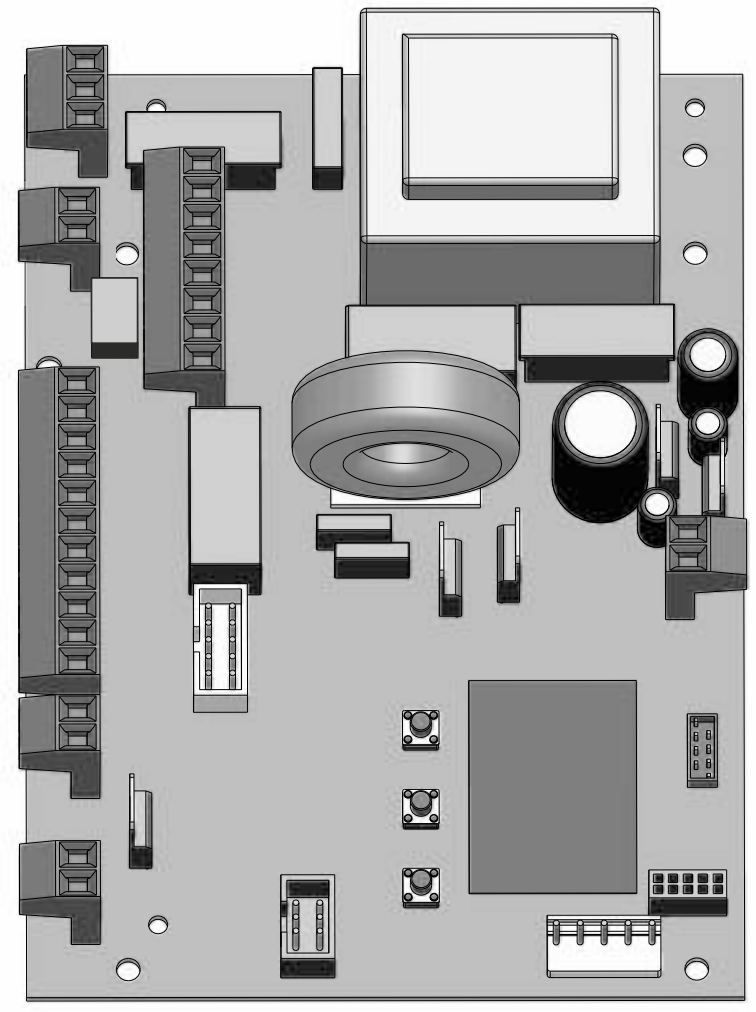
Automatic Gate Openers

International registered trademark n. 804888

English

SWING 2 DG R2F

ELECTRONIC CONTROL UNIT FOR 1 OR 2 230V/115V MOTORS



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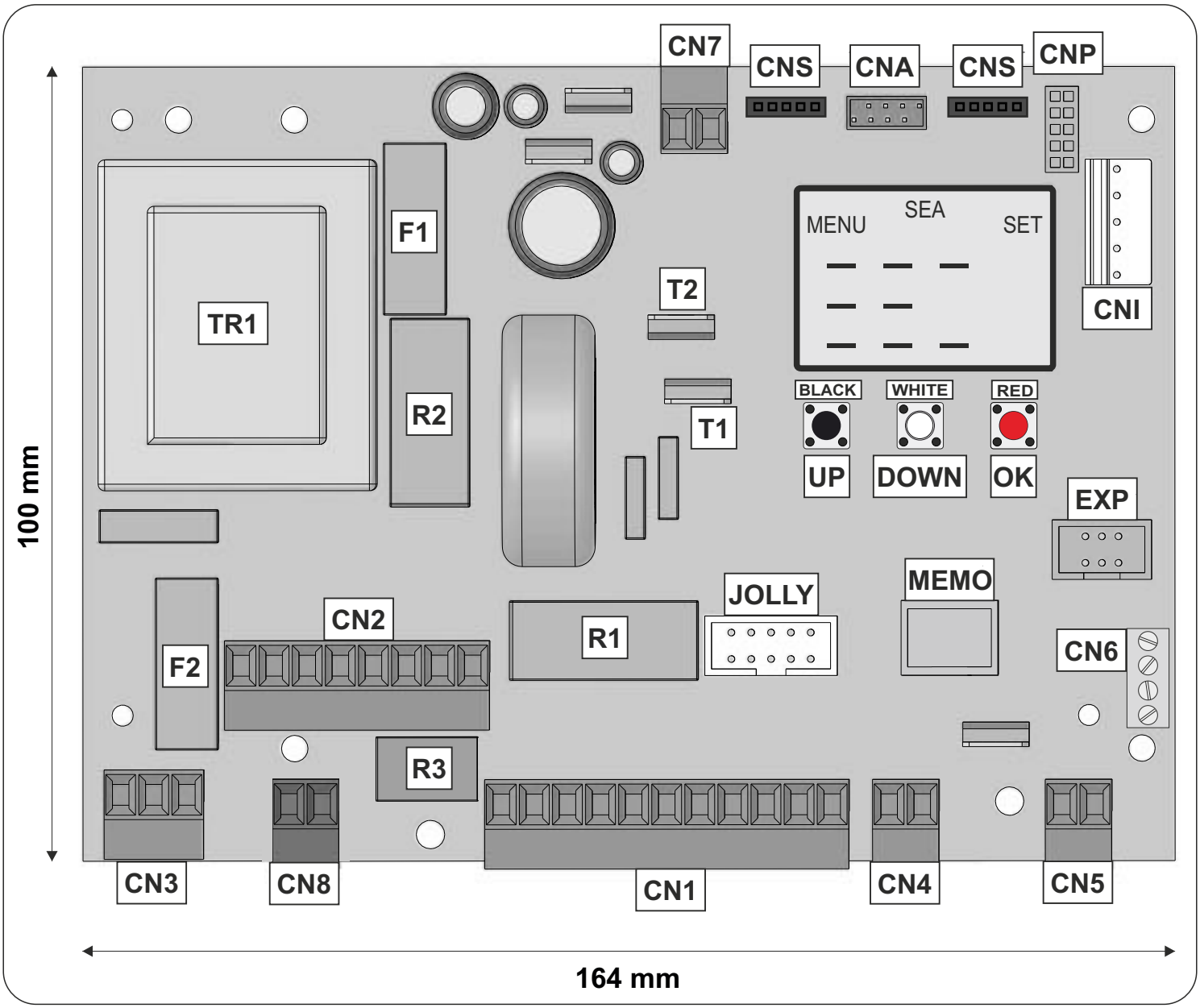
REV. 10 - 01/2021

COMPONENTI - COMPONENTS - COMPOSANTS - COMPONENTES



DATI TECNICI - TECHNICAL DATA
DONNEES TECHNIQUES - DATOS TECNICOS

ALIMENTAZIONE POWER SUPPLY ALIMENTATION ALIMENTACIÓN	230 Vac 50/60 Hz 115Vac 50/60 Hz

TEMPERATURA DI ESERCIZIO WORKING TEMPERATURE TEMPERATURE DE TRAVAIL TEMPERATURA DE TRABAJO	-20°C ⅄ +50°C ⅄

ASSORBIMENTO IN STAND-BY STAND-BY ABSORPTION ABSORPTION EN STAND-BY ABSORCIÓN EN STAND-BY	30 mA

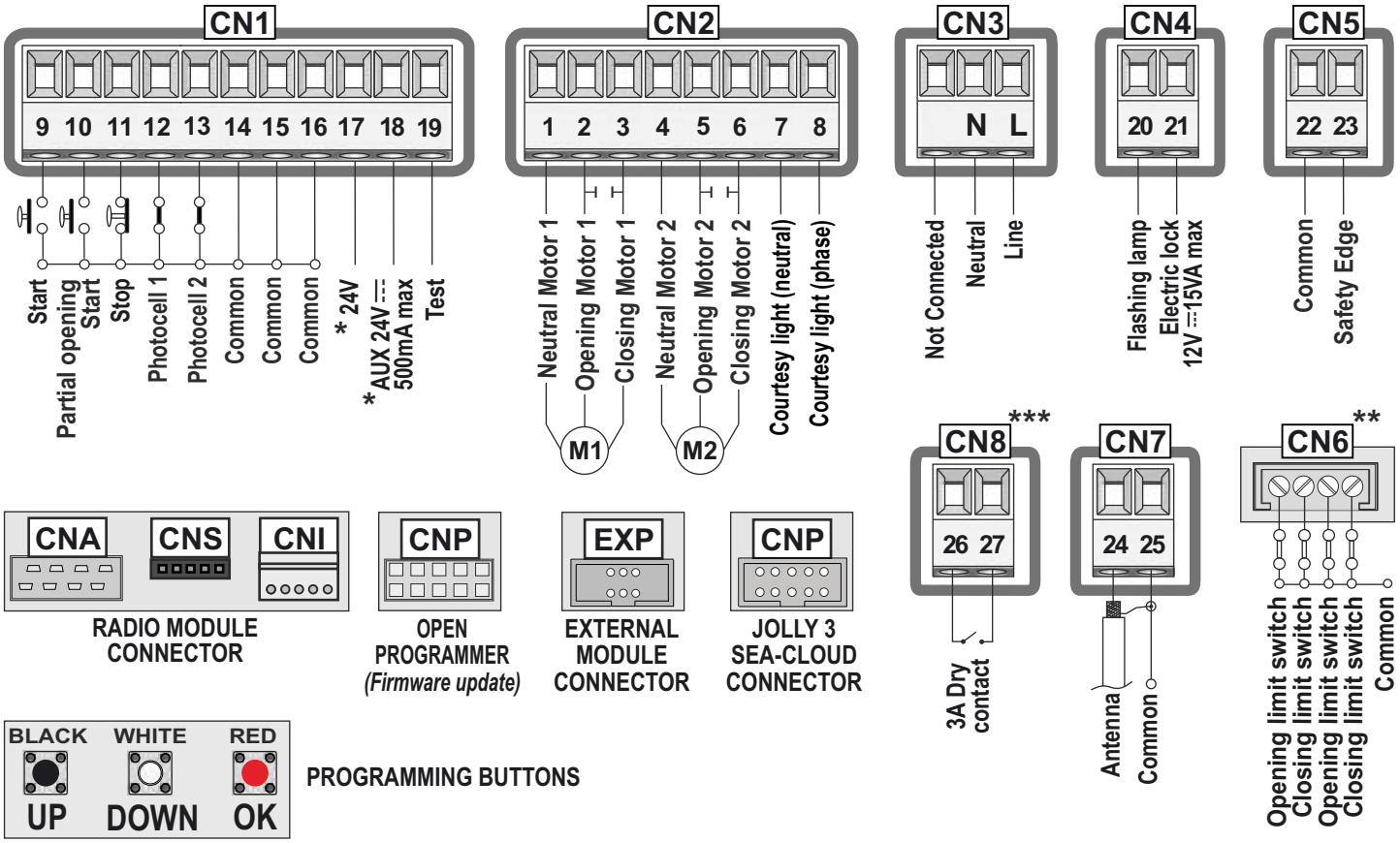
SCATOLA PER ESTERNO EXTERNAL BOX BOITIER EXTERIEURE CONTENEDOR EXTERIOR	183 x 238 x 120 mm IP55

COMPONENTI - COMPONENTS - COMPOSANTS - COMPONENTES

	ITALIANO	ENGLISH	FRANÇAIS	ESPAÑOL
CN1	ingresso / uscita	input / output	entrée / sortie	entrada / salida
CN2	motore condensatore luce cortesia	motor capacitor courtesy light	moteur condensateur lumière de courtoisie	motor condensador luz de cortesía
CN3	alimentazione	power supply	alimentation	alimentación
CN4	lampeggiante elettroserratura	Flashing light electric lock	lampe clignotante serrure électrique	lampara cerradura eléctrica
CN5	costa di sicurezza	safety edge	tranche de sécurité	banda de seguridad
CN6	finecorsa	limit switch	fin de course	final de carrera
CN7	antenna	antenna	antenne	antenna
CN8	contatto pulito 3A - 250V	dry contact 3A - 250V	contact sec 3A - 250V	contacto seco 3A - 250V
CNA	ricevente RX	RX receiver	récepteur RX	receptor RX
CNS	ricevente FIX	FIX receiver	récepteur FIX	receptor FIX
CNI	ricevente ad innesto	plug-in receiver	récepteur enfichable	receptor enfichable
CNP	programmazione	programming	programmation	programación
EXP	modulo esterno	external module	module externe	módulo externo
JOLLY	JOLLY 3 SEACLOUD	JOLLY 3 SEACLOUD	JOLLY 3 SEACLOUD	JOLLY 3 SEACLOUD
T1	triac pilotaggio motori	triac pilotaggio motori	triac pilotage moteurs	triac pilotaje motores
T2	triac pilotaggio motori	motor control triac	triac pilotage moteurs	triac pilotaje motores
R1	relay motori	motors relay	relay moteurs	relay motores
R2	relay luce cortesia	courtesy light relay	relay lumière courtoisie	relay luz de cortesía
R3	relay contatto pulito	dry contact relay	relay contact sec	relay contacto seco
F1	fusibile accessori 1A	1 A accessories fuse	fusible accessoires 1A	fusible accesorios 1A
F2	fusibile 6.3AT (230V) fusibile 10AT (115V)	6.3AT fuse (230V) 10AT fuse (115V)	fusible 6.3AT (230V) fusible 10AT (115V)	fusible 6.3AT (230V) fusible 10AT (115V)
TR1	trasformatore alimentazione	power transformer	trasformateur alimentation	trasformador alimentación
MEMO	memoria aggiuntiva TX	TX additional memory	mémoire additionnelle TX	memoria addicional TX

1 - CONNECTIONS

WARNING: CONNECT ALL DEVICES WHEN THE CONTROL UNIT IS SWITCHED-OFF

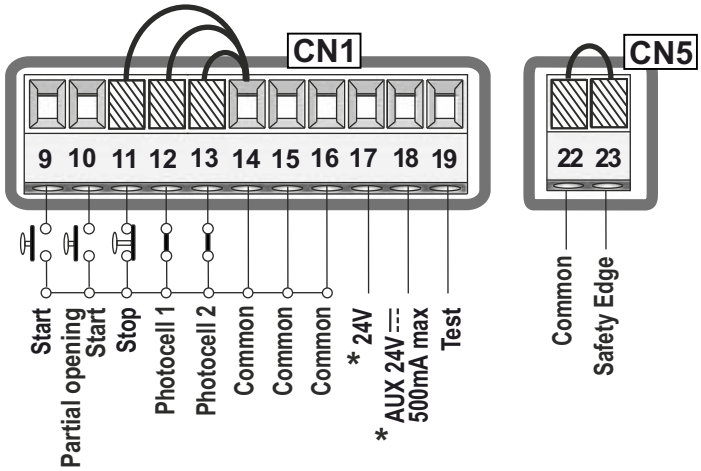


*** The max. indicated load (500 mA) refers to the maximum load distributed on all 24V outputs, including the absorption of the receiver on board (30 mA)**

**** The CN6 connector is only on the model SWING 2 DG R2F «FC» with limit switch management**

***** The dry contact connector CN8 supports a maximum load of 3A and 250V.**
NOTE: Available only on R2 DRY CONTACT hardware version and with additional relay

2 - JUMPERS

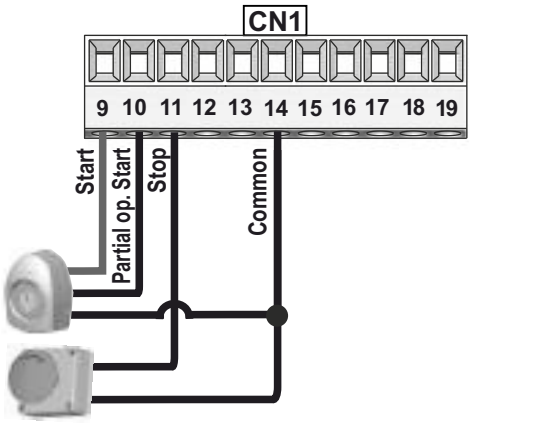


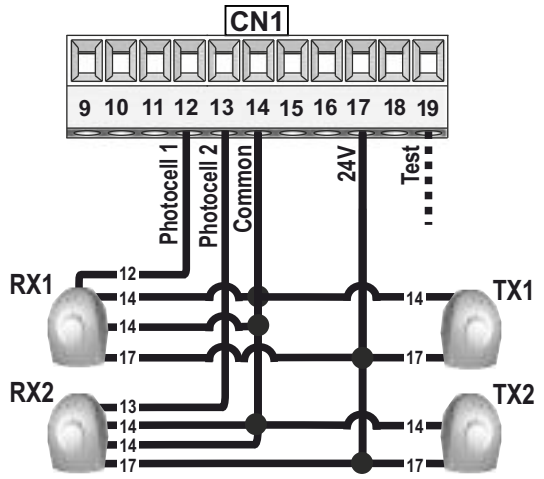
WARNING: The control unit is designed for the automatic detection of not used N.C. inputs (Photocells, Stop). After the self-learning, the excluded inputs can be restored through the «INPUT STATUS CHECK» menu (see chapter 15) without need to repeat the self-learning

OPTIONAL JUMPERS

NOTE:
The herein reported functions are available starting from Software Revision 03.00 of this control unit and it is compatible with JOLLY 3 programmer

3 - CONNECTIONS ON CN1





3.1 - START (N.O.)

On clamps 9 and 14
The automation can be opened or closed through an impulse transmitted to this input (via key button, keyboard, etc.). To connect other Start devices (for ex. the magnetic loop) refer to the respective instructions
Note 1: For details on the logics that can be associated to the START button, see **chapter 17 (LOGICS)**
Note 2: If this contact is engaged during the pause (eg. Timer), the gate will not close until releasing

3.2 - PARTIAL OPENING START (N.O.)

On clamps 10 and 14
The input allows to obtain the partial opening. It is possible to manage the opening space through the **menu-90** or through the JOLLY 3. It is also possible to manage the partial opening pause time through the **menu- 91**
Note 1: For details on the logics that can be associated to the PARTIAL OPENING START button, see **chapter 17 (LOGICS)**
Note 2: If this contact is engaged during the pause (eg. Timer), the gate will not close until releasing

***IMPORTANT:** on menu **89-TRAFFIC LIGHTS RESERVATION** it is possible to activate the priority in opening or closing to be associated to the START and the PARTIAL OPENING START buttons (only with SEM management unit)*

3.3 - STOP (N.C.) On clamps 11 and 14

If this button is pressed the engine stops immediately in whatever condition or position it is.
A new Start command will be required to restore the movement.
***Note:** After the Stop command, the engine will always re-start in closing*

3.4 - PHOTOCELL 1 AND PHOTOCELL 2

24V = (clamp 17) ***COM (0V) = (clamps 14 - 15 - 16)***
Photocell 1 = (clamp 12) ***Photocell 2 = (clamp 13)***
Note 1: To perform the ***SELF-TEST,*** connect the TX photocell negative on ***clamp 19*** and activate the «**PHOTOTEST**» function on **menu 95-PHOTOTEST** (it is also possible to activate the self-test on a single photocell by choosing from the menu options)
Note 2: The default settings are: **97-PHOTOCELL 1** = «closing»; **98-PHOTOCELL 2** = «opening»;
for further functions and management, see menu-97 and menu-98

3.5 - AUX 24V ⎓ OPTIONS max 500mA On clamp 18

From the **menu 94-24VAUX** or through the JOLLY 3 programmer it is possible to choose when to have voltage on the AUX output. It is possible to connect a **WARNING LAMP** to this input; for the lamp functions refer to the menu **94-24V AUX - «open gate warning lamp»**

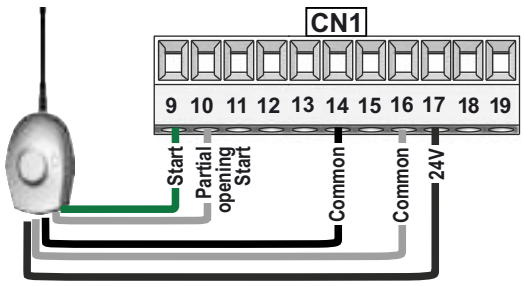
3.6 - TIMER (N.O.)

On clamp 10 (Partial Opening Start) or on clamp 13 (Photocell 2)
It can be enabled through **menu-92** or via JOLLY 3. It opens and keeps the automation open until the contact is released. When released, the operator will wait for the pause time set then will close again
Note 1: If connected to the Partial Opening Start, this command will also be disabled on the remote control
Note 2: When the timer is active, in the event of a safety intervention, a Start command will be required to restore the movement
Note 3: In case of a power failure when the gate is open, if the TIMER is still active the gate will reclose automatically; if no longer active, a new Start impulse will be required

3.7 - EXTERNAL RECEIVER

An external receiver can be connected to the control unit according to the connection diagram. For more details on connections and functionalities of the external receiver, refer to the relative instruction manual

EXAMPLE OF EXTERNAL RECEIVER CONNECTION



3.8 - LATCH OPENING OR LATCH CLOSING BUTTON

On clamps 10 and 14

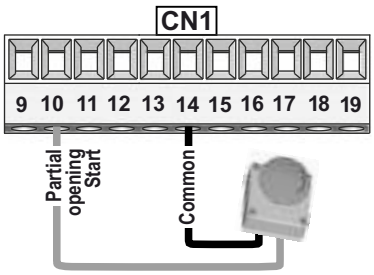
A button for the **Latch Opening** or **Closing** function can be connected to the control unit. To activate it, connect the N.O. contact on the Partial Opening Start (this function will be disabled). Through the **menu 118-LATCH** it is possible to choose between the various Latch options. To deactivate the Latch function, press again the button used for its activation

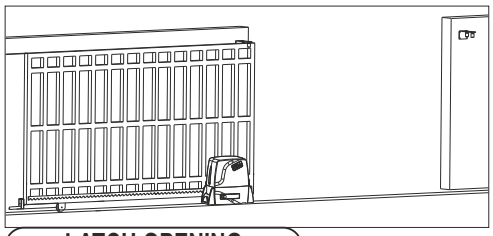
LATCH OPENING: opens and keeps the automation open. If active, no other type of Start command is accepted until the function is deactivated

LATCH CLOSING: closes and keeps the automation closed. If active, no other type of Start command is accepted until the function is deactivated

Note 1: *The Latch function can also be enabled on the second channel of the remote control; see paragraph 19.2 for details*

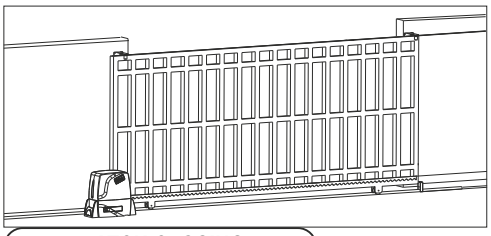
Note 2: *The Latch function can also be enabled through the SEACLOUD. Please refer to the SEACLOUD instructions for more details*





LATCH OPENING
OPENS AND KEEPS OPEN

NO OTHER COMMAND ACCEPTED



LATCH CLOSING
CLOSES AND KEEPS CLOSED

NO OTHER COMMAND ACCEPTED

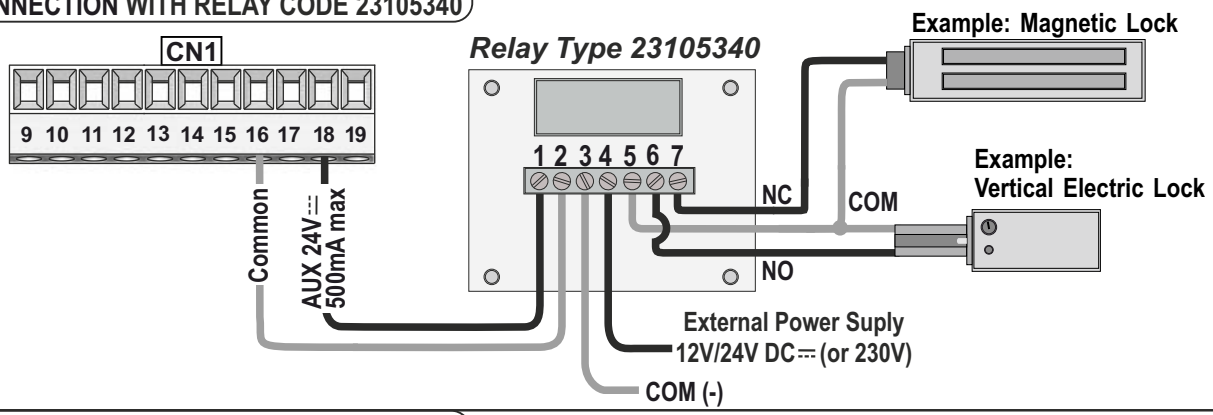
3.9 - MAGNETIC LOCK or VERTICAL ELECTRIC LOCK

On clamps 16 and 18

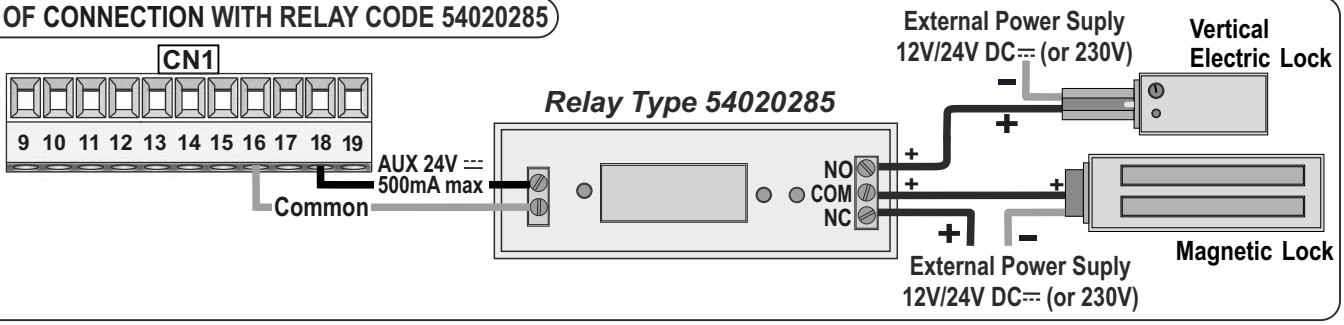
ATTENTION: set the menu 94-24V AUX on «NEGATIVE BRAKE» before connecting the lock

*It is possible to connect a magnetic lock (**MagLock**) or a vertical electric lock through the Relay card code 23105340 (or old model code 54020285) to the control unit and to the external power supply (12V/24V DC power supply in case of 12V/24V lock or to 230V power supply in case of 230V lock)*

EXAMPLE OF CONNECTION WITH RELAY CODE 23105340



EXAMPLE OF CONNECTION WITH RELAY CODE 54020285



4 - CONNECTIONS ON CN2

4.1 - MOTOR CONNECTION ON THE CONTROL UNIT

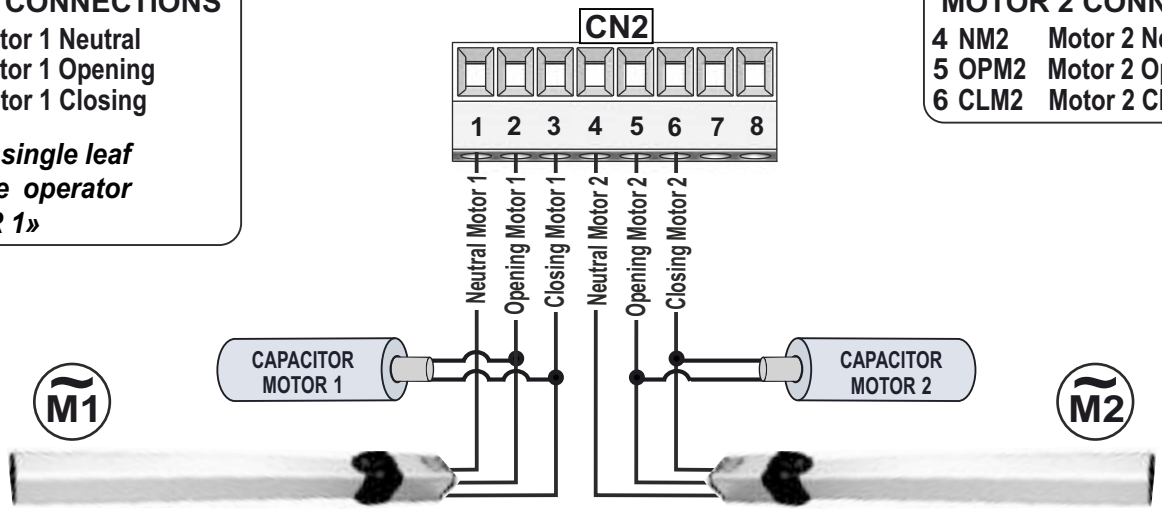
MOTOR 1 CONNECTIONS

1 NM1 Motor 1 Neutral
2 OPM1 Motor 1 Opening
3 CLM1 Motor 1 Closing

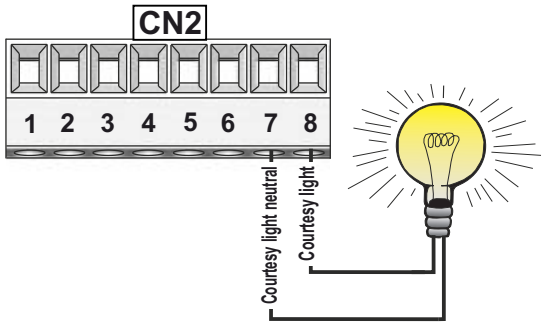
**** In case of single leaf connect the operator as «MOTOR 1»***

MOTOR 2 CONNECTIONS

4 NM2 Motor 2 Neutral
5 OPM2 Motor 2 Opening
6 CLM2 Motor 2 Closing



4.2 - COURTESY LIGHT CONNECTIONS



A flashing light working via flashing management board or a timed courtesy light (adjustable from 0 to 240 seconds) can be connected to the CN2, according to the aside connection diagram

*See the **menu 88-COURTESY LIGHT** for settings*

TIMED COURTESY LIGHT FROM 0 UP TO 4 MINUTES

MAX. 50W ⟶ 230V **MAX. 100W ⟶ 115V**

5 - CONNECTIONS ON CN3

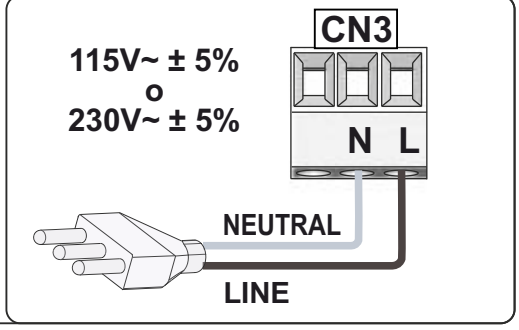
5.1 - CONTROL UNIT CONNECTION

Fuse 3,6A delayed on 230V~ power supply
Fuse 6,3A delayed on 115V~ power supply

CAUTION!: for the connection to the power grid refer to the regulations in force

NOTE: It is recommended to use a 10A differential switch to protect the power supply system

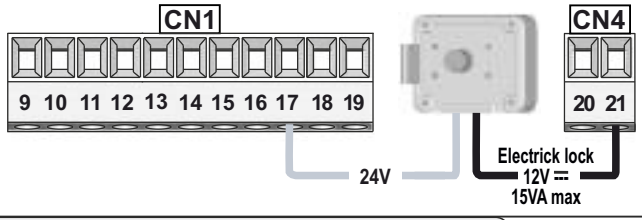
NOTE: In case of unstable power supply, we recommend the use of an external UPS of minimum 800VA



6 - CONNECTIONS ON CN4

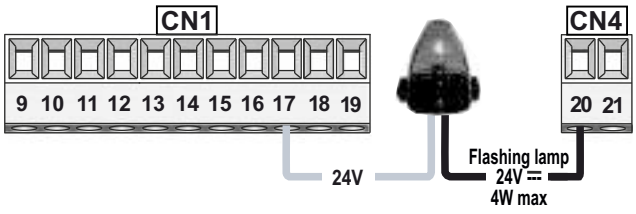
6.1 - ELECTRIC LOCK on clamp 17 of CN1 and on clamp 21 of CN4

A 12V⎓ / 5W max electric lock can be connected according to the aside connection diagram. From the menu **77-LOCK TIME** it is possible to adjust the release time of the electric lock from 0 to 5 seconds; From the menu **78-LOCK** it is possible to choose the activation mode, if in opening only, in closing only or in both

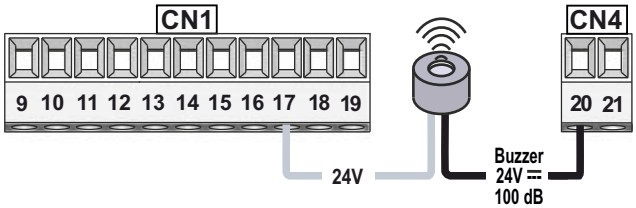


6.2 - FLASHING LIGHT or BUZZER on clamp 17 of CN1 and on clamp 20 of CN4

It is possible to connect a 24V ⎓ / 4W max. flashing light which warns of the gate movement by **performing 1 blink per second on opening, 2 blinks per second on closing and remaining on steady during pause**. Through the flashing light it is also possible to read the alarm signals linked to the **STOP**, **PHOTOCELL 1**, **PHOTOCELL 2** and **SAFETY EDGE** devices. It is possible to manage the flashing light functions through the **menu 86-FLASHING LIGHT** or through the JOLLY 3 **Furthermore it is possible to manage the pre-flashing function from menu 85- PRE-FLASHING**



On the same clamps it is possible to connect a 24V ⎓ and 100 dB **SELF-OSCILLATING BUZZER.**
The Buzzer is a sound alarm that can be used as a safety device. It can be connected instead of the flashing light, but it is necessary to set on ***«BUZZER»*** the menu **86-FLASHING LIGHT**. The Buzzer will activate after 2 consecutive interventions of the anti-crushing protection

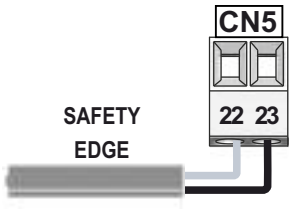


To reset the buzzer press the STOP button; in any case, the sound of the Buzzer turns off automatically after 5 minutes and the automation will stand-by waiting for a new command

7 - CONNECTIONS ON CN5

7.1 - SAFETY EDGE on clamp 22 and 23 of CN5

If activated, the safety edge causes a partial inversion of the motion both in opening and closing. The edge functions can be managed from the **menus 100-SAFETY EDGE 1** and **102-EDGE 1 DIRECTION** or **103-EDGE 2 DIRECTION (only if menu 98-PHOTOCELL 2 is set on *«SAFETY EDGE 2»*).**



Note 1: among the **menu-100** options there is the **8K2 balanced edge**: the edge contact will be controlled by a specific resistance value which detects any possible short-circuit of the device. If the device is unbalanced, a specific alarm will appear on the display
Note 2: the safety edge functions can also be managed through the JOLLY 3 programmer
Note 3: To carry out the self-test (even on a wireless safety edge, if connected) connect the edge positive to the input 19 «**TEST**» of **CN1** and select «**EDGE 1**» in the **menu 96-SAFETY EDGE SELF-TEST**

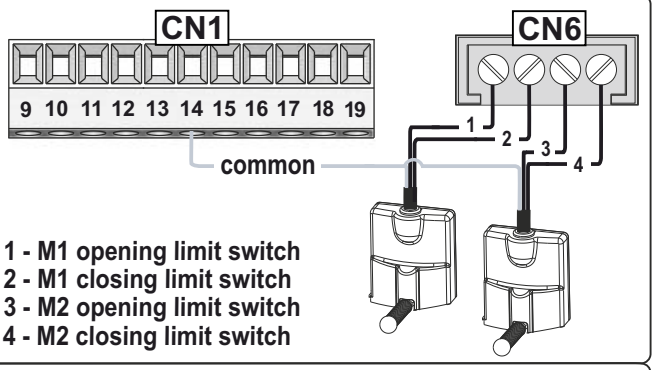
8 - CONNECTIONS ON CN6

8.1 - LIMIT SWITCH (*ONLY ON SWING 2 DG R2F «FC» VERSION*)

Limit switches must be connected to the **CN6** connector and **to the clamp 14 (common) of CN1**, according to the aside connection diagram

Through **the menu 104 - SELECT LIMIT SWITCH** it is possible to set the type of limit switch and the working mode

It is also possible to activate the **anti-intrusion function** from **menu 79-ANTI INTRUSION**; this function is linked to the presence of at least one limit switch which, if released, forces the motor to reclose.



⚠ **For a proper operation of the limit switches check the correspondence between the motor movement direction and the respective engaged limit switch**

9 - CONNECTIONS ON CN7 and CN8

9.1 - ANTENNA CONNECTION ON CN7

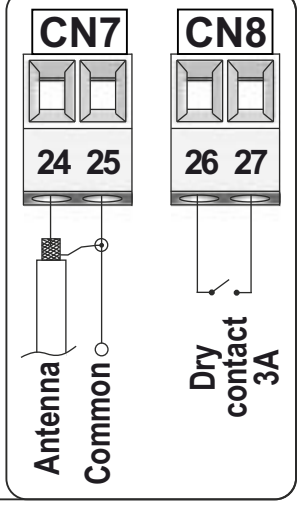
On the **CN7 connector** it is possible to connect the **antenna**, as shown in the diagram aside.

9.2 - DRY CONTACT CONNECTION ON CN8

The **CN8 connector** is a **dry contact** connector (for general use, for example as stairs light activation timer) and supports a maximum load of 3A and 250V

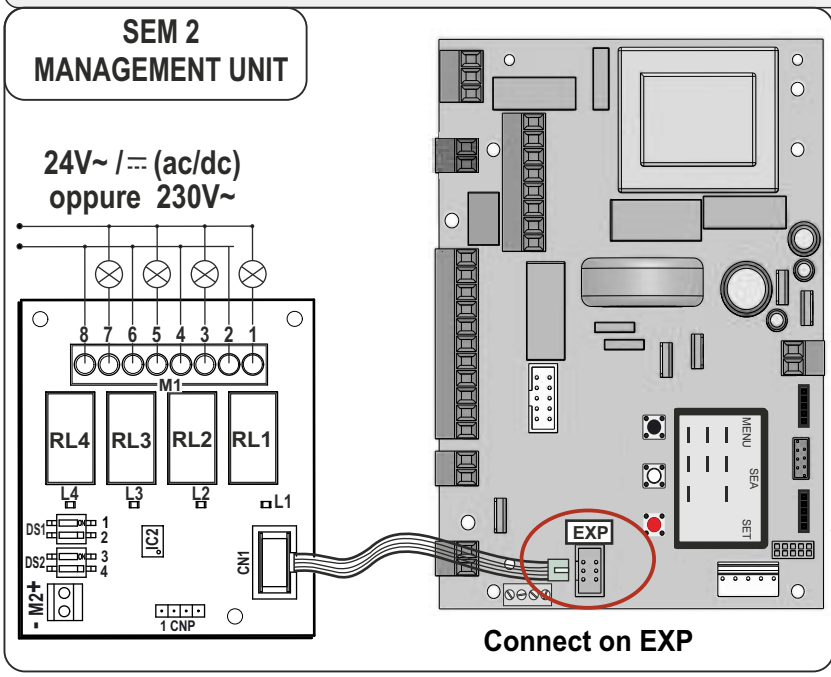
The relay will work with the START command, the PARTIAL OPENING START command or in case of PHOTOCELL intervention and remains active for 3 seconds.

NOTE: This function is available only on R2 DRY CONTACT hardware version and with the additional relay



10 - CONNECTIONS ON EXP

10.1 - «SEM 2» MANAGEMENT UNIT CONNECTIONS



The **«SEM 2»** management unit can be connected through the **EXP** connector

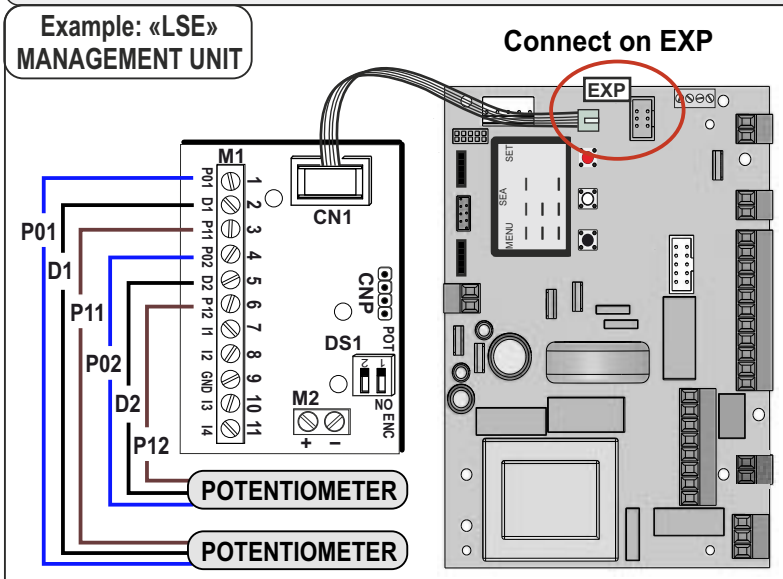
The SEM 2 unit manages:

- The **TRAFFIC LIGHT** functions
- The **COURTESY LIGHT** functions
- The **VERTICAL ELECTRIC LOCK** functions
- The **POSITIVE AND/OR NEGATIVE ELECTRIC BRAKE** functions
- The **LIMIT SWITCH** status

For further details on connections, functions or specifications of the «SEM 2» unit, refer to the relevant TECHNICAL INSTRUCTIONS

10.2 - «POSITION GATE» CONNECTION THROUGH «LSE» or «LE» UNITS

Example: «LSE» MANAGEMENT UNIT



P11/P12 = Brown
D1/D2 = White or Black *
P01/P02 = Green or Blue *

**** The cables colors change depending on whether it is the old or the new model of LSE unit (or LE unit)***

Through the **LSE** management unit (or **LE** management unit) it is possible to connect the «**POSITION GATE**», a potentiometer able to manage the correct position of the gate and the reversing on obstacle

POSITION GATE can be enabled on menu
32-ENCODER→POTENZIOMETER→ ON

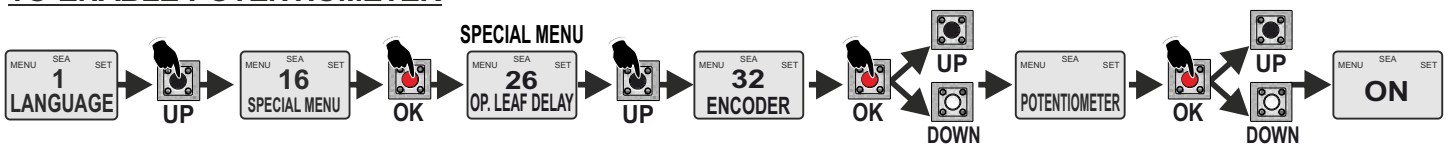
WARNING:
To use the potentiometer it is necessary to adjust both Dip-switches on OFF

Dip switch 1 = OFF
Dip switch 2 = OFF

For further details on the LSE (or LE) unit connections and functions, refer to the relevant TECHNICAL INSTRUCTIONS

10.3 - «POSITION GATE» POTENTIOMETER SETTING

TO ENABLE POTENTIOMETER



MENU 32 - POTENTIOMETER - MANAGEMENT SUB-MENUS

51-I.PAR.M1 (PARTIAL PULSES MOTOR 1) displays the current position of the operator

52-I.AP.M1 (OPENING PULSES MOTOR 1) displays the impulses with the leaf completely open and it is possible, accessing through OK, to increase or decrease the total pulses using the UP and DOWN buttons

53-I.CH.M1 (CLOSING PULSES MOTOR 1) displays the impulses with the leaf completely closed and it is possible, accessing through OK, to increase or decrease the total pulses using the UP and DOWN buttons

54-I.PAR.M2 (PARTIAL PULSES MOTOR 2) displays the current position of the operator

55-I.AP.M2 (OPENING PULSES MOTOR 2) displays the impulses with the leaf completely open and it is possible, accessing through OK, to increase or decrease the total pulses using the UP and DOWN buttons

56-I.CH.M2 (CLOSING PULSES MOTOR 2) displays the impulses with the leaf completely closed and it is possible, accessing through OK, to increase or decrease the total pulses using the UP and DOWN buttons

Example:

NOTE 1: *If the potentiometer reading is reversed in respect to the operator movement , the display will show the alarm «**POTENTIOMETER DIRECTION**» (see the last chapter **«Alarms»**); it is therefore necessary to invert the brown cable with the green cable (or Blue) and repeat the programming*

10.4 - «POSITION GATE» POTENTIOMETER PARAMETERS SETTING

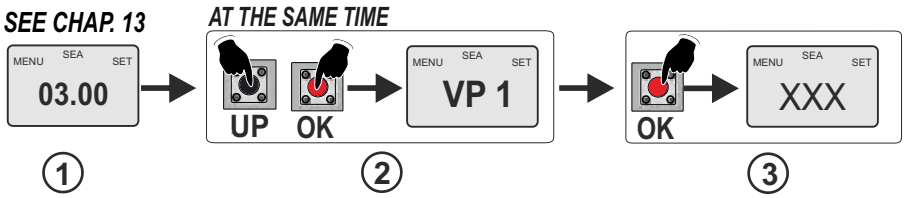
menu 33-OPENING SENSITIVITY MOTOR 1 adjusts the intervention time in opening
menu 34-CLOSING SENSITIVITY MOTOR 1 adjusts the intervention time in closing
menu 35-OPENING SENSITIVITY MOTOR 2 adjusts the intervention time in opening
menu 36-CLOSING SENSITIVITY MOTOR 2 adjusts the intervention time in closing
menu 37-SLOW-DOWN SENSITIVITY adjusts the inversion time during the slow-down
menu 38-OPENING POTENTIOMETER THRESHOLD M1 adjusts the intervention threshold in opening
menu 39-CLOSING POTENTIOMETER THRESHOLD M1 adjusts the intervention threshold in closing
menu 40-OPENING POTENTIOMETER THRESHOLD M2 adjusts the intervention threshold in opening
menu 41-CLOSING POTENTIOMETER THRESHOLD M2 adjusts the intervention threshold in closing
menu 42-POTENTIOMETER DECELERATION THRESHOLD IN OPENING M1
menu 43-POTENTIOMETER DECELERATION THRESHOLD IN CLOSING M1
menu 44-POTENTIOMETER DECELERATION THRESHOLD IN OPENING M2
menu 45-POTENTIOMETER DECELERATION THRESHOLD IN CLOSING M2

NOTE 1: ***For a quick reverse on obstacle*** it is necessary to decrease the sensitivity parameters

NOTE 2: The sensitivity parameters can also be set in OFF (intervention excluded); in this case the potentiometer will only work in pulse detection mode (it does not reverse on obstacle)

10.5 - ACCESS TO THE HIDDEN «DEBUG» MENU FOR POTENTIOMETER

To view the instantaneous speed values «VP1» and «VP2» (referred to motor 1 and motor 2) ***ACCESS THE HIDDEN «DEBUG» MENU:***

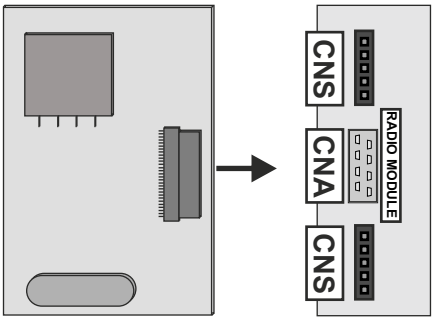


The view of these values allows to adjust a maximum threshold below which the potentiometer (or the encoder) intervenes. The maximum threshold can be adjusted through menus 38 - 39 - 40 - 41 (while the maximum slowdown threshold can be adjusted through menus 42 - 43 - 44 - 45) and must always be higher than the instantaneous speed value shown in VP1 or VP2

11 - RECEIVERS CONNECTIONS ON CNA - CNS - CNI

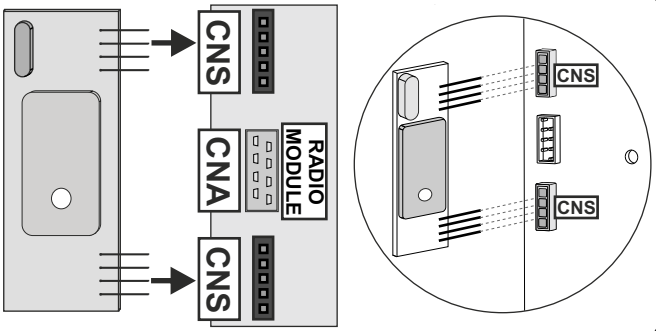
RF UNI
RF UNI PG

RESPECT INSERTION SIDE

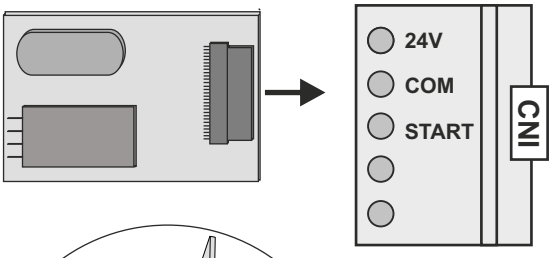


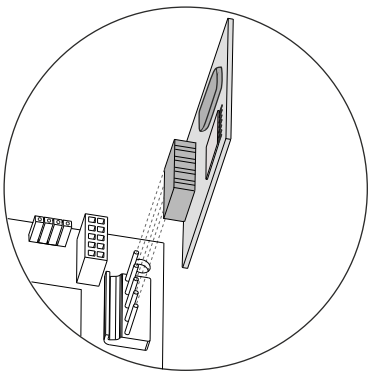
RF FIX

RESPECT INSERTION SIDE



PLUG-IN EXTERNAL RECEIVER

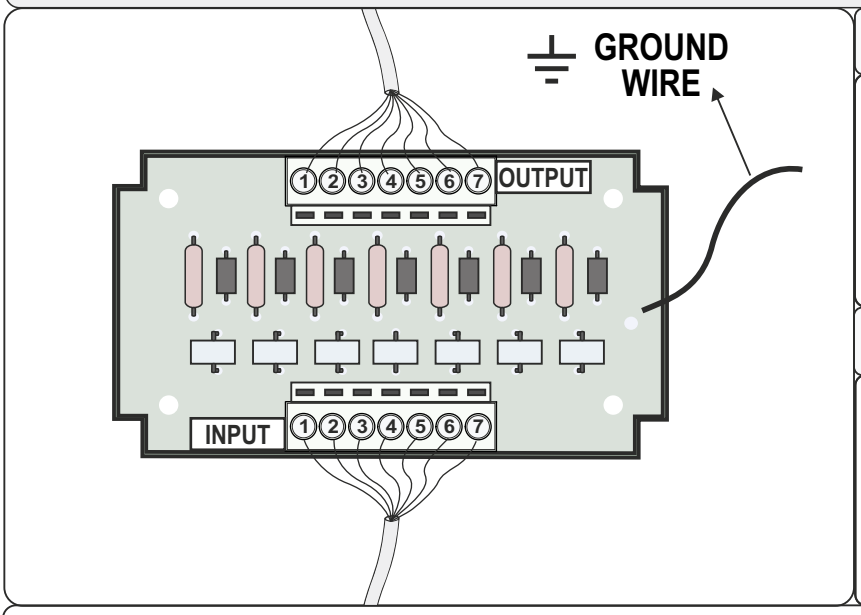




RESPECT INSERTION SIDE

12 - ADDITIONAL FUNCTIONS

12.1 - «I/O SURGE PROTECTOR» CIRCUIT CONNECTION



OUTPUT CONNECTIONS ON CONTROL UNIT	
1	24V DC ACCESSORIES
2	CONTACT 1 (Eg. PHOTOCELL)
3	CONTACT 2 (Eg. SAFETY EDGE)
4	CONTACT 3 (Eg. START)
5	CONTACT 4
6	CONTACT 5
7	CONTACT 6

INPUT ACCESSORIES CONNECTIONS	
1	24V DC ACCESSORIES
2	CONTACT 1 (Eg. PHOTOCELL)
3	CONTACT 2 (Eg. SAFETY EDGE)
4	CONTACT 3 (Eg. START)
5	CONTACT 4
6	CONTACT 5
7	CONTACT 6

It is possible to connect the «**SURGE PROTECTOR**» device, to protect up to 6 inputs + 24V power supply from overvoltages due, for example, to the lightning strikes. Simply connect the cable of the accessory to be protected to the **INPUT** of the SURGE PROTECTOR circuit and then, from the corresponding number on the **OUTPUT** terminal block, connect the cable to the control unit

NOTE: connect the common and the power supply negative directly on the control unit

13 - DISPLAY E PROGRAMMING

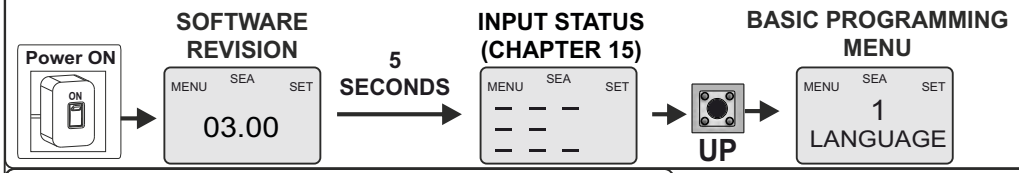
WARNING! MAKE ALL CONNECTIONS WHEN THE CONTROL UNIT IS SWITCHED-OFF. START THE PARAMETERS SETTINGS WHEN ALL ACCESSORIES HAVE BEEN CONNECTED

13.1 - SWITCHING ON THE CONTROL UNIT

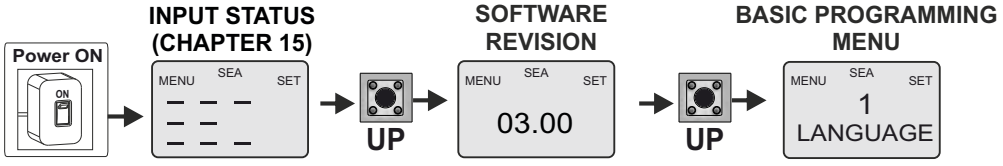
When a new control unit is powered on, the display shows the software revision first and the **INPUT STATUS** after 5 seconds.

If a control unit is already programmed, the display immediately shows the **INPUT STATUS** view

NEW CONTROL UNIT OR AFTER RESET

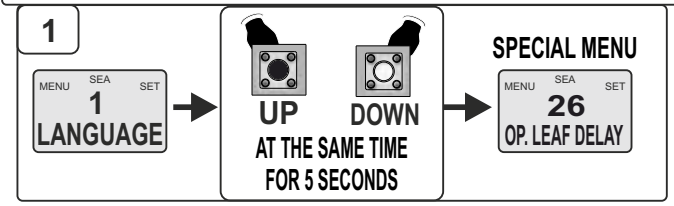


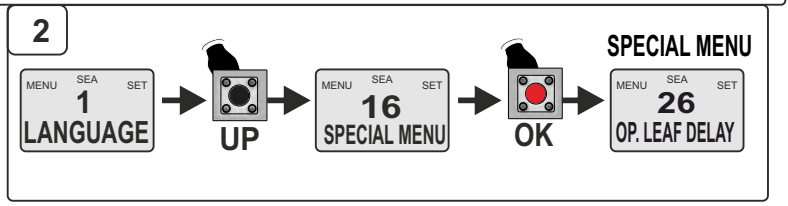
ALREADY PROGRAMMED CONTROL UNIT



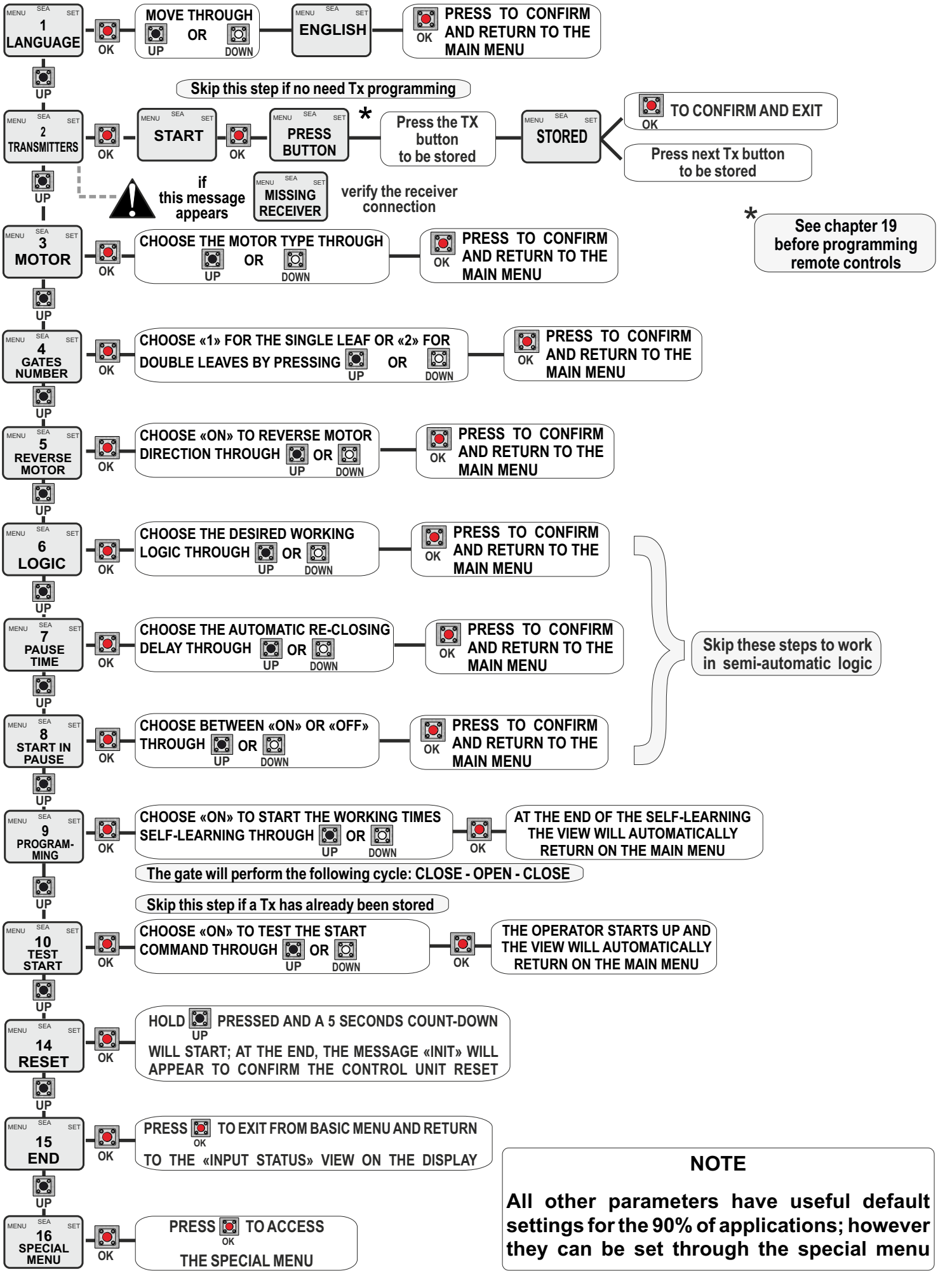
13.2 - BASIC PROGRAMMING MENU AND SPECIAL MENU

The control unit is equipped with a **basic programming menu** which can be accessed through the procedure above indicated when a control unit is switched on. The control unit is also equipped with a **special menu** that allows the setting of various parameters and the configuration of the accessories.
To access **THE SPECIAL MENU** choose one of the following 2 procedures:





14 - BASIC MENU FUNCTIONS



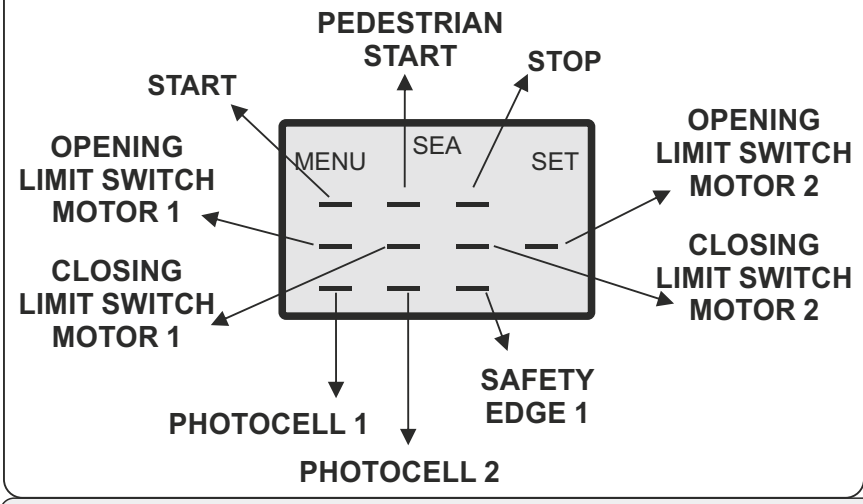
NOTE

All other parameters have useful default settings for the 90% of applications; however they can be set through the special menu

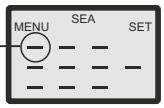
15 - INPUT STATUS CHECK AND MANAGEMENT

The input status check menu is displayed at the start of the control unit (for more details see chapter 13). Each input corresponds to a fixed position on the display, according to the diagram below and can be **NORMALLY OPEN (N.O.)** or **NORMALLY CLOSED (N.C.)**

INPUT STATUS DIAGRAM

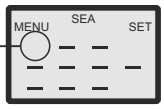


DASH ON:



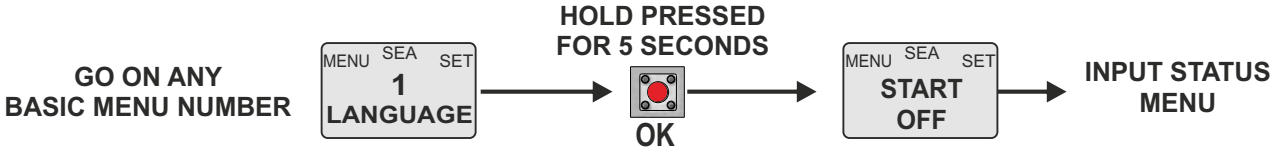
NORMALLY CLOSED INPUT (N.C.)

DASH OFF:



NORMALLY OPEN INPUT (N.O.)

15.1 - ACCESS TO THE INPUTS STATUS MENU AND MANAGEMENT



Access the input status menu and scroll forward or backward through UP and DOWN; by scrolling through the inputs, these are shown in their current state: in ON or OFF

example: MENU SEA SET START OFF or MENU SEA SET START ON

Within this management menu it is possible to enable or disable the inputs; for the procedure see the table in the next paragraph (15.2);

The LIMIT SWITCHES inputs cannot be managed, but only their current status (ON or OFF) is displayed

WARNING

START and **PARTIAL OPENING START** must be **NORMALLY OPEN (N.O.)** contacts:

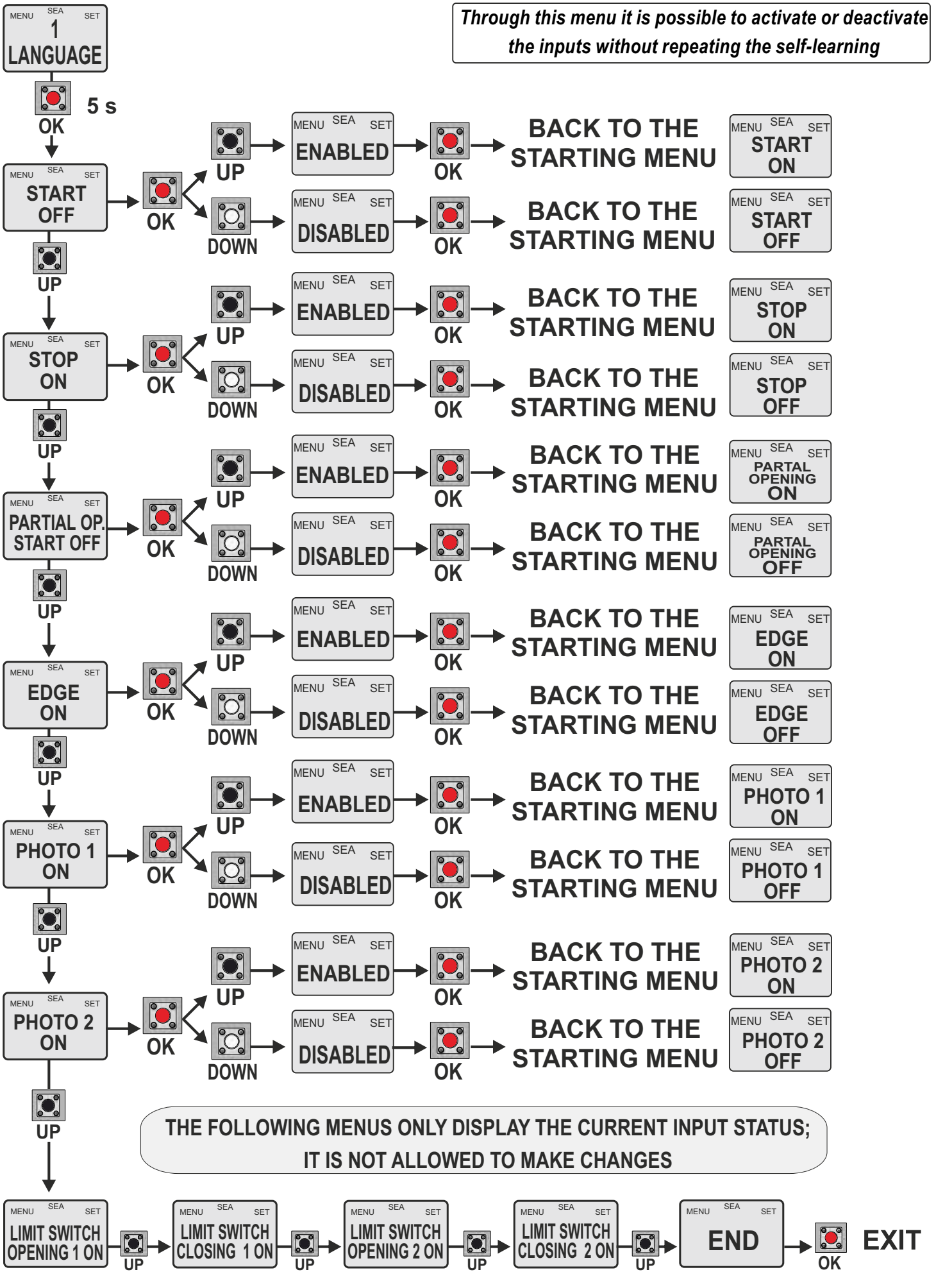
If «**ON**» appears on the display when one of the two command is activated, the input is working
If «**OFF**» is displayed even after the command activation, then it is advisable to check the wirings

ALL OTHER CONTACTS ARE NORMALLY CLOSED (N.C.):

If «**OFF**» appears on the display when a command is activated, the input is working
If «**ON**» is displayed even after the command activation, then it is advisable to check the wirings

15.2 - SWING 2 DG R2F INPUT MANAGEMENT MENU

Through this menu it is possible to activate or deactivate the inputs without repeating the self-learning



16 - WORKING TIMES SELF-LEARNING

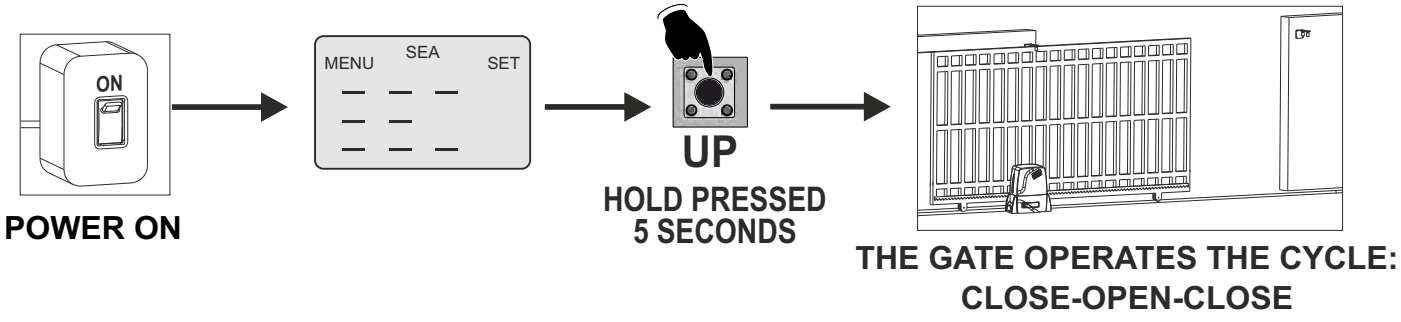
WARNING! POTENTIALLY DANGEROUS PROCEDURE. TO BE PERFORMED EXCLUSIVELY BY SPECIALIZED INSTALLERS AND IN SAFETY CONDITIONS

PRELIMINARY NOTES:

- It is not necessary to jumper Limit switches, Photocells, Stop or Safety Edges inputs if not used
- Check the correct operation of all accessories (Photocells, Push buttons etc.)

16.1 - QUICK START

The electronic unit on board the **SLIDING OPERATORS** is already set by default on the respective operator model and already has default settings for main parameters therefore it is possible to proceed with the **quick self-learning of the working times**, starting **with the gate on its halfway**



POWER ON

HOLD PRESSED 5 SECONDS

THE GATE OPERATES THE CYCLE: CLOSE-OPEN-CLOSE

16.2 - SELF-LEARNING WITH LIMIT-SWITCHES

Working times self-learning by detection of the limit-switch points (with or without ENCODER)

The control board automatically recognizes the connected limit switches therefore by starting the working times self-learning (paragraph 16.6), the gate will perform the following cycle:

CLOSE M2 - CLOSE M1 - OPEN M1 - OPEN M2 - CLOSE M2 - CLOSE M1

NOTE 1: Check on the **INPUT STATUS** menu that the correct limit switches are engaged for each movement direction (see chapter 15)

NOTE 2: If the operator starts in closing, arrives up to the limit switch lever then it stops, it will be necessary to invert the limit switch cables and repeat the learning procedure

16.3 - SELF-LEARNING WITH POTENTIOMETER (or ENCODER *)

Working times self-learning by detection of the pulses through Potentiometer (or Encoder)

PRELIMINARY NOTES:

- Check the potentiometer activation (the menu **32-POTENTIOMETER** must be set to «**ON**»), its settings and its correct reading (see paragraph from 10.3 to 10.5)

WORKING TIMES SELF-LEARNING: AFTER THE ABOVE-MENTIONED CHECKS, FOLLOW THE PROCEDURE ILLUSTRATED IN THE PARAGRAPH (16.6)

In self-learning with POTENTIOMETER, at the end of the procedure the gate performs the following cycle: CLOSE - OPEN - CLOSE - OPEN with SLOWDOWN - CLOSE with SLOWDOWN

* *The SWING 2 DG control unit is generally used to manage operators without Encoder.*
Anyway if the operator is equipped with Encoder, it is necessary to set the ***menu 32-ENCODER*** *to* ***«ON»***
The sensitivity parameters can be adjusted on menus 33 - 34 - 35 - 36 - 37 and the pulses reading is displayed on menus 47 - 48 - 49 - 50

16.4 - SELF-LEARNING THROUGH PULSES WITH POTENTIOMETER

Working times self-learning by detection of the pulses through Potentiometer allowing the choice of the desired stop points.

PRELIMINARY NOTES:

- Check the potentiometer activation (the menu **32-POTENTIOMETER** must be set to «**ON**»), its settings and its correct reading (see paragraph from 10.3 to 10.5)

WORKING TIMES SELF-LEARNING:

after the above mentioned checks, follow the procedure shown in the paragraph 16.6 up to n° (15) and during the learning cycle **«CLOSE - OPEN - CLOSE»** give a manual pulse (by pressing **UP** or **DOWN** or giving a **START** command) on every desired leaf point of stop (n° (17))

16.5 - SELF-LEARNING THROUGH PULSES without potentiometer

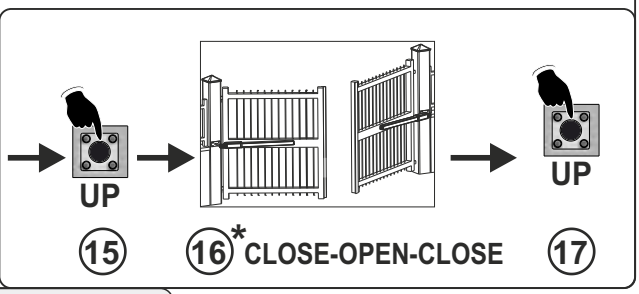
Working times self-learning through manual impulse on the stop points

PRELIMINARY NOTES:

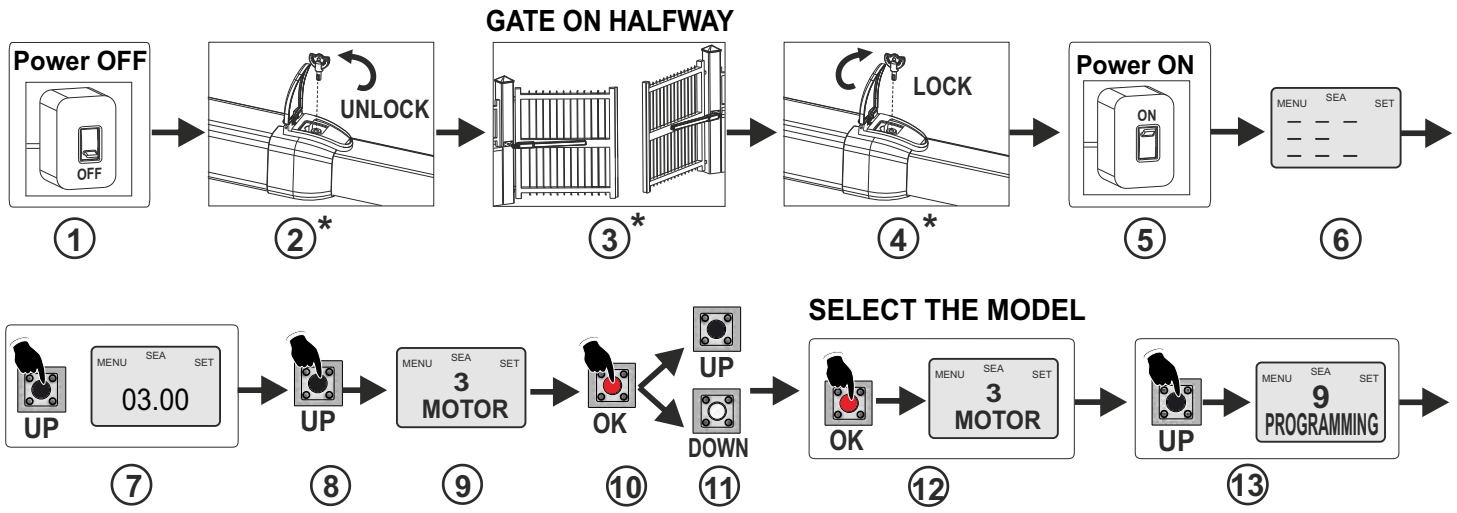
- First set the operating logic (chapter 17) and, if necessary, adjust the different menus to the desired parameters (if **menu-32** is «**OFF**» it is also possible to display the submenus 65 - 66 - 67 - 68 for the working times adjustment); if necessary, also program the remote controls.

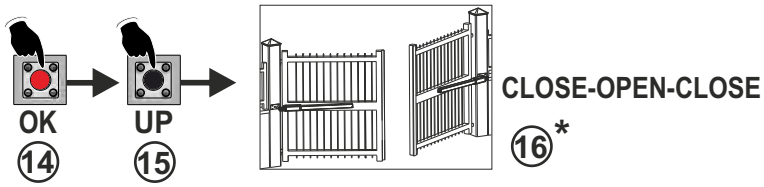
WORKING TIMES SELF-LEARNING:

after the above mentioned checks, follow the procedure shown in the paragraph 16.6 up to n° (15) and during the learning cycle **«CLOSE - OPEN - CLOSE»** give a manual pulse (by pressing **UP** or **DOWN** or giving a **START** command) on every leaf point of stop (n° (17))



16.6 - WORKING TIMES SELF-LEARNING PROCEDURE





* *The drawing shows operators for swing gates as an exemple only. For other models, follow the Lock-Unlock procedures as described in their respective technical manuals*

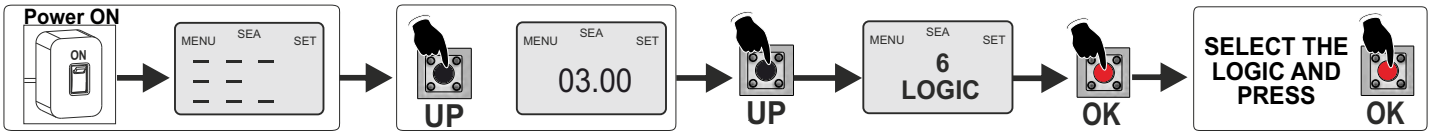
NOTE 1: If a motor performs the first learning cycle starting in opening, remove the power supply and reverse the motor cables (or set to ON the **menu 5-REVERSE MOTOR**), then repeat the procedure

17 - OPERATING LOGICS

PRELIMINARY NOTES:

1) For the automatic closing it is necessary to set a pause time; through the menu **7-PAUSE TIME** set a time between 1 second and 240 seconds; by default this parameter is OFF (SEMI-AUTOMATIC logic: after the opening, a START impulse will be required to close the gate)

2) It is possible to choose whether or not to accept the Start in pause; on menu **8-START PAUSE** select ON By default this parameter is OFF



AUTOMATIC LOGIC

A **START** impulse opens the gate. A second **START** impluse during the opening will not be accepted.
A **START** impulse during closing reverses the movement

SAFETY LOGIC

A **START** impulse opens the gate. A second **START** impulse during opening reverses the movement.
A **START** impulse during closing reverses the movement

STEP BY STEP TYPE 1 LOGIC

The **START** impulse follows the **OPEN-STOP-CLOSE-STOP-OPEN** logic

STEP BY STEP TYPE 2 LOGIC

The **START** impulse follows the **OPEN-STOP-CLOSE-OPEN** logic

DEAD MAN LOGIC

The gate opens as long as the **START** opening button is held pressed; when released the gate stops
The gate closes as long as the **PARTIAL OPENING START** is held pressed; when released the gate stops
To carry out the complete opening and/or closing cycles it is necessary to hold the respective buttons constantly pressed

2 PUSH-BUTTONS LOGIC

One **START** opens, one **PARTIAL OPENING START** closes.
A closing input will not be accepted during opening. A **START** command reopens during closing movement while the **PARTIAL OPENING START** (to close) will be ignored

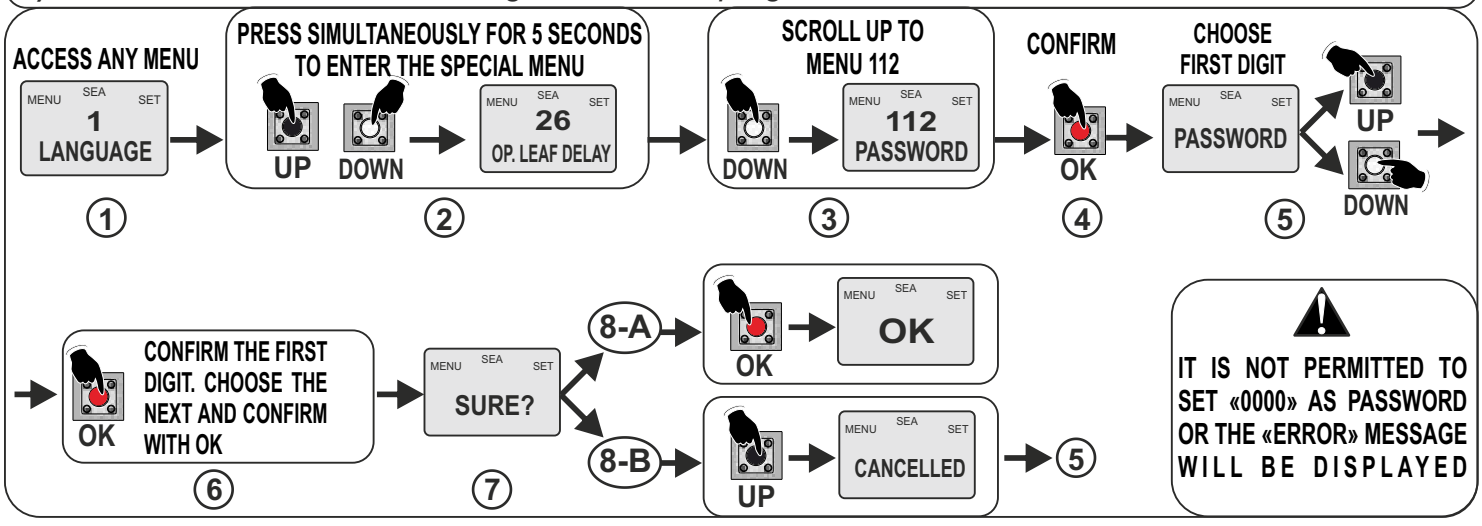
18 - PASSWORD MANAGEMENT

PRELIMINARY NOTES:

1) Once the password is enabled, **the menu cannot be adjusted**;

2) If You forgot the password, contact the SEA technical assistance; SEA will evaluate whether or not to provide the procedure for the control unit unlocking

3) *Password CAN NOT be set through the JOLLY 3 programmer*



19 - RECEIVERS AND REMOTE CONTROLS

SEA PLUG-IN RECEIVERS *(see chapter 11)*	MAX NUMBER OF USERS
RF UNI	**16 USERS** Without additional memory **800 USERS** With MEMO additional memory
RF UNI PG ***(Old Model - non-extractable memory)***	**100 USERS** Fix Code **800 USERS** Roll Plus
RF UNI PG ***(New Model - extractable memory)***	**800 USERS** Fix Code **800 USERS** Roll Plus
RF FIX	**16 USERS** Without additional memory **100 USERS** With MEMO additional memory

PRELIMINARY NOTES:

- **With the control unit OFF**, check if the RECEIVER module is correctly connected to the connector
- Power up the control unit and program the radio transmitters before connecting the antenna
- **RF UNI** and **RF UNI PG** modules allow the use of both **ROLL PLUS** and **FIX CODE** radio transmitters
- Perform the radio transmitters learning ***only with closed gate and stopped motor***
- It is possible to store up to 2 of the available functions
- The START function must ALWAYS be assigned
- If the second function assigned will be modified later, then all the radio transmitters will acquire this last function on the second channel
- ***The RF FIX module only allows the use of FIX CODE radio transmitters***

⚠ **WARNING** The first stored radio transmitter will determine the coding of the following ones: if the first radio transmitter is stored as ROLLING CODE, then all the following radio transmitters must be stored as ROLLING CODE (FIX CODE storing will not be accepted). Vice versa, if the first radio transmitter is stored as a FIX CODE, then all the following radio transmitters must be stored as FIX CODE (ROLLING CODE storing will not be accepted)

STORING OF A ROLLING CODE RADIO TRANSMITTER:

Follow the procedures on the paragraph 19.2 for programming the remote control different buttons When choosing the remote control button to be programmed, it is required to *«Press the Button»*; **to store THE FIRST REMOTE CONTROL in ROLLING CODE the button must be pressed TWICE IN SUCCESSION; for the subsequent remote controls it is sufficient to press it ONLY ONCE as required by the procedure**

STORING OF A FIX CODE OR ROLLING CODE PLUS RADIO TRANSMITTER:

Follow the procedures on the paragraph 19.2 for programming the remote control different buttons; **to store REMOTE CONTROLS in FIX CODE or ROLLING CODE PLUS the button must be pressed ONCE as required by the procedure (for both the first remote control and the following ones)**

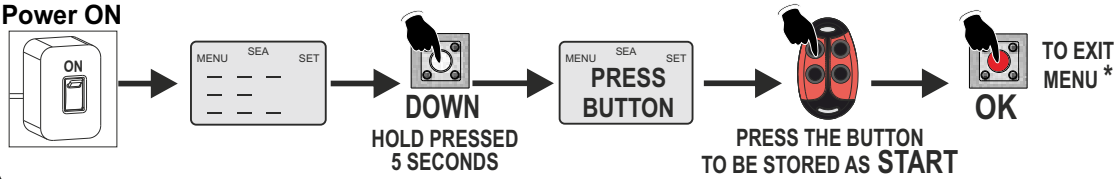
FOR THE INSTALLER: 2-REMOTE CONTROLS menu shows the stored radio transmitters serial number; It is advisable to create a table* as reminder of the serial numbers for each remote assigned to every customer, for an easy transmitter/customer management

Memory Location \ TX Button	1	2	3	Serial Number	Customer
0					
1					
2					
3					

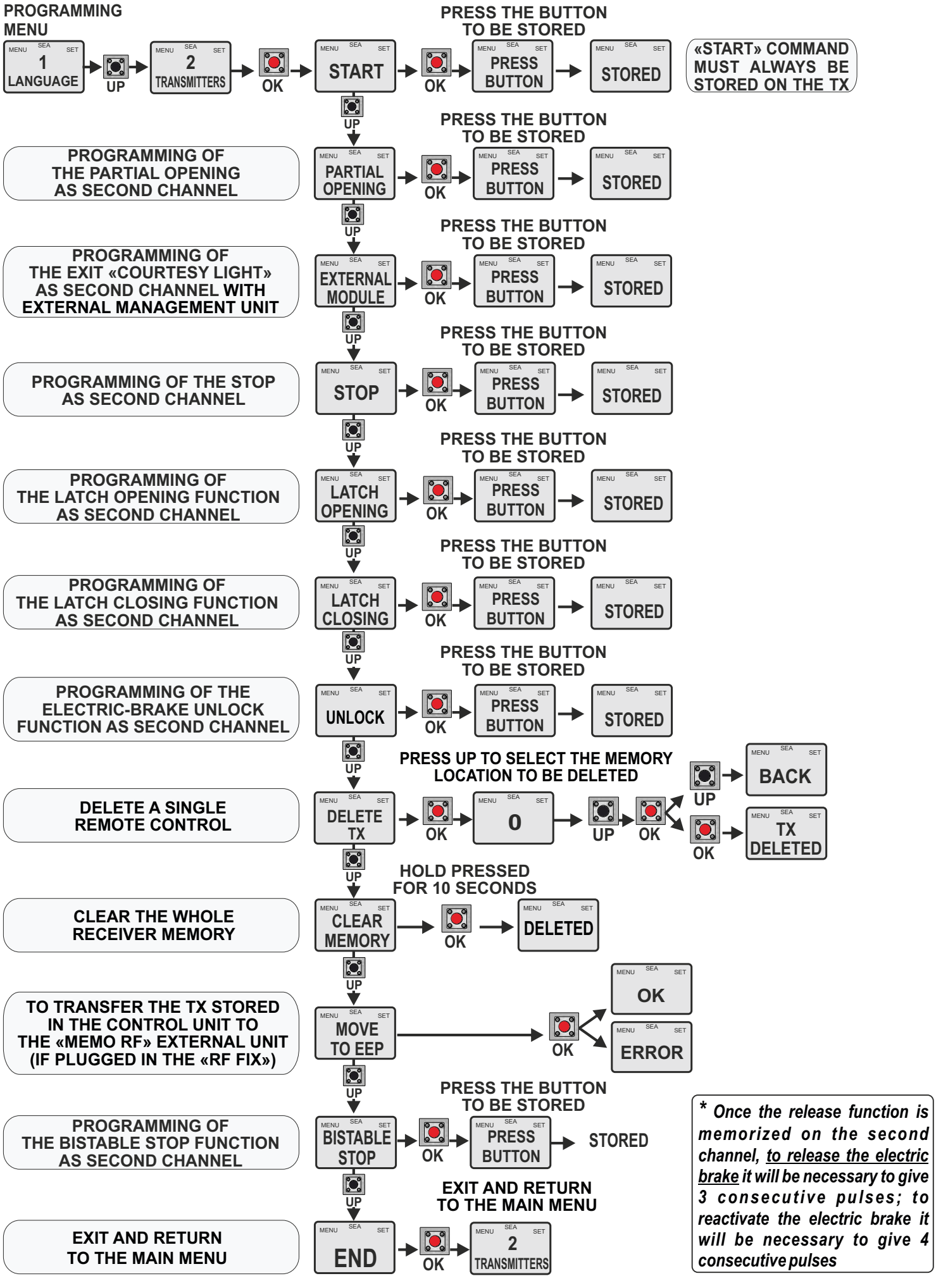
****exemple of table***

19.1 - START COMMAND QUICK SELF-LEARNING

It is possible to use the following quick procedure to store the START command on the remote control



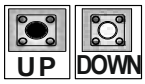
19.2 - REMOTE CONTROLS PROGRAMMING TABLE



** Once the release function is memorized on the second channel, to release the electric brake it will be necessary to give 3 consecutive pulses; to reactivate the electric brake it will be necessary to give 4 consecutive pulses*

SWING 2 DG R2F MENU FUNCTIONS TABLE

MENU		SET	DESCRIPTION	DEFAULT	NOTES
1	LANGUAGE	*Italiano*	Italian	*English*	
		English	English		
		Français	French		
		Español	Spanish		
		Dutch	Dutch		
		Polish	Polish		
2	TRANSMITTERS	*Start*	Start	*Start* / *Partial Opening*	
		Partial opening	Partial opening		
		External module	External module		
		Stop	Stop		
		Latch opening	One impulse opens and keep open. A second impulse restore the movement		
		Latch closing	One impulse closes and keep closed. A second impulse restore the movement		
		Unloch	Storing of a command for unlocking the electric brake		
		Delete a transmitter	Deletes single transmitter		
		Clear memory	Deletes transmitter memory		
		Move to EEP	To transfer the transmitters stored on the control unit to the external EEPROM (MEM), if inserted		
		Bistable Stop	Pressed once, it stops the gate. Pressed twice, it reactivates the START input		
		End	"Transmitters" menu output		
3	MOTOR	***1-** Hydraulic*	Hydraulic operators	- - - -	
		***2-** Sliding*	Sliding operators		
		***3-** Reversible Sliding*	Reversible sliding operators		
		***4-** Mechanic Swing*	Electro-mechanic swing operators		
		***11-** Cougar*	Electro-mechanic swing operator		
4	MOTORS NUMBER	*From 1 to 2*	To set the number of motors to be managed	*1*	
5	REVERSE MOTOR	*On*	To reverse the opening with the closing or vice-versa ***(Note: both motors and limit-swiches are reversed)***	*Off*	
		Off	Off		
6	LOGIC	*Automatic*	Automatic	*Auto-matic*	
		Open-stop-close-stop-open	Step by step type 1		
		Open-stop-close-open	Step by step type 2		
		2 button	Two buttons		
		Safety	Safety		
		Dead man	Dead man		
7	PAUSE TIME	*Off*	OFF ***(semi-automatic logics)***	*Off*	
		1 240	Setting from 1 second to 4 minutes		
8	START IN PAUSE	*Off*	The Start is not acceped during pause	*Off*	
		On	The Start is acceped during pause		
9	PROGRAMMING	*Off On*	Times learning start	*Off*	
10	TEST START	*Off On*	Start command	*Off*	
14	RESET	A count-down of 5 seconds will start by holding pressed the UP button; at its end "INIT" will appear on the display as confirmation of the control board reset			
15	END	*Press OK to return to the display of the firmware version and to the one of inputs state*			
16	SPECIAL MENU	*Press OK to enter the special menu*			

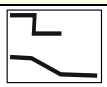
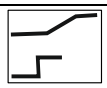


SPECIAL MENU

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

SPECIAL MENU FUNCTIONS TABLE SWING 2 DG R2F					
SPECIAL MENU		**SET**	**DESCRIPTION**	**DEFAULT**	**NOTES**
26	LEAF DELAY IN OPENING	*Off 6*	Setting from OFF to 6 seconds	*1,5*	
27	LEAF DELAY IN CLOSING	*Off 20*	Setting from OFF to 20 seconds	*2,5*	
28	OPENING TORQ 1	*10 100*	By increasing the torque, more strenght will be required to execute the inversion in case of obstacle. ***Note: with hydraulic motors the torque will be on 100%***	*75*	
29	CLOSING TORQ 1	*10 100*	By increasing the torque, more strenght will be required to execute the inversion in case of obstacle. ***Note: with hydraulic motors the torque will be on 100%***	*75*	
30	OPENING TORQ 2	*10 100*	By increasing the torque, more strenght will be required to execute the inversion in case of obstacle. ***Note: with hydraulic motors the torque will be on 100%***	*75*	
31	CLOSING TORQ 2	*10 100*	By increasing the torque, more strenght will be required to execute the inversion in case of obstacle. ***Note: with hydraulic motors the torque will be on 100%***	*75*	
32	ENCODER	*On* ***(with LSE unit only)***	ON = Encoder enabled OFF = disabled - shows working times learnt	*Off*	
	47 ENCODER PAR. M1	*xxx.*	Impulses read by Encoder during operation **(Motor 1)**		
	48 ENCODER TOT. M1	*xxx.*	Impulses stored during programming **(Motor 1)**		
	49 ENCODER PAR. M2	*xxx.*	Impulses read by Encoder during operation **(Motor 2)**		
	50 ENCODER TOT. M2	*xxx.*	Impulses stored during programming **(Motor 2)**		
32	ENCODER	*Potentiometer*	Enables the reading of the potentiometer ***(with LE or LSE management unit only)***	*Off*	
	51 I.PAR. M1	- - - - - - - -	To show the current position of the potentiometer on the leaf moved by **Motor 1**. This parameter is useful to see if the potentiometer is correctly read		
	52 I.AP. M1	From the value learned to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 1** is fully open		
	53 I.CH. M1	From the value learned to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 1** is fully close		
	54 I.PAR.M2	- - - - - - - -	To show the current position of the potentiometer on the leaf moved by **Motor 2**. This parameter is useful to see if the potentiometer is correctly read		
	55 I.AP.M2	From the value learned to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 2** is fully open		
	56 I.CH.M2	From the value learned to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 2** is fully close		
32	ENCODER	*Off*	ON = Encoder enabled OFF = Encoder disabled ***(display of the working times learnt)***	*Off*	
	65 OPENING TIME M1	*xxx.s*	To display the learnt value during the working times self learning, in opening and closing ***(Motor 1)*** . With UP or DOWN it is possible to increase or reduce the working times		
	66 CLOSING TIME M1	*xxx.s*			
	67 OPENING TIME M2	*xxx.s*	To display the learnt value during the working times self learning, in opening and closing ***(Motor 2)*** . With UP or DOWN it is possible to increase or reduce the working times		
	68 CLOSING TIME M2	*xxx.s*			

SPECIAL MENU		SET	DESCRIPTION	DEFAULT	NOTES
33	OPENING SENSITIVITY MOTOR 1	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 1 in opening	*Off*	
		Off (Intervention excluded)	Disabled		
34	CLOSING SENSITIVITY MOTOR 1	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 1 in closing	*Off*	
		Off (Intervention excluded)	Disabled		
35	OPENING SENSITIVITY MOTOR 2	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 2 in opening	*Off*	
		Off (Intervention excluded)	Disabled		
36	CLOSING SENSITIVITY MOTOR 2	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 2 in closing	*Off*	
		Off (Intervention excluded)	Disabled		
37	SLOWDOWN SENSITIVITY MOTOR	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the reversing sensitivity in slowdown ***Function available with Encoder only***	*30%* *(= 1,5s)*	
		With potentiometer	To set the inversion time in slow-down from 0 to 5 seconds ***(= 99%) - With potentiometer enabled only***		
38	POTENTIOMETER THRESHOLD OPENING 1	*0 1000*	To adjust the threshold of the potentiometer intervention. This parameter self-determines during the working times learning but can also be adjusted later, on the condition that the set value is higher than the value shown in VP1 or VP2 (instantaneous speed values which can be shown by accessing the DEBUG menu). ***NOTE: The lower the threshold value, the slower will be the response of the potentiometer.***	*It depends on model*	
39	POTENTIOMETER THRESHOLD CLOSING 1				
40	POTENTIOMETER THRESHOLD OPENING 2				
41	POTENTIOMETER THRESHOLD CLOSING 2				
42	POTENTIOMETER SLOWDOWN THRESHOLD OPENING 1	*0 100*	To adjust the threshold of the potentiometer intervention in slowdown. By default this value is set on 10. but can be manually increased on the condition that the set value is higher than the value shown in VP1 or VP2 (instantaneous speed values which can be shown by accessing the DEBUG menu)	*10*	
43	POTENTIOMETER SLOWDOWN THRESHOLD CLOSING 1				
44	POTENTIOMETER SLOWDOWN THRESHOLD OPENING 2				
45	POTENTIOMETER SLOWDOWN THRESHOLD CLOSING 2				
46	CLOSING INVERSION	*Total*	In case of obstacle or safety edge it totally reverses the movement during closing. If active, the automatic reclosing will be attempted for 5 times	*Partial*	
		Partial	In case of obstacle, safety edge or potentiometer, it partially reverses direction ***(of about 30 cm)*** then stops		
Menus 47 to 50 are visible only if an Encoder is connected and has been enabled on menu 32-ENCODER = ON					
Menus 51 to 56 are visible only if the Potentiometer is connected and has been enabled on menu 32-POTENTIOMETER = ON					
59	OPENING SLOWDOWN 1	*Off (*) 50% Hydraulic*	Adjustable from Off to 50% of the stroke. ***On hydraulic operators, the slowdown is automatically set to "Hydraulic" if value exceeds the 50%***	*It depends on model*	
60	CLOSING SLOWDOWN 1	*Off (*) 50% Hydraulic*	Adjustable from Off to 50% of the stroke. ***On hydraulic operators, the slowdown is automatically set to "Hydraulic" if value exceeds the 50%***	*It depends on model*	

	SPECIAL MENU	SET	DESCRIPTION	DEFAULT	NOTES
61	OPENING SLOWDOWN 2	*Off (*) 50% Hydraulic*	Adjustable from Off to 50% of the stroke. ***On hydraulic operators, the slowdown is automatically set to "Hydraulic" if value exceeds the 50%***	*It depends on model*	
62	CLOSING SLOWDOWN 2	*Off (*) 50% Hydraulic*	Adjustable from Off to 50% of the stroke. ***On hydraulic operators, the slowdown is automatically set to "Hydraulic" if value exceeds the 50%***	*It depends on model*	
	**** For operators with hydraulic brake (CF) or double hydraulic brake (2CF) this parameter must be on "Hidraulic"***				
63	DECELERATION	*0 %*  *100%*	To adjust the change from normal speed to slowdown speed	*100%*	
64	ACCELERATION	*0 %*  *100%*	Acceleration ramp. To adjust the motor start	*100%*	
	Menus from 65 to 68 are visible only if menu 32-ENCODER = OFF (Encoder not connected or disabled)				
69	ANTI OVERLAP	*Off*	To disable the leaves anti-overlapping control, allowing separate control of the two leaves	*Off*	
		On	To enable the leaves anti-overlapping control		
70	OPENING POSITION RECOVERY	*0 20 seconds*	To retrieve the inertia of the motor in opening after the Stop or the reversing	*1s*	
71	CLOSING POSITION RECOVERY	*0 20 seconds*	To retrieve the inertia of the motor in closing after the Stop or the reversing	*1s*	
72	OPENING TOLERANCE MOTOR 1	*0 100*	To adjust the Motor 1 tolerance between the stop and the obstacle, in opening	*80*	
73	CLOSING TOLERANCE MOTOR 1	*0 100*	To adjust the Motor 1 tolerance between the stop and the obstacle, in closing	*80*	
74	OPENING TOLERANCE MOTOR 2	*0 100*	To adjust the Motor 2 tolerance between the stop and the obstacle, in opening	*80*	
75	CLOSING TOLERANCE MOTOR 2	*0 100*	To adjust the Motor 2 tolerance between the stop and the obstacle, in closing	*80*	
76	PUSHING STROKE	*Time Pushing Stroke Off - 3 sec*	Before opening, the motor starts in closing for the time set, in order to simplify the lock release	Off	
		Repeat Lock Release Off – On	If On, the lock will release before and after the pushing stroke		
		End	To exit		
77	LOCK TIME	*Off 5*	To adjust the lock release time from 0 to 5 seconds	*3*	
78	LOCK	*Only opening*	Active only before opening	*Opening and closing*	
		Only closing	Active only before closing		
		Opening and closing	Active before opening and closing		
79	ANTI INTRUSION	*Only opening*	If the gate is forced manually, the control unit starts the motor and restores the state of the gate before forcing ***(only with limit switch)***	*Off*	
		Only closing			
		Opening and closing			
		Off			
80	PUSHOVER	*Off*	The leaf does an extra movement at the maximum torque to ensure the tightening of the gate	*Off*	
		Opening and closing			
		Only closing			
		Only opening			
81	PERIODICAL PUSHOVER	*Off 8h*	To activate the repetition of the pushover function at a distance of time adjustable from 0 to 8 hours at hourly intervals	*Off*	

SPECIAL MENU		SET	DESCRIPTION	DEFAULT	NOTES
82	MOTOR RELEASE	*Opening 1 Off - 3 s* *Closing 1 Off - 3 s* *Opening 2 Off - 3 s* *Closing 2 Off - 3 s* *End*	If different from Off, the motor slightly reverses its direction at the end of the cycle	*Off (hydraulic)* *0.1 (mechanic)*	
83	EXTRA TIME	*0.0 s 10 s*	If the limit-switches are installed, it is possible to add an extra time to the movement of the motors after the limit-switches reading	*0.0 s*	
84	BRAKE	*Off 100%*	To adjust the braking on the limit switches	*Off*	
85	PRE-FLASHING	*Only closing* *0.0 5,0 s*	Pre-flashing active before closing only Pre-flashing duration	*Off*	
86	FLASHING LIGHT	*Normal* *Light* *Always* *Buzzer*	Normal Warning lamp function Always ON Buzzer	*Normal*	
87	FLASHING LIGHT AND TIMER	*Off* *On*	The flashing light will be OFF with enabled timer and open gate The flashing light will be ON with enabled timer and open gate	*Off*	
88	COURTESY LIGHT	*Off* *1 240* *In cycle*	Disabled Courtesy light adjustable from 1 second to 4 minutes Courtesy light in cycle only	*In cycle*	
89	TRAFFIC LIGHT RESERVATION	*Off On*	The function allows to get the priority on entry or exit. ***The function is available only with SEM management unit and by the use of the partial opening contact***	*Off*	
90	PARTIAL OPENING	*20 100*	Adjustable from 20 to 100	*100*	
91	PARTIAL PAUSE	*= Start* *Off* *1 240*	The pause in partial opening is the same as in total opening Disabled Adjustable from 1second to 4 minutes	*= Start*	
92	TIMER	*Off* *On photo2* *On partial opening*	The selected input will be turned into an input to which connect an external clock	*Off*	
94	24V AUX (Max. 500 mA)	*Always* *In cycle* *Opening* *Closing* *In pause* *Positive brake management* *Negative brake management* *Open gate warning light* *Start 3 s*	AUX output always powered AUX output powered only during cycle AUX output powered only during opening AUX output powered only during closing AUX output powered only during pause Positive Electric-brake ***(24V in ON with stationary gate)*** Negative Electric-brake ***(24V in ON with the gate in cycle and 1 second before the Start)*** **1 flash per second** in opening **2 flashes per second** in closing **Steady lit** in Stop or Open AUX output powered for 3 seconds at every Start input or at every photocells or safety edge intervention	*Always*	

SPECIAL MENU		SET	DESCRIPTION	DEFAULT	NOTES
95	FOTOTEST	*Photo 1*	Self-test enabled on photocell 1 only	*Off*	
		Photo 2	Self-test enabled on photocell 2 only		
		Photo 1 and 2	Self-test enabled on photocells 1 and 2		
		Off	Disabled		
96	EDGE SELF-TEST	*Safety Edge 1*	Self-Test enabled on safety edge 1	*Off*	
		Off	Disabled		
97	PHOTOCELL 1 SHADOW LOOP 1	*Closing*	If the photocell is occupied during closing, it reverses the movement; If the photocell is occupied during the pause, it prevents the reclosing	*Closing*	
		Opening and closing	If occupied, the photocell blocks the movement as long as it is busy**;** when released, the movement continues		
		Stop	If the photocell is occupied before the Start input, the Start will be ignored. If the photocell is occupied after the Start input, the photocell will be ignored. If the photocell is occupied during closing, the gate will reopen		
		Stop and close	If the photocell is occupied during closing, it stops the movement; when released, the closing continues		
		Close	The photocell stops the gate until it is occupied in both opening and closing; when released, the photocell gives a closing command ***(the gate closes one second after the photocell release)***		
		Pause reload	If the photocell is occupied during pause, it recharges the pause time set. If the photocell is occupied during closing, it reverses the movement		
		Delete pause time	If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time set		
98	PHOTOCELL 2 SHADOW-LOOP2	*Closing*	If the photocell is occupied during closing, it reverses the movement; If it is occupied during the pause, it prevents the reclosing	*Opening and Closing*	
		Opening and closing	If occupied, the photocell blocks the movement as long as it is busy**;** when released, the movement continues		
		Stop	If the photocell is occupied before the Start input, the Start will be ignored. If the photocell is occupied after the Start input, the photocell will be ignored. If the photocell is occupied during closing, the gate will reopen		
		Stop and close	If the photocell is occupied during closing, it stops the movement; when released, the closing continues		
		Close	The photocell stops the gate until it is occupied in both opening and closing; when released, the photocell sends a closing command ***(the gate closes one second after the photocell release)***		
		Pause reload	If the photocell is occupied during pause, it recharges the pause time set. If it is occupied during closing, it reverses the movement		
		Closing *Pause reloading*	If occupied during the pause, the photocell recharges the same pause time set. In closing it reverses the movement		
		Delete pause time	If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time set		
		Stop and open	If the photocell is occupied during opening, the gate will stop; when released, the gate continues the opening movement. The photocell is ignored during closing		
		Safety edge 2	Photocell 2 input can also work as safety edge		

SPECIAL MENU		SET	DESCRIPTION	DEFAULT	NOTES
100	SAFETY EDGE 1	*Normal*	Normal N.C. contact	*Normal*	
		8K2	Safety edge enabled and protected by a 8K2 resistor		
102	SAFETY EDGE 1 DIRECTION	*Opening and closing*	The safety edge is active in opening and closing	*Opening and Closing*	
		Only opening	The safety edge is active in opening only		
		Only closing	The safety edge is active in closing only		
103	SAFETY EDGE 2 DIRECTION ***with menu-98 set on "safety edge 2"***	*Opening and closing*	The safety edge is active in opening and closing	*Opening and Closing*	
		Only opening	The safety edge is active in opening only		
		Only closing	The safety edge is active in closing only		
104	SELECT LIMIT SWITCH	*Automatic*	Automatic recognition of the limit-switch	*Automatic*	
		Only opening	Limit-switch enabled in opening only		
		Only closing	Limit-switch enabled in closing only		
		Motor internal	To be enabled if the operator is equipped with an innner limit-switch that stops the motor phase		
106	DIAGNOSTICS	*1 10*	Shows last event ***(See alarms table)***	- - - -	
107	MAINTENANCE CYCLES	*100 240000*	Setting from 100 to 240000	*100000*	
108	PERFORMED CYCLES	*0 240000*	Reports the executed cycles. Hold pressed OK to reset the cycles	*0*	
112	PASSWORD	***Note: "0000" setting is not allowed***	Allows the entering of a password blocking the control unit parameters modification	- - - -	
114	EXP MANAGEMENT	SEM 2	The SEM 2 management unit can be connected to the EXP output	*SEM2*	
		Relay	A relay unit can be connected to the EXP output		
116	REPEAT LEAF DELAY	*On Off*	In case of STOP at halfway, leaves will repeat the leaf delay	*On*	
118	LATCH	*Off*	Disabled	*Off*	
		Opening	The gate opens and stay open till a new Start input. ***The latch function uses the "Partial Opening" N.O. input (the "Partial Opening" function is so disabled)***		
		Closing	The gate closes and stay closed till a new Start input. ***The latch function uses the "Partial Opening" N.O. input (the "Partial Opening" function is so disabled)***		
119	DISPLAY WRITING SPEED	*From 30% to 100%*	See Note 3 below	*80%*	
120	BASIC MENU	***Press OK to exit the special menu. The special menu switches off automatically after 20 minutes***			

Note 1: after initialization, the parameters set on **menu 3 - MOTOR** and **104 - SELECT LIMIT SWITCH** always remain set to the value chosen during the programming operation

Note 2: if the **menu 119 - DISPLAY WRITING SPEED** is set to the minimum value of 30%, the display writing speed will be low. On the contrary, if it is set to the maximum value of 100%, the writing speed will be very high
Please note: the writing speed will not change on the JOLLY 3 programmer

ALARMS

The control unit advises about faults by a message on the display. The table below shows which faults are advised and what to do in the event of a malfunction. However, it is possible to read the last 10 fault warnings by accessing the **106-DIAGNOSTIC** menu

***Note 1**: To exit the alarms display press OK*
If the warning signal does not disappear, carry out all the checks required for that error or disconnect the device generating error to check whether the signal disappears

It is also possible to visualize the warning signals through the flashing light or the warning light, simply by observing the number of flashes emitted and checking the correspondence in the flashing table below. When an event occurs, the warning flashes are issued at each Start command;

***Note 3:** When there are no events, the normal operation (with **86-FLASHING LIGHT** set on "**NORMAL**") is:*
1 flash per second in opening - 2 flashes per second in closing - on steady during pause

WARNING	DESCRIPTION	SOLUTION
FAULT MOTOR	Motor power supply failure	Be sure there are no short circuits on the motor or on the control unit; Check the gate is not locked or stuck on stop point; Check the encoder (if active) is connected to the control unit; By unlocking the operator, try giving a Start command and hear if the motor runs dry; If the motor does not run at all, then it is burned, therefore call the technician ; If the motor runs, disconnect the power supply, lock the operator again and restore the power
FAULT 24	24V power supply failure	Check that there are no short circuits on wirings or on the control unit or that there is no overload
FAULT 24VAUX	AUX output failure	Check that there are no short circuits on wirings or on the control unit or that there is no overload. The 24VAux supports a maximum load of 500mA;
FAULT NET	Power supply failure	Check the power supply or check the F2 fuse
FAULT SELF-TEST	Photocells self-test failure	Check the photocells operation and/or wirings on control unit
FAULT LIMIT SWITCH	Limit switch activation failure	Check the operation of both limit switches and the correspondence between the operator movement direction and the engaged limit switch
FAULT FLASHING LIGHT	Flashing light failure	Check connections and / or conditions of the lamp
FAULT ENCODER	Encoder failure	Check the Encoder connections; through the Menu 32-ENCODER check if it is ON; verify the operator is not blocked
FAULT POTENTIOMETER	Potentiometer failure	Check the Menu 32-POTENTIOMETER is ON. If the message appears and the potentiometer is ON, check the management unit (LE / LSE) connections

NUMBER OF FLASHES	ALARM TYPE
9	Motor failure
2	Photocell in closing
3	Photocell in opening
6	Opening collision
4	Safety edge
5	Stop
7	Maximum cycles reached
6	Closing collision
4 Fast	Limit switch error

⚠ Periodically, ***it would be advisable to reprogram the working times on the control unit***, according to the number of performed cycles or to the operator type or in case of malfunctioning. The warning signal **«MAXIMUM CYCLES REACHED»** and the 7 flashes (see table aside) refer to the achievement of the maximum cycles established before maintenance; therefore it is advisable to carry out the maintenance and to reset the number of cycles on the control unit

TROUBLESHOOTING

Advices

Make sure all Safeties are turned ON

Problem Found	Possible Cause	Solutions
Operator doesn't respond to any START impulse	a) Check the connected N.C. contacts b) Burnt fuse	a) Check the connections or the jumpers on the connections of the safety edge or of the stop and of the photocell if connected b) Replace the burnt fuse on the control unit
Operator does not run and diagnostic display not on.	a) No power to control board b) Open fuse c) Defective control board	a) Check AC power b) Check fuses c) Replace defective control board
Operator does not respond to a wired control/command (example: Open, Close, etc.)	a) Check Open and Close command input b) Stop button is active c) Reset button is stuck d) Entrapment Protection Device active	a) Check all Open and Close inputs for a stuck on input b) Check Stop button is not stuck on c) Check Reset button d) Check all Entrapment Protection Device inputs for a stuck on sensor
Operator does not respond to a transmitter	a) Stop button is active b) Reset button is stuck c) Poor radio reception	a) Check Stop button is not stuck on b) Check Reset button c) Check if similar wired control operates correctly. Check antenna wire
Motor turn only one way	a) Check resistance between motor phase and neutral, if the resistance is MOhm b) Try to invert the motor phase and watch if the motor change or not the direction	a) Change cable b) If the motor is blocked change the cable if the motor go only in one direction the motor relay direction is damaged
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 e) Gate is too heavy for automatic slow-down	a) Set limit switches b) Repeat programming c) Remove obstacle d) Increase torque parameter e) Set the slow-down on OFF
Gate opens but doesn't close	a) The contacts of the photocells are connected and open b) The stop contact is connected and open c) The edge contact is open d) Ammeter alarm	a) b) c) Check the jumpers or the connected devices and the signals indicated on the warning lamp d) Check if the ammeter alarm has intervened and eventually increase the torque parameter
Gate doesn't close automatically	a) Pause time set too high b) Control unit in semi-automatic logic	a) Adjust pause time b) Set the pause parameter on a different value from the OFF
Gate moves, but cannot set correct limits	a) Gate does not move to a limit position b) Gate is too difficult to move	a) Use manual disconnect, manually move gate, and ensure gate moves easily limit to limit. Repair gate as needed b) Gate must move easily and freely through its entire range, limit to limit. Repair gate as needed
Gate does not fully open or fully close when setting limits	a) Gate does not move to a limit position b) Gate is too difficult to move	a) Use manual disconnect, manually move gate, and ensure gate moves easily limit to limit. Repair gate as needed b) Gate must move easily and freely through its entire range, limit to limit Repair gate as needed
Gate stops during travel and reverses immediately	a) Control Open/Close becoming active b) The obstacle sensitivity is too low	a) Check all Open and Close inputs for an active input b) Check the obstacle sensitivity value and try to increase this parameter

...continued

Advices

Make sure all Safeties are turned ON

Problem Found	Possible Cause	Solutions
Gate doesn't respect slow down points	a) ENCODER is not working properly if It's activated b) Mechanical clutch loose c) Slow down space is too wide d) Potentiometer is not working properly if It's activated e) The recovery position parameters are too high or too low	a) Check menu for encoder parameters "Encoder Par" shall be from a low value +/- 10 (gate completely closed) to "Encoder tot" (gate completely opened). If the movement of Ipar is not linear in the range (+/-10 - Encoder tot) probably the Encoder is defective b) Tight mechanical clutch c) Reduce slow down space d) Check menu for potentiometer parameters "IPar" shall be from "I. CH."(gate completely closed) to "I.AP." (gate completely opened). If the movement of Ipar is not linear in the range (I.AP. - I.CH.) probably the potentiometer is defective e) Reduce or increase the recovery position parameters
Gate opens suddenly without start command	a) Frequency or other noise from main line b) Short circuit on the start contact	a) Wiring AC shall be separate from DC wire and pass through separate conduits. If there is a frequency noise it is possible to change frequency to another MHz like 868 for example or FM b) Check all start contacts
Gate doesn't close in automatic logic during pause even if a loop/photo is set as start	a) START IN PAUSE is not in ON b) The photo/loop input is not set as delay pause time	a) Put in ON the menu of START IN PAUSE b) Set in the photo/loop menu (delay pause time)
Gate doesn't have power to close or reach limit switch	a) Slow down not possible for that site due to heavy gate or inclination or not new installation	a) Put Slow Down in OFF
Obstruction in gates path does not cause gate to stop and reverse	a) Force adjustment needed	a) Refer to the Adjustment section to conduct the obstruction test and perform the proper force adjustment that is needed (sensitivity - torque)
Photoelectric sensor does not stop or reverse gate	a) Incorrect photoelectric sensor wiring b) Defective photoelectric sensor c) Photoelectric sensors installed too far apart	a) Check photoelectric sensor wiring. Retest that obstructing photoelectric sensor causes moving gate to stop, and may reverse direction b) Replace defective photoelectric sensor. Retest that obstructing photoelectric sensor causes moving gate to stop, and may reverse direction c) Move the photoelectric sensors closer together or use edge sensors instead
Edge Sensor does not stop or reverse gate	a) Incorrect edge sensor wiring b) Defective edge sensor	a) Check edge sensor wiring. Retest that activating edge sensor causes moving gate to stop and reverse direction b) Replace defective edge sensor. Retest that activating edge sensor causes moving gate to stop and reverse direction
Alarm sounds for 5 minutes or alarm sounds with a command	a) Double entrapment occurred (two obstructions within a single activation)	a) Check for cause of entrapment (obstruction) detection and correct. Press the reset button to shut off alarm and reset the operator.
Shadow loop does not keep gate at the open limit	a) Vehicle detector setup incorrectly b) Defective vehicle loop detector c) Wrong settings	a) Review Shadow loop detector settings. Adjust settings as needed b) Replace defective Shadow loop detector c) Check the photo2 menu is set on shadow loop
Accessories connected to the accessory power not working correctly, turning off or resetting	a) Accessory power protector active b) Defective control board	a) Disconnect all accessory powered devices and measure accessory power voltage (should be 23-30 Vdc). If voltage is correct, connect accessories one at a time, measuring accessory voltage after every new connection b) Replace defective control board
FAILURE 24VAUX	a) Overload or short-circuit on the output N°10 b) Burnt fuse	a) Check a short circuit on the cable b) Change fuse

TO THE ATTENTION OF BOTH INSTALLER AND END USER

MAINTENANCE: Periodically, based on the number of maneuvers performed over time and based on the type of operator, if a change in friction, malfunctioning or non-compliance with the previously set times are noticed, ***it would be advisable to reprogram the learning times on the control unit***

Periodically clean the optical systems of the photocells

REPLACEMENTS: Send request for spare parts to: ***SEA S.p.A. - Teramo - ITALY - www.seateam.com***

SAFETY AND ENVIRONMENTAL COMPATIBILITY: Disposal of packaging materials 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)

This brand on the product or on documentation indicates that the product must not be disposed off together with other domestic waste at the end of its 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 types 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 to get 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 - see the sales conditions

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

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 mm^2 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.

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 expressively clauses under numbers:
4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW

SEA
Automatic Gate Openers
International registered trademark n. 804888

CE

Dichiarazione di conformità
Declaration of Conformity

La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che il prodotto:
SEA S.p.A. declares under its proper responsability and, if applicable, under the responsability of its authorised representative that the product:

Descrizione / *Description*	**Modello / *Model***	**Marca / *Trademark***
SWING 2 DG R2F (e tutti i suoi derivati / *and all its by-products)*	23021096	SEA

è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE
is built to be integrated into a machine or to be assembled with other machinery to create a machine under the provisions of Directive 2006/42/CE

è conforme ai requisiti essenziali di sicurezza relativi al prodotto entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE
is conforming to the essential safety requirements related to the product within the field of applicability of the Community Directives 2014/35/UE and 2014/30/UE

COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:
MANUFACTURER or AUTHORISED REPRESENTATIVE:

SEA S.p.A.
DIREZIONE E STABILIMENTO:
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Luogo, data di emissione
Place, date of issue
Teramo, 05/02/2019

L'Amministratore
The Administrator
Ennio Di Saverio

SEA®

Automatic Gate Openers

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Le agradecemos por haber escogito SEA.

Notes

Automatic Gate Openers

International registered trademark n. 804888

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