AUTOMATIC ENTRANCE SPECIALISTS

Sprint - Sprint J

Manuale di installazione e manutenzione per automazione per porte a battente

Installation and maintenance manual for automation for swing doors

Manuel d'installation et d'entretien puor automatisme pour portes battantes

Montage und Wartungshandbuch für automatisierung für Schwingtore

Manual de instalaciòn y manutenciòn para automatización para puertas batientes

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ISO 9001 - Cert. n° 0957/0

GENERAL SAFETY PRECAUTIONS

This installation manual is intended for professionally competent personnel only.
The installation, the electrical connections and the settings must be completed in conformity with good workmanship and with the laws in force.
Read the instructions carefully before beginning to install the product.
Incorrect installation may be a source of danger.
Packaging materials (plastics, polystyrene, etc) must not be allowed to litter the environment and must be kept out of the reach of children for whom they may be a source of danger. Before beginning the installation check that the product is in perfect condition.
Do not install the product in explosive areas and atmospheres: the presence of flammable gas or fumes represents a serious threat to safety.
Before installing the motorisation device, make all the structural modifications necessary in order to create safety clerance and to guard or isolate all the compression, shearing, trapping and general danger areas.
Check that the existing structure has the necessary strength and stability. The manufacturer of the motorisation device is not responsible for the non-observance of workmanship in the costruction of the frames to be motorised , nor for deformations that may be occur during use.
The safety devices (photoelectric cells, mechanical obstruction sensor, emergency stop, etc) must be installed taking into account: the provisions and the directives in force, good workmanship criteria, the installation area, the funtional logic of the system and the forces developed by the motorised door or gate. The safety devices must protect against compression, shearing, trapping and general danger areas of the motorized door or gate.
Display the signs required by law to identify danger areas.
Each installation must bear a visible indication of the data identifying the motorised door or gate. Before connecting to the mains check that the rating is correct for the destination power requirements.
A multipolar isolation switch with minimum contact gaps of 3 mm must be included in the mains supply.
Check that upstream of the electrical installation there is an adequate differential switch and a suitable circuit breaker.
Ensure that the motorised door or gate has an earth terminal in accordance with the safety regulations in force. The manufacturer of the motorising device declines all responsability in cases where components which are incompatible with the safe and correct operation of the product only original spare parts must be used.
For repairs or replacements of products only original spare parts must be used.
It is recommended that antistatic conductive earthed arm bands be worn when manipulating electronic parts.
The fitter must supply all information corcerning the automatic, the manual and emergency operation of the motorised door or gate, and must provide the user the device with the 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;
- 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

DECLARATION BY THE MANUFACTURER

(Directive 98/37/EC, Annex II, sub B)
Manufacturer: DITEC S.p.A.
Address: via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY
Herewith declares that the electromechanical automatic system SPRINT
- is intended to be incorpored into machinery or to be assembled with other machinery to constitute machinery convered by Directive 98/37/EC, as amended;
- is in conformity with the provisions of the following other EEC directives:
  Electromagnetic Compatibility Directive 89/336/EEC, as amended;
  Low Voltage Directive 73/23/EEC, as amended;

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
(Chairman)

APPLICATIONS

Maximum permissible weight and recommended weight: see TECHNICAL DATA
Service life: 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.

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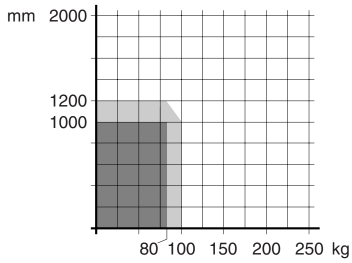
1. TECHNICAL DATA	Sprint	Sprint J
Power supply	230 V~ 50 Hz ⧈	120 V~ 60 Hz ⧈
Absorption	0.2 A	0.4 A
Motor power	15 W	
Geared motor torque	25 Nm	
Opening time	3 s / 90°	
Intermittence	S2= 30 min, S3 = 80%	
Accessories power supply	24 V⎓ / 0.15 A (nominal) / 0.3 A (peak)	
Degree of protection	IP12D	
Weight	5 kg	
Wing dimensions **mm = door wing width** **kg = door wing weight** **Recommended dimensions** **Limit dimensions**		

2. REFERENCE TO ILLUSTRATIONS

2.1 Standard installation references (fig. 1)

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

[1] Geared motor
[2] Radar
[3] Plug in to mains
[4] Sliding arm

2.2 Geared motor references (fig. 2 and 3)

[5] Electrical board
[6] Control cable plug
[7] ON/OFF switch
[8] Motor faston
[9] Encoder connector
[10] Control terminal board
[11] Housing
[12] Arms support
[13] Base plate

3. INSTALLATION

3.1 Preliminary checks

Check for wing stability and weight, and make sure that door movement is smooth and friction-free (strengthen frame if necessary). If door closure systems are installed, these must be removed or completely disactivated.
Warning: when installing doors that divide rooms having different pressures, check for their working efficiency.

3.2 Selecting the appropriate arm

Use the articulated arm for doors opening outwards as seen from the actuator side (fig. 4).
Use the sliding arm for doors opening inwards as seen from the actuator side (fig. 9).
Use the articulated arm Sprint BRAS for doors opening inwards as seen from the actuator side (fig. 14-15).

3.3 Installing the geared motor with articulated arm

1. Remove the housing and mount the actuator on to the wall according to the measurements shown in figs. 3, 5, 6 or 7 and with reference to the hinge centre line.
2. Correctly mount the articulated arm, taking care not to tighten at this stage the screws [A],and secure it to the actuator making sure that it properly fits into the arms support seat (fig. 5 and 8).
3. Secure bracket [B] to the door (fig. 6 or 7 and 8).
4. Close the door and adjust the arm (fig. 8). Next, tighten screws [A].

Note: Use the door stop provided for maximum door opening.

3.4 Installing the geared motor with sliding arm

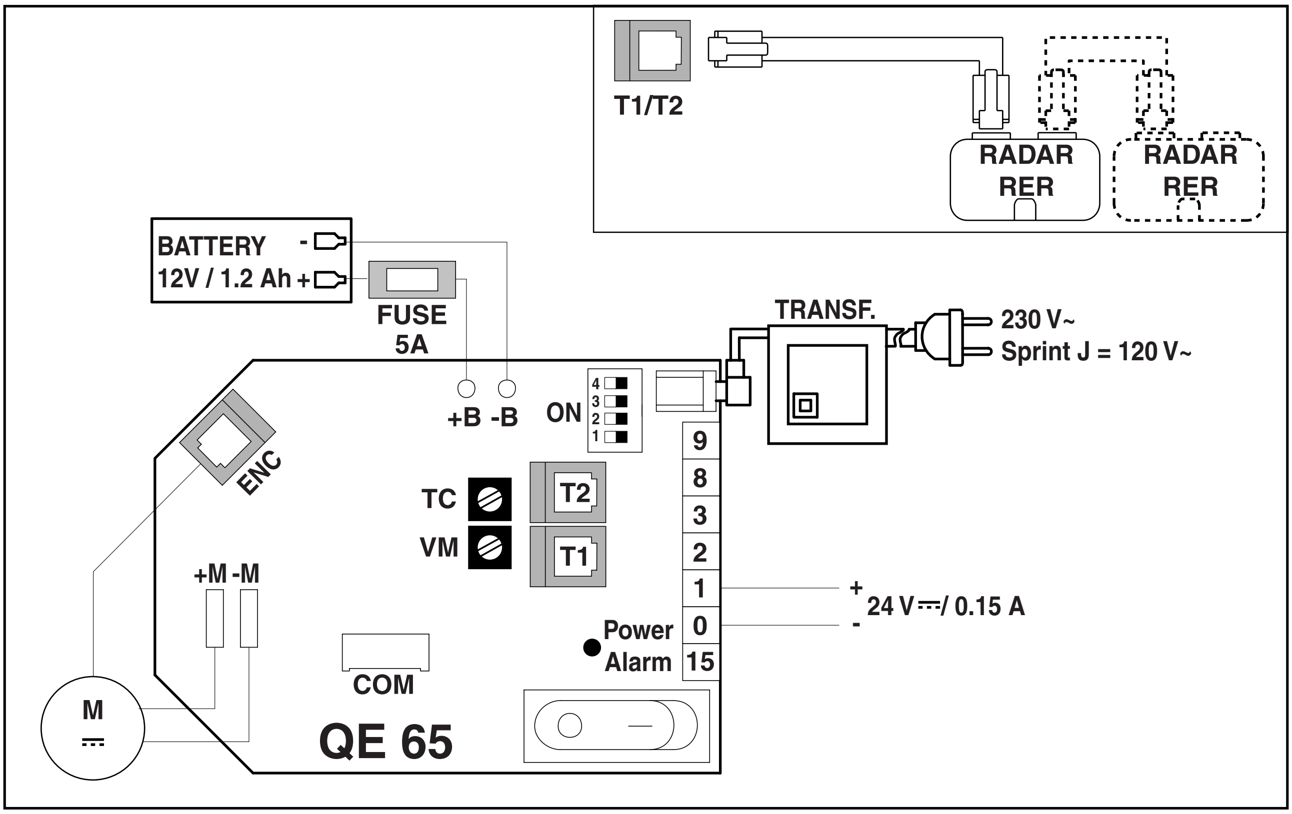
1. Remove the housing and mount the actuator on to the wall according to the measurements shown in figs. 3, 10, 11 or 12 and with reference to the hinge centre line.
2. Drill holes into guide [C] and secure the guide to the door (fig. 10 and 13).
3. Introduce the sliding arm shoe [D] into the guide (fig. 13). Secure the arm to the actuator, making sure that it properly fits into the arm support seat.
4. Fit the cover and the two endpieces on to guide [C] (check for proper mounting direction) (fig. 10 and 13).

Note: Use the door stop provided for maximum door opening.

3.5 Installing the geared motor operating mechanism with articulated arm Sprint BRAS

1. Adjust the length of the arms [E]+[F] so as to create an angle of 80° to 90° with respect to the arm [M].
2. The distance for securing the wing with respect to the automatic system can be as much as 185 mm (Fig. 14) or up to 45 mm (Fig. 15).
3. For distances of between 45 mm and 20 mm, remove the arm [F] and secure the arm [G] to the bracket [E] using the spacer and screw supplied, so as to always create an angle of 80° to 90° with respect to the arm [M].
4. The Sprint BRAS additional arm is assembled for wings with left-hand opening. For wings with right-hand opening, separate the arm [G] from the arm [M] (removing the pin) and reassemble the 2 arms rotated by 180°.

4. ELECTRICAL CONNECTIONS



WARNING **Link up all N.C. contacts (if not used) by means of jumpers. The terminal bearing the same number are equivalent.**

4.1 Controls

CONTACT		FUNCTION	DESCRIPTION
1 —⁄— 2	N.O.	CLOSE AUTOMATIC CLOSURE	Closing contact. The automatic closing function is enabled by a permanent contact.
1 —⁄— 3	N.O.	OPEN	Opening contact.
1 —⁄— 8	N.C.	REVERSAL SAFETY CONTACT	Reverses movement (re-opens) during closing.
1 —⁄— 9	N.C.	STOP	By opening the contact the door stops or remains still.
OFF ON		SWITCH ON/OFF	When set to 0, the actuator is OFF (mains and battery power are disconnected from the electrical board). Upon turning on again (switch set to ON), travel distance is learned when the door is opened the first time.
T1 / T2		CONNECTORS	Connectors for the linking up of external auxiliary control units (for example, the RER radar). **Attention:** With the RER radar, set the dip-switch fitted on the radar unit to DX.
COM		SERIAL CONNECTOR	(Currently not used).

4.2. Output and accessories

OUTPUT	VALUE	DESCRIPTION
1 + 0 -	24 V ⎓ / 0.15 A (nominal) 0.3 A (peak)	**Accessories power supply.** Output for powering of external accessories (including units linked up to T1 and T2).
0 — 15	max 1.2 A	**Electrick lock.** (See DIP2 for selection and adjustments).
+B/-B	2x12 V / 1.2 Ah	**Battery.** The actuator is provided with a battery which ensures operations even in case of mains power failure. **Attention: always ensure that the battery is connected to the electric panel.**

4.3 Setting and adjustments

TC - Automatic closure (from 0 to 30 seconds). Counting starts at end of opening operation and lasts according to the time set via the TC trimmer.
Opening and closing speed. Door opening speed is adjusted by means of the VM trimmer. Door closing speed is two-thirds of the opening speed.
Self-learning. First door opening and closing operations are performed at low speed so as to permit the actuator to learn door travel distance.
Maximum opening and closing time. The maximum time for opening or closing is 30 seconds.
Led POWER - ALARM. Fixed light: power on **Flashing light:** actuator failure
Obstacle. In case of the actuator detecting an obstacle during closing, it immediately re-opens the door. If an obstacle is encountered during opening, the actuator detects it and stops the door. The obstacle is treated as if it were the door travel distance. Upon the obstacle being removed, the actuator automatically recovers the door's original travel distance.
DIP1 - Low energy. To use the door under maximum safety conditions (for instance, in the case of disabled persons), proceed as follows:

1. Set DIP1 to ON to electronically limit the kinetic force of the door and to set minimum automatic closing time to five seconds.
2. Adjust the VM trimmer so as to set an opening time of at least five seconds for a 90° opening.

DIP2 - Electric lock functions. With DIP2 set to OFF, the electric lock impulse is given simultaneously with motor start-up upon opening and a permanent thrust current is present while the door is closed. With DIP2 set to ON, a closing thrust is given simultaneously with the electric lock activation impulse before door opening. Door closing speed is slightly increased near closing so as to ensure firm snapping of the electric lock
DIP3 - Push opening ("push and go"). OFF: disabled. ON: enabled.
DIP4 - Selection of movement direction OFF = opening toward the right (fig. 6 or 9 or 15).
ON = opening toward the left (fig. 7 or 8).

5. Electric start-up

⚠ **WARNING** **The operations regarding point 5.4 are without safety devices.**
The trimmer can only be adjusted with gate not moving.

5.1 Set DIP 1 to OFF or ON depending on the type of force to be set
DIP 2 to OFF or ON depending on the electric lock installed
DIP 3 to OFF
DIP 4 to OFF or ON depending on the opening direction
5.2 Set the VM trimmers to 1/4 of a turn and TC to its maximum value.
5.3 Link up safety devices (1-8, 1-9) by means of jumpers.
5.4 By means of controls 1-3 and 1-2 check that the actuator is working properly. Set the actuator speed by means of the VM trimmers and the automatic closing time by means of TC (make a jumper between contacts 1 and 2).
5.5 Link up safety devices (1-8) and the stop (1-9) and check for proper operation.
5.6 Position DIP 3 to ON or OFF depending on the desired operating mode. **Attention:** If DIP2 is set to ON, the thrust opening function cannot be enabled.

6. MAINTENANCE PROGRAM (each 6 months)

Power off and set the switch to OFF.
Check that all securing screws (that is of the actuator, arms, bracket B and guide C) are well tightened.
Check all wiring.
Power and set the switch to ON.
Check that all safety devices and controls are properly functioning.

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

TEAR OFF AND DELIVER TO USER

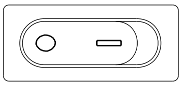
DITEC

AUTOMATIC ENTRANCE SPECIALISTS

Operating instruction for automation SPRINT for swing doors

MANUAL GATE OPERATION
In case of maintenance or malfunction or to power off the motor, set motor switch to OFF and operate the door manually.

OFF ON



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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 maintenace.
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 expresely 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 unresonable 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 breack 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.

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ICIM
ISO 9001 - Cert. n° 0957/0

I Impianto tipo
GB Standard installation
F Installation type
D Standard Montage
E Instalaciòn tipo

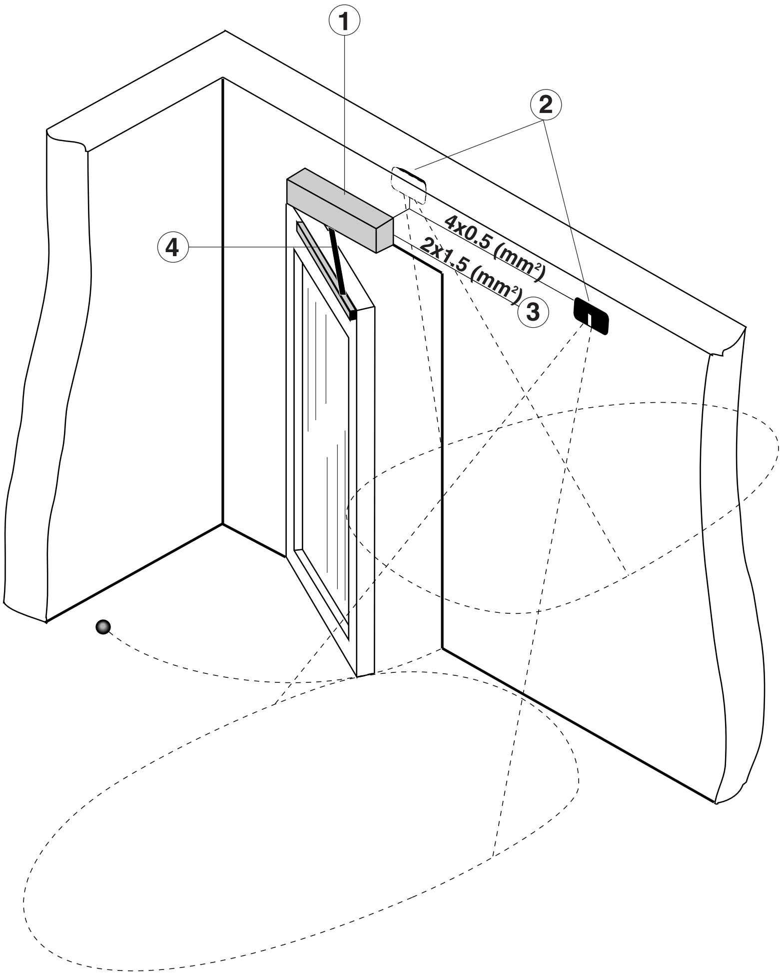


Fig. 1

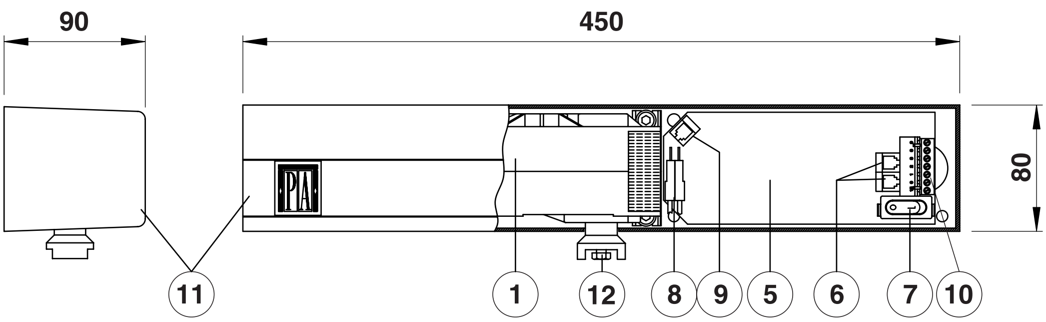


Fig. 2

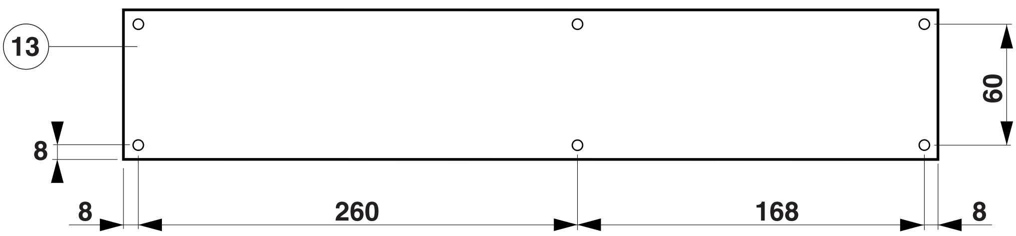


Fig. 3

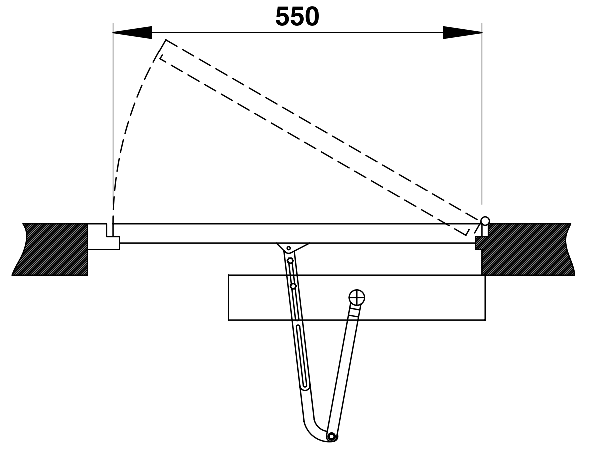


Fig. 4

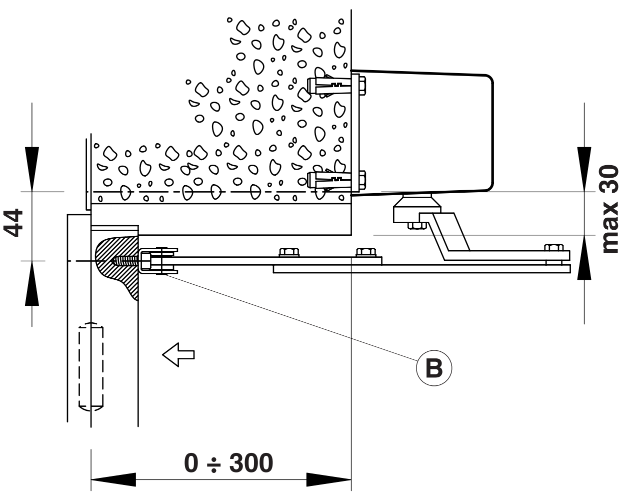
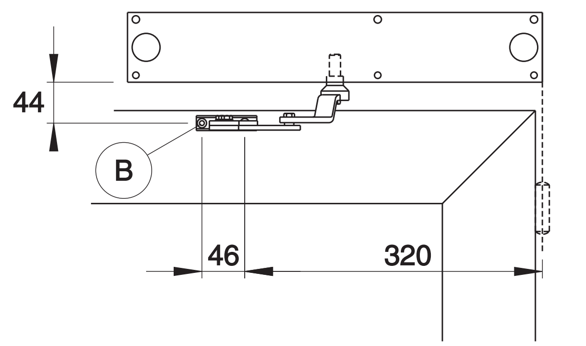
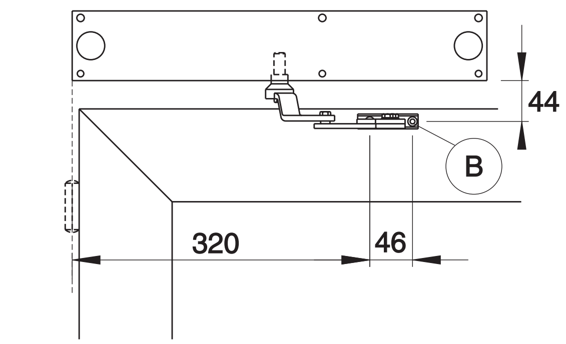


Fig. 5



DIP4 OFF

Fig. 6



DIP4 ON

Fig. 7

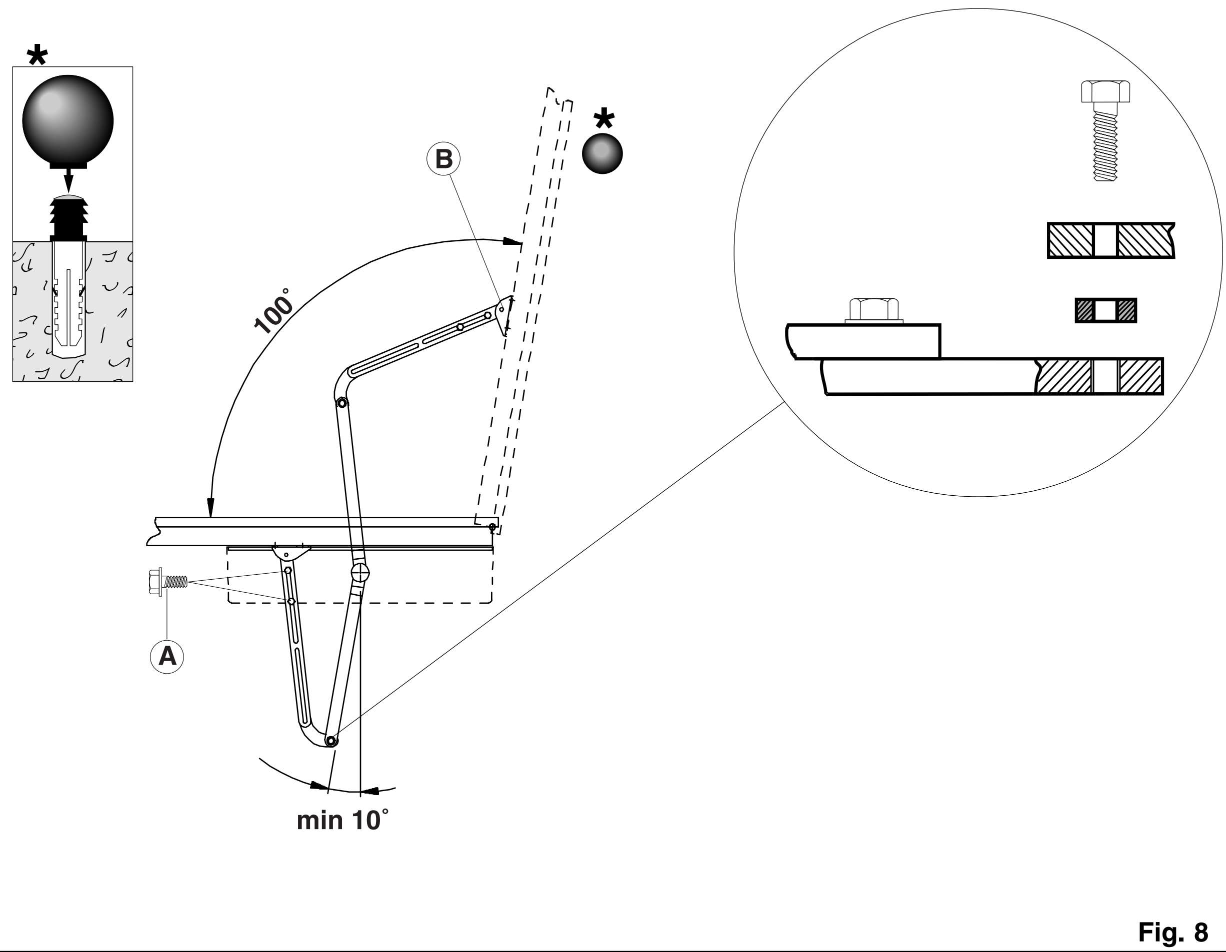


Fig. 8

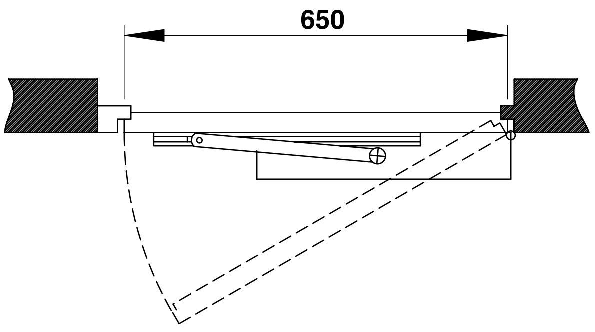


Fig. 9

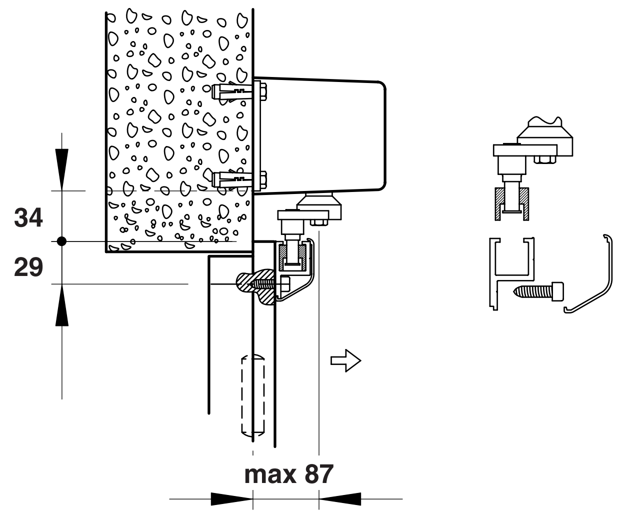
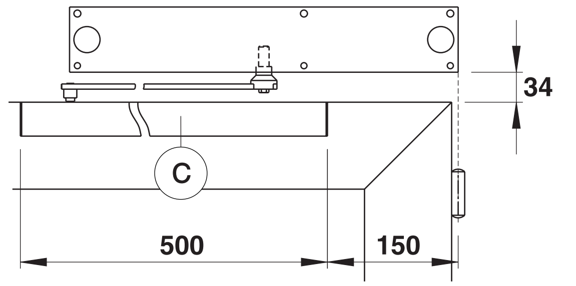
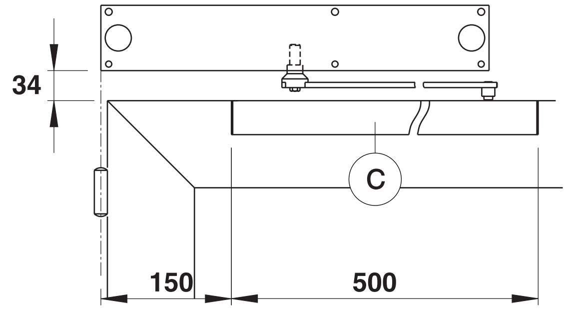


Fig. 10



DIP4 ON

Fig. 11



DIP4 OFF

Fig. 12

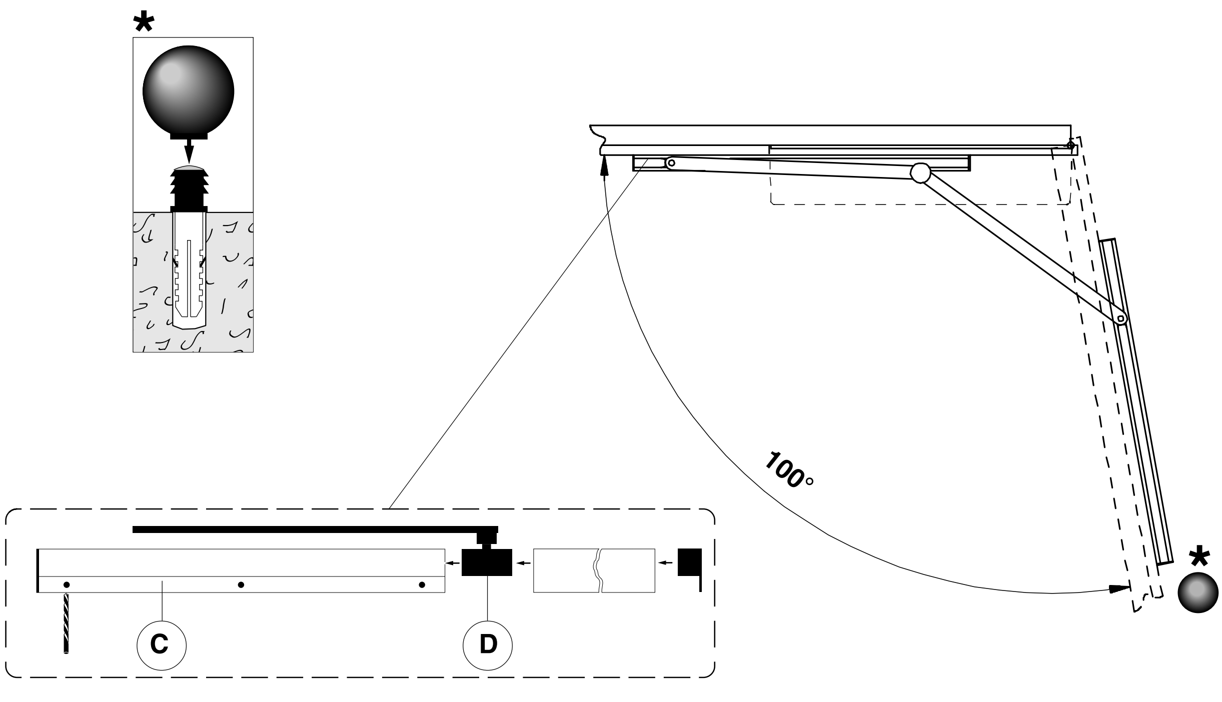


Fig. 13

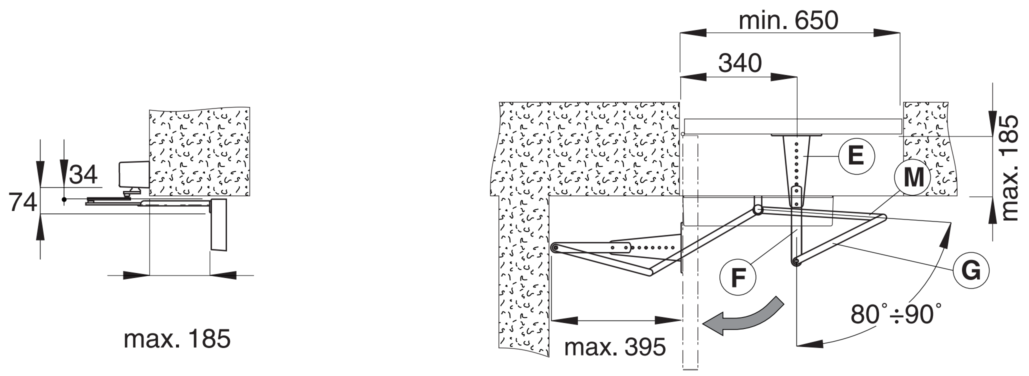

34
74
max. 185
min. 650
340
E
M
max. 185
F
G
80°÷90°
max. 395

Fig. 14

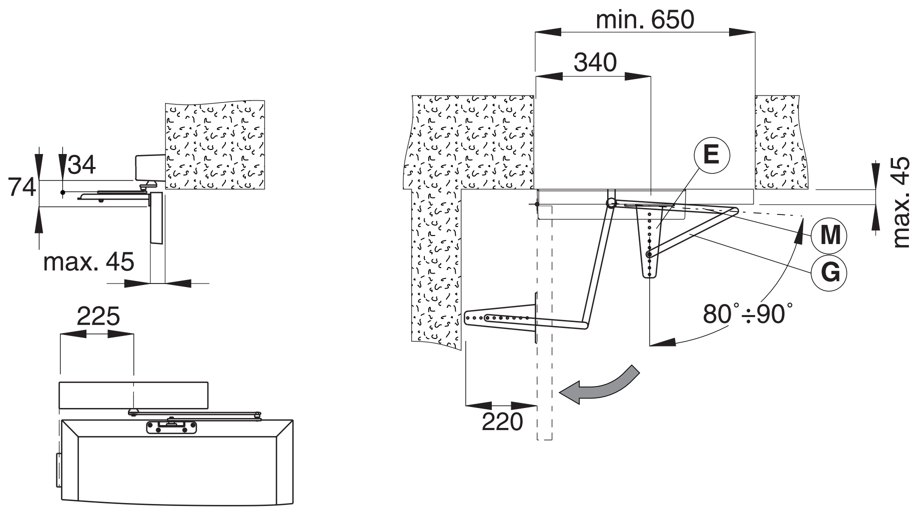

34
74
max. 45
225
min. 650
340
E
max. 45
M
G
80°÷90°
220

Fig. 15