AGILITY

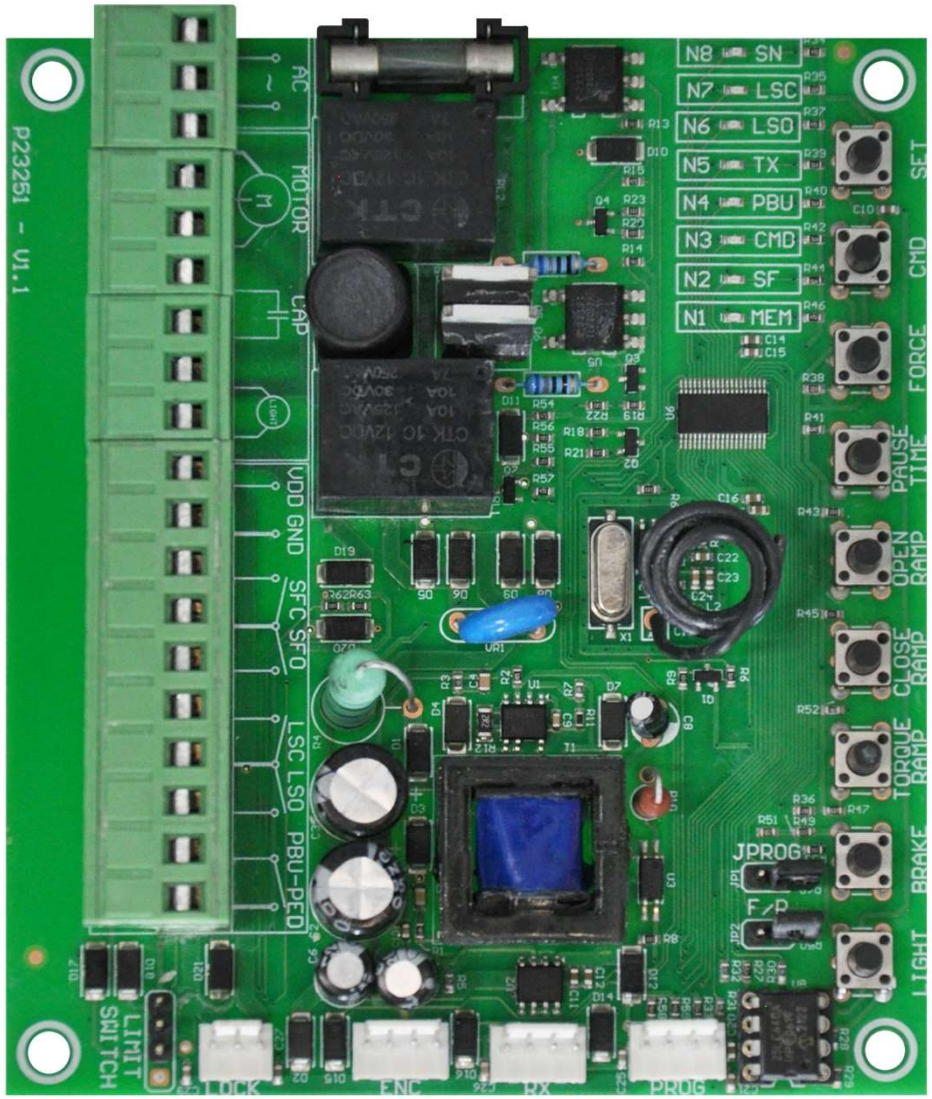
Controller board used in the **Single-phase** and **Legero** gate operators lines. With the instruction in this guide, it will be possible to configure the product in an easy and quick manner directly on the board. Besides all the external devices electrical connections. The models are:

Residential Sliding Gate Operator HUB: 450

Residential Sliding Gate Operator CUBE: 550, 800

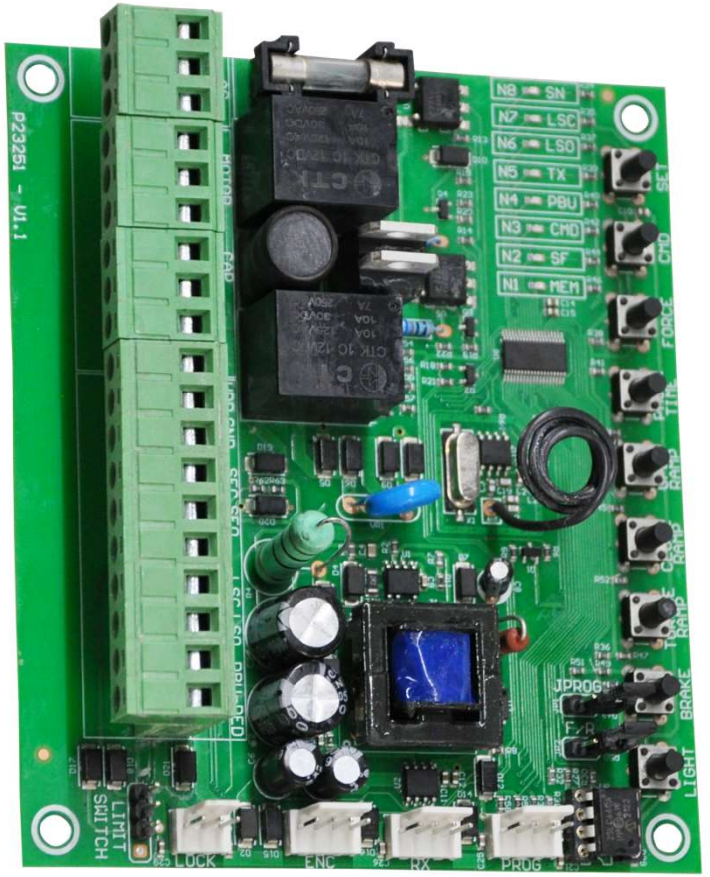
Residential Sliding Gate Operator HUB: 500

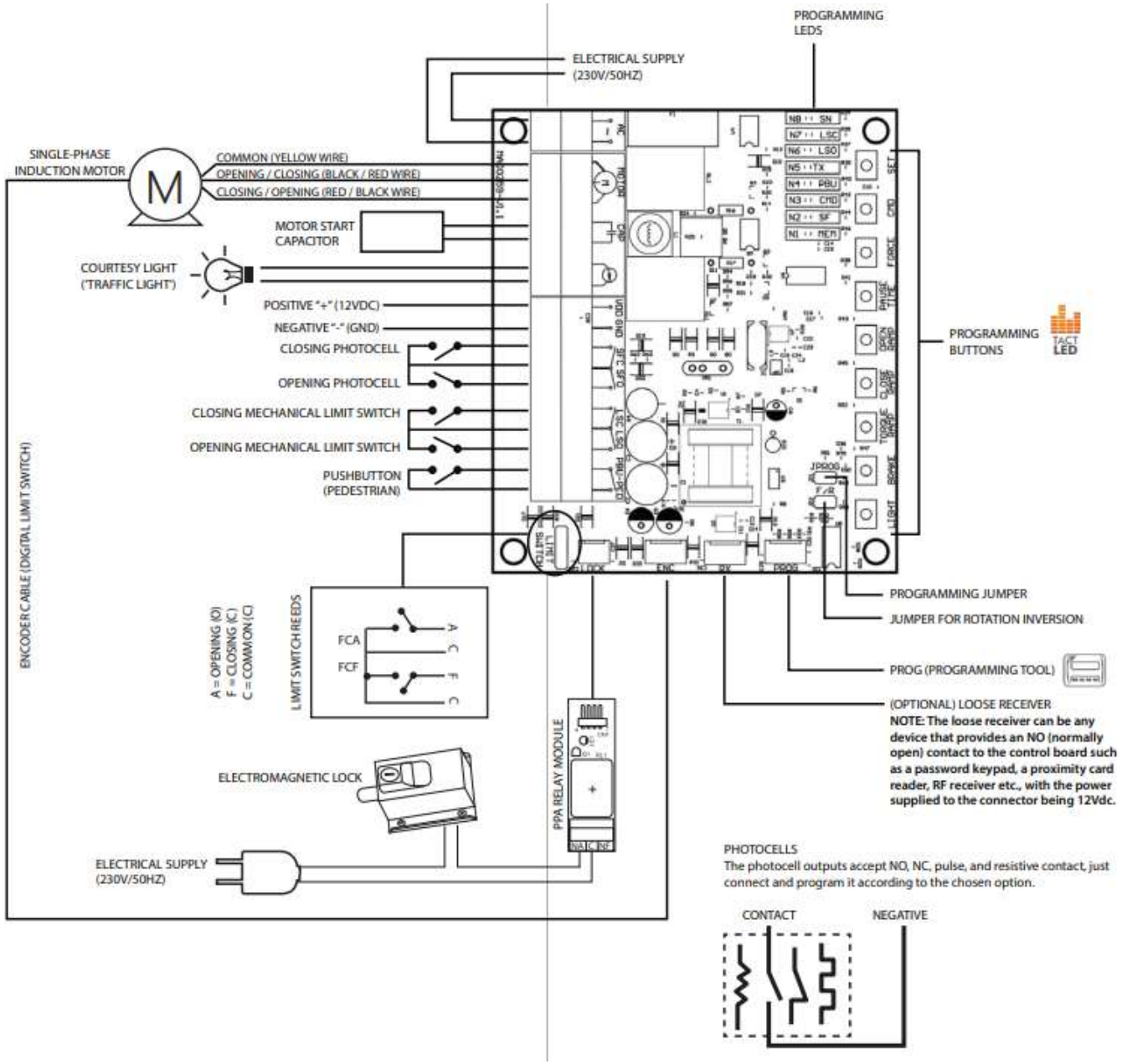
Residential Sliding Gate Operator CUBE: 600



TECHNICAL FEATURES

- Full Range AC Power Supply (100 – 230V)
- On-board 433.92 MHz digital radio frequency receiver
- Detachable memory for storage 256 remote controls
- Travel time (analogic) or position by encoder (digital system)
- Opening and closing soft stop, individually set
- Outputs: electromagnetic lock (relay module) and flashing light
- Inputs: RF receiver, pushbutton, opening and closing photocells
- Digital impact sensing with reversion (crashproof)
- ‘Pedestrian’ function (remote control and external pushbutton)
- Limit switches and pushbutton input ports NO or NC
- Photocell inputs NO, NC, pulsed or analog contacts
- Programmable by buttons or PROG keyboard
- 12Vdc (up to 250mA) power supply for accessories




PROGRAMMING LEDS
ELECTRICAL SUPPLY (230V/50HZ)
SINGLE-PHASE INDUCTION MOTOR
M
COMMON (YELLOW WIRE)
OPENING / CLOSING (BLACK / RED WIRE)
CLOSING / OPENING (RED / BLACK WIRE)
MOTOR START CAPACITOR
COURTESY LIGHT ('TRAFFIC LIGHT')
POSITIVE "+" (12VDC)
NEGATIVE "-" (GND)
CLOSING PHOTOCELL
OPENING PHOTOCELL
CLOSING MECHANICAL LIMIT SWITCH
OPENING MECHANICAL LIMIT SWITCH
PUSHBUTTON (PEDESTRIAN)
ENCODER CABLE (DIGITAL LIMIT SWITCH)
PROGRAMMING BUTTONS
TACT LED
PROGRAMMING JUMPER
JUMPER FOR ROTATION INVERSION
PROG (PROGRAMMING TOOL)
(OPTIONAL) LOOSE RECEIVER
NOTE: The loose receiver can be any device that provides an NO (normally open) contact to the control board such as a password keypad, a proximity card reader, RF receiver etc., with the power supplied to the connector being 12Vdc.
A = OPENING (O)
F = CLOSING (C)
C = COMMON (C)
LIMIT SWITCH REEDS
FCA
FCF
ELECTROMAGNETIC LOCK
PPA RELAY MODULE
ELECTRICAL SUPPLY (230V/50HZ)
PHOTOCELLS
The photocell outputs accept NO, NC, pulse, and resistive contact, just connect and program it according to the chosen option.
CONTACT
NEGATIVE

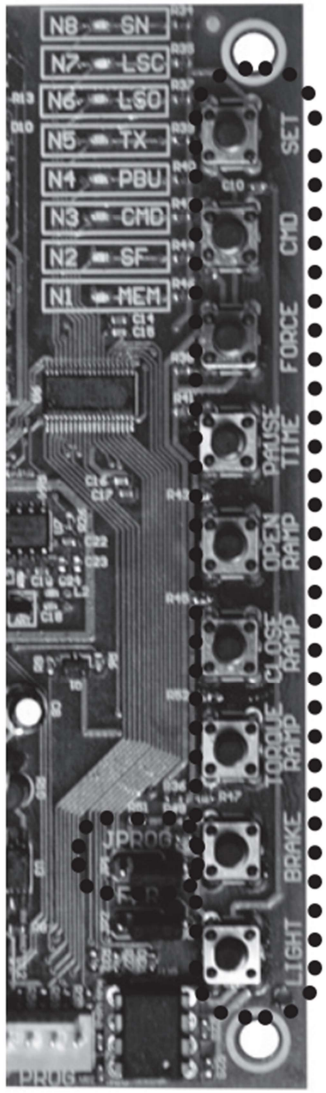
FUNCTION TABLE

In the image and the table beside, one can get a quick guide of all the functions.

Each button refers to a specific functionality, and has a name linked to it.

Off the configuration menu, i.e., with the **JPROG** jumper opened, the buttons do not have any functions, except for the **CMD** button, which is responsible for generating movement commands (open or close the gate).

NOTE: The **SET** button is also used to erase the path and returning the settings to factory default.



BUTTON	FUNCTION
SET	add or erase remote controls
CMD	command received in opening
FORCE	strength (electronic clutch)
PAUSE TIME	automatic closing time
OPEN RAMP	opening ramp
CLOSE RAMP	closing ramp
TORQUE RAMP	ramp torque (strength)
BRAKE	soft stop brake
LIGHT	courtesy light time

STATUS TABLE

Through the table to the side, you can verify the current state of each sensor, input, output, accessory or resource of the board.

Each red LED refers to a specific function, and it has its name linked to it.

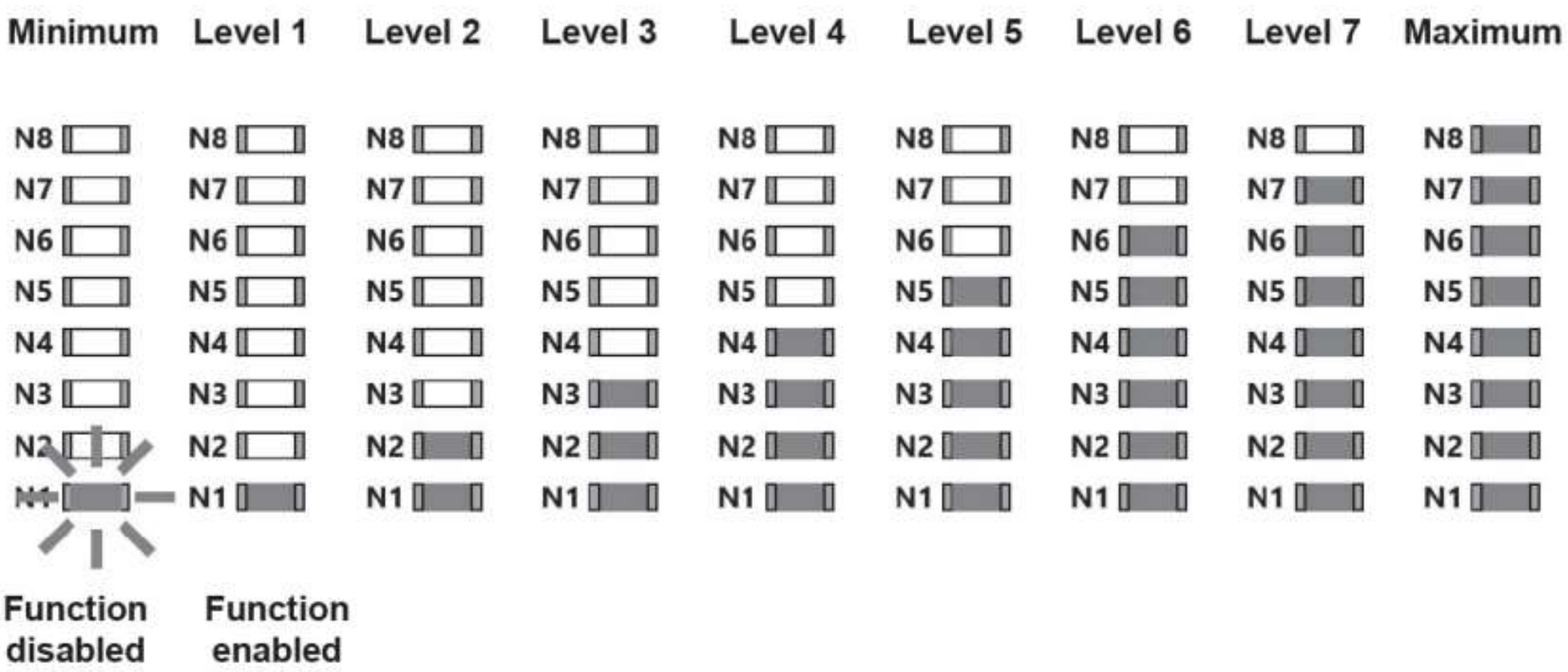
The indications are displayed when the board is outside the settings menu, that is, when the **JPROG** jumper is open.

NOTE: The **MEM** LED also displays the result of the procedure of recording new remote controls, when it is on the configuration menu (for example, memory full)

LED	INDICATION
N8 – SN	Flashes every 7 seconds: Board switched on and operational
N7 – LSC	Lit: Closing limit switch sensor activated
N6 – LSO	Lit: Opening limit switch sensor activated
N5 – TX	Lit: Command by registered remote control
N4 – PBU	Lit: Command by external pushbutton
N3 – CMD	Lit: Command by RX receiver or by the board CMD button
N2 – SF	Lit: Photocell obstructed
N1 – MEM	Lit: Empty memory, no remote controls registered Off: Memory with register of the remote controls Flashing: Memory missing or defective

LED INDICATIONS - 'PROG' Jumper closed - Programming levels status

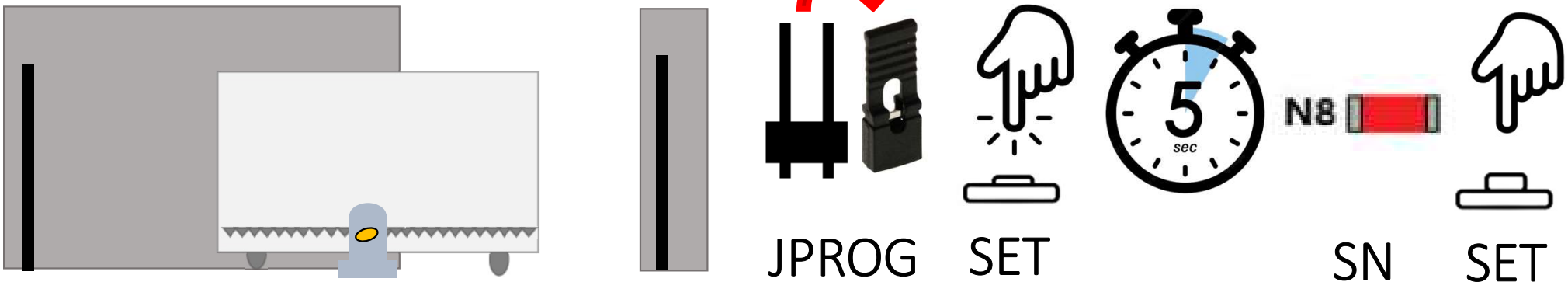
Programmable functions with 9 adjustment levels



Programmable functions with 2 adjustment levels

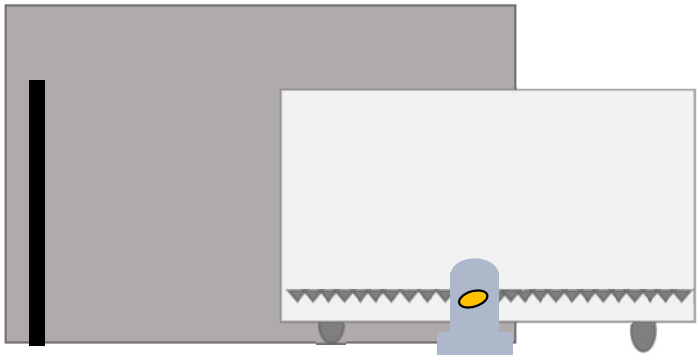
ERASING THE PATH

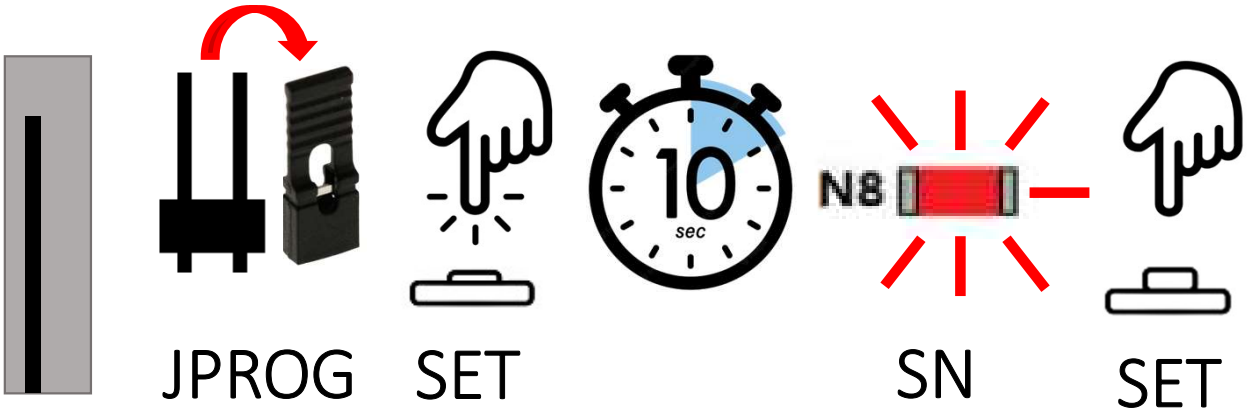
- STEP 1: The gate must be still, jumper **JPROG** open
- STEP 2: Press and keep pressed the **SET** button
- STEP 3: After 5 seconds, the red LED **N8** will lit
- STEP 4: Release the **SET** button



RESET (FACTORY STANDARD)

- STEP 1: The gate must be still, jumper **JPROG** open
- STEP 2: Press and keep pressed the **SET** button
- STEP 3: After 10 seconds, the red LED **N8** will flash
- STEP 4: Release the **SET** button



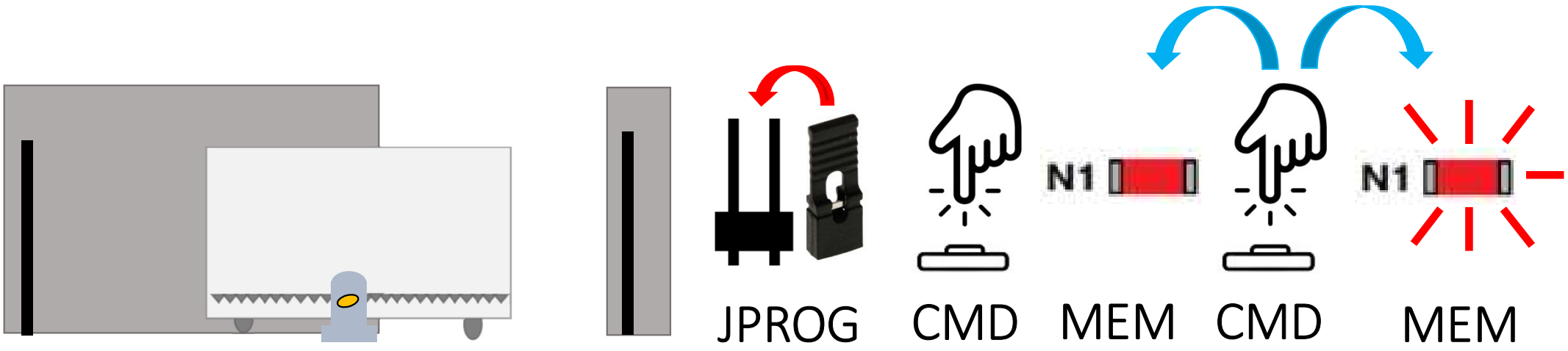


COMMAND WHEN OPENING

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **CMD** button (1x) to enter the function
- STEP 3: Press the **CMD** button (1x) to change, open the **JPROG**

N1 flashing = function disabled

N1 lit = function enabled



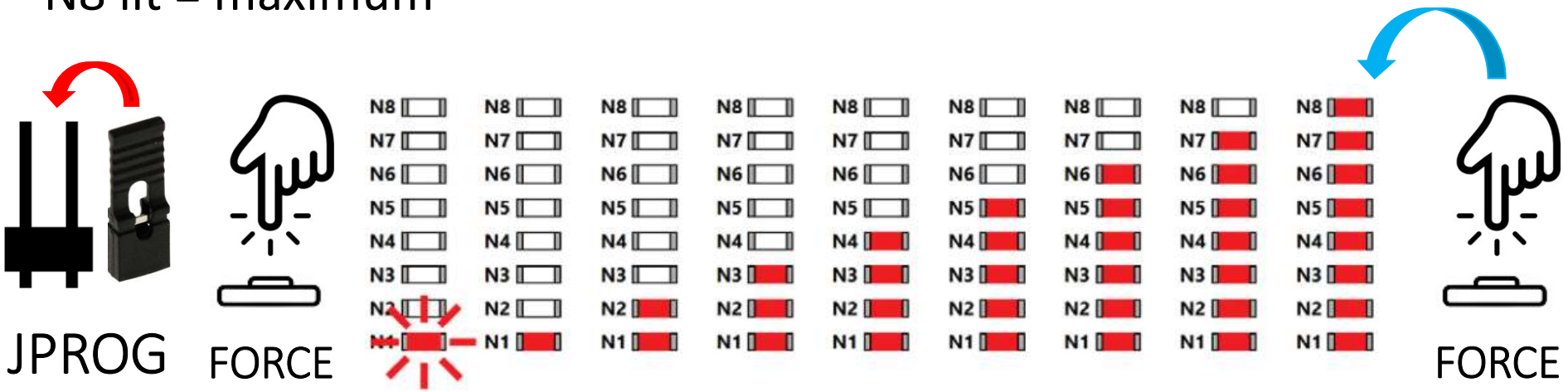
STRENGTH (FORCE)

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **FORCE** button (1x) to enter the function
- STEP 3: Press the **FORCE** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = minimum

N8 lit = maximum



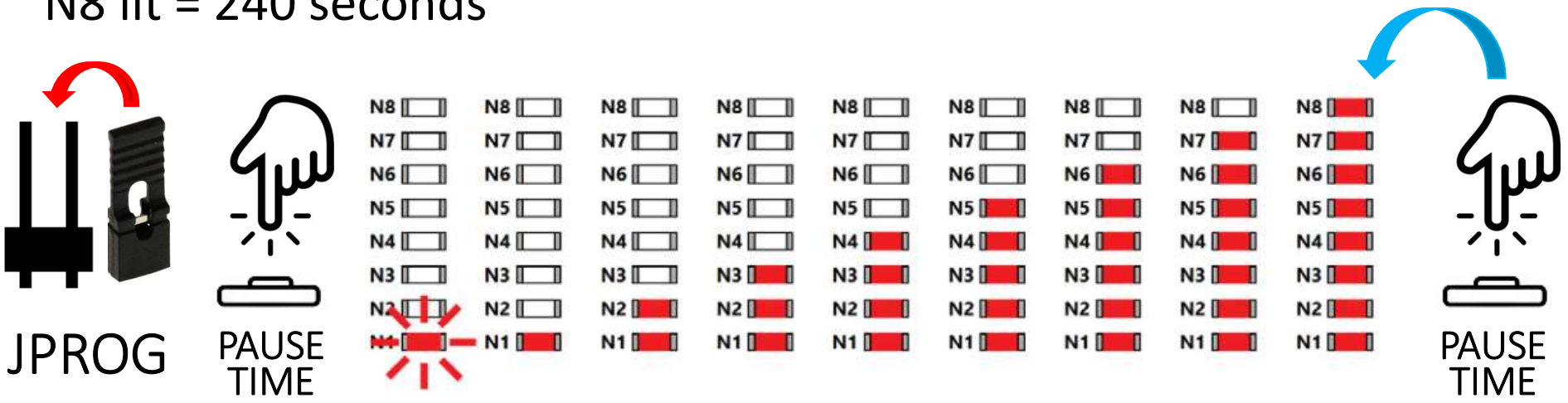
AUTO-CLOSING TIMER

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **PAUSE TIME** button (1x) to enter
- STEP 3: Press the **PAUSE TIME** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = 5 seconds

N8 lit = 240 seconds



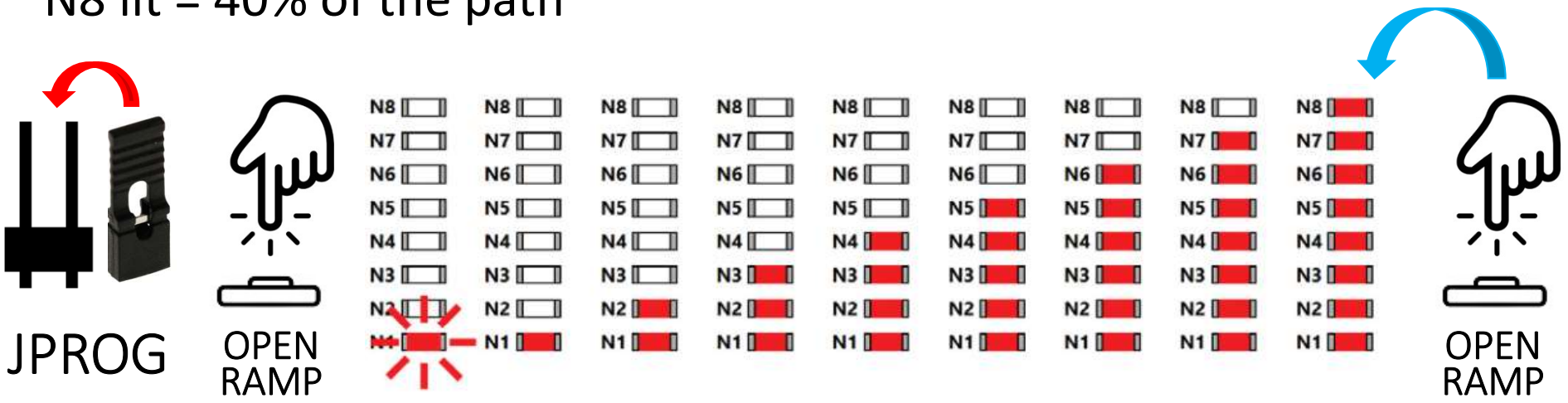
OPENING RAMP

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **OPEN RAMP** button (1x) to enter
- STEP 3: Press the **OPEN RAMP** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = 5% of the path

N8 lit = 40% of the path



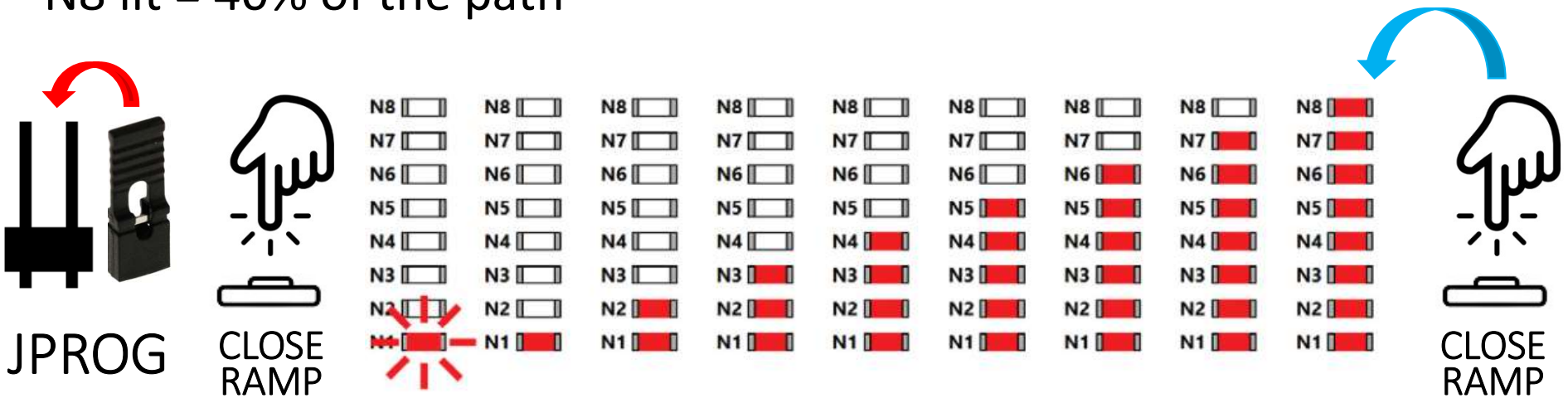
CLOSING RAMP

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **CLOSE RAMP** button (1x) to enter
- STEP 3: Press the **CLOSE RAMP** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = 5% of the path

N8 lit = 40% of the path



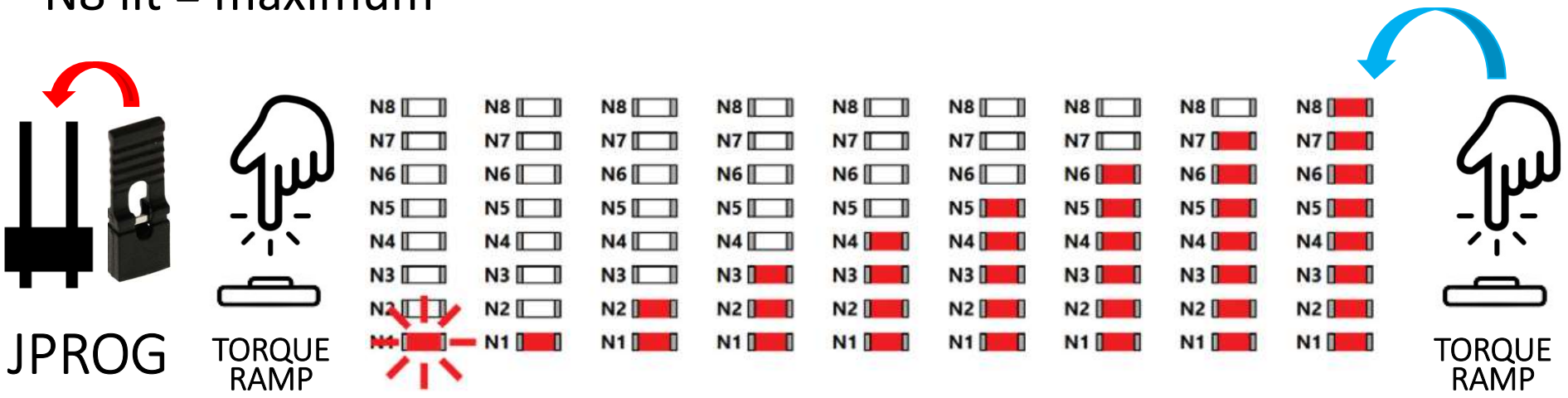
RAMP TORQUE

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **TORQUE RAMP** button (1x) to enter
- STEP 3: Press the **TORQUE RAMP** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = minimum

N8 lit = maximum



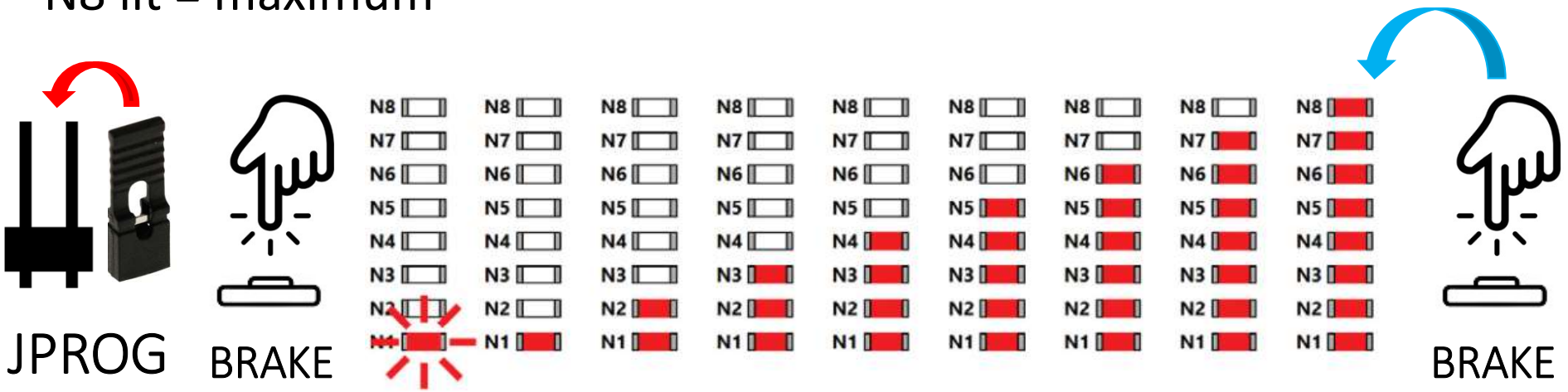
BRAKE

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **BRAKE** button (1x) to enter the function
- STEP 3: Press the **BRAKE** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = minimum

N8 lit = maximum



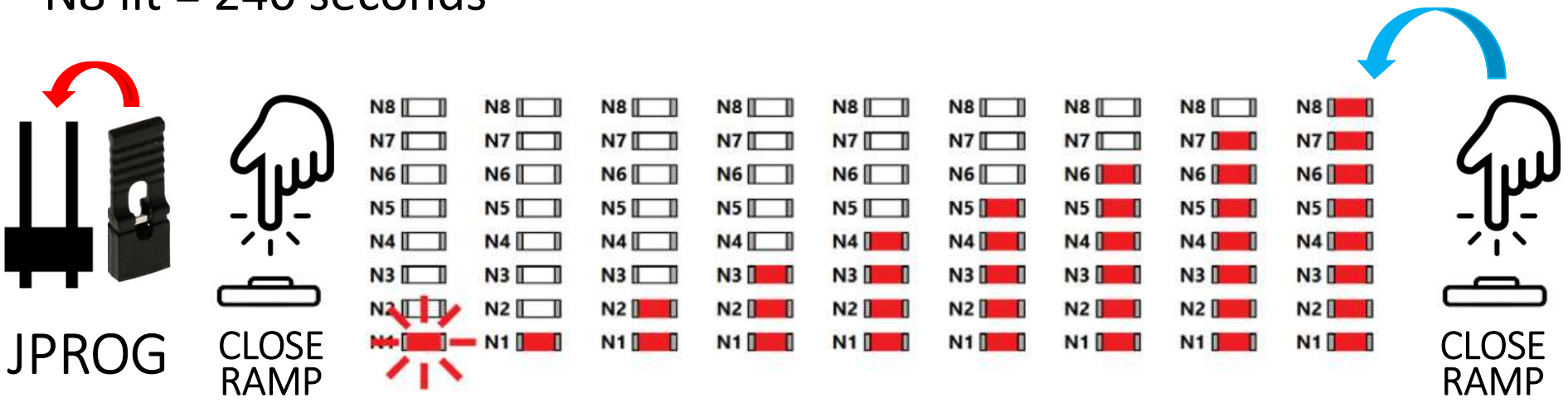
COURTESY LIGHT TIME

- STEP 1: The gate must be still, close the **JPROG** jumper
- STEP 2: Press and release the **LIGHT** button (1x) to enter the function
- STEP 3: Press the **LIGHT** button to configure, open the **JPROG**

N1 flashing = off

N1 lit = 5 seconds

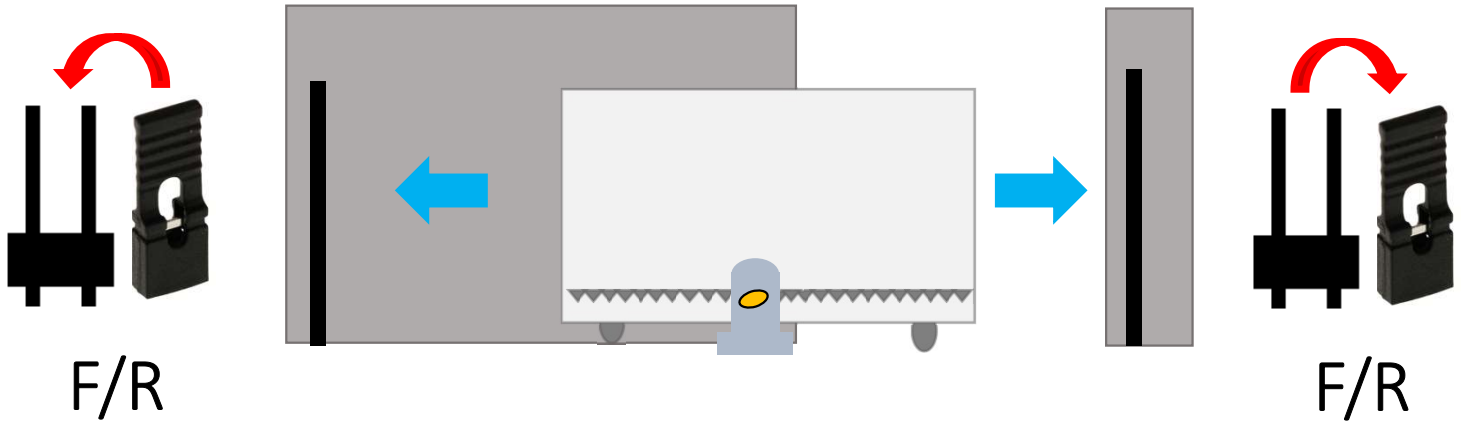
N8 lit = 240 seconds



“F/R” JUMPER

It reverses the direction of rotation of the motor, what is opening becomes closing and vice versa; it also reverses the logic of the limit switch sensors, **LSO** (opening) and **LSC** (closing).

NOTE: Check if in the first command the gate opens, which is correct. If it is closing, invert the position of the jumper.



PROGRAMMER

In order to get a more detailed adjustment, for example in time selecting functions (1 by 1 second) or even advanced resources such as time for automatic closing after unblocking the photocell, pedestrian opening space and so on, the PROG tool is used, a keyboard with screen compatible with all PPA controller boards.