TORO-I

Quick installation and programming guide

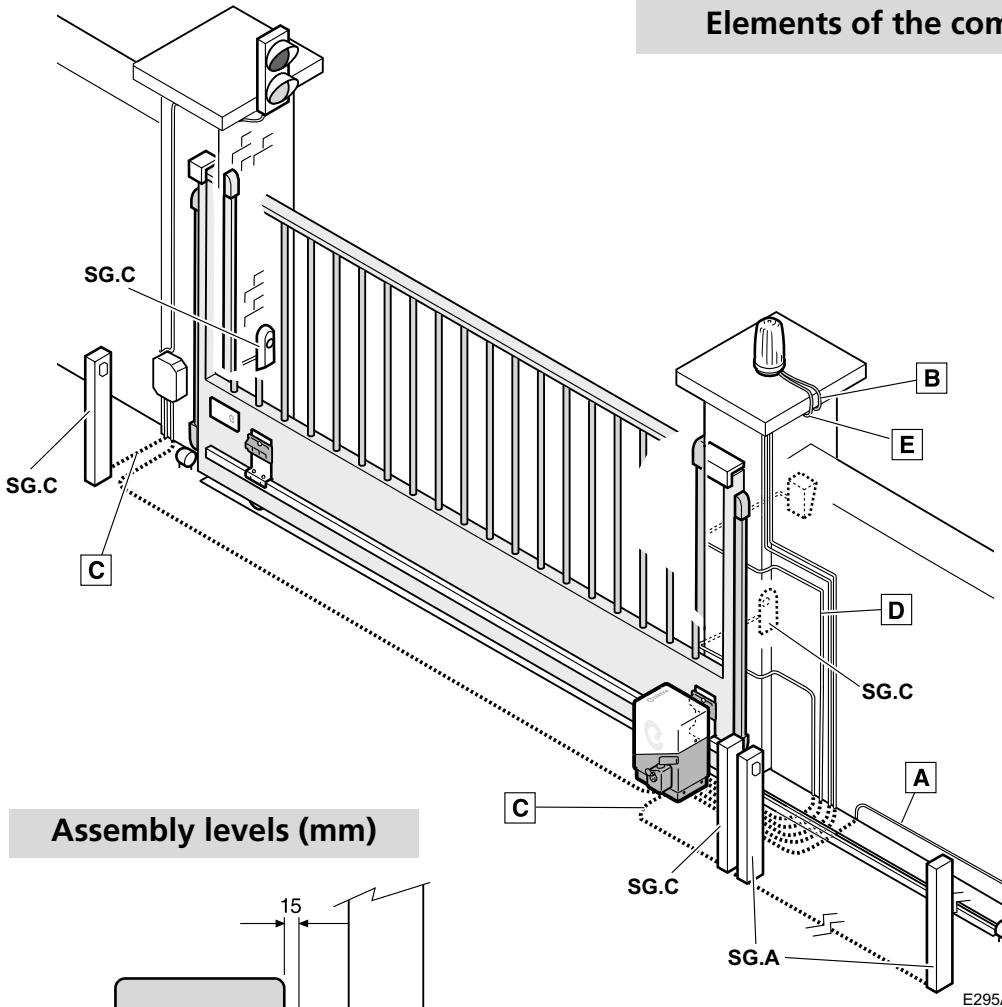
English

WARNING

This quick guide is a summary of the complete installation manual. The manual contains safety warnings and other explanations which must be taken into account. The most recent versions of this guide and the installation manual are available at the "Downloads" section on Erreka's website.
http://www.erreka-automation.com

The options and functions described in this guide apply for the firmware version indicated on the circuit. The firmware, as part of a process of continuous improvement, is subject to new functionalities or upgrades being included as a result of new versions which are not necessarily compatible with previous ones. For this reason, some options or functions may differ or be unavailable if your firmware is older than shown in this guide.

Elements of the complete installation

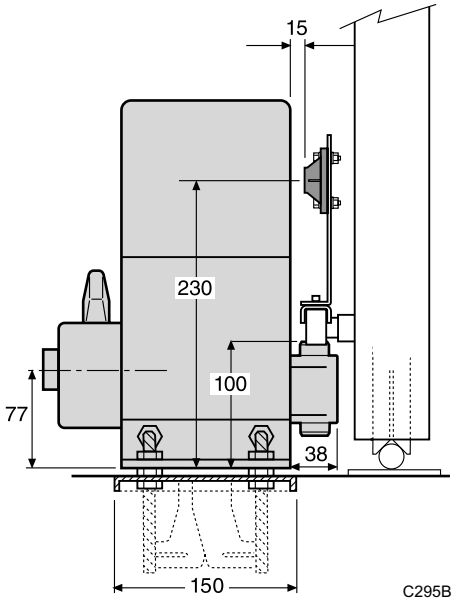


Photocells

SG.A: opening photocell,
enable: C4 10
enable testing: C4 11

SG.C: closing photocell,
enable: C5 10
enable testing: C5 11
enable with opening disabled: C520
enable testing with opening disabled: C521

Assembly levels (mm)

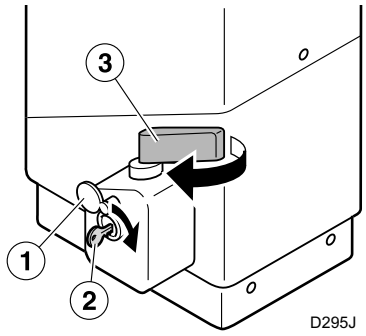


ELECTRICAL WIRING:

Element	N° wires x section	Maximum length
A: Main power supply	3x1.5mm^2	30m
B: Flashing light	2x0.5mm^2	20m
C: Photocells (Tx / Rx)	2x0.5mm^2 / 4x0.5mm^2	30m
D: Pushbutton/wall key	2x0.5mm^2	50m
E: Antenna	Coaxial cable 50Ω (RG-58/U)	5m

V1.08 or later

MSM-049/02 – 2020-01-13



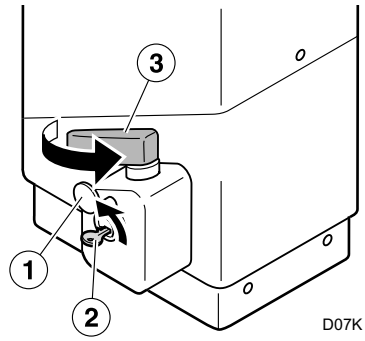
Unlocking

1 Turn the cover (1).

2 Insert the key (2) and turn it clockwise without forcing it (the cylinder will be pushed out a few millimetres by the spring).

3 Operate the handle (3) by turning it 180° to the left. The gate can now be operated manually.

4 In order to extract the key and leave the operator unlocked, push inwards and turn anti-clockwise.



Locking

1 Introduce the key (2) and turn clockwise without forcing it, until the cylinder is pushed out by the spring.

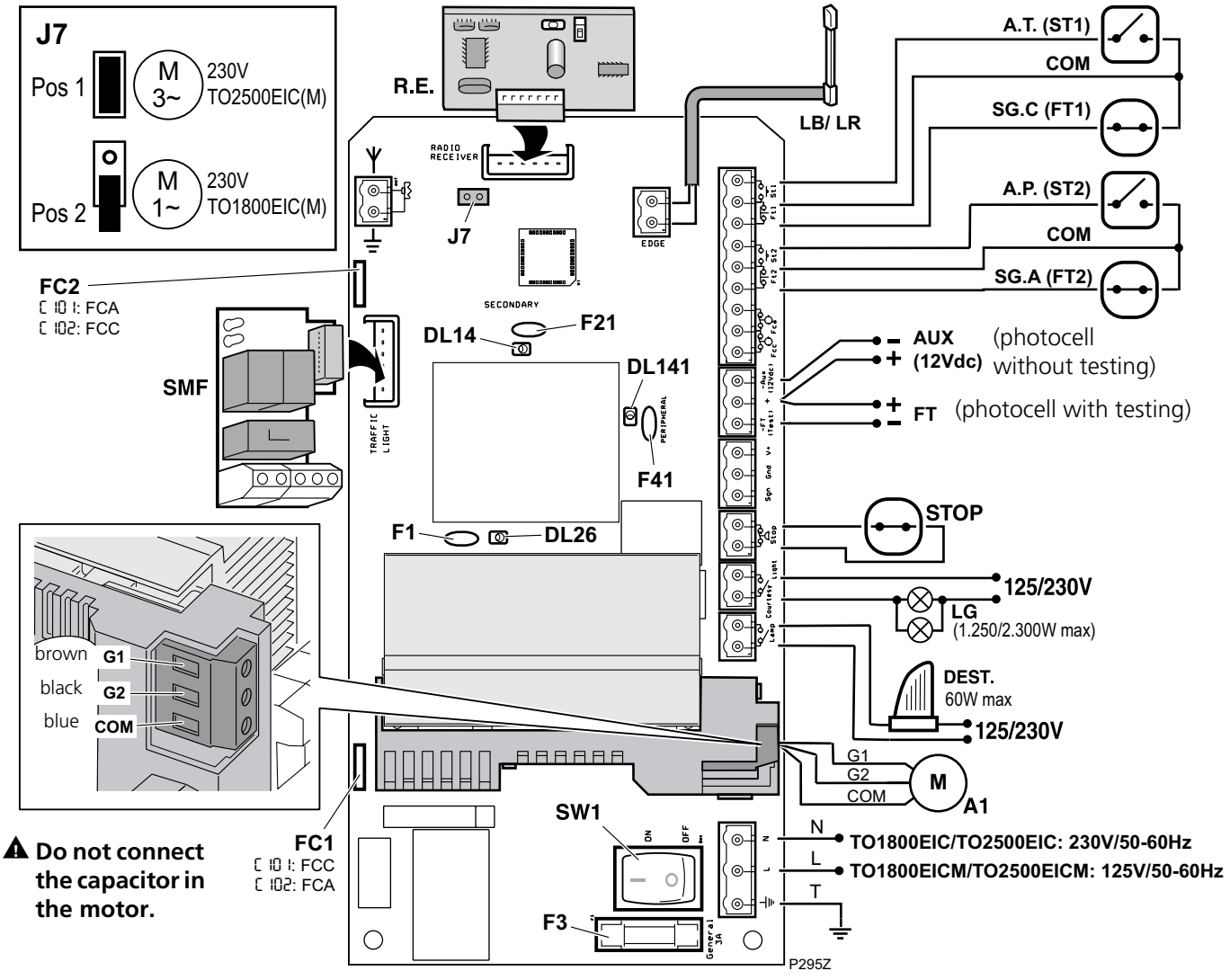
2 Operate the handle (3) by turning it 180° to the right.

3 Push the key (2) in and turn it anti-clockwise (pushing it in completely in order to turn).

4 Turn the key (2) and remove the cover (1) until the cylinder is covered.

5 Move the gate manually until interlocked in the motor.

General connections



⚠ **Do not connect the capacitor in the motor.**

F1 Primary Fuse (0.25A) settable*

F21 Secondary Fuse (0.9A) settable*

F3 Main Fuse (3A)

F41 Peripheral Fuse (0.35A) settable*

*: resets automatically when overload ends

DL14 LED** fuse F21

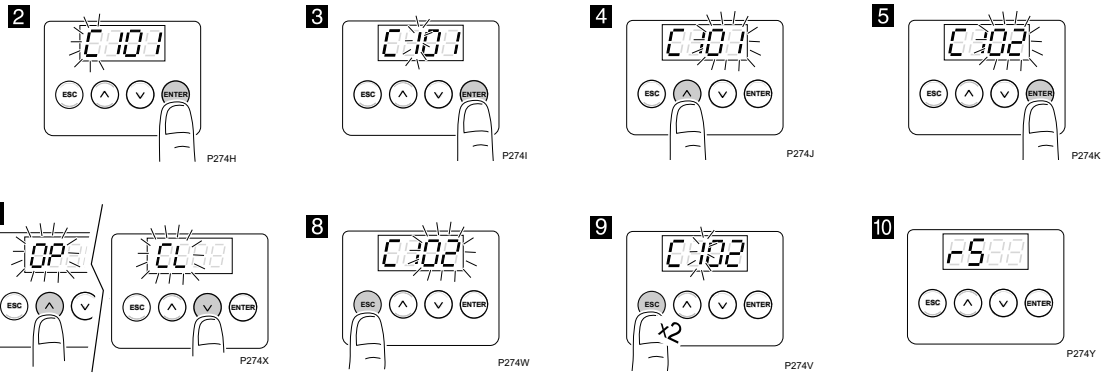
DL141 LED** fuse F41

**: DL ON: fuse closed; DL OFF: fuse open

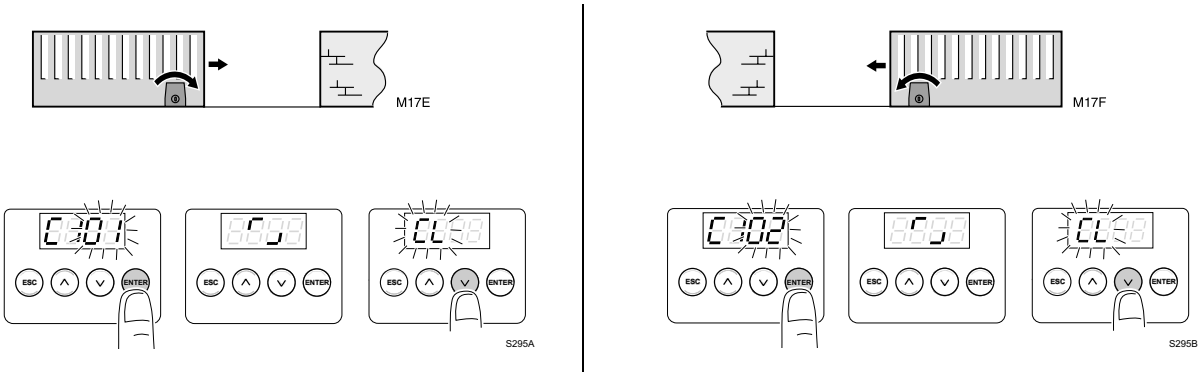
DL26 DC bus LED

Turning direction change and check (C I)

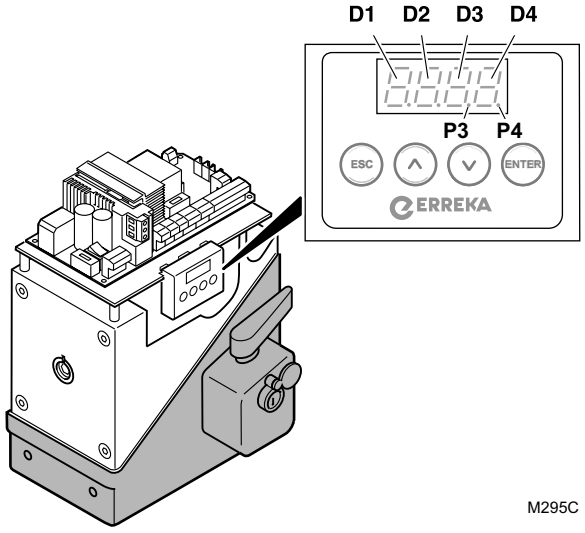
1 Press ENTER, with the display showing rSXX (rS88, rS88, rS88, rS88, etc).



☞ Interchange the cables connected to terminals G1 and G2 if turning direction is not as shown below, in accordance with C 101, C 102 and the position of the operator (left or right):



Display indications



P3: communication with inverter module
P4: encoder active

D1 and D2:

CL	(static)	Gate closed
CL	(flashing)	Gate closing
OP	(static)	Gate open
OP	(flashing)	Gate opening
PC	(flashing)	Pedestrian door closing
PO	(static)	Pedestrian door open
PO	(flashing)	Pedestrian door opening
XX	(countdown)	Gate on standby
PA	(static)	Pause (operation not complete)
StOP		STOP connector enabled
HEAt		Excessive heating inverter module
COn		Communication failure with inverter module

D3 and D4 (during operation):

8888	FT2 activated	8888	FT1 activated
8888	Flashing light	8888	green traffic light activated
8888	Internal FCC activated	8888	Internal FCA activated
8888	2nd radio channel (or RSD)	8888	1st channel radio signal
8888	External FCC activated	8888	External FCA activated
8888	ST2 activated	8888	ST1 activated
8888	LG activated	8888	red traffic light activated

D3 and D4 (in case of failure):

88C4	Opening safety device enabled
88C5	Closing safety device enabled
88C9	Safety strip enabled
88E1	Encoder motor shut down
88F1	Force limit exceeded

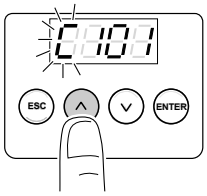
Total opening radio code programming P 1 (with RSD receiver only, C80 1)

☞ If a receiver other than RSD is used, see the corresponding instructions.

☞ Select the option C80 1 (RSD receiver) before starting programming.

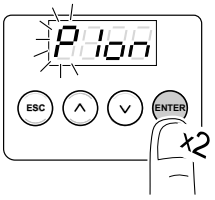
1 Press ENTER, with the display showing rSXX (rS88, rS88, rS88, rS88, etc).

2



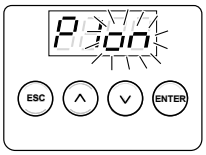
P274B

3



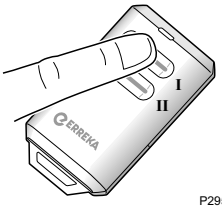
P274C

4



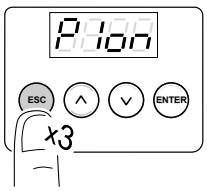
P274D

5



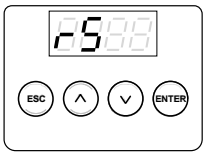
P295E

6



P274F

7



P274G

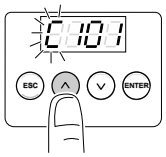
Pedestrian opening radio code programming, P2 (with RSD receiver only, C80 1)

☞ This procedure is the same as for total opening, but using parameter P2 instead of P 1.

Open/close programming (P3)

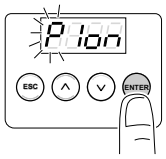
1 Press ENTER, with the display showing rSXX (rS88, rS88, rS88, rS88, etc).

2



P274B

3

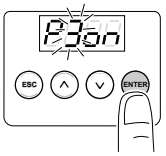


P274M

4

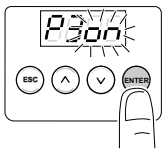
P274N

5



P274O

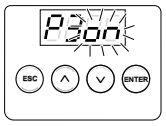
6



P274P

☞ Before programming, carry out an opening and closing movement at normal and slow speed in order to detect the corresponding currents (parameter A6XY).

7



P274Q

8 Start opening by pressing the transmitter, ST1 or ^.

9 Start slowdown by pressing the transmitter, ST1 or ^.

10 Wait for it to come to a stop at the end of travel.

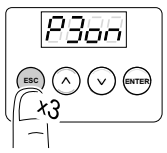
11 Start closing by pressing the transmitter, ST1 or ^.

12 Start slowdown by pressing the transmitter, ST1 or ^.

13 Wait for it to come to a stop at the end of travel.

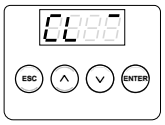
☞ Once programming is complete, the parameter A6XY is shown, indicating the suggested currents for normal speed (X) and fast speed (Y). This can be modified if required.

14



P274S

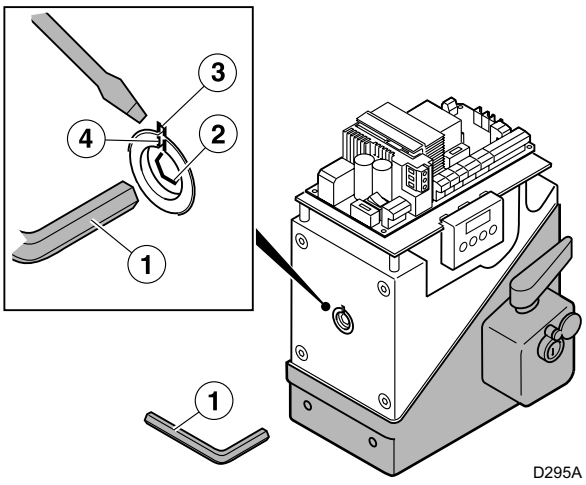
15



P274U

☞ **Pedestrian opening** is programmed using the parameter F3 (see "Complete programming chart").

Clutch adjustment



D295A

1 Insert the Allen key (1) in the housing (2).

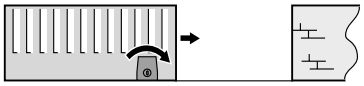
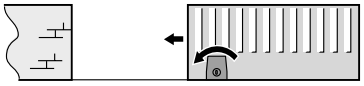
2 Turn the Allen key until the notches (3) and (4) face each other.

3 Insert a screwdriver in the notches (3) and (4) in order to immobilise the transmission and adjust the clutch by turning the key (1). Turning clockwise increases the power, whilst turning anticlockwise decreases it.

⚠ **Torque adjustment, respecting the maximum closing forces set out in Standard EN12453:2000. Make the measurements as described in Standard EN 12445:2000.**

4 If the control panel has torque adjustment (PM), set it to the maximum.

Complete programming chart

D1	D2	Parameter	D3	D4	Preset option	Options or values
C	1	Motor turning direction and limit switches configuration	0	1	x	
			0	2		
	3	Type of gate	0	2	x	Sliding gate
	4	Opening safety device (photocell or strip)	0	0	x	Device not installed
			1	0		Device without testing
			1	1		Device with testing
	5	Closing safety device (photocell or strip) Closing photocell with C520 or C521, also prevents the start of gate opening	0	0	x	Device not installed
			1	0		Device without testing
			1	1		Device with testing
			2	0		Device without testing
			2	1		Device with testing
	7	Encoder and limit switches (when using external limit switches, connect them to the corresponding terminals of the control board)	0	0		No encoder or limit switches
			0	2	x	With internal limit switches
			0	4		With encoder and internal limit switches
			0	6		With external limit switches
			0	7		With encoder and external limit switches
	8	Radio receiver	0	1		RSD card (frame, not decoder)
			0	2	x	Twin-channel decoder card
	9	Safety strip type	0	1	x	Contact edge
			0	2		Resistive edge
	A	Slowdown	0	0		No slowdown
			0	1	x	Slowdown in opening and closing
			0	2		Slowdown in opening
			0	3		Slowdown in closing
P	1	Total opening radio code programming	o	n		
	2	Pedestrian opening radio code programming	o	n		
	3	Gate open/close programming	o	n		
F	1	Key command using ST1 and ST2 pushbuttons	0	0		ST1 and ST2 without effect, key commands are made by radio (channel 1: total opening-closing, channel 2: pedestrian opening-closing)
			0	1	x	ST1 total opening-closing, ST2 pedestrian opening-closing
			0	2		ST1 total opening, ST2 total closing
			0	3		Dead-man mode
			0	4		Dead-man mode in closing
	2	Operation mode (step-by-step or automatic) and stand-by time (in seconds) in automatic mode	0...5.	0...9	00	00: step-by-step mode 01: automatic mode and stand-by time 1 second; ... 59: automatic mode and stand-by time 59 sec.; 1.0: 1 min. 0 sec.; ...; maximum 4 minutes
	3	Pedestrian opening	0...9	0...9	40	00: Pedestrian opening is not carried out 01: 1% of total opening 12: 12% of total opening 99: 99% of total opening (equivalent to 100%)
	4	Pedestrian closing mode (step-by-step or automatic) and stand-by time (in seconds) in automatic mode	0...5.	0...9	00	00: step-by-step mode 01: automatic mode and stand-by time 1 second; ... 59: automatic mode and stand-by time 59 sec.; 1.0: 1 min. 0 sec.; ...; maximum 4 minutes

A	0	Flashing light	0	1	x	No pre-warning, static output
			0	2		With pre-warning, static output
	1	Garage light time	0...5.	0...9	03	59 = 59 sec.; 2.5 = 2 min. 50 sec., etc
	2	Gate speed	0	1...9	03	01: minimum speed (40Hz); 02: 45Hz, 03: 50Hz, 04: 55Hz, ... 09: maximum speed (80Hz)
	3	Slowdown speed	0	1...9	03	01: minimum speed (21Hz); 02: 22Hz, 03: 23Hz, 04: 24Hz, ... 09: maximum speed (29Hz)
	6	Maximum trapping current (each value equivalent to 0.5A) The digit D3 can be used to adjust current to normal speed The digit D4 can be used to adjust current to slow speed	0...9	0...9	00	00: disabled; 01: disabled at normal speed and 0.5A at slow speed; 10: 0.5A at normal speed and disabled at slow speed; ...; 65: 3A at normal speed and 2.5A at slow speed;...; 99: 4.5A at normal and slow speed
	7	Closing photocell used during standby (in automatic mode only)	0	0		No effect
			0	1		Immediate closing after crossing
			0	2	x	Restarts standby time
	8	Effect of pushbuttons (ST1, ST2) during stand-by time (in automatic mode only)	0	0		No effect
			0	1		Cause immediate close
			0	2	x	Restart stand-by time
	9	Opening mode	0	1		Collective opening
			0	2	x	Step-by-step alternative shutdown
			0	3		Automatic alternative shutdown (only in automatic mode, F2 ≠ 00
	b	Using the EPS1 card connector For parameters Ab02 and Ab03, use the EPS1 card and bridge the network input cable connectors instead of disconnecting them from the network.	0	0	x	use for standard traffic light
			0	1		use for brakes
			0	2		NC contact with gate open (L1-COM) and gate closed (L2-COM)
			0	3		impulse 1 second Open (L1-COM) when starting opening and Close (L2-COM) when starting closing. Allows another board to be activated
	E	Special functions	0	0	x	no special function
			0	2		industrial (1.5s delay in shutdown and reversing)
n	0	Programming lock key Be sure to remember any key used, for future access to the programming	X	X	0000	The preset option is 0000 (no key). If any figure is changed, this is considered a key. Select the required key (starting with D1) using UP and DOWN. Press ESC to cancel or ENTER to confirm and move to D2, and so on.
	1	Operations carried out (total counter)	X	X		Indicates the hundreds of cycles completed (for example, 68 indicates 6,800 cycles completed)
	2	Operations carried out (partial counter, restarts with ST1 and ST2)	X	X		Indicates the hundreds of cycles completed (for example, 68 indicates 6,800 cycles completed)
	3	Restore to default values, operation, radio and configuration	r	5		With the display showing n3r5 (with 3 flashing), press ENTER and b0rr will flash. Hold down ENTER until D1 shows b, restoring all programming menu values to default.