SEA®
Sistemi Elettronici
di Apertura Porte e Cancelli
International registered trademark n. 804888

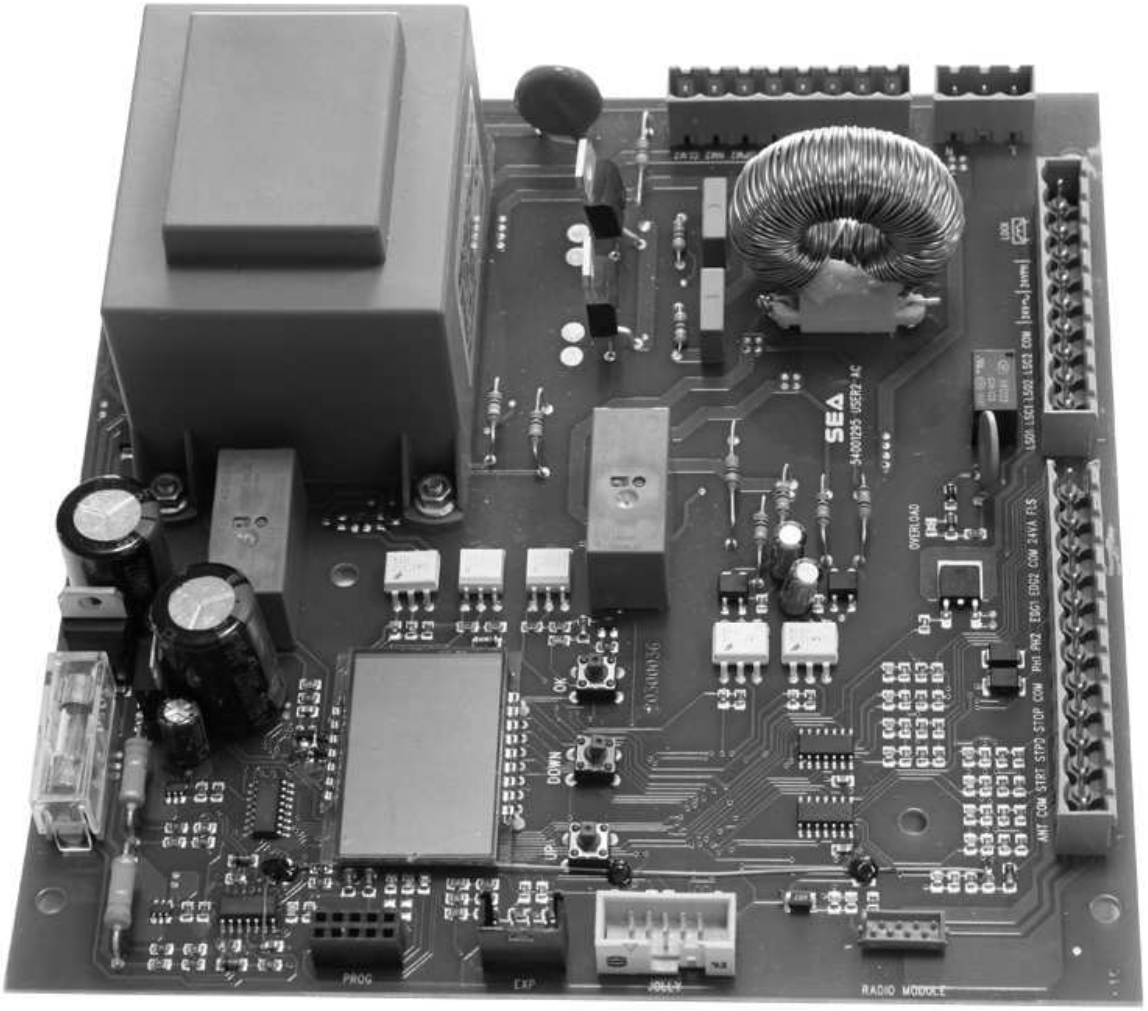
CE

Italiano
English
Français
Español

GATE 2 DG R1

(Cod. 23023025)

CENTRALE ELETTRONICA PER 1 O 2 MOTORI A 230V/115V
ELECTRONIC CONTROL UNIT FOR 1 OR 2 230V/115V MOTORS
ARMOIRE DE COMMANDE POUR 1 OU 2 MOTEURS EN 230V/115V
CENTRAL ELECTRÓNICA PARA 1 O 2 MOTORES A 230V/115V



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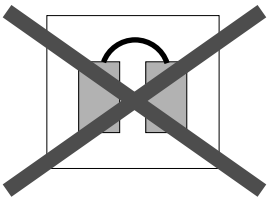
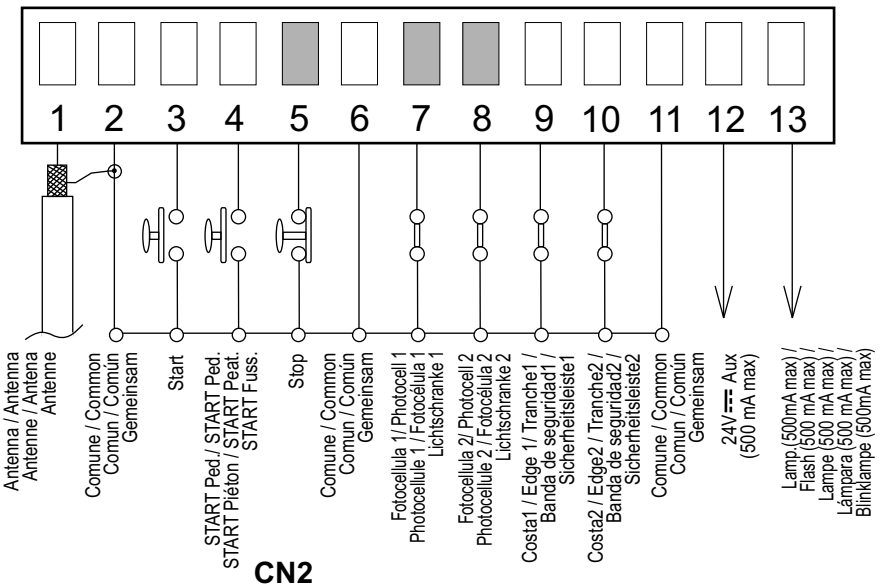
67411385 **Rev.04 - 06/2013**

CONNESSIONI / CONNECTIONS / CONNEXIONS
CONEXIONES / VERBINDUNGEN

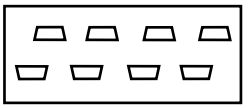
ATTENZIONE: la scheda è predisposta con il riconoscimento automatico degli ingressi N.C. non utilizzati (fotocellule, Stop e finecorsa) ad eccezione degli ingressi COSTA DI SICUREZZA.
WARNING: The control unit is designed with the automatic detection of not used N.C. inputs (photocells, Stop and Limit switch) except the SAFETY EDGE inputs.
AVERTISSEMENT: L'armoire est conçue avec la détection automatique des accès N.C. pas utilisés (photocellules, Stop et fins de course), à l'exception des accès BARRE PALPEUSE DE SECURITE.
ATENCIÓN: la tarjeta está predispuesta con el reconocimiento automático de las entradas N.C. no utilizados, fotocélulas, stop y fin de carrera, con excepción de las entradas COSTA DE SEGURIDAD.
ACHTUNG: Die Steuerung ist mit der automatischen Erkennung der nicht verwendeten N.C. Eingänge, ausgestattet (Lichtschranken, Stop-und Endschalter) ausgenommen des Sicherheitsleisten Eingangs.



CN1

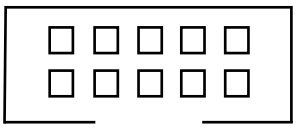


RADIO MODULE (CNA)



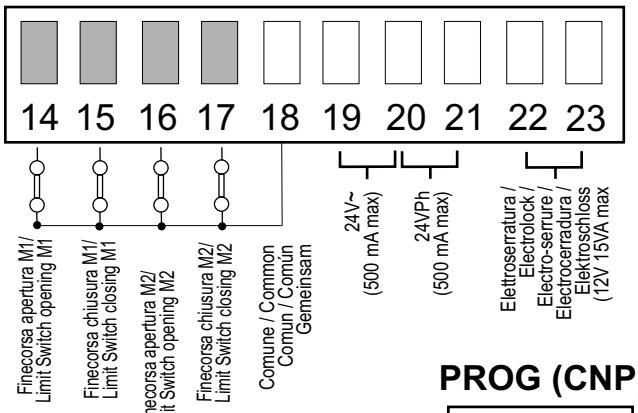
Connettore modulo ricevente
Receiver module connector
Connecteur module récepteur
Conector modulo receptor
Verbindungsmodul Empfänger

JOLLY-JOLLY 2

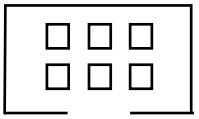


Connettore Programmatore Jolly
Connector Programmer Jolly
Connecteur Programmateur Jolly
Conector Programador Jolly
Anschluss Programmierer Jolly

CN2

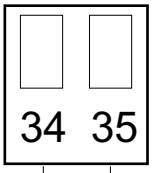


EXP

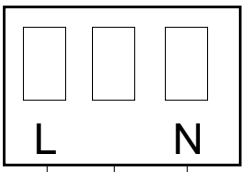


Connettore Modulo Esterno /
Connector External Module /
Connecteur Module Extérieur /
Conector modulo externo

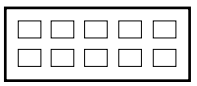
CN5



CN6



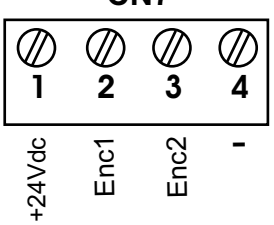
PROG (CNP)



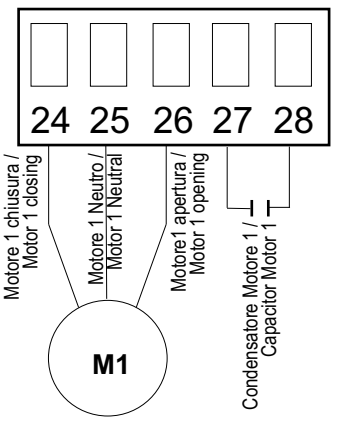
Connettore programmazione
Programming connector
Connecteur programmation
Conector programación
Anschluss für die Programmierung

Uscita Luce di cortesia temporizzabile Max 50W /
Timed courtesy light output Max 50W
Sortie lumière de courtoisie temporisée Max 50W /
Salida Luz de cortesía temporizable Max 50W
Ausgang zeiteinstellbare Aussenbeleuchtung Max 50W

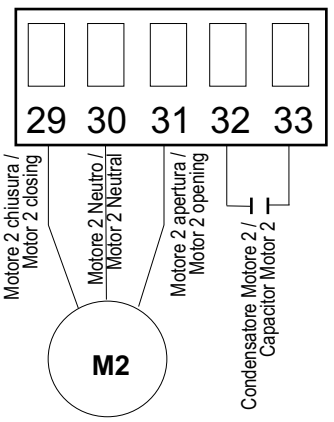
CN7



CN3



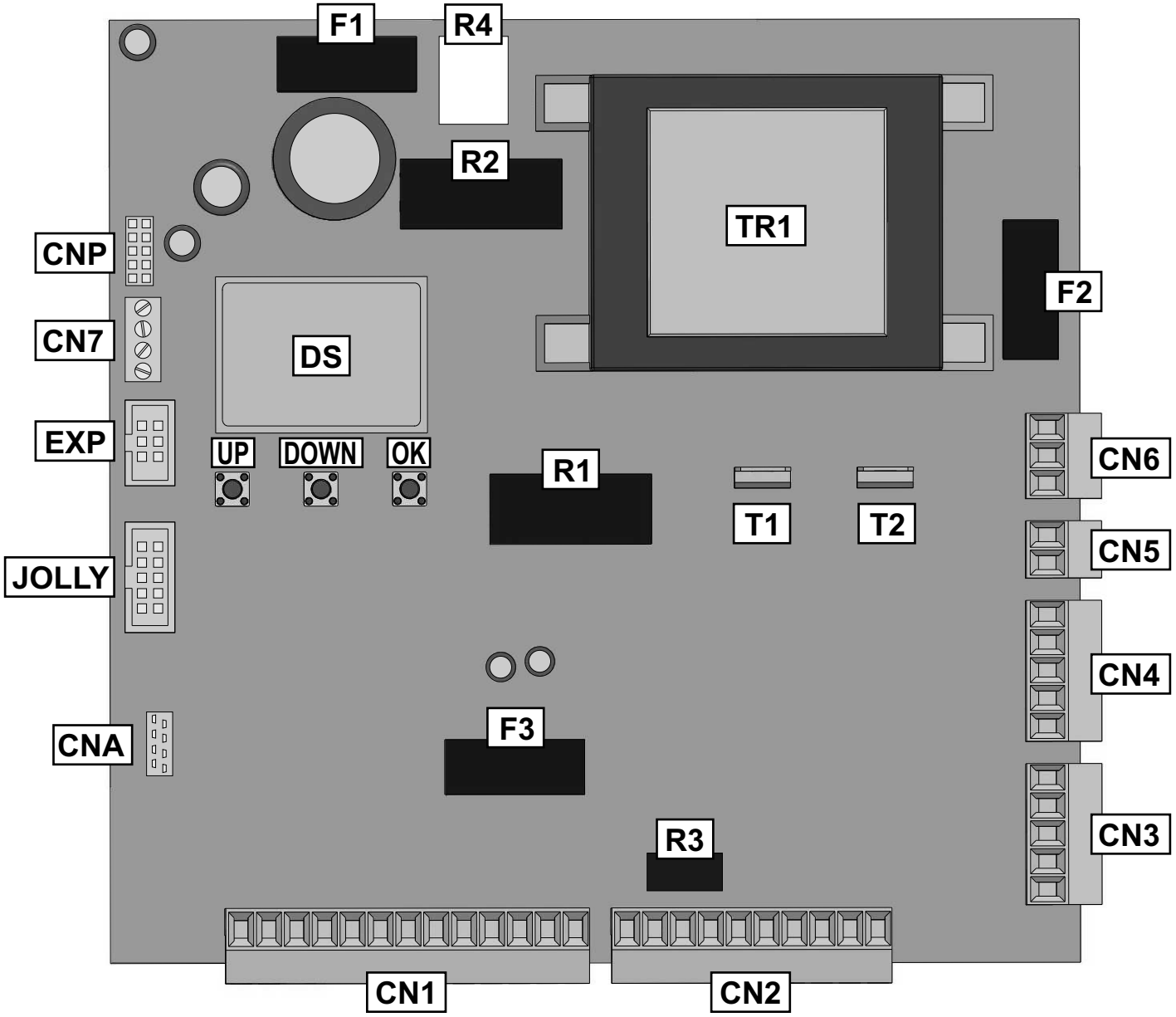
CN4



Nota: Il carico massimo di 500 mA si riferisce alla somma dei carichi sulle uscite 24V~, 24Va e Flash.
Note: The maximum load of 500 mA refers to the sum of the loads on the 24V ~, 24Va and Flash oputputs.
Remarque: La charge maximale de 500 mA correspond à la somme des charges sur les sorties 24V ~, 24VA et Flash.
Nota: La carga máxima de 500 mA se refiere a la suma de las cargas sobre las salidas 24V~, 24Va y Flash.
Hinweis: Die maximale Belastung von 500 mA bezieht sich auf die Summe der Lasten auf den 24V ~, 24VA und Flash Ausgängen.

INDEX

COMPONENTS



CN1 = Input/output connectors
CN2 = Limit switch, 24V~, Electrolock connector
CN3 = M1 Motors and capacitors connector
CN4 = M2 motors and capacitors connector
CN5 = Courtesy light output connector
CN6 = Power supply connector
CN7 = Encoder connector
CNA = Receiver connector
CNP = Porgramming connector
EXP = Expansion module connector
JOLLY = Jolly connector
DS = Programming display

OK = Programming button
DOWN = Programming button
UP = Programming button
T1 = Motors piloting Triac
T2 = Motors piloting Triac
R1 = Motors comand relay
R2 = Courtesy light comand relay
R3 = Photocell autotest relay
R4 = Electrolock relay
F1 = Accessories 1A fuse
F2 = 6.3AT fuse on 230V/10AT on 115V
F3 = 6.3A Electrolock fuse
TR1 = Power transformer

GENERAL INFORMATION

The information on this page are only for technicians or for qualified or authorized installers.

GENERAL DESCRIPTION

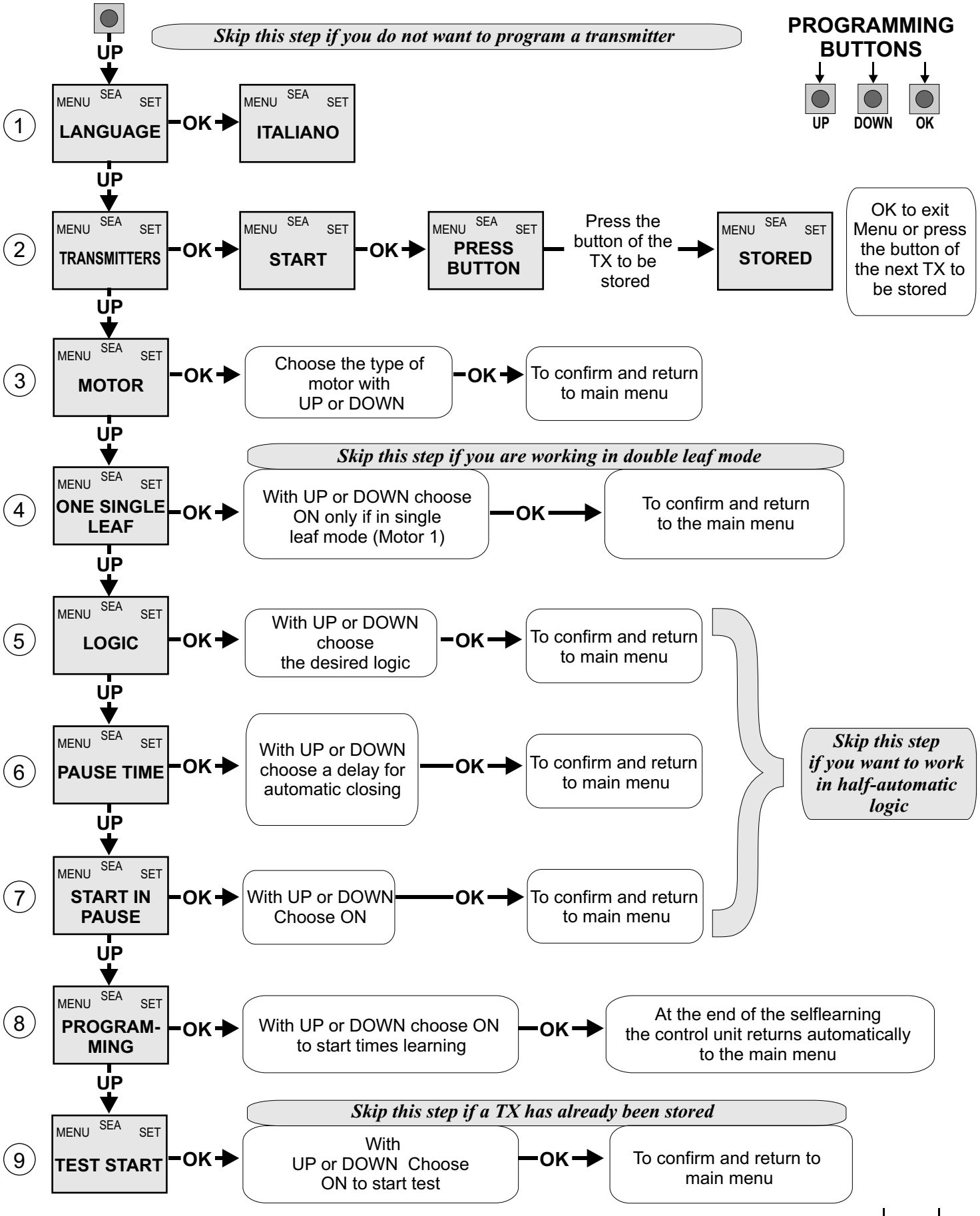
The GATE 2 DG R1 control unit has been designed to control one or two 230V/115V 50/60 Hz motors with or without electronic limit switches.
The great news is the LCD display on board through which you can see and set in a simple and complete way all functions of the control unit.

TECHNICAL SPECIFICATIONS

Control unit power supply	230 Vac 50/60 Hz - 115Vac 50/60 Hz
Absorption in stand by	30 mA
Max. motor charge	800 W /motor
Max. accessories charge 24V (24VA)	24V⎓ 500mA
Max. Flash light charge	24V(FL) 15W max. We recommend to use 24V Flash (Led)
Environment temperature	-20°C 🌡 +50°C 🌡
Accessories / Power/ Electrolock protection	F1 (1 AT) / F2 (6.3 AT) / F3 (6.3 AT)
Function logic	Automatic/S.by Step1/S.By Step2/Sec./Dead man/2Butt.
Opening/closing time	In selflearning in programming phase
Time of pause	Adjustable (from oFF to 4 min)
Thrust	Adjustable Opening and Closing for single leaf
Slowdown space	Adjustable Opening and Closing for single leaf
Input on connecting terminal	Total opening / Pedestrian opening adjustable / Balanced edge in opening and closing / Stop / Limit switch opening and closing / Photocell 1 and Photocell 2/ Encoder
Output on connecting terminal	(FLS) Flash 24V⎓ / LAMP⎓ (Max 50W) / 24V~ / Motors / 24VA⎓ (Max 500 mA)
Board dimensions	168 X 174 X 65 mm
Specifications of external enclosure	325,7 X 246 X 140
Special accessories: **- Traffic light card on AUX connector** **- Programmer on Jolly connector** **- OPEN on Prog. Connector for software upgrating**	Relay card for traffic light management (SEM Cod. 23021100), Programmer JOLLY (cod.23105276), Programmer JOLLY 2 (cod.23105277), Programmer OPEN (cod.23105290)

The herein reported functions are available starting from revision 22.

QUICK START



ALL OTHER PARAMETERS HAVE DEFAULT SETTINGS WHICH ARE USEFUL FOR THE 90% OF THE APPLICATIONS BUT CAN BE HOWEVER SET THROUGH THE SPECIAL MENU. FOR ENTERING INTO THE SPECIAL MENU PRESS THE UP AND DOWN BUTTONS AT THE SAME TIME FOR 5 S.

DOWN UP

WORKING TIMES SELF LEARNING

The control unit is pre-set with the default settings, to start the control unit with the DEFAULT settings just keep pressed the UP and DOWN buttons at the same time power supplying the control unit the display shows the message In it.
The DEFAULT settings are shown in the Menues table.

WORKING TIMES SELFLEARNING THROUGH IMPULSES

ATTENTION: This procedure is potentially dangerous and should only be performed by qualified people in safety conditions.

NOTE: The card is preset with the standard working times, therefore the automation can be started even without the times programming, simply by adjusting the timing on the display (see default times).

1) Turn off electricity, release the motors and manually position the leaves on halfway.
Reset the mechanical lock.
2) Connect the control board to the power supply
3) Select on the on-board display or JOLLY programmer, the type of motor that you are using as indicated in the dispaly management (MECHAn IC - ELECtroHYdrAuL IC, etc).
4) If necessary also set the operation logic and the other parameters. If you want to program with a transmitter, store a transmitter before programming.
5) Select ProGrAMM InG on the display, press OK and than one of the UP or DOWN buttons.
(If the motor starts in opening, remove and re-put power supply, select on the display rEVErSE Motor. And through the UP and DOWN button put it on ON, or if you have the Jolly programmer, activate the motor exchange function.)
6) At this point the gate will start the following cycle: CLOSING M2 - CLOSING M1 - OPENING M1 - OPENING M2 - CLOSING M2 - CLOSING M1. During cycle, to store the respective stops, press UP or DOWN or START at every point of stop of the leaf.
7) The self-learning is done.

SELFLERNING OPERATION TIME WITH ENCODER

When an encoder is installed, it is necessary to select on in the EnCodEr menu, start programming and make sure that leaf 2 starts as first in closing. The gate will automatically execute the following cycle: CLOSING M2 - CLOSING M1 - OPENING M1 - OPENING M2 - CLOSING M2 - CLOSING M1.
Note: For stop detection sensitivity setting refer to the special menu.

SELFLEARNING OPERATION TIME WITH AMPEROMETRIC SENSOR (For electromechanical motors only)

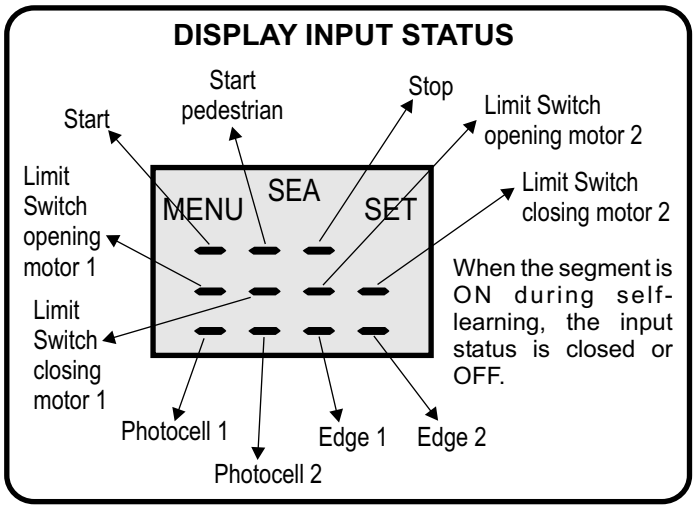
The times learning can be done only on electromechanical gates, taking advantage of the automatic detection of the stops.
Once the programming has been started just make sure that the gate executes the following cycle: CLOSING M2 - CLOSING M1 - OPENING M1 - OPENING M2 - CLOSING M2 - CLOSING M1.
Note: For stop detection sensitivity setting refer to the special menu.

LEARNING WITH LIMIT SWITCH

When limit switches are mounted, the gate executes automatically the follwing cycle: CLOSING M2 - CLOSING M1 - OPENING M1 - OPENING M2 - CLOSING M2 - CLOSING M1.
Before starting the learning, make sure(through the test menu), that the relative limit switches of every leaf and every opening are employed.
Exe: For the M2 motor closing the limit switch M2 in closing must be employed.

SELECTION OF THE SETTINGS

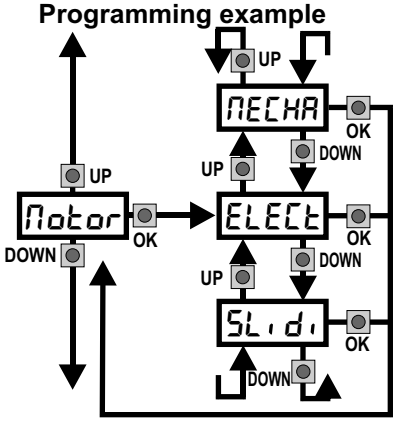
The settings of the control unit are made through the UP, DOWN and OK buttons. The UP and DOWN buttons to scroll through the MENUS and SUBMENUS. By pressing OK you enter from MENU into SUBMENU and confirm the choice.
Pressing the UP and DOWN buttons at the same time you access the SP MENU for special settings. Pressing the OK button for 5 seconds, you enter the TEST MENU, where you can check the operating status of all inputs.



Initial system

U.022 **Software Version**

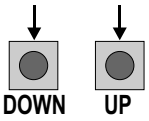
Programming example



MENU FUNCTION board GATE 2 DG INPUT TESTS To access the Menu for input TESTS keep pressed OK for about 5 seconds.		
MENU	**Description**	**Description**
StArt	Start test	The contact must be a N.O. Contact . When activating the related command on the display SET lights up, the input works. If SET is always on, check the wirings.
StoP	Stop test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact
PEdEStriAn StArt	Pedestrian start test	The contact must be a N.O. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, check the wirings.
EdGE 1	Safety edge 1 test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact
EdGE2	Safety edge 2 test	IThe contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact
Photo 1	Photocell 1 test	IThe contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact
Photo2	Photocell 2 test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact
LiMit SUitCh oPEniG 1	M1 opening limit switch test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. contact or that the related limit switch is not occupied.
LiMit SUitCh CLoSinG 1	M1 closing limit switch test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact or that the related limit switch is not occupied.
LiMit SUitCh oPEniG 2	M2 opening limit switch test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. Contact or that the related limit switch is not occupied.
LiMit SUitCh CLoSinG 2	M2 closing limit switch test	The contact must be a N.C. Contact. When activating the related command on the display SET lights up, the input works. If SET is always on, make sure that the contact is a N.C. contact or that the related limit switch is not occupied.
End	Exit menu	

MENU FUNCTIONS TABLE GATE 2 DG				
MENU	SET	Description	Default	Set value
1 - LANGUAGE	ITALIANO	Italian	ITALIANO	
	ENGLISH	English		
	FRANCAIS	French		
	ESPANOL	Spanish		
2 - TRANSMITTERS	START	Start	START PED START.	
	PEDESTRIAN START	Pedestrian Start		
	EXTERNAL MODULE	External module		
	STOP	Stop		
	UNLOCK	Storing of a command for unlocking an electric brake		
	DELETE A TRANSMITTER	Delete single transmitter		
	CLEAR MEMORY	Delete transmitter memory		
3 - Motor	ELECTROHYDRAUL.C	Electrohydraulic	MECHAN.C	
	SLIDING	Sliding		
	REVERSIBLE SLIDING GATE	Reversible sliding gate		
	MECHAN.C	Mechanic		
4 - ONE SINGLE LEAF *	OFF	Disabled	OFF	
	ON	In ON activates single leaf mode (Motor 1)		
5 - LOGIC	AUTOMAT.C	Automatic	AUTOMAT.C	
	OPEN-STOP-CLOSE-STOP-OPEN	Step by step type 1		
	OPEN-STOP-CLOSE-OPEN	Step by step type 2		
	2 BUTTONS	Two buttons		
	SAFETY	Safety		
	DEADMAN	Dead man		
6 - PAUSE TIME	OFF	OFF (semi-automatic logics)	OFF	
	1 240	Setting from 1s to 4min.		
7 - START IN PAUSE	OFF	In pause start is not acceped	OFF	
	ON	In pause start is accepted		
8 - PROGRAMMING	OFF ON	Times learning start	OFF	
9 - TEST START	OFF ON	Start command	OFF	
END	Select END and press OK to exit the menu.The menu deactivates automatically after 2 minutes			

Note 1: The * indicates that the default value may change depending on the selected motor type.



PRESS AT THE SAME TIME FOR 5 SECONDS TO ENTER OR TO EXIT THE SPECIAL MENU

SPECIAL MENU FUNCTIONS TABLE GATE 2 DG

To enter the Special Menu keep pressed UP and DOWN at the same time for 5 seconds.
To exit the Special Menu pressed END or keep pressed UP and DOWN at the same time for 5 seconds.

MENU SP	SET	Description	Default	Set value
1 - oPEn.nG tor9 1 *	10 100	M1 opening torque Note: with hydraulic motors the torque will be on 100%	75	
2 - CLoS.nG tor9 1 *	10 100	M1 closing torque Note: with hydraulic motors the torque will be on 100%	75	
3 - oPEn.nG tor9 2 *	10 100	M2 opening torque Note: with hydraulic motors the torque will be on 100%	75	
4 - CLoS.nG tor9 2 *	10 100	M2 closing torque Note: with hydraulic motors the torque will be on 100%	75	
5 - LEAF dELAY in oPEn.nG *	oFF 6	Setting from OFF to 6 seconds	1,5	
6 - LEAF dELAY in CLoS.nG *	oFF 20	Setting from OFF to 20 seconds	2,5	
7 - PuShoUEr *	oFF	Disabled	oFF	
	oPEn.nG And CLoS.nG	Opening an closing		
	onLY oPEn.nG	Opening only		
	onLY CLoS.nG	Closing only		
8 - PuSH.nG StroKE	oFF 3	From OFF to 3 seconds	oFF	
9 - oPEn.nG SLoUdoUn 1	oFF 50	From OFF to 50% of the stroke	20	
10 - CLoS.nG SLoUdoUn 1	oFF 50	From OFF to 50% of the stroke	20	
11 - oPEn.nG SLoUdoUn 2 *	oFF 50	From OFF to 50% of the stroke	20	
12 - CLoS.nG SLoUdoUn 2 *	oFF 50	From OFF to 50% of the stroke	20	
13 - PrEFLASH.nG	onLY CLoS.nG	Pre-flashing only active before closing	oFF	
	0.0 5.0	Pre-flashing time		
14 - FLASH.nG LiGHt	norMAL	Normal	norMAL	
	LiGHt	Control lamp		
	ALWAYS	Always ON		
	bu22Er	Buzzer		
15 - rEUErSE Motor	oFF	Synchronized right motor	oFF	
	on	Synchronized left motor		
16 - EnCodEr	on oFF	In ON enables the Encoder, in OFF it's disabled	oFF	

MENU SP	SET	Description	Default	Set value
17 - oPEning tiME Motor 1	0 240	Learned operation time setting	28.6	
18 - CLoSing tiME Motor 1	0 240	Learned operation time setting	28.6	
19 - oPEning tiME Motor2 *	0 240	Learned operation time setting	28.6	
20 - CLoSing tiME Motor2 *	0 240	Learned operation time setting	28.6	
21 - CoUrtESY LiGHt	in CYCLE	Courtesy light in cycle	20	
	1 240	Courtesy light setting from 1s to 4min.		
22 - trAFFiC LiGHt rESErVAtion	oFF on	When setting this function the pedestrian input will be activated to work on the auxiliary board SEM (traffic light management).	oFF	
23 - PEdEStriAn oPEning	20 100	Setting from 20 to 100	100	
24 - PEdEStriAn PAuSE	= StArt	Pause in pedestrian opening same as in total opening	= StArt	
	oFF	Disabled		
	1 240	Setting from 1s to 4 min.		
25 - ACCELErAtion	0 100	Acceleration ramp	100%	
26 - MAintEnAnCE CYCLES	100 10E4	Setting from 100 to 100000	10E4	
27 - PErforMEd CYCLES	0 10E9	Reports the executed cycles. Keep pressed OK to reset the cycles	0	
28 - tiMEr	oFF	Disabled	oFF	
	on PHoto2	Timer function active on photocell 2		
	on PEdEStriAn EntrY	Timer function active on pedestrian input		
29 - EdGE 1	oPEning And CLoSing	Active in opening and closing	oPEning And CLoSing	
	onLY oPEning	Active only in opening		
	onLY CLoSing	Active only in closing		
30 - EdGE2	oPEning And CLoSing	Active in opening and closing	oPEning And CLoSing	
	onLY oPEning	Active only in opening		
	onLY CLoSing	Active only in closing		
31 - EdGE 1	norMAL	Normal N.C. contact	norMAL	
	8K2	Edge is active and protected by a 8k2 resistor		
32 - EdGE2	norMAL	Normal N.C. contact	norMAL	
	8K2	Edge is active and protected by a 8k2 resistor		

MENU SP	SET	Description	Default	Set value
33 - PHoto1	CLoSinG	Photocell active in closing	CLoSinG	
	oPEninG And CLoSinG	Active in opening and closing		
	StoP	Photocell active before opening		
	StoP And CLoSE	The photocell stops in closing and closes when released		
	CLoSE	The photocell gives a command to close during opening, pause and closing		
	PAUSE rELoAd	The photocell charging the pausing time		
34 - PHoto2	CLoSinG	Photocell active in closing	oPEninG	
	oPEninG And CLoSinG	Active in opening and closing		
	StoP	Photocell active before opening		
	StoP And CLoSE	The photocell stops in closing and closes when released		
	CLoSE	The photocell gives a command to close during opening, pause and closing		
	PAUSE rELoAd	The photocell charging the pausing time		
35 - 24U AuX	ALWAYS	24Vaux output always power supplied	ALWAYS	
	in CYCLE	24V output active only during cycle		
	oPEninG	24Vaux output power supplied only during opening		
	CLoSinG	24Vaux output power supplied only during closing		
	in PAuSE	24Vaux output power supplied only during pause		
	PoSitiUE brAKE MAnAGEMEnt	Positive Electrobrake		
	nEGAtiUE brAKE MAnAGEMEnt	Negative Electrobrake		
36 - PoSition rECoUEry	0 20	Retrieves the inertia of the motor after Stop or reversing from 0 to 20 s	1	
37 - Motor rELEASE *	oFF	Disabled	0.1	
	0.1 3.0	Setting from 1 to 3		
38 - brAKE *	----	Adjusts the braking on the limit switches	0	

MENU SP	SET	Description	Default	Set value
39 - PEr.od.CAL PuShoUEr *	oFF 8	Allows the repetition of the Pushover functionat a distance of time adjustable from 0 to 8 hours at hourly intervals	oFF	
40 - Ant. intruSion	onLY oPEn.nG	Only on limit switch in opening	oFF	
	onLY CLoS.nG	Only on limit switch in closing		
	oPEn.nG And CLoS.nG	On limit switches in closing and in opening		
	oFF	If the limit switch is freed manually it forces the reclosing of the gate		
41 - LocK t.ME	oFF 5	Sets the lock release time from 0 to 5 s	3	
42 - LocK	onLY oPEn.nG	Active only before opening	oPEn.nG	
	onLY CLoS.nG	Active only before cloning		
	oPEn.nG And CLoS.nG	Active before opening and closing		
43 - FLASH.nG L.GHt And t.MEr	oFF	The flashing light remains OFF with the active timer and open gate	oFF	
	on	The flashing light remains ON with active timer and open gate		
44 - Ant. oUErLAP *	oFF	Desactivate the leaves anti-overlapping control, allowing separate control of the two leaves.	oFF	
	on	Activate the leaves anti-overlapping control		
45 -d.AGnoSt.CS	1 10	Shows last event (See alarms table)		
46- SLoUdoUn rAMP tor9	0 100	Adjusts the transition between max. torque and slowdown	100	
47 - FototESt	Photo 1	Auto-test active only on Photo1	oFF	
	Photo2	Auto-test active only on Photo2		
	Photo 1-2	Auto-test active on Photo1 and Photo2		
	oFF	Disabled		
48 - EdGE AutotESt	EdGE 1	Test enabled on edge 1	EdGE 1-2	
	EdGE2	Test enabled on edge 2		
	EdGE 1-2	Test enabled on edge 1 and 2		
	oFF	Disabled		

MENU SP	SET	Description	Default	Set value
49 - oPEnInG toLErAnCE Motor 1	0 100	Adjust the tolerance between stop and obstacle Motor 1 opening.	0	
50 - CLoSInG toLErAnCE Motor 1	0 100	Adjust the tolerance between stop and obstacle Motor 1 closing.	0	
51 - oPEnInG toLErAnCE Motor2 *	0 100	Adjust the tolerance between stop and obstacle Motor 2 opening.	0	
52 - CLoSInG toLErAnCE Motor2 *	0 100	Adjust the tolerance between stop and obstacle Motor 2 closing.	0	
53 - oPEnInG SEnSItIUItY Motor 1	10 99	Motor 1 sensitivity adjustment in opening	oFF	
	oFF	Disabled		
54 - CLoSInG SEnSItIUItY Motor 1	10 99	Motor 1 sensitivity adjustment in closing	oFF	
	oFF	Disabled		
55 - oPEnInG SEnSItIUItY Motor2 *	10 99	Motor 2 sensitivity adjustment in opening	oFF	
	oFF	Disabled		
56 - CLoSInG SEnSItIUItY Motor2 *	10 99	Motor 2 sensitivity adjustment in closing	oFF	
	oFF	Disabled		
57 - SLoU doUn SEnSItIUItY	10 99	Reversing sensitivity adjustment during slowdown	oFF	
	oFF	Disabled		
58 - PASSUord	----	Allows the entering of a password blocking the control unit parameters modification (see page 36)	----	
End	Select END and press OK to exit the special menu. The special menu switches off automatically after 20 minutes.			

Note 1: The * indicates that the default value may change depending on the selected motor type.

Note 2: After initialization the parameters "motor type" and "limit switch type" remain son the value chosen in the setup program.

RADIO TRANSMITTER SELF LEARNING WITH RECEIVER ON BOARD OF CONTROL UNIT

⚠ **WARNING: Make the radio transmitters programming before you connect the antenna and insert the receiver into the special CMR connector (if available) with turned off control unit. (The control unit automatically recognizes if the receiver is a RF, RF Roll, RF Roll Plus or RF UNI module).**

With RF Roll or RF Roll Plus module it will be possible to use only Coccinella Roll or Coccinella Roll Plus radio transmitters. or Smart Dual Roll or Smart Dual Roll Plus.

With the RF UNI module it will be possible to use both the transmitters of the Roll Plus series and those with fixed code. The first memorized transmitter determines the type of the remaining radio transmitters.

Select through the display trAnSMItterS and press OK, now select with the UP and DOWN buttons, the command to which you want to associate the button (it is possible to associate max. 2 commands) and press OK to confirm the choice, now press the button of the radio transmitter which you want to associate. If the storage is successful, the display will show StorEd.

If the receiver is a Rolling Code, press twice the button of the radio transmitter that you want to program to memorize the first TX.

In the trAnSMItterS MENU it is possible to select StArt (to associate a Start command), PEdEStr IAn StArt (Pedestrian Start), EXtErnAL ModuLE (For the activation of a contact on the EXP output), StoP (To associate the STOP command to the TX), CLEAr MEMory (To delete all TX), dELEtE A trAnSMItter (To delet the single transmitter only if it is a Rolling Code Plus), unLoCH (to associate the release of the electric brake to the transmitter). To release the electric brake it is necessary to give three consecutive pulses, the 4th will reactivate the lock of the electric brake.

Notes:

- Enter radio transmitters learning only when the working cycle stops and the gate is closed.
- If the radio transmitters are Rolling Code it's possible to memorize up to 800 codes (buttons).
- If the radio transmitters are with fixed code it will be possible to memorize up to max. 30 codes (buttons).
- You can store max. 2 of the available 4 functions. If the control unit receives a code which was already associated to another function it will be updated with the new function.

DELETE TRANSMITTERS FROM THE RECEIVER

With modules different from RF UNI, it will be possible to delete only the entire memory of the receiver.

Proceed as follows: select from the menu trAnSMItterS: CLEAr MEMory and hold the OK button until the display shows the message oK.

With the RF UNI module, it will be possible to also delete the single button of the transmitter.

It can be done in two ways:

1) If you have the transmitter, or if you are using transmitters with fixed code, the cancellation can be executed by simply retransmitting the code.

Ex. Button 1 of the transmitter memorized as START; access the menu trAnSMItterS press OK, select StArt, press OK.

Send a StArt command from the transmitter and on the display will show dELEtEd.

At this point the single button results deleted.

2) If you do not have a transmitter, or you are using a Roll Plus transmitter, you can delete the transmitter selecting the serial number of the transmitter to be deleted.

Procede as follows: Access the menu trAnSMItterS, press OK, select dELEtE A trAnSMItter, press OK, choose the memory location to be deleted through the UP and DOWN buttons, press OK, check on the display if the serial number of the transmitter to be deleted is the right one, press OK, on the display shows SurE?, if the transmitter to be deleted is the right one press OK and OK will appear to confirm the cancellation, otherwise press the DOWN button to return to the menu trAnSMItterS.

Note: When using Roll Plus transmitters, it is recommended to record on a table similar to the below example, the serial number associateding it to the memory location where it was stored.

TABLE EXAMPLE

Memory location \ Transmitter button	1	2	3	4	Serial number	Customer
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

FUNCTION LOGIC

AUTOMATIC LOGIC
A start impulse opens the gate. A second impluse during the opening will not be accepted.
A start impulse during closing reverses the movement.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.
NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item StArt In PAuSE **and choosing ON or OFF. By default, the parameter is OFF.**

SECURITY LOGIC
A start impulse opens the gate. A second impulse during opening reverses the movement.
A start impulse during closing reverses the movement.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.
NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item StArt In PAuSE **and choosing ON or OFF. By default, the parameter is OFF.**

STEP BY STEP TYPE 1 LOGIC
The start impulse follows the OPEN-STOP-CLOSE-STOP-OPEN logic.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.
NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item StArt In PAuSE **and choosing ON or OFF. By default, the parameter is OFF.**

STEP BY STEP TYPE 2 LOGIC
The start impulse follows the OPEN-STOP-CLOSE -OPEN logic.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.
NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item StArt In PAuSE **and choosing ON or OFF. By default, the parameter is OFF.**

DEAD MAN LOGIC
The gate opens as long as the **START** button of opening is pressed; releasing it the gate stops. The gate closes as long as the button connected to the **PEDESTRIAN START** is pressed; releasing it the gate stops. To execute complete opening and/or closing cycles the related pushbuttons must be constantly pressed.

2 PUSHBUTTONS LOGIC
One start opens, one pedestrian start closes. In opening the closing will not be accepted. In closing a start command reopens, a pedestrian start command (closes) will be ignored.

PASSWORD ENTERING MANAGEMENT

With a new control unit all menus can be displayed and set and the password will be disabled.
Selecting one of the Menus and keeping UP and DOWN pressed at the same time for 5 seconds, you will access the SP Menu containing the PASSword Submenu.
Pressing OK in the PASSword Menu, you will proceed with the entering of the numeric code of the 4-digit PASSWORD.
Use UP and DOWN to increase or decrease the number, press OK to confirm it and you will pass automatically to the entering of the next number. Pressing OK after the last entered number the word SurE? appears, confirm the activation of the PASSWORD and the message oK appears, pressing UP or DOWN instead you can cancel the operation and no oPErAt Ion will appear on the display.

Once entered the PASSWORD, it will be definitively activated, once the display switch off timeout has expired, or by turning off and on again the control unit. Once the PASSWORD has been activated, the menus of the display can be only displayed but not set. To unlock them you must enter the correct PASSWORD in the PASSword menu, if the password is wrong the message Error will appear.
At this point, if the password has been entered correctly, the menus will be unlocked and it will be possible to change the parameters of the control unit again.
If the control unit has been unlocked through PASSword Menu, it is possible to enter a new and different password, using the same entering process as for the first one; at this point, the old password will no longer be valid.

If the password has been forgotten, the only way to unlock the control unit is to contact the SEA technical assistance, which will assess whether to provide the procedure to unlock the control unit or not.

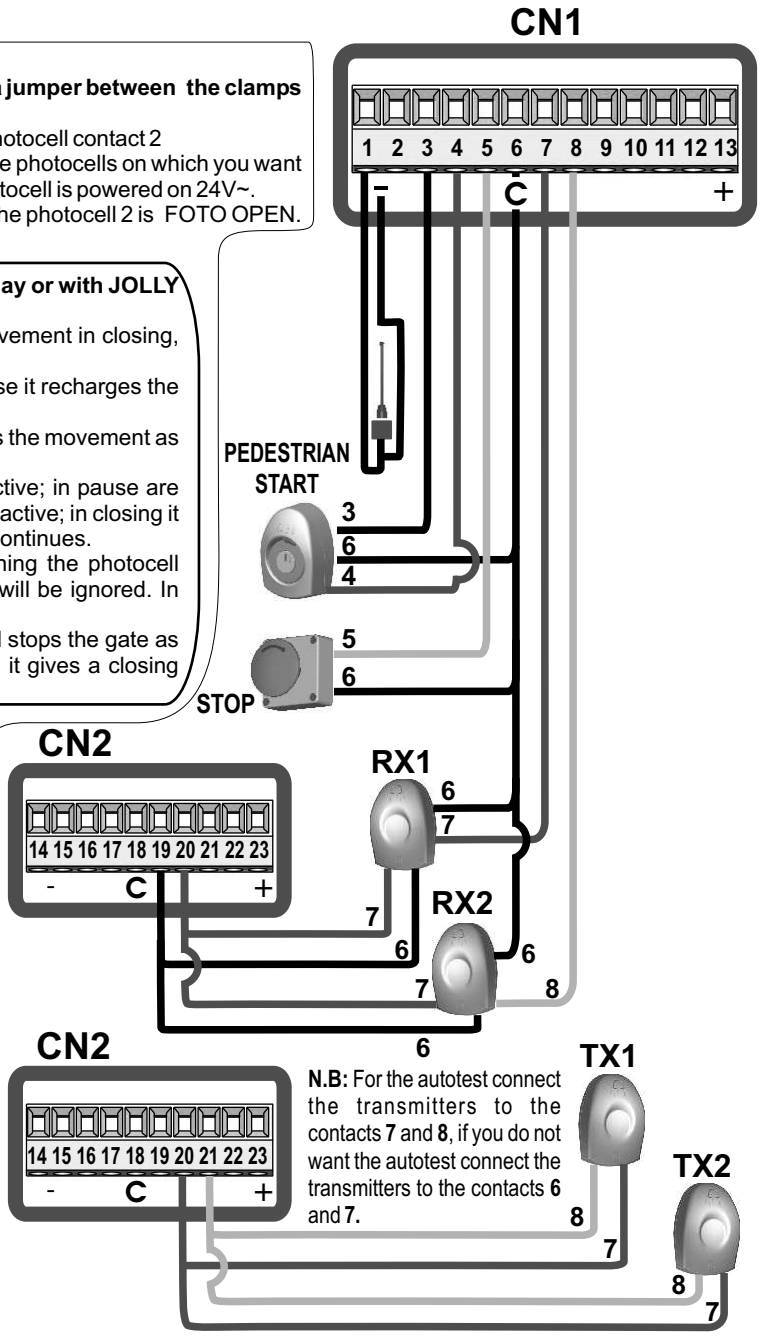
Note: The password cannot be set through the Jolly or Jolly 2 terminal.

START - STOP - PEDESTRIAN START - ANTENNA - PHOTOCELL

Photocell 1 and Photocell 2 Connections
Note: If the photocells are not connected, it is not necessary put a jumper between the clamps (6 and 7 and/ou 6 and 8 of the CN1 terminal)
+ = 24VA ⎓ COM = 0V PH1 = Photocell contact 1 PH2 = Photocell contact 2
Note: For the autotest in the FotoTEST menu select the photocell or the photocells on which you want to perform it. Auto-test is possible only when the transmitter of the photocell is powered on 24V~.
The default setting of the photocell 1 is FOTO CLOSE and the one of the photocell 2 is FOTO OPEN.
The photocell 2 can also be set as TIMER (see TIMER function).

OPTIONS ON FOTO1 and FOTO2 adjustable on on- board display or with JOLLY terminal.
FOTO CLOSE activation (CLoS inG): if occupied, reverses the movement in closing, during pause it prevent the closing.
Activation repeat pause (PAuSE rELoAd): If occupied, during pause it recharges the timer of pause. In closing it reverses the movement.
FOTO OPEN activation (oPEn inG): If activated the photocell blocks the movement as long as it's busy, when released the opening continues.
FOTO PARK activation (StoP And CLoSE): in opening it is not active; in pause are activated it commands the closing when released, otherwise it's not active; in closing it stops the movement as long as it is busy, when released the closing continues.
FOTO STOP activation (StoP): When activated before the opening the photocell blocks the automation as long as it is busy, during the opening it will be ignored. In closing the intervention of the photocell causes the reopening.
Activation PHOTO CLOSE IMMEDIATELY (CLoSE): The photocell stops the gate as long as it is occupied in both opening and closing, when released it gives a closing command (Closing one second after release of the photocell).

Options 24VA⎓ can be set with on-board Display or with Jolly device.
It is possible to chose when having tension on the 24VA output. The options are: **always, only during opening, only during cycle, only before opening or only during pause or for the management of the positive or negative electrobrake.**



N.B: For the autotest connect the transmitters to the contacts **7** and **8**, if you do not want the autotest connect the transmitters to the contacts **6** and **7.**

PEDESTRIAN START (N.O.) The pedestrian start can be connected between the conectors 2 and 4 of the CN1 terminal .
This input allows a partial opening, the opening space can be set through the on-board display or through the JOLLY device.
Note1: The contact for partial opening is a N.O. Contact (Normally open). Holding START starts the TIMER function, releasing the pedestrian start, the operator repeats the pause and then performs the closing. In the case of triggering a safety device the timer will automatically reset after 6 seconds.
Note2:In 2 BUTTONS logic it is necessary to keep pressed the Start Ped. to re-close the automation.
Note3: In deadman logic this button executes the re-closing if you keep it pressed.
Note4: When closed during pause, the gate will reclose only after this input has been reopened.
TIMER activation: This input can be transformed into TIMER (See TIMER).

STOP (N.C.) The STOP is connected between the clamps 2 and 5 of the CN1 terminal .
When pressing this button the motor immediately stops in any condition/position. To re-start the movement give a start command.
After a stop the motor always re-starts in closing.

START (N.O.) The START is connected between connector 2 and 3 of the CN 1 terminal.
An impulse given to this contact opens and closes the automation depending on the selected logic, it can be given by a keyswitch, a keypad, etc.
Holding START starts the TIMER function, releasing the start, the operator repeats the pause and then performs the closing.
To connect the other devices refer to the related instructions leaflets. (ie. loop detectors and proximity switches). In the case of triggering a safety device the timer will automatically reset after 6 seconds.
Note1: In DEADMAN logic keep pressed the Start for the opening of the automation.
Note2: In 2 BUTTONS logic this button performs the opening.

TIMER

Can be activated through the on-board display or through the Jolly programmer. In both cases it's a N.O. contact which provoques the opening of the automation keeping it open as long as it is activated. When it's released, after having paused for the set pausing time the gate recloses. The TIMER can be activated on the inputs FOTO2, PEDESTRIAN START or keeping busy the START input.
Note1: When activated on the pedestrian entry, the pedestrian will be OFF also on the radio transmitter.
Note2: In the event of an intervention of a security device during the timer (Stop, amperometric, Edge), a start impulse restors the movement.
Note3: In case of no power supply with open gate and active Timer the control unit will restore its function, otherwise if during restoring of the power supply the TIMER is not activated it will be necessary to give a start impulse for the reclosing.

SAFETY GATE OR AMPEROMETRIC MANAGEMENT

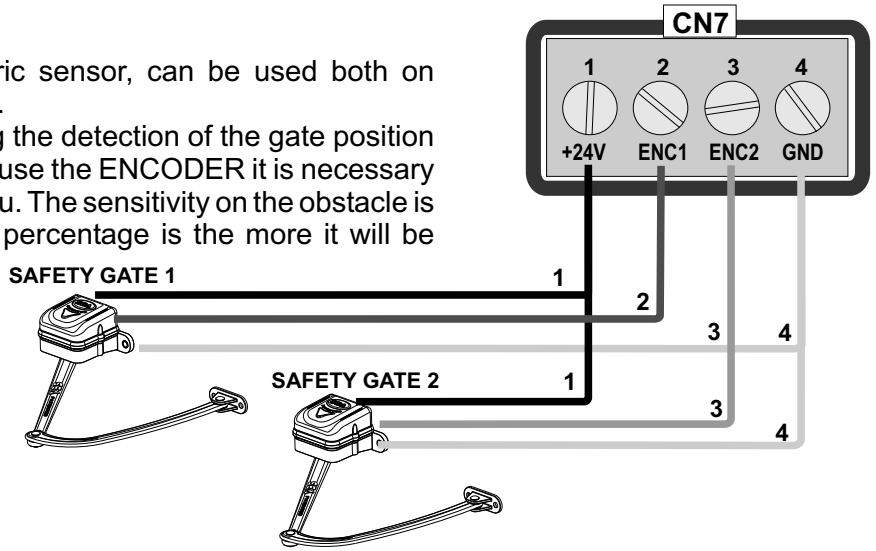
AMPEROMETRIC DEVICE FOR ELECTROMECHANICAL OPERATORS

This control unit comes with an obstacle detection system working only on electromechanical operators allowing to have the reversing on obstacles and the automatic detection of the stops.
Sensitivity adjustable from oFF to 99% inside the special menu. The more the percentage is high the more the obstacle detection will be difficult. On hydraulic unit this parameter will be always OFF.

SAFETY GATE

The Safety Gate, unlike the amperometric sensor, can be used both on electromechanical and hydraulic operators.
The Safety Gate is an ENCODER allowing the detection of the gate position and its reversing in case of obstacles. To use the ENCODER it is necessary to enable it inside the special EnCodEr Menu. The sensitivity on the obstacle is adjustable from 0 - 99%. The higher the percentage is the more it will be difficult to detect the obstacle.

ATTENTION: The first operation after power failure, will be executed with the set speed to search the mechanical stops limit.



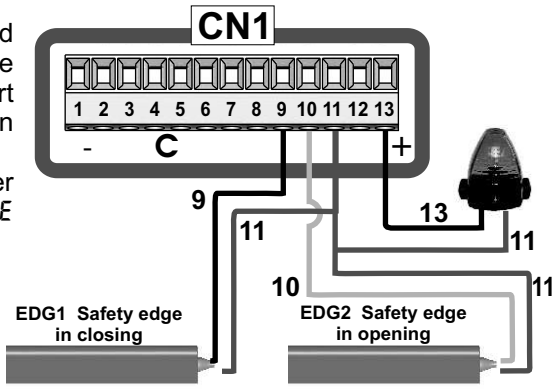
SAFETY EDGE AND FLASHING LAMP

SAFETY EDGE

Two safety edges (EDG1 e EDG2) can be connected, respectively between the contacts 9, 11 and 10 and 11 of CN1.
Pressing EDG1 and EDG2, the contact opens, causing a partial reversing of the gate in closing and opening.

Note1: Put a jumper between the not used N.C. Contacts. The EDG1 and EDG2 inputs can be set: only in closing, only in opening or in both directions.

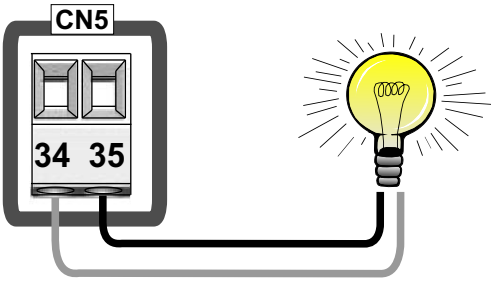
Note2: It is possible to activate a balanced edge 8K2 through the on board display or through the Jolly programmer, in such case the edge contact will be controled by a specific resistance value, detecting the possible involontary short circuit of the device. In case of an imbalanced device a special alarm will show on the on board display or on the JOLLY programmer.
If you connect a wireless edge it is possible to make a self-test on the power supply of the receiver by connecting it to 24Vac and selecting in the EdGE AutotESt menu the edge or the edges on which to perform the test.



24V Flashing light ⎓ 15W Max (Control lamp)
The flashing light can be connected between the FLS and COM connectors from Cn1 (It is recomended to use a 24V Flash Led flashing light).
It blinks once per second during opening and twice per second during closing, while it remains lit during pause.

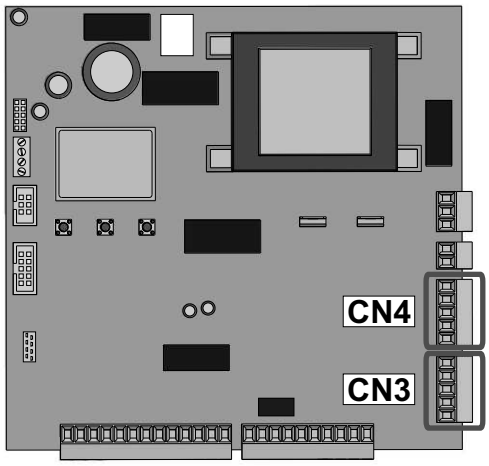
Throught the warning light it is also possible to identify alarm signals comming from the STOP, PHOTOCELL 1, PHOTOCELL2 and EDGE devices. Through the on board display or the Jolly programmer it is possible to activate the pre - flashing function and/or to modify the flashing light function choosing between fixed flashing, control lamp or Buzzer.
The pre-flashing can be set from 0 to 5 s. or it is possible to have it only before closing.

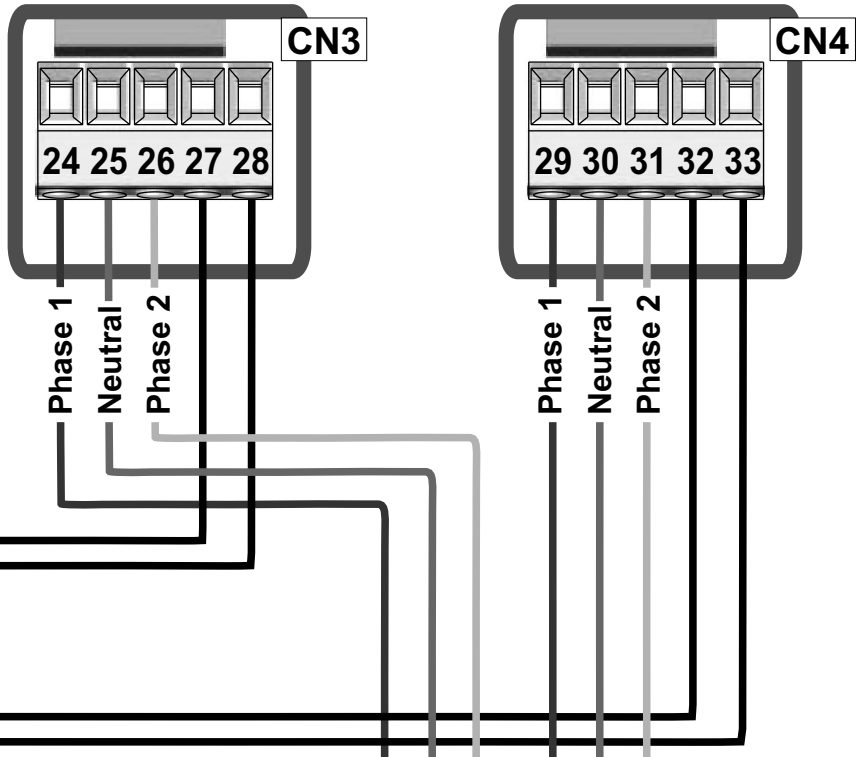
COURTESY LIGHT

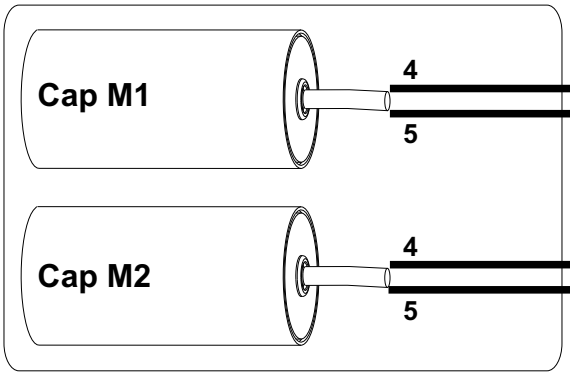


Timing
from 0 to 4 min
(230V~ 50W Max - 115V~ 50W Max)

MOTORS CONNECTION, CAPACITY AND POWER SUPPLY







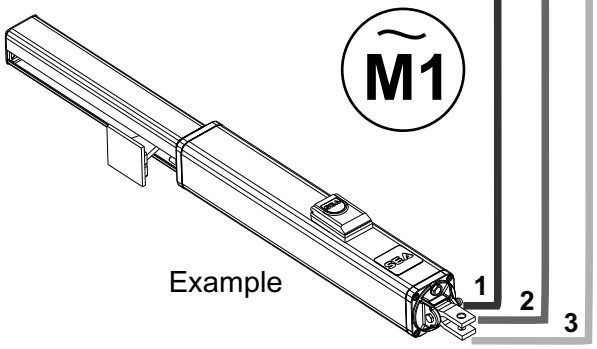
Motor 1

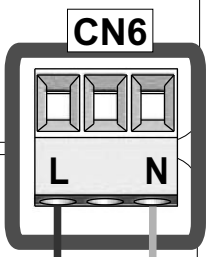
Motor 2 connection

M = Opening /Closing

Com = COMMON

Motor to be connected in case of single-leaf.



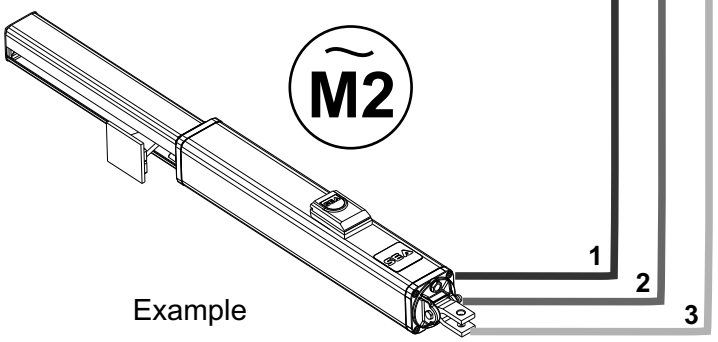


Motor 2

Motor 1 connection

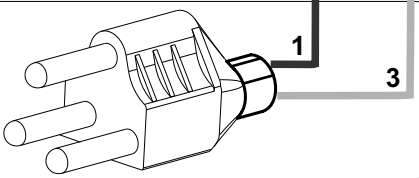
M = Opening/Closing

Com = COMMON



POWER SUPPLY INPUT

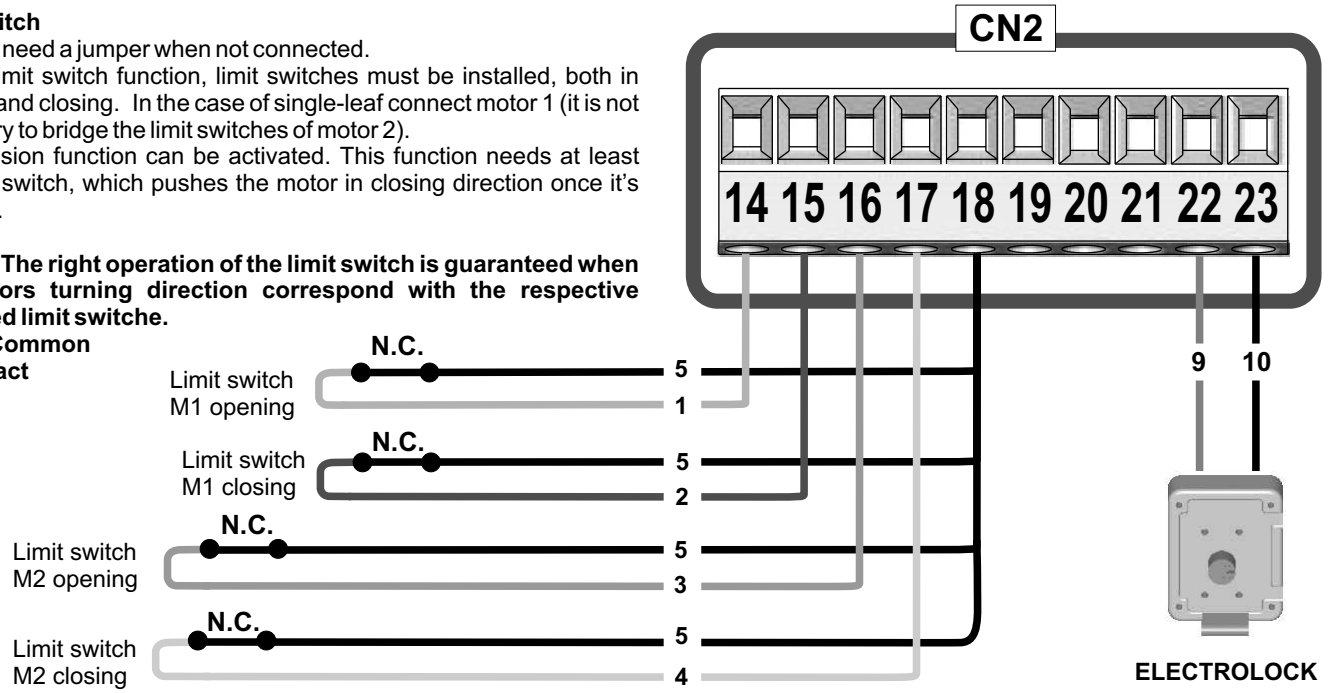
NOTE: For power supply connection follow the rules in force



LIMIT SWITCH, ELECTROLOCK CONNECTION

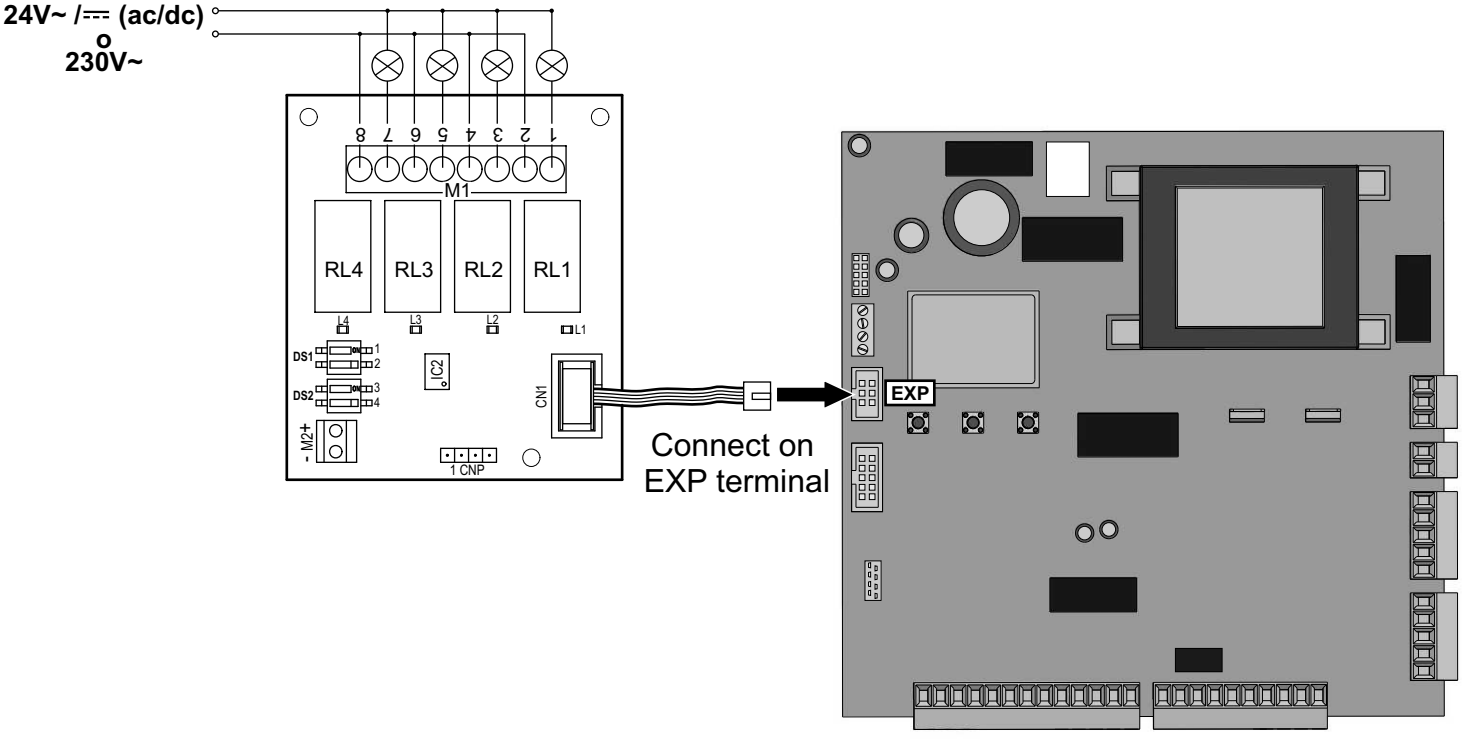
Limit switch
Does not need a jumper when not connected.
For the limit switch function, limit switches must be installed, both in opening and closing. In the case of single-leaf connect motor 1 (it is not necessary to bridge the limit switches of motor 2).
Anti-intrusion function can be activated. This function needs at least one limit switch, which pushes the motor in closing direction once it's released.

⚠ **The right operation of the limit switch is guaranteed when the motors turning direction correspond with the respective employed limit switche.**
Com = Common
C= Contact



Electrolock output
A 12V⎓ 15W max electrolock can be connected
Electrolock can be deactivated when not used for energy saving on the control unit. Electrolock release can be timed from 0 to 5 s.
The electrobrake can be set: only before opening, only before closing or in both directions.

TRAFFIC LIGHT CARD CONNECTION



ALARM DESCRIPTION

Signals	Kind of alarm	Solutions
FAiLurE Motor	Motors current failure	Sure there are no short circuits on the motor or on the control unit.
FAiLurE24	24V Power supply failure	Make sure there are no short circuits on the wiring or on the control unit and no overloads.
FAiLurE24VAuX	24VA output voltage	Make sure there are no short circuits on wiring or control unit and no overload.
FAiLurE nEt	Power supply failure	Check the network or the F2 fuse
FAiLurE SELF tESt	Self-test photocells failure	Check the photocells operation and / or connections on the control unit.
FAiLurE LiMit SWitcH	Limit switch activation failure	Check the operation of both limit switches and / or correspondence between movement direction of the motor and engaged limit switches.
FAiLurE FLASHinG LiGHt	Flashing lamp failure	Check connections and / or conditions of the lamp.

Note 1: If in the diagnostics shows "Max. cycles reached ", do the maintenance and / or reset the number of cycles performed.
Note2: To exit from the error messages, press OK. If the error persists, make all required checks for the specific error and / or disconnect the device that generates the error to see if the error disappears.

At each opening and closing of the automation the flashing light will blink. It blinks once per second during opening and twice per second during closing, while it remains lit during pause.
It is possible to view the alarms also on the flashing light or on the control lamp, simply by observing the number of flashes emitted and verifying the reference in the table below:

Blinks	Cause of alarm
9	Motors failure
2	Photocell in closing
3	Photocell in opening
6	Collision in opening
4	Safety edge

Blinks	Cause of alarm
5	Stop
7	Max. Cycles reached
6	Collision in closing
4 fast	Limit switch fault

TROUBLE SHOOTING

Advises

Make sure all Safeties are turned ON
All N.C. contacts must have jumpers

Problem Found	Possibile Cause	Solutions
Motor doesn't respond to any START impulse	**a.)** Jumper missing on one of the N.C. Contacts **b.)** Burnt fuse	**a.)** Check the connections or the jumpers on the connections of the safety edge, of the stop and of the photocell **b.)** Replace the burned fuse on the control unit
Gate doesn't move while the motor is running	**a.)** The motor is in the released position **b.)** There is an obstacle	**a.)** Re-lock the motor **b.)** Remove obstacle
Gate doesn't reach the complete Open / Closed position	**a.)** Wrong setting of the limit switches **b.)** Error on programming **c.)** Gate is stopped by an obstacle **d.)** Torque too low	**a.)** Set limit switches **b.)** Repeat programming **c.)** Remove obstacle **d.)** Increase torque parameter
The gate opens but doesn't close	**a.)** The contacts of the photocells are open. **b.)** The stop contact is open **c.)** The edge contact is open **d.)** Ammeter alarm	**a.) b.) c.)** Check the jumpers or the signals indicated on the warning lamp **d.)** Check if the ammeter alarm has intervened and eventually increase the torque parameter.
The gate doesn't close automatically	**a.)** Pause time set to high **b.)** Control unit in semi-autom. logic	**a.)** Adjust pause time **b.)** Set the pause parameter on a different value from the oFF

Page for both instaler and user

MAINTENANCE
Considering the number of working cycles and the kind of gate, if the gate has changed the clutches and doesn't work it's necessary to periodically proceed, with **the learning times reprogramming on the electronic control unit.**
Periodically clean the optical systems of the photocells.

REPLACEMENTS
Any request for spare parts must be sent to:
SEA S.p.A. - Zona Ind.le, 64020 S.ATTO - Teramo - Italia

SAFETY AND ENVIRONMENTAL COMPATIBILITY
Disposal of the packaging materials of products and/or circuits should take place in an approved disposal facility.

REGULAR PRODUCT DISPOSAL (electric and electronic waste)
(It's applicable in EU countries and in those ones provided with a differential waste collection)

The brand that you find on the product or on documentation signals that the product must not be disposed off together with other domestic waste at the end of life cycle. In order to avoid any possible environmental or health damage caused by irregular waste disposal, we recommand to separate this product from other forms of waste and to recycle it in a responsible way in order to provide the sustainable re-use of material resources. Domestic users are invited to contact the retailer where the product has been purchased or the local office in charge of all the information related to differential watse collection and recycling of this kind of product.

STORING

WAREHOUSING TEMPERATURES			
T_{min}	T_{Max}	$Dampness_{min}$	$Dampness_{Max}$
- 20°C	+ 65°C	5% *Not condensing*	90% *Not condensing*

Materials handling must be made with appropriate vehicles..

WARRANTY LIMITS
For the guarantee see the sales conditions on the official SEA price list.

SEA reserves the right to make any required modification or change to the products and/or to this manual without any advanced notice obligation.

SELF INSTALL - NEED TECHNICAL ASSISTANCE?

OPTION 1: DIRECT WITH THE SERVICE DESK – QUICKEST AND MOST EFFECTIVE METHOD

Submit your enquiry direct with the service desk at – service@automaticsolutions.com.au
The service desk has the most experienced staff in Australia to help with your problem but they need your help.

- **Describe your problem in detail and as clearly as possible. Don't forget to include a telephone number.**
- **Be certain to detail which model or models of you are working with.**
- **Send photos of the installation – they love photos. The people at the service desk are good but they are even better when they can see the installation. Send photos of the overall scene so they can see the entire installation. Also send photos of the wiring to the control board and any other part of the installation you think is relevant.**
- **Send video if appropriate. Smartphone's these days take remarkably good video in small file sizes which can be emailed in a moment. If your problem needs a video to show the issue please feel free to send it.**

NOTE: THIS IS BY FAR THE FASTEST AND MOST SUCCESFUL WAY TO SOLVE YOUR PROBLEM
PHOTOS AND VIDEOS ARE THE NEXT BEST THING TO BEING THERE

OPTION 2: LODGE YOUR ENQUIRY LOCALLY - SLOWER BUT CAN STILL BE EFFECTIVE

Make contact with the store of purchase. Branch staffs are typically not technicians and dependent on their length of service will have varying degrees of technical knowledge. If they cannot help however they will certainly either source help locally from their technicians or make contact with the service technicians on your behalf.

OPTION 3: SERVICE CALL WITH AUTOMATIC SOLUTIONS TECHNICIAN – SLOWEST METHOD

If you fall within the local branch service area it may be possible to book a local technician to look at your installation. Wait times will vary dependent on local workloads. The cost is a service fee which includes the first half hour and the hourly rate thereafter. If any Automatic Solutions provided parts are found to be defective and within warranty these will be provided free of charge.
(NOTE: If you suspect that any parts are defective and within warranty you may wish to consider option 4)

A note on this option: If you decide on this option you will be asked to sign an "authorisation to proceed" which will provide legal authority and payment security. This form has three options available of which only the first two are available to you. The third option is for warranty repairs only for full install customers. Self install customers requiring warranty only service need to refer to option four below.

IMPORTANT: IN SHORT THIS OPTION WILL INCUR CHARGES

OPTION 4: RETURN THE PRODUCT IF BELIEVED TO BE FAULTY

As a self install customer who has purchased product if you believe the product to be faulty rather than an installation or site problem you have the option of returning the product for evaluation and to exercise your right to a replacement, repair or refund as applicable. All returned product is forwarded immediately to the service technicians for evaluation and response. There are two main methods available to return product –

- **Direct to the service centre – this is the quickest method as it cuts out the branch delay**
- **Via the branch of purchase – slower because of the delay at the branch**

When choosing this option you need to complete a product return form. This form gives you all the information on procedure involved and where to send to. These are available at the branch of purchase, can be emailed to you (contact your branch), or available here - http://automaticsolutions.com.au/page/warranty.php