

INSTALLATION INSTRUCTIONS

DOUBLE PIVOT

Automatism for swinging doors



ISO 9001 - Cert. n° 0561



We thank you for having chosen this product. In order to get the best performance from the device, Vektor recommends that you read and follow carefully the instructions for installation and use contained in this manual.

SAFETY NORMS

Do not litter the environment with the packing materials which may be a source of hazard for children and animals. The installation must be carried out by qualified staff in conformity with the regulations in force.

Pay particular attention to the messages contained in this manual and marked by the danger symbol. These may either be warnings to avoid potential damage to the apparatus, or specific signals of potential hazard for the safety of the technician or other people involved.

GENERAL INSTRUCTIONS

Read this manual carefully before proceeding to the installation, start-up or maintenance of the apparatus. This device has been conceived to automate pedestrian swinging doors; any other use shall be considered contrary to the use foreseen by the manufacturer who cannot be liable for damages to people or things.

Before the installation, check that the door to be automated has a uniform and frictionless opening and closing movement. Check that the fixing surface is level and smooth so as to avoid deformations to the base of the automatism and that it is of a suitable size for a stable fixing of the apparatus. Eliminate any spring door-closing devices previously installed. The builder is not liable for any deformation to the automated fixture due to the inadequate firmness of the frame.

TECHNICAL CHARACTERISTICS

Power supply	230V AC 50 Hz
Rated power	120W
Rated motor torque	23 Nm
Service	Continuous > 500 cycles/day, with capacity of 300 cycles/hour x 2 hours
Operating temperature	Box inside from 0°C to +50°C
Automatism dimensions (mm)	Height: 79 Depth: 96.5 Length (minimum): 925
Automatism weight	15 Kg
Wing width (mm)	765 ÷ 1200
Wing maximum weight	150 Kg
Wing max. opening angle	100°

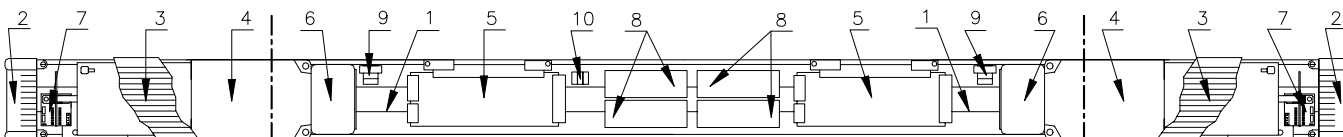
DESCRIPTION OF THE AUTOMATISM COMPONENTS (FIG. 1)

To reach the internal parts of the automatism, remove the metallic cap by levering with a suitable point-shaped tool on the end sides. Pay particular attention when removing the cap so as to avoid damage to the covering parts.

The automatism is composed of:

- | | |
|---------------------------------------|---|
| 1. Aluminium fixing base | 6. Transformers |
| 2. Aluminium end sides | 7. Encoder group for movement control |
| 3. Cap | 8. Emergency batteries (optional) 24V-0.8Ah |
| 4. Gearmotor | 9. Power supply terminal board 230Vac |
| 5. Electronic exchange microprocessor | 10. Fusible wiring system. T 630 MA. |

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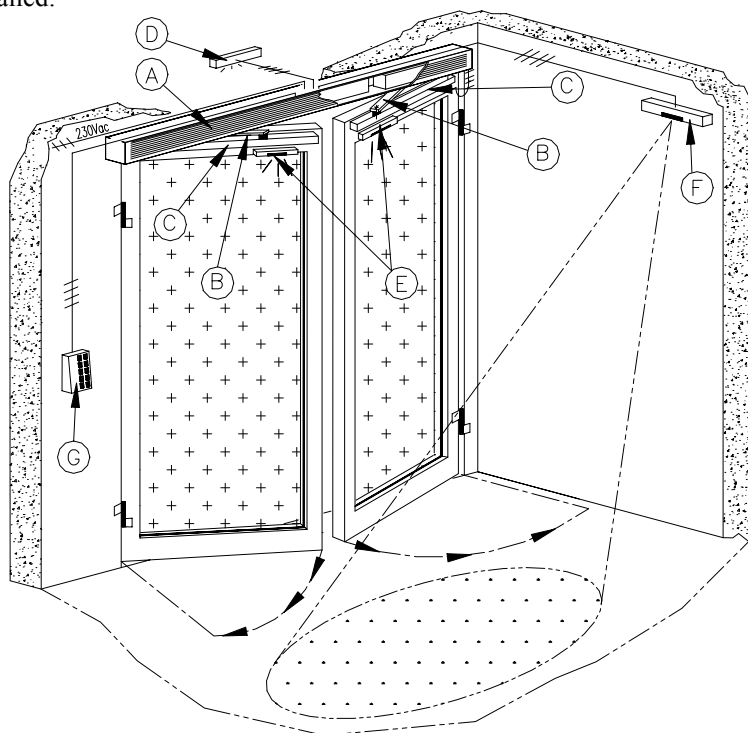


INSTALLATION PREARRANGEMENT (FIG. 2)

The automaton is prearranged by Vektor to operate with different accessory and peripheral configurations. According to the configuration chosen, set the cables necessary to guarantee all the connections to the peripheral devices.

Fig.2 shows an example of one wing installation in which the opening is commanded by a radar sensor to enter, and by a button to come out. The figure schematises the most important parts that form the finished installation (automatic entry) and some of the peripheral devices that can be installed:

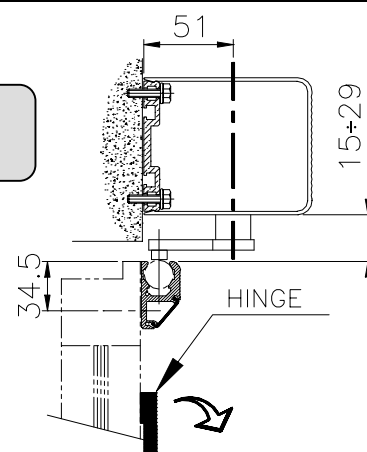
- A. Box in aluminium extrusion
- B. Opening-closing operating arm
- C. Drawing arm guide
- D. Entry radar
- E. Safety active sensors
- F. Radar out
- G. Multilogic selector

2**FIXING OF THE AUTOMATISM WITH RIGID DRAWING ARM (FIG. 3-4-5)**

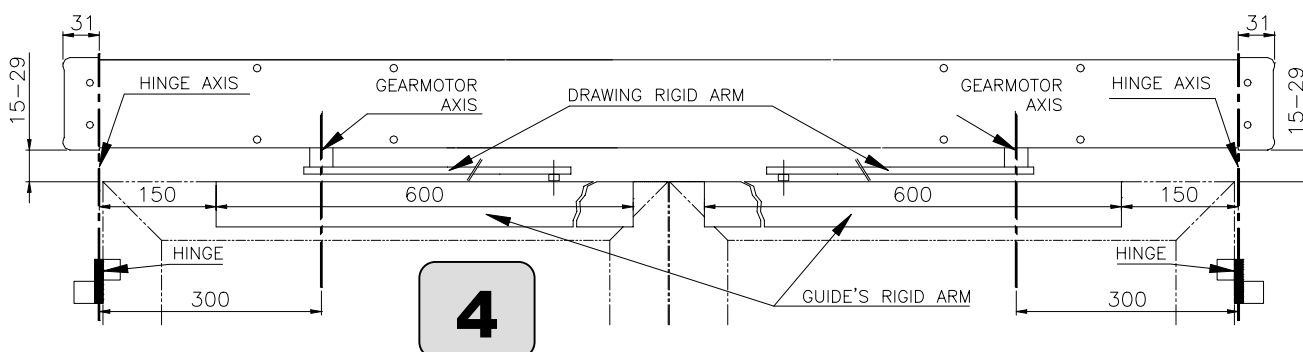
The rigid drawing arm is used with the automatism installed on the opening side of the door (fig.3-4).



WARNING: use as a reference point the axis of the wing hinges and the gearmotor operating axis.

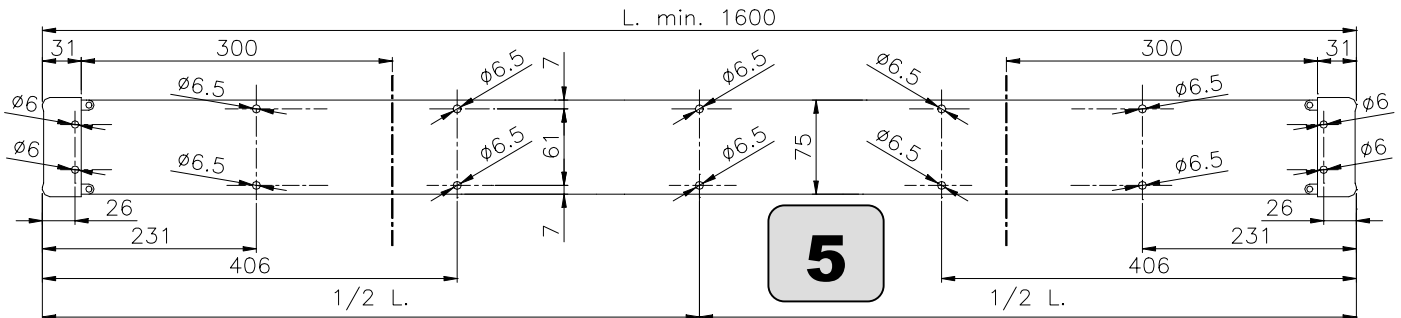
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Set the automatism as shown in Fig.3-4.



The diameters of the holes for fixing are noted in Fig. 5.

The length of the automatism is tightly dependent from the length of the shutters to be automated, and is the result of the distance between the hinges of the two wings plus 62 mm.



WARNING: the definitive tightening of the screws should be done only after having checked that the vertical positioning of the automatism ensures that the hinge axis and the gearmotor axis (Fig.3-4) are perfectly parallel. Therefore, after having installed the rigid arms on both gearmotors and the relative guides, check that during the manoeuvre the drawbolt of the arms not force the cylindrical runner (Fig.6 part B). Any error of positioning or tightening of the automatism would in fact make the drawbolt of the rigid arm oscillate, in respect to the cylindrical runner, more than the allowable deviation, and would consequently damage parts of the automatism.

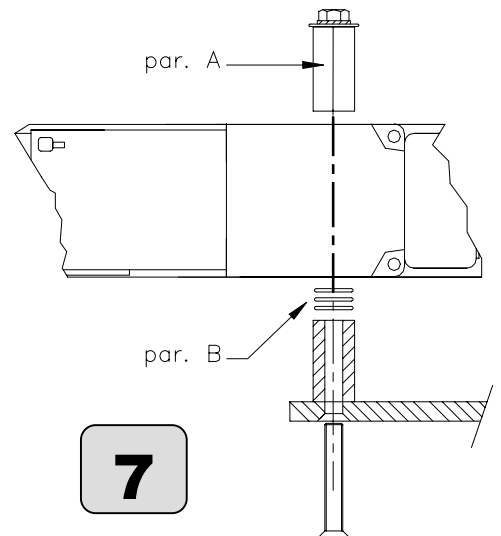
ASSEMBLAGE OF THE ARM AND ADJUSTMENT (FIG.7)

Insert the threaded hexagon in the upper part of the hexagonal hole of the gearmotor (Fig.7 part A).

Assemble the rigid arm to the upper hexagon with the flathead screw supplied after having interposed the washers as shown in the figure.

Drawing rigid arm: before tightening the flathead screw, check carefully that the distance between the guide and the rigid arm is about 13 mm (fig.6). It is possible to achieve the right distance by varying the number of washers placed between the hexagons previously assembled (max. 8 washers) (Fig.7 part B). Once the required distance is obtained, tighten the flathead screw well.

Articulated drawing arm: before tightly shutting the flathead screw, carefully check that the upper part of the articulated arm easily rotates under the door frame and that the obtainable distance, by adjusting the washers (max. n. 8) between the hexagons, ranges between 12 and 24 millimeters measured between the cover of the automatism and the upper part of the articulated arm (Fig.9).

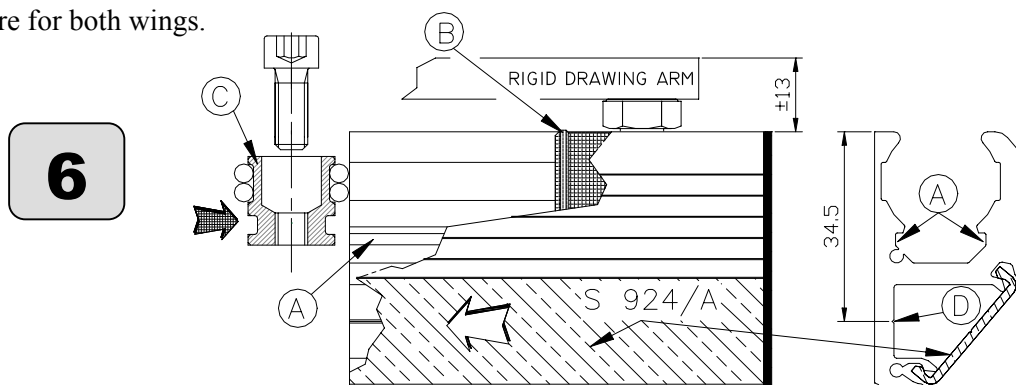


INSTALLATION OF THE DRAWING RIGID ARM AND OF THE GUIDE (FIG. 3-4-6-8)

Reach the guide fixing box (Fig.6 part D) taking off the S924/A cap. Make at least 4 holes corresponding to the "V" shape in the guide profile (Fig.6 part D). Use these holes to fix the guide to the frame with appropriate screws. Insert the cylindrical runner (Fig.6 part B), with the relative shaft, inside the guide and distribute a uniform layer of grease on the sliding area.

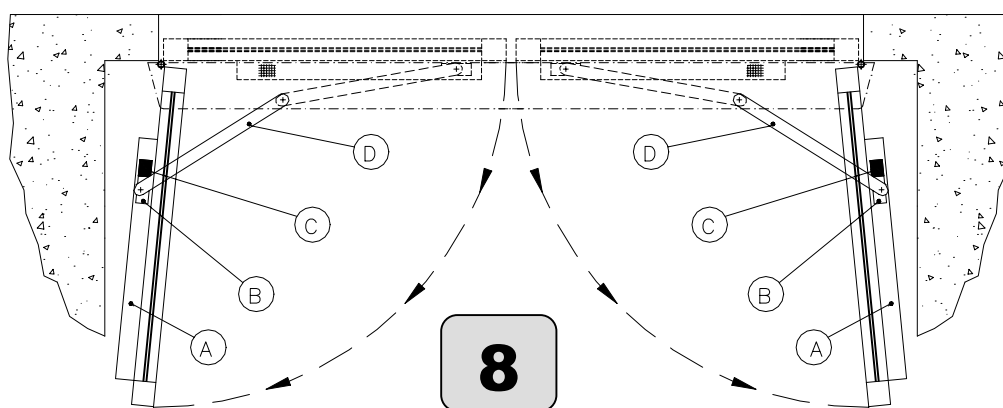
Subsequently, once the installation of the rigid arm described in fig.7 is finished, screw the threaded shaft, inserted in the cylindrical runner, in the special hole at the extremity of the rigid arm. Close the guide with the caps and screws supplied.

Repeat this procedure for both wings.



ADJUSTMENT OF THE STOP INSIDE THE GUIDE (FIG. 6-8)

Insert the lock (Fig.6 part C) inside the spline (Fig.6 part A); open the wing to the desired amplitude, then bring the lock in contact with the cylindrical runner (Fig.6-8 part B) and tighten the screw on the lock. Repeat this procedure for both wings.

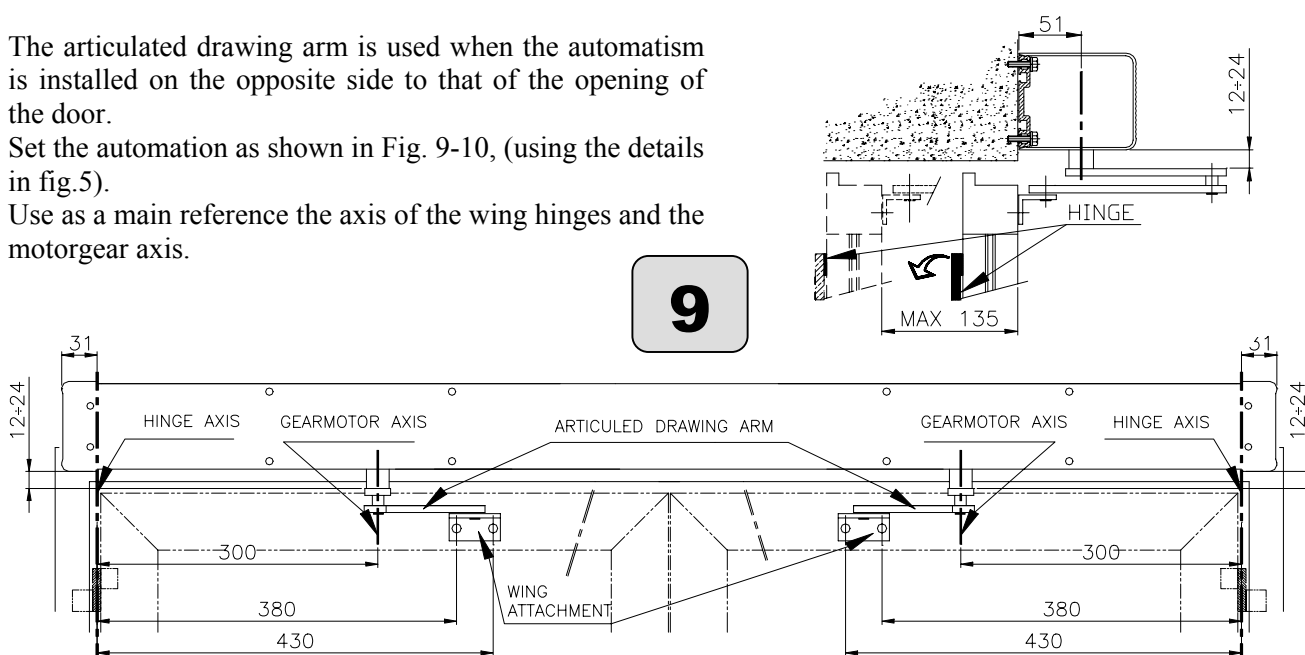


AUTOMATISM FIXING TO THE ARTICULATED DRAWING ARM (FIG. 5-7-9)

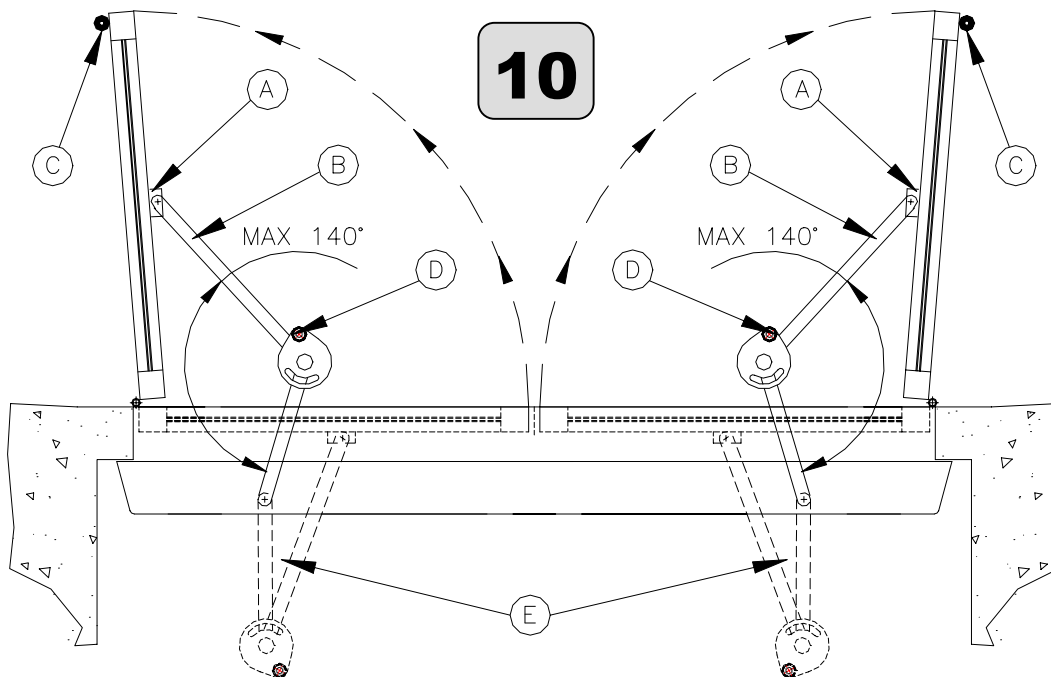
The articulated drawing arm is used when the automatism is installed on the opposite side to that of the opening of the door.

Set the automation as shown in Fig. 9-10, (using the details in fig.5).

Use as a main reference the axis of the wing hinges and the motorgear axis.



Adjust and fix on both wings the height of the articulated arm (procedure described in Fig.7) so that it can rotate easily under the door frame, so getting a distance between the upper part of the articulated arm and the lower part of the cap of the automatism of between 12 and 24 millimetres (Fig.9-10). Make both wings in the frame of the diameters shown in fig.10 and fix the wing attachments of every articulated arm with the appropriate screws. Close the wings, loosen the fixing screws situated in the adjusting slots by lengthening the extendible part of the arm, follow the exact geometry shown in fig.10 part E. Fix the adjustment by tightening the setscrews tightly in the extendible part of every arm so using the holes furthest apart.



WARNING: When the doors are fully open, the opening of the arm must not exceed 140° (fig. 10).

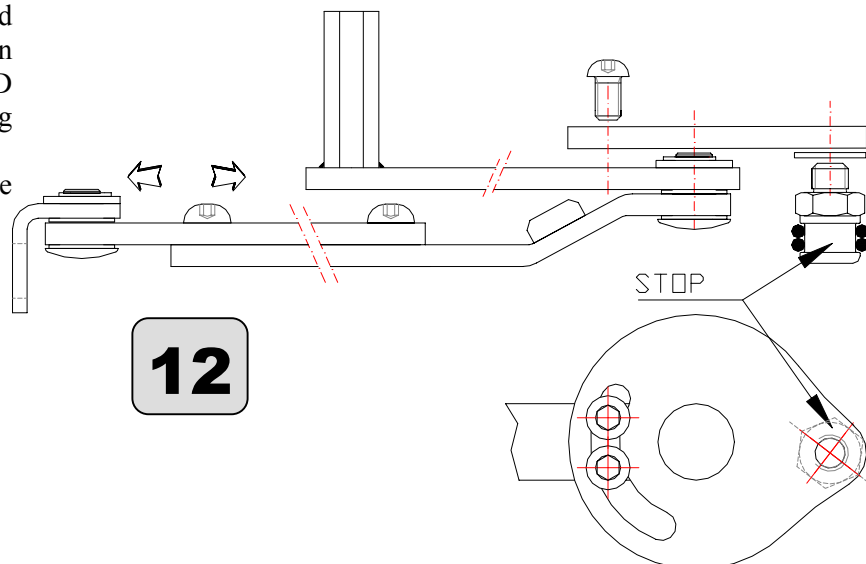
Positioning of the wing lock: Open the wings to the desired angle (Max. 100°) and fix the rubber door stop to the floor (not supplied fig.10 part C).

ADJUSTMENT OF THE (OPTIONAL) STOPPER ON THE ARTICULATED ARM (FIG. 10-12).

Assemble the optional stop on the articulated arm using the screws supplied. Check that when the doors are completely open, the opening of the arm does not exceed 140°. If the stop does not come in contact, turn the shaped plate over and assemble the striker as shown in fig. 10.

Open the wing to the desired amplitude and bring the stop in contact with the arm (part D fig.10) and tighten the fixing screws tightly.

Repeat this procedure to adjust the stopper of both wings.



POWER SUPPLY CONNECTION.

WARNING Before performing the following operations, make sure that the power supply (230V ac.) is disconnected. Before feeding the apparatus, carry out the checks seen in paragraph “STARTING UP”.

Introduce the power supply cable in the horizontally member, paying particular attention not to damage the cable against any metal edges. Connect the mains power supply and the earthing cable on the terminal board (Fig.1 part 9).



WARNNG Never reverse the power supply with the earthing cable. Do not replace the fusible wiring system with one different from that provided for by the builder: T 630 MA (delayed).

It should be possible to isolate the power supply from the general distribution board thanks to a bipolar switch with minimum opening contacts equal to 3 mm (not included on the supply).

ELECTRIC CONNECTIONS (FIG. 13-14)

WARNING: all the connection operations on the terminal boards of the card or of the peripheral elements must be performed with the power supply off so as to avoid irreversible damages to the electronic apparatus.



WARNING: any repair or replacement must be performed by professionally qualified staff, and in any repair work carried out original spare parts must be used.

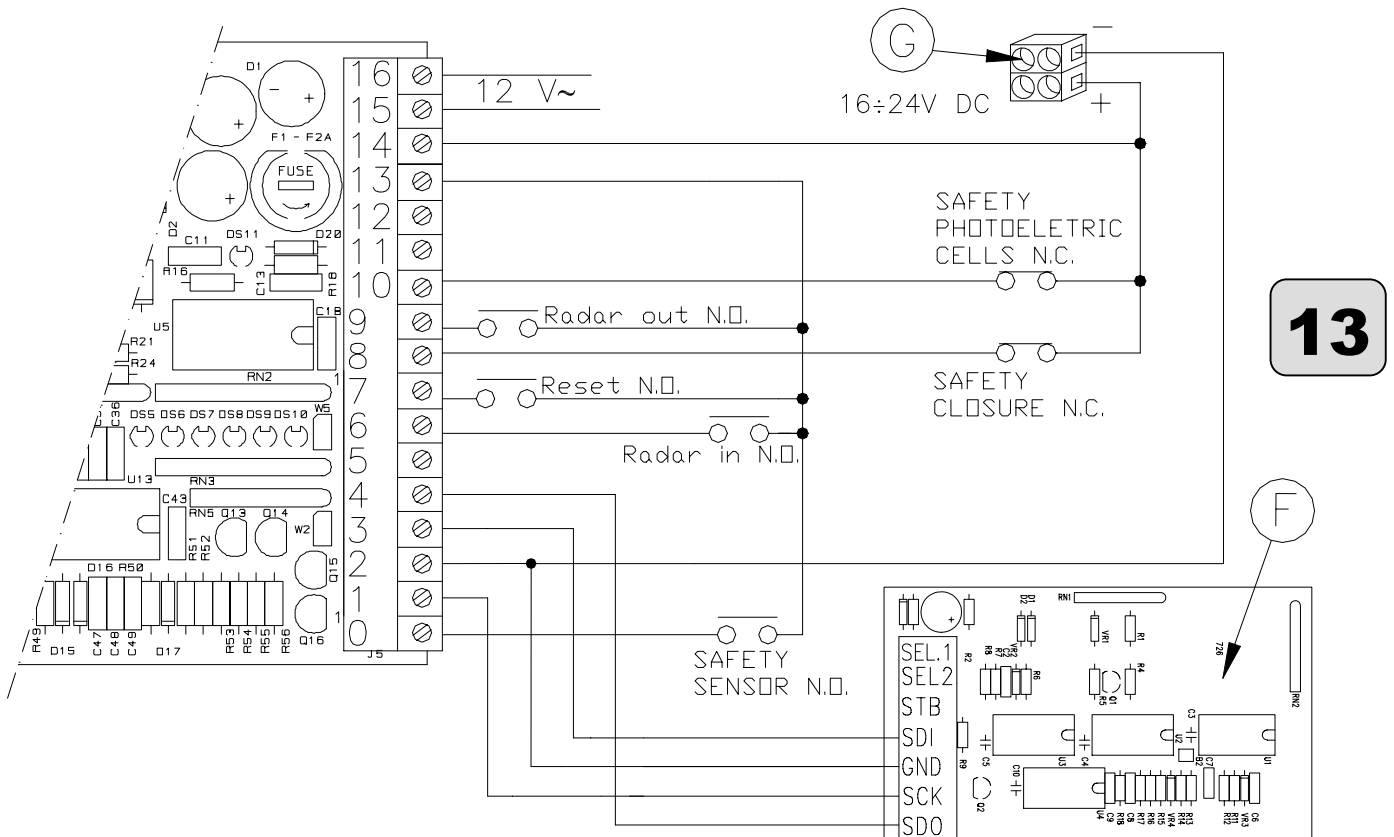


WARNING: connect the opening commands (radar, push-button...) on only one board.

In the figure, the connections of the terminal boards situated on the PIVOT electronic exchanger are summarised:

- 0-13 Opening safety sensor N.O.
- 1-2-3-4 Multilogic selector entry (Fig.13 part F)
- 5 **Not used**
- 6-13 Entry radar N.O.
- 7-13 Reset button N.O.
- 8-14 Safety closing contact N.C.
- 9-13 Exit radar N.O.
- 10-14 Safety photoelectric cells N.C.
- 11 Interblock entry
- 12 Interblock exit
- 15-16 12V ac transformer entry (Fig.13-14 part D)
- 17 Earthing connection
- 18-19 Motorgear power supply (Fig.14 part A)
- 20-22 Electrolock 12/24V dc power supply selectionable from the multilogic selector (Fig.14 part B)
- 21 Battery negative pole (-) (Fig.14 part C)
- 25 Battery positive pole (+) (Fig.14 part C)
- 23-24 24Vac transformer entry (Fig.14 part D)
- 26 Encoder signal (Fig.14 part E)
- 27 Encoder signal (Fig.14 part E)
- 28 Encoder negative pole (Fig.14 part E)
- 29 Encoder positive pole (Fig.14 part E)

Fig.13 Part G: terminal board for sensors power supply with 16÷24 V dc. voltage

ELECTRONIC CARD RIGHT SIDE CONNECTIONS (FIG. 13)

WARNING: connect the opening commands (radar, push-button...) on only one board.

MULTILOGIC SELECTOR CONNECTION (OPTIONAL) (FIG. 13)

For the connection of the multilogic selector, use a 4x0.22 screened cable.

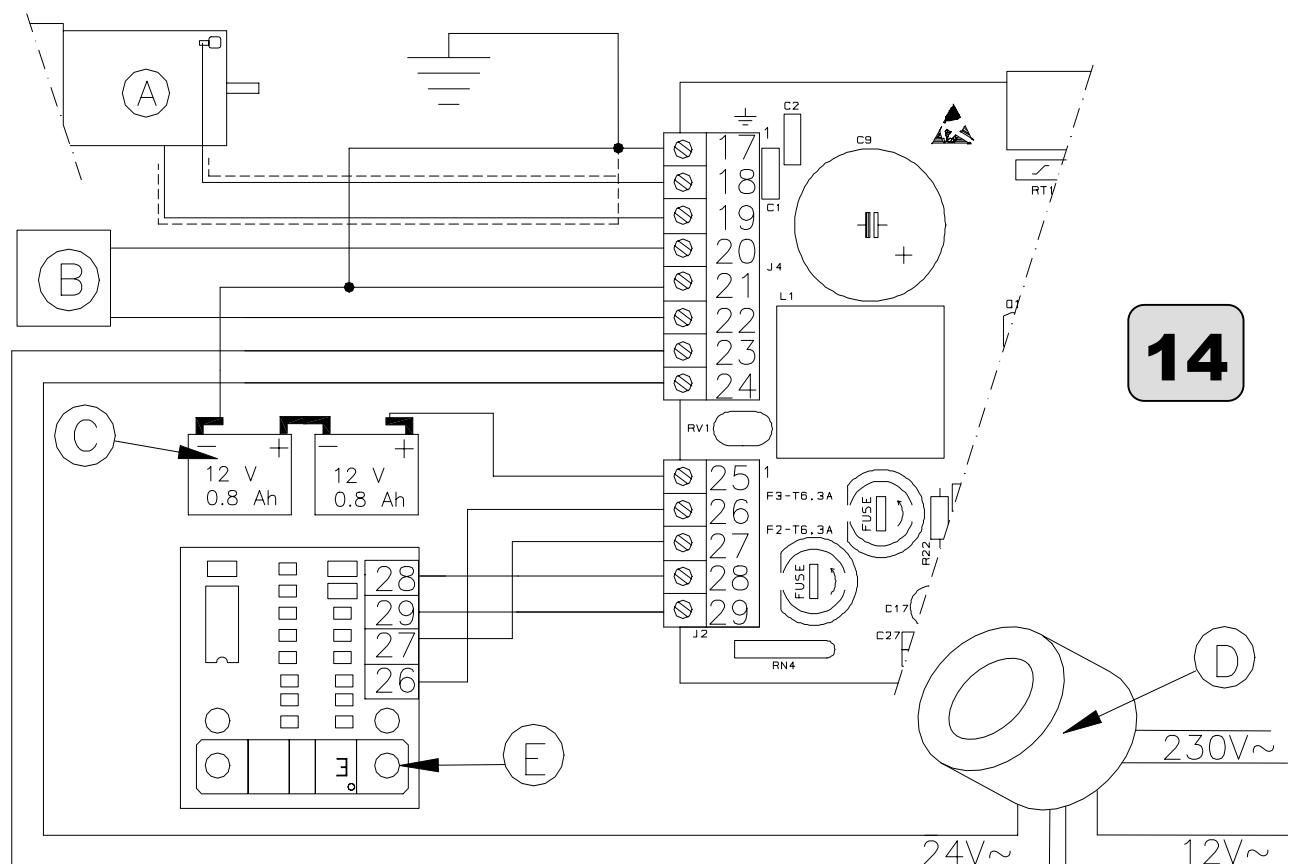
Use the 4 internal conductors of the screened cable, respecting the numerical correspondences shown on the printed labels placed on both the terminal board of the electronic exchanger and on the printed circuit of the multilogic selector on the side of the components.

Connect the screen of the cable used (connection side in the electronic exchanger) to the metal base of the automatism.

Insert the selector in the special box so that the screen of the cable, suitably shortened, cannot come into contact with the surface of the printed circuit of the selector.



WARNING: the multilogic selector must be connected on the same board where you connect the opening commands (radar, push-button...)

ELECTRONIC CARD LEFT SIDE CONNECTIONS (FIG. 14)**MAIN FUNCTIONS OF THE AUTOMATISM**

- **OPENING AND CLOSING SYNCHRONISM:** the electronic card manages autonomously and without any regulation the opening and closing synchronism of the wings.
- **PHASE DISPLACEMENT OF THE OPENING OF THE WINGS:** the opening and closing delay is adjustable in case of wing with rabbet.
- **SELF-ASSIGNMENT SIGHTS:** automatic memorisation, during the reset manoeuvre, of the opening and closing sights.
- **PUSH AND GO:** once the installation has been completed, the apparatus is ready to work both with opening command through external devices (radar, buttons, etc.) and with Push And Go opening command without the necessity of any selection from the multilogic selector. Moving the opening wing to a given angle (β) (beginning angle of the opening manoeuvre in fig.15) the wing opens automatically. The extent of the opening starting angle (β) is adjustable from the multilogic selector. The Push And Go opening command works on both wings indifferently; therefore moving only one wing both wings open automatically
- **ANTI WIND OPERATION:** adjustment to the wind force in position of complete closure so as to oppose the force of the wind that could cause undesirable door openings, (this function is excluded in the battery operating system).
- **FRICTION SIGNALING:** during a reset or a normal manoeuvre, the DS14 led signals the possible presence of excessive friction.
- **ANTISQUASHING:** automatic limitation of the opening/closing strength and inversion of the wing motion in presence of an obstacle.

- **BATTERY:** it is possible to select, during the installation phase, the type of battery operation (absence of power supply): anti-panic or continuous operating mode.
- **MEMORISATION:** the operating parameters selected from the multilogic selector, are permanently memorised even when there is no power supply.
- **SEMIAUTOMATIC OPERATION:** in this mode, the automatic closing of the door is excluded at the end of an opening manoeuvre. The closing must be activated by the operator.
- **MANUAL OPERATION:** in this mode Radars, if installed, are excluded and it is possible to open the door only through the push button "OPENING BUTTON" on the multilogic selector.

NOTE: it is always possible, in absence of current and battery, to move the wing by pushing it.

STARTING UP

Before starting up, check that:

- the (optional) battery is not connected
- there is no obstacle in the wings opening zone



WARNING To guarantee correct operation and to avoid damages to the electronic exchanger, **before connecting the emergency battery, make sure that the electricity supply to the apparatus is switched on.**



WARNING Select the type of arm installed through the W2 jumper (Fig. 17):

Open jumper: Optimisation of the movement for the drawing rigid arm.

Short-circuited jumper: Optimisation of the movement for the pushing articulated arm.



WARNING If no optional safety closing device is installed, check that the special terminals 8-14 of the board where you had connected the opening commands are N.C. configured, that is to say short-circuited. If not, it is not possible to start the apparatus.



WARNING If no safety photoelectric cells are installed, check that the special terminals 10-14 of the board where you had connected the opening commands are N.C. configured, that is to say short-circuited. If not, it is not possible to start the apparatus.

Power supply to the apparatus.

The automatism performs a manoeuvre of auto-assignment of the sights at a reduced speed accompanied by the issue of an intermittent acoustic signal; the auto-assignment manoeuvre should have the following phases:

- the door closes for a while (to facilitate the release of the possible electrolock)
- the door opens until it opens fully against the stop
- the door closes (including the release of the possible electrolock) and stops once closed



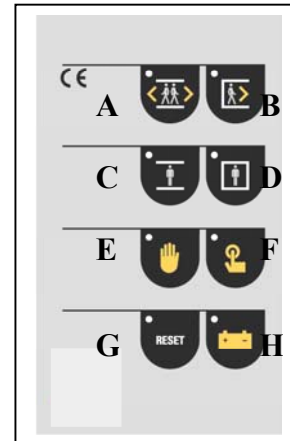
WARNING If the auto-assignment manoeuvre does not proceed according to the sequence first described, switch the power supply off and reverse the power supply cables of the motor.

Multilogic selector not installed: once the sights auto-assignment manoeuvre is finished, the apparatus is ready to operate either in Push and Go logic or in two radars logic.

Multilogic Selector installed: once the sights auto-assignment manoeuvre is finished, the apparatus is ready to operate and is positioned in "CLOSE STOP" logic.

USE OF THE MULTILOGIC SELECTOR (FIG.15)**Logics description:**

- A** ENTRY AND EXIT RADAR
- B** ONLY EXIT RADAR
- C** OPEN STOP
- D** CLOSED STOP
- E** MANUAL
- F** OPENING BUTTON
- G** RESET
- H** “DISCHARGED BATTERY ” LED SIGNAL

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OPENING BUTTON: operates the opening every time one of the following logics has been selected: only exit radar, entry and exit radar, manual.

ADJUSTMENT OF THE PHASE DISPLACEMENT OF THE OPENING OF THE WINGS

In case of wing with closing rabbet, it is necessary to shift the opening and closing times between the two wings. We shall call MASTER the wing which will open in advance and close with delay, and SLAVE the wing which will open with delay and close in advance. In order to enable the wing opening and closing phase displacement mode, it is necessary to perform an adjustment on both the electronic cards through the multilogic selector to define the operating mode of each wing: MASTER or SLAVE.

The operation to be performed on the multilogic selector is the following one: simultaneously press key **C** (Open Stop) and key **A** (entry and exit radar). Press key **E** (Manual) and then key **F** (opening button). **These two keys must be pressed the one following the other and not simultaneously.** If the sequence of keys is wrong, the apparatus automatically exit the adjustment procedure.

if the procedures of the preceding point have been correctly performed, the apparatus emits an acoustic signal and the leds related to keys **E** (manual) and **F** (opening button) are lit up. This situation (programmed by the company) shows that the apparatus will work with the opening and closing synchronism of the wings. By pressing key **G** (reset) once, the leds related to the keys of logic **C** (Open Stop) and **D** (closed stop) are lit up; in this condition the apparatus will work in MASTER mode. By pressing again key **G** (reset) once, the leds related to the keys of logic **A** (entry and exit radar) and **B** (only exit radar) are lit up; in this condition the apparatus will work in SLAVE mode. Once the operating mode of the wing has been chosen, memorise it by simultaneously pressing keys **C** (Open Stop) and **A** (entry and exit radar).

STANDARD ADJUSTMENTS THROUGH THE SELECTOR:

WARNING: the standard adjustments must be performed separately on the two cards in order to optimise the movement of the wing. The adjustment of the Waiting time when opening can be performed only on the card to which are connected the sensors and, if foreseen, the multilogic selector.

The adjustments through the multilogic selector should be performed with the wings motionless and closed.

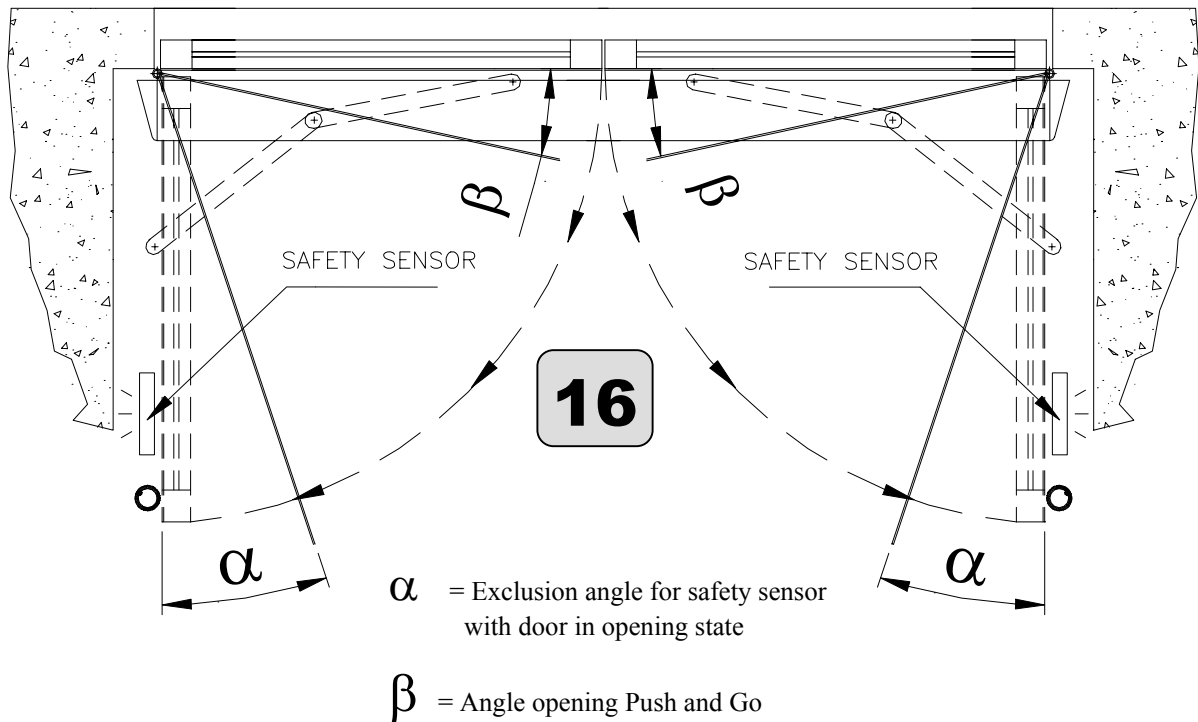
- ❑ **ADJUSTMENT OF THE OPENING SPEED:** select key **D** (closed stop) and prohibit the passage of people. Simultaneously press key **A** (entry and exit radar) and key **B** (only exit radar). Three consecutive acoustic signals and the lighting of the two leds corresponding to the pressed keys signal the effective resetting of the preceding adjustment. Then, every time key **G** (reset) is pressed on the multilogic selector, the opening speed shall be reduced until it reaches the minimum value programmed corresponding to 11 consecutive pressures. Once the adjustment is finished, press key **A** (entry and exit radar) and key **B** (only exit radar) again simultaneously to memorise the selected data and to leave the adjustment mode.

- ❑ **ADJUSTMENT OF THE CLOSING SPEED:** select key **D** (closed stop) and prohibit the passage of people. Simultaneously press key **C** (open stop) and key **D** (closed stop). Three consecutive acoustic signals and the lighting of the two leds corresponding to the pressed keys signal the effective resetting of the preceding adjustment. Then, every time key **G** (reset) is pressed on the multilogic selector, the closing speed shall be reduced until it reaches the minimum value programmed corresponding to 5 consecutive pressures. Once the adjustment is finished, press key **C** (open stop) and key **D** (closed stop) again simultaneously to memorise the selected data and leave the adjustment mode.

- ❑ **ADJUSTMENT OF THE WAITING TIME WHEN OPENING:** select key **D** (closed stop) and prohibit the passage of people. Simultaneously press key **E** (manual) and key **F** (opening button). Three consecutive acoustic signals and the lighting of the two leds corresponding to the pressed keys signal the effective resetting of the preceding adjustment (min. blocking time 1 sec.). Then, every time key **G** (reset) is pressed on the multilogic selector, the waiting time at opening shall be increased by about 2 seconds until a maximum increase of about 50 seconds corresponding to 24 consecutive pressures. Once the adjustment is finished, press key **E** (manual) and key **F** (opening button) again simultaneously to memorise the selected data and to leave the adjustment mode.

- ❑ **ADJUSTMENT OF THE PUSHING FORCE IN POSITION OF COMPLETE CLOSURE (ANTIWIND):** select key **D** (closed stop) and prohibit the passage of people. Simultaneously press key **C** (open stop) and key **B** (only exit radar); an acoustic signal and the lighting of the leds corresponding to the pressed keys signal the effective resetting of the preceding adjustment (no pushing force). Then, every time key **G** (reset) is pressed on the multilogic selector the pushing force shall increase until it reaches a maximum value corresponding to 15 consecutive pressures. Once the maximum value has been reached, a further pressure of key **G** (reset) brings the pushing force value to the minimum and the card signals it by emitting an acoustic signal.
To complete the adjustment and to memorise the selected value, simultaneously press key **C** (open stop) and key **B** (only exit radar). The selector is positioned on the **D** logic (closed stop).

- ❑ **ADJUSTMENT OF THE SAFETY SENSOR EXCLUSION RATES:** press key **D** (closed stop) and prohibit the passage of people. Simultaneously press keys **C** (open stop) and **F** (opening button); an acoustic signal and the lighting of the leds corresponding to the pressed keys signal the effective resetting of the preceding adjustment ($\alpha = 0^\circ$ fig.15). Then, every time key **G** (reset) is pressed on the multilogic selector, the angle α increases until it reaches a maximum value corresponding to 16 consecutive pressures. Once the maximum value has been reached, a further pressure of key **G** (reset) brings the angle value to the minimum and the card signals it by emitting an acoustic signal. To complete the adjustment and to memorise the selected value, simultaneously press keys **C** (open stop) and **F** (opening button). The selector is positioned on the **D** logic (closed stop).



SEMI-AUTOMATIC OPERATION

To use the automatism in semi-automatic logic, it is necessary to carry out the following operation on the multilogic selector. Simultaneously press the keys **C** (Stop Open) and **E** (manual); a acoustic signal is emitted and the leds are contemporarily turned on related to the keys **A** (input and output radar) and **F** (opening push button). This situation (scheduled by the company) points out that the device will work in automatic mode. By pressing the key **G** (reset) once, the leds are turned on related to the keys of logic **B** (radar output only) and **E** (manual); in this condition the device will work in semi-automatic mode. Once that the situation is chosen in which is desired to work, save the formulation by simultaneously pressing the keys **C** (Open Stop) and **E** (manual).

In semi-automatic logic, the input of the Radars command both openings and closings. Commands of opening or closing can eventually be given by pressing the key **F** (opening push button) on the multilogic selector.

ADVANCED ADJUSTMENTS THROUGH SELECTOR



WARNING: the following adjustments should be used only and exclusively by **PROFESSIONALLY QUALIFIED STAFF**.



WARNING: the advanced adjustments must be performed separately on the two cards in order to optimise the movement of the wing

Through the multilogic selector, it is possible to perform a series of adjustments to optimise the apparatus operation. The list of such adjustments can be found in the following table.

To perform the adjustments quoted in this table, use the following procedure:

- select **D** (closed stop) and prohibit the passage of people;
 - simultaneously press the pair of keys related to the parameter to be adjusted on the multilogic selector. The leds relating to the pressed keys are lit up.
 - press key **A** (entry and exit radar) and then key **B** (only exit radar). **The two keys must be pressed the one following the other but not simultaneously.** If the sequence of keys is wrong, the apparatus automatically exit the adjustment procedure and it is necessary to start again from point I.
 - if the procedures of the preceding point have been correctly performed, the apparatus emits an acoustic signal (different from that for the standard adjustments). By pressing key **G** (reset) it is possible to adjust the parameter.
- To complete the adjustment and to memorise the selected values, press again the pair of keys related to the parameter that is being adjusted on the multilogic selector. Keep pressed until the CLOSED STOP led is lit up.

ADJUSTMENTS	SELECTOR KEY PAIRS
STARTING BRAKE IN OPENING MODE	A (entry and exit radar) + C (open stop)
BRAKING INTENSITY	D (closed stop) + E (manual)
1 st APPROACH SPEED	A (entry and exit radar) + E (manual)
2 nd APPROACH SPEED	B (only exit radar) + F (opening button)
PUSH AND GO ANGLE	D (closed stop) + A (entry and exit radar)
ELECTROLOCK EXCLUSION PROCEDURES	D (closed stop) + B (only exit radar)
ELECTROLOCK VOLTAGE 12/24 V _{DC}	A (entry and exit radar) + F (opening button)
RECOVER INITIAL VALUES	B (only exit radar) + E (manual)

DESCRIPTION OF THE ADVANCED ADJUSTMENTS THROUGH SELECTOR



WARNING: the following adjustments shall be performed only and exclusively by **PROFESSIONALLY QUALIFIED STAFF**

- ❑ **STARTING BRAKE IN OPENING MODE:** this regulation makes it possible to anticipate or delay the starting of the braking in opening mode. As soon as it is entered in regulation mode, the value of the parameter is set equal as the one programmed by the company. By pressing the key **G** (reset) each time, the starting of the brake is anticipated upon to the attainment of the highest admitted value. When the maximum value has been reached, a further pressure of the key **G** (reset) sets the parameter at the most at the minimum value, corresponding to the maximum delay possible for the starting of the braking; this situation is signalled by an acoustic signal from the device. From now on, further pressures on the key **G** (reset) involve an increase of the instant of starting of the braking up to the attainment of the initial value (value set by the company). This situation is signalled by sonorous emission.
- ❑ **BRAKING INTENSITY:** regulates the braking intensity that precedes the slow approach of the wing to a stop. The value programmed by the company for this parameter optimises the movement in most installations with various weights and frame dimensions. Nevertheless, in case of special fittings and demands it is possible to intervene to increase the intensity with which the frame is braked.
As soon as the adjustment mode is activated, the braking intensity is stated at the value programmed by the company (minimum intensity). For every pressure of key **G** (reset) the intensity decreases until it reaches the maximum value

corresponding to 19 consecutive pressures. Once this limit has been reached, a further pressure of key **G** (reset) brings the parameter to the minimum value and the situation is signalled by an acoustic signal of the apparatus.

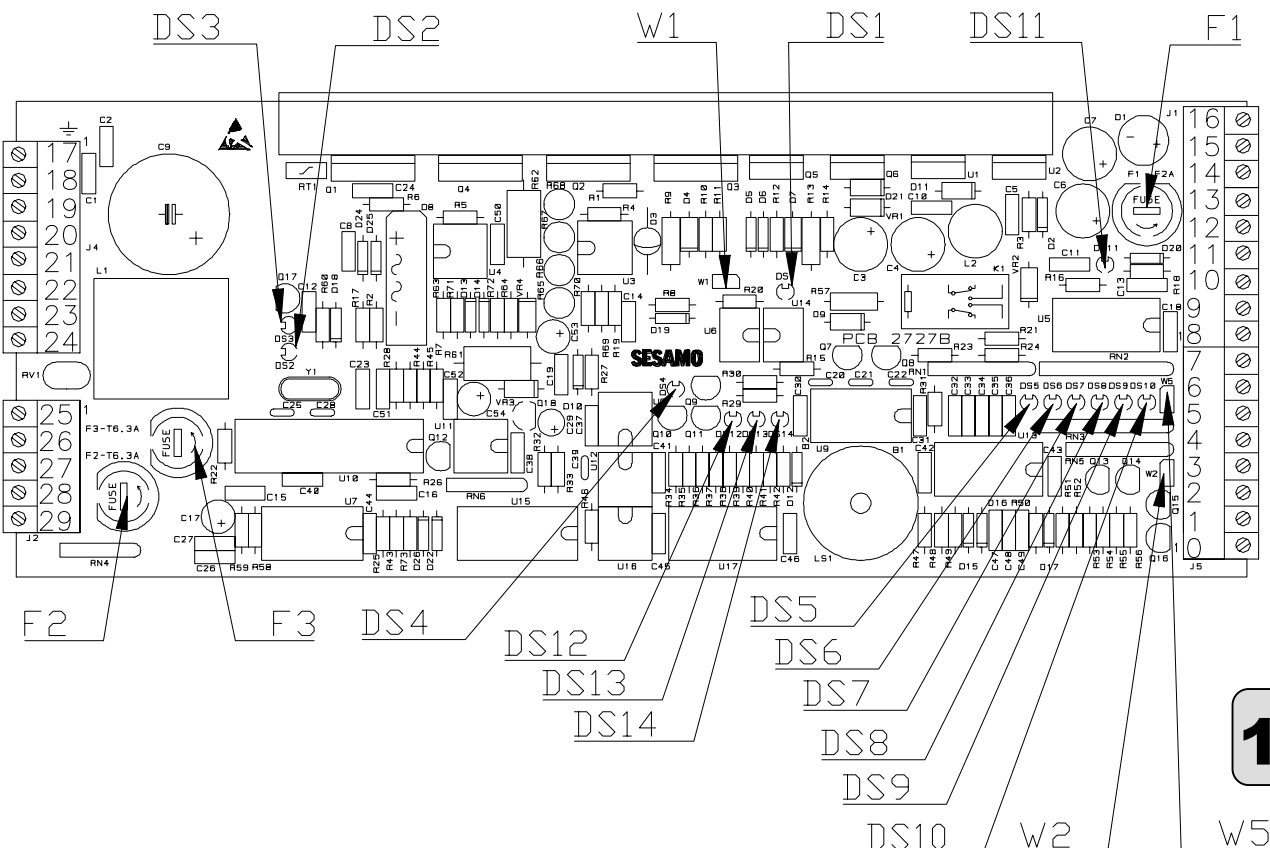
- ❑ **1st APPROACH SPEED:** the phase of approach is divided into two zones of different speeds. Through this adjustment it is possible to vary the rate of speed related to the first part of the approach that follows braking phase described before. As soon as the adjustment mode is entered, the speed is set at the value programmed by the company. Then, for every pressure of key **G** (reset) the speed is increased until it reaches the maximum value corresponding to 14 consecutive pressures. Once the maximum value has been reached, a further pressure of key **G** (reset) brings this parameter to the minimum value and this situation is signalled by an acoustic signal of the apparatus. From now on, further pressures of key **G** (reset) increase the speed until it reaches the initial value (value programmed by the company) corresponding to 13 consecutive pressures and an acoustic signal is emitted.

- ❑ **2nd APPROACH SPEED:** it allows the change of speed relating to the second zone of approach (stopper approach speed). As soon as the adjustment mode is entered, the speed is set at the value programmed by the company. Then, for every pressure of key **G** (reset) the speed is increased until it reaches the maximum value corresponding to 15 consecutive pressures. Once the maximum value has been reached, a further pressure of key **G** (reset) brings this parameter to the minimum value and this situation is signalled by an acoustic signal of the apparatus. From now on, further pressures of key **G** (reset) increase the speed until it reaches the initial value (value programmed by the company) corresponding to 13 consecutive pressures and an acoustic signal is emitted.

- ❑ **PUSH AND GO ANGLE:** make reference to fig. 15. The angle β can be adjusted so as to vary the beginning point of PUSH AND GO opening. The value programmed by the company is the minimum. Entering the adjustment mode, the parameter is set at the minimum value; for every pressure of key **G** (reset) the angle increases until it reaches the maximum value corresponding to 14 consecutive pressures. Once the maximum value has been reached, a further pressure of key **G** (reset) brings the parameter to the minimum value and the card signals this situation with an acoustic signal.

- ❑ **ELECTROLOCK EXCLUSION PROCEDURES:** in case the apparatus has been installed on a devices without electrolock, it is useful to perform the following adjustments so as to exclude the unlocking and resetting procedures. When entering in the adjustment mode, the leds related to keys **E** (manual) and **A** (entry and exit radar) are contemporarily lit up. This situation (programmed by the company) shows that the apparatus will work with the electrolock procedures. By pressing key **G** (reset) once, the leds related to the keys of logic **B** (only exit radar) and **F** (opening button) are lit up; in this condition the apparatus will work without the electrolock procedures. Once the desired mode has been chosen, memorise the data by simultaneously pressing the pair of keys related to this adjustment on the selector.

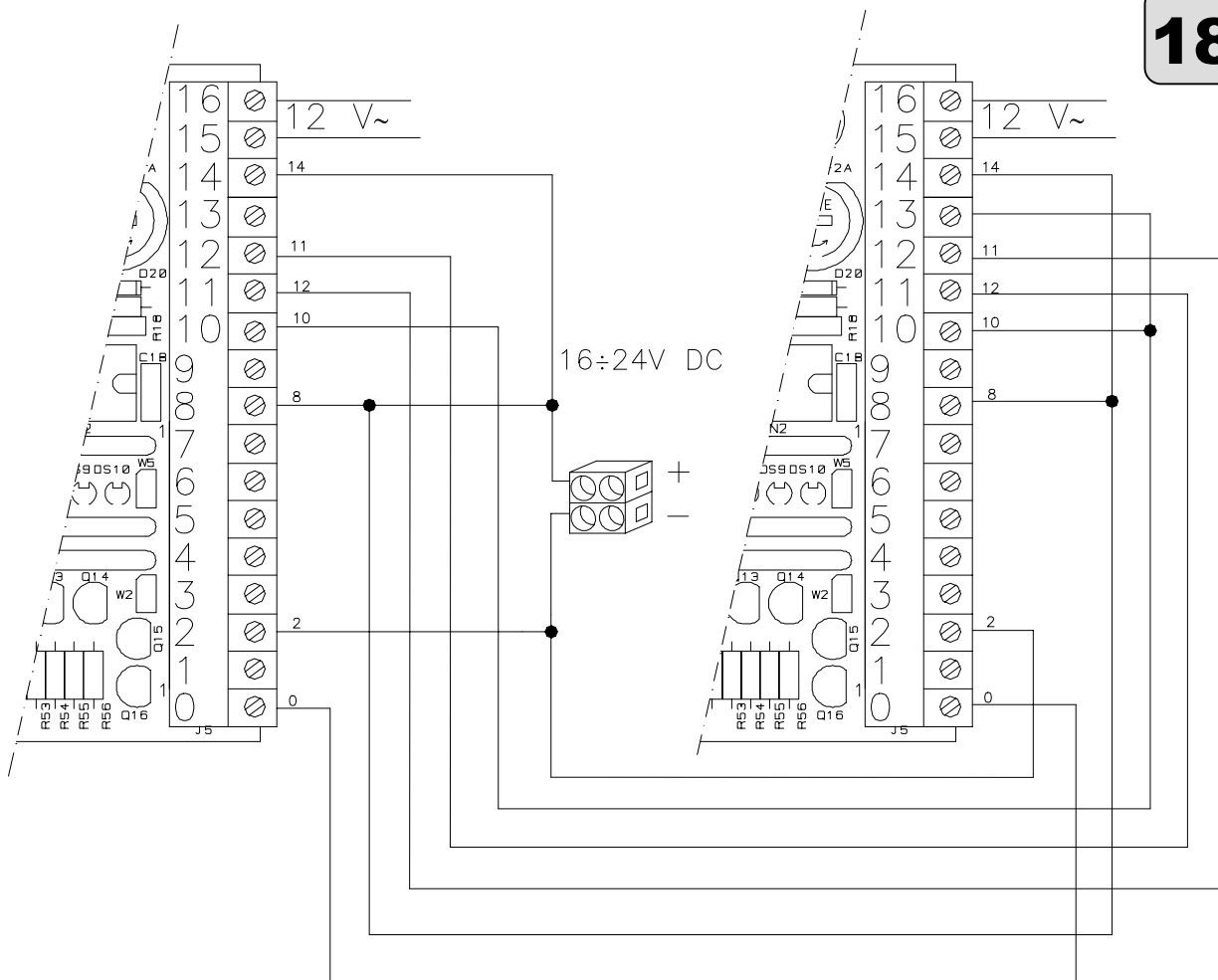
- ❑ **ELECTROLOCK VOLTAGE 12/24 V DC:** with this adjustment it is possible to choose the power supply level of the electrolock. When entering in the adjustment mode, the leds related to keys **E** (manual) and **F** (opening button) are lit up. This situation (programmed by the company) shows that the apparatus shall supply a 12 V DC voltage for the electrolock. By pressing key **G** (reset) once, the leds related to keys **B** (only exit radar) and **A** (entry and exit radar) are lit up; in this condition the apparatus shall supply a 24 V DC voltage for the electrolock. Once the appropriate voltage has been chosen, memorise the data by simultaneously pressing the pair of keys of the selector related to the adjustment.



LED AND JUMPER FUNCTIONS (FIG. 17)

- | | |
|------|--|
| F1 | Fusible central power supply: F 2 A |
| F2 | Fusible motor power supply: T 6.3 A (delayed) |
| F3 | Fusible battery branch to motor: T 6.3 A (delayed) |
| DS1 | Lit when the apparatus is operating with net voltage, and off when operating with the optional battery. |
| DS2 | Flashing if the encoder detects a movement of the wings. |
| DS3 | Signals, if lit, the presence of the 24 V ac feeding voltage supplied by the transformer. |
| DS4 | Diagnostic led not used. |
| DS5 | If lit, it signals the closed position of the photoelectric cell contact, which means that the amplifier is operating and the photoelectric cell is not interrupted. |
| DS6 | When lit it signals the closing of the “reset” contact |
| DS7 | When lit it signals the closing of the “radar in” contact |
| DS8 | When lit it signals the closing of the “radar out” contact |
| DS9 | It signals, in presence of interblock connection between two cards, the momentary blockage of the wings because of the presence of movement on the other installation. |
| DS10 | It lights up to signal the contact closing of the safety closing device. |
| DS11 | It signals the presence of 12 V ac feeding supplied by the transformer. |
| DS12 | It lights up to signal a damage of the apparatus. |
| DS13 | It lights up to signal that the multilogic selector is connected to the electronic exchanger. |
| DS14 | Flashing during the acquisition of a stop sight. |
| W1 | Jumper to be short-circuited in presence of emergency battery installed. |
| W2 | <i>Open jumper:</i> optimisation of the movement for the rigid drawing arm.
<i>Short-circuited jumper:</i> optimisation of the movement for the pushing articulated arm. |
| W5 | <i>Open jumper:</i> in case of lack of net feeding, the apparatus continues its normal running fed by the battery.
<i>Short-circuited jumper:</i> in case of lack of net feeding, the apparatus brings the wing in position “Open Stop”, and maintains this state up to the return of the net feeding or to the selection of a new logic through the multilogic selector. |

CONNECTIONS BETWEEN CARDS

18


In fig. 18 are shown connections between cards made by VEKTOR.



WARNING:

During connection of the accessories be sure to keep all the above connection.

DELIVERY PROCEDURE

Deliver the guarantee and inspection certificates filled in according to the instructions indicated on the certificate itself. The certificates should be sent to Vektor within eight days from the date of inspection. Deliver the technical documentation of the product to the customer.

MAINTENANCE PROCEDURE TO BE PERFORMED ONCE EVERY SIX MONTHS

- ☐ Turn off the power supply using the bipolar switch on the automatism.
- ☐ Disassemble the arm and open the cap of the automatism.
- ☐ Check the tightening of the screws and the electric connections.
- ☐ Check that the logics are working properly, also the sensors and batteries if installed.
- ☐ Close the cap and reassemble the arm (Grease the guide if installed).

MACHINES DIRECTIVE

The assembler who motorises a door becomes, according to the directive 98/37/EC, the manufacturer of the automatic door machine and must:

- Prepare the Technical Brochure with the documents quoted in Appendix V of the Machines Directive and keep it for at least 10 years.
- Fill in the EC declaration of conformity according to Appendix II-A of the machines directive and deliver a copy of it to the user.
- Affix the EC mark on the motorised door according to point 1.7.3 of Appendix I of the machines directive.

DECLARATION OF CONFORMITY

(Directive 98/37 CE, Appendix II, part B)

Manufacturer: VEKTOR

Address: Europalaan 14 B – 9800 Deinze Belgium

Declares that the PIVOT product

- is built to be incorporated in a machine or to be assembled with other machines to build a machine provided by the 98/37 EC Directive, when modified;
- does not therefore conform in all points to the provisions of this Directive in that it is not yet assembled with the other components.
- conforms to the conditions of the following other EC Directives:
- 89/336/EEC Electromagnetic Compatibility and later changes
- 73/23/EEC Low Tension and later changes

And that the following (parts/clauses of) the coinciding regulations have been applied:

- EN 60335 - 1 EN 50081-1
- EN 60204 - 1 EN 50082 - 2
- and furthermore declares that it is not allowed to use the machinery until the machine in which it shall be incorporated or of which it shall become a component has been identified and declared in conformity with the conditions of the 98/37 EC Directive and with the national legislation which replaces it.

VEKTOR

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