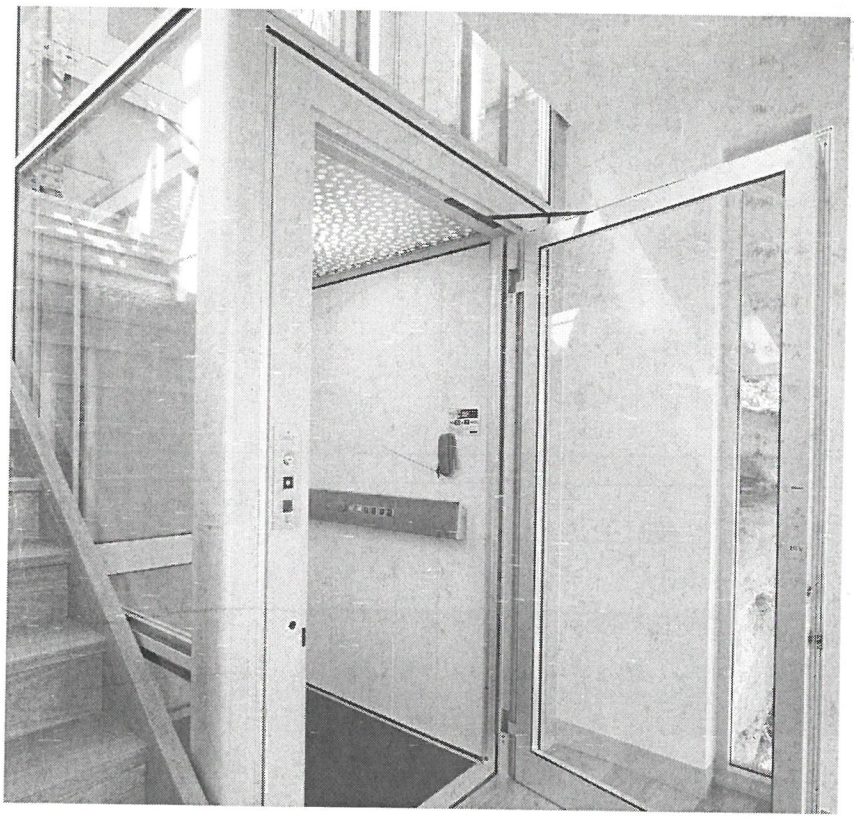
DITEC

AUTOMATIC ENTRANCE SPECIALISTS

CE

SPRINT

IP1546 - rev. 2007-12-12



(I) Manuale di installazione e manutenzione per automazioni per porte battenti.

(GB) Installation and maintenance manual for automations for swing doors.

(F) Manuel d'installation et d'entretien pour portes battantes.

(D) Montage und Wartungshandbuch für Drehtürenantrieb.

(E) Manual de instalaciòn y manutenciòn para puertas de vaivén.

(P) Manual de instalação e manutenção para portas de balanço.

ICIM
ISO 9001
Cert. n° 0957

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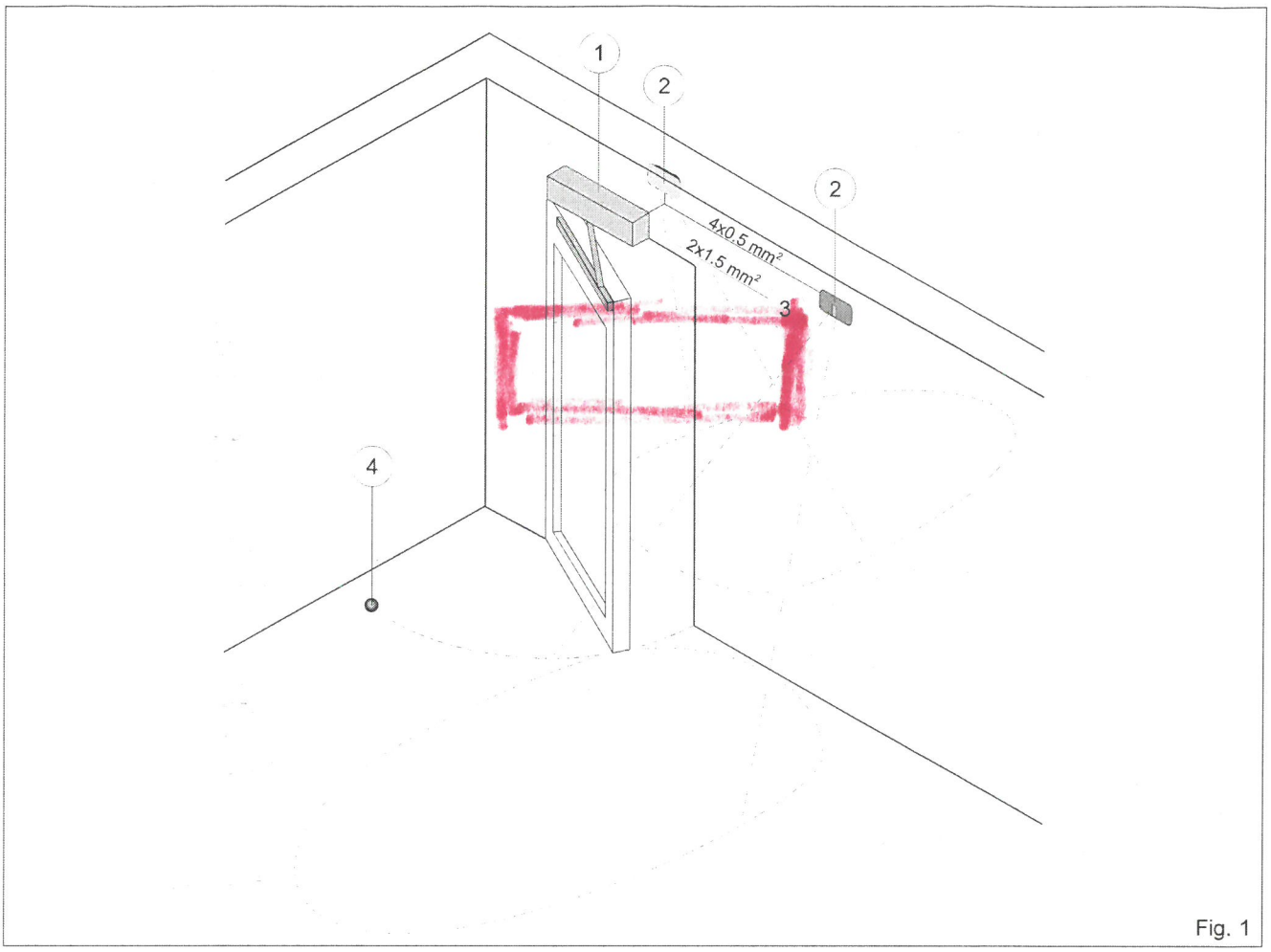

Fig. 1

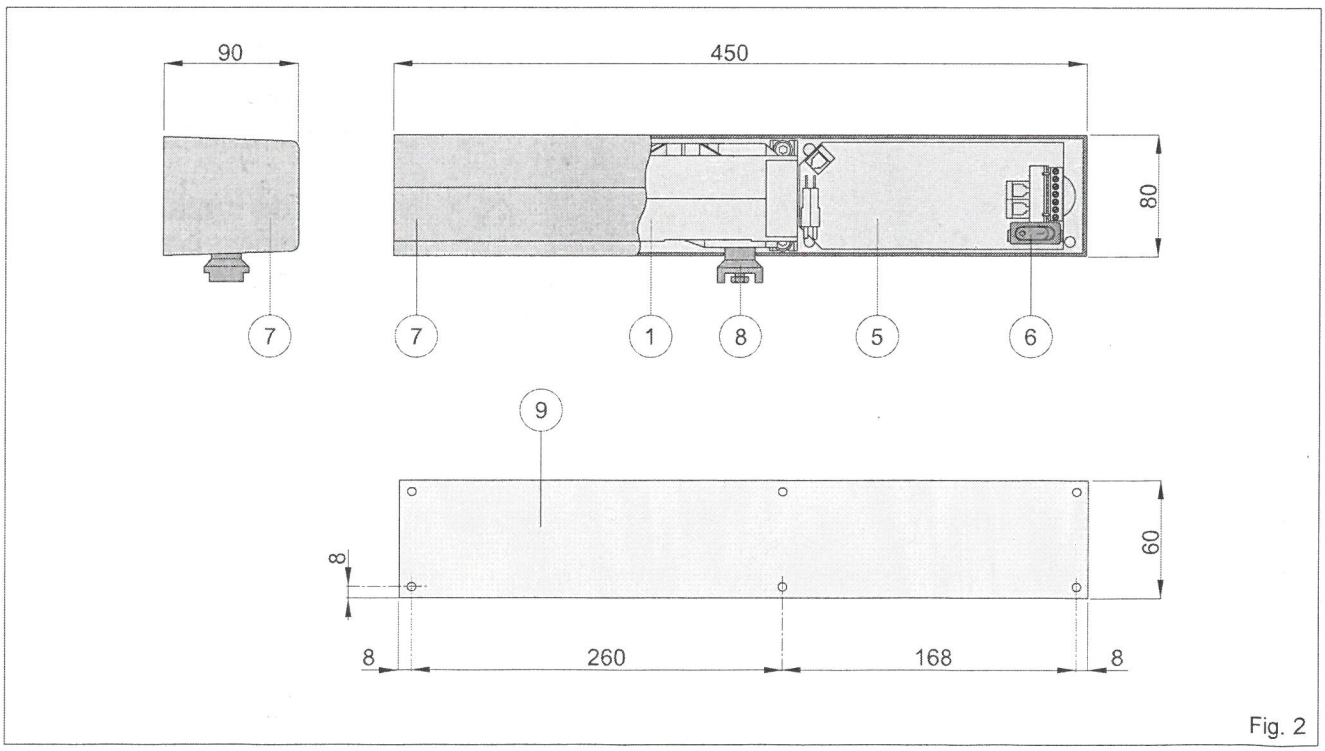

Fig. 2

GENERAL SAFETY PRECAUTIONS

⚠ This installation manual is intended for professionally competent personnel only.

Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with applicable regulations.

Before installing the product, carefully read the instructions.

Bad installation could be hazardous. The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of hazard.

Before installing the product, make sure it is in perfect condition.

Do not install the product in an explosive environment and atmosphere: gas or inflammable fumes are a serious hazard risk.

Before installing the motors, make all structural changes relating to safety clearances and protection or segregation of all areas where there is risk of being crushed, cut convoyed, and danger areas in general.

Make sure the existing structure is up to standard in terms of strength and stability. The motor manufacturer is not responsible for failure to use Good Working Methods in building the frames to be motorised or for any deformation occurring during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door or gate.

The safety devices must protect any areas where the risk exists of being crushed, cut convoyed, or where there are any other risks generated by the motorised door or gate.

Apply hazard area notices required by applicable regulations.

Each installation must clearly show the identification details of the motorised door or gate.

⚠ Before making power connections, make sure the plate details correspond to those of the power mains. Fit on the electrical system an omnipolar disconnection switch with a contact opening gap of at least 3 mm.

Check there is a differential switch and adequate overcurrent protection upline from the electrical system.

When necessary, connect the motorised door or gate to a reliable earth system made in accordance with applicable safety regulations.

During installation, maintenance and repair, interrupt the power supply before opening the lid to access the electrical parts.

⚠ To handle electronic parts, wear earthed antistatic conductive bracelets. The motor manufacturer declines all responsibility in the event of component parts being fitted that are not compatible with the safe a correct operation.

For repairs or replacements of products only original spare parts must be used.

The installer shall provide all information relating to automatic, manual and emergency operation of the motorised door or gate, and provide the user with operating instructions.

MACHINERY DIRECTIVE

Pursuant to Machinery Directive (98/37/EC) the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:

- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive;
  (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draft the EC declaration of conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the CE marking on the power operated door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

For more information consult the "Technical Manual Guidelines" available on Internet at the following address: www.ditec.it

GB

APPLICATIONS

Service class: 5 (minimum 5 years of working life with 600 cycles a day)

Applications: HEAVY DUTY (For vehicle or pedestrian accesses to institutional complexes with very intense use).

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use. During given time spans product performance characteristics will be such as not to require any special maintenance.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves).When setting up, specific local conditions must be duly borne in mind and the installation adapted accordingly for ensuring maximum durability and trouble-free operation.

DECLARATION BY THE MANUFACTURER

Directive 98/37/EC, Annex II, sub B)

Manufacturer: DITEC S.p.A.

Address: via Mons. Banfi, 3
21042 Caronno P.lla (VA) - ITALY

Herewith declares that the electromechanical automatic system for swing doors series SPRINT

- is intended to be incorporated into machinery or to be assembled with other machinery to constitute machinery covered by Directive 98/37/EC;
- is in conformity with the provisions of the following other EEC directives: Electromagnetic Compatibility Directive 89/336/EEC; Low Voltage Directive 73/23/EEC;

and furthermore declares that it is not allowed to put the machinery into service until the machinery into which it is to be incorporated or of which it is to be a component has been found and declared to be in conformity with the provisions of Directive 98/37/EC and with national implementing legislation.

Caronno Pertusella,
26-01-1998

Fermo Bressanini
(President)

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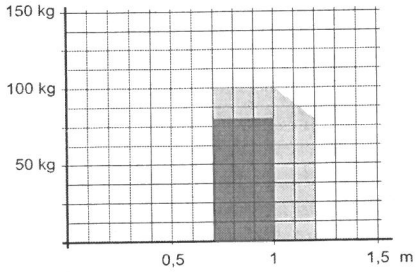
1. TECHNICAL DETAILS

	SPRINT	SPRINTJ
Power supply	230 V~ / 50-60 Hz ▣	120 V~ / 60 Hz ▣
Absorption	0,2 A	0,4 A
Maximum torque	25 Nm	25 Nm
Opening time **Closing time**	min 7 s / 90° max 3 s / 90°	min 7 s / 90° max 3 s / 90°
Intermittence	S2 = 30 min S3 = 80%	S2 = 30 min S3 = 80%
Accessories power supply	24 V= / 0,15 A	24 V= / 0,15 A
Operation type	Motor opening Motor closing	Motor opening Motor closing
Temperature	-20 °C / +55 °C [batteries: +10 °C / +50 °C]	-20 °C / +55 °C [batteries: +10 °C / +50 °C]
Degree of protection	IP12D	IP12D
Control panel	165	165
Applications m = door wing width kg = door wing weight Recommended dimensions Limit dimensions		

2. REFERENCE TO ILLUSTRATION

The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

2.1 Standard installation references (fig. 1)

[1] Gearmotor
[2] Radar
[3] Connect to the power supply by means of the appropriate plug. Connection to the grid is made with independent channels and separated from the connections to the command and safety devices.
[4] Mechanical opening stop

2.2 Automation references (fig. 2)

[5] Control panel
[6] ON/OFF switch
[7] Casing
[8] Arm support
[9] Base plate

3. INSTALLATION

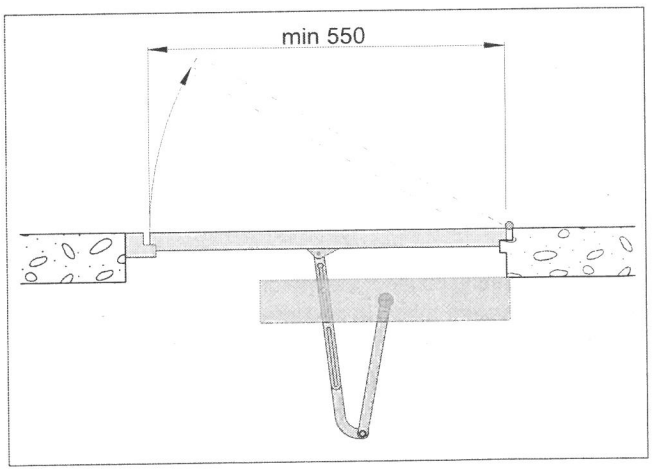
Unless otherwise specified, all measurements are expressed in millimetres (mm).

3.1 Preliminary checks

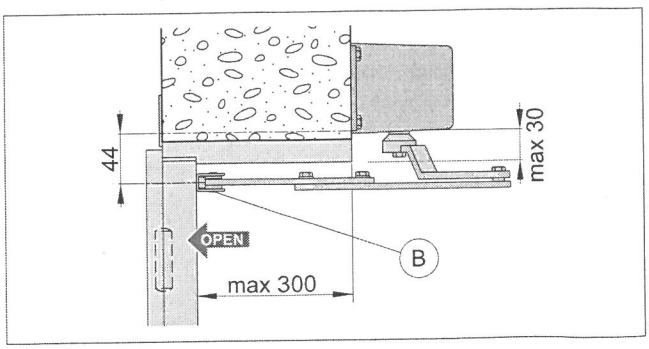
Check the stability, the weight of the door wing and the regularity of the movement, without friction (if necessary reinforce the frame). Any "door closes" must be eliminated or completely cancelled.
Attention: check the correct working in the case of installation on doors that separate environments with different pressures.

3.2 Installation with articulated arm

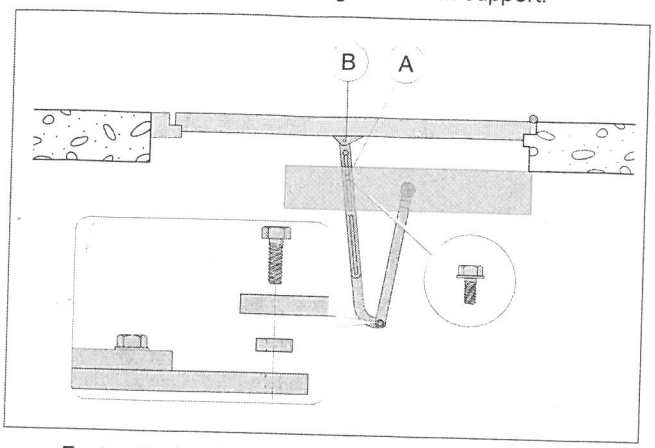
Use the articulated arm for doors that open outwards (seen from automation side).



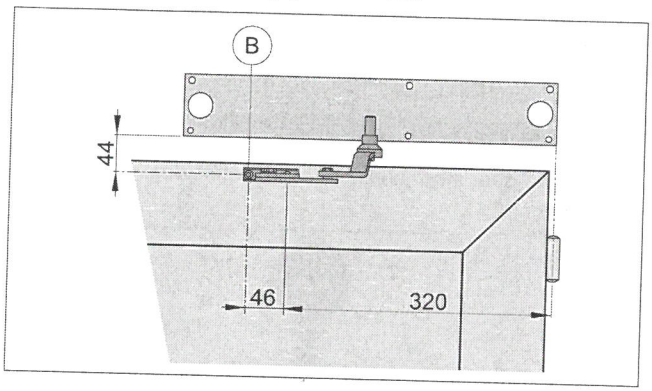
- Remove the casing and fasten the automation on the wall, respecting the measurements indicated in the figure: refer to the hinge axis.



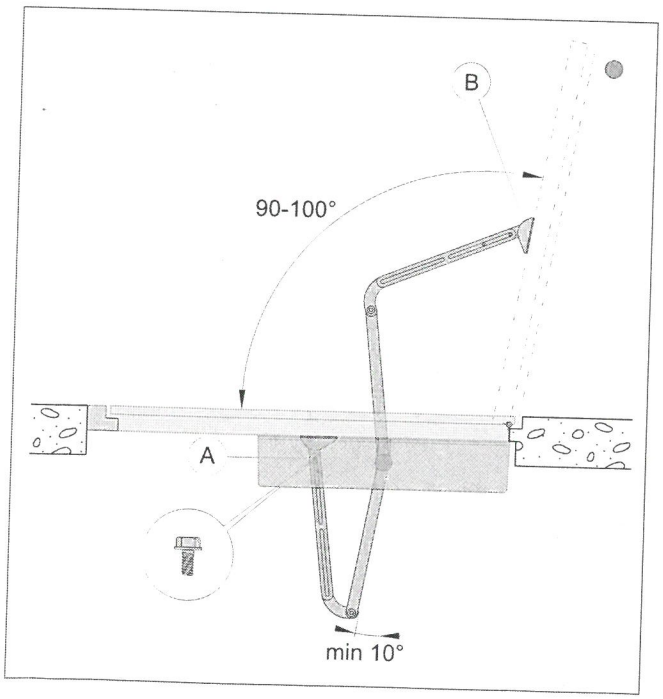
- Assemble the articulated arm, without tightening the travel screws [A], and fasten it to the automation, ensuring it is inserted in the housing of the arm support.



- Fasten the bracket [B] to the door.



- With the door closed, adjust the arm and tighten the screws [A].



3.3 Installation with sliding arm

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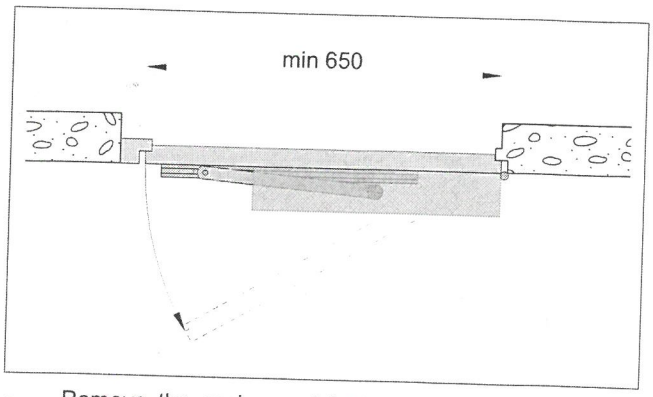
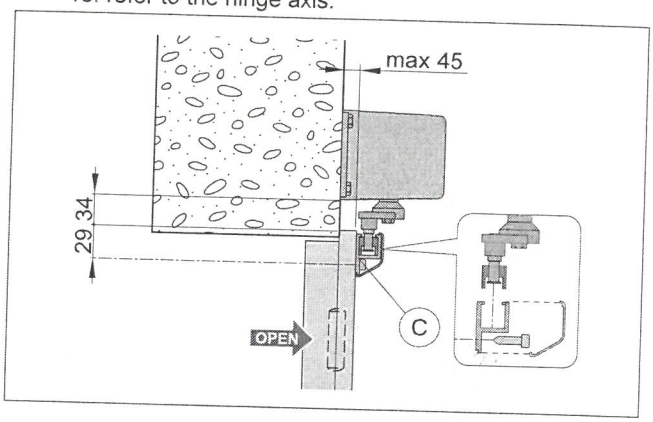
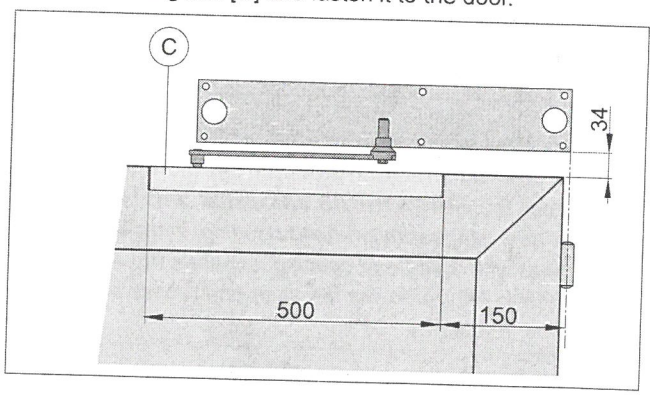
Use the sliding arm for doors that open inwards (seen from automation side).



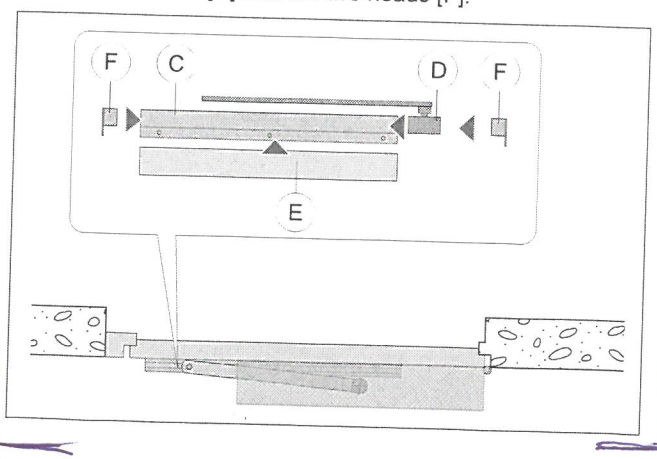
- Remove the casing and fasten the automation on the wall, respecting the measurements indicated in the figure: refer to the hinge axis.



- Bore the guide [C] and fasten it to the door.

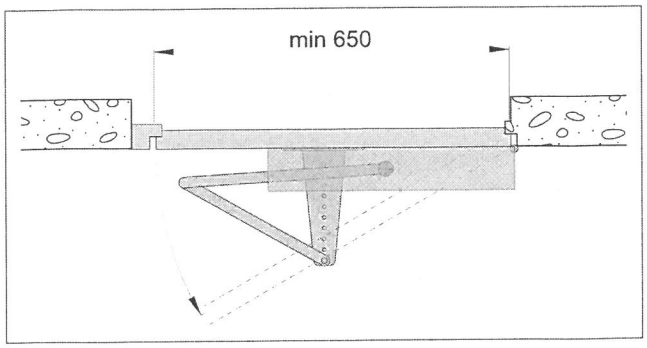


- Insert the sliding block [D] of the sliding arm in the guide [C]. Fasten the arm to the automation, ensuring it is inserted in the housing of the arm support.
- Insert the lid [E] and the two heads [F].

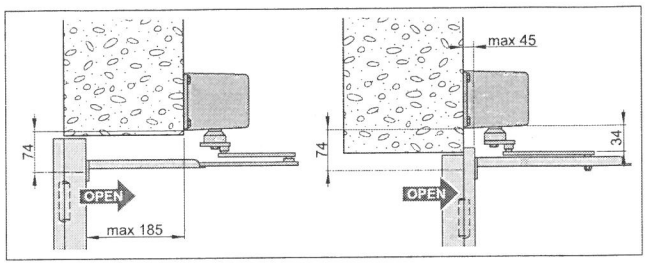


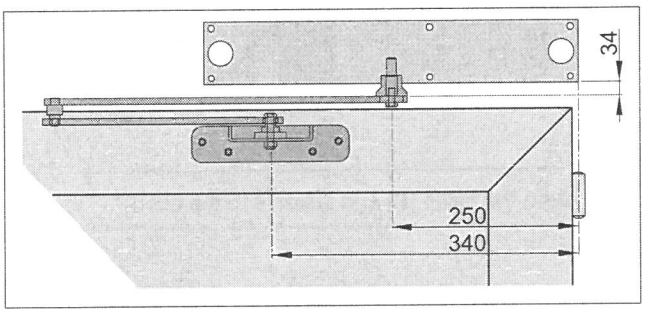
GB 3.4 Installation with SPRINTBRAS articulated arm

Use the SPRINTBRAS articulated arm for doors that open inwards (seen from automation side).

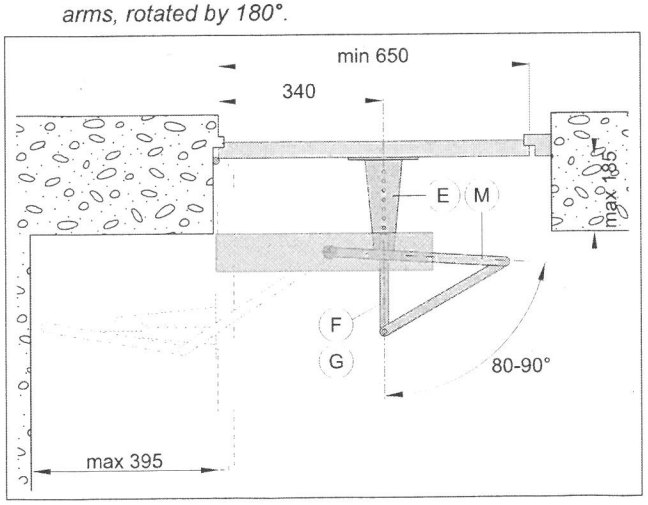


- The fastening distance of the automatic system in relation to the door wing can be between 185 mm and 45 mm.

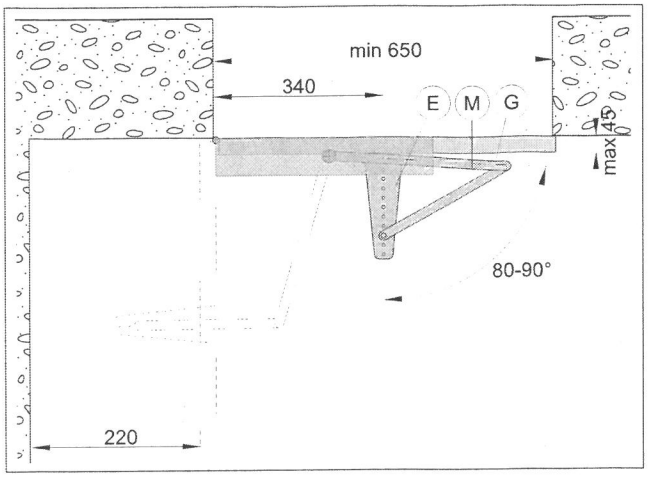




- Adjust the length of the arms [E] and [F] so as to form an angle of 80÷90° in relation to the arm [M], with the door closed.
  Note: the SPRINTBRAS articulated arm is assembled for door wings with left-hand opening; in the case of door wings with right-hand opening, separate the arm [G] from the arm [M] (removing the plug) and reassemble the two arms, rotated by 180°.

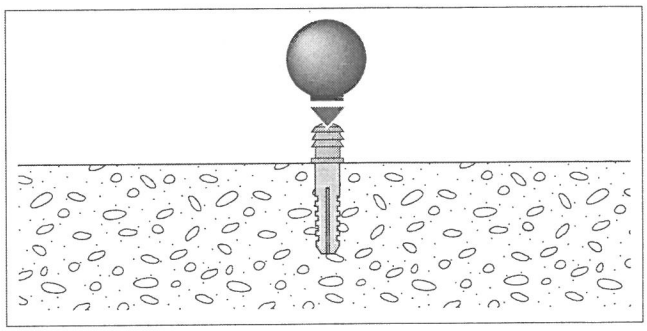


- For distances between 45 mm and 20 mm, remove the arm [F] and fasten the arm [G] to the bracket [E] with the spacer and the screw supplied, so as to form an angle of 80÷90° in relation to the arm [M].



3.5 Installation of door stop

Fasten the door stop (supplied as a mechanical opening stop) to the floor.



4. ELECTRICAL CONNECTIONS

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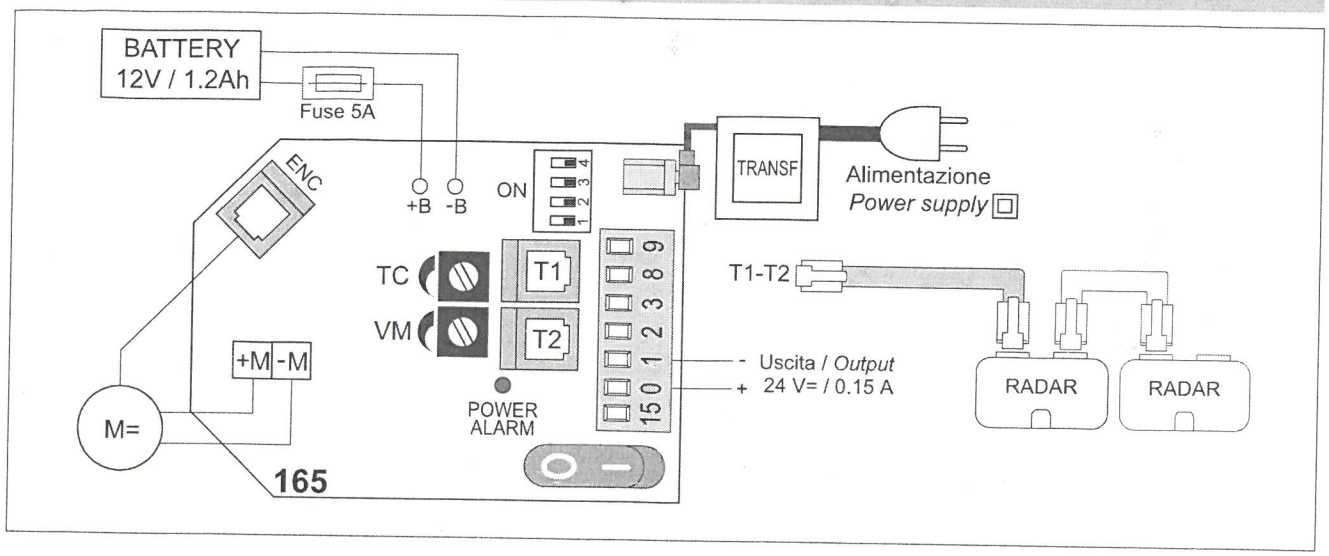

Attention: link up all N.C. contacts (if not used) by means of jumpers.

4.1 Controls

Control		Function	Description
1 — 2	N.O.	CLOSING	The closing operation starts when the contact is closed.
		AUTOMATIC CLOSING	A permanent contact enables the automatic closing.
1 — 3	N.O.	OPENING	The opening operation starts when the contact is closed.
1 — 8	N.C.	REVERSE SAFETY	The opening of the contact during the closure operation causes the reverse movement (re-opening).
1 — 9	N.C.	STOP	The opening of the contact causes the stop of any movement and the exclusion of every normal or emergency functioning.

4.2 Output and accessories

Output	Value	Description
1 • + 0 • -	24 V= / 0,15 A	**Accessories power supply.** Output for external accessories power supply (including accessories connected to the connectors T1 and T2).
0 • 15	12 V / 1,2 A (max)	**Electric lock.**
+B -B	12 V / 1,2 Ah	**Battery kit.** The automation is fitted with a battery that guarantees the continuous working even without a mains supply. To charge the batteries, connect the mains power and the batteries at least 30 seconds before starting the system. To disconnect the control panel, you must disconnect the power supply and the batteries. *Attention: the batteries must always be connected to the control panel for charging.* Periodically check the efficiency of the batteries. *Note: the operating temperature of the rechargeable batteries is approximately +5°C/+40°C.* The batteries should be installed inside a climatised environment to ensure the correct functioning of the product.
T1-T2 		Connectors for connection to external command accessories (example: RER radar). *Attention: to use RER radar, position the dip-switch of the radar in the DX position.*
		**ON-OFF switch.** Switch for activating/deactivating. When activating (ON position), the first operation is carried out with the acquisition of the stop positions. When deactivating (OFF position), the line power supply and the batteries are disconnected from the control panel.

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4.3 Trimmer

	Description	MIN.	MAX.
TC	**Automatic closing time.** Adjust the time that passes between the end of the opening manoeuvre and the start of the automatic closing manoeuvre. *Note: with DIP1=ON, set TC>5s.*	0 s	30 s
VM	**Adjustment of opening and closing speed.**	7 s/90°	3 s/90°

4.4 Dip-Switches

	Description	OFF	ON
DIP1	**Drive force.**	Normal. [25 Nm]	Low energy. [16 Nm] Note: to use the automation in maximum safety conditions (example: passage of disabled persons): - set TC>5s - set MS=5s/90°
DIP2	**Electric lock function.**	With the automation closed, there is a permanent thrust current. The drive impulse is given at the same time as the start of the opening operation.	With the automation closed, before the opening operation a closing thrust is introduced at the same time as the drive impulse. During the closing operation, the speed increases slightly to ensure the correct closing of the electric lock.
DIP3	**Push&Go.**	Disabled.	Enabled.
DIP4	**Direction selection.** The opening direction is intended by viewing the automation from the side being examined.	Left-hand opening.	Right-hand opening.

4.5 Signals

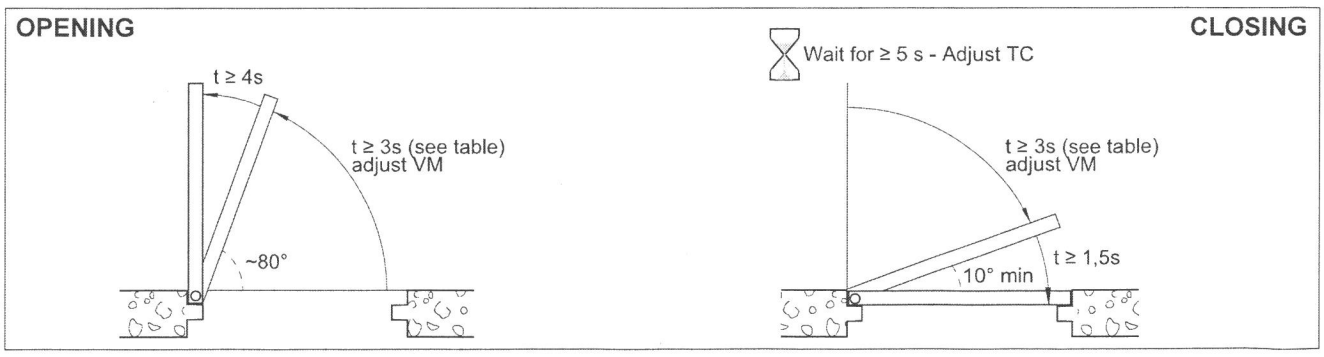
LED	ON	Flashing
POWER ALARM	24 V= power supply.	Encoder / automation fault.

4.6 Doors requirements for handicapped persons use

If the SPRINT automation is used on doors for the passage of disabled persons, adjust the VM trimmer so that the opening and closing times (excluding deceleration) are the same as, or greater than, those indicated in the table.

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

Make the adjustments indicated in the figure:



5. START UP

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Attention: the operations relating to point 5.4 are performed without safeties.
The trimmer can only be adjusted with the automation idle.

5.1 Set DIP1 on the basis of the type of force to be set, DIP2 on the basis of the electric lock installed, DIP3=OFF and DIP4 on the basis of the opening direction.

5.2 Adjust the VM trimmer to 1/4 rotation, and TC to the maximum.

5.3 Make a jumper for the safeties (1-8, 1-9).

5.4 Connect the power supply, then with commands 1-2 and 1-3 check the automation is working correctly. With the VM trimmer, adjust the automation speed.
Attention: upon each switch-on, the first opening or closing movement is made at low speed and allows the stop positions to be noted (acquisition).

5.5 Evaluate the risks, install and connect all the necessary safety devices (1-8, 1-9) to the control panel, and check their functioning.

5.6 If required, adjust the automatic closing with the TC (make a jumper for contact 1-2).

5.7 If Push&Go opening required, set DIP3=ON
Attention: the Push&Go function cannot be activated if DIP2=ON.

5.8 Connect any accessories and check they are functioning.

5.9 If the automation encounters an obstacle during closure, it is detected and the automation opens again. If the automation encounters an obstacle during opening, it is detected and the automation stops. In the subsequent operation, the obstacle is considered as a new stop point until it is removed.

6. TROUBLESHOOTING

Problem	Possible cause	Remedy
The automation does not open and close.	Power failure.	Make sure electric control panel is powered. (POWER ALARM led on).
	Accessories short circuit.	Disconnect accessories from terminals 0-1 (with 24 V= voltage) and connect them again one at a time.
	STOP contact open.	Check terminal 9 of the control panel.
	The door is blocked by bolts and locks.	Make sure the wing can move freely.
The door opens but does not close.	Safety contacts are open.	Check terminal 8 of the control panel.
	The safety devices are activated.	Check the clean state and correct working of the photocells and safety devices.
	The radars are activated.	Make sure the radar is not subject to vibrations, nor carrying out false detections or detecting moving objects within its range of action.
	Automatic closing does not work.	Check 1-2 jumper.
The door opens by itself.	The radars are unstable or detect moving objects.	Make sure the radar is not subject to vibrations, nor carrying out false detections or detecting moving objects within its range of action.
The door opens/closes briefly and then stops.	Encoder not working. (POWER ALARM led flashing).	Replace encoder.
	Inverted motor wires. (POWER ALARM led flashing).	Check motor wires.
	Some friction is present.	Check manually that the wing can move freely. Make sure there is no dirt or grit under the wing.
	The batteries are inefficient.	Check the battery fuse.
		Remove the mains power supply and check the efficiency of the battery, making some operations. If insufficient, replace it.

7. MAINTENANCE SCHEDULE (every 6 months)

Remove the power supply and batteries, and position the ON/OFF switch [7] in the OFF position.
- Clean and lubricate the moving components.
- Check that all securing screws are well tightened.
- Check all wiring.
- Check battery efficiency.

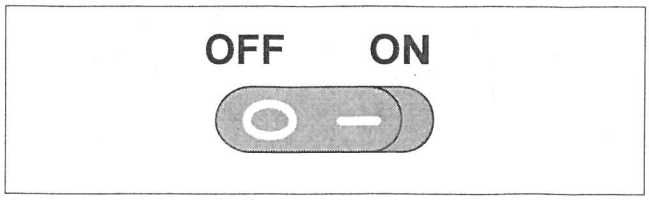
Replace the power supply and batteries, and position the ON/OFF switch [7] in the ON position.
- Check for the stability of the door and that the movement is steady, without friction.
- Check the condition of the pintles or hinges.
- Check that all controls and safety devices are properly functioning.

ATTENTION: For spare parts, see the spares price list.

OPERATING INSTRUCTIONS FOR SPRINT SWING DOORS AUTOMATION

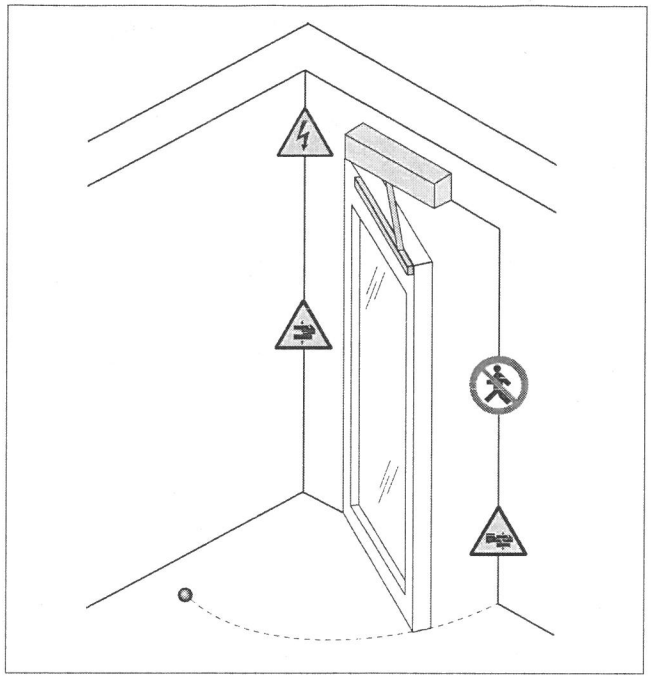
RELEASE OPERATION

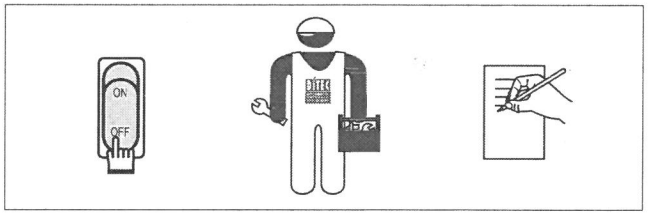
In the event of maintenance, malfunctioning or emergency, if you want to disconnect the automation, set the automation switch to OFF and move the door manually.
If the door does not have an electric lock, use the appropriate key to release it.



GENERAL SAFETY PRECAUTIONS

⚠ The following precautions are an integral and essential part of the product and must be supplied to the user. Read them carefully as they contain important indications for the safe installation, use and maintenance. These instruction must be kept and forwarded to all possible future user of the system.
This product must be used only for that which it has been expressly designed. Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be held responsible for possible damage caused by improper, erroneous or unreasonable use. Avoid operating in the proximity of the hinges or moving mechanical parts. Do not enter the field of action of the motorised door or gate while in motion.
Do not obstruct the motion of the motorised door or gate as this may cause a situation of danger. Do not allow children to play or stay within the field of action of the motorised door or gate. Keep remote control or any other control devices out of the reach of children, in order to avoid possible involuntary activation of the motorised door or gate.
In case of break down or malfunctioning of the product, disconnect from mains, do not attempt to repair or intervene directly and contact only qualified personnel.
Failure to comply with the above may create a situation of danger.
All cleaning, maintenance or repair work must be carried out by qualified personnel.
In order to guarantee that the system works efficiently and correctly it is indispensable to comply with the manufacturer's indications thus having the periodic maintenance of the motorised door or gate carried out by qualified personnel.
In particular regular checks are recommended in order to verify that the safety devices are operating correctly. All installation, maintenance and repair work must be documented and made available to the user.





TEAR OFF AND DELIVER TO USER

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