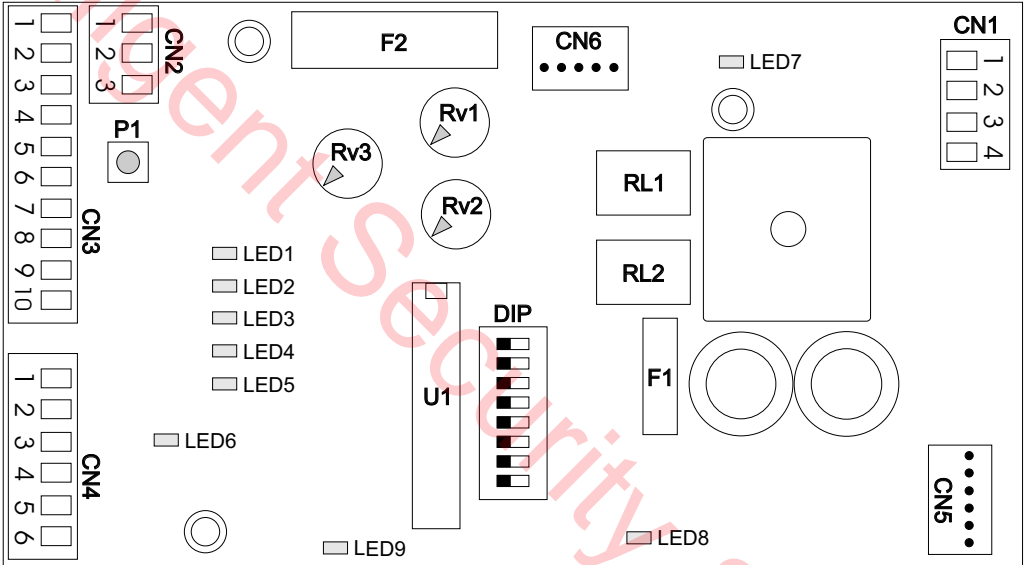




## GATE 1 24V DC CONTROL UNIT

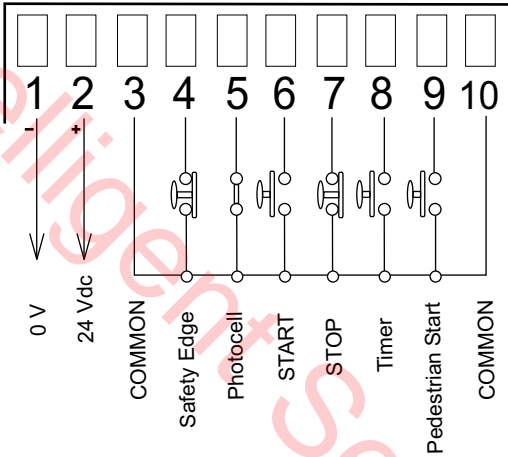


LED1 = Photocell	CN4 = Flashing lamps 24V connector
LED2 = Safety edge	CN5 = Battery charger connector (see last page)
LED3 = Start	CN6 = Radio receiver connector
LED4 = Stop	Rv1 = Motor speed regulation
LED5 = Timer	Rv2 = Slow down speed regulation
LED6 = Pedestrian	Rv3 = Anti-crushing sensibility regulation
LED7 = Encoder	P1 = Working time memorizing push button
LED8 = Power supply	DIP = Dip switch for functions setting
LED9 = Programming	F1 = Power supply and motor (10A) fuse
CN1 = Transformer motor connector	F2 = Accessories fuse (2A)
CN2 = Encoder connector	RL1 - RL2 = Relè motor direction
CN3 = Inputs/outputs 24V connector	U1 = Microcontroller

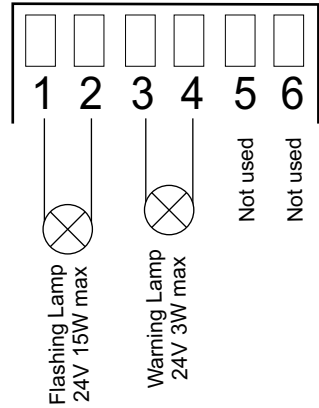


**CONNECTIONS**

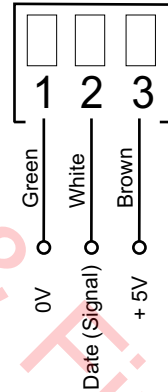
**CN3**



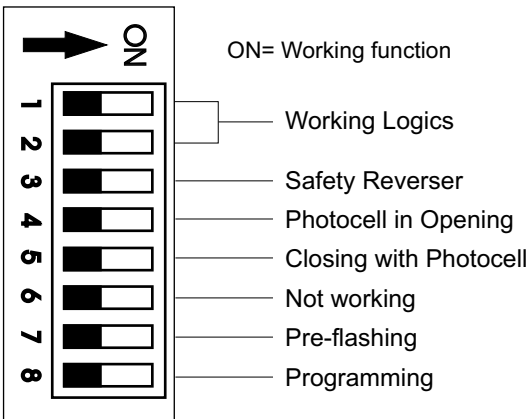
**CN4**



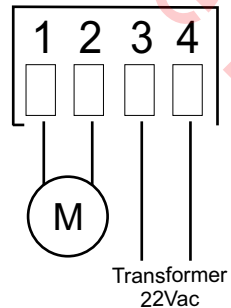
**CN2 (ENCODER)**



**DIP**



**CN1**





## SETTING OF WORKING LOGICS



### **TYPE 1 LOGIC WITH STEP BY STEP COMMANDS**

The repeated start realizes the following sequence: open-stop-close-stop-open-stop-close



### **TYPE 2 LOGIC WITH STEP BY STEP COMMANDS**

The repeated start realizes the following sequence: open-stop-close- open-stop-close-.....



### **AUTOMATIC LOGIC (automatic closing)**

The start only opens when the automation is closed, in opening it stops, in pause it immediately closes, in closing it opens again. It makes the automatic closing when the pause time has ended or with another start it immediately closes.



### **CONDOMINIUM LOGIC (automatic closing)**

The start only opens when the automation is closed, in opening it does not work, in pause it does not work (it continues the counting of the set time), in closing it opens again.

## OTHER FUNCTIONS

ON



### **INTERVENTION OF THE SAFETY REVERSER IN CLOSING**

**OFF:** It opens again and if the automatic closing is programmed after the pause time it closes. If the closing has not been completed after two attempts, the sliding door stays opened and waits for commands.

**ON:** It opens again and waits for commands.

ON



### **PHOTOCELL IN OPENING**

**OFF:** Photocell only in closing, in case the signal is interrupted they reverse the movement.

**ON:** Working photocell in opening and in closing, in case the signal is interrupted in opening the photocells stop the movement and they open again when the signal is restored, while in closing the movement is reversed only when the photocells are not obstructed.

ON



### **CLOSING FUNCTION AFTER THE INTERVENTION OF THE PHOTOCELL**

**ON:** If a pause time is programmed it is reduced to 3 seconds when the photocells are interrupted in opening or in pause.

ON



### **NOT WORKING**



ON



7

**PRE-FLASHING**

**OFF:** The flashing lamp works together with the motor starting.

**ON:** Pre-flashing which advances every movement of 3 sec. but the reversing, due to the intervention of the safeties.

ON



8

**PROGRAMMING**

**OFF:** Setting for Normal functioning.

**ON:** It opens the time programming phase.

**INPUTS/OUTPUTS DESCRIPTION**

**PHOTOCELL (N.C.)**

In closing when the signal is interrupted it immediately opens.

With DIP 4 ON the intervention of the photocells causes the interruption of the movement also in opening, immediately opening again when they are not obstructed.

**STOP (N.C.)**

It stops the automation whenever it is pushed.  
A start order is necessary to reset the movement.

**START (N.O.)**

Input to command the automation depending on DIP1 and 2

**PEDESTRIAN OPENING (N.O.)**

Input, it opens for about one meter if in automatic (condominium) it closes again after the pause time, or acting as DIP 1 and 2 are set.

**TIMER (N.O.) (to use as clock input)**

Input of opening only. Keeping it in function with the Automatic and Condominium Logics it does not close until when it is not obstructed.

**SAFETY EDGE (N.C.)**

If it is set up during the opening/closing phase, it stops the movement and reverses for about 1,5 sec.  
A start order is necessary to reset the movement.

**IMPORTANT NOTICE: All the N.C. contacts which are not used must be linked with common.**

**FLASHING LAMP:**

During the opening phase, it flashes once a second; during the closing phase, it flashes twice a second.  
When the automation is opened and in automatic logic, the flashing lamp stays on for all the pause time.  
If DIP 7 is set on ON there will be a pre-flashing of 3 seconds before the door starts to move.

**WARNING LAMP:**

It follows the same logic of the flashing lamp



## SETTINGS



### MOTOR SPEED REGULATION

Trimmer completely turned anti-clockwise = low speed

Trimmer completely turned clockwise = high speed

**NOTICE:** *Be careful to regulate the operating high speed as it must be fit to the mechanical structure of the gate on which the automation is installed and with reference to the current laws.*



### SLOW DOWN SPEED REGULATION

Trimmer completely turned anti-clockwise = low speed

Trimmer completely turned clockwise = high speed

**NOTICE:** *Be careful to regulate the high speed of the slow down because it must be fit to the mechanical structure of the gate on which the automation is installed and with reference to the technical laws in force.*



### INTERVENTION THRESHOLD OF THE ANTI-CRUSHING DETECTOR REGULATION

Trimmer completely turned anti-clockwise = high sensibility (low push in case of obstacle).

Trimmer completely turned clockwise = low sensibility (high push in case of obstacle).

After two consecutive interventions of the anti-crushing detector, even if in automatic logic, the automation stays opened waiting for orders.

**Regulate the sensibility in observance with the current laws.**

**NOTICE:** *The setting of Trimmers and Dip Switches are read when the automation has stopped.*



It puts in action the autoprogramming process (with DIP 8 = ON)

It puts in action the opening/closing of the automation (with DIP 8 = OFF)

## PROCESS OF CARD SELF-PROGRAMMING

After having tested the right sliding of the gate and the electric connections on the inputs/outputs, make the following:

1. Release the gate and place it by hand near the closing stop (about 50cm)
2. Restore the mechanical lock and move the gate by hand until the mechanical plug in of the lock
3. Give input to the Gate 1 24V card
4. Bring Dip Switch 8 on ON position
5. Make sure that during the learning process the stop, photocell, safety edge, etc. commands are not set up.
6. Push button S1 (Make sure the gate closes, on the contrary switch off the automation, reverse the motor cables (black and red) on CN1 and repeat the process from point 1)
7. Once reduced the speed, the gate will close until reaching the mechanical stop in closing
8. At this point and once reduced the speed, it will automatically open.
9. Once the opening phase has ended, the counting of the pause time will start.  
Wait for the desired time (every flash of the warning lamp is equivalent to about 1 sec.) and push P1 button again
10. Wait for the complete closing of the gate
11. When the door will stop and will be completely closed, bring Dip Switch 8 on OFF position
12. The automation is ready to work



## SAFETY PRECAUTIONS

All electrical installation work should conform to current regulations.

A 16A - 0,030A differential switch must be incorporated into the source of the gate main electrical supply and the entire system must be properly earth bonded.

Remember to separate mains (230/115 V) carrying cables from low voltage control cables.

## SPARE PARTS

To obtain spare parts contact:

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

## INTENDED USE

The electronic control unit GATE 1 24V has been planned to be used exclusively as a control device for sliding gates, swing gates, garage-doors, folding doors, barriers

## SAFETY AND ENVIRONMENTAL COMPATIBILITY

We recommend not to spoil the environment with product and circuit packing material.



## CORRECT DISPOSAL OF THIS PRODUCT (WASTE ELECTRICAL & ELECTRONIC EQUIPMENT) - EUROPE ONLY

(Applicable in the European Union and other European countries with separate collection systems)

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.

## STORAGE

STORAGE TEMPERATURES			
$T_{min}$	$T_{max}$	Humidity <sub>min</sub>	Humidity <sub>max</sub>
-40 °C	+85 °C	5% no condensation	90% no condensation

When being transported this product must be properly packaged and handled with care.

## MAINTENANCE AND OUT OF SERVICE

The decommission and maintenance of this unit must only be carried out by specialised and authorised personnel.

## LIMIT OF GUARANTEE

The GATE 1 24V electronic control units are guaranteed for a period of 24 months. The guarantee period starts from the date stamp printed on the unit. The GATE 1 24V guarantee will be void if the unit has been incorrectly installed, not used for the purpose intended, tampered with or modified in any way.

The validity of this guarantee only extends to the original purchaser of the unit.

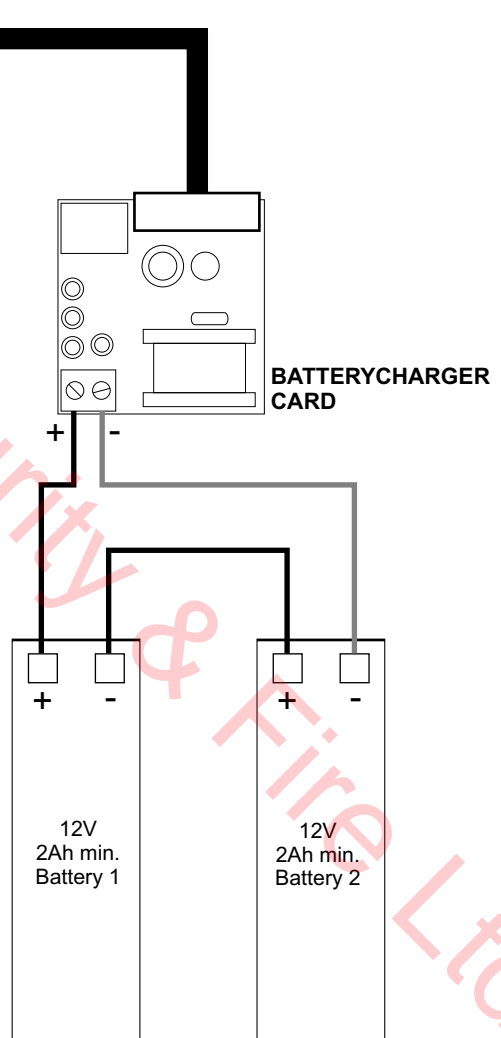
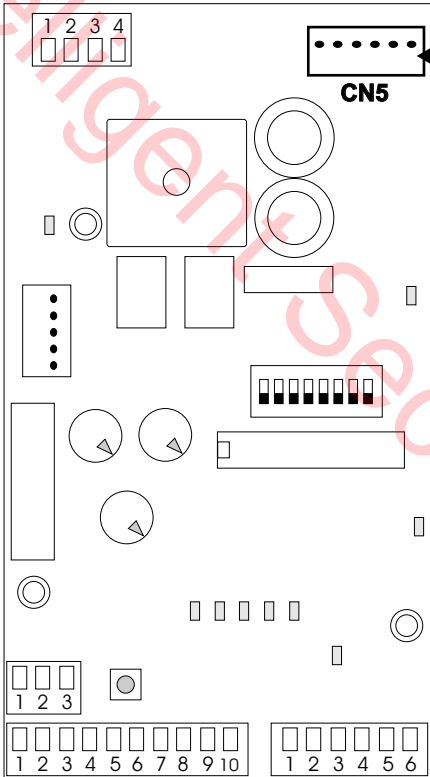
**NOTE: THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.**

*SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice.*



## CONNECTION OF BATTERIES AND BATTERYCHARGER CARD (OPTIONAL)

### GATE 1 24V CONTROL UNIT





**SEA**<sup>®</sup>  
Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark in 88888

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English

## TERMS OF SALE

**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 customers are made under the prescription of this terms of sales which are integral part of the sale contract and cancel and substitute all opposed clauses or specific negotiations present in the order or in other documents received from the buyer.

**GENERAL NOTICE** The gate automation systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EN 12453 EN12445 and others) 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 and always under those Terms of sale. 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.

**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.

**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. within 30 days from the purchase date. 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 installation, or if the product label of the manufacturer with the registered SEA trademark n° 804888 has been removed. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repairs of products in warranty and out of warranty is accepted only if the procedure of SEA are fully respected by the customer.

**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 acquires the property of the goods only after full payment of the invoice.

**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. The official language for the interpretation of the catalogue, the manuals, the terms of sale and any other is the italian language.

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