NET230N

Universal control panel for 230V operators
Operating instructions and warnings

Index

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 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** 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 EN12453.

⚠ **WARNING** The compliance of the internal sensing obstacles device to requirements of EN12453 is guaranteed only if used in conjunction with motors fitted with encoders.

⚠ **WARNING** Any external security devices used for compliance with the limits of impact forces must be conform to standard EN12978.

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

NET230N is a universal control panel for **DEA** System 1 or 2 230V operators automations with or without encoder.

The main feature of this control board is its ease of configuration of inputs and outputs according to any needs thus ensuring adaptability to any type of automation. It is therefore easy to set up and exclude all unnecessary functions.

3 TECHNICAL DATA

	NET230N
Power supply (V)	230 V ~ ±10% (50/60 Hz)
Fuse F2 (A)	5A
Fuse F1 (A)	160mA
Outputs 230V motors (maximum output current) (A)	2 x 600W
Auxiliaries power supply output	+24 V ⎓ max 200mA
"Warning" output	230 V ~ max 2x 40W
Electric lock output	max 1 art. 110 or 24V ⎓ output max 5W configurable
230V Flashing light output	230 V ~ max 40W
24V Flashing light output	24 V ⎓ max 100mA (per lampeggiante a led) art. LED24AI
Operating temperature range (°C)	-20÷50 °C
Receiver frequency	433,92 MHz
Transmitters type of coding	HCS fix-code - HCS rolling code - Dip-switch
Max remote controllers managed	100

CONFIGURATION OF THE CONTROL PANEL

The universal control unit NET230N can be used for the management of the following types (TYPE) of closures motorized by **DEA** System: swing and sliding gates, overhead doors and barriers.

In order to ensure maximum adaptability to each TYPE of closure, the control board provides an initial procedure, performed only at the first turn, for the optimal configuration of inputs, outputs and parameters (see diagram **A**). Once configured, the control panel will operate in the mode "dedicated" to the TYPE of selected closing. After performing the initial configuration it is sufficient to execute the standard programming for the installation on which it is operating.

All settings remain in memory even in the case of subsequent flare-ups (see diagram **B**).

If necessary the TYPE of configured closing can be later adjusted following diagram **C**.

FIRST CONTROL BOARD IGNITION

Configuration after the first ignition

A For the first control panel ignition, proceed as follows:

1. Apply power, the display shows in sequence the writing "rES-" and "TYPE" flashing;
2. Press the OK button and hold for 5 seconds until the display shows d000 on the display;
3. Acting on the + and - keys, select the desired configuration depending on the type of installation (es. d002) and confirm by pressing the OK button;
   At this point, the selection will be stored and reloaded each time in the future.
4. Follow signs, "TYPE", "-00-" followed by the symbol of closed gate "----".

Following ignitions

B If you have already saved a configuration, proceed as follows:

Apply power, the display shows in sequence the writing "rES-", "TYPE", "-00-" followed by the symbol of closed gate "----".

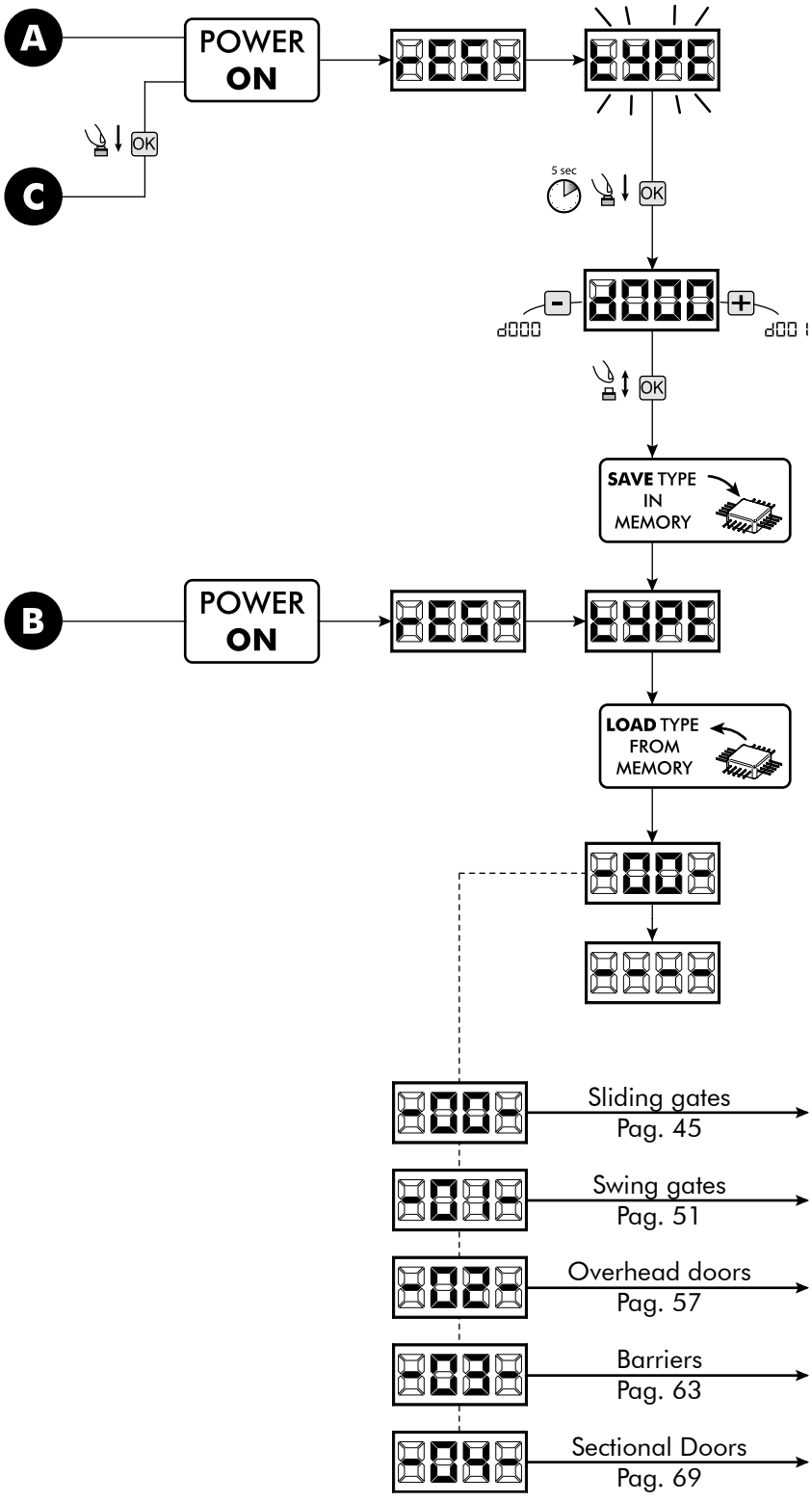
Modify the existing configuration

C If you have already saved a configuration and you want to change it, proceed as follows:

1. Hold down the OK button and give power, the display shows in sequence the writing "rES-" and "TYPE" flashing;
2. Press the OK button and hold for 5 seconds until the display shows d000 (the value changes to match the previous configuration used) on the display;
3. Acting on the + and -, select the new desired configuration depending on the type of installation (es. d002) and confirm by pressing the OK button;

   ⚠ **Stop the reconfiguration procedure prior to confirmation, involves loading the previous configuration by the control panel without any modification.**

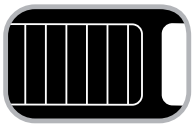
   ⚠ **However, if the reconfiguration procedure is brought to an end, the new configuration will take the place of the previous one and will be reloaded each time in the future.**
4. Follow signs, "TYPE", "-00-" followed by the symbol of closed gate "----".



To the Standard Programming

DEA dea system

NOTES



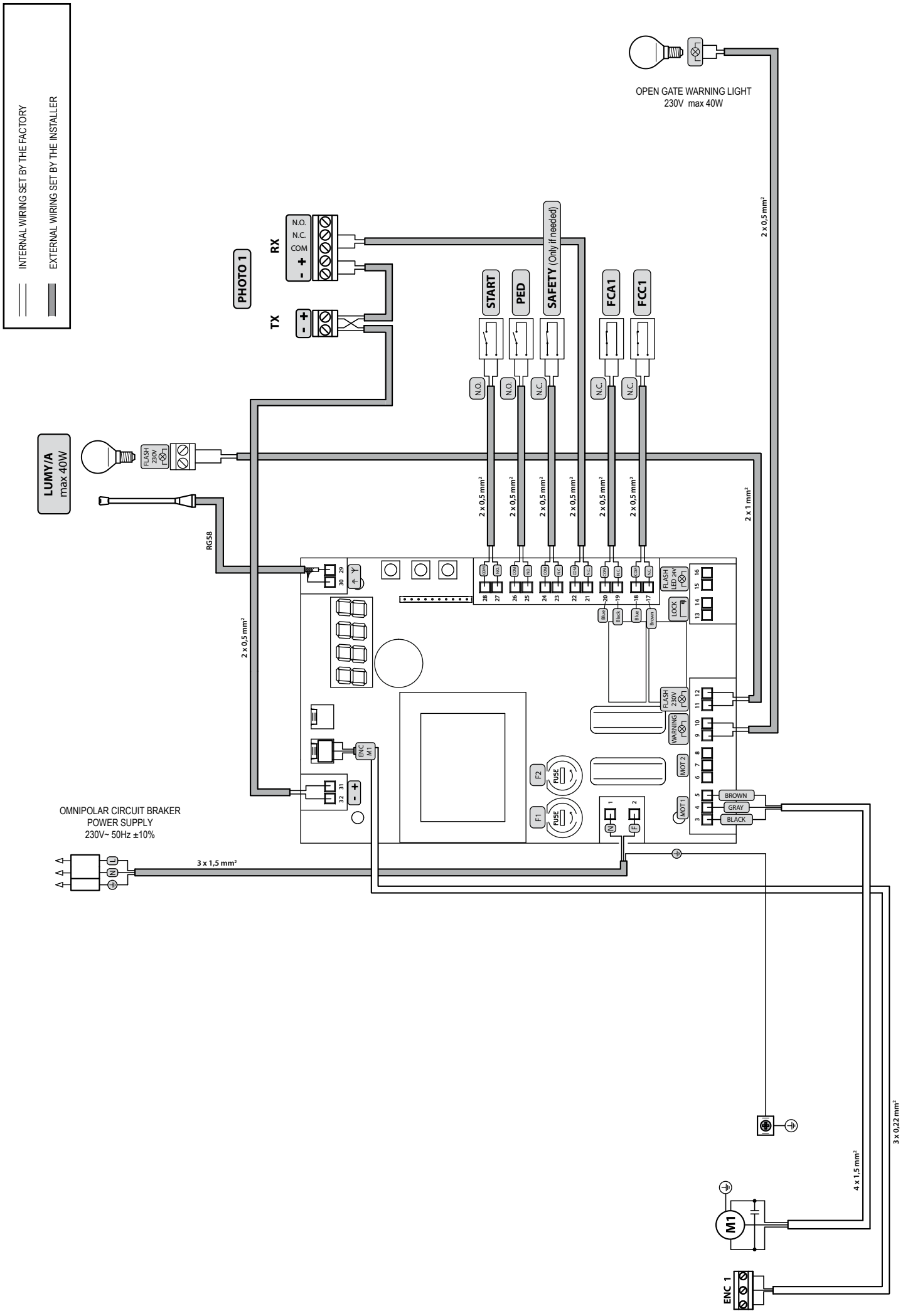
4.1
SLIDING GATES CONFIGURATION

ELECTRICAL CONNECTIONS

Execute the wiring following the directions of table 1 and diagrams on page 46.

Table 1 "terminal board connections"

1-2			230 V ~ ±10% (50/60 Hz) power supply input	
3-4-5	M1		Operator 1 output 230 V ~ max 600W	
6-7-8	M2		Operator 2 output 230 V ~ max 600W (if present)	
9-10	WARNING		230 V ~ max 100 W output for open gate warning light (if P052=0) or courtesy light (if P052>1)	
11-12	FLASH 230		Flashing light output 230 V ~ max 40W	
13-14	ELETTR		Electric-lock output max 1 art. 110 (if P062=0) or 24V ⎓ output max 5W configurable (if P062≠0)	
15-16	FLASH 24		Led flashing light output max 1 art. LED24AI (24 V ⎓ max 100 mA)	
17-18	FCC 1	**17 - N.C.** **18 - Com**	Input 6 FCC 1. If it intervenes it stops M1 closing. **If unused, short circuit**.	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".**
19-20	FCA 1	**19 - N.C.** **20 - Com**	Input 5 FCA 1. If it intervenes it stops M1 opening. **If unused, short circuit**.	
21-22	PHOTO 1	**21 - N.C.** **22 - Com**	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**.	
23-24	SAFETY	**23 - N.C.** **24 - Com**	Input 3 SAFETY. If activated, it causes the inversion. See P055 and P056 on the parameters table. **If unused, short circuit**.	
25-26	PED	**25 - N.O.** **26 - Com**	Input 2 PED. If activated, it opens motor nr. 1 only.	
27-28	START	**27 - N.O.** **28 - Com**	Input 1 START. In case of intervention it provokes: the operator opening or closing. It may operate as "inversion" mode (P49=0) or "step by step" mode (P49=1).	
29			Aerial signal input	
30			Ground aerial input	
31-32	+24VAUX		+24 V ⎓ power supply output for auxiliary devices 200mA	


INTERNAL WIRING SET BY THE FACTORY
EXTERNAL WIRING SET BY THE INSTALLER
OPEN GATE WARNING LIGHT
230V max 40W
2 x 0,5 mm²
PHOTO 1
RX
TX
N.O.
N.C.
COM
START
PED
SAFETY (Only if needed)
FCA1
FCC1
LUMY/A
max 40W
FLASH 230V
2 x 1 mm²
RG58
FLASH LED 24V
LOCK
WARNING
MOT 2
MOT 1
BROWN
GRAY
BLACK
Blue
Black
Brown
ENC M1
F2
F1
FUSE
OMNIPOLAR CIRCUIT BRAKER
POWER SUPPLY
230V~ 50Hz ±10%
3 x 1,5 mm²
4 x 1,5 mm²
3 x 0,22 mm²
M1
ENC 1

STANDARD PROGRAMMING

1 Power Supply

Give power supply, the display shows the following symbols "rES-", "tYPE", "-00-" and then "----".

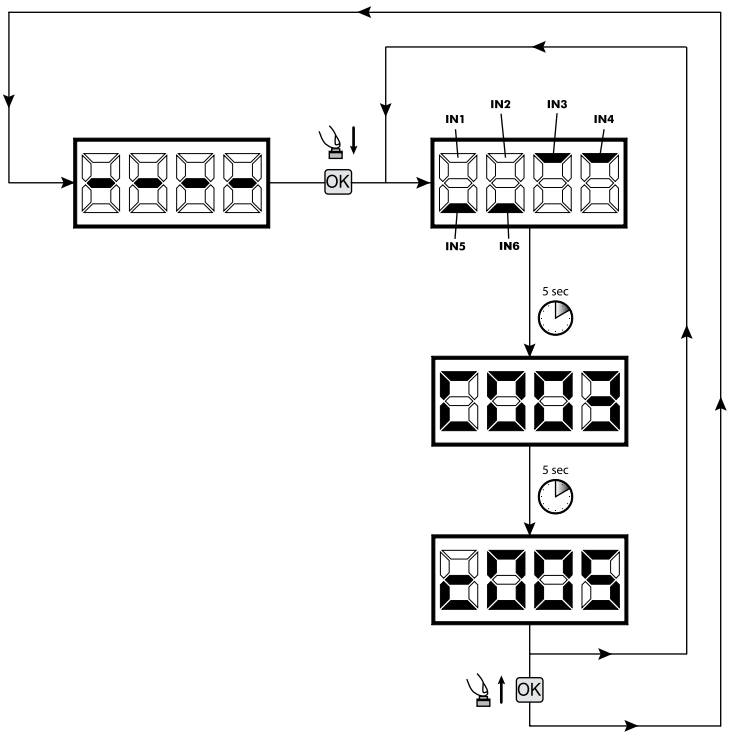
* If the control panel has already been programmed and the power fails or is switched off - once power is returned and a START command is given, the position reset procedure is performed (see "rESP" in the table "WORKING STATUS MESSAGES" on page 80.

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);
   - OPEN CONTACT
   - CLOSE CONTACT

   Total operations counter (* see P064):
   i.e.: C003 = 3x100* = 3000 operations performed

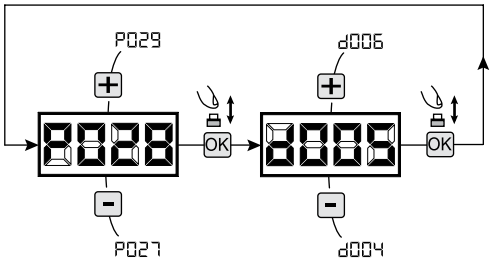
   Maintenance operations-counter (* see P065):
   i.e.: c005 = 5*x500 = 2500 operations remaining before the maintenance intervention request (c--- = manoeuvres-counter disabled)
3. Hold down the OK key to display a cyclic 3 options, or release the OK button to exit the parameter.



3 Selection type of operators

! IMPORTANT !

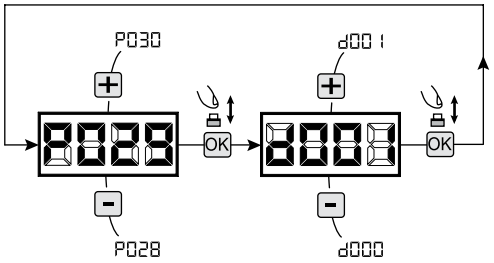
1. Scroll down the parameters with + and - keys until you visualise P028;
2. Access the parameter by pressing the OK key;
3. Acting on + and - keys, set:
   - d005=LIVI 6RR;
   - d006=LIVI 9RR;
   - d007=GULLIVER / REV;
4. Confirm your choice by pressing the OK key (display returns again to P028).



4 Selection operating with or without encoder

! IMPORTANT !

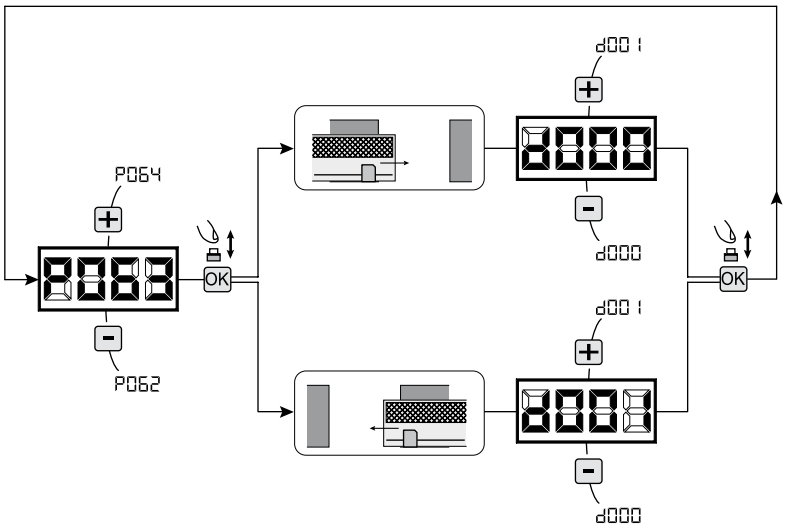
1. Scroll down the parameters with + and - keys until you visualise P029;
2. Access the parameter by pressing the OK key;
3. Acting on + and - keys, set:
   - d000=for operators with encoder;
   - d001=for operators without encoder;
4. Confirm your choice by pressing the OK key (display returns again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



5 Selection of direction of motion

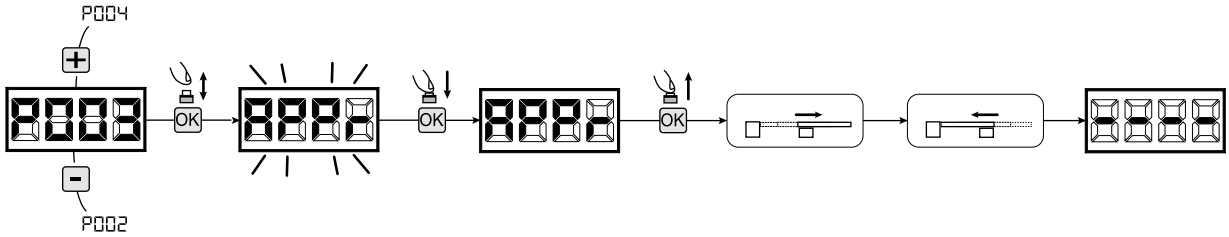
1. Scroll down the parameters with [+] and [-] keys until you visualise P063;
2. Access the parameter by pressing the [OK] key;
3. Acting on [+] and [-] keys, set:
   - d000=motor in standard position (on the left of the gap);
   - d001=motor in inverted position (on the right of the gap);
4. Confirm your choice by pressing the [OK] key (display returns again to P063).

Warning: The parameter automatically reverses the motors output open/close and any limit switch input open/close.



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 "APPr" flashes, continue pressing the [OK] key;
4. Release the [OK] key when "APPr" stops flashing; the learning procedure starts;
5. Wait for the door 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 "----".

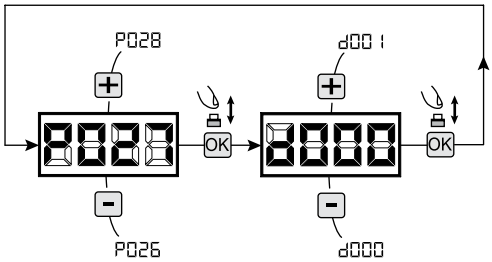


7 Transmitters learning

7.1 Transmitters coding selection

1. Scroll down the parameters with [+] and [-] keys until you visualise P027;
2. Confirm by pressing on 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).

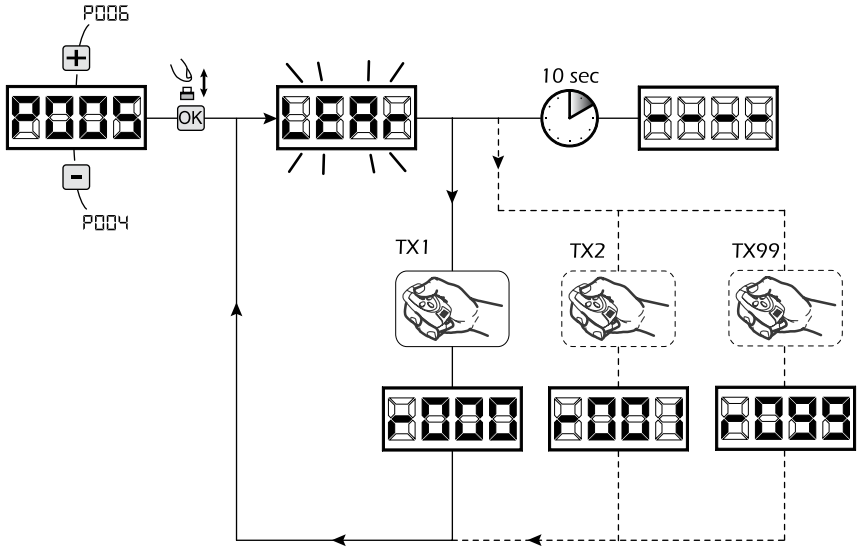
Warning: If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.



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 "LEAr" flashes, press on any key of the transmitter you want to memorize;
4. The display visualizes the number of the transmitter just memorized and then "LEAr " flashing;
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.

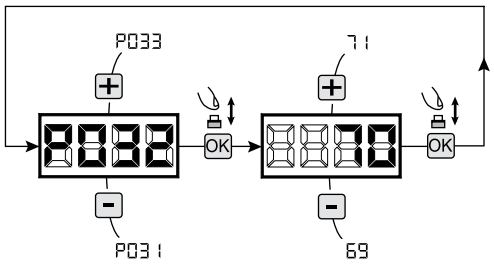


8 Adjustment of operating parameters

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

1. Scroll down the parameters until you visualize the desire parameter (i.e. P032);
2. Confirm by pressing on the OK key;
3. By pressing on ⊞ and ⊟, 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. 78.



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 75.

DEA dea system

NOTES

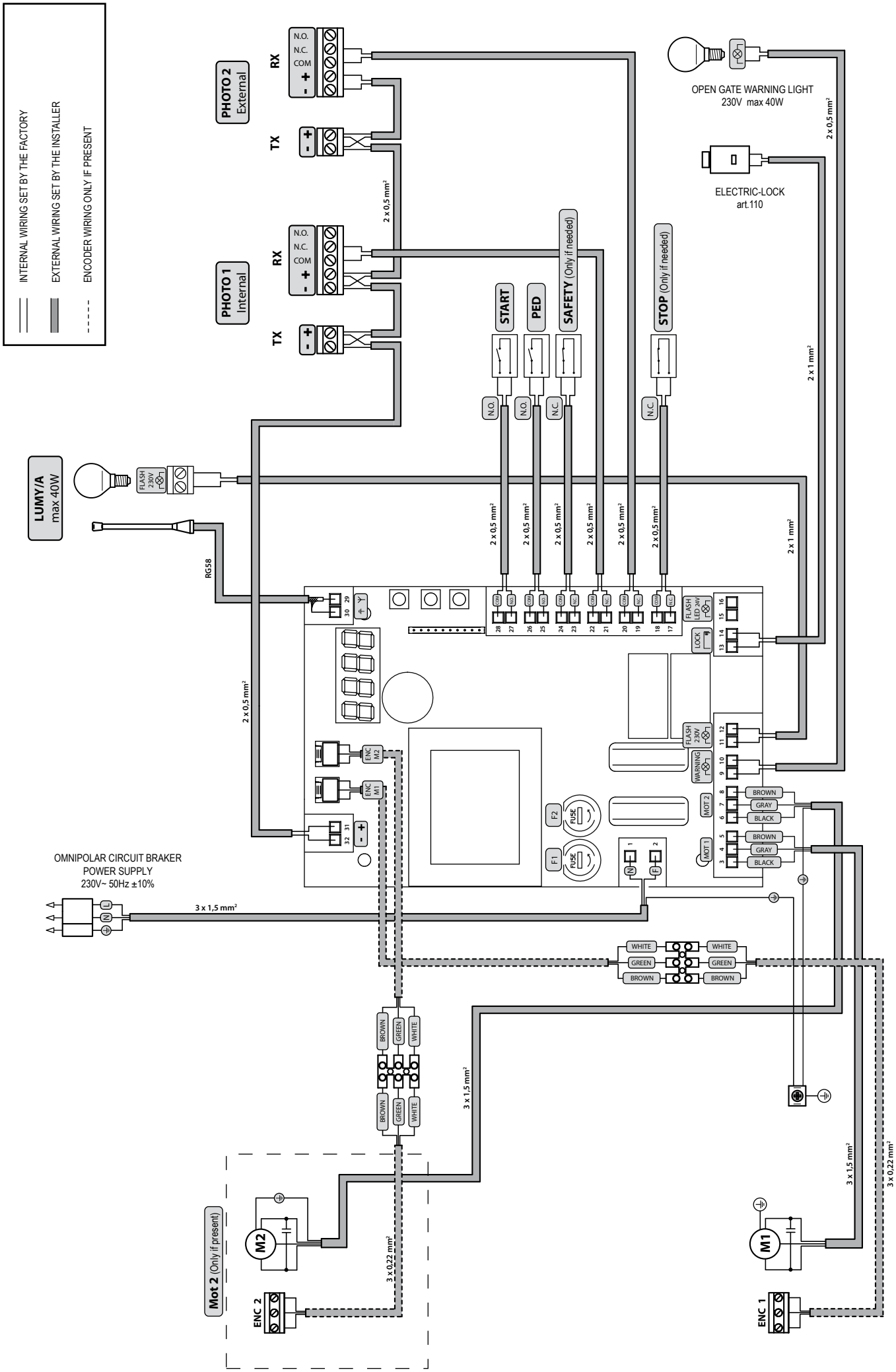
4.2 SWING GATES CONFIGURATION

ELECTRICAL CONNECTIONS

Execute the wiring following the directions of table 1 and diagrams on page 52.

Table 1 "terminal board connections"

1-2		230 V ~ ±10% (50/60 Hz) power supply input		
3-4-5	M1	Operator 1 output 230 V ~ max 600W		
6-7-8	M2	Operator 2 output 230 V ~ max 600W (if present)		
9-10	WARNING	230 V ~ max 100 W output for open gate warning light (if P052=0) or courtesy light (if P052>1)		
11-12	FLASH 230	Flashing light output 230 V ~ max 40W		
13-14	ELETTR	Electric-lock output max 1 art. 110 (if P062=0) or 24V ⎓ output max 5W configurable (if P062≠0)		
15-16	FLASH 24	Led flashing light output max 1 art. LED24AI (24 V ⎓ max 100 mA)		
17-18	STOP	**17 - N.C.** / **18 - Com**	Input 6 STOP. In case of intervention, it stops the movement of both motors during any operation. **If unused, short circuit**.	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".**
19-20	PHOTO 2	**19 - N.C.** / **20 - Com**	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**.	
21-22	PHOTO 1	**21 - N.C.** / **22 - Com**	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**.	
23-24	SAFETY	**23 - N.C.** / **24 - Com**	Input 3 SAFETY. If activated, it causes the inversion. See P055 and P056 on the parameters table. **If unused, short circuit**.	
25-26	PED	**25 - N.O.** / **26 - Com**	Input 2 PED. If activated, it opens motor nr. 1 only.	
27-28	START	**27 - N.O.** / **28 - Com**	Input 1 START. In case of intervention it provokes: the operator opening or closing. It may operate as "inversion" mode (P49=0) or "step by step" mode (P49=1).	
29		Aerial signal input		
30		Ground aerial input		
31-32	+24VAUX	+24 V ⎓ power supply output for auxiliary devices 200mA		


INTERNAL WIRING SET BY THE FACTORY
EXTERNAL WIRING SET BY THE INSTALLER
ENCODER WIRING ONLY IF PRESENT
PHOTO 2 External
PHOTO 1 Internal
RX
TX
N.O.
N.C.
COM
OPEN GATE WARNING LIGHT
230V max 40W
ELECTRIC-LOCK
art.110
START
PED
SAFETY (Only if needed)
STOP (Only if needed)
LUMY/A
max 40W
FLASH 230V
RG58
FLASH LED 24V
LOCK
WARNING
MOT 2
MOT 1
BROWN
GRAY
BLACK
ENC M2
ENC M1
F2
F1
FUSE
OMNIPOLAR CIRCUIT BRAKER
POWER SUPPLY
230V~ 50Hz ±10%
WHITE
GREEN
BROWN
2 x 0,5 mm²
2 x 1 mm²
3 x 1,5 mm²
3 x 0,22 mm²
Mot 2 (Only if present)
M2
M1
ENC 2
ENC 1

STANDARD PROGRAMMING

1 Power Supply

Dare alimentazione, sul display compaiono in sequenza le scritte "rES-", "tYPE", "-01-" seguite dal simbolo di cancello chiuso "----"

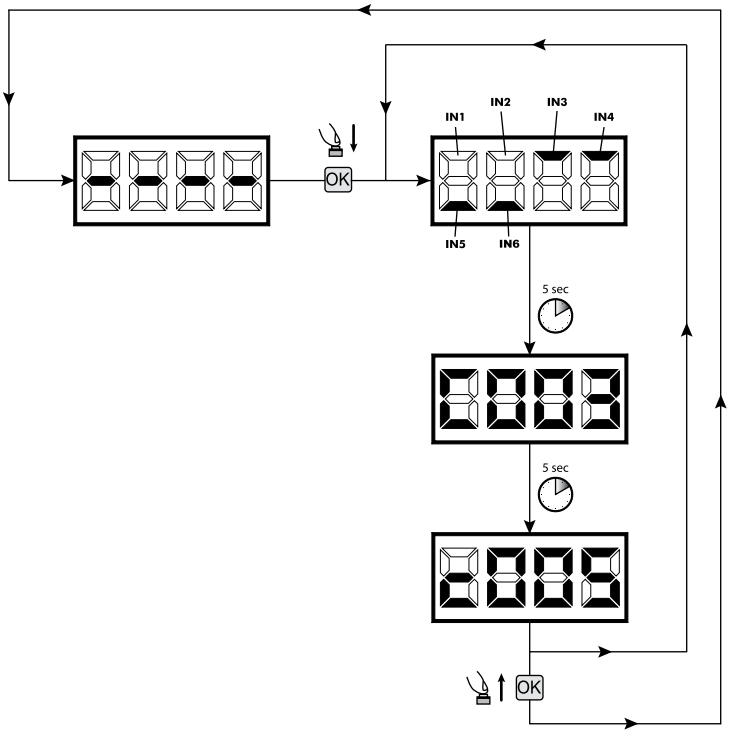
* If the control panel has already been programmed and the power fails or is switched off - once power is returned and a START command is given, the position reset procedure is performed (see "rESP" in the table "WORKING STATUS MESSAGES" on page 80.

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);
   - OPEN CONTACT
   - CLOSE CONTACT

   Total operations counter (* see P064):
   i.e.: C003 = 3x100* = 3000 operations performed

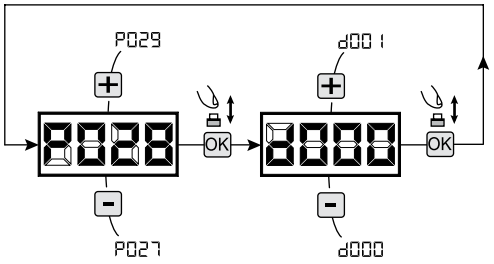
   Maintenance operations-counter (* see P065):
   i.e.: c005 = 5*x500 = 2500 operations remaining before the maintenance intervention request (c--- = manoeuvres-counter disabled)
3. Hold down the OK key to display a cyclic 3 options, or release the OK button to exit the parameter.



3 Selection type of operators

! IMPORTANT !

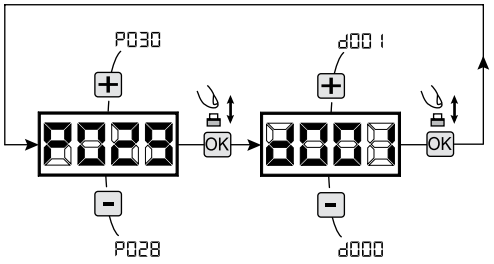
1. Scroll down the parameters with + and - keys until you visualise P028;
2. Access the parameter by pressing the OK key;
3. Acting on + and - keys, set:
   - d001=LOOK - MAC;
   - d002=GHOST;
   - d003=LIVI 500/502;
4. Confirm your choice by pressing the OK key (display returns again to P028).



4 Selection operating with or without encoder

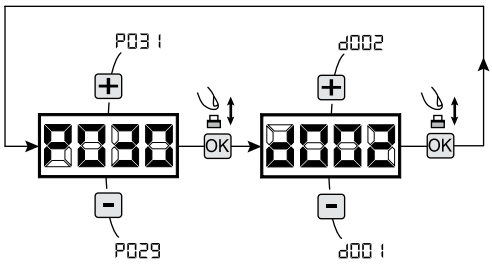
! IMPORTANT !

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).



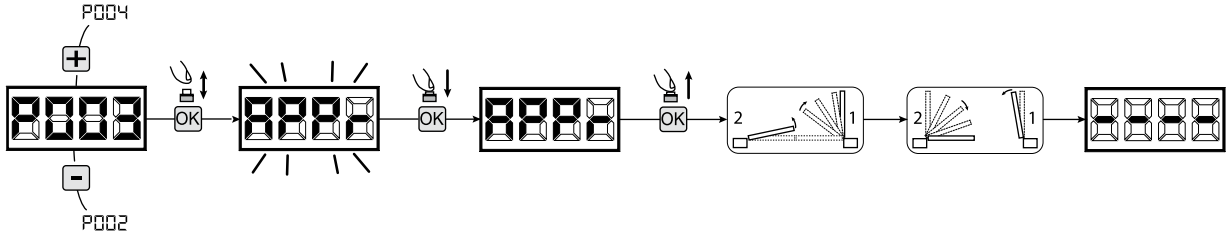
5 Selection 1 or 2 operators functioning

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 "APPr" flashes, continue pressing the [OK] key;
4. Release the [OK] key when "APPr" 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 "----".

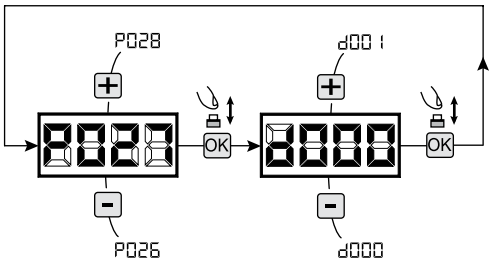


7 Transmitters learning

7.1 Transmitters coding selection

1. Scroll down the parameters with [+] and [-] keys until you visualise P027;
2. Confirm by pressing on 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).

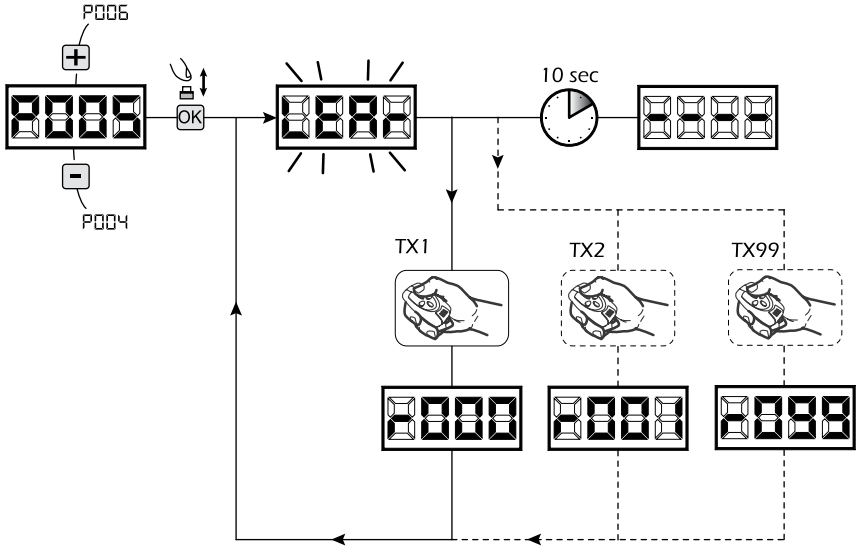
Warning: If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.



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 "LEAr" flashes, press on any key of the transmitter you want to memorize;
4. The display visualizes the number of the transmitter just memorized and then "LEAr" flashing;
5. Memorize all necessary transmitters repeating this procedure from step 3;
6. Wait 10 seconds before quitting the memorization mode, display shows now "----".

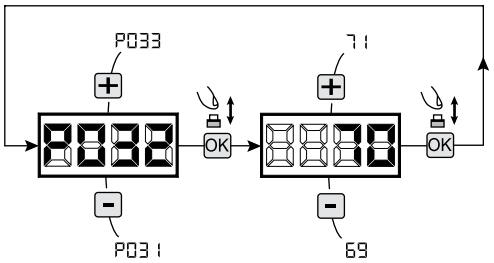
Warning: In the case of rolling code remotes, the receiver can be put into learning mode by pressing the hidden button on a remote control previously learned.



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.e. P032);
2. Confirm by pressing on the OK key;
3. By pressing on + and -, 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. 78.

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 75.

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NOTES

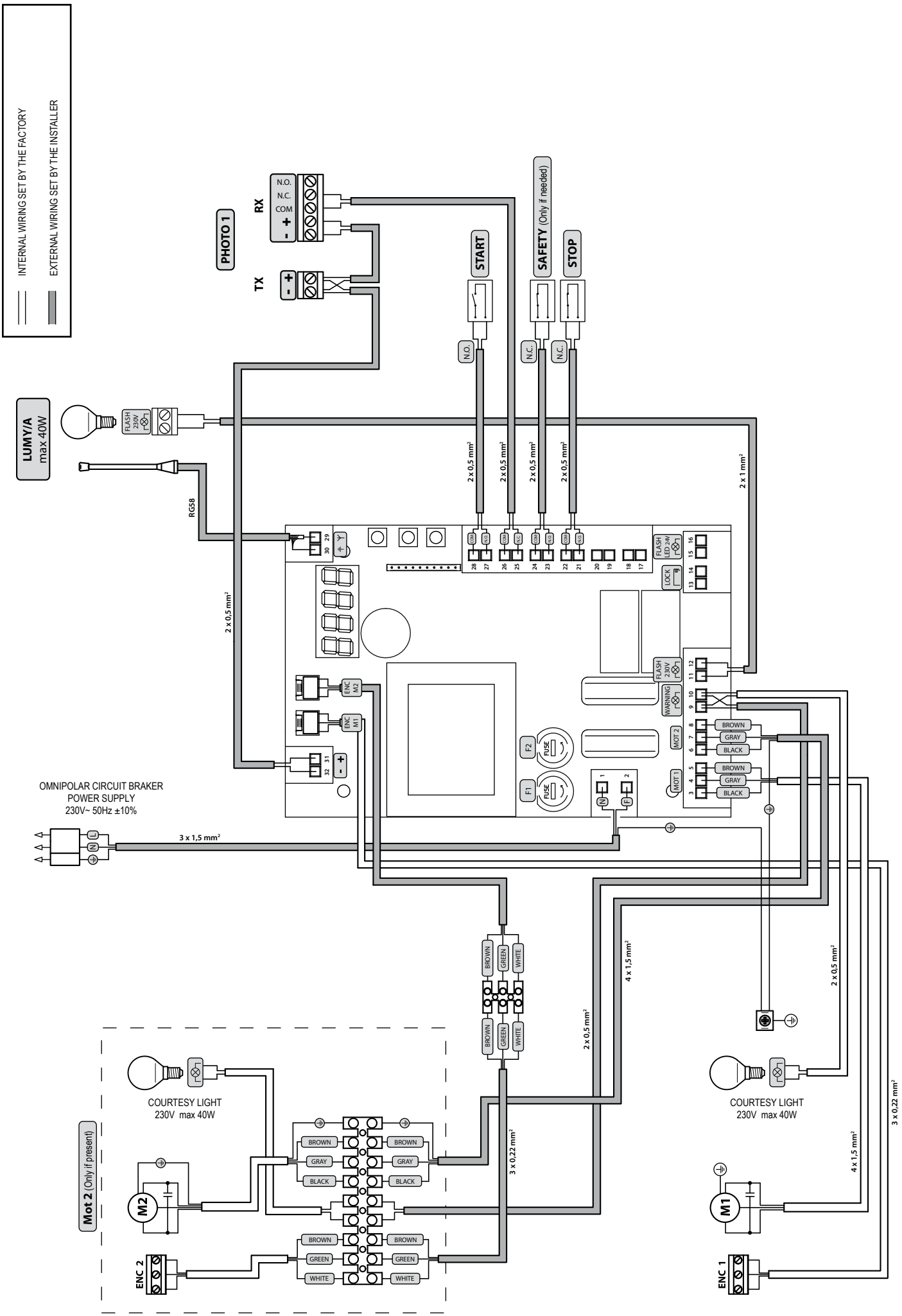
4.3 OVERHEAD DOORS CONFIGURATION

ELECTRICAL CONNECTIONS

Execute the wiring following the directions of table 1 and diagrams on page 58.

Table 1 "terminal board connections"

1-2		230 V ~ ±10% (50/60 Hz) power supply input		
3-4-5	M1	Operator 1 output 230 V ~ max 600W		
6-7-8	M2	Operator 2 output 230 V ~ max 600W (if present)		
9-10	WARNING	230 V ~ max 100 W output for open gate warning light (if P052=0) or courtesy light (if P052>1)		
11-12	FLASH 230	Flashing light output 230 V ~ max 40W		
13-14	ELETTR	Electric-lock output max 1 art. 110 (if P062=0) or 24V ⎓ output max 5W configurable (if P062≠0)		
15-16	FLASH 24	Led flashing light output max 1 art. LED24AI (24 V ⎓ max 100 mA)		
17-18		**17 - N.O.** / **18 - Com**	Input 6. Unused.	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".**
19-20		**19 - N.O.** / **20 - Com**	Input 5. Unused.	
21-22	STOP	**21 - N.C.** / **22 - Com**	Input 4 STOP. In case of intervention, it stops the movement of both motors during any operation. **If unused, short circuit**.	
23-24	SAFETY	**23 - N.C.** / **24 - Com**	Input 3 SAFETY. If activated, it causes the inversion. See P055 and P056 on the parameters table. **If unused, short circuit**.	
25-26	PHOTO 1	**25 - N.C.** / **26 - Com**	Input 2 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**.	
27-28	START	**27 - N.O.** / **28 - Com**	Input 1 START. In case of intervention it provokes: the operator opening or closing. It may operate as "inversion" mode (P49=0) or "step by step" mode (P49=1).	
29	⏄	Aerial signal input		
30	⏚	Ground aerial input		
31-32	+24VAUX	+24 V ⎓ power supply output for auxiliary devices 200mA		


INTERNAL WIRING SET BY THE FACTORY
EXTERNAL WIRING SET BY THE INSTALLER
PHOTO 1
RX
TX
N.O.
N.C.
COM
START
SAFETY (Only if needed)
STOP
LUMY/A
max 40W
FLASH 230V
RG58
2 x 0,5 mm²
2 x 1 mm²
FLASH LED 24V
LOCK
WARNING LED 24V
ENC M2
ENC M1
MOT 2
MOT 1
BROWN
GRAY
BLACK
F2
F1
FUSE
OMNIPOLAR CIRCUIT BRAKER
POWER SUPPLY
230V~ 50Hz ±10%
3 x 1,5 mm²
GREEN
WHITE
4 x 1,5 mm²
3 x 0,22 mm²
COURTESY LIGHT
230V max 40W
Mot 2 (Only if present)
M2
M1
ENC 2
ENC 1

STANDARD PROGRAMMING

1 Power Supply

Give power supply, the display shows the following symbols "rES-", "tYPE", "-02-" and then "----".

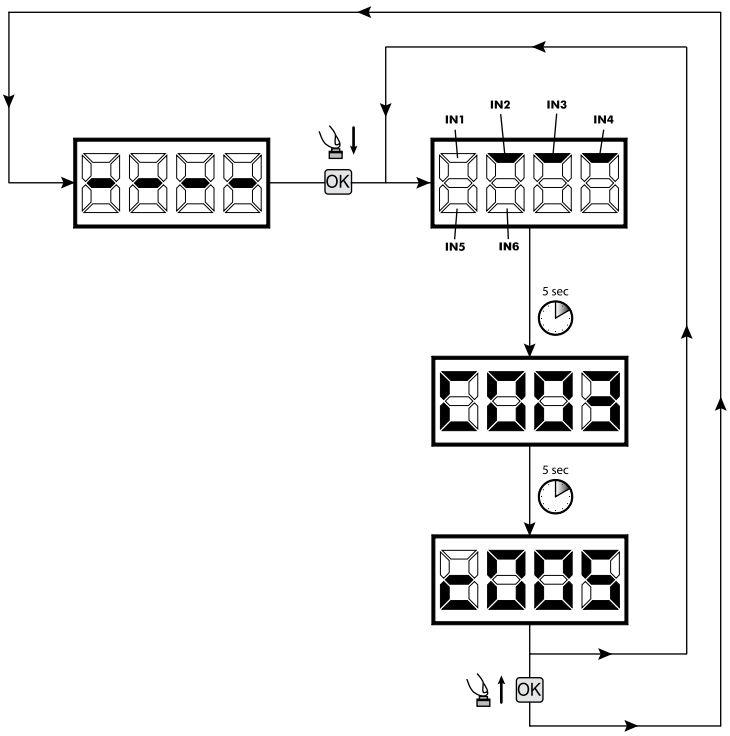
* If the control panel has already been programmed and the power fails or is switched off - once power is returned and a START command is given, the position reset procedure is performed (see "rESP" in the table "WORKING STATUS MESSAGES" on page 80.

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);
   - OPEN CONTACT
   - CLOSE CONTACT

   Total operations counter (* see P064):
   i.e.: C003 = 3x100* = 3000 operations performed

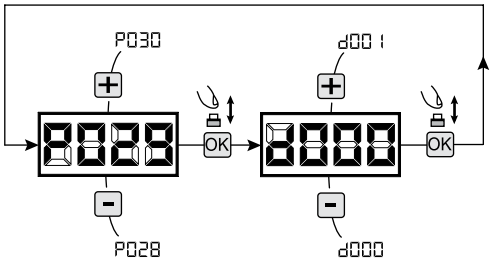
   Maintenance operations-counter (* see P065):
   i.e.: c005 = 5*x500 = 2500 operations remaining before the maintenance intervention request (c--- = manoeuvres-counter disabled)
3. Hold down the OK key to display a cyclic 3 options, or release the OK button to exit the parameter.



3 Selection operating with or without encoder

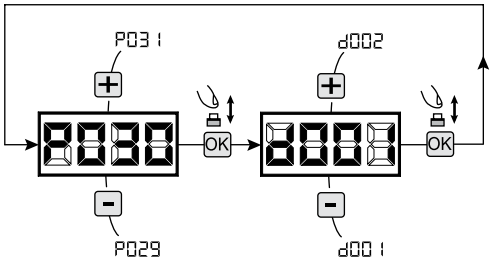
! IMPORTANT !

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).



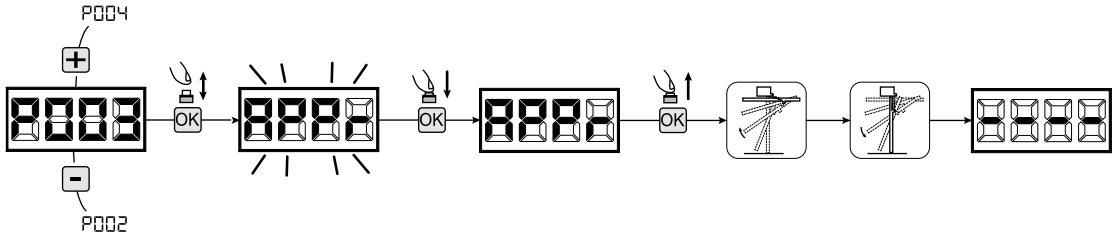
4 Selection 1 or 2 operators functioning

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).



5 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 "APPr" flashes, continue pressing the OK key;
4. Release the OK key when "APPr" stops flashing; the learning procedure starts;
5. Wait for the door 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 "----".

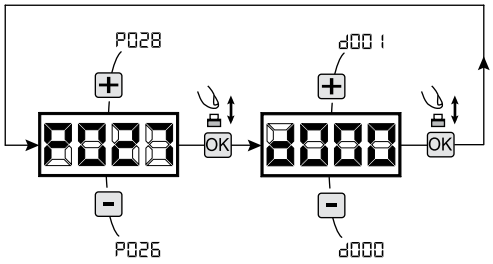


6 Transmitters learning

7.1 Transmitters coding selection

1. Scroll down the parameters with + and - keys until you visualise P027;
2. Confirm by pressing on 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).

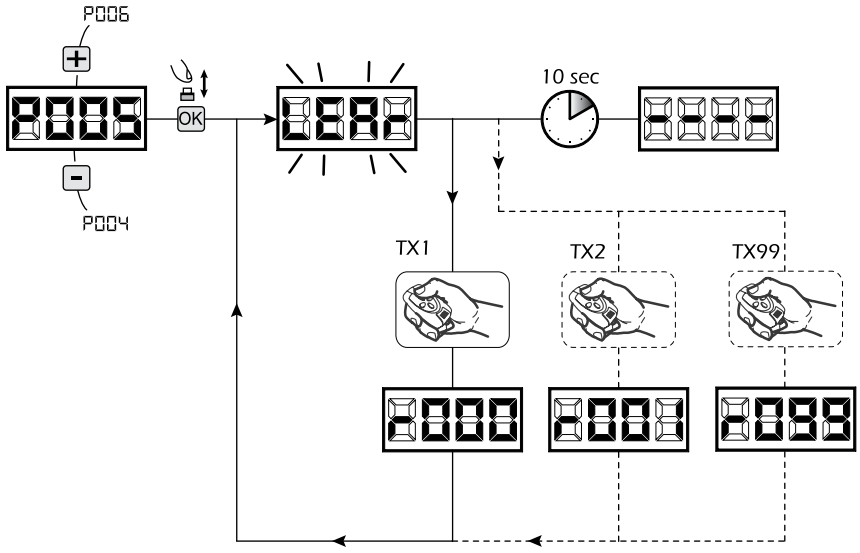
Warning: If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.



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 "LEAr" flashes, press on any key of the transmitter you want to memorize;
4. The display visualizes the number of the transmitter just memorized and then "LEAr " flashing;
5. Memorize all necessary transmitters repeating this procedure from step 3;
6. Wait 10 seconds before quitting the memorization mode, display shows now "----".

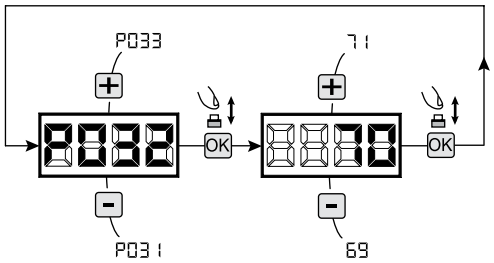
Warning: In the case of rolling code remotes, the receiver can be put into learning mode by pressing the hidden button on a remote control previously learned.



7 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.e. P032);
2. Confirm by pressing on the OK key;
3. By pressing on + and -, 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. 78.

8 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 75.

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NOTES

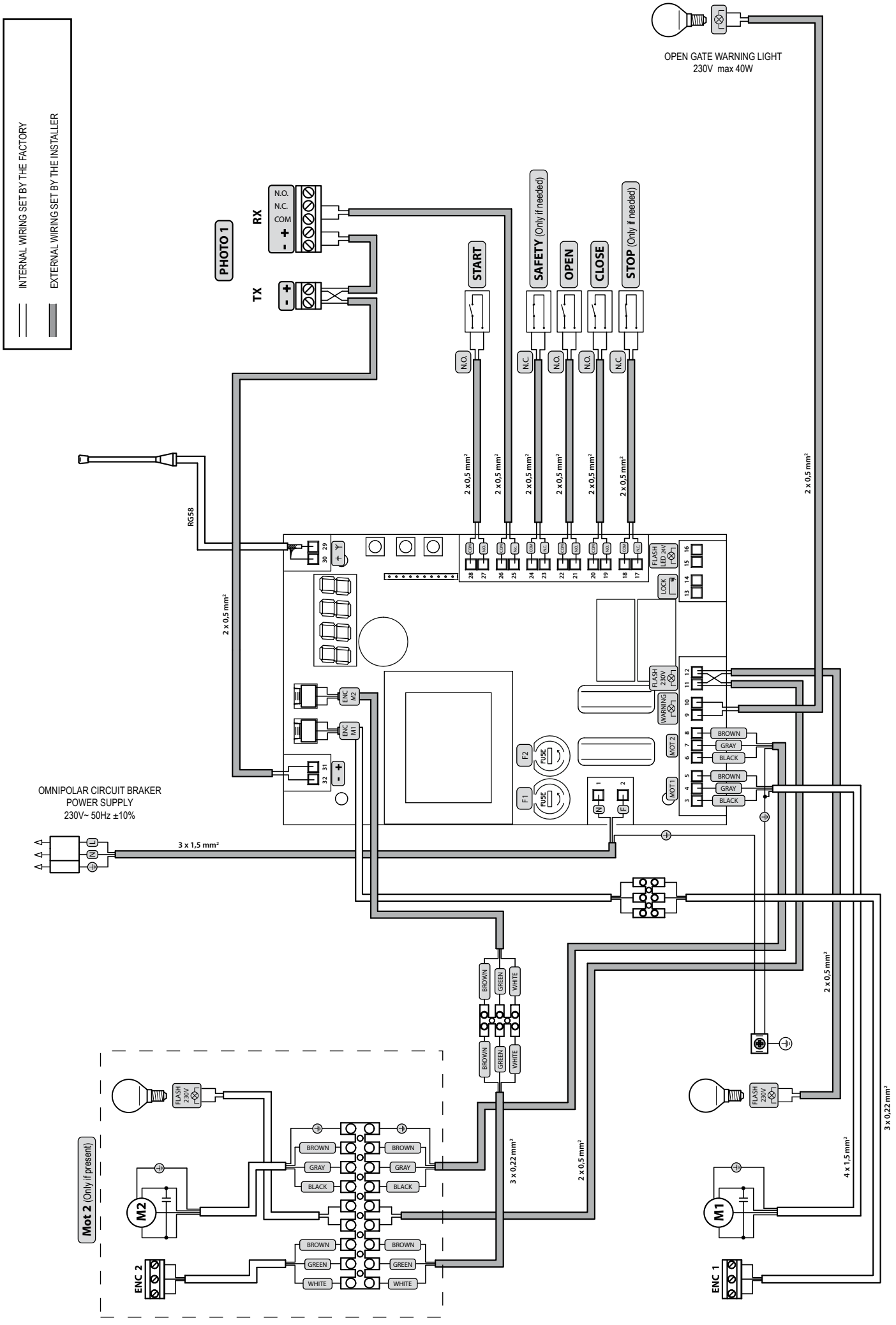
4.4 BARRIERS CONFIGURATION

ELECTRICAL CONNECTIONS

Execute the wiring following the directions of table 1 and diagrams on page 64.

Table 1 "terminal board connections"

1-2		230 V ~ ±10% (50/60 Hz) power supply input		
3-4-5	M1	Operator 1 output 230 V ~ max 600W		
6-7-8	M2	Operator 2 output 230 V ~ max 600W (if present)		
9-10	WARNING	230 V ~ max 100 W output for open gate warning light (if P052=0) or courtesy light (if P052>1)		
11-12	FLASH 230	Flashing light output 230 V ~ max 40W		
13-14	ELETTR	Electric-lock output max 1 art. 110 (if P062=0) or 24V ⎓ output max 5W configurable (if P062≠0)		
15-16	FLASH 24	Led flashing light output max 1 art. LED24AI (24 V ⎓ max 100 mA)		
17-18	STOP	**17 - N.C.** / **18 - Com**	Input 6 STOP. In case of intervention, it stops the movement of both motors during any operation. **If unused, short circuit**.	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".**
19-20	CLOSE	**19 - N.O.** / **20 - Com**	Input 5 CLOSE. If it intervenes, it causes the closing maneuver.	
21-22	OPEN	**21 - N.O.** / **22 - Com**	Input 4 OPEN. If it intervenes it causes the opening maneuver.	
23-24	SAFETY	**23 - N.C.** / **24 - Com**	Input 3 SAFETY. If activated, it causes the inversion. See P055 and P056 on the parameters table. **If unused, short circuit**.	
25-26	PHOTO 1	**25 - N.C.** / **26 - Com**	Input 2 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**.	
27-28	START	**27 - N.O.** / **28 - Com**	Input 1 START. In case of intervention it provokes: the operator opening or closing. It may operate as "inversion" mode (P49=0) or "step by step" mode (P49=1).	
29	⏄	Aerial signal input		
30	⏚	Ground aerial input		
31-32	+24VAUX	+24 V ⎓ power supply output for auxiliary devices 200mA		


INTERNAL WIRING SET BY THE FACTORY
EXTERNAL WIRING SET BY THE INSTALLER
OPEN GATE WARNING LIGHT
230V max 40W
PHOTO 1
RX
TX
N.O.
N.C.
COM
START
SAFETY (Only if needed)
OPEN
CLOSE
STOP (Only if needed)
2 x 0,5 mm²
RG58
FLASH LED 24V
LOCK
FLASH 230V
WARNING
ENC M2
ENC M1
MOT 2
MOT 1
BROWN
GRAY
BLACK
F2
F1
FUSE
OMNIPOLAR CIRCUIT BRAKER
POWER SUPPLY
230V~ 50Hz ±10%
3 x 1,5 mm²
GREEN
WHITE
3 x 0,22 mm²
4 x 1,5 mm²
Mot 2 (Only if present)
M2
M1
ENC 2
ENC 1

STANDARD PROGRAMMING

1 Power Supply

Give power supply, the display shows the following symbols "rES-", "tYPE", "-03-" and then "----".

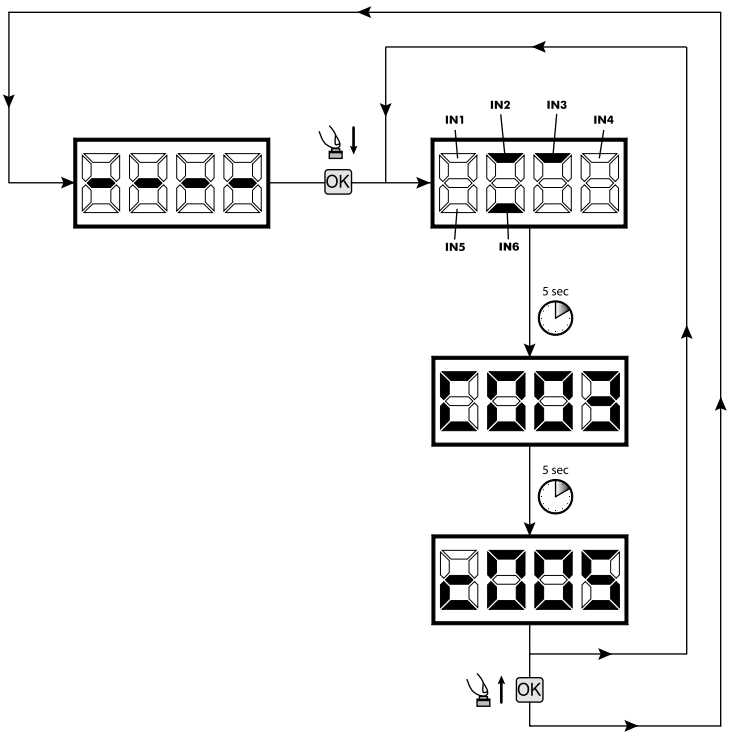
* If the control panel has already been programmed and the power fails or is switched off - once power is returned and a START command is given, the position reset procedure is performed (see "rESP" in the table "WORKING STATUS MESSAGES" on page 80.

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);
   - OPEN CONTACT
   - CLOSE CONTACT

   Total operations counter (* see P064):
   i.e.: C003 = 3x100* = 3000 operations performed

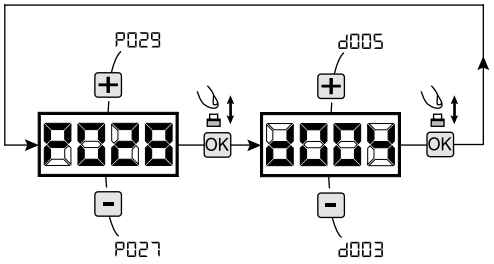
   Maintenance operations-counter (* see P065):
   i.e.: c005 = 5*x500 = 2500 operations remaining before the maintenance intervention request (c--- = manoeuvres-counter disabled)
3. Hold down the OK key to display a cyclic 3 options, or release the OK button to exit the parameter.



3 Selection type of operators

! IMPORTANT !

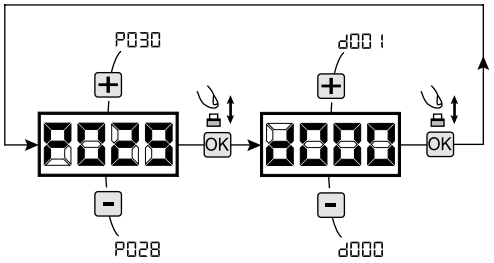
1. Scroll down the parameters with + and - keys until you visualise P028;
2. Access the parameter by pressing the OK key;
3. Acting on + and - keys, set:
   - d003=PASS;
   - d004=STOP;
4. Confirm your choice by pressing the OK key (display returns again to P028).



4 Selection operating with or without encoder

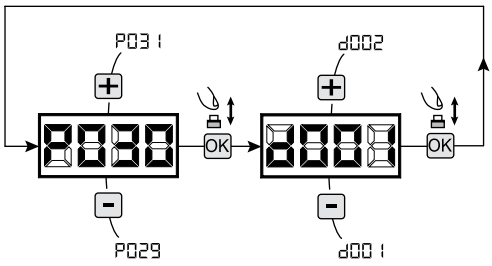
! IMPORTANT !

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

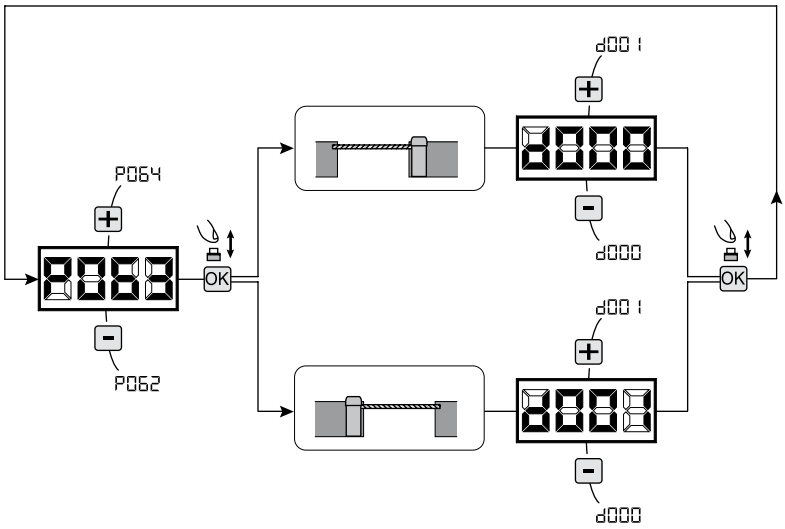
1. Scroll down the parameters with [+] and [-] keys until you visualise P030;
2. Access the parameter by pressing the [OK] key;
3. Acting on [+] and [-] keys, set:
   - d001=for a single motor operating;
   - d002=for 2 motors operating;
4. Confirm your choice by pressing the [OK] key (display returns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



6 Selection of direction of motion

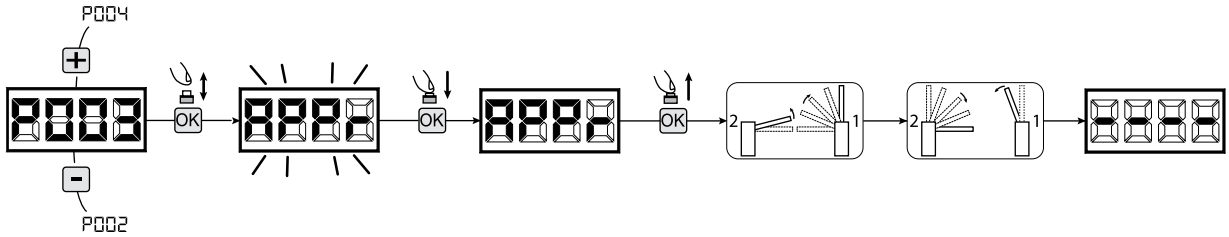
1. Scroll down the parameters with [+] and [-] keys until you visualise P063;
2. Access the parameter by pressing the [OK] key;
3. Acting on [+] and [-] keys, set:
   - d000=motor in standard position (on the right of the gap);
   - d001=motor in inverted position (on the left of the gap);
4. Confirm your choice by pressing the [OK] key (display returns again to P063).

Warning: The parameter automatically reverses the motors output open/close and any limit switch input open/close.



7 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 "APPr" flashes, continue pressing the [OK] key;
4. Release the [OK] key when "APPr" stops flashing; the learning procedure starts;
5. Wait for the boom (or booms if two opposite barriers) 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 "----".

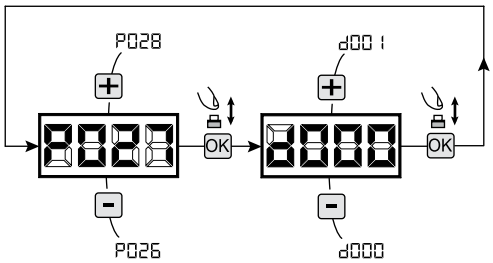


8 Transmitters learning

8.1 Transmitters coding selection

1. Scroll down the parameters with [+] and [-] keys until you visualise P027;
2. Confirm by pressing on 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).

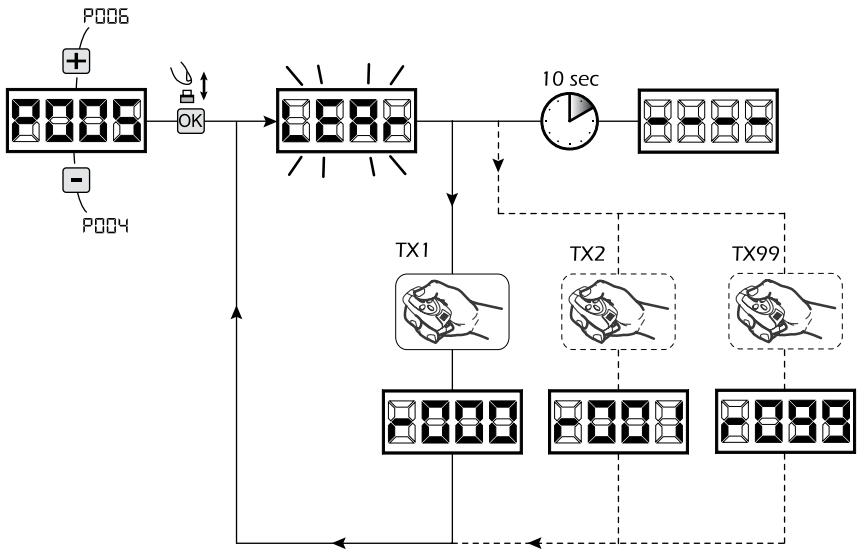
Warning: If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.



8.2 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 "LEAr" flashes, press on any key of the transmitter you want to memorize;
4. The display visualizes the number of the transmitter just memorized and then "LEAr " flashing;
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.

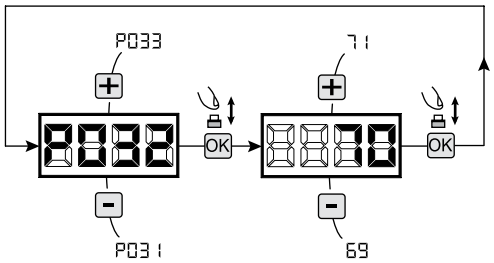


9 Adjustment of operating parameters

If you need to modify the operating parameters, follow the procedure below.

Warning: In order to ensure an optimum operation, the parameters given in the table must be set as indicated for the type of barrier used.

1. Scroll down the parameters until you visualize the desire parameter (i.e. P032);
2. Confirm by pressing on the OK key;
3. By pressing on ⊞ and ⊟, 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. 78.

Recommended values for standard "TYPE 03 - Barriers"

	BOOM	Running speed (P032 - P033)	Slowdown speed (P034)	Slowdown duration (P035 - P036)	Soft-start (P054)	Facilitation release (P057)	Stop margin (P058 - P059)
STOP	STOP_L (7,5 m)	75%	40%	20%	1	3	15
	STOP_L (6 m)	85%	30%	20%	1	3	15
	STOP_L (5 m)	90%	30%	30%	1	3	15
	STOP_L (4 m)	100%	25%	20%	0	2	15
	STOP_V (4 m)	100%	20%	40%	0	2	7
PASS	PASS_L (4 m)	100%	30%	30%	0	2	20
	PASS_V (3 m)	100%	25%	25%	0	1	5
	PASS_V (4 m)	85%	25%	30%	0	1	5

10 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 75.

DEA® dea system

NOTES

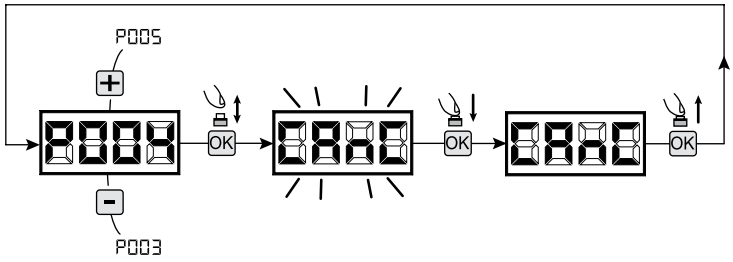
5 ADVANCED PROGRAMMING

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

1 Deletion of memorized transmitters

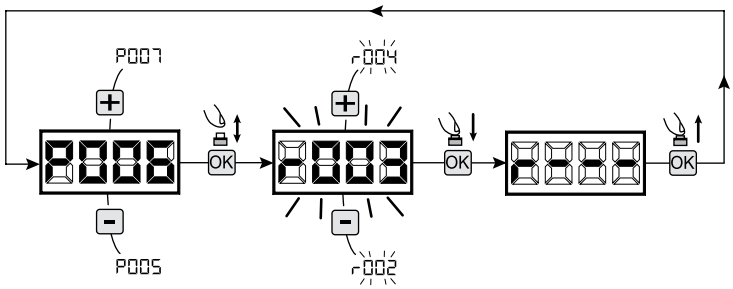
1.1 Deletion of all transmitters

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



1.2 How to search and delete a transmitter

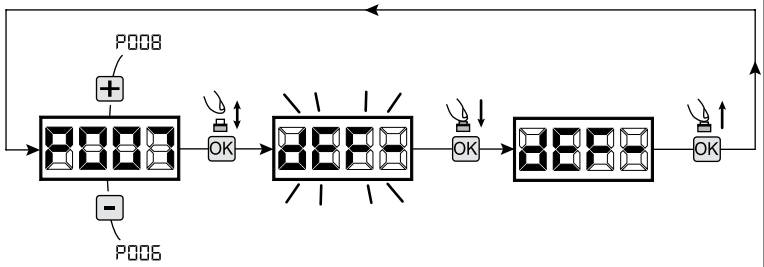
1. Scroll down the parameters until you visualize P006;
2. Confirm by pressing on the OK key;
3. By pressing on + and -, keys, select the transmitter you want to delete (eg. r003);
4. When "r003" flashes, confirm the deletion by pressing the OK key for a few seconds;
5. Release the OK key when appears "r - - -";
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 "dEF-" flashes, press the OK key;
4. Release the OK key as soon as "dEF-" stops flashing; Default parameters for the configuration currently in use are restored;
6. 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).

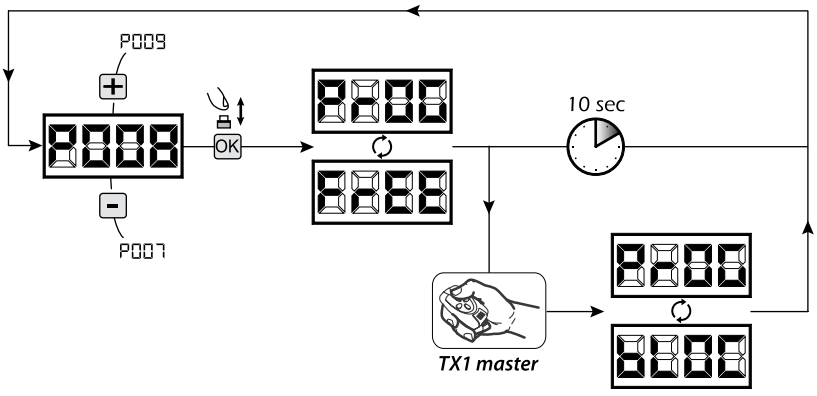


3 Locking-Unlocking access to programming

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

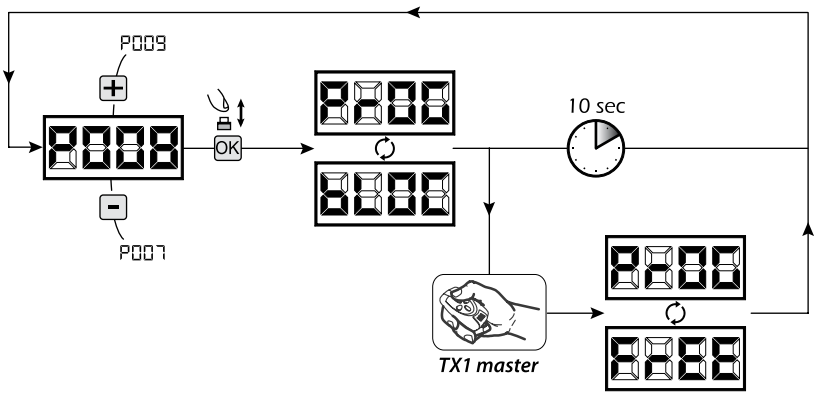
1. Scroll through the parameters with the buttons + and - until the display shows P008;
2. Access the parameter by pressing the button OK;
3. The display shows alternately the writing PrOG/FrEE to indicate that the control board is waiting for the transmission of the block code;
4. Within 10 seconds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



EN

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 PrOG/bLOC 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 PrOG/FrEE before returning to the list of parameters;
5. Access to programming is unlocked.

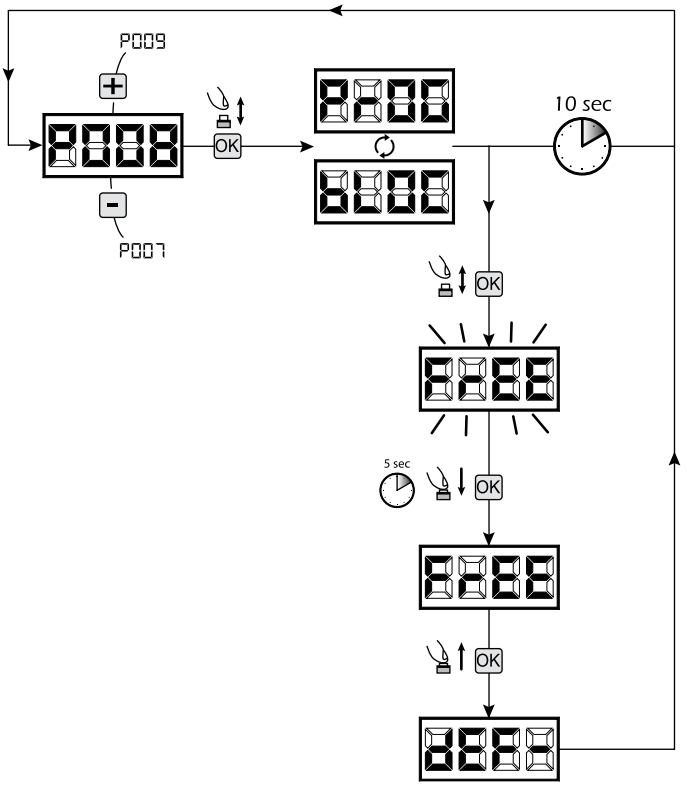


3.3 Unlocking access to programming and global reset

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, 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)**. You will also need to repeat the measurement of impact forces to ensure the installation compliance to standards.

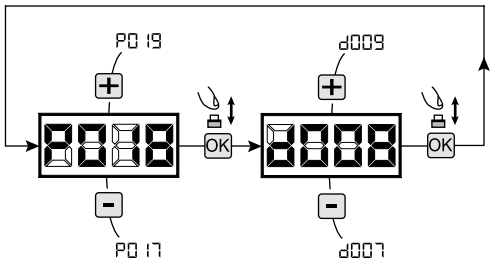
1. Scroll through the parameters with the buttons + and - until the display shows P008;
2. Access the parameter by pressing the button OK;
3. The display shows alternately the writing PrOG/bLOC;
4. Press the button OK, the display shows the flashing writing FrEE;
5. Press the button again and hold for 5 seconds (releasing it before, the procedure is terminated): The display shows the fixed writing FrEE 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 77**);
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.

	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	Unused parameter	
	P010	Unused parameter	
	P011	Unused parameter	
	P012	Unused parameter	
	P013	Unused parameter	
	P014	Unused parameter	
	P015	Unused parameter	

	PAR.	PARAMETER DESCRIPTION	SETTABLE VALUES		DEFAULT VALUES (for different standards of installation) dEF0 sliding gate	dEF1 Swing gate	dEF2 overhead door	dEF3 barriera	dEF4 Sectional doors
INPUTS CONFIGURATION PARAMETERS	P016	INPUT_3 selectioning input type	• 000: IN3 type=free contact • 001: IN3 type=constant resistance 8K2		000 (Contatto pulito)	000 (Contatto pulito)	000 (Contatto pulito)	000 (Contatto pulito)	Unused Parameter
	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 (safety rib) • 011: STOP (lock) • 012: FCA1 (opening limit switches Mot1) • 013: FCA2 (opening limit switchtes Mot2) • 014: FCC1 (closing limit switches Mot1) • 015: FCC2 (closing limit switches Mot2)	IN1	001 (START)	001 (START)	001 (START)	001 (START)	
	P018	INPUT_2 operating selection		IN2	002 (PEDESTRIAN)	002 (PEDESTRIAN)	008 (PHOTO 1)	008 (PHOTO 1)	
	P019	INPUT_3 operating selection		IN3	010 (SAFETY)	010 (SAFETY)	010 (SAFETY)	010 (SAFETY)	
	P020	INPUT_4 operating selection		IN4	008 (PHOTO 1)	008 (PHOTO 1)	011 (STOP)	003 (OPEN)	
	P021	INPUT_5 operating selection		IN5	012 (FCA1)	009 (PHOTO 2)	000 (NONE)	004 (CLOSE)	
	P022	INPUT_6 operating selection		IN6	014 (FCC1)	011 (STOP)	000 (NONE)	011 (STOP)	
	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 (attivazione elettroserratura. Vedi P062)	CH1	001 (START)	001 (START)	001 (START)	001 (START)	
	P024	Allocation of CHANNEL 2 of remotes		CH2	000 (NONE)	000 (NONE)	000 (NONE)	000 (NONE)	
	P025	Allocation of CHANNEL 3 of remotes		CH3	000 (NONE)	000 (NONE)	000 (NONE)	000 (NONE)	
	P026	Allocation of CHANNEL 4 of remotes		CH4	000 (NONE)	000 (NONE)	000 (NONE)	000 (NONE)	
	P027	Selection of type of remotes	• 000: HCS fix-code • 001: HCS rolling-code • 002: Dip-switch		000	000	000	000	

					dEF0 sliding gate	dEF 1 Swing gate	dEF2 overhead door	dEF3 barriers	dEF4 Sectional doors
OPERATORS CONFIGURATION PARAMETERS	P028	Selection type of operators	• 001: LOOK / MAC • 002: GHOST • 003: LIVI 500/502 / 902 / LATO / PASS	• 004: STOP • 005: LIVI 6RR • 006: LIVI 9RR • 007: GULLIVER / REV	005	001	003	004	Unused Parameter
	P029	Selected work with or without encoders. WARNING: P029 must be set correctly before performing the procedure for programming	• 000: motors with encoder • 001: engines without encoder		000	001	000	000	
	P030	Selectioning operators number	• 001: one operator • 002: two operators		001	002	001	001	
OPERATING PARAMETERS	P031	Unused parameter							
	P032	Operators speed adjustment during the stroke while opening	15%tot.....100%tot		100	100	100	100	
	P033	Operators speed adjustment during the stroke while closing	15%tot.....100%tot		100	100	100	100	
	P034	Operators speed adjustment during slow-down while opening and closing	15%tot.....100%tot		040	050	050	030	
	P035	Slow down duration adjustment while opening	5%tot.....80%to		025	020	020	030	
	P036	Slow down duration adjustment while closing	5%tot.....80%tot		025	020	020	030	
	P037	Operator 1 force adjustment while opening (if = 100% obstacle detection deactivated)	15%tot.....100%tot		050	050	050	099	
	P038	Operator n.1 force adjustment while closing (if = 100% obstacle detection deactivated)	15%tot.....100%tot		050	050	050	099	
	P039	Operator n.2 force adjustment while opening (if = 100% obstacle detection deactivated)	15%tot.....100%tot		050	050	/	099	
	P040	Operator n.2 force adjustment while closing (if = 100% obstacle detection deactivated)	15%tot.....100%tot		050	050	/	099	
	P041	Automatic closing times adjustment (if = 0 automatic closing deactivated)	0sec.....255sec		000	000	000	000	
	P042	Pedestrian automatic closing time adjustment (se = 0 pedestrian automatic closing deactivated)	0sec.....255sec		000	000	000	000	
	P043	Pedestrian stroke duration adjustment	5%tot.....100%tot		030	035	035	100	
	P044	Pre-flashing time adjustment	0sec.....10sec		000	000	000	000	
	P045	Adjustment of phase displacement time while opening	0sec.....30sec		/	001	/	/	
	P046	Adjustment of phase displacement time while closing	0sec.....30sec		/	003	/	/	
	P047	Collectivity function: if it is activated it deactivates both opening and closing inputs for the whole duration of automatic opening and closing	• 000: “collectivity function” deactivated • 001: “collectivity function” activated		000	000	000	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	000	000	000	
	P049	“Reversal” mode selection (during the manoeuvre a command impulse reverse the mouvement) or “step by step” (during the manoeuvre a command impulse stops the mouvement). A next impulse restart the operator to the opposite direction.	• 000: “reversal function” • 001: “step by step function”		001	000	000	000	
	P050	PHOTO 1	PHOTO input functioning: if=0 photocells are enabled while closing and at start when gate is closed; 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 3 sec.	• 000: photocells enabled while closing and at gate closed • 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	002	002	002	002	
	P051	PHOTO 2			000	001	002	002	
	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 “courtesy light” (output ON during each movement, OFF when the motor stops, after the setting delay).	• 000: “fix warning light” • >001 : “courtesy light” off delay (1sec.....255sec)		001	001	060	001	

				dEF0 sliding gate	dEF 1 Swing gate	dEF2 overhead door	dEF3 barriers	dEF4 Sectional doors
OPERATING PARAMETERS	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.	• 000: Stop when opening on a memorized point • 001: Stop when opening on the end of stroke	/	000	000	001	Unused Parameter
	P054	"soft start" function: motors accelerate gradually until they reach the set speed, avoiding sudden departures	• 000: "soft start" deactivated • 001: "soft start" activated	001	001	001	001	
	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: inversione completa su ostacolo • >000: durata dell'inversione su ostacolo (1sec.....10sec)	000	000	000	000	
	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)	000	000	000	000	
	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) (1x25ms.....40x25ms) **(only Type 0)**	000	003	003	002	
	P058	Margin adjustment of the opening stroke: adjusts the duration of the last stretch of the race during which any obstacle is interpreted as a stroke, stopping the operator without executing the inversion. The value set indicates the number of revolutions of the rotor.	1.....255	/	025	025	020	
	P059	Margin adjustment of the closing stroke: adjust the duration of the last stretch of the race during which any obstacle is interpreted as a stroke, stopping the operator without executing the inversion. The value set indicates the number of revolutions of the rotor.	1.....255	/	025	025	020	
	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	/	000	000	000	
	P061	Unused parameter						
	P062	Electric-lock operating: if =0 electric-lock art. 110, if=1 24V output commanded by ELOCK_IN input in impulsive mode, iF=2 24V output commanded by ELOCK_IN input in step-by-step mode, If=3 24V output for piloting the electrobrake on REV sliding operator, If>3 24V output commanded by ELOCK_IN input in temporized mode (the set value indicates the delay of turning off expressed in sec.	• 000: "Electric-lock art. 110 output • 001: "24V d.c. max 5W Impulsive output • 002: "24V d.c. max 5W Step-by-Step Output • 003: "REV electrobrake output • >003: "24V d.c. max 5W Temporized output (4sec.....255sec)	000	000	000	000	
	P063	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	000	000	000	
	P064	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	001	001	001	
	P065	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 P064 = 050, operations number = 50x500 = 25000 operations **Warning:** Before you set a new value of the counter-manoeuvres 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	000	000	000	
	P066	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	001	001	001	001	
	P067	Unused parameter						
	P068	Unused parameter						
	P069	Unused parameter						
	P070	Unused parameter						

6 MESSAGES SHOWN ON THE DISPLAY

WORKING STATUS MESSAGES	
Mess.	*Description*
----	Gate is closed
JL	Gate is opened
OPEn	Opening under way
CLOS	Closing under way
StEP	While in step-by-step mode, the control board awaits further instructions after a start command
bLOC	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 (50) 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. At this stage any start pulses are ignored.

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 (5min) 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 the setting of parameter P029 (Motor selection with or without encoder) and make sure it is correct. - If this error appears again, replace the control panel.

7 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.

8 PRODUCT DISPOSAL

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.

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