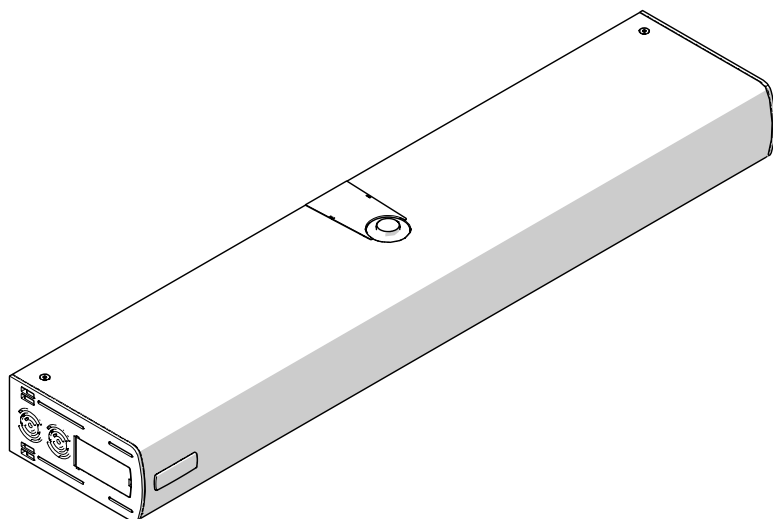


# A952

EN



SIMPLY  
CONNECT

2easy

green  
tech

EN16005

# FAAC




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This manual was published in 2023.

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

## 1.2 MEANING OF THE SYMBOLS USED NOTES AND WARNINGS USED IN 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

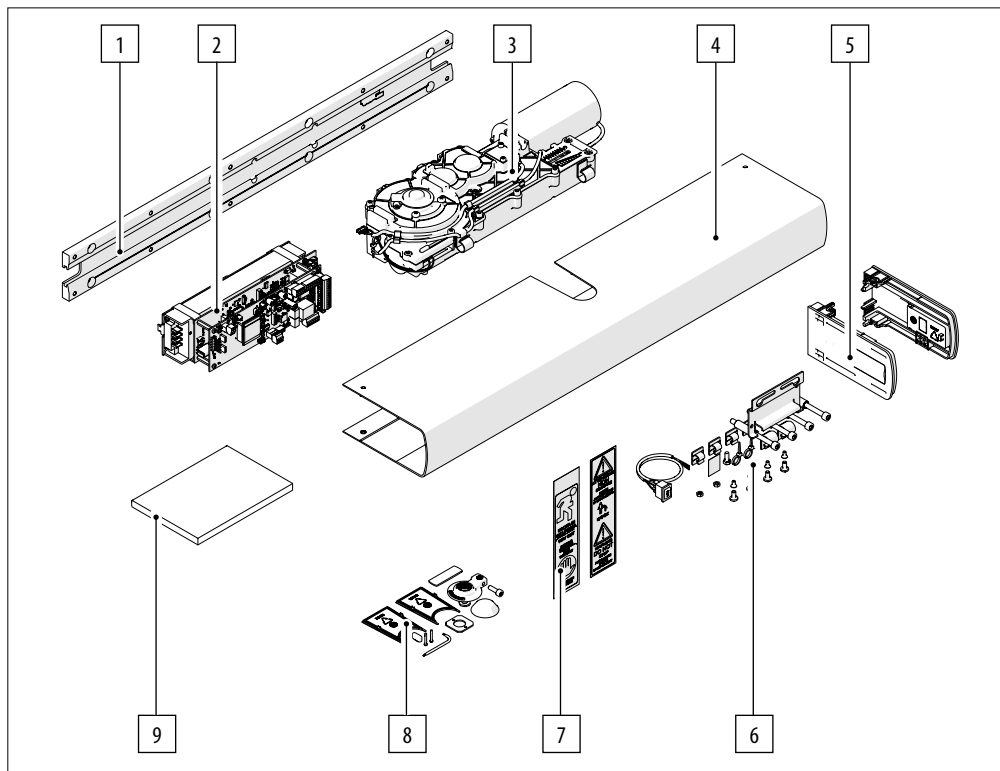
### 2.1 STORAGE

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%

### 2.2 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	Casing
5	Side covers assembly
6	Mounting accessories
7	Stickers
8	Integrated mechanical stop unit and covers
9	Documentation

2.3 PRODUCT IDENTIFICATION AND WARNING LABELS

Sale code and model

Product name

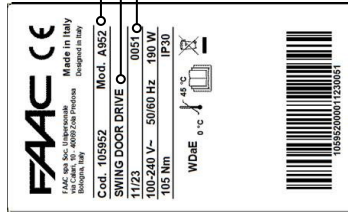
Identification number

Month/year of production + progressive number for the month of production

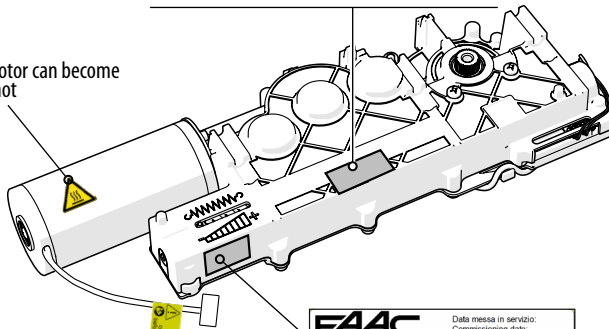
Example:

11/23 0051

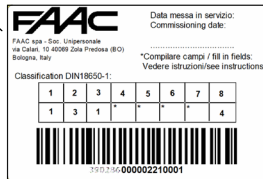
produced in November 2023 S/N 51



Warning that the motor can become very hot

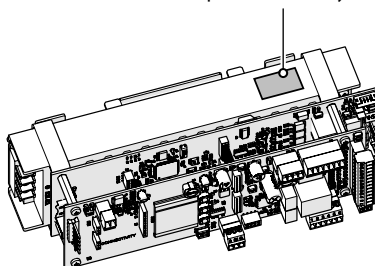


Warning to unload the spring before disconnecting the motor



DIN 18650-1 classification and component traceability label

Component traceability label



## 2.4 INTENDED USE

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

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.

## 2.5 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 installation 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.

## 2.6 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 in marine applications.
- It is prohibited to use the A952 in the following conditions:
  - direct exposure to atmospheric agents
  - water jets of any type or size outside the specified technical limitations.
- It is prohibited to install the A952 on:
  - vertical movement doors
  - lift doors
  - vehicle doors
  - motorised doors or gates used mainly for vehicle 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 related 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.

## **2.7 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.

## **2.8 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.

## 2.9 TECHNICAL CHARACTERISTICS

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 reverses
- 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 available that can be selected

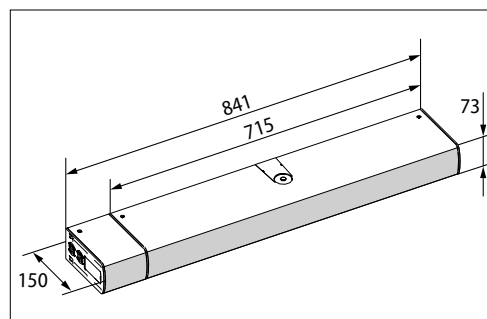
via the integrated functions selector on the side or via an external device.

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	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 +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
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

## 2.10 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.

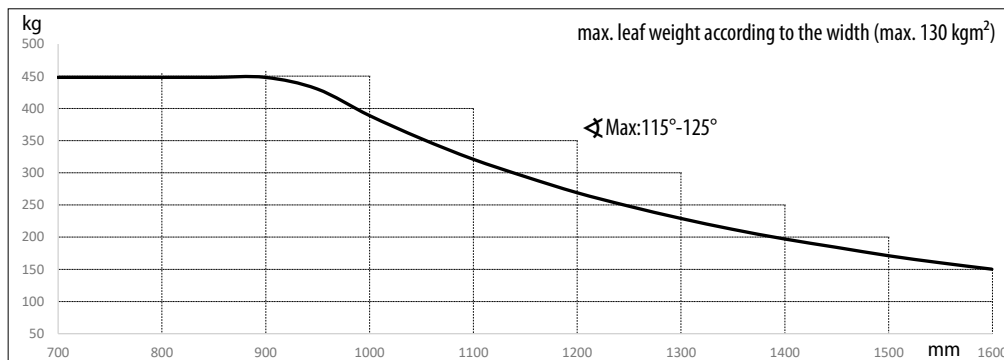
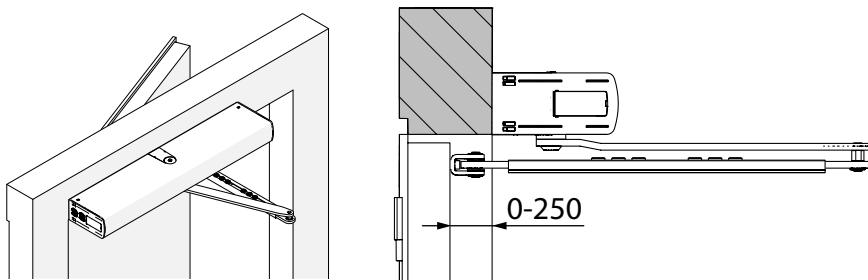
The maximum opening angle or range of opening angles are indicated in each graph by the symbol  $\sphericalangle$ .

The maximum depth allowed between the surface of the door and the architrave is also shown for each application. In the graphs relating to the shoe arm, the curve is divided into two sections, which correspond to the use of the short arm and the long arm.

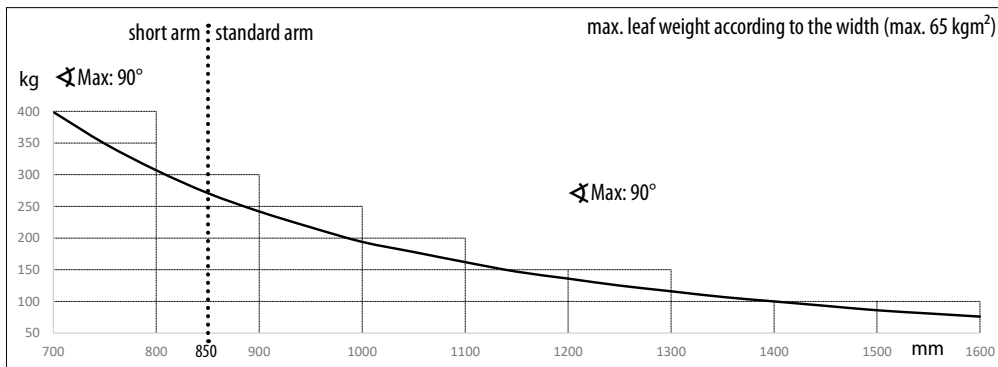
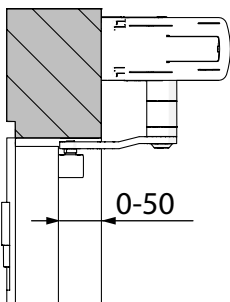
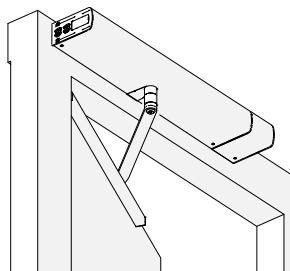
The maximum depth allowed between the surface of the door and the architrave is also shown for each application. The configuration parameter ( $\partial t$ ) to be set in basic programming is shown in brackets.

### ARCHITRAVE MOUNTED

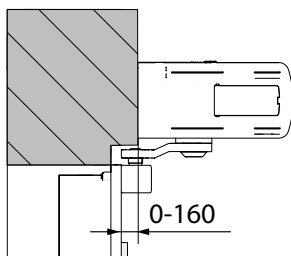
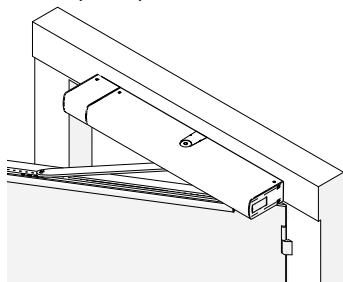
#### ■ ARTICULATED ARM ( $\partial t=3$ )



## ■ SHOE ARM (α=2)



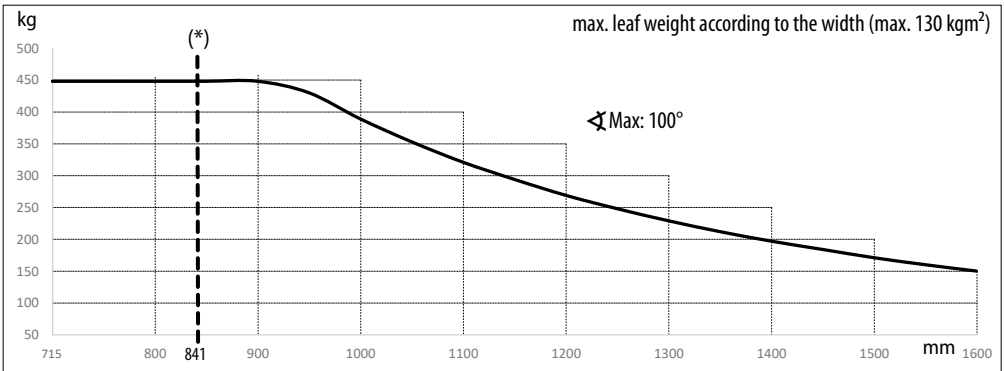
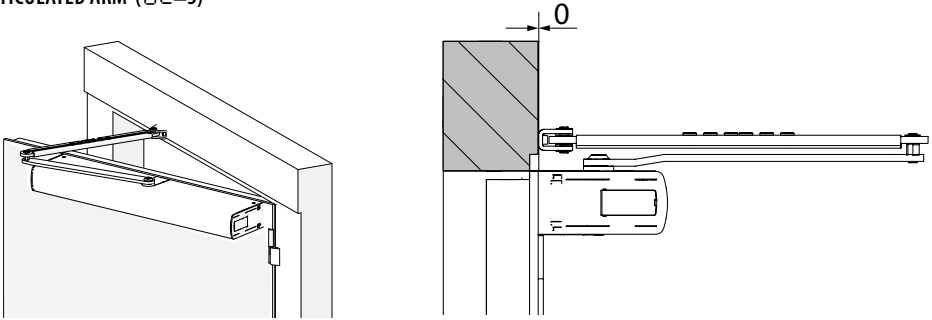
## ■ SHOE ARM (α=1)



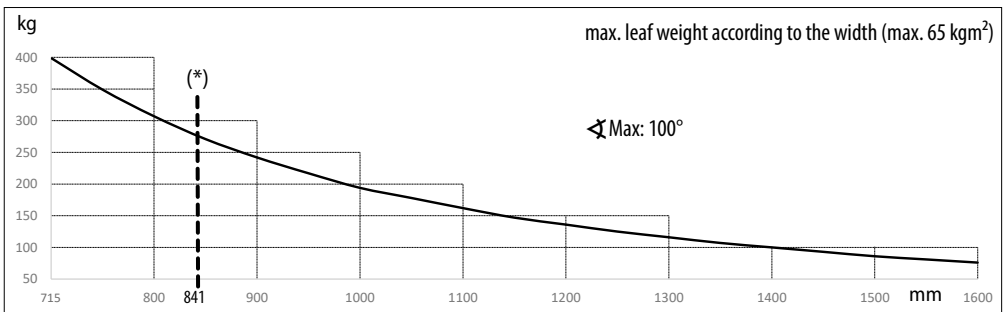
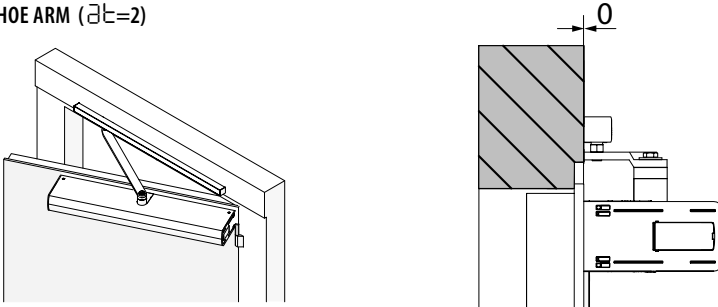
**LEAF MOUNTED**

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

■ **ARTICULATED ARM (α=3)**



■ **SHOE ARM (α=2)**



**2.11 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:

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

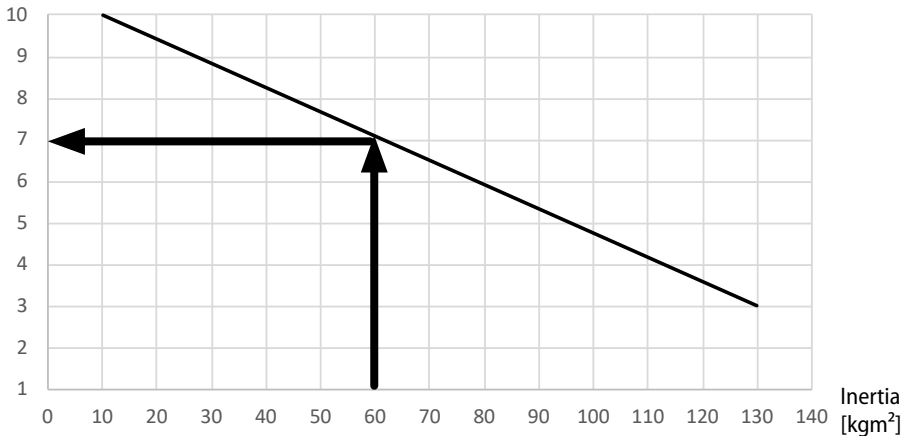
**■ EXAMPLE:**

Weight = 90 kg , Length = 1.4 m

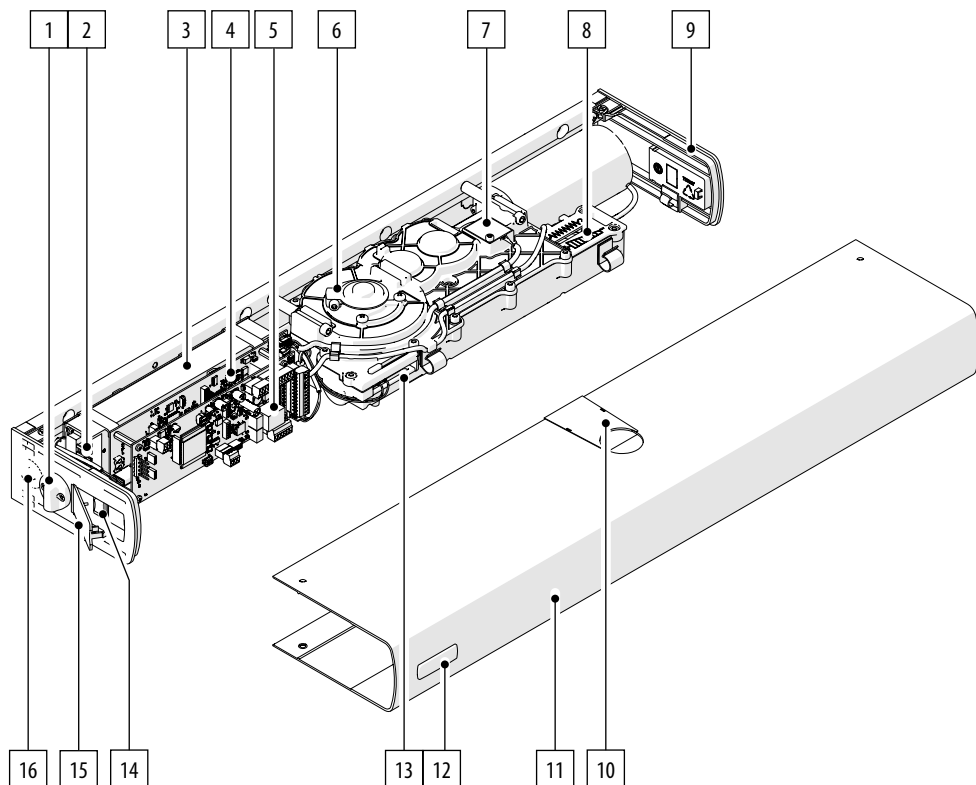
Inertia =  $(90 \times 1.4^2) / 3 = 59 \text{ kg}^2$

Maximum speed level that can be set = 7

Max. speed level



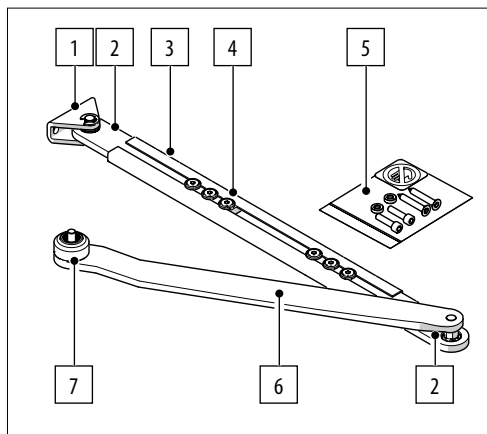
2.12 COMPONENT IDENTIFICATION



A952

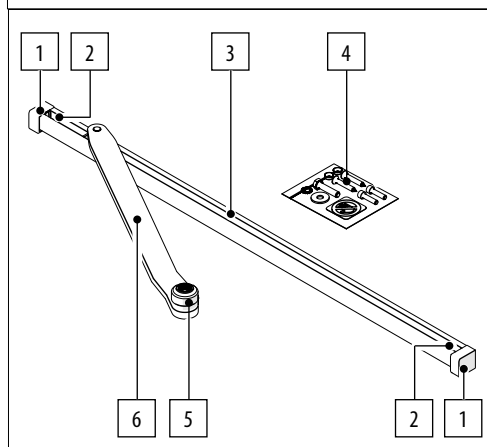
1	Pre-arrangement for cable gland - XPB SCAN sensor	9	Side cover
2	Power supply terminal board	10	Slot cover
3	Switching power supply	11	Casing
4	Board E952CL	12	Adhesive logo
5	Board E952IO	13	Micro switch SOFT DRAW/KICK LOCK
6	Integrated mechanical stop	14	Functions selector
7	Encoder	15	Side functions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

## 2.13 INSTALLATION COMPONENTS



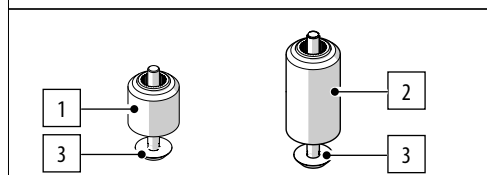
### Articulated transmission arm

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



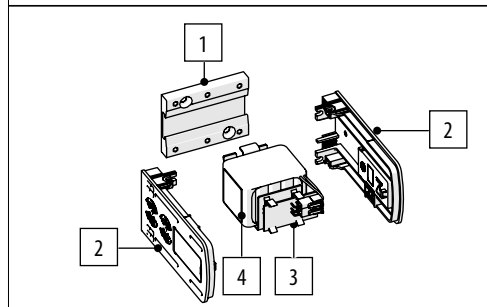
### Shoe type transmission arm (standard or short version)

- 1 Side covers
- 2 Side covers with grub screw
- 3 Guide (short 670 mm , standard 770 mm)
- 4 Accessories (screws, adhesive danger 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



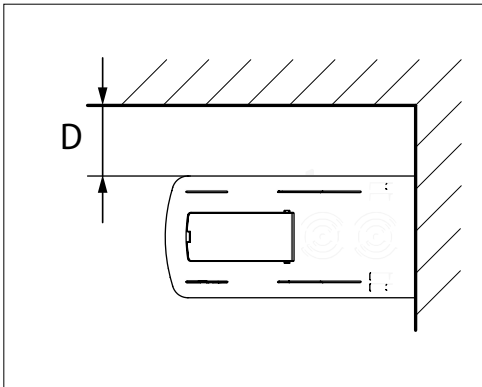
### Backup battery

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




### 3. MECHANICAL INSTALLATION

There must be a clearance "D" between the casing and the ceiling, depending on the size of the tool used to access the cross-head fastening screws of the upper casing. Consider a space of D+30 mm if the mechanical coordinator accessory is installed



#### 3.1 TOOLS REQUIRED

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



SET OF HEX WRENCHES



SET OF FLAT HEAD SCREWDRIVERS



SET OF PHILLIPS SCREWDRIVERS



SET OF ALLEN KEYS



SPIRIT LEVEL

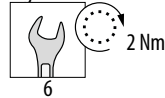


DRILL



WIRE STRIPPER/CABLE LUG CRIMPER

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



6

### **3.2 INSTALLATION INSTRUCTIONS**

#### **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, as regards various types of substrate:

##### **■ CONCRETE**

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

##### **■ SOLID BRICK (VOIDS <15%)**

The anchoring surface must be homogeneous, without any cracked brickwork. In the case of previous installations, the position of new holes must not coincide with existing holes and you must keep to the minimum distance from the edges. 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 not show any signs of corrosion and must be treated with red oxide primer. 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 cut for previous installations or damaged.

### INFORMATION ON THE TYPES OF ANCHORS

For the 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 you cannot select other products; however, you should check their maximum load carrying capacity in the relative technical data sheets.

Polyamide mechanical expansion anchors should be used; the recommended diameters are M6 for the screw and 8mm 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):

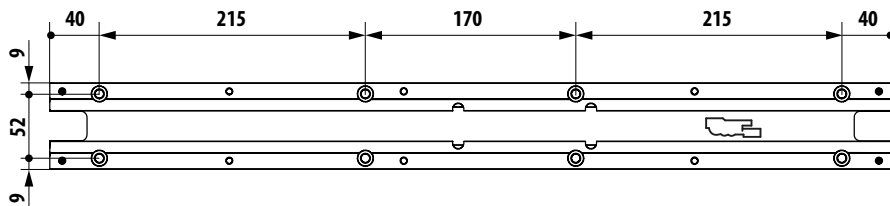
Substrate	Make	Model	Diameter (mm)	Traction (kN)	Load carrying capacity (kN)
Concrete (1.)	Fisher	Duopower 8x40	6	1.26	1.26
	Hilti	HRD 8	6	1.1	5.2
Solid brick (2.)	Fisher	Duopower 8x40	6	0.63	0.63
	Hilti	HRD 8	6	0.48	1.2
Steel / Aluminium	Würth	Self-tapping for steel	4.2-6.3		>2.0
Wood (3.)	Rothoblass	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/m<sup>3</sup>, a minimum compressive strength of 10 N/mm<sup>2</sup> 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.

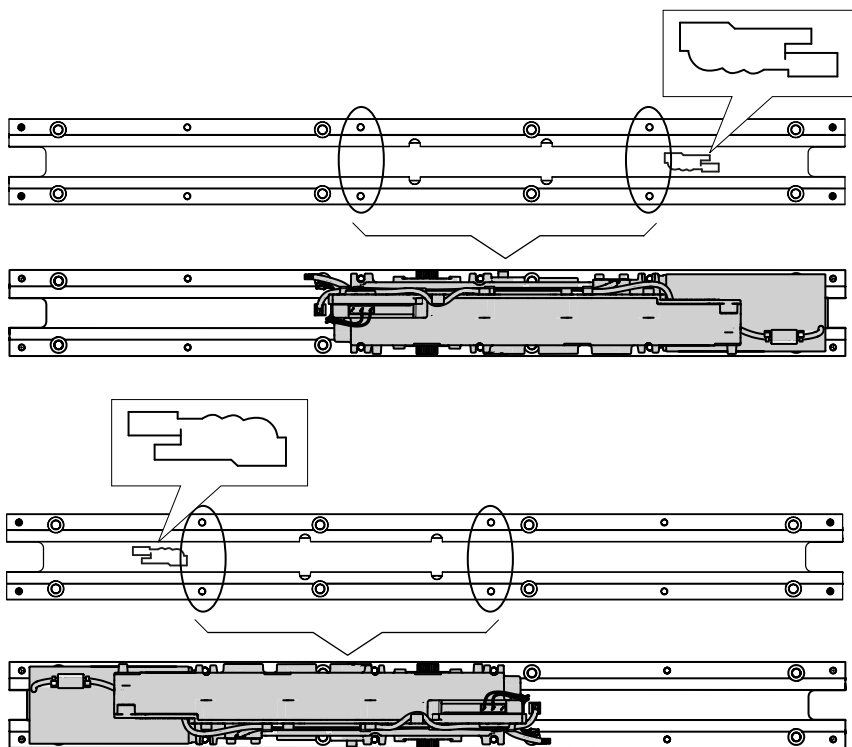
Anchoring to a masonry lintel is not allowed since the strength of the dowels are lower than those of calculation; if brick platbands are present, a special counterplate should be anchored to the masonry and tested.

## 3.3 FIXING THE SUPPORT PLATE

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



A shape marked on the plate indicates the mounting position of the gearmotor, which should be secured using the 4 holes shown:

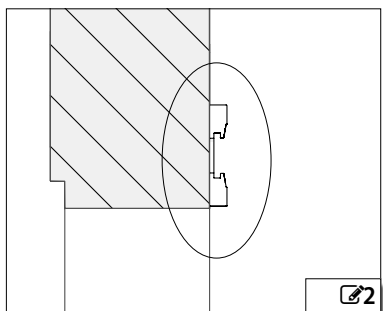


The gearmotor should be mounted after the plate has been installed.

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).

**i** In some cases, the measurements may vary according to the width of the leaf and/or the depth of the door-post. 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 (2).



### 3.4 TYPES OF INSTALLATION

The A952 offers several installation options:

- A. On the architrave
- B. On the leaf
- C. With an articulated arm
- D. With a shoe arm
- E. With CLOSING SPRING

System 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.

- F. With OPENING SPRING

System 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.

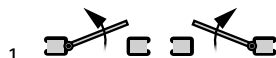
The various installation options and the relative mounting positions are shown in the following diagrams.

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

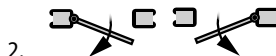
Each diagram shows the installation on the right door and left door.

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:

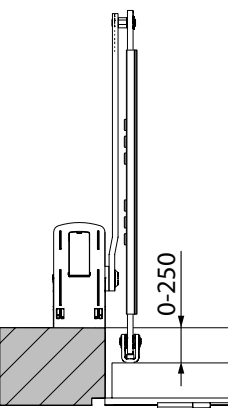


1. Opening in the direction opposite to the side on which the operator is mounted.



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

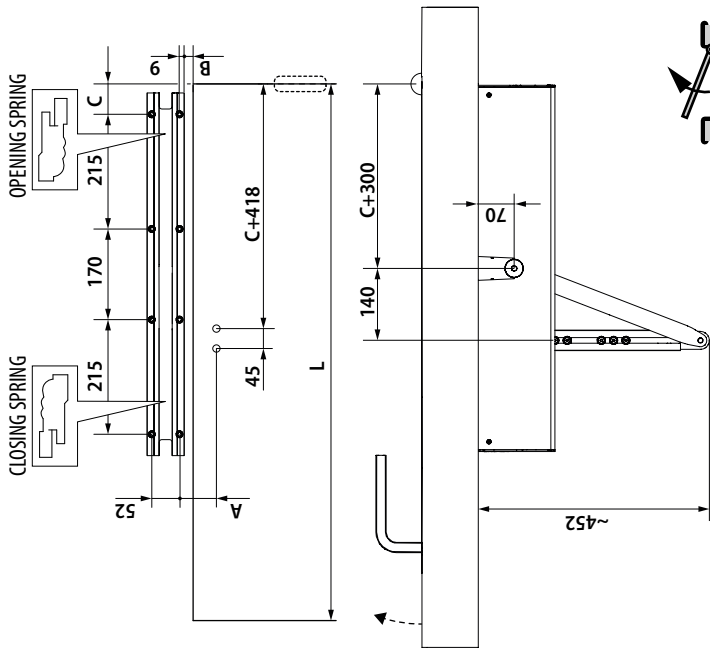
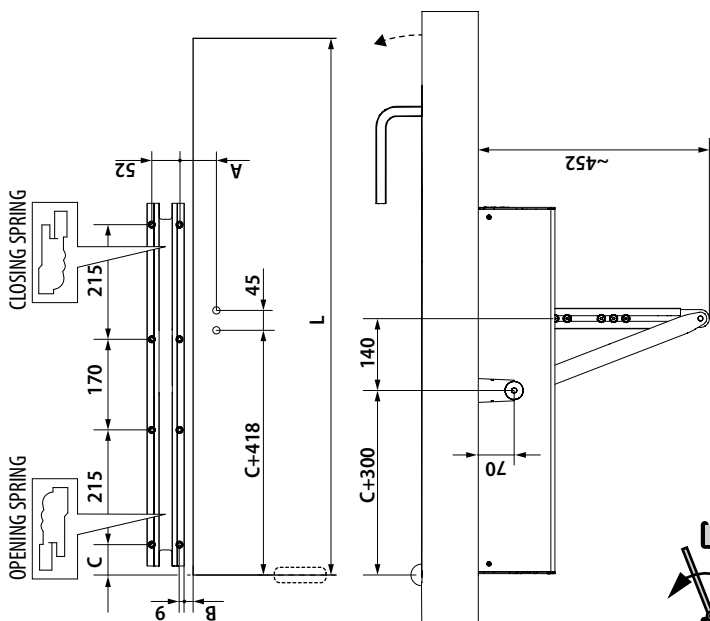
## 1 Installation on architrave with an articulated arm (2t=3)



**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

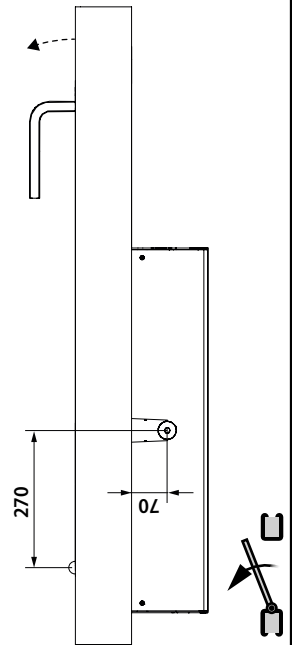
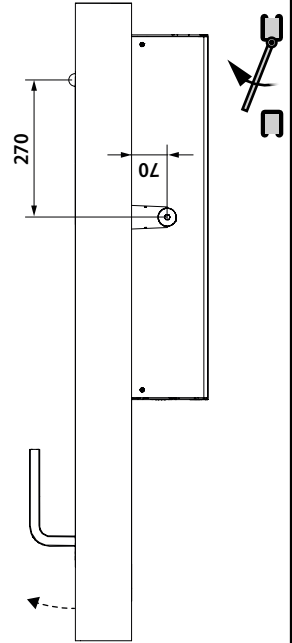
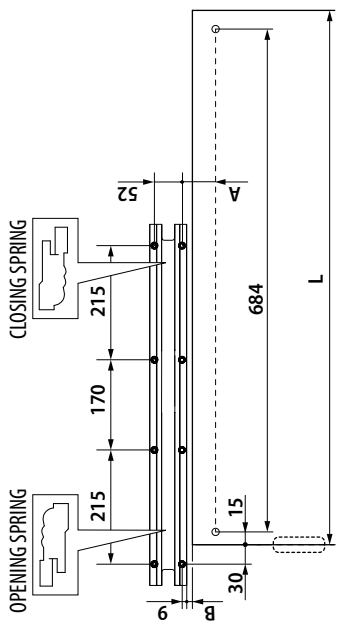
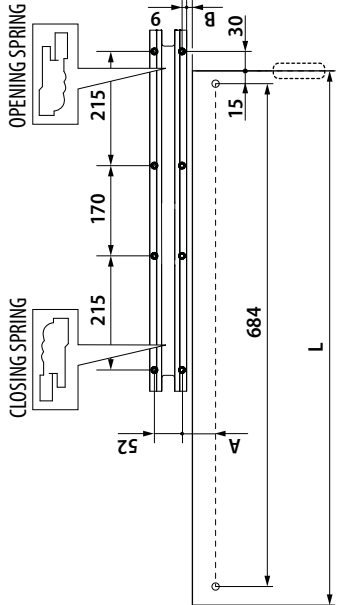
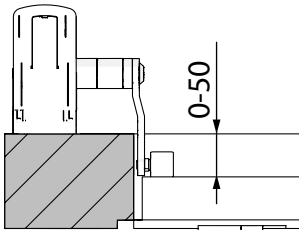


2 Installation on architrave with a short shoe arm (a=2)

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



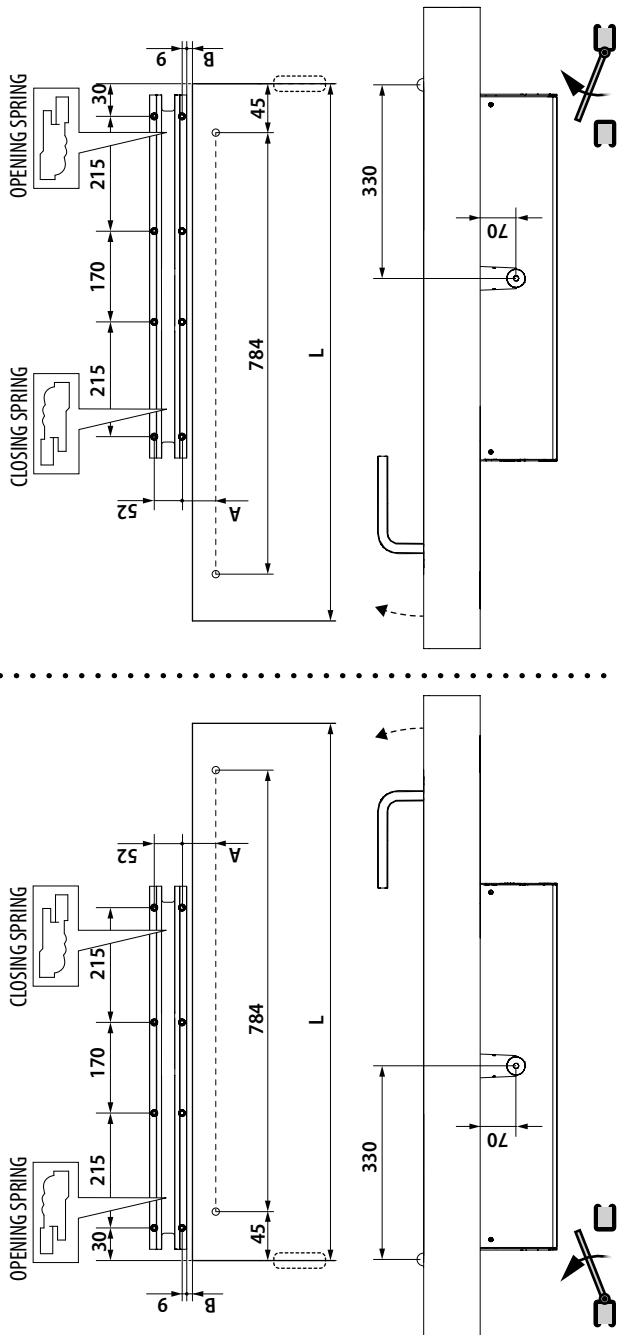
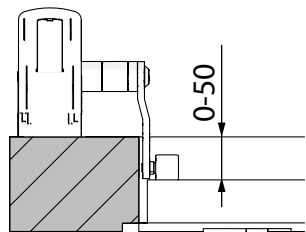
Spacers	A	B
No spacer	55	13
Spacer 50 mm (H50)	85	43
Spacer 80 mm (H80)	115	73



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

**i** 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

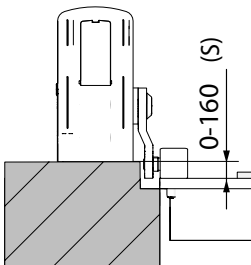




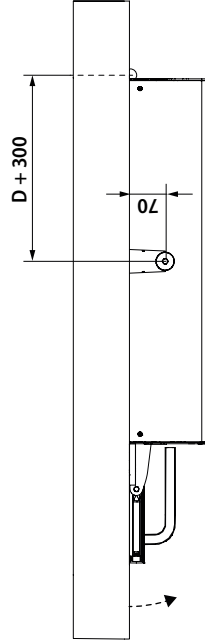
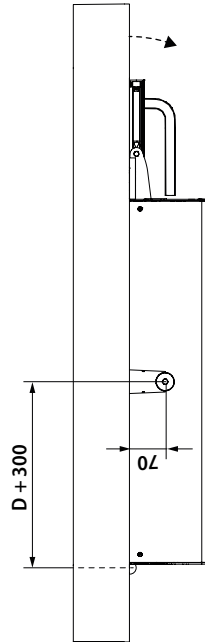
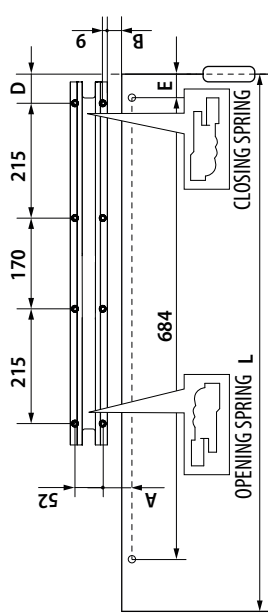
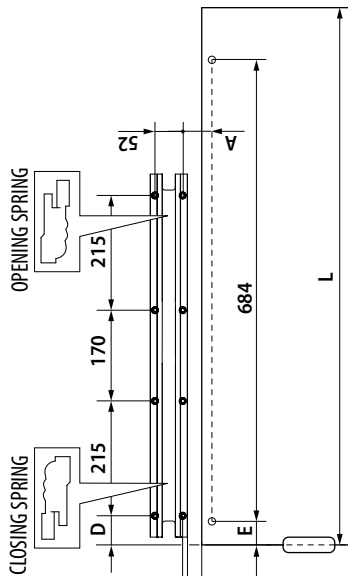
**4 Installation on architrave with a short shoe arm (α=1)**

**i** 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



Architrave overlaps	Leaf width (L)		
	700-749	750-799	800-849
0-9	D = -55	D = 0	D = 20
10-19	D = -58	D = -4	D = 20
20-29	D = -61	D = -8	D = 18
30-39	D = -65	D = -12	D = 15
40-49	D = -70	D = -16	D = 12
50-59	D = -75	D = -20	D = 7
60-69	D = -81	D = -24	D = 2
70-79	D = -88	D = -30	D = -3
80-89	D = -96	D = -36	D = -8
90-99	D = -104	D = -42	D = -13
100-109	D = -112	D = -48	D = -18
110-119	D = -122	D = -55	D = -24
120-129	D = -133	D = -64	D = -32
130-139	D = -146	D = -73	D = -40
140-149	D = -161	D = -82	D = -48
150-160	D = -179	D = -94	D = -58



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

Leaf width (L)	
0-9	850-899
10-19	900-949
20-29	≥950
30-39	
40-49	
50-59	
60-69	
70-79	
80-89	
90-99	
100-109	
110-119	
120-129	
130-139	
140-149	
150-160	

Leaf width (L)	850-899	900-949	≥950
F = 40			
F = 35			
F = 29			
F = 31			
F = 28			
F = 24			
F = 20			
F = 16			
F = 11			
F = 6			
F = 0			
F = -6			
F = -13			
F = -20			
F = -28			
F = -38			

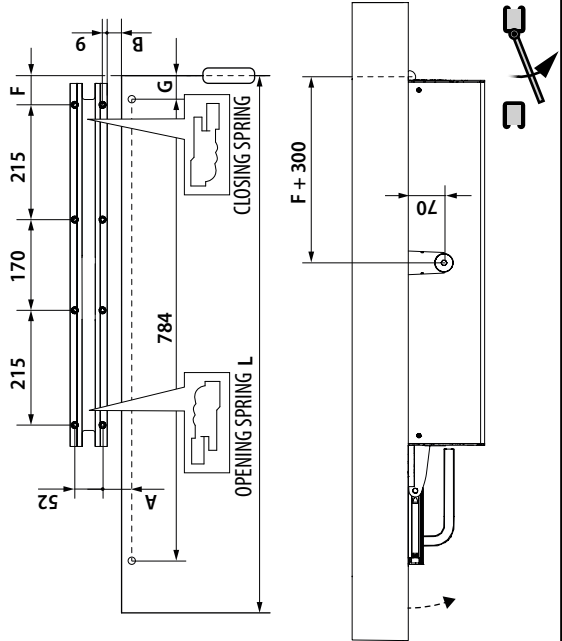
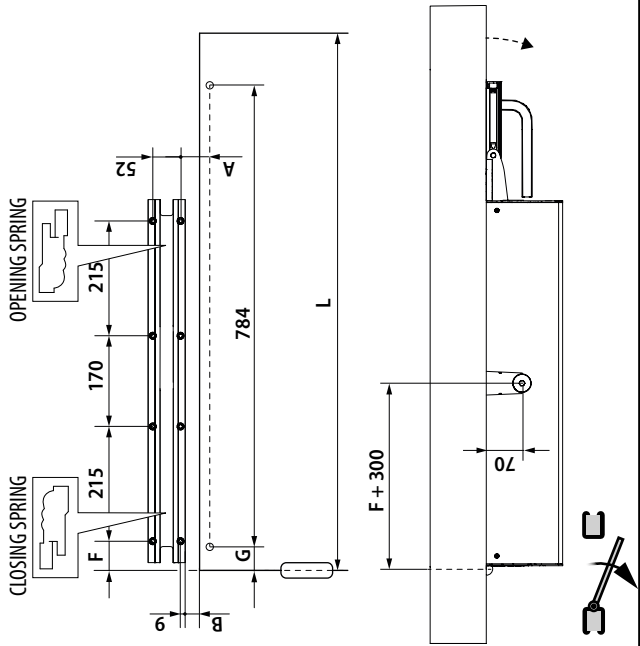
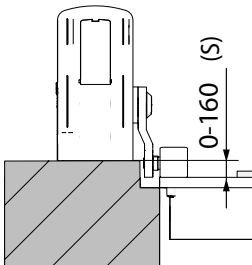
Leaf width (L)	G
850-899	G = 60
900-949	G = 110
≥950	G = 160

Architrave overlap 5

**i** 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

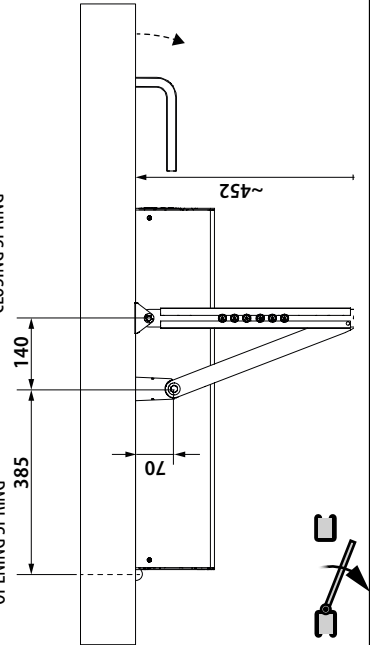
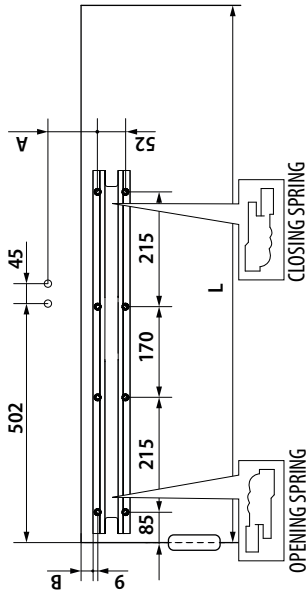
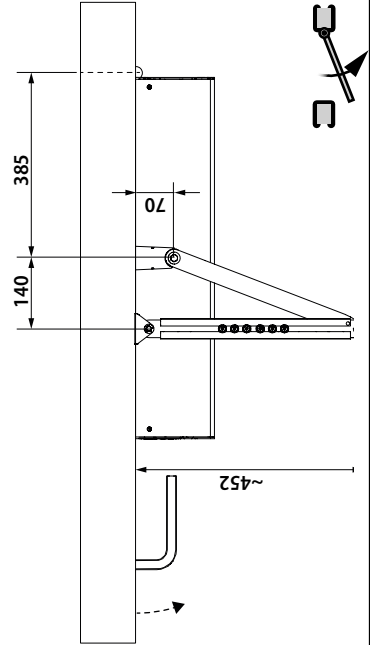
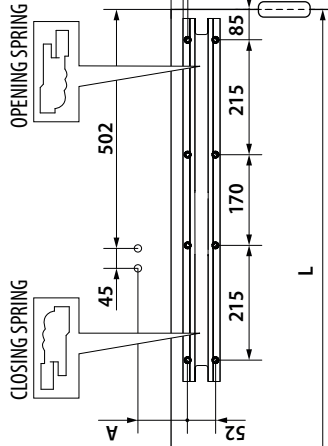
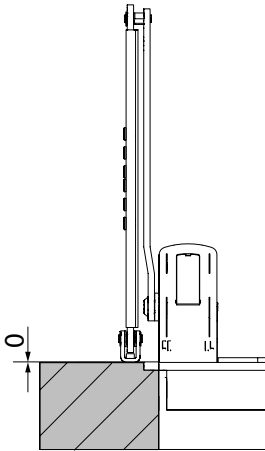


6 Installation on leaf with an articulated arm (at=3)

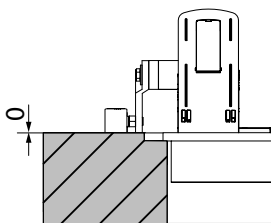


Leaf width (L): 750...1600 mm

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

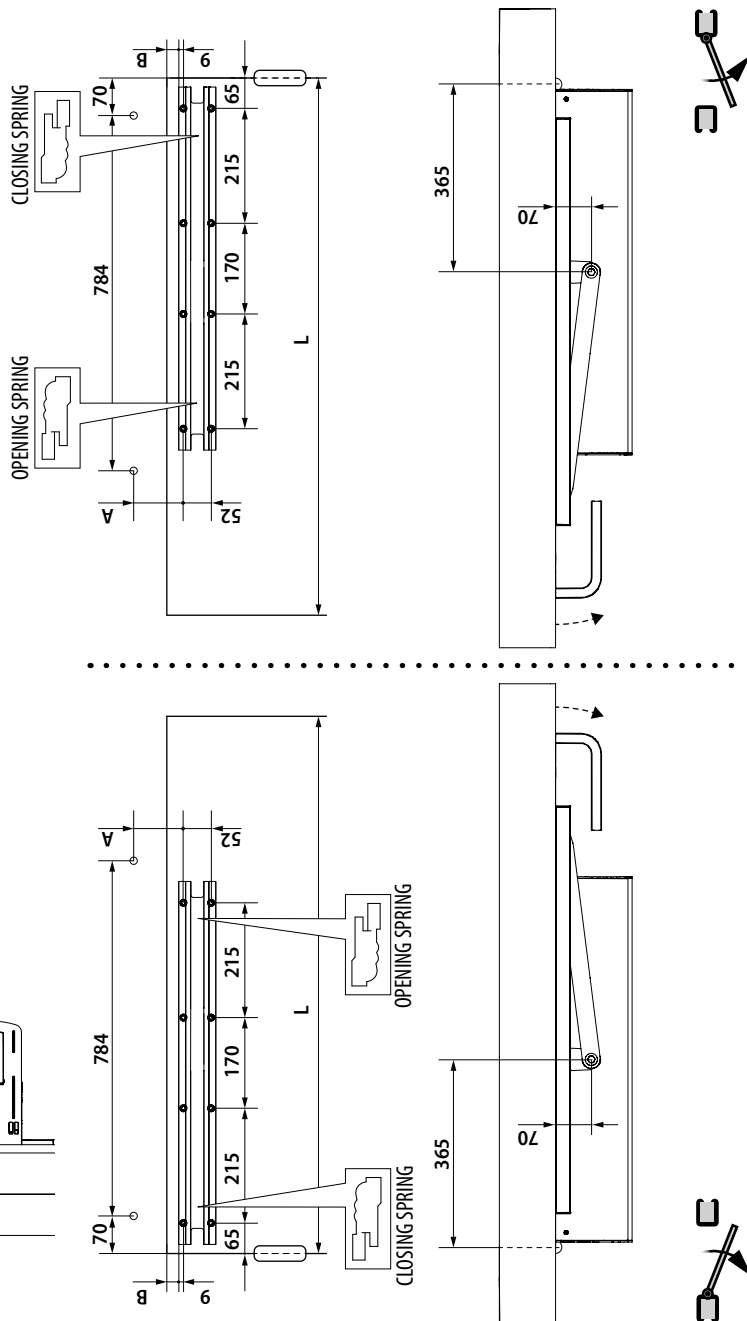


## 7 Installation on leaf with an standard shoe arm (at=2)



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

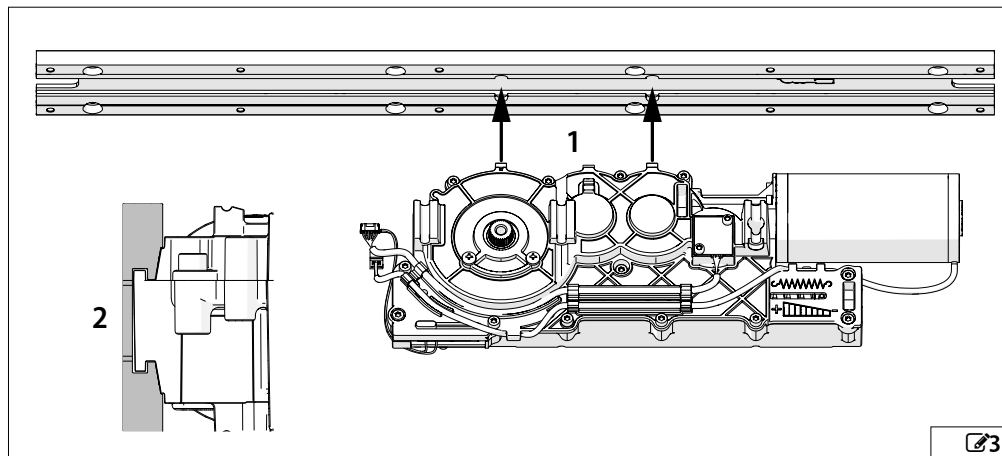
Spacers	A	B
No spacer	55	15
Spacer 50 mm (H50)	85	45
Spacer 80 mm (H80)	115	75



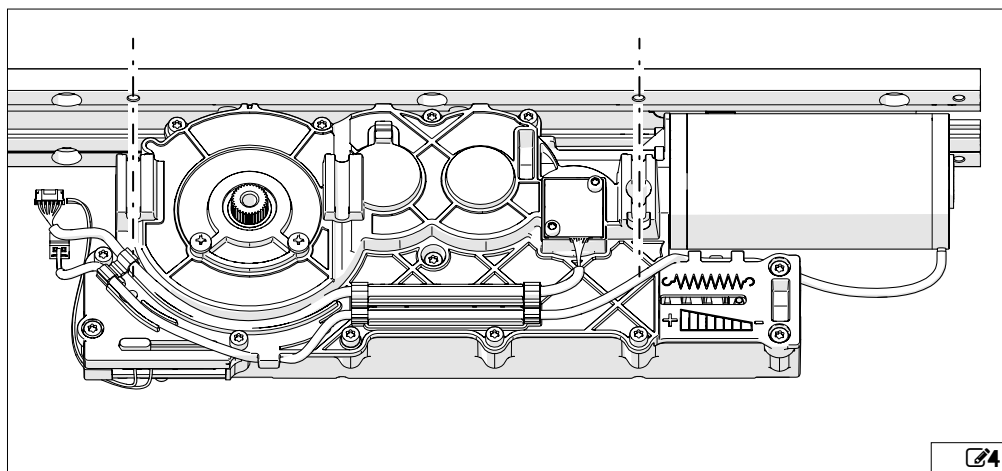
### 3.5 INSTALLING THE GEARMOTOR

**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.

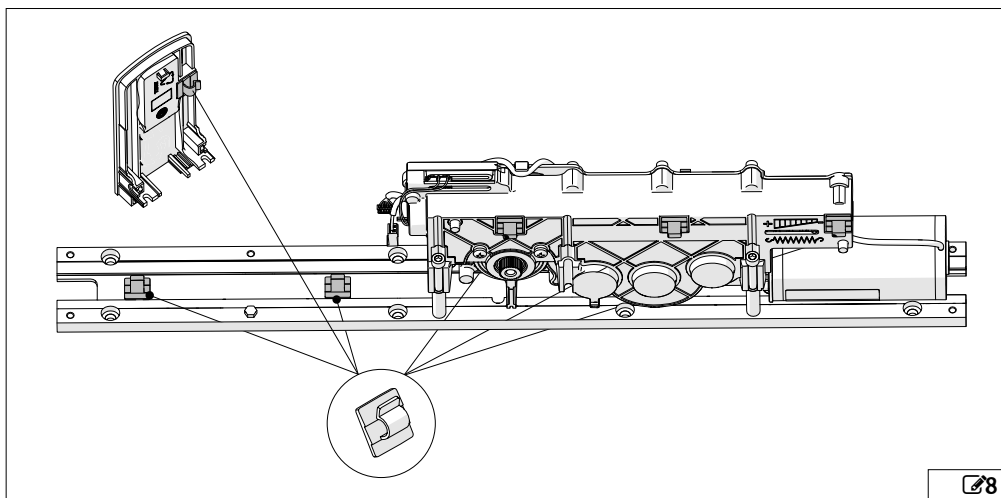
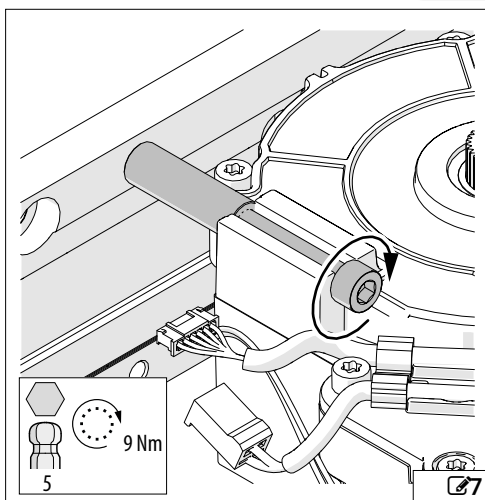
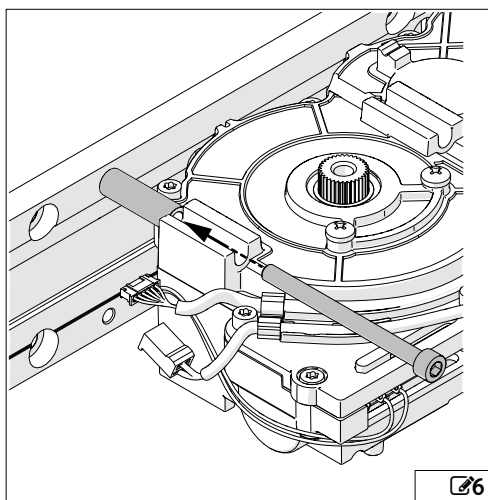
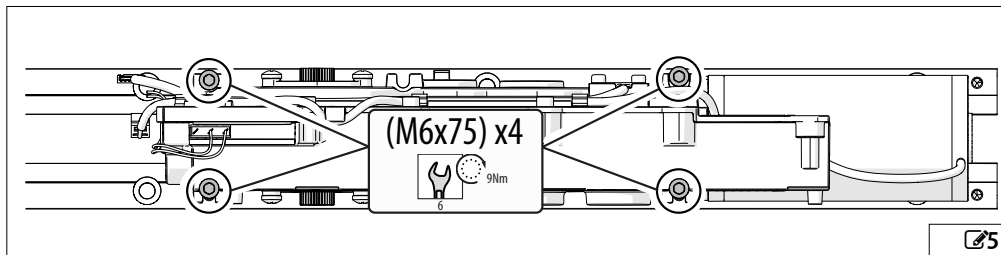
1. Rest the gearmotor against the plate, inserting the two inserts into the slots (🔗3-1) so that they are positioned in the guide on the plate (🔗3-2).



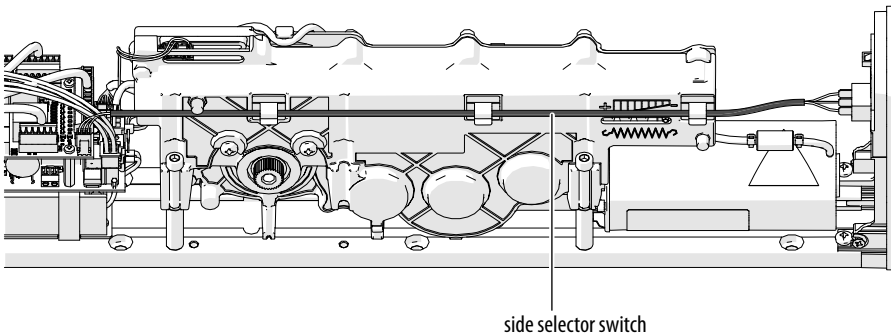
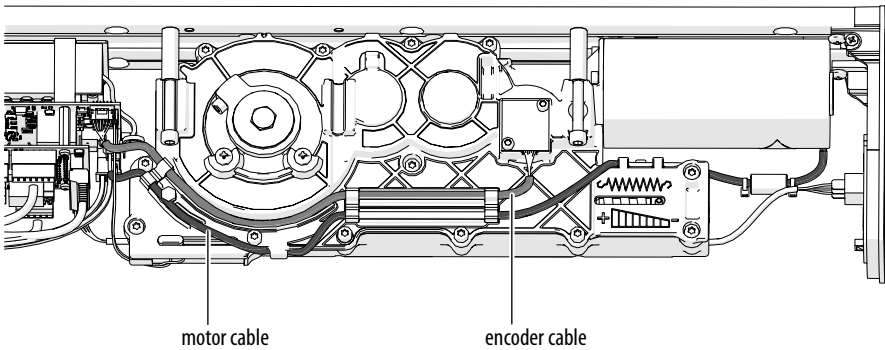
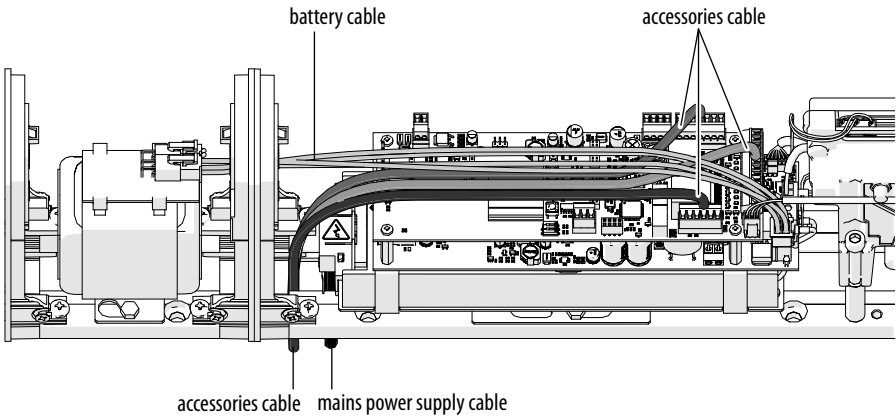
2. Slide the gearmotor sideways until the 4 fixing holes on the plate coincide with those on the gearmotor (🔗4). When the two inserts are inside the plate guide, not in correspondence with the insertion slots, the weight of the gearmotor is supported by the plate, making it easier to carry out the subsequent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



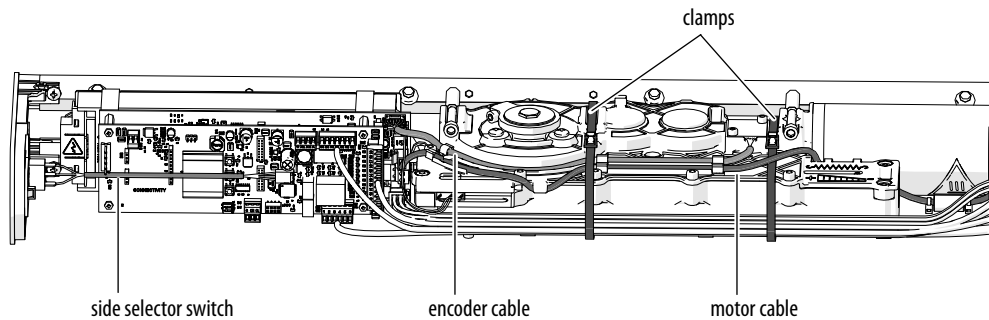
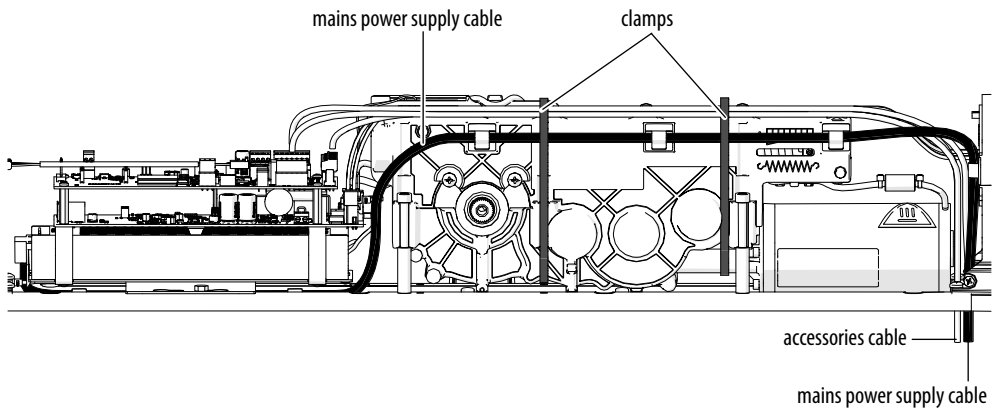
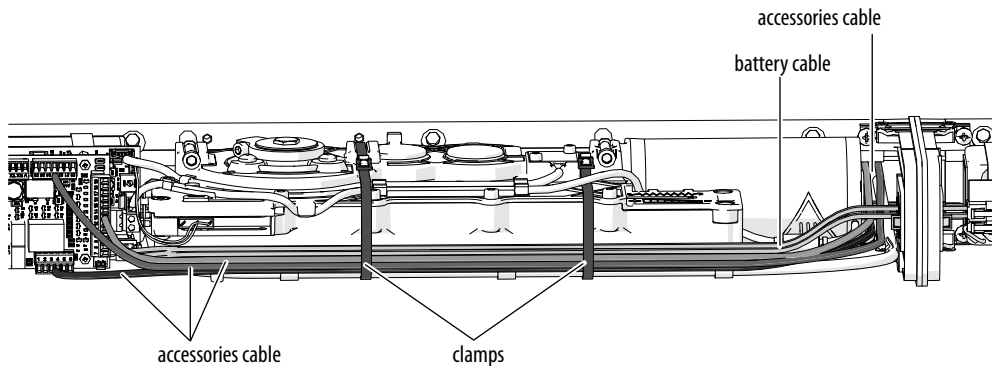
3. Secure the gearmotor using the four M6x75 screws tipped with threadlocker (🔧5), by inserting them through the spacers (🔧6) and tightening them with a torque of 9 Nm. (🔧7).
4. Apply the self-adhesive cable clips (🔧8).



3.6 CABLE ROUTING FROM THE BOARD SIDE



3.7 CABLE ROUTING FROM THE MOTOR SIDE

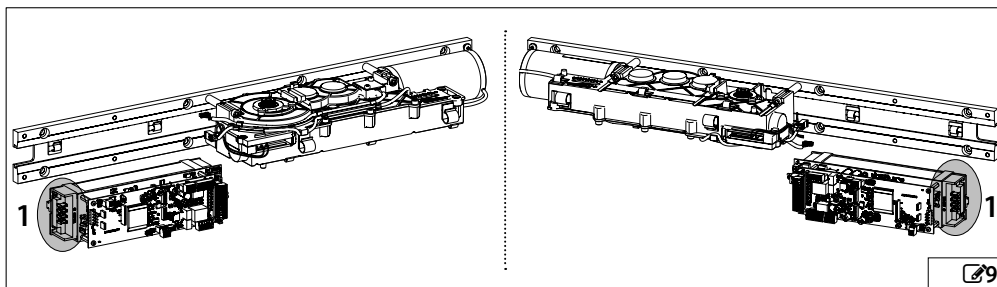




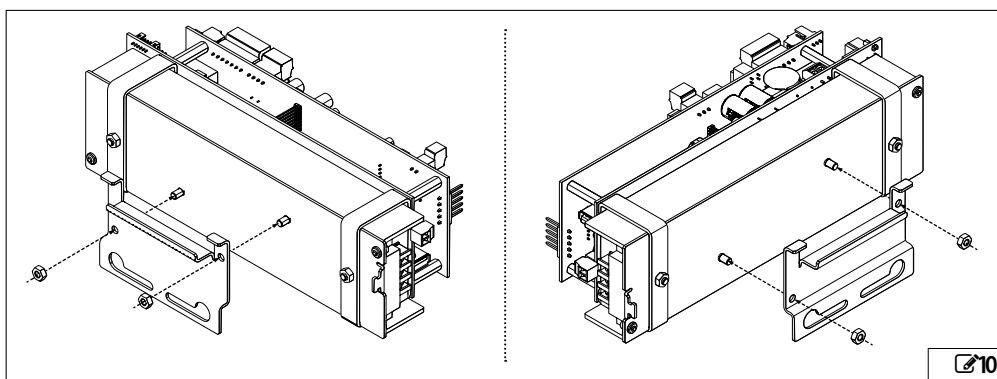
### 3.8 INSTALLING THE ELECTRONICS ASSEMBLY

1. Arrange the cables that have to be housed under the electronics assembly (e.g. mains power cable, side selector switch cable, accessories ...).

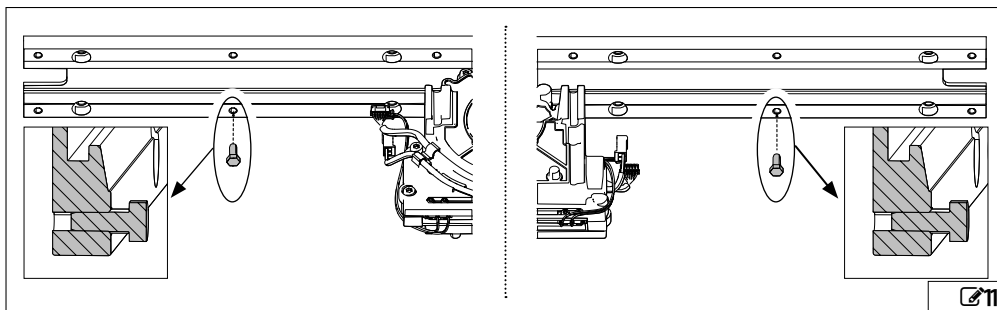
**i** The electronics assembly must be installed on the plate with the mains power supply terminals towards the end of the plate (🔧9-1).



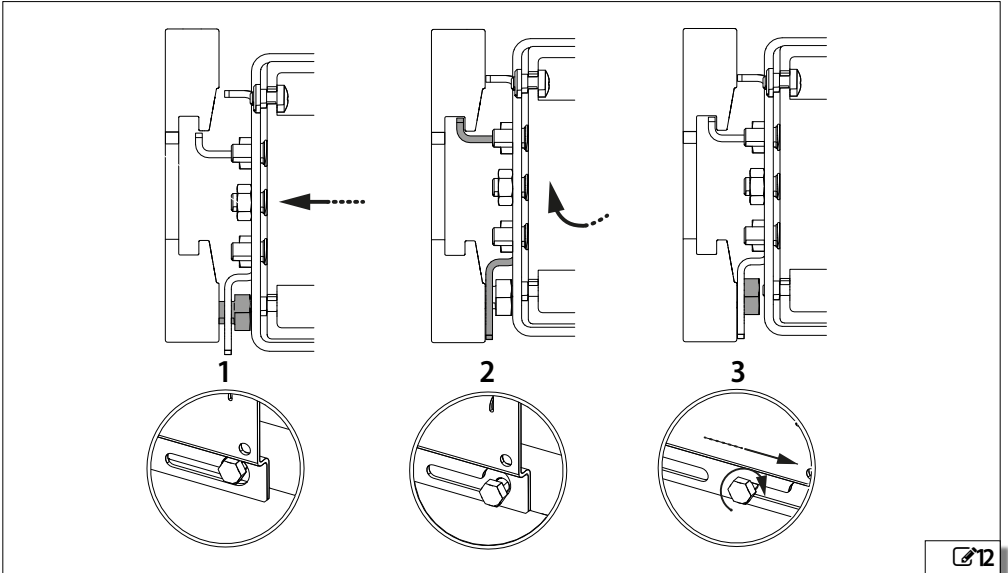
2. Mount the bracket as shown in 🔧10, according to the position of the electronic assembly:



3. Partially tighten the M5x12 self-tapping screw (🔧11):



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 (🔧12-1)).
5. Push the electronics assembly upwards while keeping it horizontal (🔧12-2). 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 (🔧12-3).



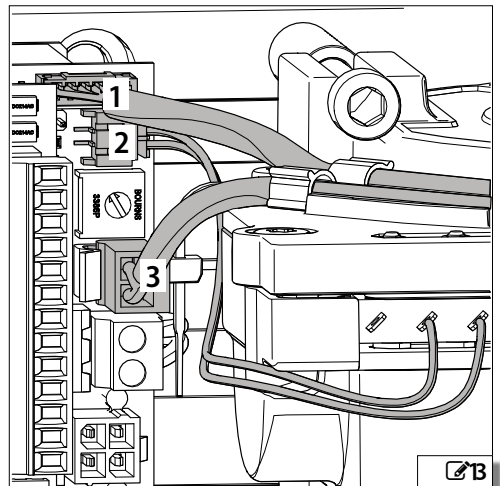
7. Connect the gearmotor to the electronics assembly (🔧13):

- 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.



### 3.9 INSTALLING THE SHOE ARM

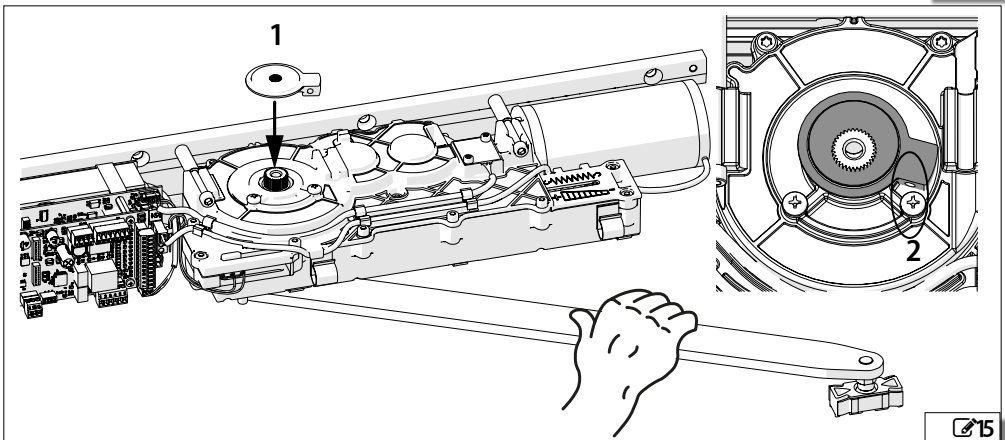
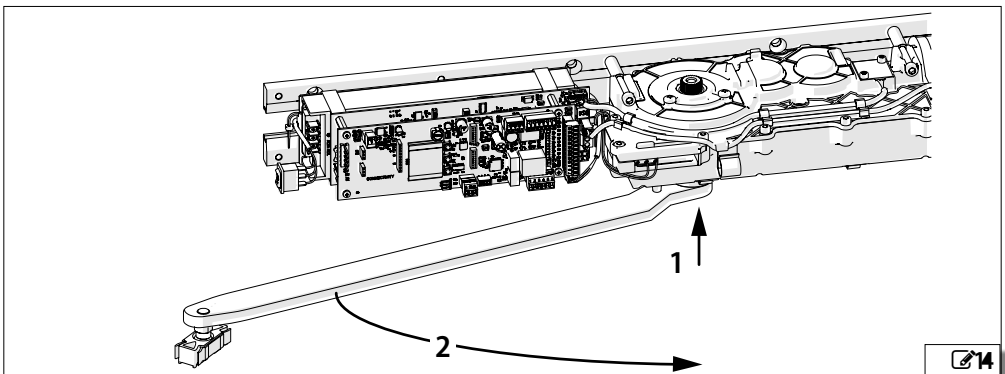


Depending on the application, the shoe arm may be upside down compared to the following diagrams. This does not alter the sequence of operations.

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

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

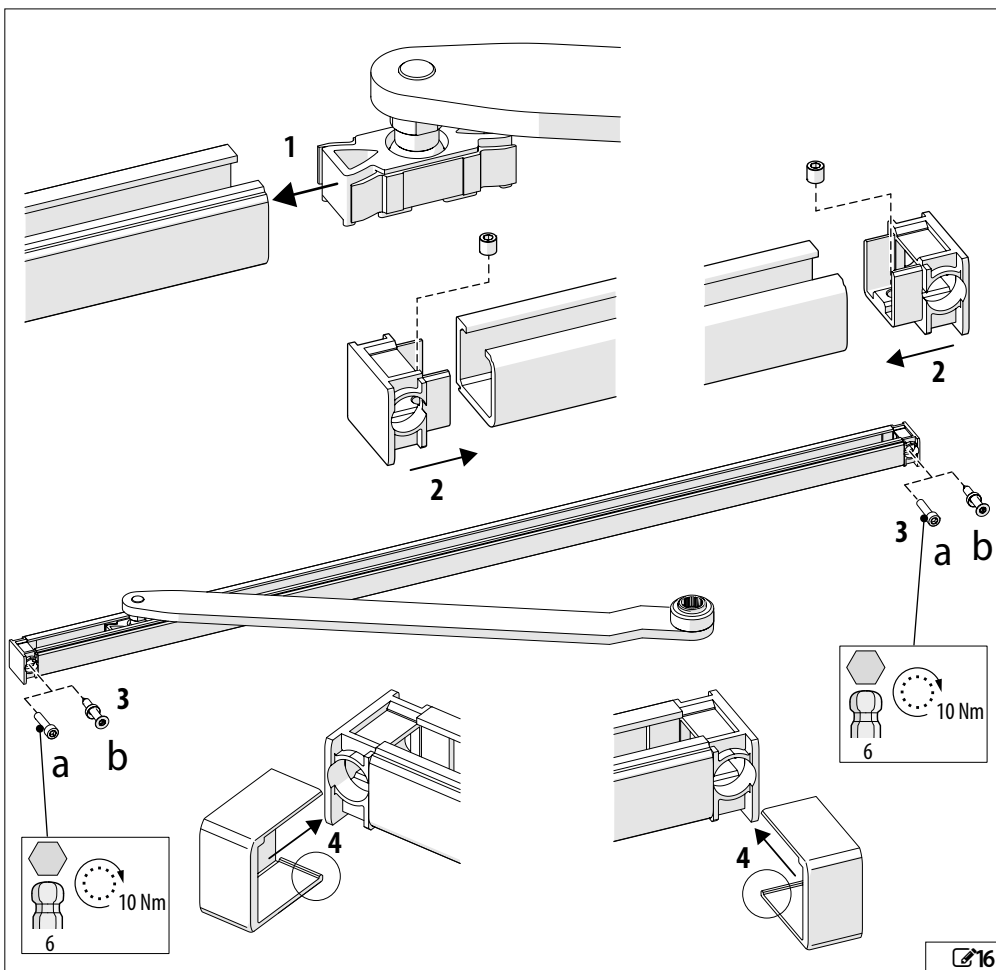
1. Install the arm on the shaft of the operator (☞ 14-1) and turn it in **the opposite direction to that of door opening** (☞ 14-2), as far as the maximum permitted rotation set by the internal stop (do not force it further).
2. If space does not allow the maximum rotation to be reached in a single attempt, you can repeat the operation several times: to lock the preload reached and prevent the arm from moving backwards when released, insert the cam (☞ 15-1) onto the shaft, as close as possible to the mechanical stop (☞ 15-2).
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

With reference to  16:

1. Slide the shoe into the guide.
2. Install the covers 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 covers 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 (☞17)

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.



Make sure that you install the disc spring washer as shown in ☞18-2.

3. Press the cover on (4).
4. In the opening by spring application, remove the cam that was inserted previously (☞15-1).

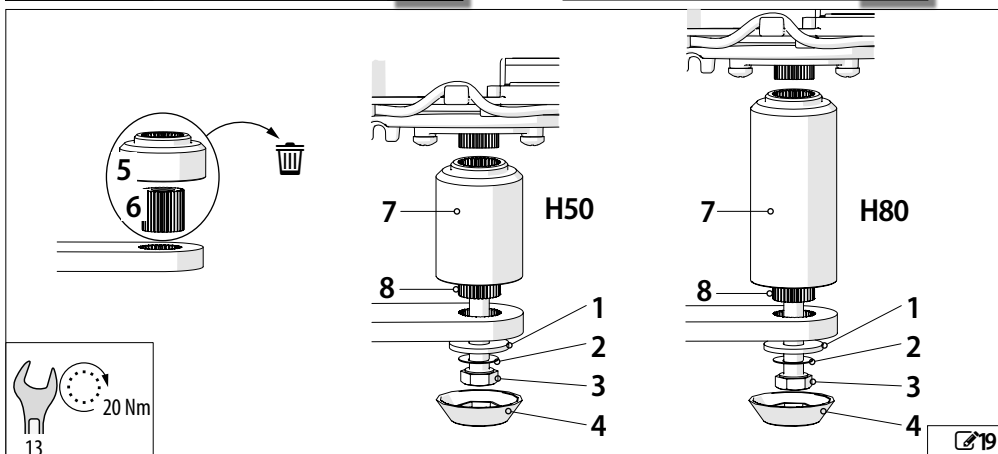
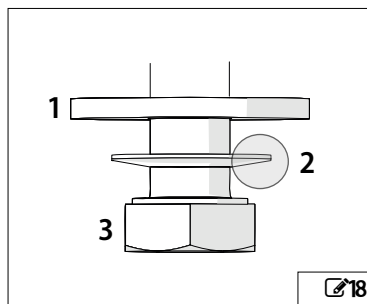
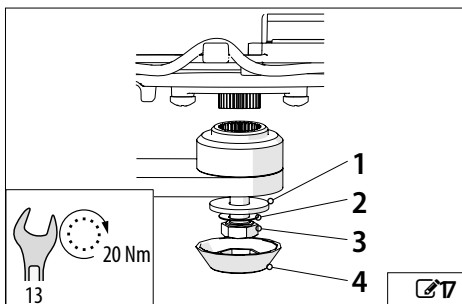
- WITH SPACER H50/H80 (☞19)

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.



Make sure that you install the disc spring washer as shown in ☞18-2.

4. Press the cover on (4).
5. In the opening by spring application, remove the cam that was inserted previously (☞15-1).

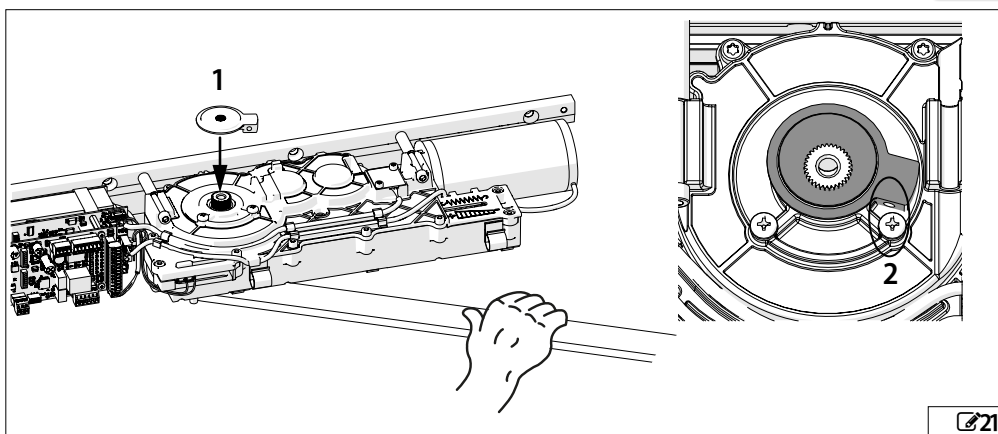
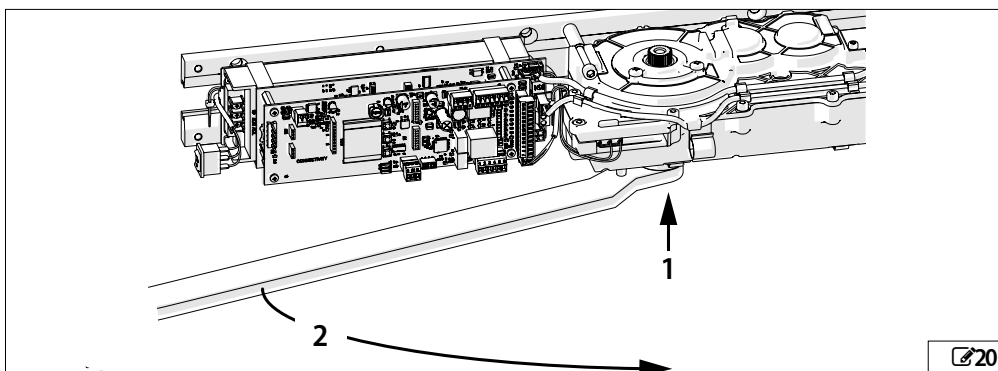


## 3.10 INSTALLING THE ARTICULATED ARM

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

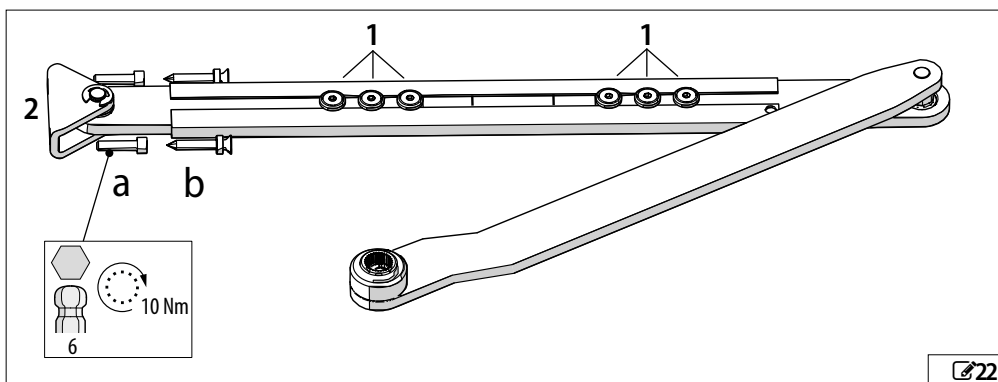
### ■ PRELOAD THE SPRING (ONLY FOR OPENING BY SPRING APPLICATIONS)

1. Install the arm on the shaft of the operator (🔧20-1) and turn it in the **opposite direction to that of door opening** (🔧20-2), 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 (🔧21-1) onto the shaft, as close as possible to the mechanical stop (🔧21-2).
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.

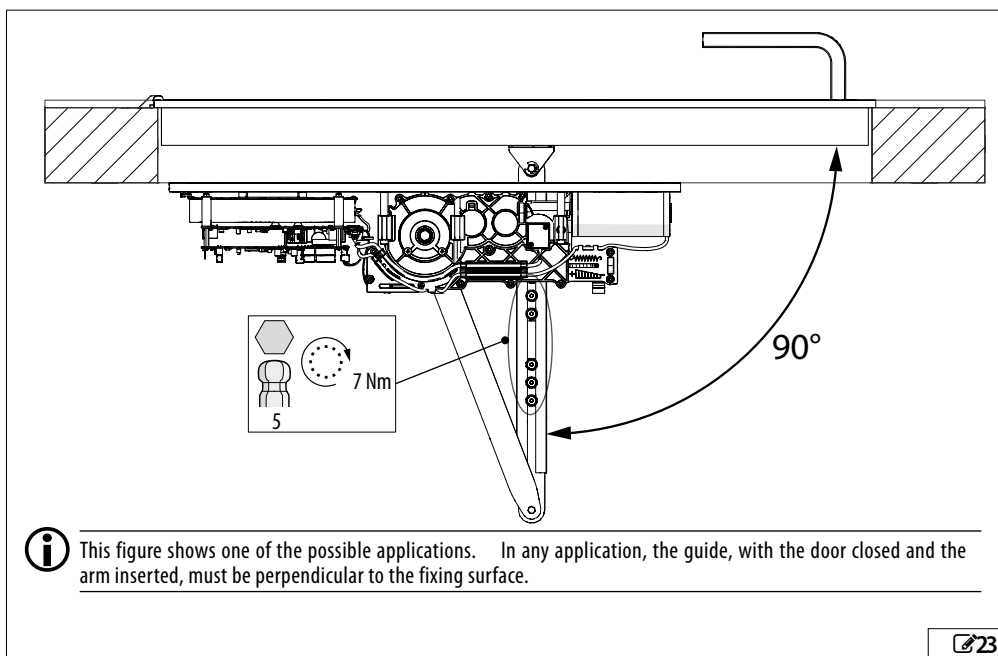


## ■ INSTALLING THE ARM

1. Make sure that the 6 screws (☞22-1) have not been fully tightened and that they allow the two rods to slide inside the guide.
2. Fasten the bracket horizontally (☞22-2) 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 (☞23) and slide the two inner rods until it is possible to connect the arm to the gearmotor.



☞22



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.

☞23

## ■ CONNECTING THE ARM TO THE OPERATOR

- NO SPACER (🔧24)
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.

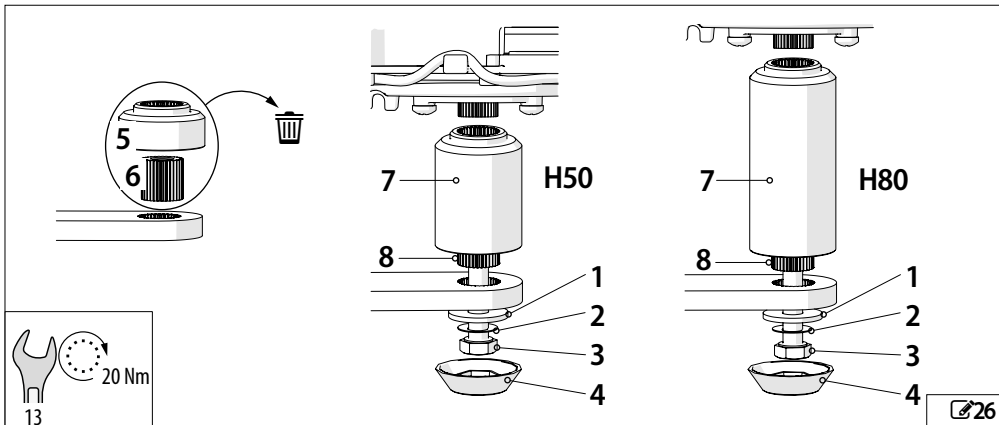
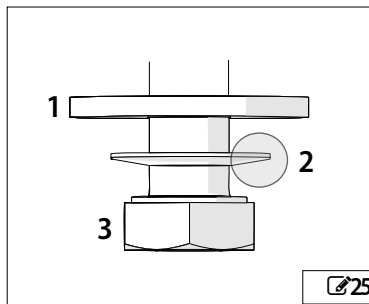
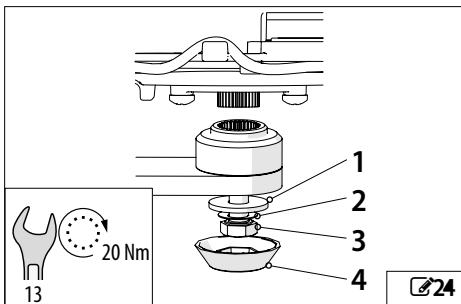
**i** Make sure that you install the disc spring washer as shown in 🔧25-2.

3. Press the cover on (4).
4. In the opening by spring application, remove the cam that was inserted previously (🔧15-1).

- WITH SPACER H50/H80 (🔧26)
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 🔧25-2.

4. Press the cover on (4).
5. In the opening by spring application, remove the cam that was inserted previously (🔧15-1).





### 3.11 REMOVING THE SPRING PRELOAD SCREW

When you have finished connecting the arm to the operator, remove the spring preload screw and keep it (☞27). 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.

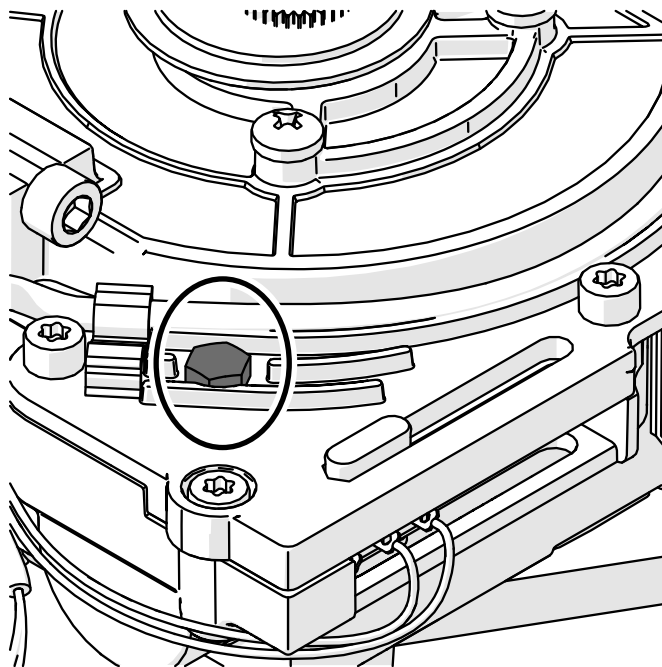
#### ■ INSTRUCTIONS FOR RE-USING THE PRELOAD SCREW

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.



## 3.12 ADJUSTING 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.


The spring is factory 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.

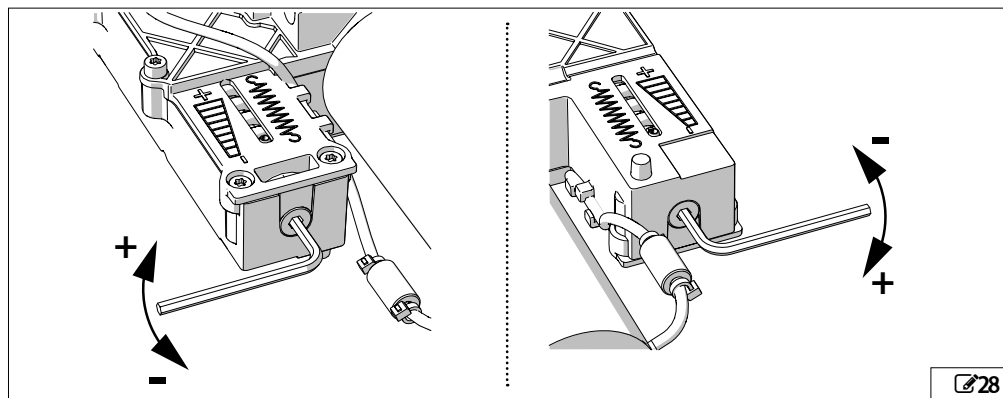
The spring preload is adjusted using an Allen key as shown in  28:

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

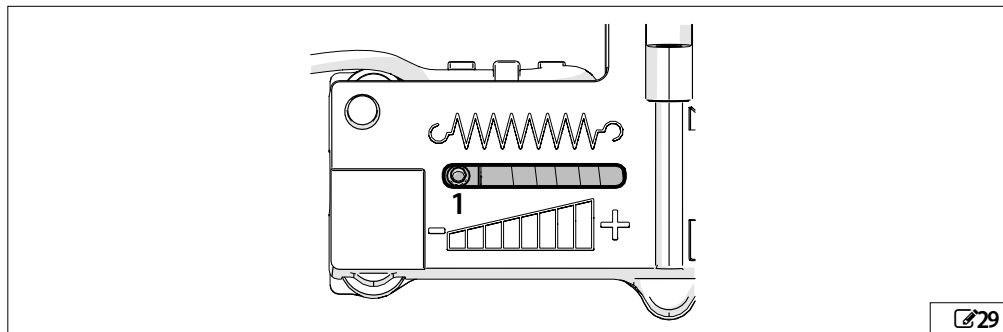
If the door is used as an escape route, the manual opening force must not exceed 150 N measured at the end of the leaf at a height of 1 m from the ground.

The spring must only be adjusted with the operator installed and connected.

Turning the Allen key moves the pin  29-1 inside the slot. The entire width of the slot is available for adjustment.



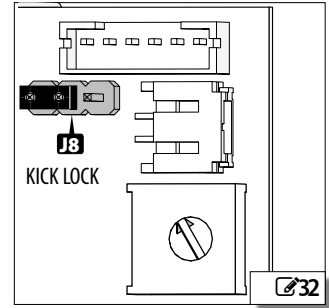
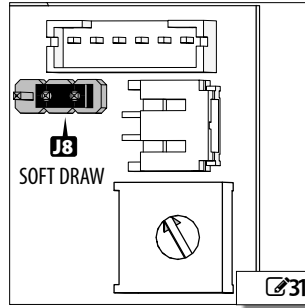
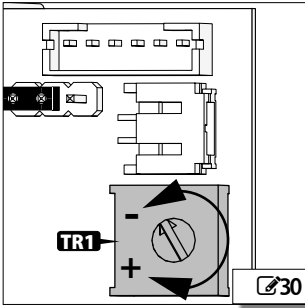
 28



 29

### 3.13 ADJUSTING THE SPRING MOVEMENT IN THE ABSENCE OF POWER

The speed of movement produced by the spring, in the absence of power, can be set using a trimmer (TR1). A jumper selector (J8) also enables one of the two available functions to be enabled.



#### ■ ADJUSTING THE SPEED IN THE ABSENCE OF POWER

Use trimmer TR1 to adjust the speed as follows (✎30):

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

#### ■ ENABLING THE SOFT DRAW FUNCTION

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



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

Set the selector J8 as shown in ✎31.

#### ■ ENABLING THE KICK LOCK FUNCTION

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.



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

Set the selector J8 as shown in ✎32.

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

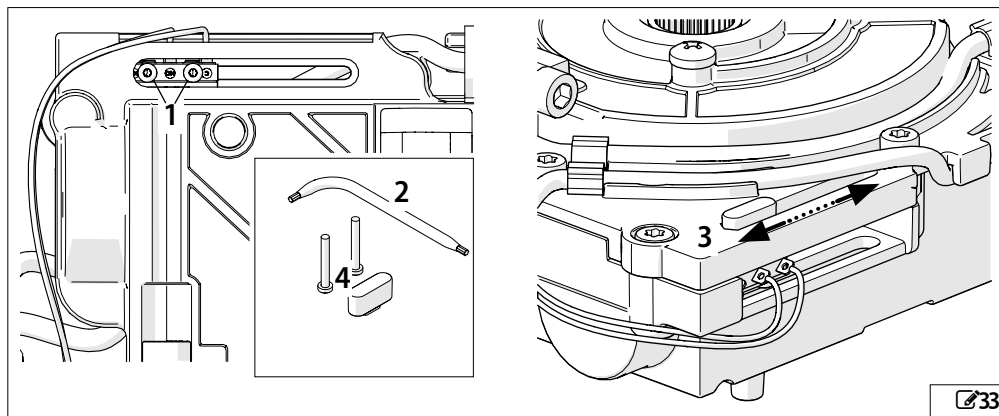
The A952 is fitted with a micro switch that determines that point at which the SOFT DRAW or KICK LOCK function is activated (according to the setting of selector J8).

To adjust the point at which the micro switch triggers (☞33):

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 ☞33 (factory setting). The slot allows the stroke of the leaf to be adjusted by up to a maximum of about 40°.

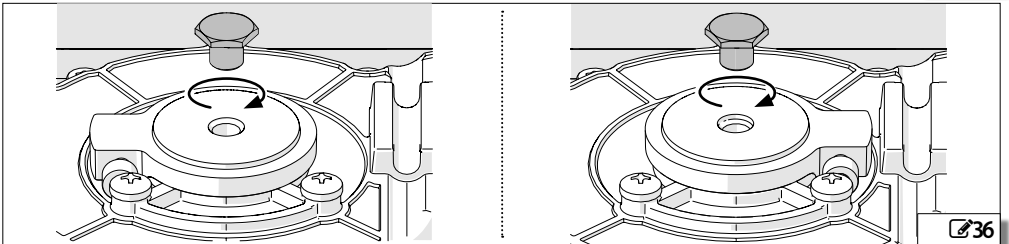
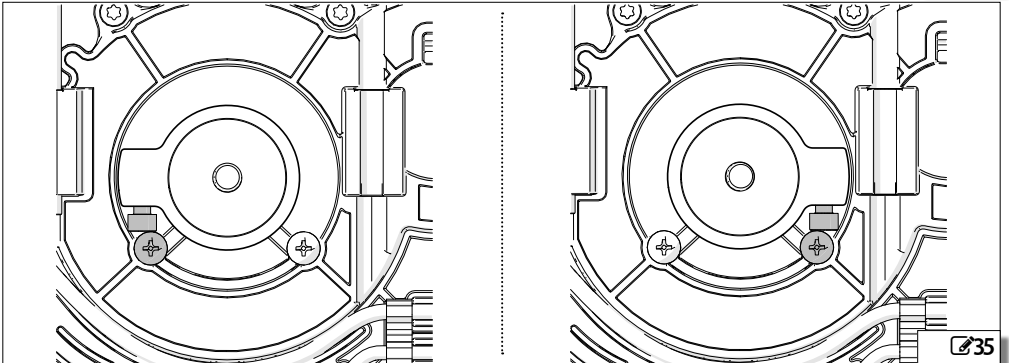
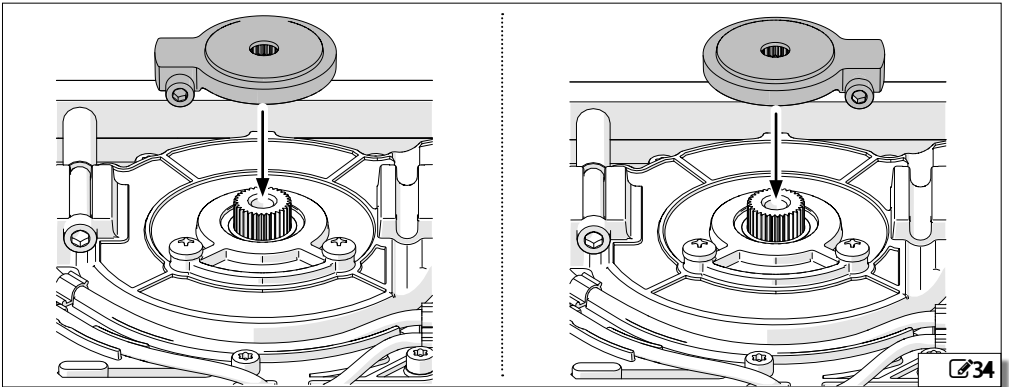
The fixing screws and the spare micro switch support (4) are also supplied together with the Torx key .



### 3.14 ADJUSTING THE INTEGRATED MECHANICAL STOP

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

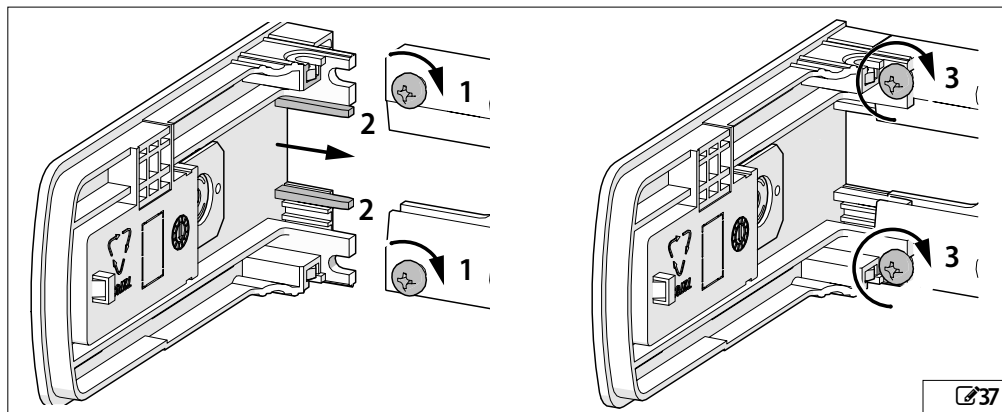
1. Open the door to the position at which you want the internal stop to operate.
2. Turn the screw in the cam according to the direction of rotation of the gearmotor shaft in order to reach the position, as shown in .
3. Insert the cam onto the shaft so that the screw is as close as possible to the mechanical stop used (.
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 (.
5. When finished, screw in the locking cap (.




## 3.15 INSTALLING THE SIDE COVERS

With reference to  37:


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).

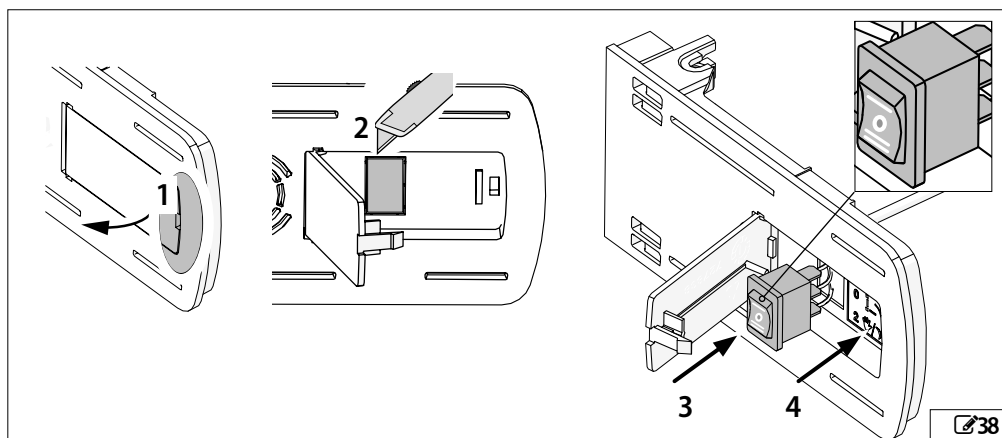


## 3.16 INSTALLING THE SIDE FUNCTIONS SELECTOR


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


With reference to  38:



1. Open the access cover on one of the side covers by gently prising it open at the point indicated.
2. Remove the pre-cut section of plastic 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 ()

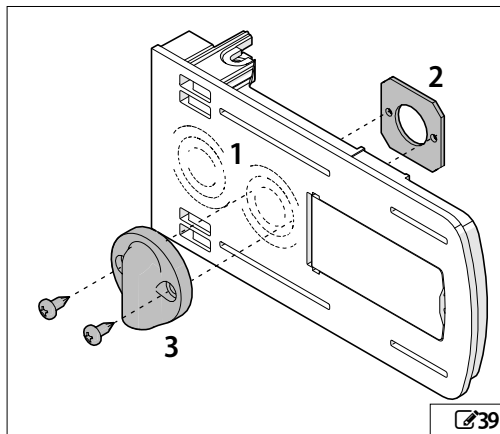


### 3.17 PREPARING THE SIDE CABLE ROUTING OPENING

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

Each side cover has two openings for the installation of cable glands ()

The mounting accessories include a plate () for fixing the cable gland () of the XPB SCAN sensor (cable gland and screws supplied with the sensor): use a drill to make the cable routing hole and the holes for the screws.



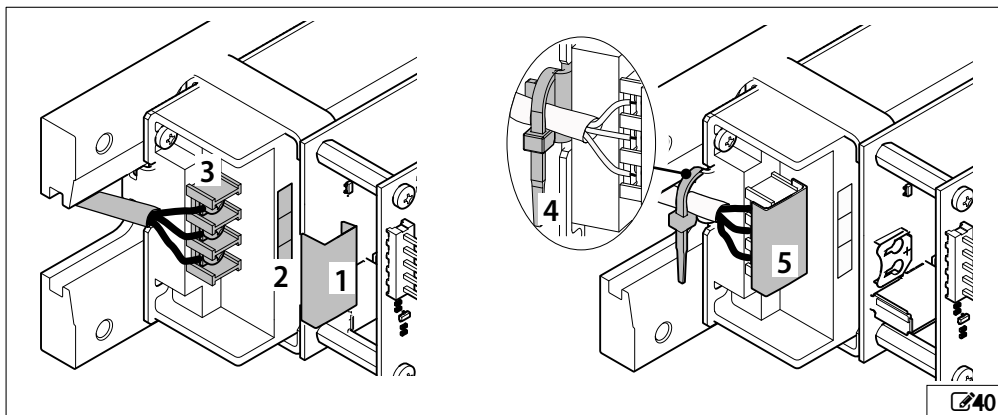
### 3.18 CONNECTING THE MAINS POWER CABLE

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

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

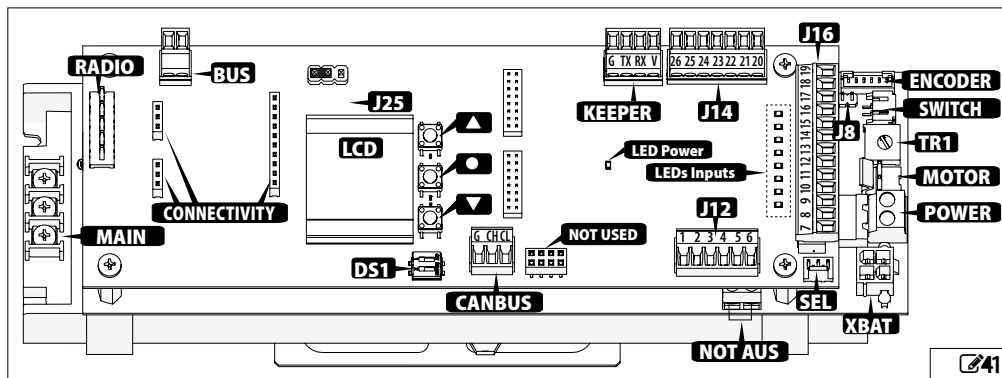
With reference to :

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.



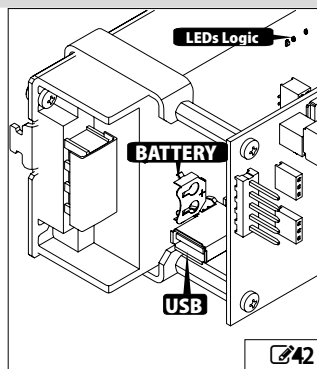
## 4. ELECTRONIC INSTALLATION

### 4.1 ELECTRONICS ASSEMBLY



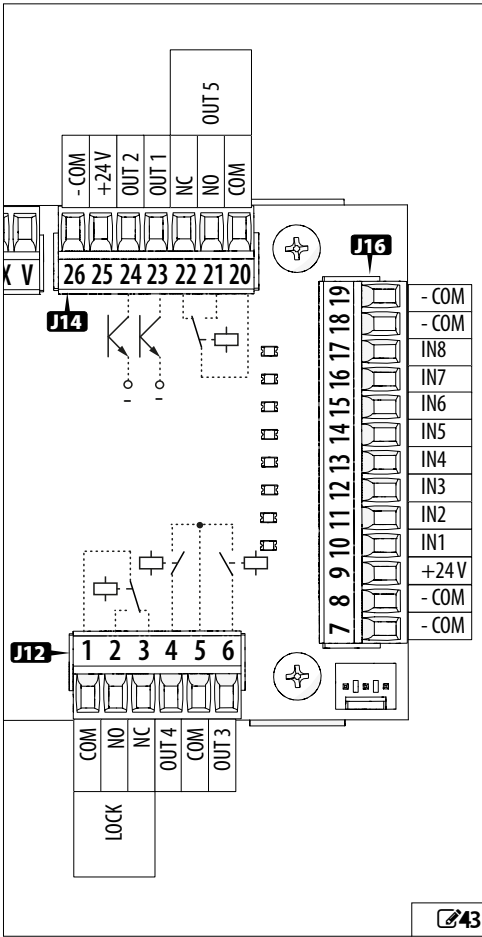
### COMPONENTS

A952	
MAIN	Power supply terminal board (230 V~)
RADIO	Connector (5 pin) for Faac radio/decoder board
BUS	Removable terminal board for connecting BUS 2easy
CONNECTIVITY	Connectors for inserting 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 functions selectors
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	Connector for the side functions selector
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 the same input must be connected in parallel.
- Multiple NC contacts on the 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 CLOSING SAFETY DEVICE	NC
14	IN5 OPENING SAFETY DEVICE	NC
15	IN6 KEY	NO
16	IN7 FIRE ALARM	NO
17	IN8 AUTOMATIC OPEN	NO

A 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"	circuit open
NC contact	circuit open	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	circuit open
NC contact	circuit open	circuit closed

The maximum contact rating for each contact is 0.5 A 24 V<sub>DC</sub>.

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 a lock. The maximum contact rating is 5 A at 28V  $\overline{\text{=}}/\sim$ .

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

## ACCESSORIES POWER SUPPLY

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

## BUS

This dedicated connector is specifically for connecting single channel 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 a NC contact that is rated for 10 A at 36V  $\overline{\text{=}}$  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  44.

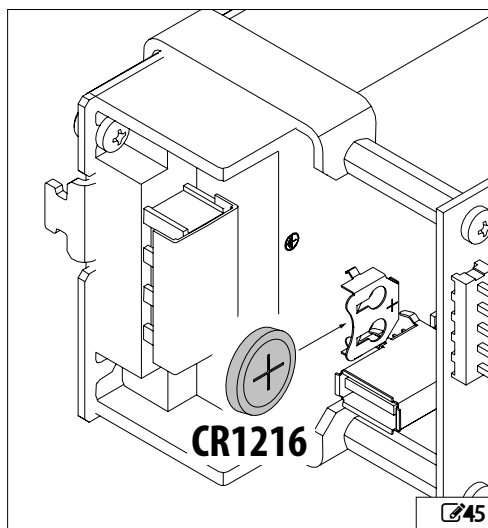
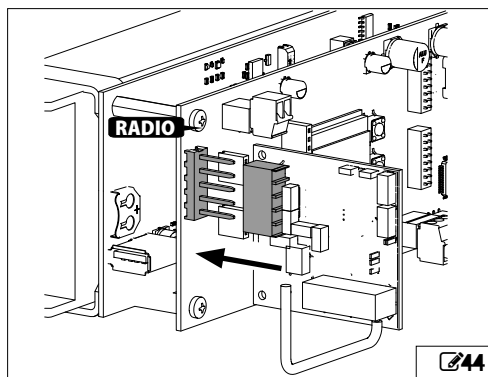
It should be inserted and removed with the power disconnected.

## BATTERY

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

Insert it in the direction shown in  45.

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 CLOSES AUTOMATICALLY after the programmed pause time.

**TWO-DIRECTIONAL** Two-directional transit is allowed (Internal Opening and External Opening enabled).

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

**ONLY IN** Only entry 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 operated manually. No command is active.

### ■ OPEN MODE

The door opens and remains open.

### ■ NIGHT MODE

The door closes and remains closed. External Opening is disabled. Internal Open is enabled only in the time interval programmed as NIGHT MODE DELAY. Opening is only possible 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 again after the pause time. The automation does not close as long as the input is active.

**EXTERNAL OPEN** Input specifically for external control devices. The input is disabled in NIGHT or EXIT ONLY mode.

**INTERNAL OPEN** Input specifically for internal control devices. The input is disabled in ONLY IN mode. In NIGHT mode, it is enabled only in the time interval programmed as NIGHT MODE DELAY.

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

**KEY** Command also enabled in NIGHT mode.

**PARTIAL OPEN** Opens only one leaf in the 2-leaf application. It is NOT enabled in the 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).

### ■ SEMI-AUTOMATIC OPENING INPUT

#### SEMI-AUTOMATIC OPEN

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 closes it.

The input is NOT active in NIGHT mode.

### ■ EMERGENCY INPUTS

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

- 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.

## RESET INPUT

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

## ■ OPERATING MODE INPUTS

These inputs allow an operating mode to be selected: **ALWAYS OPEN, EXIT ONLY, ONLY IN, 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 the inputs configured as Safeties, the Test to make sure that the automation works correctly must be enabled before movement takes place. If the test fails, movement is inhibited (TEST ERROR).

**CLOSING SAFETY** Connect the closing safety devices. This 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 safety devices. This 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 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 Opening Safety	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 CLOSING Safety	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 OPENED** The output remains active as long as the door is open.

**DOOR OPENING** The output remains active as long as the door is opening.

**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.

**SAFETIES 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.



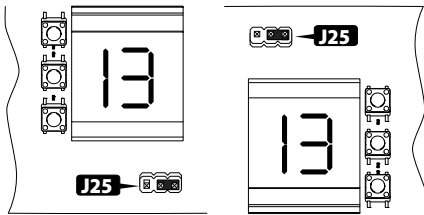
Make sure that you set the following parameters correctly:

- parameter  $\text{A} \text{E}$ , for the type of arm actually installed
- parameter  $\text{S} \text{D}$ , according to the type of application (opening or closing spring)

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

### 8.1 SETTING UP THE DISPLAY

Adjust the display using jumper J25 according to the direction in which the board has been installed.



### 8.2 PROGRAM 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 which inhibits programming from 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 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 PROGRAMMING

- 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  $\text{S} \text{t}$  function and release the  $\bullet$  button.
- Use the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select  $\text{Y}$  to save or  $\text{NO}$  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
<b>SC</b> SIMPLY CONNECT Non-modifiable. This symbol indicates that Simply Connect is available.	1
<b>DF</b> DEFAULT configuration Displayed if the board is configured with the factory settings (default). 1 = the board is configured with the default settings 0 = at least one value has been modified compared to the default settings If you wish to reload all the default settings, select 1 and exit from programming	1
<b>TE</b> TYPE OF APPLICATION (see 1 - 7) 1 = shoe 1 2 = shoe 2 3 = articulated	1
<b>SA</b> SPRING ACTION 1 = closing spring 2 = opening by spring	1
<b>PG</b> PUSH AND GO 0 = disabled 1 = enabled in STANDARD mode (an initial manual push commands motorised opening) 2 = enabled in "POWER ASSIST" mode (reduces the resistance when opening the door to make it easier to operate by hand).	0
 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).	
<b>PA</b> PAUSE TIME Adjusts the time the door remains open after a command, before automatic reclosing Adjustable from 0 to 30 s	2
<b>PP</b> PAUSE TIME PUSH AND GO Adjusts the time the door remains open after a PUSH AND GO command, before automatic reclosing Adjustable from 0 to 30 s	2
<b>PN</b> NIGHT PAUSE TIME Adjusts the time the door remains open after a command in NIGHT mode, before automatic reclosing Adjustable from 0 to 90 s	10
<b>CS</b> CLOSING SPEED Adjustable from 1 (minimum) to 10 (MAX)	3

BASIC Programming	Default
<b>OS</b> OPENING SPEED Adjustable from 1 (minimum) to 10 (MAX)	10
<b>DS</b> PARTIAL SAFETY STOP Defines the detection area of the safety in opening. Do not enable this function if users are children, elderly, disabled or persons that are not steady on their feet. 0 = obstacle detection active over the entire opening stroke. 1 = obstacle detection NOT active in proximity to the opening stop	0
 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.	
<b>BU</b> BUS 2easy DEVICE REGISTRATION see the relative section	0
<b>SE</b> EXIT PROGRAMMING Exit from the programming function deciding whether or not to save the changes 1 = save 0 = do not save	



After exit, the display shows automation status:

- 00 CLOSED
- 01 OPENING
- 02 OPENED
- 03 PAUSE
- 04 NIGHT PAUSE
- 05 CLOSING
- 06 EMERGENCY ACTIVE
- 07 MANUAL
- 08 NIGHT
- 11 STOP
- 13 ERROR



**2** ADVANCED programming

ADVANCED programming	Default
<b>51</b> SIDE FUNCTIONS SELECTOR POSITION 1 Defines the function of the external selector when in position 1 no = DISABLED 1 = NIGHT 2 = OPENED 3 = EXIT ONLY 4 = MANUAL	2
<b>52</b> SIDE FUNCTIONS SELECTOR POSITION 2 Defines the function of the selector when in position 2 See parameter 51.	4
<b>01</b> OUTPUT CONFIGURATION OUT 1 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	1
<b>1C</b> CONTACT TYPE - OUTPUT OUT 1 Not displayed if output is disabled n0 = NO contact nC = NC contact	n0
<b>02</b> OUTPUT CONFIGURATION OUT 2 See 01	5
<b>2C</b> CONTACT TYPE - OUTPUT OUT 2 See 1C	nC
<b>03</b> OUTPUT CONFIGURATION OUT 3 See 01	7
<b>3C</b> CONTACT TYPE - OUTPUT OUT 3 See 1C	n0
<b>04</b> OUTPUT CONFIGURATION OUT 4 See 01	6
<b>4C</b> CONTACT TYPE - OUTPUT OUT 4 See 1C	n0

ADVANCED programming	Default
<b>05</b> OUTPUT CONFIGURATION OUT 5 See 01	18
<b>5C</b> CONTACT TYPE - OUTPUT OUT 5 See 1C	n0
<b>CF</b> CLOSING STRENGTH Adjustable from 1 (minimum) to 10 (MAX)	5
<b>0F</b> OPENING STRENGTH Adjustable from 1 (minimum) to 10 (MAX)	10
<b>60</b> OP. STRENGTH DURATION Regulates the maximum thrust time before an obstacle is recognised during opening Adjustable from 1 to 30 tenths of a second	15
<b>6C</b> CL. STRENGTH DURATION Regulates the maximum thrust time before an obstacle is recognised during closing Adjustable from 1 to 30 tenths of a second	15
<b>Hc</b> ANTI-INTRUSION The door resists attempts to open it manually n0 = disabled y = enabled	n0
 DO NOT enable this function if the door is used as an escape route.	
<b>CS</b> 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. n0 = disabled y = enabled	n0
 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.	
<b>EL</b> MOTOR LOCK (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
<b>Et</b> OPENING DELAY after LOCK ACTIVATION Defines the opening delay time of the door to allow the lock to be released, particularly the motorised ones. Adjustable from 0 to 60 tenths of a second	3

ADVANCED programming	Default
<p><b>RS</b> REVERSE STROKE <span style="float: right;">no</span></p> <p>Commands a reverse stroke before opening, the duration of which is defined by parameter <b>Et</b>, to facilitate the opening of the lock</p> <p>no = disabled            y = enabled</p>	
<p><b>CI</b> INPUTS CONFIGURATION IN1... IN8 <span style="float: right;">*</span></p> <p>no = DISABLED</p> <p>1 = EXTERNAL OPEN</p> <p><b>IB</b> 4 = INTERNAL OPEN</p> <p>7 = AUTOMATIC OPEN</p> <p>8 = SEMIAUTOM. OPEN</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 CLOSE WITH MEMORY</p> <p>36 = FIRE ALARM</p> <p>40 = ALWAYS OPEN</p> <p>41 = EXIT ONLY</p> <p>42 = ONLY IN</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><b>IP</b> CONTACT TYPE INPUTS IN1... IN8 <span style="float: right;">*</span></p> <p>Not displayed if the input is disabled or set as RESET</p> <p>no = NO contact</p> <p><b>BP</b> nC = NC contact</p>	
<p><b>IF</b> TEST (FAILSAFE) INPUTS IN1... IN8 <span style="float: right;">*</span></p> <p>Displayed only for functions <b>z0</b> and <b>z1</b></p> <p>y = Test enabled</p> <p><b>BF</b> no = Test not enabled</p>	
<p><b>nd</b> SENSOR DELAY (in NIGHT MODE) <span style="float: right;">10</span></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><b>od</b> OPEN DELAYTIME</p> <p>Adjusts the time the door waits before opening after an OPEN DELAY command from closed.</p>	
<p><b>Et</b> SETUP</p> <p>Carry out the SETUP procedure</p>	
<p><b>in</b> IN OUT STATUS</p> <p>The segments of the display indicate the status of the inputs and outputs</p>	
<p><b>SE</b> 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 OPENED</p> <p>03 PAUSE</p> <p>04 NIGHT PAUSE</p> <p>05 CLOSING</p> <p>06 EMERGENCY ACTIVE</p> <p>07 MANUAL</p> <p>08 NIGHT</p> <p>11 STOP</p> <p>13 ERROR</p>	

\* Default values:

	C1 ↑ C8	IP ↑ 8P	IF ↑ 8F
<b>IN1</b>	C1 = 4	IP = n0	
<b>IN2</b>	C2 = 1	2P = n0	
<b>IN3</b>	C3 = 34	3P = n0	
<b>IN4</b>	C4 = 20	4P = nC	4F = n0
<b>IN5</b>	C5 = 21	5P = nC	5F = n0
<b>IN6</b>	C6 = 10	6P = n0	
<b>IN7</b>	C7 = 36	7P = n0	
<b>IN8</b>	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.

#### WHEN IS SETUP 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

These 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

A 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

### 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. COMMISSIONING

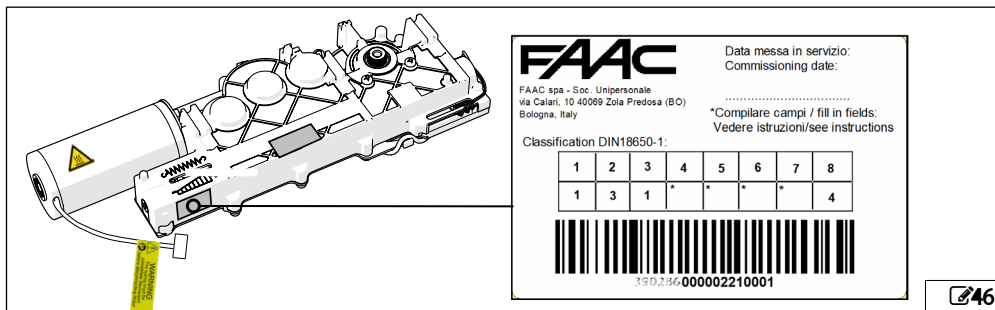
### 9.1 CLASSIFICATION DIN 18650-1

Fill out the label  based on the table:

#### 3 Classification DIN 18650-1

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 drive	1	Sliding door drive
2	Drive durability	3	1,000,000 test cycles at 4000 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	Drive 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 a break-out 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 drawn in
		3	With integrated break-out unit
		4	With safety sensors
8	Ambient temperature	4	Ambient temperature range specified by manufacturer

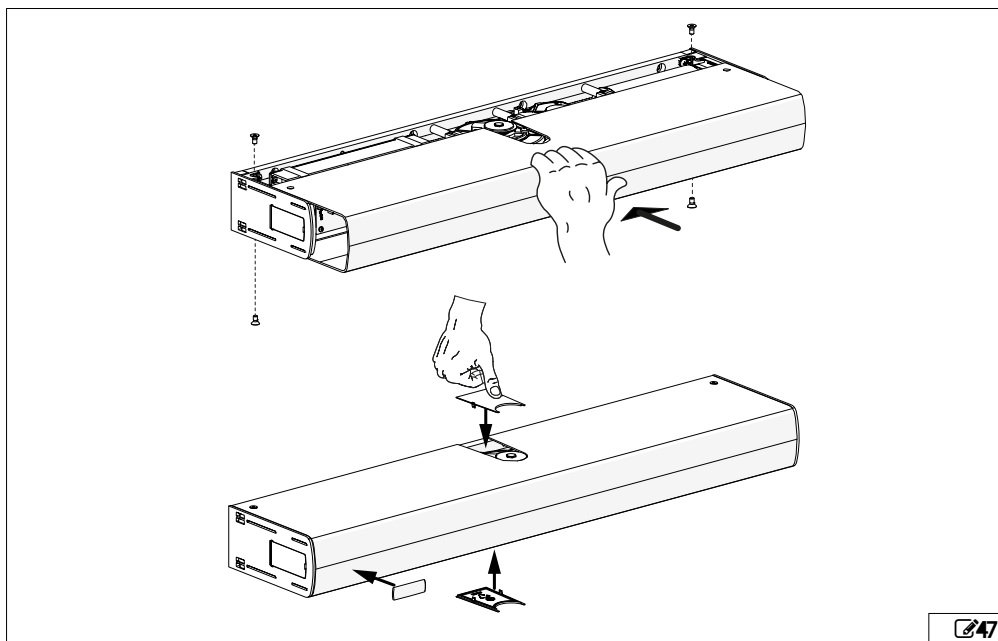


## 9.2 FINAL CHECKS

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 (☞ 47):
  - 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.



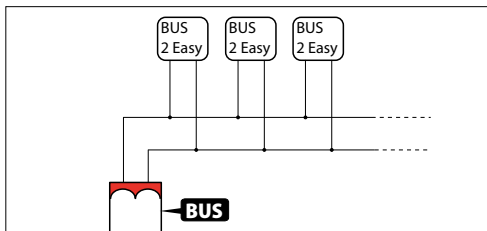
## 10. ACCESSORIES

### 10.1 BUS 2EASY DEVICES

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

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

#### CONNECTION



Connect the BUS 2easy devices to the BUS connector.

**i** 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.

**i** For each control device connected to the BUS 2easy line, position the DIP switch switches so that only one command is used on a single 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	SEMI-AUTOMATIC OPEN
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 OPENING
1 0 1 0 0	PARTIAL EXTERNAL OPENING
1 0 1 1 0	PARTIAL INTERNAL OPENING
1 1 0 0 0	PARTIAL SEMI-AUTOMATIC OPENING
1 1 0 1 0	PARTIAL KEY
1 1 1 0 0	NOT USED
1 1 1 1 0	NOT USED

2. Register the control devices BUS 2easy (Function BU in basic programming).

3. Check that the devices are working properly.

#### BUS 2EASY DEVICE REGISTRATION

Registration is required:

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

Board registration procedure:

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

no	No device registered
-	At least one device registered
cc	BUS 2easy line short-circuited *
Er	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 𐀀 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.

#### CHECKING REGISTERED DEVICES

1. Select the function BU in basic programming. After registering one or more devices, segment 13 on BU is 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.

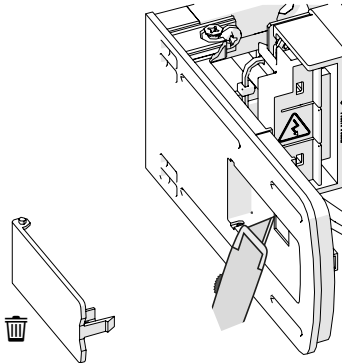
**10.2 BATTERY KIT**

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

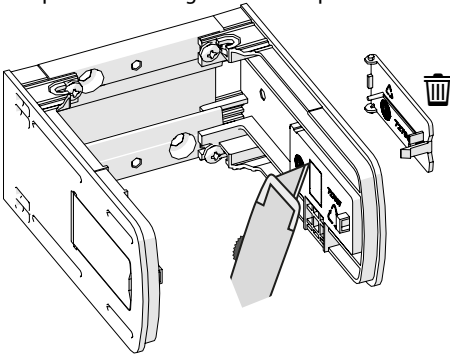
The battery kit can be mounted on whichever side of the A952 you prefer as long as there is enough space at the side.

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.

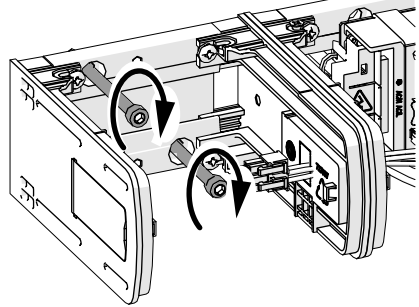
1. Remove the access cover. Remove the pre-cut section of plastic using a cutter.



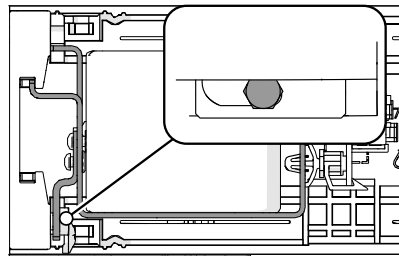
2. Remove the access cover on the operator side. Fasten the two sides to the plate using the 4 screws and then remove the pre-cut plastic rectangle on the operator side.



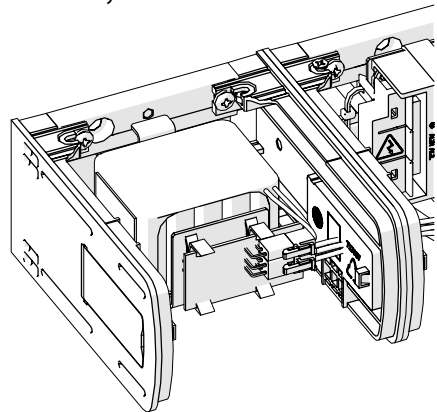
3. Place the battery holder unit on the operator so that side panels coincide. Secure the plate using the anchors provided according to the type of material, as indicated in the specific chapter.



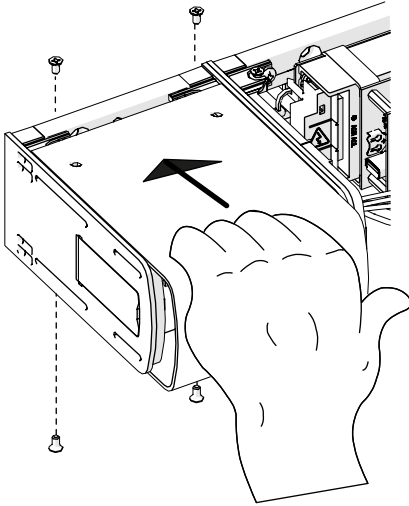
4. Insert the bracket into the guide as shown in the figure. Slide the bracket to the end of the slot and tighten the screw.



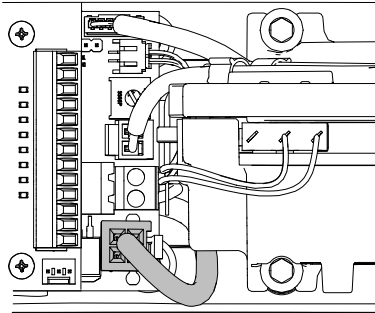
5. Plug the connector of the connecting cable into the battery board.



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 = , XPB SCAN/XPB SCAN 3D () 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).

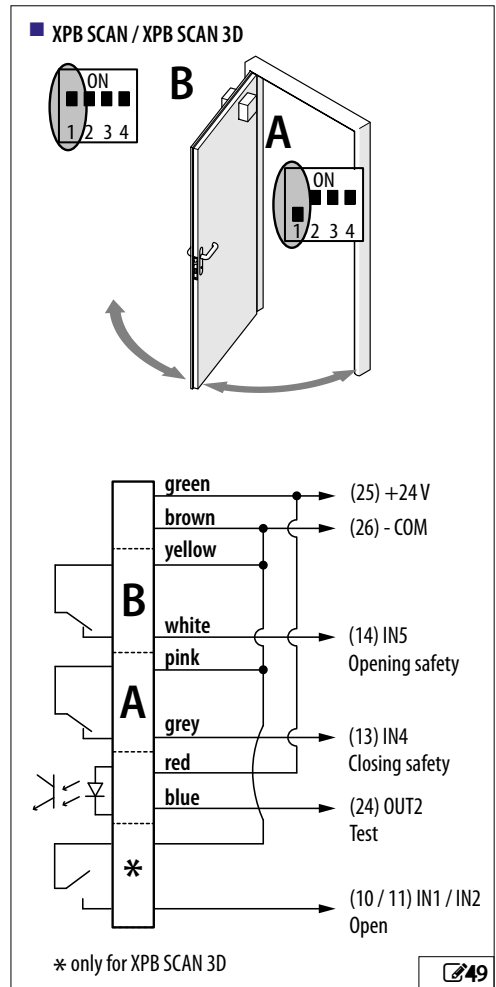
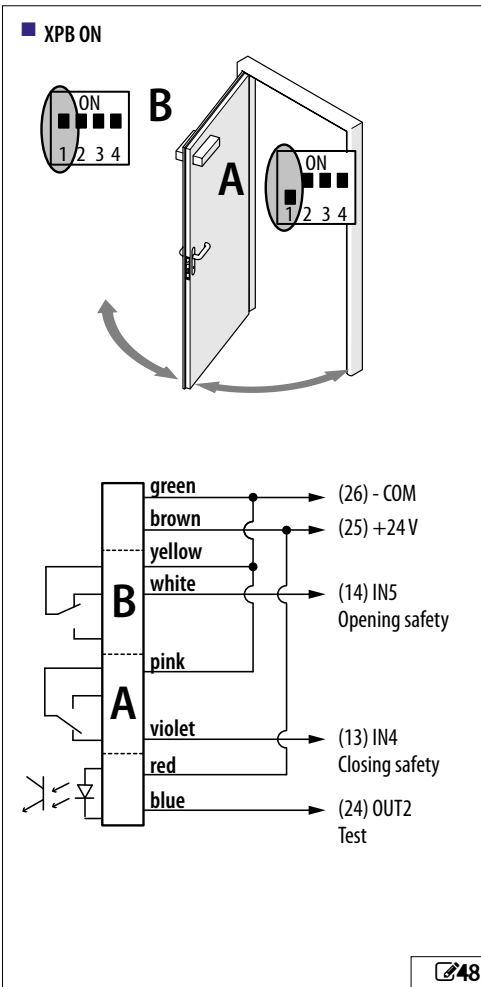
Sensor B is connected to input I5 (configured by default as an opening safety device with an NC and Test enabled contact).

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 **50**.

If the lock needs to be switched off in order to be released, connect it as indicated in **51**.

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).

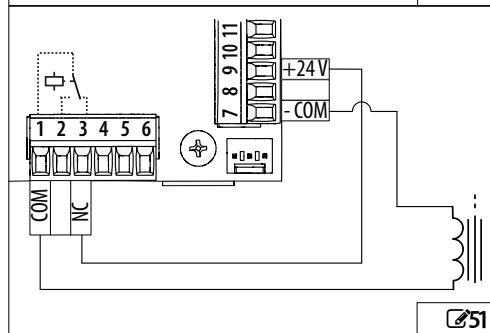
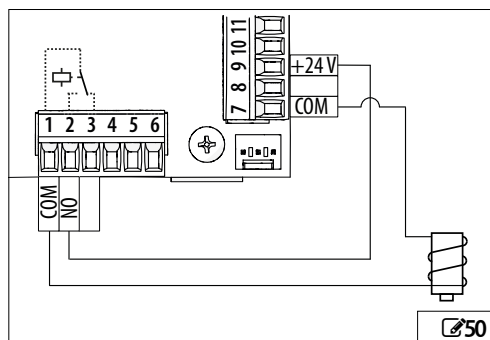
## 10.5 SIMPLY CONNECT

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.

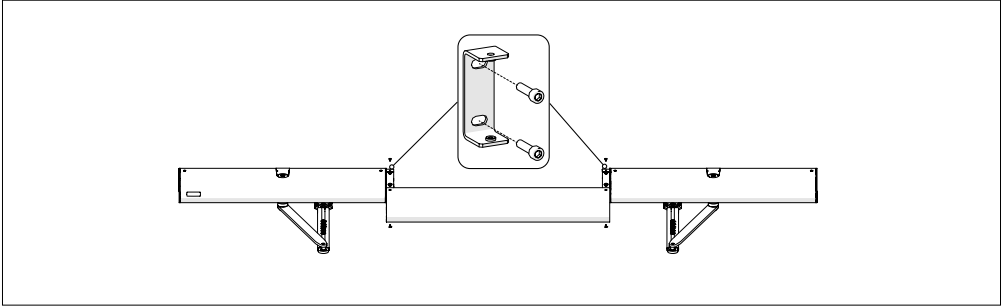


## 10.6 CASING FOR DOUBLE LEAF APPLICATIONS

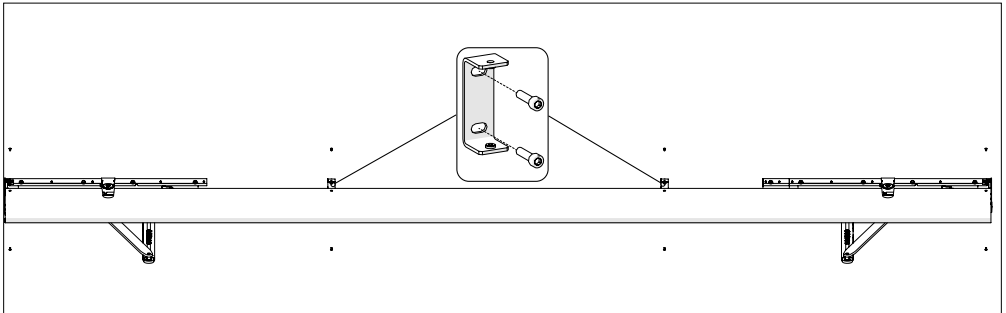
A 3.4 m long casing is available as an accessory for use in double leaf applications.

Possible uses include:

- To give continuity to the casing of the two installed operators by filling the space between the units



- Replacing the casings of the operators with a single profile



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

## 11. LK EVO

The LK EVO allows you to select the operating mode by pressing the corresponding button.

### INSTALLATION AND CONNECTION

1. To separate the parts use a flat-head screwdriver to prise them apart.
2. Break the cable knockout.
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 system (if present).

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

5. Assemble the parts by pressing lightly.

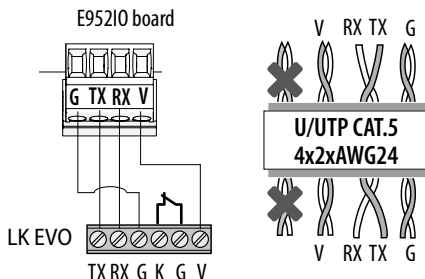
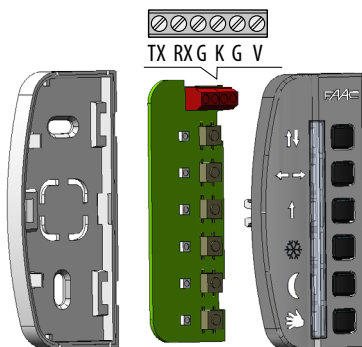
**SWITCHING ON** Turn the power on to the automation board:

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

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

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

**ERRORS** In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds (⚠️ 4).



### LK EVO LOCK DEVICE

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

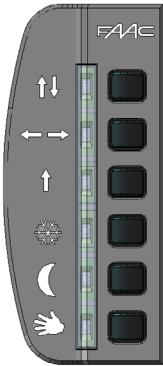
## 4 LED Error Coding LK EVO - KS EVO

Errors	↑↓	↔	↑	☸	☾
1 Board failure	*				
4 Accessories power supply fault			*		
Emergency input active	*			*	
5 FW fault	*		*	*	
7 Motor fail	*	*	*		
9 Power supply fault / No mains power		*			
Input configured as safety test failed	*	*		*	
15 SETUP inhibited	*	*	*	*	
16 Encoder fault					*
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 failure, slow movement		*	*	*	*	*

Icons Led (operating mode active)  
Buttons



↑↓	Total two-direction automatic
↔	Door open
↑	Automatic total one-direction
☸	Automatic partial two-direction
☾	Night
☞	Manual

**2-button combinations:**

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

↑ + ☸ (⌚ 5 s) **RESET** (the LEDs corresponding to the Error flash until the buttons are pressed, release when they turn 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 53 LED Warning coding)

☾ + ☞ (⌚...) **FW VERSION LK EVO** press and hold the buttons to display the FW version of the LK EVO (53 LED FW version coding)

53

## 6 FW version LED coding - LK EVO

FW version	↑↓	↔	↑	☼	☾	👤
FW 1.0		*		*		
FW 1.1	*	*		*		
FW 1.2			*	*		
FW 1.3	*		*	*		
FW 1.4		*	*	*		
FW 1.5	*	*	*	*		
FW 1.6					*	
FW 1.7	*				*	
FW 1.8		*			*	
FW 1.9	*	*			*	
FW 2.0			*		*	
FW 2.1	*		*		*	
FW 2.2		*	*		*	
FW 2.3	*	*	*		*	
FW 2.4				*	*	
FW 2.5	*			*	*	
FW 2.6		*		*	*	
FW 2.7	*	*		*	*	
FW 2.8			*	*	*	
FW 2.9	*		*	*	*	
FW 3.0		*	*	*	*	
FW 3.1	*	*	*	*	*	
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

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

### INSTALLATION AND CONNECTION

1. Separate the parts (use a flat screwdriver to prise them apart).
2. Break the cable knockout.
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	+24 V

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

5. Assemble the parts and fix it in place with the screws provided.

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

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

**ERRORS** In the event of errors, the combination of LEDs corresponding to the active error flashes for a few seconds (⚡ 4).



↑↓ Total two-direction automatic

↔ Door open

↑ Automatic total one-direction

❄ Automatic partial two-direction

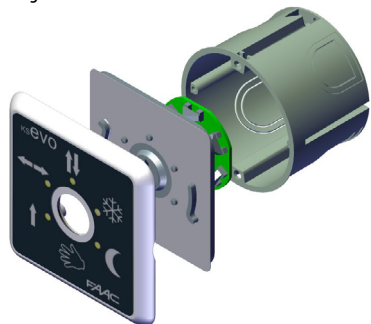
☾ Night

✋ Manual

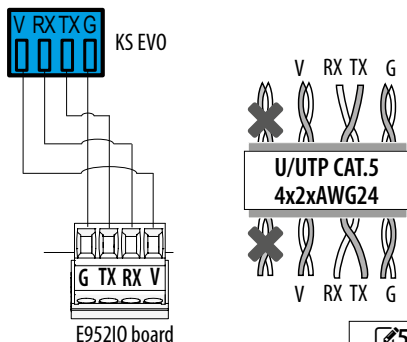
If the ☾ ❄ LEDs are lit at the same time, it indicates that the automation is in an operating mode that is NOT available on the KS EVO.

54

### Assembling the KS EVO



KS EVO connection Connect to the terminals as shown.



55

## 13. KP EVO

The KP EVO allows you to select 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 with wider number of options compared to programming via the board.

### KP EVO LOCK DEVICE

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.

### INSTALLATION AND CONNECTION

1. To separate the parts, remove the 2 screws (1).
2. Break the cable knockout (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 twisted pair U/UTP AWG24 cable with a maximum length of 50 m
5. Assemble the parts and fix in place with the screws (1).
  6. Fasten the display using the screw (4) and insert the screw cover (5).

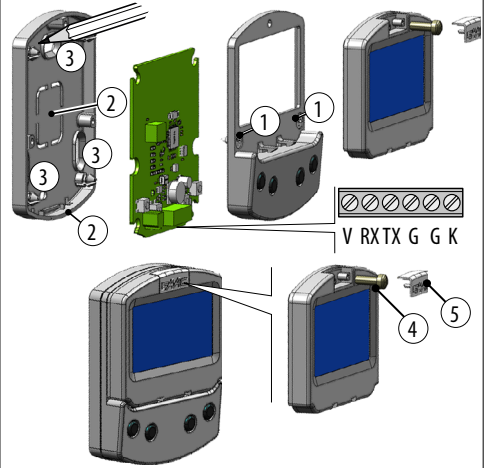
### SWITCHING ON

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

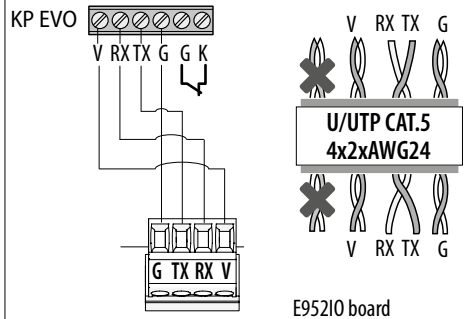
- Power-on screen
- Bootloader: displays the Bootloader version (x.x)
- Firmware: displays the FW version (x.x)
- HOME PAGE: ready

**Note:** if no buttons are pressed, after 2 minutes the display reverts to the HOME PAGE.

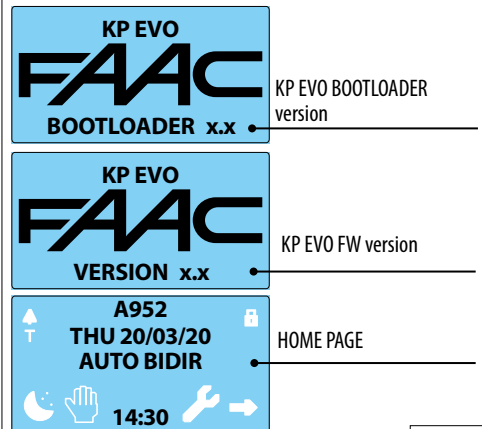
### Assembling the KP EVO



KP EVO connection Connect to the terminals as shown.



### Screen sequence when switched on





**HOME PAGE**

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

= sets the NIGHT mode

= sets MANUAL mode

= accesses the MENU in order to configure all the board parameters

= switches to MODFUN: additional operating modes

Each time the NIGHT or MANUAL button is pressed, the mode is enabled (icon highlighted on the display) and disabled.

Every time it is changed, the mode that is enabled is immediately updated 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/Release the keypad (the icon appears)

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

**PASSWORD (PSW)**

When the **PASSWORD** screen appears, a 4-digit password must be entered. There are 2 passwords: **USER PSW** and **TECHNICIAN PSW**. By default, both are: 0000.

The technician password gives access to the restricted functions (PROGRAMMING), but also to those of the user.

**Entering the PSW**

- select () and confirm (**OK**) each digit of the PSW in succession
- the device recognises the **USER PSW** or **TECHNICIAN PSW**

If a **PASSWORD IS NOT RECOGNISED** "WRONG PASSWORD" appears on the display. Press OK to go back to the HOME PAGE.

**Changing the PSW:**

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

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

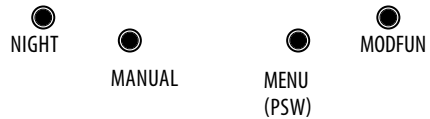
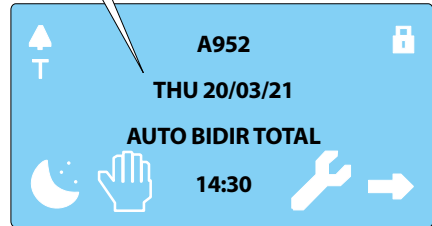
- select () and confirm (**OK**) the digits of the PSW one by one, then confirm the complete PSW.

**MODFUN**

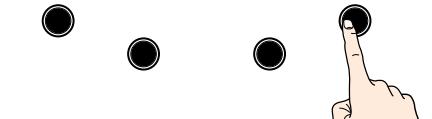
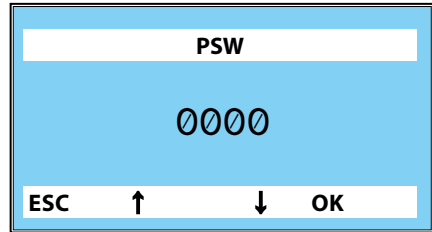
1. Access MODFUN: button on the HOME PAGE.
2. Select the operating mode, the direction (two-direction, EXIT Only, Only IN) and Total or Partial (NOTE: Partial refers to the opening of only one leaf in the 2-leaf application): buttons .
3. Confirm the MODFUN: **OK** button, this then takes

**HOME PAGE**

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



**PASSWORD (default 0000)**






USER	no PSW	no PSW	PSW*	no PSW
TECHNICIAN	no PSW	no PSW	PWD	no PSW

\* the **TECHNICIAN PSW** is required to access the programming functions in the MENU.



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 display shows the functions. Select using the  buttons
4. Press the **OK** button to access the selected function and then the  and **OK** buttons to display it or set it.
5. Confirm by pressing the OK button, it takes you back to the MENU. Press the ESC button to go back to the HOME PAGE.

**MODFUN**


◀▶


▲▼


100%


OK


  


 automatic


 totally open


 interlock


 two-directional

 exit only

 only in

 manual

 total

 %

To select INTERLOCK, press and hold for at least 3s.  
Available on the PRIMARY board, if enabled.

### MODFUN examples


Automatic Two-directional, with Total opening:



Door open, with Total opening:



### MENU

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

**MENU**

- >

- 2

- 3

- 4

1 LANGUAGE

PROGRAMMING

ERRORS


WARNINGS

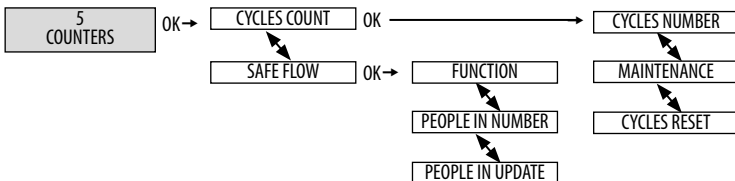
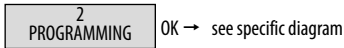
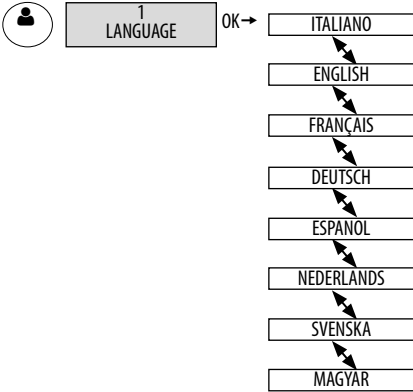
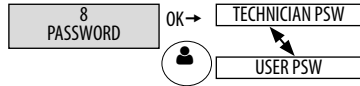
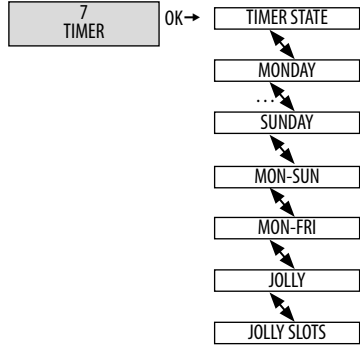
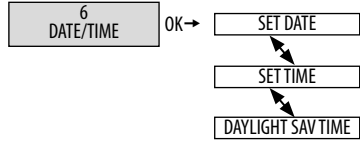
ESC

↑

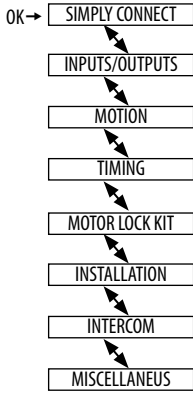
↓

OK

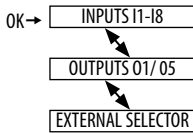
7 Programming menus 



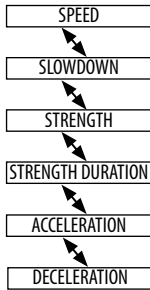
## 2 PROGRAMMING



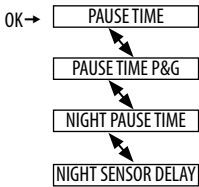
## INPUTS/OUTPUTS



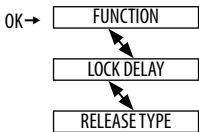
## MOTION



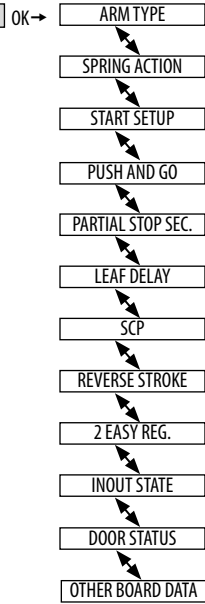
## TIMING



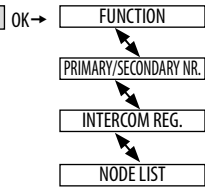
## MOTOR LOCK KIT



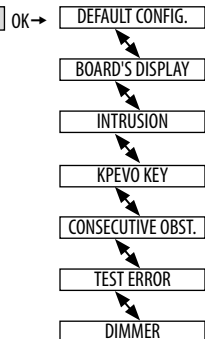
## INSTALLATION



## 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: Non-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 to assign the function and type of contact (NO, NC).

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

**EXTERNAL SELECTOR**

Allows you to select the operating mode associated with positions 1 and 2 of the selector on the side of the unit.

**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 set the same parameters as found under **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 way the lock operates (if installed).

**FUNCTION**

Defines operating modes in which 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 opening

**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 SPRING**

**OPENING SPRING**

**START SETUP**

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

**PUSH AND GO**

Sets 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 opening safety:

**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**

Specifies 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 opening of the lock

**2 EASY REG.**

Confirm to register **BUS 2easy** devices.

**INOUT STATE**

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

**DOOR STATUS**

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

**OTHER BOARD DATA**

The display indicates useful diagnostics information in real-time.

**7 INTERCOM****FUNCTION**

Sets the operating mode.

PRIMARY/SECOND. NR.

Sets the network ID of the unit.

INTERCOM REG.

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

**NODE LIST**

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

**8 MISCELLANEUS****DEFAULT CONFIG**

ACTIVE: the programming corresponds to the DEFAULT settings

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

DO YOU WANT TO RELOAD DEFAULT CONFIG?

Press OK to confirm.

**BOARD'S DISPLAY**

Allows programming from the board to be enabled/disabled.

NOT BLOCKED: programming from the board is enabled

BLOCKED: programming from the board is blocked

**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 works with password when the contact is open and is locked when the contact is closed.

WITHOUT USER PSW: KP EVO works without password when the contact is open and with password when the contact is closed

**CONSECUTIVE OBST.**

Defines the number of consecutive obstacle detections after which the automation stops in an error state.

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 at minimum speed

DISABLED: the door will stop in an error condition

**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**

Technician PSW required. Allows the maintenance request to be specified 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: optional. 00/00/00 = disabled

**CYCLES RESET**

Technician PSW required. It resets the 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.

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

A TIME BAND is programmed with:

BEGINNING time - END time (HH:mm)

Operating mode

1 or more TIME BANDS can be programmed (max 6) in 24 h.

When the automation exits from a programmed TIME BAND, if there is no subsequent time band, it goes into AUTOMATIC TWO-DIRECTIONAL TOTAL mode. Outside of the programmed time bands, the Operating mode can be changed manually (from a Configured input or Function selector).

**WEEKLY PROGRAMMING**

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

**JOLLY PROGRAMMING**

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

A JOLLY SLOT is defined by the BEGINNING and END date of the slot. Various JOLLY SLOTS can be programmed. A slot consisting of 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 carried out remains in 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 BEGINNING and END time of the TIME BAND. Carry out the same procedure for the other TIME BANDS required.

**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 from MON-FRI). Select the TIME BAND, set the BEGINNING and END time and assign the operating mode. Carry out the same procedure for the other TIME BANDS required. 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 operation of the TIMER to be set in the JOLLY slots (one or more days that require a different programming): program the required JOLLY TIME SLOTS (operating mode and the BEGINNING and END) time.

**12 JOLLY SLOTS**

To apply the JOLLY programming to individual days or to SLOTS of multiple days: enable a SLOT and specify the BEGINNING and END date for the SLOT. Carry out the same procedure for the other SLOTS required.

**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 TECHNICIAN may modify both passwords.

**1 TECHNICIAN PSW**

Allows the TECHNICIAN PSW to be modified.

Enter the current TECHNICIAN PSW, then the new NEW PSW and press OK. Re-enter the NEW PSW and confirm with OK. If the PSW is not repeated correctly, the KP EVO continues to request confirmation.

**2 USER PSW**

Allows the USER PSW to be modified.

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

**MENU 9 INFO**

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



## 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: (🔗59).



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.

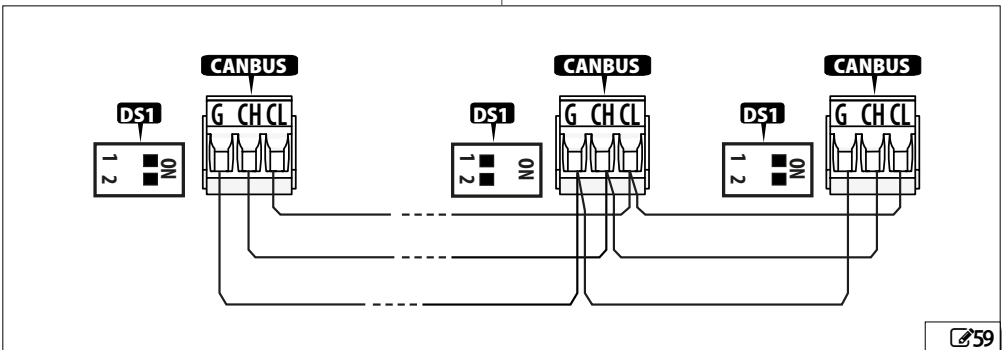
### ADDRESSING

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 should only be carried out on the A952 that has been assigned ID1.



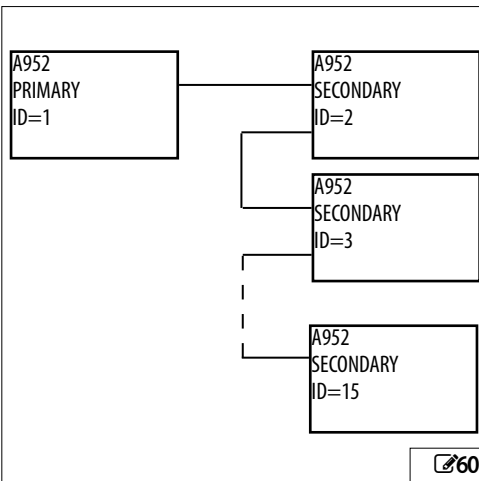
## 14.1 INTERMODE

 **60** shows the ID 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

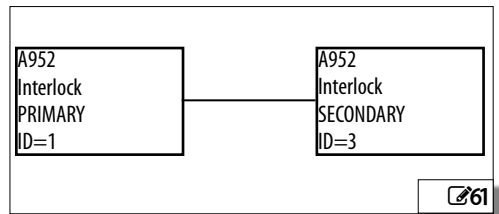
 **61** shows the ID to assign to the A952 units in the network.

Either of the two units can be designated as the PRIMARY and the other as the SECONDARY. In Interlock mode, one 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 leaf opens.

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

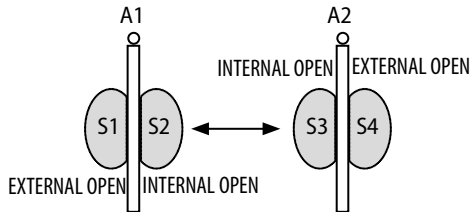
Select  on the PRIMARY unit to activate the interlock.



**INTERLOCK WITHOUT 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.

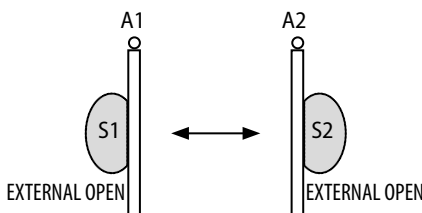
	S1	S2	S3	S4
A1 closed A2 closed	A1 opens	A1 opens	A2 opens	A2 opens
A1 NOT closed A2 closed	A1 opens	A1 opens	request opening of A2	request opening of A2
A1 closed A2 NOT closed	request opening A1	request opening A1	A2 opens	A2 opens



**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**

☑62 shows the ID 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.

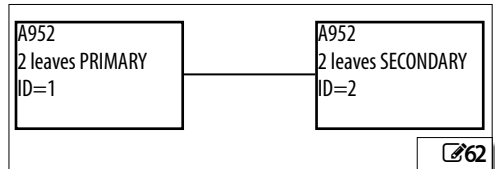
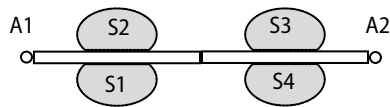


The internal / external door sensors and safety devices must be connected to their own unit; all other devices are connected only to the PRIMARY.

Connect the devices and carry out the programming and SETUP of the individual A952 units before activating the 2 LEAVES function.

Only use the PRIMARY A952 to change the operating mode.

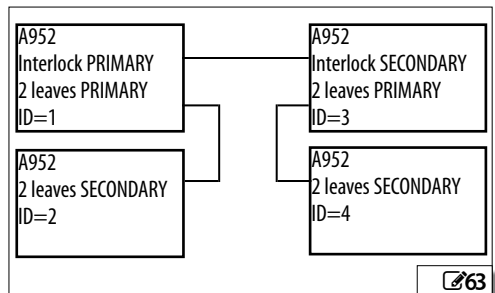
The leaf opening / closing delay can be set using KP EVO.



**14.4 2 LEAVES + INTERLOCK**

☑63 shows the ID 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 to the root directory of a USB storage device (not in a folder or zip file and without the original names being changed).



Use a USB memory 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.
  - While the firmware is being updated, -- appears on the display and the green LED flashes. 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 storage 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 upload starts: -- flashes on the display. Release the buttons.
- The procedure is complete when 3 appears on the display.

If there are errors r0 appears on the display and the red ERR led is lit. Refer to the Diagnostics Section.

- Press ● to return to the menu.

When finished, remove the USB storage device.

#### Download Operations

Press and hold down the ▲ and ▼ buttons simultaneously for at least 3 seconds in order to run the function displayed, until 0- 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: 0- (overwrite) or Ad (add). Press ● to confirm.

- The procedure is complete when 3 appears on the display.

If there are errors r0 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 storage device.

	<b>8</b>	UPLOAD functions from USB
UP		Update the E952CL board firmware File required: E952_xx.HEX
UE		KP EVO firmware update, including menu translations File required: KP_xx.HEX and KPL_xx.BIN
UC		Upload the A952 configuration File required: E952.PRG
UT		Upload the TIMER configuration File required: E952.TMR

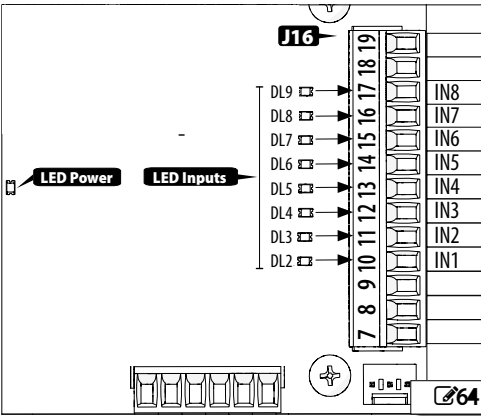
NOTE: "xx" indicates the firmware version.

	<b>9</b>	DOWNLOAD functions from USB
dC		Download the A952 configuration File written: E952.PRG
dT		Download the TIMER configuration File written: E952.TMR

## 16. DIAGNOSTICS

### 16.1 CHECKING THE LEDS

#### BOARD E952IO



#### ■ INPUT LEDS

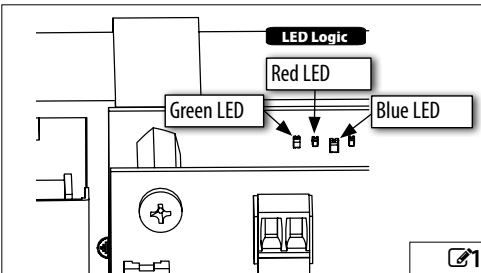
Each input on the E952IO board has a LED that indicates its physical status:

LED on	closed contact
LED off	open contact

#### ■ POWER LED

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

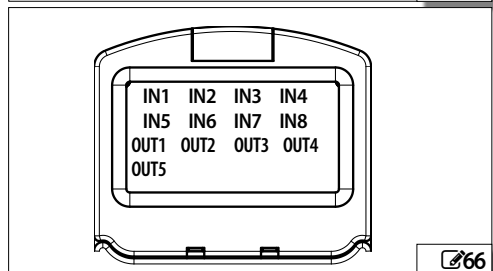
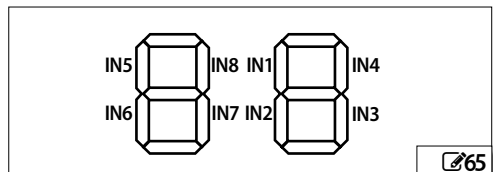
Select the **IN** function in advanced programming. The segments of the display indicate the logic status (65):

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 66. Example:

<b>IN1</b>	input active
IN1	input NOT active



## 16.3 AUTOMATION STATUS CHECK

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

### ON THE BOARD

The display of the A952, if you are not in programming mode, displays the code that indicates the status of the automation.

### ON THE KP EVO

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

### 10 Automation status

00	CLOSED
01	OPENING
02	OPENED
03	PAUSE
04	NIGHT PAUSE
05	CLOSING
06	EMERG. ACTIVE
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 error persists, remove the cause in order to restore normal operation and carry out a RESET (alternatively, select and then deselect manual mode).

Every warning and error is indicated by a code that can be displayed on the board or via the external functions 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 active alerts.

Errors:

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

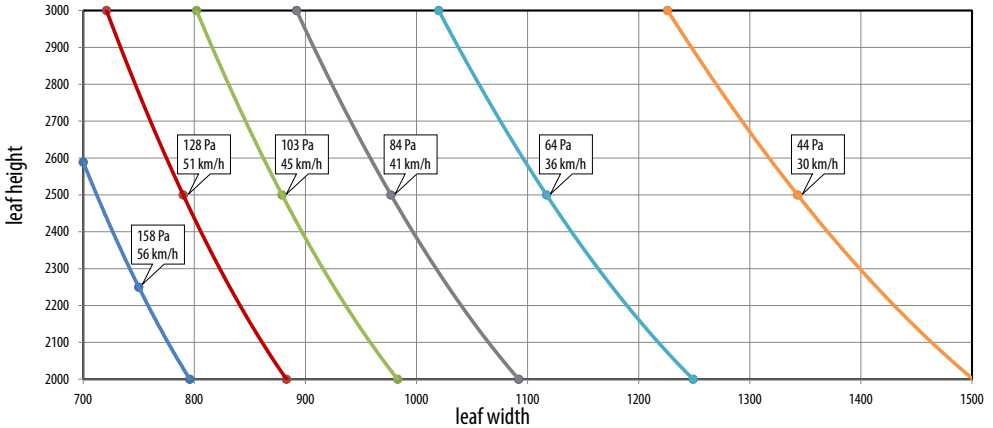
### ON LK EVO , KS EVO

See the relative sections.

**11** Maximum wind for opening, with closing spring

Conditions for calculating the maximum wind pressure:

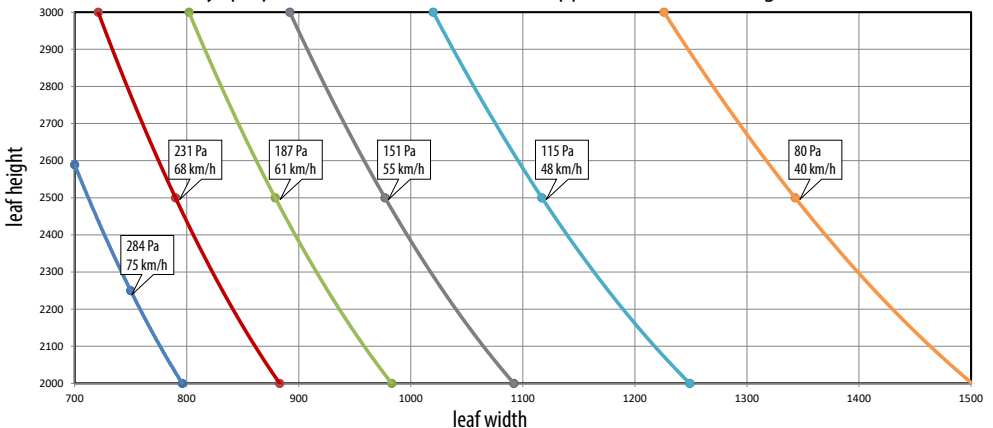
- Calculation valid for all installation configurations and arms
- Automation powered, spring set to the maximum preload and in the same direction of the wind (the two loads are added together and oppose the motor)
- The most unfavourable kinematic transmission ratio (leaf opening angle 45°)
- Wind direction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

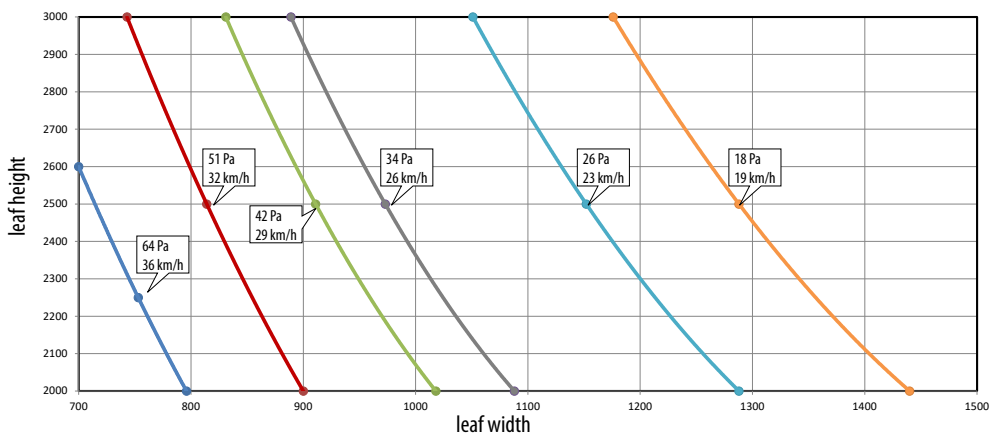
- Calculation valid for all installation configurations and arms
- Automation powered, spring set to maximum preload and not in the direction of the wind (the wind opposes the motor, the spring assists the motor)
- The most unfavourable kinematic transmission ratio (leaf opening angle 45°)
- Wind direction 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	Required action	Error	Warning
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 fail	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 fault	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 buffer battery CR1216, 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 opened with semiautomatic Open	The door is opened from the semiautomatic OPEN input.	x
70	Low battery	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 operation mode progress	The automation is in INTERLOCK mode.	x
80	Safeties in opening disabled	The safety in opening devices have been disabled (via Simply Connect).	x
81	Safeties in closing disabled	The safety in closing 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 devices 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

## 17. MAINTENANCE

### 17.1 ROUTINE 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. If necessary, tighten screws and bolts with the torques (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 instructions 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)
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## 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		
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## 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		
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Check the leaf: that it is integral and that there is no deformation or damage.	Follow the manufacturer's instructions		
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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		
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Lubricate hinges or locks, if necessary.	Follow the manufacturer's instructions		
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Generally clean of the area of movement of the door.	24 months	12 months	6 months
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Make sure that the pictograms are present and intact. If they are missing or damaged, replace them	24 months	12 months	6 months
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## FUNCTION SET-UP SELECTOR AND KEYBOARD

Check that they are intact and operating correctly.	24 months	12 months	6 months
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## PROTECTIVE DEVICES AND CONTROL DEVICES

Check that the protective devices are intact and that they operate correctly.	Follow the manufacturer's instructions		
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Check that the control devices are intact and that they operate correctly.	24 months	12 months	6 months
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Check that the pictograms that identify the control devices for disabled persons are present and intact.	24 months	12 months	6 months
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Check that the door operates properly in both directions with all the devices installed.	24 months	12 months	6 months
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Check that the door moves smoothly and uniformly without making any unusual noises.	24 months	12 months	6 months
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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
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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
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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
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Check that the door operates correctly in every operating mode.	24 months	12 months	6 months
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"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
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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
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