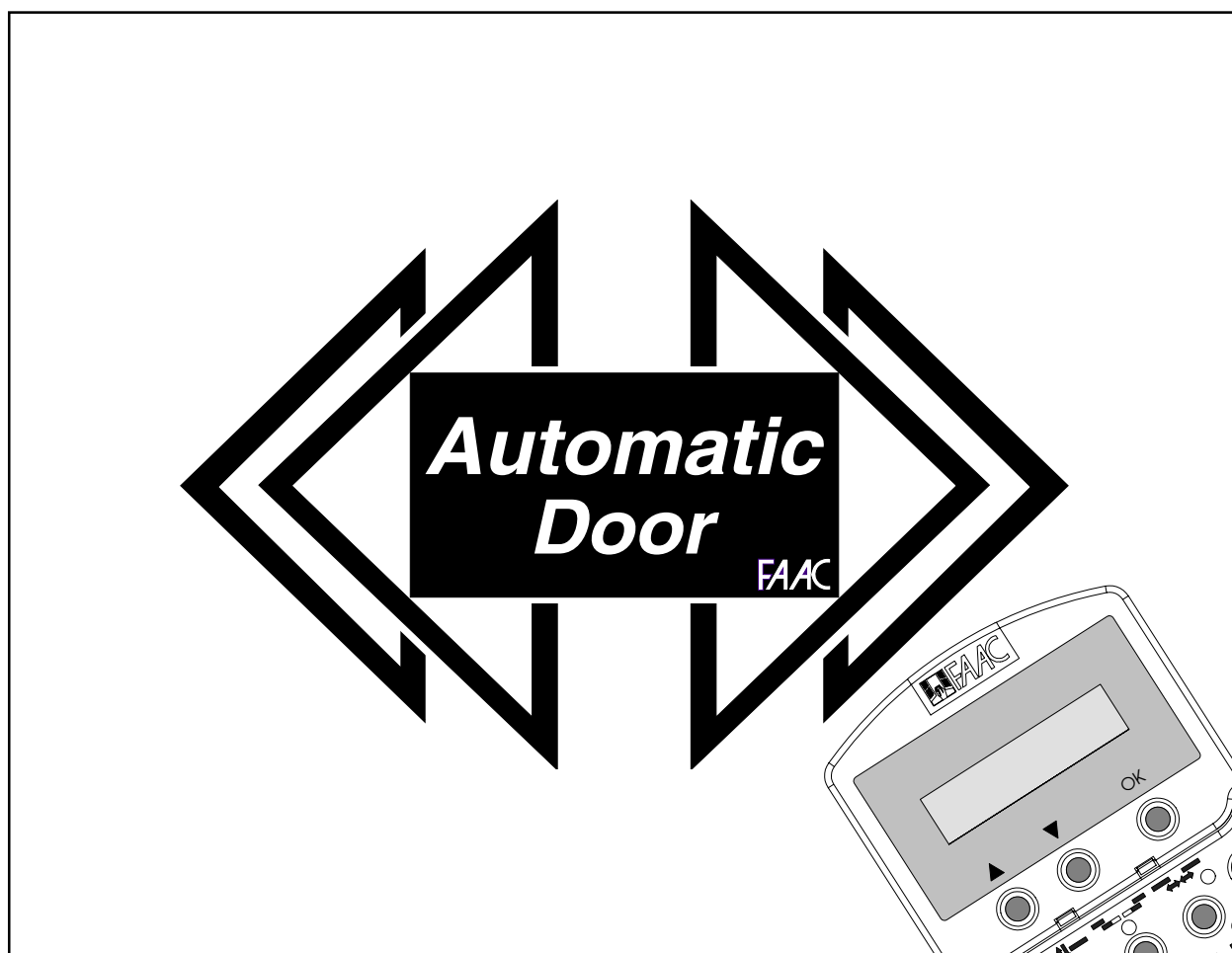
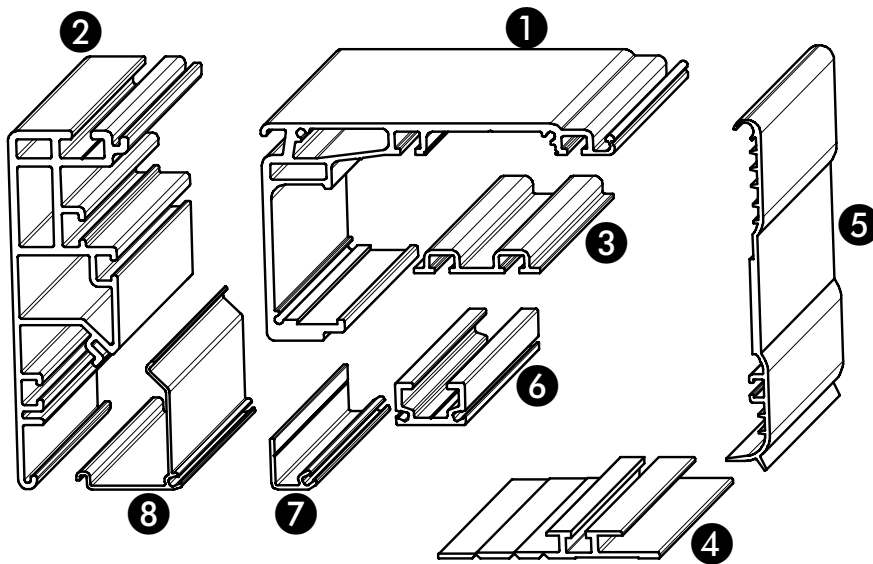
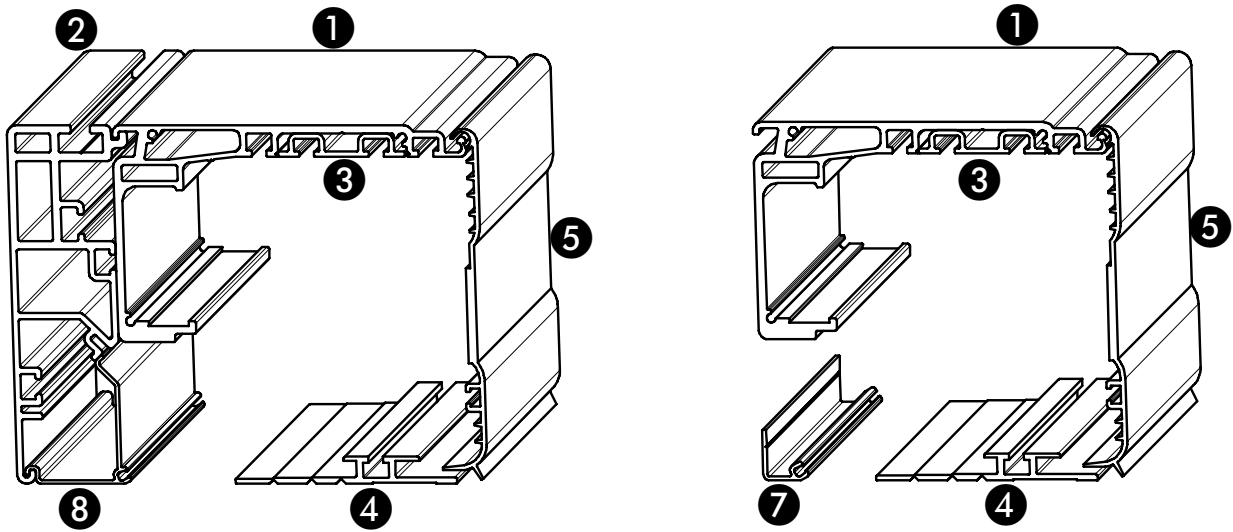


930 SF SERIES ***Automated Doors***



FAAC

KEY TO PROFILES



- ① SUPPORT PROFILE
- ② FREE-STANDING PROFILE
- ③ ACTIVATION PROFILE
- ④ LOWER HOUSING PROFILE
- ⑤ HOUSING PROFILE
- ⑥ LEAF FITTING PROFILE
- ⑦ CLOSING PROFILE FOR STANDARD AUTOMATED SYSTEM
- ⑧ CLOSING PROFILE FOR FREE-STANDING AUTOMATED SYSTEM

DOOR WITH SUPPORT PROFILE

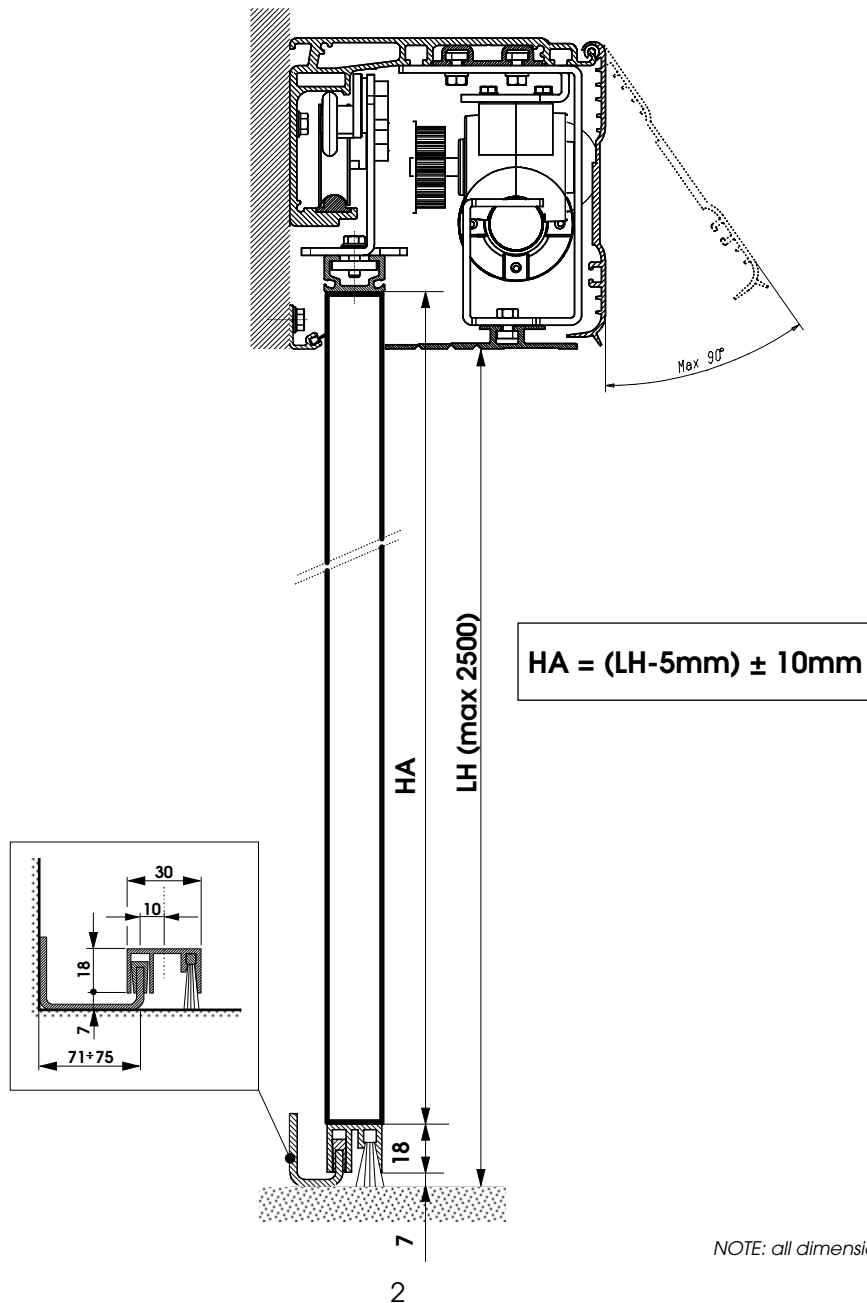
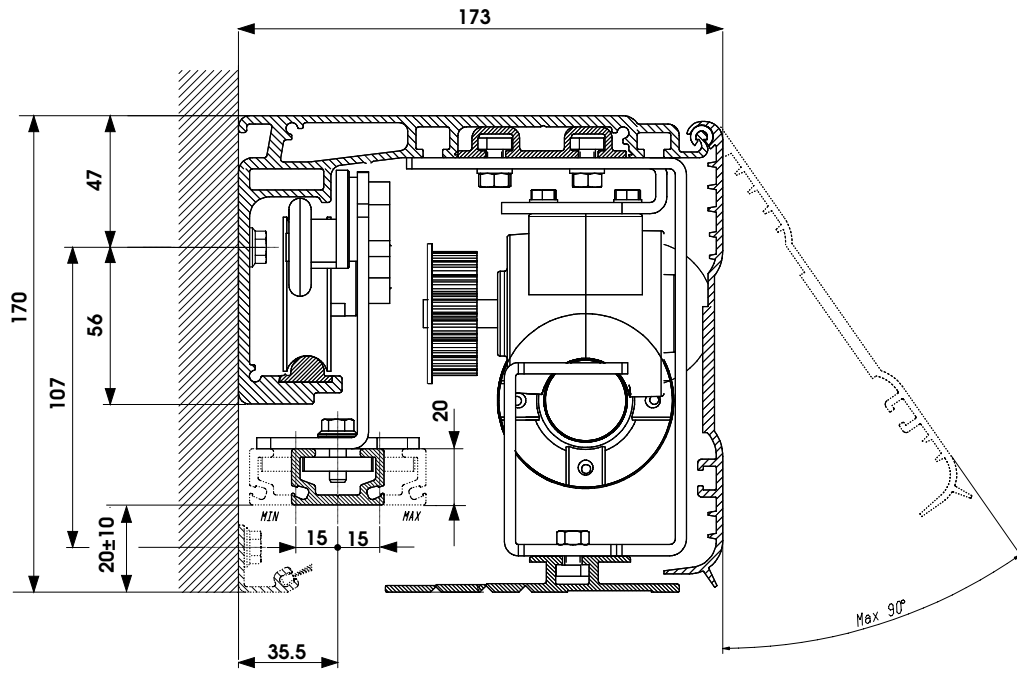
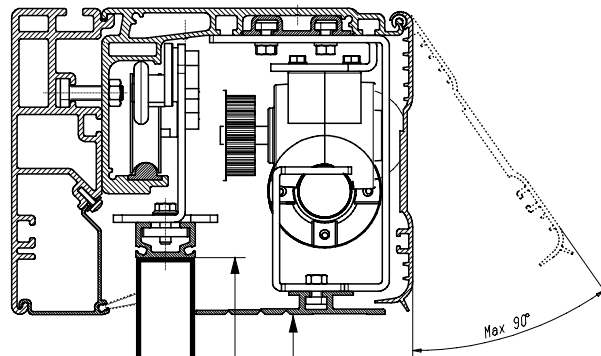
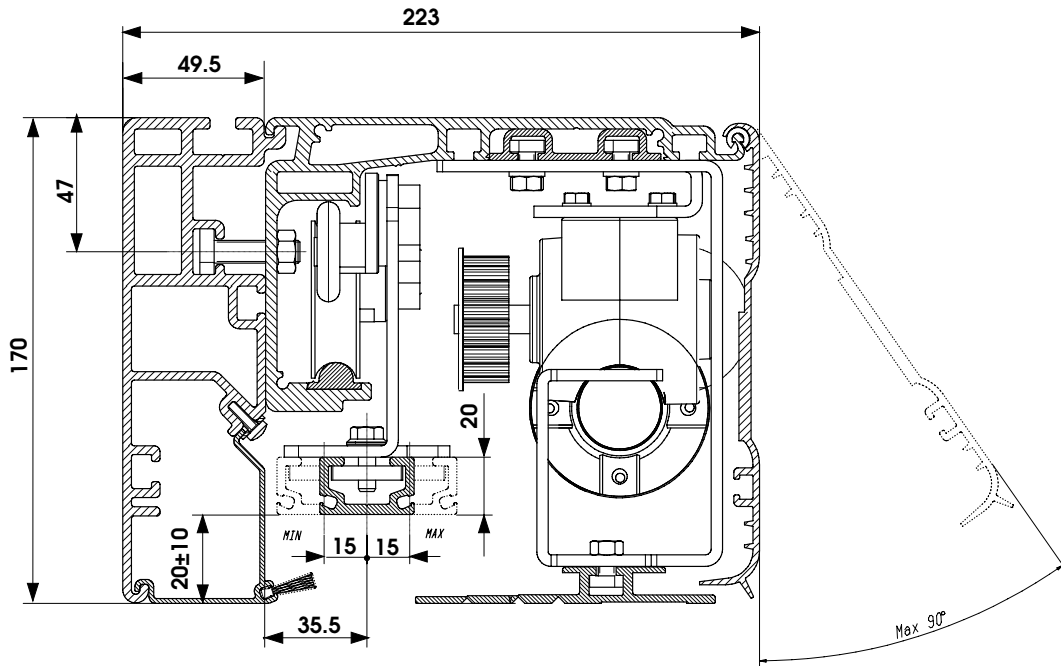


fig. 2

NOTE: all dimensions in mm



DOOR WITH FREE-STANDING PROFILE



$$HA = (LH - 5mm) \pm 10mm$$

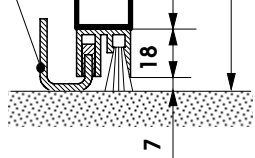
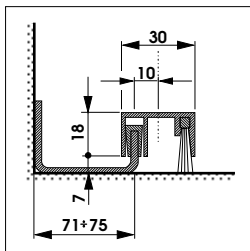


fig. 4

NOTE: all dimensions in mm



930 SF SERIES AUTOMATED DOORS

The FAAC "930 SF" series, designed and built to move and control pedestrian sliding doors, includes the following models:

930 SF1 single-leaf automated door
930 SF2 double-leaf automated door

930 SFA1 single-leaf free-standing automated door
930 SFA2 double-leaf free-standing automated door

CE DECLARATION OF CONFORMITY FOR MACHINES

(CE DIRECTIVE 89/392/EEC, ANNEX II, PART B)

Manufacturer: FAAC S.p.A.

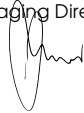
Address: Via Benini, 1
 40069 - Zola Predosa
 BOLOGNA-ITALY

Declares that: The 930SF series automated doors

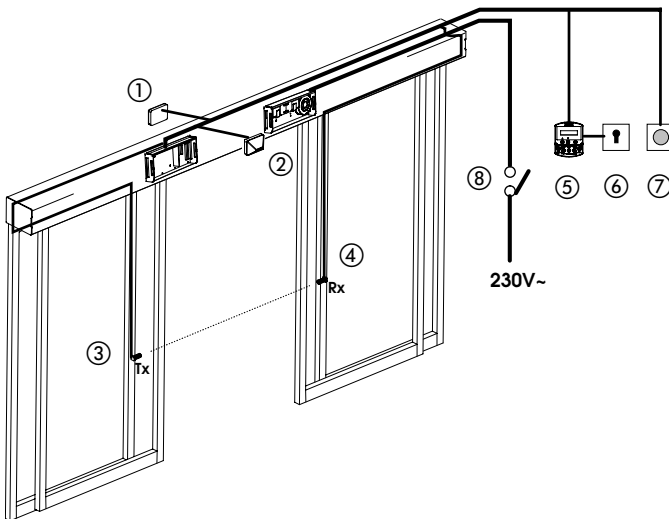
- are built to be integrated into a machine or to be assembled with other machines to create a machine conforming to the provisions of Directive 89/392/EEC, and subsequent amendments 91/368/EEC, 93/44/EEC, 93/68/EEC;
- conform to the essential safety requirements of the following EEC directives: 73/23/EEC and subsequent amendment 93/68/EEC, 89/336/EEC and subsequent amendments 92/31/CEE and 93/68/EEC and also declares that it is prohibited to put the machinery into service until the machine in which it will be integrated or of which it will become a component has been identified and declared as conforming to the conditions of Directive 89/392/EEC and subsequent amendments enacted by the national implementing legislation.

Bologna, 01 January, 2001

The Managing Director
 A. Bassi



1. ELECTRICAL EQUIPMENT



Qty.	DESCRIPTION	CABLE
①	External radar	4x0.25mm ²
②	Internal Radar	4x0.25mm ²
③	Transmitter	2x0.25mm ²
④	Receiver	3x0.25mm ²
⑤	SD-Keeper	2x0.5mm ² max 50m
⑥	SD-Keeper switch and lock key	2x0.5mm ²
⑦	Emerg/Key/Reset control push-buttons	2x0.5mm ²
⑧	Power supply 230V~	3x0.75mm ²

2. TECHNICAL SPECIFICATIONS

MODEL	930 SF1 - 930 SFA1	930 SF2 - 930 SFA2
N° leaves	1	2
Max leaf weight	100 Kg	70 + 70 Kg
Transit space (Vp)	700 ÷ 3000 mm	800 ÷ 3000 mm
Max thickness of framed leaf	60 mm	
Use frequency	100 %	
Protection class	IP 23 (indoor use)	
Ambient operating temperature	-20°C ÷ +55°C	
Power supply	230 V~ (+6 ÷ -10%) / 50 Hz	
Max absorbed power	100 W	
Head profile length	Vp x 2 +100 mm	
Drive unit	24 Vdc with encoder	
Opening speed adjustment (load-free)	10 ÷ 90 cm/sec.	20 ÷ 180 cm/sec.
Closing speed adjustment (load-free)	10 ÷ 90 cm/sec.	20 ÷ 180 cm/sec.
Partial opening adjustment	10% ÷ 90%	
Pause time adjustment	0 ÷ 90 sec.	
Night pause time adjustment	0 ÷ 240 sec.	
Static force adjustment	automatic	
Anti-crush activation	at opening/closing	
Failsafe on photocells	can be disabled	

3. SECURING THE HEAD PROFILE

There are two types of aluminium head profiles:

• **SUPPORTING**

This profile is used when the head profile can be completely secured to a free-standing structure in metal or masonry without any significant deformation.

• **FREE-STANDING**

This is the aluminium profile which, when assembled on the support profile, makes the head profile free-standing.

It is used when the head profile cannot be completely secured to a bearing structure.

Before securing the head profile, locate the tie-screws M6 as in fig. 1.

☞ For the single-leaf door with padlock, see par. 8.2.

3.1 SUPPORT PROFILE - wall-mounted

• Establish the exact location of the head profile bearing in mind the overall dimensions of fig. 2.

• To begin with, fit the head profile on a vertical slot at one end and on a horizontal slot at the other end (using M8 screws and appropriate expansion plugs), and level parallel to the floor. Secure at the centre, firmly lifting the head profile to align the three securing points. Carry out the remaining securing operations, alternating vertical and horizontal slots (fig. 3).

• If using a closing profile with the standard automated system, secure it to the wall with adequate screws.

☞ Insert the brush (accessory) in the closing profile before installing.

3.2 FREE-STANDING PROFILE - wall-mounted

• Couple the support profile to the free-standing profile and assemble them on the horizontal slots using M8 tie-screws and nuts.

• Establish the exact location of the assembled head profile bearing in mind the overall dimensions of fig. 4.

• To begin with, secure the assembled head profile (using M8 screws and appropriate expansion plugs) on the vertical slots at the ends and level parallel to the floor. Secure at the centre, firmly lifting the head profile to align the three securing points. Carry out the remaining securing operations, every 20 cm on the vertical slots as shown in figure 5.

3.3 FREE-STANDING PROFILE - securing with side brackets

The free-standing profile can be secured at the two ends by using the "side brackets" accessory (fig. 6).

☞ Intermediate securing points may be required according to length of head profile (by making use of the guide shown in fig. 7):

from 3 to 4 m central securing is necessary;

from 4 to 6.1 m, two intermediate securing points are necessary.

In any event, we advise you to secure the centre also for lengths shorter than 3 m.

• If using the closing profile for a free-standing automated system, assemble it as shown in fig 7.

☞ Insert the brush (accessory) in the closing profile of the free-standing automated system before installing.

3.4 FITTING THE SIDE PANELS

• Fit the side panels as shown in figures 8 and 9.

☞ The side panels are pre-engraved so that they can adapt to head profiles with or without a free-standing profile.

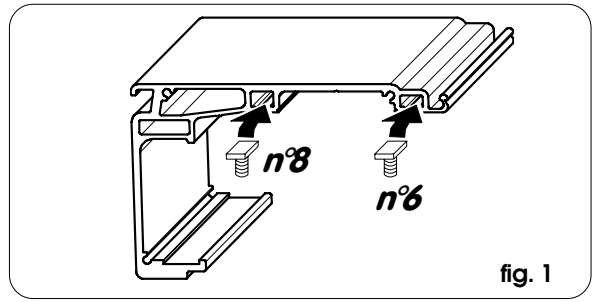


fig. 1

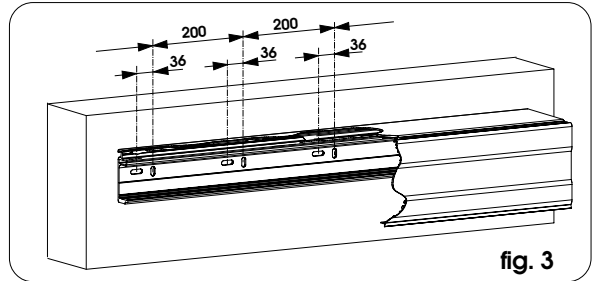


fig. 3

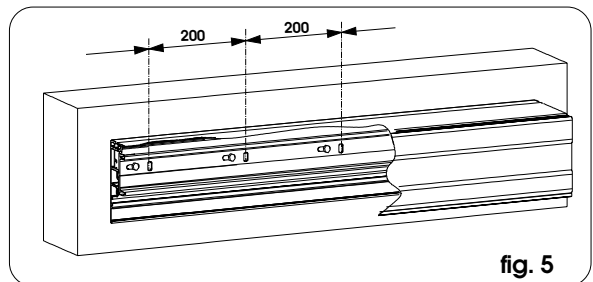


fig. 5

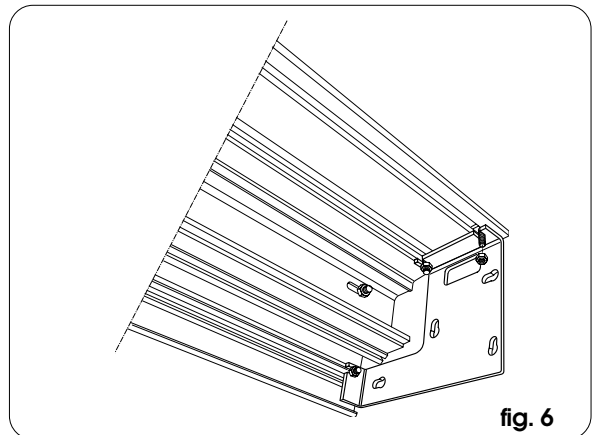


fig. 6

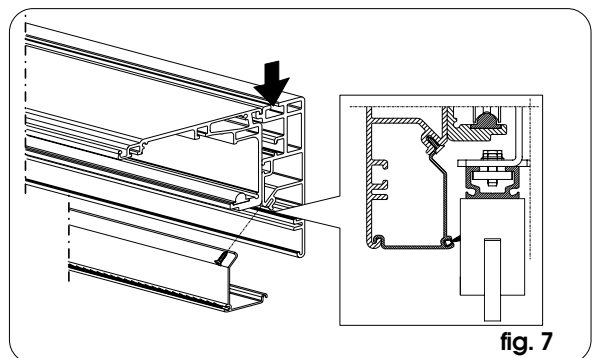


fig. 7

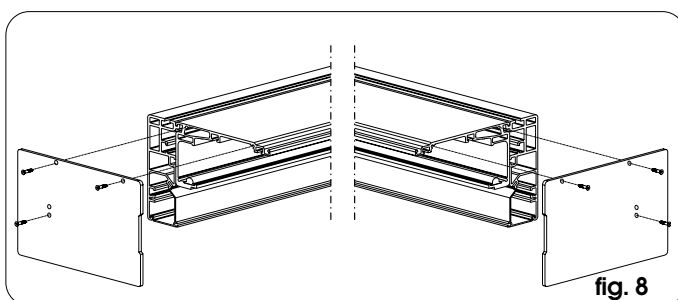


fig. 8

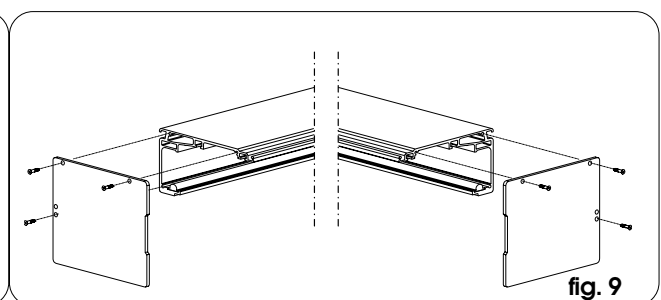


fig. 9

4. FITTING THE LEAVES

- Fit the sliding guide in its seat and secure it at the ends with the flexible grippers (fig. 10). A flexible gripper is also provided for double-leaf doors, and should be placed centrally.
- The guide is not symmetric but has a fitting direction: the side with a small groove should be turned to face the wall (fig. 10); moreover, the guide - on both ends - should be about 1 cm shorter than the support profile.
- Fit the leaf fitting profile on the top of the leaf, using adequate screws and observing the dimensions shown in fig. 11.
- Secure two carriages to each leaf, using the supplied squares and screws as shown in fig. 12. For correct positions, refer to fig. 13 (double-leaf) and fig. 14 (single-leaf).
- Fit the lower guide profile and the brush (accessories) on the bottom of the leaf using adequate screws (fig. 2 and 4).
- Install the leaves, placing the carriage wheels on the sliding guide.
- For double-leaf doors:
 - fit the mechanical closing stops on the internal carriages as shown in fig. 15;
 - if using the padlock, secure the hooks to the internal carriages - as shown in fig. 15 - in the central hole of the 3 specified holes.
- For single-leaf doors:
 - if using the padlock, secure the hook to the closing-side carriage - as shown in fig. 16 - in the central hole of the 3 specified holes.

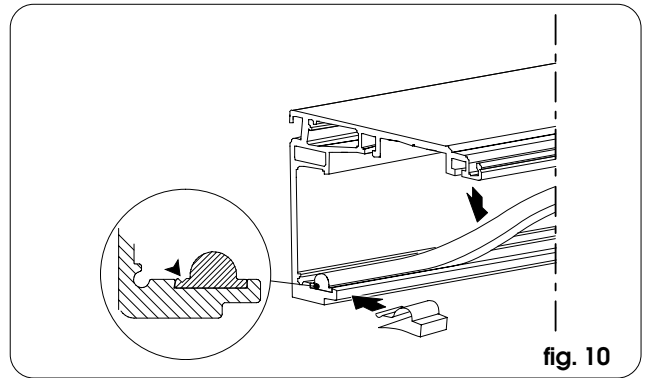


fig. 10

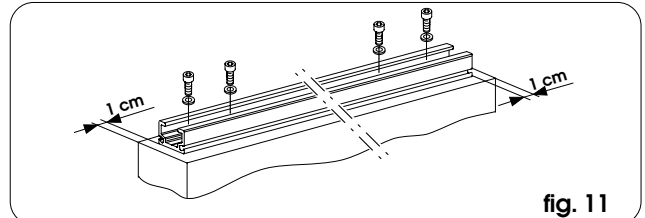


fig. 11

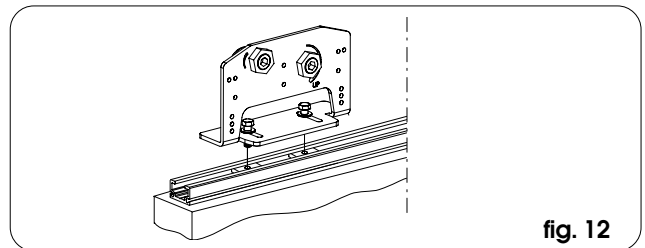


fig. 12

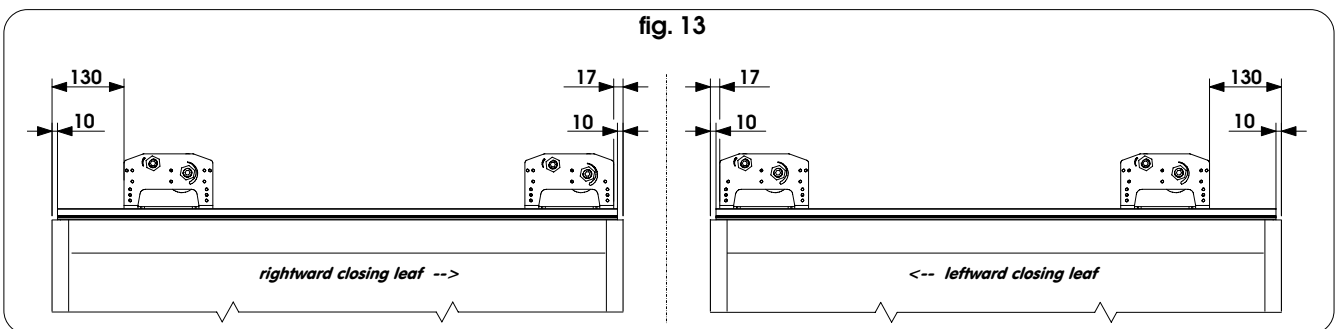


fig. 13

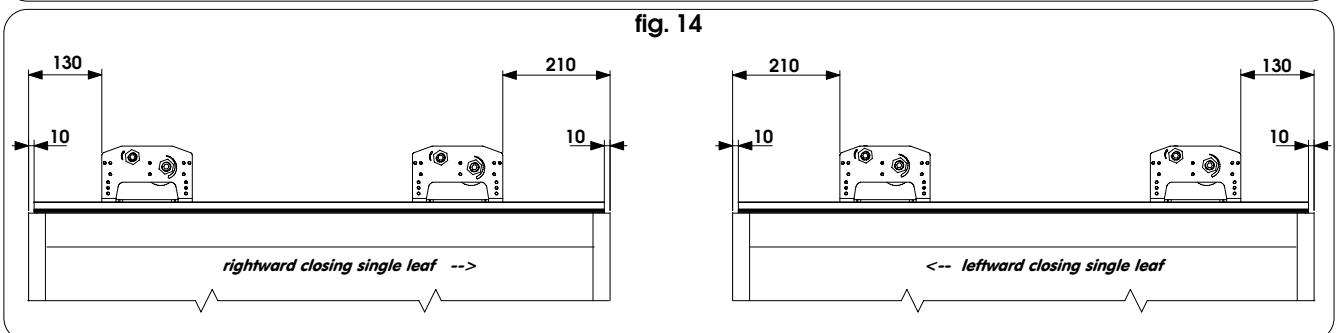


fig. 14

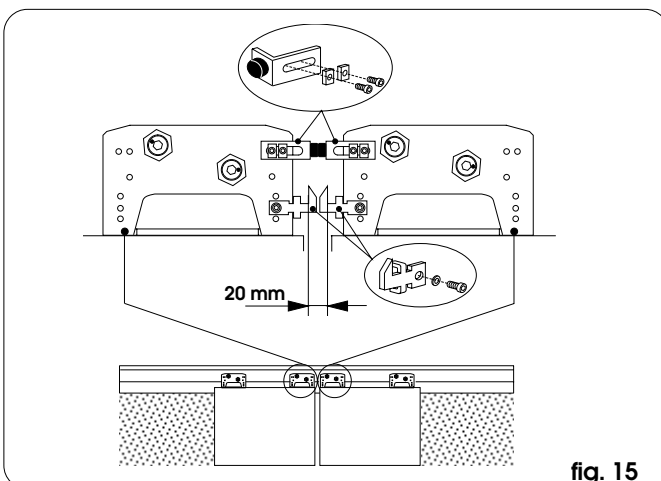


fig. 15

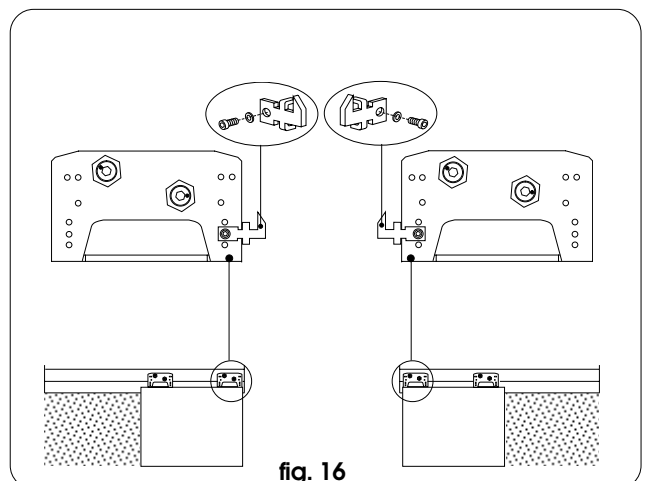


fig. 16

4.1 LEAF ADJUSTMENT

- The following are supplied on each carriage: a sliding wheel in steel with eccentric and relevant adjusting system (ref. A in fig. 17) and anti-tilting nylon roller with eccentric plus relevant adjusting system (ref. B in fig. 17); the permitted height adjustment range for the carriage is +/- 10 mm.

The adjustment system for the eccentrics consists of a dowel with hexagonal seat for an 8 mm Allen wrench, and a lock-nut for a 24 mm hexagon wrench.

To release the wheel or roller, hold the dowel firm with the Allen wrench and loosen the nut (fig. 18) - to facilitate release, simultaneously apply contrary force with the Allen wrench.

To lock the wheel or roller, hold the dowel firm with the Allen wrench and tighten the nut (fig. 18) - to increase locking, simultaneously apply contrary force with the Allen wrench when the nut is tight.

To adjust: after release, keep the nut steady with the hexagon wrench and turn the dowel with the Allen wrench, making sure that the reference marks on the dowel are always within the adjusting range punched on the carriage.

Next adjust each leaf according to the following procedure:

- Release the anti-tilting rollers (ref. B in fig. 17) and locate them at the minimum of permitted adjustment (turning the dowel anti-clockwise).
- Release the sliding wheels (ref. A in fig. 17). Adjust the position of the leaf with the adjusting dowels (if you turn the dowel clockwise, the leaf rises, if you turn it anti-clockwise, the leaf descends) until it is parallel to the floor, checking if the lower guide slides correctly on the sliding block, and then re-lock it.
- Position the anti-tilting rollers (ref. B in fig. 17) so that they almost touch the guide on the support profile, using the relevant dowels (if you turn the dowel clockwise, the roller rises, if you turn it anti-clockwise, the roller descends) and then re-lock them.
- Fit the sliding block (accessory) for each leaf in the lower guide and secure it with screws, either to the floor or to the wall.
- The leaf must be perfectly perpendicular with respect to the floor and parallel with respect to the head profile - if necessary, adjust the position of the leaf on the carriages (with slots).

4.2 ADJUSTING THE INTERNAL STOPS (2 LEAVES) AND PADLOCK HOOKS

- For double-leaf doors: adjust the stops fitted on the internal carriages in order to leave a few millimetres of space between the closed leaves. If using the padlock, while the leaves are closed, check if the hooks fitted on the internal carriages comply with the dimension in fig. 15 (if the dimension is greater, move the two internal carriages closer).
- depending on the height adjustment effected on the leaves, you may have to move both hooks onto another hole (refer to fig. 19 to find it according to the position of the mark on the adjusting dowel of the sliding wheel).

4.3 FITTING SUPPORTS OF MOVEMENT RODS

- Fit the supports of the movement rods on the carriages as shown in fig. 20 (double-leaf door) and fig. 21 (single-leaf door).

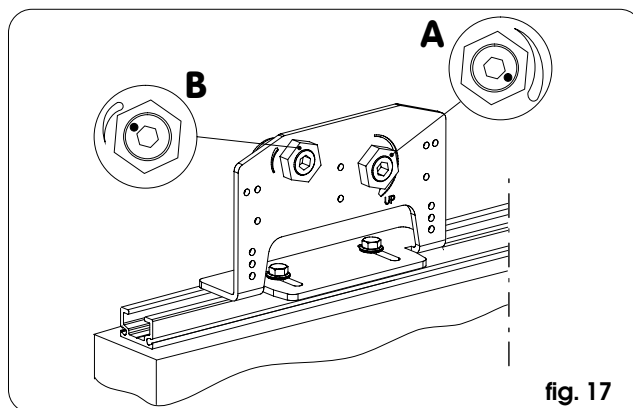


fig. 17

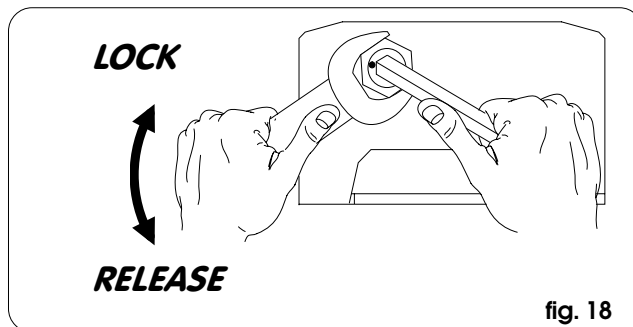


fig. 18

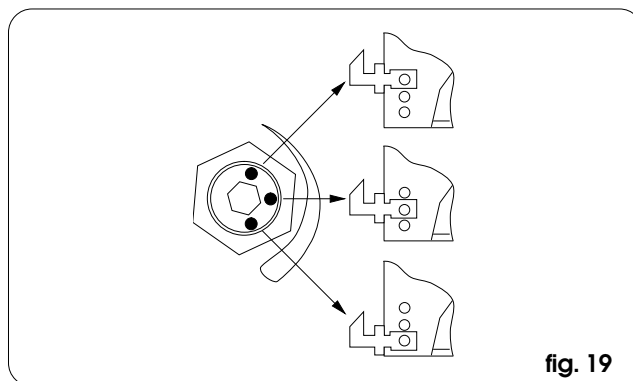


fig. 19

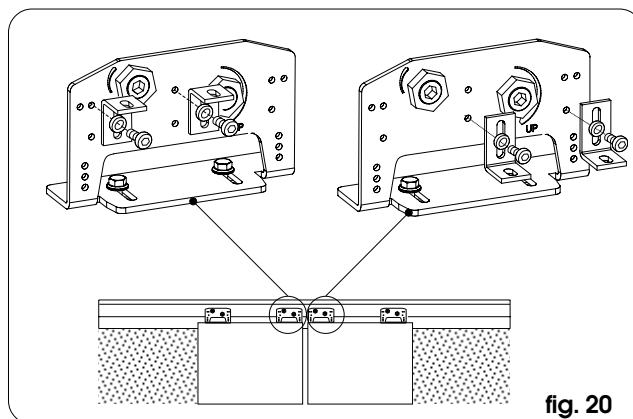


fig. 20

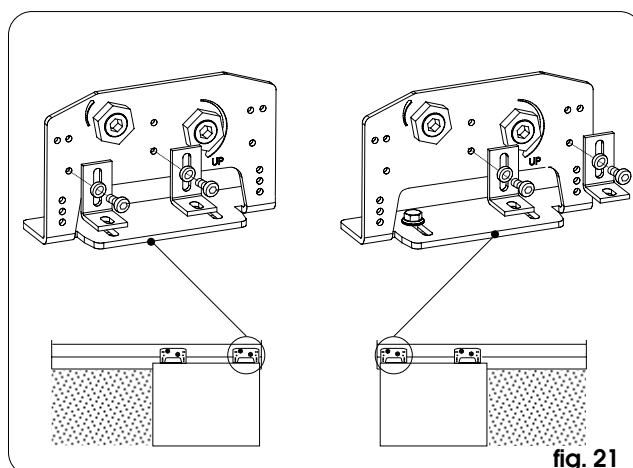


fig. 21

4.4 FITTING THE SIDE BRACKETS

- Secure the side brackets to the ends of the head profile, using the most externally located of the pre-fitted tie-screws (fig. 22).

4.5 FITTING THE MECHANICAL STOPS

- For single-leaf doors: fit the mechanical closing and opening stops on the support profile (see fig. 22) using the most externally located of the pre-fitted tie-screws as yet unused.
 - For double-leaf doors: fit the mechanical opening stops (as in fig. 22) using the most externally located of the pre-fitted tie-screws as yet unused.
- ➔ Locate the open leaves at an equal distance from the mid-point of the head profile (which is also the closing edge) as shown in fig.23.

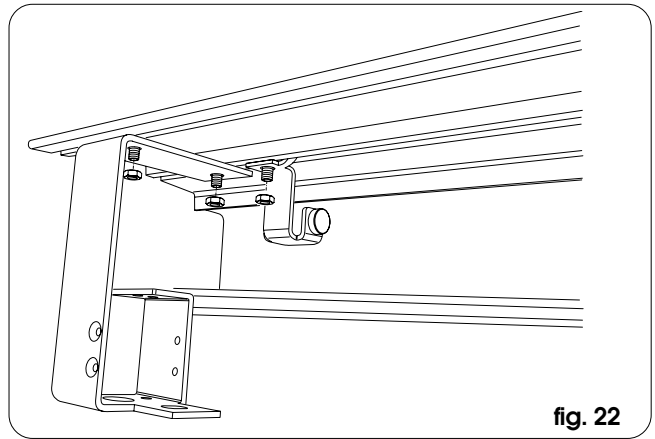


fig. 22

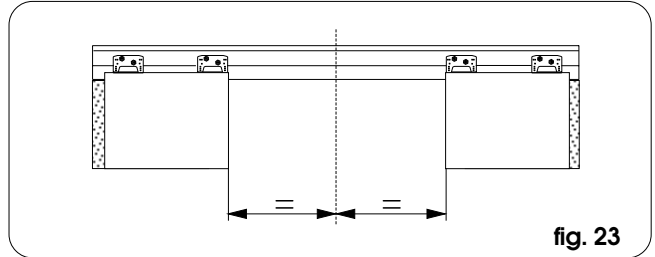


fig. 23

5. FITTING THE ACTIVATION MODULE

The activation module used varies according to transit space (Vp) as shown in table 1.

Vp 1 leaf	Vp 2 leaves	L mov. profile	L useful	Between axes	L belt
700-900	-	1100	900	950	2050
901-1300	800-2600	1500	1300	1350	2850
1301-2100	2601-3000	2300	2100	2150	4450
2101-3000	-	3200	3000	3050	6250

tab. 1

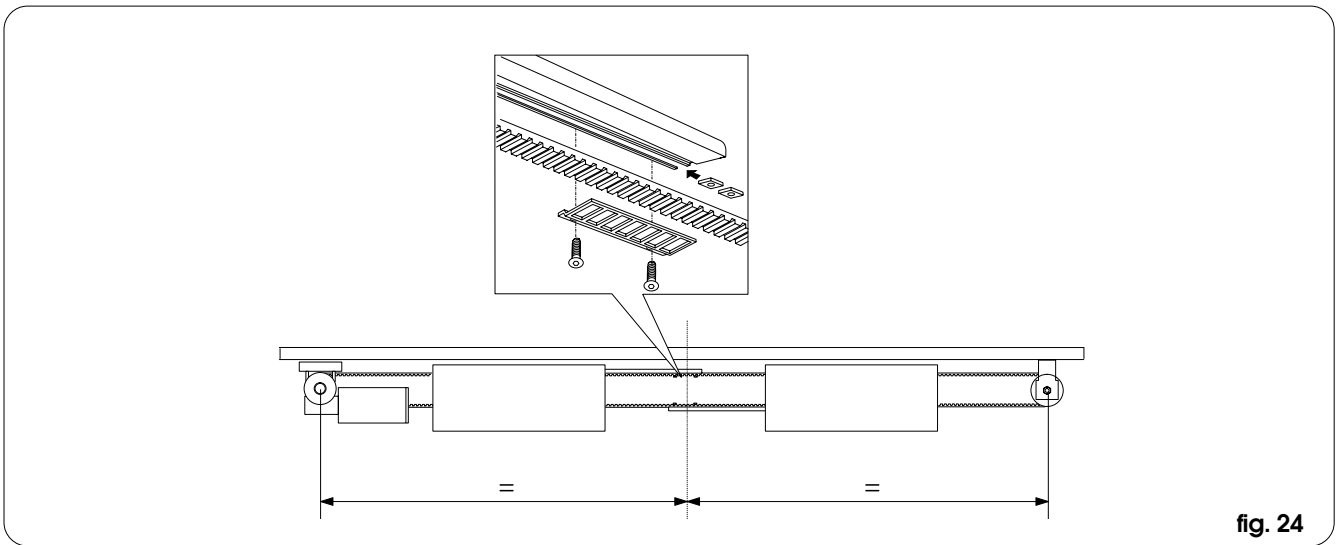


fig. 24

- For double-leaf doors: fit the second movement rod as shown in fig. 24.
- Partially screw the 4 brackets to the end with holes, using 4 tie-screws, and position them after you have inserted the activation module, as shown in fig.25.
- Insert the activation module in the seat of the support profile, locating it as follows:
 - centred with respect to the head profile mid-point for double-leaf doors;
 - 10 cm off-centre (with respect to the head profile mid-point) in the direction opposite to the closing edge for single-leaf doors.

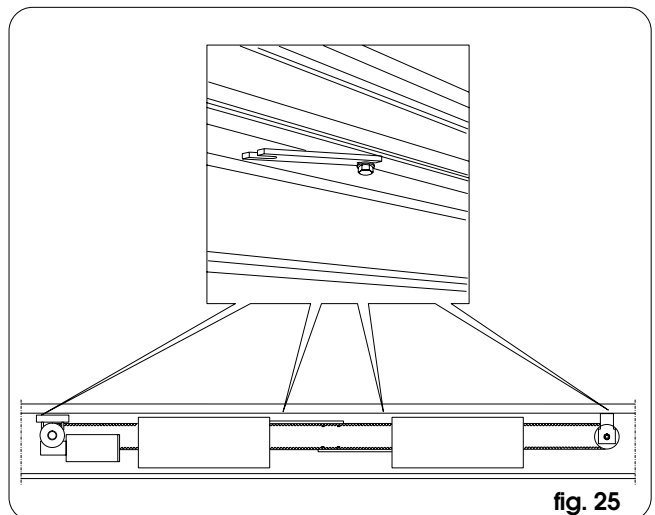


fig. 25

- Secure the activation module with the 4 pre-located brackets, using the 4 tie-screws and nuts supplied (fig. 26).

5.1 BELT ADJUSTMENT

- Check if the belt is slack or too tensioned, and, if necessary, use the adjustment device as in fig.27: loosen the nut, adjust with the screw (screw to add tension, unscrew to loosen the belt), and then re-lock the nut.

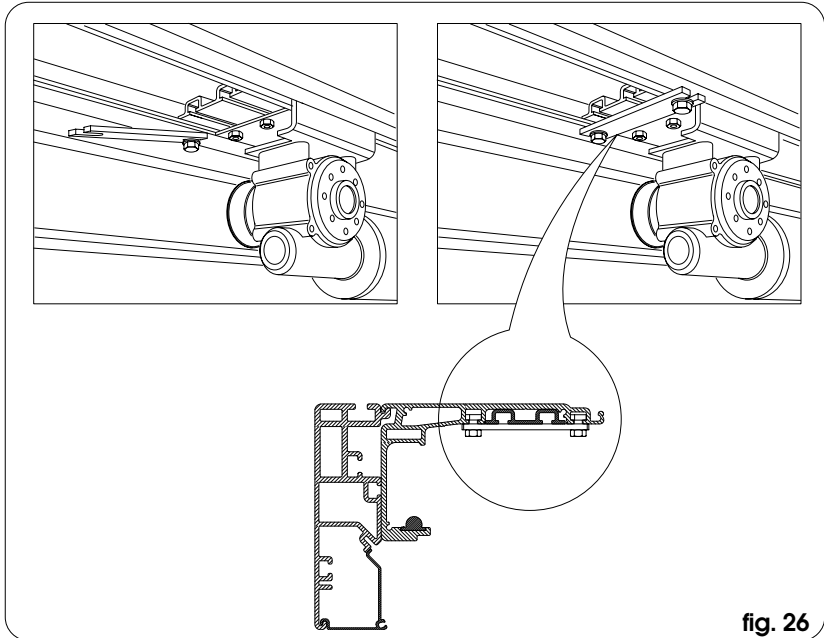


fig. 26

5.2 SECURING THE RODS ON THE CARRIAGES

Double-leaf doors:

- With the leaves open, secure the drive shafts to the trolleys with the supplied M5 tie-screws (fig. 28) so that the relevant fitting on the belt is adjacent to the pulley (transmission pulley or motor).
- If necessary, cut off the excess portion of the shaft.

Single-leaf doors:

- With the leaf closed, secure the drive shaft to the trolley with the supplied M5 tie-screws (fig. 28) so that the relevant fitting on the belt is adjacent to the pulley (transmission pulley or motor).
- If necessary, cut off the excess portion of the shaft.

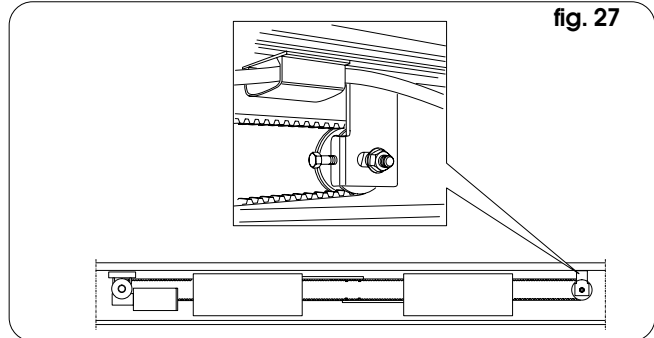


fig. 27

- Level the shafts horizontally, leaving a few mm of play from the belt, and check if the shafts slide correctly, moving them by hand.
- Press to insert the cable raceways in that part of seat of the support profile not occupied by the activation module (fig. 29).

5.3 FITTING THE CENTRAL BRACKET

- Only for the double-leaf door with padlock: the central rod is not supplied (see par. 8).
- Fit the central bracket, using the two screws on the activation module (fig. 30).

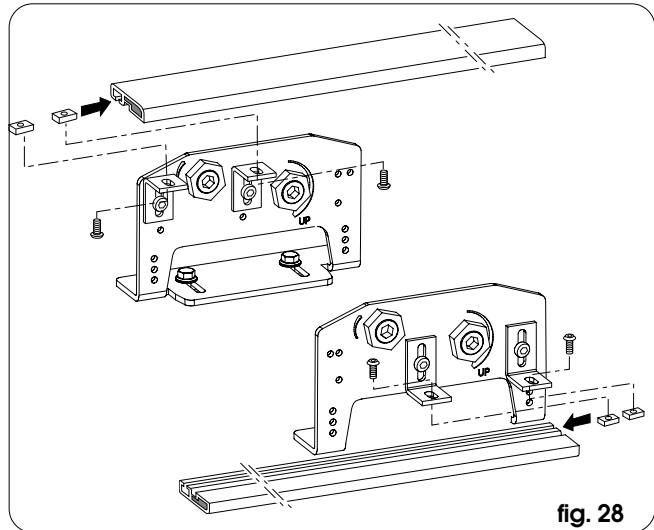


fig. 28

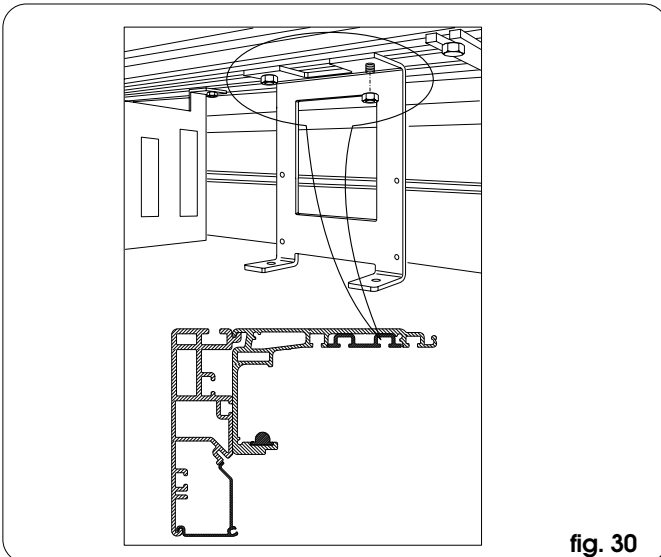


fig. 30

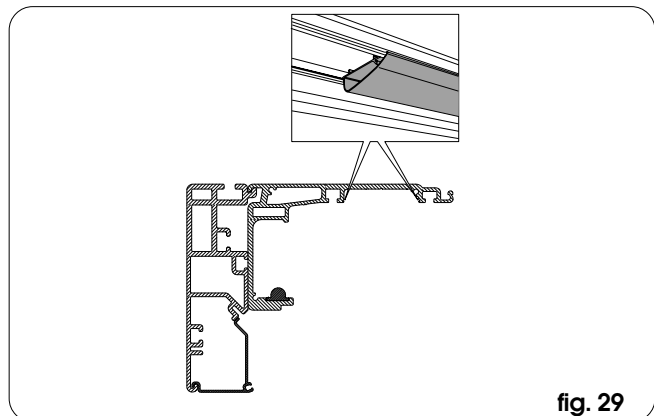


fig. 29

6. FITTING THE LOWER HOUSING PROFILE

The lower housing profile is pre-machined to remove excess material and adapt it to different leaf thickness values.

Insert the tie-screws (required to secure the parts listed below) in the guide of the lower housing profile (Fig. 31), taking care over the insertion sequence:

- the two side brackets of fig. 32 A and C (1 M6 screw for each);
 - the central bracket or the lock or both (2 M6 screws for each) according to type of door;
 - the three corner sections located at the end and centre of fig. 34 (1 M6 screw for each)
- the corner sections used for securing the housing are designed for use of Velcro or magnets;

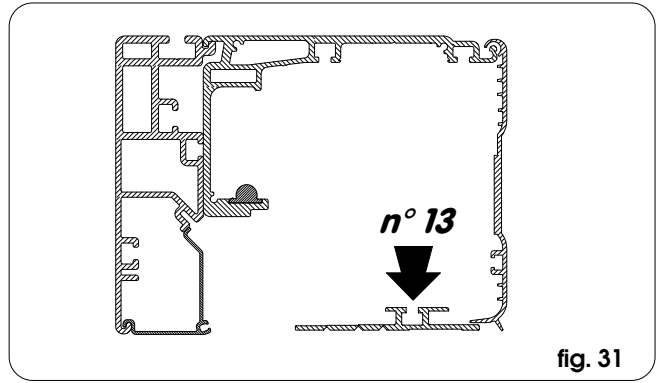


fig. 31

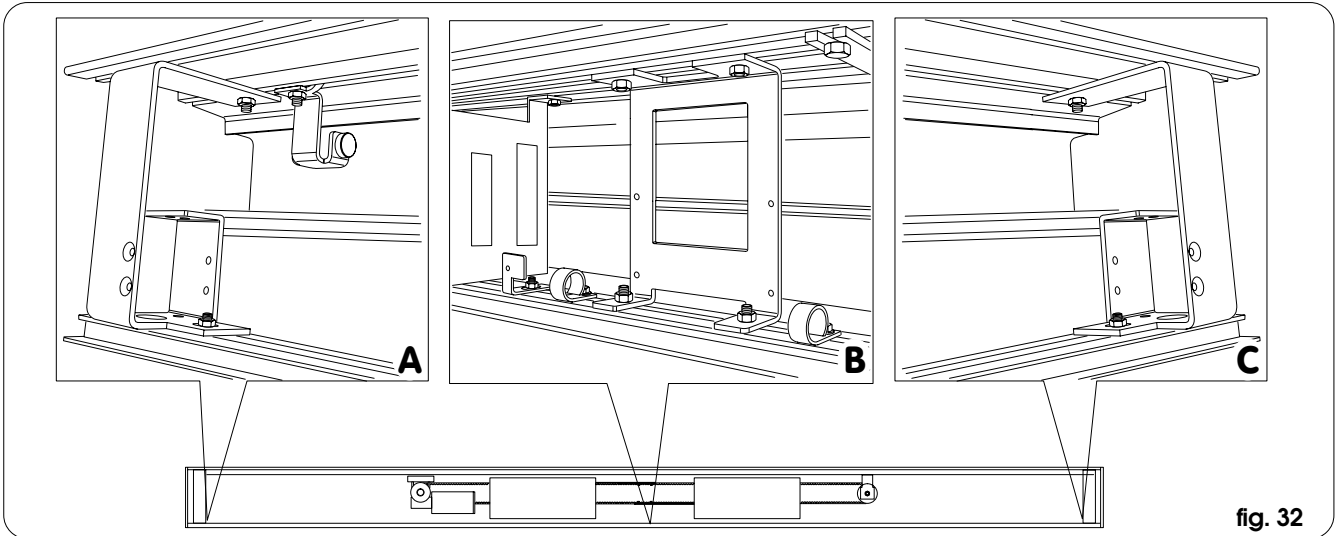


fig. 32

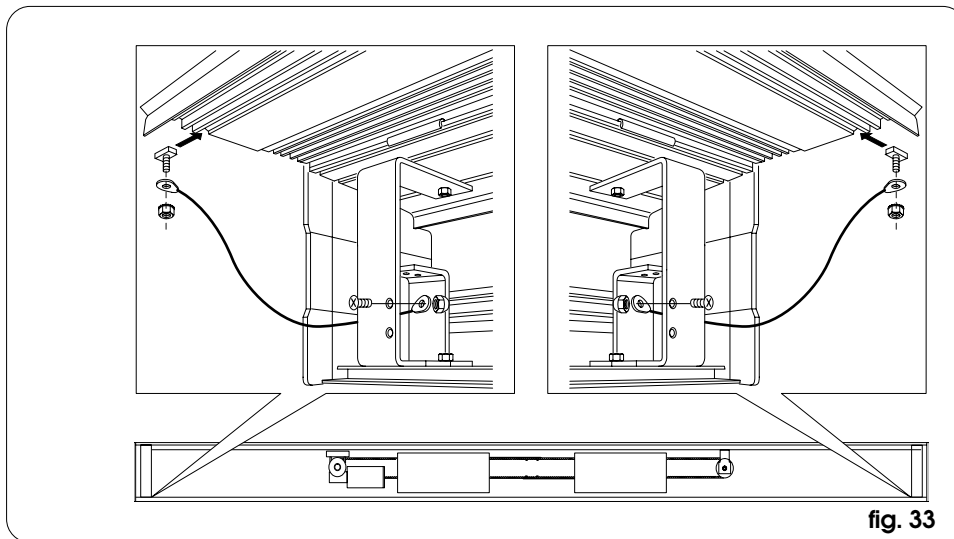


fig. 33

- the two cable guide eye-bolts sideways on the central bracket as shown in fig. 32 ref. B or on the lock if present (1 M5 screw for each).

Secure the eye-bolt of the parachute cables to the side brackets as shown in fig.33.

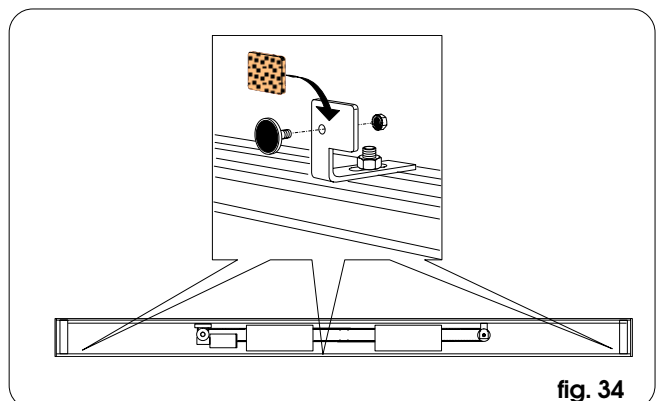


fig. 34

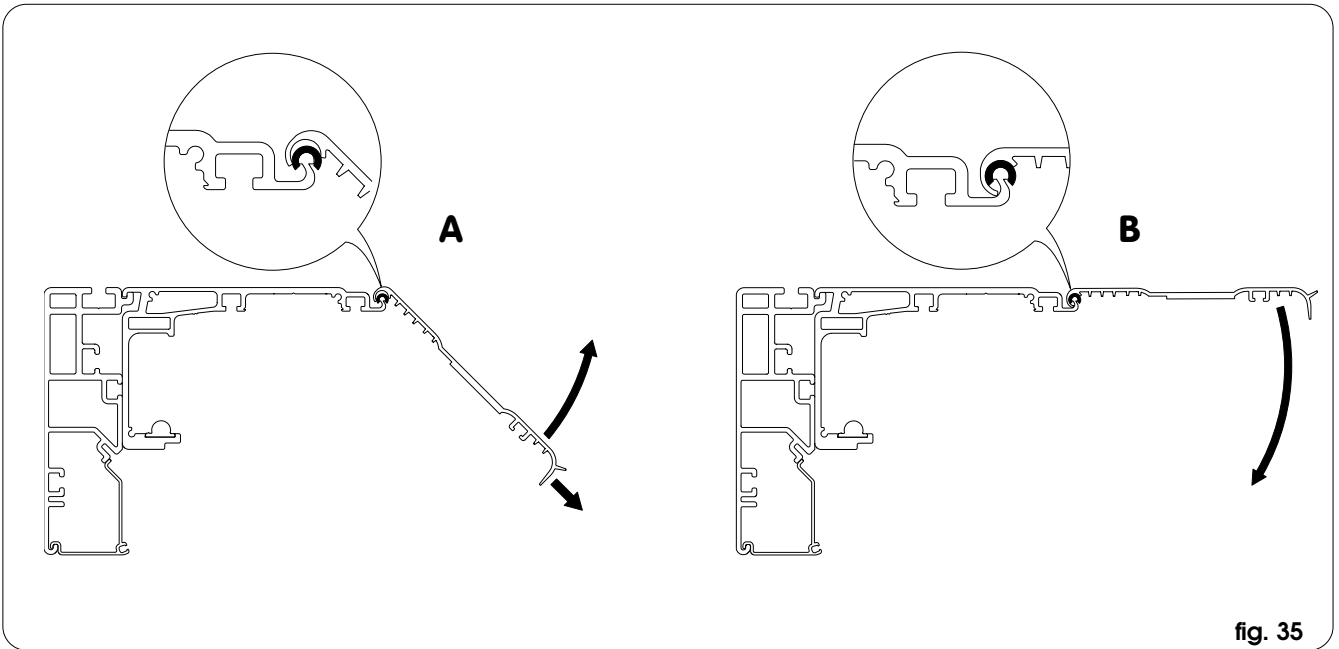


fig. 35

7 FITTING THE HOUSING

- Fit 3 pressure-spacers on the outer edge of the support profile, both at the ends and centre.
- Rest the housing on the spacers and, pulling it as in fig. 35 ref. A, rotate it upward until correctly attached (fig. 35 ref. B), and then close it.
- Fit the three small plates inside the housing (as in fig.36) by the three angled brackets on the head profile.
- Secure the eyelets of the parachute cables inside the housing, as shown in fig.33.
- The following are available for securing the housing:
 - velcro applied on the three angled brackets (fig. 34) and on the plates fitted inside the housing (fig. 36);
 - magnets to be inserted on the three angled brackets (fig. 34) and on the metal plates fitted inside the housing (fig. 36);
 - articulated arms to be installed as in fig. 37.

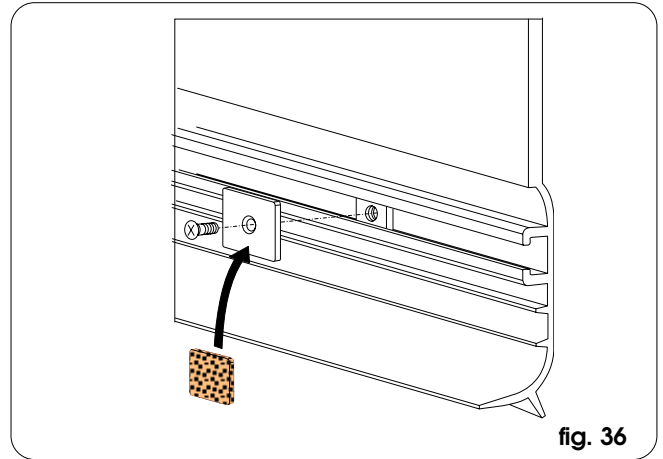


fig. 36

8. PADLOCK

8.1 DOUBLE-LEAF DOORS

- The padlock is fitted at the centre of the head profile instead of the central bracket and is secured with the screws on the activation module (fig. 38).

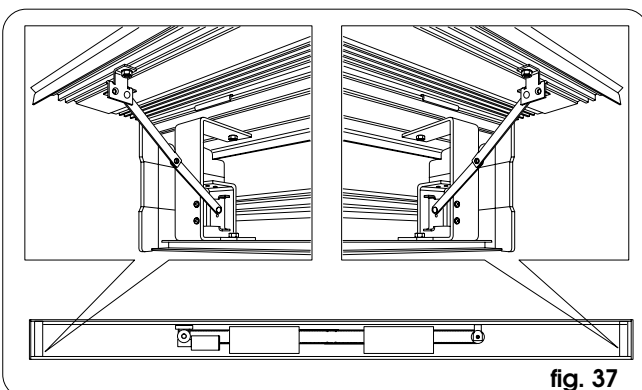


fig. 37

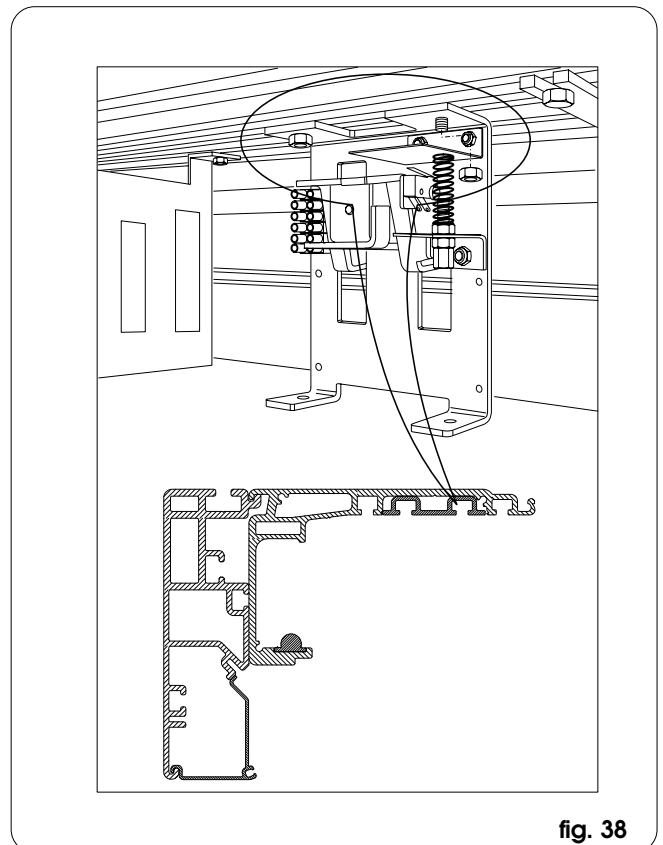
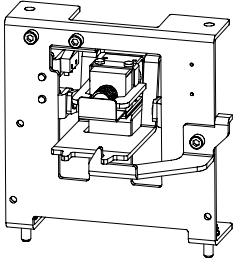


fig. 38



padlock for single-leaf
with LH closure

fig. 39

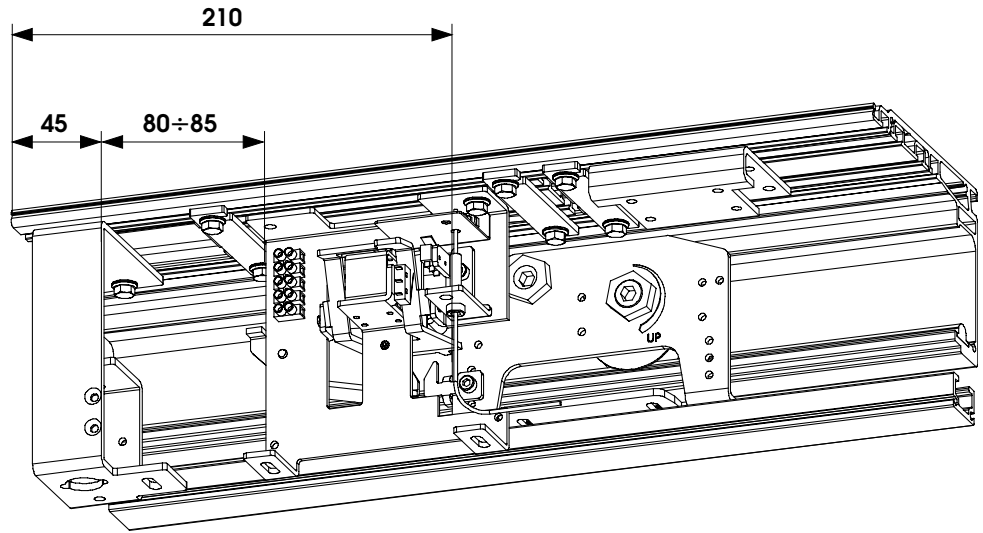
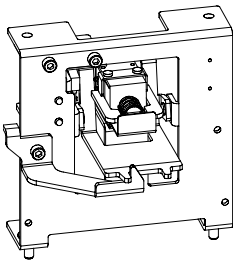


fig. 40



padlock for single-leaf
with RH closure

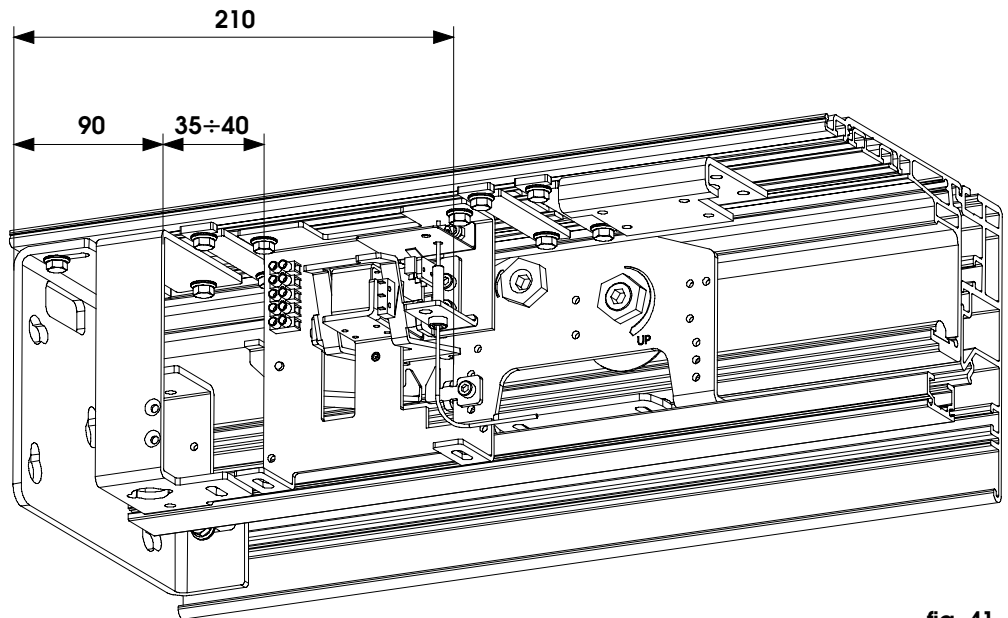


fig. 41

8.2 SINGLE-LEAF DOORS

- The padlock should be fitted at the side on the closing edge.
- ➔ To secure the padlock, use 2 additional tie-screws on each guide, in addition to those indicated in fig. 1
- Remove one of the two contrast hooks on the padlock, according to the closing direction of the door as shown in fig. 39.
- The padlock for single-leaves is assembled on a section of the activation profile and is secured to the head profile by 2 brackets - for locating instructions, refer to fig. 40 (door without side brackets) and fig. 41 (door with side brackets).

8.3 INTERNAL RELEASE BY KNOB

- Assemble the release knob on the side bracket opposite to the closing edge as shown in fig. 42 and 43.
- Position the sheathed cable on the side bracket as shown in fig. 44; insert the steel wire inside the release knob and secure a clamp at the end, tightening its dowel (fig. 44).
- Place the sheathed cable in the guide of the lower housing profile and cut the sheath (not the steel wire), deciding on the correct length to reach the padlock

(fig. 45) without any narrow curves.

- Apply tension to the steel wire until the clamp meets the stop inside the knob (fig. 46).
- Insert the steel wire in the padlock adjuster set to minimum (ref. A in fig. 45) and, using the spring (ref. B in fig. 45), allow it to exit from the hole on the angled piece (ref. C in fig. 45).
- Apply adequate tension to the steel wire and fit a clamp (ref. D in fig. 45), taking care, when the angled piece is at rest, that it does not activate the microswitch (ref. E in fig. 45).
- Pull the release knob, and check if the angled piece releases the padlock and presses on the lever of the microswitch until the latter is activated - if necessary, turn the adjuster (ref. A in fig. 45).
- Cut off any excess steel wire.
- Make the electrical connections shown in the padlock instructions.

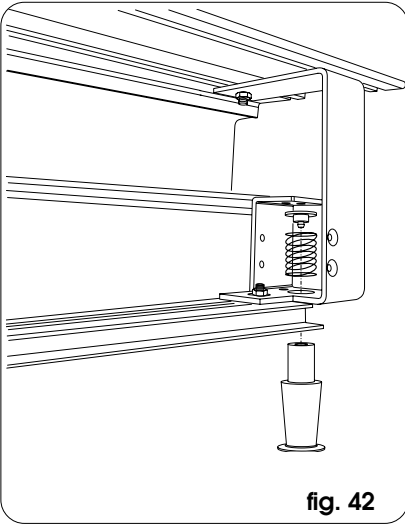


fig. 42

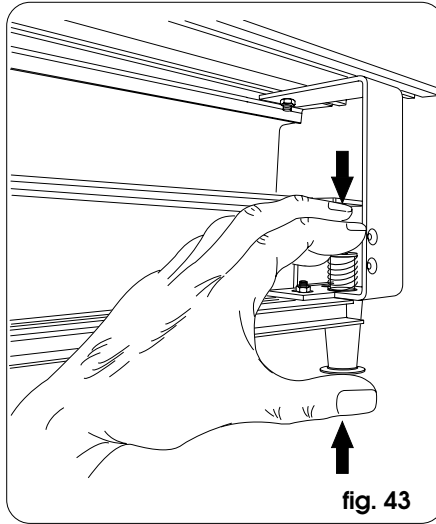


fig. 43

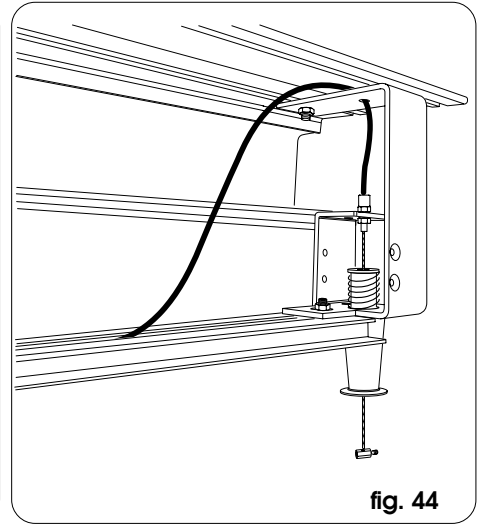


fig. 44

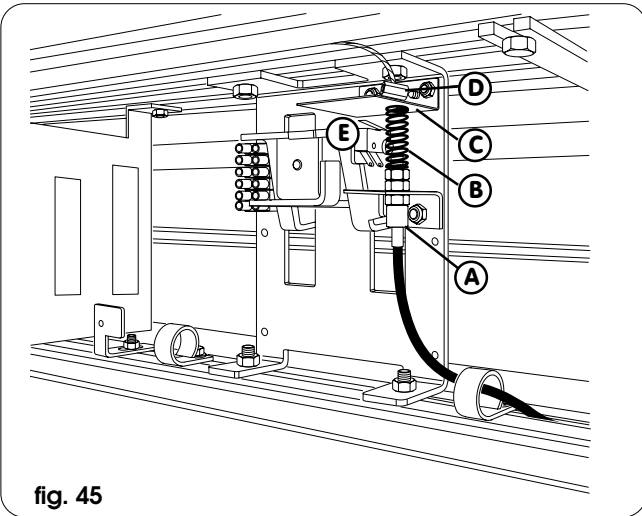


fig. 45

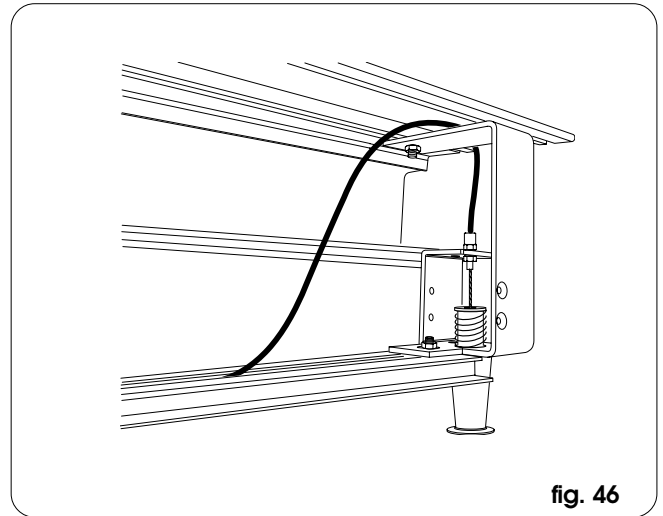


fig. 46

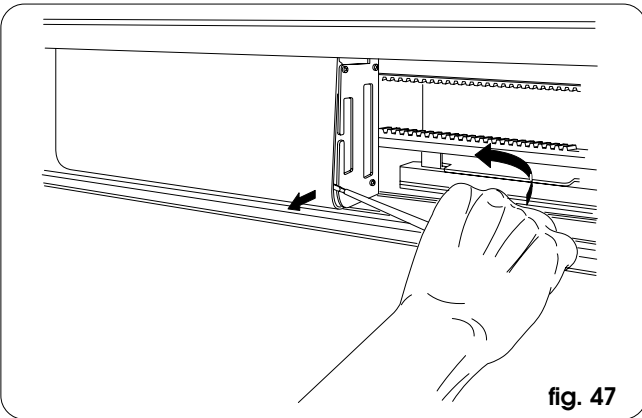


fig. 47

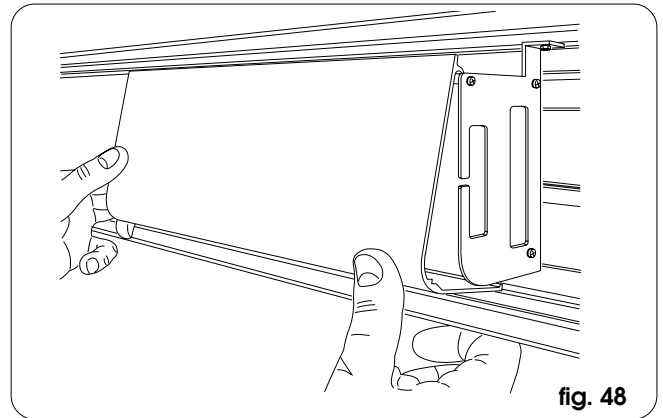


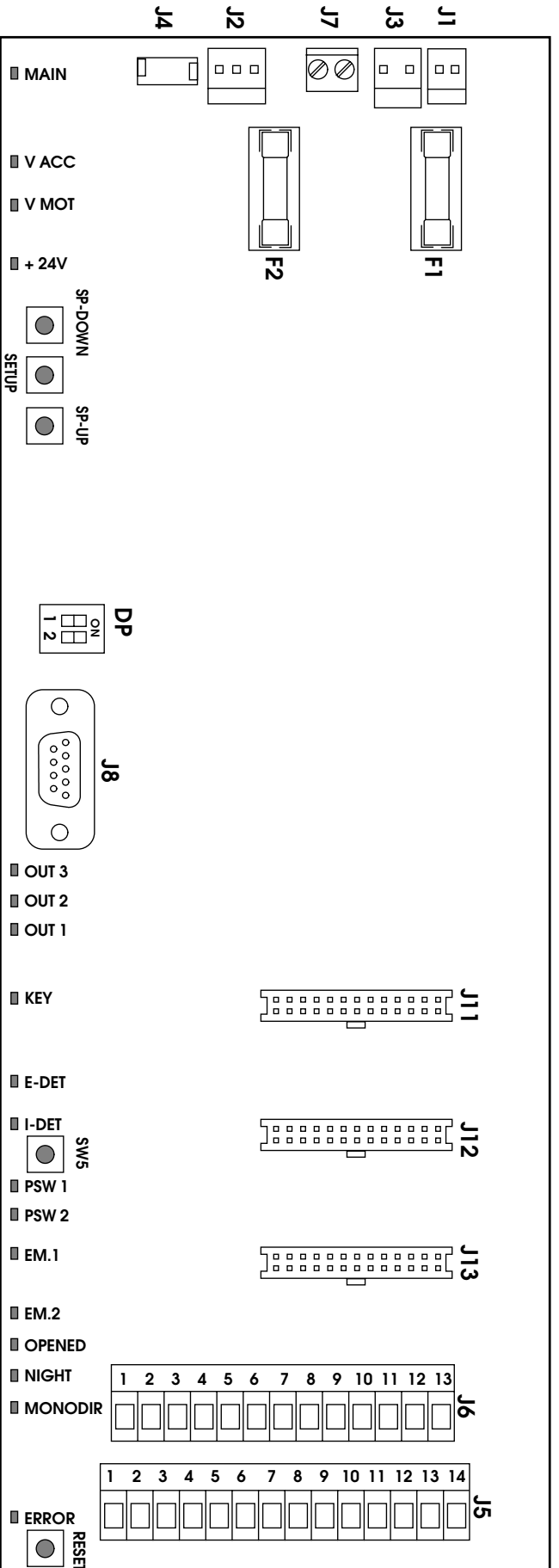
fig. 48

9. START-UP

- To remove the covers protecting the SDM control board and transformer, lever gently with a screwdriver as shown in fig. 47.
To refit them, couple them on the top part and press as shown in fig.48.
- Manually check correct sliding of the leaves and all moving elements.
- Make/check all electrical connections on the SDM control board - power cables from the toroidal transformer, from the motor and from all accessories - routing the cables inside the supplied raceways and eyelets.
- Set motor rotation direction according to type of door (consult the instructions for the SDM control board).

- Check if a jumper is present on terminal board J7 of the SDM control board (consult the instructions for the SDM control board).
- Connect the 230V~ power cables to the terminals inside the power unit, on the primary winding of the toroidal transformer (Note: a delayed 3.2A/250V fuse is also supplied to protect the transformer).
- Set automatic operating mode and execute setup.
- Check the efficiency of all installed accessories, especially photocells and sensors.

SDM CONTROL BOARD



LED	ON	OFF
MAIN	220V ~ mains ON	220V ~ mains OFF
V ACC	Vacc ON	Vacc OFF
V MOT	motor powered up	motor powered down
+ 24V	+ 24V ON	+ 24V OFF
OUT 3	OUT 3 contact closed	OUT 3 contact open
OUT 2	OUT 2 contact closed	OUT 2 contact open
OUT 1	OUT 1 contact closed	OUT 1 contact open
KEY	KEY input closed	KEY input open
E-DET	E-DET input closed	E-DET input open
I-DET	I-DET input closed	I-DET input open
PSW 1	PSW 1 input closed	PSW 1 input open
PSW 2	PSW 2 input closed	PSW 2 input open
EM.1	EMERG.1 input closed	EMERG.1 input open
EM.2	EMERG.2 input closed	EMERG.2 input open
OPENED	OPENED input closed	OPENED input open
NIGHT	NIGHT input closed	NIGHT input open
MONODIR	ONE WAY input closed	ONE WAY input open
ERROR	see table	

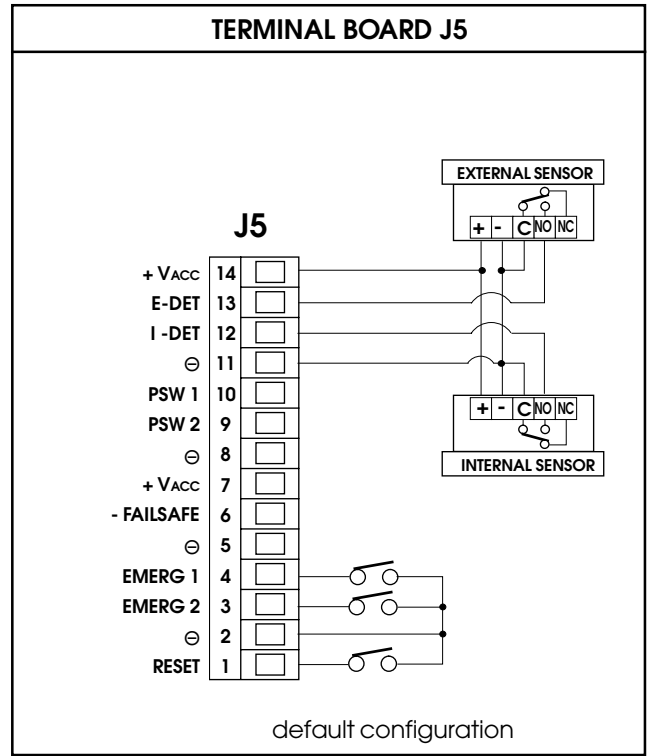
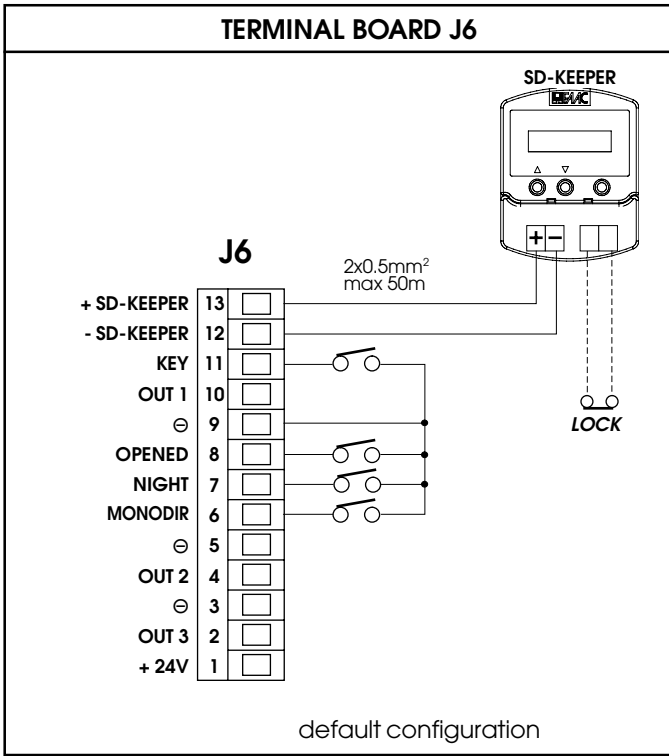
LED ERROR STATUS	MEANING
OFF	normal operating status
ON	Alarms n° 18,20,22,24: execute SETUP
SLOW FLASHING	current alarm signalling
FAST FLASHING	setup/reset in progress or during setup with the "kit elastic" activated

PUSH-BUTTON	MEANING
RESET	executes reset
SW5	pulse on "internal sensor" input (I-DET)
SETUP	executes automatic setup
SP-DOWN	reduces opening speed
SP-UP	increases opening speed

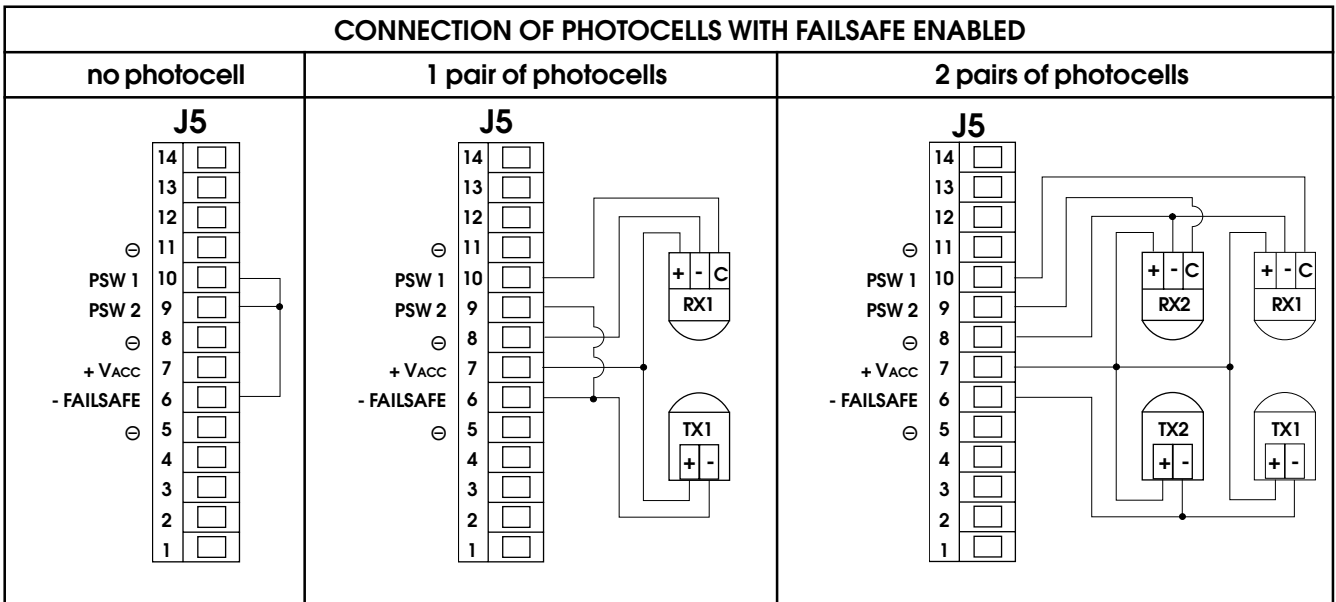
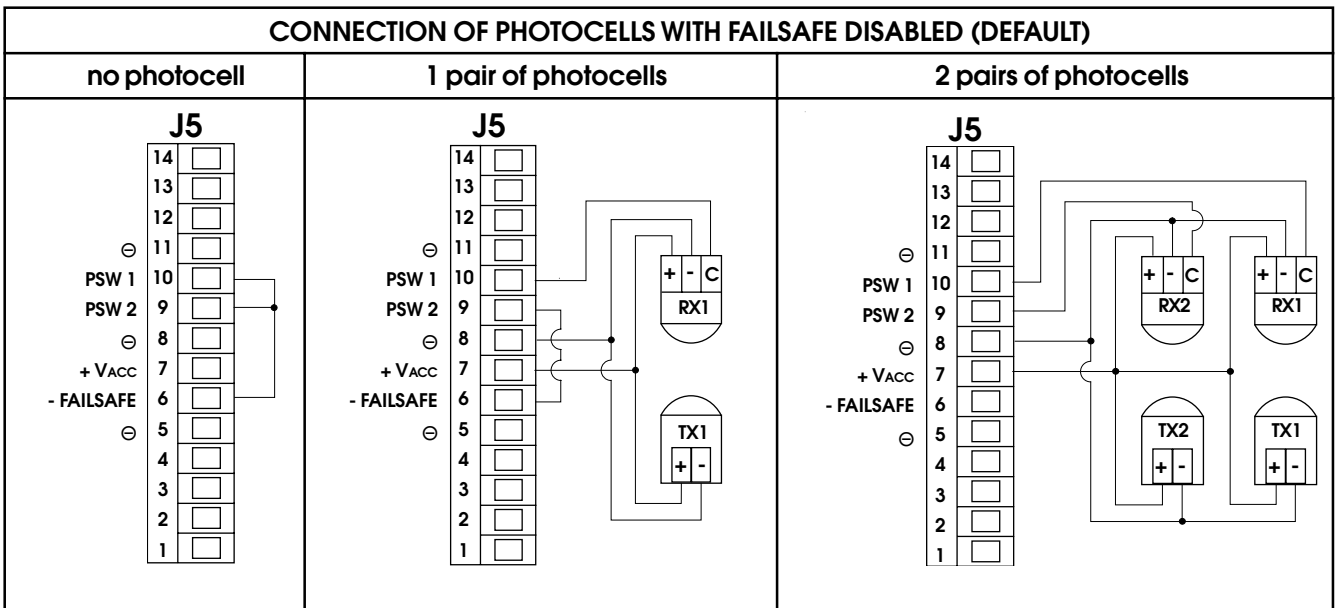
CONNECTOR	MEANING
J1	transformer 40V secondary winding
J2	transformer 24V secondary winding
J3	motor quick-fit connector
J4	flat cable connector for encoder
J5	terminal board
J6	NOT AUS emergency stop (NC contact)
J7	RS232 serial port for PC connection
J8	J11-J12-J13 connectors for additional control boards

FUSE	MEANING
F1	fuse 5x20 T 6.3A/250V (motor protection)
F2	fuse 5x20 T 1A/250V (24V protection)

DP	ON	OFF
Dip n°1	motor rotation direction (see table)	
Dip n°2	RS232 port set for S/W update	RS232 port set for PC connection



NOTE: Photocell inputs in connection diagrams are considered NC contacts (default configuration).



DESCRIPTION OF TERMINALS

TERMINAL BOARD J5

- 1 RESET (NO contact)**
Contact closure executes the Reset procedure. Reset is the function for restoring normal operating conditions after some types of alarm.
- 2-5-8-11 - (COM)**
Negative for powering accessories (+24V and +Vacc) and common for contacts
- 3 EMERG2 (NO default contact)**
Emergency command:
in the standard setting, activation causes the door to open (the door stays open for as long as the command is activated).
By using SD-Keeper+Display, you can program the operation of this input differently (see programming instructions).
- 4 EMERG1 (NO default contact)**
Emergency command:
in the standard setting, activation causes the door to stop (the door stays in stop status for as long as the command is activated).
By using SD-Keeper+Display, you can program the operation of this input differently (see programming instructions).
- 6 -FAILSAFE**
Negative for powering photocell projectors when the FAILSAFE function is activated (programmable from SD-Keeper+Display).
- 7-14 +Vacc**
+24V power supply for accessories.
The total maximum load of the accessories connected to the "+Vacc" and "+24V" inputs, must not exceed 700mA.
- ⚡ While operating on the battery in the absence of mains power, when the battery charge drops to a critical level, Vacc is interrupted for energy saving purposes.
- 9 PSW2 (NC default contact)**
Input of 2nd safety photocell
By using SD-Keeper+Display, you can :
- program the NO contact,
- cut out this input if there are no photocells or if there is only one photocell (which must therefore be connected to the PSW1 input).
For the effects the tripped photocell has on this input, see PSW1.
- 10 PSW1 (NC default contact)**
Input of 1st safety photocell
By using SD-Keeper+Display, you can :
- program the NO contact,
- cut out this input if there are no photocells.
Following intervention by the photocell connected to this input, the door behaves as follows:
OPENING: no effect
PAUSE: pause time re-counted
CLOSING: reverses immediately
- 12 I-DET (NO default contact)**
Internal sensor input.
By using SD-Keeper+Display, you can program the NC contact.
- 13 E-DET (NO default contact)**
External sensor input.
By using SD-Keeper+Display, you can program the NC contact.

J6 TERMINAL BOARD

- 1 +24V**
+24V power supply for accessories.
The total maximum load of the accessories connected to the "+Vacc" and "+24V" inputs, must not exceed 700mA.
- 2 OUT 3 (default "door not close")**
Open-collector (negative) output (100mA).
In the standard setting, this output is active for as long as the door is not closed.
By using SD-Keeper+Display, you can program the operation of this output differently (see programming instructions).
- 3-5-9 - (COM)**
Negative for powering accessories (+24V and +Vacc) and common for contacts.
- 4 OUT 2 (default : "night courtesy light")**
Open-collector (negative) output (100mA).
In the standard setting, this output is activated for 60 sec. when the door is commanded to open in NIGHT mode.
By using SD-Keeper+Display, you can program the operation of this output differently (see programming instructions).
- 6 MONODIR (NO contact)**
If the SD-Keeper is not installed, closing this contact activates the "ONE WAY" function.
- 7 NIGHT (NO contact)**
If the SD-Keeper is not installed, closing this contact activates the "NIGHT" function.
- 8 OPENED (NO contact)**
If the SD-Keeper is not installed, closing this contact activates the "DOOR OPEN" function.
- 10 OUT 1 ("gong" default)**
Open-collector (negative) output (100mA).
In the standard setting, this input is active, while the photocells are covered, for 1 sec. at 0.5 sec. intervals until disengaged.
By using SD-Keeper+Display, you can program the operation of this output differently (see programming instructions).
- 11 KEY (NO default contact)**
Key command:
activation causes the door to open and then re-close after night pause time elapses.
By using SD-Keeper+Display, you can program the NC contact.
- 12-13 SD-KEEPER**
SD-Keeper connection terminals (cable: 2x0.5mm² max 50m).
⚡ Observe indicated polarity.

TERMINAL BOARD J7

- NOT AUS (NC contact)**
Contact for the emergency push-button (NC) which cuts power to the motor.
⚡ If not used, jumper the terminals with a 0.5mm² cable.

MOTOR ROTATION DIRECTION

Set dip-switch n°1 as follows:

DOOR MODEL	DIP-SWITCH N°1
2 LEAVES	ON
1 LEFT CLOSING WITH	ON
1 RIGHT CLOSING LEAF	OFF

- ⚡ The closing direction is established by watching the automated system head profile from the front and:
- in the case of a double leaf, the LEFT leaf connected to the top section of the belt.
- in the case of a single leaf, the leaf connected to the bottom section of the belt.



START-UP

The first time the door is powered, the SDM control board automatically executes a setup procedure and loads all the standard configuration settings.

STANDARD CONFIGURATION

The standard configuration is as follows:

- "AUTOMATIC" - "TOTAL" - "TWO-WAY"; operating function;
- maximum OPENING SPEED (level 10);
- CLOSING SPEED level 8;
- EMERG1 emergency input configured as a "no memory" NO contact, i.e. when activated, it causes the movement to stop and the door remains open in stop status for as long as the contact is maintained;
- EMERG2 emergency input configured as a "no memory" NO contact, i.e. when activated, it causes opening at normal speed and the door remains open for as long as the contact is maintained;
- two photocells with NC contact are supplied, to be connected to the PSW1 and PSW2 contacts (if one or both are not installed, jumper connections must be made according to the diagram);
- FAILSAFE disabled;
- ANTI-INTRUDER function active;
- PAUSE time 2 sec.;
- NIGHT PAUSE time 8 sec.;
- KIT LOCK enabled in standard mode (locks in NIGHT mode only);
- SURVEILLANCE KIT on disabled lock;
- BATTERY KIT not enabled;
- OUT1 output with GONG function;
- OUT2 output with LIGHT function;
- OUT3 output with DOOR NOT CLOSE function;
- PARTIAL OPENING set at 50%;
- no anticipated DECELERATION during opening and closing;
- Low DECELERATION SPEED;
- Standard OBSTACLE DETECTION: if an obstacle is recognised at opening or closing, the door reverses and continuously attempts to move until the obstacle is removed, without generating an alarm signal;
- two SENSORS with NO contact are provided (one internal, the other external);
- NO type KEY contact;
- INTERLOCK function not activated;
- ANTI-PANIC KIT WITH ELASTIC not enabled;
- TIMER not activated.

IMPORTANT:

The standard configuration, particularly for the set speed levels, does not guarantee compliance with standards prEN12650-1 and prEN12650-2, specified for doors distributed and installed in the European Union.

PHOTOCELLS

The following configurations are possible:

-NO PHOTOCELL

- In the standard configuration, PSW1 and PSW2 inputs must be jumper connected to the FAILSAFE terminal;
- for the SD-Keeper+Display, as an alternative, the PSW1 and PSW2 inputs can be disabled, thus avoiding the jumpers.

-1 PHOTOCELL

- In the standard configuration, the photocell must be connected to the PSW1 input, while PSW2 must be jumper connected to the FAILSAFE terminal;
- for the SD-Keeper+Display, as an alternative, one photocell only can be set (connecting it to the PSW1 input as usual), thus disabling the PSW2 input and avoiding

the jumper (see the SD-Keeper programming instructions).

-2 PHOTOCELLS

- connect the photocells to the PSW1 and PSW2 inputs.

Programming with the SD-Keeper+Display makes it possible to (see programming instructions):

- select the number of connected photocells (2,1,0);
- select the type of contact (NO/NC) of the PSW1 and PSW2 inputs;
- enable/disable the failsafe.

SETUP

The following parameters are checked and adjusted during the Setup cycle:

- measurement of masses and friction, setting of speeds, plus optimal acceleration and deceleration;
- acquisition of open and closed door positions;
- self-setting of the anti-crushing system at opening/closing according to selected speeds.

During Setup, the ERROR LED flashes rapidly and goes off at the end of the process if correctly executed.

Any faults are signalled by the ERROR LED and by the diagnostics via SD-Keeper.

Detection of serious faults (e.g. insufficient or excessive leaf travel, too much friction, motor malfunctions) causes the ERROR LED to light up steadily.

Subsequent variations of closing speed (by the push-buttons on the control board or SD-Keeper+Display) are signalled by a slowly flashing ERROR LED and by ALARM 1; in this case, a new Setup is necessary to ensure that the electronic anti-crushing device operates correctly.

To activate a new Setup procedure, press the SETUP push-button on the control board; Setup can also be started by a combination of push-buttons on SD-Keeper (see relevant instructions).

The following are the situations in which, if required, the Setup cycle is not executed, and the door stays in shut-down state, generating an alarm signal (slowly flashing ERROR LED and ALARM 15 on SD-Keeper):

- door powered by battery;
- NIGHT operating function selected;
- MANUAL operating function selected;
- DOOR OPEN operating function selected;
- an emergency input is active;
- photocells engaged;
- no power supplied to motor.

When the cause has been eliminated, the Setup starts automatically.

RESET

Whenever the automated system is powered, the door executes a Reset cycle during which:

- the door's travel limit positions are sought;
- any alarm signals are reset.

To activate a new Reset procedure, press the RESET push-button on the control board; Reset can also be started by a combination of push-buttons on SD-Keeper (see relevant instructions).

If a Reset is commanded while the door is in "Manual" mode, it is executed when this operating function is exited.

In the "Night" operating function, Reset consists of a slow closing movement, whereas it is normally a slow opening movement.

During Reset, the ERROR LED flashes rapidly.

The reset procedure is necessary following the occurrence of certain conditions causing the door to stop operating:

- after an obstacle is detected on 3 successive occasions during closing/opening when the function STANDARD OBSTACLE DETECTION (ALARM 8 or ALARM 9) has been activated;
- after a "with memory"-configured emergency command has been activated (see programming instructions), (ALARM 6 or ALARM 7);
- if, when using a kit lock, an opening malfunction is detected on the kit.

SPEED CHANGES

There are 10 speed adjustment levels for opening and closing.

Level 10 refers to the maximum speed permitted by door weight, whereas level 1 refers to the corresponding minimum speed.

CLOSING speed can be adjusted by two push-buttons on the SDM control board (SP-UP and SP-DOWN) if the SD-Keeper is NOT present.

By using SD-Keeper+Display, you can change both closing and opening speed.

Whenever closing speed is changed, the ERROR LED flashes slowly and the SD-Keeper shows ALARM 1 to report the need to execute a new Setup, in order to ensure the electronic anti-crushing device operates correctly.



BEHAVIOUR UNDER DIFFERENT OPERATING FUNCTIONS

OPERATING FUNCTION	DOOR STATUS	INTERNAL SENSOR (I-DET)	EXTERNAL SENSOR (E-DET)	KEY	EMERGENCY OPENING (EMERG 2) (2)	EMERGENCY CLOSING (2)
MANUAL	IN ANY POSITION	no effect	no effect	no effect	no effect	no effect
TOTALLY OPEN	OPEN	no effect	no effect	no effect	no effect	immediate closing
TOTAL AUTOMATIC TWO-WAY	OPEN	restarts pause time count	restarts pause time count	starts night pause time count	starts pause time count	immediate closing
	CLOSED	total opening and re-closing after pause time	total opening and re-closing after pause time	total opening and re-closing after night pause time	total opening	no effect
PARTIAL AUTOMATIC TWO-WAY	PARTIALLY OPEN	restarts pause time count	restarts pause time count	starts night pause time count	total opening	immediate closing
	CLOSED	partial opening and re-closing after pause time	partial opening and re-closing after pause time	partial opening and re-closing after night pause time	total opening	no effect
TOTAL AUTOMATIC ONE WAY	OPEN	restarts pause time count	no effect	starts night pause time count	starts pause time count	immediate closing
	CLOSED	total opening and re-closing after pause time	no effect	total opening and re-closing after night pause time	total opening	no effect
PARTIAL AUTOMATIC ONE WAY	PARTIALLY OPEN	restarts pause time count	no effect	starts night pause time count	total opening	immediate closing
	CLOSED	partial opening and re-closing after pause time	no effect	partial opening and re-closing after night pause time	total opening	no effect
TOTAL NIGHT	CLOSED	no effect	no effect	(1) total opening and re-closing after night pause time	total opening	no effect
PARTIAL NIGHT	CLOSED	no effect	no effect	(1) partial opening and re-closing after night pause time	total opening	no effect

- (1) During standard operation with battery in the "Night" operating mode, opening is performed by activating the command key for 3 seconds.
- (2) Emerg1 and Emerg 2 inputs can be programmed with SD-Keeper+Display to obtain:
 - emergency opening;
 - emergency closing;
 - stop.
 Furthermore, command activation can be programmed:
 - with no memory (when the command is de-activated, the door resumes normal operation);
 - with memory (when the command is de-activated, a Reset is necessary to restore normal operation).

This is the default configuration:

Emerg 1 ----> Stop/no memory

A pulse (function not shown in the table) causes immediate stop followed by slow re-closing after pause time (night pause time if the Night operating function was set).

Emerg2 ----> Emergency opening/no memory:

A pulse causes opening followed by re-closing after pause time.

Emergency commands have priority over all others.

SD-KEEPER PROGRAMMING UNIT

SD-Keeper is used for selecting operational functions, as well as adjusting and programming the 930 SF series automated doors.

It is divided into two parts: a fixed part used for selecting the operating functions by means of push-buttons and relevant signalling LEDs (fig.1 ref. A), and a pull-out part with LCD display to access complete programming (fig.1 ref. B).

The SD-Keeper display can be used as a temporary programming unit: after all programming and adjustments have been carried out, it can be fully removed because the settings remain stored on the SDM control board.

When the display is removed, a cover is provided (fig.1 ref. C).

SD-Keeper can be disabled by a combination of keys (see the special LOCK function) or by internally fitting a jumper by means of a switch (fig.2 ref. LOCK).

FITTING

Refer to fig.2 for an exploded view of fitting. Let cable route through point A or B according to the cable position needs.

CONNECTIONS

Connect SD-Keeper to the SDM control board with the following cable: 2x0.5mm² max 50m (fig. 2).

If a jumper is closed between two terminals as shown in fig.2 (LOCK), all keys on the programmer are disabled.

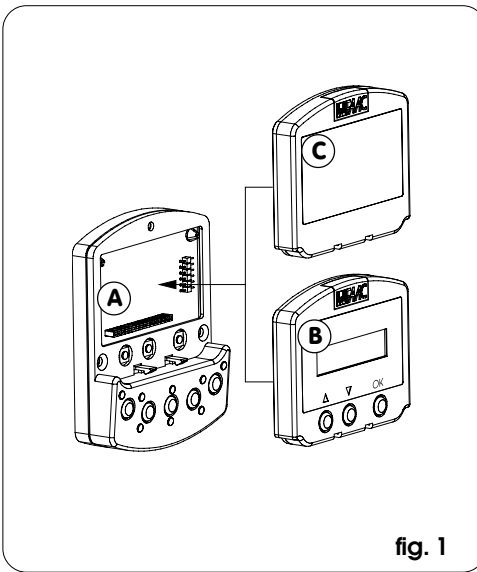


fig. 1

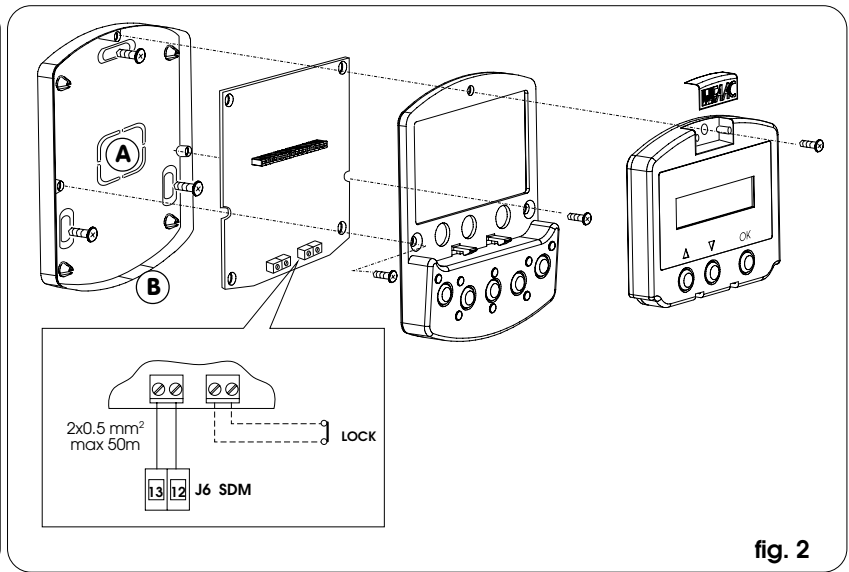


fig. 2

DIAGNOSTICS

SD-Keeper (also without display) has a diagnostic function which, in case of an alarm, interrupts normal display of the function every 2 seconds in order to show the fault status for 1 second by a combination of flashing LEDs.

Consult fig. 3 and table 1 to identify the type of alarm by interpreting the flashing LEDs.

➔ If there are several simultaneous faults, the first to be detected is shown.

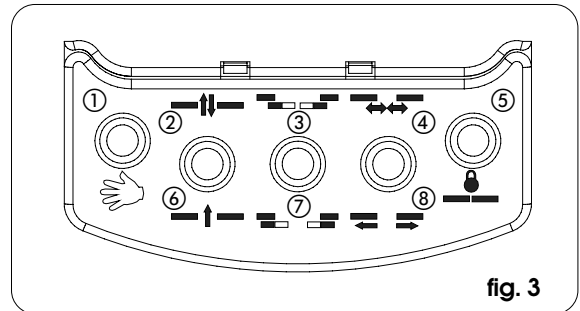


fig. 3



Tab.1 DIAGNOSTICS		Led							
DESCRIPTION	MEANING	①	②	③	④	⑤	⑥	⑦	⑧
ENERGY SAV.	Operating on low battery consumption	○	●	○	○	○	○	○	○
1 SPEED CHANGES	Speed changed, new setup required	○	○	○	○	○	○	●	○
2 BAT. OPERATION	Door operating on battery	○	○	●	○	○	○	○	○
3 FORCED OPEN	Door forced opening in progress.	○	○	●	○	○	○	●	○
4 FLAT BATTERY	Battery discharged: emergency movement not guaranteed	○	○	○	●	○	○	○	○
6 EMERG 2 ON	Emergency 2 input active	○	○	●	●	○	○	○	○
7 EMERG 1 ON	Emergency 1 input active	○	○	●	●	○	○	●	○
8 OBST.IN OPEN.	Opening obstacle detected 3 successive times; Reset necessary to restore operation.	○	○	○	○	○	○	○	●
9 OBST.IN CLOS.	Closing obstacle detected 3 successive times; Reset necessary to restore operation	○	○	○	○	○	○	○	●
10	Lock locked in closed position	○	○	○	●	○	○	○	●
11	Lock locked in open position (with surveillance kit only)	○	○	○	○	○	○	○	●
12	Incorrect power supply to motor (VMOT absent)	○	○	○	○	○	○	○	●
13	Photocell 2 faulty (PSW2 input)	○	○	○	○	○	○	○	●
14	Photocell 1 faulty (PSW1 input)	○	○	○	○	○	○	○	●
15	Setup not possible	○	○	○	○	○	○	○	●
18	Initialisation process not possible on motor: leaf stroke too long	○	○	○	○	○	○	○	●
20	Initialisation process not possible on motor: insufficient leaf stroke	○	○	○	○	○	○	○	●
22	Initialisation process not possible on motor: too much friction or leaf too heavy	○	○	○	○	○	○	○	●
24	Motor failure	○	○	○	○	○	○	○	●
25	SDM control board faulty	○	○	○	○	○	○	○	●

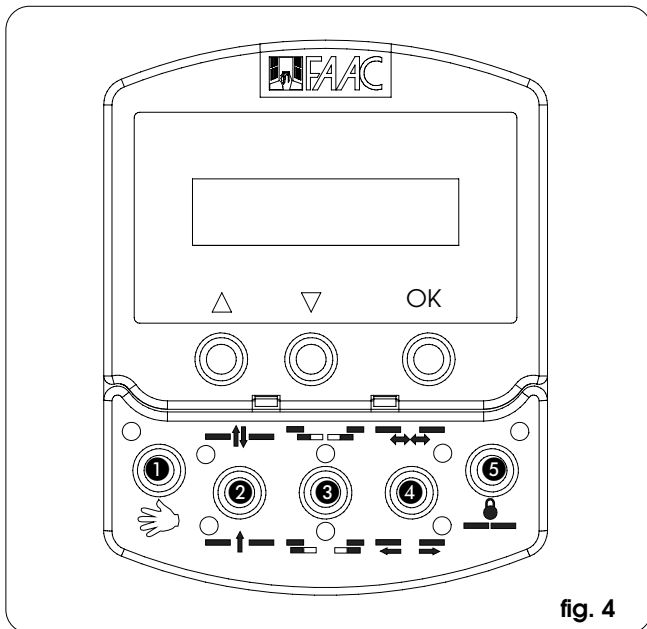


fig. 4

OPERATING FUNCTIONS

Selection is performed by pressing the keys on the fixed part of the programmer - the function is indicated by the relevant LED lighting up.

Note: when the "Night" or "Manual" modes have been set, the relevant selection keys must be pressed to exit the modes.

MANUAL

The sliding leaves are free and can be activated manually.

TWO-WAY

Pedestrian transit is possible in both directions; the inside and outside radars are enabled.

ONE WAY

Pedestrian transit is possible in one direction only; the external radar is disabled.

PARTIAL OPENING

The door opens only partially (standard: 50%)

Partial opening can be adjusted in range from 10% to 90% of total.

TOTAL OPENING

The door opens completely.

AUTOMATIC

The door opens (partially or totally) and then re-closes after the set pause time (standard: 2 sec.).

Adjusting range of pause time: 0 to 90 sec.

DOOR OPEN

The door opens and stays open.

NIGHT

The door closes and the lock (if present) is activated. The internal and external radars are disabled.

The Key command causes the door to open and re-close after night pause time elapses (standard: 8 sec).

Adjusting range of night pause time : 0 to 240 sec.

To obtain partial opening in this mode, before selecting the "Night" function, activate the "Partial Opening" function .

①		MANUAL
②		TWO-WAY
		ONE WAY
③		PARTIAL OPENING
		TOTAL OPENING
④		AUTOMATIC
		DOOR OPEN
⑤		NIGHT

SPECIAL FUNCTIONS

SETUP

Setup is the door initialisation function during which parameters are self-learned.

To activate, simultaneously press keys ① and ⑤ for 5 sec.

RESET

Reset is the function for restoring normal operating conditions after some types of alarm have been signalled.

To activate, simultaneously press keys ② and ③.

LOCK

When active, the Lock function disables SD-Keeper.

To activate (and de-activate), simultaneously press keys ③ and ④ for 5 sec.

BATTERY INSERTION/CHANGE

To keep the clock inside SD-Keeper active even in the event of a power cut, a 3V model CR1216 lithium battery is provided.

To insert or change the battery, find the compartment on the printed circuit (fig. 5) and observe the indicated polarity.

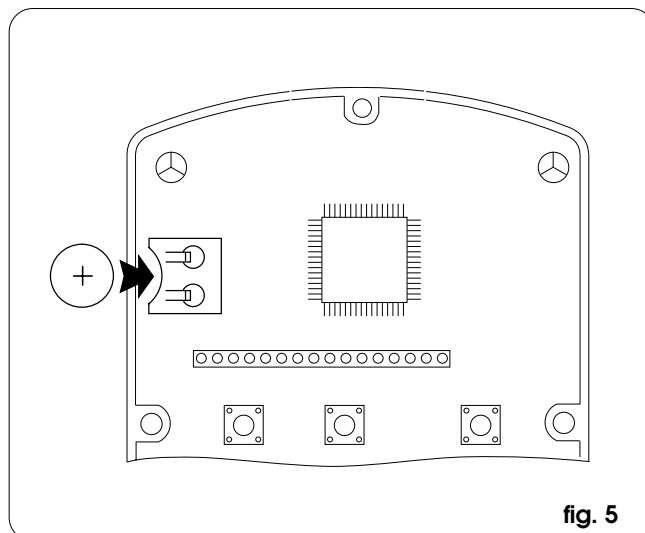


fig. 5

FLOW-CHART SD-KEEPER

To access programming while the standard view is shown on the display, press any of keys Δ , ∇ or OK.

Programming is subdivided into main menus (see box) split into subjects.

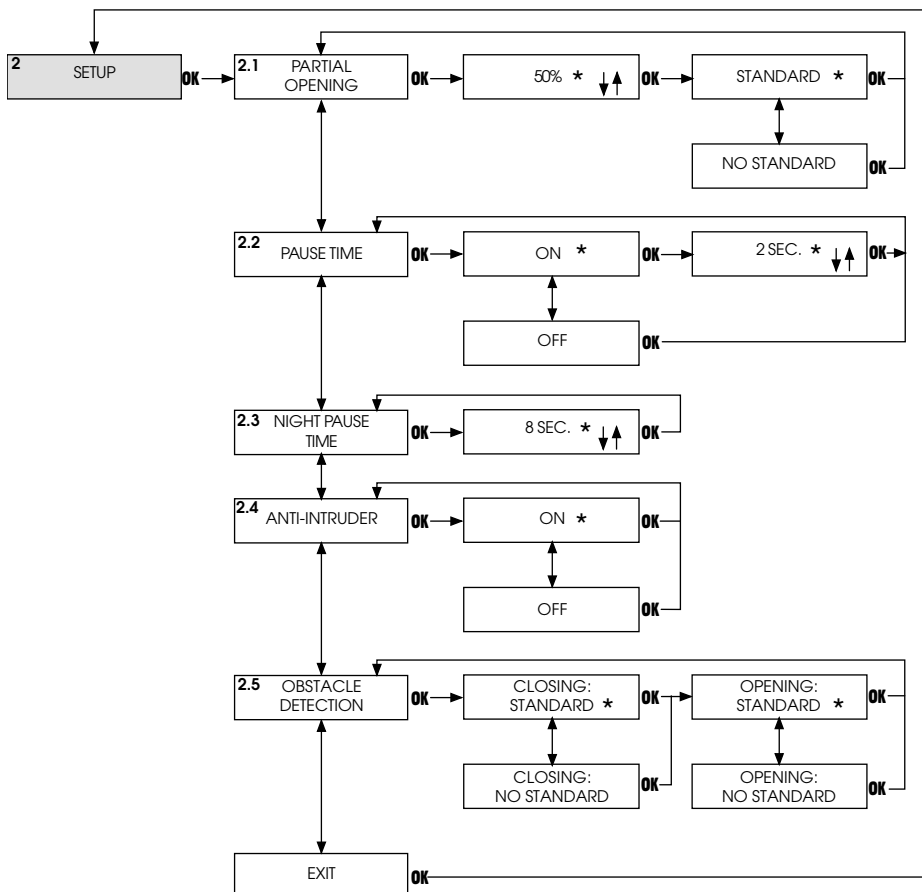
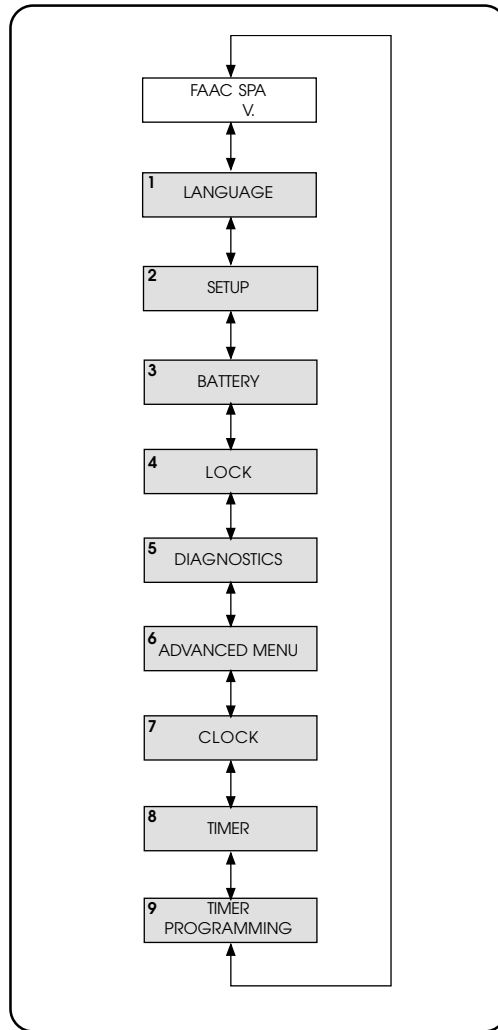
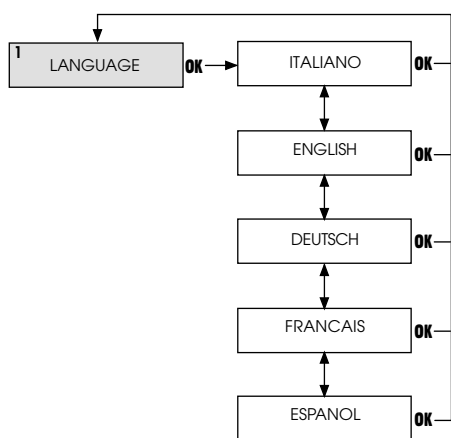
After selecting the menu with keys Δ or ∇ , to access it press OK.

Each menu is, in turn, subdivided into sub-menus at different parameter setting levels.

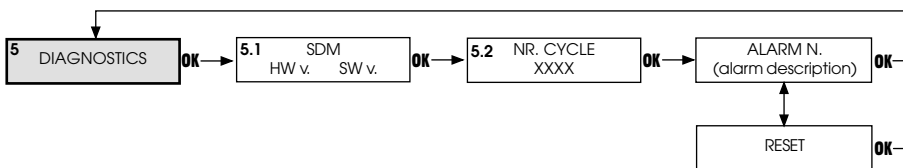
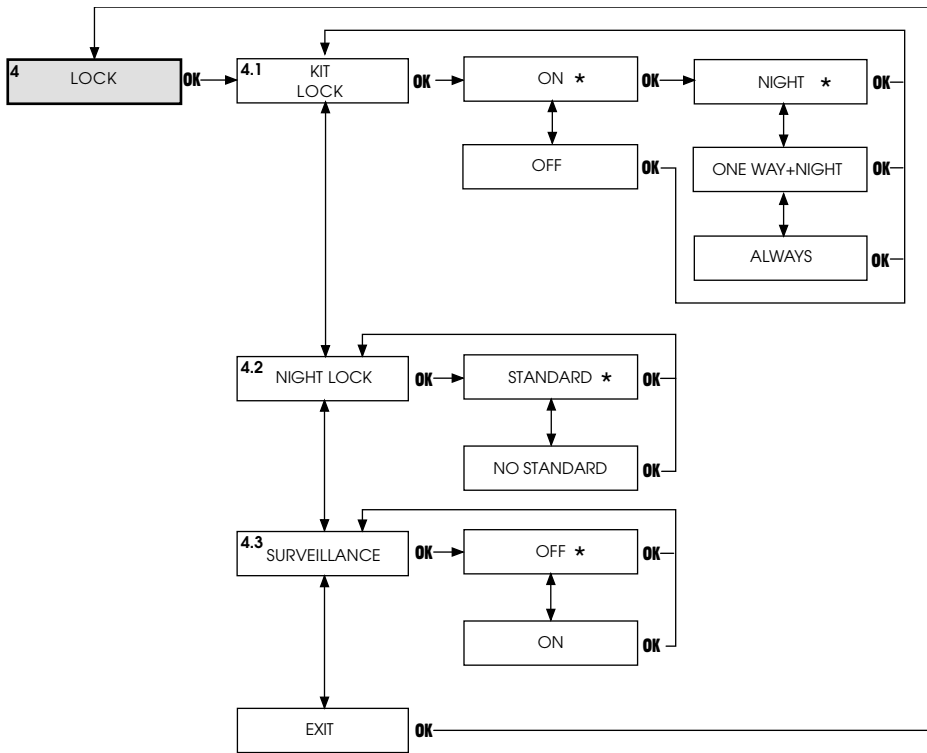
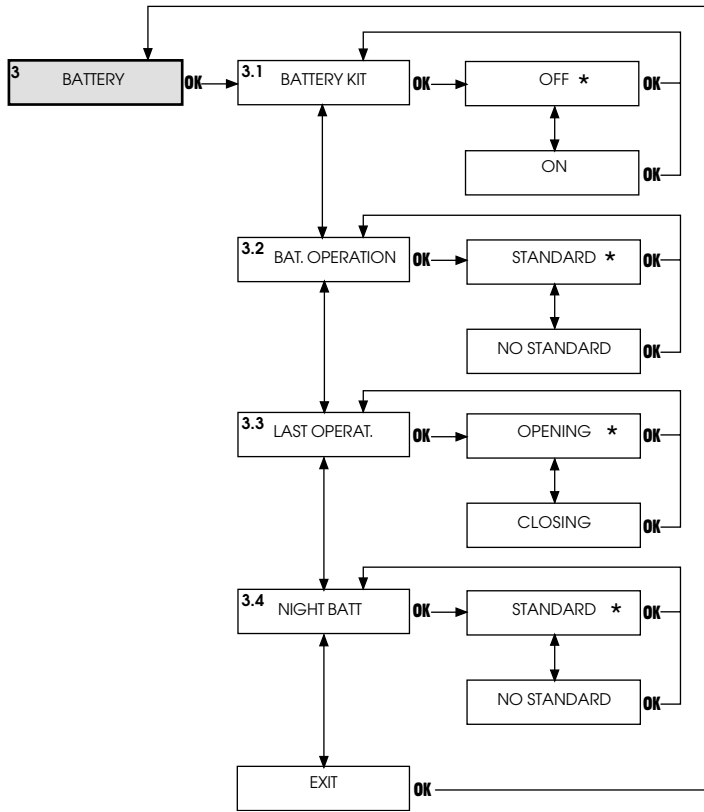
Use keys Δ or ∇ to select (sub-menu or parameter) and confirm with the OK key.

An asterisk on the display indicates the currently active setting.

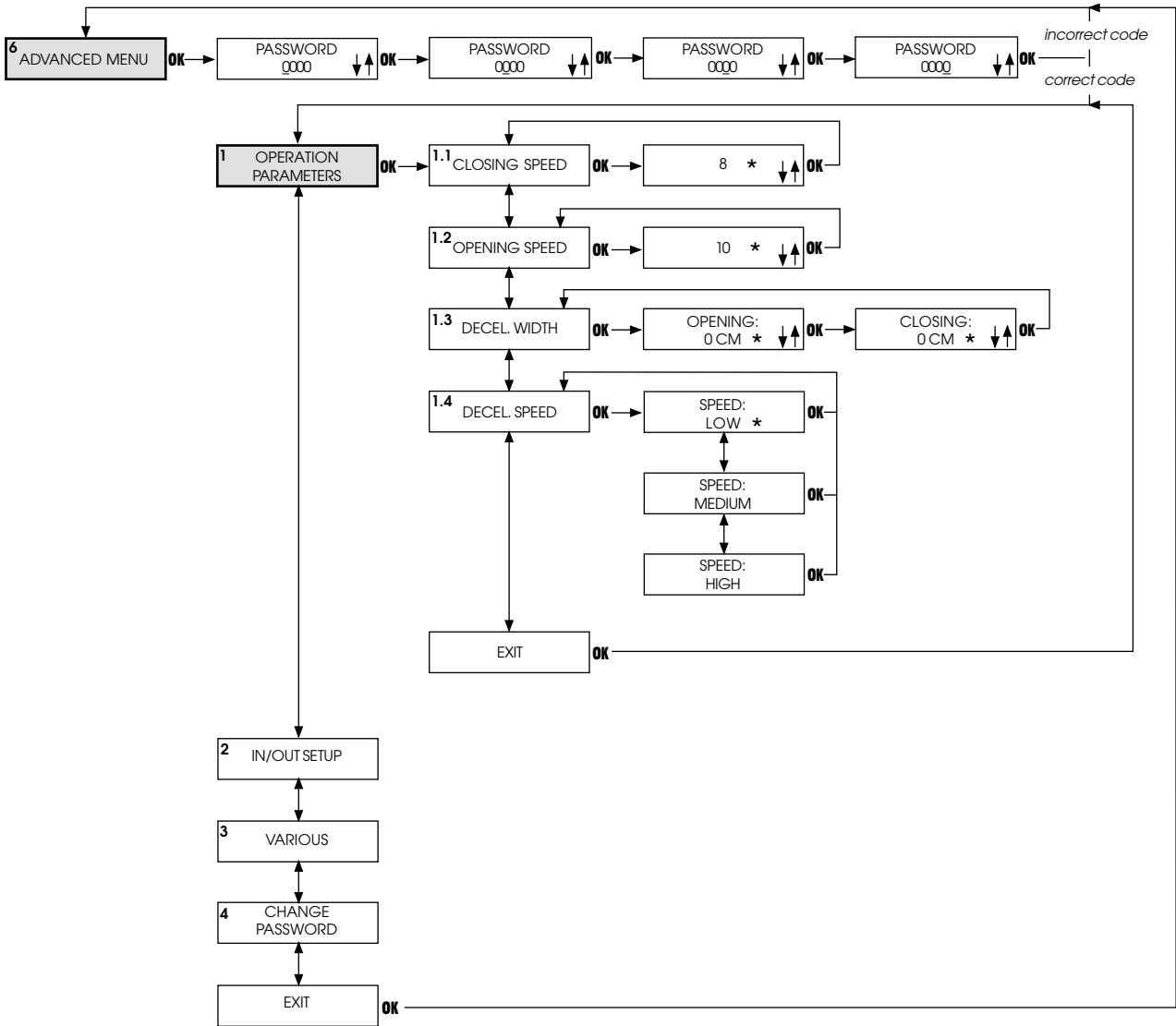
To exit programming, select the "exit" function at each level. Otherwise, after about 2 minutes, the display automatically returns to standard view.



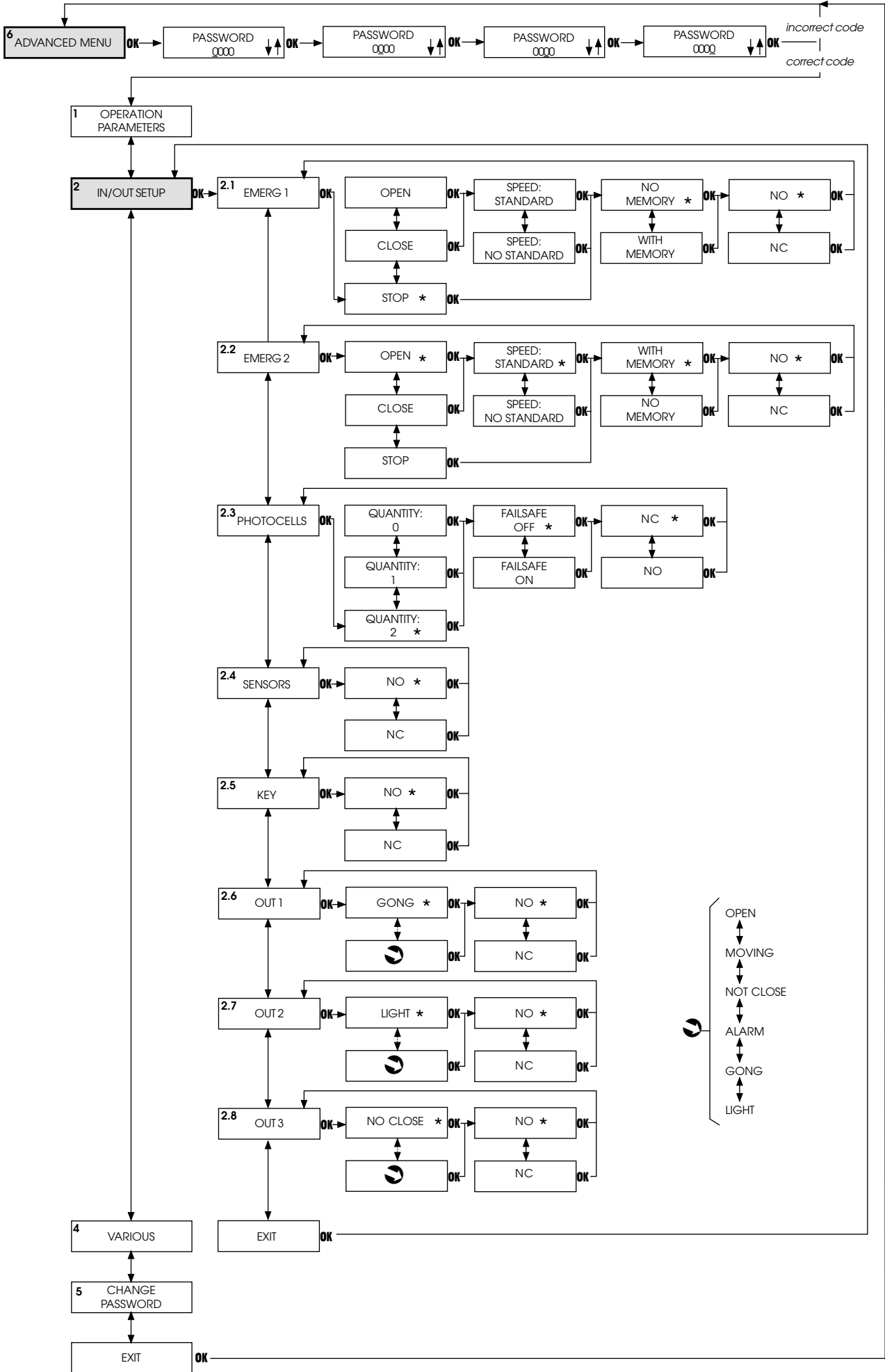
FLOW-CHART SD-KEEPER



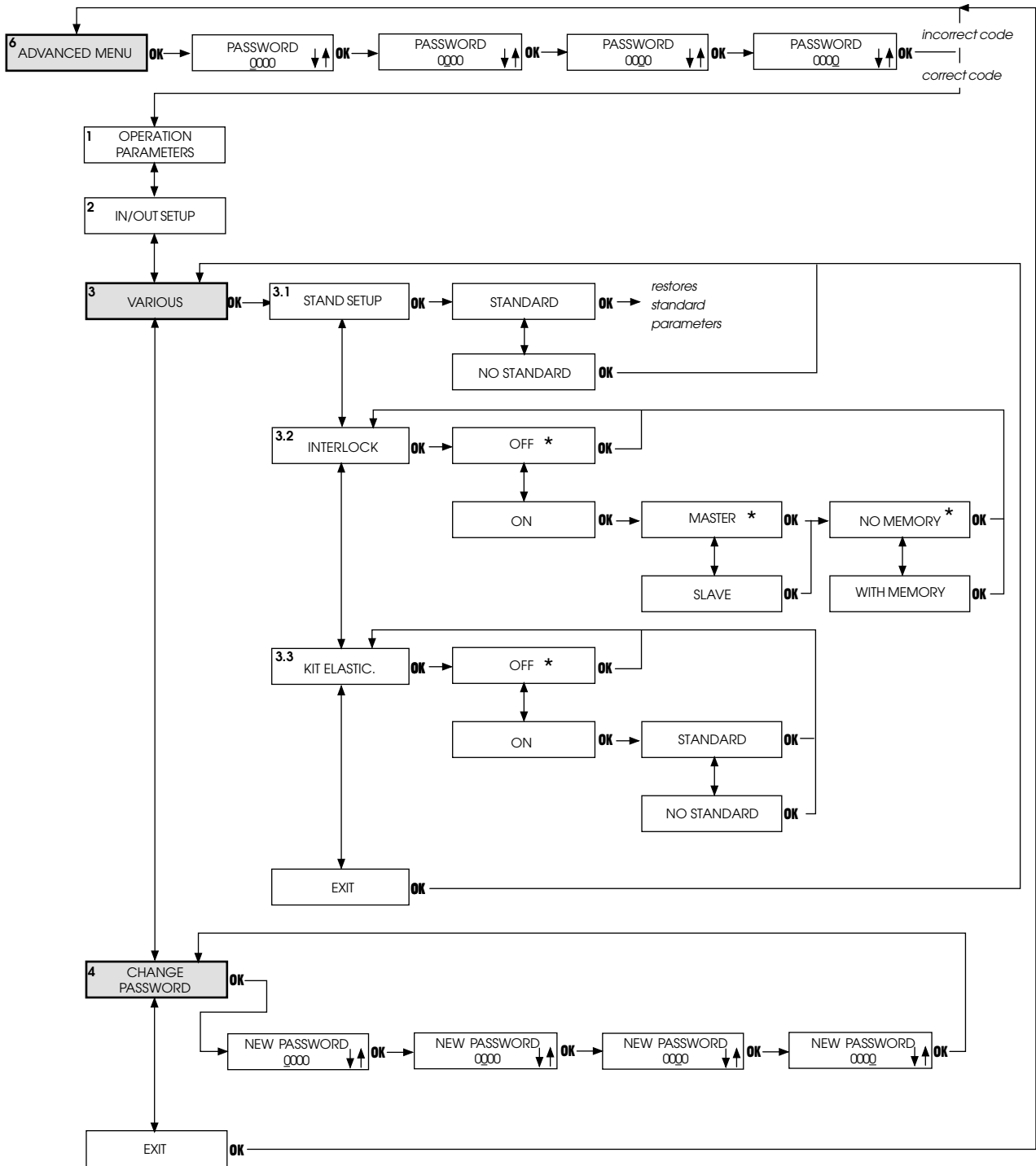
FLOW-CHART SD-KEEPER



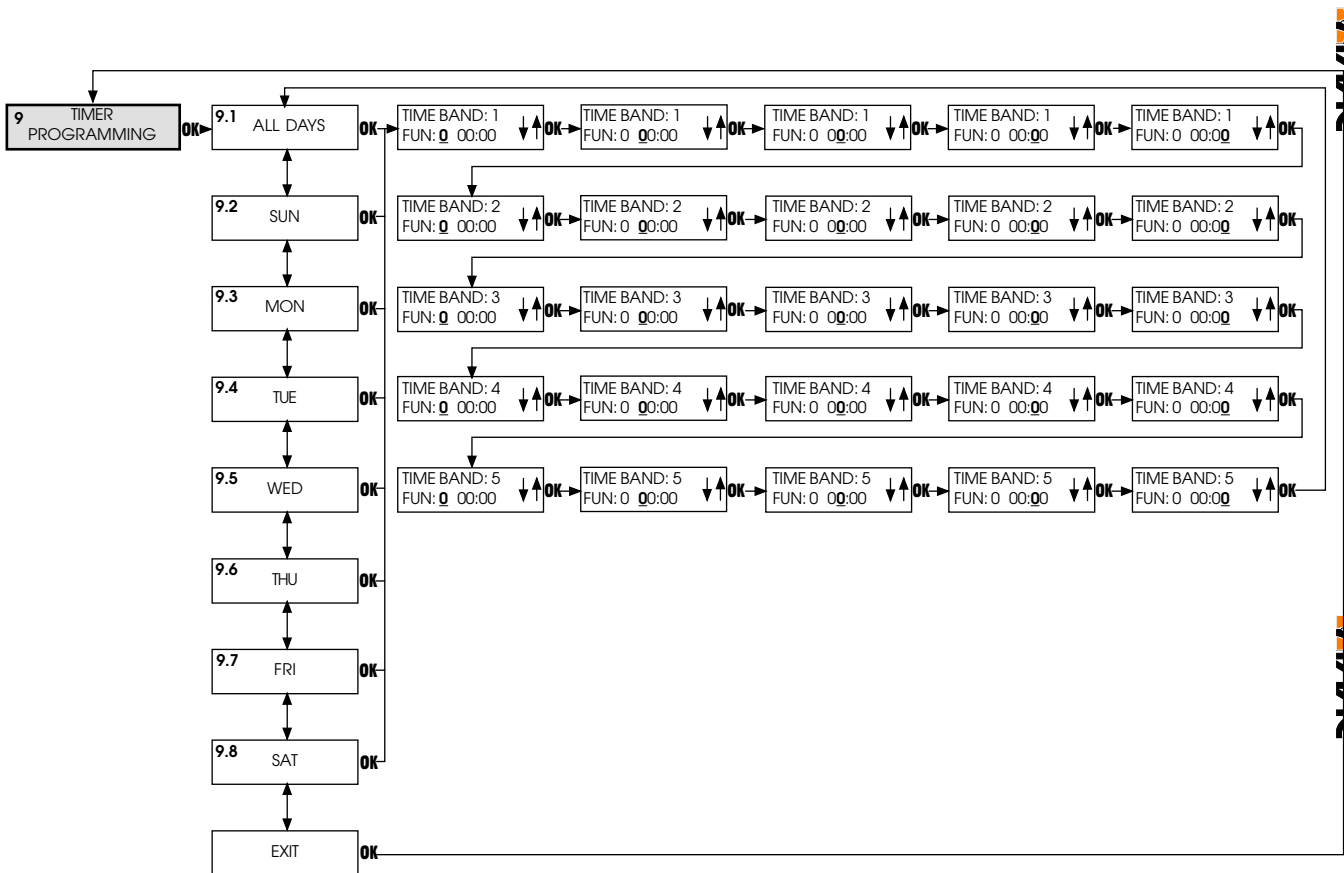
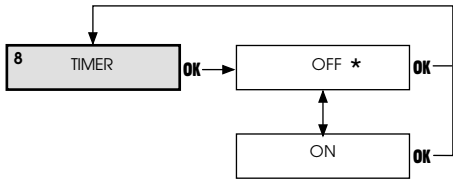
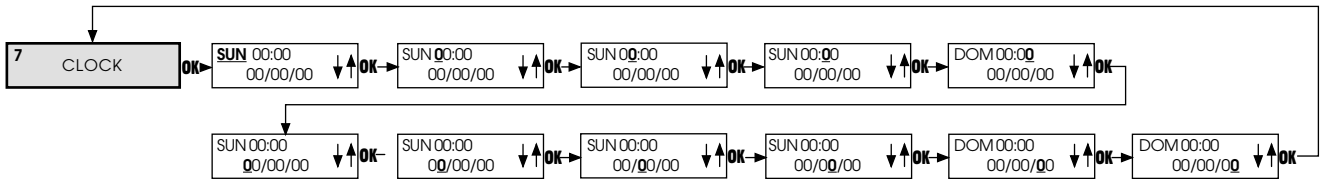
FLOW-CHART SD-KEEPER



FLOW-CHART SD-KEEPER



FLOW-CHART SD-KEEPER



1 LANGUAGE

Selects the language for showing the messages on the display.

2 SETUP

2.1 PARTIAL OPENING

Partial opening percentage

Selects the opening percentage (referred to total opening) performed in the "partial opening" operational function.

Standard value: 50%

Adjusting range: from 10% to 90%

Standard

When the "partial opening" operational function is selected, sensor activation always causes a partial opening command.

No Standard

When the "partial opening" operational function is selected, simultaneous activation of the internal and external sensors commands total opening.

2.2 PAUSE TIME

On

Pause time enabled in the "automatic" operational function.

Pause time value

If pause time is enabled, it can be set.

Standard value: 2 sec.

Adjusting range: from 0 to 90 sec.

Off

The leaves begin the closing stage as soon as the command elements (e.g. sensors) are inactive.

2.3 NIGHT PAUSE TIME

Night pause time value

Sets pause time in the "night" operational function.

Standard value: 8 sec.

Adjusting range: from 0 to 240 sec in steps of 2.

2.4 ANTI-INTRUDER

On

In "Automatic" operating mode, the door opposes manual opening attempts by means of contrary force.

During the attempt to open, an alarm is signalled on the control board ("Error" LED flashing slowly) and on the SD-Keeper (alarm #3 - forced door).

Off

In "automatic" operating mode, when manual opening is attempted, the door opens automatically and re-closes after any pause time.

Note: In the "night" operational function, the anti-intruder is always active.

2.5 OBSTACLE DETECTION

Closing: Standard

If an obstacle is detected during closing, the door re-opens. During the next closing operation, closing is decelerated at the point where the obstacle had been detected, and continues at the slower speed until completed.

Closing: No Standard

If an obstacle is detected for 3 consecutive times at closing, the door stops in open position, and causes an alarm signal on the control board ("error" LED) and on SD-Keeper (alarm No.9 - obstacle during closing).

To restore operation, resetting is necessary either from the control board or from SD-Keeper.

Opening: Standard

If an obstacle is detected during opening, the door stops for one second and then re-closes.

During the next opening operation, opening is decelerated at the point where the obstacle had been detected, and continues at the slower speed until completed.

Opening: No Standard

If an obstacle is detected for 3 consecutive times at opening, the door stops in closed position, and causes an alarm signal on the control board ("error" LED) and on SD-Keeper (alarm No.8 - obstacle during opening).

To restore operation, resetting is necessary either from the control board or from SD-Keeper.

3 BATTERY

3.1 BATTERY KIT

Off

Battery kit not installed.

On

Battery kit installed.

3.2 BAT. OPERATION

Standard

If there is a power cut and the operating function is other than "Night", the door continues operating normally until the battery has sufficient charge reserve to perform at least one emergency movement.

The last movement operation to be executed is the one selected with function 3.3.

No Standard

In the event of a power cut, the door executes only the moving operation selected with function 3.3.

3.3 LAST OPERAT.

Opening

During battery operated functioning, the last moving operation is opening (see also function 3.2).

Closing

During battery operated functioning, the last moving operation is closing (see also function 3.2).

3.4 NIGHT BATT.

Standard

In the event of a power cut, and with the "Night" operating function selected, the control board operates immediately in low consumption mode; opening is possible only by activating emergency opening, or the key command for 3 seconds (Key input).

No Standard

In the event of a power cut and with the "Night" operating function selected, the door operates normally until the battery has sufficient charge reserve to perform at least one emergency movement.

4 LOCK

4.1 KIT LOCK

On

Lock installed.

Night

The lock locks the leaves only in the "night" operational function.

One way + night

The lock locks the leaves in the "night" and "one way" operational functions.

Always

The lock locks the leaves whenever they close, irrespective of the set operational function.

Note: During battery operated functioning, the lock locks the leaves only in "night" operational function, irrespective of the set selection.

Off

Lock not installed.

4.2 NIGHT LOCK

Standard

In the "night" operational function, with discharged batteries, the lock keeps the leaves locked.

No Standard

In the "night" operational function, the lock is released before the batteries are fully discharged.

4.3 SURVEILLANCE

Off

Surveillance device on lock not installed.

On

Surveillance device on lock installed.

5 DIAGNOSTICS

5.1 SDM











The door's hardware model and the software of the SDM control board to which SD-Keeper is connected are shown.

5.2 NR. CYCLE

The count (non resettable)of the cycles effected by the door is shown.

5.3 ALARM N.

The number and description of the current alarm are shown.

No.	DESCRIPTION	MEANING
	ENERGY SAV.	Operating on low battery consumption
1	SPEED CHANGES	Speed changed, new setup required
2	BAT.OPERATION.	Door operating on battery
3	FORCED OPEN	Door forced opening in progress
4	FLAT BATTERY	Battery discharged: emergency movement not guaranteed
6	EMERG 2 ON	Emergency 2 input active
7	EMERG 1 ON	Emergency 1 input active
8	OBST.IN OPEN.	Opening obstacle detected 3 successive times; Reset necessary to restore operation
9	OBST.IN CLOS.	Closing obstacle detected 3 consecutive times; Reset necessary to restore operation
10		Lock locked in closed position
11		Lock locked in open position (with surveillance kit only)
12		Incorrect power supply to motor (VMOT absent)
13		Photocell 2 faulty (PSW2 input)
14		Photocell 1 faulty (PSW1 input)
15		Setup not possible
18		Initialisation process not possible on motor : leaf stroke too long
20		Initialisation process not possible on motor: insufficient leaf stroke
22		Initialisation process not possible on motor: too much friction
24		Motor malfunctions
25		SDM control board faulty

RESET

Executes reset procedure.

6 ADVANCED MENU

PASSWORD

To access the advanced menu, insert the 4-digit password (default 0000).

1 OPERATION PARAMETERS

1.1 CLOSING SPEED

Sets door speed for closing.

When speed is changed with respect to the set value, an alarm is signalled on the control board ("Error" LED flashing slowly) and on the SD-Keeper (ALARM 1: speed change) - a new Setup is recommended.

Standard value: level 8.

Adjusting range: from 0 to 10

1.2 OPENING SPEED

Sets door speed for opening.

Standard value: level 10 (maximum speed)

Adjusting range: from 0 to 10

1.3 DECEL. WIDTH

Opening

Sets anticipated time value on the standard deceleration point at the opening stop position.

Standard value: 0 cm

Adjusting range: from 0 to 127 cm

Closing

Sets anticipated time value on the standard deceleration point at the closing stop position.

Standard value: 0 cm

Adjusting range: from 0 to 127 cm

1.4 DECEL. SPEED.

Speed:

Sets speed level during deceleration.

Standard value: low

Adjusting range: high/medium/low

2 IN/OUT SETUP

2.1 Emerg 1

2.2 Emerg 2

Sets the effect of the emergency commands (Emerg1 and Emerg2 inputs on SDM control board).

Standard setting EMERG 1:

Stop/No memory/NO

Standard setting EMERG 2:

Open/Speed: Standard/No memory/ NO

Open

Activating this command opens the door.

Close

Activating this command closes the door.

Stop

Activating this command stops the door.

Speed: Standard

The door opens or closes (according to setting) at normal speed.

Speed: No Standard

The door opens or closes (according to setting) at slow speed.

No memory

In order to keep the emergency active, the command must be maintained active (on release, the door returns to normal operation).

With memory

A pulse keeps the emergency operational;

To restore operation, resetting is necessary either from the control board or from SD-Keeper.

No

Normally open input.

Nc

Normally closed input.

2.3 Photocells

Quantity

Number of connected photocells.

Standard no.: 2

Settable no.: 0, 1, 2

When no photocells are configured and the selected status is NC (see below), there is no need to jumper connect unused inputs.

When configuring 1 photocell, you can connect to the PSW1 input of the SDM control board.

Failsafe Off

Failsafe test on photocells not executed.

Failsafe On

Failsafe test on photocells executed before each movement.

Nc

Normally closed input.

No

Normally open input.

2.4 SENSORS

Sets the status of "external radar" and "internal radar" commands (E-Det and I-Det inputs on SDM control board).

No

Normally open input.

Nc

Normally closed input.

2.5 KEY

Sets the status of the "key" command (Key input on the SDM control board).

No

Normally open input.

Nc

Normally closed input.

2.6 OUT 1

2.7 OUT 2

2.8 OUT 3

Sets function or status associated with individual outputs on the SDM control board.

Standard setting OUT 1:

Gong/NO

Standard setting OUT 2:

Light/NO

Standard setting OUT 3:

No close/NO

Function/Status

The output is activated according to selection:

SELECTION	OUTPUT ACTIVATION
OPEN	Until the door is open
MOVING	Until door is moving
NOT_CLOSE	Until door is not closed
ALARM	Until the door is in alarm status
GONG	Intervention of photocells activates the output for 1 sec. at 0.5 sec. intervals until release.
LIGHT	In "night" operational function, when the door is commanded to open, the output is activated for 60 sec.
INTERLOCK (*)	The output is activated to create an interlock between the doors

(*) The "interlock" function cannot be selected but is automatically set on the OUT1 output when the interlock is activated (see Various/Interlock).

No

Normally open output.

Nc

Normally closed output.

3 VARIOUS

3.1 Stand Setup

Used for checking if any non-standard programming operation was effected.

Standard

If no function was modified with respect to the standard programming, an asterisk is shown.

If the asterisk is not present, press the "OK" key and all standard programming functions are reset.

No Standard

If at least one function was modified with respect to the standard programming, an asterisk is shown.

3.2 Interlock

The interlock function makes it possible to control two sliding doors (master and slave) so that opening of one depends on closing of the other and vice versa.

Off

Interlock function not active.

On

Activates the interlock function.

Master

The master door (usually the internal one).

Slave

The slave door.

No Memory

With interlock operation, you must wait for one door to re-close before commanding the other to open: any opening pulses sent during the operating cycle of the first door, have no effect.

With Memory

With interlock operation, there is no need to wait for one door to re-close before commanding the other to open: any opening pulses sent during the operating cycle of the first door are memorised, and the second door opens automatically as soon as the first door closes.

3.2 Kit elastic.

The elastic kit is a mechanical accessory which, when installed, enables anti-panic opening of the leaves in case of a blackout.

Off

Elastic kit not installed.

On

Elastic kit installed.

Standard

When power is restored after a blackout, the door remains set in its "manual" operating function (which cannot be changed) until the device is reset by manually closing the leaf.

➔ For correct operation, the SD-Keeper must be permanently installed.

No standard

When power is restored after a blackout, the door automatically executes the movement required to reset the device.

Important!: when the system is being automatically reset, the anti-crushing device is disabled.

4 CHANGE PASSWORD

Sets the new password for accessing the advanced menu (4 digits).

7 CLOCK

Sets the current day, time and date.

8 TIMER

Off

Timer not activated.

On

Timer activated: the operating time bands set in "9 Timer Programming" are enabled.

When the timer is activated, a "T" appears at the side of the time shown on the display and the SD-Keeper will not allow any operational selection.

The battery inside the SD-Keeper maintains the clock in operation even if power is not supplied; if correct time is lost (e.g. black-out and discharged battery), a flashing asterisk appears in place of the "T" and the timer is disabled.

9 TIMER PROGRAMMING

With the timer, you can create up to 5 different time bands for each day of the week (by setting the band starting time) and assign an operational function to each time band.

When the SD-Keeper's internal clock reaches the starting time of a band, the associated operating function is automatically set, and the door remains in this condition until the subsequent band intervenes.

Permanent connection of the SD-Keeper+Display is necessary for correct management of time bands.

Selecting the day

Selects the day of the week to create time bands.

If you select "All days", any time bands defined subsequently are included in all days of the week.

Function

Sets the operating function to be associated with the time band by referring to the following table:

FUN	MEANING
0	NOFUNCTION
1	AUTOMATIC TWO-WAY TOTAL
2	AUTOMATIC ONE-WAY TOTAL
3	AUTOMATIC TWO-WAY PARTIAL
4	AUTOMATIC ONE-WAY PARTIAL
5	DOOR TOTALLY OPEN
6	DOOR PARTIALLY OPEN
7	MANUAL
8	NIGHT

Time band starting time

Sets the activation time for the time band.

There is no need for the time bands to be in chronological order.

-TIMER PROGRAMMING EXAMPLE-

We wish to program a door operating at the following times:

- from MONDAY to FRIDAY:
 - from 8 a.m. in AUTOMATIC TWO-WAY TOTAL
 - from 6 p.m. in AUTOMATIC ONE WAY TOTAL
 - from 7 p.m. in NIGHT
- SATURDAY and SUNDAY: NIGHT for the whole day

Proceed as follows:

select ALL DAYS and set the following:

TIME BAND 1: FUN 1 8 a.m.

TIME BAND 2: FUN 2 6 p.m.

TIME BAND 3: FUN 8 7 p.m.
 TIME BAND 4: FUN 0
 TIME BAND 5 : FUN 0

Select SAT and set the following:

TIME BAND 1: FUN 0
 TIME BAND 2: FUN 0
 TIME BAND 3: FUN 0
 TIME BAND 4: FUN 0
 TIME BAND 5: FUN 0

Select SUN and set the following:

TIME BAND 1: FUN 0
 TIME BAND 2: FUN 0
 TIME BAND 3: FUN 0
 TIME BAND 4: FUN 0
 TIME BAND 5: FUN 0

ACCESSORIES

LOCK

Lock card installation procedure:

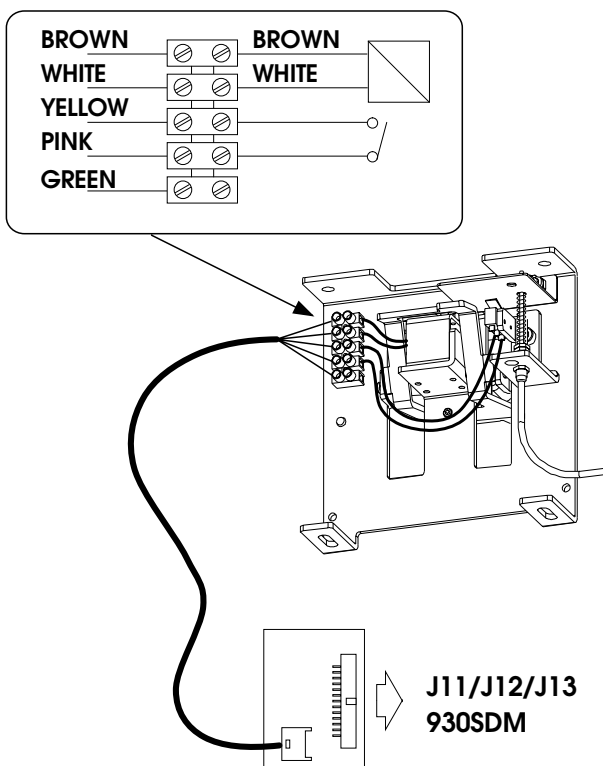
- cut mains power;
- insert the lock card in any of connectors J11, J12, J13 of the SDM control board;
- make the electric connections;
- restore power.

Note: to avoid damaging the lock card, always insert it when power is OFF.

In the standard configuration:

- the lock locks the leaves only in the Night operating function.
- if operating on batteries in the Night mode, if the batteries become discharged, the lock continues locking the leaves.

By using SD-Keeper+Display, you can change lock operation.



LOCK SURVEILLANCE

This accessory enables a check of lock efficiency and, in the event of an error, this is signalled by the SD-Keeper. To activate lock surveillance, the function must be set with SD-Keeper+Display.

ANTI-PANIC WITH ELASTIC

The "Kit elastic" is a mechanical accessory enabling opening of the leaves in case of a black-out.

To ensure the system operates correctly, the SD-Keeper must be permanently installed.

Elastic kit installation procedure:

- supply mains power to the door;
- execute the Setup;
- activate the elastic kit with SD-Keeper+Display;
- install the accessory mechanically.

After installation, the leaves will open when mains power fails; when mains power is restored, the elastic must be "reset".

Resetting can be done in two different ways (selected with SD-Keeper+Display):

- manually (STANDARD),
- automatically (NO STANDARD).

Resetting entails re-closing the leaves in order to apply tension to the elastic and re-connect it to the electric magnet (re-connection occurs with the leaves totally closed and the SDM control board powered).

If manual resetting is selected, when mains power is restored, the door is in manual mode, and this mode cannot be exited until the leaves are totally re-closed manually.

If automatic resetting is selected, when mains power is restored, the control board activates a leaf closing procedure, using much greater power than is usually required for movement; furthermore, the ANTI-CRUSHING DEVICE IS NOT ACTIVE during this procedure.

During the automatic procedure for resetting the elastic:

- if the photocells intervene, the door reopens and the disengagement procedure begins;
- the sensors are disabled;
- any Setup requests are ignored.

IMPORTANT:

- NEVER carry out a Setup procedure if the elastic has not been reset,
- do not install the batteries with this accessory.

ANTI-PANIC BY BREAK-OUT

This accessory enables the leaves to be opened by pressure; to install it, refer to the specific instructions.

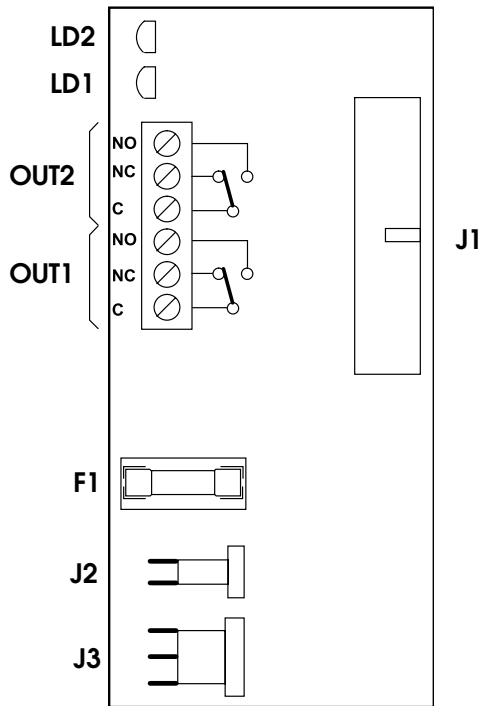
If installing the anti-panic by break-out facility, a sensor (according to Standards prEN12650-1 and prEN12650-2) must be installed. It must be connected to the EMERG1 input (via SD-Keeper+Display) configured for commanding immediate stop of the movement.



BATTERY KIT

Battery card installation procedure:

- cut mains power;
 - insert the battery card in connector J11, J12 or J13 of the SDM control board;
 - restore mains power;
 - using the SD-Keeper+Display, activate the "Battery Kit" and set the required operating parameters (the standard configuration is described further below);
 - connect the batteries to the battery card on connector J2.
- IMPORTANT: TO AVOID DAMAGING THE BATTERY CARD:**
- **ALWAYS** insert and remove the battery card while mains power is OFF.
 - connect the batteries (connector J2) only when the battery card has already been inserted.



F1	Fuse 20 T5A/250V (battery protection)
J1	Connection to SDM control board
J2	Battery connection
J3	Not used
OUT 1	Relay output (Com/NC/NO)
OUT 2	Relay output (Com/NC/NO)
LD1 (green)	Door power supply mode
LD2 (red)	Battery charge status

By using the SD-Keeper+Display, you can select door behaviour in battery operation mode, so that, if mains power fails:

OPERATING FUNCT. other than NIGHT and STANDARD BAT. OPERATION programming:

- the control board continues to operate normally until the battery has only sufficient reserve charge to perform at least one emergency movement, after which
- the last programmed movement is performed (opening or closing), and finally
- the SDM control board goes into ENERGY SAVING status.

OPERATING FUNCT. other than NIGHT and NO STANDARD BAT. OPERATION programming:

- the last programmed movement is immediately performed (opening or closing), after which
- the SDM control board goes into ENERGY SAVING status.

NIGHT OPERATING FUNCT. and NIGHT STANDARD BAT. OPERATION programming:

- the SDM control board goes into NIGHT ENERGY SAVING status.

NIGHT OPERATING FUNCT. and NIGHT NO STANDARD BAT. OPERATION programming:

- the control board continues to operate normally until the battery has only sufficient reserve charge to perform at least one emergency movement, after which
- the SDM control board goes into NIGHT ENERGY SAVING status.

ENERGY SAVING (other than Night operating function)

- +VAC is switched OFF;
- SD-Keeper shows ENERGY SAV. on the Display, the alarm is signalled, back lighting goes OFF; menus cannot be scrolled, and only the keys for changing the operating function remain active.

NIGHT ENERGY SAVING (Night operating function)

- +VAC is switched OFF;
- SD-Keeper completely OFF.

These statuses can be exited in the following ways:

WAKE-UP PROCEDURE (KEY INPUT FOR 3 SEC)

If the last selected movement was opening, the SD-Keeper re-activates itself for night pause time and then returns to ENERGY SAVING status.

If the last selected movement was closing, opening is executed. When the door is open, the SD-Keeper re-activates itself for night pause time, after which the +Vacc is re-activated too (to allow the photocells to operate) and the door re-closes (SD-Keeper resumes its ENERGY SAVING status).

BY ACTIVATING AN EMERGENCY INPUT (EMERG1 or EMERG2)

Providing it was set, the emergency movement is executed. SD-Keeper stays ON during the period when the emergency status remains active. Vacc is re-activated if a closing movement is requested.

BY USING THE LOCK KNOB

See the WAKE-UP function.

NOTE: by using SD-Keeper+Display, you can configure lock operation in battery-powered Night mode.

	GREEN LED ON	RED LED OFF
LED RED ON	<ul style="list-style-type: none"> - the door is mains powered - battery at very low charge level (1) - OUT1 not active - OUT2 active 	<ul style="list-style-type: none"> - the door is battery-powered - battery fully discharged (3) - OUT1 not active - OUT2 not active
LED RED FLASHING	<ul style="list-style-type: none"> - the door is mains powered - battery now recharging; if mains power fails, no emergency movement is guaranteed (2) - OUT1 not active - OUT2 active 	<ul style="list-style-type: none"> - the door is battery-powered - battery now discharging; at least one emergency movement is guaranteed (2) - OUT1 not active - OUT2 not active
LED RED OFF	<ul style="list-style-type: none"> - the door is mains powered - the battery is charged; if mains power fails, door movement is guaranteed - OUT1 active - OUT2 active 	<ul style="list-style-type: none"> - the door is battery-powered - the battery is charged and can move the door - OUT1 active - OUT2 not active

(1) If the red LED does not start to flash within about 30 mins, the causes may be as follows:

- incorrect battery connection or no battery connection;
- fuse F1 interrupted;
- batteries or battery card damaged.

(2) recharging time for fully discharged batteries: about 14 hours.

(3) No emergency movement is possible: the accessories connected to +Vacc and SD-Keeper are turned OFF and the Manual operating mode is set.

INTERLOCK

INTERLOCK WITH INTERNAL SENSORS

This application is recommended when the distance between the two doors is sufficient to avoid interference in the detection ranges of the two internal sensors.

- Make the connections between the J6 terminal boards of the two 930 SDM control boards and the sensors as shown in figure 1.
- Program the following functions:
 - "interlock" active on both doors,
 - select the "master" option for the internal door, and the "slave" option for the external one,
 - select, for both doors, option "interlock with no memory" or "interlock with memory" (refer to explanations in the programming flow-charts).

Important:

- The sensors must be connected ONLY to the KEY input of the equipment;
- The interlock will operate only if both doors are set to the NIGHT or ONE WAY operating function.

Operation

These are the interlock operational stages:

- 1) The person on the outside activates sensor S1 of door A;
 - 2) Door A opens;
 - 3) The person enters the internal space between the two doors;
 - 4) Door A closes after the night pause time elapses;
 - 5) The person activates sensor S3 of door B (If the "Interlock with memory" option was selected, there is no need to wait for the first door to close totally in order to activate the sensor of the second door);
 - 6) Door B opens;
 - 7) The person exits;
 - 8) Door B closes after the night pause time elapses.
- The operation is identical if the person comes from the opposite direction.

INTERLOCK WITHOUT INTERNAL SENSORS

This application is recommended if the doors are so near to one another that the two internal sensors cannot be used; two push-buttons are provided for activating the doors from the outside.

- Make the connections between the J6 terminal boards of the two 930 SDM control boards, of the push-buttons and additional electronic components as shown in figure 2.
- Program the following functions:
 - "interlock" active on both doors,
 - select the "master" option for the internal door, and the "slave" option for the external one,
 - select the "interlock with memory" option for both doors (refer to explanations in the programming flow-charts).

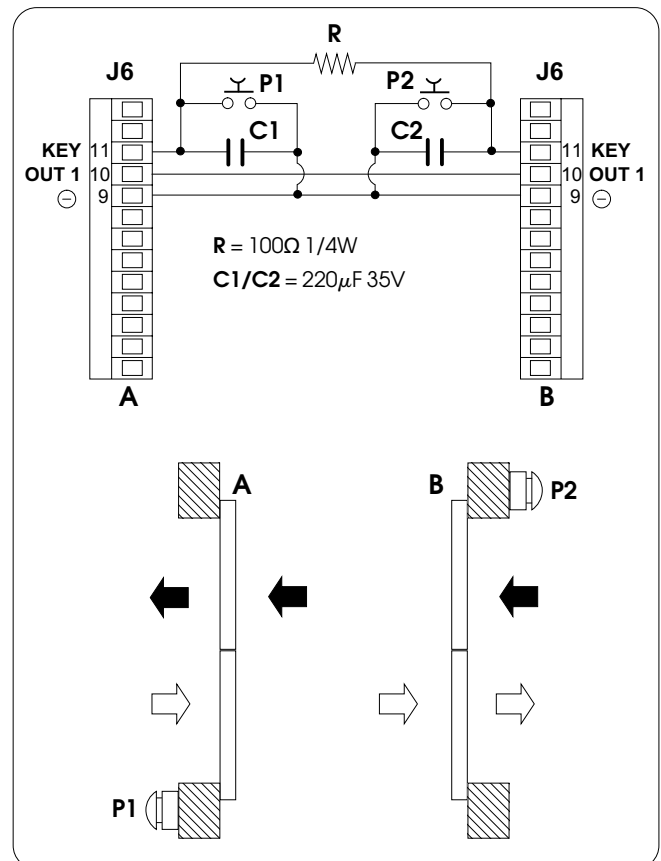
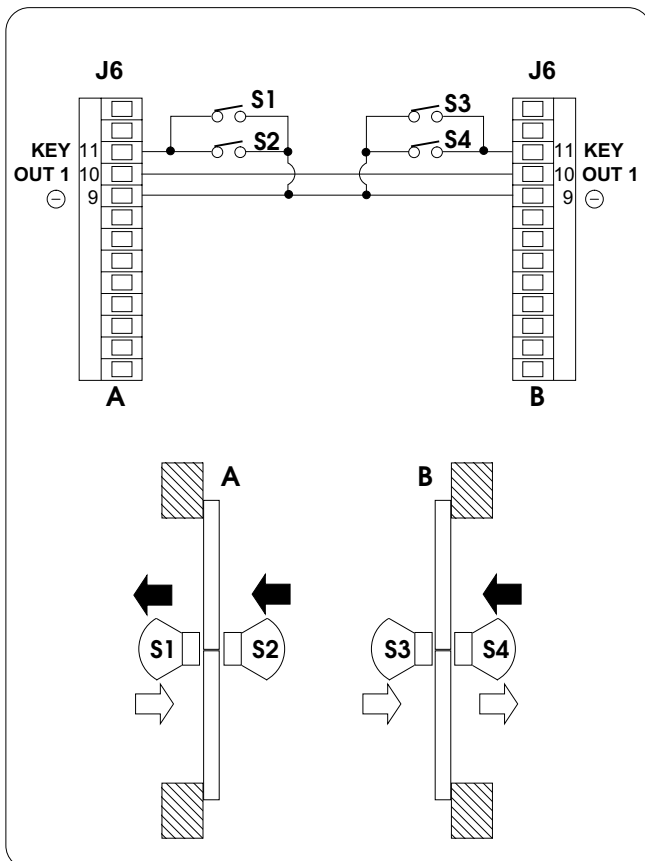
Important:

- The push-buttons must be connected ONLY to the KEY input of the equipment;
- The interlock will operate only if both doors are set to the NIGHT or ONE WAY operating function.

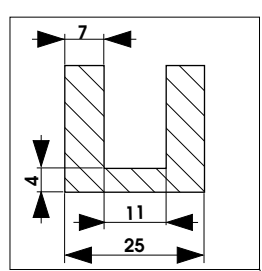
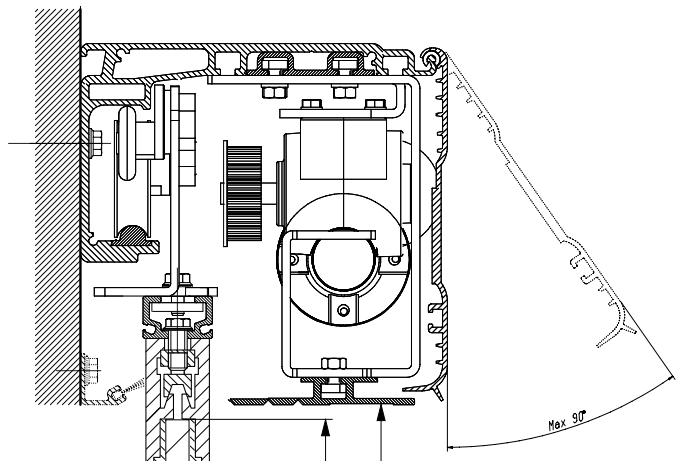
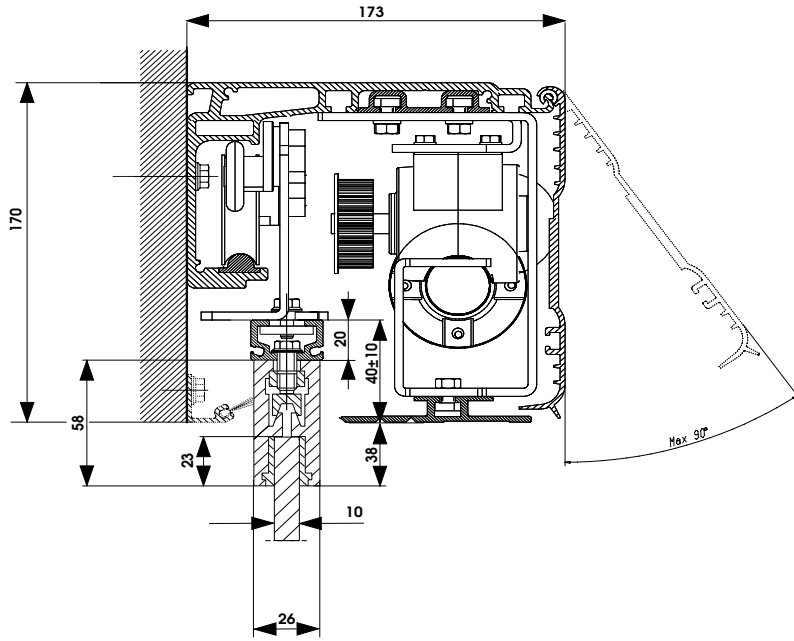
Operation

These are the interlock operational stages:

- 1) The person on the outside activates push-button P1 of door A;
 - 2) Door A opens;
 - 3) The person enters the internal space between the two doors;
 - 4) Door A closes after the night pause time elapses;
 - 5) Door B opens automatically;
 - 7) The person exits;
 - 8) Door B closes after the night pause time elapses.
- The operation is identical if the person comes from the opposite direction.



DOOR WITH GRIPPER FOR GLASS LEAF FITTING (ACCESSORY)



HA
LH (max 2500)

$$HA = LH - 19 \pm 10mm$$

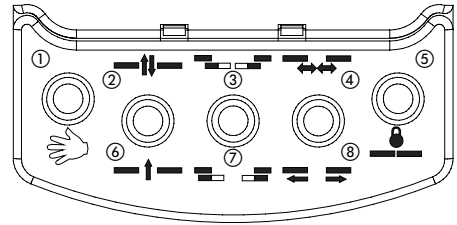


DIAGNOSTICS GUIDE

The following is a list of the specified alarms plus the relevant explanation/solution.

SD-Keeper+Display shows the alarm number and description on the Diagnostics menu.

Only the SD-Keeper shows the type of alarm by a combination of flashing LEDs (referring to the figure on the side).



DESCRIPTION	CAUSE	NOTES	ACTIONS	LED
ENERGY SAV.	The SDM control board is operating in battery powered/low consumption mode	In this mode, SD-Keeper's back-lighting is OFF and menus cannot be scrolled on the display.	(see battery kit instructions) However, the push-buttons for changing the operating functions are active.	2
1 SPEED CHANGES	Closing speed was changed.		Execute a new SETUP	7
2 BAT. OPERATION	SDM control board operating on battery	GREEN LED on battery card is OFF	In the event of a power cut, this is the normal battery-powered operation signal However, if mains power is available, check: • is the 5x20 T1A fuse of the transformer in the power supply unit interrupted? • is the F2 5x20 T1A fuse on the SDM control board interrupted? • Is the 220V~ mains power supply correctly connected? • Is connector J1 fitted correctly on the SDM control board? If the alarm persists, replace the SDM control board. If the alarm persists, replace the transformer.	3
3 FORCED OPEN	Someone is now trying to force the door.	This signal is generated only if STANDARD ANTI-INTRUDER is set.		3 7
4 FLAT-BATTERY	The battery is discharged; emergency movement is not guaranteed at changeover from mains-powered to battery-powered mode.	RED LED on battery card is ON steady.	If the alarm goes on for more than one hour, check the following: • connections to battery • is the battery card inserted correctly? • is the 5x20 T5A fuse on the battery card interrupted? • are the batteries efficient? If the alarm persists, replace the battery card. If the alarm persists, replace the batteries.	4
6 EMERG 2 ON	Emergency input 2 active.	This signal is shown whenever the EMERG2 emergency contact is active. If the WITH MEMORY function was selected for this input, the signal continues even when the contact is no longer active.	If the WITH MEMORY function was selected for the EMERG2 input, when the contact is restored, RESET is necessary to cancel the signal.	3 4
7 EMERG 1 ON	Emergency input 1 active.	This signal is shown whenever the EMERG1 emergency contact is active. If the WITH MEMORY function was selected for this input, the signal continues even when the contact is no longer active.	If the WITH MEMORY function was selected for the EMERG1 input, when the contact is restored, RESET is necessary to cancel the signal.	3 4 7
8 OBST. IN OPEN.	An obstacle was detected 3 consecutive times during the opening movement.	This signal is shown only if the following function was selected: OBSTACLE DETECTION -> OPENING: NO STANDARD	Remove the obstacle and execute RESET to restore operation.	8
9 OBST. IN CLOS.	An obstacle was detected 3 consecutive times during the closing movement.	This signal is shown only if the following function was selected: OBSTACLE DETECTION -> CLOSING: NO STANDARD	Remove the obstacle and execute RESET to restore operation.	7 8
10	The lock is locked in closed position.	This signal is shown only if the lock was installed: • without surveillance: the door attempts to release the lock 3 times and then stops in a state from which it can exit only by a RESET or by turning the emergency release knob. • with surveillance: the door stops immediately in a state from which it can exit only by a RESET or by turning the emergency release knob	Check the following: • is the lock card inserted correctly? • are the lock connections good? • is the lock operating correctly? • is the lock surveillance kit (if any) correctly fitted and connected? If the alarm continues even after RESET, replace the lock card and/or the lock.	3 8
11	Lock not closing	This signal is shown only if a SURVEILLANCE KIT was installed ON THE LOCK, and was programmed.	Check the following: • is the lock card inserted correctly? • are the lock connections good? • is the lock operating correctly? • is the lock surveillance kit correctly fitted and connected?	3 7 8
12	Incorrect power supplied to motor.	The +VMOT green LED is OFF.	Check the following: • is the F1 5x20 T6.3A fuse on the SDM control board interrupted? • is connector J1 correctly fitted?	4 8
13	Photocell 2 faulty.	This signal is shown only if the FAILSAFE function is active and 2 photocells were configured.	Check the following: • is photocell 2 aligned correctly? • photocell 2 connections • is photocell 2 in good condition and efficient?	4 7 8



14	Photocell 1 faulty.	This signal is shown only if the FAILSAFE function is active and at least 1 photocell was configured.	Check the following: <ul style="list-style-type: none"> • is photocell 1 aligned correctly? • photocell 1 connections • is photocell 1 in good condition and efficient? 	3 4 8
15	SETUP execution is impeded in some way.	When the trouble fault is removed, SETUP starts automatically	Check the following: <ul style="list-style-type: none"> • the set operating function is not MANUAL, NIGHT, or DOOR OPEN. • operation is not battery-powered • photocells are not engaged • no emergency input is active • motor power supply absent (+VMOT LED OFF) 	3 4 7 8
18	SETUP procedure cannot be completed because excessively large (over 3m) transit space was detected	When this signal is generated, the ERROR LED on the SDM control board is ON steady and the door is locked.	Reduce leaf travel and execute a new SETUP	2 3
20	SETUP procedure cannot be completed because insufficient (less than 70cm) transit space was detected	When this signal is generated, the ERROR LED on the SDM control board is ON steady and the door is locked.	Increase leaf travel and execute a new SETUP	2 4
22	The SETUP procedure cannot be completed because excessive friction or excessive leaf weight was detected.	When this signal is generated, the ERROR LED on the SDM control board is ON steady and the door is locked.	<ul style="list-style-type: none"> • cut power or set the MANUAL operating function, and then manually check if the leaves are moving correctly. • check weight of leaves 	2 3 4
24	A motor fault was detected during operation.	When this signal is generated, the ERROR LED on the SDM control board is ON steady and the door is locked.	Check the following: <ul style="list-style-type: none"> • is connector J3 fitted correctly? • is the motor efficient? If the ERROR LED is flashing, when the error cause is eliminated, the door resumes operating normally; if, instead, the ERROR LED is ON steady, execute a SETUP when the cause has been removed. If the alarm persists, replace the SDM control board. If the alarm persists, replace the motor.	2 8
25	SDM control board failure		Replace the SDM control board	2 7 8
All the LEDs of the operating functions are flashing.	No communication between SD-Keeper and SDM control board.		Check the following: <ul style="list-style-type: none"> • connection length must not exceed 50 m • each connection cable must have a minimum diameter of 0.5mm² If the alarm persists, replace the SD-Keeper. If the alarm persists, replace the SDM control board.	

TROUBLESHOOTING

The following will help you identify and solve some particular states.

	STATE	SUGGESTION
A	SD-KEEPER off	<ul style="list-style-type: none"> no mains power supplied and the SDM control board is battery-powered in NIGHT operating function, and in energy saving statuses. connection to the SDM control board is interrupted: check the connection cables and wiring between SD-Keeper and the SDM control board SDM control board not operating correctly; replace the SDM control board
B	LEDs MAIN, V_{ACC}, VMOT and +24V OFF	<ul style="list-style-type: none"> check if the F2 5x20 T1A fuse on the SDM control board is interrupted is the 5x20 T1A fuse inside the power supply unit interrupted? is connector J2 fitted correctly on the SDM control board? check connection to the power supply unit SDM control board not operating correctly; replace the SDM control board
C	MAIN LED OFF; V_{ACC}, VMOT and +24V LEDs all ON	<ul style="list-style-type: none"> mains power not supplied and the SDM control board is battery-powered if mains power is being supplied, see point B
D	MAIN and V_{ACC} LEDs OFF; VMOT and +24V LEDs ON	<ul style="list-style-type: none"> no mains power supplied, the SDM control board is battery-powered and in energy saving statuses. if mains power is being supplied, see point B
E	VMOT LED OFF; MAIN, V_{ACC} and +24V LEDs ON	<ul style="list-style-type: none"> is the F1 5x20 T6.3A fuse on the SDM control board interrupted? is connector J3 fitted correctly on the SDM control board? check if the power supply unit and the control board are efficiently connected SDM control board not operating correctly; replace the SDM control board
F	VMOT and V_{ACC} LEDs OFF; MAIN and +24V LEDs ON	<ul style="list-style-type: none"> this state occurs when the control board software is being updated there may be condensation on the board; cut power and dry the dampness. SDM control board not operating correctly; replace the SDM control board
G	ERROR LED flashing slowly	<ul style="list-style-type: none"> alarm in progress: connect the SD-Keeper to find the alarm and take the appropriate action (see the diagnostics guide)
H	door locked and ERROR LED ON	<ul style="list-style-type: none"> SETUP must be executed alarm in progress: connect the SD-Keeper to find the alarm and take the appropriate action (see the diagnostics guide) check motor connection check motor encoder connection check the condition of the encoder connection flat cable
I	door NOT executing SETUP and ERROR LED flashing slowly	<ul style="list-style-type: none"> SETUP execution impeded (see SDM control board instructions)
L	door NOT CLOSING and ERROR LED off	<ul style="list-style-type: none"> photocell/s engaged make sure that the selected operating function is not DOOR OPEN (if no SD-Keeper is installed, make sure that input 8 of the J6 terminal board is not jumper connected to the negative) make sure that the selected operating function is not MANUAL check motor connection check if power is being supplied to the motor (VMOT LED ON)
M	door NOT OPENING and ERROR LED off	<ul style="list-style-type: none"> make sure that the selected operating function is not MANUAL make sure that the selected operating function is not NIGHT (if no SD-Keeper is installed, make sure that input 7 of the J6 terminal board is not jumper connected to the negative) check motor connection make sure that the lock is not locked check if power is being supplied to the motor (VMOT LED ON)
N	door CLOSES instead of OPENING and vice versa	<ul style="list-style-type: none"> reverse the position of dip-switch 1 on the SDM control board and execute a SETUP
O	door moving for short distances only	<ul style="list-style-type: none"> check if encoder connector J4 is correctly inserted check condition of the encoder check the condition of the encoder connection flat cable
P	door movements very slow	<ul style="list-style-type: none"> using the SD-Keeper+Display, check if the selected speed levels are as required using the SD-Keeper+Display, check if the selected deceleration distances are as required
Q	ERROR LED flashing rapidly	<ul style="list-style-type: none"> door executing a SETUP; wait for the procedure to end door executing a RESET; wait for the procedure to end with the KIT ELASTIC installed, the door is resetting the elastic; wait for the procedure to end



Le descrizioni e le illustrazioni del presente manuale non sono impegnative. La FAAC si riserva il diritto, lasciando inalterate le caratteristiche essenziali dell'apparecchiatura, di apportare in qualunque momento e senza impegnarsi ad aggiornare la presente pubblicazione, le modifiche che essa ritiene convenienti per miglioramenti tecnici o per qualsiasi altra esigenza di carattere costruttivo o commerciale.

The descriptions and illustrations contained in the present manual are not binding. FAAC reserves the right, whilst leaving the main features of the equipments unaltered, to undertake any modifications it holds necessary for either technical or commercial reasons, at any time and without revising the present publication.

Les descriptions et les illustrations du présent manuel sont fournies à titre indicatif. FAAC se réserve le droit d'apporter à tout moment les modifications qu'elle jugera utiles sur ce produit tout en conservant les caractéristiques essentielles, sans devoir pour autant mettre à jour cette publication.

Die Beschreibungen und Abbildungen in vorliegendem Handbuch sind unverbindlich. FAAC behält sich das Recht vor, ohne die wesentlichen Eigenschaften dieses Gerätes zu verändern und ohne Verbindlichkeiten in Bezug auf die Neufassung der vorliegenden Anleitungen, technisch bzw. konstruktiv/kommerziell bedingte Verbesserungen vorzunehmen.

Las descripciones y las ilustraciones de este manual no comportan compromiso alguno. FAAC se reserva el derecho, dejando inmutadas las características esenciales de los aparatos, de aportar, en cualquier momento y sin comprometerse a poner al día la presente publicación, todas las modificaciones que considere oportunas para el perfeccionamiento técnico o para cualquier otro tipo de exigencia de carácter constructivo o comercial.



FAAC

FAAC S.p.A.

Via Benini, 1

40069 Zola Predosa (BO) - ITALIA

Tel.: 051/61724 Fax: 051/758518

www.faacgroup.com

Timbro del Rivenditore:/Distributor's Stamp:/Timbre de l'Agent:/ Fachhändlerstempel:/Sello del Revendedor: