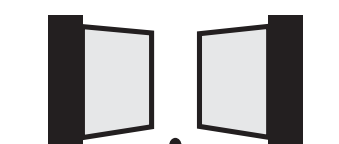
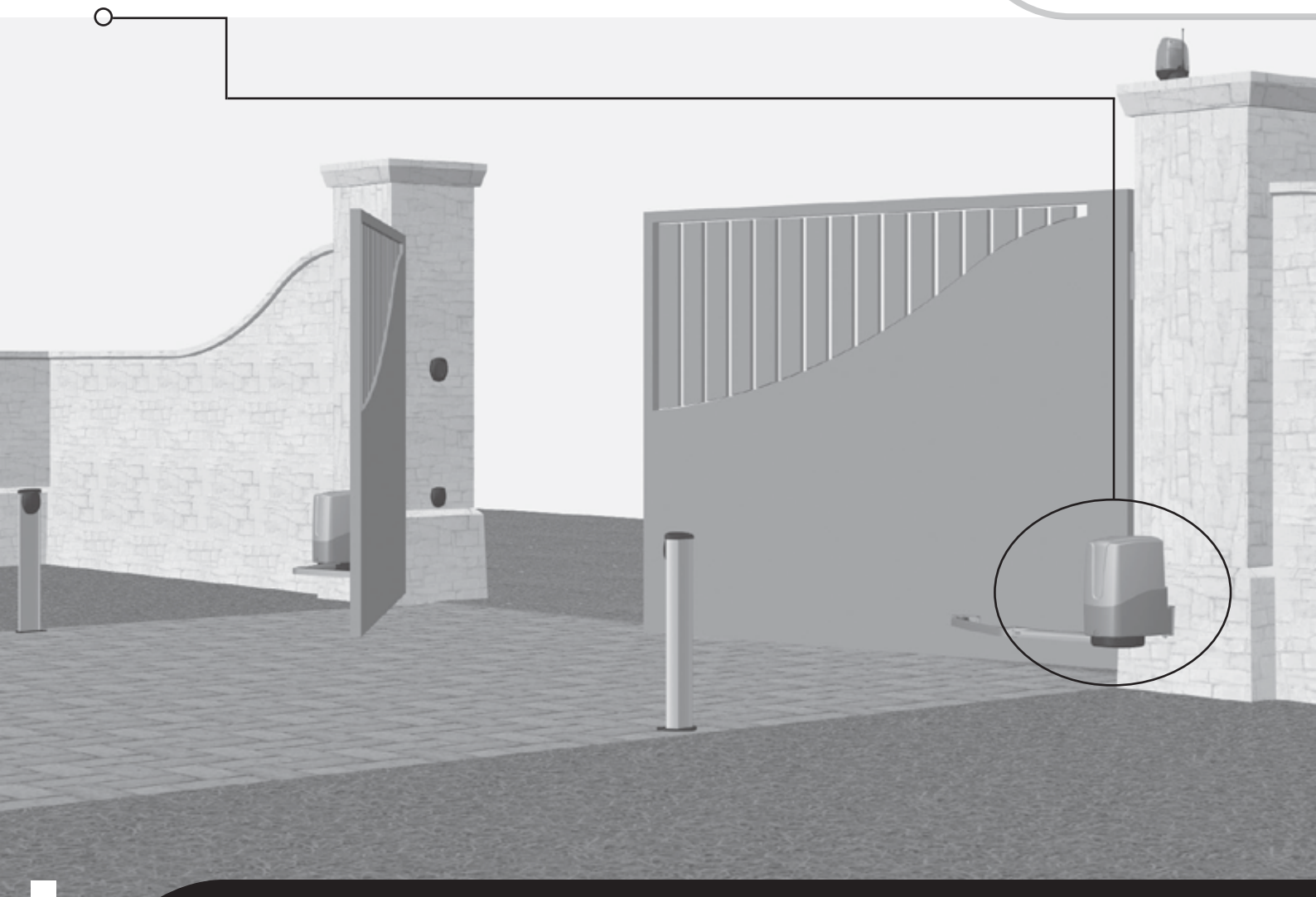


Electro-mechanical operator for swing gates
Operating instructions and warnings

DEA[®]
move as you like



www.deasystem.com



SWINGER

The Declaration of Incorporation may be consulted by entering

<http://www.deasystem.com>

DEA SYSTEM S.p.A.
Via Della Tecnica, 6
36013 PIOVENE ROCCHETTE (VI) - ITALY

LIEVORE TIZIANO
Amministratore



SWINGER

Electro-mechanical operator for swing gates
Operating instructions and warnings

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EN

Product Conformity

DEA System guarantees the conformity of the product to European Directives 2006/42/CE regarding "machinery safety", 2004/108/CE "electromagnetic compatibility" and 2006/95/CE "low voltage electrical equipment". See Declaration of Incorporation.

1 WARNINGS SUMMARY

Read these warnings carefully; failure to respect the following warnings may cause risk situations.

⚠ WARNING USING THIS PRODUCT UNDER UNUSUAL CONDITIONS NOT FORESEEN BY THE MANUFACTURER CAN CREATE SITUATIONS OF DANGER, AND FOR THIS REASON ALL THE CONDITIONS PRESCRIBED IN THESE INSTRUCTIONS MUST BE RESPECTED.

⚠ WARNING DEA SYSTEM REMINDS ALL USERS THAT THE SELECTION, POSITIONING AND INSTALLATION OF ALL MATERIALS AND DEVICES WHICH MAKE UP THE COMPLETE AUTOMATION SYSTEM, MUST COMPLY WITH THE EUROPEAN DIRECTIVES 2006/42/CE (MACHINERY DIRECTIVE), 2004/108/CE (ELECTROMAGNETIC COMPATIBILITY), 2006/95/CE (LOW VOLTAGE ELECTRICAL EQUIPMENT). IN ORDER TO ENSURE A SUITABLE LEVEL OF SAFETY, BESIDES COMPLYING WITH LOCAL REGULATIONS, IT IS ADVISABLE TO COMPLY ALSO WITH THE ABOVE MENTIONED DIRECTIVES IN ALL EXTRA EUROPEAN COUNTRIES.

⚠ WARNING UNDER NO CIRCUMSTANCES MUST THE PRODUCT BE USED IN EXPLOSIVE ATMOSPHERES OR SURROUNDINGS THAT MAY PROVE CORROSIVE AND DAMAGE PARTS OF THE PRODUCT.

⚠ WARNING TO ENSURE AN APPROPRIATE LEVEL OF ELECTRICAL SAFETY ALWAYS KEEP THE 230 V POWER SUPPLY CABLES APART (MINIMUM 4 MM IN THE OPEN OR 1 MM THROUGH INSULATION) FROM LOW VOLTAGE CABLES (MOTORS POWER SUPPLY, CONTROLS, ELECTRIC LOCKS, AERIAL AND AUXILIARY CIRCUITS POWER SUPPLY), AND FASTEN THE LATTER WITH APPROPRIATE CLAMPS NEAR THE TERMINAL BOARDS.

⚠ WARNING ALL INSTALLATION, MAINTENANCE, CLEANING OR REPAIR OPERATIONS ON ANY PART OF THE SYSTEM MUST BE PERFORMED EXCLUSIVELY BY QUALIFIED PERSONNEL WITH THE POWER SUPPLY DISCONNECTED WORKING IN STRICT COMPLIANCE WITH THE ELECTRICAL STANDARDS AND REGULATIONS IN FORCE IN THE NATION OF INSTALLATION.

⚠ WARNING USING SPARE PARTS NOT INDICATED BY DEA SYSTEM AND/OR INCORRECT RE-ASSEMBLY CAN CREATE RISK TO PEOPLE, ANIMALS AND PROPERTY AND ALSO DAMAGE THE PRODUCT. FOR THIS REASON, ALWAYS USE ONLY THE PARTS INDICATED BY DEA SYSTEM AND SCRUPULOUSLY FOLLOW ALL ASSEMBLY INSTRUCTIONS.

⚠ WARNING INCORRECT ASSESSMENT OF THE IMPACT FORCES CAN CAUSE SERIOUS DAMAGE TO PEOPLE, ANIMALS OR THINGS. DEA SYSTEM REMINDS THE INSTALLER MUST VERIFY THAT THE IMPACT FORCES, MEASURED AS INDICATED BY THE STANDARD EN 12445, ARE ACTUALLY BELOW THE LIMITS SET BY THE STANDARD EN 12453.

⚠ WARNING ANY EXTERNAL SECURITY DEVICES USED FOR COMPLIANCE WITH THE LIMITS OF IMPACT FORCES MUST BE CONFORM TO STANDARD EN 12978.

⚠ WARNING IN COMPLIANCE WITH EU DIRECTIVE 2002/96/EC ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE), THIS ELECTRICAL PRODUCT SHOULD NOT BE TREATED AS MUNICIPAL MIXED WASTE. PLEASE DISPOSE OF THE PRODUCT AND BRING IT TO THE COLLECTION FOR AN APPROPRIATE LOCAL MUNICIPAL RECYCLING.

2 PRODUCT DESCRIPTION

Models and contents of the package

GEKO is an operator for the automation of swing gates and doors with door medium and small size. It is essentially made up of:

- an operator;
- a programmable control panel (adjustable strength, speed, operators stroke, etc..) with built-in 433.92 MHz radio receiver;

Inspect the "Contents of the package" (Pic. 1) comparing it with your product, for useful reference during assembly.

Transport

GEKO is always delivered packed in boxes that provide adequate protection to the product, however, pay attention to all information that may be provided on the same box for storage and handling.

3 TECHNICAL DATA

GEKO			
CONTROL BOARD		OPERATOR	
Power supply (V)	230 V ~ ±10% (50/60 Hz)	Motor power supply (V)	24 V —
Rated power transformer (VA)	120 VA (230/22V)	Capacity (W)	80 W
Fuse F2 (A) (transformer)	2A	Max torque (Nm)	180 Nm
Batteries	2x 12V 1,3A	Duty cycle (cycles/hour)	20
Fuse F1 (A) (batteries input)	15A	Maximum n° of operations in 24 hour	60
24V operators outputs	2x 5A	Operating temperature range (°C)	-20+50
Auxiliaries power supply output	+24 V — max 200mA	Opening time 90°(s)	16
"Warning" output	+24 V — max 15 W	Product weight with package (kg)	12 Kg
Electric lock output	24V — max 5W or max 1 art. 110	Protection degree	IP44
Flashing light output	24 V — max 15W		
Receiver frequency	433,92 MHz		
Transmitters type of coding	HCS fix-code - HCS rolling code - Dip-switch		
Max remote controllers managed	100		

4 INSTALLATION AND ASSEMBLY

4.1 For a satisfactory installation of the product is important to:

- Verify that the gate complies with the legal requirements and then define the complete project of the installation;
- Verify that the gate is well balanced and that it has no points of friction in opening and closing;
- Identify an area that allows a smooth and safe manual operation of the operator;
- Verify that the operator bulk is compatible with the area chosen for the fitting (Pic. 2);
- Ensure that the space for the rotation of the arm is sufficient (Pic. 3).
- Use the length/weight graphic and the provided installations dimensions (Pic. 4) evaluating whether you prefer **a 90°** or **a 120°** opening.

4.2 Once you have defined and satisfied these requirements, proceed with the assembly:

- fix the operator fixing plate to the pillar by using screws and plugs suitable to the type of surface and material (Pic. 5);
- mount the straight arm by using the supplied screw and washer (Pic. 6);
- insert the operator inside the wall connection plate and fix it with the provided screws and nuts (Pic. 7);
- Mount the swing fixing hinge and the curved arm to the straight arm by using the provided pins and seeger rings (Pic. 8);
- weld the hinge to the gate or fix it with screws suitable to the type of material;

4.3 How to unlock the operator

WARNING Disconnect the power supply from the control panel before releasing the operator. In case you cannot turn the power off, you will necessarily have to re-lock the motor in the position in which it was unlocked.

Lift the cover window (Pic. 9a) and, after having inserted the unlocking key, rotate clockwise until it stops (Fig. 9b).

4.4 How to fix and adjust the mechanical limit switches

- Unlock the operator;
- Rotate the wing to the position of complete opening, position the mechanical limit switch on the stop with the straight arm and fasten it with the provided screws (Pic. 10). If necessary, you can mount a second mechanical limit switch for the closing stop. In this case follow the above directions by moving the door in the desired closed position and fix it with the screws provided in detention;
- Repeat the previous step for a possible second door;
- Secure the protective cover on the straight arm with the screws provided (Pic. 10).

5 ELECTRICAL CONNECTIONS

Execute the wiring following the directions of table 1 and diagrams on page 20.

WARNING To ensure an appropriate level of electrical safety always keep the 230V power supply cables apart (minimum 4mm in the open or 1 mm through insulation) from low voltage cables (motors power supply, controls, electric locks, aerial and auxiliary circuits power supply), and fasten the latter with appropriate clamps near the terminal boards.

WARNING Connect to the power supply 230 V $\pm 10\%$ 50 Hz through a multi pole switch or a different device that can ensure multi pole disconnection from the power supply, with a contact opening of 3 mm.

WARNING To connect the encoder to the control panel, use only a dedicated cable 3x0,22mm².

Table 1 “terminal board connections”

1-2		+24 V === power supply output for auxiliary devices 200mA	
3-4	22 V ~	22 V ~ transformer power supply input	
5-6	24VBatt	24 V === battery power supply or photovoltaic accumulator Green Energy input (follow carefully polarity indications).	
7-8		Operator 1 output	
9		Connection of motors metallic parts	
10-11		Operator 2 output (if present)	
12-13		24 V === max 15 W output for open gate fix warning light (if P052=0), flashing (if P052=1) or courtesy light (if P052>1)	
14-15		14 (-)	“Boost” output for electric-lock, max 1 x art. 110 (if P062=0), 24V pulse output, max 5W (if P062=1), step by step (if P062=2), electro-brake output for not self-locking operators (if P062=3), output for electric-lock power supply via external relay (if P062=4), output for electro-magnets power supply for barriers (if P062=5) or temporized output (if P062>5).
		15 (+)	
16-17		24 V === Flashing light output max 15W art. Lumy/24A/S	
18-19		18 - N.C.	Input 6 STOP. In case of intervention, it stops the movement of both motors during any operation. If unused, short circuit.
		19 - Com	
20-21		20 - N.C.	Input 5 PHOTO 2. When enabled (see parameter P051 in the table), activation of PHOTO 2 provokes: an inversion of direction (during closing), the arrest of the movement (during opening), prevent the start (gate closed). If unused, short circuit.
		21 - Com	
22-23		22 - N.C.	Input 4 PHOTO 1. When enabled (see parameter P050 in the table), activation of PHOTO 1 provokes: an inversion of direction (during closing), the arrest of the movement (during opening), prevent the start (gate closed). If unused, short circuit.
		23 - Com	
24-25		24 - N.C.	Input 3 SAFETY. If activated, it causes the inversion. See P055 and P056 on the parameters table. If unused, short circuit.
		25 - Com	
26-27		26 - N.O.	Input 2 PED. If activated, it opens motor nr. 1 only.
		27 - Com	
28-29		28 - N.O.	Input 1 START. In case of intervention it provokes: the operator opening or closing. It may operate as “inversion” mode (P049=0) or “step by step” mode (P049=1).
		29 - Com	
30		Aerial signal input	
31		Ground aerial input	
32-33	DE@NET	32 (+)	DE@NET mains input (unused at the moment)
		33 (-)	
CON 1		230 V ~ ±10% (50/60 Hz) power supply input	
CON 2		Connection of encoder to operator 2 (1-2-3)	
CON 3		Connection of power supply to operator 2 + ground (4-5-6)	
J5	J9	Encoder selection Jumper:	
		• A position = operators with encoder (remind to set P029=0)	
		• B position = operators without encoder (remind to set P029=1)	

If the installation requires different commands and / or additional to the standard, you can configure each input to the required rate.

Refer to Chapter “Advanced Programming”.

If the installation requires different commands and / or additional to the standard, you can configure each input to the required rate.
Refer to Chapter “Advanced Programming”.

Mot 2 (Only if present)

3 x 0.22 mm²

2 x 1.5 mm²

1 x 1.5 mm²

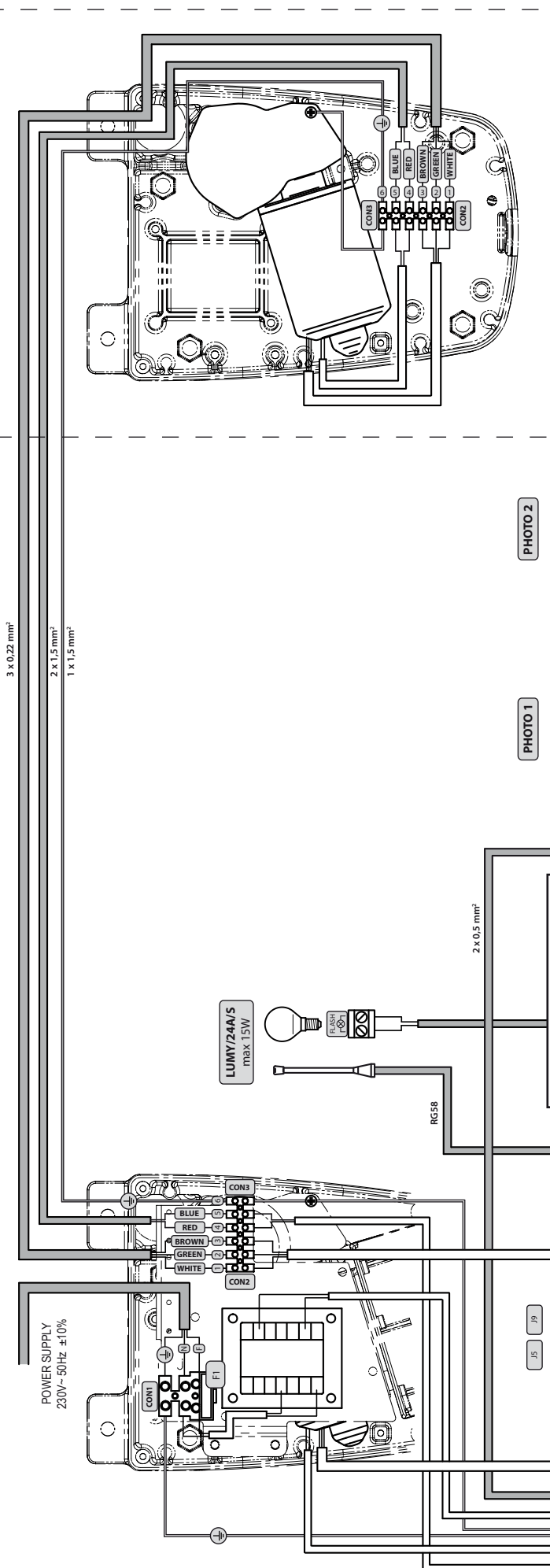
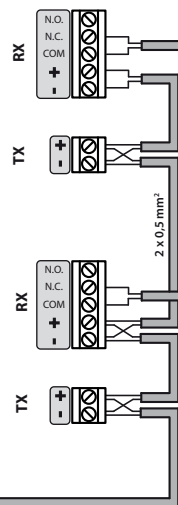


PHOTO 2

PHOTO 1



INTERNAL WIRING SET
BY THE FACTORY
EXTERNAL WIRING SET
BY THE INSTALLER

OPEN GATE WARNING LIGHT
24V 15w

ELECTRIC LOCK
art.110

2 x 1 mm²

2 x 0.5 mm²

6 STANDARD PROGRAMMING

1 Power Supply

Give power supply, the display shows the following symbols "rES-", "TYPE", "-01-" and then "- - -".



* If the control panel has already been programmed and the power fails or is switched off - once power is returned and a START command is given, the position reset procedure is performed (see "rESP" in the table "WORKING STATUS MESSAGES" on page 26).

2 Visualisation of inputs and operations-counter status

1. Press the **OK** key for 15 seconds;

2. The display will show respectively:

Inputs status (check it's correct);



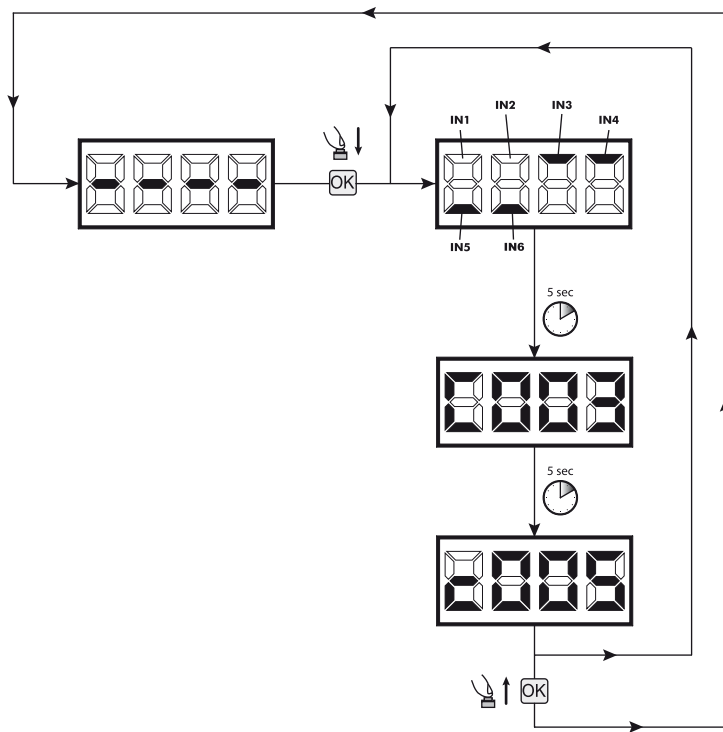
Total operations counter (* see P064):

i.g.: $0003 = 3 \times 1000^* = 3000$ operations performed

Maintenance operations-counter (* see P065):

i.g.: $0005 = 5 \times 500 = 2500$ operations remaining before the maintenance intervention request (c - - - = maintenance-counter disabled)

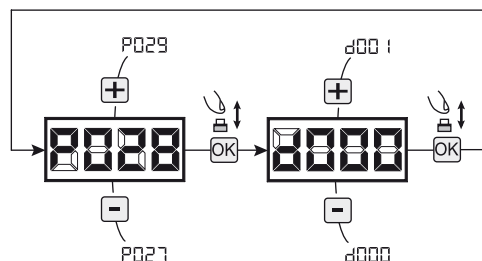
3. Hold down the **OK** key to display a cyclic 3 options, or release the **OK** button to exit the parameter.



3 Selection type of operators

! IMPORTANT !

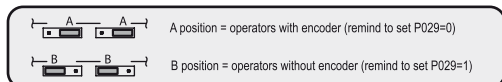
1. Scroll down the parameters with **+** and **-** keys until you visualise P028;
2. Access the parameter by pressing the **OK** key;
3. Verify that the value corresponds to d000 (GEKO), otherwise, you must select it by pressing **+** and **-** keys;
4. Confirm your choice by pressing the **OK** key (display returns again to P028).



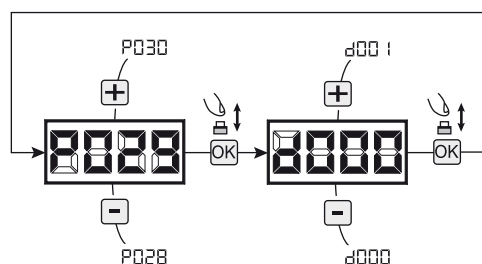
4 Selection operating with or without encoder

! IMPORTANT !

Warning: Remember to correctly set the jumpers J5 and J9.

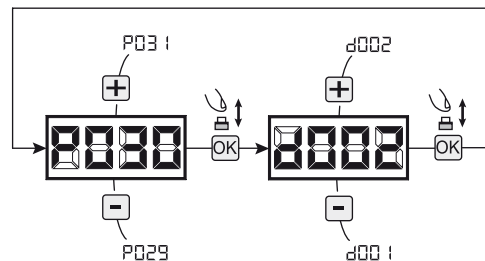


1. Scroll down the parameters with **+** and **-** keys until you visualise P029;
2. Access the parameter by pressing the **OK** key;
3. Acting on **+** and **-** keys, set:
 - d000=for operators with encoder;
 - d001=for operators without encoder;
4. Confirm your choice by pressing the **OK** key (display returns again to P029).



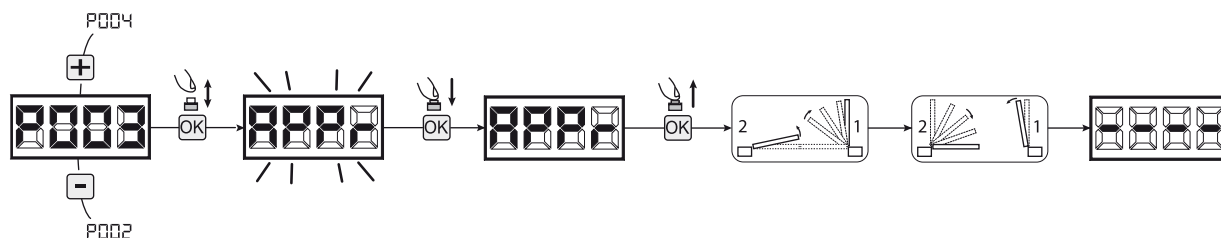
5 Selection 1 or 2 operators functioning

1. Scroll down the parameters with **+** and **-** keys until you visualise P030;
2. Access the parameter by pressing the **OK** key;
3. Acting on **+** and **-** keys, set:
 - d001=for a single motor operating;
 - d002=for 2 motors operating;
4. Confirm your choice by pressing the **OK** key (display returns again to P030).



6 Motor stroke learning

1. Scroll down the parameters with **+** and **-** keys until you visualise P003;
2. Access the parameter by pressing the **OK** key;
3. When "PPPr" flashes, continue pressing the **OK** key;
4. Release the **OK** key when "PPPr" stops flashing; the learning procedure starts;
5. Wait for the door (or doors in case of using 2 motors) searches and stops on the opening stop and then on the closing stop.
If you want to anticipate the stopping strokes in opening, you can manually intervene by giving an impulse to "Start" button (or pressing the "OK" on the control panel) simulating the stroke.
6. Once the procedure is ended, the display will show "---".



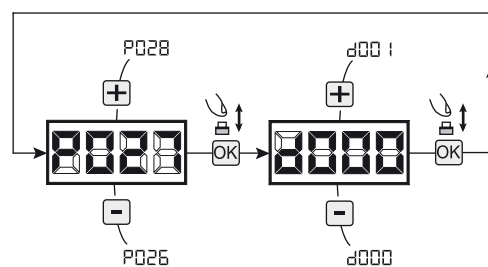
WARNING Once you have executed the learning stroke, operate a complete cycle (opening/closing) and then check the manual release to make sure it is working properly. If it's to "hard" increase the value of P057 of 1 or more.

7 Transmitters learning

7.1 Transmitters coding selection

1. Scroll down the parameters with **+** and **-** keys until you visualise P027;
2. Access the parameter by pressing the **OK** key;
3. Select the type of transmitter by scrolling **+** and **-** keys:
 - d000=fix rolling-code (**suggested**);
 - d001=complete rolling-code;
 - d002=dip-switch;
4. Confirm by pressing on the **OK** key (display shows again P027).

Warning: If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.

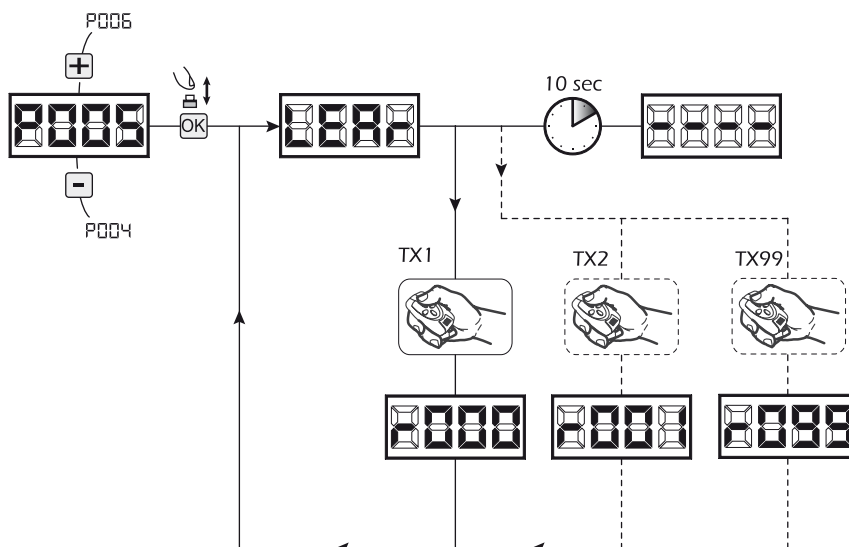


7.2 Learning

1. Scroll down the parameters with **+** and **-** keys until you visualise P005;
2. Confirm by pressing on the **OK** key;
3. When the symbol "LER" appears, press on any key of the transmitter you want to memorize;
4. The display visualizes the number of the transmitter just memorized and then "LER";
5. Memorize all necessary transmitters repeating this procedure from step 3;
6. Wait 10 seconds before quitting the memorization mode, display shows now "----".

Warning: In the case of rolling code remotes, the receiver can be put into learning mode by pressing the hidden button on a remote control previously learned.

Warning: When using personalized transmitters, after entering P005 the learning of the first personalized transmitter is possible only by pressing its hidden button. Afterwards, only transmitters personalized with the same encryption key can be memorized (through the usual procedure), unless a memory reset is carried out (P004).

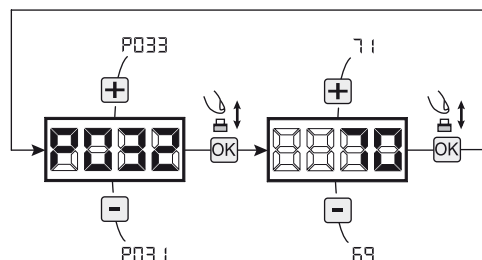


8 Adjustment of operating parameters

If you need to modify the operating parameters (force, speedness etc..):

1. Scroll down the parameters until you visualize the desire parameter (i.g. P032);
2. Access the parameter by pressing the **OK** key;
3. By pressing on **+** and **-** keys, set up the desired value;
4. Confirm by pressing on the **OK** key (display shows the parameters previously selected).

For the complete list of the "Operating Parameters" See the table on page. 29.



9 Programming complete

WARNING At the end of the programming procedure, use the buttons **+** and **-** until the appearance of the symbol "----", the operator is now ready again for new manoeuvres.

To perform any "Advanced Programming" operations (cancellation of the remotes, configuration inputs, etc. ..), see on page 24.

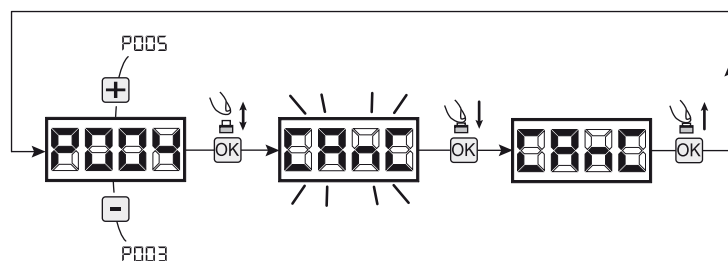
7 ADVANCED PROGRAMMING

Here are some added programming procedures relating to remotes memory management and advanced configuration of the control inputs.

1 Deletion of memorized transmitters

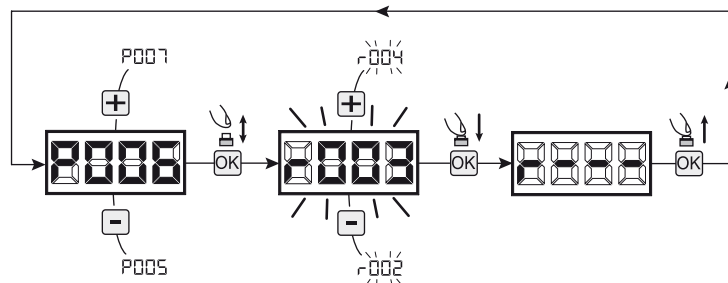
1.1 Deletion of all transmitters

1. Scroll down the parameters until you visualize P004;
2. Confirm by pressing on the **OK** key;
3. When "P004" is flashing, press the **OK** key for a few seconds;
4. Release the **OK** key as soon as "P004" stops flashing;
5. All memorized transmitters have been deleted (display shows again P004).



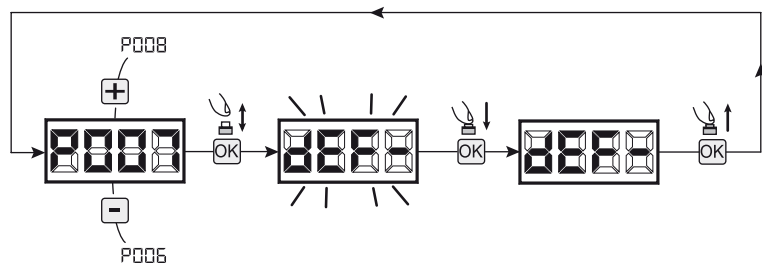
1.2 How to search and delete a transmitter

1. Scroll down the parameters until you visualize P006;
2. Confirm by pressing on the **OK** key;
3. By pressing on **+** and **-** keys, select the transmitter you want to delete (eg. P003);
4. When "P003" flashes, confirm the deletion by pressing the **OK** key for a few seconds;
5. Release the **OK** key when appears "P006";
6. The selected transmitter is deleted (display shows again P006).



2 Resetting of default parameters

1. Scroll down the parameters until you visualize P007;
2. Confirm by pressing on the **OK** key;
3. When "P007" flashes, press the **OK** key;
4. Release the **OK** key as soon as "P007" stops flashing; Default parameters for the configuration currently in use are restored;
5. At the end of the operation display returns to P007.



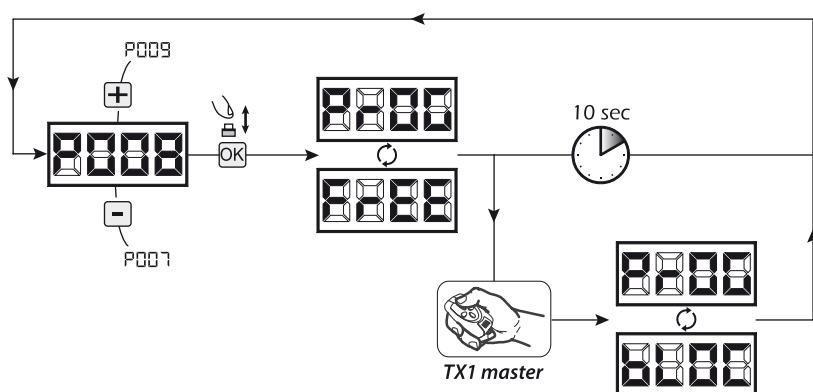
Warning: After you restore the default parameters, you must program the control panel again and adjust all operating parameters, in particular, remember to properly set the configuration of parameters (P028 - P029 - P030 - operator configuration).

3 Locking-Unlocking access to programming

By using a "dip-switch" remote (regardless of the type of remotes already memorized) it's possible to lock-unlock access to the programming of the control panel to avoid tampering. The remote setting is the locking-unlocking code verified by the control board.

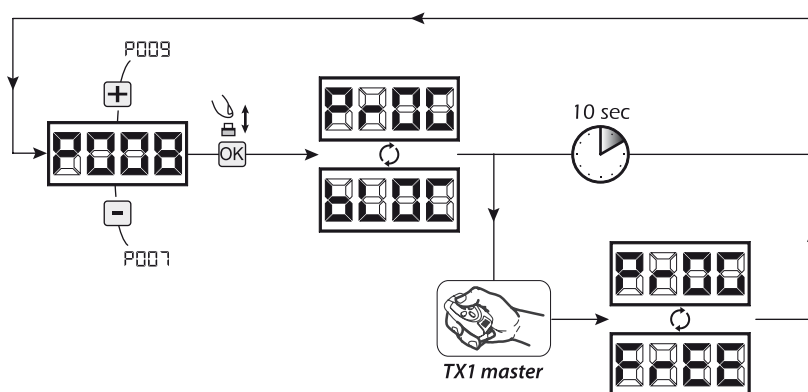
3.1 Locking access to programming

1. Scroll through the parameters with the buttons **+** and **-** until the display shows P008;
2. Access the parameter by pressing the button **OK**;
3. The display shows alternately the writing P008 / F000 to indicate that the control board is waiting for the transmission of the block code;
4. Within 10 seconds press CH1 on the "TX Master", the display shows P008 / b000 before returning to the list of parameters;
5. Access to programming is locked.



3.2 Unlocking access to programming

1. Scroll through the parameters with the buttons **+** and **-** until the display shows P008;
2. Access the parameter by pressing the button **OK**;
3. The display shows alternately the writing **P-00** / **bl-00** to indicate that the control board is waiting for the transmission of the unlocking code;
4. Within 10 sec. press the CH1 of the "TX Master", the display shows **P-00** / **Fr-EE** before returning to the list of parameters;
5. Access to programming is unlocked.



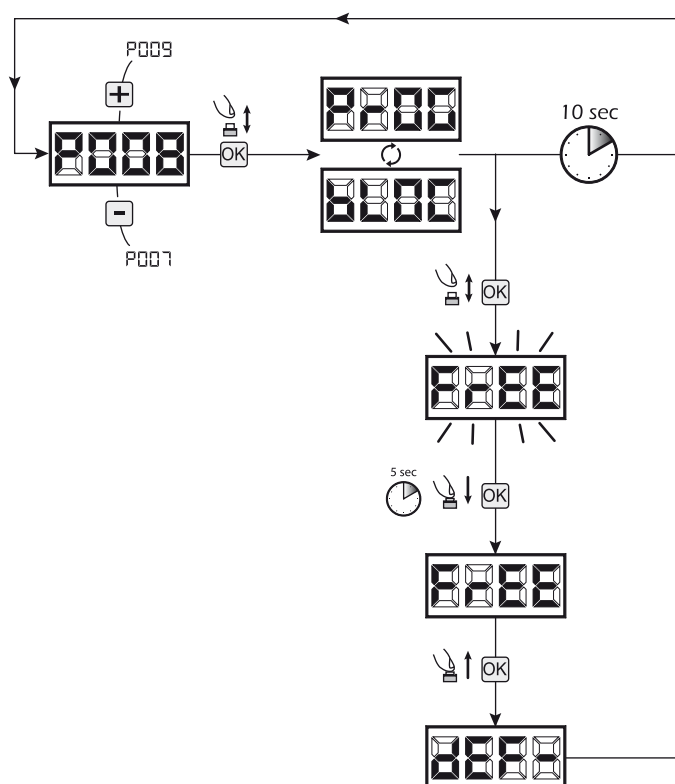
3.3 Unlocking access to programming and global reset

WARNING! This procedure involves the loss of all stored settings.

The procedure allows the unlocking of the control panel without having to know its unlocking code.

Following this release, **in particular, remember to properly set the configuration of parameters (P028 - P029 - P030 - operator configuration)**. You will also need to repeat the measurement of impact forces to ensure the installation compliance to standards.

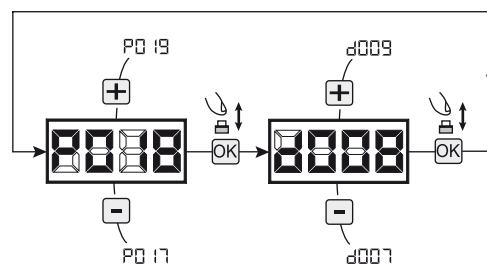
1. Scroll through the parameters with the buttons **+** and **-** until the display shows P008;
2. Access the parameter by pressing the button **OK**;
3. The display shows alternately the writing **P-00** / **bl-00**;
4. Press the button **OK**, the display shows the flashing writing **Fr-EE**;
5. Press the button again and hold for 5 seconds (releasing it before, the procedure is terminated): The display shows the fixed writing **Fr-EE** followed by **dEF-**, before returning to the list of parameters;
6. Access to programming is unlocked.



4 Inputs configuration

Where the installation requires different commands and / or additional to the standard ones described by plan, you can configure each input for the operation desired (eg START, PHOTOS, STOP, etc ...).

1. Scroll down the parameters with the **+** and **-** to see that corresponding to the desired one:
 - P017=for INPUT 1;
 - P018=for INPUT 2;
 - P019=for INPUT 3;
 - P020=for INPUT 4;
 - P021=for INPUT 5;
 - P022=for INPUT 6;
2. Confirm by pressing on the **OK** key to get access to the parameter (eg. P018);
3. Scroll down with the **+** and **-**, keys to set the value corresponding to the desired operation (refer to table "Input Configuration parameters" on page 28);
4. Confirm by pressing on the **OK** key (display shows again P018).
5. Execute the new connection to the input just reconfigured.



5 Programming complete

WARNING At the end of the programming procedure, use the buttons **+** and **-** until the appearance of the symbol **"---"**, the operator is now ready again for new manoeuvres.

8 MESSAGES SHOWN ON THE DISPLAY

WORKING STATUS MESSAGES		
Mess.	Description	
----	Gate is closed	
	Gate is opened	
	Opening under way	
	Closing under way	
STEP	While in step-by-step mode, the control board awaits further instructions after a start command	
STOP	Stop command received	
rESP	Reset current position: The control unit has just been turned on after a power failure, or the gate has exceeded the maximum number (80) of inversions allowed without ever getting to the closing stroke, or the maximum number (3) of consecutive operations allowed of the anti- crushing device. Once the control unit has been reset and open command given the gate will start moving at slow speed, until it reaches end of travel.	
ERROR MESSAGES		
Mess.	Description	Possible solutions
ErrP	Error position: The reset position procedure is not successful. The control panel is awaiting commands.	- Make sure there are no specific frictions and / or obstacles during the run; - Give a start pulse to initiate a position reset procedure; - Verify that the operation is completed successfully, manually helping the run, if necessary; - Adjust power and speed settings if necessary.
Err3	External photocells and/or safety devices are activated or out of order.	- Make sure that all safety devices and/or photocells installed are working properly.
Err4	Possible failure to the control board power circuit.	- Disconnect and connect power supply. Give a start impulse, if this error appears again, replace the control board.
Err5	Time-out operators run: The engine/s exceeded the maximum operating time (4min) without ever stopping.	- Give a start pulse to start the position reset procedure; - Ensure that this operation is successful.
Err6	Time-out obstacle detection: With anti-crushing sensor disabled, was still detected the presence of an obstacle that prevents movement of the leaf for a period of 10 seconds more.	- Make sure there are no specific frictions and / or obstacles during the run; - Give a start pulse to initiate a position reset procedure; - Verify that the operation is completed successfully.
Err7	Operators mouvement not detected.	- Make sure that operators and encoders connections are well done. - Check that jumpers J5 and J9 are well positioned as shown on the electric wiring. - If this error appears again, replace the control panel.

9 START-UP

The start-up phase is very important to ensure maximum security and compliance to regulations, including all the requirements of EN 12445 standard which establishes the test methods for testing the automation for gates.

DEA System reminds that all installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel who must be responsible of all texts requie by the eventual risk;

9.1 Installation test

The testing operation is essential in order to verify the correct installation of the system. **DEA** System wants to summarize the proper testing of all the automation in 4 easy steps:

- Make sure that you comply strictly as described in paragraph 2 "WARNINGS SUMMARY";
- Test the opening and closing making sure that the movement of the leaf match as expected.
We suggest in this regard to perform various tests to assess the smoothness of the gate and defects in assembly or adjustment;
- Ensure that all safety devices connected work properly;
- Perform the measurement of impact forces in accordance with the standard 12445 to find the setting that ensures compliance with the limits set by the standard EN12453.

WARNING Using spare parts not indicated by **DEA** System and/or incorrect re-assembly can create a risk to people, animals and property and also damage the product. For this reason, always use only the parts indicated by **DEA** System and scrupulously follow all assembly instructions.

9.2 Unlocking and Manual operation

In the event of malfunctions or simple power failure, release the motor (Pic. 9) and perform the operation manually.

The knowledge of the unlocking device is very important because, in times of emergency, lack of speed in operating this device can cause danger.

WARNING The efficacy and safety of manual operation of the automation is guaranteed by **DEA** System only if the installation has been installed correctly and with original accessories.

10 MAINTENANCE

Good preventive maintenance and regular inspection ensure long working life. In the table below you will find a list of inspections/maintenance operations to be programmed and executed periodically.

Consult the TROUBLE-SHOOTING table whenever anomalies are observed in order to find the solution to the problem and contact DEA System directly whenever the solution required is not provided.

INTERVENTION TYPE	PERIODICITY
cleaning of external surfaces	6 months
checking of screw tightening	6 months
checking of release mechanism operation	6 months
greasing of articulated joint	1 year

TROUBLE-SHOOTING	
Description	Possible solutions
When the opening command is given, the gate wing fails to move and the operator's electric motor fails to start.	The operator is not receiving correct power supply. Check all connections, fuses, and the power supply cable conditions and replace or repair it if necessary. If the gate does not close check if the photocells work properly.
When the opening command is given, the motor starts but the gate leaf fails to move.	Make sure the unlocking system is closed. Make sure that the electronic device for power adjustment is in good condition.
The operator jerks or is noisy during movement, it stops midway or else it does not start.	If the leaf of the gate does not move freely, release the operator and readjust the rotation points.
	The power of the gearmotor may be insufficient for the characteristics of the gate's leaf; check the choice of model whenever required.
	If the plate fastening the operator to the gate bends or is inappropriately fastened, repair it or reinforce it.

11 PRODUCT DISPOSAL

GEKO consists of materials of various types, some of which can be recycled (electrical cables, plastic, aluminum, etc. ...) while others must be disposed of (electronic boards and components).

Proceed as follows:

1. Disconnect the power supply;
2. Disconnect and disassemble all the accessories connected. Follow the instructions in reverse to that described in the section "Installation";
3. Remove the electronic components;
4. Sorting and disposing of the materials exactly as per the regulations in the country of sale.

 **WARNING** In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to your local municipal collection point for recycling.

	PAR.	PROCEDURE	SETTABLE VALUES
PROGRAMMING PROCEDURES	P001	Positioning of operator 1	
	P002	Positioning of operator 2	
	P003	Memorization of the motors' stroke	
	P004	Deletion of transmitters	
	P005	Transmitters memorizing	
	P006	Search and deletion of a transmitter	
	P007	Loading of standard parameters: the list is up dated with factory settings	
	P008	Lock access to programming	
	P009	How to learn connected DE@NET devices (unused at the moment)	
	P010	Unused parameter	
	P011	Unused parameter	
	P012	Unused parameter	
	P013	Unused parameter	
	P014	Unused parameter	
	P015	Unused parameter	

	PAR.	SETTABLE VALUES	SETTABLE VALUES	DEFAULT VALUES (for different standards of installation)	
					TYPE 01
INPUTS CONFIGURATION PARAMETERS	P016	INPUT_3 selectioning input type	• 000: IN3 type=free contact • 001: IN3 type=constant resistance 8K2	000	
	P017	INPUT_1 operating selection	• 000: NONE (unused parameter) • 001: START (start) • 002: PED. (pedestrian) • 003: OPEN (separated open) • 004: CLOSE (separated close) • 005: OPEN_PM (man present open) • 006: CLOSE_PM (man present close) • 007: ELOCK-IN (electric-lock activation. See P062) • 008: PHOTO 1 (photocell 1) • 009: PHOTO 2 (photocell 2) • 010: SAFETY 1 (safety rib 1) • 011: STOP (lock) • 012: FCA1 (opening limit switches Mot1) • 013: FCA2 (opening limit switches Mot2) • 014: FCC1 (closing limit switches Mot1) • 015: FCC2 (closing limit switches Mot2) • 016: SAFETY 2 (safety rib 2)	IN1	001
	P018	INPUT_2 operating selection		IN2	002
	P019	INPUT_3 operating selection		IN3	010
	P020	INPUT_4 operating selection		IN4	008
	P021	INPUT_5 operating selection	IN5	009	
	P022	INPUT_6 operating selection	IN6	011	

		TYPE 01	
INPUTS CONFIGURATION PARAMETERS		CH1	
		CH2	
		CH3	
		CH4	
P023	Allocation of CHANNEL 1 of remotes	• 000: NONE (unused parameter) • 001: START (start) • 002: PEDESTRIAN (pedestrian) • 003: OPEN (separated open) • 004: CLOSED (separated close) • 005: OPEN_PM (man present open) • 006: CLOSED_PM (man present close) • 007: ELOCK-IN (electric-lock activation. See P062)	000
P024	Allocation of CHANNEL 2 of remotes		000
P025	Allocation of CHANNEL 3 of remotes		000
P026	Allocation of CHANNEL 4 of remotes		000
P027	Selection of type of remotes	• 000: HCS fix-code • 001: HCS rolling-code • 002: Dip-switch	000
P028	Selection type of operators	• 000: GEKO • 001: LOOK - MAC (Unused) • 002: GHOST 100/200 (Unused) • 003: 500 - 502 (Unused)	000
P029	Selected work with or without encoders. CAUTION: Remember to correctly set the jumpers J5 and J9 (see table 1) WARNING: J5, J9 and P029 must be set correctly before performing the procedure for programming	• 000: motors with encoder • 001: engines without encoder	000
P030	Selection of operator's number	• 001: one operator • 002: two operators	002
P031	Operator's speed adjustment during slow-down while opening	15%tot.....100%tot	050
P032	Operator's speed adjustment during the stroke while opening	15%tot.....100%tot	100
P033	Operator's speed adjustment during the stroke while closing	15%tot.....100%tot	100
P034	Operator's speed adjustment during slow-down while closing	15%tot.....100%tot	050
P035	Slow down duration adjustment while opening	0%tot.....80%to	020
P036	Slow down duration adjustment while closing	0%tot.....80%to	020
P037	Operator 1 force adjustment while opening (if = 100% obstacle detection deactivated)	15%tot.....100%tot	050
P038	Operator n.1 force adjustment while closing (if = 100% obstacle detection deactivated)	15%tot.....100%tot	050
P039	Operator n.2 force adjustment while opening (if = 100% obstacle detection deactivated)	15%tot.....100%tot	050
P040	Operator n.2 force adjustment while closing (if = 100% obstacle detection deactivated)	15%tot.....100%tot	050
P041	Automatic closing times adjustment (if = 0 automatic closing deactivated)	Osec.....255sec	000
P042	Pedestrian automatic closing time adjustment (se = 0 pedestrian automatic closing deactivated)	Osec.....255sec	000
P043	Pedestrian stroke duration adjustment	5%tot.....100%tot	035
P044	Pre-flashing time adjustment	Osec.....10sec	000
P045	Adjustment of phase displacement time while opening	Osec.....30sec	000
P046	Adjustment of phase displacement time while closing	Osec.....30sec	000
P047	Collectivity function: if it is activated it deactivates both opening and closing	• 000: "collectivity function" deactivated • 001: "collectivity function" activated	000
P048	Ram blow function: it pushes the motors closed for one second before each opening movement, so as to ease the electric-lock release	• 000: "ram blow" deactivated • 001: "ram blow function" activated	000
OPERATING PARAMETERS			
OPERATORS CONFIGURATION PARAMETERS			

OPERATING PARAMETERS			TYPE 01
P049	"Reversal" mode selection (during the manoeuvre a command impulse reverse the movement) or "step by step" (during the manoeuvre a command impulse stops the movement). A next impulse restart the operator to the opposite direction.		000: "reversal function" 001: "step by step function"
P050	PHOTO 1	PHOTO input functioning: If=0: photocell enabled while closing and starting when the gate is stopped; if=1 photocells are always enabled; if=2 photocells are enabled while closing only. When enabled, its activation provokes: the inversion (while closing), the stop (while opening) and prevent the starting (when gate is closed). If=3-4-5, the operation is the same as the values 0-1-2 but with "close immediately" enabled: in any case, during the opening and/or the pause time, removal of a possible obstacle causes the gate automatically closes after a fixed delay of 5 sec.	000: photocell enabled while closing and when gate is stopped 001: photocells always enabled 002: photocells enabled only while closing 003: as 000 but with "close immediately" enabled 004: as 001 but with "close immediately" enabled 005: As 002 but with "close immediately" enabled
P051	PHOTO 2		
P052	Operation mode selection of the warning light output: If = 0 "warning light" (output always ON when the gate is open, OFF after a closing operation). If = 1 "flashing warning light" (slow intermittent output during opening and fast while closing, always ON at gate opened, always OFF at the end of a closing operation only). If > 1 "courtesy light" (output ON during each movement, OFF when the motor stops, after the setting delay)		000: "fix warning light" 001: "flashing warning light" >001: "courtesy light" off delay (2sec.....255sec)
P053	Searches for end of stroke while opening too: when activated, operators stop only at their arrival et the end of stroke, also while opening. Warning: During the emergency operation (rESP), the motor executes the first maneuver while opening. In addition, if any limit switches, the parameter is forced to 1.		000: Stop when opening on a memorized point 001: Stop when opening on the end of stroke
P054	"soft start" function: motors accelerate gradually until they reach the set speed, avoiding sudden departures		000: "soft start" deactivated 001: "soft start" activated 002: "long soft start" activated
P055	Adjust the inversion on obstacle period (detected by internal anti-crushing sensor or by the safety input when activated): If = 0 it makes a complete inversion, if > 0 indicates the duration (in seconds) of the run, after inversion resulting from detection of an obstacle during the opening.		000: complete reversal on obstacle >000: duration of reversal on obstacle (1sec.....10sec)
P056	Adjust the inversion on obstacle period (detected by internal anti-crushing sensor or by the safety input when activated): If = 0 it makes a complete inversion, if > 0 indicates the duration (in seconds) of the run, after inversion resulting from detection of an obstacle during the closing.		000: complete reversal on obstacle >000: duration of reversal on obstacle (1sec.....10sec)
P057	Facilitation manual release: If=0, after detecting the locking stop, the engine reverses for a brief time to release the pressure on it, and thus facilitate the manual release. The set value shows the length of the inversion. If=0 function disabled		000: facilitating release disabled >000: facilitation activated with release time equal to: (1x25ms.....20x25ms)
P058	Adjustment of the opening stroke margin: it adjusts the duration of the last part of the stroke during which an obstacle is interpreted as a stroke, blocking the motor without performing the inversion. For motors with encoders, the set value indicates the number of revolutions of the rotor; while for motors without encoder, the value is expressed in% of the maximum stroke. Warning: for motors without encoder, if P035 (duration slow-down while opening) is >10%, it forces the stroke detection margin so that it's the same than the slow-down.		1.....255 (motors with encoder) 0%.....100% (motors without encoder)
P059	Adjustment of the closing stroke margin: it adjusts the duration of the last part of the stroke during which an obstacle is interpreted as a stroke, blocking the motor without performing the inversion. For motors with encoders, the set value indicates the number of revolutions of the rotor; while for motors without encoder, the value is expressed in% of the maximum stroke. Warning: for motors without encoder, if P036 (duration slow-down while closing) is >10%, it forces the stroke detection margin so that it's the same than the slow-down.		1.....255 (motors with encoder) 0%.....100% (motors without encoder)
P060	Operators force adjustment at stroke arrival - If = 0, setting off (the force value on the stroke is calculated automatically) - If ≠ 0, indicates the value (expressed in% of the max value) of the force exerted on the stroke.		0%tot.....100%tot
P061	"Energy saving" mode: If=1 after 10sec of inactivity, the control panel turns the 24V outputs and the display off that will be turned on at first command received (use recommended battery-powered and / or solar panel).		000: "Energy saving" not active 001: "Energy saving" active

OPERATING PARAMETERS			TYPE 01
P052	Electric-lock output operating: If=0 "boost" output for electric-lock art.110 power supply, If=1 24V output controlled by the ELOCK_IN input as pulsed mode, If=2 24V output controlled by the ELOCK_IN input as step-by-step mode, If=3 electro-brake output for not self-locking operators, If=4 24V output for electric-lock power supply via an external relay, If=5 24V output for electro-magnets power supply for barriers, If>5 24V output controlled by the ELOCK_IN input as temporized mode (the set value indicates the switch-off delay in seconds).	• 000: "Boost" output for electric-lock art.110 power supply • 001: "24V" pulse output max 5W • 002: "24V" step-by-step output max 5W • 003: "Electro-brake output for not self-locking operators" • 004: "Output for electric-lock power supply via an external relay" • 005: "output for electro-magnets power supply for barriers" • >005: "24V" temporized output max 5W (6sec.....255sec)	000
P053	Run direction inversion: If=1 automatically reverses the outputs open/close of the operators and any opening/closing limit switches inputs, avoiding having to manual change the wiring when installing the operator in an inverted position.	• 000: "Standard installation" • 001: "Inverted installation"	000
P054	Multiplier operations-counter: Multiply the number of operations after which the total operations-counter will be updated. To view the values, refer to the section "Visualisation of inputs and operations-counter status".	• 000: "x100" • 001: "x1000" • 002: "x10000" • 003: "x100000"	001
P055	Maintenance Operations-counter: if = 0 reset the counter and disables the intervention request, if> 0 indicates the number of operations (x 500) to be made before the control panel executes a 4 second additional pre-flash to indicate the need of maintenance. i.g.: If P065 = 050, operations number = 50x500 = 25000 operations Warning: Before you set a new value of the counter-maintenance, the same must be reset by setting P065= 0 and only later P065 = "new value".	• 000: "Request Maintenance disabled" • >000: "Number of operations (x 500) for required maintenance (1.....255)"	000
P056	Selection of operating flashing light output: If=0 intermittent flashing light output; If=1 Fixed flashing light output (for flashing lights with intermittent interior circuits).	• 000: "intermittent flashing light output" • 001: "fixed flashing light output"	000
P057	Operation of the SFT input: if = 0 safety edge always enabled, if = 1 safety edge enabled only while closing, if = 2 safety edge enabled only while closing and before any movement, if = 3 safety edge enabled only when opening, if = 4 safety edge enabled only while opening and before any movement; as for the obstacle detection with internal anti-crushing sensor, also the activation of the inputs SFT1 and SFT2 causes the complete or partial reversal as set by P055 (duration of inversion on obstacles while opening, and P056 (duration of reversal on obstacle while closing)	• 000: "safety edge always enabled" • 001: "safety edge enabled only while closing" • 002: "safety edge enabled only while closing and before any movement" • 003: "safety edge enabled only when opening" • 004: "safety edge enabled only while opening and before any movement"	000
P058			000
P059	Delay on limit switch detection: the operation is stopped after 1.5 sec from limit switch detection. When during this delay a stop is detected, the operator is suddenly stopped	• 000: "limit switch delay disabled" • 001: "limit switch delay enabled"	000
P060	Adjustment of acceleration durability Warning: if soft start is activated, the acceleration is deactivated independently from P070 value.	• 000: "acceleration deactivated (it runs an acceleration of minimum durability, almost imperceptible)" • 00X: "adjusts the acceleration durability at 1.5 sec (X*6 ms)"	200
P061	Unused parameter		/
P062	Unused parameter		/
P063	Unused parameter		/
P064	Unused parameter		/
P065	Unused parameter		/



move as you like

NOTES

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Customer Service (03) 9364 8288

See downee.com.au for your state office

Tech Support 1800 241 733 techsupport@downee.com.au

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deasystem.com