UNIGATE 1I - 2I - 1I BIG - 2I BIG
UNIGATE 2PM
UNIGATE BR

CONTROL UNIT PRIMARY POWER SUPPLY:
230 Vac 50/60 Hz - 115Vac 50/60 Hz

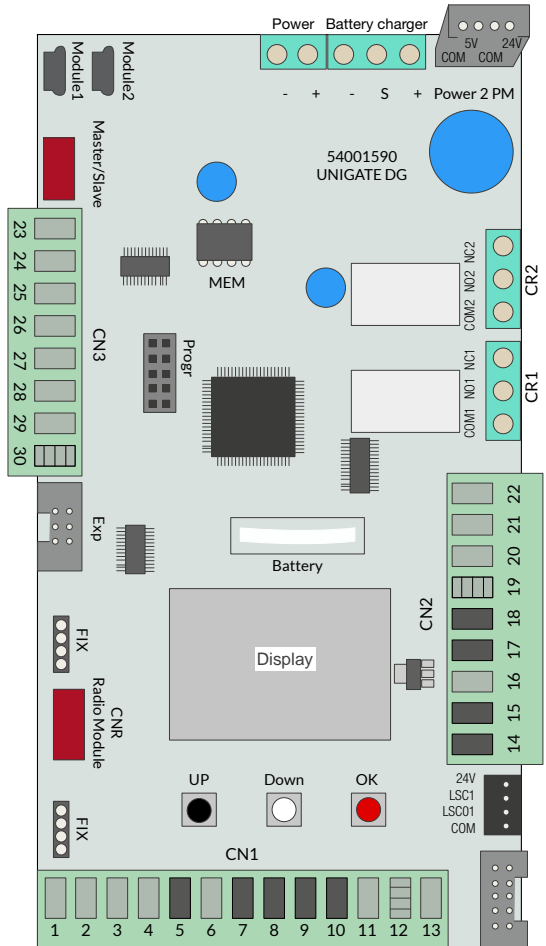**POWER CONSUMPTION IN STAND BY:**
30 mA

ENVIRONMENT T° RANGE:
-(20)°C +50°C

DIMENSIONS OF EXTERNAL BOX:
325,7 X 246 X 140 mm

DO NOT CONNECT
THE CAPACITORS
if the motor is combined with the
UNIGATE 1-I or 2-I control unit

CONNECTIONS

CN1 = Input/output connectors
CN2 = Limit switch, 24V~, Electric lock connector
CN3 = Encoder terminal board/PositionGate/gp1/gp2
Jolly/Cloud connector Jolly 3 or Sea Cloud
FIX = FIX receiver plug in connector
CR1 = Relay 1 dry contact terminal
CR2 = Relay 2 dry contact terminal
2PM = 2PM module power supply connector
CNB = Batteries charger connector
CNP = Programming connector
CLS = Limit switch quick connector
Power - + = Power supply switching connector
Module 1 = connector FV module for motor 1,

2PM module for motors 1 and 2 , BR module for motor 1

Module 2 = connector FV module for motor 2 , 2PM module for motors 3 and 4 , BR module for motor 2

Master/Slave = Master/Slave card connector
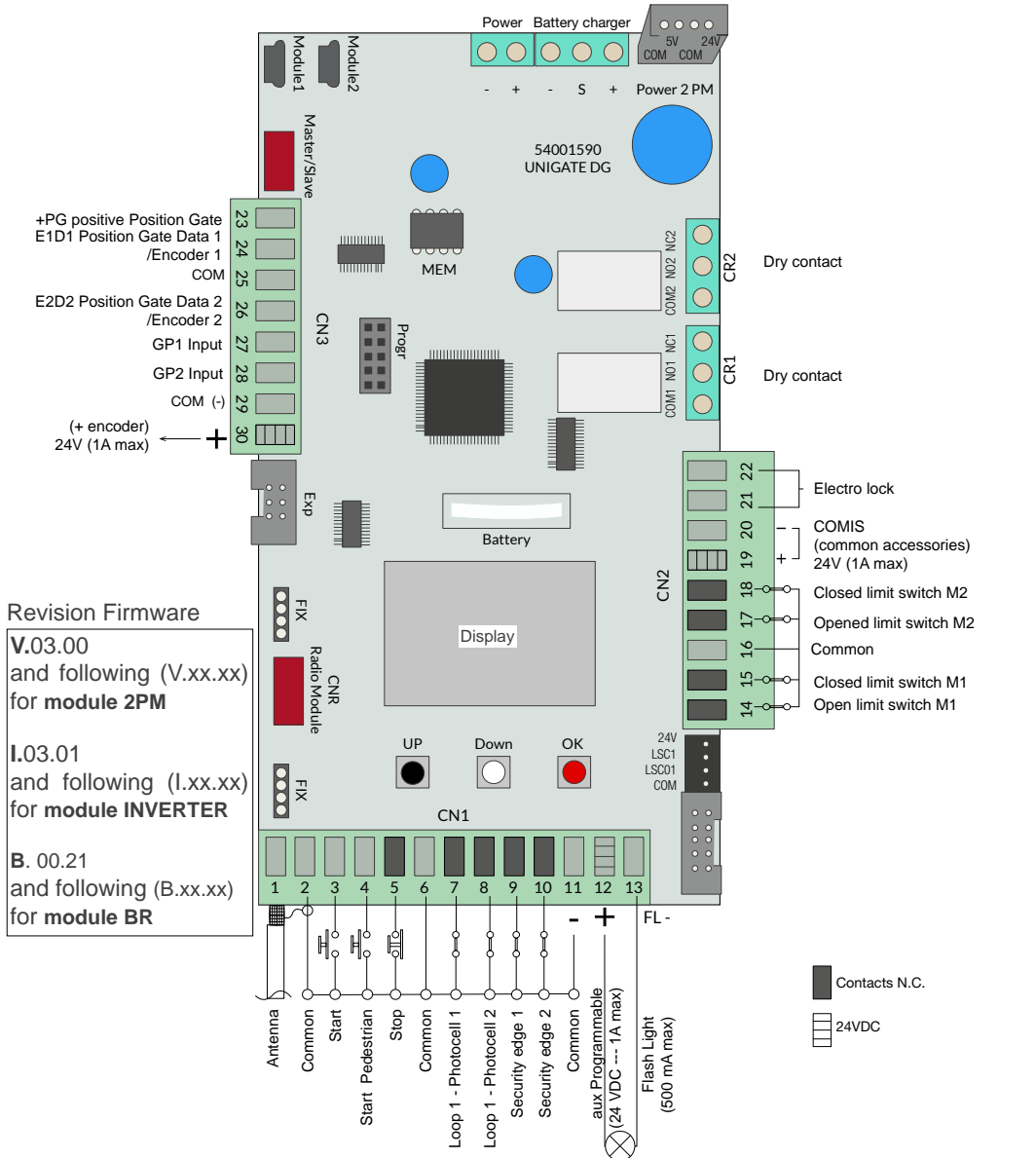**Progr** = Programming connector through Open
Exp = external module connectorSEM 2, RS485
CNR = UNI receiver connector
Battery = Back up battery for timer type CR 2032
MEM = Radio transmitters memory for FIX receivers

CONNECTIONS

Power   Battery charger

5V COM   24V COM

- +   - S +   Power 2 PM

54001590
UNIGATE DG

Module1   Module2   Master/Slave

+PG positive Position Gate — 23
E1D1 Position Gate Data 1 — 24
/Encoder 1
COM — 25

E2D2 Position Gate Data 2 — 26
/Encoder 2
GP1 Input — 27
GP2 Input — 28
COM (-) — 29
(+ encoder) — 30
24V (1A max)

CN3   MEM   Progr

CR2 — NC2 NO2 COM2   Dry contact

CR1 — NC1 NO1 COM1   Dry contact

22 — Electro lock
21
20 — COMIS
19 — (common accessories)
     24V (1A max)
18 — Closed limit switch M2
17 — Opened limit switch M2
16 — Common
15 — Closed limit switch M1
14 — Open limit switch M1

CN2

Exp   Battery

Revision Firmware

V.03.00
and following (V.xx.xx)
for **module 2PM**

I.03.01
and following (I.xx.xx)
for **module INVERTER**

B. 00.21
and following (B.xx.xx)
for **module BR**

FIX   Display   CNR Radio Module   FIX

UP   Down   OK

24V
LSC1
LSC01
COM

CN1

1 2 3 4 5 6 7 8 9 10 11 12 13

- + FL -

Antenna
Common
Start
Start Pedestrian
Stop
Common
Loop 1 - Photocell 1
Loop 1 - Photocell 2
Security edge 1
Security edge 2
Common
aux Programmable (24 VDC --- 1A max)
Flash Light (500 mA max)

Contacts N.C.

24VDC

Warning: Automatic detection of not used N.C. inputs (Photocells, Stop, Limit switch and Edges)

To reactivate a NC contact, follow this procedure:

Go to MENU 1 LANGUAGE and press OK for 5 seconds, then enter the <u>INPUT CHECK MENU</u> and
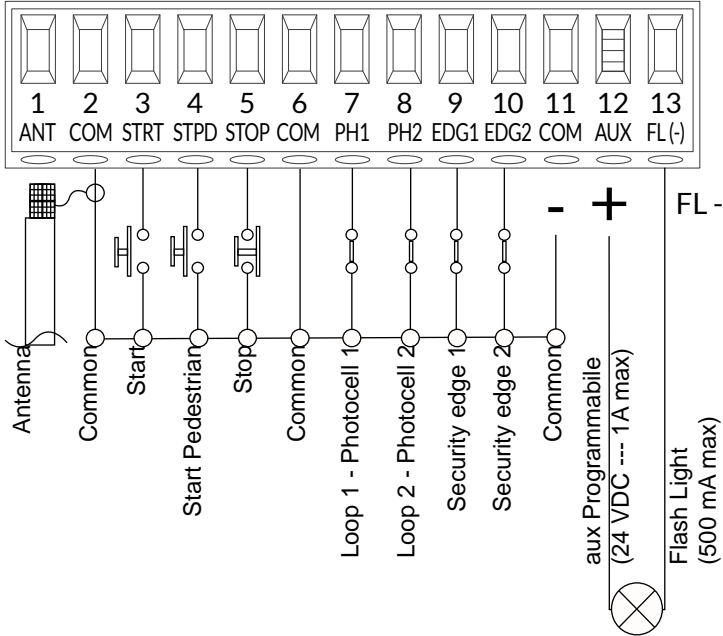
check the operating status of all inputs

No need to repeat self programming after reactivation of N.C. contacts.
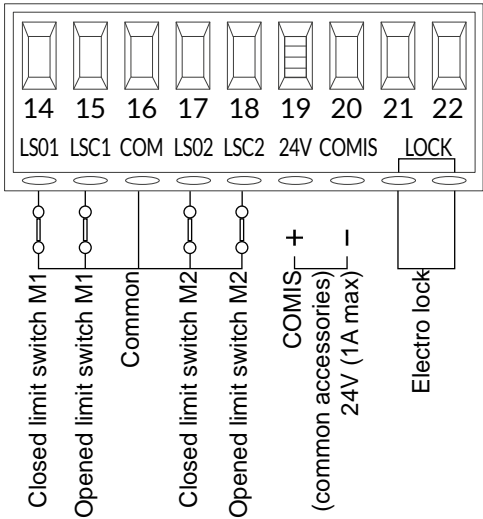The herein reported functions are available starting from revision
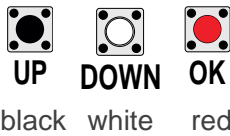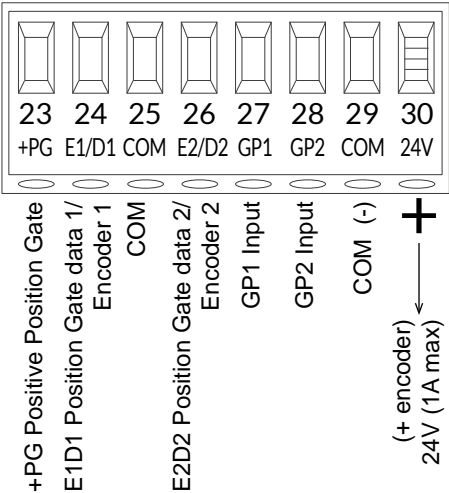**I** 03.11 for **Inverter,** B 00.27 for **BR** , **V** 03.02 for **2PM**

CONNECTIONS

CN1

1	2	3	4	5	6	7	8	9	10	11	12	13
ANT	COM	STRT	STPD	STOP	COM	PH1	PH2	EDG1	EDG2	COM	AUX	FL (-)

- Antenna
- Common
- Start
- Start Pedestrian
- Stop
- Common
- Loop 1 - Photocell 1
- Loop 2 - Photocell 2
- Security edge 1
- Security edge 2
- Common
- aux Programmabile (24 VDC --- 1A max)
- Flash Light (500 mA max)

FL -

CN2

14	15	16	17	18	19	20	21	22
LS01	LSC1	COM	LS02	LSC2	24V	COMIS		LOCK

- Closed limit switch M1
- Opened limit switch M1
- Common
- Closed limit switch M2
- Opened limit switch M2
- COMIS + (common accessories) 24V (1A max) −
- Electro lock

CN3

23	24	25	26	27	28	29	30
+PG	E1/D1	COM	E2/D2	GP1	GP2	COM	24V

- +PG Positive Position Gate
- E1D1 Position Gate data 1/ Encoder 1
- COM
- E2D2 Position Gate data 2/ Encoder 2
- GP1 Input
- GP2 Input
- COM (-)
- (+ encoder) 24V (1A max)

UP black
DOWN white
OK red

CR1 - Relay 1

COM1	NO1	NC1

CR2 - Relay 2

COM2	NO2	NC2

Power 24V

+	-

UNIGATE 1I - 2PM CONNECTION WITH AN INVERTER MODULE

UNILOGIC

34001390
UNIGATE DG

FV Module

OR

2 PM Module

CN1
Inverter power supply
230 115 Vac

CN2
Dry contact and
motor output

L : phase
N: neutral
PE: ground
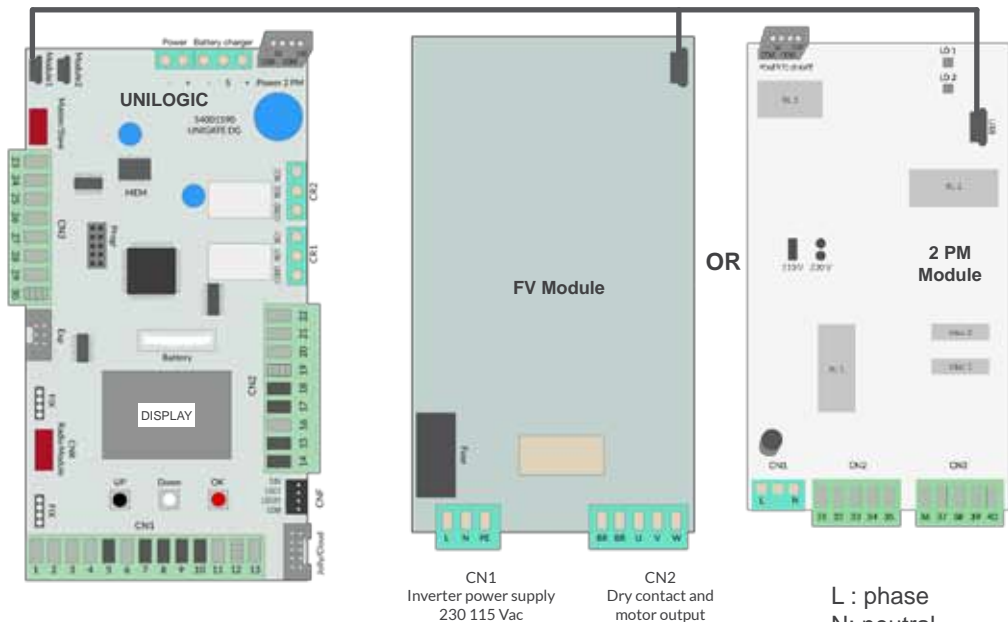
⚠️ It is mandatory to connect the ground cable to the PE input

UNIGATE 2I CONNECTION WITH TWO INVERTER MODULES

UNILOGIC

34001390
UNIGATE DG

USB

FV Module 1

FV Module 2

CN1
Inverter power supply
terminal
230 115 Vac

CN2
Dry contact and
motor output

CN1
Inverter power supply
terminal
230 115 Vac

CN2
Dry contact and
motor output

L : phase
N: neutral
PE: ground
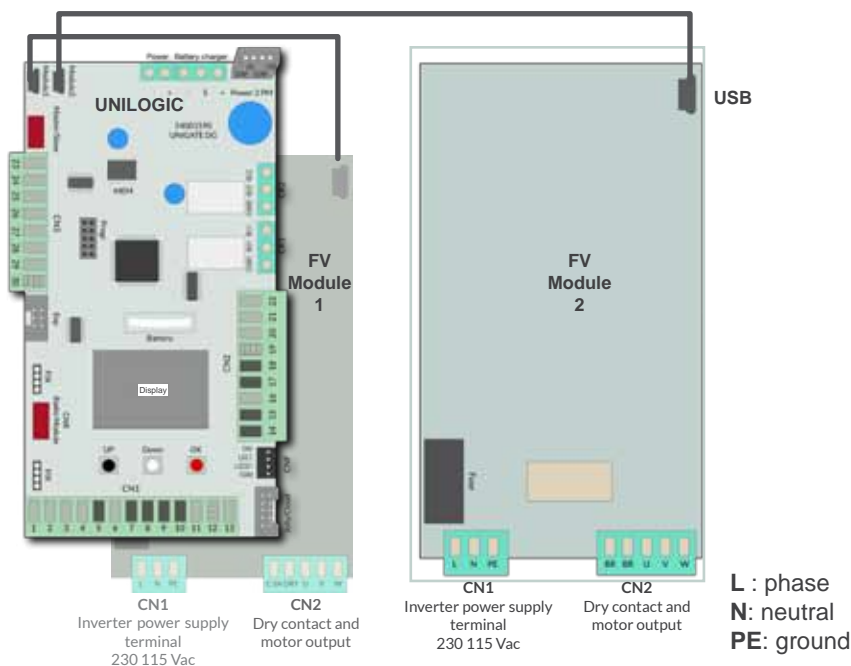
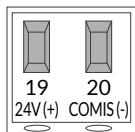⚠️ It is mandatory to connect the ground cable to the PE input

UNIGATE 1I - 2PM CONNECTION TO EXTERNAL UPS AND CHECK EMERGENCY OPERATING (MENU 113)
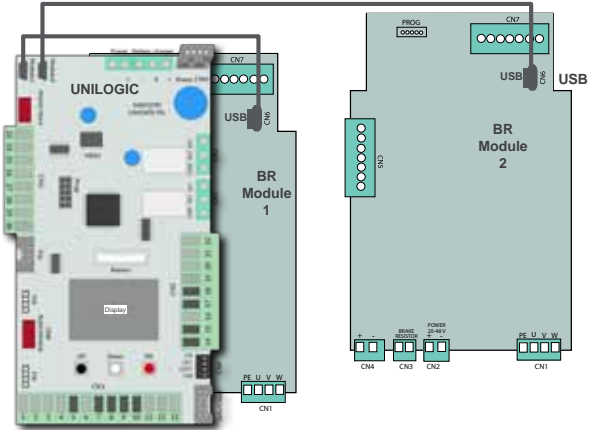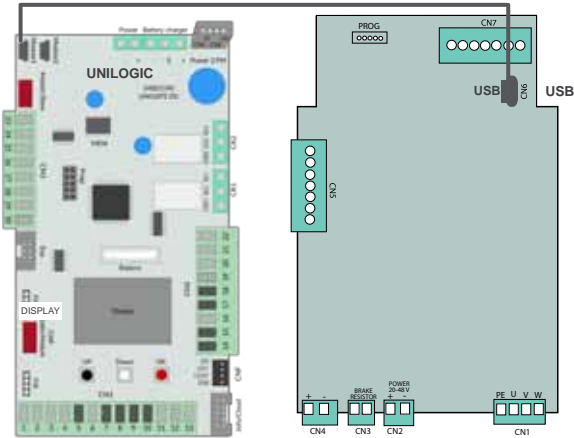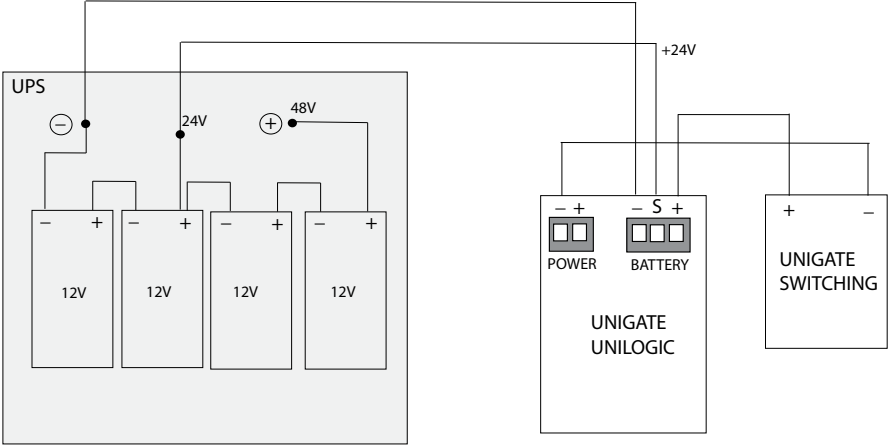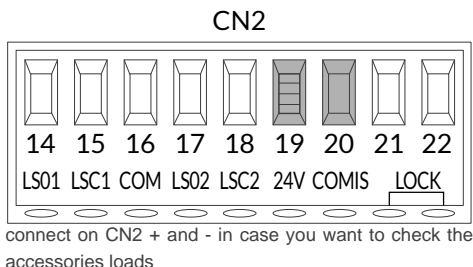
INPUTS - OUTPUT CONNECTIONS
- N.C. normally closed - N.O. normally opened

A) COMIS Function (for load control) - 350 mA

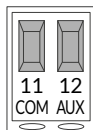| 19	20
24V (+)	COMIS (-)

The COMIS input can be used as common for accessories up to a maximum load of 350 mA, the exceeding of the maximum load will appear on the display.

To check the consumption of the accessories, connect the negative of the accessories to input (20) CN2 and the positive to the input (19).

CN2

14	15	16	17	18	19	20	21	22
LS01	LSC1	COM	LS02	LSC2	24V	COMIS	LOCK	

connect on CN2 + and - in case you want to check the accessories loads

B) CONFIGURATION 24V DC AUX CN1

11	12
COM	AUX

On the 24V AUX you can select when and how to operate the connected auxiliary accessory. See special menu

MENU 94
24V AUX

For photocells it is recommended to set the 24V aux as in *cycle and phototest* , in order to have the security of operation and energy saving.

The maximum load for this output is 1A, and refers to the sum of the loads on the single outputs 24 VDC AUX and 24 VDC.

16	17	18	19
COM	LS02	LSC2	24V
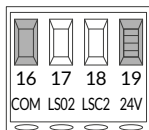
On 24V DC must be connected all accessories that shall always be active. Example: external receivers.

The maximum load for this output is 1A, and refers to the sum of the loads on the single outputs 24 VDC AUX and 24 VDC.

D) SAFETY

D.1) PHOTOCELLS - LOOP

11	12
COM	AUX

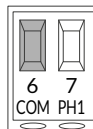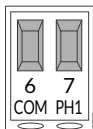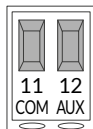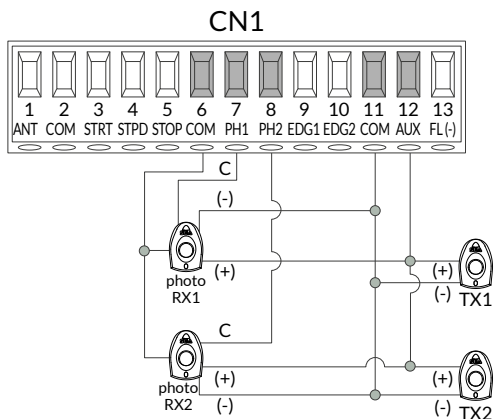| 6	7
COM	PH1

photo 1

6	7	8
COM	PH1	PH2

photo 2

Photocell 1 and Photocell 2 (Loop1 - Loop2)
11 and 12 aux ~ (Accessories) 1A max
COM = 0V
7 PH1 = Photocell contact 1
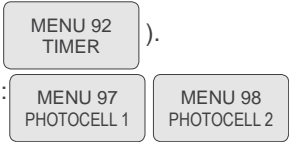8 PH2 = Photocell contact 2

CN1

1	2	3	4	5	6	7	8	9	10	11	12	13
ANT	COM	STRT	STPD	STOP	COM	PH1	PH2	EDG1	EDG2	COM	AUX	FL (-)

Default settings:
PHOTO 1 = "Close" - PHOTO 2 = "Open"
Photocell 2 can also be set as TIMER (see MENU 92 TIMER).

For photocell options, see menu 97 and 98: MENU 97 PHOTOCELL 1 | MENU 98 PHOTOCELL 2

TIMER:
keep (8) PH2 pressed, the gate opens and remains open, while, when released, the gate repeats the selected pause time and starts closing. If a safety device is activated, the Timer resets automatically after 6 sec.

AUTOTEST function: make sure that the photocells work properly before any movement. If the test fails, it will be indicated on the display.
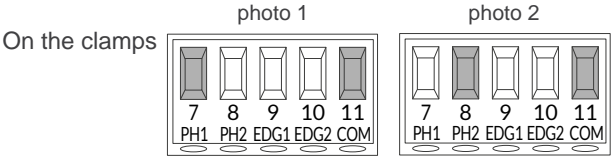
To activate the AUTOTEST:
1) Connect the positive of the photocell TX to be tested on the input [12 AUX] and set the 24V AUX
MENU 94 24V AUX as in *cycle and phototest*
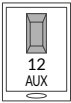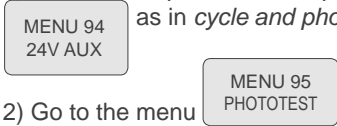
2) Go to the menu MENU 95 PHOTOTEST
and select on which accessory (Photocell 1 or Photocell 2 or both) to activate this mode.

D.2) 10K PHOTOCELL SIMPLE OR DOUBLE

On the clamps

photo 1 | photo 2

7	8	9	10	11
PH1	PH2	EDG1	EDG2	COM

7	8	9	10	11
PH1	PH2	EDG1	EDG2	COM

is also possible to connect a 10K Photocell.

On menu MENU 121 PHOTO 1 TYPE or MENU 122 PHOTO 2 TYPE
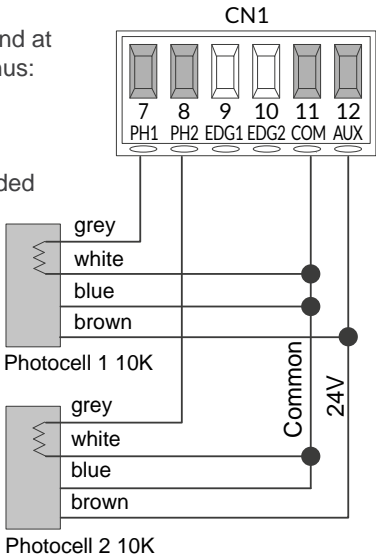
it is necessary to set the relative photocell as a 10 K PHOTO and at this point it will work according to the settings given by the menus:

MENU 97 PHOTO 1 | MENU 98 PHOTO 2
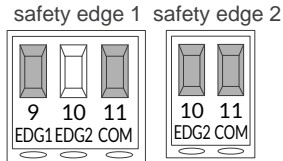
Note1: Using the 10K Photocell, further protection will be provided also in the event of a short-circuit on the cables.

Setting 10 K Photocell

MENU 121 PHOTO 1 TYPE → OK → OFF → UP → PHOTO 10K → OK

CN1

7	8	9	10	11	12
PH1	PH2	EDG1	EDG2	COM	AUX

grey
white
blue
brown
Photocell 1 10K

grey
white
blue
brown
Photocell 2 10K

Common | 24V

D.3) SAFETY EDGE

safety edge 1 safety edge 2

9	10	11		10	11
EDG1	EDG2	COM		EDG2	COM

It is possible to connect a safety edge between the contacts

(or two edges, with the second one connected between the contacts 10 and 11).

When pressed, the Safety Edge opens the contact causing a reverse of the movement both in opening and in closing. The Safety Edge input can be set «only in closing», «only in opening» or both. See menu 102 and 103.

MENU 102
SECURITY EDGE
1 DIRECTION

MENU 103
SECURITY EDGE
1 DIRECTION

In closing it is possible to choose whether to have the partial or total reverse. See
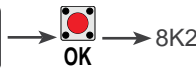
MENU 46
CLOSING INVER-
SION

Note1: Through the display or the JOLLY 3 programmer it is possible to activate the balanced edge 8K2, in this case the edge contact is controlled by a special resistance value revealing the eventual involuntary short- circuit of the device. In case of malfunctioning of the device a special alarm will be shown on the display or on the JOLLY 3 programmer.
It is also possible to set two 8K2 Safety Edges on each single input Safety Edge.
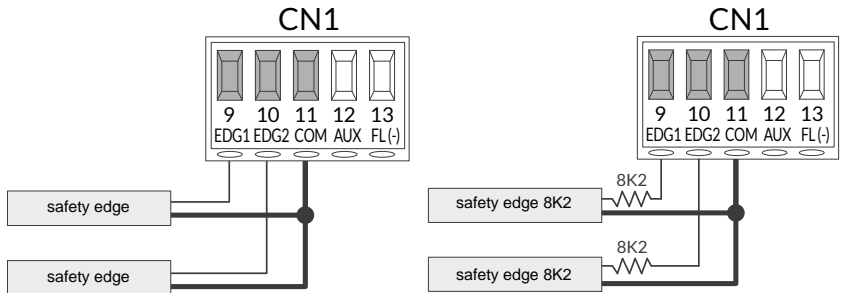See menu100 and 101

MENU 100
Safety Edge 1

MENU 101
Safety Edge 2

→ OK → 8K2

Note2: Self-test can be made also on a powered radio Edge
See

MENU 96
AUTOTEST

CN1

9	10	11	12	13
EDG1	EDG2	COM	AUX	FL(-)

safety edge

safety edge

CN1

| 9	10	11	12	13
EDG1	EDG2	COM	AUX	FL(-)

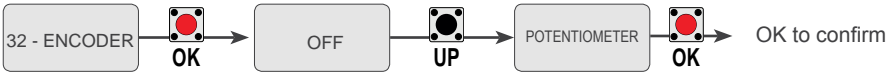safety edge 8K2 — 8K2

safety edge 8K2 — 8K2

D.4) POSITION GATE (LINEAR ABSOLUTE ENCODER)

The POSITION GATE allows to know the exact position of the gate and to have the reverse on the obstacle.

The POSITION GATE is applicable on the hydraulic motors HALF TANK and MINI TANK new series, in combination with the LE card.

CN3

23	24	25	26
+PG	E1 D1	COM	E2 D2

Green/Blue
Brown
White/Black
Green/Blue
Brown
White/Black
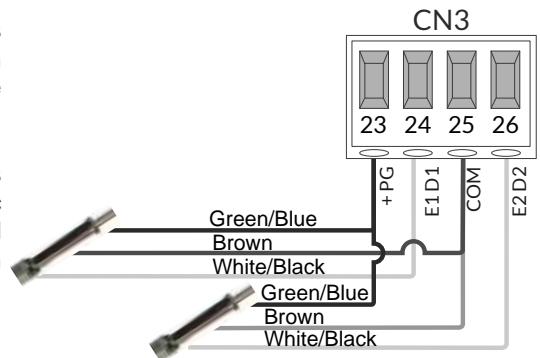
To use the POSITION GATE, activate it in the menu:

32 - ENCODER → **OK** → OFF → **UP** → POTENTIOMETER → **OK** → OK to confirm

⚠️ If the reading of the potentiometer is reversed compared to the movement of the motor, on the display will appear the alarm "Potentiometer direction" and you will have to reverse the brown wire with the green one and repeat programming.

⚠️ Note: for distances of more than 2 meters, it is recommended to connect a shielded cable with a sheath connected to COM 25
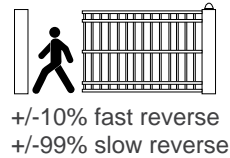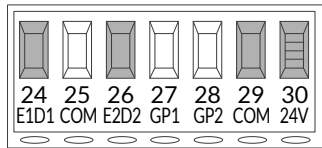
25
COM
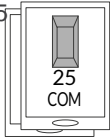
Adjustable sensitivity intervention threshold. See menus 33 to 45.
The sensitivity on the obstacle is adjustable from 0 - 99%. Higher is the percentage, more difficult it will be to detect the obstacle. 10% fast reverse - 99% slow reverse

To check the correct operation of the POSITION GATE, go to the menus | 51 - I.PAR.M1 | 51 - I.PAR.M2
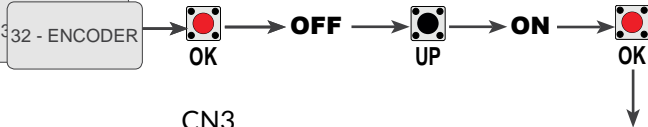
through which it is possible to check that by manually moving the leaf the pulses will vary from a value of about 100 in closing to about 6000 in opening.

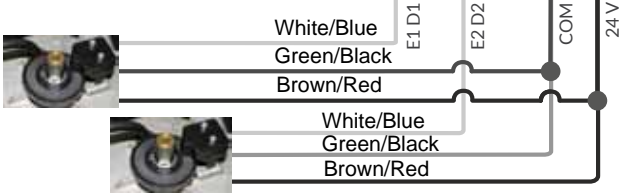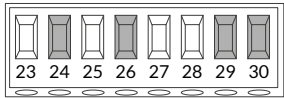closed +/-100   open +/- 6000

D.5) ENCODER CONNECTIONS MAGNETIC

The encoder allows to know the position of the gate and to have the reverse on the obstacle. To use the encoder it's necessary to activate it in the appropriate

| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| E1D1 | COM | E2D2 | GP1 | GP2 | COM | 24V |

32 - ENCODER → **OK** → **OFF** → **UP** → **ON** → **OK**

+/-10% fast reverse
+/-99% slow reverse

CN3

| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

E1 D1   E2 D2   COM   24 V

White/Blue
Green/Black
Brown/Red

White/Blue
Green/Black
Brown/Red

The sensitivity on the obstacle is adjustable from 0 - 99%. Higher is the percentage, more difficult it will be to detect the obstacle

To check the correct operation of the Encoders, go to the menu

through which it is possible to check if during operation of the leaf the pulses vary from the value of 0 in closing to the value memorized in learning, visible in the menu

| MENU 47 ENCODER PAR. 1 | MENU 49 ENCODER PAR. 2 |
| MENU 48 ENCODER TOT 1 | MENU 50 ENCODER TOT 2 |
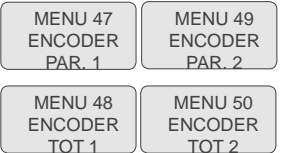
D.6) AMPEROMETRIC DEVICE FOR ELECTROMECHANICAL OPERATORS

This control unit comes with an obstacle detection system working only on electromechanical operators allowing to have the reverse on obstacles and the automatic detection of the stops.
Sensitivity adjustable from Menu 33 to 37, from OFF to 99% in the special menu.

MENU 33 OPENING SENSITIVITY MOTOR 1	MENU 34 CLOSING SENSITIVITY MOTOR 1	MENU 35 OPENING SENSITIVITY MOTOR 2	MENU 36 CLOSING SENSITIVITY MOTOR 1	MENU 37 SLOWDOWN SENSITIVITY MOTOR

Higher is the percentage, more difficult it will be to detect the obstacle detection.
On hydraulic unit this parameter will be always OFF.

!

10% fast reverse   99% slow reverse

To adjust current intervention threshold instead you have to act on menus from 140 to 147.

from 1 to 10A

MENU 140 THRESHOLD A OPENING 1	MENU 141 THRESHOLD A CLOSING 1	MENU 142 THRESHOLD A OPENING 2	MENU 143 THRESHOLD A CLOSING 2
MENU 144 THRESHOLD A OPENING SLOWDOWN 1	MENU 145 THRESHOLD A CLOSING SLOWDOWN 1	MENU 146 THRESHOLD A OPENING SLOWDOWN 2	MENU 147 THRESHOLD A CLOSING SLOWDOWN 2

E) COMMANDS

E.1) PEDESTRIAN START (N.O.)

the pedestrian opening allows the total or partial opening of one single leaf in percentage of the learned space.

5% = minumum space

100% = fully opened
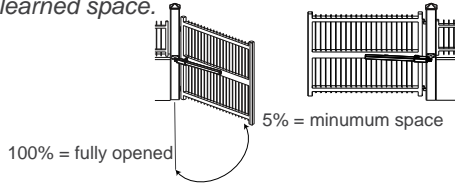
• **Function 1 (STANDARD)**: partial opening space adjustable from 5% to 100%

MENU 90
PARTIAL
OPENING

• **Function 2 (TIMER)**: by holding the pedestrian the gate opens and remains open.

If released, the gate repeats the selected pause and starts closing. In case of a safety device activation the timer will automatically reset after 6 sec.
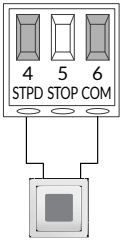
• **Function 3 (2 BUTTONS)**: in 2 buttons logic press the pedestrian Start to close the gate.

• **Function 4 (DEADMAN)**: in deadman logic this button executes the re-closing if you keep it pressed.

E.2) STOP (N.C.)

When pressing this button the motor immediately stops in any condition/position.
To re-start the movement, give a start command. After a stop the motor always re-starts in closing.

E.3) START (N.O.)
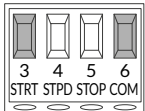
• **Function 1 (STANDARD):** an impulse given to this contact opens and closes the automation depending on the selected logic. See menu

MENU 6
LOGIC

• **Function 2 (TIMER):** by holding START the TIMER function is activated, releasing the Start, the operator repeats the Pause and then re-closes. To connect other devices (e.g. the loop) refer to the related instructions leaflets (ie. loop detectors and proximity Switches). In case of activation of a safety device the timer will automatically reset after 6 seconds.

• **Function 3 (2 BUTTONS):** in 2 buttons logic this button performs the opening.

• **Function 4 (DEADMAN):** in deadman logic keep pressed the Start for the opening of the automation.

CN1

1 ANT 2 COM 3 STRT 4 STPD 5 STOP 6 COM

Start

Start pedestrian

Stop

COM
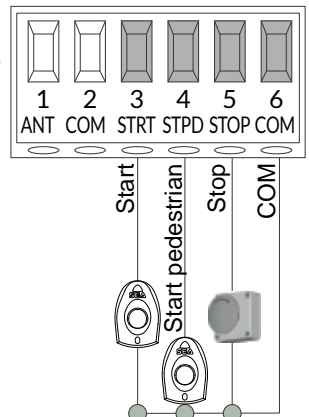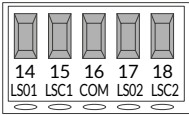
No jumper needed when not connected.
For the limit switch function, limit switches must be installed, both in opening and closing. In the case of single-leaf connect motor 1 (it is not necessary to bridge the limit switches of motor 2).

ANTI-INTRUSION

Anti-intrusion function can be activated. This function needs at least one limit switch, which pushes the motor in closing direction once it's released.

For the correct functioning of the limit switches there must be a correspondence between the direction of movement of the motors and the respective engaged limit switches.

MENU 79
ANTI INTRUSION

CN2

| 14 | 15 | 16 | 17 | 18 |
| LS01 | LSC1 | COM | LS02 | LSC2 |

- Opened limit switch M1
- Closed limit switch M1
- Common
- Opened limit switch M2
- Closed limit switch M2

CLS

24V
LSC1
LSO1
COM
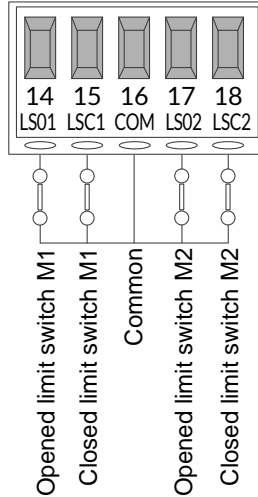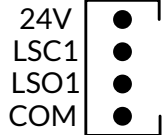
Quick connector sliding limit switch

UNIGATE 1I - 2I

Note 1: On the Big Fast slide motor, the opening and closing limit switches of motor 2 are used as slowdown limit switches. On the JOINT 4 LS, the slowdown limit switches must be connected to inputs 24 and 26 of CN3.

CN2

| 14 | 15 | 16 | 17 | 18 |
| LS01 | LSC1 | COM | LS02 | LSC2 |

CN2

| 14 | 15 | 16 |
| LS01 | LSC1 | COM |

CN3

| 24 | 25 | 26 |
| E1D1 | COM | E2D2 |
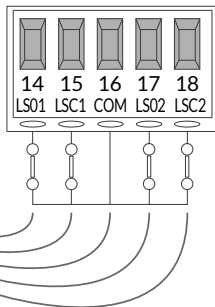
Example of connection with BIG Fast
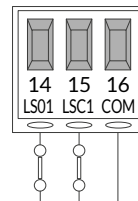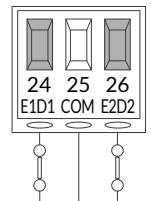
Example of connection with JOINT 4 LS and bollards on Menu 12 - ON

Note 2: If 2 Big Fast or JOINT 4 LS motors are connected, the opening and closing limit switches of motor 1 and motor 2 will be connected to the CN2, the slow down limit switches of motor 1 and motor 2 will be connected to the CN3, as following:

1	Opened limit switch M1
1B	Opened limit switch M2
2	Closed limit switch M1
2B	Closed limit switch M2
3	Common limit switch M1 - M2
3B	
4	M1 opening slowdown limit switch
4B	M2 opening slowdown limit switch
5	M1 closing slowdown limit switch
5B	M2 closing slowdown limit switch
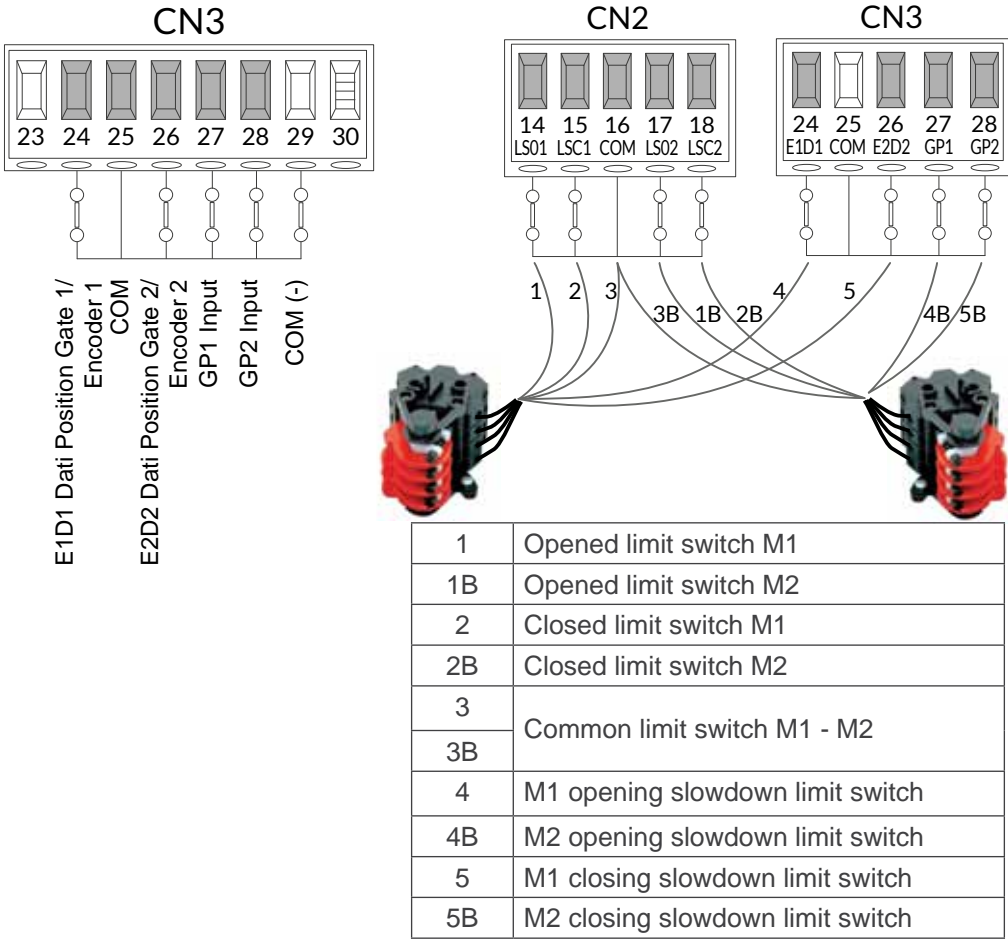
Note: in the case of two 2 PM modules (3 or 4 motors), the limit switches of motors 3 and 4 must be connected in parallel respectively to the opening and closing limit switches M1 and M2.

UNIGATE 2 PM

Note: in case of 2 modules 2 PM (3 or 4 motors), the limit switch (LS1 e LS2) of motors 3 and 4 must be connected in parallel respectively the limit switches in opening and closing M1 ed M2

LS= limit switch
O1 = opening motor 1
O2 = opening motor 2
O3 = opening motor 3
O4 = opening motor 4

C1 = closing motor 1
C2 = closing motor 2
C3 = closing motor 3
C4 = closing motor 4
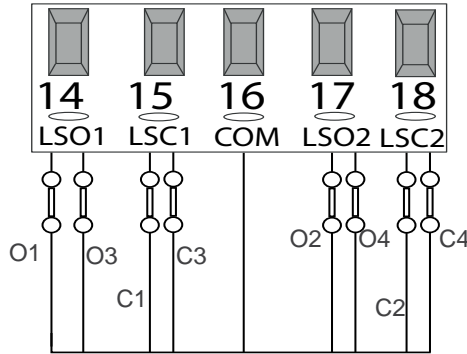
ENCODER ON BIG 4000

UNIGATE

EXP

1 = RED
2 = WHITE
3 = BLACK
4 = YELLOW

board RS485

MENU 118
LATCH

9   10
EDG1 EDG2

Latch open / Latch close function:
Inputs 9 and 10 can be set accordingly as latch open and latch close - see menu 118. In this case they will lose their function as safety edge.

*latch opening
(locked open)*

*latch closing
(locked closed)*
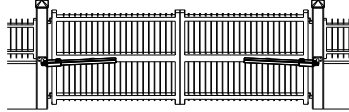
! no command accepted

With 118 Menu you can set the following functions:

1. Latch Opening
2. Latch Closing
3. Opening & Closing
4. Off

1) Latch Opening:

2) Latch Closing:
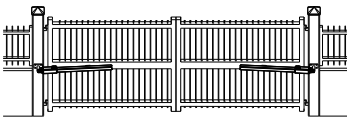
3) Opening & Closing:
   To set both functions.

4) Off:
   To deactivate both functions.

With the TX remote control you can set the following functions:
1. Latch Opening
2. Latch Closing

1) Latch Opening:
   Use the 2 Transmitters menu: program the TX as Latch Opening

2) Latch Closing:
   Use the 2 Transmitters menu: program the TX as Latch Closing

With the Sea Cloud System you can set the following functions:
1. Latch Opening
2. Latch Closing

CN1

9   10   11   12   13
EDG1 EDG2 COM AUX FL(-)
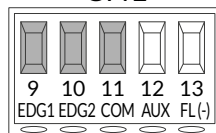
Latch Opening

Latch Closing

!
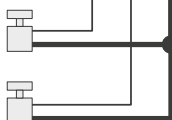
*If inputs 9 and 10 are used as latch opening and latch closing functions, they can no longer be used as edge security 1 and edge security 2.
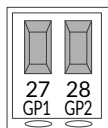
These inputs can have different functions, depending on how they are set in menus 130 and 131

| MENU 130 GP1 | MENU 131 GP2 |

CONNECTION OF TEMPERATURE PROBE (PROBE)

1) Unscrew the cap

2) Screw in the PROBE

3) The two cables must be connected between 27 and 29 or 28 and 29

| 27 GP1 | 28 GP2 | 29 COM | 30 24V | | 27 GP1 | 28 GP2 | 29 COM | 30 24V |
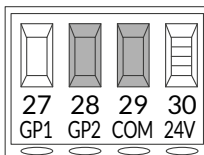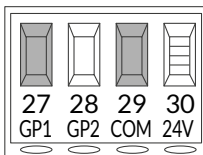
4) Enter the menu | MENU 130 GP1 | o | MENU 131 GP2 | depending on where the probe is connected

and set them up for the "thermometer function"

5) | MENU 109 THERMOMETER | : if active the thermometer displays the temperature

6) | MENU 109 THERMOMETER | → OFF → UP →

→ ON → OK →
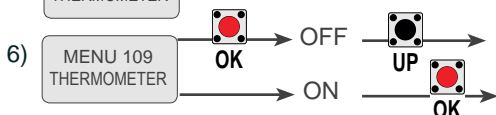
7) Enter the menus | MENU 110 LOWER THRESHOLD TEMPERATURE | | MENU 111 UPPER THRESHOLD TEMPERATURE | to change parameters

and set the minimum activation temperature threshold and the maximum activation temperature threshold. (T minimum threshold -5 ° C, T maximum threshold 0 ° C)

CONFIGURATION AS "EMERGENCY OPENING"
Go to the GP1 or GP2 menu and set the "Emergency opening".

| MENU 130 GP1 | OK → OFF | UP → EMERGENCY OPEN | OK → OK to confirm
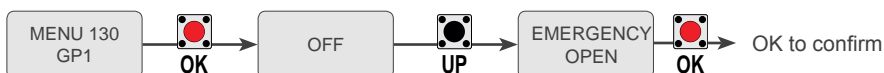
F.1) FLASHING LAMP- BUZZER

24V FLASHING LAMP 3W MAX

The 24V Flashing Lamp is connected between the connectors

12	13
AUX	FL(-)

or

13
FL(-)

19
24V

CN1

9	10	11	12	13
EDG1	EDG2	COM	AUX	FL(-)

24V   FL(-)

LED LAMP 3 W
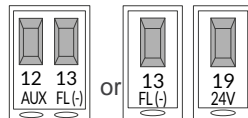
The Flashing lamp advises that the automatic gate is moving with 1 flash/second in opening and 2 flashes/seconds in closing. During pause it remains switched on. Through the warning lamp it is also possible to identify alarms for the STOP, PHOTOCELL 1, PHOTOCELL 2 and EDGE 1 and EDGE 2 devices. Through the display or the JOLLY 3 programmer it is possible to activate the pre-flashing function and/or to modify the function of the flashing lamp choosing between fix flashing or control lamp. The preflashing can be timed from 0 to 5 seconds otherwise it is possible to set it before closing only.

1 Flash
2 Flashes
3 Flashes
... and more
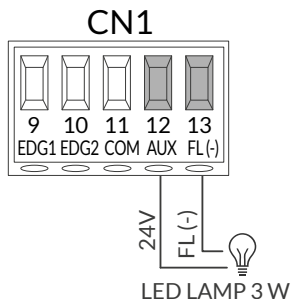
BUzzER (24V) AUDIBLE ALARM

Important note: instead of the flashing lamp, you can also connect a buzzer in this case set the *86 FlashInG lIGht* menu on

MENU 86
BUZZER

Use an autoswinging buzzer 24V of 100 dB. The buzzer will be activated after two consecutive activations of the entrapment protection. To reset the alarm it is necessary to push the STOP button. In any case after 5 minutes the buzzer will stop to sound and the automation stops waiting for commands.

If Buzzer does not work, check if the *86 - FlashInG lIGht* menu is set on "Buzzer"

MENU 86 BUZZER → **OK** → OFF → **UP** → ON → OK to confirm

CN1

9	10	11	12	13
EDG1	EDG2	COM	AUX	FL(-)

24V   FL(-)
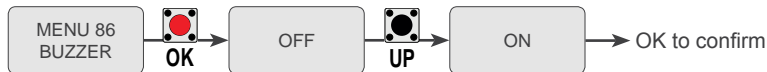
2 times

STOP
5 minutes

buzzer

buzzer
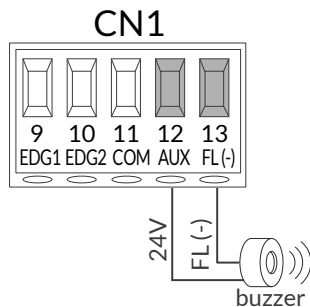
F.2) ELECTRIC-VALVE

A 12V=15W max electric lock can be connected
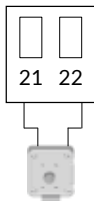
The electric lock can be deactivated when not used for energy saving on the control unit. The electric lock release can be timed from 0 to 5 seconds.
See menu

> MENU 77
> LOCK TIME

The electric lock can be set: only "before opening", only "before closing" or in "both directions". See menu

> MENU 78
> LOCK

→ only in OPENING
→ only in CLOSING
→ OPENING and CLOSING

To facilitate the release of the electric LOCKIT it is possible to set PUSHING STROKE, see

> MENU 76
> PUSHING
> STROKE

with lock release repete.

→ TIME OFF - 3 sec.
→ REPEAT OFF - ON

G) RELAY 1 and RELAY 2 management (CR1 e CR2)

The dry contact outputs CR1 and CR2 can be used for different functions, which can be set through the menus

> MENU 132
> RELAY 1

> MENU 133
> RELAY 2

G.1) BOLT LOCK

Line • Neutral

Bolt lock 230/115V connection

NC1
NO1
COM1

Bolt Lock 230 / 115 Vac

CR1

24V ext   -

Bolt lock 12/24V connection

note: the 24V ext must be supplied by an external power supply of suitable power.

NC1
NO1
COM1

Bolt Lock 12 / 24 Vac

CR1

Note: set on the menù

MENU 132
RELAY 1
→ OK → OFF → UP → NEGATIVE BRAKE 1 MANAGEMENT → OK → OK TO CONFIRM
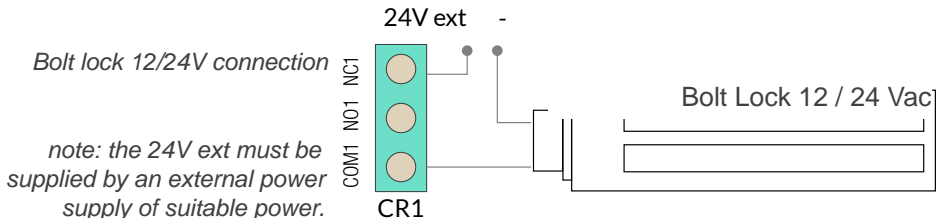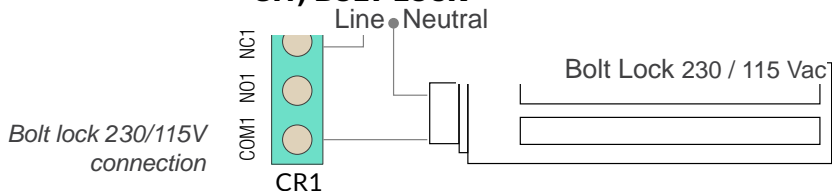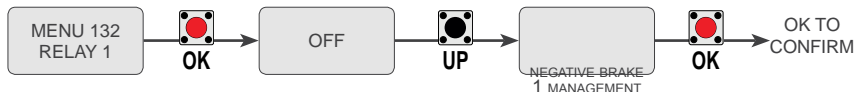
G.2) ELECTRIC VALVE CONNECTION

Line   Neutral

230/115V electric valve connection

NC1
NO1
COM1

Line

CR1
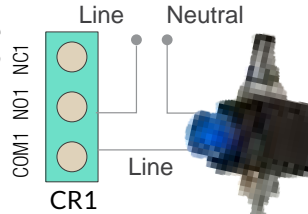
24V ext   -

12/24V electric valve connection

note: the 24V ext must be supplied by an external power supply of suitable power.

NC1
NO1
COM1

24V ext

CR1

Note:
set on the menù

| MENU 132 RELAY 1 | → OK → | OFF | → UP → | NEGATIVE BRAKE 1 MANAGEMENT | → OK → | OK TO CONFIRM |
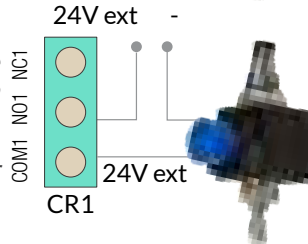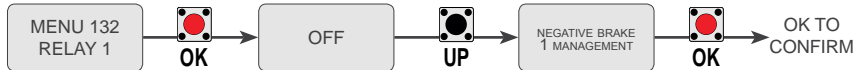
G.3) TRAFFIC LIGHT
Menu 131 - 132

in entrance
connection 115/230V

Line   Neutral   Entrance

NC1
NO1
COM1

Line

CR1

red
green

in exit
connection 115/230V

Line   Neutral   Exit

NC2
NO2
COM2

Line

CR2

red
green

in entrance
connection 24V

(+)   (-)   Entrance

NC1
NO1
COM1

24V ext

CR1

red
green
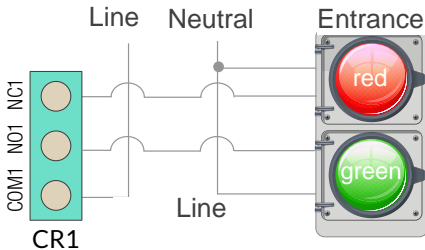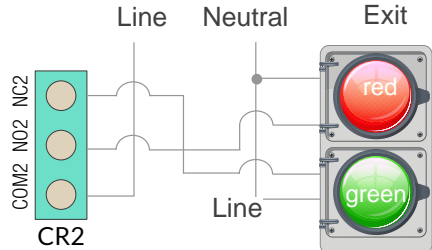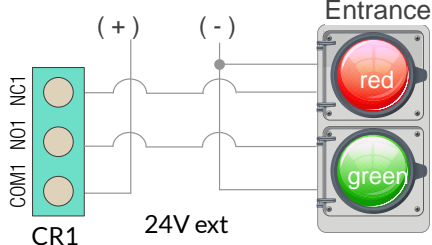
in exit
connection 24V

(+)   (-)   Exit

NC2
NO2
COM2

24V ext

CR2

red
green
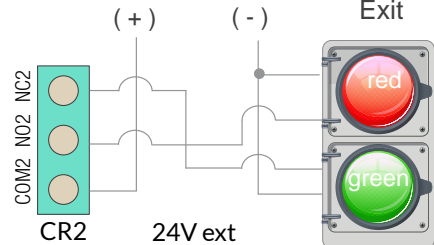
note: the 24V ext must be supplied by an external power supply of suitable power.

For Special Function see

| MENU 89 TRAFFIC LIGHT |

TIME SLOT SETTINGS ON CLOCK MENU 1, 2, 3 AND 4 (MENU FROM 124 TO 127)

| MENU 127 CLOCK 4 | MENU 126 CLOCK 3 | MENU 125 CLOCK 2 | MENU 124 CLOCK 1 | default 8:00 --> 12:00 active days in OFF |

OK

The settings for menu 124 are also valid for menus 125, 126 and 127.

OPENING HOUR — **UP** / **DOWN** → CHANGE HOUR — **OK** → OK to confirm

OK

MINUTES — **UP** / **DOWN** → CHANGE MINUTES — **OK** → OK to confirm

OK

CLOSING HOUR — **UP** / **DOWN** → CHANGE HOUR — **OK** → OK to confirm

OK

MINUTES — **UP** / **DOWN** → CHANGE MINUTES — **OK** → OK to confirm

OK

ACTIVATION DAY — **UP** / **DOWN** → OPERATIVE DAY ON/OFF

OK

CONFIRM — **UP** / **DOWN** → NEXT DAY ← **UP** / **DOWN** — ACTIVE DAY

OK

END
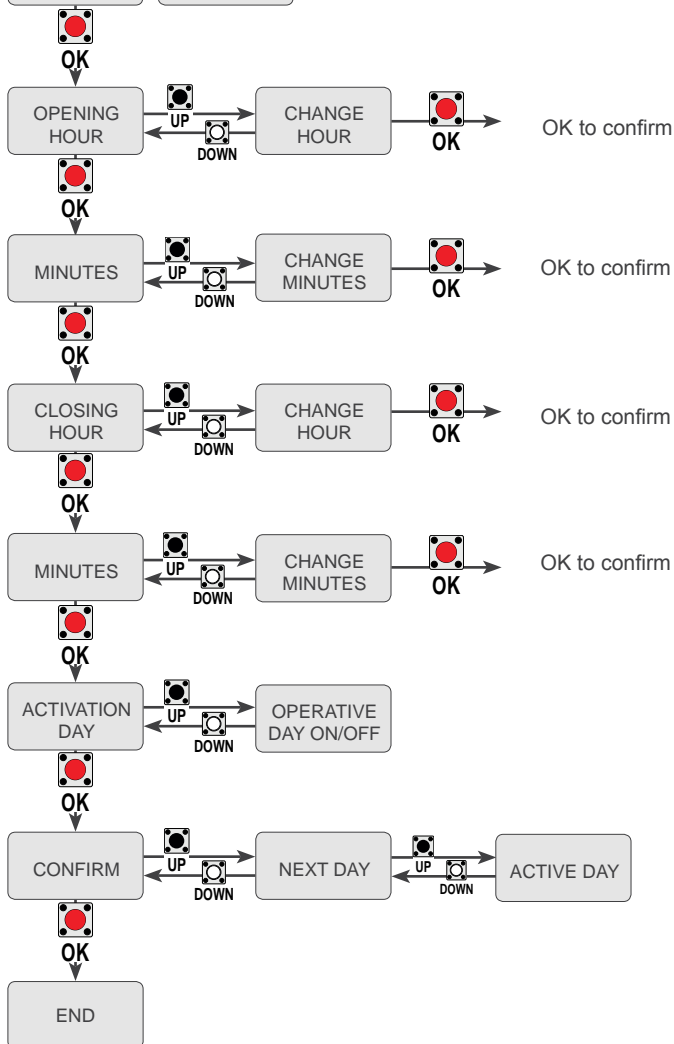
SETTING OF TIME BANDS

up to 4

from 08.00 to 13.00   *from 18.00 to 20.00*

from 13.00 to 18.00   *from 20.00 to 08.00*
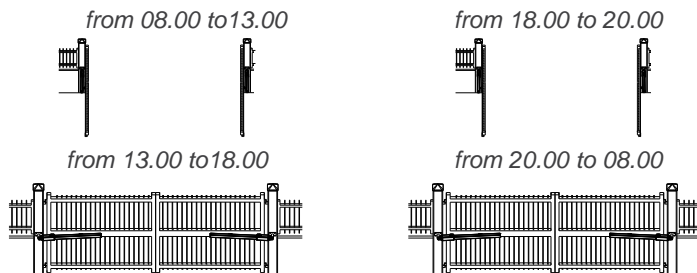
MASTER/SLAVE CIRCUITS CONNECTION

It is possible to use the Master/Slave configuration on **OPPOSED SLIDING GATES, OPPOSITE BARRIERS or BOLLARDS** moved by two operators **EACH MANAGED BY A CONTROL BOARD**

To work in Master/Slave it is necessary to use the **MASTER/SLAVE KIT** *(code SEA 23001220)* consisting of two circuits to be connected to the control units through the CMS connector, then setting a control unit as **Master** and the other as **Slave**

⚠ *ATTENTION: In the Master/Slave configuration it is necessary to connect all the accessory devices (photocells, key button, safety edge, etc.) on the control unit set as MASTER which will also control the operator movement linked to the control unit set as SLAVE. The latter will allow you to adjust only the functions of the following menus:*

1-LANGUAGE	*48-MOTOR 1 TOTAL ENCODER*	*88-COURTESY LIGHT*
3-ENGINE	*59-MOTOR 1 OPENING SLOW-DOWN*	*94-24V AUX (EXCEPT AUTOTEST FUNCTION)*
5-REVERSE MOTOR	*60-MOTOR 1 CLOSING SLOW-DOWN*	*104-SELECT LIMIT SWITCH*
14-RESET	*63-DECELERATION*	*105-DIAGNOSTICS*
17-MOTOR 1 OPENING SPEED	*64-ACCELERATION*	*112-PASSWORD*
18-MOTOR 1 CLOSING SPEED	*65-MOTOR 1 OPENING TIME*	*115-DECELERATION RAMP*
21-MOTOR 1 SLOWDOWN SPEED IN OPENING	*66-MOTOR 1 CLOSING TIME*	*123 - 127 DATE AND TIME MENUS*
22-MOTOR 1 SLOWDOWN SPEED IN CLOSING	*70-OPENING POSITION RECOVERY*	*130 - 135 RELAY MENUS*
28-MOTOR 1 OPENING TORQUE	*71-CLOSING POSITION RECOVERY*	*137-COMIS*
29-MOTOR 1 CLOSING TORQUE	*72-MOTOR 1 OPENING TOLERANCE*	*140-THRESHOLD A OPENING 1*
32-ENCODER	*73-MOTOR 1 CLOSING TOLERANCE*	*141-THRESHOLD A CLOSING 1*
33-MOTOR 1 OPENING SENSITIVITY	*76-PUSHING STROKE*	*144-THRESHOLD A OPENING SLOWDOWN 1*
34-MOTOR 1 CLOSING SENSITIVITY	*78-LOCK*	*145-THRESHOLD A CLOSING SLOWDOWN 1*
37-SLOWDOWN SENSITIVITY	*83-EXTRA TIME*	
47-MOTOR 1 PARTIAL ENCODER	*86-FLASHING LIGHT*	

⚠ ** INSTALL AND CONFIGURE THE TWO OPERATORS AS IF THEY WERE TWO INDEPENDENT INSTALLATIONS; THEN CHECK THEIR CORRECT OPERATION AND THE CORRECT READING OF THE LIMIT SWITCHES, IF PRESENT*

MASTER / SLAVE SETTING

① INSTALL AND SET THE TWO OPERATORS INDIVIDUALLY *

② CONNECT THE FIRST CIRCUIT ON MOTOR 1 CONTROL UNIT

③ CONNECT THE SECOND CIRCUIT ON MOTOR 2 CONTROL UNIT

④ CONNECT THE TWO CIRCUITS — ⚠ RESPECT THE CABLE POLARITY

Note: use a shielded and twisted pairs transmission cable type RS482 with a section not exceeding 0.5 mm²

⑤ 9 PROGRAMMING — FROM MENU 9-PROGRAMMING EXECUTE THE NORMAL PROCEDURE OF THE WORKING TIMES SELF-LEARNING ON EACH CONTROL UNIT

⑥ M1 CONTROL UNIT CONFIGURATION AS MASTER

⑦ M2 CONTROL UNIT CONFIGURATION AS SLAVE

⑧ ONCE SET EACH UNIT IN MASTER OR SLAVE, SEND A START COMMAND TO THE UNIT SET AS MASTER
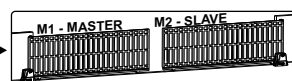
SINGLE MOTOR AND DRY RELAY CONTACT CONNECTION
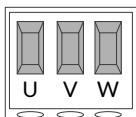
MOTOR 1

Motor connection 1

The motor must be connected to the terminal block CN2 of the Inverter module, in terminals U, V, W. **- DO NOT CONNECT THE CAPACITORS**

In case of two motors, connect the second motor to the second Inverter module, again in the CN2 terminal board.

U: black
V: blue
W: brown

Check if the gate starts in closing direction otherwise you need to invert the black with the brown cable of the motor connections

For special functions see

| MENU 134 RELAY FV 1 | MENU 135 RELAY FV 2 |

- Positive Brake
- Negative Brake
- Negative Brake photocells
- Cooling fan

Dry relay contact max 5A (BR BR)

Dry contact can be set on

BR BR

| MENU 134 RELAY FV 1 | → OK | OFF | → UP | MANAGEMENT OF NEGATIVE BRAKE AND PHOTOCELL | → OK | OK to confirm |

CN1   CN2

L N PE   BR BR U V W

POWER INPUT

L N PE
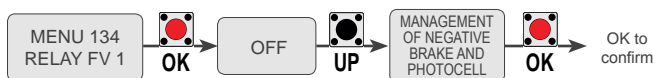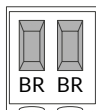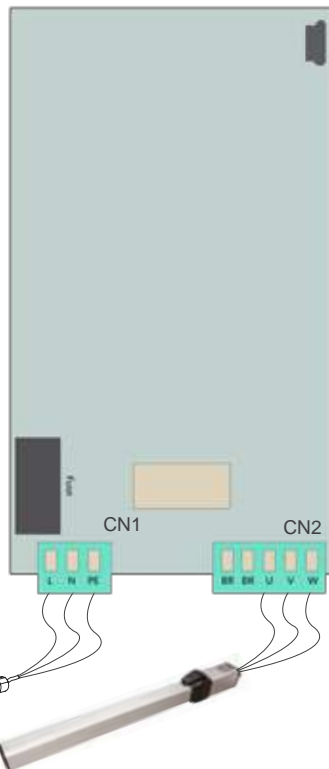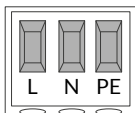
⚠ Note: Note: it is mandatory to connect the earth cable to the PE.
We recommend using a differential switch 16A at the beginning of the system

BRAKE CONNECTIONS

BRAKE CABLE

BRIDGE RECTIFIER

FV MODULE

BR BR — ① ②
PE N L — ⑤ ⑥

⑧ ⑦ ② ①
⑥ ⑤
② ①
③ ④
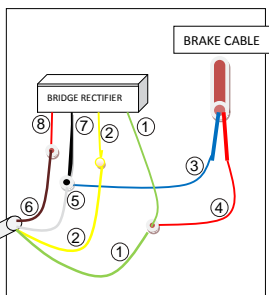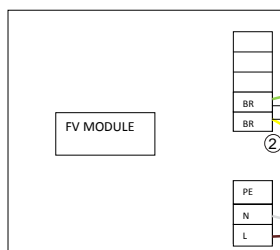
Note:
On the sliding motor BIG/Relay FV1 it is set by default as photocell negative brake management

① green
② yellow
③ blu
④⑧ red
⑤ white
⑥ brown
⑦ black

THREE-PHASE POWER SUPPLY 400 VAC
ALIMENTATION TRIPHASÉE 400 VAC
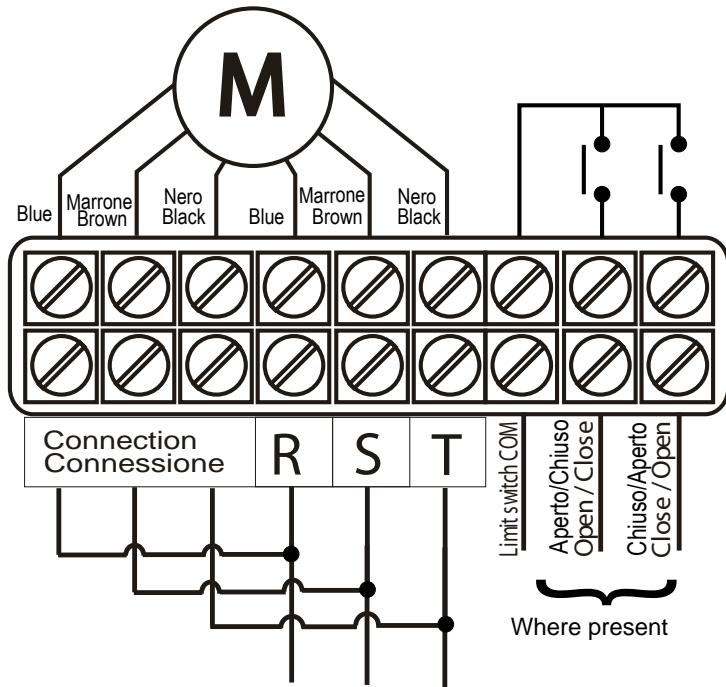
POWER SUPPLY 230 Vac

UNIGATE 2 PM
SINGLE MOTOR AND DRY RELE CONTACT CONNECTION

MOTOR 1
Motor connection 1
The motor must be connected to the terminal block CN3 of the 2 PM module, in terminals 36, 37, 38.

Motor to be connected in the case of a single leaf. In the case of two motors, connect the second motor in the CN 2 terminal board (31, 32, 33).

CABLE COLOUR	**230 V**	**115 V**
Phase 1	black	black
Neutral	blue	white
Phase 2	brown	red

POWER INPUT
To connect the power supply, follow the regulations in force.

Check if the gate starts in closing direction otherwise you need to invert the black with the red cable of the motor connections.
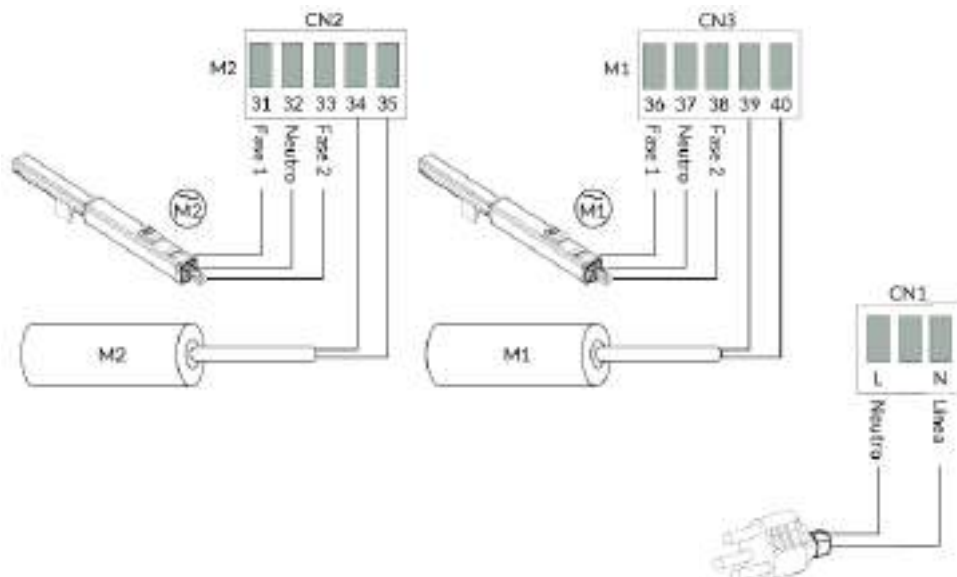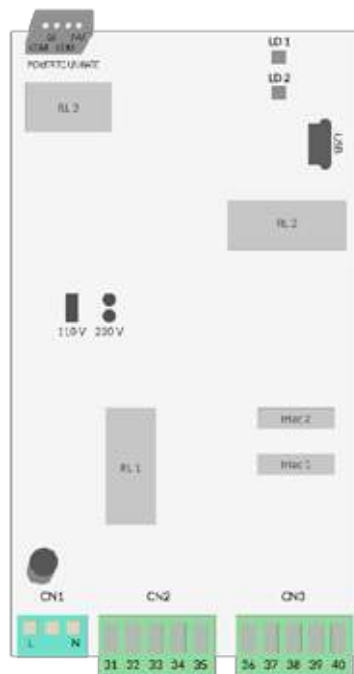
UNIGATE BR
CONNECTIONS 1 OR 2 BRUSHLESS MOTORS
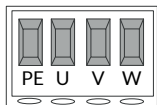
MOTOR 1

Motor connection 1
The motor must be connected to the terminal block CN1 of the Inverter module, in terminals U, V, W.

PE U V W

On PE it is recommended to connect the ground cable

In case of two motors, connect the second motor to the second Inverter module, again in the CN1 terminal board.

Check if the gate starts in closing direction otherwise you need to invert the black with the brown cable of the motor connections

PROG
CN7

USB CN6

CN5

+ - | BRAKE RESISTOR | POWER 20-48 V + - | PE U V W
CN4 | CN3 | CN2 | CN1

+ - | BRAKE RESISTOR | POWER 20-48 V + - | PE U V W
CN4 | CN3 | CN2 | CN1
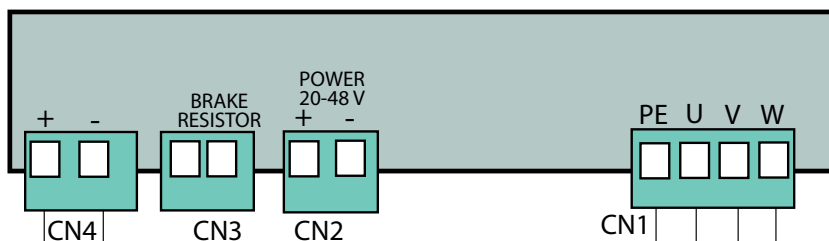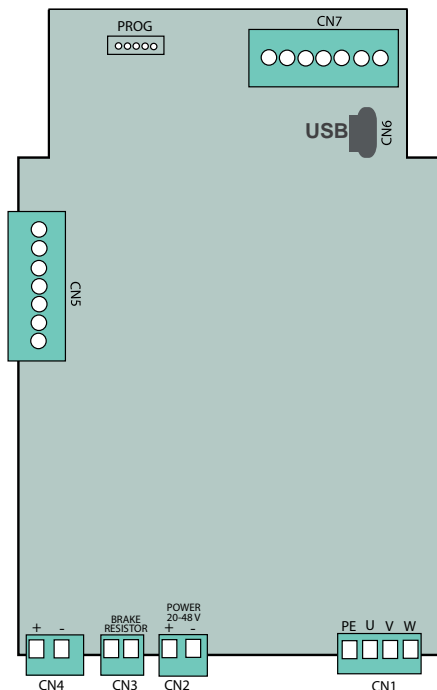
OUTPUT 24V

To be connected to input POWER on the UNILOGIC module

POWER 20-48 V
(Note: the 20-48vdc power supply can come from external switching power supply 300 Va or from rectifier bridge with transformer

PARAMETER AND NO/NC CONTACTS CHECK STATUS

The input status check menu appears at the start of the control unit (for details see chapter 4). Each input corresponds to a fixed position on the display, according to the diagram below and can be Normally Open (N.O.) or Normally Closed (N.C.).

STEP 1)

A. Turn on the control board

B. The firmware version number appears

C. After about 5 seconds, the status of the inputs indicated by 0 or 1 appears

Note: the control unit back light characters display, when not in programming, is always set as shown in the figure.

For more information on the previous lcd segments display: see the Unigate rev 01, rev 02 or rev 03 manuals

0 = open contact (N.O.)

1 = closed contact (N.C.)

1 Start
2 Start pedestrian
3 Stop
4 Photo 1
5 Photo 2
6 Security Edge 1
7 Security Edge 2
8 not used
9 Limit switch opening motor 1
10 Limit switch closing motor 1
11 Limit switch opening motor 2
12 Limit switch closing motor 2
13 not used (slowdown limit switch - Opening motor 1)
14 not used (slowdown limit switch - Closing motor 1)
15 not used (slowdown limit switch - Opening motor 2)
16 not used (slowdown limit switch - Closing motor 2)
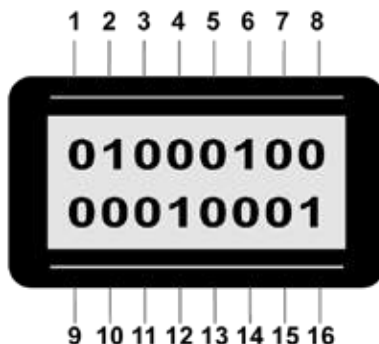
The symbol «1» lit indicates that, during the self-learning phase, the input status is closed or disabled

- When N.C. (Photo, Stop, Limit switch and Edge)
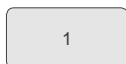
When not engaged or not wired
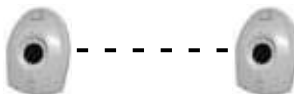
contacts n.c.

When the photocell is crossed or input is engaged
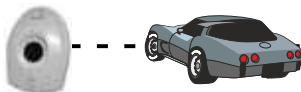
- When N.O. (Start, pedestrian start)

contacts n.o.

When input is engaged

When input is not engaged

<div align="center">

STEP 2)

</div>

Power OFF

STEP 3)
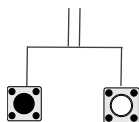
Keep pressed the two buttons **UP** and **DOWN** and, at the same time, switch the power supply in ON for initialization of the control unit, INIT appears on the display

or go to

| MENU 14 RESET | → OK | PRESS UP | → UP | RESET |

Keep pressed for 5 sec
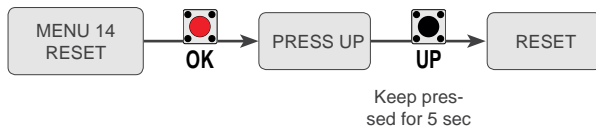
All parameters return to default factory configuration, see column "Default" in the table of the menus and all the inputs will show their real status

| 0 | 1 |
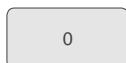
= N.O. contacts = N.C. contacts

To reactivate the NC contacts it is necessary to enter each menu which shows the NC contacts (e.g.: STOP, PHOTO, EDGE....) and with SET put them on ON.

INPUTS CONTROL MENU

Enter the menu │MENU 1 LANGUAGE│ and press the button **OK** 🔴 for 5 seconds, you can enter the *checK MenU*, where it is possible to check the operating status of all inputs.

MENU FUNCTION TABLE				
To access the Menu for input control press the button OK for 5 seconds				
Menu			Description	Description
START ON/OFF	OK UP DOWN	Enabled	Prova Start	Contact = N.O. Default = OFF. If switching the command on the display from OFF to ON the input will work. If ON is always active, check the wirings.
		Blocked		
STOP ON/OFF	OK UP DOWN	Enabled	Prova Stop	Contact= N.C. Default = ON. If switching the command on the display from OFF to ON the input will work. If ON is always active, check the N.C. contact.
		Blocked		
START PARTIAL OPENING ON/OFF	OK UP DOWN	Enabled	Partial Opening Test	Contact = N.O. Default = OFF. If switching the command on the display from OFF to ON the input will work. If ON is always active, check the wirings.
		Blocked		
EDGE 1 ON/OFF	OK UP DOWN	Enabled	Safety edge 1 test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
		Blocked		
EDGE 2 ON/OFF	OK UP DOWN	Enabled	Safety edge 2 test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
		Blocked		
PHOTO 1 ON/OFF	OK UP DOWN	Enabled	Photocell test 1	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
		Blocked		
PHOTO 2 ON/OFF	OK UP DOWN	Enabled	Photocell test 2	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C. S
		Blocked		
M1 Opening Limit Switch ON/OFF			M1 Opening Limit Switch Test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
M1 Closing Limit Switch ON/OFF			M1 Closing Limit Switch Test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
M2 Opening Limit Switch ON/OFF			M2 Opening Limit Switch Test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
M2 Closing Limit Switch ON/OFF			M2 Closing Limit Switch Test	Contact = N.C. Default = ON. If switching the command on the display from ON to OFF the input will work. If OFF is always active, verify that the contact is a N.C.
0.0V			Voltage level on the batteries	This item indicates the battery charger level
END			Exit Menu	

Note: If the Stop, Photocell 1 and Photocell 2, Edge 1 and Enge 2 contacts are not bridged in selflearning, they will be deactivated and can be reactivated through this menu, without repeating times selflearning.

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

WARNING: With Power Off Insert the receiver in the special CNR connector or strip, than switch the Power On and Program the remotes without antenna.

Receiver RF UNI accept both Rolling Plus and Fixed Code (Copy) remotes.

The first remotes programmed between rolling or fix type will set the receiver to accept one of the two for other remotes. For Rolling code remotes press twice the button to store the remote.

For Fixed code remotes press 1 time the button to store the remote. If you press twice you delete it

Notes for Remote programming:

- Only when cycle is finished and the gate is closed.

- You can store max. 2 of the below functions (START, PEDESTRIAN START…ect) .

 If the control unit receives a code that has already been assigned to another function it will be updated with the new function.

RF UNI 16 users without memory
800 users with additional memory MEM

RF UNI PG 100 users fixed code
old model 800 users roll plus

RF UNI PG 100 users fixed code
new model 800 users roll plus

Memory location \ TX button	1	2	3	4	serial number	customer
0						
1						
2						
3						

RADIO CONTROL SELF-LEARNING WITH FIX RECEIVER ON BOARD

ATTENTION: Program the radio controls before connecting the antenna and inserting the receiver into the appropriate CNS connector (if available) with the FIX RF module it will be possible to use only fixed code radio transmitter.

- It will be possible to memorize up to a maximum of 16 codes (buttons), by adding the MEM memory it will be possible to memorize up to 496 different codes.

- It is possible to memorize up to 2 of the 4 functions available. If a code is received that had already been assigned to a function it will be updated with the new function.
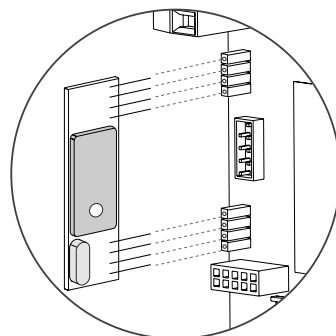
Connect the receiver to the CNS connectors, respecting the direction in the figure .

DELETING THE TX FROM THE RECEIVER

With FIX RF modules, it will be possible to delete only the entire RX memory. Proceed as follows:

MENU 2 TRANSMITTERS → **UP** → Clear memory → **OK** keep pressed → OK

For the other functions see the menu

MENU 2 TRANSMITTERS

MENU TRANSMITTERS

MENU 2 TRANSMITTERS	**OK**	START	**OK**	press button → Press the button of the transmitter to be stored → stored

↓ UP

If you want to program the pedestrian start as second channel — PEDESTRIAN START — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

If you want to program the activation of the light output as second channel — EXTERNAL MODULE — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

If you want to program the stop as second channel — STOP — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

If you want to program the second channel to activate relay CR1 — RELAY 1 — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

If you want to program the second channel to activate relay CR2 — RELAY 2 — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

To program the second channel as BISTABLE STOP — BISTABLE STOP — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

To program the second channel as Latch opening — LATCH APERTURA — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

To program the second channel as Latch opening — LATCH CHIUSURA — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

To program the second channel as electric lock release — RELEASE — **OK** — press button — Press the button of the transmitter to be stored → stored

↓ UP

How to delete a remote — DELETE A TX — **OK** — 0 — Select with UP and DOWN the memory location to be selected and press OK — OK? → OK

If you do not want to cancel, press UP or DOWN to return to the 2 transmitters menu

↓ UP

Move the TX FIX's the extractable memory (MEM) — MOVE ON EEP — **OK** keep pressed — OK → Confirm the cancellation

↓ UP
10 sec keep pressed

How to delete the whole memory — CLEAR MEMORY — **OK** 10 sec — OK → Confirm the cancellation

↓ UP
END

QUICK START AND PROGRAMMING

A) QUICK START

Skip this step if you don't want to programm a transmitter

MENU 1 LANGUAGE → **OK** → ENGLISH

MENU 2 TRANSMITTERS → **OK** → START → **OK** → PRESS BUTTON → Press the button of the TX to be stored → STORED → To exit / Press another button or another TX to be store it

After programming connect the antenna

If on the display appears the item: **RECEIVER MISSING** → check if a receiver has been connected →

Remote control programming
RX

OFF → Connector CNA → ON

MENU 3 MOTOR → **OK** → Choose the type of motor with UP or DOWN → **OK** → To confirm and return to the main menù

Skip this step if you are working in sliding or single leaf mode

MENU 4 NUMERO MOTORI → **OK** → singola anta 1 → **OK** → press OK to confirm → M1

MENU 4 NUMERO MOTORI → **OK** → doppia anta 2 → **OK** → press OK to confirm → M1 ... M2

OK → 3 → **OK** → press OK to confirm → **UNIGATE 2 PM**

OK → 4 → **OK** → press OK to confirm

B) PRESET INSTALLATION

ATTENTION: This procedure is potentially dangerous and must be performed only by certified electrical installers

Turn OFF the power
OFF

B Release the operators
Example — Release

C Manually push the leaves in half position
M1=motor 1
M2=motor 2
M1 ... M2

D Reset the mechanical lock
Example — Lock

E Put the power ON
ON

C) 2 MOTORS MANUAL SELFLEARNING

C.1) WITH IMPULSES *

The gate will start the following cycle: M2 CLOSING - M1 CLOSING - M1 OPENING - M2 OPENING - M2 CLOSING - M1 CLOSING. To store the respective stops during cycle, press UP or DOWN or START on each mechanical stop point of the leaf. Self-learning has been completed.
In the case of a single leaf the cycle will be CLOSING 1 - OPENING 1 - CLOSING 1.

MENU 9 PROGRAMMING → OK → ON
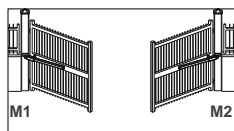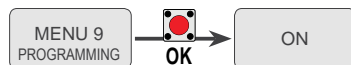
A Both doors halfway
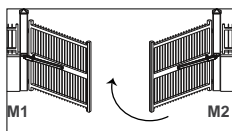
B M2 in closing
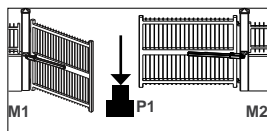
C M2 closed   Press UP or TX, if stored, when **M2** is closed position.
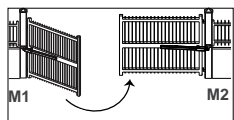
D M1 in closing
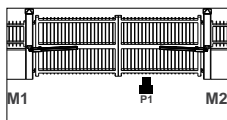
E M1 closed   Press UP or TX, if stored, when **M1** is closed position.
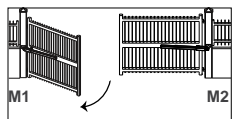
F M1 in opening
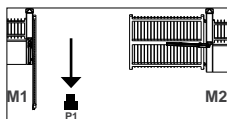
G M1 open   Press UP or TX, if stored, when **M1** is open position.
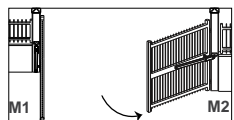
H M2 in opening
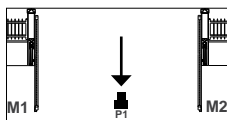
I M2 open   Press UP or TX, if stored, when **M2** is open position.
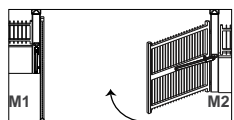
L M2 in closing
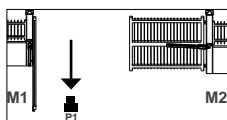
M M2 closed   Press UP or TX, if stored, when **M2** is closed position.
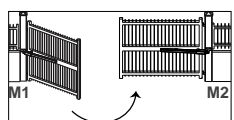
N M1 in closing
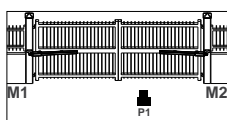
O M1 closed   Press UP or TX, if stored, when **M1** is closed position.

D) AUTOMATIC SELF-LEARNING 2 MOTORS

Make sure that, for all types of self-learning, the gate performs the following cycle: M2 CLOSING, M1 CLOSING, M1 OPENING, M2 OPENING, M2 CLOSING, M1 CLOSING. Otherwise, see the MOTOR REVERS function.
The cycle in case of single leaf will be CLOSE MOTOR 1 - OPEN MOTOR 1 - CLOSE MOTOR 1.

D.1) ENCODER

When an Encoder is installed, it is necessary to select ON in the 32-ENCODER menu.
Note: to adjust sensitivity on obstacle refer to the special menu

MENU 32 ENCODER → **OK** → ON   MENU 9 PROGRAMMING → **OK** → ON

SELF-LEARNING starts AUTOMATICALLY. It is necessary to wait until the leaf or leaves initially start closing and then automatically complete the CLOSING - OPENING - CLOSING cycle.

D.2) ENCODER RS485

When the potentiometer is installed, it is necessary to choose between manual or automatic programming

SX   **DX**

MENU 9 PROGRAMMING → **OK**

CHOOSE DIRECTION **OK** → LEFT / RIGHT → **OK** → PROGRAMMING **OK** → AUTOMATIC **OK**
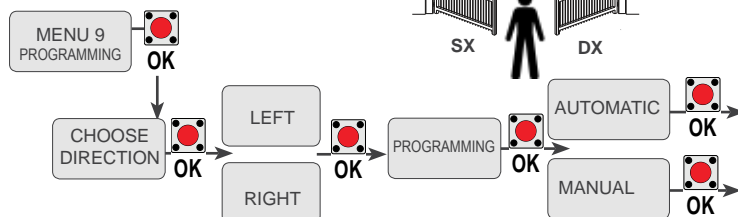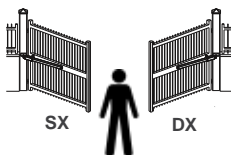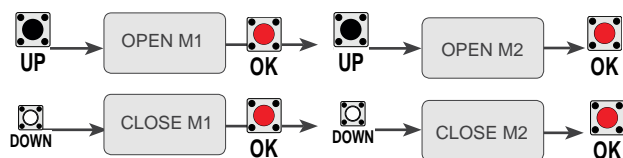
Push **UP**

the gate will do CLOSE - OPEN - CLOSE then give impulse to max opening and closing

MANUAL **OK**

Push **UP**
Posizionare il cancello alla max apertura e premere
Push **OK**

Position the gate at maximum closure and press **OK**

In case of 2 motors

UP → OPEN M1 → **OK** → **UP** → OPEN M2 → **OK**

DOWN → CLOSE M1 → **OK** → **DOWN** → CLOSE M2 → **OK**

note2: In this case it is also possible to modify the parameters I.AP.M1, I.CH. 1, I.AP.M2, I.CH.M2 of + 100 impulses, to optimize the initial and the final position.

D.3) AMPEROMETRIC
(For electromechanical motors only)

This type of selflearning is possible ONLY for electromechanical operators and physical stops.
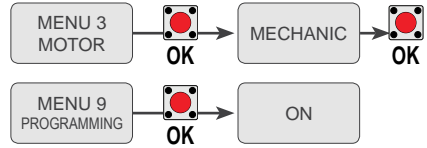
```
MENU 3      [OK]      MECHANIC    [OK]
MOTOR
```

Note: to adjust sensitivity on obstacle refer to the special menu

```
MENU 9      [OK]      ON
PROGRAMMING
```

SELF-LEARNING starts AUTOMATICALLY

At this point it is necessary to wait until the leaf or leaves start before closing and automatically complete the CLOSING - OPENING - CLOSING cycle.

D.4) WITH LIMIT-SWITCHES

1 - LIMIT SWITCH INPUT CHECK: check each limit switch on both doors by activating them before self-learning. The segment on the display will disappear when each limit switch is activated

```
MENU 9            ON
PROGRAMMING
```

SELF-LEARNING starts AUTOMATICALLY

At this point it is necessary to wait until the leaf or leaves first start closing and then automatically complete the CLOSING - OPENING - CLOSING cycle.

*REVERSE MOTOR
If the motor starts in opening, turn power off and on again, select on the display through [●] UP and [○] DOWN press [●] OK and put on ON,

```
MENU 5
REVERSE
MOTOR
```

or, if you have the JOLLY 3 programmer, activate the motor exchange function.

D.5) POTENTIOMETER

When the potentiometer is installed, it is necessary to select

```
MENU 32      [OK]      POTENTIO-    [OK]
ENCODER              METER
```

```
MENU 9      [OK]      ON
PROGRAMMING
```

SELF-LEARNING starts AUTOMATICALLY

It is necessary to wait until the leaf or leaves start before closing and automatically complete the cycle CLOSING - OPENING - CLOSING - OPENING with slowdown - CLOSING with slowdown.

```
MENU 33          [OK]      MENU 37
opening sensi-            slowdown
tivity motor 1           sensitivity
```
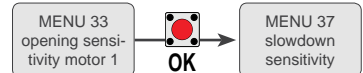
Note: to adjust sensitivity on obstacle refer to the special menu.

The potentiometer threshold intervention is set automatically during self-learning.
It is not necessary to adjust the menu from

```
MENU 38                MENU 45
pot. from threshold    pot. slowdown
to opening 1           threshold closing 2
```

note2: With potentiometer it is also possible to do the learning by giving the pulses as described in point a in the previous paragraph. In this case it is also possible to modify the parameters I.AP. M1, I.CH. 1, I.AP.M2, I.CH.M2 of + 100 impulses, if you need to optimize the initial and the final position. Note 3: In the case of MIXED PROCEDURE (AUTOMATIC stop detection in closing and with MANUAL input in opening) the learning cycle will only be CLOSE-OPEN-CLOSE.

OPERATING FUNCTIONS

Skip this step if you work in semi-automatic logic
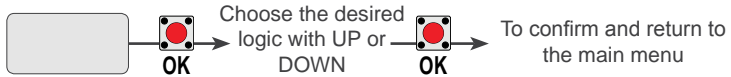
only after the self learning of working times with automatic logic, it will be possible to change logics into to:

A) AUTOMATIC

A start impulse opens the gate. A second impluse during the opening will not be accepted.
A start impulse during closing reverses the movement.

NOTE 1: For automatic closing it is necessary to set a pause time, otherwise all the logics will be semi-automatic.

NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item 8-START IN PAUSE and choosing ON or OFF. By default, the parameter is OFF.

| MENU 7 PAUSE TIME | → more than 0 sec |

| MENU 8 START IN PAUSE | → ON (accepts the start) / OFF (doesn't accepts the start) |
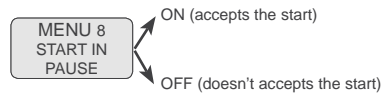
B) SECURITY

A start impulse opens the gate. A second impulse during opening reverses the movement.
A start impulse during closing reverses the movement.

NOTE 1: For automatic closing it is necessary to set a pause time, otherwise all the logics will be semi-automatic.
NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item 8-START IN PAUSE and choosing ON or OFF. By default, the parameter is OFF.

| MENU 7 TEMPO DI PAUSA | → more than 0 sec |

| MENU 8 START IN PAUSE | → ON (accepts the start) / OFF (doesn't accepts the start) |
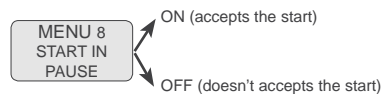
C) STEP BY STEP TYPE 1

The start impulse follows the OPEN-STOP-CLOSE-STOP-OPEN logic.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.

NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item 8-START IN PAUSE and choosing ON or OFF. By default, the parameter is OFF.

| MENU 7 PAUSE TIME | → more than 0 sec |

| MENU 8 START IN PAUSE | → ON (accepts the start) / OFF (doesn't accepts the start) |
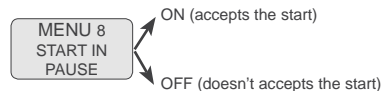
D) STEP BY STEP TYPE 2

The start impulse follows the OPEN-STOP-CLOSE-OPEN logic.
NOTE 1: To have the automatic closing it is necessary to set a pause time, otherwise all the logic will be semi-automatic.

NOTE2: It is possible to choose, whether to accept or not, the start in pause, selecting in the MENU the item *8 - staR t In paUse* and choosing ON or OFF. By default, the parameter is OFF.

| MENU 7 PAUSE TIME | → more than 0 sec |

| MENU 8 START IN PAUSE | → ON (accepts the start) / OFF (doesn't accepts the start) |
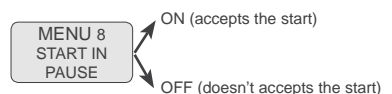
E) DEAD MAN

The gate opens as long as the START button of opening is pressed; releasing it the gate stops.
The gate closes as long as the button connected to the PEDESTRIAN START is pressed; releasing
it the gate stops. To execute complete opening and/or closing cycles the related pushbuttons must
be constantly pressed.

F) 2 BUTTONS

One start opens, one pedestrian start closes. In opening the closing will not be accepted. In closing
a start reopens, a pedestrian start (close) will be ignored.

G) E.F.O.

From MENU 136 it is possible to set the E.F.O. function, which allows emergency closing at maxi-
mum speed without taking into account any of the activated safety devices.
You can reduce or increase the speed of the function

FLASHES OF ALARM

TYPE OF ALARM	NUMBER OF FLASHES	SERIES NUMBER REPETITION	FLASH SEQUENCE TYPE
COMIS	8	9	FAST i.e flashes 0.2 seconds
INVERTER FAULT 1	10	6	SLOW i.e flashes 0.5 seconds
INVERTER FAULT 2	12	6	SLOW i.e flashes 0.5 seconds
REPORT PHOTO 1 -2 CLOSING	2	5	SLOW i.e flashes 0.5 seconds
REPORT PHOTO 1 -2 OPENING	3	1	SLOW i.e flashes 0.5 seconds
REPORT OPENING COLLISION	6	11	SLOW i.e flashes 0.5 seconds
REPORT CLOSING COLLISION	6	11	SLOW i.e flashes 0.5 seconds
REPORT SAFETY EDGE	4	4	SLOW i.e flashes 0.5 seconds
SAFETY EDGE 1-2 FAULT	4	4	SLOW i.e flashes 0.5 seconds
PHOTO 1 FAULT	3	1	SLOW i.e flashes 0.5 seconds
PHOTO 2 FAULT	3	1	SLOW i.e flashes 0.5 seconds
STOP	5	2	SLOW i.e flashes 0.5 seconds
LIMIT SWITCHES FAULT	4	11	FAST i.e flashes 0.2 seconds
CYCLES ALARM	7	2	SLOW i.e flashes 0.5 seconds
if we set flashing as "ALWAYS" it will flash with a time of 0.5 seconds			
if we set flashing as "BUZZER" it will sound with a time of 0.5 seconds			
if we set flashing as "NORMAL" it flashes with a time of 0.3 seconds in closing and 0.5 seconds in opening			
if the network is missing, it flashes for 1 seconds			

UNIGATE FV - UNIGATE BR EVENTS SAVED ON DIAGNOSTIC MENU	UNIGATE FV - UNIGATE BR - ALARMS ON DISPLAY REPORTING
FOTO CLOSING	NETWORK MISSING FAULT
FOTO OPENING	24V FAULT
OBSTACLE IN OPENING	COMIS FAULT
OSTACLE IN CLOSING	SAFETY EDGE 1 FAULT
EDGE 1 FAULT	SAFETY EDGE 2 FAULT
EDGE 2 FAULT	FOTO 1 FAULT
STOP	FOTO 2 FAULT
MAITENANCE	LIMIT SWITCH FAULT
NETWORK MISSING	BATTERY FAULT
LIMIT SWITCH	POTENTIOMETER FAULT
ALWAYS CLOSE	POTENTIOMETER 1 DIRECTION FAULT
EMERGENCY	POTENTIOMETER 2 DIRECTION FAULT
INVERTER 1	SERIAL INVERTER 1 FAULT
INVERTER 2	SERIAL INVERTER 2 FAULT
INVERTER FROM MODULE 1	SERIAL INVERTER FROM MODULE 1 FAULT
INVERTER FROM MODULE 2	SERIAL INVERTER FROM MODULE 2 FAULT
COMIS	INVERTER 1 FAULT (FOLLOWED BY ERROR CODE)
	INVERTER 2 FAULT (FOLLOWED BY ERROR CODE)
	MODULE 1 TYPE ERROR
	MODULE 2 TYPE ERROR
	PASSWORD ERROR

INVERTER ERRORS	ERRORS SUM TABLE * NUMBERS SUMS FOLLOWS THE ORDER OF THE COLUMNS ASIDE	UNIGATE FV - UNIGATE BR -ALARMS ON DISPLAY REPORTING
2	6 - 10 - 18 - 66 - 258 - 514	OVER VOLTAGE
4	12 - 20 - 68 - 260 - 516	UNDER VOLTAGE
8	24 - 72 - 264 - 520	OVER TEMPERATURE MODULE INVERTER
16	80 - 272 - 528	OVER TEMPERATURE MODULE INVERTER
64	320 - 576	OVER CURRENT
256 (only on FV module)	768	COMMUNICATION FAULT
512 (only on FV module)		SHUT DOWN MODULE

*In case of Errors, the display shows the Error Sum.
 Example: if the Error 260 is shown, it will be the sum of errors "4"+ "256"

UNIGATE FV EVENTS SAVED ON DIAGNOSTIC MENU	UNIGATE FV ALARMS ON DISPLAY REPORTING
FAULT POTENTIOMETER 1-MECHANICAL	FAULT ROTARY ENCODER 1 - RS484
FAULT POTENTIOMETER 2-MECHANICAL	FAULT ROTARY ENCODER 2 - RS484
FAULT POTENTIOMETER 1 VOLTAGE	FAILURE POWER SUPPLY OR VOLTAGE ERROR ON ROTARY ENCODER 1 - RS484
FAULT POTENTIOMETER 2 VOLTAGE	FAILURE POWER SUPPLY OR VOLTAGE ERROR ON ROTARY ENCODER 2 - RS484
FAULT 1 - RS485	NON COMMUNICATION BETWEEN ROTARY ENCODER 1 - RS485 AND SCHEDA RS 485
FAULT 2 - RS485	NON COMMUNICATION BETWEEN ROTARY ENCODER 2 - RS485 AND SCHEDA RS 485
FAULT RS 485 - SERIAL	NON COMMUNICATION BETWEEN RS485 AND UNIGATE

UNIGATE FV - ALARMS FAULT ON FLASHING LAMP	ALARMS FAULT ON FLASHING LAMP
5 FLASHING FOR 6 TIMES IN SLOW SEQUENCE	FAULT ROTARY ENCODER 1 - RS484 O FAULT RS485 SERIAL
5 FLASHING FOR 6 TIMES IN FAST SEQUENCE	FAULT ROTARY ENCODER 2 - RS484

MENU FUNCTIONS TABLE - UNIGATE

	MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
1	LANGUAGE	*Italiano*	Italian	*ALL*	*English*	
		English	English			
		Français	French			
		Español	Spanish			
		Dutch	Dutch			
2	TRANSMITTERS	*Start*	Start	*ALL*	*Start* *Partial opening*	
		Partial opening	Partial opening			
		External module	External module			
		Stop	Stop			
		Relay 1	To Activate Relay 1 for 3 seconds. This function requires menu "Relay 1" set on "TX Relay"			
		Relay 2	To Activate Relay 2 for 3 seconds. This function requires menu "Relay 2" set on "TX Relay"			
		Bistable Stop	Pressed once, it stops the gate. Pressed twice, it reactivates the START input			
		Latch opening	One impulse opens and keep open. A second impulse restore the movement			
		Latch closing	One impulse closes and keep closed. A second impulse restore the movement			
		Unlock	To store a command for unlocking the electric brake			
		Delete a transmitter	To delete a single transmitter (TX)			
		Move to EEP	To transfer the transmitters stored on the control unit to the external EEPROM (MEM), if connected			
		Clear memory	To delete the full TX memory on the receiver			
		End	To exit the menu "transmitters"			
3	MOTOR	***1-** Hydraulic*	Hydraulic operators - Series I ***(INVERTER)***	*INVERTER 2PM*	*Hydraulic*	
		***2-** Sliding*	Sliding operators - Series I ***(INVERTER)*** ***(Lepus FAST operator too)***			
		***3-** Reversible Sliding*	Reversible sliding operators - Series I ***(INVERTER)***			
		***4-** Electromechanic swing*	Electromechanic swing operators - Series I ***(INVERTER)***			
		***5-** Three-phase - Bollards*	Three-phase operators and Bollards Series I BIG ***(INVERTER with BIG module)***			
		***7-** Barrier*	Barriers - Series I ***(INVERTER)***	*INVERTER*		
		***8-** BIG Fast* *BIG Super Fast 4LS*	Sliding operators - Series I BIG ***(INVERTER with BIG module)***			
		***9-** BIG*	Sliding operators - Series I BIG ***(INVERTER with BIG module)***			
		***10-** JOINT 4LS*	Hydraulic operator with 4 limit switch ***Series I (INVERTER)***			
		***60-** BIG RS 485*	Sliding operators - Series I BIG ***(INVERTER with BIG module)***			
		***61-** SEAGEAR RS 485*	Sliding operators - Series I BIG ***(INVERTER with BIG module)***			
		***62-** PORTA RAPIDA*	Electromechanic operator - Series I ***(INVERTER)***			
		***50-** HALF TANK BR*	Hydraulic operator - Series BR ***(BRUSHLESS)***	*BR*	*HALF TANK BR*	
		***51-** SURF BR*	Electromechanic swing operator - Series BR ***(BRUSHLESS)***			
		***52-** SATURN BR*	Electromechanic operator - Series BR ***(BRUSHLESS)***			
		***56-** COMPACT BR*	Hydraulic operator - Series BR ***(BRUSHLESS)***			

	MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
4	GATES NUMBER	*From 1 to 2*	To set the number of motors to be managed	***INVERTER BR***	*1*	
		From 1 to 4		***2PM***	*2*	
5	REVERSE MOTOR	*On*	To reverse the opening with the closing or vice-versa ***(both motors and limit-switches are reversed)***	*ALL*	*Off*	
		Off	Off			
6	LOGIC	*Automatic*	Automatic	*ALL*	*Auto-matic*	
		Open-stop-close-stop-open	Step by step type 1			
		Open-stop-close-open	Step by step type 2			
		2 button	Two buttons			
		Safety	Safety			
		Dead man	Dead man			
7	PAUSE TIME	*Off*	OFF (semi-automatic logics)	*ALL*	*Off*	
		1 240	Setting from 1 second to 4 minutes			
8	START IN PAUSE	*Off*	The Start command is not accepted during pause	*ALL*	*Off*	
		On	The Start command is accepted during pause			
9	PROGRAMMING	*Off On*	To start the working times self-learning	*ALL*	*Off*	
10	TEST START	*Off On*	To give a Start command for testing the automation	*ALL*	*Off*	
11	BEAM LENGTH	*3m - 4m - 5m - 6m 7m - 7,5m - 8m*	This menu will be shown only if the option **7-Barrier is set in the menu 3-MOTORS**. It allows to choose the beam length ***(values in meters)***	***INVERTER BR***	- - - -	
12	SLOWDOWN LIMIT SWITCH	*Off On*	This menu will be shown only if the option **5-Threephase/Bollards is set in the menu 3-MOTORS.** It allows to activate the slowdown limit switch <u>on bollards</u>	***INVERTER***	*Off*	
13	LATCH PAUSE	*Off On*	If "ON" the operator complies with the pause time set when the function "LATCH OPENING" is disabled. When "OFF" the pause time set is not respected	***INVERTER BR***	*Off*	
14	RESET	A count-down of 5 seconds will start by holding the UP button; at its end "INIT" will appear on the display as confirmation of the control board reset				
192	MOVE GATE 1 *	Allows the movement of the gate for tests or specific positioning in a temporary "dead man" mode HOLDING **UP** PRESSED = OPEN HOLDING **DOWN** PRESSED = CLOSE		***INVERTER BR***	- - - -	
193	MOVE GATE 2 *	Allows the movement of the gate for tests or specific positioning in a temporary "dead man" mode HOLDING **UP** PRESSED = OPEN HOLDING **DOWN** PRESSED = CLOSE		***INVERTER BR***	- - - -	
* The command is accepted only at the end of the cycle or after a STOP; it is not accepted during the cycle and during the pause						
15	END	*Press OK to return to the display of the firmware version and to the one of inputs state*				
16	SPECIAL MENU	*Press OK to enter the special menu*				

SPECIAL MENU

PRESS UP AND DOWN FOR 5 SECONDS AT THE SAME TIME TO ENTER OR TO EXIT THE SPECIAL MENU

UP   DOWN

LEGEND

INVERTER - FUNCTION AVAILABLE ON MODEL UNIGATE WITH INVERTER MODULE (1I - 2I - 1I BIG - 2I BIG)

2PM - FUNCTION AVAILABLE ON MODEL UNIGATE WITH 2PM MODULE

BR - FUNCTION AVAILABLE ON MODEL UNIGATE WITH BR MODULE

ALL - COMMON FUNCTIONS - AVAILABLE ON ALL UNIGATE MODELS

SPECIAL MENU FUNCTIONS TABLE - UNIGATE

	SPECIAL MENU	SET		DESCRIPTION	MODEL	DEFAULT	NOTE
17	OPENING SPEED 1	*10*	*100*	Speed in opening Motor 1	*INVERTER*	*80*	
		30	*100*		*BR*		
18	CLOSING SPEED 1	*10*	*100*	Speed in closing Motor 1	*INVERTER*	*80*	
		30	*100*		*BR*		
19	OPENING SPEED 2	*10*	*100*	Speed in opening Motor 2	*INVERTER*	*80*	
		30	*100*		*BR*		
20	CLOSING SPEED 2	*10*	*100*	Speed in closing Motor 2	*INVERTER*	*80*	
		30	*100*		*BR*		
21	SLOWDOWN SPEED IN OPENING 1	*From 10% to 60% of the maximum speed*		slowdown speed in opening Motor 1	*INVERTER* *BR*	*30*	
22	SLOWDOWN SPEED IN CLOSING 1	*From 10% to 60% of the maximum speed*		slowdown speed in closing Motor 1	*INVERTER* *BR*	*30*	
23	SLOWDOWN SPEED IN OPENING 2	*From 10% to 60% of the maximum speed*		slowdown speed in opening Motor 2	*INVERTER* *BR*	*30*	
24	SLOWDOWN SPEED IN CLOSING 2	*From 10% to 60% of the maximum speed*		slowdown speed in closing Motor 2	*INVERTER* *BR*	*30*	
25	LEARNING SPEED	*10%*	*100 %*	To adjust the time self-learning speed. This para- meter can change according to the motor type set	*INVERTER*	*50*	
		20%	*100 %*		*BR*		
26	LEAF DELAY IN OPENING	*Off 6 Total*		Adjustable from Off to 6 seconds to "Total" ***(if on "Total" the Motor2 will start opening only after the Motor1 has completed the movement)***	*INVERTER* *BR*	*1,5*	
		Off 6		Adjustable from OFF *(disabled)* to 6 seconds	*2PM*		
27	LEAF DELAY IN CLOSING	*Off 20 Total*		Adjustable from Off to 20 seconds to "Total" ***(if on "Total" the Motor1 will start closing only after the Motor2 has completed the movement)***	*INVERTER* *BR*	*2,5**	
		Off 20		Adjustable from OFF *(disabled)* to 20 seconds	*2PM*		
28	OPENING TORQUE 1	*50%*	*100 %*	**Motor 1 opening torque:** by increasing the torque, more strength will be required to execute the inversion in case of obstacle	*INVERTER* *2PM*	*100%*	
		5%	*100 %*		*BR*		
29	CLOSING TORQUE 1	*50%*	*100 %*	**Motor 1 closing torque:** by increasing the torque, more strength will be required to execute the inversion in case of obstacle	*INVERTER* *2PM*	*100%*	
		5%	*100 %*		*BR*		
30	OPENING TORQUE 2	*50%*	*100 %*	**Motor 2 opening torque:** by increasing the torque, more strength will be required to execute the inversion in case of obstacle	*INVERTER* *2PM*	*100%*	
		5%	*100 %*		*BR*		
31	CLOSING TORQUE 2	*50%*	*100 %*	**Motor 2 closing torque:** by increasing the torque, more strength will be required to execute the inversion in case of obstacle	*INVERTER* *2PM*	*100%*	
		5%	*100 %*		*BR*		

SPECIAL MENU		SET	DESCRIPTION	MODEL	DEFAULT	NOTE
32	ENCODER	*On*	**ON** = Encoder enabled **OFF** = Encoder disabled *(when OFF, the working times learnt are only shown)*	*ALL*	*It depends on motor*	
		Enc ABC	To enable the rotary Encoder for the management of the brushless operator and its position	***BR***	*It depends on motor*	
	47 ENCODER PAR.1	*xxx.*	Impulses read by Encoder during operation **(Motor1)**			
	48 ENCODER TOT. 1	*xxx.*	Impulses stored during programming **(Motor 1)**			
	49 ENCODER PAR.1	*xxx.*	Impulses read by Encoder during operation **(Motor2)**			
	50 ENCODER TOT. 2	*xxx.*	Impulses stored during programming **(Motor 2)**			
32	ENCODER	*Potentiometer*	To enable the reading of the potentiometer	*ALL*	*Off*	
		RS 485	To enable the reading of the absolute rotative Encoder	***INVERTER BR***		
	51 I.PAR.M1 *	- - - - - - -	To show the current position of the potentiometer on the leaf moved by **Motor 1**. This parameter is useful to see if the potentiometer is correctly read			
	52 I.AP.M1	From the value learnt to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 1** is fully open			
	53 I.CH.M1	From the value learnt to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 1** is fully close			
	54 I.PAR.M2 *	- - - - - - -	To show the current position of the potentiometer on the leaf moved by **Motor 2**. This parameter is useful to see if the potentiometer is correctly read			
	55 I.AP.M2	From the value learnt to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 2** is fully open			
	56 I.CH.M2	From the value learnt to ± 100 pulses	To show the impulses stored by the control unit when the leaf moved by **Motor 2** is fully close			
* While the partial impulses are displayed, it is possible to OPEN (by pressing UP) or CLOSE (by pressing DOWN) the corrsponding operator to verify the correct reading of the potentiometer after installation or simply for checking						
32	ENCODER	*Off*	**ON** = Encoder enabled **OFF** = Encoder disabled *(when OFF, the working times learnt are only shown)*	*ALL*	*Off*	
	65 OPENING TIME M1	*xxx.s*	To display the learnt value during the working times self learning, in opening and closing **(Motor 1)**. With UP or DOWN it is possible to increase or reduce the working times			
	66 CLOSING TIME M1	*xxx.s*				
	67 OPENING TIME M2	*xxx.s*	To display the learnt value during the working times self learning, in opening and closing **(Motor 2)**. With UP or DOWN it is possible to increase or reduce the working times			
	68 CLOSING TIME M2	*xxx.s*				
33	OPENING SENSITIVITY MOTOR 1	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 1 in opening	*ALL*	*Off*	
		Off (Intervention excluded)	Disabled			
34	CLOSING SENSITIVITY MOTOR 1	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 1 in closing	*ALL*	*Off*	
		Off (Intervention excluded)	Disabled			
35	OPENING SENSITIVITY MOTOR 2	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 2 in opening	*ALL*	*Off*	
		Off (Intervention excluded)	Disabled			
36	CLOSING SENSITIVITY MOTOR 2	*10% (Fast intervention)* *99% (Slow intervention)*	To adjust the Encoder or Potentiometer intervention time on Motor 2 in closing	*ALL*	*Off*	
		Off (Intervention excluded)	Disabled			

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
37	SLOWDOWN SENSITIVITY MOTOR	10% (Fast intervention) 99% (Slow intervention)	To adjust the amperometric sensitivity in slowdown *Function available only on electro-mechanic operators*	ALL	*Off*	
		With potentiometer	To set the inversion time in slow-down from 0 to 5 seconds *(= 99%) - Only with potentiometer enabled*		*30%*	
38	POTENTIOMETER THRESHOLD OPENING 1	*1 1000* *(only if the Menu 32-Encoder is set on "Potentiometer")*	To adjust the threshold of the potentiometer intervention. This parameter self-determines during the working times learning but can also be adjusted later, on the condition that the set value is higher than the value shown in VP1 or VP2 (instantaneous speed values which can be shown by accessing the DEBUG menu). *NOTE: The lower the threshold value, the slower will be the response of the potentiometer.*	ALL	- - - -	
39	POTENTIOMETER THRESHOLD CLOSING 1					
40	POTENTIOMETER THRESHOLD OPENING 2					
41	POTENTIOMETER THRESHOLD CLOSING 2					
42	POTENTIOMETER SLOWDOWN THRESHOLD OPENING 1	*1 100* *(only if the Menu 32-Encoder is set on "Potentiometer")*	To adjust the threshold of the potentiometer intervention in slowdown. By default this value is set on 10. but can be manually increased on the condition that the set value is higher than the value shown in VP1 or VP2 *(instantaneous speed values which can be shown by accessing the DEBUG menu)*	ALL	15	
43	POTENTIOMETER SLOWDOWN THRESHOLD CLOSING 1					
44	POTENTIOMETER SLOWDOWN THRESHOLD OPENING 2					
45	POTENTIOMETER SLOWDOWN THRESHOLD CLOSING 2					
46	CLOSING INVERSION	*Total*	In case of obstacle or safety edge it totally reverses the movement during closing. If active, the automatic reclosing will be attempted for 5 times	ALL	*Total*	
		Partial	In case of obstacle, safety edge or potentiometer, it partially reverses direction *(of about 30 cm)* then stops			
	For menu 47 and 50 see menu 32-Encoder = On					
	For menu from 51 to 56 see menu 32-Encoder = Potentiometer					
57	WORKING CURRENT 1	*...... Ampere*	To display the absorbed current during Motor 1 working	*INVERTER BR*	- - - -	
58	WORKING CURRENT 2	*...... Ampere*	To display the absorbed current during Motor 2 working	*INVERTER BR*	- - - -	
59	OPENING SLOWDOWN 1	*0 50*	From 0% to 50% of the stroke *(0% = slowdown excluded)*	ALL	30	
60	CLOSING SLOWDOWN 1	*0 50*	From 0% to 50% of the stroke *(0% = slowdown excluded)*	ALL	30	
61	OPENING SLOWDOWN 2	*0 50*	From 0% to 50% of the stroke *(0% = slowdown excluded)*	ALL	30	
62	CLOSING SLOWDOWN 2	*0 50*	From 0% to 50% of the stroke *(0% = slowdown excluded)*	ALL	30	
63	DECELERATION	*0 %* *100%*	To adjust the change from normal speed to slowdown speed	ALL	*It depends on motor*	
64	ACCELERATION	*0,1 s* *5 s*	Acceleration ramp. To adjust the motor start	ALL	*It depends on motor*	
	For menu from 65 to 68 see menu 32-Encoder = Off (They are visible even with 32-Encoder set ON)					

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
69	ANTI OVERLAP	*Off*	To disable the anti-overlapping control of the leaves allowing their separate control	*ALL*	*Off*	
		On	To enable the anti-overlapping control of the leaves			
70	OPENING POSITION RECOVERY	*0 20 seconds* **(only if 32-Encoder is OFF)**	To retrieve the inertia of the motor in opening after the Stop or the reversing	*ALL*	*It depends on motor*	
71	CLOSING POSITION RECOVERY	*0 20 seconds* **(only if 32-Encoder is OFF)**	To retrieve the inertia of the motor in closing after the Stop or the reversing	*ALL*	*It depends on motor*	
72	OPENING TOLE-RANCE MOTOR 1	*0% 100%*	To adjust the Motor 1 tolerance between the stop and the obstacle, in opening	*ALL*	*20%*	
73	CLOSING TOLE-RANCE MOTOR 1	*0% 100%*	To adjust the Motor 1 tolerance between the stop and the obstacle, in closing	*ALL*	*20%*	
74	OPENING TOLE-RANCE MOTOR 2	*0% 100%*	To adjust the Motor 2 tolerance between the stop and the obstacle, in opening	*ALL*	*20%*	
75	CLOSING TOLE-RANCE MOTOR 2	*0% 100%*	To adjust the Motor 2 tolerance between the stop and the obstacle, in closing	*ALL*	*20%*	
76	PUSHING STROKE	*Time Pushing Off - 3 sec Stroke*	Before opening, the motor starts in closing for the time set, in order to simplify the lock release	*ALL*	*Off*	
		Repeat Lock Off – On Release	If **ON**, the lock will be released both before and after the pushing stroke			
		End				
77	LOCK TIME	*Off 5*	To adjust the lock release time from 0 to 5 seconds	*ALL*	*3*	
78	LOCK	*Only opening*	Lock enabled only before opening	*ALL*	*Only opening*	
		Only closing	Lock enabled only before closing			
		Opening and closing	Lock enabled before opening and closing			
79	ANTI INTRUSION	*Only opening*	If the gate is forced manually, the control unit starts the motor and restores the state of the gate before forcing **(function only available if limit switches are installed)**	*ALL*	*Off*	
		Only closing				
		Opening and closing				
		Off				
80	PUSHOVER	*Off*	The gate leaf makes an extra movement at the maximum torque to ensure the tightening of the gate	*ALL*	*Off*	
		Opening and closing				
		Only closing				
		Only opening				
81	PERIODICAL PUSHOVER	*Off 8h* **(only if 80-Pushover is ON)**	To activate the repetition of the pushover function at a distance of time adjustable from 0 to 8 hours, at hourly intervals	*ALL*	*Off*	
82	MOTOR RELEASE	*Opening 1 Off - 3 s*	If different from OFF, the operator slightly reverses its direction at the end of the cycle	*ALL*	*It depends on motor*	
		Closing 1 Off - 3 s				
		Opening 2 Off - 3 s				
		Closing 2 Off - 3 s				
		End				
83	EXTRA TIME	*Opening1 Off - 10s*	If the limit switches are installed, it is possible to add an extra time **(max. 10 seconds)** to the movement of the operators after the reading of the limit switches	***INVERTER BR***	*1.0 s*	
		Closing 1 Off - 10s				
		Opening2 Off - 10s				
		Closing 2 Off - 10s				
		EXIT				
		0.0 s 10 s		***2PM***		

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
85	PRE-FLASHING	Only closing	To enable the pre-flashing only before closing *(to access: push DOWN button when 0.0 value is shown)*	ALL	*0.0 s*	
		0.0 5.0 s	To set the pre-flashing duration			
86	FLASHING LIGHT	*Normal*	Normal	ALL	*Normal*	
		Light	Warning lamp function			
		Always	Always ON			
		Buzzer	Buzzer			
87	FLASHING LIGHT AND TIMER	*Off*	The flashing light will be OFF with enabled timer and open gate	ALL	*Off*	
		On	The flashing light will be ON with enabled timer and open gate			
88	COURTESY LIGHT	*Off*	Disabled	ALL	*In cycle*	
		1 240	Adjustable from 1 second to 4 minutes			
		In cycle	Courtesy light only in cycle			
89	TRAFFIC LIGHT RESERVATION	*Off On*	To get the priority in entry or exit. ***Available by the use of the partial opening contact***	ALL	*Off*	
90	PARTIAL OPENING	*5% 100%*	Adjustable from 5% to 100%	ALL	*50%*	
91	PARTIAL PAUSE	*= Start*	The pause in partial opening is the same as in total opening	ALL	*= Start*	
		Off	Disabled			
		1 240	Adjustable from 1 second to 4 minutes			
92	TIMER	*Off*	To turn the selected input into an input to which connect an external clock	ALL	*Off*	
		On photo2				
		On partial input				
		Clock				
93	FIRE SWITCH	*Off*	Disabled	ALL	*Off*	
		On Photo2	Function enabled on the Photocell 2 input			
		On partial input	Function enabled on the partial opening Start input			
94	24V AUX *(Max. 500 mA)*	*Always*	AUX output always powered	ALL	*Always*	
		In cycle	AUX output powered only during cycle			
		Opening	AUX output powered only during opening			
		Closing	AUX output powered only during closing			
		In pause	AUX output powered only during pause			
		Phototest	AUX output powered for safety devices testing			
		In cycle and phototest	AUX output powered during cycle only and for safety devices testing			
		In cycle and pause	AUX output powered during cycle and during pause			
		Courtesy light (connected through relay)	AUX output allows the connection of an additional relay for the management of an additional light which will work as per Menu-88 settings			
		Barrier and Bollard LED lights	**Closed operator** - the light is switched-on **Open operator** - the light is switched-off **Moving operator** - the light blinks			
		Open gate warning light (connected through relay)	**1 flash per second** during opening **2 flashes per second** during closing **Steady lit** in "Stop" or "Open" status			

SPECIAL MENU		SET	DESCRIPTION	MODEL	DEFAULT	NOTE
95	PHOTO-TEST	*Photo 1*	Self-test enabled only on photocell 1	*ALL*	*Off*	
		Photo 2	Self-test enabled only on photocell 2			
		Photo 1 and 2	Self-test enabled on photocells 1 and 2			
		Off	Disabled			
96	SAFETY EDGE SELF-TEST	*Edge 1*	Self-test enabled only on safety edge 1	*ALL*	*Off*	
		Edge 2	Self-test enabled only on safety edge 2			
		Edges 1 and 2	Self-test enabled on safety edges 1 and 2			
		Off	Disabled			
97	PHOTOCELL 1	*Closing*	If the photocell is occupied during closing, the gate reverses the movement; If the photocell is occupied during the pause, it prevents the gate reclosing	*ALL*	*Closing*	
		Opening and closing	If the photocell is occupied during opening or closing, it stops the gate movement; when the photocell is released, the movement continues			
		Stop	If the photocell is occupied before the Start input, the Start will be ignored. If the photocell is occupied after the Start input, the photocell will be ignored. If the photocell is occupied during closing, the gate will reopen			
		Stop and close	If the photocell is occupied during closing, it stops the gate movement; when released, the closing movement continues			
		Close	The photocell stops the gate until it is occupied in both opening and closing; when released, the photocell gives a closing command *(the gate closes one second after the photocell release)*			
		Closing Pause reloading	If the photocell is occupied during the pause, it recharges the same pause time set. If the photocell is occupied in closing, it reverses the gate movement			
		Opening and Closing Pause reloading	If the photocell is occupied during the pause, it recharges the same pause time set. If the photocell is occupied during the closing, it reverses the gate movement; If the photocell is occupied during the opening, it stops the gate and when released, the opening movement continues			
		Shadow loop (For 2PM module: not active if menù-121 is on "Photo 1 10K")	When the gate is open, the shadow loop prevents the reclosing until it is occupied. The Shadow loop is switched off during closing			
		Delete pause time	If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time set			
		Shadow loop RP (pause reloading) (For 2PM module: not active if menù-121 is on "Photo 1 10K")	When the gate is open, the shadow loop prevents the reclosing until it is occupied. When released, the gate repeats the pause time set, then it closes. The Shadow loop is switched off during closing			

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
98	PHOTOCELL 2	*Closing*	If the photocell is occupied during closing, the gate reverses the movement; If the photocell is occupied during the pause, it prevents the gate reclosing	*ALL*	*Opening and closing*	
		Opening and closing	If the photocell is occupied during opening or closing, it stops the gate movement; when the photocell is released, the movement continues			
		Stop	If the photocell is occupied before the Start input, the Start will be ignored. If the photocell is occupied after the Start input, the photocell will be ignored. If the photocell is occupied during closing, the gate will reopen			
		Stop and close	If the photocell is occupied during closing, it stops the gate movement; when released, the closing movement continues			
		Close	The photocell stops the gate until it is occupied in both opening and closing; when released, the photocell gives a closing command *(the gate closes one second after the photocell release)*			
		Opening Pause reloading	If the photocell is occupied during the pause, it recharges the same pause time set. If the photocell is occupied during the opening, the gate stops and when released, the movement continues			
		Pause reload Photo closing	If the photocell is occupied during the pause, it recharges the pause time set. If the photocell is occupied during closing, the gate reverses the movement			
		Opening and Closing Pause reloading	If the photocell is occupied during the pause, it recharges the same pause time set. If the photocell is occupied during the closing, it reverses the movement; If the photocell is occupied during the opening, it stops the gate and when released, the opening movement continues			
		Shadow loop (For 2PM module: not active if menù-122 is on "Photo 2 10K")	When the gate is open, the shadow loop prevents the reclosing until it is occupied. The Shadow loop is switched off during closing			
		Delete pause time	If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time set			
		Shadow loop PR (pause reloading) (For 2PM module: not active if menù-122 is on "Photo 2 10K")	When the gate is open, the shadow loop prevents the reclosing until it is occupied. When released, the gate repeats the pause time set, then it closes. The Shadow loop is switched off during closing			
		Stop and open	If the photocell is occupied during opening, the gate will stop; when released, the gate continues the opening movement. The photocell is ignored during closing			
99	PHOTO OFF IN CLOSING	*0% 50%*	In closing, this function excludes the photocell reading for the space percentage set	*INVERTER*	*0%*	

	SPECIAL MENU	SET		DESCRIPTION	MODEL	DEFAULT	NOTE
100	SAFETY EDGE 1	*Normal*		Normal N.C. contact	*ALL*	*Normal*	
		8K2 N.C.		Safety edge protected by a 8K2 resistor enabled			
		8K2 N.C. Double		Two safety edges protected by 8K2 resistor enabled			
		8K2 RES		Resistive edge protected by 8K2 resistor enabled			
		8K2 RES Double		Two resistive edges protected by 8K2 RES enabled			
101	SAFETY EDGE 2	*Normal*		Normal N.C. contact	*ALL*	*Normal*	
		8K2 N.C.		Safety edge protected by a 8K2 resistor enabled			
		8K2 N.C. Double		Two safety edges protected by 8K2 resistor enabled			
		8K2 RES		Resistive edge protected by 8K2 resistor enabled			
		8K2 RES Double		Two resistive edges protected by 8K2 RES enabled			
102	SAFETY EDGE 1 DIRECTION	*Opening and closing*		Safety edge enabled in opening and closing	*ALL*	*Opening and Closing*	
		Only opening		Safety edge enabled only in opening			
		Only closing		Safety edge enabled only in closing			
103	SAFETY EDGE 2 DIRECTION	*Opening and closing*		Safety edge enabled in opening and closing	*ALL*	*Opening and Closing*	
		Only opening		Safety edge enabled only in opening			
		Only closing		Safety edge enabled only in closing			
104	SELECT LIMIT SWITCH	*N. C.*		Limit switch type N.C. *(Normally Closed)* *Example: inductive limit switch or with lever*	*INVERTER*	*N.C.*	
		Ext		Limit switch connected on the external interface *for 4 cams limit switches*			
		N.O.		Limit switch type N.O. *(Normally Open)* *Example: magnetic limit switch*			
		Automatic		Automatic detection of the limit switch	*2PM*	*Automatic*	
		Opening only		Limit switch enabled only in opening			
		Closing only		Limit switch enabled only in closing			
		Ext		Limit switch connected on the external interface *for 4 cams limit switches*			
		Motor internal		To be enabled if the operator is equipped with an inner limit switch that stops the motor phase			
105	MASTER-SLAVE	Master		To set the control unit as MASTER on applications with two operators in master/slave mode	*INVERTER*	*Off*	
		Slave		To set the control unit as SLAVE on applications with two operators in master/slave mode			
		Off		Disabled			
106	DIAGNOSTICS	*1*	*10*	To display the last event *(See alarms table)*	*ALL*	- - - -	
107	MAINTENANCE CYCLES	*100*	*240000*	Adjustable from 100 to 240000 cycles	*ALL*	*100000*	
108	PERFORMED CYCLES	*0*	*240000*	To display the executed cycles. *Hold pressed OK to reset the cycles*	*ALL*	*0*	
109	THERMOMETER	*xx °C*	*(xx °C)*	To display the temperature if a probe is connected on GP1 or GP2 (and the menus 130 and 131 are set on "Thermometer") The connection of up to two temperature probes is allowed; *(display will show both temperatures detected)*	*ALL*	*Off*	

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
110	LOWER THRESHOLD TEMPERATURE	*From -20° to +50°*	To adjust the temperature threshold of the oil heater probe activation *(This menu is shown only if the menu 109-Thermometer is set to ON)*	*ALL*	*-10°*	
111	UPPER THRESHOLD TEMPERATURE	*From -20° to +50°*	To adjust the temperature threshold of the oil heater probe deactivation *(This menu is shown only if the menu 109-Thermometer is set to ON)*	*ALL*	*0°*	
112	PASSWORD	***Note: "0000" setting is not allowed***	To enter a password for blocking the control unit parameters modification	ALL	- - - -	
113	EMERGENCY	*Off*	Disabled	*ALL*	*Off*	
		Emergency	In case of power failure and with batteries connected and charged, the gate opens completely and remains open until the power is restored	*ALL*		
		Last opening	In case of power failure, as soon as the battery charge drops below 22V, the gate opens one last time and remains open until the power is restored	*ALL*		
		Last closing	In case of power failure, as soon as the battery charge drops below 22V, the gate closes one last time and remains closed until the power is restored	*ALL*		
115	DECELERATION RAMP	0,1 s 5s	Deceleration management in case of inversion or Stop command	***INVERTER BR***	*0,5 s*	
116	REPEAT LEAF DELAY	*On Off*	In case of a STOP command when the gate is on its halfway, the leaves will repeat the "leaf delay" set on	*ALL*	*On*	
117	ALWAYS CLOSE	*Off 240 seconds*	In case of power failure, if the gate has been manually open, it closes only after the set time has elapsed *(from 0 to 240 seconds)* as soon as the power is restored	*ALL*	*Off*	
118	LATCH	*Off*	Disabled	*ALL*	*Off*	
		Opening	The gate opens and stay open till a new Start input. ***The latch function uses the "Safety Edge 1" N.O. input (Safety Edge 1 function is so disabled)***	*ALL*		
		Closing	The gate closes and stay closed till a new Start input. ***The latch function uses the "Safety Edge 2" N.O. input (Safety Edge 2 function is so disabled)***	*ALL*		
		Opening and closing	To enables both the opening and closing functions above described. ***The latch function uses the "Safety Edge 1" and "Safety Edge 2" N.O. inputs (both safety edges are so disabled)***	*ALL*		
119	DISPLAY WRITING SPEED	*From 30% to 100%*	See Note 2 at the end of the table	*ALL*	*80%*	
120	BASIC MENU	Press OK to exit the special menu. The special menu switches off automatically after 20 minutes				
121	PHOTO 1 TYPE	*Normal*	Standard photocell without 10K control	*ALL*	*Normal*	
		Photo 1 10K	Photocell with 10K control			
		Photo 1 10K DOUBLE	Double photocell with 10K control			
122	PHOTO 2 TYPE	*Normal*	Standard photocell without 10K control	*ALL*	*Normal*	
		Photo 2 10K	Photocell with 10K control			
		Photo 2 10K DOUBLE	Double photocell with 10K control			
123	DATE AND TIME	*Mon - Sun dd/mm/yyyy Time*	To set the day, the date and the time for the management of the programmed openings. ***(Only with full charge buffer battery)***	*ALL*	- - - -	

SPECIAL MENU		SET	DESCRIPTION	MODEL	DEFAULT	NOTE
124 CLOCK 1		*Opening time*	To set a first time band in which keeping the gate open. It is possible to set, in order: opening time, closing time and the days on which you want to open and keep the gate open	*ALL*	*Off*	
		Closing time				
		Days				
		Modify	To modify the pre-set time and day			
		Exit	Exit from menu			
125 CLOCK 2		*Opening time*	To set a second time band in which keeping the gate open. It is possible to set, in order: opening time, closing time and the days on which you want to open and keep the gate open	*ALL*	*Off*	
		Closing time				
		Days				
		Modify	To modify the pre-set time and day			
		Exit	Exit from menu			
126 CLOCK 3		*Opening time*	To set a third time band in which keeping the gate open. It is possible to set, in order: opening time, closing time and the days on which you want to open and keep the gate open	*ALL*	*Off*	
		Closing time				
		Days				
		Modify	To modify the pre-set time and day			
		Exit	Exit from menu			
127 CLOCK 4		*Opening time*	To set a fourth time band in which keeping the gate open. It is possible to set, in order: opening time, closing time and the days on which you want to open and keep the gate open	*ALL*	*Off*	
		Closing time				
		Days				
		Modify	To modify the pre-set time and day			
		Exit	Exit from menu			
130 GP1		*Off*	Disabled	*ALL*	*Off*	
		Open	To connect an opening button that allows the automation operating in "Dead Man" logic. The button will only work when the gate is closed or after a Stop command			
		Emergency open	To connect an opening button that allows the automation operating in "Dead Man" logic. The button will only work in case of safety devices failure or in case of stuck Start button			
		Thermometer	To connect a temperature probe for the detection of an external temperature which will be shown on the display by accessing menu 109-THERMOMETER *(i.e. probe for detection of hydraulic motor oil temperature)*			
		Cage	To control the Motor 1 only if the Motor 2 is closed	*INVERTER*		
131 GP2		*Off*	Disabled	*ALL*	*Off*	
		Close	To connect a closing button that allows the automation operating in "Dead Man" logic. The button will only work when the gate is closed or after a Stop command			
		Emergency close	To connect an closing button that allows the automation operating in "Dead Man" logic. The button will only work in case of safety devices failure or in case of stuck Start button			
		Thermometer	To connect a temperature probe for the detection of an external temperature which will be shown on the display by accessing menu 109-THERMOMETER *(i.e. probe for detection of hydraulic motor oil temperature)*			
		Cage	To control the Motor 2 only if the Motor 1 is closed	*INVERTER*		

SPECIAL MENU		SET	DESCRIPTION	MODEL	DEFAULT	NOTE
		Off	Disabled			
		Start 3s	To enable the Relay 1 for 3 seconds at every Start or reopening command			
		Traffic light 1	Traffic light management: the green light is switched-on only when the gate is open			
		Traffic light in entrance	By a Start command the traffic light in entrance turns green and the access priority is acquired while the traffic light in exit turns red. *(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)*			
		Traffic light in exit	By a Start command the traffic light in exit turns green and the access priority is acquired while the traffic light in entrance turns red. *(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)*			
		Lock copy	The Relay 1 will be ON for the time set on 78-LOCK menu			
		Flashing light copy	The Relay 1 repeats the flashing-light functions			
		Courtesy light copy	The Relay 1 will be ON for the time set on 88-COURTESY LIGHT menu			
		Opening 1 limit switch	The Relay 1 will be ON if the motor 1 opening limit switch is activated or if the motor 1 is in "Open" status			
132	RELAY 1	*Closing 1 limit switch*	The Relay 1 will be ON if the motor 1 closing limit switch is activated or if the motor 1 is in "Closed" status	*ALL*	*Off*	
		Opening 2 limit switch	The Relay 1 will be ON if the motor 2 opening limit switch is activated or if motor 2 is in "Open" status			
		Closing 2 limit switch	The Relay 1 will be ON if the motor 2 closing limit switch is activated or if the motor 2 is in "Closed" status			
		Tx Relay	It is possible to activate the Relay 1 for 3 seconds by giving an impulse from the remote control			
		Negative brake and Photocell 1 management	The negative electric-brake is not active on the photocell intervention			
		Negative brake 1 management	Negative electric-brake *(in ON with the gate in cycle and 1 second before the Start input)*			
		Positive brake 1 management	Positive electric-brake *(in ON with stationary gate)*			
		Opening electric-valve	The Relay 1 is active during opening			
		Closing electric-valve	The Relay 1 is active during closing			
		Clock 1 and 2	The Relay will be active in the same time band set on menus 124 e 125			

SPECIAL MENU		SET	DESCRIPTION	MODEL	DEFAULT	NOTE
133 RELAY 2		*Off*	Disabled	*ALL*	*Off*	
		Start 3s	To enable the Relay 2 for 3 seconds at every Start or reopening command			
		Traffic light 1	Traffic light management: the green light is switched-on only when the gate is open			
		Traffic light in entrance	By a Start command the traffic light in entrance turns green and the access priority is acquired while the traffic light in exit turns red. *(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)*			
		Traffic light in exit	By a Start command the traffic light in exit turns green and the access priority is acquired while the traffic light in entrance turns red. *(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)*			
		Lock copy	The Relay 2 will be ON for the time set on 78-LOCK menu			
		Flashing light copy	The Relay 2 repeats the flashing-light functions			
		Courtesy light copy	The Relay 2 will be ON for the time set on 88-COURTESY LIGHT menu			
		Opening 1 limit switch	The Relay 2 will be ON if the motor 1 opening limit switch is activated or if the motor 1 is in "Open" status			
		Closing 1 limit switch	The Relay 2 will be ON if the motor 1 closing limit switch is activated or if the motor 1 is in "Closed" status			
		Opening 2 limit switch	The Relay 2 will be ON if the motor 2 opening limit switch is activated or if motor 2 is in "Open" status			
		Closing 2 limit switch	The Relay 2 will be ON if the motor 2 closing limit switch is activated or if the motor 2 is in "Closed" status			
		Tx Relay	It is possible to activate the Relay 2 for 3 seconds by giving an impulse from the remote control			
		Negative brake and Photocell 2 management	The negative electric-brake is not active on the photocell intervention			
		Negative brake 2 management	Negative electric-brake *(in ON with the gate in cycle and 1 second before the Start input)*			
		Positive brake 2 management	Positive electric-brake *(in ON with stationary gate)*			
		Opening electric-valve	The relay 2 is active during opening			
		Closing electric-valve	The relay 2 is active during closing			
		Clock 3 and 4	The relay will be active in the same time band set on menus 126 e 127			

	SPECIAL MENU	SET	DESCRIPTION	MODEL	DEFAULT	NOTE
134	RELAY FV 1 *(Relay on the FV MODULE 1)*	*Off*	Disabled	*INVERTER*	*It depends on motor*	
		Positive brake management	Positive electric-brake *(The relay FV1 will be ON only with stopped gate)*			
		Negative brake management	Negative electric-brake *(The relay FV1 will be ON only during operator cycle, 1 second before start and in case of photocell intervention)*			
		Negative brake management and Photocell	Negative electric-brake *(The relay FV1 will be ON only during operator cycle and 1 second before start, except in case of photocell intervention)*			
		Fan	The relay on FV MODULE will activate for the whole cycle duration plus 2 further minutes			
		Tail Gate	The Relay FV 1 will enable only if the gate is closed			
		Copy Start	The Relay FV 1 will enable at every START command			
135	RELAY FV 2 *(Relay on the FV MODULE 2)*	*Off*	Disabled	*INVERTER*	*It depends on motor*	
		Positive brake management	Positive electric-brake *(The relay FV2 will be ON only with stopped gate)*			
		Negative brake management	Negative electric-brake *(The relay FV2 will be ON only during operator cycle, 1 second before start and in case of photocell intervention)*			
		Negative brake management and Photocell	Negative electric-brake *(The relay FV2 will be ON only during operator cycle and 1 second before start, except in case of photocell intervention)*			
		Fan	The relay on FV MODULE will activate for the whole cycle duration plus 2 further minutes			
		Tail Gate	The Relay FV 2 will enable only if the gate is closed			
		Copy Start	The Relay FV 2 will enable at every START command			
136	EFO	*0% 100%*	**EFO function will be visible only with menu 3-MOTORS set on "5-Threephase/Bollards"** This function generates an emergency closing with a higher speed than the set percentage and without considering the safety devices connected. **It works only with BOLLARDS** and through a command on the PEDESTRIAN START input	*INVERTER*	*50%*	
137	COMIS	*0 350 mA*	It shows the absorption of the accessories connected on input 20 *(it only works if an accessory is connected at least)*	*ALL*	*- - - -*	
138	COMIS THRESHOLD	*Off 350mA*	Allows to set a maximum absorption threshold over which an error message appears *(error message appears also when over 350 mA)*	*ALL*	*Off*	

	SPECIAL MENU	SET		DESCRIPTION	MODEL	DEFAULT	NOTE
140	THRESHOLD A OPENING 1	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 1 in opening *(over the set threshold motor will detect an obstacle)*	*INVERTER*	*It depends on motor*	
141	THRESHOLD A CLOSING 1	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 1 in closing *(over the set threshold motor will detect an obstacle)*	*INVERTER*	*It depends on motor*	
142	THRESHOLD A OPENING 2	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 2 in opening *(over the set threshold motor will detect an obstacle)*	*INVERTER*	*It depends on motor*	
143	THRESHOLD A CLOSING 2	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 2 in closing *(over the set threshold the motor will detect an obstacle)*	*INVERTER*	*It depends on motor*	
144	THRESHOLD A OPENING SLOWDOWN 1	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 1 in slowdown during opening	*INVERTER*	*It depends on motor*	
145	THRESHOLD A CLOSING SLOWDOWN 1	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 1 in slowdown during closing	*INVERTER*	*It depends on motor*	
146	THRESHOLD A OPENING SLOWDOWN 2	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 2 in slowdown during opening	*INVERTER*	*It depends on motor*	
147	THRESHOLD A CLOSING SLOWDOWN 2	1	10 Ampere	Adjusts the amperometric intervention threshold of motor 2 in slowdown during closing	*INVERTER*	*It depends on motor*	
190	BASIC MENU	Press OK to exit the special menu. The special menu switches off automatically after 20 minutes					

Note 1: after initialization, the parameters set on menu **3 - MOTOR** and **104 - SELECT LIMIT SWITCH** always remain set to the value chosen during the programming operation

Note 2: if the menu **119 - DISPLAY WRITING SPEED** is set to the minimum value of 30%, the display writing speed will be low. On the contrary, if it is set to the maximum value of 100%, the writing speed will be very high
Please note: the writing speed will not change on the JOLLY 3 programmer

CE

Dichiarazione di conformità
Declaration of Conformity

La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che il prodotto:
SEA S.p.A. declares under its proper responsability and, if applicable, under the responsability of its authorised representative that the product:

Descrizione / *Description*	Modello / *Model*	Marca / *Trademark*
UNIGATE 2-I	23023060	SEA
(e tutti i suoi derivati / *and all its by-products*)		
UNIGATE 1-I BIG	23023065	SEA
(e tutti i suoi derivati / *and all its by-products*)		
UNIGATE BR	23023092	SEA
(e tutti i suoi derivati / *and all its by-products*)		
UNIGATE 2PM	23023050	SEA
(e tutti i suoi derivati / *and all its by-products*)		

è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE
is built to be integrated into a machine or to be assembled with other machinery to create a machine under the provisions of Directive 2006/42/CE

è conforme ai requisiti essenziali di sicurezza relativi al prodotto entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE
is conforming to the essential safety requirements related to the product within the field of applicability of the Community Directives 2014/35/UE and 2014/30/UE

COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:
MANUFACTURER or AUTHORISED REPRESENTATIVE:

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Luogo, data di emissione
Place, date of issue
Teramo, 06/10/2020

L'Amministratore
The Administrator
Ennio Di Saverio

TO THE ATTENTION OF BOTH INSTALLER AND END USER

MAINTENANCE: Periodically, based on the number of maneuvers performed over time and based on the type of operator, if a change in friction, malfunctioning or non-compliance with the previously set times are noticed, ***it would be advisable to reprogram the learning times on the control unit***

Periodically clean the optical systems of the photocells

REPLACEMENTS: Send request for spare parts to: ***SEA S.p.a. - Teramo - ITALY - www.seateam.com***

SAFETY AND ENVIRONMENTAL COMPATIBILITY: Disposal of packaging materials and/or circuits should take place in an approved disposal facility

REGULAR PRODUCT DISPOSAL (electric and electronic waste)

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

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

IMMAGAZZINAMENTO

WAREHOUSING TEMPERATURES			
T_{min}	T_{Max}	Dampness $_{min}$	Dampness $_{Max}$
- 20°C	+ 65°C	5% *not condensing*	90% *not condensing*

Materials handling must be made with appropriate vehicles

WARRANTY LIMITS - see the sales conditions

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

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GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. **Read carefully these Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger. SEA S.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromgnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEA S.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEA S.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEA S.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm^2 section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.

TERMS OF SALES

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

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

1) PROPOSED ORDER The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.
On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

International registered trademark n. 804888