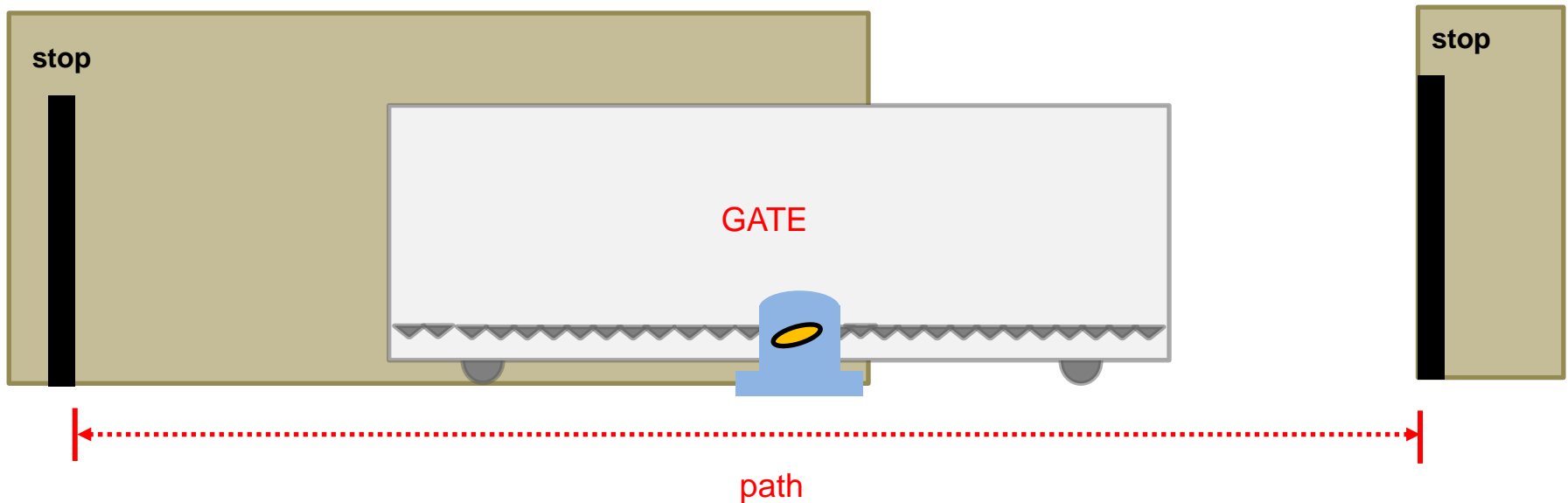# MECHANICAL INSTALLATION

Some of the main points that must be followed in the gate operator's mechanical installation are:

– The gate must slide smoothly and effortless, not jumping nor obstructions;
– Having a good concrete foundation or resistant structure to screw the gate operator;
– Align the gate operator with the leaf and the wall in order to avoid damages;
– Leave about 2mm-gap between the top of the rack teeth and the bottom of the gear;
– Besides the magnets, having mechanical stops for both sides opening and closing;
– Clean periodically the gate track so that jam by any obstructions or trash;
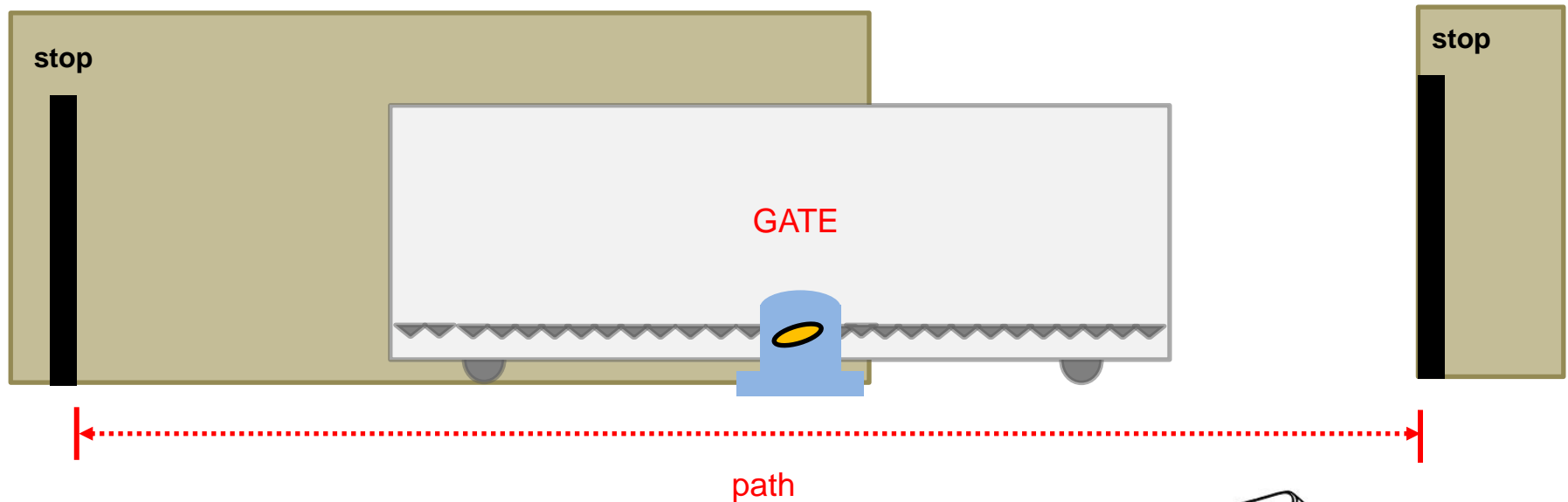– Make sure that the electrical wires and accessories cables are ok.

2mm
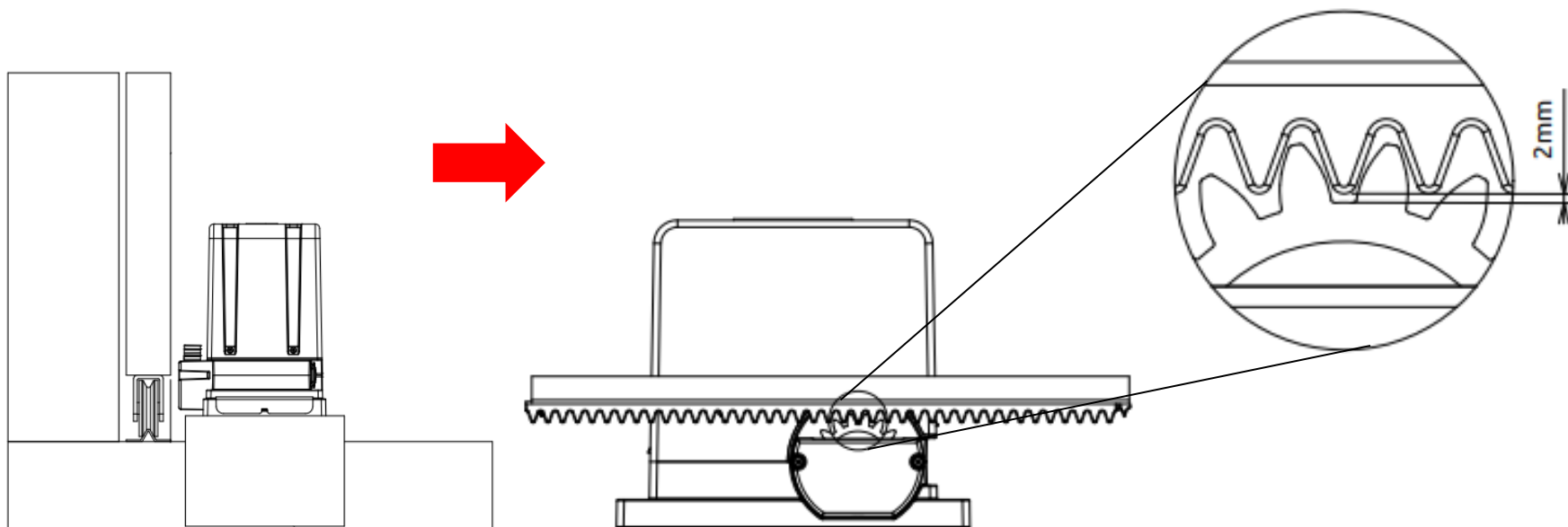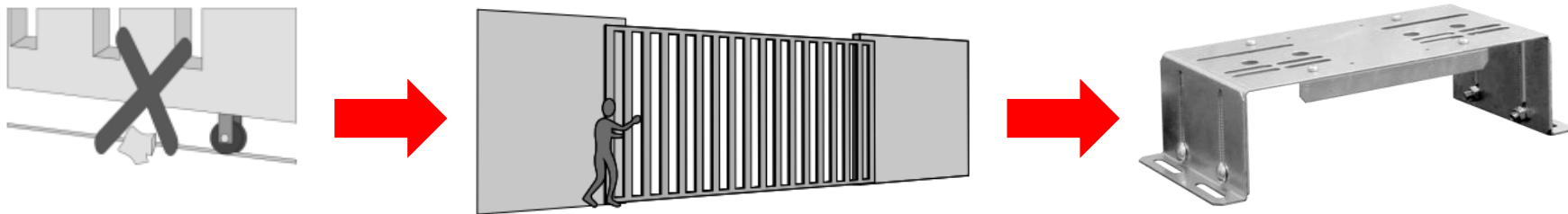
Some of the tools needed to install the product:

BASIC GUIDE

Once the gate operator is installed and all the mechanical process is finished, one must place the gate in the middle of its travel and lock the unblocking lever. At this point, it will be ready to start the path recognition.
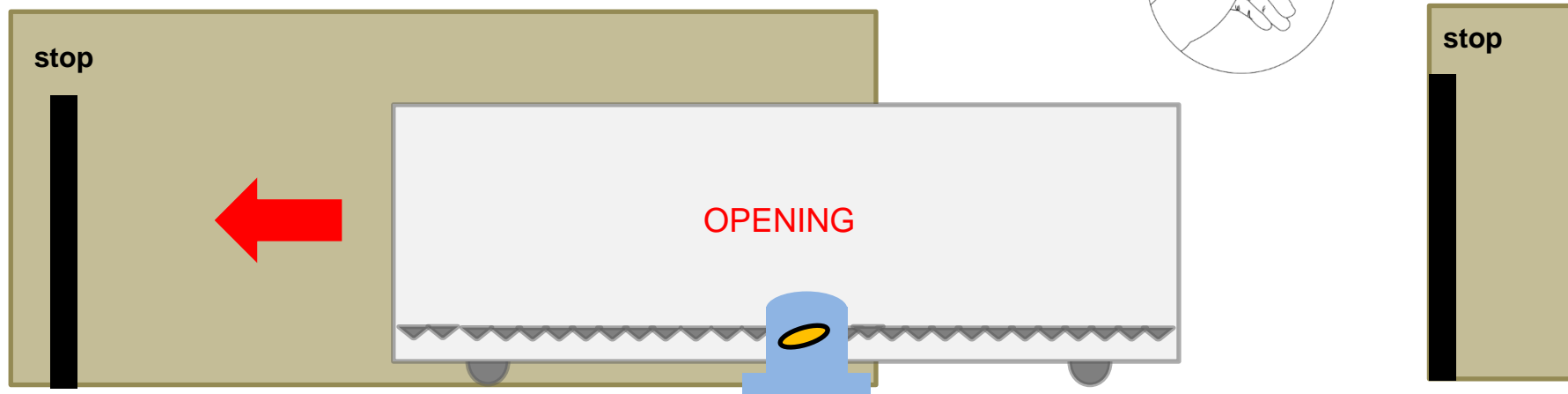
stop

stop

GATE

path

To generate a command for the gate to begin the movement, one must use one of the two remote controls, already recorded in the controller board.
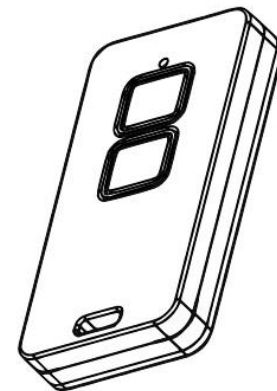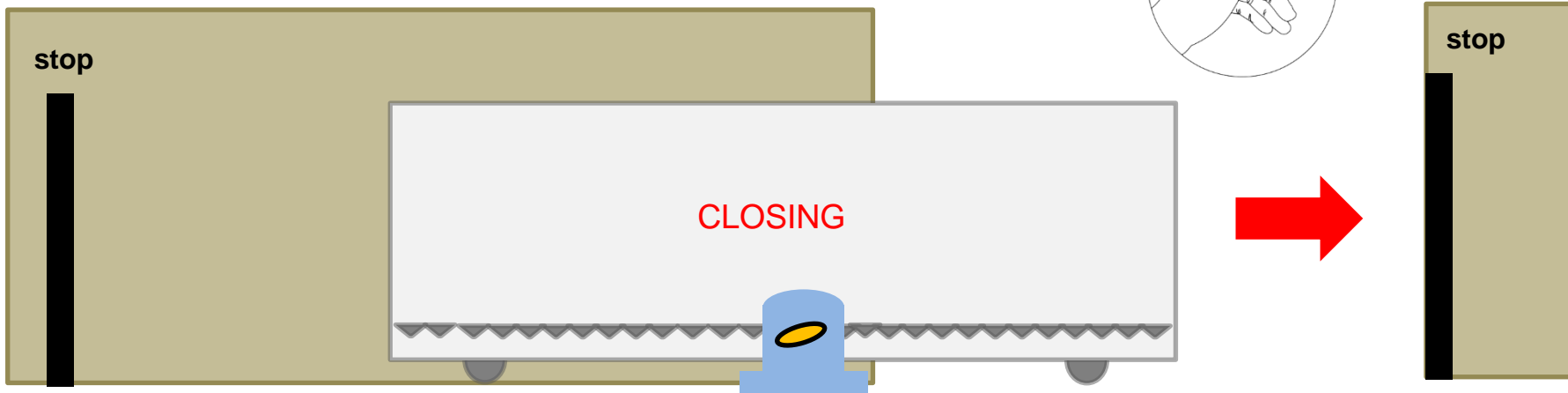
PATH RECOGNITION

press and release the transmitter button, after the command the gate starts opening completely (towards the magnetic limit switch or mechanical stop).

stop

stop

OPENING

press and release the transmitter button, after the command the gate starts closing completely (towards the magnetic limit switch or mechanical stop).

stop

stop

CLOSING

GATE OPEN

magnetic limit switch (closing)

magnetic limit switch (opening)

NOTE: The magnets position is adjustable, it can be moved forwards/backwards as well as laterally and its plastic or even on the metal bracket fixed to the gear rack. The same goes for the magnet sensors of the gate operator, opening and closing. The recommended distance is less than 2 cm.

RECOGNIZED PATH

sense of movement

mechanical stop (opening)

mechanical stop (closing)

MAGNET HOLDER

REED SUPPORT

AERIAL VIEW

GATE CLOSED

magnetic limit switch (closing)

magnetic limit switch (opening)

sense of movement

RECOGNIZED PATH
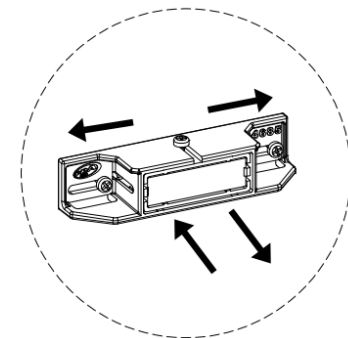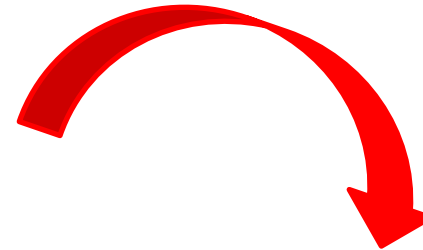
mechanical stop (opening)
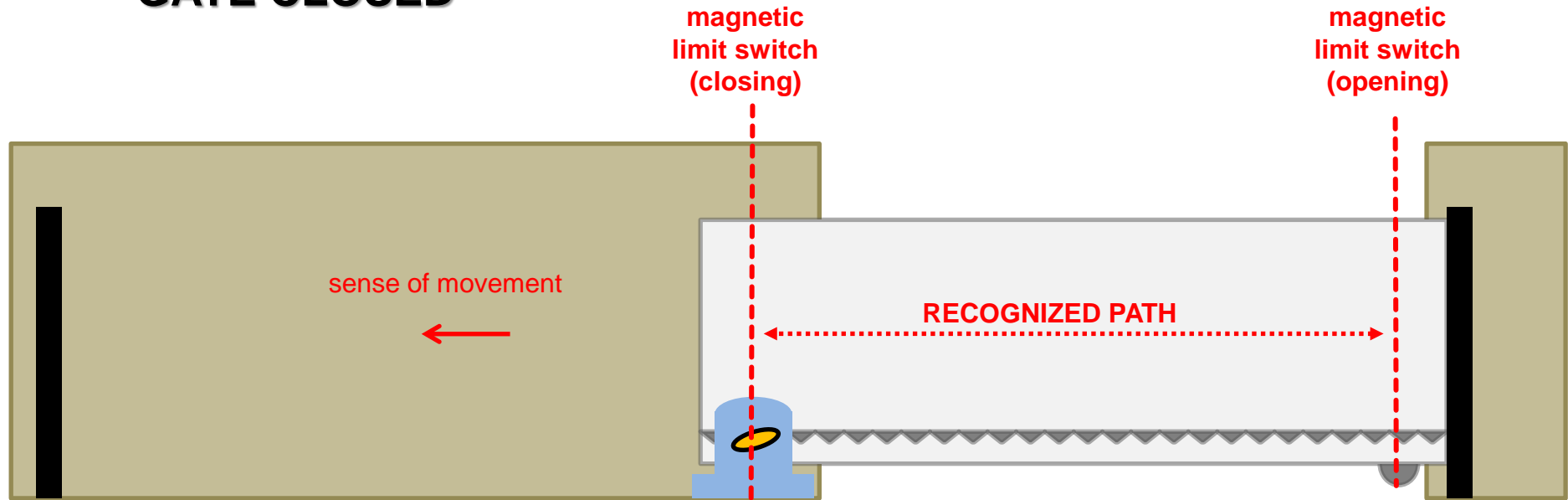
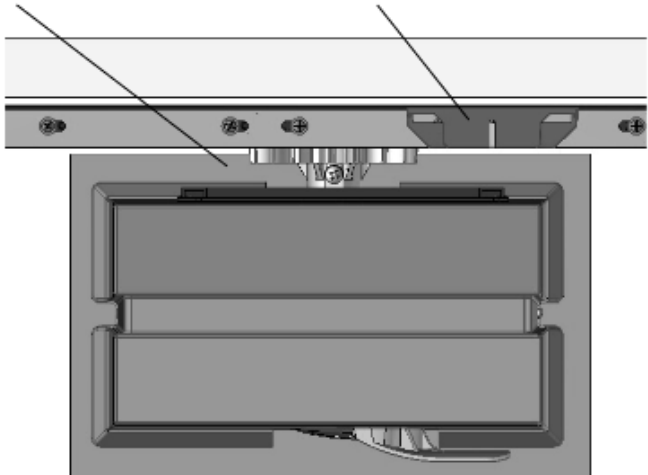**mechanical stop (closing)**
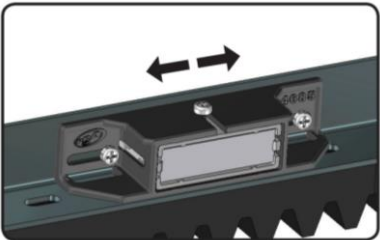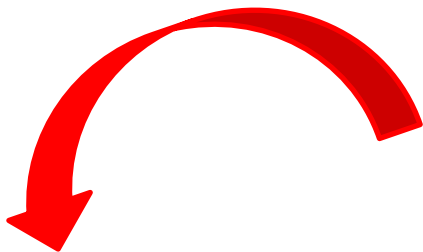
REED SUPPORT

MAGNET HOLDER
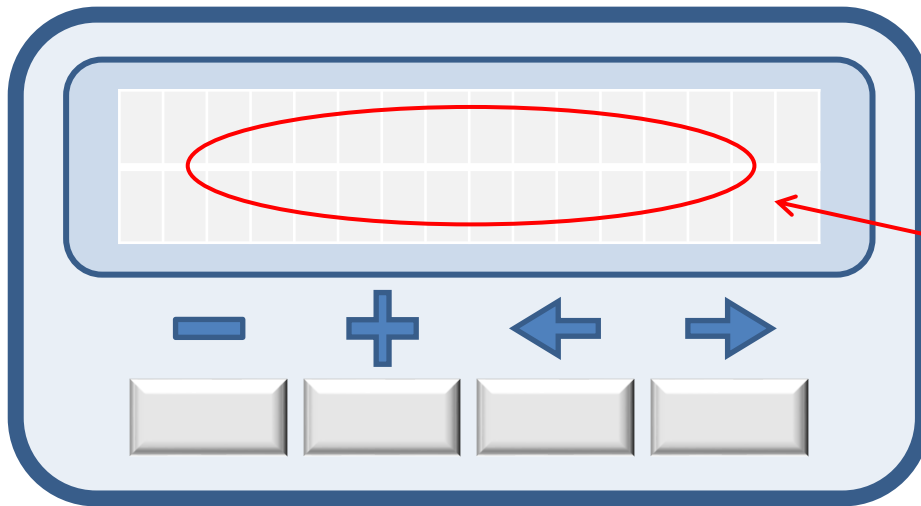
AERIAL VIEW

INTERMEDIATE GUIDE

Once the route is already memorized and the gate opens and closes properly and completely, you can configure the slowing down point for soft stop as well as the speed level.

On the initial screen, you can see the status of the controller board inputs and outputs:

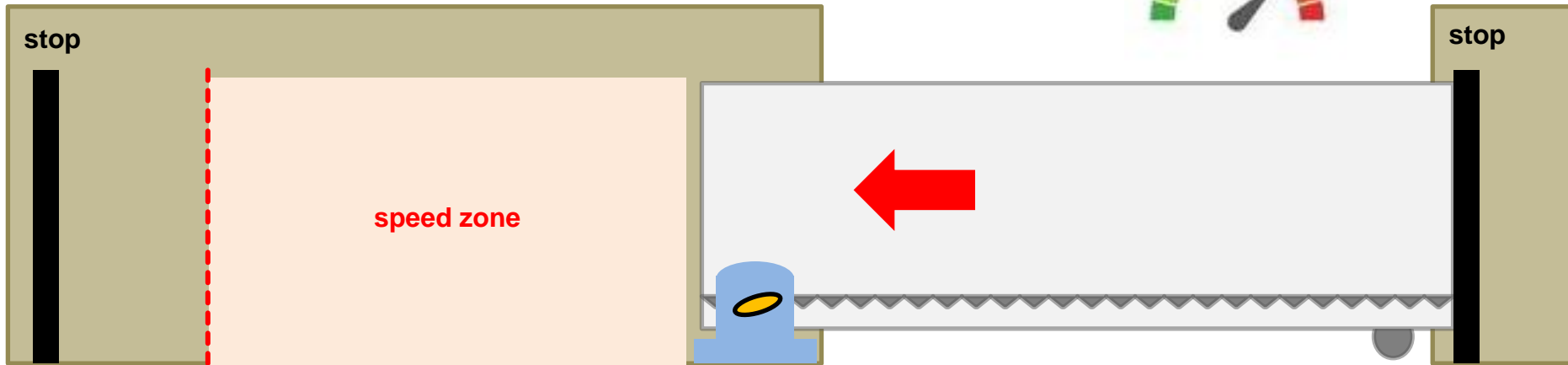| INFORMATION |
|---|
| limit switches |
| photocells |
| pushbuttons |
| remote controls |
| numbers of cycles |
| RF receptor |
| speed |
| encoder pulses |

We use the **<–** (left) y **–>** (right) buttons to navigate in the function menu. While the **+** (plus) y **–** (minus) buttons are used to increase or decrease the value of each functionality.

OPENING SPEED

stop

speed zone

stop

deceleration point

LEVELS FOR ADJUSTMENT

low	minimum
high	maximum

O P E N I N G   S P E E D

decrease the speed

increase the speed

The higher the value is, the faster the gate's speed will be.

For example: If the level is low, the gate will open slowly. But if the number is high, the gate will open very quickly.

CLOSING SPEED

stop

stop

speed zone
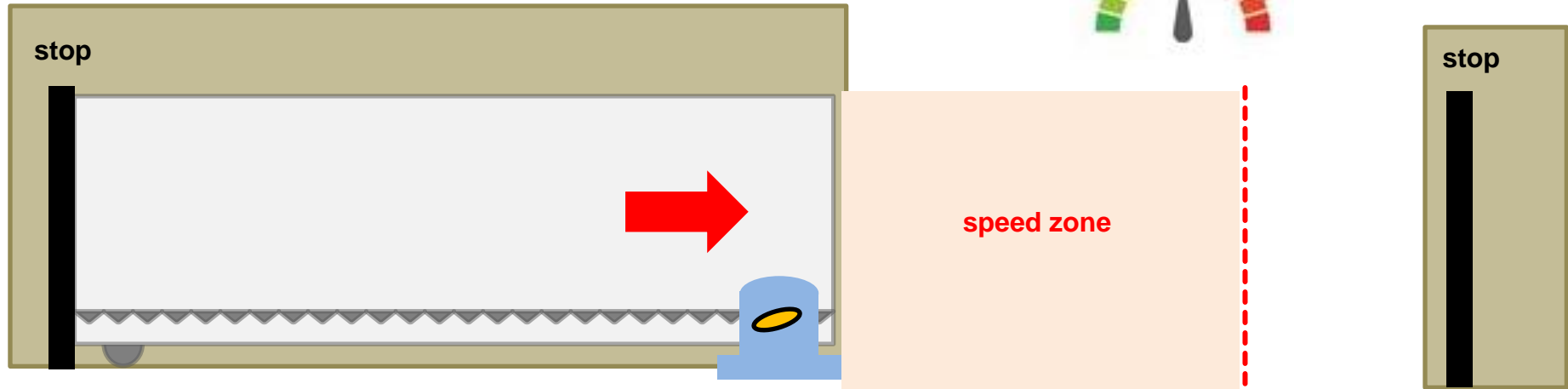
deceleration point
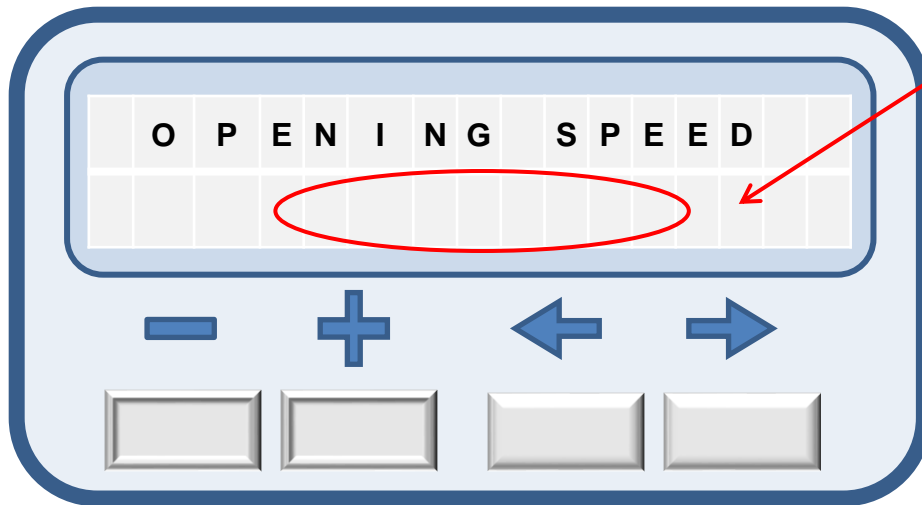
LEVELS FOR ADJUSTMENT	
low	minimum
high	maximum

The higher the value is, the faster the gate's speed will be.

For example: If the level is low, the gate will close slowly. But if the number is high, the gate will close very quickly.
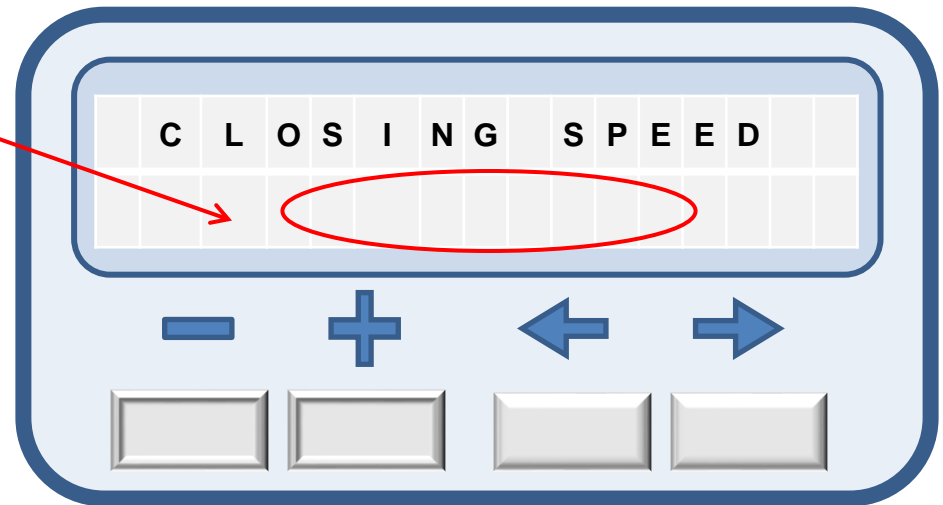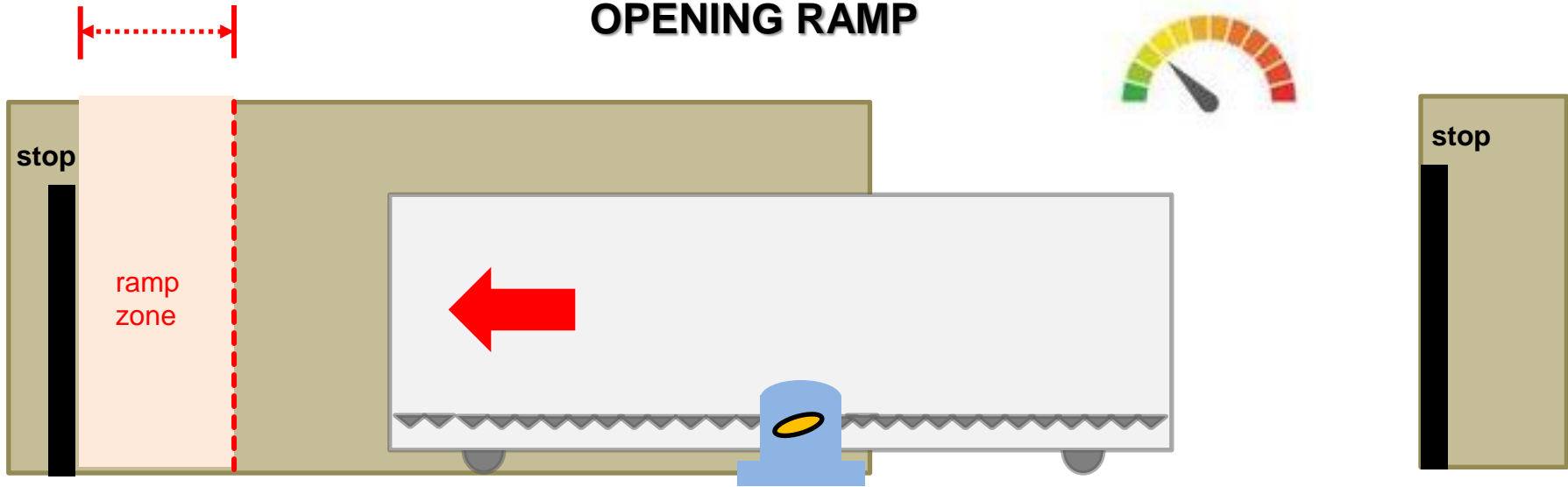
C L O S I N G   S P E E D

decrease the speed

increase the speed

OPENING RAMP

stop

ramp zone

stop

exact point for the gate leaf to start slowing down the speed

```
O P E N I N G    R A M P
```

− **+** **←** **→**
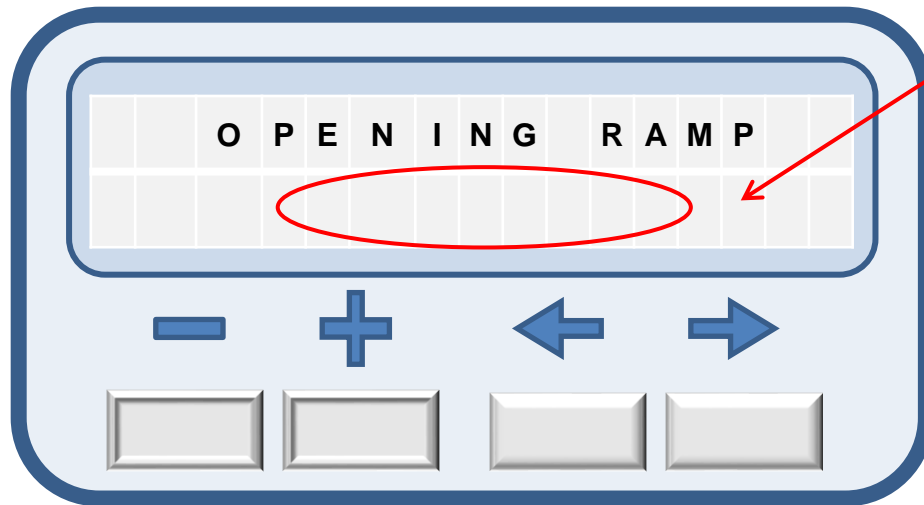
decrease the distance

increase the distance

LEVELS FOR ADJUSTMENT

low	minimum space
high	maximum space

The higher the value is, the bigger the deceleration space will be.

For example: If the level is low, the gate starts slowing down near the stopping point. In heavy gates, it is recommended a higher number.

CLOSING RAMP

stop

stop

ramp zone

exact point for the gate leaf to start slowing down the speed

LEVELS FOR ADJUSTMENT	
low	minimum space
high	maximum space

The higher the value is, the bigger the deceleration space will be.

For example: If the level is low, the gate starts slowing down near the stopping point. In heavy gates, it is recommended a higher number.
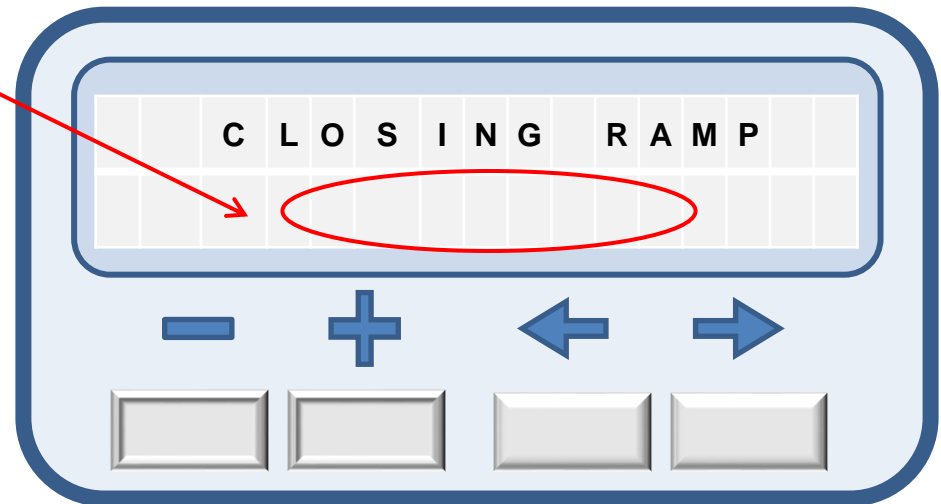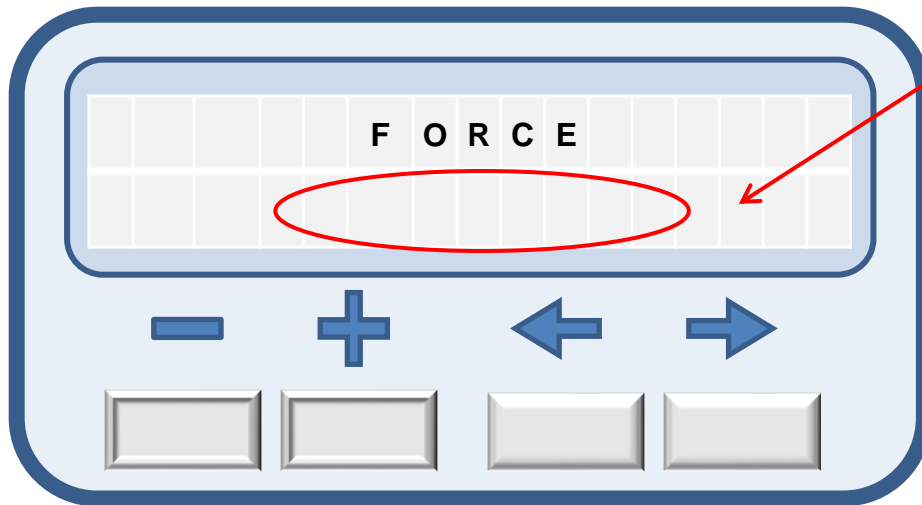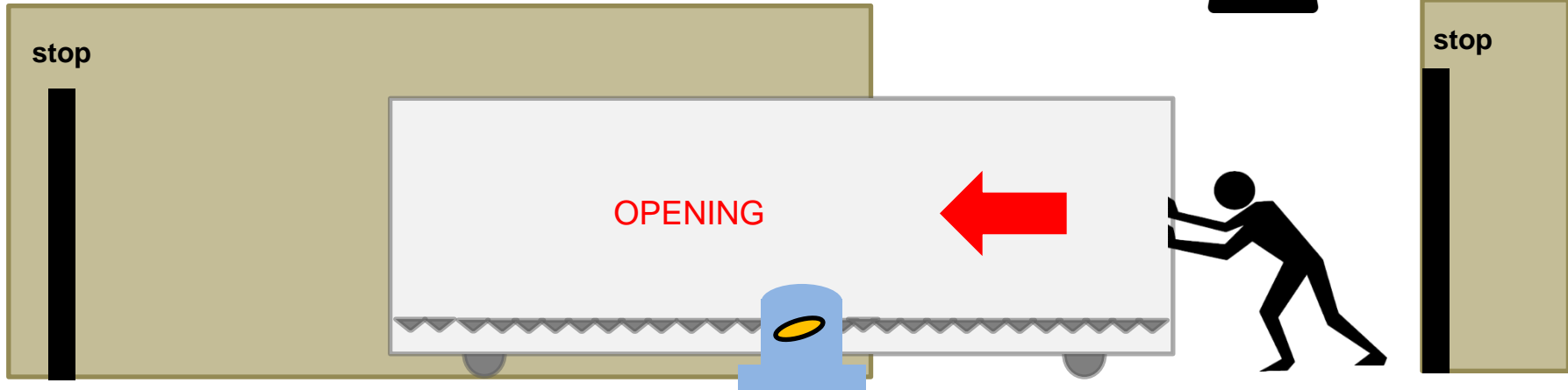
C L O S I N G   R A M P

decrease the distance

increase the distance

FORCE (STRENGTH)

KG

stop

OPENING

stop

LEVELS FOR ADJUSTMENT	
low	minimum power
high	maximum power

F O R C E

− **+** **←** **→**

decrease the force

increase the force

Adjust the force of the motor to move the gate leaf and also the sensitivity. The two are inversely proportional

The higher the sensitivity to detect objects in the path, the lower the force. An intermediate setting here is recommended in that function.

FORCE (STRENGTH)

stop

stop

CLOSING

LEVELS FOR ADJUSTMENT

low	minimum power
high	maximum power

F O R C E

decrease the force

increase the force

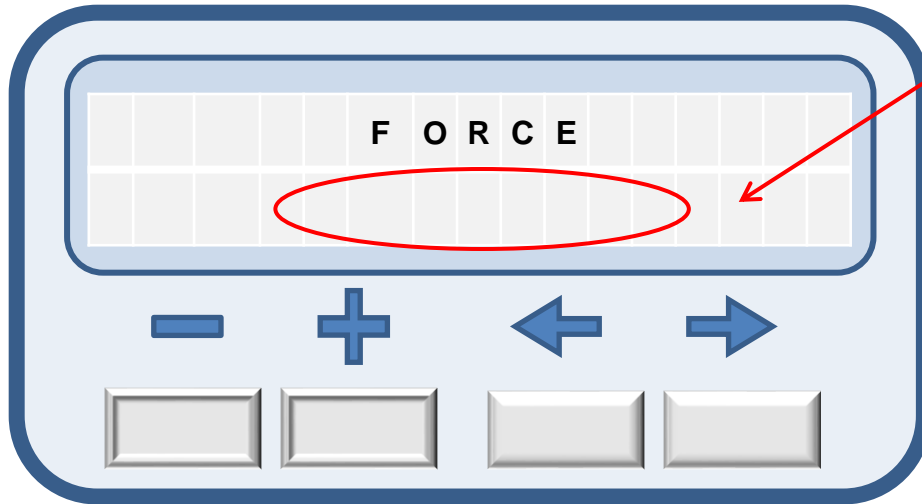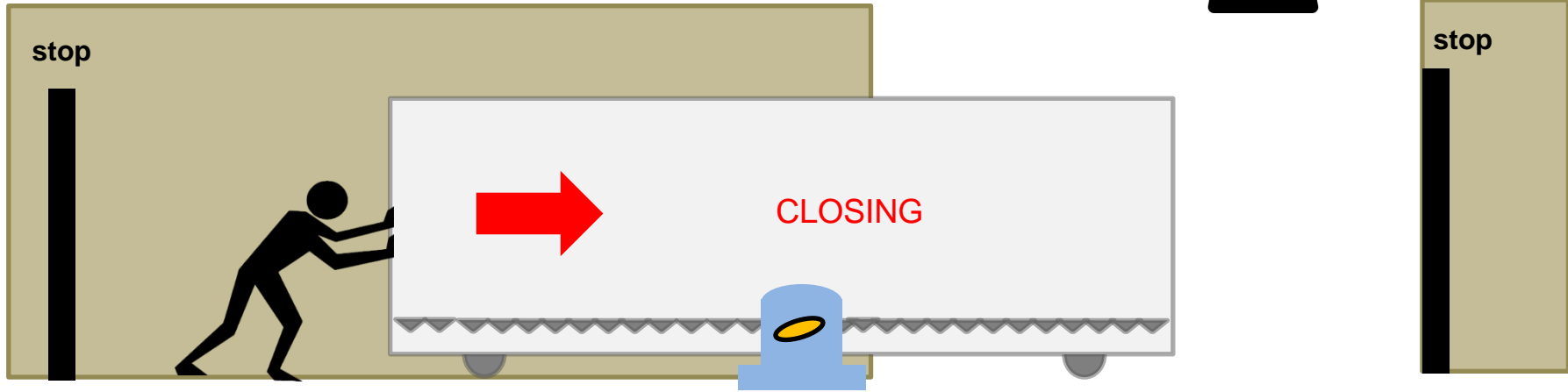Adjust the force of the motor to move the gate leaf and also the sensitivity. The two are inversely proportional

The higher the sensitivity to detect objects in the path, the lower the force. An intermediate setting here is recommended in that function.
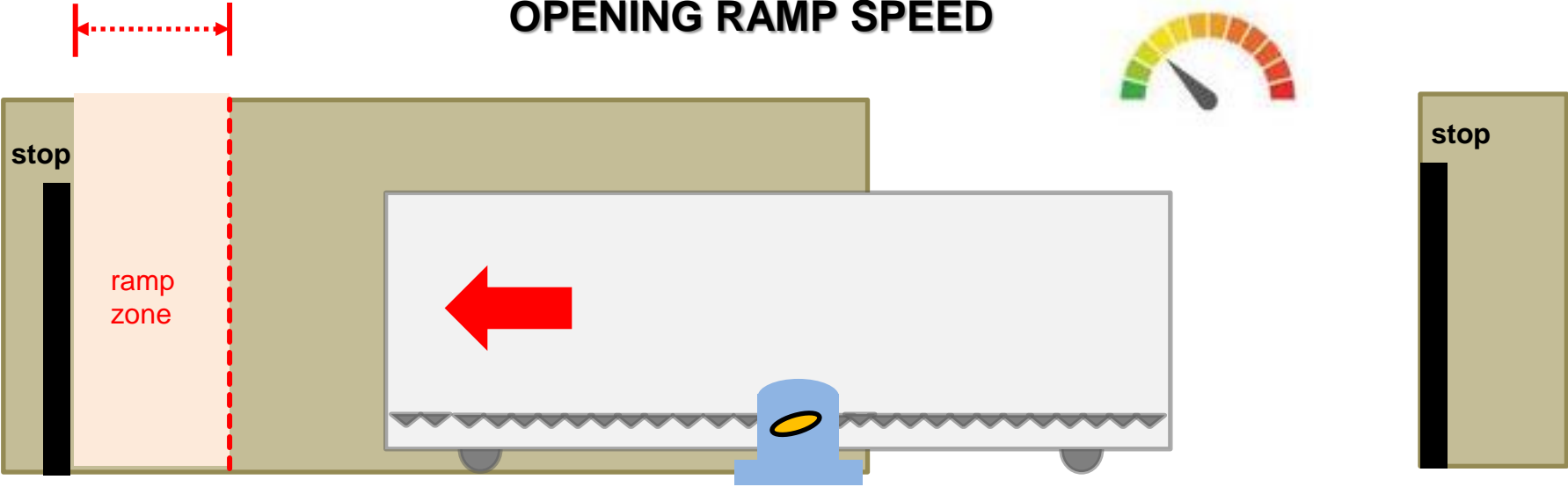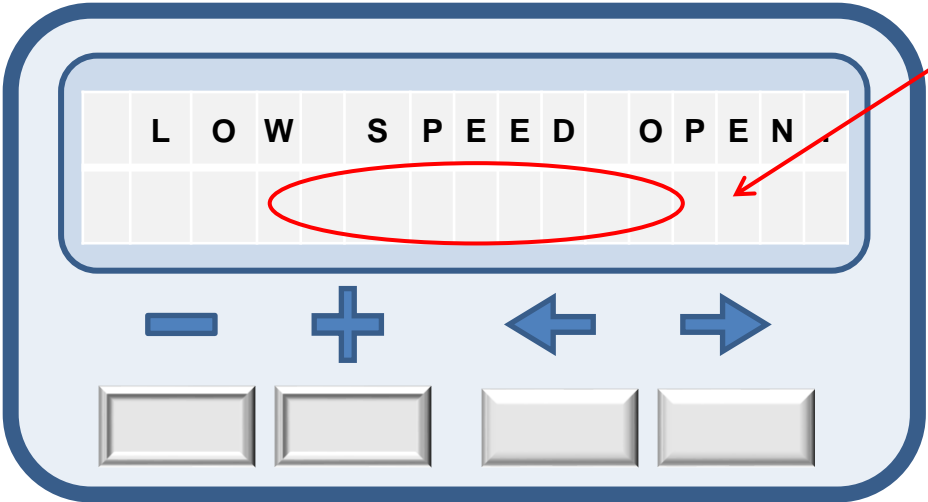
Once the speed, slowing down points and force (torque) have been programmed, there are more specific settings such as time for automatic closing, external lamp, electromagnetic lock, stop during the opening movement, brake, pedestrian opening, delete all recorded remote controls, general reset for factory standard, among others.

OPENING RAMP SPEED

stop

ramp zone

stop

exact point for the gate leaf to start slowing down the speed

L O W   S P E E D   O P E N

− **+** **←** **→**

decrease the speed

increase the speed

LEVELS FOR ADJUSTMENT

low	slowest
high	fastest

Speed in the final section of the route, in the ramp zone.

If the level is low, there will be a large deceleration and the gate will come to the end of the travel very slowly.

CLOSING RAMP SPEED

stop

ramp zone

stop

exact point for the gate leaf to
start slowing down the speed

LEVELS FOR ADJUSTMENT

low	slowest
high	fastest

Speed in the final section of the
route, in the ramp zone.

If the level is low, there will be a
large deceleration and the gate will
come to the end of the travel very
slowly.

L O W   S P E E D   C L O S E

**decrease the
speed**

**increase the
speed**

AUTOMATIC CLOSING TIME
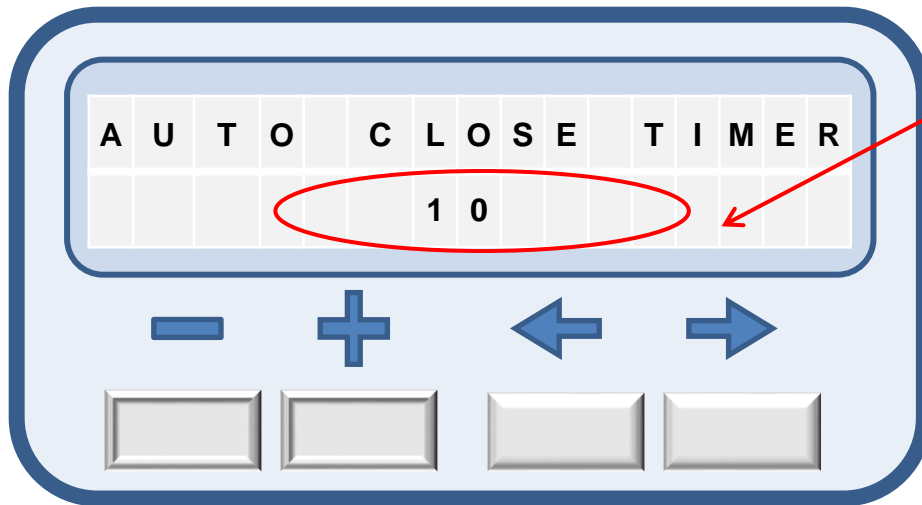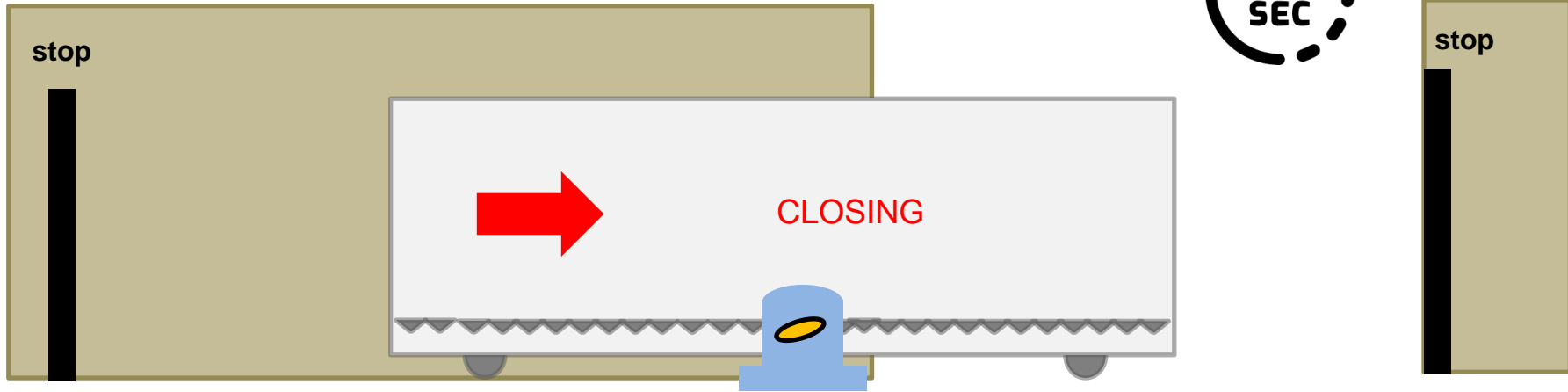
stop

10 SEC

stop

→ CLOSING

LEVELS FOR ADJUSTMENT

0 s	no timer
240 s	maximum (4 min)

A U T O   C L O S E   T I M E R

1 0

− **+** **←** **→**

decrease the time

increase the time

After completing the opening movement, the controller board will count the time and when it finishes, the gate will close automatically.

The adjustment can be made 1 by 1 second, from 1 (minimum) to 240 (equivalent to 4 minutes).

STOPS DURING OPENING

stop

OPENING

stop

```
O P E N I N G   S T O P S
```

− **+** **←** **→**

disable the function **enable the function**

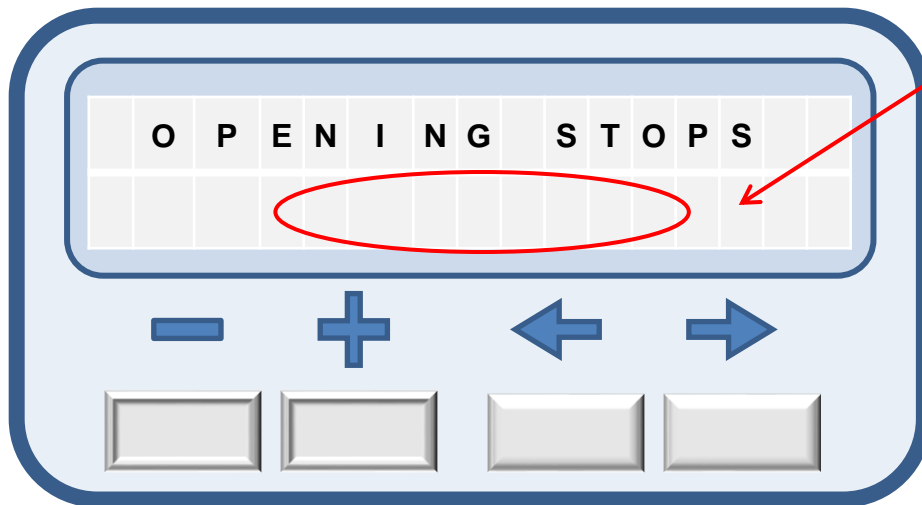## OPTIONS FOR ADJUSTMENT

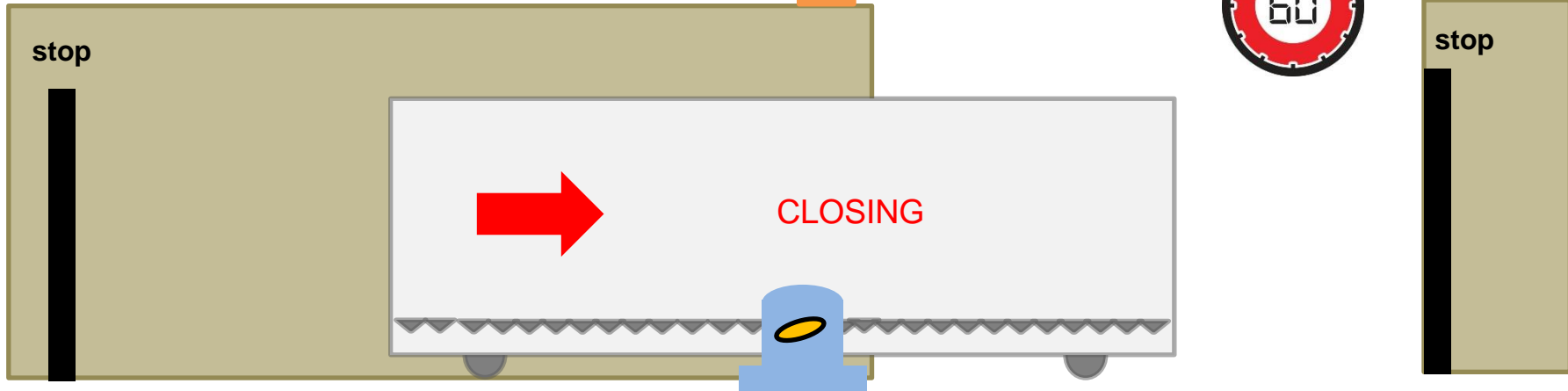|	
NO	disabled
YES	enabled

It allows or not a remote control to work properly during the opening movement of the gate to stop it.

If it is disable, if the controller board receives a command in the opening movement, it will not respect it and continue until the end.

TIMER FOR LAMP

stop

stop

→ CLOSING

LEVELS FOR ADJUSTMENT

0 s	no timer
240 s	maximum (4 min)

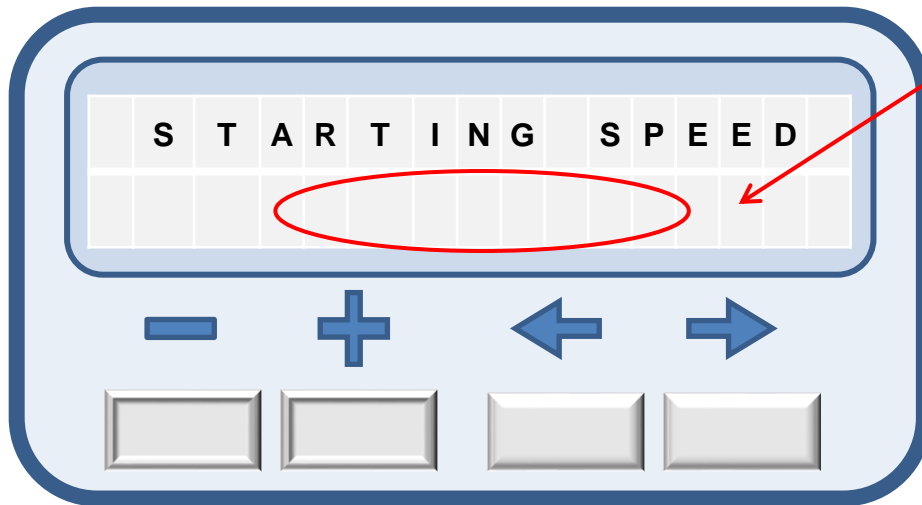**C O U R T E S Y L I G H T**

6 0

After completing the opening movement, the controller board will count the time and when it finishes, the light will turn off automatically.

NOTE: The courtesy light must have a 230V power supply.
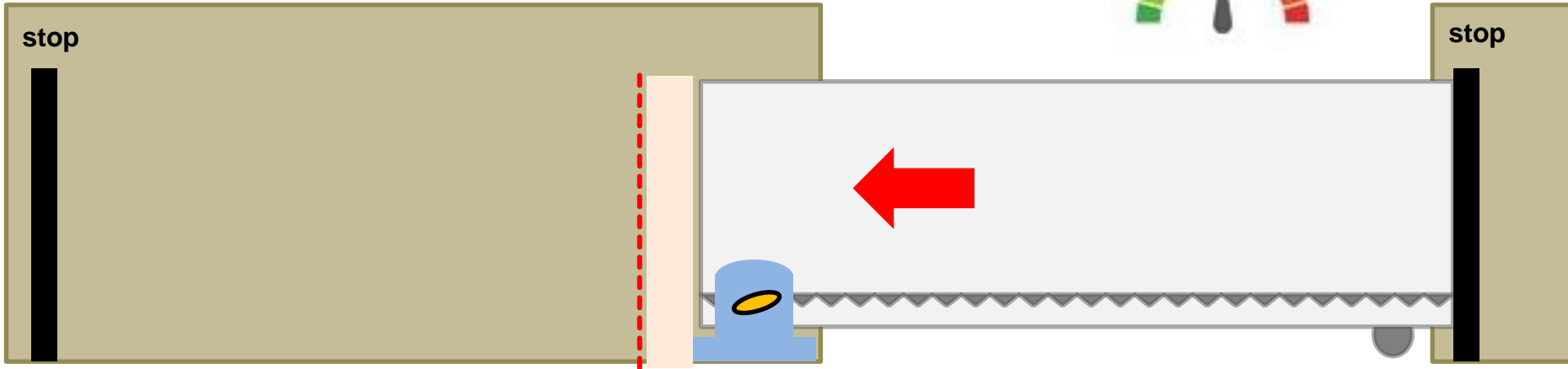
decrease the time

increase the time

STARTING SPEED

stop

stop

exact point for the gate
to start speeding up

LEVELS FOR ADJUSTMENT

low	minimum
high	maximum

S T A R T I N G   S P E E D

decrease the
speed

increase the
speed

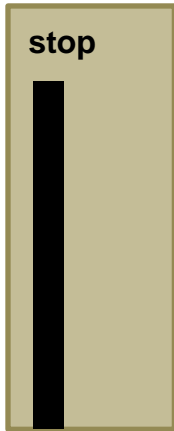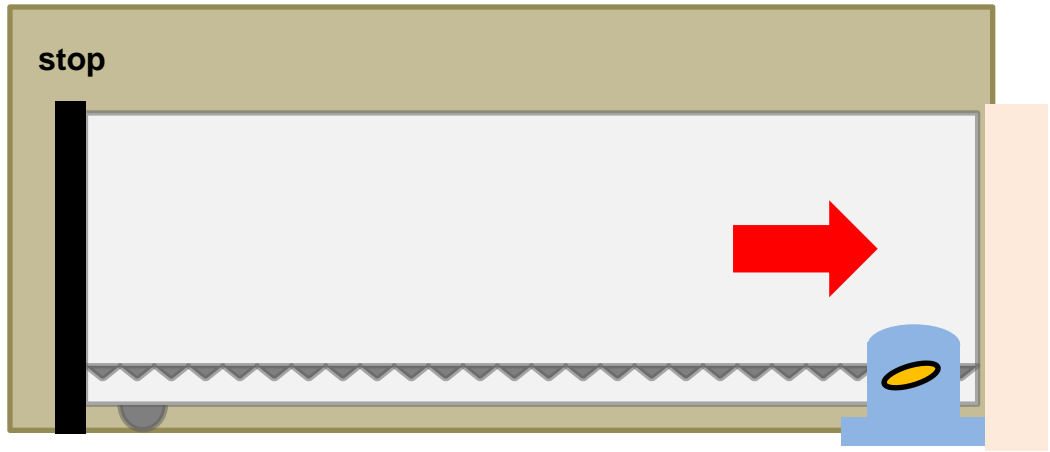Initial speed, the speed with which
the gate will start opening/closing is
set.

It is important to put an intermediate
value so that a very abrupt start does
not occur, which would cause some
mechanical damages.

STARTING SPEED

stop

stop

exact point for the gate
to start speeding up

LEVELS FOR ADJUSTMENT	
low	minimum
high	maximum

As it is on the previous page, the same adjustment works for both the opening and the closing movement.

The initial speed in both directions of movement will be defined in this function.

S T A R T I N G   S P E E D
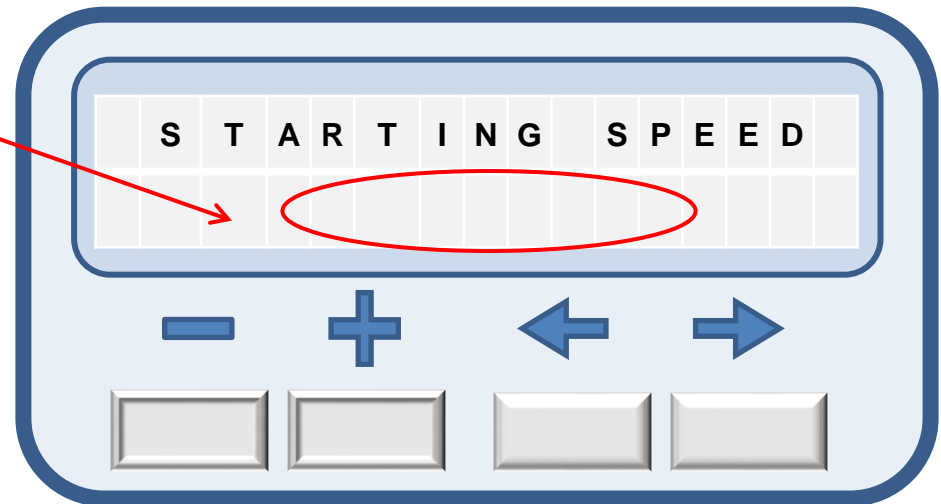
decrease the speed

increase the speed

LANGUAGE

The programmer is available in 5 different languages, you can adjust the functions and see the information on the screen in Portuguese, English, Spanish, French and Italian.

L A N G U A G E

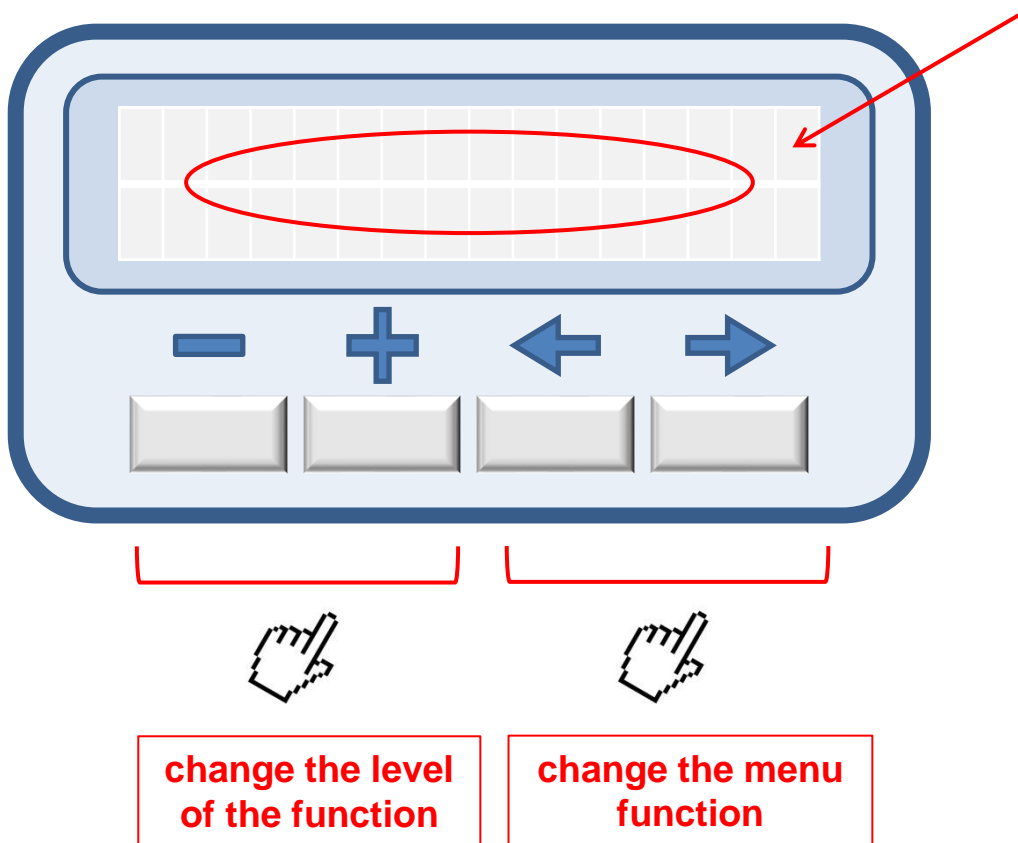| OPTIONS |
| --- |
| Português |
| English |
| Español |
| Français |
| Italiano |

change the language

ADDITIONAL FUNCTIONS

In the programmer, the first line refers to the name of the function and the second one, to the current level that the setting is at (or activated/deactivated, NO/NC in the case of functionalities without a gradual scale).

MENU
record/delete controls
brake (time)
limit switch type
pushbutton type
photocell contact
reversion by command
sensitivity
pedestrian opening
factory default
erase the path
photocell closing timer
electromagnetic lock

change the level of the function

change the menu function

CONTROLLER BOARDS

- <u>Agility Híbrida (Monophase Line)</u>

Residential Sliding Gate Operator HUB: 450
Residential Sliding Gate Operator CUBE: 550, 800

- <u>Agility Plus (Legero Line)</u>

Residential Sliding Gate Operator HUB: 500
Residential Sliding Gate Operator CUBE: 600, 850

- <u>Triflex Full Range (JetFlex Line)</u>

Residential Sliding Gate Operator HUB: 550
Residential Sliding Gate Operator CUBE: 650, 1000
Industrial Sliding Gate Operator IND: 1.5
Industrial Sliding Gate Operator BRUTALLE: 2.0T, 2.5T
Residential Swing Gate Operator: PIVO HOME, SK PREDIAL
Industrial Swing Gate Operator: PISTON CONDOMINIUM

- <u>Triflex Brushless (Brushless 24V Line)</u>

Residential Sliding Gate Operator HUB: 300
Residential Sliding Gate Operator CUBE: 400