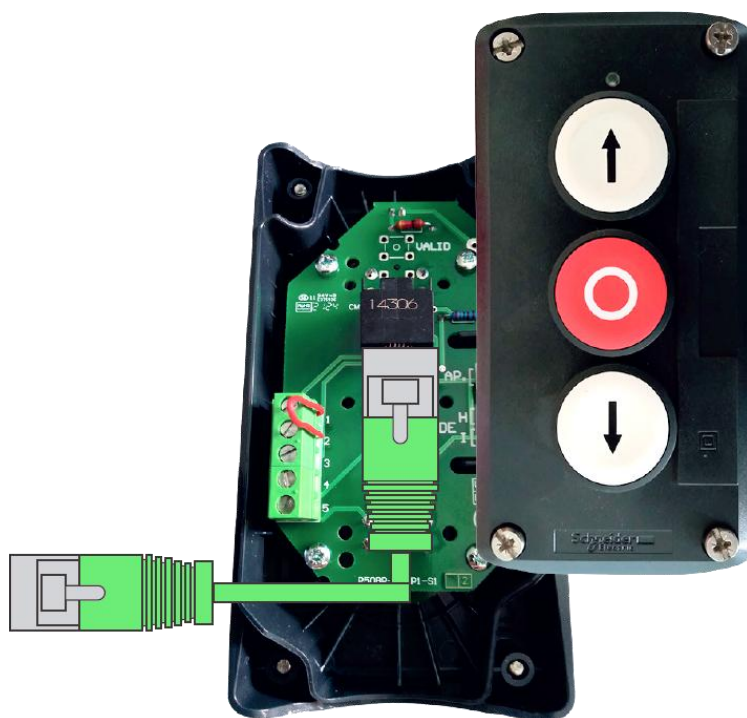


## INSTALLATION and CONNECTION

### Indus operator SE1i (single-phase) or SE3i (three-phase)



### Industrial Sectional door



(Document reserved for installers)

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# Installation instructions



## CAUTION !



**To ensure that this product is assembled,  
used and maintained in complete safety,  
it is important to follow the instructions provided in this document.  
For everyone's safety, please adhere to the precautionary measures below.**

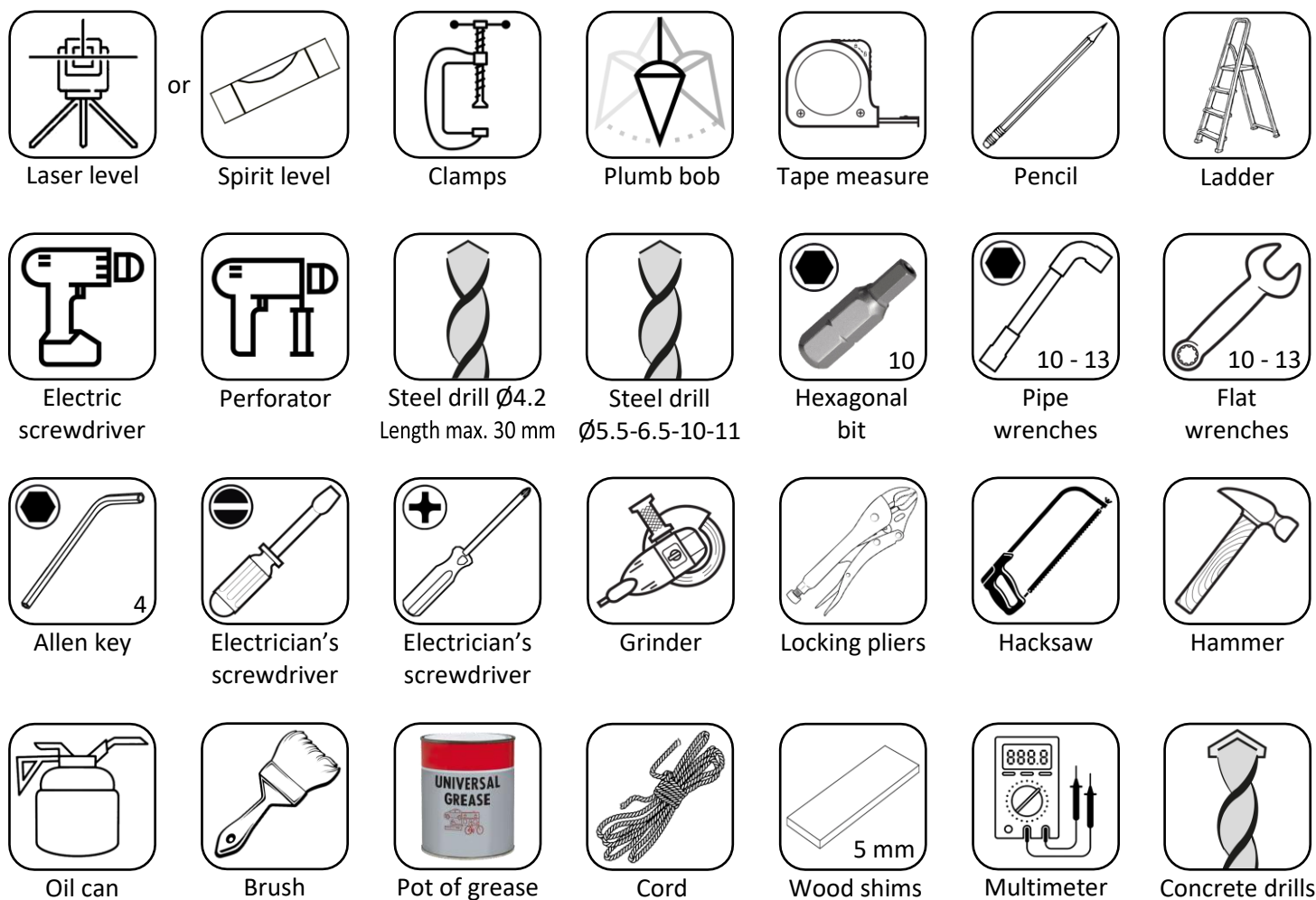
- Before beginning the assembly, read this manual carefully.
- This closure must be installed by a professional technician.
- All the parts delivered are specifically sized for this product.  
Adding and/or using other parts may be detrimental to safety and may affect the product's warranty.
- Any modification or improvement of this closure must be compliant with the standard BS EN 13241:2003+A2:2016.  
In this case, a " Modification/Transformation " file must be created by the installer as per the standard BS EN 12635 :2002+A1 :2008 annex C.
- Considerable force is exerted by the torsion springs ;  
carry out work in accordance with the safety instructions.  
Use the appropriate tools to install these products.  
Ensure that all work is carried out on a stable floor.
- Ensure that the assembly area is adequately lit, clear, clean and clearly marked out.
- Ensure that no other people are present at the assembly site apart from the installers.  
Indeed, non-authorized persons such as children, who are present at the site risk injury during assembly.
- All the components of this closure must be installed in compliance with the installation instructions provided in this manual.
- All the requirements of the standards BS EN 13241:2003+A2:2016 must be met and verified, if necessary.

## IMPORTANT !

- 1. Before starting to assemble the operator, it is essential to make sure the door operates manually.**
- 2. The door must be perfectly balanced and must not exhibit hard points during maneuvers.**

# Before installation

## Required equipment



Dowels with Ø6 maxi screws

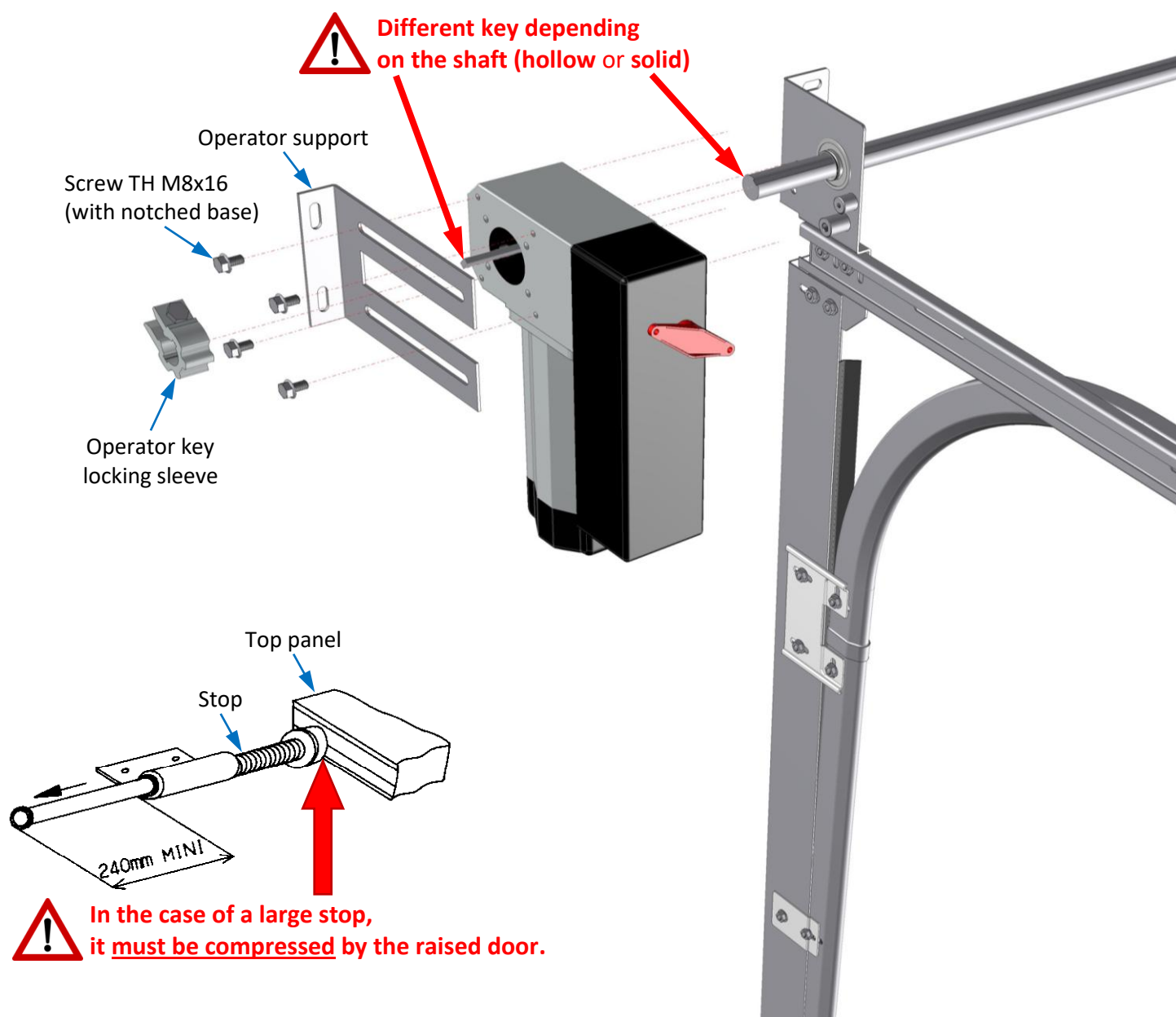
## Assembling the operator

### IMPORTANT !

**If hollow shaft :** 9.5 x 6.3 mm key, length 75 mm  
(KIT no. 243 in the accessory pack).



**If solid shaft :** 6.3 x 6.3 mm key with grub screw, length 105 mm  
(Bag in the operator pack).



# Implementation of the operator board PIC 500

## CAUTION !

**Any non-voluntary phase reversal** outside of SELF-LEARNING results in a dangerous situation.

**The "Operator output" of the PIC 500 is unprotected :**  
Install necessarily upstream of the "Power supply" input,  
The adequate protection according to the type of operator used.

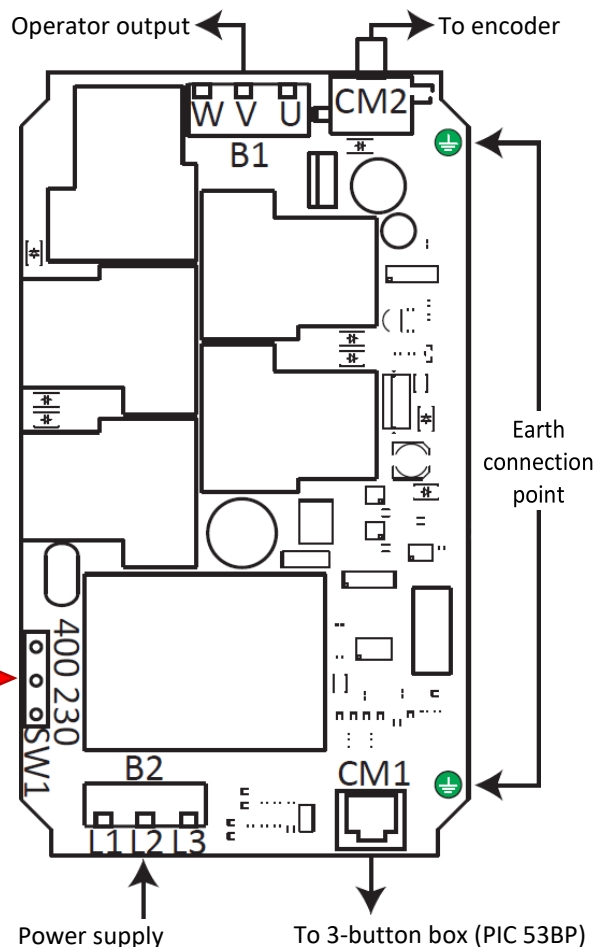
**Protection/maximum caliber :**  
Thermal-magnetic operator circuit breaker type GV2 ME10  
4-6.3 Amps or fuse aM 6 Amps.



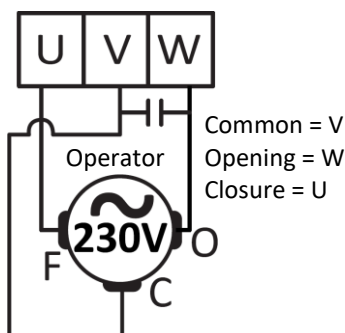
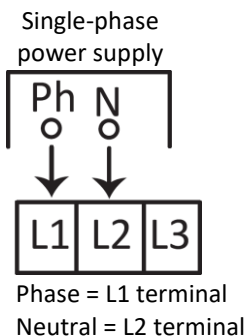
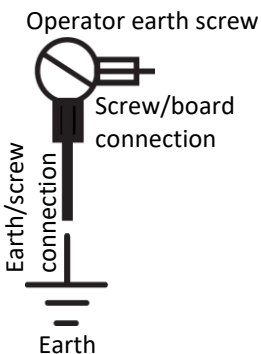
**Before making the connections,**  
**check the position of jumper SW1.**  
See chapter connection, below.



**It is imperative to check the voltage of your order,**  
**which is indicated on the operator. The SW1 jumper**  
**does not allow changing the operator supply voltage.**



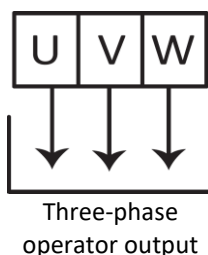
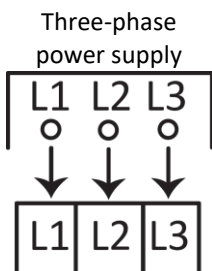
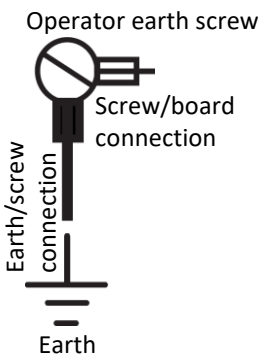
## Connection power supply and single-phase operator 230V



**Position the jumper**  
**SW1 on 230**

**Single-phase operator output :**  
Useful mechanical power 0.37kw/230Vac  
Yield of 80% - Cos of 0.9.

## Connection power supply and three-phase operator 230V or 400V



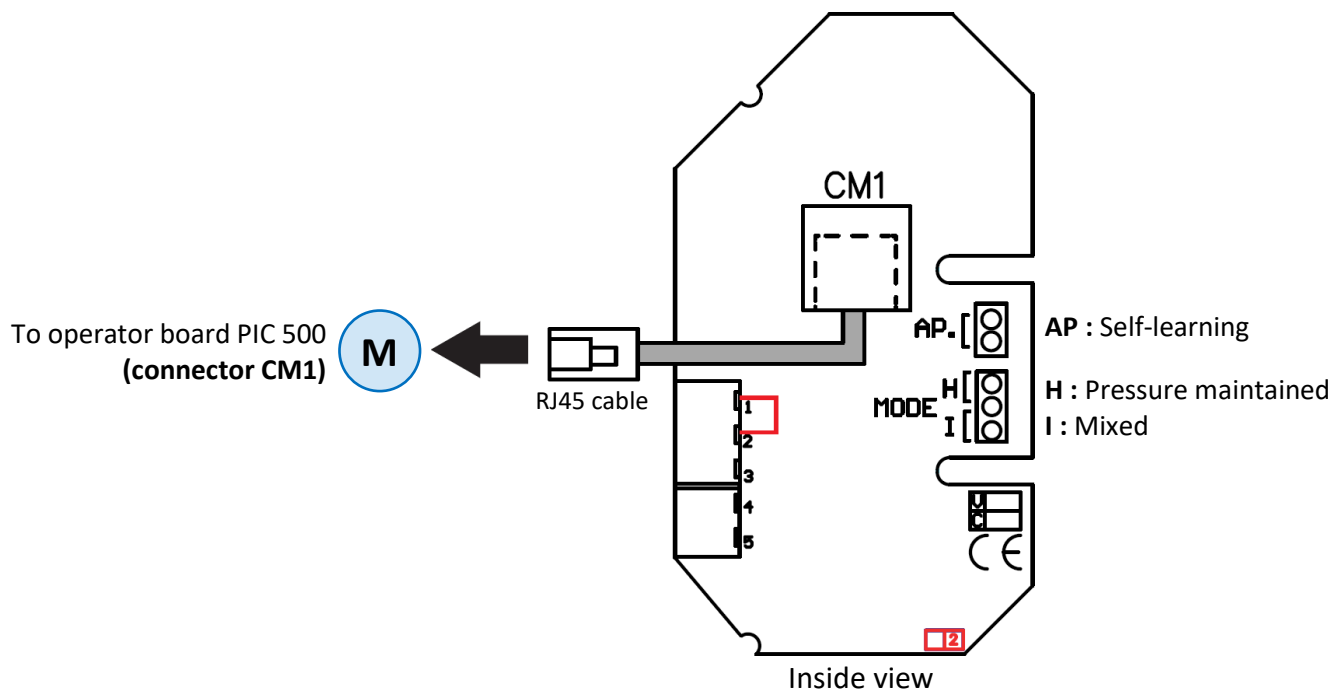
**Position the jumper**  
**SW1 on 230 or 400**

**Three-phase operator output :**  
Useful mechanical power 0.55kw/400Vac and 230Vac  
Yield of 80% - Cos of 0.8.

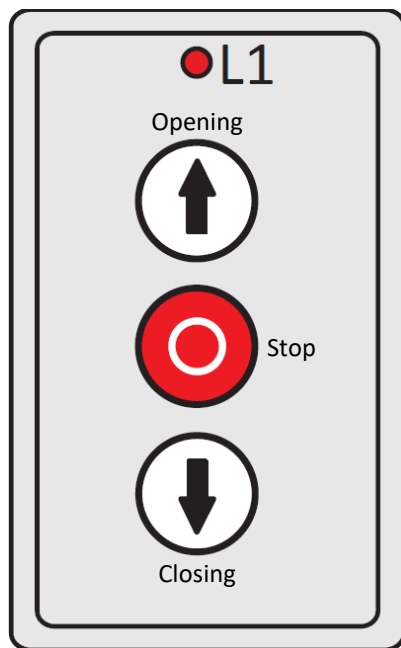
# Connection and presentation of the 3-button box PIC 53BP



The fixed controls must be installed in view of the door, but away from any moving parts and at a height of at least 1.5 m from the floor.



Outside view



L1 gives the card's states

## Legend :

- Extinct
- Slow flashing
- Fast flashing
- Lit

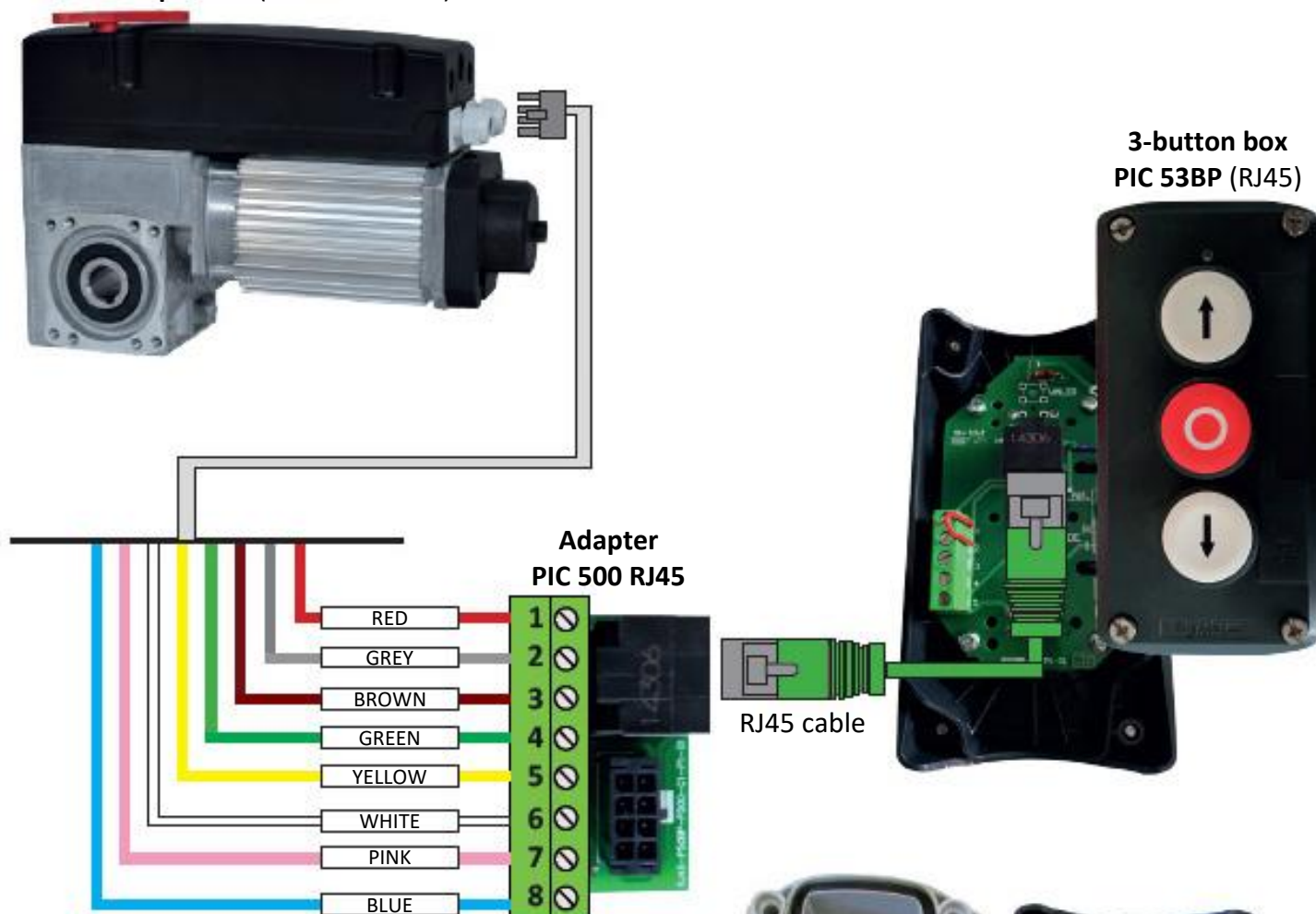


# Connection of a PIC 500 operator (bundle 8 wires) with a 3-button box PIC 53BP (RJ45)

## Adapter PIC 500 RJ45 in customer service

**Note :** In the case of a new 3-button box PIC 53BP equipped with RJ45.

**PIC 500 operator (bundle 8 wires)**



Place the adapter in the lower part of the case of the 3-button box PIC 53BP

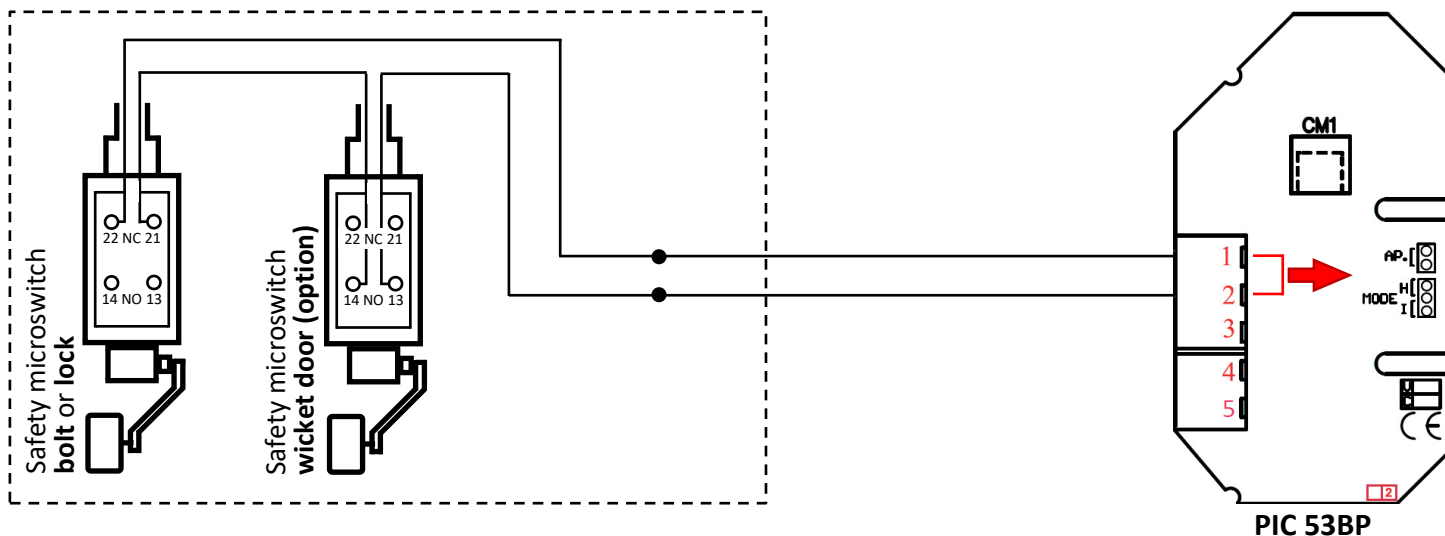




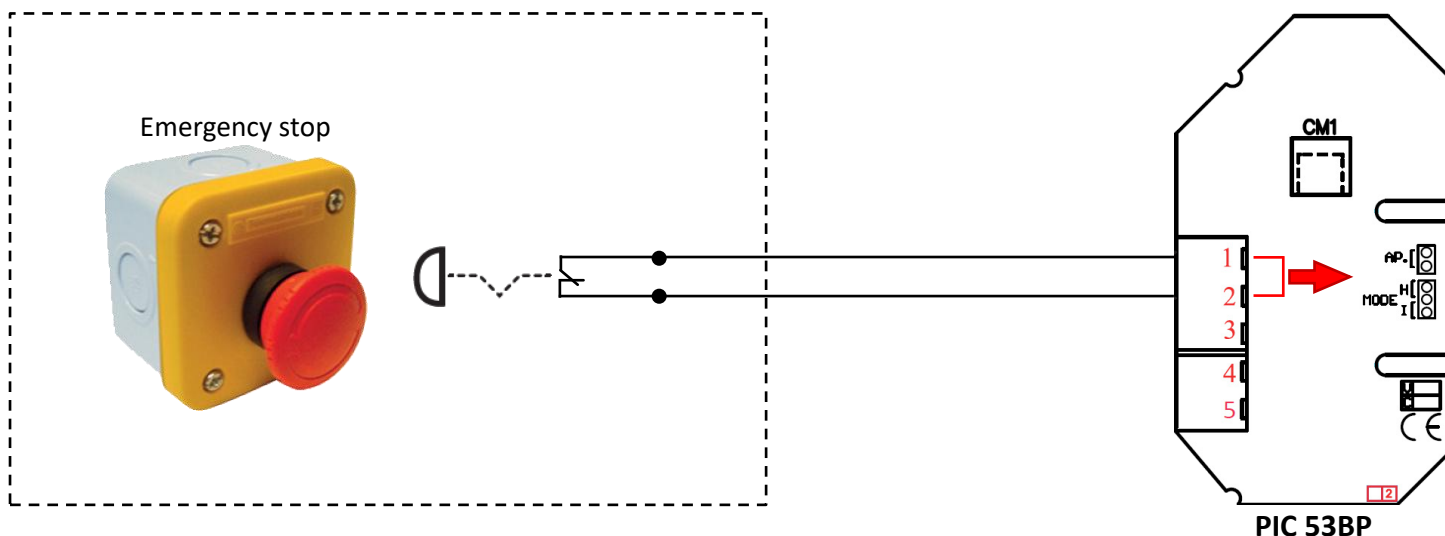


**On the terminal block of PIC 53BP, remove the bridge between 1 and 2, during the connection of safety microcontacts or the emergency shutdown.**

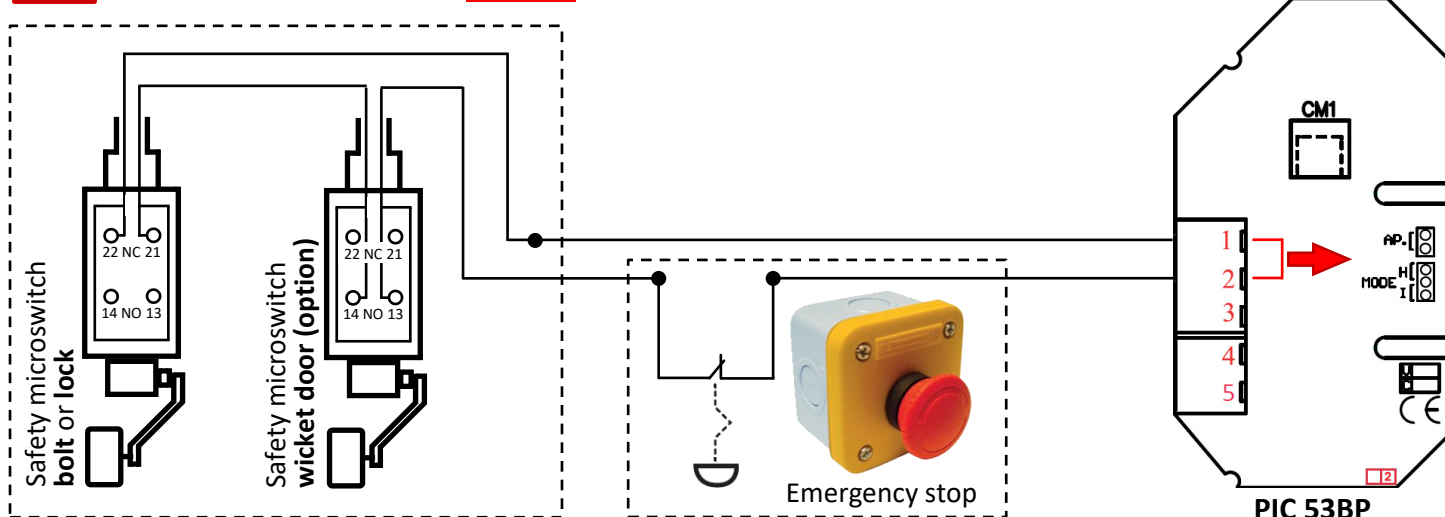
## Connection of safety microswitches



## Connection of the emergency stop



**If connecting the safety microswitches and the emergency stop ; the set must be connected in series !**



# Pressure mode maintained (ascent/descent maintained)

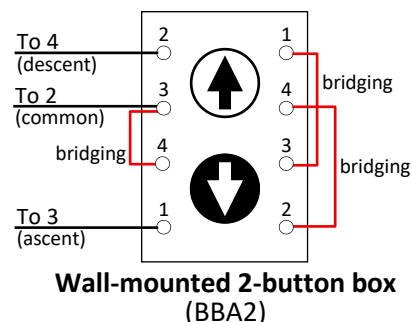
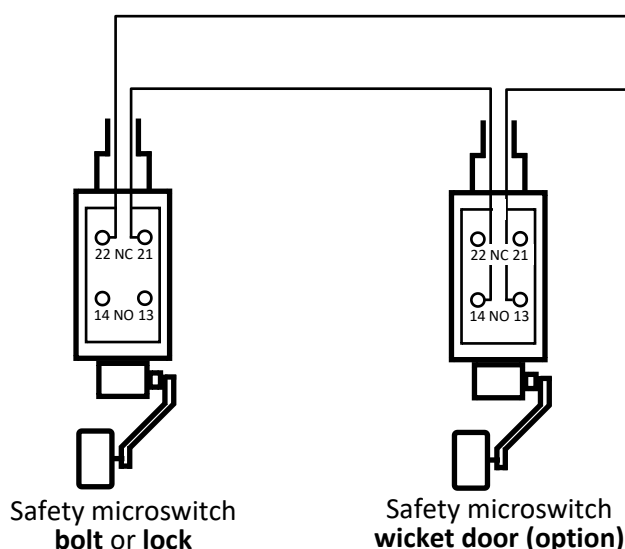
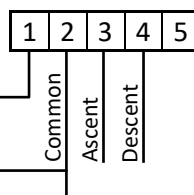
**!** The fixed controls must be installed in view of the door, but away from any moving parts and at a height of at least 1.5 m from the floor.

**!** Use a switch for only one operator. It is completely prohibited to control several operators with a single inverter of the monopolar type.

## Connection of an additional 2-button box

**!** If connecting the microswitches, remove the bridge between 1 and 2 from the PIC 53BP terminal block.

PIC 53BP terminal block  
(box with 3 buttons)

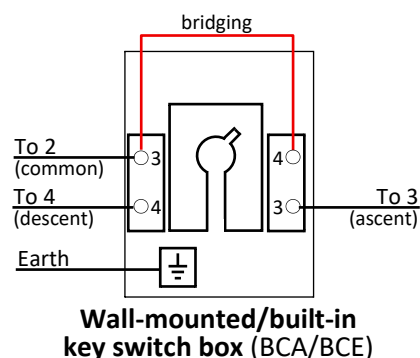
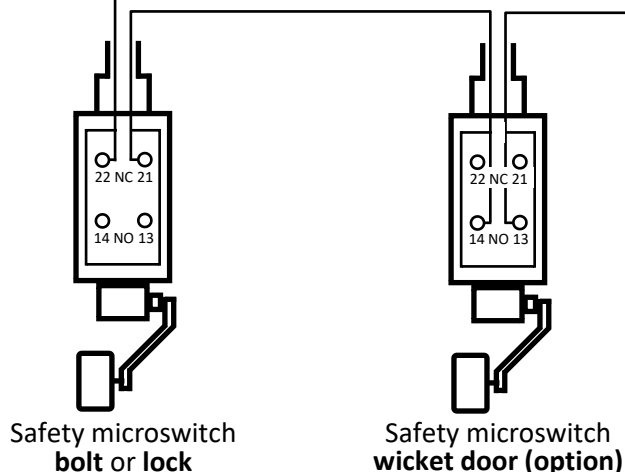
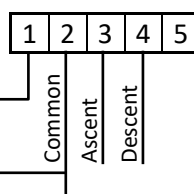


Wall-mounted 2-button box  
(BBA2)

## Connection of an additional key switch box

**!** If connecting the microswitches, remove the bridge between 1 and 2 from the PIC 53BP terminal block.

PIC 53BP terminal block  
(box with 3 buttons)



Wall-mounted/built-in  
key switch box (BCA/BCE)

# Mixed mode

## (pulse ascent/descent maintained)

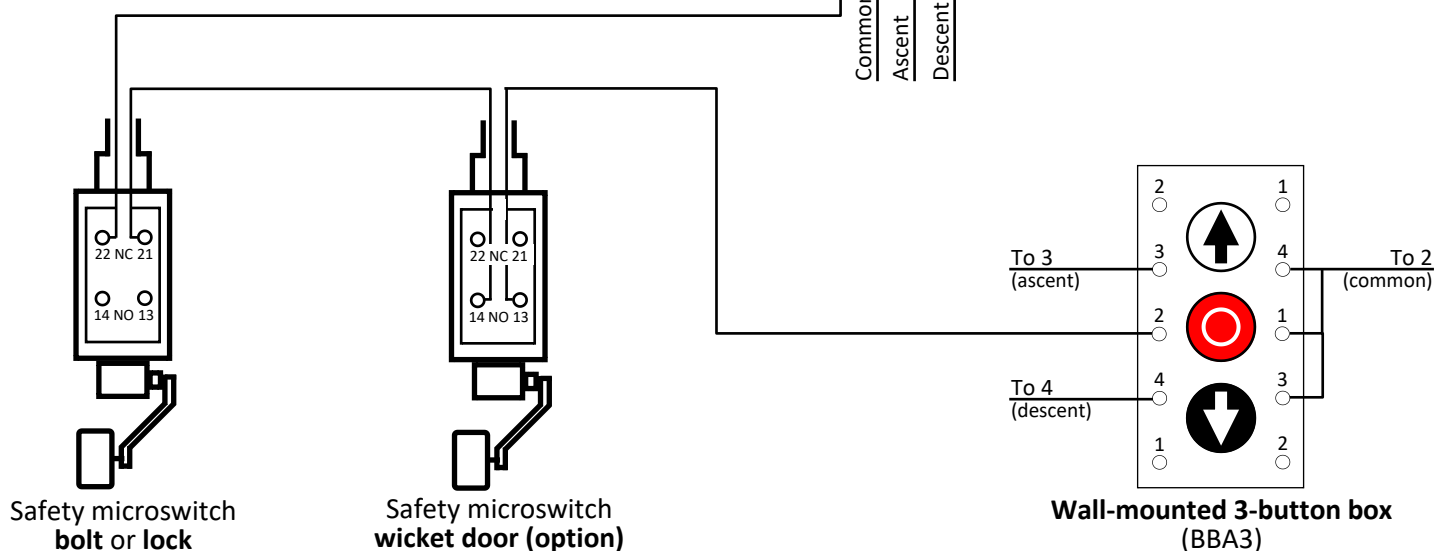
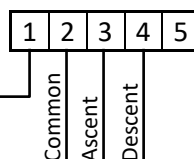
**!** The fixed controls must be installed in view of the door, but away from any moving parts and at a height of at least 1.5 m from the floor.

**!** Use a switch for only one operator. It is completely prohibited to control several operators with a single inverter of the monopolar type.

### Connection of an additional 3-button box

**!** If connecting the microswitches, remove the bridge between 1 and 2 from the PIC 53BP terminal block.

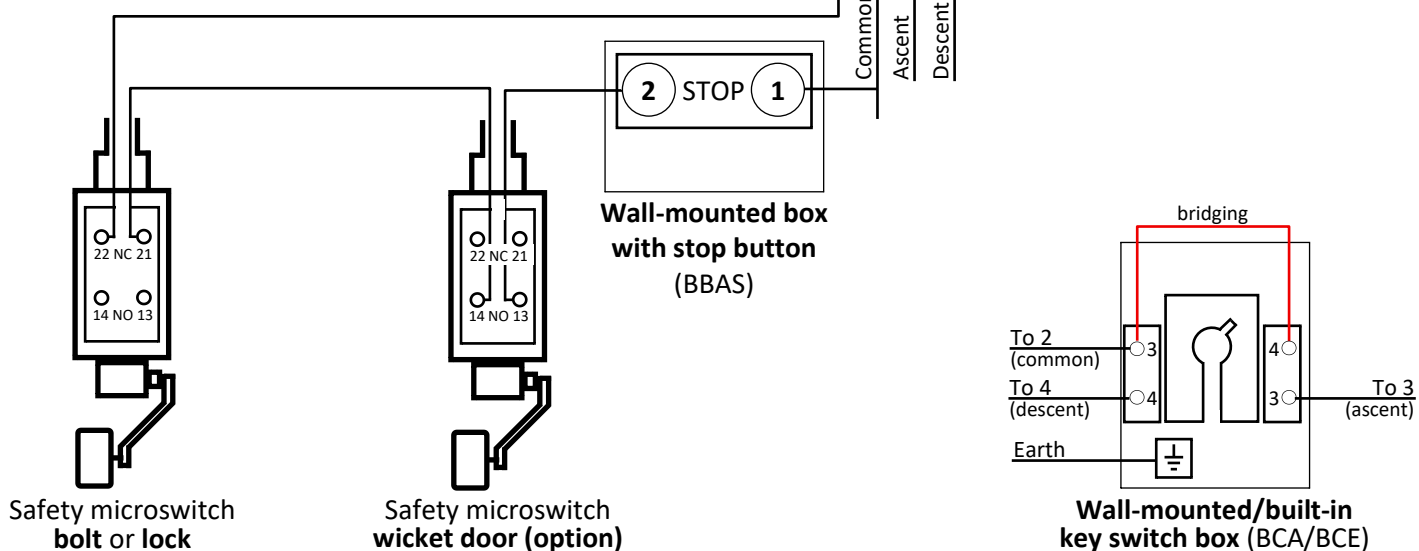
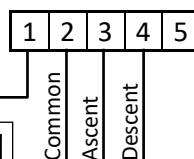
PIC 53BP terminal block  
(box with 3 buttons)



### Connection of a key switch box and an additional stop button box

**!** If connecting the microswitches, remove the bridge between 1 and 2 from the PIC 53BP terminal block.

PIC 53BP terminal block  
(box with 3 buttons)



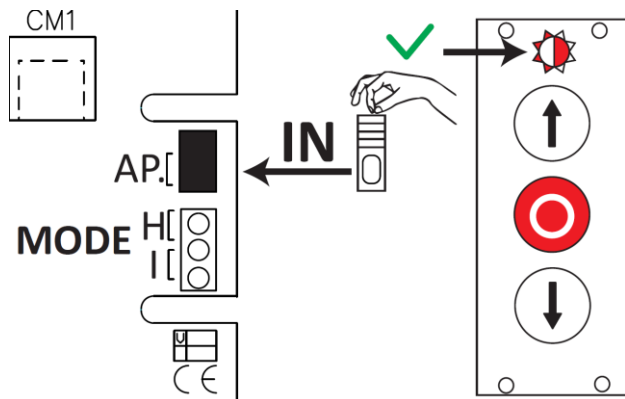
# Self-learning

## IMPORTANT !

**The door installation must be completed, before starting the self-learning procedure.**

- The door stops and all safety components must be in place and functional.
- The door must be in a central position (half open).

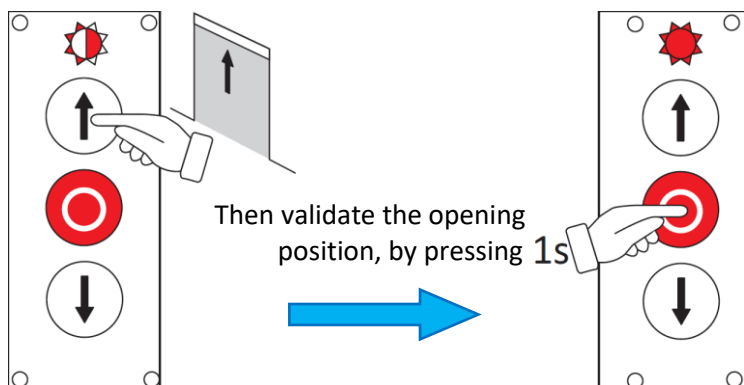
1. Place the jumper on AP → The LED flashes.



**Diagnostic :**

If the LED remains on, check the connection between the PIC 500 and the encoder.

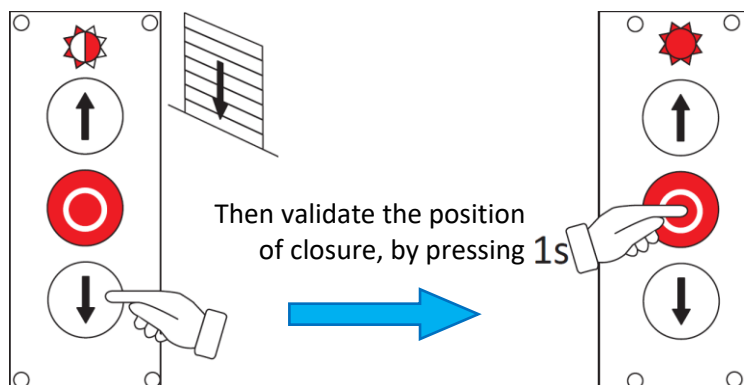
2. Open the door completely, while remaining to press the opening button.



**Diagnostic :** Check the door/operator direction.

If inversion, carry out the procedure of the chapter : Reversal of the operator direction.

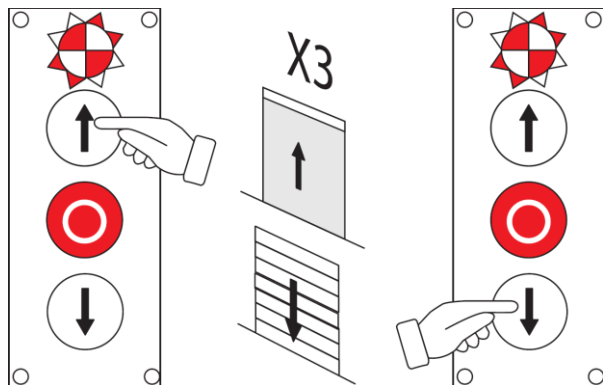
3. Close the door completely, while remaining to press the closing button.



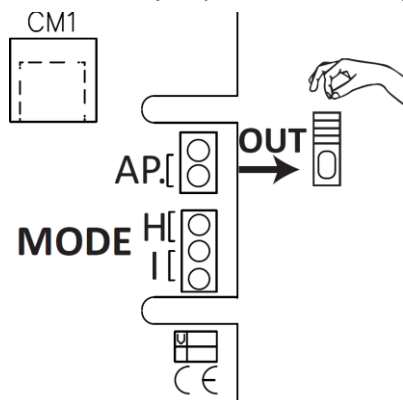
Continuation of self-learning, next page.

4. Perform 3 complete cycles (opening/closing), to adjust the opening and closing positions.

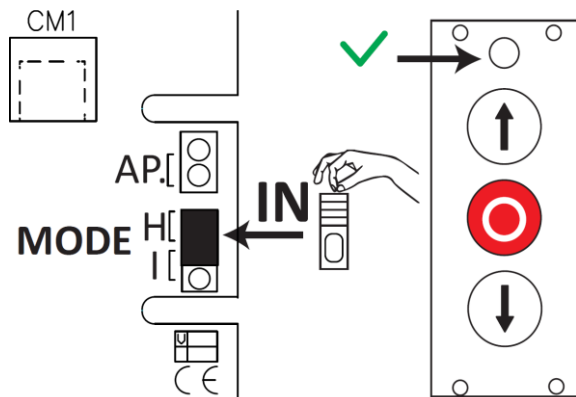
**Note :** Hold the button down to the door stops (2<sup>nd</sup> stop).



5. Remove the jumper from the AP position.

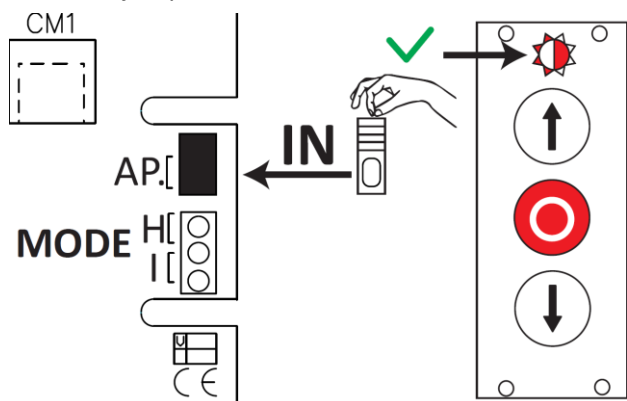


6. Position the jumper on one of the desired operating modes : **Maintained pressure (H)** or **Mixed (I)**.

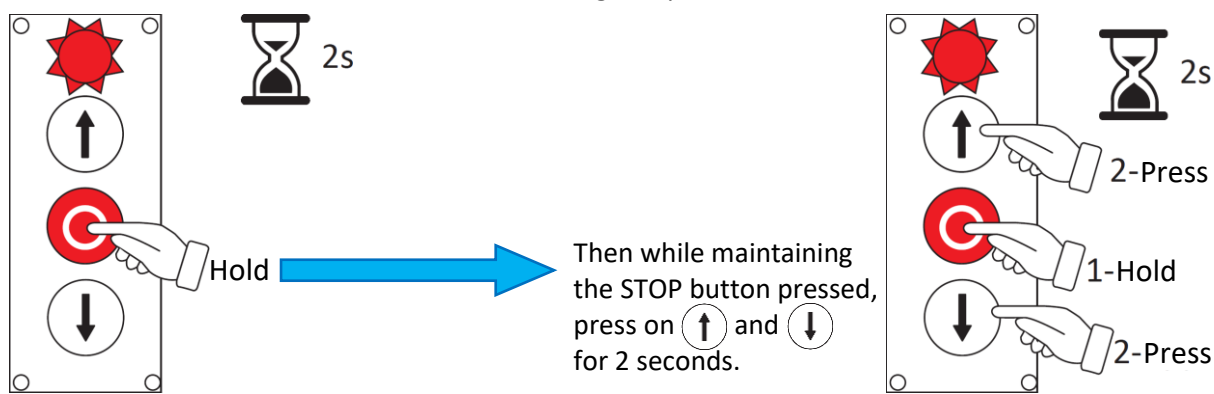


# Reversal of the operator direction

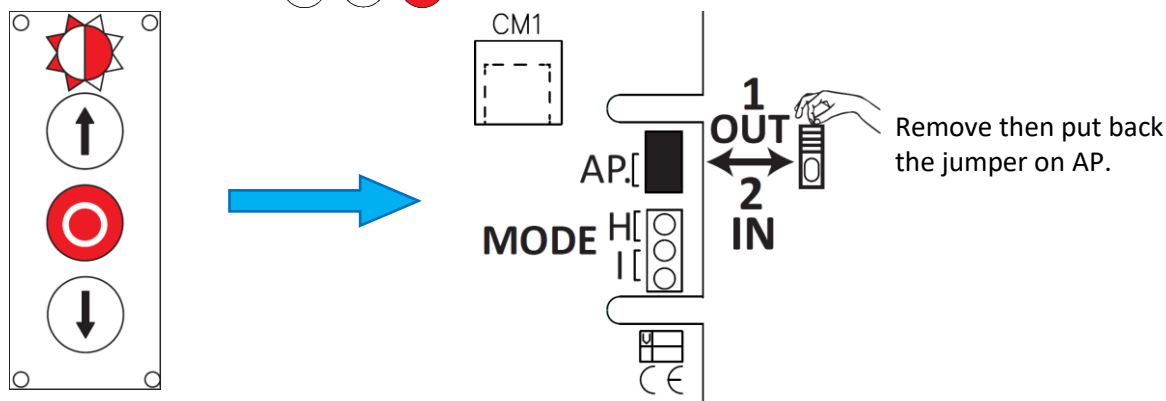
1. Place the jumper on AP → The LED flashes.



2. Hold the STOP button, for 2 seconds → The LED lights up.



3. Release the 3 buttons (↑/↓/○).

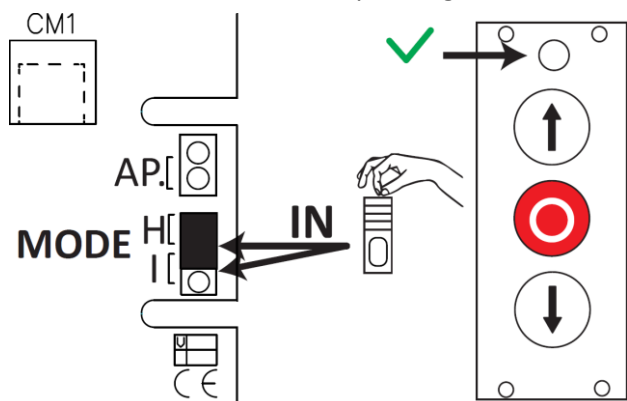


4. Restart self-learning → [See chapter](#) : Self-learning.

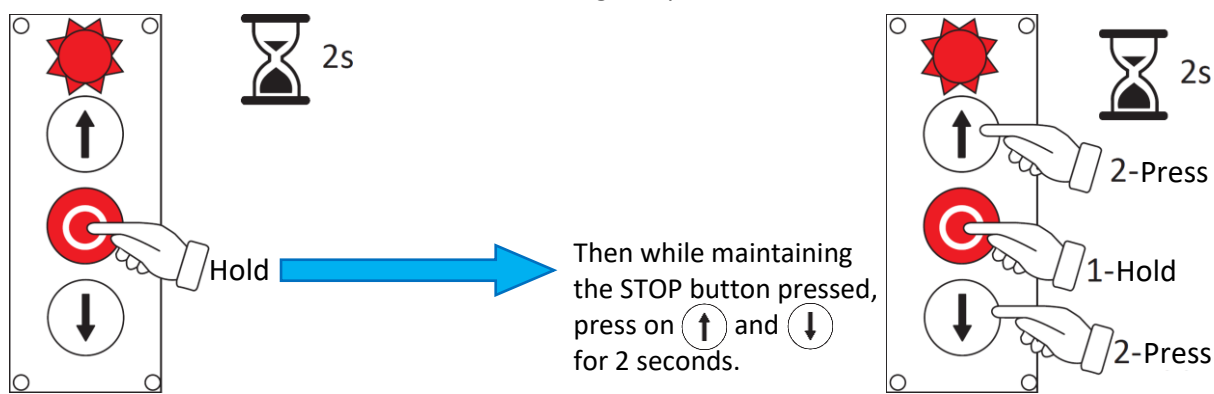


# Cycle counter

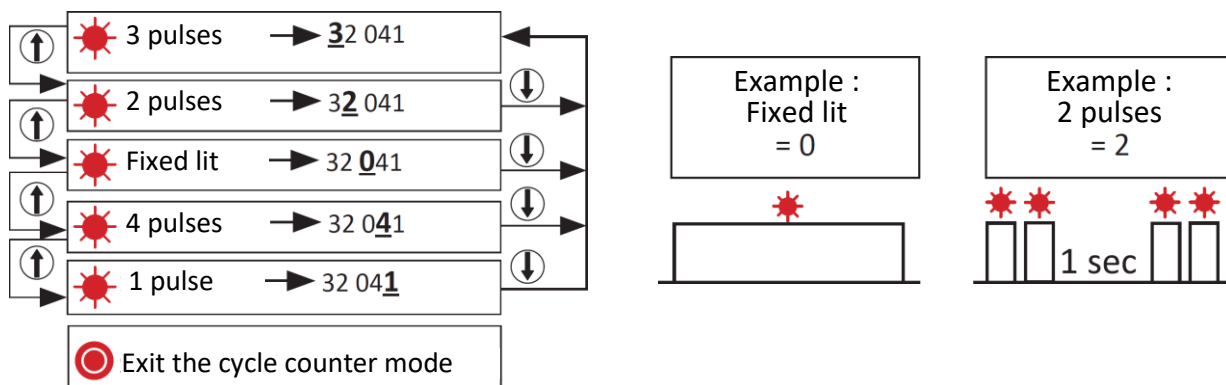
1. The card must be in normal operating mode, excluding self-learning.



2. Hold the STOP button, for 2 seconds → The LED lights up.



3. Example for a total of **32041** cycles.



- In counter display mode, the LED constantly indicates the value of the digit to be displayed, by lighting up according to the number of corresponding pulses (fixed lit for the value 0).
- If no action for 1 minute, the card returns to waiting order normal cycle.
- Maximum display : 99,999 cycles.

## In case of non-operation

- Check the supply voltage and the condition of any fuses.
- Check that the emergency operation control is not activated.
- Make sure that the operator is rotating in the correct direction, otherwise refer to the chapter : Reversal of the operator direction and perform the procedure.



**Do not reverse the green (descent) and brown (ascent) wires.**

## Defects

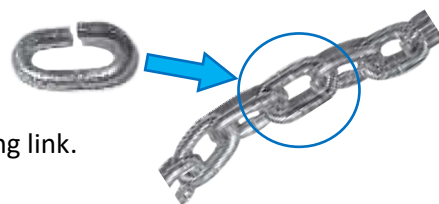
	LED	When ?	Status of the card	Solution
OPERATION	Extinct 	Normal operation		
	Slow flashing 	Board in self-learning ( <b>jumper on AP</b> )	Maintained pressure operation without limit switch	Active state during self-learning. Caution, nothing will stop the door in extreme positions (opening and closing)
	Fast flashing 		In the adjustment phase (3 cycles) Pressure maintained with electronic limit switches	Active state during the adjustment phase. Perform 3 full cycles to compensate for the difference between the opening and closing of limit switches.
DEFECTS		Waiting order ( <b>jumper on H or I</b> )	Unsettled positions	Perform out self-learning (see <u>chapter</u> : Self-learning)
		At any time	Communication defect between the board and the encoder	Check the connection between the board and the encoder
		At the launch of an order	Supervision defect	Contact the customer service (after-sales service)
		Self-learning ( <b>jumper on AP</b> ) when the door is moving	Encoder overcapacity defect	The operator/mechanical assembly is not adapted to the door, the encoder makes more than one turn
		After a departure, operator in the wrong direction	Operator direction defect	Check the order of the supply phases (see <u>chapter</u> : Reversal of the operator direction)

## In the case of a chain hoist

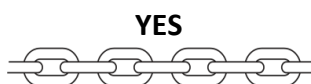
### Modification of the winch chain length :

The winch chain is assembled by an open-link type connecting element.

It can be opened at the junction point and be lengthened or shortened by connecting link. The connecting links must be carefully bent together.



In case of modification of the winch chain length, one will ensure that it is not twisted.



## To detach and display next to the door

### Troubleshooting help

#### The door doesn't work :

- Check the power supply and the fuses.
- If the operator has been used extensively, wait for it to cool down ; the temperature sensor will reactivate automatically.
- If the operator has been used in emergency operation mode, check that the operator has been re-engaged.
- Contact your installer.

#### The door stops while in operation :

- Check the power supply and the fuses.
- Check for the absence of obstacles and « hard spots » which would hinder the shutter's movement.
- Contact your installer.

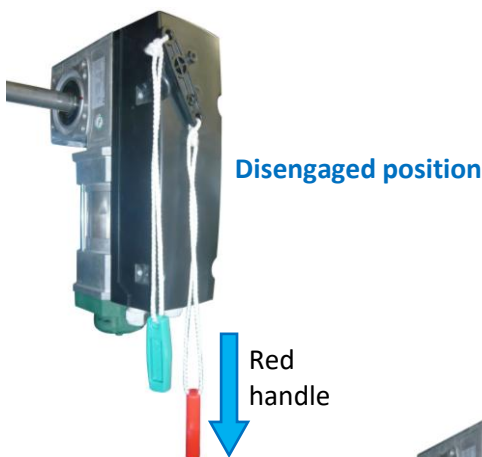
### Emergency operation



#### Disengage the operator, closed door !

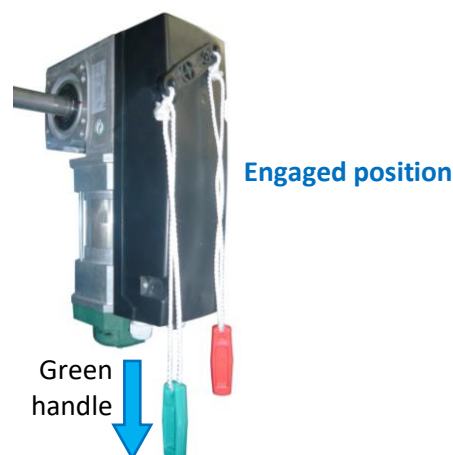
**If the door is opened (totally or partially), make sure there is no one in the bay !  
The door could fall, in case of imbalance.**

1. Pull on the 1<sup>st</sup> handle (red) to disengage.



2. You can then operate the door manually.

3. After the emergency maneuver, pull on the 2<sup>nd</sup> handle (green) to engage.



### Customer service contact

(Installer's stamp)

## Chain hoist

By actuating the release handles (red and green), we switch mechanically between the manual or motorized mode. The door must not be maneuvered with manual troubleshooting, beyond its final positions ; this would lead to the triggering safety limit of over-travel and the electrical operation of the door would no longer be possible. Manual operation for troubleshooting is provided for opening and closing the door, without electrical energy.

**Red handle :** Switching to manual operation (the traction torque is max. 390 N).  
Open or close the door by the chain hoist.

**Green handle :** Commutation in motor operation (the traction torque is max. 390 N).

**Manually maneuver :**

1. Operate the red handle, until it is engaged.
2. The operator goes into manual mode.
3. Operate the chain, in order to move the door.

**Motorized maneuver :**

1. Operate the green handle, until it is engaged.
2. The operator goes into motorized mode.
3. Operate the operator with the electric control components.

