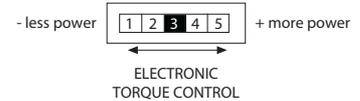**Torque control setting:**
adjust torque from lower level (step 1) up to the required amount of power step by step to achieve a correct performance of the system so that the gates are operated as required and any injuring hazard is prevented.
Please note, torque is to be adjusted by a technician.

- less power | 1 2 **3** 4 5 | + more power
ELECTRONIC TORQUE CONTROL

CE DECLARATION OF CONFORMITY of the manufacturer:
Meccanica Fadini snc (Via Mantova, 177/A - 37053 Cerea - VR - Italy) declares under own responsibility that **Elpro 7 RP** complies with the 2006/42/CE Machinery Directive, and also that it is sold to be installed in an "automatic system", along with original accessories and components as indicated by the manufacturing company, that is not liable for any possible incorrect use of the product. The product complies with the following specific norms: Low Voltage Directive 2014/35/UE, Electromagnetic Compatibility Directive 2014/30/UE. In order to certify the product, the Manufacturer declares under own responsibility the compliance with the EN 13241-1 PRODUCT NORMS.

Meccanica Fadini s.n.c.
Responsable Manager

General description: Elpro 7 RP is an electronic control panel developed for Nupi 66. The main feature of this unit is the capability to learn the required working times during operation (gate delay in open and close cycles, dwell time). 230 V - 50 Hz single-phase power supplied. <u>The manufacturer is not liable for incorrect use of the controller</u>; and reserves also the right to change and update it to the latest standards of the art at any time.

⚠️ **IMPORTANT:**
- The control panel must be installed in a sheltered, dry place, inside the box provided with it.
- Make sure that the power supply to the electronic programmer is 230 V ±10%.
- Make sure that the power supply to the electric motor is 230 V ±10%.
- For distances of over 50 metres we recommend using electric cables with bigger sections.
- Fit the mains to the control panel with a 0,03 A high performance circuit breaker.
- Use 1,5 mm² section wires for voltage supply, electric motor and flashing lamp. Maximum recommended distance 50 m.
- Use 1 mm² section wires for limit switches, photocells, push-buttons/key-switch and accessories.
- Bridge terminals 1 and 2 if no photocells are required.
- Bridge terminals 3 and 6 if no key- or push-button switches are required.
N.W.: to fit extra accessories such as lights, CCTV etc. use only solid state relays to prevent damages to the microprocessor.

WORKING LOGIC: Elpro 7 RP is supplied with pre-set working times so that to allow the first installation: working time (about 20 s), gate delay times (opening = 2 s, closing = 6 s, dwell on automatic mode = 15 s). Once satisfied that the system is working all right, new working times can be programmed to meet the user's needs or the installation requirements. Elpro 7 RP functions can be set by dip-switches, both before and after the times have been stored by the unit.

LEARNING THE TIMES: Elpro 7 RP learning operation is quite easy and can be achieved either by the P button on the PBC or by the remote control after entering setting. mode, see point 1).
Starting the unit to learn the required times: with the gate in closed position pulse the equipment to one complete cycle, ie. open-stop/dwell-close
Important:
1) In order to avoid setting times which are not suitable with the correct gate functioning, some time limits were pre-set. Beyond these values the automation will start with the maximum pre-set time: M1 and M2 motor run time (max 55 s), dwell time on automatic mode (maximum 90 s).
2) During the learning operation, no other functions can be activated, the photocells and the stop button are out of service.
3) If the new setting operation is interrupted (for example: mains cut off), the times in the previous setting are memorized.
4) Normally, not on programming mode, the P button has the same function as a remote control button and it is possible to test the system by pulsing it; the Led 7 becomes a simple indicator, the same as the indicator to terminal 8.

24 V - 3 W Indicator:
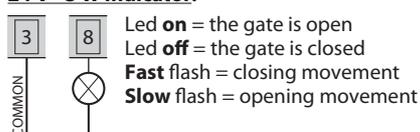
Led **on** = the gate is open
Led **off** = the gate is closed
Fast flash = closing movement
Slow flash = opening movement

Pedestrian opening (M1 motor by open pulse):
Partial opening for pedestrians is only allowed in closed gate position by pulsing to open (the gate closes after the dwell time if set to automatic dip-switch 3 = ON):
- the first pulse operates 1 gate leaf (M1)
- the second pulse operates the second gate leaf

↑ ON: gate leaf for pedestrian opening
8 OFF: standard operation
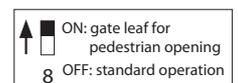
Led status indication:
L1 = 230 V - 50 Hz power supply. Alight
L2 = photocells, if obstructed light goes off
L3 = open. Alight whenever an open pulse is given
L4 = close. Alight whenever a close pulse is given
L5 = stop. It goes off on pulsing stop
L6 = radio. It goes on by pressing a transmitter button
L7 = gate status and programming led

Dip-switch:
1= ON Photocells, stop during opening
2= ON Radio no reversing during opening
3= ON Automatic closing
4= ON Pre-flashing in service
5= ON Radio step by step
6= ON No delay on opening
7= ON No additional pushing on the gate leaf after closing
8= ON Pedestrian opening by open button

DIP-SWITCH
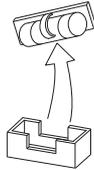
ON / OFF
1 2 3 4 5 6 7 8
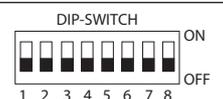
Preliminary notes to learning mode:
- make sure that the gate is closed
- make sure that the gate stops in the respective open and closed gate positions are firmly fixed to the ground.
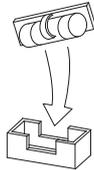
1

1st operation:
cut off power supply to Elpro 7 RP by removing the **2 A - 24 V low voltage white fuse**, which is on the right upper side of the PCB.
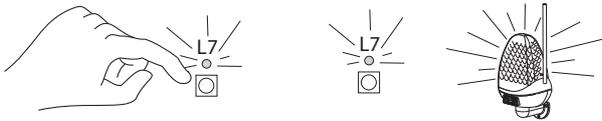
2

L7

2nd operation:
hold the **button P** pressed and re-power the PCB by inserting the **24 V low voltage fuse** back into its holder.

3

L7   L7

3rd operation:
when the **Led L7** illuminates, release **button P**: **Led L7** will flash 5 times and the flashing lamp will illuminate: the program "learning working times" has been entered.
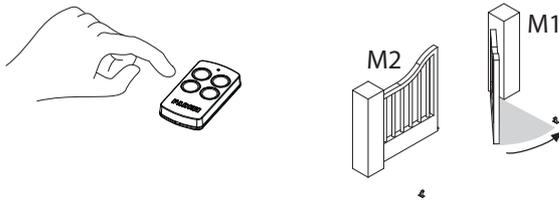
⚠ **IMPORTANT**: at this stage two options are allowed to go on with setting ie. learning the required operating times: by the P button or by remote control. The last option allows the installation agent to have direct visual control of the operation being performed by the gates.

L7

4

M1
M2
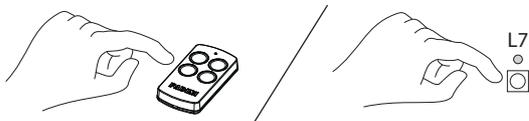
4th operation:
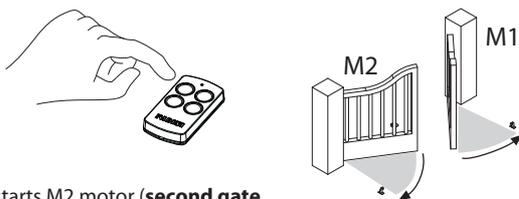a pulse to open starts M1 motor (**the first gate starts opening**).

⚠ The time passing from 4th to 5th operations is stored by the system as the **gate delay time in open cycle**, with the options in service (dip No. 6 = ON) or out of service (dip No. 6 = OFF, the time is stored but no delay will occur).
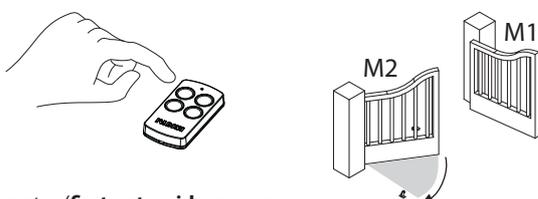
5

M1
M2

5th operation:
a pulse to open starts M2 motor (**second gate starts opening**).
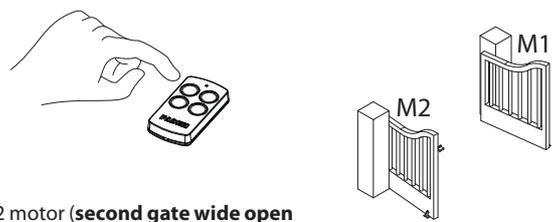
6

M1
M2

6th operation:
a pulse stops M1 motor (**first gate wide open on open gate stop**).

7

M1
M2

7th operation:
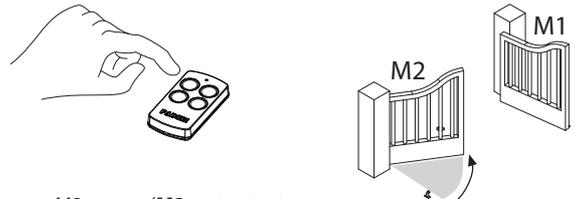A pulse stops M2 motor (**second gate wide open on open gate stop**).

⚠ The time passing from 7th to 8th operation is stored by the system as **dwell time**, in service on AUTOMATIC MODE (dip No. 3 = ON) or out of service (dip No. 3 = OFF, dwell time still in the system memory but not applicable).

8

M1
M2

8th operation:
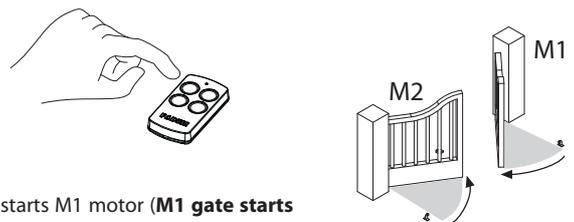a pulse to close starts M2 motor (**M2 gate starts closing**).

⚠ The time between the 8th and 9th operations is stored by the system as **gate delay time on closing cycle**.

**9**

M1
M2

9th operation:
a pulse to close starts M1 motor (**M1 gate starts closing**).

10

M1
M2

10th operation:
a pulse stops M2 motor (**M2 gate on closed gate position**). In order to ensure that the gate is securely held in stop position, it is advised to pulse the actuator ie. gate to stop approx. 3-4 seconds after the gate has reached the end of the permitted stroke on the closed gate stop position.

11

M1
M2
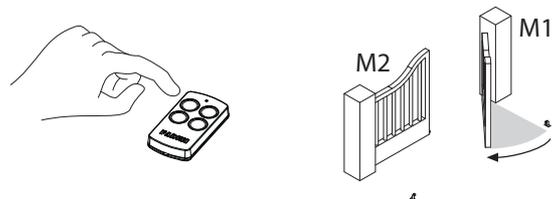
11th operation:
A pulse stops M1 motor (**M1 gate on closed gate position**). In order to ensure that the gate is securely held in stop position, it is advised to pulse the actuator ie. gate to stop approx. 3-4 seconds after the gate has reached the end of the permitted stroke on the closed gate stop position.
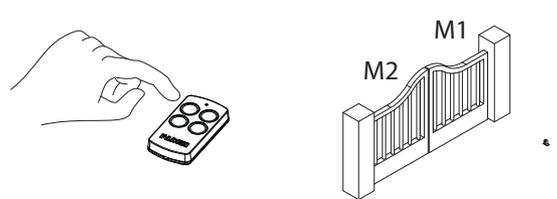
The 11th operation concludes the procedure for the control panel to learn the required working times.
After the learning procedure it is possible to set the operating modes either ON/OFF as required by means the dip-switches on the PCB.