

**CONTROL PANEL
FOR 24 V GEARMOTORS**

FA00993-EN



ZL22N

INSTALLATION MANUAL

EN English

△ Important safety instructions.




△ Follow all of these instructions. Improper installation can cause serious bodily harm.

Use this product only for its specifically intended use. Any other use is hazardous.

- The manufacturer cannot be held liable for any damage caused by improper, unreasonable, and erroneous use.
- This product is expressly designed to be assembled to partly-completed machinery or equipment so as to build machinery as regulated by the Machinery Directive 2006/42/EC.
- The final installation must comply with the Machinery Directive 2006/42/CE and with the currently applicable European standards.
- The manufacturer declines any liability for using non-original products; which would result in warranty loss
- All procedures mentioned in this manual must be only be performed by skilled, qualified technicians and in full compliance with current regulations.
- Laying of cables, installation and testing must follow state-of-the-art procedures as dictated by applicable standards and laws.
- During all phases of the installation make sure you have cut off the mains power source.
- Check that the temperature ranges given and those of the location match.
- Before the installation, check that the guided part is in good mechanical condition, and that it opens and closes correctly.
- Take care not to wet the operator with direct jets of water (sprinklers, water cleaners, etc.).
- Make sure the anchoring spot is clear of any potential impacts, that the anchoring surfaces are solid, and that elements suitable for the type of surface (for example screws and wall plugs) are used.
- Make sure you have set up a suitable dual pole cut off device along the power supply that is compliant with the installation rules. It should completely cut off the power supply according to category III surcharge conditions.
- Demarcate properly the entire site to prevent unauthorized personnel to enter; especially children and minors.
- Use suitable protections to prevent any mechanical hazards due to persons loitering within the operating range of the operator.
- The electric cables must pass through special pipes, ducts and cable glands in order to guarantee adequate protection against mechanical damage.
- The electrical cables must not touch any parts that may overheat during use (such as the motor and transformer).
- All fixed controls must be clearly visible after installation, in position that the guided part is directly visible, but far away from moving parts. In the case of a maintained action command, this must be installed at a minimum height of 1.5 m from the ground and must not be accessible to the public.
- If not already present, apply a permanent tag, that describes how to use the manual release mechanism, close to the mechanism
- Make sure that the operator has been properly adjusted and that the safety and protection devices, and the manual release, are working properly
- Before turning over to the final user, check that the system complies

with the harmonized standards and the essential requisites of Machinery Directive 2006/42/CE. • Any residual risks must be indicated clearly with proper signage affixed in visible areas. All of which must be explained to end users. • Fit, in plain sight, the machine's ID plate when the installation is complete. • If the power-supply cable is damaged, it must be immediately replaced by the manufacturer or by an authorized technical assistance center, or in any case, by qualified staff, to prevent any risk. • Keep this manual inside the technical folder along with the manuals of all the other devices used for your automation system • Make sure to hand over to the end user, all operating manuals for the products that make up the final machinery.

KEY

-  This symbol shows which parts to read carefully.
-  This symbol shows which parts describe safety issues.
-  This symbol shows which parts to tell users about.

The measurements, unless otherwise stated, are in millimeters.

DESCRIPTION

Control panel for one Unipark barrier, extensible up to 4 Unipark barriers with no. 3 LM22N boards. Set functions by using DIP-switches.

Multiple controls: a type of opening or closing control for multiple operators (from a minimum of 2 to a maximum of 4 at the same time).

With the ZL22N and LM22N control panel the multiple control can only be wired (button, selector, etc.).


 All connections and links are rapid-fuse protected.

Intended use

The ZL22N control panel was designed for controlling 24 V UNIPARK parking saver barriers.

 Any installation and/or use other than that specified in this manual is forbidden.

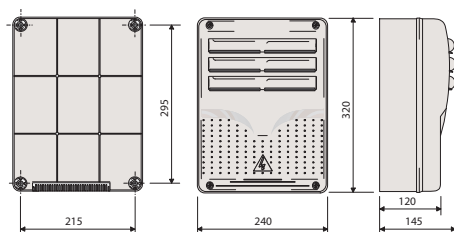
Technical data

Type	ZL22N
Protection rating (IP)	44 series
Power supply (V - 50/60 Hz)	230 AC
Motor power supply (V)	24 DC
Current draw in stand-by mode (mA)	25 series
Max power (single motor) (W)	125 series
Accessories power (W)	25 series
Casing material	ABS
Operating temperature (°C)	-20 to +55
Apparatus class	
Weight (kg)	3.4 series

Fuses

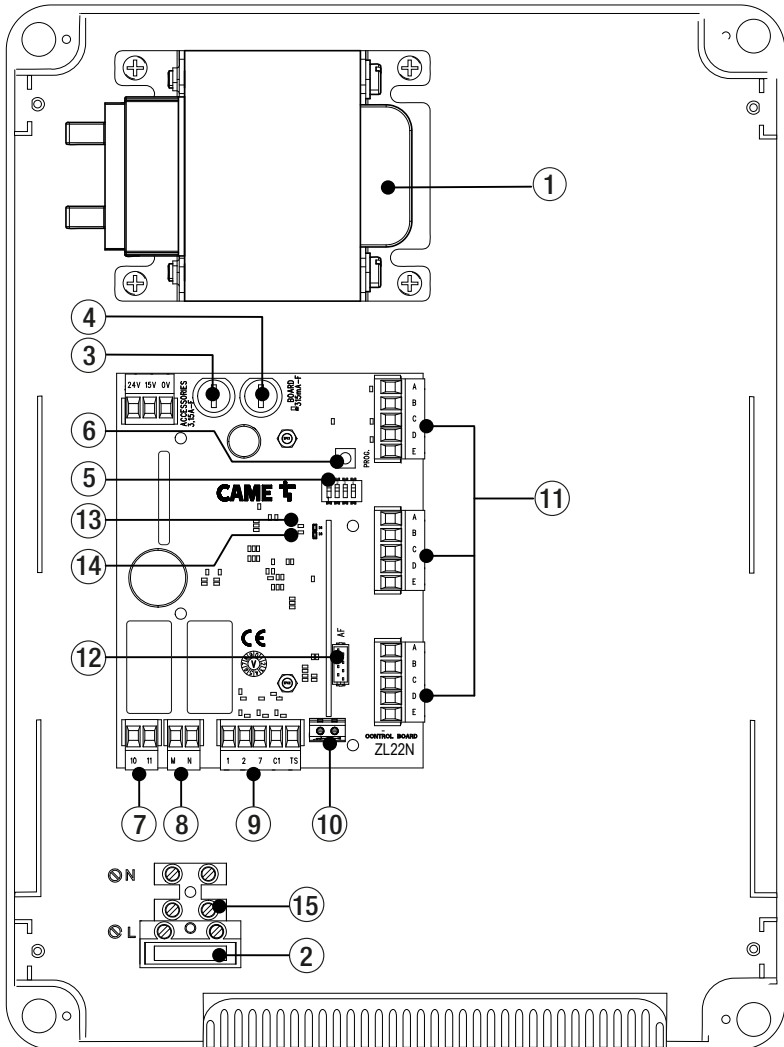
LINE FUSE - Line	1.6 A-F
C.BOARD - Board	315 mA-F
ACCESSORIES - Accessories	1 A-F

Dimensions



Description of parts

- | | |
|--|---|
| 1 - Transformer | 10 - Terminal board for connecting the antenna |
| 2 - Line fuse | 11 - Terminal board for connecting the LM22N board |
| 3 - Accessories fuse | 12 - Snap in connector for radio frequency board (AF) |
| 4 - Control board fuse | 13 - Alert LED |
| 5 - DIP for programming | 14 - Voltage present warning LED |
| 6 - Button for programming | 15 - Power supply terminal board |
| 7 - Terminal board for connecting the accessories | |
| 8 - Terminal board for connecting the gearmotor | |
| 9 - Terminal board for connecting control and safety devices | |



GENERAL INSTALLATION INDICATIONS

△ Before working on the control panel, cut off the mains power supply and remove any batteries.

Cable types and minimum thicknesses

Connection	cable length	
	< 20 m	20 < 30 m
Control board power supply 230 V AC (1P+N)	2G x 1.5 mm ²	2G x 2.5 mm ²
Gearmotor 24 V AC	2G x 1.5 mm ²	2G x 2.5 mm ²
TX Photocells	2 x 0.5 mm ²	
RX photocells	4 x 0.5 mm ²	
Accessories	2 x 0.5 mm ²	
Command and control devices	2 x 0.5 mm ²	

📖 When operating at 230 V and outdoors, use H05RN-F-type cables that are 60245 IEC 57 (IEC) compliant; whereas indoors, use H05VV-F-type cables that are 60227 IEC 53 (IEC) compliant. For power supplies up to 48 V, you can use FROR 20-22 II-type cables that comply with EN 50267-2-1 (CEI).

Use RG58 cable up to 10 m long to connect the antenna.

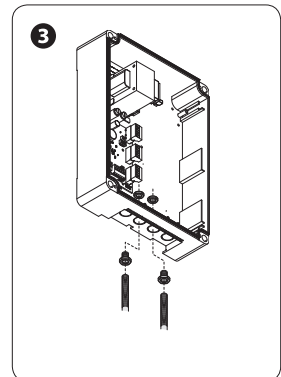
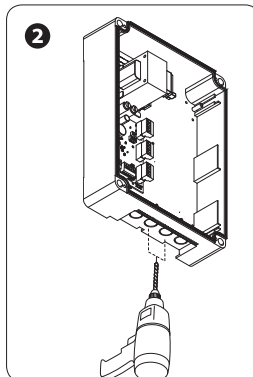
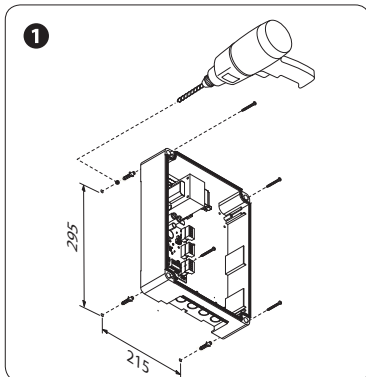
📖 If cable lengths differ from those specified in the table, establish the cable sections depending on the actual power draw of the connected devices and according to the provisions of regulation CEI EN 60204-1.

📖 For multiple, sequential loads along the same line, the dimensions on the table need to be recalculated according to the actual power draw and distances. For connecting products that are not contemplated in this manual, see the literature accompanying said products

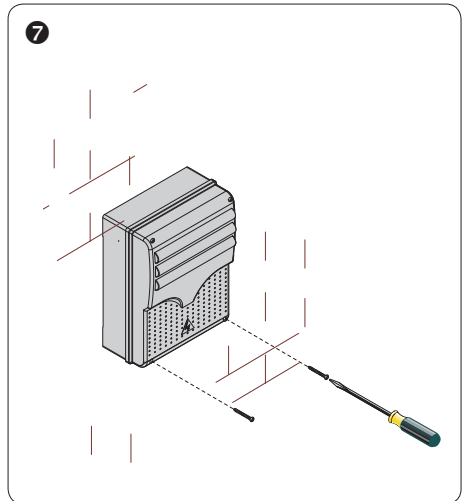
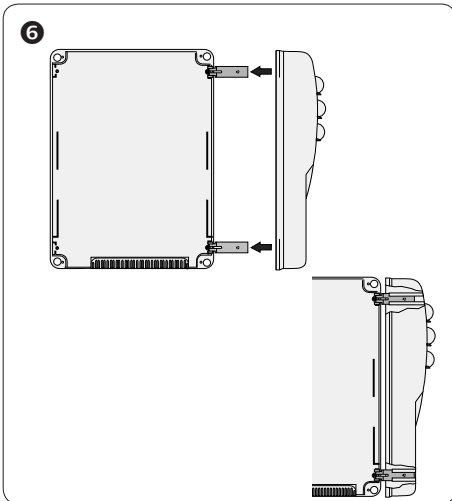
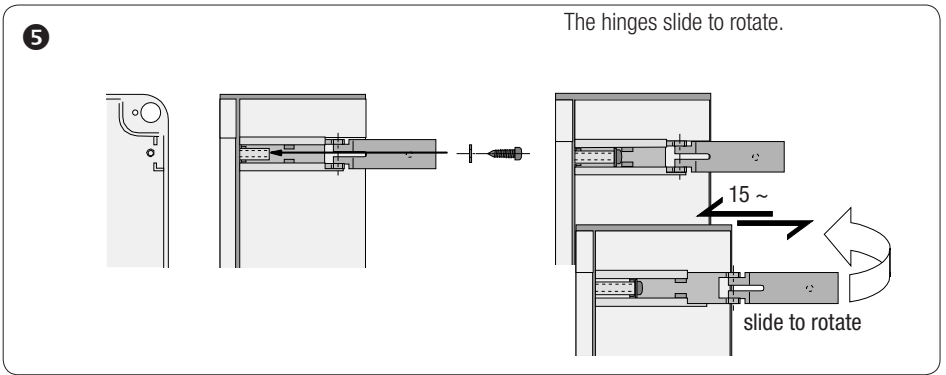
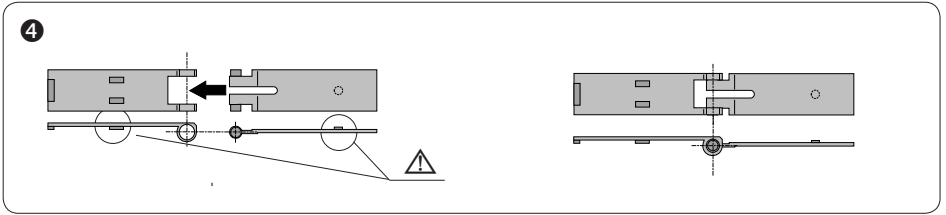
INSTALLING

Fastening the control panel

- 1 Fasten the control panel in a protected area using suitable screws and dowels.
📖 Only use 6 x 70 mm cylinder-head screws.
- 2 Drill through the pre-drilled holes (18 and 20 mm) under the control panel's base.
△ Be careful not to damage the control board.
- 3 Enter the cable gland with the corrugated tubes for threading the electrical cables.



- 4 Assemble the pressure hinges.
- 5 Fit the hinges into the box (either on the right or left) and fasten them using the supplied screws and washers.
- 6 Snap the cover onto the hinges. Close it and secure it using the supplied screws.
- 7 After performing the settings and adjustments, fasten the cover using the supplied screws.



ELECTRICAL CONNECTIONS

Input voltage

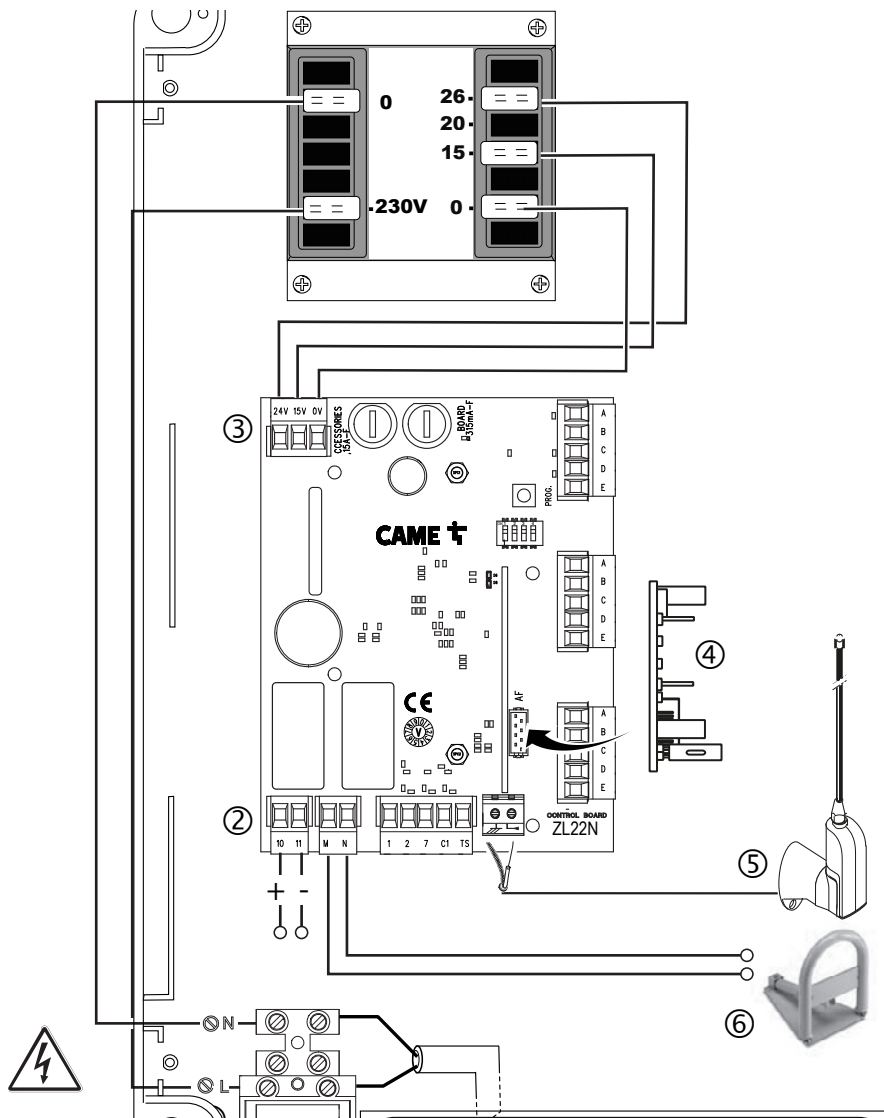
- 1 - Power supply cable with double insulation 230 V AC 50/60 Hz
- 2 - Accessories 24 V AC - max 25 W power-supply output
- 3 - Control board power-supply input

Radio control

- 4 - AF board
- 5 - RG58 cable of the antenna

Gearmotors

- 6 - Connection to UNIPARK



Operating modes

Mode 1 (default): 2-7 (NO) OPEN-CLOSE and 2-1 (NC) STOP.

Mode 2: 2-7 (NO) OPEN and 2-1 (NO) CLOSE (recommended for multiple commands).

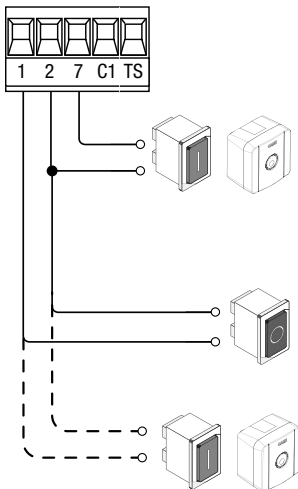
Operating mode change

Switch on the board pressing and holding down the programming button for 10 seconds:

- from mode 1 to mode 2, the red LED flashes twice;
- from mode 2 to mode 1, the red LED flashes once.

☞ Each time the board is switched on, if it is in mode 1, the red LED remains off, if it is in mode 2, the red LED flashes twice.

Command and control devices

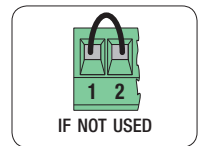


Mode 1 (default): OPEN-CLOSE function (NO contact) from control device.

Mode 2: OPEN function (NO contact) from control device.

Mode 1 (default): STOP button (NC contact).
Parking saver barrier stop button.

Mode 2: CLOSE function (NO contact) from control device.



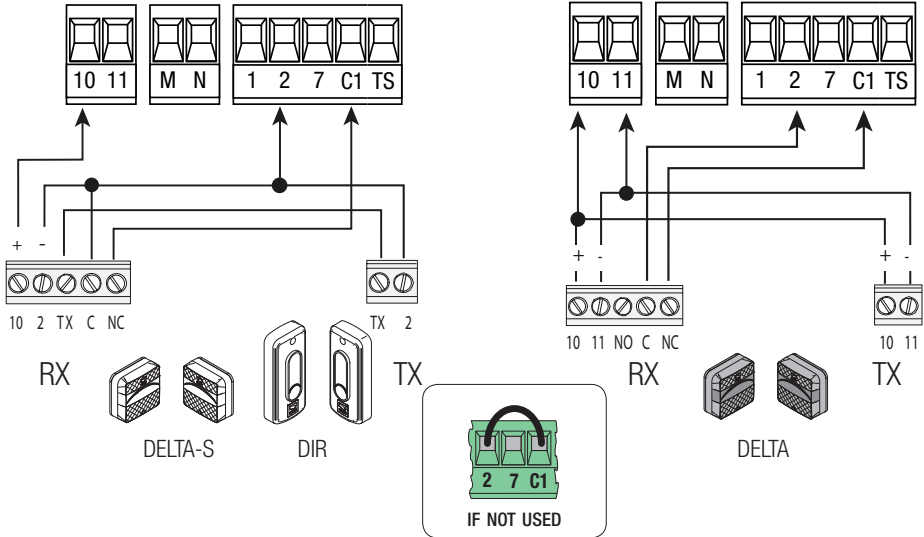
Safety devices

Photocells

Input for photocells or magnetic loop.

Reopening during closing. When the barrier is closing, opening the contact causes the movement to invert until the barrier is fully open.

 If the safety device is not used, short-circuit the input 2 - C1.

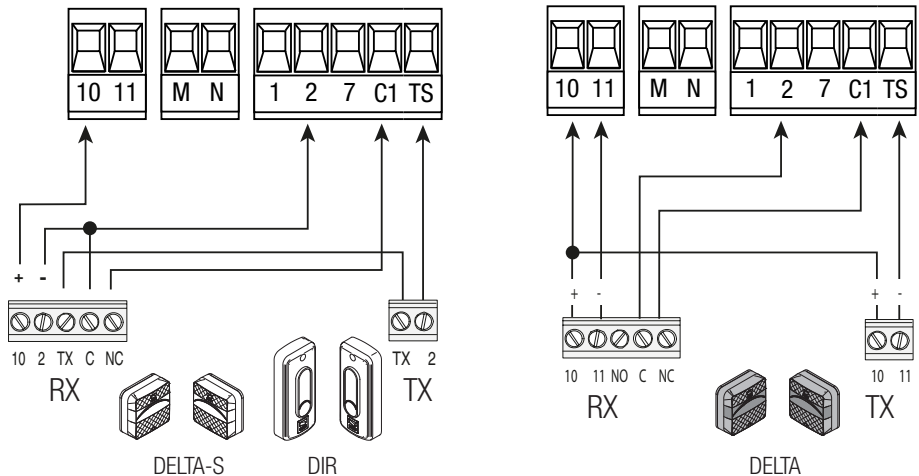


Photocells safety test

At each opening and closing command, the control board checks the efficacy of the safety devices.

Any anomalies will inhibit all commands.

Enable the function by setting DIP-switch 3 to ON.



ADJUSTMENTS AND FUNCTIONS

Amperometric sensor sensitivity adjustment

△ The motor current consumption is proportional to the parking saver power.



Sensitivity	DIP switch 1	DIP switch 2
Level 1 (max)	OFF	OFF
Level 2	OFF	ON
Level 3	ON	OFF
Level 4 (min)	ON	ON

👉 Table for adjusting the sensitivity of the amperometric sensor, with respect to the force developed by the motor, during the opening and closing phases (maximum sensitivity, lower thrust of the motor). If the current consumption exceeds the preset level, the parking saver barrier stops.

Functions



Functions	DIP-SWITCH	Status
SERVICES TEST	3 series	OFF (default)
		ON
DELETING USERS	4 series	OFF (default)
		ON

Preliminary operations

📖 Check that the RG58 cable of the antenna is connected to the appropriate terminals, and that the AF board is inserted on the electronic board connector.

📖 Before fitting the AF board, you MUST CUT OFF THE MAIN POWER SUPPLY and, remove any emergency batteries.

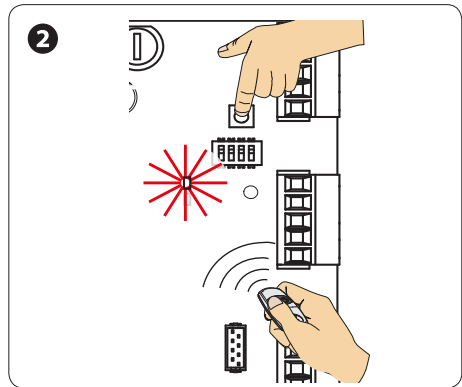
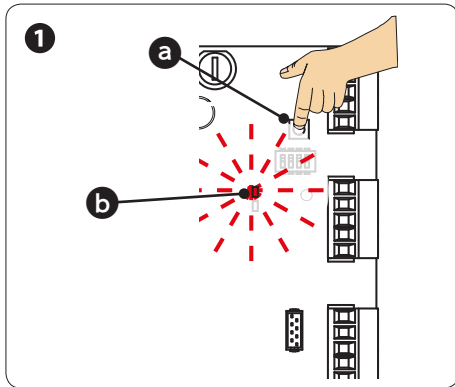
Adding a user

If one or more LM22N boards are connected to the control panel, **it is not possible to store the same radio code on all the boards.**

Set DIP-switch 4 to OFF.

📖 You can enter up to 50 users.

- 1 Keep pressed the PROG **a** programming button on the control board. The programming LED **b** flashes.
- 2 Press any key on the transmitter you want to memorize. The LED stays on to indicate that the saving is complete.

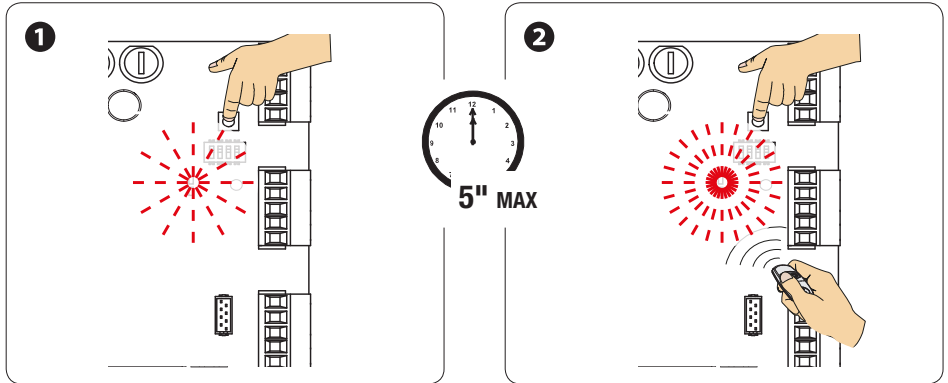


Deleting a single user

Set DIP-switch 4 to ON.

- 1 Keep pressed the PROG button on the control board. The programming LED flashes.
- 2 Within five seconds, press the button on the transmitter of the user you wish to delete. The LED will flash quickly for one second to signal that the user has been deleted, and then it will switch off.

Reset DIP-switch 4 to OFF.

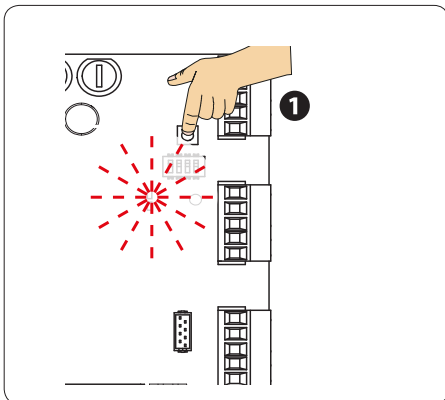


Deleting all users

Set DIP-switch 4 to ON.

- 1 Keep pressed for about 10 seconds the PROG button on the control board. The programming LED will perform a series of average length flashes (about 4 seconds) and quick flashes (about 2 seconds) until it switches off.

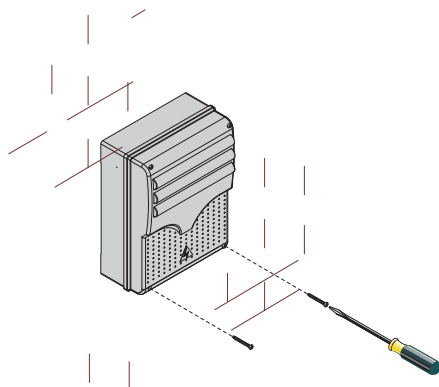
Reset DIP-switch 4 to OFF.



FINAL OPERATIONS

Fastening the cover

Once finished with the electrical connections and powering up, fit the cover and secure it using the supplied screws.



DISMANTLING AND DISPOSAL

Always make sure you comply with local laws before dismantling and disposing of the product. The packaging materials (cardboard, plastic, and so on) should be disposed of as solid household waste, and simply separated from other waste for recycling.

Whereas other components (control boards, batteries, transmitters, and so on) may contain hazardous pollutants. These must therefore be disposed of by authorized, certified professional services.

DISPOSE OF RESPONSIBLY!

Fabricante / Manufacturer / Hersteller / Fabricant / Fabricante / Fabricante / Wytwórca / Fabrikant

Came S.p.a.

Indirizzo / address / adresse / adresse / dirección / endereço / adres / adres

Via Martiri della Libertà 15 31030 - Dossion di Casier Treviso - Italy



DICH-IAARA CHE IL QUADRO COMANDO PER BARRIERE UNIPARK / DECLARES THAT THE CONTROL PANEL FOR UNIPARK BARRIERS / ERKLÄRT DASS DIE STEUERUNG FÜR UNIPARKBARRIEREN / DECLARE QUE LE ARMÓIRE DE COMMANDES POUR BARRIÈRES UNIPARK / DECLARA QUE LAS DISPOSICIONES DE LAS SOLUCIONES DIRECTIVAS / ESTRO DE UNIPARK / DECLARA QUE AS QUADRO DE COMANDO PARA BARRERAS UNIPARK / OSMAĐOZAZE CENTRALA STERLUJAČA BARIERA UNIPARK / VERKLAART DAT DE STUURKAST VOOR UNIPARK-BARRIÈRES

ZL22N

E' CONFORME ALLE DISPOSIZIONI DELLE SEGUENTI DIRETTIVE / IT COMPLIES WITH THE PROVISIONS OF THE FOLLOWING DIRECTIVES / DEN VORGABEN DER FOLGENDEN RICHTLINIEN ENTSPRECHEN / IL EST CONFORME AUX DISPOSITIONS DES DIRECTIVES SUIVANTES / CUMPLIEN CON LAS DISPOSICIONES DE LAS SEGUENTES DIRECTIVAS / ESTRO DE UNIPARK / COM AS DISPOSICIONES DAS SEGUENTES DIRECTIVAS / SA ŽODIČNE Z POSTANOVENJAMI NASTERUJALACZYCH DYREKTYW EUROPEJSKICH / VOLDDEEN AAN DE VOORSCHRIFTEN VAN DE VOLGENDE RICHTLINIEN:

- COMPATIBILITÀ ELETTROMAGNETICA / ELECTROMAGNETIC COMPATIBILITY / ELEKTROMAGNETISCHE VERTRÄGLICHKEIT / COMPATIBILITÉ ELECTROMAGNETIQUE / COMPATIBILIDAD ELECTROMAGNETICA / COMPATIBILIDADE ELECTROMAGNETICA / KOMPATIBILNOSŒI ELEKTROMAGNETYCZNEJ / ELEKTROMAGNETISCHE COMPATIBILITEIT : 2014/30/EU.

Riferimento norme armonizzate ed altre norme tecniche / Refer to European regulations and other technical regulations / Harmonisierte Bezugsnormen und andere technische Vorgaben / Référence aux normes harmonisées et aux autres normes techniques / Referencia normas armonizadas y otras normas técnicas / Referència de normes harmonitzades e altres normes tècniques / Odnošene normy ujednolícené i jiné normy technické / Geharmoniseerde en andere technische normen waarsaam is verwezen

EN 61000-6-2:2005
EN 61000-6-3:2007+A1:2011
EN 62233:2008
EN 60335-1:2012+A11:2014

ASSEMBLATO CORRETTAMENTE CON I MOTORIDUTTORI INDICATI NEL MANUALE DI INSTALLAZIONE, RISPETTA I REQUISITI ESSENZIALI / CORRECTLY ASSEMBLED WITH THE GEARMOTORS INDICATED IN THE INSTALLATION MANUAL, MEET THE APPLICABLE ESSENTIAL REQUIREMENTS / KORREKT MONTIERT MIT DEN IN DER INSTALLATIONSANLEITUNG ANGEZEIGTEN GETRIEBEMOTOREN, DEN WESENTLICHEN ANGEWANDTEN ANFORDERUNGEN ENTSPRECHEN / CORRECTEMENT ASSEMBLÉ AVEC LES MOTOREDUCTEURS INDICÉS DANS LE MANUEL D'INSTALLATION, RESPECTE LES CONDITIONS REQUISES NECESSAIRES APPLIQUÉES / MONTADO CORRECTAMENTE CON LOS MOTORREDUCTORES INDICADOS EN EL MANUAL DE INSTALACION, CUMPLEN CON LOS REQUISITOS ESENCIALES APLICADOS / MONTADOS CORRECTAMENTE COM OS MOTORREDUTORES INDICADOS NO MANUAL DE INSTALACAO, RESPETAM O REQUISITOS ESSENCIAIS APLICADOS / PRAWDŁOWO ZMONTOWANE Z MOTORREDUKTORAMI WSKAZANYMI W INSTRUKCJI MONTAŻU, SPEŁNIAJA PODSTAWOWE WYMAGANIE WYŁNIK / CORRECT GEMOENTEFT MET DE MOTORREDUCTOREN AANGEGEVEN IN DE INSTALLATIEHANDLEIDING, VOLDOEN AAN DE TOEPASSBARE MINIMUM EISEN:

1.1.3; 1.1.5; 1.2.1; 1.2.2; 1.3.2; 1.3.7; 1.3.8.1; 1.4.1; 1.4.2; 1.5.1; 1.5.6; 1.5.8; 1.5.9; 1.5.10; 1.5.11; 1.5.13; 1.6.1; 1.6.3; 1.6.4; 1.7.1; 1.7.2; 1.7.4

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La documentazione tecnica pertinente è stata compilata in conformità all'allegato VIIB. / The pertinent technical documentation has been drawn up in compliance with attached document VIIB. / Die relevante technische Dokumentation wurde entsprechend der Anlage VIIB ausgestellt. / La documentation technique spécifique a été remplie conformément à l'annexe VIIB / La documentación técnica pertinente ha sido redactada en cumplimiento con el anexo VIIB. / A documentação técnica pertinente foi preenchida de acordo com o anexo VIIB. / Osborna dokumentacija tehnična zostala zredkovaná zopone z zásečníkem VIIB. / De technische documentatie terzake is opgesteld in overeenstemming met de bijlage VIIB.

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La messa in servizio finché la macchina finale in cui deve essere incorporata non è stata dichiarata conforme, se del caso alla 2006/42/CE / commissioning of the above mentioned until such moment when the final machine into which they must be incorporated, has been declared compliant, if pertinent, to 2006/42/CE / die Inbetriebnahme bevor die Endmaschine in die die unvollständige wird, als konform erklärt wurde, gegebenenfalls gemäß der Richtlinie 2006/42/EG. / la mise en service tant que la machine finale dans laquelle elle doit être incorporée n'a pas été déclarée conforme, le cas échéant, à la norme 2006/42/CE. / la messa in servizio hasta que la máquina final en la que será incorporada no haya sido declarada de conformidad de acuerdo a la 2006/42/CE / a colocação em funcionamento, até que a máquina final, onde devem ser incorporadas, não for declarada em conformidade, se de acordo com a 2006/42/CE. / Uruchomienia urządzenia do czasu, kiedy maszyna, do której ma być wbudowana, nie zostanie oceniona jako zgodna z wyrokiem dyrektywy 2006/42/WE, jest taka procedura była konieczna. / dees in werking te stellen zolang de af te bouwen machine waarin de niet voltooidde machine moet worden ingebouwd in overeenstemming is verklaard, indien toepasselijk met de richtlijn 2006/42/EG.

Dossion di Casier (TV)
26 Novembre / November / November /
November / Novembre / Novembro /
Listopad / November 2018

Amministratore Delegato / Managing Director /
General Director / Directeur Général / Director General /
Administrador Delegado / Dyrektor Zarządzający /
Algemeen Directeur

Andrea Merluzzi

Fascicolo tecnico a supporto / Supporting technical dossier / Unterstützung technische Dossier / soutien dossier technique / apoyo expediente técnico / apoiar dossier técnico / wspieranie dokumentacji technicznej / ondersteunende technische dossier: 002ZL22N

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Via Martiri della Libertà, 15 - 31030 Dossion di Casier - Treviso - Italy - Tel. (+39) 0422 4940 - Fax (+39) 0422 4941
info@came.it - www.came.com

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CAME S.P.A.

Via Martiri Della Libertà, 15
31030 Dosson di Casier - Treviso - Italy
tel. (+39) 0422 4940 - fax. (+39) 0422 4941