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Cancelli Automatici Shed Infissi Telecomandati

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CONTROL BOX GATE'S OPENING - 2 MOTORS SINGLEPHASE 230VAC WITH ENCODER

OPERATION PROGRAMS

With the combination of the mini DIP switches it is possible to program the gate's operation and of the auxiliary services.
STEP BY STEP, SEMIAUTOMATIC, AUTOMATIC, DEAD-MAN, PEDESTRIAN, SHORT CLOSING IMPULS, TIMER, SLOW-DOWN MOTORS, POWER STARTING, TEST PHOTOCELLS, MOTORS INDIPENDENT OR UNIFIED, MEMORISATION OF WORK'S TIME, REVERSE, OPERATION TYPE B.

Warning ! To enter a new program, the control box must be zero set in order to allow the storage of the new instructions replacing the previous one. For such purpose it is possible to follow two different procedures:

1) set the wanted instructions through the programming devices (DIP) cut out the supply voltage for a few seconds and then switch-on the supply voltage. The control box must effect one cycle complete and then is ready.

2) set the wanted instructions and effect a new cycle complete. After the one cycle (opening-closing) the control box is ready.

FUNCTIONS:

STEP BY STEP (S2 DIP 2 OFF) at every impulsion of start the control box :open-stop-close-open

SEMIAUTOMATIC (S2 DIP 2 ON) at every impulsion of start the control box open.for the closing it is necessary another impulsion of start. (S1 DIP1 OFF) or automatically (S1 DIP1 ON).

AUTOMATIC (S2 DIP 1 OFF, DIP 2 ON, S1 DIP 1 ON) At every impulsion of start the control box open.
Then close automatically After the adjusted time.

DEAD-MAN (S2 DIP 1 ON, S1 DIP1 OFF, DIP 3 OFF) push bottons separate. When the push bottons are pushed, the motors runs when are released ,the motors stop. The limit switches are in function.

PEDESTRIAN it is possible to open, partially, the gate, (see the planning menu) and after the cycle is effected following the program selected by the DIP. During the pedestrian closing the photocell opens the gate.The closing-time is equal to the total work's time,so that the gate can close fully.

SHORT CLOSING IMPULS (S1 DIP 6 ON) at every opening-start (when the gate is closed) the motors runs in closing (few instant) to permit the easier release of the electrolock, then the motors runs in opening.

TIMER it possible to connect a timer to opening the gate for the time during the contact of the timer is activated S2 DIP 1 OFF, DIP 2 ON, S1 DIP 1 ON DIP 3 ON. ON.When the contact of the timer is released,the gate close after the time selected.

SLOW-DOWN-MOTORS it is possible to set the slow down motor in opening and closing during the planning , but 2 sec. before the closing,the motors have max. power for an easy locking of the electrolock (S2 DIP 3 ON).
The speed of deceleration can be regulated with control power P6.
The moment in which the slow-down starts can be differentiated between the opening and the closure.

POWER STARTING at every impulsion of start the motors start at the max. power for 3 sec and then, runs at the power adjusted by P1 e P4.

TEST PHOTOCELLS (S3 DIP 1 e DIP 2 PLUGS 32-33) at every cycles the control box verify if the photocell's receiver is in fonction.

MOTORS INDEPENDENTS OR UNIFIED (S1 DIP 5) the motors can have the work's time independent (double sliding, double barrier etc..) also the operation of the limit switches is independent of each (S1 DIP 5 OFF adjust P1 e P4), the pedestrian works on 1 motor only. Or the motors can have the work's time unified (2 motors on a garage door ,etc..).So, only one limit switch stop the two motors (S1 DIP 5 ON adjust P1), the pedestrian works on both motors.

MEMORISATION OF WORK'S TIME the control box memorize the time of opening and closing. So, the motors runs for the right time +few seconds. And if the gate re-open when is in closing the motors not runs for a long time.

REVERSE (S3 DIP 4 OFF) survey obstacle along the run of the gate (see chapter 10).

OPERATION TYPE B (S3 DIP 3 ON) it trains the card for signal clinking and it changes the work formality of the input Safety edge 1 and 2.

INSTALLATION 2 MOTORS IN THE ONE LEAF (ex.garage door-big swing):
To connect the 2 motors one to the plug M4 and the second to the plug M5. Select the Dip-switch S1 ON "working time unified for the 2 motors on M1" and follow the program for one motor (chap. 8.1)

WORKS SHAFTS WITH ENCODER (shafts dip-switch S4)

EMERGENCY MANOEUVRE *working dead-man with the exception of safety (Chapter 12).*

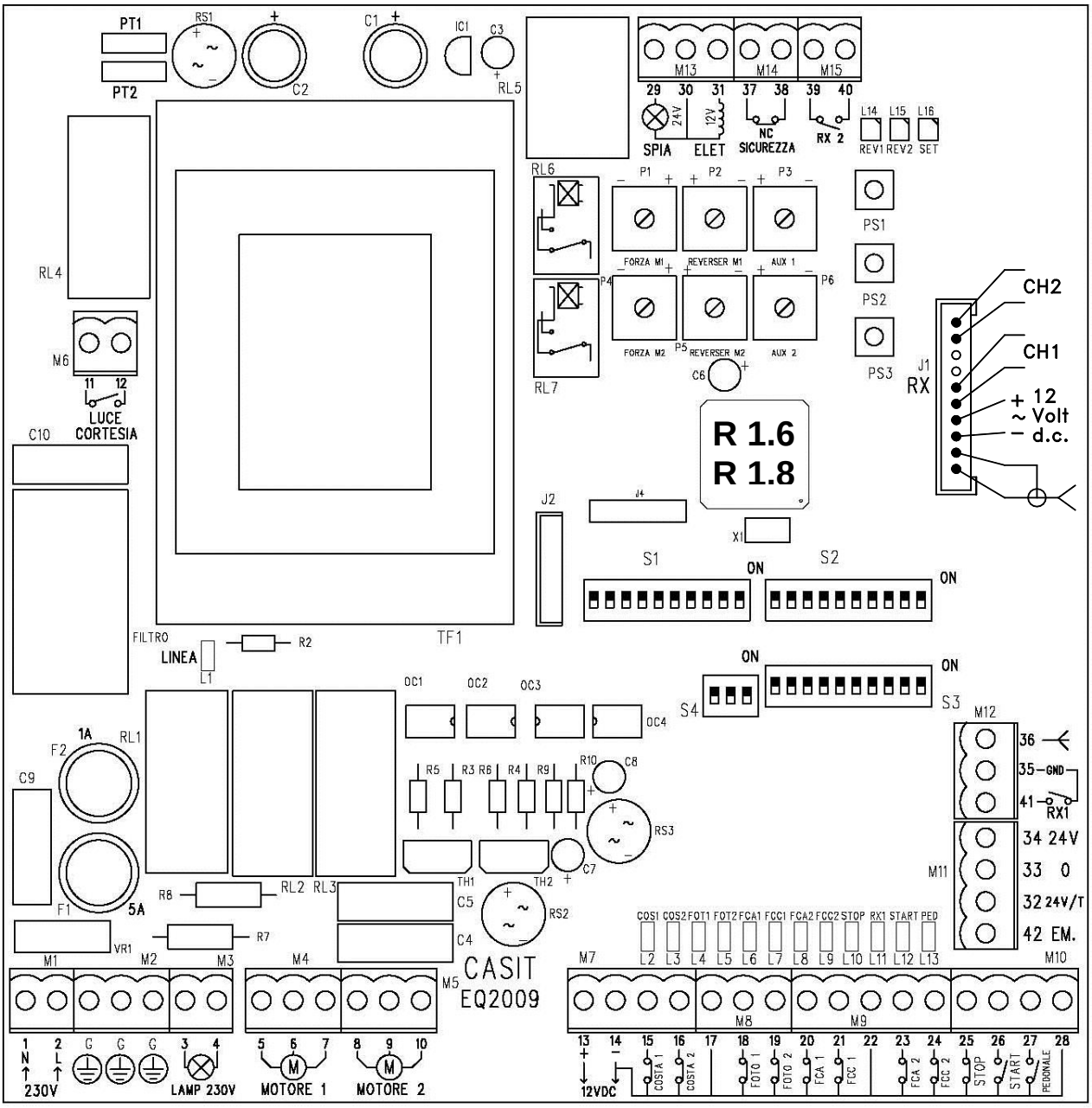
TECHNICAL SPECIFICATIONS

Control unit power: 230VAC Hz 50/60 Motor output: 2 x 500W (tryac 16A - Relais motor max 10°)
Accessories power: 24 VAC - 500 mA (the sum absorptions clamps 32-33-34 e 29-30)
Electrolock power: 12 VAC - 1 A Environmental operatine temperature: -15°C / + 60°C
Line fuse F1 5A, fusibile signal clinking F2 1A
Box standard version dimensions:255x200x105mm (size of the special version could change) IP Grad: 54

WARNING!

- Do not use with motor over 350w: slow-down-motors, power starting, reverse.
- When the control panel is used with the relays or teleruptors connected to the output motor for powers motors up to 350W, regulate the push motor (P1 and P4) to the maximum power.

Before installing, thoroughly read this manual that is an integral part of this Kit. Casit declines any responsibility in the event current standards in the country of installation are not complied with



1) DIODE LED

L1	Line of feeding; turned on to control panel fed
L2	SAFETY EDGE 1; it switch on to the intervention of the safety edge 1. The flashing led L2 points out the condition of triac TH1 (pilot motor 1) in damage.
L3	SAFETY EDGE 2; it switch on to the intervention of the safety edge 2. The flashing led L3 points out the condition of triac TH2 (pilot motor 2) in damage.
L4	PHOTOCELL 1; it switch on to the intervention of the safety edge 1.
L5	PHOTOCELL 2; it switch on to the intervention of the safety edge 2.
L6	OPENING LIMIT SWITCH 1; it switch on to the intervention of the limit switch open of the motor 1.
L7	CLOSING LIMIT SWITCH 1; it switch on to the intervention of the limit switch close of the motor 1;
L8	OPENING LIMIT SWITCH 2; it switch on to the intervention of the limit switch open of the motor 2.
L9	CLOSING LIMIT SWITCH 2; it switch on to the intervention of the limit switch close of the motor 2.
L10	STOP; it switch on during the stop command.
L11	RX1; it switch on during the impulse of the remote control.
L12	START; it switch on during the start command.
L13	PEDESTRIAN; it switch on during the pedestrian command.
L14	REV 1; it switch on red to the intervention of the reverse on the motor 1 during the work and it visualizes the last seconds of the stroke turning on itself green.
L15	REV 2; it switch on red to the intervention of the reverse on the motor 2 during the work and it visualizes the last seconds of the stroke turning on itself green.
L16	SET; it marks the regular operation of the microprocessor of the control panel with some green continuous lightning during the work.

2) ELECTRIC CONNECTIONS

PLUG		DESCRIPTION	
M1	**1-2**	Net feeding 230V (obligatorily respect the connections: neutral to the clamp 1, phase to the clamp 2).	
M2	**TERRA G**	3 fixed clamps with the symbol of grounf for line and motors.	
M3	**3-4**	Output signal clinking 230V.	
M4	**5-6-7**	Output motor 1 (delayed in closing). Pedestrian leaf. Opening to the clamp 5, common to the clamp 6, closing to the clamp 7.	
M5	**8-9-10**	Output motor 2 (delayed in closing).. Opening to the clamp 8, common to the clamp 9, closing to the clamp 10.	
M6	**11-12**	Light of courtesy, clean contact N.O. max.230V 4 Amp (see S3, dip 8).	
M7	**13-14**	Output 12Vdc, max. 200 mA.	**Electric connections for motors <u>without encoder</u>**
	14-15	Input N.C. SAFETY EDGE 1. • In opening it arrests the movement, in closing it reverses the sense of march for 2" with operation type A (S3, dip 3 OFF). • It always reverses the sense of march for 2" in the operation type B (S3, dip 3 ON).	
	14-16	Input N.C. SAFETY EDGE 2. • In opening it reverses the sense of march for 2", in closing it arrests the movement with operation type A (S3, dip 3 OFF). • Input N.O. of REARMAMENT. It becomes the input of rearmament of the control panel after the intervention of Safety edge 1 in the operation type B (S3, dip 3 ON).	
M8	**17-18**	Input N.C. PHOTOCELL 1. Photocell trained in both the senses of march. The conditions of operation depends on S2 – dip 5.	
	17-19	Input N.C. PHOTOCELL 2. Photocell activates only in closing (it arrests and it reopens). The conditions of operation with the gate is closed depends on S2 - dip 6.	
M7	**13**	Power encoder positive brown	**Electric connections for motors <u>with encoder</u>**
	14	Power encoder negative blue	
	15	Input sensor signal(black) of the shaft 1 encoder	
	16	Input sensor signal(black) of the shaft 2 encoder	
M8	**17-18**	Input N.C. PHOTO 1 the operation modality depends from S3-dip 9	
	17-19	Input N.C. PHOTO 2 the operation modality depends from S3-dip 10	
M9	**20-22**	Input N.C. LIMIT SWITCH OPENING 1. Limit switch of opening of the motor 1.	If the motor is complete with limitswitches, you have to connect them to the controlboard but not to the motor phases. Exceptionally it is possible to connect the limit switches on the motor phases, to connect: put Dip 2 of S4 in ON and made short-circuits on 20,21,22,23,24 of M9. Warning: with test-triac OFF(Dip 2 of S4 in ON),use all security (photocells, safety edges) as is possible.
	21-22	Input N.C. LIMIT SWITCH CLOSING 1. Limit switch of closing of the motor 1.	
	22-23	Input N.C. LIMIT SWITCH OPENING 2. Limit switch of opening of the motor 2.	
	22-24	Input N.C. LIMIT SWITCH CLOSING 2. Limit switch of closing of the motor 2.	
M10	**25-28**	Input N.C. STOP. It arrests the movement of the gate.	
	26-28	Input N.O. START (S1 - dip 3 ON). Input N.O. OPEN (S1 - dip 3 OFF).	
	27-28	Input N.O. PEDESTRIAN (S1 - dip 3 ON). Input N.O. CLOSING (S1 - dip 3 OFF).	
M13	**29-30**	Output warning light functions 24Vac. It is out to when gate is closed , it has turned on when gate is open.	
	30-31	Output ELECTROLOCK; 12Vac, max. 1A.	
M11	**32-33**	Output 24Vac to use for feeding the transmitting station of the photocells when the function "test photocells" is activated (S3 dip 1-2 ON)	
	33-34	Output 24Vac.	
	42-33	Input N.O. EMERGENCY OPERATING	
M12	**35-36**	Input aerial for radioreceiver RX Aerial Cable to 36, eartn to 35.	
	41	Input external N.A. of RX1, GND 35	
M14	**37-38**	Contact N.C. safety. The opening of the contact removes the feeding from the spools of the relays disarming the outputs.	
M15	**39-40**	Clean contact of the 2° channel of the radioreceiver on the connection J1 RX.	

WARNING : The inputs N.C. not used they must obligatorily be short-circuits toward the commune of the entries

3) CONTROLS POWER

P1	It set the power of the motor 1.	**P2**	It set the sensibility to the obstacle while motor 1 is working.	**P3**	It set the sensibility to the obstacle during slowing down of the 2 motors.
P4	It set the power of the motor 2.	**P5**	It set the sensibility to the obstacle while motor 2 is working.	**P6**	It set the speed of slowing down of the 2 motors.
Top set P2, P3, P5, P6 (cap.10)					

4) DIP-SWITCH S1 FUNCTIONS

DIP 1	**ON**	Automatic closing at the end of the work time-break after an opening controlled by the input of START.	
	OFF	Automatic closing after the work time-break excluded.	
DIP 2	**ON**	Automatic closing at the end of the pedestrian time-break after an opening controlled by the input of PEDESTRIAN	
	OFF	Automatic closing after the pedestrian time-break excluded.	
DIP 3	**ON**	Active command inputs as START and PEDESTRIAN.	
	OFF	Active command inputs as OPEN and CLOSE separate	
DIP 4	**ON**	Input radioreceiver RX1 it works as terminal block START.	
	OFF	Input radioreceiver RX1 it works as step-by-step.	
DIP 5	**ON**	Same time of work for both the motors on M1.	**Working with 1 motor only, dip 5 OFF**
	OFF	Time of work separate and independent for both the motors.	
DIP 6	**ON**	The motor /s still works for 3 second after the activation of the limitswitch CLOSES	
	OFF	The motor/s only works till the activation of the limitswitch CLOSES	
DIP 7	**ON**	Automatic closing at the end of the work time-break after an opening controlled by the input radioreceiver RX1.	
	OFF	Automatic closing after the work time-break excluded.	
DIP 8	**ON**	SAFETY EDGE 2 during the opening, it stops the movement and it closes totally.	
	OFF	SAFETY EDGE 2 during the opening, it stops the movement and it closes only for 2 seconds.	
DIP 9	**ON**	High threshold of starting encoder	
	OFF	Low threshold of starting encoder	
DIP 10	**ON**	Short closing impulse on.	
	OFF	Short closing impulse off.	

4.1) DIP-SWITCH S2 FUNCTIONS

DIP 1	**ON**	Dead man working	
	OFF	IMPULSIVE working.	
DIP 2	**ON**	Semiautomatic program. In opening it doesn't accept START impulses. It is possible to use it for the function clock.	
	OFF	Program step-by-step: OPEN-STOP-CLOSE-OPEN	
DIP 3	**ON**	Maximum power to the motors in closing in the last 2" on.	
	OFF	Maximum power to the motors in closing in the last 2" off.	
DIP 4	**ON**	Power starting motors on.	
	OFF	Power starting motors of.	
DIP 5	**ON**	In opening and time-break an impulse of Photocell 1 close again after 2."	**PHOTO 1** **Motors <u>without encoder</u> only**
	OFF	Standard work on photocell 1 ***when the gate is closed*** *and foto 1 obscurated ,the gate not open.* *during* ***the closing*** *and foto 1 obscurated ,the gate stop and reopen when the foto1 is liberated (in this operation is activated also the electrolock).* ***during the opening*** *and foto1 obscurated ,the gate stop and reopen when the foto1 is liberated (in this operation is activated also the electrolock).*	
DIP 6	**ON**	When the gate is closed, the START opens if PHOTOCELL 2 are obstructed.	
	OFF	When the gate is closed, the START doesn't open if PHOTOCELL 2 are obstructed.	
DIP 7	**ON**	Pre-alarm signal clinking 1 sec.	
	OFF	Pre-alarm signal clinking 4 sec.	
DIP 8	**ON**	Output signal clinking intermittent. (during the closing: slow clinking, During time-break : fixed light. During the opening fast clinking)	
	OFF	Output signal clinking fixed.	
DIP 9	**ON**	Working with 2 motors (type double leaf).	
	OFF	Working with 1 motor on M1 (type sliding gate or 1 leaf).	
DIP 10	**ON**	**Admittance to the planning menu.**	
	OFF	**Disposition of the control panel in work condition.**	

4.2) DIP-SWITCH S3 FUNCTIONS

DIP 1	**ON**	Test photocells on FOTO 1 on.		
	OFF	Test photocells on FOTO 1 off.		
DIP 2	**ON**	Test photocells on FOTO 2 on.		
	OFF	Test photocells on FOTO 2 off.		
DIP 3	**ON**	Working type B (it trains the card for signal clinking LAMP and it changes the work formality of the input Safety edge 1 and 2.).		
	OFF	Working type A (standard).		
DIP 4	**ON**	Survey obstacle (reverser ampherometric) on both motors excluded.		
	OFF	Survey obstacle (reverser ampherometric) on both motors active.		
DIP 5	**ON**	Setting of survey obstacle power in slowing down on both motors for a high range of force		
	OFF	Setting of survey obstacle power in slowing down on both motors for a low range of force		
DIP 6	**ON**	Maximum power to the motors M1 and M2 in closing in the last 2", ON.		
	OFF	Maximum power in closing in the last 2" ON, only for motor M1(M2 does not work is that the close limit is on that is off). Default Casit.		
DIP 7	**ON**	After pedestrian opening of M1, close in both M1 M2(if close limit switch of M2 is on, M2 does not work).		
	OFF	After pedestrian opening of M1, closes only M1(M2 does not work whether the close limit switch is on that is off). Default Casit.		
DIP 8	**ON**	The output light of courtesy is immediately disarmed at the end of closing.		
	OFF	The output light of courtesy is disarmed three minutes later than the end of closing.		
DIP 9	**ON**	During the opening and the closing, it stops the movement and reopens totally when obstacle removed.	**PHOTO 2**	**Motors <u>with encoder</u> only**
	OFF	In closing, the gate stop, and then manoeuvre in the opposite way. In opening it doesn't works.		
DIP 10	**ON**	In opening and in closing, the gate stop, and then manoeuvre in the opposite way for 2 sec. but 1 minute later it closes.	**PHOTO 2**	
	OFF	In opening, the gate stop, and then manoeuvre in the opposite way for 2 sec. but 1 minute later it closes. In closing it doesn't works..		

4.3) DIP-SWITCH FUNCTIONS S4 SELECTION MOTOR WITH/WITHOUT ENCODER – WITH WITHOUT LIMITSWITCHES

FUNCTIONS DIP 1 and 2		
DIP1 - Selection motor with/without encoder. DIP2-Selection function/connect limit switch.		
DIP 1	**OFF**	STANDARD MOTOR WITHOUT ENCODER
	ON	MOTORS WITH ENCODER
DIP 2	**ON**	Test triac off. To connect the limit switches on the motor phases.
	OFF	Test triac on. To connect the limit switches a 20,21,22,23,24 di M9. Default Casit.

FUNCTIONS DIP3	
DIP3	**MOTORS WITH OR WITHOUT LIMITSWITCHES**
ON	The participation of the encoder/reverser inverts the motion of the gate till the activation of the limitswitch closes. USE IT WITH MOTORS WITHOUT LIMITSWITCHES
OFF	**During the last 6 sec.** of the stroke, the working of encoder/reverse **it stops the gate without reverse.** USE IT WITH MOTORS WITHOUT LIMITSWITCHES

SEE CHAPTER 11 ABOUT OPERATION WITH ENCODER

CONNECTIONS J1 RX = graft for the receiver.

5) DEFAULT TIMES

The control panel foresees some times of work pre setted:

- time of work on 2 motors = 50 seconds; time of pedestrian opening = 10 seconds
- time - break = 8 seconds; time of pedestrian break = 8 seconds
- leaf delay in opening = 3 seconds; leaf delay in closing = 5 seconds

To eliminate the leafs delay (or if you used one motor only) select the time of unified work for both the motors on the motor M1 S1-dip 5 ON , <u>it's good for default times only.</u>

6) TIME OF COMPENSATION

To balance the differences of speed between the opening and the closing of the gate during the run, or to balance the different speeds during an inversion of the run, especially if the last part of the stroke has the speed of deceleration, the control panel has balance times at the end of time of work in 3 sec. if the slowing is not used and 6 sec. if slowing is working.

7) DEVICES OF PLANNING

The pushes button PS1s (START), PS2 (Pedestrian), PS3 and the leds L14, L15, L16 are used for the formulation of the parameters in the planning menu (see chapter 8).

8) MENU OF PLANNING

The working on of every plant always foresees the work times of the automation know-how, the time-break when gate is open if the automatic closing is trained and.
The planning menu foresees the regulation of 4 principal parameters:

a) *Time of work (chapter 8.1 and 8.2)*
b) *Time-break of work (chapter 8.3)*
c) *Pedestrian time-break (chapter .8.4)*

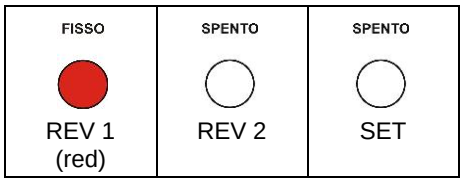
WARNING : before entry in the planning menu remove current to the plant and select:

- ***"Dip 10 S2 ON" to entry in the planning menu.***

The choice of speed deceleration must be effected before the memorization of the stroke, otherwise a variation of the speed deceleration following to the memorization involves to repeat the procedure of the first setting because the times of work and the setting of the reverse changes.

- ***"Dip 9 S2" according to the used motors (ON two motors, OFF one motor),***
- ***Shaft models (with or without encoder, with or without limitswitches) S4***

AT THE END OF SETTING PUT AGAIN DIP 10 S2 OFF AND FIT THE CONTROL PANEL.



It switch on fix red light the led REV 1 pointing out that the control panel is in the planning menu of the "Time of work."
Follow the chapter. 8.1 if the automation has 1 motor or the chapter 8.2 if it has two motors.

The push button PS3 selects the parameter to use for the regulations, and the pushes button PS1s and PS2 are used for the formulation of the values inside every parameter.
The pushes button PS1s and PS2 can also be activated through an external digipad connected to the input clamps N.O. Open (26-28 PS1s) and to the input clamps N.O. Pedestrian (27-28 PS2s).

IT IS NOT POSSIBLE TO PERFORM THE LEARNING THROUGH THE REMOTE CONTROLE.

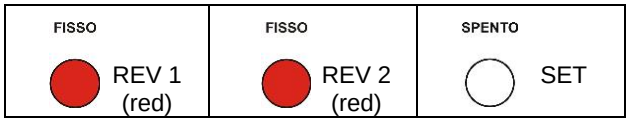
The leds L14 (REV 1), L15 (REV 2), L16 (Set) they visualize the type of setting effectued during the regulations.

Short closing impulse during the initial setting phase of the stroke, press the push button PS2 when gate is closed with an impulse to get a push in closing on the motor M1 and the opening of the electrolock, (this operation is possible only with elctrical limit switch in closing over-bridge or if it isn't activate), subsequently with the push button PS1 proceed to the memorization of the times of work.

8.1) SET THE TIME OF WORK for 1 MOTOR (M1)

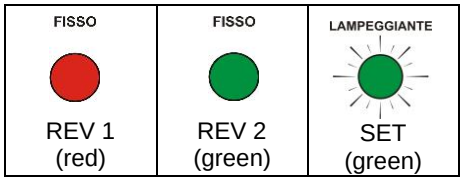
(Maximum working time in opening ~ 4 minutes, closing ~ 4 minutes)

The leds will visualize beside the state.

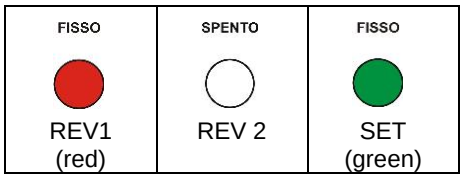


If the gate is not closed hold pressed the key **PS2** up to the **complete closing.**
If the gate is closed pass over the following point.

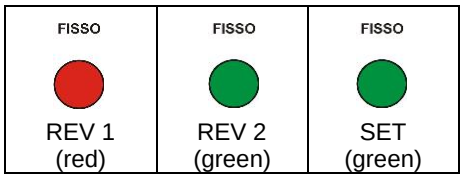
The leds will visualize beside the state.



Hold pressed the key **PS1** to set the time of **pedestrian opening**;
the gate will start in opening and it will arrest itself to the release of **PS1** fixing in that point the duration of the pedestrian opening.
If you don't want to plan the pedestrian opening give a short impulse on **PS1** to pass over the following point.

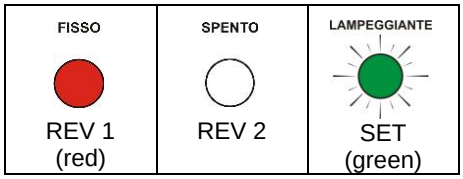


Hold pressed the key **PS1** to plan **the time of work of the gate in opening**.
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the opening (when limit switch is working FCA 1).*

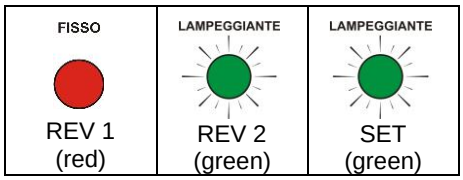


Hold pressed the key **PS1** to plan the last portion of opening in **deceleration** and release it just at the end of the opening (when limit switch is working FCA 1).
*If the leaf is already completely open because abdicates the deceleration, and if the arrest has not happened with the limit switch FCA 1, send a short impulse with the key **PS1** to pass over the following point.*

At the end of the opening the state of the leds is that represented to left side.

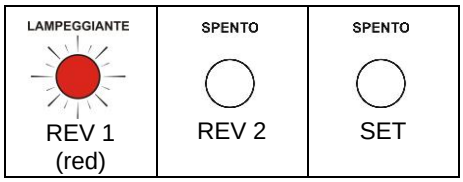


Hold pressed the key **PS1** to plan **the time of work of the gate in closing**.
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the closing (when limit switch is working FCC 1).*

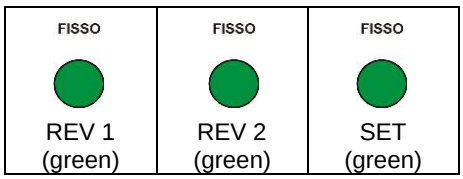


Hold pressed the key **PS1** to plan the last portion of the closing in **deceleration** and release it just at the end of the closing (when limit switch is working FCC 1).
*If the leaf is already completely closed because abdicates the deceleration, and if the arrest has not happened with the limit switch FCC 1, send a short impulse with the key **PS1** to pass over the following point.*

At the end of the closing the state of the leds is that represented to left side.



Send a short impulse with the key **PS2**;
the led **REV 1** flash **asking the confirmation** of the time of planned work.
*WARNING! If you want to repeat the setting of the time of work to this point press the key **PS1** to go to the beginning conditions..*



To confirm, send a short impulse with the key **PS2**; the 3 leds switch on green fixed light for 2 seconds pointing out the memorization of the time of work

Subsequently the control panel will be ready again in the initial planning menu turning on fix red light the led REV 1.

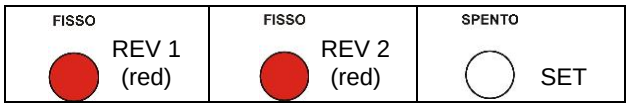
8.2) SETTING TIME OF WORK <u>for two MOTORS (M1 + M2)</u>

(Maximum working time in opening ~ 4 minutes, closing ~ 4 minutes)

The leds will visualize beside the state.

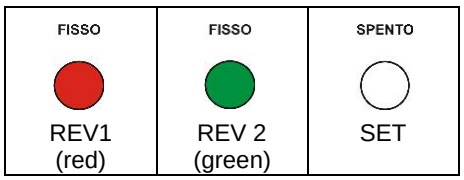
If the gate is not closed hold pressed the key **PS2** up to the complete closing of the **motor 2.**
If the gate is closed to pass over the following point

The leds will visualize beside the state.

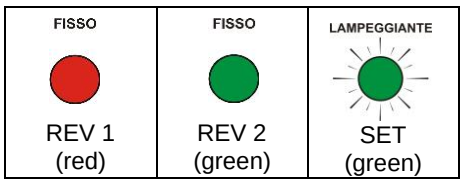


If the gate is not closed hold pressed the key **PS2** up to the complete closing of the **motor 1** (one leaf).
If the gate is closed to pass over the following point

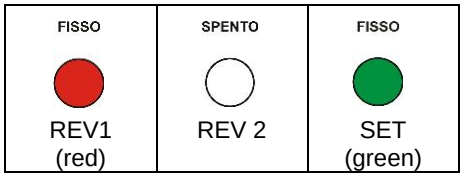
The leds will visualize beside the state.



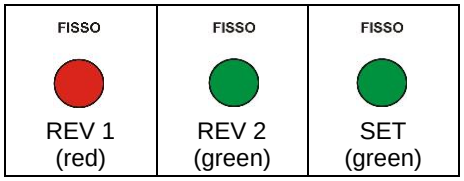
Hold pressed the key **PS1** to start the **motor 1**; release the key in the point in which you desire to fix **the leaf delay in opening**.
*WARNING! If you don't want to plan any delay shutter in opening send a short impulse with the key **PS1** to pass over the following point*



Hold pressed the key **PS1** to plan **the time of pedestrian opening**;
the **motor 1** start again in opening and it arrest it to the release of **PS1** fixing in that point the duration of the pedestrian opening
*If you don't want to plan any pedestrian opening send a short impulse with the key **PS1** to pass over the following point*

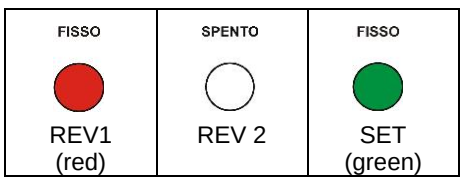


Hold pressed the key **PS1** to plan **the time of work in opening for motor 1**.
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the opening (when limit switch is working FCA 1).*

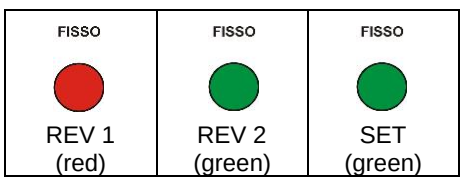


Hold pressed the key **PS1** to plan the last portion of opening for **motor 1 in deceleration** and release it just at the end of the opening *(when limit switch is working FCA 1).*
*If the leaf is already completely open because abdicates the deceleration, and if the arrest has not happened with the limit switch FCA 1, send a short impulse with the key **PS1** to pass over the following point.*

At the end of the stroke in opening of the motor 1 the state of the leds is that represented to the left side

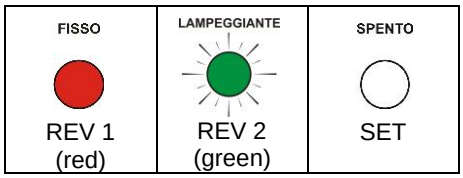


Hold pressed the key **PS1** to plan **the time of work in opening for motor 2.**
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the opening (when limit switch is working FCA 2).*

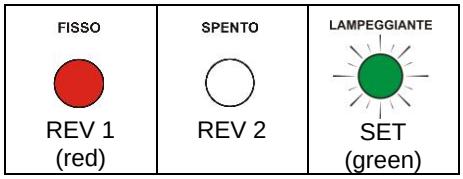


Hold pressed the key **PS1** to plan the last portion of opening for **motor 2 in deceleration** and release it just at the end of the opening *(when limit switch is working FCA 2).*
*If the leaf is already completely open because abdicates the deceleration, send a short impulse with the key **PS1** to pass over the following point,*

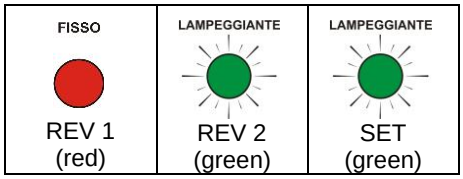
At the end of the stroke in opening of the motor 2 the state of the leds is that represented to the left side



Hold pressed the key **PS1** to start the **motor 2 in closing**; release the key to stop the leaf in the point in which you desire to fix **the leaf delay in closing**.
*WARNING! If you don't want to plan any delay shutter in closing send a short impulse with the key **PS1** to pass over the following point*

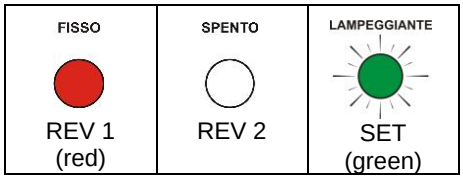


Hold pressed Hold pressed the key **PS1** to plan **the time of work in closing for motor 2**.
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the closing (when limit switch is working FCC 2).*

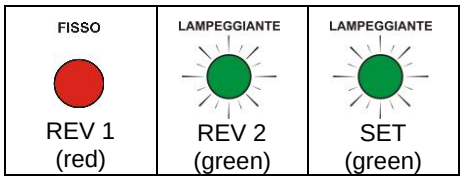


Hold pressed the key **PS1** to plan the last portion of opening for **motor 2 in deceleration** and release it just at the end of the opening *(when limit switch is working FCC 2).*
*If the leaf is already completely closed because abdicates the deceleration, and if the arrest has not happened with the limit switch FCC 2, send a short impulse with the key **PS1** to pass over the following point.*

At the end of the stroke in closing of the motor 2 the state of the leds is that represented to the left side

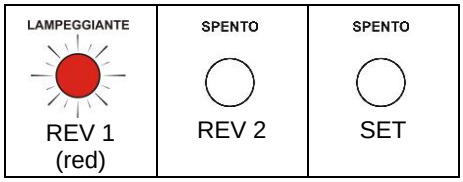


Hold pressed Hold pressed the key **PS1** to plan **the time of work in closing for motor 1**.
*WARNING! If you want to plan the final portion of the stroke in deceleration, release the key **PS1** in the point in which you desire to continue with the low speed.*
*If you want to effect the whole stroke with normal speed, maintain pressed **PS1** and release it just at the end of the closing (when limit switch is working FCC 1).*

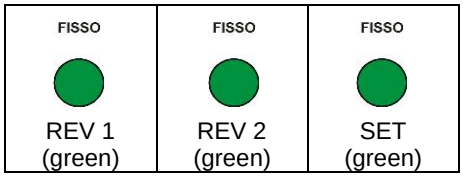


Hold pressed the key **PS1** to plan the last portion of opening for **motor 1 in deceleration** and release it just at the end of the closing *(when limit switch is working FCC 1).*
*If the leaf is already completely closed because abdicates the deceleration, and if the arrest has not happened with the limit switch FCC 1, send a short impulse with the key **PS1** to pass over the following point*

At the end of the stroke in closing of the motor 1 so the complete gate the state of the leds is that represented to the left side



Send a short impulse with the key **PS2;**
the led **REV 1** flash **asking the confirmation** of the time of planned work.
*WARNING! If you want to repeat the setting of the time of work to this point press the key **PS1** to go to the beginning conditions.*

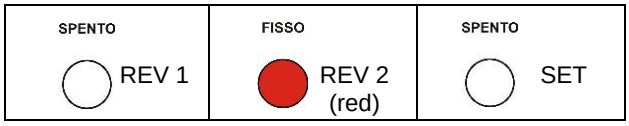


To confirm, send a short impulse with the key **PS2**; the 3 leds switch on green fixed light for 2 seconds pointing out the memorization of the time of work

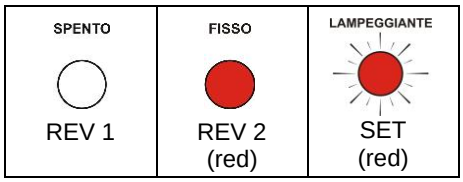
Subsequently the control panel will be ready again in the initial planning menu turning on fix red light the led REV 1.

8.3) SETTING WORKS TIME-BREAK (Maximum pause time ~ 4 minutes)

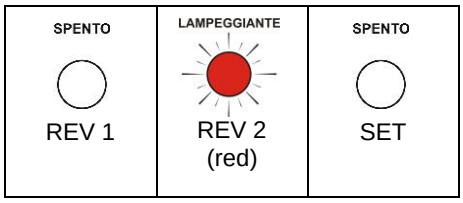
Inside the planning menu, press the push button **PS3** to go in the parameter Works t*ime-break*.



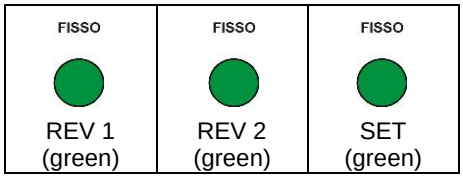
The state of the leds represented to the left side points out that it is in the menu related to the works time-break.



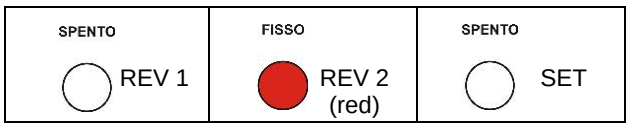
Press and hold pressed the key **PS1** for the time that you want to plan as break to open gate after a complete opening. The led SET will flash red every second during the calculation of the time.



Send a short impulse with the key **PS2.**
the led REV 2 flash asking the confirmation of the time of planned work.
WARNING! If you want to repeat the setting of the time of work to this point press the key ***PS1*** *to go to the beginning conditions.*



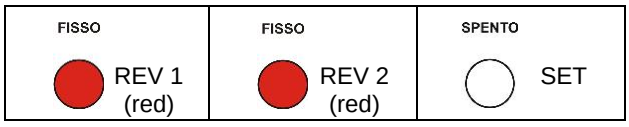
To confirm, send a short impulse with the key **PS2**; the 3 leds switch on green fixed light for 2 seconds pointing out the memorization of the time of work



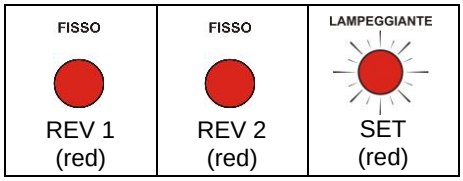
Subsequently the control panel will be ready again in the initial planning menu turning on fix red light the led REV 2.

8.4) SETTING OF THE PEDESTRIAN TIME-BREAK

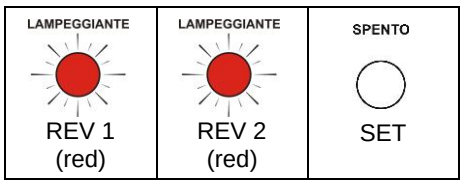
Inside the planning menu, press the push button **PS3** to go in the parameter *Pedestrian time-break*



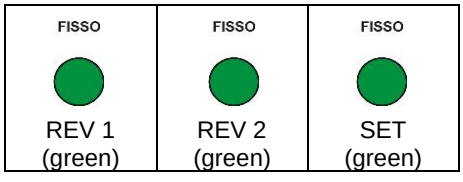
The state of the leds represented to the left side points out that it is in the menu related to the Pedestrian time-break.



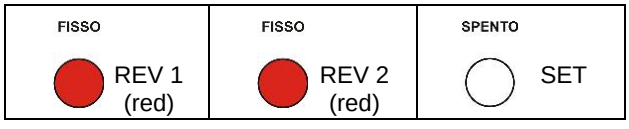
Press and hold pressed the key **PS1** for the time that you want to plan as break to open gate after a pedestrian opening. The led SET will flash red every second during the calculation of the time.



Send a short impulse with the key **PS2;**
the led REV1 and REV 2 flash asking the confirmation of the time of planned work.
WARNING! If you want to repeat the setting of the time of work to this point press the key ***PS1*** *to go to the beginning conditions..*



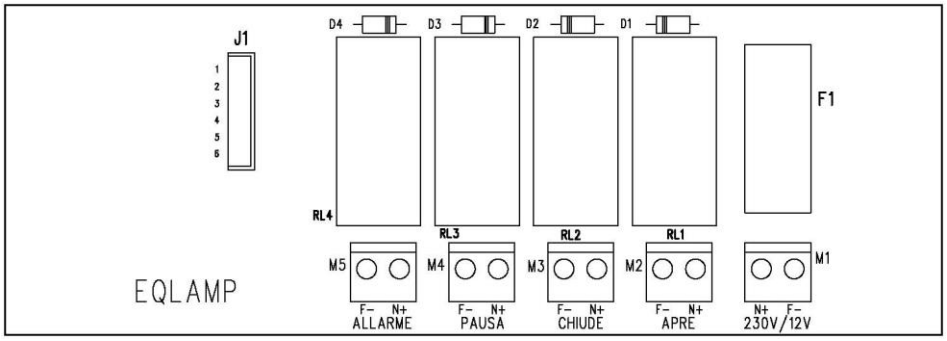
To confirm, send a short impulse with the key **PS2;** the 3 leds switch on green fixed light for 2 seconds pointing out the memorization of the time of Pedestrian time-break



Subsequently the control panel will be ready again in the initial planning menu turning on fix red light the led REV1 and REV 2.

9) "CARD FLASHING MANAGEMENT cod.EQLAMP" (Accessoire on demand)
Usable as signalings according to the directives or as traffic light to signal the state of the gate.
Not be used with motors with encoders

The card of management flashing LAMP has to be connected to the control panel EQ2009 through the insertion of the 6 poles cable in the connector J2. The card LAMP has terminal block for the connection of the loads with the following order



TERMINAL BLOCK M1
Feeding 230V (neutral to the clamp N, phase to the clamp F), or feeding 12Vcc (positive to the clamp +, negative to the clamp -).
TERMINAL BLOCK M2
Output signal clinking in opening
TERMINAL BLOCK M3
Output signal clinking in closing.
TERMINAL BLOCK M4
Output signal clinking in pause.
TERMINAL BLOCK M5
Output signal clinking alarm signal.

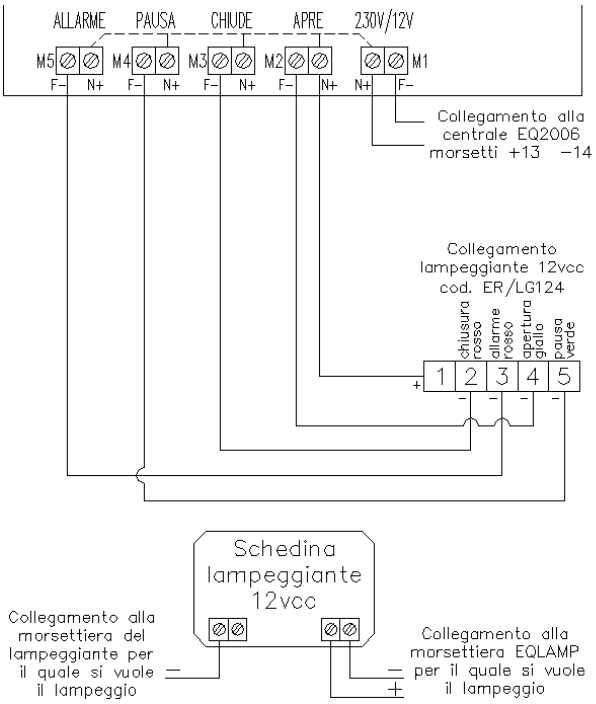
- In case of feeding to 12Vcc for signal clinking with led respect the polarity.
- Using a signal clinking with the positive pole in common to the leds, connect the positive pole of the leds to the source of feeding and the negative pole of every leds to the clamp F of the relative terminal block.

Naturally the negative one of the source of feeding must be connected on the terminal block F to the clamp M1

OPERATION:
Train the operation of the card LAMP through **S3** - dip 3 ON.
During the opening the signal clinking is activated connecting it to the terminal block M2, in the time-break the signal clinking must be connected to the terminal block M4, in closing the signal clinking must be connected to the terminal block M3.

The intervention of the safety edge connected to the input SAFETY EDGE 1 cause an inversion of the sense of march for 2 seconds, the consequent arrest of the gate and the activation of the alarm of the signal clinking connected to the clamp M5.

In this condition a START command or PEDESTRIAN command are ignored, because the control panel must be rehabilitates by th push button n.o. of rearmament, that it has to be connected to the input SAFETY EDGE 2.
Only after having rehabilitated the control panel it is possible to start the gate with the inputs of START or PEDESTRIAN.



10) SURVEY OBSTACLE

The control panel EQ2009 has a survey obstacle independent circuit for every motor, that has the function to notice the presence of obstacles along the stroke of the gate.

WARNING! During the memorization of the time of work the survey obstacle is not active

The survey obstacle function can be excluded maintaining **S3 dip 4 ON**.
To activate the survey obstacle function set **S3 dip 4 OFF**.
To regulate the sensibility of intervention obstacle on the motor 1 act on the power adjuster P2 (REVERSE M1) during the stroke to normal speed and on the power adjuster P3 during the stroke in deceleration.
To regulate the sensibility of intervention obstacle on the motor 2 act on the power adjuster P5 (REVERSE M2) during the stroke to normal speed and on the power adjuster P3 during the stroke in deceleration.
Setting the power adjusters toward the "- " (hourly sense) I get an intervention sensibility inferior (greater gate power), setting toward the "+" I get a intervention sensibility superior (smaller gate power).

With the P6 there is the possibility to regulate the speed of slowing down for both motors.

During the reverse intervention a short flash red is gotten on the led REV 1 if it intervenes on the motor 1, or a short flash red on the led REV 2 if it intervenes on the motor 2.
The intervention of the reverse in opening causes the arrest and the inversion of march for 2 seconds.
The intervention of the reverse in closing causes the arrest and the complete re-opening of the gate.
If to the following closing a new obstacle introduced it, an arrest with consequent inversion of the sense of march would be gotten for 2."
During the last seconds of the stroke the leds REV 1 and REV 2 switch on green light fixed signalling that you has entered the last phase of the manoeuvre and that the intervention of the reverse in this circumstance causes the arrest of the gate without inversions considering the position the end of the stroke.
Before activating the function reverse it is advisable to set the push power of the gate to acceptable levels in safety terms through the power adjuster P1 (power motor 1) and the power adjuster P2 (power motor 2), subsequently activate the reverse function and progress to the regulation of the sensibility of intervention.
In case of difficulty in the setting of the reverse in deceleration (for instance in the case in which the threshold among the missed intervention with stop gate that pushes and the unjustified intervention for excessive sensibility is least) it is advisable to set the reverse power adjuster in deceleration to the maximum so to exclude it.

11) CONTACT WORKING SAFETY EDGE 1 AND 2 (WITHOUT ENCODER – WITH ENCODER).

If standard motors without encoder are used, safety edge contacts 1 and 2 work with contact N.C.

If motors with encoder are used safety edge contacts 1 and 2 are busy to read signals coming from the encoder sensor.

In this case the gate works in the event survey obstacle from the contact encoder is the following one:

a) In closing it completely reverse, and after 1 minute wait it close. The closing can be anticipated from a Start impulse.
b) In opening it completely reverse for 2 sec, and after 1 minute wait it close. The closing can be anticipated from a Start impulse.

⚠	**WARNING!** **Il REVERSE** it finds a power absorbtion more than usually operation. The sensibility of the revers is adjustable. **L'ENCODER** on the motor it finds the variation of motor / motors speed.The sensibility of the encoder is not adjustable, it's fixed. **REVERSE E ENCODER** they can work in coupling or without one of them.

12) EMERGENCY MANOEUVRE

Maneuver that allows operation in maximum power of the 2 motors in dead-man modality.

• ***Photocells, safety edges, electronic clutch, reverse amperometric and encoder***	***INACTIVE***
• ***Limit switches, signal clinking and possible final slowdown.***	***ACTIVE***

Press and hold the input EMERGENCY MANEUVER (N.O. contact terminal board 11 terminals 42-33):
The motor/s after 2 seconds start to open in dead-man modality, releasing the button the motor/s stops.

Press a second time The motor/s after 2 seconds start to in dead-man modality, releasing the button the moto/rs stops.

13) PEDESTRIAN MODE WITH TIMER.

With the following set: S1: dip 1,2,3,4,7 in ON**.** S2: dip 2,6,7,9 in ON. S3: dip 4.5 in ON, **logic operation is following:**
With pedestrian contact on bi a timer and pedestrian door opened, use RX1 contact(35-41 of M12) for fully opening of M1 and M2. Don't use START contact(26-28 of M10).Using RX1 the 2 doors open fully, and after the pause close fully ; then the pedestrian door opens again(because the pedestrian contact is closed by the timer). Same function if you use the radio when the pestrian door is opened.

14) MOTOR WITH ENCODER(DIP1 of S4 in ON) + LIMITS SWITCH ON MOTOR PHASES(DIP 2 di S4 in ON).

Always connected the limits switches to 20,21,22,23,24 of M9. Exceptionally it is possible to connect the limit switches on the motor phases, to connect: put Dip 2 of S4 in ON, Dip3 di S4 in OFF(during the last 6 sec. of the stroke, the working of encoder/reverse it stops the gate without reverse) and made short-circuits on 20,21,22,23,24 of M9. Warning: with test-triac OFF(Dip 2 of S4 in ON),use all security (photocells, safety edges) as is possible.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTIONS
Giving a command with the radiotransmitter or with the key-switch, the gate does not open.or not clos	230 volt mains voltage absent	Check master switch
	Emergency STOP present	Check for any STOP commands connected to the 25 input.
	There is no jumper between the 25 input and the common.	If not used, check if there is a jumper on the 25 input.
	One of the fuses is burnt out.	Replace the fuse with one of the same value.
	Motor power cable not connected or faulty.	Check the connection of the cable in the terminal board or replace it.
	The flashing led L2 or L3 points out the condition of triac TH1 (pilot motor 1) or TH2 (pilot motor 2) in damage.	Remove current to the plant for any second and subsequently fit the control panel EQ2009
The automation performs only the manoeuvre of opening or closing	The photocell, if present, is obstructed or not functioning.	Check, clean the photocell or remove the obstacle.
	The photocell is missing and there is no jumper between the 18 19 input and the common.	Check the accessory connections and the presence of the “jumper”.
	The safety edge is missing or the bridge is not present among the entry 15 and 16 and the commune.	Verify the connections accessories or the presence of the "bridge."
	The bridge is missing among the input 37-38	Verify the presence of the "bridge."
	The motors limit switches are missing of is not present the bridge among the input 20, 21, 23, 24 and the commune.	Verify the limit switches of the motor or the presence of the "bridge."
	A key selector NC contact has been used instead of an NO contact to connect to the 26 input	Check the connections.
The operator functions by wire but not with the radiotransmitter.	The radiotransmitter has not been memorised or is broken or the battery is flat.	Check/change the battery. Carry out the radiotransmitter acknowledgement procedure.
The electrical limit switch activates but the motor does not stop.	The opening and closing limit switches have been exchanged. An NO contact has been used instead of an NC.	Check the connections.
The gate moves then stops, both in opening and closing.	The motor force is insufficient and/or the trigger threshold of the REVERSE is too low.	Check if the leaves are in axis, lubricate if necessary.
		Increase the trigger threshold by turning the P2 P3 trimmer clockwise.
		If it is not sufficient, increase the P1 trimmer clockwise and reprogram.
When commanded, the motor starts but the gate does not move.	There is an obstacle in front of the gate; the hinges are blocked; a motor fixing bracket has detached.	Remove any obstacles from the gate; restore the hinges, replace or lubricate them.
		Fix the motor fixing bracket.

N.B.: If the problem persists, contact your supplier or the installer.

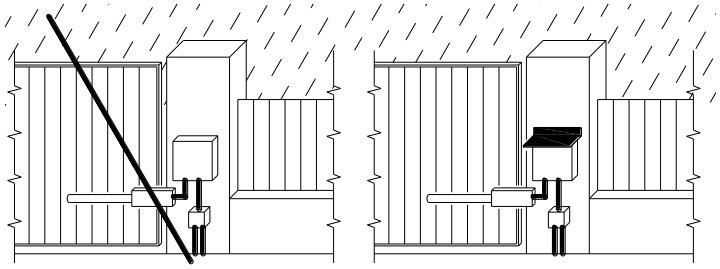
WARNING: Before sending a radiotransmitter to be repaired, check that the batteries are flat.
50% of all radiotransmitters that return for servicing only have flat batteries.

SAFETY WARNINGS FOR INSTALLATION AND USE

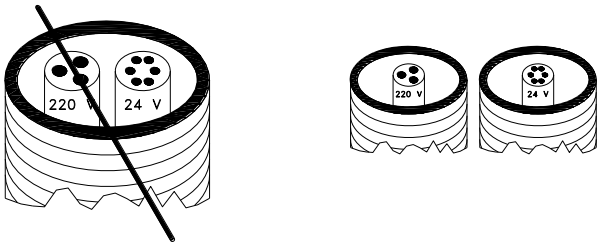
These warnings are an essential, integral part of the product and must be given to the user. They provide important indications on the installation, use and maintenance and must be read carefully. This form must be preserved and passed on to subsequent users of the system. The incorrect installation or improper use of the product may be dangerous.

WARNINGS FOR THE INSTALLER

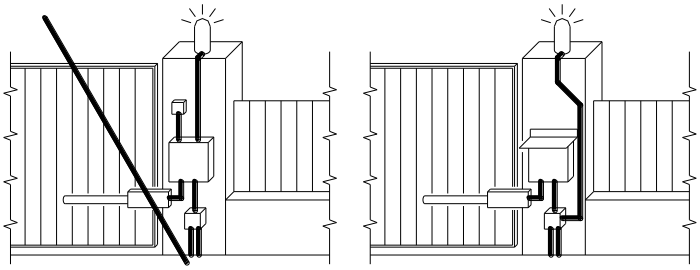
- The installation must be performed by professionally skilled personnel and in compliance with current local, state, national and European legislation.
- Before beginning the installation, check the integrity of the product.
- The laying of cables, electrical connections and adjustments must be workmanlike performed.
- The packing materials (cardboard, plastic, polystyrene, etc.) are a potential hazard and should be disposed of correctly and not left within reach of children.
- Do not install the product in potentially explosive environments or environments disturbed by electromagnetic fields. The presence of inflammable gases or fumes is a grave danger to safety.
- Set up a safety device for overvoltage, a disconnecting and/or differential switch suitable for the product and conforming to current standards.
- The control should be installed as near the gate as possible, 2) If this is not possible, you should:
  - Use cables with proper sizes.
  - **NEVER** use multiwire cable to connect either the motor or all the services (open, photocell, block, end-run), but ALWAYS SEPARATE THE POWER FROM THE LOW TENSION (controls and securities) by using more cables.
- The manufacturer declines any and all responsibility for product integrity, safety and operation in the event incompatible devices and/or components are installed.
- Solely original spare parts should be used for repairs and replacements.
- The installer must provide all the information relative to the operating, maintenance and use of the individual components and the complete system as specified in the MACHINE DIRECTIVE.



- Protect the upper side of the control box if it is installed outside in all weathers.



- Never use cable with several wires and always separate the power from the low tension.



- Connect wires to the control box from the bottom through pass-cables only.

MAINTENANCE

- To ensure product efficiency, it is essential that professionally skilled personnel carry out maintenance within the times established by the installer, the manufacturer and by current legislation.
- All installation, maintenance, repairs and cleaning operations must be documented. This documentation must be preserved by the user, and made available to the personnel responsible for the control.

WARNINGS FOR THE USER

- Read the instructions and enclosed documentation carefully.
- The product must be used for the express purpose for which it was designed. Any other use is considered improper and therefore hazardous. In addition, the information given in this document and in the enclosed documentation may be subject to modifications without prior notice. It is given as an indication only for product application. **Casit** declines any responsibility for the above.
- Keep products, devices, documentation and anything else provided out of reach of children.
- In the event of maintenance, cleaning, breakdown or faulty operation of the product cut off the power and do not attempt to operate on the product except when indicated. Contact professional personnel, competent and suitable for the task. Failure to adhere to the above indications may be dangerous.

WARRANTY LIMITS

The warrantee is valid for 12 months from the date indicated in the sales document and its validity is limited to the original purchaser. It does not cover the following eventualities: negligence, incorrect or improper use of the product, use of accessories not conforming to the manufacturer's specifications, tampering by the customer or third parties, natural causes (lightning, floods, fire, etc.), riots, vandalism, modifications to the environmental conditions of the installation site. Nor does the warranty cover parts subject to wear (batteries, oil etc.). Products returned to Casit for repair shall only be accepted carriage paid. Casit shall return the repaired product to the sender carriage forward. Otherwise the goods will be refused on receipt. The purchase of the product implies the full acceptance of all the general terms of sale. Any dispute shall be submitted for judgement to the Court of Torino, Italy.