



**SEA®**  
Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark n. 804888



**Italiano**

**English**

## **SATURN**

**600 - 1000 - 2000 (230V-115V)**

**600 24V - 1400 24V (230V)**

**1400 24V (115V)**

**500 FAST 24V (230V)**

## **BOXER**

**1000 - 2000**

**2000 Threephase**

***MOTORIDUTTORI PER CANCELLI SCORREVOLI***  
***MOTOR REDUCERS FOR SLIDING GATES***



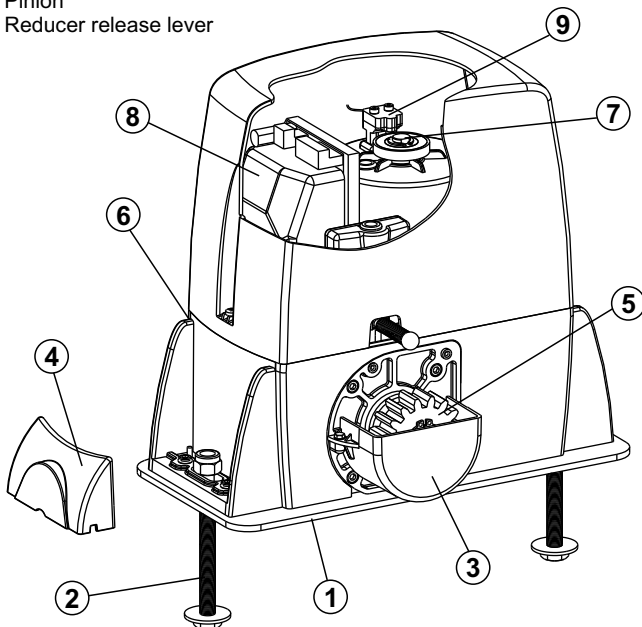


The **SATURN** and the **BOXER** are motor reducers designed for the automation of sliding gates with **grease** lubrication or in **oil bath**, depending on the versions.

The irreversibility of the motor reducers allows a perfect and safe gate closing, and makes the installation of an electric lock unnecessary. In case of electric power cut, the lock device placed on the front part of the motor reducer allows the manual opening and closing. The operators are equipped with an electronic clutch device and **adjustable mechanical clutch (if present)**, which provides an adjustment of the thrust on the gate, furthermore the **electronic inversion system** (optional) through **encoder** makes out of the Saturn and Boxer motor reducers a safe and reliable operators allowing in a simple way to respect the laws in force in the country where the product will be installed.

### MAIN PARTS DENOMINATION

- |                               |  |
|-------------------------------|--|
| 1 Adjustable foundation plate | 7 Screw for mechanical clutch adjustment |
| 2 Anchor bolts                | (Where present)                          |
| 3 Pinion protection           | 8 Electronic unit                        |
| 4 Adjusting screws cover      | 9 Magnetic encoder (Where present)       |
| 5 Pinion                      |  |
| 6 Reducer release lever       |  |



Example: Saturn.

SATURN 600-1000-2000 (230V)			
TECHNICAL DATA	600	1000	2000
Power supply	230 V~ 50/60 Hz		
Power	330W	550W	750W
Absorbed current	1,6 A	2,6 A	3,0 A
Motor capacitor	10 mF	12,5 mF	12,5 mF
Working frequency	35%	35%	30%
Working Temperature	-20°C / +55°C		
Thermoprotection	150°C		
Weight	12 kg	13 kg	14,5 kg
Anticrushing clutch	Electronic	Electronic/Mechanical	
Protection degree	Ip55		
Pinion Z16 (Z20) speed	0,15 (0,18) m/s		
Maximum torque	30 Nm	55 Nm	70 Nm
Gate maximum weight	600 kg	1000 kg	2000 kg
Gate maximum length	6 m	10 m	
Mechanical clutch	No	Yes	Yes
Limit switch	Inductive or mechanical		

Only the OIL version has a clutch

cod. 67410324

SATURN 600-1000-2000 (115V)			
TECHNICAL DATA	600	1000	2000
Power supply	115 V (±5%) 50/60 Hz		
Power	400W		500W
Absorbed current	3,2 A		5,0 A
Motor capacitor	50 µf		70µf
Working frequency	20%	25%	40%
Working Temperature	-20°C / +55°C		
Thermoprotection	150°C		
Weight	12 kg	13 kg	14,5 kg
Anticrushing clutch	Electronic		Electr./Mech.
Protection degree	IP55		
Pinion Z16 (Z20) speed	0,15 (0,18)m/s		
Maximum torque	50 Nm	55Nm	70Nm
Gate maximum weight	600 kg	1000kg	2000kg
Gate maximum length	6 m	10 m	
Mechanical clutch	No		Yes
Limit switch	Inductive or mechanical		

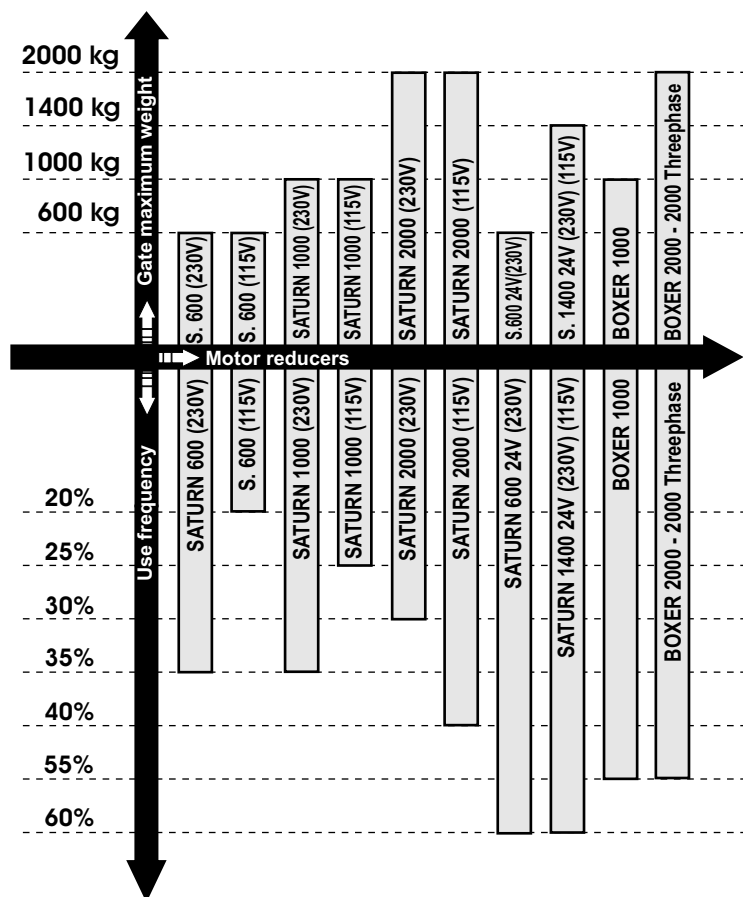
SATURN 500 FAST 24V - 600 24V (230V) - 1400 24V (230V)-(115V)			
TECHNICAL DATA	500 FAST (24V)	600 24V (230V)	1400 24V (230V) 1400 24V (115V)
Power supply	230V~ 50/60 Hz		115V~ 50/60 Hz
Motor	24V ---		
Absorbed power	100W	65W	100W
Working frequency	60%		
Working Temperature	-20°C / +55°C		
Weight	14,3 kg		
Anticrushing clutch	Electronic		
Protection degree	Ip55		
Pinion Z16 (Z20) speed	0,42 m/s Max (Z20)	0,18 (0,24) m/s Regolabile	
Maximum torque	0 - 45 Nm	0 - 50 Nm	0 - 60 Nm
Gate max. weight	500 kg	600 kg	1400 kg
Gate maximum length	10 m		
Limit switch	Inductive/mechanical		

BOXER 1000-2000-2000 Threephase			
TECHNICAL DATA	1000	2000	2000 THREEPHASE
Power supply	230V (±5%) 50/60Hz		230V/380V(±5%) 50/60Hz
Power	550W	750W	400W
Absorbed current	2,6 A	3,0 A	1,0 A
Motor capacitor	10 µf	12,5 µf	-
Working frequency	55%		
Working Temperature	-20°C ↕ +55°C ↕		
Thermoprotection	150°C		-
Weight	14 kg	15 kg	
Anticrushing clutch	Electronic/Mechanical		Mechanical
Protection degree	IP55		
Pinion Z16 (Z20) speed	0,15 (0,18) m/s		
Maximum torque	55 Nm	70 Nm	
Gate maximum weight	1000 kg	2000 kg	
Gate maximum length	10 m		
Mechanical clutch	Yes		
Limit switch	Inductive or mechanical		

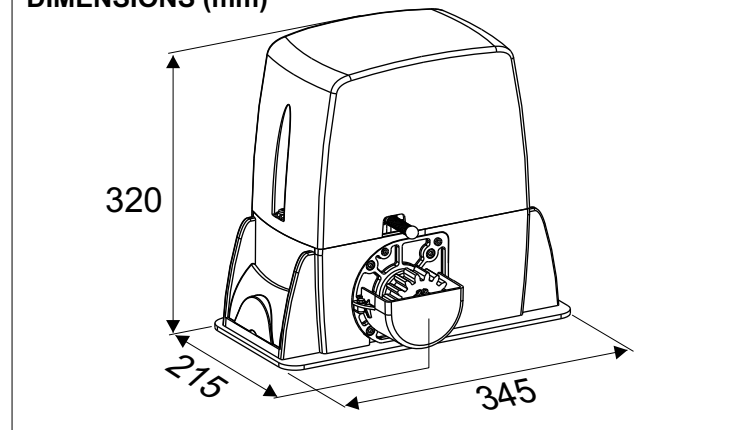
**Note:** The frequency of use is valid only for the first hour at 20°C room temperature.



## SATURN - BOXER MOTOR REDUCERS USING GRAPHIC



### DIMENSIONS (mm)



## 1. GATE ARRANGEMENT

Before starting with the installation check if all the gate parts (fixed and mobile) have a strong and as less as possible deformable structure, also make sure that :

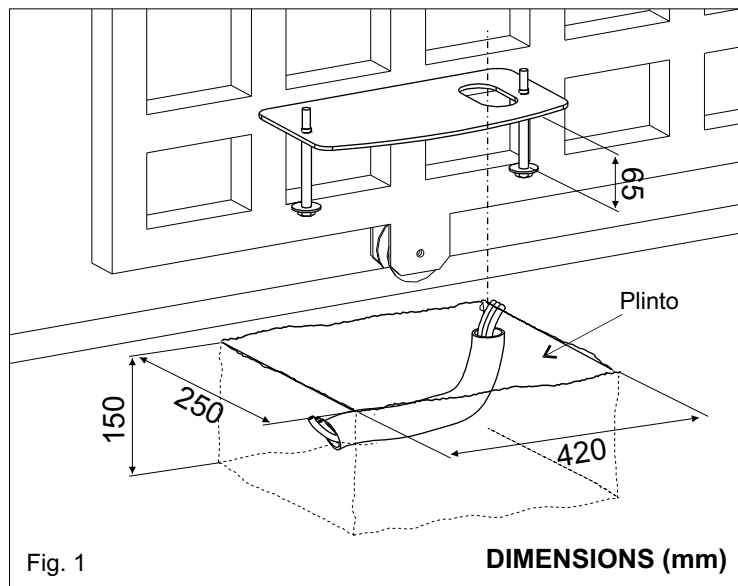
- The leaf is rigid and compact;
- The inferior slideway is perfectly straight, horizontal and without any obstacles which could obstruct the gate sliding;
- The inferior sliding wheels are equipped with greasable or water tightened bearings;
- The superior slideway has been produced and placed so that the gate is in a perfect vertical position;
- Mechanical stops of the leaf are always installed in order to avoid possible derailment of it.

## 2. FOUNDATION PLATE ANCHORAGE

To install the foundation plate it is necessary to:

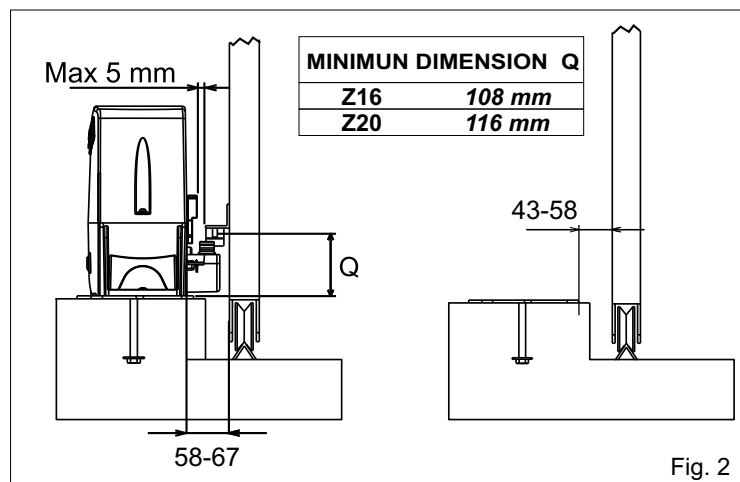
**2.1.** Prepare a concret basement with the dimensions shown in Fig. 1 where the foundation plate and the anchor bolts will be concreted.

**NOTE:** It is recommended, gate structure permitting, to lift the foundation plate about 50mm from the ground, in order to avoid eventual water stagnation.



**2.2.** Before cementing the plate insert a flexible plastic duct of at least 30mm in diameter into the special hole of the plate.

**2.3.** Before concreting in the plate, make sure that it is perfectly leveled and that the distance of 58-67 mm as shown in Fig. 2 is respected.



## 3. CABLES PASSAGE ARRANGEMENT

Saturn and Boxer are provided with two different holes for electric cables passage.

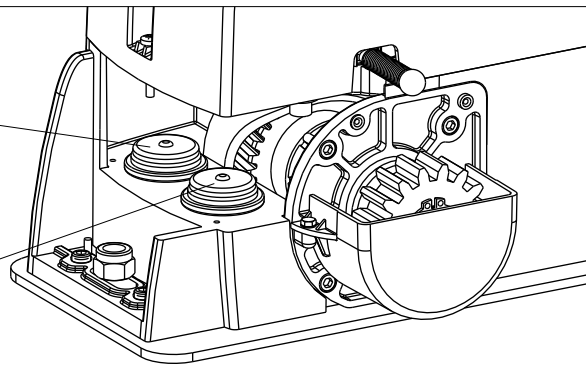
It's very important to make the low - tension 230V~ cables pass through one hole and the very low safety tension cables 24V through the other one (Fig. 3)



Fig. 3

Hole 1

Hole 2



## 4. FITTING OF THE MOTOR REDUCER

4.1. Insert the 4 grains into the special holes, so that it is possible to adjust the motor reducer height on the plate (Fig. 4).

**At the end of installation check if the 4 grub screws are well gripped on the foundation plate.**

4.2. Fix the motor reducer to the foundation plate with the 2 included nuts, adjusting the side position (Fig. 5) so to respect the shown quota in (Fig. 2).

4.3. Remove the closing loading oil cap (red) and substitute it with that supplied apart provided with the airhole (black).

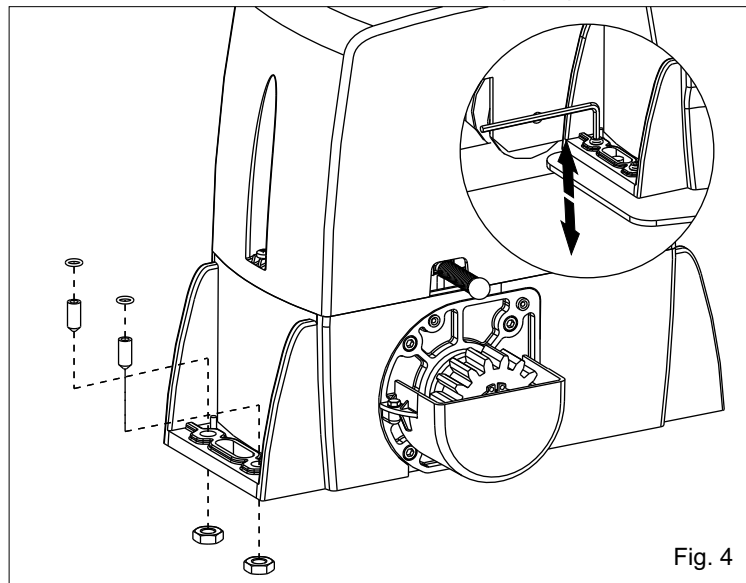


Fig. 4

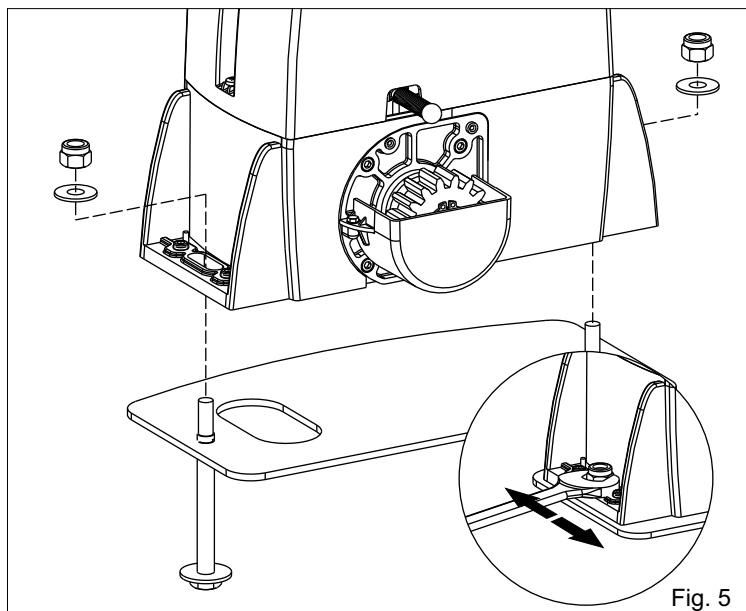


Fig. 5

## 5. GEAR RACK MOUNTING

5.1. Release the motor and open the leaf completely;

5.2. Fix on each gear rack element the support pawls with the appropriate lock screws, make sure to put them in the upper part of the hole (Fig. 6);

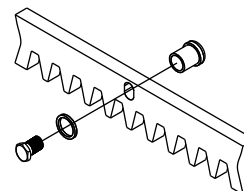


Fig. 6

5.3. Lean the gear rack element on the toothed pinion of the motor in parallel to the ground slideway of the gate, as shown in Fig. 7 and electrically weld the central pawl B to the gate structure (Fig. 8).

Manually move the gate until pawl C is placed corresponding to the pinion and fix it through electric welding. Repeat the same procedure for pawl A after having placed it corresponding to the pinion;

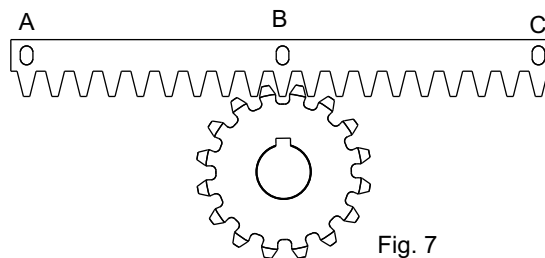


Fig. 7

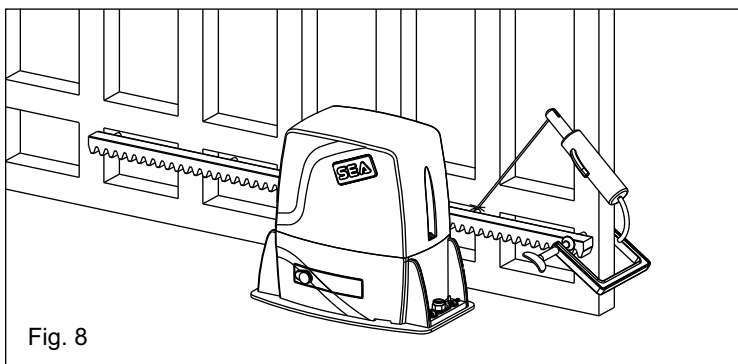


Fig. 8

5.4. Make sure that all the gear rack elements are perfectly aligned and placed correctly (teeth in phase). It's suggested to place two aligned elements in front of a third one as shown in Fig. 9;

5.5. Repeat the above described operation for all the remaining gear rack elements which have to be installed;

5.6. To avoid that the door weights down on the pinion (Fig. 10) lift up the whole rack about 1,5 mm.

**Warning:** Keep a gap of about 0,5 mm between pinion tooth and gear rack tooth;

5.7. Make sure that the gear rack works at the center of the pinion along all rack elements, if necessary, adjust the length of the spacers.

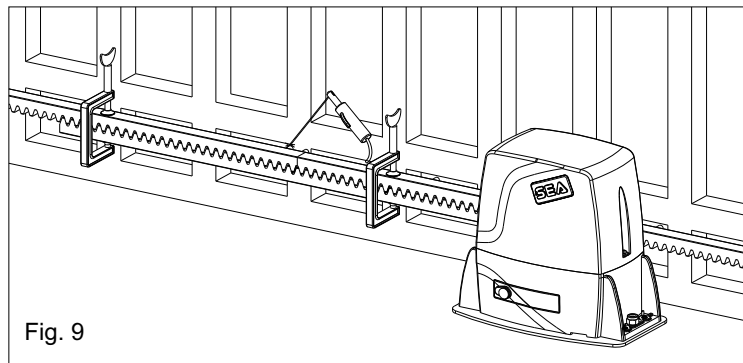


Fig. 9

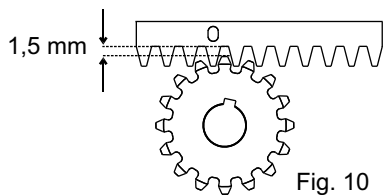


Fig. 10

## 6. LIMIT SWITCH ADJUSTMENT

**6.1.** In order to install and adjust the limit switch in opening, follow the below mentioned instructions (Fig. 11):

- Take the gate to complete opening,
- Place the small plate on the gear rack so that the limit switch is (small lever in case of mechanical limit switch (Fig. 12); small pointers placed on the upper part in case of inductive limit switch (Fig. 13)) in correspondence of point X which is placed 50 mm from the folded side of the small plate (Fig. 14) and fix it with the delivered screws (Fig. 15 - Fig. 16).

**6.2.** In order to install and adjust the limit switch in closing, follow the below mentioned instructions (Fig. 11):

- Take the gate to complete closing
- Place the small plate on the gear rack so that the limit switch is in correspondence of point X which is placed 50 mm from the folded side of the small plate (Fig. 14) and fix it with the delivered screws (Fig. 15 - Fig. 16).

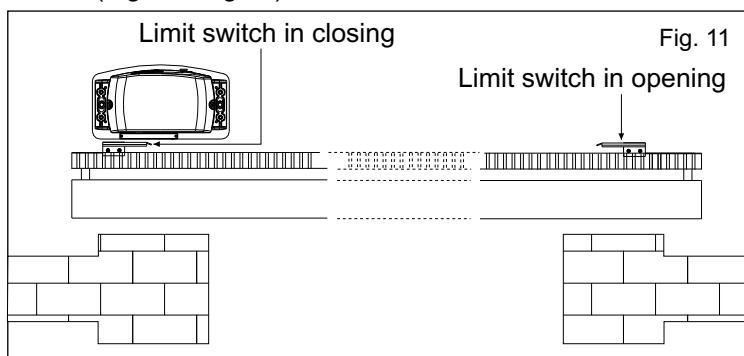


Fig. 11

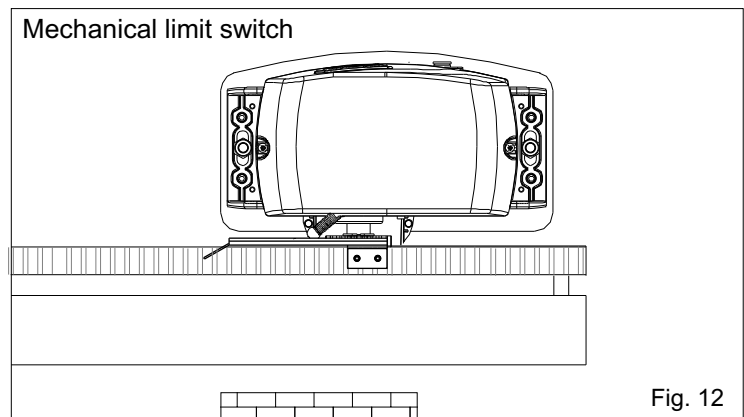


Fig. 12

### Inductive limit switch

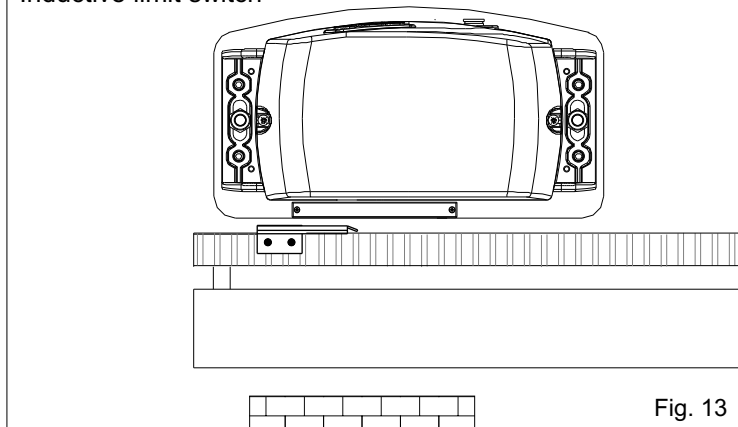


Fig. 13

Position in which must be the spring (mechanical limit switch) or the pointer (inductive limit switch)

50 mm

Fig. 14

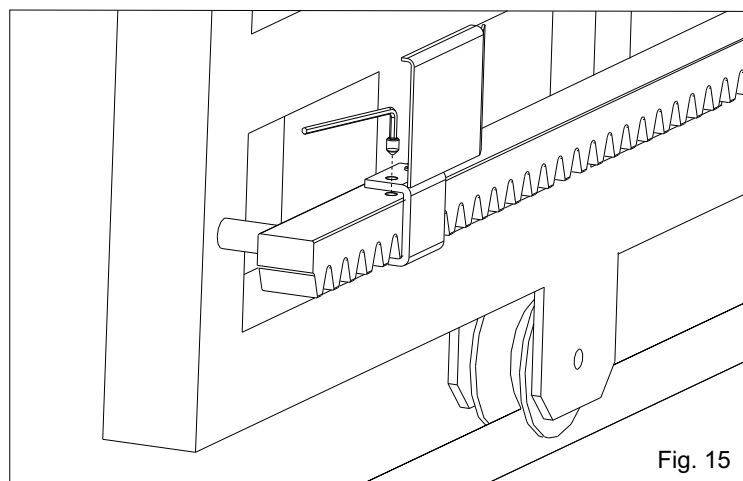
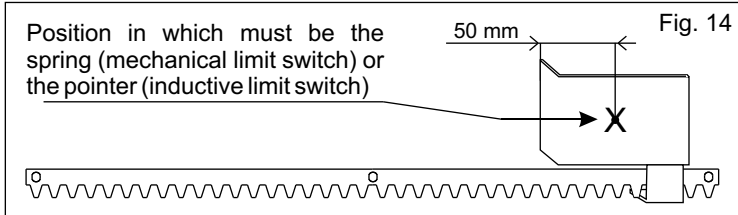


Fig. 15

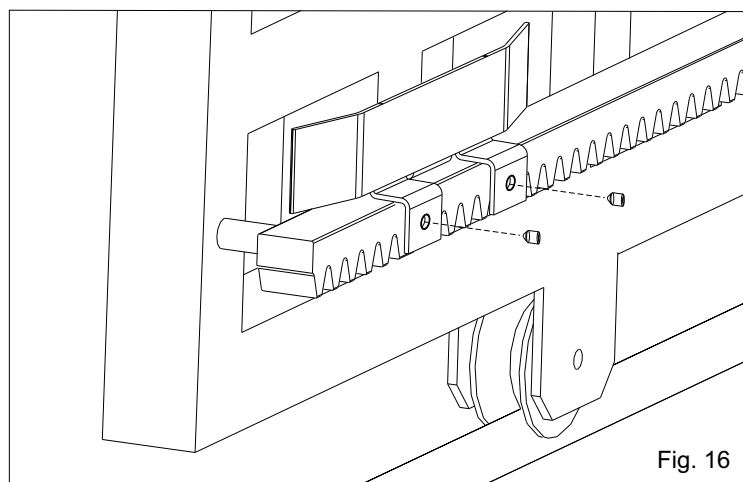


Fig. 16

Adjusting the trimmer for braking, placed on the electronic control unit, it is possible to make the gate stop on the desired position.





## 7. MAGNETIC LIMIT SWITCH

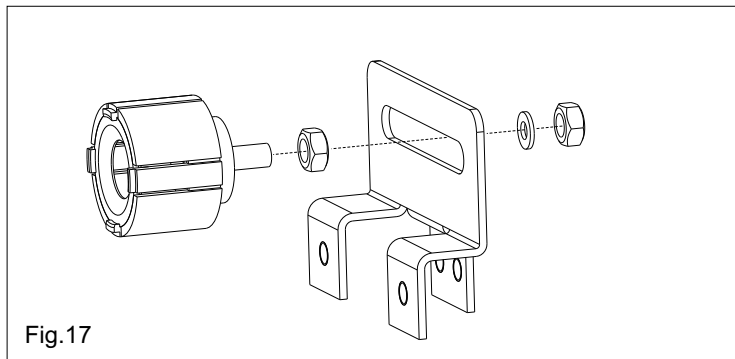
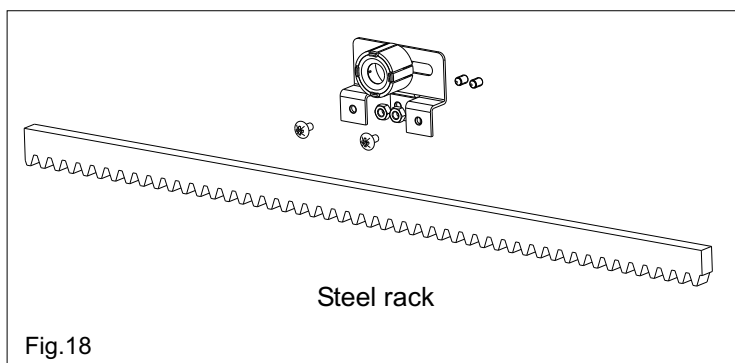
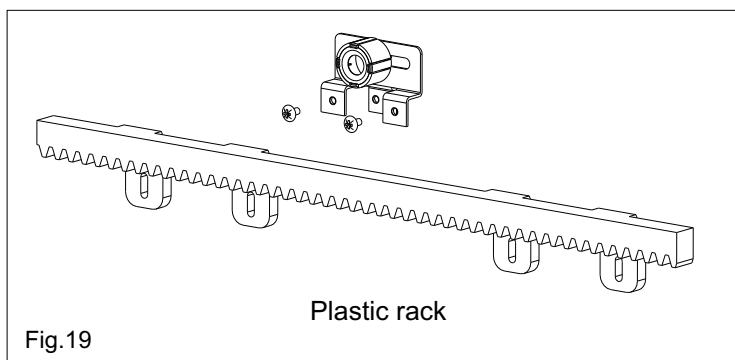


Fig. 17



Steel rack

Fig. 18



Plastic rack

Fig. 19

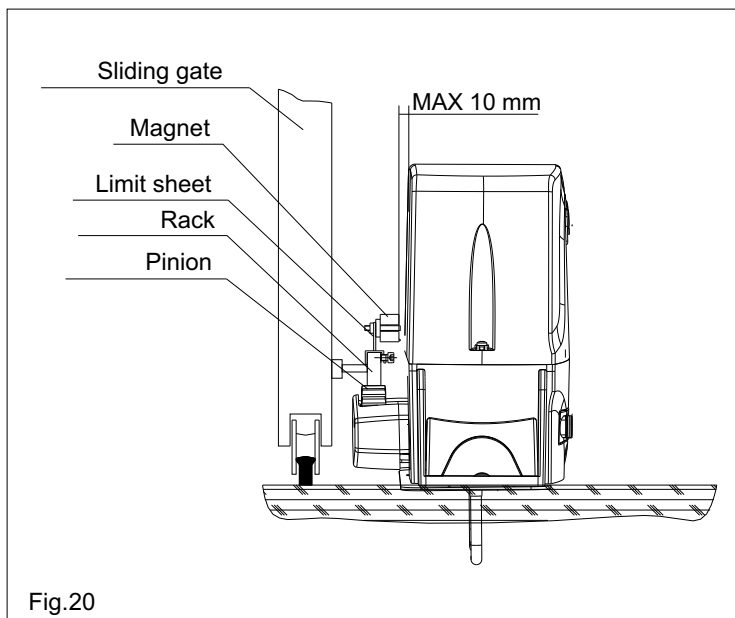


Fig. 20

## 8. GROUNDING (Fig. 21 - Fig. 22)

Example: Boxer

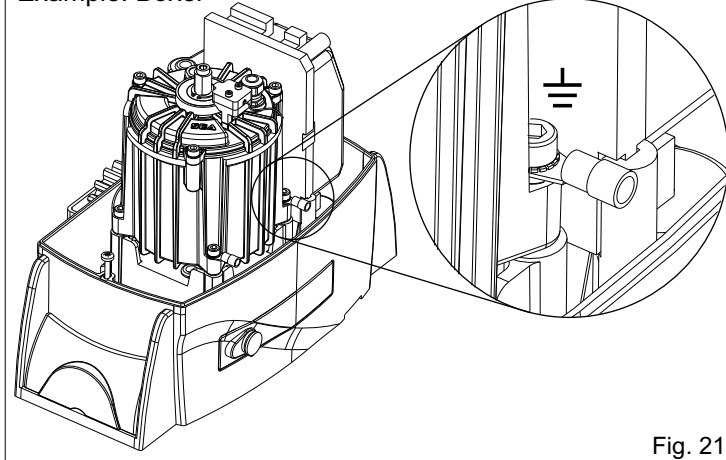


Fig. 21

Example: Saturn 24V

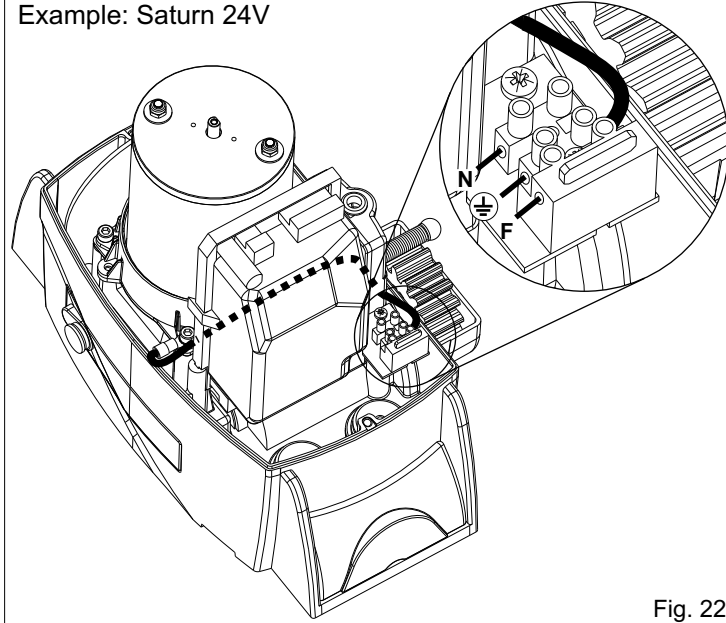


Fig. 22

## 9. CLUTCH ADJUSTMENT (Where present)

9.1. Switch off electric power.

9.2. In order to adjust the clutch it is necessary to:

- Act on the scrub screw "A" (Fig. 23) as follows:
- Turning clockwise = less clutch sensibility / more thrust force
- Counter clockwise = more clutch sensibility / less thrust force

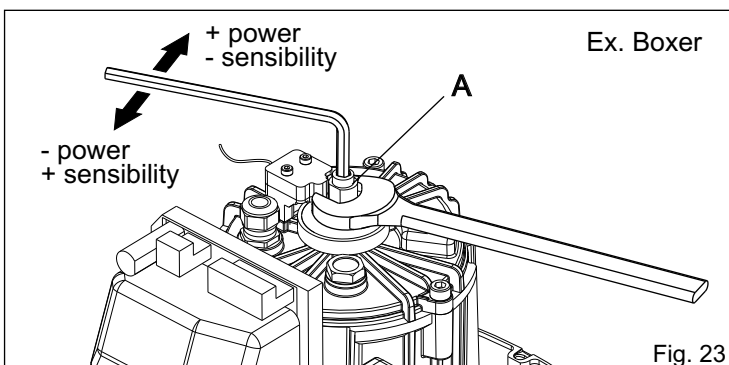
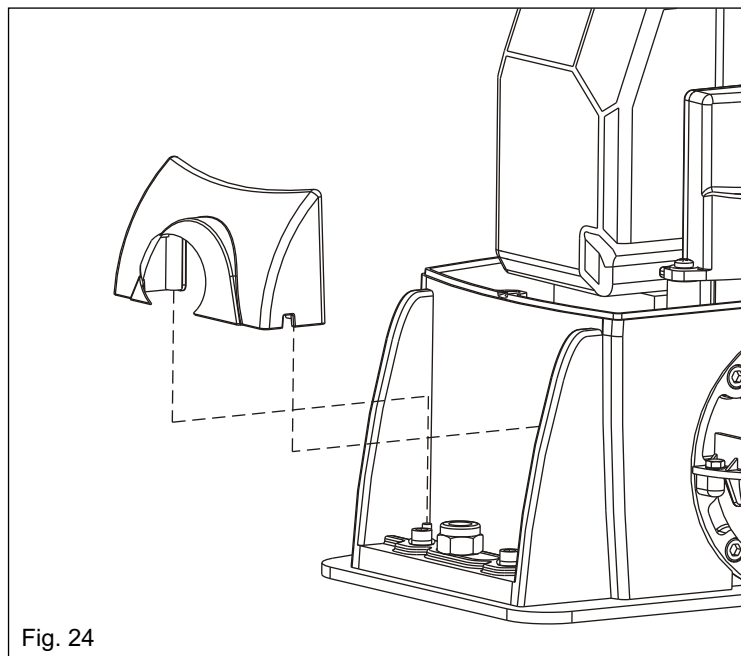


Fig. 23

## 10. SCREW COVER MOUNTING

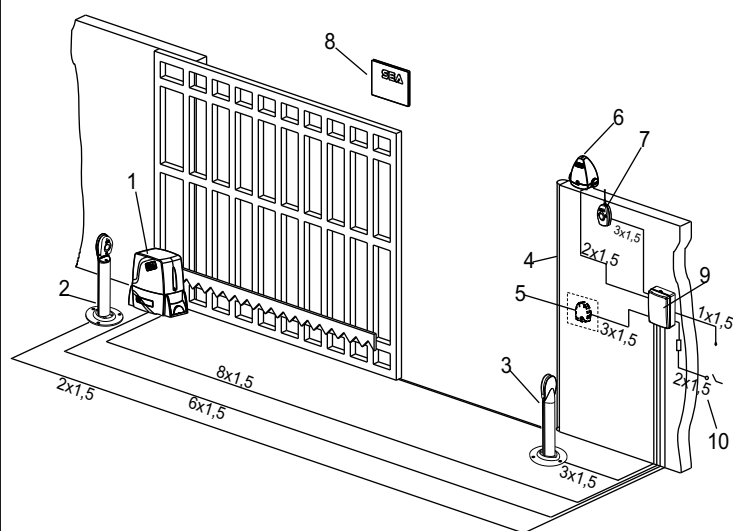
At the end of the mechanical installation and after having executed all the required adjustments, mount the two screw covers on the operator as shown in Fig. 24.



## 11. ELECTRIC CONNECTIONS OF THE INSTALLATION (Fig. 25)

The cable mesures are indicated in mm<sup>2</sup>

Fig. 25

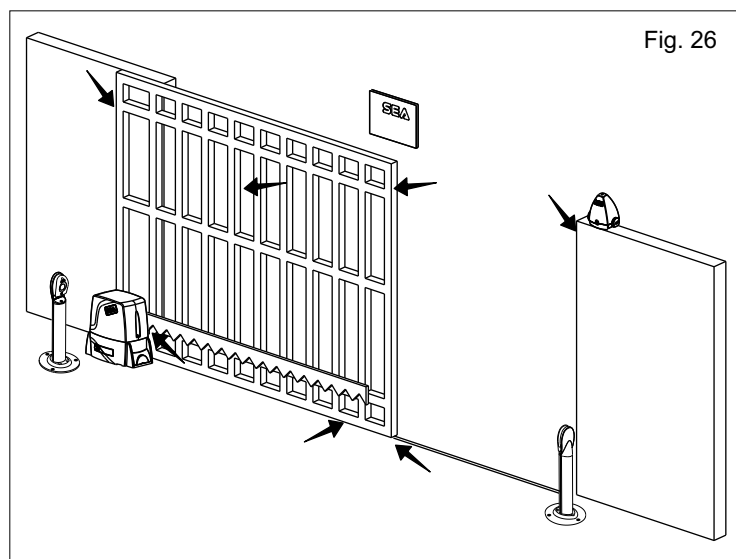


- |                           |                             |
|---------------------------|-----------------------------|
| 1) Saturn - Boxer         | 6) Flasher                  |
| 2) Photocell Sx           | 7) Receiver                 |
| 3) Photocell Dx           | 8) Warning notice           |
| 4) Mechanical safety edge | 9) Junction box             |
| 5) Key push button        | 10) Differential 16A - 30mA |

Ex. 230V version with integrated electronic control unit

## 12. RISK EXAMINATION

The points pointed by arrows in Fig. 26 are potentially dangerous. The installer must take a thorough risk examination to prevent crushing, conveying, cutting, grappling, trapping so as to guarantee a safe installation for people, things and animals (Re. Laws in force in the country where the installation has been made.)



### 13. NOTICE

SEA can not be deemed responsible for any damage or accident caused by product breaking, being damages or accidents due to a failure to comply with the instructions herein. The guarantee will be void and the manufacturer responsibility (according to Machine Law) will be nullified if SEA original spare parts are not being used.

The electrical installation shall be carried out by a professional technician who will release documentation as requested by the laws in force. This is a quotation from the GENERAL DIRECTIONS that the installer must read carefully before installing. Packaging materials such as plastic bags, foam polystyrene, nails etc must be kept out of children's reach as dangers may arise.

## 14. SAFETY PRECAUTIONS:

All electrical work and the choice of the operating logic should conform to current regulations. A 16 A 0,030 A differential switch must be incorporated into the source of the operators main electrical supply and the entire system properly earth bonded. Always run mains carrying cables in separate ducts to low voltage control cables to prevent mains interference.

## 15. SPARE PARTS:

To obtain spare parts contact:

**SEA S.p.A. - Zona Ind.le, 64020 S. ATTO Teramo Italia**



## 16. SAFETY AND ENVIRONMENTAL COMPATIBILITY:

Don't waste product packing materials and/or circuits.  
When being transported this product must be properly packaged and handled with care.

*SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice.*

## 17. PERIODIC MAINTENANCE

Check the oil level (where present) (Use the oil level rod)	Annual
Change oil	4 years
Check the release functionality	Annual
Check the clutch functionality (where present)	Annual
Check the distance between pinion and gear rack (1.5 mm)	Annual
Check the usury status of pinion and gear rack	Annual
Check the fixing screws	Annual
Check the connection cables integrity	Annual
Check limit switch functionality and status in opening and closing and the related small plates	Annual

All the above described operations must be done exclusively by an authorized installer.

## Page for both instaler and user

## 18. RELEASE SYSTEM FOR SATURN AND BOXER

### 18.1. In order to release do as follows:

- Open the lock cover, insert the key and rotate it 90° clockwise (Fig. 27).
- Pull the release lever until it stops, about 90° approximately (Fig. 28).

**Note: when you pull the release lever, the electronic control unit receives a stop impulse thanks to a micro-switch placed inside.**

### 18.2. In order to relock do as follows:

- Push the release lever to complete closing.
- Rotate the key counter-clockwise and extract it.
- Close the protective lock cover.

Once the lock has been restored the electronic control unit reactivates

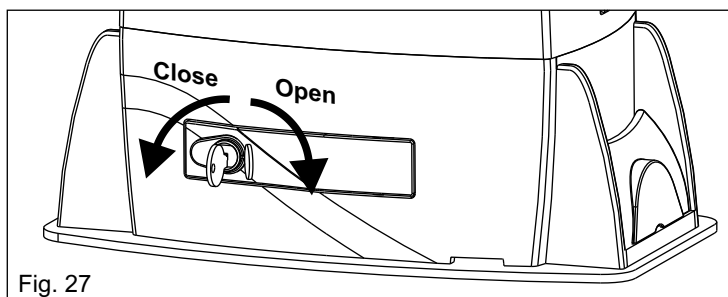


Fig. 27

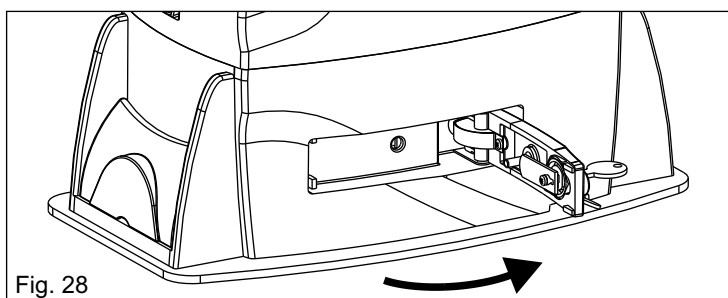


Fig. 28





## TERMS OF SALES

**EFFICACY OF THE FOLLOWING TERMS OF SALE:** the following general terms of sale shall be applied to all orders sent to SEA S.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

**GENERAL NOTICE** The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

**1) PROPOSED ORDER** The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

**2) PERIOD OF THE OFFER** The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

**3) PRICING** The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network. The special sales conditions with extra discount on quantity basis (Qx, Qx1, Qx2, Qx3 formula) is reserved to official distributors under SEA management written agreement.

**4) PAYMENTS** The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

**5) DELIVERY** Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

**6) COMPLAINTS** Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

**7) SUPPLY** The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

**8) WARRANTY** The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

**SILVER:** The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

**GOLD:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

**PLATINUM:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods.

**9) RESERVED DOMAIN** A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer purchases propriety of the goods only after full payment of the latter.

**10) COMPETENT COURT OF LAW** In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes. Industrial ownership rights: once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

**In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly clauses under numbers:**

**4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW**



**Italiano** AVVERTENZE GENERALI PER INSTALLATORE E UTENTE

1. Leggere attentamente le **Istruzioni di Montaggio** e le **Avvertenze Generali** prima di iniziare l'installazione del prodotto. Conservare la documentazione per consultazioni future
2. Non disperdere nell'ambiente i materiali di imballaggio del prodotto e/o circuiti
3. Questo prodotto è stato progettato e costruito esclusivamente per l'utilizzo indicato in questa documentazione. Qualsiasi altro utilizzo non espressamente indicato potrebbe pregiudicare l'integrità del prodotto e/o rappresentare fonte di pericolo. L'uso improprio è anche causa di cessazione della garanzia. La SEA S.p.A. declina qualsiasi responsabilità derivata dall'uso improprio o diverso da quello per cui l'automatismo è destinato.
4. I prodotti SEA sono conformi alle Direttive: Macchine (2006/42/CE e successive modifiche), Bassa Tensione (2006/95/CE e successive modifiche), Compatibilità Elettromagnetica (2004/108/CE e successive modifiche). L'installazione deve essere effettuata nell'osservanza delle norme EN 12453 e EN 12445.
5. Non installare l'apparecchio in atmosfera esplosiva.
6. SEA S.p.A. non è responsabile dell'inosservanza della Buona Tecnica nella costruzione delle chiusure da motorizzare, nonché delle deformazioni che dovessero verificarsi durante l'uso.
7. Prima di effettuare qualsiasi intervento sull'impianto, togliere l'alimentazione elettrica e scollegare le batterie. Verificare che l'impianto di terra sia realizzato a regola d'arte e collegarvi le parti metalliche della chiusura.
8. Per ogni impianto SEA S.p.A. consiglia l'utilizzo di almeno una segnalazione luminosa nonché di un cartello di segnalazione fissato adeguatamente sulla struttura dell'infisso.
9. SEA S.p.A. declina ogni responsabilità ai fini della sicurezza e del buon funzionamento della automazione, in caso vengano utilizzati componenti di altri produttori.
10. Per la manutenzione utilizzare esclusivamente parti originali SEA.
11. Non eseguire alcuna modifica sui componenti dell'automazione.
12. L'installatore deve fornire tutte le informazioni relative al funzionamento manuale del sistema in caso di emergenza e consegnare all'Utente utilizzatore dell'impianto il libretto d'avvertenze allegato al prodotto.
13. Non permettere ai bambini o persone di sostare nelle vicinanze del prodotto durante il funzionamento. L'applicazione non può essere utilizzata da bambini, da persone con ridotte capacità fisiche, mentali, sensoriali o da persone prive di esperienza o del necessario addestramento. Tenere inoltre fuori dalla portata dei bambini radiocomandi o qualsiasi altro datore di impulso, per evitare che l'automazione possa essere azionata involontariamente.
14. Il transito tra le ante deve avvenire solo a cancello completamente aperto.
15. Tutti gli interventi di manutenzione, riparazione o verifiche periodiche devono essere eseguiti da personale professionalmente qualificato. L'utente deve astenersi da qualsiasi tentativo di riparazione o d'intervento e deve rivolgersi esclusivamente a personale qualificato SEA. L'utente può eseguire solo la manovra manuale.
16. La lunghezza massima dei cavi di alimentazione fra centrale e motori non deve essere superiore a 10 m. Utilizzare cavi con sezione 2.5 mm<sup>2</sup>. Utilizzare cablaggi con cavi in doppio isolamento (cavi con guaina) nelle immediate vicinanze dei morsetti specie per il cavo di alimentazione (230V). Inoltre è necessario mantenere adeguatamente lontani (almeno 2.5 mm in aria) i conduttori in bassa tensione (230V) dai conduttori in bassissima tensione di sicurezza (SELV) oppure utilizzare un'adeguata guaina che fornisca un isolamento supplementare avente uno spessore di almeno 1 mm.

**English** GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. Read carefully these **Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger. SEA S.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromagnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and EN12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEA S.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEA S.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEA S.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm<sup>2</sup> section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.

**Français** CONSIGNES POUR L'INSTALLATEUR ET L'UTILISATEUR

1. Lire attentivement les **instructions** avant d'installer le produit. Conserver les instructions en cas de besoin.
2. Ne pas disperser dans l'environnement le matériel d'emballage du produit et/ou des circuits
3. Ce produit a été conçu et construit exclusivement pour l'usage indiqué dans cette fiche. Toute autre utilisation non expressément indiquée pourraient compromettre l'intégrité du produit et/ou représenter une source de danger. SEA S.p.A. décline toute responsabilités qui dériverait d'usage impropre ou différent de celui auquel l'automatisme est destiné. Une mauvaise utilisation cause la cessation de la garantie.
4. Les composants doivent répondre aux prescriptions des Normes: Machines (2006/42/CE et successifs changements); Basse Tension (2006/95/CE et successifs changements); EMC (2004/108/CE et successifs changements). L'installation doit être effectuée conformément aux Normes EN 12453 et EN 12445.
5. Ne pas installer l'appareil dans une atmosphère explosive.
6. SEA S.p.A. n'est pas responsable du non-respect de la Bonne Technique de construction des fermetures à motoriser, ni des déformations qui pourraient intervenir lors de l'utilisation.
7. Couper l'alimentation électrique et déconnecter la batterie avant toute intervention sur l'installation. Vérifier que la mise à terre est réalisée selon les règles de l'art et y connecter les pièces métalliques de la fermeture.
8. On recommande que toute installation soit dotée au moins d'une signalisation lumineuse, d'un panneau de signalisation fixé, de manière appropriée, sur la structure de la fermeture.
9. SEA S.p.A. décline toute responsabilité quant à la sécurité et au bon fonctionnement de l'automatisme si les composants utilisés dans l'installation n'appartiennent pas à la production SEA.



11. Utiliser exclusivement, pour l'entretien, des pièces SEA originales.
12. Ne jamais modifier les composants d'automatisme.
13. L'installateur doit fournir toutes les informations relatives au fonctionnement manuel du système en cas d'urgence et remettre à l'Usager qui utilise l'installation les "Instructions pour l'Usager" fournies avec le produit.
14. Interdire aux enfants ou aux tiers de stationner près du produit durant le fonctionnement. Ne pas permettre aux enfants, aux personnes ayant des capacités physiques, mentales et sensorielles limitées ou dépourvues de l'expérience ou de la formation nécessaires d'utiliser l'application en question. Eloigner de la portée des enfants les radiocommandes ou tout autre générateur d'impulsions, pour éviter tout actionnement involontaire de l'automatisme.
15. Le transit entre les vantaux ne doit avoir lieu que lorsque le portail est complètement ouvert.
16. L'utilisateur doit s'abstenir de toute tentative de réparation ou d'intervention et doit s'adresser uniquement et exclusivement au personnel qualifié SEA ou aux centres d'assistance SEA. L'utilisateur doit garder la documentation de la réparation. L'utilisateur peut exécuter seulement la manoeuvre manuel.
17. La longueur maximum des câbles d'alimentation entre la carte et les moteurs ne devrait pas être supérieure à 10 m. Utilisez des câbles avec une section de 2,5 mm<sup>2</sup>. Utilisez des câblage avec câble à double isolation (avec gaine) jusqu'à proximité immédiate des terminaux, en particulier pour le câble d'alimentation (230V). Il est également nécessaire de maintenir une distance suffisante (au moins 2,5 mm dans l'air), entre les conducteurs en basse tension (230V) et les conducteurs de très basse tension de sécurité (SELV) ou utiliser une gaine ayant une épaisseur d'au moins 1 mm, qui fournisse une isolation supplémentaire.

#### **Español** ADVERTENCIAS GENERALES PARA INSTALADORES Y USUARIOS

- 1 Leer las **instrucciones de instalación** antes de comenzar la instalación. Mantenga las instrucciones para consultas futura
2. No desperdiciar en el ambiente los materiales de embalaje del producto o del circuito
3. Este producto fue diseñado y construido exclusivamente para el uso especificado en esta documentación. Cualquier otro uso no expresamente indicado puede afectar la integridad del producto y ser una fuente de peligro. El uso inadecuado es también causa de anulación de la garantía. SEA S.p.A. se exime de toda responsabilidad causadas por uso inapropiado o diferente de aquel para el que el sistema automatizado fue producido.
4. Los productos cumplen con la Directiva: Maquinas (2006/42/CE y siguientes modificaciones), Baja Tension (2006/95/CE, y siguientes modificaciones), Compatibilidad Electromagnética (2004/108/CE modificada). La instalación debe ser llevada a cabo de conformidad a las normas EN 12453 y EN 12445.
5. No instalar el dispositivo en una atmósfera explosiva.
6. SEAS.p.A. no es responsable del incumplimiento de la mano de obra en la construcción de la cancela a automatizar y tampoco de las deformaciones que puedan producirse durante el uso.
7. Antes de realizar cualquier operación apagar la fuente de alimentación y desconectar las baterías. Comprobar que el sistema de puesta a tierra sea diseñado de una manera profesional y conectar las partes metálicas del cierre.
8. Para cada instalación se recomienda utilizar como mínimo una luz parpadeante y una señal de alarma conectada a la estructura del marco.
9. SEAS.p.A. no acepta responsabilidad por la seguridad y el buen funcionamiento de la automatización en caso de utilización de componentes no producidos por SEA.
10. Para el mantenimiento utilizar únicamente piezas originales SEAS.p.A..
11. No modificar los componentes del sistema automatizado.
12. El instalador debe proporcionar toda la información relativa al funcionamiento manual del sistema en caso de emergencia y darle al usuario el folleto de adjunto al producto.
13. No permita que niños o adultos permanecen cerca del producto durante la la operación. La aplicación no puede ser utilizada por niños, personas con movilidad reducida de tipo físico, mental, sensorial o igual por personas sin experiencia o formación necesaria. Tener los radiomandos fuera del alcance de niños así como cualquier otro generador de impulsos radio para evitar que el automación pueda ser accionada accidentalmente.
14. El tránsito a través de las hojas sólo se permite cuando la puerta está completamente abierta.
15. Todo el mantenimiento, reparación o controles deberán ser realizados por personal cualificado. Evitar cualquier intento a reparar o ajustar. En caso de necesidad comunicarse con un personal SEA calificado. Sólo se puede realizar la operación manual.
16. La longitud máxima de los cables de alimentación entre motor y central no debe ser superior a 10 metros. Utilizar cables con 2,5 mm<sup>2</sup>. Utilizar cables con doble aislamiento (cables con vaina) hasta muy cerca de los bornes, especialmente por el cable de alimentación (230V). Además es necesario mantener adecuadamente distanciados (por lo menos 2,5 mm en aire) los conductores de baja tensión (230V) y los conductores de baja tensión de seguridad (SELV) o utilizar una vaina adecuada que proporcione aislamiento adicional con un espesor mínimo de 1 mm.

#### **Deutsch** ALL GEMEINE HINWEISE FUER DEN INSTALLATEUR UND DEN NUTZER

1. Lesen Sie die **Installierungsanweisungen** sorgfältig durch bevor Sie mit der Installation beginnen. Diese Anweisungen an einem leicht zugänglichen Ort aufbewahren.
2. Verpackungsmaterial des Produkts und/oder der Schaltkreise umweltgerecht entsorgen.
3. Dieses Produkt wurde speziell und ausschließlich für den, in den Unterlagen beschriebenen Zweck, geplant und hergestellt. Jede andere Verwendung, die nicht ausdrücklich angegeben wurde kann die Integrität des Produkts schädigen und/oder eine Gefahrenquelle darstellen. Die nicht fachgerechte Nutzung des Produkts bewirkt die Erlöschung der Garantie. SEA S.p.A. lehnt jegliche Haftung, für unsachgemäße oder andere Nutzung, als die wofür das Produkt bestimmt ist, ab.
4. SEA Produkte entsprechen den folgenden Richtlinien: Maschinenrichtlinie (2006/42/EG und nachträglich geänderten Fassungen), Niederspannungs-Richtlinie (2006/95/EG und nachträglich geänderten Fassungen), EMV (2004/108/EG und nachträglich geänderten Fassungen). Installation gemäß Standard EN12453 und EN12445 durchführen.
5. Installieren Sie das Gerät nicht in explosionsgefährdeten Umgebungen, das Vorhandensein von brennbaren Gasen oder Dämpfen stellt ein ernstes Sicherheitsrisiko dar.
6. SEA S.p.A. ist nicht für die Nichtbeachtung der Guten Technik bei der Herstellung von zu motorisierenden Toren und für deren eventuellen Verformungen, die während des Gebrauchs auftreten könnten, haftbar.
7. Vor allen Eingriffen, das Gerät ausschalten und die Batterien trennen. Sicherstellen, dass die Erdung fachgerecht hergestellt wurde und die Metallteile des Tores daran anschließen.
8. Für jede Anlage wird empfohlen, mindestens ein Blinklicht zu montieren und ein Warnschild auf der Torstruktur anzubringen.
9. SEA S.p.A. übernimmt keine Haftung für Sicherheit und reibungslosen Betrieb des Antriebs, bei Verwendung von Komponenten, die nicht von der SEA Produktion stammen.
10. Für die Wartung nur SEA Originalteile verwenden.
11. Keinerlei Änderungen auf Komponenten der Automation vornehmen.
12. Der Installateur muss den Nutzer des Antriebs über den manuellen Betrieb des Systems im Notfall unterrichten und ihm, das, dem Produkt beiliegende, Handbuch übergeben.
13. Der Aufenthalt von Kindern oder Erwachsenen in der Nähe des Tores während seines Betriebes ist nicht gestattet. Die Anlage darf nicht von Kindern, Personen mit eingeschränkten körperlichen, geistigen oder sensorischen Fähigkeiten oder von Menschen ohne notwendige Erfahrung oder Anweisungen benutzt werden. Fernbedienungen oder andere Impulsgeber außerhalb der Reichweite von Kindern halten, um die versehentliche Aktivierung der Anlage zu verhindern.
14. Die Durchfahrt zwischen den Flügeln ist nur bei vollständig geöffnetem Tor zulässig.
15. Sämtliche Wartungs- und Reparaturarbeiten oder periodische Kontrollen, müssen von qualifiziertem Fachpersonal durchgeführt werden. Der Endverbraucher muss davon absehen eigenständig Reparaturen oder Eingriffe jeder Art an der Anlage durchzuführen und muss sich ausschliesslich an qualifiziertes SEA Fachpersonal wenden. Der Endverbraucher darf nur die manuelle Notfunktion durchführen.
16. Die maximale Länge der Stromkabel zwischen Steuerung und Motoren ist 10 Meter. Verwenden Sie Kabel mit 2,5 mm<sup>2</sup> Querschnitt und Doppelisolierung (Kabelmantel) in der unmittelbaren Nähe von Klemmen, insbesondere für das Speisungskabel (230V). Die Speisungskabel (230V) und die Sicherheits-Niederspannungskabel (SELV) müssen in einem Abstand von mindestens 2,5 mm gehalten werden, oder eine geeignete Hülse von 1mm Dicke, für eine zusätzliche Isolierung verwenden..



**Dichiarazione di conformità**  
**Declaration of Conformity**

La SEA S.p.A. dichiara che, con l'installazione degli adeguati dispositivi di sicurezza e di filtraggio disturbi, i prodotti:

*SEA S.p.A. declares that by installing the appropriate safety equipment and noise filtering the products:*

<b>Descrizione / Description</b>	<b>Modello / Model</b>	<b>Marca / Trademark</b>
Motoriduttore Saturn 600/1000/2000 (e tutti i suoi derivati) <i>Motor reducer Saturn 600/1000/2000 (and all its by-products)</i>	12400210/5 - 12400100/5 - 12400040/5 <i>12400210/5 - 12400100/5 - 12400040/5</i>	SEA SEA
Motoriduttore Saturn 1400 Oil 24V (e tutti i suoi derivati) <i>Motor reducer Saturn 1400 Oil 24V (and all its by-products)</i>	12400030/3 <i>12400030/3</i>	SEA SEA
Boxer 600/1000/2000 (e tutti i suoi derivati) <i>Boxer 600/1000/2000 (and all its by-products)</i>	12405300 - 12405000/5 - 12405200/5 <i>12405300 - 12405000/5 - 12405200/5</i>	SEA SEA

sono costruiti per essere incorporati in una macchina o per essere assemblati con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE:

*are built to be integrated into a machine or to be assembled with other machinery to create a machine under the provisions of Directive 2006/42/CE:*

sono conformi ai requisiti essenziali di sicurezza relativi ai prodotti entro il campo di applicabilità delle Direttive Comunitarie 2006/95/CE e 2004/108/CE.

*they are conforming to the essential safety requirements related to the products within the field of applicability of the Community Directives 2006/95/CE and 2004/108/CE.*

**COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:**

**MANUFACTURER or AUTHORISED REPRESENTATIVE:**

SEAS.p.A.

DIREZIONE E STABILIMENTO:

Zona industriale 64020 S.ATTO Teramo - (ITALY)

Tel. 0861 588341 r.a. Fax 0861 588344

Http://www.seateam.com

I test sul prodotto sono stati effettuati in configurazione standard e in riferimento alle norme specifiche per la sua classe d'utilizzo.

*The products have been tested in standard configuration and with reference to the special norms concerning the classe of use.*

Luogo, data di emissione  
*Place, date of issue*  
Teramo, 19/05/2014

L'Amministratore  
*The Administrator*  
Ennio Di Saverio





Questo articolo è stato prodotto seguendo rigide procedure di lavorazione ed è stato testato singolarmente al fine di garantire i più alti livelli qualitativi e la vostra soddisfazione. Vi ringraziamo per aver scelto SEA.

This item has been produced following strict production procedures and has been singularly tested for the highest quality levels and for your complete satisfaction. Thanks for choosing SEA.

Cet article a été produit suivant des procédures d'usinage strictes et il a singulièrement été testé afin de garantir les plus hauts niveaux de qualité pour votre satisfaction. Nous vous remercions d'avoir choisi SEA.

Este artículo ha sido producido siguiendo rigidos procedimientos de elaboracion y ha sido probando singolarmente a fin de garantizar los mas altos niveles de calidad y vuestra satisfaccion. Le agradecemos por haber escogito SEA.



# CERTIFICATO DI ESTENSIONE GARANZIA CERTIFICATE OF WARRANTY EXTENTION

*n.*

## PRODOTTO/ PRODUCT

- Modello/Model \_\_\_\_\_
- Matricola n. /Serial Number \_\_\_\_\_
- Data di acquisto/Date of order \_\_\_\_\_
- Data di installazione/Date of installation \_\_\_\_\_

**Centrale/Control unit**

SEA ☐

Altri/Others ☐

**Fotocellule/Photocells**

SEA ☐

Altri/Others ☐

**RX - TX**

SEA ☐

Altri/Others ☐

**Altri accessori /Other accessories**

SEA ☐

Altri/Others ☐

## UTENTE/Customer

Nome e Cognome \_\_\_\_\_

*First Name and Family Name* \_\_\_\_\_

Indirizzo/Address \_\_\_\_\_

## INSTALLATORE/Installer

Ragione sociale/Company Name \_\_\_\_\_

Nome e Cognome/First and Family Name \_\_\_\_\_

Indirizzo/Address \_\_\_\_\_

## INSTALLATORE/INSTALLER

Firma per il trattamento dei dati personali 196/2003

Agreement of law No. 196/2003 (Privacy Code)

Copia da restituire  
*Copy to be returned*

Firma e Timbro

*Sign and Stamp* \_\_\_\_\_

N.B: L'estensione della garanzia legale di 12 mesi a 24 mesi e 36 mesi è valida solo se il presente modulo viene rispedito per posta o fax a SEA S.p.A. entro 15gg dalla data di acquisto. Allegare relativa fattura d'acquisto.

Note: The extension of the legal standard warranty of 12 months to 24 months and to 36 months, is valid only if the present form is returned by mail or fax to SEA S.p.A within 15days from the date of purchase. Attach customer invoice.



**SEA®**  
Sistemi Elettronici  
di Apertura Porte e Cancelli  
International registered trademark n. 804888

SEA S.p.A. - Zona Industriale San Atto- 64020 Teramo (Italy)

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