

# SEA®

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di Apertura Porte e Cancelli  
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**English**

## **USER 2 - 24V / USER 2 HIDRO**

**23024015/16/17/18/19/20/21**

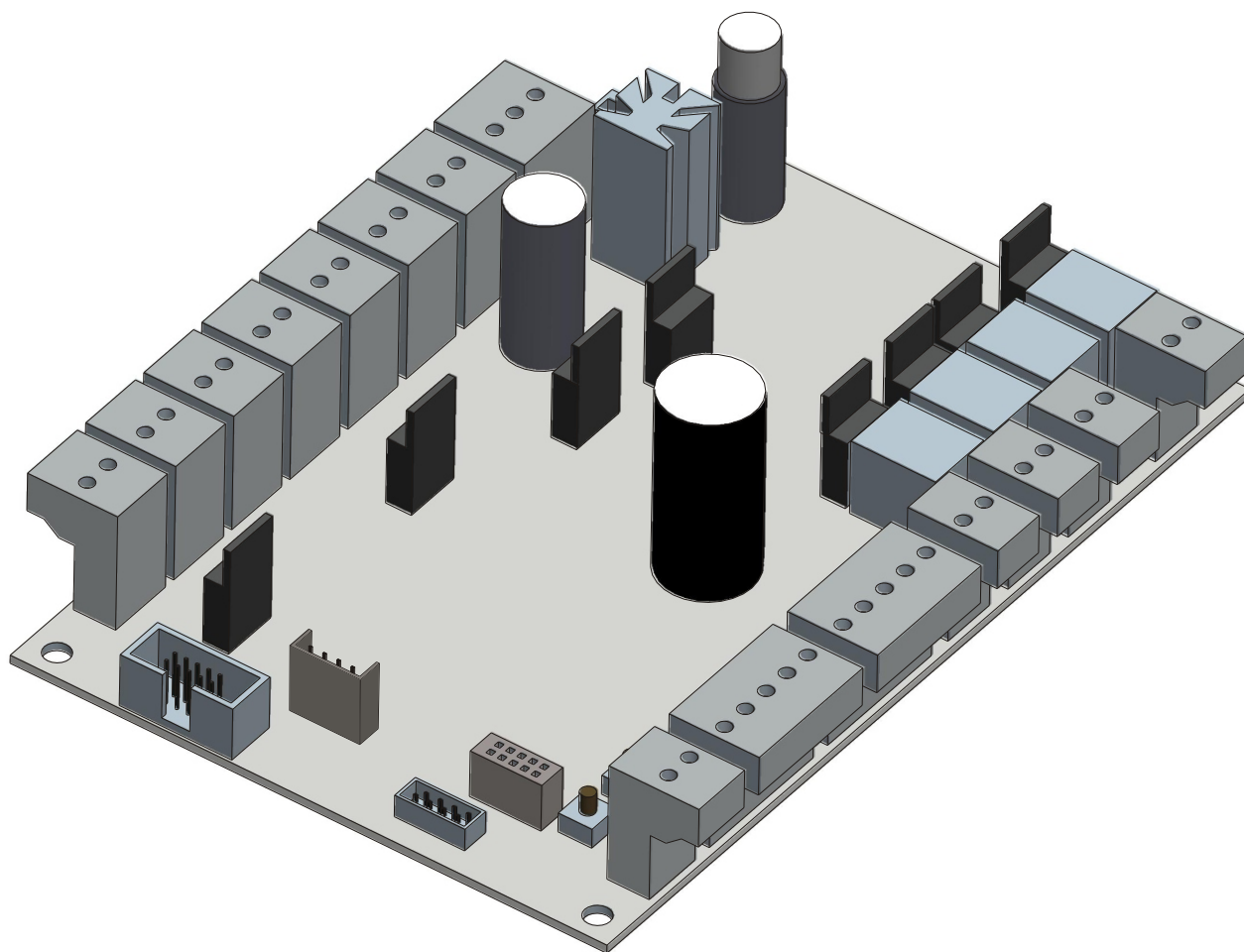
**APPARECCHIATURA ELETTRONICA 24V === PER CANCELLI AD ANTE BATTENTI**

**ELECTRONIC CONTROL UNIT FOR SWING OPERATORS 24V ===**

**ARMOIRE ELECTRONIQUE 24 V === POUR PORTAILS A BATTANTS**

**TARJETA ELECTRONICA 24V === PARA CANCELA ABATIBLES**

**ELEKTRONISCHE 24V === STEUERUNG FÜR SCHWINGTORE**



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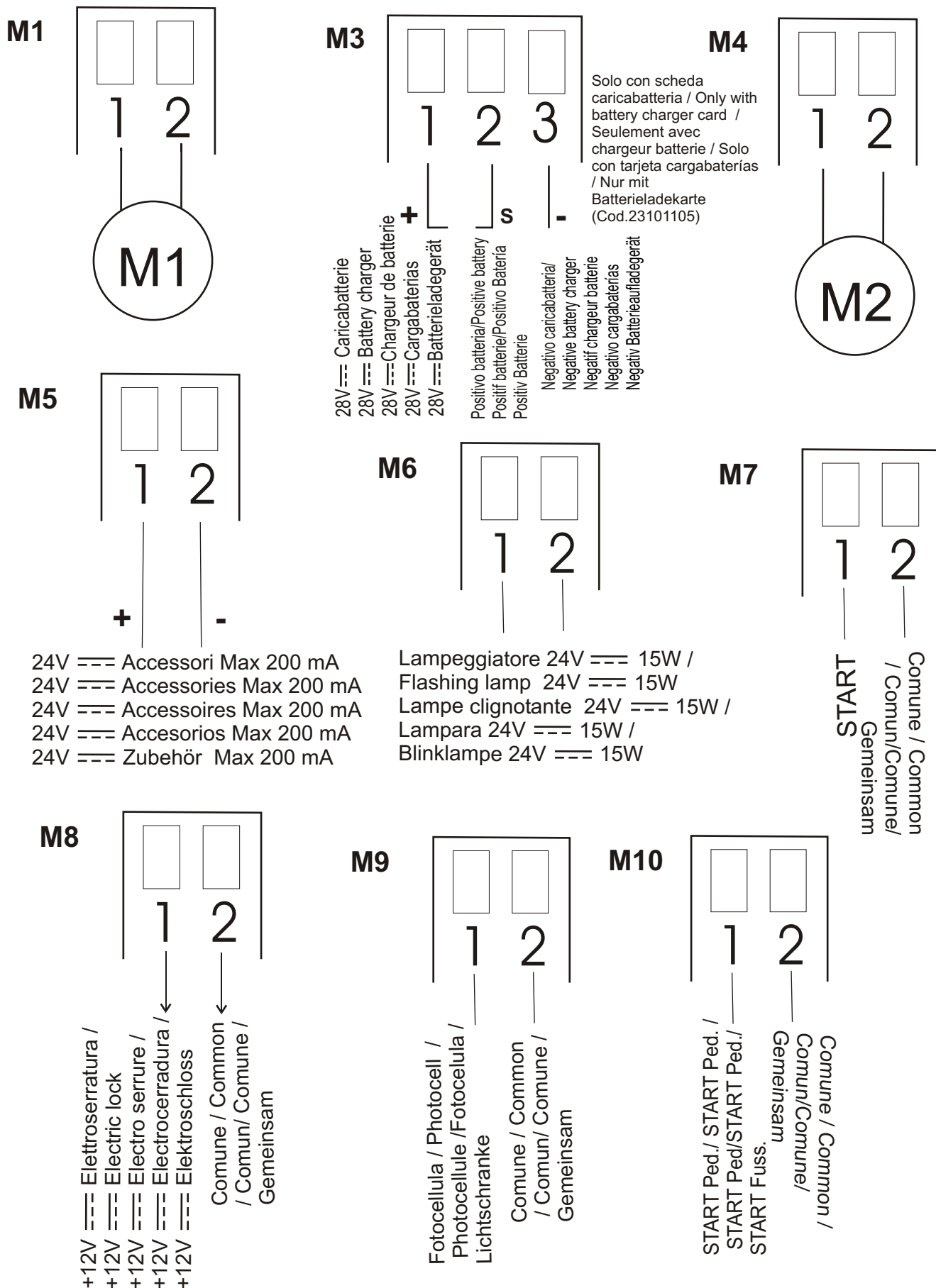
**[www.seateam.com](http://www.seateam.com)**

**e-mail: [seacom@seateam.com](mailto:seacom@seateam.com)**



# CONNESSIONI / CONNECTIONS / CONNEXIONS

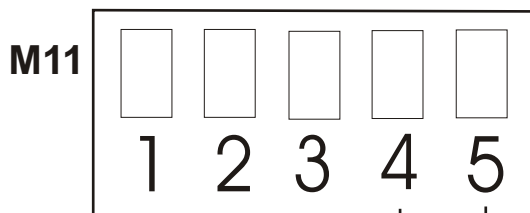
## CONEXIONES / VERBINDUNGEN



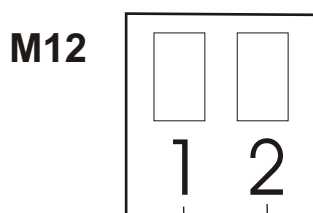


# CONNESSIONI / CONNECTIONS / CONNEXIONS

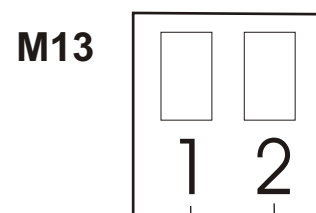
## CONEXIONES / VERBINDUNGEN



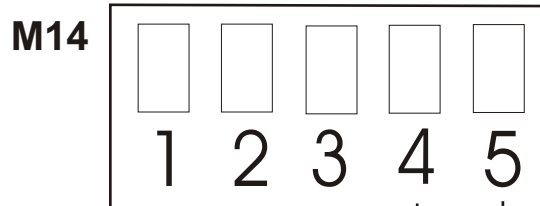
12 V --- Encoder 1 (Marrone)  
12V --- Encoder 1 (Brown)  
12 V --- Encoder 1 (Marron)  
12 V --- Encoder 1 (Marron)  
12 V --- Encoder 1 (Braun)  
Encoder 1 (Bianco) / Encoder 1 (White)  
Encoder 1 (Blanc) / Encoder 1 (Blanco) /  
Encoder 1 (Weiss)  
Finecorsa Ch.1 / Limit switch Cl.1 /  
Fin de course Fe.1/Final de carrera Cie.1/  
Endschalter Schlie.1  
Finecorsa Ap.1 / Limit switch Op.1 /  
Fin de course Ouv.1/Final de carrera Ap.1/  
Endschalter Öffn.1  
Encoder 1 (Verde) / Encoder 1 (Green)  
Encoder 1 (Vert) / Encoder 1 (Verde) /  
Encoder 1 (Grün)  
Comune / Common / Comun / Comune /  
Gemeinsam



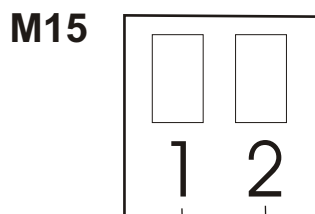
STOP  
Comune / Common /  
Comun/Comune /  
Gemeinsam



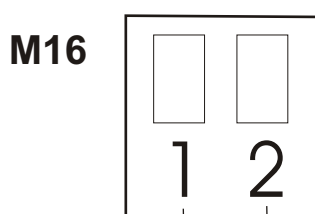
Costa di sicurezza / Safety edge  
Tranche de sécurité /  
Costa de seguridad /  
Sicherheitsleiste  
Comune / Common /  
Comun / Comune /  
Gemeinsam



12 V --- Encoder 2 (Marrone)  
12 V --- Encoder 2 (Brown)  
12 V --- Encoder 2 (Marron)  
12 V --- Encoder 2 (Marron)  
12 V --- Encoder 2 (Braun)  
Encoder 2 (Bianco) / Encoder 2 (White)  
Encoder 2 (Blanc) / Encoder 2 (Blanco) /  
Encoder 2 (Weiss)  
Finecorsa Ch.2 / Limit switch Cl.2 /  
Fin de course Fe.2/Final de carrera Cie.2 /  
Endschalter Schliess. 2  
Finecorsa Ap.2 / Limit switch Op.2 /  
Fin de course Ouv.2/Final de carrera Ap.2 /  
Endschalter Öffn..2  
Encoder 2 (Verde) / Encoder 2 (Green)  
Encoder 2 (Vert) / Encoder 2 (Verde) /  
Encoder 2 (Grün)  
Comune / Common / Comun / Comune /  
Gemeinsam

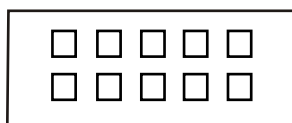


BUS  
Comune /  
Common /  
Comun /  
Comune /  
Gemeinsam

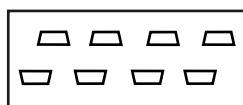


Antenna / Antenna /  
Antenne / Antena /  
Antenne  
Comune / Common /  
Comun / Comune /  
Gemeinsam

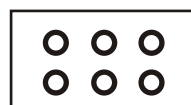
### CMD



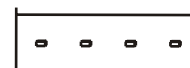
### CMR



### CALM



### CPO



Connettore Programmatore Jolly  
Connector Programmer Jolly /  
Connecteur Programmeur Jolly /  
Conector Programador Jolly /  
Anschluss Programmierer Jolly

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

Connettore alimentazione 24V ---/  
24V--- feed connector /  
Connecteur alimentation 24V ---/  
Conector alimentaciùn 24V ---/  
Speisungsverbindung 24V ---

Connettore programmatore OPEN/  
Connector programmer OPEN/  
Connecteur programmeur OPEN/  
Conector Programador OPEN/  
Anschluss Programmierer OPEN

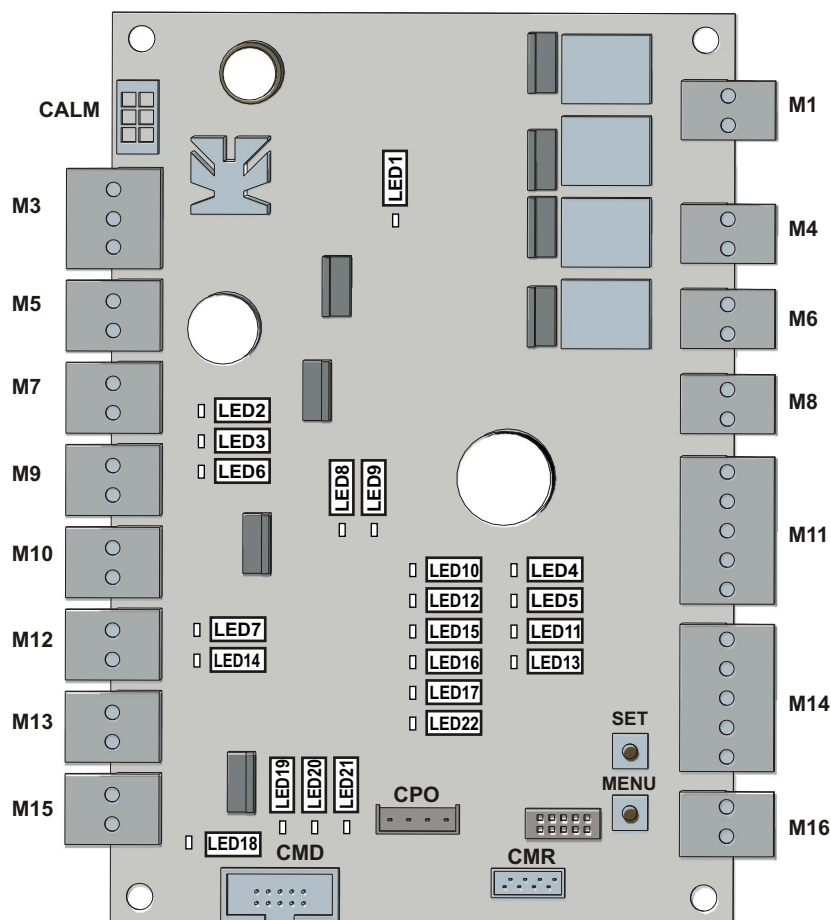


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## **DESCRIPTION OF THE COMPONENTS**



**LED1** = Fuse breaking signal  
**LED2** = Start  
**LED3** = Photocell  
**LED4** = Limit switch opening M1  
**LED5** = Limit switch closing M1  
**LED6** = Pedestrian Start  
**LED7** = Stop  
**LED8** = Battery  
**LED9** = 24V --- Power supply  
**LED10** = Using modality  
**LED11** = Limit switch opening M2  
**LED12** = Time of pause  
**LED13** = Limit switch closing M2  
**LED14** = Safety edge  
**LED15** = TX Programming  
**LED16** = Leaf delay adjustment  
**LED17** = Functioning logics  
**LED18** = BUS Indicator  
**LED19** = Function indicator  
**LED20** = Function indicator  
**LED21** = Function indicator  
**LED22** = Motors' speed adjustment  
**SET** = Setting  
**MENU** = Selection

**M1** = Motor 1 power supply  
**M3** = Battery card connection  
**M4** = Motor 2 power supply  
**M5** = 24V --- exit  
**M6** = 24V --- 15W Warning lamp  
**M7** = Start  
**M8** = Electric lock exit  
**M9** = Photocell connection  
**M10** = Pedestrian start  
**M11** = Encoder / Limit switch M1  
**M12** = Stop  
**M13** = Security edge  
**M14** = Encoder / Limit switch M2  
**M15** = BUS accessories connection  
**M16** = Antenna  
**CMD** = programmer connector Jolly  
**CMR** = Receiver module connection  
**CALM** = 24V --- power supply connection  
**CPO** = Programmer connector OPEN



## **GENERAL INFORMATION**

*The information in this section of the manual are only for technicians or for qualified or authorized installers.*

### **GENERAL CHARACTERISTICS**

The USER 2 24V control unit has been designed to manage one or two low voltage swing gate operators with or without electronic limit switches.

It is of very small dimensions and besides the possibility to adjust motor speed, amperemetric anti squeezing sensitivity, leaf delay in closing, pausing time, it is also possible to manage a display, through which it is possible to control a lot of management functions and the maintenance of the control unit. The most important change however concerns the presence of a BUS connector with two wires, through which it is possible to connect accessories as photocells, flashing lamp, key switch and so on,... connecting only two cables with the control unit. The self-learning of working time can be done automatically.

### **TECHNICAL SPECIFICATIONS**

|                                             |                                                                                                                                                                                                      |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control unit power supply</b>            | 24 V ---                                                                                                                                                                                             |
| <b>Absorption in stand by</b>               | 100 mA                                                                                                                                                                                               |
| <b>Max. motor charge</b>                    | 90 W x 2                                                                                                                                                                                             |
| <b>Max. accessories charge</b>              | 24V --- 250mA                                                                                                                                                                                        |
| <b>Max. Flash light charge</b>              | 24V --- 15W max.                                                                                                                                                                                     |
| <b>Environment temperature</b>              | -20°C ↕ +50°C ↕                                                                                                                                                                                      |
| <b>Protection fuse (24V accessories)</b>    | 1 (1,6mA)                                                                                                                                                                                            |
| <b>Function logic</b>                       | Automatic / Manual / Security / Semiautom.                                                                                                                                                           |
| <b>Opening/closing time</b>                 | In selflearning in programming phase                                                                                                                                                                 |
| <b>Time of pause</b>                        | Adjustable                                                                                                                                                                                           |
| <b>Thrust</b>                               | Adjustable                                                                                                                                                                                           |
| <b>Slow down</b>                            | Adjustable                                                                                                                                                                                           |
| <b>Input on connecting terminal</b>         | Battery power supply / Total opening / Pedestrian opening adjustable / Edge/ Stop / Limit switch opening and closing / Encoder/ BUS accessories                                                      |
| <b>Output on connecting terminal</b>        | Power supply accessories 24V --- / Motors 24V --- / Flashing lamp 24V --- / Electric lock 12V ---                                                                                                    |
| <b>Board dimensions</b>                     | 156 x 100 mm                                                                                                                                                                                         |
| <b>Specifications of optional batteries</b> | 24V Pb 2Ah min.                                                                                                                                                                                      |
| <b>Specifications of external enclosure</b> | 305 x 225 x 125 mm - Ip55                                                                                                                                                                            |
| <b>Special accessories</b>                  | Battery charger card (cod.23101105), Relay card for courtesy light or bolt lock (cod.23101106), Programmer JOLLY (cod.23105276), Programmer OPEN (cod.23105290), Photocell SUNSET BUS (cod.23102075) |

### **ARRANGEMENTS**

Read attentively the installation manual as it gives important indications concerning safety, installation, use and maintenance.

Installation, maintenance, reparation, controls and eventual putting out of function of the product must be executed by qualified staff only.

**For the security of people it is important to follow with attention all the advises and instructions in this manual. A wrong installation or a wrong use of the product can cause sever damages to people.**



**The max. length of the power supply cable between control unit and motors is 10m, use cables with 2,5 mm<sup>2</sup> section.**

Use wirings with double insulated cables (cables with sheath) up to the immediate proximities of the terminals especially for the power supply cable (230V~).

The control unit must not be used by people (including children) whose physical, sensory or mental ability is reduced, or with lack of experience or knowledge, unless they are guarded or have been instructed on how to use the control unit by a person responsible for their safety. Children must be guarded to make sure that they don't play with the control unit.

Foresee on the power supply net of the automation a device that assures the complete omnipolar disconnection from the net, with a distance of opening of the contacts on each pole of at least 3mm. Those devices of disconnection have to be foreseen on the power supply net accordingly to the rules of installation, and they have to be directly connected to the power supply terminals.

It is necessary to keep in adequate distance (at least 2.5 mm in the air) the low tension conductors (230V~) from the very low tension conductors (SELV) or to use a suitable sheath of at least 1 mm which supplies an additional insulation.

Make sure that during installation the power supply and interconnection cables cannot come into contact with pointed or sharp extremities.

Dispose of the package materials (plastics, carton, polistirene, etc.) respecting the laws in order. Keep nylon and polistirene bags out of the reach of children.

Save these instructions for further information attaching them to the technical documents.

This product has been projected and built exclusively for the use described in this instruction manual.  
Uses not indicated in this manual could damage the product and be source of danger.

SEA declines all responsibility for improper or different use from the one for which it has been planned and described in the present manual.

Don't install the product in explosive atmospheres.

SEA declines all responsibility for the non-observance of the good technique in the construction of closings (doors, gates, etc.), as well as for the deformations which could occur during the use.

Remove the power supply before any intervention on the installation. Disconnect also possible battery buffers if present.

Make sure that the earth installation has been correctly made: connect all the metallic parts of the closing (doors, gates, etc.) and all the components of the installation provided with earth terminals.

Apply all the safety devices (photocells, sensitive edges, etc.) which are necessary to protect the area from dangers of crushing, conveying, cutting.

SEA declines all responsibility for safety and for the correct functioning of the automation if parts of other producers are used.

Use only original parts for any maintenance or reparation.

Do not modify the parts of the automation if not explicitly authorized by SEA.

Instruct the user of the installation on the applied command systems and how to manually open the gate in case of emergency.

**What is not explicitly contained in these instructions is not permitted.**



# START - STOP - PEDESTRIAN START - ANTENNA - PHOTOCELL

## Photocell 1 Connection

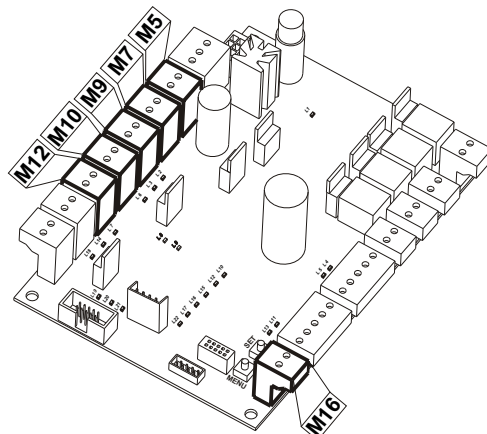
When the ray of the photocell is crossed, and the automation is in phase of closing it reverses its movement. Through programmer JOLLY it is possible to activate the photocell in opening, if activated it causes the interruption of the movement as long as it is busy, for then continuing the opening as soon as it is released.

**Note:** If the photocell is not connected, put a jumper between the clamps 1 and 2 of (M9).

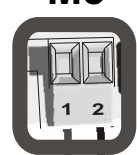
+ = 24V --- - = 0V --- C = Connection

Com = Common

The photocell is also usable in connection with BUS photocells.



**M5**



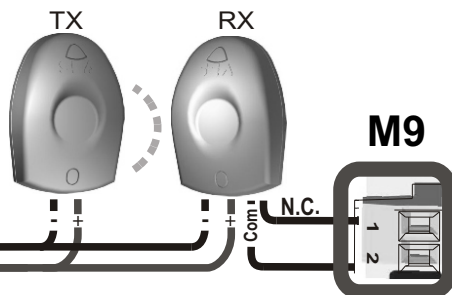
+ 24V --- -



### JOLLY OPTIONS

**FOTOCLOSE activation:** If activated when the photocell is crossed during the pause, the gate interrupts the pause and immediately closes again.

**TIMER activation:** If the entry is activated it turns into a N.O. entry with TIMER function (see TIMER)



## ANTENNA

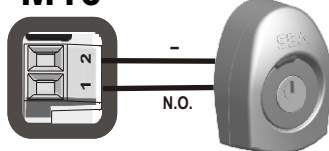
Connect the antenna as in the picture.

**M16**



GND

**M10**



## PEDESTRIAN START (N.O.)

To obtain a partial opening (only one leaf opening) connect the key-button wires as in the picture. It is possible to connect other command devices (push button board, radio receiver, keypad).

From the display it is possible to adjust the pedestrian opening space: 30%, 50%, 100%.

Note1: The contact for partial opening is a N.O. Contact (Normally open)

Note2: Partial opening will always operate the M1 motor.

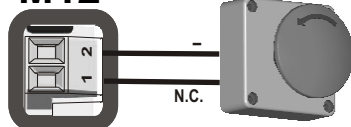
Note3: In manual logic it is necessary to keep pressed the Start Ped. for the reclosing of the leaf.



### JOLLY OPTIONS

**Activation TIMER:** this entry can be transformed into TIMER (See TIMER)

**M12**



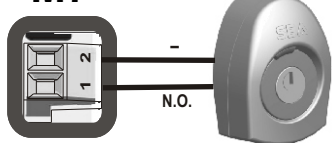
## STOP (N.C.)

The pressure on this button immediately stops the motors in any condition /position. A start command is needed to re-start movement.

After a stop the motors always re-start in closing.

Notice: If stop button is not used make a jumper between terminals n° 1 and 2 of M12.

**M7**



## START (N.O.)

An impulse given to this contact opens and closes the automation depending on logic selected. It can be given by a key switch, a keypad, etc.

To connect the other devices refer to the related instructions leaflets. (ie. loop detectors and proximity switches)

Note1: In manual logic it is necessary to keep pressed the Start for the opening of the leaf.

## TIMER



### JOLLY OPTION

Can be activated through the Jolly programmer or modifying either the PHOTO entry or the PEDESTRIAN entry. In both cases it's a N.O. Contact which provokes the opening of the leaves keeping them open until it is activated. When it's released, the gate attends the set pausing time and executes the reclosing.

Note2: When activated on the pedestrian entry, the pedestrian will be disabled also on the radio transmitter.

Note3: In case of intervention of a security device during the timer (Stop, Ammeter, Edge), to restore the movement it will be necessary to give a start impulse.

Note4: In case of no power supply if during restoration a TIMER is activated, the automation executes the closing and the re-opening of the leaves restoring automatically the TIMER function.



## ENCODER - LIMIT SWITCH

### Encoder / Ammeter sensor

The encoder is a device that allows to reveal possible obstacles during the opening and the closing of the gate. When this device intervenes in opening it causes the inversion of the movement for around a second, if it intervenes in closing it causes the total reopening.

**Note 1: Such function is active through an ammeter sensor on the control board. It is not necessary to mount any external devices for the respect of the normative.**

**Nota2: The ammeter sensitivity is adjustable through the Palmuser modifying the motor torque parameter for every single leaf. On the control unit the torque can be adjusted in 4 steps: low, middle, middle high, high and contemporarily on both the motors. With high torque the gate reverses after 5 seconds.**

**Attention: after every intervention of the ammeter sensor it is necessary to give a start impulse to restore the movement.**

**JOLLY functions:** With the JOLLY programmer the torque parameters can be adjusted linearly from 10% to 100% on each single motor. Furthermore, they are differentiable between opening and closing.

### Limit switch

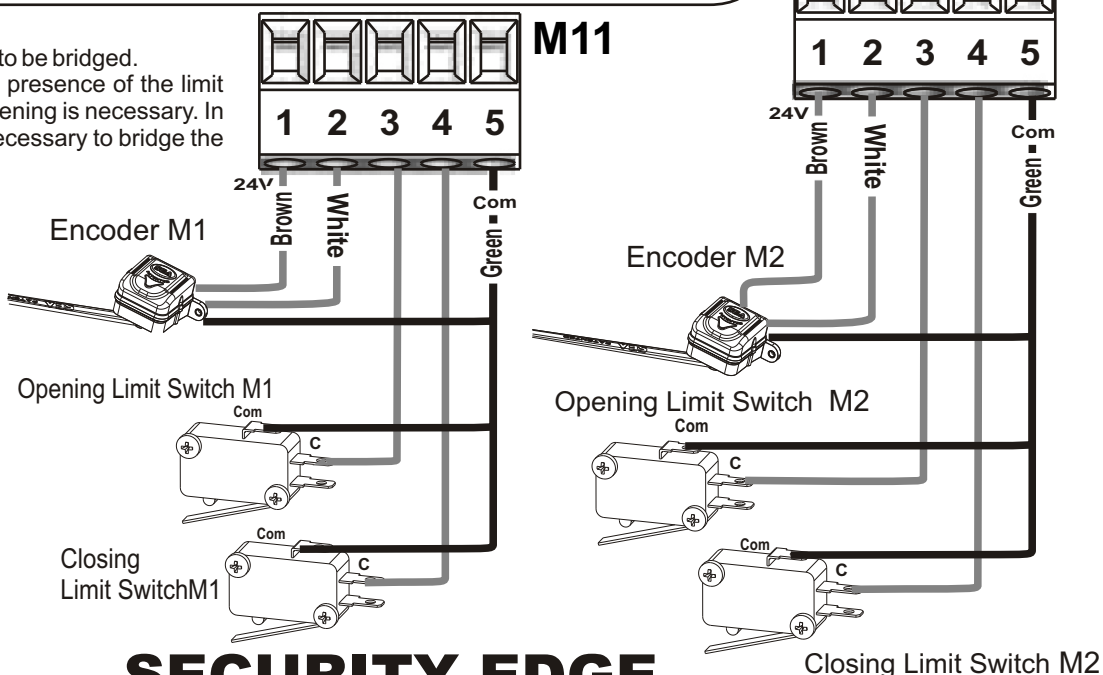
If not connected they don't have to be bridged.

For the limit switch function the presence of the limit switches in both closing and opening is necessary. In case of single leaves it is not necessary to bridge the limit switch of the motor 2.

For the right function of the limit switches there must be a correspondence between the direction of movement of the motors and the respective occupied limit switches.

Com = Common  
C = Contact

**JOLLY functions:** With the Jolly programmer such function is tied up to the presence of at least one limit switch. It is possible to activate the function anti-intrusion. Limit switch, that if released, forces the motor to re-close.



## SECURITY EDGE

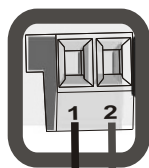
## ELECTRIC LOCK AND WARNING LAMP

### Electric lock exit

An electric lock of 12V === 15W max can be connected.

The electric lock activates at every opening cycle for about 1,5 s.

**JOLLY function:** Through the Jolly programmer it is possible to deactivate the electric lock if not used. This operation allows to save energy of the control unit.



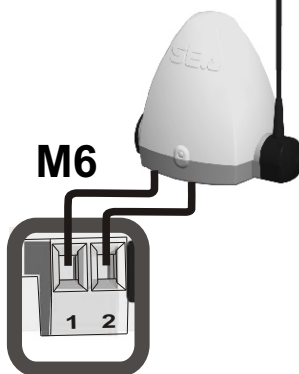
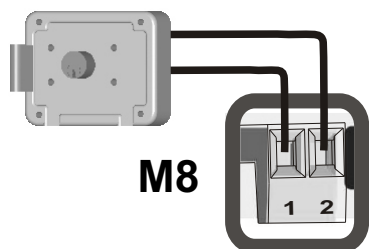
**M13** Safety edge

It is possible to connect an active safety edge on the terminal M13. If this device is pressed it opens the contact causing a partial inversion of the movement both in opening and in closing. If not used bridge the contacts 1 and 2 of M13. Note: contact N.C.

### Flashing Lamp 24V === 15W (Warning lamp)

The warning lamp advises that the automatic gate is in movement performing 1 flash /second in opening and 2 flashes / second in closing. Instead it remains turned on fix during pause.

To connect it, connect the wires of the warning lamp as shown in the figure.

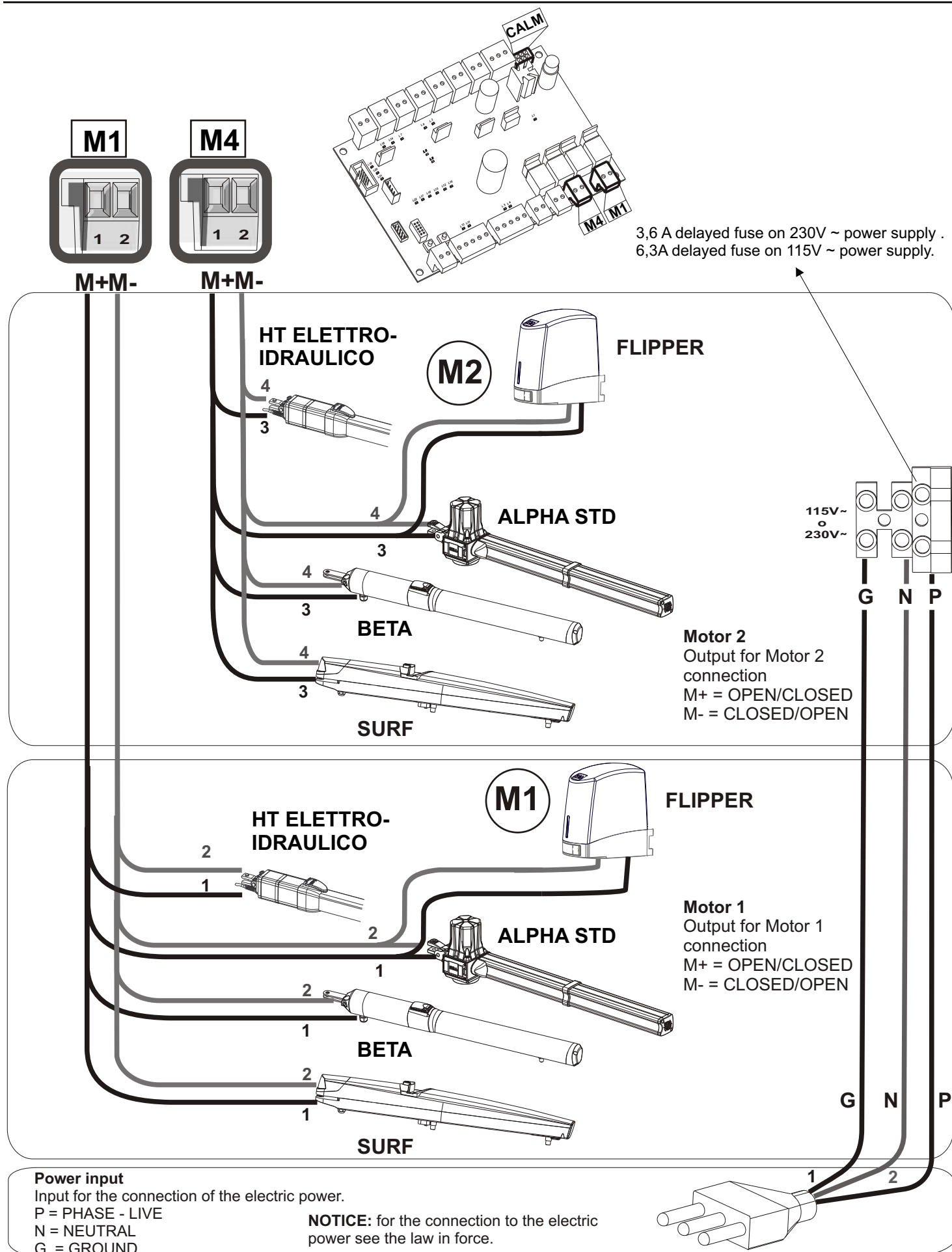


**JOLLY functions:** It is possible to activate a pre-flashing of 3 seconds before activating the automation, on setting pre-flashing on ON, through the Jolly programmer. Furthermore from the flashing lamp it is possible to verify some alarm signals. See alarms indications.

Through the Jolly programmer it is possible to set this exit with fixed flashing also when the gate is not moving or it is possible to change this exit into control lamp. In such case all the indications of alarm remain on the warning lamp as long as they are active.



# POWER SUPPLY - MOTORS ARM-ALPHA-BETA





## SELFLEARNING WITH DEFAULT PARAMETERS

The control unit is pre-set with the default settings, to learn the working times it is sufficient to press the Menu button once and to hold pressed the SET button until the motors start in closing.

The settings of **DEFAULT** are: SEMIAUTOMATIC LOGIC, DOUBLE LEAF ENCODER OFF, MIDDLE SPEED, LEAF DELAY 3 S., PAUSE 2 S., AVERAGE TORQUE, SLOWDOWN SPEED 30%, LEARNING SPEED 50%, ACCELERATION 70%, DECELERATION 30%, LEAF STROKE OFF, ANTI-INTRUSION OFF, SELFTEST OFF, PEDESTRIAN 100%, PHOTO OPENING OFF, MAX CYCLES 100000, MOTOR TYPE: FLIPPER. IF YOU WANT TO RESTORE THE DEFAULT SETTINGS JUST SWITCH ON THE CONTROL UNIT KEEPING PRESSED THE BOUTONS MENU AND SET CONTEMPORARILY.

## WORKING TIMES SELF LEARNING

**Note1:** it is not necessary to put a jumper between the STOP, PHOTOCELL and SECURITY EDGE (N.C.) contacts if they are not used. If they are used during selflearning phase they must stay (N.C.).

**Note2:** For the electro-hydraulic it is recommended to set the learning and the functioning speed on the same value.

**Note3:** If accessories are connected on the BUS, align the photocells before programming, as shown on pag.30

1) Make sure that each accessory (photocells, push buttons, and so on) works properly and eventually adjust the leaf delay.

2) If necessary adjust the self-learning speed through the palm user.

3) Disconnect the power supply (Fig. 1), release the motors (Fig. 2-3) and put the leaves manually next to the stop in closing (Fig. 4). Reset the mechanical lock (Fig. 5-6)

4) Connect the control board to the power supply (Fig.7).

5) Select the desired type of motor; use as shown on pag. 28 or through JOLLY programmer.

6) Press the button "SET" until the led of the color corresponding to the type of application (single leaf, double leaf, Encoder ON, Encoder OFF) switches on.

7) Hold pressed the button "SET" until the motors start in closing and then release the button.

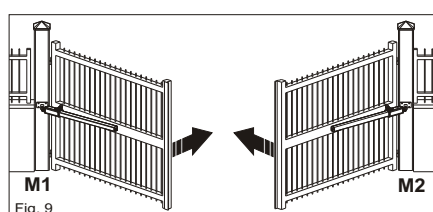
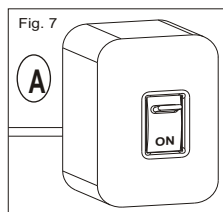
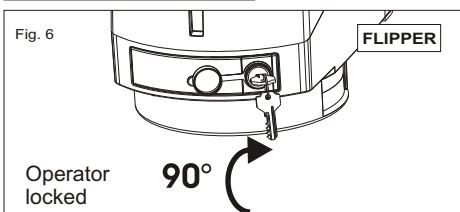
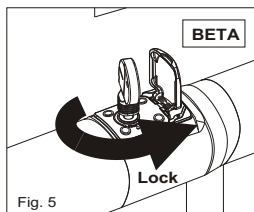
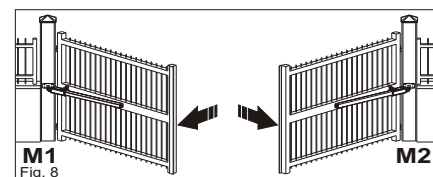
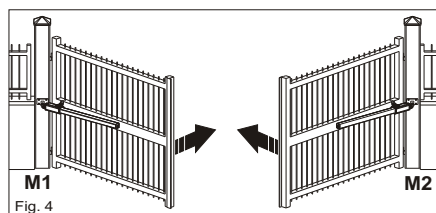
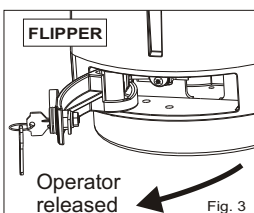
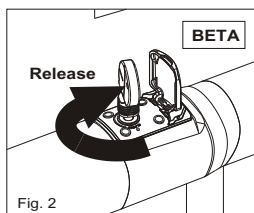
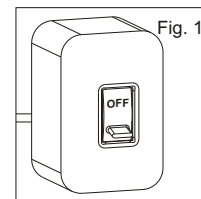
**Note:** If the motors do not start check the alignment of the FOTOBUS and give an impulse on SET.

**Note:** If one or both motors should start in opening remove the power supply and reverse the cables of the motor or the motors which start in opening. Afterwards repeat the procedure starting from point 4.

8) Both leaves will start the closing with reduced speed (Fig.4).

9) At the attainment of the stops they will automatically execute an opening cycle with reduced speed (Fig.8). After having reached the stop in opening they will automatically perform a closing cycle.

10) Wait for the end of the closing of the leaf (Fig.9). The self-learning is done.



A) Select LED 10 of the self-learning through the MENU button, with LED 10 turned on press button SET to choose the function modality:

- led L20 yellow = double leaf Encoder OFF

- led L19 and 20 green and yellow = double leaf Encoder ON

- led L21 red ON = single leaf Encoder OFF

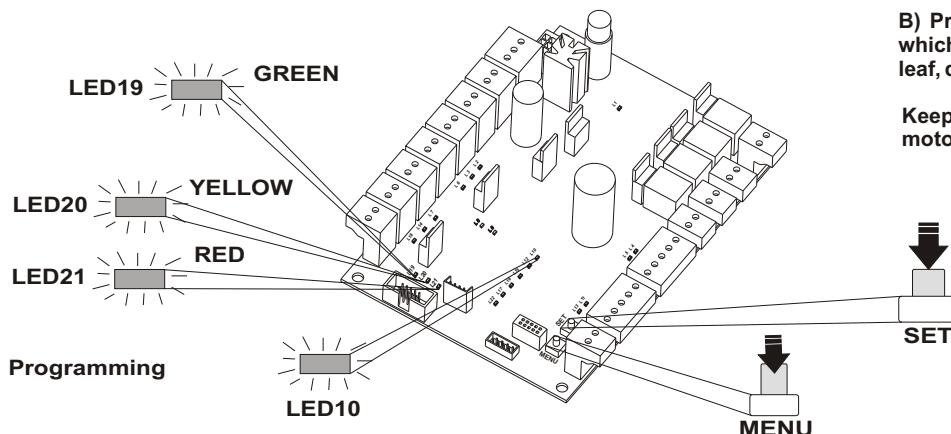
- led L19 and 21 green and red = single leaf Encoder ON

B) Once the functioning modality has been chosen hold pressed SET up to the departure of the motors in closing and then release the button.

A) Press the "Menu" button so that to turn on the LED10

B) Press the "IMP" button till the Led of the colour which corresponds to the type of installation (single leaf, double leaf, Encoder) turns on.

Keep pressed the button "SET" till the departure of the motors in closing and then release the button.



### JOLLY functions:

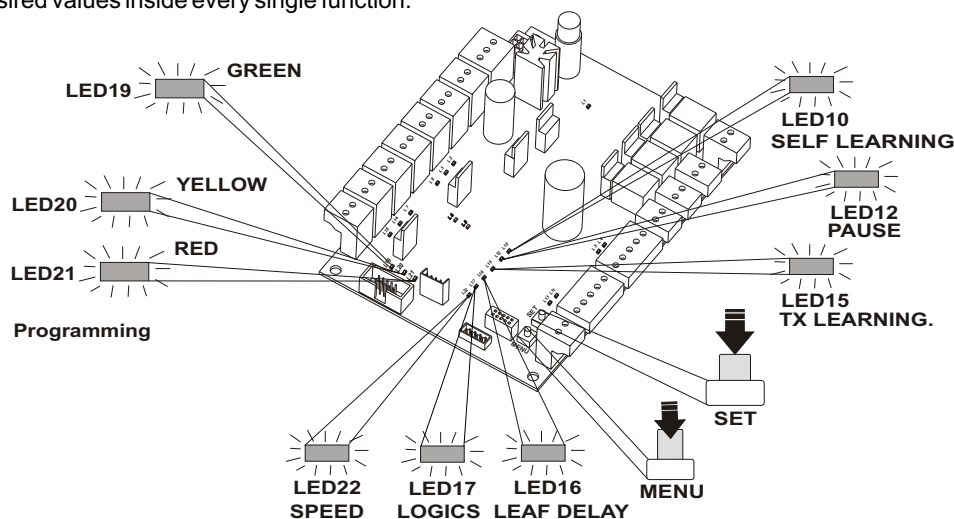
1) With the JOLLY programmer it is possible to start the programming without using the MENU and SET bouton.

2) With the JOLLY programmer it is possible to chose the type of motora and the type of application without using the MENU and SET boutons.



## SELECTION OF THE SETTINGS

The adjustments of the control unit are executed through the buttons "MENU" and "SET". Pressing the "MENU" button you select the Leds corresponding to the various functions to be set, pressing the "SET" button you select the leds corresponding to the desired values inside every single function.



Selecting **LED 12** with the "MENU" button you enter into pausing time regulation, with **LED 12** turned on, hold pressed the selected button "SET" for the desired time of pause. According to the colour that the leds 19, 20 and 21 will assume it will be possible to have an order of the length of the set time of pause. If the button is released and pressed again the time of pause will be annulled.

**Led L19 green turned on Time of pause <15 S.**

**Led L20 yellow turned on Time of pause <45 S.**

**Led L21 red turned on Time of break >45 S. up to 180 S.**

**JOLLY function:** With the JOLLY programmer it is possible to adjust linearly this parameter without using the MENU and SET buttons.

Selecting **LED 16** with the "MENU" button you enter into the opening leaf delay adjustment, with **LED 16** turned on, press the button "SET" till to select the desired leaf delay, observing the colour of the leds 19, 20 and 21.

**Led L19 green turned on leaf delay OFF**

**Led L20 yellow turned on leaf delay <4 S.**

**Led L21 red turned on leaf delay >4 S. up to 12 S.**

**JOLLY function:** With the JOLLY programmer it is possible to adjust linearly this parameter without using the MENU and SET buttons.

Selecting **LED 17** with the "MENU" button you enter into the choice of the functioning logics, with **LED 17** turned on, press the button "SET" till to select the desired logic, observing the colours of the Leds 19, 20 and 21.

**Led L19 green turned on manual logic**

**Led L20 yellow turned on automatic logic**

**Led L21 red turned on security logic**

**Led L19 and L20 green and yellow turned on semi-automatic logic.**

**JOLLY function:** With the JOLLY programmer it is possible to select the logic without using the MENU and SET buttons on the control unit.

Selecting **LED 22** with the "MENU" button you enter into the choice of the motors' speed, with **LED 22** turned on, press the button "SET" till to select the desired speed, observing the colours of the leds 19, 20 and 21.

**Led L19 green turned on slow speed**

**Led L20 yellow turned on middle speed**

**Led L21 red turned on high speed**

**Hold pressed "SET" for more then 5 seconds to annul the executed number of cycles**

**JOLLY function:** With the JOLLY programmer it is possible to select the speed without using the MENU and SET buttons on the control unit.

Selecting **LED 10** and **LED 12** (with alternate flashing) with the "MENU" button you enter into the motor torque adjustment. With **LED 10** and **LED 12** flashing alternatively keep pressed the button "SET" while selecting the desired torque observing the color of the **LEDS 19, 20, 21**.

**Led L19 green turned on, torque = Low**

**Led L20 yellow turned on, torque = Middle**

**Led L21 red turned on, torque = Middle high**

**Led L19, L20 and L21 turned on, troque = High**

**JOLLY function:** With the Jolly programmer this parameter is adjustable linearly for every single motor and differentiable within opening and closing without using the SET and MENU buttons on the control unit.

Selecting **LEDS 22 and 17** (with alternate flash) with the "MENU" button you enter into the choice of the type of motor that you are using.

Note: In default the control unit is set on the **FLIPPER** motor.

**Led 19 green Alpha and Field**

**Led 20 yellow Beta**

**Led 21 red Flipper**

**MENU HIDRO**

**LED19 Hydraulic**

**LED20 Barrier**

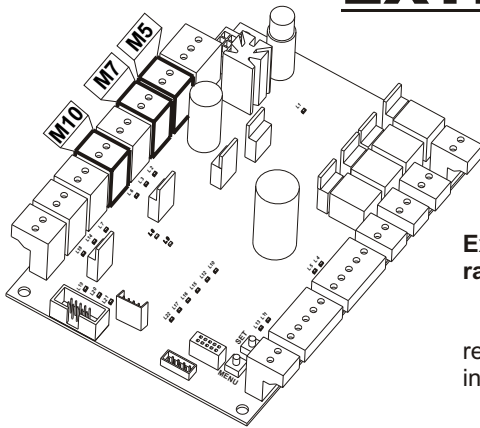
**JOLLY function:** With the Jolly programmer it is possible to select the motor type without using the SET and MENU button on the control unit.

After 30 seconds without having pressed any button, the parameters' adjustment function will be automatically left.

If the control unit turns on when holding pressed the buttons "MENU" and "SET" contemporarily, the control unit will start with the **DEFAULT** parameter (see preceding page).

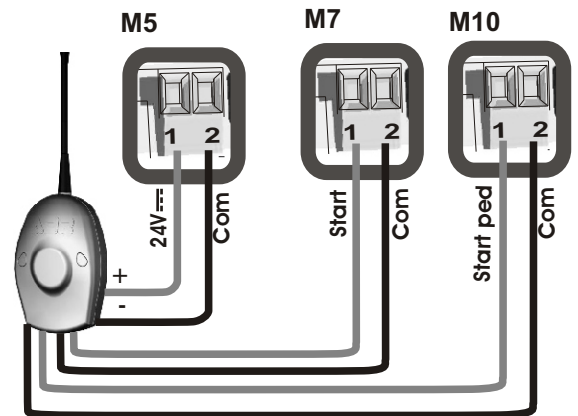


## EXTERNAL RECEIVER



**Example: Connection of a radio receiver**

For the connection of the receiver refer to the relative instructions manual.



## RADIO TRANSMITTER SELF LEARNING WITH RECEIVER ON BOARD OF CONTROL UNIT

**Note:** It is possible to memorize only Coccinella Roll (Cod.23110471-23110476).

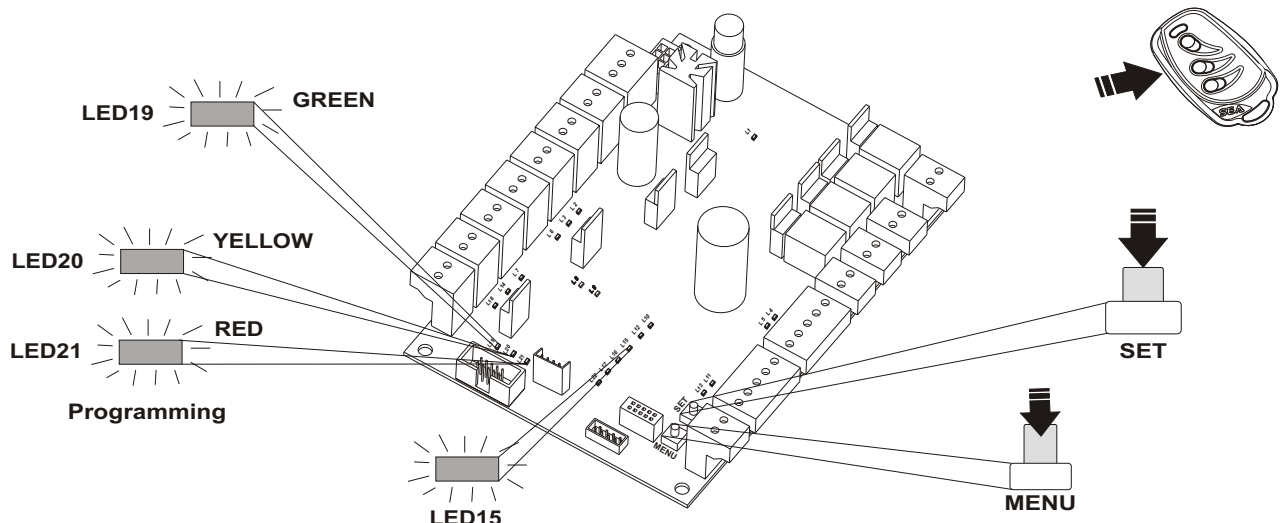
**WARNING:** Make the radio transmitters programming before you connect the antenna and insert the receiver into the special CMR connector (if available) with turned off control unit.

1. Press repeatedly the button "MENU" till to select the led 15 (red), at this point press the button "SET" and the led15 will flash together with the led 19 (green) to signal that it waits for a code to be associated to the total opening;
2. Press the desired button of the radio transmitter, the led19 (green) will turn off to signal the memorisation of the data; now it returns to flash for 5 seconds waiting for other codes.
3. If it is desired to also associate a command to the pedestrian start, press **SET** again, the led 20 (yellow) will flash for signalling that it is waiting for a code to be associated to the **pedestrian opening**;
4. Press the desired button of the radio transmitter, LED 20 will turn off to signal the memorisation of the data; now it will turn to flash waiting for other codes to be associated to the pedestrian start. If no other buttons are pressed within 5 seconds the programming will be left.
5. At this point it is possible to press the desired button of the radio transmitter and the leds 19,20, 21 (green, yellow, red) will show the available memory, led19 (green) shows the occupied memory, less than 50%, led 20 (yellow) shows the occupied memory, more than 50%, led 21 (red) full memory.
6. To delet all memorized codes keep pressed for more than 5 seconds the adjusted button until the leds yellow, red and green will flash contemporarily to confirm the cancellation.



**JOLLY functions:** It is possible to monitor the state of occupation of the of the radio transmitter memory.

**Note:** The control unit, can be directly interfaced with the OPEN system for the management of Coccinella Rolling Code radio transmitters



### Notes:

- Enter radio transmitters learning only when the working cycle stops and the gate is closed.
- It's possible to memorize up to 800 codes (buttons).
- If all available codes have already been memorized and you try to memorize a further code, the led 21 (red) will flash for signalling the error.
- If the board receives a code which was already associated to another function it will be updated with the new function.



## **FUNCTION LOGIC**

### **SEMI AUTOMATIC LOGIC**

A start impulse opens the gate. A second impulse during opening stops the movement.

With the gate opened a start impulse is necessary for its re-closing. A start commande during the closing reverses the movement.

### **SECURITY LOGIC**

A start impulse opens the gate. A second impulse during opening reverses the movement. A start impulse during closing reverses the movement. A start commande during pause causes the immediate re-closing.

### **MANUAL LOGIC**

The gate opens when the **Start** push button for opening is pressed and held; releasing it stops the gate. The gate re-closes as long as the button connected to the **pedestrian START** will be pressed; releasing it stops the gate. To execute complete opening and/or closing cycles it is necessary to keep the relative push buttons constantly pressed.

### **AUTOMATIC LOGIC**

A start impulse opens the gate. A second impulse during the opening will not be accepted. An impulse during the pause won't be accepted. An impulse during the closing reverses the movement.



**JOLLY function:** With the JOLLY programmer it is possible to select the logic without using the SET and MENU buttons on the control unit.

## **DESCRIPTION OF THE BUS SYSTEM**

The BUS is a connecting system through which it is possible to connect different accessories among which: photocells, key switches, warning lamps, numerical keyboards and key selectors, all in parallel on the same entry and all through two only threads. This system therefore allows to eliminate the two threads of the power supply for the accessories, therefore every accessory will be equipped with only two threads. Every accessory is equipped with a rotating changer, which allows to join the various devices according to a numerical sequence which defines the particular function assigned to that accessory.

### **Photocells' alignment**

If photocells are connected on the BUS it is necessary to line up the same before programming. To do the alignment it is necessary to start a self-learning cycle of the times. At this point, the gate will stand still, as long as the photocells are not lined up. Once the photocells have been lined up, push the SET button to restart the self-learning of the times.

### **Photocells BUS addressing**

Rotating Changer on TX and RX on 0 or 1 = photocell active only in opening Rotating Changer on TX and RX on 2 or 3 = photocell active only in closing Rotating changer on TX and RX on 4 = photocell both in opening and in closing.

The positions from 6 to 9 are interpreted as active photocells both in closing and in opening.

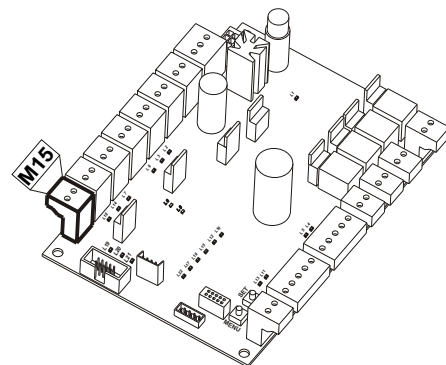
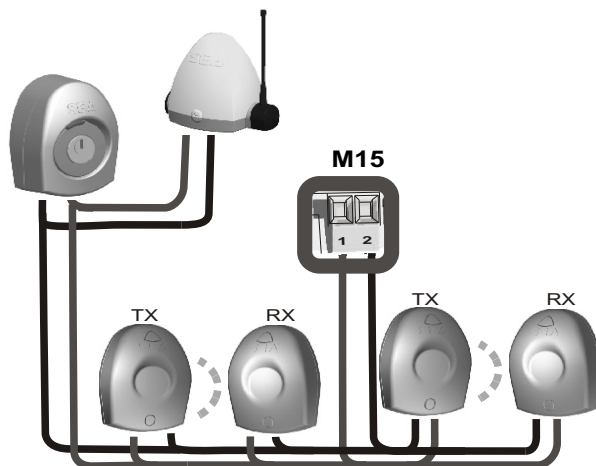
Note: Two couples of photocells with the same function have to have a different number. For ex. on two couples in closing TX and RX of the first one will have the number 2, TX and RX of the second couple will have the number 3.

### **Initialization BUS**

Connect all the devices in parallel on the clamp M15 or in parallel between them.

At the lighting of the control unit make sure that the LED18 (red) performs some fast flashes, at this point, if the red led remains turned on this means that there is an error on the BUS, signalled from the display or by 8 flashes on the warning lamp, but if the red led will keep on flashing slowly the BUS is perfectly working.

**NOTE: To repeat the search of the peripheral BUS in case of BUS error, press contemporarily the buttons + and - of the display, or press the button until led 20 turns on. At this point keep pressed SET as long as led 20 does not turn off and led 19 turns on.**





# PROGRAMMER JOLLY PARAMETERS ADJUSTMENT

The Jolly programmer allows to keep under control all the parameters of the control unit and it results essential for the initial setting of some parameters, which are: pre-flashing, photocell self-testing, photocell in opening, anti-intrusion, torque motore 1 and 2, deceleration speed, learning speed, acceleration, deceleration, leaf stroke, number of cycles, pedestrian opening, etc.

| Screen 1          |                                                              |
|-------------------|--------------------------------------------------------------|
| Language: Italian | With buttons + and - it is possible to modify the language ← |

← The arrow shows that the parameter is modifiable with the buttons + and -

| Screen 2           |                                                   |
|--------------------|---------------------------------------------------|
| Cycle              | Semiaut./manual/automatic/security ←              |
| Double/single leaf | Select double or single leaf ←                    |
| Encoder            | on/off (function with encoder, not implemented) ← |
| Time of pause      | [0÷120]s (time of pause in seconds) ←             |

→ Shows the working logic adjusted on board of the control unit.

| Screen 3    |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| Learning    | on alignment/off (signalling of the execution of the learning) ←              |
| Cicli exec. | [0÷2 <sup>32</sup> ] (number of executed cycles)                              |
| Mem. free   | [0÷100]% (percentage of available memory for the learning of remote controls) |

**Note:** The alignment appears only if photocells are present on the BUS.

| Screen 4     |                                        |
|--------------|----------------------------------------|
| Motor        | (Field/Alpha) (Flipper) (Beta) ←       |
| Speed        | [30÷100] adjusts the motors' speed ←   |
| Sl. speed    | [30÷100] adjusts the slow down speed ← |
| Lear. Speed. | [30÷100] adjusts the learning speed ←  |

→ Indicates the type of motor set

**Note:** Hydraulic/barrier on USERHIDRO

| Screen 5      |                                           |
|---------------|-------------------------------------------|
| Photocell Tx1 | [OK-NP] (peripheral reveal - not present) |
| Photocell Tx2 | [OK-NP] (peripheral reveal - not present) |
| Photocell TX3 | [OK-NP] (peripheral reveal - not present) |

The screens 4, 5, 6, 7, 8 and 9 show the type of accessory on the BUS.

| Screen 6      |                                           |
|---------------|-------------------------------------------|
| Photocell TX4 | [OK-NP] (peripheral reveal - not present) |
| Photocell TX5 | [OK-NP] (peripheral reveal - not present) |

| Screen 7      |                                           |
|---------------|-------------------------------------------|
| Photocell Rx1 | [OK-NP] (peripheral reveal - not present) |
| Photocell RX2 | [OK-NP] (peripheral reveal - not present) |
| Photocell Rx3 | [OK-NP] (peripheral reveal - not present) |

| Screen 8      |                                           |
|---------------|-------------------------------------------|
| Photocell RX4 | [OK-NP] (peripheral reveal - not present) |
| Photocell RX5 | [OK-NP] (peripheral reveal - not present) |



# PROGRAMMER JOLLY PARAMETERS ADJUSTMENT

**NOTE:** For the respect of the valid European rules on the safety of the electric gates, it is recommended to not adjust the parameters **torque Max 1** and **torque Max 2** on the value 100%.

| Screen 9        |                                           |
|-----------------|-------------------------------------------|
| Interface relay | [OK-NP] (peripheral reveal - not present) |
| Flashing lamp   | [OK-NP] (peripheral reveal - not present) |

| Screen 10      |                                                      |
|----------------|------------------------------------------------------|
| Accelerat.     | [0÷100]% (inclination of the ramp of acceleration) ← |
| Decelerat.     | [0÷100]% (inclination of the ramp of acceleration) ← |
| Leaf delay     | [0÷12] s. (adjusted leaf delay) ←                    |
| Pedestrian op. | [30,50,100]% (percentage pedestrian opening) ←       |

It allows to regulate the duration of the acceleration of the motors on the start. If on 100% the gate will immediately depart at the max. adjusted speed

It allows to regulate the duration of the deceleration of the motors at the end of opening and closing. If on 0% the gate won't effect the phase of deceleration.

| Screen 11      |                                          |
|----------------|------------------------------------------|
| Torque op. M1  | [10÷100]% (max. current of the motors) ← |
| Torque op. M2  | [10÷100]% (max. current of the motors) ← |
| Torque clo. M1 | [10÷100]% (max. current of the motors) ← |
| Torque clo. M2 | [10÷100]% (max. current of the motors) ← |

Allows to regulate and to visualize the sensitivity of the anti-squeezing for single leaf and for opening direction. With value 100% the gate in presence of obstacle will reverse the movement after 5 seconds.

| Screen 12       |                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------|
| Anti-intrusion  | on/off (in ON it implicates the presence of a contact N.C. on the limit switch that, if freed, forces the motors in closing) ← |
| Pre- flashing   | on/off (activation of the pre-flashing) ←                                                                                      |
| Autotest photo. | on/off (activates autotest photocell) ←                                                                                        |
| Max cycle       | 0÷100000 (indicates the number of cycles after which it is necessary to follow up the maintenance) ←                           |

| Screen 13        |                                                           |
|------------------|-----------------------------------------------------------|
| Warning lamp     | Normal/Control/Continuous ←                               |
| Photo in opening | on/off (activation photocell in opening) ←                |
| Leaf storke      | on/off (leaf stroke to release/lock the lock) ←           |
| Electric lock    | on/off (on off no comand is given to the electric lock) ← |

**Normal:**  
1 Flash/s in opening  
2 Flash/s in closing  
On in pause

**Control lamp:** the alarm signals remain until they are eliminated

**Continuous:** flashes always also when gate is not in movement

| Screen 14   |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| Photo/Timer | ON/OFF On ON the PHOTO entry becomes TIMER ←                                         |
| Ped/Timer   | ON/OFF On ON the PED entry becomes TIMER ←                                           |
| Clos. Photo | ON/OFF On ON if the photocell is occupied the gate recloses interrupting the pause ← |

If activated in opening it stops the automation as long as it is occupied. When restored in opening the opening continues, in closing it reverses the movement.

| Screen 15      |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| List of events | it sums up the last 10 events on the control unit → Diagnostic 10 last events |
| N°10           | ←                                                                             |
| N°9            |                                                                               |
| N°8            |                                                                               |



# CONNECTION OF BATTERIES TO BATTERY CHARGER CARD

## Battery signals:

- *Batteries loaded up to 20V:*

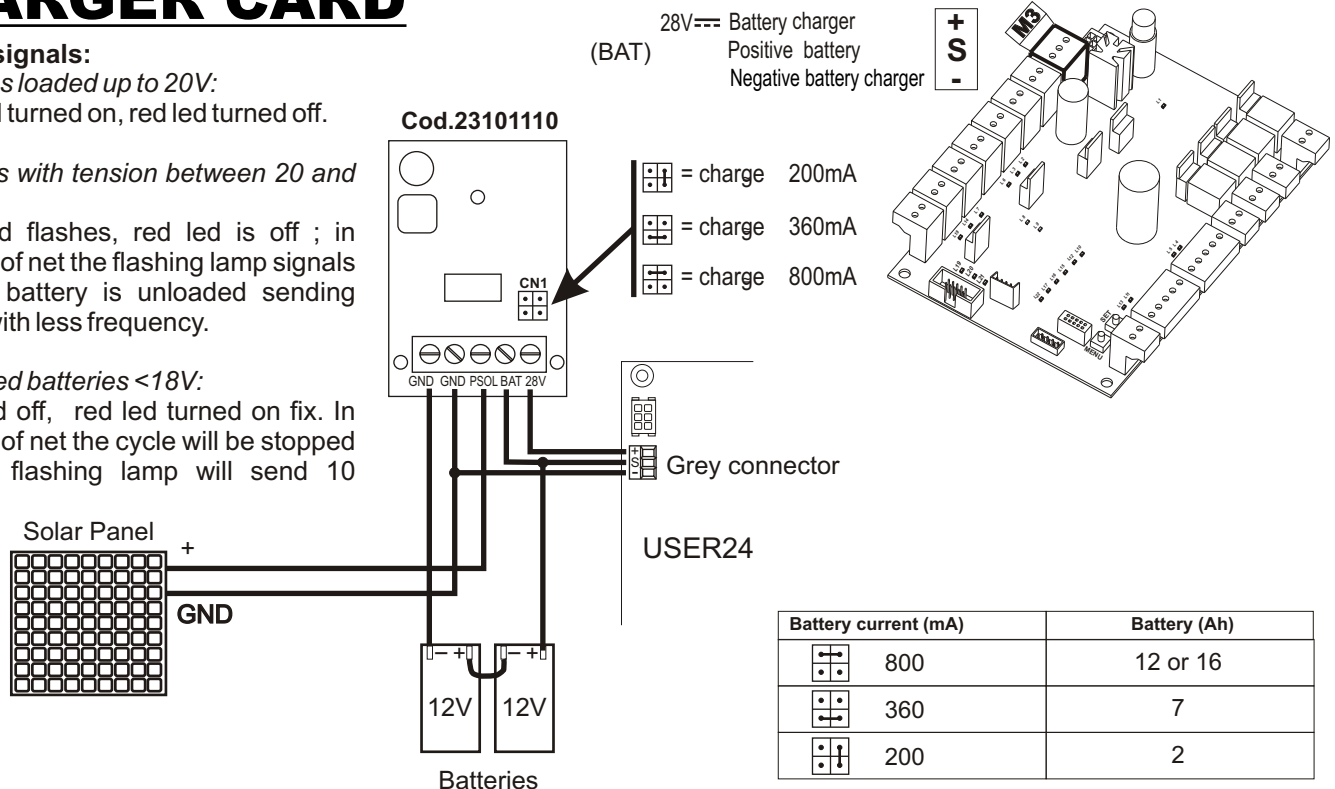
green led turned on, red led turned off.

- *Batteries with tension between 20 and 18V:*

green led flashes, red led is off ; in absence of net the flashing lamp signals that the battery is unloaded sending flashes with less frequency.

- *Unloaded batteries <18V:*

green led off, red led turned on fix. In absence of net the cycle will be stopped and the flashing lamp will send 10 flashes.



Insert two 12V batteries connected in series.

## ALARMS INDICATIONS

The flashing sequence is signalled at every opening and closing of the automation on the warning lamp. The warning lamp will send a flashing every second in opening and two flashings in closing, while it will remain turned on fixed in pause.

| Flashings Number | Kind of alarm        |
|------------------|----------------------|
| 2                | Photocell            |
| 3                | Photocell in opening |
| 4                | Safety edge          |
| 5                | Stop                 |

| Flashings Number | Kind of alarm          |
|------------------|------------------------|
| 6                | Collision on obstacle  |
| 7                | Reached maximum cycles |
| 8                | Alarm BUS              |
| 9                | Motor failure          |
| 10               | Alarm battery unloaded |

## ALARM SIGNALS

The damages with 2,3, 4 and 5 flashings, refer to normally closed contacts, therefore verify if such are the connections and/or the correct working of the photocells, of the Stop button and/or of the safety edge.

2. The failure with 6 flashes refers to a collision with an obstacle which has been revealed by the ammeter sensor, therefore it is necessary either to replace the motor or to verify the conditions of the connections.

3. Periodically, in relation to the number of manoeuvre and the type of gate, it is recommended to execute, if the gate has modified the attritions and it doesn't work, **the re-programming of the times of learning on the electronic board.**

The damage with 7 flashes refers to the attainment of the established maximum cycles for the maintenance of the control unit, therefore it is necessary to perform the maintenance and to put on zero the number of cycles, according to the following procedure: Through the button SEL select the led 22 of the motors' speed, keep pressed the chosen button for more than 5 seconds.

4. The damage with 8 flashes indicates a generic error on the BUS, this means that there is a short circuit on one of the connected devices to the BUS, and it is necessary to verify the connections and the functionality of the connected devices or the connected devices are not correctly joined between them (see paragraph on the BUS management)

5. The failure with 9 flashes refers to a shortcut on the motor, therefore it is necessary either to replace the motor or to verify the conditions of the connections.



## **TROUBLE SHOOTING**

### **Advices**

**Make sure all Safety LED are turned ON**  
**All not-used N.C. contacts must have jumpers**

| <b>Problem Found</b>                                   | <b>Possibile Cause</b>                                                                                                                                                    | <b>Solution</b>                                                                                                                                                                      |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor doesn't respond to any START impulse             | a.) Jumper missing on one of the N.C. Contacts<br>b.) Burnt fuse                                                                                                          | a.) Check the connections or the jumpers on the connections of the safety edge, of the stop and of the photocell<br>b.) Replace the burned fuse on the control unit led 1 turned on. |
| Gate doesn't move while the motor is running           | a.) The motor is in the released position<br>b.) There is an obstacle                                                                                                     | a.) Re-lock the motor<br>b.) Remove obstacle                                                                                                                                         |
| Gate doesn't reach the complete Open / Closed position | a.) Wrong setting of the limit switches<br>b.) Error on programming<br>c.) Gate is stopped by an obstacle<br>d.) The fitting geometry is inadequate<br>e.) Torque too low | a.) Set limit switches<br>b.) Repeat programming<br>c.) Remove obstacle<br>d.) Check fitting geometry following the operator installation manual<br>e.) Increase torque parameter    |
| The gate opens but doesn't close                       | a.) The photocell contacts are not closed<br>b.) Ammeter alarm                                                                                                            | a.) Check the LED or the jumpers or the signals indicated on the warning lamp<br>b.) Check if the ammeter alarm has intervened and eventually increase the torque parameter.         |
| The gate doesn't close automatically                   | a.) Pause time set to high<br>B.) Control unit in semi-autom. logic                                                                                                       | a.) Adjust pause time<br>B.) Adjust the automatic or security logic                                                                                                                  |



# **WARNINGS, MAINTENANCE AND WARRANTY**

**This section of the manual is dedicated both to the technician and to the end user.**

Don't allow people and children to stop in the area of function of the automation.

Don't leave transmitters or other devices of command in the reach of children to avoid unintentional activations of the automation.

The user has to avoid any attempt of intervention or reparation of the automation and must turn to qualified personal only.

## **MAINTENANCE**

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

Periodically clean the optical systems of the photocells.

## **REPLACEMENTS**

Any request for spare parts must be sent to:

**SEA s.r.l. - Zona Ind.le, 64020 S.ATTO - Teramo - Italia**

## **USE DESTINATION**

The electronic equipment 23024015/16/17/18/19/20/21 has been designed to be used exclusively as management equipment for automations of sliding gates, swing gates, sectional doors, overhead doors, barriers.

## **SAFETY AND ENVIRONMENTAL COMPATIBILITY**

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



### **REGULAR PRODUCT DISPOSAL (electric and electronic waste)**

(It's applicable in EU countries and in those ones provided with a differential waste collection)

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

## **STORING**

| <b>WAREHOUSING TEMPERATURES</b> |                        |                               |                               |
|---------------------------------|------------------------|-------------------------------|-------------------------------|
| <b>T<sub>min</sub></b>          | <b>T<sub>Max</sub></b> | <b>Dampness<sub>min</sub></b> | <b>Dampness<sub>Max</sub></b> |
| - 20°C                          | + 65°C                 | 5% <i>Not condensing</i>      | 90% <i>Not condensing</i>     |

Materials handling must be made with appropriate vehicles..

## **REPLACEMENT AND MAINTENANCE**

The replacement and/or putting out of service and/or maintenance of the electronic equipment 23024015/16/17/18/19/20/21 must be made only and exclusively by authorised and qualified staff.

## **WARRANTY LIMITS**

The warranty form of the electronic equipment 23024015/16/17/18/19/20/21 is valid for 24 months starting from the printed date on the product. The mentioned product will be considered under warranty if it doesn't show any damage caused by an irregular use or by any modification or breaking. The warranty is valid only for the original buyer.

**NOTE: THE MANUFACTURER IS NOT CONSIDERED RESPONSIBLE FOR ANY DAMAGE CAUSED BY IRREGULAR, WRONG OR UNREASONABLE USE.**

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

Montage de pièces de rechange non originales.

Si on dépasse la limite de puissance maximum de l'équipement indiqué en les données techniques.

Si on est branchés à un réseau de distribution électrique non conforme.

Au cas de produits usagés, même si la transaction entre le premier et les utilisateurs suivants se passe pendant la période de garantie.

Autres cas prévus par la loi en vigueur dans le pays d'utilisation.

Les pièces exposées à la usure normale (par exemple coussinets, garnitures, etc.) et tous les matériaux de consommation en général (huile, graisse, etc.) sont au dehors de la garantie à moins qu'ils aient des évidents défauts de montage ou de construction.

La SEA S.r.l. décline toutes les responsabilités pour dommages et accidents qui peuvent être causés par une éventuelle rupture du produit, si la même se passe pour inobservance de ce qu'on a expliqué dans ce manuel.

Éventuels dommages conséquents au transport pour la livraison du produit sont aussi au dehors de la garantie si le transport n'a pas été effectué directement par la SEAS.r.l. même.

**IMPORTANT:** *L'utilisation de rechanges non originales cause la cessation de la garantie, mais surtout frappe de nullité la responsabilité du constructeur.*

## CONSEILS SUR L'INSTALLATION ELECTRIQUE

L'installation électrique doit être exécutée et certifiée par un professionnel avec un certificat d'aptitude qui doit relâcher la documentation prévue par les lois en vigueur.

Les éléments de l'emballage comme sachet en plastique, polystyrène expansé, clous, etc., ne doivent pas être laissés à la portée des enfants car ils sont source en puissance de dommage.

Avant de brancher le tableau de distribution de force motrice au réseau, s'assurer que les données de la plaque soient correspondantes à celles du réseau de distribution électrique et que le débit électrique soit proportionné à la puissance maximum de l'équipement.

Vérifier en outre que la section des câbles de l'installation soit propre à la puissance drainée par l'appareil.

La sécurité électrique du produit manufacturé est rattrapé seulement quand le même est correctement branché à une installation efficace de mise à la terre exécutée selon ce qu'on prévoit les normes de sécurité en vigueur. C'est nécessaire que vous vérifiez ces qualités requises et, si vous avez l'impression, demanderiez un contrôle de l'installation de la part de personnel qui soit professionnellement qualifié. Le constructeur ne peut pas être considéré responsable per éventuels dommages dus à l'absence de la mise à la terre de l'installation.

Ne touchez jamais n'importe quel composant électrique si vous avez quelque partie de votre corps mouillée ou humide.

Ne permettez pas que le produit soit employé par des enfants ou des personnes inaptes et informez tous les utilisateurs de ce qui est contenu en ces prescriptions de sécurité à l'égard de l'emploi et de la maintenance.

Avant l'exécution des travaux de maintenance débranchez l'interrupteur différentiel (16 A, avec seuil de sensibilité de 30 mA) du réseau électrique.

Dans le cas de panne, intervenez seulement par personnel qualifié.

Pour toutes réparations, adressez vous à la SEAS.r.l.

N'enveloppez pas en spirale le câble d'alimentation pour éviter des surchauffages dangereux.

Ne stationnez pas au milieu de la zone de mouvement du produit, des charnières et des organes mécaniques en marche.

Apposez sur le produit de façon que soit très visible un panneau indiquant le danger si le même est commandé à distance.

Effectuez des contrôles périodiques et soigneux sur le correct fonctionnement des dispositifs de sécurité.

## ENGLISH

### GENERAL INSTRUCTIONS FOR A SAFE AND CORRECT INSTALLATION OF AUTOMATIC SYSTEMS FOR DOOR AND GATE OPENING

#### INTRODUCTION

Dear customer,

this brochure will give you all the possible information on the correct use of automatic systems of door and gate opening as well as advice on modes and kind of uses, correct maintenance and all necessary safety instructions.

We remind you a useful reading of this brochure for your personal safety. SEA products and this brochure are consistent with the Machine Regulation (89/392/CEE and following adjustments), Low Tension (73/23/CEE), Electromagnetic Consistency (89/336/CEE).

Before starting whatsoever installation, be aware of understanding the brochure in all its parts. In case of misunderstandings and further information refer to our area referents or phone assistance. They will be happy to give you all the information you may request.

Before starting whatsoever installation, be aware of reading this brochure even twice before using the system so to verify the correct assembling and good system working.

Remember that a correct installation followed by functional tests, is the most important step to assure your system a long-lasting life without damages and personal safety.

This brochure is part of your just bought system. Keep it in a well known-easy to find-place so that it is available every time you need it. Furthermore, the brochure is a main guide for SEA products installing; the installer must carefully comply with it.

Respecting the herewith enclosed data means conformity to regulations and reliability on a working and safe system.

SEA product you have just bought has to be used only for doors, gates, leaves and barriers automating. SEA is not responsible for uses not referred to or personal find-outs by installers, not authorised by SEA.

**SEA gives the installers a Customer Phone Technical Assistance Service for explanations on this brochure and eventual information on training courses.**

## GENERAL DIRECTIONS

Before the installation takes place, make sure that the product has not been damaged in the parts which could compromise its assembling or safe working. Check the packing stuff and if you have the right fixing materials. On the check we refer to the instructions available on each model.

Make sure that the structure on which you are fixing the product is sufficiently strong for strains (e.g. against the wind force on the gate or product surface) and hold the anchorage firmly.

SEA S.r.l. forbids installation on unsafe, fragile or crumbling walls which can't hold strains and do not provide an effective sustain.

Consult a technician if you are not sure about the wall strength.

The place where the product has to be installed must be compatible with the product itself. Avoid: place excessively icy on winter times; direct exposure to corrosive agents or similar. It is not possible to make a list of all the possible negative conditions. Anyway, pay attention on where you are placing the system.

Further characteristics of the installation place (e.g. minimum spaces, distances to be kept) are available on the instructions of each product and sector regulation normative.

Further information for a correct installation (e.g. schemes of electrical connections) are usually available on the installation instructions of each product or enclosed schemes.

Product installation has to be executed by technicians only.

All the systems must be installed by sector technicians who will issue a document as provided by law.

Before connecting the electrical power to the network, make sure that engine data and distribution grid are the same and that electrical power is compatible with the maximum power.

The product electrical safety is reached only when it is connected to a efficient grounding as provided by safety law. Meeting the just stated requirement is very important; if doubtful refer to a qualified technician. SEA can't be hold responsible for damages being caused for no grounding.

It is not allowed the installation in presence of children or unauthorised person.

SEA forbids every kind of adjustment or modify of product anchorage points or product itself if not authorised.

Extra anchorages and adjustments required have to be directly shown to SEA with drawings attached of the required modification.

Only after eventual SEA written authorisation the product installation is possible. Without authorisation SEA is not responsible for failing assemble or product dysfunction.

A faulty installation can be cause of damage to people, animals and things which SEA can't be claimed responsible for.

Further conditions and details are directly reported in the UNI EN 13241-1 regulation to which to refer in eventual, special cases.

**PLEASE NOTE:** *Packing stuff such as: plastic bags, foam polystyrene, screws etc. must be kept out of children reach ever since they could be dangerous.*

## FIRST SETTING UP AND CONTROLS

Make sure that product has not been damaged while being installed so to work poorly and unsafely.

Check the detectors, limit switches control and safety devices. They must be well installed and working.

If you are not sure about safety devices performance, start the system and be very careful.

During this first step, the installer has to be very close to the controls. If the system doesn't work perfectly the installer has to stop it immediately.

The installer is the only authorised person to use the product. Non authorised people are to be taken away from dangerous zone. The installer will work on the commands provided by SEA only.

As a precaution it is useful that a second person stays five metres far from the product being so able to watch the installer and helpful in case of danger.

Before starting the first operation keep runners, strokes, hinges and element moving spaces clear of obstacles.

On the first starting keep children, animal, non authorised person away.

Don't set any command if doubtful, don't modify any command provided.

Don't touch any electrical part if some part of your body is either wet or humid.

In case of dysfunction search the troubling causes by following installation instructions and solve the problems.

If it shouldn't prove to be enough, assemble the product again following the instructions available in your just bought product.

If a further assembling proved to be useless, refer to factory technicians.

## EXPLOITABLE MODES

SEA products have been designed and built for buildings and whatever needing automatic systems for doors, gates, leaves and barriers.

Product opening and closing must be carried out by runners and strokes provided by SEA.

SEA, forbids whatsoever modification of forces acting on the product (e.g. by adding weight to leaves, changing panels or glasses, varying motor power).

The building owner is responsible for the instruction and information of eventual users.

SEA is not responsible for accidents due to users poor instruction. The product has not to be used by children and non authorised person.

The use is forbidden on occasion of ice and whatever situation could damage the product (e.g. during a thunderstorm).

The use of the product is forbidden if it is badly preserved or the safety device doesn't work properly (e.g. the product is too old).

The use of the product is also forbidden in presence of whatsoever chemical agent compromising the product and user safety (e.g. chemical agents damage product characteristics and user clearness of mind as well).

Before starting the first operation keep runners, strokes, hinges and element moving spaces clear of obstacles.

Keep clear of the manoeuvring area, hinges and mechanic organ moving.

Put out a clear warning notice if the product is remote controlled.

**PLEASE NOTE!** *Don't stick any object to the product in its parts. Product surfaces and whatever part have to be kept free of additional obstruction, weights, limit switches that haven't been provided in the installation.*

**PLEASE NOTE!** If product leaves, its support structure or other parts are damaged by accidental impacts, stop the system immediately. The product will not be used afterwards unless repaired.

## USE ADJUSTMENTS

Every adjustment process is being carried out during the product installation. The adjustment is on charge of the installer who has to follow the installation brochure.

## ENABLED USES

SEA product you have just bought has to be used for doors, gates, leaves and barriers automating only. SEA is not responsible for uses not referred to or personal find-outs by installers, not authorised by SEA.

## DIFFERENT EXPLOITATION WAYS

Never use the product for different aims. **Whatever use different from the ones enabled is forbidden.** Different uses will be considered out of place and outside the provider limits. SEA is not responsible for eventual damages and the warranty will be called off.

## PRODUCT CLEANING

Obstructions on the movement points can affect the efficiency and time length of the product.

Bear in mind that cleaning is subject to external factors such as: Weather factors, use mode, product age, corrosive agents, etc.

The evaluation and intervention on dirtiness is left to users who will increase or reduce cleaning frequency according to product state time by time.

Cleaning has to be done when the system is stopped and the electric board is off (Check the differential switch, 16 A 0,030 A).

Never use solvent, abrasive material or unsuitable methods contrasting the product features.

If the product gets in touch with damaging materials, keep the area clear of materials and clean the whole product

On winter time, because of low temperatures, it is better to keep the runners dry ever since ice could damage their functions

## MAINTENANCE

Put the differential switch (16 A 0,030 A) of the power supply off before maintenance. In case of trouble refer to authorised technicians.

As far as the electric board is concerned refer to an authorised electric technician. The electric scheme must be never modified in all its parts.

Check the screws twice a year, since movement vibrations make them unscrew.

SEA advises not to use greases unfit for weather conditions which dry very early. We recommend the use of a flexible grease gun.

Refer to SEA for repairs.

Check the safety devices in time. Machine protections have to be sound; if they are not, they must be replaced.

Never act on parts which haven't been indicated on the brochure unless troubles or needs calling. Before acting ask for information.

**PLEASE NOTE!** If you are unable to a professional maintenance, if tools or specialised offices are unavailable, contact the nearest installation service.

## MAIN SAFETY STANDARDS

Check that runners and stroke are free moving.

Never adjust or maintain while the system is working. As for maintenance, make sure the product is stopped, electrical board is off and working cycle excluded.

Don't remove the protections. If obliged, fix them back with care before usage.

Never use the product outside its operative capacity as described in the brochure (inaccuracy is cause for calling the warranty off).

Suggestions on the warning notice placed on the product must be respected for question of safety.

As for suggestions not available in the brochure, refer to normative laws in which the system works.

Use SEA original spare parts: they guarantee safety standards. (The use of non original spare parts is also cause of warranty calling off).

If the product frame is deformed (e.g. shocks) its use is not allowed. Damaged parts must be replaced (small sheet or leaves dents are not compromising and are therefore allowed). Contact our area distributor for further information.

## WARNING NOTICE

The installer has to provide for the necessary warning notice for eventual and/or unpredictable dangers.

Warning notice must be kept clear and visible. They must not be hidden or taken away. They must be replaced if unreadable.

## TRANSPORT

The product is packed and all the components are in their own boxes.

As for transport, behave as for packages of the same dimensions.

Be very careful for eventual lifting in the packing weight and linking points.

Load must be well shared between the linking points; it has to be centred and well balanced as well.

Use the hoist or lifting stripes with a tackle to share the load.

While using the lifting stripes do not deform the package.

Don't use tools which could compromise the balance during the lifting process. Don't touch or deform the product on the move.

Use licensed lifting tools; read carefully the instructions as for means of transport and tools (e.g. tackle, hoist etc.)

Product can be carried by means of transport. Loading limits and local transport laws must be respected.

Prevent the packed good against twists or moves during loading and transport.

Remember safety instructions while lifting or transporting the product.

SEA S.r.l. is not responsible for damages on the transport unless the transport is on its charge.

If an already installed product must be transported it has to be uninstalled and dismantled in its parts as it was before assembling. The elements must be packed as if they were newly packed. Therefore follow the before mentioned instructions.

**PLEASE NOTE!** SEA, forbids the lifting and transport of already installed products not being uninstalled, well dismantled and correctly packed.

**PLEASE NOTE!** It is forbidden whatever transport form or means different from the before mentioned ones.

## INSTRUCTIONS FOR OUT SERVICING

If the product is scrapped get rid of it in the right way (e.g. separate metal, rubber, wires, oil). Refer to authorised factories according to the disposal of waste material law.

## ADJUSTMENTS

In its continuous striving to improve its products, SEA has the right to adjust it at any time without warning. SEA is not obliged to adjust the products manufactured in the past.

## SPARE PARTS

Refer either to the factory where the product was bought or to SEA area distributor indicating the replacing part. For electrical and electronic waste, this marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. (Applicable in the European Union and other European countries, with separate collection systems).

## WARRANTY

For the warranty conditions see the official SEA price list.

The warranty is a replacement of the faulty part if the damage is due to faults in the material or manufacturing. Under no circumstance Sea responsibility will exceed the single part buying price. Therefore the purchaser will not be refunded for damages such as:

loss of production;

loss of profit or selling;

machines stop;

whatever circumstantial damage, non applicable to the simple use of the product.

Warranty is also not applicable in the following circumstances:

irrational or faulty uses of the product;

transgression of the use, maintenance and safety instructions;

non authorised adjustments;

assembling of non original spare parts;

passing the power limits in the data;

connection to a non conformity electric net;

if the product is being resold even within the warranty time;

laws in the customer country.

Parts being normally used (e.g. gaskets, bearings) and general consumption materials (e.g. oil, grease etc.) are excluded from warranty unless being faulty in the assembling or manufacturing.

SEA is not responsible for damages or accidents being produced by eventual product breaking if they are consequent to instruction default.

Eventual damages occurred in the transport or delivery, are excluded from warranty unless the transport is on SEA charge.

### IMPORTANT!

Warranty is not valid and SEA is not responsible if SEA original spare parts are not being used.

## INSTRUCTIONS FOR THE ELECTRICAL SYSTEM

All the systems must be installed by sector technicians who will issue a document as provided by law.

Packing stuff such as: plastic bags, foam polystyrene, screws etc. must be kept out of children reach ever since they could be dangerous.

Before connecting the electrical power to the network, make sure that engine data and distribution grid are the same and that electrical power is compatible with the maximum power.

Make sure that wiring is fit for the product power.

A faulty installation can be cause of damage to people, animals and things which SEA can't be claimed responsible for.

The product electrical safety is reached only when it is connected to an efficient grounding as provided by safety law. Meeting the just stated requirement is very important; if doubtful refer to a qualified technician. SEA can't be hold responsible for damages being caused for no grounding.

Don't touch any electrical part if some part of your body is either wet or humid.

Don't allow the use of the product to children or non authorised people. Keep the customers informed on the correct use, maintenance or safety. Warning notice must be stored in a proper place.

Turn the differential switch (16A 0,030A) off before maintenance.

Refer to authorised technicians for damages.

Refer to SEAS.r.l. for repairs.

Don't make a spiral winding of the supplying wire to avoid dangerous over heating.

Keep clear of the machine hinges and moving parts.

Attach a visible warning notice if the product is remote controlled.

Check in time if safety controls are working.

## ESPAÑOL

### ADVERTENCIAS GENERALES PARA UNA SEGURA Y CORRECTA INSTALACION DE LOS SISTEMAS AUTOMATICOS PARA APERTURA DE PUERTAS, CANCELAS Y HOJAS.

#### INTRODUCCION

Amable cliente,

Este manual proveerá a Usted todas las informaciones posibles para una correcta utilización de los sistemas de automatización para apertura de puertas y cancelas, aconsejará respecto a las modalidades de empleo, consentirá a Usted de realizar una manutención apropiada y proveerá a Usted todas las instrucciones de seguridad necesarias. Recomendamos fuertemente la cuidadosa lectura de este manual para la seguridad y la prevención de los accidentes. Los productos SEA que Usted ha comprado y este manual son conformes a la Directriz Máquinas (89/392/CEE y modificaciones siguientes), Baja Tensión (72/23 y modificaciones siguientes) y Compatibilidad Electromagnética (89/336/CEE y modificaciones siguientes).

Antes de empezar cualquier trabajo tienen que ser seguros de haber comprendido lo que es escrito en este manual. Para posibles incomprensiones sobre lo que Usted ha leído o para ulteriores informaciones recurrir al representante de zona o a la nuestra asistencia telefónica, ellos tienen capacidad para proveer todas las informaciones necesarias; son necesarias la lectura de este manual antes de la instalación de los productos SEA y eventualmente una su segunda lectura antes de la puesta en servicio para estar seguros del correcto montaje y para verificar (en seguridad) el correcto funcionamiento de la máquina que Usted ha instalado. Recordamos que una correcta instalación hecha con todas las de la ley, seguidas por pruebas funcionales, es el primero y indispensable paso para utilizar por mucho tiempo Su producto sin deber sufrir roturas y para operar, sobretodo, siempre en completa seguridad.

Este manual es parte integrante de la máquina y tiene que ser guardado en un lugar conocido a Usted, y facilmente localizable hasta que la máquina es en servicio, además el manual es la guía de referencia para una correcta colocación del trabajo de instalación de los productos SEA, por eso quien realiza la ejecuta el trabajo tiene que observar escrupulosamente lo que está escrito en este volumen.

El acatamiento de las instrucciones y de los datos aquí sugeridos es necesario tanto para el desenvolvimiento de un trabajo entre los límites de la seguridad y conforme a las normas y directrices vigentes como para la entrega al usuario final de una instalación segura y funcional.

Los productos SEA que Usted ha comprado tienen que ser utilizados sólo y exclusivamente para automatizar puertas, cancelas y hojas, cualquier otro uso que no forma parte en lo que explicitado y admitido arriba, o cada iniciativa personal del instalador no expresamente autorizada por SEA S.r.l. que no forma parte en lo que explicitado en este manual, liberará el constructor de cualquier responsabilidad. SEA S.r.l. pone a disposición a los instaladores el Servicio de Asistencia Técnica Telefónica Clientes para cualquier explicación sobre el contenido de este manual y para informaciones sobre posibles cursos de formación.

#### ADVERTENCIAS GENERALES

Antes de la instalación asegurarse que el producto no haya sufrido daños que pueden comprometer su montaje o la seguridad de funcionamiento. En general controlar que todo el material del embalaje sea presente y en particular sean seguros de haber los materiales adecuados de ajuste. Para este control remiten a las instrucciones y a las especificaciones de la instalación por cada modelo.

Asegurarse que la estructura sobre la cual será instalado el producto tenga suficientes características de resistencia a los esfuerzos (por ejemplo causados por la acción del viento sobre la superficie de la cancela o producto automatizado) y permita una segura presa a los anclajes.

SEA S.r.l. veda taxativamente la instalación sobre cualquier pared o soporte ruinoso, frágil o que fácilmente se desmorona y que de todas maneras no asegure el correcto funcionamiento del producto o sea el su sostén.

En caso de duda sobre la resistencia de la pared de anclaje llaman un técnico para las explicaciones apropiadas.



**Dichiarazione di conformità**  
**Declaration of Conformity**

La SEA s.r.l. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che il prodotto:

*SEA srl declares under its proper responsibility and, if applicable, under the responsibility of its authorised representative that the product:*

| <b>Descrizione / Description</b> | <b>Modello / Model</b>            | <b>Marca / Trademark</b> |
|----------------------------------|-----------------------------------|--------------------------|
| Centrale di comando User 2 24V   | 23024015/16/17/18/19/20/21        | SEA                      |
| <i>Control Unit User 2 24V</i>   | <i>23024015/16/17/18/19/20/21</i> | <i>SEA</i>               |

è conforme a tutte le norme tecniche relative al prodotto entro il campo di applicabilità delle Direttive Comunitarie 2006/95/CE, 2004/108/CE e 99/5/CEE:

*satisfies all the technical regulations applicable to the product within the scope of Council Directives 2006/95/CE, 2004/108/CE and 99/5/CEE:*

EN 61000-6-3 (2007)

EN 61000-6-2 (2005)

EN 60335-1 (2002) + A1 (2004) + A2 (2006) + A11 (2004) + A12 (2006)

EN 50366 (2003) + A1 (2006)

**COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:**  
**MANUFACTURER or AUTHORISED REPRESENTATIVE:**

SEAS.r.l.  
DIREZIONE E STABILIMENTO:  
Zona industriale 64020 S.ATTO Teramo - (ITALY)  
Tel. 0861 588341 r.a. Fax 0861 588344  
[Http://www.seateam.com](http://www.seateam.com)

I test sul prodotto sono stati effettuati in configurazione standard e in riferimento alle norme specifiche per la sua classe d'utilizzo.

*The products have been tested in standard configuration and with reference to the special norms concerning the classe of use.*

(Luogo, data di emissione)  
(Place, date of issue)

07/01/2009

L'Amministratore  
The Administrator  
Ennio Di Saverio

