Automatic Gate Openers

International registered trademark n. 804888

ITALIANO
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USER 2 DG 24V R1B - ALL IN

CENTRALE ELETTRONICA 24V ⎓ PER OPERATORI A BATENTE
24V ⎓ ELECTRONIC CONTROL UNIT FOR SWING OPERATORS
ARMOIRE DE COMMANDE 24V ⎓ POUR OPERATEURS A BATTANT
CENTRAL ELECTRÓNICA 24V ⎓ PARA OPERADORES BATIENTES

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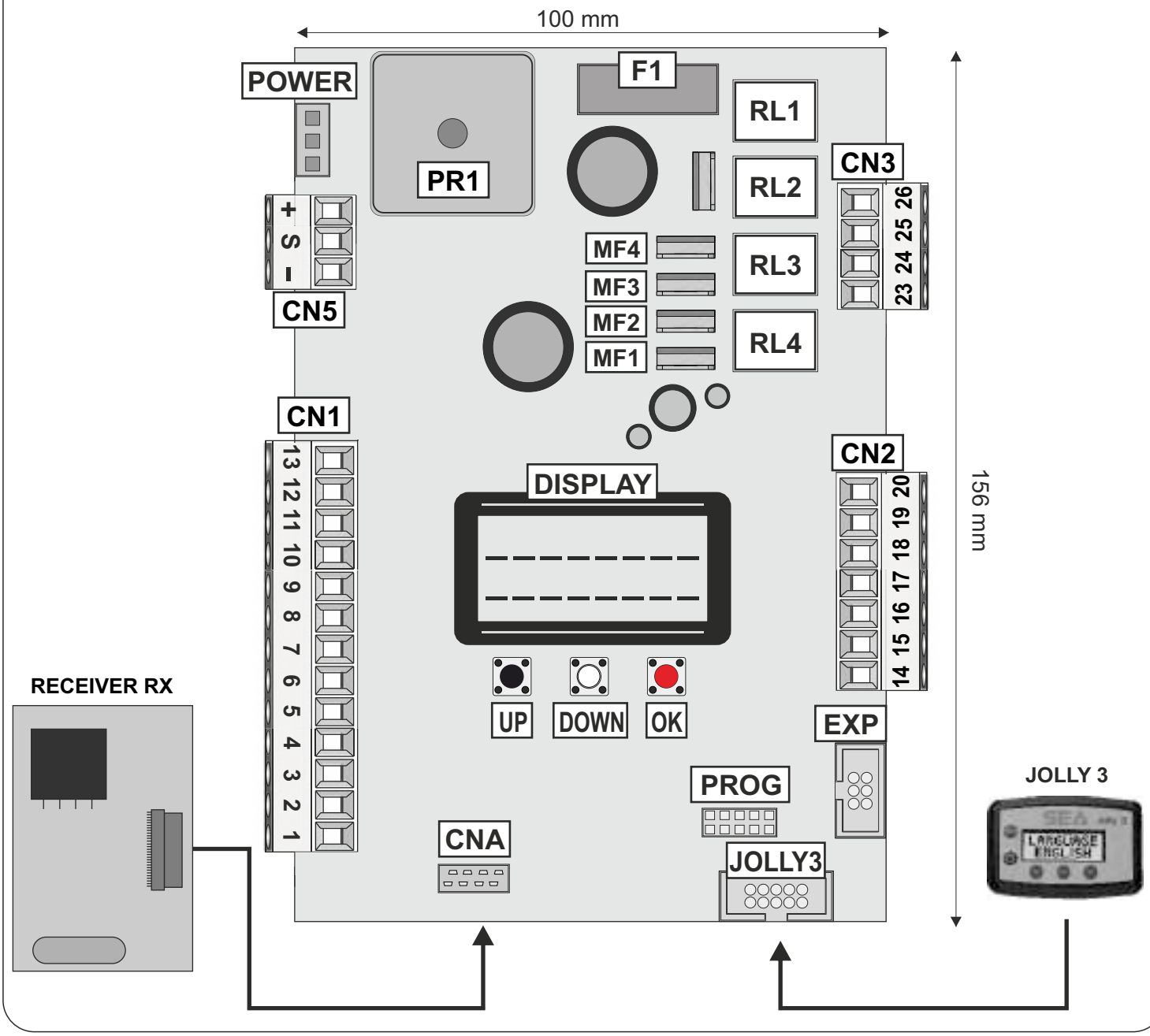
67411655 **REV. 07 - 09/2019**

INDICE - INDEX - ÍNDICE

1 - COMPONENTS

TECHNICAL FEATURES

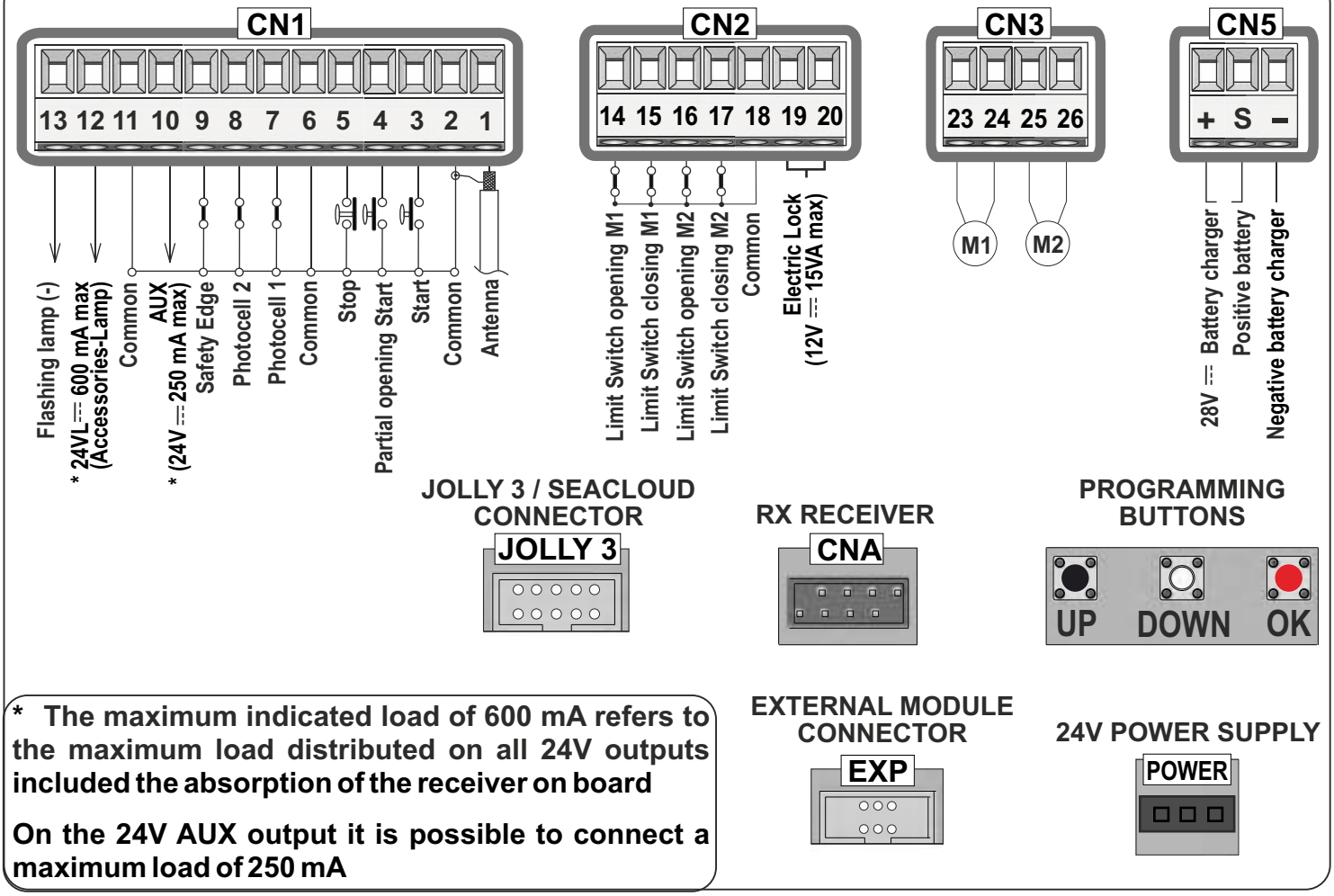
Power supply: 24V~
Absorption in stand by: 30 mA
Environment temperature: -20°C +50°C
External box: 305 x 225 x 125 mm - IP55



CN1 = Input/Output connector
CN2 = Limit switch or electric-lock connector
CN3 = Motors connector
CN5 = Battery charger connector
CNA = RX receiver module connector
EXP = External module connector
JOLLY 3 = JOLLY 3 or SEACLOUD connector
F1 = Fuse 10AT

MF1 - MF2 = Mosfet motor 2
MF3 - MF4 = Mosfet motor 1
POWER = 24V~ power supply connector
PROG = Programming connector
PR1 = Rectifier jumper
RL1 - RL2 = Relay motor 2
RL3 - RL4 = Relay motor 1

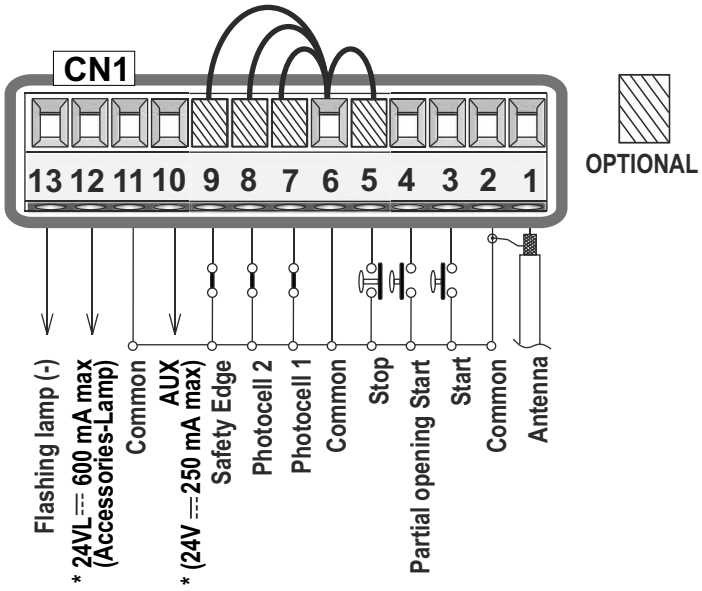
2 - CONNECTIONS



*** The maximum indicated load of 600 mA refers to the maximum load distributed on all 24V outputs included the absorption of the receiver on board**

On the 24V AUX output it is possible to connect a maximum load of 250 mA

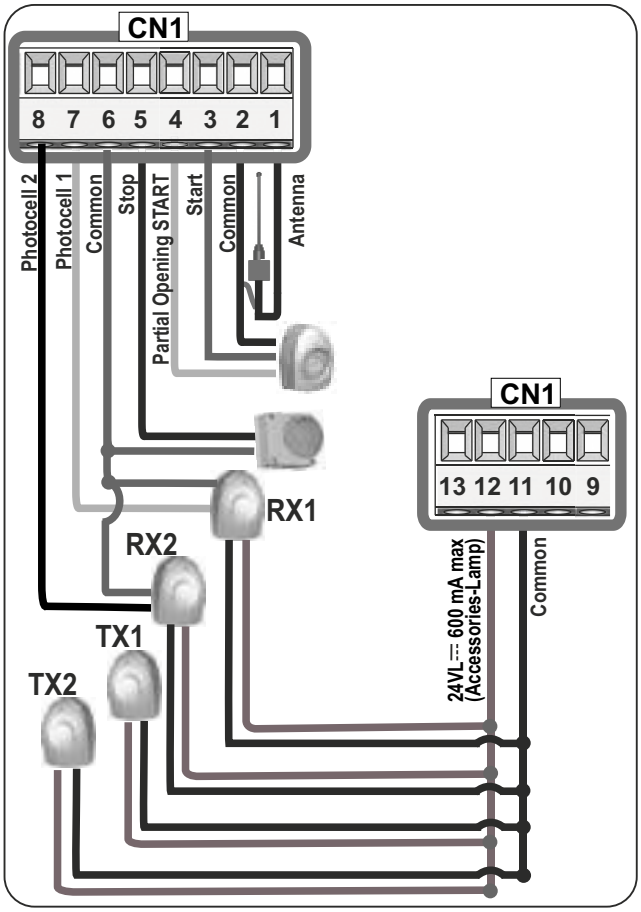
3 - JUMPERS



WARNING: The control unit is designed for the automatic detection of not used N.C. inputs (Photocells, Stop and Limit switch) except for the SAFETY EDGE input. The excluded inputs during the self-programming can be restored through the «INPUT STATUS CHECK» menu (chapter 15) without need to repeat the control unit programming

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

4 - CONNECTIONS ON CN1



4.1 - START (N.O.)

On clamps 2 and 3
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: In DEAD MAN logic it is necessary to hold the Start button pressed to open the automation
Note 2: In 2 BUTTONS logic the connected Start device only performs the opening

4.2 - PARTIAL OPENING START (N.O.)

On clamps 2 and 4
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: In 2 BUTTONS logic, the connected Partial Opening Start device only performs the closing
Note 2: In DEAD MAN logic, it is necessary to hold the Partial Opening Start button pressed to close the gate
Note 3: If this contact is engaged during the pause (eg. Timer), the gate will not close until releasing

4.3 - STOP (N.C.)

On clamps 5 and 6
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*

4.4 - PHOTOCELL 1 AND PHOTOCELL 2

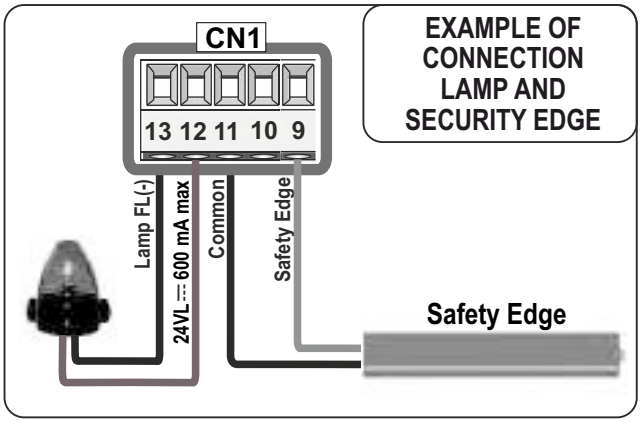
+ = 24V max 600mA (clamp 12) COM = 0V (clamp 11) COM = 0V (clamp 6)
Ph1 = Photocell 1(clamp 7) PH2 = Photocell 2 (clamp 8)
Note 1: To perform the self-test, connect the TX positive to the clamp 10 (AUX) and activate the Phototest function on **menu-94**; From the **95-PHOTOTEST** menu it is possible to activate the self-test also on a single photocell, 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

4.5 - AUX 24V OPTIONS max 250mA

From **menu 94-24VAUX** or through the JOLLY 3 it is possible to choose when to have voltage on the AUX output. In case of control units with batteries and/or photovoltaic panels, it is advisable to connect the unused accessories (eg. Photocells) to the AUX output and then configure the **menu 94-24VAUX** as ***«IN CYCLE AND PHOTOTEST»*** so it will be possible to save energy by lowering the power consumption in stand-by and increasing the system autonomy

4.6 - TIMER (N.O.)

On clamp 4 (Partial Opening Start) or on clamp 8 (Photocell 2)
It can be enabled through **menu-92** or via JOLLY 3. It opens and keeps the automation open until it releases the contact. When released, the operator will wait for the pause 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 reset the movement
Note 3: In case of a power failure and with the gate open, if the TIMER is still active it will cause the gate reclosing; if no longer active, a new Start impulse will be required



EXAMPLE OF CONNECTION LAMP AND SECURITY EDGE

4.7 - 24V⎓ FLASHING LIGHT - MAX 3W

On clamps 12 and 13

It 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, Photocell1, Photocell2 and Edge devices. From menu **86-FLASHING LIGHT** or JOLLY3 it is possible to modify its functions.

Furthermore it is possible to manage the pre-flashing function from menu 85- PRE-FLASHING

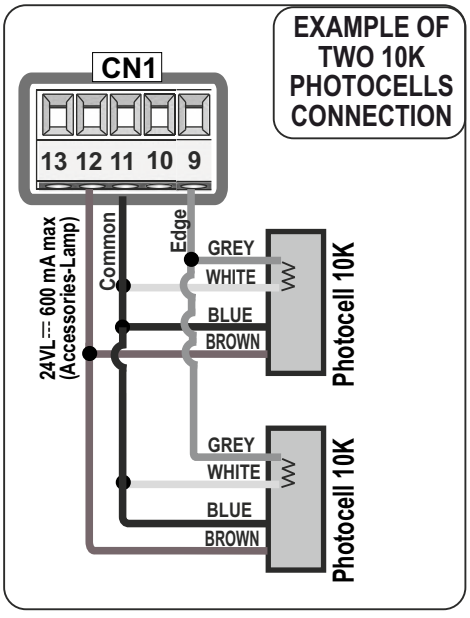
4.8 - SECURITY EDGE

On clamps 9 and 11

If activated, the safety edge opens the contact causing a partial inversion of the motion both in opening and closing. The function can be managed from menu **100-SECURITY EDGE 1** and **102-EDGE 1 DIRECTION**

Note 1: among the **menu-100** options there is the **8K2 balanced edge** (single or double): 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



EXAMPLE OF TWO 10K PHOTOCELLS CONNECTION

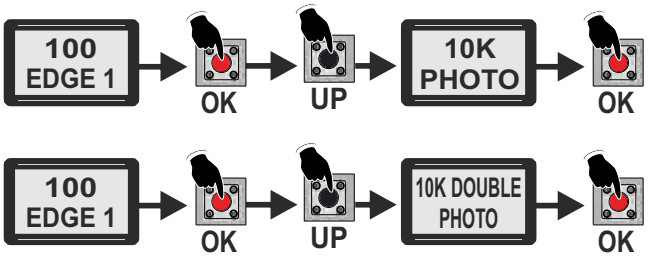
4.9 - 10K SINGLE OR DOUBLE PHOTOCELL

On clamps 9 and 11

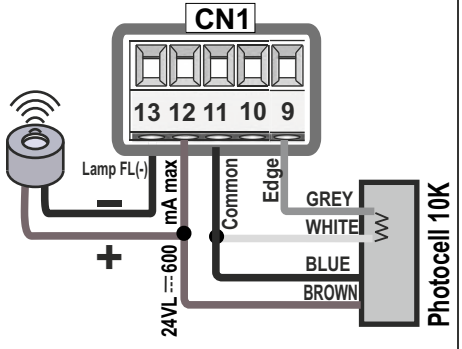
If one or two 10K photocells are connected, the menu **100-SECURITY EDGE 1** must be set on the respective function; 10K photocell will work according to the settings of menu **97-PHOTOCELL 1** (or menu **98-PHOTOCELL 2** in case of two 10K photocells)

Note1: The 10K photocell gives additional protection even in the event of a short circuit on the cables

SINGLE OR DOUBLE PHOTOCELL SETTINGS



EXAMPLE OF 10K PHOTOCELL AND BUZZER CONNECTION



4.10 - BUZZER 24V ⎓

On clamps 12 and 13

The Buzzer is a sound alarm that can be used as a security device.

Use a self-oscillating 24V ⎓ and 100 dB Buzzer

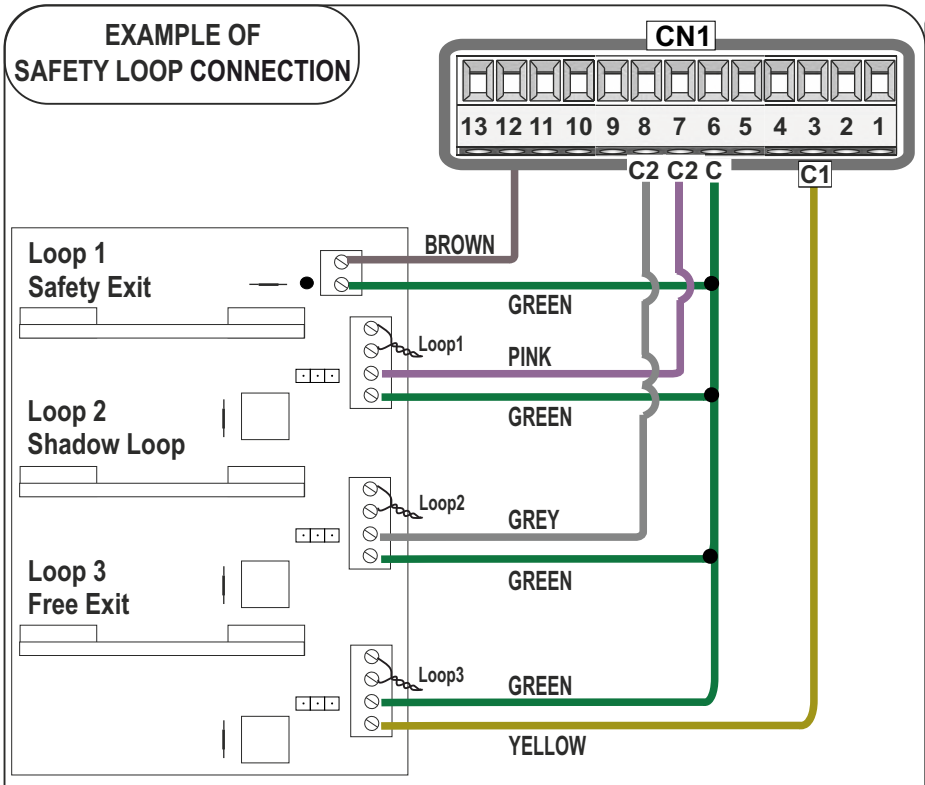
The Buzzer can be connected instead of the flashing light and it is necessary to set on «***BUZZER***» in the menu **86-FLASHING LIGHT**

The Buzzer will activate after 2 consecutive interventions of the anti-crushing protection; to reset it press the STOP button;

In any case, the sound of the Buzzer turns off automatically after 5 minutes and the automation will stand waiting for a new command

IF BUZZER DOES NOT WORK, BE SURE THAT MENU 86-FLASHING LIGHT IS SET ON «BUZZER»

EXAMPLE OF SAFETY LOOP CONNECTION



C1 = OPEN CONTACT 12 = 24 V
C2 = CLOSED CONTACT C = 0 V

4.11 - SAFETY LOOP

Safety Exit Loop (Loop 1)

Connection scheme of the 1 reader loop detector

7 = Photocell 1 contact **(N.C.)**
6 = Common

Shadow Loop (Loop 2)

Connection scheme of the 2 readers loop detector

8 = Photocell 2 contact **(N.C.)**
6 = Common

NOTE: Menu 98-PHOTOCELL 2 must be set on «SHADOW LOOP»

Free Exit Loop (Loop 3)

Connection scheme of the 1 reader loop detector

3 = Start contact **(N.O.)**
6 = Common

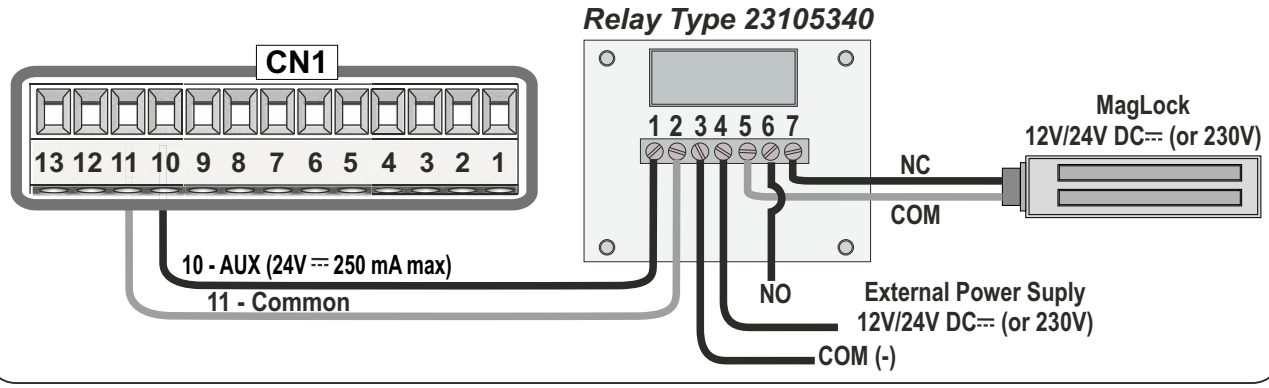
4.12 - MAGNETIC LOCK

On clamps 10 and 11

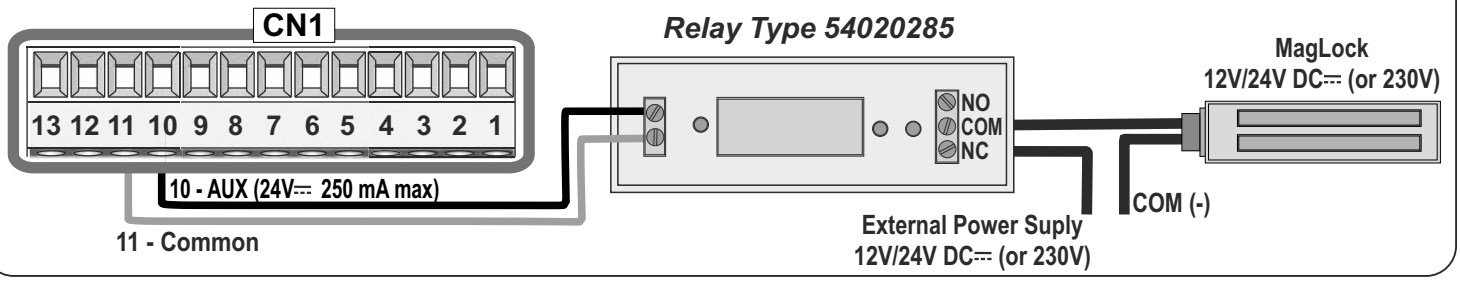
ATTENTION: set menu 94-24V AUX on «NEGATIVE BRAKE» before connecting the MagLock

It is possible to connect a magnetic lock (MagLock) 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)

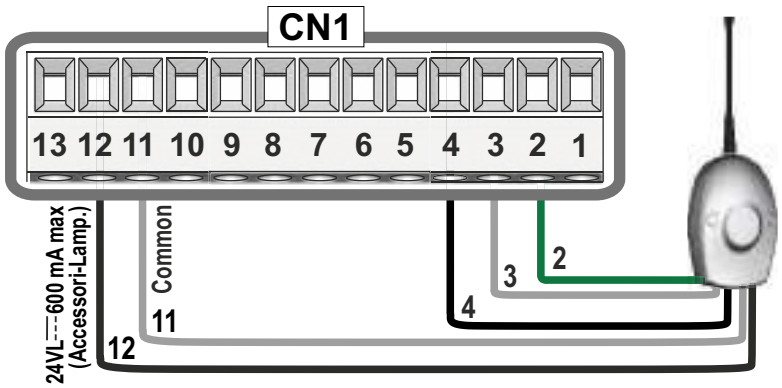
EXAMPLE OF MAGNETIC LOCK WITH RELAY CODE 23105340 CONNECTION



EXAMPLE OF MAGNETIC LOCK WITH RELAY CODE 54020285 CONNECTION



EXAMPLE OF EXTERNAL RECEIVER CONNECTION



4.13 - 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

4.14 - LATCH OPENING OR LATCH CLOSING BUTTON

On clamps 4 and 6

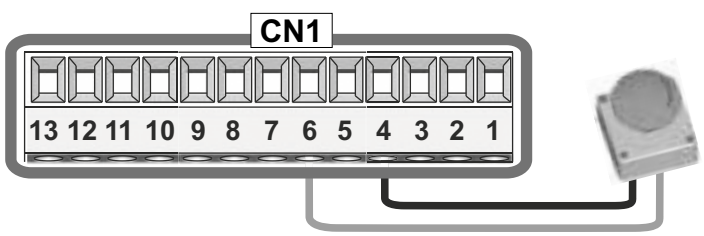
A button for the Latch Opening or Closing function can be connected to the control unit
To activate it, connect the N.O. contact on the Partial Opening Start (so this function will be disabled). Through the **menu 118-LATCH** it is possible to choose between the various Latch options.
To deactivate the 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 16.1 for details*

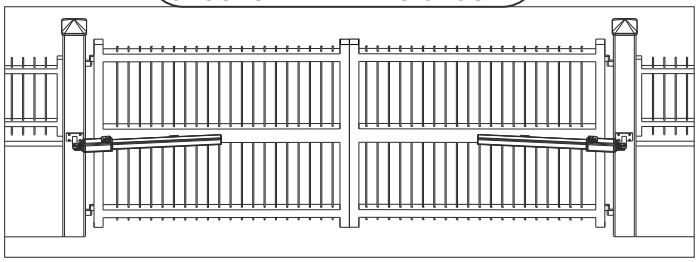
Note 2: *The Latch function can also be enabled through the SEACLOUD. Please refer to the SEACLOUD instructions for more details*



LATCH OPENING
OPENS AND KEEPS OPEN

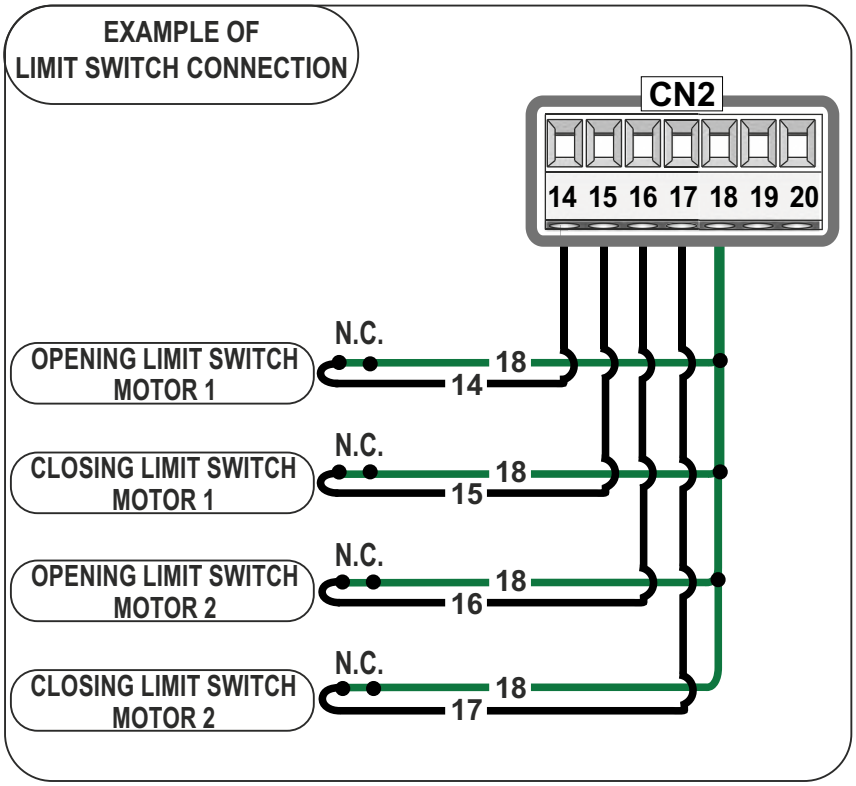
NO OTHER COMMAND IS ACCEPTED

LATCH CLOSING
CLOSES AND KEEPS CLOSED



NO OTHER COMMAND IS ACCEPTED

5 - CONNECTIONS ON CN2



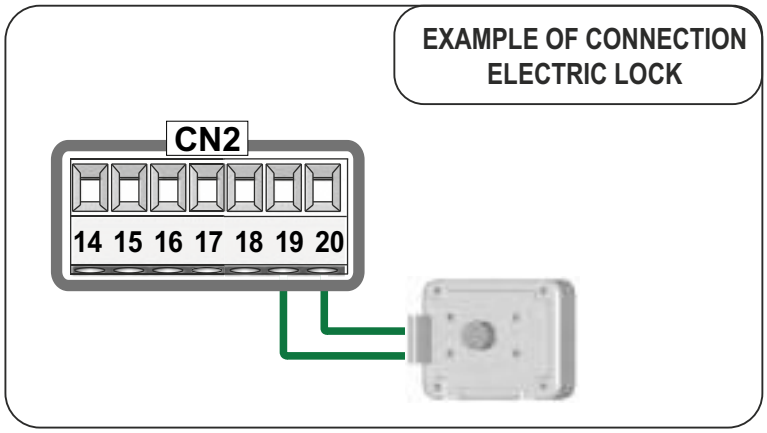
5.1 - LIMIT SWITCH

Do not use jumper wires on limit switches if not connected. For the limit switch function both the closing and the opening limit switches are required.

It is also possible to activate the anti-intrusion function: this function requires at least one limit switch, which, when released, forces the motor to re-close

For the correct operation of the limit switches the correspondence between the direction of motors movement and that of the limit switches involved is required

NOTE:
In menu 104-SELECT LIMIT SWITCH it is possible to choose whether to work with the opening limit switch only or with the closing one only or with both



5.2 - ELECTRIC LOCK

On clamps 19 and 20

An Electric Lock (12V⎓ 15W max) can be connected

Through **menu 77-LOCK TIME** it is possible to adjust the electric lock release time from 0 to 5 seconds

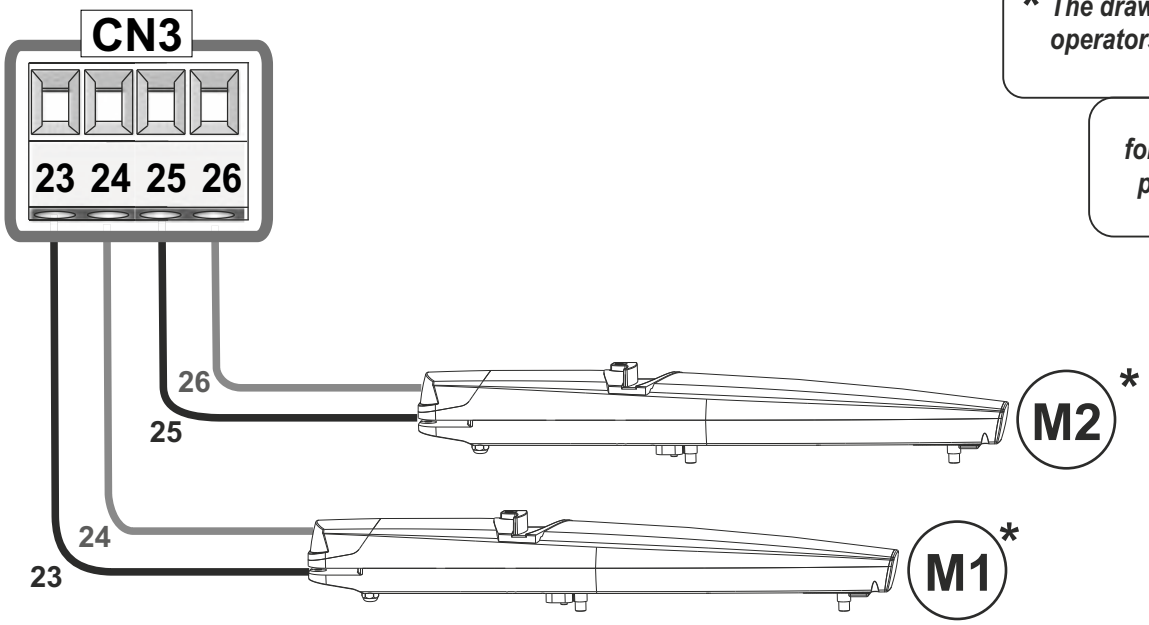
Through **menu 78-LOCK** it is possible to select when to activate the electric lock, if only in opening, only in closing or in both directions

6 - CONNECTIONS ON CN3

6.1 - MOTORS POWER SUPPLY CONNECTIONS

M1 **Motor 1**
Motor 1 connection output
M+ = OPEN/CLOSE
M- = CLOSE/OPEN

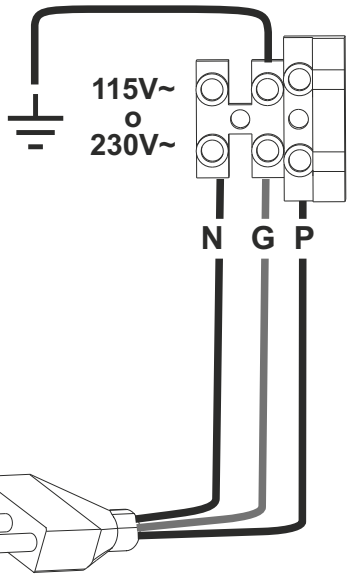
M2 **Motor 2**
Motor 2 connection output
M+ = OPEN/CLOSE
M- = CLOSE/OPEN



* *The drawing shows two external operators for swing gate only as an exemple*

Caution:
for the connection to the power grid refer to the regulations in force

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



Power Supply Input
Power supply connection input
P = PHASE
N = NEUTRAL
G = GROUND

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

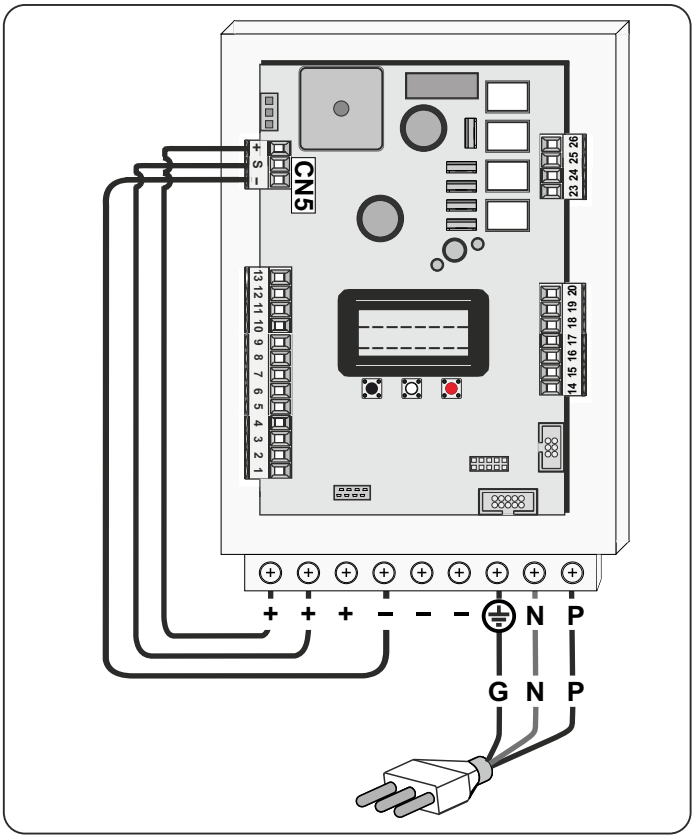
7 - CONNECTIONS ON CN5

7.1 - SWITCHING CONNECTION

It is possible to connect a switching device to change the supply voltage of control unit
If the main supply is 115V 60Hz, move the side switch to 115V. The switching power supply with voltages ranging from 90V to 164V, keeps the output constant on 30V

Caution: *for the connection to the power grid refer to the regulations in force*

Power Supply Input
Power supply connection input
P = PHASE
N = NEUTRAL
G = GROUND



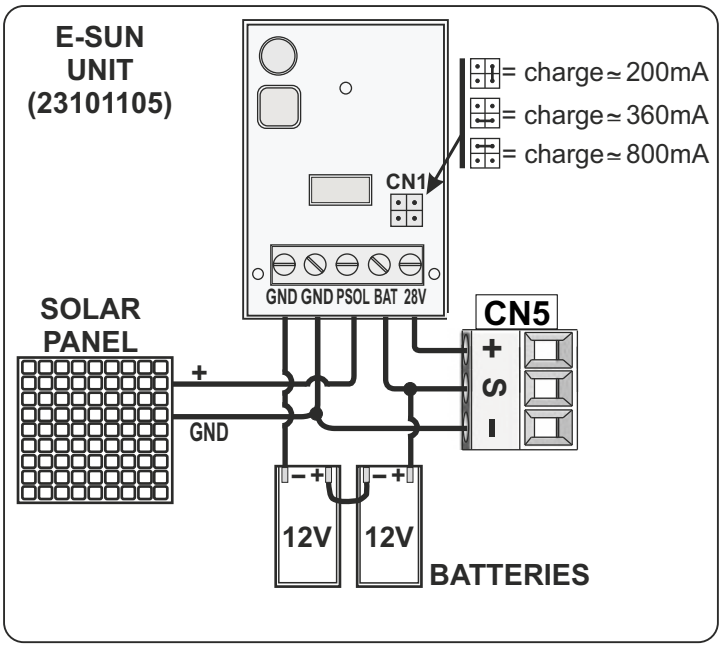
7.2 - BATTERY CONNECTION WITH BATTERIES CHARGER UNIT

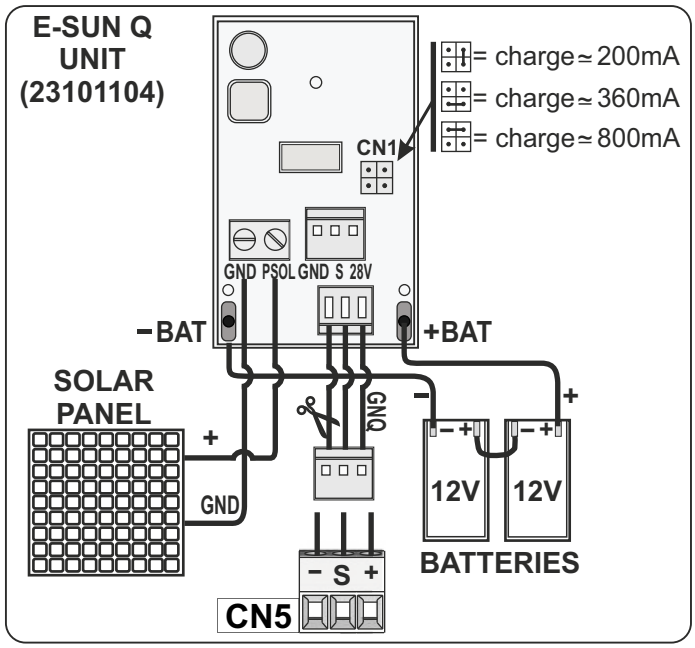
It is possible to power the control unit using **two 12V batteries connected in series (24V Pb 1.2Ah min)**, connected, in turn, to the battery charger management unit and this latter connected to the solar panel.

WARNING: Always use the batteries charger unit to connect the batteries

Note: If you use the E-SUNQ unit, you must cut the cable as shown in the figure and reconnect it on the CN5 connector, respecting the correspondences **+ S -**

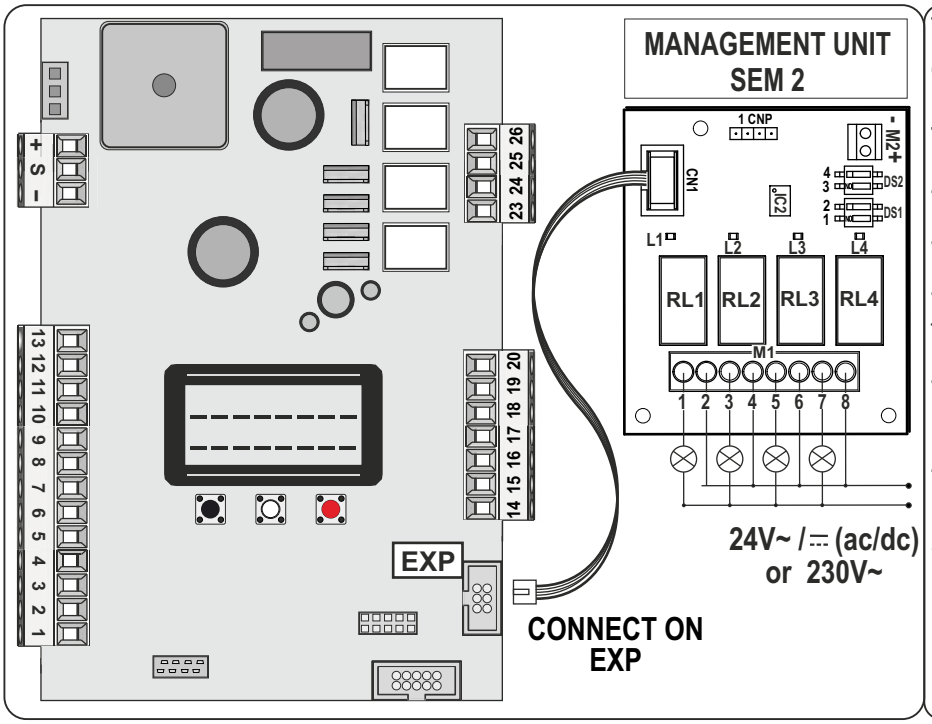
BATTERY CURRENT (mA)	BATTERY (Ah)
800	12 o 16
360	7
200	2





8 - EXTERNAL CONNECTIONS

8.1 - «SEM 2» MANAGEMENT UNIT CONNECTIONS



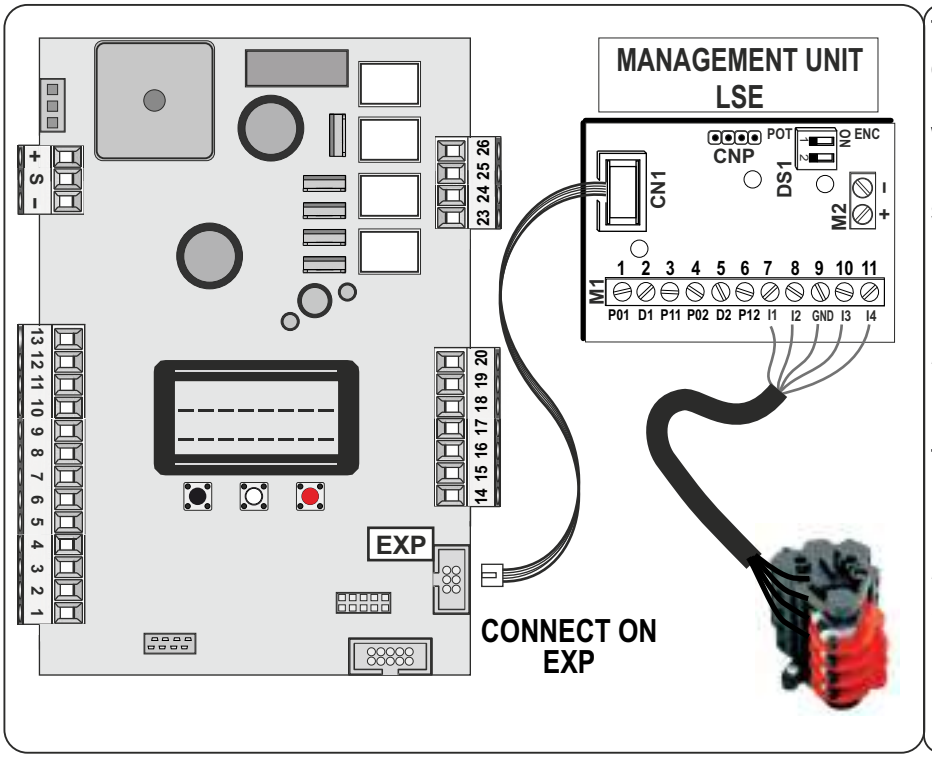
The **«SEM 2»** management unit can be connected through the **EXP** connector

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

8.2 - LIMIT SWITCH WITH «LSE» MANAGEMENT UNIT CONNECTION



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

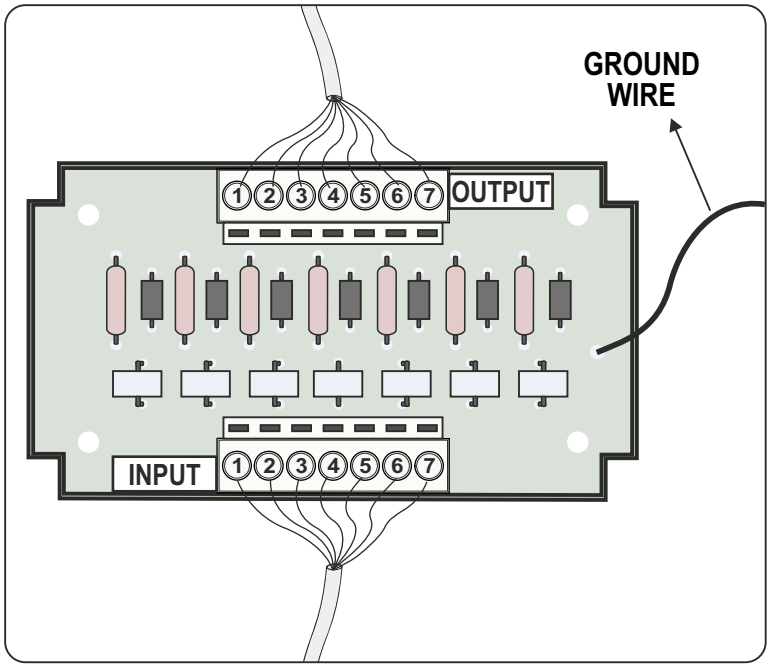
With the **«LSE»** management unit it is possible to manage 4 additional limit switches to set the slowdown starting points

WARNING: The opening and closing limit switches must be connected to the electronic control unit

To manage the additional limit switches refer to **104-SELECT LIMIT SWITCH**

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

8.3 - «I/O SURGE PROTECTOR» CIRCUIT CONNECTION



OUTPUT CONNECTIONS ON CONTROL UNIT	
1	24V DC ACCESSORIES
2	CONTACT 1 (Eg. PHOTOCELL)
3	CONTACT 2 (Eg. SECURITY 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. SECURITY 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

9 - ADDITIONAL FUNCTIONS

9.1 - AMPEROMETRIC MANAGEMENT

The control unit is equipped with an obstacle detection system, which works only for electro-mechanical motors, which allows the reversing on obstacle and the automatic detection of the mechanical stop
It allows to adjust the torque value (the inversion force on obstacle) through the menus:

28-ENGINE OPENING TORQUE 1
29-MOTOR CLOSING TORQUE 1
30-MOTOR OPENING TORQUE 2
31-MOTOR CLOSING TORQUE 2

It allows to adjust the sensitivity for single leaf or single direction (opening or closing) through the menus:

33-MOTOR OPENING SENSITIVITY 1
34-MOTOR CLOSURE SENSITIVITY 1
35-MOTOR OPENING SENSITIVITY 2
36-MOTOR CLOSURE SENSITIVITY 2

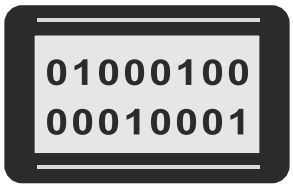
NOTE: *In case of power failure, after the power supply restoring the first operation will be performed with the set speed in order to search for the end-of-stroke mechanical stops*

10 - PRELIMINARY

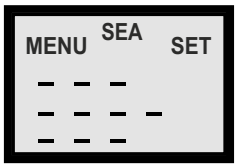
WARNING

Starting from the software version to which this technical instruction refers, 03.00, the electronic control board is equipped with ***the new BINGO display*** with different functions than the previous version. If you have a control board with the **old version display, consult the manual of the previous revision**

NEW BINGO DISPLAY
STARTING FROM SOFTWARE REVISION 03.00

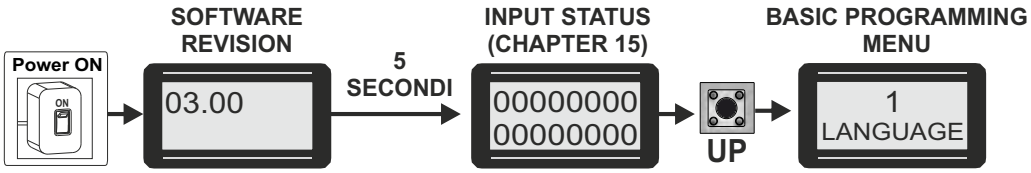


OLD DISPLAY
CONSULT PREVIOUS MANUAL REVISION

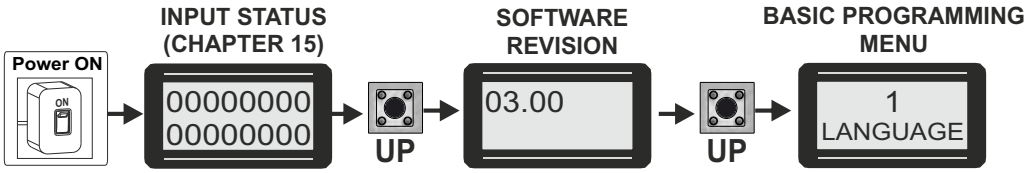


When a new or a just reset control unit is powered on, the display shows the software revision first then it shows the **INPUT STATUS** after 5 seconds. The latter will be the default display view when an already programmed unit is turned on

NEW CONTROL UNIT OR AFTER RESET

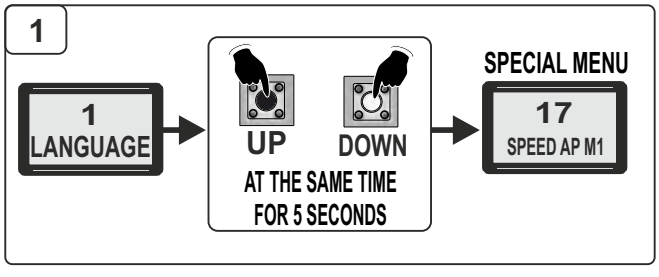


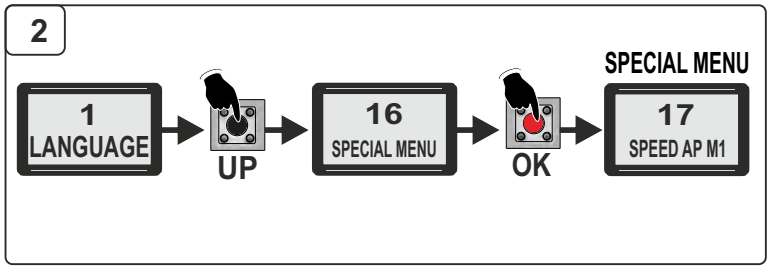
ALREADY PROGRAMMED CONTROL UNIT



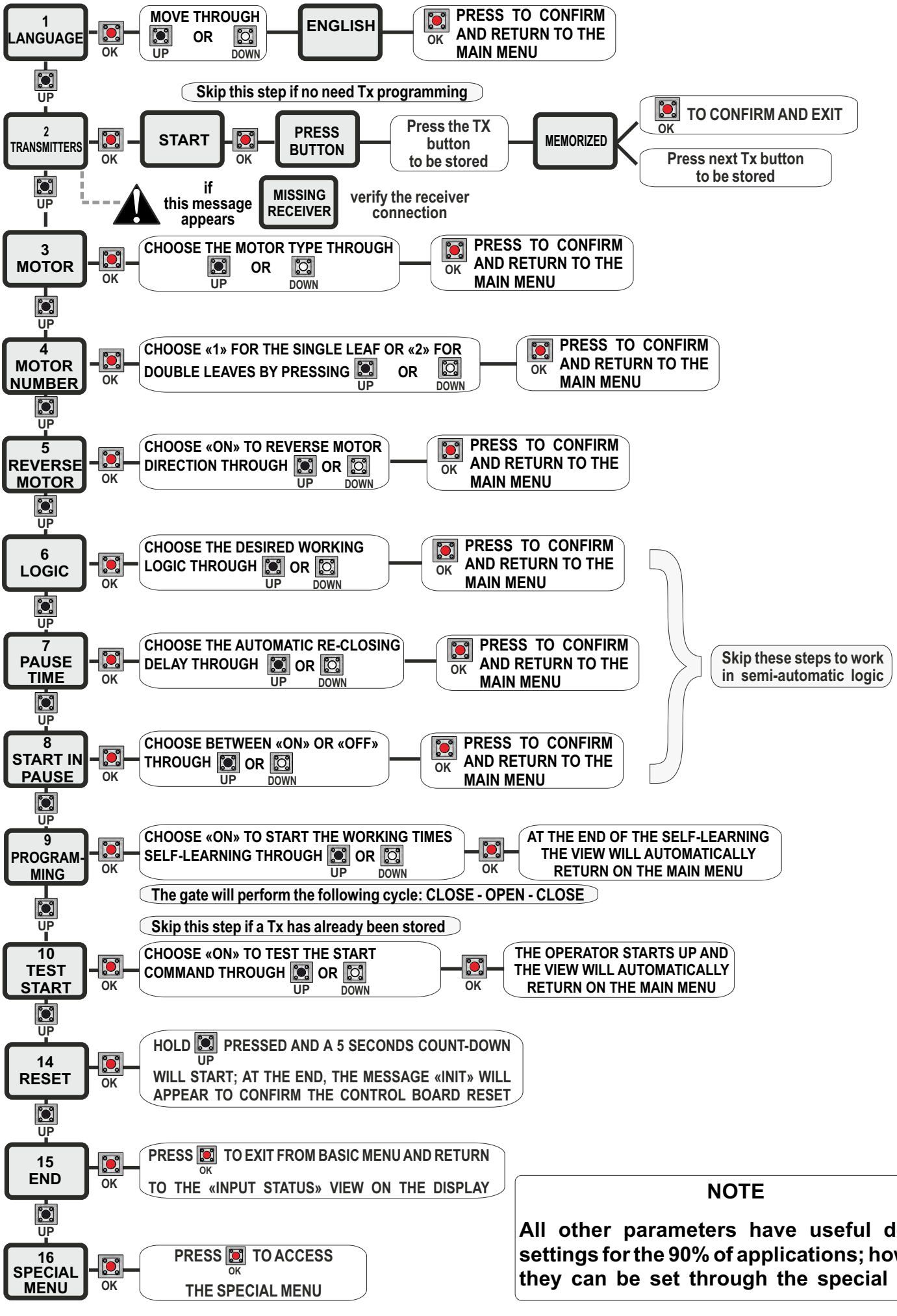
10.1 - BASIC PROGRAMMING MENU AND SPECIAL MENU

The control unit is equipped with a **basic programming menu** which can be accessed by through the procedure above indicated when the 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:





11 - QUICK START



NOTE

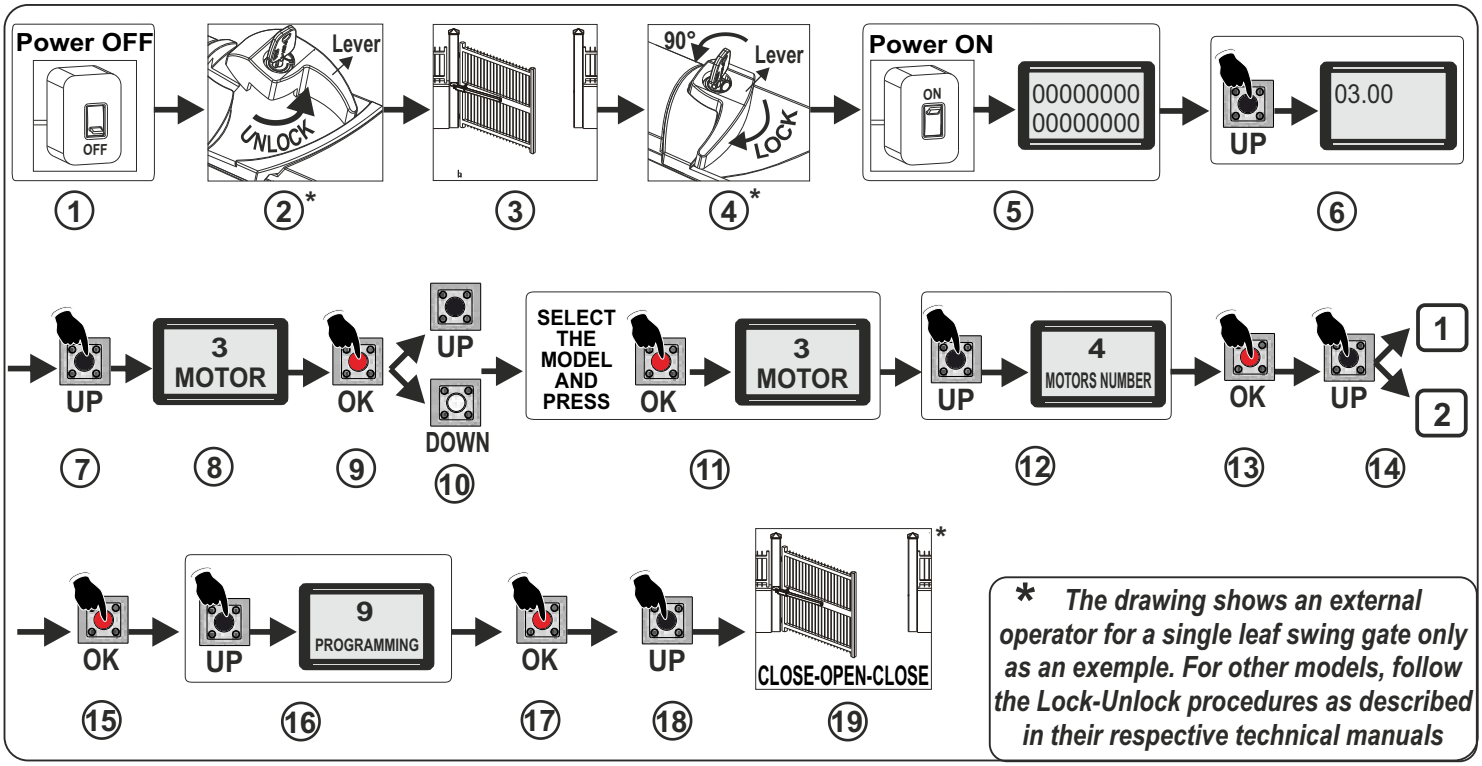
All other parameters have useful default settings for the 90% of applications; however they can be set through the special menu

12 - WORKING TIMES SELF-LEARNING

- Use a jumper wire on SAFETY EDGE contact if it not used (see chapter 3)
- It is not necessary to use jumper wires on Limit switch, Photocells or Stop if they are not used
- Check the correct operation of all accessories (Photocells, Push buttons etc.)

PRELIMINARY NOTES:

- Set leaf delay if necessary
- Adjust the self-learning speed if necessary
- ***If one or both motors perform the first learning starting in opening, then remove the power supply and reverse the cables of the motor (s) starting in opening (or, through control board, select ON on menu 5-REVERSE MOTOR) then repeat the procedure***



* *The drawing shows an external operator for a single leaf swing gate only as an exemple. For other models, follow the Lock-Unlock procedures as described in their respective technical manuals*

① Turn off the power supply
② Unlock the operators
③ Manually move the leaf/leaves on halfway
④ Restore the mechanical lock
⑤ Power the control unit and the input status will be shown on the display
⑥ Press UP and the current software version will be shown
⑦ Press UP againg and access the programming menu
⑧ Pressing UP scrolls to the 3-MOTOR menu
⑨ Press OK to select the 3-MOTORS menu and enter the menu
⑩ Use UP or DOWN to scroll through the options
⑪ Select the model by pressing OK and the display returns to the 3-MOTORS menu
⑫ Use the UP button to scroll to the 4-MOTORS NUMBER menu
⑬ Press OK
⑭ Press UP to choose «**1**» (1 motor = SINGLE LEAF) or «**2**» (2 motors = DOUBLE LEAF)
⑮ Press OK to confirm and the display returns to the 4-MOTORS NUMBER menu
⑯ Use the UP button to scroll to menu 9-PROGRAMMING
⑰ Press OK to access the menu
⑱ Press UP to start programming
⑲ The gate automatically performs the cycle: **CLOSE - OPEN - CLOSE** (or, in the case of double leaf: **CLOSE M2 - CLOSE M1 - OPEN M1 - OPEN M2 - CLOSE M2 - CLOSE M1**)

Self-learning completed

13 - 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)

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 will open 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** button 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

14 - PASSWORD MANAGEMENT

By default the password is disabled. To set a password proceed as follows:

① Go on any basic menu number

② Press UP and DOWN simultaneously for 5 seconds and access the Special Menu SP

③ Scroll using the UP or DOWN buttons to the **112-PASSWORD menu**

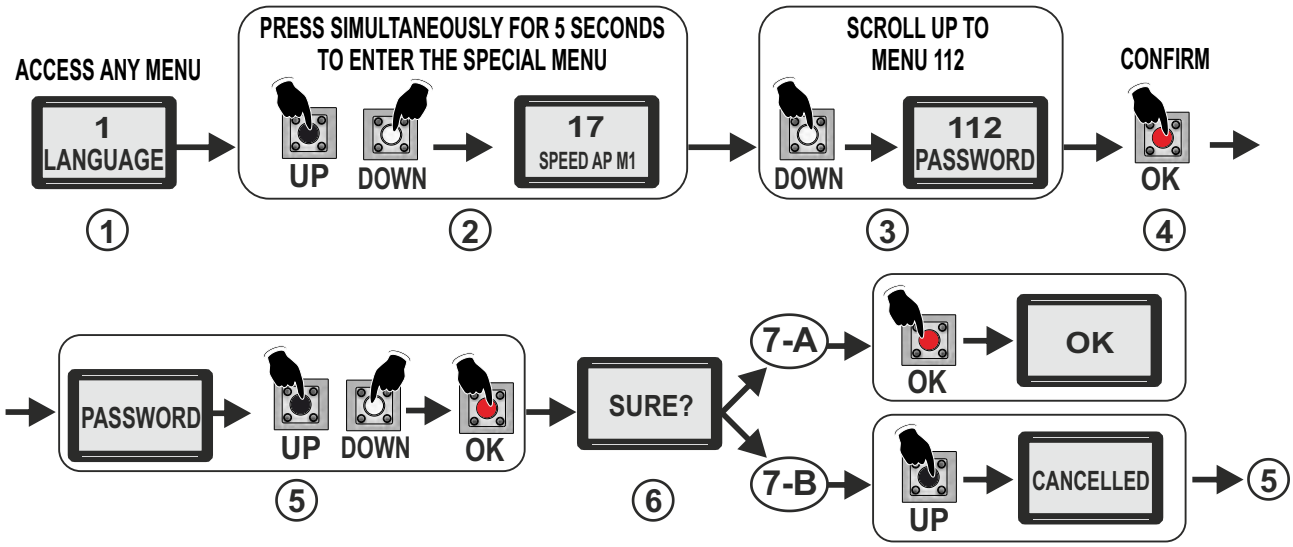
④ Press OK

⑤ Enter a 4-digit password ***(WARNING: it is not allowed to set 0000 as a password)*** using the UP and DOWN buttons to increase or decrease the digits
Once the first digit has been chosen, confirm with OK then set the next one

⑥ Once the last digit has been set, the word ***«SURE?»*** will appear

⑦-A To confirm press OK and the confirmation message ***«OK»*** will appear on the display; The password will be active as soon as the display shut-down time-out expires or the electronic board is turned off and on again

⑦-B Press UP to cancel the operation; the message ***«Cancelled»*** will appear on the display; then repeat the procedure from the point ⑤



Once the password is activated, **the menus will only be shown but cannot be adjusted**; To unlock the control unit enter the correct password in the 112-PASSWORD Special Menu.
If the password is wrong, the message ***"ERROR"*** will be displayed

To change the password it is necessary to unlock the control unit first, then repeat the procedure to set a new password.

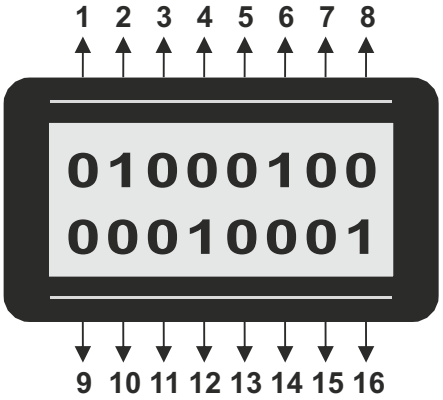
If You forgot the password, contact the SEA technical assistance; SEA will evaluate whether or not to provide the procedure for the control unit unlocking

NOTE: *Password CAN NOT be set using the JOLLY 3 programmer*

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 10). 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.)**

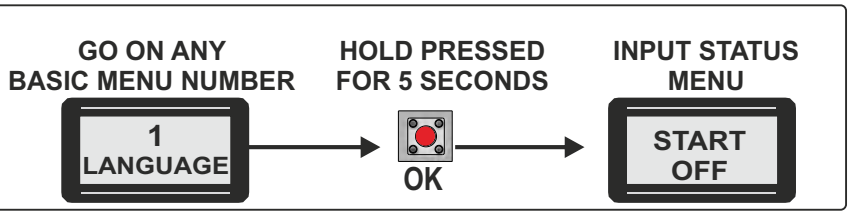
0 = NORMALLY OPEN (N.O.) **1 = NORMALLY CLOSED (N.C.)**



1	START	9	OPENING LIMIT SWITCH MOTOR 1
2	PARTIAL OPENING START	10	CLOSING LIMIT SWITCH MOTOR 1
3	STOP	11	OPENING LIMIT SWITCH MOTOR 2
4	PHOTOCELL 1	12	CLOSING LIMIT SWITCH MOTOR 2
5	PHOTOCELL 2	13	NOT IN USE
6	SAFETY EDGE 1	14	NOT IN USE
7	SAFETY EDGE 2	15	NOT IN USE
8	NOT IN USE	16	NOT IN USE

The symbol «1» lit indicates that, during self-learning, the input status is closed or disabled

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: START OFF or STOP 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 and the battery status (0.0V) 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:

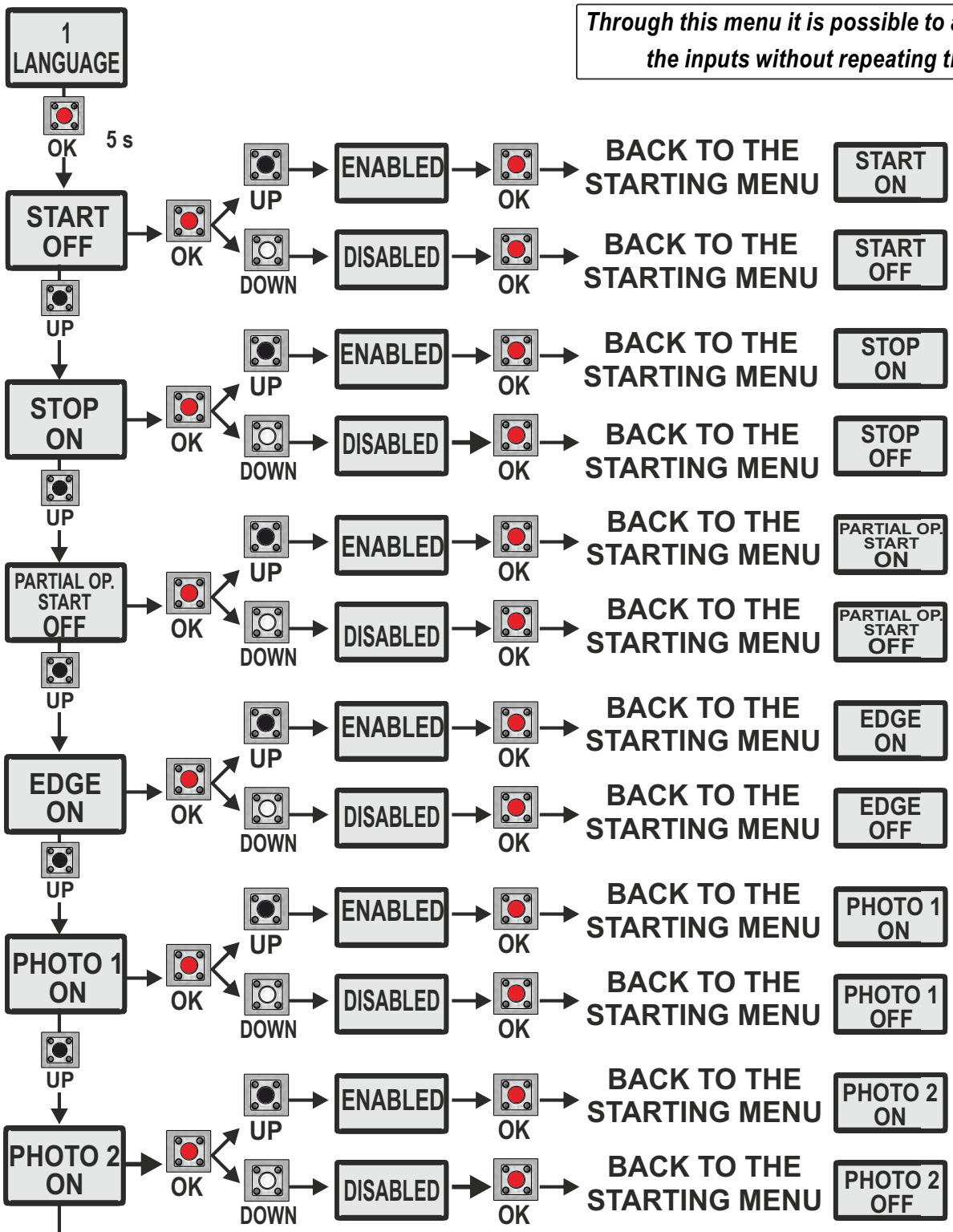
If «ON» appears on the display when one of the two command is activated, the input is working
If «OFF» is displayed even after the command activation, then it is advisable to check the wirings

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

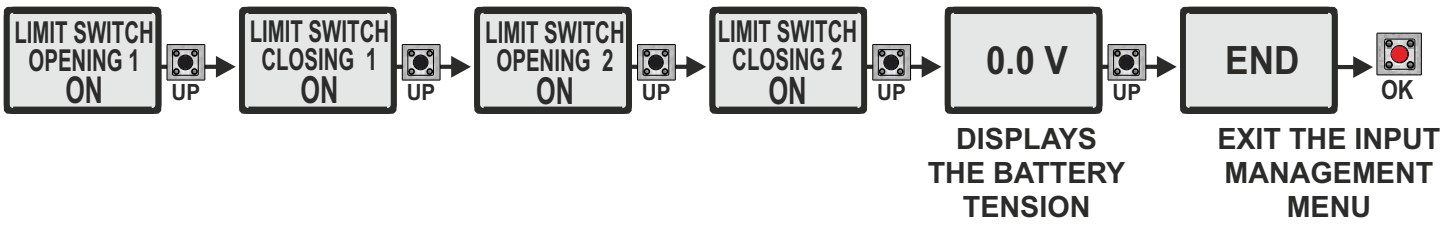
If «OFF» appears on the display when a command is activated, the input is working
If «ON» is displayed even after the command activation, then it is advisable to check the wirings

15.2 - «USER 2 24V DG R1B ALL-IN» INPUT MANAGEMENT MENU

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

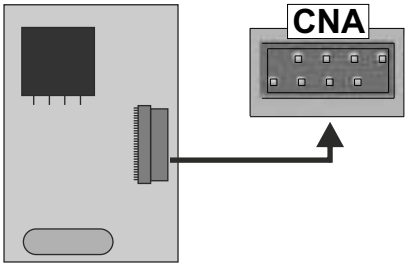


THE FOLLOWING MENUS ONLY DISPLAY THE CURRENT INPUT STATUS;
IT IS NOT ALLOWED TO MAKE CHANGES



16 - RADIO TRANSMITTERS SELF-LEARNING (RECEIVER ON BOARD)

RX RECEIVER



SEA PLUG-IN RECEIVERS	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

PRELIMINARY NOTES:

- **With the control unit OFF**, check if the RECEIVER module is correctly connected to the CNA connector
- Power up the card and program the radio transmitters before connecting the antenna
- The RF UNI and RF UNI PG modules allow the use of both ROLL PLUS SERIES and FIXED 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

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 next paragraph (16.1) 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 next paragraph (16.1) 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)**

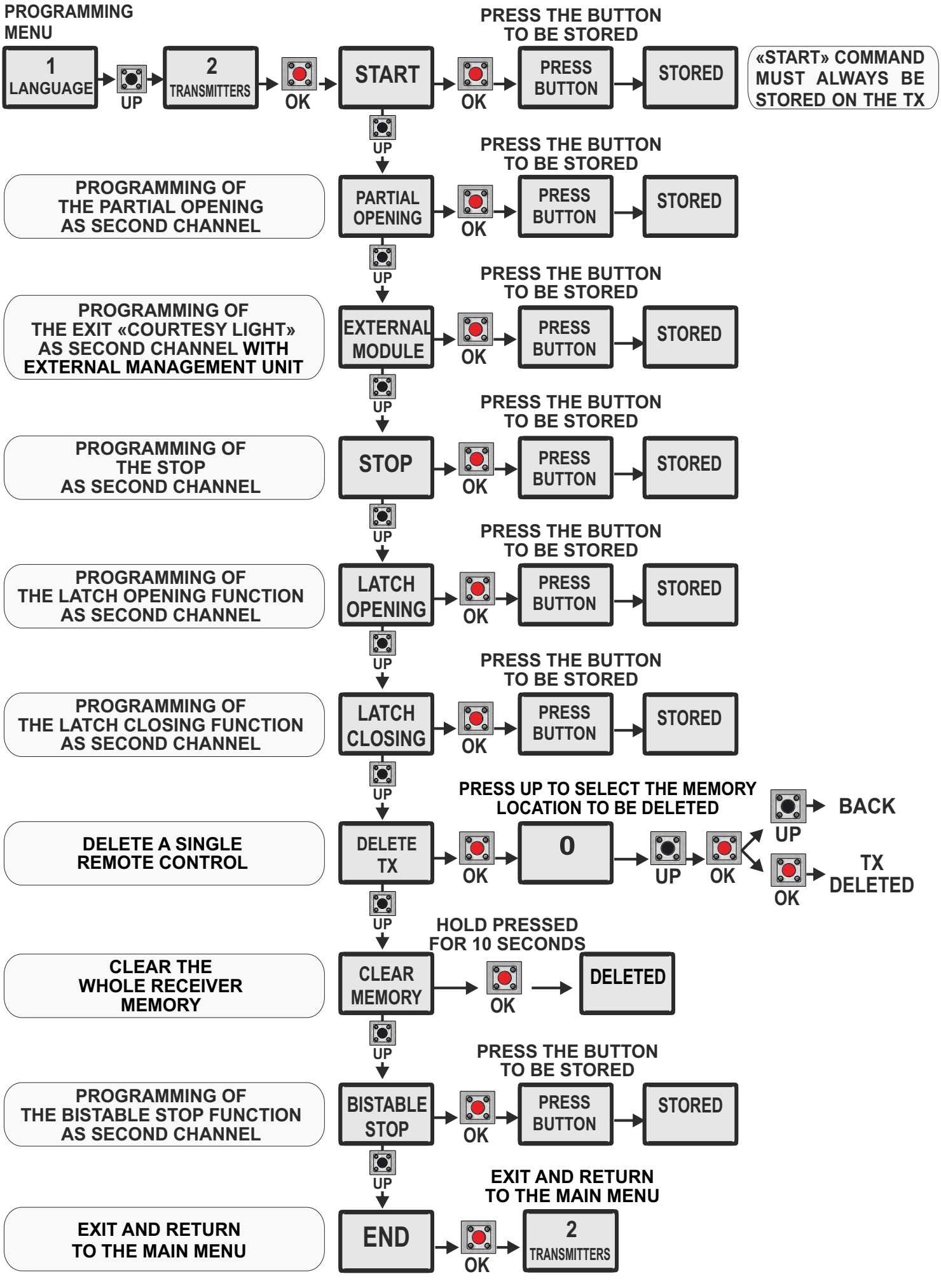
FOR THE INSTALLER

On 2-REMOTE CONTROLS menu you can see the serial number of the stored radio transmitters; It is advisable to create a table* as reminder of the serial numbers of the Rolling Code remotes assigned to the various customers, in order to have an easier management of all transmitters

Memory Location \ TX Button	1	2	3	4	Serial Number	Customer
0						
1						
2						
3						

exemple of table

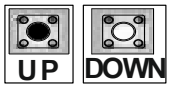
16.1 - REMOTE CONTROLS PROGRAMMING TABLE



USER 2 24V DG R1B "ALL - IN" MENU FUNCTIONS TABLE

MENU		SET	DESCRIPTION	DEFAULT	NOTE
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		
		Delete a transmitter	Delete single transmitter		
		Clear memory	Delete transmitter memory		
		Bistable Stop	Pressed once, it stops the gate. Pressed twice, it reactivates the START input		
		End	Exit transmitters menu		
3	MOTORE	***33**- FLIPPER - GER*	Electromechanical operators for swing gates	_ _ _ _	
		***34**- FIELD*	Electromech. in-ground operator for swing gates		
		***35**- SURF - KITE - ALPHA*	Electromechanical operators for swing gates		
		***36**- BETA*	Electromechanical operator for swing gates		
		***37**- B-600*	Electromechanical operator for swing gates		
4	MOTORS NUMBER	*From 1 to 2*	Allows to set the number of motors to be managed	*1*	
5	REVERSE MOTOR	*On*	It reverses the opening with the closing or viceversa ***(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*	Disabled ***(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

USER 2 24V DG R1B "ALL - IN" SPECIAL MENU FUNCTIONS TABLE

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 seconds
For exiting the special menu press END or move on one of the menu and press the UP and DOWN at the same time for 5 seconds

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
17	OPENING SPEED M1	*30 100*	Setting from 30 to 100	*75*	
18	CLOSING SPEED M1	*30 100*	Setting from 30 to 100	*75*	
19	OPENING SPEED M2	*30 100*	Setting from 30 to 100	*75*	
20	CLOSING SPEED M2	*30 100*	Setting from 30 to 100	*75*	
21	SLOWDOWN SPEED IN OPENING M1	*30 100*	Setting from 30 to 100	*30*	
22	SLOWDOWN SPEED IN CLOSING M1	*30 100*	Setting from 30 to 100	*30*	
23	SLOWDOWN SPEED IN OPENING M2	*30 100*	Setting from 30 to 100	*30*	
24	SLOWDOWN SPEED IN CLOSING M2	*30 100*	Setting from 30 to 100	*30*	
25	LEARNING SPEED	*30 100*	Setting from 30 to 100	*50*	
26	LEAF DELAY IN OPENING	*Off 6*	Setting from OFF to 6 seconds	*3*	
27	LEAF DELAY IN CLOSING	*Off 20*	Setting from OFF to 20 seconds	*3*	
28	OPENING TORQ 1	*10 100*	Opening torque Motor 1: by increasing the torque, more strenght will be required to execute the inversion in case of obstacle	*70*	
29	CLOSING TORQ 1	*10 100*	Closing torque Motor 1: by increasing the torque, more strenght will be required to execute the inversion in case of obstacle	*70*	
30	OPENING TORQ 2	*10 100*	Opening torque Motor 2: By increasing the torque, more strenght will be required to execute the inversion in case of obstacle	*70*	
31	CLOSING TORQ 2	*10 100*	Closing torque Motor 2: By increasing the torque, more strenght will be required to execute the inversion in case of obstacle	*70*	
32	ENCODER	*On*	ON = Encoder enabled OFF = Encoder disabled - shows working times learnt	*Off*	
32	ENCODER	*Potentiometer*	Enables the reading of the potentiometer with LE card	*Off*	
	51 I.PAR.M1	- - - - - - - -	Reports the current position of the potentiometer on the leaf of Motor 1. This parameter is useful for seeing if the potentiometer is read correctly		
	52 I.AP.M1	*From the value learned to ± 100 pulses*	Reports the impulses stored by the control unit when the leaf of Motor 1 is fully open		
	53 I.CH.M1	*From the value learned to ± 100 pulses*	Reports the impulses stored by the control unit when the leaf of Motor 1 is fully close		
	54 I.PAR.M2	- - - - - - - -	Reports the current position of the potentiometer on the leaf of Motor 2. This parameter is useful for seeing if the potentiometer is read correctly		
	55 I.AP.M2	*From the value learned to ± 100 pulses*	Reports the impulses stored by the control unit when the leaf of Motor 2 is fully open		
	56 I.CH.M2	*From the value learned to ± 100 pulses*	Reports the impulses stored by the control unit when the leaf of Motor 2 is fully close		

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
32	ENCODER	*Off*	ON = Encoder enabled OFF = Encoder disabled - shows working times learnt	*Off*	
33	OPENING SENSITIVITY MOTOR 1	*10% (Fast intervention)* *99% (Slow intervention)*	Adjusts 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)*	Adjusts 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)*	Adjusts 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)*	Adjusts the Encoder or Potentiometer intervention time on Motor 2 in closing	*Off*	
		Off (Intervention excluded)	Disabled		
46	CLOSING INVERSION	*Total*	In case of obstacle or edge it totally reverses the movement during the closing. If active, the automatic reclosing will be attempted 5 times	*Total*	
		Partial	It partially reverses the direction (of about 30 cm) in case of obstacle or edge or potentiometer, then it stops		
For menu from 51 to 56 see menu 32-Encoder = Potentiometer					
59	OPENING SLOWDOWN 1	*Off (*) 100%*	OFF = Disabled 100% = the slowdown will Start at middle of the total stroke	*20*	
60	CLOSING SLOWDOWN 1	*Off (*) 100%*	OFF = Disabled 100% = the slowdown will Start at middle of the total stroke	*20*	
61	OPENING SLOWDOWN 2	*Off (*) 100%*	OFF = Disabled 100% = the slowdown will Start at middle of the total stroke	*20*	
62	CLOSING SLOWDOWN 2	*Off (*) 100%*	OFF = Disabled 100% = the slowdown will Start at middle of the total stroke	*20*	
63	DECELERATION	*0 %* *50%* 	Adjust the passage between normal speed and slowdown speed	*5%*	
64	ACCELERATION	*0 %* *100%* 	Acceleration ramp Adjusts the motor start	*100%*	
70	OPENING POSITION RECOVERY	*0 15 seconds*	Retrieves the inertia of the motor in opening after Stop or reversing	*1s*	
71	CLOSING POSITION RECOVERY	*0 15 seconds*	Retrieves the inertia of the motor in closing after Stop or reversing	*1s*	
72	OPENING TOLERANCE MOTOR 1	*10% = 20 pulses* *99% = 500 pulses*	Adjust the tolerance between stop and obstacle on Motor 1 in opening	*16% = 80 pulses*	
73	CLOSING TOLERANCE MOTOR 1	*10% = 20 pulses* *99% = 500 pulses*	Adjust the tolerance between stop and obstacle on Motor 1 in closing	*16% = 80 pulses*	
74	OPENING TOLERANCE MOTOR 2	*10% = 20 pulses* *99% = 500 pulses*	Adjust the tolerance between stop and obstacle on Motor 2 in opening	*16% = 80 pulses*	
75	CLOSING TOLERANCE MOTOR 2	*10% = 20 pulses* *99% = 500 pulses*	Adjust the tolerance between stop and obstacle on Motor 2 in closing	*16% = 80 pulses*	
76	PUSHING STROKE	*Off - 3 seconds*	Before opening, the motor starts in closing for the setup time, in order to simplify the lock release	*Off*	
77	LOCK TIME	*Off - 5 seconds*	Sets the lock release time from 0 to 5 s	*1*	
78	LOCK	*Only opening*	Active only before opening	*Only opening*	
		Only closing	Active only before cloning		
		Opening and closing	Active before opening and closing		

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
79	ANTI INTRUSION	*Only opening* *Only closing* *Opening and closing* *Off*	If you force the gate manually, the control unit starts the motor and restores the state of the gate before forcing it ***(function available only with limit switch)***	*Off*	
80	PUSHOVER	*Off* *Opening and closing* *Only closing* *Only opening*	Allows the leaf to make an extra move at maximum torque to ensure the tightening	*Off*	
81	PERIODICAL PUSHOVER	*Off 8*	Allows the repetition of the pushover function at a distance of time adjustable from 0 to 8 hours at hourly intervals	*Off*	
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 reverse its direction at the end of the cycle ***Note: on swing operators, the release time of the Motor 2 in closing must not be longer than that of the Motor 1***	*Off*	
83	EXTRA TIME	*Opening 1 Off - 10 s* *Closing 1 Off - 10 s* *Opening 2 Off - 10 s* *Closing 2 Off - 10 s* *End*	It adds an extra time to the movement of the motors on direction set	*Off*	
84	BRAKE	*Off 100%*	Adjusts the braking on the limit switches	*0*	
85	PRE-FLASHING	*Only closing* *0.0 5.0 s*	Pre-flashing only active before closing Pre-flashing	*Off*	
86	FLASHING LIGHT	*Normal* *Light* *Always* *Buzzer*	Normal Control lamp Always ON Buzzer	*Normal*	
87	FLASHING LIGHT AND TIMER	*Off* *On*	The flashing light stays OFF with the active timer and open gate The flashing light stays ON with active timer and open gate	*Off*	
88	COURTESY LIGHT ***(Only with SEM 2 management board)***	*Off* *1 240* *In cycle*	Disabled Courtesy light setting from 1 second to 4 minutes Courtesy light in cycle	*In Cycle*	
89	TRAFFIC LIGHT RESERVATION ***(Only with SEM 2 management board)***	*Off On*	If ON, the partial input will be activated to work on the auxiliary board **"SEM2"** ***(traffic-light management board)***	*Off*	
90	PARTIAL OPENING	*20 100*	Setting from 20 to 100	*100*	
91	PARTIAL PAUSE	*= Start* *Off* *1 240*	Pause in partial opening same as in total opening Disabled Setting from 1second to 4 minutes	*= Start*	
92	TIMER	*Off* *On photo2* *On partial entry*	Turn the selected input into an input to connect an external clock to	*Off*	

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
94	24V AUX (Max. 500 mA)	*Always*	AUX output always Power supplied	*Always*	
		In cycle	AUX output active only during cycle		
		Opening	AUX output power supplied only in opening		
		Closing	AUX output power supplied only in closing		
		In pause	AUX out put power supplied only in pause		
		Phototest	Security test		
		In cycle and phototest	During cycle only and with Fototest function enabled		
		Positive brake management	Positive Electric-brake (24V in ON with stationary gate)		
		Negative brake management	Negative Electric-brake (24V in On with gate in cycle and 1 sec. before the Start)		
		Negative brake and Photocell management	Negative electric-brake not active on intervention of the photocell		
		Open gate warning Light	1 flash per second in opening 2 flashes per second in closing Steady lit in Stop or Open		
		Start 3 s	If active, the 24VAUX output is activated for 3 seconds at every Start input, every photocells or security edge intervention		
95	PHOTOTEST	*Photo 1*	Self-test active only on photocell 1	*Photo 1 and Photo 2*	
		Photo 2	Self-test active only on photocell 2		
		Photo 1 and Photo 2	Self-test active on photocells 1 and 2		
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 opening 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 movement 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		
		Shadow loop	Until occupied, with open gate, the shadow loop prevents the reclosing. Shadow loop is switched off during closing		
		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		
		Shadow loop RP (pause reloading)	Until occupied, with open gate, the shadow loop prevents the reclosing; when released, the gate repeats the pause time set, then it closes. Shadow loop is switched off during closing		

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
98	PHOTOCELL 2 SHADOW-LOOP2	*Closing*	If the photocell is occupied, it reverses the movement in closing; during the pause, it prevents the reclosing	*Opening and closing*	
		Opening and closing	If active the photocell blocks the movement as long as it is busy**;** when released, the opening movement continues		
		Stop	If the photocell is activated before the Start input, the Start will be ignored. If it is activated after the Start input, the photocell will be ignored. If it is activated during closing, the gate will reopen		
		Stop and close	In closing, the photocell stops the movement until it is occupied; when released the closing movement continues		
		Close	The photocell stops the gate until it is occupied in both opening and closing; when released, it gives a closing command (it closes one second after its release)		
		Pause reload	If activated, the photocell recharges the time of pause during pause. In closing it reverses the movement		
		Shadow loop	Until occupied, with open gate, it prevents reclosing. It is switched off during closing		
		Delete pause time	If the photocell is activated during opening, pause or closing, the gate reopens completely and closes without observing the pause time		
		Shadow loop RP (pause reloading)	If the shadow loop is temporarily released, the pause time is reloaded before closing		
		Stop and open	If the photocell is activated during opening, the gate stops and will continue in opening only when the photocell is released. It is ignored during closing		
100	SECURITY EDGE 1	*Normal*	Normal N.C. contact	*Normal*	
		8K2	Active edge protected by a 8K2 resistor		
		8K2 Double	Allows to connect two 8K2 protected edges		
		Photo 1 10K	Security edge works as a photocell protected by a 10K resistor		
		Photo 1 10K Double	It is possible to connect two photocells protected by a 10K resistor		
102	SECURITY EDGE 1 DIRECTION	*Opening and closing*	Active in opening and closing	*Opening and Closing*	
		Only opening	Active only in opening		
		Only closing	Active only in closing		
104	SELECT LIMIT SWITCH	*Automatic*	Limit switch in automatic recognition	*Auto-matic*	
		Only opening	Active limit-switch in opening only		
		Only closing	Active limit-switch in closing only		
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. Keep 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	- - - -	

SP MENU		SET	DESCRIPTION	DEFAULT	NOTE
113	EMERGENCY	*Off*	Disabled	*Off*	
		Emergency	Without main power but batteries connected, the gate will open fully and will remain opened. The gate recloses when the power is back		
		Last opening	Without main power, if batteries are lower than 22V the gate opens and stay opened. The gate recloses when the power is back		
		Last closing	Without main power, if batteries are lower than 22V the gate closes and stay closed until the power is back		
117	ALWAYS CLOSE	*Off 240 seconds*	In the event of a power failure, if the door has been manually opened, it closes only after the set time has elapsed (from 0 to 240 seconds), as soon as the power is restored	*Off*	
118	LATCH	*Off*	Disabled	*Off*	
		Opening	Uses the "Partial Opening" N.O. input (the "Partial Opening" is so disabled). The gate opens and stay open till a new Start input		
		Closing	Uses the "Partial Opening" N.O. input (the "Partial Opening" is so disabled).The gate closes and stay closed till a new Start input		
LATCH FUNCTION NOTES: ***- To deactivate the Latch function, press the Latch command again or the Stop command or remove the power supply;*** ***- The Latch function can also be activated by remote control or by SEACLOUD; if the Latch function is active, pedestrian opening will still be possible both from the remote control and from SEACLOUD***					
119	DISPLAY WRITING SPEED	*From 30% to 100%*	See Note 2 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 "motor type" and "limit switch type" remain on the value chosen in the setup program

Note 2: Display writing speed set on 30% keeps writing slow; Display writing speed set on 100% keeps writing fast. ***Please note that speed does not change on JOLLY 3 display***

ALARMS

The control unit advise about faults by a message on the display. The table below shows what 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: *If "**MAXIMUM CYCLES REACHED**" is displayed, the maintenance or the reset of the performed cycles number is necessary (see note (*) below)*

Note 2: To exit the alarms display press OK
If the warning signal does not disappear, carry out all the checks required for that error and/or disconnect the device that generates the error to check whether the signal disappears

It is also possible to visualize the warning signals through the flashing light or the pilot 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 - steady during pause*

WARNING	DESCRIPTION	SOLUTION
FAULT MOTOR	Motor power supply failure	Check that there are no short circuits on the motor or on the control unit
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 24V AUX CHECK CHARGE OUTPUT 10 CONNECT ACCESSORIES OUTPUT 12	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 is a settable output with maximum load of 600mA; if you do not need the settable output, use the 24V on terminal 12 (+) and use the negative on output 11 (COM) (NOT on output 13!)
FAULT SELF-TEST	Photocells self-test failure	Check the photocells operation and/or wirings on control unit
FAULT LIMIT SWITCH	Limit switch activation fault	Check the operation of both limit switches and/or the correspondence between the motor movement direction and the engaged limit switch
FAULT FLASHING LIGHT	Flashing Light fault	Check the wirings and/or the condition of the lamp
FAULT OVERCURRENT COLLISION	Failure overcurrent collision	Check the presence of obstacles or points of friction on the gate *NOTE: the warning signal can be reset by pressing OK*

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 Faster	Limit switch error

* Periodically, based on the number of maneuvers performed over time and 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***
The warning signal "**MAXIMUM CYCLES REACHED**" and the 7 flashes shown in the table aside refer to the achievement of the maximum cycles established before maintenance; therefore it is advisable to carry out maintenance and 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 d) If on battery power only, low or dead batteries	a) Check AC power b) Check fuses c) Replace defective control board d) Charge batteries by AC or solar power or replace batteries
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 e) If on battery power only, low or dead batteries	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 e) Charge batteries by AC or solar power or replace batteries
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) Try to invert the motor phase and watch if the motor change or not the direction	a) 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 c) Low battery voltage	a) Check all Open and Close inputs for an active input b) Check the obstacle sensitivity value and try to increase this parameter c) Battery voltage must be 23.0 Vdc or higher. Charge batteries by AC or solar power or replace batteries

...NEXT

Advices

Make sure all Safeties are turned ON

Problem Found	Possible Cause	Solutions
Gate opens, but will not close with transmitter or pause time different from OFF	a) Open control active b) Pause not set c) Close Entrapment Protecting Device active d) Photocells contact is open e) Fire-switch input active	a) Check all Open inputs for an active input b) Check pause settings c) Check all Entrapment Protection Device inputs for an active sensor d) Check photocells contact e) Check fire-switch input
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

...NEXT

Advices		
Make sure all Safeties are turned ON		
Problem Found	**Possible Cause**	**Solutions**
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
Control board powers up, but motor does not run	a) Stop button active or jumper not in place for stop circuit b) Open or Close Input active c) Entrapment Protection Device active d) Defective control board	a) Check Stop button is not "stuck on"", or verify that the stop button is a normally closed circuit, or put a jumper on the stop circuit b) Check all Open and Close Inputs for a "stuck on" Input c) Check all Entrapment Protection Device inputs for a "stuck on" sensor d) Replace defective control board
Solar operator not getting enough cycles per day	a) Insufficient panel wattage b) Excessive accessory power draw c) Old batteries d) Solar panels are not getting enough sunlight	a) Add more solar panels b) Reduce the accessory power by using low power accessories or set the 24Vaux only in cycle c) Replace batteries d) Relocate the solar panels away from obstructions (trees, buildings, etc.)
Solar operator insufficient stand-by time	a) Insufficient panel wattage b) Excessive accessory power draw c) Battery capacity too low	a) Add more solar panels b) Reduce the accessory power draw by using low power accessories c) Use batteries with higher amp hour (Ah) rating

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

Any request for spare parts must be sent to: ***SEA S.p.A. - 64020 - 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

IMMAGAZZINAMENTO

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

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

English 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.

SEA

Automatic Gate Openers

Questo articolo è stato prodotto seguendo rigide procedure di lavorazione ed è stato testato singolarmente al fine di garantire i più alti livelli qualitativi e la vostra soddisfazione. Vi ringraziamo per aver scelto SEA.

This item has been produced following strict production procedures and has been singularly tested for the highest quality levels and for your complete satisfaction.
Thanks for choosing SEA.

Cet article a été produit suivant des procédures d'usinage strictes et il a singulièrement été testé afin de garantir les plus hauts niveaux de qualité pour votre satisfaction.
Nous vous remercions d'avoir choisi SEA.

Este articulo ha sido producido siguiendo rigidos procedimientos de elaboracion y ha sido probando singolarmente a fin de garantizar los mas altos inveles de calidad y vuestra satisfaccion.
Le agradecemos por haber escogito SEA.

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 autorizzatoche 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***
USER 1 24V DG ALL IN (e tutti i suoi derivati / *and all its by-products)*	23024040/45/48	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:

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Luogo, data di emissione
Place, date of issue
Teramo, 01/04/2019

L'Amministratore
The Administrator
Ennio Di Saverio

Notes

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