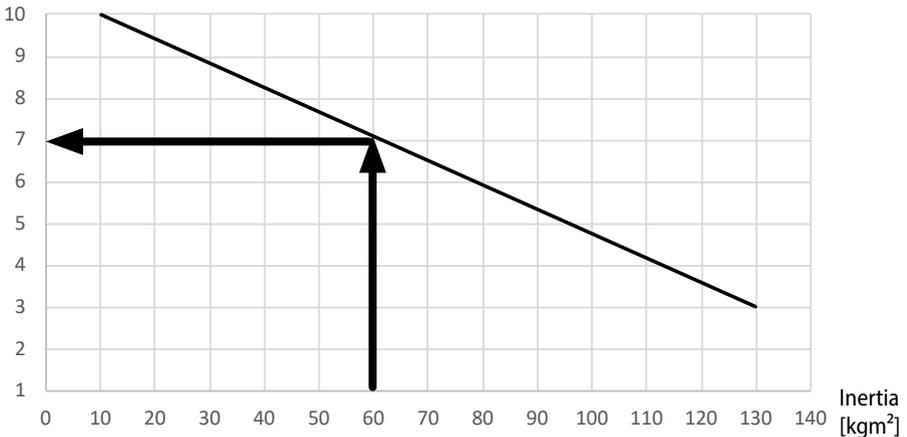
■ **EXAMPLE:**

Weight = 90 kg , Length = 1.4 m

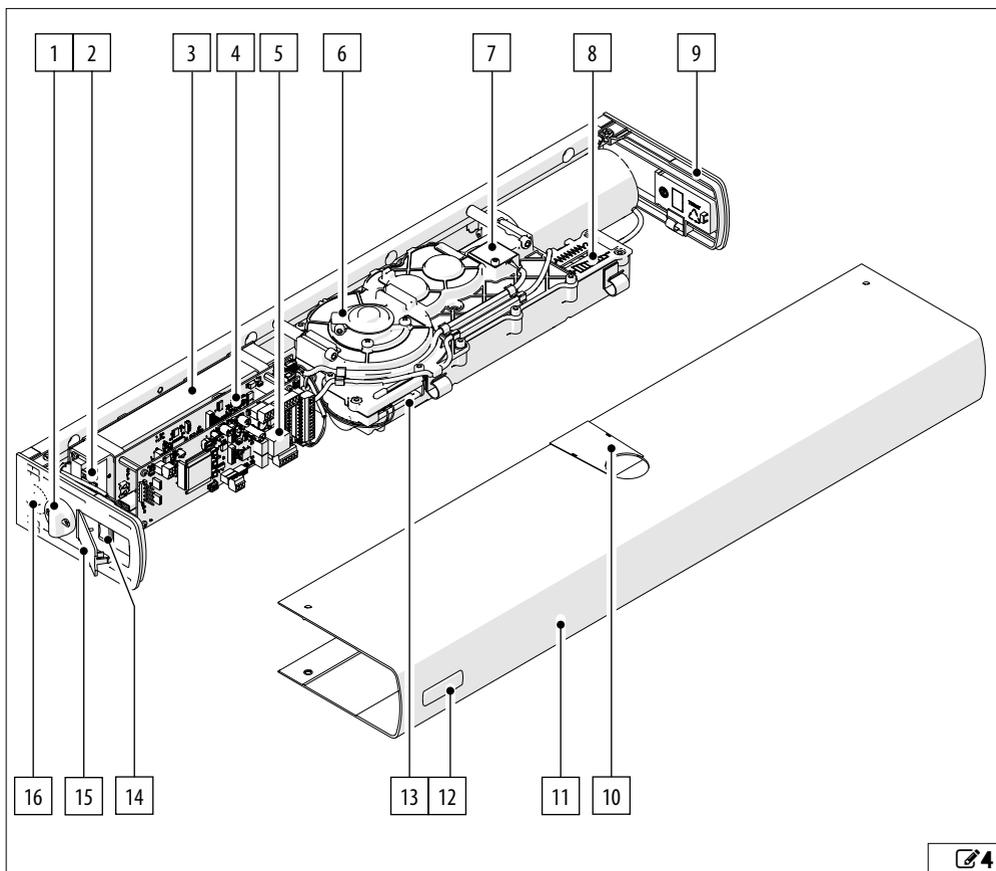
Inertia = $(90 \times 1.4^2) / 3 = 59 \text{ kgm}^2$

Maximum speed level that can be set = 7

Max. speed level



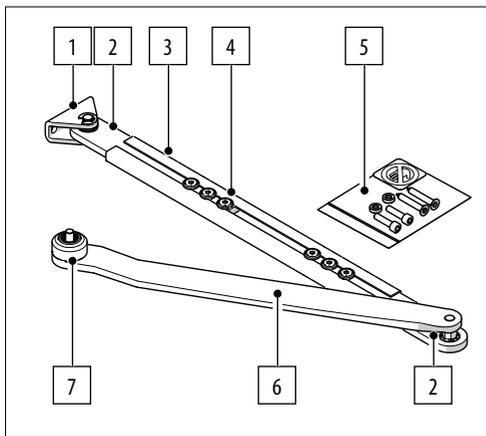
2.10 COMPONENT IDENTIFICATION



A952

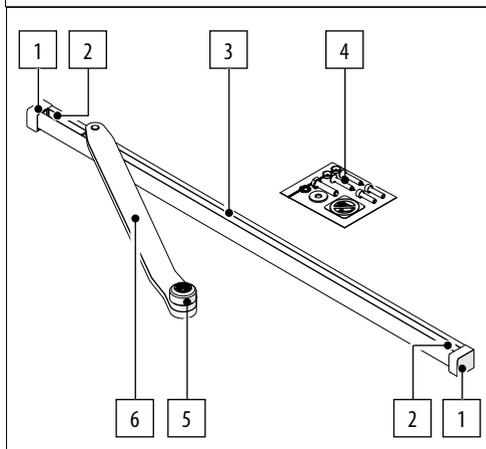
1	Pre-arrangement for cable gland - XPB SCAN sensor	9	Side profile
2	Power supply terminal board	10	Slot cover
3	Switching power supply	11	Cover
4	Board E952CL	12	Adhesive logo
5	Board E952IO	13	Micro switch SOFT DRAW/KICK LOCK
6	Integrated mechanical stop	14	Functions selector
7	Encoder	15	Side function selector access cover
8	Spring adjustment	16	Knock-out holes for cable glands

2.11 INSTALLATION COMPONENTS



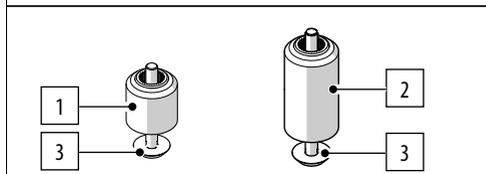
Articulated transmission arm

- 1 Mounting bracket
- 2 Rods inside the guide
- 3 Guide
- 4 Fastening screws
- 5 Accessories (screws, adhesive caution sign)
- 6 Arm
- 7 Insert and fastening screw



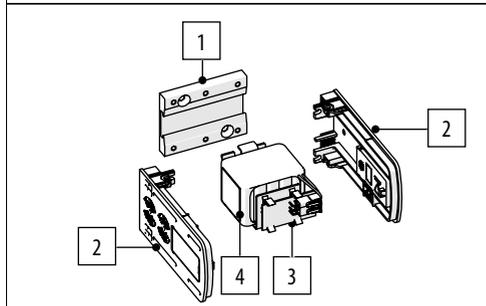
Shoe-type transmission arm (standard or short version)

- 1 Side covers
- 2 Side profiles with grub screw
- 3 Guide (short 670 mm , standard 770 mm)
- 4 Accessories (screws, adhesive caution sign)
- 5 Insert and fastening screw
- 6 Arm (short 390 mm , standard 450 mm)



Spacers

- 1 Spacer 50 mm (H50)
- 2 Spacer 80 mm (H80)
- 3 Fastening screw, washer and disc spring washer



Backup battery

- 1 Support plate
- 2 Side profile
- 3 Battery board
- 4 Battery pack

3. MECHANICAL INSTALLATION

2.12 TOOLS REQUIRED



Use appropriate tools and equipment in working environments which comply with applicable legislation.



SET OF HEXAGONAL SPANNERS



SET OF FLAT HEAD SCREWDRIVERS



SET OF PHILLIPS SCREWDRIVERS



SET OF ALLEN KEYS



LEVEL



DRILL



WIRE STRIPPER/CABLE LUG CRIMPER

TORQUE WRENCH - if necessary for safety, a torque wrench and the TIGHTENING TORQUE will be specified.
E.g.: HEX SPANNER 6 set at 2 Nm



6

2.13 INSTALLATION INSTRUCTIONS

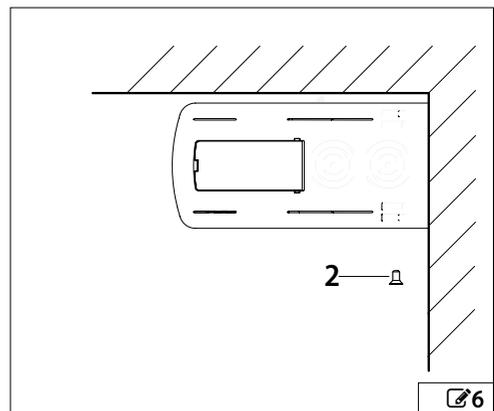
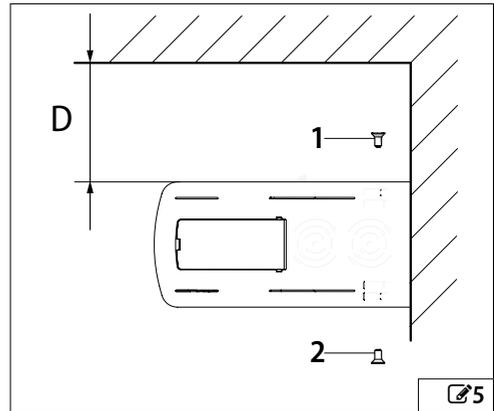
DISTANCE FROM CEILING

If the operator is to be installed close to an existing ceiling, make sure that there is sufficient space (D) to allow access to the fixing screws 1 of the casing, taking into account the tools available.

If the mechanical coordinator accessory is to be fitted, add 30 mm to space D.



If there is insufficient space to access the upper fixing screws, they can be omitted, ensuring that the cover is firmly secured with the lower screws 2 (6).



PERMISSIBLE SUBSTRATES

The A952 can be mounted on the following materials: concrete, concrete and masonry (comparable to concrete), solid brick (holes <15%), wood, steel

SUBSTRATE CONDITION

Before installation, you should carefully check the condition of the existing substrate that the system will be anchored to. The substrate must be in good condition without any evident cracking or patching up. Specifically, the following apply for the various types of substrate:

■ CONCRETE

The attachment surface must be homogeneous and compact, without voids or flaking due to corrosion caused by carbonation.

■ SOLID BRICK (VOIDS <15%)

The attachment surface must be homogeneous, without any cracked brickwork. In the case of previous installations, the position of the new holes must not coincide with existing holes and the minimum distance from the edges must be maintained. The mortar joints must not come away simply by running a hand tool over them. The wall must have been faced to a good standard.

■ STEEL

Steel architraves must show no signs of corrosion and must be treated with anti-corrosive passivating agent. A minimum anchoring thickness of 6mm is recommended.

■ ALUMINIUM

A minimum anchoring thickness of 10mm is recommended.

■ WOOD

Wooden architraves must not show any sign of rot or damp, and must not have been previously used, cut or damaged.

OPERATOR FIXING METHOD

For substrates indicated above, we suggest several types of fastenings made by well-known manufacturers that are readily available on the market. This does not mean that other products cannot be selected; however, their maximum load carrying capacity in the technical data sheets must be checked.

Mechanical polyamide expansion fasteners should be used; the recommended diameters are M6 for the screw and 8 mm for the dowel.

The following table summarises the main characteristics and types of anchor and their relative load carrying capacity according to the substrate (information taken from the fastener manuals of the relative manufacturers):

Substrate	Make	Model	Diameter (mm)	Traction (kN)	Load carrying capacity (kN)
Concrete (1.)	Fisher	Duopower 8x40	6	1.26	1.26
	Hilti	HRD 8	6	1.1	5.2
Solid brick (2.)	Fisher	Duopower 8x40	6	0.63	0.63
	Hilti	HRD 8	6	0.48	1.2
Steel / Aluminium	Würth	Self-tapping for steel	4.2-6.3		>2.0
Wood (3.)	Rothoblass	HBS	6x50	3.37	2.05

1. For structural concrete having a minimum strength of C20/25.
2. For solid bricks having a minimum density of 18 kN/m³, a minimum compressive strength of 10 N/mm² and a max. long and short-term temperature range of 50°/80°.
3. A pilot hole should drilled in anchoring wood thicknesses of less than 60mm.

Anchoring to a masonry architrave is not allowed since the strength of the anchors are lower than those of calculation; if brick platbands are present, a special counterplate should be anchored to the masonry and tested.

3.1 SUPPORT PLATE

TYPES OF INSTALLATION

The A952 offers several installation options:

- On the architrave
- On the leaf
- With an articulated arm
- With a shoe arm
- With CLOSING SPRING

When the system is not powered, the door is opened manually by counteracting the force of the spring (which becomes loaded).

When the door is released, it is closed by the spring, which decompresses.

- With OPENING SPRING

When the system is not powered, the door is closed manually, counteracting the effect of the spring (which becomes loaded).

When the door is released, it is opened by the spring, which decompresses.

The various installation options and the relative mounting positions are shown in the following diagrams.

The title of each diagram indicates the α parameter setting in on-board programming for the specific application.

Each diagram shows the installation on the right door and left door.

The orientation of the support plate is indicated by the position of the icon .

The following icons, located in the corners of the diagrams, indicate respectively:



1. Opening in the direction opposite to the side on which the operator is mounted.



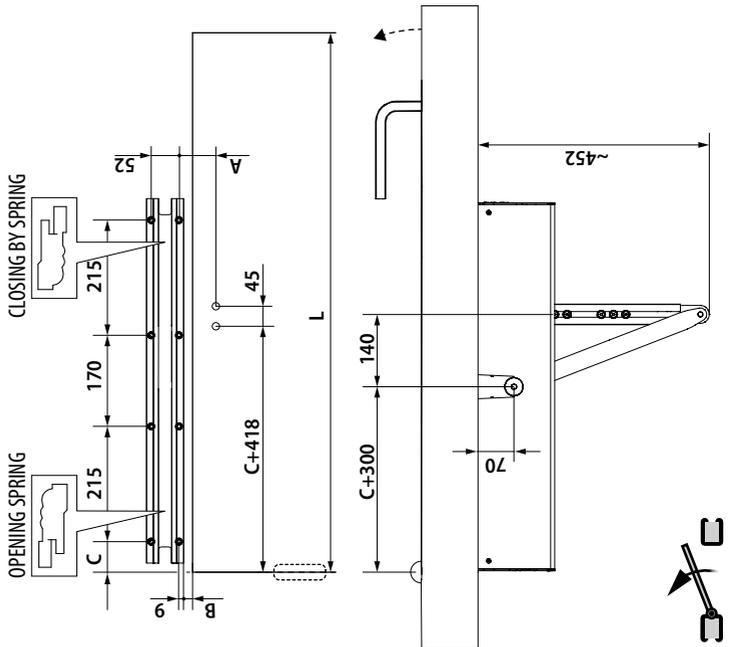
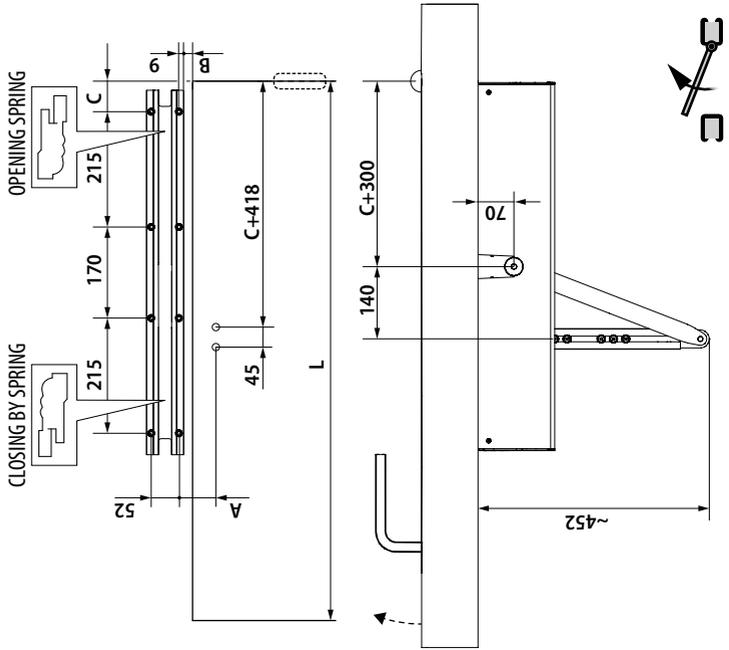
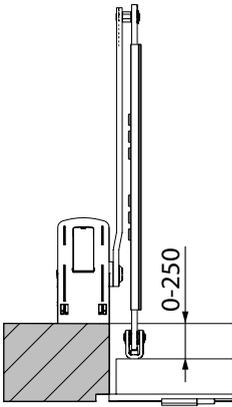
2. Opening in the direction of the side on which the operator is mounted.

1 Installation on architrave with an articulated arm ($\alpha t=3$)

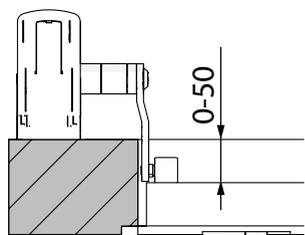
i Leaf width (L): 700...1600 mm

Spacers	A	B
No spacer	50.5	13
Spacer 50 mm (H50)	80.5	43
Spacer 80 mm (H80)	110.5	73

L (leaf width)	C
700-724	-10
725-749	+10
750-774	+30
>775	+60

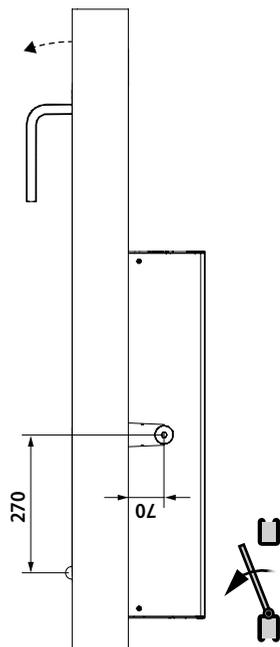
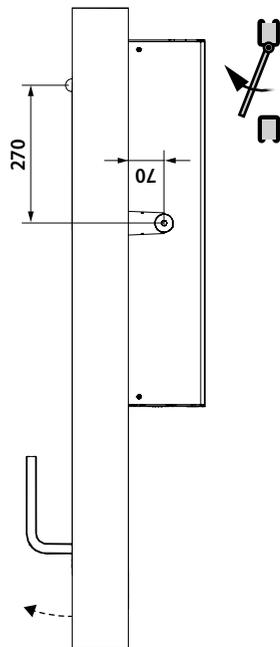
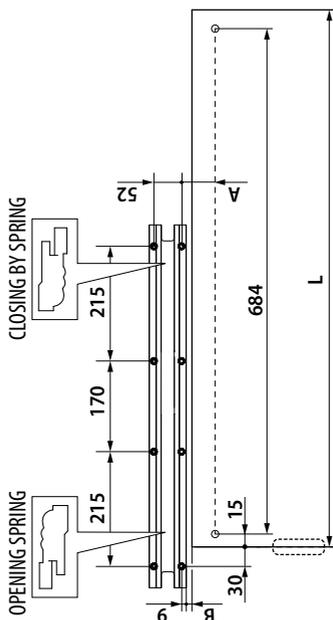
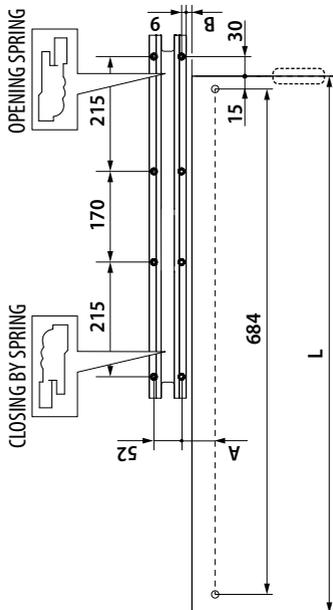


2 Installation on architrave with a short shoe arm (2t=2)

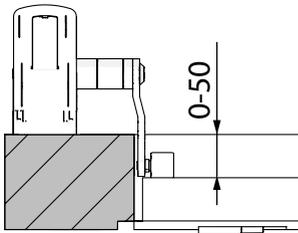


i Leaf width (L): 715...849 mm

Spacers	A	B
No spacer	55	13
Spacer 50 mm (H50)	85	43
Spacer 80 mm (H80)	115	73

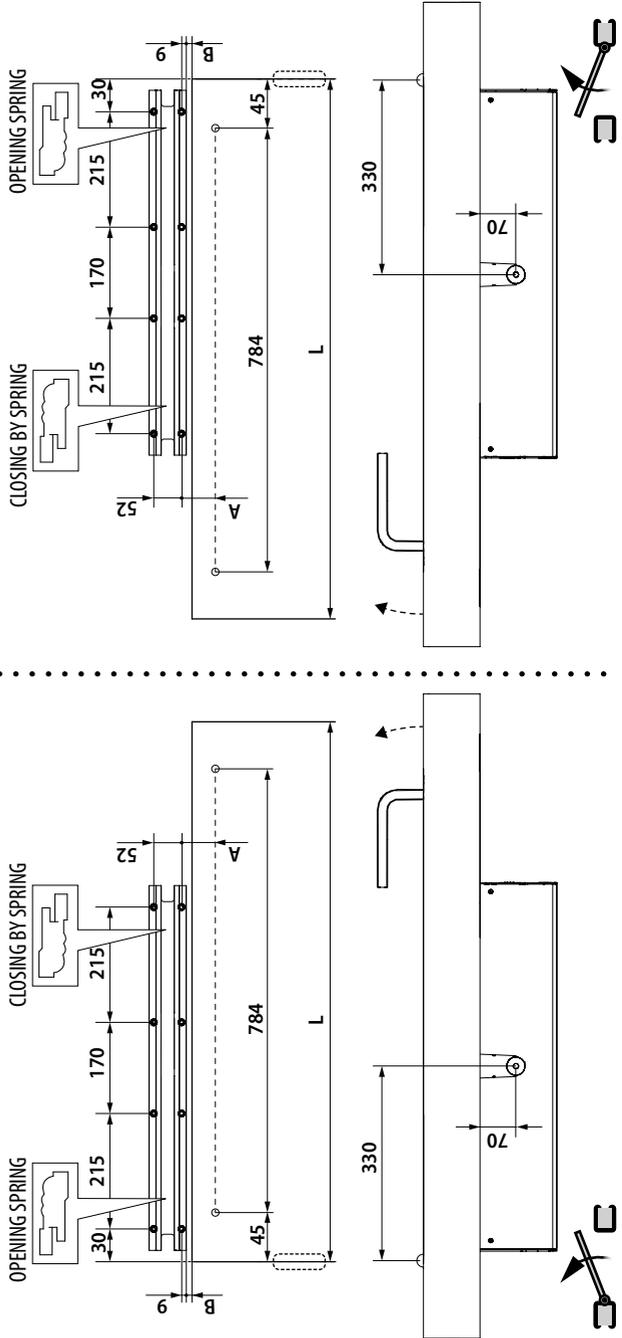


3 Installation on architrave with a standard shoe arm (at=2)



Leaf width (L): 850...1600 mm

Spacers	A	B
No spacer	55	13
Spacer 50 mm (H50)	85	43
Spacer 80 mm (H80)	115	73



4 Installation on architrave with a short shoe arm ($\alpha t=1$)

Leaf width (L)

700-749	750-799	800-849
D = -55	D = 0	D = 20
D = -58	D = -4	D = 20
D = -61	D = -8	D = 18
D = -65	D = -12	D = 15
D = -70	D = -16	D = 12
D = -75	D = -20	D = 7
D = -81	D = -24	D = 2
D = -88	D = -30	D = -3
D = -96	D = -36	D = -8
D = -104	D = -42	D = -13
D = -112	D = -48	D = -18
D = -122	D = -55	D = -24
D = -133	D = -64	D = -32
D = -146	D = -73	D = -40
D = -161	D = -82	D = -48
D = -179	D = -94	D = -58

Architrave overlaps 5

E = 10 E = 60 E = 85

Leaf width (L): 700... 849 mm

Spacers	A	B
No spacer	55	33
Spacer 50 mm (H50)	85	63
Spacer 80 mm (H80)	115	93

5 Installation on architrave with a standard shoe arm (at=1)

Leaf width (L)

0-9	850-899	900-949	≥950
10-19	F = 40	F = 60	G = 110 F = 60 G = 160
20-29	F = 35		
30-39	F = 31		
40-49	F = 28		
50-59	F = 24		
60-69	F = 20		
70-79	F = 16		
80-89	F = 11		
90-99	F = 6		
100-109	F = 0		
110-119	F = -6	G = 60	
120-129	F = -13		
130-139	F = -20		
140-149	F = -28		
150-160	F = -38		

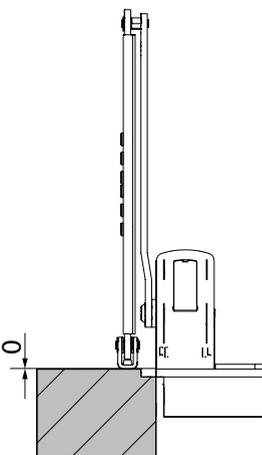
Architrave overlap 5

Leaf width (L): 850...1600 mm

Spacers	A	B
No spacer	55	33
Spacer 50 mm (H50)	85	63
Spacer 80 mm (H80)	115	93

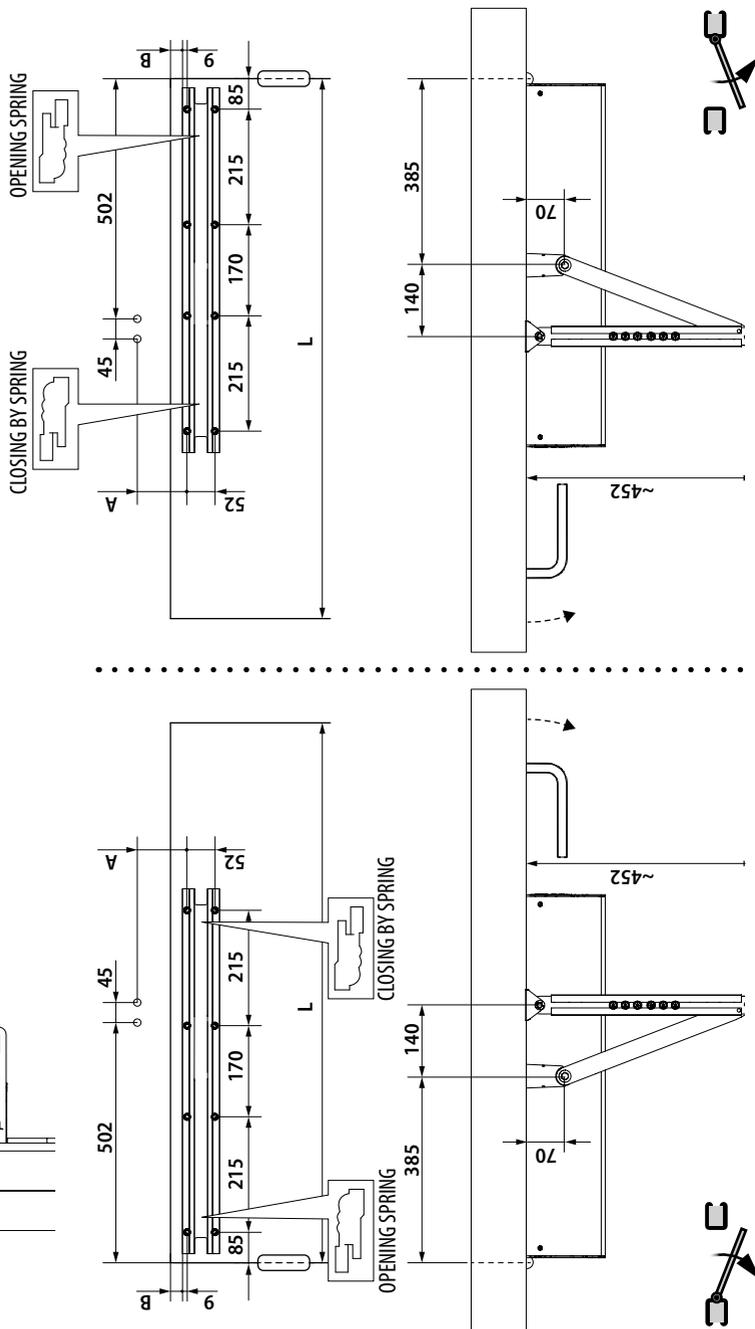
O-160 (S)

6 Installation on leaf with an articulated arm (at=3)

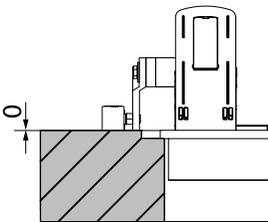


i Leaf width (L): 750...1600 mm

Spacers	A	B
No spacer	50.5	15
Spacer 50 mm (H50)	80.5	45
Spacer 80 mm (H80)	110.5	75

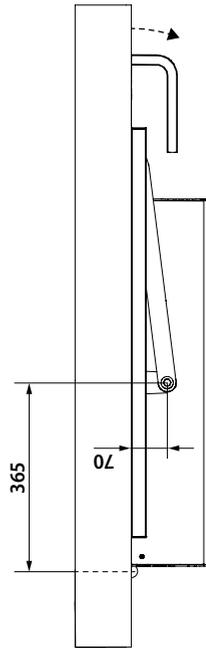
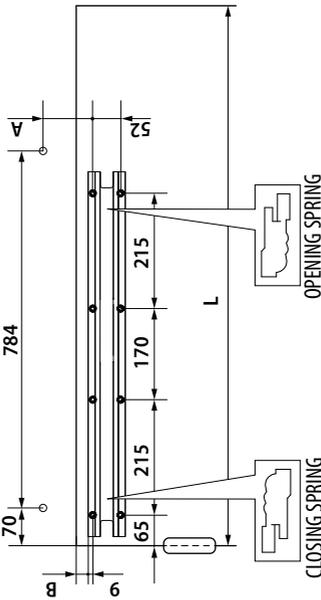
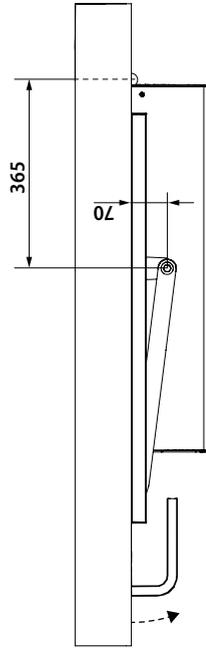
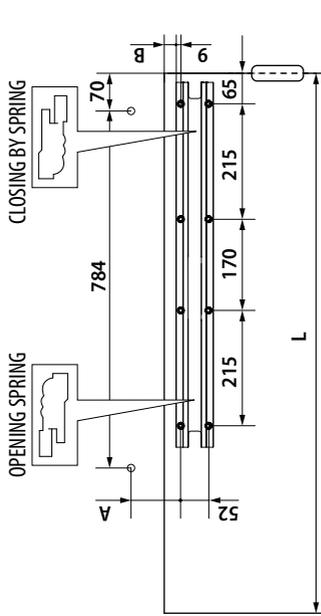


7 Installation on leaf with an standard shoe arm (at=2)



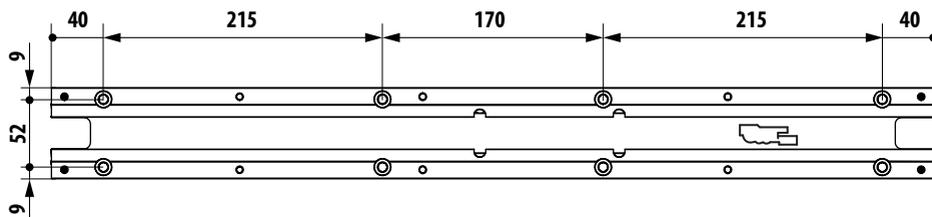
i Leaf width (L): 750...1600 mm

Spacers	A	B
No spacer	55	15
Spacer 50 mm (H50)	85	45
Spacer 80 mm (H80)	115	75



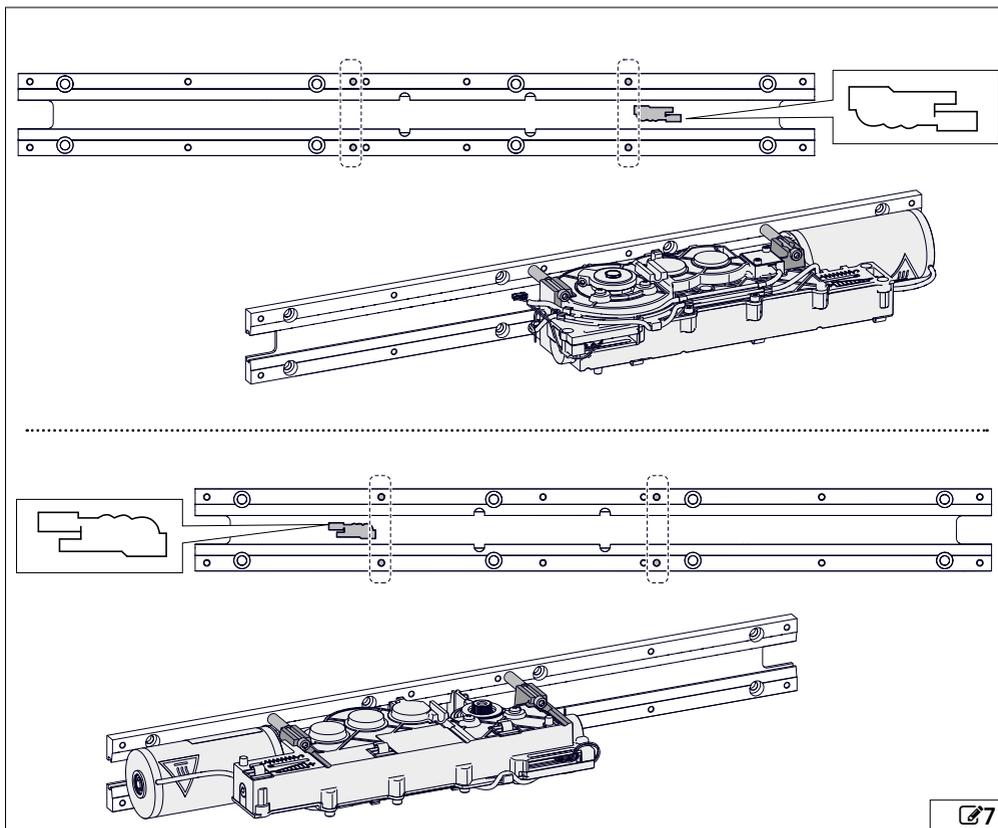
FIXING THE SUPPORT PLATE

The support plate is secured via 8 holes, the positions of which are shown in the following figure:



The outline of a shape marked on the plate indicates the mounting position of the gearmotor. The orientation of the plate varies according to the type of application, as described in the references [1-7](#).

The holes highlighted in the figure show the points where the gearmotor is to be fastened

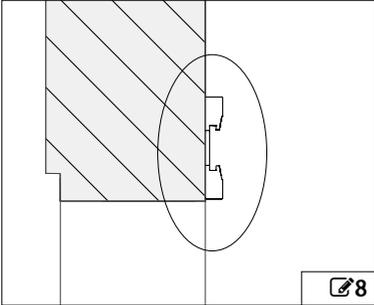


1. Decide the direction in which to install of the plate, considering the position of the gearmotor according to the type of application (refer to 1- 7).
2. Drill the holes for the support plate and arm by referring to the installation diagram for the specific application (1- 7).

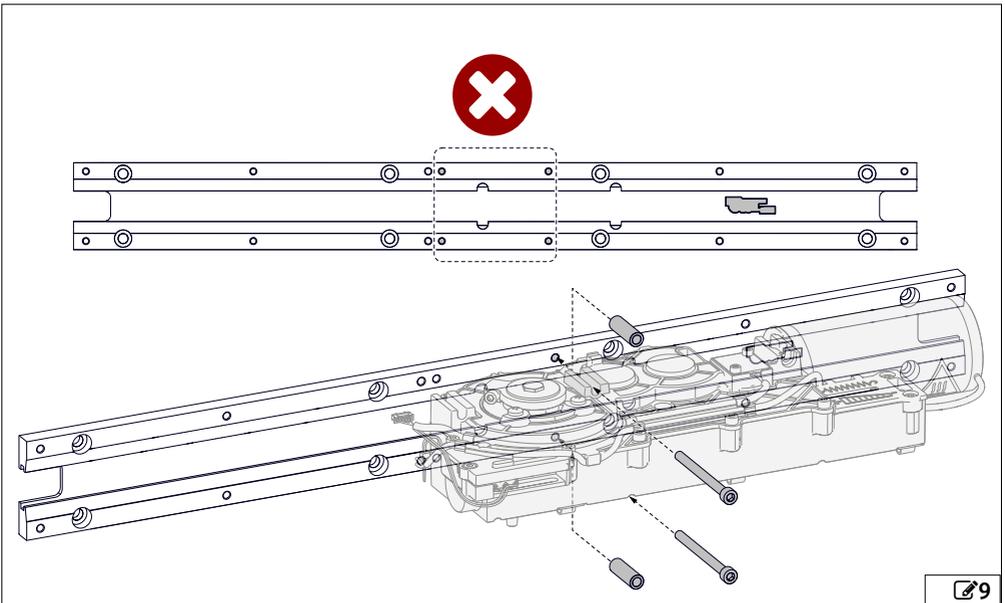


In some cases, the measurements may vary according to the width of the leaf and/or the depth of the doorpost. Refer to the tables in the installation diagrams for the correct value to use.

3. Secure the plate using the anchors provided according to the type of material, as indicated above. The plate should be installed with the smooth side resting against the mounting surface (8).



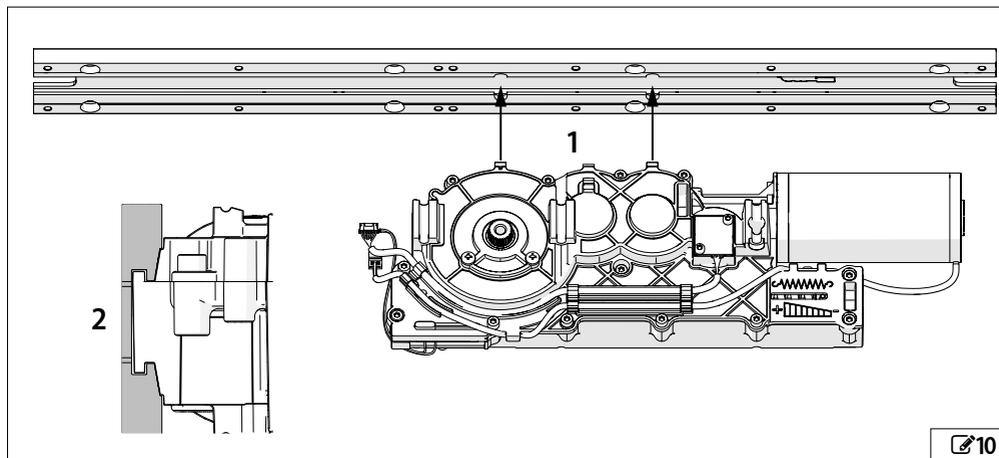
The highlighted holes must NOT be used to secure the gearmotor to the plate.



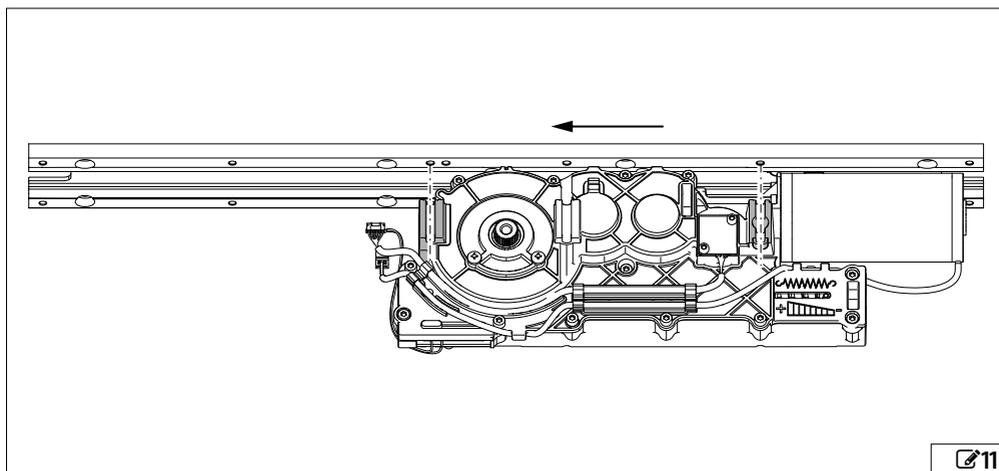
3.1 INSTALLING THE GEARMOTOR

i The assembly sequence drawings refer to one of the possible installations. The actual orientation of the gearmotor could be upside down (the mounting direction of the plate has been determined previously) but this does not affect the understanding of the procedures to follow.

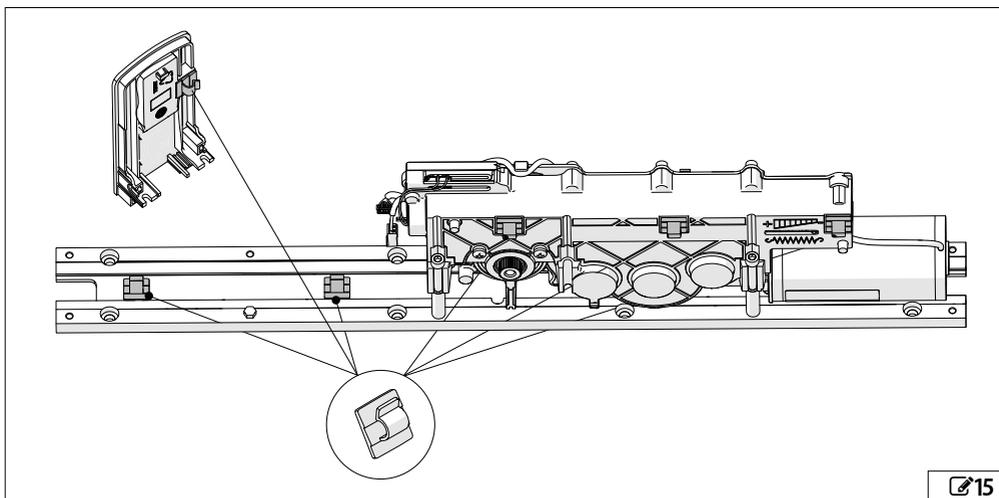
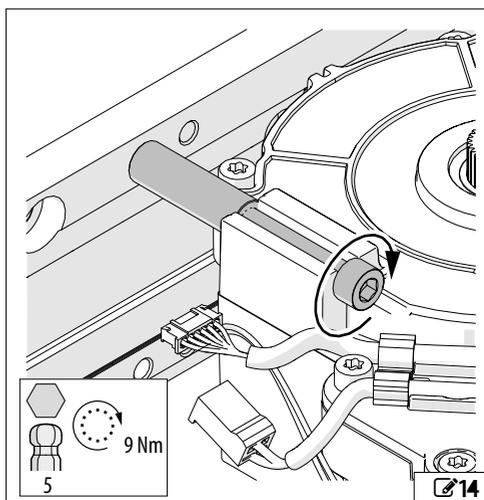
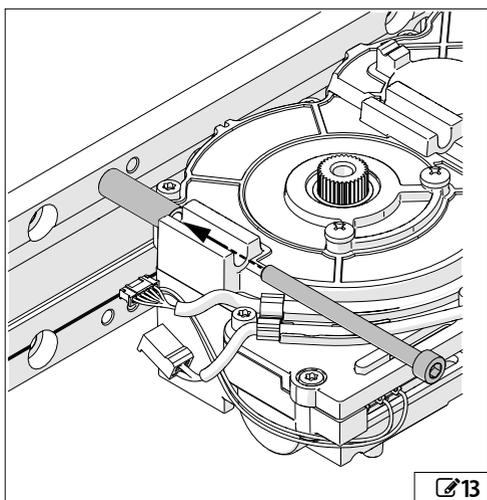
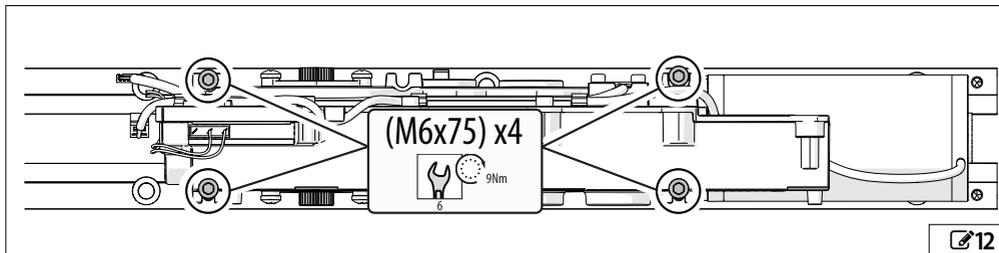
1. Rest the gearmotor against the plate, inserting the two inserts into the slots (🔗10-1) so that they are positioned in the guide on the plate (🔗10-2).



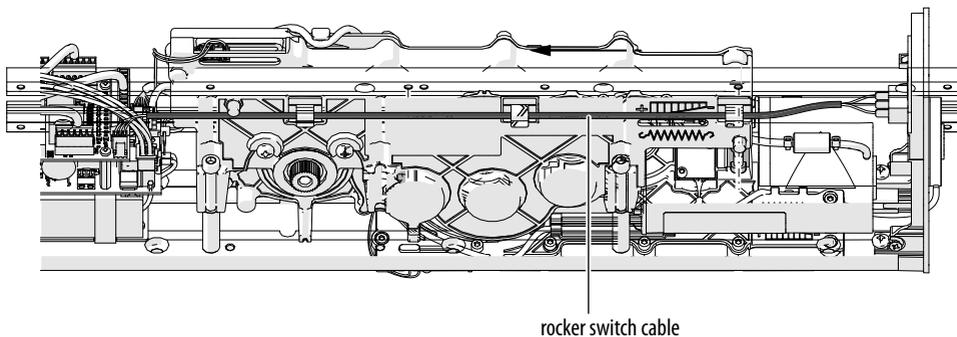
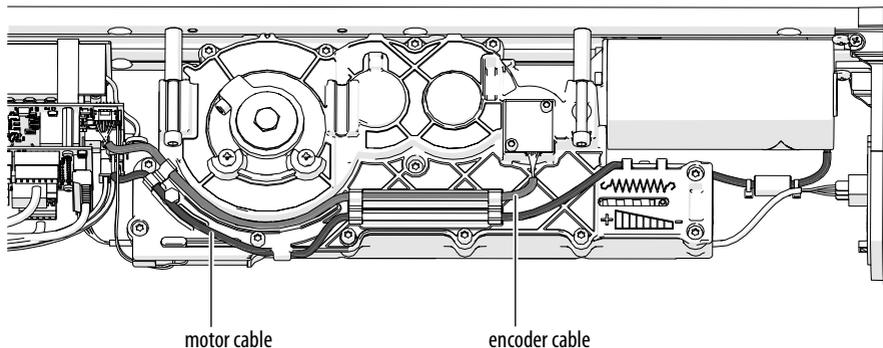
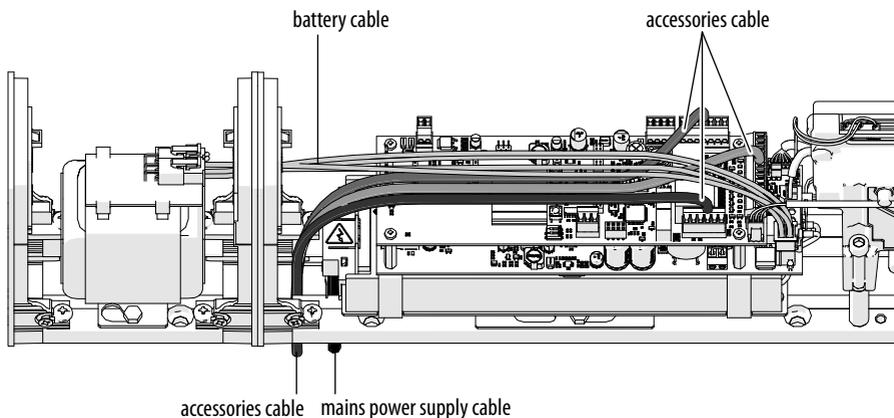
2. Slide the gearmotor sideways until the 4 fixing holes on the plate coincide with those on the gearmotor (🔗11). When the two inserts are inside the plate guide, not at the insertion slots, the weight of the gearmotor is supported by the plate, making it easier to carry out the subsequent installation operations.



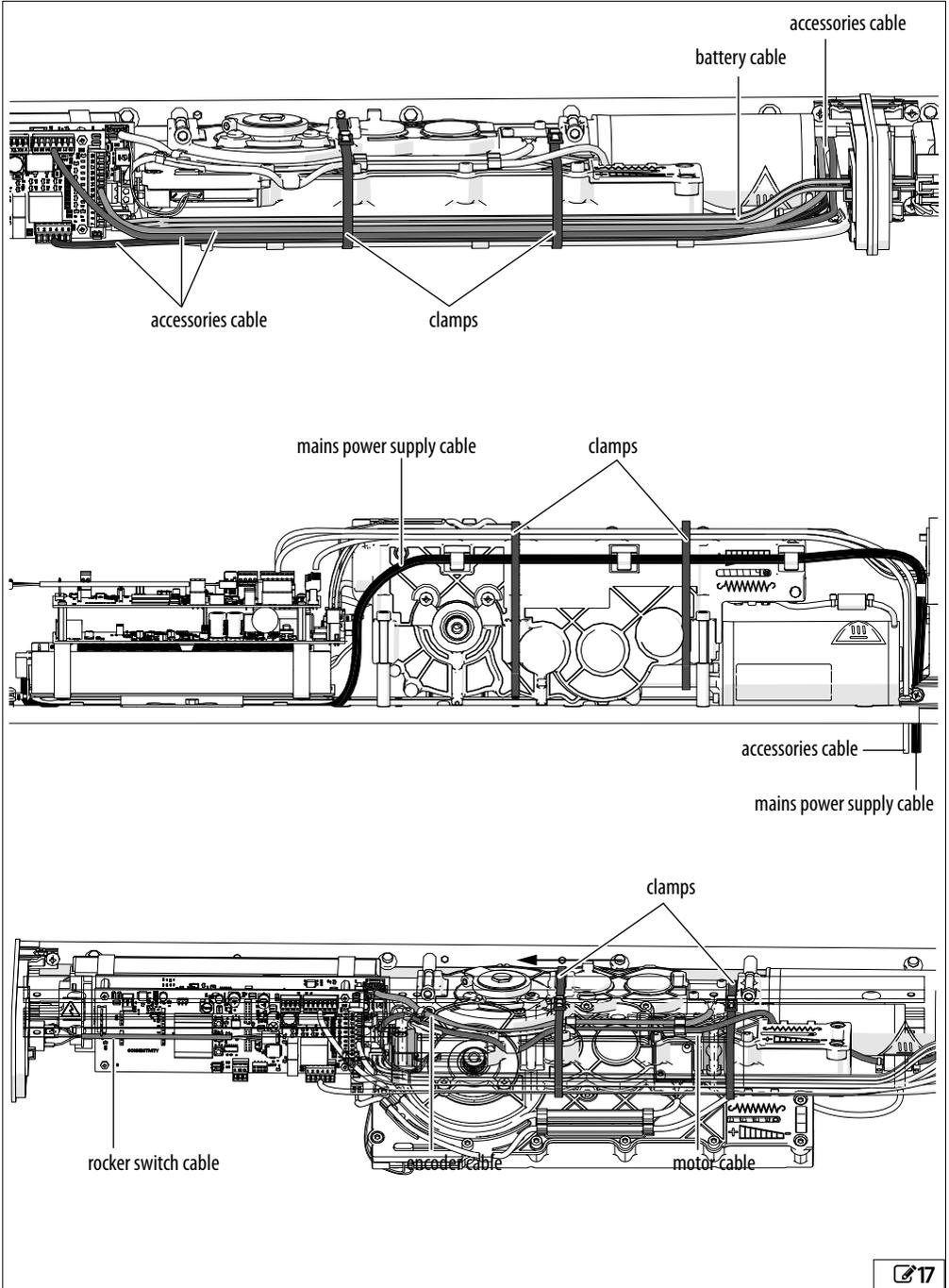
3. Secure the gearmotor using the four M6x75 screws tipped with threadlocker (🔧12), by inserting them through the spacers (🔧13) and tightening them with a torque of 9 Nm. (🔧14).
4. Apply the self-adhesive cable clips (🔧15).



3.2 CABLE ROUTING FROM THE BOARD SIDE



3.3 CABLE ROUTING FROM THE MOTOR SIDE

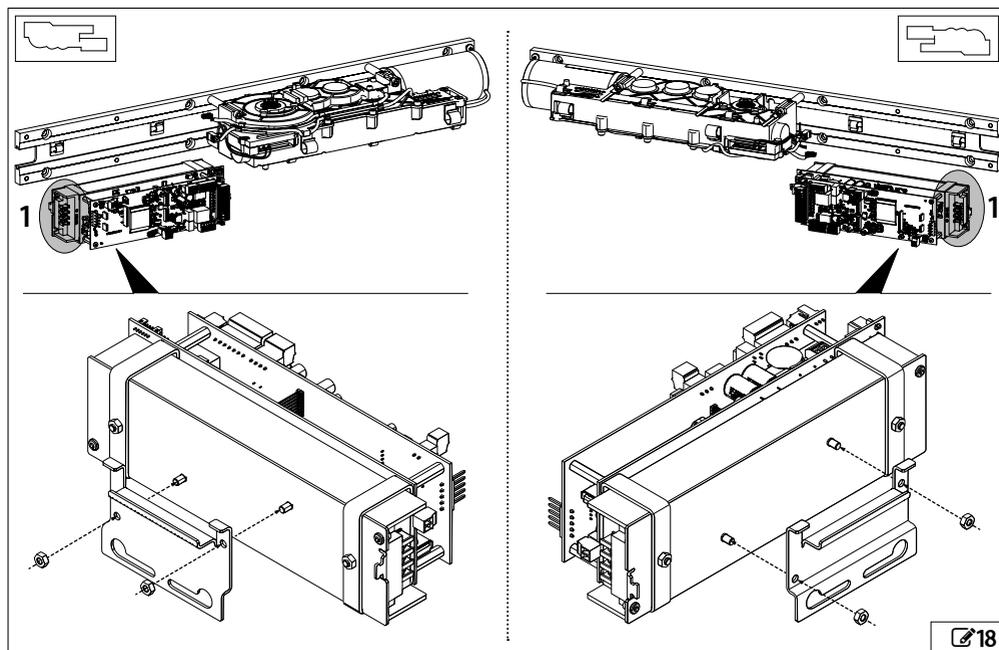


3.4 INSTALLING THE ELECTRONICS ASSEMBLY

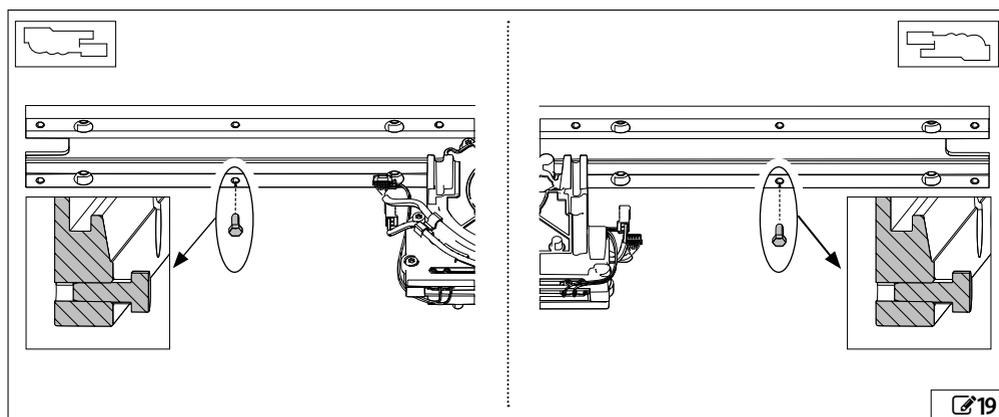
1. Arrange the cables that have to be placed under the electronic unit (e.g. mains power cable, rocker switch cable, accessories, etc.).

 The electronics assembly must be installed on the plate with the mains power supply terminals towards the end of the plate  18-1).

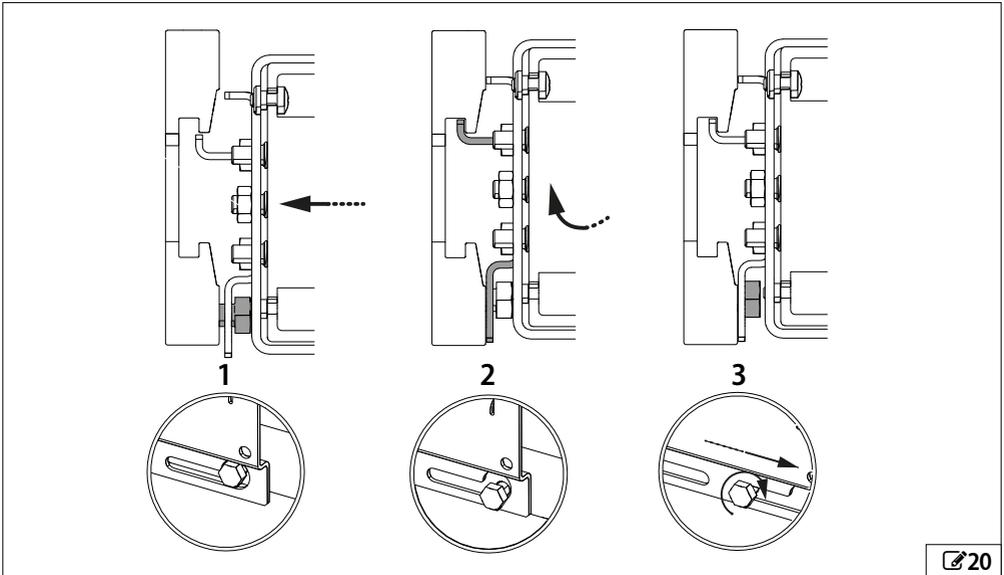
2. Mount the bracket according to the position of the electronic assembly:



3. Partially tighten the M5x12 self-tapping screw  19):



4. Place the electronics assembly against the support plate so that the hole of one of the two lower slots is aligned with the partially tightened screw (only one hole will correspond according to the mounting position of the electronic assembly (🔧20-1).
5. Push the electronics assembly upwards while keeping it horizontal (🔧20-2). This allows the bracket to engage with the guide in the support plate.
6. Slide the electronic assembly to the end of the slot (the direction depends on which slot is used) and tighten the screw (🔧20-3).



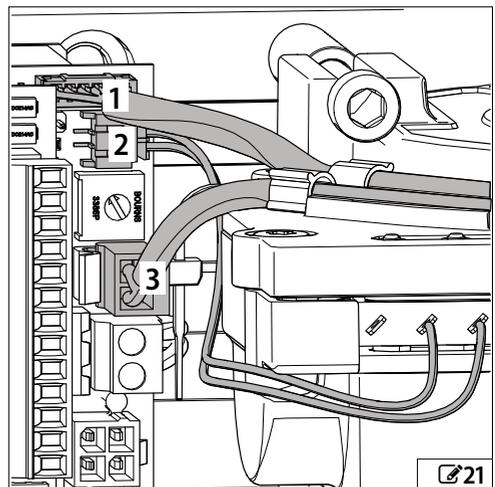
7. Connect the gearmotor to the electronics assembly (🔧21):

- Encoder cable connector (1)
- KICK LOCK cable connector (2)
- Motor cable connector (3)

Use one of the clamps supplied to gather the cables together and secure them.

WARNING:

For safety reasons, fully unload the spring before disconnecting the motor cable from the board.



3.5 INSTALLING THE SHOE ARM

i Depending on the application, the shoe arm may be upside down compared to the following diagrams. This does not alter the sequence of operations.

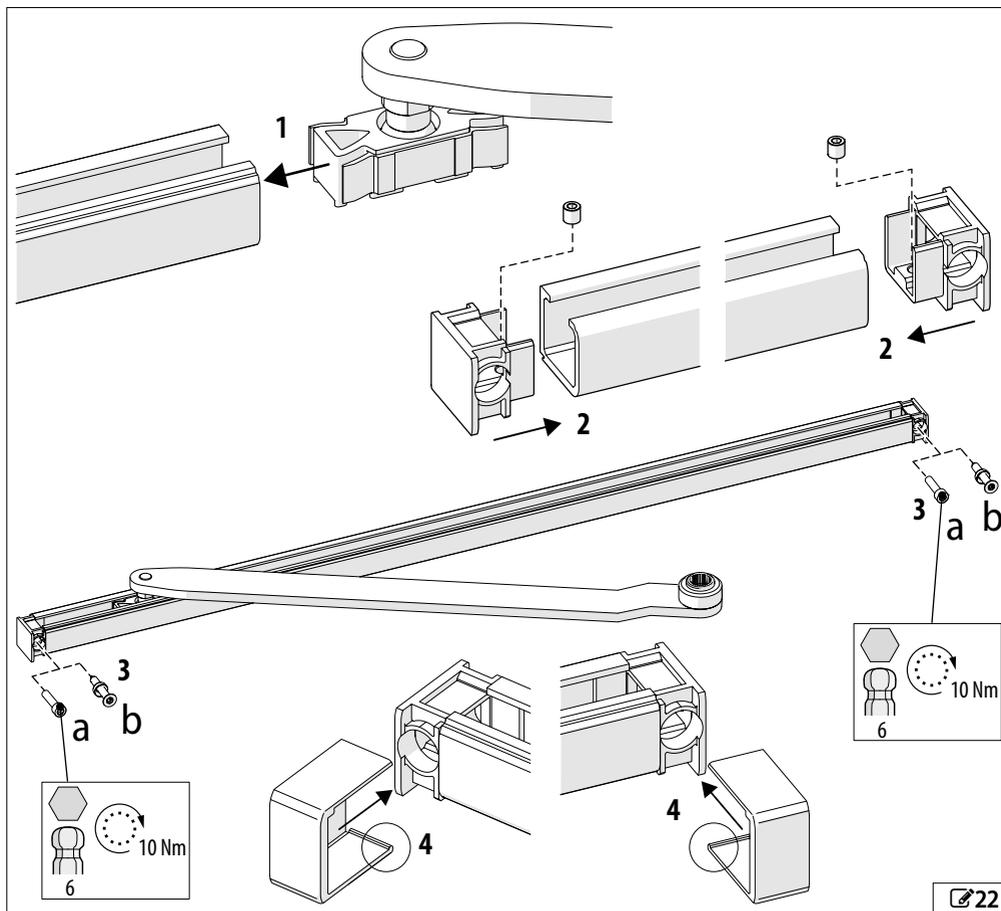
The assembly instructions are valid for both types of arm (standard or short).

CLOSING SPRING APPLICATION

■ INSTALLING THE ARM

With reference to  22:

1. Slide the shoe into the guide.
2. Install the side profiles at the ends of the guide and fasten them using the grub screws.
3. Fasten the shoe horizontally at the ends using the screws supplied (metric "a" or self-tapping "b" for wood) in correspondence with the holes or the points that were previously marked as indicated in the installation diagram for the specific application ( 1-  7). The slotted sides of the side profiles should face the surface on which they will be fixed.
4. Press the side covers onto the guide.
5. Keep the door closed and slide the shoe inside the guide until it is possible to connect the arm to the gearmotor.



■ CONNECTING THE ARM TO THE OPERATOR

- NO SPACER (☞23)

1. Insert the arm directly onto the shaft of the operator.
2. Insert the washer (1), disc spring washer (2) and screw (3) (use the screw supplied with the arm) and then tighten to a torque of 20 Nm.

i Make sure that you install the disc spring washer as shown in ☞24-2.

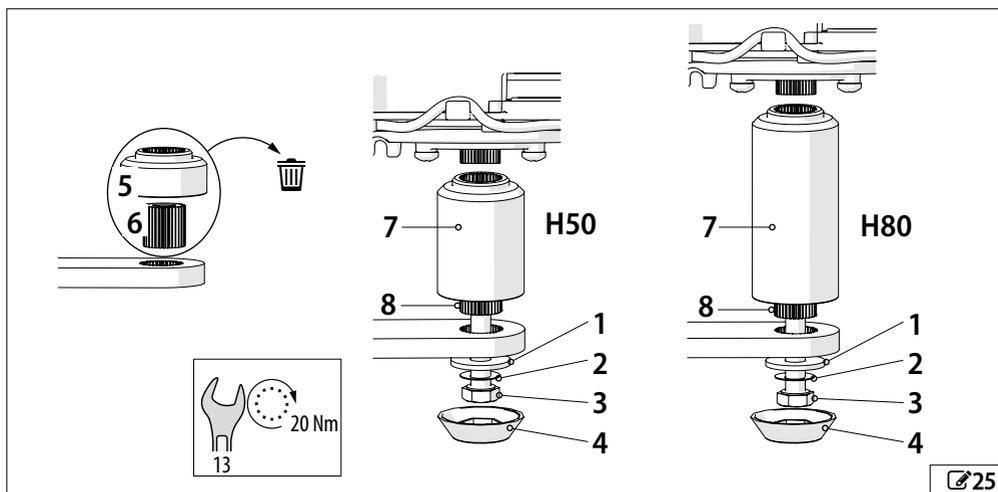
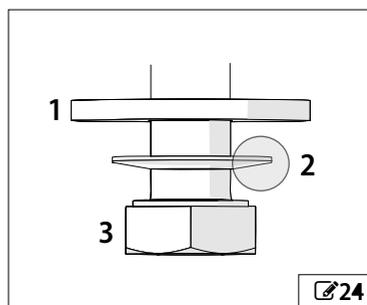
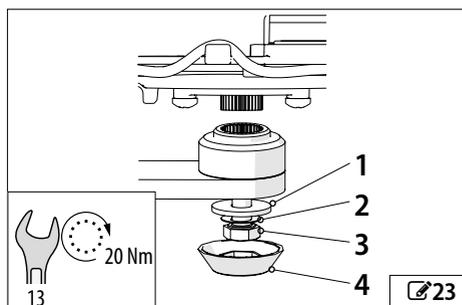
3. Press the cover on (4).
4. In the opening by spring application, remove the cam that was inserted previously (☞27-1).

- WITH SPACER H50/H80 (☞25)

1. Remove the bush (5) and the grooved insert (6) from the arm.
2. Install the arm on the operator shaft, interposing the spacer (7) and its grooved insert (8).
3. Insert the washer (1), disc spring washer (2) and screw (3) (use the screw supplied with the spacer) and then tighten to a torque of 20 Nm.

i Make sure that you install the disc spring washer as shown in ☞24-2.

4. Press the cover on (4).
5. In the opening by spring application, remove the cam that was inserted previously (☞27-1).



OPENING SPRING APPLICATION

■ PRELOAD THE SPRING (ONLY FOR OPENING BY SPRING APPLICATIONS)

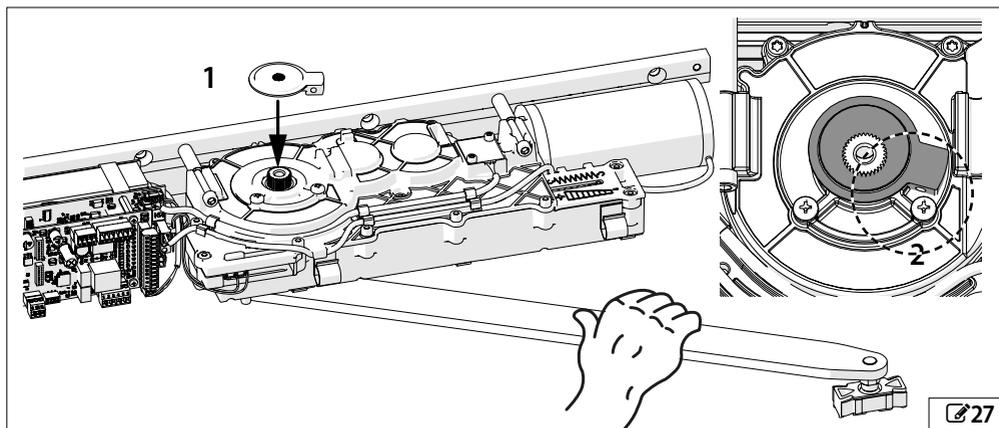
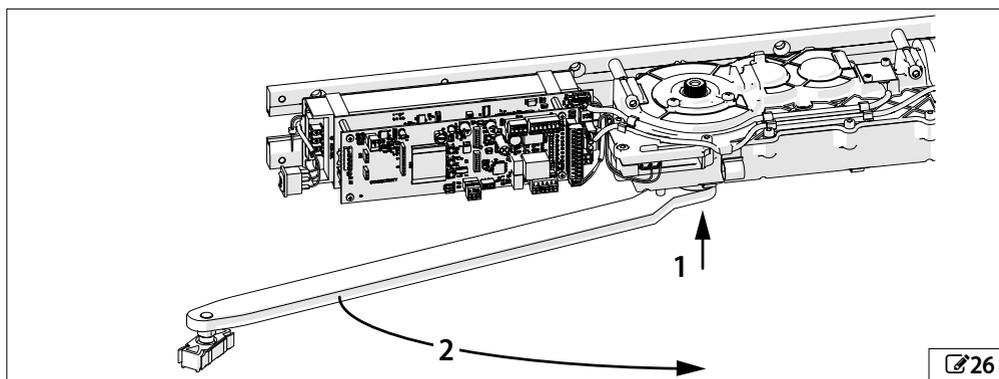
1. Install the arm on the shaft of the operator (🔗26-1) and turn it in the **opposite direction to that of door opening** (🔗26-2), as far as the maximum permitted rotation set by the internal stop (do not force it further).
2. If space does not allow the maximum rotation to be reached in a single attempt, you can repeat the operation several times: to lock the preload reached and prevent the arm from moving backwards when released, insert the cam (🔗27-1) onto the shaft, as close as possible to the mechanical stop (🔗27-2).
3. Remove the arm from the shaft, reinsert it in the initial position and rotate it again.
4. At the end, after having reached the maximum rotation, keep the arm in position, remove the cam and reinsert it, moving it back by two shaft teeth with respect to the mechanical stop, in order to leave some space (about 20°).
5. Remove the arm.

■ INSTALLING THE ARM

Install the arm by repeating the operations described in the previous section (🔗22)

■ CONNECTING THE ARM TO THE OPERATOR

Connect the arm to the operator by repeating the operations described in the previous section (🔗23)



3.6 INSTALLING THE ARTICULATED ARM

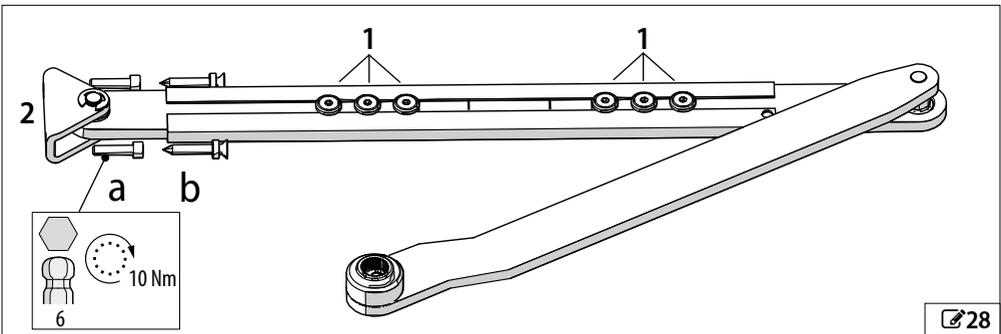


Depending on the application, the articulated arm may be upside down compared to the following diagrams. This does not alter the sequence of operations.

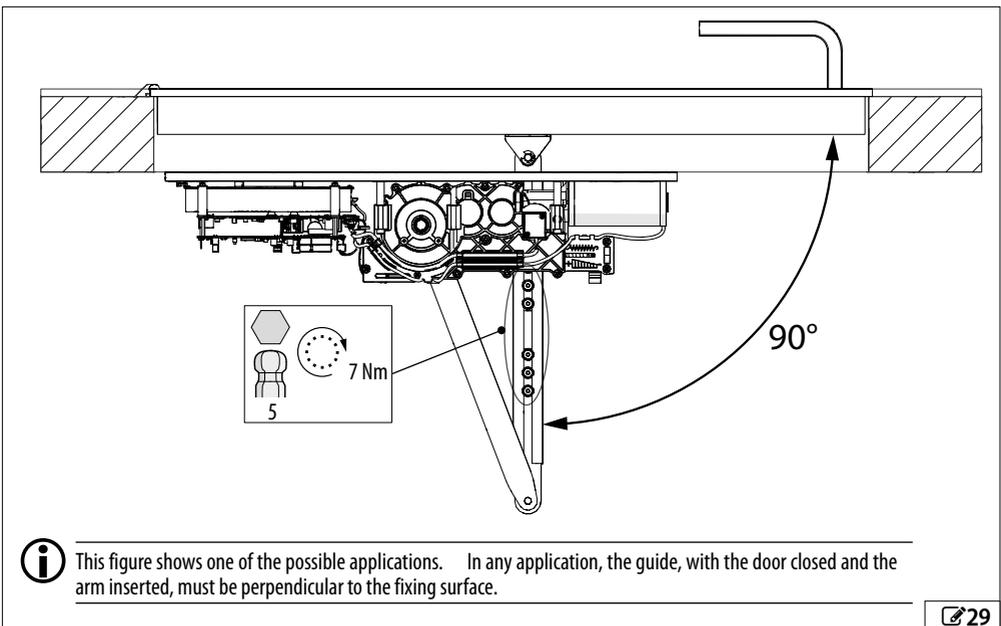
CLOSING SPRING APPLICATION

■ INSTALLING THE ARM

1. Make sure that the 6 screws (🔩28-1) have not been fully tightened and that they allow the two rods to slide inside the guide.
2. Fasten the bracket horizontally (🔩28-2) using the screws supplied (metric "a" or self-tapping "b" for wood) in correspondence with the holes or points that were previously marked as indicated in the installation diagram for the specific installation (🔩1-🔩7).
3. Keep the door closed.
4. Make sure **that the guide is perpendicular to the surface** to which it is fixed (🔩29) and slide the two inner rods until it is possible to connect the arm to the gearmotor.



🔩28



90°



This figure shows one of the possible applications. In any application, the guide, with the door closed and the arm inserted, must be perpendicular to the fixing surface.

🔩29

■ CONNECTING THE ARM TO THE OPERATOR

- NO SPACER (☞30)

1. Insert the arm directly onto the shaft of the operator.
2. Insert the washer (1), disc spring washer (2) and screw (3) (use the screw supplied with the arm) and then tighten to a torque of 20 Nm.

i Make sure that you install the disc spring washer as shown in ☞31-2.

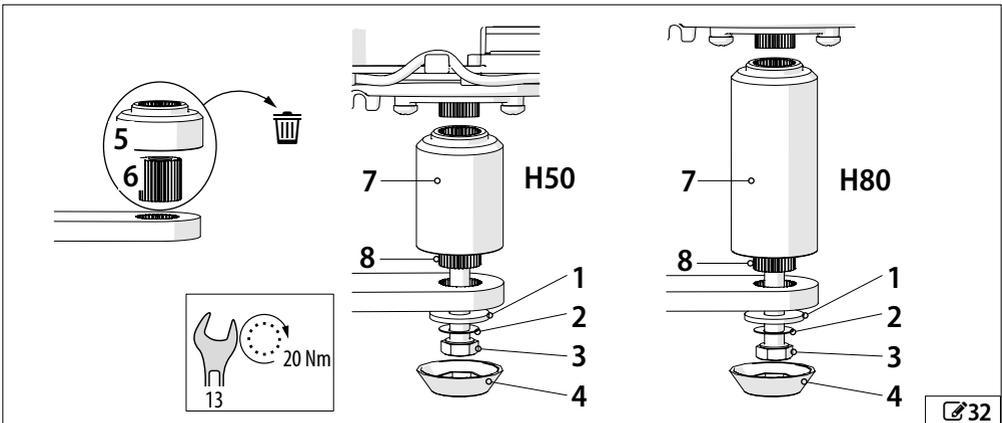
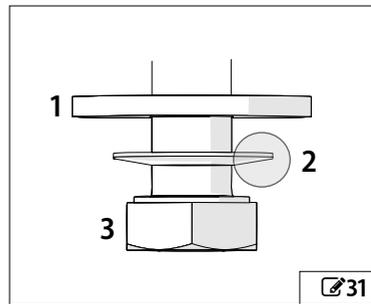
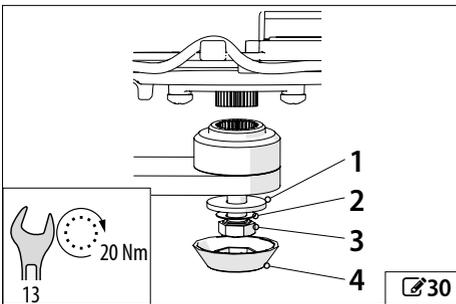
3. Press the cover on (4).
4. In the opening by spring application, remove the cam that was inserted previously (☞27-1).

- WITH SPACER H50/H80 (☞32)

1. Remove the bush (5) and the grooved insert (6) from the arm.
2. Install the arm on the operator shaft, interposing the spacer (7) and its grooved insert (8).
3. Insert the washer (1), disc spring washer (2) and screw (3) (use the screw supplied with the spacer) and then tighten to a torque of 20 Nm.

i Make sure that you install the disc spring washer as shown in ☞31-2.

4. Press the cover on (4).
5. In the opening by spring application, remove the cam that was inserted previously (☞27-1).



OPENING SPRING APPLICATION

■ **PRELOAD THE SPRING (ONLY FOR OPENING BY SPRING APPLICATIONS)**

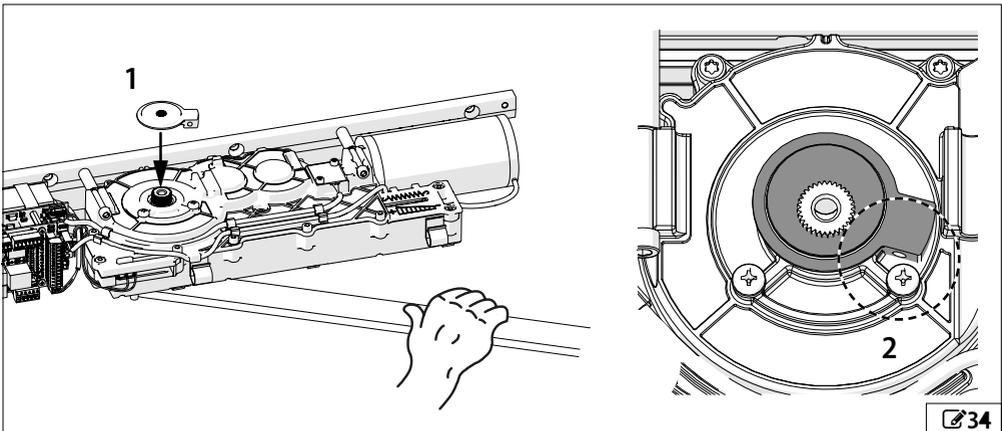
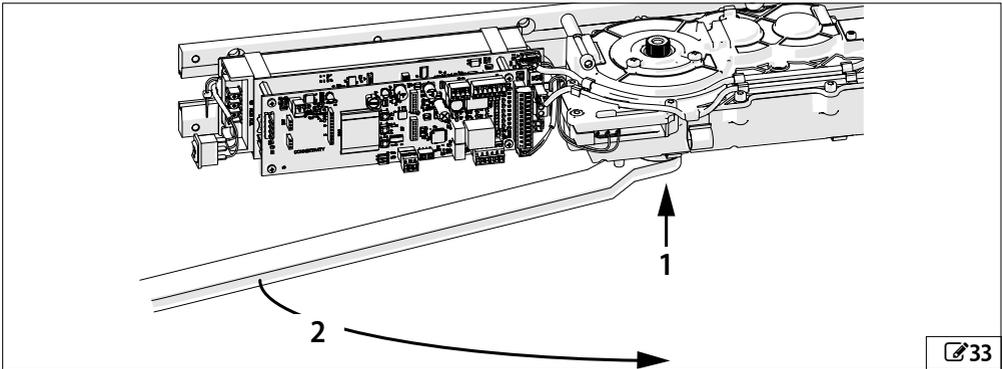
1. Install the arm on the shaft of the operator (🔧33-1) and turn it in **the opposite direction to that of door opening** (🔧33-2), as far as the maximum permitted rotation set by the internal stop (do not force it further).
2. If space does not allow the maximum rotation to be reached in a single attempt, you can repeat the operation several times: to lock the preload reached and prevent the arm from moving backwards when released, insert the cam (🔧34-1) onto the shaft, as close as possible to the mechanical stop (🔧34-2).
3. Remove the arm from the shaft, reinsert it in the initial position and rotate it again.
4. At the end, when the maximum rotation has been reached, hold the arm in position, remove the cam and reinsert it, moving it back by two shaft teeth with respect to the mechanical stop in order to leave some clearance (about 20°).
5. Remove the arm.

■ **INSTALLING THE ARM**

Install the arm by repeating the operations described in the previous section (🔧28 - 🔧29).

■ **CONNECTING THE ARM TO THE OPERATOR**

Connect the arm to the operator by repeating the operations described in the previous section (🔧30 ~ 🔧32).



3.7 REMOVING THE SPRING PRELOAD SCREW

When you have finished connecting the arm to the operator, remove the spring preload screw (1) and place it in the holder (2).

Unscrew the screw completely after having moved the leaf slightly away from the closed position, if it is a closing spring, or from the open position, if it is an opening spring.

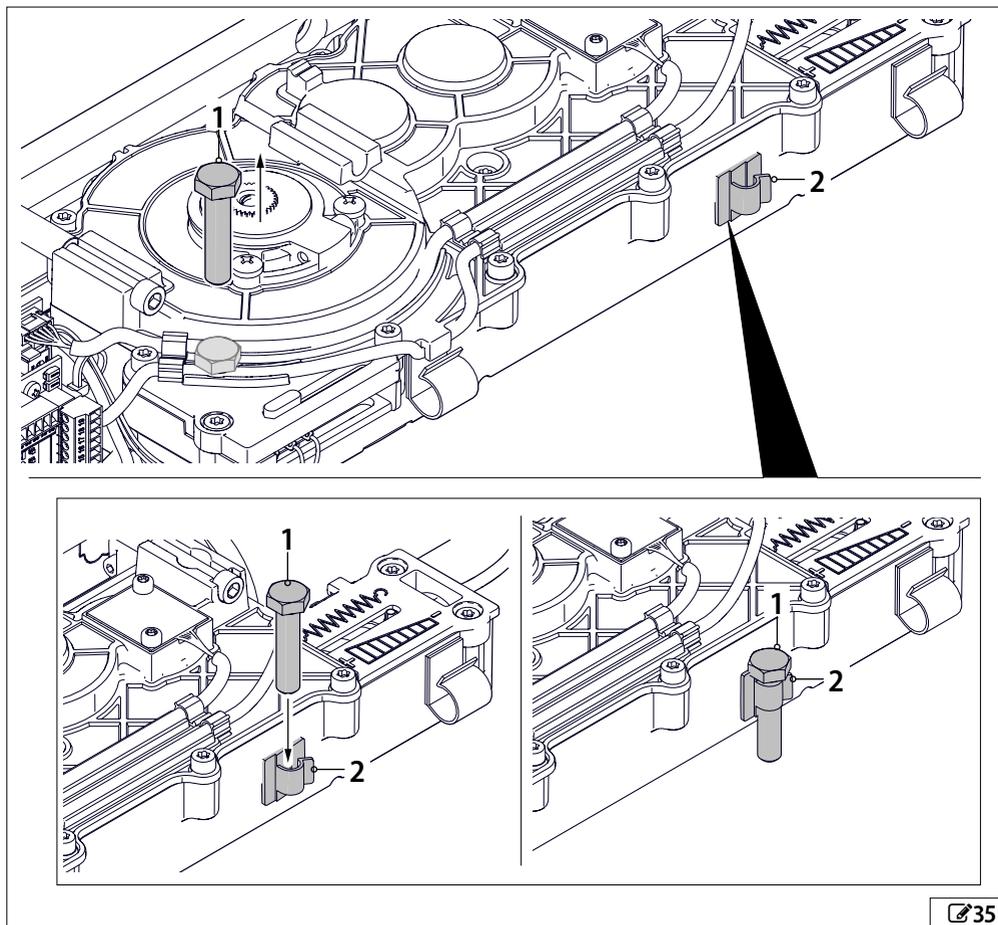
■ INSTRUCTIONS FOR RE-USING THE PRELOAD SCREW

The screw that was previously removed has to be put back whenever the arm needs to be disassembled.

Use an M5x12 TE screw if the original screw has been lost.

Before removing the arm, move the leaf slightly away from the closed position, if it is a closing spring, or from the open position, if it is an opening spring, and fully tighten the screw.

Only remove the screw after the arm has been reconnected to the operator.



3.8 ADJUSTING THE SPRING MOVEMENT IN THE ABSENCE OF POWER

ADJUSTING THE FORCE OF THE SPRING

The A952 is fitted with a spring that opens or closes the door (according to the application) in the absence of mains power.

When supplied from the factory, the spring is set to the minimum preload.

According to the characteristics of the door (e.g. friction, seals, air currents), the preload can be adjusted to obtain the appropriate force for the movement.



Always carry out a SETUP after making an adjustment.

The spring must only be adjusted with the operator installed and connected (with the power disconnected). It is adjusted using an Allen key as shown in  36:

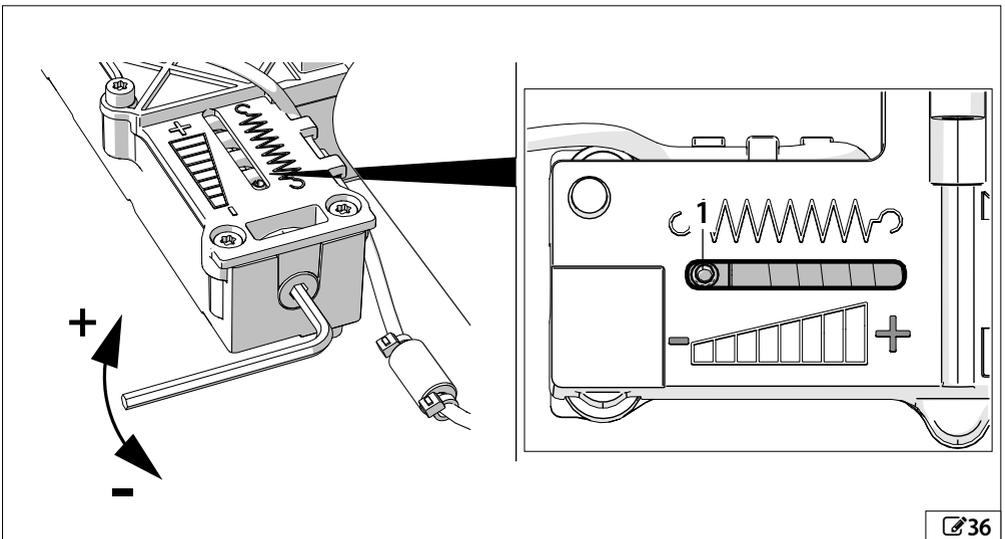
- Turning the Allen key clockwise increases the force
- Turning the Allen key anticlockwise decreases the force

Turning the Allen key moves the pin (1) in the slot.

The entire width of the slot is available for adjustment.



If the door is used as an escape route, make sure that the manual opening force does not exceed 150 N measured at the end of the leaf at a height of 1 m from the ground.



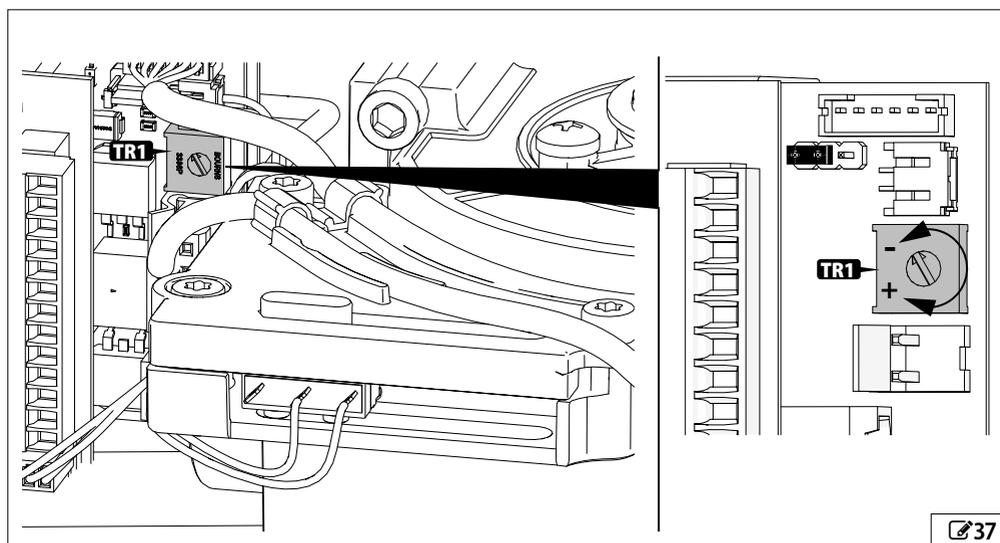
ADJUSTING THE SPEED OF THE SPRING

The speed of movement produced by the spring, in the absence of power, can be set using a trimmer (TR1).

■ ADJUSTING THE SPEED IN THE ABSENCE OF POWER

Use trimmer TR1 to adjust the speed as follows (🔧 37):

- Turning clockwise increases the speed
- Turning anticlockwise decreases the speed



ADJUSTING THE LAST PART OF THE MOVEMENT (SOFT DRAW / KICK LOCK)

Move selector J8 to adjust the last part of the door movement.

i The product is supplied with the SOFT DRAW function enabled.
If there is not a selector J8, the door operates in KICK LOCK mode.

■ **ENABLING THE SOFT DRAW FUNCTION  38**

This function slows down the leaf in the last part of the movement with the spring, so that it approaches the stop gradually.

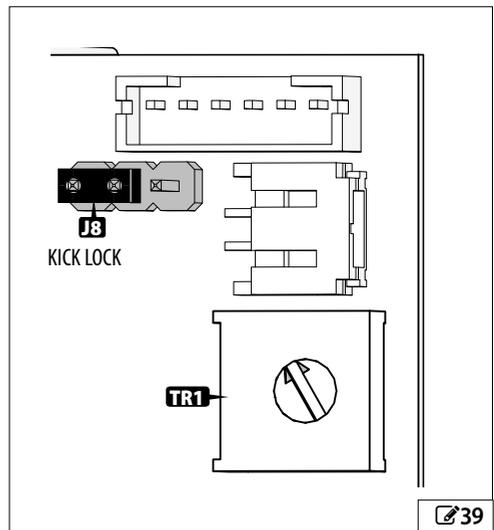
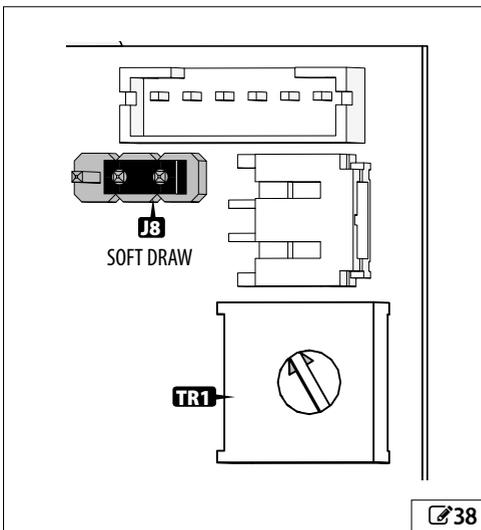
i The SOFT DRAW function can be enabled in applications that use closing or opening spring.

■ **ENABLING THE KICK LOCK FUNCTION  39**

This function excludes the speed adjustment of the leaf in the last part of the movement with the spring, supplying the maximum speed available.

The KICK LOCK function can be useful, for example, to make it easier to complete the closing stroke if the seals are hard or when the electric lock engages.

i The KICK LOCK function can ONLY be activated in closing spring applications.



■ ADJUSTING THE POINT AT WHICH THE SOFT DRAW / KICK LOCK TRIGGERS

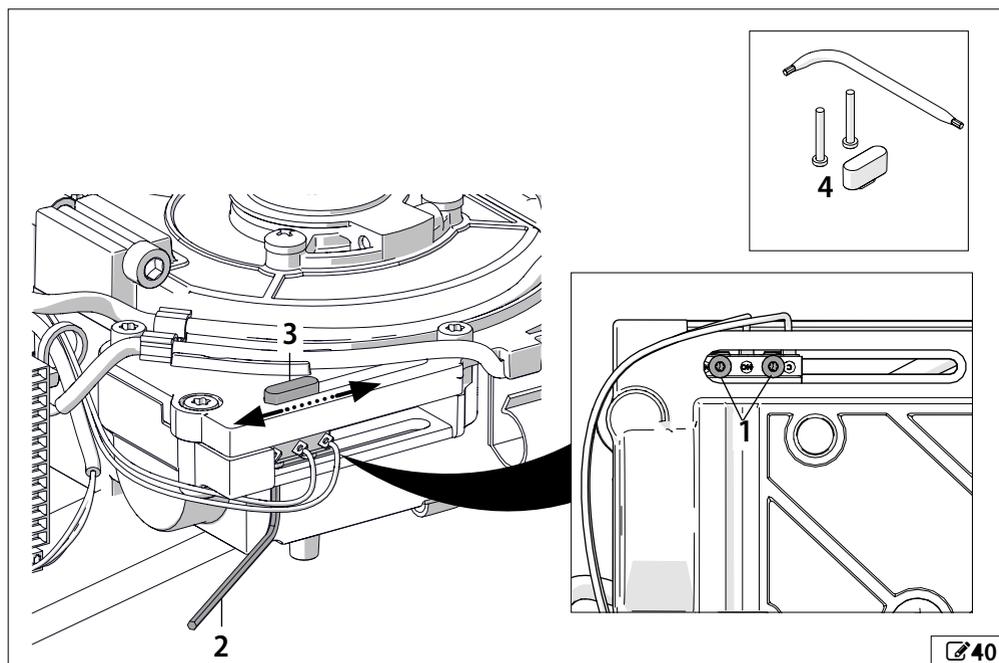
The A952 is fitted with a micro switch that determines that point at which the SOFT DRAW or KICK LOCK function is activated (according to the setting of selector J8).

To adjust the point at which the micro switch triggers (☞ 40):

1. Loosen the 2 Torx screws (1) using the key (2) provided.
2. Slide the micro switch in the slot (3).
3. Tighten the screws.
4. Check the movement of the door and readjust if necessary.

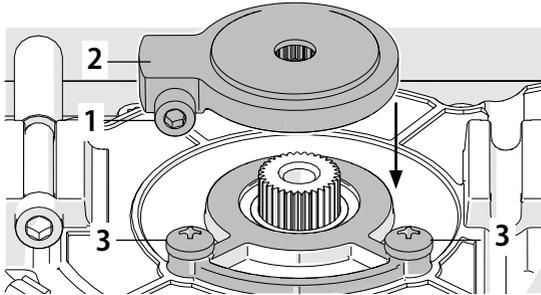
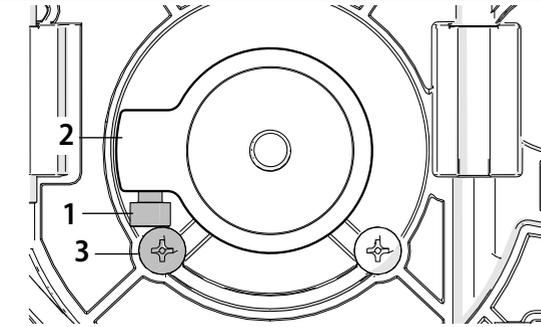
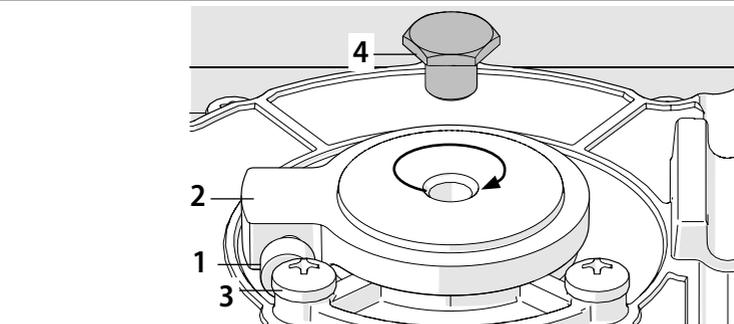
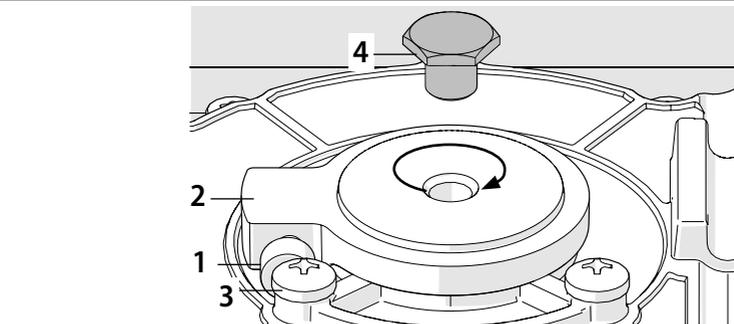
i To disable the SOFT DRAW/KICK LOCK, move the micro switch to the end of the slot as shown in ☞ 40 (factory setting).
The slot allows the stroke of the leaf to be adjusted by up to a maximum of about 40°.

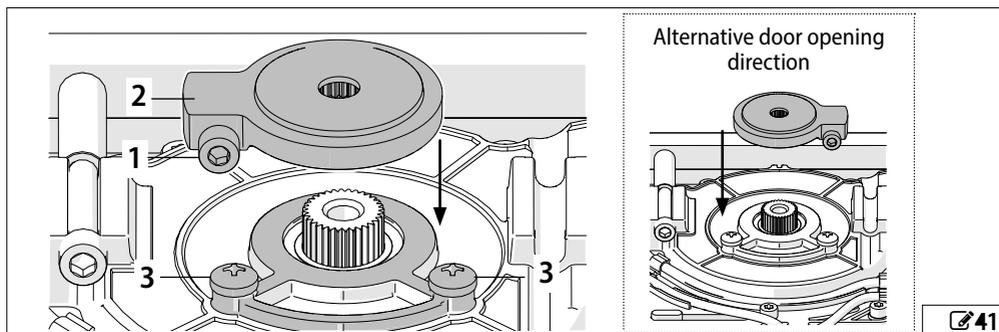
The fixing screws and the spare micro switch support (4) are also supplied together with the Torx key .



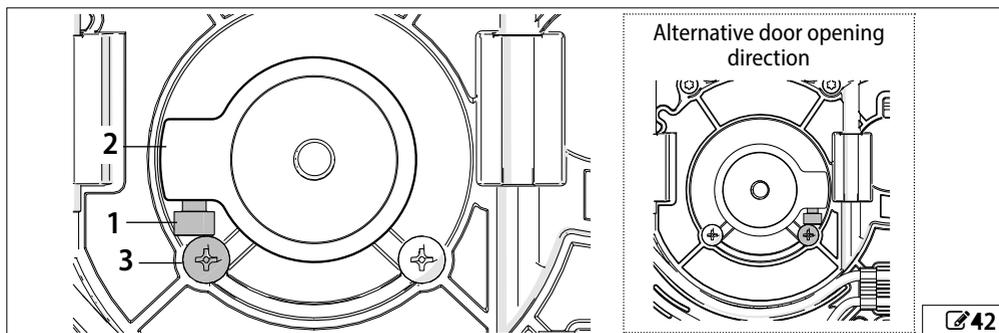
3.9 ADJUSTING THE INTEGRATED MECHANICAL STOP

The A952 is fitted with an integrated mechanical stop (3) that limits the opening stroke.

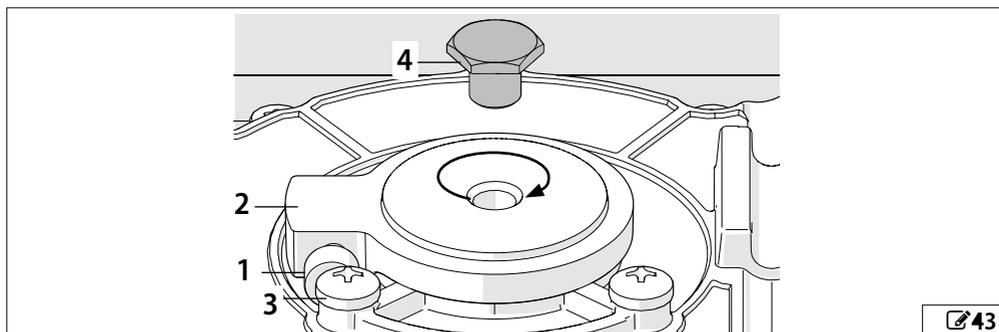
1. Open the door to the position at which you want the internal stop to operate.
2. Turn the screw (1) in the cam (2) according to the direction of rotation of the gearmotor shaft to reach the position, as shown in  41.
3. Place the cam (2) on the shaft so that the screw (1) is as close as possible to the mechanical stop (3) ( 42).
4. If the screw is slightly too far away from the mechanical stop because of the pitch of the teeth on the shaft, it can be adjusted using an Allen key ( 43).
5. When finished, screw on the locking cap (4) ( 43).



 41



 42

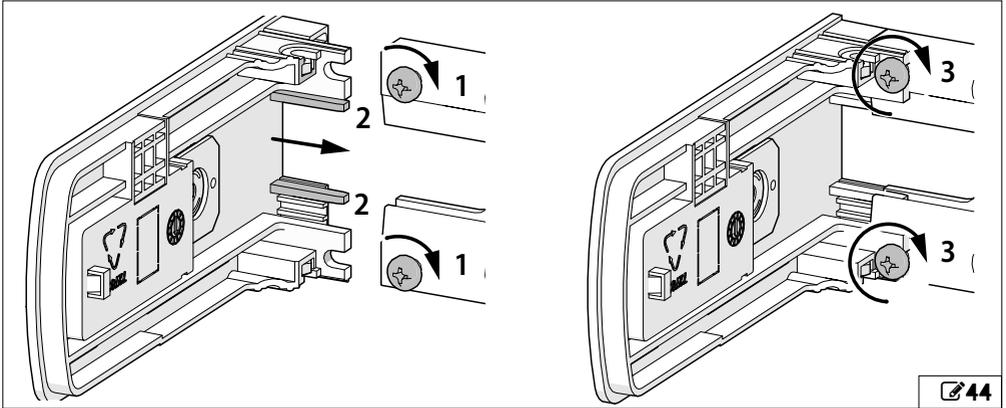


 43

3.10 MOUNTING THE SIDE PROFILES

With reference to  **44**:

1. Partially tighten the two M5x10 self-tapping screws (1) at both ends of the support plate.
2. Insert both sides as far as they will go, inserting the guides (2) into the seats on the support plate, and the slots under the heads of the screws.
3. Tighten the screws (3).



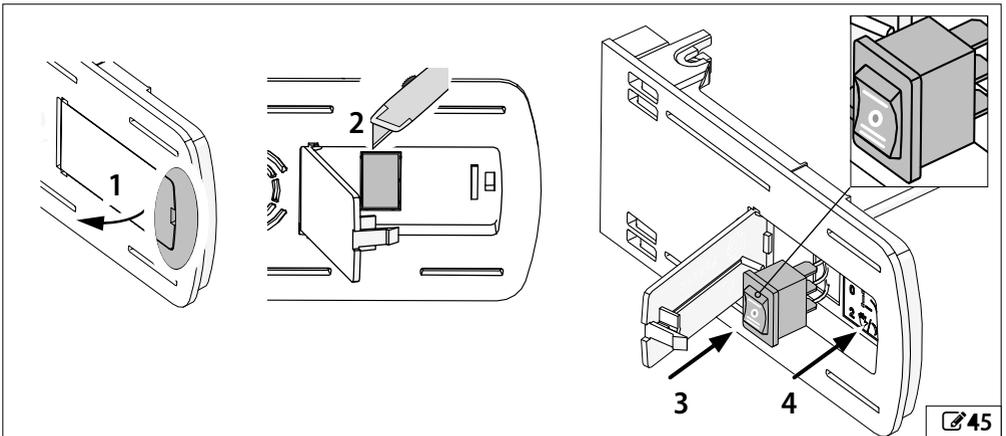
3.11 INSTALLING THE SIDE FUNCTIONS SELECTOR



Install the selector after having installed the battery kit, if provided.

With reference to  **45**:

1. Open the access cover on one of the side profiles by prising it open at the point indicated.
2. Remove the pre-cut plastic rectangle using a cutter.
3. Press the selector into the rectangular opening so that position 1 (indicated by the line) is facing upwards.
4. Apply the sticker with the number 1 facing upwards.
5. Plug the cable into the "SEL" connector ( **48**)

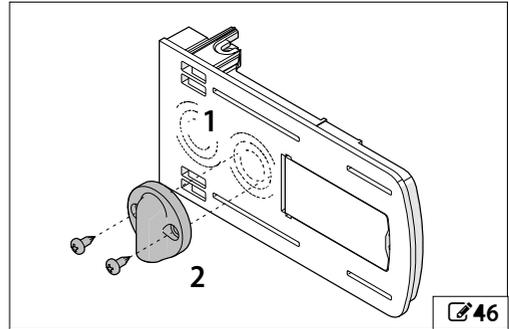


3.12 PREPARING THE SIDE CABLE ROUTING OPENING

i Do this after having installed the battery kit, if provided.

Each side cover has two openings for the installation of cable glands (☞ 46-1).

The mounting accessories include a cable gland (☞ 46-2) for the XPB SCAN sensor (cable gland and screws supplied with the sensor): use a drill to make the cable entry hole and the holes (Ø 3mm) for the screws.



3.13 CONNECTING THE MAINS POWER CABLE

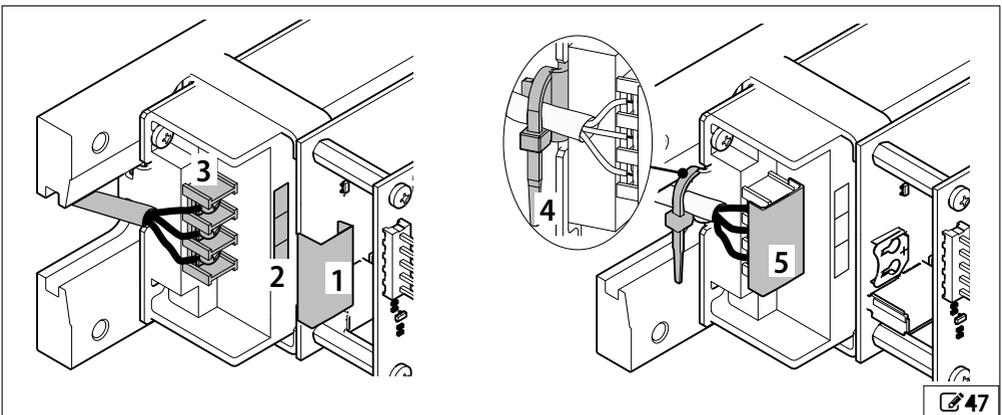
The cable used must be double insulated and compliant with standards.

The cable should only be stripped in the area between the cable clamp and the connection terminal.

With reference to ☞ 47:

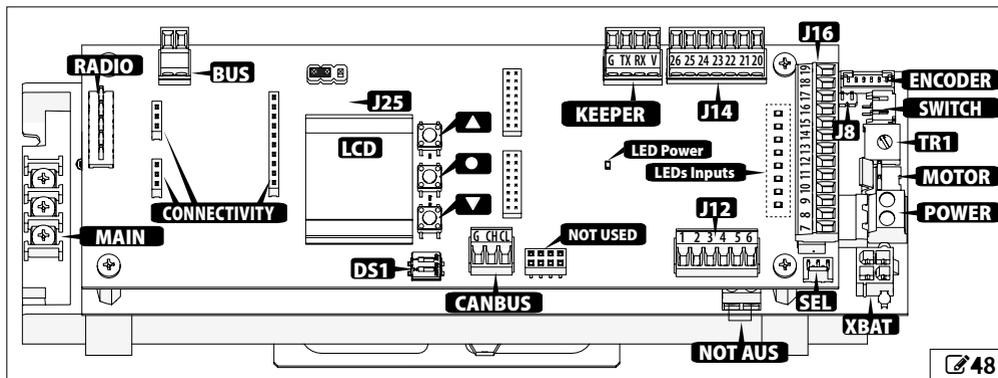
1. Remove the plastic cover temporarily from the terminal board.
2. Locate the label that indicates the function of each terminal.
3. Connect the wires of the mains power cable (phase / neutral / earth) following the instructions on the label.
4. Secure the wires using one of the clamps provided.
5. Install the terminal board plastic cover.

i If you lose the plastic cover, use the spare one supplied in the accessories pack.



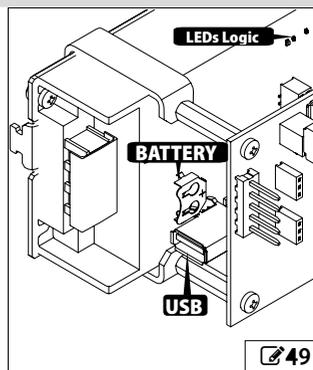
4. ELECTRONIC INSTALLATION

4.1 ELECTRONICS ASSEMBLY

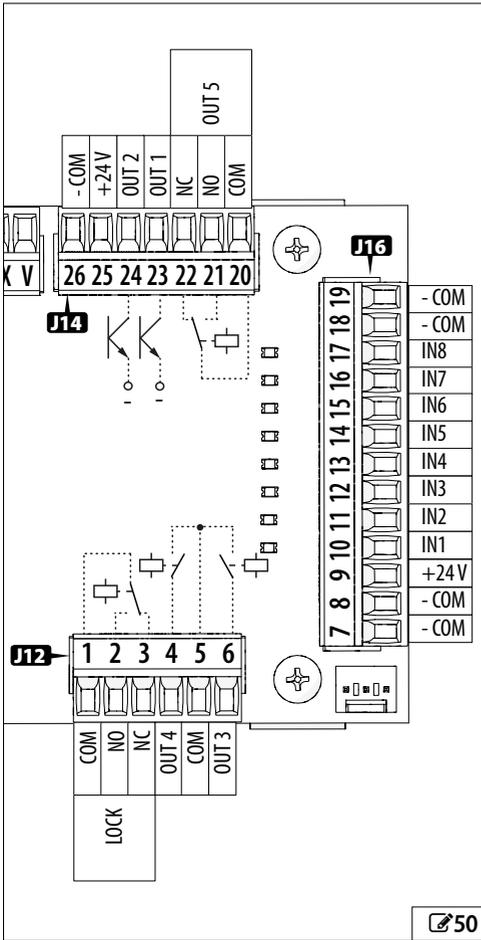


COMPONENTS

A952	
MAIN	Power supply terminal board (230 V~)
RADIO	Connector (5 pin) for FAAC radio/decoder boards
BUS	Removable terminal board for connecting BUS 2easy devices
CONNECTIVITY	Connectors for connectivity board (Simply Connect)
LCD	Programming display
▲ ● ▼	Programming buttons
DS1	Intercom functions DIP switch
CANBUS	Pull-out Intercom Bus terminal board
KEEPER	Pull-out terminal board for external function selector
J8	Spring movement speed selector
J12 - J14 - J16	Pull-out terminal boards for inputs and outputs
J25	Display rotation jumper
LED Power	Power supply LED
LEDs Inputs	Inputs status LEDs
ENCODER	Connector for connecting the encoder
SWITCH	Connector for connecting the SAFE DRAW/KICK LOCK function micro switch
TR1	Spring movement speed adjustment trimmer
MOTOR	Connector for connecting the motor
POWER	Pull-out terminal board for connecting the power supply
XBAT	Connector for connecting the battery module
SEL	Rocker switch
NOT AUS	Terminal board for disconnecting power to the boards.
BATTERY	Battery holder CR1216
USB	USB port
Leds Logic	E952CL board LEDs



4.2 CONNECTIONS



CONTROL DEVICES

The control devices must be fitted with an open (NO) or closed (NC) contact according to the input to which they are connected. The device contact is connected to the input to which they refer (IN1-IN8) and the common negative (- COM).



- Multiple NO contacts on same input must be connected in parallel.
- Multiple NC contacts on same input must be connected in series.

The function and type of contact (NO/NC) can be programmed for all inputs. The default programming functions are indicated below:

	Default programming	Type of contact
10	IN1 INTERNAL OPEN	NO
11	IN2 EXTERNAL OPEN	NO
12	IN3 EMERGENCY CLOSE	NC
13	IN4 SAFETY IN CLOSING	NC
14	IN5 SAFETY IN OPENING	NC
15	IN6 KEY	NO
16	IN7 FIRE ALARM	NO
17	IN8 AUTOMATIC OPEN	NO

An LED next to each input indicates its status:

- LED on: input closed towards negative
- LED off: input open

OUTPUTS

The A952 has 5 outputs on which both the function and type of contact (NO/NC) can be programmed. The outputs are activated according to the programmed function and are of the type:

- Open Collector (OUT 1 and OUT 2)

	OUT active	OUT not active
NO contact	0 V"	open circuit
NC contact	open circuit	0 V"

Do not exceed the maximum load of 100 mA for each output.

- Relay (OUT 3 , OUT4 and OUT 5)

	OUT active	OUT not active
NO contact	circuit closed	open circuit
NC contact	open circuit	circuit closed

The maximum contact rating is 0.5 A 24 V $\overline{=}$.

The default programming functions are indicated below:

	Default programming	Type of contact
4	OUT 4 DOOR NOT CLOSED	NO
6	OUT 3 DOOR OPEN	NO
21, 22	OUT 5 RED TRAFFIC LIGHT EXT	NO
23	OUT 1 GONG	NO
24	OUT 2 TEST	NC

LOCK

The A952 has a relay output for controlling the lock. The maximum contact rating is 5 A at 28V $\overline{\text{DC}}$ / \sim .

Function	Type of contact
3 Lock control relay output	NC
2 Lock control relay output	NO
1 Common relay	COM

ACCESSORIES POWER SUPPLY

The A952 supplies 24V $\overline{\text{DC}}$ and is short-circuit protected with a maximum current of 1.2 A between the +24V e - COM terminals.

BUS

This connector is specifically for connecting FAAC BUS 2easy control devices.

If no BUS 2easy accessories are used, leave the connector free. Do not bridge.

For installation and wiring, refer to the specific section and the device instructions.

CANBUS

The A952 can communicate with other connected units via these terminals to create advanced applications. Refer to the specific section.

NOT AUS

The NOT AUS terminal board is factory-fitted with a jumper, which is required in order for it to operate.

A device with NC contact that is rated for 10 A at 36V $\overline{\text{DC}}$ can be connected instead of the jumper.

When the device is activated, the opening of the contact disconnects power to the boards.

RADIO/DECODER BOARD

The plug-in connector is specifically for 5-pin FAAC radio or decoder boards.

Insert it in the direction shown in  51.

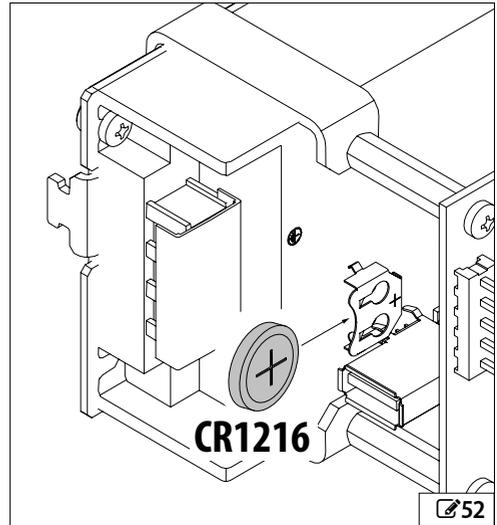
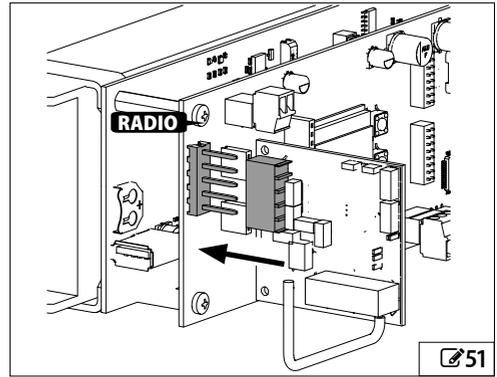
It should be inserted and removed with the power disconnected.

BATTERY

The CR1216 battery is optional. It is used to maintain the date and time even if there is no mains power.

Insert it in the direction shown in  52.

It should be inserted and removed with the power disconnected.



5. OPERATING MODE

The operating mode of the automation can be assigned using the functions selector at the side of the unit, via other specific external devices, via specially configured inputs and from TIMER.

■ AUTOMATIC MODE

The door opens and then CLOSES AUTOMATICALLY after the programmed pause time.

BIDIRECTIONAL Bidirectional transit is allowed (Internal Open and External Open enabled).

EXIT ONLY Only exiting is allowed (External Open disabled).

ENTRY ONLY Only entering is allowed (Internal Open disabled).

In automatic mode, the **PUSH AND GO** function can be activated as follows:

- **STANDARD** : pushing the door manually starts motorised opening
- **POWER ASSIST** : manual opening, motorised closing

■ MANUAL MODE

The door is free to move and can only be moved manually. No command active.

■ OPEN MODE

The door opens and remains open.

■ NIGHT MODE

The door closes and remains closed. External Open is disabled Internal Open is only enabled in the programmed time interval such as NIGHT-TIME MODE DELAY. It can only be opened via the Key and Emergency Open inputs.

■ INTERLOCK MODE

The opening of one door is subject to the closing of another (§ Specific section).

6. CONFIGURABLE INPUTS

All the available inputs (IN1...IN8) can be modified in programming according to their function and type of contact.

A brief description of each function is given below.

■ AUTOMATIC OPENING INPUTS

When one of the following inputs is activated, the automation opens and closes after the pause time. The automation remains open as long as the input is active.

EXTERNAL OPEN Input dedicated to external control devices. The input is disabled in NIGHT or EXIT ONLY mode.

INTERNAL OPEN Input dedicated to internal control devices. The input is disabled in ENTRY ONLY mode. In NIGHT mode, it is only enabled in the programmed time interval such as NIGHT MODE DELAY.

AUTOMATIC OPEN The input is disabled in NIGHT mode (it is enabled in EXIT ONLY and ENTRY ONLY mode).

KEY Command also enabled in NIGHT mode.

PARTIAL OPEN Opens the PRIMARY leaf in a 2-leaf application. This is NOT enabled in NIGHT mode.

NURSE AND BED In the 2-leaf application:

- a pulse <2 s opens a single leaf.
- a pulse >2 s opens both leaves.

OPEN DELAY With the door closed, this command opens the door after the time set in the TIME DELAY TIME parameter (from 0 s to 60 s, default 5 s).

■ IMPULSE OPEN / IMPULSE CLOSE INPUT

IMPULSE OPEN / IMPULSE CLOSE

If the input is activated when the automation is closed, the door opens and remains open. If the input is activated when the automation is open, it causes it to close.

The input is NOT active in NIGHT mode.

■ EMERGENCY INPUTS

The EMERGENCY inputs have priority over any other input, in any operating condition and in NON-MANUAL operating modes.

- Programmed input WITHOUT MEMORY: when the status of the input is restored, the automation starts to operate normally again
- Programmed input WITH MEMORY: when the status of the input is restored, a RESET has to be carried out in order for the automation to start operating normally again.

EMERGENCY OPEN When the input is activated, the automation opens and remains open as long as the emergency is active.

EMERGENCY CLOSE When the input is activated, the automation closes and remains closed as long as the emergency is active.

FIRE ALARM When the input is activated, the automation is closed with the lock released.

FIRE ALARM 2 When the input is activated, the automation closes with the lock engaged.

■ OVERHEAD PRESENCE SENSOR FUNCTION INPUT

When the input is active:

- if the door is closed, it prevents it from opening
- if the door is open, it prevents it from closing
- this input is ignored during an opening/closing movement

■ TIMER FUNCTION INPUT

TIMER When the input is activated, TIMER programming is enabled, which automatically assigns the operating mode to the programmed time bands. When the input is deactivated, the TIMER programming is disabled.



TIMER programming configured via Simply Connect has priority over programming configured via the board or KP EVO.

■ RESET INPUT

RESET When the input is activated, the board carries out a RESET.

■ OPERATING MODE INPUTS

These inputs allow you to select an operating mode: **ALWAYS OPEN, EXIT ONLY, ENTRY ONLY, NIGHT, MANUAL, PARTIAL, INTERLOCK.**

■ SAFETY INPUTS



Use monitored safety devices that are compliant with standard EN 16005:2012 on inputs configured for safety functions.

On inputs configured as Safety devices, the Test must be enabled to make sure that the automation is working correctly before movement takes place. If the test fails, movement is inhibited (TEST ERROR).

CLOSING SAFETY Connect the closing movement safety devices. When the input is activated:

- If the door is closing, it reopens
- If the door is already open, it prevents it from closing
- If the door is opening, it has no effect

OPENING SAFETY Connect the opening movement safety devices. When the input is activated:

- If the door is opening, it stops until it is released
- If the door is already closed, it prevents it from opening
- If the door is closing, it has no effect

■ DISABLING AN INPUT

DISABLED When the input is disabled, it no longer has any effect on the operation, regardless of its status.

■ BOARD E952CL SAFETY FUNCTIONS

Inputs	Programming	Functions	Performance level of the external device requested	Performance level of the board received
IN1-IN8 Security Opening	Configure the input as OPENING SAFETY Configure an output as TEST (FAILSAFE) Enable the TEST (FAILSAFE) on the input	Contact prevention using presence detection devices (ESPE) during opening. Examples (ESPE): XPB ON, XPB SCAN, XPB SCAN 3D	Pl c Category 2	Pl d
IN1-IN8 Security Closing	Configure the input as CLOSING SAFETY Configure an output as TEST (FAILSAFE) Enable the TEST (FAILSAFE) on the input	Contact prevention using presence detection devices (ESPE) during closing Examples (ESPE): XPB ON, XPB SCAN, XPB SCAN 3D	Pl c Category 2	Pl d
Encoder	Adjust the parameters related to movement, i.e.: 1) Opening speed 2) opening strength 3) opening strength duration	Opening in LOW ENERGY	–	Pl d

7. CONFIGURABLE OUTPUTS

All the available outputs (OUT1...OUT5) can be modified in programming according to their function and type of contact.

A brief description of each function is given below.

DISABLED No associated function.

GONG The output is activated and deactivated at 1-second intervals when the safety devices are in use.

ERROR The output is activated if there is an error.

BATTERY OPERATION The output is activated when operating with the battery.

EMERGENCY ACTIVE The output is activated when an EMERGENCY is triggered.

TEST The output commands a Test (FAIL SAFE) on the inputs that are configured as safety devices on which the option of running a test before movement has been enabled.

DOOR NOT CLOSED The output remains active until the door is closed.

DOOR OPEN The output remains active as long as the door is open.

DOOR MOVING The output remains active as long as the door is moving.

COURTESY LIGHT The output is activated, for a programmable length of time, when the door is opened in NIGHT mode.

INTRUSION ACTIVE The output is activated when an intrusion is in progress (i.e. when an unexpected movement of the door from its closed position is detected).

CLOSING SAFETY ACTIVE The output is activated when a closing safety device is active.

SAFETY DEVICES ACTIVE The output is activated when a closing or opening safety device is active.

SIMPLY CONNECT The output is activated when Simply Connect programming is running.

PEOPLE IN NUMBER The output is activated when the maximum number of people set for the room is reached (Safe Flow function).

EXTERNAL RED TRAFFIC LIGHT Controls the red light outside the room to regulate the flow of people to one person at a time (Safe Flow function).

EXTERNAL GREEN TRAFFIC LIGHT Controls the green light outside the room to regulate the flow of people to one person at a time (Safe Flow function).

INTERNAL RED TRAFFIC LIGHT Controls the red light inside the room to regulate the flow of people to one person at a time (Safe Flow function).

INTERNAL GREEN TRAFFIC LIGHT Controls the green light inside the room to regulate the flow of people to one person at a time (Safe Flow function).

LOW BATTERY The output is activated when the charge level of the battery is too low for movements to be carried out.

8. START-UP

Before starting up the system, make sure that the door moves smoothly and without friction.

1. Turn power on to the A952.
2. Setting up the display.
3. Check that the status of the LEDs on the E952IO board is correct.
4. Program the A952.



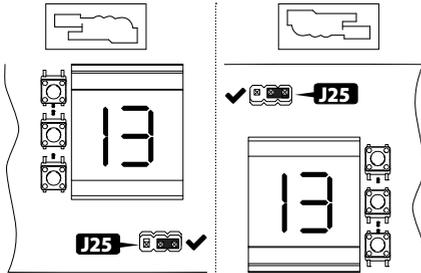
Make sure that you set up the following parameters correctly:

- parameter α , relative to the type of arm actually installed.
- parameter β , according to the type of application (opening or closing by spring)

5. Carry out the SETUP procedure.
6. Carry out the final operations.

8.1 SETTING UP THE DISPLAY

Adjust the display by moving jumper J25 according to the direction in which the board is installed.



8.2 PROGRAMMING THE A952

Programming can be carried out from the board KP EVO or from Simply Connect. For programming via Simply Connect, see the specific documentation. The operating parameters for a typical installation are available for the programming from board function. Programming from KP EVO/Simply Connect offers a wider number of options. If values have been programmed that are not available on the board, the board's display indicates them all with the value EP (External Program). Programming from the board can anyway modify values indicated by EP, but it is not able to restore them.

8.3 ON BOARD PROGRAMMING

There is a function on the KP EVO that can be selected to inhibit programming via the board.

Programming note:

- Changes made to the parameters are only saved when you exit from the programming function.
- Programming is interrupted after 10 minutes if the

$\blacktriangle, \bullet, \blacktriangledown$ buttons have not been pressed, without saving.

- If there is a power failure during programming, any unsaved changes have to be re-entered.

ACCESSING PROGRAMMING MODE

Programming of the A952 is divided in to two levels: BASIC and ADVANCED.

■ BASIC PROGRAMMING

- Press and hold the \bullet button: the first function appears on the display.
- Release the \bullet button: the display shows the value of the function.

■ ADVANCED PROGRAMMING

- Press and hold buttons \bullet and \blacktriangle : the first function appears on the display.
- Release buttons: \bullet and \blacktriangle : the display shows the value of the function.

MODIFYING THE SETTINGS

- When the display indicates the value of the function, press the \blacktriangle or \blacktriangledown button to modify it.
- Press button \bullet to go to the next function. The function is displayed as long as the button remains pressed.

EXITING PROGRAMMING MODE

- Scroll through the menu until you reach the St function and release the \bullet button.
- Use the \blacktriangle or \blacktriangledown buttons to select \checkmark to save or \times to discard any modifications.
- Press \bullet to confirm and exit from programming mode.



Alternatively, press buttons \bullet and \blacktriangledown simultaneously at any point of the menu to save the modifications and exit.

1 BASIC Programming

BASIC Programming	Default
<p>SC SIMPLY CONNECT</p> <p>Not modifiable. This symbol indicates that Simply Connect is available.</p>	1
<p>DF DEFAULT configuration</p> <p>Displayed if the board is configured with the factory settings (default).</p> <p>1 = the board is configured with the default settings</p> <p>0 = at least one value has been modified compared to the default settings</p> <p>If you wish to reload all the default settings, select 1 and exit from programming</p>	1
<p>TE TYPE OF APPLICATION (see 1 - 7)</p> <p>1 = shoe 1</p> <p>2 = shoe 2</p> <p>3 = articulated</p>	1
<p>SA SPRING ACTION</p> <p>1 = closing by spring</p> <p>2 = opening by spring</p>	1
<p>OD OPENING DIRECTION</p> <p>1 = inward opening</p> <p>0 = outward opening</p>	0
<p>PG PUSH AND GO</p> <p>0 = disabled</p> <p>1 = enabled in STANDARD mode (an initial manual push commands motorised opening)</p> <p>2 = enabled in "POWER ASSIST" mode (reduces the resistance when opening the door to make it easier to operate by hand).</p> <p>i Do not enable POWER ASSIST if the spring is configured to open. For the POWER ASSIST function to work correctly, a new SETUP has to be carried out each time the spring is adjusted. In the two-leaf configuration, for the POWER ASSIST function to work correctly, POWER ASSIST has to be enabled on both operators (primary and secondary).</p>	0
<p>PA PAUSE TIME</p> <p>Adjusts the time the door remains open after a command, before closing automatically.</p> <p>Adjustable from 0 to 30 s.</p>	2
<p>PP PAUSE TIME PUSH AND GO</p> <p>Adjusts the time the door remains open after a PUSH AND GO command, before automatic reclosing</p> <p>Adjustable from 0 to 30 s.</p>	2
<p>Pn NIGHT PAUSE TIME</p> <p>Adjusts the time the door remains open after a command in NIGHT mode, before closing automatically</p> <p>Adjustable from 0 to 90 s.</p>	10

BASIC Programming	Default
<p>CS CLOSING SPEED</p> <p>Adjustable from 1 (minimum) to 10 (MAX)</p>	3
<p>OS OPENING SPEED</p> <p>Adjustable from 1 (minimum) to 10 (MAX)</p>	10
<p>DS PARTIAL STOP SAFETY</p> <p>Defines the detection area of the safety device during opening.</p> <p>Do not enable this function if users are children, elderly, disabled or persons that are not steady on their feet.</p> <p>1 = obstacle detection active over the entire opening stroke.</p> <p>0 = obstacle detection NOT active in proximity to the opening stop</p> <p>i Enabling this function requires the SETUP procedure to be run with the detection device connected: the activation of the device during opening determines the point at which obstacle detection will be disabled during normal operation.</p>	10
<p>bu BUS 2easy DEVICE REGISTRATION</p> <p>see the relative section</p>	0
<p>SE EXIT PROGRAMMING</p> <p>Exit from the programming function deciding whether or not to save the changes</p> <p>1 = save</p> <p>0 = do not save</p> <p>After exit, the display shows automation status:</p> <p>00 CLOSED</p> <p>01 OPENING</p> <p>02 OPEN</p> <p>03 PAUSE</p> <p>04 NIGHT PAUSE</p> <p>05 CLOSING</p> <p>06 EMERG. ACTIVATE</p> <p>07 MANUAL</p> <p>08 NIGHT</p> <p>11 STOPPED</p> <p>13 ERROR</p>	0

2 ADVANCED programming

ADVANCED programming	Default
S1 SIDE FUNCTION SELECTOR POSITION 1 Defines the function of the external selector when in position 1 no = DISABLED 1 = NIGHT 2 = OPEN 3 = EXIT ONLY 4 = MANUAL	2
S2 SIDE FUNCTION SELECTOR POSITION 2 Defines the function of the selector when in position 2 See parameter S1.	4
O1 OUT OUTPUT 1 CONFIGURATION 0 = DISABLED 1 = GONG 2 = ERROR 3 = BATTERY OPERATION 4 = EMERGENCY ACTIVE 5 = TEST 6 = DOOR NOT CLOSED 7 = DOOR OPENED 8 = DOOR OPENING 9 = courtesy LIGHT 10 = INTRUSION ACTIVE 11 = CLOSING SAFETY ACTIVE 12 = SAFETIES ACTIVE 16 = Simply Connect PROGRAMMING in PROGRESS 18 = PEOPLE IN NUMBER 19 = RED TRAFFIC LIGHT EXT 20 = GREEN TRAFFIC LIGHT EXT 21 = RED TRAFFIC LIGHT INT 22 = GREEN TRAFFIC LIGHT INT 23 = LOW BATTERY 24 = NIGHT MODE	1
IC CONTACT TYPE - OUTPUT OUT 1 Not displayed if output is disabled no = NO contact nC = NC contact	no
O2 OUT OUTPUT 2 CONFIGURATION See O1	5
2C CONTACT TYPE - OUTPUT OUT 2 See IC	nC
O3 OUT OUTPUT 3 CONFIGURATION See O1	7
3C CONTACT TYPE - OUTPUT OUT 3 See IC	no
O4 OUT OUTPUT 4 CONFIGURATION See O1	6

ADVANCED programming	Default
4C CONTACT TYPE - OUTPUT OUT 4 See IC	no
O5 OUT OUTPUT 5 CONFIGURATION See O1	18
5C CONTACT TYPE - OUTPUT OUT 5 See IC	no
CF CLOSING FORCE Adjustable from 1 (minimum) to 10 (MAX)	5
OF OPENING FORCE Adjustable from 1 (minimum) to 10 (MAX)	10
tO OPENING FORCE TIME Regulates the maximum thrust time before an obstacle is recognised during opening Adjustable from 1 to 30 tenths of a second	15
tC CLOSING FORCE TIME Regulates the maximum thrust time before an obstacle is recognised during closing Adjustable from 1 to 30 tenths of a second	15
Hc ANTI-INTRUSION The door resists attempts to open it manually no = disabled y = enabled	no
 DO NOT enable this function if the door is used as an escape route.	
CS SCP (SELECTABLE CLOSE POWER) Increases the force with which the door pushes in the final section of the closure. It is useful to activate this function if there is high friction, if the seals are particularly rigid or if locks have a stiff latch. no = disabled y = enabled	no
 Because activating the SCP function also reduces the sensitivity of the electronic anti-crushing system in the final section of closing, DO NOT activate the SCP function in "LOW ENERGY" mode.	
EL MOTOR BLOCK (LOCK) 0 = disabled 1 = active in NIGHT mode 2 = active in EXIT ONLY mode 3 = active in NIGHT + ONE WAY mode 4 = ALWAYS active	0
Et OPENING DELAY after LOCK ACTIVATION Defines the opening delay time of the door to allow the lock to be released, particularly the motorized ones. Adjustable from 0 to 60 tenths of a second	3

ADVANCED programming	Default
<p>RS REVERSE STROKE no</p> <p>Commands a reverse stroke before opening, the duration of which is defined by parameter Et, to facilitate the opening of the lock</p> <p>no = disabled y = enabled</p>	
<p>CI CONFIGURATION INPUTS IN1...IN8 *</p> <p>no = DISABLED</p> <p>1 = EXTERNAL OPEN</p> <p>CB 4 = INTERNAL OPEN</p> <p>7 = AUTOMATIC OPEN</p> <p>8 = IMPULSE OPEN / IMPULSE CLOSE</p> <p>10 = KEY</p> <p>11 = PARTIAL OPEN</p> <p>20 = CLOSING SAFETY</p> <p>21 = OPENING SAFETY</p> <p>22 = OVERHEAD PRESENCE SENSOR</p> <p>30 = EMERGENCY OPEN</p> <p>31 = EMERGENCY OPEN WITH MEMORY</p> <p>34 = EMERGENCY CLOSE</p> <p>35 = EMERGENCY CLOSING with MEMORY</p> <p>36 = FIRE ALARM</p> <p>40 = ALWAYS OPEN</p> <p>41 = EXIT ONLY</p> <p>42 = ENTRY ONLY</p> <p>43 = NIGHT</p> <p>44 = MANUAL</p> <p>45 = PARTIAL</p> <p>46 = INTERLOCK</p> <p>60 = TIMER</p> <p>61 = RESET (contact type NO, non-modifiable)</p> <p>89 = NURSE AND BED</p> <p>90 = FIRE ALARM 2</p> <p>91 = OPEN DELAY</p>	
<p>IP CONTACT TYPE INPUTS IN1...IN8 *</p> <p>Not displayed if the input is disabled or set as RESET</p> <p>no = NO contact</p> <p>BP nC = NC contact</p>	
<p>IF TEST (FAILSAFE) INPUTS IN1...IN8 *</p> <p>Displayed only for functions z0 and z1</p> <p>y = Test enabled</p> <p>BF no = Test not enabled</p>	
<p>nd SENSOR DELAY (in NIGHT MODE) 10</p> <p>When NIGHT mode is set, the internal detector remains active for the amount of time set in this parameter, to allow it to be opened only once. The internal detector is disabled immediately after opening and in any case upon expiry of the set delay.</p> <p>Adjustable from 0 to 90 s</p>	

ADVANCED programming	Default
<p>od OPEN DELAY TIME</p> <p>Adjusts the time the door waits before opening after an OPEN DELAY command from closed.</p>	
<p>Et SETUP</p> <p>Carry out the SETUP procedure</p>	
<p>In IN OUT STATE</p> <p>The segments of the display indicate the status of the inputs and outputs</p>	
<p>St EXIT PROGRAMMING</p> <p>Exit from the programming function deciding whether or not to save the changes</p> <p>y = save no = do not save</p> <p>After exit, the display shows automation status:</p> <p>00 CLOSED</p> <p>01 OPENING</p> <p>02 OPEN</p> <p>03 PAUSE</p> <p>04 NIGHT PAUSE</p> <p>05 CLOSING</p> <p>06 EMERG. ACTIVATE</p> <p>07 MANUAL</p> <p>08 NIGHT</p> <p>11 STOPPED</p> <p>13 ERROR</p>	

* Default values:

	C1 ↑ C8	IP ↑ 8P	IF ↑ 8F
IN1	C1 = 4	IP = n0	
IN2	C2 = 1	2P = n0	
IN3	C3 = 34	3P = n0	
IN4	C4 = 20	4P = nC	4F = no
IN5	C5 = 21	5P = nC	5F = no
IN6	C6 = 10	6P = n0	
IN7	C7 = 36	7P = n0	
IN8	C8 = 7	8P = n0	

8.4 SETUP

The SETUP procedure consists of a series of movements during which the travel of the leaf and the mechanical parameters of the door (friction, spring preload) are acquired.

SET UP IS NECESSARY

- When the automation is first put into operation.
- After the E952CL board has been replaced.
- After any variation in the maximum opening angle, the weight of the door or the amount of friction.
- After factory defaults have been restored.
- After the spring preload has been modified.

IMPEDIMENTS TO SETUP

The following are reasons for the SETUP procedure NOT being carried out or being interrupted.

- Emergency Inputs active
- MANUAL mode
- NIGHT mode

PERFORM SETUP



The inputs configured as safeties are ignored during SETUP. Keep at a safe distance and prevent anyone from approaching the door until the procedure has been completed.

Both the opening and closing mechanical stops must be present during the SETUP procedure.

To start the SETUP procedure from the board:

1. Select the function in advanced programming.
2. Press the and buttons simultaneously until flashes on the display.
3. Release the buttons and wait for the procedure to be completed (during the various phases, the display will show L0, L1 and L2 in sequence)
4. When finished, the display switches to the automation status view.

8.5 RESET

RESET consists of initialising the A952, which must be carried out while an error condition is present in order to attempt to restore normal operation.

A RESET can be carried out in one of the following ways:

- Temporarily turning off power to the A952
- Keeping the two central buttons of the KP EVO or the LK EVO pressed simultaneously for 5 seconds
- Activating the input configured with the RESET function.



When the PRIMARY board is reset, all the SECONDARY boards connected to it in Intercom mode are rebooted and returned to the factory settings.

8.6 RESTORING FACTORY SETTINGS

It is possible to delete all the data in memory (including the cycle counter and the SETUP data) and to reload the default programming values, by following the procedure below:

1. Turn on the board, the display shows the firmware version for 4 seconds.
2. During these 4 seconds, press the , , buttons simultaneously for at least 5 seconds.
3. Release the buttons.

9. PUTTING INTO SERVICE

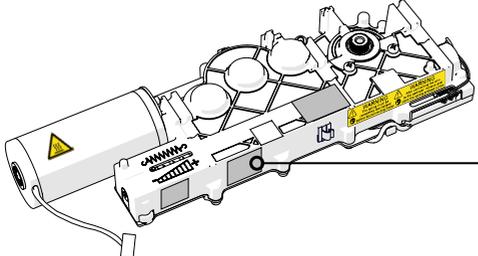
9.1 DIN 18650-1 CLASSIFICATION

Fill out the label  53 based on the table:

3 DIN 18650-1 Classification

digit 1	digit 2	digit 3	digit 4	digit 5	digit 6	digit 7	digit 8
1	3	1	0, 1, 2, 3	1, 2, 3	0, 1, 2, 3, 4	0, 1, 2, 3, 4	4

Digit	Meaning	Value	Description
1	Type of operation	1	Swing door drive
2	Operation durability	3	1,000,000 test cycles at 4,000 cycles/day
3	Type of door leaf	1	Swing leaf
4	Suitability for use as a fire door	0	Not suitable for use as a fire door
		1	Suitable for use as a smoke control door only
		2	Suitable for use as a fire resisting door
5	Operation safety devices	3	Suitable for use as a fire door (smoke control and fire resisting)
		1	Force limitation
		2	Connection for external safety systems
6	Special requirements for drives / functions / hitches	3	LOW ENERGY
		0	No special requirements
		1	In emergency exits with an anti-panic system
		2	In emergency exits without a break-out system
7	Automatic door safety - construction / installation	3	For self-closing fire doors with a break-out system
		4	For self-closing fire doors without a break-out system
		0	No safety device
		1	With sufficiently dimensioned safety distances
8	Ambient temperature	2	With protection to prevent fingers being crushed, shorn off or dragged
		3	With integrated break-out unit
		4	With safety sensors
8	Ambient temperature	4	Ambient temperature range specified by manufacturer



FAAC

FAAC spa - Soc. Unipersonale
via Catani, 10-40069 Zola Predosa (BO)
Bologna, Italy

Data messa in servizio:
Commissioning date:

*Compilare campi / fill in fields:
Vedere istruzioni/see instructions

Classification DIN18650-1:

1	2	3	4	5	6	7	8
1	3	1	*	*	*	*	4



390.236.000002210001

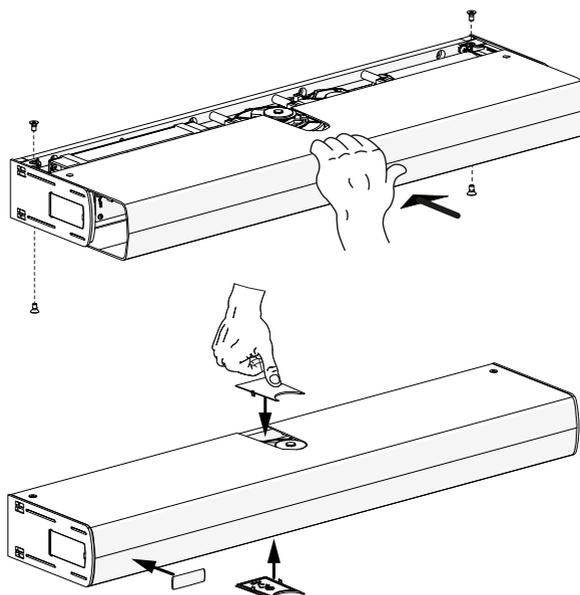
 53

9.2 FINAL CHECKS

1. For doors in "LOW ENERGY" mode, make sure that the kinetic energy of the leaf is less than 1.69 joules and that the maximum static force is less than 67 N. Use an impact force tester in accordance with standard EN 12453. For non-EU countries, if there are no specific local regulations, the force must be less than 67 N.
2. For doors that are not in "LOW ENERGY" mode, make sure that the test object is detected in all areas covered by the leaf movement.
3. If the door is used as an escape route, make sure that the manual opening force does not exceed 150 N measured at the end of the leaf at a height of 1 m from the ground.

9.3 FINAL OPERATIONS

1. Install (☞ 54):
 - The press-on front cover and fasten it using the 4 screws
 - The press-on slot covers
 - The adhesive logo
2. For doors less than 2 meters high, apply the hazard warning pictograms (supplied) in correspondence with the arm movement area.
3. Highlight all areas with adequate warning signs in which there are still residual risks, even if all possible safety measures having been adopted.
4. Place a "DANGER, AUTOMATICALLY CONTROLLED" sign in a prominent position on the door.
5. Attach the CE marking on the door.
6. Fill out the EC declaration of conformity and the system register.
7. Give the EC Declaration, the system register with the maintenance plan and the instructions for use of the automation to the system owner/operator.



☞ 54

10. ACCESSORIES

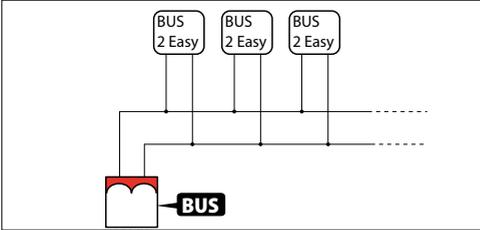
10.1 BUS 2EASY DEVICES

FAAC BUS 2easy control devices can be connected to this board.



If no BUS 2easy accessories are used, leave the connector free. Do not bridge.

CONNECTION



Connect the BUS 2easy devices to the BUS connector.



The overall length of the BUS 2easy cables must not exceed 100 m.
The BUS line does not require a matching polarity connection.

BUS 2EASY CONTROL DEVICES

1. Position the DIP switches to assign the commands.



For each control device connected to the BUS 2easy line, position the DIP switches so that a command is used only on one device.

DIP switch	command
1 2 3 4 5	
0 0 0 0 0	AUTOMATIC OPEN
0 0 0 1 0	EXTERNAL OPEN
0 0 1 0 0	INTERNAL OPEN
0 0 1 1 0	INPULSE OPEN / INPULSE CLOSE
0 1 0 0 0	KEY
0 1 0 1 0	NOT USED
0 1 1 0 0	NOT USED
0 1 1 1 0	NOT USED
1 0 0 0 0	NOT USED
1 0 0 1 0	PARTIAL AUTOMATIC OPEN
1 0 1 0 0	PARTIAL EXTERNAL OPEN
1 0 1 1 0	PARTIAL INTERNAL OPEN
1 1 0 0 0	PARTIAL INPULSE OPEN / INPULSE CLOSE
1 1 0 1 0	PARTIAL KEY
1 1 1 0 0	NOT USED
1 1 1 1 0	NOT USED

DIP switch	channel 1 command	channel 2 command
1 2 3 4 5		
0 0 0 0 0	AUTOMATIC OPEN	PARTIAL AUTOMATIC OPEN
0 0 0 1 0	AUTOMATIC OPEN	PARTIAL EXTERNAL OPEN
0 0 1 0 0	AUTOMATIC OPEN	NOT USED
0 0 1 1 0	AUTOMATIC OPEN	NOT USED
0 1 0 0 0	EXTERNAL OPEN	PARTIAL AUTOMATIC OPEN
0 1 0 1 0	EXTERNAL OPEN	PARTIAL EXTERNAL OPEN
0 1 1 0 0	EXTERNAL OPEN	NOT USED
0 1 1 1 0	EXTERNAL OPEN	NOT USED
1 0 0 0 0	INTERNAL OPEN	PARTIAL INTERNAL OPEN
1 0 0 1 0	INTERNAL OPEN	PARTIAL INPULSE OPEN / INPULSE CLOSE
1 0 1 0 0	INTERNAL OPEN	NOT USED
1 0 1 1 0	INTERNAL OPEN	NOT USED
1 1 0 0 0	INPULSE OPEN / INPULSE CLOSE	PARTIAL INTERNAL OPEN
1 1 0 1 0	INPULSE OPEN / INPULSE CLOSE	PARTIAL INPULSE OPEN / INPULSE CLOSE
1 1 1 0 0	INPULSE OPEN / INPULSE CLOSE	NOT USED
1 1 1 1 0	INPULSE OPEN / INPULSE CLOSE	NOT USED

2. Register the control devices BUS 2easy (Function b_5 in basic programming).
3. Check that the devices are working properly.

BUS 2EASY DEVICE REGISTRATION

Registration is required:

- When the automation system is first started or after the board has been replaced.
- Following any changes (addition, replacement or removal) to the BUS 2easy devices.

Board registration procedure:

1. Select the bu function in programming. When ● is released, the display shows the status of the BUS 2easy devices:

□□	No device registered
-	At least one device registered
CC	BUS 2easy line short-circuited*
E-	BUS 2easy line error

* Registration is not possible in this condition.

2. Press and hold the ▲ and ▼ buttons simultaneously for at least 5 s until 3 appears. The registration is complete.
3. Release the ▲ and ▼ buttons. The display shows the status of the BUS 2easy devices.
4. Check the status of the LEDs on the display.

Registration procedure from KP EVO:

access the Programming/Installation/2 Easy Reg menu.

CHECK OF THE REGISTERED DEVICES

1. Select the bu function in basic programming. After registering one or more devices, bu displays segment 13 on; when a device is activated, the segment corresponding to the command lights up:



1	Total opening command
2	Partial opening command
13	At least one device registered

2. Press and hold the ▲ button; the segments relative to the registered devices will light up.

10.2 BATTERY KIT

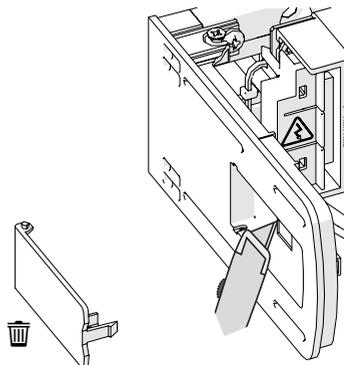


Only use the FAAC battery pack supplied, which is specific for the A952.

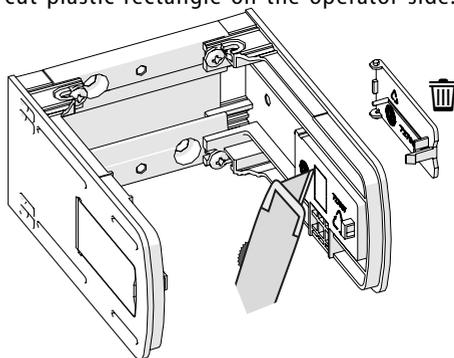
The battery kit can be mounted on whichever side of the A952 you prefer as long as there is enough space at the side.

The functions selector can also be mounted on whichever side you prefer, even if there is a battery kit as long as there is enough space for the selector to be operated.

1. Remove the access cover. Remove the pre-cut plastic rectangle using a cutter.

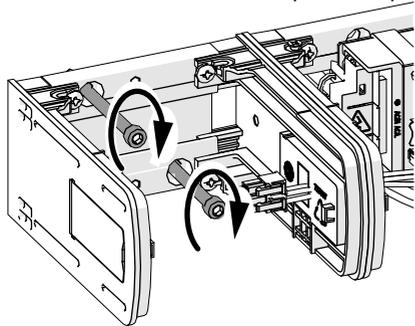


2. Remove the access cover on the operator side. Fasten the two sides to the plate using the 4 screws and then remove the pre-cut plastic rectangle on the operator side.

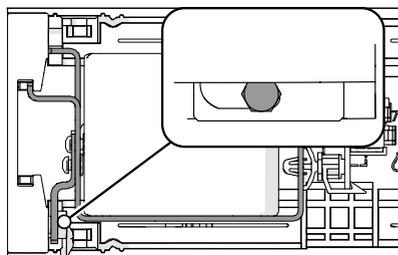


3. Place the battery holder unit on the operator so that side panels coincide. Secure the plate using the anchors provided according to the type

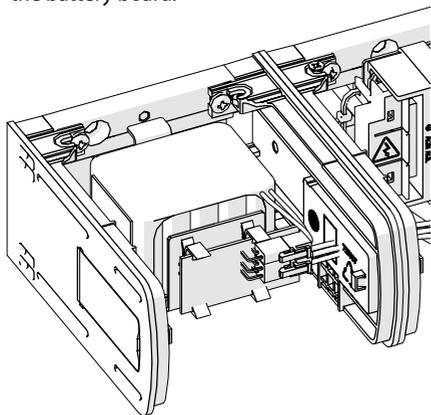
of material, as indicated in the specific chapter.



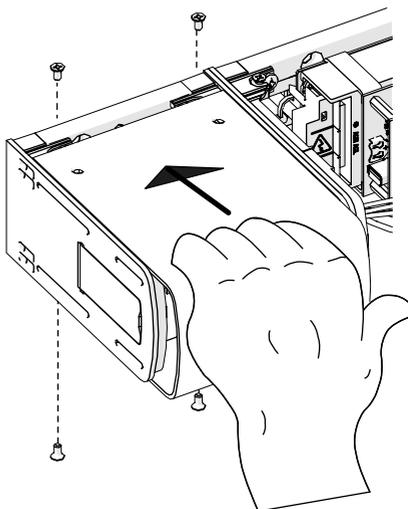
4. Insert the bracket into the guide as shown in the figure. Slide the bracket to the end of the slot and tighten the screw.



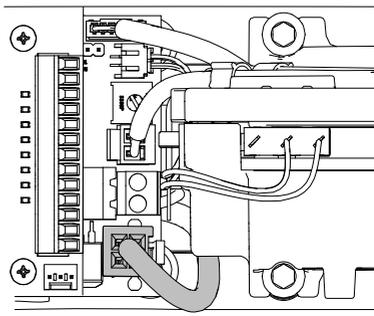
5. Plug the connector of the connecting cable into the battery board.



6. Install the press-on front cover and fasten it using the 4 screws.



7. Plug the connector into the E952CL board.



10.3 SAFETY SENSORS XPB ON , XPB SCAN , XPB SCAN 3D

Below is an example of a pair of sensors (XPB ON = 55 , XPB SCAN/XPB SCAN 3D (56) connected in a PRIMARY/SECONDARY configuration, used as closing (A) and opening (B) safety devices.

Sensor A is connected to input I4 (configured by default as a closing safety device with an NC and Test enabled contact).

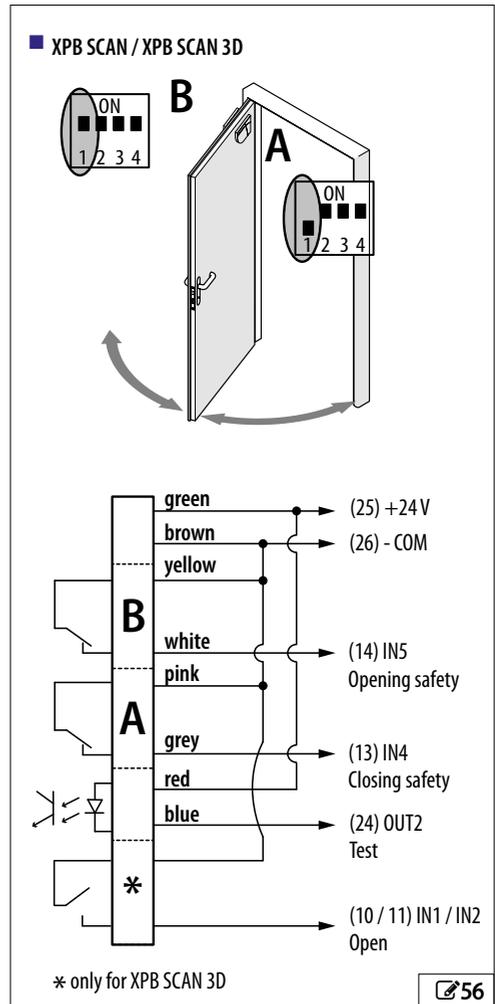
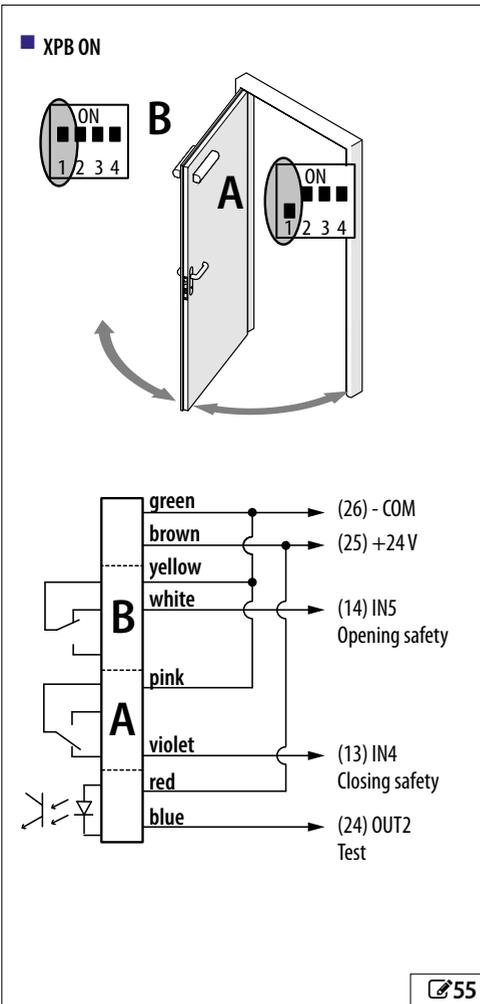
Sensor B is connected to input I5 (configured by default as an opening safety device with an NC and Test enabled contact).

Output OUT2 (configured by default as Test) is used to monitor the sensors.

DIP switch 1 of each sensor defines the side on which it is mounted:

ON = opening side

OFF = closing side



10.4 LOCK

i If the door is used as an escape route, the lock should not be used.

If the lock needs to be powered in order to be released, connect it as indicated in .

If the lock needs to be switched off in order to be released, connect it as indicated in .

If you power the accessories from the board, the power consumption of the lock and the other accessories should not exceed 1.2 A 24V $\overline{=}$.

In advanced programming on the:

- define the operating mode of the lock (parameter EL).
- set the opening delay of the door to allow the lock to be opened, particularly motorised ones (parameter EL).
- if necessary, enable the reverse stroke to facilitate the release of the lock (parameter r5).

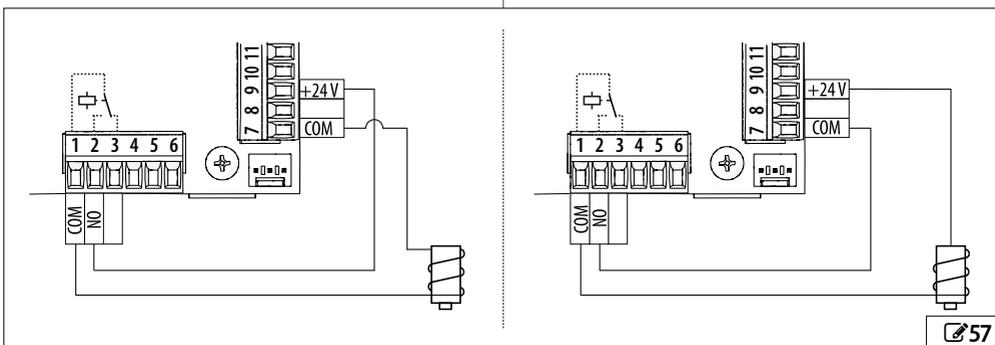
10.5 SIMPLY CONNECT

The Simply Connect CLOUD platform allows remote communication with the automation.

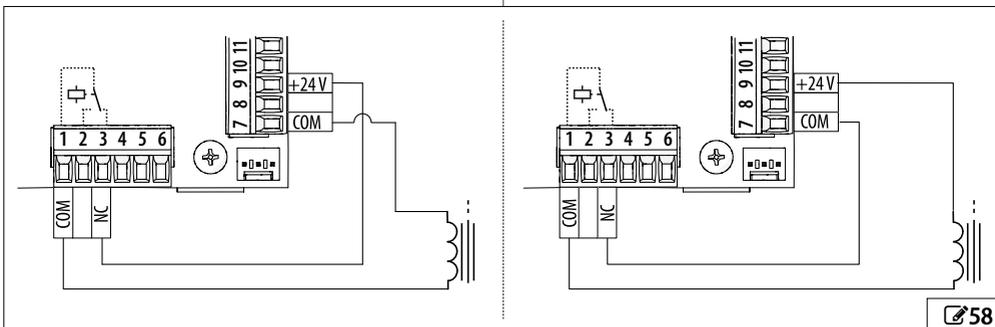
Simply Connect requires an accessory FAAC connectivity module.

Insert the module into the dedicated plug-in connectors and install the "Simply Connect PRO" App.

i When programming is taking place via Simply Connect, programming from the board/KP EVO is inhibited.









10.6 COVER FOR DOUBLE LEAF APPLICATIONS

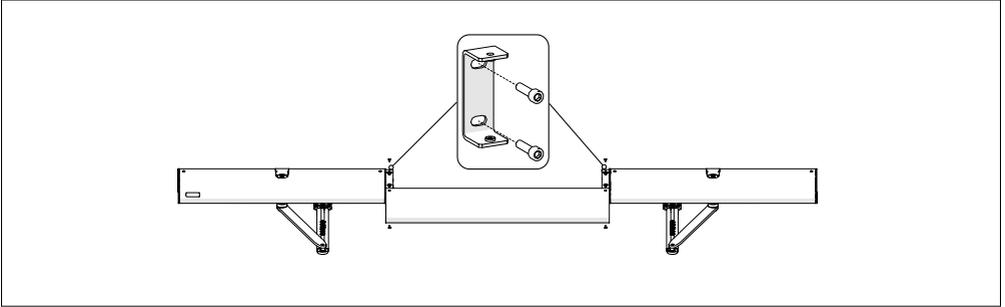
A 3.4 m long cover is available as an accessory for double leaf applications.

Possible uses include:

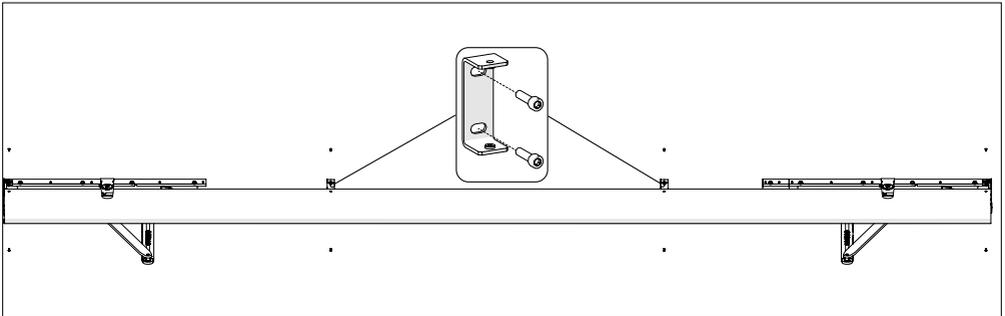


Before installation, locate and remove the piece of aluminium contained in the cover.

- Make the cover of the two operators continuous by filling the space between the units



- Replace the operator covers with a single profile



1. Install the cover mounting brackets as shown in the figures above.
2. Cut the cover profile to the right length.
3. Drill holes for the fixing screws and, where necessary, the slots.
4. Install the cover and secure it using the screws provided.

11. LK EVO

The operating mode can be set by pressing the relative button on the LK EVO.

ASSEMBLY AND TESTING

1. To separate the parts, use a flat screwdriver to prise them apart.
2. Break the cable passage insert.
3. Mark the points on the wall and fasten the support using suitable screws.



Before connecting the device, disconnect the mains power supply and the emergency battery of the automation (if present).

4. Connect to the KEEPER connector on the E95210 board:

G	Power supply negative
---	-----------------------

TX	Data transmission
----	-------------------

RX	Data reception
----	----------------

V	+24 V $\overline{=}$
---	----------------------

- use a 4 pair twisted U/UTP AWG24 cable with a maximum length of 50 m

5. Assemble the parts by pressing lightly.

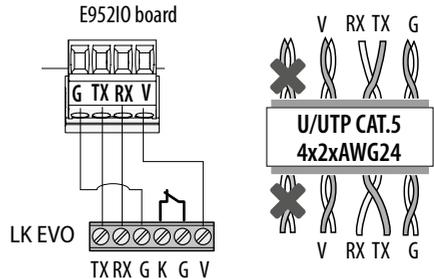
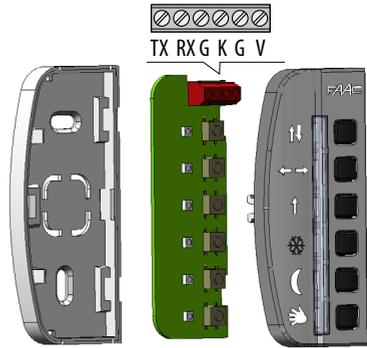
SWITCHING ON Turn the power on to the board of the automation:

The LEDs turn on and off in sequence, then the LED corresponding to the active operating mode remains on.

When the ☾ ☼ LEDs are lit at the same time, it indicates that the automation is in an operating mode that is NOT available on LK EVO.

OPERATION To select an operating mode, select the corresponding button. For special functions, press the 2-button combinations indicated.

ERRORS If there is an error, the combination of LEDs corresponding to the active error flashes for a few seconds (⊞ 4).



LOCK DEVICE LK EVO

The lock device is optional. Connect a key command with an NC contact to terminals G and K.

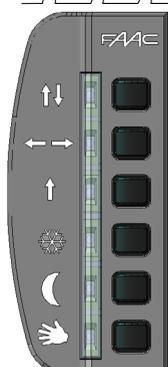
4 LED Error Codes LK EVO - KS EVO

Errors	↕	↔	↑	❄	☾
1 Board failure	*				
4 Accessories power supply fault			*		
Emergency input active	*			*	
5 FW fault	*		*	*	
7 Motor failure	*	*	*		
9 Power supply fault / No mains power		*			
Input configured as safety test failed	*	*		*	
15 SETUP inhibited	*	*	*	*	
16 Encoder failure					*
19 Friction too high	*	*			*
22 Programming data corrupted		*	*		*
24 Consecutive obstacles in closing				*	*
25 Lock fault		*	*	*	*
27 Motor rotation fault	*	*	*	*	*
31 Consecutive obstacles in opening				*	*
39 SETUP incorrect / missing		*	*	*	

5 LED Warning coding - LK EVO

Warnings	↕	↔	↑	❄	☾	👤
44 Emergency input active					*	*
51 Obstacle detected when closing	*				*	*
52 Obstacle detected when opening		*			*	*
56 Battery operation	*		*		*	*
60 Maintenance request				*	*	*
65 SETUP in progress	*			*	*	*
68 Failsafe on safety fault, slow movement	*		*	*	*	*

Icons LED (active operating mode)
Buttons



↕	Automatic total bidirectional
↔	Door open
↑	Automatic total one-direction
❄	Automatic partial bidirectional
☾	Night
👤	Manual

2-button combinations

↔ + ☾ (⌚ 5 s) **LOCK/UNLOCK** Press for approximately 5 s to Lock/Unlock the keypad (the LEDs turn on and then turn off)

↑ + ❄ (⌚ 5 s) **RESET** (the LEDs relative to the Error flash as long as the buttons are pressed, release when they switch off).

↕ + ↔ (⌚...) **WARNINGS** To display the active warnings, press and hold the buttons (the LEDs corresponding to the warning flash as long as the buttons are pressed, release when they turn off) (see 60 LED warning codes)

☾ + 👤 (⌚...) **FW VERSION LK EVO** to display the FW of the LK EVO press and hold the buttons (see 60 LED FW version codes)

60

6 LED FW version codes - LK EVO

FW version	↑↓	↔	↑	☸	☾	👤
FW 3.2						*
FW 3.3	*					*
FW 3.4		*				*
FW 3.5	*	*				*
FW 3.6			*			*
FW 3.7	*		*			*
FW 3.8		*	*			*
FW 3.9	*	*	*			*
FW 4.0				*		*
FW 4.1	*			*		*
FW 4.2		*		*		*
FW 4.3	*	*		*		*
FW 4.4			*	*		*
FW 4.5	*		*	*		*
FW 4.6		*	*	*		*
FW 4.7	*	*	*	*		*
FW 4.8					*	*
FW 4.9	*				*	*
FW 5.0		*			*	*

12. KS EVO

The operating mode can be selected by turning the key of the KS EVO to the corresponding icon.

ASSEMBLY AND TESTING

1. Separate the parts (use a flat screwdriver to prise them apart).
2. Break the cable passage insert.
3. Mark the points on the wall and fasten the support using suitable screws.
4. Connect to the KEEPER connector on the E95210 board:

G Power supply negative

TX Data transmission

RX Data reception

V +24V

- Use a 4 pair twisted U/UTP AWG24 cable with a maximum length of 50 m.

5. Assemble the parts and secure them using the screws provided.

SWITCHING ON Turn the power on to the board of the automation:

The LEDs turn on and off in sequence, then the LED corresponding to the active operating mode remains on (apart from manual mode).

ERRORS If there is an error, the combination of LEDs corresponding to the active error flashes for a few seconds (⊞ 4).



↕ Automatic total bidirectional

↔ Door open

↑ Automatic total one-direction

❄ Automatic partial bidirectional

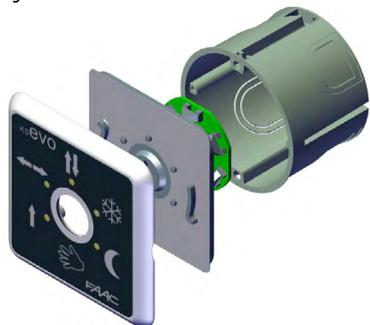
☾ Night

✋ Manual

When the ☾ ❄ LEDs are lit at the same time, they indicate that the automation is in an operating mode that is NOT available on KS EVO.

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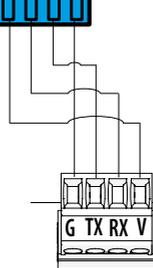
Installing the KS EVO



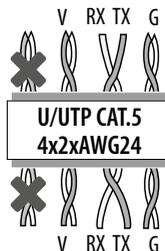
Connection KS EVO Connect to the terminals as shown.



KS EVO



E95210 board



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13. KP EVO

The KP EVO allows you to set the operating mode of the automation using buttons and menus. The active operating mode is indicated on the display.

The KP EVO allows the automation to be programmed using more options compared to programming via the board.

KP EVO LOCK DEVICE

The KP EVO has a safety feature that protects the buttons via a PASSWORD. Alternatively, it is possible to connect a key command with an NC contact to terminals G and K.

The lock device is optional. The operation of the lock device can be programmed.

ASSEMBLY AND TESTING

1. To separate the parts, remove the 2 screws (1).
2. Break the cable passage insert (2).
3. Mark the points (3) on the wall and fasten the support using suitable screws.
4. Connect to the KEEPER connector on the E95210 board:

G	Power supply negative
TX	Data transmission
RX	Data reception
V	+24V 

- Use a 4 pair twisted U/UTP AWG24 cable with a maximum length of 50 m.
5. Assemble the parts and secure them using the screws (1).
 6. Fasten the display using the screw (4) and insert the screw cover (5).

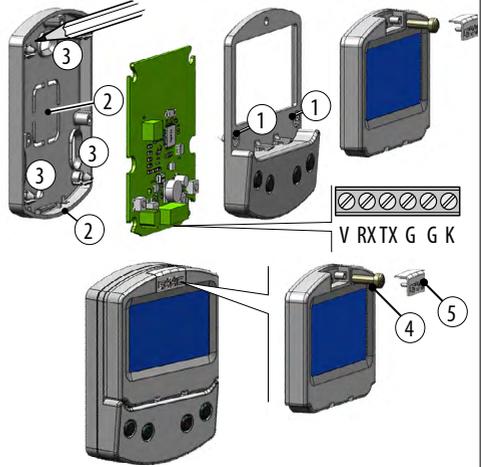
SWITCHING ON

Turn power on to the board. The device turns on and displays a series of screens:

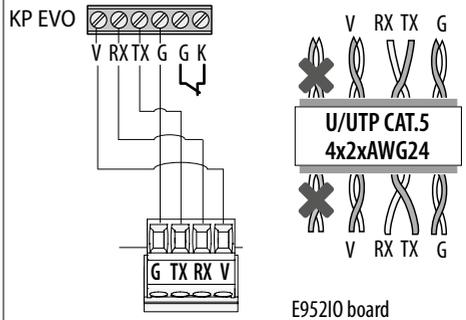
- Power-up screen
- Bootloader: displays the Bootloader version (x.x)
- Firmware: displays the FW version (x.x)
- HOME PAGE: ready for use

Note: the system returns to the HOME PAGE if no buttons have been pressed for 2 minutes.

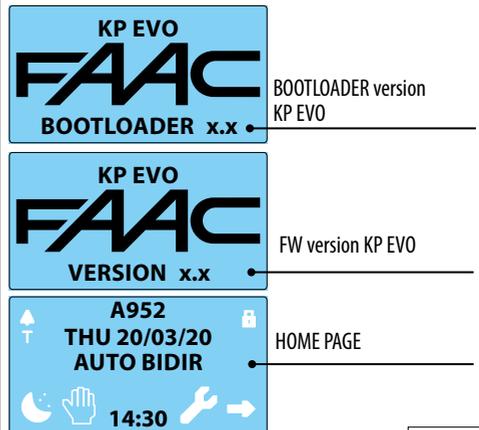
Installing the KP EVO



Connection KP EVO Connect to the terminals as shown.



Screen sequence when switched on



HOME PAGE

The 4 buttons activate the commands associated with the icons above:

= set NIGHT mode

= set MANUAL mode

= open the MENU for configuring the board parameters

= switch to MODFUN: additional operating modes
Every time the NIGHT or MANUAL button is pressed, the mode is enabled (icon highlighted on the display) and disabled.

Any change immediately updates the mode enabled on the display.

Symbols on the HOME PAGE:

	current indications
	TIMER active
	KP EVO locked
	USER PASSWORD disabled

RESET - BLOCK/RELEASE

2-button combinations on the HOME PAGE:

+ (5 s) **LOCK / UNLOCK** Press for approximately 5 s to Lock/Unlock the keypad (the icon appears)

+ (5 s) **RESET** (press for approximately 5 s, until the flashing Error message disappears. After displaying a series of screens the system goes back to the HOME PAGE)

PASSWORD (PSW)

When the **PASSWORD** screen appears the 4-digit password must be entered. There are 2 passwords: **USER PSW** and **TECHNICIAN PSW**. By default both are: 0000. The technician password provides access to both the restricted functions (PROGRAMMING) and the user functions.

Entering the PSW

- select () and confirm each digit of the password in succession with (**OK**).

- the device recognises the **USER PSW** or **TECHNICIAN PSW**

If the **PASSWORD IS NOT RECOGNISED** "WRONG PASSWORD" appears on the display. Pressing **OK** takes you back to the HOME PAGE.

Changing the PSW:

It is recommended that you change the PSW when you carry out programming for the first time (Password menu).

- select and confirm the password to be modified: **USER PSW** or **TECHNICIAN PSW**

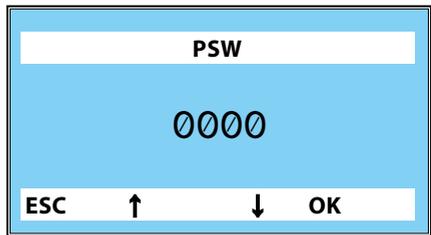
- select () and confirm (**OK**) the digits of the PSW one by one, then confirm the complete PSW

HOME PAGE

- Automation model
- Current day and date
- Operating mode (**MODFUN**)
- Time



PASSWORD (default 0000)



USER	no PSW	no PSW	PSW*	no PSW
INSTALLER	no PSW	no PSW	PWD	no PSW

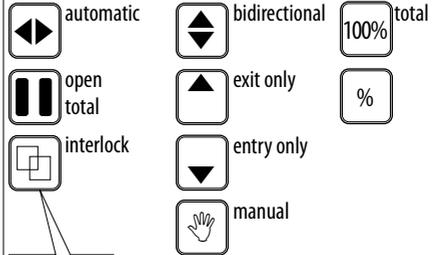
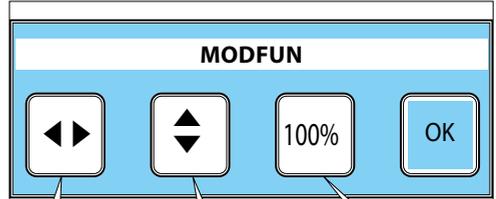
* The MENU , requires the **TECHNICIAN PSW** to be entered in order to access the programming functions.

MODFUN

1. Access MODFUN: button  on the HOME PAGE.
2. Select the operating mode, the direction (bidirectional, EXIT Only, ENTRY Only) and Total or Partial (NOTE: Partial refers to the opening of the PRIMARY leaf in a 2-leaf application): buttons .
3. Confirm MODFUN: the **OK** button takes you back to the HOME PAGE.

MENU

1. Access the functions menu: button  on the HOME PAGE.
2. Enter the USER or TECHNICIAN PSW
3. The functions are shown on the display. Select using the  buttons
4. Press the **OK** button to access the selected function and then the  and **OK** buttons to display or set it.
5. Confirm by pressing the OK button, it takes you back to the MENU. Pressing ESC takes you back to the HOME PAGE.



Press and hold for 3 s to select INTERLOCK
Available on the PRIMARY board, if enabled.

MODFUN examples

Automatic, bidirectional, with Total Opening:

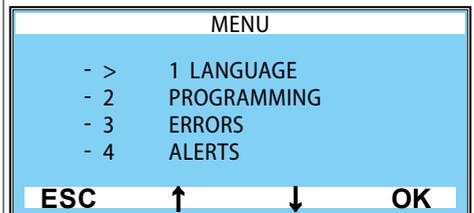


Door open function with Total Opening:

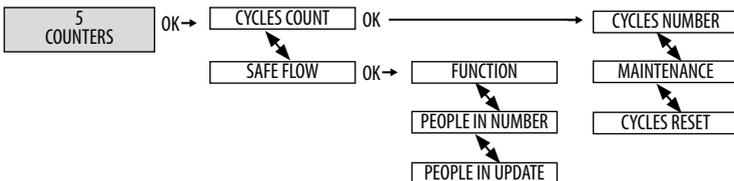
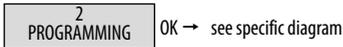
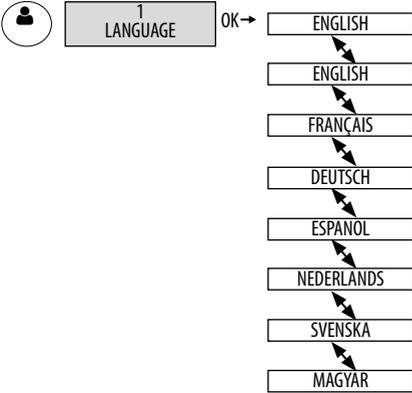
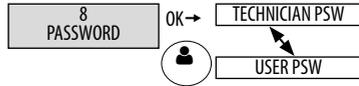
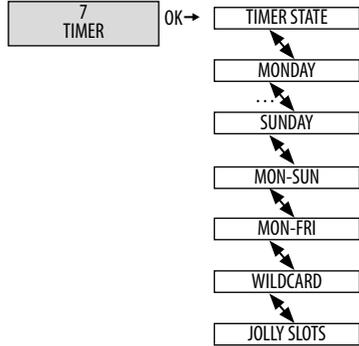
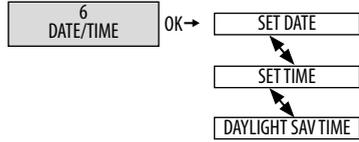


MENU

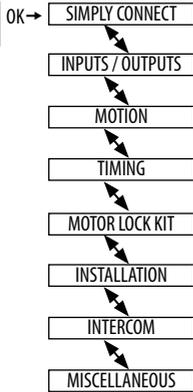
- the selected function is indicated with >
-  buttons to select the function
- **ESC** button to return to the HOMEPAGE
- **OK** button to access the function/confirm the programming and go back to the MENU



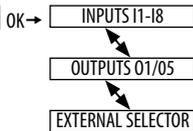
7 Programming menu 



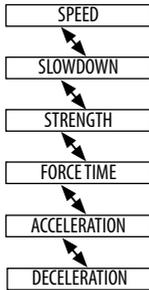
2 PROGRAMMING



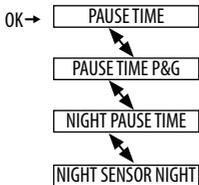
INPUTS / OUTPUTS



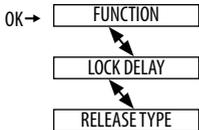
MOTION



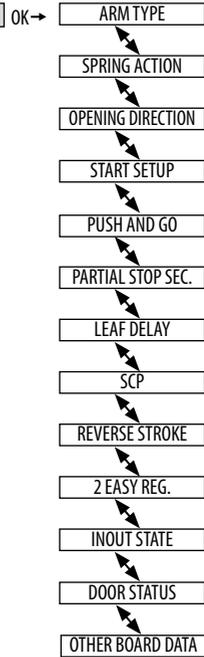
TIMING



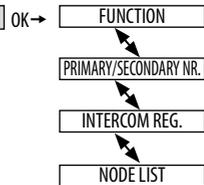
MOTOR LOCK KIT



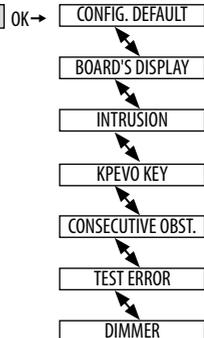
INSTALLATION



INTERCOM



MISCELLANEOUS



MENU 1 LANGUAGE

Select the language from the list provided.

MENU 2 PROGRAMMING



The menu is only accessible if the **TECHNICIAN** password has been entered (default 0000).

1 SIMPLY CONNECT

1: Not modifiable. Indicates that Simply Connect is available.

2 INPUTS / OUTPUTS

INPUTS IN1-IN8

Allows you to select the input and to assign the function and type of contact (NO, NC).

If you configure and input as a **SAFETY**, you are required to set the **TEST: ENABLED/DISABLED**

OUTPUTS O1-O5

Allows you to select the output and assign the function and type of contact (NO, NC).

The **LIGHT** option requires you to set the time: 1...90s

EXTERNAL SELECTOR

Allows you to select the operating modes associated with positions 1 and 2 of the rocker switch.

3 MOTION

OPENING

Allows you to program:

OPENING SPEED: level 1...10

SLOWDOWN:

OP. SLOWDOWN SPACE 0°...90°, **OP. SLOWDOWN SPEED** 1...3

STRENGTH: level 1...10

STRENGTH DURATION: 0.1...3.0 s

ACCELERATION: level 1...10

DECELERATION: level 1...10

CLOSING

Allows you to program items similar to **OPENING**

4 TIMING

Allows you to program:

PAUSE TIME: 0...30 s

PAUSE TIME P&G: 0...30 s

NIGHT PAUSE TIME: 0...240 s

NIGHT SENSOR DELAY: 0...240 s

5 MOTOR LOCK KIT

Allows you to program the operation of the lock (if installed).

FUNCTION

Defines operating modes in which the lock is activated:

DISABLED, NIGHT, EXIT ONLY, NIGHT + MONODIR, ALWAYS

LOCK DELAY

Defines the opening delay time of the door to allow the lock to be released, particularly the motorised ones. 0-60 tenths of a second.

RELEASE TYPE

Specifies when power is disconnected from the lock after it has been mechanically released.

OPENING: during the opening phase

CLOSED: when the door is closed again

6 INSTALLATION

ARM TYPE

Defines the type of application (see  1 -  7):

SKID 1

SKID 2

ARTICULATE

SPRING ACTION

Set the function of the spring (determined by the type of installation):

CLOSING BY SPRING

OPENING SPRING

OPENING DIRECTION

Set the opening direction

INWARD OPENING

OUTWARD OPENING

START SETUP

Follow the instructions in the **§ SETUP** section. Confirm to carry out the **SETUP**.

PUSH AND GO

Defines the function that commands the motorised opening of the door after an initial manual push:

DISABLED

ENABLED: Standard **PUSH AND GO** enabled (an initial manual push commands motorised opening)

POWER ASSIST: **PUSH AND GO** enabled in "POWER ASSIST" mode (reduces the resistance when opening the door to make it easier to operate by hand)

PARTIAL STOP SEC.

Defines the detection area of the safety in opening:

DISABLED: obstacle detection active over the entire opening stroke

ENABLED: obstacle detection **NOT** active in proximity to the opening stop (the point at which it is disabled is memorised during **SETUP** when the sensor detects an obstacle the first time during opening, for example the wall towards which the door opens).

LEAF DELAY

Defines the opening delay between the doors in 2-leaf mode: 0°...90°.

SCP (selectable close power)

DISABLED

ENABLED: increases the force with which the door pushes in the final section of the closure.

REVERSE STROKE

DISABLED

ENABLED: Commands a reverse stroke before opening to facilitate the release of the lock

2 EASY REG.

Confirm to register BUS 2easy devices.

INOUT STATE

The display indicates the status (on/off), in real time, of inputs IN1-IN8 and outputs O1-O5.

DOOR STATUS

The display indicates, in real time, the status of the automation.

OTHER BOARD DATA

The display indicates, in real time, useful diagnostics information.

7 INTERCOM**FUNCTION**

Sets the operating mode.

PRIMARY/SECOND. NO.

Sets the ID of the units in the network.

INTERCOM REG.

Registers the units in the network (to be performed only on the 950N2 with ID1).

NODE LIST

Shows the ID of the registered units (on the PRIMARY).

8 MISCELLANEOUS**CONFIG. DEFAULT**

ACTIVE: the programming corresponds to the DEFAULT settings

NO: the programming does not correspond to the DEFAULT settings. To reload the DEFAULT values, press OK. The following question appears:

DO YOU WANT TO RELOAD DEFAULT CONFIG.?

Press OK to confirm.

BOARD'S DISPLAY

Enables/disables programming from the board.

NOT BLOCKED: programming from the board is enabled

BLOCKED: programming from the board is disabled

INTRUSION

DISABLED

ENABLED: the automation resists attempts to open it manually or caused by gusts of air.

KP EVO KEY

Defines the operation of a key switch connected to the KP EVO:

BLOCK: KP EVO operates with a password when the contact is open and is blocked when the contact is closed.

WITHOUT OPERATOR PSW: KP EVO operates without a password when the contact is open and with a password when the contact is closed

CONSECUTIVE OBST.

Defines the number of consecutive obstacle detections above which the automation stops with an error.

CLOSING: 0...10 (0 = no count)

OPENING: 0...10 (0 = no count)

TEST ERROR

Allows the movement to be activated at minimum speed (as opposed to movement inhibited) if there is a TEST ERROR on an input configured as SAFETY.

ENABLED: movement takes place at minimum speed

DISABLED: the door stops with an error

DIMMER

Specifies the percentage brightness of the KP EVO display in standby (10%...90%).

MENU 5 COUNTERS**1 CYCLES COUNT****CYCLES NUMBER**

The display shows the number of cycles performed: ABSOLUTE, RELATIVE

MAINTENANCE

The technician PSW is required. Allows the maintenance request to be given when a number of cycles has been reached. If a date is also entered, a maintenance request is made when the first event is reached: cycles or date.

MAINTENANCE CYCLES: 1000...1000000 counting the RELATIVE cycles

DATE: entering a date is optional 00/00/00 = disabled

CYCLES RESET

The technician PSW is required. It resets RELATIVE cycle counter to zero. This command requires confirmation The ABSOLUTE cycles counter can only be reset using the restore factory settings procedure (see relative Section).

2 SAFE FLOW

This function counts the people entering/leaving the premises for capacity and queue management.

The counting of entrances and exits takes place by the activation of the internal and external buttons. The A952 can be programmed to indicate, and if necessary, close the entrance, when the set maximum number of people on the premises has been reached.

The count is disabled in Door Opened mode. MANUAL and NIGHT modes zero the count.

NOTE: In an INTERCOM network, the SAFE FLOW has to be programmed on the PRIMARY unit. Then it can also be enabled on the individual SECONDARY boards via the PEOPLE IN SECONDARY parameter, which is displayed only on the SECONDARY.

FUNCTION

DISABLED: count disabled

PEOPLE IN AUTO: activates the count of people entering and leaving and displays the number of people inside on the KP EVO HOME page in relation to the maximum number set. Alarm 40 is triggered when the set maximum number of people is reached

PEOPLE IN EXIT ONLY: activates the count of people entering and leaving and displays the number of people inside on the KP EVO HOME page in relation to the maximum number set. Alarm 40 is triggered when the set maximum number of people is reached and the door does not allow other people to enter, they can only leave, until the number of people falls below the maximum set number again.

PEOPLE IN NUMBER

Sets the maximum number of people allowed inside: 1...1000

PEOPLE IN UPDATE

It allows the number of people inside to be corrected manually, if necessary.

MENU 6 DATE / TIME**1 SET DATE**

Set the date in the day/month/year format.

2 SET TIME

Set the time in hours and minutes.

3 DAYLIGHT SAV TIME

Enables/disables the automatic updating of daylight saving time.

MENU 7 TIMER

The TIMER function allows the operating mode of the automation to be activated for programmed time bands. The operating mode activated automatically by the TIMER cannot be changed manually unless you disable the TIMER.

Programming is carried out via the KP EVO, it requires a clock battery to be installed on the board E952CL and the date and time to be set correctly.



TIMER programming configured via Simply Connect has priority over programming configured via the board or KP EVO.

Programming can be carried out by day of the week (WEEKLY) and/or by calendar date (JOLLY), e.g. for holidays, company closure, etc. If both have been programmed, in the event of an overlap, the JOLLY has priority.

A TIME BAND is programmed with:

START time - END time (HH:mm)

Operating mode

1 or more TIME BANDS (max 6) can be programmed for a 24 h. period. When exiting from a programmed TIME BAND, if there is no subsequent time band, the automation goes into AUTOMATIC TOTAL BIDIRECTIONAL mode. Outside of the programmed time bands, the Operating mode can be changed manually (from a Configured input or a Function selector).

WEEKLY PROGRAMMING

Program the required days and the required time bands. In order to quickly program a group of days with one or more time bands, program the group MON - SUN or MON - FRI. Subsequently, each time band can be reprogrammed for a single day.

JOLLY PROGRAMMING

Set the JOLLY time bands. The JOLLY programming must then be applied to the dates specified in JOLLY SLOTS.

A JOLLY SLOT is defined by the START and END date of the slot. Various JOLLY SLOTS can be programmed. A slot consisting of only one day has the same start and end date. A slot consisting of several days cannot extend beyond December 31st. E.g. the period from December 25th to January 6th is covered by two slots: 25...31/12 + 01...06/01.

ENABLING/DISABLING THE TIMER

Enable the TIMER in order to use the programmed time bands. Use the input configured as TIMER, if present on the board. If there is NO input configured as TIMER, the KP EVO can be used.

1 TIMER STATE

Allows the TIMER to be enabled/disabled: ENABLED, DISABLED (the programming remains in the memory but is not executed).

2 MONDAY- 8 SUNDAY

Allows the days of the week to be programmed: select the day, select the TIME BAND, assign the operating mode and set the START and END time of the TIME BAND. Proceed in the same way for any other TIME BANDS that are desired.

9 MON-SUN, 10 MON-FRI

Allows groups of days to be programmed quickly with the same TIME BANDS: select a group of days (from MON-SUN or MON-FRI). Select the TIME BAND, set the START and END time and assign the operating mode. Proceed in the same way for any other TIME BANDS that are desired. Apply the programming to the group of days by selecting APPLY. Any settings already made for individual days will be overwritten.

11 JOLLY

Allows the TIMER to be set in the JOLLY slots (one or more days that require a different programming): program the required JOLLY TIME BANDS (operating mode and the START and END time).

12 JOLLY SLOTS

To apply the JOLLY programming to individual days or to SLOTS of several days: enable a SLOT and specify the START and END date for the SLOT. Proceed in the same way for the other SLOTS that are desired.

MENU 8 PASSWORD

The personnel allowed to use the password to select the automation's operating modes (USER) must keep the password confidential. The USER is only allowed to modify the USER PSW. The INSTALLER may edit both passwords.

1 TECHNICIAN PSW

Allows the TECHNICIAN PSW to be modified.

Enter the current TECHNICIAN PSW then the NEW PSW and press OK. Re-enter the NEW PSW and confirm with OK. If the PSW has not been repeated correctly, the KP EVO continues requesting confirmation.

2 USER PSW

Allows the USER PSW to be modified.

Enter the TECHNICIAN PSW or the current USER, then follow the same procedure as for the TECHNICIAN PASSWORD.

MENU 9 INFO

Allows the firmware versions of the KP EVO, and the board to be displayed.

14. INTERCOM

DESCRIPTION

The A952 is capable of communicating with other A952 units via an Intercom network connection. This enables the following applications to be created:

- INTERMODE: a door from which to set the operating mode for all the other doors that are connected to the network.
- INTERLOCK: two single doors, where the opening of one is subject to the closing of the other and vice versa.
- 2 LEAVES: access consisting of a double leaf.
- 2 LEAVES + INTERLOCK: two interlocked accesses, each consisting of a double leaf.



Every network connected A952 should be programmed for the same Intercom mode.

CONNECTION

The units in the network are connected via 3 cascade connected-wires between the CANBUS connectors of the E952IO boards: (66).



The sequence in which the units are wired is unimportant, but it is essential that a CASCADE connection is used.

The 2 DIP switches on the E952IO board must be set as follows:

- On the first and last units of the cascade connection: both ON.
- On intermediate units (if any): both OFF.

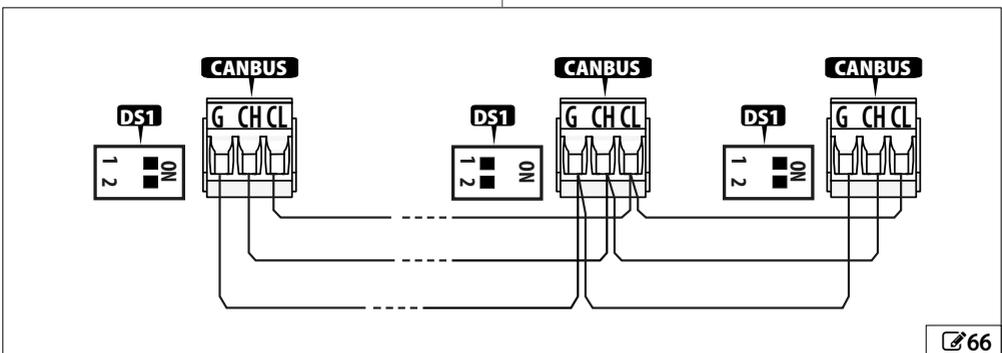
ADDRESSING

A unique ID must be assigned to each A952 in the network as indicated below.

Do not assign the same ID to more than one unit in the network

REGISTRATION

After having wired up and assigned an address to each unit, registration must only be carried out on the A952 that has been assigned ID1.



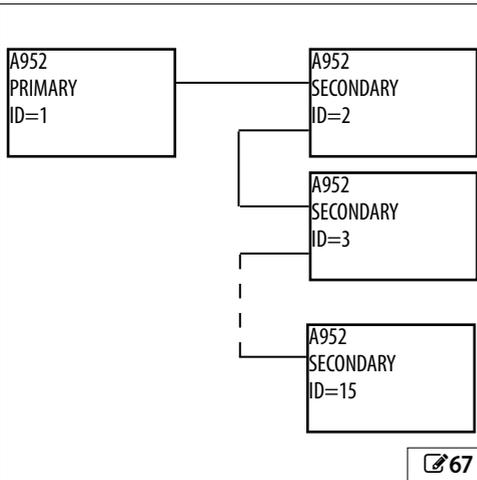
14.1 INTERMODE

 **67** shows the IDs to assign to the A952 units in the network.

The system consists of a PRIMARY unit and a maximum of 14 SECONDARY units. The PRIMARY A952 is the only unit on which the operating mode should be set, which is then also applied immediately to all the SECONDARY units.

 With INTERMODE, it is not possible to change the operating mode of an individual unit.

The PRIMARY A952 must be assigned ID1 and the SECONDARY units an ID from 2 to 14.



14.2 INTERLOCK

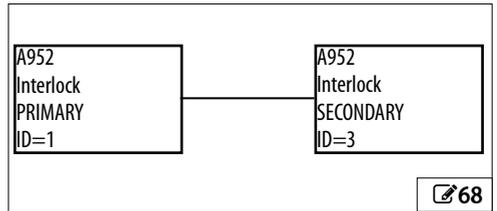
 **68** shows the IDs to assign to the A952 units in the network.

Either of the two units can be designated as the PRIMARY and the other as the SECONDARY. In Interlock mode, a door can open only if the other is closed. The available variations are shown below.

If the PARTIAL mode is associated with interlock, only the PRIMARY leaf opens.

 Connect the devices and carry out the programming and SETUP of the individual A952 units before configuring the interlock using KP EVO.

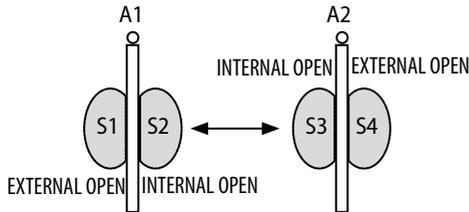
Select  on the PRIMARY unit to activate the interlock.



INTERLOCK WITH NO MEMORY

With 4 sensors: the second opening is not automatic. In order to open the door, the internal/external sensor must be triggered when the other door is closed. If the sensor is activated while the door is not yet closed, it has no effect.

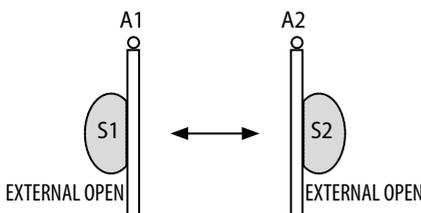
	S1	S2	S3	S4
A1 closed A2 closed	A1 opens	A1 opens	A2 opens	A2 opens
A1 NOT closed A2 closed	A1 opens	A1 opens	request opening of A2	request opening of A2
A1 closed A2 NOT closed	request opening A1	request opening A1	A2 opens	A2 opens



INTERLOCK WITH MEMORY

With 2 sensors or buttons: the second opening is automatic.

	S1	S2
A1 closed A2 closed	A1 opens, then A2	A2 opens, then A1
A1 NOT closed, A2 closed	A1 opens and request opening of A2	request opening of A2
A1 closed, A2 NOT closed	request opening of A1	A2 opens and request opening of A1



14.3 2 LEAVES

☞69 shows the IDs to assign to the A952 units in the network.

If the two doors overlap, the one that opens first is designated as the PRIMARY. If there is no overlap, either of the two units can be designated as the PRIMARY and the other as the SECONDARY.

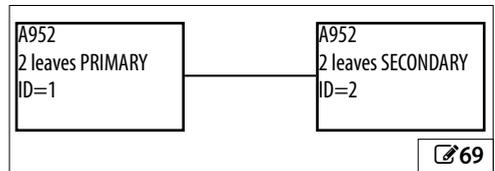
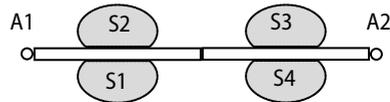
The movement of the leaves 2 is synchronised.

1. Connect the devices
2. Program the two units
3. Carry out the SETUP on the SECONDARY and then on the PRIMARY
4. Activate the 2 LEAVES function.



The internal / external door sensors and safety devices must be connected to their own unit; all other devices are connected only to the PRIMARY. Only use the PRIMARY A952 to change the operating mode.

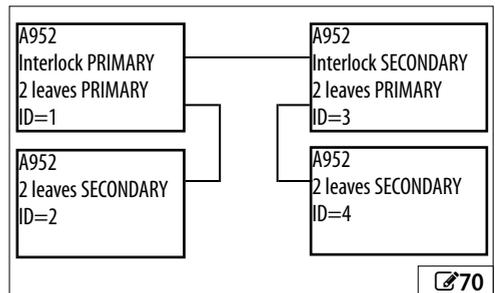
The leaf opening / closing delay can be set using the KP EVO.



14.4 2 LEAVES + INTERLOCK

☞70 shows the IDs to assign to the A952 units in the network.

This configuration integrates the 2 LEAVES function (on two double-leaf accesses) with the interlock function. Refer to the operating modes described above.



15. UPLOAD / DOWNLOAD

There is a USB port on the E952CL board which can be used to carry out the following operations:

- Load data from a USB pen drive (UPLOAD)
- Save data to a USB pen drive (DOWNLOAD)

FAAC provides updated firmware in a package called ZIPACK, which contains the files in versions that are compatible with one another. In order to be used, the files must be saved in the root directory of a USB memory device (not in a folder or a zip file and without their original names being changed).



Use a USB storage device formatted with the FAT or FAT 32 file system. The NTFS format is not recognised by the board.

AUTOUPDATE

1. Turn the power off, insert the USB storage device into the USB port on the E952CL board and then switch on the A952.
2. -- and then b0 will appear on the display: the files that are needed to update the firmware of the board and all the connected accessories are loaded automatically from the USB storage device.
 - -- appears on the display and the green LED flashes while the firmware is being updated. When finished, b0 reappears on the display. The display then switches to the FW version and then to the door status display.
 - When finished, remove the USB memory device.

UPLOAD/DOWNLOAD MENU

1. Turn the power off, insert the USB storage device into the USB port on the E952CL board and then switch on the A952.
2. When b0 appears on the display, press and release the ● button to scroll through the Upload / Download Menu options (see relative table).

Upload Operations

Press and hold ▲ and ▼ simultaneously for at least 3 s in order to carry out the procedure on the display.

- the update starts: -- flashes on the display. Release the buttons.
- The procedure ends when ⏏ appears on the display.

If there are errors n0 appears on the display and the red ERR LED lights up, refer to the Diagnostics Section.

- Press ● to return to the menu.

When finished, remove the USB memory device.

Download Operations

Press and hold down the ▲ and ▼ buttons simultane-

ously for at least 3 seconds in order to run the function displayed, until ⏏ appears on the display.

Release the buttons and use the ▲ or ▼ buttons to select the method for saving the file to the root of the USB storage device: ⏏ (overwrite) or ⏏d (add). Press ● to confirm.

- The procedure ends when ⏏ appears on the display. If there are errors n0 appears on the display and the red LED of the E952CL board is lit. Refer to the Diagnostics Section.

- Press ● to return to the menu.

When finished, remove the USB memory device.

	8	UPLOAD functions from USB
		Update the E952CL board firmware File required: E952_xx.HEX
		KP EVO firmware update, including menu translations File required: KP_xx.HEX and KPL_xx.BIN
		A952 configuration upload File required: E952.PRG
		Upload the TIMER configuration File required: E952.TMR

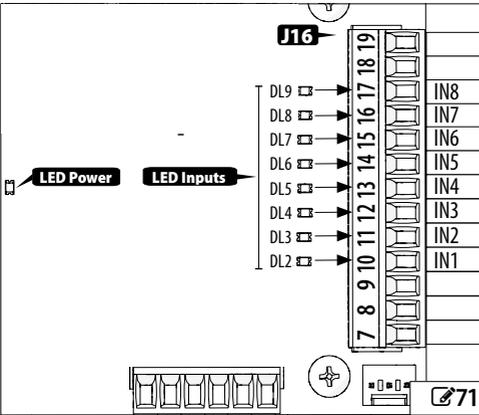
NOTE: "xx" indicates the firmware version.

	9	DOWNLOAD functions from USB
		Download the A952 configuration File written: E952.PRG
		Download the TIMER configuration File written: E952.TMR

16. DIAGNOSTICS

16.1 LEDS CHECK

BOARD E952IO



■ LED INPUTS

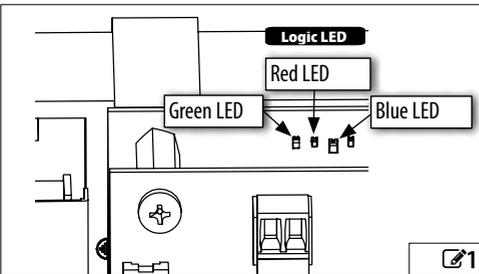
Each input on the E952IO board has a LED that indicates its physical status:

LED on	closed contact
LED off	open contact

■ LED POWER

LED on	accessories power on
LED off	no accessories power

BOARD E952CL



■ GREEN LED

LED on	USB device present
LED off	USB device missing

■ RED LED

LED on	error
LED off	no error
LED flashing slowly	SETUP required
LED flashing quickly	SETUP in progress

■ BLUE LED

LED flashing	normal operation
LED off	A952 off

16.2 INPUTS AND OUTPUTS STATUS CHECK

The status of each input and output can be checked on the board or via the KP EVO.

ON THE BOARD

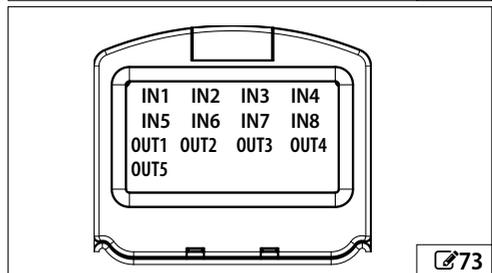
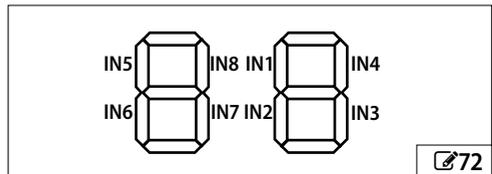
Select the **IN** function in advanced programming. The segments of the display indicate the logic status (72).

segment on	input active
segment off	input NOT active

ON THE KP EVO

Go to the Programming/Installation/INOUT state menu. The display indicates the logic status as shown in 73. Example:

IN1	input active
IN1	input NOT active



16.3 AUTOMATION STATUS CHECK

The current status of the automation system can be checked on the board or via the KP EVO.

ON THE BOARD

The display of the A952, if you are not in the programming mode, displays a code indicating the status of the automation system.

ON THE KP EVO

Go to the Programming/Installation/Door Status menu. The display shows information regarding the status of the automation system.

10 Automation status

00	CLOSED
01	OPENING
02	OPEN
03	PAUSE
04	NIGHT PAUSE
05	CLOSING
06	EMERGENCY ACTIVATE
07	MANUAL
08	NIGHT
11	STOP
13	ERROR
L0	waiting for SETUP to start
L1	SETUP phase 1: stop search
L2	SETUP phase 2: stop search

16.4 OTHER BOARD DATA

Go to the Programming/Installation/Other Board Data menu of the KP EVO. The display provides information on the following parameters:

- V MAIN : input voltage to the E952CL board (Volts)
- V ACC : output voltage for accessories (Volts)
- POS : position of the rotating shaft (degrees)
- I MOT : current drawn by motor (Amperes)

16.5 FIRMWARE VERSIONS

ON THE BOARD

When switched on, the display of the A952 shows the version of the E952CL board firmware for 4 seconds before displaying the automation status.

ON THE KP EVO

Go to the Info menu of the KP EVO to view the firmware versions of the bootloader, the E952CL board and the KP EVO.

16.6 ERRORS AND WARNINGS

Alerts provide information regarding the status or current phase of the automation and errors that do not prevent it from operating.

Errors are malfunctions that prevent the automation from working. They are indicated by a steady red LED on the E952CL board and by automation status 13 that appears on the board's display.

After every minute in which an error persists and for a maximum of 20 consecutive times, the A952 will perform a RESET to attempt to restore normal operation so as not to require any action if the condition that caused the error was temporary. If the fault persists, remove the cause of it in order to restore normal operation and carry out a RESET (alternatively, select and then deselect manual mode).

Every warning and error is identified by a code that can be displayed on the board or via the external function selectors.

ON THE BOARD

Whilst the A952 is displaying the status of the automation, press the ▲ and ▼ buttons simultaneously: Er appears on the display followed by any error and warning codes.

If there is at least one active error, automation status 13 is shown the board's display and the red LED on the E952CL board is lit.

ON THE KP EVO

Warnings:

If there is at least one warning, the ⚠ icon appears on the home screen. Go to the Warnings menu to view the list of current warnings.

Errors:

The error code appears on the home page. Go to the Errors menu for information regarding the current error.

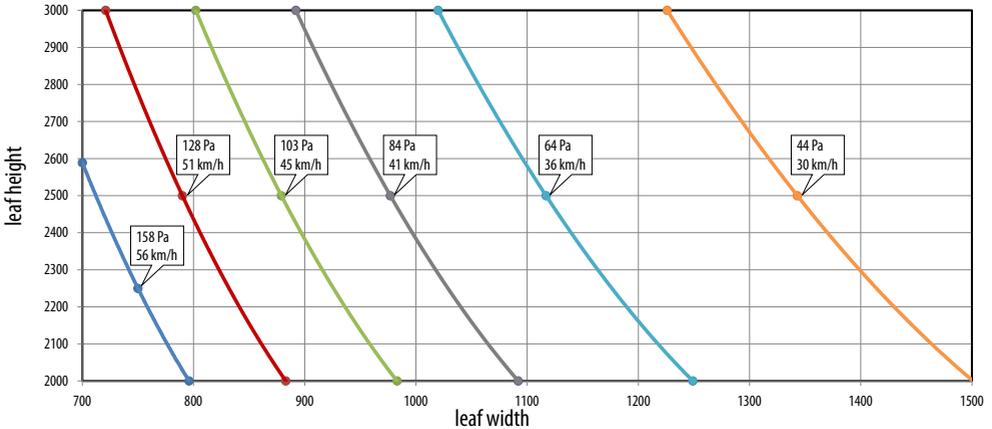
ON THE LK EVO , KS EVO

See the relative sections.

11 Maximum wind for opening, with closing spring

Conditions for calculating the maximum wind pressure:

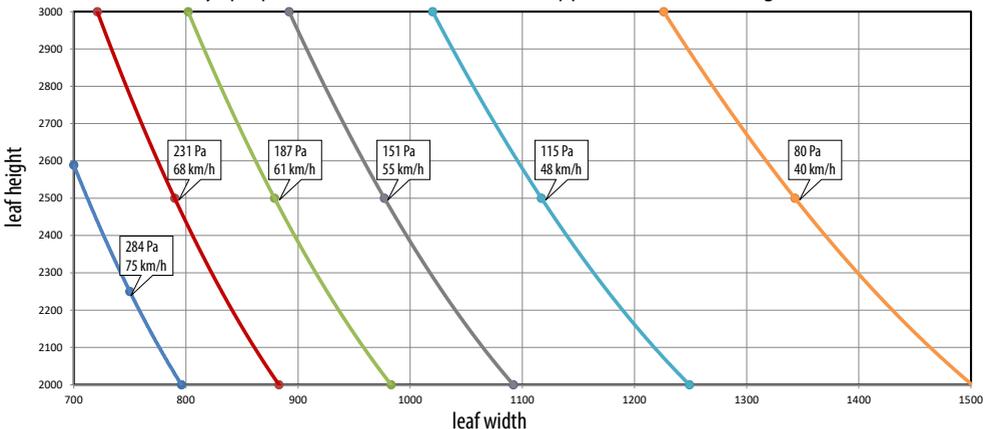
- Calculation valid for all installation configurations and arms
- Automation powered, spring set to the maximum preload and in the same direction of the wind (the two loads are added together and oppose the motor)
- The most unfavourable kinematic transmission ratio (leaf opening angle 45°)
- Wind direction always perpendicular to the architrave, in opposition to the opening direction



12 Maximum wind for closing, with closing spring

Conditions for calculating the maximum wind pressure:

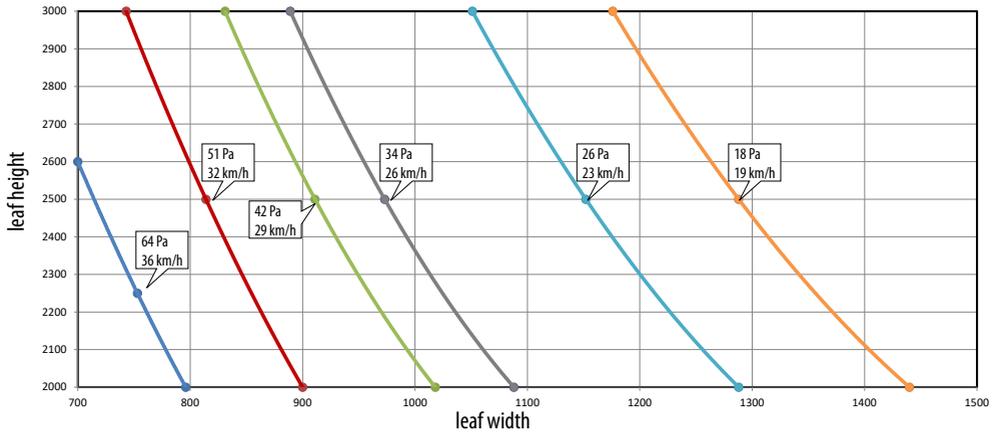
- Calculation valid for all installation configurations and arms
- Automation powered, spring set to maximum preload and not in the direction of the wind (the wind opposes the motor, the spring assists the motor)
- The most unfavourable kinematic transmission ratio (leaf opening angle 45°)
- Wind direction always perpendicular to the architrave, in opposition to the closing direction



13 Maximum wind for spring closing

Conditions for calculating the maximum wind pressure:

- Calculation valid for all installation configurations and arms
- Automation not powered with spring movement set to maximum preload, not in the direction of the wind
- The most unfavourable kinematic transmission ratio (leaf opening angle 45°)
- Wind direction always perpendicular to the architrave, in opposition to the closing direction



14 Errors and Warnings

Code	Meaning	Intervention required	Error	Indication
1	Board failure	Perform RESET. If the problem persists, replace the boards.	x	
4	Accessories power supply fault	Check the accessories connection for short circuits. Check the current drawn by the connected accessories and that maximum indicated load is not exceeded. Perform RESET. If the problem persists, replace the E952CL board.	x	
5	FW fault	Make sure that there are NO sources of electromagnetic interference that are too close to the board. Update the E952CL board FW.	x	
7	Motor failure	Motor disconnected or short-circuited. Check the wiring. If the problem persists, replace the motor.	x	
9	Power supply fault / No mains power	Check the voltage supplied by the power supply unit. Make sure that there is mains power.	x	
11	Closing safety FAILSAFE test failed	Check the connection and operation of the connected safety device. Check the programming of input.	x	
12	Opening safety FAILSAFE test failed	Check the connection and operation of the connected safety device. Check the programming of input.	x	
15	SETUP inhibited	Make sure that the Night or Manual operating mode has not been selected, that an emergency input is not active and that the automation is NOT operating with the battery due to a mains power failure.	x	
16	Encoder failure	Make sure that the encoder is connected properly. If the problem persists, replace the motor.	x	
19	Friction too high	Make sure that the leaf slides smoothly. Remove any friction.	x	
22	Programming data corrupted	Programming data NOT valid or corrupted. Repeat the programming and the BUS 2easy registration.	x	
24	Consecutive obstacles in closing	The programmed number of consecutive obstacles in closing has been reached. Remove the obstacle. If the problem persists, repeat the SETUP.	x	
25	Lock fault	Check the connection. Remove the cause of the short circuit.	x	
27	Motor rotation fault	Check the motor connection.	x	
31	Consecutive obstacles in opening	The programmed number of consecutive obstacles in opening has been reached. Remove the obstacle. If the problem persists, repeat the SETUP.	x	
35	BUS 2easy device fault / conflict	Check the addresses of the devices.		x
36	BUS 2easy short circuit / overload	Check the connections of the BUS 2easy devices that are connected and registered.		x
37	Clock battery discharged or missing	Install or replace clock battery.		x
39	SETUP incorrect / missing	Perform SETUP.	x	
40	PEOPLE IN - Max. capacity reached	The maximum number of people allowed in the premises has been reached, programmed via Simply Connect for the SAFE FLOW function.		x
41	Date/time missing	TIMER date/time missing. Replace the CR1216 buffer battery, then reset the time and date.		x
44	Emergency input active	Check the emergency input.		x
45	TIMER enabled	The TIMER is enabled on the board.		x
46	TIMER function in progress	A TIMER mode function is in progress.		x
51	Obstacle detected when closing	The notification disappears on the next movement.		x
52	Obstacle detected when opening	The notification disappears on the next movement.		x

53	Number of cycles corrupted	Replace the board and carry out maintenance on the system.	x
56	Battery operation	The notification remains as long as the automation is operating on the battery due to a mains power failure.	x
58	Search for closing stop in progress	Slow movement in progress while searching for the closing stop.	x
60	Maintenance request	Ask the installer to carry out scheduled maintenance.	x
63	Intrusion attempt in progress	A break-in attempt is in progress	x
65	SETUP in progress	SETUP is in progress. The notification remains as long as the phase is in progress.	x
68	FAILSAFE slow movement	The automation moves at slow speed because the Test has failed on inputs configured as safeties. Check that the safety detector is working. If the problem persists, replace the device.	x
69	Door open with impulse open / impulse close	The automation is opened from the impulse open / impulse close input.	x
70	Battery discharged	The board detects that the charge level of the battery is too low for movements to be carried out.	x
71	Intercom function active	The board is in INTERCOM mode with other boards.	x
72	Intercom fault	No communication between the PRIMARY and the SECONDARY board. Check the connections between the boards.	x
74	Interlock function mode in progress	The automation is in INTERLOCK mode.	x
80	Safeties in opening disabled	The opening safety devices have been disabled (via Simply Connect).	x
81	Safeties in closing disabled	The closing safety devices have been disabled (via Simply Connect).	x
84	Internal and external sensors disabled	The entry and exit sensors have been disabled (via Simply Connect).	x
86	BUS 2easy disabled	BUS 2easy disabled (via Simply Connect).	x
87	BUS 2easy device registration in progress	A registration procedure is in progress.	x
90	Programming in progress	Programming is being carried out (e.g. maintenance via Simply Connect).	x
91	Accessory board awaiting FW update	An accessory connected to the board is waiting for a FW update.	x
95	Canbus node error	Error on one or more canbus nodes.	x
96	Non-standard programming	The board appears to be programmed with values that are not the default settings	x
97	Incorrect PRIMARY/SECONDARY configuration	Check settings	x
99	Control board data deletion	All the data has been deleted from the E952CL board.	x
146	Timer active from Simply Connect	Timers enabled and programmed from Simply Connect	x

17. MAINTENANCE

17.1 SCHEDULED MAINTENANCE

It is mandatory to carry out the operations indicated in **15** in order to keep the operator working reliably and safely.

The installer/machine manufacturer is responsible for drawing up the maintenance plan for the machine, supplementing this list or shortening maintenance intervals according to the machine characteristics and current local regulations.

15 A952 Maintenance	Low traffic (up to 10 cycles/h)	Medium traffic (10-100 cycles/h)	High traffic (over 100 cycles/h)
Check that the cover/casing and all the movable guards are integral and that they are fastened correctly. If necessary, tighten screws and bolts to the torques indicated in the instructions.	24 months	12 months	6 months
Check the fastening torque of the screws that secure the operator to the plate	24 months	12 months	6 months
Check that the plate is firmly secured to the architrave/door. Tighten screws and bolts where necessary (see § Fastening instructions).	24 months	12 months	6 months
Check the condition of the power cables, the sensor and accessory connection cables and the relative cable glands.	24 months	12 months	6 months
Check the fastening torque of the screws that secure the arm to the door/architrave.	24 months	12 months	6 months
Check the fastening torque of the screw that secures the arm to the operator.	24 months	12 months	6 months
Replace the complete gearmotor		1000000 cycles	
Replace the shoe arm unit		1000000 cycles	
Replace the articulated arm unit		1000000 cycles	
Replace the emergency batteries, if present.	48 months	48 months	48 months

* To check the fastening torque, tighten (i.e. turn clockwise) using a torque wrench until you reach the torque value indicated in the instruction manual during installation.

16 Maintenance of other components	Low traffic (up to 10 cycles/h)	Medium traffic (10-100 cycles/h)	High traffic (over 100 cycles/h)

STRUCTURES

Check the structures and the parts of the building to which the door and the automation is fixed: make sure there is no damage, cracking, breaks or subsidence.	Follow the manufacturer's instructions		
---	--	--	--

DOOR FRAME

Check the frame: make sure that it is fixed correctly, that it is integral and that there is no deformation or damage. Tighten screws and bolts where necessary.	Follow the manufacturer's instructions		
Check the leaf: that it is integral and that there is no deformation or damage.	Follow the manufacturer's instructions		
Check the hinges: make sure that they are fixed correctly, that they are integral, correctly positioned in their seats and that there is no deformation or damage.	Follow the manufacturer's instructions		
Lubricate hinges or locks, if necessary.	Follow the manufacturer's instructions		
Generally clean the area of movement of the door.	24 months	12 months	6 months

Make sure that the pictograms are present and intact. If they are missing or damaged, replace them	24 months	12 months	6 months
FUNCTION SET-UP SELECTOR AND KEYPAD			
Check that they are intact and operating correctly.	24 months	12 months	6 months
PROTECTIVE DEVICES AND CONTROL DEVICES			
Check that the protective devices are intact and that they operate correctly.	Follow the manufacturer's instructions		
Check that the control devices are intact and that they operate correctly.	24 months	12 months	6 months
Check that the pictograms that identify the control devices for disabled persons are present and intact.	24 months	12 months	6 months
Check that the door operates properly in both directions with all the devices installed.	24 months	12 months	6 months
Check that the door moves smoothly and uniformly without making any unusual noises.	24 months	12 months	6 months
Check that the opening and closing speed is correct. For doors in "LOW ENERGY" mode, make sure that the opening and closing times are within the limits permitted by the regulations	24 months	12 months	6 months
For doors in "LOW ENERGY" mode, make sure that it is possible to stop the movement of the door without excessive force (Max. 67 N) at any point along its travel	24 months	12 months	6 months
Make sure that the manual opening force does not exceed 150 N measured at the end of the leaf at a height of 1 m from the ground	24 months	12 months	6 months
Check that the door operates correctly in every operating mode.	24 months	12 months	6 months
"Check that the safety functions are working correctly (door reverses or stops when an obstacle is detected, the door stops in the open position when there is an obstacle in the area of movement etc.)"	24 months	12 months	6 months
Check that the CE marking and the DANGER AUTOMATIC MOVEMENT warning sign on the door are present, intact and legible	24 months	12 months	6 months

8 OPERATOR'S GUIDE - LK EVO

KS EVO allows you to select the operating mode by turning the key to the corresponding icon.

ERROR WARNINGS In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds (see LED Error Codes).



↕ Automatic total bidirectional

↔ Door open

↑ Automatic total one-direction

❄ Automatic partial bidirectional

☾ Night

✋ Manual

When the ☾ ❄ LEDs are lit at the same time, they indicate that the automation is in an operating mode that is NOT available on KS EVO.

9 USER GUIDE - LK EVO

OPERATION

To select the operating mode, press the corresponding button (the LED corresponding to the active operating mode remains on).

When the ☾ ❄️ LEDs are lit at the same time, they indicate that the automation is in an operating mode that is NOT available on LK EVO.

ERRORS In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds.

WARNINGS In case of warnings, the LED combination flashes for a few seconds ⬆️⬆️ ❄️.

■ 2-BUTTON COMBINATIONS

For special functions, press the 2-button combinations indicated in the figure.

↔️ + ☾
(⌚ 5 s) **LOCK / UNLOCK** Press for approximately 5 s to Lock/Unlock the keypad (the LEDs turn on and then turn off)

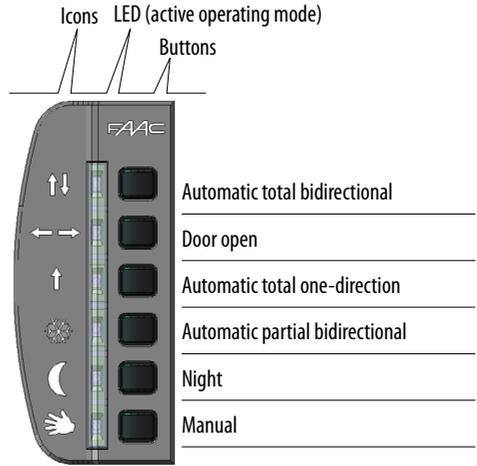
↑ + ❄️
(⌚ 5 s) **RESET** (the LEDs relative to the Error flash as long as the buttons are pressed, release when they switch off).

⬆️⬆️ + ↔️
(⌚...)
WARNINGS To display the active warnings, press and hold the buttons (the LEDs corresponding to the warning flash as long as the buttons are pressed, release when they turn off) (see 📄 LK EVO - LED warning codes)

☾ + 🖐️
(⌚...)
FW VERSION LK EVO to display the FW of the LK EVO press and hold the buttons (📄 LED FW version codes)

The WARNINGS are displayed with a code of flashing LEDs alternating with the current operating mode.

Warnings and Errors are described in the installation manual: 📄 LED Error Coding on Function selectors, 📄 LED Warning coding - LK EVO.



🔗 10 USER GUIDE - KP EVO

HOME PAGE

The 4 buttons activate the commands associated with the icons above:

🌙 = set NIGHT mode

👤 = set MANUAL mode

🔧 = open the MENU for configuring the board parameters

➔ = switch to MODFUN: additional operating modes
Every time the NIGHT or MANUAL button is pressed, the mode is enabled (icon highlighted on the display) and disabled.

Any change immediately updates the mode enabled on the display.

Symbols on the HOME PAGE:

🔔	current indications
T	TIMER active
🔒	KP EVO locked
*	USER PASSWORD disabled

PASSWORD (PSW)

When the **PASSWORD** screen appears the 4-digit password must be entered.

Entering the PSW

- Select (↑↓) and confirm each digit of the PSW in succession with **(OK)**
- Once the 4 digits have been entered, the password is recognised by the device as **OPERATOR** or **INSTALLER**.

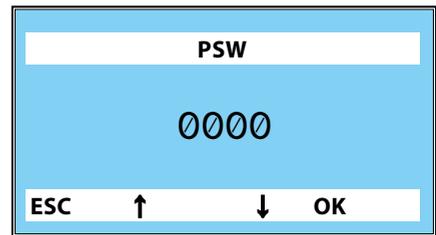
i If the **PASSWORD IS NOT RECOGNISED** "WRONG PASSWORD" appears on the display. Pressing **OK** takes you back to the HOME PAGE.
The factory-set password is: 0000

HOME PAGE

- Automation model
- Current day and date
- Operating mode (**MODFUN**)
- Time



PASSWORD (default 0000)

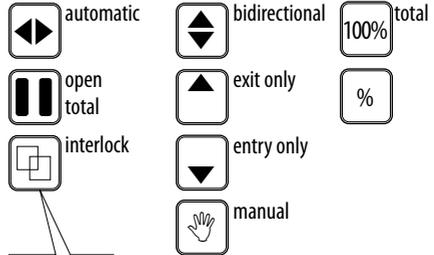
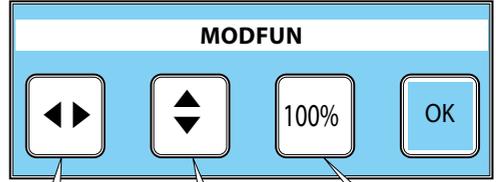


	🌙	👤	🔧	➔
USER	no PSW	no PSW	PSW*	no PSW
INSTALLER	no PSW	no PSW	PWD	no PSW

* The MENU **🔧**, requires the **TECHNICIAN PSW** to be entered in order to access the programming functions.

MODFUN

1. Access MODFUN: button → on the HOME PAGE.
2. Select the operating mode, the direction (bidirectional, EXIT Only, ENTRY Only) and Total or Partial (NOTE: Partial refers to the opening of the PRIMARY leaf in a 2-leaf application): buttons ↑↓.
3. Confirm MODFUN: the **OK** button takes you back to the HOME PAGE.



Press and hold for 3 s to select INTERLOCK
Available on the PRIMARY board, if enabled.

MODFUN examples

Automatic, bidirectional, with Total Opening:



Door open function with Total Opening:



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