

WARNING
Do not use the device without referring to this manual first.



- 'N5' (TX) LED must remain lit.
- Press the 'SET' button on the control board and keep it pressed for 10 seconds.
- 'N8' LED must remain lit, indicating that all remote controls have been erased from the memory.
- In order to finish, open the 'JPROG' jumper.

ADDING REMOTE CONTROLS

It adds new remote controls to the control board, so that they can trigger it.

- Instructions:
- The gate must be still.
 - Close the 'JPROG' jumper;
 - Press and release the 'SET' button (once);
 - 'N5' (TX) LED must remain lit;
 - Press the button of the remote control one wants to add and keep it pressed;
 - 'N8' LED must remain flashing;
 - Press and release the 'SET' button on the board to confirm the operation;
 - 'N8' LED flashes once (button already added), blinks twice (button already added and new synchronization for a Rolling Code Remote control) or three times (memory full);
 - Release the button of the remote control;
 - Go back to step 3 to add a new button of the remote control;
 - In order to finish, open the 'JPROG' jumper.

COMMAND RECEIVED DURING OPENING

Permission for a command from either a pushbutton or a remote control to be accepted during the opening maneuver.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'CMD' button on the board (once) to show the current adjustment;
 - Press and release the 'CMD' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

COMMAND RECEIVED DURING OPENING

LED indications:

- 'N1' flashing = Function disabled.
- 'N1' lit = Function enabled.

STRENGTH (ELECTRONIC CLUTCH)

In order to assure the efficiency of this security sensor device, proceed as follows:

- After properly installing the gate opener, adjust the electronic clutch so that the strength necessary to a complete gate maneuver is minimum when the device is both opening and closing.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'FORCE' button on the board (once) to show the current adjustment;
 - Press and release the 'FORCE' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

LED indications:

- 'N1' flashing = Off.
- 'N1' lit = Minimum.
- 'N8' lit = Maximum.

SEMI-AUTOMATIC / AUTOMATIC MODE (PAUSE TIME)

It is the time adjustment for the automatic closing when the gate reaches the 'FCA' (OLS) limit switch sensor or the opening stop, indicating the limit of the opening maneuver.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'PAUSE TIME' button on the board (once) to show the current adjustment;
 - Press and release the 'PAUSE TIME' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

LED indications:

- 'N1' flashing = Semi-automatic.
- 'N1' lit = 5 seconds.
- 'N2' lit = 10 seconds.
- 'N3' lit = 30 seconds.
- 'N4' lit = 60 seconds.
- 'N5' lit = 90 seconds.
- 'N6' lit = 120 seconds.
- 'N7' lit = 180 seconds.
- 'N8' lit = 240 seconds.

OPENING RAMP

It is the distance between the opening mechanical stop and the point of the path where the electronic board enters torque control mode in order to decrease the speed of the gate and turn the opener off on the acquired path, i.e., the distance in which the opener starts decelerating when opening the gate.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'OPEN RAMP' button on the board (once) to show the current adjustment;
 - Press and release the 'OPEN RAMP' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

LED indications:

- 'N1' flashing = Function disabled
- 'N1' lit = 5% of the gate path.
- 'N2' lit = 10% of the gate path.
- 'N3' lit = 15% of the gate path.
- 'N4' lit = 20% of the gate path.
- 'N5' lit = 25% of the gate path.
- 'N6' lit = 30% of the gate path.
- 'N7' lit = 35% of the gate path.
- 'N8' lit = 40% of the gate path.

CLOSING RAMP

It is the distance between the closing mechanical stop and the point of the path where the electronic board enters torque control mode in order to decrease the speed of the gate and turn the opener off on the acquired path, i.e., the distance in which the opener starts decelerating when closing the gate.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'CLOSE RAMP' button on the board (once) to show the current adjustment;
 - Press and release the 'CLOSE RAMP' button as many times as necessary until one reaches the desired adjustment;

- In order to finish, open the 'JPROG' jumper.
- LED indications:
- 'N1' flashing = Function disabled
 - 'N1' lit = 5% of the gate path.
 - 'N2' lit = 10% of the gate path.
 - 'N3' lit = 15% of the gate path.
 - 'N4' lit = 20% of the gate path.
 - 'N5' lit = 25% of the gate path.
 - 'N6' lit = 30% of the gate path.
 - 'N7' lit = 35% of the gate path.
 - 'N8' lit = 40% of the gate path.

TORQUE (STRENGTH) ON THE RAMP

This adjustment decreases the gate speed when it is within the deceleration ramp area, i.e., the "strength" of the gate opener in the area of the limit switch ramp, close to the stops of the gate. In case it is disabled, the torque control on the ramp will be inoperative.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'TORQUE RAMP' button on the board (once) to show the current adjustment;
 - Press and release the 'TORQUE RAMP' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

LED indications:

- 'N1' flashing = Function disabled
- 'N1' lit = Minimum.
- 'N8' lit = Maximum.

BRAKE

It is activated when the motor is turned off by a command, or when the opener reaches the analog sensors (limit switches).

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'BRAKE' button on the board (once) to show the current adjustment;
 - Press and release the 'BRAKE' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.

LED indications:

- 'N1' flashing = Function disabled
- 'N1' lit = Minimum.
- 'N8' lit = Maximum.

COURTESY LIGHT TIME

It selects the time in which the 'LIGHT' output will remain activated after the gate closes. During the opening or closing maneuver, or when the gate is still and open, the relay module will remain enabled. Whenever the control board finishes the closing maneuver, the relay module will be disabled after the time set.

- Instructions:
- The gate must be still;
 - Close the 'JPROG' jumper;
 - Press and release the 'LIGHT' button on the board (once) to show the current adjustment;
 - Press and release the 'LIGHT' button as many times as necessary until one reaches the desired adjustment;
 - In order to finish, open the 'JPROG' jumper.
- LED indications:
- 'N1' flashing = Immediate shutdown.
 - 'N1' lit = 5 seconds.
 - 'N2' lit = 10 seconds.
 - 'N3' lit = 30 seconds.
 - 'N4' lit = 60 seconds.
 - 'N5' lit = 90 seconds.
 - 'N6' lit = 120 seconds.
 - 'N7' lit = 180 seconds.
 - 'N8' lit = 240 seconds.

ERASING THE ACQUIRED PATH AND RESTORING THE DEFAULT FACTORY SETTINGS

In a single operation, it erases the path (travel) of the gate acquired (memorized) by the control unit as well as it restores the default factory settings.

- Instructions:
- The gate must be still.
 - Keep the 'JPROG' jumper open.
 - Press the 'SET' button on the control unit and keep it pressed; the 'SN' LED will remain off.
 - After 5 seconds, the 'SN' LED will flash, indicating that the path has been successfully erased.
 - Keep the 'SET' button pressed while the 'SN' LED is still lit.
 - After 10 seconds, the 'SN' LED will flash, indicating that the default factory setting has been restored.
 - Release the 'SET' button in order to finish the operation.

NOTE:

- If it is necessary to execute only the operation to erase the path, release the button (item 5).
- By performing the factory reset operation, one will also erase the gate path.

- When performing the operation to erase the path, in the next opening or closing command, the control board will automatically acquire (memorize) a new path after the first complete cycle of the gate.

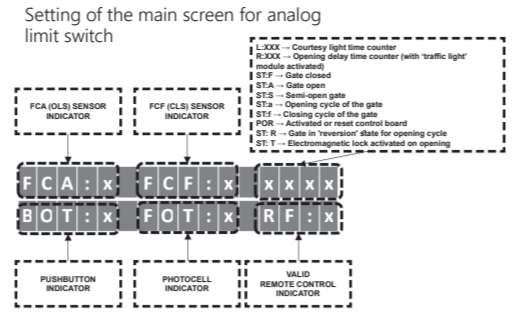
'F/R' JUMPER

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, 'FCA' (OLS) and 'FCF' (CLS).

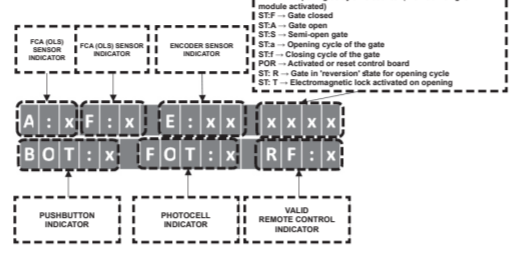
CHART: SETTING THROUGH 'PROG' (PROGRAMMING TOOL)

PROG: It allows one to set the control board in a more precise manner. While the PROG is connected to the control unit, pushbuttons, the 'CMD' button and loose receivers will be inoperative for motor activation commands on the control board. Only by using PROG one can send open / close commands to the gate, by pressing the '+' button. One can also use an added remote control, if it is on the main screen (sensors' status). By keeping any button of the PROG pressed, after 3 seconds, it will enter the self-repedit mode of the pressed button, which will provide you with more agility to navigate between the screens or adjustments.

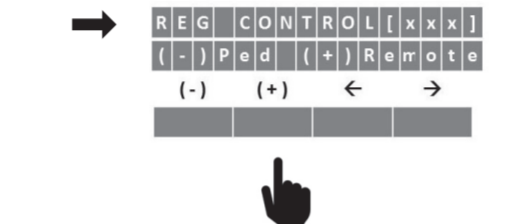
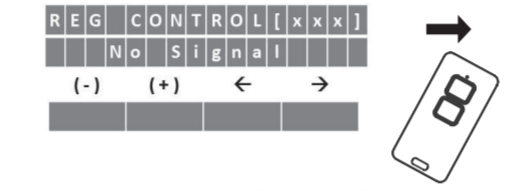
Main screen - Sensor monitoring



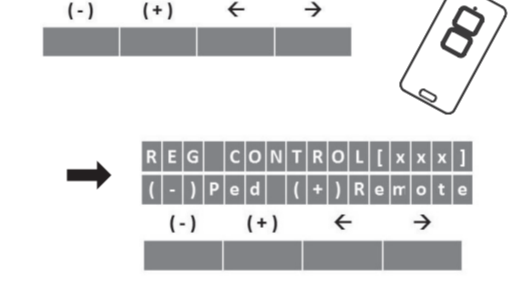
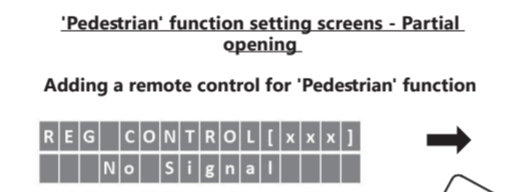
Setting of the main screen for digital limit switch / encoder



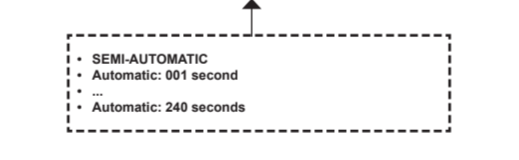
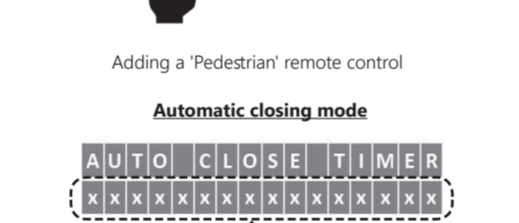
Adding a remote control for opening / closing



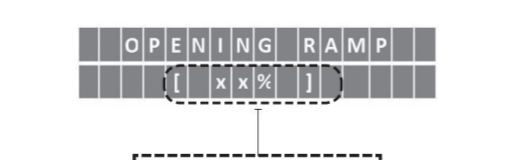
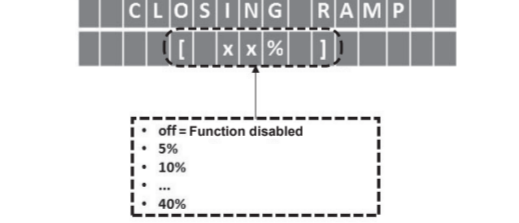
'Pedestrian' function setting screens - Partial opening



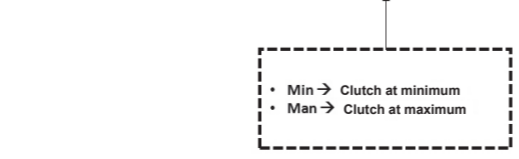
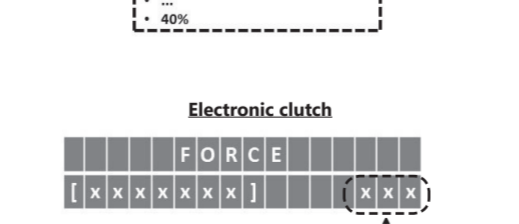
Automatic closing mode



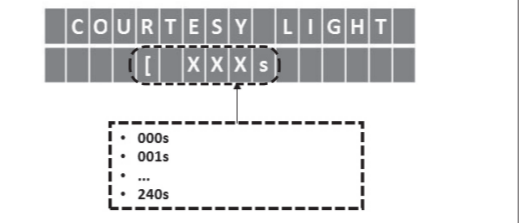
Gate slowing area



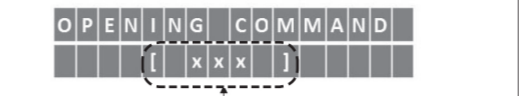
Opening Ramp



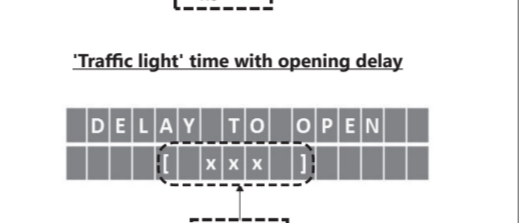
Courtesy light activation time



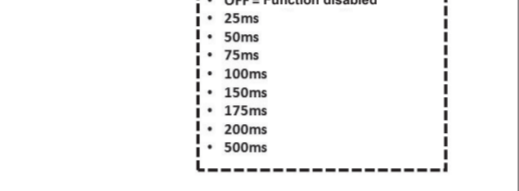
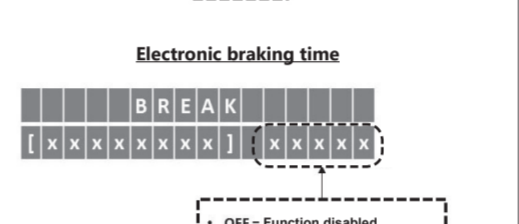
Operation of the remote control in the opening cycle



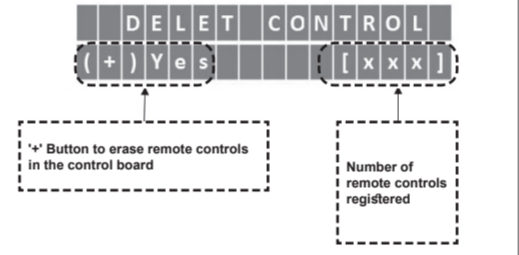
'Traffic light' time with opening delay



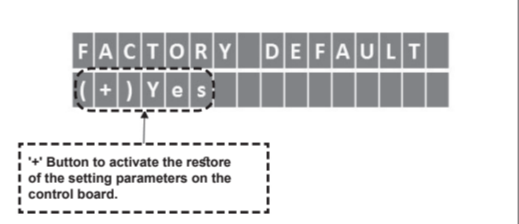
Electronic braking time



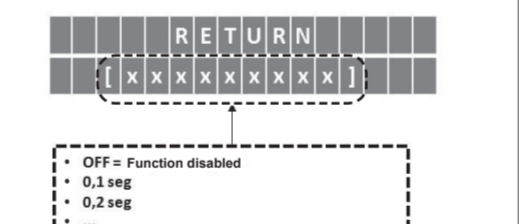
Exclusion of all remote controls



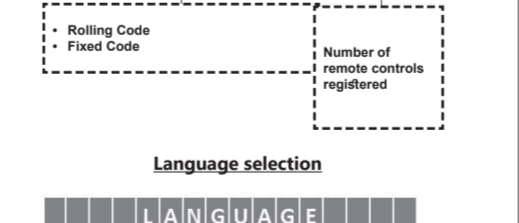
Restoring settings to the factory default



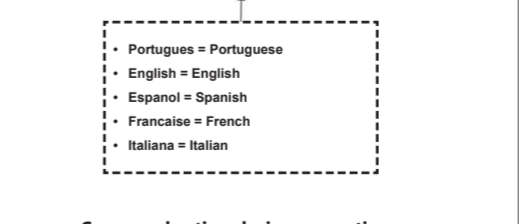
Time for gate movement reversion for opening cycle



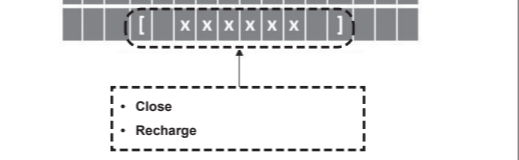
Selection of remote control's data type



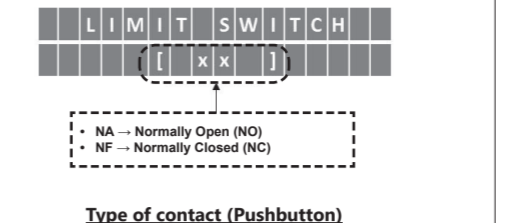
Language selection



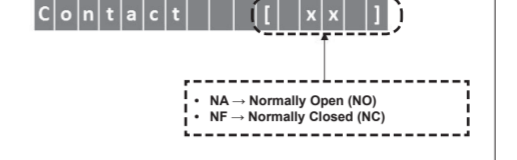
Command action during pause time



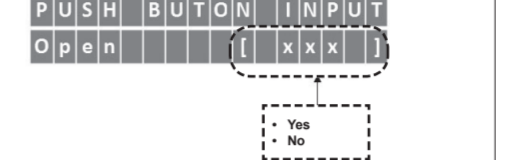
Type of contact (Analog limit switch)



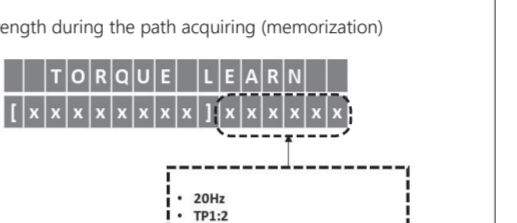
Type of contact (Pushbutton)



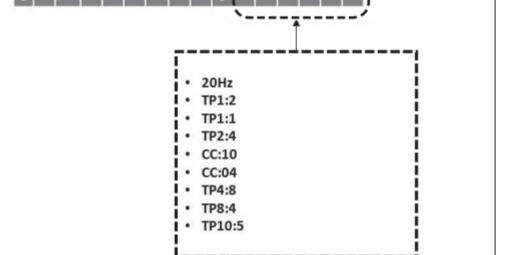
Pushbutton operation in the opening cycle



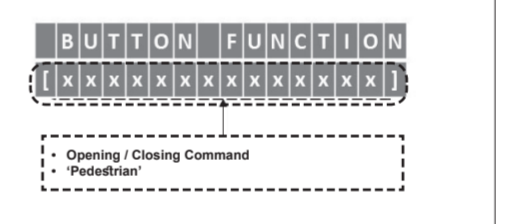
Selecting the type of strength applied



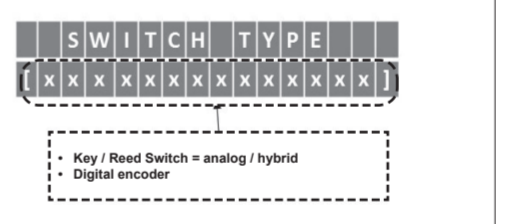
Ramp strength for speed reduction



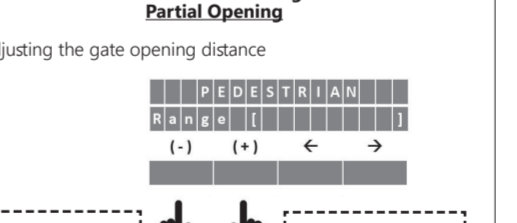
Pushbutton function setting



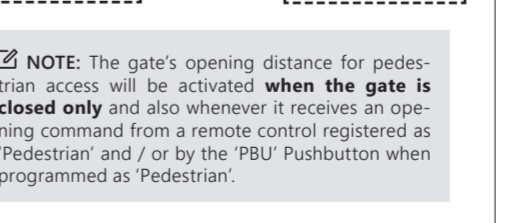
Selects the type of gate limit switch system



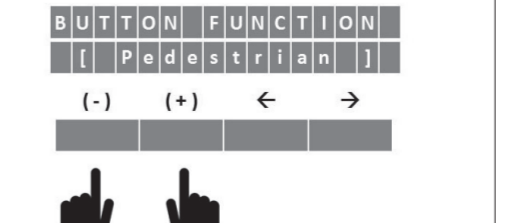
'Pedestrian' function setting screens - Partial Opening



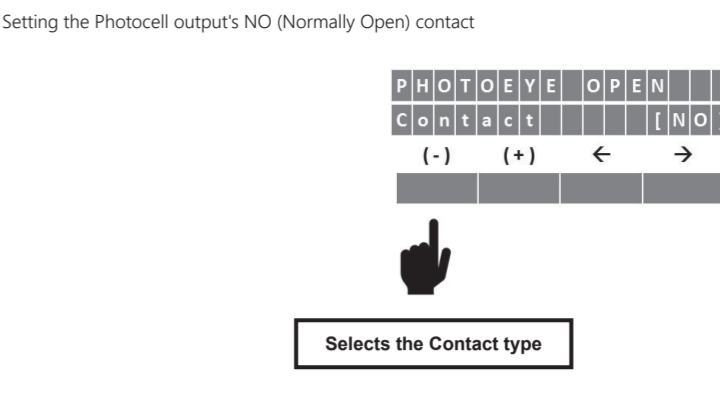
Adjusting the gate opening distance



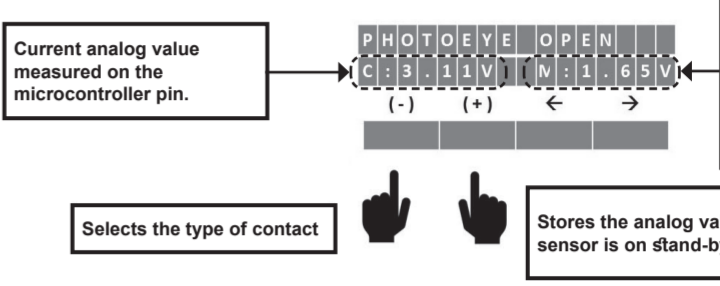
Selects the pushbutton for 'Pedestrian' function



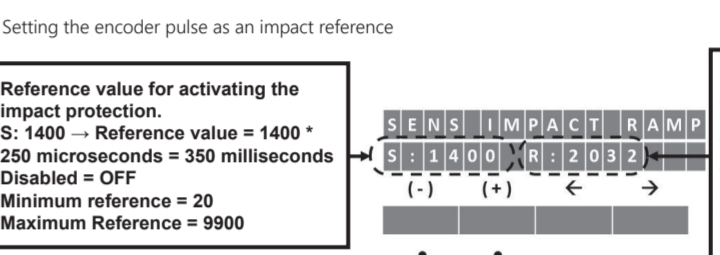
Opening / Closing photocells setting screens



Setting the photocell analog output (Edge sensor)



Ramp / travel impact sensor setting screens



Decreases the reference value

Increases the reference value

Notes when there is an impact protection:

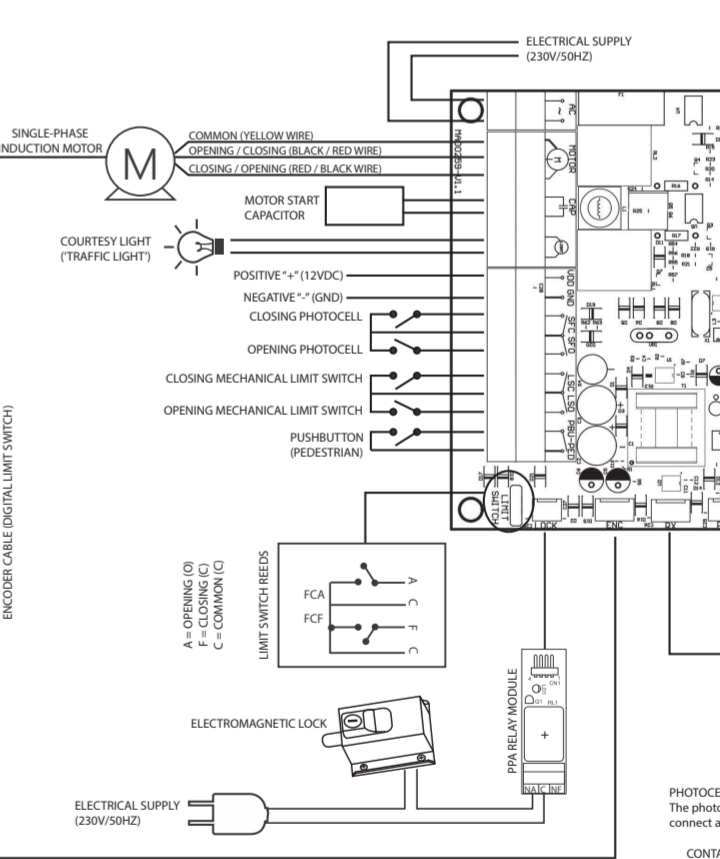
- During closing cycle → Total reversion until the opening limit switch.
- During opening cycle → Partial reversion for 5 seconds, just to release the gate from the object.

Reference value for activating the impact protection.

- S: 1400 → Reference value = 1400 * 250 microseconds = 350 milliseconds
- Disabled = OFF
- Minimum reference = 20
- Maximum Reference = 9900

Actual value of the encoder pulse width when the gate is moving.

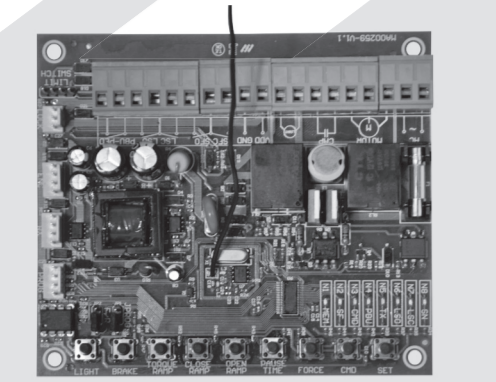
- A: 2032 → Actual value = 2032 * 250 microseconds = 508 milliseconds
- When the actual value exceeds the reference value, the gate movement is reversed for protection.



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.

PHOTOCELLS The photocell outputs accept NO, NC, pulse, and resistive contact, just correct and program it according to the chosen option.

TECHNICAL MANUAL AGILITY HÍBRIDA CONTROL BOARD



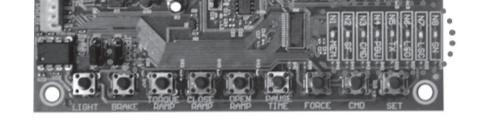
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MAIN FEATURES

- Full Range AC Power Supply (90 – 240V).
- Embedded 433.92MHz digital radio frequency receiver.
- Encrypted and detachable EEPROM memory for storage of 256 remote controls and control board programming.
- Analog limit switch, Digital Encoder or Hybrid system.
- All programming and settings of the control board are carried out by using TACTLED technology or PROG (programmer).
- Automatic storage of 'A/F' (Opening/Closing) travel time (analog system) or position by encoder (digital / hybrid system).
- Output ports for lock and courtesy light modules.
- Input ports for loose RF receiver, pushbutton, closing and opening photocells.
- Digital impact sensing with reversion of the gate.
- 'Pedestrian' function (remote control and external pushbutton).
- Limit switches and pushbutton input ports, configurable as NO (normally open) or NC (normally closed).
- The input of the opening and closing photocells is configurable as either NO (normally open) or NC (normally closed) contacts, pulse output or analog output (edge sensor).

CHART: LED INDICATIONS

Guide for the functions of the indicator LEDs on the board, when it is not in programming mode, i.e., 'JPROG' jumper open.



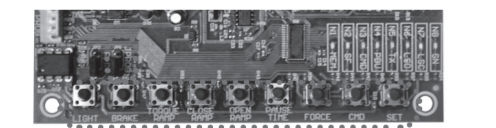
LED	INDICATION
SN	Flashes every 7 seconds: Control board switched on and operational.
LSC	Lit: Closing limit switch sensor activated.
LSO	Lit: Opening limit switch sensor activated.
TX	Lit: Command by registered control remote.
PBU	Lit: Command by external pushbutton.
CMD	Lit: Command by loose receiver or by the tactled 'CMD' button.
SF	Lit: Closing photocell blocked.
MEM	Lit: Empty memory, without remote controls registered. Off: Memory with register of remote controls. Flashing: Memory missing or defective. In this case, the control board will enter BASIC OPERATION MODE.

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

Programmable functions with 9 adjustment levels									
Minimum	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Maximum	
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9
N0	N1	N2	N3	N4	N5	N6	N7	N8	N9

CHART: COMMAND SETTINGS

Quick configuration guide. In order to enter programming mode, one must close the 'JPROG' jumper on the board.



BUTTON	FUNCTION
SET	Add or erase remote controls
CMD	Command received when opening
FORCE	Strength (Electronic clutch)
PAUSE TIME	Automatic closing time
OPEN RAMP	Opening ramp
CLOSE RAMP	Closing ramp
TORQUE RAMP	Ramp Torque (Strength)
BRAKE	Brake
LIGHT	Courtesy light time

ERASING ALL REMOTE CONTROLS

Erases and boots the memory in order to add new remote controls.

- Instructions:
- The gate must be still.
 - Close the 'JPROG' jumper;
 - Press and release the 'SET' button on the control board (once);

