



ITALIAN STYLE FOR LIFTS

MANUAL  
INSTRUCTIONS FOR USE  
**OPR521-N**

<b>CODE</b>	<b>DESCRIPTION</b>
OPR521-N-TS	Door Drive with integrated programming keypad
OPR521-N-TS-MW	Door Drive with integrated programming keypad and Wi-Fi module
DISP801	External programming keypad (optional)

**English**

**REV.6**  
**07/10/2024**

## Summary

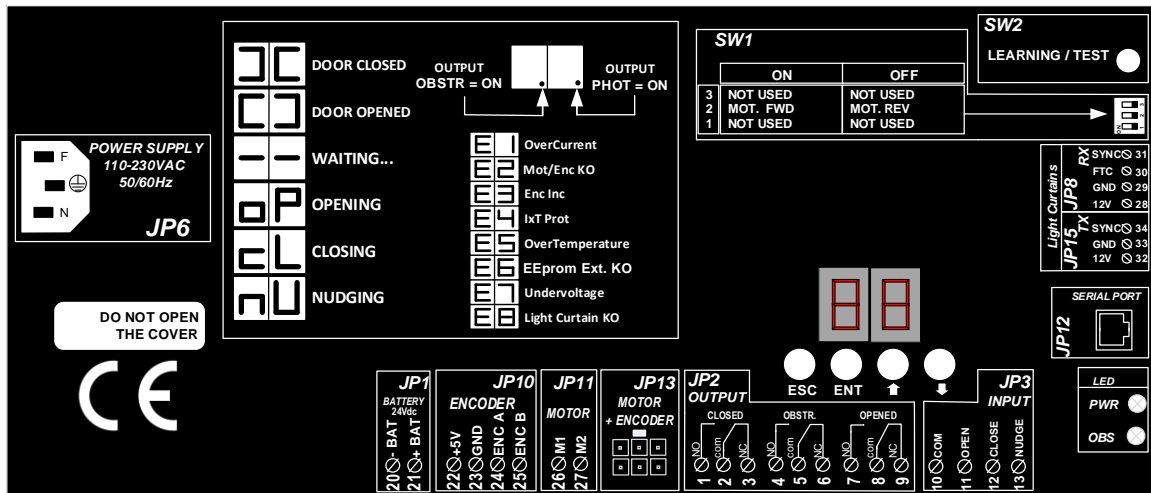
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# 1. GENERAL INFORMATION

<b>Power supply</b>	230Vac ±10% (50-60Hz)
<b>Dimensions</b>	270mm x 106mm x 45mm
<b>Weight</b>	0,7Kg
<b>Degree of protection</b>	IP20
<b>Onboard protection</b>	8A
<b>Relay outputs</b>	24VDC 3A

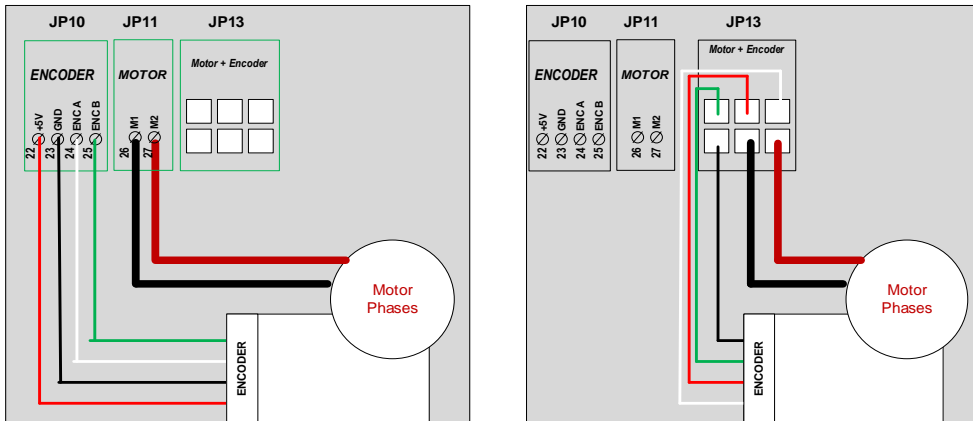
## PINOUT

<b>JP1</b>	Auxiliary power supply (24 Vdc Batteries)
<b>JP2</b>	Relay output signals NO/NC <ul style="list-style-type: none"> <li>• <b>[CLOSED]</b> Closure limit switch</li> <li>• <b>[OBSTR.]</b> Obstacle (Safety edge)</li> <li>• <b>[OPENED]</b> Opening limit switch</li> </ul>
<b>JP3</b>	Inputs (dry contacts or external voltage) <ul style="list-style-type: none"> <li>• <b>[OPEN]</b> Door opening command</li> <li>• <b>[CLOSE]</b> Door closure command</li> <li>• <b>[NUDGE]</b> Forced closure</li> </ul>
<b>JP6</b>	Main power supply 230V (50/60 Hz)
<b>JP8</b>	Vega receiver Light Curtain (RX)
<b>JP10</b>	Encoder motor (4 poles)
<b>JP11</b>	Motor phases (2 poles)
<b>JP12</b>	External programming keypad DISP801
<b>JP13</b>	Motor connection (6 poles)
<b>JP15</b>	Vega transmitter light curtain (TX)
<b>SW1</b>	Dipswitch: <ul style="list-style-type: none"> <li>• D1: Not used</li> <li>• D2: Motor direction; OFF = <b>[Forward]</b>, ON = <b>[Reverse]</b></li> <li>• D3: Not used</li> </ul>
<b>SW2</b>	Button <b>[LEARNING/TEST]</b> : <ul style="list-style-type: none"> <li>• Learning (Hold down for 4 seconds)</li> <li>• Open/Close (Quick pressure)</li> </ul>
<b>Led PWR</b>	Normal functioning → Green Alarm → Blinking Red
<b>Led OBS</b>	Obstacle (Safety edge) → Yellow

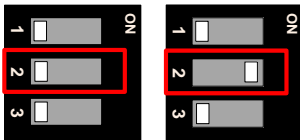


## 2. START-UP

1. Turn off the board by disconnecting the power cable.
2. Manually open the doors halfway.
3. Depending on the motor type, connect it to **JP13** connector if it has 6 poles, or to **JP10** and **JP11** connectors.



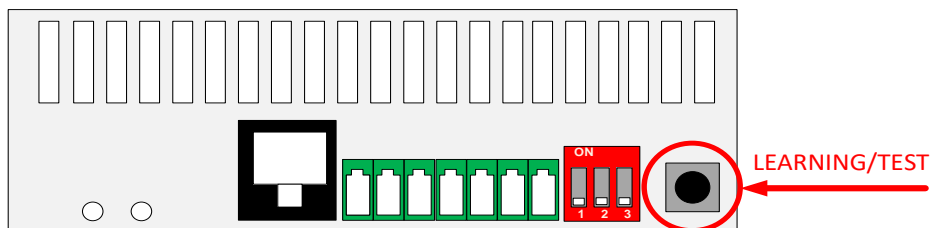
4. Connect the power cable to the **JP6** connector and check the door closing direction:
  - a. If the doors move and complete the closure, go to step 5.
  - b. If the doors move in opening:
    - b1. Change the status of dipswitch 2.



- b2. Turn off the board by disconnecting the power supply connector.
  - b3. Turn on the board again.

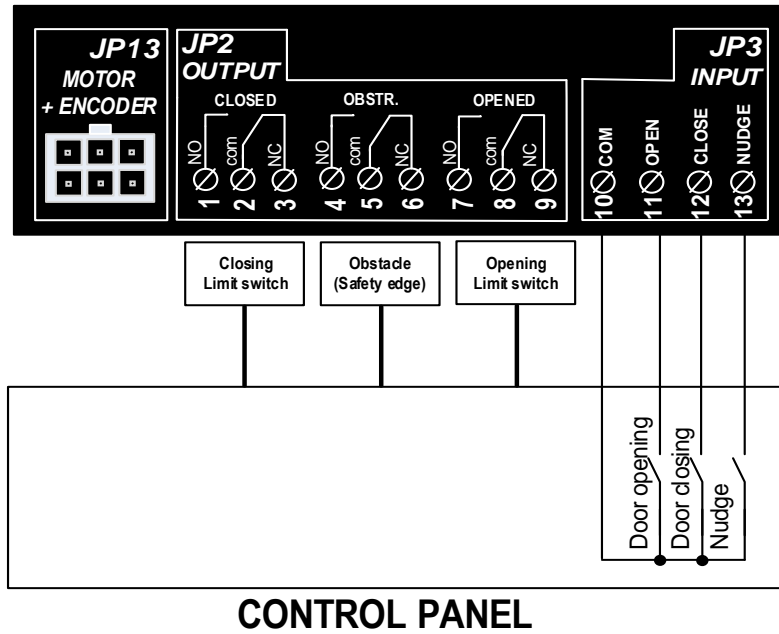
**NOTE:** the motor direction can **ONLY** be changed with the dipswitch 2.  
The motor direction is acquired **ONLY** after the board reset.

5. Make sure that the doors stroke is not interrupted by obstacles and the doors are completely closed. In case of a Drive with movable coupling cam, check that the cam is closed.
6. In order to perform the learning of the door stroke, hold the **[LEARNING/TEST]** button positioned on the side of the board for at least 4 seconds, the Drive will slowly open the doors and the integrated keypad will show Ln.



### 3. CONNECTIONS

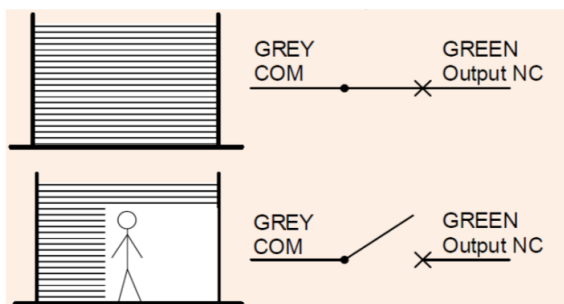
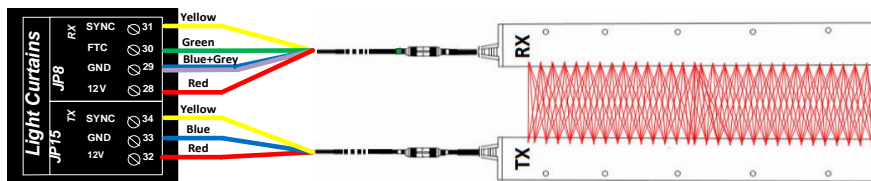
#### 3.1. OPR521 – Control Panel



NOTE: The connections between pins 10 and 11, 12, 13 must be clean contacts without voltage!

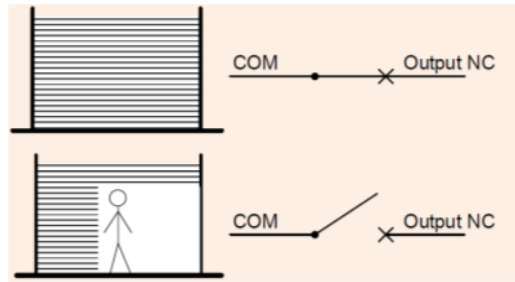
#### 3.2. OPR521 - Vega B-LIFT240 Light Curtains

DRIVE		LIGHT CURTAIN	
CONNECTOR	PIN	TX/RX	CABLE COLOR
JP8	31	RX	Yellow
	30		Green
	29		Blue
	29		Grey
	28		Red
JP15	34	TX	Yellow
	33		Blue
	32		Red

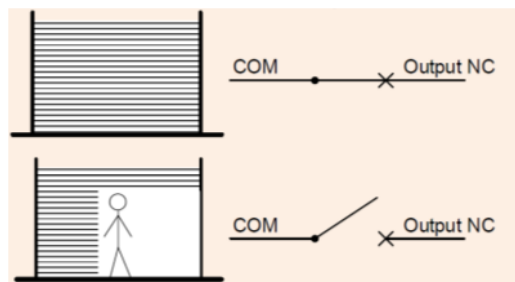
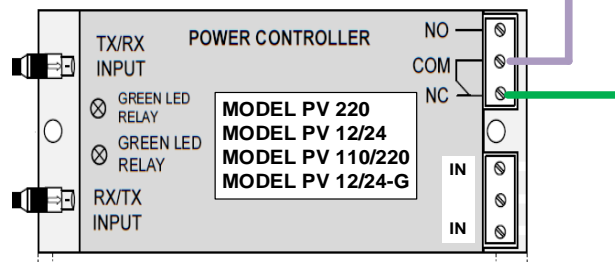
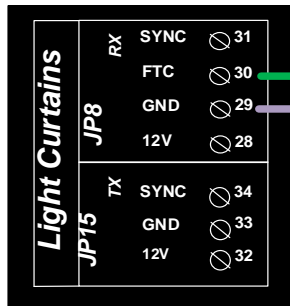


**B-LIFT240**

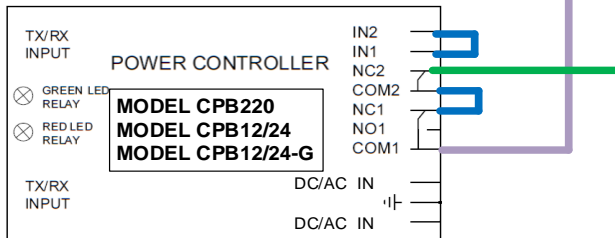
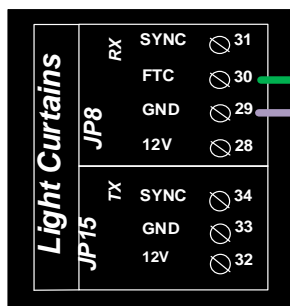
### 3.3. OPR521 Vega B-LIFTxxx Light Curtains



- B-LIFT-2B**
- B-LIFT-18B**
- B-LIFT-11B**
- B-LIFT-19N**
- B-LIFT-32B**
- B-LIFT-48B**
- B-LIFT-SLIM-220**
- B-LIFT-SLIM 12/24V**



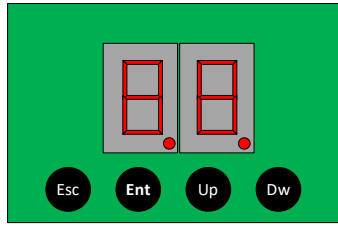
- B-LIFT 202-E**
- B-LIFT 218-E**
- B-LIFT 219-E**
- B-LIFT-402-E**
- B-LIFT-418-E**
- B-LIFT-402-EA**
- B-LIFT-418-EA**
- B-LIFT-702-EA**
- B-LIFT-718-EA**



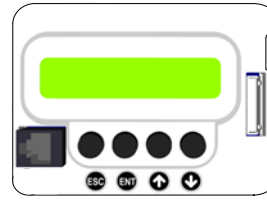
## 4. USER INTERFACE

### 4.1. Integrated keypad and DISP801

The Drive can be programmed using the integrated keypad or the DISP801 external keypad.



INTEGRATED KEYPAD



DISP801

### 4.2. Programming Menu

ENT to enter the main menu and the sub-menus, and to confirm the settings.

ESC to exit the menus.

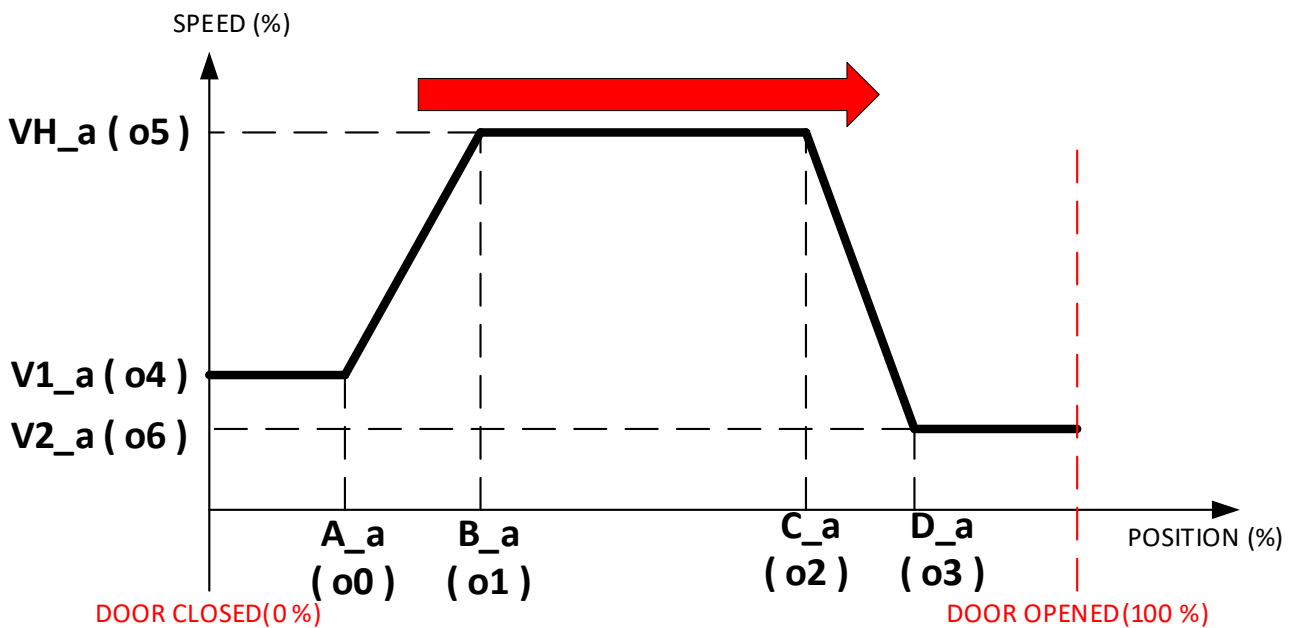
UP ↑/ DW ↓ to move between menus and to slide values.

#### 4.2.1. *M0: [Opening Profile]*

The first 4 parameters are position references expressed as a percentage of the total length of the learned stroke.

Other parameters are speed references expressed as a percentage of the maximum value (rated RPM of the motor).

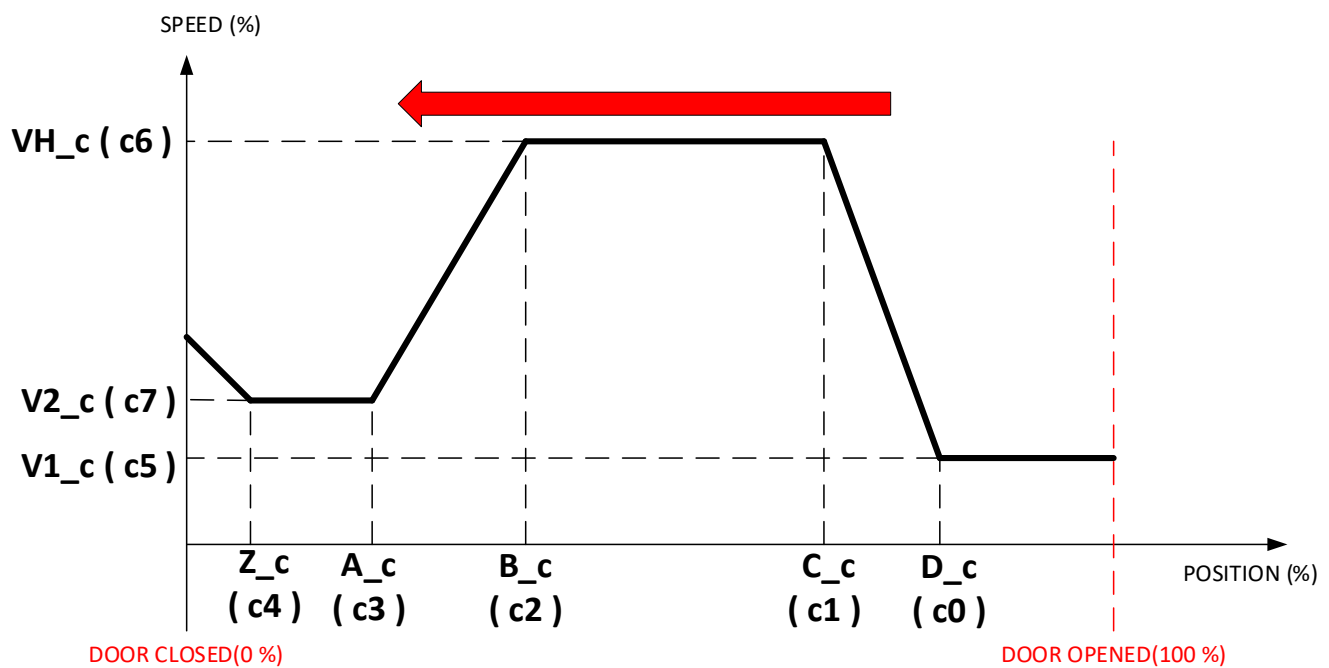
Sub-menus		Description
Integrated keypad	DISP801	
o0	[Point A_a]	Start of opening acceleration ramp (Default 03)
o1	[Point B_a]	End of opening acceleration ramp (Default 40)
o2	[Point C_a]	Start of opening deceleration ramp (Default 55)
o3	[Point D_a]	End of opening deceleration ramp (Default 99)
o4	[Speed v1_a]	Initial opening speed (Default 10)
o5	[Speed vH_a]	Maximum opening speed (Default 60)
o6	[Speed v2_a]	Final opening speed (Default 08)
o7	[Speed v_learn]	Learning speed in opening (Default 15)



#### 4.2.2. M1: [Closing Profile]

The first 5 parameters are position references expressed as a percentage of the total length of the learned stroke. Other parameters are speed references expressed as a percentage of the maximum value (rated RPM of the motor).

Sub-menus		Description
Int. Key.	DISP801	
c0	[Point D_c]	Start of closing acceleration ramp (Default 98)
c1	[Point C_c]	End of closing acceleration ramp (Default 65)
c2	[Point B_c]	Start of closing deceleration ramp (Default 45)
c3	[Point A_c]	End of closing deceleration ramp (Default 05)
c4	[Point Z_c]	Start of acceleration for closure coupling (Default 02)
c5	[Speed v1_c]	Initial closing speed (Default 08)
c6	[Speed vH_c]	Maximum closing speed (Default 60)
c7	[Speed v2_c]	Final closing speed (Default 08)
c8	[Speed v_rif]	Synchronizing speed in closing (Default 10)



#### 4.2.3. M2: [Torques]

The parameters are current references expressed as a percentage of the maximum value which is 8A.

Sub-menus		Description
Int. Key.	DISP801	
F0	[Limit Trq Op]	LIMIT SWITCH TORQUE: current threshold that must be exceeded in order to acquire the fully open door status (Default 70)
F1	[Limit Trq Cl]	LIMIT SWITCH TORQUE: current threshold that must be exceeded in order to acquire the fully closed door status (Default 50)
F2	[Stat Op. Tor.]	OPENING HOLDING TORQUE: current to keep the door fully open (Default 20)
F3	[Stat Cl. Tor.]	CLOSURE HOLDING TORQUE: current to keep the door fully closed (Default 10)
F4	[Sec. Cl. Tor.]	SAFETY TORQUE IN CLOSING: current threshold that must be exceeded to activate the safety edge during the closure. This torque is in function before the Z_c point (Default 55)
F5	[Sec. Op. Tor.]	SAFETY TORQUE IN OPENING: current threshold that must be exceeded to activate the safety edge during the opening (Default 90)

#### 4.2.4. M3: [Options]

Sub-menus		Settings		Description
Int. Key.	DISP801	Int. Key.	DISP801	
S0	[SEC. CL. TORQUE]	0	[Slave]	In case of obstruction during closing, it signals the safety edge through the "CM" relay and remains stationary waiting for a command (Default)
		1	[Master]	In case of an obstruction during closing, it signals the safety edge through the "CM" relay and reopens the doors
S1	[SEC. OP. TORQUE]	0	[Disabled]	In case of an obstruction during opening, closes the doors (Default)
		1	[Enabled]	In case of an obstruction, it keeps forcing the opening to complete the stroke. In the event of prolonged impediment, the IxT protection is activated
S2	[COMMANDS MODE]	0	[Slave]	Commands opening or closing for the time the input is active. When the command drops, the operation is interrupted (Default)
		1	[Master]	Once the closing or opening command is accepted, the board completes the operation even if the input is no longer active
S3	[MOTOR ROTATION]	0	[Forward]	Read-only, motor direction [Forward] (Default)
		1	[Reverse]	Read-only, motor direction [Reverse]
S4	[AUTO RUNNING]	0	[Disabled]	Automatic runs disabled (Default)
		1	[Enabled]	Automatic runs enabled
S5	[PHOTO MODE]	0	[Slave]	In case of obstruction of the light curtains, the Drive signals the obstacle by the "CM" relay
		1	[Master]	In case of obstruction of the light curtains, the Drive signals the obstacle by the "CM" relay and reopens the doors (Default)
S6	[NOF CL. RIF-ENC]	Number of closures after which the encoder synchronizes 0: Encoder synchronizing function disabled (Default) On the integrated keypad the closures number is given by the set value x 10 Example: S6 = 10 → number of runs = 100		
S7	NOT MANAGED	0	NOT MANAGED	Re-phasing disabled.
		1		Re-phasing on closing when switching on (Default)
		2		Re-phasing on opening when switching on.

#### 4.2.5. M4: [Commands]

Sub-menus		Description
Int. Keyp.	DISP801	
-O	[OPEN]	Opening command, with priority over the control board commands
-C	[CLOSE]	Closing command, with priority over the control board commands
-d	[DEFAULT]	Restores the factory settings
-L	[LEARNING]	Self-learning start
-P	[-----]	Board reset

#### 4.2.6. M5: [Mechanical Param]

Sub-menus		Description
Int. Keyp.	DISP801	
M0	[Type Motor]	Motor type: <ul style="list-style-type: none"> <li>• 0: Elvi 30 W</li> <li>• 1: Elvi 52 W</li> <li>• 2: Kag 50 W</li> <li>• 3: Dunker 50 W</li> <li>• 4: Kormas 110 W</li> <li>• 5: Movimotor 100 W</li> <li>• 6: Elvi 35 W</li> <li>• 7: CBF 45 W</li> <li>• 8: Intecno 40 W</li> <li>• 9: Kormas vertical 90 W</li> <li>• 10: AT40 120 W</li> </ul>
M1	[Resolution]	Encoder resolution expressed in pulses/cm On the integrated keypad, the resolution is given by the set value x 10 <i>Example: M1 = 12 → Resolution = 120 pulses/cm</i> (Default 381 imp/cm, on the integrated display the default is 38)
M2	[PID Parameter]	Not used

#### 4.2.7. M6: [Light Curtain] Parameters

Sub-menus		Settings		Description
Int. Keyp.	DISP801	Int. Keyp.	DISP801	
G0	[Enabled L.C.]	0	[NO]	Light curtain check disabled (Default)
		1	[YES]	Light curtain check enabled
G1	[Anti-V(sec)]	Vandal-proof function activation time expressed in seconds (see 5.2) 0: Vandal-proof function enabled (Default 90)		
G2	[Sec. Check]	0	[NO]	Light curtain safety check disabled (Default)
		1	[YES]	Light curtain safety check enabled (see 5.3)
G3	[Timeout(ms)]	Timeout for the light curtain safety check function, in milliseconds (see 5.3) On the integrated keypad the time is given by the set value x 10 <i>Example: G3 = 70 → Time = 700 ms</i> (Default 800 ms, on the integrated display the default is 80)		
G4	[Buzzer Nudge]	0	[NO]	Disabled acoustic signal during nudge and vandal-proof
		1	[YES]	Acoustic signal during nudge and vandal-proof (Default)
G5	[Buzzer Obstr]	0	[NO]	Disabled acoustic signal when the light curtain detects the obstacle (Default)
		1	[YES]	Acoustic signal when the light curtain detects the obstacle

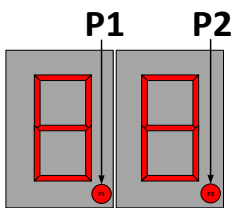
4.2.8. M7: [Params EN81-20/50]

Sub-menus		Settings		Description
Int. Key.	DISP801	Int. Key.	DISP801	
P0	[Enable REOPENING]	0	[NO]	Reopening coupling disabled (Default)
		1	[YES]	Reopening coupling enabled
P1	[Cm REOPENING]	Reopening space in centimeters (Default 04)		
P2	[WaitTime REOPE.]	Reopening waiting time in seconds (Default 08)		
P3	[Cm FCP ON]	Final space in which the limit switch is active during the closure, expressed in centimeters (Default 02)		
P4	[T-Mot Max]	Not used		
P5	[T-Mot work]	Not used		

4.2.9. M8: [Diagnostics]

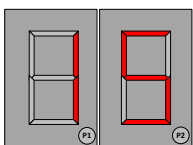
Sub-menus		Description		
Int. Key.	DISP801	Tast. Int.	DISP801	
H0	[Alarm List]	View the last fault on the integrated keypad, or fault history on the DISP801		
		A1	[OVERCURR]	Current overload
		A2	[ENC KO]	Motor/Encoder fault
		A3	[ENC INC]	Inconsistent Encoder
		A4	[IxT-PROT]	IxT Protection
		A5	[OVERTEMP]	Overheating
		A6	[NVM-ERR]	External EEprom error
		A7	[UND-VOLT]	Power supply undervoltage error
		A8	[BARR-KO]	Light curtain fault
		A9	[ALIM-EMG]	Emergency power supply
H1	[Learning]	View the length of the stroke in centimeters, detected during learning		
H2	[Open counter]	View the number of openings*		
H3	[Close counter]	View the number of closures *		
H4	[Obstr. counter]	View the number of mechanical obstacles detections*		

\*The H1, H2, H3, H4 data on the integrated display shall be read as follows:

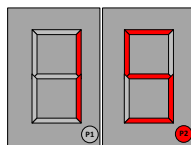


- P1 = OFF; P2 = OFF → real value = value x 10
- P1 = OFF; P2 = ON → real value = value x 100
- P1 = ON; P2 = OFF → real value = value x 1000
- P1 = ON; P2 = ON → real value = value x 10000

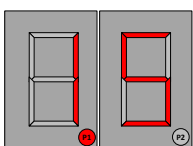
Example:



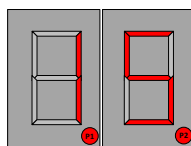
=150



=1500

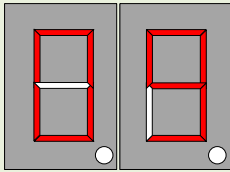


=15000



=150000

4.2.10. *M9: Real time analysis (only available on the integrated keypad)*

Sub-menus		Description
Int. Keyp.	DISP801	
E0	Unavailable	Shows the voltage in Volt provided to the motor
E1	Unavailable	Shows the current in Ampere provided to the motor. Accuracy: a decimal digit
E2	Unavailable	Shows the voltage in volt available to the motor
E3	Unavailable	Door position in centimeters
E4	Unavailable	Not used
E5	Unavailable	<p>Displays the active inputs on the board:</p> <ul style="list-style-type: none"> <li>▪ 0 → no active input</li> <li>▪ +1 → OPEN input active</li> <li>▪ +2 → CLOSE input active</li> <li>▪ +4 → NUDGE input active</li> <li>▪ +8 → FTC input active</li> </ul> <p>When several inputs are active at the same time, the sum of the active inputs will appear on the TST800.</p> <p>Example: Suppose the inputs “OPEN” and “FTC” are active at the same time.  OPEN + FTC = 1 + 8 = 9</p> 

4.2.11. *MA: default Wi-Fi module (only available on the integrated keypad)*

Sub-menus		Description
Int. Keyp.	DISP801	
-S	Unavailable	Restore default settings of the Wi-Fi module (see par 7.1.1)
-d	Unavailable	<b>ATTENTION, DO NOT USE!</b> Reserved setting, it may prevent the module from functioning
-P	Unavailable	<b>ATTENTION, DO NOT USE!</b> Reserved setting, it may prevent the module from functioning

## 5. FUNCTIONS

### 5.1. IxT Protection

The function is always active and protects the motor from overloads due to mechanical hardening or obstacles that prevent normal door travel. If the current absorbed by the motor exceeds a certain threshold (about 5 A) for more than 7 seconds, the board is disabled and remains in IxT alarm.

After a pause of about 15 seconds, the Drive closes the door at reduced speed.

### 5.2. Vandal-proof Function

This function can only be activated if the light curtains are enabled by parameter G0 ([Enabled L.C.] if DISP801 is used). If the light curtains connected to the Drive detect a persistent obstacle for a time longer than that set in the parameter M6 → G1 ([LIGHT CURTAIN] → [Anti-V(sec)] if DISP801 is used) the Drive commands a slow closure.

The closure is also signaled by an acoustic signal if G4 = 1 ([Buzzer Nudge] = [YES] if DISP801 is used).

By setting parameter G1 ([Anti-V(sec)] if DISP801 is used) = 0, the function is disabled.

### 5.3. Light Curtains Vega B-LIFT 240 Safety Test

The function can only be activated if the light curtains are enabled by the G0 parameter ([Enabled L.C.] if DISP801 is used). The function can be enabled by parameter M6 → G2 ([LIGHT CURTAIN] → [Sec. Check] if DISP801 is used).

If the safety test is enabled, when the door is fully closed the Drive performs a test on the light curtain in order to verify if it is functioning correctly. If the test fails, the doors will close at low speed and the closure will be signaled by an acoustic signal.

### 5.4. Coupling Reopening on the floor – EN81-20/50

The function can be enabled by M7 → P0 = 1 ([PAR. EN81-20/50] → [Enable REOPENING] = [YES] if DISP801 is used).

If the reopening is enabled, when the [CLOSE] command is no longer active, after a few seconds (programmable) the board reopens the door a few centimeters (programmable).

This small reopening is used to unlock the landing door so that you can reopen the door when from inside the car when you are on the floor.

### 5.5. Re-Synchronism at power-up

From FW version v06 on the TST800 menu the parameter [M3 → S7] has been introduced, which allows the type Re-Synchronism to be selected when the board is switched on.

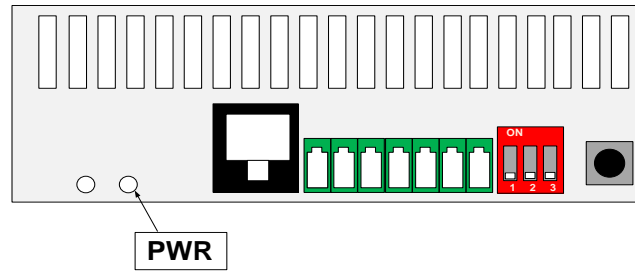
- M3 → S7 = 0: at power-up the door remains stationary while waiting for commands;
- M3 → S7 = 1: at power-up the door moves automatically to close (DEFAULT);
- M3 → S7 = 2: on power-up the door moves automatically to open;

**\*NOTE:** if the board has never been LEARNING, the door moves in closing mode regardless of the value of parameter S7.

## 6. DIAGNOSTIC

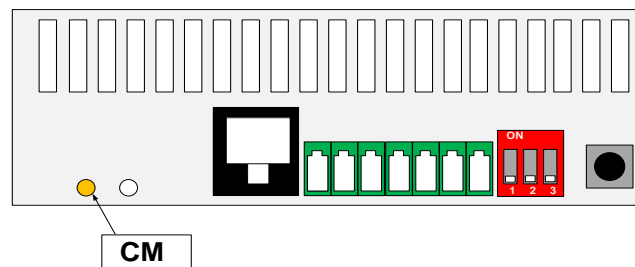
### 6.1. LED

#### 6.1.1. LED PWR



LED Color	LED Status	Number of flashes	Drive Status
Green	Steady	-	Normal Functioning
Green	Flashing	-	Synchronization
Red	Flashing	1	Alarm: Current overload
Red	Flashing	2	Alarm: Motor or Encoder fault
Red	Flashing	3	Alarm: Inconsistent Encoder
Red	Flashing	4	Alarm: IxT Protection
Red	Flashing	5	Alarm: Overheating
Red	Flashing	6	Alarm: EEprom error
Red	Flashing	7	Alarm: Undervoltage
Red	Flashing	8	Alarm: Light curtain fault
Red	Flashing	9	Alarm: Emergency power supply

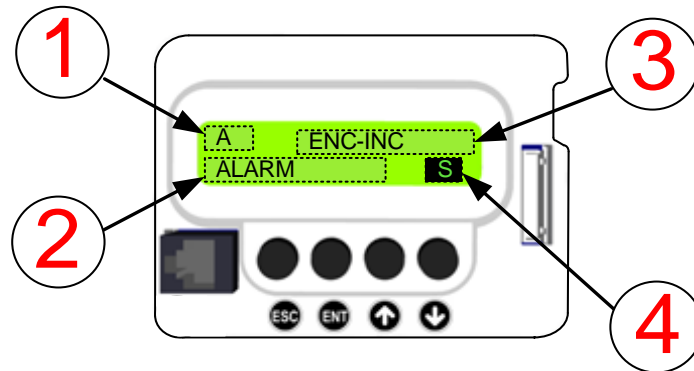
#### 6.1.2. LED CM



The LED OBS switches on to signal the activation of the [OBSTR] output as a consequence of mechanical detection in closing or because of an obstruction of the light curtain (when the light curtain is directly connected to the OPR521).

## 6.2. DISP801

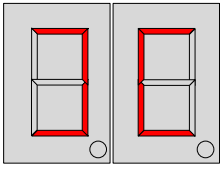
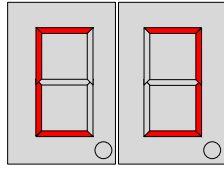
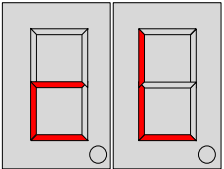
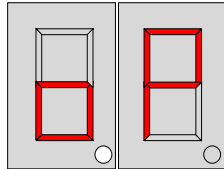
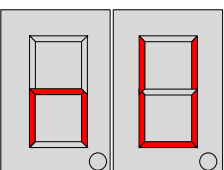
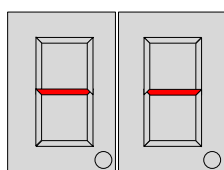
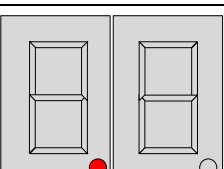
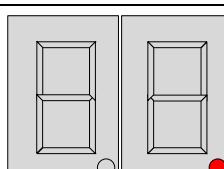
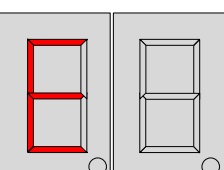
When you are not in the programming menu, on the home screen of the keypad you can check the status of the door, the current error and the active inputs:



POSITION ON THE KEYPAD	MESSAGE DISPLAYED	DESCRIPTION
1 (INPUTS)	A	[OPEN] input active
	C	[CLOSE] input active
	N	[NUDGE] input active
	P	[FTC] input active
2 (STATUS)	ALARM	Error in progress
	REPHASING	Synchronization in closure at power-on
	LEARNING	Learning stroke in opening
	WAITING	Door halted, waiting for a command
	RUNNING	Moving door
	DOOR CLOSED	Door fully closed. [CLOSED] relay active
	DOOR OPEN	Door fully open. [OPENED] relay active
3 (ALARMS/ENCODER)	OBSTRUCTION	Mechanical obstacle. [OBSTR.] relay active
	Enc: xxxxx	Encoder position in impulses
	IxT-PROT	High current for 7 seconds
	ENC-KO	Encoder error
	OVERTEMP	Motor thermal protection
	OVER-CURR	Overcurrent
	BARR-KO	Light curtains error
	UND-VOLT	Power supply voltage is too low
4 (SD-CARD)	ENC-INC	Incoherent Encoder. Repeat the learning procedure.
	NVM-ERR	External EEPROM error
	S	SD card detected
	3	SD card reading error
	#	Automatic runs function enabled

### 6.3. Integrated Keypad

When you are not on the menu, on the keypad screen you can check the status of the door or the current error:

Symbol	Description	Symbol	Description
	Closed door [CLOSED] output active		Open door [OPENED] output active
	Door closing		Door opening
	Door forced closing		Door halted, waiting for a command
	Obstacle detected [OBSTR] output active		Photocell obstacle detected ([FTC] input)
	<p><b>ERROR IN PROGRESS</b></p> <ul style="list-style-type: none"> <li>E1 → Alarm: Overcurrent</li> <li>E2 → Alarm: Motor or Encoder fault</li> <li>E3 → Alarm: Inconsistent Encoder</li> <li>E4 → Alarm: IxT Protection</li> <li>E5 → Alarm: Overheating</li> <li>E6 → Alarm: EEPROM error</li> <li>E7 → Alarm: Undervoltage</li> <li>E8 → Alarm: Light Curtain error</li> </ul>		

## 7. VISUALDOORS APP

The OPR521-N-TS-MW has a Wi-Fi module on board and allows you to connect the Drive to your Android phone via the VisualDoors app.

Using the **VisualDoors** app you can:

- Set the board parameters
- Send various types of commands
- Check the status of the doors
- Check the status of the inputs
- Make a chart of the last run
- Check the number of runs and the history of the last 4 alarms.

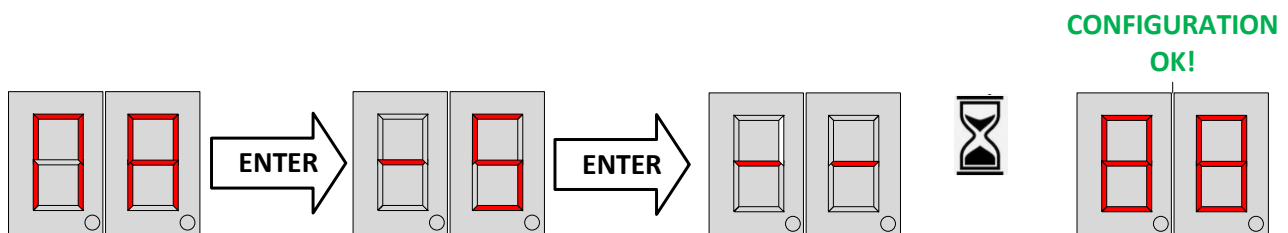
### 7.1. Wi-Fi Module

#### 7.1.1. *Wi-Fi Module Default*

The Wi-Fi module of the OPR521 is configured with the following default settings:

- Communication speed *baud rate* of **57600**
- Wi-Fi network name: **Vegaboard**
- Wi-Fi password: **vegaboard**

It is possible to restore the default settings as follows:



If the display shows A1, A2, or A3 please contact the assistance. The error code A1 may be due to the absence of the built-in Wi-Fi module, so please check that the Drive is *OPR521-N-TS-MW*.

#### 7.1.2. *Customize the settings of the Wi-Fi module*

- Turn on the Drive board;
- Activate the Wi-Fi connection of the Android device (or PC) and connect to the **Vegaboard** network
- Enter the IP address **192.168.2.1** in the browser tab and press enter.



- In order to access will be required: *Username* = **admin**    *Password* = **admin**

Depending on whether you have an old WIFI module or a new WIFI module on the board, you will have different screens.

Below are both scenarios...

## OLD WIFI MODULE

- Once logged in, the home screen of the router will look like this:

Web.V2.3.5 Firmware Version:V2.2.6

USR IOT -IOT Experts- Be Honest, Do Best!

System Status

WiFi Setting

Trans Setting

Extra Function

System Setting

Firmware Update

About USR

Parameter

Module MAC: D8B04CEF242A

Module Mid: USR-C215

Module Ver: 2.2.6

WiFi Mode: ap

AP IP: 192.168.2.1

AP Channel: 6

AP SSID: Vegaboard

AP Secure: vegaboard

Help

- **Module Ver:**  
The current firmware version
- **WiFi Mode:**  
The WiFi mode of module contains AP/Station/APSTA

**NOTE:** It is possible that the language of the page is not in English but in Chinese, in that case just click on (1) to change the language.

- In the **WiFi Setting** (2) submenu it is possible to change the **Network name** (4) and the **Password** (5).

WiFi Mode Select

WiFi Work Mode: AP mode

AP Mode

Network Name(SSID): Vegaboard

Password(8-63 bytes): vegaboard

IP Address: 192.168.2.1

Mask: 255.255.255.0

Save

Help

- **Network Name(SSID):**  
1-32 characters  
Case sensitive
- **Password:**  
The AP password is 8-63 bytes (STA password without this restriction), NONE said no encryption; Case sensitive
- **DHCP:**  
Open this feature, will get IP by dhcp

**NOTE:** Once the changes are completed, press **SAVE** to store them!

- In the **Trans Setting** (3) submenu it is possible to change the **Baud Rate** (6) between one those proposed in the drop-down menu that will open.

Serial Port Setting

Baud Rate (1200-460800 bps): 57600

Data Bit: 8

Check Bit: None

Stop Bit: 1

CTSRTS/485: NFC

Network Setting

Mode: Transparent

SocketA Connect Setting

Save

Help

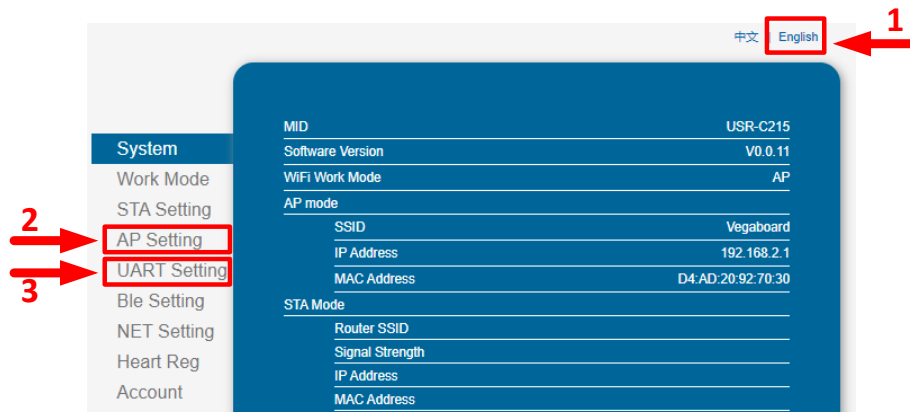
- **Baud Rate:**  
1200~460800bps
- **CTSRTS/485:**  
Default is NFC
- **Port:**  
1~65535
- **Server IP Address:**  
When the module is Client, the remote server address to be connected; When it's TCP server, the parameter is invalid

**NOTE:** Once the changes are completed, press **SAVE** to store them!

- After the changes are completed, press **RESTART**. You will be able to access the network with the new credentials.

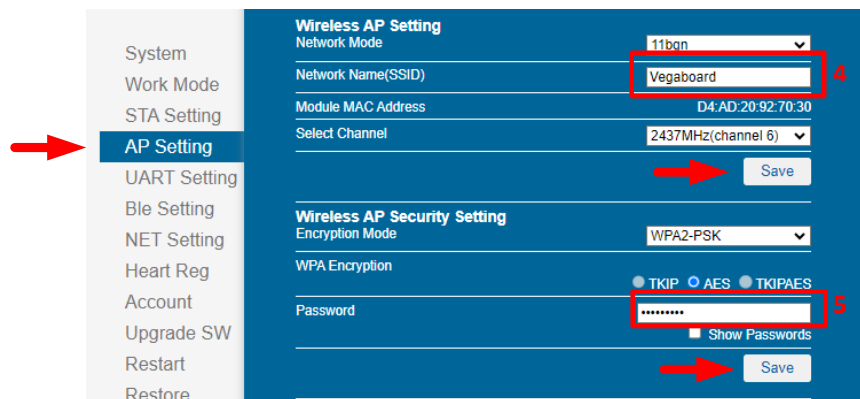
## NEW WIFI MODULE

- Once logged in, the home screen of the router will look like this:



**NOTE: It is possible that the language of the page is not in English but in Chinese, in that case just click on (1) to change the language.**

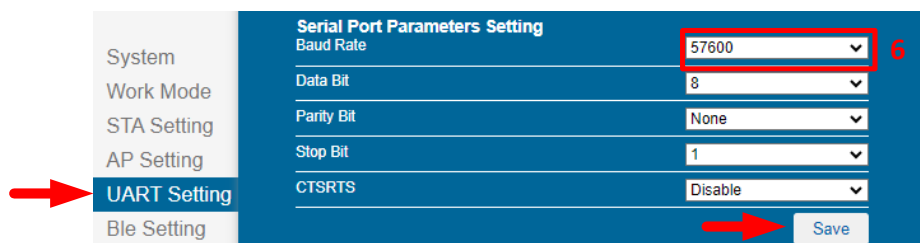
- In the **AP Setting** (2) submenu it is possible to change the **Network name** (4) and the **Password** (5)..



**NOTE: Once you have finished editing the name, press SAVE to save it!**

**Once you have finished editing the password, press SAVE to save it!!!**

- In the **UART Setting** (3) submenu it is possible to change the **Baud Rate** (6) between one those proposed in the drop-down menu that will open.



**NOTE: Once you have finished editing, press SAVE to save it!**

- After the changes are completed, press **RESTART**. You will be able to access the network with the new credentials.

## 7.2. VisualDoors APP

### 7.2.1. Connection to the Wi-Fi Module

In order to connect to the Wi-Fi network, you need to follow these steps:

- Download on your Android mobile device the **VisualDoors** APP from the app store;
- **Turn off the mobile data** of the smartphone;
- Enable Wi-Fi and connect to the **Vegaboard** network (Password **“vegaboard”**);
- Make sure that only one mobile device is connected to the **Vegaboard** network.



VisualDoors  
GiBiSoft

### 7.2.2. Overview

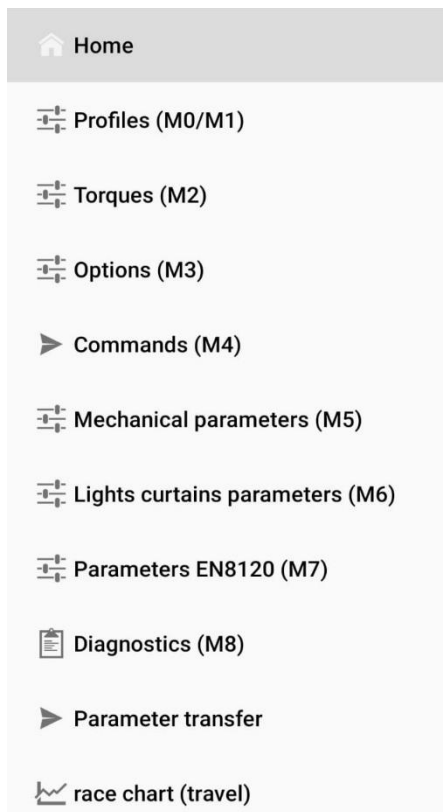
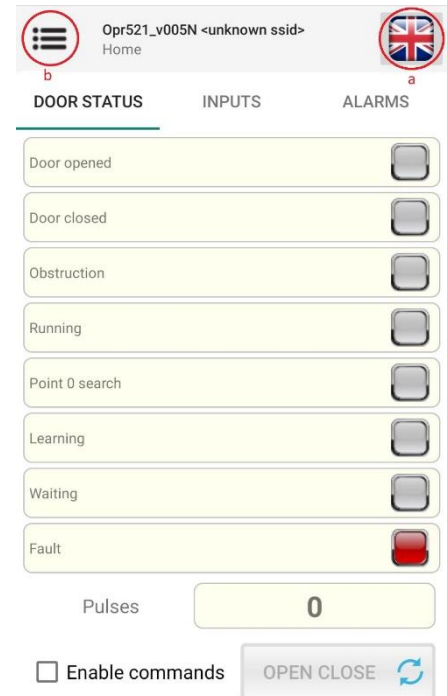
#### Home Page

It is possible to check the status of the door and read the number of impulses from the Encoder.

By scrolling down, you can also check the status of the inputs and the possible alarms.

By clicking on the flag (a) you can change the language.

To go to the other available pages just tap on the icon on the top left (b).



Entered one of these menus you can change the desired parameters, and then send/save them on the drive by the appropriate icon at the top right:



*Menus from M0 to M8 have already been described in the previous paragraphs.*

**NOTE: always save the modifications you made, otherwise the previous values will remain stored!**

### 7.2.3. Parameter transfer

By this menu it is possible to export all parameters from the board to the VisualDoors app and vice versa, using the following commands:

- **IMPORT:** allows to transfer parameters from the smartphone to the OPR521 board.
- **EXPORT:** allows to transfer parameters from the OPR521 board to the smartphone (through a text file in the "Settings" folder of the device).



### 7.2.4. Race chart

In this menu, after having imported the data of the last stroke using the **SHOW RACING CHART** button, it is possible to view the door speed during the last run [**SPEED\_REAL**] that can be compared with the speed profile set by the user [**SPEED\_RIF**], and the current absorbed during the stroke is also displayed [**CURRENT**].

On the vertical axis on the left there are the speed values in green (*mm/sec*).

On the vertical axis on the right there are the current values in blue (*mA*).

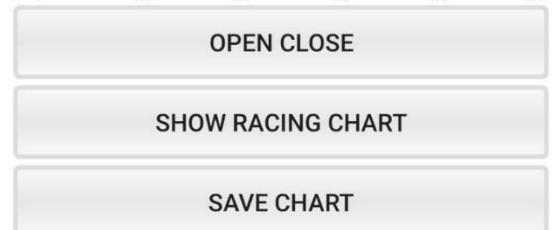
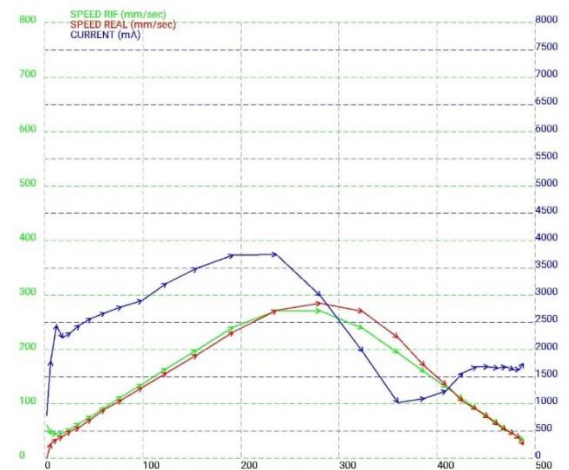
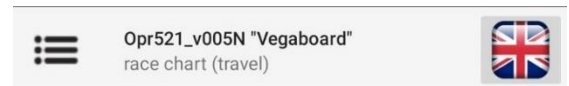
On the horizontal axis there are the position values (*mm*).

The direction of the arrow on each chart identifies the direction in which the door moved.

The arrow to the left indicates that the door has closed (as the example in figure). On the contrary, the arrow to the right indicates the door opening.

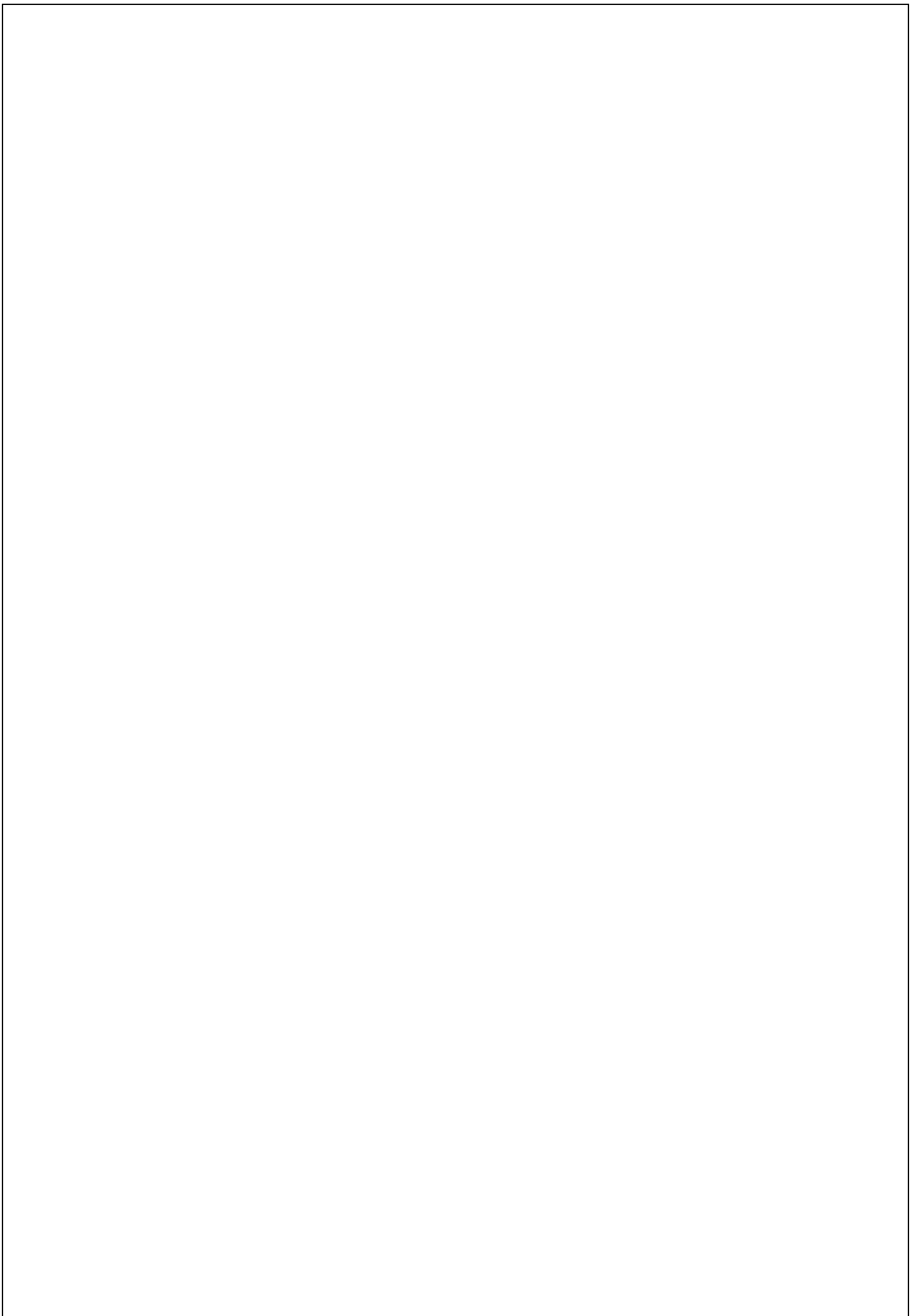
In order to observe the course of the performed stroke, press the icon **SHOW RACING CHART**.

It is possible to save the chart by pressing **SAVE CHART**. In this way the image will be stored in the format *.png* on the *graphics* folder of the mobile device.



## 9. TROUBLESHOOTING

PROBLEM	Resolution
The doors do not move, or move jerkily: - [PWR] LED, 3 red flashes - E3 on the TST800 display - [ENC-KO] on the DISP801 display	Check the wiring between board, motor and encoder
The doors are moving slowly	Perform a learning procedure (paragraph 2)
The doors do not open	Check if the doors open by pressing for 1 second the button on the side
	Check if during the opening command on the DISP801 is displayed "A" on the top right
The doors do not close	Check if the doors open by pressing for 1 second the button side
	Check if during the opening command on the DISP801 is displayed "C" on the top right
The doors move in the opposite direction. At power on they open.	Change the Dipswitch 2, and then reset the board
The doors slowdown with a delay and slam in opening	Repeat the learning procedure (paragraph 2)
	Decrease the parameters: - TST800: M0 → o2 and o3 - DISP801: [OPENING PROFILE] → C_a and D_a
	Check that the belt is not to loose
The doors slowdown with a delay and slam in closing	Repeat the learning procedure (paragraph 2)
	Increase the parameters: - TST800: M1 → c2 and c3 - DISP801: [CLOSING PROFILE] → B_c and A_c
	Check that the belt is not to loose
The doors always detect an obstacle during the closure	Make sure that the doors do not have a mechanical obstruction during the closure, by moving the doors by hand with the board turned off
	Increase parameter: - TST800: M2 → F4 - DISP801: [TORQUES] → [Sec. Cl. Tor.]
The doors always detect an obstacle during the opening	Make sure that the doors do not have a mechanical obstruction during the opening, by moving the doors by hand with the board turned off
	Increase the parameter: - TST800: M2 → F5 - DISP801: [TORQUES] → [Sec. Op. Tor.]
The doors do not remain fully open because of the reclosing spring	Check if the spring is correct for the weight of the doors
	Increase the parameter: - TST800: M2 → F2 - DISP801: [TORQUES] → [Stat Op. Tor.]
The coupling does not remain fully closed	Check the parameter: - TST800: M7 → S0 - DISP801: [PAR. 81-20/50] → [Enable REOPENING]
	Increase the parameter: - TST800: M2 → F3 - DISP801: [TORQUES] → [Stat. Cl. Tor.]







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