

B G

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**MANUALE
ISTRUZIONI
E CATALOGO
RICAMBI**

Alza barriera
stradale
elettromeccanico.

Ⓒ

**INSTRUCTIONS
MANUAL
AND SPARE
PARTS
CATALOGUE**

*Electromechanical
boom gate.*

Ⓕ

**LIVRET
D'INSTRUCTIONS
ET CATALOGUE
DES
RECHANGES**

Barriera levante
électromécanique.

Ⓓ

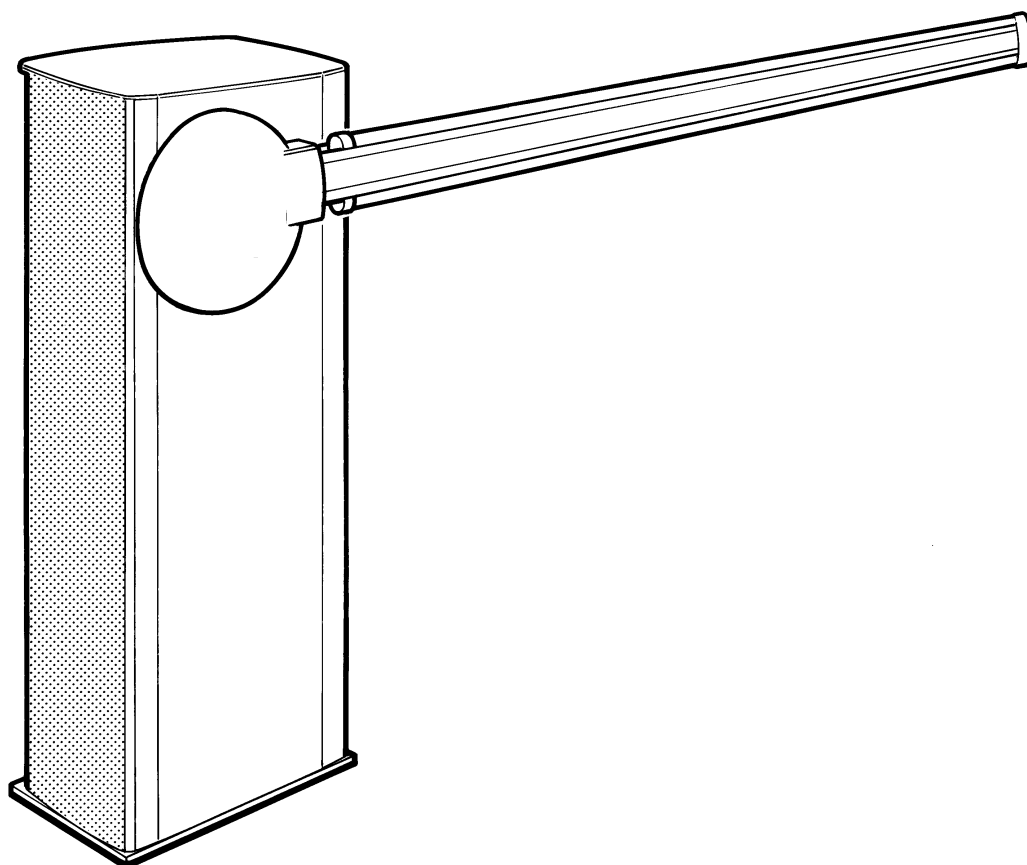
**ANLEITUNGSHEFT
UND
ERSATZTEIL-
KATALOG**

*Das
Elektromechanischer
straßentor*

Ⓔ

**MANUAL DE
INSTRUCCIONES
Y CATÁLOGO
DE RECAMBIOS**

Elevador de
barrera vial
electromecánico



QUESTO LIBRETTO È DESTINATO SOLO ALL'INSTALLATORE.

L'installazione dovrà essere effettuata solamente da personale professionalmente qualificato in conformità a quanto previsto dalla legge n° 46 del 5 marzo 1990 e successive modifiche ed integrazioni e nel pieno rispetto delle norme UNI 8612.

**MODELLI E CARATTERISTICHE - MODELS AND CHARACTERISTICS - MODÈLES ET CARACTÉRISTIQUES
 MODELLE UND EIGENSCHAFTEN - MODELOS Y CARACTERÍSTICAS**

BG 4	Ⓛ Barriera automatica in acciaio zincato e verniciato con tempo di apertura 3 - 5 sec. luce netta max 4mt.	ⓁⓁ Automatic boom gate in galvanised, painted steel with an opening time of 3 to 5 seconds; maximum net opening is 4 metres.	Ⓛ Barrière automatique en acier zingué et peint avec temps d'ouverture 3 - 5 s passage net 4 m max.	Ⓛ Automatische Schranke aus verzinktem und lackiertem Stahl mit Öffnungszeit von 3 bis 5 Sekunden und 4 Metern maximaler Nettoöffnung-sweite.	Ⓛ Barrera automática de acero galvanizado y pintado, con tiempo de apertura 3 - 5 seg., longitud neta máx. 4 m.
BG 6	Barriera automatica in acciaio zincato e verniciato con tempo di apertura 5 - 8 sec. luce netta max 6mt.	Automatic boom gate in galvanised, painted steel with an opening time of 5 to 8 seconds; maximum net opening is 6 metres.	Barrière automatique en acier zingué et peint avec temps d'ouverture 5 - 8 s passage net 6 m max.	Automatische Schranke aus verzinktem und lackiertem Stahl mit Öffnungszeit von 5 bis 8 Sekunden und 6 Metern maximaler Nettoöffnung-sweite.	Barrera automática de acero galvanizado y pintado, con tiempo de apertura 5 - 8 seg., longitud neta máx. 6 m.
"BG" • Di serie comprende Standard comprises • Comprend de série • Ist serienmäßig mit folgendem ausgestattet. • De serie incluye	A - Armadio con motoriduttore a 24 Vdc. B - Centrale elettronica di comando. C - Attacco per asta. D - Base di ancoraggio con zanche.	A - Cubicle with 24 V dc gearmotor B - Electronic control unit C - Connection for bar D - Anchorage base with fish-tail clamps	A - Armoire avec motoréducteur à 24 Vdc B - Centrale électronique de commande C - Raccord pour barre D - Base d'ancrage avec pattes de fixation.	A - Schaltschrank mit 24 V GS Getriebemotor. B - Elektronische Steuerzentrale. C - Anschluss für die Stange. D - Verankerungsbasis mit Expansionsbeinen.	A - Armario con motorreductor de 24 Vcc. B - Central electrónica de mando. C - Fijación para barrera. D - Base de anclaje con grapas.

DATI TECNICI - TECHNICAL DATA - DONNÉES TECHNIQUES - TECHNISCHE DATEN - DATOS TÉCNICOS

	Unità di misura - Unit of measure Unité de mesure - Maßeinheit Unidad de medida	BG 4	BG 6		
Alimentazione - Power supply - Alimentation Speisung - Alimentación	Vac 50 Hz	230	230		
	Vdc	24	24		
Potenza assorbita - Absorbed power Puissance absorbée - Aufgenommene Leistung Potencia absorbida	W	180	100		
Assorbimento di linea - Line input Absorption de ligne - Linienaufnahme Absorción de la línea	A	1	0.5		
Assorbimento motore - Motor absorption Absorption moteur - Nennstrom des Motors Absorción del motor	A	8	5		
Rapporto di riduzione - Reduction ratio Rapport de reduction - Untersetzungsverhältnis Relacion de reduccion		1 / 456			
Coppia - Torque - Couple - Drehmoment - Par	N•m	150	220		
Tempo di apertura - Opening time Temps d'ouverture - Öffnungszeit Tiempo de apertura	s.	3.5	7		
Temperatura di esercizio - Working temperature Température de service - Betriebstemperatur Temperatura de servicio	°C (Min./Max.)	-20° ÷ +70°			
Ciclo di lavoro - Working cycle Cycle de travail - Arbeitszyklus Ciclo de trabajo	%	100			
Peso motore - Motor weight - Poids moteur Motorgewicht - Peso del motor	kg	46	54		

QUADRO D'INSIEME - OVERALL PICTURE - CADRE GÉNÉRAL - ÜBERSICHTZEICHNUNG - ESQUEMA DE CONJUNTO

- I**
LIMITI DI IMPIEGO
- GB**
LIMITS OF USE
- F**
LIMITES D'UTILISATION
- D**
EINSATZGRENZEN
- E**
LÍMITES DE EMPLEO

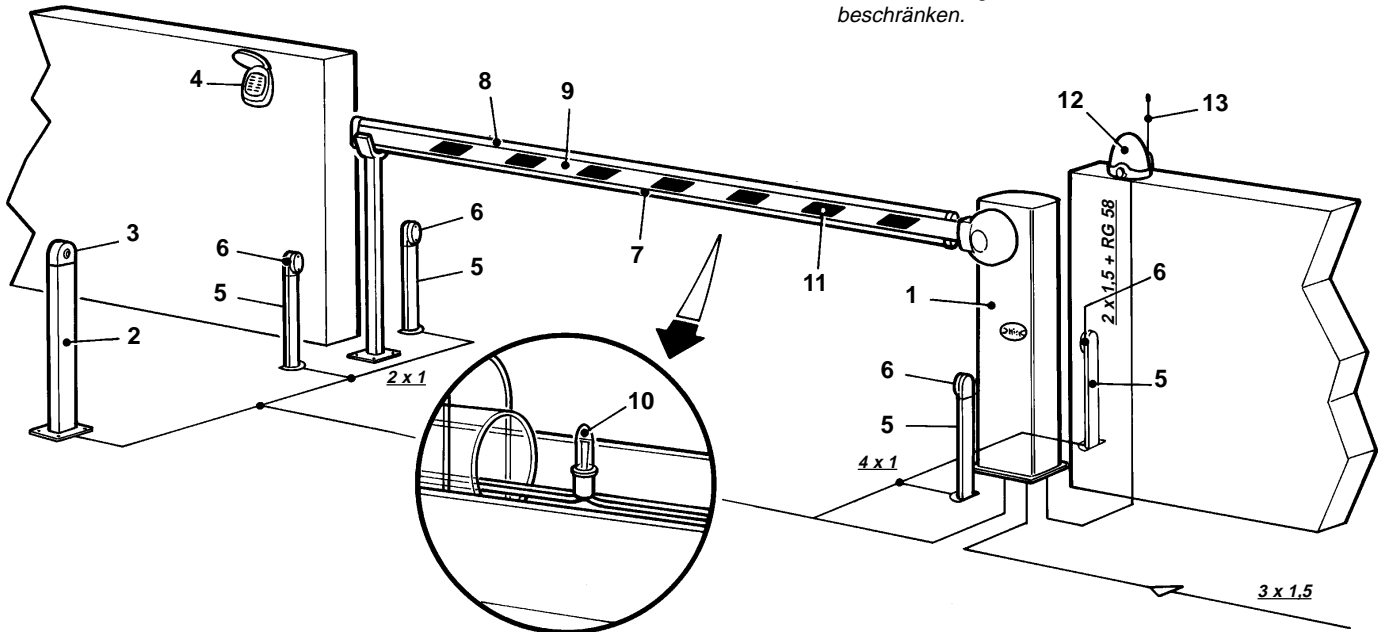
Applicando all'asta tutti gli accessori opzionali, limitarsi ad una lunghezza max. di mt. 5 per BG6 e di mt. 3,5 per BG4.

When installing all the optional accessories on the rod, envisage a max. rod length of 5 m. for BG6 and 3,5 m for BG4.

En appliquant à la lisse tous les accessoires en option, se limiter à une longueur maximum de 5 m pour BG 6 et de 3,5 m pour BG4.

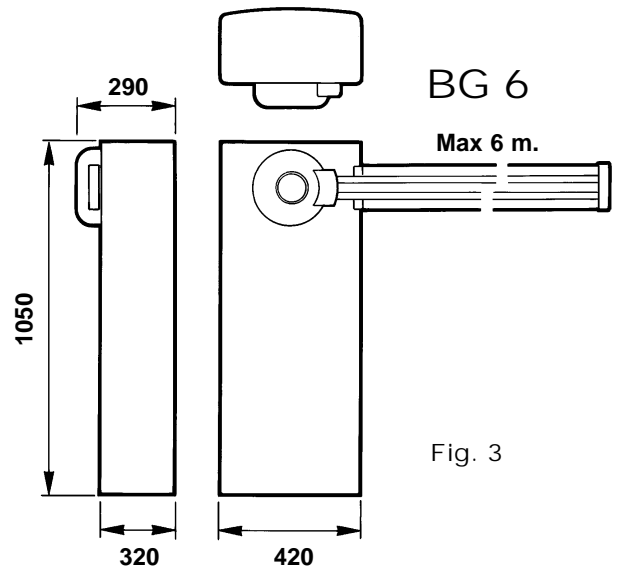
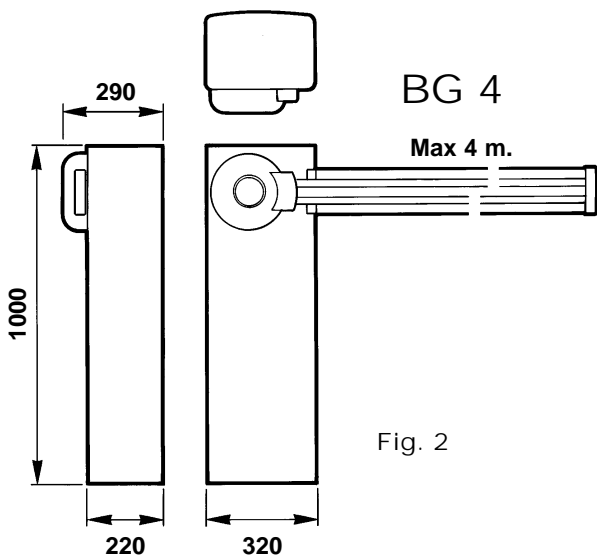
Bei der Anbringung aller Sonderzubehörteile an der Stange muss man sich bei BG6 auf eine Höchstlänge von 5 m und bei BG4 auf eine Höchstlänge von 3,5 m beschränken.

Si aplica a la barrera todos los accesorios opcionales, la longitud máxima debe ser de 5 m para BG6 y de 3,5 m para BG4.



- | | | | | |
|--|--|--|---|---|
| <p>I</p> <ol style="list-style-type: none"> 1) BG 2) Colonnina per selettore a chiave. 3) Selettore a chiave. 4) Tastiera digitale. 5) Colonnina per fotocellula. 6) Fotocellula. 7) Costa pneumatica o gomma rossa. 8) Gomma protettiva rossa. 9) Asta in alluminio 10) Luci lampeggianti. 11) Striscie rosse catari-frangenti. 12) Lampeggiatore. 13) Antenna. | <p>GB</p> <ol style="list-style-type: none"> 1) BG 2) Column for the key selector 3) Key selector 4) Digital keypad 5) Column for the photocell 6) Photocell 7) Pneumatic edge or red rubber 8) Protective red rubber profile 9) Aluminium bar 10) Flashing lights 11) Red reflector strips 12) Flashing light 13) Antenna | <p>F</p> <ol style="list-style-type: none"> 1) BG 2) Colonne pour sélecteur à clé 3) Sélecteur à clé 4) Tableau de commande digital 5) Colonne pour cellule photoélectrique 6) Cellule photoélectrique 7) Barre palpeuse ou profil caoutchouc rouge 8) Profil de protection en caoutchouc rouge 9) Barre en aluminium 10) Lumières clignotantes 11) Bandes rouges catadioptriques 12) Clignotant 13) Antenne | <p>D</p> <ol style="list-style-type: none"> 1) BG 2) Säule für Schlüsselwählschalter. 3) Schlüsselwählschalter. 4) Digitaltastatur. 5) Säule für Photozelle. 6) Photozelle. 7) Pneumatische Sicherheitsleiste oder roter Gummi. 8) Roter Schutzgummi. 9) Aluminiumstange. 10) Blinklichter. 11) Rote, rückstrahlende Streifen. 12) Blinker 13) Antenne. | <p>E</p> <ol style="list-style-type: none"> 1) BG 2) Columna para el selector de llave 3) Selector de llave 4) Teclado digital 5) Columna para fotocélula 6) Fotocélula 7) Borde neumático y perfil de caucho rojo 8) Perfil de caucho rojo de protección 9) Barrera de aluminio 10) Luces intermitentes 11) Bandas rojas retrorreflociantes 12) Luz intermitente 13) Antena. |
|--|--|--|---|---|

DIMENSIONI D' INGOMBRO - DIMENSIONS- DIMENSIONS D'ENCOMBREMENT - RAUMBEDARF - DIMENSIONES



I DESCRIZIONE
TECNICA

GB DESCRIPTION
TECHNIQUE

F DESCRIPTION
TECHNIQUE

D TECHNISCHE
BESCHREIBUNG

E DESCRIPCIÓN
TÉCNICA

Fig. 4

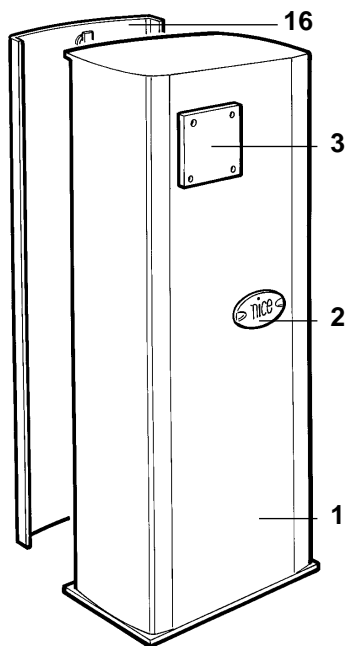


Fig. 5
BG-sx-

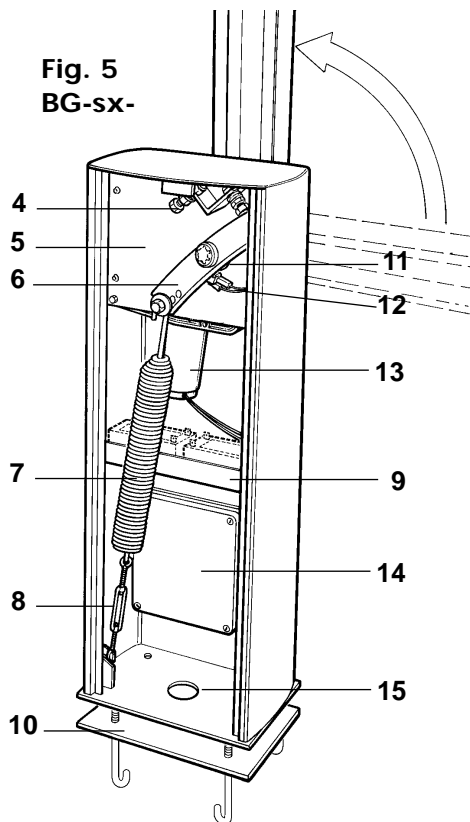
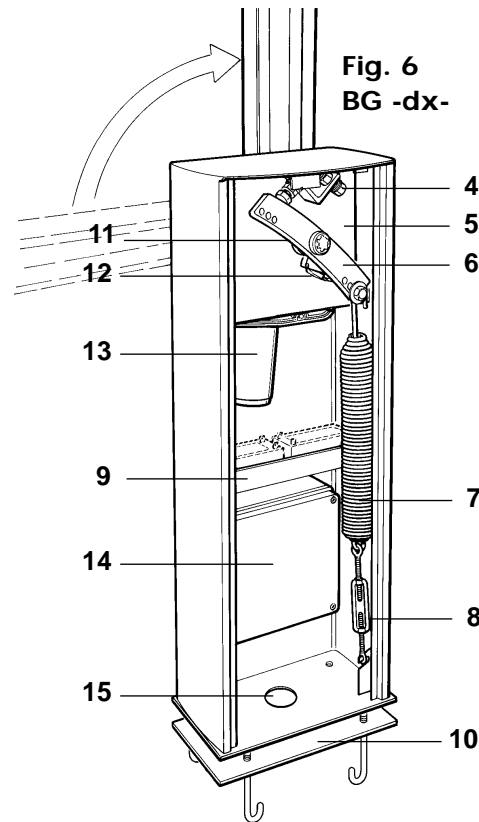


Fig. 6
BG-dx-



- 1) Armadio
- 2) Sblocco
- 3) Flangia di attacco asta
- 4) Ammortizzatore di sicurezza con fermo
- 5) Motoriduttore
- 6) Leva uscita motoriduttore
- 7) Molla di bilanciamento
- 8) Tirante di regolazione molla
- 9) Alloggiamento batteria n° 2 pezzi 12 V - 6 Ah
- 10) Base di ancoraggio con zanche
- 11) Eccentrici per regolazione punto di rallentamento
- 12) Fincorsa di rallentamento
- 13) Motore 24 V
- 14) Centrale di comando
- 15) Foro ingresso cavi
- 16) Coperchio

- 1) Cubicle
- 2) Unlock device
- 3) Bar connecting flange
- 4) Shock absorber with safety stop
- 5) Gearmotor
- 6) Gearmotor external lever
- 7) Balancing spring
- 8) Spring adjustment tie-rod
- 9) Housing for 2 batteries, 12 V - 6 Ah
- 10) Anchorage base with fish-tail clamps
- 11) Eccentrics for adjusting the slowing down point
- 12) Slowing down limit switch
- 13) 24 V motor
- 14) Control unit
- 15) Cable input hole
- 16) Cover

- 1) Armoire
- 2) Déblocage
- 3) Bride de fixation barre
- 4) Amortisseur de sécurité avec butée
- 5) Motoréducteur
- 6) Levier sortie motoréducteur
- 7) Ressort d'équilibrage
- 8) Tirant de réglage ressort
- 9) Logement batterie 2 pièces 12 V - 6 Ah
- 10) Plaque d'ancrage avec pattes de fixation
- 11) Excentriques pour réglage point de ralentissement
- 12) Microinterrupteur de fin de course de ralentissement
- 13) Moteur 24 V
- 14) Centrale de commande
- 15) Trou d'entrée câbles
- 16) Couverture

- 1) Schaltschrank
- 2) Schloss
- 3) Flansch für den Anschluss der Stange
- 4) Sicherheitspuffer mit Feststellvorrichtung
- 5) Getriebemotor
- 6) Außenhebel des Getriebemotors
- 7) Ausgleichfeder
- 8) Federspanner
- 9) Gehäuse für Nr. 2 Batterien, 12 V - 6 Ah
- 10) Verankerungsbasis mit Expansionsbeinen
- 11) Nocken für die Einstellung des Verlangsamungspunktes
- 12) Verlangsamungsschalter
- 13) 24 V Motor
- 14) Steuerzentrale
- 15) Loch für Kabeleingang
- 16) Deckel

- 1) Armario
- 2) Desbloqueo
- 3) Brida de unión de la barrera
- 4) Amortiguador con tope de seguridad
- 5) Motorreductor
- 6) Palanca exterior del motorreductor
- 7) Muelle de equilibrado
- 8) Tensor de regulación del muelle
- 9) Alojamiento de las 2 baterías de 12V - 6 Ah
- 10) Base de anclaje con grapas
- 11) Excéntricas para regular el punto de desaceleración
- 12) Microinterruptor de tope de desaceleración
- 13) Motor de 24V
- 14) Central de mando
- 15) Orificio de entrada de los cables
- 16) Tapa

ATTENZIONE

La chiave del coperchio è destinata SOLO all'operatore e quindi diversa di quella di sblocco destinata all'UTENTE.

ATTENTION

The key to the cover is ONLY for the operator and is different from the one for unlocking which is for the USER.

ATTENTION

La clé du couvercle est réservée à l'usage EXCLUSIF de l'opérateur et est donc différente de la clé de déblocage destinée à l'UTILISATEUR.

ACHTUNG

Der Schlüssel des Deckels ist NUR für den Bediener bestimmt und ist daher anders als jener der Entriegelung, der für den BENUTZER bestimmt ist.

ATENCIÓN

La llave de la tapa está destinada SÓLO al operador y, por lo tanto, es diferente de aquella de desbloqueo destinada al USUARIO.

L' UTENTE non deve accedere alle regolazioni ed al quadro comando.

The USER must not access the adjustment devices or control panel.

L'UTILISATEUR ne doit pas accéder aux réglages ni au tableau général des commandes.

Dem BENUTZER ist der Zutritt zu den Einstellungen und in den Schaltschrank untersagt.

El USUARIO no debe acceder a los dispositivos de regulación ni al cuadro de mando.

I TRASFORMAZIONE DA DESTRA A SINISTRA

PREMESSA

- Per barriera destra si intende con l'armadio posizionato a destra visto dall'interno del passaggio.
- Per barriera sinistra si intende con l'armadio posizionato a sinistra dall'interno del passaggio (convenzionalmente lo sportello va all'interno).

Normalmente "BG" viene consegnata DESTRA.

Se ci dovesse essere l'esigenza di trasformarla sinistra operare come segue:

- A)** Sganciare la molla di bilanciamento part. 1 fig. 7.
- B)** Agganciare la molla di bilanciamento sul lato sinistro in basso part. 2 fig. 7.
- C)** Invertire il connettore dei finecorsa di rallentamento e quello del motore sulla centrale di comando (vedere istruzioni allegate).
- D)** Avvitare la flangia attacco asta nella posizione di funzionamento
- E)** Regolare manualmente i due eccentrici per il rallentamento (vedere capitolo Regolazioni pag. 8).

GB CHANGING FROM RIGHT TO LEFT

PREMISE

- *By right-hand boom gate we mean with the cubicle positioned on the right looking from behind the gate.*
- *By left-hand boom gate we mean with the cubicle positioned on the left looking from behind the gate.*

BG is normally delivered RIGHT-HAND.

If you need to change it to the left proceed as follows:

- A)** *Release the balancing spring, item 1 Fig. 7.*
- B)** *Hook the balancing spring on the bottom left, item 2 Fig. 7.*
- C)** *Reverse the slowing down limit switch connector and that of the motor on the control unit (see instructions enclosed).*
- D)** *Tighten the bar connecting flange in the functioning position.*
- E)** *Adjust by hand the two slowing down eccentrics (see the Adjustments chapter on page 8).*

F TRANSFORMATION DE DROITE À GAUCHE

AVANT-PROPOS

- On parle de barrière droite quand l'armoire est positionnée à droite par rapport à la personne qui sort.
- On parle de barrière gauche quand l'armoire est positionnée à gauche par rapport à la personne qui sort (conventionnellement la porte est orientée vers l'intérieur).

Normalement "BG" est livrée dans la version "DROITE".

Pour la transformer en barrière levante version "GAUCHE", procéder de la façon suivante:

- A)** Décrocher le ressort d'équilibrage pos. 1 fig. 7
- B)** Accrocher le ressort d'équilibrage sur le côté gauche en bas pos. 2 fig. 7.
- C)** Inverser le connecteur du microinterrupteur de fin de course de ralentissement et celui du moteur sur la centrale de commande (voir instructions jointes).
- D)** Visser la bride de fixation barre dans la position de fonctionnement.
- E)** Régler à la main les deux excentriques pour le ralentissement (voir chapitre Réglages page 8).

D UMBAU VON RECHTS AUF LINKS

VORWORT

- *Mit rechter Schranke ist gemeint, dass der Schaltschrank auf der rechten Seite angeordnet ist, von der Innenseite des Durchgangs aus gesehen.*
- *Mit linker Schranke ist gemeint, dass der Schaltschrank auf der linken Seite angeordnet ist, von der Innenseite des Durchgangs aus gesehen (gewöhnlich ist die Schaltschranktür nach innen gerichtet).*

Üblicherweise wird "BG" mit RECHTS-Anordnung geliefert.

Sollte der Umbau nach links nötig werden, ist wie folgt vorzugehen:

- A)** *Die Ausgleichfeder Teil 1 Abb. 7 aushängen.*
- B)** *Die Ausgleichfeder auf der linken Seite unten einhängen - Teil 2 Abb. 7.*
- C)** *Den Verbinder des Verlangsamungsendschalters und jenen des Motors an der Steuerzentrale umkehren (siehe anliegende Anweisungen).*
- D)** *Den Stangenanschlussflansch in der Betriebsposition anschrauben.*
- E)** *Die zwei Nocken für die Verlangsamung von Hand einstellen (siehe Kapitel Einstellungen auf Seite 8).*

E TRANSFORMACIÓN DE DERECHA A IZQUIERDA

INTRODUCCIÓN

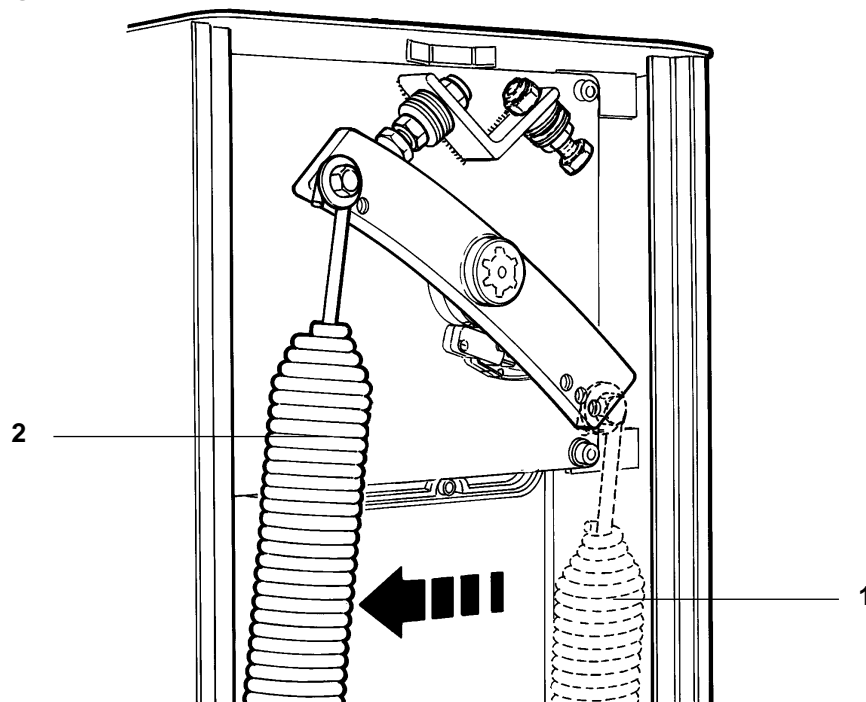
- La barrera derecha es aquella que tiene el armario colocado a la derecha, mirando desde el interior del pasaje.
- La barrera izquierda es aquella que tiene el armario colocado a la izquierda, mirando desde el interior del pasaje (convenzionalmente la puerta está colocado en el interior).

Normalmente, "BG" se entrega posicionada a la DERECHA.

Si fuera necesario transformarla colocándola a la izquierda, efectúe la siguiente operación:

- A)** Desenganche el muelle de equilibrado (det.1 - fig. 7).
- B)** Enganche el muelle de equilibrado en la parte inferior izquierda (det.2-fig.7).
- C)** Invierta en la central de mando el conector de los microinterruptores de tope de desaceleración y el del motor (véanse instrucciones adjuntas).
- D)** Enrosque la brida de unión de la barrera en la posición de funcionamiento.
- E)** Regule manualmente las dos excéntricas para la desaceleración (véase capítulo Regulaciones, pág. 8)

Fig. 7



I INSTALLAZIONE

Annegare la base di ancoraggio in dotazione (fig. 8) in una piazzola di cemento di adeguate dimensioni. La base di ancoraggio dovrà essere annegata a filo della piazzola, perfettamente in bolla, ed avendo cura di prevedere almeno uno o più condotti per il passaggio dei cavi elettrici.

- 1) Appoggiare l'armadio sulla base collocata precedentemente e bloccarlo con le viti e rondelle in dotazione.
 - 2) Montare l'asta tramite l'apposito attacco in dotazione e bloccare le 4 viti. Se non utilizzata completamente, tagliare l'eventuale spezzone eccedente.
 - 3) La verticalità dell'asta aperta, e l'orizzontalità quando è chiusa, si possono ritoccare registrando i relativi ammortizzatori con fermo (vedere capitolo Regolazioni pag. 8)
- NB.** Le aste standard garantiscono rispettivamente una luce netta di 4 m. (BG4) e, 6 m. (BG6) è sempre consigliabile l'utilizzo di un appoggio per l'asta, in modo particolare oltre i 4 m.

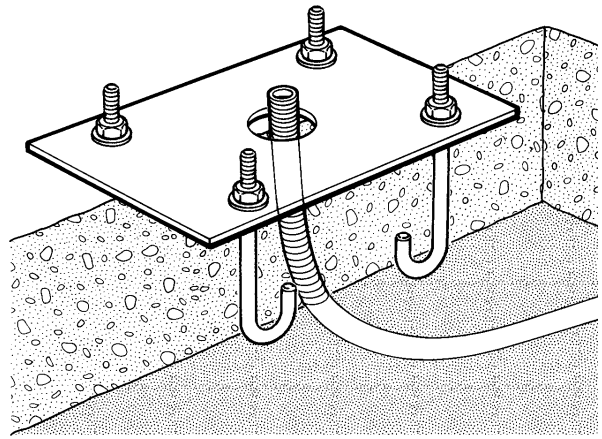


Fig. 8

GB INSTALLATION

Bury the anchorage base provided (Fig. 8) in a cement foundation. This anchorage or base must be flush with the foundation and perfectly level; also make one or more passageways for electric cables.

- 1) Stand the cubicle on the already installed base and anchor it with the screws and washers provided.
 - 2) Mount the bar using the connection provided and lock it with the 4 screws. Cut any excess bar off.
 - 3) The vertical and horizontal precision of the bar when it is open or closed can be adjusted via the shock absorbers with stop (see the Adjustments chapter on page 8).
- NB.** Standard bars guarantee a net opening of 4 meters (BG4) and 6 metres (BG6) and we recommend using a support for the bar, especially when the distance is greater than 4 metres.

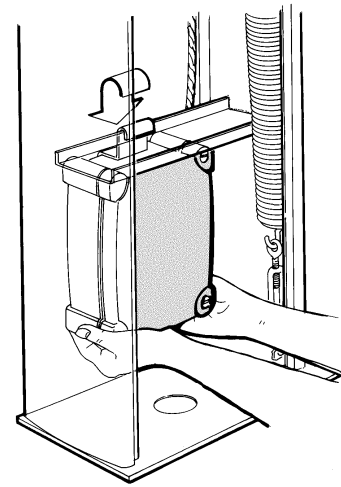


Fig. 9

F INSTALLATION

Noyer la plaque d'ancrage fournie (fig. 8) dans une base en ciment de dimensions appropriées. La plaque d'ancrage devra être noyée au ras de la dalle, parfaitement mise de niveau, et en ayant soin de prévoir au moins une ou plusieurs canalisations pour le passage des câbles électriques.

- 1) Poser l'armoire sur la plaque placée précédemment et la bloquer avec les vis et les rondelles fournies.
 - 2) Monter la barre avec la fixation fournie et serrer les 4 vis. Si elle n'est pas utilisée sur toute sa longueur, couper la partie excédante.
 - 3) La verticalité de la barre levée et l'horizontalité de la barre fermée peuvent être corrigées en réglant les amortisseurs avec arrêt (voir chapitre Réglages page 8).
- N.B.:** Les barres standard garantissent respectivement un passage net de 4 m (BG4) et de 6 m (BG6); il est toujours conseillé d'utiliser une sellette d'appui pour la barre, en particulier au-delà de 4 m.

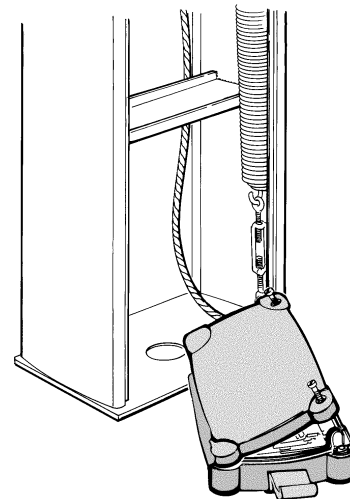


Fig. 10

D INSTALLATION

Die mitgelieferte Verankerungsbasis (Abb.8) in eine Zementfläche mit geeigneten Maßßen einbetonieren. Die Verankerungsbasis muss so einbetoniert werden, dass sie mit der Zementfläche abschließt; sie muss perfekt ausgerichtet und mit mindestens einer oder mehreren Leitungen für den Durchgang der Elektrokabel versehen sein.

- 1) Den Schaltschrank auf die vorher angeordnete Basis stützen und mit den mitgelieferten Schrauben und Unterlegscheiben blockieren.
 - 2) Die Stange durch den mitgelieferten Anschluss montieren und die 4 Schrauben anziehen. Gegebenenfalls den überschüssigen Teil abschneiden.
 - 3) Die Senkrechte der geöffneten Stange und die Waagrechte der geschlossenen können eingestellt werden, indem die entsprechenden Puffer mit Feststellvorrichtung registriert werden (siehe Kapitel Einstellungen auf Seite 8).
- NB.:** Die Standardstangen gewährleisten jeweils 4 Meter (BG4) und 6 Meter (BG6) Nettoöffnungsweite; die Benutzung einer Stütze, besonders für Stangen über 4 Meter Länge, wird immer empfohlen.

E INSTALACIÓN

Introduzca la base de anclaje, suministrada con la barrera (fig. 8), en una plataforma de cemento de dimensiones adecuadas. La base de anclaje tiene que quedar al ras de la plataforma y perfectamente nivelada. No se olvide de colocar también uno o varios tubos para pasar los cables eléctricos.

- 1) Apoye el armario sobre la base, colocada anteriormente, y bloquéelo con lo tornillos y arandelas suministrados de serie.
 - 2) Instale la barrera por medio de la fijación suministrada junto con ella, y apriete los 4 tornillos. Si fuera necesario, corte la parte que excede de la barrera.
 - 3) La verticalidad de la barrera cuando está abierta y la horizontalidad cuando está cerrada se pueden regular ajustando los amortiguadores con tope de seguridad correspondientes (véase capítulo Regulaciones, pág. 8).
- N.B.:** Las barreras estándar garantizan una abertura net de 4 m. (BG4) y 6 m. (BG6). Se aconseja utilizar siempre un apoyo para las barreras que superen los 4 metros.

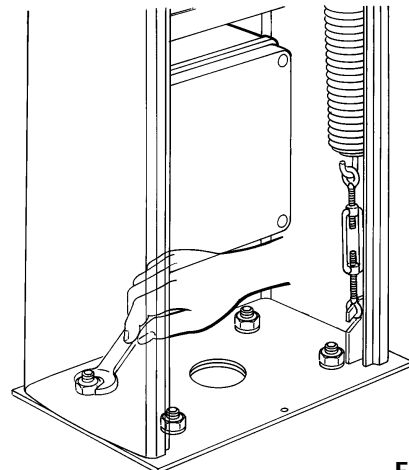


Fig. 11

I SBLOCCO MANUALE

- A) Alzare il coperchio copriserratura come indicato in fig. 13.
- B) Inserire la chiave.
- C) Girare in senso orario.

GB MANUAL UNLOCK

- A) Lift the lock cover as shown in Fig. 13.
- B) Put the key in.
- C) Turn the key clockwise.

F DÉBLOCAGE MANUEL

- A) Faire pivoter le couvercle de protection de la serrure comme l'indique la fig. 13
- B) Introduire la clé
- C) La tourner dans le sens des aiguilles d'une montre.

D MANUELLE ENTRIEGELUNG

- A) Den Schlossdeckel wie gezeigt heben.
- B) Den Schlüssel einsetzen.
- C) In den Uhrzeigersinn drehen.

E DESBLOQUEO MANUAL

- A) Levante la tapa que cubre la cerradura como indicado en la fig. 13.
- B) Introduzca la llave.
- C) Gire hacia la derecha.

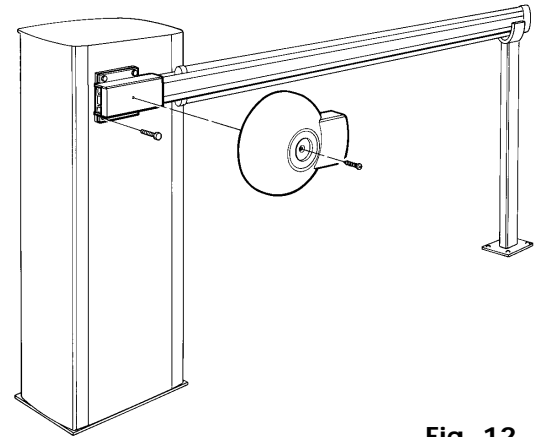


Fig. 12

I BILANCIAMENTO

Il corretto bilanciamento è fondamentale per un buon funzionamento della barriera. Questa operazione va eseguita solo quando l'asta è montata in modo definitivo e con tutti gli eventuali accessori.

Sbloccare la barriera (funzionamento manuale vedi fig. 13) ed agire sul tirante di regolazione molla (fig.14). L'asta sarà esattamente bilanciata quando rimarrà a 45° senza cadere verso il basso o salire verso l'alto. Qualora si utilizzi un'asta molto corta, senza alcun accessorio, la potenza della molla sarà eccessiva attaccare quindi la molla sul 2° foro della leva uscita motoriduttore vedi figura 15.

GB BALANCING

Correct balancing is essential if the boom gate is going to work properly. Rectify balancing only when the bar is mounted and with all the accessories installed (if any). Release the boom gate (manual functioning see Fig. 13) and act on the spring adjusting tie-rod (Fig. 14). The bar is properly balanced when it stays at an angle of 45° without falling or rising. If you are using a very short bar without any accessories, the power of the spring will be far too strong: in this case connect the spring to the 2nd hole of the gearmotor output lever, see Fig. 15.

F ÉQUILIBRAGE

Un équilibrage correct est fondamental pour le bon fonctionnement de la barrière. Cette opération doit être effectuée seulement quand la barre est montée de manière définitive et avec tous les éventuels accessoires. Débloquer la barrière (fonctionnement manuel voir fig. 13) et agir sur la tringle de réglage du ressort (fig. 14). La barre sera correctement équilibrée quand elle restera à 45° sans tomber vers le bas ou monter vers le haut. Si on utilise une barre très courte, sans aucun accessoire, la puissance du ressort sera excessive; fixer donc le ressort sur le 2e trou du levier de sortie du motoréducteur (voir fig. 15).

D AUSGLEICH

Der korrekte Ausgleich der Schranke ist für ihren guten Betrieb von grundlegender Bedeutung. Dieser Vorgang darf erst ausgeführt werden, wenn die Schranke mit allen eventuellen Zubehörteilen auf endgültige Weise montiert ist.

Die Schranke entriegeln (manueller Betrieb - siehe Abb. 13) und den Federspanner (Abb. 14) betätigen. Die Stange ist perfekt ausgeglichen, wenn sie ohne nach unten zu fallen oder nach oben zu gehen im 45° Winkel bleibt.

Sollte eine sehr kurze Stange ohne Zubehörteile benutzt werden, wird die Kraft der Feder zu groß sein. Daher die Feder in das 2. Loch des Außenhebels des Getriebemotors einsetzen - siehe Abb. 15.

E EQUILBRADO

La barrera tiene que estar perfectamente equilibrada para que funcione correctamente. Dicha operación se efectúa sólo cuando la barrera está instalada definitivamente y con todos los accesorios.

Desbloquee la barrera (funcionamiento manual, véase fig. 13) y regule mediante el tensor de regulación del muelle (fig. 14). La barrera estará perfectamente equilibrada cuando quede a 45° sin que se caiga o se suba.

En el caso de que utilice una barrera muy corta y sin ningún accesorio, la potencia del muelle será excesiva; por lo tanto, enganche el muelle en el 2° agujero de la palanca exterior del motorreductor, véase figura 15.

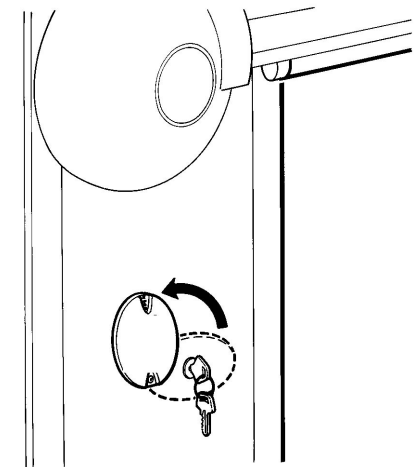


Fig. 13

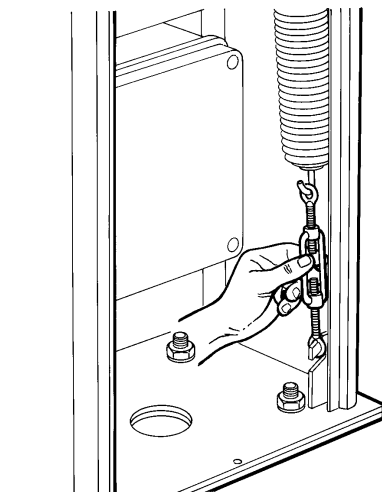


Fig. 14

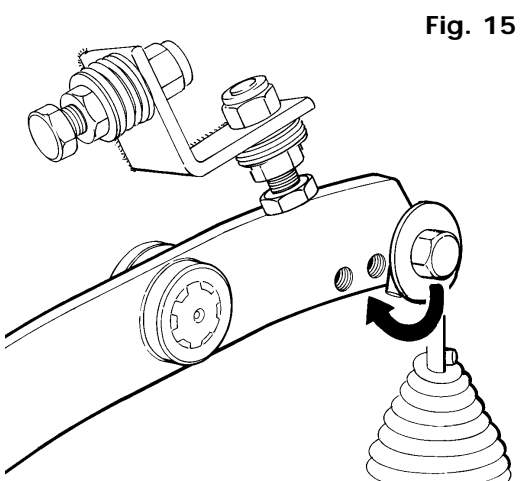


Fig. 15

① **REGOLAZIONI**

Il rallentamento è fatto elettronicamente sulla centrale di comando (vedere istruzioni allegate).

Vi è la possibilità di regolare indipendentemente il punto d' inizio del rallentamento sia in apertura che in chiusura, agendo sui due eccentrici (fig. 16).

Per ottenere un rallentamento ottimale, agire anche sui due ammortizzatori di fermo con chiave mm. 19 (fig. 17).

Ⓒ **ADJUSTMENTS**

Slowing down is electronically carried out on the control unit (see instructions enclosed).

The point at which the bar starts slowing down can be adjusted separately in opening and closing via the two eccentrics (Fig. 16).

For optimal slowing down, adjust the two stop shock absorbers with a 19 mm spanner (Fig. 17).

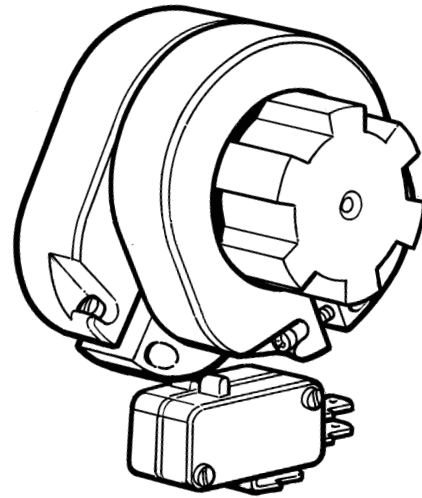


Fig. 16

Ⓕ **RÉGLAGES**

Le ralentissement est fait électroniquement sur la centrale de commande (voir instructions jointes).

Il est possible de régler de manière indépendante le point de commencement du ralentissement aussi bien en ouverture qu'en fermeture en agissant sur les deux excentriques (fig. 16).

Pour obtenir un ralentissement optimal, agir aussi sur les deux amortisseurs d'arrêt avec une clé de 19 mm (fig. 17).

Ⓖ **EINSTELLUNGEN**

Die Verlangsamung wird elektronisch an der Steuerzentrale gemacht (siehe anliegende Anweisungen).

Es besteht die Möglichkeit, mit den zwei Nocken (Abb. 16) den Anfangspunkt der Verlangsamung sowohl in Öffnung als auch in Schließung unabhängig voneinander einzustellen.

Für eine optimale Verlangsamung sind auch die zwei Sicherheitspuffer mit Feststellvorrichtung mit einem 19 mm Schlüssel zu betätigen (Abb. 17).

Ⓗ **REGULACIONES**

La desaceleración se efectúa electrónicamente en la central de mando (véanse instrucciones adjuntas).

Durante la apertura como durante el cierre, es posible regular independientemente el punto de inicio de la desaceleración mediante las dos excéntricas (fig. 16).

Para obtener una desaceleración ideal, también regule los dos amortiguadores con tope con una llave de 19 mm. (fig. 17).

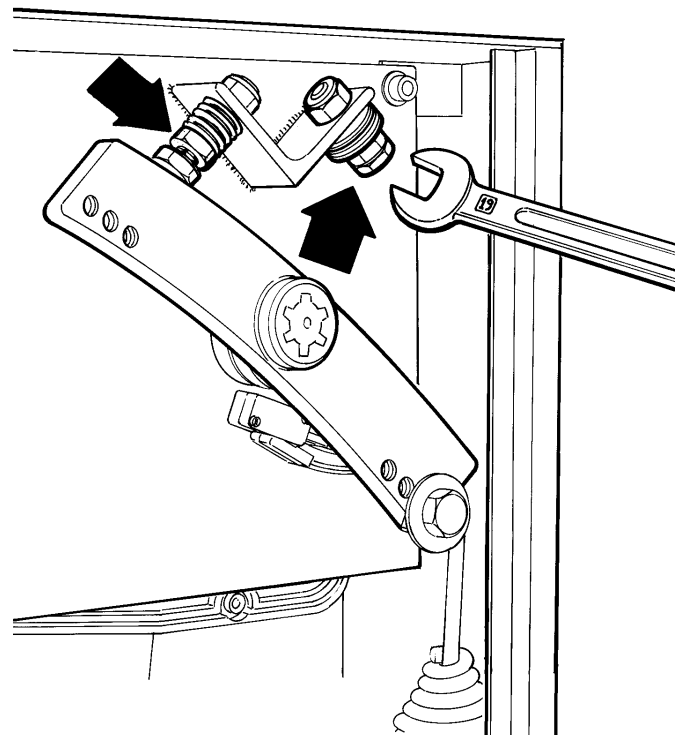
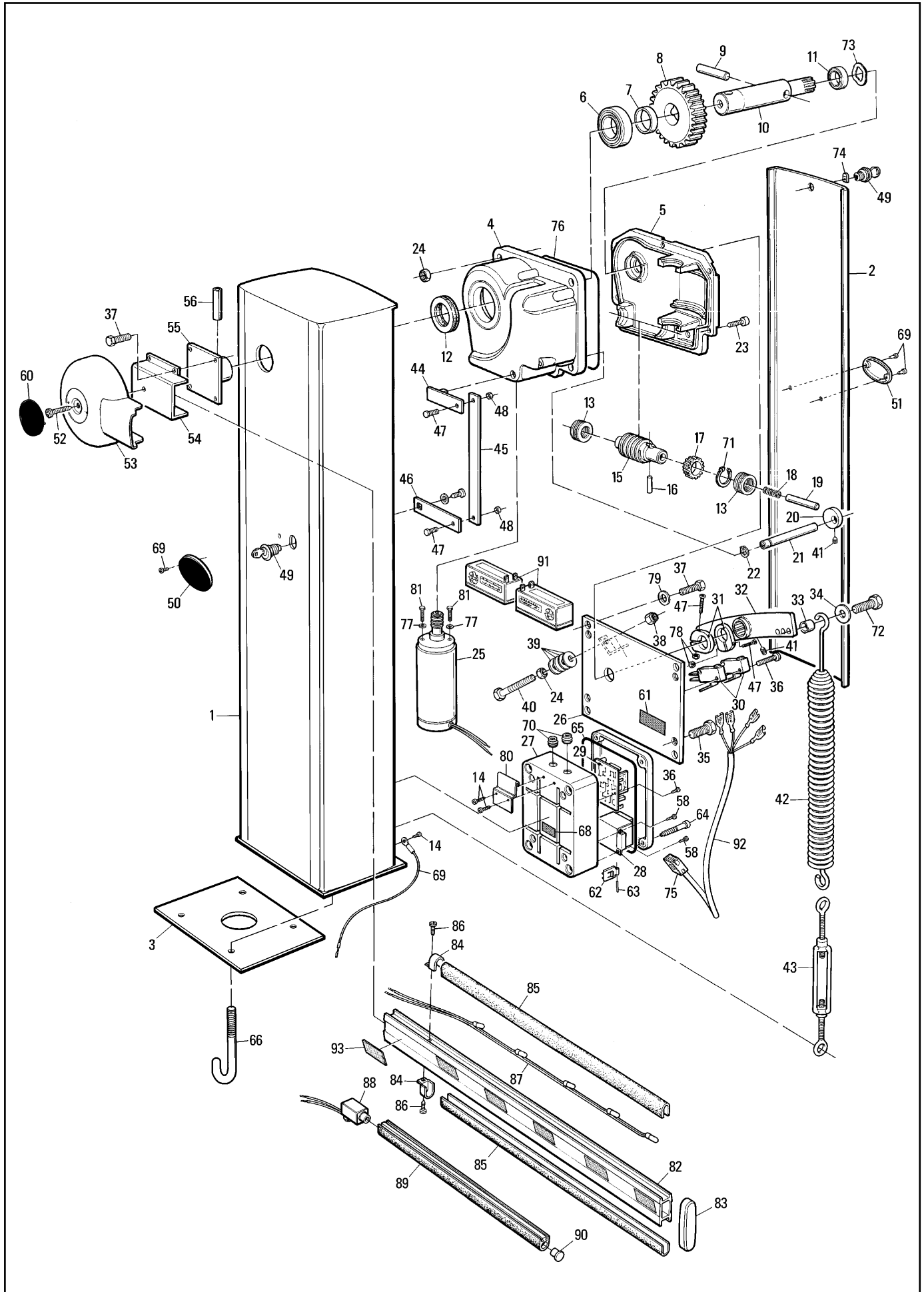


Fig. 17

Pos.	Code	ⓘ Descrizione	Ⓜ Description
1	PDM 0041 * 4610	Armadio assemblato *	Assembled cubicle *
2	PDM 0004 * 4610	Anta armadio *	Cubicle door *
3	PDM 0009 * 4610	Piastra di fondazione *	Foundation plate *
4	BMGSM 4567	Guscio superiore	Top casing
5	BMGIM 4567	Guscio inferiore	Bottom casing
6	PMCU9 4630	Cuscinetto	Bearing
7	PMDDC 4610	Distanziale	Spacer
8	PMD0061 4610 *	Ingranaggio primario *	Main gear *
9	PMDSC3 4630	Spina cilindrica	Cylindrical pin
10	PMO0040 4610	Albero uscita	Output shaft
11	PMCU3 4630	Cuscinetto	Bearing
12	GOR-G 5501	Paraolio	Oil splash guard
13	PMCU11 4630	Cuscinetto	Bearing
14	V4.2x9.5 5101	Vite 4.2x9.5	4.2x9.5 screw
15	PMD0060 4610 *	Albero primario *	Main shaft *
16	PMC 66B 4630	Chiavetta	Key
17	PMD0071 4610	Corona	Ring
18	MO-E 2640	Molla sblocco	Unlock spring
19	PMD0063B 4610	Perno di sblocco	Unlock pin
20	PMD0014C 4610	Eccentrico di sblocco	Unlock eccentric
21	PMD0063A 4610	Albero di sblocco	Unlock spindle
22	PMCSE8 4630	Anello seeger ø 8	ø 8 - Circlip
23	V6.3X19 5101	Vite 6.3x19	6.3x19 screw
24	D12B 5110	Dado M12	M12 nut
25	WA 01	Motore elettrico	Electric motor
26	PMD0005 4610	Supporto motoriduttore	Gearmotor support *
27	BA3 4525	Box centrale elettronica	Electronic unit box
28	TRA-L 1025	Trasformatore	Transformer
29	WA20	Centrale elettronica	Electronic unit
30	MICROI 1617	Microinterruttore	Microswitch
31	BPME 4540	Eccentrico di finecorsa	Eccentric for limit switch
32	PMD0059 4610 *	Leva di collegamento molla *	Spring connecting lever *
33	PMCBR1 4630	Bronzina	Bush
34	R12A 5120	Rondella	Washer
35	V12X30 5102	Vite 12x30	12x30 screw
36	V2.9X25 5101	Vite 2.9x9.5 UNI 6954	2.9x9.5 UNI 6954 screw
37	V8X10 5102	Vite 8x10	8x10 screw
38	D12 5110	Dado M12 UNI7473	M12 UNI7473 nut
39	R12B 5120	Molla a tazza	Belleville washer
40	V12X50 5102	Vite 12x60 UNI 5739 ZN	12x60 UNI 5739 ZN screw
41	G6X14 5123	Grano 6x14	6x14 dowel
42	MO-L 2640	Molla di bilanciamento	Balancing spring
43	PMCT1 4630	Tenditore M10	M10 stretcher
44	PMD 0062B 4610	Leva di sblocco	Unlock lever
45	PMD 0062C 4610	Leva di sblocco	Unlock lever
46	PMD 0062A 4610	Leva di sblocco	Unlock lever
47	V3X12 5101	Vite 3x12	3x12 screw
48	D3-C 5102	Dado M3 UNI 7473	M3 UNI 7473 nut
49	CM-B 1630	Chiave Meroni	Meroni key
50	PPD0057 14540	Tappo + logo	Cap+ logo
51	PPD0058 14540	Tappo + logo	Cap+ logo
52	V4.8x19 5101	Vite 4.8x19	4.8x19 screw
53	BP0038 4540	Copriasta	Bar cover
54	PMD 0081 4610	Staffa bloccaggio asta	Bar locking bracket
55	PMD 0012 4610	Supporto asta	Bar support
56	PMCS12 4630	Spina 12x65 DIN 7343	12x65 DIN 7343 pin
57	CT0104 5320	Cablaggio terra	Earth wiring
58	V4.2X9.5 5101	Vite 4.2x9.5	4.2x9.5 screw
59	CA3 5320	Cablaggio alimentazione	Electrical wiring
60	BP0038A 14540	Coperchio	Cover
61	EWIL4 4870	Etichetta motoriduttore	Gearmotor label
62	BA3C 4525	Cerniera scatola centrale	Central box hinge
63	BA3P 4525	Perno scatola centrale	Central box pin
64	BA3V 4525	Vite scatola centrale	Central box screw
65	GOR8 5501	Guarnizione	Seal
66	PMD0140 4610	Zanca fissaggio	Fish-tail clamp
67	PMD0026 4610	Distanziale PVC	PVC spacer
68	EMRO3 4870	Etichetta schema elettrico	Wiringdiagram label
69	R4.2X1/2 5101	Rivetto autofilettato	Self-tapped rivet
70	BCP-A 4525	Passacavo	Grommet
71	PMCSE25 4630	Anello seeger ø 25	Snap ring ø 25
72	V12X30 5102	Vite 12x30	12x30 screw
73	PMCAC1 4630	Anello compensatore	Compensator ring
74	CM-BL 1630	Levetta serratura	Lock lever
75	C3VF 2015	Connettore Alex	Alex connector
76	GOR3 5501	O-Ring	O-Ring
77	RO5 5120	Rondella piana ø 5	Washer ø 5
78	D3-B 5102	Dado M3	M3 nut
79	R8 5120	Rondella piana 8x24	8x24 flat washer
80	PMD0086 4610	Staffa aggancio	Bracket
81	V5x15 5102	Vite 5x15	5x15 screw
		- OPZIONI -	- OPTIONS -
82	WA1 / WA5	Asta alluminio con tappo	Aluminium bar with cap
83	BPTC 4540	Tappo asta	Bar cap
84	BPTC 4540	Tappo per gomma rossa	Cap for red rubber
85	WA2 / WA6	Kit gomma rossa	Red rubber kit
86	V2.9X13A 5101	Vite 2.9x13 TPS+	2.9x13 TPS screw+
87	WA9	Kit luci lampeggianti	Flashing light kit
88	PNC	Pressostato PNC	PNC pressure switch
89	CBB	Costa pneumatica bassa	Narrow pneumatic edge
90	CPB	Tappo per costa pneumatica	Cap for pneumatic edge
91	B 12 B 4310 5320	Batteria 6 Ah	6 Ah battery
92	CFW	Cablaggio finecorsa	Limit switch cabling
93	WA10	Striscie rosse	Red strips

* Specificare il modello

* Specify the model



Pos.	Code	(F) Description	(D) Beschreibung	(E) Descripción
1	PDM 0041 * 4610	Armoire assemblée *	Schaltschrank, montiert *	Armario ensamblado *
2	PDM 0004 * 4610	Porte armoire *	Schaltschranktür *	Puerta del armario *
3	PDM 0009 * 4610	Plaque de fondation *	Fundamentplatte *	Placa de fundación *
4	BMGSM 4567	Coque supérieure	oberes Gehäuse	Carcasa superior
5	BMGIM 4567	Coque inférieure	unteres Gehäuse	Carcasa inferior
6	PMCU9 4630	Roulement	Lager	Cojinete
7	PMDDC 4610	Entretoise	Distanzstück	Arandela distanciadora
8	PMD0061 4610 *	Engrenage primaire *	Primärzahnrad *	Engrenaje principal *
9	PMDSC3 4630	Cheville cylindrique	Zylinderstift	Pasador cilíndrico
10	PMO0040 4610	Arbre de sortie	Abtriebswelle	Arbol de salida
11	PMCU3 4630	Roulement	Lager	Cojinete
12	GOR-G 5501	Pare-huile	Ölabdichtung	Sello de aceite
13	PMCU11 4630	Roulement	Lager	Cojinete
14	V4.2x9.5 5101	Vis 4.2x9.5	Schraube 4.2x9.5	Tornillo 4.2x9.5
15	PMD0060 4610 *	Arbre primaire *	Primärwelle *	Arbol primario *
16	PMC 66B 4630	Clavette	Keil	Chaveta
17	PMD0071 4610	Couronne	Kranz	Corona
18	MO-E 2640	Ressort de déblocage	Entsicherungsfeder	Muelle de desbloqueo
19	PMD0063B 4610	Pivot de déblocage	Entsicherungszapfen	Perno de desbloqueo
20	PMD0014C 4610	Excentrique de déblocage	Entsicherungsnocken	Excéntrica de desbloqueo
21	PMD0063A 4610	Arbre de déblocage	Entsicherungsspindel	Eje de desbloqueo
22	PMCSE8 4630	Bague seeger ø8	Seegerring ø 8	Arandela seeger ø 8
23	V6.3X19 5101	Vis 6.3x19	Schraube 6.3x19	Tornillo 6.3x19
24	D12B 5110	Ecrou M12	Mutter M12	Tuerca M12
25	WA 01	Moteur électronique	E-Motor	Motor eléctrico
26	PMD0005 4610	Support motoréducteur *	Getriebemotorlager *	Soporte del motorreductor *
27	BA3 4525	Coffret centrale électronique	Box der elektronischen Zentrale	Caja de la central electrónica
28	TRA-L 1025	Transformateur	Transformator	Transformador
29	WA20	Centrale électronique	Elektronische Zentrale	Central electrónica
30	MICROI 1617	Microinterrupteur	Mikroschalter	Microinterruptor de tope
31	BPME 4540	Excentrique pour fin de course	Nocken für Endschalter	Excéntrica para microin. de tope
32	PMD0059 4610 *	Levier raccordement ressort *	Federanschlussehebel *	Palanca de conexión del muelle *
33	PMCBR1 4630	Coussinet en bronze	Bronzebuchse	Casquillo
34	R12A 5120	Rondelle	Unterlegscheibe	Arandela
35	V12X30 5102	Vis 12x30	Schraube 12x30	Tornillo 12x30
36	V2.9X25 5101	Vis 2.9x9.5 UNI 6954	Schraube 2.9x9.5 UNI 6954	Tornillo 2.9x9.5 UNI 6954
37	V8X10 5102	Vis 8x10	Schraube 8x10	Tornillo 8x10
38	D12 5110	Ecrou M12 UNI7473	Mutter M12 UNI7473	Tuerca M12 UNI7473
39	R12B 5120	Ressort belleville	Tellerfeder	Arandelas belleville
40	V12X50 5102	Vis 12x60 UNI 5739 ZN	Schraube 12x60 UNI 5739 ZN	Tornillo 12x60 UNI 5739 ZN
41	G6X14 5123	Goujon 6x14	Stift 6x14	Tornillo sin cabeza 6x14
42	MO-L 2640	Ressort d'équilibrage	Ausgleichfeder	Muelle de equilibrado
43	PMCT1 4630	Tendeur M10	Spanner M10	Tensor M10
44	PMD 0062B 4610	Levier de déblocage	Entsicherungshebel	Palanca de desbloqueo
45	PMD 0062C 4610	Levier de déblocage	Entsicherungshebel	Palanca de desbloqueo
46	PMD 0062A 4610	Levier de déblocage	Entsicherungshebel	Palanca de desbloqueo
47	V3X12 5101	Vis 3x12	Schraube 3x12	Tornillo 3x12
48	D3-C 5102	Ecrou M3 UNI 7473	Mutter M3 UNI 7473	Tuerca M3 UNI 7473
49	CM-B 1630	Clé Meroni	Meroni Schlüssel	Llave Meroni
50	PPD0057 14540	Bouchon + logo	Plakette + Logo	Tapa + logotipo
51	PPD0058 14540	Bouchon + logo	Plakette + Logo	Tapa + logotipo
52	V4.8x19 5101	Vis 4.8x19	Schraube 4.8x19	Tornillo 4.8x19
53	BP0038 4540	Couvercle barre	Stangenkappe	Cubrebarra
54	PMD 0081 4610	Patte de blocage barre	Stangensperrbügel	Estribo de desbloqueo de la barra
55	PMD 0012 4610	Support barre	Stangenhalterung	Soporte de la barra
56	PMCS12 4630	Cheville 12x65 DIN 7343	Stift 12x65 DIN 7343	Pasador 12x65 DIN 7343
57	CT0104 5320	Câblage mise à la terra	Erdverdrahtung	Cableado tierra
58	V4.2X9.5 5101	Vis 4.2x9.5	Schraube 4.2x9.5	Tornillo 4.2x9.5
59	CA3 5320	Câblage alimentation	Verdrahtung für Speisung	Cableado de alimentación
60	BP0038A 14540	Couvercle	Deckel	Tapa
61	EWIL4 4870	Etiquette motoréducteur	Getriebemotoretikett	Etiqueta motorreductor
62	BA3C 4525	Charnière coffret centrale	Zentralgehäusegelenk	Bisagra caja central
63	BA3P 4525	Pivot coffret centrale	Zentralgehäusezapfen	Perno caja central
64	BA3V 4525	Vis coffret centrale	Zentralgehäuseschraube	Tornillo caja central
65	GOR8 5501	Joint	Dichtung	Junta
66	PMD0140 4610	Agrafe de fixation	Verankerungsbein	Grapa de sujeción
67	PMD0026 4610	Entretoise PVC	PVC distanzstück	Separador de PVC
68	EMRO3 4870	Etiquette schéma électrique	Schaltplanetikett	Etiqueta esquema eléctrico
69	R4.2X1/2 5101	Rivet autofileté	Selbstschneidende Niete	Remache autorroscante
70	BCP-A 4525	Passe-câble	Kabeldurchführung	Pasahilo
71	PMCSE25 4630	Bague seeger ø 25	Seegerring ø 25	Arandela seeger ø 25
72	V12X30 5102	Vis 12x30	Schraube 12x30	Tornillo 12x30
73	PMCAC1 4630	Bague compensatrice	Ausgleichsring	Anillo compensador
74	CM-BL 1630	Levier serrure	Schlossehebel	Palanca cerradura
75	C3VF 2015	Connecteur Alex	Alex Verbinder	Connector Alex
76	GOR3 5501	Joint OR	O-Ring	Junta tónica
77	RO5 5120	Joint ø 5	Unterlegscheibe ø 5	Arandela ø 5
78	D3-B 5102	Ecrou M3	Mutter M3	Tuerca M3
79	R8 5120	Rondelle plate 8x24	Flache Unterlegscheibe 8x24	Arandela plana 8x24
80	PMD0086 4610	Patte de fixation	Einhängbügel	Estribo enganche
81	V5x15 5102	Vis 5x15	Schraube 5x15	Tornillo 5x15
		- OPTIONS -	- SONDERZUBEHÖR -	- OPCIONALES -
82	WA1 / WA5	Barre aluminium avec bouchon	Aluminiumstange mit Kappe	Barrera de aluminio con tapón
83	BPTC 4540	Bouchon barre	Stangenkappe	Tapón de la barra
84	BPTC 4540	Bouchon pour profil caoutc. rouge	Kappe für roten Gummi	Tapón para el perfil de caucho rojo
85	WA2 / WA6	Kit profil caoutchouc rouge	Roter Gummisatz	Kit del perfil de caucho rojo
86	V2.9X13A 5101	Vis 2.9x13 TPS +	Schraube 2.9x13 TPS +	Tornillo 2.9x13 TPS +
87	WA9	Kit lumières clignotantes	Blinklichtersatz	Kit de lámparas de señalización
88	PNC	Pressostat PNC	Druckwächter PNC	Presostato PNC
89	CBB	Barre palpeuse basse	Niedrige, pneu. Sicherheitsleiste	Borde neumático angosto
90	CPB	Bouchon pour basse palpeuse	Kappe für pneu. Sicherheitsleiste	Tapón para borde neumático
91	B 12 B 4310 5320	Batterie 6 Ah	Batterie 6 Ah	Batería 6 Ah
92	CFW	Câblage microin. de fin de course	Endschalterverkabelung	Cableado microinterruptor de tope
93	WA10	Bandes rouges	Rote Streifen	Bandas roja

* Preciser le modèle

* Das modell angeben

* Especificque el modelo

IMPORTANTE / IMPORTANT

**Compilare ad installazione avvenuta e trattenere ad uso garanzia.
To be completed after installation and kept for use as a warranty**

Dati cliente / Client data

Nome e cognome Telefono
Name and surname Telephone

Indirizzo
Address

Apparecchiatura tipo Matricola
Appliance type No. Code

Data di installazione Termine garanzia
Installation date Warranty expiry date

Installatore Ditta
Installer Messrs

Indirizzo Telefono
Address Telephone

Descrizione materiale installato / Description of the components installed

Centrale di comando Control box	Radio Radio	Dispositivi di sicurezza Safety devices	Note Notes

Controlli periodici / Periodical check-ups

Data / Date Descrizione / Description.....
Data / Date Descrizione / Description.....
Data / Date Descrizione / Description.....
Data / Date Descrizione / Description.....

Da compilare in caso di anomalia (inviare fotocopia della pagina allegandola all'attuatore in riparazione)

To fill in case of defect (send copy of the page enclosed with the actuator to be repaired)

Difetto segnalato / Defect
.....

Parte riservata alla mhouse per comunicazioni al cliente

Space reserved for mhouse to communicate with the Clients


Data registrazione Data riparazione..... N. Riparazione
Date of registration Repair date Repair number

Parti sostituite
Parts replaced

Note / Note..... Firma tecnico / Technician signature




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 CENTRO STAMPA - Oderzo (TV)

ISTW 4865

1) Warnings

This manual contains important information regarding safety. Before starting installation of the components, it is important that you read all the information contained herein. Store this manual safely for future use.

Due to the dangers which may arise during both the installation and use, installation must be carried out in full observance of the laws, provisions and rules currently in force to ensure maximum safety.

This chapter provides details of general warnings. Other more specific warnings are detailed in Chapters "3.2 Preliminary Checks" and "6 Testing and Commissioning".

⚠ According to the most recent European legislation, the automation of doors or gates is governed by the provisions listed in Directive 98/37/CE (Machine Directive) and, more specifically the standards: EN 13241-1 (harmonised standard); EN 12445; EN 12453 and EN 12635, which enables the declaration of machine conformity to the machine directive.

Visit "www.niceforyou.com" for further information and guidelines for risk analysis and how to draw up the Technical Documentation. This manual has been especially written for use by qualified fitters. Except for the enclosed specification "Instructions and Warnings for Users" to be removed by the installer, none of the information provided in this manual can be considered as being of interest to the end users!

- Any use or operation not explicitly provided for in these instructions is not permitted. Improper use may cause damage and personal injury.
- A risk analysis must be carried out before starting installation, including a the list of essential safety requisites provided for in Enclosure I of the Machine Directive, indicating the relative solutions employed. N.B. Risk analysis is one of the documents included in the "Technical Documentation" for this automation.
- Check whether additional devices are needed to complete the automation based on the specific application requirements and dangers present. The following risks must be considered: impact, crushing, shearing, dragging, etc. as well as other general dangers.
- Do not modify any components unless such action is specified in this manual. Operations of this type are likely to lead to malfunctions. NICE disclaims any liability for damage resulting from modified products.
- During installation and use, ensure that solid objects or liquids do not penetrate the control unit or other open devices. If necessary, contact the NICE customer service department; use in these conditions can be dangerous.
- The automation system must not be used until it has been commissioned as described in chapter 6 "Testing and commissioning".
- The packaging materials must be disposed of in compliance with local regulations.
- If a fault occurs that cannot be solved using the information provided in this manual, contact the NICE customer service department.
- In the event that any automatic switches are tripped or fuses blown, attempt to identify and eliminate the relative fault.
- Disconnect all the power supply circuits before accessing the terminals inside the cover. If the disconnection device is not identifiable, affix the following sign: "WARNING: MAINTENANCE WORK IN PROGRESS".

Special warnings concerning the suitable use of this product in relation to the 98/37CE "Machine Directive" (ex 89/392/CEE):

- This product is issued on the market as a "machine component" and is therefore manufactured to be integrated in a machine or assembled with other machines in order to create "a machine", in accordance with the directive 98/37/EC, exclusively in combination with other components and in the manner described in the present instructions manual. As specified in the directive 98/37CE the use of this product is not admitted until the manufacturer of the machine on which this product is mounted has identified and declared it as conforming to the directive 98/37/CE.

Special warnings concerning suitable use of this product in relation to the 73/23/EEC "Low Voltage" Directive and subsequent amendments 93/68/CEE:

- This product complies with the provisions envisaged by the "Low Voltage" Directive if used in the configurations foreseen in this instruction manual and in combination with the articles present in the Nice S.p.a. product catalogue. If the product is not used in the specified configurations or is used with other products that have not been foreseen, the requirements may not be guaranteed; use of the product is prohibited in these conditions until compliance with the requirements foreseen by the directive has been verified by installers.

Special warnings concerning suitable use of this product in relation to the 89/336/EEC "Electromagnetic Compatibility" Directive and subsequent amendments 92/31/EEC and 93/68/EEC:

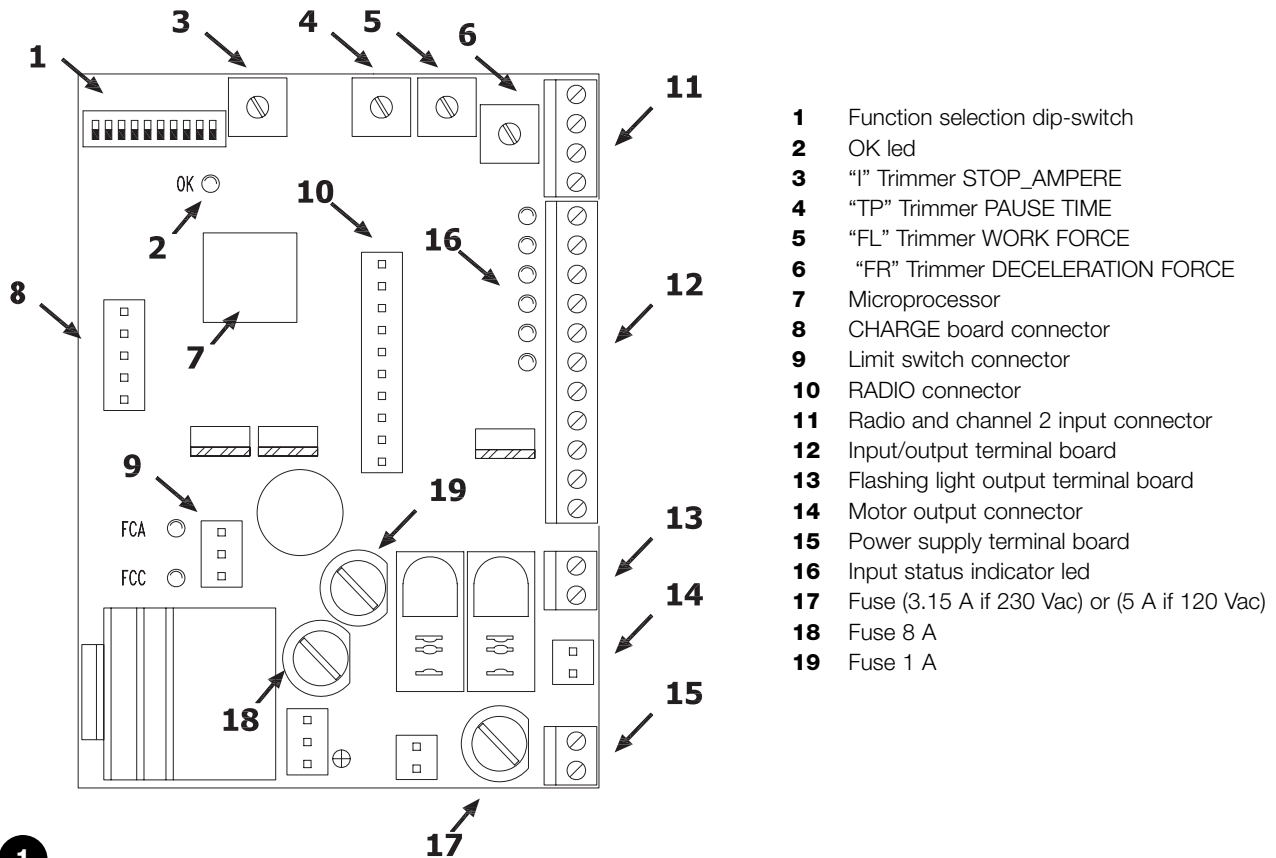
- This product has undergone tests regarding electromagnetic compatibility in the most critical of use conditions, in the configurations foreseen in this instruction manual and in combination with articles present in the Nice S.p.A. product catalogue. Electromagnetic compatibility may not be guaranteed if used in configurations or with other products that have not been foreseen; use of the product is prohibited in these conditions until compliance with the requirements foreseen by the directive has been verified by installers.

2) Product description and applications

The electronic card is suitable for controlling road boom gates models "WIL 4" and "WIL 6" with 24 V d.c. motors.

The actuator has a limit switch with a speed control system that makes it possible to reach the travel limits by means of a slowing down phase. In addition, the effort the motor is subject to during movement is promptly detected as well as any obstacles that may be in the path and in such an even direction is reversed.

It can be controlled "manually", "semiautomatically" or "automatically". There are also certain functions like "Reclose immediately after Photocell" or "Reclose always", "Flashing also in pause" as well as other operating functions such as "Gradual Start-up" and "Slowing down" (a standard feature) plus a sensitive "Brake" that only comes into play if movement has to be stopped hastily.



The task of the OK LED (**7**) is to signal the correct functioning of the internal logic; it must flash at 1 second intervals and indicates that the internal microprocessor is working and waiting for commands. Whenever there is a variation in the state of the inputs or of the function dip-switches (**1**), a double, quick flashing is generated even if the effects of the variation are not immediate.

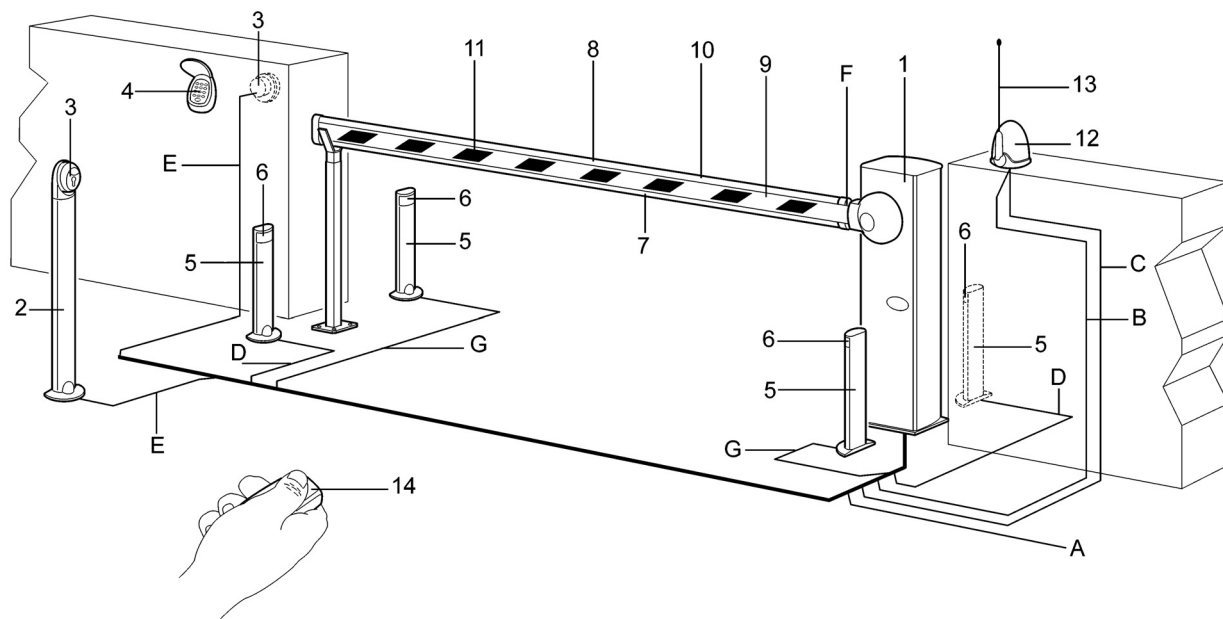
When the unit is powered, the luminous indicators (**16**) on the inputs turn on if that particular input is active and if there is a control voltage of 24 Vcc. As a rule, the LEDs on the safety device inputs STOP, PHOTOCCELL and PHOTOCCELL 2 and those on the limit switches are always on while those on the STEP-BY-STEP, OPEN and CLOSE are normally off.

During movement, the current absorbed by the motor is measured; when it exceeds a certain limit (adjustable with the trimmer) the safety system is activated which causes movement to stop with the aid of the brake (removing the residual part of accumulated kinetic energy); then, if one of the automatic functioning modes is active, a movement in the opposite direction starts. To increase the level of safety still further, if the STOP_AMPERE system comes into play three consecutive times without ever reaching any of the natural ends of the movement, a final STOP is carried out.

2.1) Operating limits

Chapter 9 "Technical Characteristics" provides the only data needed to determine whether the products are suitable for the intended application.

2.2) Typical system



2

- | | | |
|---------------------------------|-------------------------------|----------------------------|
| 1. WIL Barrier | 6. pair of PHOTO photocells | 11. Adhesive warning strip |
| 2. Selector post | 7. Luminous indicator | 12. flashing light |
| 3. Key-operated selector switch | 8. Luminous indicator | 13. RADIO aerial |
| 4. Radio keypad | 9. Closing rod | 14. Radio transmitter |
| 5. Photocell post | 10. Sensitive edge on PHOTO 1 | |

NOTE: This diagram only shows a possible application of the unit and should be considered merely as an example. Only an in-depth analysis of the risks of the "Machine" gate and a proper evaluation of the end user requirements will be able to establish how many and which elements must be installed.

2.3) List of cables

The typical system shown in figure 2 also states the cables required for connection of the various devices, the specifications of which are provided in table 1.

⚠ The cables used must be suitable for the type of installation; for example, an H03VV-F type cable is recommended for indoor applications, while H07RN-F is suitable for outdoor applications.

Table 1: List of cables		
Connection	Cable type	Maximum admissible length
A: Electrical power line	N°1 cable 3x1,5mm ²	30m (note 1)
B: Flashing light	N°1 cavo 2x0,5mm ²	20m
C: Aerial	N°1 shielded cable type RG58	20m (less than 5m recommended)
D: Photocells	N°1 cable 2x0,25mm ² (Tx)	30m
	N°1 cable 4x0,25mm ² (Rx)	30m
E: Key-operated selector switch	N°1 cable 4x0,25mm ²	30m
F: Sensitive edge	N°1 cable 2x0,25mm ²	30m
G: Photocells	N°1 cable 2x0,25mm ²	30m
	N°1 cable 4x0,25mm ²	30m

Note 1: power supply cable longer than 30 m may be used provided it has a larger gauge, e.g. 3x2,5mm², and that a safety earthing system is provided near the automation unit.

3) Installation

⚠ The installation must be carried out by qualified personnel in compliance with current legislation, standards and regulations, and the directions provided in this manual.

3.1) Preliminary checks

Before proceeding with the installation:

- Check that all the materials are in excellent condition, suitable for use and compliant with current standards.
 - Ensure that the mounting positions of the various devices are protected from impact and that the mounting surfaces are sufficiently sturdy.
 - Install cable or pipe leads only at the bottom of the unit; for no reason whatsoever must the side and top walls be perforated. The cables must only enter the unit from the bottom!
 - Components must never be immersed in water or other liquids.
 - Keep away from heat sources and open flames; in acid, saline or potentially explosive atmosphere; this could damage and cause malfunctions or hazardous situations.
 - Only connect the control unit to a power supply line equipped with a safety grounding system.
- The power supply line must be protected by suitable magnetothermal and differential switches.
 - A disconnection device must be inserted in the power supply line from the electrical mains (the distance between the contacts must be at least 3.5 mm with an overvoltage category of III) or equivalent system, for example an outlet and relative plug. If the disconnection device for the power supply is not mounted near the automation, it must have a locking system to prevent unintentional, unauthorised connection.

3.2) Diagram of the connections

Installation of the barrier and relative control elements (key selector or push button panel) and safety (emergency stop, photoelectric cells, sensitive edges and flashing light) elements have been installed, you can now do the wiring, following the instructions given below.

⚠ To safeguard the operator and avoid damaging the components while you are wiring, whether it is low voltage (230 -120Vac) or extra low voltage (24 V) or if you are plugging in the various cards:

The unit must, under no circumstances, be electrically powered.

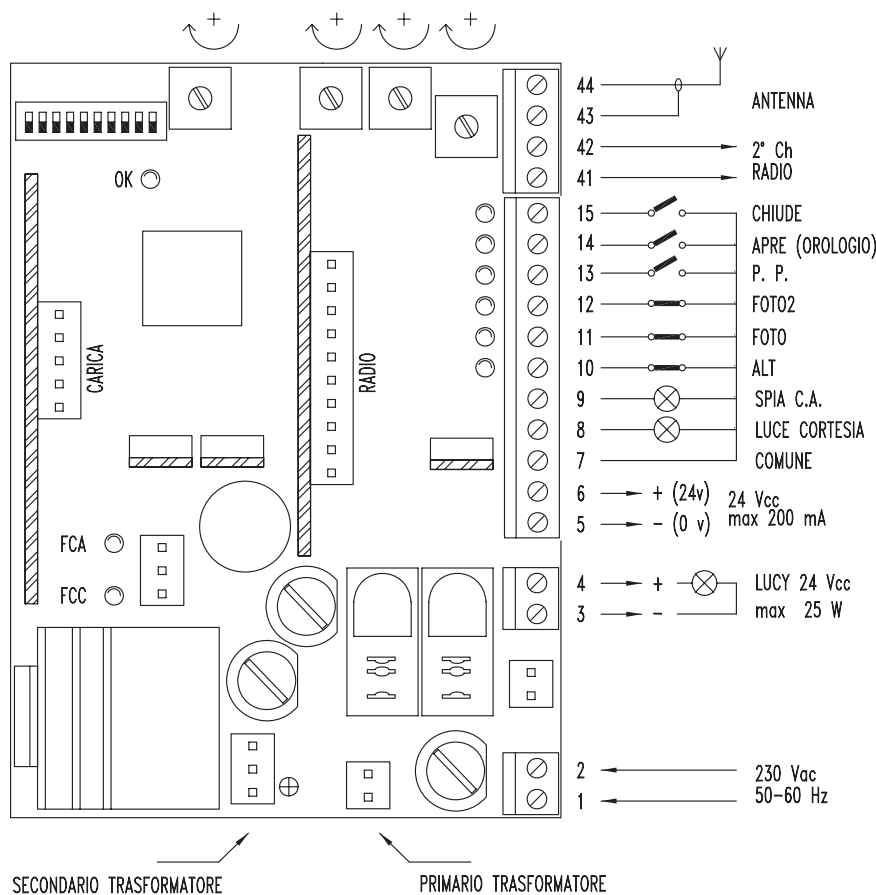
We also wish to remind you that if the inputs of the NC (Normally Closed) contacts are not used they should be jumpered; if there is more than one then they should be placed in SERIES with one another; if the inputs of the NO (Normally Open) contacts are not used they should be left free and if there is more than one then they should be placed in PARALLEL with one another. The contacts must be of the mechanical type and free from any potential; no connections are allowed like those defined as "PNP", "NPN", "Open Collector" etc., etc.

Carry out the necessary connections, following the diagram in Fig. 4 and the following description of the connections.

Remember that there are specific standards that must be complied with both as regards the safety of the electrical systems and as regards automatic gates.

3.3) Description of the connections

Here is a brief description of the possible connections of the unit to the outside:



3

- | | |
|----------------------------------|---|
| 1-2 : 230 V a.c. | = 230 V a.c. 50/60 Hz |
| 3-4 : Flashing light | = Output for connection to the 24 V d.c. flashing light, maximum lamp power: 25 W |
| 5-6 : 24 V d.c. | = 24 V d.c. output for supplying accessories (Photocell, Radio, etc.) maximum 200 mA |
| 7 : Common | = Common for all inputs (terminal 6 can also be used as the Common) |
| 8 : Courtesy Light | = 24 V d.c. output for the courtesy light, maximum output power 10 W |
| 9 : C.A. Indicator | = Input with STOP function (Emergency, shutdown or extreme safety) |
| 10 : Stop | = Input for safety devices (Photocells, pneumatic edges) |
| 11 : Photocell | = Input for safety devices with triggering in the opening phase (Photocells, pneumatic edges) |
| 12 : Photocell2 | = Input for safety devices with triggering |
| 13 : Step-by-Step | = Input for cyclic functioning (OPEN STOP CLOSE STOP) |
| 14 : Open-Timer | = Input for opening (which can be timer controlled) |
| 15 : Close | = Input for closing |
| 41-42 : 2nd radio channel | = Output for the second radio receiver channel if existing |
| 43-44 : Aerial | = Input for the radio receiver aerial |

The remaining connections are done in the factory but for the sake of completeness here is the list:

- | | |
|----------------------|---|
| TRANS.PRIM. | = Primary of the power transformer |
| TRANS.SECOND. | = Secondary of the power transformer |
| MOTOR | = Output for 24 V d.c. motor connection |

There are an additional two slots for optional cards:

- | | |
|---------------|---------------------------------|
| RADIO | = Slot for Nice radio receivers |
| CHARGE | = Slot for battery charge card |

4) Adjustments

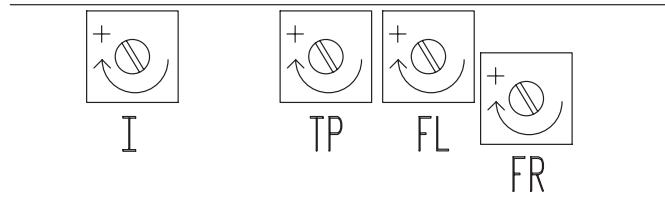
FL Adjustment of the WORK FORCE trimmer enables control of the barrier speed

FR Adjustment of the DECELERATION FORCE trimmer enables setting of the required thrust to ensure correct operation in the deceleration phase so that the rod reaches the stop points as “smoothly” as possible without jolting; the perfect setting of the balancing spring is fundamental of course.

NOTE: Adjustment of the (FL) and (FR) trimmers alters the speed of the barrier as this is connected with FORCE.
A decrease in FORCE causes a decrease in speed.

I Lastly adjust the trimmer STOP_AMPERE so the obstacle detecting system, based on an ammetric friction system, is activated as soon as an appropriate opposite action is applied to the bar. The ammetric friction system comes into play in both directions.

TP If you have chosen the automatic functioning mode (dip-switch No. 2 ON), the end of the opening manoeuvre is followed by a “pause” time at the end of which a closing manoeuvre follows automatically. The time stays open can be adjusted with the PAUSE TIME trimmer for the length of time you want, without any limits. An automatic closing manoeuvre and the relative pause time are activated also in the semiautomatic functioning mode when, in closing, the triggering of a safety device will cause the gate to reverse direction



4.1) Functioning modes

In the manual functioning mode the OPEN input allows movement up to the opening point; the CLOSE input allows movement up to the closing point; STEP-BY-STEP allows alternative opening and closing manoeuvres; as soon as the command in input stops, movement stops. In the opening phase movement stops when the maximum opening point is reached or if there is no consent from PHOTOCCELL 2; to the contrary, in the closing phase movement will stop at the maximum closed point or if there is no consent from the PHOTOCCELL. If STOP is triggered it will cause movement to stop immediately both in the opening and closing manoeuvres. Once movement has stopped the command in input has to be stopped before any new movements can be rective).

In either of the automatic functioning modes (semiautomatic-automatic and closes always) a command on the OPEN input will cause an opening manoeuvre; if the command remains (TIMER) once the bar is open, the bar remains “frozen” in an infinite pause; only when the command stops will the bar be able to close. Command pulses on the CLOSE input will cause a closing manoeuvre; if the command remains the bar will stay locked in the closed position until the command ceases and only then can it be reopened. A pulse on STEP-BY-STEP causes alternative opening and closing.

A second pulse on the STEP-BY-STEP or on the same input that started the movement, will cause a Stop.

Whether in the opening or closing phase, if STOP triggers it will cause movement to stop immediately.

In an opening manoeuvre, triggering of the PHOTOCCELL has no effect while PHOTOCCELL 2 will cause reversal of movement; in a closing manoeuvre, triggering of the PHOTOCCELL causes movement to reverse followed by a new pause and lastly reclosing.

If at the beginning of an opening movement, the PHOTOCCELL input does not give consent, the request to open is cancelled.

If the automatic functioning mode is being used, there will be a pause time subsequent to an opening manoeuvre and followed by a closing manoeuvre. If, during the pause the PHOTOCCELL triggers, the timer will be reset with a new time; if, on the other hand, a STOP comes into play during the pause, the reclosing function will be cancelled and there will be a STOP condition.

5) Programming

The unit comprises a set of microswitches used to operate various functions so as to render the system more suitable to user needs and safer in the different ways of usage. All functions are activated by placing the dip-switch in the “ON” position while they will not be activated if the corresponding dip-switches are “OFF”; some functions do not have an immediate effect and only have sense in certain conditions like.

⚠ ATTENTION: some of the programmable functions are linked to safety aspects, very carefully evaluate the effects of a function and see which function gives the greatest possible level of safety.

When servicing a system, before you modify a programmable function, ascertain the reason why, during installation, certain choices were made and then verify if, with the new programming, safety will be impaired.

5.1) Programmable functions

Switches 1-2:	Off Off	= "Manual" movement (Man Present)
	On Off	= "Semiautomatic" movement
	Off On	= "Automatic" movement (Automatic Closing)
	On On	= "Automatic+Always Closes" movement
Switch 3:	On	= Condominium functioning mode
Switch 4:	On	= Cancels STOP in the Step-by-Step cycle
Switch 5:	On	= Preflashing
Switch 6:	On	= Flashing also in Pause
Switch 7:	On	= Recloses straight after Photocell (only if on Automatic)
Switch 8:	On	= Safety (Photocell) also in opening
Switch 9:	On	= Bar open indicator becomes traffic light in the "one-way" mode
Switch 10:	On	= Functioning in the "Traffic light in both directions" mode

5.2) Description of the functions

Switches 1-2: Off Off = "Manual" movement (Man Present)
 On Off = "Semiautomatic" movement
 Off On = "Automatic" movement (Automatic Closing)
 On On = "Automatic+Always Closes" movement"

When in the "Manual" functioning mode, movement will only be carried out while the command is being given (button pressed).

In the "Semiautomatic" mode just one command pulse is needed and the complete manoeuvre will be carried out until it is either fully open or fully closed. In the "Automatic" functioning mode one command pulse will cause an opening manoeuvre to be carried out followed by a pause and then a closing manoeuvre.

The "Always Closes" function works if, subsequent to a temporary power cut, the bar is still open; in this case, a closing manoeuvre is started automatically preceded by 5 seconds of preflashing.

Switch 3: On = Condominium function

In the Condominium functioning mode, once an opening manoeuvre has started, for instance with a Step-by-Step pulse, it cannot be interrupted by any other command pulses until it has finished.

During a closing manoeuvre, a new command pulse will stop the bar and immediately reverse the direction, opening the bar.

Switch 4: Cancels STOP in the Step-by-Step cycle

The Step-by-Step cycle is normally: OPEN-STOP-CLOSE-STOP; in this functioning mode the Step-by-Step cycle becomes: OPEN-CLOSE-OPEN so the bar can never stop midway, but only when completely open or completely closed.

Switch 5: On = Preflashing

The flashing light starts prior to each movement; after 5 seconds (2 seconds if on manual) movement starts.

Switch 6: On = Flashing also in Pause

The flashing light is normally activated only during the opening and closing manoeuvres; with this function the flashing light remains active also during the Pause Time to signal the "closing soon" condition.

Switch 7: On = Recloses straight after Photocell (only if on Automatic: Sw 2 = ON)

With this function the bar can be kept open only for the length of time needed for transit; in fact, it will close automatically always 5 seconds after the last object has passed by the "Photocell", irrespective of the programmed Pause Time.

Switch 8: On = Safety (Photocell) also in opening

As a rule the safety "Photocell" only works in the closing cycle; if switch 8 is "ON" the triggering of the safety device will cause the bar to stop even in the opening phase; if on Semiautomatic or Automatic, movement will start again, in opening, immediately after the last object has passed by the Photocell.

Switch 9: Bar open indicator becomes traffic light in the "one-way" mode

As an alternative to the Gate Open indicator, the output can be reprogrammed so that it performs the function of a "one-way" traffic light; this means the output is off when the bar is closed or closing, and on when the bar is opening or is opened. In this way, an indication can be fixed to the exit like: Green = Transit free.

Switch 10: Functioning in the "Traffic light in both directions" mode

Several changes occur in the control unit when the "Traffic light in both directions" function is activated when Switch 10 is ON: OPEN becomes STEP-BY-STEP 2, while the two outputs, Courtesy Light and Bar Open Indicator become a Green Light in both directions. Due to the specific nature of this function we are giving a separate description.

Traffic light in both directions:

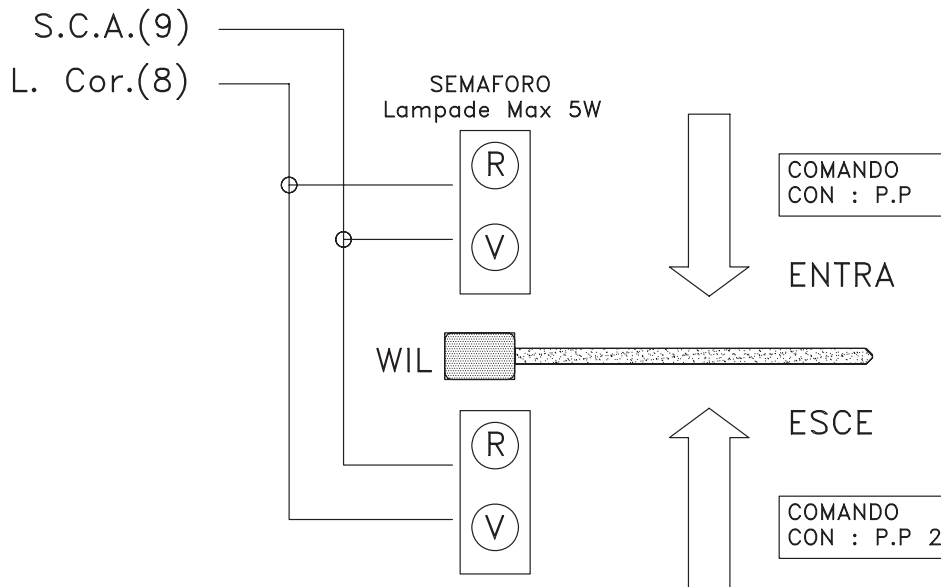
The function of the traffic light in both directions is mainly to control the flow of traffic in both directions as they go across the controlled road barrier. A different command is placed for opening in both directions: P.P. for entering and P.P.2 (Open) for leaving; two traffic lights are installed with the indications Red and Green, connected to the Bar Open Indicator and Courtesy Light outputs.

The two outputs are usually off and so are the two traffic lights; when a command is given with P.P. to enter, movement is started and the Bar Open Indicator output is activated: this means there will be a green light to enter and a red light to leave.

But should the command be given with the P.P.2, the Courtesy Light output will be activated and there will be a green light to leave and a red light to enter. The light will stay on for the entire opening manoeuvre and for the subsequent pause time; during the closing manoeuvre both the green and red lights will be activated (the result being yellow) to indicate there is no longer any transit priority (see table).

Red	Green	Meaning:
OFF	OFF	Bar closed, no passage in either direction
OFF	ON	Bar open, free transit
ON	OFF	Bar open, transit occupied
ON	ON	Bar closing and transit not controlled

The two Bar Open Indicator and Courtesy Light outputs can directly control small 24 V d.c. lamps for a total of 10 W. If stronger lamps have to be used, use the relays piloted by the unit outputs that control, in turn, the traffic lights.



6) Testing

⚠ This is the most important stage in the automation system installation procedure in order to ensure maximum safety levels. Testing can also be adopted as a method of periodically checking that all the various devices in the system are functioning correctly.

Testing of the entire system must be performed by qualified and experienced personnel who must establish which tests to conduct on the basis of the risks involved, and verify the compliance of the system with applicable regulations, legislation and standards, in particular with all the provisions of EN standard 12445 which establishes the test methods for automation systems for gates.

We recommend working in the manual mode with all the functions deactivated (dip-switches OFF); in all cases, when you are working in the manual mode and you release the control key the motor will stop immediately.

Each component of the system, e.g. safety edges, photocells, emergency stop, etc. requires a specific testing phase, we therefore recommend observing the procedures shown in the relative instruction manuals.

Ensure that the instructions outlined in this manual and in particular in chapter 1 "WARNINGS" have been observed in full.

- A)** Check that the bar is well balanced, adjusting the balancing spring if necessary.
Release the boom gate using the special spanner and check that the bar can move without any effort for the whole length of travel.
- B)** Power the unit and check that voltage between terminals 1-2 and 1-3 is 230 / 120 Vac and 24 V a.c. between terminals 21-22.

As soon as the unit is powered the indicator lights (LEDs) on the active inputs should light up; in addition, the "OK" LED should start flashing almost immediately afterwards at regular intervals. If none of this happens, switch power off and check connections more carefully.

- The task of the "OK" LED, in the centre of the card, is to signal the state of the internal logic: regular flashing at 1 second intervals means the internal microprocessor is working and waiting for commands. On the other hand, when the same microprocessor recognises a variation in the state of an input (be it a command input or function dip-switch), a double, quick flashing is generated even if the effects of the variation are not immediate. Extra fast flashing for 3 seconds means that the unit has just been powered

and is carrying out a test of the internal parts; lastly an irregular, non constant flashing means that the test was unsuccessful and, consequently, there is a failure.

C) Now check that the LEDs of inputs with NC type contacts are on (all the safety devices active) and that the LEDs of inputs with NO type contacts are off (no command present); if this does not happen check connections and effectiveness of the various devices.

D) Check that all the safety devices on the plant are working properly (emergency stop, photoelectric cells, pneumatic edges, etc.); each time they trigger the corresponding STOP, PHOTOCELL or PHOTOCELL 1 should turn off.

- This is one of the most important checks and must be done with great care, in actual fact the “active” safety of the gate machine depends on the correct functioning of the safety devices. If the flashing light is an excellent instrument for signalling the state of danger and the torque limiting devices are an excellent means to minimise damages, only a correct installation of the safety devices will make it possible to block the automatism before it can cause any damage.

E) Now is the time to check whether movement occurs in the right direction, that is, to see whether movement set on the unit corresponds to that of the gates.

This check is of paramount importance, if the direction is wrong in some cases (in the semiautomatic functioning mode for instance), the gate might appear to be working properly; in fact, the OPEN cycle is similar to the CLOSE cycle but with one basic difference, the safety devices are ignored in the closing manoeuvre which is normally the most dangerous, and they will trigger in the opening manoeuvre causing the gate to reclose up against the obstacle with disastrous results!

Lock the boom gate with the bar at a 45° angle so it can move freely in both directions. Now give a brief command pulse on the OPEN input and if the bar does not move in the opening direction proceed as follows:

- 1) Turn the electricity off to the boom gate
- 2) Unplug the “MOTOR” connector and replug it after it has been turned 180°
- 3) Unplug the “LIMIT SWITCH” connector and replug it after it has been turned 180°

Repeat the procedure described above in point E to see if rotation direction is right.

Note:

when direction is reversed then all the three procedures described above have to be carried out. In particular, if, for example, you turn the “MOTOR” connector but not the “LIMIT SWITCH” connector it will cause an error in the slowing down system. In such a case, the motor is controlled, for instance, in the opening phase but the FCA limit switch is never reached and consequently the bar reaches the opening point with maximum force; the ammetric detecting system then comes into play reversing direction in a new manoeuvre which is also wrong.

F) Having checked all connections and motor rotation direction, it is possible to try a complete movement, we recommend that you always work in the manual mode with all functions deactivated. If you use the Step-by-Step as the command input, the first movement (after turning on) should be an opening one.

By means of the command inputs, move the bar up to the opening point; about 20° from the stopping point the FCA limit switch should trigger, activating the “slowing down” phase which makes the bar reach the set point at a slower speed. Now carry out a closing phase until the closing point is reached; in this case too, the FCC limit

switch should trigger, activating the slowing down phase 20° before movement stops. Now test triggering of the safety devices: PHOTOCELL in opening has no effect while in the closing phase it causes the bar to stop; PHOTOCELL 2 has no effect in the closing phase while in the opening phase it causes the bar to stop. The devices connected to the STOP input act both in the opening and in the closing phases, causing the bar to stop.

G) The hazardous situations caused by the movement have been safeguarded by limiting the force of impact, the impact force must be measured according to EN Standard 12445. If the control of the “motor force” is used to assist the system for the reduction of the impact force, try to find the adjustment to obtain optimal results.

There is a trimmer on the card to establish the triggering threshold of this the friction; it has to be adjusted so that it comes into action as soon as a light pressure is applied to the bar in the direction opposite to the way it is moving.

To overcome the initial movement phase that always needs greater motor power, the STOP_AMPERE friction system is excluded from the motor start up phase; to evaluate the effect of the adjustment on the trimmer, you ought to wait until the movement has started and the bar has reached standard speed.

Keep in mind that, always for a question of safety, if the friction comes into play three consecutive times, movement is stopped without any reversal. If the automatic functioning mode is selected at the end of the opening manoeuvre, there is a “pause time” after which a closing manoeuvre is automatically launched. Pause time is adjusted with the trimmer PAUSE TIME. Pause time is also activated in the semiautomatic functioning mode when, in the closing phase, the triggering of a safety device or the STOP_AMPERE friction, causes a reversal in the opening manoeuvre.

6.1) Commissioning

Commissioning can take place only after all the testing phases of the control unit and the other devices have been completed successfully. It is not permissible to execute partial commissioning or to enable use of the system in makeshift conditions.

1. Prepare and store for at least 10 years the technical documentation for the automation, which must include at least the following: assembly drawing of the automation, wiring diagram, analysis of hazards and solutions adopted, manufacturer's declaration of conformity of all the devices installed (for WIL use the annexed CE declaration of conformity); copy of the instruction manual and maintenance schedule of the automation.
2. Affix a dataplate on the gate providing at least the following data: type of automation, name and address of manufacturer (person responsible for the "commissioning"), serial number, year of manufacture and "CE" marking.

3. Permanently fix a label or plate in the vicinity of the automation, stating the procedures for release and manual manoeuvres.
4. Prepare the declaration of conformity of the automation system and deliver it to the owner.
5. Prepare the "Instructions and warnings for the use of the automation system" and deliver it to the owner.
6. Prepare the maintenance schedule of the automation system and deliver it to the owner (this must provide all directions regarding the maintenance of the single automation devices).
7. Before commissioning the automation system inform the owner in writing regarding residual risks and hazards (e.g. in the "Instructions and warnings for the use of the automation system").

7) Maintenance and Disposal

⚠ This charter provides information about how to draw up a maintenance schedule, and the disposal.

7.1) Maintenance

The automation must undergo maintenance work on a regular basis, in order to guarantee prolonged lifetime.

The maintenance operations must be performed in strict compliance with the safety directions provided in this manual and according to the applicable legislation and standards.

If other devices are present, follow the directions provided in the corresponding maintenance schedule different from WIL.

1. Is requires scheduled maintenance work every 6 months or 10,000 manoeuvres (max.) after previous maintenance.
2. Disconnect all power supplies.

3. Check for any deterioration of the components which form the automation, paying particular attention to erosion or oxidation of the structural parts. Replace any parts which are below the required standard.

4. Connect the electric power sources up again, and carry out the testing and checks stated in Paragraph "6 Testing".

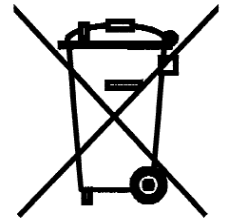
7.2) Disposal

As in the case of installation, at the end of the product lifetime, disposal procedures must be carried out by qualified personnel.

This product comprises various types of materials, some of which can be recycled while others must be disposed of. Check information on the recycling and disposal procedures according to local legislation for this product category.

⚠ Some parts of the product may contain pollutant or hazardous substances; if disposed of into the environment these may constitute a serious risk of damage to the environment and public health.

As indicated by the symbol in figure never dispose of this product in domestic waste. Apply "classified waste collection" procedures for disposal in accordance with local regulations or return the product to the retailer when purchasing a new model.



Local regulations may envisage serious fines in the event of illegal disposal of this product.

8) Accessories

"RADIO" CARD:

There is a connector in the unit for plugging in a radio card used to act on the STEP-BY-STEP input and thus control the unit remotely by means of a transmitter.

"CHARGE" CARD also battery powered:

The road boom gate "Wil" is equipped with a power transformer that can withstand the energy required by both the motor and electronic card so it can all be powered directly by the mains.

If you want the system to work even when there is a power cut then you have to add a suitable battery and relative battery charger card. The battery must be installed in its own compartment outside the plastic box that protects the gearmotor card and connected to two terminals on the battery charger card; the latter must be connected to the connector on the unit.

Consult the Nice S.p.a. product catalogue for the complete and updated list of accessories.

9) Technical characteristics

With the aim of improving products, Nice S.p.a reserves the right to modify technical characteristics at any time without notice, while maintaining the same functionalities and intended use.

All technical characteristics stated refer to an ambient temperature of 20°C (±5°C).

Power WIL4 – WIL6	230 Vac ±10%, 50 - 60 Hz
Power WIL4/V1 – WIL6/V1	120 Vac ± 10%, 50 - 60 Hz
Battery power	21-28 V d.c. (> 6Ah capacity)
Max. current accessories, 24 V d.c.	200 mA
Max. power flashing light	25 W (24 V d.c.)
Max. power Courtesy Light	10 W (24 V d.c.)
Max. power Open Bar indicator	10 W [24 V d.c.]
Maximum frequency of operating cycles	unlimited
Maximum time of continuous operation	unlimited
Pause time	from 3 to 120 seconds
Courtesy light time	60 seconds
Operating temperature	-20 to 70° C
Size	280 x 220 x 110 mm
Weight	3,7 Kg
Protection level	IP55 (container undamaged)