

## For private, public and industrial car parks.

Electromechanical barriers, 24 Vdc, with adjustable speed and anti-crushing safety feature. Intensive use.

### Four versions:

**up to 4 m** (WIL4, WIL4I),

**up to 6 m** (WIL6, WIL6I).

**Galvanised steel, painted case or AISI 304** (WIL4I, WIL6I).

**Incorporated control unit,** can be removed, making wiring and maintenance easier.

**Easy to install:** the bar can be assembled on either the right or left hand side indifferently.

### Easy to balance:

linear adjustment of the spring.

### The system will operate during

**a blackout** by means of internally fitted, rechargeable batteries.

The limit switches for slowdown during both opening and closing can be adjusted both mechanically and electronically

### Speed can be electronically adjusted:

WIL4, 3.5 second minimum opening time;

WIL6, 5 second opening time.

### Anti-crush safety feature

in opening and closing.

### Painted aluminium bar profile:

easy to assemble the signalling lights and pneumatic edge.

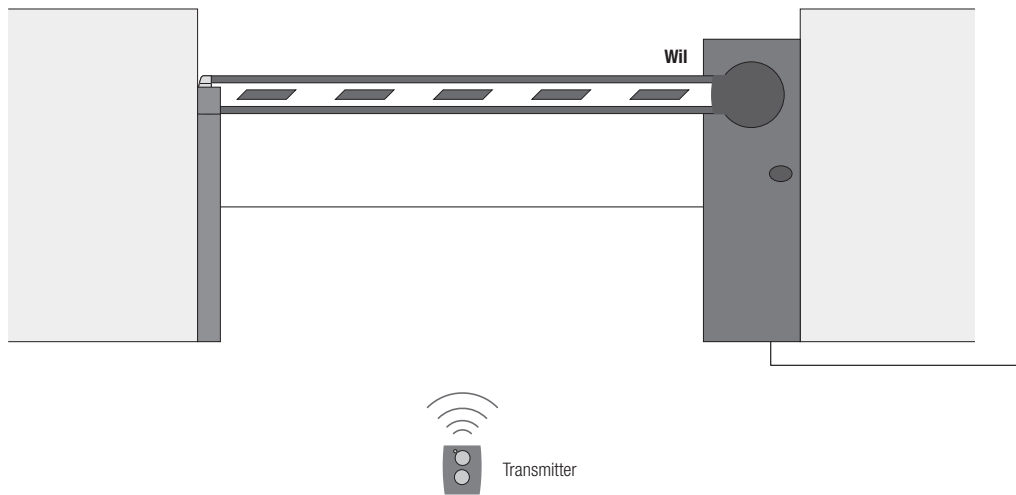
### LED signalling lights:

highly efficient and long-lasting.

### Easy to operate, protected

**key-operated unlock system.**





Approximate draft

Technical specifications

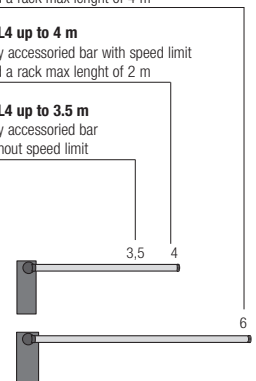
|                              | WIL4         | WIL6         |
|------------------------------|--------------|--------------|
| Power (Vac 50/60 Hz)         |              | 230          |
| Emergency power supply (Vdc) |              | 24           |
| Power absorbed (W)           | 180          | 100          |
| Current absorbed (line) (A)  | 1            | 0.5          |
| Current absorbed (motor) (A) | 8            | 5            |
| Protection level (IP)        |              | 44           |
| Reduction ratio              |              | 1/456        |
| Torque (Nm)                  | 150          | 220          |
| Minimum opening time (s)     | 3.5          | 5            |
| Working temp. (°C Min/Max)   |              | -20 ÷ +50    |
| Work cycle (%)               |              | 80           |
| Dimensions (mm)              | 320x1000x290 | 420x1050x290 |
| Weight (kg)                  | 46           | 54           |

Utilisation limits

**WIL6 up to 6 m**  
fully accessoried bar with speed limit and a rack max length of 4 m

**WIL4 up to 4 m**  
fully accessoried bar with speed limit and a rack max length of 2 m

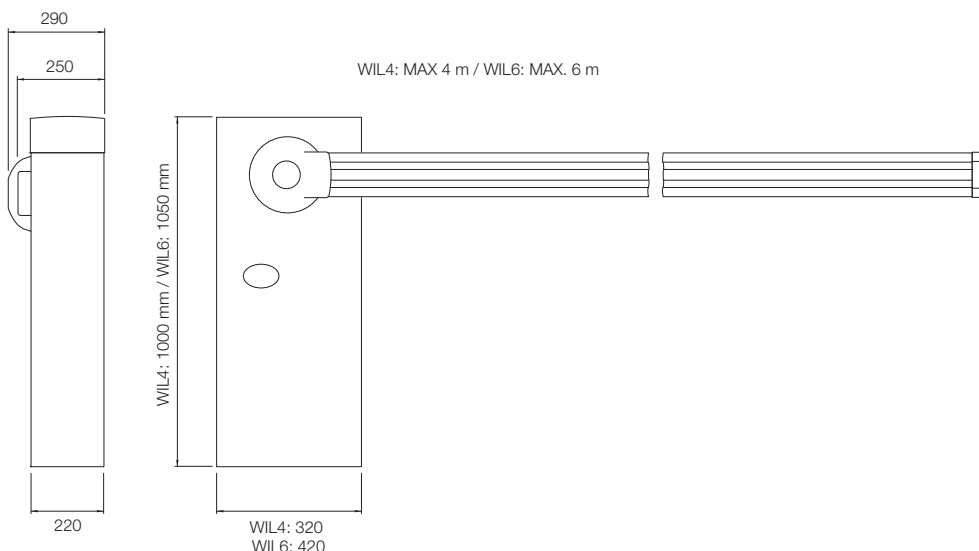
**WIL4 up to 3.5 m**  
fully accessoried bar without speed limit



**Bar length (m)**

*N.B. Tubular aluminium bars don't need the use of accessories (only WA11).*

Dimensions



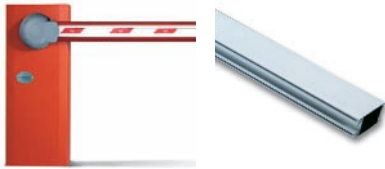
# Nice WilKit

Bar length up to 4 m

## WilKit 1

Square bar, including:

Nice Price £ 1,260.00



**WIL4**  
electromechanical barrier for bars up to 4 m long, irreversible 230 Vac, 24 Vdc motor, with galvanised steel painted case, supplied base plate  
1 pc

**WA1**  
aluminium bar, painted white  
36x73x4250 mm  
1 pc



**WA10**  
red adhesive reflector strips  
24 pcs

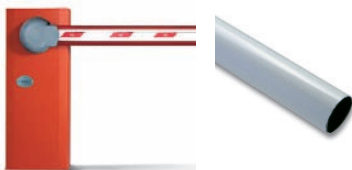


**WA11**  
adjustable stand for bars  
1 pc

## WilKit 2

Round bar, including:

Nice Price £ 1,331.00



**WIL4**  
electromechanical barrier for bars up to 4 m long, irreversible 230 Vac, 24 Vdc motor, with galvanised steel painted case, supplied base plate  
1 pc

**WA3**  
tubular aluminium bar, painted white  
Ø 70x4250 mm, suitable where there are strong winds. Only with WA11  
1 pc



**WA4**  
connection for the WA3 bar  
1 pc



**WA10**  
red adhesive reflector strips  
24 pcs



**WA11**  
adjustable stand for bars  
1 pc

## Bar length up to 6 m

### WilKit 3

Square bar, including:

Nice Price £ 1,606.00



**WIL6**  
electromechanical barrier for bars up to 6 m long, irreversible 230 Vac, 24 Vdc motor, with galvanised steel painted case, supplied base plate  
1 pc



**WA21**  
aluminium bar, painted white  
36x94x6250 mm  
1 pc



**WA10**  
red adhesive reflector strips  
24 pcs



**WA11**  
adjustable stand for bars  
1 pc

### WilKit 4

Round bar, including:

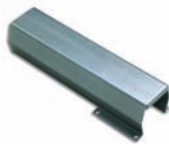
Nice Price £ 1,626.00



**WIL6**  
electromechanical barrier for bars up to 6 m long, irreversible 230 Vac, 24 Vdc motor, with galvanised steel painted case, supplied base plate  
1 pc



**WA7**  
tubular aluminium bar, painted white  
Ø 90x6250 mm suitable where there are strong winds, only with WA11  
1 pc



**WA8**  
connection for the WA7 bar  
1 pc



**WA10**  
red adhesive reflector strips  
24 pcs



**WA11**  
adjustable stand for bars  
1 pc

W

I

L

①

**MANUALE  
ISTRUZIONI  
E CATALOGO  
RICAMBI**

Alza barriera  
stradale  
elettromeccanico.

GB

**INSTRUCTIONS  
MANUAL  
AND SPARE  
PARTS  
CATALOGUE**

*Electromechanical  
boom gate.*

F

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

Barriere levante  
électromécanique.

D

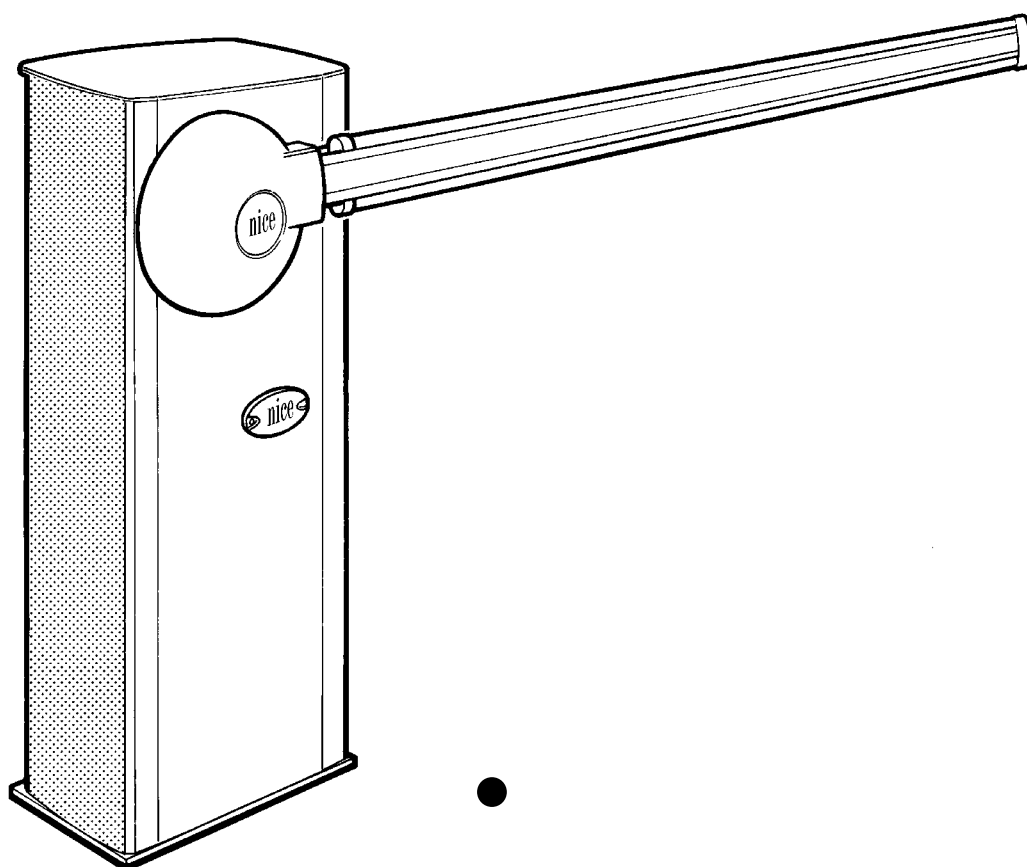
**ANLEITUNGSHEFT  
UND  
ERSATZTEIL-  
KATALOG**

Das  
*Elektromechanischer  
straßentor*

E

**MANUAL DE  
INSTRUCCIONES  
Y CATÁLOGO  
DE RECAMBIOS**

Elevador de  
barrera vial  
electromecánico



•  
nice®

CE

**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**

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

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

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

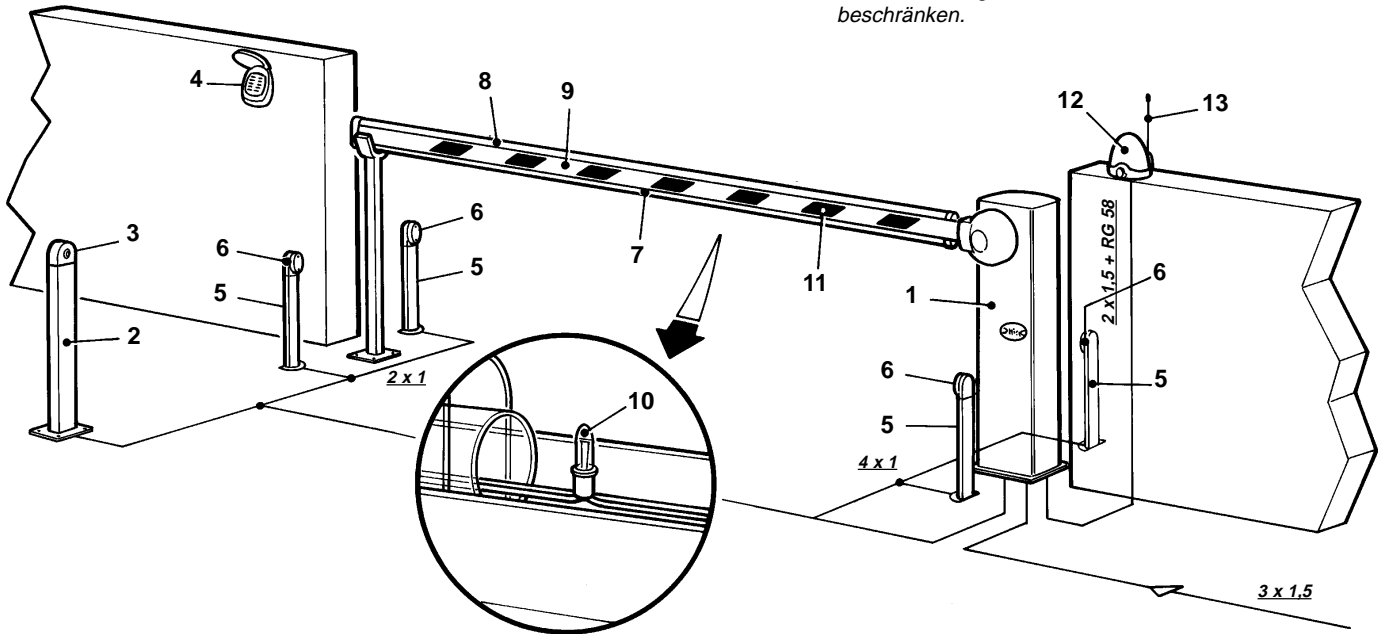
Applicando all'asta tutti gli accessori opzionali, limitarsi ad una lunghezza max. di mt. 5 per WIL 6 e di mt. 3,5 per WIL 4.

When installing all the optional accessories on the rod, envisage a max. rod length of 5 m. for WIL 6 and 3,5 m for WIL 4.

En appliquant à la lisse tous les accessoires en option, se limiter à une longueur maximum de 5 m pour WIL 6 et de 3,5 m pour WIL 4.

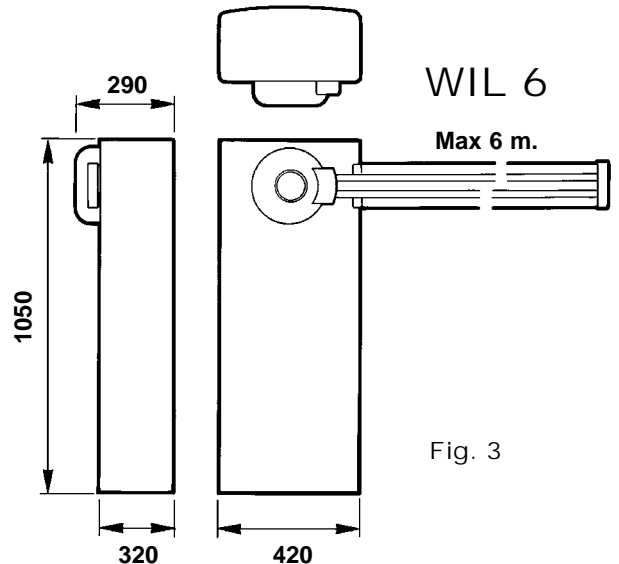
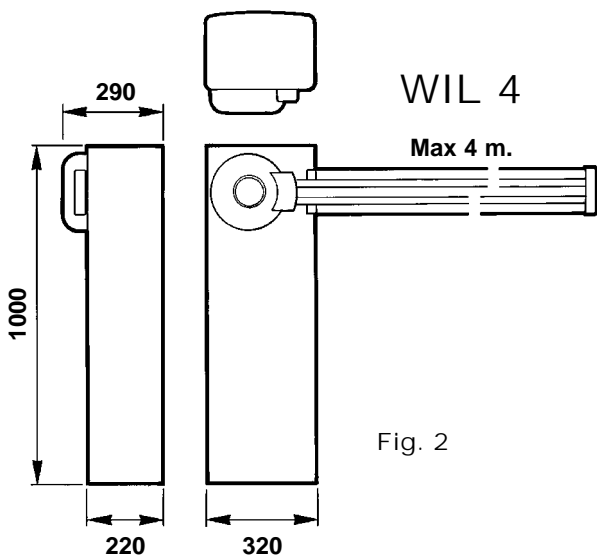
Bei der Anbringung aller Sonderzubehörteile an der Stange muss man sich bei WIL 6 auf eine Höchstlänge von 5 m und bei WIL 4 auf eine Höchstlänge von 3,5 m beschränken.

Si aplica a la barrera todos los accesorios opcionales, la longitud máxima debe ser de 5 m para WIL 6 y de 3,5 m para WIL 4.



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

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  
WIL -sx-

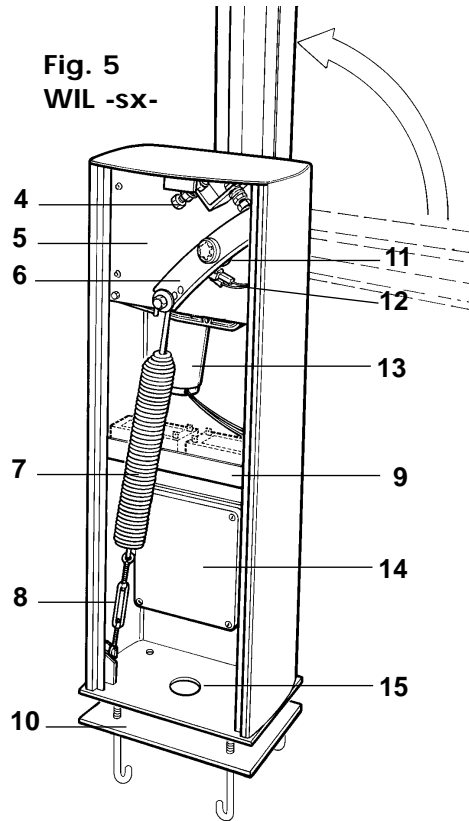
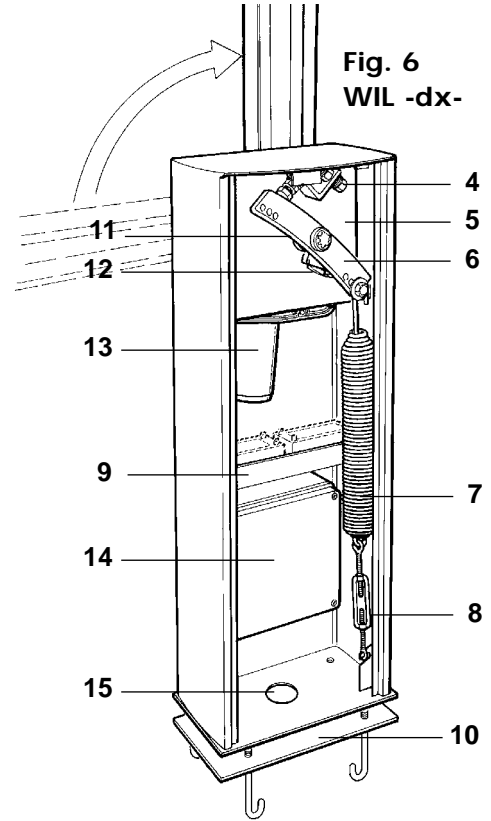


Fig. 6  
WIL -dx-



- 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 Entriesselung, 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 "WIL" 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.*

### WIL 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 "WIL" 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 "WIL" 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 vorhängen - 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

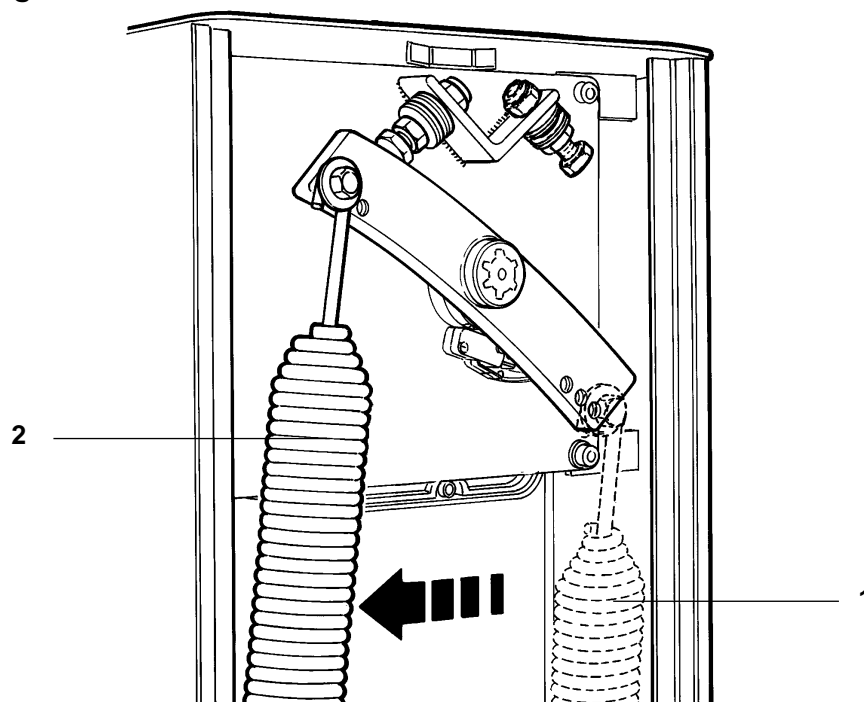
- La barrera derecha es aquella que tiene el armario colocado a la derecha, mirando desde el interior del pasaje.
- La barrera izquierda es aquella que tiene el armario colocado a la izquierda, mirando desde el interior del pasaje (convenzionalmente la puerta está colocada en el interior).

### Normalmente, "Wil" 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. (WIL 4) e, 6 m. (WIL 6) è sempre consigliabile l'utilizzo di un appoggio per l'asta, in modo particolare oltre i 4 m.

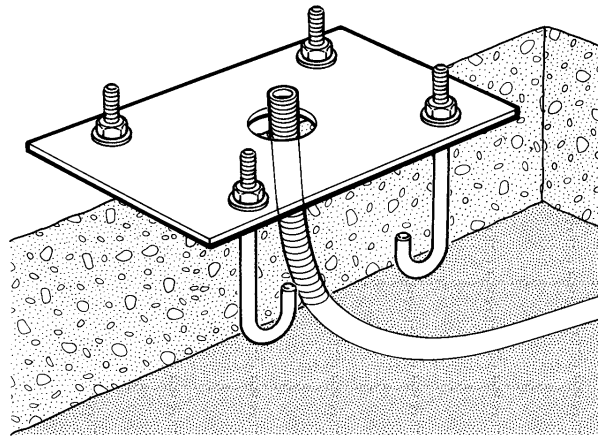


Fig. 8

**GB INSTALLATION**

Bury the anchorage base provided (Fig. 8) in a cement foundation. This anchorage 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 (WIL 4) and 6 metres (WIL 6) and we recommend using a support for the bar, especially when the distance is greater than 4 metres.

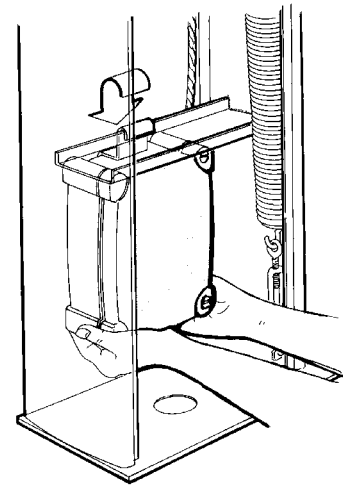


Fig. 9

**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 (WIL 4) et de 6 m (WIL 6); il est toujours conseillé d'utiliser une sellette d'appui pour la barre, en particulier au-delà de 4 m.

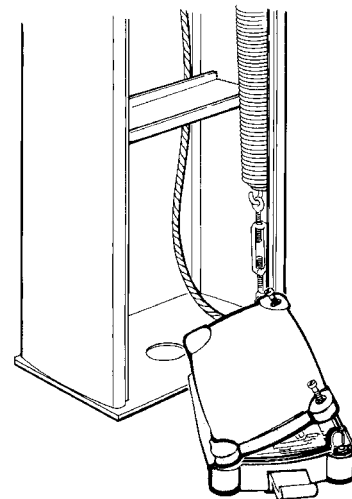


Fig. 10

**D INSTALLATION**

Die mitgelieferte Verankerungsbasis (Abb.8) in eine Zementfläche mit geeigneten Maßen 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 (WIL4) und 6 Meter (WIL6) 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 neta de 4 m. (WIL 4) y 6 m. (WIL 6). Se aconseja utilizar siempre un apoyo para las barreras que superen los 4 metros.

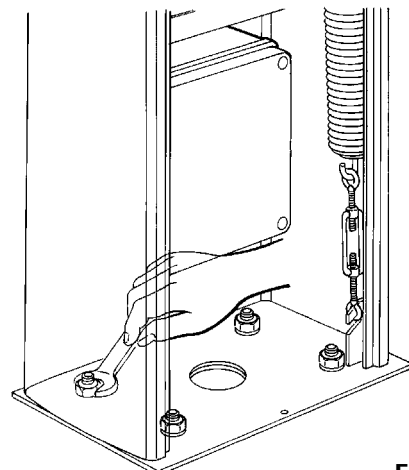


Fig. 11

**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.

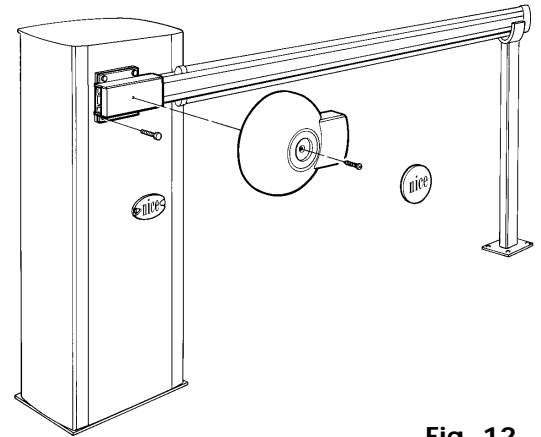


Fig. 12

**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.

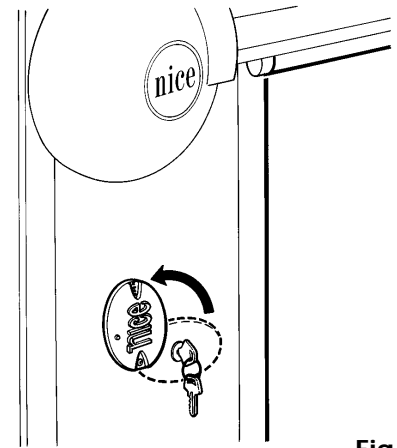


Fig. 13

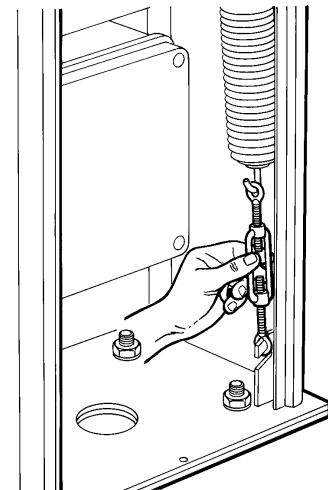


Fig. 14

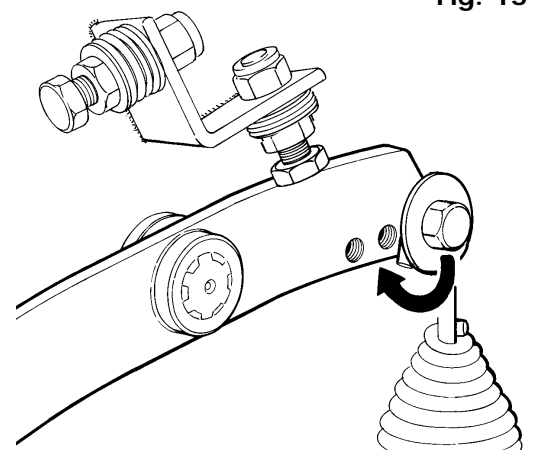


Fig. 15

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).

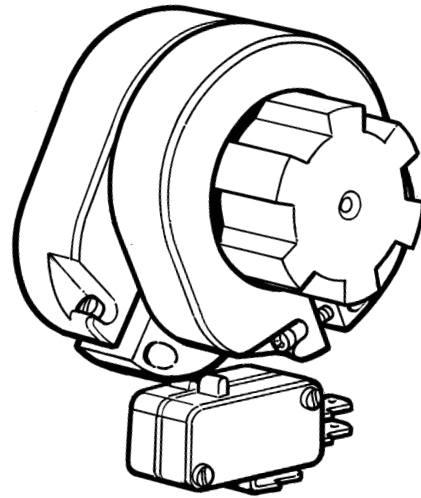


Fig. 16

Ⓕ **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).

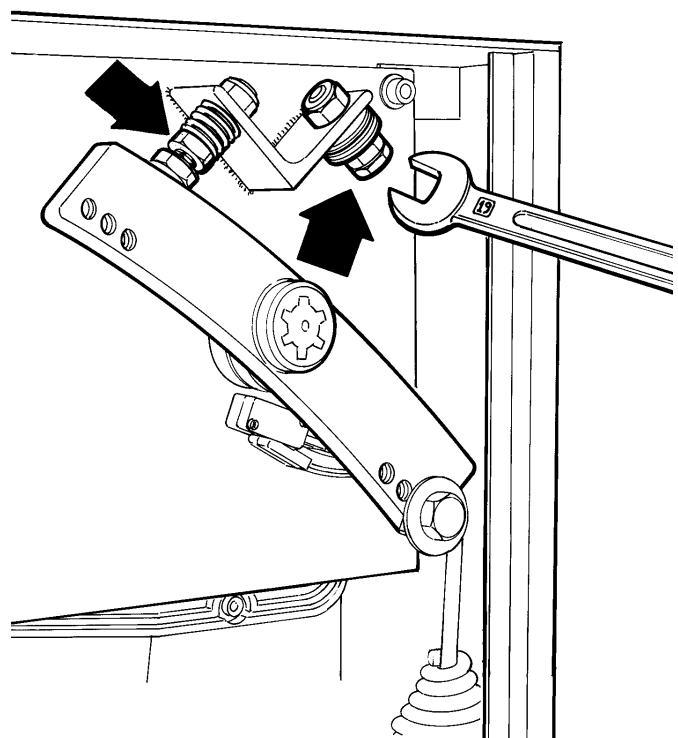
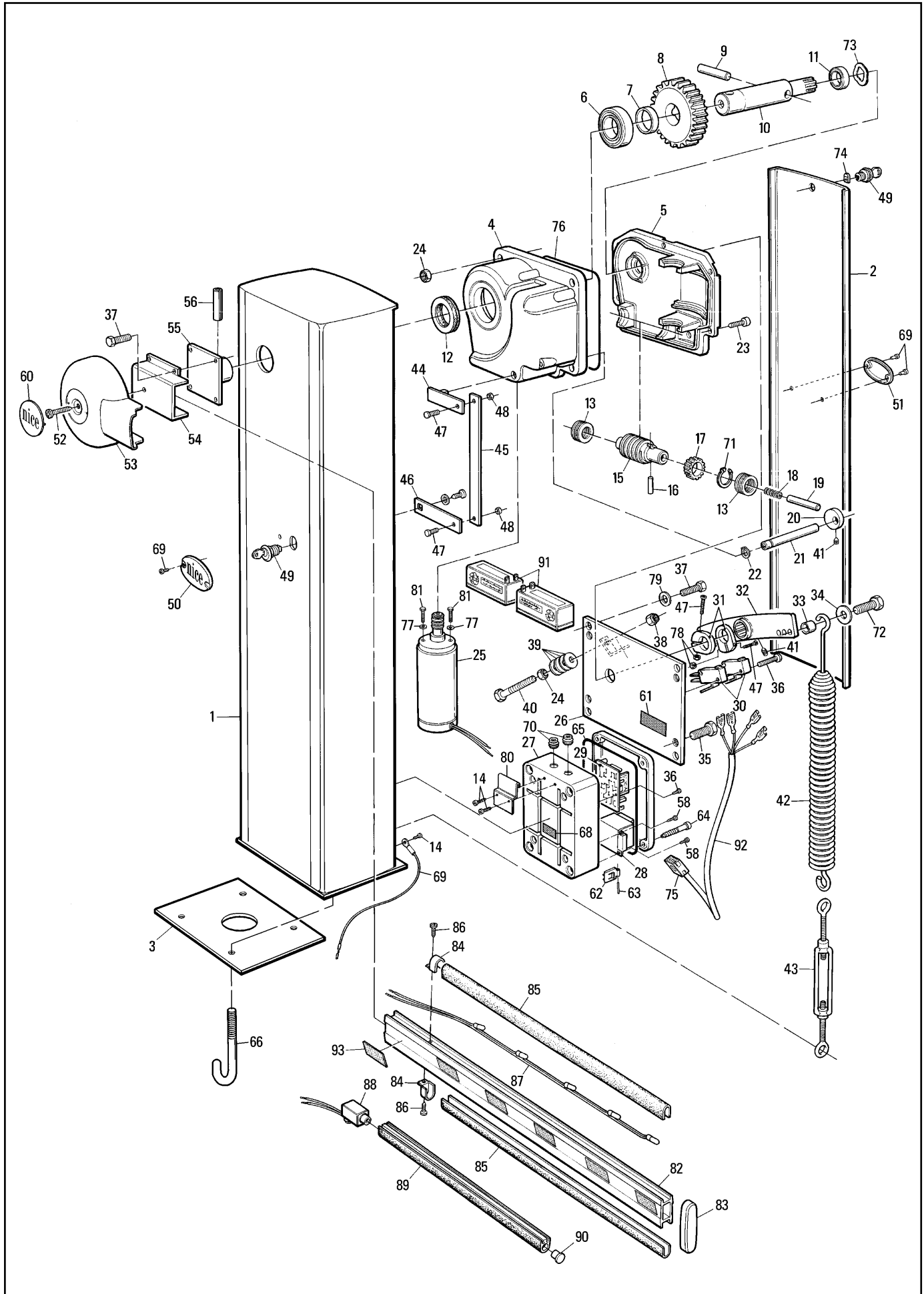


Fig. 17

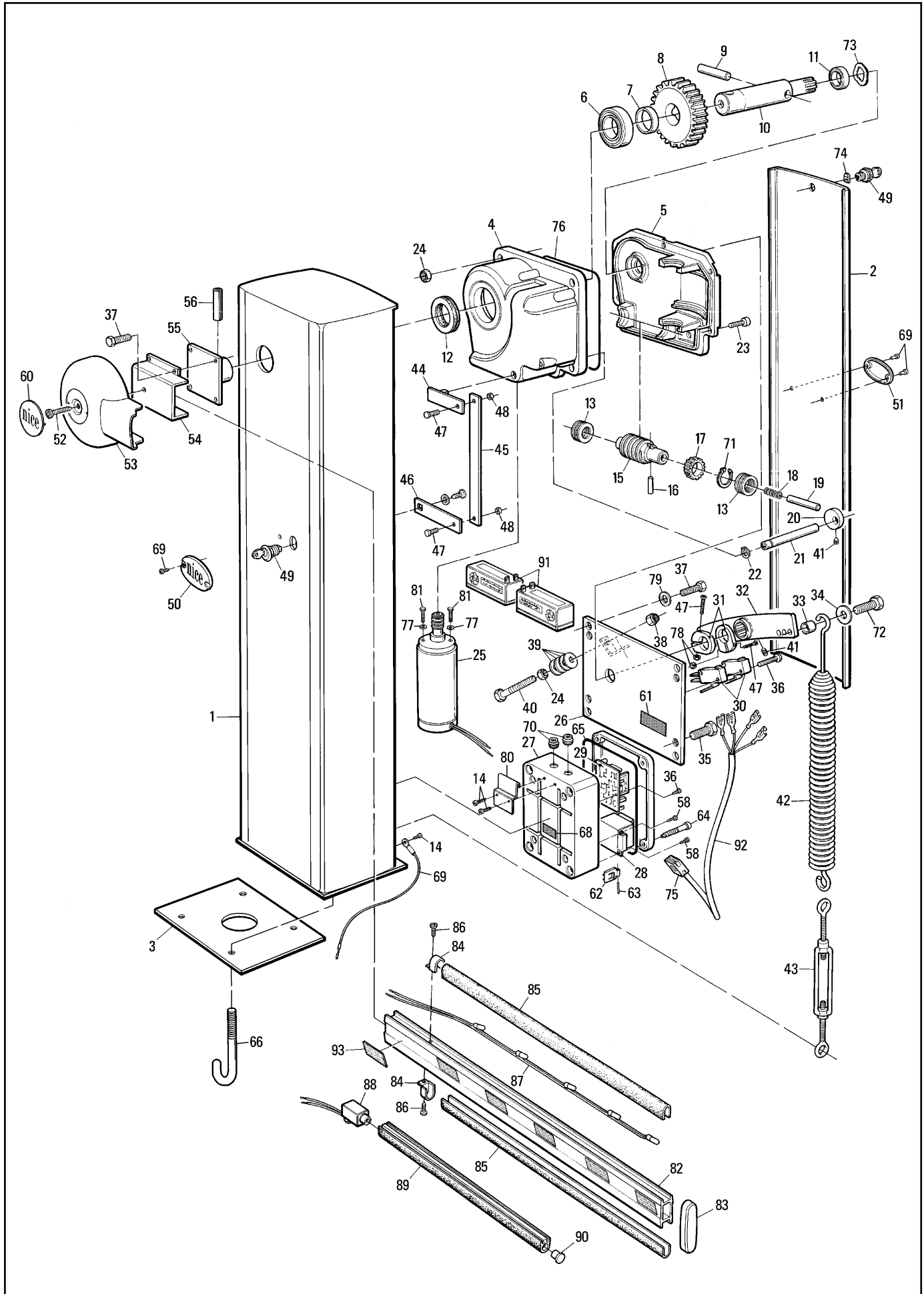




| Pos. | Code             | ⓘ Descrizione                | Ⓜ Description              |
|------|------------------|------------------------------|----------------------------|
| 1    | PDM 0041 * 4610  | Armadio assemblato *         | Assembled cubicle *        |
| 2    | PDM 0004 * 4610  | Anta armadio *               | 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 belleveille               | Tellerfeder                       | Arandelas belleveille               |
| 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

\* Especificar 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<br>Control box | Radio<br>Radio | Dispositivi di sicurezza<br>Safety devices | Note<br>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 NICE SPA per comunicazioni al cliente****Space reserved for NICE SPA 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

.....

.....



NICE SPA - Via Pezza Alta, 13 - Z.I. di Rustignè  
31046 ODERZO - TV - ITALY  
Tel. 0422 853838 - Fax 0422 853585  
<http://www.niceforyou.com> - email: [info@niceforyou.com](mailto:info@niceforyou.com)

①

Scheda  
elettronica di  
controllo per  
barriera  
stradale WIL

GB

Electronic  
control card  
for the WIL  
boom gate

F

Carte  
électronique  
de contrôle  
pour barrière  
routière WIL

D

Elektronische  
Steuerkarte  
für  
Straflenschran  
ke WIL

E

Tarjeta  
electrónica de  
control para la  
barrera vial  
WIL

•  
nice®

CE

**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.



**This manual is for use only by technical personnel qualified to carry out the installation  
no information given in this manual can be considered of any interest to the end user!**

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#### **IMPORTANT NOTICE:**

It is our duty to remind you that you are carrying out operations on machine systems classified in the “Automatic gates and doors” category and as such are considered particularly “Hazardous”; it is your job to make them as “Safe” as is **reasonably possible!** Only qualified, expert personnel must carry out the installation and any servicing required, making the best possible job of it and in accordance with the following laws, standards and directives (norms, decrees of the President of the Republic and law decrees are only valid for Italy; EEC Directives are, on the other hand, applicable for the whole of Europe):

- UNI 8612 standard (Motorised gates and main doors: construction criteria and protection devices against accidents)
- DPR N° 46 of 5/03/1990 (Standards for the safety of electrical installations, authorised personnel)
- Dlgs N° 459/96 of 24/07/96 (EEC directive 89/392, Machine Directive)
- Dlgs N° 615/96 of 12/11/96 (EEC directive 89/336, Directive on Electromagnetic Compatibility)
- Dlgs N° 626/96 of 26/11/96 (EEC directive 93/68, Low Voltage Directive)

When designing and producing its products, **Nice** observes (as regards the equipment) all the above standards but it is of paramount importance that the installer too (as regards the systems) strictly observes the same standards.

Unqualified personnel or those who do not know the standards applicable to the “Automatic gates and doors” category:  
**Must under no circumstances carry out installations and systems**

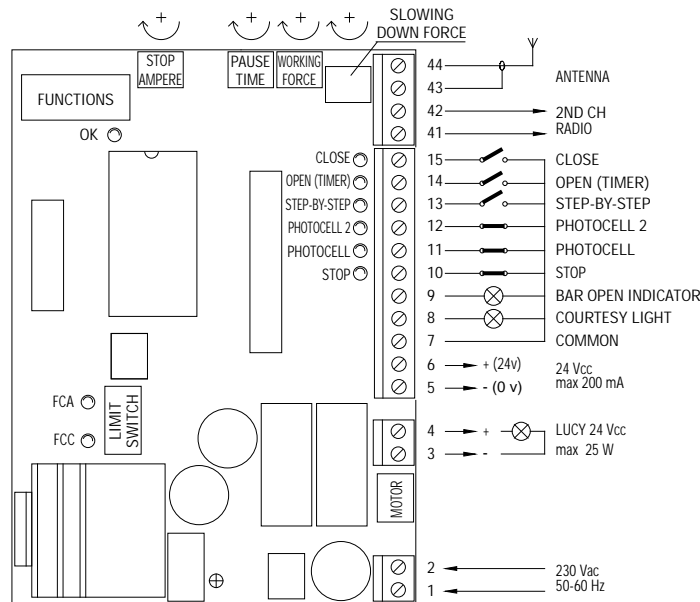
Whoever carries out systems without observing all the applicable standards:  
**Will be held responsible for any damages that the system may cause!**

**QUICK GUIDE:**

**Do not install the “Wil” boom gate without having read all the instructions!**

Install the “Wil” boom gate, the control (key selector switch or push button panel) and safety devices (emergency stop, photoelectric cells, sensitive edges and flashing lights) after which do the wiring following the diagram:

Fig. 1



Prior to turning power on 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.

Power the unit and check that on terminals 1-2 voltage is 230 V a.c. and on terminals 5-6 it is 24 V d.c.; the LEDs on the active inputs must turn on and the OK LED must flash at a frequency of 1 flash/second.

Check correspondence of the two FCA and FCC LEDs: when the bar is closed only the FCC LED should turn off and when it is open only the FCA should turn off.

To exploit the slowing down function it is necessary that the limit switch triggers about 20° before the actual stopping point; if necessary adjust the two cams until the limit switch triggers at the point required.

Check that all the function switches are in the “OFF” position. This means it is in the manual functioning mode, that is, with the button pressed. 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 power 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°

See if rotation direction is right, repeating the procedure described above.

Temporarily adjust the STOP\_AMPERE and WORKING FORCE trimmer to the maximum of the travel, PAUSE TIME to minimum and SLOWING DOWN FORCE to halfway travel. Now try and carry out a complete manoeuvre until the limit switch is reached and the subsequent stopping point and then try the manoeuvre in the opposite order.

Set the FUNCTIONS dip-switches as required:

|                |           |  |
|----------------|-----------|--|
| 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 =      | Pre-flashing   |
| Switch 6       | On =      | Flashing also in Pause   |
| Switch 7       | On =      | Recloses immediately after Photocell (only if on Automatic)    |
| Switch 8       | On =      | Safety device (Photocell) also in the opening phase            |
| 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     |

Adjust the two trimmers WORKING FORCE and SLOWING DOWN FORCE until obtaining the force and speed required during, respectively, the travelling and slowing down phases; only now adjust the STOP\_AMPERE trimmer until the triggering threshold required is obtained.

If in the automatic functioning mode, adjust the PAUSE TIME trimmer as wanted.

## 1.1) INTRODUCTION:

The electronic card is suitable for controlling road boom gates models “WIL 4” and “WIL 6” with 24 V d.c. motors. This is an entirely new design where 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.

The most advanced techniques and sophisticated components have been employed in the project to guarantee maximum immunity against interference, greater flexibility of use and the widest possible range of programmable functions.

It can be controlled “manually”, “semiautomatically” or “automatically”.

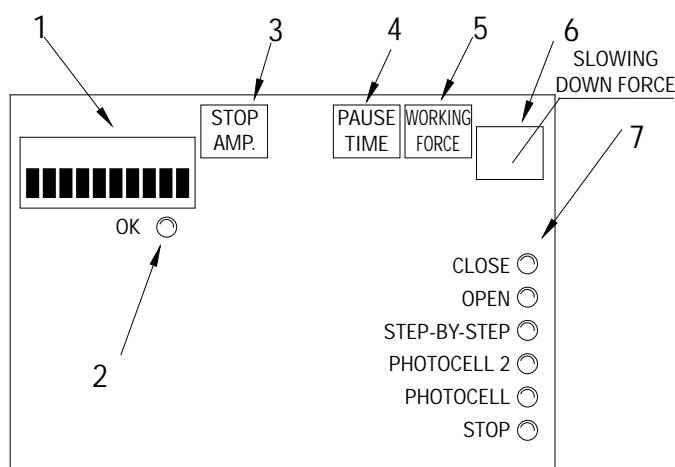
There are also certain highly sophisticated functions like “Reclose immediately after Photocell” or “Reclose always”, “Flashing also in pause” as well as other operating functions such as “Gradual Start-up” and “Slowing down” (a standard feature) plus a sensitive “Brake” that only comes into play if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

The whole range of radio receivers of the “K”, “Bio” or “Flo” series produced by Nice can be inserted on the card.

## 1.2) DESCRIPTION:

In view of the particularity of the product and the use of entirely unconventional techniques, before you start installing the gearmotor and wiring, here is a brief description of the most important elements on the control card:

Fig. 2



- ① Set of micro dip-switches for selecting the FUNCTIONS
- ② LED that flashes at regular intervals and indicates that the unit is working correctly
- ③ “STOP\_AMPERE” trimmer to adjust friction and based on an ammetric measurement system
- ④ “PAUSE TIME” trimmer to adjust pause time in the automatic functioning mode
- ⑤ “WORKING FORCE” trimmer to adjust power to motor during the movement phase
- ⑥ “SLOWING DOWN FORCE” trimmer to adjust power to motor during the slowing down phase
- ⑦ Set of LEDs to signal the state of the command inputs

The OK LED ② has the task of signalling the correct functioning of the internal logic and must flash at 1 second intervals; it indicates that the internal microprocessor is active and waiting for commands. Whenever there is a change in the state of an input (whether it is a command input or function switch) a fast double flashing is generated which happens even if the change does not have an immediate effect. Fast flashing at 5 second intervals means that the power voltage is insufficient.

When the unit is powered, the indicator lights on the ⑦ inputs turn on if that particular input is active with the command voltage of 24 V d.c. Normally, the LEDs on the safety inputs, PHOTOCELL, PHOTOCELL2 and STOP, are always on while those on the command inputs, STEP-BY-STEP, OPEN-TIMER and CLOSE, are usually off.

Since the current absorbed by a d.c. motor is in proportion to the force it is subject to, developing an obstacle detection system is very easy. 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.

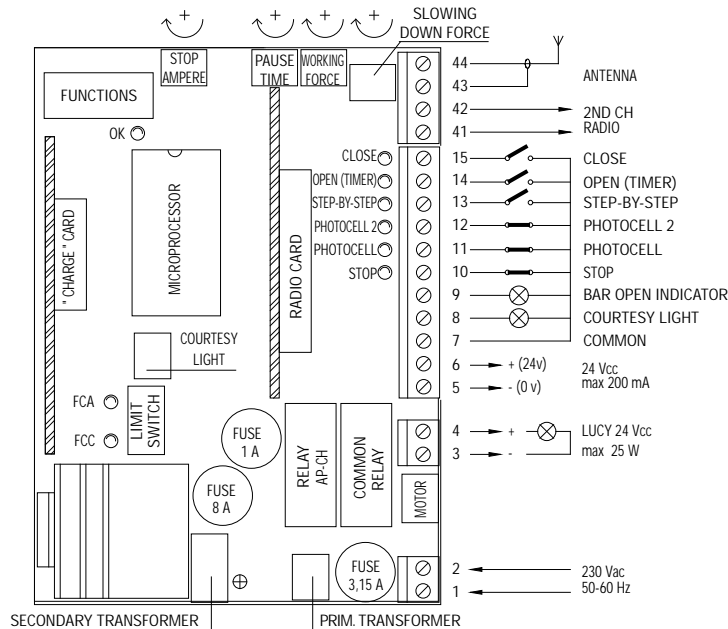
## 2.1) INSTALLATION INSTRUCTIONS:

When installing the “WIL” road boom gate, all the instructions given in the enclosed instruction manual must be followed. It is necessary to underline that there are standards, laws and regulations that establish limits and ways to make systems: please comply strictly with all the applicable standards.

 **Do not install the “Wil” boom gate unless all the standards regarding the automatic gate category have been complied with!**

Install all the control (key selector switch or push button panel) and safety devices (emergency stop, photoelectric cells, sensitive edges and flashing lights) after which do the wiring following the diagram:

Fig. 3: Wiring diagram



**NOTE:**  
Only qualified, expert personnel must carry out the installation and subsequent maintenance which must be in compliance with the DPR N° 46 dated 5/3/1990 and in total observance of the UNI 8612 standards and following the best indications dictated by “expert workmanship”. Whoever carries out these jobs shall be held responsible for any damage caused.

## 2.2) DESCRIPTION OF THE CONNECTIONS:

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

- |       |                     |   |
|-------|---------------------|---|
| 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    | = 24 V d.c. output for bar open indicator light, maximum indicator power 10 W                 |
| 10    | : Stop              | = Input with STOP function (Emergency, shutdown or extreme safety)                            |
| 11    | : Photocell         | = Input for safety devices (Photocells, pneumatic edges)                                      |
| 12    | : Photocell2        | = Input for safety devices with triggering in the opening phase (Photocells, pneumatic edges) |
| 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 | : Antenna           | = Input for the radio receiver antenna  |

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:

- |               |  |
|---------------|--|
| <b>RADIO</b>  | = Slot for <b>Nice</b> radio receivers |
| <b>CHARGE</b> | = Slot for battery charge card         |

### 2.3) INSTRUCTIONS FOR CONNECTIONS:

To safeguard the operator and to prevent damaging components when carrying out the connections, whether in low voltage (230 V) or extra low voltage (24 V), or when plugging in the cards:

**the unit must, under no circumstances, be electrically powered**

We recommend waiting until installation is complete to plug in the optional cards **RADIO** or **CHARGE** and only after having checked that the system is working properly. The optional cards are not necessary for the working of the system and if they are used they make troubleshooting more complex.

We would also like 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. As regards the contacts, they must only be the mechanical type and free from any potential; no connections are allowed like those defined as "PNP", "NPN", "Open Collector", etc., etc.

**A)** Carry out the necessary connections, following the diagram in Fig. 3; 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

**B)** Check that the bar is well balanced and adjust if necessary by means of the balancing spring. Release the boom gate with the spanner and make sure the bar can move without any effort for the whole length of its travel.



**Do not supply power to the "Wil" boom gate unless all the standards for the automatic gate category have been complied with!**

**C)** Supply power to the unit, checking immediately that a voltage of 230 V a.c. reaches terminals 1-2 and a voltage of 24 V d.c. reaches terminals 5-6. As soon as the unit is switched on the indicator lights (LEDs) on the active inputs should turn on and after a moment, the "OK" LED should start flashing at a regular rhythm. If none of this happens, switch off immediately and check the connections more carefully.

**D)** Check correspondence of the two LEDs, FCA and FCC: when the bar is closed only the FCC LED should turn off and when it is open only the FCA should turn off.

To exploit the slowing down function it is necessary that the limit switch triggers about 20° before the actual stopping point is reached; if necessary adjust the two cams until the limit switch triggers at the point required.

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

**F)** Check that all the safety devices of the system are in proper working order (emergency stop, photocells, pneumatic edges, etc.); each time they trigger the relative LEDs, STOP, PHOTOCCELL or PHOTOCCELL 2, should turn off.

**G)** Check that all the function switches are in the "OFF" position. This means it is in the manual functioning mode, that is, with the button pressed. 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 G 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.

**H)** Temporarily adjust trimmers STOP\_AMPERE and WORKING FORCE to the maximum length of travel, PAUSE TIME to minimum and then adjust SLOWING DOWN FORCE to half travel.

**I)** Try and carry out a complete manoeuvre until the bar reaches the point where the limit switch triggers; the braking system should come into play at this point and travel ought to continue for a further 3 seconds at a slower speed.

**J)** Adjust trimmers WORKING FORCE and SLOWING DOWN FORCE so that the manoeuvre is carried out at the speed and with the force required and that the slowing down phase is such that the bar reaches the stopping points as "gently" as possible without any jerking; of course, a perfect adjustment of the balancing spring is fundamental.

**K)** 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.

### 3.1) FUNCTIONING TESTS:

After the connections have been checked and verified (Chapter 2.3) the electrically controlled movement of the bar can be tested; in this case **we suggest you work in the manual mode** with all the functions deactivated (all switches OFF); in all cases, in the manual mode, by releasing the command key the motor stops immediately. If you use the Step-by-Step input command 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: PHOTOCCELL in opening has no effect while in the closing phase it causes the bar to stop; PHOTOCCELL 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.

The UNI 8612 standards state that the maximum thrust of an automatic device must not exceed 150 N (~13.5 kg); this is achieved by adjusting the ammetric friction STOP\_AMPERE. 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.

### 3.2) ADJUSTING PAUSE TIME:

When the automatic closing function (see Chapter 5.1) is selected with the specific dip-switch, following an opening manoeuvre, a timer is activated that controls the so-called “Pause Time”; when this time has elapsed a closing manoeuvre is automatically activated. This time can be adjusted with the PAUSE TIME trimmer from 3 to 120 seconds.

### 4.1) FUNCTIONS that can be selected:

The FUNCTIONS dip-switch lets you select the various possible functioning modes and to enable the functions you want.

|               |         |  |
|---------------|---------|--|
| 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     |

Of course, with each switch OFF the function described will not be activated.

#### 4.2) DESCRIPTION OF THE FUNCTIONS:

Below is a brief description of the functions that can be selected; all the functions can be enabled or disabled without any limit even if some combinations would have no sense and, therefore, not be carried out (for instance, function 6, Flashing also in Pause, would not be carried out if movement is in the manual mode).

|                      |                |  |
|----------------------|----------------|--|
| <b>Switches 1-2:</b> | <b>Off Off</b> | = "Manual" movement (Man Present)          |
|                      | <b>On Off</b>  | = "Semiautomatic" movement                 |
|                      | <b>Off On</b>  | = "Automatic" movement (Automatic Closing) |
|                      | <b>On On</b>   | = "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.

|                  |           |                        |
|------------------|-----------|------------------------|
| <b>Switch 3:</b> | <b>On</b> | = 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.

|                  |           |  |
|------------------|-----------|--|
| <b>Switch 4:</b> | <b>On</b> | = 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.

|                  |           |               |
|------------------|-----------|---------------|
| <b>Switch 5:</b> | <b>On</b> | = Preflashing |
|------------------|-----------|---------------|

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

|                  |           |                          |
|------------------|-----------|--------------------------|
| <b>Switch 6:</b> | <b>On</b> | = 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.

|                  |           |   |
|------------------|-----------|---|
| <b>Switch 7:</b> | <b>On</b> | = 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.

|                  |           |                                      |
|------------------|-----------|--------------------------------------|
| <b>Switch 8:</b> | <b>On</b> | = 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.

|                  |           |  |
|------------------|-----------|--|
| <b>Switch 9:</b> | <b>On</b> | = 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.

|                   |           |  |
|-------------------|-----------|--|
| <b>Switch 10:</b> | <b>On</b> | = Functioning in the "Traffic light in both directions" mode |
|-------------------|-----------|--|

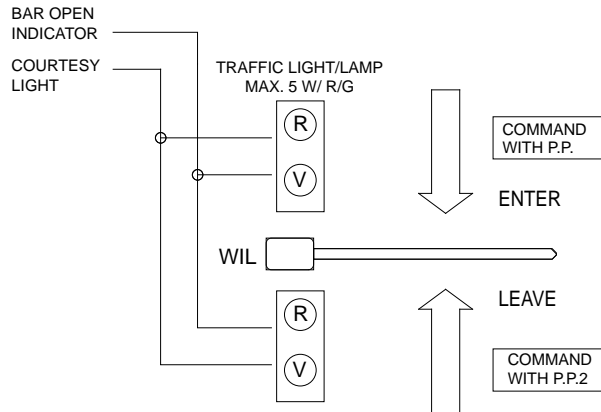
Several changes occur in the control unit when the "Traffic light in both directions" function is activated when Switch 10 is ON: OPEN becomes STEP-BY-STEP 2, while the two outputs, Courtesy Light and Bar Open Indicator become a Green Light in both directions. Due to the specific nature of this function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

**4.3) 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.

Fig. 4



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.

**Only now, when all the adjustments have been made and with the electricity off, do we advise you to connect the radio receiver.**

**5.1) DESCRIPTION OF THE 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 PHOTOCELL 2; to the contrary, in the closing phase movement will stop at the maximum closed point or if there is no consent from the PHOTOCELL. 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 PHOTOCELL has no effect while PHOTOCELL 2 will cause reversal of movement; in a closing manoeuvre, triggering of the PHOTOCELL causes movement to reverse followed by a new pause and lastly reclosing. If at the beginning of an opening movement, the PHOTOCELL 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 PHOTOCELL 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.

**6.1) "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.

**TECHNICAL FEATURES OF THE UNIT:**

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Mains power                         | : 230 V a.c. $\pm$ 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.]               |
| Courtesy light time                 | : 60 seconds                     |
| Pause time                          | : from 3 to 120 seconds          |
| Operating temperature               | : -20 to 70° C                   |