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

CE

Italiano
English
Français
Español
Deutsch

USER 2 - 24V / USER 2 HIDRO

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

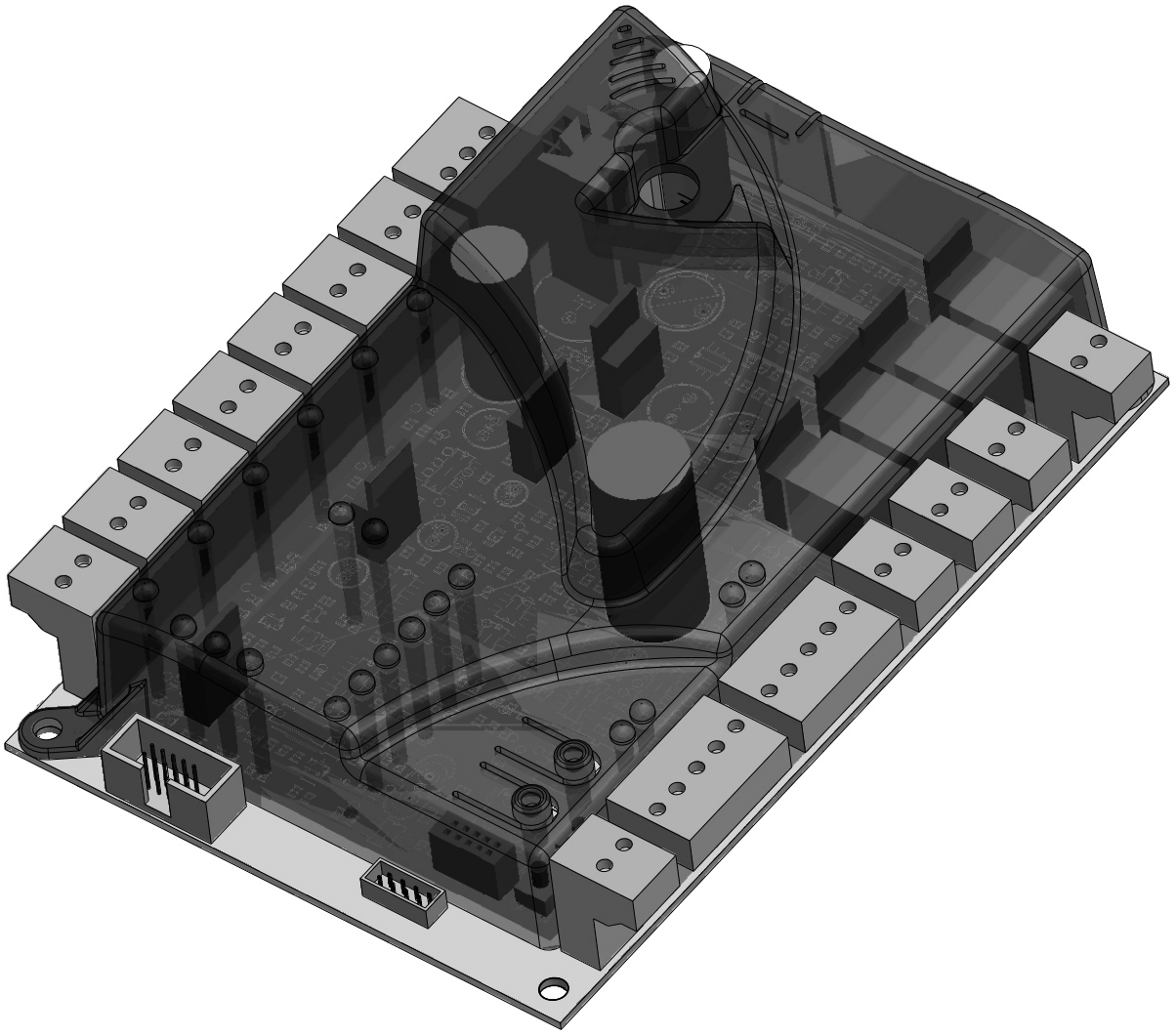
APPARECCHIATURA ELETTRONICA 24V ⎓ PER CANCELLI AD ANTE BATTENTI

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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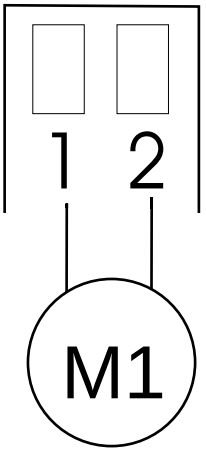
67410755 **REV 10 - 03/2011**

CONNESSIONI / CONNECTIONS / CONNEXIONS
CONEXIONES / VERBINDUNGEN

M1



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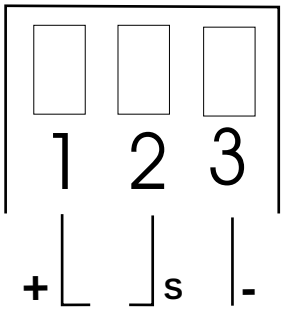


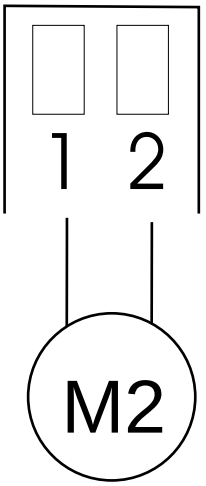
Solo con scheda caricabatteria / Only with battery charger card / Seulement avec chargeur batterie / Solo con tarjeta cargabaterías / Nur mit Batterieladekarte (Cod.23101105)

28V⎓ Caricabatterie
28V⎓ Battery charger
28V⎓ Chargeur de batterie
28V⎓ Cargabaterias
28V⎓ Batterieladegerät

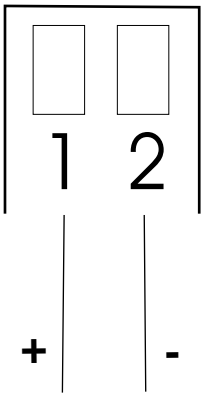
Positivo batteria/Positive battery
Positif batterie/Positivo Batería
Positiv Batterie

Negativo caricabatteria
Negative battery charger
Negatif chargeur batterie
Negativo cargabaterías
Negativ Batterieaufladegerät

M4

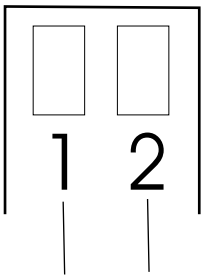


M5



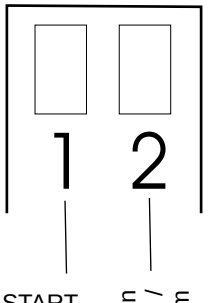
24V⎓ Accessori Max 200 mA
24V⎓ Accessories Max 200 mA
24V⎓ Accessoires Max 200 mA
24V⎓ Accesorios Max 200 mA
24V⎓ Zubehör Max 200 mA

M6



Lampeggiatore 24V⎓ 15W
Flashing lamp 24V⎓ 15W
Lampe clignotante 24V⎓ 15W
Lampara 24V⎓ 15W
Blinklampe 24V⎓ 15W

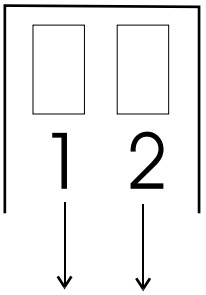
M7



START

Comune / Common / Comun/ Comune / Gemeinsam

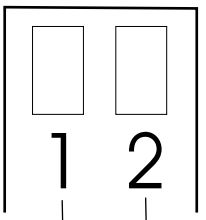
M8



+12V⎓ Elettroserratura
+12V⎓ Electric lock
+12V⎓ Electro serrure
+12V⎓ Electrocerradura
+12V⎓ Elektroschloss

Comune / Common / Comun/ Comune / Gemeinsam

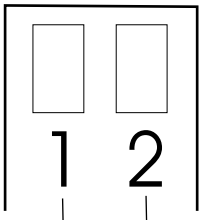
M9



Fotocellula / Photocell / Photocellule / Fotocelula / Lichtschranke

Comune / Common / Comun/ Comune / Gemeinsam

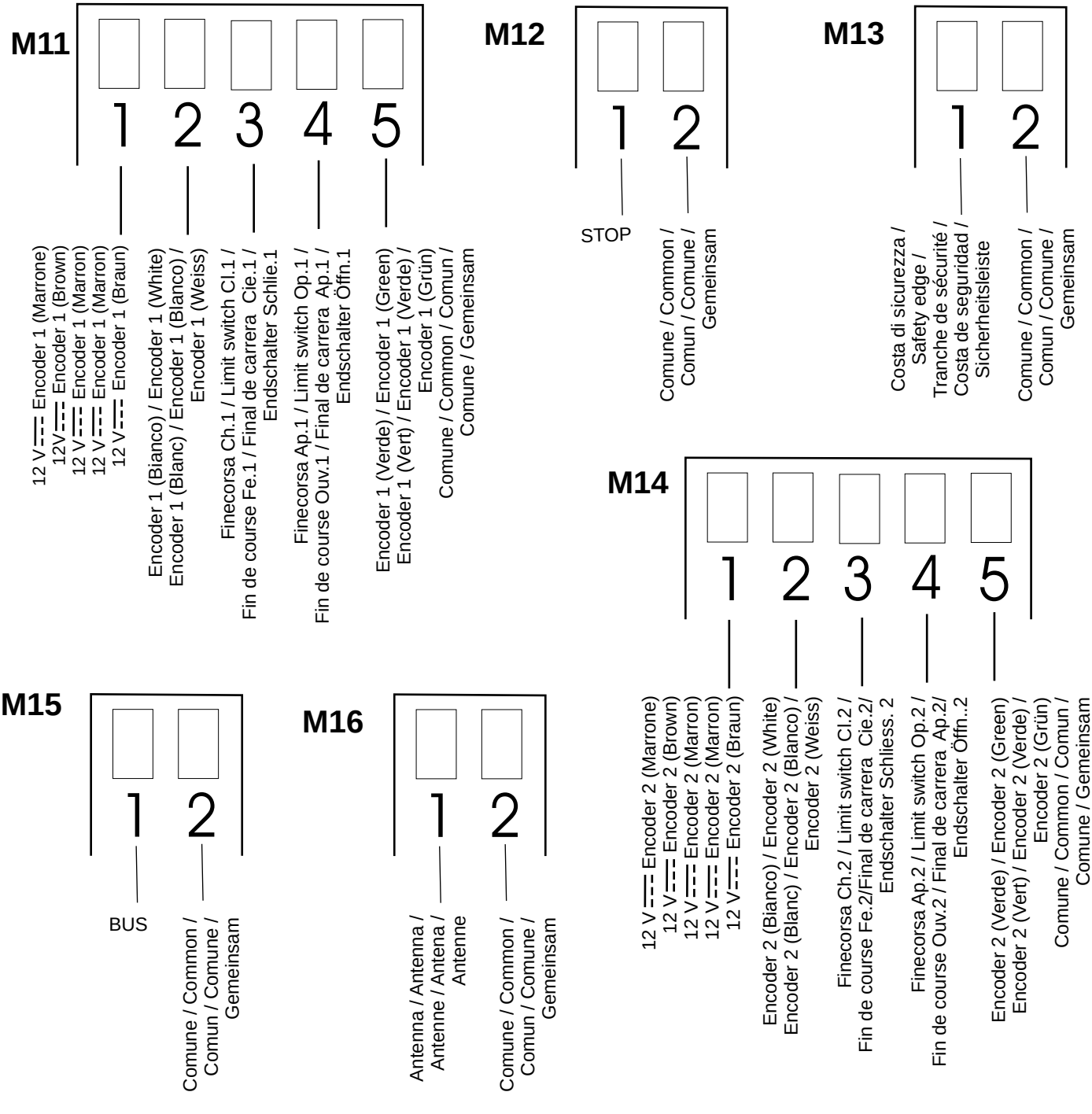
M10

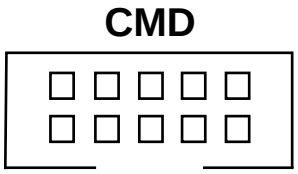


START Ped. / START Ped. / START Ped. / START Fuss.

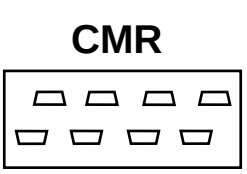
Comune / Common / Comun/ Comune / Gemeinsam

CONNESSIONI / CONNECTIONS / CONNEXIONS
CONEXIONES / VERBINDUNGEN

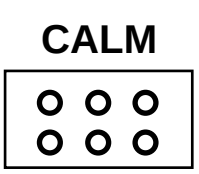




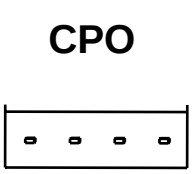
Connettore Programmatore Jolly
Connector Programmer Jolly /
Connecteur Programmateur Jolly /
Conector Programador Jolly /
Anschluss Programmierer Jolly



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 programmateur OPEN/
Conector Programador OPEN/
Anschluss Programmierer OPEN

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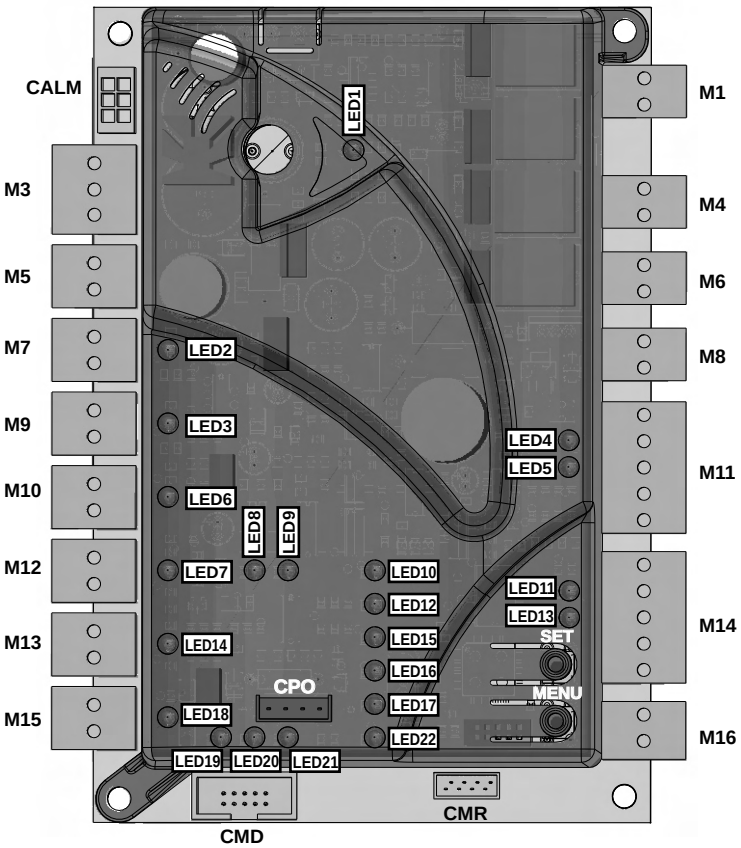
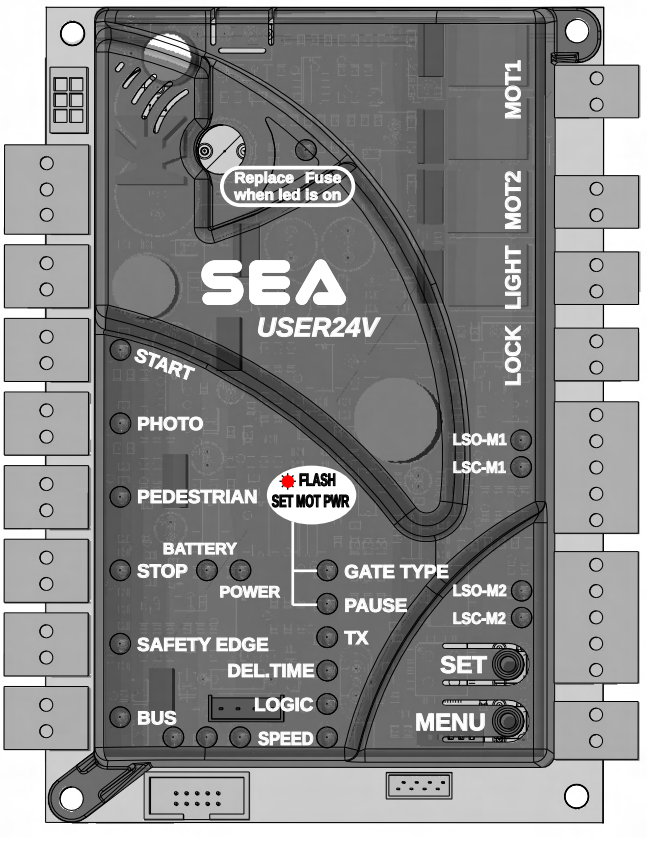
DESCRIPTION OF THE COMPONENTS





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

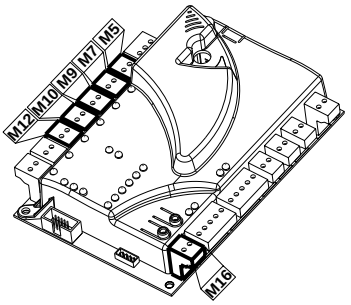
The USER 2 24V control unit has been designed to manage one or two low voltage swing gate operators with or without electronic limit switches.

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

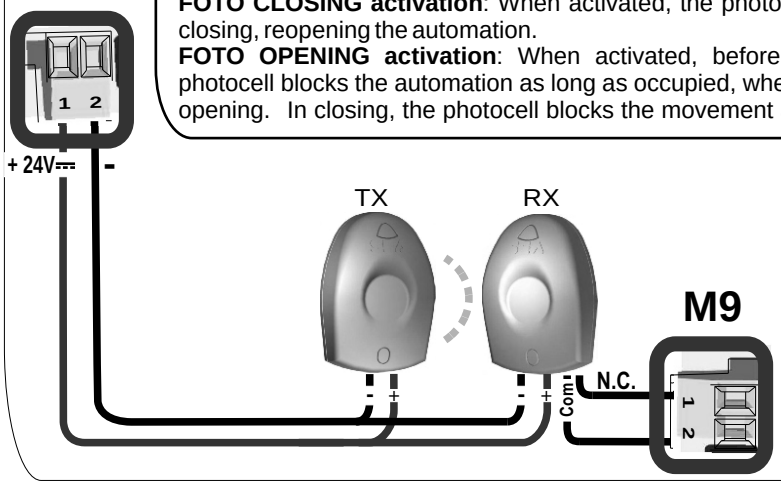
Control unit power supply	24 V ⎓
Absorption in stand by	100 mA
Max. motor charge	90 W x 2
Max. accessories charge	24V ⎓ 250mA
Max. Flash light charge	24V ⎓ 15W max.
Environment temperature	-20°C / +50°C
Protection fuse (24V accessories)	1 (1,6mA)
Function logic	Dead man/Automatic/Security/Step by step type 1/Step by step type 2/Semiaut.1/Semiaut.2
Opening/closing time	In selflearning in programming phase
Time of pause	Adjustable
Thrust	Adjustable
Slow down	Adjustable
Input on connecting terminal	Battery power supply / Total opening /Pedestrian opening adjustable / Edge/ Stop / Limit switch opening and closing / Encoder/ BUS accessories
Output on connecting terminal	Power supply accessories 24V⎓/ Motors 24V⎓/ Flashing lamp 24V⎓ / Electric lock 12V⎓
Board dimensions	156 x 100 mm
Specifications of optional batteries	24V Pb 2Ah min.
Specifications of external enclosure	305 x 225 x 125 mm - Ip55
Special accessories	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)

START - STOP - PEDESTRIAN START - ANTENNA - PHOTOCELL



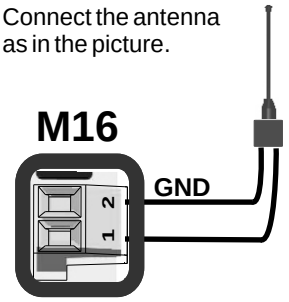
Photocell 1 Connection
When the ray of the photocell is crossed, and the automation is in phase of closing it reverses its movement. Through programmer JOLLY it is possible to activate the photocell in opening, if activated it causes the interruption of the movement as long as it is busy, for then continuing 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.

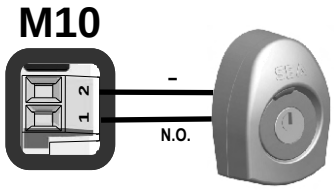
JOLLY OPTIONS
FOTOCLOSE activation: If activated when the photocell is crossed during the pause, the gate interrupts the pause and immediately closes again.
TIMER activation: When activated, the photocell input changes into a N.O. input used as TIMER function (see TIMER).
FOTO CLOSING activation: When activated, the photocell intervenes only during closing, reopening the automation.
FOTO OPENING activation: When activated, before and during opening the photocell blocks the automation as long as occupied, when released it continues the opening. In closing, the photocell blocks the movement as long as occupied, when released it reopens.
FOTO STOP activation: When activated, before opening, the photocell blocks the automation as long as occupied, during opening it will be ignored. In closing, the intervention of the photocell causes the reopening.



ANTENNA

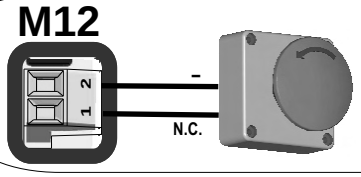
Connect the antenna as in the picture.



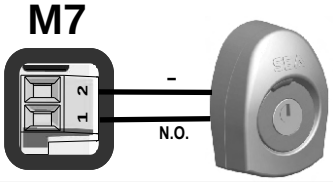


PEDESTRIAN START (N.O.)
To obtain a partial opening (only one leaf opening) connect the key-button wires as in the picture. It is possible to connect other command devices (push button board, radio receiver, keypad).
From the display it is possible to adjust the pedestrian opening space: 30%, 50%, 100%.
Note1: The contact for partial opening is a N.O. Contact (Normally open)
Note2: Partial opening will always operate the **M1** motor.
Nota3: 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)



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.



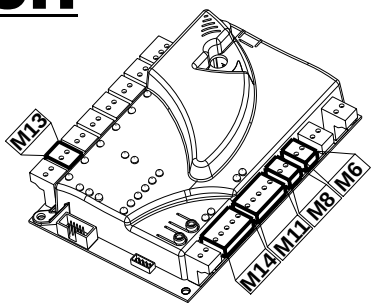
START (N.O.)
An impulse given to this contact opens and closes the automation depending on logic selected. It can be given by a key switch, a keypad, etc.
To connect the other devices refer to the related instructions leaflets. (ie. loop detectors and proximity switches)
Note1: In manual logic it is necessary to keep pressed the Start for the opening of the leaf.

JOLLY OPTION

TIMER

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 provoques 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

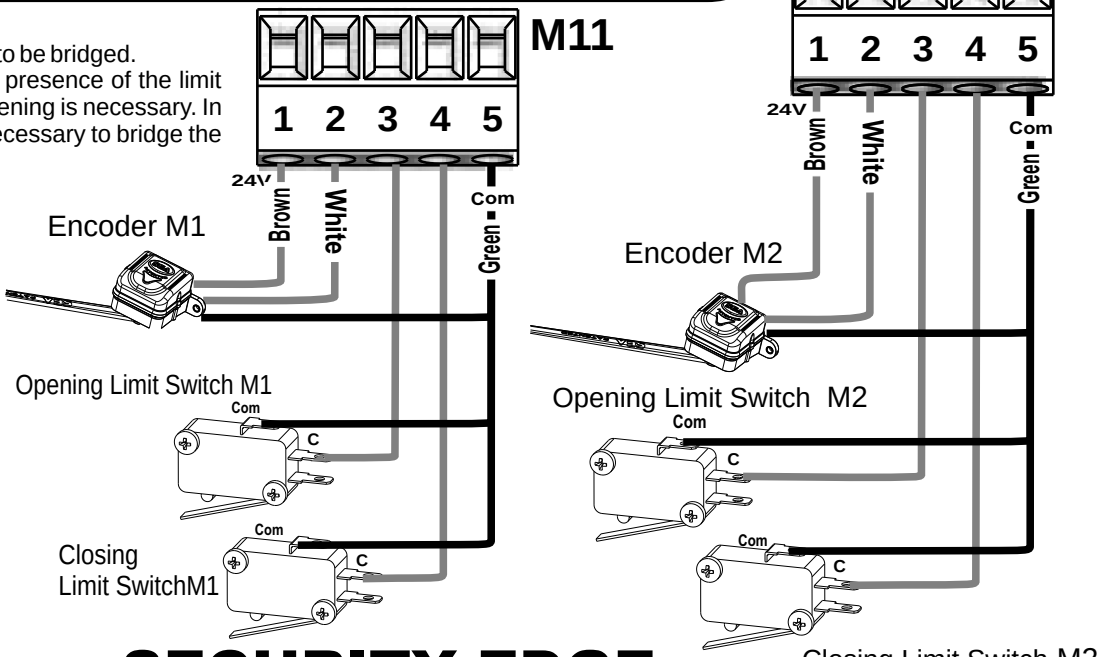


Encoder / Ammeter sensor (Set the control unit always on encoder OFF)
The encoder is a device that allows to reveal possible obstacles during the opening and the closing of the gate. When this device intervenes in opening it causes the inversion of the movement for around a second, if it intervenes in 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 corrsipondence 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 liit is possible to activate the function anti-intrusion. Limit switch, that if released, forces the motor to re-close.

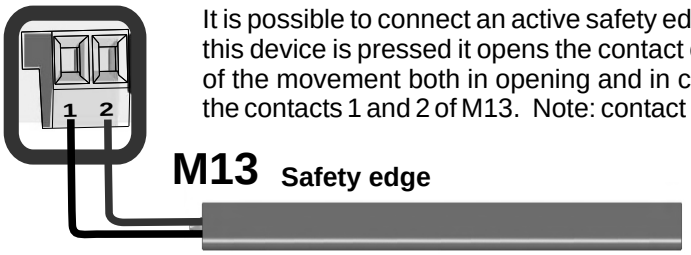


SECURITY EDGE

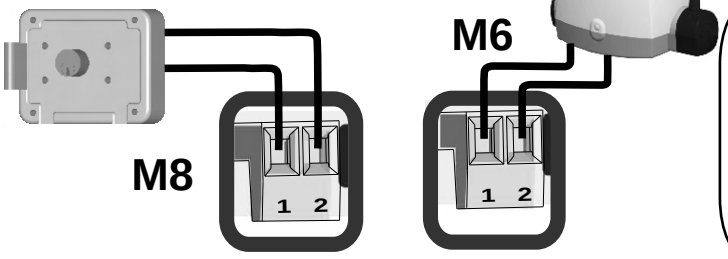
ELECTRIC LOCK AND WARNING LAMP

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 disactivate the electric lock if not used. This operation allows to save energy of the control unit.



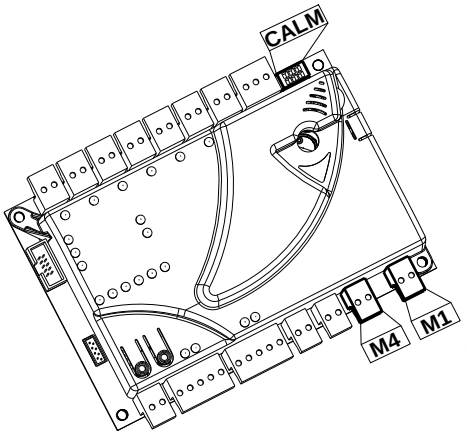
It is possible to connect an active safety edge on the terminal M13. If this device is pressed it opens the contact causing a partial inversion of the movement both in opening and in closing. If not used bridge the contacts 1 and 2 of M13. Note: contact N.C.

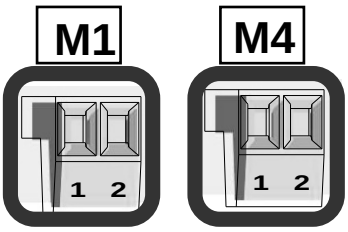


Flashing Lamp 24V⎓ 15W (Warning lamp)
The warning lamp advises that the automatic gate is in movement performing 1 flash /second in opening and 2 flashes / second in closing. Instead it remains turned on fix during pause.
To connect it, connect the wires of the warning lamp as shown in the figure.

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.

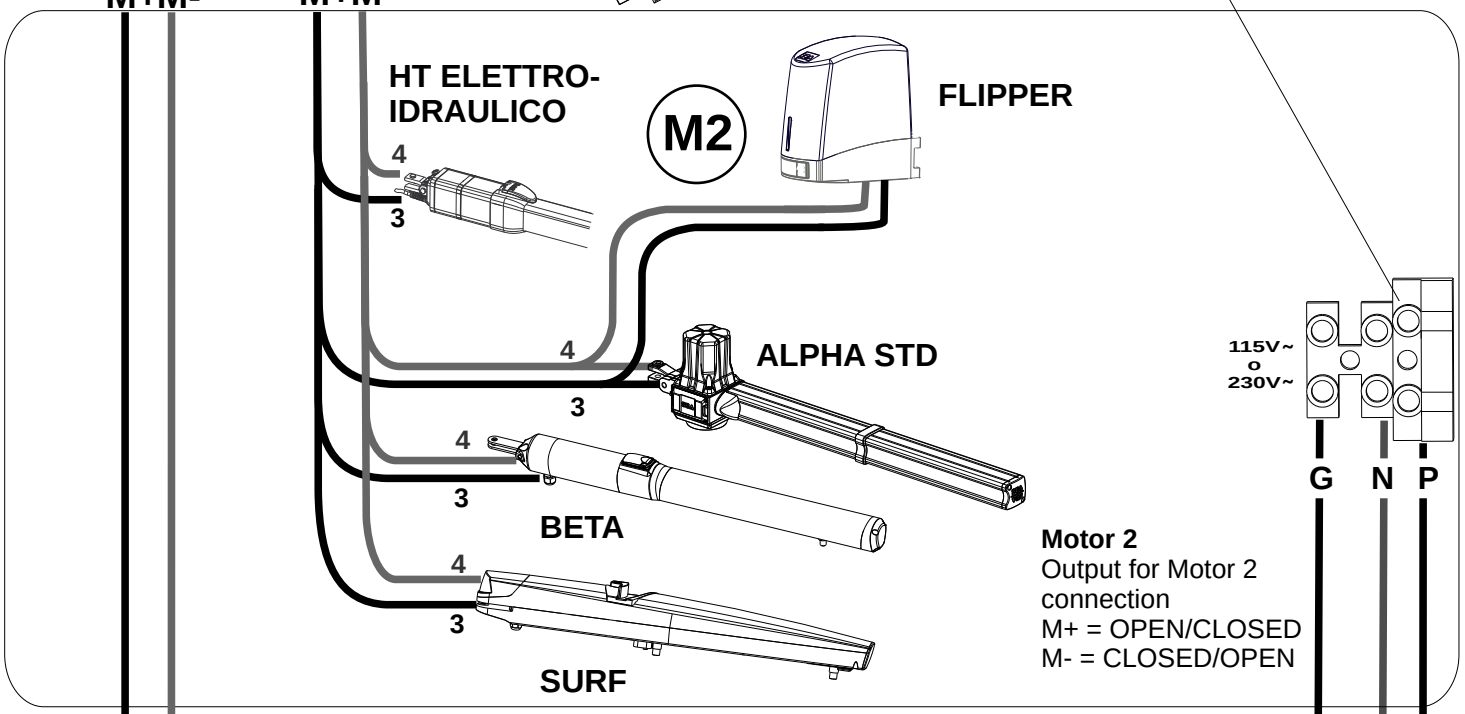
POWER SUPPLY - MOTORS ARM-ALPHA-BETA



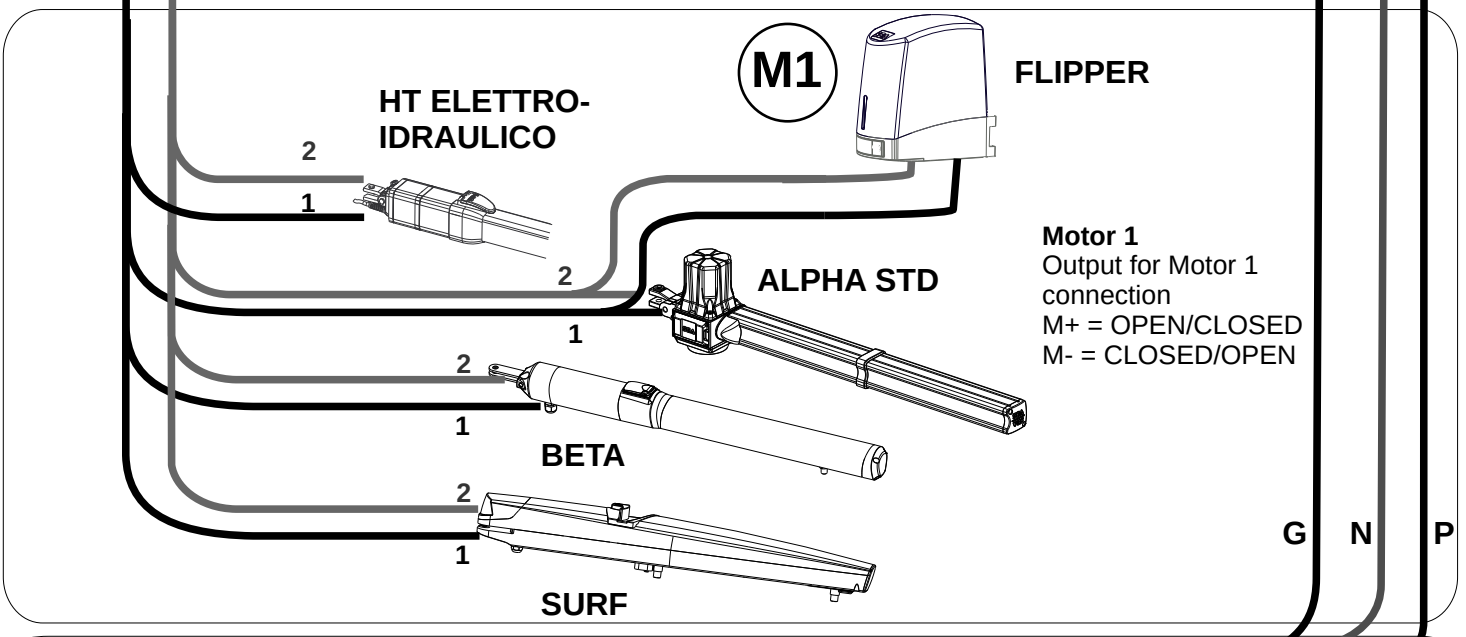


M+M- M+M-

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



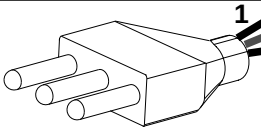
Motor 2
Output for Motor 2 connection
M+ = OPEN/CLOSED
M- = CLOSED/OPEN



Motor 1
Output for Motor 1 connection
M+ = OPEN/CLOSED
M- = CLOSED/OPEN

Power input
Input for the connection of the electric power.
P = PHASE - LIVE
N = NEUTRAL
G = GROUND

NOTICE: for the connection to the electric power see the law in force.



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 buttonuntil 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%, DECELARATION 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

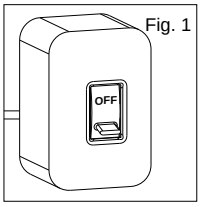


Fig. 1

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 recommanded 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.26.
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. 24 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.

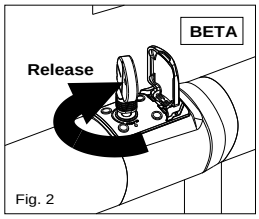


Fig. 2

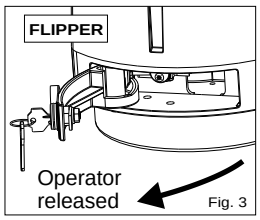


Fig. 3

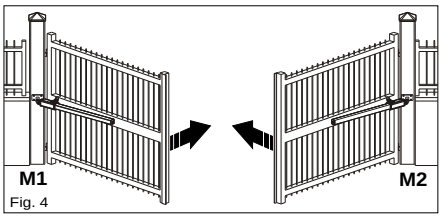


Fig. 4

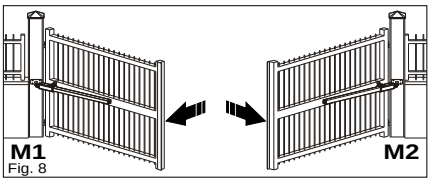


Fig. 8

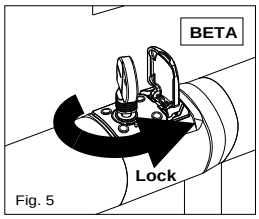
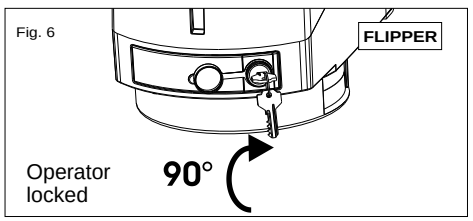
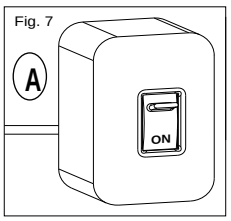


Fig. 5





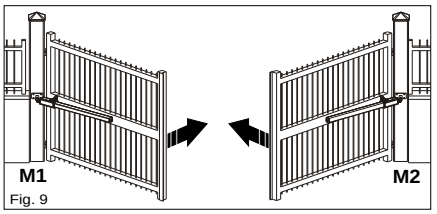
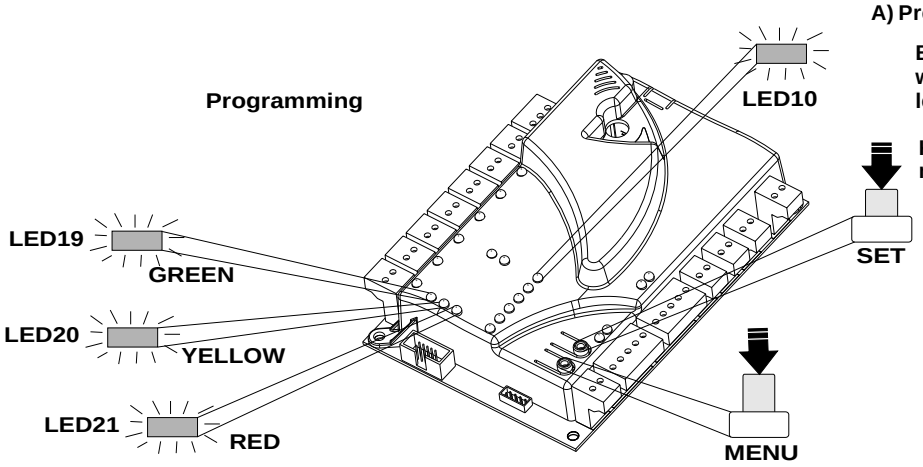


Fig. 9

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 L21 red ON = single leaf Encoder OFF
- led L19 and 20 green and yellow = double leaf Encoder ON (available but not active)
- led L19 and 21 green and red = single leaf Encoder ON (available but not active)
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

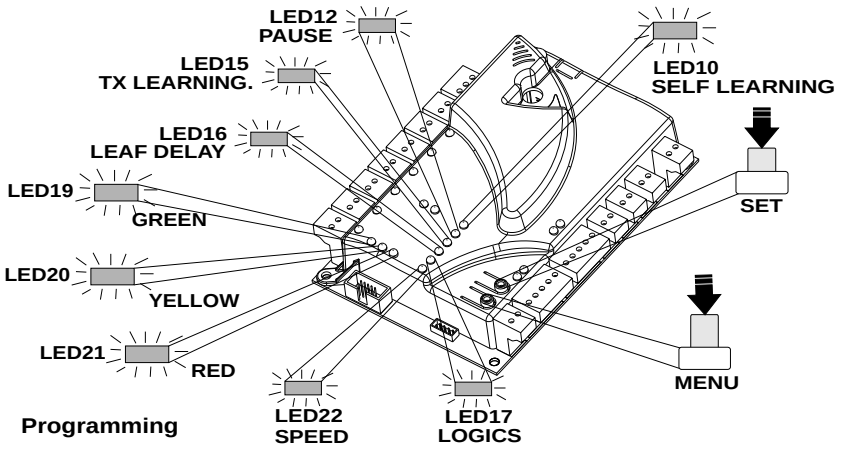
B) Press the "IMP" button till the Led of the colour which corresponds to the type of installation (single leaf, double leaf, Encoder) turnes on.

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 functioning logic** with **LED 17** switched on, press the **"SET"** button to select the desired logic, observing the colour of LEDs 19, 20 and 21.
Led L19 green switched on dead man logic
Led L20 yellow turned on automatic logic
Led L21 red turned on security logic
Led L20 and L21 yellow and red switched on step -by -step type1 logic
Led L19 and L21 green and red switched on step -by -step type2 logic
Led L19, L20 and L21 green, yellow and red switched on semi- automatic 1 logic
Led L19 and L20 green and yellow switched on semiautomatic 2 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

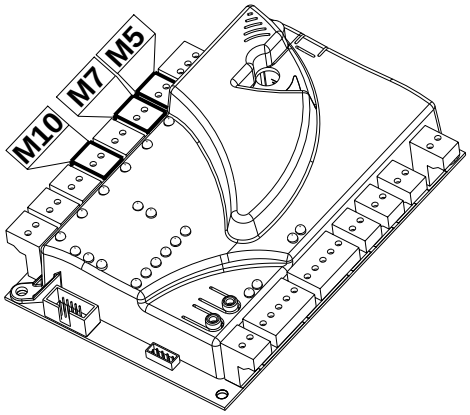
JOLLY function: With the Jolly programmer this parameter is adjustable linearly for every single motor and differentiable within opening and closing without using the SET and MENU buttons on the control unit.

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 / Field / Surf
Led 20 yellow Beta / Flipper SP
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.

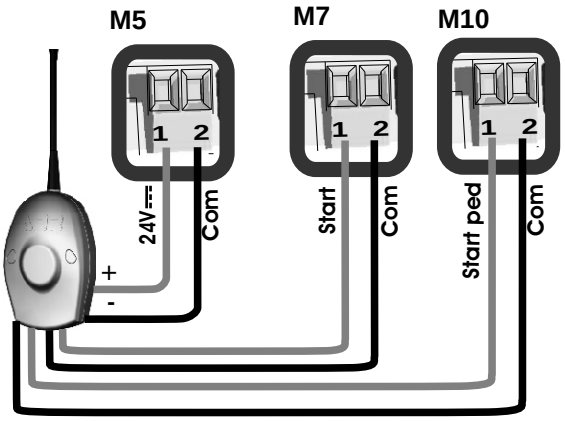
After 30 seconds without having pressed any button, the parameters' adjustment function will be automatically left.
If the control unit turns on when holding pressed the buttons "MENU" and "SET" contemporarily, the control unit will start with the DEFAULT parameter (see preceding page).

EXTERNAL RECEIVER



Example: Connection of a radio receiver

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



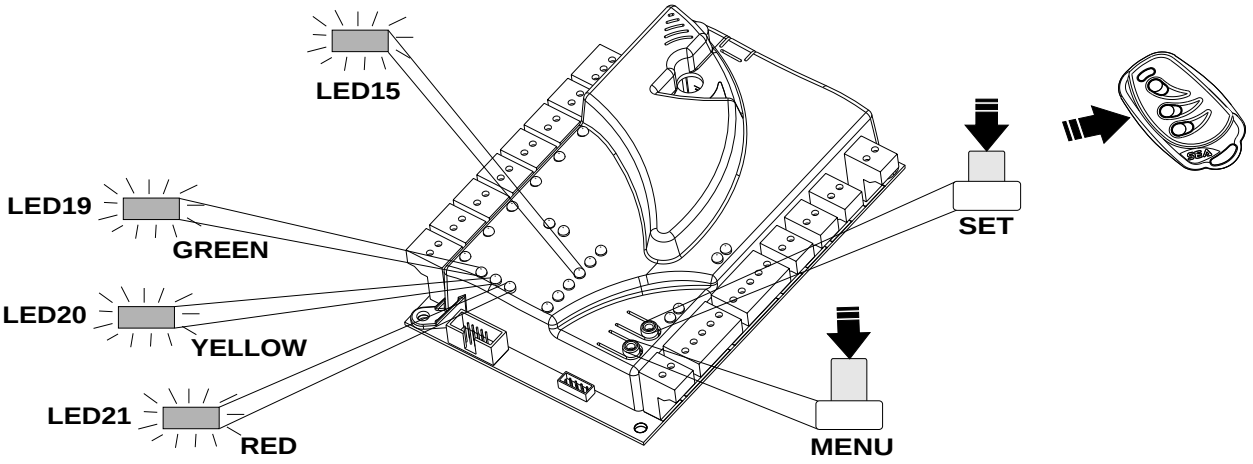
RADIO TRANSMITTER SELF LEARNING WITH RECEIVER ON BOARD OF CONTROL UNIT

⚠ **WARNING: Make the radio transmitters programming before you connect the antenna and insert the receiver into the special CMR connector (if available) with turned off control unit. (The control unit automatically recognizes if the receiver is a RF or RF Roll module). Note: With a RF module it will be possible to use only 12 bit radio transmitters, that are Coccinella Dip and Copy and Smart Dual. With RF Roll module it will be possible to use only Coccinella Roll radio transmitters.**

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



Programming

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 alredy 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

DEAD MAN 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 connencted 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 impluse during the opening will not be accepted. An impulse during the pause won't be accepted. An impulse 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.

STEP BY STEP LOGIC TYPE 1
The repeated start command produces the following sequence: OPEN-STOP-CLOSE-STOP-OPEN-STOP.
This logic is automatic; this means that the gate will close either, at the end of the set time of pause or with a voluntary start.

STEP BY STEP LOGIC TYPE 2
The repeated start command produces the following sequence: OPEN-STOP-CLOSE-OPEN-STOP.
This logic is automatic; this means that the gate recloses either, at the end of the set time of pause or with a voluntary start command.

SEMIAUTOMATIC LOGIC 1
The repeated start command produces the following sequence: OPEN-STOP-CLOSE-STOP-OPEN-STOP.
This logic is semiautomatic, this means that the gate recloses only with a voluntary start command.

SEMIAUTOMATIC LOGIC 2
The repeated start command produces the following sequence: OPEN-STOP-CLOSE-OPEN-STOP.
This logic is semiautomatic, this means that the gate will recloses only with a voluntary start command.

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 equiped with only two threads. Every accessory is equiped 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

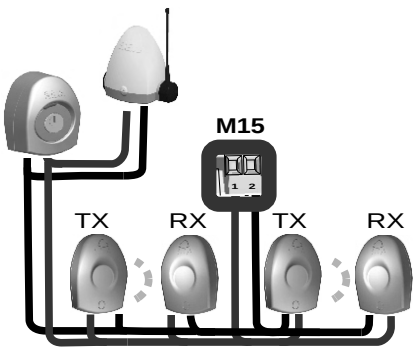
If photocells are connected on the BUS it is necessary to line up the same before programming. To do the alignment it is necessary to start a self-learning cycle of the times. At this point, the gate will stand still, as long as the photocells are not lined up. Once the photocells have been lined up,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

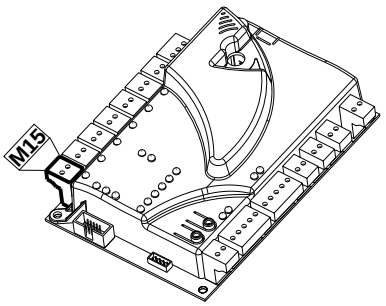
Photocells BUS addressing

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 motore1 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	Dead man/Automatic/Security/Step by step type 1/ Step by step type 2/Semiautom.1/Semiautom.2 ⇦
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^{32}] (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)

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)

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

PROGRAMMER JOLLY PARAMETERS ADJUSTMENT

NOTE: For the respect of the valid European ruels 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-sqeezing 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	CLOSING/OPENING/STOP
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

Foto closing: The photocell intervenes only during closing, on reopening the automation.
Foto opening: Before and during opening the photocell blocks the automation as long as occupied, when released the opening continues. In closing, the photocell blocks the movement as long as occupied, when released it reopens.
Foto Stop: Before opening the photocell blocks the automation as long as occupied, during opening it will be ignored. In closing, the intervention of the photocell causes the reopening.

Screen 15	
List of events	it sums up the last 10 events on the control unit
N°10	
N°9	
N°8	

Diagnostic 10 last events

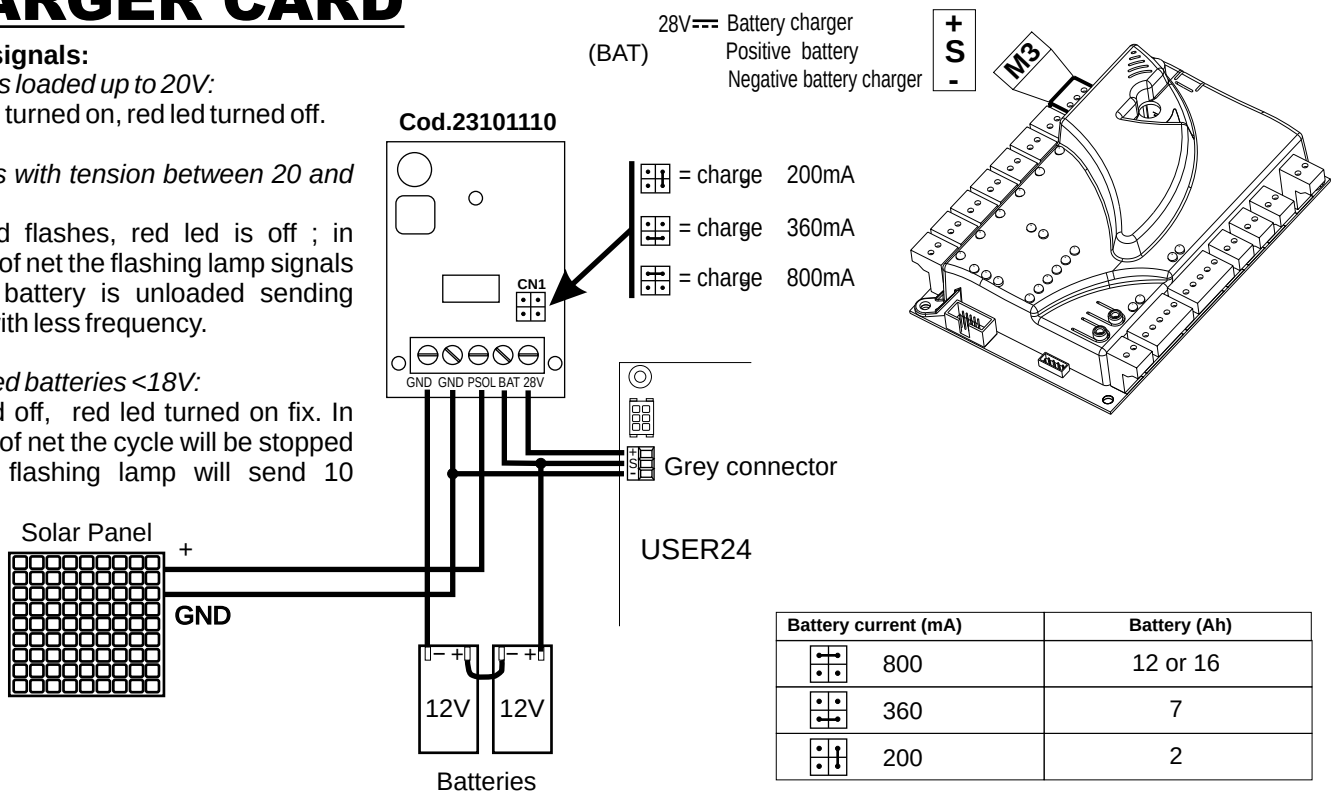
CONNECTION OF BATTERIES TO BATTERY CHARGER CARD

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.



Battery current (mA)	Battery (Ah)
800	12 or 16
360	7
200	2

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 dammages 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 repalce 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 dammage 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 dammage 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 it 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

Advises

Make sure all Safety LED are turned ON

All not-used N.C. contacts must have jumpers

Problem Found	Possibile Cause	Solutions
Motor doesn't respond to any START impulse	**a.)** Jumper missing on one of the N.C. Contacts **b.)** Burnt fuse	**a.)** Check the connections or the jumpers on the connections of the safety edge, of the stop and of the photocell **b.)** Replace the burned fuse on the control unit led 1 turned on.
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.)** The fitting geometry is inadequate **e.)** Torque or speed too low	**a.)** Set limit switches **b.)** Repeat programming **c.)** Remove obstacle **d.)** Check fitting geometry following the operator installation manual **e.)** Increase torque parameter
The gate opens but doesn't close	**a.)** The photocell contacts are not closed **b.)** Ammeter alarm	**a.)** Check the LED or the jumpers or the signals indicated on the warning lamp **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 **b.)** Control unit in semi-autom. logic	**a.)** Adjust pause time **b.)** Adjust the automatic or security logic

Page for both instaler and user

MAINTENANCE

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

Periodically clean the optical systems of the photocells.

REPLACEMENTS

Any request for spare parts must be sent to:

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

SAFETY AND ENVIRONMENTAL COMPATIBILITY

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

REGULAR PRODUCT DISPOSAL (electric and electronic waste)

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

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

STORING

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

Materials handling must be made with appropriate vehicles..

WARRANTY LIMITS

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

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

CONDIZIONI DI VENDITA

EFFICACIA DELLE PRESENTI CONDIZIONI GENERALI DI VENDITA: Le presenti condizioni generali di vendita si applicano a tutti gli ordini indirizzati a SEA s.r.l. Tutte le vendite fatte da SEA ai clienti sono regolate secondo le presenti condizioni di vendita che costituiscono parte integrante del contratto di vendita ed annullano ogni clausola contraria o pattuizioni particolari presenti nell' ordine o in altro documento proveniente dall' acquirente (cliente)

AVVERTENZE GENERALI Gli impianti di automazioni porte e cancelli vanno realizzati esclusivamente con componenti SEA, salvo accordi specifici. L'inosservanza delle norme di sicurezza vigenti (Norm. EUROPEE EN 12453 - EN 12445 e altro) e di buona tecnica esclude la SEA da ogni responsabilità. La SEA non risponde del mancato rispetto della corretta e sicura installazione secondo le norme.

1) PROPOSTA D'ORDINE La proposta d'ordine si intenderà accettata solo dopo la sua approvazione da parte della SEA. Conseguenza della sua sottoscrizione, l'acquirente sarà vincolato alla stipula di un contratto d'acquisto, secondo quanto contenuto nella stessa proposta d'ordine e nelle presenti condizioni di vendita. Viceversa, la mancata comunicazione all'acquirentedell'aprovazione della proposta d'ordine, non comporta la sua automatica accettazione da parte della SEA

2) VALIDITÀ OFFERTA Le offerte proposte dalla SEA o dalla sua struttura commerciale periferica, avranno una validità di 30 giorni solari, salvo diversa comunicazione in merito.

3) PREZZI I prezzi della proposta d'ordine sono quelli del listino in vigore alla data della redazione della stessa. Gli sconti applicati dalla struttura commerciale periferica della SEA si intenderanno validi solo dopo la loro accettazione da parte della SEA. I prezzi si intendono per merce resa franco ns. stabilimento in Teramo, esclusi IVA ed imballaggi speciali. La SEA si riserva il diritto di modificare in qualsiasi momento il listino, dando opportuno preavviso alla rete di vendita. Le condizioni speciali riservate agli acquisti con formula agevolata Qx, Qx1, Qx2, Qx3 sono riservate ai distributori ufficiali dietro accettazione scritta da parte della direzione SEA.

4) PAGAMENTI Le forme di pagamento ammesse sono quelle comunicate o accettate di volta in volta dalla SEA. Il tasso di interesse sul ritardo da pagamento è del 1,5% mensile e comunque non oltre il tasso massimo legalmente consentito.

5) CONSEGNA La consegna avverrà indicativamente ma non tassativamente entro 30 giorni lavorativi dalla data di ricezione dell'ordine, salvo diverse comunicazioni in merito. Il trasporto degli articoli venduti sarà effettuato a spese ed a rischio dell'acquirente. La SEA si libera dall'obbligo della consegna rimettendo la merce al vettore, sia esso scelto dalla SEA oppure dall'acquirente. Eventuali smarrimenti e/o danneggiamenti della merce dovuti al trasporto, sono a carico dell'acquirente.

6) RECLAMI Eventuali reclami e/o contestazioni dovranno pervenire alla SEA entro 8 giorni solari dalla ricezione della merce, supportati da idonei documenti provanti la loro veridicità.

7) FORNITURA L'ordine in oggetto viene assunto da SEA senza alcun impegno e subordinatamente alle possibilità di approvvigionamento delle materie prime occorrenti alla produzione; eventuali mancate esecuzioni totali o parziali non possono dar luogo a reclami e riserve per danni. La fornitura SEA è strettamente limitata alla sola merce di sua produzione, esclusi il montaggio, l'installazione ed il collaudo. La SEA declina pertanto ogni responsabilità per danni che dovessero derivare, anche a terzi, dall'inosservanza delle norme di sicurezza e della buona regola d'arte nelle fasi dell'installazione e dell'impiego dei prodotti venduti.

8) GARANZIA La garanzia minima è di 12 mesi e può essere estesa, come di seguito, in caso di riconsegna del certificato di garanzia.

SILVER: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 24 mesi dalla data di fabbricazione riportata sull'operatore.

GOLD: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 36 mesi dalla data di fabbricazione riportata sull'operatore.

PLATINUM: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 36 mesi dalla data di fabbricazione riportata sull'operatore. La garanzia di base (36 mesi) sarà estesa per ulteriori 24 mesi (fino ad un totale di 60 mesi) qualora venga acquistato il certificato di garanzie che dovrà essere compilato e rispedito alla SEA s.r.l. entro 60 giorni dall'acquisto. L'elettronica e le centrali di comando sono garantite per 24 mesi dalla data di fabbricazione. Nell'eventualità di difettosità del prodotto, la SEA si impegna alla sua sostituzione gratuita oppure alla sua riparazione, previa restituzione al proprio centro di riparazione. La definizione di stato di garanzia è ad insindacabile giudizio della SEA. I pezzi sostitutivi restano di proprietà della SEA. In modo vincolante, il materiale dell'acquirente ritenuto in garanzia deve essere spedito al centro di riparazione della SEA in porto franco e sarà rispedito dalla SEA in porto assegnato. La garanzia non si estende alla manodopera eventualmente accorsa. I difetti riconosciuti non produrranno alcuna responsabilità e/o richiesta di danni, di qualsiasi natura essi siano, da parte dell'acquirente nei riguardi della SEA. La garanzia non è in ogni caso riconosciuta qualora sia stata apportata alla merce qualsivoglia modifica, oppure vi sia stato un uso improprio, oppure si sia in presenza di una qualsivoglia sua manomissione o di un montaggio non corretto, oppure se sia stata rimossa l'etichetta apposta dal produttore comprensiva del marchio SEA registrato n° 804888. La garanzia non è inoltre valida nel caso la merce SEA sia stata in parte o in toto accoppiata a componenti meccanici e/o elettronici non originali, ed in particolare in assenza di una specifica autorizzazione in merito, ed inoltre nel caso in cui l'acquirente non sia in regola con i pagamenti. La garanzia non comprende danni derivati dal trasporto, materiale di consumo, avarie dovute al mancato rispetto delle specifiche prestazionali dei prodotti indicate nel listino. Non è riconosciuto alcun indennizzo durante il tempo di riparazione e/o sostituzione della merce in garanzia. La SEA declina ogni responsabilità per danni a cose o persone derivanti dall'inosservanza delle norme di sicurezza e della non conforme installazione o dall'impiego errato dei prodotti venduti. La riparazione dei prodotti in garanzia e fuori garanzia è subordinata al rispetto delle procedure comunicate da SEA.

9) RISERVATO DOMINIO Sulla merce venduta è valida la clausola del riservato dominio, della quale la SEA deciderà autonomamente se avvalersi o meno, in virtù della quale l'acquirente acquisisce la proprietà della merce, solo dopo che il suo pagamento sia stato completamente effettuato.

10) FORO COMPETENTE Per qualsiasi controversia avente per oggetto l'applicazione di questo contratto, viene eletto competente il Foro di Teramo. La lingua valida nell' interpretazione di cataloghi, manuali di installazione, condizioni di vendita o altro è quella italiana. La SEA si riserva la facoltà di apportare modifiche tecniche atte a migliorare i propri prodotti, presenti o meno in questo Listino, in qualsiasi momento senza preavviso. La SEA declina ogni responsabilità derivante da possibili inesattezze contenute nel presente listino, derivanti da errori di stampa e/o trascrizione. Il presente Listino annulla e sostituisce quelli precedenti. L'acquirente ai sensi della legge 196/2003 (codice privacy) acconsente all'inserimento dei propri dati personali derivanti dal presente contratto negli archivi informatici e cartacei della SEA s.r.l. al loro trattamento per motivi commerciali ed amministrativi.

Diritti di proprietà industriale: il cliente, con l'acquisto, accetta le presenti condizioni di vendita e riconosce in capo a SEA la titolarità esclusiva del marchio internazionale SEA registrato n. 804888 apposto sulle etichette dei prodotti e/o sui manuali e/o su ogni altra documentazione, e si impegna ad utilizzare il medesimo nella propria attività di rivendita e/o installazione secondo modalità che non ne riducano in alcun modo i diritti, a non rimuovere, sostituire o alterare marchi o altri segni distintivi di qualsiasi genere apposti ai prodotti.

E' vietata ogni forma di riproduzione o utilizzo del marchio SEA e di ogni altro segno distintivo presente sui prodotti, salvo autorizzazione scritta di SEA srl.

Agli effetti dell'articolo 1341 del C.C. si approvano specificatamente per iscritto le clausole di cui ai numeri:
4) PAGAMENTI - 8) GARANZIA - 10) FORO COMPETENTE

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 srl. 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.r.l. 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. 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.

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, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressively clauses under numbers:
4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW

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

CE

Italiano **AVVERTENZE GENERALI PER INSTALLATORE E UTENTE**

1. Leggere attentamente le **Istruzioni di Montaggio** e le **Avvertenze Generali** prima di iniziare l'installazione del prodotto. Conservare la documentazione per consultazioni future
2. Non disperdere nell' ambiente i materiali di imballaggio del prodotto e/o circuiti
3. Questo prodotto è stato progettato e costruito esclusivamente per l'utilizzo indicato in questa documentazione. Qualsiasi altro utilizzo non espressamente indicato potrebbe pregiudicare l'integrità del prodotto e/o rappresentare fonte di pericolo. L'uso improprio è anche causa di cessazione della garanzia. La SEA srl declina qualsiasi responsabilità derivata dall'uso improprio o diverso da quello per cui l'automatismo è destinato.
4. I prodotti SEA sono conformi alle Direttive: Macchine (2006/42/CE e successive modifiche), Bassa Tensione (2006/95/CE e successive modifiche), Compatibilità Elettromagnetica (2004/108/CE e successive modifiche). L'installazione deve essere effettuata nell'osservanza delle norme EN 12453 e EN 12445.
5. Non installare l'apparecchio in atmosfera esplosiva.
6. SEA srl non è responsabile dell'inosservanza della Buona Tecnica nella costruzione delle chiusure da motorizzare, nonché delle deformazioni che dovessero verificarsi durante l' uso.
7. Prima di effettuare qualsiasi intervento sull'impianto, togliere l'alimentazione elettrica e scollegare le batterie. Verificare che l'impianto di terra sia realizzato a regola d'arte e collegarvi le parti metalliche della chiusura.
8. Per ogni impianto SEA srl consiglia l'utilizzo di almeno una segnalazione luminosa nonché di un cartello di segnalazione fissato adeguatamente sulla struttura dell'infisso.
9. SEA srl declina ogni responsabilità ai fini della sicurezza e del buon funzionamento della automazione, in caso vengano utilizzati componenti di altri produttori.
10. Per la manutenzione utilizzare esclusivamente parti originali SEA.
11. Non eseguire alcuna modifica sui componenti dell'automazione.
12. L'installatore deve fornire tutte le informazioni relative al funzionamento manuale del sistema in caso di emergenza e consegnare all'Utente utilizzatore dell'impianto il libretto d'avvertenze allegato al prodotto.
13. Non permettere ai bambini o persone di sostare nelle vicinanze del prodotto durante il funzionamento. L'applicazione non può essere utilizzata da bambini, da persone con ridotte capacità fisiche, mentali, sensoriali o da persone prive di esperienza o del necessario addestramento. Tenere inoltre fuori dalla portata dei bambini radiocomandi o qualsiasi altro datore di impulso, per evitare che l'automazione possa essere azionata involontariamente.
14. Il transito tra le ante deve avvenire solo a cancello completamente aperto.
15. Tutti gli interventi di manutenzione, riparazione o verifiche periodiche devono essere eseguiti da personale professionalmente qualificato. L'utente deve astenersi da qualsiasi tentativo di riparazione o d'intervento e deve rivolgersi esclusivamente a personale qualificato SEA. L'utente può eseguire solo la manovra manuale.
16. La lunghezza massima dei cavi di alimentazione fra centrale e motori non deve essere superiore a 10 m. Utilizzare cavi con sezione 2.5 mm^2. Utilizzare cablaggi con cavi in doppio isolamento (cavi con guaina) nelle immediate vicinanze dei morsetti specie per il cavo di alimentazione (230V). Inoltre è necessario mantenere adeguatamente lontani (almeno 2.5 mm in aria) i conduttori in bassa tensione (230V) dai conduttori in bassissima tensione di sicurezza (SELV) oppure utilizzare un'adeguata guaina che fornisca un isolamento supplementare avente uno spessore di almeno 1 mm.

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 srl 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 srl 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 srl declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEA srl.
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.

Français **CONSIGNES POUR L'INSTALLATEUR ET L'UTILISATEUR**

1. Lire attentivement les instructions avant d'installer le produit.Conserver les instructions en cas de besoin.
2. Ne pas dispenser dans l' environnement le materiel d' emballage du produit et/ou des circuits
4. Ce produit a été conçu et construit exclusivement pour l'usage indiqué dans cette fiche. Toute autre utilisation non expressément indiquée pourraient compromettre l'intégrité du produit et/ou représenter une source de danger. SEA srl décline toute responsabilités qui dériverait d'usage impropre ou différent de celui auquel l'automatisme est destiné.Une mauvaise utilisation cause la cessation de la garantie.
5. Les composants doivent répondre aux prescriptions des Normes: Machines (2006/42/CE et successifs changements); Basse Tension (2006/95/CE et successifs changements); EMC (2004/108/CE et successifs changements). L'installation doit être effectuée conformément aux Normes EN 12453 et EN 12445.
6. Ne pas installer l'appareil dans une atmosphère explosive.
7. SEA srl n'est pas responsable du non-respect de la Bonne Technique de construction des fermetures à motoriser, ni des déformations qui pourraient intervenir lors de l'utilisation.
8. Couper l'alimentation électrique et déconnecter la batterie avant toute intervention sur l'installation.Vérifier que la mise à terre est réalisée selon les règles de l'art et y connecter les pièces métalliques de la fermeture.
9. On recommande que toute installation soit doté au moins d'une signalisation lumineuse, d'un panneau de signalisation fixé, de manière appropriée, sur la structure de la fermeture.
10. SEA srl décline toute responsabilité quant à la sécurité et au bon fonctionnement de l'automatisme si les composants utilisés dans l'installation n'appartiennent pas à la production SEA.

11. Utiliser exclusivement, pour l'entretien, des pièces SEA originales.
12. Ne jamais modifier les composants d'automatisme.
13. L'installateur doit fournir toutes les informations relatives au fonctionnement manuel du système en cas d'urgence et remettre à l'Usager qui utilise l'installation les "Instructions pour l'Usager" fournies avec le produit.
14. Interdire aux enfants ou aux tiers de stationner près du produit durant le fonctionnement. Ne pas permettre aux enfants, aux personnes ayant des capacités physiques, mentales et sensorielles limitées ou dépourvues de l'expérience ou de la formation nécessaires d'utiliser l'application en question. Eloigner de la portée des enfants les radiocommandes ou tout autre générateur d'impulsions, pour éviter tout actionnement involontaire de l'automatisme.
15. Le transit entre les vantaux ne doit avoir lieu que lorsque le portail est complètement ouvert.
16. L'utilisateur doit s'abstenir de toute tentative de réparation ou d'intervention et doigt s'adresser uniquement et exclusivement au personnel qualifié SEA ou aux centres d'assistance SEA. L'utilisateur doigt garder la documentation de la réparation. L'utilisateur peut exécuter seulement la manoeuvre manuel.
17. La longueur maximum des câbles d'alimentation entre la carte et les moteurs ne devrait pas être supérieure à 10 m. Utilisez des câbles avec une section de 2,5 mm^2. Utilisez des câblage avec cable à double isolation (avec gaine) jusqu'à proximité immédiate des terminaux, en particulier pour le câble d'alimentation (230V). Il est également nécessaire de maintenir une distance suffisante (au moins 2,5 mm dans l'air), entre les conducteurs en basse tension (230V) et les conducteurs de très basse tension de sécurité (SELV) ou utiliser une gaine ayant une épaisseur d'au moin 1 mm, qui fournisse une isolation supplémentaire.

Español **ADVERTENCIAS GENERALES PARA INSTALADORES Y USUARIOS**
1 Leer las instrucciones de instalación antes de comenzar la instalación.Mantenga las instrucciones para consultas futura
2. No disperdiciar en el ambiente los materiales de embalaje del producto o del circuito
3. Este producto fue diseñado y construido exclusivamente para el uso especificado en esta documentación. Cualquier otro uso no expresamente indicado puede afectar la integridad del producto y ser una fuente de peligro. El uso inadecuado es también causa de anulación de la garantía. SEA srl se exime de toda responsabilidad causadas por uso inapropiado o diferente de aquel para el que el sistema automatizado fue producido.
4. Los productos cumplen con la Directiva: Maquinas (2006/42/CE y siguientes modificaciones), Baja Tension (2006/95/CE, y siguientes modificaciones), Compatibilidad Electromagnética (2004/108/CE modificada). La instalación debe ser llevada a cabo de conformidad a las normas EN 12453 y EN 12445.
5. No instalar el dispositivo en una atmósfera explosiva.
6. SEA srl no es responsable del incumplimiento de la mano de obra en la construcción de la cacela a automatizar y tampoco de las deformaciones que puedan producirse durante el uso.
7. Antes de realizar cualquier operación apagar la fuente de alimentación y desconectar las baterías. Comprobar que el sistema de puesta a tierra sea diseñado de una manera profesional y conectar las partes metálicas del cierre.
8. Para cada instalación se recomienda utilizar como mínimo una luz parpadeante y una señal de alarma conectada a la estructura del marco.
9. SEA srl no acepta responsabilidad por la seguridad y el buen funcionamiento de la automatización en caso de utilización de componentes no producidos por SEA.
10. Para el mantenimiento utilizar únicamente piezas originales SEA srl.
11. No modificar los componentes del sistema automatizado.
12. El instalador debe proporcionar toda la información relativa al funcionamiento manual del sistema en caso de emergencia y darle al usuario el folleto de adjunto al producto.
13. No permita que niños o adultos permanecen cerca del producto durante la la operación. La aplicación no puede ser utilizada por niños, personas con movilidad reducida de tipo fìsico, mental, sensorial o igual por personas sin experiencia o formación necesaria. Tener los radiomandos fuera del alcance de niños asì como cualquier otro generador de impulsos radio para evitar que el automación pueda ser accionada accidentalmente.
14. El tránsito a través de las hojas sólo se permite cuando la puerta está completamente abierta.
15. Todo el mantenimiento, reparación o controles deberán ser realizados por personal cualificado. Evitar cualquier intente a reparar o ajustar. En caso de necesitad comunicarse con un personal SEA calificado. Sólo se puede realizar la operación manual.
16. La longitud máxima de los cables de alimentación entre motor y central no debe ser superior a 10 metros. Utilizar cables con 2,5 mm^2. Utilizar cables con doble aislamiento (cables con váina) hasta muy cerca de los bornes, especialmente por el cable de alimentación (230V). Además es necesario mantener adecuadamente distanciados (por lo menos 2,5 mm en aire) los conductores de baja tensión (230V) y los conductores de baja tensión de seguridad (SELV) o utilizar una váina adecuada que proporcione aislamiento adicional con un espesor mínimo de 1 mm.

Deutsch ***ALLGEMEINE HINWEISE UND VERPFLICHTUNGEN FÛR DIE SICHERHEIT***
1. Lesen Sie die Installationsanweisungen sorgfältig durch, bevor Sie mit der Installation beginnen.Diese Installationsanweisungen gut aufbewahren.
2. Das Ve
2.Verpackungsmaterial des produkts und/oder des schaitkreise umweltgerecht entosorgen
3. Dieses Produkt wurde speziell und ausschließlich für den, in den Unterlagen beschriebenen Zweck, geplant und hergestellt. Jede andere Verwendung, die nicht ausdrücklich angegeben wurde kann die Integrität des Produkts und/oder eine Gefahrenquelle darstellen. Die nicht fachgerechte Nutzung des Produkts bewirkt die Erlöschung der Garantie.SEA GmbH lehnt jegliche Haftung, für unsachgemäße oder andere Nutzung, als die wofür das Produkt bestimmt ist, ab.
4. SEA Produkte entsprechen den folgenden Richtlinien: Maschinenrichtlinie (2006/42/EG und nachträglich geänderten Fassungen), Niederspannungs-Richtlinie (2006/95/EG und nachträglich geänderten Fassungen), EMV (2004/108/EG und nachträglich geänderten Fassungen). Installation gemäß Standard EN12453 und EN12445 durchfûhren.
5. Installieren Sie das Gerät nicht in explosionsgefährdeten Bereichen, das Vorhandensein von brennbaren Gasen oder Dämpfen stellt ein ernstes Sicherheitsrisiko dar.
6. SEA GmbH ist nicht, für die Nichtbeachtung der Guten Technik bei der Herstellung von zu motorisierenden Toren und für deren eventuellen Verformungen, die während des Gebrauchs auftreten könnten, haftbar.
7. Vor allen Eingriffen, das Gerät ausschalten und die Batterien trennen. Sicherstellen, dass die Erdung fachgerecht hergestellt wurde und die Metallteile des Tores daran anschließen.
8. Für jede Anlage wird empfohlen, mindestens ein Blinklicht zu montieren und ein Warnschild auf der Rahmenstruktur anzubringen.
9. SEA GmbH übernimmt keine Haftung für Sicherheit und reibungslosen Betrieb der Automation, bei Verwendung von Komponenten, die nicht von der SEA Produktion stammen.
10. Für die Wartung nur SEA Originalteile verwenden.
11. Keinerlei Änderungen auf Komponenten der Automation vornehmen.
12. Der Installateur muss den Nutzer der Automation über den manuellen Betrieb des Systems im Notfall unterrichten und ihm, die, dem Produkt beiliegende, Broschüre übergeben.
13. Der Aufenthalt von Kinder oder Erwachsenen in der Nähe des Gerätes während des Betriebes ist zu untersagen. Die Anlage darf nicht von Kindern, Personen mit eingeschränkten körperlichen, geistigen oder sensorischen Fähigkeiten oder von Menschen ohne notewendige Erfahrung oder Ausbildung benutzt werden. Fernbedingungen oder andere Impulsgeber außerhalb der Reichweite von Kindern halten, um die versehentliche Aktivierung der Anlage zu verhindern.
14. Die Durchfahrt zwischen den Flügeln ist nur bei vollständig geöffnetem Tor zulässig.
15. Sämtliche Wartungs-, Reparaturarbeiten oder periodische Kontrollen, müssen von qualifiziertem Fachpersonal durchgeführt werden, und müssen dokumentiert und vom.
16. Die maximale Länge der Anschlussleitungen von der zentralen Motor und sollte nicht größer als 10 m. Die Verwendung von Kabeln mit 2,5 mm^2. Verwenden Sie Kabel mit Kabel mit Doppel-Isolierung (Kabelmantel) in die unmittelbare Nähe des Terminals, insbesondere die Befugnis (230V). Es ist auch notwendig, um einen ausreichenden Abstand (mindestens 2,5 mm zu halten in Luft), die Leiter in Niederspannung (230V) von der Leiter in Niederspannung Sicherheit (SELV) oder verwenden Sie eine geeignete Hülle, die zusätzliche Isolierung sorgt mit einer Dicke von 1 mm.

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Sistemi Elettronici
di Apertura Porte e Cancelli
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CE

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 responsability and, if applicable, under the responsability of its authorised representative that the product:

Descrizione / *Description*	**Modello / *Model***	**Marca / *Trademark***
Centrale di comando User 2 24V (e tutti i suoi derivati)	23024015/16/17/18/19/20/21	SEA
Control Unit User 2 24V (and all its by-products)	*23024015/16/17/18/19/20/21*	*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 2006/95/CE e 2004/108/CE.
it is conforming to the essential safety requirements related to the product within the field of applicability of the Community Directives 2006/95/CE and 2004/108/CE.

COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:
MANUFACTURER or AUTHORISED REPRESENTATIVE:

SEA S.r.l.
DIREZIONE E STABILIMENTO:
Zona industriale 64020 S.ATTO Teramo - (ITALY)
Tel. 0861 588341 r.a. Fax 0861 588344
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)
Teramo, 11/06/2010

L'Amministratore
The Administrator
Ennio Di Saverio

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Note - Notes - Note - Notas - Anmerkung

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Note - Notes - Note - Notas - Anmerkung

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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.

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