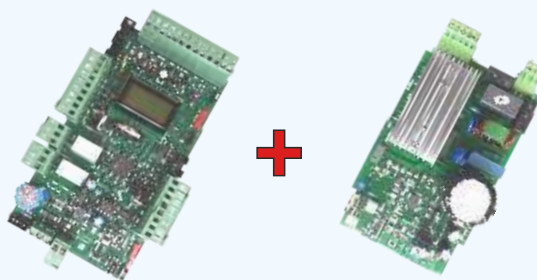


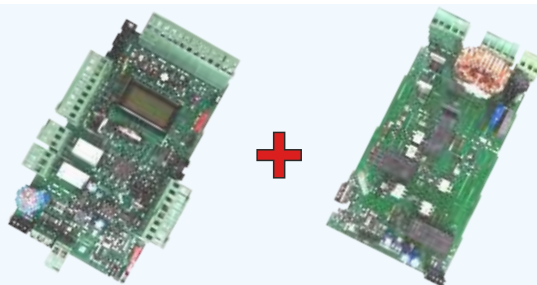
UNIGATE

UNIGATE **INVERTER**

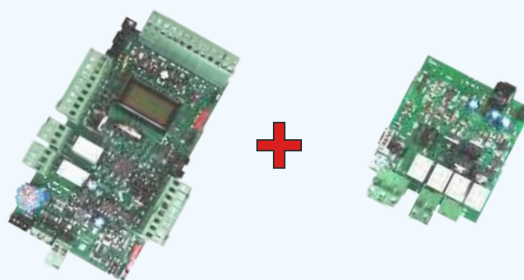
(1I - 2I - 1I BIG - 2I BIG)



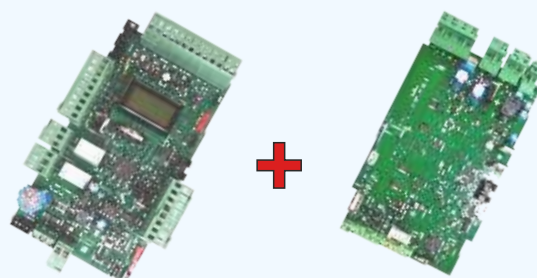
UNIGATE **2PM - 4PM**



UNIGATE **24V**



UNIGATE **BR (36V)**



SEA S.p.A.

Zona Industriale Sant'Atto - 64100 - Teramo - ITALY

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MENU TABLE

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PRELIMINARY

● **UNIGATE** IS A MODULAR ELECTRONIC CONTROL UNIT, FOR THE MANAGEMENT OF DIFFERENT TYPES OF OPERATORS AND DIFFERENT APPLICATIONS THANKS TO THE ADDITIONAL MODULES, WHICH TRANSFORM THE UNIT INTO THE MODEL BEST SUITED TO THE VARIOUS MANAGEMENT NEEDS

● THE MAIN MODULE, COMMON TO ALL MODELS, IS THE «**UNIOLOGIC**» MODULE, WHICH ALLOWS THE CONNECTION AND MANAGEMENT OF ACCESSORIES, LOGICS, AND ALL BOARD FUNCTIONS

➡ **THE COMBINATION OF EACH ADD-ON MODULE REQUIRES A SPECIFIC FIRMWARE ON THE UNIOLOGIC MAIN MODULE**

● **THE UNIGATE REQUIRES THE PROGRAMMING OF THE WORKING TIMES (CHAPTER 18); IT IS NOT POSSIBLE TO START THE OPERATOR CORRECTLY WITHOUT FIRST PROGRAMMING THE CONTROL UNIT!**

● THE UNIT AND THE ACCESSORIES PROGRAMMING AND SETTINGS CAN BE CARRIED OUT BY THE DISPLAY ON BOARD OR BY THE **JOLLY 3** PROGRAMMER OR **SEACLOUD**




JOLLY 3



SEACLOUD

● FUNCTIONS AND MENUS HERE DESCRIBED ARE VALID ONLY FOR THE BELOW LISTED SOFTWARE REVISIONS; IF SOME FUNCTIONS OR MENUS DO NOT CORRESPOND ON YOUR CONTROL UNIT, CONSULT THE PREVIOUS MANUALS

MODEL	SOFTWARE REVISION	MODEL	SOFTWARE REVISION
UNIGATE FV (INVERTER)	03.16	UNIGATE 24V	00.04
UNIGATE 2PM	03.02	UNIGATE BR	00.34

 **ALL CONNECTIONS** (MODULES, CIRCUITS AND ACCESSORIES) MUST BE MADE WHEN THE CONTROL UNIT IS OFF AND NOT POWERED; ONLY AFTER ALL WIRINGS ARE COMPLETE THE CONTROL UNIT CAN BE SWITCHED ON AND PROGRAMMED

TECHNICAL INFORMATION

POWER SUPPLY	ABSORPTION IN STAND-BY	OPERATING TEMPERATURE	PROTECTION CLASS OF THE PLASTIC BOX (IF INCLUDED)
230VAC - 50/60 Hz OR 115VAC - 50/60 Hz	30 mA	-20° C / +50° C	IP 55

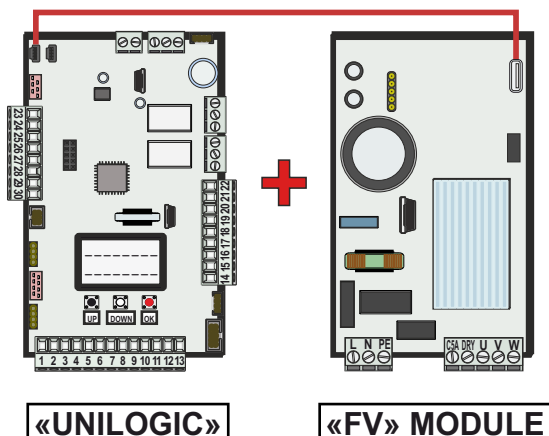


NOTE FOR THE INSTALLER: THE LIST OF SPARE PARTS FOR «UNIGATE» CONTROL UNITS IS AVAILABLE INSIDE THE RESERVED AREA OF THE WEBSITE WWW.SEATEAM.COM

UNIGATE INVERTER - «FV» MODULE

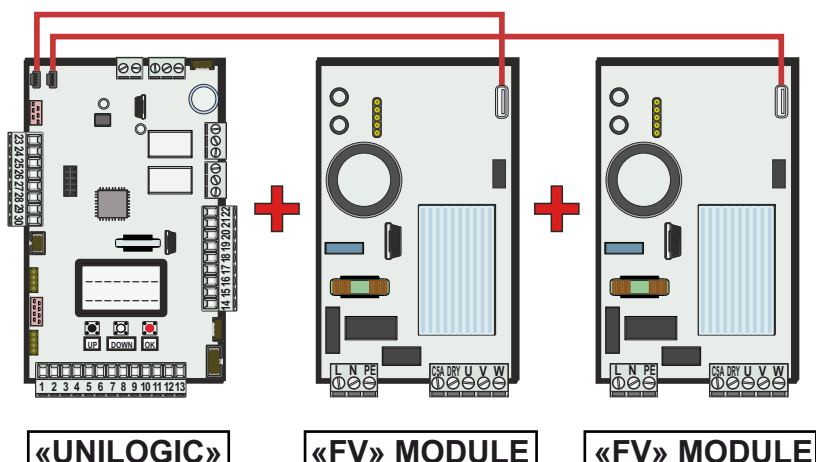
UNIGATE INVERTER 1I

MANAGEMENT OF 1 OPERATOR WITH INVERTER



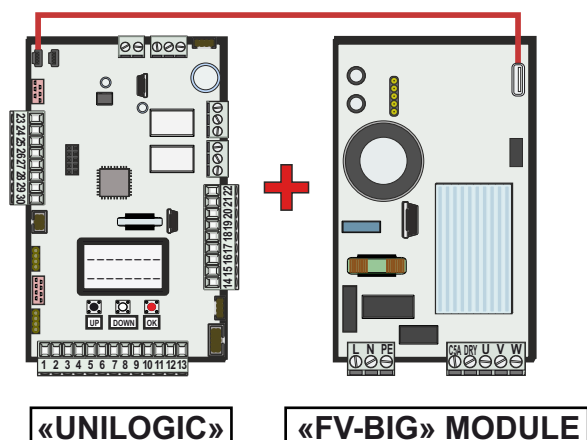
UNIGATE INVERTER 2I

MANAGEMENT OF 2 OPERATORS WITH INVERTER



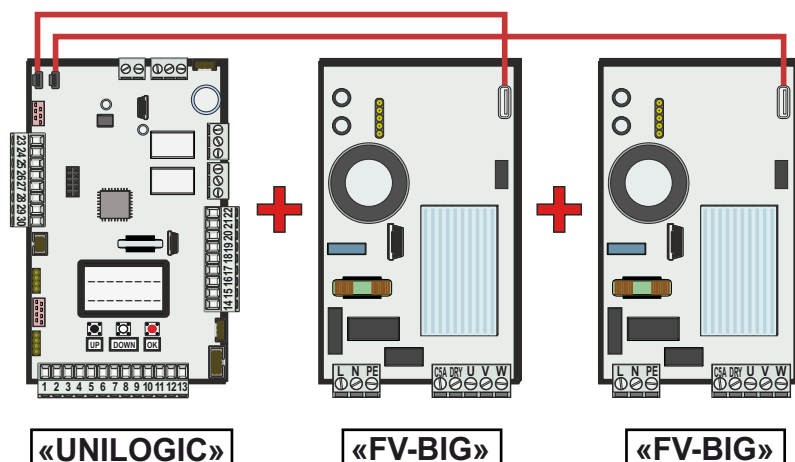
UNIGATE INVERTER 1I-BIG

MANAGEMENT OF 1 «BIG» OPERATOR WITH INVERTER

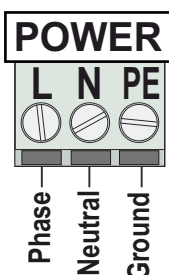
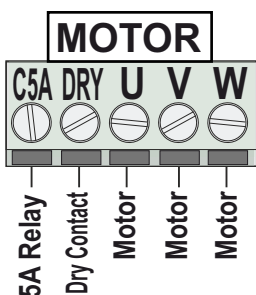


UNIGATE INVERTER 2I-BIG

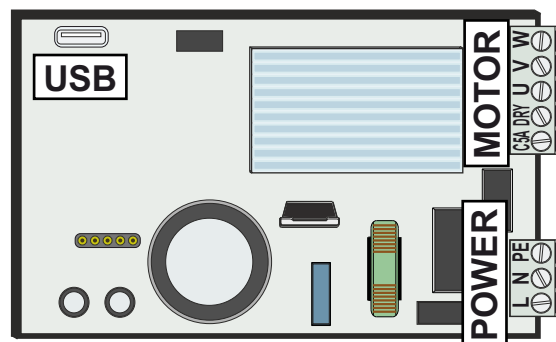
MANAGEMENT OF 2 «BIG» OPERATORS WITH INVERTER



CONNECTIONS ON «FV» MODULE



USB CONNECTOR
TO «UNILOGIC»



IT IS MANDATORY TO CONNECT THE
GROUND CABLE ON THE «PE» INPUT

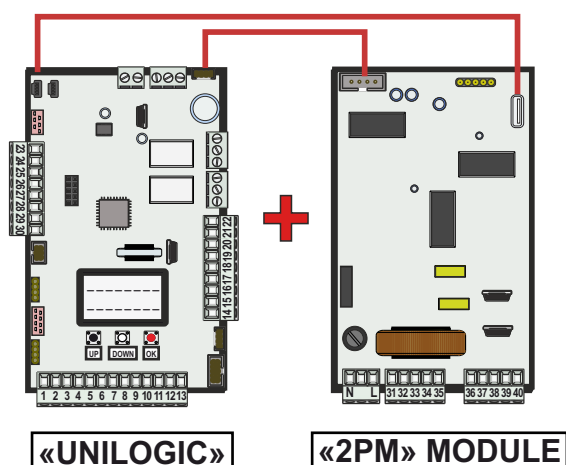


COMPONENTS ALSO VALID FOR «FV-BIG» MODULE
DO NOT CONNECT THE CAPACITORS!

UNIGATE 2PM / 4PM - «2PM» MODULE

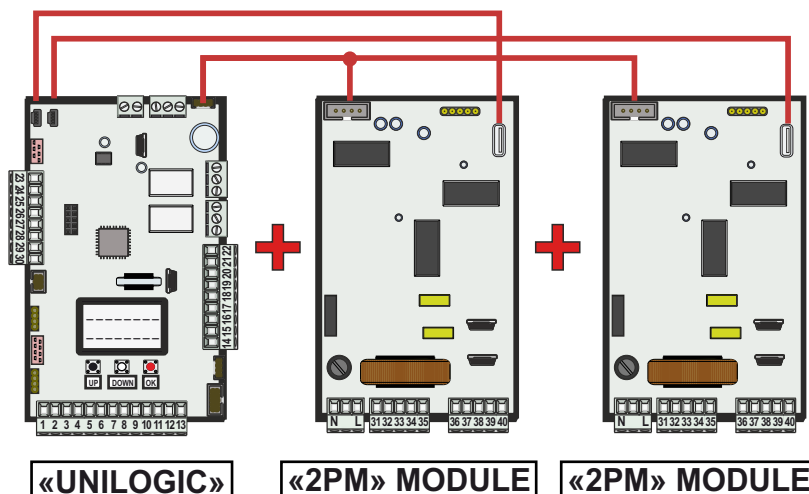
UNIGATE 2PM

2 OPERATORS MANAGEMENT

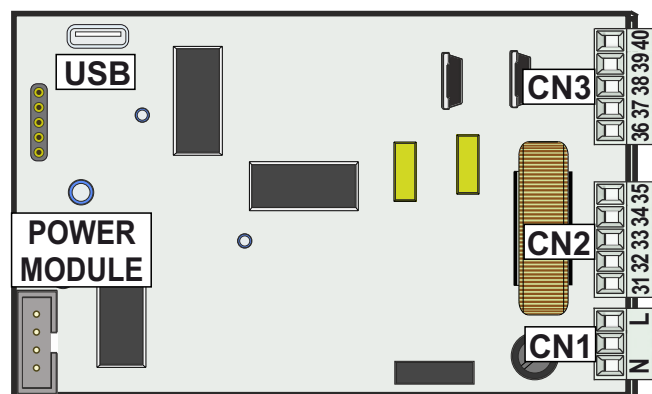
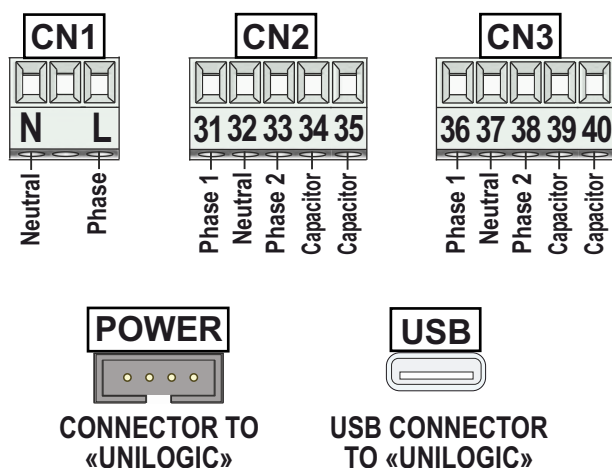


UNIGATE 4PM

4 OPERATORS MANAGEMENT



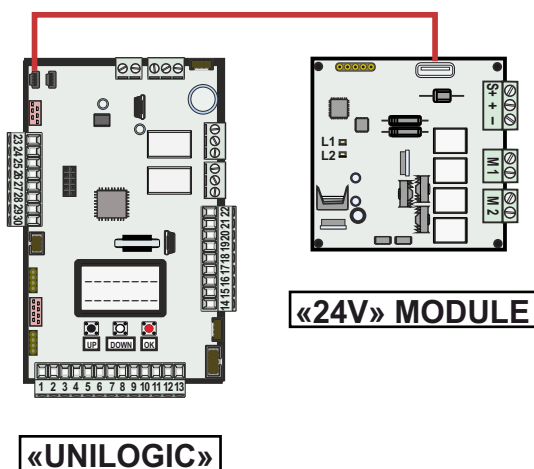
CONNECTIONS ON «2PM» MODULE



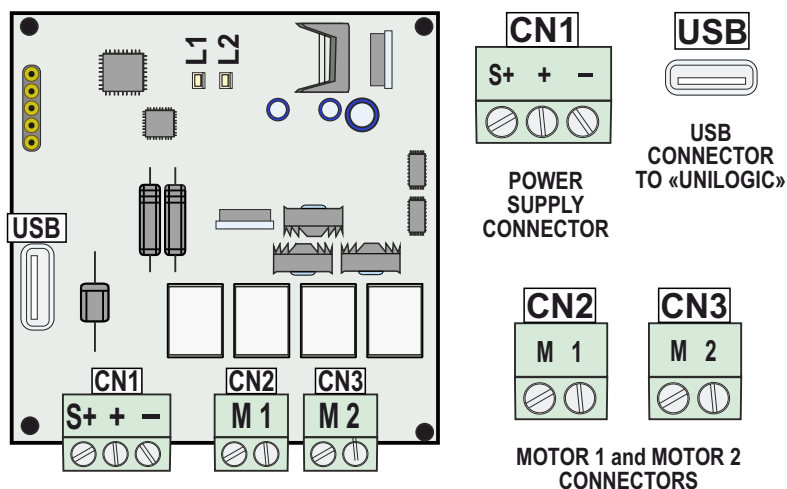
UNIGATE 24V - «24V» MODULE

UNIGATE 24V

1 or 2 24V OPERATORS MANAGEMENT



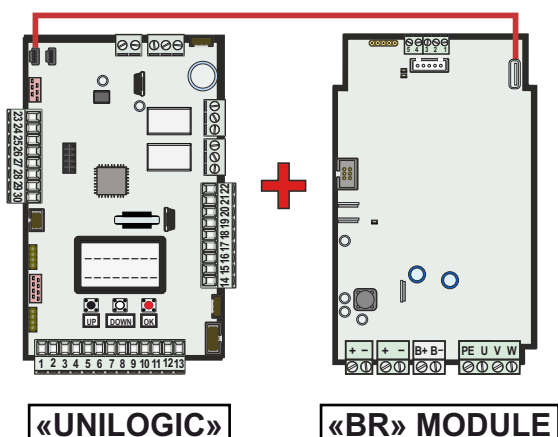
CONNECTIONS ON «24V» MODULE



UNIGATE BR - «BR» MODULE

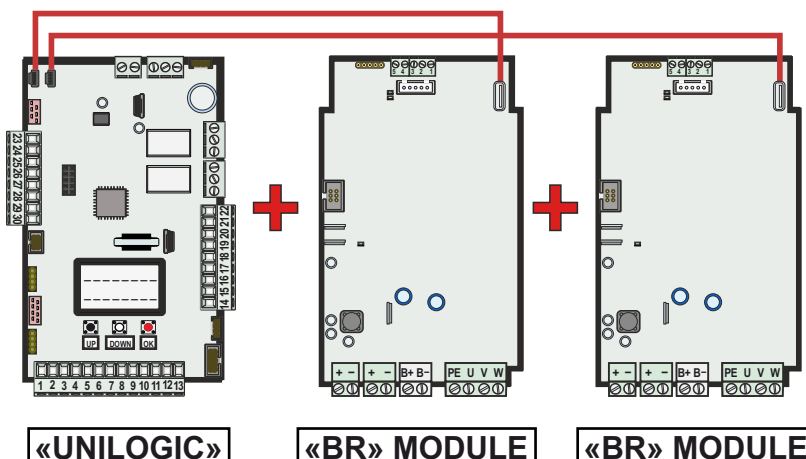
UNIGATE BR

1 BRUSHLESS OPERATOR MANAGEMENT

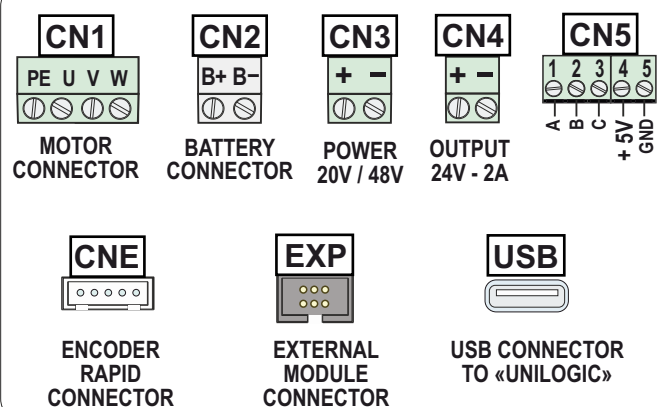


UNIGATE 2BR

2 BRUSHLESS OPERATORS MANAGEMENT

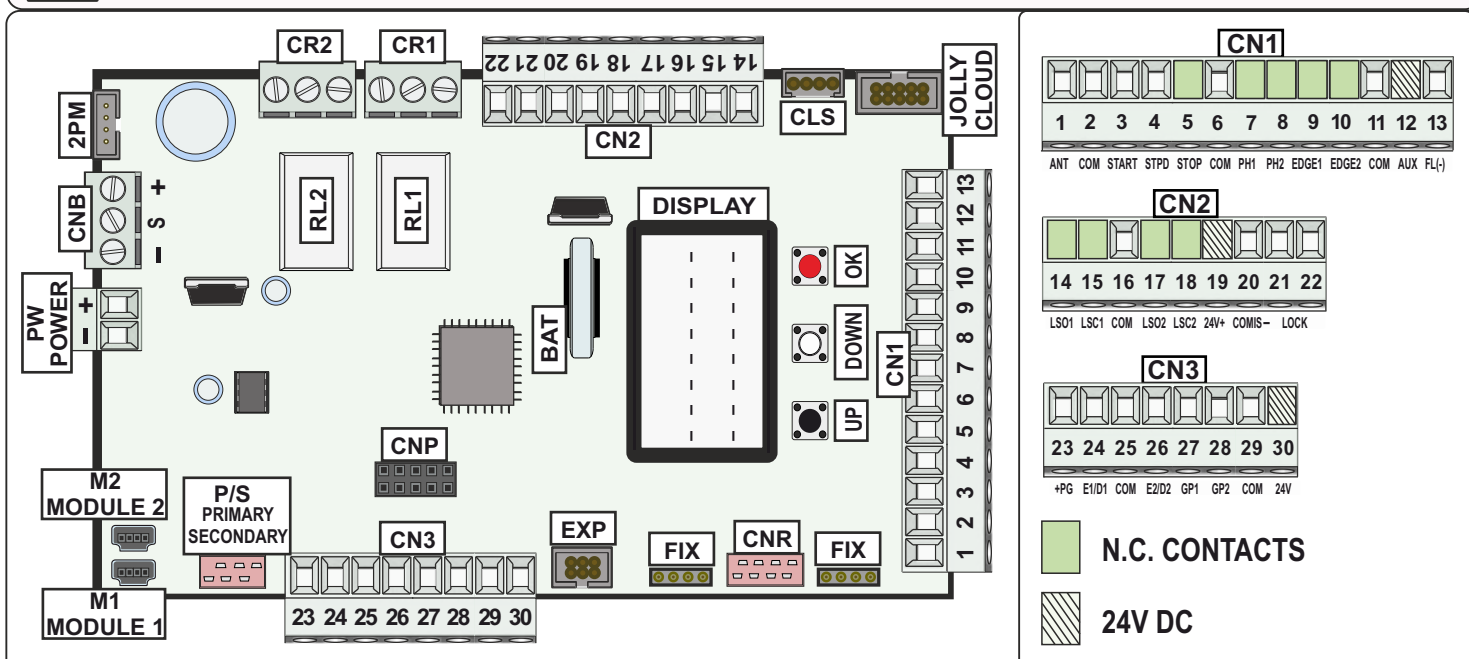


CONNECTIONS ON «BR» MODULE

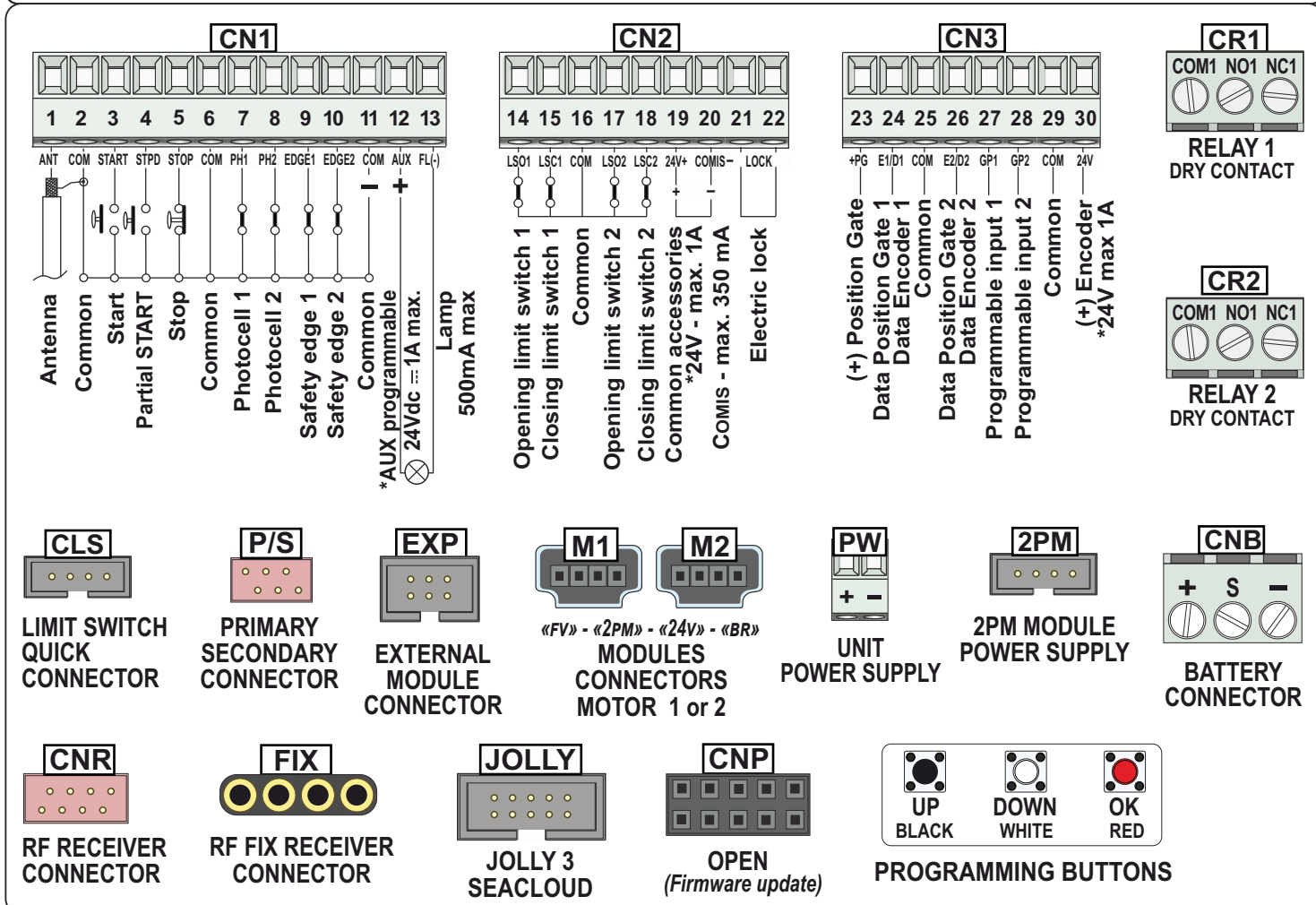


1 - CONNECTIONS ON «UNILOGIC» MODULE

WARNING: CONNECT ALL DEVICES WHEN THE CONTROL UNIT IS SWITCHED-OFF



- AUTOMATIC RECOGNITION OF THE N.C. INPUTS NOT IN USE - **NO JUMPERS REQUIRED ON THE N.C. CONTACTS**
- TO RESTORE THE EXCLUDED INPUTS USE THE «INPUTS MANAGEMENT» MENU (CHAP. 17) - NO NEED TO SET UP THE UNIT AGAIN



* ALL THE 24V INPUTS (24VAUX on CN1 - 24VDC(+) on CN2 - 24V(+) on CN3) SUPPORT A MAXIMUM LOAD OF 1A REFERRED TO THE SUM OF THE LOADS OF ALL 24V ACCESSORIES CONNECTED, INCLUDING THE ABSORPTION OF THE RECEIVER ON BOARD (30 mA)

2 - CONNECTIONS ON CN1

2.1 - START (N.O.)

- CONNECT THE «START» COMMAND ON CLAMPS 3 AND 6
- LOGICS TO BE LINKED TO THE «START» COMMAND: SEE THE **CHAPTER 19**

⇒ IF THE INPUT IS ENGAGED DURING THE PAUSE TIME, THE GATE DOES NOT CLOSE UNTIL THE INPUT IS RELEASED

2.2 - PARTIAL START (N.O.)

- CONNECT THE «PARTIAL START» ON CLAMPS 4 AND 6
- LOGICS TO BE LINKED TO THE «PARTIAL START» COMMAND: SEE THE **CHAPTER 19**

- PARTIAL OPENING SPACE MANAGEMENT: **90 PARTIAL OPENING**
- PARTIAL OPENING PAUSE TIME MANAGEMENT: **91 PARTIAL PAUSE**

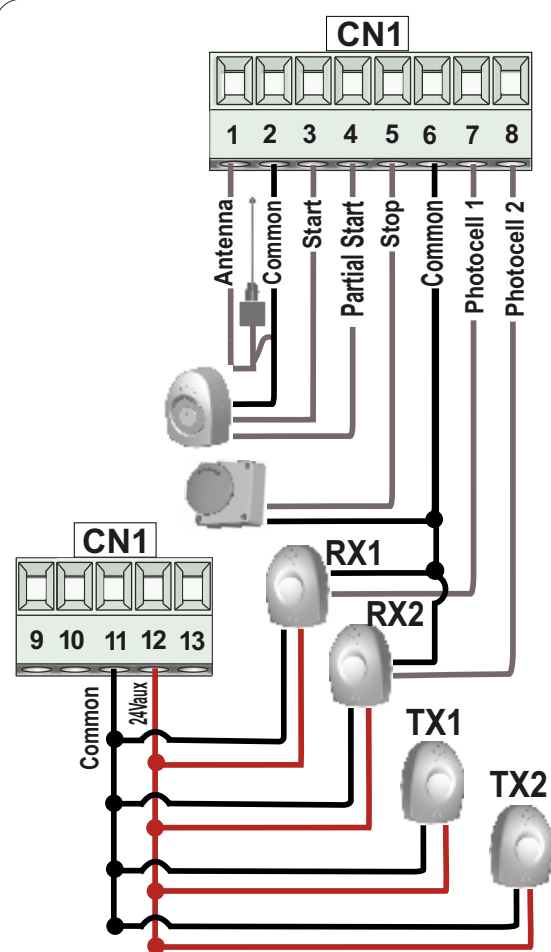
⇒ IF THE INPUT IS ENGAGED DURING THE PAUSE TIME, THE GATE DOES NOT CLOSE UNTIL THE INPUT IS RELEASED

ⓘ IF A TRAFFIC LIGHT IS CONNECTED, IT IS POSSIBLE TO ACTIVATE THE OPENING OR CLOSING PRIORITY ASSOCIATED TO THE «START» OR «PARTIAL START» COMMANDS, VIA MENU **89 TRAFFIC LIGHT RESERVATION**

2.3 - STOP (N.C.)

- CONNECT THE «STOP» COMMAND ON CLAMPS 5 AND 6
- AFTER STOPPING, PRESS «START» TO RESTORE THE MOVEMENT

⇒ THE RESTORED MOVEMENT WILL BE IN CLOSING, EXCEPT WITH «BR» MODULE, WHERE THE MOVEMENT WILL BE IN THE SAME DIRECTION



2.4 - PHOTOCELL 1 AND PHOTOCELL 2 (N.C.)

- CONNECTIONS: + = 24V $\overline{\text{DC}}$ MAX 1A (CLAMP 12)
PH1 = PHOTOCELL 1 (CLAMP 7)

COM = 0V (CLAMPS 2 - 6 - 11)
PH2 = PHOTOCELL 2 (CLAMP 8)

- MANAGEMENT AND SETTINGS:

97
PHOTOCELL
1

98
PHOTOCELL
2

- «FOTOTEST» FUNCTION: CONNECT THE TX-PHOTOCELL POSITIVE CABLE ON CLAMP 12 AND CHOSE THE PHOTOCELL TO BE TESTED ON MENU **95**

95
PHOTOTEST

⇒ DEFAULT SETTINGS: **97** = «CLOSING»; **98** = «OPENING AND CLOSING»

⇒ THE USE OF **SHIELDED PHOTOCELLS IS MANDATORY !**

ⓘ THE PHOTOCELL **POSITIVE CABLE (24V)** CAN ALSO BE CONNECTED ON THE **CLAMP 19 ON CN2** IN ORDER TO KEEP THE 24V AUX INPUT FREE FOR OTHER CONNECTIONS

2.5 - OPTIONS 24V $\overline{\text{DC}}$ DC AUX - MAX 1A - CLAMP 12

- MANAGEMENT: CHOOSE HOW AND WHEN TO HAVE VOLTAGE ON THE AUX INPUT ON MENU **94** ACCORDING TO THE TYPE OF ACCESSORY YOU WISH TO CONNECT

94
24V AUX

- A RELAY CAN BE CONNECTED TO THE 24VAUX INPUT; THE RELAY ALLOWS THE CONNECTION AND MANAGEMENT OF ADDITIONAL ACCESSORIES (COURTESY LIGHT, ETC.)

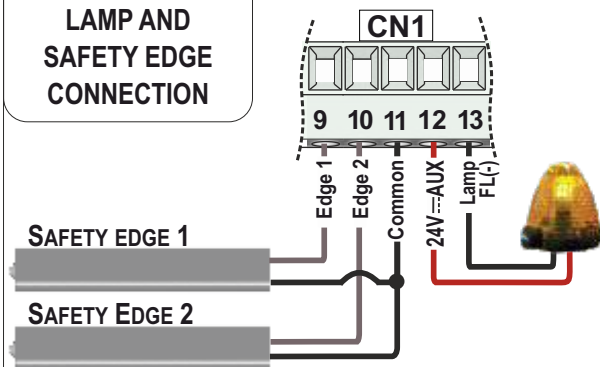
2.6 - TIMER (N.O.) - EXTERNAL CLOCK

92
TIMER

- CONNECT THE TIMER TO THE CLAMP 4 «PARTIAL START» OR TO THE 8 «PHOTOCELL 2»
- IF CONNECTED ON THE «PARTIAL START», THIS COMMAND WILL BE DISABLED (ON TRANSMITTERS TOO)
- THE TIMER OPENS AND KEEPS THE GATE OPEN UNTIL ENGAGED; WHEN RELEASED, THE GATE CLOSSES ONLY AFTER THE PRE-SET PAUSE TIME HAS ELAPSED
- IN THE EVENT OF A SAFETY ACCESSORY INTERVENTION, THE TIMER AUTOMATICALLY RESETS AFTER 6 SEC.

⇒ IN THE EVENT OF A POWER FAILURE WHEN THE GATE IS OPEN:
IF THE TIMER IS STILL ACTIVE WHEN THE POWER IS RESTORED, THE GATE REMAINS OPEN;
IF THE TIMER IS NO LONGER ACTIVE, A «START» INPUT WILL BE REQUIRED TO CLOSE THE GATE

EXAMPLE OF LAMP AND SAFETY EDGE CONNECTION



2.7 - 24V \equiv FLASHING LIGHT - MAX 3W

- CONNECT THE LAMP ON CLAMPS 12 (OR 19 ON CN2) AND 13
 - GATE MOVEMENT SIGNALS:
1 BLINK/SECOND IN OPENING
2 BLINKS/SECOND IN CLOSING
STEADY LIT DURING PAUSE
 - MANAGEMENT: MENU 86
 - PRE-FLASHING FUNCTION: MENU 85
- ➡ THE CONTROL UNIT SENDS THE WARNING SIGNALS ALSO THROUGH THE FLASHING LAMP; SEE **CHAPTER 22**

86
FLASHING
LIGHT

85
PRE-
FLASHING

2.8 - SAFETY EDGE (N.C.)

- CONNECT THE SAFETY EDGE 1 ON CLAMPS 9 AND 11
- CONNECT THE SAFETY EDGE 2 ON CLAMPS 10 AND 11
- SAFETY EDGES MANAGEMENT: CHOICE OF THE EDGE TYPE - MENU 100-101
- DIRECTION MANAGEMENT: CHOICE OF THE DESIRED DIRECTION - MENU 102-103

➡ BALANCED OR 8K2 RESISTIVE SAFETY EDGE OPTIONS (SINGLE OR DOUBLE): CONTACT CONTROL THROUGH RESISTANCE VALUE FOR SHORT-CIRCUITS DETECTION (WITH ALARM ON DISPLAY)



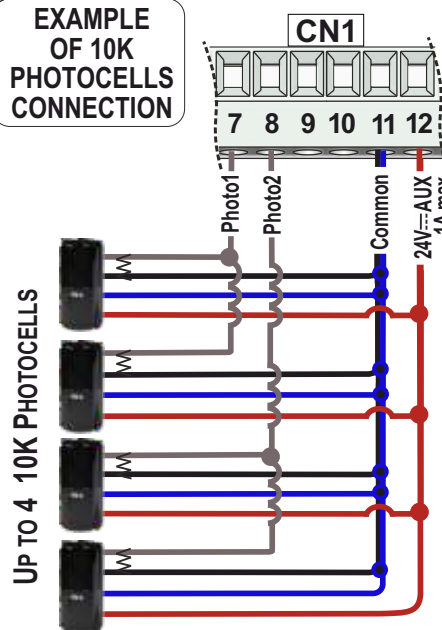
100
SAFETY
EDGE 1

101
SAFETY
EDGE 2

102
EDGE 1
DIRECTION

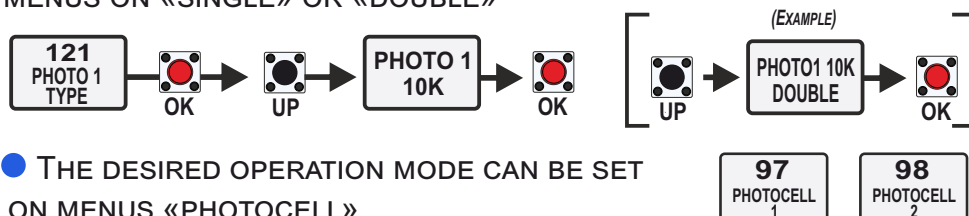
103
EDGE 2
DIRECTION

EXAMPLE OF 10K PHOTOCELLS CONNECTION



2.9 - 10K PHOTOCELL SINGLE OR DOUBLE

- CONNECT PHOTOCELLS ON CLAMPS 7 - 11 - 12 and 8 - 11 - 12
- UP TO FOUR 10K PHOTOCELLS CAN BE CONNECTED; SET THE MENUS ON «SINGLE» OR «DOUBLE»

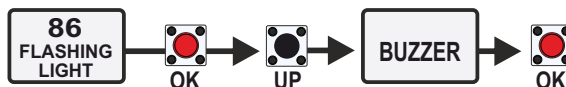


- THE DESIRED OPERATION MODE CAN BE SET ON MENUS «PHOTOCELL»

➡ BY THE USE OF THE 10K PHOTOCELLS, A FURTHER PROTECTION IS GIVEN, EVEN IN THE EVENT OF A SHORT-CIRCUIT ON THE CABLES

2.10 - BUZZER 24V \equiv

- CONNECT THE BUZZER ON CLAMPS 12 AND 13
- USE A 24V \equiv AND 100 dB OSCILLATING BUZZER
- THE BUZZER CAN BE CONNECTED INSTEAD OF THE FLASHING LIGHT; HOWEVER, IT IS NECESSARY TO SET THE MENU AS «BUZZER»

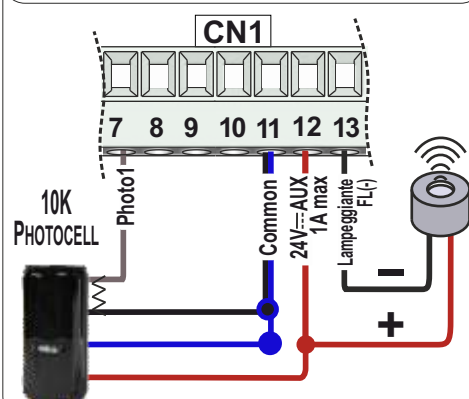


- THE BUZZER ACTIVATES AFTER 2 CONSECUTIVE INTERVENTIONS OF THE ANTI-CRUSHING PROTECTION

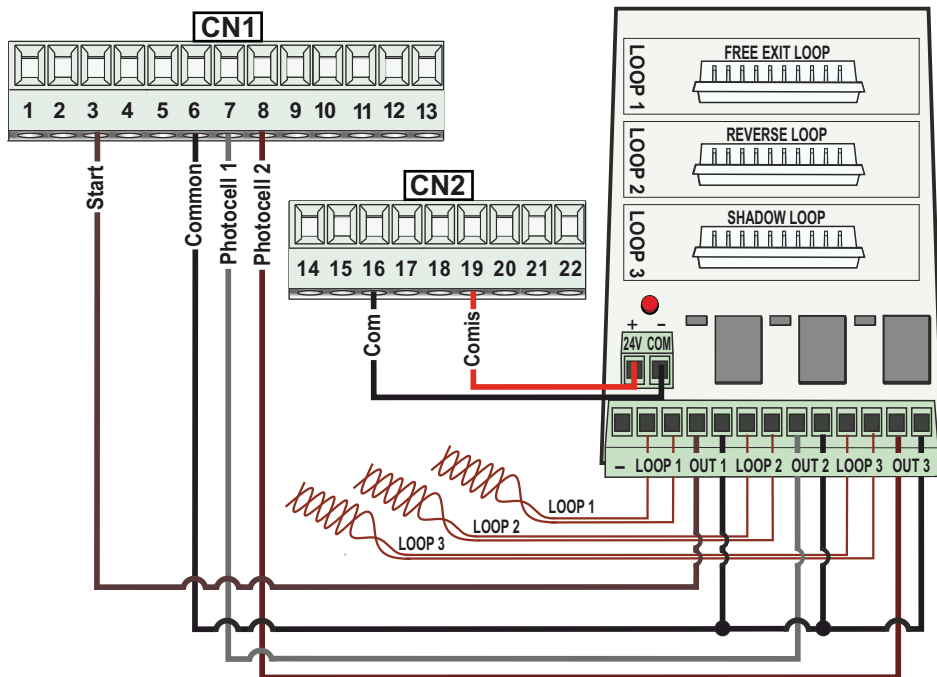
➡ PRESS THE STOP BUTTON TO TURN OFF THE BUZZER; ANYWAY, THE SOUND SWITCHES OFF AUTOMATICALLY AFTER 5 MINUTES AND THE OPERATOR REMAINS STOPPED WAITING FOR A NEW COMMAND

➡ IF THE BUZZER DOES NOT RUN, MAKE SURE THE MENU 86-FLASHING LIGHT IS SET ON «BUZZER»

EXAMPLE OF 10K PHOTOCELL AND BUZZER CONNECTION

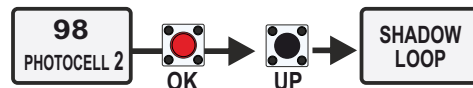


i THE **POSITIVE** CABLE OF THE ACCESSORIES (24V) CAN ALSO BE CONNECTED TO THE **CLAMP 19 ON CN2**



2.11 - SAFETY LOOP

- **FREE EXIT LOOP (LOOP 1)**
3 = START (N.O.)
6 = COMMON
- **REVERSE LOOP (LOOP 2)**
7 = PHOTOCELL 1 (N.C.)
6 = COMMON
- **SHADOW LOOP (LOOP 3)**
8 = PHOTOCELL 2 (N.C.)
6 = COMMON



➔ **USE THE SAFETY LOOP COMBINED WITH THE «ULTRA LOOP PLUG» (23105142)**

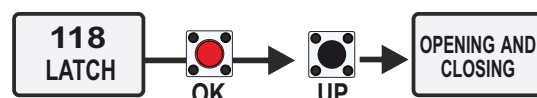
2.12 - LATCH OPENING OR LATCH CLOSING BUTTON

- CONNECT ON CLAMPS 6 AND 9 OR 6 AND 10

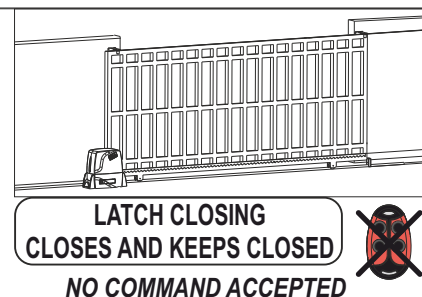
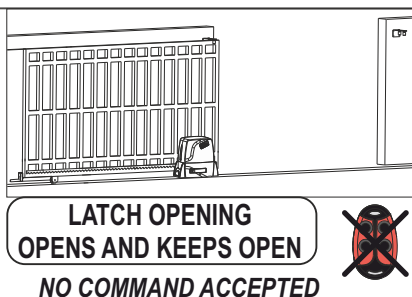
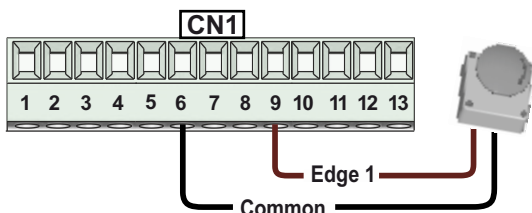
 **THE SAFETY EDGE FUNCTION WILL BE DISABLED**

- MANAGEMENT: SET THE DESIRED OPERATION MODE ON MENU 118
- TO DISABLE THE LATCH FUNCTION, PRESS AGAIN THE ACTIVATION COMMAND

➔ *THE LATCH FUNCTION CAN BE ALSO ENABLED ON THE SECOND CHANNEL OF THE TRANSMITTER; SEE THE **PARAGRAPH 21.4** FOR MORE DETAILS*

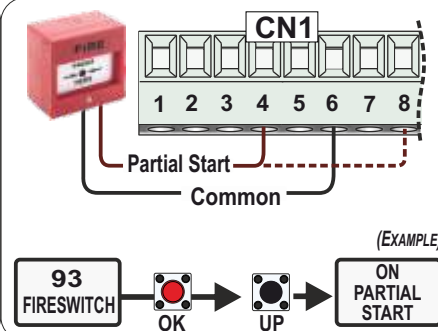


(EXAMPLE)



2.13 - «FIRE SWITCH» FUNCTION

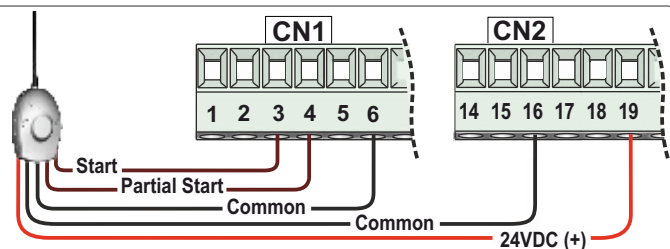
- THE EMERGENCY FIRE-SWITCH CAN BE CONNECTED ON THE «PARTIAL START» OR THE «PHOTOCELL 2» INPUTS
- THE FIRE-SWITCH OPERATES IN «DEAD MAN» MODE AND IT DISABLES ALL THE SAFETY DEVICES WHEN IN USE; THE BUTTON ALLOWS A COMPLETE OPENING (EVEN WHEN CONNECTED TO THE «PARTIAL START»)
- TO CLOSE, FIRST GIVE A «STOP» COMMAND FOLLOWED BY A «START» COMMAND
- THE «FIRE SWITCH» FUNCTION CAN BE ENABLED BY MENU 93



(EXAMPLE)

2.14 - EXTERNAL RECEIVER

➔ BY CONNECTING THE 24V CABLE ON THE CN2 INPUT 19 (24V +) A **CONTINUOUS POWER SUPPLY** IS GUARANTEED TO THE RECEIVER

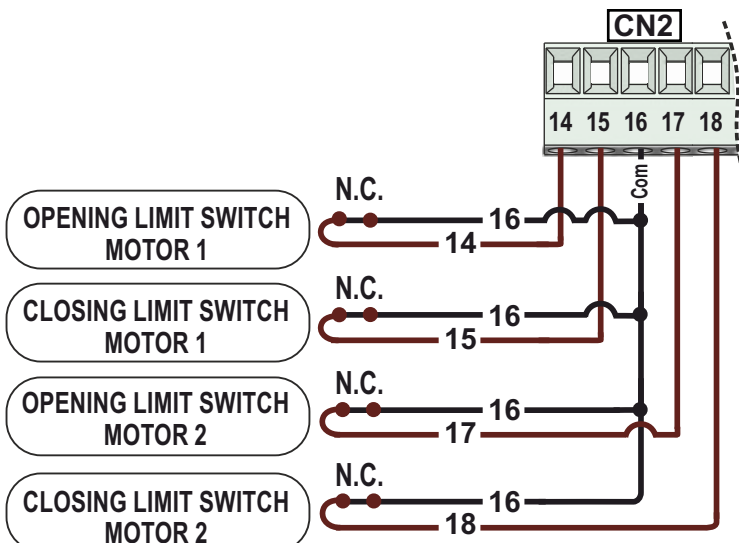
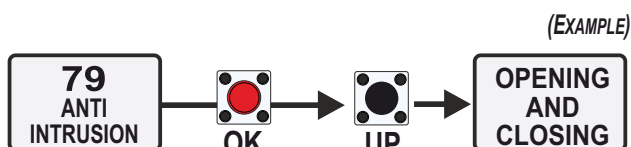


3 - CONNECTION ON CN2

3.1 - LIMIT SWITCH

- CONNECT THE OPENING AND CLOSING LIMIT SWITCH AS ASIDE SHOWN
- ➡ THE TYPE OF LIMIT SWITCH IS AUTOMATICALLY DETECTED DURING THE WORKING TIMES LEARNING

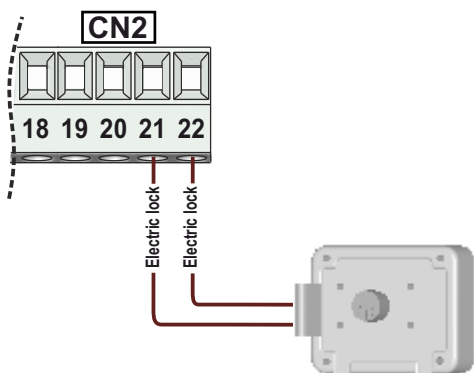
ANTI-INTRUSION FUNCTION: LINKED TO THE PRESENCE OF ONE LIMIT SWITCH AT LEAST (OR POTENTIOMETER); IF ENABLED, THIS FUNCTION RESTORES THE ORIGINAL STATE OF THE GATE AFTER THE MANUAL FORCING

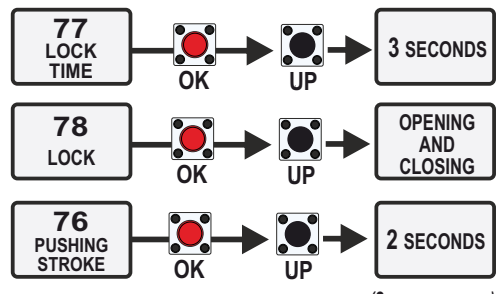


⚠ IN THE CASE OF A SINGLE LEAF GATE, CONNECT ONLY THE MOTOR 1 LIMIT SWITCH; IT IS NOT NECESSARY TO JUMPER THE MOTOR 2 LIMIT SWITCH INPUTS!

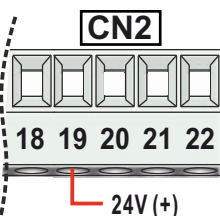
- ➡ TO CONNECT THE SLIDING OPERATORS LIMIT SWITCH, USE THE SPECIAL CLS QUICK CONNECTOR
- ➡ FOR THE LIMIT SWITCH CONNECTIONS OF «BIG FAST», «JOINT 4 LS» OR BOLLARDS, SEE CHAPTER 5

3.2 - 12V - 3A max ELECTRIC LOCK CONNECTIONS



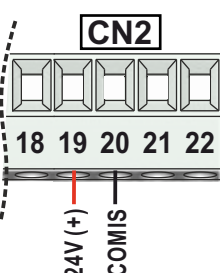
- 12V - MAX 15W ELECTRIC LOCK CONNECTIONS AS ASIDE SHOWN
 - LOCK RELEASE TIME ADJUSTMENT
 - LOCK ACTIVATION MODE ADJUSTMENT
 - THE «PUSHING STROKE»** SIMPLIFIES THE LOCK RELEASE BY GIVING A LITTLE PUSHING STROKE BEFORE STARTING MOVEMENT
- (SETTING EXAMPLES)
- 

3.3 - 24VDC (+) INPUTS



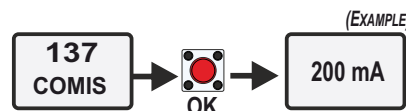
- 24VDC (+) INPUT (19) ON CN2 TO CONNECT THOSE 24V ACCESSORIES WHICH MUST ALWAYS BE ACTIVE (EXAMPLE: EXTERNAL RECEIVER)
- ➡ BY CONNECTING THE COMMON CABLE OF THE ACCESSORIES ON THE INPUT 20 «COMIS», THE CONSUMPTION CAN BE MEASURED. SEE NEXT PARAGRAPH

3.4 - «COMIS» INPUT

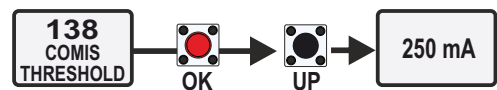


- INPUT 20-COMIS ON CN2 TO CONNECT THE COMMON CABLE OF THE 24V ACCESSORIES (UP TO A MAX. LOAD OF 350 mA)

- THE «COMIS» INPUT ALLOWS THE ABSORPTION MEASUREMENT AND THE VALUE IS SHOWN ON MENU



- THE «COMIS» INPUT ALSO ALLOWS THE SETTING OF A MAX. ABSORPTION THRESHOLD:



⚠ THE EXCESSIVE ABSORPTION OR SHORT CIRCUITS ARE REPORTED ON THE DISPLAY («COMIS FAULT» - SEE ALARM TABLES - CHAPTER 22)

(SETTING EXAMPLE)

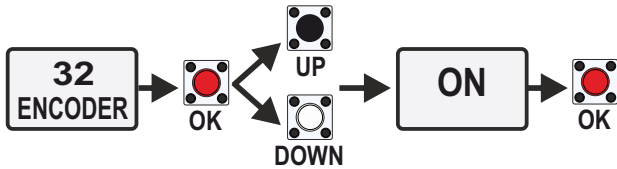
4 - CONNECTIONS ON CN3

4.1 - ENCODER CONNECTION

- CONNECT ONE OR TWO **ENCODERS** ON CN3;
RESPECT THE CABLE COLORS:

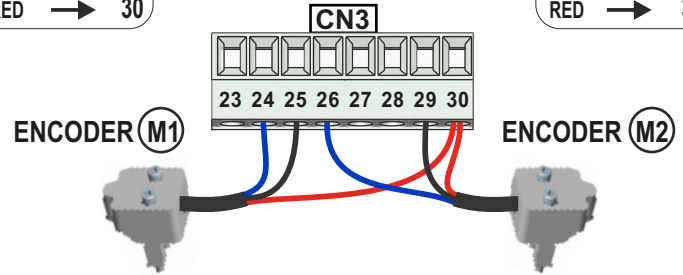
➔ **FOR THE «ABC» ENCODER CONNECTION ON THE «BR» MODULE, SEE PARAGRAPH 10.5.
FOR RS 485 ENCODER, SEE PARAGRAPH 9.1**

- TO ENABLE THE ENCODER:



BLUE → 24
BLACK → 25
RED → 30

BLUE → 26
BLACK → 29
RED → 30



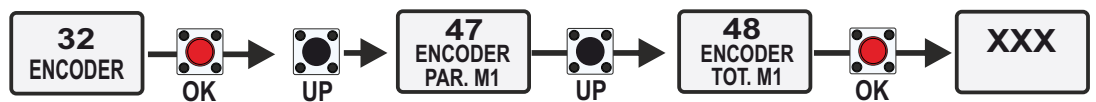
- PULSES READ DURING OPERATION

47-ENCODER PAR M1



- TOTAL PULSES STORED

48-ENCODER TOT M1



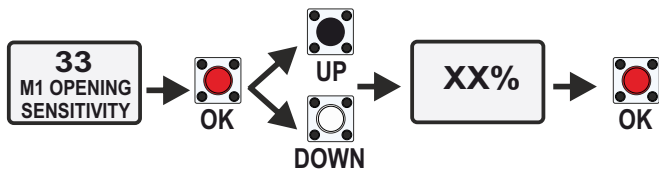
➔ **THE EXAMPLE REFERS ONLY TO MOTOR 1 (M1); FOR MOTOR 2 (M2) PARAMETERS GO TO THE MENUS 49 AND 50**

4.2 - ENCODER PARAMETERS ADJUSTMENT

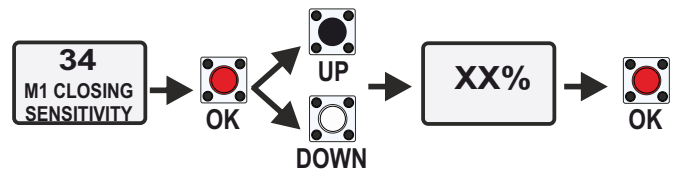
- SETTABLE VALUES: MINIMUM 10% (RAPID INTERVENTION) - MAXIMUM 99% (SLOW INTERVENTION)

➔ **IF SET TO OFF (INTERVENTION EXCLUDED), THE ENCODER ONLY DETECTS POSITION**

- OPENING INTERVENTION TIME ADJUSTMENT



- CLOSING INTERVENTION TIME ADJUSTMENT



➔ **THE EXAMPLE REFERS ONLY TO MOTOR 1 (M1); FOR MOTOR 2 (M2) PARAMETERS GO TO THE MENUS 35 AND 36**

4.3 - LINEAR POTENTIOMETER or «RT» ABSOLUTE ENCODER CONNECTION

BLUE → 23
BLACK → 24
BROWN → 25

BLUE → 23
BLACK → 26
BROWN → 29

BROWN → 23
WHITE → 24
GREEN → 25

BROWN → 23
WHITE → 26
GREEN → 29

POTENTIOMETER

POTENTIOMETER

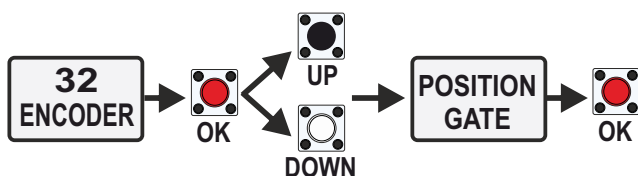


«RT» ABSOLUTE ENCODER

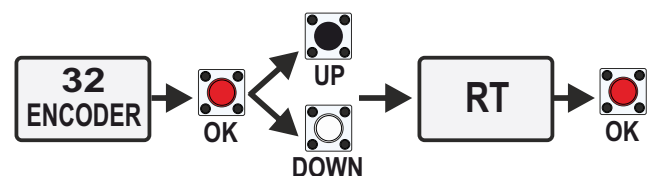
«RT» ABSOLUTE ENCODER



- TO ENABLE THE LINEAR POTENTIOMETER:



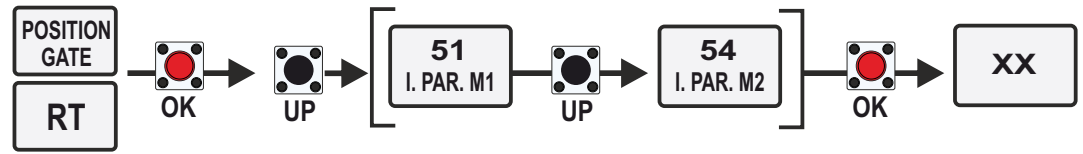
- TO ENABLE THE «RT» ABSOLUTE ENCODER:



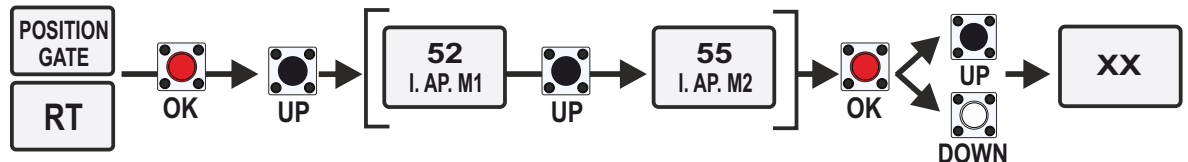
➔ **FOR DISTANCES OF MORE THAN 2m, CONNECT A 3-POLE SHIELDED CABLE AND WIRE THE SHIELD ON THE COMMON CLAMP (25 OR 29)**

4.4 - LINEAR POTENTIOMETER or «RT» ABSOLUTE ENCODER CONFIGURATION

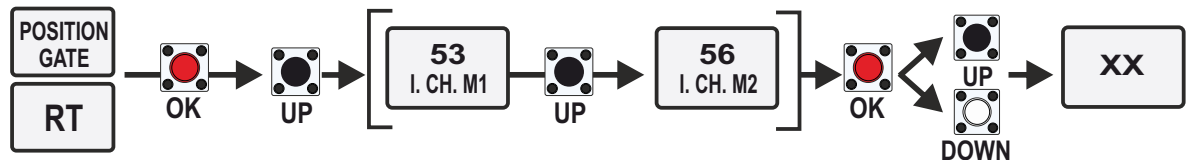
- SUBMENUS: **MOTOR 1 (MENU 51) OR MOTOR 2 (MENU 54) PARTIAL IMPULSES**; DISPLAY OF THE OPERATOR CURRENT POSITION



- SUBMENUS: **MOTOR 1 (MENU 52) OR MOTOR 2 (MENU 55) IMPULSES IN OPENING**; DISPLAY OF THE IMPULSES WHEN THE LEAF IS COMPLETELY OPEN; POSSIBILITY TO INCREASE OR DECREASE THE TOTAL PULSES



- SUBMENUS: **MOTOR 1 (MENU 53) OR MOTOR 2 (MENU 56) IMPULSES IN CLOSING**; DISPLAY OF THE IMPULSES WHEN THE LEAF IS COMPLETELY CLOSED; POSSIBILITY TO INCREASE OR DECREASE THE TOTAL PULSES



4.5 - POTENTIOMETER or «RT» ENCODER PARAMETERS ADJUSTMENT

- SENSITIVITY PARAMETERS IN OPENING AND CLOSING (MOTOR 1 AND MOTOR 2) FOR POTENTIOMETER INTERVENTION TIME ADJUSTMENT

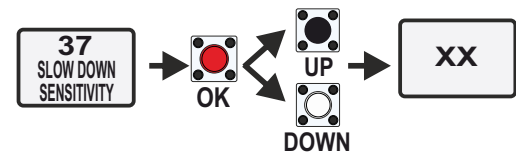
➡ FOR A QUICK REVERSE ON OBSTACLE DECREASE THE SENSITIVITY



 SET TO OFF (INTERVENTION EXCLUDED): MERELY DETECTION OF THE IMPULSES (DOES NOT REVERSE ON OBSTACLE)

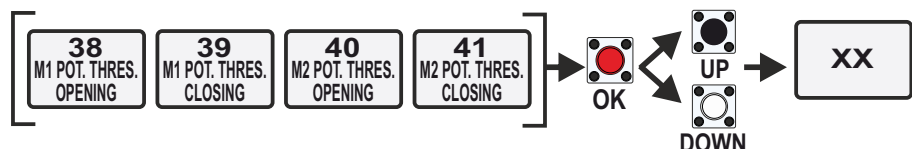
- SLOWDOWN SENSITIVITY PARAMETER FOR ADJUSTMENT OF THE INVERSION TIME DURING THE SLOW DOWN

➡ FOR A QUICK REVERSE ON OBSTACLE DECREASE THE SENSITIVITY



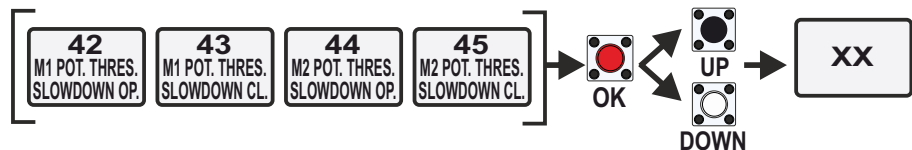
- INTERVENTION THRESHOLD ADJUSTMENT IN OPENING AND CLOSING (MOTOR 1 AND MOTOR 2)

➡ THE LOWER THE THRESHOLD, THE GREATER THE FORCE REQUIRED FOR THE INVERSION



- INTERVENTION THRESHOLD ADJUSTMENT (INTERVENTION DURING THE SLOWDOWN IN OPENING AND SLOWDOWN IN CLOSING (M1 - M2))

➡ THE LOWER THE THRESHOLD, THE GREATER THE FORCE REQUIRED FOR THE INVERSION



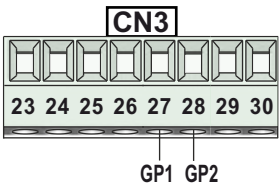
4.6 - ACCESS TO THE HIDDEN «DEBUG» MENU

- DISPLAY OF THE INSTANTANEOUS SPEED VALUES DETECTED «VP1» AND «VP2» (MOTOR 1 AND MOTOR 2) IN ORDER TO ADJUST THE THRESHOLDS ABOVE DESCRIBED (WHICH MUST ALWAYS BE GREATER THAN THE VALUES SHOWN IN VP1 OR VP2)

see chap. 15



4.7 - «GP1» e «GP2» PROGRAMMABLE INPUTS



GP1 (27) = PROGRAMMABLE INPUT 1
GP2 (28) = PROGRAMMABLE INPUT 2

- «GP1» AND «GP2» ARE PROGRAMMABLE INPUTS FOR THE CONNECTION OF ADDITIONAL ACCESSORIES (E.G. TEMPERATURE PROBE OR BUTTONS) WHICH REQUIRE SPECIFIC SETTINGS.

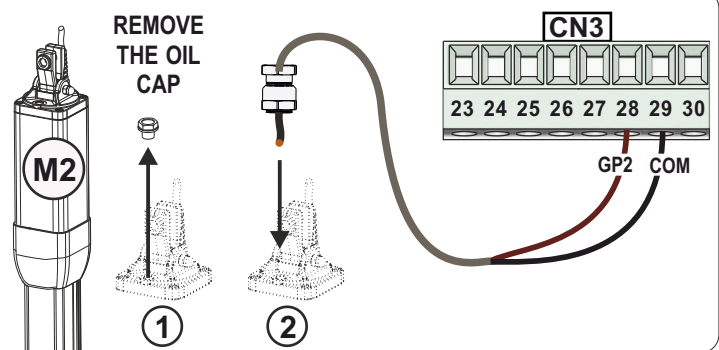
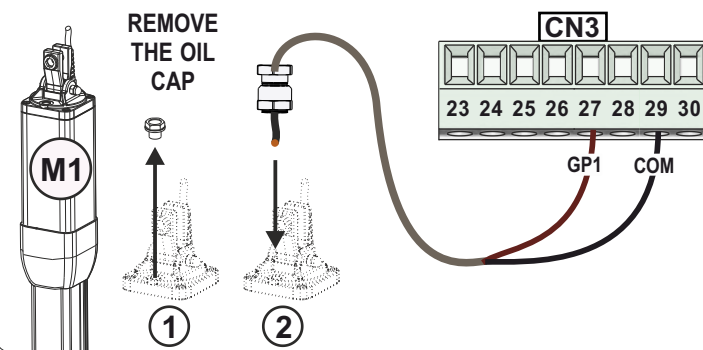
- INPUTS MANAGEMENT: MENU 130 AND 131

130
GP1

131
GP2

4.8 - TEMPERATURE PROBE CONNECTION

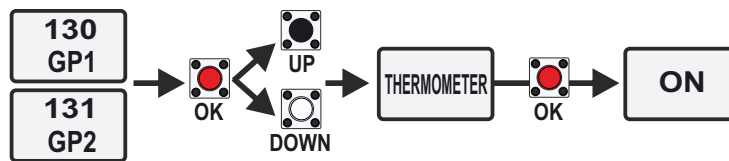
- CONNECT THE TEMPERATURE PROBE ON CN3
- THE PROBE DETECTS THE OIL TEMPERATURE; IF IT FALLS BELOW THE SET THRESHOLD, THE PROBE ACTIVATES THE HEATING, RETURNING THE VALUES TO THE ESTABLISHED RANGE



➔ SCREW THE TEMPERATURE PROBE (OR PROBES, IN CASE OF TWO OPERATORS) TO REPLACE THE OIL CAP

4.9 - ACTIVATION AND SETTING OF THE TEMPERATURE PROBE

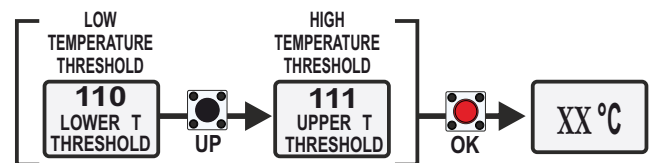
- TO ENABLE THE PROBES:
MENU 130 AND 131



- TO DISPLAY THE DETECTED TEMPERATURE: MENU 109
(BOTH GP1 T AND GP2 T WILL BE DISPLAYED)

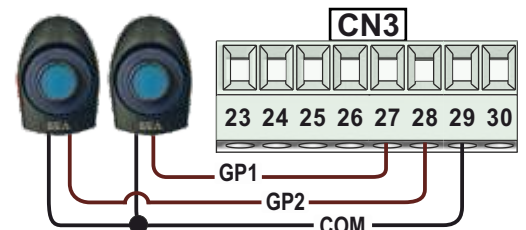


- SETTING OF THE HIGH AND LOW TEMPERATURE THRESHOLDS TO ENABLE/DISABLE THE OIL HEATING



4.10 - «CAGE» FUNCTION ON MENU «GP1» and «GP2»

- CONNECT TWO «START» BUTTONS ON CN3
ON GP1 (CLAMP 27) AND COM (CLAMP 29)
ON GP2 (CLAMP 28) AND COM (CLAMP 29)



- «CAGE» FUNCTION ACTIVATION:



* OR MENU 131 FOR GP2 INPUT

- THE FUNCTION ALLOWS THE M1 AND M2 OPENING AND THE CLOSING IN «DEAD MAN» MODE:
THE BUTTON CONNECTED ON GP1 - OPENS M1 ONLY IF M2 IS COMPLETELY CLOSED
THE BUTTON CONNECTED ON GP2 - OPENS M2 ONLY IF M1 IS COMPLETELY CLOSED

➔ FUNCTION AVAILABLE ONLY WITH «FV» MODULE - UNIGATE INVERTER

5 - SPECIAL CONNECTIONS ON CN2 and CN3

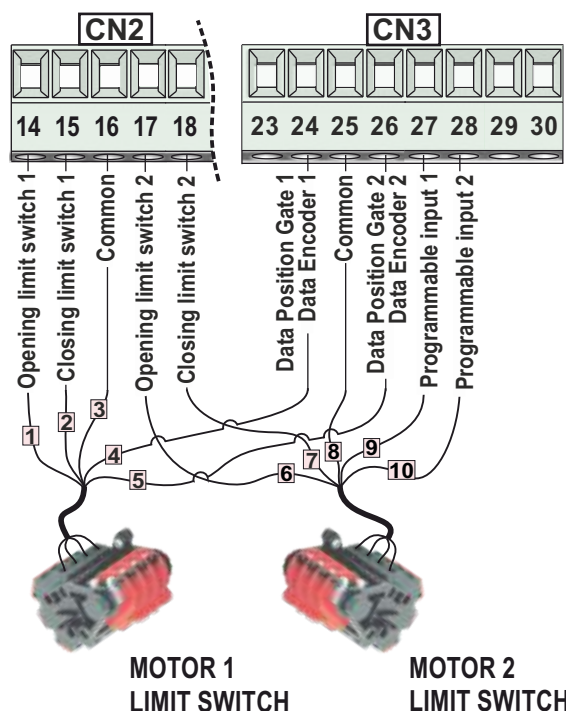
5.1 - «BIG FAST» OPERATOR LIMIT SWITCH CONNECTION

● IN CASE OF 1 «BIG FAST» OPERATOR, CONNECT THE LIMIT SWITCH ACCORDING TO DIAGRAM IN **CHAPTER 3**

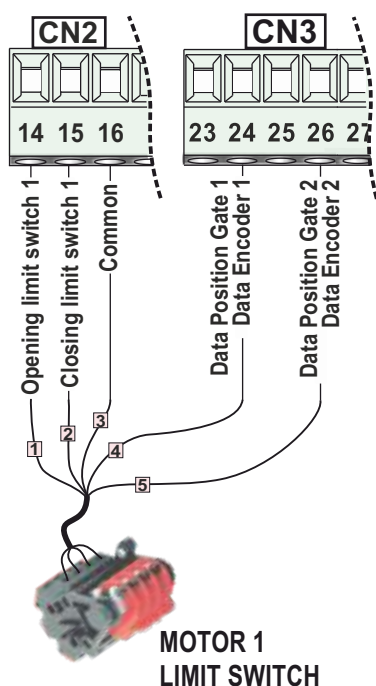
● IN CASE OF 2 «BIG FAST» OPERATORS, CONNECT THE LIMIT SWITCH ACCORDING TO THE ASIDE DIAGRAM

➔ **THE MOTOR 2 OPENING AND CLOSING LIMIT SWITCH ARE USED AS «SLOWDOWN LIMIT SWITCH»**

- 1 MOTOR 1 OPENING LIMIT SWITCH
- 2 MOTOR 1 CLOSING LIMIT SWITCH
- 3 MOTOR 1 COMMON
- 4 MOTOR 1 OPENING SLOWDOWN LIMIT SWITCH
- 5 MOTOR 1 CLOSING SLOWDOWN LIMIT SWITCH
- 6 MOTOR 2 OPENING LIMIT SWITCH
- 7 MOTOR 2 CLOSING LIMIT SWITCH
- 8 MOTOR 2 COMMON
- 9 MOTOR 2 OPENING SLOWDOWN LIMIT SWITCH
- 10 MOTOR 2 CLOSING SLOWDOWN LIMIT SWITCH

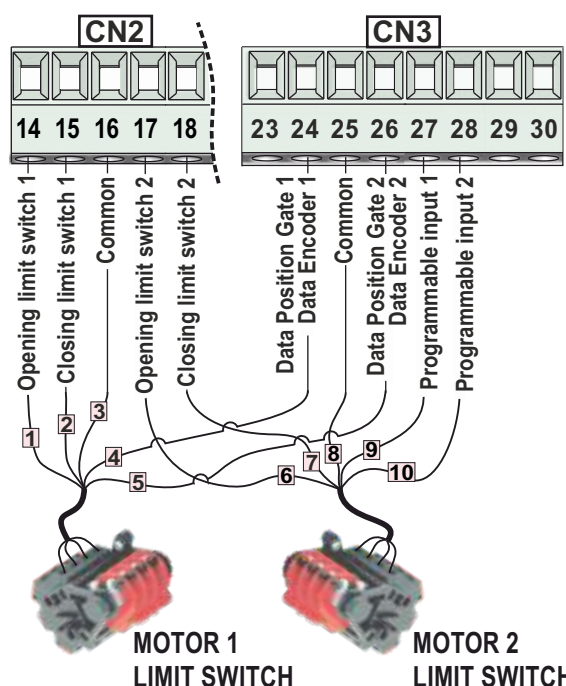


5.2 - «JOINT 4 LS» or BOLLARDS* LIMIT SWITCH CONNECTION



1 «JOINT 4 LS» OPERATOR OR 1 BOLLARD*

- 1 MOTOR 1 OPENING LIMIT SWITCH
- 2 MOTOR 1 CLOSING LIMIT SWITCH
- 3 MOTOR 1 COMMON
- 4 MOTOR 1 OPENING SLOWDOWN LIMIT SWITCH
- 5 MOTOR 1 CLOSING SLOWDOWN LIMIT SWITCH
- 6 MOTOR 2 OPENING LIMIT SWITCH
- 7 MOTOR 2 CLOSING LIMIT SWITCH
- 8 MOTOR 2 COMMON
- 9 MOTOR 2 OPENING SLOWDOWN LIMIT SWITCH
- 10 MOTOR 2 CLOSING SLOWDOWN LIMIT SWITCH



2 «JOINT 4 LS» OPERATORS OR 2 BOLLARDS*

* **FOR BOLLARDS ONLY: FIRST YOU MUST ENABLE THE SLOWDOWN LIMIT SWITCHES**

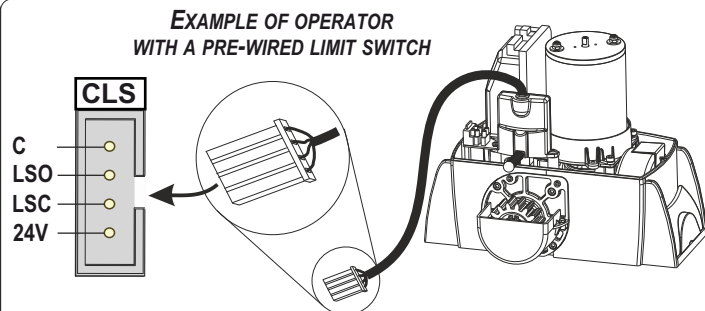


IN CASE OF «UNIGATE 4PM», THE MOTOR 3 AND MOTOR 4 LIMIT SWITCHES MUST BE CONNECTED IN PARALLEL WITH THE CORRESPONDING CABLES OF MOTOR 1 AND MOTOR 2;
EXAMPLE: THE M1 OPENING LIMIT SWITCH CABLE IN PARALLEL WITH THE M3 OPENING LIMIT SWITCH CABLE

6 - CONNECTION ON CLS

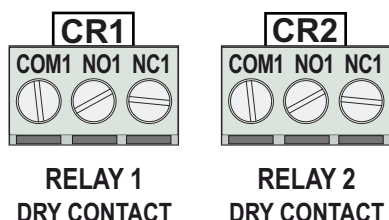
6.1 - LIMIT SWITCH CONNECTION ON THE «CLS» QUICK CONNECTOR

- CONNECTION OF THE PRE-WIRED LIMIT SWITCH ON THE **SEA SLIDING OPERATORS**
- THE CONTROL UNIT MANAGES MECHANIC, INDUCTIVE AND MAGNETIC LIMIT SWITCHES
- THE LIMIT SWITCH TYPE IS AUTOMATICALLY RECOGNIZED DURING THE WORKING TIMES LEARNING

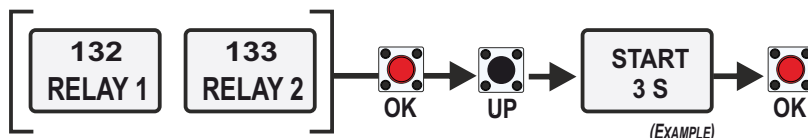


7 - CONNECTIONS ON CR1 and CR2

7.1 - RELAY 1 and RELAY 2 MANAGEMENT



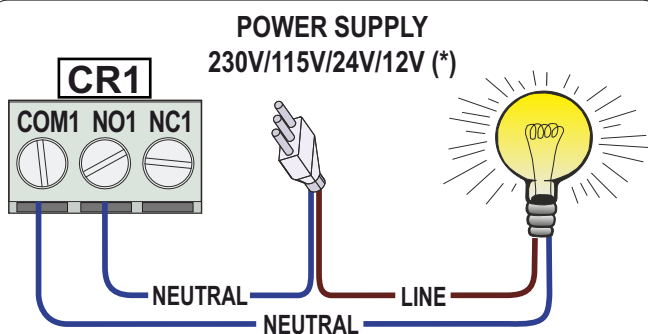
- TO CONNECT ADDITIONAL ACCESSORIES (LIGHTS, TRAFFIC LIGHTS ETC); MANAGEMENT THROUGH MENUS 132 AND 133



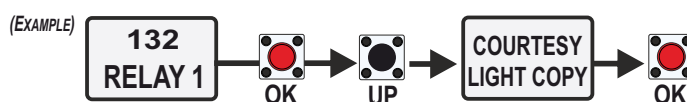
⇒ OPTIONS INCLUDE THE «COPY» OF OTHER ACCESSORY MANAGEMENT MENUS TO ALLOW THE CONNECTION OF MORE UNITS VIA RELAY

* THE 24V POWER SUPPLY FOR THE ACCESSORIES CONNECTED VIA RELAY MUST BE PROVIDED BY AN EXTERNAL POWER SUPPLY HAVING SUITABLE POWER

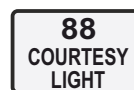
7.2 - COURTESY LIGHT CONNECTION VIA RELAY



- TIMED COURTESY LIGHT CONNECTION FROM 0 TO 240 SECONDS



- MANAGEMENT:



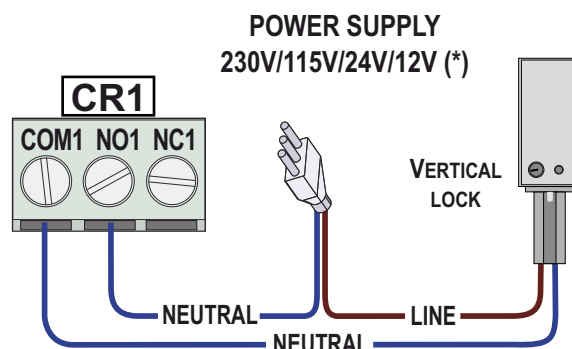
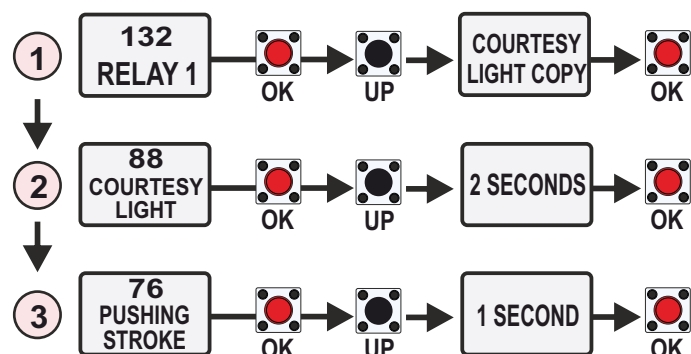
Max. 50W → 230V

Max. 100W → 115V

7.3 - VERTICAL LOCK CONNECTION VIA RELAY



SET THE MENUS AS FOLLOWS BEFORE CONNECTING THE LOCK!

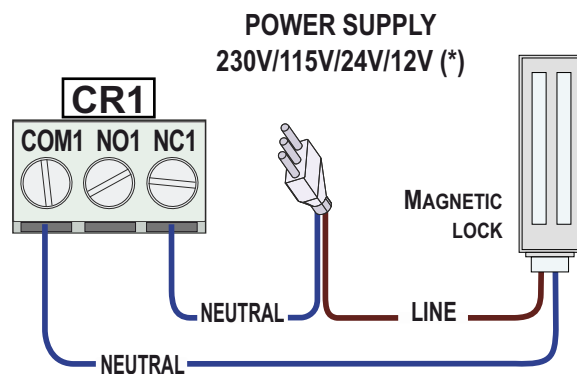
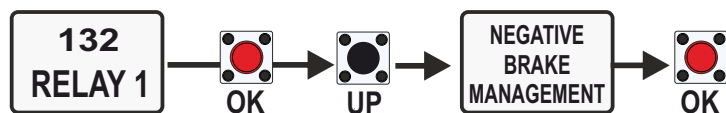


7.4 - MAGNETIC LOCK CONNECTION VIA RELAY



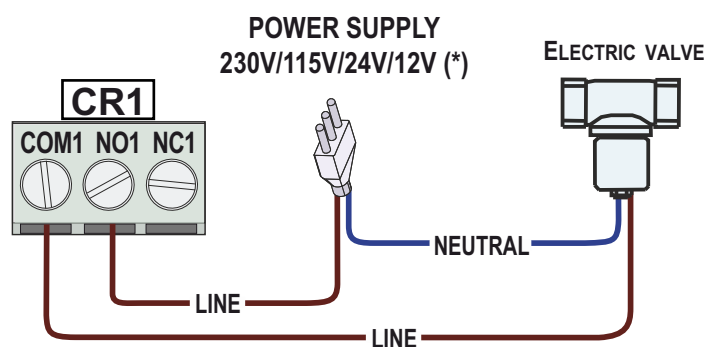
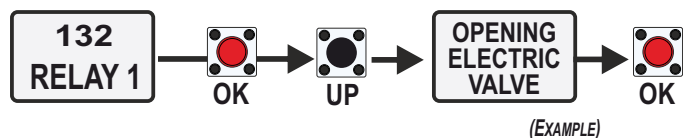
SET THE MENU AS FOLLOWS BEFORE CONNECTING THE LOCK!

- MAGNETIC LOCK CONNECTION
- MANAGEMENT: MENU 132
(OR MENU 133 IF CONNECTED TO **CR2**)



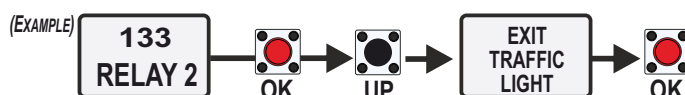
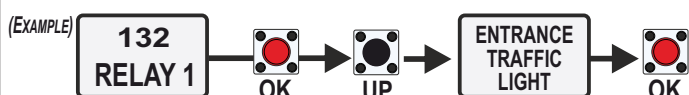
7.5 - ELECTRIC VALVE CONNECTION VIA RELAY

- ELECTRIC VALVE CONNECTION
(OPENING/CLOSING)
- MANAGEMENT: MENU 132
(OR MENU 133 IF CONNECTED TO **CR2**)

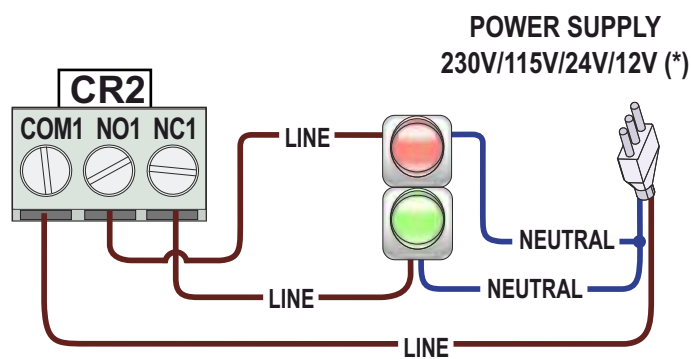
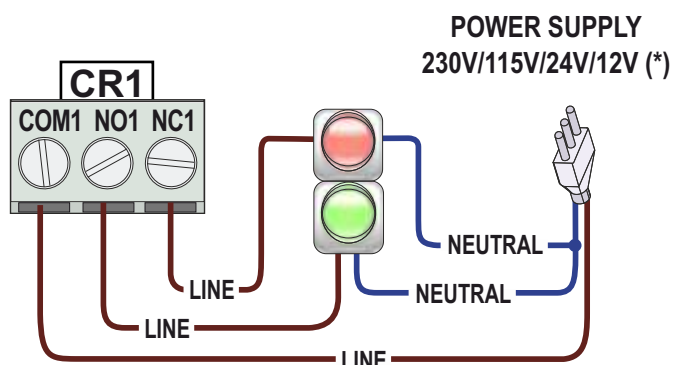
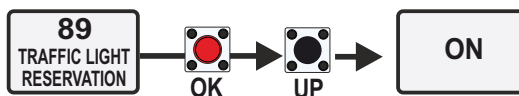


7.6 - TRAFFIC LIGHT CONNECTION VIA RELAY

- TRAFFIC LIGHT (RED/GREEN) CONNECTION; MANAGEMENT OF THE IN/OUT PRIORITY



- ACTIVATION OF THE TRAFFIC LIGHT:



8 - CONNECTION ON P/S (only for «FV» and «BR» modules)

8.1 - «PRIMARY/SECONDARY» (MASTER/SLAVE) CIRCUIT

- PRIMARY/SECONDARY MODE: TO MANAGE 2 OPERATORS (EX. OPPOSITE BARRIERS OR BOLLARDS) HAVING EACH ONE ITS CONTROL UNIT
- CONNECTION VIA P/S CONNECTOR
- MANAGEMENT:

105
PRIMARY
SECONDARY

 SET A CONTROL UNIT AS «PRIMARY» AND THE OTHER AS «SECONDARY»

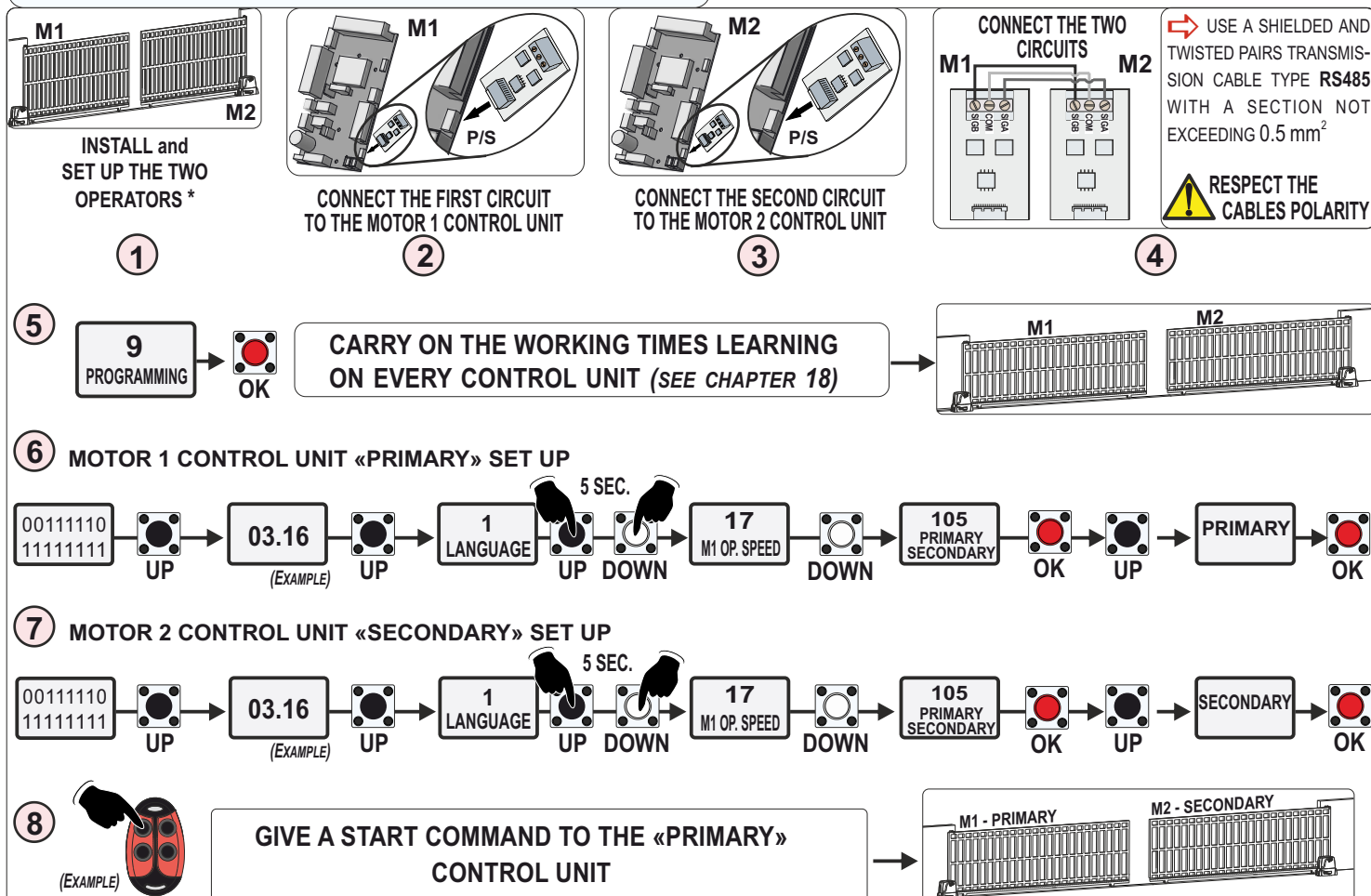


➡ CONNECT ALL ACCESSORIES ON THE «PRIMARY» CONTROL UNIT.

THE «SECONDARY» CONTROL UNIT ONLY ALLOWS THE MANAGEMENT OF THE FOLLOWING MENUS:

1-LANGUAGE	47-MOTOR 1 PARTIAL ENCODER	83-EXTRA TIME
3-MOTOR	48-MOTOR 1 TOTAL ENCODER	86-FLASHING LIGHT
5-REVERSE MOTOR	59-MOTOR 1 SLOWDOWN IN OPENING	88-COURTESY LIGHT
14-RESET	60-MOTOR 1 SLOWDOWN IN CLOSING	94-24V AUX (NO AUTOTEST FUNCTION)
17-MOTOR 1 OPENING SPEED	63-DECELERATION	104-SELECT LIMIT SWITCH
18-MOTOR 1 CLOSING SPEED	64-ACCELERATION	106-DIAGNOSTICS
21-M1 SLOWDOWN SPEED IN OPENING	65-MOTOR 1 OPENING TIME	112-PASSWORD
22-M1 SLOWDOWN SPEED IN CLOSING	66-MOTOR 1 CLOSING TIME	115-DECELERATION RAMP
28-MOTOR 1 OPENING TORQUE	70-POSITION RECOVERY IN OPENING	123 - 127 DATE & TIME MENUS
29-MOTOR 1 CLOSING TORQUE	71-POSITION RECOVERY IN CLOSING	130 - 135 RELAY MENUS
32-ENCODER	72-MOTOR 1 TOLERANCE IN OPENING	137-COMIS
33-MOTOR 1 OPENING SENSITIVITY	73-MOTOR 1 TOLERANCE IN CLOSING	140-M1 OPENING «A» THRESHOLD
34-MOTOR 1 CLOSING SENSITIVITY	76-PUSHING STROKE	141-M1 CLOSING «A» THRESHOLD
37-SLOWDOWN SENSITIVITY	78-LOCK	144-M1 OPENING SLOWDOWN «A» THRESHOLD
		145-M1 CLOSING SLOWDOWN «A» THRESHOLD

8.2 - «PRIMARY/SECONDARY» SETTING

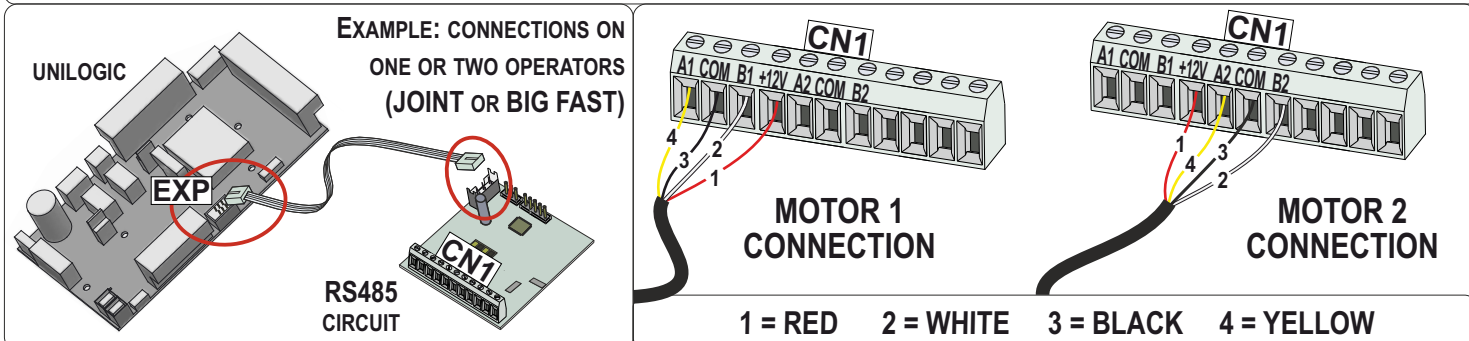


* INSTALL AND SET UP THE TWO OPERATORS AS IF THEY WERE TWO INDEPENDENT INSTALLATIONS. CHECK THE CORRECT FUNCTIONING AND THE CORRECT READING OF THE LIMIT SWITCHES, IF INSTALLED.

9 - CONNECTION ON EXP

9.1 - RS 485 CIRCUIT

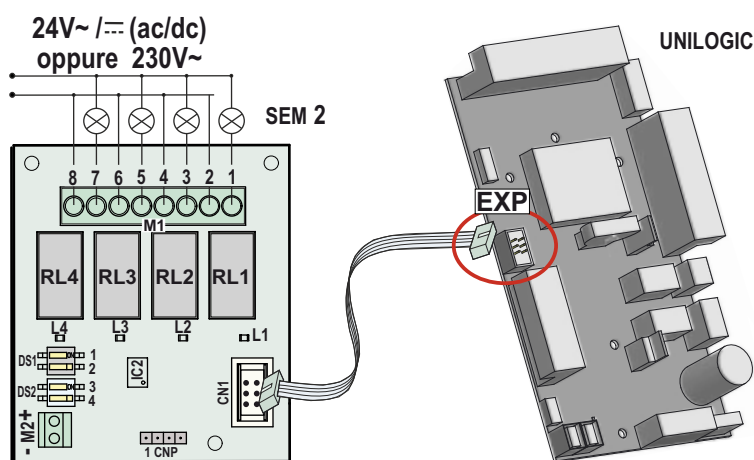
- CIRCUIT RS 485 CONNECTION, TO MANAGE ONE OR TWO ABSOLUTE ROTATIVE ENCODERS TYPE RS 485 ON ONE OR TWO OPERATORS



- THE ENCODER «RS 485» MUST BE ENABLED ON MENU 32 **BEFORE** THE WORKING TIMES LEARNING; FOR THE WORKING TIMES LEARNING, SEE THE **PARAGRAPH 18.8**



9.2 - «SEM 2» MANAGEMENT UNIT

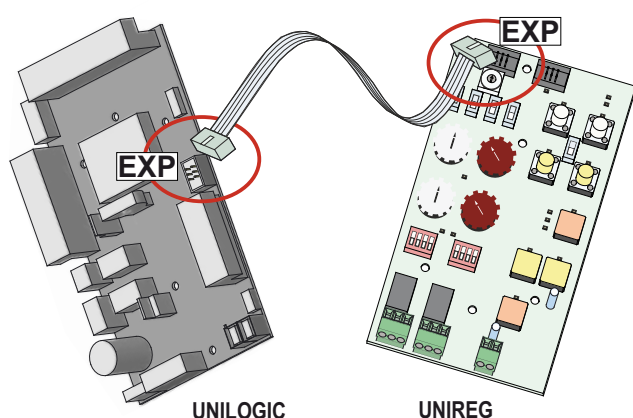


- THE SEM 2 ACCESSORIES MANAGEMENT UNIT ALLOWS YOU TO CONNECT AND MANAGE THE FOLLOWING ADDITIONAL ACCESSORIES:
 - TRAFFIC LIGHT
 - COURTESY LIGHT
 - VERTICAL ELECTRIC LOCK
 - POSITIVE OR NEGATIVE ELECTRIC BRAKE

⇒ SEM2 MANAGES THE STATUS OF THE LIMIT SWITCHES TO ALLOW THE CONNECTION OF ACCESSORIES WHICH ACTIVATION DEPENDS ON THE LIMIT SWITCH STATUS

 **MORE DETAILS ON SEM 2 INSTRUCTIONS**

9.3 - «UNIREG» ANALOG MANAGEMENT UNIT



- THE «UNIREG» ANALOG MANAGEMENT UNIT COMBINED WITH THE «UNILOGIC» ALLOWS THE CONNECTION OF ONE OR TWO OPERATORS WHICH CAN BE PROGRAMMED AND MANAGED VIA TRIMMERS AND DIP-SWITCHES

 **MORE DETAILS ON UNIREG INSTRUCTIONS**

10 - MOTORS CONNECTION

10.1 - OPERATORS CONNECTION ON «FV» MODULE

UNIGATE - 1I

MOTOR 1 (230V)

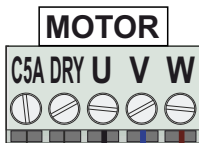
U = BLACK

V = BLUE *

W = BROWN **

* WHITE → 115V

** RED → 115V



(EXAMPLE)



DO NOT CONNECT CAPACITORS!

UNIGATE - 2I

MOTOR 2 (230V)

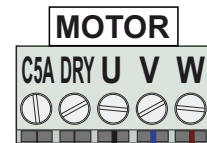
U = BLACK

V = BLUE *

W = BROWN **

* WHITE → 115V

** RED → 115V

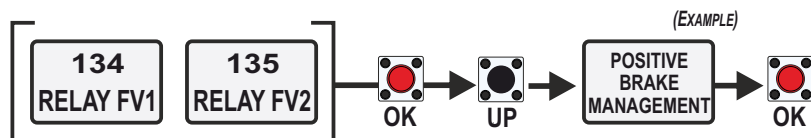


(EXAMPLE)

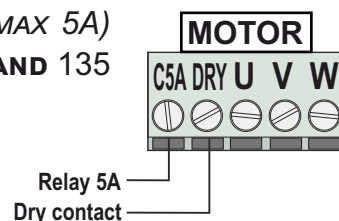


DO NOT CONNECT CAPACITORS!

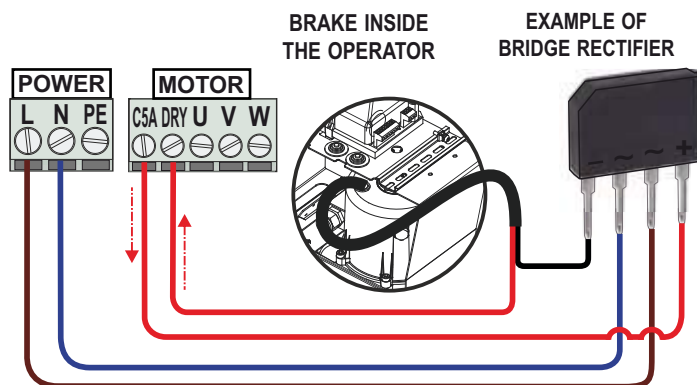
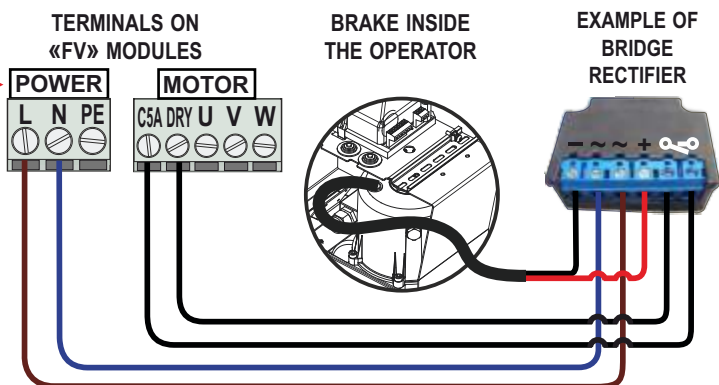
- THE «FV» MODULE IS EQUIPPED WITH A DRY CONTACT RELAY INPUT (MAX 5A) FOR ADDITIONAL ACCESSORIES MANAGEMENT; SETTINGS VIA MENU 134 AND 135



(EXAMPLE)



- ON «BIG FAST» AND «LEPUS INDUSTRIAL FAST» OPERATORS, THE ELECTRIC BRAKE MUST BE CONNECTED THROUGH A BRIDGE RECTIFIER TO THE RELAY AND THE POWER TERMINALS

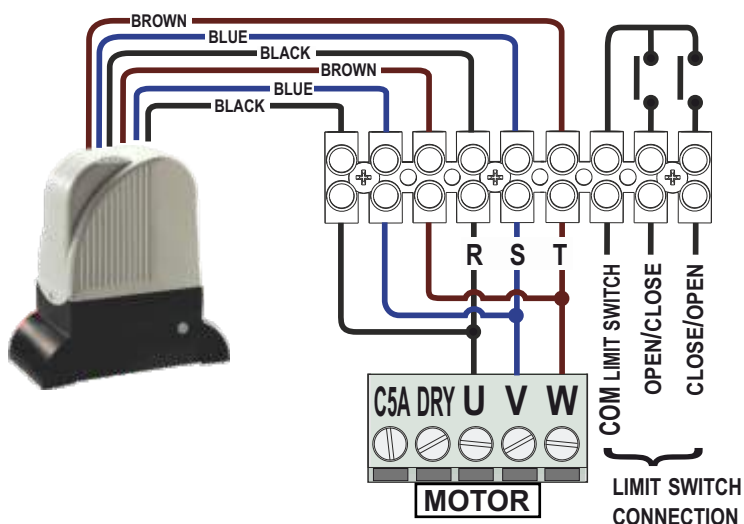


10.2 - THREE-PHASE POWER SUPPLY FOR «LEPUS THREE-PHASE 230V»

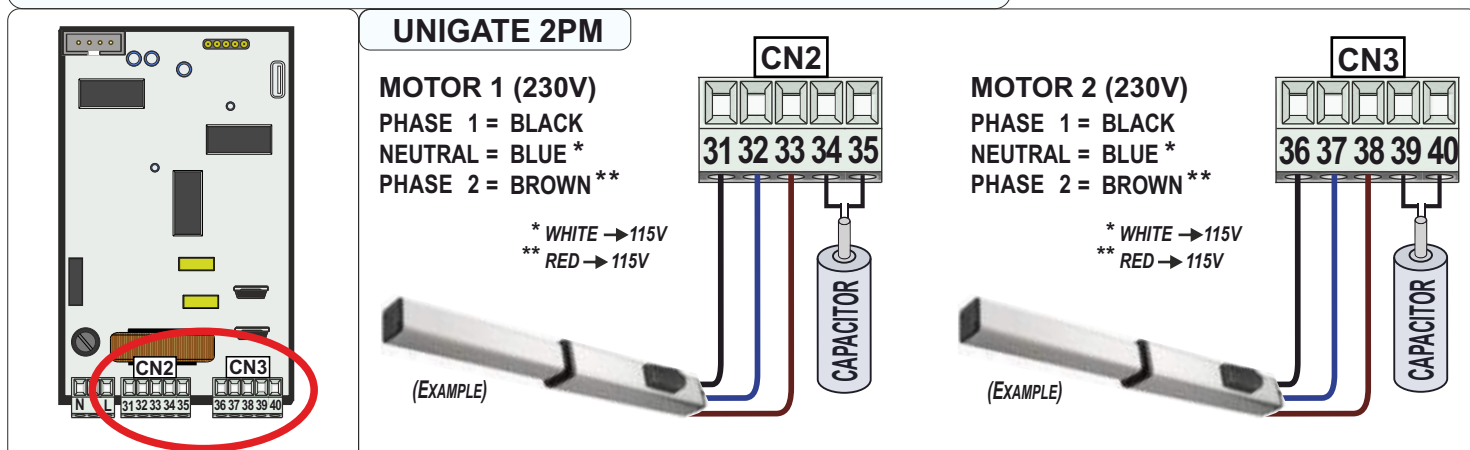
- THE LEPUS THREE-PHASE OPERATOR REQUIRES CONNECTION VIA TERMINAL BLOCK, AS SHOWN IN THE ASIDE DIAGRAM

- IF THE LIMIT SWITCHES ARE INSTALLED ON THE OPERATOR, CONNECT AS SHOWN IN THE ASIDE DIAGRAM

➡ IF THERE IS NO CORRESPONDENCE BETWEEN THE MOTOR MOVEMENT DIRECTION AND THE LIMIT SWITCH ENGAGED, SWAP THE LIMIT SWITCH CABLES

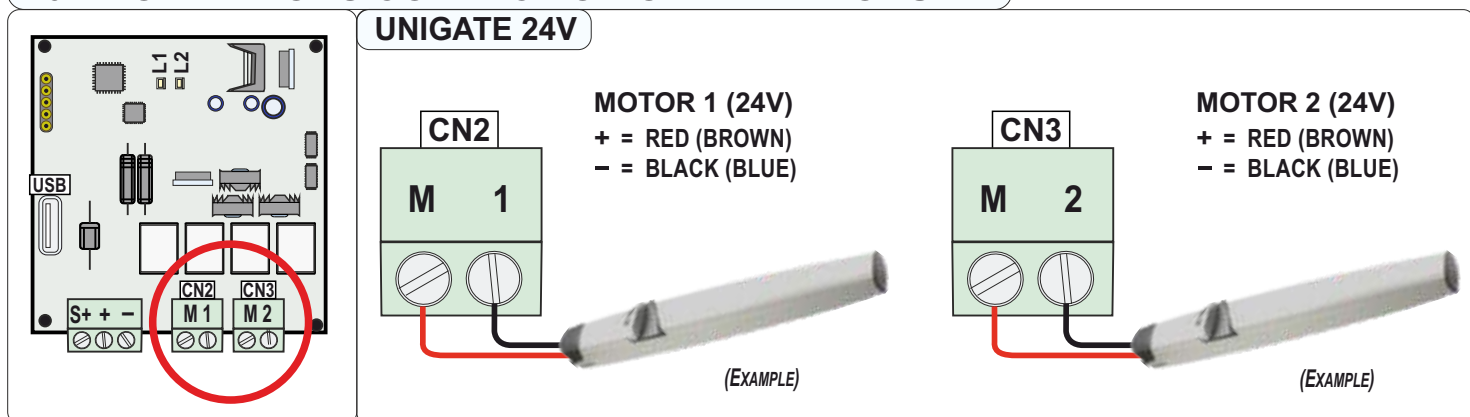


10.3 - OPERATORS CONNECTION ON «2PM» MODULE

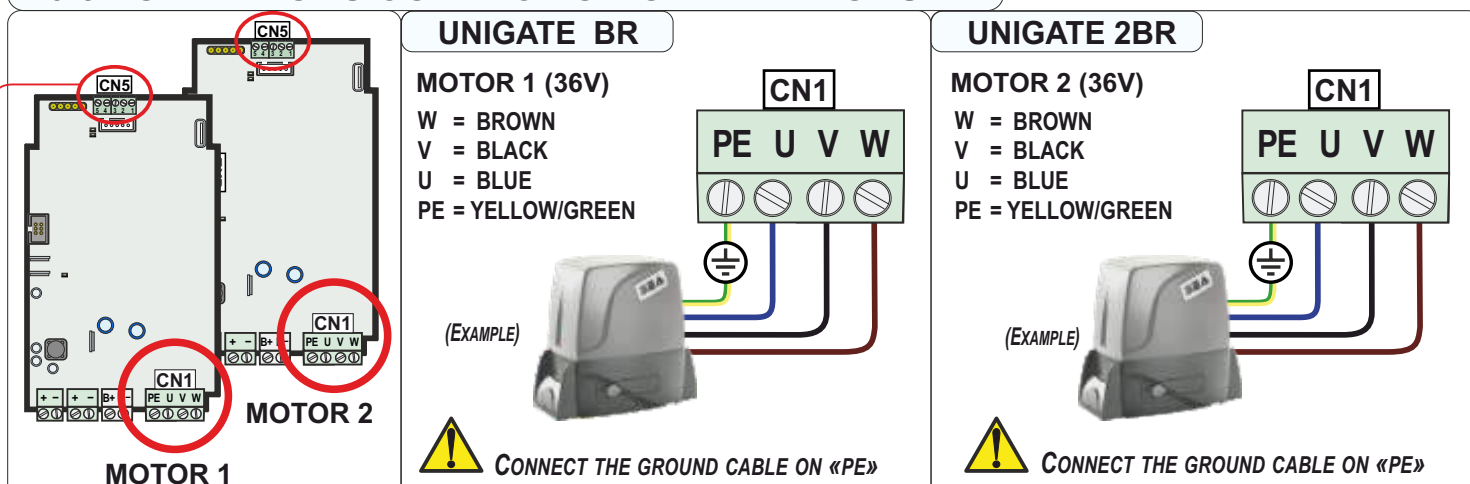


➔ **UNIGATE 4PM: CONNECT THE OTHER TWO OPERATORS ON CN2 AND CN3 OF THE SECOND 2PM MODULE**

10.4 - OPERATORS CONNECTION ON «24V» MODULE

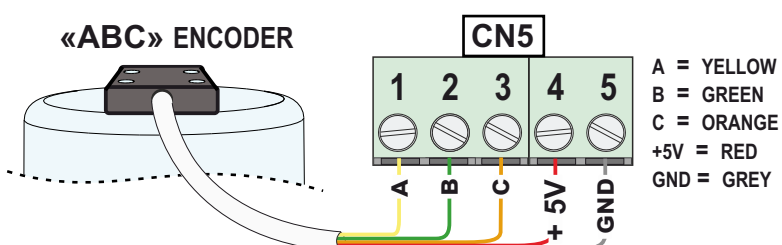


10.5 - OPERATORS CONNECTION ON «BR» MODULE

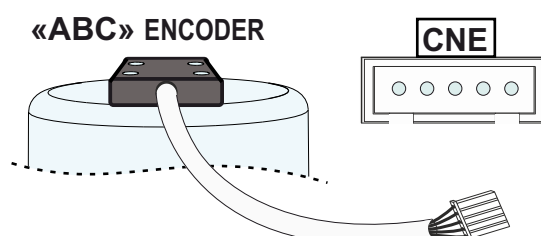


● **CONNECTION OF THE ENCODER «ABC» ON THE «BR» (BRUSHLESS 36V) OPERATORS**

FREE WIRES CONNECTION ON CN5

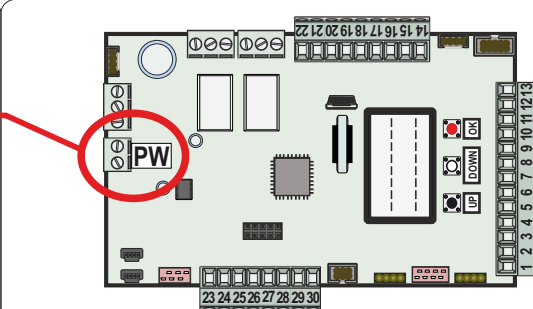
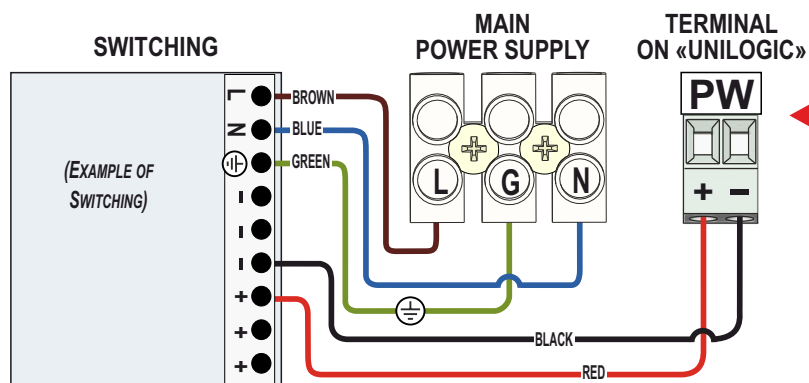


PRE-WIRED CONNECTION ON CNE



11 - POWER SUPPLY CONNECTION ON «PW»

11.1 - «UNILOGIC» MODULE POWER SUPPLY

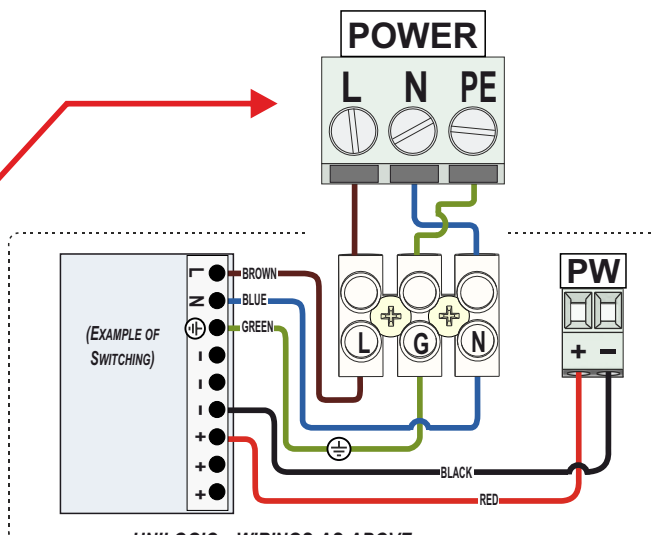
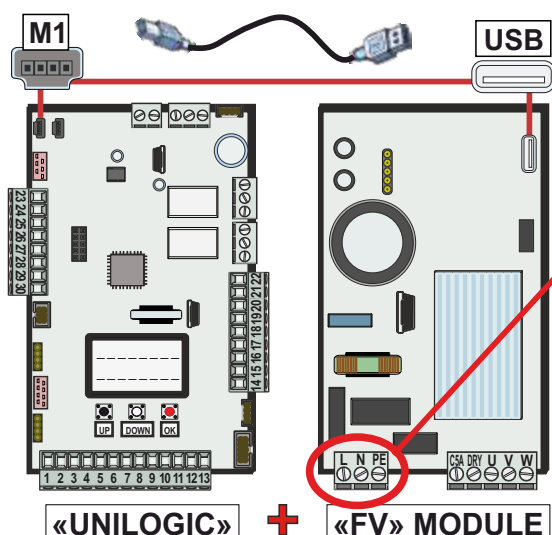


**! FOR THE CONNECTION TO THE POWER GRID
RESPECT THE LAWS IN FORCE**

- FUSE 16AT DELAYED ON 230V~ AND 115V~ POWER SUPPLY
- USE A 10A DIFFERENTIAL SWITCH TO PROTECT THE POWER SUPPLY SYSTEM
- IN CASE OF UNSTABLE POWER SUPPLY, THE USE OF AN EXTERNAL UPS OF MIN. 800VA IS RECOMMENDED

11.2 - «FV» MODULE POWER SUPPLY

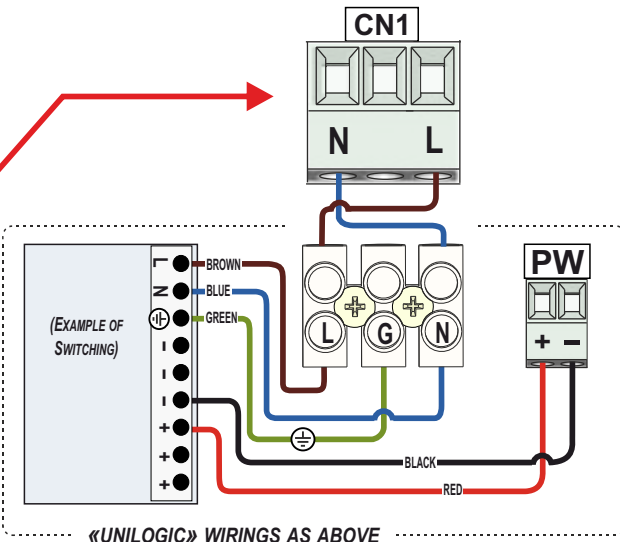
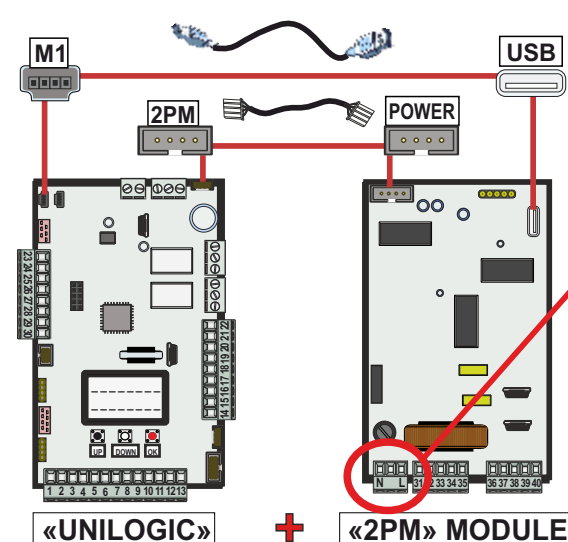
- CONNECT THE «FV» MODULE TO THE «UNILOGIC» UNIT VIA USB CONNECTOR
- CONNECT THE «FV» MODULE TO THE MAIN POWER SUPPLY AS SHOWN BELOW:



«UNILOGIC» WIRINGS AS ABOVE

11.3 - «2PM» MODULE POWER SUPPLY

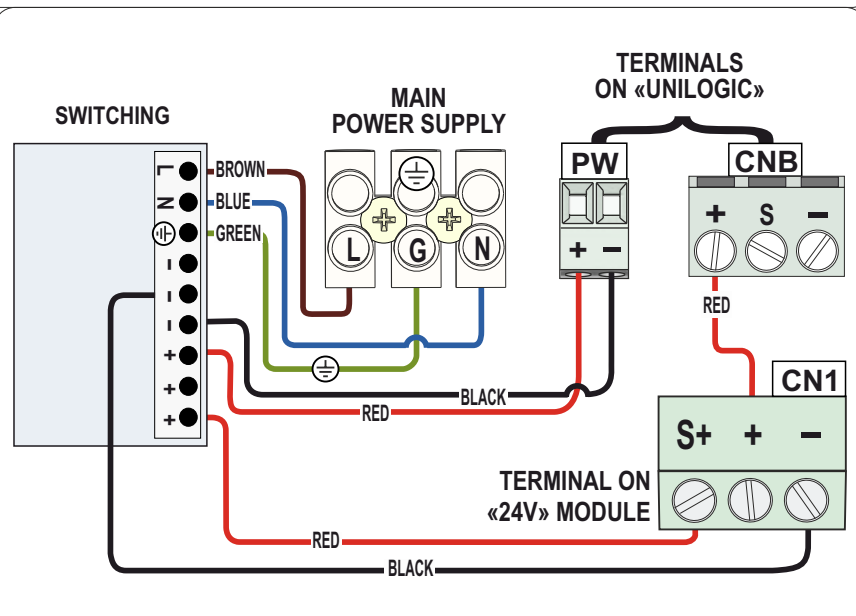
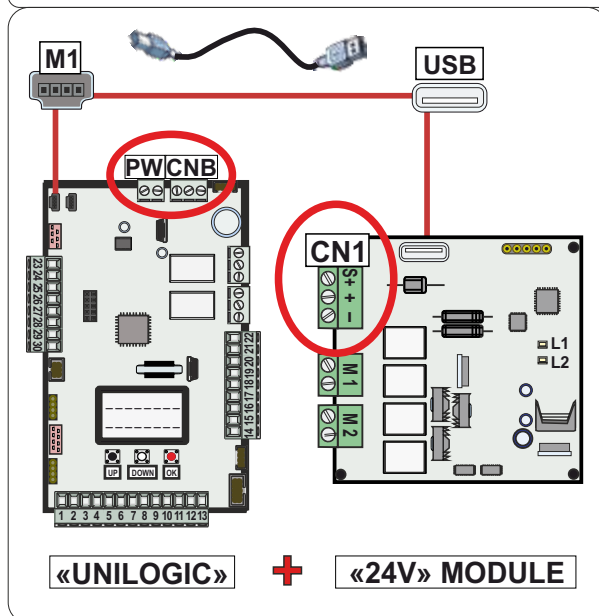
- CONNECT THE «2PM» MODULE TO THE «UNILOGIC» VIA USB CONNECTOR AND PRE-WIRED CABLE
- CONNECT THE «2PM» MODULE TO THE MAIN POWER SUPPLY AS SHOWN BELOW:



«UNILOGIC» WIRINGS AS ABOVE

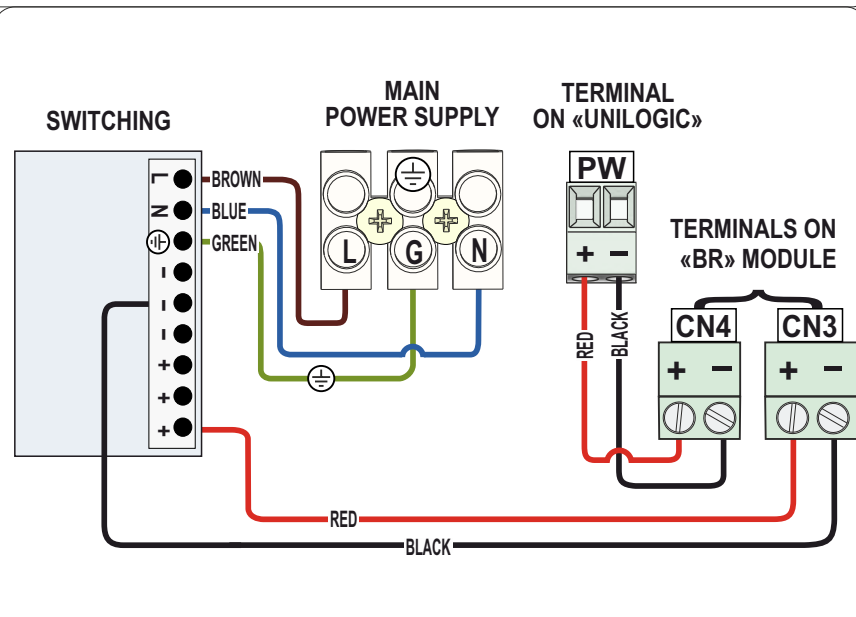
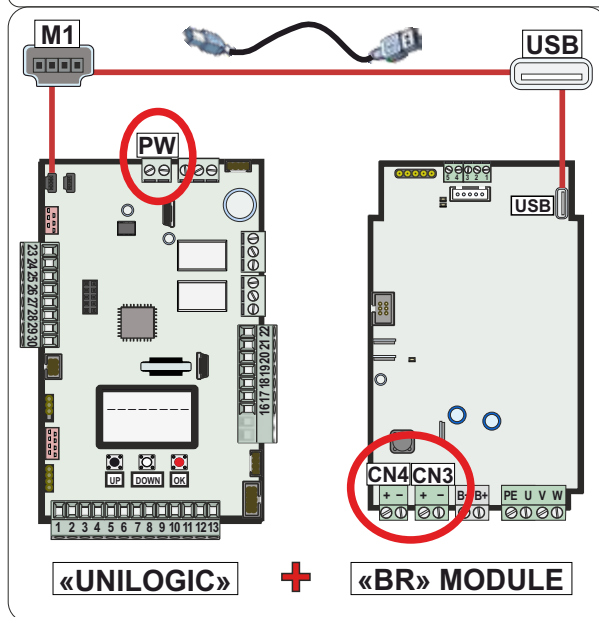
11.4 - «24V» MODULE POWER SUPPLY

- CONNECT THE «24V» MODULE TO THE «UNILOGIC» UNIT VIA USB CONNECTOR
- CONNECT THE «24V» MODULE TO THE MAIN POWER SUPPLY VIA SWITCHING, AS SHOWN BELOW:



11.5 - «BR» MODULE POWER SUPPLY

- CONNECT THE «BR» MODULE TO THE «UNILOGIC» UNIT VIA USB CONNECTOR
- CONNECT THE «BR» MODULE TO THE MAIN POWER SUPPLY VIA SWITCHING, AS SHOWN BELOW:



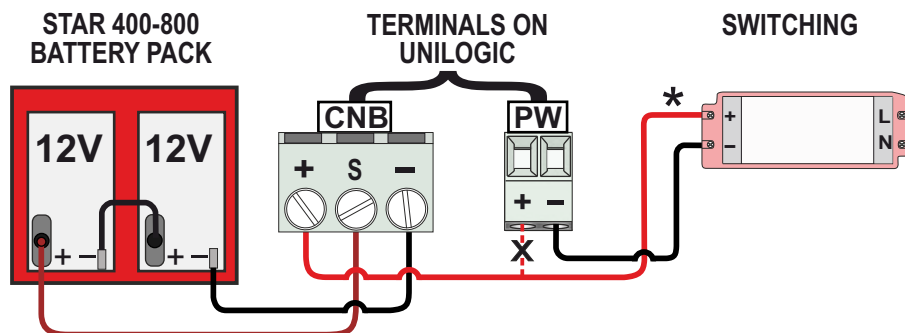
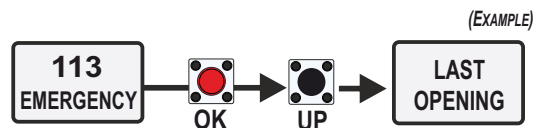
12 - CONNECTION ON CNB

12.1 - «STAR 400/800» EMERGENCY UPS CONNECTION

! THE «STAR 400/800» EMERGENCY UPS CAN BE USED ONLY WHEN THE «FV» MODULE OR THE «2PM» MODULE ARE CONNECTED TO THE UNILOGIC

● MANAGEMENT: **113**
EMERGENCY

● THE UNIT CONTROLS THE BATTERY CHARGE IN ORDER TO PERFORM A LAST OPENING OR CLOSING MANEUVER BEFORE THE BATTERIES ARE COMPLETELY DISCHARGED

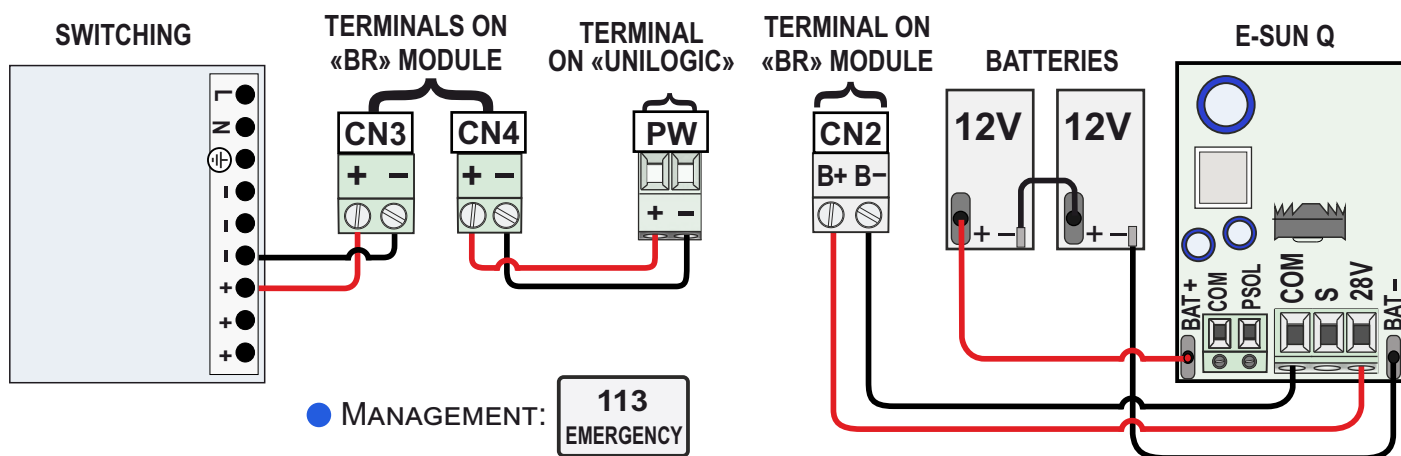


* FOR UPS WIRING ONLY:
DISCONNECT THE POSITIVE CABLE FROM THE SWITCHING TO THE «PW» TERMINAL AND CONNECT IT ON THE «CNB» POSITIVE INPUT

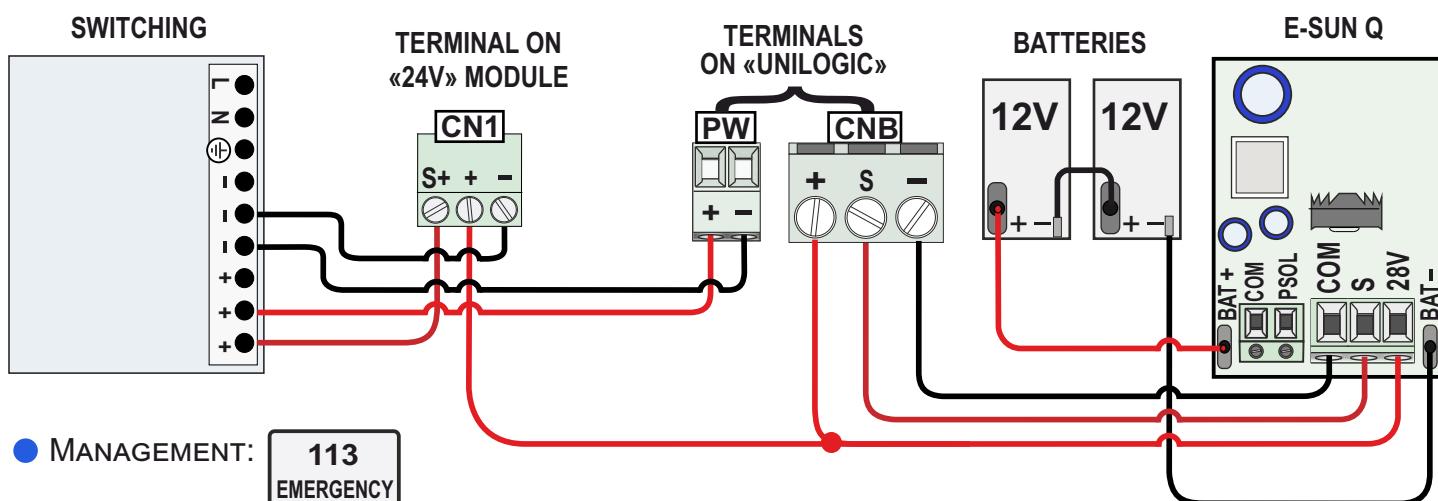
i MORE DETAILS ON
STAR 400/800 INSTRUCTIONS

12.2 - EMERGENCY BATTERIES ON «UNIGATE BR»

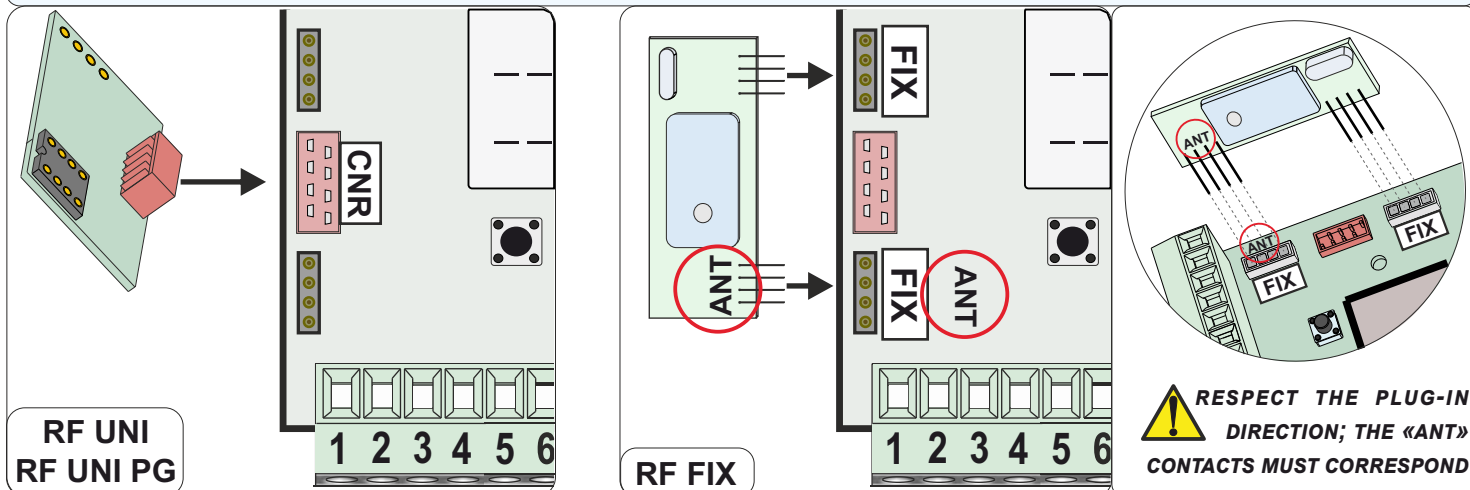
i ONLY FOR «BR» MODULE IN «R3» VERSION



12.3 - EMERGENCY BATTERIES ON «UNIGATE 24V»



13 - RECEIVERS CONNECTION ON CNR and FIX

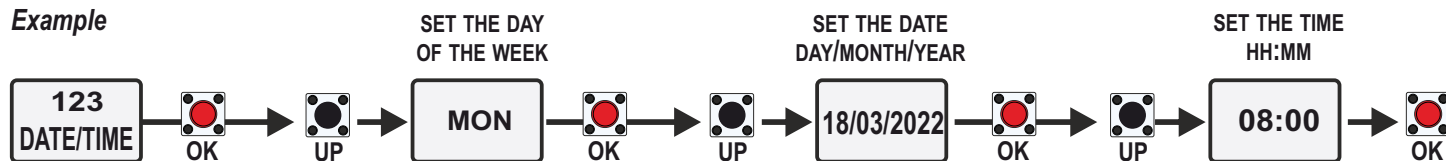


14 - ADDITIONAL FUNCTIONS

14.1 - CURRENT DATE/TIME SETTING

● TO USE THE CLOCK FUNCTION, YOU MUST FIRST SET THE CURRENT DATE AND TIME
(FUNCTION AVAILABLE ONLY IF THE EMERGENCY BATTERIES ARE CONNECTED AND THEY ARE AT FULL CHARGE)

Example



14.2 - CLOCK FUNCTION FOR PLANNED OPENING/CLOSING

! TO USE THE CLOCK FUNCTION, YOU MUST FIRST SET MENU 92 TO «CLOCK»

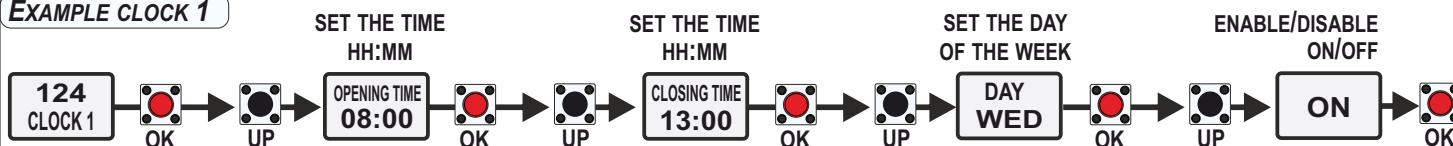


● SETTING OF A DAY AND A TIME SLOT TO MANAGE THE PLANNED OPENINGS AND CLOSINGS (**WEEKLY SETTING**)

● UP TO 4 TIME SLOTS AVAILABLE (ONE FOR EACH CLOCK) FOR EACH DAY YOU WANT TO PLAN!



EXAMPLE CLOCK 1

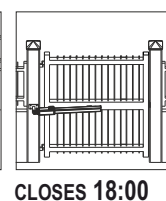
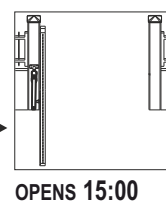
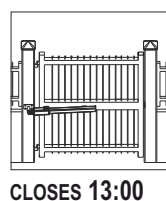
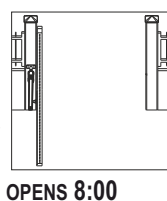


EXAMPLE CLOCK 2



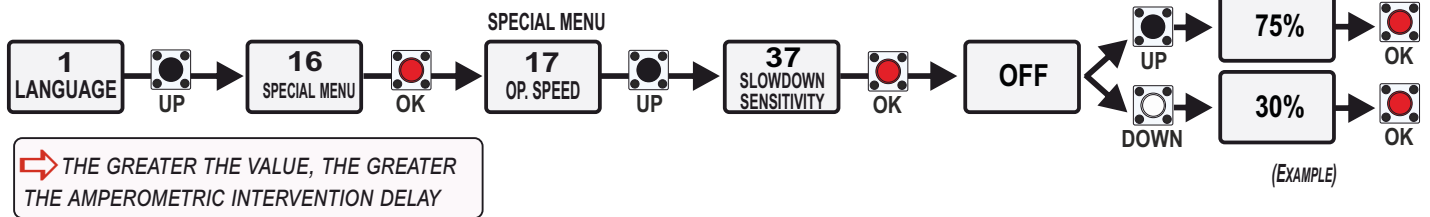
OUTCOMING
SETTING:

EVERY
WEDNESDAY
DAY
WED

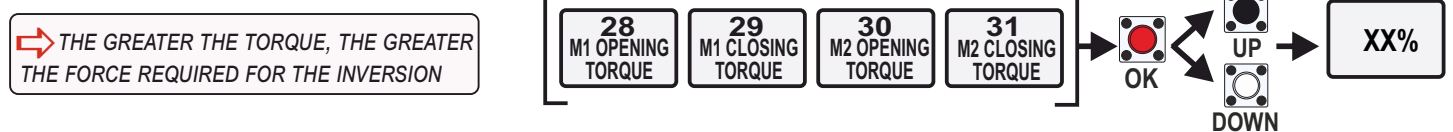


14.3 - AMPEROMETRIC MANAGEMENT - ONLY FOR 24V and «BR» ELECTROMECHANIC OPERATORS

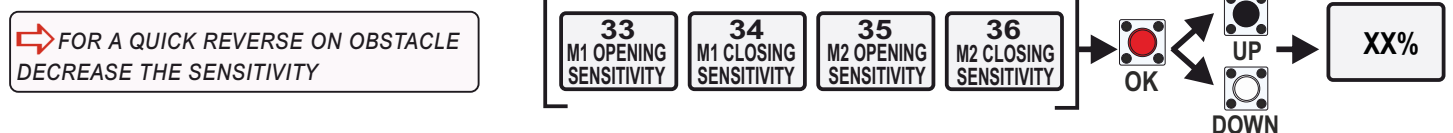
- OBSTACLE DETECTION SYSTEM WITH INVERSION BOTH IN OPENING AND CLOSING
- SET THE MENU 37 ON A VALUE DIFFERENT FROM OFF (BY DEFAULT) TO ENABLE THE FUNCTION



- TORQUE PARAMETERS SETTING IN OPENING AND CLOSING (MOTOR 1 AND MOTOR 2) FOR ADJUSTMENT OF THE INVERSION FORCE ON OBSTACLE



- SENSITIVITY PARAMETERS IN OPENING AND CLOSING (MOTOR 1 AND MOTOR 2) FOR THE AMPEROMETRIC INTERVENTION TIME ADJUSTMENT



IF SET TO OFF (INTERVENTION EXCLUDED) THE AMPEROMETRIC MANAGEMENT WILL ONLY WORK ACCORDING TO THE MENU 37 SETTINGS

14.4 - ABSORPTION and AMPEROMETRIC THRESHOLD

- ABSORPTION CONTROL DURING THE MOVEMENT AND DURING THE AMPEROMETRIC INTERVENTION
- AMPEROMETRIC INTERVENTION THRESHOLD ADJUSTMENT IN OPENING AND CLOSING (MOTOR 1 AND MOTOR 2)



SET THRESHOLD VALUES AT LEAST 10% HIGHER THAN THE ABSORPTION VALUES READ IN MENUS 57 - 58; CARRY OUT IMPACT TESTS FOR COMPLIANCE WITH SAFETY REGULATIONS

14.5 - AMPEROMETRIC INTERVENTION METHOD

- CHOICE BETWEEN TOTAL OR PARTIAL RECLOSING AFTER THE AMPEROMETRIC INTERVENTION - MENU 46

➡ WHEN THE MENU 46 IS SET ON «TOTAL» AND THE MENU 7 IS DIFFERENT FROM OFF, THE «**AUTOMATIC RECLOSING**» FUNCTION AUTOMATICALLY ENABLES: IN THE EVENT OF OBSTACLE THE OPERATOR TRIES TO RECLOSE UP TO 5 TIMES, THEN A NEW START COMMAND WILL BE REQUIRED TO RESTORE THE MOTION.



AFTER A POWER FAILURE, THE FIRST CYCLE WILL BE PERFORMED AT PRE-SET SPEED TO DETECT THE MECHANICAL STOPS


46
CLOSING
INVERSION

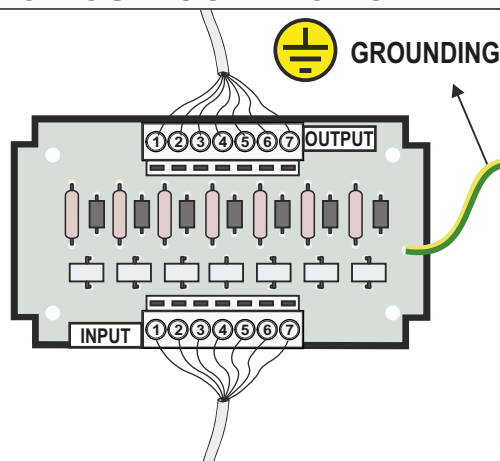
7
TIMER TO
CLOSE

14.6 - «I/O SURGE PROTECTOR» CIRCUIT CONNECTION

● TO PROTECT UP TO 6 INPUTS AND THE 24V POWER SUPPLY FROM TEMPORARY OVERLOADS (ES. LIGHTNING STRIKES)

● CONNECT THE 24VDC CABLE AND THE ACCESSORIES CABLES ON **INPUT**; CONNECT THE CORRESPONDING CABLES FROM **OUTPUT** TO THE CONTROL UNIT

 **CONNECT THE NEGATIVE AND THE COMMON CABLES FROM THE MAIN POWER SUPPLY TO THE CONTROL UNIT**



OUTPUT CONNECTION ON CONTROL UNIT

- 1 24V DC ACCESSORIES
- 2 CONTACT 1 (Es. PHOTOCELL)
- 3 CONTACT 2 (Es. SAFETY EDGE)
- 4 CONTACT 3 (Es. START)
- 5 CONTACT 4
- 6 CONTACT 5
- 7 CONTACT 6

INPUT ACCESSORIES CONNECTION

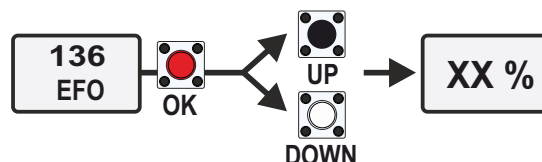
- 1 24V DC ACCESSORIES
- 2 CONTACT 1 (Es. PHOTOCELL)
- 3 CONTACT 2 (Es. SAFETY EDGE)
- 4 CONTACT 3 (Es. START)
- 5 CONTACT 4
- 6 CONTACT 5
- 7 CONTACT 6

14.7 - E.F.O. FUNCTION - ONLY FOR BOLLARDS MANAGED BY UNIGATE-INVERTER

● THE FUNCTION ALLOWS THE EMERGENCY CLOSING AT A HIGHER SPEED BASED ON THE PERCENTAGE SET (FROM 0% UP TO 100% FASTER); ALL SAFETY DEVICES WILL BE EXCLUDED

● CONNECT THE EMERGENCY BUTTON ON THE «PARTIAL START» INPUT

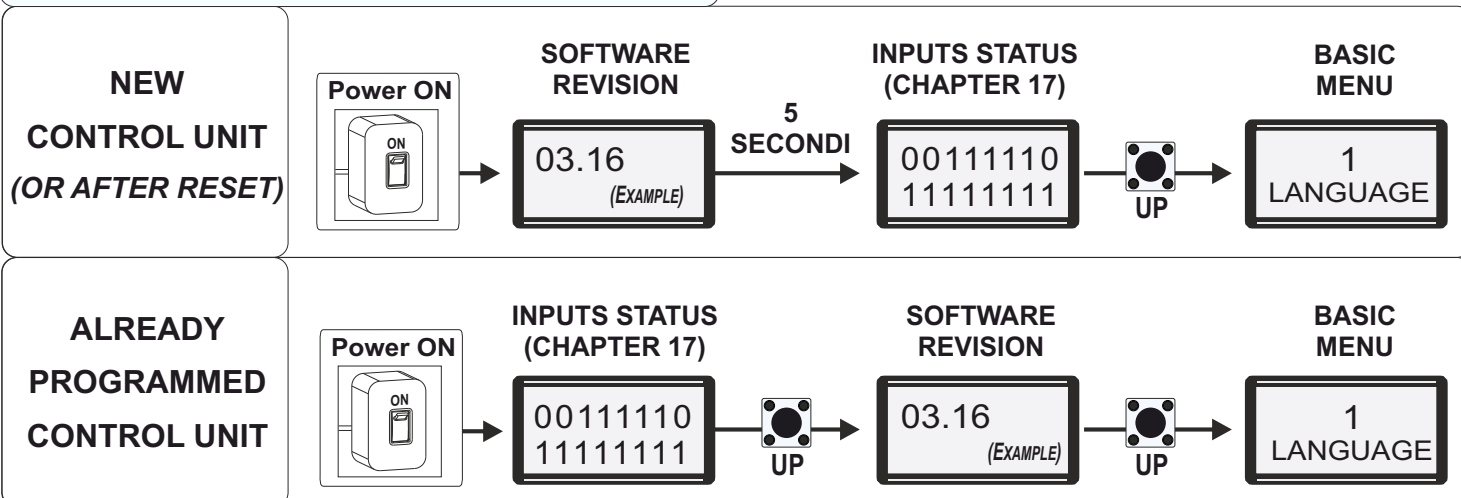
● THE FUNCTION AUTOMATICALLY ENABLES BY SETTING THE SPEED INCREASE PERCENTAGE ON THE MENU 136



15 - DISPLAY and PROGRAMMING

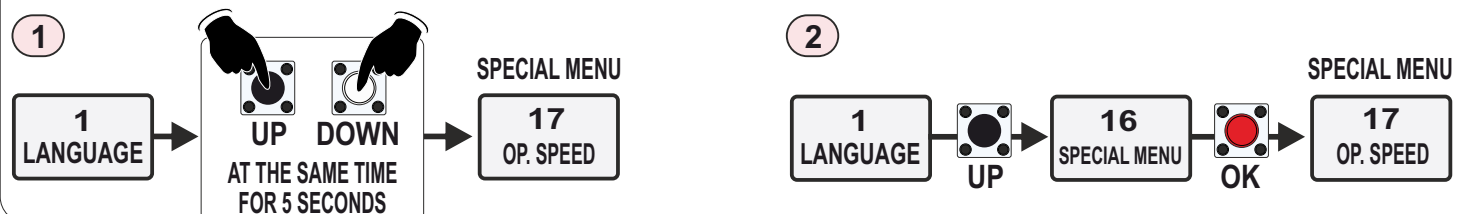
**⚠ CONNECT ALL THE ACCESSORIES WHEN THE CONTROL UNIT IS SWITCHED OFF!
AFTER ALL CONNECTIONS HAVE BEEN MADE, POWER ON THE UNIT FOR SETTINGS**

15.1 - POWER ON THE CONTROL UNIT



15.2 - BASIC MENU and SPECIAL MENU

- THE CONTROL UNIT HAS A **BASIC MENU (CHAPTER 16)** WHICH ALLOWS THE BASIC SETTINGS IN ORDER TO START USING THE PRODUCT QUICKLY - SEE THE **QUICK START** ON THE NEXT PARAGRAPH
- THE **SPECIAL MENU** ALLOWS TO CHANGE DEFAULT SETTINGS, OR TO ENABLE/DISABLE THE ACCESSORIES OR THE CONTROL UNIT FUNCTIONS
- TO ACCESS THE **SPECIAL MENU** USE ONE OF THE TWO FOLLOWING METHODS

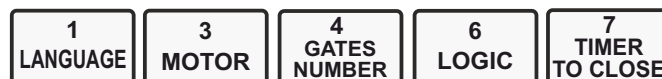






➡ IN THE **BASIC MENU** IT IS POSSIBLE TO **SELECT THE MODEL OF OPERATOR IN USE** AND OTHER NECESSARY OPTIONS. ONCE THE MODEL HAS BEEN CHOSEN, ALL THE SPECIAL MENUS ARE AUTOMATICALLY SET TO THE DEFAULT VALUES USEFUL FOR THE SELECTED OPERATOR, SO FURTHER SETTINGS MAY NOT BE NECESSARY

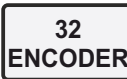
15.3 - QUICK START

- MAKE ALL CONNECTIONS (**CONTROL UNIT OFF**): ACCESSORIES, MOTORS AND POWER CABLES
- DO NOT JUMPER THE N.C. CONTACTS (**AUTOMATIC DETECTION OF THE N.C. CONTACTS NOT IN USE**)
- POWER ON THE CONTROL UNIT AND CHECK THE CORRECT STATUS OF THE INPUTS (**CHAPTER 17**)

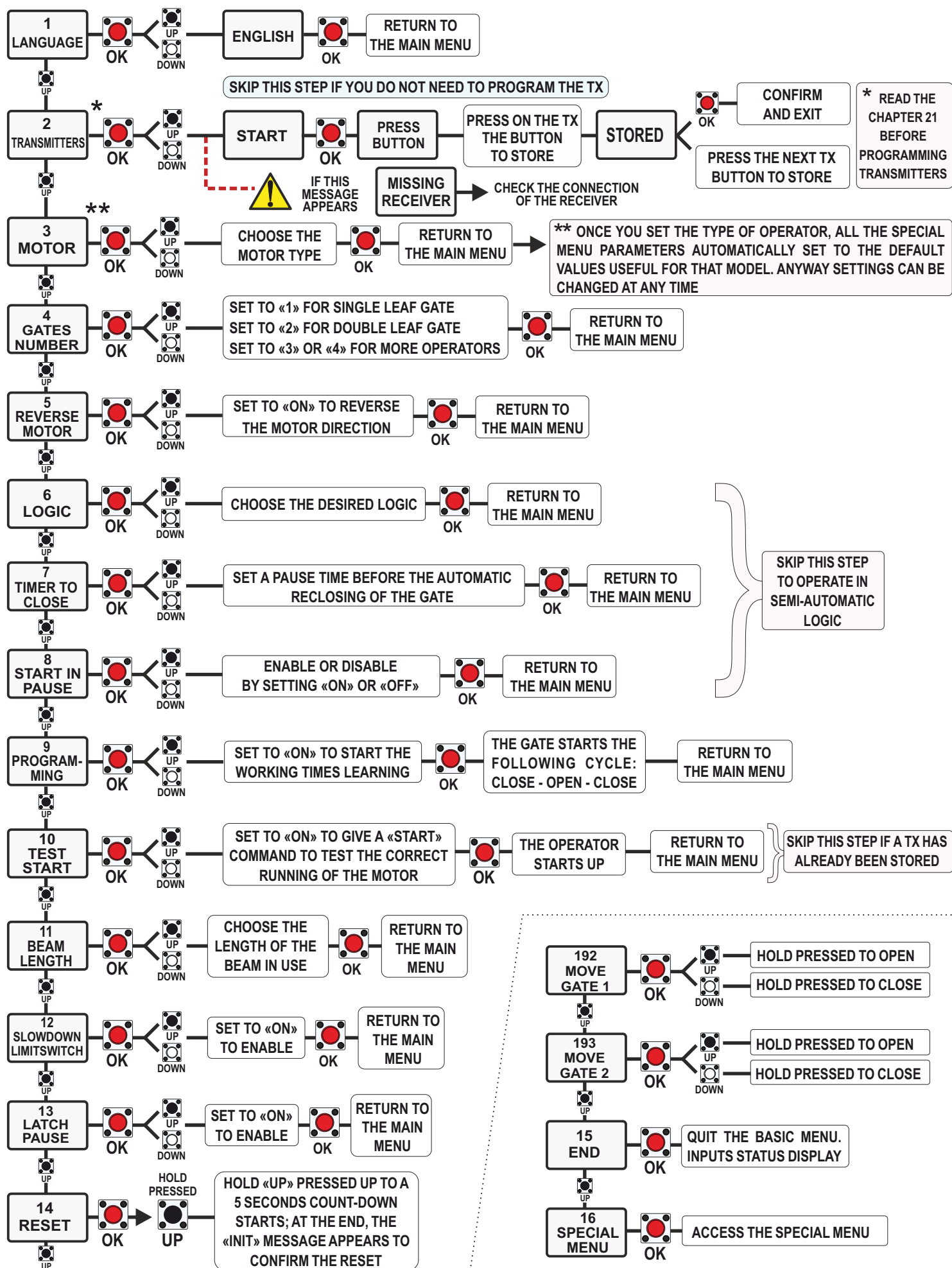
• ENTER THE BASIC MENU AND SET THE MENUS:
(IF YOU DO NOT SET A TIME ON MENU 7, THE LOGIC WILL BE «SEMI-AUTOMATIC» - AUTOMATIC RECLOSING DISABLED)



• MOVE THE OPERATOR USING THE MENUS  OR  ; IF THE GATE OPENS BY PRESSING  AND IF THE GATE CLOSURES BY PRESSING , THE MOTORS RUN CORRECTLY, OTHERWISE SWAP THE MOTORS CABLES

- IF INSTALLED, ENABLE THE ENCODER OR THE POTENZIOMETER ON MENU 32 
- START THE WORKING TIMES LEARNING BY FOLLOWING THE PROCEDURE IN **CHAPTER 18**

16 - BASIC MENU



continued...

17 - INPUTS STATUS MANAGEMENT

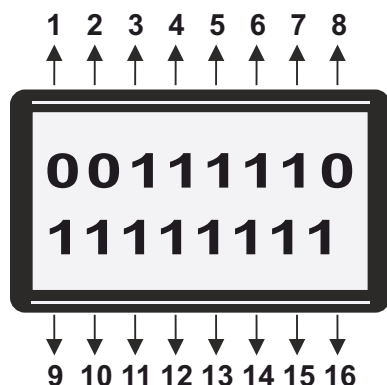
- EVERY INPUT CORRESPONDS TO A POSITION ON THE DISPLAY, ACCORDING TO THE DIAGRAM BELOW
- EVERY INPUT CAN BE: **NORMALLY OPEN (0)** - **NORMALLY CLOSED (1)**

0

N.O. - NORMALLY OPEN

1

N.C. - NORMALLY CLOSED

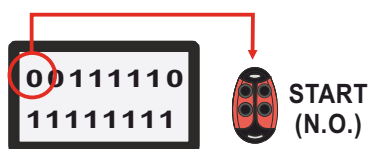


1	START (**)	9	MOTOR 1 OPENING LIMIT SWITCH
2	PARTIAL START	10	MOTOR 1 CLOSING LIMIT SWITCH
3	STOP	11	MOTOR 2 OPENING LIMIT SWITCH
4	PHOTOCELL 1	12	MOTOR 2 CLOSING LIMIT SWITCH
5	PHOTOCELL 2	13	E1/D1 (DATA M1) (*)
6	SAFETY EDGE 1	14	E2/D2 (DATA M2) (*)
7	SAFETY EDGE 2	15	GP1 (*)
8	NOT IN USE	16	GP2 (*)

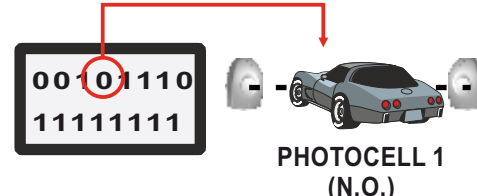
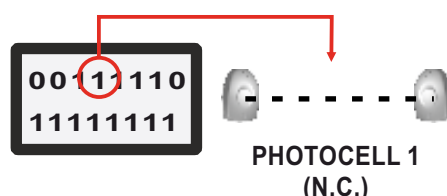
*** INPUTS AVAILABLE ONLY IF THE SLOWDOWN LIMIT SWITCHES ARE CONNECTED - SEE CHAPTER 5**

- ** IF A TIMER IS CONNECTED TO THE START INPUT, IT KEEPS THE CONTACT NORMALLY CLOSED; IN THIS CASE THE DISPLAY WILL SHOW «T» ON POSITION N° 1**

- *EXAMPLE: IF YOU GIVE A «START» COMMAND, ITS INPUT SWITCHES FROM NORMALLY OPEN TO NORMALLY CLOSED*



- *EXAMPLE: IF YOU PASS BY THE PHOTOCELL, ITS INPUT SWITCHES FROM NORMALLY CLOSED TO NORMALLY OPEN*

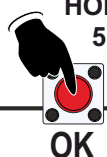


17.1 - ACCESS TO THE INPUTS MANAGEMENT MENU

GO ON ANY
BASIC MENU NUMBER

HOLD PRESSED
5 SECONDS

INPUTS MANAGEMENT
MENU

1
LANGUAGE

START
OFF

- THE «INPUTS MANAGEMENT MENU» SHOWS THE INPUTS IN THEIR CURRENT STATUS: ON OR OFF

(EXAMPLE)

START
OFF

(EXAMPLE)

STOP
ON

- INSIDE THE «INPUTS MANAGEMENT MENU» IT IS POSSIBLE TO ENABLE OR DISABLE THE INPUTS; **PAR. 17.2**

- **START E PARTIAL START ARE NORMALLY OPEN (N.O.) CONTACTS**

IF «ON» APPEARS ON THE DISPLAY WHEN THEY ARE ACTIVATED, THE INPUTS WORK

IF «OFF» IS DISPLAYED EVEN AFTER THE COMMAND ACTIVATION, THEN IT IS ADVISABLE TO CHECK THE WIRINGS

- **ALL OTHER CONTACTS ARE NORMALLY CLOSED (N.C.)**

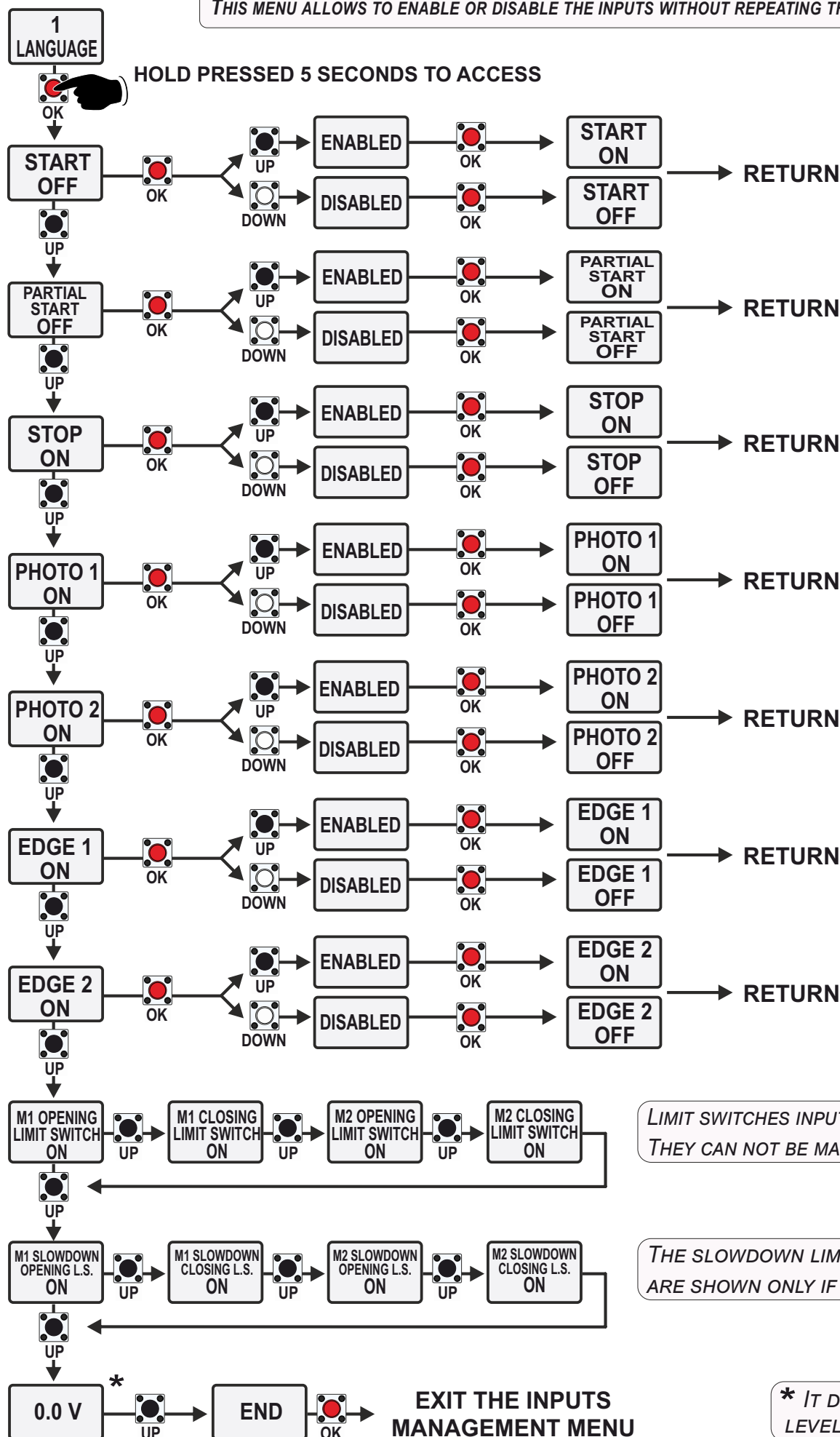
IF «OFF» APPEARS ON THE DISPLAY WHEN THEY ARE ACTIVATED, THE INPUTS WORK

IF «ON» IS DISPLAYED EVEN AFTER THE COMMAND ACTIVATION, THEN IT IS ADVISABLE TO CHECK THE WIRINGS

➡ THE LIMIT SWITCHES INPUTS CANNOT BE MANAGED, BUT ONLY DISPLAYED IN THEIR CURRENT STATE (ON OR OFF)

17.2 - INPUTS MANAGEMENT MENU

THIS MENU ALLOWS TO ENABLE OR DISABLE THE INPUTS WITHOUT REPEATING THE WORKING TIMES LEARNING



18 - WORKING TIMES LEARNING



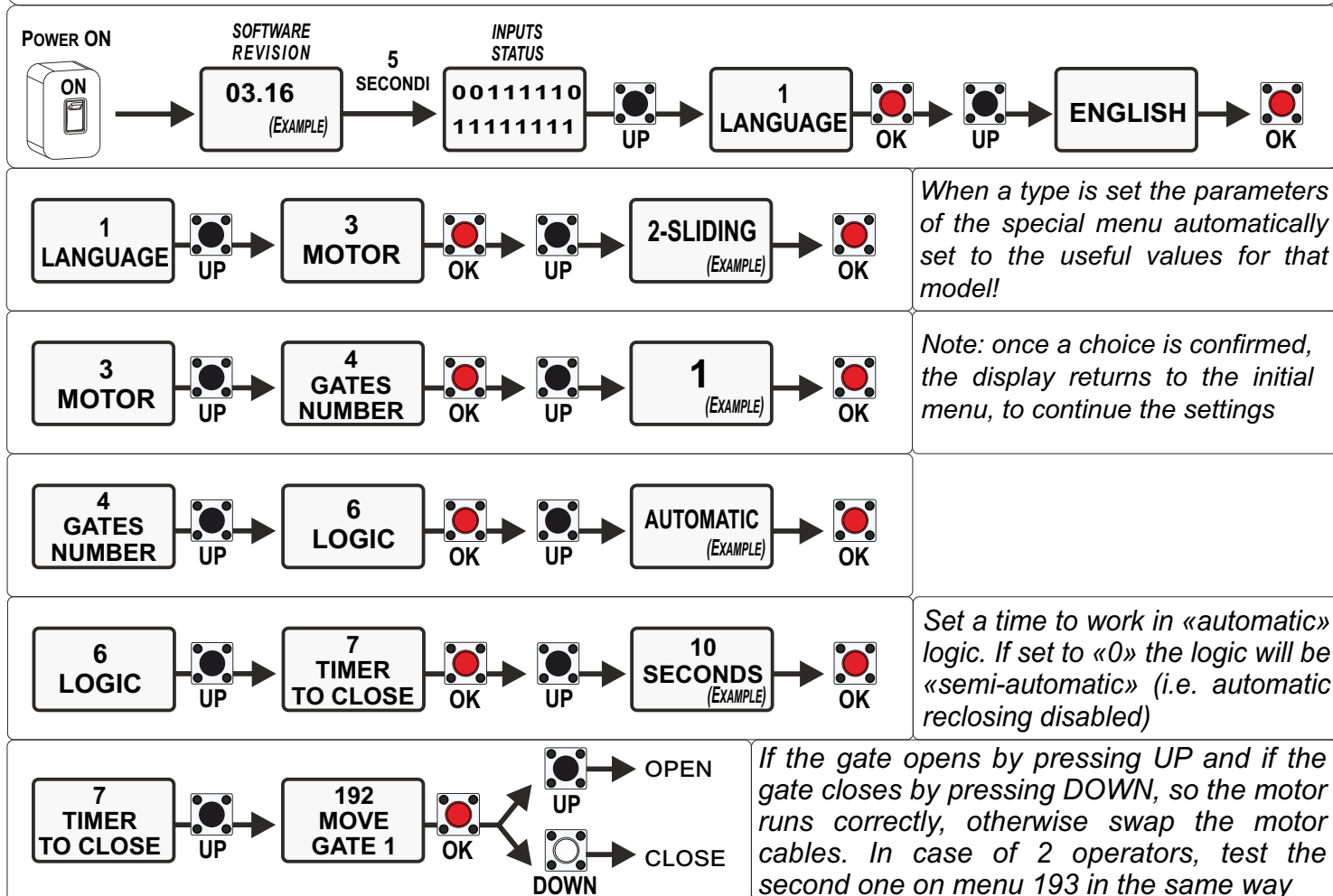
DANGER!

HAVE A QUALIFIED SERVICE PERSON TO CARRY OUT THE OPERATIONS IN SAFE CONDITIONS

- ➡ CHECK THE CORRECT OPERATION OF ALL ACCESSORIES (PHOTOCELLS, BUTTONS, ETC.)
- ➡ DO NOT JUMPER THE INPUTS NOT IN USE (LIMIT SWITCH, SAFETY EDGE, ETC.)

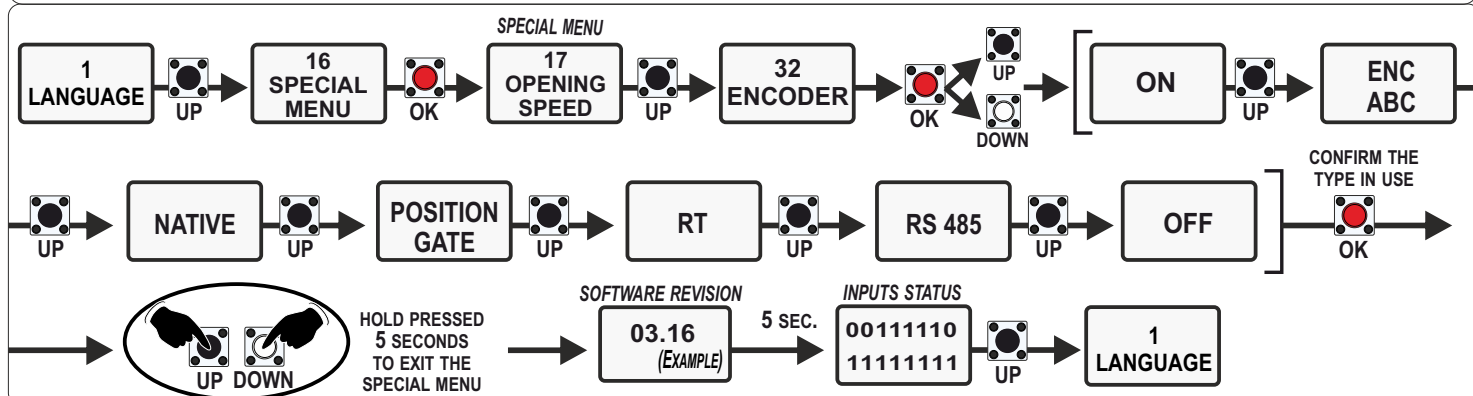
18.1 - PRELIMINARY SETTINGS

BEFORE PROGRAMMING THE WORKING TIMES, IT IS NECESSARY TO CARRY OUT THE ESSENTIAL SETTINGS OF THE BASIC MENU. IT IS NOT POSSIBLE TO CORRECTLY START THE TIMES LEARNING WITHOUT THE FOLLOWING SETTINGS! (SEE ALSO PARAGRAPH 15.3)



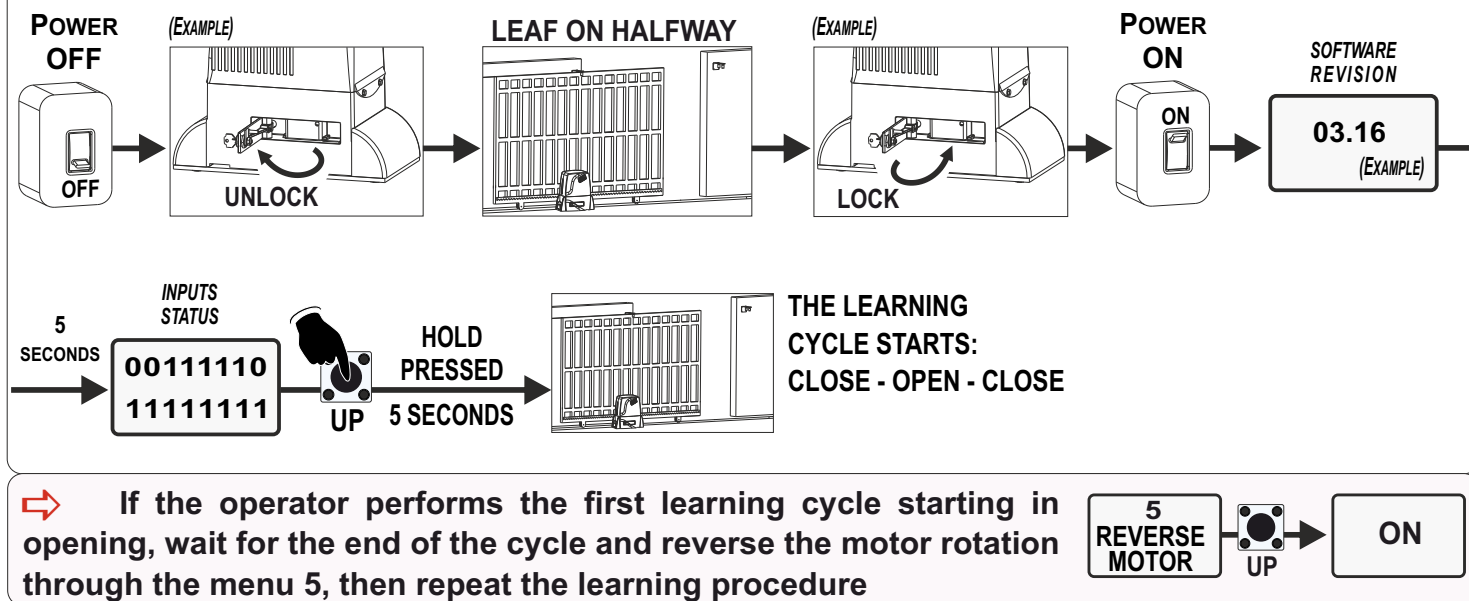
18.2 - ENCODER OR POTENTIOMETER ACTIVATION (IF INSTALLED)

● IF THE OPERATOR IS EQUIPPED WITH AN ENCODER OR POTENTIOMETER (POSITION GATE), THEN IT IS NECESSARY TO CHECK THAT THEY ARE CORRECTLY ENABLED IN SPECIAL MENU 32, **BEFORE THE WORKING TIMES LEARNING!**



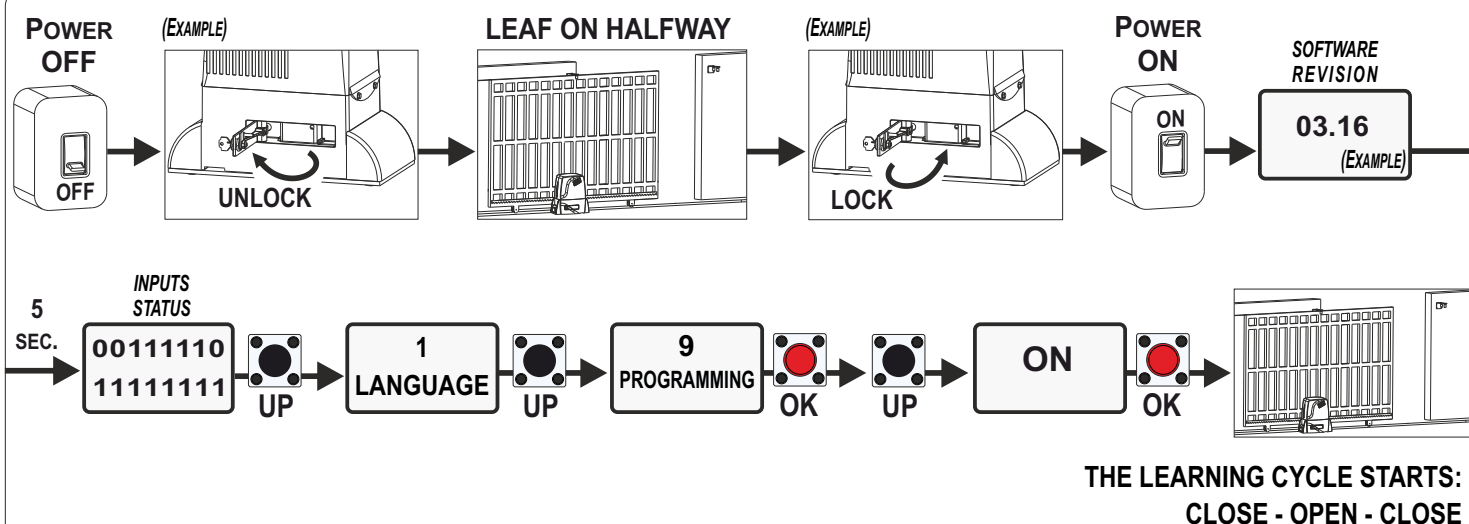
18.3 - QUICK LEARNING - ONLY FOR SEA SLIDING OPERATORS

- THE CONTROL UNIT ON BOARD THE SEA SLIDING OPERATORS IS PRE-SET BY DEFAULT (MODEL AND PARAMETERS) TO ALLOW THE QUICK LEARNING OF THE WORKING TIMES



18.4 - WORKING TIMES LEARNING BY LIMIT SWITCH

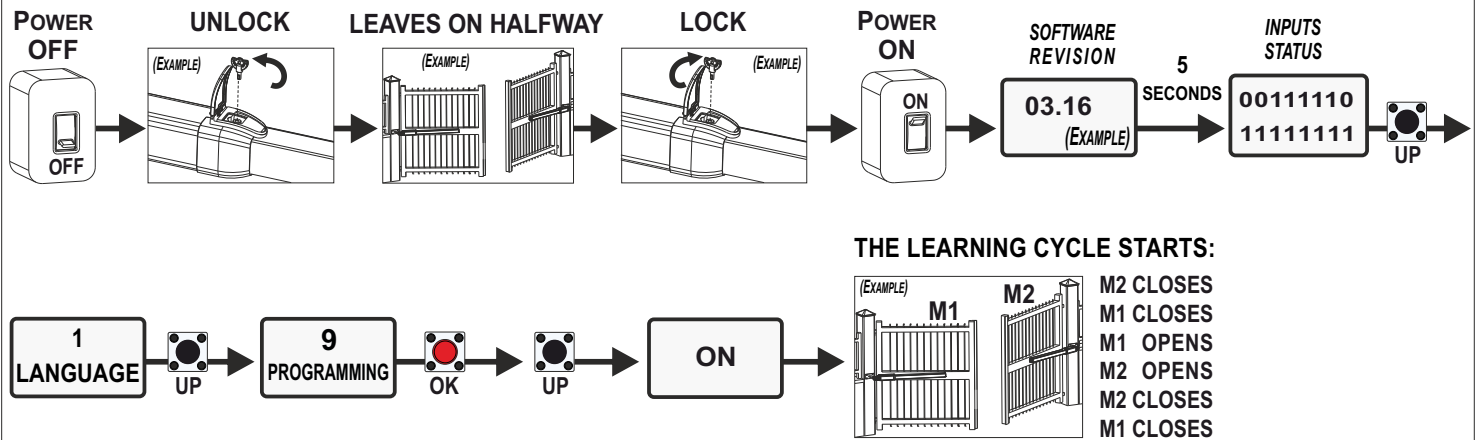
- WORKING TIMES LEARNING THROUGH AUTOMATIC DETECTION OF THE LIMIT SWITCHES
- CHECK THAT THE SPECIAL MENU 32 IS «OFF» (SEE PARAGRAPH 18.2)
- CHECK ON THE **INPUTS STATUS** MENU (CHAPTER 17) THAT THE CORRECT LIMIT SWITCH IS ENGAGED FOR EACH MOVEMENT DIRECTION
- START THE WORKING TIMES LEARNING BY FOLLOWING THE PROCEDURE BELOW



- ➡ If the motor starts closing, reaches the limit switch lever and stops, then swap the limit switch cables and repeat the procedure;
- ➡ If the motor starts opening, reaches the limit switch lever and stops, then swap the motor cables and repeat the procedure;

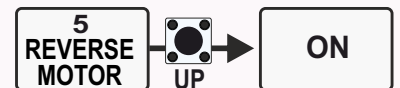
18.5 - WORKING TIMES LEARNING BY STANDARD/«ABC»/«NATIVE» ENCODER

- WORKING TIMES LEARNING THROUGH AUTOMATIC DETECTION OF THE END-OF-STROKE POINTS
- CHECK THAT THE CORRECT ENCODER TYPE IS ENABLED IN SPECIAL MENU 32 (SEE PARAGRAPH 18.2)
- START THE WORKING TIMES LEARNING BY FOLLOWING THE PROCEDURE BELOW



⇒ With a single motor or barrier, always starting with leaf (or beam) at halfway, the learning cycle will be: CLOSE - OPEN - CLOSE;

⇒ If the operators perform the first learning cycle starting in opening, wait for the end of the cycle and reverse the motors rotation through the menu 5, then repeat the learning procedure



- AFTER THE LEARNING, IT IS POSSIBLE TO VERIFY THE CORRECT READING OF THE IMPULSES BY ACCESSING THE FOLLOWING SUB-MENUS OF MENU 32 (SEE ALSO PARAGRAPH 4.1):

47 ENCODER PAR M1	48 ENCODER TOT M1	49 ENCODER PAR M2	50 ENCODER TOT M2
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- AFTER THE LEARNING, IT IS POSSIBLE TO ADJUST THE SENSITIVITY PARAMETERS FROM THE FOLLOWING MENUS: (SEE ALSO PARAGRAPH 4.2)

33 M1 OPENING SENSITIVITY	34 M1 CLOSING SENSITIVITY	35 M2 OPENING SENSITIVITY	36 M2 CLOSING SENSITIVITY
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18.6 - WORKING TIMES LEARNING BY POTENTIOMETER or «RT» ENCODER

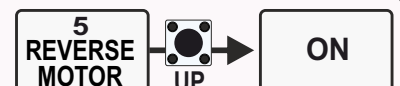
FOR «RT» ENCODER: USE THIS PROCEDURE ONLY ON SWING GATE OPERATORS!

- WORKING TIMES LEARNING THROUGH AUTOMATIC DETECTION OF THE END-OF-STROKE POINTS
- ENABLE THE «POSITION GATE» OR «RT» ENCODER IN SPECIAL MENU 32 (SEE PARAGRAPH 18.2)
- START THE WORKING TIMES LEARNING BY FOLLOWING THE PROCEDURE ABOVE (PARAGRAPH 18.5)

⇒ At the end of the learning procedure, the gate carries out the following cycle:

M2 CLOSES - M1 CLOSES - M1 OPENS - M2 OPENS - M2 CLOSES - M1 CLOSES - M1 OPENS WITH SLOWDOWN - M2 OPENS WITH SLOWDOWN - M2 CLOSES WITH SLOWDOWN - M1 CLOSES WITH SLOWDOWN

⇒ If the operators perform the first learning cycle starting in opening, wait for the end of the cycle and reverse the motors rotation through the menu 5, then repeat the learning procedure



⚠ In case the «POTENTIOMETER DIRECTION» alarm appears on the display, swap the brown wire with the blue wire and repeat the working times learning

- AFTER THE LEARNING, IT IS POSSIBLE TO VERIFY THE CORRECT READING OF THE IMPULSES BY ACCESSING THE FOLLOWING SUB-MENUS OF MENU 32 (SEE ALSO PARAGRAPH 4.4)

51 I. PAR. M1	52 I. AP. M1	53 I. CH. M1	54 I. PAR. M2	55 I. AP. M2	56 I. CH. M2
------------------	-----------------	-----------------	------------------	-----------------	-----------------

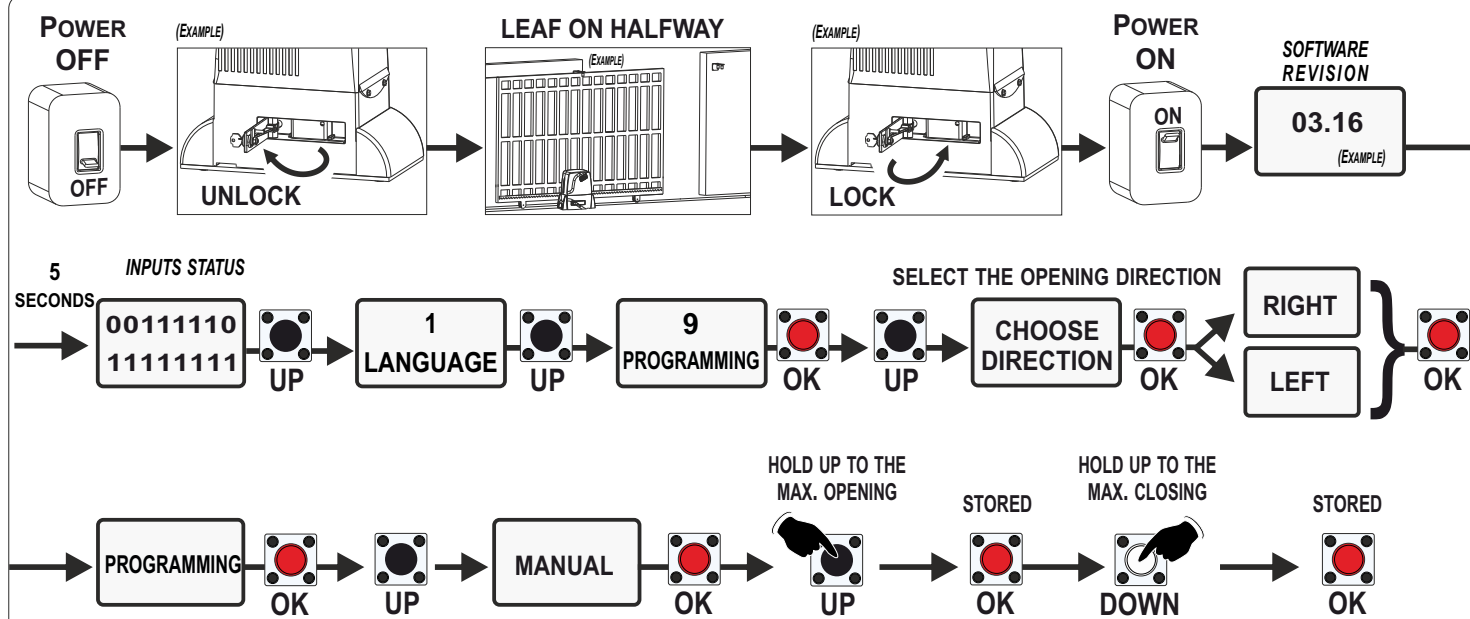
- AFTER THE LEARNING, IT IS POSSIBLE TO ADJUST THE SENSITIVITY PARAMETERS FROM THE FOLLOWING MENUS: (SEE ALSO PARAGRAPH 4.5)

33 M1 OPENING SENSITIVITY	34 M1 CLOSING SENSITIVITY	35 M2 OPENING SENSITIVITY	36 M2 CLOSING SENSITIVITY	37 SLOW DOWN SENSITIVITY
------------------------------	------------------------------	------------------------------	------------------------------	-----------------------------

18.7 - MANUAL WORKING TIMES LEARNING - *Sliding operators with «RT» encoder*

USE THIS PROCEDURE ONLY ON SLIDING GATE OPERATORS WITH «RT» ENCODER!

- CHECK THAT THE CORRECT OPERATOR TYPE HAS BEEN SET ON MENU 3 (SEE PARAGRAPH 18.1)
- CHECK THAT THE «RT» ENCODER IS ENABLED IN SPECIAL MENU 32 (SEE PARAGRAPH 18.2)
- START THE WORKING TIMES LEARNING BY FOLLOWING THE PROCEDURE BELOW



➡ At the end of the learning procedure, the gate carries out the following cycle:
CLOSE - OPEN - CLOSE - OPEN WITH SLOWDOWN - CLOSE WITH SLOWDOWN

➡ At the end, it is possible to fine-tune the end-of-stroke points by 1 cm pitch through the sub-menus of the menu 32:

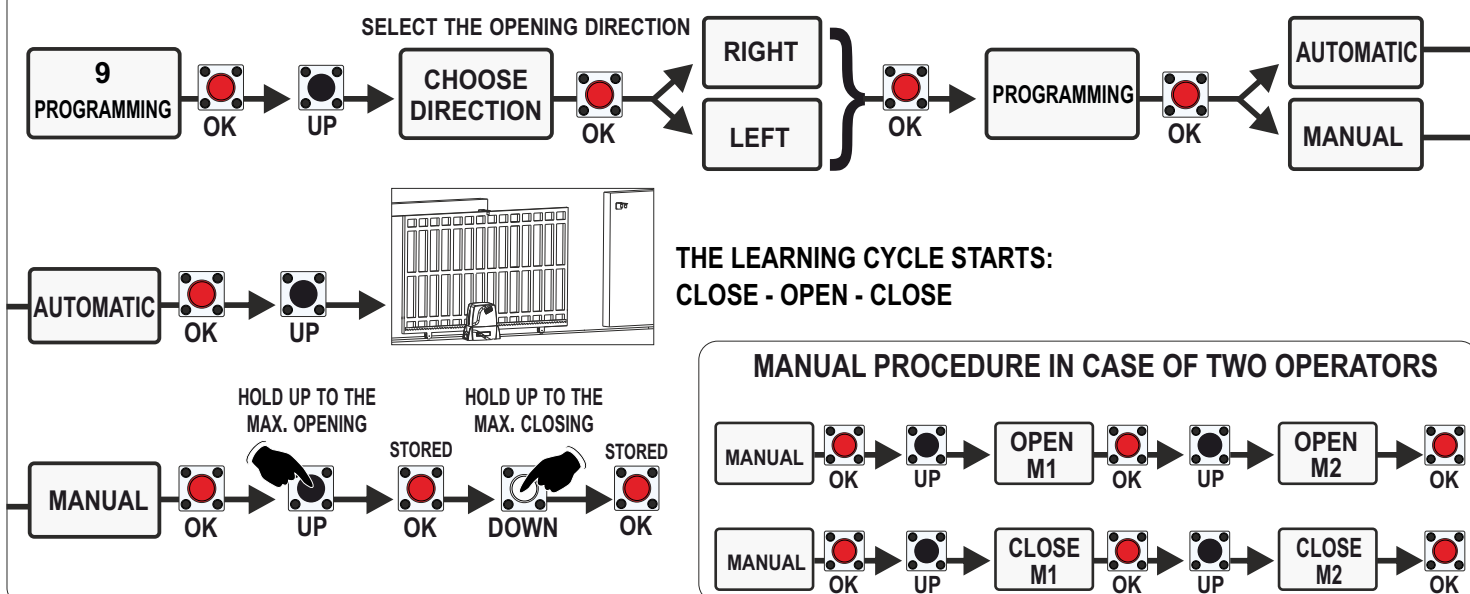
52
I. AP. M1

53
I. CH. M1

18.8 - MANUAL WORKING TIMES LEARNING WITH «RS 485» ENCODER

USE THIS PROCEDURE ONLY ON «JOINT» OR «BIG FAST» OPERATORS WITH «RS 485» ENCODER

- CHECK THAT THE CORRECT OPERATOR TYPE HAS BEEN SET ON MENU 3 (SEE PARAGRAPH 18.1)
- CHECK THAT THE «RS 485» ENCODER IS ENABLED IN SPECIAL MENU 32 (SEE PARAGRAPH 18.2)
- FOLLOW THE **PROCEDURE IN THE PREVIOUS PARAGRAPH (18.7)** UP TO THE PROGRAMMING IN MENU 9, THEN CONTINUE BY FOLLOWING THE STEPS BELOW:



18.9 - WORKING TIMES LEARNING BY MANUAL PULSES

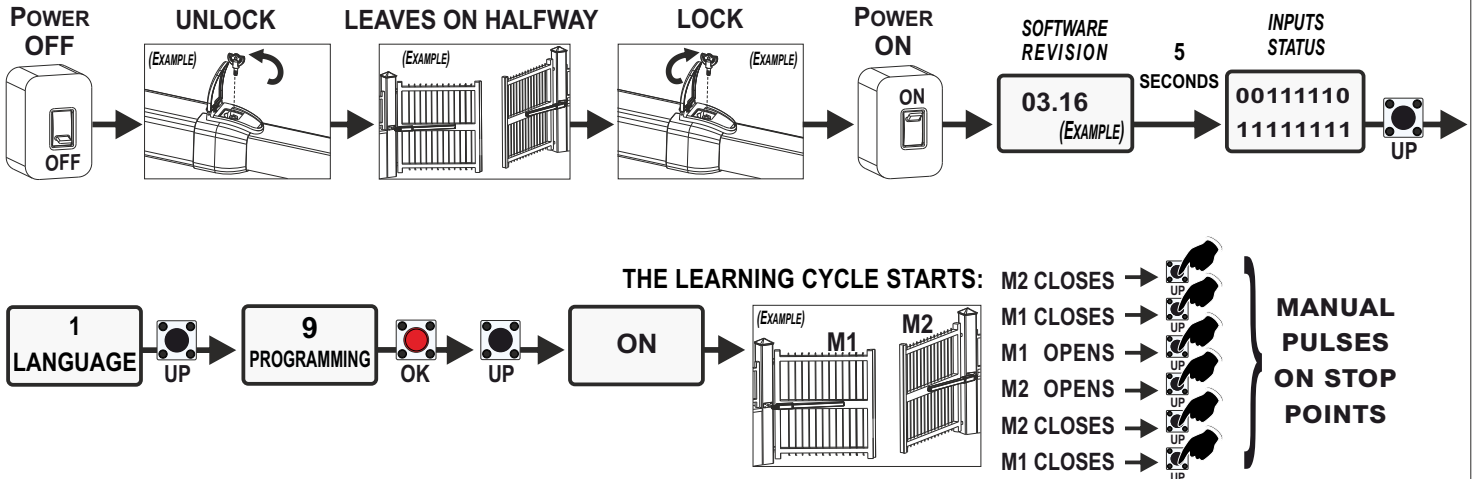


FOR OPERATORS WITHOUT LIMIT SWITCH, WITHOUT ENCODER AND WITHOUT POTENTIOMETER (I.E: DOUBLE SWING GATE OPERATORS)

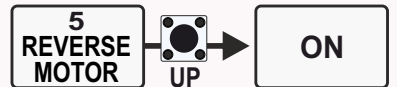
• TIMES LEARNING THROUGH MANUAL PULSES ON THE POINTS OF STOP

• CHECK THAT THE MENU 32 IS «OFF» (SEE PARAGRAPH 18.2); IF NECESSARY, ADJUST THE WORKING TIMES BY THE SUB-MENUS: (SUB-MENUS AVAILABLE ONLY WHEN THE MENU 32 IS «OFF»)

65 M1 OPENING TIME	66 M1 CLOSING TIME	67 M2 OPENING TIME	68 M2 CLOSING TIME
--------------------------	--------------------------	--------------------------	--------------------------



⇒ If the operators perform the first learning cycle starting in opening, wait for the end of the cycle and reverse the motors rotation through the menu 5, then repeat the learning procedure

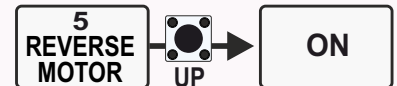


18.10 - LEARNING BY MANUAL PULSES - with POTENTIOMETER or «RT» ENCODER

• TIMES LEARNING THROUGH POTENTIOMETER OR «RT» ENCODER WHICH DETECT THE MANUAL PULSES ON THE **DESIRED** POINTS OF STOP (ALLOWING THE CHOICE OF THE END-OF-STROKE POINTS)

• ENABLE THE POTENTIOMETER OR «RT» ENCODER ON MENU 32 (PARAGRAPH 18.2) THEN FOLLOW ALL THE STEPS IN THE PREVIOUS PARAGRAPH (18.9); DURING THE LEARNING CYCLE, GIVE A MANUAL IMPULSE ON EACH **DESIRED** POINT OF STOP.

⇒ If the operators perform the first learning cycle starting in opening, wait for the end of the cycle and reverse the motors rotation through the menu 5, then repeat the learning procedure



⚠ In case the «POTENTIOMETER DIRECTION» alarm appears on the display, swap the brown wire with the blue wire and repeat the working times learning

• AFTER THE LEARNING, IT IS POSSIBLE TO VERIFY THE CORRECT READING OF THE IMPULSES BY ACCESSING THE FOLLOWING SUB-MENUS OF MENU 32 (SEE ALSO PARAGRAPH 4.4)

51 I. PAR. M1	52 I. AP. M1	53 I. CH. M1	54 I. PAR. M2	55 I. AP. M2	56 I. CH. M2
------------------	-----------------	-----------------	------------------	-----------------	-----------------

• AFTER THE LEARNING, IT IS POSSIBLE TO ADJUST THE SENSITIVITY PARAMETERS FROM THE FOLLOWING MENUS: (SEE ALSO PARAGRAPH 4.5)

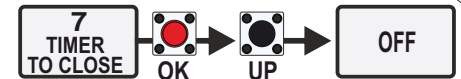
33 M1 OPENING SENSITIVITY	34 M1 CLOSING SENSITIVITY	35 M2 OPENING SENSITIVITY	36 M2 CLOSING SENSITIVITY	37 SLOW DOWN SENSITIVITY
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19 - LOGICS

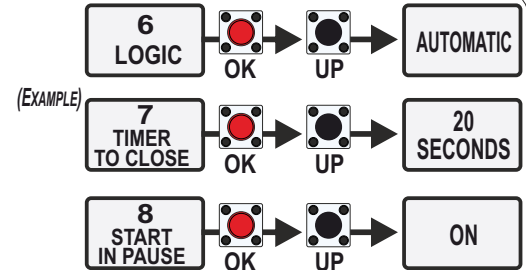


THE DEFAULT LOGIC IS «AUTOMATIC», ANYWAY IT CAN BE CHANGED BUT ONLY AFTER THE WORKING TIMES LEARNING!

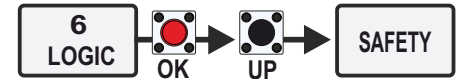
- **SEMI-AUTOMATIC LOGIC:** AUTOMATICALLY SET WHEN THE MENU 7 IS «OFF» (**AUTOMATIC RECLOSING DISABLED**)
- OPERATION: A **START** COMMAND OPENS THE GATE; ANOTHER **START** COMMAND CLOSES; IN SEMI-AUTOMATIC LOGIC, THE AUTOMATIC RECLOSING IS ALWAYS DISABLED.
- THIS LOGIC MATCHES WITH OTHER LOGICS, KEEPING THE AUTOMATIC RECLOSING DISABLED



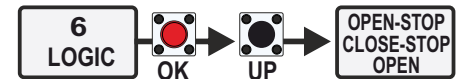
- **AUTOMATIC LOGIC:** PRE-SET BY DEFAULT. ANYWAY IT CAN BE MANUALLY ENABLED THROUGH THE MENU 6 OR THROUGH THE MENU 7 BY SETTING A PAUSE TIME DIFFERENT THAN 0 AND UP TO 240 SECONDS (*IT ALSO ENABLES THE AUTOMATIC RECLOSING*)
- THROUGH THE MENU 8 IT IS POSSIBLE TO CHOOSE IF A **START** COMMAND GIVEN DURING THE PAUSE TIME IS ACCEPTED OR NOT
- OPERATION: A **START** COMMAND OPENS THE GATE; ANOTHER **START** COMMAND IS NOT ACCEPTED; A **START** COMMAND DURING THE CLOSING REVERSES THE GATE



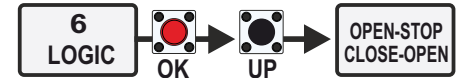
- **SAFETY LOGIC:** A **START** COMMAND OPENS THE GATE; ANOTHER **START** COMMAND DURING THE OPENING REVERSES THE MOVEMENT
A **START** COMMAND DURING THE CLOSING REVERSES THE MOVEMENT



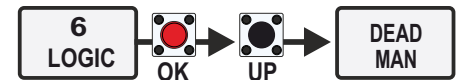
- **STEP BY STEP TYPE 1: THE START COMMAND FOLLOWS THE LOGIC: OPEN - STOP - CLOSE - STOP - OPEN**




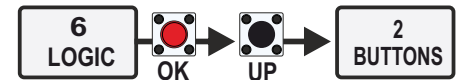
- ## ● STEP BY STEP TYPE 2: THE **START** COMMAND FOLLOWS THE LOGIC: **OPEN - STOP - CLOSE - OPEN**



- **DEAD MAN LOGIC:** THE GATE OPENS AS LONG AS THE **START** COMMAND IS HELD PRESSED; WHEN RELEASED THE GATE STOPS. THE GATE CLOSES AS LONG AS THE **PARTIAL START** IS HELD PRESSED; WHEN RELEASED THE GATE STOPS.

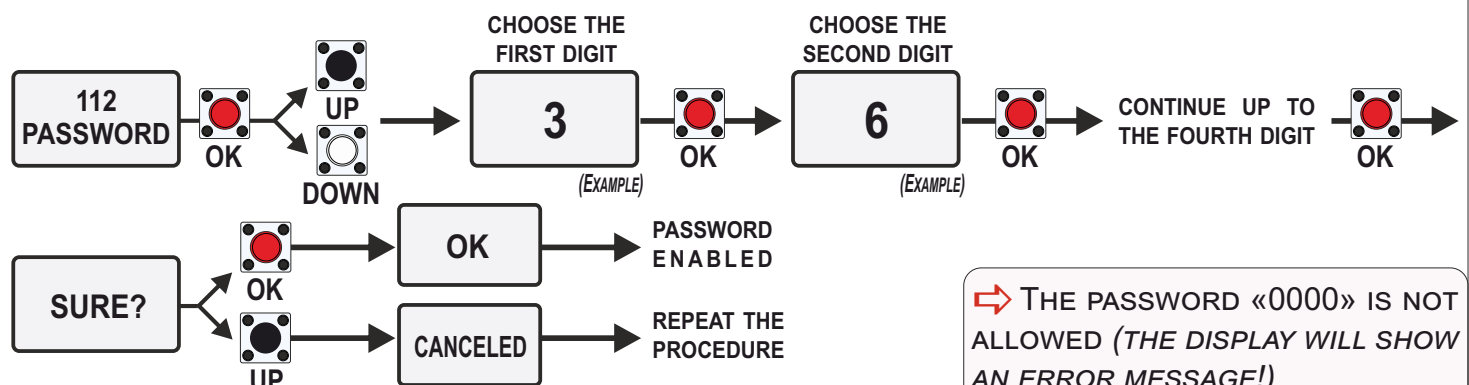


- **2 BUTTOS LOGIC:** A **START** COMMAND OPENS THE GATE, A **PARTIAL START** COMMAND CLOSES THE GATE. THE **PARTIAL START** COMMAND IS NOT ACCEPTED DURING THE OPENING. THE **START** COMMAND GIVEN DURING THE CLOSING REOPENS THE GATE, WHILE THE **PARTIAL START** COMMAND GIVEN DURING THE CLOSING IS IGNORED
- 
- ```
graph LR; A[6 LOGIC] --> B((OK)); B --> C((UP)); C --> D[2 BUTTONS]
```



## 20 - PASSWORD

- ONCE THE PASSWORD IS ENABLED, ALL THE MENUS CAN NOT BE ADJUSTED, THEY ARE ONLY DISPLAYED
- IF YOU FORGET THE PASSWORD, CONTACT THE SEA TECHNICAL ASSISTANCE: **SEA RESERVES THE RIGHT TO EVALUATE AND DECIDE WHETHER TO PROVIDE OR NOT THE UNLOCKING PROCEDURE**



➡ THE PASSWORD «0000» IS NOT ALLOWED (THE DISPLAY WILL SHOW AN ERROR MESSAGE!)



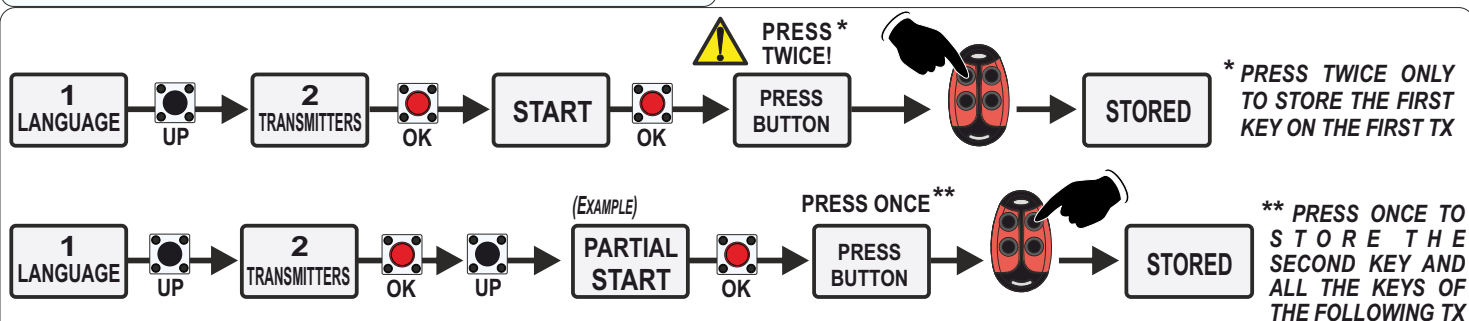
## 21 - RECEIVERS AND TRANSMITTERS

- **WHEN THE CONTROL UNIT IS SWITCHED-OFF**, CHECK THE RECEIVER IS CORRECTLY PLUGGED IN
- PROGRAM THE TRANSMITTERS BEFORE CONNECTING THE ANTENNA
- PROGRAM THE TRANSMITTERS ONLY WHEN THE GATE IS CLOSED AND THE MOTOR IS STOPPED
- **RF UNI** AND **RF UNI PG** ALLOW THE USE OF BOTH **ROLL PLUS/UNI** TX AND **FIX CODE** TX
- **RF FIX** ALLOWS THE USE OF **FIX CODE** TRANSMITTERS ONLY
- IT IS POSSIBLE TO STORE UP TO 2 AMONG THE AVAILABLE FUNCTIONS
- THE **START** COMMAND MUST **ALWAYS** BE STORED (*ON THE FIRST CHANNEL*)
- IF THE SECOND STORED FUNCTION IS MODIFIED, THEN ALL THE TRANSMITTERS ACQUIRE THIS CHANGE ON THE SECOND CHANNEL

➡ **THE FIRST STORED TRANSMITTERS DETERMINES THE CODING OF THE FOLLOWING ONES**

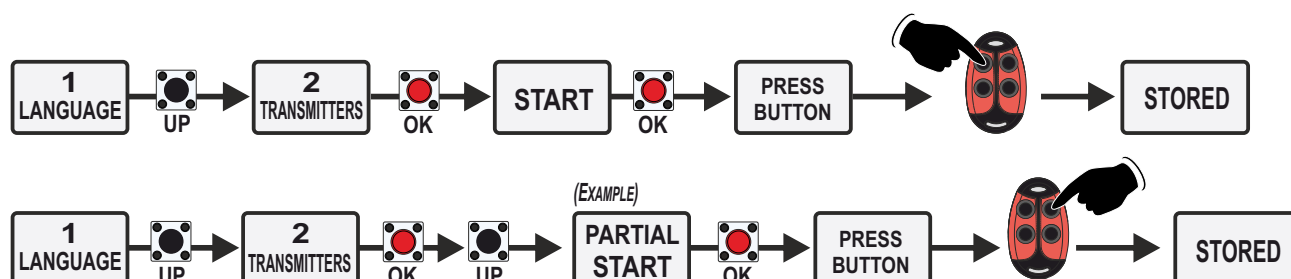
*EXAMPLE: IF THE FIRST TRANSMITTERS IS STORED AS ROLLING CODE, THEN ALL THE FOLLOWING TX MUST BE STORED AS ROLLING CODE; TRANSMITTERS WITH DIFFERENT CODING ARE NOT ACCEPTED*

### 21.1 - OLD «ROLLING CODE» CODING



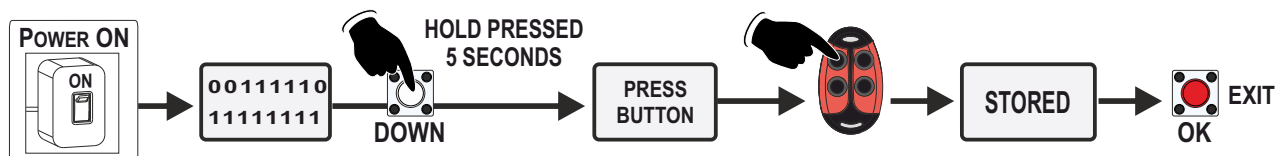
➡ MORE DETAILS ON THE FUNCTIONS AVAILABLE IN **PARAGRAPH 21.4**

### 21.2 - «ROLLING CODE PLUS» - «UNI» - «FIX CODE» TRANSMITTERS



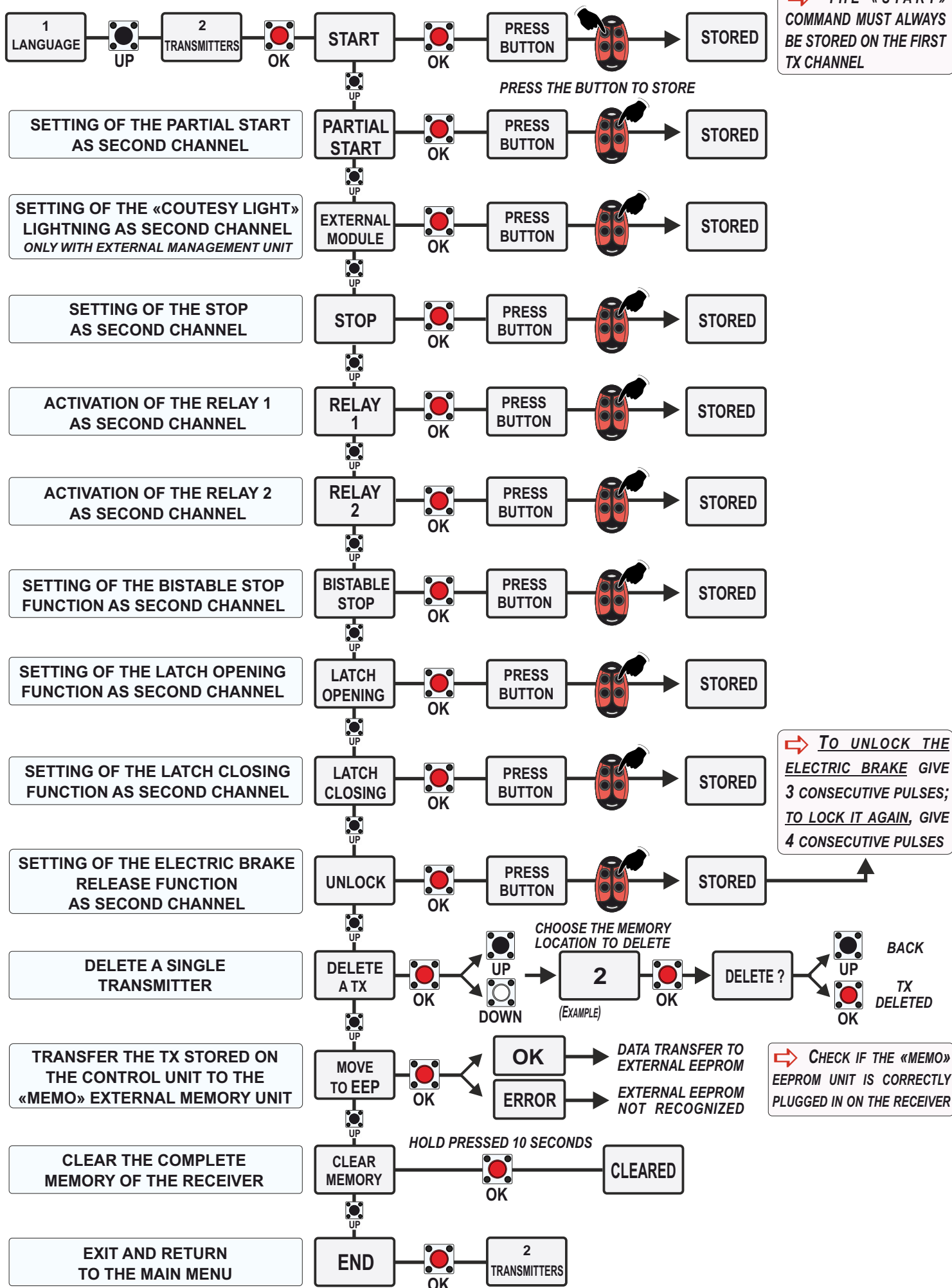
➡ MORE DETAILS ON THE FUNCTIONS AVAILABLE IN **PARAGRAPH 21.4**

### 21.3 - «START» COMMAND QUICK LEARNING



| SEA PLUG-IN RECEIVERS (CHAPTER 13)             | MAX. USERS NUMBER                                                                  |
|------------------------------------------------|------------------------------------------------------------------------------------|
| RF UNI                                         | 16 USERS Without additional memory<br>800 USERS With <b>MEMO</b> additional memory |
| RF UNI PG (OLD MODEL - NON EXTRACTABLE MEMORY) | 100 USERS Fix code<br>800 USERS Roll Plus                                          |
| RF UNI PG (NEW MODEL - EXTRACTABLE MEMORY)     | 496 USERS Fix code<br>800 USERS Roll Plus                                          |
| RF FIX                                         | 16 USERS Without additional memory                                                 |

## 21.4 - TRANSMITTERS FUNCTIONS DIAGRAM



## 22 - ALARMS

### 22.1 - FAULTS SHOWN ON THE DISPLAY

● THE CONTROL UNIT ADVISES OF SOME FAULTS THROUGH A MESSAGE ON THE DISPLAY (*THEN PRESS OK TO EXIT*)



● BELOW THE LIST OF THE FAULTS THAT ARE SIGNALLED ON THE DISPLAY AND THE POSSIBLE SOLUTIONS TO THE PROBLEMS (*IF THE FAULT MESSAGE HOLDS OUT, CONTACT THE TECHNICAL SUPPORT*)

| WARNING MESSAGE                                    | SOLUTION                                                                                  |
|----------------------------------------------------|-------------------------------------------------------------------------------------------|
| NETWORK FAULT                                      | CHECK THE PRESENCE OF THE POWER SUPPLY; CHECK THE FUSE F2                                 |
| FAULT 24                                           | CHECK FOR ANY OVERLOADS OR SHORT CIRCUITS ON THE WIRING OR ON THE CONTROL UNIT            |
| FAULT COMIS                                        | CHECK THE OPERATION OF COMIS CONTACT AND THE ACCESSORIES WIRING ON THE CONTROL UNIT       |
| SAFETY EDGE 1 FAULT                                | CHECK THE METAL WIRE AND THE CONNECTION CABLES; MAKE SURE THE CONTACT IS CLOSED           |
| SAFETY EDGE 2 FAULT                                | CHECK THE METAL WIRE AND THE CONNECTION CABLES; MAKE SURE THE CONTACT IS CLOSED           |
| PHOTO 1 FAULT                                      | CHECK THE OPERATION OF THE PHOTOCELLS OR THEIR WIRINGS ON THE CONTROL UNIT                |
| PHOTO 2 FAULT                                      | CHECK THE OPERATION OF THE PHOTOCELLS OR THEIR WIRINGS ON THE CONTROL UNIT                |
| LIMIT SWITCH FAULT                                 | CHECK THE INTEGRITY OF THE LIMIT SWITCH LEVER                                             |
| POTENTIOMETER 1 FAULT                              | THE MESSAGE APPEARS ONLY IF THE POTENTIOMETER IS ON; CHECK THE WIRINGS                    |
| POTENTIOMETER 2 FAULT                              | THE MESSAGE APPEARS ONLY IF THE POTENTIOMETER IS ON; CHECK THE WIRINGS                    |
| POTENTIOMETER 1 DIRECTION FAULT                    | SWAP THE CONNECTION CABLES OF THE POTENTIOMETER (SWAP THE GREEN -OR BLUE- WITH THE BROWN) |
| POTENTIOMETER 2 DIRECTION FAULT                    | SWAP THE CONNECTION CABLES OF THE POTENTIOMETER (SWAP THE GREEN -OR BLUE- WITH THE BROWN) |
| SERIAL INVERTER 1 FAULT                            | LOGIC MICROPROCESSOR IRREVERSIBLY DAMAGED. REPLACE THE CONTROL UNIT                       |
| SERIAL INVERTER 2 FAULT                            | LOGIC MICROPROCESSOR IRREVERSIBLY DAMAGED. REPLACE THE CONTROL UNIT                       |
| SERIAL INVERTER FAULT FROM MODULE 1                | «FV» INVERTER MODULE 1 IRREVERSIBLY DAMAGED. REPLACE THE CONTROL UNIT                     |
| SERIAL INVERTER FAULT FROM MODULE 2                | «FV» INVERTER MODULE 2 IRREVERSIBLY DAMAGED. REPLACE THE CONTROL UNIT                     |
| INVERTER 1 FAULT ( <i>THE ERROR CODE FOLLOWS</i> ) | «FV» INVERTER MODULE 1 FAULT - CHECK THE ERROR CODE TABLES BELOW                          |
| INVERTER 2 FAULT ( <i>THE ERROR CODE FOLLOWS</i> ) | «FV» INVERTER MODULE 2 FAULT - CHECK THE ERROR CODE TABLES BELOW                          |
| PASSWORD ERROR                                     | PASSWORD ERROR - CONTACT THE TECHNICAL ASSISTANCE                                         |
| POTENTIOMETER 1 FAULT - MECHANICAL                 | ROTARY ENCODER 1 - RS 485 FAULT - REPLACE THE ENCODER                                     |
| POTENTIOMETER 2 FAULT - MECHANICAL                 | ROTARY ENCODER 2 - RS 485 FAULT - REPLACE THE ENCODER                                     |
| POTENTIOMETER 1 FAULT - VOLTAGE                    | NO POWER SUPPLY OR WRONG VOLTAGE ON ROTARY ENCODER 1 - RS 485                             |
| POTENTIOMETER 2 FAULT - VOLTAGE                    | NO POWER SUPPLY OR WRONG VOLTAGE ON ROTARY ENCODER 2 - RS 485                             |
| FAULT 1 - RS 485                                   | NO COMMUNICATION BETWEEN ROTARY ENCODER 1 - RS 485 AND RS 485 UNIT                        |
| FAULT 2 - RS 485                                   | NO COMMUNICATION BETWEEN ROTARY ENCODER 2 - RS 485 AND RS 485 UNIT                        |
| RS 485 - SERIAL FAULT                              | NO COMMUNICATION BETWEEN RS 485 UNIT AND UNIGATE                                          |

### 22.2 - NUMERICAL ERROR CODES

● SOME «INVERTER» FAULT WARNINGS ARE FOLLOWED BY A NUMERICAL ERROR CODE WHICH SPECIFIES THE TYPE OF PROBLEM ON THE «FV» MODULE

● SOMETIMES IT MAY HAPPEN THAT MORE THAN ONE PROBLEM IS DETECTED AT THE SAME TIME, THEREFORE THE NUMERICAL CODE OF ONE ERROR IS ADDED TO THE NUMERICAL CODE OF THE OTHER;  
BELOW ALSO THE ERROR SUMS TABLE

| NUMERICAL CODE | DESCRIPTION                                                                | ERRORS SUMS TABLE |   |   |    |    |    |     |     |
|----------------|----------------------------------------------------------------------------|-------------------|---|---|----|----|----|-----|-----|
| 2              | MAXIMUM VOLTAGE EXCEEDED                                                   |                   | 2 | 4 | 8  | 16 | 64 | 256 | 512 |
| 4              | MINIMUM VOLTAGE EXCEEDED                                                   | 2                 | — | 6 | 10 | 18 | 66 | 258 | 514 |
| 8              | MAXIMUM TEMPERATURE EXCEEDED ON «FV»                                       | 4                 | — | — | 12 | 20 | 68 | 260 | 516 |
| 16             | MAXIMUM TEMPERATURE EXCEEDED ON «FV»                                       | 8                 | — | — | —  | 24 | 72 | 264 | 520 |
| 64             | MAXIMUM CURRENT EXCEEDED ON «FV»                                           | 16                | — | — | —  | —  | 80 | 272 | 528 |
| 256            | «FV» MODULE COMMUNICATION ERROR                                            | 64                | — | — | —  | —  | —  | 320 | 576 |
| 512            | FORCED SHUTDOWN OF THE «FV» MODULE FOR PROTECTION AGAINST POSSIBLE FAILURE | 256               | — | — | —  | —  | —  | —   | 768 |
|                |                                                                            | 512               | — | — | —  | —  | —  | —   | —   |

➡ **EXAMPLE: IF BOTH ERROR N° 8 AND ERROR N° 256 ARE DETECTED, THE DISPLAY WILL SHOW ONLY THE NUMBER 264 WHICH IS THE SUM OF 8 + 256, AS YOU CAN SEE IN THE TABLE**

## 22.3 - FAULTS SIGNALLED ON THE FLASHING LIGHT

- IT IS ALSO POSSIBLE TO VISUALIZE THE WARNING SIGNALS THROUGH THE FLASHING LIGHT SIMPLY BY OBSERVING THE NUMBER OF FLASHES EMITTED (**SEE THE TABLE OF CORRESPONDENCES BELOW**)
- WHEN AN EVENT OCCURS, THE WARNING FLASHES ARE ISSUED AT EACH «START» COMMAND

| ALARM TYPE                      | NUMBER OF FLASHES                   | NOTES                                 |
|---------------------------------|-------------------------------------|---------------------------------------|
| COMIS                           | 8 FAST (EVERY 0.2 SEC) FOR 9 TIMES  | COMIS FAULT - CHECK WIRINGS           |
| INVERTER 1 FAULT                | 10 SLOW (EVERY 0.5 SEC) FOR 6 TIMES | REPAIR OR REPLACEMENT NEEDED          |
| INVERTER 2 FAULT                | 12 SLOW (EVERY 0.5 SEC) FOR 6 TIMES | REPAIR OR REPLACEMENT NEEDED          |
| REPORT PHOTO 1 - 2 IN CLOSING   | 2 SLOW (EVERY 0.5 SEC) FOR 5 TIMES  | CLOSING PHOTOCELL FAULT               |
| REPORT PHOTO 1 - 2 IN OPENING   | 3 SLOW (EVERY 0.5 SEC) FOR 1 TIME   | OPENING PHOTOCELL FAULT               |
| REPORT COLLISION IN OPENING     | 6 SLOW (EVERY 0.5 SEC) FOR 11 TIMES | OBSTACLE DETECTED IN OPENING          |
| REPORT COLLISION IN CLOSING     | 6 SLOW (EVERY 0.5 SEC) FOR 11 TIMES | OBSTACLE DETECTED IN CLOSING          |
| REPORT SAFETY EDGE              | 4 SLOW (EVERY 0.5 SEC) FOR 4 TIMES  | SAFETY EDGE FAULT                     |
| SAFETY EDGE 1 - 2 FAULT         | 4 SLOW (EVERY 0.5 SEC) FOR 4 TIMES  | SAFETY EDGE FAULT                     |
| PHOTO 1 FAULT                   | 3 SLOW (EVERY 0.5 SEC) FOR 1 TIME   | PHOTOCELL 1 FAULT                     |
| PHOTO 2 FAULT                   | 3 SLOW (EVERY 0.5 SEC) FOR 1 TIME   | PHOTOCELL 2 FAULT                     |
| POTENTIOMETER 1 FAULT           | 11 FAST (EVERY 0.2 SEC) FOR 4 TIMES | ABSOLUTE POTENTIOMETER 1 FAULT        |
| POTENTIOMETER 2 FAULT           | 11 FAST (EVERY 0.2 SEC) FOR 4 TIMES | ABSOLUTE POTENTIOMETER 2 FAULT        |
| STOP                            | 5 SLOW (EVERY 0.5 SEC) FOR 2 TIMES  | STOP CONTACT FAULT                    |
| LIMIT SWITCH FAULT              | 4 FAST (EVERY 0.2 SEC) FOR 11 TIMES | LIMIT SWITCH FAULT                    |
| CYCLES ALARM                    | 7 SLOW (EVERY 0.5 SEC) FOR 2 TIMES  | MAXIMUM CYCLES ACHIEVED - MAINTENANCE |
| ROTARY ENCODER 1 FAULT - RS 485 | 5 SLOW (EVERY 0.5 SEC) FOR 6 TIMES  | ROTARY ENCODER 1 - RS 485 FAULT       |
| ROTARY ENCODER 2 FAULT - RS 485 | 5 FAST (EVERY 0.2 SEC) FOR 6 TIMES  | ROTARY ENCODER 2 - RS 485 FAULT       |

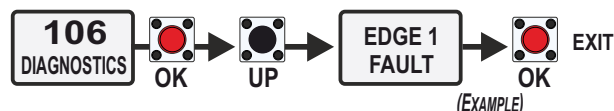
➡ THE «**CYCLES ALARM**» WARNING REFERS TO THE REACHING OF THE MAXIMUM CYCLES ESTABLISHED AFTER WHICH MAINTENANCE IS NECESSARY

## 22.4 - «DIAGNOSTICS» MENU TO DISPLAY LATEST EVENTS

- SOME OF THE WARNINGS AND ALARMS REMAIN IN THE CONTROL UNIT MEMORY; THE TABLE BELOW SHOWS THE TYPES OF EVENTS THAT REMAIN IN THE MEMORY, UP TO A MAX. OF 10 EVENTS.  
TO SEE THE STORED EVENTS, ACCESS THE MENU 106

➡ IF THE FAULT MESSAGE HOLDS OUT,

CARRY OUT THE REQUIRED CHECKS OR DISCONNECT THE DEVICE GENERATING THE FAULT



| TYPE OF EVENT                                                                   | WARNING MESSAGE STORED |
|---------------------------------------------------------------------------------|------------------------|
| EVENTS OR ALARMS REGARDING FAULTS ON PHOTOCELL 1 OR PHOTOCELL 2 IN OPENING      | PHOTO OPENING          |
| EVENTS OR ALARMS REGARDING FAULTS ON PHOTOCELL 1 OR PHOTOCELL 2 IN CLOSING      | PHOTO CLOSING          |
| EVENTS OR ALARMS REGARDING THE DETECTION OF OBSTACLES IN THE OPENING PHASE      | OBSTACLE IN OPENING    |
| EVENTS OR ALARMS CONCERNING THE DETECTION OF OBSTACLES IN THE CLOSING PHASE     | OBSTACLE IN CLOSING    |
| EVENTS OR ALARMS CONCERNING FAULTS ON THE SAFETY EDGE 1                         | SAFETY EDGE 1 FAULT    |
| EVENTS OR ALARMS CONCERNING FAULTS ON THE SAFETY EDGE 2                         | SAFETY EDGE 2 FAULT    |
| EVENTS OR ALARMS CONCERNING FAULTS ON THE ABSOLUTE POTENTIOMETER 1 OR 2         | POT.1 / POT.2 FAULT    |
| EVENTS OR ALARMS REGARDING FAULTS ON THE STOP CONTACT                           | STOP                   |
| REACHING OF THE MAXIMUM CYCLES ESTABLISHED - MAINTENANCE REQUIRED               | MAINTENANCE            |
| EVENTS OR ALARMS CONCERNING FAULTS ON THE MAIN POWER SUPPLY                     | MISSING NETWORK        |
| EVENTS OR ALARMS CONCERNING FAULTS ON THE OPENING OR CLOSING LIMIT SWITCHES     | LIMIT SWITCH           |
| EVENTS OR ALARMS CONCERNING THE EMERGENCY MANŒUVRES PERFORMED                   | CLOSE ALWAYS           |
| EVENTS OR ALARMS CONCERNING THE EMERGENCY MANŒUVRES PERFORMED                   | EMERGENCY              |
| EVENTS OR ALARMS REGARDING FAULTS ON THE FIRST «FV» INVERTER MODULE             | INVERTER 1             |
| EVENTS OR ALARMS REGARDING FAULTS ON THE SECOND «FV» INVERTER MODULE            | INVERTER 2             |
| EVENTS OR ALARMS REGARDING FAULTS ON THE FIRST «FV» INVERTER MODULE             | INVERTER MODULE 1      |
| EVENTS OR ALARMS REGARDING FAULTS ON THE SECOND «FV» INVERTER MODULE            | INVERTER MODULE 2      |
| EVENTS OR ALARMS REGARDING FAULTS ON ACCESSORIES CONNECTED TO THE «COMIS» INPUT | COMIS                  |



**IT IS ALWAYS RECOMMENDED TO CONSULT THE CHAPTER 23 DEDICATED TO TROUBLESHOOTING.**

**MOST OF THE PROBLEMS CAN BE SOLVED BY FOLLOWING THE INSTRUCTIONS GIVEN!**

## 23 - TROUBLESHOOTING



**MAKE SURE THAT ALL THE SAFETY DEVICES ARE «ON»**

| PROBLEM                                                                            | POSSIBLE REASON                                                                                                                                                                       | SOLUTION                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The operator does not respond to any START command                                 | a) Check that the N.C. are connected<br>b) Blown fuse                                                                                                                                 | a) Check the connections and the jumpers on the safety edge or stop or photocell inputs, if connected<br>b) Replace the blown fuse on the control unit                                                                                                                                        |
| The operator does not run and the diagnostic display is off                        | a) The control unit is not powered<br>b) Fuse open<br>c) Defective control unit                                                                                                       | a) Check the AC power supply<br>b) Check the fuses<br>c) Replace the defective control unit                                                                                                                                                                                                   |
| The operator does not respond to a wired command (example: Opening, Closing, etc.) | a) Check the inputs of the opening and closing commands<br>b) The STOP button is activated<br>c) The Reset button is blocked<br>d) Anti-entrapment safety device active               | a) Check all the opening and closing inputs to make sure they are not blocked<br>b) Check the STOP button is not blocked<br>c) Check the Reset button<br>d) Check among all the inputs of the anti-entrapment protection device, if there is a blocked sensor                                 |
| The operator does not respond to a remote control                                  | a) The STOP button is activated<br>b) The Reset button is blocked<br>c) Poor radio reception                                                                                          | a) Check the STOP button is not blocked<br>b) Check the Reset button<br>c) Check if the other wired devices are working correctly; check the antenna cable                                                                                                                                    |
| The motor runs in one direction only                                               | a) Check the resistance between the motor phase and neutral and verify that the resistance is MOhm<br>b) Try to invert the motor phase and see if it changes direction or not         | a) Replace the cable<br>b) If the motor is blocked, replace the cable;<br>if the motor moves in one direction only, the motor direction relay is damaged                                                                                                                                      |
| The gate does not move but the motor runs                                          | a) The engine is in the locked position<br>b) Presence of an obstacle                                                                                                                 | a) Release the motor<br>b) Remove the obstacle                                                                                                                                                                                                                                                |
| The gate does not reach the complete open or closed position                       | a) Wrong limit switch setting<br>b) Programming error<br>c) Gate is stopped by an obstacle<br>d) Torque too low<br>e) The gate is too heavy to perform the automatic slowdown         | a) Set the limit switches<br>b) Repeat the working times programming<br>c) Remove the obstacle<br>d) Increase the torque parameter<br>e) Set the slowdown to OFF                                                                                                                              |
| The gate opens but does not close                                                  | a) The photocells contacts are connected and open<br>b) Stop contact connected and open<br>c) The safety edge contact is open<br>d) Amperometric alarm                                | a) b) c) Check the jumpers or the connected devices or the warning signals on the flashing lamp<br>d) Check for a possible the amperometric alarm and, if necessary, increase the torque parameter                                                                                            |
| The gate does not close automatically                                              | a) Pause time set too high<br>b) Semi-automatic logic control unit                                                                                                                    | a) Adjust the pause time<br>b) Set the PAUSE TIME menu to a value different than OFF                                                                                                                                                                                                          |
| The gate moves, but the limit switches cannot be set correctly                     | a) The gate does not move towards a stop position<br>b) It is too difficult to move the gate                                                                                          | a) Manually unlock and move the gate and make sure the gate moves easily from limit switch to limit switch.<br>If necessary, repair the gate<br>b) The gate must be able to move easily and freely throughout its travel, from limit switch to limit switch.<br>If necessary, repair the gate |
| The gate does not fully open or close when the limit switches are set              | a) The gate does not move towards a limit switch<br>b) It is too difficult to move the gate                                                                                           | a) Manually unlock and move the gate and make sure the gate moves easily from limit switch to limit switch.<br>If necessary, repair the gate<br>b) The gate must be able to move easily and freely throughout its travel, from limit switch to limit switch.<br>If necessary, repair the gate |
| The gate stops during travel and reverses direction                                | a) Open/Close control active<br>b) The obstacle detection sensitivity is too low                                                                                                      | a) Check if there is an active input among all the opening and closing inputs<br>b) Check the obstacle detection sensitivity value and try to increase it                                                                                                                                     |
| The gate opens but does not close with TX or closing timer                         | a) Opening control active<br>b) Pause not set<br>c) The closing anti-entrapment protection device is active<br>d) The photocell contact is open<br>e) The fire switch input is active | a) Check if there is an active input among the open inputs<br>b) Check the pause settings<br>c) Check if there is an active sensor among all the inputs of the anti-entrapment protection device<br>d) Check the contact of the photocells<br>e) Check the fire switch input                  |



| PROBLEM                                                                                                                        | POSSIBLE REASON                                                                                                                                                                                                                                           | SOLUTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The gate does not respect the slowdown start points                                                                            | a) The encoder does not work properly when activated<br>b) Slow mechanical clutch<br>c) Too large deceleration space<br>d) The potentiometer does not work correctly when activated<br>e) The parameters of the recovery position are too high or too low | a) Check in the Encoder menu that the "Encoder Par" parameter is set from a low value of +/- 10 (gate completely closed) to "Encoder tot" (gate completely open). If the IPAR movement is not in line with the range of values (from +/- 10 to "Encoder tot") probably the encoder is defective<br>b) Tighten the mechanical clutch<br>c) Reduce the slowdown space<br>d) Check in the Potentiometer menu that the "IPAR" parameter is set from "I.CH." (gate completely closed) to "I.AP." (gate completely open). If the "IPAR" movement is not in line with the range of values (from I.AP. to I.CH.), the potentiometer is probably faulty<br>e) Reduce or increase the values of the "recovery position" |
| The gate opens suddenly but any START command have been given                                                                  | a) Frequency or disturbances on the main line<br>b) Short-circuit on the START contact                                                                                                                                                                    | a) The AC wiring must be separated from the DC wires and run through separate conduits. If it is a frequency disturbance, you can change the frequency to another MHz value, such as 868 or FM<br>b) Check all the START contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| The gate does not accept the close command during the pause in automatic logic, even if the loop or photocell are set as Start | a) START IN PAUSE is not ON<br>b) The photocell/loop input is not set as "pause reload"                                                                                                                                                                   | a) Turn ON the START IN PAUSE menu<br>b) Set "pause reload" in the photocell / loop menu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The gate does not have the necessary force to close or reach the limit switch                                                  | a) Slowing down is not possible either because the gate is too heavy or because of the inclination or because the installation is not new                                                                                                                 | a) Set the slowdown to OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| The gate travel is obstructed and cannot stop or reverse                                                                       | a) Force the necessary adjustment                                                                                                                                                                                                                         | a) Refer to the adjustment parameter to carry out the obstruction tests and make the correct adjustments of the force (sensitivity - torque)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| The photocell does not stop or reverse the gate travel                                                                         | a) The photocell wiring is incorrect<br>b) The photocell is faulty<br>c) The photocells have been installed too far apart                                                                                                                                 | a) Check the photocell wiring. Check that the gate stops and reverses its direction when the photocell is engaged<br>b) Replace the faulty photocell. Check that the gate stops and reverses its direction when the photocell is engaged<br>c) Install the photocells closer or use safety edges with sensors                                                                                                                                                                                                                                                                                                                                                                                                 |
| The safety edge does not stop or reverse the travel of the gate                                                                | a) Incorrect wiring of the edge sensor<br>b) Defective edge sensor                                                                                                                                                                                        | a) Check the safety edge wiring. Check that the gate stops and reverses its direction when the edge is activated<br>b) Replace the defective safety edge and check that the gate stops and reverses its direction when it is activated                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| The alarm sounds for 5 minutes or the alarm sounds after a command                                                             | a) A double entrapment has occurred (two obstructions within a single activation)                                                                                                                                                                         | a) Check the cause of the entrapment detection (obstruction) and correct it. Press the reset button to silence the alarm and reset the operator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| The shadow loop does not hold the gate on the opening limit switch                                                             | a) Shadow loop sensor incorrectly adjusted<br>b) Defective shadow loop sensor<br>c) Wrong setting                                                                                                                                                         | a) Check the shadow loop settings and reset as needed<br>b) Replace the defective vehicle sensor<br>c) Check that menu 98 is on SHADOW LOOP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The accessories connected to the accessory power supply do not work properly, they turn off or restart                         | a) Accessory power supply protection active<br>b) Defective electronic control unit                                                                                                                                                                       | a) Disconnect all devices powered by the "accessories power supply" and measure their voltage (must be 23-30 Vdc). If the voltage is correct, reconnect the accessories one at a time, measuring each time the voltage<br>b) Replace the defective control unit                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Fault on the 24VAUX                                                                                                            | a) Overload/short-circuit on AUX input<br>b) Blown fuse                                                                                                                                                                                                   | a) Check if the cable is shorted<br>b) Replace the fuse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| The control unit turns on but the motor does not run                                                                           | a) STOP active or wrong jumpers<br>b) Open or close the active input<br>c) Active Entrapment Protection Device<br>d) Defective electronic control unit                                                                                                    | a) Check that the STOP button is not blocked, that it is a N.C. contact or put a jumper on the Stop input<br>b) Check that none of the opening and closing inputs are blocked<br>c) Check whether there is a blocked sensor among all the entrapment protection device inputs<br>d) Replace the defective control unit                                                                                                                                                                                                                                                                                                                                                                                        |

# UNIGATE - MENU FUNCTIONS TABLE

## LEGEND

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

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

**24V** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH 24V MODULE





**BR** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH BR MODULE

**ALL** - COMMON FUNCTIONS - AVAILABLE ON ALL UNIGATE MODELS

| 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<br><br>Partial opening |      |
|      |              | Partial opening                   | Partial opening                                                                                    |                       |                              |      |
|      |              | External module                   | External module                                                                                    | INVERTER<br>24V - 2PM |                              |      |
|      |              | Stop                              | Stop                                                                                               | ALL                   |                              |      |
|      |              | 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.<br>Pressed twice, it reactivates the START input                  |                       |                              |      |
|      |              | Latch opening                     | One impulse opens and keep open.<br>A second impulse restore the movement                          |                       |                              |      |
|      |              | Latch closing                     | One impulse closes and keep closed.<br>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 <b>(INVERTER)</b>                                                   | INVERTER<br>2PM       | Hydraulic                    |      |
|      |              | 2- Sliding                        | Sliding operators - Series I <b>(INVERTER)</b>                                                     |                       |                              |      |
|      |              | 3- Reversible Sliding             | Reversible sliding operators - Series I <b>(INVERTER)</b>                                          |                       |                              |      |
|      |              | 4- Electromechanic swing          | Electromechanic swing operators - Series I <b>(INVERTER)</b>                                       |                       |                              |      |
|      |              | 5- Three-phase - Bollards         | Three-phase operators and Bollards<br>Series I BIG <b>(INVERTER with BIG module)</b>               |                       |                              |      |
|      |              | 7- Barrier                        | Barriers - Series I <b>(INVERTER)</b>                                                              | INVERTER              |                              |      |
|      |              | 8- BIG Fast<br>BIG Super Fast 4LS | Sliding operators - Series I BIG<br><b>(INVERTER with BIG module)</b>                              |                       |                              |      |
|      |              | 9- BIG                            | Sliding operator - Series I BIG <b>(INVERTER with BIG module)</b>                                  |                       |                              |      |
|      |              | 10- JOINT 4LS                     | Hydraulic operator with 4 limit switch<br><b>Series I (INVERTER)</b>                               |                       |                              |      |
|      |              | 60- BIG ABSOLUTE                  | Sliding operator - Series I BIG <b>(INVERTER with BIG module)</b>                                  |                       |                              |      |
|      |              | 61- SEAGEAR ABSOLUTE              | Sliding operator - Series I BIG <b>(INVERTER with BIG module)</b>                                  |                       |                              |      |
|      |              | 62- RAPID DOOR                    | Electromechanic operator - Series I <b>(INVERTER)</b>                                              |                       |                              |      |
|      |              | 64 - LEPUS FAST *                 | Sliding operator - Series I <b>(INVERTER)</b>                                                      |                       |                              |      |
|      |              | 81 - LEPUS FAST<br>ABSOLUTE       | Sliding operator - Series I <b>(INVERTER)</b>                                                      |                       |                              |      |
|      |              | 82- SLIDING ABSOLUTE              | Sliding operator - Series I <b>(INVERTER)</b>                                                      |                       |                              |      |

continues...

| MENU                                                                                         |                | SET                       | DESCRIPTION                                                                                                                                                                                                                                                                                    | MODEL             | DEFAULT      | NOTE |
|----------------------------------------------------------------------------------------------|----------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------|------|
| 3                                                                                            | MOTOR          | 32- ORION BOX FAST        | 24Vdc electromechanic operator                                                                                                                                                                                                                                                                 | 24V               | SURF         |      |
|                                                                                              |                | 35- SURF                  | 24Vdc electromechanic operator                                                                                                                                                                                                                                                                 |                   |              |      |
|                                                                                              |                | 39- HT 270/390 24VDC      | 24Vdc hydraulic operator                                                                                                                                                                                                                                                                       |                   |              |      |
|                                                                                              |                | 43- SURF FAST             | 24Vdc electromechanic operator                                                                                                                                                                                                                                                                 |                   |              |      |
|                                                                                              |                | 65 KITE LS                | 24Vdc electromechanic operator                                                                                                                                                                                                                                                                 |                   |              |      |
|                                                                                              |                | 50- HALF TANK BR          | Hydraulic operator - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                              | BR                | HALF TANK BR |      |
|                                                                                              |                | 51- SURF BR               | Electromechanic swing operator - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                  |                   |              |      |
|                                                                                              |                | 52- SATURN BR             | Electromechanic operator - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                        |                   |              |      |
|                                                                                              |                | 54- SPRINT BR (RT)        | Hydraulic barrier with Encoder RT <b>(already set by default)</b> - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                               |                   |              |      |
|                                                                                              |                | 55 KITE LS BR             | Electromechanic swing operator - BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                         |                   |              |      |
|                                                                                              |                | 56- COMPACT BR            | Hydraulic operator - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                              |                   |              |      |
|                                                                                              |                | 57- JOINT BR              | Hydraulic operator - Series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                              |                   |              |      |
|                                                                                              |                | 58- LEPUS RACK BR (ABC)   | Sliding operator with Encoder "ABC" - BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                    |                   |              |      |
|                                                                                              |                | 66- LEPUS CHAIN BR**      | Sliding operator with chain - series BR <b>(BRUSHLESS)</b>                                                                                                                                                                                                                                     |                   |              |      |
| <b>* Only for LEPUS FAST 220V. In case of LEPUS FAST 110V, choose the option 2-Sliding</b>   |                |                           |                                                                                                                                                                                                                                                                                                |                   |              |      |
| <b>** With LEPUS CHAIN BR operator, the menu-32 is not visible as set by default on "RT"</b> |                |                           |                                                                                                                                                                                                                                                                                                |                   |              |      |
| 4                                                                                            | GATES NUMBER   | From 1 to 2               | To set the number of motors to be managed                                                                                                                                                                                                                                                      | INVERTER 24V - BR | 1            |      |
|                                                                                              |                | From 1 to 4               |                                                                                                                                                                                                                                                                                                | 2PM               | 2            |      |
| 5                                                                                            | REVERSE MOTOR  | On                        | To reverse the opening with the closing or vice-versa <b>(both motors and limit-switches are reversed)</b>                                                                                                                                                                                     | 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                                                                                            | TIMER TO CLOSE | Off                       | Semi-automatic logic - <b>(a START command opens and another START closes - automatic closing disabled)</b>                                                                                                                                                                                    | 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          |      |
|                                                                                              |                | Choose direction          | <b>This menu is shown in case of operators with "RS 485" Encoder or in case of a sliding operator with "RT" Encoder</b> - it allows to program one or two operators with RS 485 Encoder, in automatic or manual mode or <b>to program a sliding operator with "RT" Encoder, in manual mode</b> | INVERTER 24V BR   |              |      |
| 10                                                                                           | TEST START     | Off On                    | To give a Start command for testing the automation <b>(It can be used only on units already programmed!)</b>                                                                                                                                                                                   | ALL               | Off          |      |

| MENU                                                                                                                                    |                          | SET                                                                                                                                                                                                                      | DESCRIPTION                                                                                                                                                              | MODEL                                                                                                                                                                                 | DEFAULT               | NOTE |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------|
| 11                                                                                                                                      | BEAM LENGTH              | 3m - 4m - 5m - 6m<br>7m - 7,5m - 8m                                                                                                                                                                                      | This menu will be shown only if the option <b>7-Barrier is set in the menu 3-MOTORS</b> . It allows to choose the beam length <i>(values in meters)</i>                  | INVERTER<br>BR                                                                                                                                                                        | ----                  |      |
| 12                                                                                                                                      | SLOWDOWN<br>LIMIT SWITCH | Off      On                                                                                                                                                                                                              | This menu will be shown only if the option <b>5-Threephase/Bollards is set in the menu 3-MOTORS</b> . 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>24V<br>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 in a temporary "dead man" mode<br><i>(for example to test the correct running of the motor)</i><br>HOLD <b>UP</b> PRESSED = THE GATE OPENS<br>HOLD <b>DOWN</b> PRESSED = THE GATE CLOSES |                                                                                                                                                                          |  <br>UP    DOWN | INVERTER<br>24V<br>BR | ---- |
| 193                                                                                                                                     | MOVE GATE 2 *            | Allows the movement of the gate in a temporary "dead man" mode<br><i>(for example to test the correct running of the motor)</i><br>HOLD <b>UP</b> PRESSED = THE GATE OPENS<br>HOLD <b>DOWN</b> PRESSED = THE GATE CLOSES |                                                                                                                                                                          |  <br>UP    DOWN | INVERTER<br>24V<br>BR | ---- |
| <b>* 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</b> |                          |                                                                                                                                                                                                                          |                                                                                                                                                                          |                                                                                                                                                                                       |                       |      |
| 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                                                                                                                                                                                       |                                                                                                                                                                          |                                                                                                                                                                                       |                       |      |



UP DOWN

# SPECIAL MENU

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

## LEGEND

**INVERTER** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH "FV" INVERTER MODULE (1I - 2I - 1I BIG - 2I BIG)**2PM** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH 2PM MODULE**24V** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH 24V MODULE**BR** - FUNCTION AVAILABLE ON MODEL UNIGATE WITH BR MODULE**ALL** - COMMON FUNCTIONS - AVAILABLE ON ALL UNIGATE MODELS

| SPECIAL MENU |                             | SET                                  | DESCRIPTION                                                                                       | MODEL                | DEFAULT | NOTE |
|--------------|-----------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------|----------------------|---------|------|
| 17           | OPENING SPEED 1             | 10 100                               | Speed in opening Motor 1                                                                          | INVERTER             | 80      |      |
|              |                             | 20 100                               |                                                                                                   | 24V                  |         |      |
|              |                             | 30 100                               |                                                                                                   | BR                   |         |      |
| 18           | CLOSING SPEED 1             | 10 100                               | Speed in closing Motor 1                                                                          | INVERTER             | 80      |      |
|              |                             | 20 100                               |                                                                                                   | 24V                  |         |      |
|              |                             | 30 100                               |                                                                                                   | BR                   |         |      |
| 19           | OPENING SPEED 2             | 10 100                               | Speed in opening Motor 2                                                                          | INVERTER             | 80      |      |
|              |                             | 20 100                               |                                                                                                   | 24V                  |         |      |
|              |                             | 30 100                               |                                                                                                   | BR                   |         |      |
| 20           | CLOSING SPEED 2             | 10 100                               | Speed in closing Motor 2                                                                          | INVERTER             | 80      |      |
|              |                             | 20 100                               |                                                                                                   | 24V                  |         |      |
|              |                             | 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>24V - BR | 30      |      |
| 22           | SLOWDOWN SPEED IN CLOSING 1 | From 10% to 60% of the maximum speed | slowdown speed in closing Motor 1                                                                 | INVERTER<br>24V - BR | 30      |      |
| 23           | SLOWDOWN SPEED IN OPENING 2 | From 10% to 60% of the maximum speed | slowdown speed in opening Motor 2                                                                 | INVERTER<br>24V - BR | 30      |      |
| 24           | SLOWDOWN SPEED IN CLOSING 2 | From 10% to 60% of the maximum speed | slowdown speed in closing Motor 2                                                                 | INVERTER<br>24V - BR | 30      |      |
| 25           | LEARNING SPEED              | 10% 100 %                            | To adjust the time self-learning speed. This parameter can change according to the motor type set | INVERTER             | 50      |      |
|              |                             | 20% 100 %                            |                                                                                                   | 24V BR               |         |      |



**NOTE: The range of values that can be set in all the SPEED menus may vary according to the operator model**

|    |                       |              |                                                                                                                                             |                       |      |  |
|----|-----------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------|--|
| 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>24V<br>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>24V<br>BR | 2,5* |  |
|    |                       | Off 20       | Adjustable from OFF (disabled) to 20 seconds                                                                                                | 2PM                   |      |  |
| 28 | OPENING TORQUE 1      | 50% 100 %    | <b>Motor 1 opening torque:</b> by increasing the torque, more strength will be required to execute the inversion in case of obstacle        | INVERTER<br>2PM       | 100% |  |
|    |                       | 10% 100 %    |                                                                                                                                             | 24V                   |      |  |
|    |                       | 5% 100 %     |                                                                                                                                             | BR                    |      |  |
| 29 | CLOSING TORQUE 1      | 50% 100 %    | <b>Motor 1 closing torque:</b> by increasing the torque, more strength will be required to execute the inversion in case of obstacle        | INVERTER<br>2PM       | 100% |  |
|    |                       | 10% 100 %    |                                                                                                                                             | 24V                   |      |  |
|    |                       | 5% 100 %     |                                                                                                                                             | BR                    |      |  |
| 30 | OPENING TORQUE 2      | 50% 100 %    | <b>Motor 2 opening torque:</b> by increasing the torque, more strength will be required to execute the inversion in case of obstacle        | INVERTER<br>2PM       | 100% |  |
|    |                       | 10% 100 %    |                                                                                                                                             | 24V                   |      |  |
|    |                       | 5% 100 %     |                                                                                                                                             | BR                    |      |  |
| 31 | CLOSING TORQUE 2      | 50% 100 %    | <b>Motor 2 closing torque:</b> by increasing the torque, more strength will be required to execute the inversion in case of obstacle        | INVERTER<br>2PM       | 100% |  |
|    |                       | 10% 100 %    |                                                                                                                                             | 24V                   |      |  |
|    |                       | 5% 100 %     |                                                                                                                                             | BR                    |      |  |

**NOTE: The range of values that can be set in all the TORQUE menus may vary according to the operator model**



| SPECIAL MENU                                                                                                                                                                                                                            |                             | SET                                                | DESCRIPTION                                                                                                                                                                  | MODEL                  | DEFAULT             | NOTE |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------|
| 32                                                                                                                                                                                                                                      | ENCODER                     | On                                                 | ON = Encoder enabled<br>OFF = Encoder disabled<br>(when OFF, the working times learnt are only shown)                                                                        | INVERTER<br>24V<br>2PM | 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 |      |
|                                                                                                                                                                                                                                         |                             | NATIVE                                             | To enables the inner Encoder of the SURF and KITE operators in Brushless versions                                                                                            | 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                     | Position Gate                                      | To enable the reading of the potentiometer                                                                                                                                   | ALL                    | Off                 |      |
|                                                                                                                                                                                                                                         |                             | RT                                                 | To enable the reading of the absolute Encoder                                                                                                                                | INVERTER<br>BR         |                     |      |
|                                                                                                                                                                                                                                         |                             | RS 485                                             | To enable the reading of the absolute rotative Encoder                                                                                                                       | INVERTER<br>24V        |                     |      |
|                                                                                                                                                                                                                                         | 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 corresponding operator to verify the correct reading of the potentiometer after installation or simply for checking |                             |                                                    |                                                                                                                                                                              |                        |                     |      |
| 32                                                                                                                                                                                                                                      | ENCODER                     | Off                                                | ON = Encoder enabled<br>OFF = Encoder disabled<br>(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)<br>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)<br>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)<br>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)<br>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)<br>99% (Slow intervention)                                                  | To adjust the amperometric sensitivity in slowdown<br><b>Function available only on electro-mechanic operators</b>                                                                                                                                                                                                                                                                                                             | ALL                   | Off                 |      |
|                                                                                                 |                                             | With potentiometer                                                                                  | To set the inversion time in slow-down from 0 to 5 seconds (= 99%) - <b>Only with potentiometer enabled</b>                                                                                                                                                                                                                                                                                                                    |                       | 30%                 |      |
| 38                                                                                              | POTENTIOMETER 1 THRESHOLD IN OPENING        | 1 1000<br>(only if the Menu 32 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).<br><b>NOTE: The lower the threshold value, the slower will be the response of the potentiometer.</b> | ALL                   | ----                |      |
| 39                                                                                              | POTENTIOMETER 1 THRESHOLD IN CLOSING        |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 40                                                                                              | POTENTIOMETER 2 THRESHOLD IN OPENING        |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 41                                                                                              | POTENTIOMETER 2 THRESHOLD IN CLOSING        |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 42                                                                                              | POTENTIOMETER 1 OPENING SLOW DOWN THRESHOLD | 1 100<br>(only if the Menu 32 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 1 CLOSING SLOW DOWN THRESHOLD |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 44                                                                                              | POTENTIOMETER 2 OPENING SLOW DOWN THRESHOLD |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 45                                                                                              | POTENTIOMETER 2 CLOSING SLOW DOWN THRESHOLD |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 46                                                                                              | CLOSING INVERSION                           | Total                                                                                               | In case of obstacle or safety edge it totally reverses the movement during closing. If the automatic reclosing is enabled (automatic logic) , it is 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>24V<br>BR | ----                |      |
| 58                                                                                              | WORKING CURRENT 2                           | ..... Ampere                                                                                        | To display the absorbed current during Motor 2 working                                                                                                                                                                                                                                                                                                                                                                         | INVERTER<br>24V<br>BR | ----                |      |
| 59                                                                                              | OPENING SLOWDOWN 1                          | 0 50 (*)                                                                                            | From 0% to 50% of the stroke<br>(0% = slowdown excluded)                                                                                                                                                                                                                                                                                                                                                                       | ALL                   | 30                  |      |
| 60                                                                                              | CLOSING SLOWDOWN 1                          | 0 50 (*)                                                                                            | From 0% to 50% of the stroke<br>(0% = slowdown excluded)                                                                                                                                                                                                                                                                                                                                                                       | ALL                   | 30                  |      |
| 61                                                                                              | OPENING SLOWDOWN 2                          | 0 50 (*)                                                                                            | From 0% to 50% of the stroke<br>(0% = slowdown excluded)                                                                                                                                                                                                                                                                                                                                                                       | ALL                   | 30                  |      |
| 62                                                                                              | CLOSING SLOWDOWN 2                          | 0 50 (*)                                                                                            | From 0% to 50% of the stroke<br>(0% = slowdown excluded)                                                                                                                                                                                                                                                                                                                                                                       | ALL                   | 30                  |      |
| 63                                                                                              | DECELERATION                                | 0 %<br>100%<br>  | To adjust the change from normal speed to slowdown speed                                                                                                                                                                                                                                                                                                                                                                       | ALL                   | It depends on motor |      |
| 64                                                                                              | ACCELERATION                                | 0,1 s<br>5 s<br> | Acceleration ramp.<br>To adjust the motor start                                                                                                                                                                                                                                                                                                                                                                                | ALL                   | It depends on motor |      |
| * For LEPUS FAST ABSOLUTE operators: 0% = 50 cm 100% = 3 m                                      |                                             |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                     |      |
| 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<br>(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<br>(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 TOLERANCE MOTOR 1 | 0% 100% (*)                                 | To adjust the Motor 1 tolerance between the stop and the obstacle, in opening                                                                                                                          | ALL                   | 20%                 |      |
| 73                     | CLOSING TOLERANCE MOTOR 1 | 0% 100% (*)                                 | To adjust the Motor 1 tolerance between the stop and the obstacle, in closing                                                                                                                          | ALL                   | 20%                 |      |
| 74                     | OPENING TOLERANCE MOTOR 2 | 0% 100% (*)                                 | To adjust the Motor 2 tolerance between the stop and the obstacle, in opening                                                                                                                          | ALL                   | 20%                 |      |
| 75                     | CLOSING TOLERANCE MOTOR 2 | 0% 100% (*)                                 | To adjust the Motor 2 tolerance between the stop and the obstacle, in closing                                                                                                                          | ALL                   | 20%                 |      |
| * With "RT" Encoder:   |                           | 0% = 20 impulses                            | 100% = 200 impulses                                                                                                                                                                                    |                       |                     |      |
| With "POSITION GATE" : |                           | 0% = 20 impulses                            | 100% = 500 impulses                                                                                                                                                                                    |                       |                     |      |
| 76                     | PUSHING STROKE            | Time Pushing Off - 3 sec<br>Stroke          | Before opening, the motor starts in closing for the time set, in order to simplify the lock release                                                                                                    | ALL                   | Off                 |      |
|                        |                           | Repeat Lock Release Off – On                | If <b>ON</b> , 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<br>(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<br><b>In case of a STOP command, the Pushover function is restored only after a new START command</b> | ALL                   | Off                 |      |
|                        |                           | Opening and closing                         |                                                                                                                                                                                                        |                       |                     |      |
|                        |                           | Only closing                                |                                                                                                                                                                                                        |                       |                     |      |
|                        |                           | Only opening                                |                                                                                                                                                                                                        |                       |                     |      |
| 81                     | PERIODICAL PUSHOVER       | Off 8h<br>(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 ( <b>max. 10 seconds</b> ) to the movement of the operators after the reading of the limit switches                           | INVERTER<br>24V<br>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              | <i>Only closing</i>                                          | To enable the pre-flashing only before closing<br><b>(to access: press DOWN button when 0.0 value is shown)</b>                                    | ALL      | 0.0 s    |      |
|              |                           | 0.0    5.0 s                                                 | To set the pre-flashing duration                                                                                                                   |          |          |      |
| 86           | FLASHING LIGHT            | <i>Normal</i>                                                | Normal                                                                                                                                             | ALL      | Normal   |      |
|              |                           | <i>Light</i>                                                 | Warning lamp function                                                                                                                              |          |          |      |
|              |                           | <i>Always</i>                                                | Always ON                                                                                                                                          |          |          |      |
|              |                           | <i>Buzzer</i>                                                | Buzzer                                                                                                                                             |          |          |      |
| 87           | FLASHING LIGHT AND TIMER  | <i>Off</i>                                                   | The flashing light will be OFF with enabled timer and open gate                                                                                    | ALL      | Off      |      |
|              |                           | <i>On</i>                                                    | The flashing light will be ON with enabled timer and open gate                                                                                     |          |          |      |
| 88           | COURTESY LIGHT            | <i>Off</i>                                                   | Disabled                                                                                                                                           | ALL      | In cycle |      |
|              |                           | 1        240                                                 | Adjustable from 1 second to 4 minutes                                                                                                              |          |          |      |
|              |                           | <i>In cycle</i>                                              | Courtesy light only in cycle                                                                                                                       |          |          |      |
| 89           | TRAFFIC LIGHT RESERVATION | <i>Off    On</i>                                             | To get the priority in entry or exit. <b>Available by the use of the partial opening contact</b>                                                   | ALL      | Off      |      |
| 90           | PARTIAL OPENING           | 5%    100%                                                   | Adjustable from 5% to 100%                                                                                                                         | ALL      | 50%      |      |
| 91           | PARTIAL PAUSE             | <i>= Start</i>                                               | The pause in partial opening is the same as in total opening                                                                                       | ALL      | = Start  |      |
|              |                           | <i>Off</i>                                                   | Disabled                                                                                                                                           |          |          |      |
|              |                           | 1    240                                                     | Adjustable from 1 second to 4 minutes                                                                                                              |          |          |      |
| 92           | TIMER                     | <i>Off</i>                                                   | To turn the selected input into an input to which connect an external clock                                                                        | ALL      | Off      |      |
|              |                           | <i>On photo2</i>                                             |                                                                                                                                                    |          |          |      |
|              |                           | <i>On partial input</i>                                      |                                                                                                                                                    |          |          |      |
|              |                           | <i>Clock</i>                                                 |                                                                                                                                                    |          |          |      |
| 93           | FIRE SWITCH               | <i>Off</i>                                                   | Disabled                                                                                                                                           | ALL      | Off      |      |
|              |                           | <i>On Photo2</i>                                             | Function enabled on the Photocell 2 input                                                                                                          |          |          |      |
|              |                           | <i>On partial input</i>                                      | Function enabled on the partial opening Start input                                                                                                |          |          |      |
| 94           | 24V AUX<br>(Max. 500 mA)  | <i>Always</i>                                                | AUX output always powered                                                                                                                          | ALL      | Always   |      |
|              |                           | <i>In cycle</i>                                              | AUX output powered only during cycle                                                                                                               |          |          |      |
|              |                           | <i>Opening</i>                                               | AUX output powered only during opening                                                                                                             |          |          |      |
|              |                           | <i>Closing</i>                                               | AUX output powered only during closing                                                                                                             |          |          |      |
|              |                           | <i>In pause</i>                                              | AUX output powered only during pause                                                                                                               |          |          |      |
|              |                           | <i>Phototest</i>                                             | AUX output powered for safety devices testing                                                                                                      |          |          |      |
|              |                           | <i>In cycle and phototest</i>                                | AUX output powered during cycle only and for safety devices testing                                                                                |          |          |      |
|              |                           | <i>In cycle and pause</i>                                    | AUX output powered during cycle and during pause                                                                                                   |          |          |      |
|              |                           | <i>Courtesy light<br/>(connected via relay)</i>              | To connect an additional courtesy light via relay. Management according to the Menu-88 settings                                                    |          |          |      |
|              |                           | <i>Barrier and Bollard<br/>LED lights</i>                    | <b>Closed operator</b> - the light is switched-on<br><b>Open operator</b> - the light is switched-off<br><b>Moving operator</b> - the light blinks |          |          |      |
|              |                           | <i>Open gate<br/>warning light<br/>(connected via relay)</i> | <b>1 flash per second</b> during opening<br><b>2 flashes per second</b> during closing<br><b>Steady lit</b> in "Stop" or "Open" status             |          |          |      |
|              |                           | <i>Fan<br/>(connected via relay)</i>                         | AUX output powered during cycle and for 2 additional minutes after the end of the cycle                                                            | INVERTER |          |      |

| SPECIAL MENU |                       | SET                                            | DESCRIPTION                                                                                                                                                                                                                                                                        | MODEL | DEFAULT | NOTE |
|--------------|-----------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------|
| 95           | PHOTO-TEST            | <i>Photo 1</i>                                 | Self-test enabled only on photocell 1                                                                                                                                                                                                                                              | ALL   | Off     |      |
|              |                       | <i>Photo 2</i>                                 | Self-test enabled only on photocell 2                                                                                                                                                                                                                                              |       |         |      |
|              |                       | <i>Photo 1 and 2</i>                           | Self-test enabled on photocells 1 and 2                                                                                                                                                                                                                                            |       |         |      |
|              |                       | <i>Off</i>                                     | Disabled                                                                                                                                                                                                                                                                           |       |         |      |
| 96           | SAFETY EDGE SELF-TEST | <i>Edge 1</i>                                  | Self-test enabled only on safety edge 1                                                                                                                                                                                                                                            | ALL   | Off     |      |
|              |                       | <i>Edge 2</i>                                  | Self-test enabled only on safety edge 2                                                                                                                                                                                                                                            |       |         |      |
|              |                       | <i>Edges 1 and 2</i>                           | Self-test enabled on safety edges 1 and 2                                                                                                                                                                                                                                          |       |         |      |
|              |                       | <i>Off</i>                                     | Disabled                                                                                                                                                                                                                                                                           |       |         |      |
| 97           | PHOTOCELL 1           | <i>Closing</i>                                 | 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 |      |
|              |                       | <i>Opening and closing</i>                     | If the photocell is occupied during opening or closing, it stops the gate movement; when the photocell is released, the movement continues                                                                                                                                         |       |         |      |
|              |                       | <i>Stop</i>                                    | 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                                               |       |         |      |
|              |                       | <i>Stop and close</i>                          | If the photocell is occupied during closing, it stops the gate movement; when released, the closing movement continues                                                                                                                                                             |       |         |      |
|              |                       | <i>Close</i>                                   | The photocell stops the gate until it is occupied in both opening and closing; when released, the photocell gives a closing command <b>(the gate closes one second after the photocell release)</b>                                                                                |       |         |      |
|              |                       | <i>Closing<br/>Pause reloading</i>             | If the photocell is occupied during the pause, it reloads the same pause time set. If the photocell is occupied in closing, it reverses the gate movement                                                                                                                          |       |         |      |
|              |                       | <i>Opening and Closing<br/>Pause reloading</i> | If the photocell is occupied during the pause, it reloads the 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 |       |         |      |
|              |                       | <i>Shadow loop *</i>                           | When the gate is open, the shadow loop prevents the reclosing until it is occupied. The Shadow loop is switched off during closing                                                                                                                                                 |       |         |      |
|              |                       | <i>Delete pause time</i>                       | If the photocell is occupied during opening, pause or closing, the gate reopens completely and closes without observing the pause time set                                                                                                                                         |       |         |      |
|              |                       | <i>Shadow loop PR<br/>(pause reloading) *</i>  | 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                                                                             |       |         |      |

**\* If the module 2PM is in use, the shadow loop does not enable when the menu-121 is set to "Photo 1 10K"**



| 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 reopens                                     |              |                     |      |
|                                                                                                          |                      | Stop and close                         | If the photocell is occupied during closing, it stops the gate; 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 <b>(the gate closes one second after the photocell release)</b>                                                                  |              |                     |      |
|                                                                                                          |                      | Opening<br>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<br>Photo closing          | If the photocell is occupied during the pause, it reloads the pause time set. If the photocell is occupied during closing, the gate reverses the movement                                                                                                            |              |                     |      |
|                                                                                                          |                      | Opening and Closing<br>Pause reloading | If the photocell is occupied during the pause, it reloads the 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 continues |              |                     |      |
|                                                                                                          |                      | Shadow loop *                          | 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<br>(pause reloading) *  | 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 stops; when released, the gate continues the opening movement. The photocell is ignored during closing                                                                                                         |              |                     |      |
| * If the module 2PM is in use, the shadow loop does not enable when the menu-121 is set to "Photo 1 10K" |                      |                                        |                                                                                                                                                                                                                                                                      |              |                     |      |
| 99                                                                                                       | PHOTO OFF IN CLOSING | 0%      50%                            | In closing, this function excludes the photocell reading for the space percentage set                                                                                                                                                                                | INVERTER 24V | 0%                  |      |
| 100                                                                                                      | SAFETY EDGE 1        | Normal                                 | Standard safety edge - 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                                 | Standard safety edge - 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                                                                                                                                                                                                                     |              |                     |      |

| SPECIAL MENU |                                  | SET                                        | DESCRIPTION                                                                                                                                                                                                                            | MODEL            | DEFAULT             | NOTE |
|--------------|----------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------|------|
| 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. <b>(Normally Closed)</b><br><b>Example: inductive limit switch or with lever</b>                                                                                                                                | INVERTER 24V     | N.C.                |      |
|              |                                  | Ext                                        | Limit switch connected on the external interface<br><b>for 4 cams limit switches</b>                                                                                                                                                   |                  |                     |      |
|              |                                  | N.O.                                       | Limit switch type N.O. <b>(Normally Open)</b><br><b>Example: magnetic limit switch</b>                                                                                                                                                 |                  |                     |      |
|              |                                  | 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<br><b>for 4 cams limit switches</b>                                                                                                                                                   |                  |                     |      |
|              |                                  | Motor internal                             | To be enabled if the operator is equipped with an inner limit switch that stops the motor phase                                                                                                                                        |                  |                     |      |
| 105          | PRIMARY/SECONDARY (MASTER/SLAVE) | Primary                                    | To set the control unit as PRIMARY on applications with two operators in primary/secondary mode                                                                                                                                        | INVERTER BR      | Off                 |      |
|              |                                  | Secondary                                  | To set the control unit as SECONDARY on applications with two operators in primary/secondary mode                                                                                                                                      |                  |                     |      |
|              |                                  | Off                                        | Disabled                                                                                                                                                                                                                               |                  |                     |      |
| 106          | DIAGNOSTICS                      | 1      10                                  | To display the last event <b>(See alarms table)</b>                                                                                                                                                                                    | ALL              | ----                |      |
| 107          | MAINTENANCE CYCLES               | 100      240000                            | Adjustable from 100 to 240000 cycles                                                                                                                                                                                                   | ALL              | 100000              |      |
| 108          | PERFORMED CYCLES                 | 0      240000                              | To display the executed cycles.<br><b>Hold pressed OK to reset the cycles</b>                                                                                                                                                          | 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; <b>(display will show both temperatures detected)</b> | INVERTER 24V 2PM | Off                 |      |
| 110          | LOWER TEMPERATURE THRESHOLD      | From -20° to +50°                          | To adjust the temperature threshold of the oil heater probe activation <b>(This menu is shown only if the menu 109-Thermometer is set to ON)</b>                                                                                       | INVERTER 24V 2PM | -10°                |      |
| 111          | UPPER TEMPERATURE THRESHOLD      | From -20° to +50°                          | To adjust the temperature threshold of the oil heater probe deactivation <b>(This menu is shown only if the menu 109-Thermometer is set to ON)</b>                                                                                     | INVERTER 24V 2PM | 0°                  |      |
| 112          | PASSWORD                         | <b>Note: "0000" setting is not allowed</b> | To enter a password for blocking the control unit parameters modification                                                                                                                                                              | ALL              | ----                |      |

| SPECIAL MENU |                       | SET                                                                                                |             | DESCRIPTION                                                                                                                                                                               | MODEL                  | DEFAULT       | NOTE |
|--------------|-----------------------|----------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------|------|
| 113          | EMERGENCY             | <i>Off</i>                                                                                         |             | Disabled                                                                                                                                                                                  | ALL                    | <i>Off</i>    |      |
|              |                       | <i>Emergency</i>                                                                                   |             | In case of power failure and with batteries connected and charged, the gate opens completely and remains open until the power is restored                                                 |                        |               |      |
|              |                       | <i>Last opening</i>                                                                                |             | 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                                        |                        |               |      |
|              |                       | <i>Last closing</i>                                                                                |             | 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                                     |                        |               |      |
| 115          | DECELERATION RAMP     | 0,1 s                                                                                              | 5s          | Deceleration management in case of inversion or Stop command                                                                                                                              | INVERTER<br>24V<br>BR  | 0,5 s         |      |
| 116          | REPEAT LEAF DELAY     | <i>On</i>                                                                                          | <i>Off</i>  | In case of a STOP command when the gate is on its halfway, the leaves will repeat the "leaf delay" set on menus 26-27                                                                     | ALL                    | <i>On</i>     |      |
| 117          | ALWAYS CLOSE          | <i>Off</i>                                                                                         | 240 seconds | In case of power failure, if the gate has been manually open, it closes only after the set time has elapsed ( <b>from 0 to 240 seconds</b> ) as soon as the power is restored             | ALL                    | <i>Off</i>    |      |
| 118          | LATCH                 | <i>Off</i>                                                                                         |             | Disabled                                                                                                                                                                                  | ALL                    | <i>Off</i>    |      |
|              |                       | <i>Opening</i>                                                                                     |             | The gate opens and stay open till a new Start input. <b>The latch function uses the "Safety Edge 1" N.O. input (Safety Edge 1 function is so disabled)</b>                                |                        |               |      |
|              |                       | <i>Closing</i>                                                                                     |             | The gate closes and stay closed till a new Start input. <b>The latch function uses the "Safety Edge 2" N.O. input (Safety Edge 2 function is so disabled)</b>                             |                        |               |      |
|              |                       | <i>Opening and closing</i>                                                                         |             | To enables both the opening and closing functions above described. <b>The latch function uses the "Safety Edge 1" and "Safety Edge 2" N.O. inputs (both safety edges are so disabled)</b> |                        |               |      |
| 119          | DISPLAY WRITING SPEED | From 30% to 100%                                                                                   |             | See Note 2 at the end of the table                                                                                                                                                        | INVERTER<br>24V<br>2PM | 80%           |      |
| 120          | BASIC MENU            | Press OK to exit the special menu.<br>The special menu switches off automatically after 20 minutes |             |                                                                                                                                                                                           |                        |               |      |
| 121          | PHOTO 1 TYPE          | <i>Normal</i>                                                                                      |             | Standard photocell without 10K control                                                                                                                                                    | ALL                    | <i>Normal</i> |      |
|              |                       | <i>Photo 1 10K</i>                                                                                 |             | Photocell with 10K control                                                                                                                                                                |                        |               |      |
|              |                       | <i>Photo 1 10K DOUBLE</i>                                                                          |             | Double photocell with 10K control                                                                                                                                                         | 2PM                    |               |      |
| 122          | PHOTO 2 TYPE          | <i>Normal</i>                                                                                      |             | Standard photocell without 10K control                                                                                                                                                    | ALL                    | <i>Normal</i> |      |
|              |                       | <i>Photo 2 10K</i>                                                                                 |             | Photocell with 10K control                                                                                                                                                                |                        |               |      |
|              |                       | <i>Photo 2 10K DOUBLE</i>                                                                          |             | Double photocell with 10K control                                                                                                                                                         | 2PM                    |               |      |
| 123          | DATE AND TIME         | <i>Mon - Sun<br/>dd/mm/yyyy<br/>Time</i>                                                           |             | To set the day, the date and the time for the management of the programmed openings. <b>(Only with full charge buffer battery)</b>                                                        | ALL                    | ----          |      |
| 124          | CLOCK 1               | <i>Opening time</i>                                                                                |             | To set a first time band in which keeping the gate open.                                                                                                                                  | ALL                    | <i>Off</i>    |      |
|              |                       | <i>Closing time</i>                                                                                |             | It is possible to set, in order: opening time, closing time                                                                                                                               |                        |               |      |
|              |                       | <i>Days</i>                                                                                        |             | and the days on which you want to open and keep the gate open                                                                                                                             |                        |               |      |
|              |                       | <i>Modify</i>                                                                                      |             | To modify the pre-set time and day                                                                                                                                                        |                        |               |      |
|              |                       | <i>Exit</i>                                                                                        |             | Exit from menu                                                                                                                                                                            |                        |               |      |

| SPECIAL MENU |         | SET             | DESCRIPTION                                                                                                                                                                                                    | MODEL                  | DEFAULT | NOTE |
|--------------|---------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|------|
| 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) | INVERTER<br>24V<br>2PM |         |      |
|              |         | Cage            | To control the Motor 1 only if the Motor 2 is closed                                                                                                                                                           |                        |         |      |
| 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) | INVERTER<br>24V<br>2PM |         |      |
|              |         | Cage            | To control the Motor 2 only if the Motor 1 is closed                                                                                                                                                           |                        |         |      |

| SPECIAL MENU |         | SET                                              | DESCRIPTION                                                                                                                                                                                          | MODEL | DEFAULT | NOTE |
|--------------|---------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|------|
| 132          | RELAY 1 | <i>Off</i>                                       | Disabled                                                                                                                                                                                             | ALL   | Off     |      |
|              |         | <i>Start 3s</i>                                  | To enable the Relay 1 for 3 seconds at every Start or reopening command                                                                                                                              |       |         |      |
|              |         | <i>Traffic light 1</i>                           | Traffic light management: the green light is switched-on only when the gate is open                                                                                                                  |       |         |      |
|              |         | <i>Traffic light in entrance</i>                 | 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. <b>(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)</b> |       |         |      |
|              |         | <i>Traffic light in exit</i>                     | 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. <b>(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)</b> |       |         |      |
|              |         | <i>Lock copy</i>                                 | The Relay 1 will be ON for the time set on 78-LOCK menu                                                                                                                                              |       |         |      |
|              |         | <i>Flashing light copy</i>                       | The Relay 1 repeats the flashing-light functions                                                                                                                                                     |       |         |      |
|              |         | <i>Courtesy light copy</i>                       | The Relay 1 will be ON for the time set on 88-COURTESY LIGHT menu                                                                                                                                    |       |         |      |
|              |         | <i>Fire-switch copy</i>                          | The Relay 1 repeats the menu 93-fireswitch functions                                                                                                                                                 |       |         |      |
|              |         | <i>Opening 1 limit switch</i>                    | The Relay 1 will be ON if the motor 1 opening limit switch is activated or if the motor 1 is in "Open" status                                                                                        |       |         |      |
|              |         | <i>Closing 1 limit switch</i>                    | The Relay 1 will be ON if the motor 1 closing limit switch is activated or if the motor 1 is in "Closed" status                                                                                      |       |         |      |
|              |         | <i>Opening 2 limit switch</i>                    | The Relay 1 will be ON if the motor 2 opening limit switch is activated or if motor 2 is in "Open" status                                                                                            |       |         |      |
|              |         | <i>Closing 2 limit switch</i>                    | The Relay 1 will be ON if the motor 2 closing limit switch is activated or if the motor 2 is in "Closed" status                                                                                      |       |         |      |
|              |         | <i>Tx Relay</i>                                  | It is possible to activate the Relay 1 for 3 seconds by giving an impulse from the remote control                                                                                                    |       |         |      |
|              |         | <i>Negative brake and Photocell 1 management</i> | The negative electric-brake is not active on the photocell intervention                                                                                                                              |       |         |      |
|              |         | <i>Negative brake 1 management</i>               | Negative electric-brake <b>(in ON with the gate in cycle and 1 second before the Start input)</b>                                                                                                    |       |         |      |
|              |         | <i>Positive brake 1 management</i>               | Positive electric-brake <b>(in ON with stationary gate)</b>                                                                                                                                          |       |         |      |
|              |         | <i>Opening electric-valve</i>                    | The Relay 1 is active during opening                                                                                                                                                                 |       |         |      |
|              |         | <i>Closing electric-valve</i>                    | The Relay 1 is active during closing                                                                                                                                                                 |       |         |      |
|              |         | <i>Clock 1 and 2</i>                             | 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 | <i>Off</i>                                       | Disabled                                                                                                                                                                                             | ALL   | <i>Off</i> |      |
|              |         | <i>Start 3s</i>                                  | To enable the Relay 2 for 3 seconds at every Start or reopening command                                                                                                                              |       |            |      |
|              |         | <i>Traffic light 1</i>                           | Traffic light management: the green light is switched-on only when the gate is open                                                                                                                  |       |            |      |
|              |         | <i>Traffic light in entrance</i>                 | 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. <b>(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)</b> |       |            |      |
|              |         | <i>Traffic light in exit</i>                     | 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. <b>(with menu 89-TRAFFIC LIGHT BY RESERVATION in ON)</b> |       |            |      |
|              |         | <i>Lock copy</i>                                 | The Relay 2 will be ON for the time set on 78-LOCK menu                                                                                                                                              |       |            |      |
|              |         | <i>Flashing light copy</i>                       | The Relay 2 repeats the flashing-light functions                                                                                                                                                     |       |            |      |
|              |         | <i>Courtesy light copy</i>                       | The Relay 2 will be ON for the time set on 88-COURTESY LIGHT menu                                                                                                                                    |       |            |      |
|              |         | <i>Fire-switch copy</i>                          | The Relay 2 repeats the menu 93-fireswitch functions                                                                                                                                                 |       |            |      |
|              |         | <i>Opening 1 limit switch</i>                    | The Relay 2 will be ON if the motor 1 opening limit switch is activated or if the motor 1 is in "Open" status                                                                                        |       |            |      |
|              |         | <i>Closing 1 limit switch</i>                    | The Relay 2 will be ON if the motor 1 closing limit switch is activated or if the motor 1 is in "Closed" status                                                                                      |       |            |      |
|              |         | <i>Opening 2 limit switch</i>                    | The Relay 2 will be ON if the motor 2 opening limit switch is activated or if motor 2 is in "Open" status                                                                                            |       |            |      |
|              |         | <i>Closing 2 limit switch</i>                    | The Relay 2 will be ON if the motor 2 closing limit switch is activated or if the motor 2 is in "Closed" status                                                                                      |       |            |      |
|              |         | <i>Tx Relay</i>                                  | It is possible to activate the Relay 2 for 3 seconds by giving an impulse from the remote control                                                                                                    |       |            |      |
|              |         | <i>Negative brake and Photocell 2 management</i> | The negative electric-brake is not active on the photocell intervention                                                                                                                              |       |            |      |
|              |         | <i>Negative brake 2 management</i>               | Negative electric-brake <b>(in ON with the gate in cycle and 1 second before the Start input)</b>                                                                                                    |       |            |      |
|              |         | <i>Positive brake 2 management</i>               | Positive electric-brake <b>(in ON with stationary gate)</b>                                                                                                                                          |       |            |      |
|              |         | <i>Opening electric-valve</i>                    | The relay 2 is active during opening                                                                                                                                                                 |       |            |      |
|              |         | <i>Closing electric-valve</i>                    | The relay 2 is active during closing                                                                                                                                                                 |       |            |      |
|              |         | <i>Clock 3 and 4</i>                             | 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<br>(Relay on the FV MODULE 1) | Off                                     | Disabled                                                                                                                                                                                                                                                                                                                                | INVERTER | It depends on motor |      |
|              |                                          | Positive brake management               | Positive electric-brake <b>(The relay FV1 will be ON only with stopped gate)</b>                                                                                                                                                                                                                                                        |          |                     |      |
|              |                                          | Negative brake management               | Negative electric-brake <b>(The relay FV1 will be ON only during operator cycle, 1 second before start and in case of photocell intervention )</b>                                                                                                                                                                                      |          |                     |      |
|              |                                          | Negative brake management and Photocell | Negative electric-brake <b>(The relay FV1 will be ON only during operator cycle and 1 second before start, except in case of photocell intervention )</b>                                                                                                                                                                               |          |                     |      |
|              |                                          | 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<br>(Relay on the FV MODULE 2) | Off                                     | Disabled                                                                                                                                                                                                                                                                                                                                | INVERTER | It depends on motor |      |
|              |                                          | Positive brake management               | Positive electric-brake <b>(The relay FV2 will be ON only with stopped gate)</b>                                                                                                                                                                                                                                                        |          |                     |      |
|              |                                          | Negative brake management               | Negative electric-brake <b>(The relay FV2 will be ON only during operator cycle, 1 second before start and in case of photocell intervention)</b>                                                                                                                                                                                       |          |                     |      |
|              |                                          | Negative brake management and Photocell | Negative electric-brake <b>(The relay FV2 will be ON only during operator cycle and 1 second before start, except in case of photocell intervention)</b>                                                                                                                                                                                |          |                     |      |
|              |                                          | 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%                            | <b>EFO function will be visible only with menu 3-MOTORS set on "5-Threephase/Bollards"</b> This function generates an emergency closing with a higher speed than the set percentage and without considering the safety devices connected. <b><u>It works only with BOLLARDS</u></b> 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 <b>(it only works if an accessory is connected at least)</b>                                                                                                                                                                                                           | ALL      | ----                |      |
| 138          | COMIS THRESHOLD                          | Off      350mA                          | Allows to set a maximum absorption threshold over which an error message appears <b>(error message appears also when over 350 mA)</b>                                                                                                                                                                                                   | ALL      | Off                 |      |

| SPECIAL MENU |                                      | SET                                                                                                | DESCRIPTION                                                                                                                               | MODEL    | DEFAULT             | NOTE |
|--------------|--------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|------|
| 140          | THRESHOLD A<br>OPENING 1             | 1      10 Ampere                                                                                   | Adjusts the amperometric intervention threshold of motor 1 in opening ( <b>over the set threshold motor will detect an obstacle</b> )     | INVERTER | It depends on motor |      |
| 141          | THRESHOLD A<br>CLOSING 1             | 1      10 Ampere                                                                                   | Adjusts the amperometric intervention threshold of motor 1 in closing ( <b>over the set threshold motor will detect an obstacle</b> )     | INVERTER | It depends on motor |      |
| 142          | THRESHOLD A<br>OPENING 2             | 1      10 Ampere                                                                                   | Adjusts the amperometric intervention threshold of motor 2 in opening ( <b>over the set threshold motor will detect an obstacle</b> )     | INVERTER | It depends on motor |      |
| 143          | THRESHOLD A<br>CLOSING 2             | 1      10 Ampere                                                                                   | Adjusts the amperometric intervention threshold of motor 2 in closing ( <b>over the set threshold the motor will detect an obstacle</b> ) | INVERTER | It depends on motor |      |
| 144          | THRESHOLD A<br>OPENING<br>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<br>CLOSING<br>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<br>OPENING<br>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<br>CLOSING<br>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.<br>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**

## TO THE ATTENTION OF BOTH INSTALLER AND END USER

**MAINTENANCE:** Periodically, based on the number of manoeuvres 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](http://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 recommend 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 waste collection and recycling of this kind of product

## STORING

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

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*

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 comply with Directives: Machine Regulation 2006/42/CE and following adjustments, Low Tension (2006/95/CE), Electromagnetic Consistency (2004/108/CE); Installation must respect 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 to it the metal parts of the gate
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 declines all liability concerning the automated system safety and efficiency, if components used are not produced by SEA
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 the system 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. The 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<sup>2</sup> 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 SALE

**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 customers 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 EN12453 – EN 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** 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 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 or damage of the goods during transport, are at Buyer's cost

**6) COMPLAINTS** Any complaints 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 its supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complaints 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 property of the goods only after full payment of the latter.

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

**Industrial ownership rights:** once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand num.804888 affixed on product labels and / or on manuals and / or on any other documentation, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA. **In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly clauses under numbers: 4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LAW**



## DECLARATION OF CONFORMITY DICHIARAZIONE DI CONFORMITÀ

SEA S.p.A. declares under its proper responsibility and, if applicable, under the responsibility of its authorised representative that, by installing the appropriate safety equipment and noise filtering, the products:

*La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che, con l'installazione degli adeguati dispositivi di sicurezza e di filtraggio disturbi, i prodotti:*

| DESCRIPTION - DESCRIZIONE                                              | MODEL - MODELLO | TRADEMARK - MARCA |
|------------------------------------------------------------------------|-----------------|-------------------|
| UNIGATE 2-I<br>(AND ALL ITS BY-PRODUCTS - E TUTTI I SUOI DERIVATI)     | 23023060        | SEA               |
| UNIGATE 1-I BIG<br>(AND ALL ITS BY-PRODUCTS - E TUTTI I SUOI DERIVATI) | 23023065        | SEA               |
| UNIGATE 2 PM<br>(AND ALL ITS BY-PRODUCTS - E TUTTI I SUOI DERIVATI)    | 23023050        | SEA               |
| UNIGATE 24V<br>(AND ALL ITS BY-PRODUCTS - E TUTTI I SUOI DERIVATI)     | 23024130        | SEA               |
| UNIGATE BR<br>(AND ALL ITS BY-PRODUCTS - E TUTTI I SUOI DERIVATI)      | 23023092        | SEA               |

are 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;  
comply with the essential safety requirements related to the products within the field of applicability of the Community Directives 2014/35/UE and 2014/30/UE

*sono costruiti per essere incorporati in una macchina o per essere assemblati con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE;  
sono conformi ai requisiti essenziali di sicurezza relativi ai prodotti entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE*

THE MANUFACTURER or THE AUTHORIZED REPRESENTATIVE  
IL COSTRUTTORE o IL RAPPRESENTANTE AUTORIZZATO

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PLACE AND DATE OF ISSUE  
LUOGO E DATA DI EMISSIONE

TERAMO, 06/09/2022

L'Amministratore  
The Administrator  
Ennio Di Savino

## NOTES

## NOTES





**SEA<sup>®</sup>**



**Automatic Gate Openers**

International registered trademark n. 804888

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