



• Rev. 00

Latest version of this manual

Ditec

IP2473EN • 2025/06/24



Technical Manual

Ditec BOX3BH - BOX3H

Automation for balanced up and over doors

(Translation of the original instructions)

GENERAL SAFETY INSTRUCTIONS



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



WARNING! Before carrying out any cleaning or maintenance operations, disconnect the power supply • This manual and the manuals of any accessories can be downloaded from the website: www.ditecautomations.com

INSTALLER SAFETY INSTRUCTIONS



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

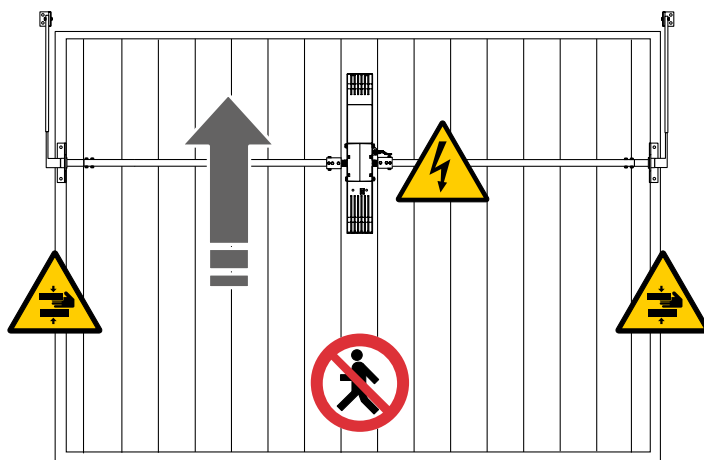


by qualified personnel only • The electronic parts must be handled using earthed antistatic conductive arms. The manufacturer of the motorization declines all responsibility if component parts not compatible with safe and correct operation are fitted • Only use original spare parts for repairing or replacing 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.

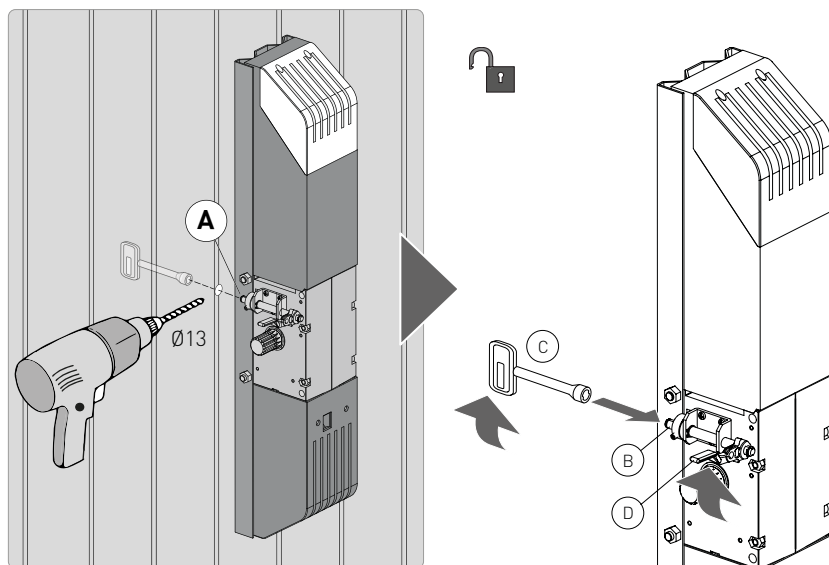
USER SAFETY INSTRUCTIONS

These precautions are an integral and essential part of the product and must be supplied to the user. Read them carefully since they contain important information on safe installation, use and maintenance. These instructions must be kept and forwarded to all possible future users of the system

- This product must be used only for the specific purpose for which it was designed. Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use
- Avoid operating in the proximity of the hinges or moving mechanical parts. Do not enter within the operating range of the motorized door or gate while it is moving. Do not obstruct the motion of the motorized door or gate, as this may cause a dangerous situation
- Lock and release the door or gate wings only when the motor is switched off. Do not enter within the action range of the door or gate wing(s)
- In case of operation in "hold-to-run" ("dead man") mode, the corresponding command devices must be located so to have direct and complete view of the door or gate during the maneuvers, away from any moving parts, at a minimum height of 1.5 m, and out of reach of the public
- The motorized door or gate may be used by children over the age of 8 and by people with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, as long as they are properly supervised or have been instructed in the safe use of the device and the relative hazards
- Children must be supervised to make sure they do not play with the device, nor play or remain in the area of action of the motorized door or gate. Keep remote controls and/or any other command devices out of the reach of children, to avoid any accidental activation of the motorized door or gate
- Cleaning and maintenance work intended to be done by the end user must not be carried out by children unless they are supervised. In the event of a product fault or malfunction, turn off the power supply switch. Do not attempt to repair or intervene directly
- Any repair or technical intervention must be carried out by qualified personnel. Failure to comply with the above may cause a dangerous situation
- To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance on the motorized door or gate. In particular, regular checks are recommended in order to verify that the safety devices are operating correctly
- All installation, maintenance and repair work must be documented and made available to the user.



MANUAL RELEASE PROCEDURE



The door wing block and release operations must be performed with the motor idle.



The gearmotor can also be released using accessories. For more information, refer to the relevant installation manuals.

Machinery Directive

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

- prepare the technical file that must contain the documents indicated in Annex V of the Machinery Directive (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorised door or gate, in accordance with point 1.7.3 of Annex I of the Machinery Directive.
- Ensure that the motorised door or gate complies with the safety regulations, installing the necessary safety devices.

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 BOX3BH - BOX3H 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 61000-6-3:2007 + A1:2011 + AC:2012

EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021

Other standards or technical specifications which have been applied:

IEC 60335-1:2010 + C1:2010 + C2:2011 + A2:2013 + C1:2014 + A2:2016 + C1:2016

EN 12453:2017

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

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

2025/06/24

Matteo Fino

CEO Ditec



INDEX

GENERAL SAFETY INSTRUCTIONS	2
Declaration of incorporation of partly completed machinery	5
1. Technical data	7
1.1 Operating instructions	8
1.2 Dimensions	8
1.3 Main components	9
2. Installation	10
2.1 Standard installation	10
2.2 Base plate fastening	12
2.3 Automation installation	13
2.4 Electrical connections	14
2.5 Closing automation	15
2.6 Gearmotor installation	16
2.7 Installing the left-hand gearmotor	19
2.8 Mechanical limit switch adjustment	20
2.9 Manual release instruction	21
3. LCU55 Board	22
3.1 LED Signals	23
3.2 Jumper Setting	24
4. Commands and safety devices	25
4.1 Inputs	25
4.2 Safety inputs	25
4.3 Outputs and accessories	26
5. Using the menus	28
5.1 Switching the display on and off	28
5.2 Navigation keys	28
6. LCU55 Parameters	29
6.1 Main level menu	29
6.2 Frequently used menu map	29
6.3 Complete menu map	30
6.4 "FREQUENT USE" Menu - Description of the parameters	32
6.5 Full menu - Description of the parameters	35
7. Signals visualised on the display	50
7.1 Displaying temporary safety messages	50
7.2 Display of alarms and faults	51
8. Troubleshooting	54
9. Routine maintenance plan	56



This symbol indicates notes and/or information useful or the correct operation of the product.


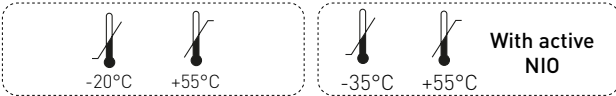

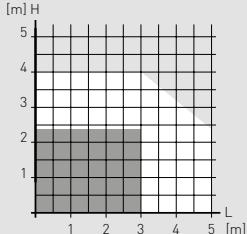


This symbol indicates a note regarding safety, to which special attention must be paid.



This symbol indicates the default value of the parameter.

1. Technical data

	BOX3BH	BOX3H
Power supply	100-120 V~ / 200-240 V~ (selectable by switch), 50-60 Hz	-
	In case of 120 V power supply, switch the power supply switch.	
Fuse	T5A	-
Power	150 W	-
Control panel	LCU55	-
Accessories power supply	24V \equiv 0,5 A max	-
Standby	< 0,8 W	-
Motor output	24V \equiv 8A max	
Torque	300 Nm	
Opening / Closing time	12÷50 s adjustable - 22 s (Default)	
Service class	INTENSE (tested up to 150.000)	
Intermittence	S2= 40 min (T= 25°C) S3= 60% (T= 25°C)	
Cycles / hour *	49 (T= 25°C)	
Consecutive cycles **	50 (T= 25°C)	
Temperature [T]		
Degree of protection	IP40	IP44
Noise level L_{pA}	≤70 dB (A)	
Radio codes storable	code BIXMR2	100= (RO → MU → MU / 10) 200= (RO → MU → MU / 20)
Radio Frequency	433.92 MHz (RO → 88 → 48) - default 868.35 MHz (RO → 88 → 88)	
	RCB100E receiver module included.	
Courtesy light	Integrated: LED 230 Vac (350 lm)	-
Weight	11,40 kg	9 Kg
Applications H= door height L= door width		

* Indicative cycles considering a time for opening maneuver (22 sec), closing maneuver (22 sec) and pause time (15 sec). Full cycle time of 74 sec.

** Indicative cycles considering a time for opening maneuver (22 sec), closing maneuver (22 sec) and pause time (1 sec). Full cycle time of 46 sec.



1.1 Operating instructions

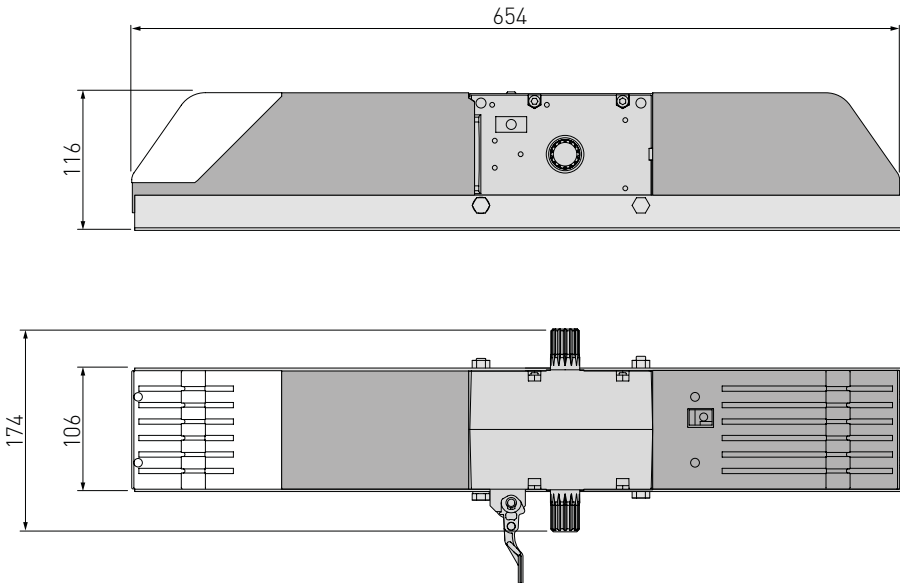
(for vehicle or pedestrian for single-family or multi-family with frequent use)

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves). It is the installer's responsibility to adopt safety coefficients appropriate to each particular installation.

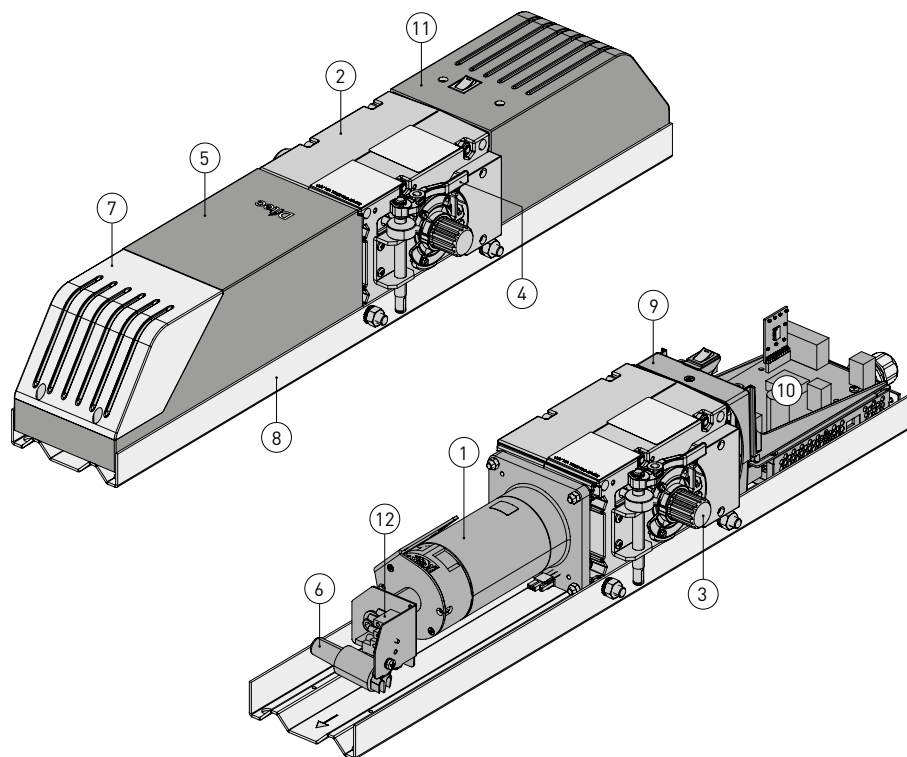


Unless otherwise specified, all measurements are expressed in millimetres (mm).

1.2 Dimensions



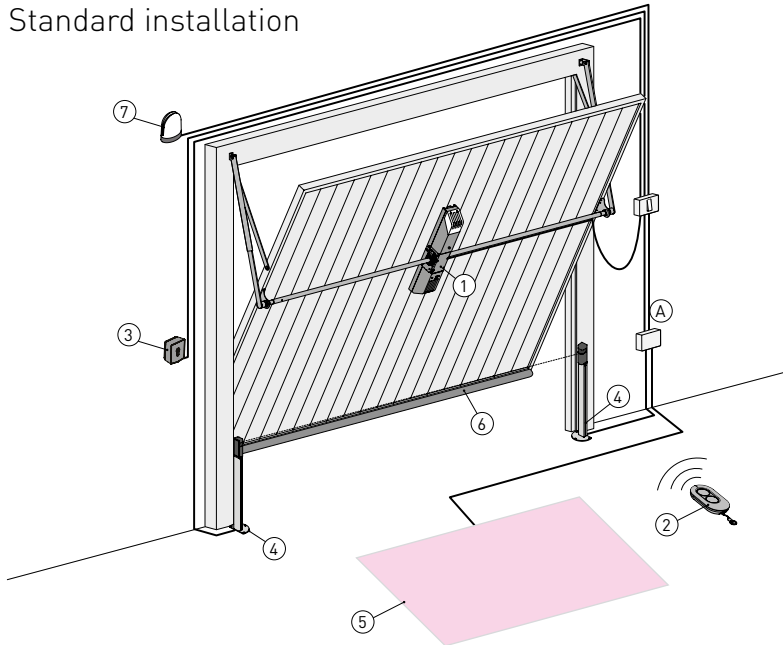
1.3 Main components



Ref.	Code	Description
1		Motor
2		Gearmotor
3		Gearmotor shaft
4		Manual release
5		Motor cover
6		Courtesy light
7		Cover / Courtesy light diffuser
8	BOXSL	Base plate / Base platee L=2500
9		Control panel support
10	LCU55	DOITBXBL's control panel
11		Control panel cover
12		Terminal block

2. Installation

2.1 Standard installation



Ref.	Code	Description	Cable
A		Connect the power supply to a certified-compliant omnipolar switch (not included) with a contact opening distance of at least 3mm. Connection to the mains must be via an independent conduit, separated from the connections to the command and safety devices.	
1	BOX3BH	Gearmotor	3G x 1.5 mm ²
2	ZEN	Transmitter	/
	AXK4/ AXK4P	Digital combination wireless keypad	/
3	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 mm ²
	AXR7	RFID reader unit	5 x 0.5 mm ²
4	LIN2 LIN2B AXP2 LAB4	Photocells	4 x 0.5 mm ²
5	LAB9	Magnetic loop	2 x 1.5 mm ²
6	SOFAP20 - SOF2M20 SOF3M20 - SOFA15 SOFA20 - SOFA25	Safety edge	2 x 0,5 mm ² min
7	FLM FL24	Flashing light Antenna (integrated in the flashing light)	2 x 1 mm ² coax cable RG-58 (50 Ω)

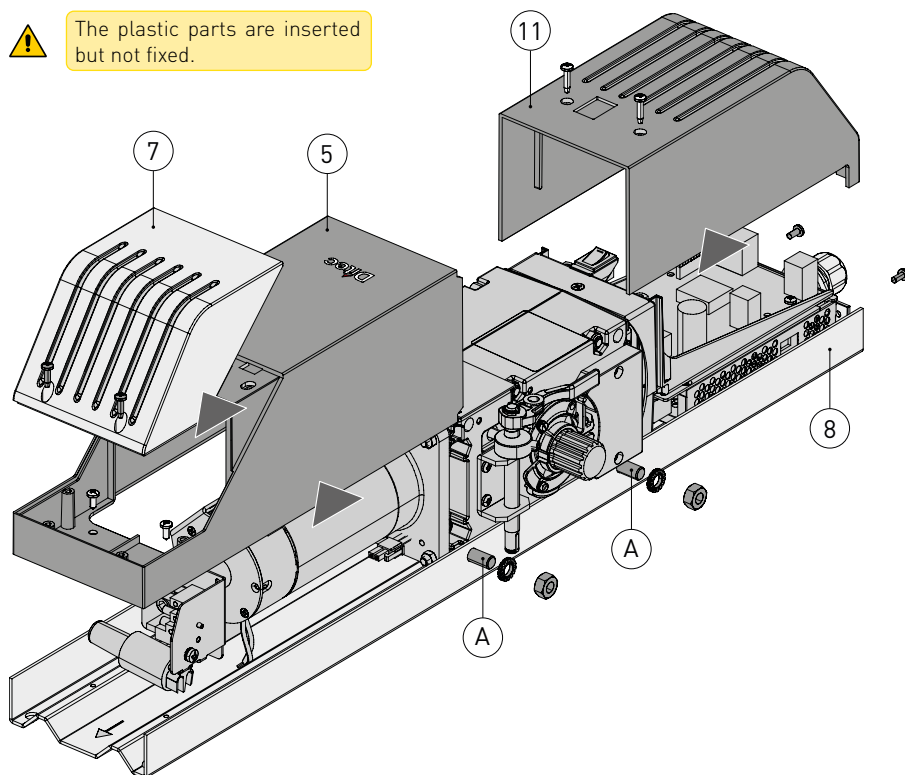


The given operating and performance features can only be guaranteed with the use of DITEC devices.

- Remove the automation from its packaging. Remove the motor cover [5], the courtesy light cover [7] and the control panel cover [11].
- Separate the gearmotor from the base plate [8] by unscrewing the screws [A].



The plastic parts are inserted but not fixed.

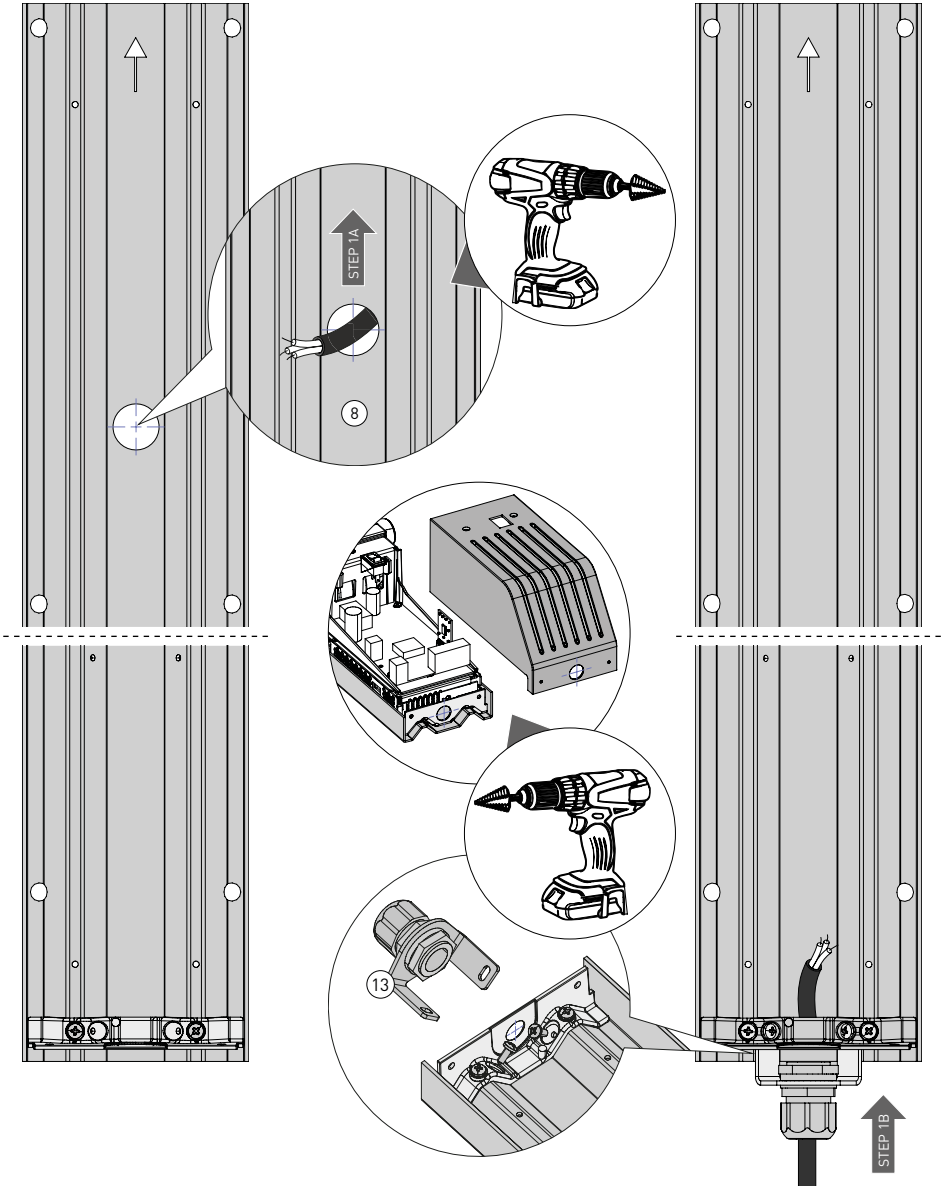


If using the BOXSL base plate:

- fix the BOXSL on the up and over door;
- insert the gearmotor with the base plate [8] on the BOXSL and fasten it with the 2 screws supplied.

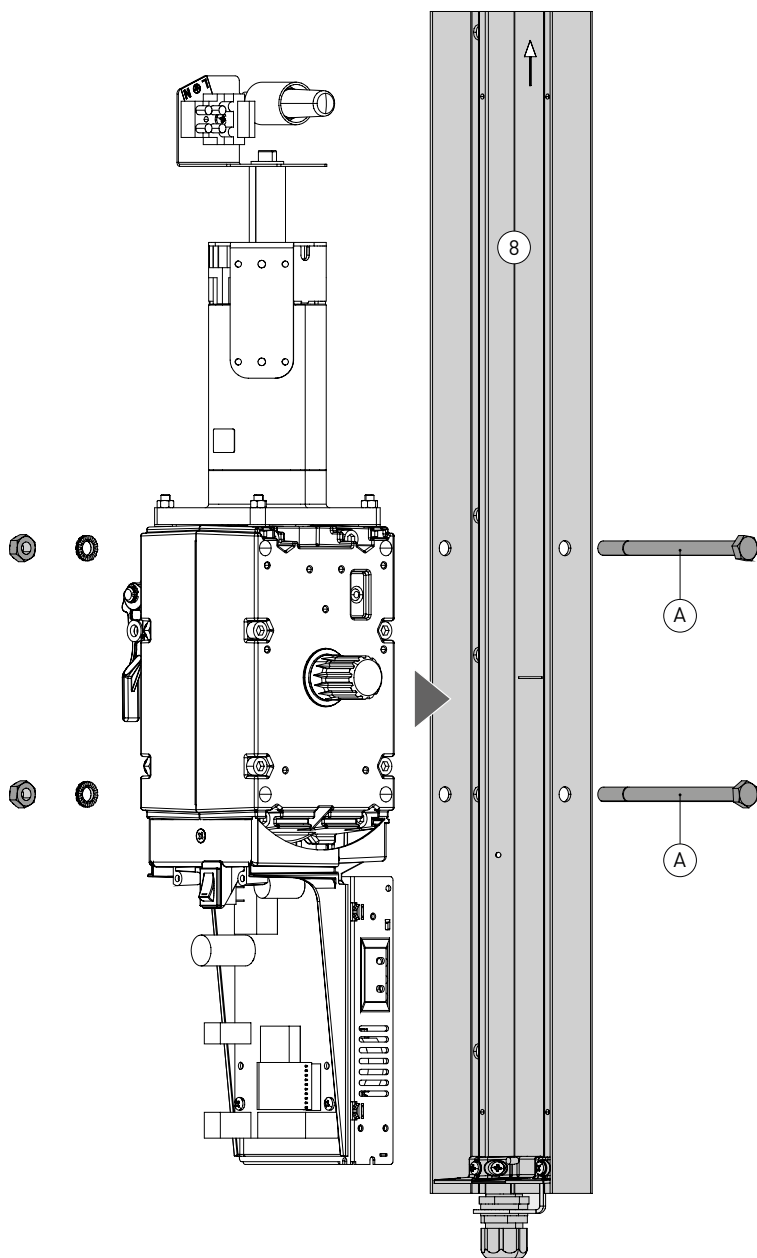
2.2 Base plate fastening

- Drill, as shown in the figure:
 - STEP 1A - the base plate [8];
 - STEP 1B - the covers in the lower area, installing the supplied cable retainer [13] by means of the screws; to allow the power cable (230 V) to pass through with reference to paragraph 2.4.
- Position the base plate [8] with reference to paragraph 2.6 and attach it to the door.



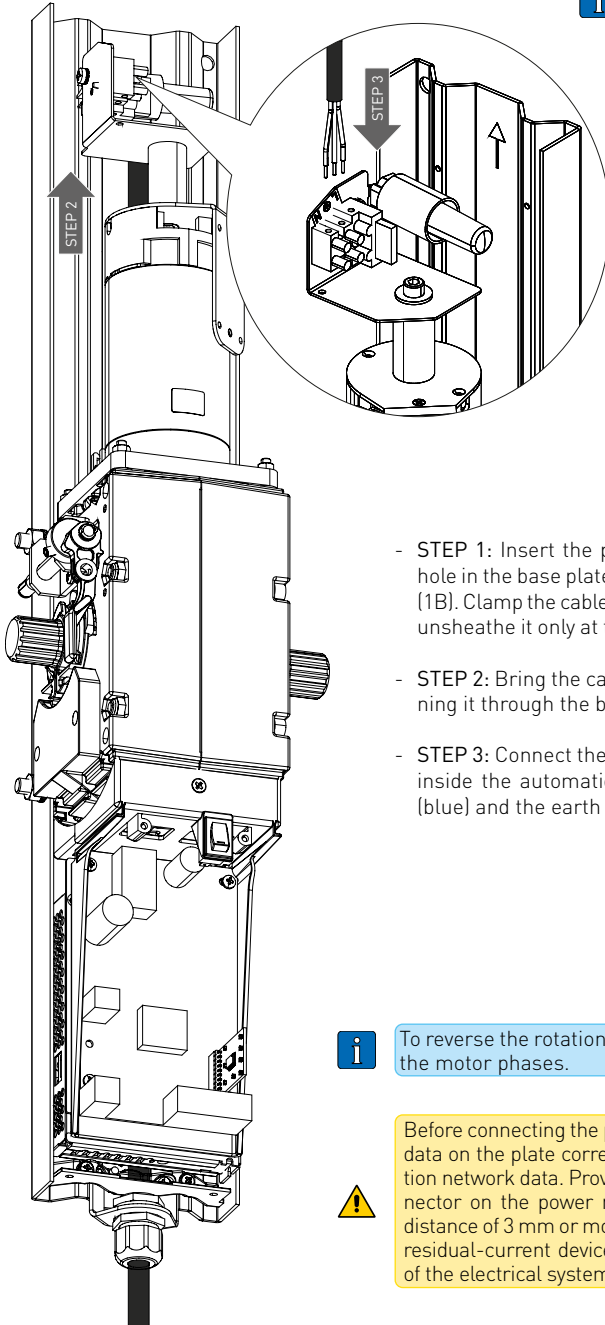
2.3 Automation installation

- Insert the gearmotor into the base plate [8], paying attention to the wiring, and fasten it using the two screws [A] and associated bolts provided.



2.4 Electrical connections

The electrical wiring and the start-up of the gearmotors are shown in the control panel installation manuals.



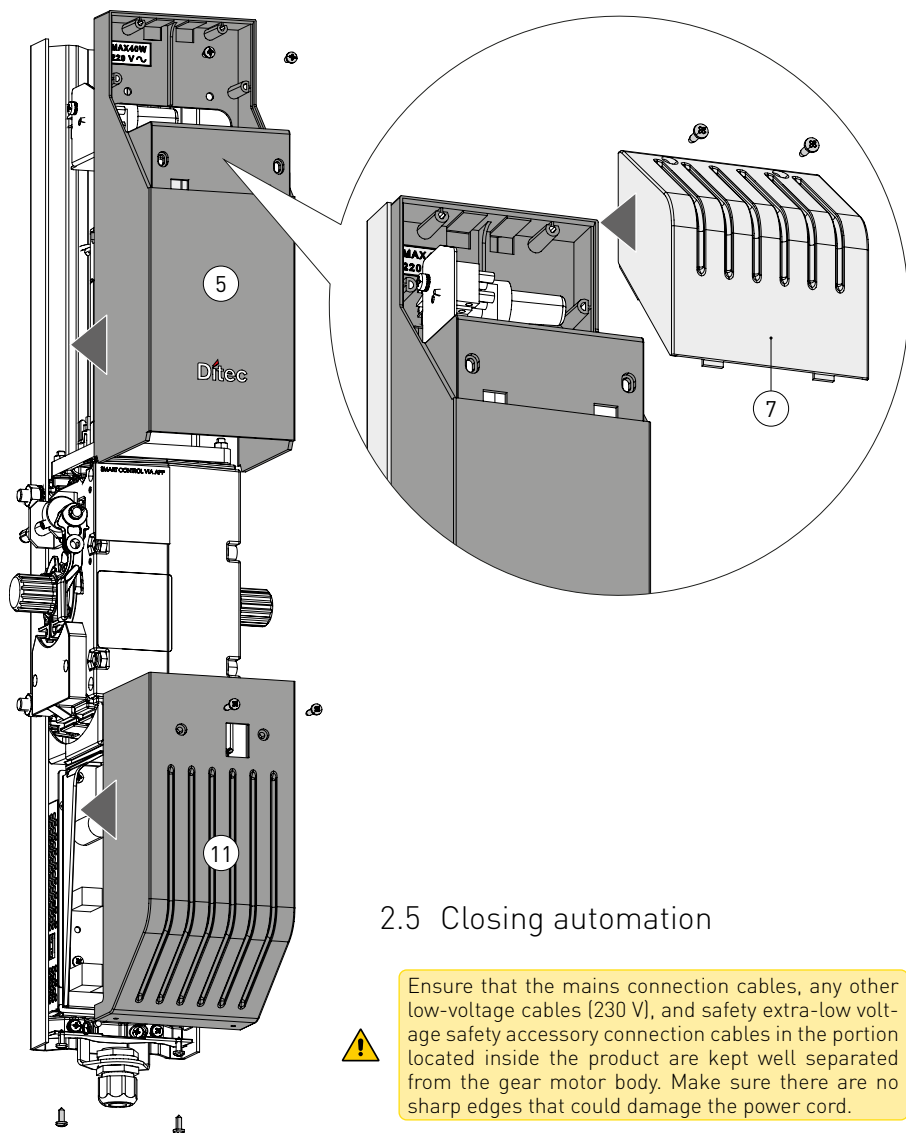
- STEP 1: Insert the power cable (230 V) through the hole in the base plate (1A) or through the cable clamp (1B). Clamp the cable by means of the cable clamp and unsheathe it only at the terminal (ref. paragraph 2.2).
- STEP 2: Bring the cable to the terminal block by running it through the back of the automation.
- STEP 3: Connect the cables to the relevant terminals inside the automation: phase-L (brown), neutral-N (blue) and the earth terminal ⊕ (yellow/green).



To reverse the rotation direction reverse the polarity of the motor phases.



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.



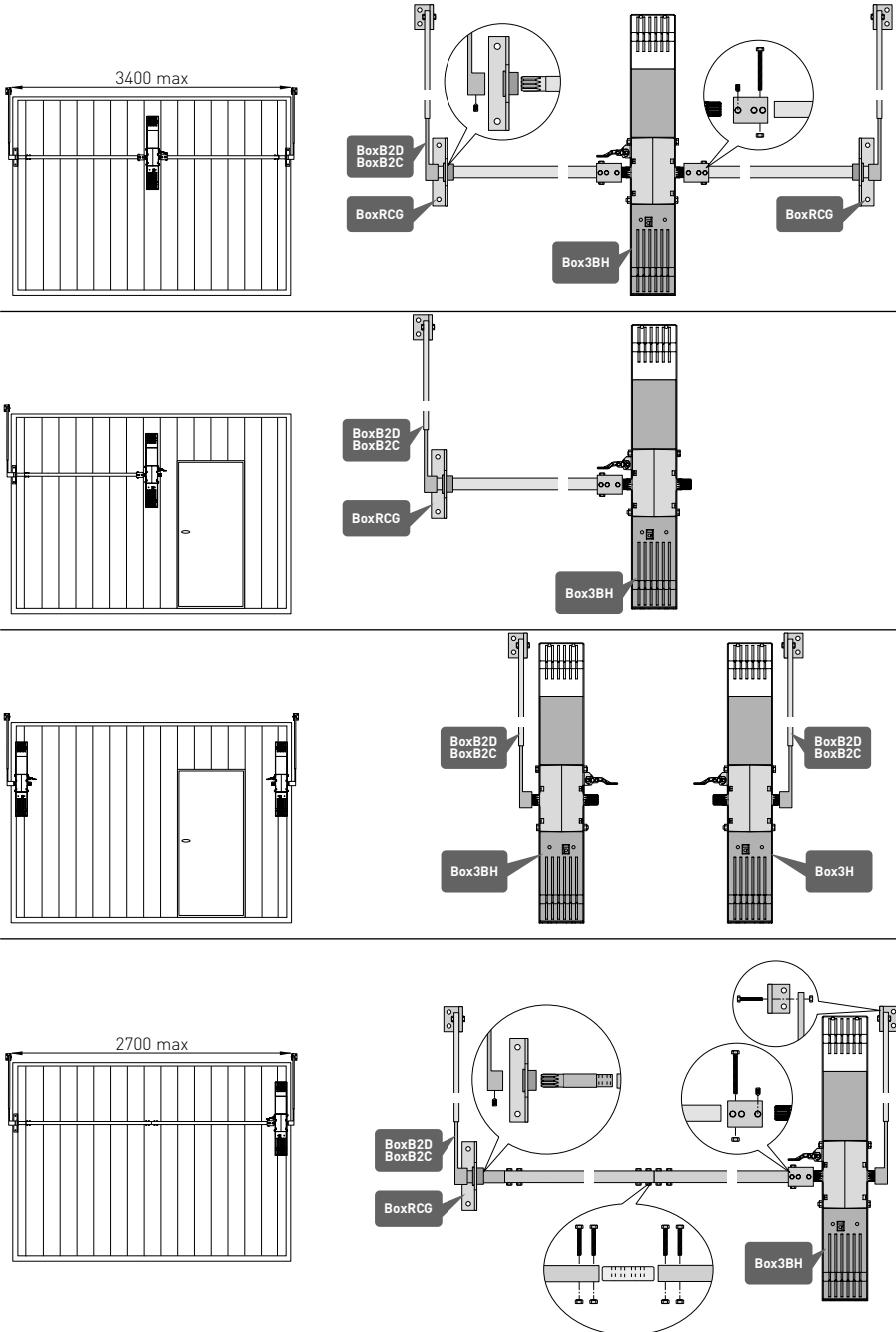
2.5 Closing automation

Ensure that the mains connection cables, any other low-voltage cables (230 V), 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. Make sure there are no sharp edges that could damage the power cord.

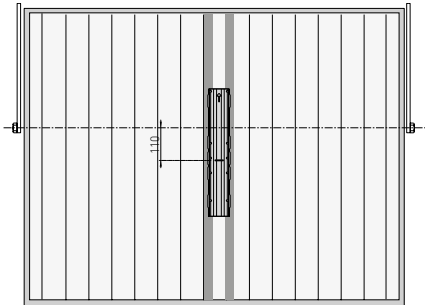
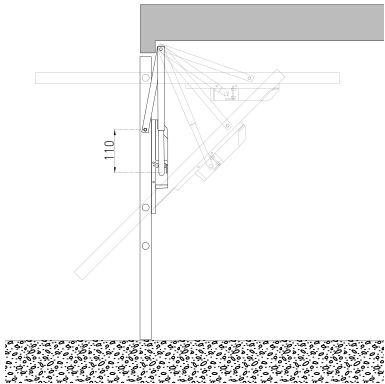
- Insert the motor cover [5] and fix it using the supplied screws.
- Screw the bulb into the bulb support.
- Fix the courtesy light cover [8] using the supplied screws.
- Drill a hole in the control panel casing for the wiring. Fix the cable gland fastening bracket.
- Fix the control panel cover [11] and secure it with the 4 screws provided.

2.6 Gearmotor installation

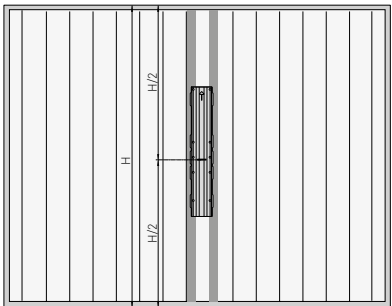
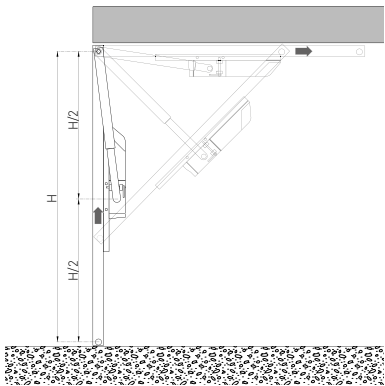
- Fix the gearmotor to the base plate and the accessories as shown in the examples.



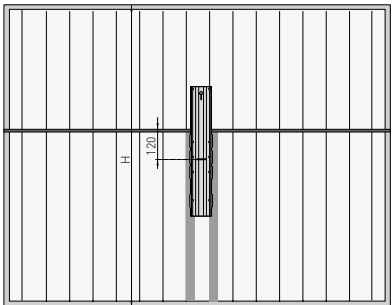
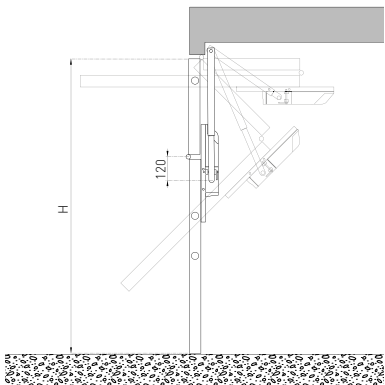
Standard balancing door



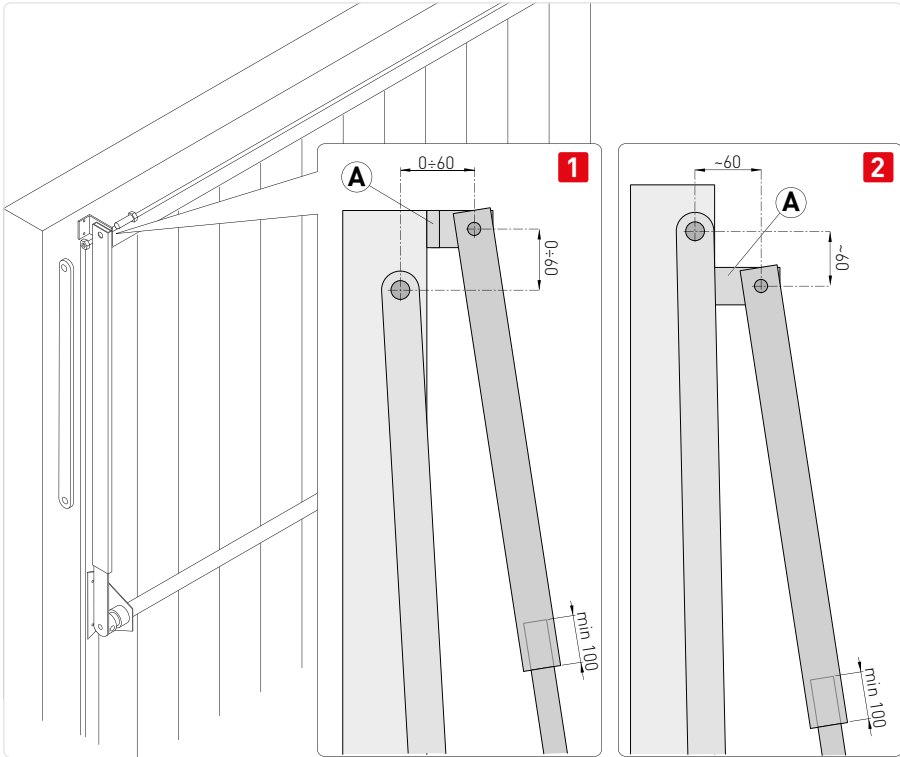
Totally concealing balancing door



Articulated panel balancing door



IP2473EN



- [1] Fix the corner-joint [A] onto the upper frame of the up and over door, in line with the motor arm.
 [2] If the corner-joint [A] cannot be fixed onto the upper frame of the door, respect the dimensions shown in the figure.

! The dimensions of the poles, the position of the transmissions and the wall coupling for the corner-joint [A] must be calculated so that the motor arms do not collide with the support arms of the door. Check that when the door is open, the curved arms do not protrude and touch the ceiling.

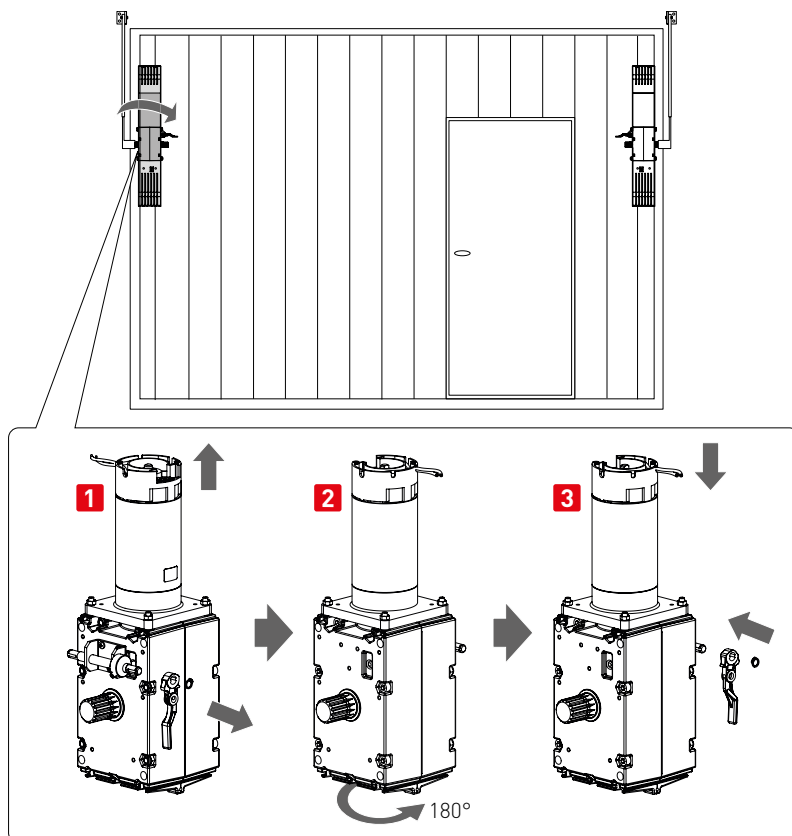
After installing the motor(s) on the up and over door, release the motor and check the door can be easily moved by hand.
 If the door is unbalanced, the weight of the counterweights must be increased/reduced until the frame is fully balanced.

i If the BOXB2D straight arms collide with the support arms of the door, use the BOXB2C curved arms.

! FOR GEARMOTOR INSTALLATIONS IN CENTER OR RIGHT SIDE POSITION

2.7 Installing the left-hand gearmotor

In the event of left-hand side assembly, it is necessary to rotate the gearmotor 180° so that the release shaft is pointing towards the centre of the up and over door.



[1] Disassemble the snap ring, unthread the lever and disassemble the upper bracket.

[2] Rotate the gearmotor 180°.

[3] Thread the lever (also rotated 180°) back on, then fasten the snap ring back on and reassemble the upper bracket.



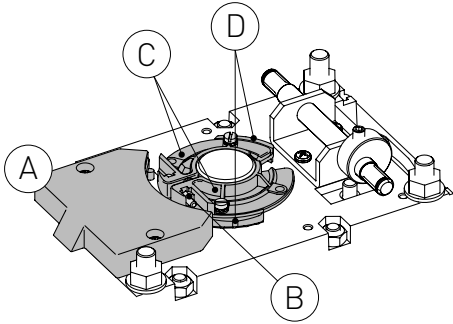
The BOX3H geared motor is supplied for left side mounting together with the BOX3BH geared motor.



FOR INSTALLATION IN LEFT SIDE POSITION
WITH GEARMOTOR ROTATED 180° TO ALLOW UNLOCKING

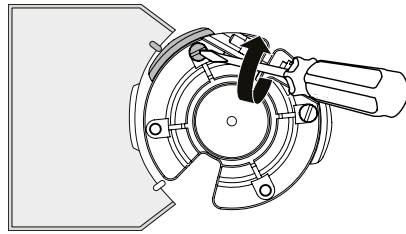
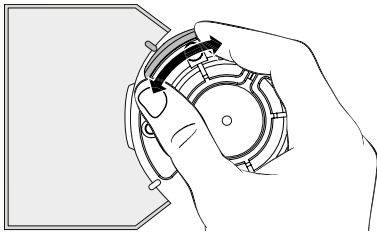


2.8 Mechanical limit switch adjustment



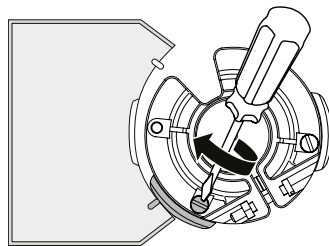
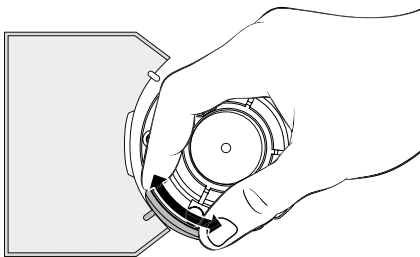
Ref.	Description
A	Micro-switches
B	Flange clamping screw
C	Flanges
D	Cams

- With the gate, door or overhead door in the closed position, adjust the cam so that the closing micro is depressed and the opening micro is not depressed. Tighten the flange to this position using the screw.



Check that there is a gap of at least 1 mm between the gearmotor and the limit switch cams.

- With the gate or overhead door in the open position, check that the opening micro is depressed.
- Tighten, when the adjustment is complete, the cam screw.

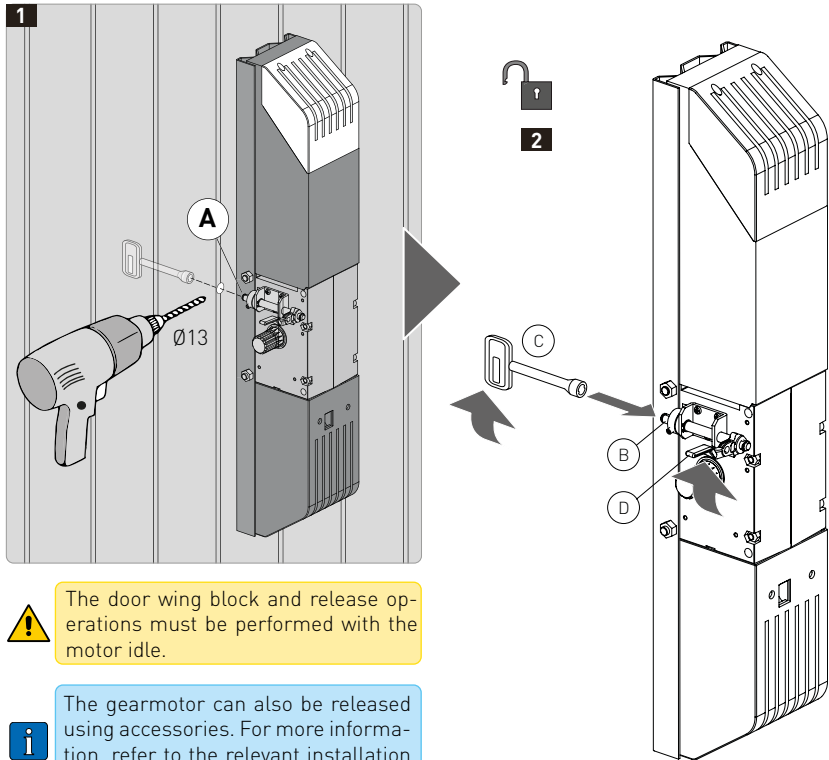


Move the cam to another hole if the opening micro is not pressed in.

2.9 Manual release instruction

In the event of: fault, power failure, ordinary or extraordinary maintenance, the procedure for manual release of the automation is indicated below:

1. To release the gearmotor from the outside, drill a $\varnothing 13$ hole in the tilting door in line with the release pin [A] and release using the supplied key.



The door wing block and release operations must be performed with the motor idle.



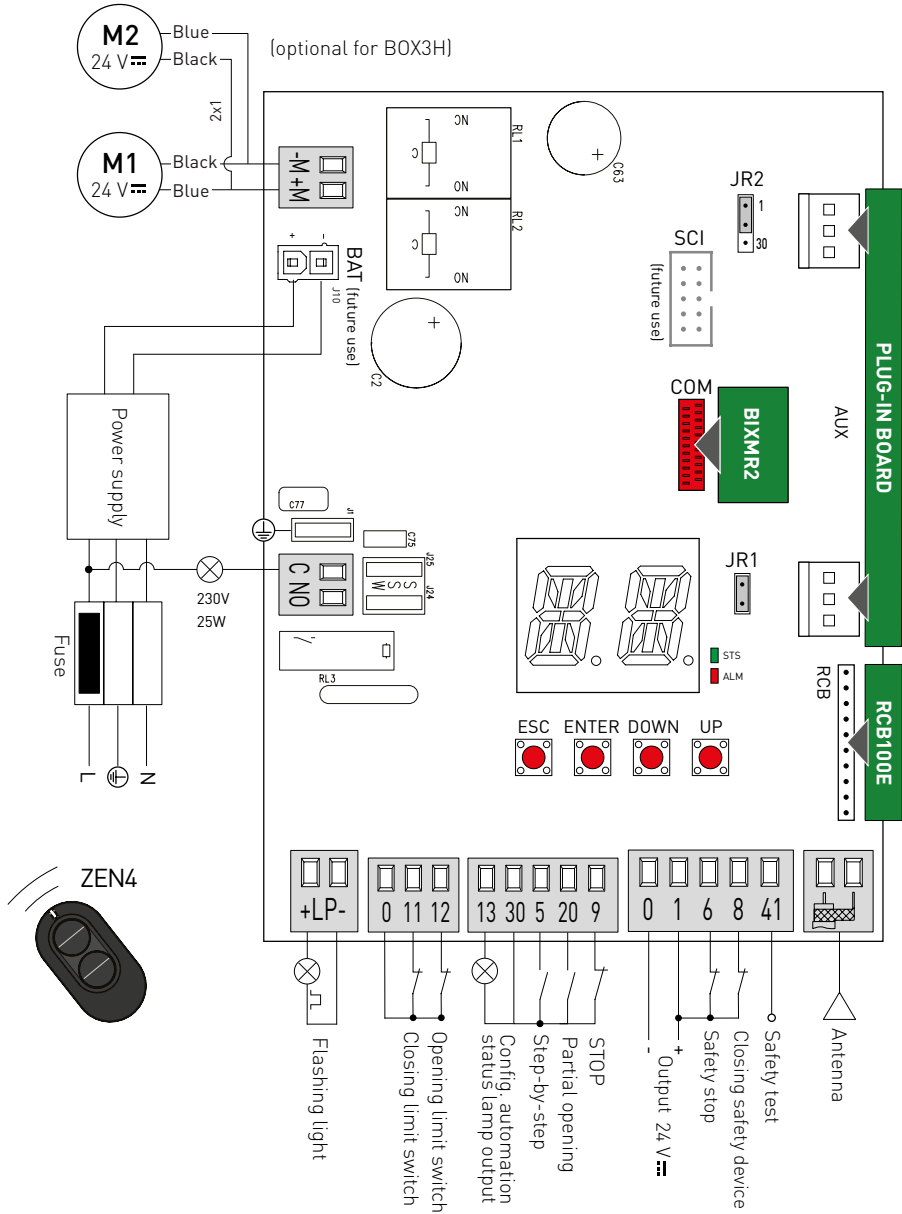
The gearmotor can also be released using accessories. For more information, refer to the relevant installation manuals.

2. Insert the key supplied [C] and turn it anticlockwise, or move the lever [D] as shown in the figure. Move the tilting door manually. To block the up and over door again, bring the lever [D] back to its original position.



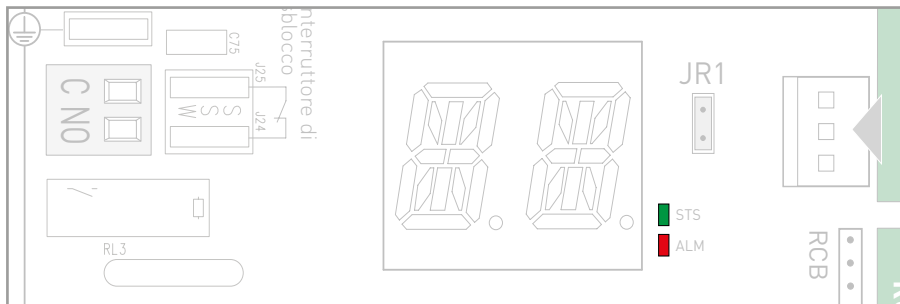
For any problems and/or information, contact the Technical Service.


3. LCU55 Board



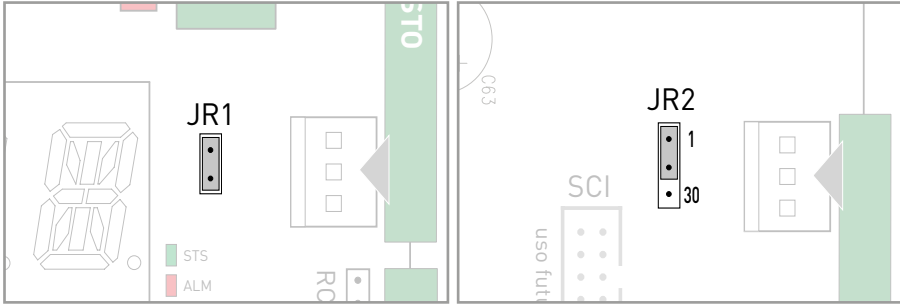
Always observe L-N polarity when connecting to the mains and close all unused terminals.



3.1 LED Signals







Red LED 	Green LED 	Description
OFF	OFF	Board off or not working.
1 flash every second	OFF	LCU board on and working. RCB board (radio/BLE/WiFi) absent or not working
OFF	1 flash every second	LCU board on and working. RCB50E board (radio) present and working
OFF	2 flashes every second	LCU board on and working. RCB100E board (radio/BLE) present and working
OFF	3 flashes every second	LCU board on and working. RCB200E board (WiFi) on SCL present and working
OFF	4 flashes every second	LCU board on and working. RCB50E (Radio) + RCB200E (WiFi) board present and working
OFF	5 flashes every second	LCU board on and working. RCB100E board (Radio/BLE) + RCB200E (WiFi) present and working

3.2 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  →  it turns off during power saving mode.	AUX1 powered from 0-30. Always supplied.

4. Commands and safety devices






Terminal 30 (common positive for controls) has the same functions as terminal 1 and consequently, the commands displayed on the display are indicated with **10**, **15**, **20**, etc. It is different from terminal 1, however, because of the maximum current that it can deliver and is also active with the control panel in standby **0M** → **0N**.

4.1 Inputs

Function	Command	Description
NO		<p>When selecting 10 → 15 → 20, the closure of the contact activates a sequential opening or closing operation: opening-stop-closing-opening.</p> <p>! If automatic closing is enabled, the stop mode is selected via 0M → 0S.</p> <p>The “opening-stop-closing-opening” sequence can be changed to “opening-stop-closing-stop-opening” by selecting 0M → 0P.</p>
		<p>Selecting 10 → 15 → 20, the closure of the contact activates an opening operation</p>
NC		<p>The opening of the safety contact causes the current operation to stop. If 10 → 15 → 20, automatic closing is disabled when contact 30-9 closes. If 10 → 15 → 20, automatic closing is activated when contact 30-9 closes.</p> <p>i The flashing light blinks.</p>
NO		<p>The closure of the contact activates a partial opening operation. Once the automation stops, the partial opening command performs the opposite operation to the one performed before the stop.</p>
NC		<p>Selecting 10 → 20 → 20, the permanent closure of the contact enables automatic closing if 0M → 0R → 0R.</p>

4.2 Safety inputs






Function	Command	Description
		<p>Place the GOPAVRS device in its seat for AUX plug-in cards. To activate the safety test, configure parameters 10 → 00 and accordingly 10 → 00. If the test fails, an alarm message appears on the display.</p>
NO		<p>Selecting 10 → 00 → 00, the closure of the contact activates a closing operation.</p>
NC		<p>Selecting 10 → 00 → 00, the opening of the safety contact stops and prevents any movement.</p> <p>i To set different safety contact functions, refer to the settings of parameter 10 → 0M.</p>

Function	Command	Description
NC CLOSING SAFETY DEVICE	1  8	The opening of the safety contact triggers a reversal of the movement (reopening) during the closing operation. Selection 10 → 50 → 0N , with the automation idle (gate closed or partially open), prevents any operation. With the selection 10 → 50 → 00 , with the automation idle (gate closed or partially open) it is possible to activate the opening operation.
NC CLOSING/ OPENING SAFETY DEVICE	1  6 8	The opening of the safety contact stops and prevents any movement.  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.





Create a jumper for all NC contacts if not used, or deactivate them through the relevant menu. Terminals with the same number are the same.


4.3 Outputs and accessories



Function	Output	Accessories	Description
Accessories power supply		24 V $\overline{=}$ 0.5 A Max	Output for power supply to external accessories. All accessories connected to this output will be de-energized with ES=ON (after 10 min).
Accessories power supply		24 V $\overline{=}$ 0.3 A Max	Output for power supply to external accessories. All accessories connected to this output will remain powered with ES=ON.
Seat for plug-in accessories	AUX	BIXR2 BIXPR2 BIXLR42 LAB9 LAN7S GOPAVRS	The action of the control card can be selected by selecting 10 → R0 . When using slot-in radio boards, remove the RX module. The display will show R0 .
Output configurable		24 V $\overline{=}$ 2 W (0.1 A Max)	Factory configured output 30-13 as proportional open gate indicator light 10 → 00 . To modify the operating mode of output 13, refer to the selection 10 → 10 .
Output configurable		24 V $\overline{=}$ 25 W (1 A)	Factory 0P configured output as flashing ON-OFF 0P → 00 . The preflashing settings can be selected from the menu 0M → 00 and/or 0M → 00 . To modify the operating mode of the LP output, refer to the selection 10 → 0P .
Radio antenna			When using the standard antenna, the following measures are recommended: 433 MHz (175 mm) - 868 MHz (90 mm). Use an RG-58 coaxial cable (50 Ω) to connect an external antenna (ref. GOL148REA)



The sum of the currents delivered by the 24 V $\overline{=}$: 1, 30 and AUX outputs must not exceed 0.5 A.

Radio receiver module		<p>RCB100E radio receiver module (standard) configurable from the control panel:</p> <ul style="list-style-type: none"> - 433.92 MHz (RD → FL → 40) - default - 868.35 MHz (RD → FL → 80) <p>RCB50E compatible radio receiver module (option)</p>
Radio control memory module	<p>COM</p> 	<p>BIXMR2</p> <p>This allows the functioning configurations to be saved using the function BI → SA. Saved configurations can be recalled using the function BI → RE.</p> <p>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.</p>

 The storage module must be inserted and removed with the power supply disconnected, and paying attention to the positioning direction.

DC power supply	<p>J10</p>  <p>BAT</p> <p>(FUTURE USE)</p>	<p>Power supply: 36 V DC. With the power supply off, the power supply is reduced to 24 V DC in battery mode. 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. To check the voltage level of the batteries, refer to the menu BI → BL (visible only in the absence of the mains and with batteries connected).</p> <p> The operating temperature of the rechargeable batteries is between +0°C and 40°C.</p>
------------------------	---	--

5. Using the menus



Pressing the keys can 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 prolonged double pressing is necessary.

5.1 Switching the display on and off

The procedure to switch the display off is as follows:

MAIN LEVEL

- The display will show the dot in the centre by default
- Press the button
- Start of the display operating check
- The MAIN MENU LEVEL is displayed

The procedure to switch the display off is as follows:

MAIN LEVEL

The display switches off automatically (displaying the dot in the centre after 60 seconds of inactivity.

5.2 Navigation keys

MAIN LEVEL PARAMETER LEVEL VALUE

MAIN LEVEL

Press or to scroll the menu

Press to enter the **PARAMETER LEVEL**

Press to exit a submenu

PARAMETER LEVEL

Press or to scroll through the parameters in the submenu

To set a parameter, select the desired **VALUE** and save it by pressing for 2 seconds or with a prolonged double confirmation.

6. LCU55 Parameters





















6.1 Main level menu









Display	Description	
	Frequent use The menu allows you to manage the most frequently used parameters to customise the automation functions.	
Complete Menu		Operating modes The menu allows you to set all the parameters used for the automation operating modes (type of automation installed, default settings, automatic closing, etc.)
		Stroke adjustment The menu allows you to set all movement parameters (opening/closing speed, slowdown positions, sensitivity of thrust on obstacles, etc.)
		Input/output configuration The menu allows you to set the automation input/output functions (selection of devices connected to the terminals, photocells, flashing light/electric lock setting, etc.)
		Radio operations and connectivity The menu allows you to manage all the parameters of the radio/wireless functions of the control unit
		Diagnostic functions The menu allows you to manage all the other parameters used for the additional services (diagnostic meters, FW update, energy saving, etc.).


















6.2 Frequently used menu map














MAIN LEVEL			
	FU - Frequent use		R1 - Thrust adjustment on obstacles and opening current
PARAMETER LEVEL			R2 - Thrust adjustment on obstacles and closure current
	AS - Automation selection		r2 - Thrust adjustment on the closing stop [%]
	NM - Motor number selection		VA - Opening speed [cm/s]
	DM - Motor rotation direction		VC - Closing speed [cm/s]
	EP - Remote control transmission encrypted protocol setting (AES 128bit and PROTECTED mode)		PP - Step-by-step sequence configuration
	SR - Remote control storage		R9 - Configuration of input 30-9
	RM - Radio receiver operating mode		D6 - Selection of the device connected to terminals 1-6 and with safety tests
	T5 - Terminal 5 operating mode		SM - Operating mode of terminal 1-6
	AC - Enabling of automatic closure		D8 - Selection of the device connected to terminals 1-8 and with safety tests
	TC - Setting of automatic closing time [s]		S0 - Operating mode of terminal 1-8 with automation idle
	RP - Adjustment of partial opening measurement [%]		FA - Selection of the opening limit - switch mode
	TP - Setting of automatic closing time after partial opening [s]		FC - Selection of the closing limit - switch mode

6.3 Complete menu map

MAIN LEVEL	
	OM - Operating mode
↓	PARAMETER LEVEL
	AS - Automation selection
	NM - Motor number selection
	DM - Motor rotation direction
	AC - Enabling of automatic closure
	TC - Setting of automatic closing time [s]
	RP - Partial opening adjustment [%]
	TP - Automatic closing time after partial opening [s]
	PP - Step-by-step sequence configuration
	S9 - STOP mode in step-by-step sequence via command 1-5
	SS - Automation status at start-up
	TS - Renew automatic closing time after safety device release [%]
	W0 - Setting pre-flashing time on opening [s]
	Wc - Setting pre-flashing time on closing [s]
	NI - Activation of NIO anti-freeze system
	TN - NIO intervention temperature and automatic ramps
	TH - Enable high temperature protection
	VL - Enable/disable holiday mode
	DS - Display visualisation mode
	PS - Predefined settings

	RA - Stroke adjustment
↓	PARAMETER LEVEL
	VA - Opening speed [cm/s]
	VC - Closing speed [cm/s]
	R1 - Thrust adjustment on obstacles and opening current
	R2 - Thrust adjustment on obstacles and during closing
	r2 - Thrust adjustment on the closing stop [%]
	OB - Deceleration distance during opening [cm]
	OB - Deceleration distance during closing [cm]

	PO - Adjustment of approach speed during opening [cm/s]
	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 during opening
	TQ - Adjustment of acceleration time during closure
	TD - Adjustment of deceleration time during opening
	TU - Adjustment of deceleration time during closure
	DO - Adjustment of disengagement on stop during opening [mm]
	DC - Adjustment of disengagement on stop during closure [mm]
	DE - Adjustment of disengagement after edge intervention [cm]
	ST - Adjustment of start time
	DT - Adjustment of obstacle recognition time
	MP - Start at maximum power
	OT - Selection of obstacle type

	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 operating mode
	64 - Functioning of safety stop/closing command
	AM - Operation of AUX card
	20 - Partial opening command of terminal 30-20
	PT - Fixed partial opening
	D6 - Selection of device connected to terminals 1-6
	SM - Operating mode of terminals 1-6
	D8 - Selection of device connected to terminals 1-8
	S0 - Operating mode of terminal 1-8 when open
















































	68 - Selection of device connected to terminals 1-6 and 1-8
	LP - Function of output +LP-
	13 - Function of output 13
	G3 - Relay G3 output function
	LU - Switch-on time for the courtesy light [s]
	LG - Switch-on time for independently commanded courtesy light
	LR - Electric lock release time
	PV - Power supply via solar panels (for future use)
	ES - Energy-saving mode
	LB - Indication that batteries are almost flat
	LL - Voltage threshold for indicating when the batteries are almost flat
	BO - Battery mode

















	WF - Setting WiFi functionality
	WR - Request to restart the connected WiFi device (Apple HomeKit)
	MA - Mobile App access management

	DF - Diagnostic functions
↓	
PARAMETER LEVEL	
	SP - Setting the password
	IP - Inserting the password
	CU - Control panel firmware version
	UP - Firmware update
	AL - Alarm counter
	AH - Alarm log
	AR - Alarm reset
	CV - Total number of operations
	CP - Partial number of operations
	ZP - Reset of partial operations counter
	CA - Setting the maintenance alarm (factory setting - alarm deactivated: 0.0 00. 00)
	OA - Visualisation of maintenance alarm mode
	CH - Power supply hours
	BH - Power supply hours via battery
	SV - Saving configuration
	RC - Configuration loading
	RL - Loading of last configuration
	EU - Deletion of user settings
	IM - Motor current display
	TB - Display of internal temperature of automation
	TT - Display of maximum and minimum temperatures recorded
	TF - Limit switch test.
	View / (N.O. / NO if they are not configured)
	BL - Display of the battery voltage level
	EL - Automation efficiency level
	RD - Restoring factory settings

	RO - Radio operations and connectivity
↓	
PARAMETER LEVEL	
	EP - Setting coded messages
	SR - Remote control storage
	RM - Radio receiver operation
	TX - Visualisation of number of remote controls stored
	MU - Maximum number of remote controls that can be stored in the integrated memory
	ER - Deleting a remote control
	EA - Total memory deletion
	C1, C2, C3, C4 Function selection of the stored remote control
	RE - Setting memory opening from remote control
	MS - Backward compatibility with old GOL4 remote control units
	RK - Menu navigation using remote control keypad
	FQ - Radio frequency selection
	BT - Bluetooth® mode

6.4 "FREQUENT USE" Menu - Description of the parameters

Parameter	Description	Selections available
	<p>AS - Automation selection</p> <ul style="list-style-type: none"> • Used to select the type of automation (factory preset) • NO - None • S4 - SPID40 • S6 - SPID60 • BX - BOX <p> The card performs a restart and a factory reset after selecting a new value.</p> <p> In the event of a replacement card, the alarm flashes on the display . In this case, no operation is allowed. The parameter  must be configured first. This operation must be carried out by qualified personnel.</p>	   
	<p>NM - Motor number selection</p> <ul style="list-style-type: none"> • 01 - Single-motor automation. • 02 - Two-motor automation. 	 
	<p>DM - Motor rotation direction</p> <ul style="list-style-type: none"> • CX - Select this option for gearmotor installations in central or right-side positions. • SX - Select this option for left-side installations with the gearmotor rotated 180° to enable manual release. 	 
	<p>EP - Setting of encrypted remote control transmission messages (AES 128bit mode and protected mode)</p> <p>If the possibility of receiving coded messages is enabled, the control panel will be compatible with "ENCRYPTED or protected" remote controls.</p> <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled 	 
	<p>SR - Remote control storage</p> <p>  →  →  →  →  →  ... x2, x3... </p> <p>When you press ,  starts to flash and you can associate the desired buttons. After viewing ,  still flashes and you can store another button. To quit, press  for 2 seconds and go on to the next item.</p> <p> If the display shows  flashing, the remote control may already be stored.</p>	 
	<p>RM - Radio receiver operation</p> <p>This is the function associated with the radio command when only one channel (regardless of which one) is stored</p> <ul style="list-style-type: none"> • 1-5 - Step-by-step • 1-3 - Opening 	 
	<p>T5 - Terminal 5 operating mode</p> <ul style="list-style-type: none"> • 1-5 - Step-by-step • 1-3 - Opening 	 
	<p>AC - Enabling of automatic closure</p> <ul style="list-style-type: none"> • OF - Disabled • ON - Enabled • 1-2 - Depends on the status of terminal 20 (parameter  must be set to ) 	   

	<p>TC - Setting of automatic closing time [s] It is set with different intervals of sensitivity:</p> <ul style="list-style-type: none"> • from 0' to 59" with intervals of 1 second • from 1'0 to 1'5 with intervals of 10 seconds <p>At each interval the display will show the following values:</p> <ul style="list-style-type: none"> -  → 1 minute and 10 seconds - ... -  → 1 minute and 50 seconds <ul style="list-style-type: none"> • from 2' to 4' with intervals of 1 minute 	
	<p>RP - Adjustment of partial opening measurement [%] Adjusts the percentage of operation in relation to the total opening of the automation.</p> <ul style="list-style-type: none"> • from 10 to 99 % with intervals of 1 % 	
	<p>TP - Setting of automatic closing time after partial opening [s] It is set with different intervals of sensitivity:</p> <ul style="list-style-type: none"> • from 0' to 59" with intervals of 1 second • from 1'0 to 1'5 with intervals of 10 seconds <p>For each interval, the display will show:</p> <ul style="list-style-type: none"> -  → 1 minute and 10 seconds - ... -  → 1 minute and 50 seconds <ul style="list-style-type: none"> • from 2' to 4' with intervals of 1 minute 	
	<p>R1 - Adjustment of thrust on obstacles and motor current during opening [%] The control panel is fitted with a safety device which, when it detects an obstacle:</p> <ul style="list-style-type: none"> - stops the movement and, if outside the limit area for detecting obstacles, performs a disengagement operation. <div data-bbox="308 778 890 849" style="border: 1px solid blue; padding: 5px;"> <p>i The obstacle detection area during opening is determined by the type of limit switch installed. If there is no limit switch, it is determined according to the selection RR → 00.</p> </div> <ul style="list-style-type: none"> • 00 – Minimum thrust (minimum current delta for obstacle detection) • 99 – Maximum thrust (maximum current delta for obstacle detection) <p>The threshold is calculated dynamically as a delta on the motor current measured during the opening stroke.</p>	 <p>NM =01→ <u>20</u></p> <p>NM =02→ <u>40</u></p>
	<p>R2 - Adjustment of thrust on obstacles and motor current during closure [%] The control panel is fitted with a safety device which, when it detects an obstacle:</p> <ul style="list-style-type: none"> - reverses the movement during closure operations outside the limit area for detecting obstacles; - stops the movement during closure operations within the limit area for detecting obstacles. <div data-bbox="308 1141 890 1211" style="border: 1px solid blue; padding: 5px;"> <p>i The obstacle detection area during opening is determined by the type of limit switch installed. If there is no limit switch, it is determined according to the selection RR → 00.</p> </div> <ul style="list-style-type: none"> • 00 – Minimum thrust (minimum current delta for obstacle detection) • 99 – Maximum thrust (maximum current delta for obstacle detection) <p>The threshold is calculated dynamically as a delta on the motor current measured during the closing stroke.</p>	 <p>NM =01→ <u>20</u></p> <p>NM =02→ <u>40</u></p>
	<p>r2 - Thrust adjustment on the closing stop [%] It's possible to adjusting the thrust on the closing stop:</p> <ul style="list-style-type: none"> • 00 – Minimum thrust • 99 – Maximum thrust <div data-bbox="308 1412 890 1460" style="border: 1px solid blue; padding: 5px;"> <p>i After a closing cycle, verify the manual release. If it feels too stiff, lower the closing-stop thrust value.</p> </div>	

		VA - Opening speed [V] • from 5 to 26	
		VC - Closing speed [V] • from 5 to 26	
		PP - Step-by-step sequence configuration • 00 - Opening-Stop-Closing-Opening • 01 - Opening-Stop-Closing-Stop-Opening	
		R9 - Terminal 9 operating mode • NO - Disabled • 9P - The opening of the input activates a permanent stop • 9T - The opening of the input activates a temporary stop. When the contact closes, the automatic closure time is activated, if enabled • HR - With the input open, the automation operates in operator present mode	
		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 →)	
		SM - Operating mode of terminals 1-6 • 00 - During the operation, the opening of the safety contact stops the movement (with disengagement if → /). • 01 - During the operation, the opening of the safety contact stops the movement (with disengagement if → /). When the contact closes again, the operation is resumed. • 02 - During the operation, the opening of the safety contact stops the movement (with disengagement if → /). 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 → /). When the contact closes again, the opening operation is resumed. When the contact closes again, the interrupted 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 then reverses movement. During the opening operation, the opening of the safety contact stops the movement (with disengagement if → /). • 06 - During operation, opening the safety contact stops 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, after stopping, there is a disengagement of 10 cm) • 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 →)	

	S0 - Operating mode of terminal 1-8 when open <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled If enabled () with the automation idle (gate closed or partially open), all operations are disabled. If disabled () with the automation idle (gate closed or partially open) it is possible to activate the opening operation.	
	FA - Selection of opening limit switch mode <ul style="list-style-type: none"> • NO - None • SX - Stop limit switch (after activation the gate wing stops its movement) • PX - Proximity limit switch (after activation the gate wing continues as far as the end stop and any obstacle is considered a stop) 	
	FC - Selection of closing limit switch mode <ul style="list-style-type: none"> • NO - None • SX - Stop limit switch (after activation the gate wing stops its movement) • PX - Proximity limit switch (after activation the gate wing continues as far as the end stop and any obstacle is considered a stop) 	

6.5 Full menu - Description of the parameters



Parameter	Description	Selections available
	OM - Operating mode The menu allows you to manage all the parameters used for the automation operating modes (type of automation installed, default settings, automatic closure, etc.)	
	AS - Automation selection <ul style="list-style-type: none"> • Used to select the type of automation (factory preset) • NO - None • S4 - SPID40 • S6 - SPID60 • BX - BOX <div style="border: 1px solid blue; background-color: #e6f2ff; padding: 5px; margin-bottom: 5px;"> The card performs a restart and a factory reset after selecting a new value. </div> <div style="border: 1px solid yellow; background-color: #fff9c4; padding: 5px;"> In the event of a replacement card, the alarm flashes on the display . In this case, no operation is allowed. The parameter must be configured first. This operation must be carried out by qualified personnel. </div>	
	NM - Motor number selection <ul style="list-style-type: none"> • 01 - Single-motor automation. • 02 - Two-motor automation. 	
	DM - Motor rotation direction <ul style="list-style-type: none"> • CX - Select this option for gearmotor installations in central or right-side positions. • SX - Select this option for left-side installations with the gearmotor rotated 180° to enable manual release. 	
	AC - Enabling of automatic closure <ul style="list-style-type: none"> • OF - Disabled • ON - Enabled • 1-2 - Depends on the status of terminal 20 (parameter must be set to) 	
	TC - Setting of automatic closing time [s] It is set with different intervals of sensitivity: <ul style="list-style-type: none"> • from 0" to 59" with intervals of 1 second • from 1'0 to 1'5 with intervals of 10 seconds At each interval the display will show the following values: <ul style="list-style-type: none"> - → 1 minute and 10 seconds - ... - → 1 minute and 50 seconds • from 2' to 4' with intervals of 1 minute	



	<p>RP - Adjustment of partial opening measurement [%] Adjusts the percentage of operation in relation to the total opening of the automation.</p> <ul style="list-style-type: none"> • from 10 to 99 % with intervals of 1 % 	
	<p>TP - Setting of automatic closing time after partial opening [s] It is set with different intervals of sensitivity:</p> <ul style="list-style-type: none"> • from 0" to 59" with intervals of 1 second • from 1'0 to 1'5 with intervals of 10 seconds <p>For each interval, the display will show:</p> <ul style="list-style-type: none"> - → 1 minute and 10 seconds - ... - → 1 minute and 50 seconds <ul style="list-style-type: none"> • from 2' to 4' with intervals of 1 minute 	
	<p>PP - Step-by-step sequence configuration</p> <ul style="list-style-type: none"> • 00 - Opening-Stop-Closing-Opening • 01 - Opening-Stop-Closing-Stop-Opening 	
	<p>S9 - STOP mode in step-by-step sequence via command 1-5.</p> <ul style="list-style-type: none"> ON - Permanent. OF - Temporary. 	
	<p>SS - Selection of automation status at start-up</p> <ul style="list-style-type: none"> OP - Open. CL - Closed. <p>Indicates how the control panel considers the automation at the time of switch-on, or after a POWER RESET command.</p>	
	<p>TS - Setting of renewal of automatic closing time after safety device release [%]</p> <ul style="list-style-type: none"> • from 0 to 99% with 1% intervals. <p>The count begins with the door fully open (and the closing operation is also performed with the automatic closing disabled).</p> <div style="border: 1px solid black; background-color: yellow; padding: 5px;"> <p> automatic closure is not deactivated on the third consecutive direction reversal.</p> </div> <p>For example:</p> <ul style="list-style-type: none"> • = 1' • = 50% • Restoration of automatic closing time = 30" 	
	<p>WO - Setting of pre-flashing time during opening. [s]</p> <p>Adjustment of the lead time for the switch-on of the flashing light, in relation to the start of the opening operation from a voluntary command.</p> <ul style="list-style-type: none"> • from 0" to 5" with intervals of 1 second 	
	<p>WC - Setting of pre-flashing time on closing [s]</p> <p>Adjustment of the lead time for the switch-on of the flashing light, in relation to the start of the closing operation from a voluntary command.</p> <ul style="list-style-type: none"> • from 0" to 5" with intervals of 1 second 	
	<p>NI - Enabling of NIO electronic anti-freeze system</p> <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled <p>When enabled () it maintains the efficiency of the motor even at low ambient temperatures.</p> <div style="border: 1px solid blue; background-color: lightblue; padding: 5px;"> <p> For correct operation, the control panel must be exposed to the same ambient temperature as the motors.</p> </div> <p>The intervention temperature can be set by selecting → .</p>	
	<p>TN - Setting of intervention temperature for the NIO electronic anti-freeze system and automatic ramps [°C]</p> <p>The value does not refer to the ambient temperature, but to the internal control panel temperature.</p>	



TH - Enabling high temperature protection

- ON - Enabled
- OF - Disabled



When enabled (ON), when the maximum allowed panel temperature (80°) is reached, the maximum automatic closing time is set to allow the system to return to acceptable temperatures.



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.



DS - Setting of display visualisation mode

- 00 - No visualisation
- 01 - Commands, safety devices and radio test Display of countdown to automatic closing time



The setting 01 allows you to see when a radio transmission is received, for range checks. [RX and NX - see par. 16.2]



PS - Predefined settings

It is used to load the predefined settings of some parameters:



DF- Default configuration



- AC - Enabling of automatic closure
- TC - Setting of automatic closing time
- T5 - Terminal 5 operating mode
- RM - Radio receiver operation
- AM - Operation of AUX plug-in control card
- SS - Selection of automation status at start-up



H0 - Predefined setting, residential use 0

- AC - Enabling of automatic closure
- T5 - Terminal 5 operating mode
- RM - Radio receiver operation
- AM - Operation of AUX plug-in control card
- SS - Selection of automation status at start-up



H1 - Predefined setting, residential use 1

- AC - Enabling of automatic closure
- TC - Setting of automatic closing time
- T5 - Terminal 5 operating mode
- RM - Radio receiver operation
- AM - Operation of AUX plug-in control card
- SS - Selection of automation status at start-up



C0 - Predefined setting, condominium use 0

- AC - Enabling of automatic closure
- TC - Setting of automatic closing time
- T5 - Terminal 5 operating mode
- RM - Radio receiver operation
- AM - Operation of AUX plug-in control card
- SS - Selection of automation status at start-up





RA - Stroke adjustment

The menu allows you to adjust all movement parameters (opening/closing speed, slow-down positions, sensitivity to obstacle thrust, etc.)

Parameter	Description	Selections available
	VA - Opening speed [V] • from 5 to 26	
	VC - Closing speed [V] • from 5 to 26	
	<p>R1 - Adjustment of thrust on obstacles and motor current during opening [%] The control panel is fitted with a safety device which, when it detects an obstacle: stops the movement and, if outside the limit area for detecting obstacles, performs a disengagement operation.</p> <p> The obstacle detection area during opening is determined by the type of limit switch installed. If there is no limit switch, it is determined according to the selection RR → 00.</p> <p>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.</p>	 NM =01→  NM =02→ 
	<p>R2 - Adjustment of thrust on obstacles and motor current during closure [%] The control panel is fitted with a safety device which, when it detects an obstacle: reverses the movement during closure operations outside the limit area for detecting obstacles; stops the movement during closure operations within the limit area for detecting obstacles.</p> <p> The obstacle detection area during opening is determined by the type of limit switch installed. If there is no limit switch, it is determined according to the selection RR → 00.</p> <p>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.</p>	 NM =01→  NM =02→ 
	<p>r2 - Thrust adjustment on the closing stop [%] It's possible to adjusting the thrust on the closing stop:</p> <p>• 00 - Minimum thrust • 99 - Maximum thrust</p> <p> After a closing cycle, verify the manual release. If it feels too stiff, lower the closing-stop thrust value.</p>	 
	<p>OB - Adjustment of slowdown distance during opening [degrees] It indicates the deceleration distance before reaching the opening position.</p> <p>• from 10 to 45 degrees with intervals of 1 degree</p>	 
	<p>OB - Adjustment of slowdown distance during closing [degrees] Indicates the deceleration distance before reaching the closing position.</p> <p>• from 10 to 45 degrees with intervals of 1 degree</p>	 
	<p>PO - Adjustment of approach speed during opening [V] • from 3 to 10</p> <p> Gradually increase the approach speed if a series of rapid vibrations (jingling) occur in heavy gates installed with a slight slope.</p>	 



	<p>PC - Adjustment of approach speed during closing [V]</p> <ul style="list-style-type: none"> From 3 to 10 <p>i Gradually increase the approach speed if a series of rapid vibrations (jingling) occur in heavy gates installed with a slight slope.</p>	
	<p>OO - Obstacle detection limit during opening [degrees]</p> <p>Indicates the distance after the detection of the opening limit switch on which the disengagement is deactivated.</p> <ul style="list-style-type: none"> from 5 to 45 degrees with intervals of 1 degree <p>i Not active if $10 \rightarrow 50 \rightarrow 5X$ or if $10 \rightarrow 50 \rightarrow 0X$.</p>	
	<p>OC - Obstacle detection limit during closing [degrees]</p> <p>Indicates the distance after the detection of the closure limit switch at which disengagement is deactivated.</p> <ul style="list-style-type: none"> from 5 to 45 degrees with intervals of 1 degree <p>i Not active if $10 \rightarrow 50 \rightarrow 5X$ or if $10 \rightarrow 50 \rightarrow 0X$.</p>	
	<p>VR - Setting of learning speed [V]</p> <ul style="list-style-type: none"> from 5 to 10 	
	<p>VM - Start-up speed [V]</p> <ul style="list-style-type: none"> From 0 to 5 	
	<p>TA - Adjustment of acceleration time during opening [s]</p> <p>Regulates the slope of the acceleration ramp during opening.</p> <ul style="list-style-type: none"> from 1.5 to 5.0 s with intervals of 0.1 s 	
	<p>TQ - Adjustment of acceleration time during closing [s]</p> <p>Regulates the slope of the acceleration ramp during closing.</p> <ul style="list-style-type: none"> from 1.5 to 5.0 s with intervals of 0.1 s 	
	<p>TD - Adjustment of deceleration time during opening [%]</p> <p>Regulates the slope of the deceleration ramp during opening.</p> <ul style="list-style-type: none"> from 10 to 99 % with intervals of 1 % 	
	<p>TU - Adjustment of deceleration time during closure [%]</p> <p>Regulates the slope of the deceleration ramp during closing.</p> <ul style="list-style-type: none"> from 10 to 99 % with intervals of 1 % 	
	<p>ST - Adjustment of start time [s]</p> <ul style="list-style-type: none"> from 0.5 to 3.0s with intervals of 0.1 s 	
	<p>DT - Adjustment of obstacle recognition time [s/100]</p> <ul style="list-style-type: none"> from 10 to 60s/100 with intervals of 1s/100 <p>i The parameter is adjusted in hundredths of a second.</p>	
	<p>MP - Start at maximum power</p> <ul style="list-style-type: none"> ON - During start-up it increases the thrust on obstacles to the maximum OF - During start-up, the thrust on obstacles is at the level adjusted by $R1 - R2$ 	
	<p>OT - Selection of type of obstacle</p> <ul style="list-style-type: none"> 00 - Overcurrent or arm locked 01 - Overcurrent only 02 - Locked arm only 	



	DO - Space of disengagement at the stop during opening [degrees] Regulates the space of disengagement at the mechanical opening stop. • 00 - Disabled • from 1 to 5 degrees with intervals of 1 degree	
	DC - Space of disengagement at the stop during closing [degrees] Regulates the disengagement space at the mechanical closing stop. • 00 - Disabled • from 1 to 5 degrees with intervals of 1 degree	
	DE - Disengagement space if an edge is triggered [degrees] Regulates the disengagement space if an edge is triggered (active or passive) during opening and closing. • 00 - Disabled • from 1 to 25 degrees with intervals of 1 degree	



IO - Input/Output configuration









The menu allows you to configure the automation input/output functions.

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



	<p>D6 - Selection of device connected to terminals 1-6</p> <ul style="list-style-type: none"> • 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 RR → II) 	
	<p>SM - Operating mode of terminals 1-6</p> <ul style="list-style-type: none"> • 00 - During the operation, the opening of the safety contact stops the movement (with disengagement if II → SE/S41). • 01 - During the operation, the opening of the safety contact stops the movement (with disengagement if II → SE/S41). When the contact closes again, the operation is resumed. • 02 - During the operation, the opening of the safety contact stops the movement (with disengagement if II → SE/S41). 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 II → SE/S41). When the contact closes again, the opening operation is resumed. When the contact closes again, the interrupted 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 then reverses movement. During the opening operation, the opening of the safety contact stops the movement (with disengagement if II → SE/S41). • 06 - During operation, opening the safety contact stops movement. When the contact closes again, automatic closing is disabled. 	
	<p>D8 - Selection of device connected to terminals 1-8</p> <ul style="list-style-type: none"> • NO - None • PH - Photocells • P41 - Photocells with safety test • SE - Safety edge (if contact 1-8 opens, after stopping, there is a disengagement of 10 cm) • 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 RR → II) 	
	<p>S0 - Operating mode of terminal 1-8 when open</p> <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled <p>If enabled (ON) with the automation idle (gate closed or partially open), all operations are disabled.</p> <p>If disabled (OF) with the automation idle (gate closed or partially open) it is possible to activate the opening operation.</p>	
	<p>68 - Selection of the device simultaneously connected to terminals 1-6 and 1-8</p> <ul style="list-style-type: none"> • NO - None • SE - Safety edge • S41 - Safety edge with safety test <p>If different from NO, the simultaneous opening of inputs 1-6 and 1-8 causes:</p> <ul style="list-style-type: none"> • movement stop and reversal during a closing operation. • stop and disengagement of a duration depending on the selection RR → II during an opening operation. 	





	<p>LP - Function of output +LP-</p> <ul style="list-style-type: none"> • 00 - courtesy light • 01 - electric lock (activated for a time defined by the parameter ) • 02 - electric lock + release stroke (time defined by the parameter ) • 03 - ON/OFF flashing without oscillator (active with motor in action) • 04 - ON/OFF flashing LED without oscillator (with motor in action) • 05 - ON for flashing LED with internal oscillator • 06 - Proportional indicator light for open gate (with battery operating signal) • 07 - Fixed indicator light for open gate (automation not closed) • 08 - Automation closed (activated with the gate completely closed) • 09 - Automation open (activated with gate completely open) • 10 - Automation in motion (also used for electromagnets powered for the entire operation) • 11 - Automation opening • 12 - Automation closing • 13 - Maintenance alarm • 14 - Batteries almost flat signal • 15 - LED strip (flashing during movement) • 16 - QIKAFE electromagnetic blocking • ON - Output always active 	
	<p>13 - Function of output 13</p> <ul style="list-style-type: none"> • 06 - Proportional indicator light for open gate (with battery operating signal) • 07 - Fixed indicator light for open gate (automation not closed) • 08 - Automation closed (activated with the gate completely closed) • 09 - Automation open (activated with gate completely open) • 10 - Automation in motion (also used for electromagnets powered for the entire operation) • 11 - Automation opening • 12 - Automation closing • 13 - Maintenance alarm • 14 - Batteries almost flat signal • ON - Output always active 	
	<p>G3 - Relay G3 output function (C - NO)</p> <ul style="list-style-type: none"> • 00 - courtesy light • 04 - ON/OFF flashing LED without oscillator (with motor in action) • 05 - ON for flashing LED with internal oscillator • 06 - Proportional indicator light for open gate (with battery operating signal) • 07 - Fixed indicator light for open gate (automation not closed) • 08 - Automation closed (activated with the gate completely closed) • 09 - Automation open (activated with gate completely open) • 10 - Automation in motion (also used for electromagnets powered for the entire operation) • 11 - Automation opening • 12 - Automation closing • 13 - Maintenance alarm • 14 - Batteries almost flat signal • ON - Output always active 	
	<p>LU - Setting switch-on time for the courtesy light [s]</p> <p>To enable the parameter, set the parameter  →  →  as courtesy light. It is set with different intervals of sensitivity.</p> <ul style="list-style-type: none"> • NO - Disabled • from 01" to 59" with intervals of 1 second • from 1'0 to 2' with intervals of 10 seconds <p>At each interval the display will show the following values:</p> <ul style="list-style-type: none"> -  → 1 minute and 10 seconds - ... -  → 1 minute and 50 seconds • from 2' to 4' with intervals of 1 minute • ON - Permanently ON, switched off with remote control <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;">  The courtesy light switches on at the start of each operation. </div>	



	<p>LG - Switch-on time for independently commanded courtesy light [sec, min, hh] To enable the parameter, set the parameter 10 → 00 → 00 as courtesy light.</p> <ul style="list-style-type: none"> • NO - Disabled • from 01 to 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" with intervals of 10 " • 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 - Permanently ON, switched off with remote control <p> The switching on of the light does not depend on the start of an operation, but can be commanded separately using the special remote control key.</p>	
	<p>BR - Level of brightness of the integrated LED light Allows you to set the courtesy light intensity level</p> <ul style="list-style-type: none"> • LO - Low brightness • MI - Medium brightness • HI - High brightness 	
	<p>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.</p> <ul style="list-style-type: none"> • from 0.1 to 3.0s with intervals of 0.1 s 	
	<p>PV - Power supply via solar panels (for future use)</p> <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled 	
	<p>ES - "Green Mode" (de-powering accessories connected to terminals 0-1) (disconnection of accessories connected to terminals 0-1) ON - Enabled (the red dot to the right of the display flashes every 5 s). OF - Disabled</p> <p>Power supply disconnection mode is activated after 5 minutes with the gate closed, or when the gate is idle and automatic closure is not enabled.</p> <p> The automation resumes its normal operation when a command is received on the radio board or after a terminal 30-5 / 30-20.</p> <p> The installer, in the case of the installation of an accessory that requires power to always be on, can set the selection to OFF and deactivate the function.</p>	
	<p>LB - Indication that batteries are almost flat</p> <ul style="list-style-type: none"> • 00 - Visualisation on the display (alarm message 00) • 01 - Visualisation on flashing light (with the automation idle, 2 flashes are made and repeated every hour) and on display (alarm message 00) • 02 - Visualisation on "open gate" indicator light (with automation closed, 2 flashes are made and repeated every hour) and on display (alarm message 00) 	
	<p>LL - Voltage threshold for indicating that batteries are almost flat (V) 22 - Minimum 28 - Maximum</p> <p> It is set with an interval of sensitivity of 0.5 V shown when the decimal point on the right lights up.</p>	
	<p>BO - Battery mode</p> <ul style="list-style-type: none"> • 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 dead batteries will be an opening. • 02 - Continuous operation - the last operation performed before control panel switch-off with dead batteries will be a closure. 	

RO - Radio operations and connectivity

The menu allows you to manage all the parameters of the radio/wireless functions of the control panel.

Parameter	Description	Selections available
	EP - Setting of encrypted remote control transmission messages (AES 128bit mode and protected mode) If the possibility to receive coded messages is enabled, the electronic panel will be compatible with remote controls of the "ENCRYPTED" type.	 
	SR - Remote control storage  ... x2, x3... When you press  , SR starts to flash and you can associate the desired buttons. After viewing OK , SR still flashes and you can store another button. To quit, press  or  for 2 seconds and go on to the next item.	
	RM - Radio receiver operation This is the function associated with the radio command when only one channel (regardless of which one) is stored	 
	<ul style="list-style-type: none"> • 1-5 - Step-by-step • 1-3 - Opening 	
	TX - Visualisation of counter showing remote controls stored 	
	MU - Indication of maximum number of remote controls that can be stored in the integrated memory You can store a maximum of 100 or 200 remote control codes.	 
	 <ul style="list-style-type: none"> • 20 - 200 remote controls that can be stored • 10 - 100 remote controls that can be stored <div style="border: 1px solid yellow; padding: 5px; margin-top: 10px;">  Selecting MU → 20 (200 remote controls), the configurations 01 and 02 saved with the command 00 → 50 will be lost. This also applies to the last configuration reloaded with 00. In addition, new configurations cannot be saved on 01 and 02. </div>	
	ER - Deletion of a single remote control 	
	EA - Total memory deletion  Requires double confirmation. Press  for 2 seconds, release and press  for another 2 seconds.	



	<p>C1, C2, C3, C4 - Selection of CH1, CH2, CH3, CH4 function of stored remote control</p> <ul style="list-style-type: none"> • NO - No setting selected • 1-3 - Opening command • 1-4 - Closing command • 1-5 - Step-by-step command • P3 - Partial opening command • LG - Courtesy light on/off command • 1-9 - STOP command <p>If even just one (any) CH key of the remote control is stored, the opening or step-by-step command is implemented.</p> <p>i The (opening) and (step-by-step) options are available as alternatives, and depend on the selection RM.</p> <p>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:</p> <ul style="list-style-type: none"> • CH1 = opening/step-by-step command • CH2 = partial opening command • CH3 = courtesy light on/off command • CH4 = STOP command 	
	<p>RE - Setting memory opening from remote control</p> <ul style="list-style-type: none"> • OF - Disabled • ON - Enabled. When enabled (ON), the remote programming is activated. <p>To store new remote controls without using the control panel, refer to the remote control instructions.</p> <p>i Make sure you do not accidentally memorise unwanted remote controls.</p>	
	<p>MS - Setting of backward compatibility with old GOL4 remote control units</p> <ul style="list-style-type: none"> • OF - Compatible with GOL4 and new ZEN remote controls. • ON - Compatible with ZEN series remote controls. <p>i It is recommended to use MS = ON if only ZEN series remote controls are used on the system.</p>	
	<p>RK - Menu navigation using remote control keyboard</p> <ul style="list-style-type: none"> • ON - Enabled • OF - Disabled <p>With the display turned off, quickly type in the sequence of keys ③ ③ ② ④ ① from the stored remote control that is to be used.</p> <p>Make sure all the CH keys are stored.</p> <p>! During navigation with a remote control keyboard, ALL the stored remote controls are inactive.</p> <p>To aid vision and adjustment (avoiding the need to continuously press the remote control unit), press the key or once begin slowly scrolling through the parameters.</p> <p>Pressing the or key twice starts fast parameter scrolling.</p> <p>To stop the scrolling, press . To confirm your choice of parameter, press 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.</p>	
	<p>FQ - Radio frequency selection</p> <p>The visible parameters depend on the inserted Remote Connectivity Board (RCB) (connector J9).</p> <ul style="list-style-type: none"> • NO - no RCB connected • 43 - Radio 433MHz (RCB50E or RCB100E connected) • 86 - Radio 868MHz (RCB50E or RCB100E connected) 	



VL - Holiday mode lock/release

The radio controls transmitted by the radio frequency devices (remote controls and digital radio keyboard) are deactivated.



- **ON** - Enable holiday mode. Blocks all remote controls (radio frequency devices)
- **OF** - Disable holiday mode. Unlocks all the remote controls (radio frequency devices)



If enabled, the display shows each time a radio command is received



BT - Bluetooth® mode

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



WF - Setting WiFi functionality (for future use)

Used to activate or deactivate the WiFi functionality.

- **ON** - WiFi enabled
- **OF** - WiFi disabled



Enabling WiFi will increase power consumption; in this case, keep in mind that compliance with the standby consumption limits is not guaranteed.

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



2"



The parameter is only present if a WiFi device is connected.

MA - Mobile App access management

Allows you to view, grant and reset access permissions for the Mobile App:

DITEC GATE CONNECT PRO

To view the type of operator access, briefly press :

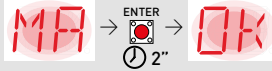


The type of operator access will be displayed:

- 00** - No access
- 01** - Temporary access (duration 1 hour)
- 02** - Access with PIN
- 03** - Cloud access (for future implementation)



If there is no permission (**MA** = **00**), when the App requests temporary access on the display, the message **MA** will flash, confirm the request by keeping the key pressed until appears



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

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

DITEC GATE CONNECT

RESET PERMISSIONS (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**.





Diagnostic functions

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

Parameter	Description	Selections available
	<p>SP - Setting the password</p> <p>ENTER → → UP : ENTER → → ENTER → [example] 2"</p> <p>i This can only be selected when the password is not set.</p> <p>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.</p>	
	<p>IP - Inserting the password</p> <p>ENTER → → UP : ENTER → → ENTER → [example] 2"</p> <p>i This can only be selected when the password is not set.</p> <p>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.</p>	
	<p>CU - Displaying the control panel firmware version</p> <p>ENTER → → → Release 1.1 [example]</p>	
	<p>UP - Firmware update</p> <p>Activates the card bootloader in order to update the firmware. Contact after-sales service for more information</p> <p></p>	
	<p>AL - Alarm counter</p> <p>Used to view, in sequence, the counters of alarms that have been triggered at least one time (alarm code + number of events). With and you can scroll through all the counters and see all the alarms recorded.</p>	
	<p>AH - Alarm log</p> <p>Used to view, in sequence, alarms that have been triggered (up to a maximum of 20). With and , 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.</p>	
	<p>AR - Alarm reset</p> <p>Resets all the alarms in the memory (counters and log).</p> <p> → ENTER → 2"</p> <p>i At the end of installation, you are advised to delete the alarms in order to facilitate future checks.</p>	
	<p>CV - Display of total operations counter</p> <p> → ENTER → → → → 182 operations [example]</p>	



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



IM - Motor current display

TB - Permanent display of the internal control panel temperature [°C]

- ON - Enabled
- OF - Disabled



TT - Display of minimum and maximum temperatures recorded

- press for 2 seconds to reset the values
- minimum value with RH limit switch active

TF - Limit switch test

When the limit switches are configured and active, only

- FA= NO (both limit switches active)
- FC= NO (no limit switch active)



BL - Display of the battery voltage level

This parameter shows the battery voltage level:

- Lo - Automation idle. The 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



The parameter is only visible in the menu if the main power supply is missing and the battery kit is connected. In battery mode, without a network, the automation speed is reduced to a maximum of 15 cm/s.

EL - Automation efficiency level

- This value can be used to evaluate the mechanical quality of the gate and to understand if the chosen automation is adequate. In case of values below 90%, mechanical maintenance is recommended to restore efficiency or the adoption of automation with higher performance [e.g. motor with higher power].
- During normal use, this parameter indicates the efficiency of the automation, updating its state of degradation in real time:
 - 90%-99% - High level of efficiency, automation in excellent condition.
 - 50%-89% - Average efficiency level, performance starts to degrade.
 - 10%-49% - Low level of efficiency, degraded performance and maintenance necessary.



RD - Resetting factory settings



7. Signals visualised on the display

7.1 Displaying temporary safety messages

OM → 00 → 00 / OM → 00 → 00			
Display	Description	Display	Description
	1-2 - Enable command automatic closing		68 - Device selection simultaneously connected at terminals 1-6 and 1-8
	1-3 - Opening command		1-6 - Safety device with stop when opening and closing
	1-4 - Closing command		S1. - Detection of stop during closure
	1-5 - Step-by-step command		1-8 - Safety with reversal during closure
	P3 - Partial opening command		1-9 - STOP command
	4P - Closing command with a person present		3P - Opening command with Person present
	RX - Radio reception (of any memorised key of a transmitter stored in the memory)		S2. - Detection of stop during opening
	RV - Rolling-code radio reception out of sequence		00. - Reaching the limit of obstacle detection during opening
	NX - Radio reception (from any non-memorised key)		0C. Reaching limit of obstacle detection during closure
With the selection, OM → 00 → 00, it is also visualised when a command is received from a non-stored transmitter.			
	EX - Radio reception rolling-code out of sequence		MQ - Operation for learning mechanical stops in progress
	EP - Radio reception not compliant with configuration of parameters →		HT - Heating of the motors (NIO function) in progress
	CX - Receipt of command from AUX card		HS - Sharp NIO start-up
	JR1 - Change in JR1 jumper status		FC. - Opening limit switch
	VL - Enable/disable holiday mode The radio controls transmitted by the radio frequency devices (remote controls and digital radio keyboard) are deactivated.		FC. - Closure limit switch
	SW - Release door open When the release door is closed, the control panel runs a RESET (alarm). The reset can be ignored by pressing the + keys for 3 seconds until it stops flashing .		
If the RESET is disabled, make sure the gate is not moved manually.			

7.2 Display of alarms and faults

Alarm type	Display	Description	Operation
Mechanical alarm		M0 - Automation not configured	Check the configuration of the parameter
		M3 - Automation blocked	Check the mechanical parts
		M4 - Motor short circuit	Check connection of motor
		M8 - Stroke too long	Check the rack / transmission chain
		M9 - Stroke too short	Manually check that the gate moves freely
		MB - Motor failure 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, from the deceleration start point each stop is seen as an obstacle and indicated with	Check connection of the opening limit switch
		ME - Irregular operation of the closing limit switch If the limit switch is configured but can't be found, each stop (from the deceleration start point) is seen as an obstacle and indicated with	Check connection of the closing 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 connection of motor
		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
Alarm Settings		S6 - Incorrect setting of safety device test	Check the configuration of parameters , , . If → , and cannot be or .










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 outside limits error	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 acquisition 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 - Motor MOSFET alarm 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 + keys		
	WD - Firmware reset not commanded		
Power supply alarm		P0 - No mains voltage.	Check that the control panel is powered correctly. Check the line fuse. Check the mains power supply.
		P1 - Microswitch voltage too low	Check that the control panel is powered correctly.

















Radio operations alarm		R0 - Insertion of a storage module containing a number of stored remote controls above 100 The setting is made automatically R0 → MU → 20	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 → 00 .
		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 - Insertion of slot-in radio cards	
Battery alarm		B0 - Battery almost flat	Check battery voltage. Replace battery
Accessories alarm		A0 - Test of safety sensor on contact 6 failed	Check that the device GOPAV is working properly If the supplementary GOPAV card is not inserted, check that the safety test is disabled
		A1 - Test of safety sensor on simultaneous contacts 6 and 8 failed	Check the wiring and correct operation of the safety sensor
		A3 - Test of safety sensor on contact 8 failed	Check that the device GOPAV is working properly If the supplementary GOPAV card is not inserted, check that 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 that the device connected to output +LP- is working properly



Alarms and faults can be displayed with any display selection. The signalling of alarm messages takes priority over all other displays.

8. Troubleshooting

Problem	Possible cause	Signal Alarm	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 the power supply cable
	Short circuited accessories		Disconnect all the accessories from terminals 0-1 (a voltage of 24V _{DC} must be present) and then reconnect them one at a time. Contact Technical Service.
	Blown line fuse		Replace the fuse
	The 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
	The photocells are activated		Check that the photocells are Clean and working properly
	The automatic closure does not work		Issue any command. If the problem persists, contact Technical Service
	Faulty motor		Check motor connection, if the problem persists, contact Technical Service
	Mechanical fault		Check the rack and the transmission chain and/or the mechanical parts
	Release microswitch open		Check that the door is closed correctly and the contact of the microswitch
	Faulty control panel panel		Contact Technical Service
	Both limit switches are active.		Check the connection of the limit switches

Problem	Possible cause	Signal Alarm	Operation
External safety devices not activating	Incorrect connections between photocells and control panel		Check the display of  . Connect the NC safety contacts together in series and remove any jumpers on the terminal board of the control panel Check the setting of  →  and  →  .
The automation opens/closes briefly and then stops	There is a presence of friction	   	Manually check that the automation moves freely and check the  /  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 batteries of the transmitters
The remote control does not work	No storage module or incorrect storage module	   	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		Check the connections. If the problem persists, contact Technical Service.

9. Routine maintenance plan

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Without power supply and batteries if present:

- Clean and lubricate the moving parts, using neutral grease.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the resistance of the fixing points.


Reconnect the 230 V~ power supply and batteries if present:

- Check the power adjustment.
- Check that all commands and safety functions (photocells) are operating correctly.
- Check the batteries are working (continuously) if present, by removing the power supply and making a series of operations. Once performed, turn on power supply again.



For spare parts, see the spares price list.

The Ditec brand is owned by ASSA ABLOY. All the rights relating to this material are the exclusive property of ASSA ABLOY Entrance Systems AB. Although the contents of this publication have been drawn up with the greatest care, ASSA ABLOY Entrance Systems AB cannot be held responsible for any damage caused by mistakes or omissions. We reserve the right to make changes without prior notice. Copying, scanning or changing the publication in any way is expressly forbidden without the prior written authorisation of ASSA ABLOY Entrance Systems AB.

 The crossed-out wheellie 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.

