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GATE OPENERS DEPARTMENT

INSTALLATION OF THE CONTROL PANEL CR/41

WHERE PLACING THE CONTROL PANEL

Place the device near the gate, in order to have the minimum length of the cables for connection with the system. We suggest to place the control panel under a cover or in a place with two lateral walls, to protect it against the weather conditions. Moreover fix it at 1,5m height so to be far from children.

The control panel is supplied from factory with the opening towards the left side. It is possible to change the opening, please follow the below instructions:

COVER OPENING: TOWARDS THE RIGHT SIDE

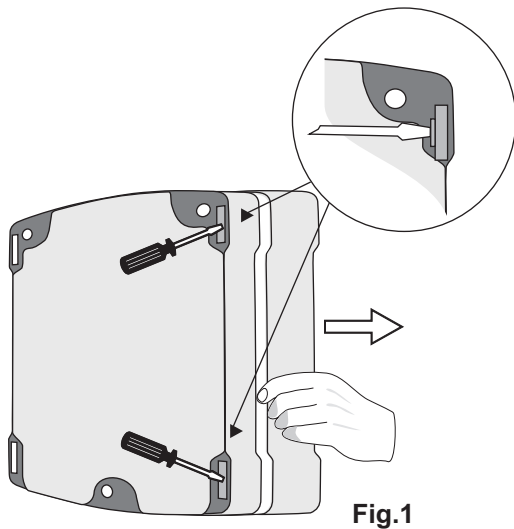


Fig.1



ATTENTION: This operation has to be made before the fixing on the wall.

Insert a screwdriver in the hole for the hinges-fixing in the back side (as shown in the picture) and pull the cover, pressing the fixing "tooth" (picture 1)

Insert a screwdriver in the hole for the hinge-fixing which is in the front side of the cover and pull the hinge pressing the "tooth" (picture 2)

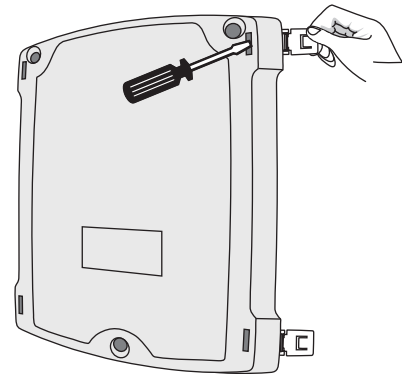
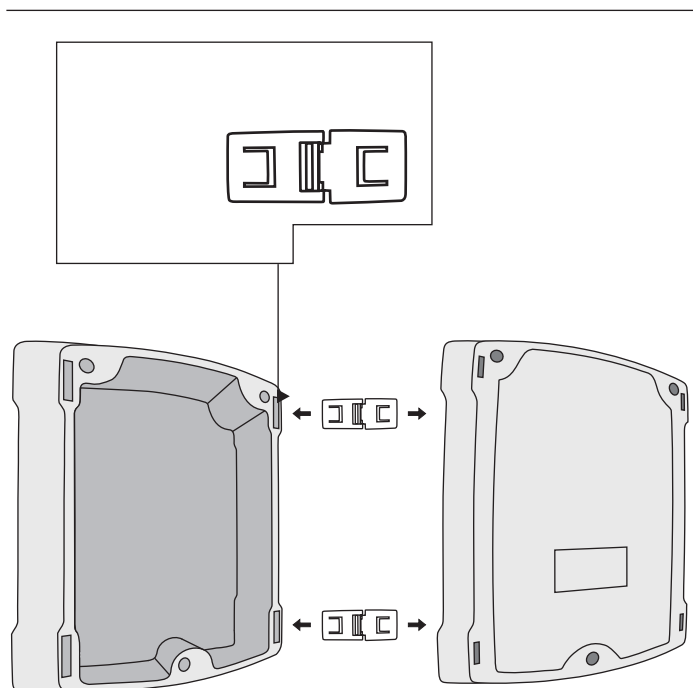


Fig.2

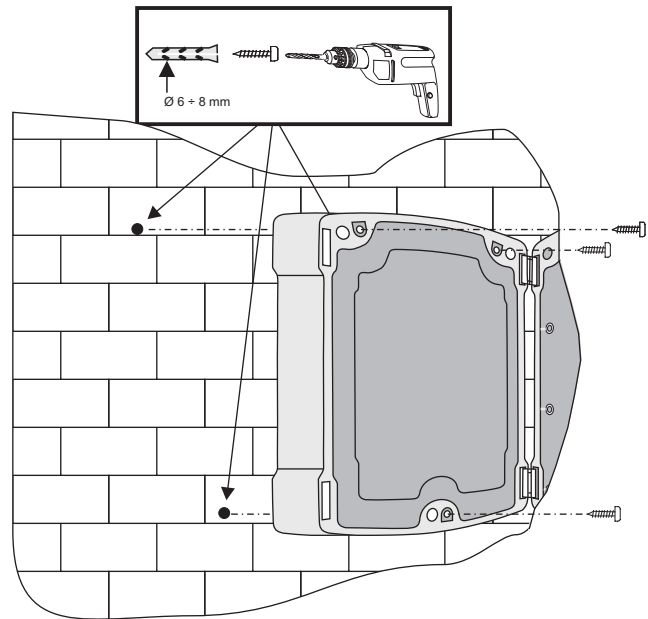
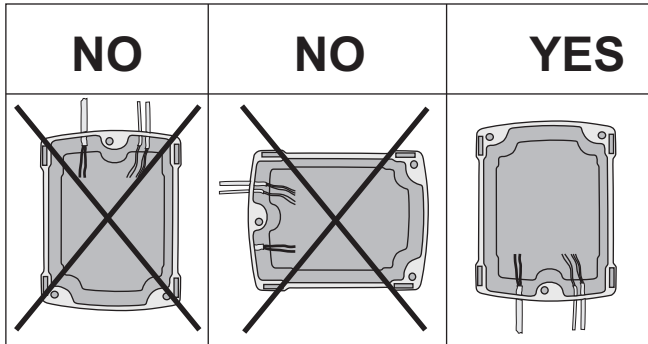


Install the hinges on the right side of the back cover, insert them with the fixing "tooth" towards the indoor part of the cover until the click (picture 3)

Fig.3

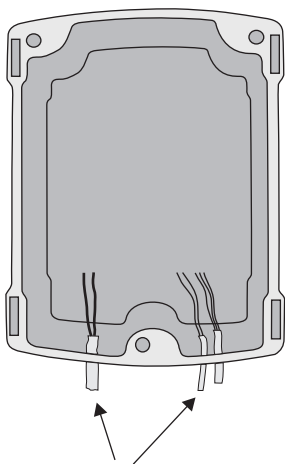
WALL FIXING OF THE CONTROL PANEL

We suggest to install the device near the gate, in order to have the minimum length of the cables for the connection with the whole system.
The control panel has to be fixed with the holes for the passing of the cables downwards



CABLES' PASSAGE

For the entry of the cables, in the lower part of the cover, holes are already prepared for the glands PG11 and PG 13,5



Cable passage

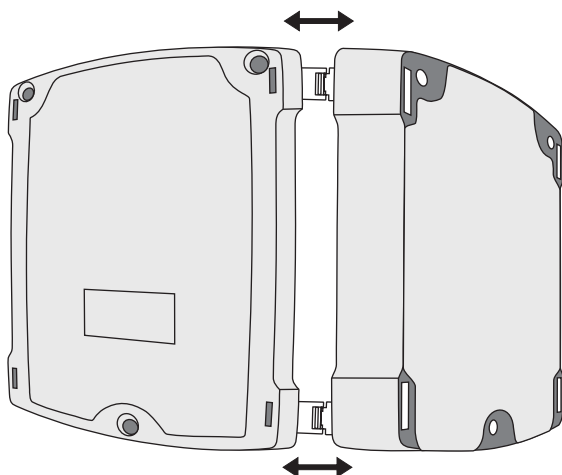


ATTENTION: close tightly all the entries to avoid insects passage and so possible damages.

Advices for generical spaces connections, according to Italian Law (CEI 64-8).

1. Predispose at the bottom of the system an omnipolar disconnecting switch with distance between contacts of 3 mm or more. On alternative choice it is possible to use a magnetothermic switch of 10A.
2. Make any kind of connections with no power supply on the system, or with the disconnecting switch on " open " position (symbol "0"). Particularly, the control panel must never be supplied during the wiring, nor when inserting the expansion cards.
3. During the installation use following wires.
 - For control panel, motors and electric lock power-supply: 1,5mm² for max. lengths of 19m, section 2.5mm² for lengths up to 31m
 - For the flashing light: section 0.75mm² for max. length of 3m, section 1.5mm² for length up to 19m
 - For low voltage lines and current, such as photocells, command buttons, electromechanical key, sensitive edge and other safety devices: section 0.5mm² for max. length of 50m, section 0.75mm² for length up to 100m.

OPENING AND CLOSING OF THE BOX

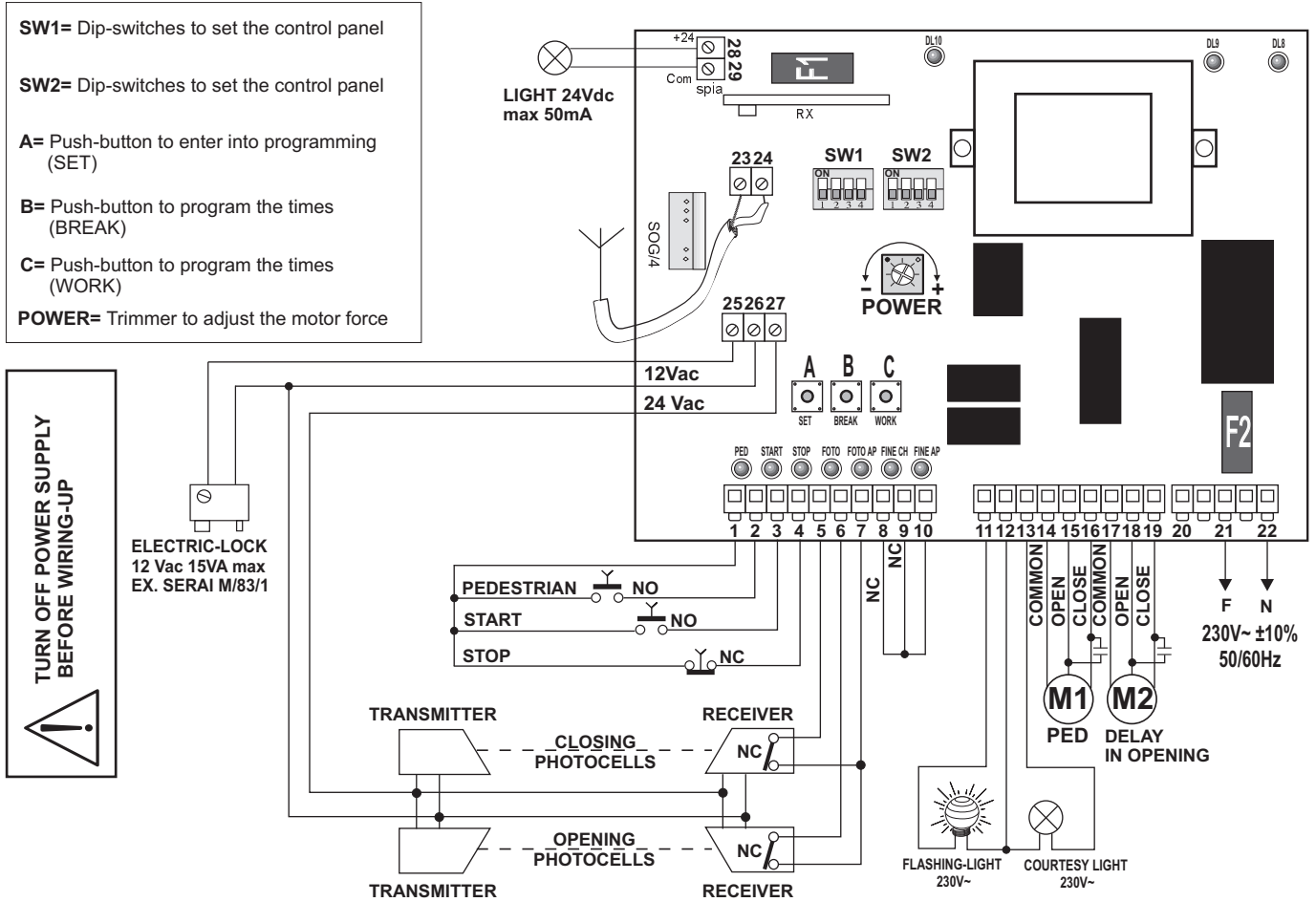


When you open the box, control that the hinges exit from their location in order that the cover can remain open during the electrical connections.

Close carefully the cover, the hinges have to be correctly inserted.

Close the cover with the screws.

CONNECTION DIAGRAM

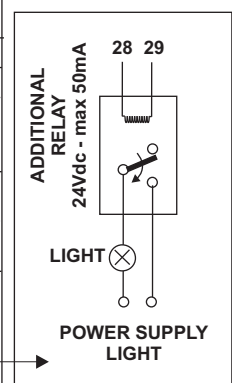


CLAMPS	CONNECTIONS	DESCRIPTION
1 - 7 - 10	COMMON ENTRIES	Common clamps of the entries
2	PEDESTRIAN OPENING	Entry for the pedestrian opening (contact NO). With DIP1 SW1 OFF it opens only the wing connected to M1. With DIP1 SW1 ON it opens the wing for 7 sec.
3	START OPENING	Entry for the start drive (contact NO) opening and closing with step-by-step function.
4	STOP	Entry for the STOP (contact NC): when pressed the working of the motors is interrupted, if pressed during the pause time when the gate is open, the automatic reclosure is canceled.
5	CLOSING PHOTOCELL	Entry for photocells activated only in closing phase (contact NC). If obscured during the closing phase it stops the gate and reverses
6	OPENING PHOTOCELL / SENSITIVE EDGE	With DIP4 SW2 OFF: entry for photocell activated in opening and closing phase (contact NC). If obscured during opening the gate stops until the photocells remains obscured. During closing the gate stops and reverses the movement. With DIP4 Sw2 ON: entry for sensitive edge (contact NC).
8 - 9	NOT USED	Make a short-circuit on the common with jumpers.
11 - 12	FLASHING LIGHT	Output for flash-light power-supply (230Vac - max 50W), for lamps without the inside electronic - for ex. SERAI RZ/20F -
12 - 13	COURTESY LAMP	Output for courtesy lamp (230Vac- max 100W): switched-on for 90 sec. after the STOP
14 - 15 - 16	MOTOR M1	Output for motor M1 power-supply (14=common, 15=opening, 16=closing) for single wing or pedestrian opening (the wing to which is connected the electric lock)
17 - 18 - 19	MOTOR M2	Output for motor M2 power-supply (17=common, 18=opening, 19=closing) for motor with delayed opening (gate with 2 wings)
20	NOT USED	
21 - 22	POWER SUPPLY	Entry for electronic card power supply 230Vac $\pm 10\%$ 50/60 Hz
23 - 24	ANTENNA INTEGRATED RECEIVER	Entry for the connection of the antenna to the integrated receiver (23=SHIELD 24=ANTENNA)
25 - 26	ELECTRIC LOCK	Output for electric-lock 12 Vac 15 VA max
26 - 27	PHOTOCELL POWER-SUPPLY	Output for power supply 24Vac (max 500mA) for accessories such as photocells
28 - 29	OPEN GATE SIGNAL	Output 24Vdc (28 +, 29 -) max 50mA for the connection of the open-gate signal. ATTENTION: to connect lamps with absorption more than 50mA, it is necessary to use an additional outside relay.

FUSES:

F1 = 2A 250V~
-ACCESSORIES 24V-

F2 = 5A 250V~
-POWER SUPPLY 230V-



MOTOR FORCE ADJUSTMENT

The setting of the motor force is made by changing the voltage through the trimmer "Power" in the control panel CR/41.

The installation has to be carried out in the full respect of the current Laws concerning the gate automaton.

Please consider that the responsibility of the system and its working respecting the "standards" is of the installer.



ATTENTION: the high differences in the summer and winter temperatures cause different expansions in all materials, including the material of our products. For this reason we recommend to control the motor force adjusting each winter and summer in the beginning of each season.

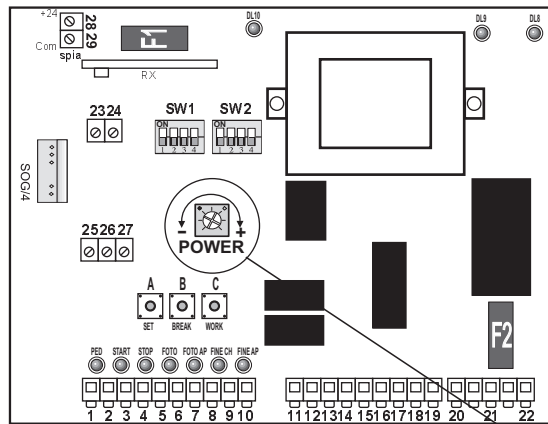
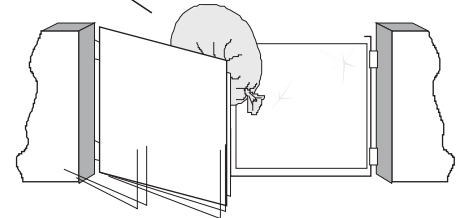


Fig 13



ELECTRICAL CONNECTION OF THE MOTOR

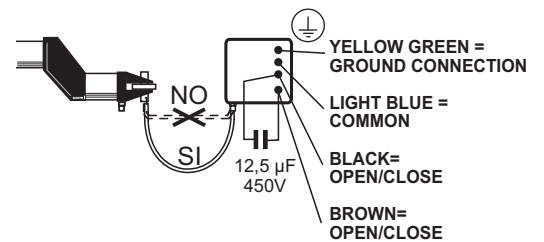
Connect the motors to the control panel using cables with 1,5mm² section.

Respect the colour of the cables as follows:

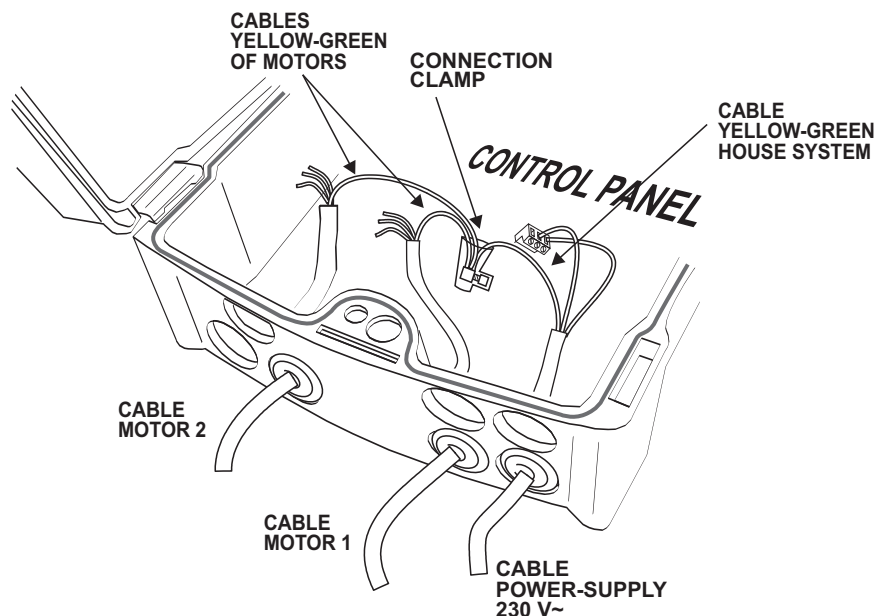
- CABLE LIGHT BLUE : Common
- CABLE BROWN : Open/Close - Capacitor
- CABLE BLACK: Open/Close - Capacitor
- CABLE YELLOW-GREEN : Ground

The following indications have to be respected (CEI 64-8):

- Connect the cable yellow-green to a good ground system
- Install at the bottom of the system, an omnipolar switch with at least 3mm as opening distance between the contacts.



GROUND CONNECTION BETWEEN MOTOR AND THE HOUSE



DIP-SWITCH SET-UP

ATTENTION:



The set-up of the dip-switches has to be made with no power-supply to the control panel. When the control panel is switched on, the set-up is confirmed and activated. We suggest, after the dip-switch set-up, to program the working time (see Control panel programming).

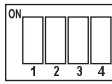
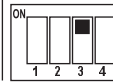
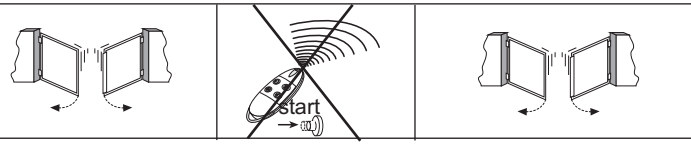
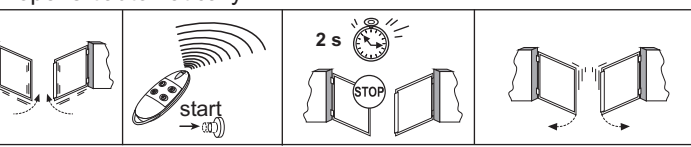
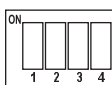
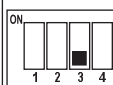
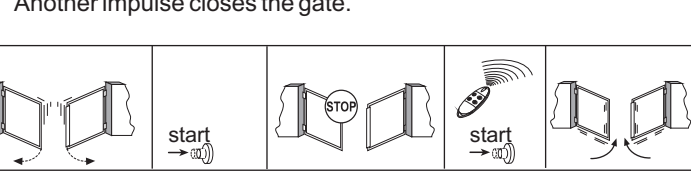
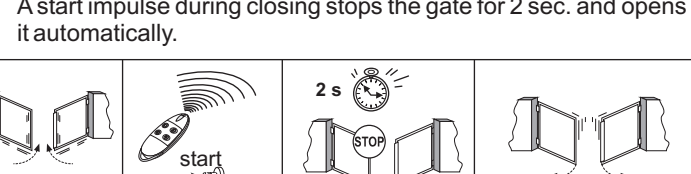
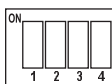
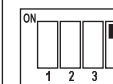
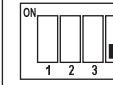
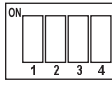
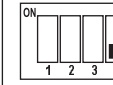
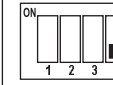
FUNCTION	DIP-SWITCH SET-UP		DESCRIPTION
	SW1	SW2	
KIND OF GATE			- One-wing gate: it drives only the oputput indicated as M1
			- Double-wing gate: it drives the outputs M1 and M2 (M2 is the wing which has the delay in opening)
SLOW-DOWN SET-UP			- Slow down speed: HIGH
			- Slow down speed: LOW
<p>ATTENTION: During the slow-down the force decreases and so the speed depends from the characteristics of the motor and the gate. A SLOW-DOWN SPEED TOO MUCH LOW MAY PREVENT THE REGULAR WORKING OF THE WING.</p>			
FINAL PUSH IN CLOSING			- Final push activated: at the end of the closing, the motors receive full power for 2 sec. in order to hook better the electric lock.
			- Final push not activated
ELECTRIC LOCK KICK BACK			- Kick-back activated: the electric lock is activated for a short closing phase against the stop blocks and it is released after the start of M1.
			- Kick-back not activated: the electric lock is activated when M1 start and released immediately after the movement.
STARTING ACCELERATION			- Starting acceleration activated: when the motors start, they receive full power-supply for 2 sec.
			- Starting acceleration not activated: when the motors start, they receive the power-supply as the voltage set with the trimmer.
SLOW-DOWN SET-UP			- Slow-down not activated
			- Slow-down activated



ATTENTION: During the slow-down the force decreases and so the speed depends from the characteristics of the motor and the gate.
A SLOW-DOWN SPEED TOO MUCH LOW MAY PREVENT THE REGULAR WORKING OF THE WING.



ATTENTION: When the motors MT/30/2 and MT/38/1 arrive against the stop blocks, there are some vibrations - not dangerous - which may cause noise. To avoid this noise the slow-down must be deactivated (dip2 SW2 ON).

FUNCTION	DIP-SWITCH SET-UP		DESCRIPTION
	SW 1	SW 2	
THE SENDING OF AN IMPULSE DURING THE GATE MOVEMENT	 STE-BY-STEP FUNCTION NOT ACTIVATED		DURING OPENING - A start impulse during the opening is not considered. A start impulse during the pause with the gate opened closes the gate. 
			DURING CLOSING - A start impulse during the closing stops the gate for 2 sec. and opens it automatically. 
	 STEP-BY-STEP FUNCTION ACTIVATED		DURING OPENING - A start impulse during the opening stops the gate. - Another impulse closes the gate. 
			DURING CLOSING - A start impulse during closing stops the gate for 2 sec. and opens it automatically. 
ENTRY FOR OPENING PHOTOCELL OR SENSITIVE EDGE	 		- Function "sensitive edge" activated: the entry to clamp 6 reverses the motion of 10cm during opening or closing.
	 		- Function "opening photocell" activated: the entry to clamp 6 stops the motion during the opening, while reverses the motion during the closing.

THE MEANING OF EACH LED

LED	FUNCTION	ON	OFF
PED	PEDESTRIAN button	Pedestrian button pressed	Pedestrian button not pressed
START	Open/Close button	Open/Close button pressed	Open/Close button not pressed
STOP	STOP button	STOP button not pressed	STOP button pressed
FOTO	External photocell	Closing Photocell free	Fotocellula Chiusura oscurata (presenza di un ostacolo)
FOTO AP	Inside photocell	Opening Photocell free	Fotocellula Apertura oscurata (presenza di un ostacolo)
FINE CH		Correct connection of 8-10 clamps	The Jumper on 8-10 clamps is missing
FINE AP		Correct connection of 9-10 clamps	The Jumper on 9-10 clamps is missing
DL8	Motor M2	Different brightness according to the voltage to the motor M2	No power-supply to motor M2
DL9	Motor M1	Different brightness according to the voltage to the motor M1	No power-supply to motor M1
DL10	Programming	It is used during the programming	

CONTROL PANEL PROGRAMMING

Before proceeding with the programming it is necessary to control that all electrical and safety devices are connected (push-button, photocells, flashing light, etc...)

Check their correct functioning and if necessary:

- All LED for the NC entries must be **ON** (stop, photocells etc...)
- All LED for the entries NO must be **OFF** (start, pedestrian)



ATTENTION: A jumper must be placed on the normally closed (NC) entries not used

It is important to follow carefully step by step the programming, if mistakes happen during this phase it is necessary to make a new programming from the beginning.

To quit the programming switch on and off the control panel.

PROGRAMMING OF THE WORKING TIME AND THE SLOW-DOWN FOR A DOUBLE-WING GATE (DIP1 SW1 OFF)

- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Press one time push-button C (WORK): the motor M1 starts the opening (M2 remains still).
- Press one time the push-button B (BREAK) to make motor M2 starting. The time that you wait from the beginning of the opening of M1 and the pressing of B (BREAK) is the delay of opening of the second wing. This time is max 15 sec. If you do not press any button after 15 sec. The motor M2 starts automatically the opening.
- While the two wings are opening, adjust the power of the motor turning the trimmer POWER.
ATTENTION: - if the trimmer POWER is set two "low", the gate may not open. We suggest to make this setting starting with the trimmer turned to the MAXIMUM and decreasing the power while the wing is opening.



- The high differences of temperature between summer and winter cause different expansions in all materials, including the material of our products. For this reason we recommend to control the motor force adjusting each winter and summer in the beginning of each season.

- When the wing of motor M1 arrives against the stop blocks wait for 3-4 seconds and after press one time button C (WORK). Motor M1 switches OFF.
- When the wing of motor M2 arrives against the stop blocks wait for 3-4 seconds and after press one time button C (WORK). Motor M2 switches OFF.
- When the two wings are completely open and the motors are not supplied, press one time button B (BREAK) to start the closing phase of motor M2 (M1 remains still).
- Press one time the push-button C (WORK) to make also motor M1 starting. The time that you wait from the beginning of the closing of M2 and the pressing of C (WORK) is the delay of closing of the wing. This time is max 15 sec. If you do not press any button after 15 sec. The motor M1 starts automatically the closing.
- During the closing, press B (BREAK) when you want that the motor M2 starts the slow-down (we suggest at least 50cm from the stop blocks). Motor M2 starts the slow-down. **ATTENTION: DO NOT consider this point if the slow-down is not activated (DIP2 SW2 ON)**
- During the closing, press C (WORK) when you want that the motor M1 starts the slow-down (we suggest at least 50cm from the stop blocks). Motor M1 starts the slow-down. **ATTENTION: DO NOT consider this point if the slow-down is not activated (DIP2 SW2 ON)**
- When the wing of motor M2 arrives against the stop blocks wait for 3-4 seconds and after press one time button B (BREAK) Motor M2 switches OFF.
- When the wing of motor M1 arrives against the stop blocks wait for 3-4 seconds and after press one time button C (WORK). Motor M1 switches OFF and control panel quit automatically from programming. It is ready for functioning.



ATTENTION: - If you want to change some of the above adjustment it is necessary to repeat the programming from the beginning.

- During programming the slow-down is set only in the closing phase but During the standard working it is used also in the opening phase.

PROGRAMMING OF THE WORKING TIME AND THE SLOW-DOWN FOR GATE WITH ONLY ONE WING (DIP1 SW1 ON)

- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Press one time push-button C (WORK): the motor M1 starts the opening.
- While the wing is opening, adjust the power of the motor turning the trimmer POWER.



ATTENTION: - if the trimmer **POWER** is set two “low”, the gate may not open. We suggest to make this setting starting with the trimmer turned to the **MAXIMUM** and decreasing the power while the wing is opening.
- The high differences of temperature between summer and winter cause different expansions in all materials, including the material of our products. For this reason we recommend to control the motor force adjusting each winter and summer in the beginning of each season.

- When the wing of motor M1 arrives against the stop blocks wait for 3-4 seconds and after press one time button C (WORK). Motor M1 switches OFF.
- When the wing is completely open and the motor is not supplied, press one time button C (WORK) to start the closing phase.
- During the closing, press C (WORK) when you want that the motor M1 starts the slow-down (we suggest at least 50cm from the stop blocks). Motor M1 starts the slow-down. **ATTENTION: DO NOT consider this point if the slow-down is not activated (DIP2 SW2 ON)**
- When the wing of motor M1 arrives against the stop blocks wait for 3-4 seconds and after press one time button C (WORK). Motor M1 switches OFF and control panel quit automatically from programming. It is ready for functioning.



ATTENTION: - If you want to change some of the above adjustment it is necessary to repeat the programming from the beginning.

- During programming the slow-down is set only in the closing phase but during the standard working it is used also in the opening phase.

PROGRAMMING OF THE PAUSE TIME WITH OPEN GATE (AUTOMATIC RECLOSURE)

ACTIVATE THE AUTOMATIC RECLOSURE (MAX 120sec.)

- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Press one time B (BREAK) - flashing light ON - the control panel starts to count the time for the pause when the gate is open, one flashing = 1 second.
- Press B (BREAK) when you want to fix the time choosen for the pause, the control panel memorize the time from the first and the second pressing of B (BREAK). It quit automatically from programming.
If you do not press any button, after the maximum time of 120 sec. the control panel quit the programming memorising 120 sec.

DEACTIVATE THE AUTOMATIC RECLOSURE

- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Press and keep pressed B (BREAK) until LED DI10 switches OFF. Control panel quit automatically from programming. The automatic reclosure is deactivated.

LEARNING OF TRANSMITTER CODE

The control panel has an incorporated two-channel receiver at 433,92 Mhz which allows to remotely drive the gate through transmitters at dip-switches - OG/02 and OG/04 - and also self-learning transmitters OG/62, OG/64, OG/52, OG/54, OG/82/1 and OG/84. The first channel of the receiver works like a start, while the second channel works like "pedestrian" start.



ATTENTION: - before using a transmitter, it is compulsory to program it

- the max number of codes is 32 for the START function and 32 for the PEDESTRIAN function (different combination are not possible: for ex. 40 start + 24 pedestrian NOT POSSIBLE).

Some examples of the possible combinations:

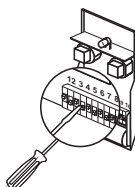
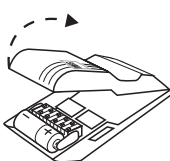
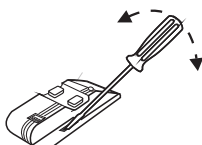
- example A: **32 self-learning transmitters** OG/62, OG/64, OG/28, OG/48, OG/52, OG/54, OG/82/1 or OG/84 as **start** (for ex. the left push-button)+ **32 self-learning transmitters** OG/62, OG/64, OG/28, OG/48, OG/52, OG/54, OG/82/1 or OG/84 as **pedestrian** (for ex. the right push-button)
- example B: **31 self-learning transmitters** OG/62, OG/64, OG/28, OG/48, OG/52, OG/54, OG/82/1 or OG/84 as **start** (for ex. the left push-button) + **1 dip-switch transmitter** OG/02, OG/04 as **start** (it is not necessary to program the other OG/02 or OG/04 since it is enough to set the dip-switches in the same position) + **31 self-learning transmitters** OG/62, OG/64, OG/28, OG/48, OG/52, OG/54, OG/82/1 or OG/84 as **pedestrian** (for ex. the right push-button) + **1 dip-switch transmitter** OG/02, OG/04 as **pedestrian** (it is not necessary to program the other OG/02 or OG/04 since it is enough to set the dip-switches in the same position)



ATTENTION: before proceeding with the programming or the erasing of the transmitters it is necessary to disconnect temporarily the antenna to avoid that the receiver during these phases acquires other signals which may cause the uncorrect functioning of the system. Connect the antenna as soon as finished.

DIP-SWITCH SET-UP ONLY FOR TRANSMITTERS OG/02 AND OG/04

Only in the event that the dip-switches transmitters OG/02 or OG/04 are used, it is necessary to change the dip-switch set-up before the programming, in order to change the factory set-up.



CHANGE THE FACTORY SET-UP TO AVOID NOT WANTED DRIVES

LEARNING OF THE START CODE

- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Press the button in the transmitter (for ex. the left button) and keep it pressed until LED DL10 switches OFF. The control panel has memorised the code and it quit automatically from programming.
- Repeat the same step if you need to program other transmitters.

LEARNING OF THE PEDESTRIAN CODE

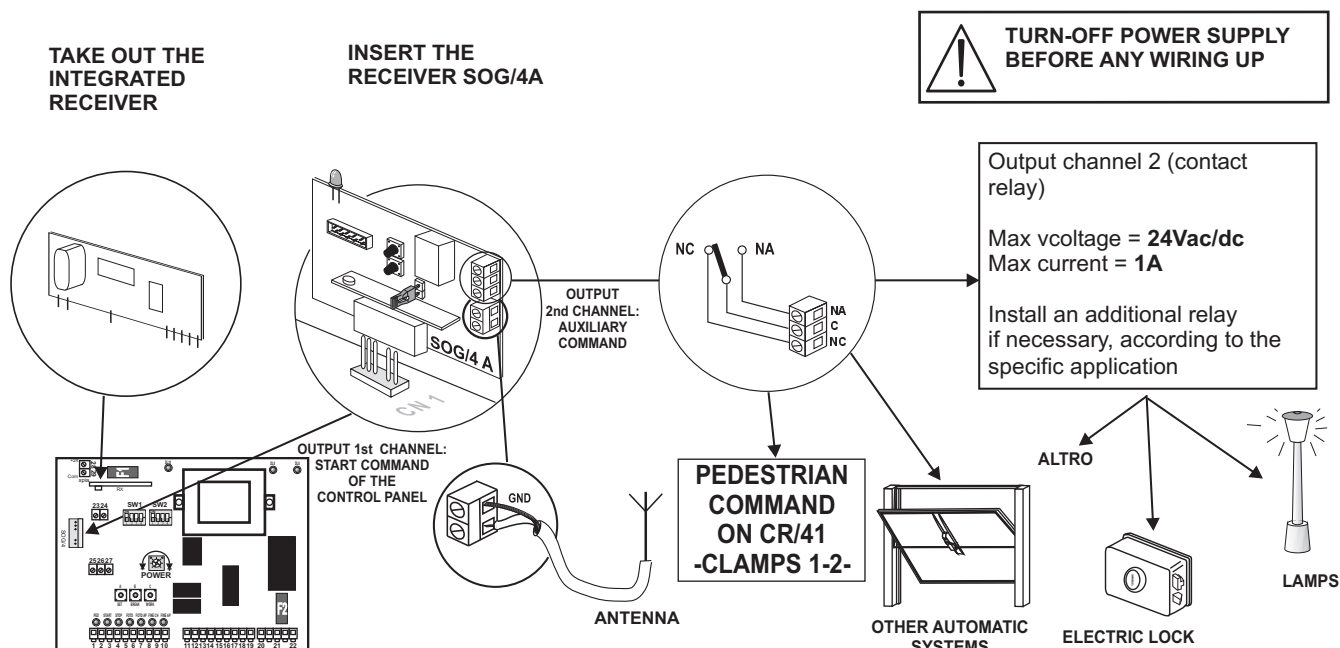
- Control panel ON, gate closed. Press one time the button A (SET) to enter into programming. LED DL10 starts flashing. The programming phase begins.
- Keeping pressed the button A press the button in the transmitter (for ex. the right button) and keep them pressed until LED DL10 switches OFF. The control panel has memorised the code and it quit automatically from programming.
- Repeat the same step if you need to program other transmitters.

ERASING OF THE STORED CODES

Keep pressed the button A (SET) for about 10sec. Until the LED DL10 switches off.

INCREASING THE NUMBER OF TRANSMITTERS

If it is necessary to store more than 32 transmitters on the integrated receiver, you have to replace the existing receiver with the SOG/4A (to have 40 transmitters) and eventually the expansion card SOG/2A (to reach 794 transmitters). After this replacement it is necessary to program again all the transmitters, see the SOG/4A instructions.



CONTROL PANEL TECHNICAL DATA

Power-supply:	230Vac \pm 10% 50/60Hz
Motor power-supply:	2 motors single phase 230Vac, 200W+200W
Accessories power-supply:	24Vac, 500mA
Flashing-Light power-supply:	230Vac, max 50W
“Courtesy lamp” power-supply:	230Vac, max 100W
Electric lock power-supply:	12Vac 15VA
Adjustment of the motor working time:	from 0 to 120sec.
Adjustment of the pause time:	from 4 to 120sec.
Adjustment of the 2nd wing delay in opening + closing:	from 0 to 15sec.
Working temperature:	-20°C \div +70°C
Protection degree:	IP54
Dimensions and weight:	270x212x118mm, 1,7Kg