

APPARECCHIATURA ELETTRONICA PER CANCELLI A BATTENTE 230V
CONTROL BOARD FOR 230V HINGED GATES
PLATINE ELECTRONIQUE POUR PORTAILS BATTANTS 230V
EQUIPO ELECTRÓNICO PARA PORTONES DE TIPO BATIENDE 230V
ELEKTRONISCHES GERÄT FÜR FLÜGELTORE 230V

JA592

ISTRUZIONI PER L'USO – NORME DI INSTALLAZIONE
USE AND INSTALLATION INSTRUCTIONS
INSTRUCTIONS POUR L'EMPLOI – NORMES D'INSTALLATION
INSTRUCCIONES PARA EL USO – NORMAS DE INSTALACIÓN
BETRIEBSANLEITUNG - INSTALLATIONSVORSCHRIFTEN

GENIUS®

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

CE

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.**
- Leggere attentamente le istruzioni prima di iniziare l'installazione del prodotto.
- I materiali dell'imballaggio (plastica, polistirolo, ecc.) non devono essere lasciati alla portata dei bambini in quanto potenziali fonti di pericolo.
- Conservare le istruzioni per riferimenti futuri.
- 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.
- GENIUS declina qualsiasi responsabilità derivata dall'uso improprio o diverso da quello per cui l'automatismo è destinato.
- Non installare l'apparecchio in atmosfera esplosiva: la presenza di gas o fumi infiammabili costituisce un grave pericolo per la sicurezza.
- Gli elementi costruttivi meccanici devono essere in accordo con quanto stabilito dalle Norme EN 12604 e EN 12605.
Per i Paesi extra-CEE, oltre ai riferimenti normativi nazionali, per ottenere un livello di sicurezza adeguato, devono essere seguite le Norme sopra riportate.
- GENIUS non è responsabile dell'inosservanza della Buona Tecnica nella costruzione delle chiusure da motorizzare, nonché delle deformazioni che dovessero intervenire nell'utilizzo.
- L'installazione deve essere effettuata nell'osservanza delle Norme EN 12453 e EN 12445. Il livello di sicurezza dell'automazione deve essere C+E.
- Prima di effettuare qualsiasi intervento sull'impianto, togliere l'alimentazione elettrica.
- 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.
- Verificare che a monte dell'impianto vi sia un interruttore differenziale con soglia da 0,03 A.
- Verificare che l'impianto di terra sia realizzato a regola d'arte e collegarvi le parti metalliche della chiusura.
- L'automazione dispone di una sicurezza intrinseca antischiacciamento costituita da un controllo di coppia. E' comunque necessario verificarne la soglia di intervento secondo quanto previsto dalle Norme indicate al punto 10.
- 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.
- 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".
- 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.
- Per la manutenzione utilizzare esclusivamente parti originali GENIUS.
- Non eseguire alcuna modifica sui componenti facenti parte del sistema d'automazione.
- 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.
- Non permettere ai bambini o persone di sostare nelle vicinanze del prodotto durante il funzionamento.
- Tenere fuori dalla portata dei bambini radiocomandi o qualsiasi altro datore di impulso, per evitare che l'automazione possa essere azionata involontariamente.
- Il transito tra le ante deve avvenire solo a cancello completamente aperto.
- L'Utente utilizzatore deve astenersi da qualsiasi tentativo di riparazione o d'intervento diretto e rivolgersi solo a personale qualificato.
- Tutto quello che non è previsto espressamente in queste istruzioni non è permesso**

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.**
- Carefully read the instructions before beginning to install the product.
- Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.
- Store these instructions for future reference.
- 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.
- GENIUS declines all liability caused by improper use or use other than that for which the automated system was intended.
- Do not install the equipment in an explosive atmosphere: the presence of inflammable gas or fumes is a serious danger to safety.

- The mechanical parts must conform to the provisions of Standards EN 12604 and EN 12605.
For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
- 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.
- The installation must conform to Standards EN 12453 and EN 12445. The safety level of the automated system must be C+E.
- Before attempting any job on the system, cut out electrical power.
- 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 breaker is recommended.
- Make sure that a differential switch with threshold of 0.03 A is fitted upstream of the system.
- Make sure that the earthing system is perfectly constructed, and connect metal parts of the means of the closure to it.
- 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.
- The safety devices (EN 12978 standard) protect any danger areas against **mechanical movement Risks**, such as crushing, dragging, and shearing.
- 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".
- GENIUS declines all liability as concerns safety and efficient operation of the automated system, if system components not produced by GENIUS are used.
- For maintenance, strictly use original parts by GENIUS.
- Do not in any way modify the components of the automated system.
- 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.
- Do not allow children or adults to stay near the product while it is operating.
- Keep remote controls or other pulse generators away from children, to prevent the automated system from being activated involuntarily.
- Transit through the leaves is allowed only when the gate is fully open.
- The user must not attempt any kind of repair or direct action whatever and contact qualified personnel only.
- Anything not expressly specified in these instructions is not permitted.**

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.**
- Lire attentivement les instructions avant d'installer le produit.
- 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.
- Conserver les instructions pour les références futures.
- 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.
- GENIUS décline toute responsabilité qui dériverait d'usage impropre ou différent de celui auquel l'automatisme est destiné.
- Ne pas installer l'appareil dans une atmosphère explosive: la présence de gaz ou de fumées inflammables constitue un grave danger pour la sécurité.
- Les composants mécaniques doivent répondre aux prescriptions des Normes EN 12604 et EN 12605.
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.
- 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.
- L'installation doit être effectuée conformément aux Normes EN 12453 et EN 12445. Le niveau de sécurité de l'automatisme doit être C+E.
- Couper l'alimentation électrique avant toute intervention sur l'installation.
- Prévoir, sur le secteur d'alimentation de l'automatisme, un interrupteur onnipolaire avec une distance d'ouverture des contacts égale ou supérieure à 3 mm. On recommande d'utiliser un magnétothermique de 6A avec interruption onnipolaire.
- Vérifier qu'il y ait, en amont de l'installation, un interrupteur différentiel avec un seuil de 0,03 A.
- Vérifier que la mise à terre est réalisée selon les règles de l'art et y connecter les pièces métalliques de la fermeture.
- 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.
- 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 dotée 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'Usager qui utilise l'installation doit éviter toute tentative de réparation ou d'intervention directe et s'adresser uniquement à un personnel qualifié.
- 26) **Tout ce qui n'est pas prévu expressément dans ces instructions est interdit.**

ADVERTENCIAS PARA EL INSTALADOR

REGLAS GENERALES PARA LA SEGURIDAD

- 1) **¡ATENCIÓN! 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.**
- 2) Lean detenidamente las instrucciones antes de instalar el producto.
- 3) Los materiales del embalaje (plástico, poliestireno, etc.) no deben dejarse al alcance de los niños, ya que constituyen fuentes potenciales de peligro.
- 4) Guarden las instrucciones para futuras consultas.
- 5) 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.
- 6) GENIUS declina cualquier responsabilidad derivada de un uso impropio o diverso del previsto.
- 7) No instalen el aparato en atmósfera explosiva: la presencia de gas o humos inflamables constituye un grave peligro para la seguridad.
- 8) Los elementos constructivos mecánicos deben estar de acuerdo con lo establecido en las Normas EN 12604 y EN 12605.
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 automatización debe ser C+E.
- 11) Quitar la alimentación eléctrica antes de efectuar cualquier intervención en la instalación.
- 12) Coloquen en la red de alimentación de la automatización 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 automatización dispone de un dispositivo de seguridad antiplastamiento 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 automatización 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 automatización.
- 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 teletandos o cualquier otro emisor de impulso, para evitar que la automatización pueda ser accionada involuntariamente.

- 24) Sólo puede transitarse entre las hojas si la cancela está completamente abierta.
- 25) El usuario no debe por ningún motivo intentar reparar o modificar el producto, debe siempre dirigirse a personal cualificado.
- 26) **Todo lo que no esté previsto expresamente en las presentes instrucciones debe entenderse como no permitido**

HINWEISE FÜR DEN INSTALLATIONSTECHNIKER

ALLGEMEINE SICHERHEITSVORSCHRIFTEN

- 1) **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.**
- 2) Bevor mit der Installation des Produktes begonnen wird, sollten die Anleitungen aufmerksam gelesen werden.
- 3) Das Verpackungsmaterial (Kunststoff, Styropor, usw.) sollte nicht in Reichweite von Kindern aufbewahrt werden, da es eine potentielle Gefahrenquelle darstellt.
- 4) Die Anleitung sollte aufbewahrt werden, um auch in Zukunft Bezug auf sie nehmen zu können.
- 5) 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.
- 6) Die Firma GENIUS lehnt jede Haftung für Schäden, die durch unsachgemäßen oder nicht bestimmungsgemäßen Gebrauch der Automatik verursacht werden, ab.
- 7) Das Gerät sollte nicht in explosionsgefährdeten Umgebungen installiert werden: das Vorhandensein von entflammenden Gasen oder Rauch stellt ein schwerwiegendes Sicherheitsrisiko dar.
- 8) Die mechanischen Bauelemente müssen den Anforderungen der Normen EN 12604 und EN 12605 entsprechen.
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 anzuweisenden 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+E sein.
- 11) Vor der Ausführung jeglicher Eingriffe auf der Anlage ist die elektrische Versorgung 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 ausgeführt 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 wurden.
- 19) Bei der Instandhaltung sollten ausschließlich Originalteile der Firma GENIUS verwendet werden.
- 20) Auf den Komponenten, die Teil des Automationsystems sind, sollten keine Veränderungen vorgenommen werden.
- 21) Der Installateur sollte alle Informationen hinsichtlich des manuellen Betriebs des Systems in Nothfällen 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 Automatik zu vermeiden.
- 24) Der Durchgang oder die Durchfahrt zwischen den Flügeln darf lediglich bei vollständig geöffnetem Tor erfolgen.
- 25) Der Betreiber sollte keinerlei Reparaturen oder direkte Eingriffe auf der Automation ausführen, sondern sich hierfür ausschließlich an qualifiziertes Fachpersonal wenden.
- 26) **Alle Vorgehensweisen, die nicht ausdrücklich in der vorliegenden Anleitung vorgesehen sind, sind nicht zulässig**

CONTROL BOARD JA592

1. WARNINGS

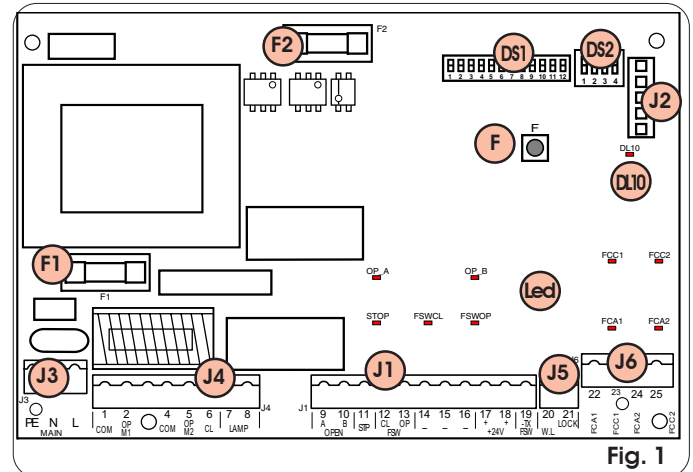
Important: Before attempting any work on the control board (connections, maintenance), always turn off power.

- Install, upstream of the system, a differential thermal breaker (Residual Current Device) with adequate tripping threshold.
- Connect the earth cable to the appropriate terminal on the J3 connector of the equipment (see fig.2).
- Always separate power cables from control and safety cables (push-button, receiver, photocells, etc.). To avoid any electric noise, use separate sheaths or a shielded cable (with earthed shield).
- Earth conductors of motors, control board and power supply must be connected to suitable screw terminals having such dimensions to receive wires with section up to 2.5mm². The terminals must be firmly secured near the power supply terminal of the board, with no possibility of turning. No more than one wire must be connected to each terminal. This terminal must be marked with the symbol \oplus .
- The control board must be housed in a plastic enclosure with minimum dimensions 250mmx190mmx90mm and with IP55 protection class or more, using tubes and/or cable glands having the same IP class.

2. TECHNICAL SPECIFICATIONS

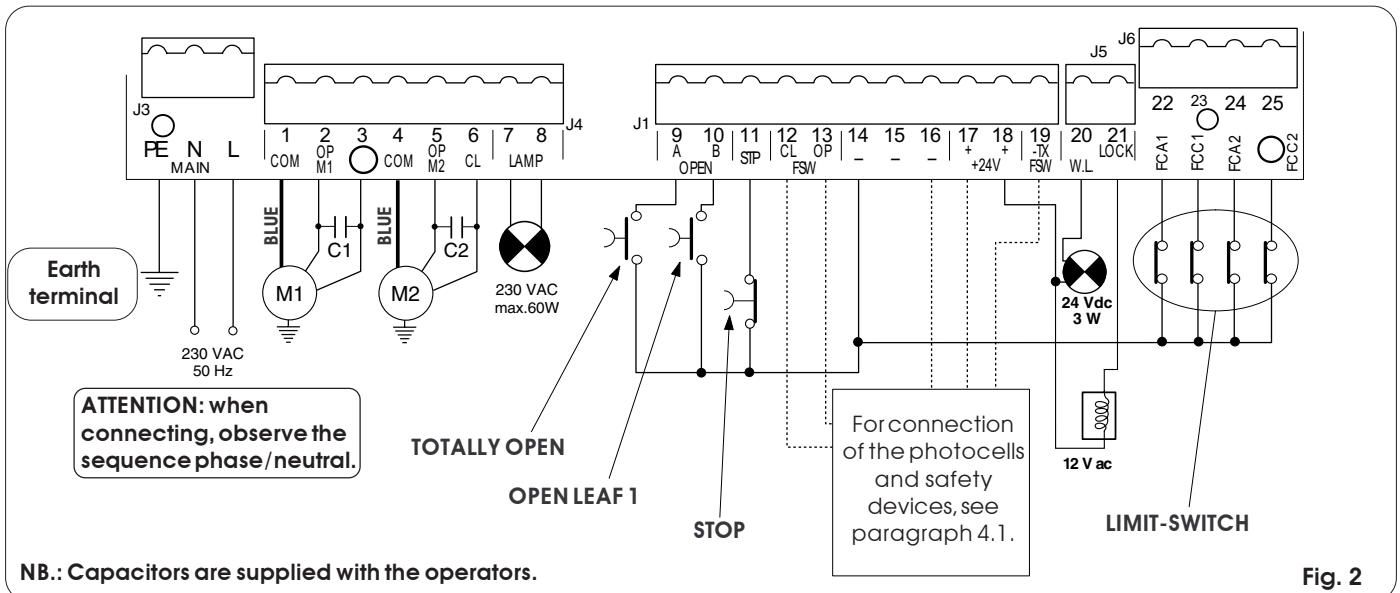
Powersupply	230 V~ (+6% -10%) -50 Hz
Absorbedpower	10 W
Motor max. load	800 W
Accessories max. load	0,5 A
Electric lock max. load	15 VA
Operating ambient temperature	-20°C +55°C
Protection fuses	2 (see fig. 1)
Function logics	Automatic / Semi-automatic / "Stepped" safety devices / Semi-automatic B / Dead-man C / "Stepped" semi-automatic
Opening/closing time	Programmable (from 0 to 120s)
Pause time	0, 10, 20, 30, 60, 120 s
Closing leaf delay	0, 5, 10, 20 s
Opening leaf delay	2s (Can be disabled with the dip-switch)
Thrust force	Dip-switch adjustable on 8 levels for each motor
Terminal board inputs	Open / Open freeleaf / Stop / Limit-switch Opening safety devices / Closing safety devices / Power supply + Earth
Terminal board outputs	Flashing lamp - Motors - 24 Vdc accessories powersupply - 24 Vdc indicator-light - Fail safe - 12 V ac electric lock powersupply
Rapid connector	Rapid connector 5 pins
Selectable functions	Logics and pause times - Thrust force - Opening and closing leaf delay - Reversing stroke - Fail safe - Closing safety devices logic - Pre-flashing
Programming key	Simple or Advanced work time learning, with or without Limit-switch and/or encoder

3. LAYOUT AND COMPONENTS



Led OP_A	TOTALLY OPEN LED
Led OP_B	LED: OPEN LEAF 1 / CLOSE
Led STOP	LED STOP
Led FSWCL	LED: CLOSING SAFETY DEVICES
Led FSWOP	LED: OPENING SAFETY DEVICES
Led FCA1	LED: LEAF 1 OPENING LIMIT-SWITCH
Led FCC1	LED: LEAF 1 CLOSING LIMIT-SWITCH
Led FCA2	LED: LEAF 2 OPENING LIMIT-SWITCH
Led FCC2	LED: LEAF 2 CLOSING LIMIT-SWITCH
DL10	LED: TIME LEARNING SIGNALLING
J1	LOW VOLTAGE TERMINAL BOARD
J2	RAPID CONNECTOR 5 PINS
J3	230 VAC POWER SUPPLY TERMINAL BOARD
J4	MOTORS AND FLASHING LAMP CONNECTION TERMINAL BOARD
J5	INDICATOR-LIGHT AND ELECTRIC LOCK TERMINAL BOARD
J6	LIMIT-SWITCH AND ENCODER TERMINAL BOARD
F1	MOTORS AND TRANSFORMER PRIMARY WINDING FUSE (F 5A)
F2	LOW VOLTAGE AND ACCESSORIES FUSE (T 800mA)
F	TIME LEARNING SELECTION PUSH-BUTTON
DS1	1ST GROUP OF MICROSWITCH PROGRAMMING
DS2	2ND GROUP OF MICROSWITCH PROGRAMMING

4. ELECTRIC CONNECTIONS

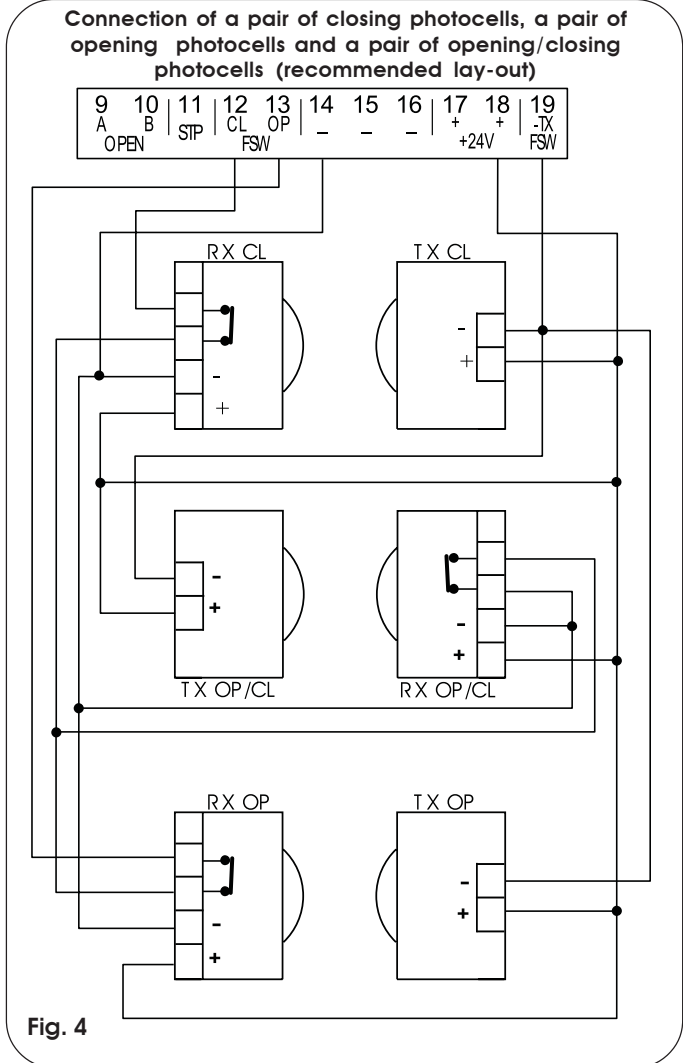
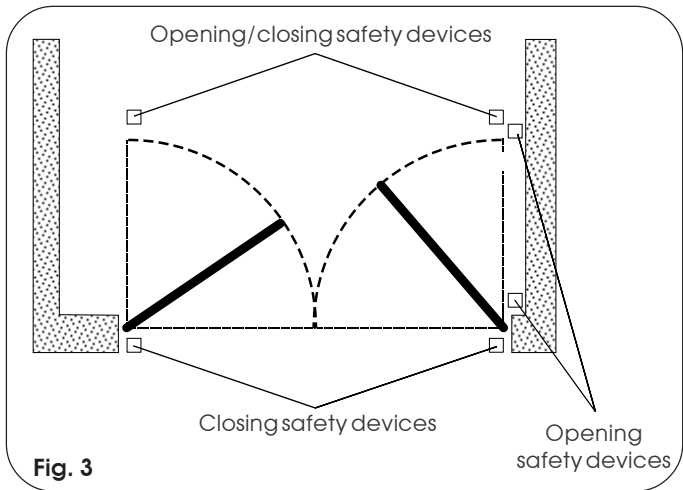


4.1. Connection of photocells and safety devices

Before connecting the photocells (or other devices) we advise you to select the type of operation according to the movement area they have to protect (see fig.3):

Opening safety devices: they operate only during the gate opening movement and, therefore, they are suitable for protecting the area between the opening leaves and fixed obstacles (walls, etc) against the risk of impact and crushing.

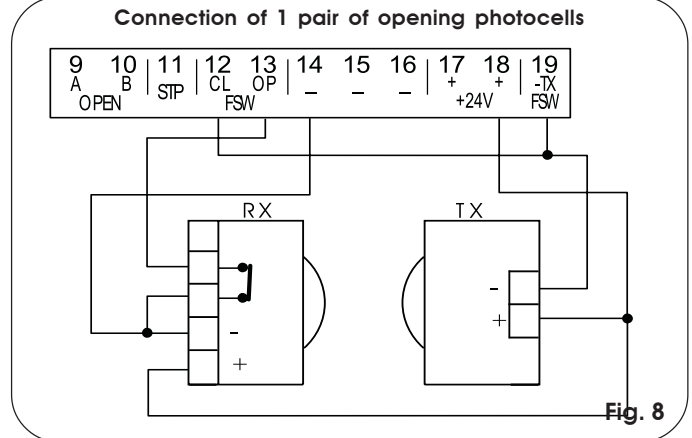
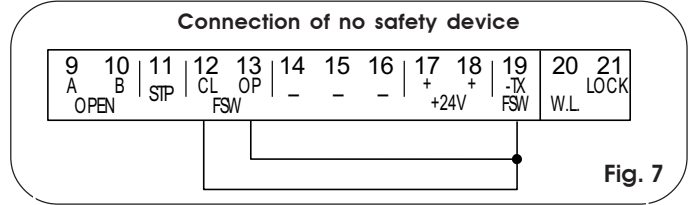
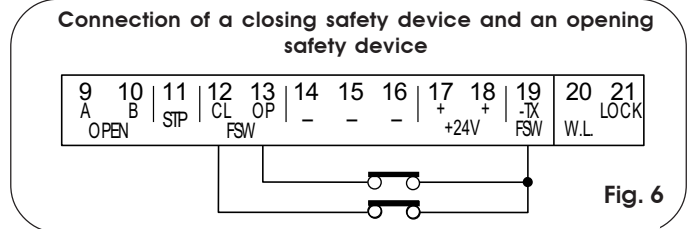
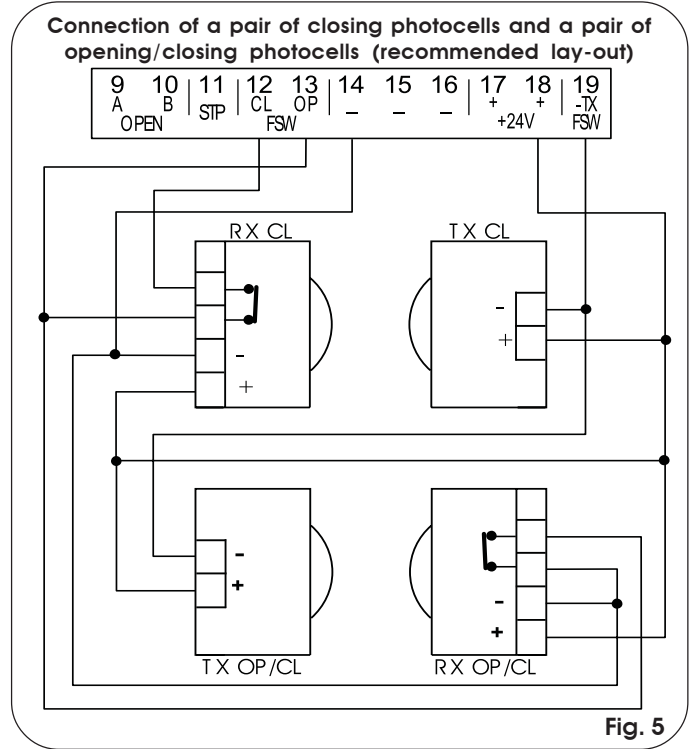
Closing safety devices: they operate only during the gate closing movement and, therefore, they are suitable for protecting the closing area against the risk of impact.

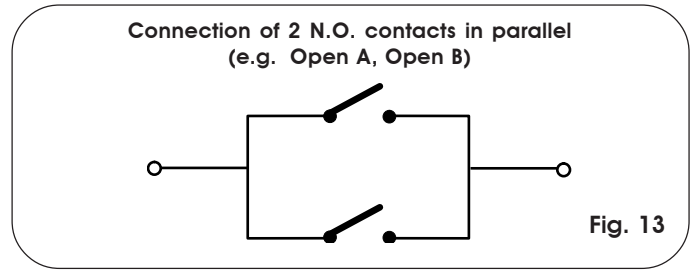
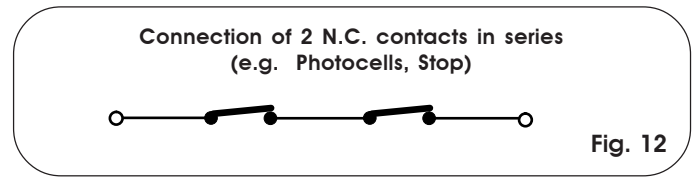
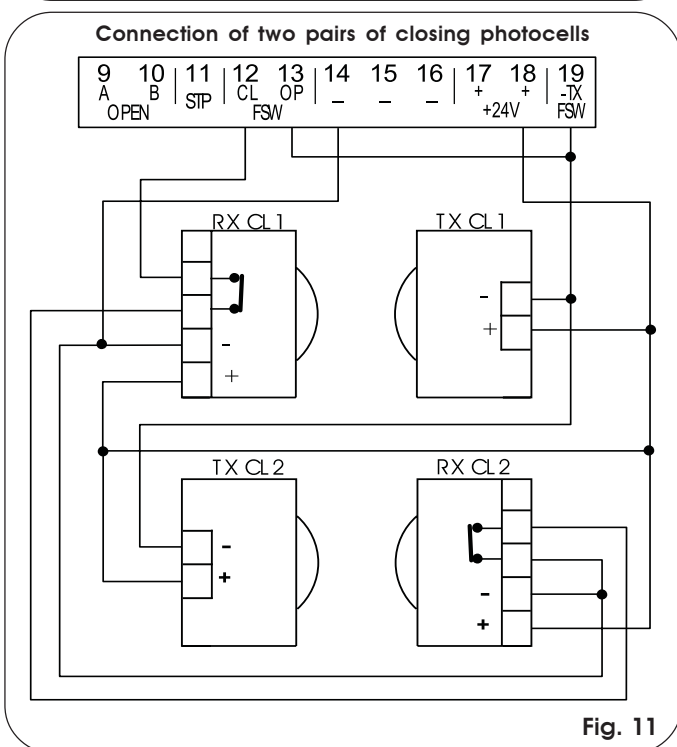
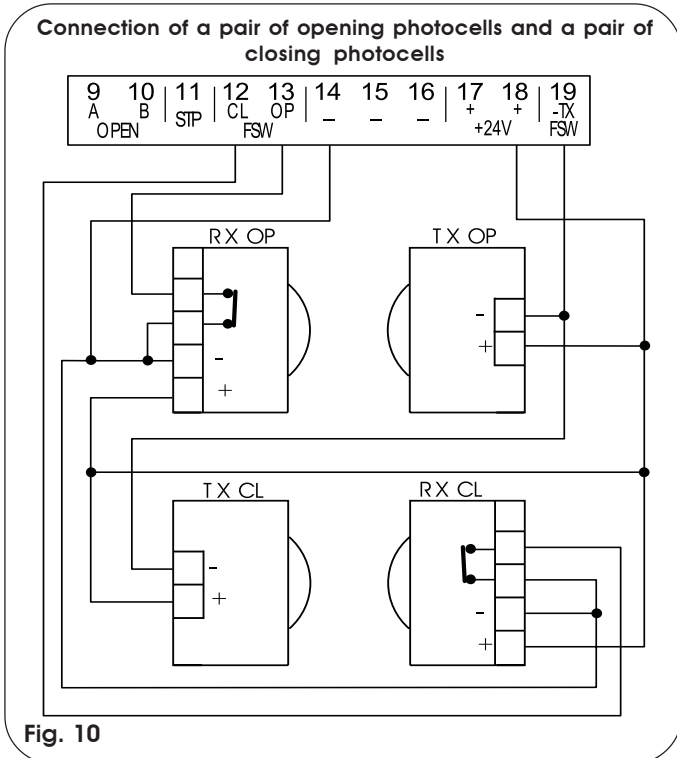
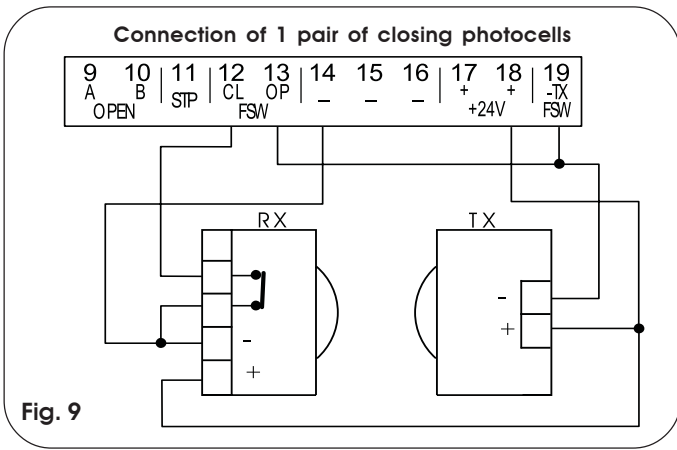


Opening/closing safety devices: they operate during the gate opening and closing movements and, therefore, they are suitable for the opening and closing areas against the risk of impact.

It is recommended use of the lay-out in fig. 4 (in the event of fixed obstacles at opening) or in fig. 5 (no fixed obstacles).

N.B. If two or more devices have the same function (opening or closing), they should be connected to each other in series (see fig. 12). N.C. contacts must be used.





4.2. Terminal board J3 - Power supply (fig. 2)

- PE: Earth connection
- N : 230 V~ power supply (Neutral)
- L : 230 V~ power supply (Line)

NB.: For correct operation, the board must be connected to the earth conductor in the system. Install an adequate differential thermal breaker (RCD) upstream of the system.

4.3. Terminal board J4 - Motors and flashing lamp (fig. 2)

- M1** : Terminals 1/2/3 = COM/OP/CL: Connection to Motor 1
Can be used in the single-leaf application
- M2** : Terminals 4/5/6 = COM/OP/CL: Connection to Motor 2
Cannot be used in the single-leaf application
- LAMP** : Terminals 7/8 = Flashing lamp output (230 V ~)

4.4. Terminal board J1 - Accessories (fig. 2)

OPEN A - Terminal 9 plus a negative = "Total Opening" command (N.O.): any pulse generator (push-button, detector, etc.) which, by closing a contact, commands opening and/or closing of both gate leaves.

To install several full opening pulse generators, connect the N.O. contacts in parallel (see fig. 13).

OPEN B - Terminal 10 plus a negative = "Partial Opening" command (N.O.) / Closing: any pulse generator (push-button, detector, etc.) which, by closing a contact, commands opening and/or closing of the leaf driven by motor M1. In the B and C logics, it always commands closing of both leaves.

To install several partial opening pulse generators, connect the N.O. contacts in parallel (see fig. 13).

STP - Terminal 11 plus a negative = STOP contact (N.C.): any device (e.g. a push-button) which, by opening a contact, is able to stop gate movement.

To install several STOP devices, connect the N.C. contacts in series (see fig. 12).

NB.: If STOP devices are not connected, jumper connect the STP terminals and - common.

CLFSW - Terminal 12 plus a negative = Closing safety devices contact (N.C.): The purpose of the closing safety devices are to protect the leaf movement area during closing. During closing, in the A-SP-E-EP logics, the safety devices reverse the movement of the gate leaves, or stop and reverse the movement when they are released (see programming of microswitch DS2 - SW2). During the closing cycle in logics B and C, they interrupt movement. They never operate during the opening cycle. If the **closing safety devices** operate when the gate is open, they prevent the leaf closing movement.

NB.: If no closing safety devices are connected, jumper connect terminals CL and -TX FSW (fig. 7).

OPFSW - Terminal 13 plus a negative = Opening safety devices contact (N.C.): The purpose of the opening safety devices are to protect the leaf movement area during opening. During opening, in the **A-SP-E-EP** logics, the safety devices stop the movement of the gate leaves and reverse the movement when they are released. During the opening cycle in logics **B** and **C**, they interrupt movement. They never operate during the closing cycle.

If the **opening safety devices** operate when the gate is closed, they prevent the leaf opening movement.

NB.: If no opening safety devices are connected, jumper connect inputs OP and -TX FSW (fig. 7).

ñ - Terminal 14/15/16 = Negative for power supply to accessories, are all negative.

+ - Terminal 17/18 = 24 Vdc - Positive for power supply to accessories, are all positive.

Important: Accessories max. load is 500 mA. To calculate absorption values, refer to the instructions for individual accessories.

-TX FSW - Terminal 19 = Negative for power supply to photocell transmitters.

If you use this terminal for connecting the negative for supplying power to the photocell transmitters, you may, if necessary, also use the FAIL SAFE function (see programming of microswitch **DS2 - SW3**).

If this function is enabled, the equipment checks operation of the photocells before every opening or closing cycle.

4.5. Terminal board J5 - Indicator-light and Electric lock (fig.2)

W.L. - Terminal 20 = Power supply to indicator-light

Connect a 24 Vdc - 3 W max. indicator-light, if required, between this terminal and the +24V supply. To avoid compromising correct operation of the system, **do not exceed** the indicated power.

LOCK - Terminal 21 = Power supply to electric lock

If required/necessary, connect a 12 V ac electric lock between terminal 21 and the terminal 18 the +24V supply.

4.6. Connector J2 - Rapid connector 5 pins

This is used for rapid connection. Connect the accessory, with the components side facing the inside of the card. Insert and remove only after switching off power.

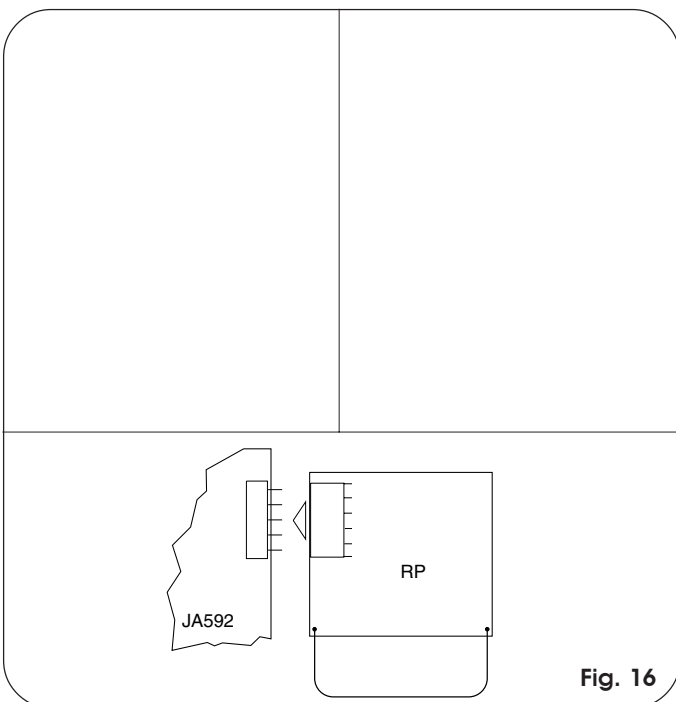


Fig. 16

4.7. Terminal board J6 - Limit-switches and/or encoder(fig.2)

These inputs are designed for connection of opening and closing limit-switches which, according to type of programming - can command either leaf stop or start of deceleration. Unconnected limit-switches must be jumper connected (if none are connected, this is not necessary).

Encoders can also be used to detect the leaf's angular position and to thus obtain deceleration and stop positions independent of work time.

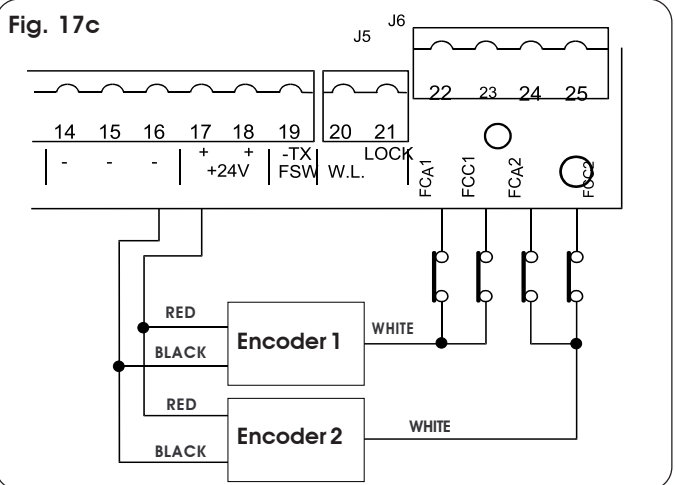
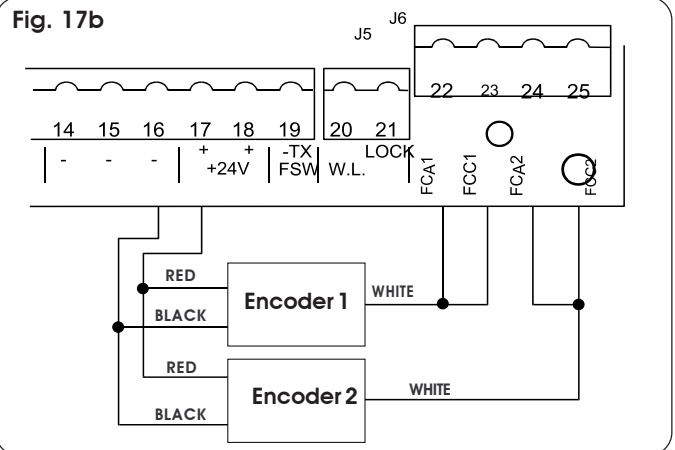
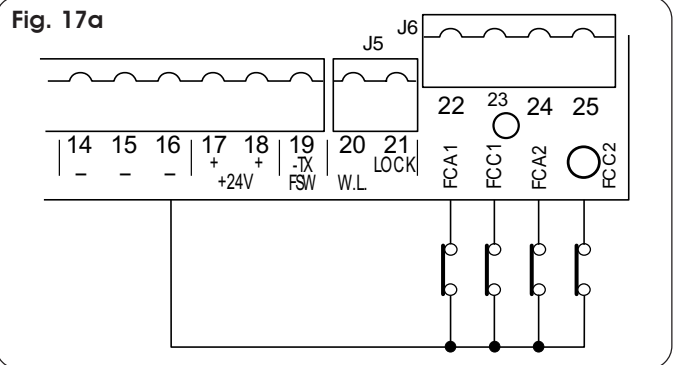
Limit-switches and encoders can also be used in combination to stop movement before the mechanical stop limit is reached. To wire, see fig. 17a, 17b and 17c.

FCA1 - Leaf 1 opening limit-switch

FCC1 - Leaf 1 closing limit-switch

FCA2 - Leaf 2 opening limit-switch

FCC2 - Leaf 2 closing limit-switch



N.B.: Maximum configurations are shown on the drawings. All intermediate configurations are allowed, using only some elements (only 1 encoder, only 1 limit-switch, 2 encoders and 2 limit-switches etc.).

5. MICROWITCH PROGRAMMING

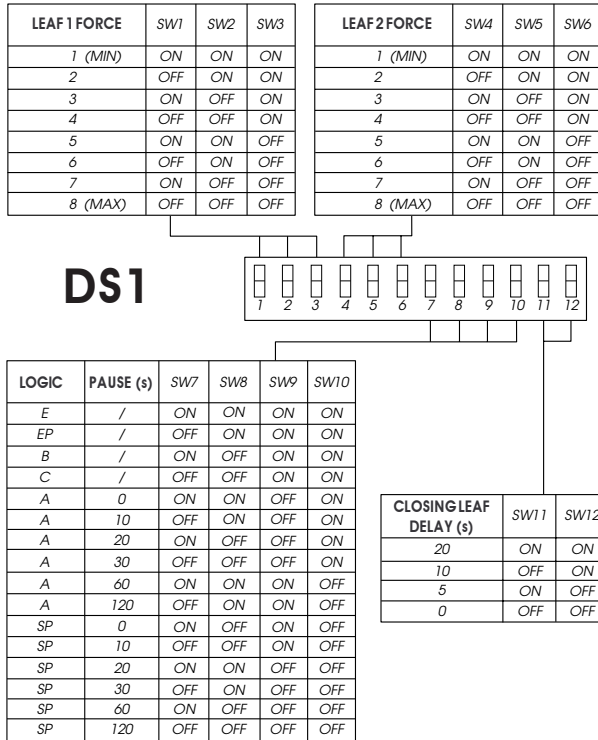


Fig. 18

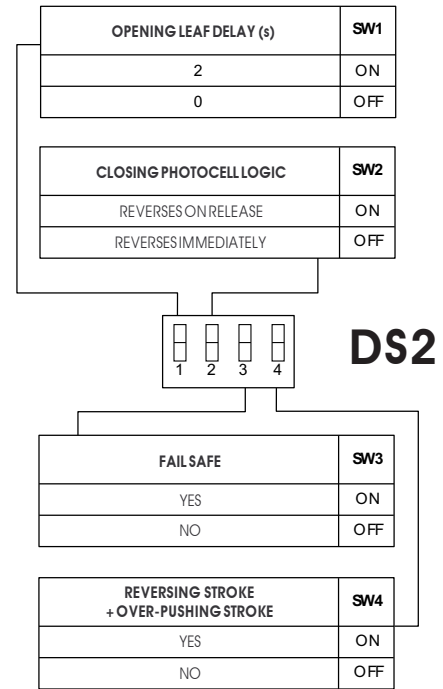


Fig. 19

The equipment is endowed with two groups of microswitches - DS1 (fig. 18) and DS2 (fig. 19) - which make it possible to program the gate operation parameters.

5.1. MICROWITCHES DS1 (fig. 18)

Leaf 1 and 2 force

By using microswitches SW1, SW2 and SW3, the force (and thus anti-crushing safety) of the operator connected to leaf 1 can be programmed. The same operation has to be repeated on the motor connected to leaf 2, by using microswitches SW4, SW5 and SW6.

Function logic

The automated system's function logic can be selected with microswitches SW7, SW8, SW9 and SW10. By selecting an automatic logic (A, SP), the combination of microswitches enables selection of pause time too (waiting time, in opening position, before automatic re-closing).

The available logics - their operation is described in tables 3/a-b-c-d-e-f, are as follows: A - SP (Automatic), E - EP - B (Semi-automatic), C (Dead-man).

Closing leaf delay

Programming of microswitches SW11 and SW12 enables delay of the closing start of leaf 1 with respect to leaf 2, in order to avoid the leaves overlapping during movement, and thus increase the safety of the system.

5.2. MICROWITCHES DS2 (fig. 19)

Opening leaf delay

Programming of microswitch SW1 enables delay of the opening start of leaf 2 with respect to leaf 1, in order to avoid the leaves obstructing each other during the initial stage of movement.

Closing photocells logic

By using microswitch SW2, you can select the type of behaviour of the automated system if the photocells protecting the gate closing movement are engaged. You can obtain either immediate reversing of the leaves or a stop followed by reversing when the photocells are disengaged.

Fail safe

Programming the microswitch SW3 makes it possible to activate or de-activate the photocells control test. When Fail safe is active, the equipment checks the photocells before every opening or closing movement.

Reversing stroke + over-pushing stroke

By using the microswitch SW4, you can activate the "reversing stroke" and the "over-pushing stroke". The "reversing stroke" pushes the leaves to close for a few moments before opening the gate, thus facilitating release of the electric lock. The "over-pushing stroke" commands a closing thrust at full force when the gate has already reached its stop limit, thus facilitating the locking of the electric lock.

6. START-UP

6.1. LED CHECK

The table below shows the status of the LEDs in relation to the status of the inputs.

Note the following: **LED LIGHTED** = closed contact

LED OFF = open contact

Check the state of the LEDs as per Table.

Operation of the status signalling LEDs

LEDs	LIGHTED	OFF
OP_A	Command activated	Comando inattivo
OP_B	Command activated	Comando inattivo
STOP	Command inactive	Command activated
FSWCL	Safety devices disengaged	Safety devices engaged
FSWOP	Safety devices disengaged	Safety devices engaged
FCA1 (if used)	Limit-switch free	Limit-switch engaged
FCC1 (if used)	Limit-switch free	Limit-switch engaged
FCC2 (if used)	Limit-switch free	Limit-switch engaged
FCA2 (if used)	Limit-switch free	Limit-switch engaged

NB.: The status of the LEDs while the gate is at rest are shown in bold.

Furthermore, the DL10 LED is on the board and functions as detailed in the following table:

DL10		
Gate closed at rest: OFF	Gate moving or on pause: like indicator-light	Time learning: flashes rapidly

6.2. ROTATION DIRECTION AND FORCE CHECK

- 1) Program the functions of the control board according to need, as shown in Chapter 5.
- 2) Cut power to the electronic control equipment.
- 3) Release the operators and manually move the gate to the mid-point of the opening angle.
- 4) Re-lock the operators.
- 5) Restore power.
- 6) Send and opening command on the OPEN A input (fig.2) and check if the gate leaves are being commanded to open.

N.B.: If the first OPEN A pulse commands a closing, cut power and change over the phases of the electric motor (brown and black wires) on the terminal board.

- 7) Check power setting of the motors and, if necessary, modify it (see Chapter 5.1).

N.B.: If using hydraulic operators, force should be programmed to maximum level (8)

- 8) Stop leaf movement with a STOP command.
- 9) Release the operators, close the leaves and re-lock the operators.

6.3. LEARNING OF OPERATING TIMES

WARNING: during the learning procedure, the safety devices are disabled! Therefore any transit must be avoided in the leaf movement area when this operation is carried out.

Opening/closing time is established by a learning procedure which varies slightly according to whether you are using limit-switches.

6.3.1. LEARNING OF NORMAL TIMES

- SIMPLE LEARNING:

Check if the leaves are closed, and then press F push-button for one second: DL10 LED begins flashing and the leaves begin the opening movement.

Wait for the leaf to reach the opening stop limit and then supply an OPEN A pulse (with the radio control or with the key controlled push-button) to stop the movement: the leaves stop and the DL10 LED stops flashing.

The procedure has ended and the gate is ready to operate. Next pulse closes leaves and they stop on automatically reaching closed position.

- ADVANCED COMPLETE LEARNING:

Check if the leaves are closed, and then press F push-button for more than 3 seconds: DL10 LED begins flashing and the leaf 1 begins the opening movement. The following functions can be commanded by the OPEN A pulses (by radio control or key controlled push-button):

- 1 ∞ OPEN - Deceleration at opening of leaf 1
- 2 ∞ OPEN - Leaf 1 stops at opening and leaf 2 begins its opening movement
- 3 ∞ OPEN - Deceleration at opening of leaf 2
- 4 ∞ OPEN - Leaf 2 stops at opening and immediately begins its closing movement
- 5 ∞ OPEN - Deceleration at closing of leaf 2
- 6 ∞ OPEN - Leaf 2 stops at closing and leaf 1 begins its closing movement
- 7 ∞ OPEN - Deceleration at closing of leaf 1
- 8 ∞ OPEN - Leaf 1 stops at closing

The DL10 LED stops flashing and the gate is ready for normal operation.

Notes: *if you wish to eliminate deceleration in certain stages, wait for the leaf to reach its stop-limit and supply 2 consecutive Open pulses (by 1 second).*

if only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 Open pulses until the leaf begins to close, and then resume normal operation.

if wind effected areas it is best to allow 2 second after the leaf reaches open stop before supplying Open A to ensure full closing.

if limit switches or encoder must be used in condominium applications in order to guarantee the repeatability of the slow-down. Otherwise the leaf could not reach the limit stop with slow-down.

if, during closing / opening, the cycle stops for more consecutive times, the leaf could not reach the limit stop with slow-down. At the first complete cycle without interruptions, the system recognizes the limit stops and carries out again the programmed slow-downs.

6.3.2. LEARNING WITH LIMIT-SWITCHES

Learning with limit-switches can be done in two different ways:

- SIMPLE LEARNING:

Check if the leaves are closed, and then press F push-button for 1 second: DL10 LED begins flashing and the leaves begin the opening movement.

The motors stop automatically when the opening limit-switches are reached, but an OPEN A pulse must be given (by radio control or key push-button) to end the cycle; the leaves stop and the DL10 LED stops flashing.

The procedure has ended and the gate is ready to operate. Next pulse closes leaves and they stop on automatically reaching closed position.

- ADVANCED COMPLETE LEARNING:

Check if the leaves are closed, and then press the F push-button for more than 3 seconds: DL10 LED begins flashing and leaf 1 begins the opening movement. The leaves automatically decelerate when they reach the limit-switches, and therefore, it is sufficient to inform the equipment that the stop limits have been reached by means of OPEN A pulses (by radio control or key push-button):

- FCA1 - Deceleration at opening of leaf 1
- 1 ∞ OPEN - Leaf 1 stops at opening and leaf 2 begins its opening movement
- FCA2 - Deceleration at opening of leaf 2
- 2 ∞ OPEN - Leaf 2 stops at opening and immediately begins its closing movement
- FCC2 - Deceleration at closing of leaf 2
- 3 ∞ OPEN - Leaf 2 stops at closing and leaf 1 begins its closing movement
- FCC1 - Deceleration at closing of leaf 1
- 4 ∞ OPEN - Leaf 1 stops at closing

the DL10 LED stops flashing and the gate is ready for normal operation

Notes: *if you wish to eliminate deceleration in some stages, you must supply an Open pulse within 1 second of reaching the limit-switch.*

if some limit-switches are not installed, start the corresponding deceleration by supplying an Open pulse (which replaces the limit-switch).

if only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 Open pulses until the leaf begins to close, and then resume normal operation.

if wind effected areas it is best to allow 2 second after the leaf reaches open stop before supplying Open A to ensure full closing.

6.3.3. LEARNING TIMES WITH ENCODER

Learning with the encoder can be done in two different ways:

- SIMPLE LEARNING:

Check if the leaves are closed, and then press F push-button for 1 second: DL10 LED begins flashing and the leaves begin the opening movement.

The movement stops automatically when the opening stop limit is reached and the DL10 LED stops flashing.

The procedure has ended and the gate is ready to operate, using fixed deceleration.

- COMPLETE LEARNING:

Check if the leaves are closed, and then press the F push-button for more than 3 seconds: DL10 LED begins flashing and leaf 1 begins the opening movement. The following functions can be commanded by the OPEN A pulses (by radio control or key push-button):

- 1∞ OPEN - Leaf 1 Decelerates at opening (it stops automatically on reaching the stop limit)
- 2∞ OPEN - Leaf 2 opening movement begins
- 3∞ OPEN - Leaf 2 Decelerates at opening (it stops automatically on reaching the stop limit)
- 4∞ OPEN - Leaf 2 closing movement begins
- 5∞ OPEN - Leaf 2 decelerates at closing (it stops automatically on reaching the stop limit)
- 6∞ OPEN - Leaf 1 closing movement begins
- 7∞ OPEN - Leaf 1 Decelerates at closing (it stops automatically on reaching the stop limit)

The DL10 LED stops flashing and the gate is ready for normal operation.

Notes: *if the deceleration pulse should be supplied a little earlier with respect to the stop limit to prevent the leaf reaching it at full speed (it would be taken for an obstacle).*

if only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 Open pulses until the leaf begins to close, and then resume normal operation.

if for a correct operation, the mechanical limit stop during opening and closing is absolutely necessary.

6.3.4. LEARNING TIMES WITH ENCODER + LIMIT-SWITCHES

Learning with the encoder + Limit-switches can be done in two different ways:

- SIMPLE LEARNING:

Carry out the same procedure as for limit-switch learning. The encoder is used only as an obstacle sensor.

- COMPLETE LEARNING:

Carry out the same procedure as for limit-switch learning. The encoder is used only as an obstacle sensor.

Note: *if some limit-switches are not installed, start the corresponding deceleration by supplying an Open pulse (which replaces the limit-switch).*

if only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 Open pulses until the leaf begins to close, and then resume normal operation.

6.4. PRE-FLASHING

If you wish to increase the equipment's safety level, you can activate the pre-flashing function which enables the flashing lamp to go on 5 seconds before the leaf starts to move.

Pre-flashing activation procedure:

- 1 - check if the gate is closed
- 2 - open and keep open the **Stop** contact
- 3 - check if the **DL10** LED is OFF (if lighted, pre-flashing is already active)
- 4 - briefly press the **F** push-button and check if the **DL10** LED lights up.
- 5 - close the **Stop** contact (DL10 goes OFF).

Procedure for disabling the function:

- 1 - check if the gate is closed
- 2 - open and keep open the **Stop** contact
- 3 - check if the **DL10** LED is lighted (if OFF, pre-flashing is already disabled)
- 4 - briefly press the **F** push-button and check if the **DL10** LED is OFF.
- 5 - close the **Stop** contact

7. OBSTACLE DETECTION

The obstacle detection occurs in the following ways:

ī during the gate opening phase:

If an obstacle is detected during the opening phase of the gate, the leaves reverse their motion up to the complete gate re-closure observing the leaf closing delay, if set. At the end of the closing phase, the gate waits for a new OPEN command to resume operation.

After having received the OPEN command, the leaves start a new opening movement. If an obstacle is detected again (obstacle not removed) the leaf that detects it performs a brief reversal of motion and then stops, whereas the leaf that does not detect any obstacle continues the opening movement up to the opening mechanical stop point. After the mechanical stop point has been reached, according to the selected function logic, the control unit starts the pause time count or waits for an OPEN command.

At the end of the set pause time or when the OPEN command has been received, the control unit starts a reset phase consisting in a closing movement of the leaves followed by a gate total opening in a decelerated way. When the opening stop point has been reached, the control unit resumes the normal cycle stored in the memory.

ī during the gate closing phase:

If an obstacle is detected during the closing phase of the gate, the leaves reverse their motion up to the complete re-opening of the leaves. At the end of the opening phase, the control unit behaves according to the selected logic, i.e. it starts the pause time count if an automatic logic was selected or waits for an OPEN command.

At the end of the pause time or when the OPEN command has been received, the leaves start a new closing movement. If the obstacle persists and is detected again by the gate, the leaf that detected it stays at rest, whereas the other leaf continues the closing movement up to the leaf total closure.

When the closing stop point has been reached, the control unit waits for an OPEN command to resume the operation with a reset cycle consisting in the opening of the leaves and in the following re-closure at decelerated speed according to the selected logic.

8. AUTOMATED SYSTEM TEST

When you have finished programming, check if the system is operating correctly.

Most important of all, check if the force is adequately adjusted and if the safety devices are operating correctly.

Table 3/ a

PULSES							
GATE STATUS	OPEN - A	OPEN - B	STOP	OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES	OP / CLOS. SAFETY DEVICE	W.L.
CLOSED	Opens leaves and closes them after pause time (t)	Operates the leaf and closes after pause time (t)	No effect (OPEN disabled)	No effect	No effect	No effect (OPEN disabled)	OF
OPEN on PAUSE	Re-opens leaves immediately (1)	Re-opens leaves immediately (1)	Stops operation	No effect	Freezes pause until release (2) (OPEN disabled)	Locks and, on release, reverses at opening	Ighed
AT CLOSING	Re-opens the leaves immediately (1)	Re-operates the leaf immediately (1)		No effect (saves OPEN)	see paragraph 5.2		
AT OPENING	No effect (1)	Re-opens the leaf immediately	Reverses at closing	No effect	No effect	Locks and, on release, continues opening	Ighed
LOCKED	Closes the leaf/leaves	Closes the leaf/leaves	No effect (OPEN disabled)	No effect	No effect (OPEN disabled)	No effect (OPEN disabled)	Ighed

Table 3/ b

PULSES							
GATE STATUS	OPEN - A	OPEN - B	STOP	OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES	OP / CLOS. SAFETY DEVICE	W.L.
CLOSED	Operates leaves and closes them after pause time	Operates the leaf and closes after pause time	No effect (OPEN disabled)	No effect	No effect	No effect (OPEN disabled)	OF
OPEN on PAUSE	Stops operation	Stops operation	Stops operation	No effect	Closes after 5 (OPEN disabled)	Locks and, on release, reverses at opening	Ighed
AT CLOSING	Re-opens the leaves immediately	Re-operates the leaf immediately		No effect (saves OPEN)	see paragraph 5.2		
AT OPENING	Re-closes the leaves immediately	Re-closes the leaf immediately	Reverses at closing	No effect	No effect	Locks and, on release, continues opening	Ighed
LOCKED	Closes the leaf/leaves	Closes the leaf/leaves	No effect (OPEN disabled)	No effect	No effect (OPEN disabled)	No effect (OPEN disabled)	Ighed

Table 3/ c

PULSES							
GATE STATUS	OPEN - A	OPEN - B	STOP	OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES	OP / CLOS. SAFETY DEVICE	W.L.
CLOSED	Opens the leaves	Opens the free leaf	No effect (OPEN disabled)	No effect	No effect	No effect (OPEN disabled)	OFF
OPEN	Re-closes the leaves immediately	Re-closes the leaf immediately	Stops operation	No effect	No effect (OPEN disabled)	Locks and, on release, reverses at opening	Ighed
AT CLOSING	Re-opens the leaves immediately	Re-opens the leaf immediately (1)		No effect (saves OPEN)	see paragraph 5.2.		
AT OPENING	Stops operation	Stops operation	Reverses at closing	No effect	No effect	Locks and, on release, continues opening	Ighed
LOCKED	Closes the leaf/leaves (with CLOSING SAFETY DEVICES active, opens at 2nd pulse)	Closes the leaf/leaves	No effect (OPEN disabled)	No effect	No effect (OPEN disabled)	No effect (OPEN disabled)	Ighed

Table 3/ d

PULSES							
GATE STATUS	OPEN - A	OPEN - B	STOP	OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES	OP / CLOS. SAFETY DEVICE	W.L.
CLOSED	Operates the leaves	Operates the free leaf	No effect (OPEN disabled)	No effect	No effect	No effect (OPEN disabled)	OFF
OPEN	Re-closes the leaf/leaves immediately	Re-closes the leaf/leaves immediately	Stops operation	No effect (OPEN disabled)	No effect (OPEN disabled)	Locks and, on release, reverses at opening	Ighed
AT CLOSING	Stops operation	Stops operation		No effect (saves OPEN)	see paragraph 5.2.		
AT OPENING	Stops operation	Stops operation	Reverses at closing	No effect	No effect	Locks and, on release, continues opening	Ighed
LOCKED	Restarts moving in reverse direction (always closes after a Stop)	Restarts moving in reverse direction (always closes after a Stop)	No effect (OPEN disabled)	No effect (if it must open, it disables OPEN)	No effect (if it must close, it disables OPEN)	No effect (OPEN disabled)	Ighed

Table 3/e

LOGIC "B"							PULSES			W.L.
GATE STATUS	OPEN - A	OPEN - B	STOP	OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES	OP/CLOS. SAFETY DEVICES	OP/CLOS. SAFETY DEVICES	W.L.		
CLOSED	Opens the door/leaves	No effect	No effect (OPEN-A disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	OF		
OPEN	No effect	Closes the door/leaves	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	lighted		
AT CLOSING	Reverses at opening	No effect	Stops operation	No effect	Stops operation (OPEN-B disabled)	Stops operation (OPEN-A/B disabled)	Stops operation (OPEN-A/B disabled)	flashing		
AT OPENING	No effect	No effect	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	Stops operation (OPEN-A/B disabled)	Stops operation (OPEN-A/B disabled)	lighted		
LOCKED	Opens the door/leaves	Closes the door/leaves	No effect (OPEN-A/B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	No effect (OPEN-A/B disabled)	No effect (OPEN-A/B disabled)	lighted		

Table 3/f

LOGIC "C"							PULSES			W.L.
GATE STATUS	COMMANDS ALWAYS PRESSED		STOP	OPENING SAFETY DEVICES		CLOSING SAFETY DEVICES		OP/CLOS. SAFETY DEVICES	W.L.	
	OPEN - A	OPEN - B		OPENING SAFETY DEVICES	CLOSING SAFETY DEVICES					
CLOSED	Opens the door/leaves	No effect	No effect (OPEN-A disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	OF		
OPEN	No effect	Closes the door/leaves	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	No effect (OPEN-A disabled)	No effect (OPEN-B disabled)	lighted		
AT CLOSING	Stops operation		Stops operation	No effect (OPEN-A disabled)	Stops operation (OPEN-B disabled)	Stops operation (OPEN-A/B disabled)	Stops operation (OPEN-A/B disabled)	flashing		
AT OPENING		Stops operation		Stops operation (OPEN-A disabled)	No effect	Stops operation (OPEN-A/B disabled)	Stops operation (OPEN-A/B disabled)	lighted		

(1) If maintained, it prolongs the pause until disabled by the command (timer function)

(2) If remaining pause time is shorter than 5 sec., when safety devices are released, it closes after 5 sec.

NB.: Effects on other active pulse inputs in brackets.

DICHIARAZIONE CE DI CONFORMITÀ	EC COMPLIANCE DECLARATION	DÉCLARATION CE DE CONFORMITÉ
<p>Fabbricante: GENIUS S.p.A. Indirizzo: Via Padre Elzi, 32 24050 - Grassobbio BERGAMO - ITALIA</p> <p>Dichiara che: L'apparecchiatura elettronica JA592</p> <p>• è conforme ai requisiti essenziali di sicurezza delle seguenti direttive CEE:</p> <ul style="list-style-type: none"> • 2006/95/CE direttiva Bassa Tensione. • 2004/108/CE direttiva Compatibilità Elettromagnetica <p>Note aggiuntive: questi prodotti sono stati sottoposti a test in una configurazione tipica omogenea (tutti i prodotti di costruzione GENIUS s.r.l.).</p> <p>Grassobbio, 30.12.2009</p> <p>L'Amministratore Delegato D. Gianantoni</p>	<p>Manufacturer: GENIUS S.p.A. Address: Via Padre Elzi, 32 24050 - Grassobbio BERGAMO - ITALY</p> <p>Declares that: the JA592 electronic</p> <p>• conforms to the essential safety requirements of the following EEC directives:</p> <ul style="list-style-type: none"> • 2006/95/EC Low Voltage directive. • 2004/108/EC Electromagnetic Compatibility directive. <p>Notes: these products have been subject to testing procedures carried out under standardised conditions (all products manufactured by GENIUS s.r.l.).</p> <p>Grassobbio, 30.12.2009</p> <p>Managing Director D. Gianantoni</p>	<p>Fabricant: GENIUS S.p.A. Adresse: Via Padre Elzi, 32 24050 - Grassobbio BERGAMO - ITALIE</p> <p>Déclare que: L'appareillage électronique JA592</p> <p>• est conforme aux exigences essentielles de sécurité des directives CEE suivantes:</p> <ul style="list-style-type: none"> • 2006/95/CE directive Basse Tension. • 2004/108/CE directive Compatibilité Électromagnétique. <p>Note supplémentaire: ces produits ont été soumis à des essais dans une configuration typique homogène (tous les produits sont fabriqués par GENIUS s.r.l.).</p> <p>Grassobbio, le 30.12.2009</p> <p>L'Administrateur Délégué D. Gianantoni</p>
<p>DECLARACIÓN CE DE CONFORMIDAD</p> <p>Fabrizante: GENIUS S.p.A. Dirección: Via Padre Elzi, 32 24050 - Grassobbio BERGAMO - ITALIA</p> <p>Declara que: El equipo electrónico JA592</p> <p>• cumple con los requisitos esenciales de seguridad de las siguientes directivas CEE:</p> <ul style="list-style-type: none"> • 2006/95/CE directiva de Baja Tensión. • 2004/108/CE directiva de Compatibilidad Electromagnética. <p>Nota: los productos mencionados han sido sometidos a pruebas en una configuración típica homogénea (todo productos fabricado por GENIUS s.r.l.).</p> <p>Grassobbio, 30.12.2009</p> <p>Administrador Delegado D. Gianantoni</p>	<p>EG-KONFORMITÄTSERKLÄRUNG</p> <p>Hersteller: GENIUS S.p.A. Adresse: Via Padre Elzi, 32 24050 - Grassobbio BERGAMO - ITALIEN</p> <p>erklärt: das elektronisch Gerät JA592</p> <p>• den wesentlichen Sicherheitsbestimmungen der folgenden EWG-Richtlinien entspricht:</p> <ul style="list-style-type: none"> • 2006/95/EG Niederspannungsrichtlinie. • 2004/108/EG Richtlinie zur elektromagnetischen verträglichkeit. <p>Anmerkung: die o.g. produkte sind in einer typischen und einheitlichen weise getestet (alle von GENIUS s.r.l. gebaute produkte).</p> <p>Grassobbio, 30.12.2009</p> <p>Der Geschäftsführer D. Gianantoni</p>	<p>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.</p> <p>The descriptions and illustrations contained in the present manual are not binding. GENIUS reserves the right, whilst 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

GENIUS®

GENIUS S.p.A.
Via Padre Elzi, 32
24050 - Grassobbio
BERGAMO-ITALY
tel. 0039.035.4242511
fax. 0039.035.4242600
info@geniusg.com
www.geniusg.com

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