



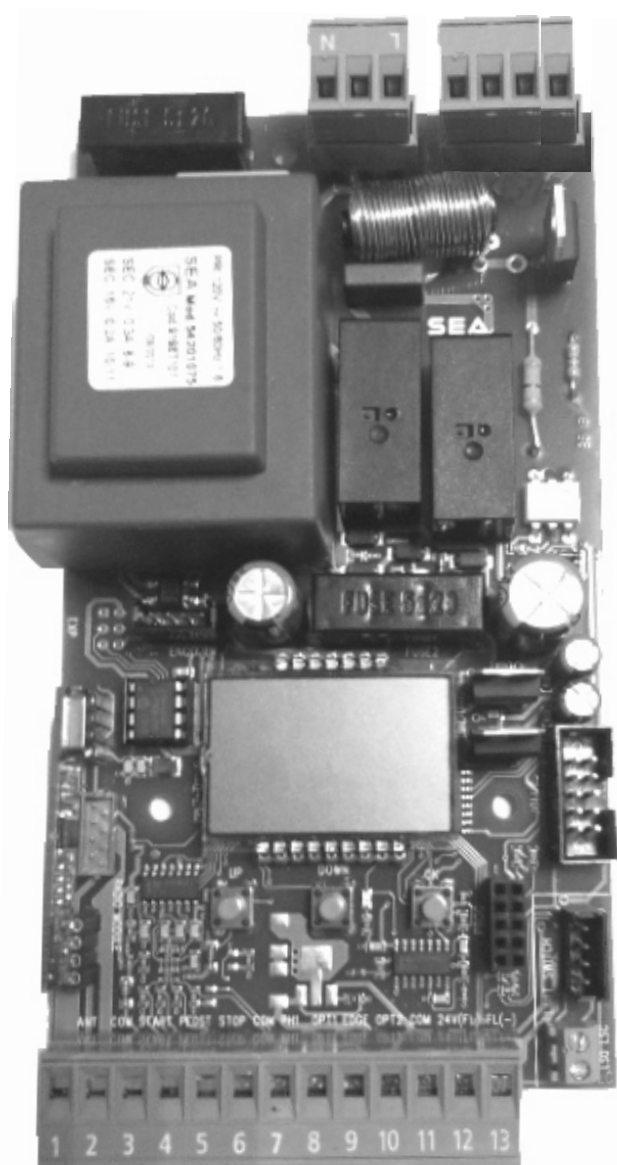
SEA®
Sistemi Elettronici
di Apertura Porte e Cancelli
International registered trademark n. 804888

CE

English

SLIDE DG (SD)

***CONTROL UNIT FOR SLIDING GATES,
SWING GATES, BARRIERS AND GARAGE DOORS***



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COMPONENTS

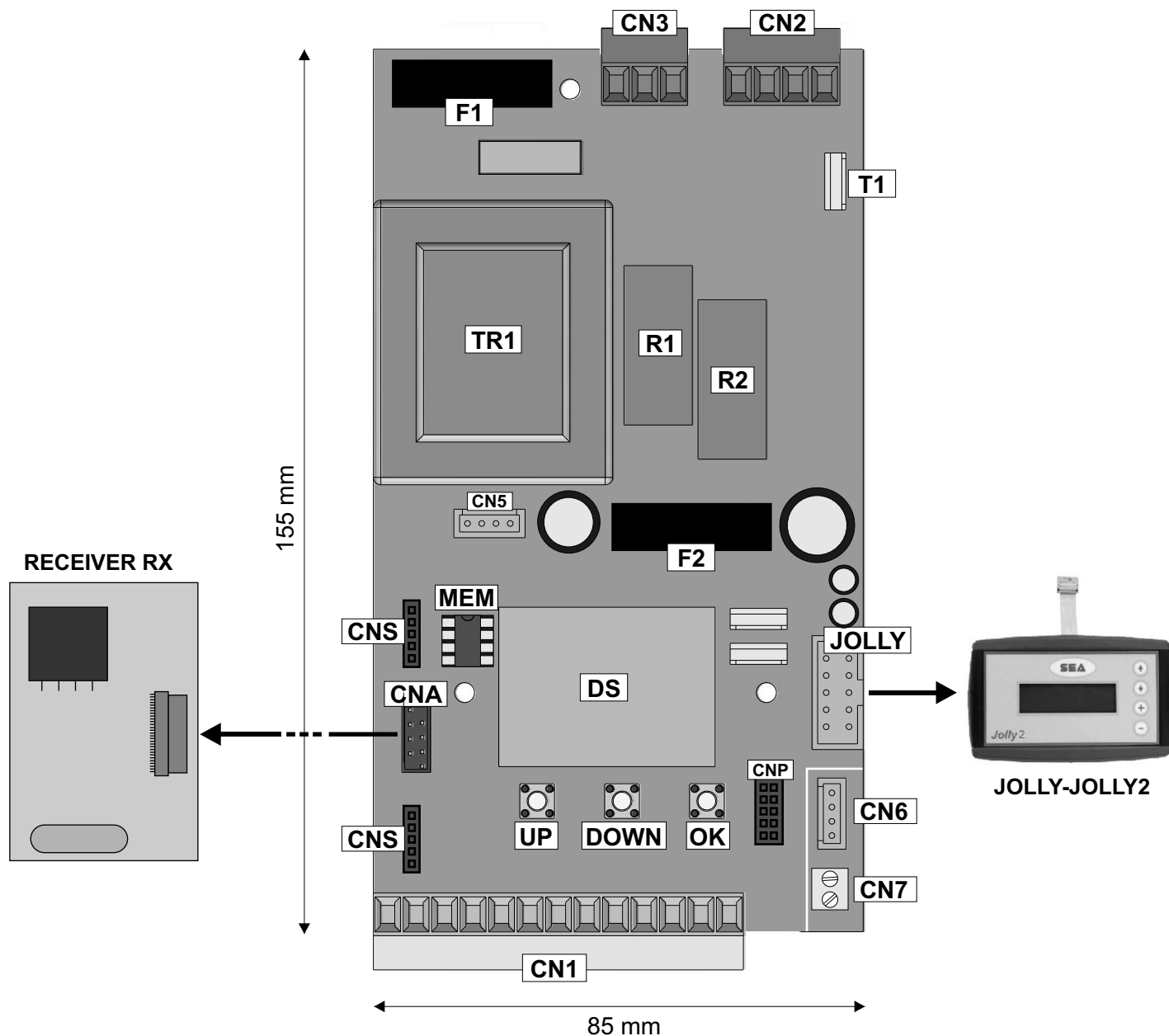
TECHNICAL SPECIFICATIONS

Control unit power supply: 230 Vac~ 50/60 Hz - 115Vac~ 50/60 Hz

Absorption in stand by: 30 mA

Environment temperature : -4°F +122°F / -20°C / +50°C

Specifications of external enclosure: 183 X 238 X 120 - Ip55



CN1 = Input/output connectors

CN2 = Motor and courtesy light connector

CN3 = Power connector

CN5 = Encoder connector

CN6 = Pre-wired limit switch connector

CN7 = Limit switch connector not pre-wired

CNA = UNI Receiver connector

CNS = RF FIX Receiver connector

CNP = Programming connector

JOLLY = Jolly and Jolly 2 connector

DS = Programming display

OK = Programming button

DOWN = Programming button

UP = Programming button

T1 = Motor piloting Triac

R1 = Relay C motor command
Courtesy light

R2 = Relay motor exchange

F1 = 6.3AT fuse on 230V/10AT on 115V

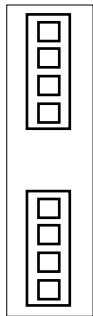
F2 = Accessories 1A fuse

TR1 = Power transformer

MEM = Remote controls memory (optional)

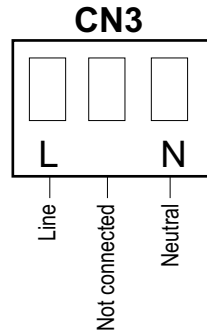
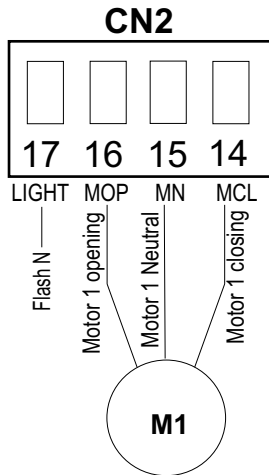
CONNECTIONS

RADIO MODULE RF FIX (CNS)



RF FIX
Receiver
connector

(Available from
hardware
revision R1)



24V (Red) —

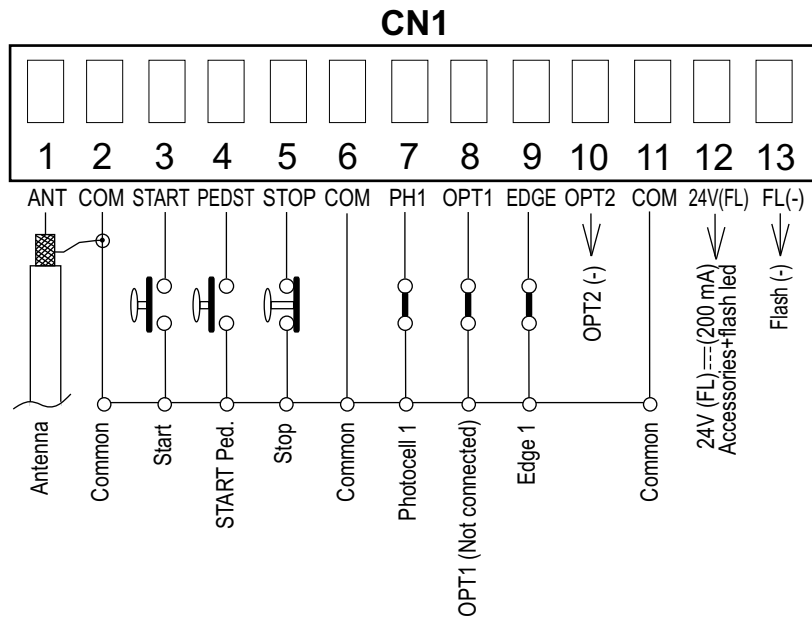
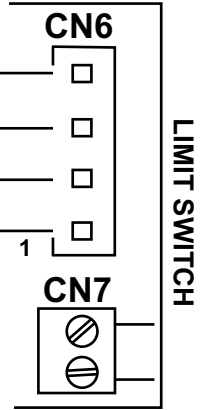
Limit switch Closing 1 (Yellow) —

Limit switch Opening 1 (Green) —

Common (White) — 1

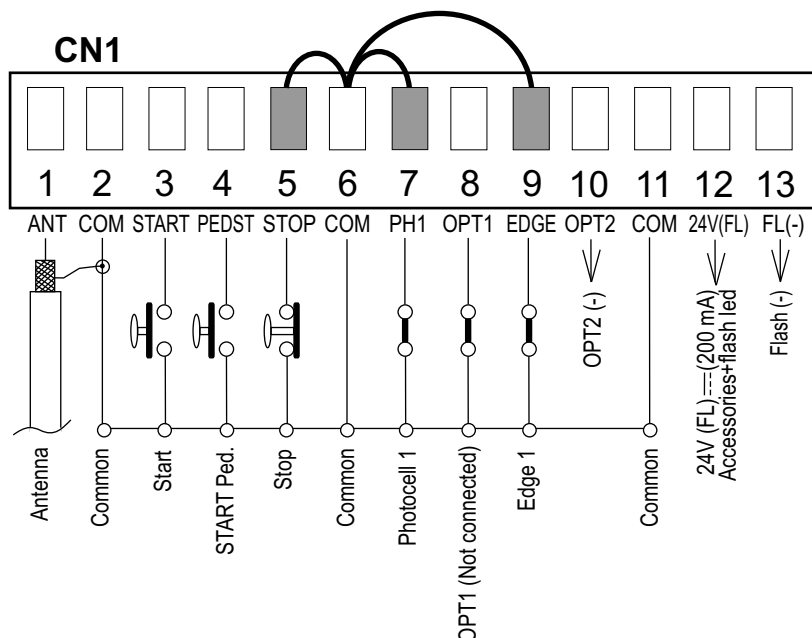
Limit switch Closing 1 (Yellow)

Limit switch Opening 1 (Green)



JUMPERS

WARNING: before activating the control unit the STOP, PHOTOCELL and EDGE contacts must be closed.



Obligatory jumper
without accessory
connection.

The herein reported
functions are
available starting
from revision 14.

MENU FUNCTIONS TABLE SLIDE DG

MENU	SET	Description	Default	Set value
1 - LANGUAGE	ITALIANO	Italian	ITALIANO	
	ENGLISH	English		
	FRENCH	French		
	ESPAÑOL	Spanish		
	DUTCH	Dutch		
2 - TRANSMITTERS	Start	Start	Start Ped Start.	
	Pedestrian Start	Pedestrian Start		
	Stop	Stop		
	unlock	Storing of a command for unlocking an electric brake		
	DELETE A TRANSMITTER	Delete single transmitter		
	CLEAR MEMORY	Delete transmitter memory		
	Move to EEPROM	Transfers the stored transmitters on the control unit to the external EEPROM (MEM) if inserted.		
	End	"Transmitters" menu output		
3 - Motor	HYDRAULIC	Hydraulic	SLIDING	
	SLIDING RACK	Sliding rack		
	REVERSIBLE SLIDING GATE	Reversible sliding gate		
	SLIDING MAGNETIC RACK	Sliding gate rack with magnetic limit switch		
	SLIDING CHAIN	Sliding chain		
	SLIDING MAG CHAIN	Sliding mag chain		
	THREE-PHASE - BULL	Three-phase - Bull		
	SEAGEAR	Seagear		
	MECHANIC	Hydraulic motors		
4 - LOGIC (See page 7)	AUTOMATIC	Automatic	OPEN-STOP- CLOSE-OPEN	
	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		
5 - PAUSE TIME	OFF	OFF (semi-automatic logics)	OFF	
	1 240	Setting from 1s to 4min.		
6 - Start in PAUSE	OFF	In pause start is not accepted	OFF	
	on	In pause start is accepted		
7 - Programming (See page 6)	OFF on	Times learning start	OFF	
8 - TEST Start	OFF on	Start command	OFF	

Note: Menu 7 is activated with ECODER ON.

MENU	SET	Description	Default	Set value
9 - oPEnIng tImE *	5 300	Opening time	60	
10 - CLoSIng tImE *	5 300	Closing time	60	
11 - oPEnIng tOrq *	10 100	Opening torque Note: with hydraulic motors the torque will be on 100%	75	
12 - CLoSIng tOrq *	10 100	Closing torque Note: with hydraulic motors the torque will be on 100%	75	
13 - brAKE *	oFF 100	Adjusts the braking on the limit switches	10	
14 - PEdESTRIAn oPEnIng	20 100	Setting from 20 to 100	10	
15 - rEUErSE Motor	oFF	Synchronized right motor	oFF	
	on	Synchronized left motor		
16 - End	Select END and press OK to exit the special menu. The special menu switches off automatically after 20 minutes.			
17 - SPEC IAL MEnu	Press OK to enter the special menu.			

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

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.**

The electronic control unit is already configured without deceleration and with working time in opening and closing of 60 seconds.

For starting the control unit all NC contacts must be closed, after which it will be sufficient to give the run command.

Note: make sure that the limit switch corresponds to the direction of travel.

SELFLEARNING 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 starts as first in closing. The gate will automatically execute the following cycle: CLOSING - OPENING - CLOSING.

Note: For stop detection sensitivity setting refer to the special menu.

If the Encoder is active, the menu 9 and 10 show respectively the total and partial pulses. Menu 7 will allow the programming through Encoder.

FUNCTION LOGIC

AUTOMATIC LOGIC

A start impulse opens the gate. A second impulse 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.

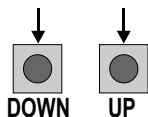
DEAD MAN LOGIC

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.

SPECIAL MENU



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

SPECIAL MENU FUNCTIONS TABLE SLIDE DG

For entering into the special menu move on one of the menu and press the UP and DOWN buttons at the same time for 5 s. For exiting the special menu press END or move on one of the menu and press the UP and DOWN buttons at the same time for 5 s.

MENU SP	SET	Description	Default	Set value
18 - oPEning SLowdown *	oFF 60	From OFF to 60% of the stroke	20	
19 - CLosing SLowdown *	oFF 60	From OFF to 60% of the stroke	20	
20 - PrEFLASHing	onLY CLosing	Pre-flashing only active before closing	oFF	
	00 50	Pre-flashing time		
21 - FLASHing LiGht	norMAL	Normal	norMAL	
	LiGht	Control lamp		
	ALwAYS	Always ON		
	buzzEr	Buzzer		
22 - EnCodEr *	on oFF	In ON enables the Encoder, in OFF it's disabled	oFF	
23 - CoUrteSY LiGht	in CYCLE	Courtesy light in cycle	20	
	1 240	Courtesy light setting from 1s to 4min.		
24 - PEdEstRIAn PRuSE	= StArt	Pause in pedestrian opening same as in total opening	= StArt	
	oFF	Disabled		
	1 240	Setting from 1s to 4 min.		
25 - nRIntEnAnCE CYCLEs	100 10E4	Setting from 100 to 100000	10E4	
26 - PErForNEd CYCLEs	0 10E9	Reports the executed cycles. Keep pressed OK to reset the cycles	0	
27 - tIMEr	oFF	Disabled	oFF	
	on PEdEstRIAn EntrY	Timer function active on pedestrian input		
28 - FirE SWItCH	oFF	Disactivated	oFF	
	on PEdEstRIAn EntrY	Active on pedestrian		
29 - EdGE	oPEning And CLosing	Active in opening and closing	oPEning And CLosing	
	onLY oPEning	Active only in opening		
	onLY CLosing	Active only in closing		

MENU SP	SET	Description	Default	Set value
30 - PHoto I	CLoSiNG	Photocell active in closing	CLoSiNG	
	oPEniNG	Photocell active in opening		
	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		
	SHAdoU Loop	Until occupied, with open gate, it prevents reclosing. It is switched off during closing.		
	dELAY tIME in PAUSE	If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time.		
31 - 24V AuH (-) (OPT2 output) Connect device between 24V (FL) e OPT2.	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		
	AutotEST	Security test		
	in CYCLE And FototEST	Security test with power supply only during cycle		
	PosiTiVE brAKE PRoGrENEnt	Positive Electrobrake		
32 - PosiTiOn rECoUeRY	0 20	Retrieves the inertia of the motor after Stop or reversing from 0 to 20 s	1	
33 - Motor rELeASE *	oFF	Disabled	0.1	
	0.1 30	Setting from 1 to 3		
34 - PEriodICAL PuShoUeR *	oFF 8	Allows the repetition of the Pushover function at a distance of time adjustable from 0 to 8 hours at hourly intervals	oFF	

MENU SP	SET	Description	Default	Set value
35 - FLASHING LIGHT And timer	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		
36 - diAGnoStiCS	1 10	Shows last event (See alarms table)		
37 - SlOwdoWn rAMP tOrq	nOrMAL 100	Adjusts the transition between max. torque and slowdown	100	
38 - oPEning toLErAnCE *	0 100	Adjust the tolerance between stop and obstacle motor opening.	0	
39 - CLoSing toLErAnCE *	0 100	Adjust the tolerance between stop and obstacle motor closing.	0	
40 - oPEning SEnSiTiViTy *	10 99	Motor sensitivity adjustment in opening	OFF	
	OFF	Disabled		
41 - CLoSing SEnSiTiViTy *	10 99	Motor sensitivity adjustment in closing	OFF	
	OFF	Disabled		
42 - PASSWOrd	----	Allows the entering of a password blocking the control unit parameters modification.	----	
43 - End	Select END and press OK to exit the menu. The menu deactivates automatically after 2 minutes			
44 - bASiC MEnu	Press OK to enter the basic menu.			

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 on the value chosen in the setup program.

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 *SurEP* appears, confirm the activation of the PASSWORD and the message *oH* 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.

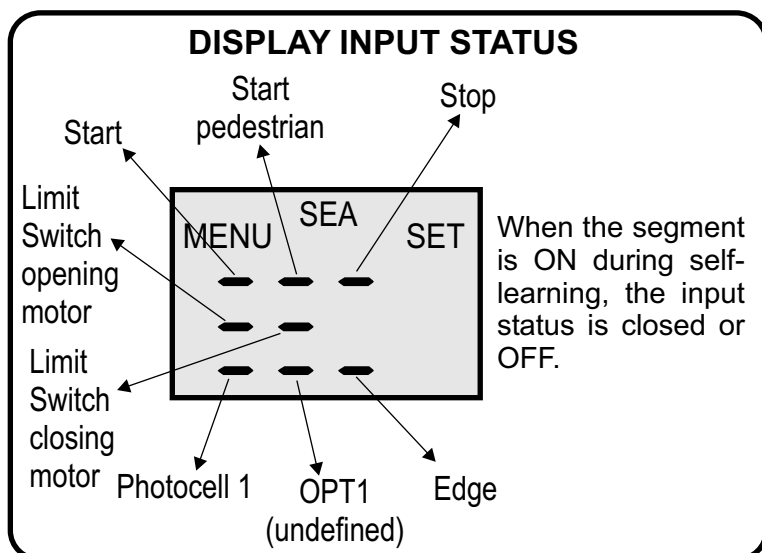
If the password has been forgotten, the only way to unlock the control unit is to contact the SEA technical assistance, which will assess whether to provide the procedure to unlock the control unit or not.

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

MENU FOR INPUT CHECK

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. Moving in the language menu pressing the UP and DOWN buttons at the same time you access the SP MENU for special settings.

Moving in the language menu pressing the OK button for 5 seconds, you enter the CHECK MENU, where you can check the operating status of all inputs.

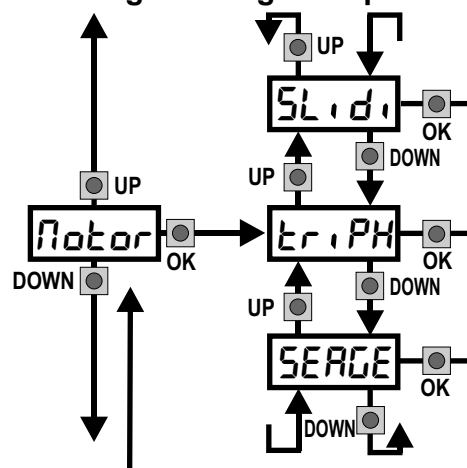


Initial system

U.001

Software Version

Programming example



MENU FUNCTION TABLE CHECK SLIDE DG INPUTS

To access the Menu for input check 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	→OK→	Enabled		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
		Blocked		
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	→OK→	Enabled	Safety edge 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
		Blocked		
Photo 1	→OK→	Enabled		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
		Blocked		
Limit Switch opening			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 Switch closing			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	

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 CNA connector (if available) with turned off control unit.

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

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 case of **transmitters with fixed code** it is necessary to **press 1 time** the button of the transmitter you want to program to store the first remote control

Notes:

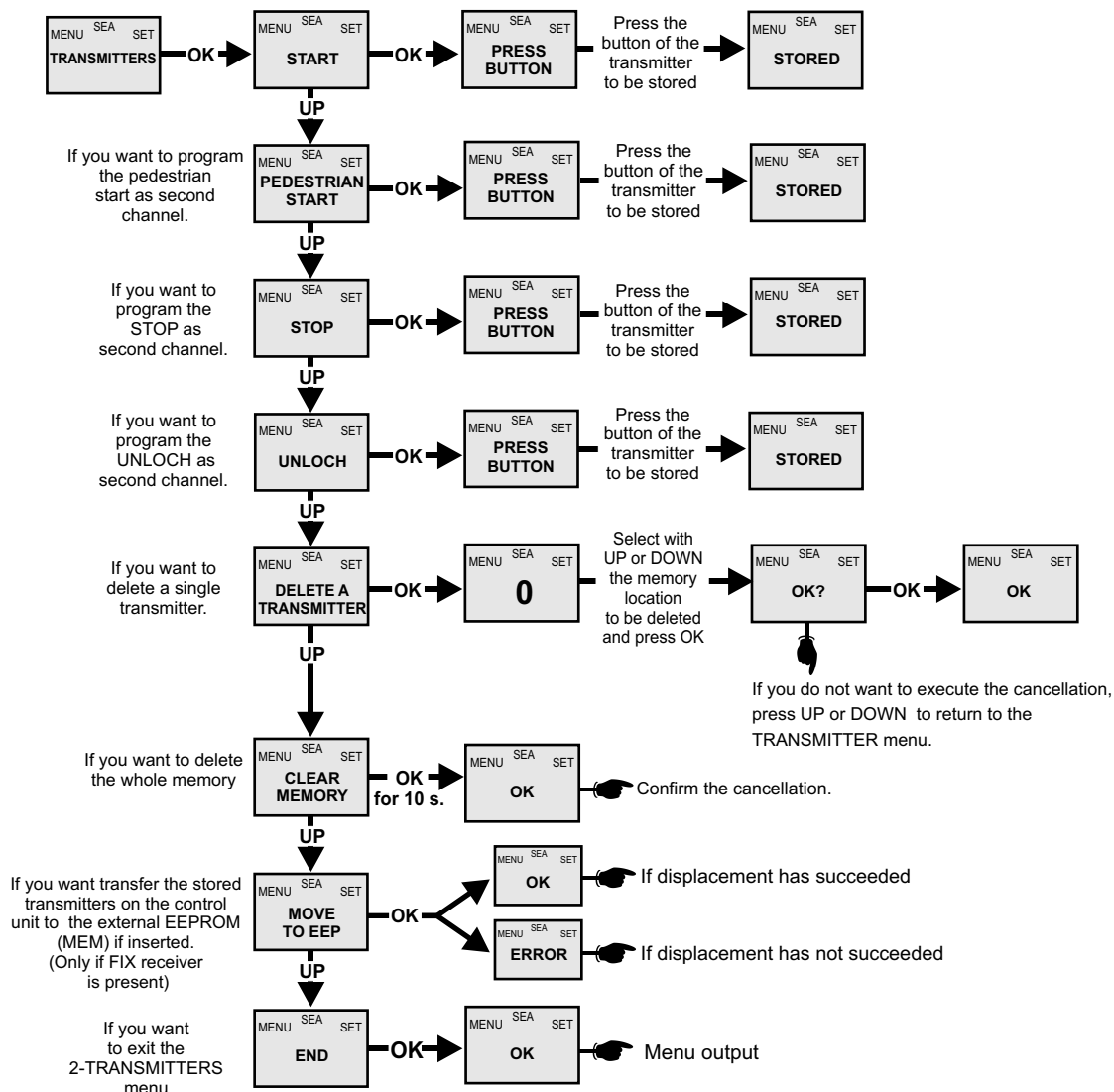
- Enter radio transmitters learning only when the working cycle stops and the gate is closed.

- 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.

RF UNI	16 USERS Whitout memory 800 USERS With additional memory MEM
RF UNI PG <i>Old Model</i>	100 USERS Fixed code 800 USERS Roll Plus
RF UNI PG <i>New model</i>	800 UTENTI Fixed code 800 UTENTI Roll Plus

TABLE EXAMPLE

Transmitter Memory location	1	2	3	4	Serial number	Customer
0						
1						
2						
3						



RADIO TRANSMITTER SELF LEARNING

WITH RF FIX RECEIVER ON BOARD OF CONTROL UNIT

⚠ WARNING: Make the radio transmitters programming before you connect the antenna and insert the receiver into the special CNS connector (if available) with turned off control unit.

With the RF FIX module it will be possible to use only the transmitters with fixed code.

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*.

In the *TRANSMITTERS* MENU it is possible to select *Start* (to associate a Start command), *Pedestrian Start* (Pedestrian Start), *Stop* (To associate the STOP command to the TX), *Clear Memory* (To delete all TX), *Delete a Transmitter* (To delete the single transmitter only if it is a Rolling Code Plus), *Unlock* (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.

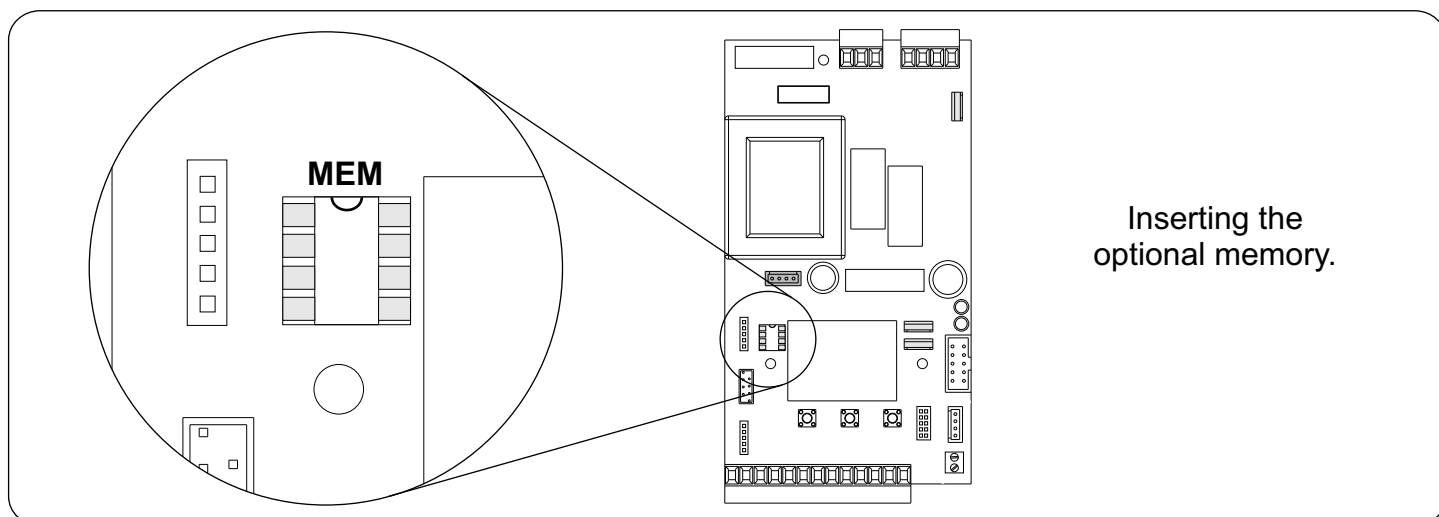
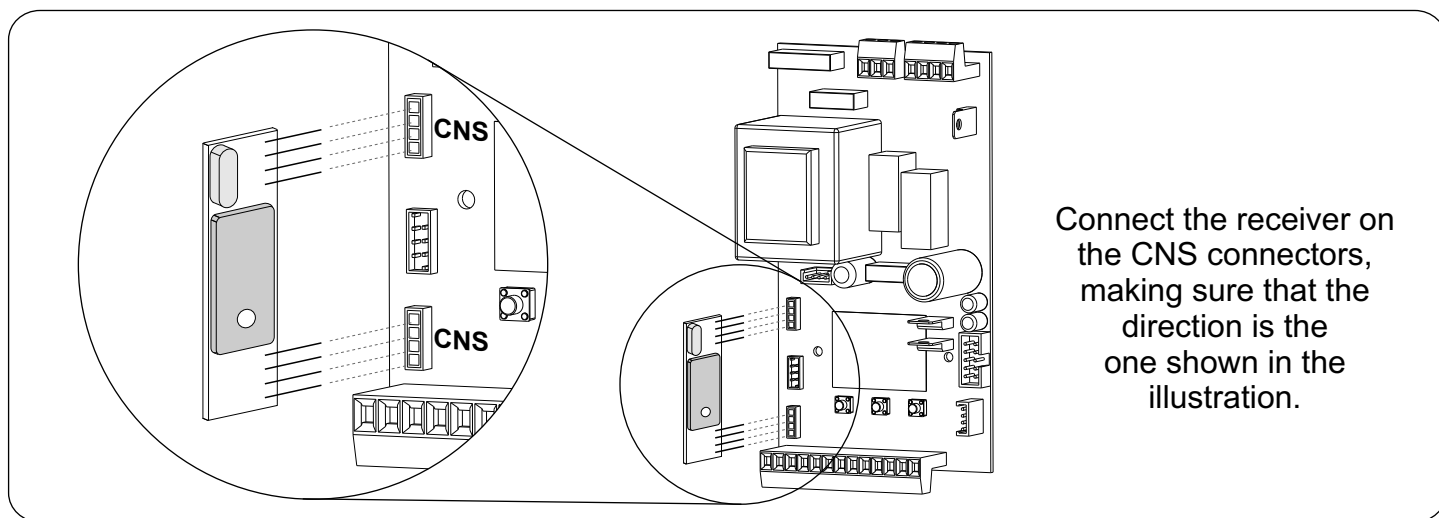
Notes:

- Enter radio transmitters learning only when the working cycle stops and the gate is closed.
- It will be possible to memorize up to max. 16 codes (buttons), adding memory MEM it will be possible to store up to 496 different codes.
- 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 RF FIX, 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 *oH*.



START - STOP - PEDESTRIAN START - ANTENNA (SD)

PHOTOCELL

Photocell 1 Connection

Note: If the photocell is not connected, it is not necessary put a jumper between the clamps (6 and 7 of the CN1 terminal)

+ = 24V === (FL) COM = 0V PH1 = Photocell contact 1

Note: For the autotest in the *Autotest* (Safety test) menu select the photocell on which you want to perform it. Auto-test is possible only when the transmitter of the photocell is powered 24V (FL) and OPT2, adjusting the autotest function in the 24V === menu Aux.

OPTIONS ON FOTO1 adjustable on on-board display or with JOLLY terminal.

FOTO CLOSE activation (*Close In*): 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 In*): 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).

SHARP Loop Activation: Photocell active only during pause.

Activation delay time in pause: If the photocell is busy during opening, pause or closing, the gate reopens completely and recloses without respecting the pause time.

Options 24V === Aux on OPT2 output can be set with on-board Display or with Jolly device. Connect the device between the 24V (FL) and OPT2. It is possible to chose when having tension on the OPT2 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, as security test Autotest and as test for economic securities in Cycle And Autotest.**

PEDESTRIAN START (N.O.) The pedestrian start can be connected between the connectors 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 CN1 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

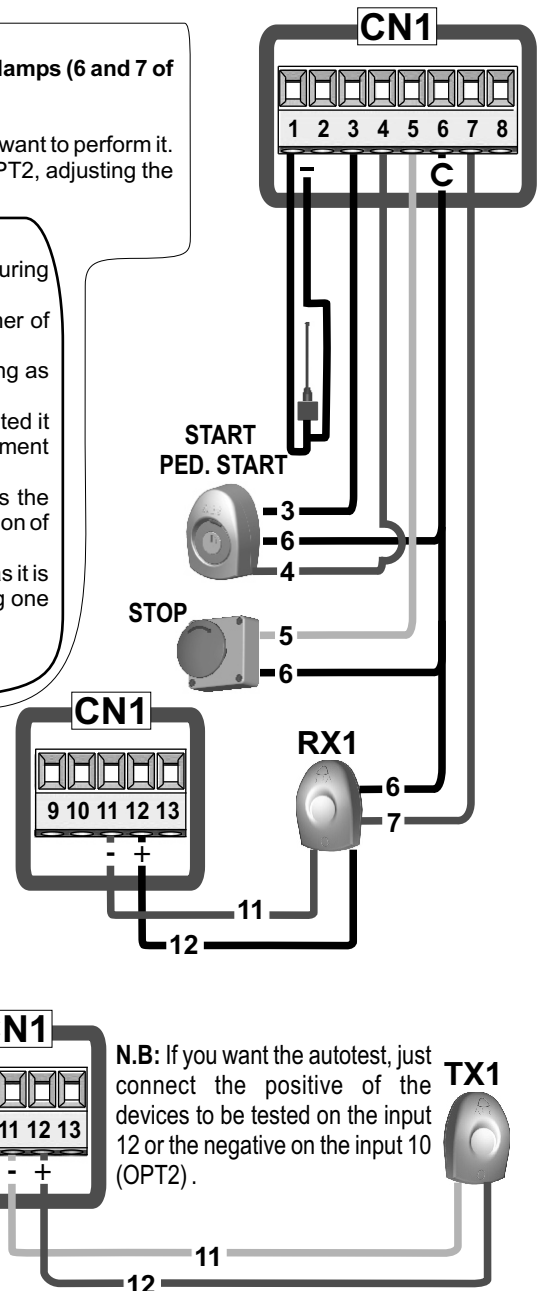


Can be activated through the on-board display or through the Jolly programmer. In both cases it's a N.O. contact which provokes the opening of the automation keeping it open as long as it is activated. When it's released, after having paused for the set pausing time the gate recloses. The TIMER can be activated on the input 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 restores 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.



N.B: If you want the autotest, just connect the positive of the devices to be tested on the input 12 or the negative on the input 10 (OPT2).

ENCODER

ENCODER (CN5 Connector)

The Encoder can be used both on electromechanical and hydraulic operators.

The Encoder allows 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.

NOTE: If the Encoder is activated it is possible to visualize in the special menu the total memorized impulses and the partial impulses executed by the motor.

ATTENTION: The first operation, after power failure will be for searching the mechanical stops at the end of the run and the gate could not perform the slowdown.

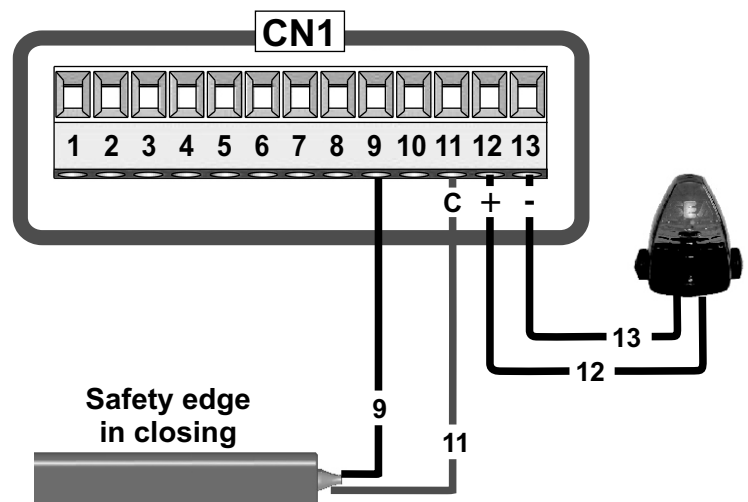
SAFETY EDGE AND FLASHING LAMP

SAFETY EDGE

Safety edges (*EDGE*) can be connected between the contacts 9 and 11 of CN1.

Pressing EDGE, the contact opens, causing a partial reversing of the gate in closing and opening.

Note1: If the edge contact is not used it must be bridged. The EDGE input can be set: only in closing, only in opening or in both directions.



Warning lamp Flash Led 24V (FL) = 4W Max (Control lamp)

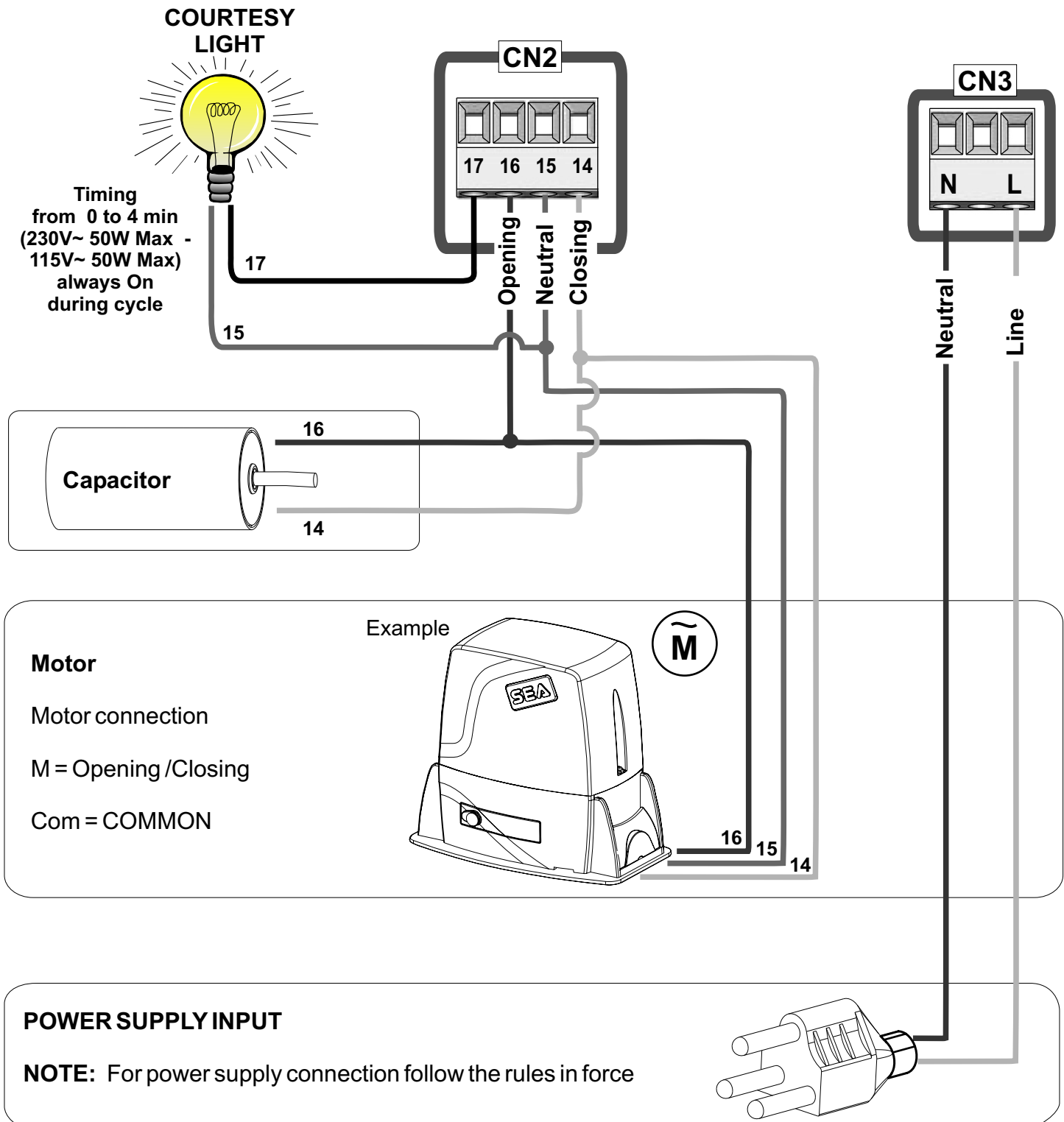
The warning lamp can be connected between the terminals 24V(FL) and FL(-) of CN1

It blinks once per second during opening and twice per second during closing, while it remains lit during pause.

Through the warning lamp it is also possible to identify alarm signals coming from the STOP, PHOTOCELL 1 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, MOTORS, CAPACITY AND POWER SUPPLY CONNECTIONS



ALARM DESCRIPTION

Signals	Kind of alarm	Solutions
<i>FR.LurE Motor</i>	Motor current failure	Sure there are no short circuits on the motor or on the control unit.
<i>FR.LurE24</i>	24V Power supply failure	Make sure there are no short circuits on the wiring or on the control unit and no overloads.
<i>FR.LurE24VRAH</i>	24VA output voltage	Make sure there are no short circuits on wiring or control unit and no overload.
<i>FR.LurE nEt</i>	Power supply failure	Check the network or the F2 fuse
<i>FR.LurE SELF tESt</i>	Self-test photocells failure	Check the photocells operation and / or connections on the control unit.
<i>FR.LurE L.iM.i.t S.U.i.t.C.H</i>	Limit switch activation failure	Check the operation of both limit switches and / or correspondence between movement direction of the motor and engaged limit switches.
<i>FR.LurE FLASH.iNG L.iGHt</i>	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	Motor 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

Advices

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.) Gate is stopped by an obstacle c.) Torque too low	a.) Set limit switches b.) Remove obstacle c.) 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	a.) b.) c.) Check the jumpers or the signals indicated on the warning lamp
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 aFF

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 recommend 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 waste collection and recycling of this kind of product.

STORING
WAREHOUSING TEMPERATURES

T _{min}	T _{Max}	Dampness _{min}	Dampness _{Max}
- 20°C / -4°F	+ 65°C / +149°F	5% <i>Not condensing</i>	90% <i>Not condensing</i>

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.

TERMS OF SALES

EFFICACY OF THE FOLLOWING TERMS OF SALE: the following general terms of sale shall be applied to all orders sent to SEA S.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

GENERAL NOTICE The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

1) PROPOSED ORDER The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

2) PERIOD OF THE OFFER The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

3) PRICING The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network. The special sales conditions with extra discount on quantity basis (Qx, Qx1, Qx2, Qx3 formula) is reserved to official distributors under SEA management written agreement.

4) PAYMENTS The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

5) DELIVERY Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

6) COMPLAINTS Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

7) SUPPLY The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

8) WARRANTY The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

SILVER: The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

GOLD: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

PLATINUM: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly, or if the label affixed by the manufacturer has been removed including the SEA registered trademark No. 804888. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repair of products under warranty and out of warranty is subject to compliance with the procedures notified by SEA.

9) RESERVED DOMAIN A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer purchases propriety of the goods only after full payment of the latter.

10) COMPETENT COURT OF LAW In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes.

Industrial ownership rights: once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand num.804888 affixed on product labels and / or on manuals and / or on any other documentation, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly clauses under numbers:

4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW

GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. Read carefully these **Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger. SEA S.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromgnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEA S.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEA S.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEA S.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm² section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.



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



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