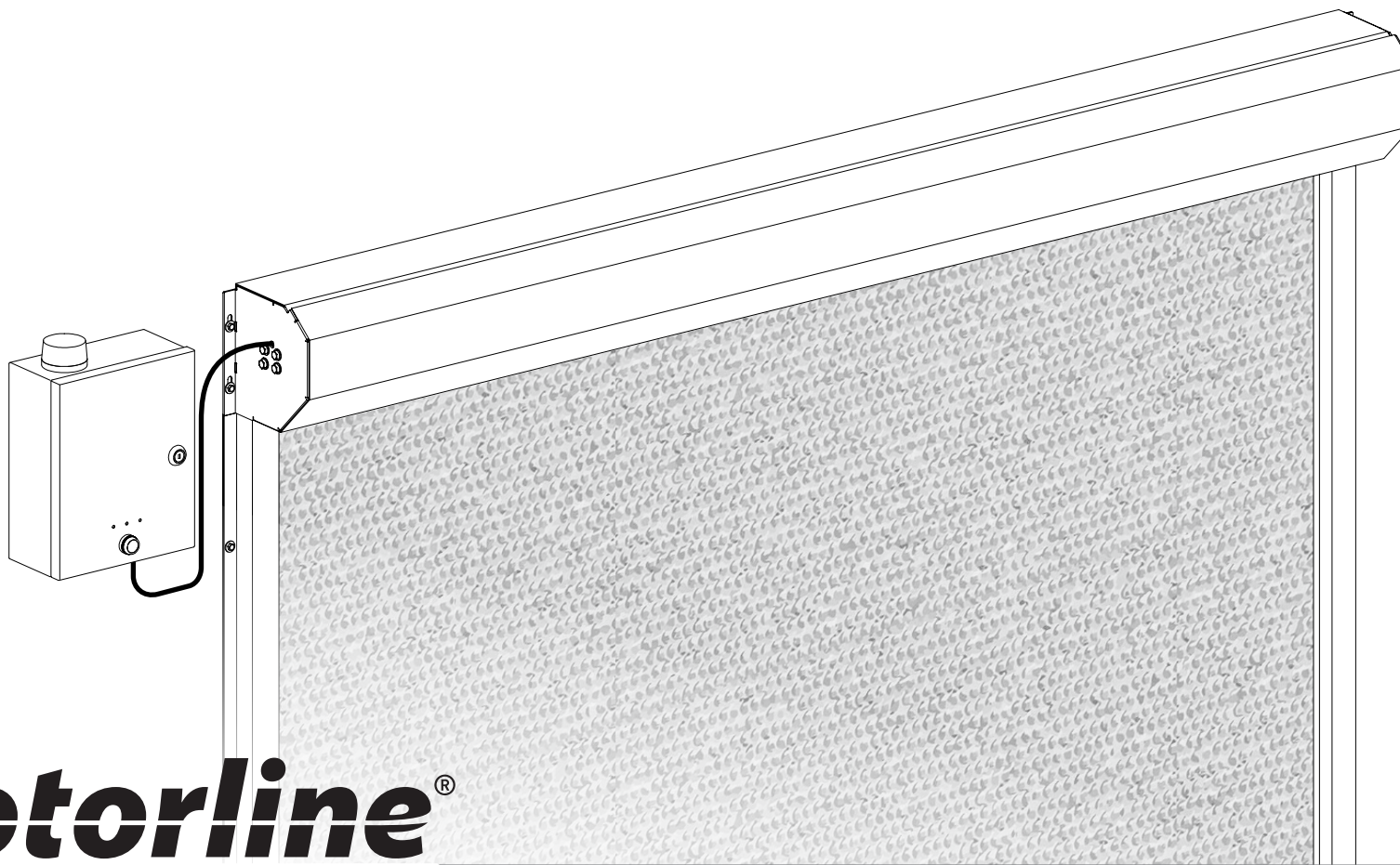




USER'S AND INSTALLER'S MANUAL



motorline[®]
PROFESSIONAL





00. CONTENT

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01. SAFETY INSTRUCTIONS

ATTENTION:

	This product is certified in accordance with European Community (EC) safety standards.
	This product complies with Directive 2011/65/EU of the European Parliament and of the Council, of 8 June 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment and with Delegated Directive (EU) 2015/863 from Commission.
	(Applicable in countries with recycling systems). This marking on the product or literature indicates that the product and electronic accessories (eg. Charger, USB cable, electronic material, controls, etc.) should not be disposed of as other household waste at the end of its useful life. To avoid possible harm to the environment or human health resulting from the uncontrolled disposal of waste, separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Home users should contact the dealer where they purchased this product or the National Environment Agency for details on where and how they can take these items for environmentally safe recycling. Business users should contact their vendor and check the terms and conditions of the purchase agreement. This product and its electronic accessories should not be mixed with other commercial waste.
	This marking indicates that the product and electronic accessories (eg. charger, USB cable, electronic material, controls, etc.) are susceptible to electric shock by direct or indirect contact with electricity. Be cautious when handling the product and observe all safety procedures in this manual.

01. SAFETY INSTRUCTIONS

GENERAL WARNINGS

- This manual contains very important safety and usage information. very important. Read all instructions carefully before beginning the installation/usage procedures and keep this manual in a safe place that it can be consulted whenever necessary.
- This product is intended for use only as described in this manual. Any other enforcement or operation that is not mentioned is expressly prohibited, as it may damage the product and put people at risk causing serious injuries.
- This manual is intended firstly for specialized technicians, and does not invalidate the user's responsibility to read the "User Norms" section in order to ensure the correct functioning of the product.
- The installation and repair of this product may be done by qualified and specialized technicians, to assure every procedure are carried out in accordance with applicable rules and norms. Nonprofessional and inexperienced users are expressly prohibited of taking any action, unless explicitly requested by specialized technicians to do so.
- Installations must be frequently inspected for unbalance and the wear signals of the cables, springs, hinges, wheels, supports and other mechanical assembly parts.
- Do not use the product if it is necessary repair or adjustment is required.
- When performing maintenance, cleaning and replacement of parts, the product must be disconnected from power supply. Also including any operation that requires opening the product cover.
- The use, cleaning and maintenance of this product may be carried out by any persons aged eight years old and over and persons whose physical, sensorial or mental capacities are lower, or by persons without any knowledge of the product, provided that these are supervision and instructions given by persons with experienced in terms of usage of the product in a safe manner and who understands the risks and dangers involved.

- Children shouldn't play with the product or opening devices to avoid the motorized door or gate from being triggered involuntarily.

WARNINGS FOR TECHNICIANS

- Before beginning the installation procedures, make sure that you have all the devices and materials necessary to complete the installation of the product.
- You should note your Protection Index (IP) and operating temperature to ensure that is suitable for the installation site.
- Provide the manual of the product to the user and let them know how to handle it in an emergency.
- If the automatism is installed on a gate with a pedestrian door, a door locking mechanism must be installed while the gate is in motion.
- Do not install the product "upside down" or supported by elements do not support its weight. If necessary, add brackets at strategic points to ensure the safety of the automatism.
- Do not install the product in explosive site.
- Safety devices must protect the possible crushing, cutting, transport and danger areas of the motorized door or gate.
- Verify that the elements to be automated (gates, door, windows, blinds, etc.) are in perfect function, aligned and level. Also verify if the necessary mechanical stops are in the appropriate places.
- The central must be installed on a safe place of any fluid (rain, moisture, etc.), dust and pests.
- You must route the various electrical cables through protective tubes, to protect them against mechanical exertions, essentially on the power supply cable. Please note that all the cables must enter the central from the bottom.
- If the automatism is to be installed at a height of more than 2,5m from the ground or other level of access, the minimum safety and health requirements for the use of work equipment workers at the work of Directive 2009/104/CE of European Parliament and of the Council of 16

01. SAFETY INSTRUCTIONS

September 2009.

- Attach the permanent label for the manual release as close as possible to the release mechanism.
- Disconnect means, such as a switch or circuit breaker on the electrical panel, must be provided on the product's fixed power supply leads in accordance with the installation rules.
- If the product to be installed requires power supply of 230Vac or 110Vac, ensure that connection is to an electrical panel with ground connection.
- The product is only powered by low voltage safety with central (only at 24V motors)

WARNINGS FOR USERS

- Keep this manual in a safe place to be consulted whenever necessary.
- If the product has contact with fluids without being prepared, it must immediately disconnect from the power supply to avoid short circuits, and consult a specialized technician.
- Ensure that technician has provided you the product manual and informed you how to handle the product in an emergency.
- If the system requires any repair or modification, unlock the automatism, turn off the power and do not use it until all safety conditions have been met.
- In the event of tripping of circuits breakers or fuse failure, locate the malfunction and solve it before resetting the circuit breaker or replacing the fuse. If the malfunction is not repairable by consult this manual, contact a technician.
- Keep the operation area of the motorized gate free while the gate is in motion, and do not create strength to the gate movement.
- Do not perform any operation on mechanical elements or hinges if the product is in motion.

RESPONSABILITY

- Supplier disclaims any liability if:
 - Product failure or deformation result from improper installation use or maintenance!
 - Safety norms are not followed in the installation, use and maintenance of the product.
 - Instructions in this manual are not followed.
 - Damaged is caused by unauthorized modifications
 - In these cases, the warranty is voided.

SYMBOLS LEGEND:



• Important safety notices



• Useful information



• Programming information



• Potentiometer information



• Connectors information



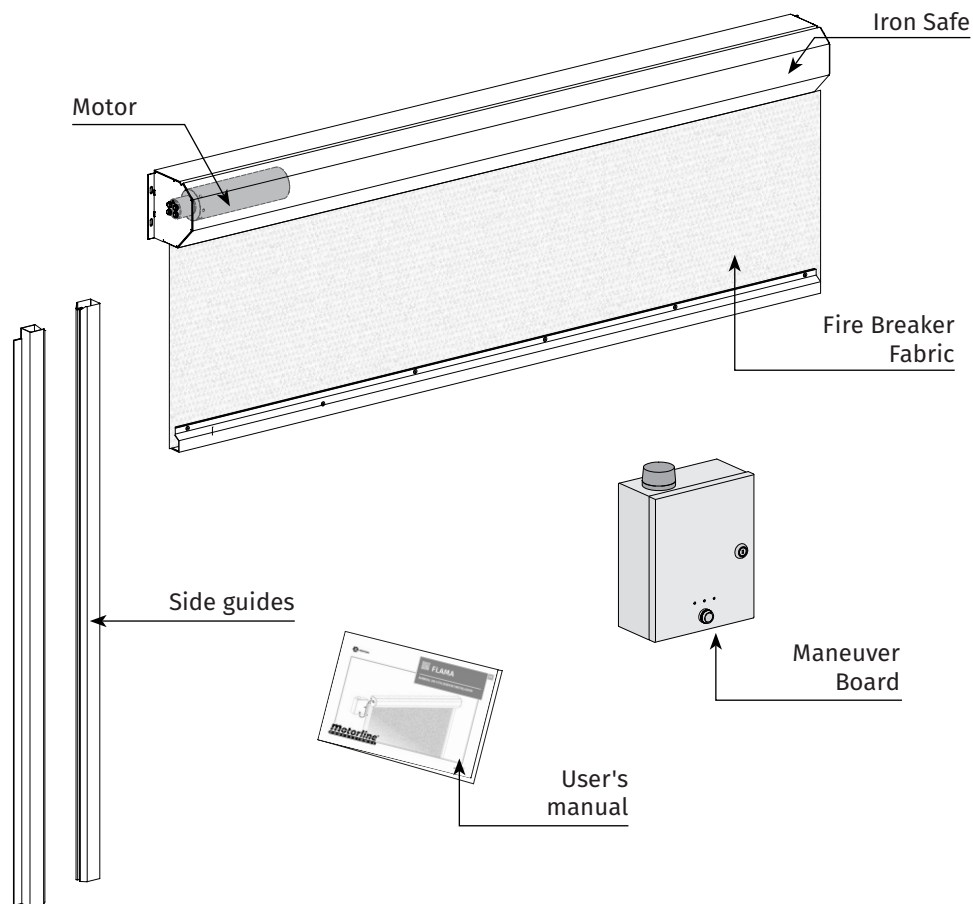
• Buttons information

02. PACKAGE

INSIDE PACKAGE

The kit consists of the following components:

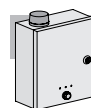
- 01 Motor
- 02 Side guides
- 01 Iron Safe
- 01 Fire Breaker Fabric
- 01 Maneuver Board
- 01 Outside RESET button
- 01 User's Manual



03. OPERATOR

TECHNICAL CHARACTERISTICS

FLAMA is a fire curtain built with indicated galvanized steel profiles, with lacquer.



MANEUVER BOARD

• Power Supply	230 Vac 50 Hz
----------------	---------------



MOTOR

	DC95	DC120	DC160
• Power Supply	24Vdc		
• Current	10.8A	14.5A	21A
• Power	200 W	300 W	700 W
• RPM	12 RPM	8 RPM	4.2 RPM
• Noise	LpA < 60 dB (A)		
• Force	100 Nm	240 Nm	480 Nm
• Working temperature	-25°C a 55°C		
• Protection grade	IP 55		
• Working frequency	50 %		



FIRE BREAKER FABRIC

• Wire	EC9 68/2 V4A
• Weight	710 g/m2
• Thickness	0.7 mm
• Operating temperature	0°C ~ 600°C
• Color	Silver / Gray Coating both sides
• Weaving pattern	8H Satin
• Construction	Web → 16 wires/cm Weft → 15 wires/cm
• Tensile Strength	>4500N/5cm ±10%

03. OPERATOR

TECHNICAL CHARACTERISTICS



STRUCTURE

- Galvanized steel

DX51D +Z

OTHER COMPONENTS

- Transformer

230 V ~ 24 Vac

- Battery

2 Batteries in series 12 V = 24V

PERFORMANCE DESIGNATION

We have the following performance designation approved by TECNALIA:

- **EI** - Prevents the passage of flames, hot gases and temperature transmission with water.
- **EW** - Prevents the passage of flames, hot gases and the transmission of thermal radiation without water.
- **E** - Prevents the passage of flames and hot gases without water.

When tested with water, FLAMA's sprinklers had the following characteristics:

- During the test, a flow rate of 60L/min was used, at a pressure of 1 bar. Each sprinkler should operate at approximately 7,3L/min·m².
- They must be placed 1,5m apart.
- The distance between the fire breaker fabric/iron safe and the sprinklers is 40cm.

03. OPERATOR

SAFE PROFILE INSTALLATION MEASURES

FLAMA has two models, and the installation of each model is variable due to its measurements. See the table below:

COFRE										
Height	Width									
	1000	2000	3000	4000	5000	6000	7000	8000	9000	10 000
1000										
2000										
3000										
4000										
5000										
6000										
7000										
8000										
9000										
10 000										

FLAMA ST



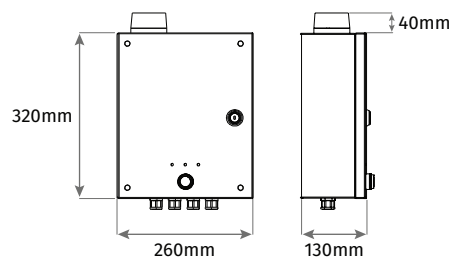
FLAMA XL



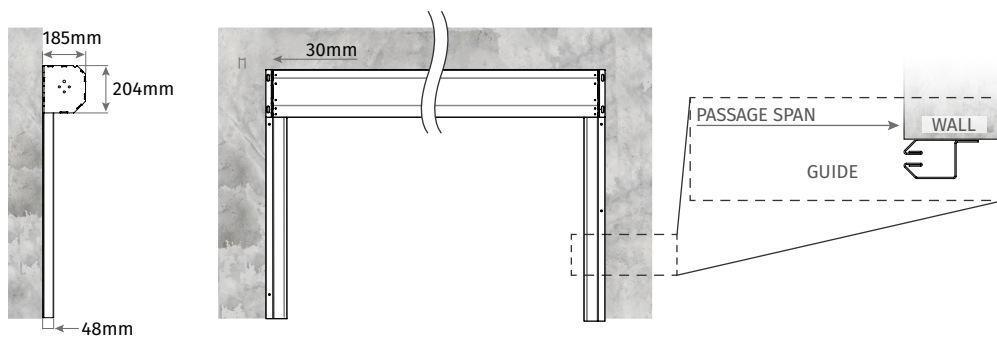
04. INSTALLATION

FLAMA ST DIMENSIONS

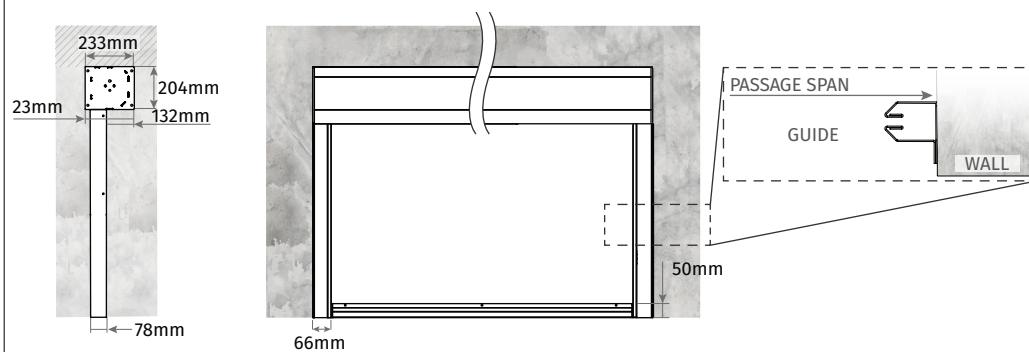
• MANEUVER BOARD DC95



• OUT OF PASSAGE SPAN

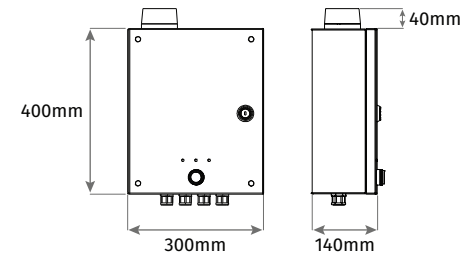


• TUNNEL

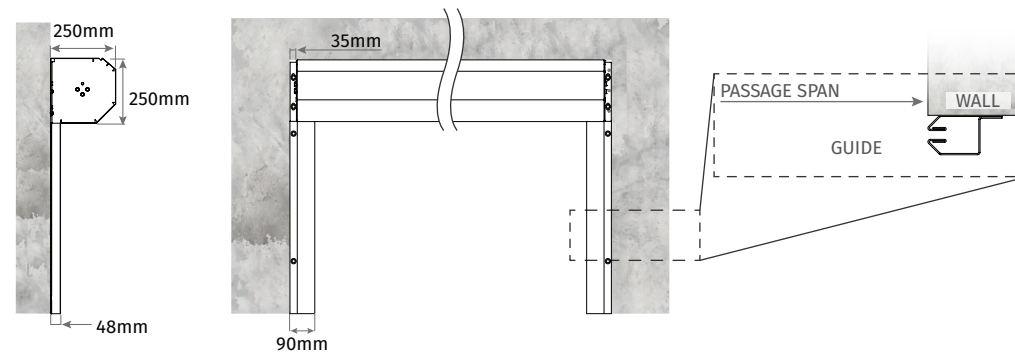


FLAMA XL DIMENSIONS

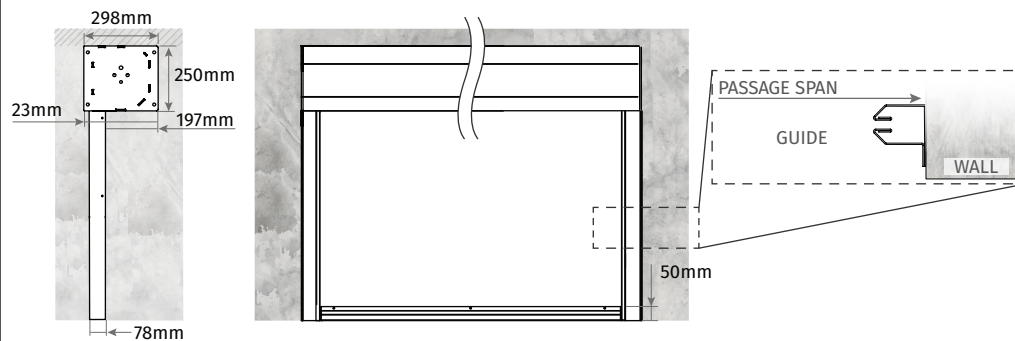
• MANEUVER BOARD DC120 AND DC160



• OUT OF PASSAGE SPAN

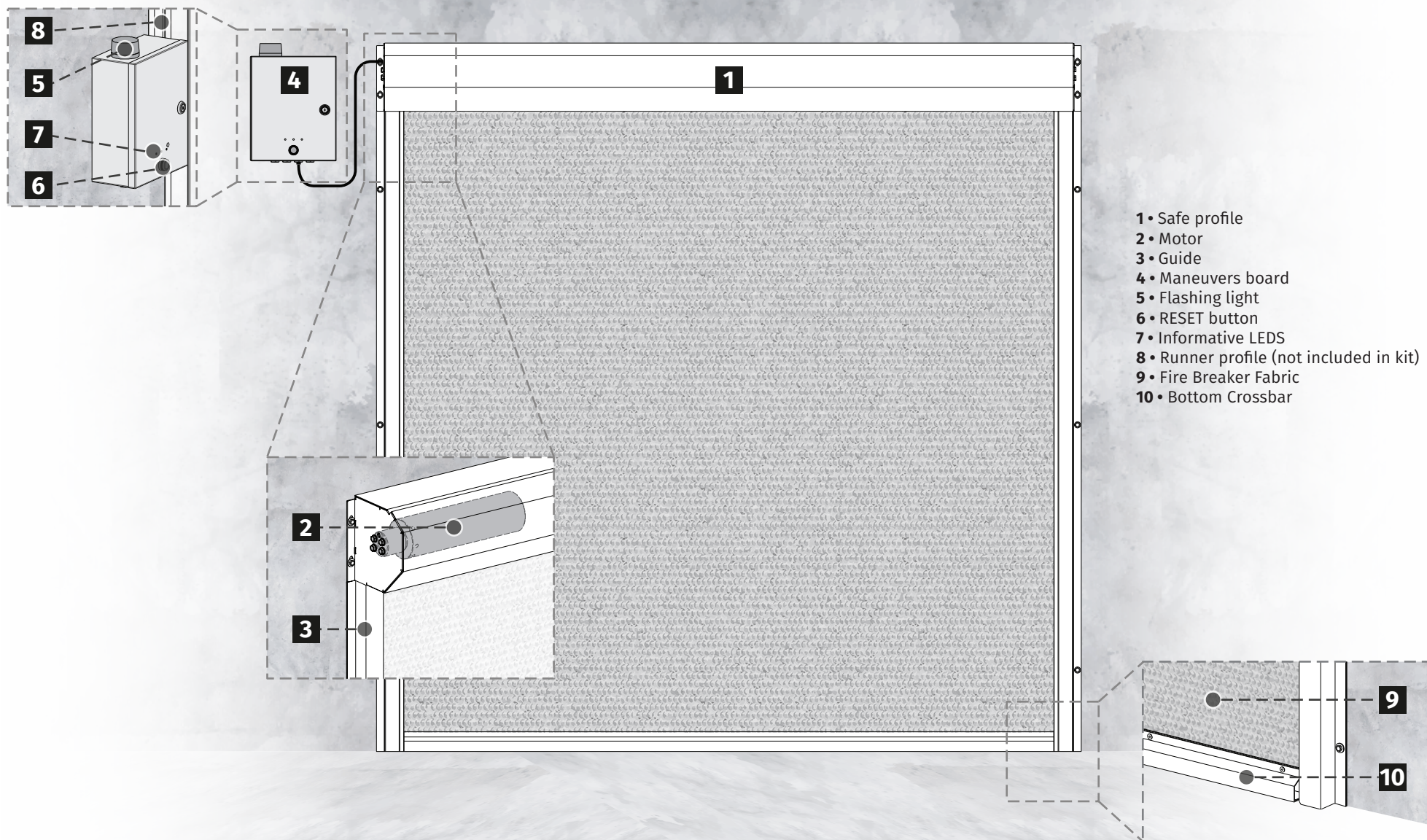


• TUNNEL



04. INSTALLATION

INSTALLATION MAP



04. INSTALLATION

PRE-INSTALLATION INFORMATION

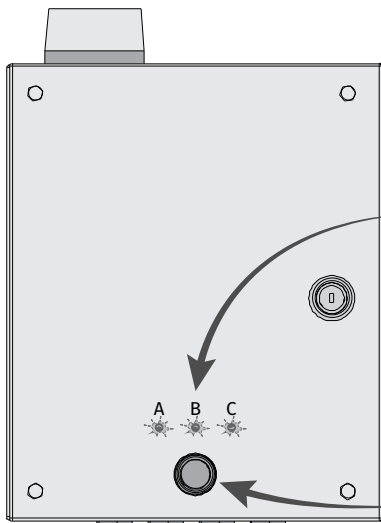
In order to the FLAMA work correctly, before the installation it is important to take into account the following parameters:

- Read all the steps at least once, in order to learn about the installation and configuration process.
- Check the horizontal ground alignment, so that the door can be installed properly.
- Make sure there is adequate electrical protection against short circuits / power surges and grounding in Electrical Board.
- Be careful in the event of handling directly the control board. Improper handling can damage some electrical components.
- Make sure you have prepared all the necessary materials for the installation.
- Evaluate the security devices to be installed. This will ensure that unexpected accidents do not happen.
- Use appropriate screws to the place where the components of the FLAMA will be fixed.
- Do not use plastic wall plugs in the FLAMA installation.



It is very important that all precautions are respected!
Only in this way it can be assured the proper functioning and durability of the FLAMA!

CONTROL BOARD



LED	Status	Description
A (Green)	On	230V power supply
	Off	No 230V power supply
B (Yellow)	On	The battery is active
	Off	The battery has no charge
	Flashing	Motor without sinal
C (Red)	On	The battery is off
	Off	The battery is on

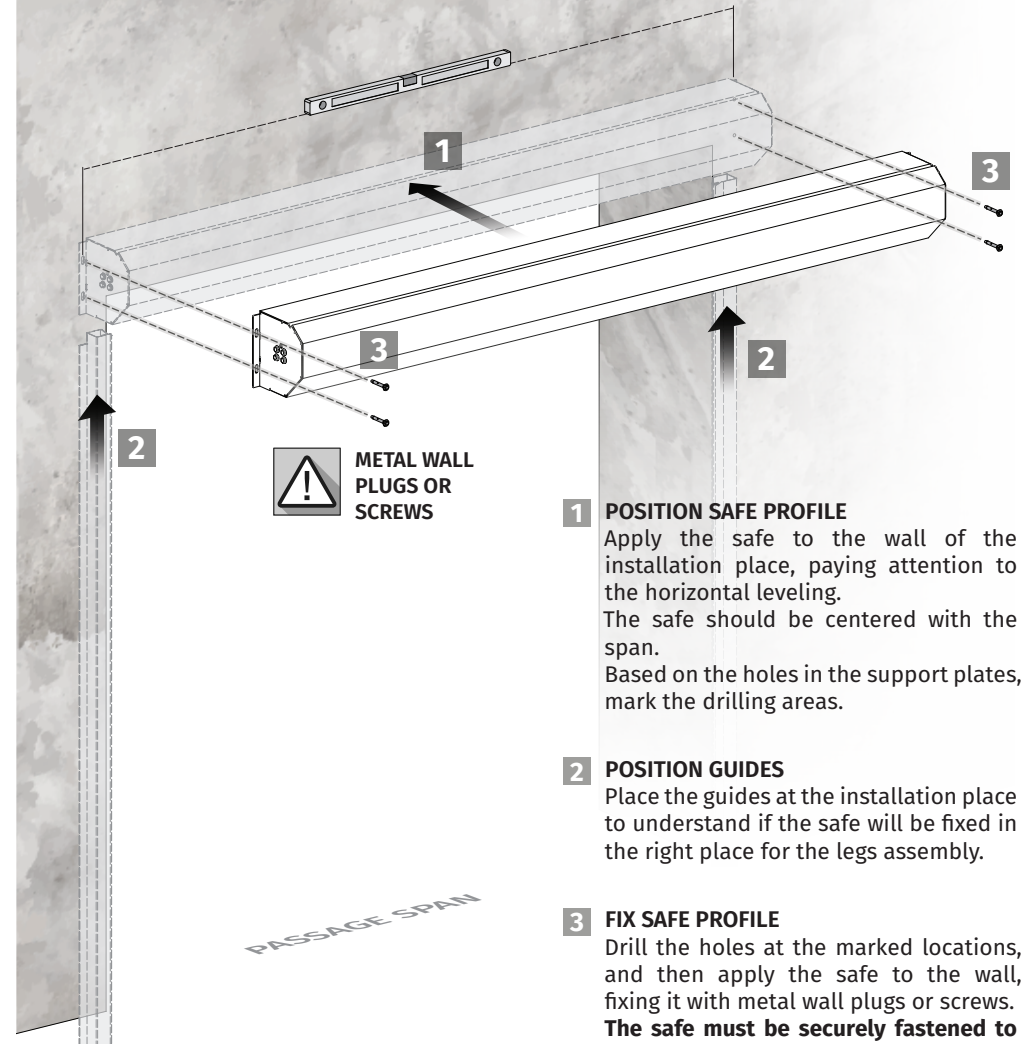
Control board reset button

04. INSTALLATION

FIXING THE SAFE PROFILE



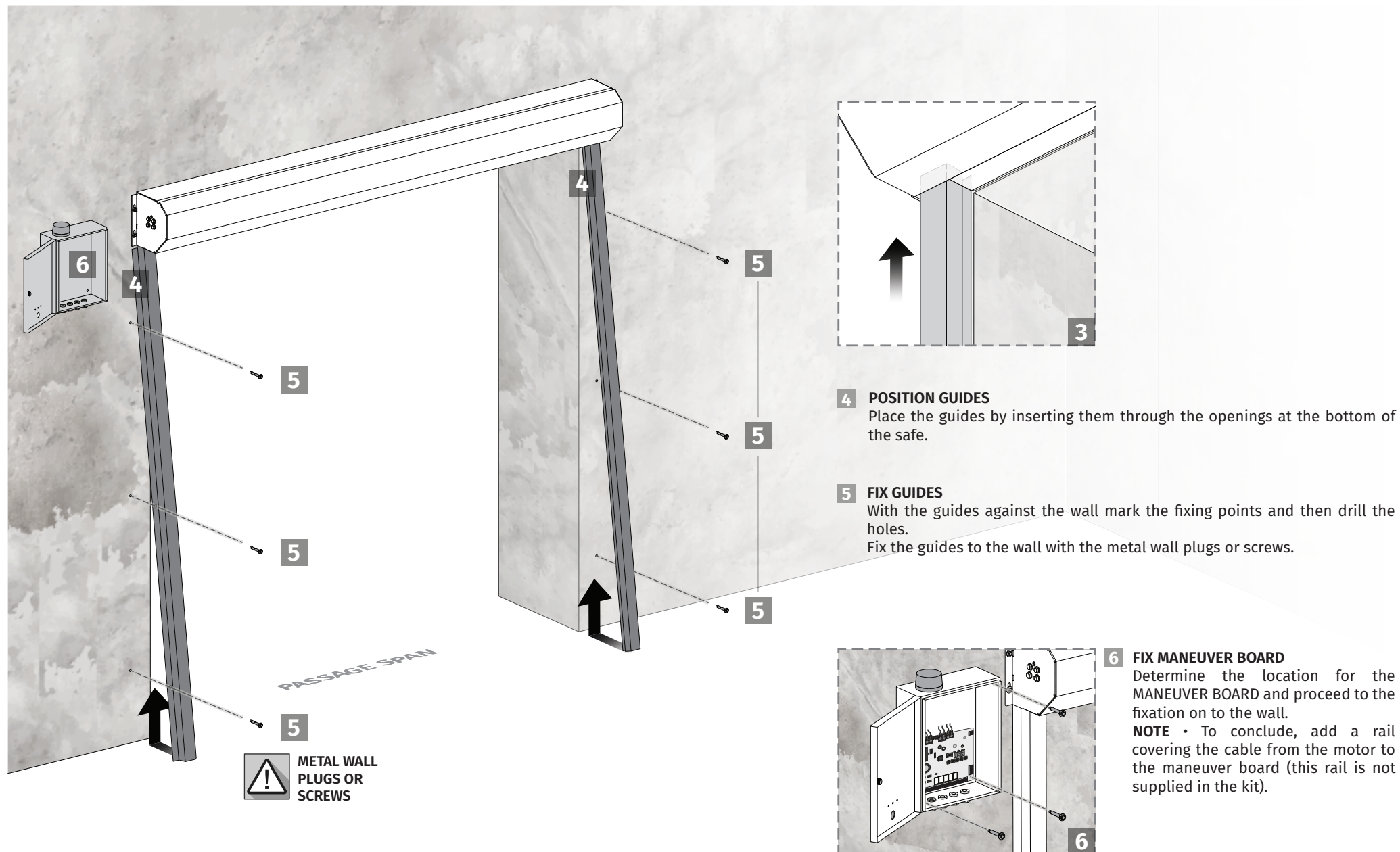
Before proceeding with installation, should check that if all the measurements are correct, taking into account the installation location. It is also important that the installation site is properly leveled, since only then will it be possible to ensure the correct operation of the FLAMA.



- 1 POSITION SAFE PROFILE**
Apply the safe to the wall of the installation place, paying attention to the horizontal leveling. The safe should be centered with the span. Based on the holes in the support plates, mark the drilling areas.
- 2 POSITION GUIDES**
Place the guides at the installation place to understand if the safe will be fixed in the right place for the legs assembly.
- 3 FIX SAFE PROFILE**
Drill the holes at the marked locations, and then apply the safe to the wall, fixing it with metal wall plugs or screws. **The safe must be securely fastened to prevent accidents.**

04. INSTALLATION

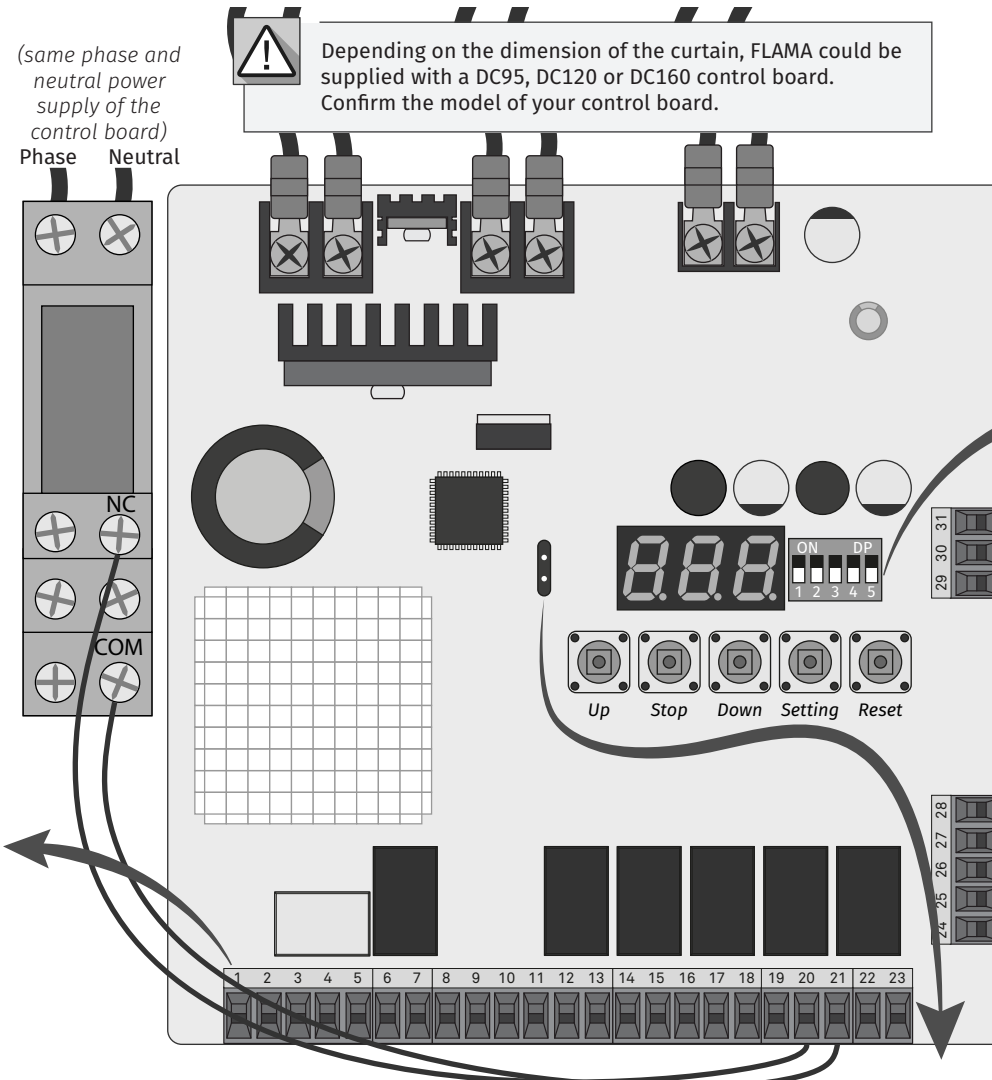
FIXING THE SIDE GUIDES AND MANEUVER BOARD



05. SETTINGS

DC95 CONTROL BOARD DIAGRAM

MOTOR WIRES
01 • red wire
02 • black wire
03 • yellow wire
04 • green wire
05 • white wire
FLASHING LIGHT
06 • red wire (12V +)
07 • black wire (12V -)
CONTACTS
08/09 • Opening contact
10/11 • Intermediate position contact
12/13 • Closing contact
14 • (24V +)
15 • (24V -)
FIRE ALARM
20 • No voltage (✓ • ✗)
21 • No voltage (✓ • ✗)
22 • Unused (Future Use)
23 • Unused (Future Use)
EXTERNAL SWITCH
24 • Open
25 • Stop
26 • Close
27 • Reset
28 • Common
EXTERNAL SWITCH
29 • Unused (Future Use)
30 • Unused (Future Use)
31 • Unused (Future Use)



LOCK SHUNT | FIRE TEST

After completing the curtain programming, you can simulate the alarm operation. To do this, insert the jumper into the two metal pins.
NOTE: The curtain must be in the open position for testing.

DIP SWITCH 1 CURTAIN OPERATING MODE

ON • Automatic Mode (Drops down by impulse)
OFF • Man Present Mode (Drops down by Gift Man)

DIP SWITCH 2 FIRE ALARM CONTACT

ON • normally closed (NC).
OFF • normally open (NO).

DIP SWITCH 3 DOOR OPERATING IN CASE OF FIRE

ON • Secondary Closing: When the first fire alarm is triggered, the curtain goes down to the middle position. When another fire alarm is triggered, the curtain drops to the lower limit.
OFF • If the fire alarm is triggered, the curtain goes down to the intermediate point and waits for the time set at the intermediate stop, then closes to the ground (this allows people to escape from the fire area if there is no other exit).

DIP SWITCH 4 CHANGE MOTOR ROTATION STEERING

ON/OFF • allows you to select the direction of the motor rotation.
NOTE: This change can also be made by reversing the black and red motor cables.

DIP SWITCH 5 AUTOMATIC RESET

ON • Automatic Reset: When the fire alarm is triggered, the curtain goes down and returns to normal functionality as soon as the fire alarm is disabled.
OFF • Manual Reset: When the fire alarm goes off, the curtain goes down and a manual reset is made to return the door to normal functionality.
NOTE: Reset is made on the exterior button of the maneuver board.

05. SETTINGS

DC120 AND DC160 CONTROL BOARD DIAGRAM

LOCK SHUNT FIRE TEST

After completing the curtain programming, you can simulate the alarm operation. To do this, insert the jumper into the two metal pins.

NOTE: The curtain must be in the open position for testing.

MOTOR WIRES

RED • red wire
BLACK • black wire
1 • yellow wire
2 • green wire
3 • Unused

4 • (12V +)
5 • (12V -)

FIRE ALARM

09 • Unused
10 • No voltage (↗ ↘)
11 • No voltage (↗ ↘)

FLASHING LIGHT

12 • red wire (12V +)
13 • black wire (12V -)

EXTERNAL SWITCH

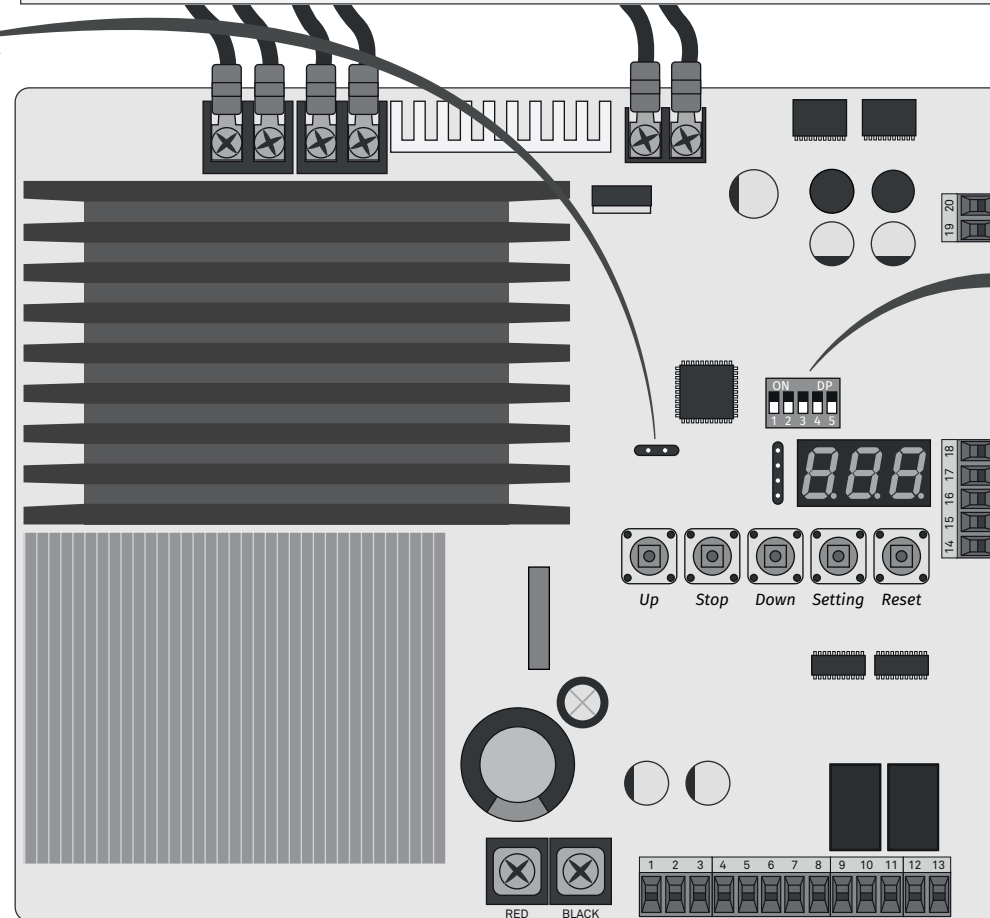
14 • Open
15 • Stop
16 • Close
17 • Reset
18 • Common

EXTERNAL SWITCH

19 • Unused (Future Use)
20 • Unused (Future Use)



Depending on the dimension of the curtain, FLAMA could be supplied with a DC95, DC120 or DC160 control board.
Confirm the model of your control board.



DIP SWITCH 1 CURTAIN OPERATING MODE

ON • Automatic Mode (Drops down by impulse)
OFF • Man Present Mode (Drops down by Gift Man)

DIP SWITCH 2 FIRE ALARM CONTACT

ON • normally closed (NC).
OFF • normally open (NO).

DIP SWITCH 3 DOOR OPERATING IN CASE OF FIRE

ON • Secondary Closing: When the first fire alarm is triggered, the curtain goes down to the middle position. When another fire alarm is triggered, the curtain drops to the lower limit.

OFF • If the fire alarm is triggered, the curtain goes down to the intermediate point and waits for the time set at the intermediate stop, then closes to the ground (this allows people to escape from the fire area if there is no other exit).

DIP SWITCH 4 CHANGE MOTOR ROTATION STEERING

ON/OFF • allows you to select the direction of the motor rotation.

NOTE: This change can also be made by reversing the black and red motor cables.

DIP SWITCH 5 AUTOMATIC RESET

ON • Automatic Reset: When the fire alarm is triggered, the curtain goes down and returns to normal functionality as soon as the fire alarm is disabled.

OFF • Manual Reset: When the fire alarm goes off, the curtain goes down and a manual reset is made to return the door to normal functionality.

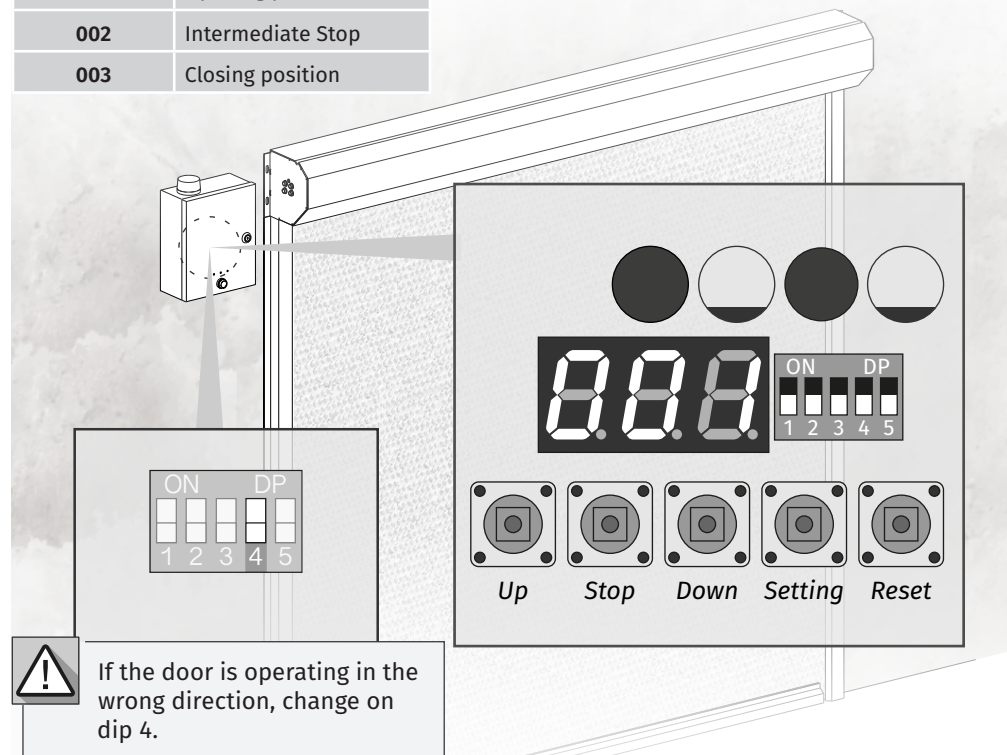
NOTE: Reset is made on the exterior button of the maneuver board.

05. SETTINGS

LIMIT SWITCHES PROGRAMMING

• LEGEND OF THE PROGRAMMING VALUE

VALUE	PROGRAMMING
001	Opening position
002	Intermediate Stop
003	Closing position



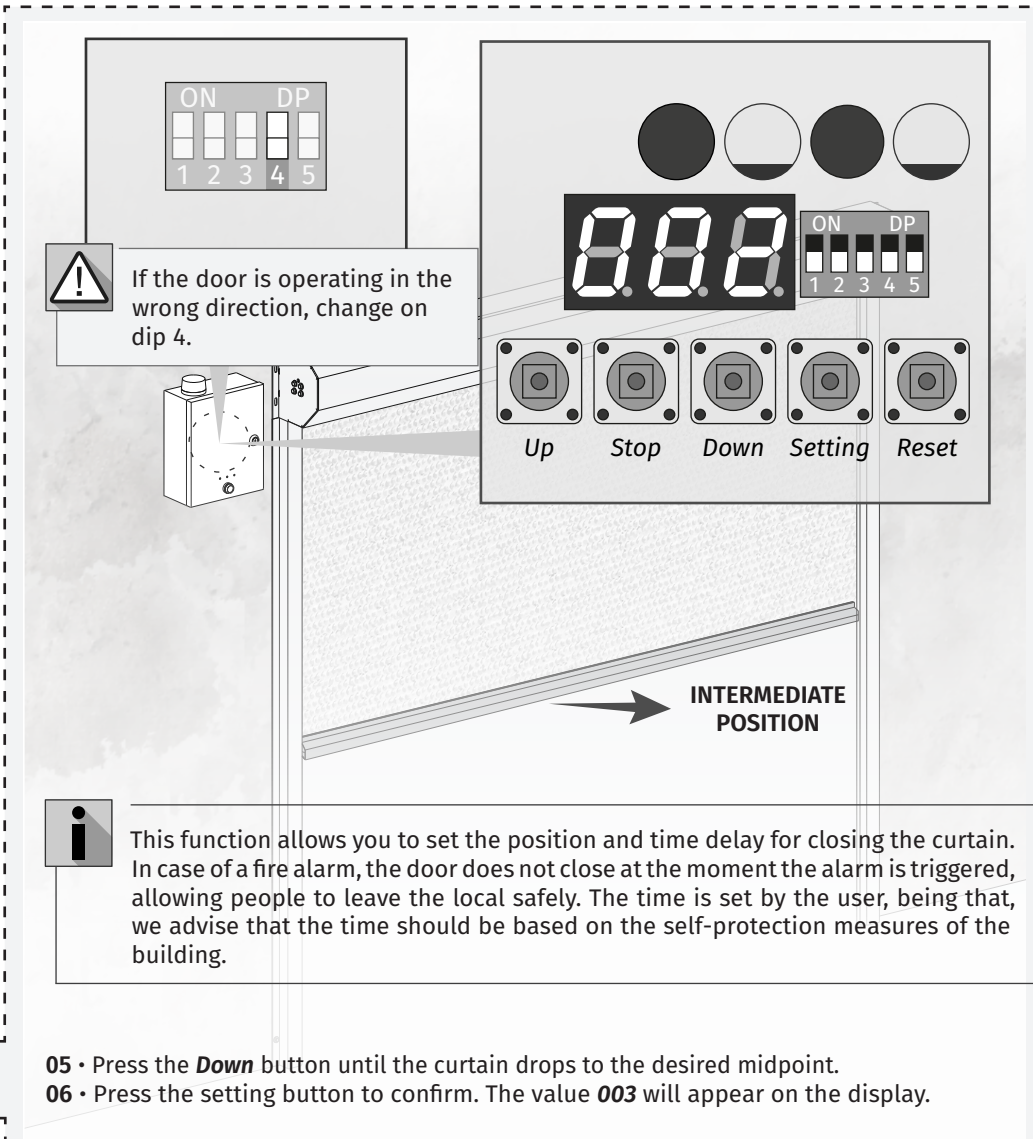
- 01 • Turn on the 230V power and turn on the battery (Switch inside the maneuver board).
- 02 • Press the **Setting** button until LED1 lights up (blue light). The value **001** will appear on the display.
- 03 • Press the **Up** button until the curtain is at the desired opening point.
- 04 • Press the setting button to confirm. Menu **002** appears.

Menu 002 is for programming intermediate stop. If you do not want intermediate stop press Setting to advance to 003 (continued at step 07).

- 07 • Press the **Down** button until the curtain is at the desired closing point.
- 08 • Press the setting button to confirm and the blue led turn off.

NOTE • Even if you do not consider it necessary, we advise you to set an intermediate limit-switch.

• PROGRAMMING THE INTERMEDIATE POSITION



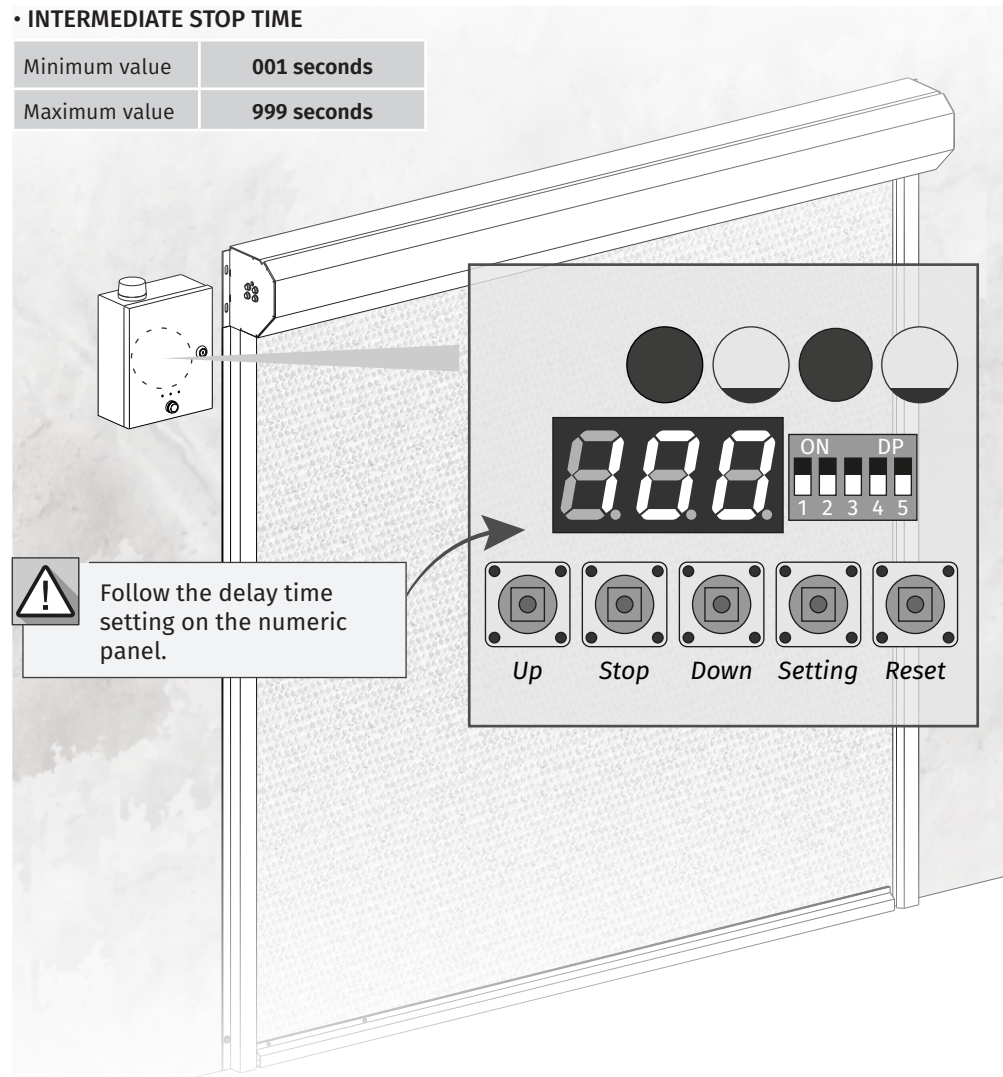
- 05 • Press the **Down** button until the curtain drops to the desired midpoint.
- 06 • Press the setting button to confirm. The value **003** will appear on the display.

05. SETTINGS

SET THE INTERMEDIATE STOP TIME

• INTERMEDIATE STOP TIME

Minimum value	001 seconds
Maximum value	999 seconds



- 01 • Turn on the 230V power and turn on the battery.
02 • Press the **Setting** button until the LED1 lights up (blue light).
03 • Press the Stop button as many times as necessary until the --5 function appears.
04 • Press the **Up/Down** buttons to add/remove seconds. Pressing the **Setting** button it confirms and advances in the digits.
NOTE • To remove the scheduled curtain delay on closing, set the values to zero.

06. AUXILIARY INFORMATION

MANUAL OPERATING MODE

It is possible to use the fire door in manual mode. To do this, access the inside of the maneuvers board and slide the door operation switch (page 10/11). From that moment, it will be possible to open and close the door using the up and down buttons.

ENERGY FAILURE

The fire door is equipped with two batteries. This means that in the event of a power failure it is possible to open and close the door by 50 maneuvers.
When there is a power failure, the door closes automatically. To open the curtain press the RESET button on the outside of the maneuver board.

VISUAL AND SOUND ALARM

The maneuvers board has a siren and a flashing light. These 2 components act to signal the existence of a power failure or the operation of the fire alarm. They work simultaneously with existing alarm/protection systems in the building.

TEST FUNCTIONS

Test limit switches

- After programming the limit switches (page 12), open and close the curtain completely. Check that the stop occurs at the places you have programmed.

Test fire alarm

- Remove the **lock shunt** on the control board. The buzzer will ring and the door will have to close.

Test delay before closing

- If enabled, the door will delay when the closing is activated.

Test two-stroke closing

- If enabled, the door will close halfway, delay a few seconds, and close completely.

After the alarm is activated, press the outer button to reset the control board and the door returns to normal operation.

07. TROUBLESHOOTING

FINAL CONSUMERS AND SPECIALIZED TECHNICIANS INSTRUCTIONS

Problems	Causes	Solutions
The green light turns off	<ul style="list-style-type: none"> • Energy failure 	<ul style="list-style-type: none"> • Make sure that there are no malfunctions with the power supply, the power cord plug or the fuse. • Make sure that the transformer is not on short-circuit.
Yellow light turns off (red turns on)	<ul style="list-style-type: none"> • Batteries off or with low charge 	<ul style="list-style-type: none"> • Check if the batteries are properly connected. • Check if the batteries are charged. If not, charge them.
Yellow light flashes	<ul style="list-style-type: none"> • Charging Batteries 	
Code Error "001"	<ul style="list-style-type: none"> • There is a fault in the output signal to the motor 	<ul style="list-style-type: none"> • Check if all wires are connected correctly.
Code Error "002"	<ul style="list-style-type: none"> • Motor overload (Locked motor) 	<ul style="list-style-type: none"> • Check if the motor is not overloaded. • Check if there are no obstacles in the curtain passage span.
Yellow light is flashing unconstantly	<ul style="list-style-type: none"> • There is a problem with the motor output signal. 	<ul style="list-style-type: none"> • Check if the green cable is properly connected.