



### THE BRAND OF PROFESSIONALS









### MANUFACTURERS OF MOTORS AND AUTOMATIC CONTROLS FOR ROLLER SHUTTERS, SUN BLINDS, INDUSTRIAL AND COMMERCIAL CLOSURES SINCE 1952

For over 65 years, SIMU has built on its industrial expertise and founding values in order to offer quality products and services to its worldwide customers.

### INVENTOR OF THE TUBULAR MOTOR FOR ROLLER SHUTTERS IN 1959!

In 1959, SIMU invented the tubular motor for roller shutters, a technology which has become the market standard. Since then, we have continued to expand our knowledge and our expertise of the market and of our customers' activities.

With over 65 years of experience, SIMU has become a reference brand in France and on the international stage!















### SIMU GUARANTEES

SIMU GUARANTEES ITS PRODUCTS FOR ITS PROFESSIONAL CUSTOMERS AGAINST ALL MANUFACTURING, **DESIGN OR MATERIAL FAULTS.** 



• Full solar solution AUTOSUN 2 (T3.5EHzDC motor + battery +



- Central motors
- GM motors
- BOX and BOX SI motors
- Electronic products
- Battery and solar panel from the AUTOSUN system sold alone
- Accessories (excluding cells and



- Plug Hz and BHz ON/OFF
- Sun sensor BHz



- Manual components
- Safety brake
- LiveIn2 Wifi key

### YOU ARE:

- A professional, a direct customer of SIMU: the full waranty applies.
- o An individual or indirect customer of SIMU: please contact your installer or reseller to know the details of the waranty applicable to you.

### AFTER-SALES SERVICE



Is a product under warranty has a failure? Contact us! The SIMU After Sales Service will repair or replace it within 2 weeks (as soon as we receive the defective product).

Our General Terms and Conditions of Warranty and the After Sales Service return form are available on www.simu.com in the "Support / Warranty" section

### SIMU FORMATION



We accompany our professional customers through to training. Our training department offers a programme of technical courses to help you get to know SIMU products and understand their installation, adjustment and programming rules.

To find out more about our training offer, please contact your usual SIMU sales consultant.

### ONLINE SUPPORT SERVI(ES











FAQ, for immediate answers to the most frequently asked questions about our products.

The online catalogue with all available references available and their technical documentation;



Your online ordering platform, reserved for SIMU professional customers (Metropolitan France). To order, consult your prices or track your order



Tutorials installation and step-by-step adjustment

### SIMU SERVICES

DAILY,

**OUR TECHNICIANS ANSWER** 

TO YOUR TECHNICAL QUESTIONS

AND ASSIST YOU WHEN

YOU NEED HELP

FOR INSTALLATION.

**ADJUSTMENT OR** 

**TROUBLESHOOTING** 

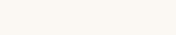
OF SIMU PRODUCTS.

### CONTACT **CUSTOMER SERVICE**

Tel. +33 3 84 64 75 00 service@simu.com



Our technicians will answer you from Monday to Friday from 8am to 12pm - 1.30pm to 5.15pm (4pm on Friday) Excluding public holidays and closure periods





### INTRODUCTION

► IDENTIFIFYING A MOTOR STICKER	p. 6
► SECURITY	p. 8
- The control mode	p. 9
- Installation recommendations	p. 9
► WIRING PRECAUTIONS	p. 10
• (ENTRIS WIRED CENTRAL MOTOR	p. 11
- Installation	p. 12
- Wiring with key switch	p. 13
- End-limits setting	p. 14
- Troubleshooting	p. 15
• (ENTRIS VEOHZ RADIO CENTRAL MOTOR	p. 17
- Installation	p. 18
- Wiring	p. 19
- Compatible transmitters	p. 19
- End-limits setting	p. 20
- Command mode	p. 21
- Validation of the first command point	p. 21
- Control of the visual command	p. 22
- Use	p. 22
- Optionnal settings	p. 23
- Troubleshooting	p. 25
• T8, T8M, T8S, T8S DMI SINGLE-PHASE MOTOR	p. 27
- Installation tubular motors T8 and T8M	p. 28
- Installation tubular motors T8S and T8S DMI	p. 29
- Wiring with key switch	p. 30
- End-limits setting	p. 32
- Troubleshooting	p. 33
• T9, T9M THREE-PHASE MOTOR	p. 35
- Installation	p. 36
- Examples of installation	p. 37
- Wiring three-phase motor with SD350 - with manual override - 400V	p. 38
- Wiring three-phase motor with SD350 - without manual override - 400V	p. 40
- Wiring three-phase motor with SD350 - with manual override - 230V	p. 42
- Wiring three-phase motor with SD350 - without manual override - 230V	p. 44
- Wiring three-phase motor with SD510 - with manual override - 400V	p. 46
- Wiring three-phase motor with SD510 - without manual override - 400V	p. 48
- Wiring three-phase motor with SD510 - with manual override - 230V	p. 50
- Wiring three-phase motor with SD510 - without manual override - 230V	p. 52
- End-limit settings	p. 54
- Troubleshooting	p. 55

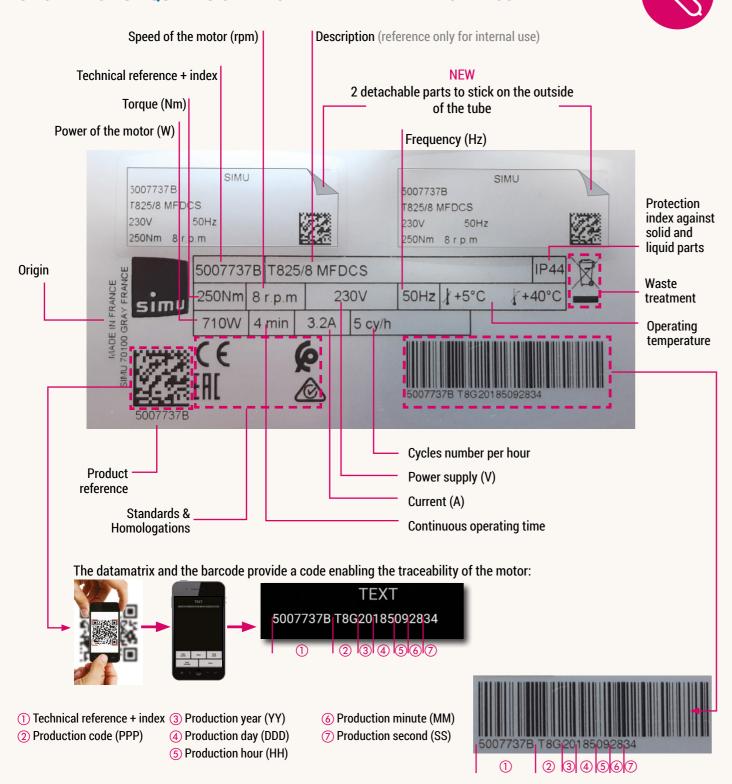
• SIMUBOX EXTERNAL MOTOR	p. 57
- Installation	p. 58
- Single-phase SIMUBOX motor wiring with key switch	p. 60
- Three-phase SIMUBOX motor wiring with key switch	p. 62
- Three-phase SIMUBOX smotor (no EI) wiring with SD510- 400 V	p. 64
- End-limits setting	p. 66
- Troubleshooting	p. 69
• SIMUBOX SI EXTERNAL MOTOR	p. 71
- Installation	p. 72
- SIMUBOX SI motor wiring with key switch	p. 74
- End-limits setting	p. 76
- Troubleshooting	p. 77
• SDIOOHZ RADIO CONTROL BOARD	p. 79
- Installation	p. 80
- Installation and wiring	p. 81
- Box setting	p. 86
- Troubleshooting	p. 90
• SD350 CONTROL BOARD	p. 93
- Installation	p. 95
- Wiring of three-phase motor with SD350 - with manual override - 400 V	p. 96
- Troubleshooting	p. 98
• SD510 CONTROL BOARD	p. 99
- Presentation	p. 101
- Power wiring	p. 103
- Three-phase tubular motor wiring with SD510 - with manual override - 400 V	p 104
- SIMUBOX three-phase motor (no EI) with SD510 - 400 V	p 106
- End-limits setting	p. 108
- Key switch connection	p. 108
- Safety device connection (for a shutter which cannot lift a person)	p. 109
- Safety device connection (for a shutter which can lift a person)	p. 112
- First power on	p. 115
- Expert level parameters	p. 123
- Consulting and programming maintenance	p. 127
- Troubleshooting	p. 132

- 4

### **IDENTIFYING A MOTOR STICKER**

Each SIMU motor has an identification sticker with a unique registration number, stuck on the tube, useful to have its technical information and ensure its traceability.

### STICKER FOR **UNIQUE** REGISTRATION WITH DATAMATRIX & BARCODE

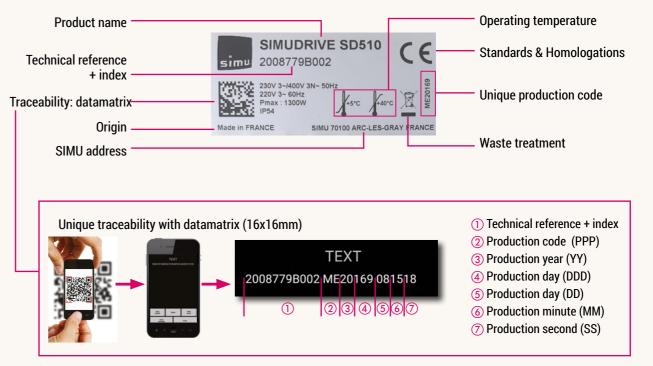


In case of repairing or of after-sales service, you may encounter motors with different stickers: there are older sticker models. However, the information given will be the same as those presented above.



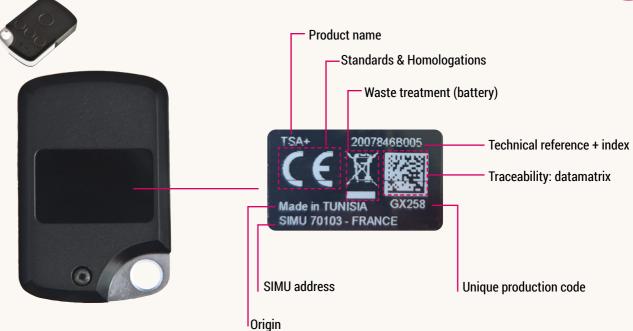
### STICKER FOR UNIQUE REGISTRATION WITH DATAMATRIX





### STICKER FOR UNIQUE REGISTRATION WITH DATAMATRIX









### **SECURITY**

**FROM MAY 1ST 2005**,

ALL THE STATE MEMBERS OF THE EUROPEAN UNION ARE REQUIRED TO APPLY EUROPEAN STANDARD EN 13241-1 FOR THE CERTIFICATION

OF ALL INDUSTRIAL, COMMERCIAL AND GARAGE DOORS.

### The main requirements are:

- Solution to avoid shutter curtain fall (safety brake)
- Solution to avoid closing risks
- Solution to avoid opening risks



### The ( marking is the compliance of the manufacturer with the EN 13241-1 standard.

### The manufacturer must supply to installers:

- Installation and removal instructions
- User's manual
- Maintenance manual
- Declaration of conformity
- Declaration of performance



### APPLICABLE STANDARDS

### **EUROPEAN DIRECTIVES AND STANDARDS**

All European countries are required to comply with European directives for products placed on the market. Compliance with harmonised standards provides a presumption of conformity with the essential health and safety requirements of the European directives that reference them. One of the major changes linked to the transition to the new European standards and directives is the notion of responsibility if the product is the result of the assembly of components from several suppliers, the installer is considered, in fact, responsible for the whole installation.

### **SCOPE AND RESPONSIBILITIES**

The motorised product must be installed by a professional in the field of motorisation and home automation. The installer must ensure that the installation of the drive complies with the relevant standards in the intended area of application and the electrical installation regulations in force in the country of use. Before installing and using the motorization, carefully follow the instructions in the manual supplied with the product and the safety instructions. All use of the motorization outside of the field of application is strictly prohibited. Wrongful use or other failure to comply with the instructions in the manual would dismiss SIMU from any liability and guarantee. The installer must inform his customers of the conditions of use and maintenance of the motorization and must give them the instructions for use and maintenance, as well as the document enclosed with the product (instructions and safety). Any after-sales service operation on the operator requires the intervention of an operator and home automation professional. If you have any doubts about the installation of the operator or if you need further information, please contact a SIMU representative or visit www.simu.com

### THE CONTROL MODE

### **DEADMAN**

with permanent visual control

You have to HOLD the button or the key to OPEN or CLOSE the door. You have always a view during the You have always a view on the door movement of the door.

You don't need safety accessories.

### **MIXED MODE**

with permanent visual control

You have to HOLD the button or the key to CLOSE the door. during the down command.



You don't need safety accessories. This mode is forbidden for grills.

### **IMPULSE MODE** stable mode

You OPEN and CLOSE the door by IMPULSE command.



You have to install safety accessories to secure the closing in all cases.

You have to put safety accessories to secure the opening if you have crushing, shearing, lifting or drawing-in point (ie grills)



### INSTALLATION RECOMMENDATIONS

WARNING: This document does not exempt the installer from carrying out a risk analysis of the installation, as he is fully responsible for it; The recommendations below are given for information purposes only and SIMU cannot be held responsible for any failure to comply with the requirements of the applicable standards.

The following table shows SIMU's recommendations on the safety elements to be integrated according to its situation and operating mode.

Safety brake	S







THAT OPEN ONTO ON PUBLIC ROAD (INCLUDE COLLECTIVE HOUSING)					
Control maintained within sight	YES	NO	NO	YES	YES
Pulse control	YES	YES	YES *	YES	NO
Automatic control (automatic door closure)	YES	YES	YES *	YES	NO
THAT OPEN ONTO ON PUBLIC ROAD					
Control maintained within sight	YES	NO	NO	NO	YES

THAT OPEN ONTO ON PUBLIC ROAD					
Control maintained within sight	YES	NO	NO	NO	YES
Pulse control	YES	YES	YES *	NO	NO
Automatic control (automatic door closure)	YES	YES	YES *	YES	NO

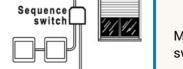
for the roller grills, cell sets at the top are also needed



### **WIRING PRECAUTIONS**

2 switches on same motor : **NOT ALLOWED** 



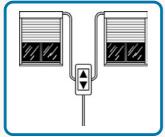


Mandatory use of sequence switch or control device.



only electronic motors allow this type of wiring : please contact us.





Mandatory use of double pole switch or control device





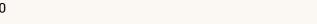
The yellow and green wire is used for earth connection only.









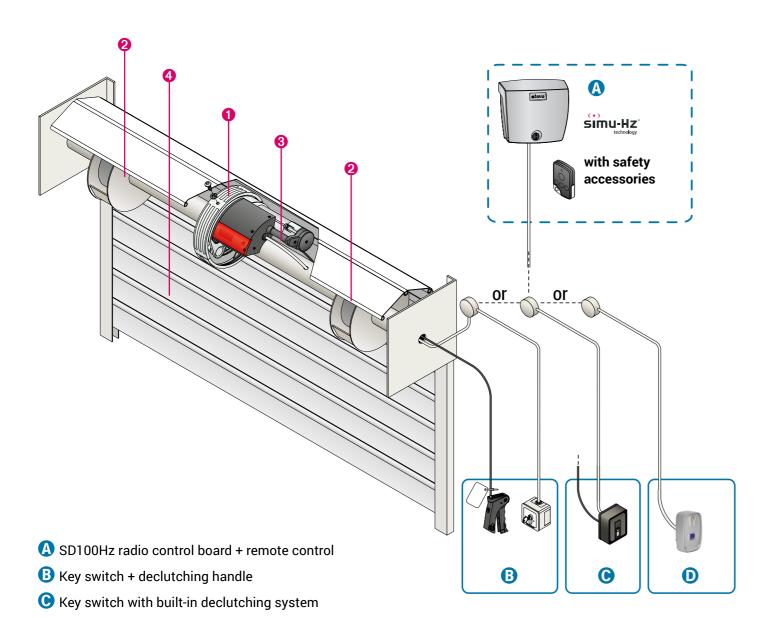


### **INSTALLATION**



**₽** YouTube

- **1** CENTRIS motor
- Spring boxes
- **1** Tube Ø 60 or 76 mm
- 4 Curtain or rolling grill

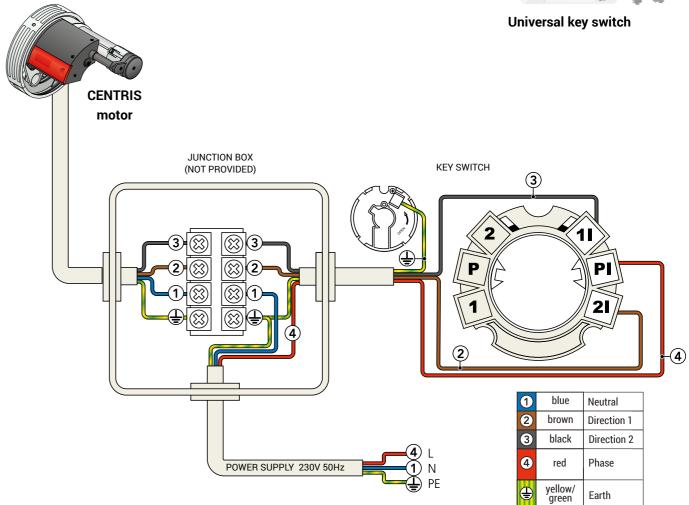


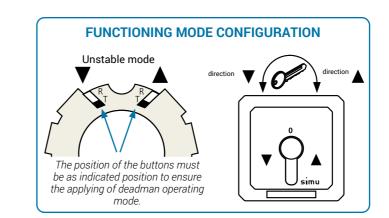
### WIRING WITH KEY SWITCH

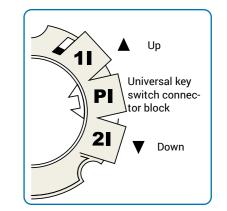


- DEADMAN OPERATING MODE IS MANDATORY TO CLOSE THE CURTAIN WITH A KEY SWITCH.
- DEADMAN OPERATING MODE IS MANDATORY TO OPEN THE CURTAIN IF A PERSON COULD BE LIFTED.
- MIXED OPERATING MODE IS ALLOWED IF THE CURTAIN COULDN'T LIFT A PERSON.













Declutching security box + switch

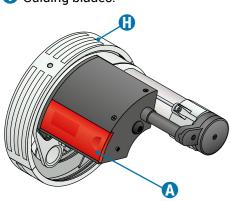
### **END LIMITS SETTING**

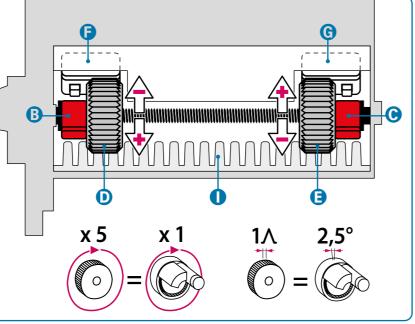


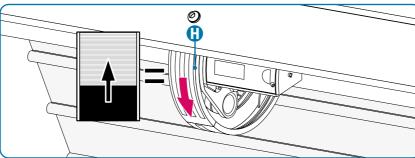
### **►** YouTube

### **IDENTIFYING THE END LIMITS**

- A Sliding end limits box cover
- B and Removable memory rings
- nd Rotary adjusting wheels
- and G Electric switches
- Hotor crown.
- Guiding blades.





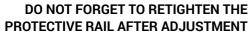


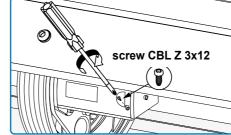
### **DOWN END-LIMIT ADJUSTMENT**

- 1 Put electrically the shutter to the DOWN wished position
- 2 Remove the memory ring of the right side **©**.
- 3 Turn the right adjusting ring in the "-" direction until to activate the switch .

### **UP END-LIMIT ADJUSTMENT**

- 1 Put electrically the shutter to the UP wished position (noise of the blades 1).
- 2 Move the shutter down up to the floor.
- 3 Remove the memory ring of the left side **(B)**.
- 4 Turn the left adjusting ring **D** turns in the "-" direction (tip: mark the wheel with a pencil).







Move the shutter up and down to check the end limits positions. If necessary, turn the adjusting wheels in the "+" direction to increase shutter run or in the "-" direction to decrease shutter run.

### **TROUBLESHOOTING**

PROBLEMS	POSSIBLES CAUSES	SOLUTIONS
The motorized product is not working	The motor is on thermal cut	Wait until the motor cools down
The motorized product is running without driving the curtain	The declutching system is active	Check that the declutch cable is not wound up or that the clutch lever is deactivated
The curtain doesn't go up and down	The motor is disengaged and doesn't move the curtain	- Cut the power off - Re-engage the motor by the clutch handle - Operate the curtain
The motor is operating in one	Key switch not properly wired	Check the operating of the motor with direct power supply
direction only	Wrong balancing	Check the balancing of the curtain
The motor stops before	Wrong end limit setting	Set the end-limit on the good position
its end-limits	Wrong balancing	Check the balancing of the curtain
	No end-limit setting	Set the end-limit on the good position
The motor losts its end-limits	Dismantling of the teeth on the end-limit unit system	Check the teeth condition and align them



# (ENTRIS VEONZ



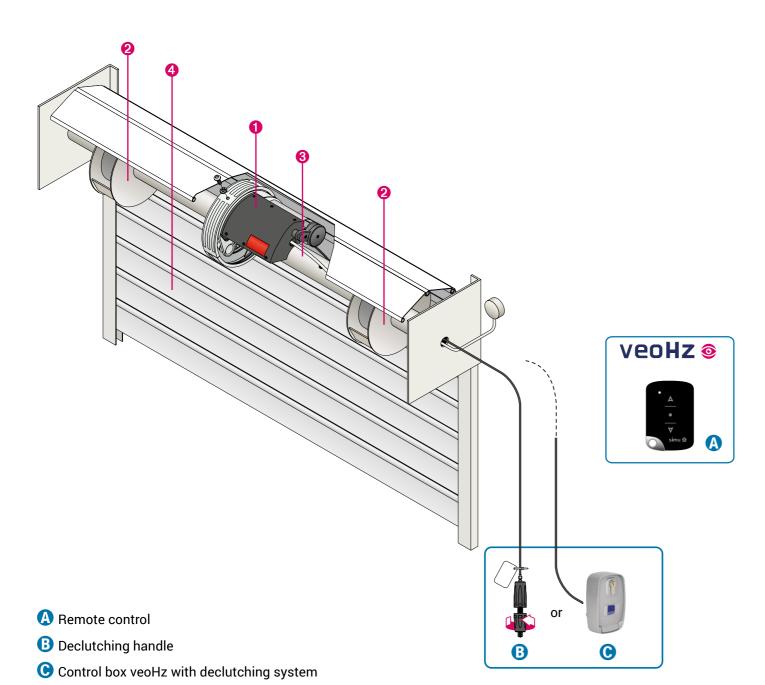


### **INSTALLATION**





- 1 Centris veoHz central motor
- Spring boxes
- **3** Tube Ø 60 or 76 mm
- 4 Curtain or rolling grill



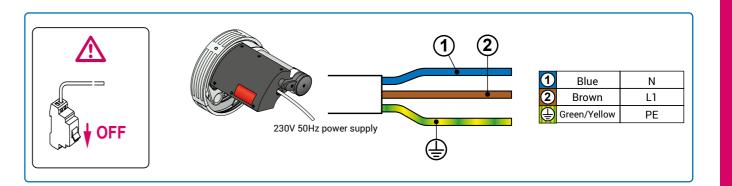
### **WIRING DIAGRAM**



The installation of the power supply must comply with the standards in force in the country where it is installed; the power line must be reserved exclusively for the motor and provided with adequate protection.

An all-pole disconnection device must be provided:

- Either via a power cable with a plug.
- Or by a switch providing a contact separation distance of at least 3 mm on each pole (see EN60335-1 standard).
- Make the connections when the equipment is not live.
- Do not connect the motor to a power source (mains) before completing the installation.



### **COMPATIBLE TRANSMITTERS**

The CENTRIS veoHz motor is compatible with Simu veoHz transmitters only. Refer to the corresponding instruction manuals.

- Max. 12 transmitters per motor in total





TSA 3B veoHz

Control box veoHZ

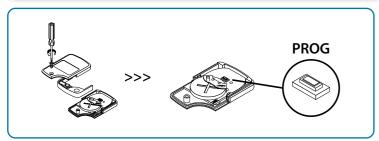


Move the transmitter away from any metal surface which may prevent it from operating correctly (loss of range)





### LIMIT SWITCH SETTINGS



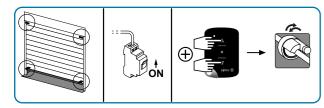


Please identify the prog button to start setting. This button is necessary to set end-limits.

Perform all the programming with the transmitter that will control the closing.

The upper and lower stop points are mandatory (mounting with at least 2 M5 screws per stop point).

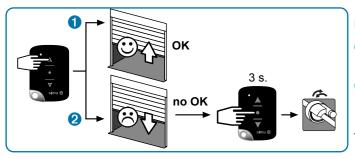
### 1- ENTER THE SETTINGS MODE



- Switch on the motor.
- Simultaneously press the keys ▲ and ▼ on a veoHz transmitter
- -> The motor responds with a "short rotation".

This transmitter controls the motor with a press and hold mechanism (by default).

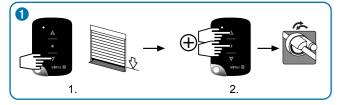
### 2- SETTING THE ROTATION DIRECTION

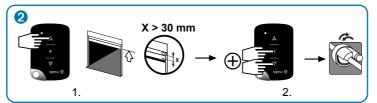


Press the ▲ key on the transmitter.

- 1) If the shaft rotates in an upward direction, the direction is correct and you can proceed to step 3.
- ② If the shaft rotates in a downward direction, the direction is wrong and you must reverse the rotation direction by the • STOP key for at least 3 seconds
- → The motor confirms the setting by a "short rotation".

### **3- LIMIT SWITCH SETTINGS**





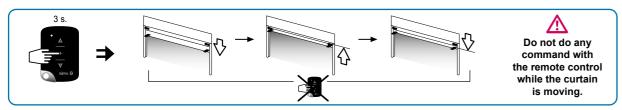
### 1 Lower hold point

- 1. Position the motor on the wanted lower hold point.
- 2. Simultaneously press the keys STOP et ▼ to set the lower hold point
- -> The motor confirms the setting by a "short rotation".

### **2** Upper hold point

- 1. Position the motor on the wanted upper hold point. The upper hold point must be located at a distance greater than 30 mm from the upper stop point.
- 2. Simultaneously press the keys STOP et ▼ to set the upper hold point
- → The motor confirms the setting by a "short rotation".

### 4- VALIDATION OF SETTING



After saving the upper and lower stop points, confirm the settings:

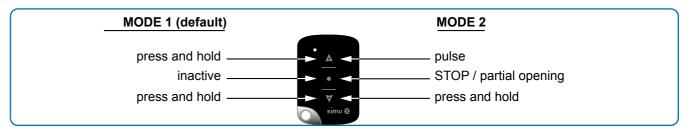
- Press • STOP for 3 seconds. The motor rotates 0.5 second in the downward direction and then automatically rises to force the upper stop points and "de-compresses".

At this step, you can modify the motor command mode, before completing the programming by validating the first command point.

### **COMMAND MODE**



Note that the command mode cannot be changed once the first transmitter is validated. In this case, a complete reset of the motor is required.



### MODE 1

→ by default, command by press and hold to raise and lower.

### MODE 2

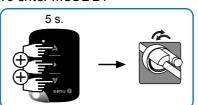
→ command by pulse press to raise and press and hold to lower.

MODE 2 is authorised only if there is no crushing, shearing, lifting or drawing-in point as defined in EN12453:2001 standard §4.1.1 and §4.1.2.(e.g.: grilles and curtains with projections that may be used to lift a person are not authorised with MODE 2). Failure to follow these instructions will result in a hazardous situation that could result in death or serious injury. Choosing this mode engages the full liability of the installer.

### **CHANGE OF MODE**

If the default command mode MODE 1 is appropriate, do not perform this step and skip to the next chapter.

### To enter MODE 2 :



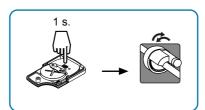
- Position the curtain outside the limit switch positions.
- Simultaneously press the keys STOP, ▲ and ▼ for 5 seconds
- -> The motor confirms the setting by a "short rotation".

You now control the motor by pulse to raise and by press and hold to lower.

If you are not satisfied with this mode or you feel that it may have any danger to people and property, go back to MODE 1:

- To go back to MODE 1, simultaneously press the keys STOP, ▲ and ▼ for 5 seconds
- → The motor confirms the setting by a "short rotation".

### VALIDATION OF THE FIRST COMMAND POINT



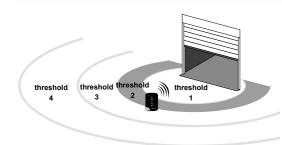
At this step, you need to validate the 1st command point.

- Press the PROG key of the transmitter for 1 second.
- → The motor confirms the setting by a "short rotation".

Your transmitter is now set and controls the motor according to the mode defined before.



### CONTROL OF THE VISUAL COMMAND



The EN12453:2001 standard §5.1.1.4 stipulates that the person operating the door must always have a direct view of the door, be close to the door when the shutter is moving and not remain in a dangerous position.

By default, the VEO Hz mobile transmitters have a very short radio range (setting on threshold 2).

It is the responsibility of the installer to ensure that the defined radio range guarantees a visual command.

- If you feel that this very short range does not allow controlling the product appropriately, you can increase it (threshold 3 threshold 4), provided that the new radio range guarantees an exclusively visual command.
- If you feel that this very short range does not allow visually controlling the product, you can decrease it (threshold 1).

### CHANGING THE RADIO RANGE (THRESHOLDS 1 - 2 - 3 - 4)

If the transmitter's default range is appropriate (threshold 2), do not perform this step. .

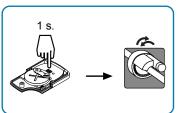
First remove the rear screw on the transmitter to quickly access the PROG button (as you will have 15 seconds to confirm the threshold selection).

- Put the curtain outside the limit switch positions.
- Simultaneously press the keys ▲ and ▼on the VEO Hz transmitter for 5 seconds —> The motor responds with a "short rotation".

To increase the range, press  $\blacktriangle$ . To decrease the range, press  $\blacktriangledown$ .

The motor performs a "short rotation" corresponding to the selected threshold:

- Threshold 1: a rotation of 0.5 s.
- Threshold 2: two rotations of 0.5 s.
- Threshold 3: three rotations of 0.5 s.
- Threshold 4: four rotations of 0.5 s.



After selecting your threshold, confirm the setting within 15 seconds by pressing "Prog" for 1 second

-> The motor confirms the setting by a "short rotation".

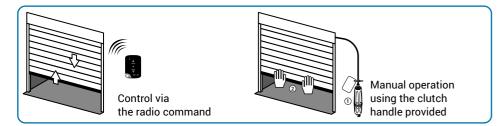
Ensure that the new range ensures an exclusively visual command.

This new radio range is valid for all mobile transmitters that will be programmed later. When the transmitter is out of the defined range, its orders are ignored.

### **USE**



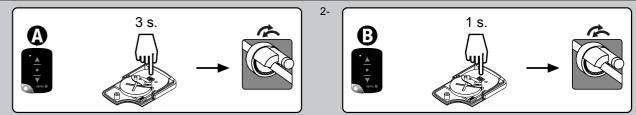
If the power supply is disconnected for over 30 seconds, the next radio command authorised will only be to raise the curtain to the upper stop points (resetting). The motor forces the stop points before "decompressing".



- Instructions for use: refer to the command point manuals and the clutch system manual.
- The motor does not require any maintenance operations. Change the batteries of your command points after 2 years or before that, depending on how frequently it is used.

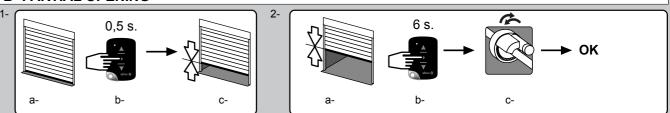
### **OPTIONAL SETTINGS**

### A- PROGRAMMING A NEW MOBILE OR FIXED COMMAND POINT



- 1- Open the motor's memory from the previously programmed transmitter (9: Press the PROG key of the transmitter for 3 seconds
- →The motor responds with a "short rotation".
- 2- Validate the operation from the new transmitter 19: Press the PROG key of the new transmitter for about 1 second
- → The motor responds with a "short rotation".
- If the new command point is mobile, its range will be equal to that defined before. All mobile or wall-mounted transmitters control the motor according to the command mode selected before.
- With respect to a fixed command point, it is the responsibility of the installer to mount this command point where it is visible from the curtain
- To delete a transmitter from the motor memory: perform operation 1- from a transmitter ① that was previously programmed and operation 2- from the transmitter ② to be deleted.

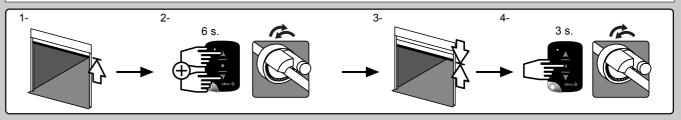
### B- PARTIAL OPENING



This function is provided only for MODE 2 (raise by pulse press) and for upward movement

- 1- CHECK if the default "partial opening" position is suitable.
- a- To do this, position the curtain in the lower position.
- b- Press the STOP key for 0.5 S.
- c- The curtain goes back to its "partial opening" position.
- 2- CHANGE THE "PARTIAL OPENING" POSITION if the default position is not suitable
- a- For this, position the curtain at the desired "partial opening" position.
- b- Press the STOP key for 6 seconds —> The motor confirms the setting by a "short rotation".
- c- The new position of the partial opening is saved.

### C- CHANGING THE POSITION OF THE UPPER LIMIT SWITCH

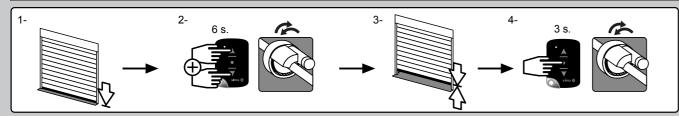


- 1- Put the motor on the current upper end-limit position by using the key  ${\color{gray}\blacktriangle}$
- 2- Simultaneously press the keys ▲ and ▼ for 6 seconds —> The motor responds with a "short rotation".
- 3- Put the curtain on the wanted limit switch using the keys ▲ and ▼.
- 4- Press the STOP key for 3 seconds —> The motor confirms the setting by a "short rotation".

The new end-limit position is saved.



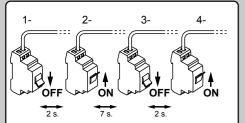
### D- CHANGING THE POSITION OF THE LOWER LIMIT SWITCH



- 1- Put the motor on the current lower end-limit position by using the key ▼.
- 2- Simultaneously press the keys ▲ and ▼ for 6 seconds —> The motor responds with a "short rotation".
- 3- Put the curtain on the wanted limit switch using the keys ▲ and ▼.
- 4- Press the STOP key for 3 seconds —> The motor confirms the setting by a "short rotation".

The new end-limit position is saved.

### E- CANCELLATION OF THE PROGRAMMING AND LIMIT SWITCH SETTINGS



- 1- Cut the power supply of the motor for 2 seconds.
- 2- Power on the power supply of the motor for 7 seconds.
- 3- Cut the power supply of the motor **for 2 seconds**.
- 4- Power on the power supply of the motor.
- -> The motor responds with a "short rotation"



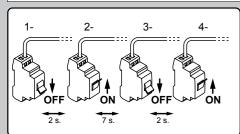


Take a transmitter previously programmed or not on the motor.

Press the PROG key of this transmitter for 1 second until the motor responds with a "short rotation".

This transmitter is now the only one programmed on the motor, all other transmitters are erased. However, the motor settings are not changed.

### F- CANCELLATION OF THE PROGRAMMING AND LIMIT SWITCH SETTINGS



- 1- Cut the power supply of the motor for 2 seconds.
- 2- Power on the power supply of the motor **for 7 seconds**.
- 3- Cut the power supply of the motor **for 2 seconds**.
- 4- Power on the power supply of the motor.
- -> The motor responds with a "short rotation"



### The motor is now in "programming cancellation" mode



If you change the power supply of multiple motors, they will all be ready for cancellation. It is therefore appropriate to "eject" from this mode all motors not concerned by this modification, by pressing a command key of a transmitte programmed with the motors to be ejected.

### Now validate the "programming cancellation" of the motor:



Press the PROG key of the transmitter for more than 7 seconds.

Press and hold until the motor responds with a "short rotation" and then a few seconds later -> the motor again responds with a "short rotation".

The motor memory is now completely empty.

Fully set the motor again.

### **TROUBLESHOOTING**

PROBLEMS POSSIBLES CAUSES		SOLUTIONS	
	The motor is thermally protected	Wait for the motor to cool down. If the motorised product still does not work, use the clutch device and contact a motor and building automation professional	
The motorised product is not working	The motor is disengaged	Re-engage the motor by re-screwing the clutch handle	
	Out-of-range command point	Get closer to the motor	
The product does not work properly	Command point at range limit	Get closer to the motor	
The down command is ignored	The motor suffered a power failure > 30s or a disengagement during a failure < 30s	Raise the curtain up to the upper stop points; the product will then make a short downward movement	
Transmitter LED flashing very fast or jerky movement of the product (need to restart every 3 sec.)	Low battery	Replace the battery, otherwise the curtain cannot be moved	
	Command point not compatible with VEO Hz	Get a VEO Hz command point	
I cannot pair my mobile transmitter	No more channels available (12 max)	Delete an existing transmitter	
	Out-of-range command point	Get closer to the motor	





# 18, TBM, TBS, TBS DMI



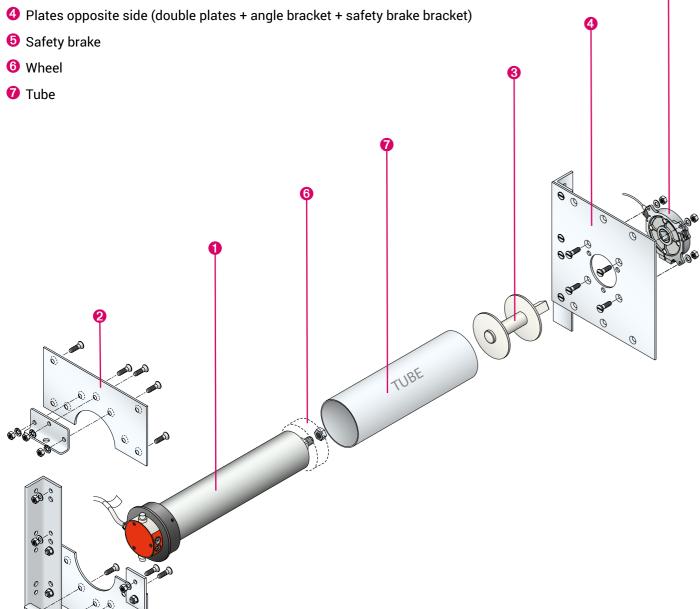




### **INSTALLATION**

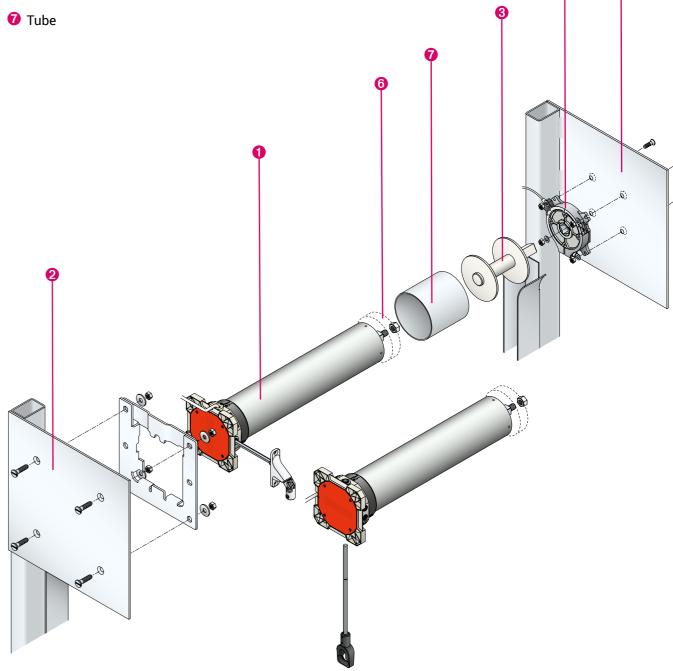
### TUBULAR MOTOR T8 - T8M

- 1 Tubular motor with or without manual override
- 2 Plates for motor side (double plates + angle bracket + motor bracket)
- **3** Adjustable bobbin with shaft



### TUBULAR MOTOR TOS - TOS DMI

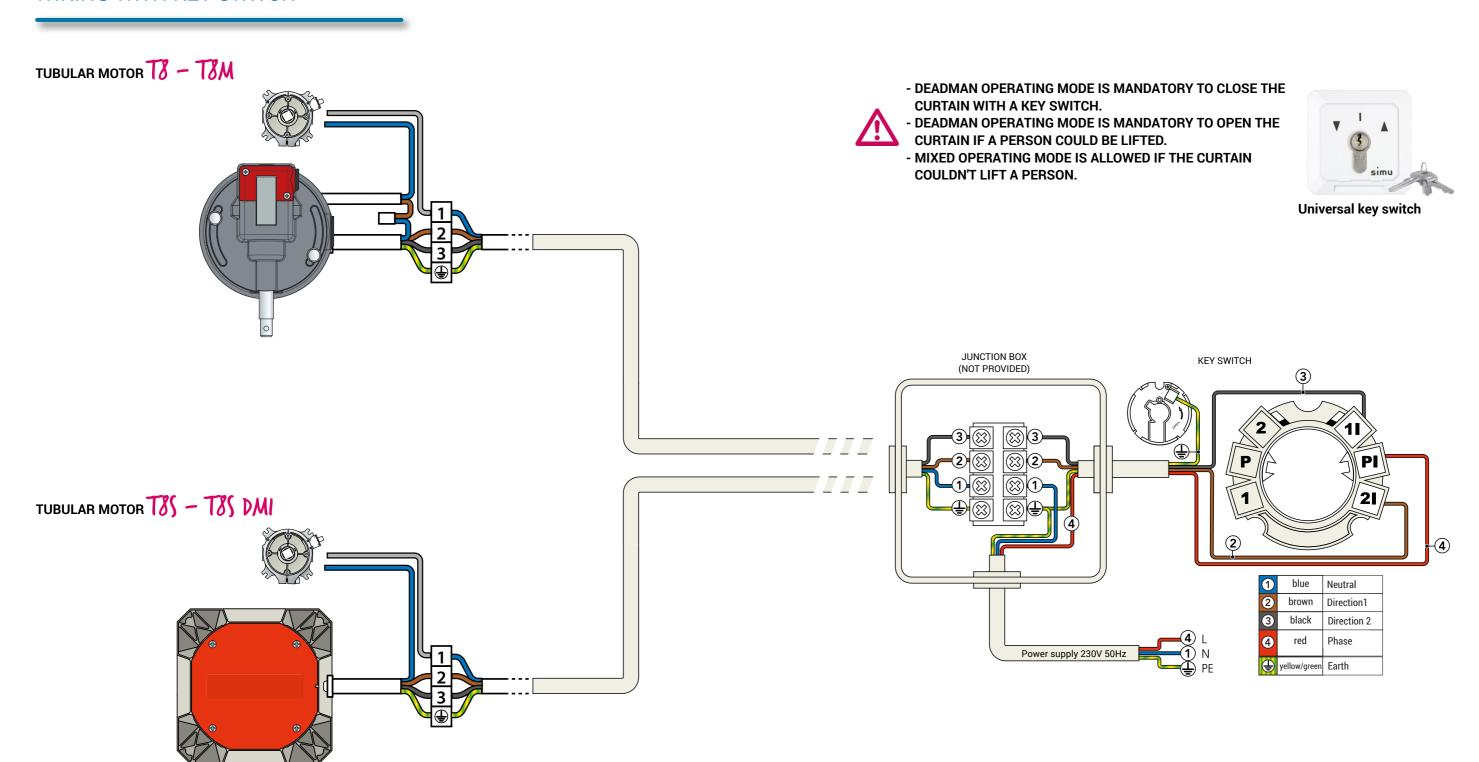
- 1 Tubular motor with or without manual override
- 2 Plates for motor side (double plates + angle bracket + motor bracket)
- 3 Adjustable bobbin with shaft
- 4 Plates opposite side (double plates + angle bracket + safety brake bracket)
- Safety brake
- **6** Wheel

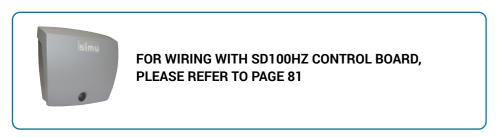


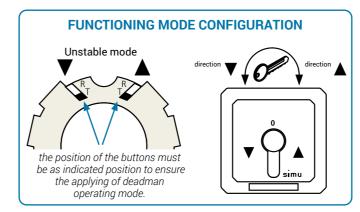


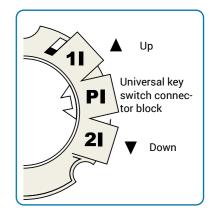


### WIRING WITH KEY SWITCH











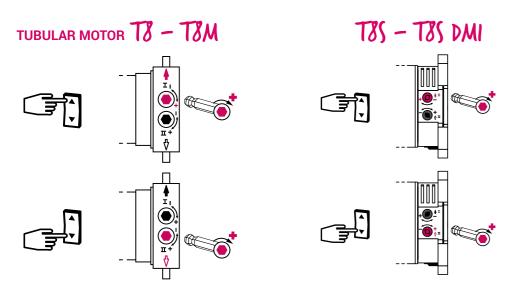


### **END-LIMITS SETTINGS**



### IDENTIFICATION OF THE SETTING SCREW.

- Identify the setting screw by arrows I and II on the head of motor, corresponding to the rotation of the winding. These will be used to modify the end-limits positions of both directions of rotation.
- Turn setting screw on clockwise direction (+) to increase the number of turns
- Turn setting screw on anticlockwise direction (-) to decrease the number of turns



### **SETTING THE END-LIMITS**

Setting the upper end limit:

Press the **A** key on the command point and adjust the position of the end limit by turning the corresponding adjustment screw.

Setting the lower end limit: Press the ▼ key on the command point and adjust the position of the end limit by turning the corresponding adjustment screw





PROBLEMS	POSSIBLES CAUSES	SOLUTIONS
The end-limits are lost	The adaptor crown is not fixed correctly (with the basic crown or with the tube)	Check that the end ring fixing screws are present on the base ring and on the roller tube.
The motor is operating in one direction only.	Connection problem	Please check the wiring of the command point (brown wire, black wire) and check the operating of the motor.
	The security end limit switch is activated (in case of use of manual override, don't cross up or down end-limit position)	Turn back few rounds with the manual override to operate the motor by command order again.
The motor doesn't operate.	The manual override system is active. The microswitch puts the power off.	Deactivate the manual override system
	The crank is hinged on the eye crank of the manual override. Due to its weight (very long and very heavy shaft), the microswitch cuts the power.	Remove the crank of the manual override when you don't use it
	The safety brake switch is active	Please check the continuity of the safety brake switch
The motorised product does not work.	The motorization is in thermal cut-off	Wait for the motorization to cool down





### 361

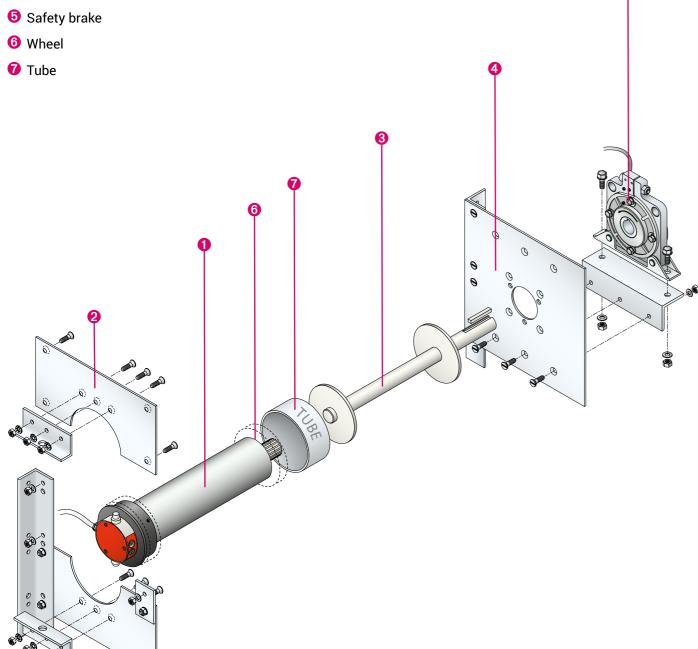


### **INSTALLATION**

### MOTOR TUBULAR T9 - T9M

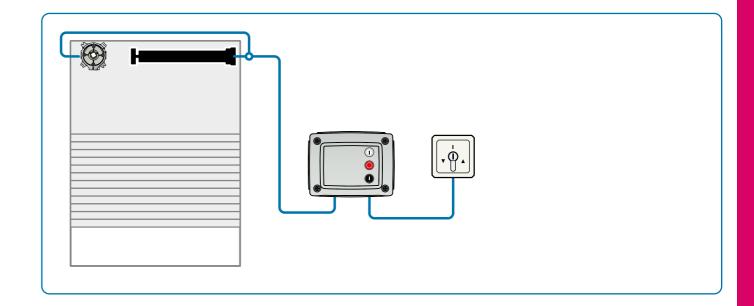
- 1 Tubular motor with or without manual override
- 2 Plates for motor side (double plates + angle bracket + motor bracket)
- 3 Adjustable bobbin with shaft
- 4 Plates for opposite side (double plates + angle bracket + safety brake bracket)



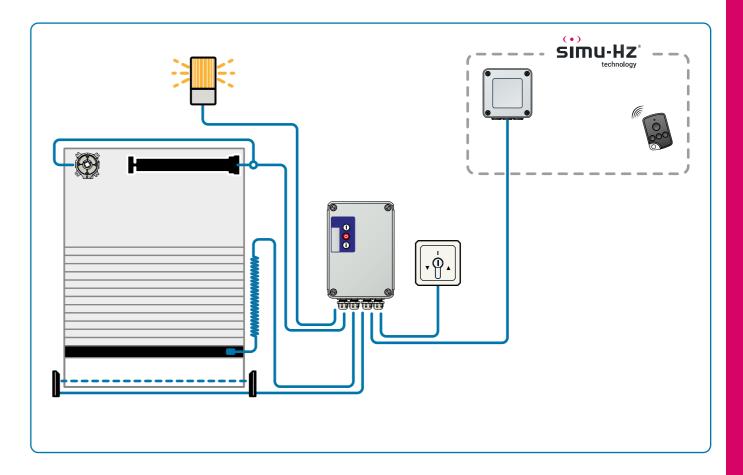


### **INSTALLATION EXAMPLES**

### WITH SD350 CONTROL BOARD



### WITH SD510 CONTROL BOARD

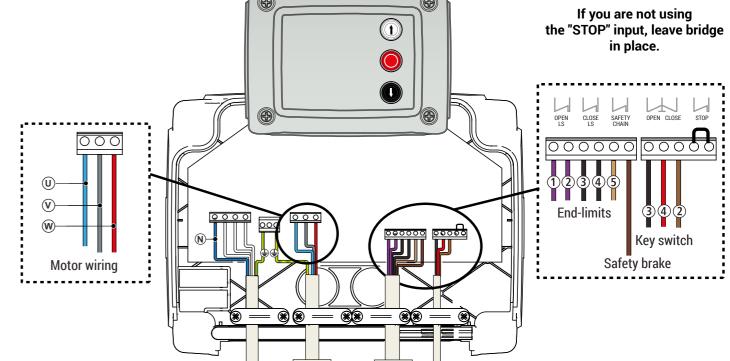


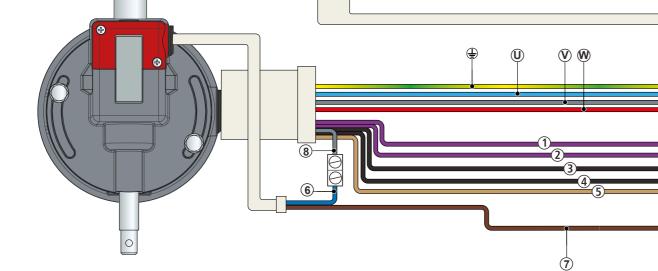












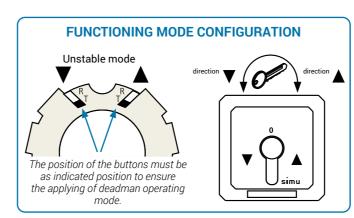
Three-phase 400V power supply

N	blue	neutral
<b>(5)</b>	white	phase 1
	white	phase 2
<b>B</b>	white	phase 3
		-

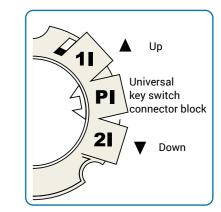
Motor

	wnite	phase 3
U	blue	three-phase motor
V	grey	three-phase motor
W	red	three-phase motor
<b>(</b>	yellow/green	earth

limit switch direction 1 limit switch direction 1 limit switch direction 2
limit switch direction 2
minit Switch direction 2
limit switch direction 2
overheating protection
manual override contact
manual override contact
overheating protection



Safety brake



brown

black

red

yellow/green Earth

3

4

Key switch

21

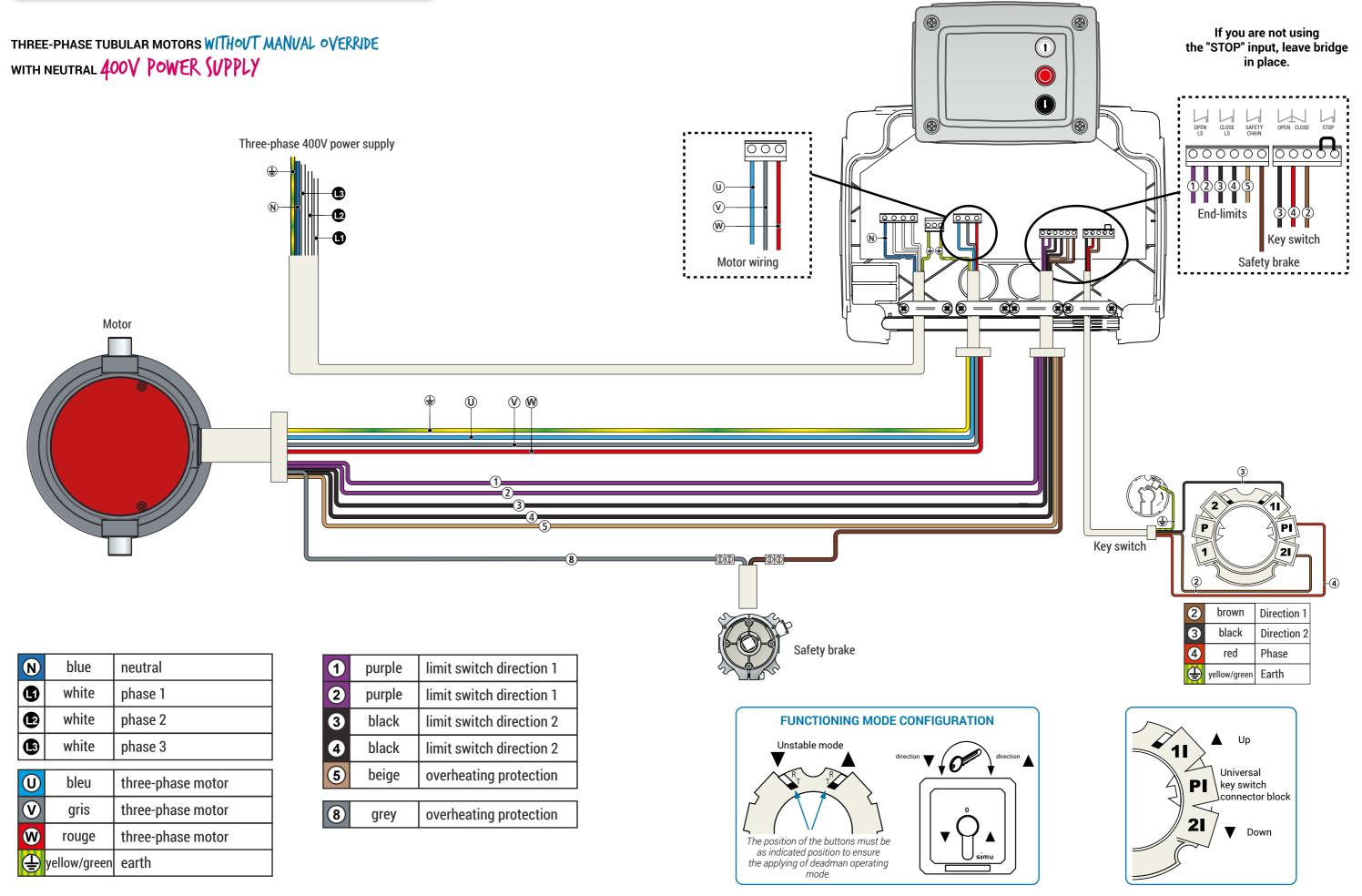
Direction 1

Direction 2

Phase

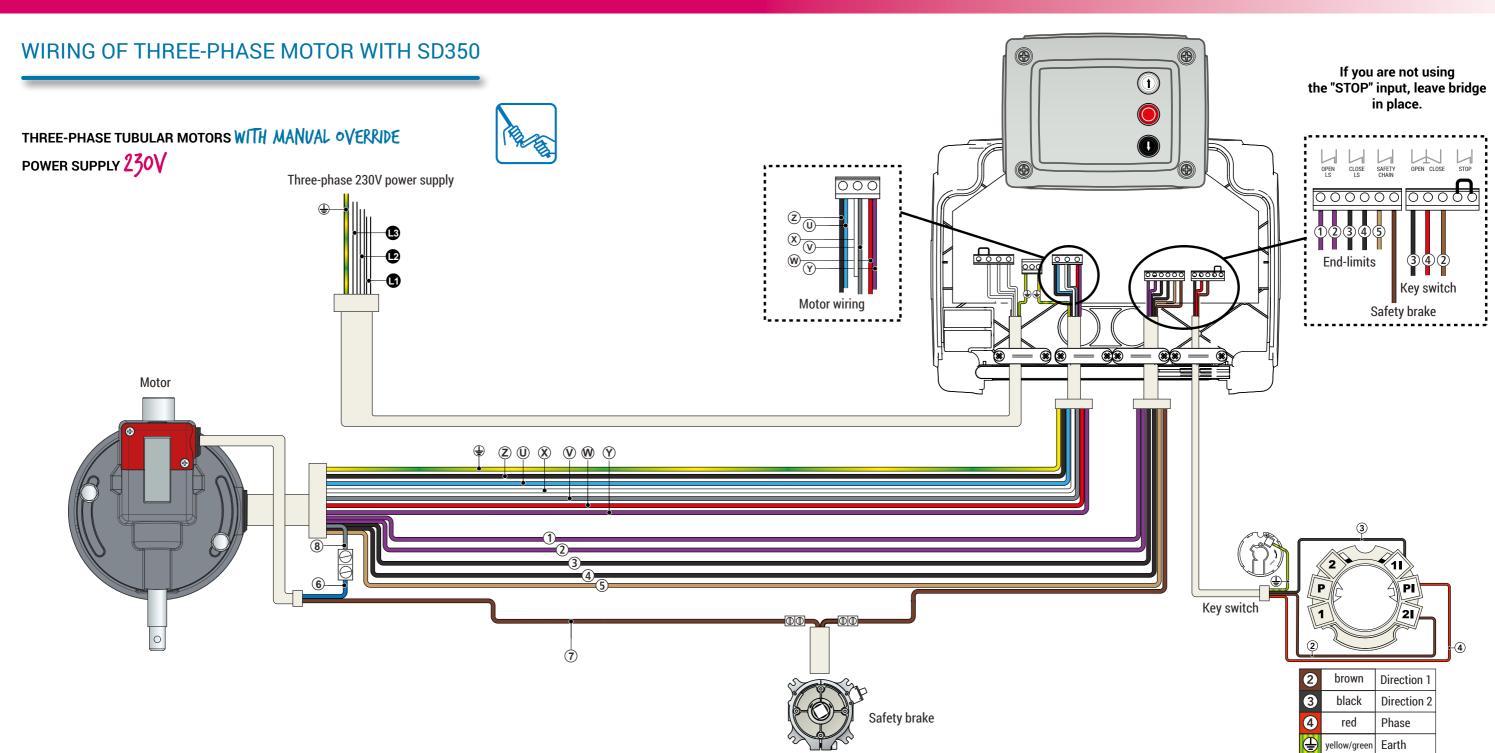






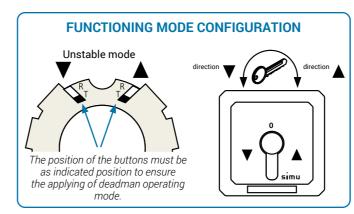


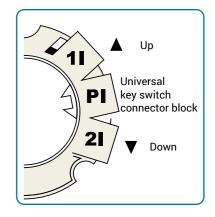




<b>5</b>	white	phase 1
1	white	phase 2
<b>B</b>	white	phase 3
	hlus	41
U	blue	three-phase motor
V	grey	three-phase motor
W	red	three-phase motor
<b>(</b>	yellow/green	earth
<b>X</b>	white	three-phase motor
Y	purple	three-phase motor
2	black	three-phase motor

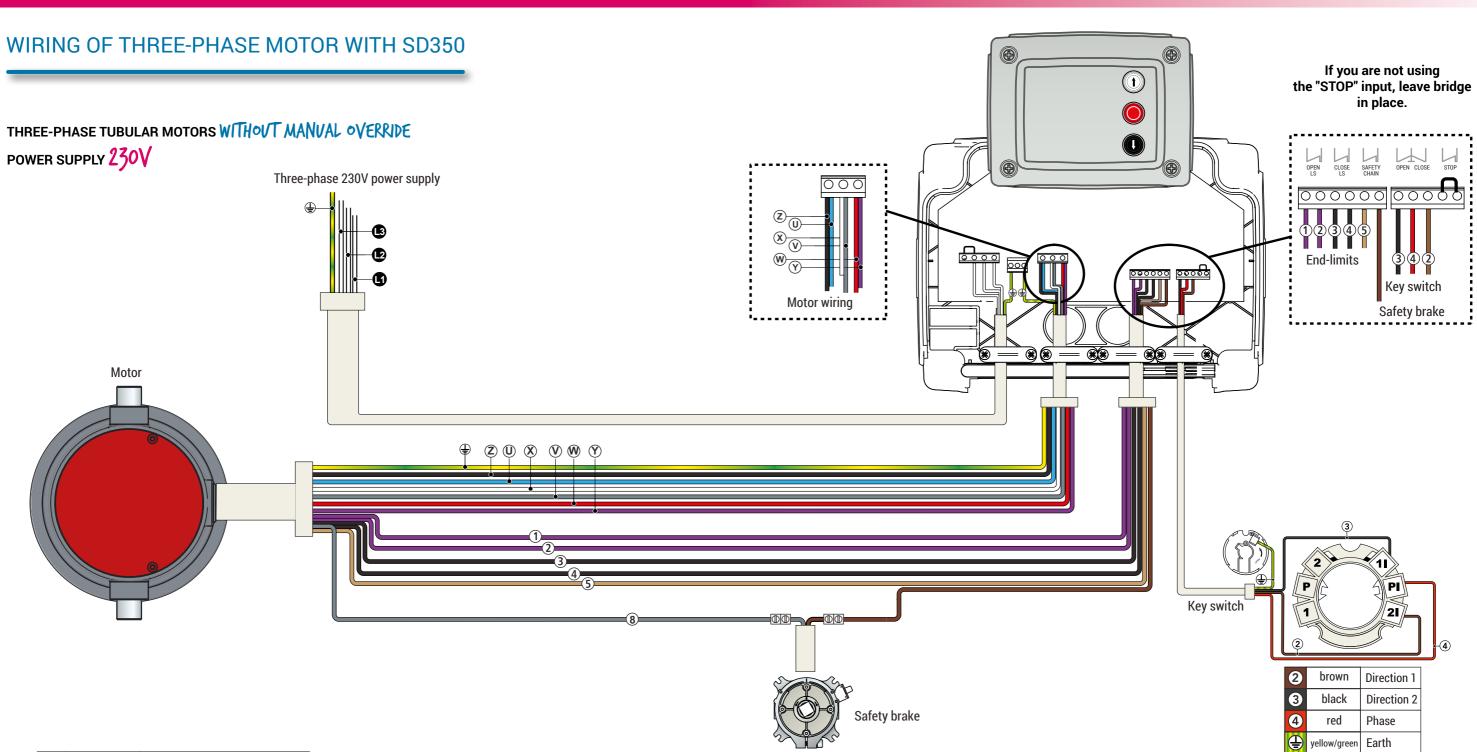
1	purple	limit switch direction 1
2	purple	limit switch direction 1
3	black	limit switch direction 2
4	black	limit switch direction 2
5	beige	overheating protection
6	blue	manual override contact
7	brown	manual override contact
8	grey	overheating protection
		·





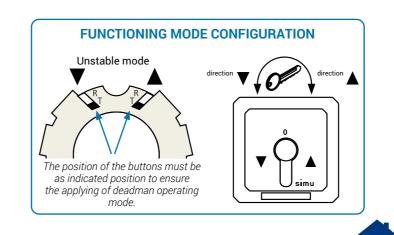


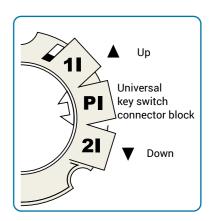




<b>(5)</b>	white	phase 1	
<b>D</b>	white	phase 2 phase 3	
<b>B</b>	white		
U	blue	three-phase motor	
V	grey	three-phase motor	
W	red	three-phase motor	
<b>(</b>	yellow/green	n earth	
X	white	three-phase motor	
Y	purple	three-phase motor	
2	black	olack three-phase motor	

1	purple	limit switch direction 1	
2	purple	limit switch direction 1	
3	black	limit switch direction 2	
4	black	limit switch direction 2	
5	beige	overheating protection	
8	grey	overheating protection	



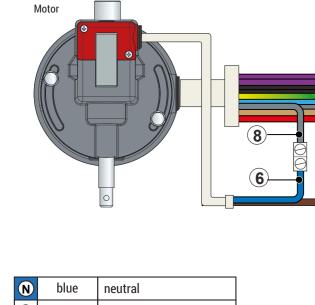








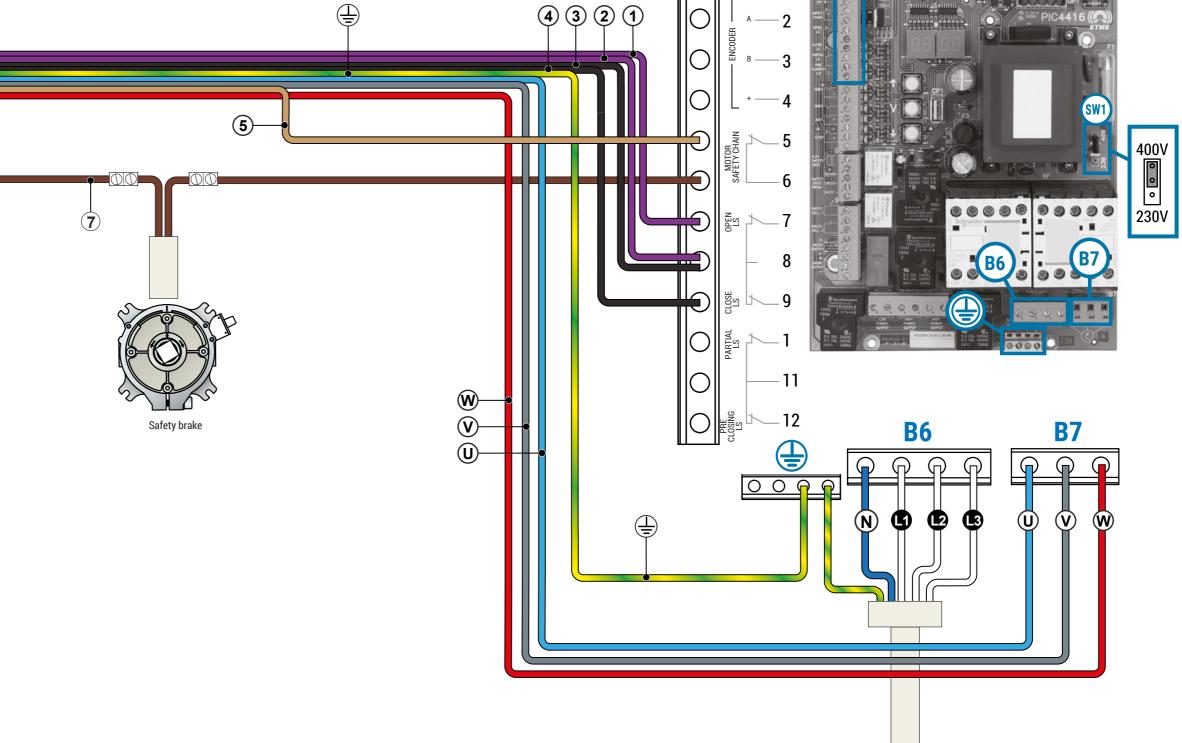




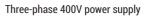
N	blue	neutral
3	white	phase 1
1	white	phase 2
<b>B</b>	white	phase 3

U	blue	three-phase motor
V	grey	three-phase motor
0	red	three-phase motor
<b>(4)</b>	yellow/green	earth

	, c, g. cc	Carti
1	purple	limit switch direction 1
2	purple	limit switch direction 1
3	black	limit switch direction 2
4	black	limit switch direction 2
5	beige	overheating protection
6	blue	manual override contact
7	brown	manual override contact
8	grey	overheating protection



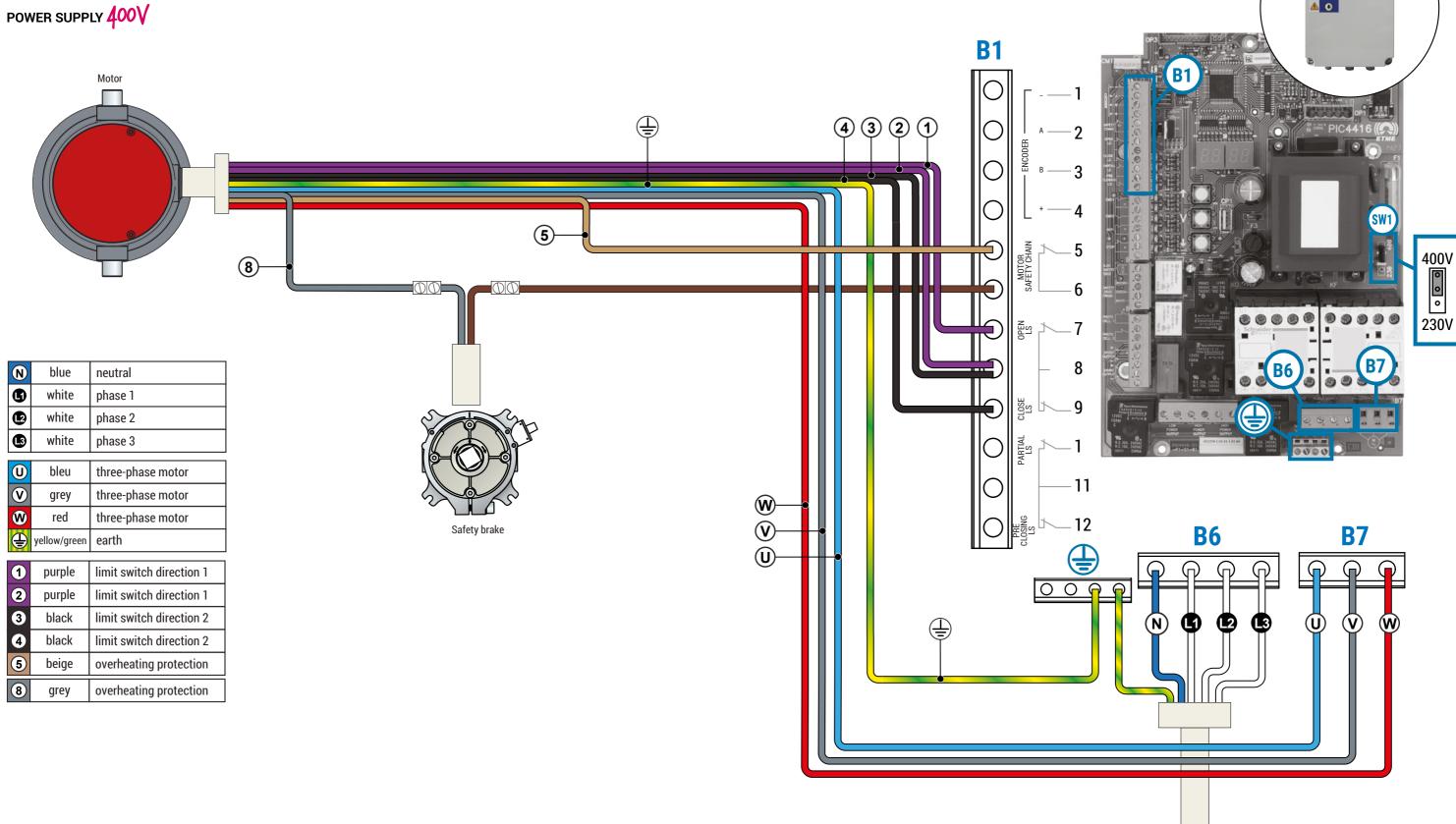
**B1** 







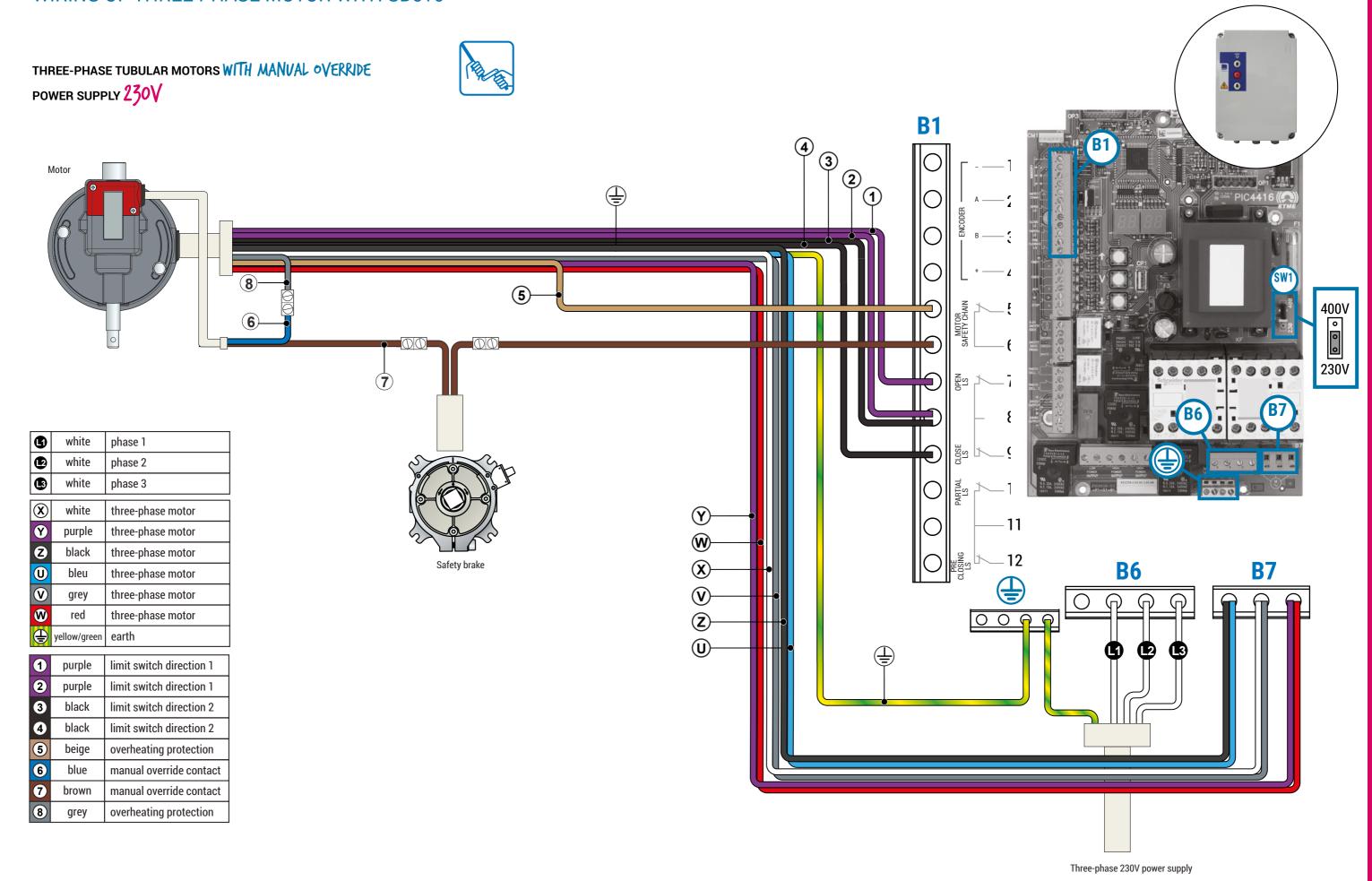
THREE-PHASE TUBULAR MOTORS WITHOUT MANUAL OVERRIDE POWER SUPPLY 400V



Three-phase 400V power supply



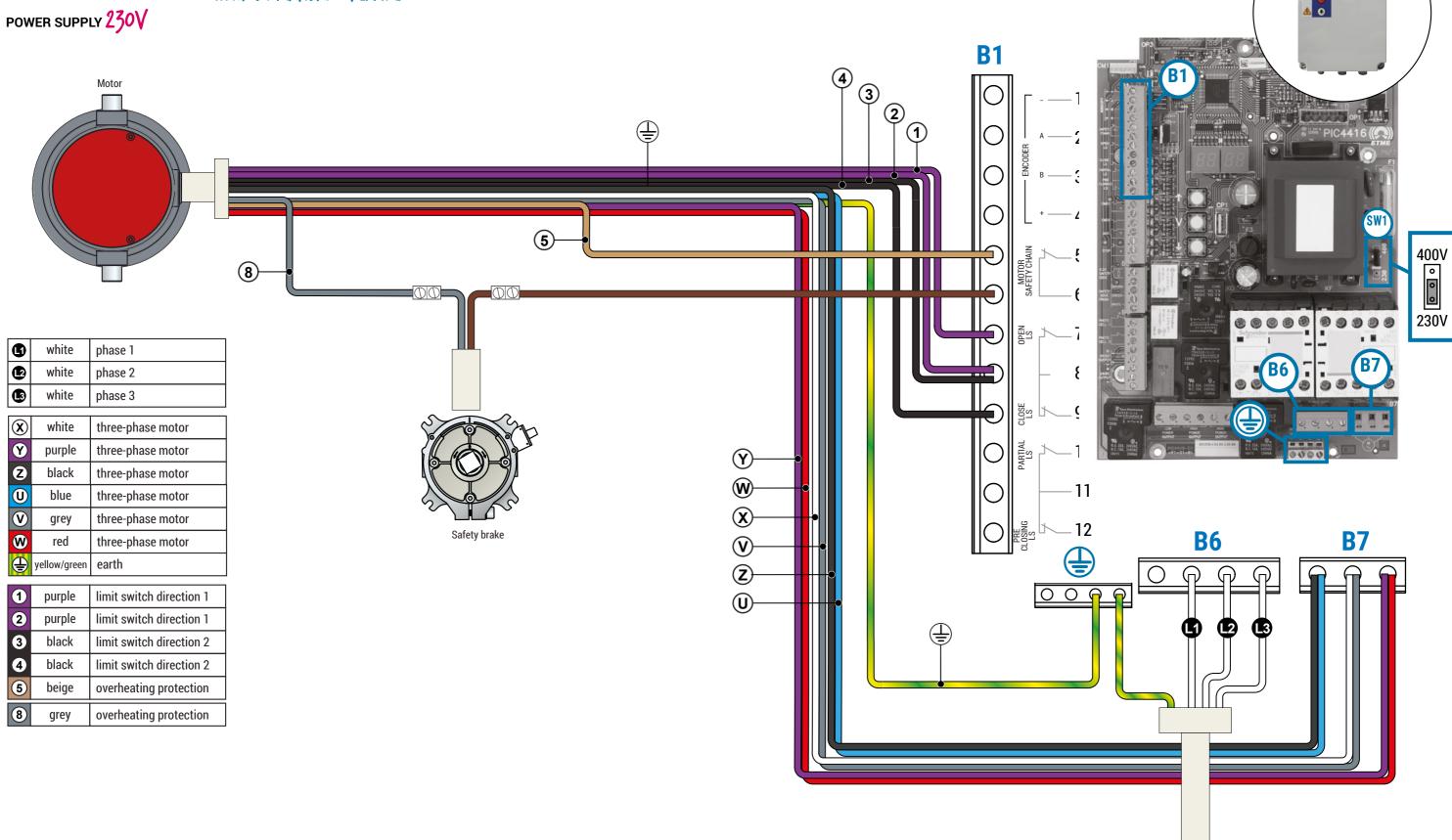








THREE-PHASE TUBULAR MOTORS WITHOUT MANUAL OVERRIDE



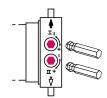
Three-phase 230V power supply





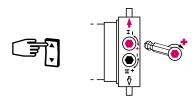
### **END-LIMITS SETTINGS**

### **IDENTIFICATION OF THE SETTING SCREW**



- Identify the setting screw by arrows I and II on the head of motor, corresponding to the rotation of the winding. These will be used to modify the end-limits positions of both directions of rotation.
- Turn setting screw on clockwise direction (+) to increase the number of turns
- Turn setting screw on anticlockwise direction (-) to decrease the number of turns

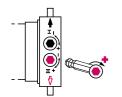
### **SETTING THE END-LIMITS**



Setting the upper end limit:

Press the  $\blacktriangle$  key on the command point and adjust the position of the end limit by turning the corresponding adjustment screw





Setting the lower end limit:

Press the ▼ key on the command point and adjust the position of the end limit by turning the corresponding adjustment screw







### **TROUBLESHOOTING**

PROBLEMS	POSSIBLES CAUSES	SOLUTIONS
The end-limits are lost	The adaptor crown is not fixed correctly (with the basic crown or with the tube)	Check that the screws fixing of the end crown are present on the base ring and on the winding tube.
The motor is operating in one direction only.	Connection problem	Please check the wiring of the command point (brown wire, black wire) and check the operating of the motor.
	The security end limit switch is activated (in case of use of manual override, don't cross up or down end-limit position)	Turn back few rounds with the manual override to operate the motor by command order again.
	The manual override system is active. The microswitch puts the power off.	Deactivate the manual override system.
The motor doesn't operate	The crank is hinged on the eye crank of the manual override. Due to its weight (very long and very heavy shaft), the microswitch cuts the power.	Remove the crank of the manual override when you don't use it.
	The safety brake switch is active	Please check the continuity of the safety brake switch.





### SIMUBO SIMUS

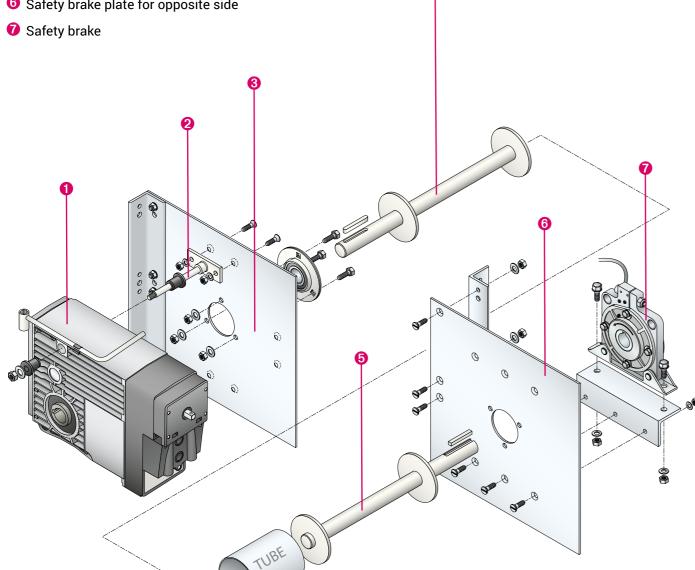




### **INSTALLATION**

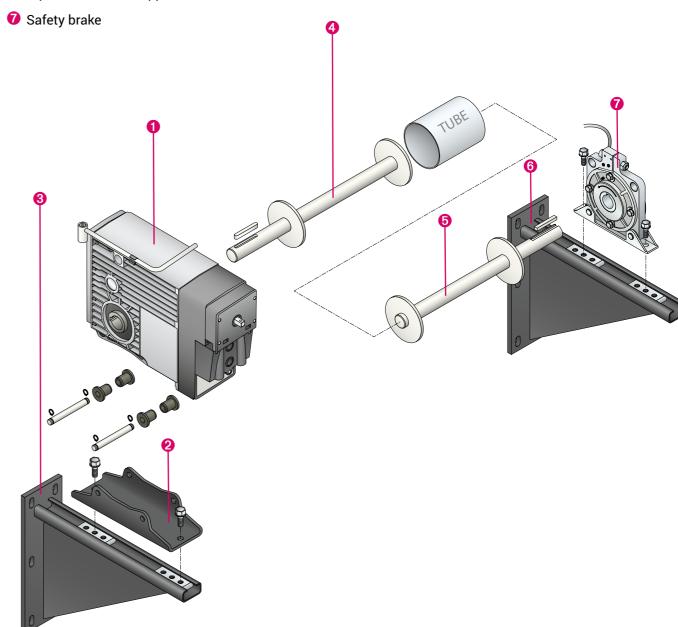
### WITH PLATES AND BLOCKING BAR

- 1 External motor SIMUBOX
- Block rod
- **8** Plate for motor side
- 4 Bobbin with shaft for motor side
- **5** Bobbin with shaft for opposite side (safety brake)
- **6** Safety brake plate for opposite side



### WITH MOTOR BRACKET AND SQUARE BRACKETS

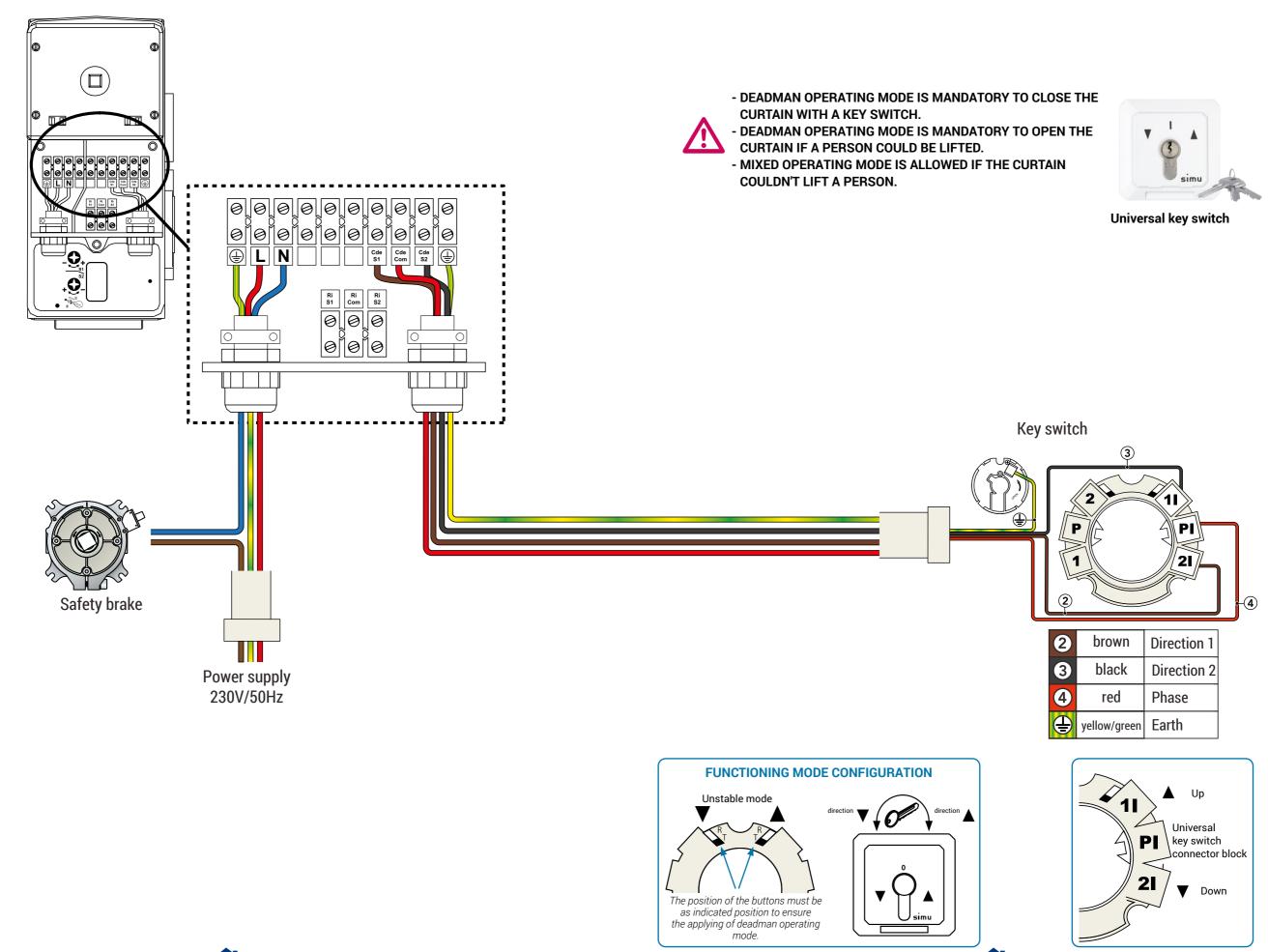
- 1 External motor SIMUBOX
- 2 Motor bracket
- 3 Bracket for motor side
- 4 Bobbin with shaft for motor side
- **5** Bobbin with shaft for opposite side (safety brake)
- **6** Square bracket for opposite side



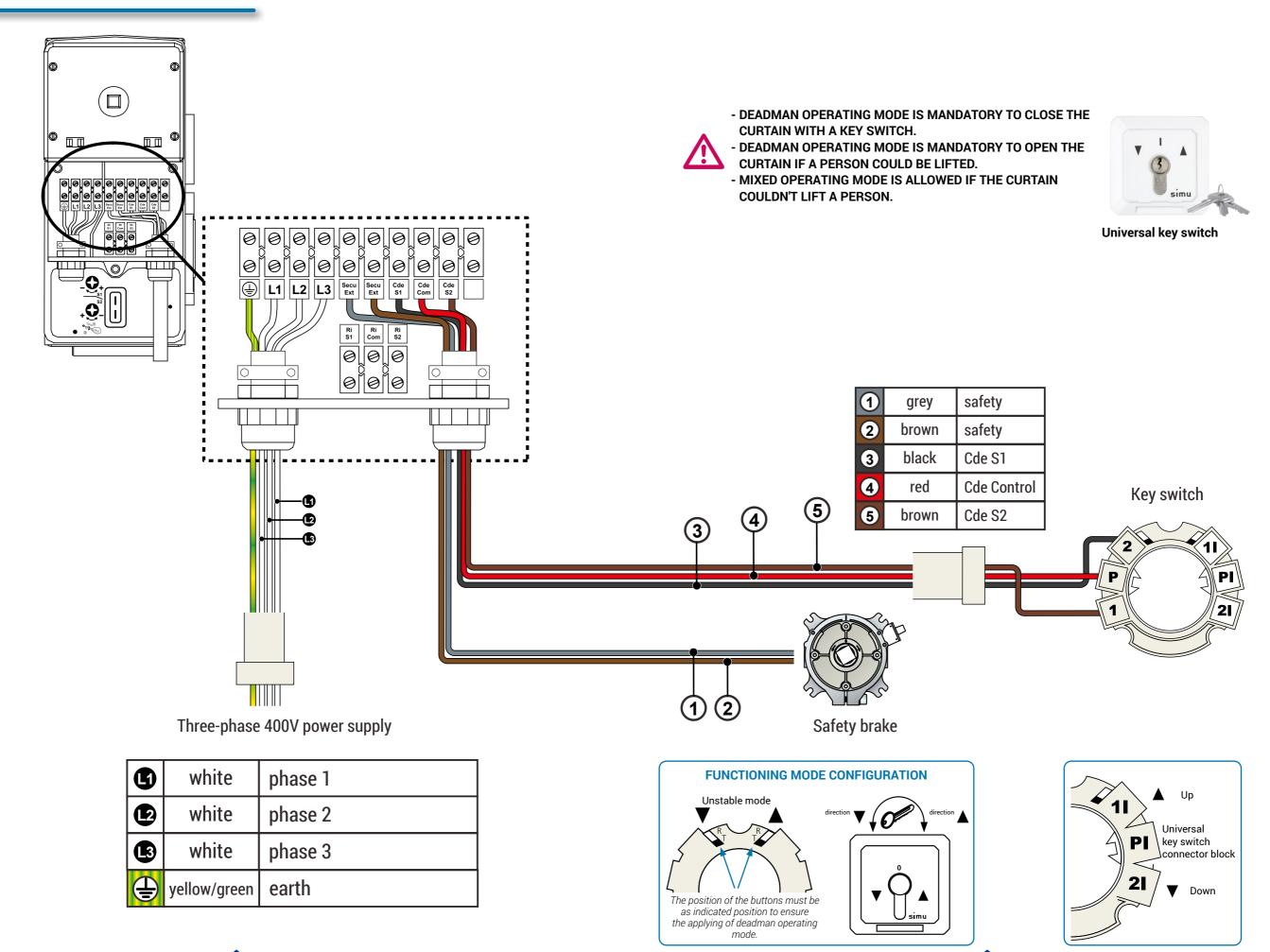




### SINGLE PHASE SIMUBOX MOTOR WIRING WITH KEY SWITCH

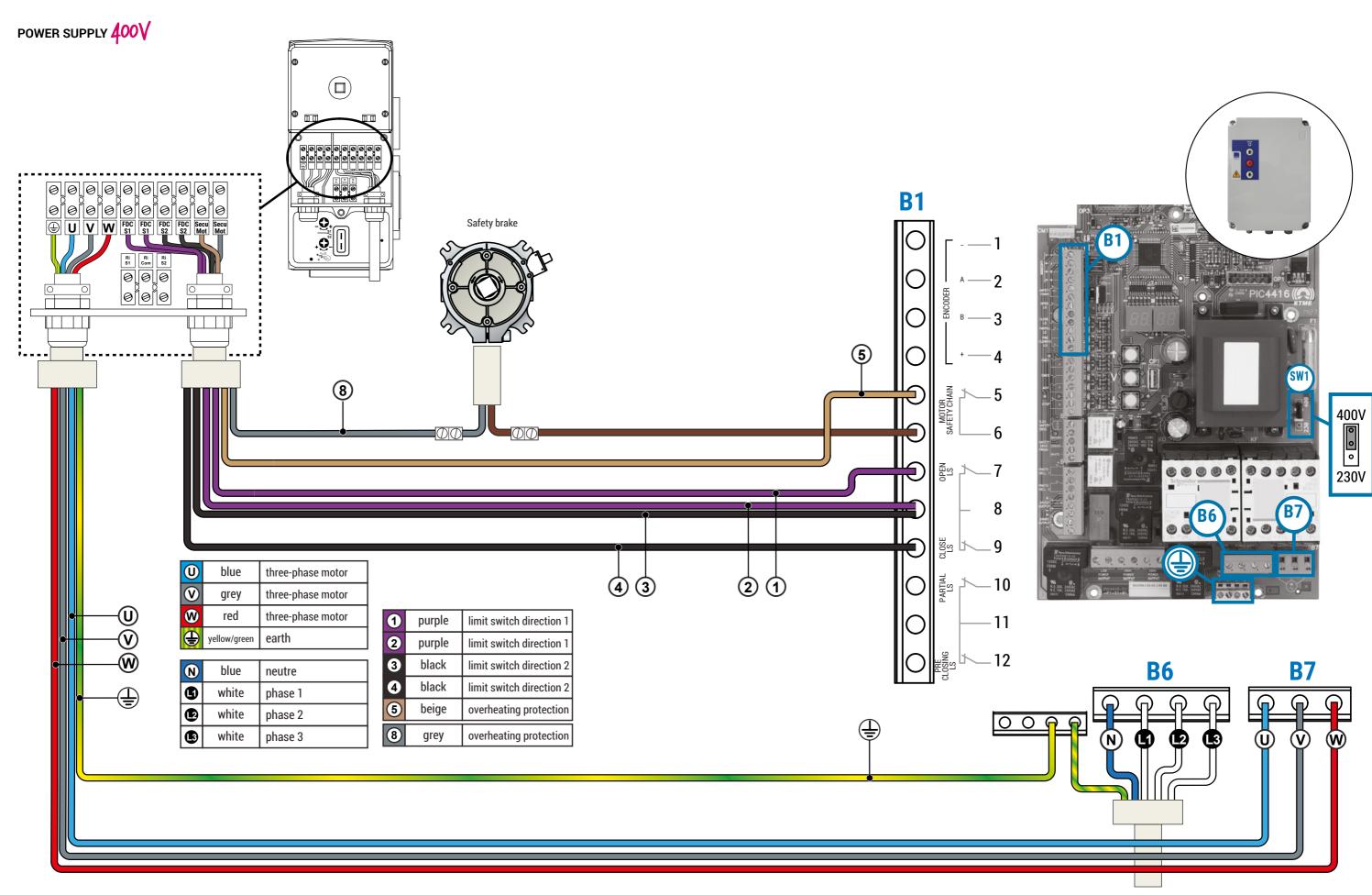


### THREE-PHASE SIMUBOX EI MOTOR WIRING WITH KEY SWITCH





### THREE-PHASE SIMUBOX MOTOR (WITHOUT EI)







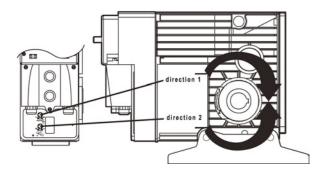
### **END-LIMITS SETTINGS**

### SINGLE PHASE SIMUBOX

### **CHECKING ROTATION DIRECTION**



IT IS ESSENTIAL TO CHECK THE ROTATION DIRECTION OF THE MOTOR TO ENSURE PROPER OPERATION OF THE LIMIT SWITCHES.



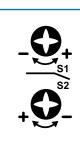
Once the power supply is connected, replace the wiring cover:

- Tighten the 3 screws
- Switch on the installation.
- Move the shutter with the keyswitch.

If the output shaft is rotating in the opposite direction to the one required:

- Immediately release the switch.
- Switch off the supply.
- Revert wiring of Cde S1 and Cde S2.
- Switch on again and check the rotation direction.

### **END LIMIT ADJUSTMENT**



S1/S2 arrows are placed around the shaft: spot which one corresponds to the upward movement. Move the shutter. If the limit switch is not in the desired position, push in the screw corresponding to the chosen direction (S1 or S2) with a screwdriver and:

- To increase the number of turns: Push and turn in the"+" direction.
- To decrease the number of turns: Push and turn in the"-" direction.



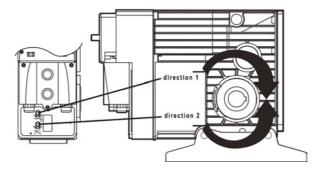
IF THE MOTOR DOES NOT OPERATE, TURN THE LIMIT SWITCHES 4 TURNS IN THE + DIRECTION. REPEAT THE SETTINGS AFTER RELEASING THE STOP.

### THREE-PHASE SIMUBOX (WITHOUT EI)

### **CHECKING ROTATION DIRECTION**



IT IS ESSENTIAL TO CHECK THE ROTATION DIRECTION OF THE MOTOR TO ENSURE PROPER OPERATION OF THE LIMIT SWITCHES.



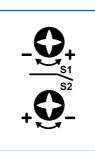
Once the power supply is connected, replace the wiring cover:

- Tighten the 3 screws
- Switch on the installation.
- Move the shutter with the control box.

If the output shaft is rotating in the opposite direction to the one required:

- Immediately release the switch.
- Switch off the supply.
- Interchange 2 phases.
- Switch on again and check the rotation direction.

### **END LIMIT ADJUSTMENT**



S1/S2 arrows are placed around the shaft: spot which one corresponds to the upward movement. Move the shutter. If the limit switch is not in the desired position, push in the screw corresponding to the chosen direction (S1 or S2) with a screwdriver and:

- To increase the number of turns: Push and turn in the"+" direction.
- To decrease the number of turns: Push and turn in the"-" direction.



IF THE MOTOR DOES NOT OPERATE, TURN THE LIMIT SWITCHES 4 TURNS IN THE + DIRECTION. REPEAT THE SETTINGS AFTER RELEASING THE STOP.



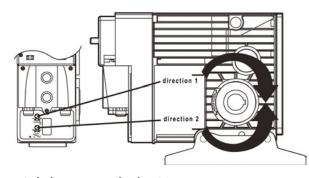


### THREE-PHASE SIMUBOX (EI)

### **CHECKING ROTATION DIRECTION**



IT IS ESSENTIAL TO CHECK THE ROTATION DIRECTION OF THE MOTOR TO ENSURE PROPER OPERATION OF THE LIMIT SWITCHES.



Once the power supply is connected, replace the wiring cover:

- Tighten the 3 screws
- Switch on the installation
- Spot the S1/S2 arrows placed around the shaft.
- Push on the S1 of the motor switch (up).

- Axis has to turn in the S1 way.
- Repeat the operation with S2.

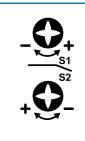
If the output shaft is rotating in the opposite direction to the one required :

- Immediately release the switch.
- Switch off the supply
- Interchange 2 phases.
- Switch on again and check the rotation direction.

Then move the shutter with the keyswitch. If the operation is reversed:

- Immediately release the switch.
- Switch off the supply
- Revert wiring of Cde S1 and Cde S2
- Switch on again and check the rotation direction.

### END LIMIT ADJUSTMENT USE THE SWITCH ON THE MOTOR TO OPERATE



Use the switch on the motor to operate the curtain. If the limit switch is not in the desired position, push in the screw corresponding to the chosen direction (S1 or S2) with a screwdriver and :

- To increase the number of turns: Push and turn in the"+" direction.
- To decrease the number of turns: Push and turn in the"-" direction.



IF THE MOTOR DOES NOT OPERATE, TURN THE LIMIT SWITCHES 4 TURNS IN THE + DIRECTION. REPEAT THE SETTINGS AFTER RELEASING THE STOP.

### **TROUBLESHOOTING**

### SINGLE PHASE 230V - THREE-PHASE EI - THREE-PHASE (NO EI)

PROBLEMS	POSSIBLES CAUSES	SOLUTIONS
he motorised product does	The overheating protection on the drive has been activated.	Wait for the drive to cool down.
not operate.	The manual override system is active.	Release the troubleshooting maneuver to deactivate it.
The motorised product stops	The motor is stopped at its security end limit.	Call your maintenance staff to inspect the installation.
at the end limit and no longer operates.	Following the use of the manual override system, the security end limits device is activated.	Use the manual override system to turn the tube 30° and deactivate the security end limits device.





# XOA/N/S

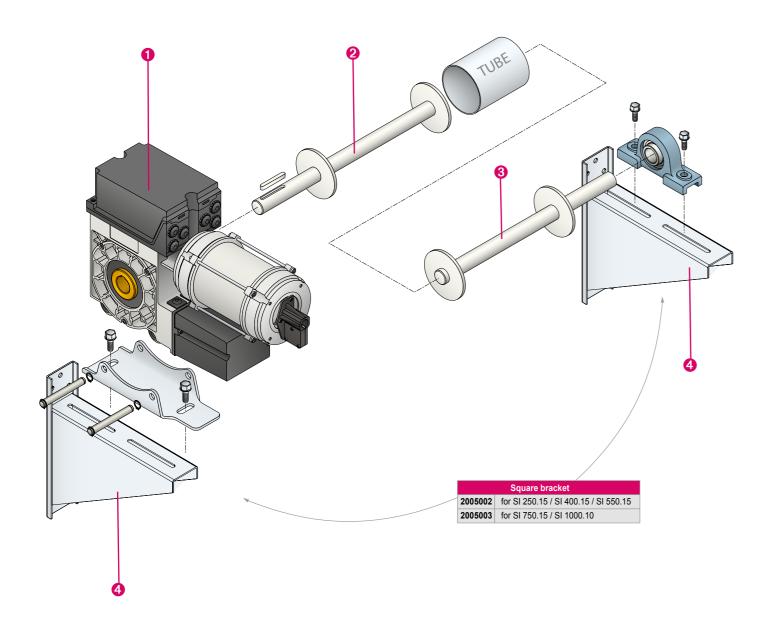




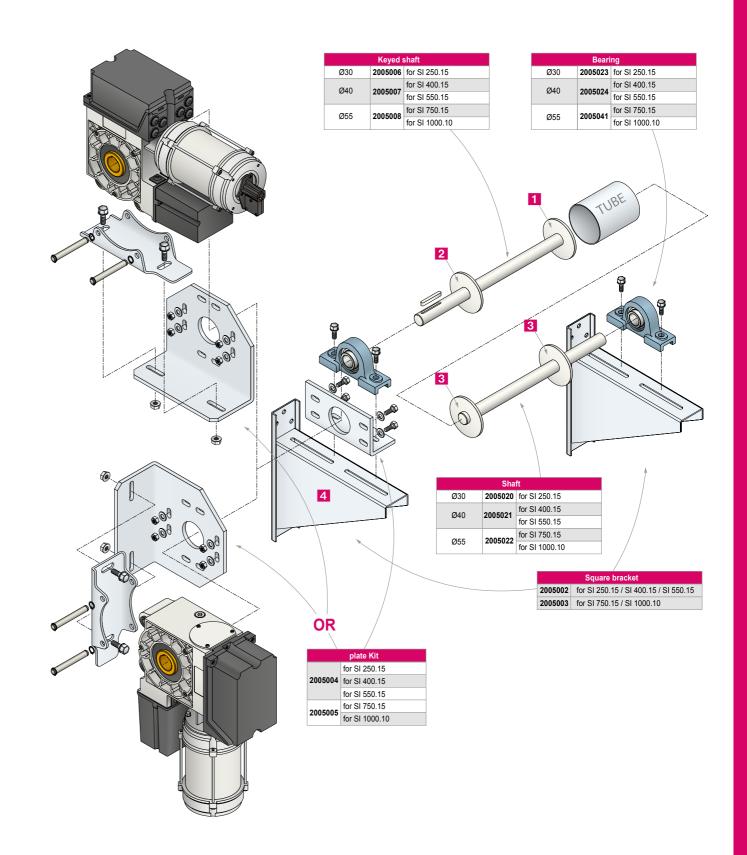
# **INSTALLATION**

# ACCESSORIES FOR VERTICAL MOUNTING ON SQUARE BRACKET

- 1 External motor SIMUBOX SI
- 2 Bobbin with shaft for motor side
- **3** Bobbin with shaft for opposite side
- 4 Square brackets



# ACCESSORIES FOR HORIZONTAL OR VERTICAL MOUNTING ON SQUARE BRACKET AND PLATE







# SIMUBOX SI MOTOR WIRING WITH KEY SWITCH

**POWER SUPPLY** 

The control system consists of a board with a combination of reversing contactors for opening (K1) and closing (K2). For three-phase motors, the power supply must be connected to the reversing contactor K1 on the terminals L1 /L2 /L3. The earth wires must be connected to the terminals designated PE.

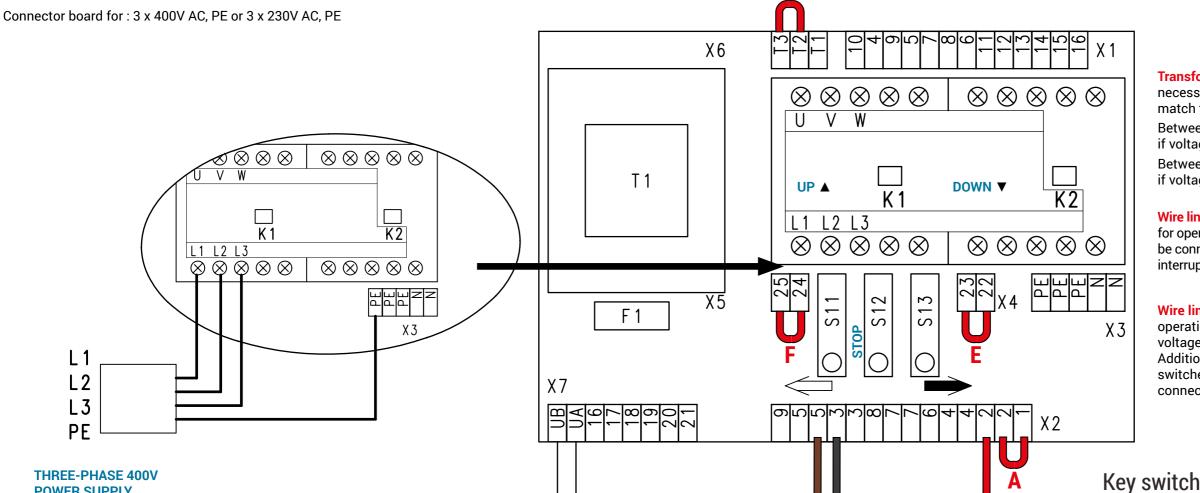
- DEADMAN OPERATING MODE IS MANDATORY TO CLOSE THE **CURTAIN WITH A KEY SWITCH.** 

DEADMAN OPERATING MODE IS MANDATORY TO OPEN THE **CURTAIN IF A PERSON COULD BE LIFTED.** 

- MIXED OPERATING MODE IS ALLOWED IF THE CURTAIN **COULDN'T LIFT A PERSON.** 



Universal key switch



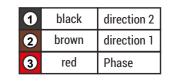
**POWER SUPPLY 24V AC** 

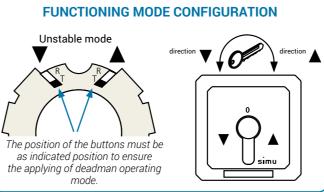
**Transformer wire link G:** This wire link is necessary for operation. This wire link is used to match to the operating voltage.

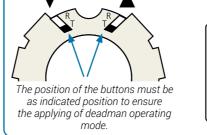
Between terminals T1 and T2 if voltage = 3 x 230V AC, PE Between temrinals T2 and T3 if voltage = 3 x 400V AC, PE

Wire links E and F. These wire links is necessary for operation. Additional safety switches can be connected instead of the wire link E (which interrupts opening) and F (which interrupts closing).

Wire link A: This wire link is necessary for operation. Removing its interrupts the control voltage. Electrical operation is no longer possible. Additional safety switches (e.g. interlocking switches or slack wire switches) can be connected instead of wire link A.









# **END-LIMITS SETTING**

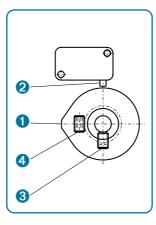
With the adjustment of the end-limits settings' cams, the upper and lower stop positions of the door are determined. To make this adjustment, the SIMUBOX SI must be connected to the power supply. The camble clamp of the end-limits setting (with 6 micro switches) with its micro switches is accessible after unscrewing the cover.

if the control points are not connected, operate the door in deadman mode by using buttons S11-S13. If not, reverse the phases L1 and L2.

# "DOWN" END-LIMIT - \$4

To set the "down" limit switch, follow the steps below:

- Close the door
- Position the cam 1 of the micro limit switch "down" on the centre of its plunger 2 by turning with the 6-pan female key provided. Tighten the approximate adjustment screw 3
- Open the door until the "down" limit switch is released.
- Close the door again
- If necessary, correct the "down" position with the fine adjustment screw 4, This adjustment is accessible from both sides with the 6-pan male key.
- End-limit setting "down" is automatically preset when setting the end-limit setting "down".
- The switching point of the safety end-limit microswitch may have to be corrected with the screw for precise adjustment so that the door can be stopped safely in case of a phase reversal of the power supply or in case of a failure of the "down" end-limit.

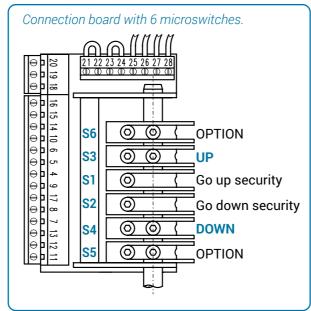


# "UP" END-LIMIT - S3

After the door has been opened, the cams for the "up" end-limit and "up" safety must be adjusted in the same way as those for the "down" end-limits and "down" safety.

# **ADDITIONAL END-LIMITS - S5 & S6 (OPTION)**

The cams of the additional end-limits have to be adjusted as described above. After tightening the screw for the approximative adjustment, the release point can be set with the precise adjustment screw.





# SAFETY ELECTRICAL CIRCUIT

Terminals 21 to 28 on end-limit connector board (Fig.4) are reserved for the safety electrical circuit.

If the safety circuit is interrupted, the control power supply is interrupted. Electrical operation is no longer possible. Terminals 25 to 28 on the end-limit connector board are used by the safety contact of the manual override and the thermal motor protection probe.

# **TROUBLESHOOTING**

<b>FAILURE</b> The motor does not work and the K1 and K2 contactors do not respond				
POSSIBLE CAUSE	SOLUTION			
No voltage at the connecting terminals :	Measure the voltage Three-phase L1 with L2 L2 with L3 If N present: L1, L2, L3 with N, L3 with L1 If there is no voltage, check the fusing, supply line and connection terminals / screw on the building side.			
F1 control fuse detective.	Check the control devices and external consumers for earth fault and short circuit. When the faults has been corrected, insert the replacement fuse supplied.			
Connection terminals / screws loose	With the supply off, check that all connections have a tight fit.			
Motor temperature switch tripped: Overload Motor defective	Let it cool down. Replace the drive unit.			
Control circuit interrupted by: Emergency final limit switch  External safety switch Emergency manual operation F2 residual current monitoring	Approach the emergency final limit switch with emergency manual operation and check its setting.  Check the operation of the external safety switches. Check the emergency manual operation OPEN and CLOSE commands are present simultaneously. Check the control devices.			
Defective mecanic	Check the mecanic			
FAILURE The door no longer closes	during maintained operation.			
POSSIBLE CAUSE	SOLUTION			
Safety edge device operated or defective  Photocell operated or defective.	Use and evaluation unit to check the safety edge device. Check switching and alignment of photo cell.			









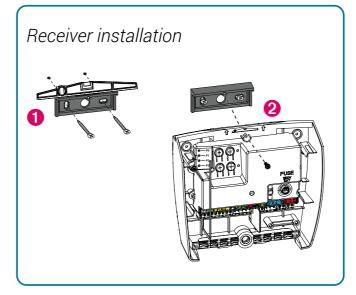




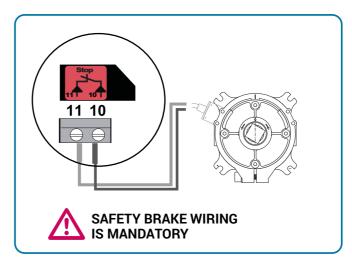
# **INSTALLATION**

# simu SD100Hz **CONTROL BOARD ORANGE FLASH LIGHT AND/OR AREA LIGHTING** SAFETY 2 BRAKE SINGLE-PHASE MOTOR **RADIO REMOTE** CONTROL **SAFETY EDGE KEY SWITCH PHOTOCELLS PHOTOCELLS** Possibility to connect 2 sets of photocells in the bottom position THE WIRING OF A SAFETY EDGE IS MANDATORY. RECOMMANDED RADIO CONTROL POINTS

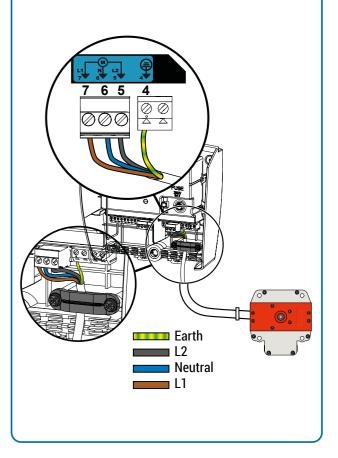
# **INSTALLATION AND WIRING**



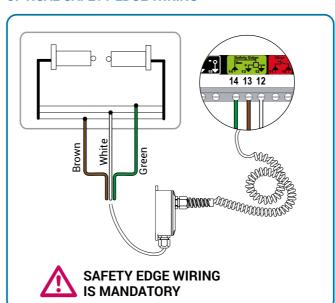
# **SAFETY BRAKE WIRING**



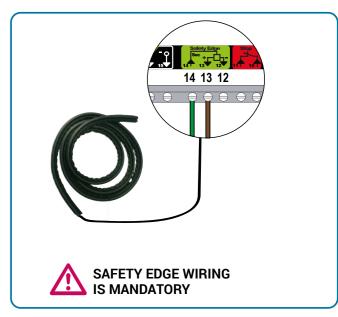
# **MOTOR WIRING**



# **OPTICAL SAFETY EDGE WIRING**



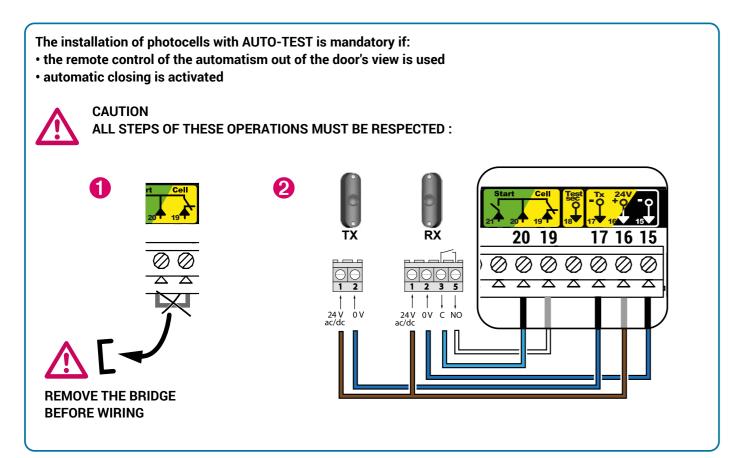
# RESISTIVE SAFETY EDGE WIRING



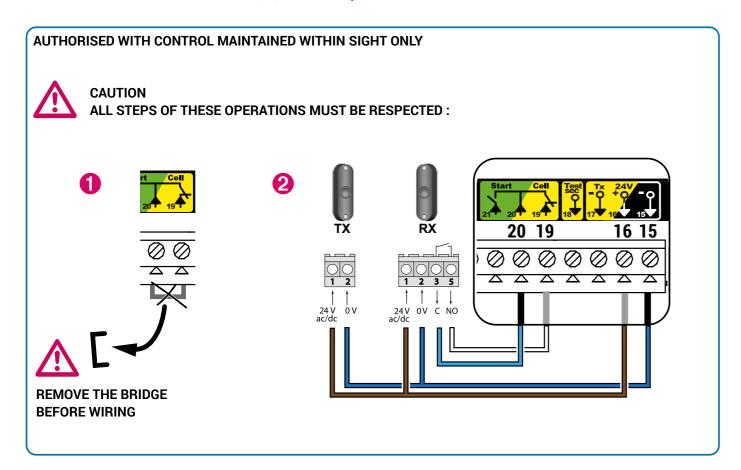




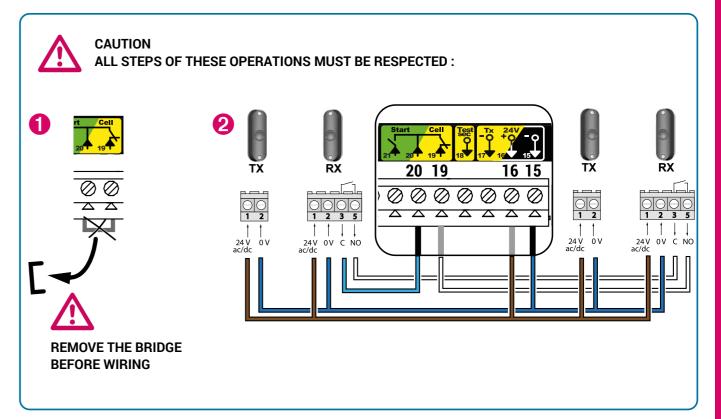
# PHOTOCELL BARRIER WIRING WITH AUTO TEST



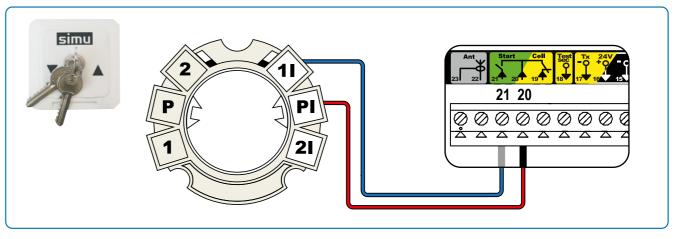
# PHOTOCELL BARRIER WIRING WITH AUTO TEST



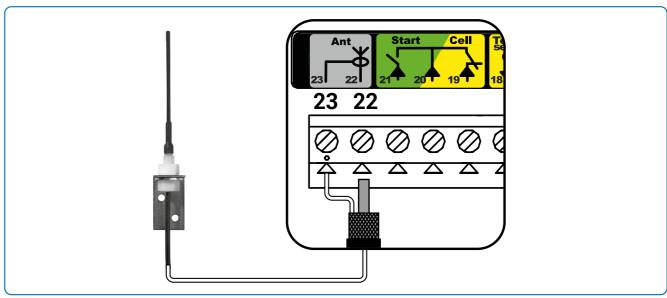
# PHOTOCELL WIRING WITHOUT AUTO TEST



# **KEY SWITCH WIRING**



# **ANTENNA WIRING**







#### **REFLEX PHOTOCELL WIRING**

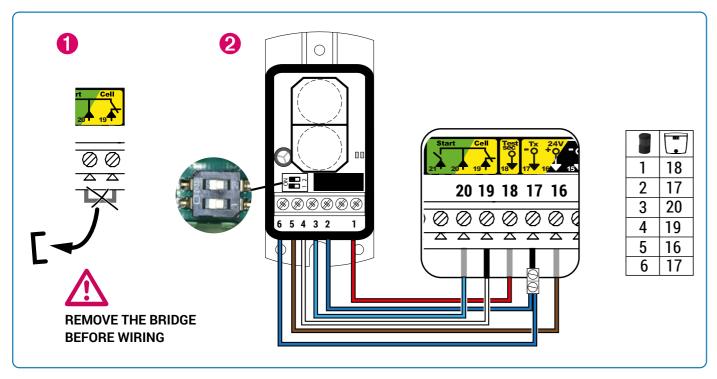
The installation of photocells with AUTO-TEST is mandatory if:

- the remote control of the automatism is used when the door is not visible
- · automatic closing is activated



# **CAUTION**

ALL STEPS OF THESE OPERATIONS MUST BE RESPECTED:

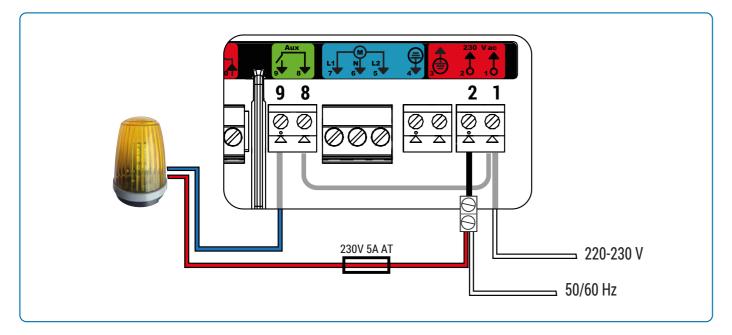


# **FLASHING LIGHT WIRING 230V**



# **CAUTION**

A CABLE CLAMP MUST BE USED FOR POWER SUPPLY



#### **AREA LIGHTING WIRING 230V**

# $\triangle$

#### CAUTION

In case of a tear-out, the earth wire must always be longer than the phase and neutral.

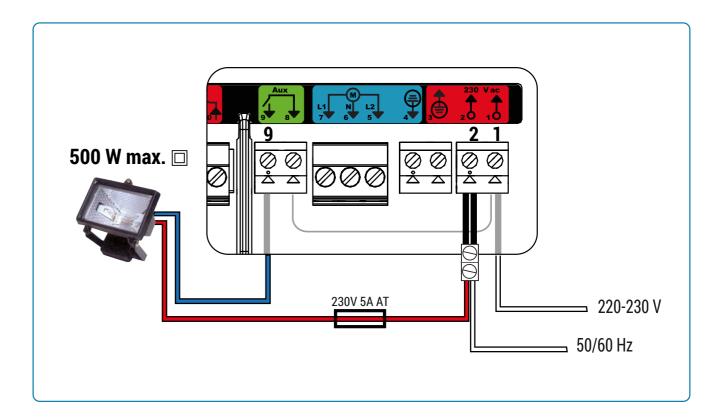
A cable clamp must be used.

The output must be protected by a 5 A time-delay fuse (not supplied)

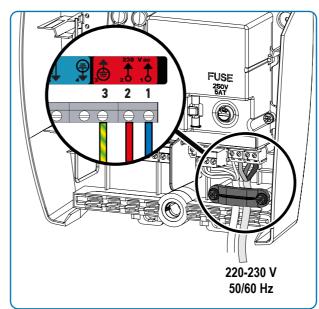
For class I lighting, connect the earth wire to the earth terminal

# Lighting output power:

- either 5 fluocompact or LED lights
- or 2 power supplies for low-voltage LEDs
- or 1 halogen light, max. 500 W



# **POWER SUPPLY WIRING**



- 1- Connect the neutral (N) to terminal 1 of the receiver.
- 2- Connect the live (L) to terminal 2 of the receiver.
- 3- Connect the earth wire to terminal 3 of the receiver.
- 4- Lock the power supply cable with the cable clamp provided.



The earth wire must always be longer than the phase and neutral to ensure that it is the last to be disconnected if the connector is pulled out.

- The cable clamp supplied must be used.
- For all low-voltage cables, ensure that they can withstand traction of 100 N. Check that the conductors do not move when this traction is applied.





# **CONTROL BOARD SETTING**

# **STATUS OF LEDS**

O Off

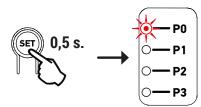
\* Fixed light

Slow flash

W Quick flash

Very quick flash

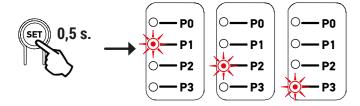
# **OPERATING MODE**



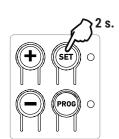
Press the "SET" button for 0.5 s to enter parameter setting mode. Indicator light P0 flashes once.



Press the "+" or "-" button to change the value of the parameter.



Press the "SET" button for 0.5 s to go on the next setting



Press the "SET" button for 2 s to confirm a value and exit parameter setting mode.

# **MEANING OF THE DIFFERENT PARAMETERS**



(Text in bold = default values)

4: inactive

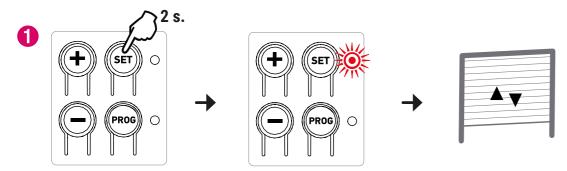
P0	Operating mode
VALUES	1 : sequential 2: sequential + short closure time-delay (60 s) 3: sequential + long closure time-delay (120 s) + blockage of cells (2 s)
COMMENTS	1: Each press on the remote control causes the motor to move (initial position: door closed) as per the following cycle: open, stop, close, stop, open, etc.
	<ul> <li>2: This operating mode is only authorised if photoelectric cells are installed and P3 = 2.</li> <li>In sequential mode with short closure time-delay.</li> <li>the door will close automatically after a time-delay of 60 s,</li> <li>pressing a button on the remote control interrupts the movement taking place and the closure time delay (the door remains open).</li> </ul>
	<ul> <li>3: This operating mode is only authorised if photoelectric cells are installed and P3 = 2.</li> <li>In sequential mode with long closure time-delay + blockage of the cells: <ul> <li>the door will close automatically after a time-delay of 120 s.</li> <li>pressing a button on the remote control interrupts the movement taking place and the closure time delay (the door remains open).</li> <li>after the door is opened, movement in front of the cells (safe closure) will close the door after a short timed delay (fixed at 2 s). If no movement occurs in front of the cells, the door will close automatically after a time-delay of 120 s. If there is an obstacle in the cells' detection zone, the door will not close. It will close once the obstacle is removed.</li> </ul> </li> </ul>

P1	203 V auxiliary output
VALUES	1 : orange light 2 : area lighting
COMMENTS	1 : Fixed advance warning of 2 s.
	2: The lighting comes on as soon as the motor starts and goes off 60 seconds after the motor has come to a complete stop.
P2	Hard-wired safety edge safety input
VALUES	1 : optical
	2 : resistive 1,2 kΩ 3 : resistive 8,2 kΩ
P3	·

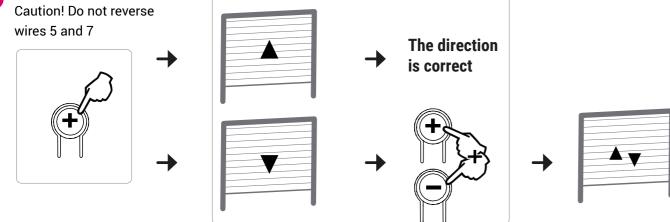




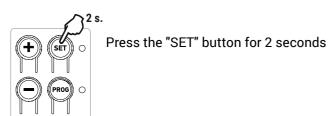
# **CHECKING THE MOTOR DIRECTION OF ROTATION**



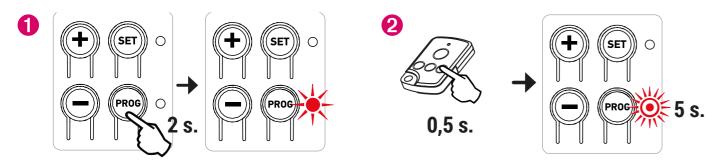
Please check the motor direction of rotation



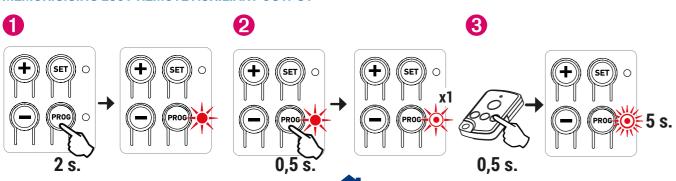
- Motor end stop setting. Please refer to the motor manual.
- 4 Exit setting mode



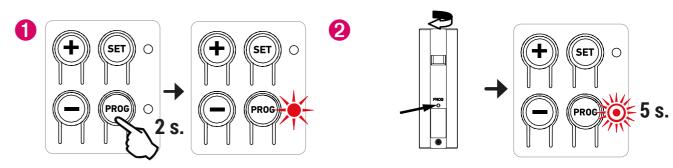
# **MEMORISING 2 OR 4-BUTTON REMOTE CONTROLS**



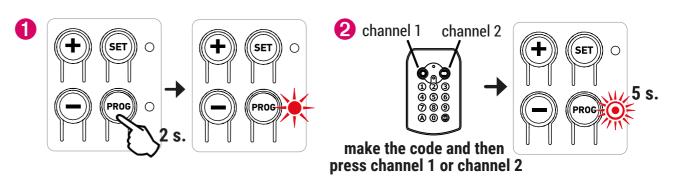
# **MEMORISISING 230V REMOTE AUXILIARY OUTPUT**



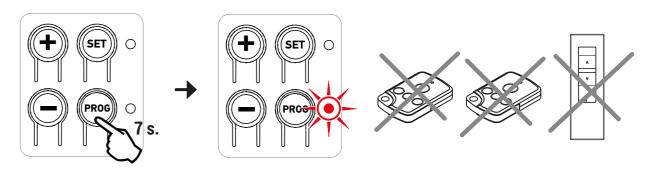
# MEMORISING FUNCTIONAL REMOTE CONTROLS IN 3-BUTTON MODE



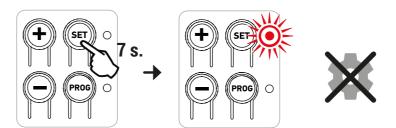
# **MEMORISING KEYPAD**



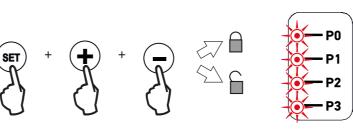
# **CLEARING THE MEMORISED REMOTE CONTROLS**



# **DELETING MOTOR SETTINGS (REMOTE CONTROLS ARE STILL MEMORISED)**



# **LOCKING THE PROGRAMMING BUTTONS**



To access the programming again, repeat the same procedure.



\_ 88

# TROUBLESHOOTING

#### **STATUTS OF LEDS**

O Off

🔆 Fixed light

Slow flash

Quick flash

Very quick flash

	POWER INDICATOR LIGHT
*	Electronic in motor setting mode  → If necessary, check the motor's direction of rotation and set the motor's end stops.
*	Product set
	Motor thermal cut-out  → Switch the power supply off, wait about 5 min. then switch the power supply back on.

	PHOTOELECTRIC CELLS INDICATOR LIGHT
0	Normal operation
*	Detection in progress  → Once detection is complete, the indicator light goes out.
	Permanent fault → Check cell alignment and the associated wiring.
	NOTICE! After 3 mins, the wired control input (terminals 20 and 21) allows the door to be controlled in dead-man mode.
Ö	AUTO-TEST in progress → Once the auto-test is complete, the indicator light goes out

	SAFETY EDGE INDICATOR LIGHT			
0	Normal operation			
*	Detection in progress  → Once detection is complete, the indicator light goes out.			
	Permanent fault  → Check the safety edge wiring.			
	NOTICE! After 3 mins, the wired control input (terminals 20 and 21) allows the door to be controlled in dead-man mode.			
	AUTO-TEST in progress → Once the auto-test is complete, the indicator light goes out.			

#### ANTI-FALLBACK INDICATOR LIGHT

Normal operation

0

Détection in progress

→ Once detection is complete, the indicator light goes out.

Permanent fault

→ Check the anti-fallback wiring.

NOTICE! After 3 mins, the wired control input (terminals 20 and 21) allows the door to be controlled in dead-man mode.

# WIRED CONTROL INDICATOR LIGHT

Normal operation



Control activated

→ Mechanically check that the control point is not blocked. If the control point is not blocked, disconnect the control point. If the indicator light goes out, check the wiring.

#### CELLS, SAFETY EDGE, ANTI-FALLBACK AND WIRED CONTROL INDICATOR LIGHT



Short circuit on connected peripherals wired input

→ Check that the peripherals connected and their wiring function correctly.

→ If the indicator lights are still flashing, switch the power off, disconnect the peripherals from terminals 10 to 21, wait 30 s then switch the power back on: if the 4 indicator lights stop flashing, check the wiring of the cells, of all the peripherals connected to this power supply and of the peripherals connected to the wired inputs.

→ If the indicator lights are still flashing, switch the power off, remove the green terminal block (12-13-14), wait 30 s and then switch the power back on: if the 4 indicator lights stop flashing, check the wiring of the safety edge.

→ If the indicator lights are still flashing, switch the power off, remove the red terminal block (10-11), wait 30 s and then switch the power back on: if the 4 indicator lights stop flashing, check the wiring of the anti-fallback mechanism and then refit the terminal block. Start a

check the wiring of the anti-fallback mechanism and then refit the terminal block. Start a movement to make sure there is no short-circuit.

→ If the 4 indicator lights continue to flash, contact Simu technical assistance.

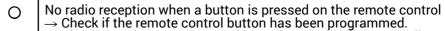
# ALL THE INDICATOR LIGHTS



Locking/unlocking the programming buttons

→ f all the indicator lights flash when a programming button is pressed, the keypad is locked. Unlock it, see Locking the programming buttons

# PROG INDICATOR LIGHT



 $\rightarrow$  Check that the remote control is equipped with Simu-Hz radio technology.

→ Check the remote control batteries.



Radio control received but no action by the actuator

→ Check the other indicator lights to see if there is another fault.

 → The control is not operational from this position.
 → The button is memorised for a function other than opening/closing the garage door (for example controlling the auxiliary output).

# MAINTENANCE MODE CONTROL

In case of failure of a safety device (photocell or reflex cell, safety edge, safety brake), after 3 minutes, the radio control points are desactivated and only a key contact connected to terminals 20 and 21 allows the door to be controlled in dead man mode.

It is also possible to control the door using the + and - buttons by pressing SET for 2 seconds.



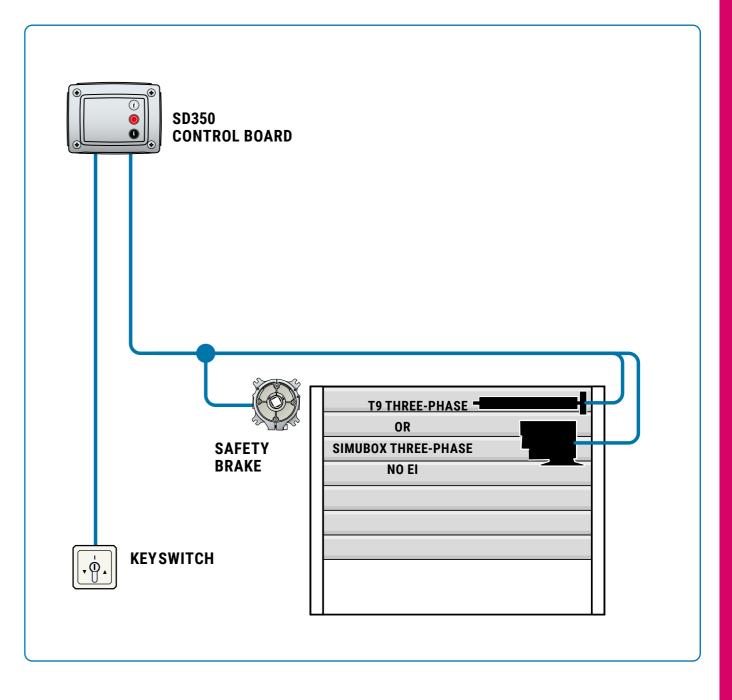








# **INSTALLATION EXAMPLE**





# WIRING OF THREE-PHASE MOTOR WITH SD350

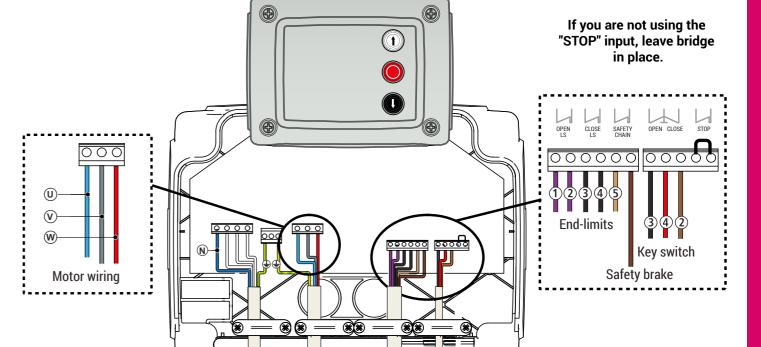
Three-phase 400V power supply

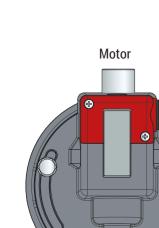


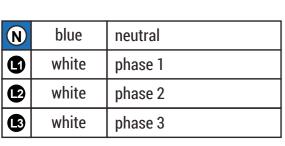


**(V) (W)** 

7

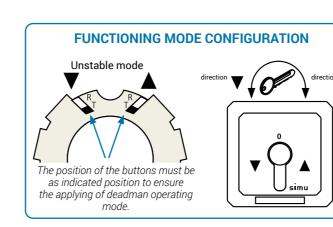




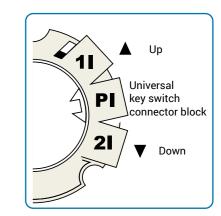


U	blue	three-phase motor	
V	grey	three-phase motor	
W	red	three-phase motor	
<b>(</b>	yellow/green	earth	

1	purple	limit switch direction 1
2	purple	limit switch direction 1
3	black	limit switch direction 2
4	black	limit switch direction 2
5	beige	overheating protection
6	blue	manual override contact
7	brown	manual override contact
8	grey	overheating protection



Safety brake



2

3

4

brown

black

red

yellow/green Earth

Key switch

21

Direction 1

Direction 2

Phase





PROBLEMS	POSSIBLES CAUSES	SOLUTIONS
	No power supply	Check the supply voltage between terminals N and L1 or L1 and L2
	Buttons are not connected properly	Check the position of the connector on the electronic board
When you give	STOP function activated	Check the connection on « STOP »
an impulse on buttons of the control box, the motor does not react to the	End limits not properly wired	Come back to a good wiring
command	Overheating protection activated	Wait for the motor to cool down
	Manual override activated	Turn the manual override system with ¼ turn to deactivate it
	Safety brake activated	Call a professional in motorization and building automation



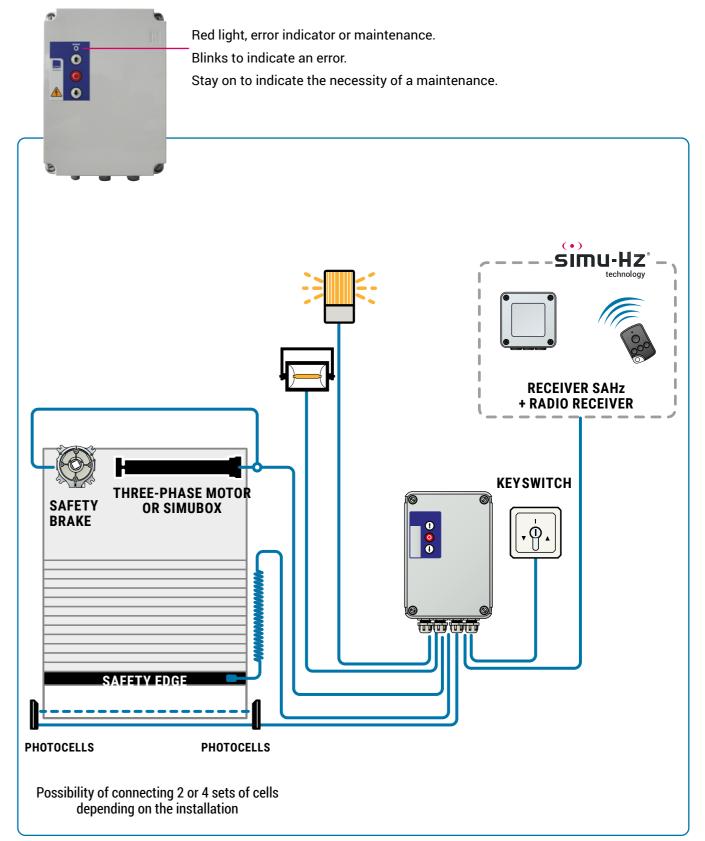






# **PRESENTATION**

The SD510 control board has been designed to control the SIMU T9 or SIMUBOX three-phase motors as well as to be used exclusively with the following SIMU accessories: OSE safety edge, cell barrier, reflex sensor, signalling light, SA Hz standard receiver + TSA + remote control, universal key switch, unstable key switch.





# **PRESENTATION**

- 1 SW1: 230-400: Supply voltage configuration.
- 2 Boutons: Navigator menu buttons.
- 3 Keys low fuse 0.8A high breaking capacity / Transformer primary winding protection

(H.B.C: High breaking Capacity / 1500A mini)...

- 4 Slow blow fuse 0.8A / 24 Vdc output protection.
- 6 AFF.1: Display shows the operating phase.
- 6 AFF.2: Display indicates errors if any, otherwise indicates door position
- 7 B1: Motor encoder output (not used), End limit contact.
- 8 B2: 3 command input (CMD1, CMD2, AUX), Stop.
- 9 B3: 2Safety edge inputs.
- 10 B4: Photocell inputs and 24Vdc 20% / 0.5A global outputs.
- 11 B5: Auxiliary outputs: Low power (dry contact). Switchable maximum current: 0.8A at 230Vac or 1.6A at 24Vdc.
  - 2 auxiliary power outputs (dry contact). Maximum voltage and current for change-over switching: 400Vac / 1A
- 12 B6: Power supply connection
- 13 B7 : Power supply

Led 1 & 2: not used

Led 3: Off if opening limit control input switch is activated

Led 4: Off if closing limit control input switch is activated

Led 5: Off if partial limit switch control input is activated

Led 6: Off if pre-closing limit switch control input is activated

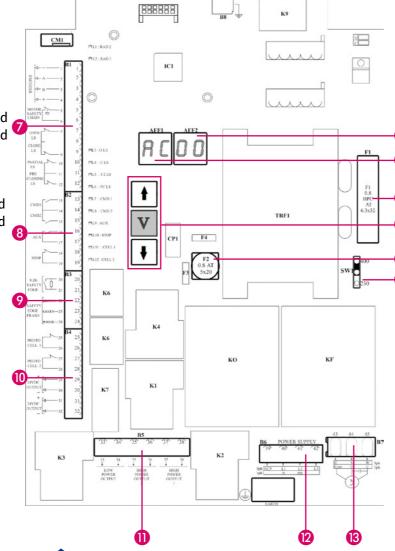
Led 7: On if command 1 control input is activated Led 8: On if command 2 control input is activated

Led 9: On if auxiliary control input is activated

Led 10: Off if stop or emergency stop control input is activated

Led 11: Off if photocell 1 control input is activated

Led 12: Off if photocell 2 control input is activated



# MOTOR AND CONTROL BOX CONNECTION

Set up power supply with the switch SW1 (1) please refere to page 102

# THREE-PHASE 230V

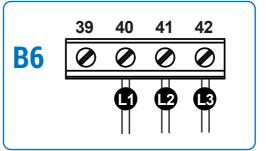
**POWER SUPPLY** 

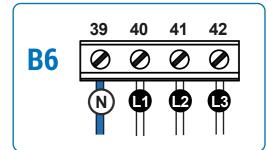


**POWER SUPPLY** 







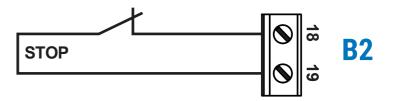


Connect motor to control box.

Connection has to be done in a connection box in order not to apply tensile on the cable.

For a three-phase motor, connect safety brake (mandatory device) in series with motor safety chain and emergency stop (terminals 5 and 6) and connect end limits (terminals 7/8/9).

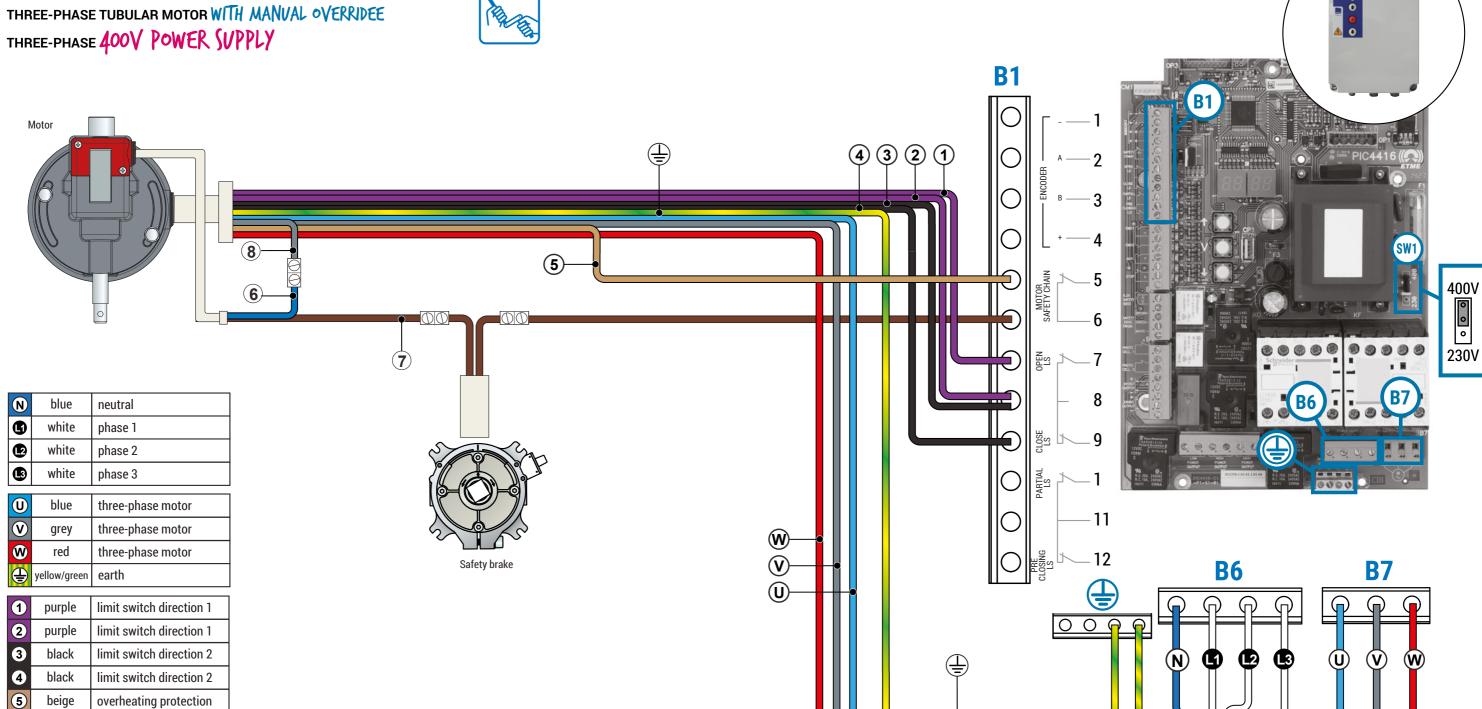
Connect an external stop button. Otherwise, use a bridge between 18 and 19. Motor won't work if STOP is not connected.





# THREE-PHASE TUBULAR MOTOR WIRING





Three-phase 400V power supply





6

7

blue

brown

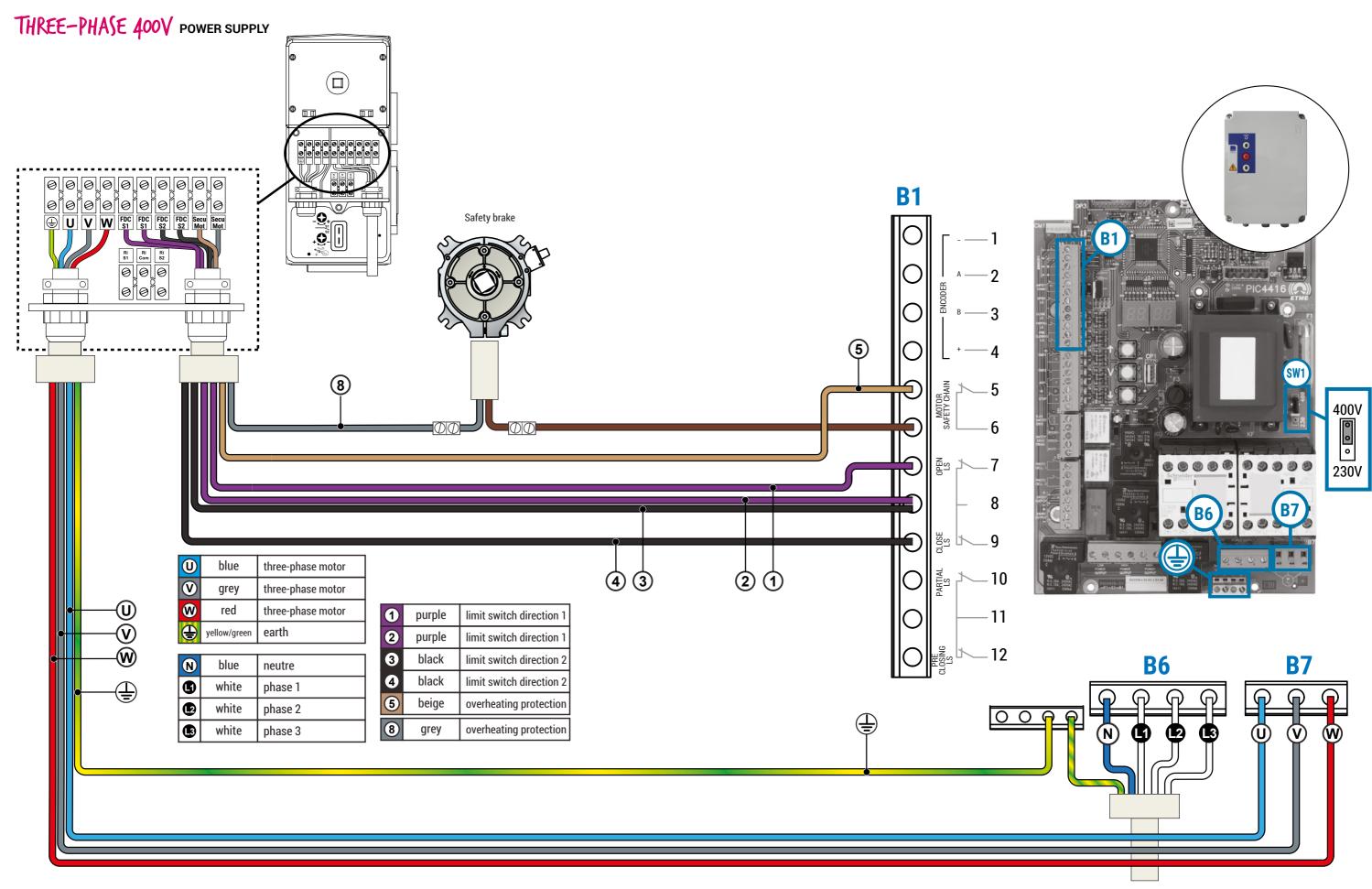
grey

manual override contact

manual override contact

overheating protection

# SIMUBOX THREE-PHASE MOTOR WIRING (NO EI)



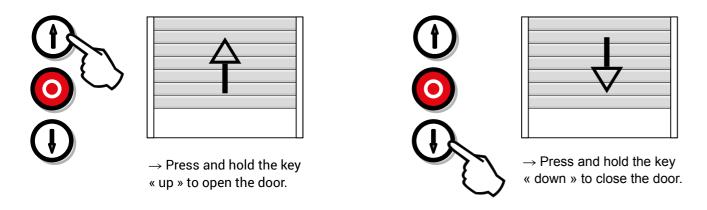
# **END-LIMIT SETTINGS**

The control box is now in dead man mode.

Set up end limits with up and down buttons.

Check end limit leds lighting.

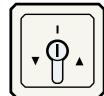
# **CHECKING MOTOR ROTATION**



→ If the operation is reversed, power off the product and reverse the motor's power supply terminal B7 (44 and 45).

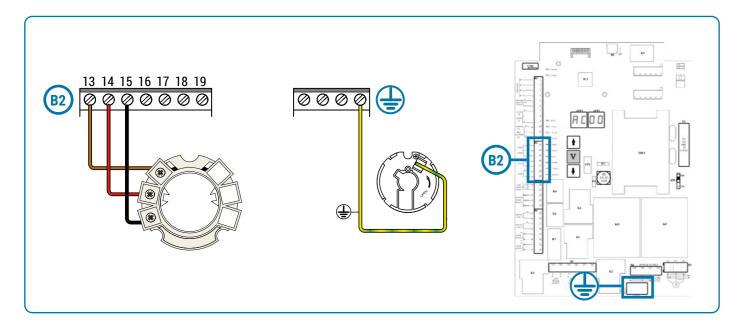
# **KEY SWITCH CONNECTION**

# CHECK THE ROTATION DIRECTION WITH THE KEY SWITCH



If the axis rotates in the opposite direction to the desired one:

- $\rightarrow$  Stop the movement immediately
- $\rightarrow$  Turn off power
- $\rightarrow$  Reverse 13 and 15 on terminal block B2
- ightarrow Switch on the system again and repeat the rotation direction check operation



# SIMU'S SAFETY RECOMMENDATIONS

	(CASE 1)	(CASE 2)	
	→ INSTALLATION AND SETTINGS FOR A SHUTTER WHICH CANNOT LIFT A PERSON.	→ INSTALLATION AND SETTINGS FOR A SHUTTER WHICH CAN LIFT A PERSON	
PRESS AND HOLD	No accessories required	No accessories required	
MIXTE	No accessories required	2 self-tested photocells in up position	
IMPULSIVE / AUTOMATIC	- Optical safety edge - 2 sets of low cells not self-tested. - Flashing light only if that open onto on public road	- Optical safety edge - 2 sets of low cells not self-tested - 2 sets of high with self-testing - Flashing light only if that open onto on public road	

# SAFETY DEVICE CONNECTION (CASE 1)

To operate the curtain in **MIXED MODE**, below security devices are not necessary.

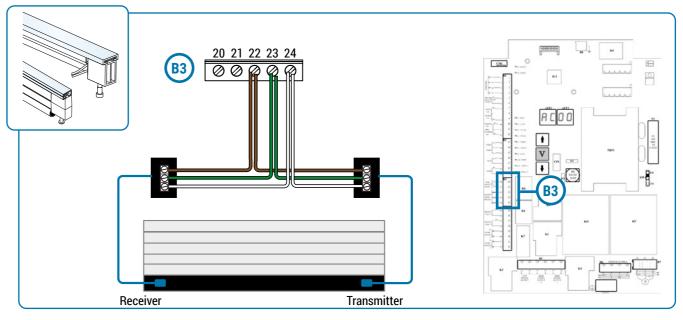
To operate the curtain in **IMPULSE OR AUTOMATIC MODE**, a safety edge and 2 photocells are mandatory.

The flashing light is mandatory if that open onto on public road.

# **WIRING AN OPTICAL SAFETY EDGE.**



→ INSTALLATION AND SETTINGS FOR A SHUTTER WHICH CANNOT LIFT A PERSON



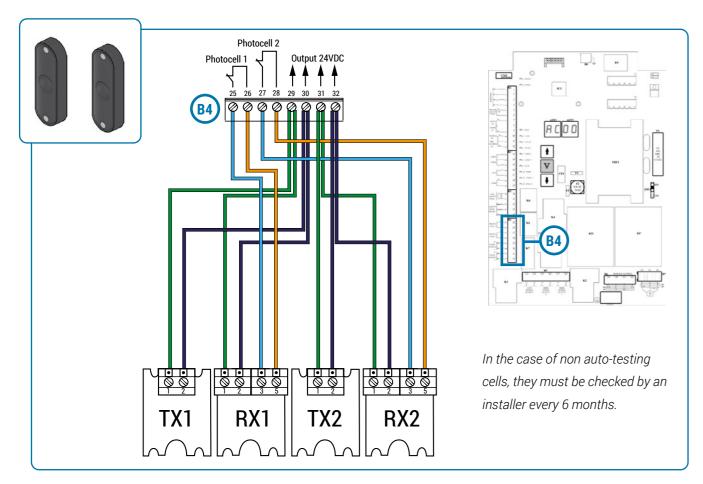




# **CONNECTION OF 2 NOT SELF-TESTED PHOTOCELLS**

# KG

# ightarrow installation and settings for a shutter which cannot lift a person



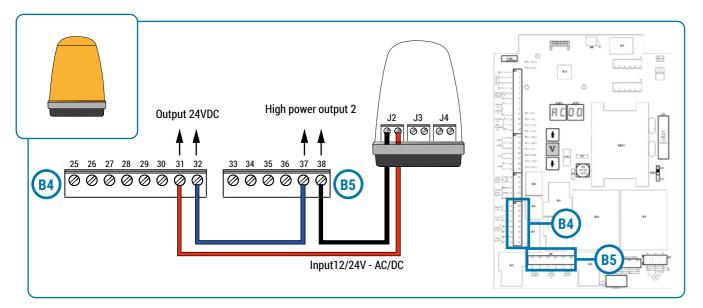
# **SIGNAL LIGHT CONNECTION**



ightarrow installation and settings for a shutter which cannot lift a person

Configure the High power output 2:

 $\rightarrow$  Flashing output, J2 = 04



# **LAMP CONNECTION**

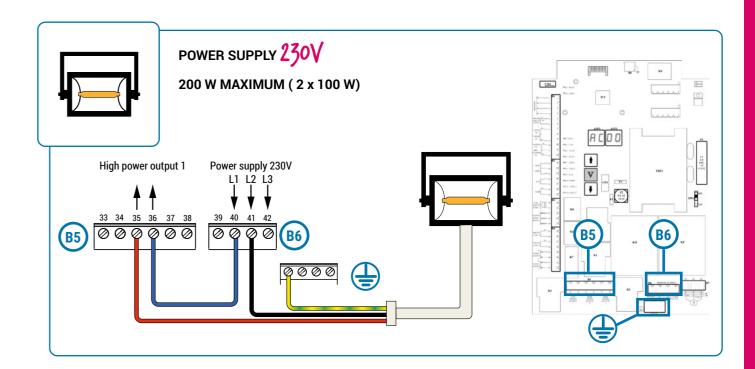


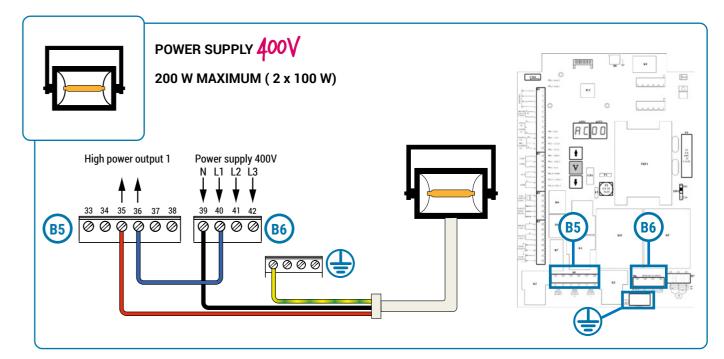
ightarrow installation and settings for a shutter which cannot lift a person

Configure the high power output 1:

- $\rightarrow$  flashing output, J1 = 04
- $\rightarrow$  J4 = 02 (expert mode needed)

If a flashing light is also connected place its switch on « FLASH »









# SAFETY DEVICE CONNECTION (CASE 2)

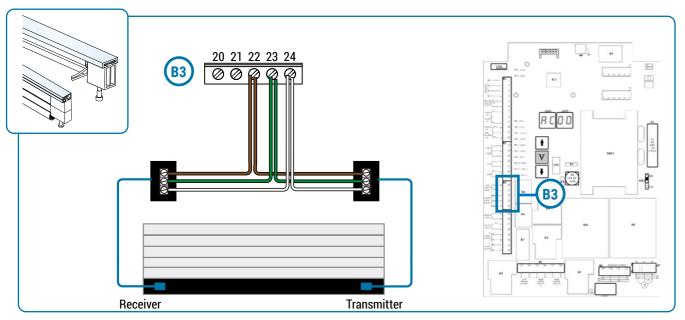
To operate the curtain in mixed mode, **2 SELF-TESTED PHOTOCELLS** on the top position of the curtain are **mandatory**. To operate the curtain in **IMPULSE OR AUTOMATIC MODES**, a safety edge, 2 photocells on the down position and 2 self-tested photocells on the top position are **mandatory**.

The flashing light is **compulsory** if that open onto on public road.

# SAFETY EDGE CONNECTION



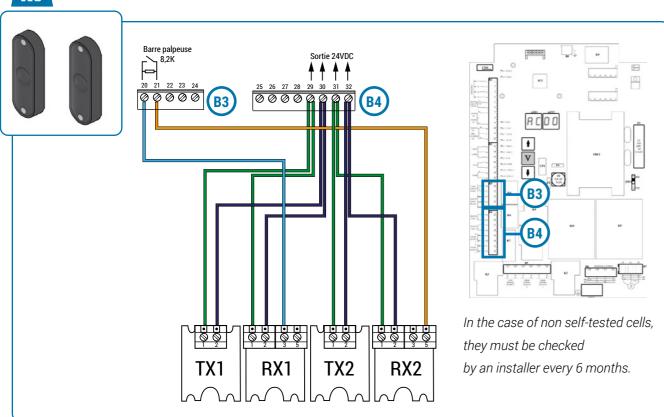
ightarrow installation and settings for a shutter which can lift a person



# **CONNECTION OF 2 NOT SELF-TESTED PHOTOCELLS**



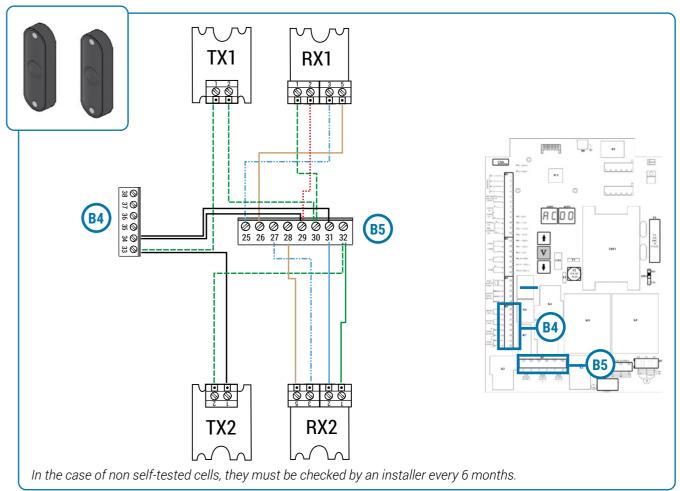
→ INSTALLATION AND SETTINGS FOR A SHUTTER WHICH CAN LIFT A PERSON



# 2 SELF-TESTED PHOTOCELLS WIRING IN VP POSITION



ightarrow installation and settings for a shutter which  ${f can}$  lift a person



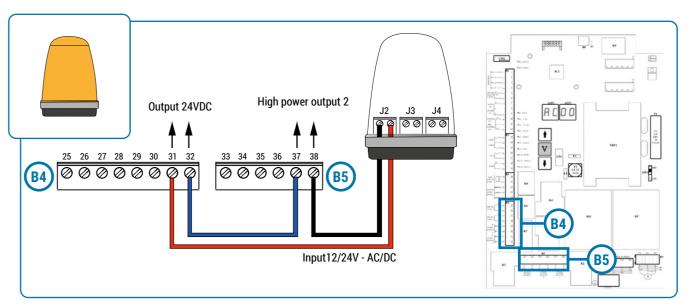
# SIGNAL LIGHT CONNECTION



ightarrow installation and settings for a shutter which  ${f can}$  lift a person

Configure the High power output 2:

 $\rightarrow$  Flashing output, J2 = 04







# **LAMP CONNECTION**

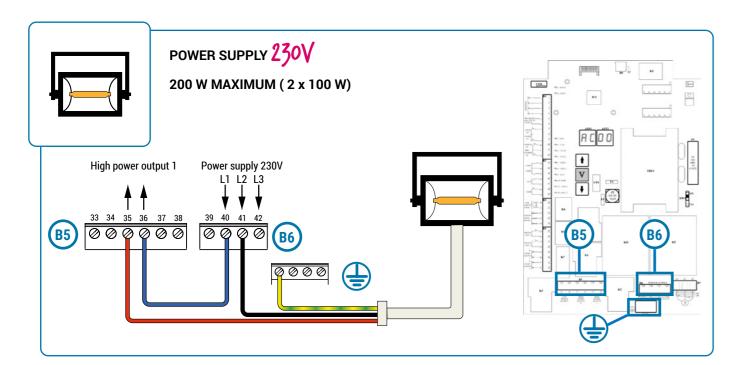


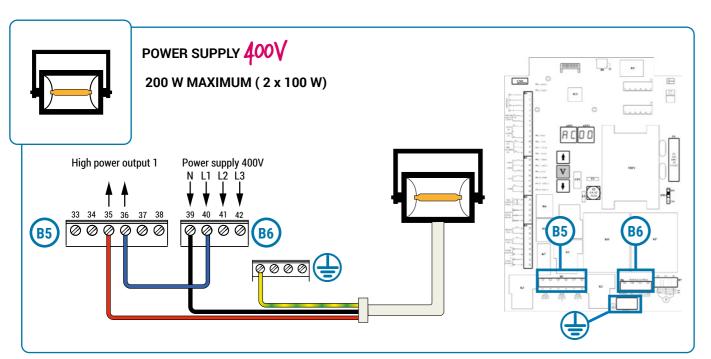
# ightarrow installation and settings for a shutter which can lift a person

Configure the high power output 1:

- → Flashing output J1 = 04
- $\rightarrow$  J4 = 02 (pexpert mode needed)

If a flashing light is also connected place its switch on « FLASH »





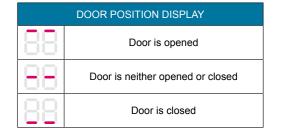
# FIRST POWER UP

The 2 digits on the left display the current phase :



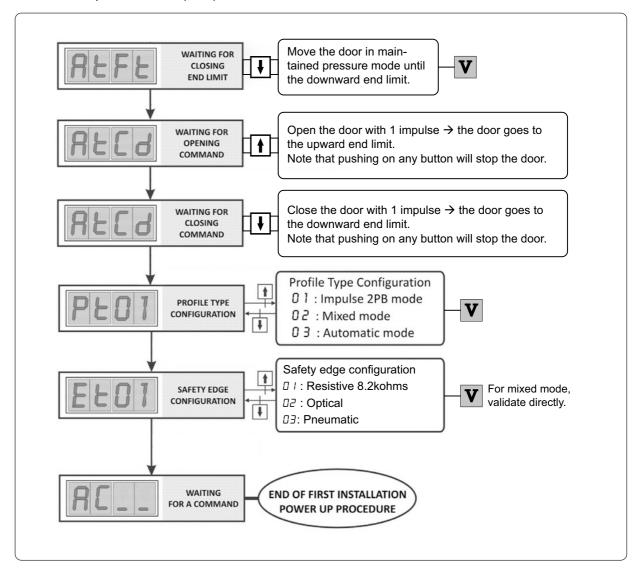
The 2 digits on the right display:
-The default if there is one
-The door position in other case

OPERATING PHASE DISPLAY	
Waiting for a command	RC
Total internal opening (complete opening phase with priority to inside panel)	0U
Total external opening (complete opening phase with priority to outside panel)	0E
Closing (Closing phase in progress)	FE
Waiting to close (Door open, on standby for closing)	8F
Reopening after safety close detection	LO
Reclosing after safety open detection	LF



# FIRST POWER UP PROCEDURE

The direction of rotation of the motor must have been checked and the limit switches must have been set. If the ATEE code is indicated, please check the wiring of end limits(7-8-9), motor safety chain (5-6), stop (18/19) and the front panel buttons (CM1).

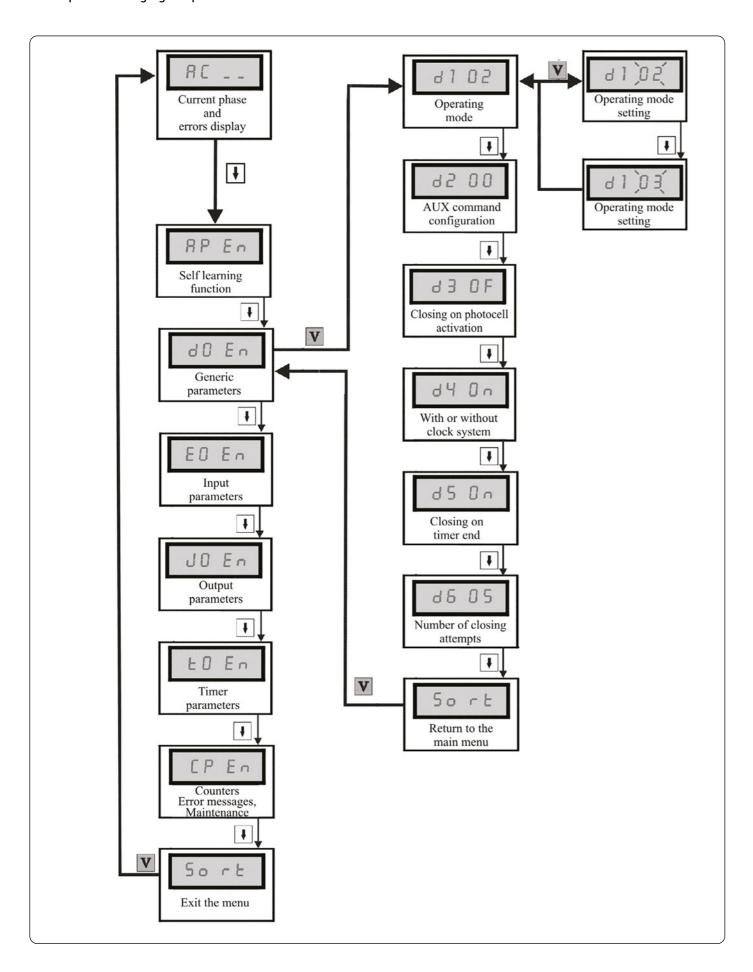






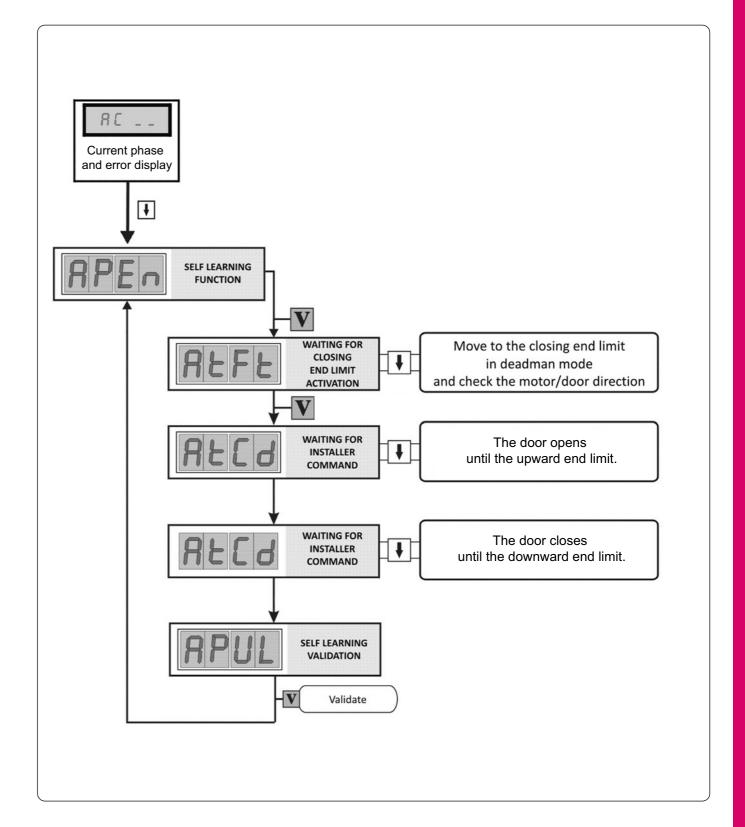
# **BUTTON AND DISPLAY OPERATION**

Changes have to be done when the curtain is closed. Example for changing the parameter  $d \mid \text{in } \mathbb{O}3$ 



# **END LIMIT SELF LEARNING**

Use self-learning if you want to change closed and opened position or learn new operation time. Before starting selflearning process, the installation has to be finished (door installed).







# BELOW TABLES SHOW PRE-PROGRAMMED PARAMETERS

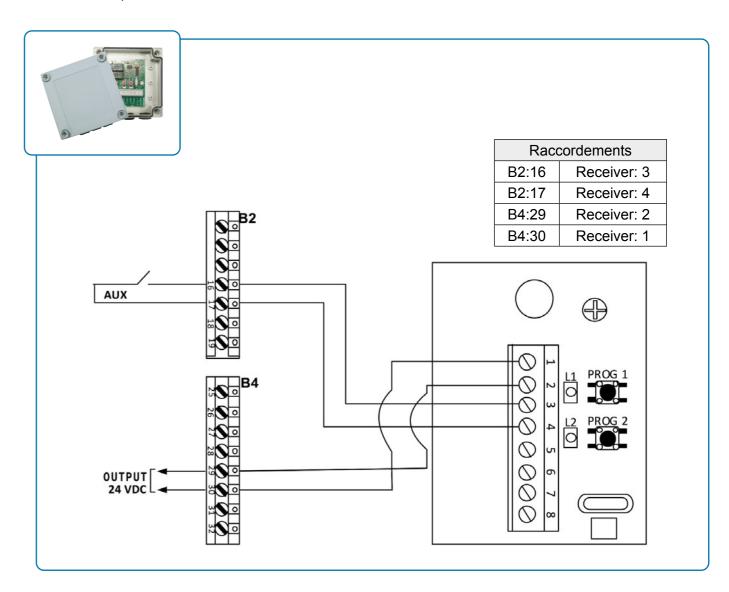
d !: Operating mode is preprogrammed during 1st power up procedure. It can be changed in deadman, mixed or impulse. This mode is allowed only with necessary security devices.

# **Generic parameters**

d0	GENERIC PARAMETERS					
	Paremeters Value Impulse 2BP Mixed Aut				Automatic	
		00	Deadman			
d !	Operating mode	□ I	Mixed (automatic open / deadman close)		Х	
		02	Impulse open and close	X		Х
		00	Step by step command	X		
		<b>0</b> I	Partial / complete opening selection for CMD1			
,¬	AUX Command	02	Partial open command		Х	
42	configuration	03	Traffic management external command			
		04	Input photocell blanking			Х
		05	Automatic interlocking input			
77	Closing on	On	Closing after photocell activation			Х
d3	photocell activation	ΩF	No closing after photocell activation	X	Х	
44	Closing on timer	<u> </u>	Closing after end of the timer			
۲۵	end	ΩF	No closing after end of the timer	X	Х	Х
1.5	With or without	On	With clock system			
d5	clock system	0F	Without clock system	Х	Х	Х
дЬ	Number of closing attempts	00 to 50	Closing attempts	03	00	03

# INSTALLATION AND SETTINGS FOR A SHUTTER WHICH CANNOT LIFT A PERSON

d≥: Step by step command allows to control the shutter from a SIMU remote control (installation of the SAHz receiver below).



 $d\exists$ : Possibility to program closing on cell-activation. This mode is only allowed with necessary security devices.  $d\forall$ : Lhutter can close automatically after a dwell-time. This mode is only allowed with necessary security devices. In this case, check EB in EB menu:

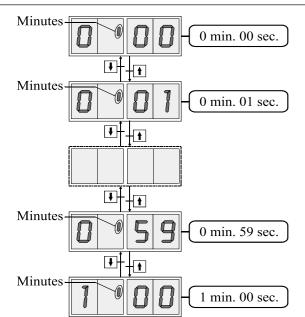
ŁΩ	TIMER PARAMETERS								
Parameters Value Impulse 2BP Mixed A				Automatic					
ĿF	Opening / closing timer	00	□□ second to Ч.□ minutes	1.0	1.0	30			
ŁЯ	Re-closing timer	<i>□ I</i>	□□ second to ЧН□□	IΠ	IΠ	05			
ĿШ	Warning timer before starting	02	□□ second to I□ seconds	03	03	03			



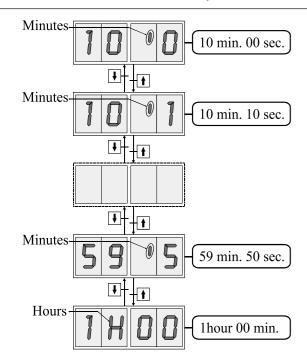


# **SETTING TIME LA PROCEDURE**

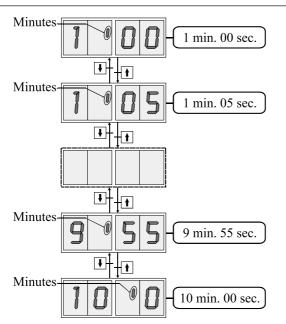
Between 0 sec and 1 min press the button f or pour incrémenter ou décrémenter le temps d'1s.



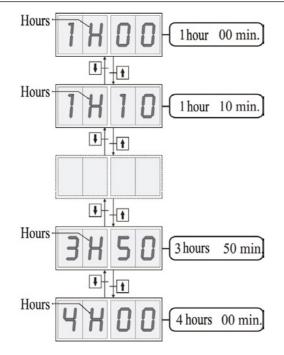
Between 10 min and 1 hour press the button for to increase or decrease the timer by **10 seconds**.



Between 1 min and 10 min press the button for to increase or decrease the timer by 5s.



Between 1 hour and 4 hour press the button or to increase or decrease the timer by **10 minutes**.



# **INPUT PARAMETERS**

EO	Input parameters						
	Parameters		Value	Impulse 2BP	Mixed	Automatic	
ЕІ	Photocell 1 input		EXPERT MODE to modify	Safety input on CLOSING without self-test with complete reopening	Inactive	Safety input on CLOSING without self-test with complete reopening	
E2	Photocell 2 input		EXPERT MODE to modify	Safety input on CLOSING without self-test with complete reopening	Inactive	Safety input on CLOSING without self-test with complete reopening	
		00	Inactive				
	8.2k safety edge input configuration	<b>D</b> 1	8.2k safety edge only				
E3				Programmed during 1st installation procedure			
		03	Air pressure safety edge with 8.2k	, ,			
		<u>0</u> 4	Pass-door function				
ЕЧ	8.2k safety edge	01	Safety input on CLOSING with COMPLETE reopening	Х	х	х	
	function	02	Safety input on CLOSING with 2 SECONDS reopening				
		00	Inactive				
E5	OSE safety edge function	D 1	Safety input on CLOSING with COMPLETE reopening	Programmed during 1st install		lation procedure	
		02	Safety input on CLOSING with 2 SECONDS reopening				
		00	Mechanical end limit				
ЕЬ	End limit type	<i>D I</i>	Electronic end limit	Programmed during	g 1st instal	lation procedure	
		02	No end limit				
EF	Radio channel reaction during opening	reaction during MODE EXPERT pour modifier Reverse					
ЕН	Function not used						
ЕЛ	Function not used						

In the case of a shutter which can lift a person, the 5 safety accessories have to set like this:

- Bottom photocells are connected on safety edge input: program E∃ on □2 (air pressure safety edge without 8.2k)
- Top photocells are self-tested : program E ! and E ≥ on 🛮 4 (cf Chapter 4 to go in expert mode).





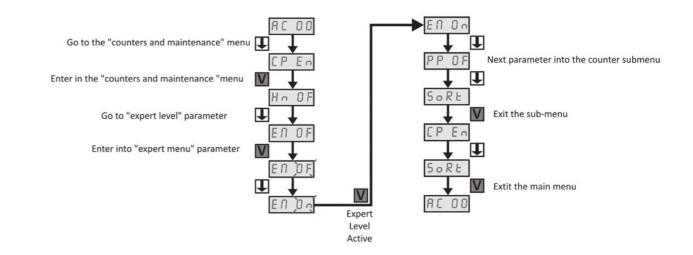
# **OUTPUT PARAMETERS**

JD			OUTPUT PARAMETERS			
	Parameters		Values	Impulse 2BP	Mixed	Automatic
		00	Electric strike door release			
		<u> </u>	Electromagnetic door lock			
١,,	High power output 1	02	Brake contact NO	X	Х	Х
ا ل	function	03	Brake contact NC			
		04	Flashing output			
		05	Door closed indication			
		00	Electric strike door release	X		
		<i>□ I</i>	Electromagnetic door lock			
, ,	High power output 2	02	Brake contact NO			
75	function	03	Brake contact NC			
		04	Flashing output		X	Х
		05	Door closed indication			
J3			Function not used		'	
		00	No warning before starting			
ا 5ك	Warning before starting	01	Warning before start closing only			Х
		02	Warning before start opening and closing	X	Х	
		00	Alarm			
		01	Timer			
		02	Door position	Х		
		03	Self-test output NC			
		ПЧ	Self-test output NO			
		05	Automatic interlocking output			
υЬ	Low power output 1 function	ΩЬ	Buzzer output			
	iunction	07	Service point output			
		08	Service point output + deadman operating			
		09	Opened door indication		Х	Х
		10	Closed door indication			
		11	Function no	ot used		
		12	Function no			
JЕ	Red traffic lights flashing configuration		EXPERT MODE to modify	Red lights are flash	ning on the	two way
JF	Red light waiting command configuration		EXPERT MODE to modify  Red lights are off during waiting command phase			g command

d2: in impulse mode, change it in B4 to make the signaling light working.

# **EXPERT LEVEL PARAMETERS**

# **EXPERT LEVEL ACTIVATION**



# **EXPERT PARAMETERS**

40	GENERIC PARAMETERS						
	Parameters		Value	Impulse 2BP	Mixed	Automatic	
		00	Deadman				
d	Operating mode	<i>□ I</i>	Mixed (automatic open / deadman close)		Х		
		02	Impulse open and close	X		Χ	
		00	Step by step command	X			
		01	Partial / complete opening selection for CMD1				
42	AUX Command configuration	02	Partial open command		X		
00		03	Traffic management external command				
		04	Input photocell blanking			Х	
		05	Automatic interlocking input				
,,	Closing on photocell	0n	Closing after photocell activation			Х	
43	activation	0F	No closing after photocell activation	Х	Х		
	Clasing on times and	On	Closing after end of the timer				
44	Closing on timer end	ΩF	No closing after end of the timer	Х	Х	Х	
1.	With or without clock	<u> </u>	With clock system				
45	system	ΩF	Without clock system	Х	Х	Х	
дЬ	Number of closing attempts	00 à 50	Closing attempts	03	00	03	





EΩ			INPUT PARAMETERS			
F	Parameters		Value	Impulse 2BP	Mixed	Automatic
		00	Inactive		X	
		01	OPEN safety input without self-test with COMPLETE re-closing			
		02	OPEN safety input without self-test with 2 SECONDS re-closing			
		03	OPEN safety input with self-test with 2 SECONDS re-closing			
E !	Entrée 1 Photocellule	ПЧ	OPEN safety input with self-test with 2 SECONDS re-closing			
	Priotocellule	05	CLOSE safety input without self-test with COMPLETE re-opening	Х		Х
		ОЬ	CLOSE safety input without self-test with 2 SECONDS re-opening			
		רם	CLOSE safety input with self-test with COMPLETE re-opening			
		08	CLOSE safety input with self-test with 2 SECONDS re-opening			
		00	Inactive		Х	
		01	OPEN safety input without self-test with COMPLETE re-closing			
		02	OPEN safety input without self-test with 2 SECONDS re-closing			
		03	OPEN safety input with self-test with COMPLETE re-closing			
E2	Photocell 2	ПΥ	OPEN safety input with self-test with 2 SECONDS re-closing			
	input	05	CLOSE safety input without self-test with COMPLETE re-opening	Х		Х
		ОЬ	CLOSE safety input without self-test with 2 SECONDS re-opening			
		רם	CLOSE safety input with self-test with COMPLETE re-opening			
		08	CLOSE safety input with self-test with 2 SECONDS re-opening			
		00	Inactive			l
	8.2k safety edge configuration	01	8.2k safety edge only			
E3		02	Air pressure safety edge without 8.2k	Programmed during  1st installation procedure		
		03	Air pressure safety edge with 8.2k	1stalia	tion prod	cedure
		04	Pass-door function			
		01	Safety input on CLOSING , with COMPLETE re-opening without self-test	х	Х	Х
		02	Safety input on CLOSING with 2 SECONDS re-opening without self-test			
	8.2k safety edge function	03	Safety input : OPENING→ STOP, CLOSING → COMPLETE re-opening			
ЕЧ		04	Safety input : OPENING→ STOP, CLOSING → 2 SECONDS re-opening			
		05	CLOSE safety input with COMPLETE re-opening and BLANKING			
		ОЬ	CLOSE safety input with 2 SECONDS re-opening and BLANKING			
		00	Inactive			
		01	Safety input on CLOSING, with COMPLETE re-opening without self-test			
		02	Safety input on CLOSING with 2 SECONDS re-opening without self-test			
E5	OSE safety	03	Safety input : OPENING→ STOP, CLOSING → COMPLETE re-opening		nmed du	
	edge function	ПЧ	Safety input : OPENING→ STOP, CLOSING → 2 SECONDS re-opening	1 <sup>st</sup> installa	tion proc	cedure
		05	CLOSE safety input with COMPLETE re-opening and BLANKING			
		ΩЬ	CLOSE safety input with 2 SECONDS re-opening and BLANKING			
		00	Mechanical end limit			
ЕЬ	End limit type	01	Electronical end limit	Progran 1st installa	nmed du	
		02	No end limit	Imilistalia	tion proc	Cedule
ЕП			Function not used			
E8			Function not used			
E9			Function not used			
ER			Function not used			
EE			Function not used			
EI			Function not used			
EE			Function not used			
	Radio	00	Stop			
EF	channel reaction during opening		х	х	х	
ЕН	- Porming		Function not used	1		L
ЕJ			Function not used			

IΩ			OUTPUT PARAMETERS			
	Parameters		Value	Impulse 2BP	Mixed	Automation
		00	Electric strike door release			
		01	Electromagnetic door lock			
		02	Brake contact NO	X	Х	Х
		03	Brake contact NC			
		04	Flashing output			
11	High power	05	Door closed indication			
	output 1 function	06	Lock type 1 NO			
		07	Lock type 1 NC			
		08	Lock type 2 NO			
		09	Lock type 2 NC			
		10	Capacitor commutation			
		00	Electric strike door release	X		
		0.1	Electromagnetic door lock	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
		02	Brake contact NO			
		03	Brake contact NC			
רו	High power	04	Flashing output		X	Х
12	output 2 function	05	Door closed indication			
		06	Lock type 1 NO			
		07	Lock type 1 NC			
		08	Lock type 2 NO			
		09	Lock type 2 NC			
		10	Capacitor commutation			
13			Function not used			
	Flashing type	00	Normal speed	X	X	
14		01	High speed			X
		02	Fixed			
		03	Impulse 1 second on start			
	Warning before starting	00	No warning before starting			
15		01	Warning before start closing only			Χ
		02	Warning before start opening and closing	X	X	
		00	Alarm			
		01	Timer			
		02	Door position	X		
		03	Self-test output NC			
		04	Self-test output NO			
Ь		05	Automatic interlocking output			
ш	Low power	ОЬ	Buzzer output			
	output 1 function	07	Service point output			
		08	Service point output + deadman operating			
		09	Opened door indication		X	Х
		10	Closed door indication		^	
		11	Function not use		1	
		12	Function not use			
17		15	Function not used	u		
18			Function not used			
' <u>-</u> 19			Function not used			
12 18			Function not used			
in ! ]]						
			Function not used			
IE IT			Function not used			
I		00	Function not used	1		
	Red traffic	00	Fixed red lights			
ΙE	lights flashing	01	Red lights flash on the two ways.	X	X	Х
	configuration	02	The red lights flashes on the priority way			
$\dashv$	Red light waiting	□n	Red lights are on during the waiting command phase			
!F	command					





EO.	TIMER PARAMETERS									
	Parameters	Values	Impulse 2BP	Mixed	Automatic					
ĿF	Opening / closing timer	☐☐ Sec. to Y.☐ Min	1.0	1.0	30					
ŁЯ	Re-closing timer	1.0	10	05						
ŁL	Reverse on safety action timer	□□ s to 1.5 s	0.2	0.2	0.2					
EE	Traffic light timer	ID	10	10						
ŁШ	Warning timer before starting	03	03	03						
E I		Function not used								
£2	Function not used									
ĿЗ	Function not used									
ŁЧ		Function not used								

# CONSULTING AND PROGRAMMING MAINTENANCE

	MAINTENANCE - COUNTERS - ERROR MESSAGES								
	Parameters		Value	Impulse 2BP	Mixed	Automatic			
Нп	Service operating mode	0n 0F	Deadman without active safety input  Normal operating (d1)	Х	Х	Х			
Ε	Cycle counter (high part) (hundred thousand, ten thousand, thousand)	000	to 999						
С	Cycle counter (low part) (hundred, ten, unit)	000	7 to 999						
M	Service point intermediate counter (hundred thousand, ten thousand, thousand)	000	7 to 999						
m	Service point intermediate counter (hundred, ten,unit)	000	7 to 999						
Ш	Service point intermediate counter Set point adjustment high part	000	7 to 999						
u	Service point intermediate counter set point adjustment low part	000 to 999							
PO	Last default			00 to 99					
PI	Before last default			00 to 99					
P2				00 to 99					
P3				00 to 99					
PY				00 to 99					
P5				00 to 99					
РЬ				00 to 99					
Pη				00 to 99					
P8				00 to 99					
PS	Older default			00 to 99					
ne		On	Erase defaults						
PE	Erase the ten last defaults	☐F Keep defaults							
EM	Expert menu activation	<u> </u>	Second level programmir	ıg					
		☐F First level programming							
PP	Password protection	☐  Active protection code ☐F No password protection							
$\vdash$		☐ Start changing password procedure							
PE	Password change	□F No change							
_	Fostomorest	Dη	Factory reset						
Fr	Factory reset	☐F No factory reset							

# **SERVICE OPERATING MODE:** Ho

 $\square_{\square}$ : Allows to configure the door in service operating mode (deadman without active safety input).

### IPFF : Normal operating function configured by ### parameter.

# TOTAL NUMBER OF CYCLES : ☐ and ☐

じょ ガス: Displays hundred of thousand, ten thousand and thousand for the total cycle number.

Example: 260585 cycles done => [=260] et ==585





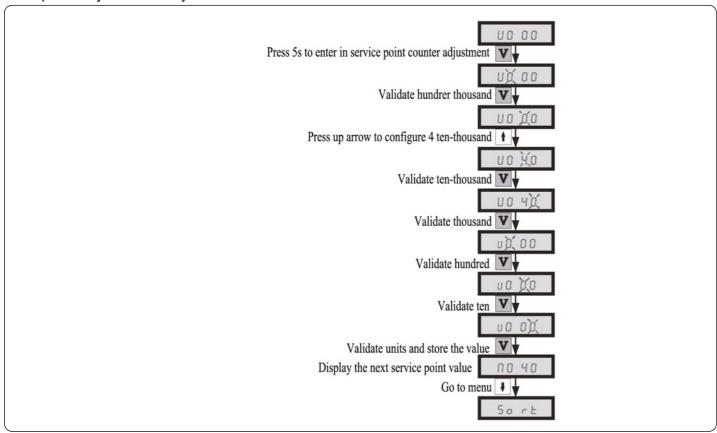
# SERVICE POINT ADJUSTEMENT VALUE L'AND

U and u program a cycle number bracket before next maintenance

ロメースス: Allows to configure the number before until the next cycle (High part).

ע א א א : Allows to configure the number before until the next cycle (low part)

Example to adjust 40 000 cycles:



# CNEXT MAINTENANCE CYCLE COUNTER: M AND> a

M and m show the cycle number to reach to make the next maintenance Mm = Lc + Uu

MX XX: Displays hundred of thousand, ten-thousand and thousand for the next service point value

תא א א : Displays hundred, ten and units for the next service point value.

The number of cycles of the next maintenance mn

= Number total of cycles cc + Service point adjustment value uu

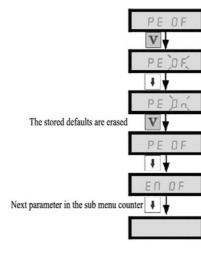
This function can be associated with a low power output (parameters Jb, Jg, Jd) configured in maintenance or maintenance + deadman.

If the total number of cycles  $\mathcal{L}_{\mathcal{L}}$  exceeds the service point adjustment value  $M_{\mathcal{L}}$ , the red light on the cover will lit.

# DISPLAY THE LAST TEN DEFAULTS: PD TO PS

Displayed error message	Description
PO XX	Last displayed error
P / %% to P8 XX	Last to old error display
PS XX	Oldest error display

# **ERASING THE LAST 10 STORED ERROR MESSAGES:** *PE*







# PASSWORD PROTECTION FACTORY RESET

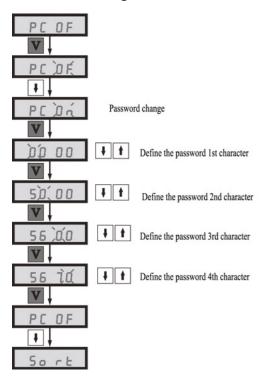
# PASSWORD PROTECTION ACTIVATION: PP

The password protects the programming menu access.

A reset of the board is necessary for the protection to be active Example: password activation 234

PP OF	
v	
PP OF	
+	
PP Dá	Password protection activation
v	
00 00	Define the password 1st character
v	
10(00	Define the password 2nd character
V	
12 0.0	Define the password 3rd character
V	
12 3,0	Define the password 4th character
PP On	
<u> </u>	
PC OF	Next assessed in the selection of the
	Next parameter in the sub menu counter

# Password change: ₽[



# Go to service point display menu Enter in Service point counter display menu Go to factory reset parameter Push 5s to enter into the parameter Push 5s to enter into the parameter Set the parameter to « On » Validate to reset Validate to reset

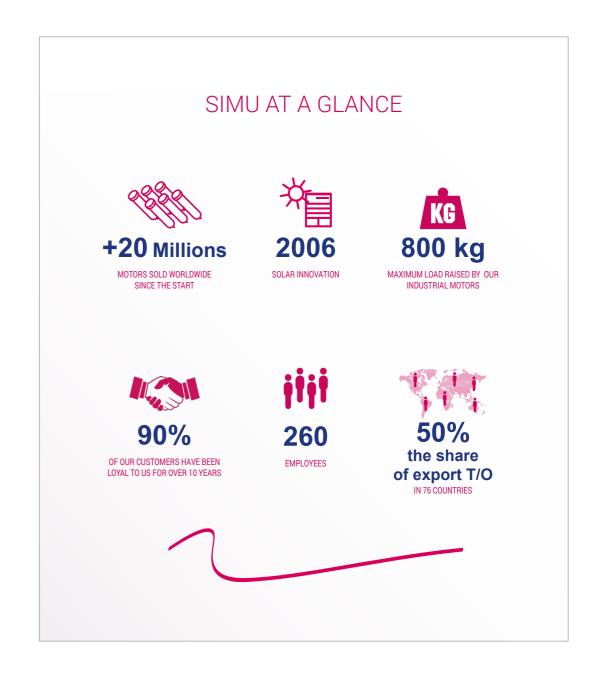
RETURN TO FIRST INSTALLATION POWER UP PROCEDURE

# ERROR MESSAGES

		Cod	de			
Error description	Code Led	Display	Mem.	Alarm	Dead man	Actions et consequences
No error	T —	00	No	No	_	
Permanent command	T —	ID.	No	No	_	
Opening command during closing phase	T —	11	No	No	_	
Stop \ Safety chain \ Emergency stop	T —	12	12	No	_	
Photocell 1: Opening safety activated	Blinks	20	No	No	Yes	Stay in deadman in opening
Photocell 1: Closing safety activated	Blinks	21	No	No	Yes	Stay in deadman in closing
Photocell 2: Opening safety activated	Blinks	22	No	No	Yes	Stay in deadman in opening
Photocell 2: Closing safety activated	Blinks	23	No	No	Yes	Stay in deadman in closing
8.2k safety edge: Opening safety activated	Blinks	24	No	Yes	Yes	Stay in deadman in opening
8.2k safety edge: Closing safety activated	Blinks	25	No	No	Yes	Stay in deadman in closing
OSE safety edge: Opening safety activated	Blinks	26	No	Yes	Yes	Stay in deadman in opening
OSE safety edge: Closing safety activated	Blinks	27	No	No	Yes	Stay in deadman in closing
Pass door opened (input 8.2k)	T —	28	No	Yes	No	Block all operating function
Self-Testing Photo Cell 1 Error	Blinks	30	30	Yes	Yes	Stay in deadman on the phase where photocell is active until next self test
Self-Testing Photo Cell 2 Error	Blinks	31	3 !	Yes	Yes	Stay in deadman on the phase where photocell is active until next self test
Air Pressure Safety Edge Diagnostic Error	Blinks	33	33	Yes	Yes	A new air pressure safety self test is realized during a deadman closing
Pass door failure (8.2k)	_	34	34	Yes	No	Block all operating function Reset needed
Pre-closing area too long	Blinks	35	35	Yes	Yes	
Reset or Power On	<u> </u>	Non	40	Yes		
End limit not reached	_	41	41	Yes	_	
Interlocking in progress		44	No	No	No	
Buzzer	<u> </u>	45	No	No		
Locking system monitor error	<u> </u>	46	46	No		
Radio receiver: Memory is full	<u> </u>	50	No	No	No	
Radio receiver: Missing memory	<u> </u>	5 !	No	No	No	
Internal Control Error: Internal Board default.	_	Ь0	60	Yes	No	Block all operating function Change control unit
Counter Cycle Overflow		65	No	No	No	Change the control unit























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