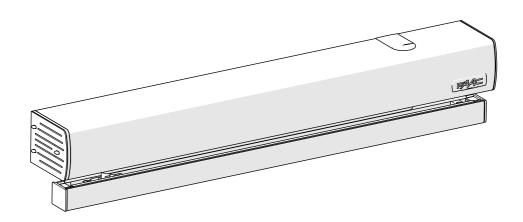
A951







EN16005



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fabricantes.

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EU DECLARATION OF CONFORMITY

The Manufacturer

Company name: FAAC S.p.A. Soc. Unipersonale

Address: Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY

hereby declares under its own exclusive liability that the following $\dot{}$

product:

Description: Gearmotor for pedestrian swing

doors

Model: A951

complies with the following applicable EU legislations:

2014/30/EU 2011/65/EU

Furthermore, the following harmonised standards have been

applied:

A951

EN61000-6-2:2005

EN61000-6-3:2007 + A1:2011

A Moul

Bologna, Italy 01-03-2017

CFO

DECLARATION OF INCORPORATION FOR PARTLY COMPLETED MACHINERY

(2006/42/EC ANNEX II P.1, B)

Manufacturer and person authorised to prepare the relevant technical documentation

Company name: FAAC S.p.A. Soc. Unipersonale

Address: Via Calari, 10 - 40069 Zola Predosa BOLOGNA - ITALY

hereby declares that for the partly completed machinery:

Description: Gearmotor for pedestrian swing

doors

Model: A951

The essential requirements of the Machinery Directive 2006/42/EC (including all applicable amendments) that have been applied and fulfilled are as follows:

1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.2.1, 1.2.3, 1.2.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.1, 1.4.2.1, 1.5.1, 1.5.2, 1.6.3, 1.6.4, 1.6.5, 1.7.1, 1.7.1.2, 1.7.4

and that the relevant technical documentation has been compiled in compliance with part B of Annex VII.

Furthermore, the following harmonised standards have been applied:

EN16005:20012 EN ISO 12100:2010 EN13849-1:2015 EN13849-2:2012

A Moul

And also undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery by mail or e-mail.

Finally, the manufacturer declares that the above-mentioned partly completed machinery must not be put into service until the final machine in which it is to be incorporated has been declared compliant with the requirements of the above-mentioned Machinery Directive 2006/42/EC.

Bologna, Italy 01-03-2017 CEO

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1. INTRODUCTION TO THIS INSTRUCTIONS MANUAL

This manual provides the correct procedures and requirements for installing A951 and maintaining it in a safe condition.

When drafting the manual, the results of the risk assessment conducted by FAAC S.p.A. on the entire product life cycle have been taken into account in order to implement effective risk reduction measures. The following stages of the life cycle of the product have been considered:

- Delivery/handling
- Assembly and installation
- Set-up and commissioning
- Operation
- Maintenance/troubleshooting
- Disposal at the end of the product's life cycle Risks arising from installation and using the product have been taken into consideration; these include:
 - Risks for the installation/maintenance technician (technical personnel)
 - Risks for the user of the automation system
 - Risks to product integrity (damage)

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 criteria and safety devices indicated, without exception.

This manual also contains general information and guidelines, which are purely illustrative and not exhaustive, in order to facilitate the activities carried out by the Manufacturer of the Machine in all respects with regard to carrying out the risk analysis and drafting the instructions for use and maintenance of the machine. It should be clearly understood that FAAC S.p.A. accepts no liability for the reliability and/ or completeness of the above instructions. As such, the manufacturer of the machine must carry out all the activities required by the Machinery Directive and the corresponding harmonised standards on the basis of the actual condition of the locations and structures where the product A951 will be installed, prior to commissioning the machine. These activities include the analysis of all the risks associated with the machine and subsequent

implementation of all safety measures intended to fulfil the essential safety requirements.

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 MEANING OF THE SYMBOLS USED

1 Symbols: personal protective equipment



WARNING ELECTRIC SHOCK HAZARD - The operation or stage described must be performed following the supplied instructions and applicable safety regulations.



WARNING, PERSONAL INJURY HAZARD OR RISK OF DAMAGE TO COMPONENTS - The procedure or step described must be carried out following the instructions provided and according to the applicable safety regulations.



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.



PAGE E.g.: 👍 **6** see Page 6.



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



TABLE E.g.: 🎟 1 see Table 1.

§

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



APPENDIX E.g.: **1** see Appendix 1.

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III 2 Symbols: safety signs and symbols (EN ISO 7010)



GENERIC HAZARD

Personal injury hazard or risk of damage to components.



ELECTROCUTION HAZARD
Risk of electric shock from live parts.



CRUSHING HAZARD

Risk of crushing to the hands/feet due to the presence of heavy parts.



HAND CRUSHING HAZARD
Risk of crushing hands due to moving parts.



CUTTING/AMPUTATION/PUNCTURE HAZARD
Cutting hazard due to the presence of sharp components or the use of pointed/sharp tools (drill).



SHEARING HAZARD
Risk of shearing from moving parts.



RISK OF IMPACT/CRUSHING

Risk of impact or crushing due to moving parts.



FORKLIFT TRUCK IMPACT HAZARD
Risk of collision/impact with forklift trucks.



RISK OF OBJECTS FALLING FROM ABOVE
Risk of impact due to objects falling from above.

III 3 Symbols: personal protective equipment

Personal protective equipment must be worn to protect against hazards (e.g. crushing, cutting, shearing etc.):



Obligation to wear head protection helmet.



Obligation to wear safety footwear.



Obligation to wear work gloves.



2. SAFETY RECOMMENDATIONS

This product has been placed on the market as "partly completed machinery" and therefore must not be put into service until the machine into which it has been incorporated has been declared compliant with the Machinery Directive 2006/42/EC by its manufacturer.



Incorrect installation and/or incorrect use of the product might cause serious harm to people. Read the instructions before using the product and comply with them. Keep these instructions for future reference. Perform installation and other activities adhering to the sequences provided in the instructions manual. Always comply with all the requirements contained in the instructions and warning tables at the beginning

Only the installer and/or maintenance technician is/ are authorised to carry out work on the components of the automation. Do not make any modifications to the original components.

of the paragraphs. Always comply with the safety

Cordon off the work site (even temporarily) and prohibit access/transit. For EC countries, comply with the national legislation that transposes the European Directive on Construction sites 92/57/EC.

The installer is responsible for the installation/testing of the automation and for preparing the system Register.

The installer must demonstrate or declare that he/she has the technical-professional competency to carry out the installation, testing and maintenance in accordance with the requirements of these instructions.

2.1 INSTALLER SAFETY

recommendations.

Installation requires special working conditions in order to minimise the risk of accidents and serious damage. Furthermore, the suitable precautions must be taken to prevent risks of injury to persons or damage.



The installer must be in good physical and mental health and be aware of the dangers that the use of the product can cause.

The work area must be kept tidy and must not be left unattended.

Do not wear clothing or accessories (scarves, bracelets etc.) that could become caught in moving parts.

Always wear personal protective equipment suitable for the type of work to be carried out.

The required level of workplace lighting must be equal to at least 200 lux.

Use CE marked machinery and equipment and follow the manufacturer's instructions. Use work instruments in good conditions.

Use the transport and lifting equipment recommend-

ed in the instructions manual.

Use safety-compliant portable ladders of adequate size, fitted with anti-slip devices at the top and bottom, equipped with retainer hooks.

2.2 TRANSPORT AND STORAGE

■ 4

Symbols: warnings on packaging.



Read the instructions.



Handle with care. Presence of fragile parts.



This way up. DO NOT turn over.



Store away from water and humidity.



Maximum number of stackable packages.



Storage humidity.



Storage temperature.



CE marking.

PALLETISED SUPPLY

RISKS







PERSONAL PROTECTIVE EQUIPMENT







Follow the instructions on the packaging during handling.
Use a forklift or pallet truck, following safety regulations to avoid the risk of impacts or collisions.

SINGLE PACKAGE

RISKS





PERSONAL PROTECTIVE EOUIPMENT









Follow the instructions on the packaging during handling.

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%.

2.3 UNPACKING AND HANDLING

RISKS







PERSONAL PROTECTIVE EQUIPMENT





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



If the goods supplied are non-compliant, proceed as indicated in the General Conditions of Sale listed in the sales catalogue and which can be found on the www.faacgroup.com website.

The unpackaged goods must be handled manually.



Should transport be required, the products must be suitably packaged.

Discard the packaging after use in the appropriate containers in compliance with waste disposal regulations.

The packaging materials (plastic, polystyrene, etc.) must not be left within reach of children as they are potential sources of danger.

2.4 WASTE DISPOSAL

After dismantling the product, dispose of it in compliance with Standards in force.



The constructive components and materials, batteries and electronic components must not be disposed of with household waste but delivered to authorised disposal and recycling facilities.



3.1 INTENDED USE

The FAAC A951 series electromechanical operators are designed to operate horizontal movement pedestrian swing doors.

One operator must be installed on each leaf. The A951 is suitable for indoor installation.



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.

3.2 APPLICATION LIMITS

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

Comply with the limitations on frequency of use listed 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).

The A951 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.

3.3 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 on escape routes.
- It is prohibited to install the automation to create fire doors.
- It is prohibited to install the automation 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 94/9/EC ATEX certified).
- It is prohibited to power the system with energy sources other than those specified.
- 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 that have not been specifically approved by FAAC S.p.A.
- It is prohibited to use the automation before performing commissioning.
- It is prohibited to use the automation in the pres-

- ence 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.



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

3.4 EMERGENCY USE

In any malfunction, emergency or fault, disconnect the power supply of the automation. If the conditions allow the leaf to be safely moved manually, use the manual operation; otherwise, keep the automation out of service until it is restored/repaired.

In case of a fault, the automation must be restored/ repaired must only be carried out by the installer/ maintenance technician.

3.5 MANUAL OPERATION

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

- MANUAL mode selected (§ 7.3).
- Power supply disconnected.

The A951 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.



0001

S/N 1

3.6 PRODUCT IDENTIFICATION

The product is identified by the following rating plate:



3.7 TECHNICAL CHARACTERISTICS

The A951 must be installed on the architrave.

In order to move the door, one of the following optional arms must be installed:

- Sliding arm (pull) for doors that open inwards, as seen from the automation side.
- Articulated arm (push) for doors that open outwards, as seen from the automation side.

Depending on the distance between the upper edge of the door and the architrave, each arm can be fastened directly to the shaft of the A951 or using spacers, to be ordered separately.

The application limits are indicated in **5** and the installation positions are given in tables $\boxplus 6$ and $\boxplus 7$. In order to make installation easier, the A951 is supplied with hole templates for the configurations described in this manual.

The template indicates the position of the holes for mounting the door operator and transmission arm, with or without the optional extensions. It also shows the electric cable inlet area to the A951.

By turning it over, the A951 can be used to automate doors with hinges on either the right or left. This is because the door operator is equipped with a transmission shaft on each side and because the programming display automatically adapts itself to the direction in which it is mounted.

The A951 is a reversible door operator and is therefore not fitted with a release device.

The A951 can control a lock to mechanically lock the door in the closed position.

The A951 is equipped with an electronic anti-crushing system that is activated when an obstacle is detected during movement: when closing it reverses direction, when opening it stops for a few seconds and then continues to open.

5 Technical data

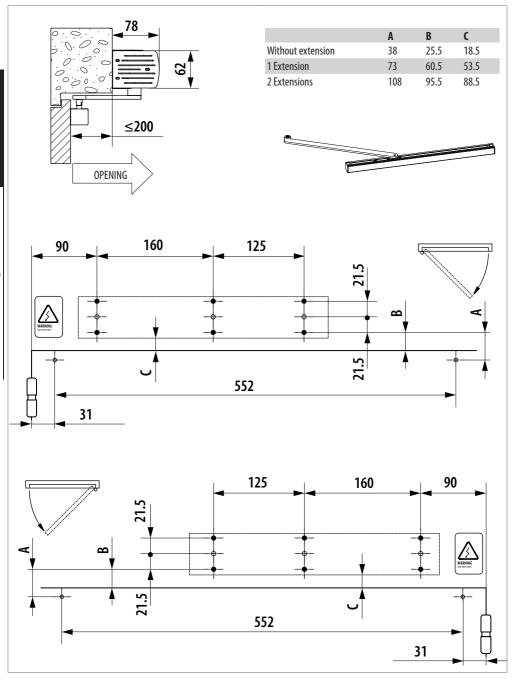
and by recrimedia data	
Power supply voltage	230 V~ 50 Hz
MAX absorbed power	100 W
Absorbed power in standby without accessories	5 W
Use frequency	100%
Ambient operating temperature	-10°C +55°C
MAX door weight	100 Kg
Door width	min 700 max 1100 mm
Doorpost depth MAX	200 mm
Installation	on architrave
Maximum opening angle	110°120°
Dimensions (LxHxP)	575x60x78 mm
Weight	7 Kg
Í.	



Ⅲ 6 Installation with sliding (pulling) arm



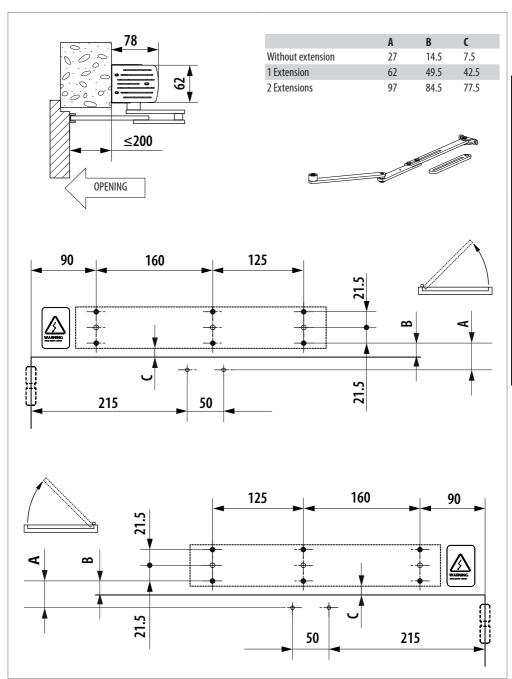
The door opens inwards, as seen from the automation side



III 7 Installation with articulated push arm

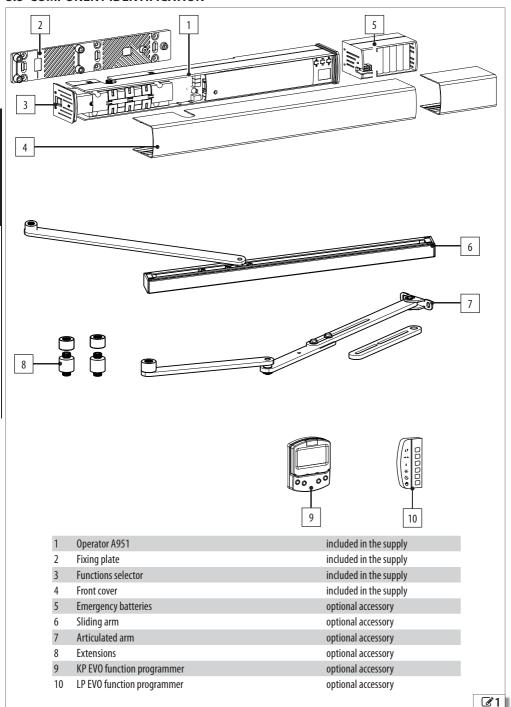


The door opens outwards, as seen from the automation side



F44C

3.8 COMPONENT IDENTIFICATION



4. INSTALLATION REQUIREMENTS

4.1 MECHANICAL REQUIREMENTS

The mechanical structural components must comply with the requirements of EN 16005.

Before installing the automation, the suitability of the mechanical requirements must be established, and the necessary work to reach them performed.

The essential mechanical requirements are as follows:



Flat, horizontal paving in the area of movement of the leaf.

The door must be perfectly vertical throughout the entire length of its stroke with a regular, uniform movement without friction.

The structure (architraves, doorposts, walls, frame, hinges and leaves) must be solid and there must be no risk of detachment or collapse, considering the weight of the leaf and the forces applied by the door operator and generated by wind action. Perform structural calculations where necessary.

The structure must show no signs of corrosion or cracking.

Appropriate anti-falling devices must be installed to prevent the leaf from falling.

The hinges must be in good condition, lubricated and with no play or friction; make sure that the leaves cannot come off from their hinges and fall (for example, by being lifted).

There must be external mechanical limit stops to limit the travel of the leaf when opening and closing. The stops must be of an appropriate size and solidly fastened in order to withstand the impact of the leaf. The thresholds and protrusions of the paving must be appropriately shaped in order to prevent the risk of sliding or slipping.

The leaves must be made of materials that do not cause a risk of injury to persons if they were to break. Transparent leaves must be indicated by appropriate markings or easily visible labels.

Doors for one-way transit must be indicated with appropriate signs.

No sharp edges or protruding parts should be present to ensure there are no cutting, hooking or perforation hazards. Alternatively, eliminate or protect any sharp edges and protruding parts.

Safety precaution between the wall (or other fixed element) and the furthest protruding part of the open leaf to protect against the risk of persons becoming trapped/crushed. Suitable safety devices must be installed between the fixed and moving parts to prevent hands from being crushed. Alternatively, apply protective elements that prevent fingers from being introduced.

There must be a safety element between the floor and lower edge of the leaf, along its entire stroke, to protect feet from becoming caught and crushed. Alternatively, apply protective elements preventing the introduction of feet.

For the minimum dimensions to prevent the crushing of body parts, refer to standard EN 349.

For the safety distances required to prevent danger zones being reached, refer to ISO 13857.

4.2 ELECTRICAL SYSTEM



Always shut off the power supply before performing any work. If the disconnect switch is not in view, apply a warning sign stating "WARNING - Maintenance in Progress".



The electrical system must comply with applicable legislation in the country of installation.

Use components and materials with a CE marking that are compliant with the Low Voltage Directive 2014/35/EU and the EMC Directive 2014/30/EU.

The power supply line for the automation must be fitted with a 6 A multi-pole circuit breaker with a contact opening distance of at least 3 mm, with breaking capacity which meets code.

The power supply for the automation must be fitted with a 30 mA differential switch.

The metal parts of the structure must be earthed. Check that the protective earthing system complies with applicable regulations in the country of installation.

The electrical cables of the automation system must be of a size and insulation class that is compliant with current legislation and laid in appropriate rigid or flexible conduits, either above or below ground. Use separate conduits for the power supply and the 12-24 V control devices / accessories cables.

Check buried cable plans to ensure that there are no other electrical cables in proximity to the planned digging/drilling locations to prevent the risk of electrocution.

Check that there are no pipes in the vicinity as well. Protect extension connections using junction boxes with an IP67 protection rating or higher.

The overall length of the BUS cables must not exceed 100 m.

The control accessories must be positioned in a location that is not hazardous to the user and that is also accessible with the leaf open.

It is recommended to position the control accessories within the field of view of the automation. If an



emergency stop button has been installed, it must be EN13850 compliant.

Comply with the following heights from the ground:

- control accessories = minimum 150 cm
- emergency button = maximum 120 cm

If the manual controls are intended to be used by disabled or infirm persons, highlight them with suitable pictograms and make sure that these users are able to access them.

4.3 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 manufactured in accordance with this standard also comply with the essential safety requirements of the 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:

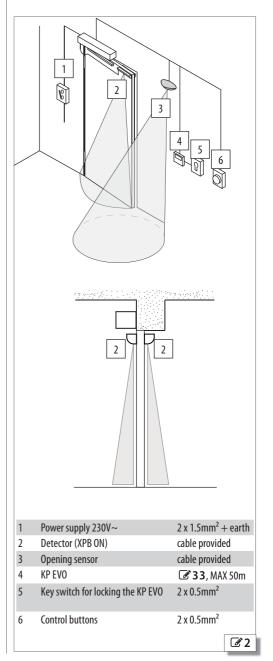
- The opening and closing movement must take place in "low energy" mode, which means that the kinetic energy of the leaf must not exceed 1.69 joules and the maximum static force must not exceed 67 N.
- Alternatively, for doors that open onto heavy traffic areas or when any contact with the user is unacceptable 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 954-1 and / or EN 13849), to monitor the full width of the leaf in both directions of movement.

4.4 EXAMPLE SYSTEM

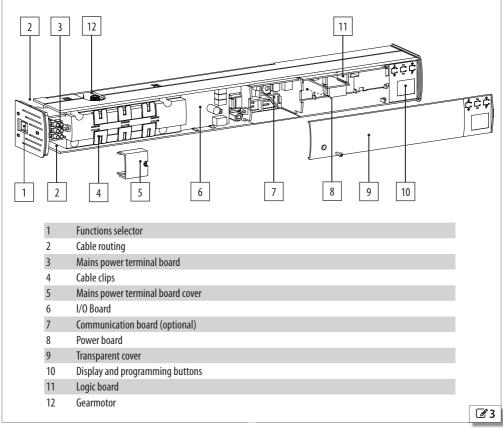


The example is purely an illustration and is only one of the possible applications of the A951.





4.5 DESCRIPTION OF COMPONENTS



4.6 TOOLS REQUIRED



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

■ 8 Symbols: work tools



HEX SPANNER of size indicated



FLAT SCREWDRIVER of the size(s) indicated



PHILLIPS SCREWDRIVER of the size(s) indicated



HFX KFY of size indicated



I FVFI



DRILL



WIRE STRIPPER/CABLE LUG CRIMPER

FAAC

5. MECHANICAL INSTALLATION



CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED.



The installation must conform to Standard EN 16005. Mark off the work site and prohibit access/transit. When installation is complete, make sure that you have not left any tools on top of the door operator.



The installation procedure below refers to a door with hinges on the left, as seen from the automation If the hinges are on the right, the installation should be carried out as a mirror image.













PERSONAL PROTECTIVE EQUIPMENT







5.1 CABLE INLET A951

The A951 is designed for cables to enter either from the functions selector side (4) or from the back (5). The cable inlet area is indicated on the template provided.

When wiring the system, allow at least 45 cm of cable from the cable inlet area to connect to the door operator.

5.2 FASTENING THE A951

- 1. Identify the correct installation configuration and the relative template from those provided.
- 2. Position the template and secure it temporarily using adhesive tape (36).

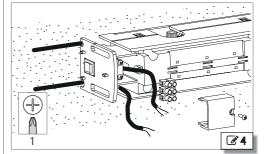


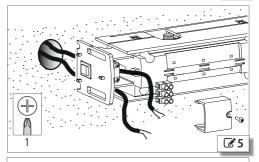
In order to position it correctly:

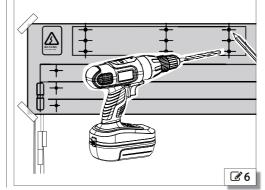
- Match up the axis of the hinges with the vertical reference mark on the template.
- Align the upper edge of the door with the horizontal reference mark on the template, according to the type of hub (standard or with an extension) used.
- 3. Mark the holes to be drilled on the architrave and the door using a pencil or the tip of a screwdriver.



(There are 9 points, 6 black and 3 white central ones arranged in 3 vertical rows on the fixing plate template. At least 6 points, normally the black ones, should be used. The central white points should be used in addition or as an alternative to ensure that there are at least 2 fixing points for each vertical row.









4. Remove the template and drill the holes at the points that were marked.



Make sure that there are no pipes or electrical conduits in correspondence with the holes to be drilled. It must be mounted using screws (wall plugs, self-tapping screws etc.) and adequately tightened in order to the support the system.

5. Fasten the plate to the architrave using the previously drilled holes (37).



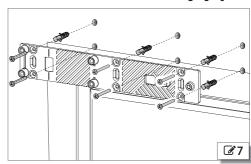
The plate should be positioned with its flat side against the architrave.

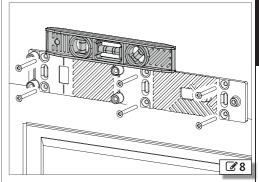
Fasten the plate horizontally and check that it is horizontal using a spirit level (38).

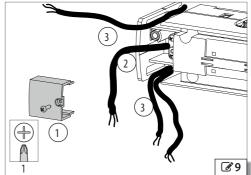
- 6. Install the cables as show in **9**:
- Remove the mains power terminal board cover (1) and place it temporarily to one side; then pass the power cable (2) through the central housing.
- Be careful not to pinch the wires (3) by pulling them out completely before fixing the operator.
- 7. Install the door operator on the plate and fasten it using the 5 screws provided (10).

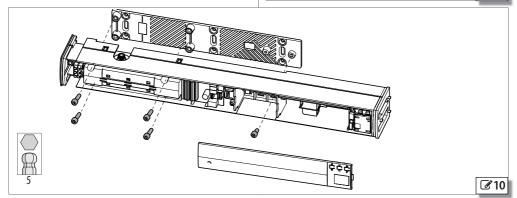


One screw is located under the transparent cover, which should be removed and put temporarily to one side.











5.3 SLIDING ARM

Carry out the installation procedure with the door closed.



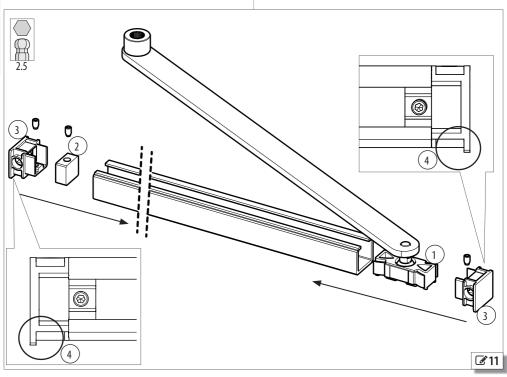
Be careful when working in the area between the sliding and the guide because of the following risks:

- Finger crushing / shearing hazard.
- Hooking / entanglement of clothing, tools, equipment.
- 1. Assemble the transmission arm as shown in **3 11**:
 - Slide the sliding (1) into the guide.
- Insert the limit switch block (2) into the guide.
- **(i)**

Once fixed, the block will determine the maximum opening position of the door. The position in which it will be fixed will be determined later in this installation procedure.

- Install the side covers (3) at the ends of the guide and fasten them using the grub screw.
- **(i)**

The protruding edge (4) must face outwards with respect to the side that is attached to the door.



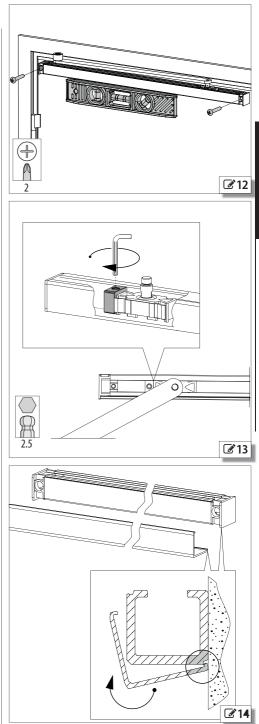


2. Using a spirit level and the screws provided, fasten the guide horizontally to the door using the previously drilled holes (12).



The guide must be fastened to the door using suitable fasteners and tightened appropriately according to the support material.

- 3. Connect the transmission arm to the rotating shaft (see § 5.5).
- 4. Move the door manually to make sure there is no friction and that it does not jam.
- 5. Leave the door in the required maximum opening position. Slide the limit switch block until it comes into contact with the sliding and fix it in position using the grub screw (13).
- 6. Press the cover onto the guide (14).





5.4 ARTICULATED ARM



Be careful when working in the area of movement of the articulated arm because of the following risks:

- Finger crushing / shearing hazard.
- Hooking / entanglement of clothing, tools, equipment.



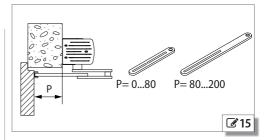
The pack contains two arms of different lengths, to use according to the depth (**315**).

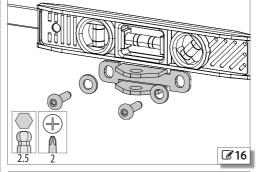
 Using a spirit level and the screws and washers provided, fasten the arm plate to the door using the previously drilled holes (16).

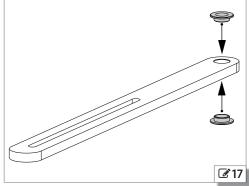


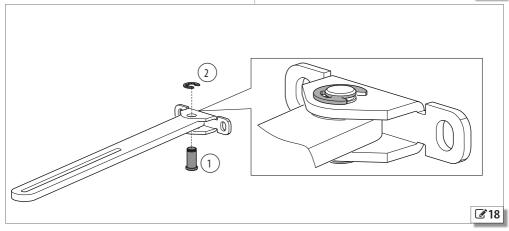
The arm plate must be fastened to the door using appropriate fasteners (dowels, self-tapping screws etc.) and tightened appropriately according to the support material.

- Install the two bushes on the telescopic arm (17).
- 3. With reference to **18**:
- Connect the telescopic arm to the arm plate using the using the pin (1).
- Press the Benzing ring (2) on.



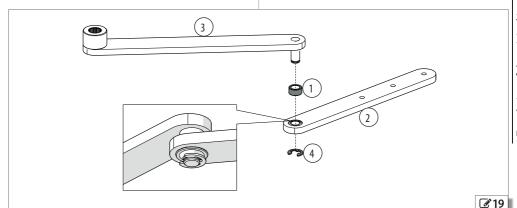


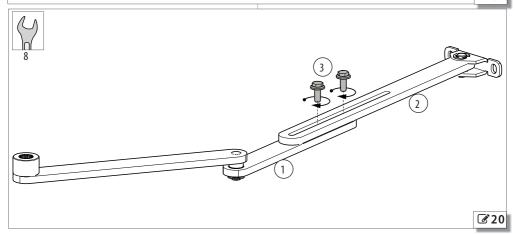






- 4. Assemble as indicated in **19**:
- Place the spacer (1) between the articulated arm (2) and the transmission arm (3).
- Press the Benzing ring on (4)
- 5. Connect the transmission arm to the rotating shaft (see § 5.5).
- 6. Position the door in the required maximum opening position.
- 7. Assemble as indicated in **20**:
 - Align the articulated arm (1) with the telescopic arm (2).
- Tighten the screws (3) into the threaded holes on the articulated arm.
- 8. Move the door manually to make sure there is no friction and that it does not jam.







5.5 CONNECTING THE TRANSMISSION ARM

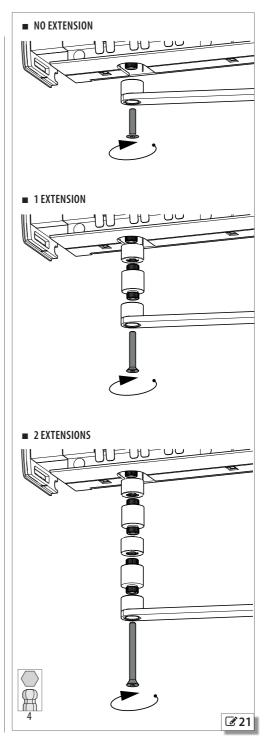
Depending on the distance between the upper edge of the door and the architrave, the transmission arm can be fastened directly to the shaft of the A951 or using spacers that are supplied separately as an accessory. The components in the package allow two 35mm extensions to be used.

A maximum of 2 extensions can be installed.

Insert the transmission arm directly onto the rotating shaft or use the spacers as shown in **21** and fasten using the screw.

Use the screw supplied together with the transmission arm if no extensions are used.

The optional spacers are supplied with 2 screws of different lengths, to use according to the extensions that are installed (the longer one is when 2 extensions are used).



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6. ELECTRONIC INSTALLATION

RISKS





PERSONAL PROTECTIVE EQUIPMENT







ALWAYS DISCONNECT THE POWER SUPPLY before working on the board. Turn power on only after having made all the electrical connections and carried out the preliminary start-up checks.

6.1 COMMUNICATION BOARD

Install the Communication board (§ 11), if used.

6.2 COVER

Replace the transparent cover.

6.3 CONNECTING TO THE MAINS POWER SUPPLY



CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED.

With reference to **22**:

- Connect the mains power cable to the terminals (1) following the colour scheme indicated.
- Secure the power cable using the cable grip (2).
- Install the mains power terminal board cover (3) and fasten it in place using the screw.

6.4 CONNECTING TO THE I/O BOARD

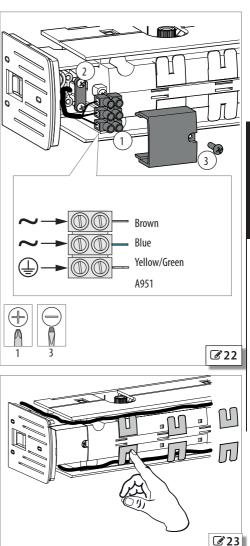


CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED.

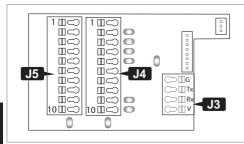
- Place the accessories connection cables in the upper and lower guides and press the cable clips (23).
- 2. Connect the wires to the terminal boards in **24**.



The terminals are of the spring type: to insert or remove the wires, press the button with the tip of a screwdriver.







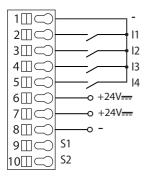
J3	Connection KP EVO	
J4	Inputs Connection	
J5	Outputs Connection	
		24

J3 - KP EVO

	G	Power supply negative
C□Птх	TX	Data transmission
C□∏Rx	RX	Data reception
© □ v	٧	+24 V power supply

To connect the KP EVO see § 8.1.

J4 - INPUTS



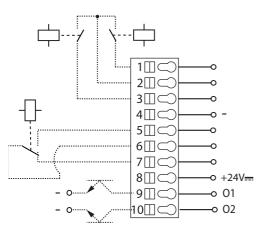
The inputs of terminal board J4 (I1-I4 and S1-S2) can be configured on the A951 or via the KP EVO.
The diagram and table show the default functions.

1	Power supply negative and common inputs
2	11 INTERNAL OPEN input with NO contact - (programmable)
3	12 EXTERNAL OPEN input with NO contact - (programmable)
4	13 KEY input with NO contact - (programmable)
5	14 INTERLOCK ON input with NO contact - (programmable)
6 7	+24V=== accessories power supply (700mA max)
8	Power supply negative and common inputs
9	S1 input disabled - (programmable)
10	S2 input disabled - (programmable)

1

10





DOOR CLOSED status relay output with NO contact

OUTPUTS



Outputs 01 and 02 of terminal board J5 can be configured on the A951 or via the KP EVO.

The diagram and table show the default functions.

2 DOOR CLOSED and DOOR OPEN status common relay contacts 3 DOOR OPEN status relay output with NO contact 4 Power supply negative 5 Relay output with NO contact for LOCK Common relay contacts for LOCK 6 7 Relay output with NC contact for LOCK +24V=== power supply for LOCK (maximum 500mA) 8 9 01 open collector output (max. 50mA), GONG function with NO contact - (programmable)

02 open collector output (max. 50mA), TEST function with NO contact - (programmable)



6.6 CONNECTING SAFETY SENSORS

- The inputs of the I/O board to which the sensors should be connected must be configured as safety devices (opening or closing according to requirements), with an NC and TEST enabled contact.
- 2. Configure an output as TEST.
- For the electrical wiring, refer to the sensor instructions.



The parameters are available in advanced programming on the A951 or via the KP EVO.

CONNECTING XPB ON

325 Shows an example of a pair of interconnected XPB ON master/slave, sensors used as closing (A) and opening (B) safety devices.

Sensor A is connected to input S1 (to be configured as a safety device during closing with an NC and TEST enabled contact).

Sensor B is connected to input S2 (to be configured as a safety device during opening with an NC and TEST enabled contact).

Output O1 should be configured as TEST (normally closed).

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

ON = opening side OFF = closing side

CONNECTING THE XPB SCAN

26 shows an example of a pair of interconnected XPB SCAN master/slave, sensors used as closing (A) and opening (B) safety devices.

Sensor A is connected to input S1 (to be configured as a safety device during closing with an NC and TEST enabled contact).

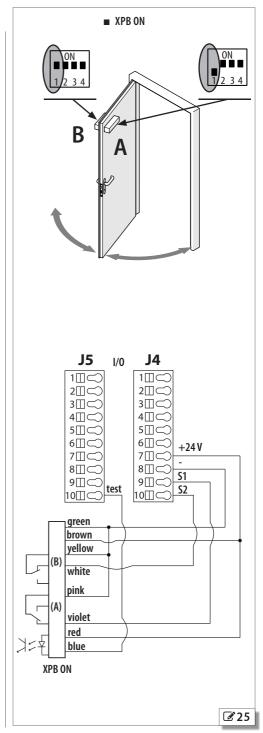
Sensor B is connected to input S2 (to be configured as a safety device during opening with an NC and TEST enabled contact).

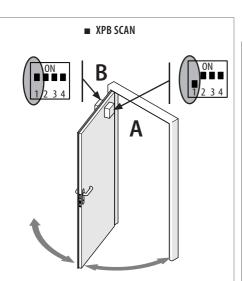
Output O1 should be configured as TEST (normally closed).

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

ON = opening side

OFF = closing side





J5 **J4** 1/0 1 🗆 🔾 1∭< 2∭< 2∏0 3∭< 3∭⊂ 4∏< 4∏0 5 ∭ < 5 ጠ ← 6Ⅲ< +24V7 □ < 8Ⅲ< **S1** 9Ⅲ< test S2 |10∭< green brown vellow (B) white pink grey red blue XPB SCAN **2**26

6.7 CONNECTING THE LOCK

If the lock needs to be powered in order to be released, connect it as indicated in **27**.

If the lock needs to be switched off in order to be released, connect it as indicated in **28**.

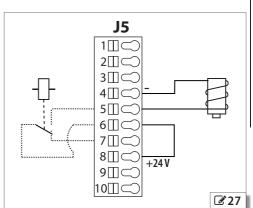
Maximum power consumption: 500 mA 24V ===.

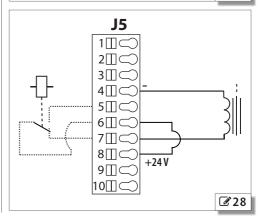
In advanced programming on the A951:

- define the operating mode of the lock (parameter $\mbox{\ensuremath{\sf EL}}$).
- 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 ¬5).



Access the motor block configuration menu via the KP EVO in order to set the functions described above.





F44C

6.8 INPUTS CONFIGURATION (J4)

The inputs on terminal board J4 (I1-I4 and S1-S2) can be configured on the A951 or via the KP EVO using the following functions.



Each input can be set to NC or NO according to the device connected to it.

■ DISABLED

No associated function.

■ EXTERNAL OPENING

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes.

This has no effect in the FXIT ONLY or NIGHT modes.

■ INTERNAL OPENING

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes. This has no effect in the ONLY IN or NIGHT modes.

■ AUTOMATIC OPENING

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the pause time to elapse and then closes. Active in the BI-DIRECTIONAL, EXIT ONLY and ONLY IN modes.

This has no effect in the NIGHT mode.

■ SEMI-AUTOMATIC OPENING

When activated:

- if the door is not already open, it opens and remains open
- if the door is already open, it closes

Active in the BI-DIRECTIONAL, EXIT ONLY and ONLY IN modes.

This has no effect in the NIGHT mode.

■ KEY

When activated, the door opens and remains open as long as the input is active. When released, the door waits for the night pause time to elapse and then closes.

Active in the BI-DIRECTIONAL, EXIT ONLY, IN ONLY and NIGHT modes.

■ PARTIAL OPEN

Only opens the master door when activated in the "2 leaves" mode.

CLOSING SAFETY DEVICE

When 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 DEVICE

When 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.

■ EMERGENCY OPENING

When activated, the door opens (always total) and remains open as long as the input is active. When released, the door waits for the night pause time to elapse and then closes.

Also active in NIGHT mode.

■ EMERGENCY OPEN WITH MEMORY

When activated, the door opens (always total) and remains open as long as the input is active. When released, the door remains open until a system RESET is carried out.

■ EMERGENCY CLOSING

When activated, the door closes and remains closed as long as the input is active. When released, the door returns to normal operation.

■ EMERGENCY CLOSE WITH MEMORY

When activated, the door closes and remains closed as long as the input is active. When released, the door remains closed until a system RESET is carried out.

ALWAYS OPEN

When activated, the ALWAYS OPEN mode is set.

■ EXIT ONLY

When activated, the EXIT ONLY mode is set.

■ ENTRY ONLY

When activated, the ONLY IN operating mode is set.

NIGHT

When activated, the NIGHT mode is set.

MANUAL

When activated, the MANUAL mode is set.

PARTIAI

When activated, the PARTIAL mode is set.

■ INTERBLOCK ON

When activated, the INTERLOCK mode is set.

■ TIMER

When activated, the TIMER mode is set.

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6.9 OUTPUTS CONFIGURATION (J5)

The outputs on terminal board J5 (O1 and O2) can be configured on the A951 or via the KP EVO using the following functions.



Each input can be set to NC or NO according to the device connected to it.

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

The output is activated when operating with the battery.

■ EMERGENCY ACTIVATE

The output is activated when an EMERGENCY is triggered.

■ TEST

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

DOOR NOT CLOSED

The output remains active until the door is closed.

■ DOOR OPEN

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

DOOR MOVING

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

■ 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 DEVICE

The output is activated when a closing safety device is active.

SAFETIES

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

*FAA***⊂** 7. SET-UP

RISKS



PERSONAL PROTECTIVE EOUIPMEN







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

- 1. Close the door.
- 2. Turn power on to the A951.
- Check that the status of the LEDS on the I/O board (§ 9.1) is correct.
- 4. Programming the A951 (§ 7.1).



Make sure you set the parameter relative to the type of arm actually installed.

If the parameter is set incorrectly, the shaft of the motor will rotate in the wrong direction and the door will operate in the opposite way (door open when it should be closed and vice versa).

- 5. Carry out the set-up procedure (§ 7.4).
- 6. Carry out the final operations (§ 14).

7.1 PROGRAMMING THE A951

There are two ways to program the A951:

- On the board, using the display and the integrated buttons.
- Via the KP EVO.

The operating parameters for a typical installation are available for the on board programming function. Other functions are also available when programming via the KP EVO, in addition to the on board programming parameters.

7.2 ON BOARD PROGRAMMING

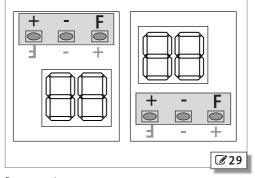


Before proceeding, make sure that the transparent cover shown in **3-9** has been installed on the door operator.

When power is turned on, the display of the A951 automatically adjusts to the direction in which the door operator has been mounted. The 3 programming buttons therefore assume different meanings.

Their meanings in the two mounting positions are printed on the cover. The LEDs illuminate the symbols or letters to use as shown in **29**.

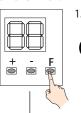
On board programming can be inhibited by using parameter 2.7.2 of the KP EVO menu.



Programming note:

- Changes made to the parameters are only saved when you exit from the programming function.
- Programming is interrupted after 10 minutes if buttons +, - and F have not been pressed. The display returns to the automation status view and any unsaved changes have to be re-entered.
- If there is a power failure during programming, any unsaved changes have to be re-entered.
- Press F and at any stage during programming to exit from the programming function and save the changes made.
- Programming using the KP EVO offers a larger number of functions or values compared to on board programming. The board does not display any values that are not available and indicates them with EP (External Program).

BASIC PROGRAMMING



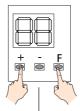
1. Press F, the first basic function appears.



The code of the function is displayed as long as it remains pressed.

ADVANCED PROGRAMMING



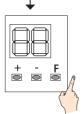


Press and hold down F and then

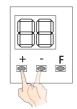
 as well, the first advanced function appears.



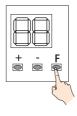
The code of the function is displayed as long as it remains pressed.



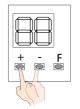
2. Release F. The value of the function appears.



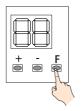
3. Press + or - to modify the value of the function.



- 4. Press F to confirm the value displayed. The selected value becomes effective immediately and the display shows the next function.
- 5. Repeat steps 3 and 4 for all menu functions. The last one (5₺) allows you to end the programming.



- 6. In 5₺ select ⅓ or no using the +/- buttons:
 - ∃ = save the new program
 - ¬□ = DO NOT save the new program



7. Press F to confirm and exit from the programming mode. It returns to the automation status view.

A951 33 532081 - RevA



BASIC Programming

	₩ 9 BASIC Programming	
	BASIC Programming Def	ault
	☐ DEFAULT Configuration Displayed if the board is configured with the factory settings (default).	9
	\exists = the board is configured with the default settings $\Box \Box =$ at least one value has been modified compared	
	to the default settings	
	If you wish to reload all the default settings, select and exit from programming	
	∃ ⊢ ARM TYPE I = skid	1
1	≥ = articulate	
	PC PUSH & GO Commands the automatic opening of the door after an initial manual push	0
	$\Box = disabled$	
	l = enabled	
	= enabled in "FAST FOOD" mode (manual opening, motorised closing)	
	PA PAUSE TIME	2
)	Adjusts the pause time of the door when opened by a command, before closing automatically. Adjustable from □ to ∃□ s	
	PP PAUSE TIME P&G	2
	Adjusts the door pause time when opened by a Push & Go command, before closing automatically Adjustable from □ to ∃□ s	_
	Po NIGHT PAUSE TIME	IN
	Adjusts the door pause time when opened by a command in the NIGHT mode, before closing automatically Adjustable from \square to \square s	10
	CS CLOSING SPEED Adjustable from I (minimum) to IO (MAX)	3
	OS OPENING SPEED	10

Adjustable from | (minimum) to |□ (MAX)

BASIC Programming Default ☐ PARTIAL STOP SEC. ΠO Defines the detection area of the safety in opening $\neg \neg =$ obstacle detection active over the entire opening \exists = obstacle detection NOT active in proximity to the opening stop Do not enable this function if users are children, elderly, disabled or persons that are not steady on



their feet. Enabling this function requires the set-up procedure to be run with the device connected: the activation of the device during opening determines the point

at which obstacle detection will be disabled during normal operation. SE EXIT PROGRAMMING

Exit from the programming function deciding whether or not to save the changes

4 = save

 $\neg \circ = do \text{ not save}$

After exit, the display shows automation status:

- OO CLOSED
- OΙ **OPENING**
- US. OPFN
- 03 PAUSE
- □4 NIGHT PAUSE
- NS. CLOSING
- ΠF **EMER ACTIVATE**
- Π MANUAL
- 08 NIGHT
- 11 STOP
- 12 SECURITIES TEST
- 13 **ERROR**
- L□-L2 SET-UP IN PROGRESS



Ⅲ 10 ADVANCED programming

ADVANCED programming De	efault
S EXTERNAL SELECTOR POSITION 1	ı
Defines the function of the external selector when in	1 '
position 1	
$\square = DISABLED$	
I = NIGHT	
2 = OPEN	
$\exists = EXIT ONLY$	
H = MANUAL	
S2 EXTERNAL SELECTOR POSITION 2	4
Defines the function of the external selector when in	1
position 2 See parameter 与1.	
INDUT CA CONFICURATION	 -
INPUTST CONFIGURATION INPUTST CONFIGURATION	ПО
= EXTERNAL OPEN (NO)	
H = INTERNAL OPEN (NO)	
☐ = AUTOMATIC OPEN (NO)	
B = SEMIAUTOM. OPEN (NO)	
$\square = KEY (NO)$	
11 = PARTIAL OPEN (NO)	
2□ = CLOSING SAFETY (NC)	
≥1 = OPENING SAFETY (NC)	
$\exists \Box = EMERGENCYOPEN(NO)$	
∃I = EMERGENCY OPEN WITH MEMORY (NO)	
$\exists \forall = EMERGENCY CLOSE (NO)$	
$\exists 5 = EEMERGENCY CLOSE WITH MEMORY (NO)$	
H□ = ALWAYS OPEN (NO)	
$\forall I = EXIT ONLY (NO)$	
42 = 0NLY IN (NO)	
$\exists \exists = NIGHT (NO)$	
$\forall \forall = MANUAL (NO)$	
45 = PARTIAL (NO)	
46 = INTERBLOCK ON (NO)	
50 = TIMER (NO)	
default contact type indicated in brackets	
EP = value set using KP EVO, not displayable	
TEST (FAIL SAFE) INPUT S1	ПО
Displayed only for functions 20 and 21	
∃ = test enabled	
no = test not enabled	
P2 INPUT S2 CONFIGURATION	ПО
See parameter P1.	
2F TEST (FAIL SAFE) INPUT S2	ПО
Displayed only for functions 20 and 21	
∃ = test enabled □□ = test disabled	
i io — test disabled	

ADVANCED programming De	fault
- OUTDUT OF CONFICURATION	
☐ = DISABLED	ŀ
l = GONG	
≥ = ERROR	
∃ = BATTERY OPERATION	
☐ = EMERGENCY ACTIVE	
S = TEST	
E = DOORNOTCLOSED	
$\exists = DOOR OPENED$	
$ \exists = DOOR OPENING $	
∃ = courtesy LIGHT	
$I \square = INTRUSION ACTIVE$	
= CLOSING SAFETY ACTIVE	
1≥ = SAFETIES ACTIVE	
EP = value set using KP EVO, not displayable	
TYPE OF CONTACT OUTPUT 01	пО
Not displayed if output is disabled	
$ \Box = N0 \text{ contact} $	
$\neg \Gamma = NC$ contact	
O2 OUTPUT 02 CONFIGURATION	5
See parameter [] .	
TYPE OF CONTACT OUTPUT 02	nC
Not displayed if output is disabled	
□□ = NO contact □□ = NC contact	
CE CLOSING FORCE	
Adjustable from I (minimum) to I (MAX)	5
OF OPENING FORCE	
Adjustable from I (minimum) to I (MAX)	Ш
F FORCE TIME	
Regulates the maximum thrust time before an obstacle	15
is recognised during opening/closing	
Adjustable from I to ∃□ tenths of a second	
H_ ANTI-INTRUSION	
The door resists attempts to open it manually	ПО
$\neg \neg = disabled$	
$\exists = enabled$	
C SCP (SELECTABLE CLOSE POWER)	по
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.	
particularly rigid of riflocks flave a stiff lateri. □□ = disabled	
∃ = enabled	
A	*6.5
Because activating the SCP function also reduces sensitivity of the electronic anti-crushing system	
the final continue of classics DO NOT 11 11	

the final section of closing, DO NOT activate the SCP function in "low energy" mode.



ADV		fault
E٤	LOCK	Π
	U = disabled	_
	I = active in NIGHT mode	
	2 = active in EXIT ONLY mode	
	\exists = active in NIGHT + ONE WAY mode	
	H = ALWAYS active	
FH	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 \square to \square tenths of a second	
	REVERSE STROKE	
כה	Commands a reverse stroke before opening, the duration	ПО
	of which is defined by parameter $E \vdash$, to facilitate the	
	opening of the lock	
	no = disabled	
	\exists = enabled	
	INPUT I1 CONFIGURATION	Ч
	See parameter ⊢1.	'
!⊑	TEST (FAIL SAFE)	no
"	Displayed only for functions 20 and 21	
	\exists = test enabled	
	$\neg \bigcirc = \text{test not enabled}$	
7	INPUT I2 CONFIGURATION See parameter ₱1.	-
	See parameter ₽1.	
25	TEST (FAIL SAFE)	по
	Displayed only for functions 20 and 21	
	∃ = test enabled	
	no = test not enabled	
[3	INPUT 12 CONFIGURATION	10
	See parameter P1.	
36	TEST (FAIL SAFE)	ПО
	Displayed only for functions 20 and 21	
	∃ = test enabled	
	no = test not enabled	
64	INPUT I2 CONFIGURATION	46
	See parameter P1.	
46	TEST (FAIL SAFE)	ПО
	Displayed only for functions 20 and 21	
	∃ = test enabled	
	= test not enabled	
nd	SENSOR DELAY (in NIGHT MODE) When NIGHT mode is set the internal detector remains	10
	When NIGHTmode is set, the internal detector remains active for the amount of time set in this parameter,	
	to allow it to be opened only once. Immediately	
	after opening and anyway after the set delay time	
	has elapsed, the internal detector is disabled. It can be	
	adjusted from 0 to 90 s	

ADVANCED programming Default
⊢¦ SET-UP
Carry out the SET-UP procedure (see § 7.4)
In IN OUT STATUS
The segments of the display indicate the status of the inputs and outputs (39)
SE EXIT PROGRAMMING First from the programming function deciding whether
Exit from the programming function deciding whether
or not to save the changes
∃ = save
no = do not save
After exit, the display shows automation status:
OO CLOSED
OI OPENING
O2 OPEN
OB PAUSE
OH NIGHT PAUSE
OS CLOSING
O6 EMER ACTIVATE
On MANUAL
OB NIGHT
STOP
12 SECURITIES TEST
13 ERROR
LO-L2 SET-UP IN PROGRESS

F44C

7.3 OPERATING MODE

The operating mode is set by the 3-position selector switch on the side (30) or the KP EVO.

The A951 operating modes are:



AUTOMATIC

The door opens and closes again after the set pause time has elapsed.



AI WAYS OPEN

The door opens and remains open.



NIGHT

The door closes and the internal and external sensors are disabled.



MANUAL

The door is free to move and can be moved manually. All controls are disabled. The lock is kept open.



BI-DIRECTIONAL

The pedestrian transit way opens in both directions; the internal and external sensors are enabled.



EXIT ONLY

The pedestrian transit way opens in only one direction; the external sensors are disabled.



ENTRY ONLY

The pedestrian transit way opens in only one direction; the internal sensors are disabled.



TOTAL

The door opens completely.



PARTIAI

Only selects the master door in the "2 leaves" mode.



INTERLOCK

See § 10.2.

III Operating mode combinations

























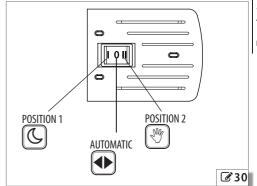








Positions 1 and 2 of the selector on the side can be configured in the advanced on board programming function (parameters 51 and 52) or via the KP EVO. 30 shows the factory configuration.





7.4 SET-UP

The SET-UP procedure consists of a series of movements during which the force, speed and deceleration values during opening and closing are acquired according to the weight and size of the doors.

Set-up should be performed:

- When the automation is first put into operation.
- After the Logic 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.

SETUP CANNOT be performed in conditions of:

- Emergency active
- MANUAL mode
- NIGHT mode
- DOOR OPENED mode
- Battery operation



During the SET-UP procedure, the safety sensors are ignored, 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 set-up procedure.

To start the SET-UP procedure from the board:

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

To start the SET-UP procedure via the KP EVO:

- 1. Select parameter 2.5.2 from the menu.
- 2. Confirm the selection when requested to do so.
- 3. Wait for the procedure to be completed (during the various phases, the display will show L□, LI and L⊇ in sequence).
- When finished, the display switches to the automation status view.

7.5 RESET

A RESET consists of initialising the A951, which must be carried out while an error condition is present in order to attempt to restore normal operation.

To carry out a RESET via the KP EVO, keep the two central buttons pressed simultaneously for 5 seconds. Alternatively, temporarily turn off power to the A951.

8. KP EVO

8.1 INSTALLATION AND CONNECTIONS



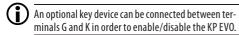
CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED

- 1. Disassemble the parts indicated in (31).
- 2. Break the cable passage insert.

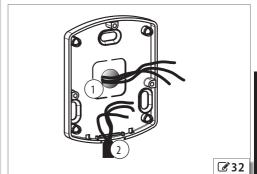


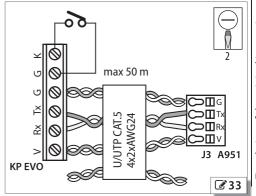
With reference to **332**, the KP EVO is designed for the cables to enter from the back (1) or from underneath (2).

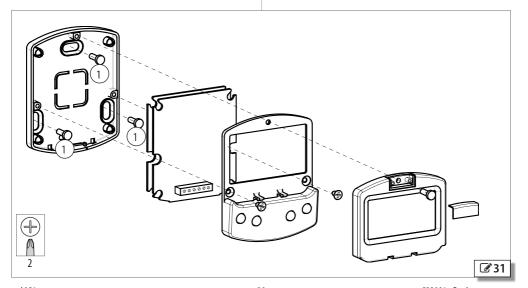
- 3. Decide where to position the support and fix it using suitable screws (3 1-1).
- 4. Connect the KP EVO to the A951 using a 4 pair twisted U/UTP AWG24 cable with a maximum length of 50m (33).



5. Reassemble the parts indicated in (31).









8.2 SWITCHINGONANDTHEHOMESCREEN

- 1. Turn power on to the A951
- 2. The display will show the following in sequence:



in which the Bootloader version appears, then



in which the firmware version appears, and lastly

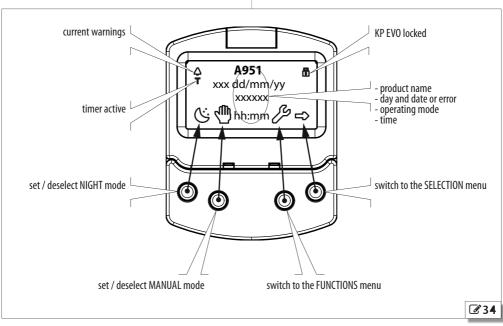


The content of this home screen, including the fixed icons and those that may appear under certain circumstances, is explained in 34.

- The 4 buttons are used to select controls that, depending on the screen, appear on the display above them.
- 4. By pressing the relative button on the home screen (34) you can:
- C = set the NIGHT mode
- ♥ = set the MANUAL mode
- = switch to the FUNCTIONS menu that includes all the A951 configuration parameters.
- → = switch to the SELECTION menu that includes additional operating modes.



By pressing the button to set the NIGHT or MANUAL mode, the relative icon is highlighted and the description of the operating mode is updated on the display. Once MANUAL mode has been set by pressing the relative button, press it again to return to the previous mode.





8.3 SELECTION MENU

To access the SELECTION menu from the home screen, press the → button (35).

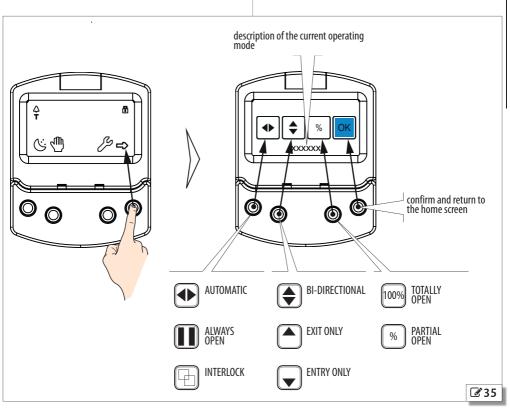
4 New icons appear on the display that define the operating modes that can be set.

The possible combinations can be obtained by pressing the corresponding buttons (35).

After having set the operating mode, press the OK button to confirm and return to the home screen.



The description of the operating mode on the display is updated with the description of the one that has been set.





8.4 FUNCTIONS MENU

To access the FUNCTIONS menu from the home screen, press the **b** button (**36**).

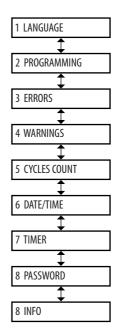
The display prompts for a 4-digit password to be entered.

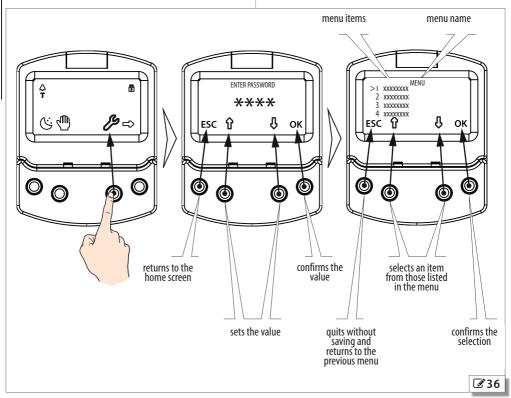


The factory-set password is: 0000

- Set the first digit using the ♠ and ♦ buttons.
- Confirm using the OK button to move to the next digit.
- When all 4 digits have been entered, if the password is correct, access the FUNCTIONS menu as a USER or TECHNICIAN (# 13).
- Select the item from the menu using the ♠ and ◆ buttons.
- Confirm using the OK button to enter.
- $\mathbf{\hat{J}}$

Press ESC at any time to return to the home screen.







1 LANGUAGE 1 ITALIANO 2 ENGLISH 3 FRANCAIS 4 DEUTSCH 5 ESPANOL 6 NEDERLANDS 2 PROGRAMMING 1 INPUTS / OUTPUTS 1 INPUTS I1-I4 I1 [C1] 12 [C2] 13 [C3] 14 [C4] 0 DISABLED 1 EXTERNAL OPEN NORMALLY OPENED / NORMALLY CLOSED 4 INTERNAL OPEN NORMALLY OPENED / NORMALLY CLOSED 7 AUTOMATIC OPEN NORMALLY OPENED / NORMALLY CLOSED 8 SEMIAUTOM. OPEN NORMALLY OPENED / NORMALLY CLOSED 10 KEY NORMALLY OPENED / NORMALLY CLOSED 11 PARTIAL OPEN NORMALLY OPENED / NORMALLY CLOSED NORMALLY OPENED / NORMALLY CLOSED TEST ENABLED / DISABLED 20 CLOSING SAFETY 21 OPENING SAFETY NORMALLY OPENED / NORMALLY CLOSED TEST ENABLED / DISABLED 30 EMERGENCY OPEN NORMALLY OPENED / NORMALLY CLOSED 31 EMER OPEN WITH MEM NORMALLY OPENED / NORMALLY CLOSED 34 EMERGENCY CLOSE NORMALLY OPENED / NORMALLY CLOSED 35 EMER CLOSE WITH MEM NORMALLY OPENED / NORMALLY CLOSED 40 ALWAYS OPEN NORMALLY OPENED / NORMALLY CLOSED 41 FXIT ONLY NORMALLY OPENED / NORMALLY CLOSED 42 ONLY IN NORMALLY OPENED / NORMALLY CLOSED 43 NIGHT NORMALLY OPENED / NORMALLY CLOSED 44 MANUAL NORMALLY OPENED / NORMALLY CLOSED 45 PARTIAL NORMALLY OPENED / NORMALLY CLOSED 46 INTERBLOCK ON NORMALLY OPENED / NORMALLY CLOSED 60 TIMER NORMALLY OPENED / NORMALLY CLOSED 2 OUTPUTS 01/02 01 [01] 02 [02] 0 DISABLED 1 GONG NORMALLY OPENED / NORMALLY CLOSED 2 ERROR NORMALLY OPENED / NORMALLY CLOSED 3 BATTERY NORMALLY OPENED / NORMALLY CLOSED 4 EMER ACTIVATE NORMALLY OPENED / NORMALLY CLOSED 5 TEST NORMALLY OPENED / NORMALLY CLOSED 6 DOOR NOT CLOSED NORMALLY OPENED / NORMALLY CLOSED 7 DOOR OPENED NORMALLY OPENED / NORMALLY CLOSED 8 DOOR OPENING NORMALLY OPENED / NORMALLY CLOSED NORMALLY OPENED / NORMALLY 9 LIGHT TIME 1...90 S NORMALLY OPENED / NORMALLY CLOSED CLOSED 10 INTRUSION ACTIVE 11 CLOSING SAFETY NORMALLY OPENED / NORMALLY CLOSED 12 SAFETIES NORMALLY OPENED / NORMALLY CLOSED 3 SAFFTIFS \$1/\$2 S1 [P1] S2 [P2]



```
0 DISABLED
                    1 FXTFRNAI OPFN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    4 INTERNAL OPEN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    7 AUTOMATIC OPEN
                    8 SEMIAUTOM, OPEN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    10 KEY
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    11 PARTIAL OPEN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    20 CLOSING SAFETY
                                                    NORMALLY OPENED / NORMALLY CLOSED TEST FNABI FD / DISABI FD
                                                    NORMALLY OPENED / NORMALLY CLOSED TEST ENABLED / DISABLED
                    21 OPENING SAFETY
                    30 EMERGENCY OPEN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    31 EMER OPEN WITH MEM
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    34 EMERGENCY CLOSE
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    35 FMFR CLOSE WITH MFM
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    40 ALWAYS OPEN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    41 FXIT ONLY
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    42 ONLY IN
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    43 NIGHT
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    44 MANUAL
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    45 PARTIAL
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    46 INTERBLOCK ON
                                                    NORMALLY OPENED / NORMALLY CLOSED
                    60 TIMER
                                                    NORMALLY OPENED / NORMALLY CLOSED
     4 FXTFRNAI SFIFCTOR
               POSITION 1 [S1]
               POSITION 2 [S2]
                    O DISABLED
                    1 NIGHT
                    2 OPENED
                    3 EXIT ONLY
                    4 MANUAI
2 MOTION
     1 OPENING
     2 CLOSING
               1 SPEED [OS - CS]
                                          1...10
               2 SLOWDOWN
                                         SLOWDOWN SPACE 0°...90°
                                                                              SLOWDOWN SPEED 1...3
               3 STRENGTH [OF - CF]
                                          0...10
               4 STRENGTH DURATION [tF] 0.1...3.0 s
               5 ACCELERATION
                                          1...10
               6 DECELERATION
                                          1...10
3 TIMING
    1 PAUSETIME [PA]
                                    0...30 s
                                    0...30 s
     2 PAUSETIME P&G [PG]
     3 NIGHT PAUSETIME [Pn]
                                    0...90 s
                                    0...90 s
     4 NIGHT SENSOR DELAY [nD]
4 MOTOR LOCK KIT
     1 FUNCTION [EI]
               DISABLED
               NIGHT
               FXIT ONLY
               NIGHT + MONODIR
               ALWAYS
                                    0...60 tenths of a second
     2 LOCK DELAY [Et]
     3 RELEASE TYPE
               WHEN OPENING
               CLOSED
5 INSTALLATION
     1 ARM TYPE [at]
               SKID
               ARTICULATE
```



```
ARE YOU SURE?
          2 START SETUP
          3 PUSH AND GO [PG]
                     0 DISABI FD
                     1 ENABLED
                     2 FAST FOOD
          4 PARTIAL STOP SEC. [dS]
                     DISABLED
                     ENABLED
                                           0°...90°
          5 LEAF DELAY
          6 SCP [cS]
                     DISABLED
                     ENABLED
          7 REVERSE STROKE [rS]
                     DISABI FD
                     ENABLED
          8 2 EASY REG.
                                           DO YOU WANT REGISTER?
          9 INOUT STATE
                                           IN1
                                                     IN2
                                                                           IN4
                                                                                     S1
                                                                                               S2
                                                                                                          01
                                                                                                                    02
                                                                IN<sub>3</sub>
           10 DOOR STATUS
          11 OTHER BOARD DATA
                                          V MAIN
                                                    V_ACC
                                                                POS
                                                                           I MOT
     6 INTERCOM
          1 FUNCTION
                     DISABIFD
                     INTERMODE
                     INTERLOCK
                                                WITH MEMORY / WITHOUT MEMORY
                     2 LEAVES
                     2 LEAVES + INTERBLOCK
                                                WITH MEMORY / WITHOUT MEMORY
          2 MASTER/SLAVE NR.
          3 INTERCOM REG.
           4 NODFLIST
     7 MISCELLANEOUS
          1 DEFAULT CONFIG [dF]
                     ACTIVATE
                     NO
                                                DO YOU WANT TO LOAD DEFAULT CONFIG?
          2 BOARD'S DISPLAY
                     STOPPED
                     NOT BLOCKED
          3 INTRUSION [Hc]
                     DISABLED
                     ENABLED
          4 KPEVO KEY
                     WITHOUT USER PSW
                     BLOCK
          5 CONSECUTIVE OBST.
                     CLOSING
                                                0...10
                     OPENING
                                                0...10
          6 TEST ERROR
                     DISABLED
                     ENABLED
3 ERRORS
     The display shows any current errors
4 WARNINGS
     the display shows any current warnings
5 CYCLES COUNT
     1 CYCLES NUMBER
          ABSOLUTE
           RFI ATIVF
     2 MAINTENANCE
          MAINTENANCE DATE
                                                MAINTENANCE CYCLES
     3 CYCLES RESET
                          ARE YOU SURE?
                                                resets the number of cycles
```

```
FAAC
6 DATE/TIME
     1 SET DATE
     2 SETTIME
     3 DAYLIGHT SAV TIME
          DISABLED
          ENABLED
7 TIMER
     1 TIMER STATE
          DISABLED
          ENABLED
     2 MONDAY
     3 TUESDAY
     4 WEDNESDAY
     5 THURSDAY
     6 FRIDAY
     7 SATURDAY
     8 SUNDAY
     9 MON - SUN
     10 MON - FRI
     11 JOLLY
     12 JOLLY SLOTS
          SLOT 1
          SLOT 2
          SLOT 3
          SLOT 4
          SLOT 5
          SLOT 6
          APPLY (appears only if selected LUN - SUN or LUN - FRI)
                     FUNCTION: 0
                                               NO FUNCTION
                     FUNCTION: 1
                                               AUTO BIDIR TOTAL
                     FUNCTION: 2
                                               AUTO OUT TOTAL
                     FUNCTION: 3
                                               AUTO BIDIR PARTIAL
                                               AUTO OUT PARTIAL
                     FUNCTION: 4
                     FUNCTION: 5
                                               TOTALLY OPEN
                                               PARTIAL OPEN
                     FUNCTION: 6
                     FUNCTION: 7
                                               AUTO IN TOTAL
                     FUNCTION: 8
                                               AUTO IN PARTIAL
                     FUNCTION: 9
                                               NIGHT
                     FUNCTION: 10
                                               PARTIAL NIGHT
                                                          BEGINNING
                                                                               hh:mm
                                                          END
                                                                               hh:mm
8 PASSWORD
     1 TECHNICIAN PSW
          CHANGE TEC PSW
                                                                    NEW PSW INSERTED
                                          REINSERT TEC PSW
     2 USER PSW
          CHANGE USER PSW
                                          REINSERT USER PSW
                                                                    NEW PSW INSERTED
9 INFO
     F951
                BOOT
                          VER *.*
     E951
                APP
                          VER *.*
     KP EVO
                APP
                          VER *.*
```

PROGRAMMING

This menu includes all the operating parameters of the A951. For those that are also available in the on board programming, the corresponding function is indicated in square brackets. For an explanation please refer to 9 and 10. Those that are not available in on-board programming are explained below.

SLOWDOWN

Defines the space (in degrees of rotation of the A951 shaft and the slowdown speed (on 3 levels) of the door before reaching the final open / closed positions.

ACCELERATION

Specifies how quickly the door reaches the set opening speed when starting from stop.

Adjustable over 10 levels (10 = maximum acceleration).

■ DECELERATION

Specifies how quickly the door stops.

Adjustable over 10 levels (10 = maximum deceleration).

2 EASY REG.

Registration of BUS 2easy.

■ RELEASE TYPE

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

- OPENING = during the opening phase
- CLOSED = when the door is closed again

■ LEAF DELAY

See § 10.3.

■ IN OUT STATUS

The display indicates the status (on / off), in real time, of inputs I1-I4, S1-S2 and outputs O1-O2 (§ 9.2).

DOOR STATUS

The display indicates, in real time, the status of the automation (§ 9.3).

■ OTHER BOARD DATA

The display indicates, in real time, useful diagnostics information (§ 9.6).

■ INTERCOM

See § 10.

■ BOARD DISPLAY

Activating this function inhibits on board programming: the +, - and F buttons are disabled.

It remains locked, even if the KP EVO is disconnected, until this function is disabled.

■ KPEVO KEY

You can choose between:

- BLOCK = the user must enter the user password in order to access the menus that he is authorised to use.
- WITHOUT USER PSW = the user must enter the user password in order to access the menus that he is authorised to use.

CONSECUTIVE OBST.

Specifies the maximum number of consecutive obstacle detections in the same direction of movement, before stopping in an error condition.

■ TEST ERROR

Specifies the effect that the TEST will have when it detects a safety device fault.

If this parameter is disabled, the door will remain open in an error condition.

If it is enabled, the door will continue to operate at minimum speed.

ERRORS

In this menu, the display indicates any current errors that there may be in real time (§ 9.5).

WARNINGS

In this menu, the display indicates any current alerts that there may be in real time (§ 9.4).



CYCLE COUNTER

The A951 has two counters:

- total, non-resettable
- partial, resettable

This menu allows you to view the cycles performed by the automation and reset the partial counter.

It is also possible to set a deadline for scheduled maintenance according to:

- date (optional)
- number of cycles (from 1000 to 1000000)

Alert 60 will be displayed as soon as one of the two settings (date or number of cycles) is reached.



Logging in with the user password only allows data to be viewed.

DATE / TIME

This menu allows you to set or modify the date, time and turn European summer time on / off.



To keep the settings even if there is no mains power, which is necessary for the TIMER to work correctly, a battery must be installed on the Logic board. Refer to § 12.1.

TIMER

This menu includes all the parameters for configuring the TIMER function.

When the TIMER is enabled, the operating mode of the door during the programmed time bands is set automatically.

A maximum of 6 daily time bands can be defined, and an operating mode, selected from those available, assigned to each one. Each time band has a start time and an end time.

The time bands must not overlap.



When the TIMER is enabled, the T icon appears on the home screen.

To manually change the operating mode set by the TIMER, it first has to be disabled.

In order for the TIMER to work correctly, a battery must be installed on the Logic board. Refer to § 12.1.

In order to quickly program groups of days of the week with the same time bands, it is possible to simultaneously select all the days of the week (MON - SUN) and all weekdays (MON - FRI). Once the time bands that have been defined here have been confirmed using the APPLY option, they will overwrite any time bands that have already been programmed for individual days. If it is necessary to program specific days or periods (e.g. recurring holidays), you may use the JOLLYfunction.

A maximum of 6 JOLLY time bands can be specified

and an operating mode, selected from those available, assigned to each one. Each time band has a start time and an end time.

The time bands must not overlap.

The JOLLY time bands are then assigned to a maximum of 6 INTERVALS. An interval can be a single day or a series of days.



If a single day is defined, the start and end date of the interval must be the same.

The interval must refer to same calendar year (example: for the period from 25/12 to 06/01, 2 intervals must be created, from 25/12 to 31/12 and from 01/01 to 06/01).

PASSWORD

This menu allows passwords to be set or modified. To access the FUNCTIONS menu you are prompted to enter a 4-digit password.

The A951 has two passwords available with different access rights:

13 Access permissions and passwords

	TECHNICIAN PSW	USER PSW
LANGUAGE	✓	✓
PROGRAMMING	✓	Θ
ERRORS	✓	✓
WARNINGS	✓	✓
CYCLES COUNT	✓	✓ (*)
DATE/TIME	~	~
TIMER	✓	✓
PASSWORD	✓	✓ (*)
INFO	✓	✓

^{*} with restrictions



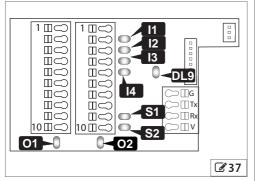
The user is only allowed to modify the user password.

9. DIAGNOSTICS

9.1 LEDS CHECK

I/O BOARD LEDS

On the I/O board, each input and output has a LED that indicates the physical state of the contact, reference 37 and ## 14.

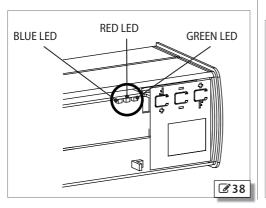


III 1/O board LEDs

LED	0	•
11-14	open contact	closed contact
S1-S4	open contact	closed contact
01-02	open contact	closed contact
DL9	I/O board not powered	I/O board powered and communicating with the Logic board

LOGIC BOARD LEDS

There are 3 LEDs on the Logic board, indicated in 38.



III 15 Logic board LEDs

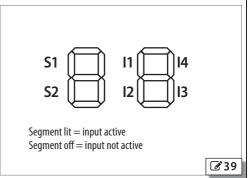
LED	0	•	*
BLUE	A951 off	/	A951 on
RED	no error	error	/
GREEN	no USB	USB connected	/

9.2 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 (₹39).

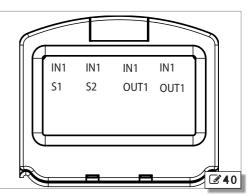


ON THE KP EVO

Go to menu 2.5.9. The display indicates the logic status as shown in 340. Example:

IN1 = input active

 $^{\dot{}}$ IN1 = input not active





9.3 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 A951, if you are not in programming mode, displays the code that indicates the status of the automation (**# 16**).

ON THE KP EVO

Go to menu 2.5.10. The display shows information regarding the status of the automation.

\blacksquare	16	System	status

UU	CLOSED	
OI	OPENING	

D3 PAUSE

n2

□4 NIGHT PAUSE
□5 CLOSING

OPEN

DE EMERGENCY ACTIVATE

OR NIGHT

STOP

12 SECURITIES TEST

|∃ ERROR

LI SETUP phase 1: closing stop search

∠ ⊇ SETUP phase 2: opening stop search

9.4 WARNINGS

Alerts provide information regarding the status or current phase of the automation and errors that do not prevent it from operating. It is possible to check any current alerts on the board or via the KP EVO.

ON THE BOARD

Whilst the A951 is displaying the status of the automation, press the + and - buttons simultaneously: \square appears on the display followed by any identification codes (\square 17).

ON THE KP EVO

Go to menu 4 to view the list of current alerts. If there is at least one alert, an icon appears on the home screen (34).

17 Warnings

41	Date and time missing
	- Reset date/time via the KP EVO

42 Clock battery discharged or missing
44 Emergency active (including command memory)

44 Emergency active (including)45 Timer active

46 Timer function in progress

니B Night mode operation

49 Manual mode operation

50 Partial mode operation

51 Obstacle detected during closure

52 Obstacle detected during opening

53 Number of maintenance cycles on E²prom corrupted

- Perform reset.

- If the alarm persists, replace the Logic board

56 Battery operation

Searching for strike on closing

60 Maintenance requested

FI KP EVO fault

- Check that the correct device is connected and check the connections.

- If the alarm persists, update the firmware

- If the alarm persists, replace the Logic board

6∃ Intrusion in progress

65 Set-up in progress

68 TEST alarm (only if the "test error" parameter is enabled)

- Check the operation of the connected devices

- If the alarm persists, replace the device

- If the alarm persists, replace the Logic board In this condition, the door moves at a slower speed.

69 Door opened by a semi-automatic command

। Slave Intercom mode

າ⊇ Intercom alarm

- Check the connections

- Check the ID

- If the alarm persists, replace the Logic board

∃∃ Slave Error / Alarm

□□ Interlock alarm

- Check the connections

- Check the ID

- If the alarm persists, replace the Logic board

☐ Radio code memory full

80 Non-standard programming

BUS 2easy call in progress

BUS 2easy in sleep

85 BUS 2easy interrogation in progress

86 BUS 2easy disconnection in progress

FAAC

9.5 ERRORS

Errors are malfunctions that prevent the automation from working. They are indicated by a steady red LED on the Logic board.

After every 5 minutes in which a fault condition persists and for a maximum of 20 consecutive times, the A951 will perform a reset to attempt to restore normal operation so that no action is required if the condition that caused the error was temporary. If the fault persists, remove the cause in order to restore normal operation. In order to carry out a manual reset, see § 7.5.

The type of error can be identified on the board or via the KP EVO

ON THE BOARD

When the display of the A951 indicates 11, press the + and - buttons simultaneously: Er appears on the display followed by the identification code (## 18).

ON THE KP EVO

The error code appears on the home page. Go to menu 5; the display provides information regarding the current error.

18 Errors

When an error occurs:

- 1. Check all the electrical connections
- 2. Perform a reset.
- If the problem persists, carry out the operations described in the table one at a time until the problem is resolved.

- 10	Joived.	
Error		Action required
ΟI	Board failure	- Replace the Logic board
02	E ² prom failure	- Replace the Logic board
03	Motor driver failure	- Replace the Logic board - Replace the gearmotor
04	Accessories power supply fault	 Check that the accessories power supply is not short circuited Check that maximum load of the accessories has not been exceeded Replace the Logic board Replace the Power board
05	Microcontroller error	- Reload/update the Logic board firmware - Replace the Logic board
רס	Motor failure	- Replace the gearmotor - Replace the Logic board
09	Board voltage anomaly	- Replace the Power board
10	Battery discharged or not connected	-Wait for a charging cycle to be completed, if the problem persists, replace the battery
11	TEST failed on S1	- Check the connections of the safety device - Check that the safety device is working - Replace the Logic board
15	TEST failed on S2	- Check the connections of the safety device - Check that the safety device is working - Replace the Logic board
15	Set-up inhibited	- Make sure that Night or Manual mode has not been set - Make sure that an emergency command has not been activated
16	Encoder fault	- Replace the gearmotor - Replace the Logic board
18	Firmware not compatible	- Update with the correct firmware
19	High mechanical friction	 Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction Replace the Logic board Replace the gearmotor

	• /		
	20	TEST failed on an input (I1-I4)	- Check the connections of the safety device - Check that the safety device is working - Replace the Logic board
	22	Programming data corrupted	- Reprogram the board or upload the program files that were saved to the USB storage device - Replace the Logic board
	24	Consecutive obstacles in closing	 Remove the obstacle in closing Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction
	25	BUS 2easy data not valid	- Check the connections BUS 2easy devices
	26	Lock failure	 Check the wiring of the lock Check that the maximum load of the lock has not been exceeded Replace the lock Replace the Logic board
1	27	Motor rotation fault	- Check the polarity of the motor cable
	29	Auxiliary board failure	- Check the connection of the auxiliary board - Replace the display - Replace the Logic board
	31	Consecutive obstacles in opening	 Remove the obstacle in opening Make sure that the leaf has been mounted correctly and that it moves smoothly, remove any friction
	34	BUS 2easy devices registration in progress	- Wait for the procedure to be completed
)	35	BUS 2easy configuration error	- Check the addressing of the BUS 2easy devices - Check that BUS 2easy devices are operating correctly
	36	BUS 2easy short circuited	- Check the addressing of the BUS 2easy devices - Replace the Logic board
	37	BUS 2easy devices error	- Check the addressing of the BUS 2easy devices - Check the addressing of the BUS 2easy devices
	39	Set-up data missing or corrupted	- Perform setup - Replace the Logic board
	93	BUS 2easy configuration data corrupted	- Register the BUS 2easy devices - Replace the Logic board

9.6 OTHER BOARD DATA

Go to menu 2.5.11 of the KP EVO, the display provides information on the following parameters:

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

9.7 FIRMWARE VERSIONS

ON THE BOARD

When the display of the A951 is switched on, it shows the version of the Logic board firmware for one second before displaying the status of the automation.

ON THE KP EVO

Go to menu 9 of the KP EVO, or to view the firmware versions of the bootloader, the Logic board and the KP EVO.

9.8 LOG DATA

The A951 records the last 512 system events. A battery must be installed on the Logic board in order to save the list of events in memory even if the system is switched off.

To download the data as a text file, see § 13.2.

F44C

10. UPLOAD / DOWNLOAD

There is a USB port on the Logic board of the A951 via which the following operations can be carried out:

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



For both operations, the USB pen drive must be formatted with the FAT or FAT 32 file system. The NTFS format is not recognised.

10.1 UPLOAD



The files required, the names of which are indicated in **III 19**, must be present in the root directory of the USB pen drive.

- 1. Turn power off to the A951.
- Insert the USB pen drive in the USB port on the Logic board.
- 3. Turn power on to the A951.
- If the device is detected correctly, bo appears on the display and the green LED (38) lights up steadily.
- 5. Press and release button F in order to scroll through the available functions.
- To use the UPLOAD function seen from the display (## 19), press the + and - buttons simultaneously until -- appears (after approximately 3 seconds) then release them.
- 7. During this function -- flashes on the display and the green LED on the Logic board flashes.
- 8. When finished, the display will show:
- ∃ if it was carried out successfully
- no if there was an error
- 9. Turn power off to the A951 and remove the USB pen drive.

10.2 DOWNLOAD

- 1. Turn power off to the A951.
- Insert the USB pen drive in the USB port on the Logic board.
- 3. Turn power on to the A951.
- If the device is detected correctly, bo appears on the display and the green LED (38) lights up steadily.
- 5. Press and release button F in order to scroll through the available functions.
- To use the DOWNLOAD function seen from the display (**■ 20**), press the + and - buttons simultaneously until □- or □-d appears (after approximately 3 seconds) then release them.
- Use the + or button to choose between the two methods of saving the file explained below and confirm by pressing the F button:
- Or (overwrite) = the file that is generated is saved to the USB drive and overwrites any existing files with the same name.
- Ad (add) = the file that is generated is saved to the USB drive in addition to any existing file with the same name (an incremental number is added to the name of the new file).
- 8. When finished, the display will show:
- ∃ if it was carried out successfully
- □□ if there was an error
- 9. Turn power off to the A951 and remove the USB pen drive.

III 19 UPLOAD functions from USB

UP Update Logic board firmware File required: 951L.hex

UE Update the KP EVO firmware, including menu translations

File required: KPEVO.hex and KPEVO_L.bin
Update the Connection board firmware

Update the Connection board firmware File required: CNX951.bin

Upload the A951 configuration File required: 951L.PRG

Upload the Timer configuration File required: 951L.TMR

20 DOWNLOAD functions from USB

Download the A951 configuration
File written: 951L.PRG

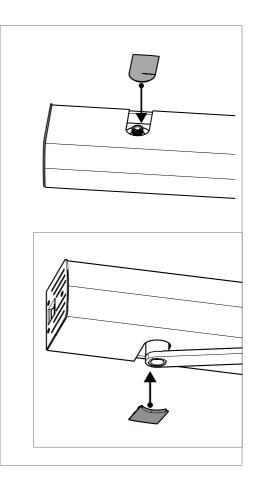
Download the Timer configuration File written: 951L.TMR

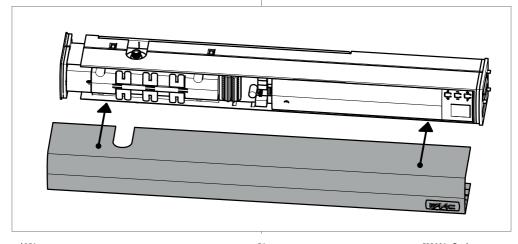
Download the LOG data File written: 951L.LOG

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11. FINAL OPERATIONS

- 1. Press the front cover on.
- 2. Press the top and bottom slot covers on.
- For doors in "low energy" mode, make sure that the
 forces generated by the leaf are within the limits
 permitted by the regulations. Use an impact
 force tester in accordance with EN 12453: 2002
 and EN 12445: 2002. For non-EU countries, of
 there are no specific local regulations, the force
 must be less than 67 N.
- For doors that are not in "low energy" mode, make sure that the test object is detected in all areas covered by the door movement.
- Highlight all areas with adequate warning signs in which there are still residual risks, even if all possible safety measures having been adopted. In particular, for doors less than 2 meters high, apply the hazard warning pictograms in correspondence with the arm movement area.
- Place a "DANGER, AUTOMATICALLY CONTROLLED" sign in a prominent position on the door.
- 7. Attach the CE marking on the door.
- 8. Fill out the EC declaration of conformity and the system register.
- Give the EC Declaration, the system register with the maintenance plan and the instructions for use of the automation to the system owner/operator.





12. MAINTENANCE

RISKS











PERSONAL PROTECTIVE EQUIPMENT







Always shut off the power supply before performing any maintenance operations. If the disconnect switch is not in view, apply a warning sign stating "WARNING - Maintenance in Progress". Restore the power supply only after finishing any maintenance work and restoring the area to normal.



Maintenance must be performed by the installer or a maintenance technician.

Follow all safety recommendations and instructions given in this manual.

Mark off the work site and prohibit access/transit. Do not leave the work site unattended.

The work area must be kept tidy and cleared after maintenance has been completed.

Before starting work, wait for any hot components to cool down.

Do not make any modifications to the original components.

FAAC S.p.A. shall bear no liability for damage or injury due to components which have been modified or otherwise tampered with.



The warranty shall be forfeited in the event of tampering with components. Only use original FAAC spare parts.

12.1 INSERTING / REPLACING THE **BATTERY**



CARRY OUT THE FOLLOWING OPERATIONS WITH THE **ELECTRICITY SUPPLY DISCONNECTED**

- 1. Remove the top and bottom slot covers.
- 2. Remove the front cover.
- 3. Remove the transparent cover.
- 4. Widen the enclosure slightly in order to remove the display from its seat (41).
- Install or replace the battery CR2032 following the polarity, as shown in **42**.
- 6. Reassemble the components in reverse order.

12.2 REPLACING THE FUSE

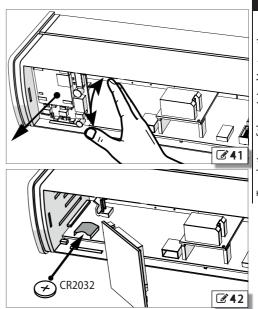


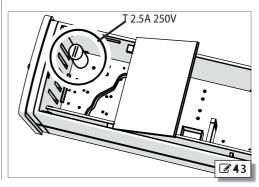
CARRY OUT THE FOLLOWING OPERATIONS WITH THE **ELECTRICITY SUPPLY DISCONNECTED**

There is a fuse at the mains power inlet on the Power board.

To replace it:

- 1. Remove the top and bottom slot covers.
- 2. Remove the front cover.
- 3. Remove the transparent cover.
- 4. Widen the enclosure slightly in order to remove the display from its seat (41).
- 5. Replace the T2.5A 250V fuse (43).
- 6. Reassemble the components in reverse order.





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12.3 ROUTINE MAINTENANCE

Table ## 21 lists the operations which must be performed on a regular basis in order to keep the automation working reliably and safely; these are given purely as a quideline and should not be considered exhaustive. The installer/machine manufacturer is responsible for drawing up the maintenance plan for the automation, supplementing this list or modifying the maintenance operations on the basis of the machine characteristics.

21 Scheduled maintenance	
Operations Frequency/mo	nths
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.	12
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.	12
Check the leaf: that it is integral and that there is no deformation or damage.	12
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.	12
Lubricate hinges or locks, if necessary.	12
Perform a general clean of the area of movement of the door.	12
Check the presence and condition of pictograms that highlight the glass part of the door. If they are missing or damaged, replace them.	12
Operator	
Check that the cover/casing and all the movable guards are integral and that they are fastened correctly. Tighten screws and bolts where necessary.	12
Check the condition of the power cables, the sensor and accessory connection cables and the relative cable glands.	12
Check the charge of the emergency battery, if present.	12
Replace the emergency battery, if present.	48
General cleaning.	12
Function set-up selector and keyboard	
Check that they are intact and operating correctly.	12
Sensors, protective devices and control devices	
Check that they are intact and operating correctly.	12
If applicable, check that the pictograms that identify the control devices for disabled persons are present and intact.	12
The door	
Check that the door operates properly in both directions with all the devices installed.	12
Check that the door moves smoothly and uniformly without making any unusual noises.	12
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.	6
For doors in "low energy" mode, make sure that it is possible to stop the movement of the door without excessive force (Max. 67N) at any point along its travel.	6
Check that the door operates correctly in every operating mode.	12
Check that the lock is working properly, if present.	6
Check that the safety system is working correctly (door reverses or stops when an obstacle is detected, that the door stops in the open position when there is an obstacle in the area of movement etc.)	6
Check that the door's CE marking and the DANGER, AUTOMATIC MOVEMENT warning sign is present, intact and legible.	12
	_

13. BATTERY KIT

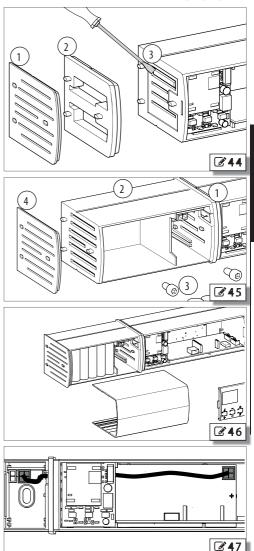


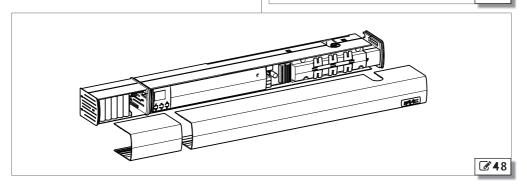
CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED.



The battery kit can only be mounted on the side opposite the side functions selector.

- 1. With reference to **44**:
- Remove the side cover (1) and the flange (2).
- Using a screwdriver or a gripper, remove the precut section (3).
- 2. With reference to **45**:
 - Replace the flange (1).
- Remove the battery pack from the enclosure (2).
- Press the enclosure onto the flange.
- Fasten it to the support using the two screws (3) and the holes in the base of the enclosure.
- Press the side cover on (4).
- 3. Put the battery pack back into the enclosure (246).
- 4. Connect the battery kit to the Power board using the cable provided, passing it through the opening that was made after having removed the pre-cut section in step1 (47).
- 5. Replace the transparent cover and press the casing on (48).





14. COMMUNICATION BOARD

The Communication board provides the following additional features:

- Intercom.
- BUS 2easy.
- Mounting for the XF radio module (optional) for storing radio control codes.

14.1 INSTALLATION

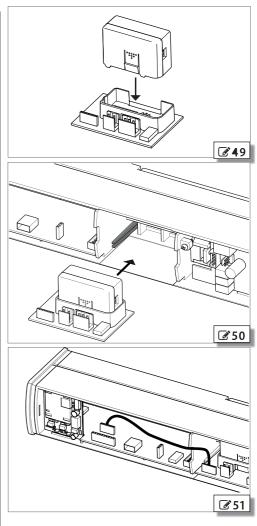


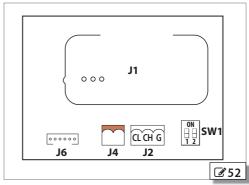
CARRY OUT THE FOLLOWING OPERATIONS WITH THE ELECTRICITY SUPPLY DISCONNECTED.

- 1. Insert the XF radio module, if used, into connector J1 (49).
- Install the board by inserting it into the guides (\$\mathbb{G}\$ 50).
- 3. Connect the Communication board to the Logic board using the cable provided (51).

Description of components (52):

- J1 XF radio module connector
- J2 Intercom bus terminal board
- J4 BUS 2easy terminal board
- J6 Logic board connector
- SW1 intercom functions DIP switch





15. INTERCOM

■ DESCRIPTION

The A951 is capable of communicating with other A951 units via an Intercomnetwork connection. This enables the following functions to be used (KP EVO menu 2.6.1):

- INTERMODE: a master 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 A951 should be programmed for the same Intercom mode.



In order to build the communication network, an optional accessory Communication board must be installed on each A951

CONNECTION

The units in the network are connected via 3 cascade connected-wires between the J2 connectors of the Communication boards (53).



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 Communication 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

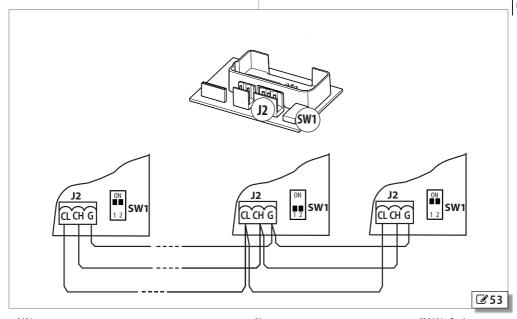
A unique ID (KP EVO menu 2.6.2) must be assigned to each A951 in the network as indicated below.



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 (menu 2.6.3 of the KP EVO), registration must only be carried out on the A951 that has been assigned ID1.





15.1 INTERMODE

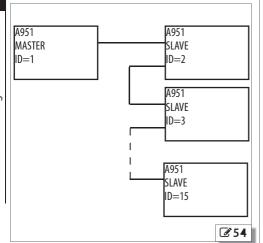
354 shows the IDs to assign to the A951 units in the network.

The system consists of a Master unit and a maximum of 14 Slave units. The A951 Master unit is the only one on which the operating mode should be set, which is then also applied immediately to all the Slave units.



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

The A951 Master must be assigned ID1 and the Slave units with IDs from 2 to 14.



15.2 INTERLOCK

355 shows the IDs to assign to the A951 units in the network.

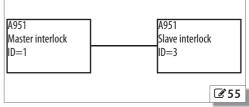
Either of the two units can be designated as the Master and the other as the Slave. In INTERLOCK mode, one door can open only if the other is closed. The available variations are shown below.

If the PARTIAL mode is associated with INTERLOCK, only the Master leaf opens.



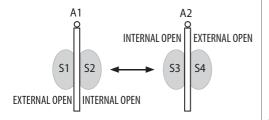
Connect the devices and carry out the programming and Set-up on the individual A951 units before configuring the INTERLOCK using the KP EVO.

Select on the Master unit to activate the INTERLOCK.



INTERLOCK WITH NO MEMORY

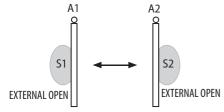
With 4 sensors: the second opening is not automatic. In order to open the door, the internal/external sensor must be triggered when the other door is closed. If the sensor is activated while the door is not yet closed, it has no effect.



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

INTERLOCK WITH MEMORY

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



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

15.3 2 LEAVES

56 shows the IDs to assign to the A951 units in the network.

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

The movement of the leaves 2 is synchronised.

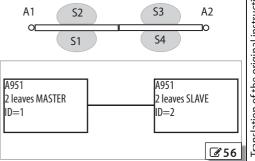


The internal / external door sensors and safety devices must be connected to their own unit; all other devices are connected only to the Master.

Connect the devices and carry out the programming and set-up on the individual A951 units before activating the 2 LEAVES function.

To change the operating mode, only use the Master A951.

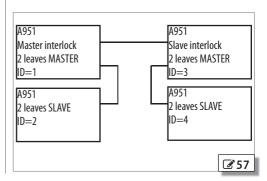
The leaf opening / closing delay can be set in menu 2.5.5 of the KP EVO.



15.4 2 LEAVES + INTERLOCK

₹ 57 shows the IDs to assign to the A951 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.





16. BUS 2EASY



This dedicated connection is specifically for to single channel FAAC BUS 2easy control devices.

For installation and wiring, refer to the device instructions.

When finished, it has to be registered via the KP EVO (KP EVO menu 2.5.8).

In the A951, the DIP switches of the devices are associated with the following functions:

DI 1	P :		itch 4	command
0	0	0	0	AUTOMATIC OPENING
0	0	0	1	EXTERNAL OPENING
0	0	1	0	INTERNAL OPENING
0	0	1	1	SEMI-AUTOMATIC OPENING
0	1	0	0	KEY
0	1	0	1	NOT USED
0	1	1	0	NOT USED
0	1	1	1	NOT USED
1	0	0	0	NOT USED
1	0	0	1	PARTIAL AUTOMATIC OPENING
1	0	1	0	PARTIAL EXTERNAL OPENING
1	0	1	1	PARTIAL INTERNAL OPENING
1	1	0	0	PARTIAL SEMI-AUTOMATIC OPENING
1	1	0	1	PARTIAL KEY
1	1	1	0	NOT USED
1	1	1	1	NOT USED
	^			



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

Translation of the original instructions



17. MEMORISING RADIO CONTROL CODES

A951If the A951 is fitted with a Communication board and an XF radio module, it can memorise the following types of FAAC radio control codes: SLH/SLH LR, LC/RC, DS.



The three types of radio codes can coexist simultaneously.

A maximum of 256 codes can be memorised.

When memorising the codes, keep the radio control approximately one meter from the XF radio module. The radio controls act as AUTOMATIC OPEN commands.

17.1 SLH/SLH LR RADIO CONTROLS

MEMORISING THE FIRST RADIO CONTROL

 Press the + button on the A951 for a couple of seconds, rL flashes on the display to indicate that the radio control codes learning phase has started.



If you keep the button pressed for more than 5 seconds, ¬E appears on the display to indicate that it is entering the stored radio code deletion phase! To prevent deletion, release the + button immediately.

- 2. Release the + button, the A951 remains in the learning phase for approximately 10 seconds and the ¬L symbol on the display becomes steady.
- Press and hold down buttons P1 and P2 simultaneously on the SLH/SLH LR radio control (master version only). The LED on the radio control starts to flash.
- 4. Release both buttons; the LED on the radio control continues to flash.
- Make sure that rL still appears on the display and press the button on the radio control that you wish to memorise (the LED becomes steady); the A951 exits from the learning phase and displays the status of the automation.
- Press the same button that was used in the previous step twice in succession to complete the memorisation process. If the procedure was carried out correctly, the A951 will open the door, if permitted by the operating mode that has been set.

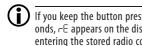
MEMORISING OTHER RADIO CONTROLS

- Press and hold down buttons P1 and P2 simultaneously on the SLH/SLH LR radio control that has already been stored (master version only). The LED on the radio control starts to flash.
- 2. Release both buttons; the LED on the radio control continues to flash.
- 3. Press and hold down the button that has already been memorised (the LED becomes steady).
- Place the remote control that has already been memorised close to the remote control to be memorised (keeping the button in the previous step pressed).
- Press the button on the radio control to be memorised and make sure that its LED flashes twice before turning off to indicate that the procedure was completed successfully.
- 6. Release all buttons.
- 7. Press the button used in step 5 twice in succession to complete the memorisation process for the new radio control. If the procedure was carried out correctly, the A951 will open the door, if permitted by the operating mode that has been set.

17.2 LC/RC RADIO CONTROLS

MEMORISING THE FIRST RADIO CONTROL

Press the + button on the A951 for a couple of seconds, -L flashes on the display to indicate that the radio control codes learning phase has started.



If you keep the button pressed for more than 5 seconds, $\vdash E$ appears on the display to indicate that it is entering the stored radio code deletion phase! prevent deletion, release the + button immediately.

- Release the + button, the A951 remains in the learning phase for approximately 10 seconds and the -L symbol on the display becomes steady.
- Make sure that -L still appears on the display and press the button on the radio control that you wish to memorise for a few seconds; ⊢L flashes to confirm that it has been memorised and then becomes steady for approximately 10 seconds waiting for additional codes before the display returns to indicating the automation status.
 - To memorise additional radio controls at a later stage, repeat this procedure from the beginning or carry out the remote memorisation procedure.

REMOTE MEMORISATION

Additional radio controls can be memorised remotely. i.e. without having to use the board directly, by using a radio control that has already been memorised.

- 1. In proximity to the A951, press buttons P1 and P2 simultaneously for a couple of seconds on the radio control that has already been memorised. Release both buttons and then press the button that has already been memorised within 5 seconds. The A951 now remains in the learning phase for approximately 10 seconds.
- 2. Press the button on the radio control to be memorised within 10 seconds.
- 3. Wait 10 seconds to finalise the learning phase before using the new radio control.

17.3 DS RADIO CONTROLS

- 1. Set the required ON/OFF combination of the 12 DIP switches on the DS radio control. Avoid setting all of them to ON or all of them to OFF.
- 2. Press the + button on the A951 for a couple of seconds, -L flashes on the display to indicate that the radio control codes learning phase has started.



If you keep the button pressed for more than 5 seconds, rE appears on the display to indicate that it is entering the stored radio code deletion phase! To prevent deletion, release the + button immediately.

- 3. Release the + button, the A951 remains in the learning phase for approximately 10 seconds and the -L symbol on the display becomes steady.
- 4. Make sure that -L still appears on the display and press the button on the radio control that you wish to memorise for a few seconds: -L flashes to confirm that it has been memorised and then becomes steady for approximately 10 seconds waiting for additional codes before the display returns to indicating the automation status.
- 5. For additional radio controls, use the same ON/ OFF combination for the 12 DIP switches on the radio control that has been memorised. It is also possible to store radio controls with different combinations by repeating the same procedure.

17.4 DELETING RADIO CONTROLS FROM **MEMORY**



This procedure permanently deletes all stored radio codes from memory

Press and hold down the + button on the A951. The following will appear on the display in sequence:

- r∟ flashing
- ¬E flashing quickly
- rE steady

When ¬E becomes steady, the radio controls memory is erased. Release the + button. The A951 indicates. the status of the automation.



Releasing the + button when $\neg L$ or $\neg E$ are flashing on the display interrupts the radio control deletion procedure.



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