• Rev. 01

Last version of this manual

IP2437EN • 2024/12/04

Technical manual

Ditec I0N4B - I0N6B

Sliding gates

(translation of the original instructions)

GENERAL SAFETY PRECAUTIONS FOR THE USER

WARNING! Important safety instructions • Please follow these instructions carefully • Failure to observe the information given in this manual may lead to severe personal injury or damage to the equipment • Keep these instructions for future reference.

WARNING! Disconnect power supply before any cleaning or maintenance operation • This manual and those for any accessories can be downloaded from www.ditecautomations.com

This installation manual is intended for qualified personnel only • Installation, electrical connections and adjustments must be performed by qualified personnel, in accordance with Good Working Methods and in compliance with the current regulations • Read the instructions carefully before installing the product. Wrong installation could be dangerous • Before installing the product, make sure it is in perfect condition • The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger • Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard • Make sure that the temperature range indicated in the technical specifications is compatible with the installation site • Before installing the motorization device, make sure that the existing structure, as well as all the support and guide elements, are up to standards in terms of strength and stability. Verify the stability and smooth mobility of the guided part, and make sure that no risks of fall or derailment subsist. Make all the necessary structural modifications to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas • The motorization device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorized, or for any deformation during use • The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account the applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorized door or gate • The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorized door or gate. Display the signs required by law to identify hazardous areas • Each installation must bear a visible indication of the data identifying the motorized door or gate • Before connecting the power supply, make sure the plate data correspond to those of the mains power supply. An omnipolar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply. Check that there is an adequate residual current circuit breaker and a suitable overcurrent cutout upstream of the electrical installation in accordance with Good Working Methods and with the laws in force • When requested, connect the motorized door or gate to an effective earthing system that complies with the current safety standards • Before commissioning the installation to the end user, make sure that the automation is adequately adjusted in order to satisfy all the functional and safety requirements, and that all the command, safety, and manual release devices operate correctly • During maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts • The protection cover of the operator must be removed by qualified personnel only • The electronic parts must be handled using earthed antistatic conductive arms. The manufacturer of the motorization declines all responsibility if component parts not compatible with safe and correct operation are fitted • Only use original spare parts for repairing or replacing products • The installer must supply all information concerning the automatic, manual and emergency operation of the motorized door or gate, and must provide the user with the operation and safety instructions.

Declaration of incorporation of partly completed machinery

(Directive 2006/42/EC, Annex II-B)

We,
ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden,

Declare, under our sole responsibility, that the type of equipment with the name:

Ditec ION4B-6B automation for swing gates

Complies with the following directives and their amendments:

2006/42/EC Machinery Directive (MD), regarding the following essential health and safety requirements: 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.2.3, 1.2.4.2, 1.2.6, 1.3.9, 1.4.3, 1.7.2, 1.7.3, 1.7.4, 1.7.4.1, 1.7.4.2.
2014/30/EU Electromagnetic Compatibility Directive (EMCD)
2014/53/EU Radio Equipment Directive (RED)
2011/65/EU Restriction of Hazardous Substances (RoHS 2)
2015/863/EU Restriction of Hazardous Substances (RoHS Amendment 2)

Harmonised European standards which have been applied:

EN IEC 55014-2:2021
EN IEC 61000-6-1:2019
EN IEC 61000-6-3:2021
ETSI EN 301 489-1 V2.2.3
ETSI EN 301 489-17 V3.2.4
ETSI EN 300 220-2 V3.2.1
EN IEC 62311:2020
BS EN IEC 55014-2:202
BS EN IEC 61000-6-1:2019
BS EN IEC 61000-6-3:2021
ETSI EN 301 489-3 V2.3.2
ETSI EN 300 220-1 V3.1.1
ETSI EN 300 328 V2.2.2

Other standards or technical specifications which have been applied:

EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A15:2021
BS EN 60335-1:2012 + A15:2021
BS EN 60335-2-103:2015
IEC 62368-1:2018 + COR1:2020
EN 60335-2-103:2015
EN IEC 62368-1:2020 + A11:2020 + AC:2020

The manufacturing process guarantees that the equipment complies with the technical documentation.

Do not put equipment into service until the installed finished Automatic Entrance System has been declared compliant with Directive 2006/42/EC on Machinery.

Responsible for the technical documentation:

Matteo Fino
Ditec S.p.A.
Largo U. Boccioni, 1
21040 Origgio (VA)
Italy

Signed on behalf of ASSA ABLOY Entrance Systems AB by:

Place	Date	Signature	Position
Origgio	2024/12/04	Matteo Fino	CEO Ditec

IP2437EN

UK Declaration of Conformity

We:
ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declare under our sole responsibility that the types of equipment with names:

Ditec ION4B-6B automation for swing gates

Complies with the following directives and their amendments:

- Supply of Machinery (Safety) Regulations 2016
- Electromagnetic Compatibility Regulations 2016
- Radio Equipment Regulations 2017
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS)

Harmonized European standards that have been applied:

EN IEC 55014-2:2021
EN IEC 61000-6-1:2019
EN IEC 61000-6-3:2021
ETSI EN 301 489-1 V2.2.3
ETSI EN 301 489-17 V3.2.4
ETSI EN 300 220-2 V3.2.1
EN IEC 62311:2020
BS EN IEC 55014-2:202
BS EN IEC 61000-6-1:2019
BS EN IEC 61000-6-3:2021
ETSI EN 301 489-3 V2.3.2
ETSI EN 300 220-1 V3.1.1
ETSI EN 300 328 V2.2.2

Other standards or technical specifications that have been applied:

EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A15:2021
BS EN 60335-1:2012 + A15:2021
BS EN 60335-2-103:2015
IEC 62368-1:2018 + COR1:2020
EN 60335-2-103:2015
EN IEC 62368-1:2020 + A11:2020 + AC:2020

The manufacturing process ensures the compliance of the equipment with the technical file.

Responsible for technical file:

Matteo Fino
Ditec S.p.A.
Largo U. Boccioni, 1
21040 Origgio (VA)
Italy

Signed for and on behalf of ASSA ABLOY Entrance Systems AB by:

Place	Date	Signature	Position
Origgio	2024/12/04	Matteo Fino	CEO Ditec

INDEX

Key

This symbol indicates instructions or notes regarding safety, to which special attention must be paid.

This symbol indicates useful information for the correct functioning of the product.

Default values

1. Technical data

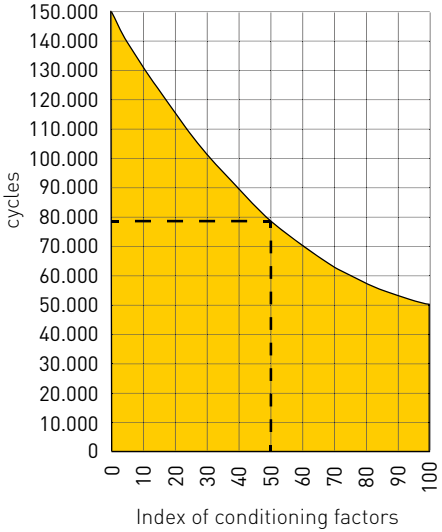
	Ditec ION4B	Ditec ION6B
Maximum stroke	20 m	
Maximum gate weight	400 kg	600 kg
Gate speed	0,1 ÷ 0,3 m/s	
Thrust	200 N nominali | 600 N Spunto	300 N nominali | 800 N Spunto
Power supply	100 - 240 V~, 50-60 Hz	100-120 V~ / 200-240 V~ (selectable by switch), 50-60 Hz
Fuse	In case of 120 V power supply, switch the selector of the power supply unit	
Power	T3.15A	T5A
Standby	100 W	150 W
Service class	< 0,6 W (unplugged accessories)	
Intermittence	INTENSIVE (tested up to 150.000 cycles)	
Cycles / hour *	S2= 60 min (T= 25°C) S3= 70% (T= 25°C)	
Continuous cycles *	40 (T= 25°C)	
Lifespan	56 (T= 25°C)	
Usage temperature (T)	50,000 to 150,000 cycles depending on the conditions indicated in the table (see product durability charts)	
Degree of protection	-20°C +55°C	-35°C +55°C **with active NIO**
Motor output	IP44	
Power supply to accessories	24V ⎓ 10A max	
Control panel	24V ⎓ 0,3A max	
Radio frequency	LCU50DC	
Storable radio codes	433.92 MHz (R0 → F0 → 43) - **default** 868.35 MHz (R0 → F0 → 86)	
Noise level L_{PA}	RCB100E receiver module included	
Codici radio memorizzabili	cod. BIXMR2	100= (R0 → MU → MU / 10) 200= (R0 → MU → MU / 20)
Livello di rumore L_{PA}	≤70 dB (A)	

* Indicative cycles considering a 6 m wing and factory settings (default speed of 20 cm/s). ION4B / ION6B allows a maximum speed of 30 cm/s (configurable). A cycle is considered an opening followed by a closing.

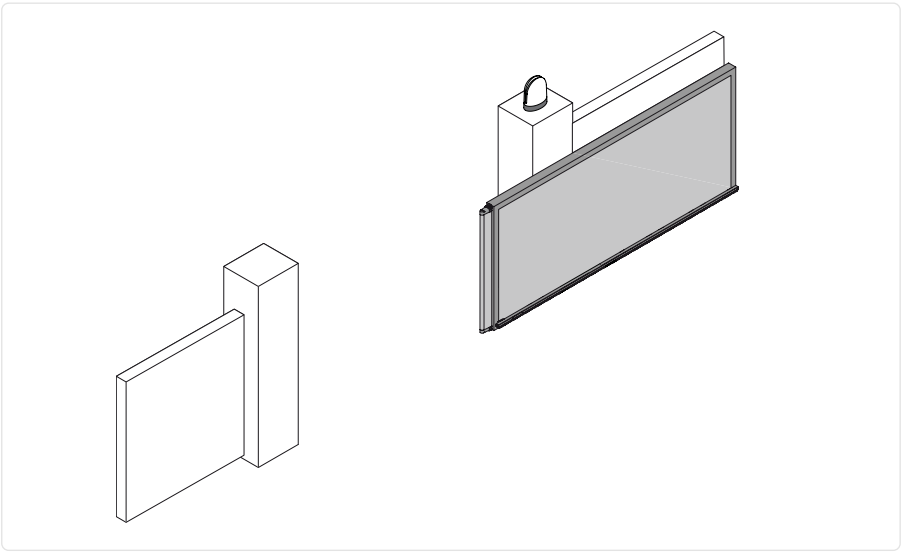
IP2437EN

Index of conditioning factors			
		ION4B	ION6B
Gate wing weight	>150Kg	10	-
	>200Kg	20	10
	>300Kg	30	20
	>400Kg	-	30
Gate wing width	>4m	20	10
	>8m	-	20
Wheel diameter <100mm		10	
Saline environment		10	
Safety edge installed		10	
R1/R2 > default		10	
VA/VC > default OC/CB < default		10	

Example of lifespan calculation for ION4B	
Gate wing weight>250Kg	20
Saline environment	10
Safety edges installed	10
VA/VC > default	10
Total stress index	50
Estimated lifespan - 80,000 cycles	
Estimated daily cycles 22 (for 10 years)	



2. Applications of use



3. Operating instructions

Use: For single-family/multi-family or commercial entrances with heavy driveway or pedestrian use.

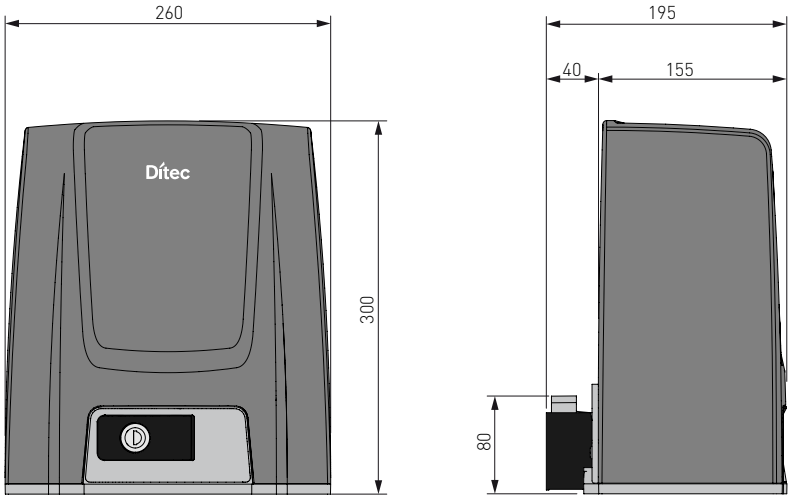
- The class of service, usage times and number of consecutive cycles are suggestions. They are statistically measured under average usage conditions and cannot be certain for every single case.
- For each automatic entrance, there are variables such as friction, balancing and environmental conditions that can substantially change the operating life and quality of the automatic entrance or some of its components (including the automated mechanisms). It is up to the installer to implement safety factors appropriate for each particular installation.

4. Machinery Directive

According to the Machinery Directive (2006/42/EC), the installer who motorises a door or gate has the same obligations as the manufacturer of a machine, and as such must:

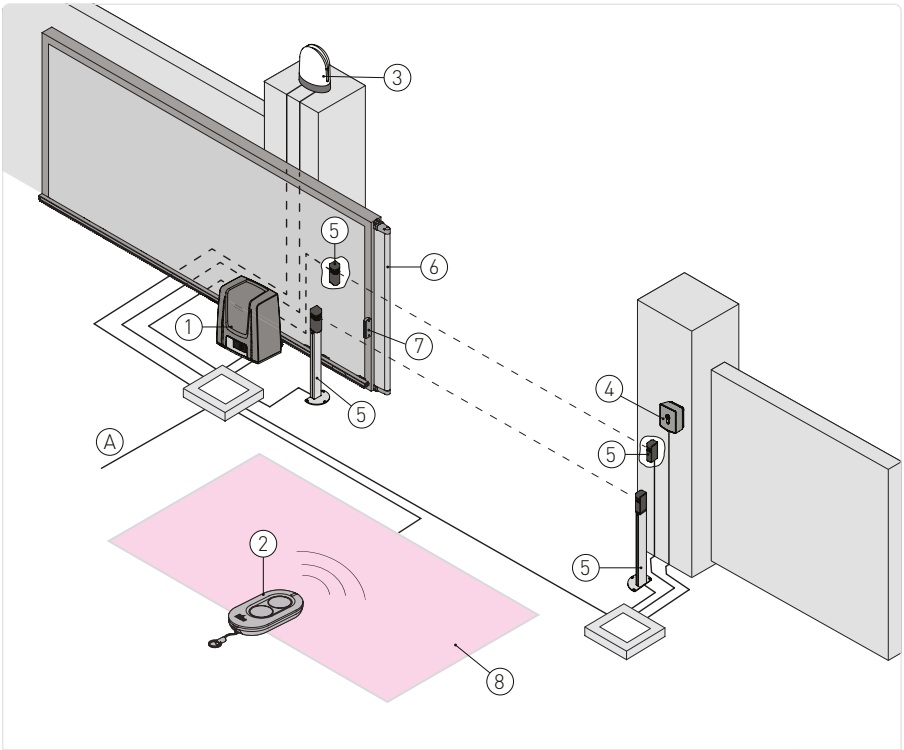
- prepare the technical documentation, which must contain the documents indicated in Annex V of the Machinery Directive (the technical documentation must be kept and made available to the competent national authority for at least ten years, starting from the date of construction of the motorised door);
- draw up the EC statement of conformity according to Annex II-A of the Machinery Directive and hand it over to the customer;
- affix the CE marking to the motorised door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

5. Dimensions



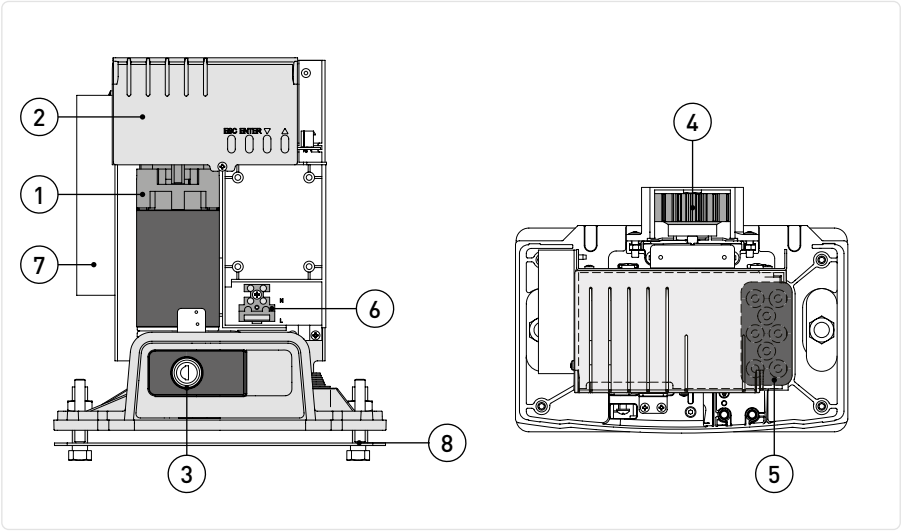
IP2437EN

6. Standard installation



Ref.	Code	Description	Cable
1	**Ditec ION4B - ION6B**	Actuator ION with LCU50DC control panel	3G x 1.5 mm²
A		Connect the power supply to a type-approved omnipolar switch, with a contact opening distance of at least 3mm (not supplied). See chapter 6. The connection to the mains must follow an independent path, separate from the connections to the control and safety devices.	
2	**ZEN**	Transmitter	/
3	**FLM**	Flashing light	2 x 1 mm²
	FL24	Antenna (integrated in the flashing light)	RG-58 coax cable (50 Ω)
4	**AXK4**	Digital combination wireless keypad	/
	AXK5M **AXK5N** **AXK5NM** **AXK5NI**	Wall-mounted key-operated selector switch with European cylinder Semi-recessed key-operated selector switch with European cylinder Wall-mounted key-operated selector switch without cylinder Semi-recessed key-operated selector switch without cylinder	4 x 0.5 mm²
	AXR7	RFID reader unit	5 x 0.5 mm²
5	**LIN2 - LIN2B** **AXP2 - LAB4**	Photocells	4 x 0.5 mm²
6	**SOFAP20 - SOF2M20** **SOF3M20 - SOFA15** **SOFA20-SOFA25**	Safety edge	2 x 0,5 mm² min
7	**GOPAV**	Radio system for sensitive edges	/
8	**LAB9**	Magnetic loop	2 x 1,5 mm²

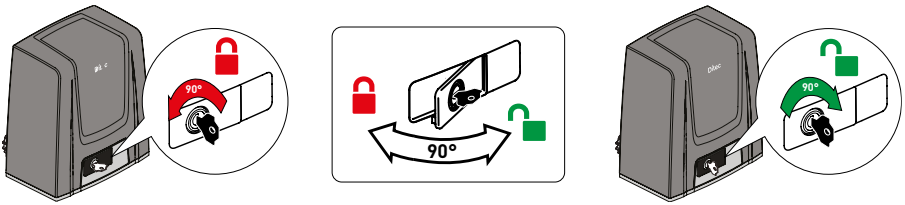
7. Main components



Ref.	Descripción
1	Motor
2	Control panel
3	Key release
4	Pinion
5	Cable inlet
6	Power supply terminal and fuse
7	Power supply
8	Anchorage base

7.1 Manual release label

In case of failure or power failure, insert and turn the key clockwise, open the door fully. Manually open the gate.
To re-lock the gate, close the door, turn the key counterclockwise and remove the key.



IP2437EN

8. Installation

The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

Unless otherwise specified, all measurements are expressed in mm.

8.1 Preliminary checks

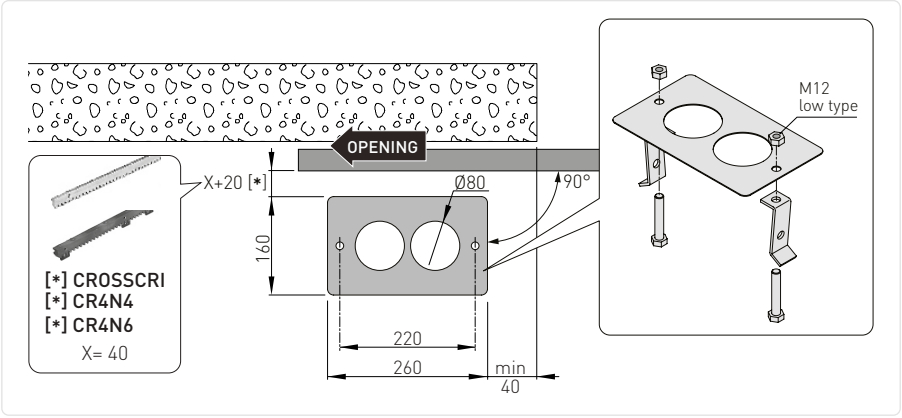
Check the stability of the wing (derailing and lateral falls) and the sliding wheels and that the upper guides do not cause any friction.
The sliding guide must be securely fixed to the ground for the full length within doorway and must have no irregularities that could hinder the movement of the wing.
The opening and closing stops must be fitted.
If the gate has slits, make sure they are covered to prevent shearing points or install active safety edges on the columns.

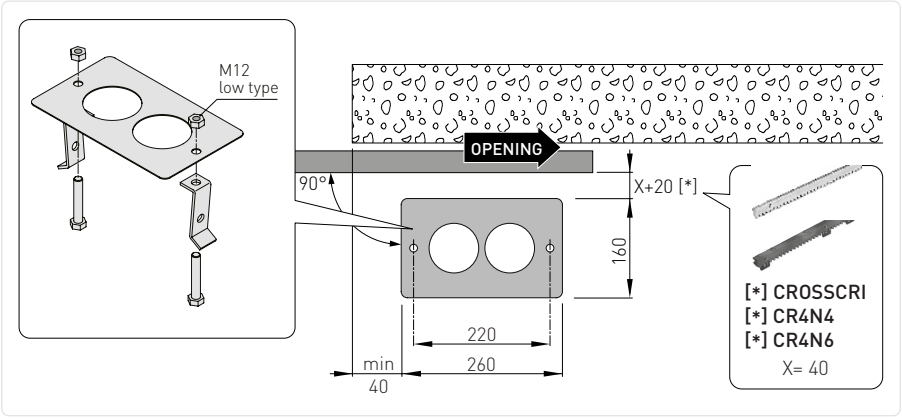
WARNING: Make sure that the gate can not exit the sliding guides and fall. Make sure that the protection system and any manual release function correctly.

8.2 Base plate position

Make a concrete base with the anchor ties and base plate embedded, which must be level and clean and of the size indicated in the figure.

NOTE: if the concrete base has already been made, base plate can be fixed using M8 plugs (not supplied).

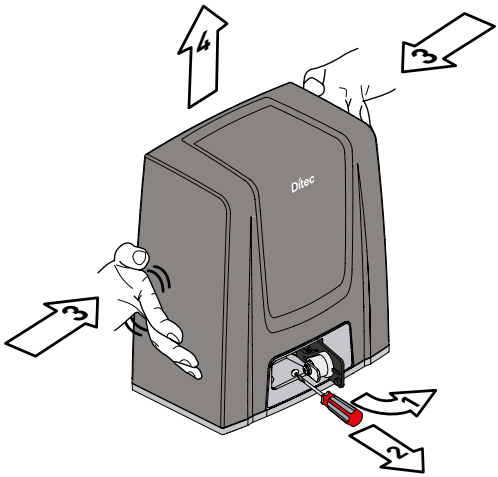




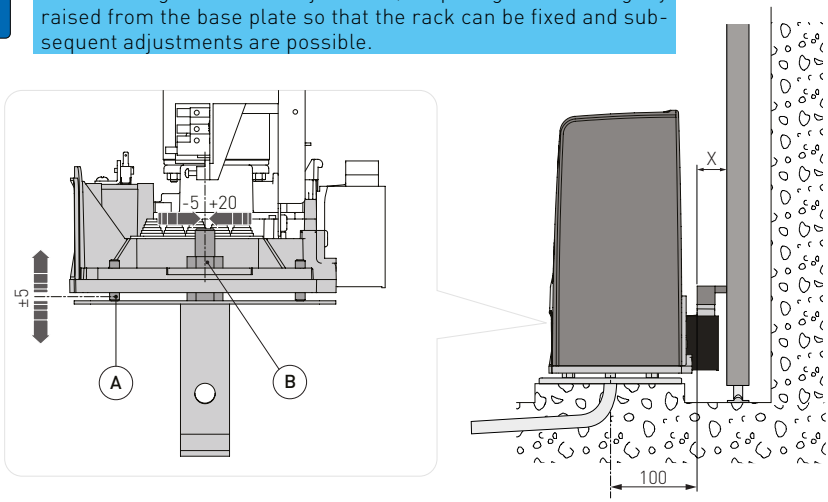
IP2437EN

8.3 Gearmotor installation

- Release the gearmotor [1] (see OPERATING INSTRUCTIONS).
- Loosen the front screw [2] and remove the casing by pressing on its sides [3-4].



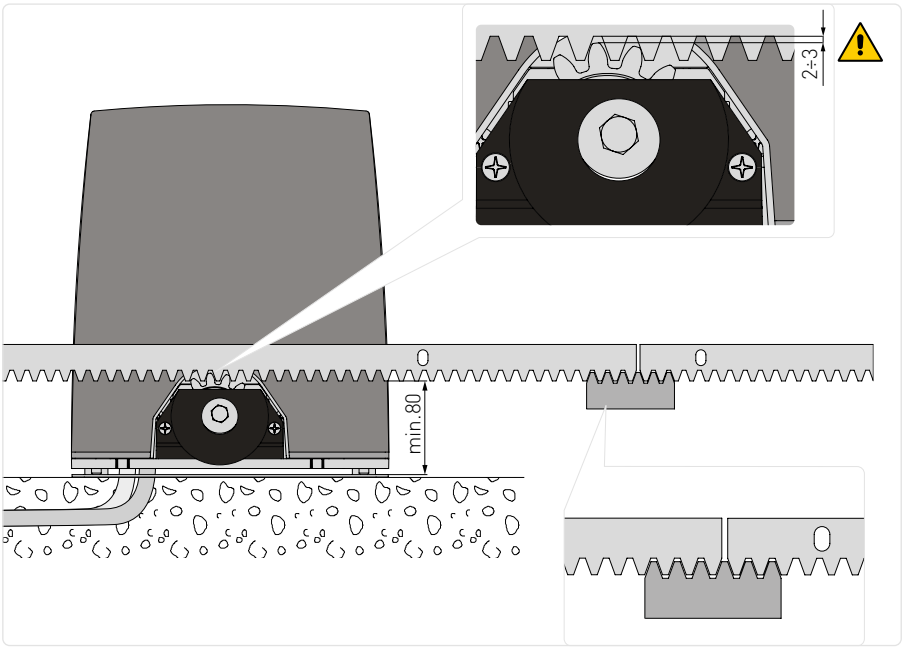
NOTE: during the vertical adjustment, keep the gearmotor slightly raised from the base plate so that the rack can be fixed and subsequent adjustments are possible.



- Place the gearmotor on the base plate.
- Adjust the gearmotor horizontally by sliding it along the slots of the gearmotor base and vertically with four levelling screws [A].
- After adjusting, fix the gearmotor using screws [B].

WARNING: the gearmotor must be suitably raised from the ground to avoid flooding. Tighten the [B] screws using a tightening torque of 20-25 Nm.

8.4 Rack installation



- Release the gearmotor (see OPERATING INSTRUCTIONS) and open the gate.
- Place the rack against the pinion and sliding the gate manually fix it along its whole length.

NOTE: To make it easier to align the rods correctly, use a scrap piece of rack and rest it underneath the junction point, as shown in the figure detail.

- Once fixed, vertically adjust the gearmotor to give a play of about 2 to 3 mm between the pinion and the rack.
- Secure the gearmotor with the [B] screws using a tightening torque of 20-25 Nm.
- Slightly lubricate the rack and pinion after assembly.
  Manually check that the gate slides evenly and without friction.

8.5 Operation with virtual encoder

I0N4B-I0N6B gearmotors do not require limit switches because they have a virtual encoder.
Mechanical opening and closing end stops must be installed.
The gate automatically slows when approaching the end stops.

WARNING: when the gate reaches the opening or closing limit stop, it reverses briefly (parameters AA → d0 ; AA → dC) to facilitate manual release of the gearmotor.

8.6 Installation of optional accessories

8.6.1 Magnetic limit switches (ref. NES100FCM)

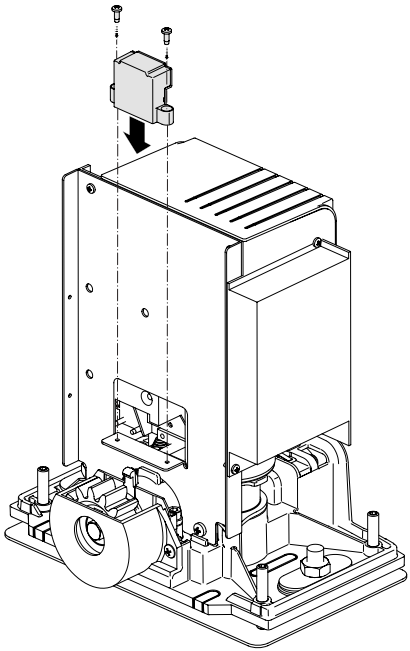
NOTE: The limit switch kit is used to stop the gate before it reaches the opening and closing mechanical stops. With a limit switch installed, slowdown is carried out at regulated power to overcome possible friction.

To position the limit switches, you can use the menu JF → IF.
The display shows the status of the limit switches:

- FA: opening limit switch configured and activated;
- FC: closing limit switch configured and activated;
- NO: (both parts of display active): opening limit switch not configured and activated;
- NO: (no part of display active): closing limit switch not configured and activated;
- --: (central part of display active): no limit switch activated.

With the limit switches configured as STOP (FA= SM; FC= SM) the anti-violation function is activated. When the automation stopped open or closed, if the gate backs off releasing the limit switch, it is brought back into position avoiding openings from external forces [energy saving must be disabled ES= OF].

NES100FCM

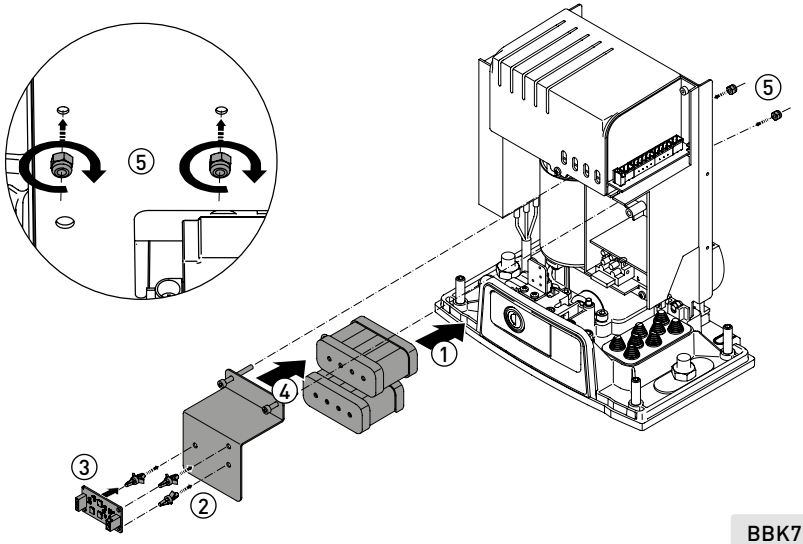


For complete instructions see manual:

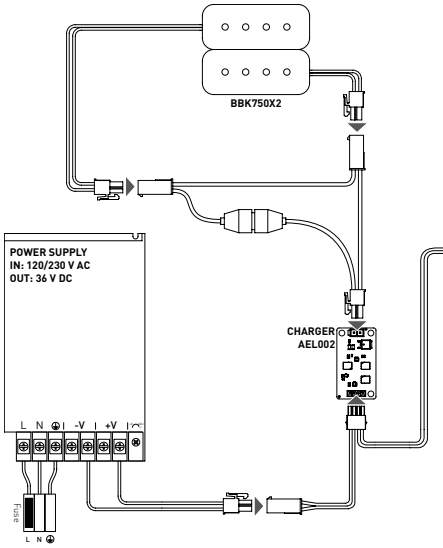
NES100FCM

8.6.2 Battery kit (ref. BBK750X2)

NOTE: The battery kit guarantees operation if there is a power cut.
For advanced control of battery-powered operation, refer to the IO → BT menu.



BBK750X2



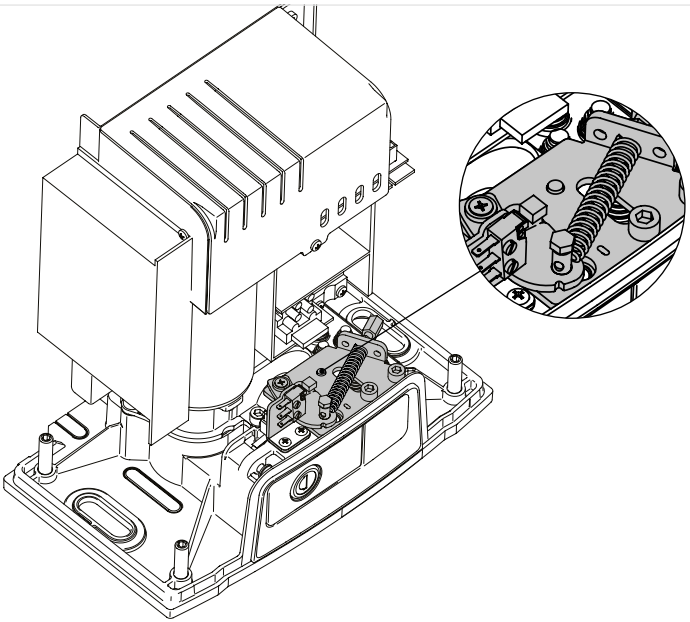
For complete instructions see manual:

BBK750X2

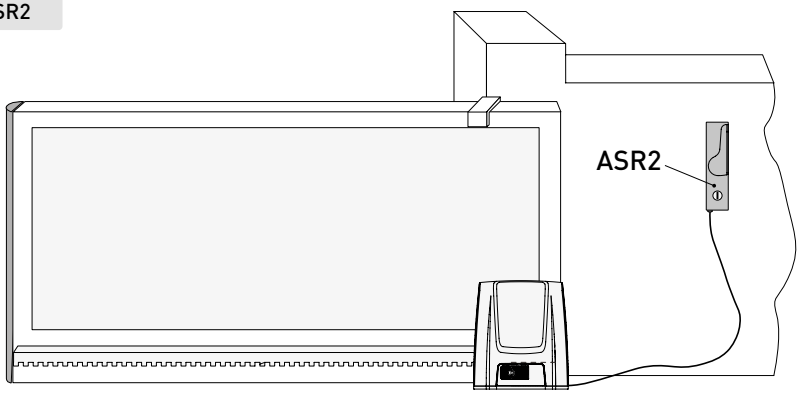
IP2437EN

8.6.3 Remote release handle (ref. IONSBM-ASR2)

IONSBM



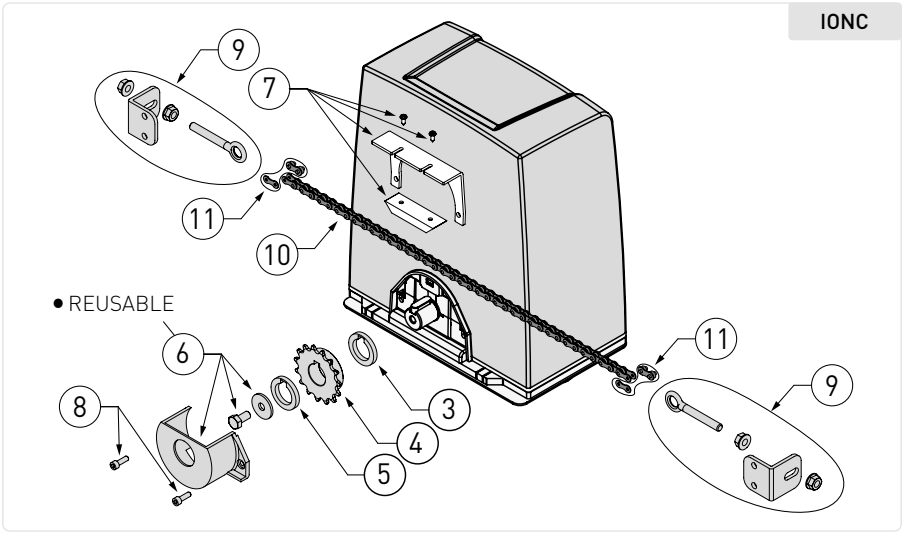
ASR2



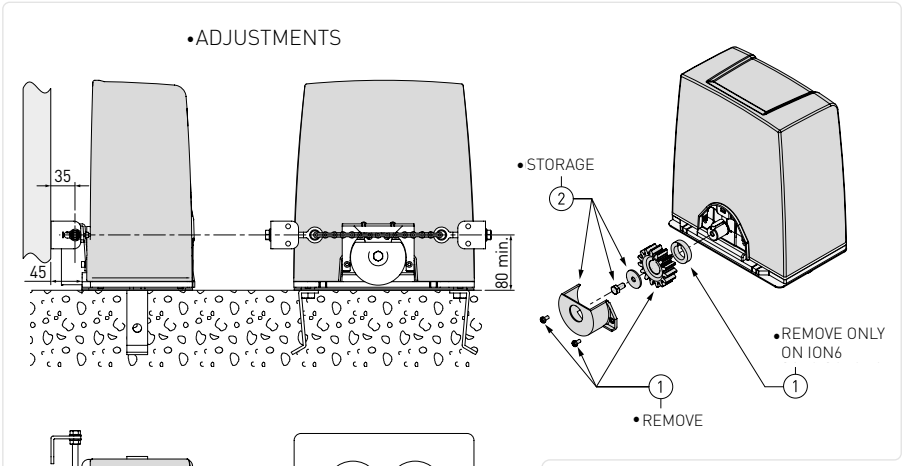
For complete instructions see manual:

IONSBM-ASR2

8.6.4 Chain kit (ref. IONC)



NOT INCLUDED
- 1pcs, roller chain DIN8187 ISO/R 606 ISO standard 081
- 2pcs, spring link clip ISO standard 081

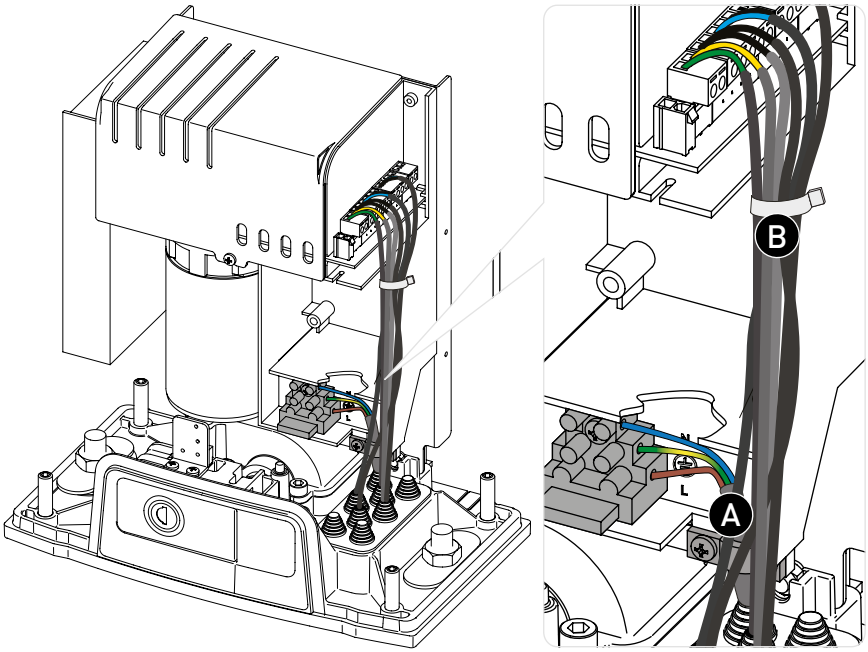


For complete instructions see manual:

IONC

IP2437EN

9. Electrical connections



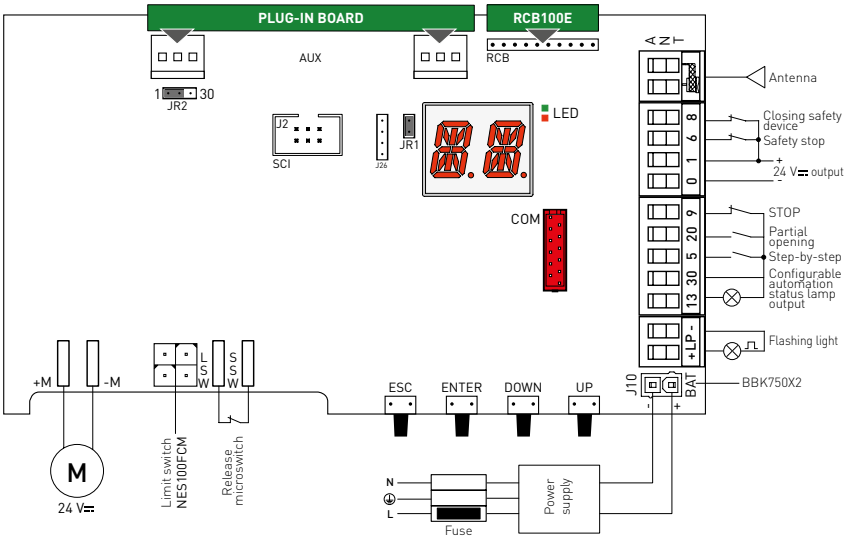
Before connecting the power supply, make sure that the data on the plate correspond to the electricity distribution network data. Provide an omnipolar switch/disconnector on the power network with a contact opening distance of 3 mm or more. Check that there is a suitable residual-current device and surge protector upstream of the electrical system. Use an H05RN-F 3G1.5 electrical cable and connect it to terminals L (brown) and N (blue) inside the automation system. Connect the earth cable ⏚ (yellow/green) to the earth terminal.
Secure the cable by means of the cable clamp (A) and only unsheathe it at the terminal.

ATTENTION: always observe L-N polarity when connecting to the mains and close all unused clamps.

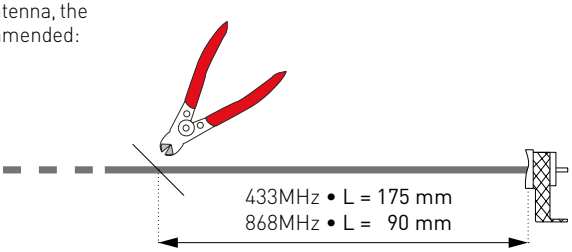
Secure the cable by means of the cable clamp (A) and only unsheathe it at the terminal.
Connections to the electrical distribution network and any other low-voltage conductors (120 V AC - 230 V AC), in the section outside the automation system, must be made with corrugated pipes that are independent and separate from the path of connections to the control and safety devices (SELV= Safety Extra Low Voltage). Make sure there are no sharp edges that could damage the power cord.

ATTENTION : Ensure that the mains connection cables, any other low-voltage cables (120 V AC - 230 V AC), and safety extra-low voltage safety accessory connection cables in the portion located inside the product are kept well separated from the gear motor body (B).

10. LCU50DC card

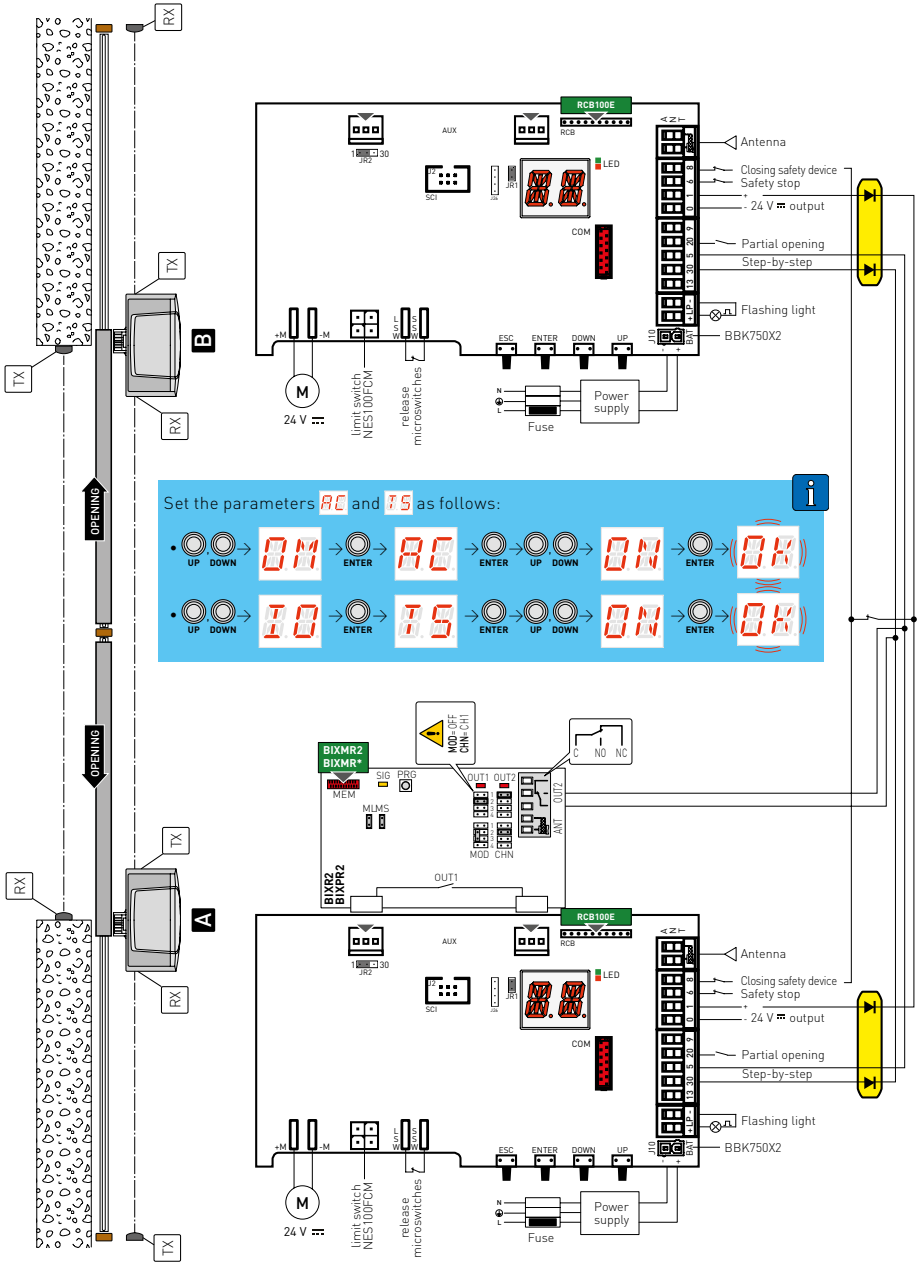


In case of using the standard antenna, the following measures are recommended:



IP2437EN

10.1 ION4B-6B parallel installation layout



WARNING: In case of parallel installation, Bluetooth and WiFi cannot be used.

11. Commands and safety device

NOTA: You are advised to read paragraph 13 for all the details about the possible adjustments.

Warning: terminal 30 (common positive for commands) has the same functions as terminal 1, so the commands visualised on the display are indicated with I-S, I-3, I-4 , etc. It is different from terminal 1, however, because of the maximum current that can be dispensed and it is also active when the control panel is in standby ES → ON.

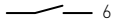
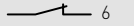
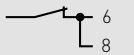
Warning: make a jumper for all NC contacts if not used, or deactivate them via the relative menu. Terminals with the same number are equal.

11.1 Commands inputs

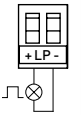
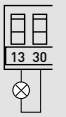
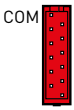
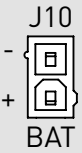
Function		Command	Description
NO	STEP-BY-STEP	30 — 5	When selecting IO → TS → I-S, the closure of the contact NO activates a sequential opening or closing operation: opening-stop-closing-opening. **WARNING**: if automatic closure is enabled, the stop mode is selected by OM → SS. The "opening-stop-closing-opening" sequence can be changed to "opening-stop-closing-stop-opening" by selecting OM → PP.
	OPENING		When selecting IO → TS → I-3, the closure of the contact activates an opening operation
NC	STOP	30 — 9	The opening of the safety contact causes the current operation to stop. If IO → R9 → 9P, automatic closure is disabled when contact 30-9 recloses. If IO → R9 → 9T, automatic closure is enabled when contact 30-9 recloses. **NOTE:** the flashing light flashes.
NO	PARTIAL OPENING	30 — 20	The closure of the contact activates a partial opening operation. Once the automation stops, the partial opening control performs the opposite operation to the one performed before the stop.
NC	AUTOMATIC CLOSURE	30 — 20	Selecting IO → 20 → I-2, the permanent closure of the contact enables automatic closure if OM → AC → I-2.

IP2437EN

11.2 Safety inputs

	Function	Command	Description
	SAFETY TEST		Insert the GOPAVRS device in the slot for plug-in boards AUX. To activate the safety test, appropriately configure the parameters I0 → I6 e I0 → I8 If the test fails, an alarm message appears on the display.
NO	CLOSURE		When selecting I0 → 64 → I-4, closing the contact activates a closing operation.
NC	SAFETY STOP		When selecting I0 → 64 → I-6, opening of the safety contact stops and prevents any movement. **NOTE:** to set different safety contact functions, see the I0 → 5M parameter settings.
NC	CLOSING SAFETY DEVICE		The opening of the NC contact triggers a reversal of the movement (reopening) during the closing operation. When selecting I0 → 50 → 0N, with the automation idle (gate closed or partially open) all operations are prevented. When selecting I0 → 50 → 0F, with the automation idle (gate closed or partially open) opening operations are permitted.
NC	CLOSING/ OPENING SAFETY DEVICE		The opening of the safety contact stops and prevents any movement. **NOTE:** During the closing operation, the opening of the safety contact stops and reverses the movement. During the opening operation, the opening of the safety contact stops the movement

12. Outputs and accessories

Function	Output	Value of accessories	Description
Power supply to accessories		24 V⎓ / 0.3 A	Output for power supply to external accessories. **NOTE:** the maximum absorption of 0.3 A corresponds to the sum of all terminals 1.
Configurable output		24 V⎓ 25 W (1 A)	Factory configured output LP as ON-OFF flashing lifht LP → 03. The pre-flashing settings can be selected from the menu OM → MO and/or OM → MC. To modify the operating mode of the LP output, refer to the selection IO → LP.
Configurable output		24 V⎓ 2 W (0.1 A)	Output 30-13 factory configured as proportional gate open indicator light. 13 → 06. To change the operation mode of output 13 refer to the selection IO → 13.
⚠ **WARNING:** When connecting higher loads, it is recommended to use an interface relay with external power supply (e.g., electric lock)			
Radio antenna			When using the standard antenna, the following measurements are recommended: 433 MHz (175 mm) - 868 MHz (90 mm). Use a RG-58 type coaxial cable (50 Ω) to connect an external antenna (ref. GOL148REA).
Plug-in accessory seat	AUX	BIXR2 BIXPR2 BIXLR42 LAB9 LAN7S GOPAVRS	The control panel has a slot for plug-in command and safety cards. The action of the control card can be defined by selecting IO → AM. When using slot-in radio boards, remove the RX module. The display will show AV.
Radio receiver module			Radio receiver module RCB100E (as standard) configurable from control panel: - 433.92 MHz (RO → FQ → 43) - **default** - 868.35 MHz (RO → FQ → 86) Modulo ricevitore radio RCB50E compatibile (opzionale)
Modulo memoria radiocomandi		**BIXMR2**	This allows the functioning configurations to be saved using the function JF → SV. The saved configurations can be recalled using the function JF → RC. The storage module allows the remote controls to be stored. If the control panel is replaced, the storage module being used can be inserted in the new control panel.
⚠ **WARNING:** the storage module must be inserted and removed with the power supply disconnected, and paying attention to the positioning direction.			
DC power supply			Power supply: 36 V DC In battery operation mode, when the power supply is off: 24 V DC. The batteries are kept charged when the power supply is on. If the power supply is off, the panel is powered by the batteries until the power is re-establish or until the battery voltage drops below the safety threshold. The control panel turns off in the last case. **NOTE**: the operating temperature of the rechargeable batteries is from +0°C to +40°C. To check the voltage level of the batteries refer to the menu JF → BL.

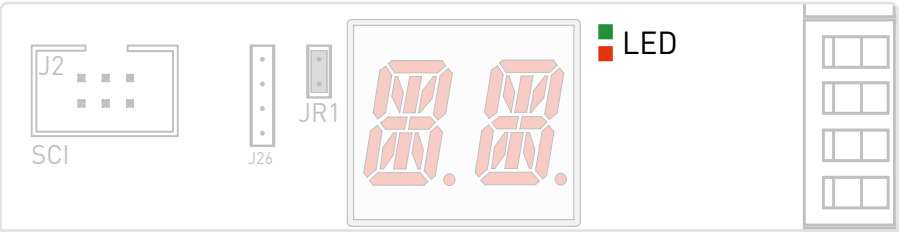
IP2437EN

13. Jumper setting

Jumper	Description	OFF 	ON 
JR1	Display mode selection.	**Display mode.** Only the values and parameters present can be displayed.	**Maintenance mode.** Only the values and parameters present can be displayed and modified. Activated maintenance mode is indicated by the permanent switching on of the right-hand point on the display.

Jumper	Description		
JR2	Selection of power supply - auxiliary board.	AUX1 powered from 0-1. (default). With ES → ON it turns off during power saving mode	AUX1 powered from 0-30. Always supplied.

14. Segnalazioni LED



Red LED	Green LED	Description
off	off	Board off or not working.
1 Flashe every second	off	LCU board on and functioning. RCB (radio/BLE/WiFi) board absent or not working.
off	1 Blink every second	LCU board on and functioning. RCB50E (radio) board present and functioning
off	2 Flashes every second	LCU board on and functioning. RCB100E (radio/BLE) board present and functioning
off	3 Flashes every second	LCU board on and functioning. RCB200E (WiFi) board on SCI present and functioning
off	4 Flashes every second	LCU board on and functioning. RCB50E (radio) + RCB200E (WiFi) board present and functioning.
off	5 Flashes every second	LCU board on and functioning. RCB100E board (radio/BLE) + RCB200E (WiFi) present and functioning

15. Using of the menus

NOTE: pressure on the keys may be quick (less than 2 s) or prolonged (longer than 2 s). Unless specified otherwise, quick pressure is intended. To confirm the setting of a parameter, prolonged pressing or double prolonged pressing is necessary.

15.1 Switching the display ON and OFF

The procedure to switch ON the display is as follows:

MAIN LEVEL

- Display visualizes by default the left dot ;
- Press the ENTER key;
- The display functioning check starts;
- The main level menu is displayed.

The procedure to switch OFF the display is as follows:

MAIN LEVEL

The display switches off (and it returns to visualize left dot) automatically after 60 seconds of inactivity.

15.2 Navigation keys

MAIN LEVEL PARAMETER LEVEL VALUE

MAIN LEVEL

- Press UP or DOWN to scroll through the menus.
- Press ENTER to go in **PARAMETER LEVEL**.
- Press ESC to exit from a sub-menu.

PARAMETER LEVEL

- Press UP or DOWN to scroll through the parameters inside the specific sub-menu.
- To set a parameter, select the desired **VALUE** and press ENTER for 2 seconds or by prolonged double confirmation to save.

IP2437EN

16. Parameters LCU50DC

16.1 Main level menu

	Display	Description
		**Frequent use** The menu allows to manage the most commonly used parameters to customize the functionalities of the automation
Complete menu		**Operation Mode** The menu allows to manage all the parameters used for operation modes of the automation (type of automation installed, predefined settings, automatic closure, etc.)
		**Run Adjustment** The menu allows to adjust all the run parameters (opening/closure speed, slowdown positions, obstacle thrust sensibility etc.)
		**Input/Output Configuration** The menu allows to configure the inputs/outputs functionalities of the automation (selection of devices connected to the terminals, photocells, flashing light/electro-lock setting, etc.)
		**Radio Operations and Connectivity** The menu is used to manage all parameters for the radio/wireless functions of the control panel
		**Diagnostic Functions** The menu allows to manage all other parameters used for additional services (diagnostic counters, FW updating, energy saving, etc.)

16.2 Frequent use menu map

MAIN LEVEL

 **FU - Frequent Use**

PARAMETER LEVEL

 AS - Selection of the automation

 DM - Open direction

 EP - Setting encrypted messages of remote control transmission (AES 128bit and PROTECTED mode)

 SR - Remote control storage

 RM - Operation mode of the radio receiver

 T5 - Terminal 5 operation mode

 AC - Automatic closure enabling

 TC - Setting of automatic closing time [s]

 RP - Adjustment of partial opening measurement [%]

 TP - Setting of automatic closing time after partial opening [s]

 R1 - Adjustment of thrust on obstacles and motor current during opening

 R2 - Adjustment of thrust on obstacles and motor current during closure

 VA - Opening speed [cm/s]

 VC - Closing speed [cm/s]

 R9 - Configuration of input 30-9

 D6 - Selection of device connected to terminals 1-6 an with safety test

 D8 - Selection of device connected to terminals 1-8 and with safety test

 SO - Terminal 1-8 operation mode with automation stopped

16.3 Complete menu map

MAIN LEVEL

OM OM - Operation Mode

PARAMETER LEVEL

- AS - Selection of the automation
- DM - Open direction
- AC - Automatic closure enabling
- TC - Setting of automatic closing time [s]
- RP - Adjustment of partial opening measurement [%]
- TP - Setting of automatic closing time after partial opening [s]
- PP - Setting of step-by-step sequence
- S9 - STOP mode in the step-by-step sequence from command 1-5.
- SS - Duration of STOP in step-by-step sequence from command 1-5
- TS - Setting of renewal of automatic closing time after PH safety device release [%]
- WO - Setting of pre-flashing time on opening [s]
- WC - Setting of pre-flashing time on closing [s]
- NI - Activation of anti-freeze system NIO
- TN - NIO intervention temperature and automatic ramps
- HS - Automatic ramp adjustment
- TH - High temperature protection enable
- VL - Vacation lock/unlock
- DS - Display mode
- PS - Predefined setting

RA RA - Run Adjustment

PARAMETER LEVEL

- VA - Opening speed [cm/s]
- VC - Closing speed [cm/s]
- R1 - Adjustment of thrust on obstacles and motor current during opening
- R2 - Adjustment of thrust on obstacles and motor current during closure
- OB - Adjustment of deceleration distance during opening [cm]
- CB - Adjustment of deceleration distance during closing [cm]
- PO - Adjustment of approach speed during opening
- PC - Adjustment of approach speed during closing [cm/s]
- OO - Obstacle detection limit during opening
- OC - Obstacle detection limit during closure
- VR - Learning speed setting
- VM - Initial movement speed
- TA - Adjustment of acceleration time on opening
- TQ - Adjustment of acceleration time on closure
- TD - Deceleration time adjustment during opening
- TU - Deceleration time adjustment during closure
- DO - Duration of disengagement on stop during opening
- DC - Setting of disengagement on stop during closure [mm]
- DE - Setting of disengagement after edge intervention [cm]
- ST - Start-up time adjustment
- DT - Obstacle recognition time adjustment
- MP - Start-up at maximum power
- OT - Selection of type of obstacle

IO IO - Input/Output Configuration

PARAMETER LEVEL

- FA - Selection of opening limit switch mode
- FC - Selection of closing limit switch mode
- R9 - Configuration of input 30-9
- T5 - Terminal 5 operation mode
- 64 - Functioning of safety stop/closing command
- AM - Operation of AUX plug-in control board
- 20 - Partial opening command of terminal 30-20
- PT - Fixed partial opening
- D6 - Selection of device connected to terminals 1-6
- SM - Selection of operating mode for device connected to terminals 1-6
- D8 - Selection of device connected to terminals 1-8

IP2437EN

SO - Terminal 1-8 operation mode when open

68 - Selection of the device simultaneously connected to terminals 1-6 and 1-8

LP - Function of output +LP-

13 - Function of output 13

LU - Setting the courtesy light switch-on extra time [s]

LG - Switch-on time for independently commanded courtesy light

LR - Electric lock release time

PV - Power supply via solar panels (future use)

ES - Energy-saving

LB - Signal for batteries almost flat

LL - Voltage threshold for indicating when the batteries are almost flat

BO - Battery mode

RO - Radio Operations and Connectivity

PARAMETER LEVEL

EP - Setting encrypted messages

SR - Remote control storage

RM - Radio receiver operation

TX - Visualization of counter showing remote controls stored

MU - Setting of the maximum number of remote controls that can be stored in the memory

ER - Deletion of a single remote control

EA - Total memory deletion

C1 C2 C3 C4

C1, C2, C3, C4 - Selection of CH1, CH2, CH3, CH4 function of stored remote control

RE - Setting of memory opening via remote control

MS - Compatibility setting with older generation GOL4 remote controls

RK - Menu navigation via remote control keypad

FQ - Radio frequency selection

BT - Bluetooth® mode

WF - Setting of WiFi functionality

WR - Request to restart the connected WiFi device (in particular Apple HomeKit)

MA - Mobile App access management

DF - Diagnostic Functions

PARAMETER LEVEL

SP - Password setting

IP - Password insertion

CU - Visualization of the firmware version on the control panel

UP - Firmware update

AL - Alarm counter

AH - Alarm log

AR - Alarm reset

CV - Display of total operations counter

CP - Display of partial operations counter

ZP - Reset of partial operations counter

CA - Setting the maintenance alarm (factory setting - alarm deactivated: 0.0 00. 00)

OA - Selecting maintenance alarm display mode

CH - Display of power supply hour counter

BH - Visualization of counter for power supply hours via battery

SV - Saving user configuration on control panel storage module

RC - Configuration loading

RL - Loading of last configuration set

EU - Erasing of user configurations and last configuration set in the storage module

IM - Motor current visualization

TB - Visualization of the internal temperature of the automation

TT - Visualisation of maximum and minimum temperatures recorded

TF - Limit switch test. Visualises FA / FC (N.O. / NO if they are not configured)

BL - Visualization of Battery voltage level

EL - Efficiency level of the automation

RD - Resetting of factory settings

16.4 "Frequent use" menu - parameters description

FU - Uso frequente
Il menu permette di gestire i parametri più utilizzati per personalizzare le funzionalità dell'automazione.

Parameter	Description	Selections available
AS	**AS - Selection of automation** Allows you to select the automation type (factory preset) • **NO** - None • **4B** - ION4B • **6B** - ION6B **NOTE:** the card performs a restart after a new value is selection. **WARNING:** in case of replacement card, the display flashes MB alarm. No operation is allowed. The AS parameter must be first configured. This operation must be performed by qualified personnel.	NO, 4B, 6B
DM	**DM - Opening direction** • **RT** - Right • **LF** - Left	RT, LF
EP	**EP - Setting encrypted messages of remote control transmission (AES 128bit mode and protected mode)** If the possibility to receive coded messages is enabled, the control panel will be compatible with remote controls of the "ENCRYPTED" or Protected type. • **ON** - Enabled • **OF** - Disabled	ON, OF
SR	**SR - Memorizzazione di un radiocomando**  By pressing ENTER, SR starts flashing and it is possible to associate the desired buttons. After OK is displayed, SR flashes again on the display and it is possible to associate the next button. To exit, press ESC or ENTER for 2 seconds and move on to the next item. **NOTE:** if the display shows NO flashing, the remote control may already be stored.	
RM	**RM - Radio receiver operation** This is the function associated to radio command when only one channel is stored (independently which one is) • **1-5** - Step-by-step • **1-3** - Opening	1-5, 1-3
T5	**T5 - Terminal 5 operation mode** This parameter is associated to the functionality of the terminal 30-5 • **1-5** - Step-by-step • **1-3** - Opening	1-5, 1-3
AC	**AC - Automatic closure enabling** • **OF** - Disabled • **ON** - Enabled • **1-2** - Dependent on input at terminal 20 (parameter 20 must set to 1-2)	OF, ON, 1-2

IP2437EN

AU	TC	**TC - Setting of automatic closing time [s]** It is set with different intervals of sensitivity: • **from 0" to 59"** with intervals of 1 second • **from 1'0 to 1'5** with intervals of 10 seconds For each interval, the display visualizes: - 11 → 1 minute and 10 seconds - ... - 15 → 1 minute and 50 seconds • **from 2' to 4'** with intervals of 1 minute	00 ... 59 10 ... 15 21 ... 41 10
	RP	**RP - Adjustment of partial opening measurement [%]** This parameter adjusts the percentage of partial opening in relation to the total opening of the automation. • **from 10 to 99 %** with intervals of 1 %	10 ... 99 30
	TP	**TP - Setting of automatic closing time after partial opening [s]** It is set with different intervals of sensitivity. • **from 0" to 59"** with intervals of 1 second • **from 1'0 to 1'5** with intervals of 10 seconds For each interval, the display visualizes: - 11 → 1 minute and 10 seconds - ... - 15 → 1 minute and 50 seconds • **from 2' to 4'** with intervals of 1 minute	00 ... 59 10 ... 15 21 ... 41 30
	R1	**R1 - Adjustment of thrust on obstacles and motor current during opening [%]** The control panel is provided with a safety device which, in the case of an obstacle: - the movement is stopped, if outside the obstacle detection limit space, performs a disengagement operation. **NOTE:** the obstacle detection limit space when opening is defined by the type of limit switch installed, in the absence of a limit switch it is determined by the selection AA → 00. • **00** – Minimum thrust (minimum current delta for obstacle detection) • **99** – Maximum thrust (maximum current delta for obstacle detection) The threshold is calculated dynamically as a delta on the motor current measured during the opening stroke.	00 ... 99 30
	R2	**R2 - Adjustment of thrust on obstacles and motor current during closing [%]** The control panel is provided with a safety device which, in the case of an obstacle: - closing, outside of the detection limit space, the system invert the movement; - closing, in the detection limit space, the system stoped the movement. **NOTE:** the obstacle detection limit space when closing is defined by the type of limit switch installed, in the absence of a limit switch it is determined by the selection AA → 0C. • **00** – Minimum thrust (minimum current delta for obstacle detection) • **99** – Maximum thrust (maximum current delta for obstacle detection) The threshold is calculated dynamically as a delta on the motor current measured during the closing stroke.	— 00 ... 99 30
	VA	**VA - Opening speed [cm/s]** • **from 10 to 30 cm/s** with intervals of 1 cm/s	10 30 20

AUVC	VC	**VC - Closing speed [cm/s]** • **from 10 to 30 cm/s** with intervals of 1 cm/s	10 ... 30 20
	R9	**R9 - Terminal 9 operation mode** • **NO** - Disabled • **9P** - Open state of the input triggers a permanent stop (default) • **9T** - Open state of the input triggers a temporary stop. Once contact closes, an automatic closure time is activated (if enabled) • **HR** - With the input open, the automation operates in "operator present" mode	NO 9P 9T HR
	D6	**D6 - Selection of device connected to terminals 1-6** • **NO** - None • **PH** - Photocells • **P41** - Photocells with safety test • **SE** - Safety edge (if contact 1-6 opens, there is a disengagement of 10 cm after the stop) • **S41** - Safety edge with safety test (if contact 1-6 opens, after the stop there is a disengagement of a duration depending on the selection RA→ DE)	NO PH P4 SE S4
	D8	**D8 - Selection of device connected to terminals 1-8** • **NO** - None • **PH** - Photocells • **P41** - Photocells with safety test • **SE** - Safety edge (if contact 1-8 opens, there is a disengagement of 10 cm after the stop) • **S41** - Safety edge with safety test (if contact 1-8 opens, after the stop there is a disengagement of a duration depending on the selection RA→ DE)	NO PH P4 SE S4
	S0	**S0 - Terminal 1-8 operation mode when open** • **ON** - Enabled • **OF** - Disabled If enabled (ON) with the automation idle (gate closed or partially open) all operations are prevented. If disabled (OF) with the automation idle (gate closed or partially open) opening operations are permitted.	ON OF

16.5 Complete menu - parameters description

OM - Operation Mode

The menu allows to manage all the parameters used for operation modes of the automation (type of automation installed, predefined settings, automatic closure, etc.)

Parameter	Description	Selections available
AS	**AS - Selection of the automation** Allows to select the automation type (factory preset) • **NO** - None • **4B** - ION4B • **6B** - ION6B **NOTE:** the card performs a restart after a new value is selection. **WARNING:** in case of replacement card, the display flashes A0 alarm. No operation is allowed. The AS parameter must be first configured. This operation must be performed by qualified personnel.	NO 4B 6B
DM	**DM - Opening direction** • **RT** - right • **LF** - left	RT LF
AC	**AC - Automatic closure enabling** • **OF** - Disabled • **ON** - Enabled • **1-2** - Dependent on status of terminal 20 (parameter 20 must set to 1-2) **NOTE:** the card performs a restart after a new value is selection.	OF ON 1-2
TC	**TC - Setting of automatic closing time [s]** It is set with different intervals of sensitivity: • **from 0" to 59"** with intervals of 1 second • **from 1'0 to 1'5** with intervals of 10 seconds For each interval, the display visualizes: - 1'1 → 1 minute and 10 seconds - ... - 1'5 → 1 minute and 50 seconds • **from 2' to 4'** with intervals of 1 minute	00 ... 59 1'0 ... 1'5 2' ... 4' 1'0
RP	**RP - Adjustment of partial opening measurement [%]** This parameter adjusts the percentage of partial opening in relation to the total opening of the automation. • **from 10 to 99 %** with intervals of 1 %	10 ... 99 30
TP	**TP - Setting of automatic closing time after partial opening [s]** It is set with different intervals of sensitivity. • **from 0" to 59"** with intervals of 1 second • **from 1'0 to 1'5** with intervals of 10 seconds For each interval, the display visualizes: - 1'1 → 1 minute and 10 seconds - ... - 1'5 → 1 minute and 50 seconds • **from 2' to 4'** with intervals of 1 minute	00 ... 59 1'0 ... 1'5 2' ... 4' 30
PP	**PP - Setting of step-by-step sequence** • **00** - Opening-Stop-Closing-Opening • **01** - Opening-Stop-Closing-Stop-Opening	00 01
S9	**S9 - Stop mode in step-by-step sequence from command 1-5.** **ON** - Permanent **OF** - Temporary.	ON OF
SS	**SS - Selection of automation status at start** **OP** - Open. **CL** - Closed. Indicates how the control panel considers the automation at the time of switch-on, or after a POWER RESET command.	OP CL

TS	**TS - Setting of renewal of automatic closing time after photocells safety device release [%]** • **from 0 to 99%** with intervals of 1%. The count begins with the door fully open, (and the closing operation is performed even with automatic closure (AC) disabled. **WARNING:** automatic closure is not disabled on the third consecutive direction reversal. E.g.: • TC = 1' • TS = 50% • Renewal of automatic closing time= 30"	00 ...	99
WO	**WO - Setting of pre-flashing time on opening [s]** Adjustment of the lead time for the switch-on of the flashing light and courtesy light, in relation to the start of the opening operation from a voluntary command. • **from 0" to 5"** with intervals of 1 second	00 ...	05
WC	**WC - Setting of pre-flashing time on closing [s]** Adjustment of the lead time for the switch-on of the flashing light and courtesy light in relation to the start of the closing operation from a voluntary command. • **from 0" to 5"** with intervals of 1 second	00 ...	05
NI	**NI - Enabling of NIO electronic anti-freeze system** • **ON** - Enabled • **OF** - Disabled When enabled (ON), it maintains the efficiency of the motor even at low ambient temperatures. **NOTE:** for correct operation, the control panel must be exposed to the same ambient temperature as the motors The intervention temperature for NIO can be set by selecting OM→TN.	ON	OF
TN	**TN - Setting of intervention temperature for the NIO electronic antifreeze system and automatic HS ramps [°C]** This value does not refer to the ambient temperature, but to the internal control panel temperature.	-9 ... 20	50
HS	**HS - Enabling ramps anti-freeze system** • **ON** - Enabled • **OF** - Disabled When enabled (ON), at low ambient temperatures the start time ST increases up to the maximum value, the acceleration time TA and TO diminishes to the minimum value and diminishes the manouvre speed. **NOTE:** for correct operation, the control panel must be exposed to the same ambient temperature as the motors. The intervention temperature HS can be set by selecting OM→TN.	ON	OF
TH	**TH - High temperature protection enable** • **ON** - Enabled • **OF** - Disabled When enabled (ON), on reaching the maximum permissible control panel temperature (80°), the maximum automatic closing time is set to allow the system to cool down to acceptable temperatures.	ON	OF
HF	**HF - Heavy Traffic function** **ON** - Enabled **OF** - Disabled When this function is enabled, the automatic reclosing time is increased automatically to 3 min in the event of a series of consecutive operations due to frequent aperture requests (e.g. at peak traffic times in a condominium application), to reduce wait times for users and to limit motor wear and the risk of overheating.	ON	OF

DS - Setting of display visualisation mode

- **00** - No visualisation
- **01** - Commands, safety devices and radio test. Display of countdown to automatic closure.
- **02** - Automation status
- **03** - Commands and safety devices

NOTE: the setting 01 allows you to see when a radio transmission is received, for range checks (RX and NX - see 16.2 par.)

PS – Predefined settings

It is used to load default settings for some parameters:

- **DF- Default configuration**
  - **AC** - Automatic closure enabling
  - **TC** - Setting of automatic closing time
  - **T5** - Terminal 5 operation mode
  - **RM** - Radio receiver operation
  - **AM** - Operation of AUX plug-in control board
  - **SS** - Selection of automation status at start
- **H0 - Predefined setting, residential use 0**
  - **AC** - Automatic closure enabling
  - **T5** - Terminal 5 operation mode
  - **RM** - Radio receiver operation
  - **AM** - Operation of AUX plug-in control board
  - **SS** - Selection of automation status at start
- **H1 - Predefined setting, residential use 1**
  - **AC** - Automatic closure enabling
  - **TC** - Setting of automatic closing time
  - **T5** - Terminal 5 operation mode
  - **RM** - Radio receiver operation
  - **AM** - Operation of AUX plug-in control board
  - **SS** - Selection of automation status at start
- **C0 - Predefined setting, condominium use 0**
  - **AC** - Automatic closure enabling
  - **TC** - Setting of automatic closing time
  - **T5** - Terminal 5 operation mode
  - **RM** - Radio receiver operation
  - **AM** - Operation of AUX plug-in control board
  - **SS** - Selection of automation status at start

RA - Run Adjustment

The menu allows to adjust all the run parameters (opening/closure speed, slowdown positions, obstacle thrust sensibility etc.)

Parameter	Description	Selections available
VA	**VA - Opening speed [cm/s]** • **from 10 to 30 cm/s** with intervals of 1 cm/s	10 ... 30 20
VC	**VC - Closing speed [cm/s]** • **from 10 to 30 cm/s** with intervals of 1 cm/s	10 ... 30 20
R1	**R1 - Adjustment of thrust on obstacles and motor current during opening [%]** The control panel is provided with a safety device which, in the case of an obstacle: - the movement is stopped, if outside the obstacle detection limit space, performs a disengagement operation. **NOTE:** the obstacle detection limit space when opening is defined by the type of limit switch installed, in the absence of a limit switch it is determined by the selection RA → 00. • **00** – Minimum thrust (minimum current delta for obstacle detection) • **99** – Maximum thrust (maximum current delta for obstacle detection) The threshold is calculated dynamically as a delta on the motor current measured during the opening stroke.	00 ... 99 30
R2	**R2 - Adjustment of thrust on obstacles and motor current during closing [%]** The control panel is provided with a safety device which, in the case of an obstacle: - closing, outside of the detection limit space, the system invert the movement; - closing, in the detection limit space, the system stoped the movement. **NOTE:** the obstacle detection limit space when closing is defined by the type of limit switch installed, in the absence of a limit switch it is determined by the selection RA → 0C. • **00** – Minimum thrust (minimum current delta for obstacle detection) • **99** – Maximum thrust (maximum current delta for obstacle detection) The threshold is calculated dynamically as a delta on the motor current measured during the closing stroke.	00 ... 99 30
OB	**OB - Adjustment of deceleration distance during opening [cm]** Indicates the deceleration distance before reaching the maximum open position. • **from 5 to 99 cm** with intervals of 1 cm	05 ... 99 60
CB	**CB - Adjustment of deceleration distance during closing [cm]** Indicates the deceleration distance before reaching the closing position. • **from 5 to 99 cm** with intervals of 1 cm	05 ... 99 60
PO	**PO - Adjustment of approach speed during opening [cm/s]** Indicates the speed from the end of the deceleration ramp to the end of the opening stroke • **from 3 to 10 cm/s** with intervals of 1 cm/s **NOTE:** gradually increase the approach speed if there is a series of quick vibrations (chattering) in heavy gates installed with a slight incline.	03 ... 10 05

PC - Adjustment of approach speed during closing [cm/s]
- **from 3 to 10 cm/s** with intervals of 1 cm/s

03 ... 10 — 05

OO - Obstacle detection limit during opening [cm]
Indicates the distance from the opening stop at which disengagement is deactivated.
- **from 5 to 99 cm** with intervals of 1 cm

NOTE: not active if IO → FA → 5M or if IO → FA → PM

05 ... 99 — 40

OC - Obstacle detection limit during closure [cm]
Indicates the distance from the closure stop at which reversal is deactivated.
- **from 5 to 99 cm** with intervals of 1 cm

NOTE: not active if IO → FA → 5M or if IO → FA → PM

05 ... 99 — 40

VR - Setting of learning speed [cm/s]
- **from 5 to 10 cm/s** with intervals of 1 cm/s

05 ... 10 — 08

VM - Initial movement speed [cm/s]
- **from 0 to 15 cm/s** with intervals of 1 cm/s

00 ... 15 — 05

TA - Adjustment of acceleration time during opening [s]
Regulates the slope of the acceleration ramp during opening
- **from 0.5 to 9.9 s** with intervals of 0.1 s

0.5 ... 9.9 — 2.0

TQ - Adjustment of acceleration time during closure [s]
Regulates the slope of the acceleration ramp during closing
- **from 0.5 to 9.9 s** with intervals of 0.1 s

0.5 ... 9.9 — 2.0

TD - Adjustment of deceleration time during opening [%]
Regulates the slope of the deceleration ramp during opening.
- **from 10 to 99 %** with intervals of 1 %

10 ... 99 — 75

TU - Adjustment of deceleration time during closure [%]
Regulates the slope of the deceleration ramp during closing.
- **from 10 to 99 %** with intervals of 1 %

10 ... 99 — 75

DO - Setting of disengagement on stop during opening [mm]
Regulates the distance of the disengagement on the mechanical opening stop.
- **00** - Disabled
- **from 1 to 15 mm** with intervals of 1 mm

00 ... 15 — 07

DC - Setting of disengagement on stop during closure [mm]
Regulates the distance of the disengagement on the mechanical closing stop.
- **00** – Disabled
- **from 1 to 15 mm** with intervals of 1 mm

00 ... 15 — 07

DE - Disengagement setting if an edge is triggered [cm]
Regulates the disengagement distance when an edge (active or passive) is triggered during opening or closure.
- **00** - Deactivated
- **from 1 to 20 cm** with intervals of 1 cm

00 ... 20 — 10

ST - Adjustment of start time [s]
- **from 0.5 to 3.0 s** with intervals of 0.1 s

0.5 ... 3.0 — 2.0

DT - Adjustment of obstacle recognition time [s/100]
- **from 10 to 60 s/100** with intervals of 1 s/100

NOTE: the parameter is adjusted in hundredths of a second

10 ... 60 (40)

MP - Start-up at maximum power
- **ON** - During start-up it increases the thrust on obstacles to maximum
- **OF** - During start-up, the thrust on obstacles is the one adjusted by A1 - A2.

ON OF

OT - Selection of type of obstacle identification
- **00** - Overcurrent or gate stopped
- **01** - Overcurrent
- **02** - Door stopped

00 01 02

IO - Input/Output Configuration

The menu allows to configure the inputs/outputs functionalities of the automation.

Parameter	Description	Selections available
FA	**FA - Selection of opening limit switch mode** • **NO** - None • **SX** - Stop limit switch (after activation, the gate stops its movement) • **PX** - Proximity limit switch (after activation, the gate continues as far as the end stop and any obstacle is considered a stop)	NO SX PX
FC	**FC - Selection of closing limit switch mode** • **NO** - None • **SX** - Stop limit switch (after activation, the gate stops its movement) • **PX** - Proximity limit switch (after activation, the gate continues as far as the end stop and any obstacle is considered a stop)	NO SX PX
R9	**R9 - Terminal 9 operation mode** • **NO** - disabled. • **9P** - open state of the input triggers a permanent stop (default). • **9T** - open state of the input triggers a temporary stop. Once contact closes, an automatic closure time is activated (if enabled). • **HR** - With the input open, the automation operates in "operator present" mode	NO 9P 9T HR
T5	**T5 - Terminal 5 operation mode** This parameter is associated to the functionality of the terminal 30-5 • **1-5** - Step-by-step • **1-3** - Opening	1-5 1-3
64	**64 - Functioning of safety stop/closing command** • **1-4** - Closing. Contact NO • **1-6** - Safety. Contact NC	1-4 1-6
AM	**AM - Operation of AUX plug-in control board** • **1-5** - Step-by-step • **1-3** - Opening	1-5 1-3
20	**20 - Partial opening command of terminal 30-20** • **P3** - Partial opening command • **1-2** - Enabling of automatic closure	P3 1-2
PT	**PT - Fixed partial opening** • **ON** - Enabled • **OF** - Disabled If ON, a partial opening command given on the partial opening position is ignored. With contact 30-20 closed (for example with the timer or manual selector), the gate will partially open. If it is then fully opened (opening command) and reclosed (even with automatic closure), it will stop at the partial opening position.	ON OF

D6 - Selection of device connected to terminals 1-6

- **NO** - None
- **PH** - Photocells
- **P41** - Photocells with safety test
- **SE** - Safety edge (if contact 1-6 opens, there is a disengagement of 10 cm after the stop)
- **S41** - Safety edge with safety test (if contact 1-6 opens, after the stop there is a disengagement of a duration depending on the selection AA→ DE)

SM - Operation mode of terminals 1-6

- **00** - During the operation, the opening of the safety contact stops the movement (with disengagement if D6→SE/S4).
- **01** - During the operation, the opening of the safety contact stops the movement (with disengagement if D6→SE/S4). When the contact closes again, the operation is resumed.
- **02** - During the operation, opening of the safety contact stops the movement (with disengagement if D6→SE/S4). When the contact closes again, an opening operation is performed.
- **03** - During the closing operation, the opening of the safety contact reverses the movement. During the opening operation, the safety device is ignored.
- **04** - During the opening operation, the opening of the safety contact stops the movement (with disengagement if D6→SE/S4). When the contact closes again, the opening operation is resumed. During the closing operation, the safety device is ignored.
- **05** - During the closing operation, the opening of the safety contact stops and reverses the movement. During the opening operation, the opening of the safety contact stops the movement (with disengagement if D6→SE/S4).
- **06** - During a maneuver, the opening of the safety contact stops the movement. When the contact closes again, automatic closing is disabled.

D8 - Selection of device connected to terminals 1-8

- **NO** - None
- **PH** - Photocells
- **P41** - Photocells with safety test
- **SE** - Safety edge (if contact 1-8 opens, there is a disengagement of 10 cm after the stop)
- **S41** - Safety edge with safety test (if contact 1-8 opens, after the stop there is a disengagement of a duration depending on the selection AA→ DE)

SO - Terminal 1-8 operation mode when open

- **ON** - Enabled
- **OF** - Disabled

If enabled (ON) with the automation idle (gate closed or partially open) all operations are prevented.
If disabled (OF) with the automation idle (gate closed or partially open) opening operations are permitted.

68 - Selection of the device simultaneously connected to terminals 1-6 and 1-8

- **NO** - None
- **SE** - Safety edge
- **S41** - Safety edge with safety test

If different from NO, the simultaneous opening of inputs 1-6 and 1-8 causes:

- movement stop and reversal during a closing operation.
- movement stop and disengagement of a duration depending on the selection AA→DE during an opening operation.

LP - Function of output +LP-

- **00** - courtesy light
- **01** - electric lock (activated for a time defined by parameter LR)
- **02** - electric lock + release stroke (time defined by parameter LR)
- **03** - ON-OFF flashing light (active with motor in action)
- **04** - ON-OFF flashing light for LED without oscillator (with motor in action)
- **05** - ON for LED flashing light with internal oscillator
- **06** - proportional indicator light for open gate (with signal of battery operation)
- **07** - fixed indicator light for open gate (automation not closed)
- **08** - automation closed (activated with gate fully closed)
- **09** - automation open (activated with gate fully open)
- **10** - automation moving (can also be used for electromagnets that need to be powered throughout the operation)
- **11** - automation opening
- **12** - automation closing
- **13** - maintenance alarm
- **14** - Low batteries signal
- **ON** - output always active

13 - Function of output 13

- **00** - courtesy light
- **01** - electric lock (activated for a time defined by parameter LR)
- **02** - electric lock + release stroke (time defined by parameter LR)
- **03** - ON-OFF flashing light (active with motor in action)
- **04** - ON-OFF flashing light for LED without oscillator (with motor in action)
- **05** - ON for LED flashing light with internal oscillator
- **06** - proportional indicator light for open gate (with signal of battery operation)
- **07** - fixed indicator light for open gate (automation not closed)
- **08** - automation closed (activated with gate fully closed)
- **09** - automation open (activated with gate fully open)
- **10** - automation moving (can also be used for electromagnets that need to be powered throughout the operation)
- **11** - automation opening
- **12** - automation closing
- **13** - maintenance alarm
- **14** - Low batteries signal
- **ON** - output always active

LU - Setting the courtesy light switch-on extra time [s]

To enable the parameter, set IO→LP→00 (courtesy light).
It is set with different intervals of sensitivity.

- **NO** - Disabled
- **from 01" to 59"** with intervals of 1 second
- **from 1'0 to 2'** with intervals of 10 seconds
  For each interval, the display visualizes:
  - 1'1 → 1 minute and 10 seconds
  - ...
  - 1'5 → 1 minute and 50 seconds
- **from 2' to 4'** with intervals of 1 minute
- **ON** - Permanently enabled (switched off via remote control

NOTE: the courtesy light switches on at the start of each operation

LG - Switch-on time for independently commanded courtesy light [sec, min, hh]

To enable the parameter, set I0→LP→00 selection as the courtesy light.

- **NO** - disabled
- **from 01to 59** - from 1 second to 59 seconds with intervals of 1 second
- **from 1'0 to 1'5** - from 1 minute to 1 minute and 50 seconds with intervals of 10 seconds
- **2'** - 2 minutes
- **from 03. to 59.** - from 3 minutes to 59 minutes with intervals of 1 minute
- **from 0.1. to 1.2.** - from 1 hour to 12 hours with intervals of 1 hour
- **ON** - Switched on and off with remote control or Wall-Station

NOTE: the switching on of the light does not depend on the start of an operation but can be commanded separately using the remote-control.

LR - Electric lock release time [s]

If enabled, this indicates the electric lock activation time at the start of every opening operation with the automation closed.

PV - Solar panel power supply (future use)

- **ON** - Enabled
- **OF** - Disabled

ES - Energy-saving (disconnecting accessories connected to terminals 0-1)

- **ON** - Enabled (the red point on the right of the display flashes every 5 s).
- **OF** - Disabled

Power supply disconnection mode is activated after 5' with the gate closed, or when the gate is idle and automatic closure is not enabled.

NOTE: the automation resumes its normal operation when a command is received on the radio board or following a terminals 30-5.

WARNING: The installer, in the case of installing an accessory that requires power always on, can set the selection to OFF and disable the function.

LB - Indication that batteries are almost flat

- **00** - Visualisation on display (alarm message I0)
- **01** - Visualisation on flashing light (with the automation idle, 2 flashes are made and then repeated every hour) and on display (alarm message I0)
- **02** - Visualisation on "open gate" indicator light (with the automation closed, 2 flashes are made and then repeated every hour) and on display (alarm message I0)

LL - Voltage threshold for indicating that batteries are almost flat (V)

- **22** - Minimum
- **28** - Maximum

NOTE: it is set with an interval of sensitivity of 0.5 V shown when the decimal point on the right lights up.

BO - Battery mode

- **00** - Anti-panic (performs the opening operation following a mains supply failure. The automation opens but does not accept any other commands until the mains supply has been restored).
- **01** - Continuous operation - the last operation performed before control panel switch-off with flat batteries will be an opening.
- **02** - Continuous operation - the last operation performed before control panel switch-off will with flat batteries be an closure.

RO - Radio Operations and Connectivity

The menu is used to manage all parameters for the radio/wireless functions of the control panel

Parameter	Description	Selections available
EP	**EP - encrypted radios for remote controls (AES 128 and PROTECTED modes)** If the possibility to receive coded messages is enabled, the control panel will be compatible with remote controls of the "ENCRYPTED" type.	ON OF
SR	**SR - Remote control storage**  By pressing ENTER, SR starts flashing and it is possible to associate the desired buttons. After OK is displayed, SR flashes again on the display and it is possible to associate the next button. To exit, press ESC for 2 seconds and move on to the next item. **NOTE:** if the display shows NO flashing, the remote control may already be memorized.	
RM	**RM - Radio receiver operation** This is the function associated to radio command when only one channel is stored (independently which one is) • **1-5** - Step-by-step • **1-3** - Opening	1-5 1-3
TX	**TX - Visualization of counter showing remote control stored** ENTER → 00 → 16 → 16 remote controls (example)	
MU	**MU - Setting of the maximum number of remote controls that can be stored in the memory** You can store a maximum of 100 or 200 remote control codes. ENTER → 10 o 20 → ENTER (2") → 10 o 20 → ENTER → OK (2") • **10** - 100 remote controls that can be stored • **20** - 200 remote controls that can be stored **WARNING:** selecting MU → 20 (200 remote controls), the configurations U1 and U2 saved with the DF → SW command will be lost. This also applies for the last configuration reloaded with RL. In addition, new configurations cannot be saved on U1 and U2.	10 20
ER	**ER - Deletion of a single remote control** ENTER (2") → ER →	
EA	**EA - Total memory deletion** ENTER (2") → EA → ENTER (2") → OK It requires double confirm. Press ENTER for 2 seconds, release and press again for other 2 seconds.	

R0

C1, C2, C3, C4 - Selection of CH1, CH2, CH3, CH4 function of stored remote control

(Display: C1, C2, C3, C4 — Values: NO, 1-3, 1-4, 1-5, P3, LG, 1-9)

- **NO** - No setting selected
- **1-3** - Opening command
- **1-4** - Closing command
- **1-5** - Step-by-step command
- **P3** - Partial opening command
- **LG** - Command to switch the courtesy light on/off
- **1-9** - STOP command

If even just one (any) CH key of the remote control is stored, the opening or stepby- step command is implemented.

> **NOTE:** the 1-3 (opening) and 1-5 (step-by-step) options are available as alternatives, and depend on the selection of RM.

If 2-4 CH keys of a single remote control are stored, the functions matched in the factory with the CH keys are as follows:

- **CH1** = opening/step-by-step command
- **CH2** = partial opening command
- **CH3** = courtesy light on/off command
- **CH4** = STOP command

RE - Setting memory opening from remote control

(Display: RE — Values: OF, ON)

- **OF** - Disabled
- **ON** - Enabled. When enabled (ON), the remote programming is activated.

To store new remote controls without using the control panel, refer to the remote control instructions.

> **NOTE:** make sure you do not accidentally memorise unwanted remote controls.

MS - Backward compatibility setting with older generation GOL4 remote controls

(Display: MS — Values: OF, ON)

- **OF** - Compatibility with old generation GOL4 and new ZEN remote controls
- **ON** - Compatibility with ZEN series remote controls

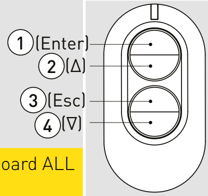
> **NOTE:** MS= ON is recommended if only ZEN series remote controls are used on the system.

RK - Menu navigation using remote control keyboard

(Display: RK — Values: ON, OF)

- **ON** - Enabled
- **OF** - Disabled

With the display turned off, quickly type in the sequence of keys ③③②④① from the stored remote control you want to use.Make sure all the CH keys are stored.



> **WARNING:** during navigation with a remote control keyboard ALL the stored remote controls are inactive.

To make viewing and adjustment easier (avoiding the need to continuously press the remote control), press the UP or DOWN key once to begin slowly scrolling through the parameters. This scrolling movement is faster if the UP or DOWN key is pressed twice. To stop the scrolling, press ENTER. To confirm your choice of parameter, press ENTER again. To test any new setting, switch off the display and issue an opening command using key ③. Navigation using a remote control keyboard is automatically disabled after 4 minutes of inactivity or by setting RK→OF.

FQ - Radio frequency selection

(Display: FQ — Values: NO, 86, 43)

The visible parameters depend by the Remote Connectivity Board (RCB) plugged in (J9 connector).

- **NO** - None RCB plugged in
- **43** - Radio 433MHz (RCB50E or RCB100E plugged in)
- **86** - Radio 868MHz (RCB50E or RCB100E plugged in)

IP2437EN

VL - Vacation mode lock/unlock
Radio commands transmitted by radio frequency devices (radio controls and digital radio keypad) are disabled.
- **ON** - Vacation mode enable. Lock out all remote-control (radio frequency) devices
- **OF** – Vacation mode disalbe. Unlock all remote-control (radio frequency) devices

NOTE: if enabled, the display shows VL each time a radio command is received

BT - Bluetooth® mode
- **ON** - Enabled
- **OF** - Disabled

WF - Setting of WiFi functionality (future use)
It is used to enable or disable the WiFi functionality .
- **ON** - WiFi is enabled
- **OF** - WiFi is disabled

WARNING: the enabling of WiFi will increase the power consumption; in this case be aware that it is not guaranteed the fulfillment of limits for standby consumption.

WR - Request to restart the connected WiFi device (future use)

ENTER → OK
2"

NOTE: the item is present only if a WiFi device is connected.

MA - Mobile App access management
Allows viewing, granting and resetting access permissions for the Mobile App:

DITEC GATE CONNECT PRO

To view the type of access present on the operator, briefly press ENTER:

MA → ENTER

The type of access present on the operator will be displayed:
00 – No access
01 – Temporary access (duration 1 hour)
02 – Access with PIN
03 – Access from cloud (for future implementation)

If no permission is present (MA = 00), when temporary access is requested from the App the message 'MA', confirm the request by holding down the ENTER key until the OK appears.

(MA) → ENTER 2" → (OK)

The value of MA will become 01. If necessary, press the ESC key to exit the menu.

To set up PIN access, follow the instructions on the Mobile App:

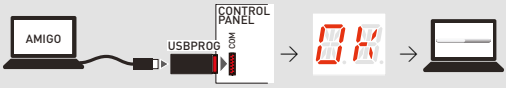
DITEC GATE CONNECT

RESET PERMITS (end-user version)
Press ENTER for 2 seconds; the display flashes. Release and press again for another 2 seconds. The value of MA will become 00.

MA → ENTER 2" → (MA) → ENTER 2" → OK

Diagnostic Functions

The menu allows to manage all other parameters used for additional services (diagnostic counters, FW updating, energy saving, etc.).

Parameter	Description	Selections available
SP	**SP - Setting the password**  **NOTE:** this can only be selected when the password is not set. Setting the password prevents unauthorised personnel from accessing selections and adjustments. You can delete the set password by selecting the sequence: JR1=ON, JR1=OFF, JR1=ON	
IP	**IP - Inserimento della password**  **NOTE:** this can only be selected when the password is set. When the password is not inserted, you can access the display mode regardless of the selection made with JR1. When the password is inserted, you can access in maintenance mode.	
CU	**CU - Visualization of the firmware version on the control panel**  	
UP	**UP - Firmware update** Activates the card bootloader in order to update the firmware. Contact after-sales department for more information  	
AL	**AL - Alarm counter** Used to view, in sequence, the counters of alarms that have been triggered at least once (alarm code + number of times triggered). With UP and DOWN buttons, you can scroll through all the counters and see all the alarms recorded.	
AH	**AH - Alarm log** Used to view, in sequence, alarms that have been triggered (maximum 20). With UP and DOWN buttons, you can scroll through the entire alarm log. The display shows the alarm number and code, alternated. The highest number corresponds to the most recent alarm and the lowest number (0) corresponds to the oldest alarm.	
AR	**AR - Alarm reset** Resets all the alarms in the memory (counters and log).  **NOTE:** when the installation has been completed, you are advised to delete the alarms in order to facilitate future checks.	
CV	**CV - Display of total manoeuvres counter**  	

CP - Display of partial manoeuvres counter

→716 manoeuvres (example)

ZP - Reset of partial manoeuvres counter

For correct functioning, you are advised to reset the partial manoeuvres counter:
- after maintenance work;
- after setting the maintenance alarm interval.

CA - Setting the maintenance alarm (factory setting - alarm deactivated: 0.0 00. 00)

You can set the required number of manoeuvres (regarding the partial manoeuvres counter) for signaling the maintenance alarm.

WARNING: when the set number of operations is reached, the alarm message appears on the display  .

OA - Selecting maintenance alarm display mode

- **00** - Visualization on display (alarm message )
- **01** - Visualization on flashing light (with the automation idle, 4 flashes are made and then repeated every hour) on display (alarm message ).

CH - Display of power supply hour counter

→215 hours (example)

BH - Visualization of counter for power supply hours via battery

→215 hours (example)

SV - Saving user configuration on control panel storage module

WARNING: if the display visualizes flashing  , the memory module may not be installed.

RC - Configuration loading

It's possible to load the user configurations previously stored  and  on the memory module of the control panel.

RL - Loading of last configuration set

The control panel automatically saves the last configuration set, and keeps it memorized in the storage module. In the event of a fault or the replacement of the control panel, the last configuration of the automation can be restored by inserting the storage module and loading the last configuration set.

EU - Erasing of user configurations and last configuration set in the storage module

IM - Motor current visualization

TB - Permanent display of the internal control panel temperature [°C]
- **ON** - Enabled
- **OF** - Disabled

TT - Display min / max temperatures recorded
- by pressing for 2 seconds the values are reset
- minimum value with active right point

TF - Limit switch test

Only FA / FC. are displayed when the respective limit switches are configured and active.
If the limit switches are active but not configured:
- **FA**= N.O. (both active points)
- **FC**= NO (no active point)

BL - Visualization of Battery voltage level

The parameter shows the battery voltage level:
- **Lo** - Automation stopped. Battery voltage level is low (≤ 22 V)
- **22** - Battery voltage level ≥ 22 V and < 23 V
- **23** - Battery voltage level ≥ 23 V and < 24 V
- **24** - Battery voltage level ≥ 24 V and < 25 V
- **25** - Battery voltage level ≥ 25 V and < 26 V
- **26** - Battery voltage level ≥ 26 V and < 27 V
- **27** - Battery voltage level ≥ 27 V and < 28 V
- **28** - Battery voltage level ≥ 28 V

NOTE: the parameter is visible in the menu if the main power supply is missing and the battery kit is connected. In battery mode, when there is no power supply, the automation speed is reduced to a maximum of 15 cm/s.

EL - Efficiency level of the automation
- At first start-up, the automation performs an acquisition operation and defines an efficiency level. This value can be used to assess the mechanical quality of the gate and to understand a suitable automation choice. In cases where the value is lower than 90%, mechanical maintenance is recommended to restore efficiency or the adoption of an automation with higher performance (e.g. motor with higher power).
- During normal use, this parameter indicates the efficiency of the automation, updating its degradation status in real time:
- **90%-99%** High efficiency level, automation in excellent condition.
- **50%-89%** Medium efficiency level, performance starts to degrade.
- **10%-49%** Low efficiency level, performance is degraded, and maintenance is required.

NOTE: the reference level is the level set in the RF parameter.

RD - Resetting of factory settings

17. Signals visualised on the display

NOTE: depending on the type of automation and control panel, certain visualisations may not be available.

17.1 Display of automation status

-  → →

Display	Description
	Automation closed
	Automation closed Release door open
	Automation open
	Automation open Release door open
	Automation stopped in intermediate position
	Automation stopped in intermediate position Release door open
	Automation closing
	Automation that slows down during closing
	Automation opening
	Automation that slows down during opening

NOTE: the automation status display mode is only visible with Display visualisation mode set to 02.

- 0M → 05 → 02

0M → LF

Display	Description
	Automation closed
	Automation closed Release door open
	Automation open
	Automation open Release door open
	Automation stopped in intermediate position
	Automation stopped in intermediate position Release door open
	Automation closing
	Automation that slows down during closing
	Automation opening
	Automation that slows down during opening

17.2 Display of safety devices and commands

- OM → 05 → 01 / OM → 05 → 03

Display	Description
1-2	1-2 - Automatic closing activation command
1-3	1-3 - Opening command
1-4	1-4 - Closing command
1-5	1-5 - Step-by-step command
P3	P3 - Partial opening command.
4P	4P - Closing command with operator present
RX	RX - Radio reception (of any memorised key of a transmitter present in the memory)
NX	NX - Radio reception (of any non-memorised key) NOTE: with the selection OM→05→01, it is also visualised when a command is received from a non-stored transmitter.
EX	EX - Rolling-code radio reception out of sequence
EP	EP - Radio reception not complying with the parameter configuration A0→EP
CX	CX - Command received from AUX board
J1	JR1 - Variation of the JR1 jumper status
VL	VL - radio controls disabled ('Vacation Mode' parameter active)
SW	SW - Release door open When the release door is closed, the control panel performs a RESET (allarme xx). It is possible to ignore the reset by holding down the ESC + DOWN keys for 3 seconds until the SW tops flashing.

Display	Description
68	68 - Selection of the device simultaneously connected to terminals 1-6 and 1-8
1-6	1-6 - Safety device with opening and closing stop
S1.	S1. - Detection of stop during closure
1-8	1-8 - Safety with closing reversal
1-9	1-9 - STOP command
3P	3P - Opening command with operator present
S2.	S2. - Detection of stop during opening
OO.	OO.- Obstacle detection area reached during opening
OC.	OC. Obstacle detection area reached during closure
AV	RV - Enabling/disabling of built-in radio receiver via RX
MO	MQ - Learning operation of mechanical end stops in progress
HT	HT - Heating of the motors (NIO function) in progress
HS	HS - Sharp NIO start-up
FC.	FC. - Closure limit switch
FA.	FA. - Opening limit switch

NOTE: if you return to the menu, the reset is reactivated.

WARNING: If the RESET is disabled, make sure not to move the gate manually.

IP2437EN

17.3 Visualisation of alarms and faults

Type of alarm	Display	Description	Operation
Mechanical alarm		**M0 - Automation not configured**	Check the configuration of the parameter A5
		**M3 - Automation blocked**	Check the mechanical parts
		**M4 - Motor short circuit**	Check connection of motor
		**M8 - Stroke too long**	Check the rack / chain belt
		**M9 - Stroke too short**	Manually check that the gate moves freely
		**MB - Absence of motor during an operation**	Check connection of motor
		**MD - Irregular operation of the opening limit switch** If the limit switch is configured but can't be found, each stop (from the 03 deceleration start point) is seen as an obstacle and indicated with MD.	Check connection of the opening limit switch
		**ME - Irregular operation of the closure limit switch** If the limit switch is configured but can't be found, each stop (from the 03 deceleration start point) is seen as an obstacle and indicated with ME.	Check connection of the closure limit switch.
		**MI - Detection of fifth consecutive obstacle**	Check for the presence of permanent obstacles along the stroke of the automation
		**ML - Inverted limit switches**	Check the positioning and connection of the limit switches. Also check the motor connection
		**OD - Obstacle during opening**	Check for the presence of obstacles along the automation stroke
		**OE - Obstacle during closure**	Check for the presence of obstacles along the automation stroke
		**OF - Automation blocked on opening**	Check the mechanical parts and make sure there are no obstacles along the automation stroke
		**OG - Automation blocked on closure**	Check the mechanical parts and make sure there are no obstacles along the automation stroke
Power supply Settings		**S6 - Incorrect setting of safety device test**	Check the configuration of parameters 36, 38, 68. If 68→54, 36 and 38 cannot be P4 or 54.

Internal control panel alarm		**I5 - No voltage 0-1 (faulty voltage regulator or short-circuit on accessories)**	Check there is no short circuit in connection 0-1. If the problem persists, replace the control panel.
		**I6 - Excessive voltage 0-1 (faulty voltage regulator)**	Replace the control panel.
		**I7 - Internal parameter error - value outside limits**	Reset. If the problem persists, replace the control panel.
		**I8 - Program sequence error**	Reset. If the problem persists, replace the control panel.
		**IA - Internal parameter error (EEPROM/ FLASH)**	Reset. If the problem persists, replace the control panel.
		**IB - Internal parameter error (RAM)**	Reset. If the problem persists, replace the control panel.
		**IC - Operation time-out error (>5 min or >7 min in learning mode)**	Manually check that the gate moves freely. If the problem persists, replace the control panel.
		**IE - Power supply circuit fault**	Reset. If the problem persists, replace the control panel.
		**IM - MOSFET alarm - motor in short circuit or always ON**	Reset. If the problem persists, replace the control panel. Check the settings / operating of any limit switches.
		**IO - Interrupted motor power circuit (motor MOSFET open or always OFF)**	Reset. If the problem persists, replace the control panel.
		**IR - Motor relay error**	Reset. If the problem persists, replace the control panel.
		**IS - Error on motor current read circuit test**	Reset. If the problem persists, replace the control panel.
		**IU - Error on motor voltage read circuit test**	Reset. If the problem persists, replace the control panel.
		**TH - Intervention of high temperature safety device**	Do not carry out any operations. If the problem persists, contact Technical Service.
		**VH - Automation blocked due to high temperature**	Do not carry out any operations. If the problem persists, contact Technical Service.
		**XX - Firmware reset commanded by the simultaneous pressing of the UP + DOWN keys**	
		**WD - Firmware reset not commanded**	

Radio operations alarm		**R0 - Insertion of a storage module containing over 100 stored remote controls** **WARNING:** the R0→MU→20 seting is made automatically	To save the system configurations on the storage module, delete any stored remote controls and bring the total to less than 100. Set R0→MU→10
		**R3 - Storage module not detected**	Insert a storage module
		**R4 - Storage module not compatible with the control panel**	Insert a compatible storage module
		**R5 - No serial communication with the storage module**	Replace the storage module
		**R6 - Insertion of a specific storage module for testing**	
		**RV - Plug-in radio boards**	
Power supply alarm		**P0 - No mains voltage**	Check the control panel is powered correctly. Check the line fuse. Check the mains power supply.
		**P1 - Microswitch voltage too low**	Check the control panel is powered correctly
Battery alarm		**B0 - Battery almost flat**	Check battery voltage. Replace battery.
Accessories alarm		**A0 - Failure of test of safety sensor on contact 6**	Check the device SOFA1-A2 is working correctly If the supplementary SOF board is not inserted, check the safety test is disabled
		**A1 - Simultaneous safety sensor test on contacts 6 and 8 failed**	Check the wiring and correct operation of the safety sensor
		**A3 - Failure of test of safety sensor on contact 8**	Check the device SOFA1-A2 is working correctly If the supplementary SOF board is not inserted, check the safety test is disabled
		**A7 - Incorrect connection of contact 9 to terminal 41**	Check that terminal 1 and 9 are correctly connected
		**A9 - Overload on output +LP-**	Check the device connected to output +LP- is working properly

WARNING: the visualisation of alarms and faults is possible with any visualisation selection. The signalling of alarm messages takes priority over all other displays.

18. Troubleshooting

Problem	Possible cause	Alarm signalling	Operation
The control panel does not switch on	No power supply.		Check the power supply cable and the relative wiring
The automation does not open or close	No power.		Check power supply cable.
	Short circuited accessories		Disconnect all accessories from terminals 0-1 (a voltage of 24 V⎓ must be present) and reconnect them one at a time. Contact Technical Service.
	Blown line fuse.		Replace fuse.
	Safety contacts are open.		Check that the safety contacts are closed correctly (NC).
	Safety contacts not correctly connected or self-controlled safety edge not functioning correctly.		Check connections to terminals 6-8 on control panel and connections to the self-controlled safety edge.
	Photocells activated.		Check that the photocells are clean and operating correctly.
	The automatic closure does not work.		Issue any command. If the problem persists, contact Technical Service.
	Motor fault		Check motor connection, if the problem persists, contact Technical Service.
	Mechanical fault		Check the rack and transmission chain, and/or the mechanical parts.
	Release microswitch open		Check that the hatch is closed correctly and the microswitch makes contact.
	Faulty control panel		Contact Technical Service.
	Both limit switches are active.		Check the connection of the limit switches

Problem	Possible cause	Alarm signalling	Operation
The external safety devices are not activated	Incorrect connections between the photocells and the control panel.		Check that I-6/I-8 is displayed. Connect NC safety contacts together in series and remove any jumpers on the control panel terminal board. Check the setting of I0→I6 and I0→I8.
The automation opens/closes briefly and then stops	There is a presence of friction.	M1 M9 IC	Manually check that the automation moves freely and check the A1/A2 adjustment. Contact Technical Service.
The remote control has limited range and does not work with the automation moving.	The radio transmission is impeded by metal structures and reinforced concrete walls.		Install the antenna outside. Replace the transmitter batteries.
The remote control does not work	No storage module or incorrect storage module.	A0 A3 A5	Switch the automation off and plug in the correct storage module. Check the correct memorisation of the transmitters on the built-in radio. If there is a fault with the radio receiver that is built into the control panel, the remote control codes can be read by removing the storage module.
The flashing light is not working	The wires of the flashing light are detached or have short circuited.	A9	Check the connections. If the problem persists, contact Technical Service.

The crossed-out wheelie bin symbol indicates that the product should be disposed of separately from normal household waste. The product should be recycled in accordance with local environmental regulations for waste disposal. By separating a product marked with this symbol from household waste, you will help reduce the volume of waste sent to incinerators or land-fill and minimise any potential negative impact on human health and the environment.

ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44, Landskrona
Sweden