



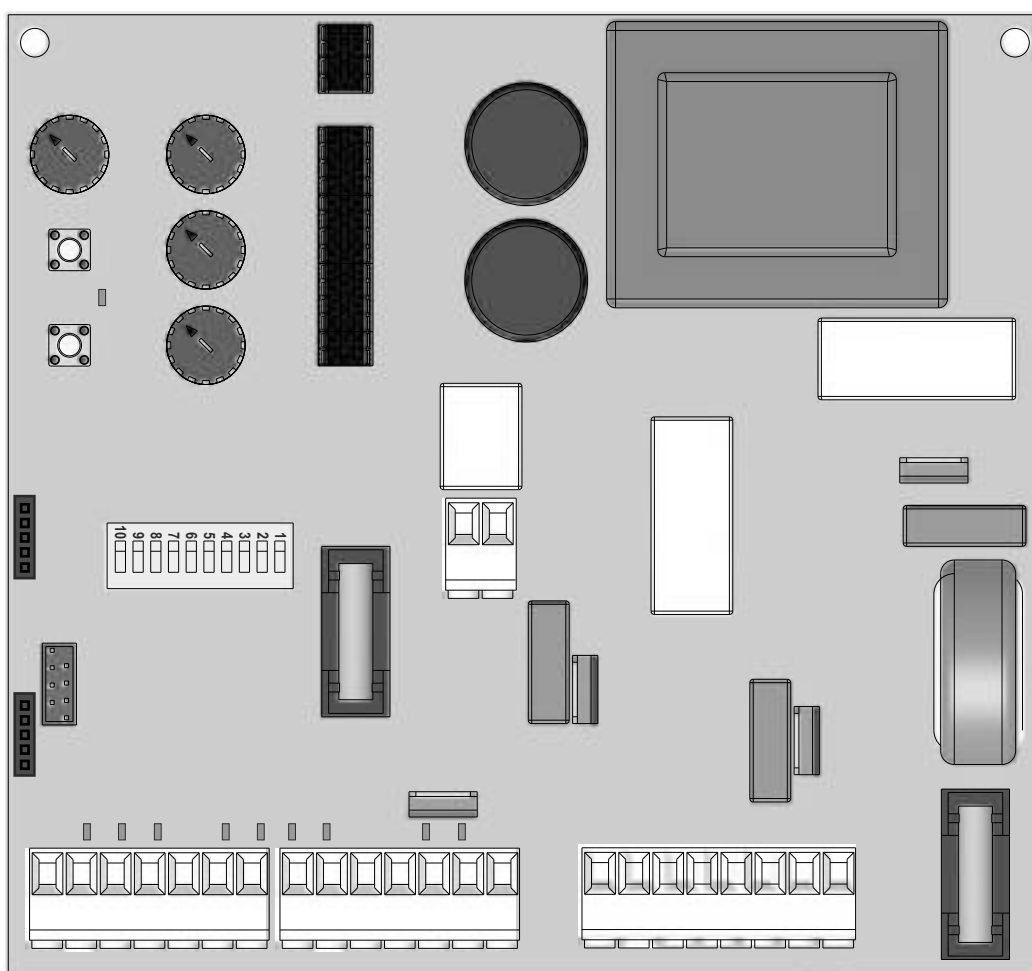
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English

SWING 2 AN

ELECTRONIC CONTROL UNIT FOR SWING GATES



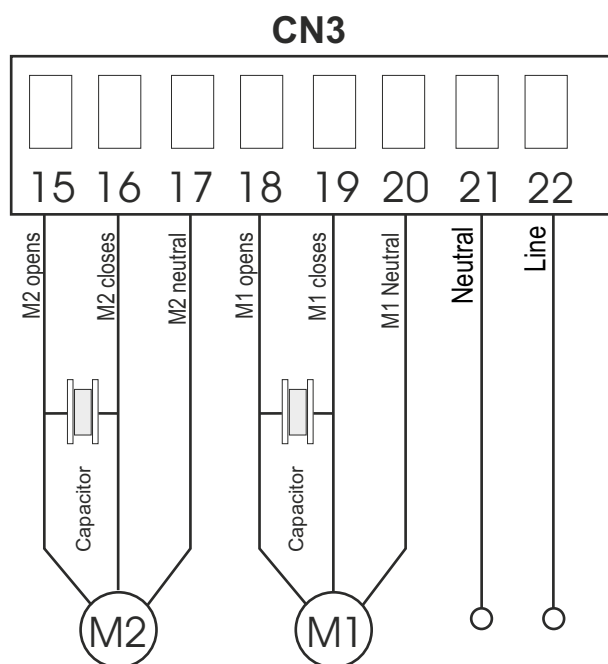
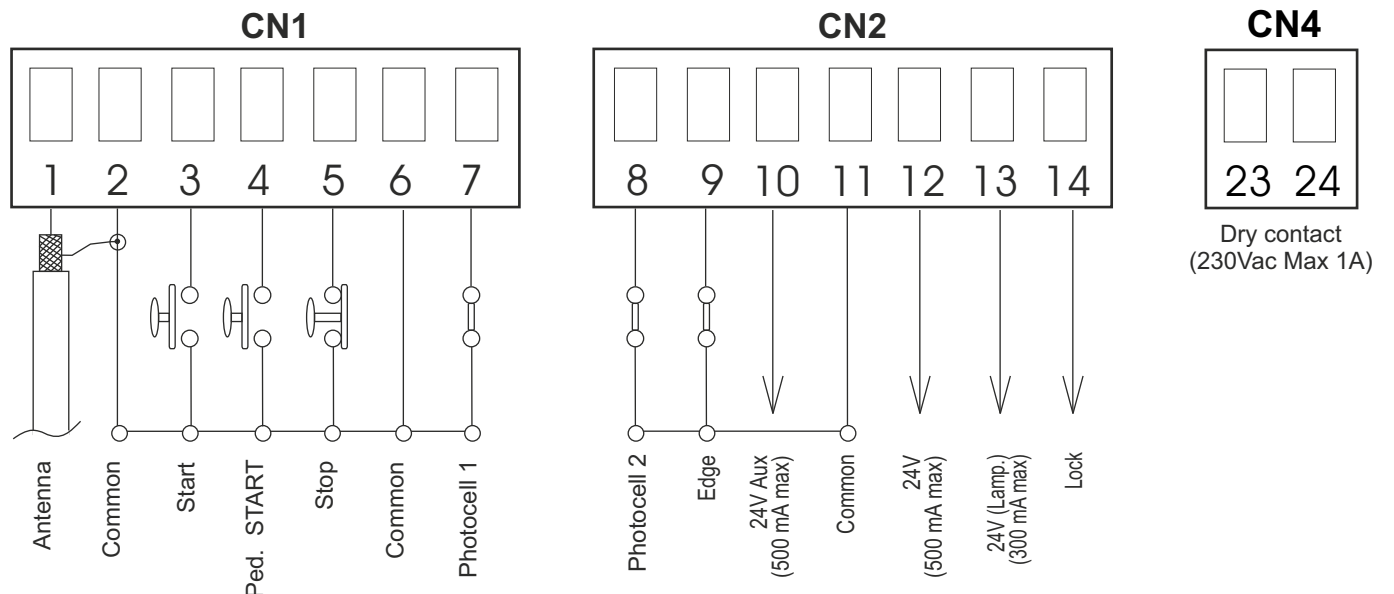
SEA S.p.A.

Zona industriale 64100 - S. ATTO Teramo - (ITALY)

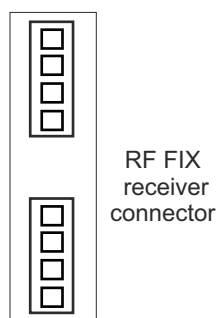
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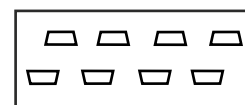
CONNECTIONS



RF FIX RECEIVER MODULE (CNS)

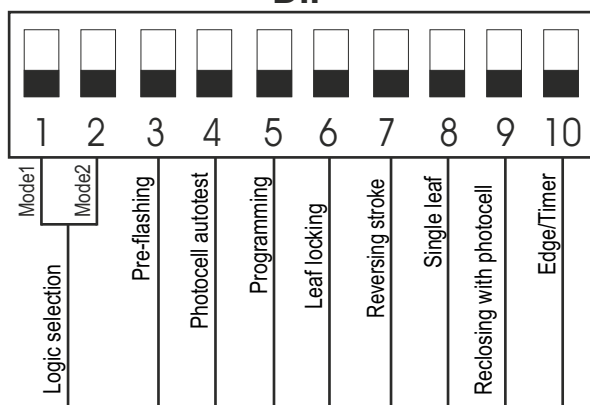


RECEIVER MODULE (CNA)

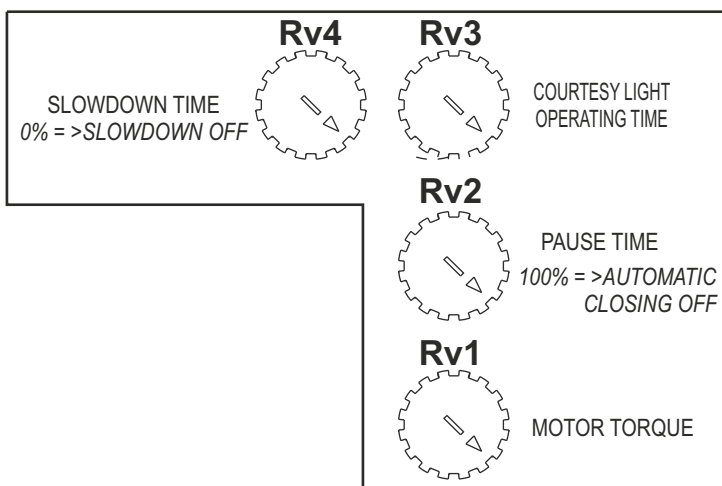


UNI receiver module connector

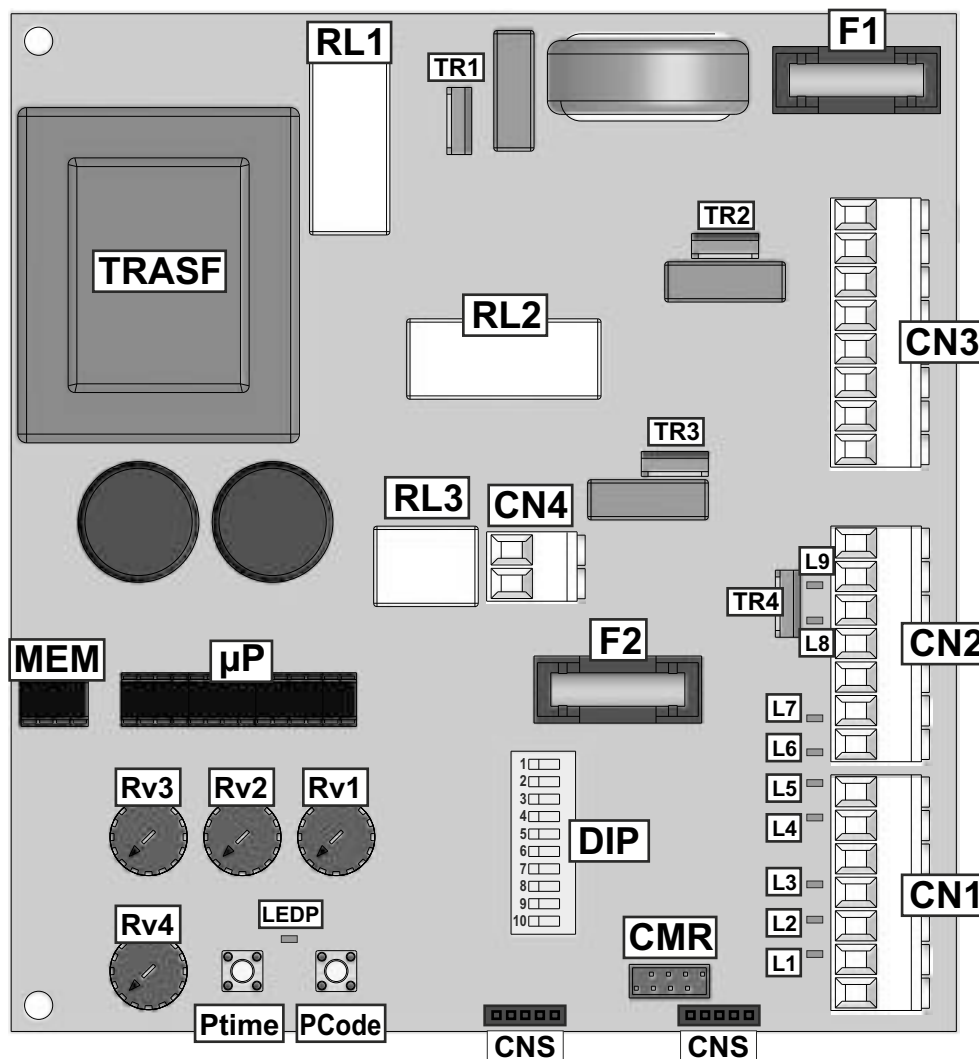
DIP



TRIMMER SETTING



COMPONENTS DESCRIPTION



CN1 = 24V Input/output connector

CN2 = 24V Input/output connector

CN3 = Motor and power supply connector

CN4 = Dry contact connector

CMR = Receiver module connector

CNS = RF FIX receiver module connector

L1 = Start

L2 = Pedestrian Start

L3 = Stop

L4 = Photocell 1

L5 = Photocell 2

L6 = Safety edge

L7 = 24V Aux

L8 = 24V Flash

L9 = Electric lock

LEDP = Programming

F1 = 6.3AT motor and power supply fuse

F2 = 1A accessories fuse

Rv1 = Motor torque setting

Rv2 = Pause time setting

Rv3 = Dry contact length / operating time setting

Rv4 = Slowdown time setting

PTime = Operating time storing button

Pcode = Radio transmitter storing button

DIP = Function setting Dip-switch

RL1 = Motor power supply relay

RL2 = Motor direction relay

RL3 = Dry contact relays

µP = Microprocessor

MEM = Storage

TRASF = Transformer

TR1 = Courtesy light Triac

TR2 = Motor 1 piloting Triac

TR3 = Motor 2 piloting Triac

TR4 = Tip 127 electric lock piloting

GENERAL INFORMATION

MAIN FEATURES

The electronic control unit SWING 2 AN has been designed to operate one or two swing gate operators without limit switches. It has a compact size and offers four different operation modes and the possibility to adjust many parameters using trimmer and dip-switch.

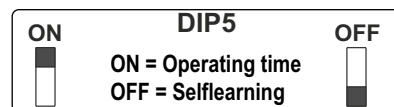
TECHNICAL FEATURES

Control unit power supply	230V ~ (±10%) - 50/60 Hz / 115V~ (±10%) 50/60 Hz
Transformer 230V / 115V	P1: Vn=230V~, S1: Vnom=21V~, I=0.5A, S2: Vnom=15V~, I=0.2A P1: Vn=115V~, S1: Vnom=21V~, I=0.5A, S2: Vnom=15V~, I=0.2A
Motor max. charge	500 W x 2
Accessories max. charge	24V--- 500mA
Dry contact max. charge	1A / 240Vac
24V flashing lamp max. charge	24V --- Max 3V Led
Ambient temperature	-20°C ↕ +50°C ↕
Protection fuse (24V accessories)	1 A
Programming mode	Selflearning / Operating time
Operating logics	Manual / Safety / Automatic 1 / Automatic 2
Opening/closing time	Setting in selflearning
Pause time	Setting with trimmer from 0 to 120 s
Dry contact opening time	Setting with trimmer from 1 to 120s - Operating time from 0 to 120s
Motor torque	Setting with trimmer
Slowdown	Setting with trimmer
Leaf delay	In selflearning
Input on terminal plate	Antenna / Stop / Start / Pedestrian Start / Photocell 1 et 2 / Safety edge
Output on terminal plate	Accessories 24V 500mA / Motors 230V 500W x 2 / electric lock 12V --- 15VA max / power suppl. 24V TX photocells power supply
Control unit dimensions	150,7 x 141 x 47,5 mm
External box features	305 x 225 x 125 mm - Ip55

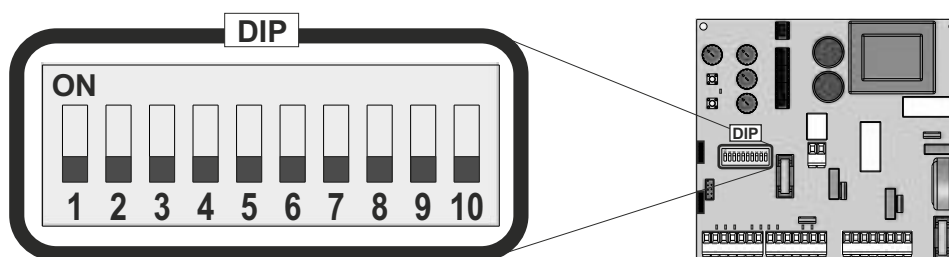
CONTROL UNIT START

Before starting the control unit, choose with DIP 5 the learning mode of operating time.

If DIP 5 is OFF, you must perform the programming procedure described on page 28; if DIP 5 is ON, you must adjust the working time with Rv3 trimmer as shown on page 31.



FUNCTION LOGICS (DIP-SWITCH)



FUNCTION LOGICS

You can select four different function logics. Programming is possible with DIP1 and DIP2.

- MANUAL LOGIC

A Start opens the gate, a second pressure during the opening stops the movement.

Pressing START during closing the movement stops.

Important note: For a semi-automatic closing turn the Rv2 trimmer into max. clockwise position.

- SAFETY LOGIC

A Start opens the gate; pressing Start during opening it reverses the movement, a start closes the gate.

Pressing START during closing the movement reverses:

Important note: For a semi-automatic closing turn the Rv2 trimmer into max. clockwise position.

- AUTOMATIC 1 LOGIC

A Start opens the gate. A second Start during opening is not accepted. A Start command during pause is not accepted; at the end of the pause the gate closes, in closing a start command reverses the movement.

Important note: For a semi-automatic closing turn the Rv2 trimmer into max. clockwise position.

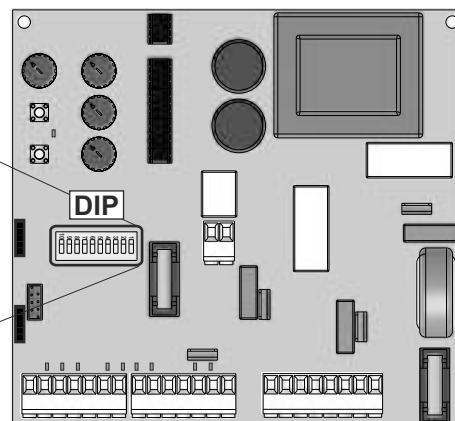
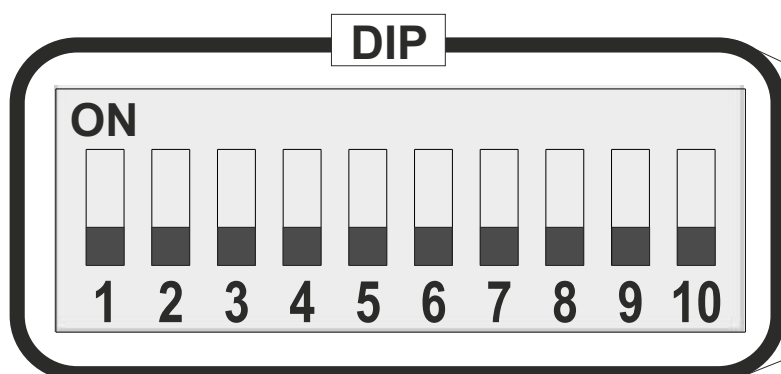
- AUTOMATIC 2 LOGIC

A Start opens the gate. A second Start is not accepted. A Start during pause recloses immediately, a Start in closing reverses the movement.

Important note: For a semi-automatic closing turn the Rv2 trimmer into max. clockwise position.

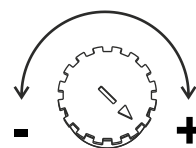
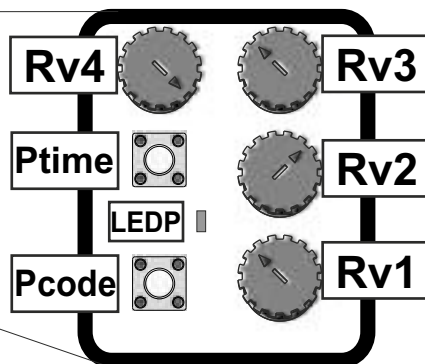
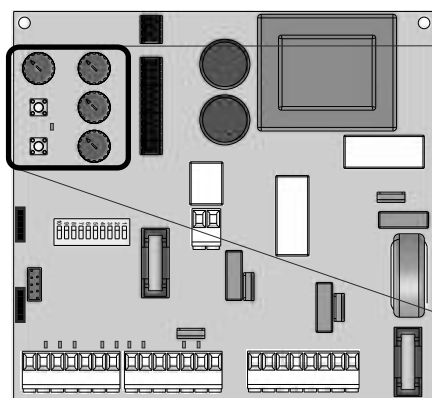
DIP		SUMMARY OF DISPLAYED DIPS FOR THE DIFFERENT LOGICS
1 / 2	OFF / OFF	DIP1 AND DIP2 OFF = MANUAL LOGIC
1 / 2	ON / OFF	DIP 1 ON DIP 2 OFF = SAFETY LOGIC
1 / 2	OFF / ON	DIP1 OFF AND DIP2 ON = AUTOMATIC 1 LOGIC
1 / 2	ON / ON	DIP1 AND DIP2 SUR ON = AUTOMATIC 2 LOGIC

ADDITIONAL VIEWS (DIP-SWITCH)



DIP	POSITION	DISPLAY OF OTHER FUNCTIONS WITH DIP-SWITCH
3	ON	PRE-FLASHING Activating this function the flashing light starts flashing for about 3 seconds before the motor starts. In closing and opening.
4	ON	PHOTOCELL AUTOTEST This function allows the realization of a photocells test before starting the gate movement. To enable this function, the transmitters of the photocells must be connected to terminals 10 (24VAux) and 6 (negative) of CN1 connector. The self-test can be used only on photocell 1 input.
	OFF	On the 24V Aux it is possible to connect both TX and RX of the photocell.
5	ON	OPERATION WORKING TIME WITH TRIMMER Rv3
	OFF	OPERATION WORKING TIME WITH SELF-LEARNING
6	ON	LEAF LOCKING Activating this function at the end of the slow down phase, and when the leaf is leaning on the mechanical stop, the motor is powered for about 1s with max. power. This solution increases the internal pressure of the motor oil making more efficient the hydraulic lock.
7	ON	REVERSING STROKE This function should only be used on swing gates, it facilitates the release of the electric lock. With the start command the leaves in closing are powered about 1 second before starting their opening cycle.
8	ON	SIMPLE LEAF In ON it activates the simple leaf function
9	ON	CLOSING WITH PHOTOCELL Activates closing with photocell.
10	ON	SAFETY EDGE/TIMER In ON it turns the SAFETY EDGE input into TIMER.

TRIMMER SETTING



NOTE:
TOURNANT LES
TRIMMER
DANS LE SENS HOROLOGE
LES TEMPS / VALEURS
AUGMENTENT

Rv1 *SETTING MOTOR TORQUE*

Trimmer for motor thrust force adjustment. This setting is essential for operators without mechanical/hydraulic device for limiting force. The adjustment must be made so to not cause crushing dangers to people or things and to respect the laws.

Rv2 *PAUSE TIME SETTING*

This trimmer allows the linear adjustment of the pause time from 0 to 120s (Turned completely into clockwise direction it changes the operating logics, setting them in semiautomatic).

Rv3 *DRY CONTACT LIGHTING DURATION - COURTESY LIGHT (RL3) / WORKING TIME ADJUSTMENT*

This trimmer has a double function: adjusts the activation time of the RL3 relay about 1s up to 2 minutes and activates the dry contact relay about 1 second at each time you press the Start command, if turned fully counterclockwise. With DIP5 ON you can adjust the working time.

Note: working time increases by turning the trimmer clockwise.

Rv4 *SLOWDOWN TIME SETTING*

If the trimmer is turned fully counterclockwise the slowdown will be excluded

Ptime *LEAF DELAY SETTING IN WORKING TIME MODE (DIP5 ON)*

Pcode

1. Press Ptime and Pcode for 3 seconds until LEDP lights up.
 2. The LED lights up and stays on for 1 second after it reproduced the number of flashes corresponding to the set leaf delay in closing (from 1 to 15, where 15 indicates the maximum leaf delay. The default delay is 5 s).
 3. If the level is not enough, press Pcode to increase or Ptime to decrease. Each pulse corresponds to the increase or decrease of one unit.
 4. 1 second after the last pressure of the button, it reproduces the number of flashes corresponding to the set leaf delay in closing (from 1 to 15).
 5. After 3 seconds, the screen automatically exits the procedure and LEDP switches off.
- Note:** Do the setting with stopped door.
6. A flashing is equal to the excluded leaf delay in opening or closing

ALARMS INDICATION TABLE

The sequence of flashes spaced by a pause is shown on the flashing light (for about 20 seconds) or on the control lamp.

Flashes	Type of alarm
1	Triac Test
2	Photocell closing
3	Photocell opening

Flashes	Type of alarm
5	Safety edge
6	Stop
7	Phototest

RADIO CONTROL SELFLEARNING

With the RF FIX module it is possible to use only the fixed code transmitters.

With the RF UNI and RF UNI PG module it is possible to use the ROLL, ROLL PLUS and fixed code series transmitters.

The first transmitter memorized determines the type of the other radio transmitters that can be used.

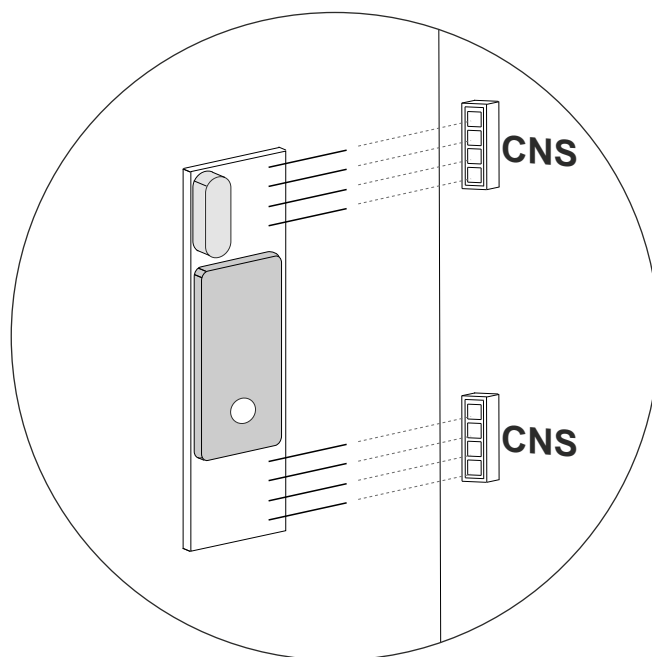
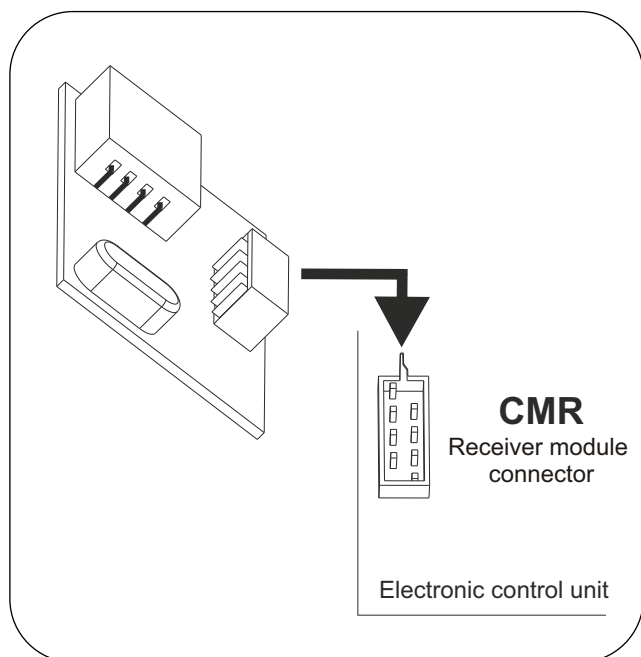
If the remote is **ROLL**, **press twice** on the button of the radio transmitter you want to program to store the first transmitter (TX).

In case the transmitter is **fixed code**, it is necessary **to press once** the button of the radio transmitter to be programmed to store the first transmitter.

WARNING:

- Insert the receiver on the switched off control unit.
- Make the learning of the transmitters only with stopped and closed gate, without connecting the antenna.
- RF FIX on CNS connector.
- RF UNI and UNI PG on CMR connector.

RF UNI	16 USERS No memory 800 USERS With MEM memory	On connector CMR
RF UNI PG (Old model)	100 USERS Fix code 800 USERS Roll Plus	
RF UNI PG (New model)	800 USERS Fix code 800 USERS Roll Plus	
RF FIX	800 USERS Fix code	ON connector CNS



RADIO TRANSMITTER STORAGE

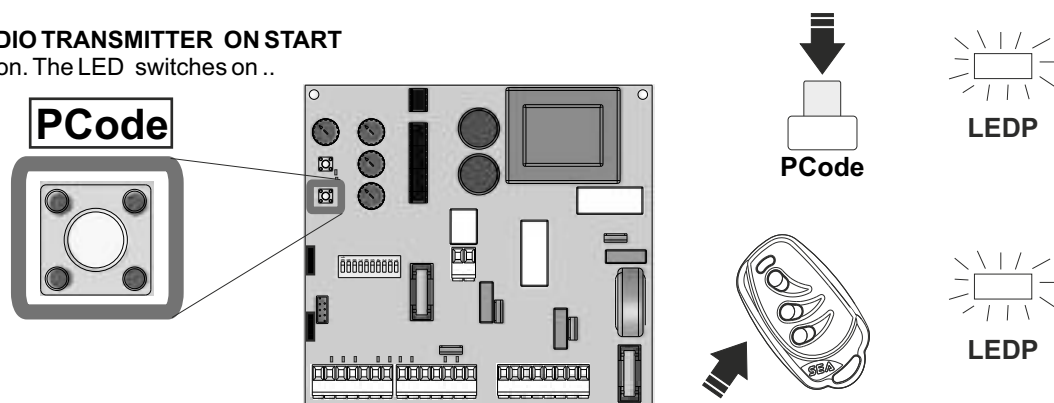
First, make sure that on the CMR connector there is a receiver with a frequency which corresponds to the one of the remote control which must be stored.

Note:

Do the transmitters learning only when gate stops and is closed

STORAGE OF A RADIO TRANSMITTER ON START

Press the Pcode button. The LED switches on ..



Send a pulse with the radio transmitter, using the push which you want to associate the start command.

The Led will flash twice to confirm the storage of the TX code and successively will remain switched on waiting for new transmitters.

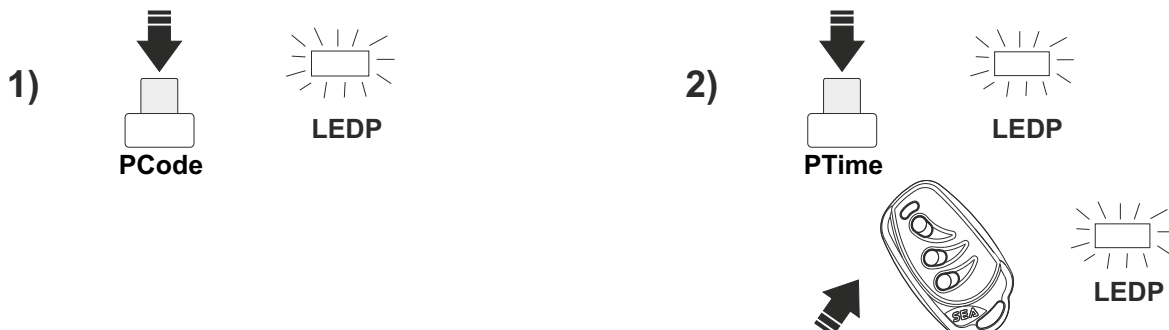
If within 10 s no new code will be memorized, the led will switch off automatically and leave the memory process.

WARNING: if a code which is already present in the memory is inserted, the TX will be deleted.

STORAGE OF A RADIO TRANSMITTER ON PEDESTRIAN START

1) Push the Pcode button. The LED LEDP switches on.

2) Push Ptime button. The LEDP LED starts to flash quickly.



Give an impulse with the radio transmitter, using the button which will be linked to the pedestrian start impulse.

The Led will execute 2 long flashes in order to confirm the correct memorizing of Tx and afterwards it will keep switching on waiting for new transmitters.

If no further code is memorized within 10 s the led will switch off automatically, getting out of the memorizing procedure.

WARNING: If a code is entered which already has been memorized, the transmitter will be deleted.

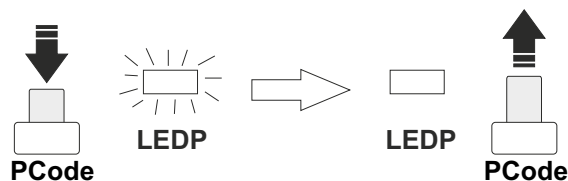
DELETE ALL RADIO TRANSMITTERS

Press and hold down the push button Pcode.

The LEDP Led starts a flash sequence.

Wait until the LED stops flashing and release the Pcode push button.

The LED flashes 6 times to confirm the cancellation.



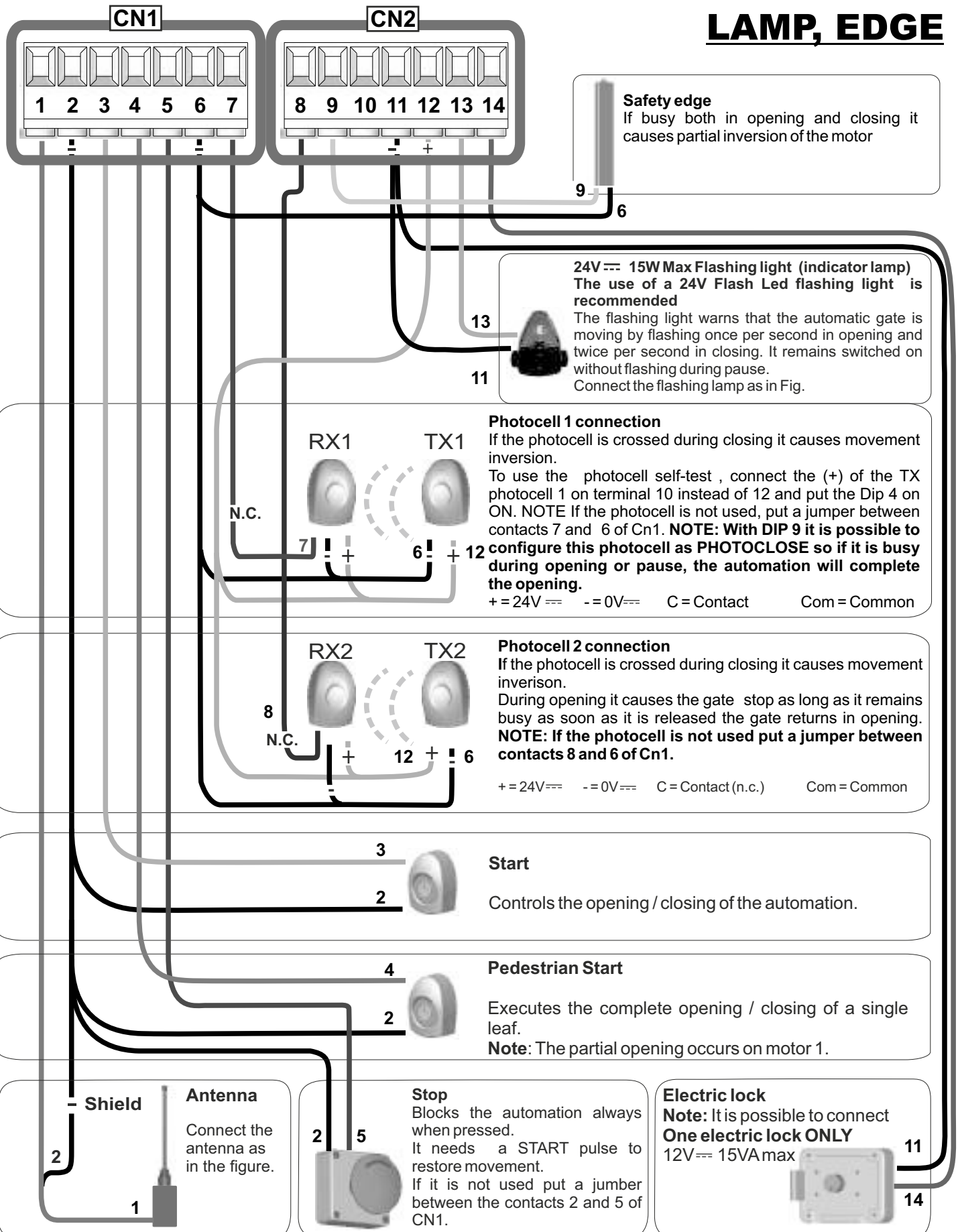
DELETE A SINGLE TX

Deleting a single TX can be done by retransmitting the stored transmitter.



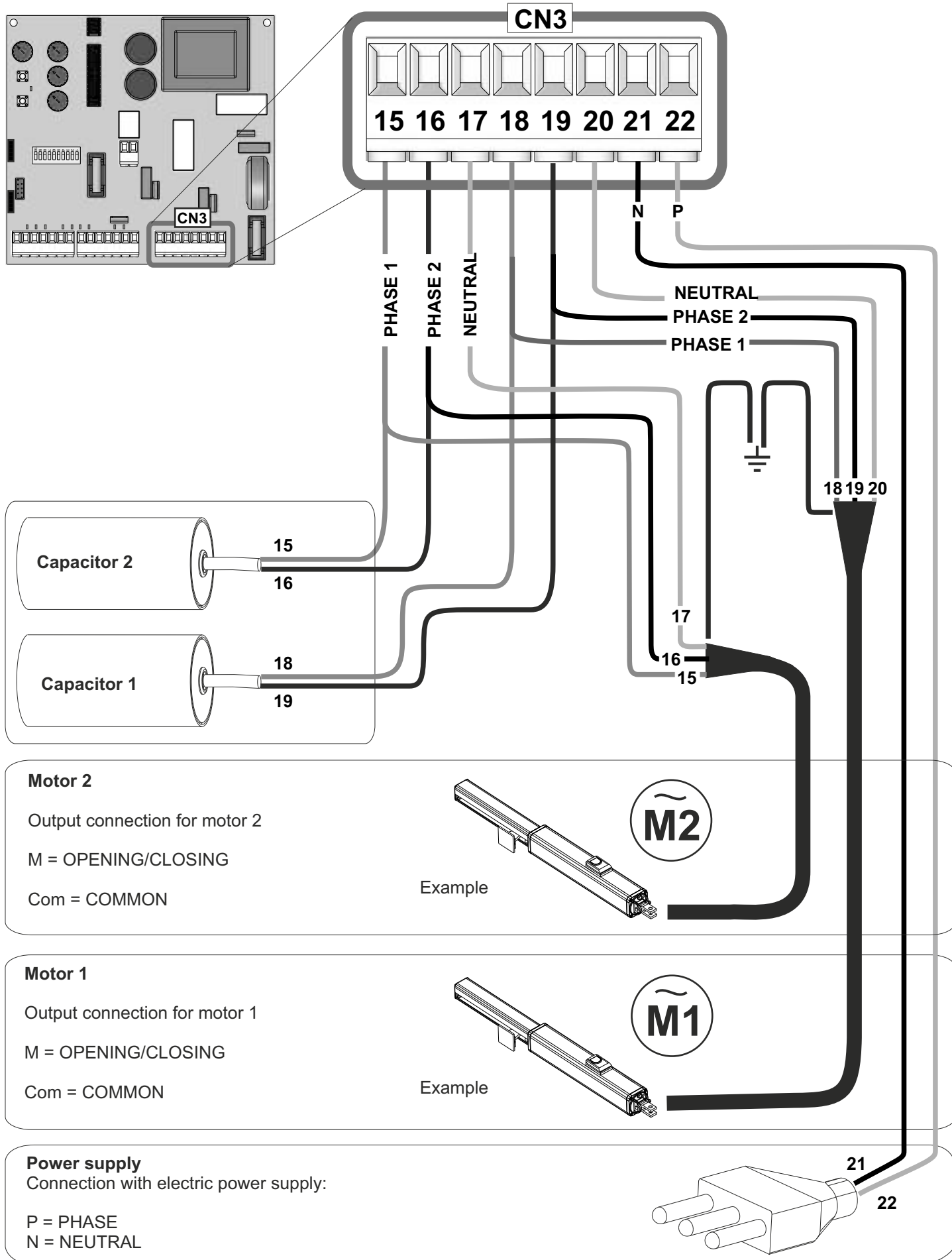
START, PEDESTRIAN START, STOP, ANTENNA **PHOTOCELL 1 and 2, ELECTRIC LOCK**

LAMP, EDGE





MOTORS, CAPACITORS, POWER SUPPLY



WORKING TIME SELF-LEARNING ON SWING GATE

1 PHASE 1

Make all electrical connections and bridge the not used N.C. contacts.

If using a motor with mechanical/hydraulic anti-crush device, set the motor torque (trimmer Rv1) to the max. value and adjust the motor torque using the by-pass valves or special friction adjustment screw present on the operators.

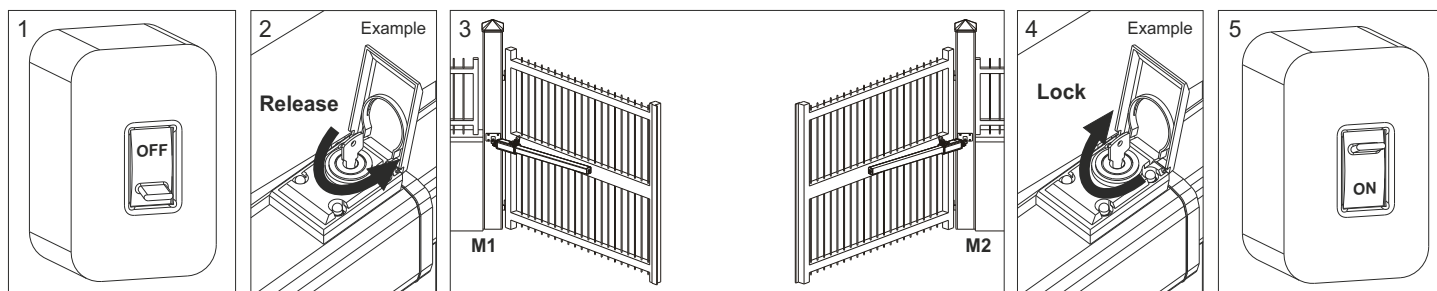
If using a motor system without mechanical / hydraulic system for strength limiting, set the motor torque to the max value ONLY for the learning phase. Right away set a motor torque value which guarantees anti-crush safety respecting the regulations in force

WARNING!

THIS PROCEDURE IS POTENTIALLY DANGEROUS IT IS TO BE PERFORMED EXCLUSIVELY BY PROFESSIONALS AND IN SAFETY CONDITIONS.

2 PHASE 2

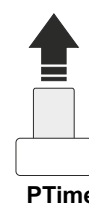
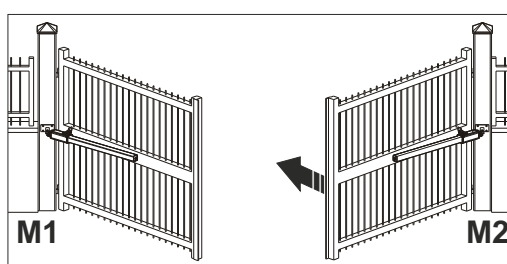
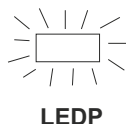
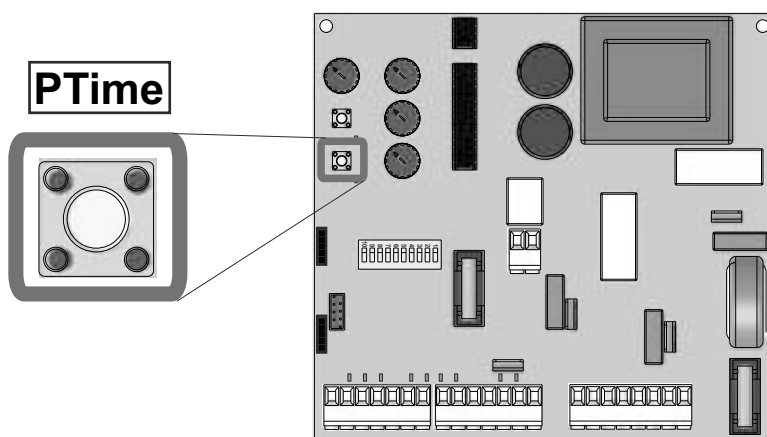
After having turned off the power of the installation (Fig. 1), release the gate (Fig. 2) and position the leaves on halfway (Fig. 3). Restore the lock (Fig. 4) and turn the power on again (Fig. 5).



- Hold Ptime button, the LEDP Led will switch on.

Keep Ptime pressed until motor M2 starts to close*.

Release Ptime.

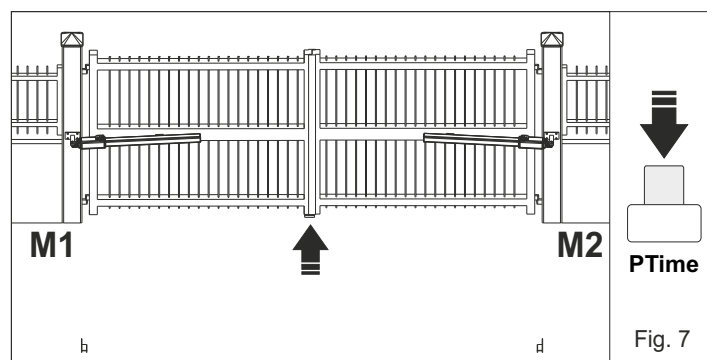
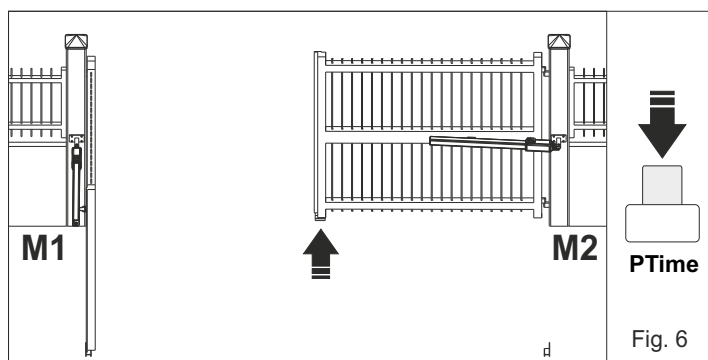


WORKING TIME SELF-LEARNING ON SWING GATE

- * If the motor opens, remove the power again and invert the motor phases.
Do the same type of connection for motor M1.
Repeat the programming process (phase 2).

PHASE 3

3 Motor M2 closes (from phase 2), when reaching the mechanical stop in closing, press the PTIME push button (Fig. 6). Also M1 motor will start a closing cycle. Upon arrival on the mechanical stop in closing press Start or PTIME again (Fig. 7).

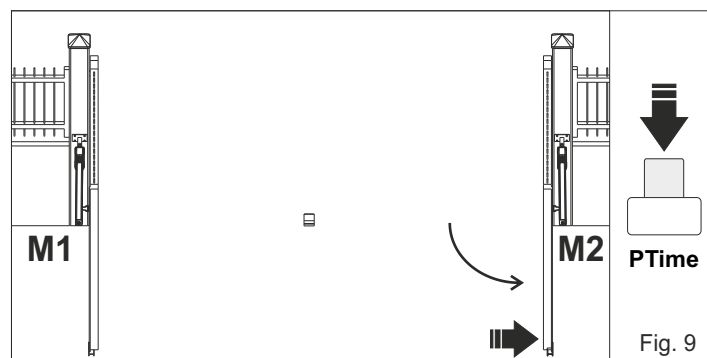
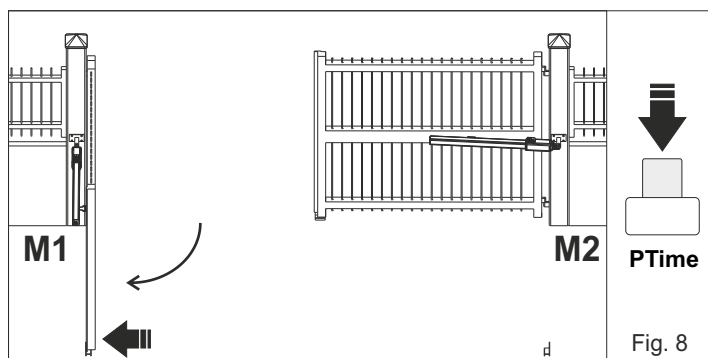


The gate stops and M1 starts an opening cycle. Press PTIME again on the point on which it is desired to set the delay of the gate in opening.

Upon arrival on the mechanical stop in opening press PTIME again (Fig. 8).

At this point even M2 will start an opening cycle.

Upon arrival on the mechanical stop in opening press PTIME again (Fig. 9).



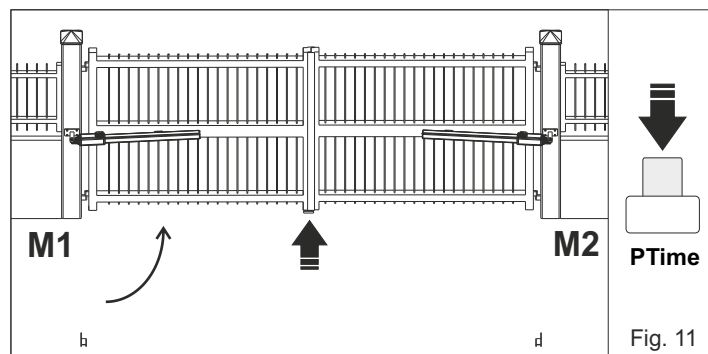
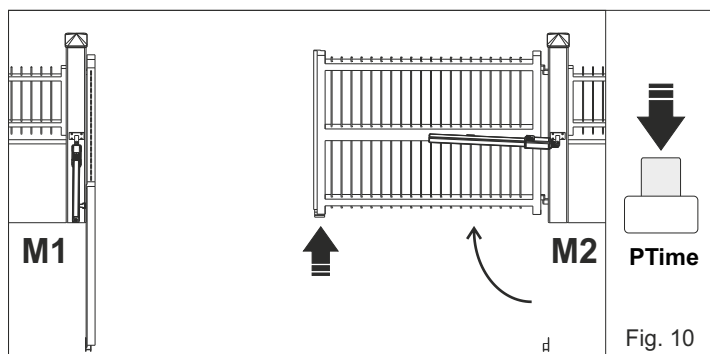
WORKING TIME SELF-LEARNING ON SWING GATE

M2 will automatically start a closing cycle. Press PTIME again on the point where to set the leaf delay in closing.

Upon arrival on the mechanical stop in closing, press PTIME again (Fig. 10).

At this point even M1 motor will start a closing cycle.

Upon arrival on the mechanical stop in closing press PTIME again (Fig. 11).



Programming is completed.

Check the correct memorization of times pushing Start or the Ptime button. If necessary repeat the learning procedure starting from phase 2.

4 PHASE 4

When using with a motor without mechanical / hydraulic limitation device for motor torque limitation, adjust the Rv1 trimmer on values which ensure anti-crush safety according to the regulations in force. If after having adjusted the working couple the working time results insufficient (the leaf does not open / close completely), repeat PHASE 2 with the torque value set for normal use of the automation.

Set the slowdown time (if enabled), with the Rv2 trimmer.

SINGLE LEAF MODE

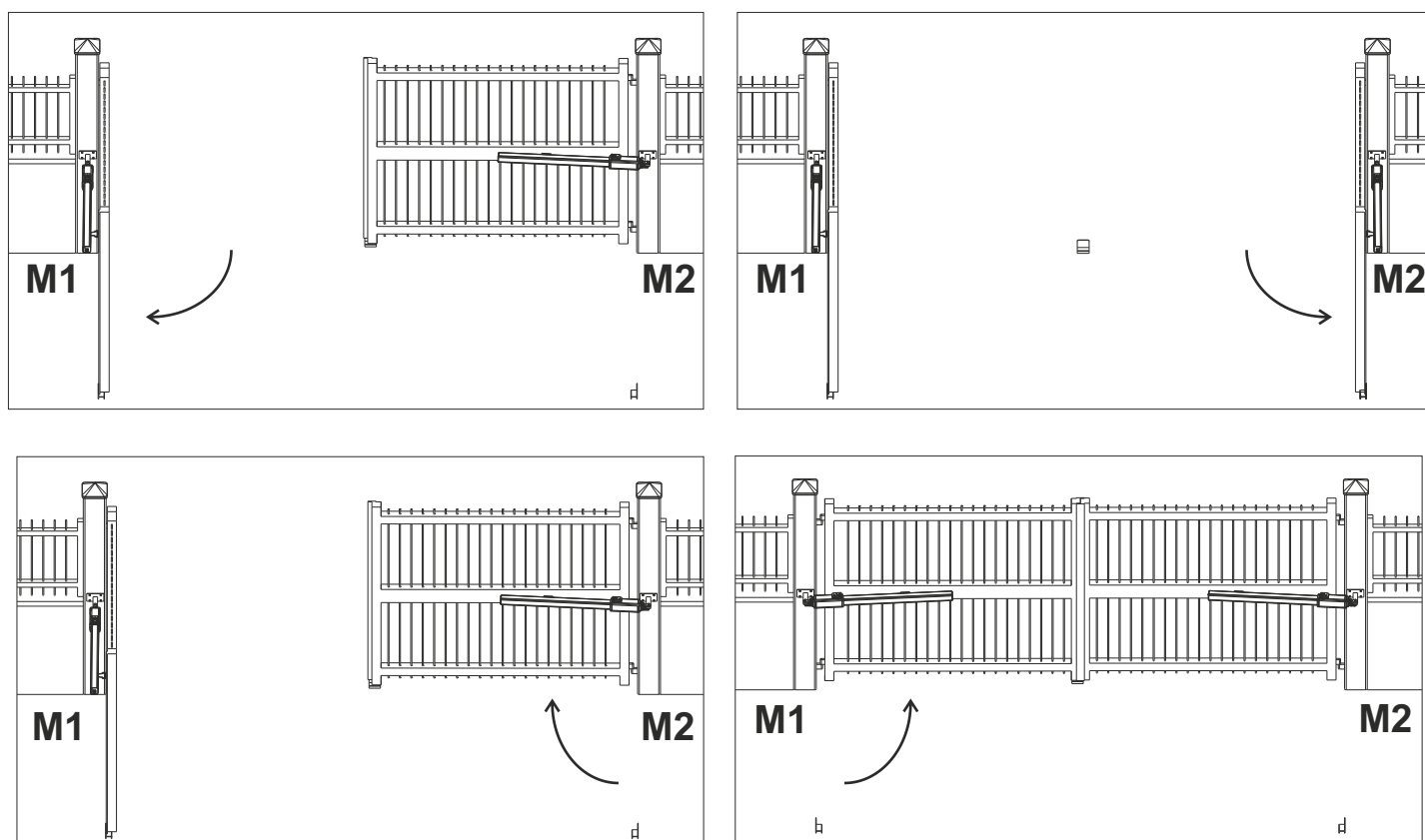
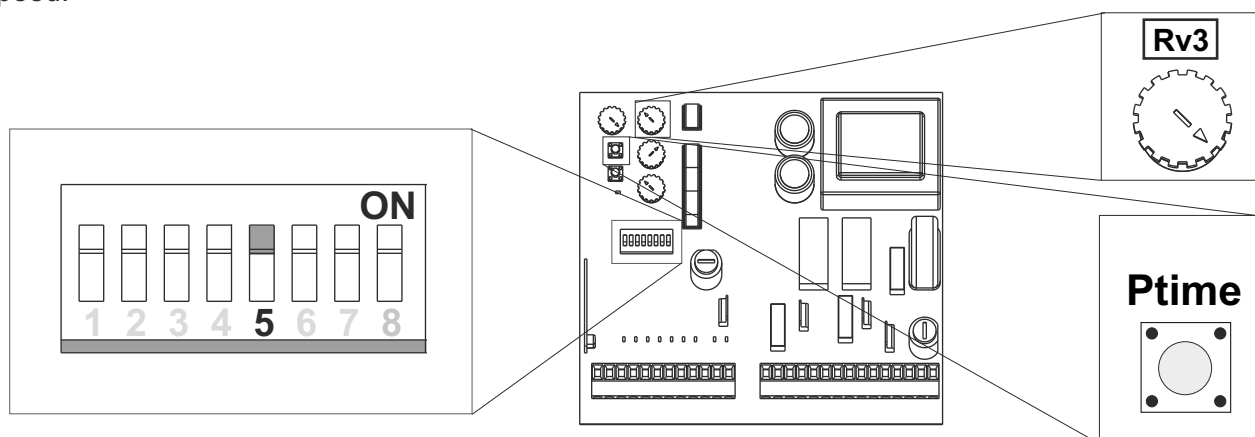
- 1) Connect the motor cables to terminals 18, 19, 20 of CN3.
 - 2) Turn on DIP 8 (single leaf mode).
 - 3) Start times programming by holding the PTime button.
 - 4) Make sure that the leaf starts in closing (if not remove the power supply).
 - 5) In closing on stop position wait about 3 seconds and press PTime, the leaf will automatically open.
 - 6) In opening on stop position wait about 3 seconds and press PTime, the leaf will automatically close.
 - 7) In closing stop position wait about 3 seconds and press PTime.
- Learning is completed.

WORKING TIMES SETTING WITH TRIMMER ON SWING GATE

1 **PHASE 1**

Set DIP 5 on ON with electronic control unit switched off and with gate completely open, press the Ptime or START button; the gate will perform a complete closing cycle.

NOTE: Do not use this mode in case of swing gates with leaves with different opening angles and different speed.



At this point, if the gate did not reach the opening stop, increase Rv3 Trimmer (by turning it clockwise) and give a new START pulse.

If, by against, the gate has executed a too long opening cycle, decrease the trimmer Rv3 (turning it counterclockwise).

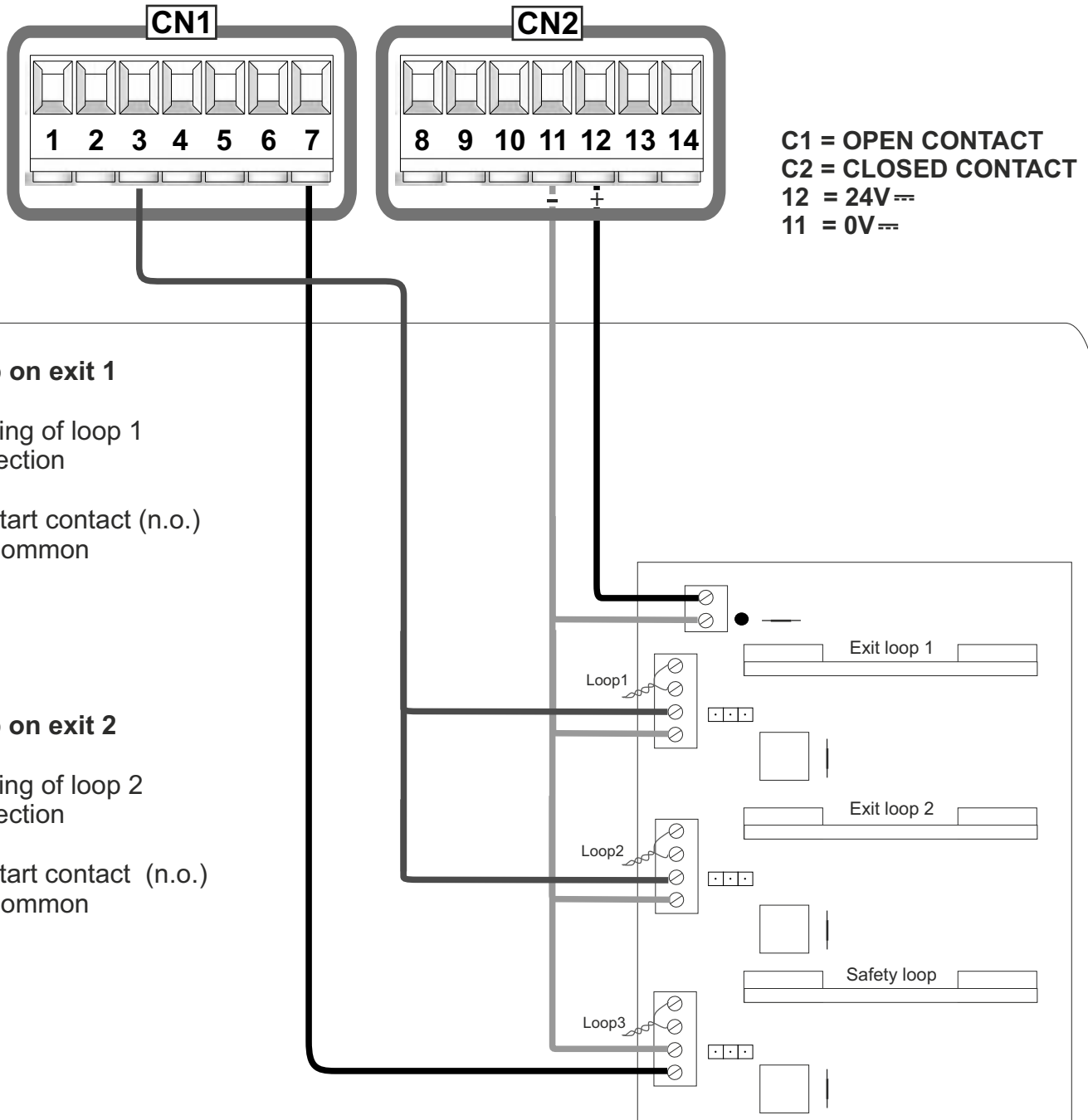
Repeat this operation until you obtained the desired opening and closing of the gate.

In this mode it is possible to adjust the delay of the leaf with push button PTime and Pcode.



MAGNETIC LOOP CONNECTION

THIS DRAWING IS AN EXAMPLE
OF HOW TO CONNECT
EVENTUAL MAGNETIC LOOPS.



**Note: All contacts can be set as
N.O. or N. C. contacts**

TROUBLE SHOOTING

ADVICE

Make sure that all safety LED are activated
All N.C. contacts which are not used must be bridged.

Problem	Possible Cause	Solutions
Motor does not respond to any Start command	a.) A jumper is missing on one of the N.C. contacts b.) Fuse burned	a.) Check the connections or the rectifier jumpers on the N.C. Contact b.) Replace the burned fuse on the control unit
The gate does not moved while the motor functions	a.) The motor is released b.) Trimmer Rv1 on minimum	a.) Relock the motor b.) Turn the trimmer Rv1 to maximum (clockwise)
Gate does not reach the complete opening/closing position	a.) Programming error b.) Gate is blocked by an obstacle c.) Fixing measures are not appropriate	a.) Repeat programming b.) Remove obstacle c.) Check the fixing measures following the fixing installation manual
Gate opens but does not close	A.) The connection of photocells or safety edge 2/7, 2/8 and 2/9 are open.	a.) Check the Leds or the jumpers
Gate does not close automatically	a.) The pause time is too high b.) The set function logic does not foresee it	a.) Adjust the pause time with Rv3 Trimmer b.) Check Dip1 and Trimmer Rv2 to verify the set logic

Page for both installer 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.p.A. - 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 recommend to separate this product from other forms of waste and to recycle it in a responsible way in order to provide the sustainable re-use of material resources. Domestic users are invited to contact the retailer where the product has been purchased or the local office in charge of all the information related to differential waste collection and recycling of this kind of product.

STORING

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.

TERMS OF SALES

EFFICACY OF THE FOLLOWING TERMS OF SALE: the following general terms of sale shall be applied to all orders sent to SEA S.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

GENERAL NOTICE The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

1) PROPOSED ORDER The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

2) PERIOD OF THE OFFER The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

3) PRICING The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network. The special sales conditions with extra discount on quantity basis (Qx, Qx1, Qx2, Qx3 formula) is reserved to official distributors under SEA management written agreement.

4) PAYMENTS The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

5) DELIVERY Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

6) COMPLAINTS Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

7) SUPPLY The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

8) WARRANTY The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

SILVER: The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

GOLD: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

PLATINUM: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly, or if the label affixed by the manufacturer has been removed including the SEA registered trademark No. 804888. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repair of products under warranty and out of warranty is subject to compliance with the procedures notified by SEA.

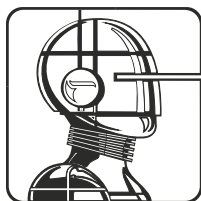
9) RESERVED DOMAIN A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer purchases propriety of the goods only after full payment of the latter.

10) COMPETENT COURT OF LAW In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes.

Industrial ownership rights: once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand num.804888 affixed on product labels and / or on manuals and / or on any other documentation, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly 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



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