

SIRIO 4-24V

CONTROL BOARD FOR BARRIERS



USER MANUAL

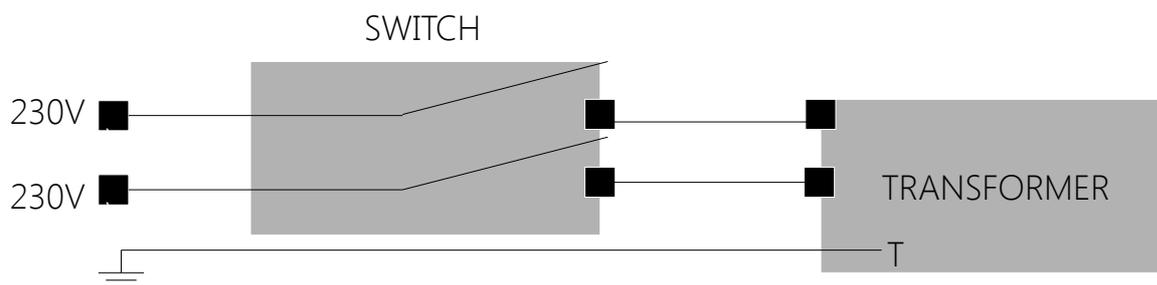
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SUMMARY

1. ELECTRIC CONNECTIONS
2. BASIC SETTINGS
3. WORKING TIME (AUTOMATIC)
4. WORKING TIME (PROFESSIONAL)
5. REMOTE CONTROLS
6. TRIMMERS AND ADJUSTMENTS
7. DIP-SWITCHES
8. EXTERNAL BOARDS

When installing the device, insert a switch with a contact opening of at least 3mm which ensures the equipment omni-polar disconnection from the power supply.

!!!Please read carefully this manual before proceeding with the installation of the device!!!



SIRIO 4 - 24V

TECHNICAL SPECIFICATIONS

- Limit switch input open - pe
- Motor force (speed) adjustable from 50-100%.using a trimmer.
- Softstart (slow motor start)
- 1 to 60" stand-by time adjustment via trimmer.
- 0.1 to 3.0" obstacle detection triggering time adjustment via trimmer.
- Initial settings using dip-switches
- Signalling LEDs
- Expansion for light and alarm
- Built in battery charger with solar panel management
- Built-in 433MHz rolling-code receiver with 200 memorisable codes
- Built to European reference Directive Standards (R&TTE 99/05/CE)

Transformer power supply: 230VAC

Control unit power: 20VAC

Motor output: 24VDC

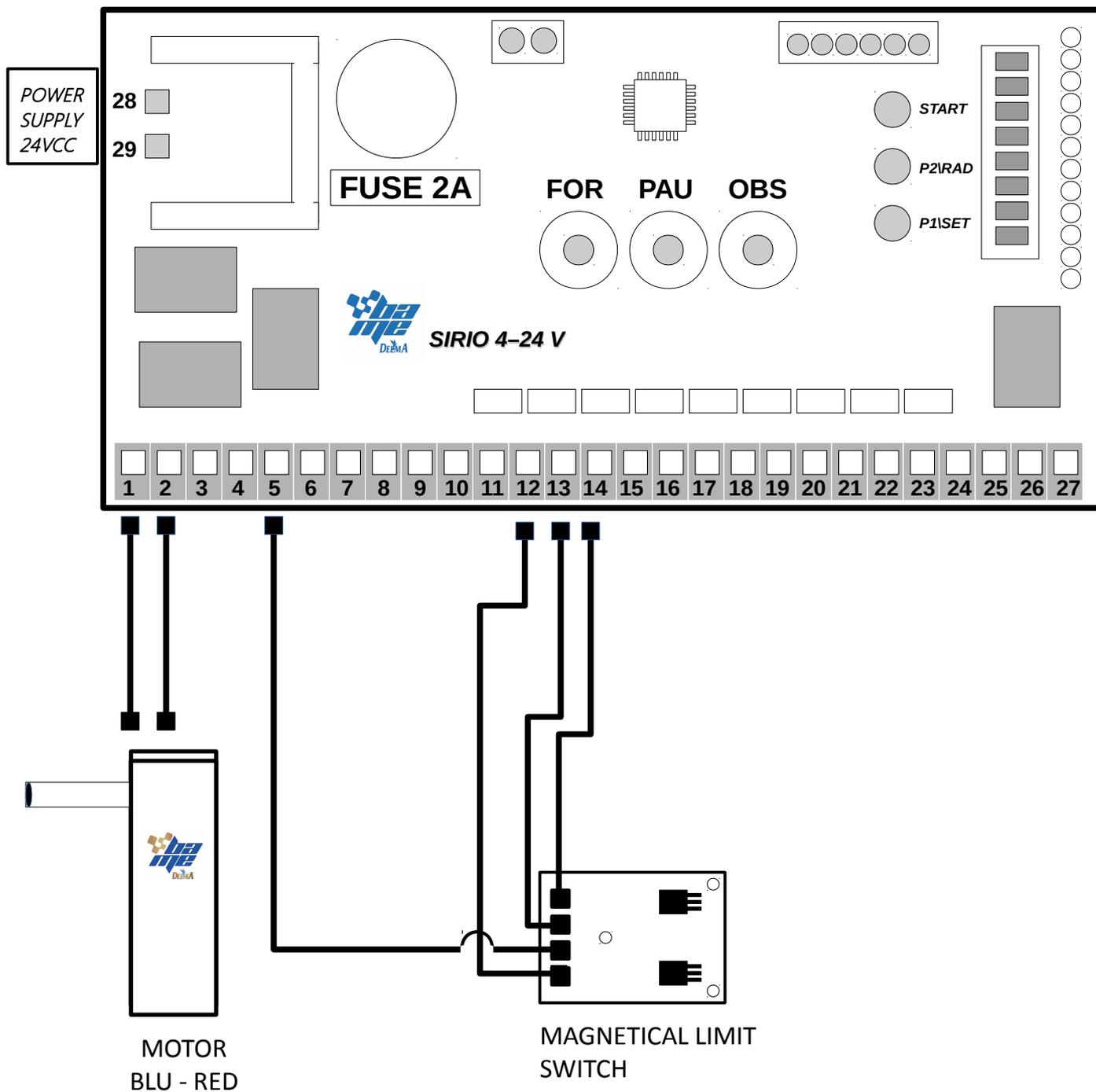
Max current peak of motor: 10 Amperes

Accessories power: 24 VDC - 250 mA protected by fuse

Environmental operating temperature : -20°C / + 55°C

Programming parameters: memorised in EEPROM

1. ELECTRIC CONNECTIONS

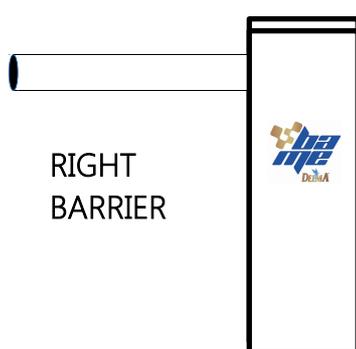


ELECTRIC CONTACTS

28-29	POWER SUPPLY	POWER SUPPLY 24VCC
1-2	MOTOR	1. BLUE 2. RED
5-13-14-15	LIMIT SWITCH	5. + LIMIT SWITCH (RED) 13. COMMON LIMIT SWITCH (BLACK) 14. OPEN LIMIT SWITCH 15. CLOSE LIMIT SWITCH



LEFT
BARRIER



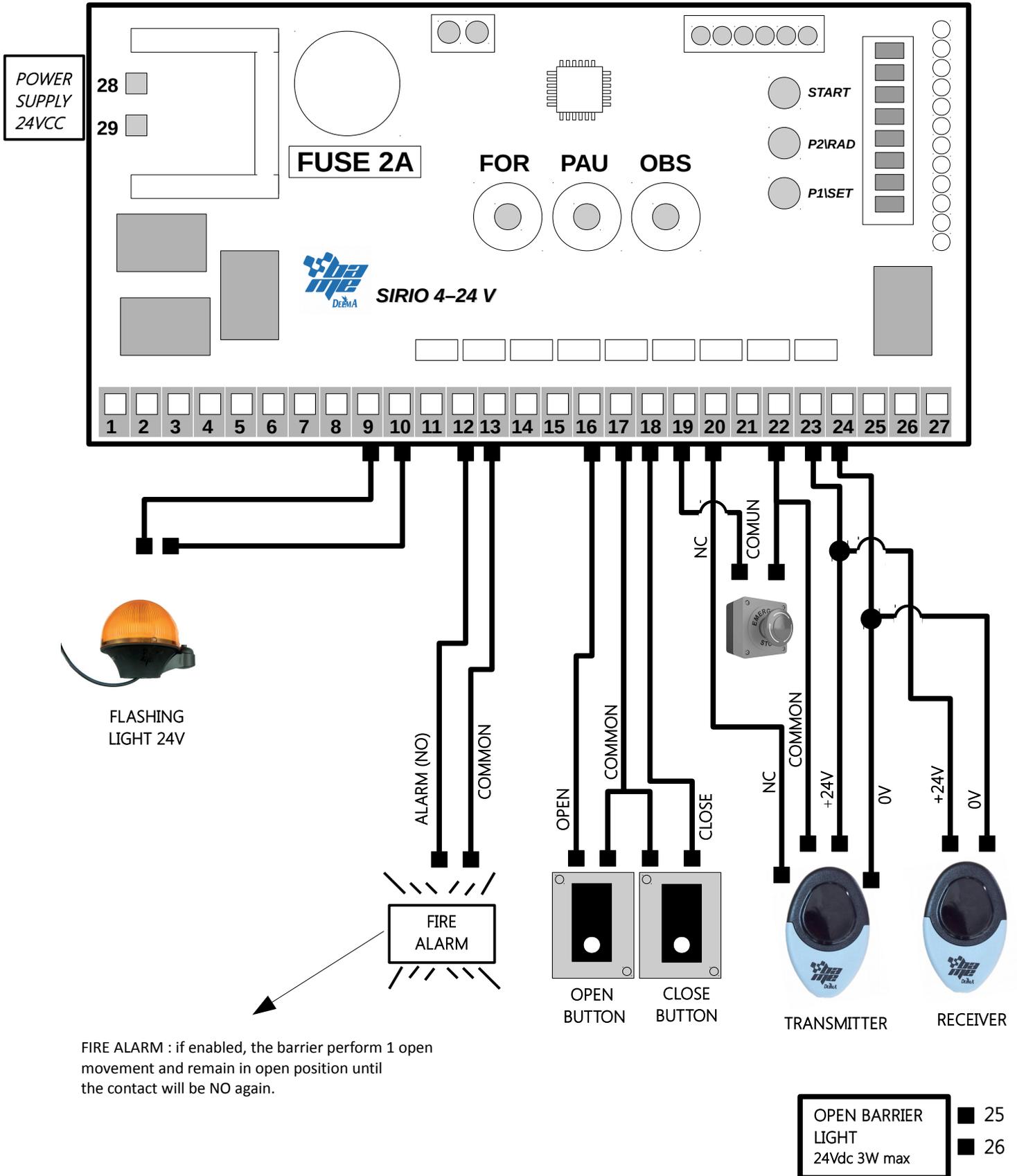
RIGHT
BARRIER

28-29	POWER SUPPLY	POWER SUPPLY 24VCC
1-2	MOTOR	1. BLUE 2. RED
5-13-14-15	LIMIT SWITCH	5. + LIMIT SWITCH (RED) 13. COMMON LIMIT SWITCH (BLACK) 14. OPEN LIMIT SWITCH 15. CLOSE LIMIT SWITCH

!!!ATTENZIONE!!!

IF NOT USED INSERT A JUMPER BETWEEN:
 . STOP : 21 – 22
 . SAFETY EDGE : 19 – 22
 . PHOTOCELLS : 20 - 22

1. ELECTRIC CONNECTIONS



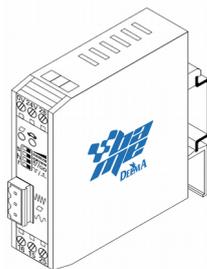
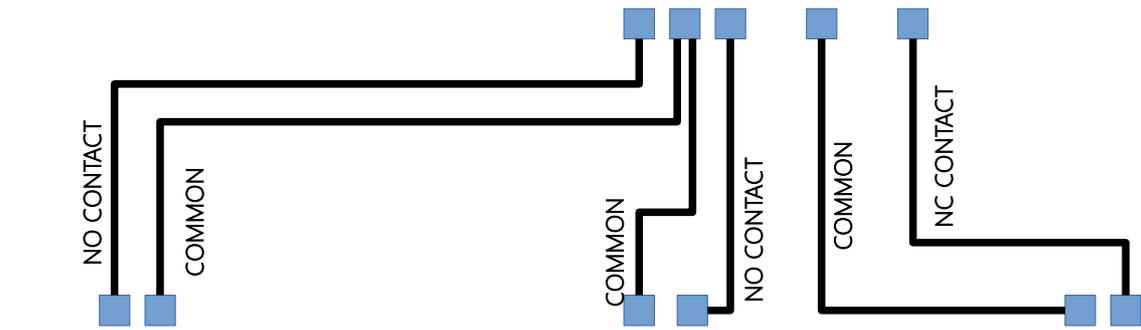
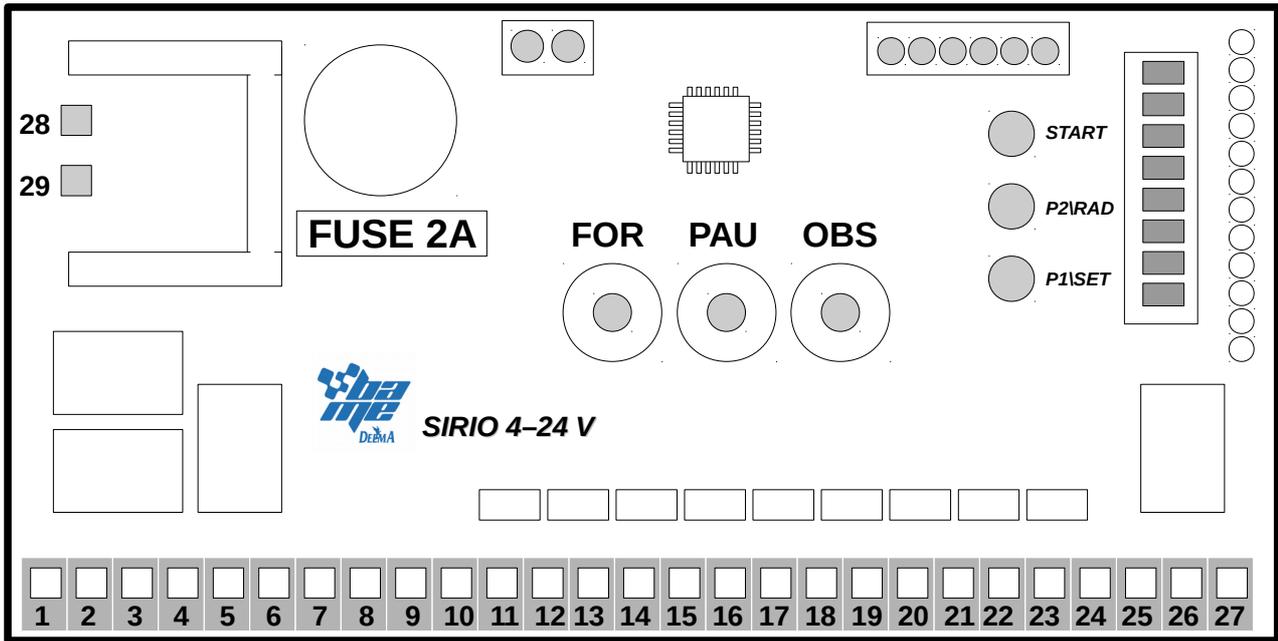
FIRE ALARM : if enabled, the barrier perform 1 open movement and remain in open position until the contact will be NO again.

ELECTRIC CONTACTS

9-10	FLASHING LIGHT 24Vcc	9. +24 Vdc FLASHING LIGHT 10. -24 Vdc FLASHING LIGHT
16-17	OPEN BUTTON	16. OPEN 17. COMMON
18-17	CLOSE BUTTON	18. CLOSE 17. COMMON
19-22	EMERGENCY STOP (INSERT A JUMPER IF NOT USED)	19, STOP (NC) 22. COMMON
20-22	PHOTOCELLS (INSERT A JUMPER IF NOT USED)	20. PHOTOCELLS (NC) 22. COMMON
21-22	PRESSURE SAFETY DEVICE (INSERT A JUMPER IF NOT USED)	21. (NC) 22. COMMON
23-24	PHOTOCELLS POWER SUPPLY 24VCC	23. + 24Vcc 24. - 24Vcc
12-13	FIRE ALARM	12. ALARM 13, COMMON
25-26	OPEN BARRIER INDICATOR	25. + OPEN BARRIER INDICATOR 26. - 24Vdc 3W max
27	ANTENNA	27. ANTENNA

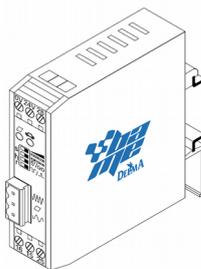
**AT THE END OF ALL CONNECTION OPERATIONS
CHECK THE LED
STOP – FTC – FTA
THEY MUST BE ACTIVATED**

1. LOOP DETECTORS CONNECTIONS



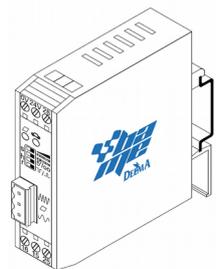
OPENING
LOOP DETECTOR

NORMALLY
OPEN



CLOSING
LOOP DETECTOR

NORMALLY
OPEN



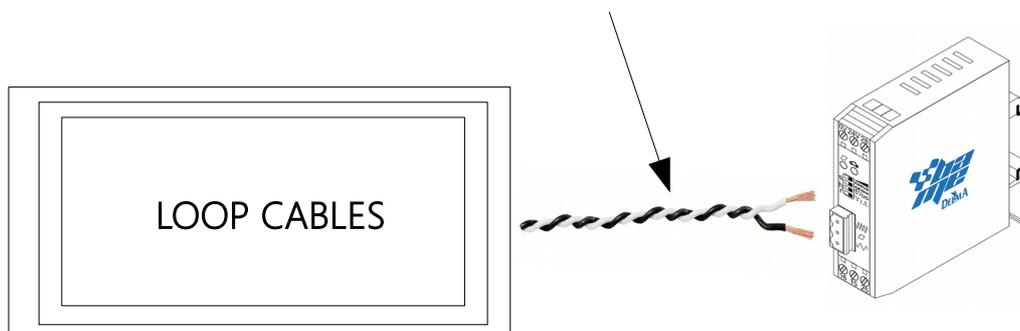
SAFETY
LOOP DETECTOR

NORMALLY
CLOSE

ELECTRIC CONTACTS

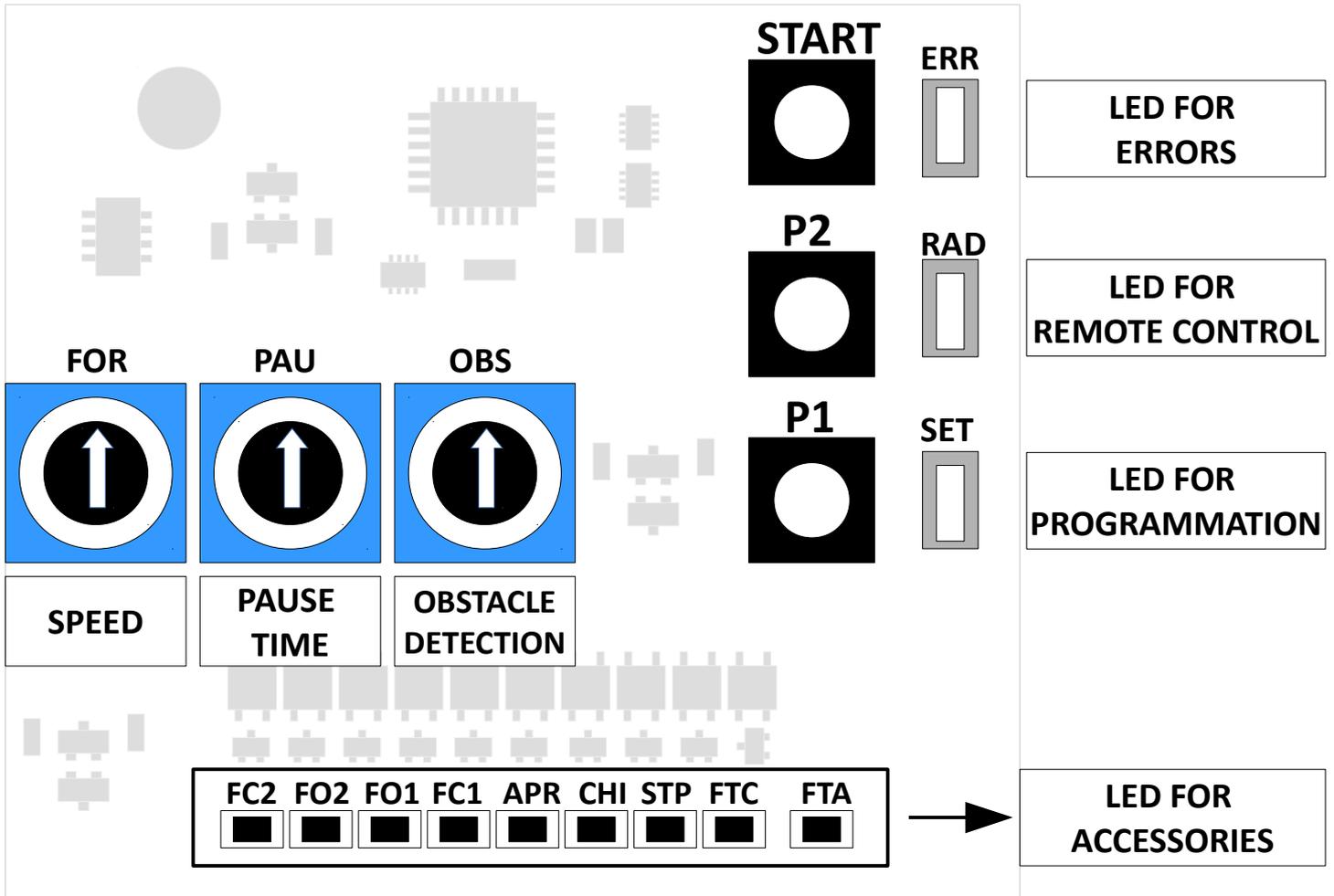
16-17	OPENING LOOP DETECTOR	16. OPEN (NO) 17. COMMON
18-17	CLOSING LOOP DETECTOR	18. CLOSE (NO) 17. COMMON
19-22	EMERGENCY STOP (INSERT A JUMPER IF NOT USED)	19, STOP (NC) 22. COMMON
20-22	SAFETY LOOP DETECTOR	20. SAFETY LOOP CONTACT (NC) 22. COMMON
21-22	PRESSURE SAFETY DEVICE (INSERT A JUMPER IF NOT USED)	21. (NC) 22. COMMON
23-24	POWER SUPPLY 24VCC	23. + 24Vcc 24. - 24Vcc

**IN ORDER TO HAVE A GOOD LOOP DETECTOR,
WITHOUT ANY WRONG DETECTION,
THE FEEDER PORTION OF THE CABLE HAS TO
BE HIGHLY TWISTED**



**AT THE END OF ALL OPERATIONS
CHECK THE LED
STOP – FTC – FTA
THEY MUST BE ACTIVATED**

2. BASIC SETTINGS



FO2 = FIRE ALARM (NO)

FO1 = OPENING LIMIT SWITCH (NC)

FC1 = CLOSING LIMIT SWITCH (NC)

APR = OPEN (NO)

CHI = CLOSE (NO)

STP = EMERGENCY STOP (NC)

FTC = PHOTOCELLS (NC)

FTA = SAFETY EDGE (NC)

**AT THE END OF ALL OPERATIONS
CHECK THE LED
STOP – FTC – FTA
THEY MUST BE ACTIVATED**

3. WORKING TIME

AUTOMATIC learning
Slow down is setted by the board

1	RELEASE THE BARRIER AND MOVE THE ARM IN 45°
2	PRESS AND KEEP PRESSED P1\SET BUTTON FOR 5 SECONDS
3	THE YELLOW LED START BLINKING RELEASE THE BUTTON
4	IN 3 SECONDS PRESS AGAIN THE BUTTON P1\SET
5	THE BARRIER PERFORM A BRIEF REDUCED SPEED OPENING (If motor turns in reverse invert wires and start procedure again from the beginning.)
6	THE BARRIER PERFORM A REDUCED SPEED CLOSING UNTIL THE LIMIT SWITCH
7	THE BARRIER PERFORM A NORMAL SPEED OPENING MOVEMENT UNTIL THE LIMIT SWITCH
8	THE BARRIER PERFORM A NORMAL SPEED CLOSING MOVEMENT UNTIL THE LIMIT SWITCH
9	AUTOMATIC LEARNING PROCEDURE FINISHED

!!! ATTENTION !!!
ADJUST TRIMMERS IF NECESSARY

!!! ATTENTION !!!
**A trimmer variation "FOR" (speed) requires the repetition of the learning procedure from
The beginning (vary the manoeuvre time).**

4.WORKING TIME

PROFESSIONAL learning Slow down is setted by the operator

1	RELEASE THE BARRIER AND MOVE THE ARM IN 45°
2	PRESS AND KEEP PRESSED P1\SET BUTTON FOR 5 SECONDS
3	THE YELLOW LED START BLINKING RELEASE THE BUTTON
4	IN 3 SECONDS PRESS AGAIN THE BUTTON P2\RAD
5	THE BARRIER PERFORM A BRIEF REDUCED SPEED OPENING (If motor turns in reverse invert wires and start procedure again from the begnning.)
6	THE BARRIER PERFORM A REDUCED SPEED CLOSING UNTIL THE LIMIT SWITCH
7	PRESS P1 OR REMOTE CONTROL AND THE BARRIER PERFORM A NORMAL SPEED OPENING MOVEMENT WHEN THE ARM REACH THE POINT FOR THE DESIRED SLOW DOWN PRESS P1 OR THE REMOTE CONTROL THE ARM REACH THE LIMIT SWITCH
8	PRESS P1 OR REMOTE CONTROL AND THE BARRIER PERFORM A NORMAL SPEED CLOSING MOVEMENT WHEN THE ARM REACH THE POINT FOR THE DESIRED SLOW DOWN PRESS P1 OR THE REMOTE CONTROL THE ARM REACH THE LIMIT SWITCH
9	PROFESSIONAL LEARNING PROCEDURE FINISHED

!!! ATTENTION !!!
ADJUST TRIMMERS IF NECESSARY

!!! ATTENTION !!!
**A trimmer variation "FOR" (speed) requires the repetition of the learning procedure from
The beginning (vary the manoeuvre time).**

5. REMOTE CONTROLS

MEMORISE ONE REMOTE CONTROL

1	PRESS THE BUTTON P2 ON THE BOARD
2	THE RED LED LIGHTS UP
3	PRESS THE DESIRED BUTTON ON THE REMOTE CONTROL
4	RED LED PERFORMS 4 FLASHES TO INDICATE THAT THE REMOTE IS MEMORISED
4.B	RED LED BECOME RED MEMORISE ALL THE REMOTE CONTROLS BY FOLLOWING ISTRUCTIONS FROM THE POINT 3
5	PRESS P2 FOR 2 SECONDS
5. B	WAIT UNTIL THE RED LED SWITCH OFF
6	REMOTE CONTROLS PROGRAMMATION FINISHED

DELETE REMOTE CONTROLS MEMORY

1	PRESS THE BUTTON P2 ON THE BOARD
2	RED LED FLASHES
3	PRESS AND KEEP PRESSED P2 FOR 5 SECONDS
4	RED LED START FLASHING FASTLY
5	RED LED SWITCHES OFF
6	MEMORY DELETED

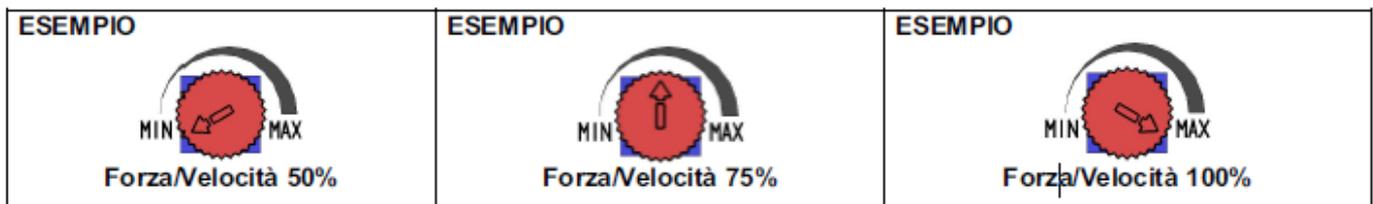
6. TRIMMERS AND ADJUSTMENTS

TRIMMER “FOR” - MOTOR SPEED

Trimmer “FOR” adjusts the voltage applied to the motors during operations, which means adjusting the speed of the motors. With the trimmer turned fully counter-clockwise the speed of the motor is 50% of the maximum speed.

With the trimmer at half travel the speed of the motor is 50% of the maximum speed.

ATTENZIONE: Changing the setting of trimmer “FOR” requires repeating the learning procedure, since the travel times and the slow-down start times change.



TRIMMER “PAU” - PAUSE TIME

Switch the dip-switch 6 to OFF and the dip-switch 7 to ON.

Set the “PAU” trimmer in an intermediate position according to the pause time desired. The pause time can be set between 3 and 60 seconds and is increased by rotating the trimmer clockwise.



TRIMMER “OBS” - OBSTACLE SENSITIVITY DETECTION

The “OBS” TRIMMER is used to adjust at the same time the delay time of intervention after an obstacle has been detected and the threshold of the counter-force against the operator necessary to trigger the intervention. Both the counter-force and the delay time increase when the trimmer is turned clockwise. The delay time can be adjusted between 0.1 and 3 seconds. This function is useful to overcome any critical points of the operator which cause a higher power absorption by the motor for a short time..



7. DIP-SWITCHES

1	ON	ENABLE AUTOMATIC CLOSING AFTER PHOTOCELLS INPUT – 2 SEC
	OFF	DISABLED AUTOMATIC CLOSING AFTER PHOTOCELLS INPUT
2	ON	FLASHING LIGHT ALWAYS ON
	OFF	FLASHING LIGHT ALWAYS OFF
3	ON	PRESSURE SAFETY DEVICE TYPE 8K2 DETENCTION
	OFF	PRESSURE SAFETY DEVICE NC DETENCTION
4	ON	OPEN BUTTON – CLOSE BUTTON
	OFF	START ON CLAMP 16/17 - STOP ON CLAMP 17/18
5	ON	MOTOR ENCODER ACTIVATED (IF PRESENT)
	OFF	MOTOR ENCODER DISABLED
6	ON	STEP BY STEP MODE
	OFF	OPEN MODE
7	ON	AUTOMATIC CLOSURE ENABLED
	OFF	AUTOMATIC CLOSURE DISABLED
8	ON	BARRIER ALERT DISABLED
	OFF	OPEN BARRIER ALERT ENABLED

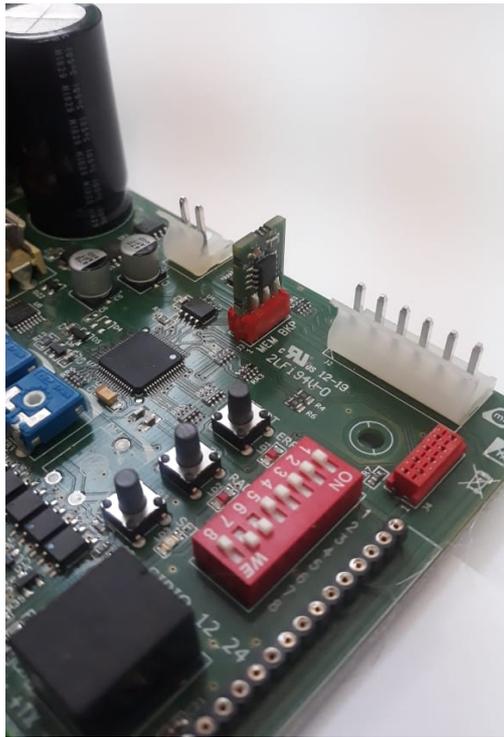
- | | |
|--|---|
| 1 <i>AUTOMATIC CLOSING AFTER PHOTOCELLS INPUT :</i> | if enabled, the barrier automatically after 2 sec when the photocell has been crossed |
| 2 <i>FLASHING LIGHT :</i> | if ON, the flashing light is flashing during the movements and switched off when the barrier is closed.
If OFF, the flashing light is flashing during the movements and switched on when the barrier is closed |
| 4 <i>OPEN\CLOSE INPUT</i> | If ON: 16-17 connect one NO button for OPEN 17-18 one NO button for CLOSE
If OFF: 16-17 connect one NO button for START\STOP 17-18 one NO button for STOP |
| 6 <i>OPERATING LOGICS</i> | If ON: The logic is OPEN\STOP\CLOSE\STOP
If OFF: For the open mode, the barrier will accept only an Open command and close with automatic closing. |
| 8 | if OFF , the board offer 1 dry contact for the OPEN BARRIER ALERT (24Vdc 3W max) |

DEAD MAN MODE

DIP 6 = OFF
DIP 7 = OFF

The buttons OPEN\CLOSE must be pressed until reaching the open\close limit switch

8. EXTERNAL BOARDS



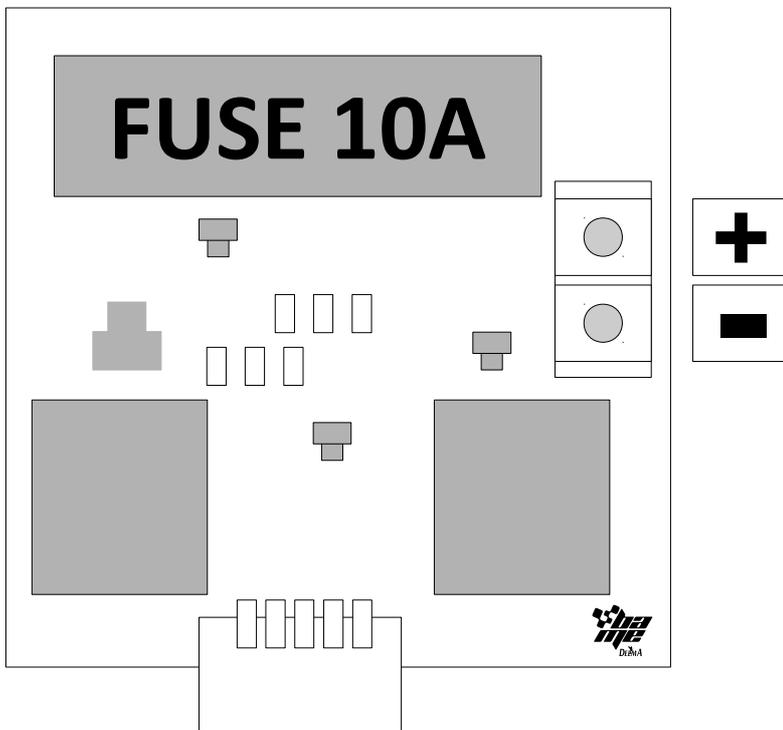
BACKUP MEMORY

Inside there are all remote controls code and working time.

Everytime one new remote control is memorized, automatically it is transferred to the backup memory

TRANSFER ALL DATA FROM THE BACKUP MEMORY

- . Remove power supply
- . Insert backup memory
- . Give power to the board
- . When all the leds are off, press and keep pressed the button P1 for 5 sec. Automatically the board check the memory and transfers the contents



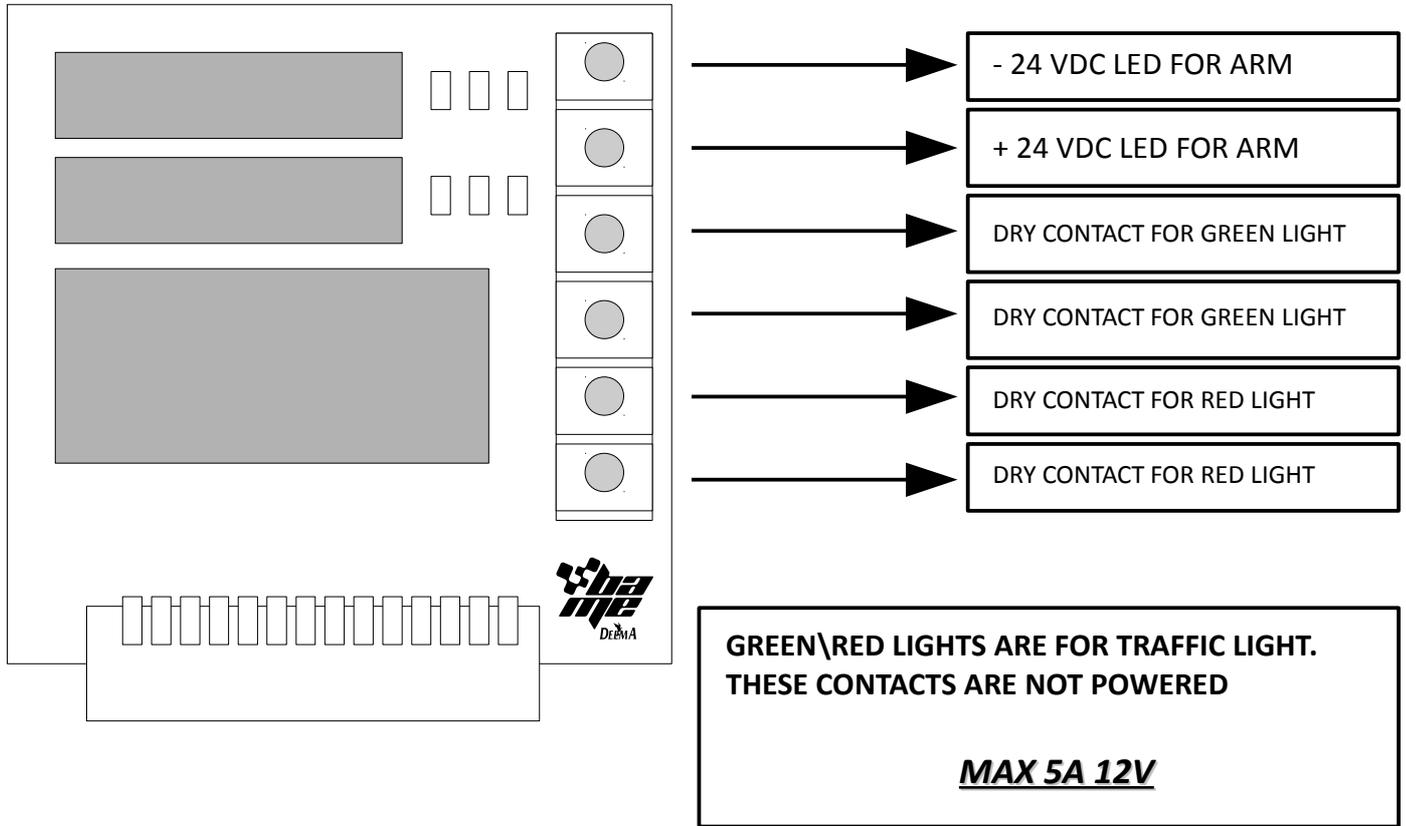
!! RESPECT THE POLARITY !!

BATTERY CHARGER

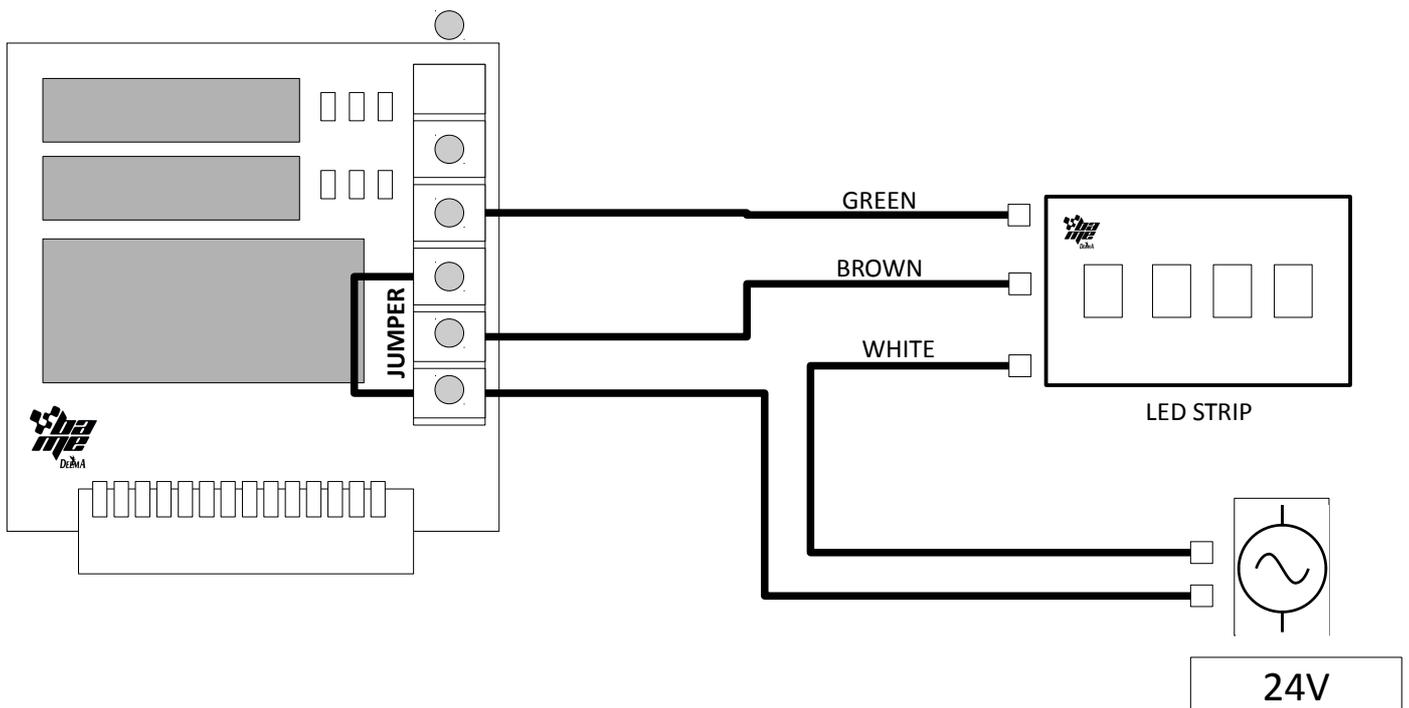
The SIRIO 4 – 24 V control unit is fitted with an automatic 13.7VDC battery charger, for which a 12V battery must be used, even for 24VDC motors. In this case, when there is no mains power the gate will travel at half normal speed and the accessories will be powered at 12VDC. The 12V 1.2Ah buffer battery allows a maximum of 5 reduced-speed manoeuvres should the mains power supply be cutoff (as long as the interruption occurred less than 24 hours earlier). The control unit can manage batteries up to 7Ah (20-30 complete manoeuvres). The flashing light, when present, only functions for the first 4 seconds of the manoeuvre. A solar panel can be directly connected to the control unit with a current regulator. The solar panel input is already protected by a diode.

8. EXTERNAL BOARDS

LIGHTS BOARD



DRY CONTACT CONNECTIONS RED / GREEN WITH LED STRIP



WARNING

OUR COMPANY, AS MANUFACTURER, CAN NOT BE HELD RESPONSIBLE FOR DAMAGES DUE TO WRONG OR MISSING CONNECTIONS OR DUE TO AN IMPROPER SETTING.

THE SAFETY DEVICES SHOULD BE ALWAYS INSTALLED AND KEPT IN FULL WORKING ORDER. ONCE TERMINATED THE SYSTEM SETTING, YOU SHOULD PLACE BACK THE CONTAINER ON ITS POSITION, ASTENING TIGHT ITS SCREWS.

OUR COMPANY, AS MANUFACTURER, CAN NOT BE HELD RESPONSIBLE FOR DAMAGES DUE TO IMPROPER USE OF THE DOOR/GATE.

IT IS FORBIDDEN TO REPLACE ANY ELECTRIC, ELECTRONIC OR MECHANIC PART WITH NOT ORIGINAL OUR COMPANY SPARE PARTS.

OUR COMPANY, HAS THE RIGHT TO MODIFY OR CHANGE THE ELECTRONIC BOARDS AND MANUALS, WITHOUT PRIOR NOTICE.

ALWAYS REGULATE ACCURATELY THE TORQUE OF THE MOTORS. AN INCORRECT SETTING OF THE TORQUE, MAY CAUSE DAMAGE TO PEOPLE, ANIMALS OR OBJECTS.

WARRANTY

Devices and accessories are guaranteed for a period of 24 months after production, whose date is printed on each item. The company will replace or repair its devices, provided that they are returned to our factory with the warranty label in good conditions. In case of replacement of the returned items, these will remain property of the company.

The warranty does not include damages due to any incorrect use, such as: non fulfilment of the instruction detailed for each device, maintenance and servicing carried out without the previous written consent of our company. Moreover, warranty does not cover any damage due to wrong tension supply and any other reason for which the manufacturer cannot be made responsible. Any device returned must be delivered to our company with carriage paid and will be sent back with freight collect.

Warranty validity ceases if customer's payments are not fulfilled. Each device manufactured by our company meets the european safety standards.

Our company declines all responsibility for the non-observance of the safety rules by the installers.

In order to reduce the time spent for servicing the returned items, all faulty materials which have been sent back to us must be accompanied by the installer description of the item fault.



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INSTALLER: