FALCON M



GENIUS®

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
= UNI EN ISO 9001/2000=

CE

ITALIANO

AVVERTENZE PER L'INSTALLATORE

OBBLIGHI GENERALI PER LA SICUREZZA

ATTENZIONE! È importante per la sicurezza delle persone seguire attentamente tutta l'istruzione. Una errata installazione o un errato uso del prodotto può portare a gravi danni alle persone.

1. Leggere attentamente le istruzioni prima di iniziare l'installazione del prodotto.
2. I materiali dell'imballaggio (plastica, polistirolo, ecc.) non devono essere lasciati alla portata dei bambini in quanto potenziali fonti di pericolo.
3. Conservare le istruzioni per riferimenti futuri.
4. Questo prodotto è stato progettato e costruito esclusivamente per l'utilizzo indicato in questa documentazione. Qualsiasi altro utilizzo non espressamente indicato potrebbe pregiudicare l'integrità del prodotto e/o rappresentare fonte di pericolo.
5. GENIUS declina qualsiasi responsabilità derivata dall'uso improprio o diverso da quello per cui l'automatismo è destinato.
6. Non installare l'apparecchio in atmosfera esplosiva: la presenza di gas o fumi infiammabili costituisce un grave pericolo per la sicurezza.
7. Gli elementi costruttivi meccanici devono essere in accordo con quanto stabilito dalle Norme EN 12604 e EN 12605.
8. Per i Paesi extra-CEE, oltre ai riferimenti normativi nazionali, per ottenere un livello di sicurezza adeguato, devono essere seguite le Norme sopra riportate.
9. GENIUS non è responsabile dell'inosservanza della Buona Tecnica nella costruzione delle chiusure da motorizzare, nonché delle deformazioni che dovessero intervenire nell'utilizzo.
10. L'installazione deve essere effettuata nell'osservanza delle Norme EN 12453 e EN 12445. Il livello di sicurezza dell'automazione deve essere C+D.
11. Prima di effettuare qualsiasi intervento sull'impianto, togliere l'alimentazione elettrica e scollegare le batterie.
12. Prevedere sulla rete di alimentazione dell'automazione un interruttore onnipolare con distanza d'apertura dei contatti uguale o superiore a 3 mm. È consigliabile l'uso di un magnetotermico da 6A con interruzione onnipolare.
13. Verificare che a monte dell'impianto vi sia un interruttore differenziale con soglia da 0,03 A.
14. Verificare che l'impianto di terra sia realizzato a regola d'arte e collegarvi le parti metalliche della chiusura.
15. L'automazione dispone di una sicurezza intrinseca antischiacciamento costituita da un controllo di coppia. E' comunque necessario verificarne la sogli di intervento secondo quanto previsto dalle Norme indicate al punto 10.
16. I dispositivi di sicurezza (norma EN 12978) permettono di proteggere eventuali aree di pericolo da Rischi meccanici di movimento, come ad Es. schiacciamento, convogliamento, cesoiamento.
17. Per ogni impianto è consigliato l'utilizzo di almeno una segnalazione luminosa nonché di un cartello di segnalazione fissato adeguatamente sulla struttura dell'infisso, oltre ai dispositivi citati al punto "16".
18. GENIUS declina ogni responsabilità ai fini della sicurezza e del buon funzionamento dell'automazione, in caso vengano utilizzati componenti dell'impianto non di produzione GENIUS.
19. Per la manutenzione utilizzare esclusivamente parti originali GENIUS.
20. Non eseguire alcuna modifica sui componenti facenti parte del sistema d'automazione.
21. L'installatore deve fornire tutte le informazioni relative al funzionamento manuale del sistema in caso di emergenza e consegnare all'Utente utilizzatore dell'impianto il libretto d'avvertenze allegato al prodotto.
22. Non permettere ai bambini o persone di sostare nelle vicinanze del prodotto durante il funzionamento.
23. Tenere fuori dalla portata dei bambini radiocomandi o qualsiasi altro datore di impulso, per evitare che l'automazione possa essere azionata involontariamente.
24. Il transito tra le ante deve avvenire solo a cancello completamente aperto.
25. L'utente utilizzatore deve astenersi da qualsiasi tentativo di riparazione o d'intervento e deve rivolgersi solo ed esclusivamente a personale qualificato GENIUS o centri d'assistenza GENIUS.
26. Tutto quello che non è previsto espressamente in queste istruzioni non è permesso.

ENGLISH

IMPORTANT NOTICE FOR THE INSTALLER

GENERAL SAFETY REGULATIONS

ATTENTION! To ensure the safety of people, it is important that you read all the following instructions. Incorrect installation or incorrect use of the product could cause serious harm to people.

1. Carefully read the instructions before beginning to install the product.
2. Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.
3. Store these instructions for future reference.
4. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger.
5. GENIUS declines all liability caused by improper use or use other than that for which the automated system was intended.
6. Do not install the equipment in an explosive atmosphere: the presence of inflammable gas or fumes is a serious danger to safety.
7. The mechanical parts must conform to the provisions of Standards EN 12604 and EN 12605.
8. For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
9. GENIUS is not responsible for failure to observe Good Technique in the construction of the closing elements to be motorised, or for any deformation that may occur during use.
10. The installation must conform to Standards EN 12453 and EN 12445. The safety level of the automated system must be C+D.
11. Before attempting any job on the system, cut out electrical power and disconnect the batteries.
12. The mains power supply of the automated system must be fitted with an all-pole switch with contact opening distance of 3mm or greater. Use of a 6A thermal breaker with all-pole circuit break is recommended.
13. Make sure that a differential switch with threshold of 0.03 A is fitted upstream of the system.
14. Make sure that the earthing system is perfectly constructed, and connect metal parts of the means of the closure to it.
15. The automated system is supplied with an intrinsic anti-crushing safety device consisting of a torque control. Nevertheless, its tripping threshold must be checked as specified in the Standards indicated at point 10.
16. The safety devices (EN 12978 standard) protect any danger areas against mechanical movement Risks, such as crushing, dragging, and shearing.
17. Use of at least one indicator-light is recommended for every system, as well as a warning sign adequately secured to the frame structure, in addition to the devices mentioned at point "16".
18. GENIUS declines all liability as concerns safety and efficient operation of the automated system, if system components not produced by GENIUS are used.
19. For maintenance, strictly use original parts by GENIUS.
20. Do not in any way modify the components of the automated system.
21. The installer shall supply all information concerning manual operation of the system in case of an emergency, and shall hand over to the user the warnings handbook supplied with the product.
22. Do not allow children or adults to stay near the product while it is operating.
23. Keep remote controls or other pulse generators away from children, to prevent the automated system from being activated involuntarily.
24. Transit through the leaves is allowed only when the gate is fully open.
25. The User must not in any way attempt to repair or to take direct action and must solely contact qualified GENIUS personnel or GENIUS service centres.
26. Anything not expressly specified in these instructions is not permitted.

FRANÇAIS

CONSIGNES POUR L'INSTALLATEUR

RÈGLES DE SÉCURITÉ

ATTENTION! Il est important, pour la sécurité des personnes, de suivre à la lettre toutes les instructions. Une installation erronée ou un usage erroné du produit peut entraîner de graves conséquences pour les personnes.

1. Lire attentivement les instructions avant d'installer le produit.
2. Les matériaux d'emballage (matière plastique, polystyrène, etc.) ne doivent pas être laissés à la portée des enfants car ils constituent des sources potentielles de danger.
3. Conserver les instructions pour les références futures.
4. Ce produit a été conçu et construit exclusivement pour l'usage indiqué dans cette documentation. Toute autre utilisation non expressément indiquée pourrait compromettre l'intégrité du produit et/ou représenter une source de danger.
5. GENIUS décline toute responsabilité qui dériverait d'usage impropre ou différent de celui auquel l'automatisme est destiné.
6. Ne pas installer l'appareil dans une atmosphère explosive: la présence de gaz ou de fumées inflammables constitue un grave danger pour la sécurité.
7. Les composants mécaniques doivent répondre aux prescriptions des Normes EN 12604 et EN 12605.
8. Pour les Pays extra-CEE, l'obtention d'un niveau de sécurité approprié exige non seulement le respect des normes nationales, mais également le respect des Normes susmentionnées.
9. GENIUS n'est pas responsable du non-respect de la Bonne Technique dans la construction des fermetures à motoriser, ni des déformations qui pourraient intervenir lors de l'utilisation.
10. L'installation doit être effectuée conformément aux Normes EN 12453 et EN 12445. Le niveau de sécurité de l'automatisme doit être C+D.
11. Couper l'alimentation électrique et déconnecter la batterie avant toute intervention sur l'installation.
12. Prévoir, sur le secteur d'alimentation de l'automatisme, un interrupteur omnipolaire avec une distance d'ouverture des contacts égale ou supérieure à 3 mm. On recommande d'utiliser un magnétothermique de 6A avec interruption omnipolaire.
13. Vérifier qu'il y ait, en amont de l'installation, un interrupteur différentiel avec un seuil de 0,03 A.
14. Vérifier que la mise à terre est réalisée selon les règles de l'art et y connecter les pièces métalliques de la fermeture.
15. L'automatisme dispose d'une sécurité intrinsèque anti-écrasement, formée d'un contrôle du couple. Il est toutefois nécessaire d'en vérifier le seuil d'intervention suivant les prescriptions des Normes indiquées au point 10.
16. Les dispositifs de sécurité (norme EN 12978) permettent de protéger des zones éventuellement dangereuses contre les Risques mécaniques du mouvement, comme l'écrasement, l'acheminement, le cisaillement.
17. On recommande que toute installation soit doté au moins d'une signalisation lumineuse, d'un panneau de signalisation fixé, de manière appropriée, sur la structure de la fermeture, ainsi que des dispositifs cités au point "16".
18. GENIUS décline toute responsabilité quant à la sécurité et au bon fonctionnement de l'automatisme si les composants utilisés dans l'installation n'appartiennent pas à la production GENIUS.
19. Utiliser exclusivement, pour l'entretien, des pièces GENIUS originales.
20. Ne jamais modifier les composants faisant partie du système d'automatisme.
21. L'installateur doit fournir toutes les informations relatives au fonctionnement manuel du système en cas d'urgence et remettre à l'Usager qui utilise l'installation les "Instructions pour l'Usager" fournies avec le produit.
22. Interdire aux enfants ou aux tiers de stationner près du produit durant le fonctionnement.
23. Eloigner de la portée des enfants les radiocommandes ou tout autre générateur d'impulsions, pour éviter tout actionnement involontaire de l'automatisme.
24. Le transit entre les vantaux ne doit avoir lieu que lorsque le portail est complètement ouvert.
25. L'utilisateur doit s'abstenir de toute tentative de réparation ou d'intervention et doit s'adresser uniquement et exclusivement au personnel qualifié GENIUS ou aux centres d'assistance GENIUS.
26. Tout ce qui n'est pas prévu expressément dans ces instructions est interdit.

ESPAÑOL

ADVERTENCIAS PARA EL INSTALADOR

REGLAS GENERALES PARA LA SEGURIDAD

ATENCION! Es sumamente importante para la seguridad de las personas seguir atentamente las presentes instrucciones. Una instalación incorrecta o un uso impropio del producto puede causar graves daños a las personas.

1. Lean detenidamente las instrucciones antes de instalar el producto.
2. Los materiales del embalaje (plástico, poliestireno, etc.) no deben dejarse al alcance de los niños, ya que constituyen fuentes potenciales de peligro.
3. Guarden las instrucciones para futuras consultas.

ENGLISH

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CE DECLARATION OF CONFORMITY

Manufacturer: GENIUS S.p.A.

Address: Via Padre Elzi, 32 - 24050 - Grassobbio- Bergamo - ITALY

Declares that: Operator mod. **FALCON M**

- is built to be incorporated in a machine or to be assembled with other machinery to create a machine under the provisions of Directive 98/37/EC;
- conforms to the essential safety requirements of the other following EEC directives:
  73/23/EEC and subsequent amendment 93/68/EEC.
  89/336/EEC and subsequent amendment 92/31/EEC and 93/68/EEC

Furthermore, the manufacturer declares that the machinery must not be put into service until the machine into which it will be incorporated or of which it will become a part has been identified and its conformity to the conditions of Directive 98/37/EC has been declared.

Grassobbio, 10-11-2006

Managing Director
D. Gianantoni

Notes on reading the instruction
Read this installation manual to the full before you begin installing the product.
The symbol ⚠ indicates notes that are important for the safety of persons and for the good condition of the automated system.
The symbol ☞ draws your attention to the notes on the characteristics and operation of the product.

FALCON AUTOMATED SYSTEM

These instructions apply to the following models:
FALCON 14 M - FALCON 14 MC - FALCON 20 M- FALCON 20 MC - FALCON 15 M - FALCON 15 MC - FALCON 20 M 3PH
The **FALCON** gearmotor for sliding gates is an electro-mechanical operator which transmits drive to the sliding leaf by a rack and pinion or by a chain suitably coupled to the gate.
The non-reversing system guarantees mechanical locking of the gate when the motor is not operating and, therefore, there is no need to install any lock.

The gearmotor does not have a mechanical clutch and, therefore, requires a control unit with an adjustable electronic clutch which guarantees the necessary anti-crushing safety.

A handy manual release with a customised key makes the gate manoeuvrable in case of a power cut or trouble.
In the "**C**" version gearmotors, the electronic control unit is housed inside the operator.

*The **FALCON** gearmotor was designed and built for controlling vehicle access. Do not use in any different way.*

1. DESCRIPTION AND TECHNICAL SPECIFICATIONS

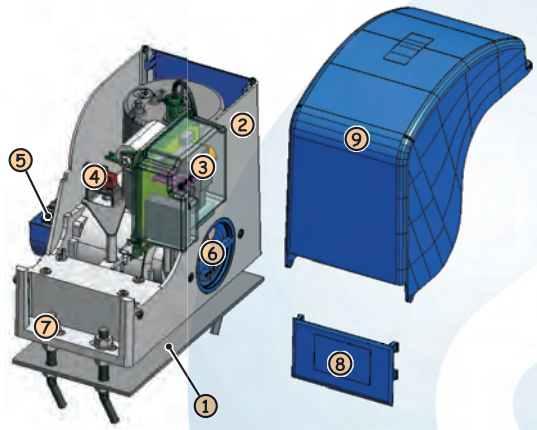


Fig. 1

① Foundation plate
② Gearmotor
③ Enclosure and control unit (In "**C**" versions only)
④ Magnetic sensor
⑤ Pinion
⑥ Release knob with key
⑦ Securing slots and nuts
⑧ Lateral protective devices
⑨ Covering housing

MODEL	14 M 14 MC	20 M 20 MC	15 M 15 MC	20 M 3Ph
Power supply (+6% -10%)	230 V~ 50 Hz		115 V~ 60 Hz	400 V~ 50Hz
Absorbed power (W)	650	800	710	840
Absorbed current (A)	2.8	3.5	6.7	2.2
Electric motor (rpm)	1400		1700	1400
Thrust capacitor (μF)	16	20	60	/
Thrust on pinion (daN)	110	150	130	185
Torque (Nm)	35	45	38	60
Temperature protection (°C)	140			/
Max leaf weight (Kg)	1400	2000	1500	2000
Type of pinion gear	Z 16 module 4			
Gate speed (m/min)	10		11	10
Max. gate length (m)	20			
Type of travel-limit device	Magnetic			
Type of clutch	Electronic torque control (See control unit)			
Use frequency (see graph)	S3 - 40%			S3 50%
Operating ambient temperature (°C)	-20 ÷ +55			
Weight of gearmotor (Kg)	14	15		
Protection class	IP 44			
Operator dimensions	See fig. 2			

2. DIMENSIONS

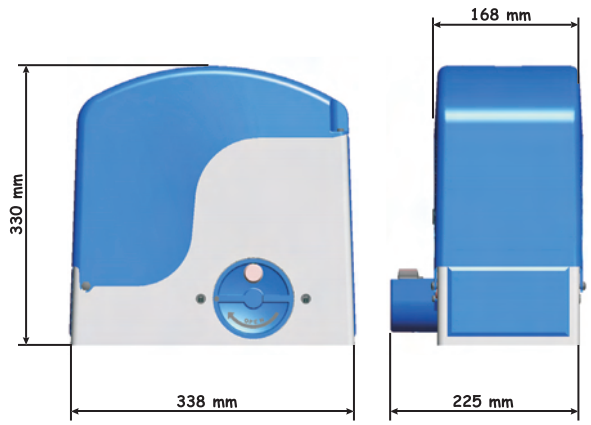
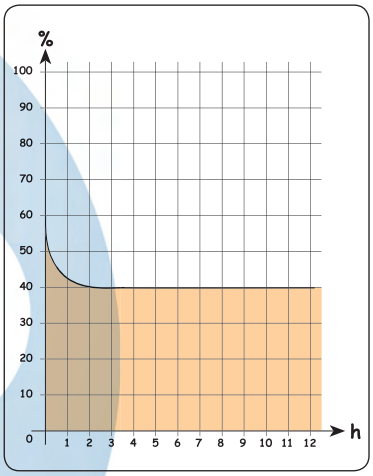


Fig. 2

3. MAXIMUM USE CURVE

The curve makes it possible to establish maximum work time (T) according to use frequency (F). With reference to standard IEC 34-1, the **FALCON** gearmotor, with service type S3, can operate at use frequency of 40%.
To ensure efficient operation, operate in the work range under the curve.

Important: The curve is obtained at a temperature of 20°C. Exposure to the direct sun rays can reduce use frequency down to 20%.



Calculation of use frequency

The percentage of effective work time (opening + closing) compared to total time of cycle (opening + closing + pause times).
Calculation formula:

$$\%\ F = \frac{Ta + Tc}{Ta + Tc + Tp + Ti} \times 100$$

where:
Ta = opening time
Tc = closing time
Tp = pause time
Ti = interval time between one complete cycle and another

4. ELECTRONIC DEVICES (standard system)

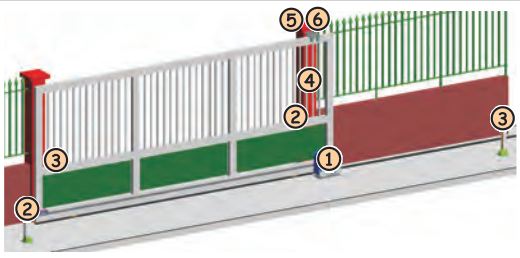


Fig. 3

Pos.	Description	Connection cable
①	Gearmotor	3x2.5 mm² (230/115V~) 4x2.5 mm² (400V~)
②	Photocell transmitter	2x0.5 mm² (TX)
③	Photocell receiver	4x0.5 mm² (RX)
④	Key-operated selector switch	2x0.5 mm²
⑤	Flashing light	2x1.5 mm²
⑥	External receiver (optional)	3x0.5 mm²

ENGLISH

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5. INSTALLING THE AUTOMATED SYSTEM

5.1. PRELIMINARY CHECKS

To ensure safety and an efficiently operating automatic system, make sure the following conditions are observed:

- The structure of the door must be suitable to be automated. Specifically, the wheel diameter must be in relation to the weight of the gate to be automated; an upper guide must be present; travel-limit mechanical stops must be fitted to prevent the gate derailing.
- The soil must permit sufficient stability for the foundation plinth.
- There must be no pipes or electrical cables in the plinth excavation area.
- If the gearmotor is exposed to passing vehicles, install, if possible, adequate means of protection against accidental impact.
- Check if an efficient earth socket is available for connecting the gearmotor.
- Make sure that there is sufficient space around the operator to enable all the installation jobs and subsequent maintenance work to be smoothly carried out.

5.2. MASONRY FOR FOUNDATION PLATE

1. Assemble the foundation plate as in Fig. 4.
2. The foundation plate must be located as shown in Fig. 5 (right closing) or Fig. 6 (left closing) to ensure correct meshing between rack and pinion.

When positioning the plate, leave the Ø 80 hole for routing the sheaths on the left, as shown in Fig. 5-6 ref. ①.

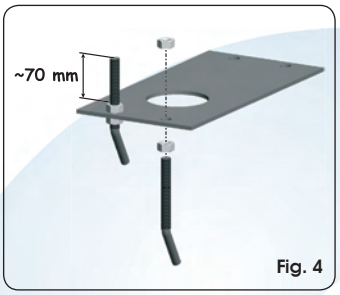
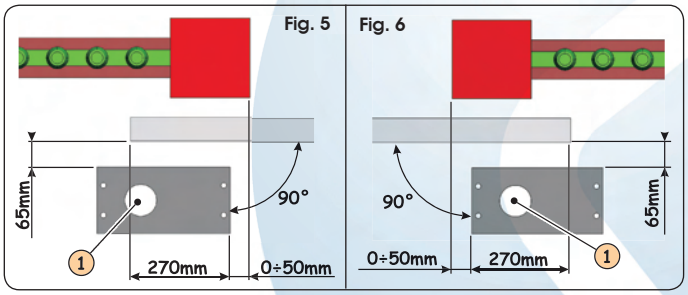


Fig. 4



3. Make a foundation plinth as in Fig. 7 and wall the foundation plate, providing one or more sheaths for routing the electrical cables. Using a spirit level, check if the plate is perfectly level. Wait for the cement to set.
4. Prepare the electrical cables for connection to the accessories and the electrical power supply as shown in Fig. 3.

To facilitate making the connections, make the cables come out by about 40 cm from the foundation plate hole (Fig. 5-6 ref. ①).

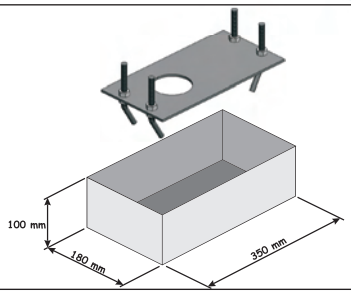


Fig. 7

5.3. MECHANICAL INSTALLATION

① Remove the motor cover, fully unscrewing the 2 upper securing screws (Fig. 8 ref. ①).
② Rotate the cover by about 30° and pull upward.
③ Withdraw the 2 lateral protective devices (Fig.8 ref. ②).

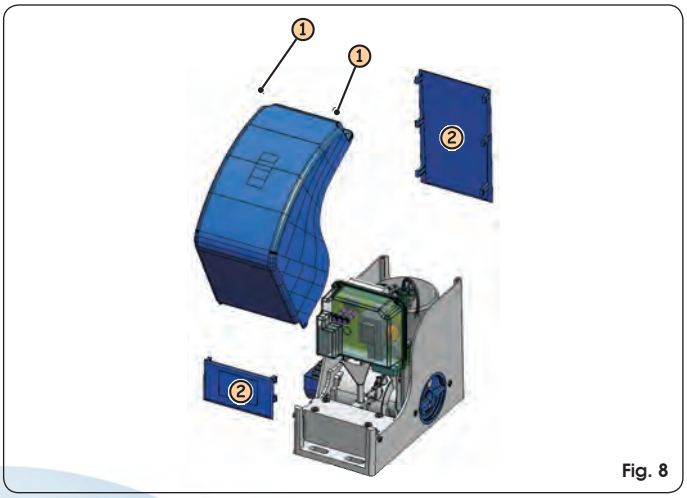


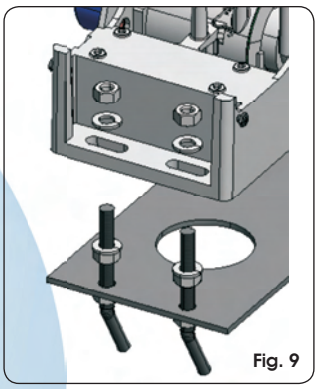
Fig. 8

④ Fit the operator on the plate, using the supplied washers and nuts as shown in Fig.9.

During this operation, route the cables through the slot on the operator's reduction element .

⑤ Adjust the height of the feet and the distance from the gate - refer to Fig. 10.

This operation is necessary to secure the rack correctly and to enable you, in future, to make any height adjustments to the motor.


Fig. 9

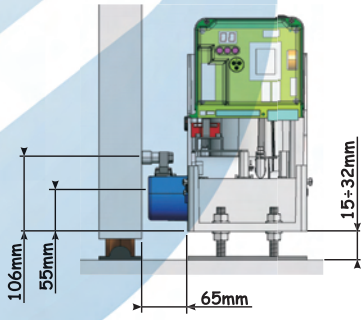


Fig. 10

⑥ Tighten the gearmotor securing screws.
⑦ Prepare the operator for manual operation as described in chapter 8.

5.4. INSTALLING THE RACK

5.4.1. STEEL RACK TO BE WELDED (FIG.11)

① Fit the three threaded pawls on the rack element, positioning them on the upper part of the slot. In this way the clearance on the slot will enable any adjustments long-term.
② Manually move the leaf to its opening position.
③ Lay the first piece of rack level on the pinion and weld the threaded pawl on the gate as shown in Fig.13.
④ Manually move the gate, checking if the rack is resting on the pinion and weld the second and third pawls.
⑤ Fit another rack element next to the previous one, using a piece of rack, as shown in Fig.14 ref. ①, to synchronise the teeth of the two elements.
⑥ Move the gate manually and weld the three threaded pawls. Carry on like this until you have fully covered the gate.

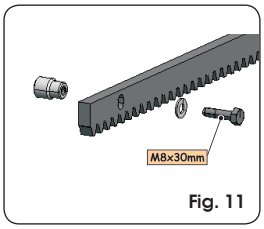


Fig. 11

Do not allow any superfluous sections of rack to project from the gate.

5.4.2. STEEL RACK TO BE SCREWED (FIG. 12)

① Manually move the leaf to its opening position.
② Rest the first section of rack on the pinion, positioning the spacer between the rack and the edge of the gate. Using a spirit level, check if the rack is horizontal and mark the perforation point with a felt-tipped pen.
③ Drill with a 6.5 mm diameter bit, and thread with an M8 male element. Screw the bolt.
④ Manually move the gate, checking if the rack is resting on the pinion and repeat the operations in point ③.
⑤ Fit another rack element next to the previous one, using a piece of rack, as shown in Fig. 14 ref. ①, to synchronise the teeth of the two elements.
⑥ Move the gate by hand and perform the securing operations as for the first element, carrying on like this until you have covered the gate completely.

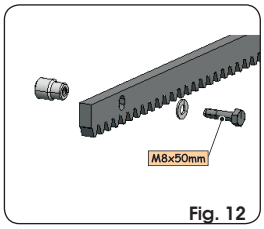
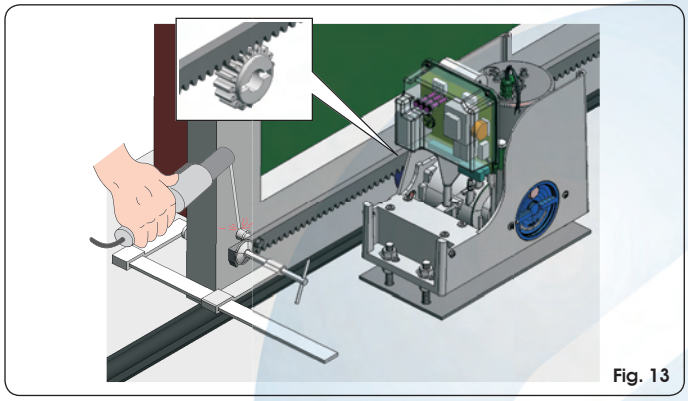


Fig. 12

Do not allow any superfluous sections of rack to project from the gate.


Fig. 13

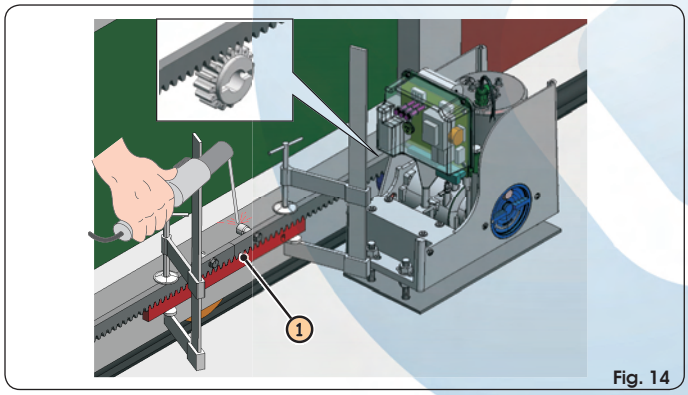


Fig. 14

Notes on installing the rack

- Make sure that, during gate travel, all the rack elements do not come out of the pinion.
- Do not, on any account, weld the rack elements either to the spacers or to each other.
- After you have finished installing the rack, to ensure correct meshing with the pinion, we advise you to lower the position of the gearmotor by about 1.5 mm (Fig.15).
- Manually check if the gate correctly reaches the travel-limit mechanical stops and if there is any friction during travel.
- Do not use grease or other lubricants between rack and pinion.

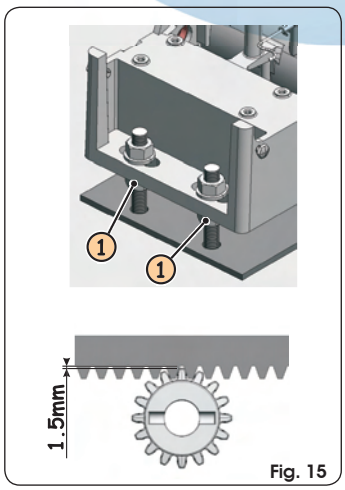


Fig. 15

6. START-UP

6.1. CONNECTION OF CONTROL BOARD

Before attempting any work on the board (connections, programming, maintenance), always turn off power.

Observe points 10, 11, 12, 13 and 14 of the GENERAL SAFETY RULES.
Follow the instructions in Fig. 3, route the cables in the raceways and make the electrical connections to the selected accessories.
Always separate power cables from control and safety cables (push-button, receiver, photocells, etc.). To prevent any electric noise whatever, use separate sheaths.

6.1.1. EARTHING

Connect the earthing cable as shown in Fig. 16.

6.1.2. CONTROL UNIT

In the "**C**" version gearmotors, the electronic control unit is secured to an adjustable support with a transparent cover.
The board programming push-buttons are located on the cover - this enables you to program the board without having to remove the cover.
To connect the control unit correctly, follow the specific instructions.

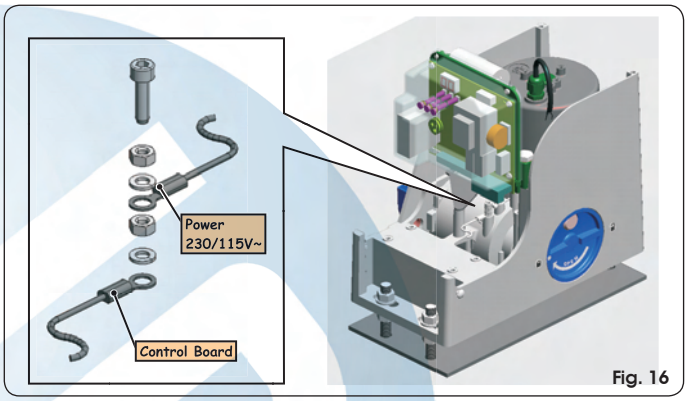


Fig. 16

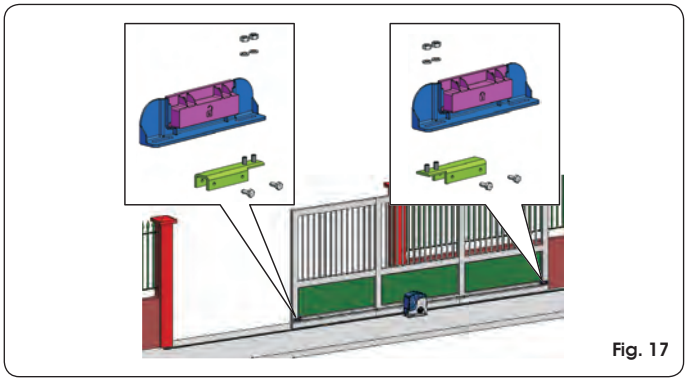
6.2. POSITIONING THE TRAVEL-LIMIT ELEMENTS

To correctly position the travel-limit magnets, the control unit must first be installed and correctly connected to all the command and safety accessories.

The operator has a magnetic limit switch, which commands gate motion to stop when the magnet, which is secured to the upper part of the rack, activates the sensor. The magnets supplied with the operator are specifically polarised and activate only one of the sensor's contacts: the closing or opening contact. The magnet activating the open gate contact bears an open padlock symbol, and, vice versa, the magnet activating the closed gate contact bears the closed padlock symbol (see Fig. 17).
Procedure for correct positioning of the two travel-limit magnets:

The operations described below refer to an installation with left side closing (see Fig. 6). For installations with right side closing (see Fig. 5), change over the two magnets on the rack.

① Assemble the two magnets as shown in Figure 17.
② Set the operator to manual mode operation - as per paragraph 8 - and power up the system


Fig. 17

③ Manually take the gate to opening position, leaving 4 cm from the travel limit mechanical stop.
④ Allow the magnet, with the padlock open, to slide , in opening direction on the rack - see figure 18. As soon as the LED on the board, referring to the opening limit-switch, goes OFF, take the magnet forward by another 10 mm and fasten it with the appropriate screws (Fig. 18 ref. ①).

ENGLISH

⑤ Do likewise for the closing magnet.
⑥ Take the gate to about halfway of its travel and relock the system (see paragraph 9).

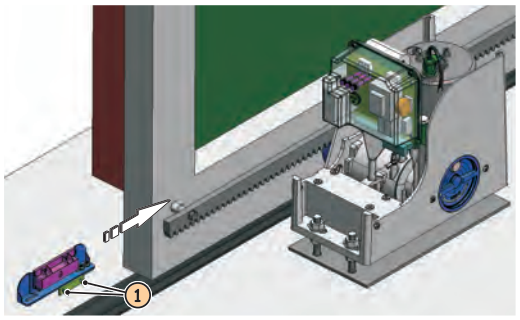


Fig. 18

Before sending a pulse, make sure that the gate cannot be moved manually.

⑦ Command a complete gate cycle to check if the travel-limit device is tripping correctly.

To avoid damaging the operator and/or interrupting operation of the automated system, leave a distance of least 40 mm from the travel limit mechanical stops.

Make sure that at the end of both the opening and closing manoeuvre, the relevant travel-limit LED stays active (LED OFF).

⑧ Make the appropriate modifications to the positions of the travel-limit magnets.

7. AUTOMATED SYSTEM TEST

Fit the lateral protective devices and re-position the motor cover, securing it with the appropriate screws (Fig. 19).

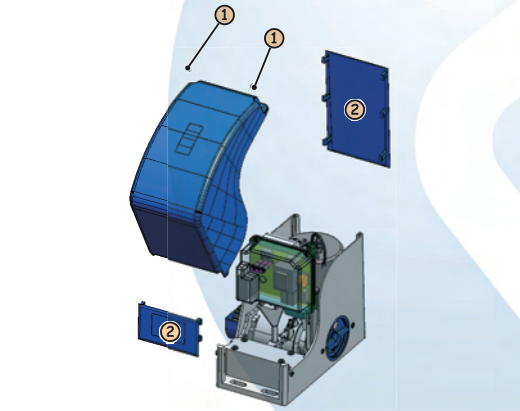
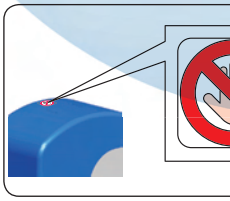


Fig. 19

Apply the danger sticker on the top of the cover (Fig. 20).
Check operating efficiency of the automated system and all accessories connected to it.
Hand the "Use Instructions" to the Customer, explain correct operation and use of the gearmotor, and indicate the potentially dangerous areas of the automated system.


Fig. 20

8. MANUAL OPERATION

The manual release is a device that makes it possible to disconnect the operator from the gate, thus enabling manual movement.

Before using the release device, cut power to the system, with the differential switch upstream of the gearmotor.

THE RELEASE DEVICE MUST NOT BE CONSIDERED AN EMERGENCY STOP

If the gate has to be moved manually due to a power cut or fault of the automated system, use the release device as follows:
1. Fit the supplied key in the lock, Fig. 21 Ref. ①, and turn it clockwise as shown in Fig. 21 Ref. ②.
2. Turn the release system clockwise by about 180°, as shown in Fig. 21 Ref. ③.
3. Open and close the gate manually.

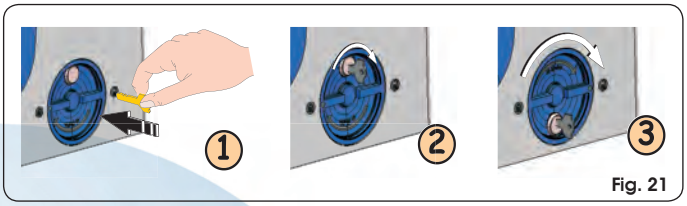


Fig. 21

9. RESTORING NORMAL OPERATION MODE

To prevent an involuntary pulse from activating the gate during the manoeuvre, cut power to the system before re-locking the operator.

1. Turn the release system anti-clockwise by about 180°, as shown in Fig. 22 ref. ①.
2. Turn the key anti-clockwise, Fig. 22 ref. ②, and remove it from the lock, as shown in Fig. 22 ref. ③.
3. Move the gate until it meshes to release.

Before powering up the system again, make sure that the gate cannot be moved manually.

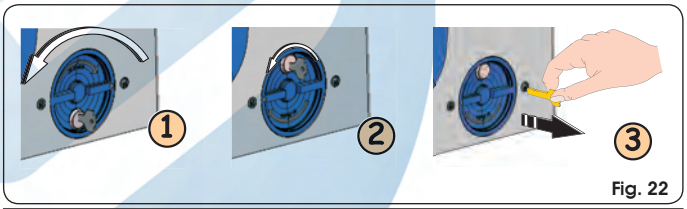


Fig. 22

10. SPECIAL APPLICATIONS

There are no special applications.

Anything not expressly specified in these instructions is expressly prohibited

11. MAINTENANCE

To ensure correct long-term operation and a constant level of safety, we advise you to generally control the system every 6 months. In the "Use Instructions" booklet, there is a form for recording maintenance jobs.

The enclosed maintenance form is purely a guideline; it cannot be ruled out that to guarantee a correctly operating automated system and a constant level of safety, maintenance operations not described in this form may be necessary.

12. REPAIRS

The User must not in any way attempt to repair or to take direct action and must solely contact qualified GENIUS personnel or GENIUS service centres.

13. ACCESSORIES

For accessories, see the GENIUS catalogue.

4. Este producto ha sido proyectado y fabricado exclusivamente para la utilización indicada en el presente manual. Cualquier uso diverso del previsto podría perjudicar el funcionamiento del producto y/o representar fuente de peligro.
5. GENIUS declina cualquier responsabilidad derivada de un uso impropio o diverso del previsto.
6. No instalen el aparato en atmósfera explosiva: la presencia de gas o humos inflamables constituye un grave peligro para la seguridad.
7. Los elementos constructivos mecánicos deben estar de acuerdo con lo establecido en las Normas EN 12604 y EN 12605.
8. Para los países no pertenecientes a la CEE, además de las referencias normativas nacionales, para obtener un nivel de seguridad adecuado, deben seguirse las Normas arriba indicadas.
9. GENIUS no es responsable del incumplimiento de las buenas técnicas de fabricación de los cierres que se han de motorizar, así como de las deformaciones que pudieran intervenir en la utilización.
10. La instalación debe ser realizada de conformidad con las Normas EN 12453 y EN 12445. El nivel de seguridad de la automación debe ser C+D.
11. Quiten la alimentación eléctrica y desconecten las baterías antes de efectuar cualquier intervención en la instalación.
12. Coloquen en la red de alimentación de la automación un interruptor omnipolar con distancia de apertura de los contactos igual o superior a 3 mm. Se aconseja usar un magnetotérmico de 6A con interrupción omnipolar.
13. Comprueben que la instalación disponga línea arriba de un interruptor diferencial con umbral de 0,03 A.
14. Verifiquen que la instalación de tierra esté correctamente realizada y conecten las partes metálicas del cierre.
15. La automación dispone de un dispositivo de seguridad antiaplastamiento constituido por un control de par. No obstante, es necesario comprobar el umbral de intervención según lo previsto en las Normas indicadas en el punto 10.
16. Los dispositivos de seguridad (norma EN 12978) permiten proteger posibles áreas de peligro de Riesgos mecánicos de movimiento, como por ej. aplastamiento, arrastre, corte.
17. Para cada equipo se aconseja usar por lo menos una señalización luminosa así como un cartel de señalización adecuadamente fijado a la estructura del bastidor, además de los dispositivos indicados en el "16".
18. GENIUS declina toda responsabilidad relativa a la seguridad y al buen funcionamiento de la automación si se utilizan componentes de la instalación que no sean de producción GENIUS.
19. Para el mantenimiento utilicen exclusivamente piezas originales GENIUS
20. No efectúen ninguna modificación en los componentes que forman parte del sistema de automación.
21. El instalador debe proporcionar todas las informaciones relativas al funcionamiento del sistema en caso de emergencia y entregar al usuario del equipo el manual de advertencias que se adjunta al producto.
22. No permitan que niños o personas se detengan en proximidad del producto durante su funcionamiento.
23. Mantengan lejos del alcance los niños los telemandos o cualquier otro emisor de impulso, para evitar que la automación pueda ser accionada involuntariamente.
24. Sólo puede transitarse entre las hojas si la cancela está completamente abierta.
25. El usuario debe abstenerse de intentar reparar o de intervenir directamente, y debe dirigirse exclusivamente a personal cualificado GENIUS o a centros de asistencia GENIUS.
26. Todo lo que no esté previsto expresamente en las presentes instrucciones debe entenderse como no permitido

DEUTSCH

HINWEISE FÜR DEN INSTALLATIONSTECHNIKER

ALLGEMEINE SICHERHEITSVORSCHRIFTEN

ACHTUNG! Um die Sicherheit von Personen zu gewährleisten, sollte die Anleitung aufmerksam befolgt werden. Eine falsche Installation oder ein fehlerhafter Betrieb des Produktes können zu schwerwiegenden Personenschäden führen.

1. Bevor mit der Installation des Produktes begonnen wird, sollten die Anleitungen aufmerksam gelesen werden.
2. Das Verpackungsmaterial (Kunststoff, Styropor, usw.) sollte nicht in Reichweite von Kindern aufbewahrt werden, da es eine potentielle Gefahrenquelle darstellt.
3. Die Anleitung sollte aufbewahrt werden, um auch in Zukunft Bezug auf sie nehmen zu können.
4. Dieses Produkt wurde ausschließlich für den in diesen Unterlagen angegebenen Gebrauch entwickelt und hergestellt. Jeder andere Gebrauch, der nicht ausdrücklich angegeben ist, könnte die Unversehrtheit des Produktes beeinträchtigen und/oder eine Gefahrenquelle darstellen.
5. Die Firma GENIUS lehnt jede Haftung für Schäden, die durch unsachgemäßen oder nicht bestimmungsgemäßen Gebrauch der Automatik verursacht werden, ab.
6. Das Gerät sollte nicht in explosionsgefährdeten Umgebungen installiert werden: das Vorhandensein von entflammbaren Gasen oder Rauch stellt ein schwerwiegendes Sicherheitsrisiko dar.
7. Die mechanischen Bauelemente müssen den Anforderungen der Normen EN 12604 und EN 12605 entsprechen.
8. Für Länder, die nicht der Europäischen Union angehören, sind für die Gewährleistung eines entsprechenden Sicherheitsniveaus neben den nationalen gesetzlichen Bezugsvorschriften die oben aufgeführten Normen zu beachten.
9. Die Firma GENIUS übernimmt keine Haftung im Falle von nicht fachgerechten Ausführungen bei der Herstellung der anzutreibenden Schließvorrichtungen sowie bei Deformationen, die eventuell beim Betrieb entstehen.
10. Die Installation muß unter Beachtung der Normen EN 12453 und EN 12445 erfolgen. Die Sicherheitsstufe der Automatik sollte C+D sein.
11. Vor der Ausführung jeglicher Eingriffe auf der Anlage sind die elektrische Versorgung und die Batterie abzunehmen.
12. Auf dem Versorgungsnetz der Automatik ist ein omnipolarer Schalter mit Öffnungsabstand der Kontakte von über oder gleich 3 mm einzubauen. Darüber hinaus wird der Einsatz eines Magnetschutzschalters mit 6A mit omnipolarer Abschaltung empfohlen.
13. Es sollte überprüft werden, ob vor der Anlage ein Differentialschalter mit einer Auslöseschwelle von 0,03 A zwischengeschaltet ist.
14. Es sollte überprüft werden, ob die Erdungsanlage fachgerecht augeführt wurde. Die Metallteile der Schließung sollten an diese Anlage angeschlossen werden.
15. Die Automation verfügt über eine eingebaute Sicherheitsvorrichtung für den Quetschschutz, die aus einer Drehmomentkontrolle besteht. Es ist in jedem Falle erforderlich, deren Eingriffsschwelle gemäß der Vorgaben der unter Punkt 10 angegebenen Vorschriften zu überprüfen.
16. Die Sicherheitsvorrichtungen (Norm EN 12978) ermöglichen den Schutz eventueller Gefahrenbereiche vor mechanischen Bewegungsrisiken, wie zum Beispiel Quetschungen, Mitschleifen oder Schnittverletzungen.
17. Für jede Anlage wird der Einsatz von mindestens einem Leuchtsignal empfohlen sowie eines Hinweisschildes, das über eine entsprechende Befestigung mit dem Aufbau des Tors verbunden wird. Darüber hinaus sind die unter Punkt "16" erwähnten Vorrichtungen einzusetzen.
18. Die Firma GENIUS lehnt jede Haftung hinsichtlich der Sicherheit und des störungsfreien Betriebs der Automatik ab, soweit Komponenten auf der Anlage eingesetzt werden, die nicht im Hause GENIUS hergestellt urden.
19. Bei der Instandhaltung sollten ausschließlich Originalteile der Firma GENIUS verwendet werden.
20. Auf den Komponenten, die Teil des Automationssystems sind, sollten keine Veränderungen vorgenommen werden.
21. Der Installateur sollte alle Informationen hinsichtlich des manuellen Betriebs des Systems in Notfällen liefern und dem Betreiber der Anlage das Anleitungsbuch, das dem Produkt beigelegt ist, übergeben.
22. Weder Kinder noch Erwachsene sollten sich während des Betriebs in der unmittelbaren Nähe der Automation aufhalten.
23. Die Funksteuerungen und alle anderen Impulsgeber sollten außerhalb der Reichweite von Kindern aufbewahrt werden, um ein versehentliches Aktivieren der Automation zu vermeiden.
24. Der Durchgang oder die Durchfahrt zwischen den Flügeln darf lediglich bei vollständig geöffnetem Tor erfolgen.
25. Der Benutzer darf direkt keine Versuche für Reparaturen oder Arbeiten vornehmen und hat sich ausschließlich an qualifiziertes Fachpersonal GENIUS oder an Kundendienstzentren GENIUS zu wenden.
26. Alle Vorgehensweisen, die nicht ausdrücklich in der vorliegenden Anleitung vorgesehen sind, sind nicht zulässig

NEDERLANDS

WAARSCHUWINGEN VOOR DE INSTALLATEUR

ALGEMENE VEILIGHEIDSVOORSCHRIFTEN

LET OP! Het is belangrijk voor de veiligheid dat deze hele instructie zorgvuldig wordt opgevolgd. Een onjuiste installatie of foutief gebruik van het product kunnen ernstig persoonlijk letsel veroorzaken.

1. Lees de instructies aandachtig door alvorens te beginnen met de installatie van het product.
2. De verpakkingsmaterialen (plastic, polystyreen, enz.) mogen niet binnen het bereik van kinderen worden gelaten, want zij vormen een mogelijke bron van gevaar.
3. Bewaar de instructies voor raadpleging in de toekomst.
4. Dit product is uitsluitend ontworpen en gebouwd voor het doel dat in deze documentatie wordt aangegeven. Elk ander gebruik, dat niet uitdrukkelijk wordt vermeld, zou het product kunnen beschadigen en/of een bron van gevaar kunnen vormen.
5. GENIUS aanvaardt geen enkele aansprakelijkheid voor schade die ontstaat uit oneigenlijk gebruik of ander gebruik dan waarvoor het automatische systeem is bedoeld.
6. Installeer het apparaat niet in een explosiegevaarlijke omgeving: de aanwezigheid van ontvlambare gassen of dampen vormt een ernstig gevaar voor de veiligheid.
7. De mechanische bouwelementen moeten in overeenstemming zijn met de bepalingen van de normen EN 12604 en EN 12605.
8. Voor niet-EEG landen moeten, om een goed veiligheidsniveau te bereiken, behalve de nationale voorschriften ook de bovenstaande normen in acht worden genomen.
9. GENIUS is niet aansprakelijk als de regels der goede techniek niet in acht genomen zijn bij de bouw van het sluitwerk dat gemotoriseerd moet worden, noch voor vervormingen die zouden kunnen ontstaan bij het gebruik.
10. De installatie dient te geschieden in overeenstemming met de normen EN 12453 en EN 12445. Het veiligheidsniveau van het automatische systeem moet C+D zijn.
11. Alvorens ingrepen te gaan verrichten op de installatie moet de elektrische voeding worden weggenomen en moeten de batterijen worden afgekoppeld.
12. Zorg op het voedingsnet van het automatische systeem voor een meerpolige schakelaar met een opening tussen de contacten van 3 mm of meer. Het wordt geadviseerd een magnetothermische schakelaar van 6A te gebruiken met meerpolige onderbreking.
13. Controleer of er bovenstrooms van de installatie een differentieelschakelaar is geplaatst met een limiet van 0,03 A.
14. Controleer of de aardingsinstallatie vakkundig is aangelegd en sluit er de metalen delen van het sluitsysteem op aan.
15. Het automatische systeem beschikt over een intrinsieke beveiliging tegen inklemming, bestaande uit een controle van het koppel. De inschakellimiet hiervan dient echter te worden gecontroleerd volgens de bepalingen van de normen die worden vermeld onder punt 10.
16. De veiligheidsvoorzieningen (norm EN 12978) maken het mogelijk eventuele gevaarlijke gebieden te beschermen tegen Mechanische gevaren door beweging, zoals bijvoorbeeld inklemming, meesleuren of amputatie.
17. Het wordt voor elke installatie geadviseerd minstens één lichtsignaal te gebruiken alsook een waarschuwingsbord dat goed op de constructie van het hang- en sluitwerk dient te worden bevestigd, afgezien nog van de voorzieningen die genoemd zijn onder punt "16".
18. GENIUS aanvaardt geen enkele aansprakelijkheid voor wat betreft de veiligheid en de goede werking van het automatische systeem, als er in de installatie gebruik gemaakt wordt van componenten die niet door GENIUS zijn geproduceerd.
19. Gebruik voor het onderhoud uitsluitend originele GENIUS-onderdelen.
20. Verricht geen wijzigingen op componenten die deel uitmaken van het automatische systeem.
21. De installateur dient alle informatie te verstrekken over de handbediening van het
22. systeem in noodgevallen, en moet de gebruiker van de installatie het bij het product geleverde boekje met aanwijzingen overhandigen.
23. Sta het niet toe dat kinderen of volwassenen zich ophouden in de buurt van het product terwijl dit in werking is.
24. Houd radio-afstandsbedieningen of alle andere impulsgevers buiten het bereik van kinderen, om te voorkomen dat het automatische systeem onopzettelijk kan worden aangedreven.
25. Ga alleen tussen de vleugels door als het hek helemaal geopend is.
26. De gebruiker mag zelf geen pogingen ondernemen tot reparaties of andere directe ingrepen, en dient zich uitsluitend te wenden tot gekwalificeerd en geautoriseerd GENIUS-personeel of een erkend GENIUS-servicecentrum.
27. Alles wat niet uitdrukkelijk in deze instructies wordt aangegeven, is niet toegestaan

Le descrizioni e le illustrazioni del presente manuale non sono impegnative. GENIUS si riserva il diritto, lasciando inalterate le caratteristiche essenziali dell'apparecchiatura, di apportare in qualunque momento e senza impegnarsi ad aggiornare la presente pubblicazione, le modifiche che essa ritiene convenienti per miglioramenti tecnici o per qualsiasi altra esigenza di carattere costruttivo o commerciale.

The descriptions and illustrations contained in the present manual are not binding. GENIUS reserves the right, whils leaving the main features of the equipments unaltered, to undertake any modifications to holds necessary for either technical or commercial reasons, at any time and without revising the present publication.

Les descriptions et les illustrations du présent manuel sont fournies à titre indicatif. GENIUS se réserve le droit d'apporter à tout moment les modifications qu'elle jugera utiles sur ce produit tout en conservant les caractéristiques essentielles, sans devoir pour autant mettre à jour cette publication .

Las descripciones y las ilustraciones de este manual no comportan compromiso alguno. GENIUS se reserva el derecho, dejando inmutadas las características esenciales de los aparatos, de aportar, en cualquier momento y sin comprometerse a poner al día la presente publicación, todas las modificaciones que considere oportunas para el perfeccionamiento técnico o para cualquier otro tipo de exigencia de carácter constructivo o comercial.

Die Beschreibungen und Abbildungen in vorliegendem Handbuch sind unverbindlich. GENIUS behält sich das Recht vor, ohne die wesentlichen Eigenschaften dieses Gerätes zu verändern und ohne Verbindlichkeiten in Bezug auf die Neufassung der vorliegenden Anleitungen, technisch bzw, konstruktiv / kommerziell bedingte Verbesserungen vorzunehmen.

De beschrijvingen in deze handleiding zijn niet bindend. GENIUS behoudt zich het recht voor op elk willekeurig moment de veranderingen aan te brengen die het bedrijf nuttig acht met het oog op technische verbeteringen of alle mogelijke andere productie- of commerciële eisen, waarbij de fundamentele eigenschappen van het apparaat gehandhaafd blijven, zonder zich daardoor te verplichten deze publicatie bij te werken.

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