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

CE

Italiano
English
Français
Español
Deutsch

SATURN

600 - 1000 - 2000

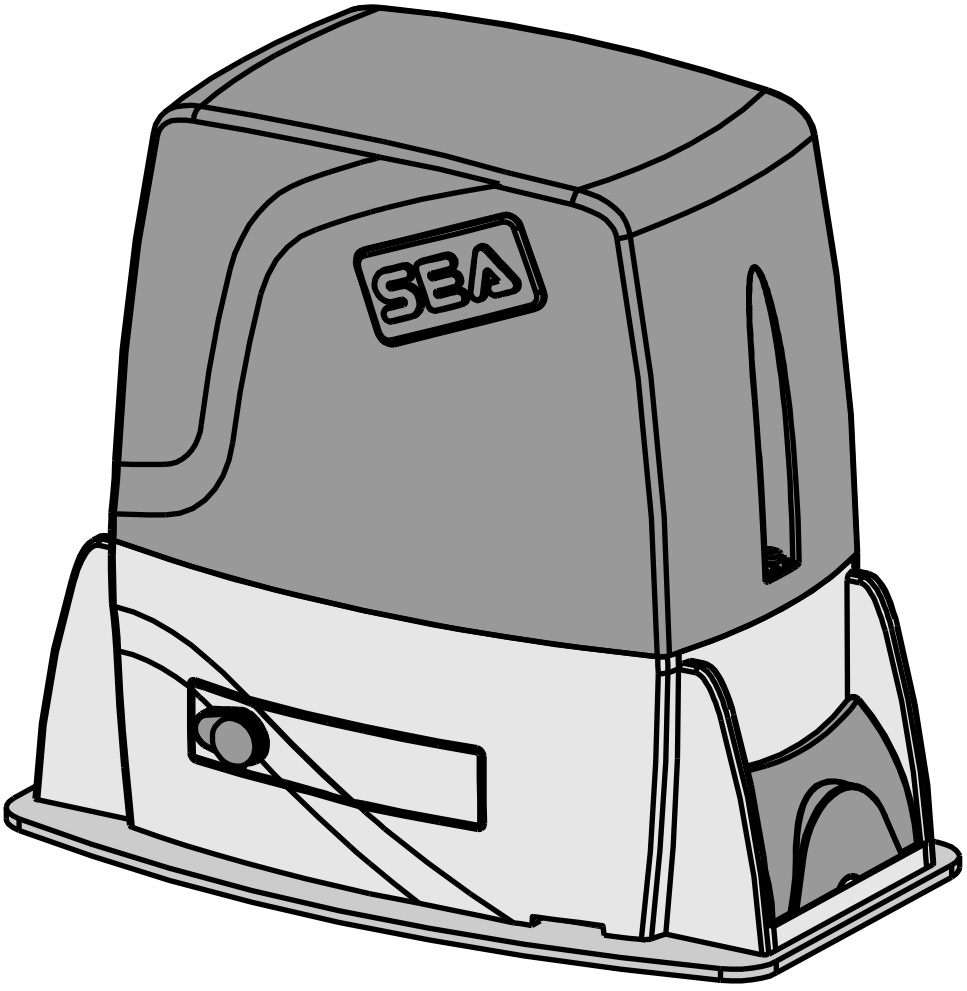
MOTORIDUTTORE 230 Vac PER CANCELLI SCORREVOLI

MOTOR REDUCER 230 Vac FOR SLIDING GATES

MOTEUR 230 Vac POUR PORTAILS COULISSANTS

MOTOREDUCTOR 230 Vac PARA CANCELAS CORREDIZAS

230 Vac ANTRIEB FUER SCHIEBETORE



SATURN 600 - 1000 - 2000

ISTRUZIONI DI MONTAGGIO E COLLEGAMENTO

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International registered trademark n. 804888

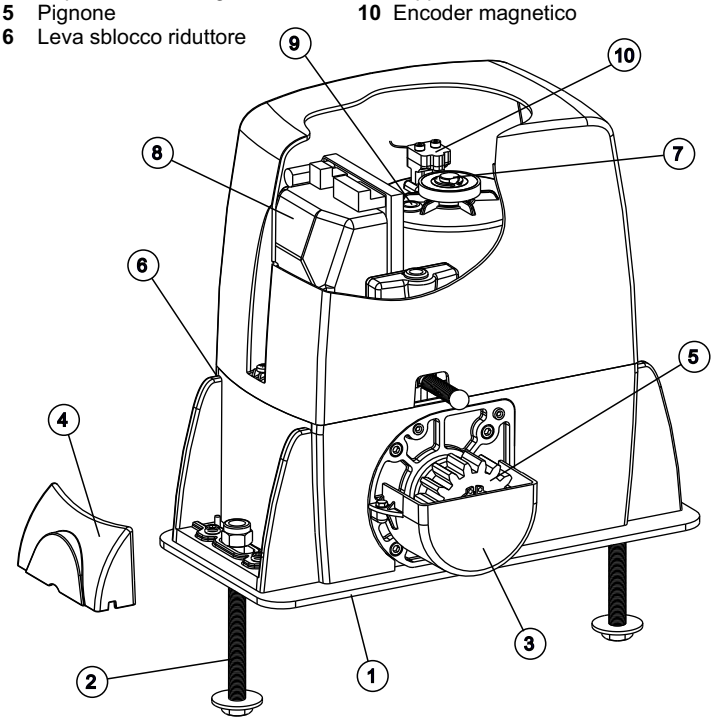
CE

ITALIANO

Il **SATURN** è un motoriduttore progettato per automatizzare cancelli scorrevoli con lubrificazione degli ingranaggi a grasso nella versione **600**; **a bagno d'olio** nelle versioni **1000** e **2000** .
L'**irreversibilità** del motoriduttore permette una perfetta e sicura chiusura del cancello evitando l'istallazione di una elettroserratura e in caso di mancanza di alimentazione, il dispositivo di sblocco situato nella parte frontale del motoriduttore permette l'apertura e la chiusura manuale. L'operatore è dotato di un dispositivo di frizione elettronica nella versione **600** ed anche di **frizione meccanica regolabile** nelle versioni **1000** e **2000**, che garantisce una regolazione della spinta sul cancello. Inoltre **il dispositivo elettronico d'inversione** (opzionale) realizzato tramite **encoder** rende il motoriduttore Saturn un operatore sicuro ed affidabile permettendo in maniera semplice di ottemperare alle normative vigenti nei paesi in cui tale prodotto viene installato.

NOMENCLATURA PARTI PRINCIPALI

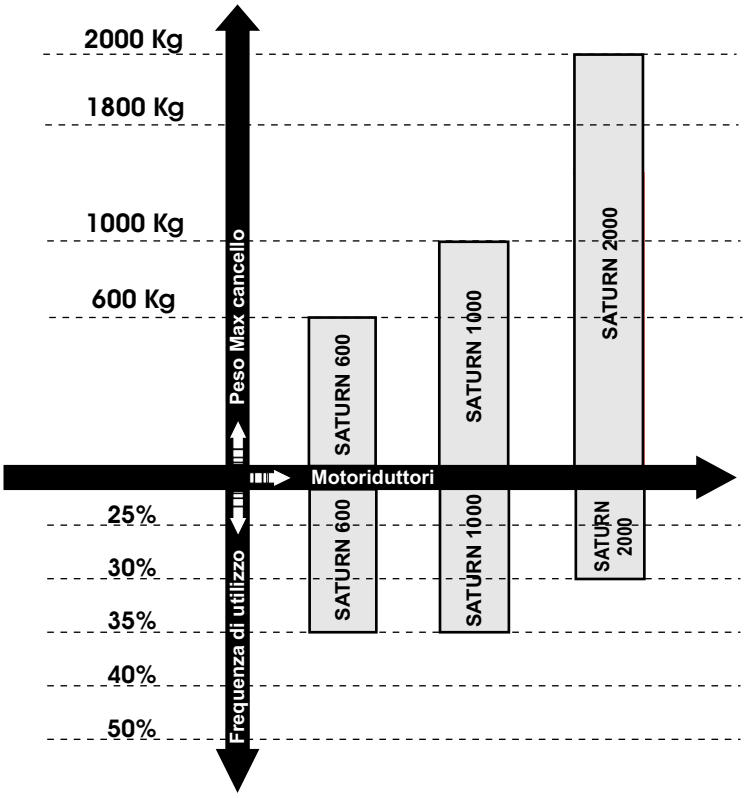
1 Piastra di fondazione regolabile
2 Bulloni di ancoraggio
3 Protezione pignone
4 Coperchio viti di regolazione
5 Pignone
6 Leva sblocco riduttore
7 Vite regolazione frizione meccanica (solo nelle versioni 1000 e 2000)
8 Apparecchiatura elettronica
9 Tappo rabbocco olio
10 Encoder magnetico



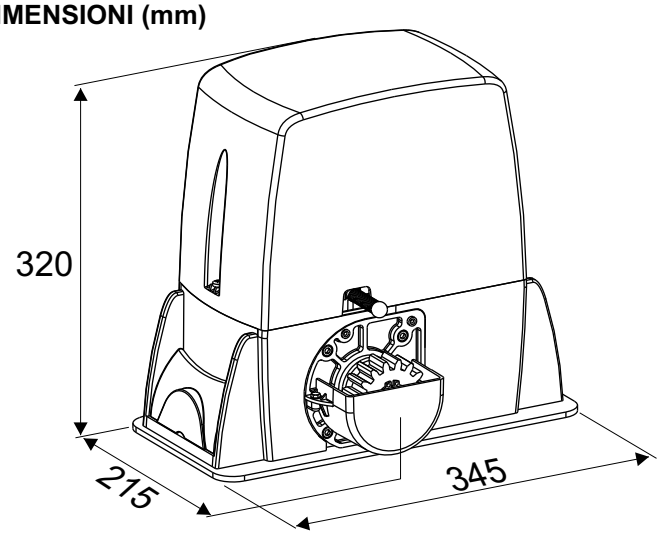
DATI TECNICI	600	1000	2000
Alimentazione	230 V (±5%) 50/60 Hz		
Potenza	330W	550W	750W
Corrente assorbita	1,6 A	2,6 A	3,0 A
Condensatore di spunto	10 uf	12,5 uf	12,5 uf
Frequenza di utilizzo	35%	35%	30%
Temperatura ambiente	-20°C +55°C		
Intervento di Termoprotezione	150°C		
Peso	12 Kg	13 Kg	14,5 Kg
Frizione antischiacciamento	Elettronica	Elettronica/Meccanica	
Grado di protezione	IP55		
Velocità pignone Z16 (Z20)	9,5 (11) m/min		
Coppia max	30 Nm	55 Nm	70 Nm
Peso Max. del cancello	600 Kg	1000 Kg	2000 Kg
Frizione Meccanica	no	si	si
Finecorsa Induttivo o Meccanico			

La frizione è presente solo sulla versione OIL.

GRAFICO DI UTILIZZO MOTORIDUTTORE SATURN



DIMENSIONI (mm)



1. PREDISPOSIZIONE DEL CANCELLO

Prima di procedere all'installazione controllare che tutte le parti del cancello (fisse e mobili) abbiano una struttura resistente ed il più possibile indeformabile, e quanto segue:
a) che l'anta sia sufficientemente rigida e compatta;
b) che la guida di scorrimento inferiore sia perfettamente rettilinea, orizzontale e priva di irregolarità che possano ostacolare lo scorrimento del cancello;
c) che le ruote di scorrimento inferiori siano munite di cuscinetti a sfera lubrificabili o a tenuta stagna;
d) che la guida superiore sia realizzata e posizionata in modo che il cancello risulti perfettamente verticale;
e) che siano sempre installati gli arresti di finecorsa dell'anta per evitare deragliamenti della stessa.

2. ANCORAGGIO PIASTRA DI FONDAZIONE

Per l'installazione della piastra di fondazione occorre:

2.1. Predisporre in base alle misure riportate in Fig. 1 una piazzola di cemento all'interno della quale verrà murata la piastra di fondazione e i bulloni di ancoraggio.

NB: E' opportuno, quando la struttura del cancello lo permette, sollevare la piastra dal piano pavimento di almeno 50 mm per evitare eventuali ristagni di acqua (Fig. 1).

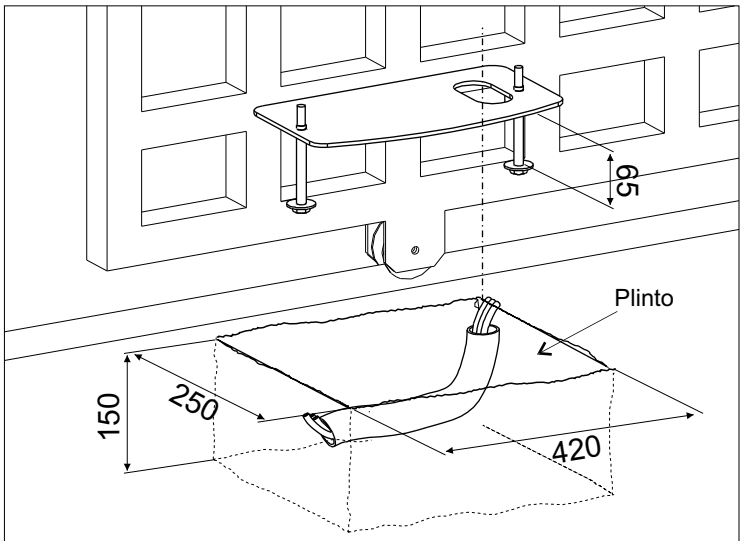
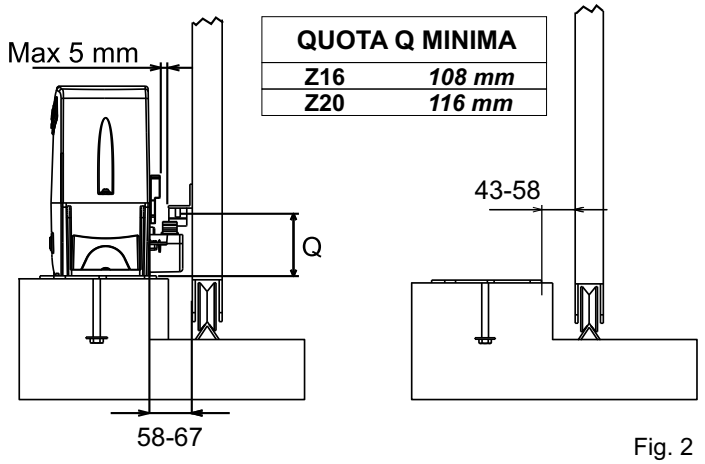


Fig. 1

2.2. Prevedere una guaina flessibile in plastica di almeno 30 mm di diametro da inserire nell'apposita asola della piastra prima che la stessa venga cementata.

2.3. Prima di cementare la piastra di ancoraggio assicurarsi che la stessa risulti perfettamente orizzontale e che sia rispettata la quota di 50 55 mm indicata in Fig. 2.



QUOTA Q MINIMA	
Z16	*108 mm*
Z20	*116 mm*

Fig. 2

3. PREDISPOSIZIONE PASSAGGIO CAVI

Il Saturn è provvisto di due fori distinti per il passaggio dei cavi elettrici.
E' molto importante far passare i cavi ad alta tensione (230Vac) in un foro e quelli a bassa tensione (24Vdc) nell'altro foro (Fig. 3)

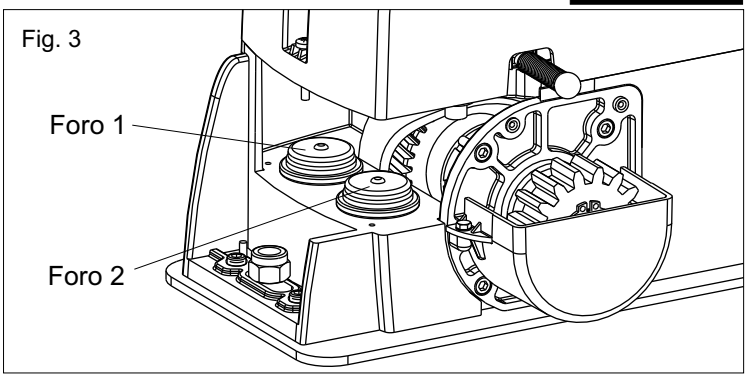


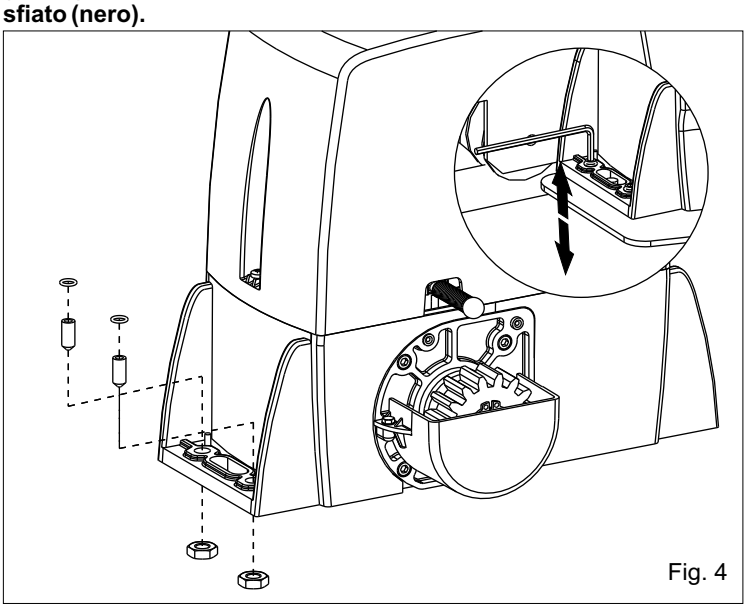
Fig. 3

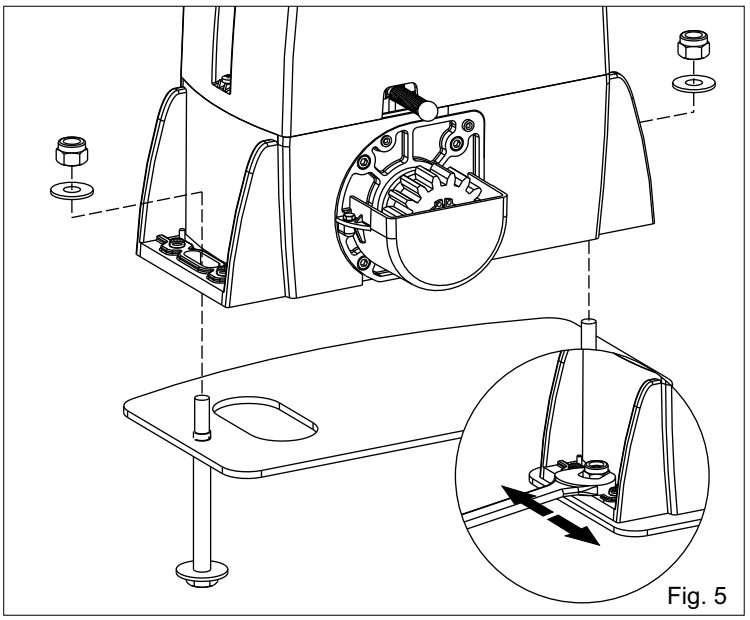
4. INSTALLAZIONE DEL MOTORIDUTTORE

4.1. Inserire i 4 grani negli appositi fori in modo da regolare l'altezza del motoriduttore alla piastra (Fig. 4).
A fine installazione controllare che i 4 grani siano ben in presa sulla piastra di fondazione.

4.2. Fissare il motoriduttore alla piastra di fondazione mediante i 2 dadi in dotazione regolandone la posizione laterale (Fig. 5) per il rispetto delle quote citate in (Fig. 2).

4.3. IMPORTANTE: Rimuovere il tappo di chiusura carico olio (rosso) e sostituirlo con quello fornito a parte, dotato di foro di sfiato (nero).


Fig. 4


Fig. 5

5. SISTEMA DI SBLOCCO

5.1. Per sbloccare operare come segue:
- Aprire il copriserratura, inserire la chiave e ruotarla in senso orario di 90° (Fig. 6).
- Tirare la leva di sblocco fino a battuta, 90° circa (Fig. 7).

Nota: Tirando la leva di sblocco, viene dato all'apparecchiatura elettronica un comando di stop grazie ad un interruttore micro-switch posizionato all'interno.

5.2. Per ribloccare operare come segue:
- Spingere la leva di sblocco fino alla completa chiusura.
- Ruotare la chiave il senso anti-orario ed estrarla.
- Chidere il coperchio protettivo della serratura.

Ripristinato il blocco si riattiva l'apparecchiatura elettronica

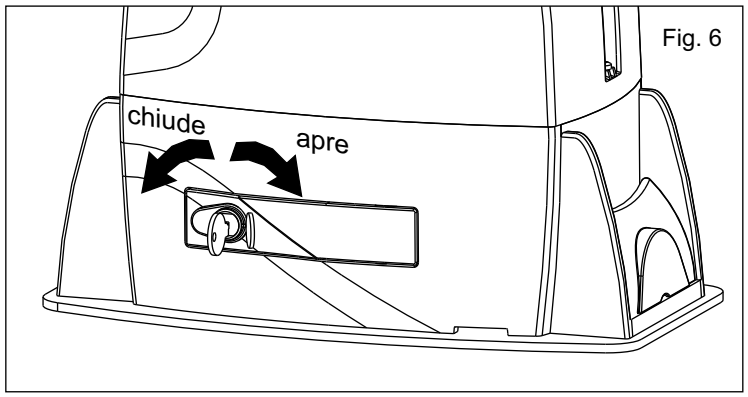
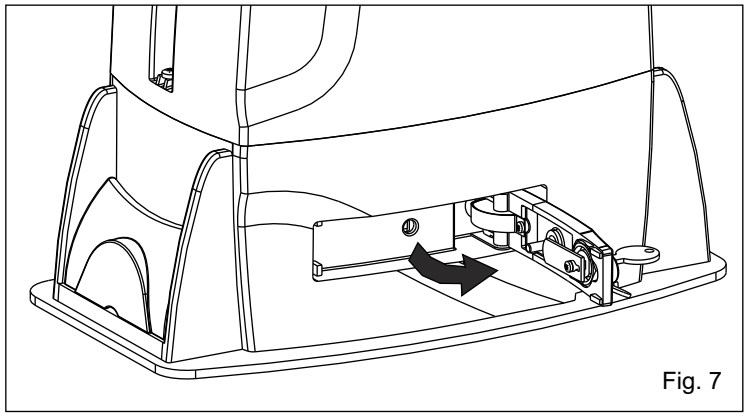


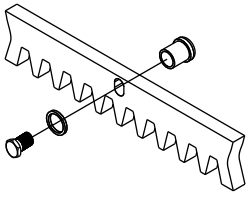
Fig. 6


Fig. 7

6. MONTAGGIO DELLA CREMAGLIERA

6.1. Sbloccare il motoriduttore e portare l'anta in apertura completa;

6.2. fissare ad ogni elemento di cremagliera i nottolini di supporto mediante le relative viti di bloccaggio, avendo cura di posizionarli nella parte superiore dell'asola (Fig. 8) ;


Fig. 8

6.3. appoggiare l'elemento di cremagliera al pignone dentato del motoriduttore in modo che risulti parallela alla guida a pavimento del cancello e posizionandolo come in Fig. 9 e puntare con elettrosaldatura il nottolino centrale B alla struttura del cancello (Fig. 10).

Spostare manualmente il cancello fino a portare il nottolino C in corrispondenza del pignone, quindi puntare con elettrosaldatura. Effettuare la stessa operazione per il nottolino A dopo averlo portato in corrispondenza del pignone;

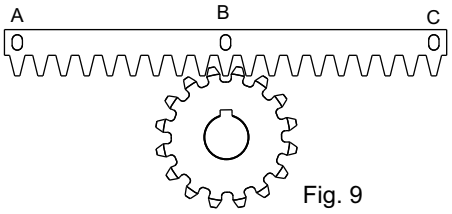
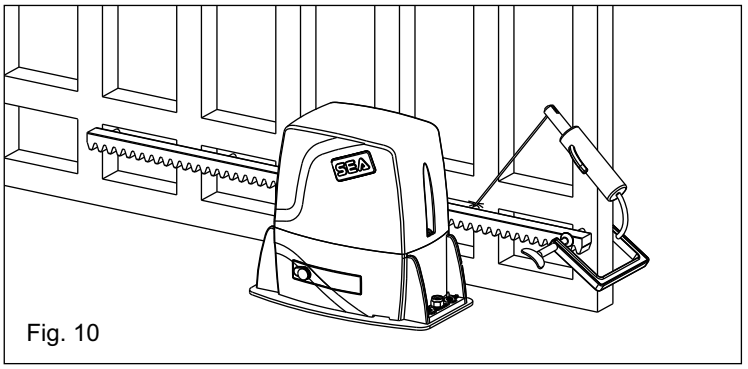


Fig. 9

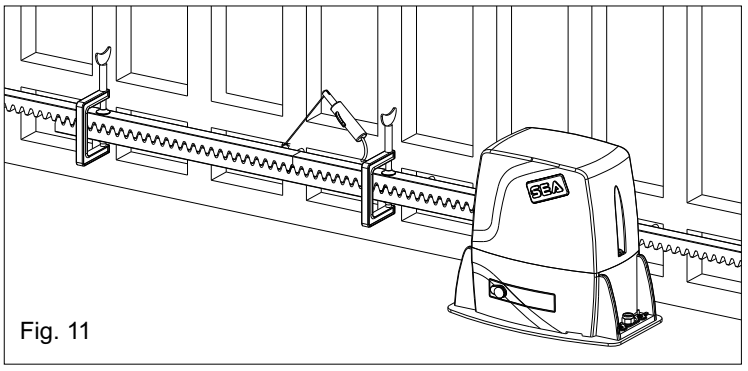

Fig. 10

6.4. controllare che tutti gli elementi della cremagliera risultino perfettamente allineati e posizionati correttamente (dentature in fase). Si consiglia di contrapporre a due elementi successivi un terzo elemento come indicato in Fig. 11;

6.5. ripetere l'operazione sopra descritta per tutti i rimanenti elementi di cremagliera da montare;

6.6. tutta la cremagliera va alzata di 1,5 mm per evitare che il peso del cancello gravi sul pignone (Fig. 12),
Attenzione: mantenere un gioco di almeno 0,5 mm tra dente pignone e dente cremagliera;

6.7. controllare che la cremagliera lavori al centro del pignone lungo tutti gli elementi, regolando nel caso necessario la lunghezza dei distanziali.


Fig. 11

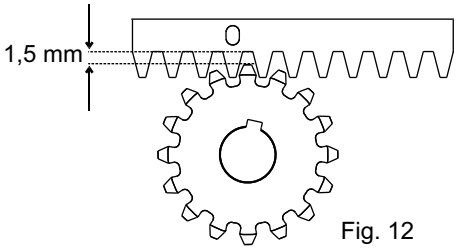


Fig. 12

7. REGOLAZIONE DEL FINECORSA

7.1. Per installare e regolare i finecorsa in apertura, seguire le istruzioni sotto riportate (Fig. 13):
- Portare il cancello in completa apertura,
- Posizionare la piastrina sulla cremagliera in modo da avere il finecorsa (levetta in caso di finecorsa meccanico (Fig. 14); freccette di indicazione poste nella parte superiore in caso di finecorsa induttivo (Fig. 15)) in corrispondenza del punto X che si trova a 50 mm dal lato piegato della piastrina (fig. 16) e fissarla con le viti in dotazione (Fig. 17).

7.2. Per installare e regolare i finecorsa in chiusura, seguire le istruzioni sotto riportate (Fig. 13):
- Portare il cancello in completa chiusura
- Posizionare la piastrina sulla cremagliera in modo da avere il finecorsa in corrispondenza del punto X che si trova a 50 mm dal lato piegato della piastrina (fig. 16) e fissarla con le viti in dotazione (Fig. 17).

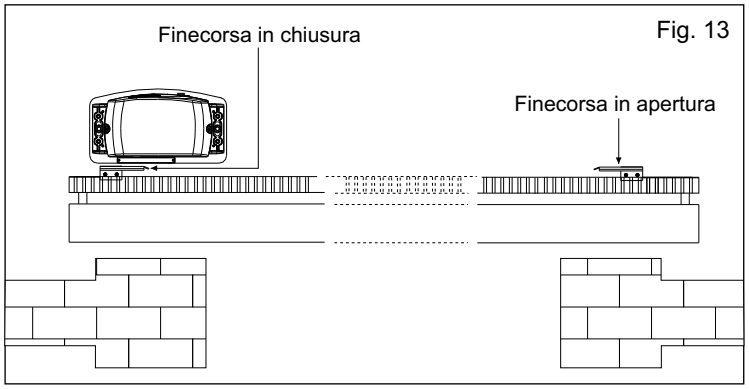


Fig. 13

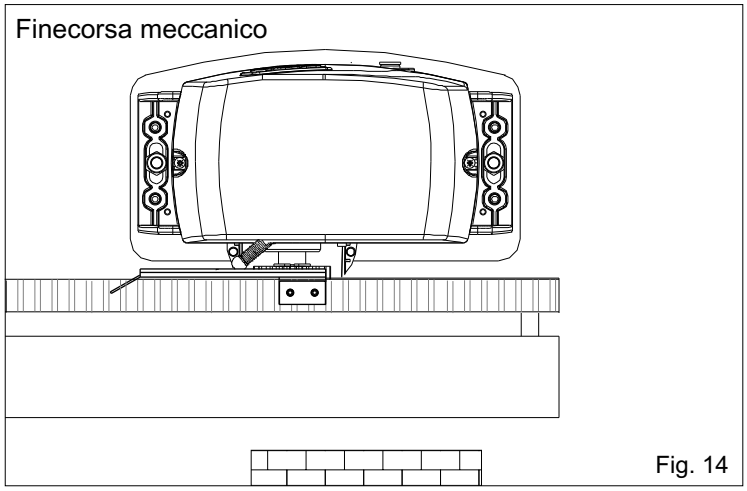


Fig. 14

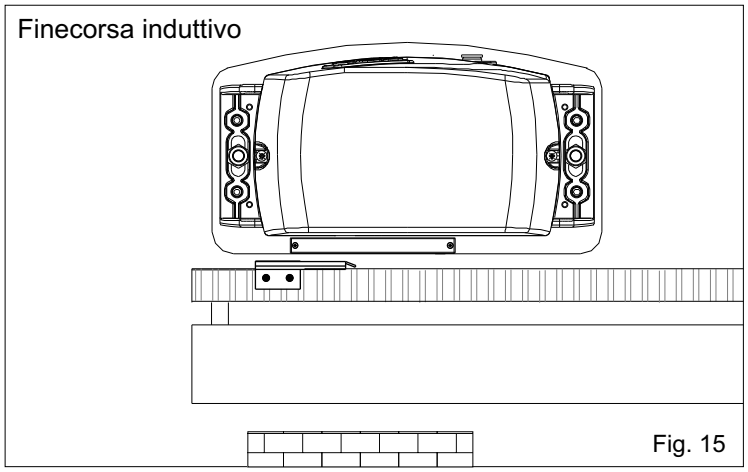


Fig. 15

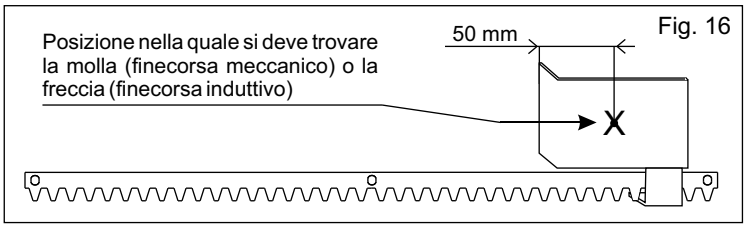
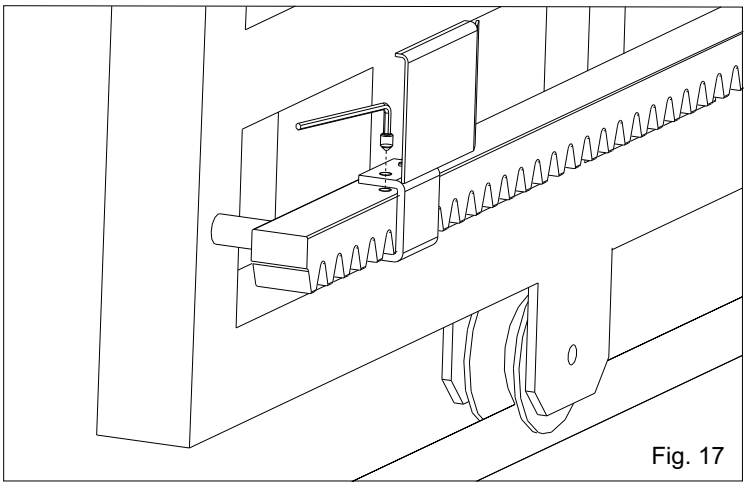
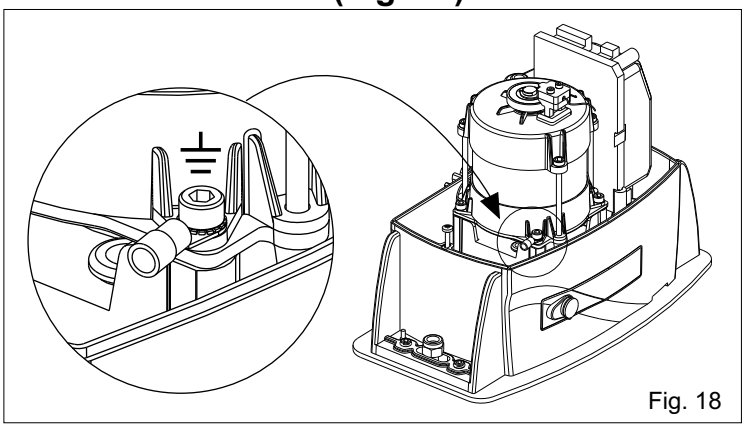


Fig. 16


Fig. 17

Attraverso la regolazione del trimmer di frenata posto sull'apparecchiatura elettronica è possibile ottenere lo stop del cancello nel punto desiderato

8. MESSA A TERRA (Fig. 18)


Fig. 18

9. REGOLAZIONE FRIZIONE *(Saturn 1000 e 2000)*

9.1. Togliere la tensione di alimentazione.

9.2. Per regolare la frizione operare come segue:
- Agire sul grano "A" (Fig. 19) nel modo seguente:
- Senso orario = minore sensibilità della frizione e maggiore forza di spinta.
- Senso antiorario = maggiore sensibilità della frizione e minore forza di spinta.

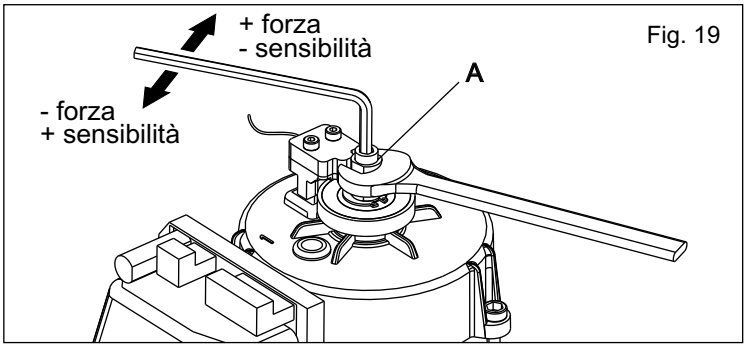
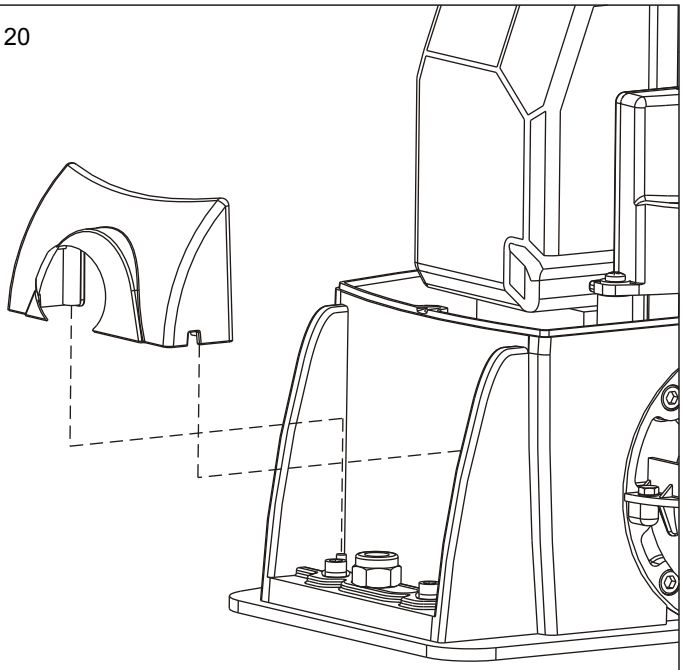


Fig. 19

10. MONTAGGIO COPRIVITI

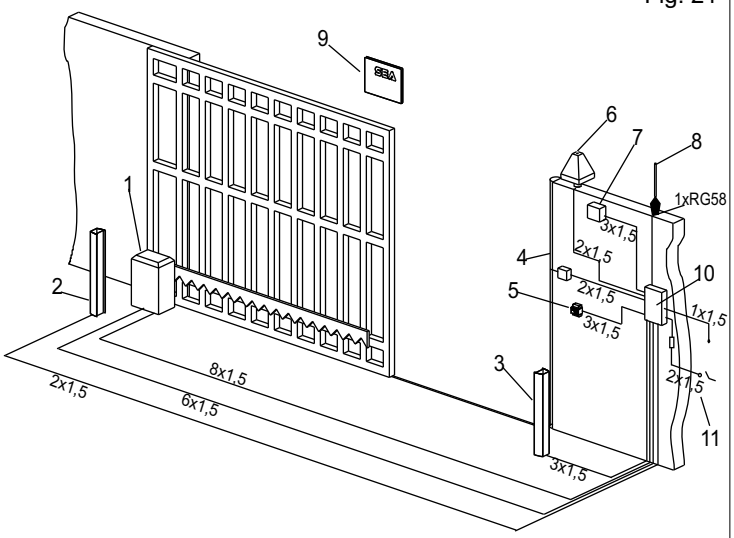
Alla fine dell'installazione meccanica e dopo aver eseguito tutte le regolazioni necessarie, montare i due copriviti al motoriduttore come mostrato in Fig. 20.

Fig. 20



11. COLLEGAMENTI ELETTRICI DELL'IMPIANTO (Fig. 21)

Fig. 21

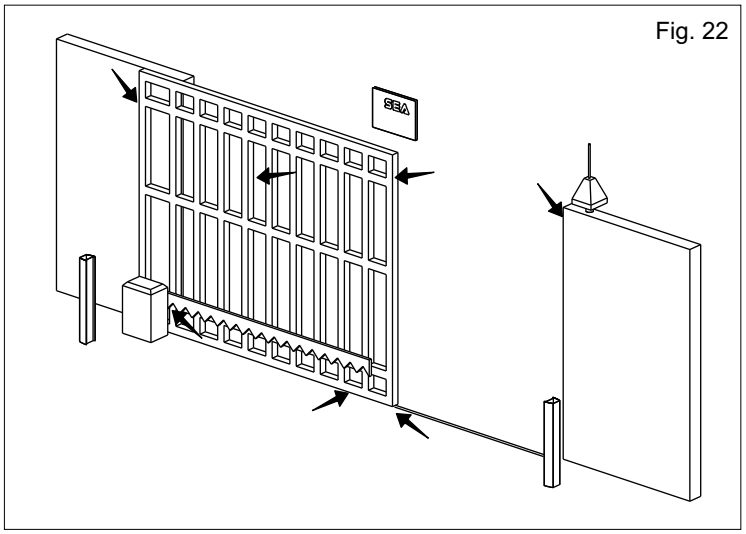


1) Saturn
2) Fotocellula Sx
3) Fotocellula Dx
4) Costa meccanica
5) Pulsante a chiave
6) Lampeggiatore
7) Ricevente
8) Antenna
9) Cartello segnaletico
10) Scatola di derivazione
11) Differenziale 16A - 30mA

12. ANALISI DEI RISCHI

I punti indicati dalle frecce in Fig. 22 sono da considerarsi potenzialmente pericolosi per cui l'installatore deve eseguire un'accurata analisi dei rischi Tal fine di prevenire i pericoli di schiacciamento, convogliamento, cesoiamento, uncinamento, intrappolamento, garantendo così un'installazione sicura che non arrechi danni a persone, cose, animali (Rif. legislazioni vigenti nel paese d'istallazione).

Fig. 22



LEGGERE ATTENTAMENTE

La SEA S.r.l. declina ogni responsabilità per danni od incidenti che possono essere generati da un eventuale rottura del prodotto, qualora questi avvengano per inosservanza di quanto riportato espressamente ed a riferimento nel presente manuale. Il mancato utilizzo dei ricambi originali SEA oltre ad invalidare la garanzia, rende nulla la responsabilità del costruttore relativa alla sicurezza (in riferimento alla direttiva macchine). L'impianto elettrico deve essere eseguito e certificato da un professionista abilitato che rilascerà la documentazione prevista ai sensi del D.L. 46/90. Quanto ivi riportato è un estratto del fascicolo di AVVERTENZE GENERALI che l'installatore deve leggere prima di eseguire il lavoro e consegnare all'utente finale. Gli elementi dell'imballagggio quali sacchetti, polistirolo espanso, chiodi etc, non devono essere lasciati alla portata dei bambini in quanto fonte di potenziale pericolo.

MANUTENZIONE PERIODICA

Controllare il livello dell'olio (solo Saturn 1000 e 2000) (utilizzare l'asta di livello olio)	Annuale
Cambiare l'olio	4 anni
Verificare la funzionalità dello sblocco	Annuale
Verificare la funzionalità della frizione (1000 e 2000)	Annuale
Verificare distanza fra pignone e cremagliera (1.5 mm)	Annuale
Verificare lo stato di usura del pignone e della cremagliera	Annuale
Controllare le viti di fissaggio	Annuale
Verificare l'integrità dei cavi di collegamento	Annuale
Verificare la funzionalità e lo stato del finecorsa in apertura e chiusura e le relative piastrine	Annuale

Tutte le operazioni sopra descritte, devono essere eseguite esclusivamente da un istallatore autorizzato.

DICHIARAZIONE DI CONFORMITÁ

La SEA dichiara sotto la propria responsabilità che i prodotti

Saturn 600, Saturn 1000, Saturn 2000

rispondono ai requisiti essenziali previsti dalle seguenti direttive europee e successive modifiche (laddove applicabili):
89/392/CEE (Direttiva Macchine)
89/336/CEE (Direttiva Compatibilità Elettromagnetica)
73/23/CEE (Direttiva Bassa Tensione)

AVVERTENZE :
L'installazione elettrica e la scelta della logica di funzionamento devono essere in accordo con le normative vigenti. Prevedere in ogni caso un interruttore differenziale da 16A e soglia 0,030A. Tenere separati i cavi di potenza (motori, alimentazioni) da quelli di comando (pulsanti, fotocellule, radio ecc.). Per evitare interferenze è preferibile prevedere ed utilizzare due guaine separate.

DESTINAZIONE D'USO:
Il motoriduttore SATURN è stato progettato per essere utilizzato unicamente per l'automazione di cancelli scorrevoli.

RICAMBI:
Le richieste per parti di ricambio devono pervenire presso:
SEA s.r.l. - Zona Ind.le, 64020 S.ATTO - Teramo - Italia

SICUREZZA E COMPATIBILITÀ AMBIENTALE:
Non disperdere nell'ambiente i materiali di imballaggio del prodotto e/o circuiti.

La movimentazione del prodotto deve essere eseguita con mezzi idonei.

MESSA FUORI SERVIZIO E MANUTENZIONE:
La disinstallazione e/o messa fuori servizio e/o manutenzione del motoriduttore SATURN deve essere eseguita solo ed esclusivamente da personale autorizzato ed esperto.

N.B. IL COSTRUTTORE NON PUÒ CONSIDERARSI RESPONSABILE PER EVENTUALI DANNI CAUSATI DA USI IMPROPRI, ERRONEI ED IRRAGIONEVOLI.

La SEA si riserva il diritto di apportare le modifiche o variazioni che ritenesse opportune ai propri prodotti e/o al presente manuale senza alcun obbligo di preavviso.

CONDIZIONI DI VENDITA

EFFICACIA DELLE PRESENTI CONDIZIONI GENERALI DI VENDITA: Le presenti condizioni generali di vendita si applicano a tutti gli ordini indirizzati a SEA s.r.l. Tutte le vendite fatte da SEA ai clienti sono regolate secondo le presenti condizioni di vendita che costituiscono parte integrante del contratto di vendita ed annullano ogni clausola contraria o pattuizioni particolari presenti nell' ordine o in altro documento proveniente dall' acquirente (cliente)

AVVERTENZE GENERALI Gli impianti di automazioni porte e cancelli vanno realizzati esclusivamente con componenti SEA, salvo accordi specifici. L'inosservanza delle norme di sicurezza vigenti (Norm. EUROPEE EN 12453 - EN 12445 e altro) e di buona tecnica esclude la SEA da ogni responsabilità. La SEA non risponde del mancato rispetto della corretta e sicura installazione secondo le norme.

1) PROPOSTA D'ORDINE La proposta d'ordine si intenderà accettata solo dopo la sua approvazione da parte della SEA. Conseguenza della sua sottoscrizione, l'acquirente sarà vincolato alla stipula di un contratto d'acquisto, secondo quanto contenuto nella stessa proposta d'ordine e nelle presenti condizioni di vendita. Viceversa, la mancata comunicazione all'acquirente dell'approvazione della proposta d'ordine, non comporta la sua automatica accettazione da parte della SEA.

2) VALIDITÀ OFFERTA Le offerte proposte dalla SEA o dalla sua struttura commerciale periferica, avranno una validità di 30 giorni solari, salvo diversa comunicazione in merito.

3) PREZZI I prezzi della proposta d'ordine sono quelli del listino in vigore alla data della redazione della stessa. Gli sconti applicati dalla struttura commerciale periferica della SEA si intenderanno validi solo dopo la loro accettazione da parte della SEA. I prezzi si intendono per merce resa franco ns. stabilimento in Teramo, esclusi IVA ed imballaggi speciali. La SEA si riserva il diritto di modificare in qualsiasi momento il listino, dando opportuno preavviso alla rete di vendita.

4) PAGAMENTI Le forme di pagamento ammesse sono quelle comunicate o accettate di volta in volta dalla SEA. Il tasso di interesse sul ritardo da pagamento è del 1,5% mensile e comunque non oltre il tasso massimo legalmente consentito.

5) CONSEGNA La consegna avverrà indicativamente ma non tassativamente entro 30 giorni lavorativi dalla data di ricezione dell'ordine, salvo diverse comunicazioni in merito. Il trasporto degli articoli venduti sarà effettuato a spese ed a rischio dell'acquirente. La SEA si libera dall'obbligo della consegna rimettendo la merce al vettore, sia esso scelto dalla SEA oppure dall'acquirente. Eventuali smarrimenti e/o danneggiamenti della merce dovuti al trasporto, sono a carico dell'acquirente.

6) RECLAMI Eventuali reclami e/o contestazioni dovranno pervenire alla SEA entro 8 giorni solari dalla ricezione della merce, supportati da idonei documenti provanti la loro veridicità.

7) FORNITURA L'ordine in oggetto viene assunto da SEA senza alcun impegno e subordinatamente alle possibilità di approvvigionamento delle materie prime occorrenti alla produzione; eventuali mancate esecuzioni totali o parziali non possono dar luogo a reclami e riserve per danni. La fornitura SEA è strettamente limitata alla sola merce di sua produzione, esclusi il montaggio, l'installazione ed il collaudo. La SEA declina pertanto ogni responsabilità per danni che dovessero derivare, anche a terzi, dall'inosservanza delle norme di sicurezza e della buona regola d'arte nelle fasi dell'installazione e dell'impiego dei prodotti venduti.

8) GARANZIA

SILVER: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 24 mesi dalla data di fabbricazione riportata sull'operatore.

GOLD: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 36 mesi dalla data di fabbricazione riportata sull'operatore.

PLATINUM: Le parti meccaniche degli operatori rientranti in tale categoria sono garantite per 36 mesi dalla data di fabbricazione riportata sull'operatore. La garanzia di base (36 mesi) sarà estesa per ulteriori 24 mesi (fino ad un totale di 60 mesi) qualora venga acquistato il certificato di garanzie che dovrà essere compilato e rispedito alla SEA s.r.l. entro 60 giorni dall'acquisto. L'elettronica e le centrali di comando sono garantite per 24 mesi dalla data di fabbricazione. Nell'eventualità di difettosità del prodotto, la SEA si impegna alla sua sostituzione gratuita oppure alla sua riparazione, previa restituzione al proprio centro di riparazione. La definizione di stato di garanzia è ad insindacabile giudizio della SEA. I pezzi sostitutivi restano di proprietà della SEA. In modo vincolante, il materiale dell'acquirente ritenuto in garanzia deve essere spedito al centro di riparazione della SEA in porto franco e sarà rispedito dalla SEA in porto assegnato. La garanzia non si estende alla manodopera eventualmente accorsa. I difetti riconosciuti non produrranno alcuna responsabilità e/o richiesta di danni, di qualsiasi natura essi siano, da parte dell'acquirente nei riguardi della SEA. La garanzia non è in ogni caso riconosciuta qualora sia stata apportata alla merce qualsivoglia modifica, oppure vi sia stato un uso improprio, oppure si sia in presenza di una qualsivoglia sua manomissione o di un montaggio non corretto, oppure se sia stata rimossa l'etichetta apposta dal produttore comprensiva del marchio SEA registrato n° 804888. La garanzia non è inoltre valida nel caso la merce SEA sia stata in parte o in toto accoppiata a componenti meccanici e/o elettronici non originali, ed in particolare in assenza di una specifica autorizzazione in merito, ed inoltre nel caso in cui l'acquirente non sia in regola con i pagamenti. La garanzia non comprende danni derivati dal trasporto, materiale di consumo, avarie dovute al mancato rispetto delle specifiche prestazionali dei prodotti indicate nel listino. Non è riconosciuto alcun indennizzo durante il tempo di riparazione e/o sostituzione della merce in garanzia. La SEA declina ogni responsabilità per danni a cose o persone derivanti dall'inosservanza delle norme di sicurezza e della non conforme installazione o dall'impiego errato dei prodotti venduti. La riparazione dei prodotti in garanzia e fuori garanzia è subordinata al rispetto delle procedure comunicate da SEA.

9) RISERVATO DOMINIO Sulla merce venduta è valida la clausola del riservato dominio, della quale la SEA deciderà autonomamente se avvalersi o meno, in virtù della quale l'acquirente acquisisce la proprietà della merce, solo dopo che il suo pagamento sia stato completamente effettuato.

10) FORO COMPETENTE Per qualsiasi controversia avente per oggetto l'applicazione di questo contratto, viene eletto competente il Foro di Teramo. La lingua valida nell' interpretazione di cataloghi, manuali di installazione, condizioni di vendita o altro è quella italiana. La SEA si riserva la facoltà di apportare modifiche tecniche atte a migliorare i propri prodotti, presenti o meno in questo Listino, in qualsiasi momento senza preavviso. La SEA declina ogni responsabilità derivante da possibili inesattezze contenute nel presente listino, derivanti da errori di stampa e/o trascrizione. Il presente Listino annulla e sostituisce quelli precedenti. L'acquirente ai sensi della legge 196/2003 (codice privacy) acconsente all'inserimento dei propri dati personali derivanti dal presente contratto negli archivi informatici e cartacei della SEA s.r.l. al loro trattamento per motivi commerciali ed amministrativi.

Diritti di proprietà industriale: il cliente, con l'acquisto, accetta le presenti condizioni di vendita e riconosce in capo a SEA la titolarità esclusiva del marchio internazionale SEA registrato n. 804888 apposto sulle etichette dei prodotti e/o sui manuali e/o su ogni altra documentazione, e si impegna ad utilizzare il medesimo nella propria attività di rivendita e/o installazione secondo modalità che non ne riducano in alcun modo i diritti, a non rimuovere, sostituire o alterare marchi o altri segni distintivi di qualsiasi genere apposti ai prodotti. E' vietata ogni forma di riproduzione o utilizzo del marchio SEA e di ogni altro segno distintivo presente sui prodotti, salvo autorizzazione scritta di SEA srl.

SATURN 600 - 1000 - 2000

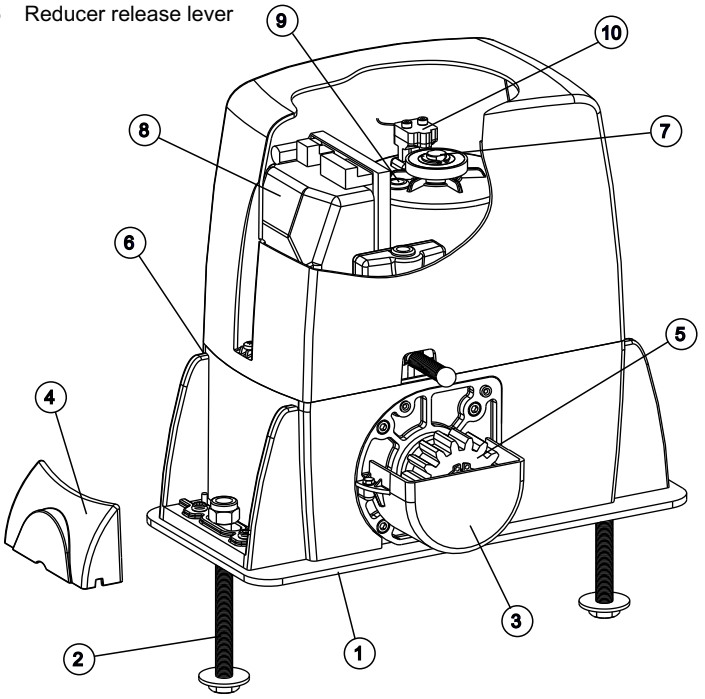
MOUNTING AND CONNECTING INSTRUCTIONS

ENGLISH

SATURN is a motor reducer designed for the automation of sliding gates with grease lubrication of the gear in the **600** version; in **oil bath** in the **1000** and **2000** versions.
The irreversibility of the motor reducer allows a perfect and safe gate closing, and makes the installation of an elecric lock unneccessary. 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 operator is equipped with an electronic clutch device in the **600** version and with an **adjustable mechanical clutch** in the **1000** and **2000** versions, which guaranties a thrust adjustment on the gate, furthermore the **electronic inversion system** (optional) through **encoder** makes out of the Saturn motor reducer a safe and reliable operator allowing in a simple way to respect the laws in force in the country where the product will be installed.

MAIN PARTS DENOMINATION

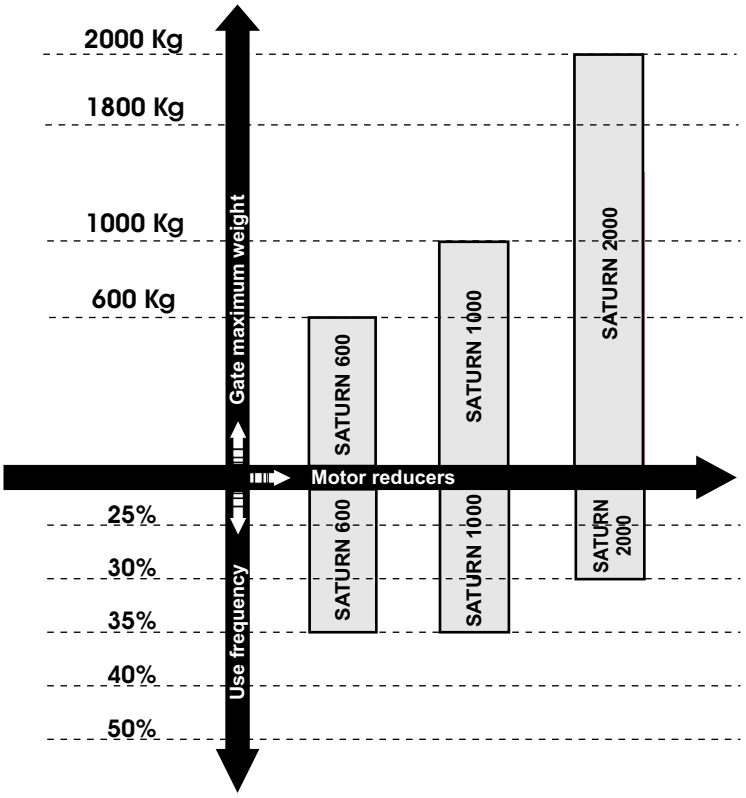
1 Adjustable foundation plate
2 Anchor bolts
3 Pinion protection
4 Adjusting screws cover
5 Pinion
6 Reducer release lever
7 Screw for mechanical clutch adjustment (only in 1000 and 2000 models)
8 Electronic unit
9 Oil filling up cap
10 Magnetic encoder



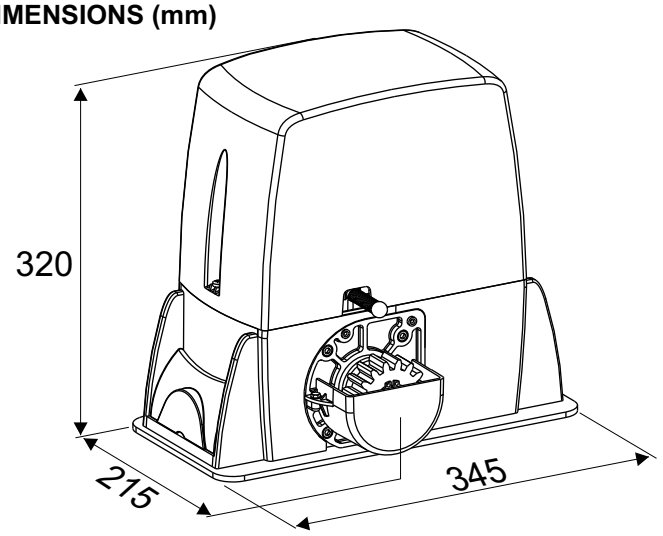
TECHNICAL DATA	600	1000	2000
Power supply	230 V (±5%) 50/60 Hz		
Power	330W	550W	750W
Absorbed current	1,6 A	2,6 A	3,0 A
Motor capacitor	10 uf	12,5 uf	12,5 uf
Working frequency	35%	35%	30%
Working Temperature	-20°C +55°C		
Thermoprotection	150°C		
Weight	12 Kg	13 Kg	14,5 Kg
Anticrushing clutch	Electronic	Electronic/Mechanical	
Protection degree	IP55		
Pinion Z16 (Z20) speed	9,5 (11) m/min		
Maximum torque	30 Nm	55 Nm	70 Nm
Gate maximum weight	600 Kg	1000 Kg	2000 Kg
Mechanical clutch	no	yes	yes
Inductive or mechanical limit switch			

Only the OIL version has a clutch

SATURN MOTOR REDUCER 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 :
a) The leaf is rigid and compact;
b) The inferior slideway is perfectly straight, horizontal and without any obstacles which could obstruct the gate sliding;
c) The inferior sliding wheels are equipped with greasable or water tightened bearings;
d) The superior slideway has been produced and placed so that the gate is in a perfect vertical position;
e) 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 (Fig.1)

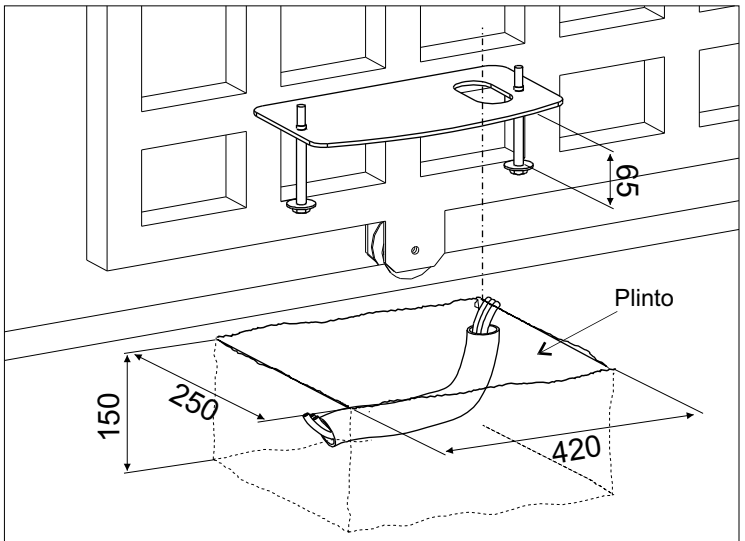


Fig. 1

2.2. Before concreting in the plate insert a flexible plastic duct Ø 35 mm minimum) into the special hole of the plate.

2.3. Before concreting in the plate, make sure that it is perfelcty leveled and that the distance of 50-55mm as shown in Fig. 2 is respected.

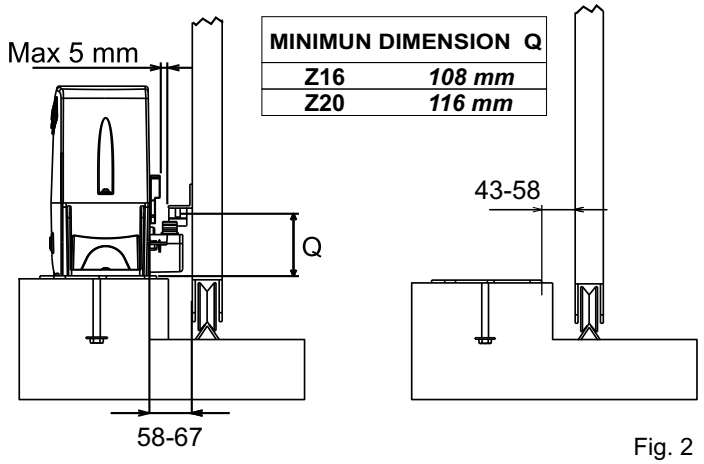


Fig. 2

3. CABLES PASSAGE ARRANGEMENT

Saturn is provided with two different holes for electric cables passage.
It's very important to make the high - tension (230Vac) cables pass through one hole and the low - tension cables (24Vdc) through the other one (Fig. 3)

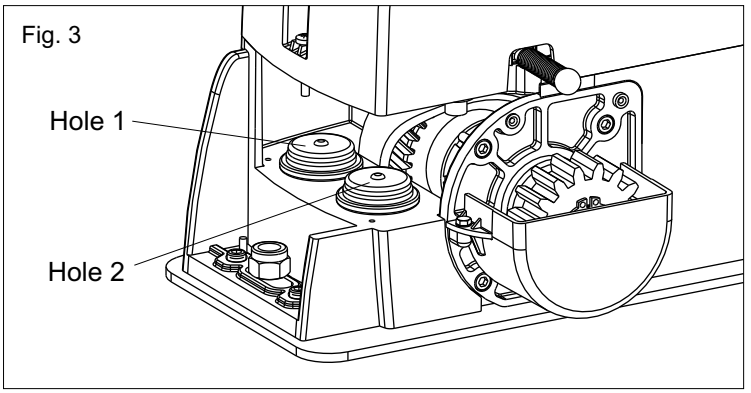


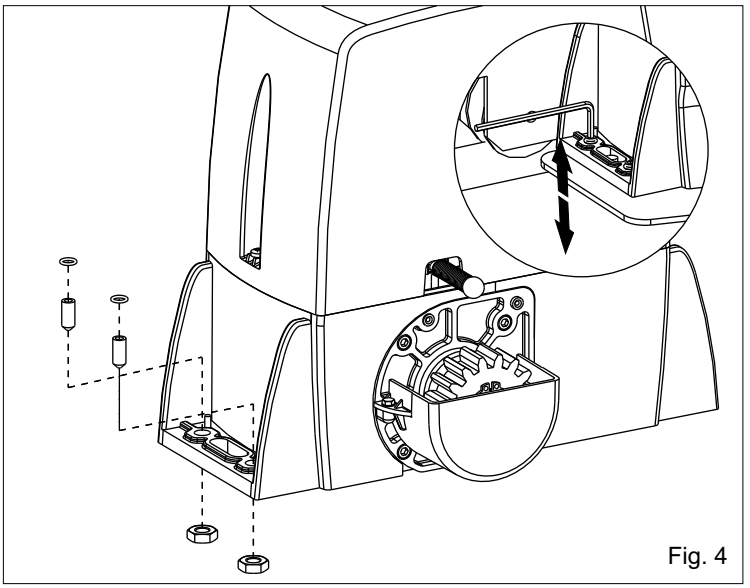
Fig. 3

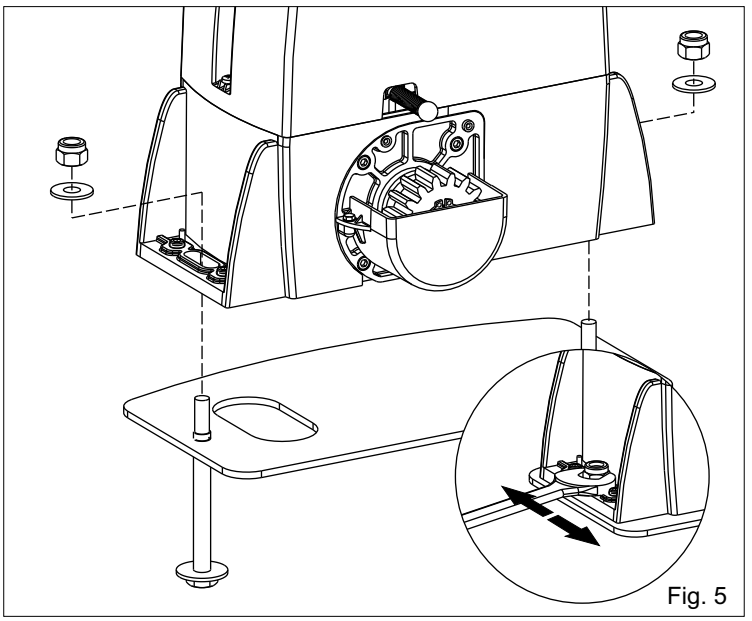
4. FITTING OF THE MOTOR REDUCER

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 crub 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. RELEASE SYSTEM

5.1. In order to release do as follows:

-Open the lock cover, insert the key and rotate it 90° clockwise (Fig. 6).

- Pull the release lever until it stops, about 90° approximately (Fig. 7).

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

5.2. 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

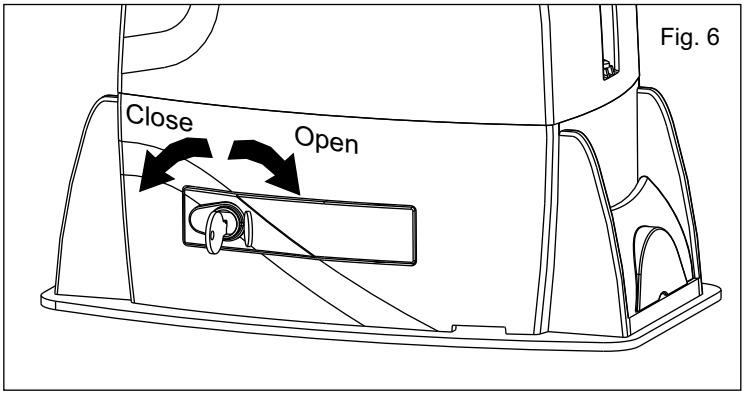
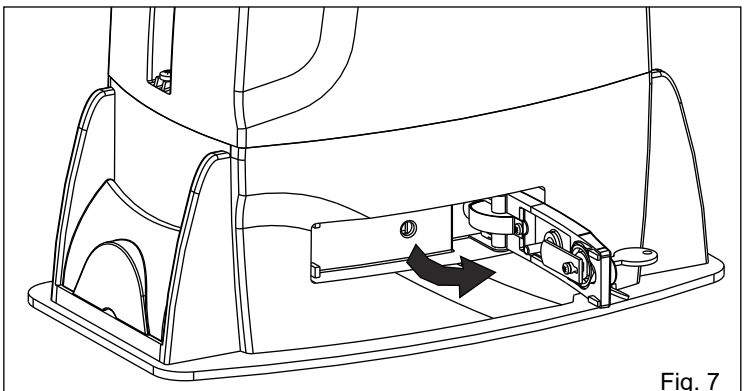


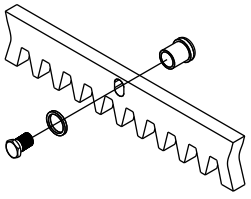
Fig. 6


Fig. 7

6. GEAR RACK MOUNTING

6.1. Release the motor reducer and take the leaf to complete opening;

6.2. Fix to each gear rack element the support pawls using the appropriate lock screws, taking care to place them in the upper part of the hole (Fig. 8) ;


Fig. 8

6.3. Lean the gear rack element on the toothed pinion of the motor so that it results parallel to the ground slideway of the gate, place it as shown in Fig. 9 and electrically weld the central pawl B to the gate structure (Fig. 10).

Manually move the gate until pawl C is placed in correspondence to the pinion, now fix it with electric welding. Repeat the same procedure for pawl A after having placed it in correspondence to the pinion;

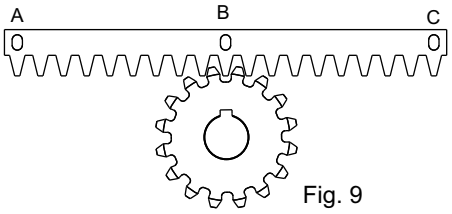
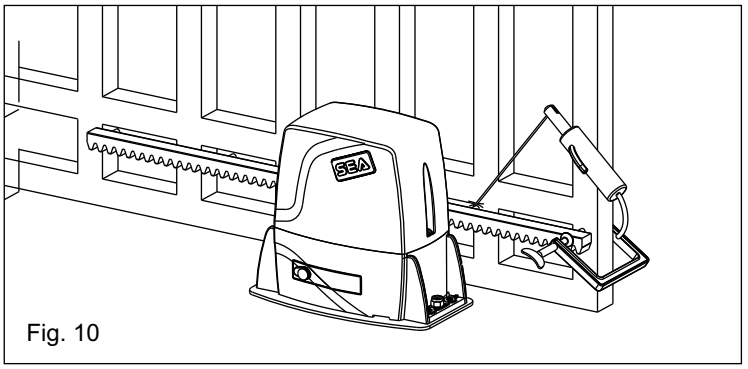


Fig. 9

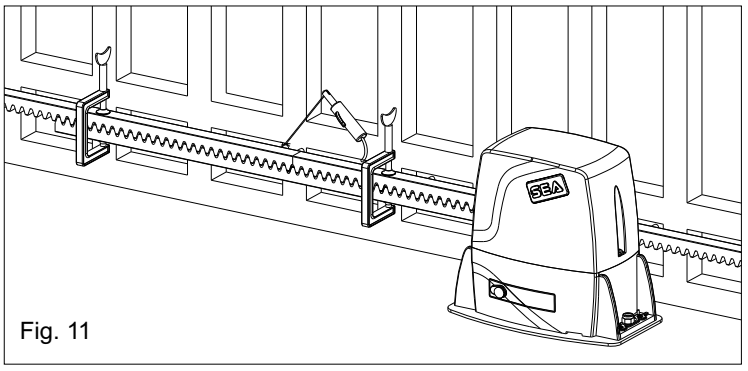

Fig. 10

6.4. 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 infront of a third one as shown in Fig.11;

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

6.6. To avoid that the door weights down on the pinion (Fig.12) 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;

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


Fig. 11

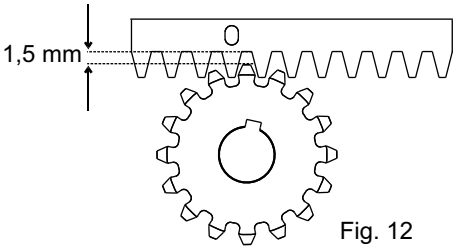


Fig. 12

7. LIMIT SWITCH ADJUSTMENT

7.1. In order to install and adjust the limit switch in opening, follow the below mentioned instructions (Fig. 13):
- 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. 14); small pointers placed on the upper part in case of inductive limit switch (Fig. 15)) in corrispondence of pointX which is placed 50 mm from the folded side of the small plate (fig. 16) and fix it with the delivered screws (Fig. 17).

7.2. In order to install and adjust the limit switch in closing, follow the below mentioned instructions (Fig. 13):
- Take the gate to complete closing
- Place the small plate on the gear rack so that the limit switch is in corrispondence of pointX which is placed 50 mm from the folded side of the small plate (fig. 16) and fix it with the delivered screws (Fig. 17).

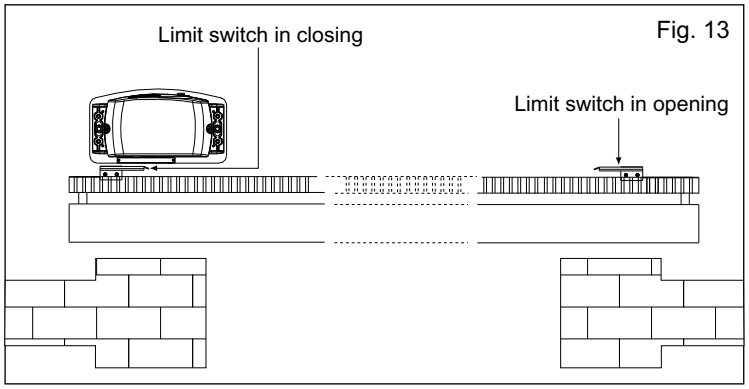
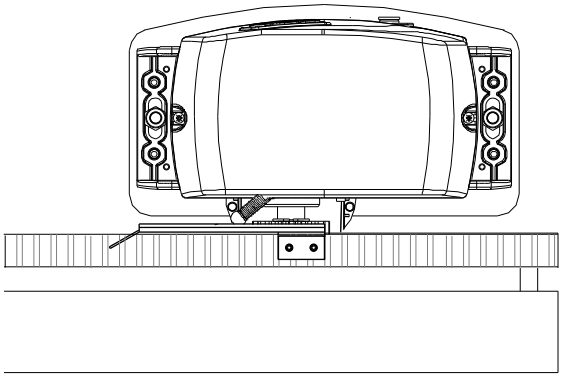
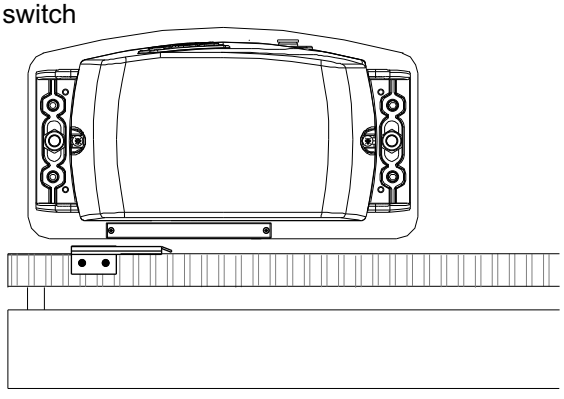


Fig. 13

Mechanical limit switch


Fig. 14

Inductive limit switch


Fig. 15

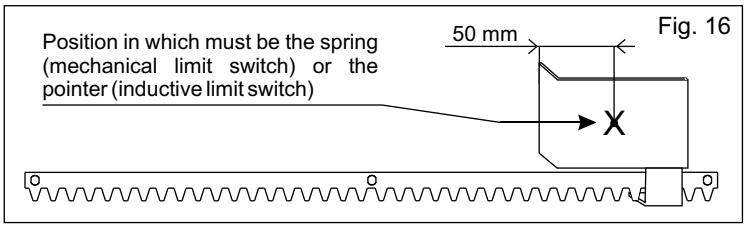
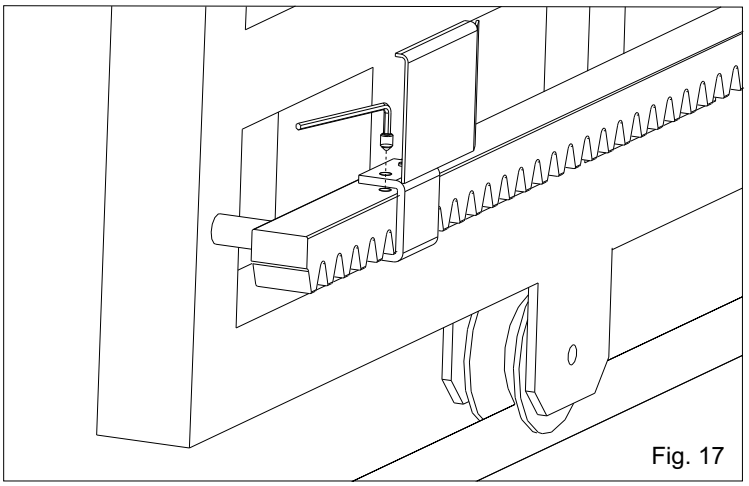
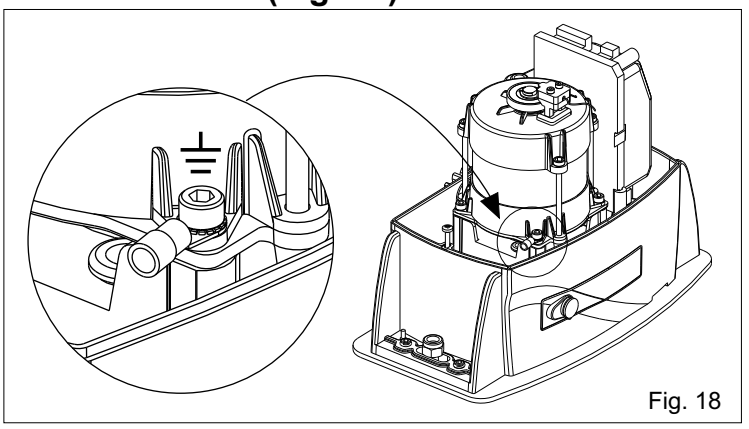


Fig. 16


Fig. 17

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

8. GROUNDING (Fig. 18)


Fig. 18

9. CLUTCH ADJUSTMENT *(Saturn 1000 and 2000)*

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. 19) as follows:
- Turning clockwise = less clutch sensibility / more thrust force
-Counter clockwise = more clutch sensibility / less thrust force
.

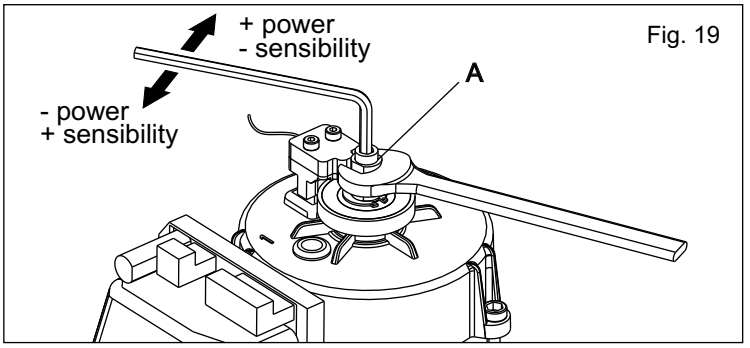
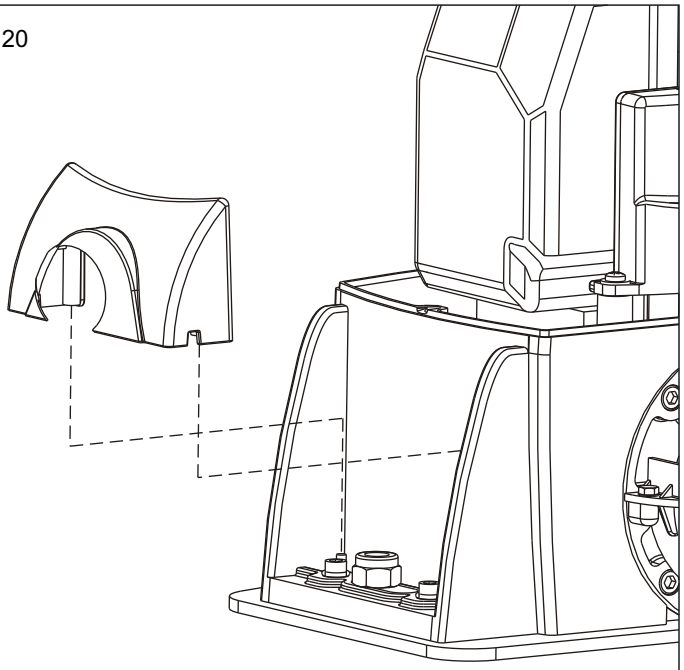


Fig. 19

10. SCREW COVER MOUNTING

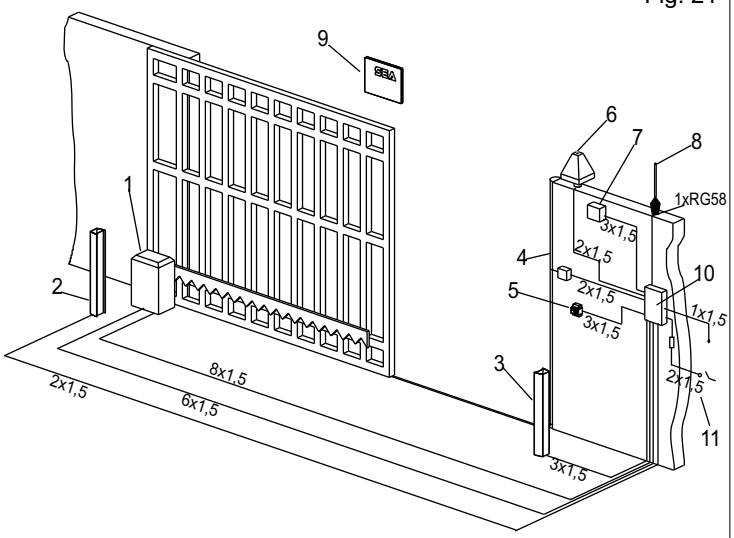
At the end of the mechanical installation and after having executed all the required adjustments, mount the two screw covers on the operator as shown in Fig. 20.

Fig. 20



11. ELECTRIC CONNECTIONS OF THE INSTALLATION (Fig. 21)

Fig. 21

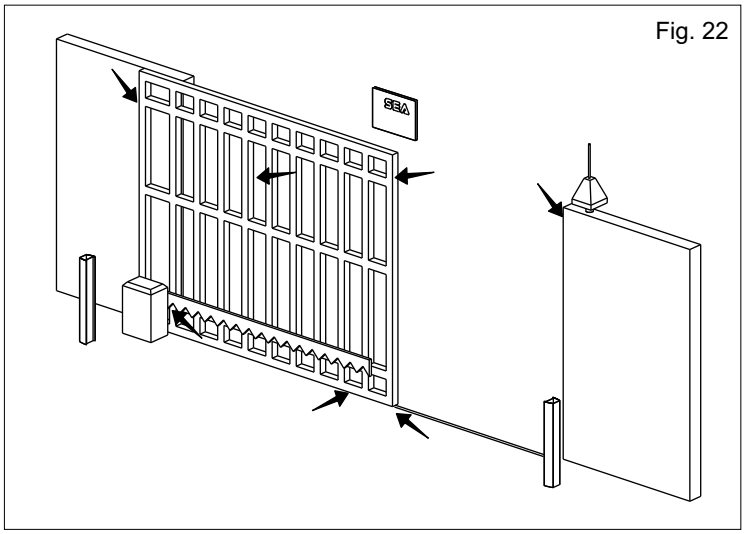


1) Saturn
2) photocell Sx
3) photocell Dx
4) Mechanical safety edge
5) Key push botton
6) Flasher
7) Receiver
8) Antenna
9) Warning notice
10) Junction box
11) Differential 16A - 30mA

12. RISK EXAMINATION

The points pointed by arrows in Fig. 22 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.)

Fig. 22



NOTICE

SEA s.r.l 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 Srl 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 (D.L.46/90). 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.

PERIODIC MAINTENANCE

Check the oil level (only Saturn 1000 and 2000) (Use the oil level rod)	Annual
Change oil	4 years
Check the release functionality	Annual
Check the clutch functionality (1000 and 2000)	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.

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

CE

ENGLISH

CONFORMITY DECLARATION

SEA declares under its responsibility that the following products:

Saturn 600, Saturn 1000, Saturn 2000

meet the essential requisites provided by the following European Directive and following modifications (where applicable)::
89/392/CEE (Machine Directive)
89/336/CEE (Electromagnetic Compatibility Directive)
73/23/CEE (Low Tension Directive)

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.

INTENDED USE:
The SATURN operator has been designed to be solely used for the automation of sliding gates.

SPARE PARTS:
To obtain spare parts contact:
SEA s.r.l. -Zona Ind.le, 64020 S. ATTO Teramo Italia

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.

MAINTENANCE AND OUT OF SERVICE:
The decommission and maintenance of this unit must only be carried out by specialised and authorised personnel.

NOTE: THE MANUFACTURER CANNOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.

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

TERMS OF SALE

EFFICACY OF THE FOLLOWING TERMS OF SALE: The following general terms of sale shall be applied to all orders sent to SEA srl. All sales made by SEA to all customers are made under the prescription of this terms of sales which are integral part of the sale contract and cancel and substitute all opposed clauses or specific negotiations present in the order or in other documents received from the buyer.

GENERAL NOTICE The gate automation systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EN 12453 EN12445 and others) 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 and always under those Terms of sale. 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.

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 noncompliance of safety standards and good practice during installation and use of the purchased products.

8) WARRANTY.

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.r.l. within 30 days from the purchase date. 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 installation, or if the product label of the manufacturer with the registered SEA trademark n° 804888 has been removed . 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. The repairs of products in warranty and out of warranty is accepted only if the procedure of SEA are fully respected by the customer.

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 acquires the property of the goods only after full payment of the invoice.

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. The official language for the interpretation of the catalogue, the manuals, the terms of sale and any other is the italian language. SEA reserves the faculty to make technical changes to improve its own products, which are and are not included 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: with the purchase, the buyer accepts in full the present Terms of Sale and recognizes that SEA has the exclusive legal ownership of the registered SEA International trademark n° 804888 which is attached on each products label, and/or on manuals, packaging and/or in any other documentation, and he will commit himself to use it in its marketing and/or installation activity in a way which does not reduce the value of these rights; he won't also remove, replace or modify the trademark or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any change of sings-brands on the products,unless preventive and expressed authorization by SEA.

SATURN 600 - 1000 - 2000

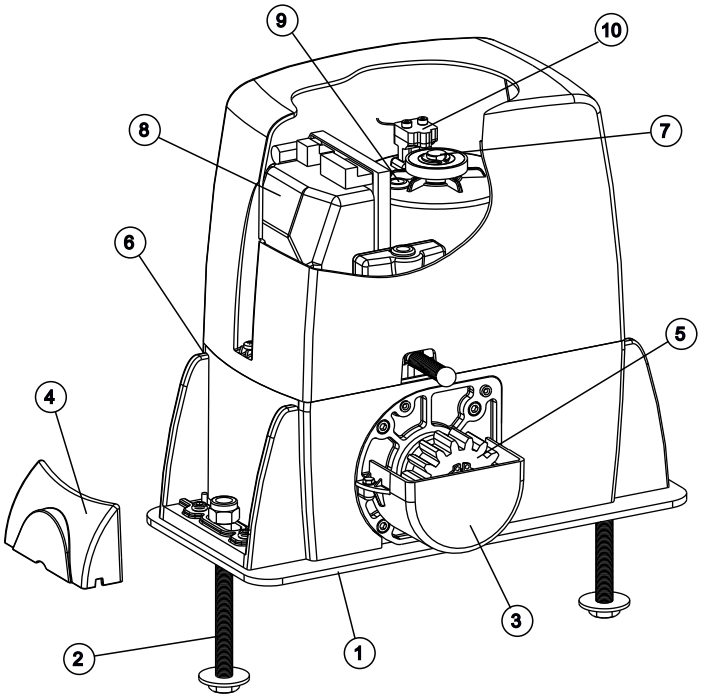
INSTRUCTIONS DE MONTAGE ET CONNEXION

FRANÇAIS

SATURN est un moteur projeté pour l'automatisation de portails coulissants avec lubrification des engranages avec gras dans la version **600**; **à bain d'huile** dans les versions **1000** et **2000.**
L'**irréversibilité** du moteur permet une parfaite et sure fermeture du portail, évitant l'installation d'une serrure électrique et en cas de coupure de courant le dispositif de déverrouillage situé sur la partie frontale du moteur permet l'ouverture et la fermeture manuelle. L'opératuer est équippé avec un dispositif de friction électronique dans la version **600** et aussi avec **friction mécanique réglable** dans la version **1000** et **2000** que garantissent un réglage de la puissance sur le portail. En outre **le dispositif électronique d'inversion** (optionel) réalisé à l'aide du **encoder** fait de l'opératuer Saturn un moteur sûr et fiable permettant de façon simple l'obéissance aux lois en vigueur dans les pays dans lesquels ce produit est installé.

NOMENCLATURE COMPOSANTS PRINCIPAUX

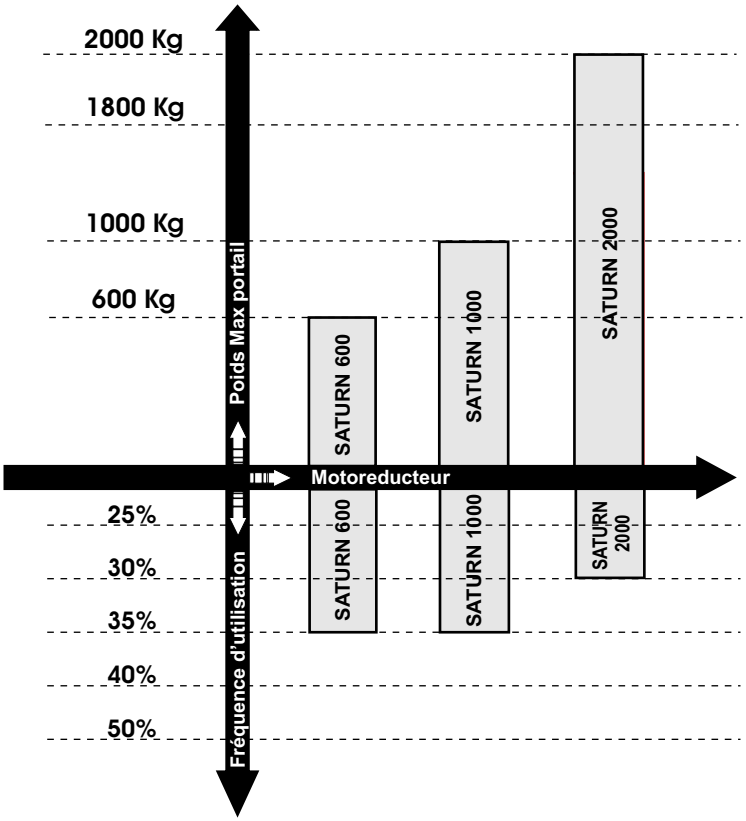
1 Plaque de fondation réglable
2 Boulons d'ancrage
3 Protection pignon
4 Couvercle vis de réglage
5 Pignon
6 Levier déverrouillage réducteur
7 Vis réglage friction mécanique (seulement dans les versions 1000 et 2000)
8 Armoire électronique
9 Bouchon remplissage d'huile
10 Encoder magnétique



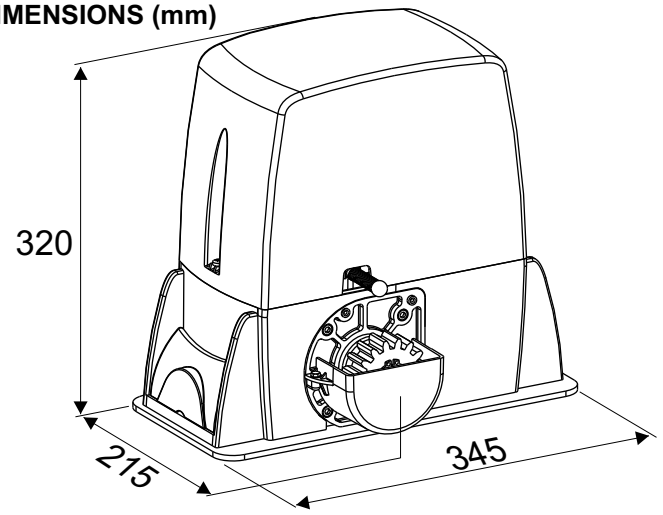
DONNEES TECNIQUES	*600*	*1000*	*2000*
Alimentation	230 V (±5%) 50/60 Hz		
Puissance	330W	550W	750W
Courant absorbé	1,6 A	2,6 A	3,0 A
Condensateur de décollage	10 uf	12,5 uf	12,5 uf
Fréquence d'utilisation	35%	35%	30%
Temperature ambiante	-20°C +55°C		
Intervention de Thermoprotection	150°C		
Poids	12 Kg	13 Kg	14,5 Kg
Friction anti - écrasement	Electronique	Electronique/Mécanique	
Dégré de protection	IP55		
Vitesse pignon Z16 (Z20)	9,5 (11) m/min		
Couple max	30 Nm	55 Nm	70 Nm
Poids Max. du portail	600 Kg	1000 Kg	2000 Kg
Friction Mécanique	no	oui	oui
Fin de course Inductif ou Mécanique			

La friction est présente seulement sur la version OIL

GRAPHIQUE D'UTILISATION MOTOREDUCTEUR SATURN



DIMENSIONS (mm)



1. PREDISPOSITION DES PORTAILS

Avant de procéder à l'installation vérifier que tous les composants du portail (dormants et mobiles) ont une structure résistante et le plus possible indéformable et en outre que:
a) les vantaux sont suffisamment rigides et compacts;
b) le couilsseau inférieur est parfaitement rectilinge, horizontal et sans irrégularités qui peuvent obstaculer le coulissement du portail;
c) les roues de coulissement inférieures sont munies de paliers à bille lubrificables ou de façon étanche;
d) Le couilssement supérieur est réalisé et positionné de manière que le portail est parfaitement à plomp;
e) les arrêts des fins de course du vantail sont toujours installés pour éviter le déraillement de la même.

2. ANCRAGE PLAQUE DE FONDATION

Pour l'installation de la plaque de fondation il faut:

2.1. Prévoir, en se basant sur les mésures reportées dans Fig. 1, une petite place de béton ou y sera murée la plaque de fondation et les boulons d'ancrage.

NB: Il est opportun, si la structure du portail le permet, de soulever la plaque du niveau pavement d'au moins 50 mm pour éviter des eventuelles stagnations d'eau (Fig. 1).

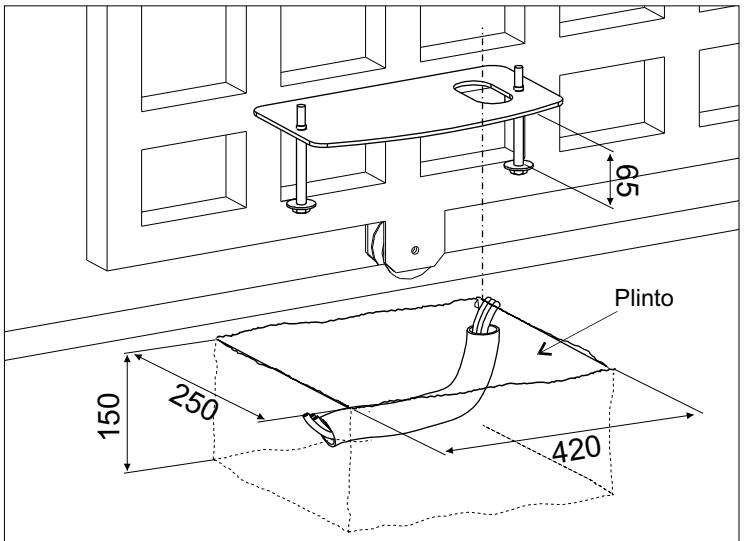


Fig. 1

2.2. Prévoir une gaine flexible en plastique d'au moins 35 mm de diamètre à insérer dans l'oblong spécial de la plaque avant que cette dernière est cimentée.

2.3. Avant de cimenter la plaque d'ancrage s'assurer qu'elle est parfaitement horizontale et que le cote de 50/55 mm indiqué dans Fig. 2 est respecté.

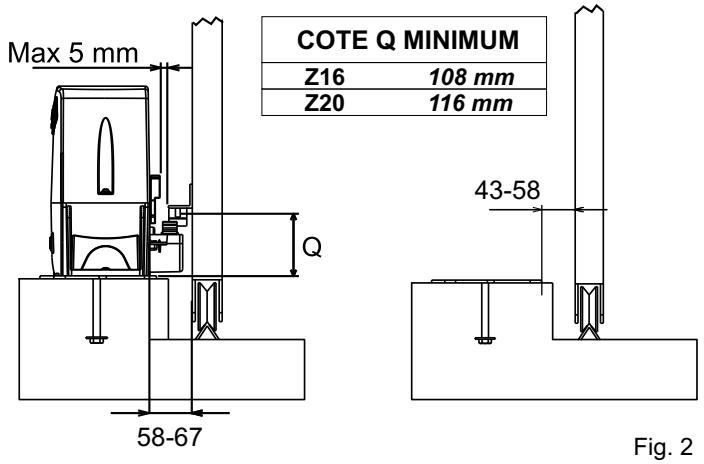


Fig. 2

3. PREDISPOSITION PASSAGE CABLES

Saturn est prédisposé de deux trous distincts pour le passage des câbles électriques. Il est très important de faire passer les câbles de haute tension (230Vac) dans un trou et les câbles de basse tension (24Vac) dans l'autre trou (Fig.3)

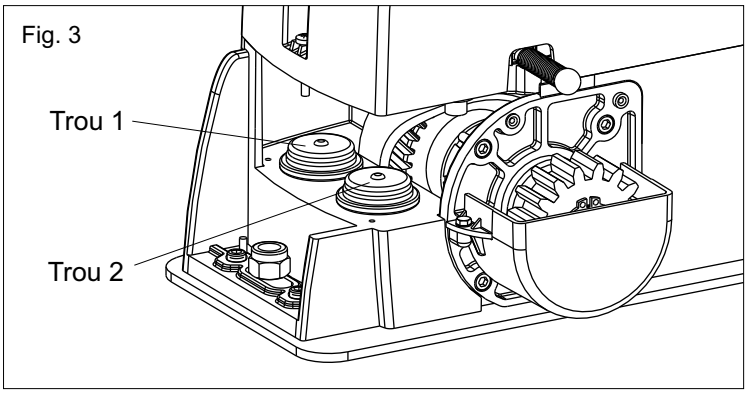


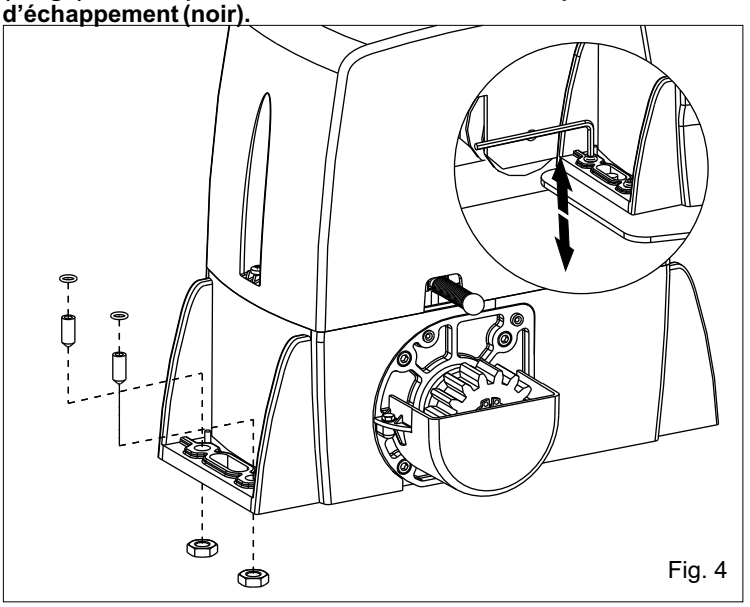
Fig. 3

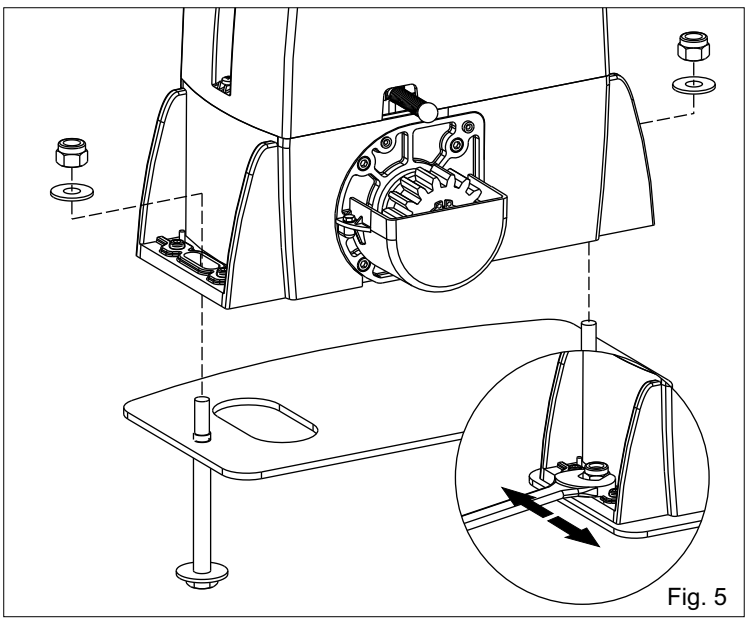
4. INSTALLATION DU MOTOREDUCTEUR

4.1. Insérer les 4 grains dans les trous spéciaux de façon de régler l'hauteur du motoréducteur à la plaque (Fig.4).
A la fin de l'installation contrôler que les 4 grains adhèrent bien à la plaque de fondation.

4.2. Fixer le motoréducteur à la plaquer de fondation avec les 2 écrous en réglant la position latérale (Fig.5) pour le respect des cotes cités dans Fig.2.

4.3. Enlever le bouchon de fermeture de remplissage d'huile (rouge) et remplacer le avec ceci fourni à part avec trou d'échappement (noir).


Fig. 4


Fig. 5

5. SYSTEME DE DEVERROUILLAGE

5.1. Pour déverrouiller :

- Ouvrir le couvercle de la serrure, insérer la clef et la tourner dans le sens des aiguilles d'une montre de 90° (Fig. 6)
- Tirer le levier de déverrouillage jusqu'à la battue, 90° environ (Fig.7).

Nota: Tirant le levier de déverrouillage, l'armoire électronique reçoit une commande de stop grâce à l'interrupteur micro-switch positionné à l'intérieur.

5.2. Pour rebloquer:

- Puisser le levier de déverrouillage jusqu'à la complète fermeture
- Tourner la clef dans le sens inverse des aiguilles et la enlever
- Refermer le couvercle protectif de la serrure .

Quand le blocage est rétabli l'armoire électronique est réactivée

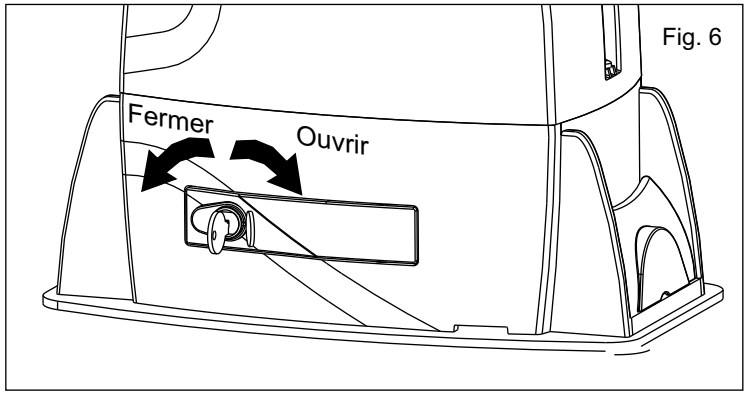
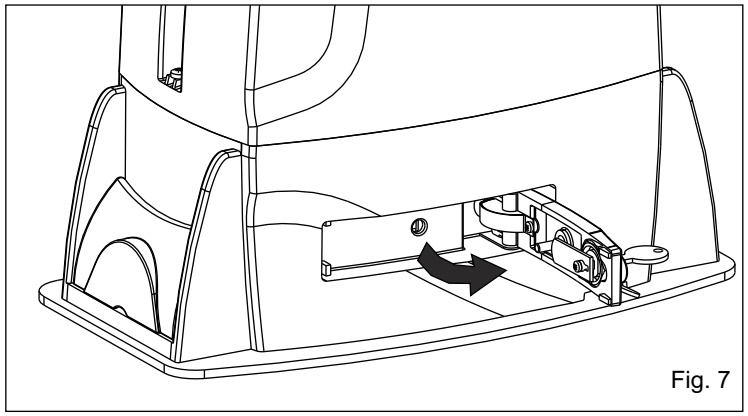


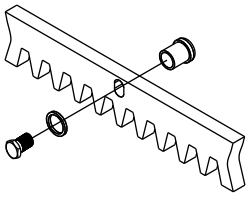
Fig. 6


Fig. 7

6. MONTAGE DE LA CREMAILLERE

6.1. Déverrouiller l'opérateur et placer le portail en butée ouverte;

6.2. Fixer à chaque élement de la crémaillère les cliquets de support à l'aide des vis de blocage qui doivent être positionnées sur la partie superièure du trous oblong (Fig. 8);


Fig. 8

6.3. Poser l'élément de la crémaillère sur le pignon denté du motoréducteur de façon qu'il résulte parallèle à la guide du pavement du portail et le positionnant comme dans Fig. 9 pointer par soudure électrique le cliquet central "B" à la structure du portail (Fig. 10).

Faire évoluer le portail manuellement jusqu'à porter le cliquet C en correspondence du pignon, donc pointer par soudure électrique. Effecuter la même opération pour le cliquet A après avoir positionné le en correspondance du pignon ;

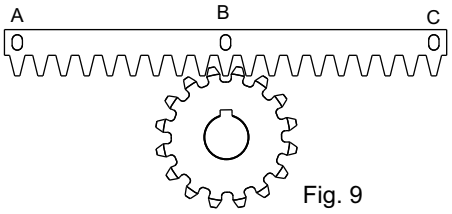


Fig. 9

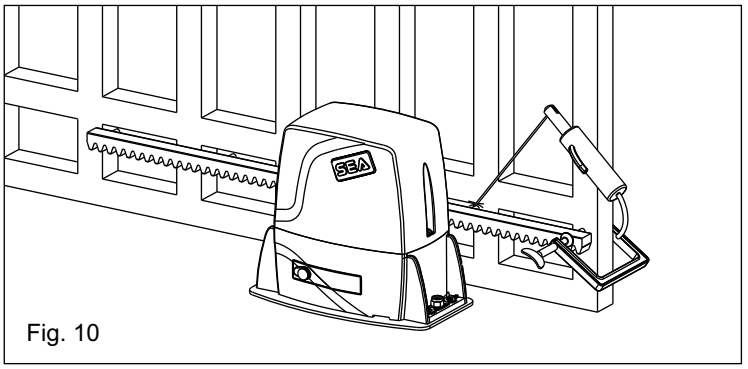


Fig. 10

6.4. S'assurer que tous les élements de la crémaillère sont parfaitement alignés et positionnés correctement (denture en phase). Il est conseillé d'opposer à deux éléments successifs un troisième comme indiqué dans Fig. 11;

6.5. Procéder de même pour les éléments suivants.

6.6. Toute la crémaillère doit être élevée de 1,5 mm pour éviter que le poids du portail repose sur le pignon (Fig. 12);
Attention: maintenir un jeu d'au moins 0,5 mm entre dente pignon et dente cremaillère ;

6.7. Vérifier le centrage de la crémaillère par rapport au pignon sur tous les éléments. Au besoin, adapter la longueur des entretoises.

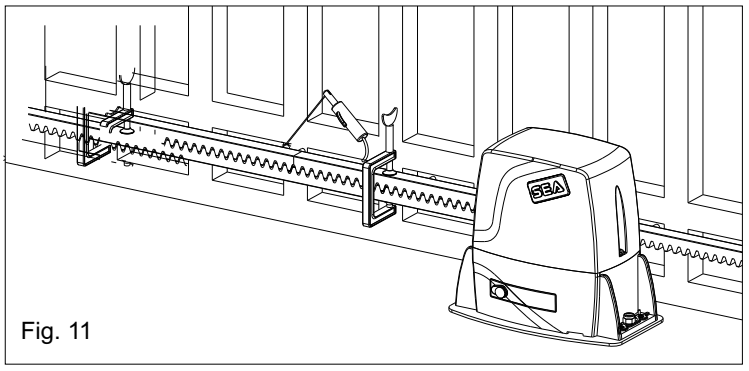


Fig. 11

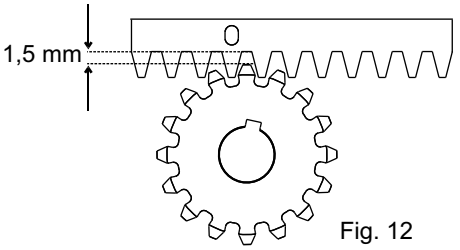


Fig. 12

7.REGLAGE DU FIN DE COURSE

7.1. Pour l'insallation et le réglage du fin de course en ouverture (Fig. 13), il faut suivre les instructions reportées au-dessous:
- Ecouler le portail dans la position ouverte
- Positionner la plaque sur la crémaillère de façon d'avoir le fin de course (doigt en cas de fin de course mécanique (Fig. 14); fléche d'identification positionnée sur le coté supérieur en cas de fin de course inductif (Fig.15)) en correspondance du point X que se trouve à 50 mm du coté plié de la plaque (Fig. 16) et la fixer avec les vis en dotation (Fig. 17).

7.2. Pour l'installation et le réglage du fin de course en fermeture (Fig. 13), suivre les instructions reportées au-dessous:
- Ecouler le portail dans la position fermée.
- Positionner la plaque sur la crémaillère de façon d'avoir le fin de course en correspondance du point X que se trouve à 50 mm du coté plié de la plaque (Fig. 16) et la fixer avec les vis en dotation (Fig. 17).

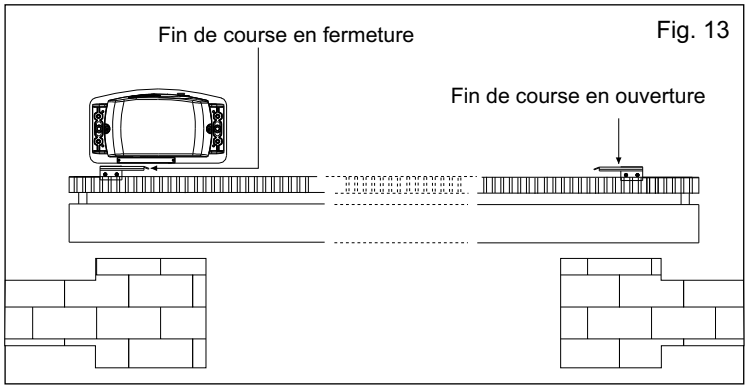


Fig. 13

Fin de course mécanique

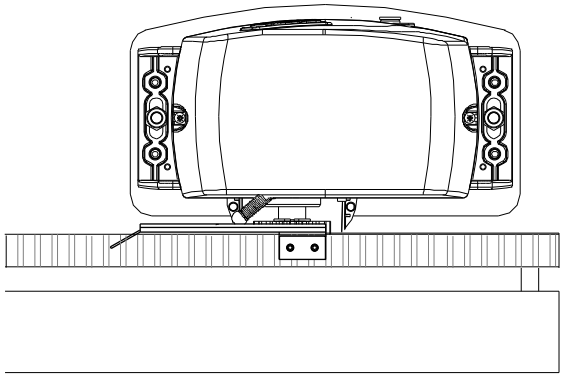


Fig. 14

Fin de course inductif

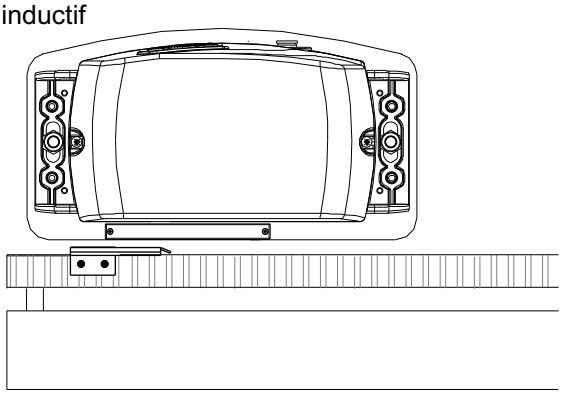


Fig. 15

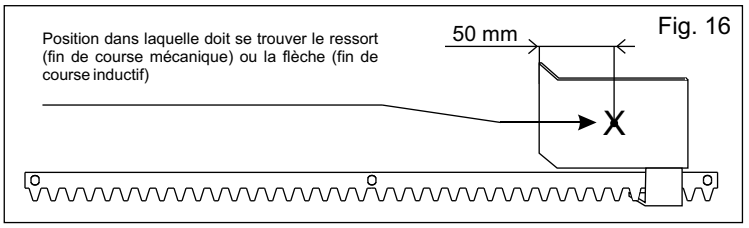


Fig. 16

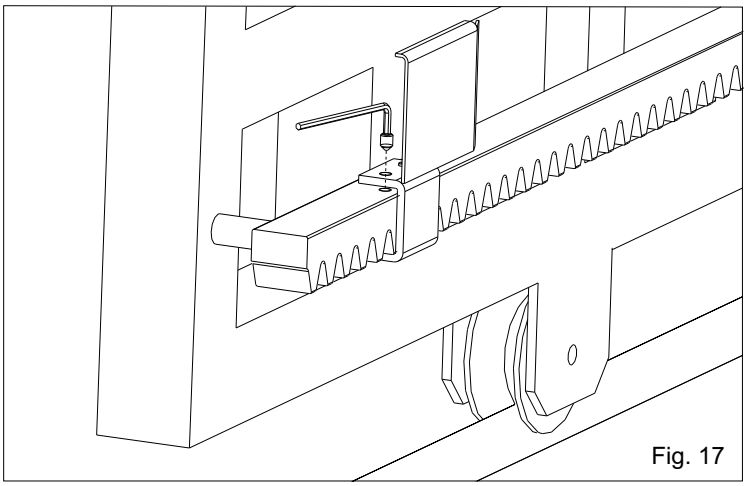


Fig. 17

Par le réglage du trimmer du freinage logé sur l'armoire éléctronique il est possible d'obtenir l'arrêt du portail dans le point désiré.

8. MISE A LA TERRE (Fig. 18)

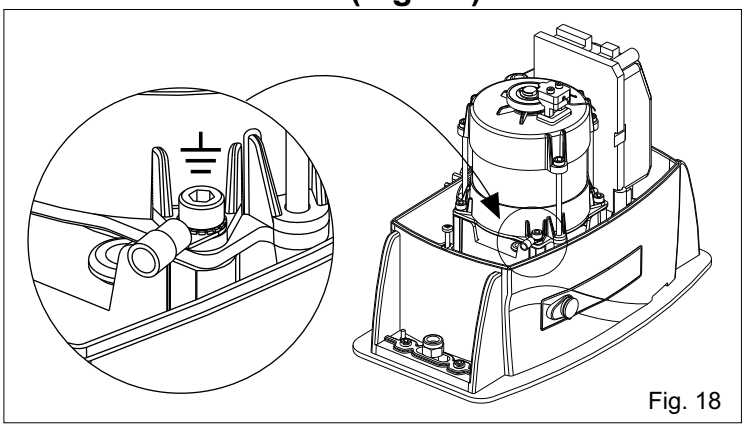


Fig. 18

9. REGLAGE DE LA FRICTION

(Saturn 1000 et 2000)

9.1. Enlever la tension d'alimentation.

9.2. Pour le réglage de la friction opérer comme suit:
- Agir sur le grain "A" (Fig. 19) comme suit:
-Sens horaire = moins sensibilité de la friction et plus force de poussée.
-Sens anti-horaire = plus sensibilité de la friction et moins force de poussée.

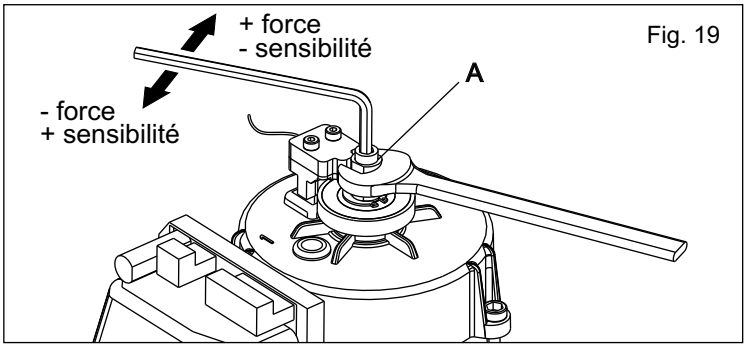
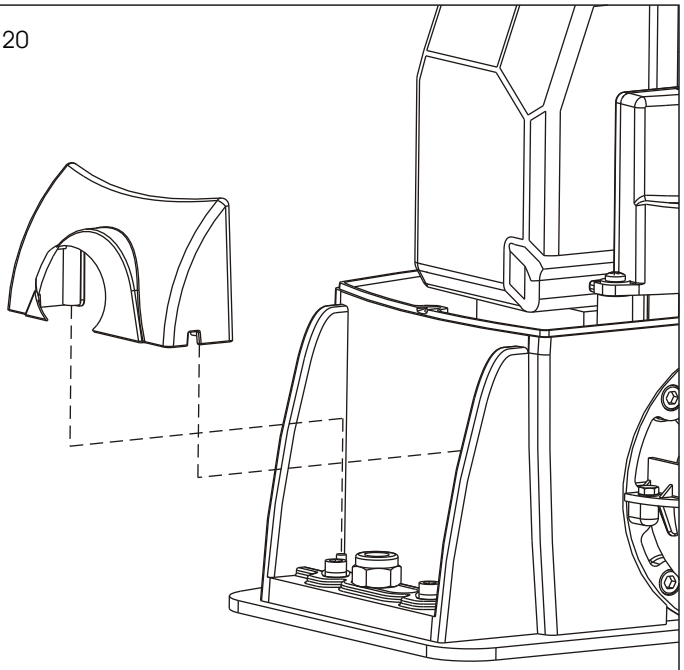


Fig. 19

10. MONTAGE COUVRE- VIS

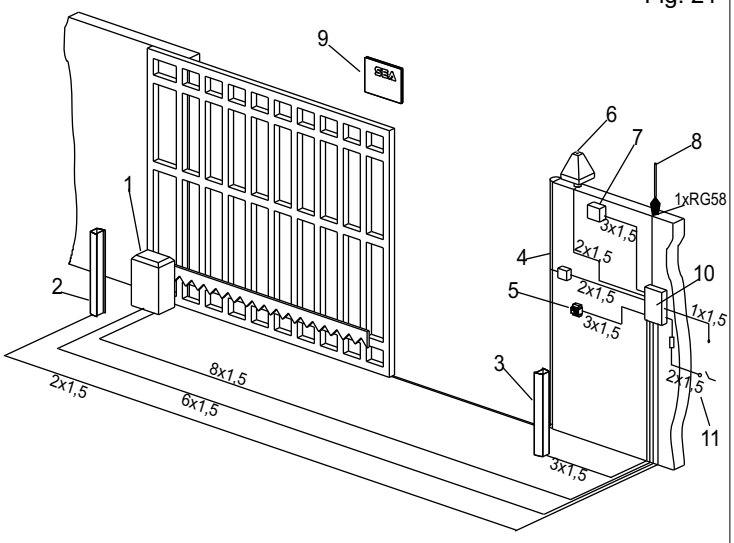
A la fin de l'installation mécanique et après avoir exécuté tous les réglages nécessaires, monter les deux couvre-vis au motoréducteur comme montré dans Fig. 20.

Fig. 20



11. CONNEXIONS ELECTRIQUES DE L'INSTALLATION (FIG. 21)

Fig. 21

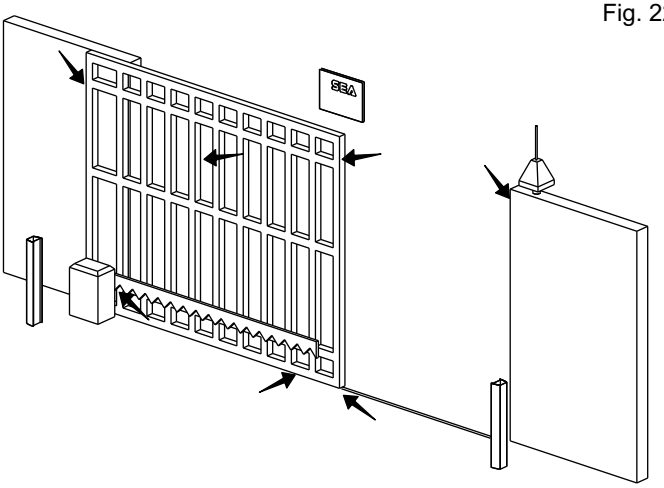


1) Saturn
2) Photocellule Sx
3) Photocellule Dx
4) Tranche mécanique
5) Poussoir à clef
6) Lampe clignot.
7) Récepteur
8) Antenne
9) Tableau de signaletique
10) Boîte de dérivation
11) Interr. Différentiel 16A - 30mA

12. ANALYSE DES RISQUES

Les points indiqués par les flèches dans Fig. 22 doivent être considérés potentiellement dangereux; pour cela l'installateur doit exécuter une analyse des risques appropiée dans le but de prévenir les dangers d'écrasement, trainement, cisaillement, accrochement et blocage, de manière que l'installation soit sure et ne cause pas des dommages à personnes, choses et animaux (Ref. Legislation en vigueur dans le pays d'installation).

Fig. 22



LIRE AVEC ATTENTION

La SEA S.r.l décline toutes les responsabilités par suite de dommages ou accidents provoqués par une rupture éventuelle du produit, si ces dommages se produisent à cause de l'inobservance des instructions contenues dans ce manuel. La manquée utilisation des pièces de rechange originales SEA invalide la garantie et frappe de nullité la responsabilité du constructeur relative à la sécurité (en se référant à la directive machines). L'installation électrique doit être exécutée et certifiée par un professionnel qui a obtenu un certificat d'aptitude; il délivrera la documentation demandée selon les lois du D.L. 46/90. Toute la description de cette notice explicative a été extraite du dossier des CONSEILS GENERALS que l'installateur est tenu à lire avant l'exécution du travail d'installation. Les éléments de l'emballage (sachets en plastique, polistyrène expansé, clous, etc.) doivent être tenus au dehors de la portée des enfants, parce qu'ils constituent sources de danger.

ENTRETIEN PERIODIQUE

Vérifier le niveau de l'huile (seulement Saturn 1000 et 2000) (utiliser la tige de niveau d'huile)	Annuel
Changer l'huile	4 ans
Vérifier le fonctionnement du déverrouillage	Annuel
Vérifier le fonctionnement de la fricition (1000 et 2000)	Annuel
Vérifier la distance entre pignon et crémaillère (1.5 mm)	Annuel
Vérifier l'état d'usure du pignon et de la crémaillère	Annuel
Contrôler les vis de fixage	Annuel
Vérifier l'intégrité des câbles de connexion	Annuel
Vérifier le fonctionnement et l'état du fin de course en ouverture et en fermeture et les plaques relatives.	Annuel

Toutes les opérations susmentionnées doivent être exécutées exclusivement d'un installateur autorisé.

DECLARATION DE CONFORMITE

La SEA déclare sous sa propre responsabilité que les produits

Saturn 600, Saturn 1000, Saturn 2000

répondent aux critères requis essentielles prévues par les directives européennes suivantes et leurs modifications (où elles sont applicables):
89/392/CEE (Directive Machines)
89/336/CEE (Directive Compatibilité Electromagnétique)
73/23/CEE (Directive Basse Tension)

AVERTISSEMENT:
L'installation électrique et le choix de la logique de fonctionnement doivent respecter les normatives en vigueur. Prévoir dans tous les cas un interrupteur différentiel de 16A, avec seuil de sensibilité de 0,030A. Tenir les câbles de haute tension (moteurs, alimentation) séparés des câbles de commandes (poussoirs, photocellules, radio ecc.). Pour éviter des interférences il est préférable de prévoir et de utiliser deux gaines séparées.

UTILISATION:
Le motoreducteur SATURN a été conçu uniquement pour l'automatisation des portails coulissants.

RECHANGES:
Adresser les demandes pour pièces de rechanges à:
SEA s.r.l. Zona Ind.le, 64020 S.ATTO - Teramo - Italia

SECURITE ET COMPATIBILITE ENVIRONNEMENT:
Ne pas disperser dans l'environnement les matériaux d'emballage et/ou les circuits.

Le déplacement du produit doit être effectué à l'aide des moyens appropriés.

MISE HORS SERVICE ET ENTRETIEN:
La désinstallation et/ou la mise hors service et/ou l'entretien du moteur SATURN doit être effectué seul et uniquement par le personnel autorisé et expert.

N.B. LE FABRICANT N'EST PAS RESPONSABLE DES DOMMAGES EVENTUELS A LA SUITE D'UNE UTILISATION IMPROPRE, ERRONNEE ET IRRAISONABLE.

SEA se réserve le droit de toute modification ou variation à ses produits et/ou à la présente notice sans aucune obligation de préavis.

SATURN 600 - 1000 - 2000

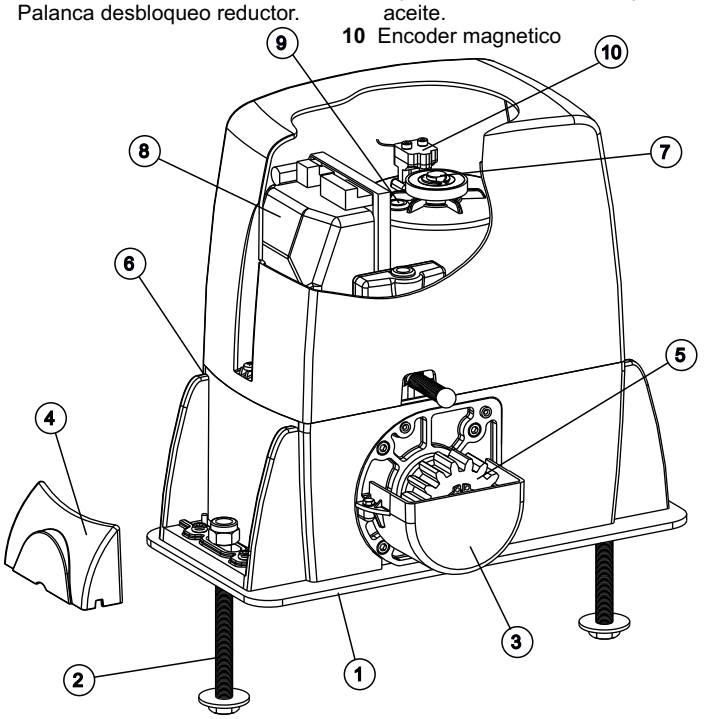
INSTRUCCIONES DE MONTAJE Y CONEXIONES

ESPAÑOL

El **SATURN** es un motoreductor proyectado para automatizar cancelas corredizas con lubrificacion de los engranajes con grasa en las versiones **600**; **a baño de aceite** en las versiones **1000** y **2000**. La **irreversabilidad** permite un perfecto y seguro cierre de la cancela evitando la instalacion de una electroserradura y en caso de falta de alimentacion, el dispsitivo de desbloqueo situado en la parte frontal del motoreductor permite la apertura y cierre manual. El operador esta dotado de un dispositivo en la version **600** y tambien de **friccion mecanica regulable** nelle en la version **1000** y **2000**, que garantiza una regulacion del empuje sobre la cancela. Ademas **el dispositivo electronico de inversion** (opcional) realizado a traves de **encoder** hace el motoreductor Saturn un operador seguro y confiable permitiendo en manera simple de respetar las normativas vigentes en los paises en los cuales tales producto viene utilizado.

NOMENCLATURA PARTES PRINCIPALES

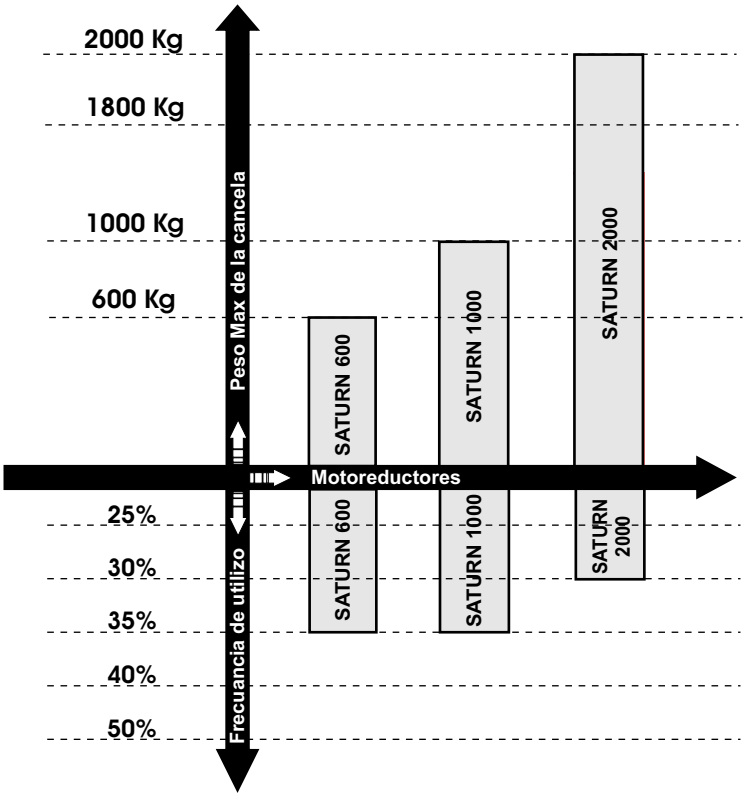
1 Placa de fundacion regulable
2 Tuercas de anclaje.
3 Proteccion piñon.
4 Cubierta tornillos de regulacion.
5 Piñon.
6 Palanca desbloqueo reductor.
7 Tornillos regulacion friccion mecanica. (Solo en las versiones 1000 e 2000)
8 Tarjeta electronica
9 Tapa de llenado hasta el tope de aceite.
10 Encoder magnetico



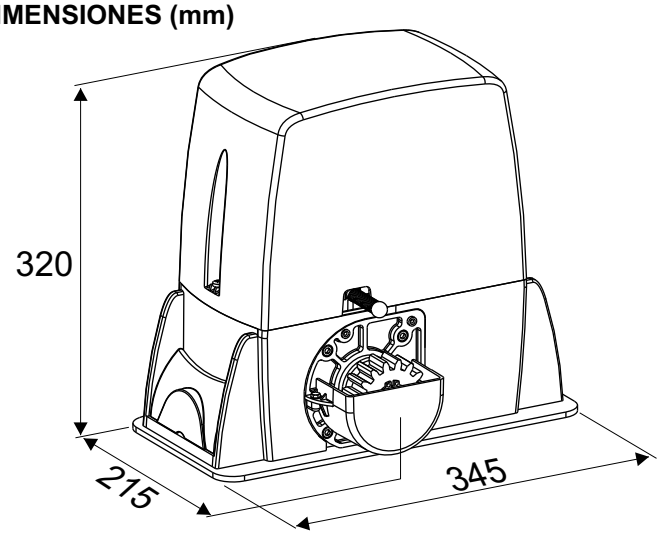
DATOS TECNICOS	*600*	*1000*	*2000*
Alimentacion	230 V (±5%) 50/60 Hz		
Potencia	330W	550W	750W
Corriente absorbida	1,6 A	2,6 A	3,0 A
Condensador de arranque	10 uf	12,5 uf	12,5 uf
Frecuencia de utilizo	35%	35%	30%
Temperatura ambiente	-20°C +55°C		
Intervenccion de Termoproteccion	150°C		
Peso	12 Kg	13 Kg	14,5 Kg
Friccion antiaplastamiento	Electronica	Electronica/Mecanica	
Grado de proteccion	IP55		
Velocidad piñon Z16 (Z20)	9,5 (11) m/min		
Cupla max	30 Nm	55 Nm	70 Nm
Peso Max. De la cancela	600 Kg	1000 Kg	2000 Kg
Friccion Mecanica	no	si	si
Final de carrera Inductivo o Mecanico			

La fricción es presente solo en la versión oil.

GRAFICO DEL UTILIZO DEL MOTOREDUCTOR SATURN



DIMENSIONES (mm)



1. PREDISPOSICION DE LA CANCELA.

Antes de proceder a la instalacion controlar que todas las partes de la cancela (fijas e mobiles) tengan una estructura resistente y lo mas posible indeformable, y lo que sigue:
a) que el anta sea lo suficientemente rigida;
b) que la guia de corredera inferior sea perfectamente rectilinea, horizontal y sin irregularidades que puedan obstacular el buen correr de la cancela;
c) que las ruedas de deslize inferior esten dotadas de almohadillas a esfera lubrificables impermeables;
d) que la guai superior sea realizada y posicionada en modo que la cancela resulte perfectamente vertical;
e) que sean siempre instalados las paradas del tope de anta para evitar descarrilamiento de la misma.

2. ANCLAJE PLACA DE FUNDACION

Para la instalacion de la placa hace falta:

2.1. Disponer en base a las medidas que estan en la Fig. 1 una plataforma de cemento al interno en la cual sera pegada la placa de fundacion y las tuercas de fundacion.

NB: Es oportuno, cuando la estructura de la cancela lo permita, levantar la placa del nivel del piso de al menos 50 mm para evitar eventuales estancamientos de agua (Fig. 1).

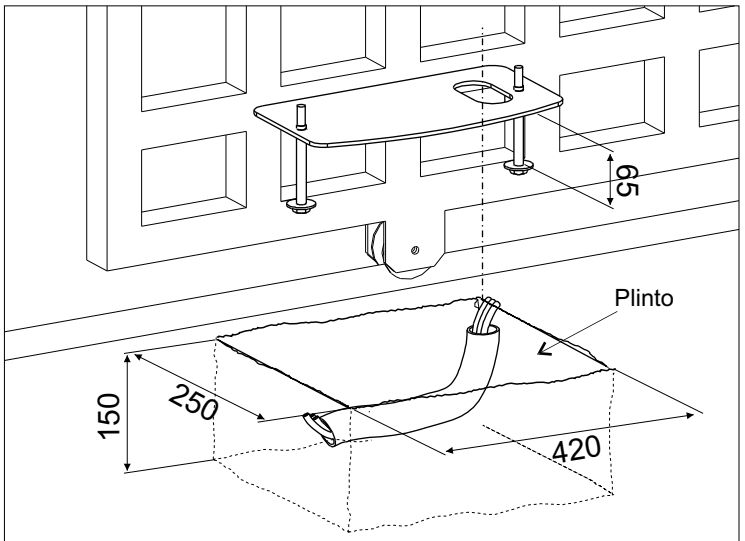


Fig. 1

2.2. Preveer una funda flexible en plastica de almenos 30 mm de diametro de insertar en el apropiado ojal de la placa antes que la misma venga cementada.

2.3. Antes de cementar la placa de anclaje asegurarse que la misma resulte perfectamente horizontal y que sea respetada la medida de 50 - 55 mm indicada en Fig. 2.

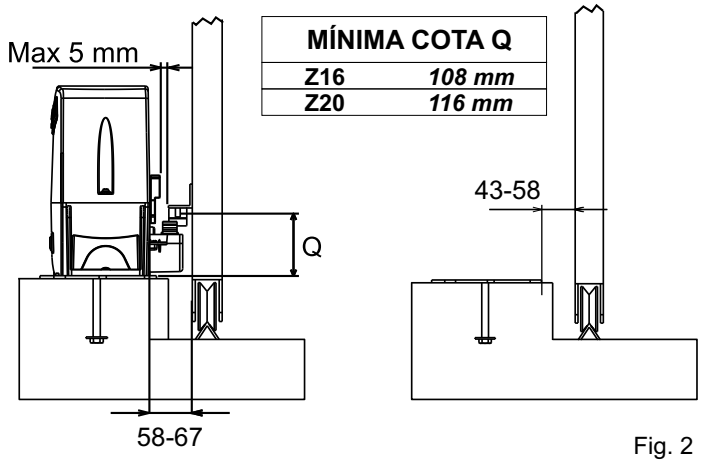


Fig. 2

3. PREDISPOSICION DE PASAJE DE CABLES

El saturn esta provisto de dos huecos distintos para el pasaje de los cables electricos.
Es muy importante hacer pasar los cables de alta tension (230Vac) en un hueco y aquellos de baja tension (24Vdc)en el otro hueco (Fig. 3)

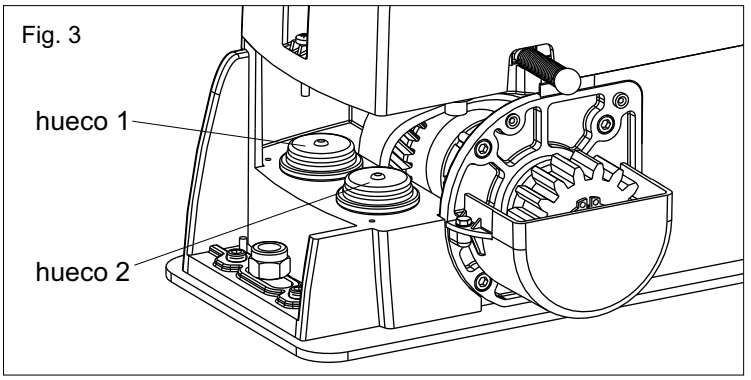


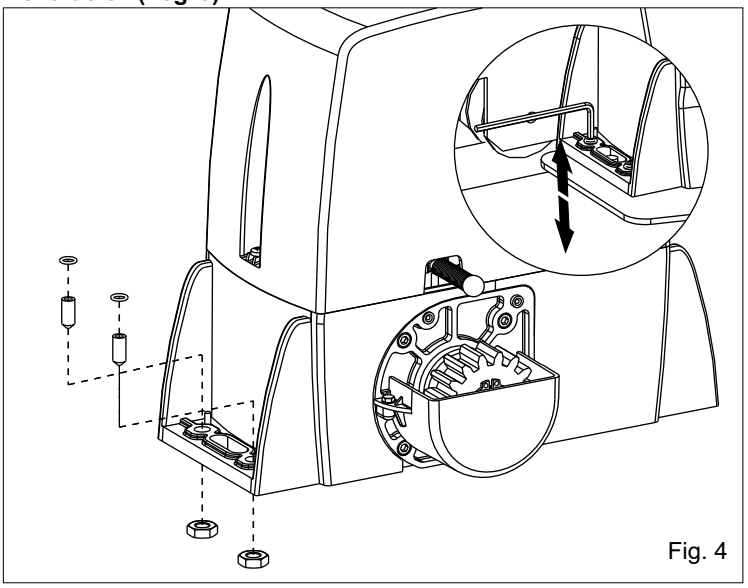
Fig. 3

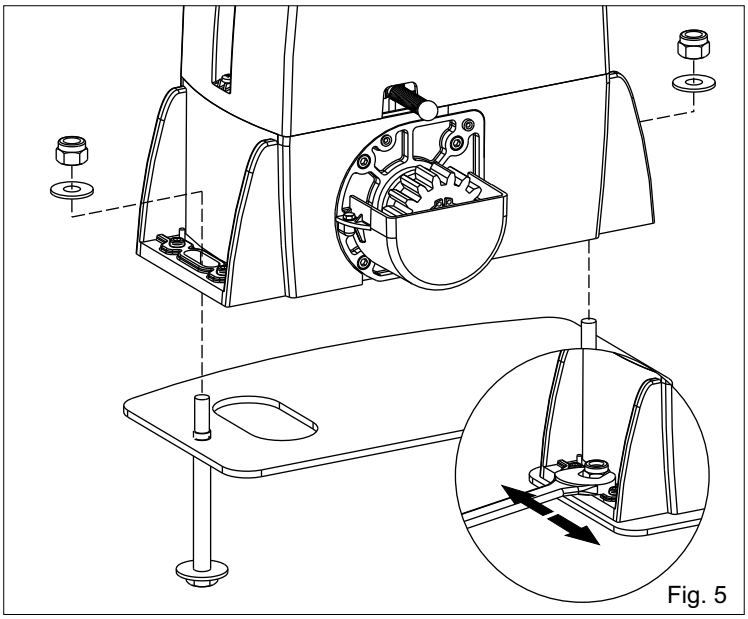
4.INSTALACION DEL MOTOREDUCTOR

4.1. Insertar los 4 pasadores en los respectivos dagujeros de modo de regular la altura del motoreductor a la placa (Fig. 4).
Acabada la instalaciòn, asegurarse que los 4 tornillos tengan un buen agarre sobre la placa de fundaciòn

4.2. Fijar el motoreductor a la placa de fundacion mediante los dos dados en dotacion regulando la posicion lateral (Fig. 5) para respetar las medidas citadas en la figura (Fig. 2).

4.3. Remover el tapón de cierre cargo aceite (rojo) y substituirlo con lo que está suministrado aparte dotado de orificio de ventilación (negro).


Fig. 4


Fig. 5

5. SISTEMA DE DESBLOQUEO

5.1. Para debloquear operar como sigue:
- Abir el cubre cerradura, insertar la llave y rotarla en en sentido horario de 90° (Fig. 6).
- Tirar la palanca de desbloqueo hasta el golpe, 90° alrededor (Fig. 7).

Nota: Jalando la palanca de desbloqueo , viene ejecutado un comando de stop gracias a un interruptor micro-switch posicionado al interno.

5.2. Para volver a bloquear operar como sigue:
- Empujar la palanca de desbloqueo hasta el completo cierre.
- Rotar la llave en sentido antihorario y extraerla.
- Cerrar la tapa protectiva de la cerradura

Vuelto a su sitio el bloqueo se reactiva la tarjeta electronica.

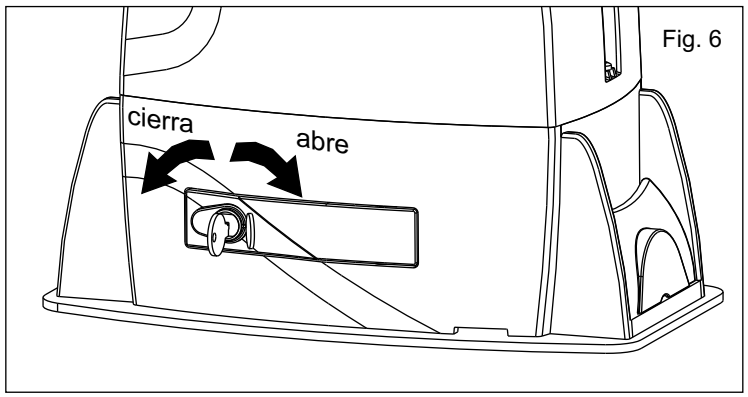
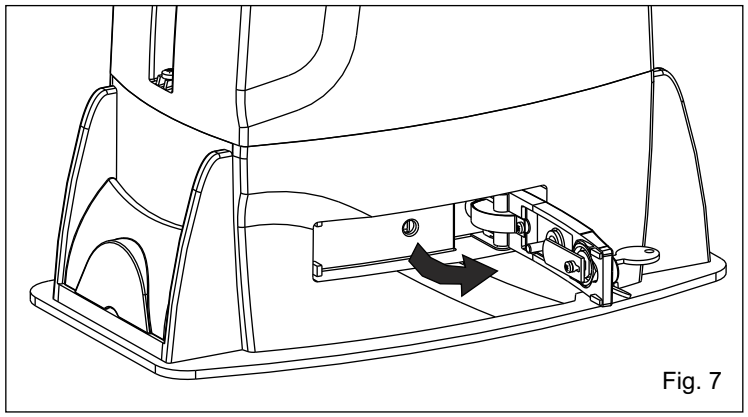


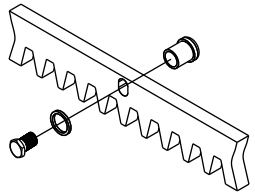
Fig. 6


Fig. 7

6. MONTAJE DE LA CREMALLERA

6.1. Desbloquear el motoreductor y llevar el anta en apertura completa;

6.2. Fijar en cada elemento de cremallera las lenguetas de soportar mediante los relativos tornillos de bloqueo,teniendo cuidado de posicionarlos en la parte superior del ojal. (Fig. 8) ;


Fig. 8

6.3. Apoyar el elemento de cremallera al piñon dentado del motoreductor en modo que resulte paralela la guia a nivel del suelo de la cancela y posicionandolo como en Fig. 9 y puntar con electrosoldadura la lengueta central B a la estructura de la cancela (Fig. 10).

Mover manualmente la cancela hasta llevar la lengueta C en correspondencia del piñon, y entonces puntar con electrosoldadura. Efectuar la misma operacion para la lengueta A despues de haberlo llevado en correspondencia del piñon;

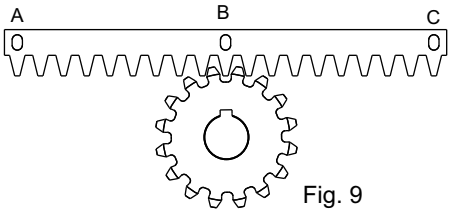
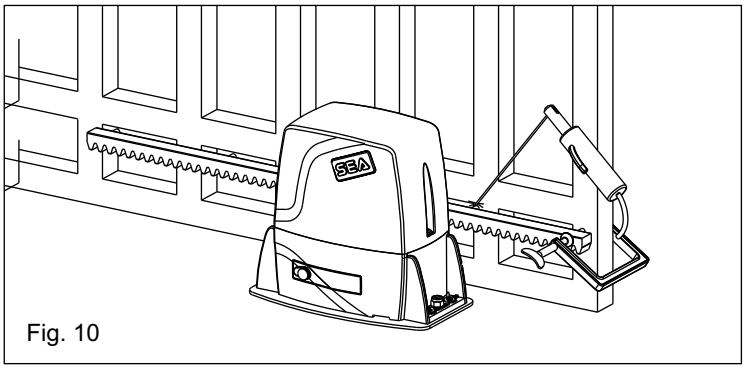


Fig. 9

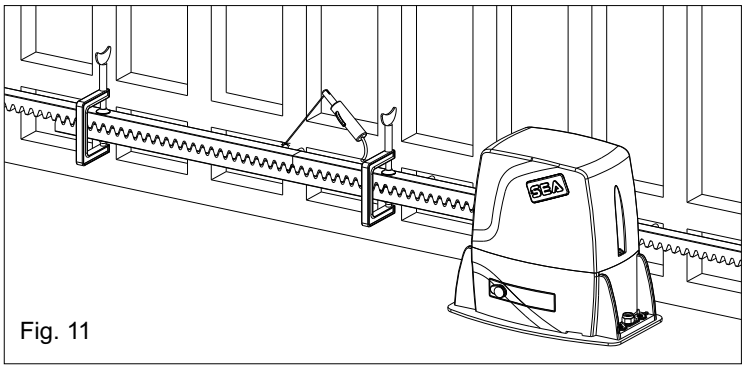

Fig. 10

6.4. Controlar que todos lo elementos de la cremallera resulten perfectamente alineados y posicionados correctamente (dentaduras en fase). Se aconseja de contraponer a dos elementos sucesivos un tercer elemento como indicado en la Fig. 11;

6.5. Repetir la operacion arriba descrita para todos los elementos restantes de la cremallera a montar;

6.6. Toda la cremallera va levantada de 1,5 mm para evitar que el peso de la cancela llegue hasta el piñon (Fig. 12),
Atencion: mantener un juego de almenos 0,5 mm entre diente de pinon y diente de cremallera;

6.7. Controlar que la cremallera trabaje al centro del piñon largo todos los elementos, regulando en el caso necesario la longitud de los distanciales.


Fig. 11

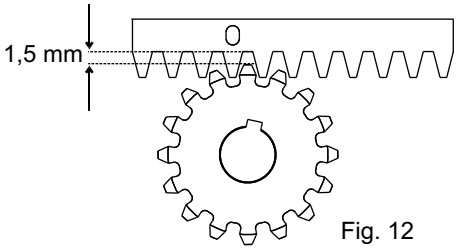


Fig. 12

7. REGULACION DEL FINAL DE CARRERA

7.1. Para instalar y regular los finales de carrera en apertura, seguir las instrucciones abajo elencadas (Fig. 13):
- Llevar la cancela en completa apertura,
- Posicionar la plaquita sobre la cremallera en modo de tener el final de carrera (palanquita en caso de final de carrera mecanico (Fig. 14); flechitas de indicacion puestas y en caso de final de carrera inductivo (Fig. 15)) en correspondencia con el punto x que se encuentra a 50 mm del lado doblado de la plaquita (fig. 16) y fijarla con los tornillos en dotacion (Fig. 17).

7.2. Para instalar y regular los finales de carrera en cierre,seguir las instrucciones abajo descritas (Fig. 13):
- Llevar la cancela en completo cierre.
- Posicionar la plaquita en la cremallera en modo de tener el final de carrera en correspondencia del punto X que se encuentra a 50 mm del lado doblado de la plaquita (fig. 16) y fijarla con los tornillos en dotacion (Fig. 17).

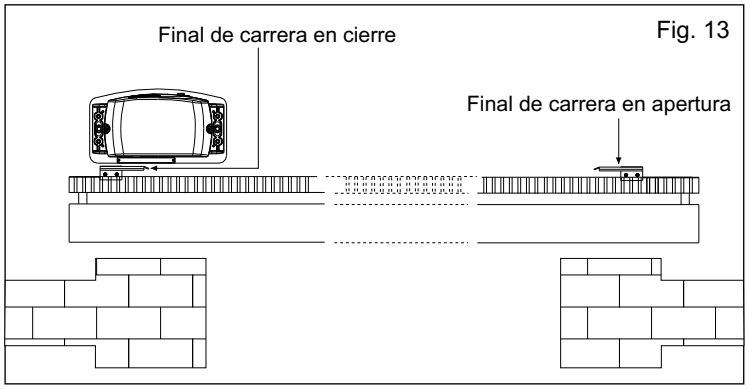
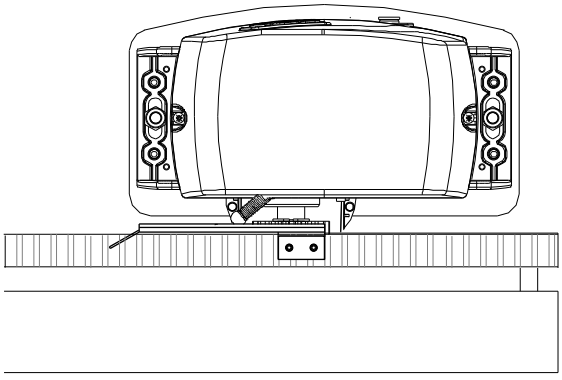
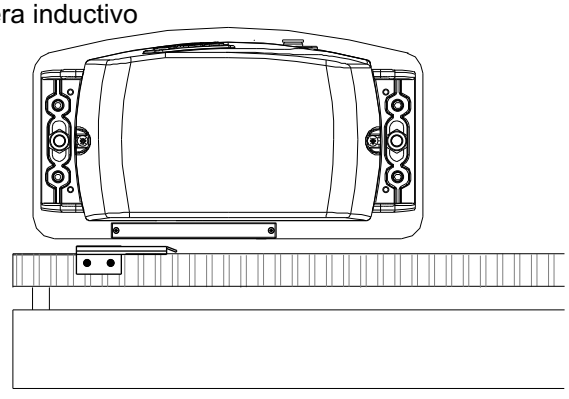


Fig. 13

Final de carrera mecanico


Fig. 14

Final de carrera inductivo


Fig. 15

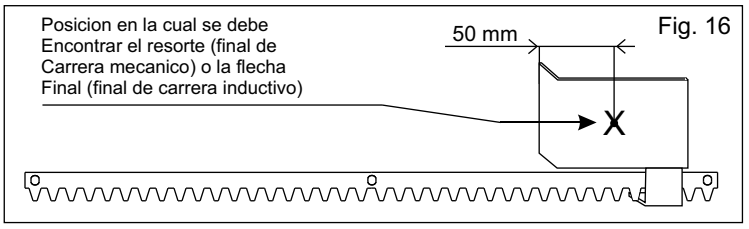
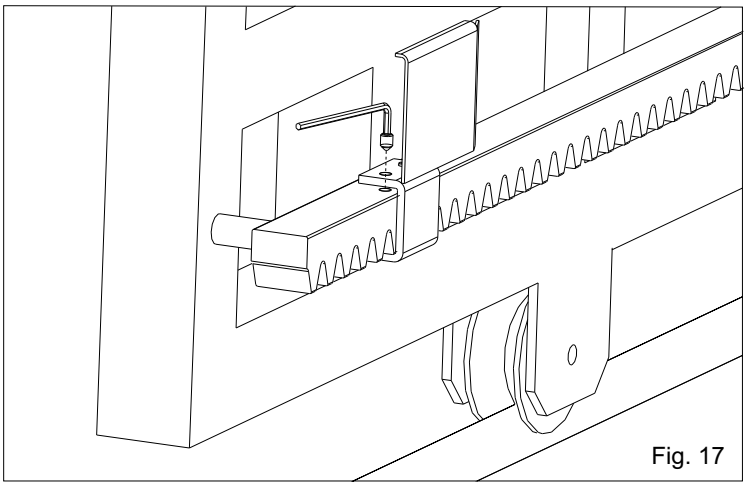
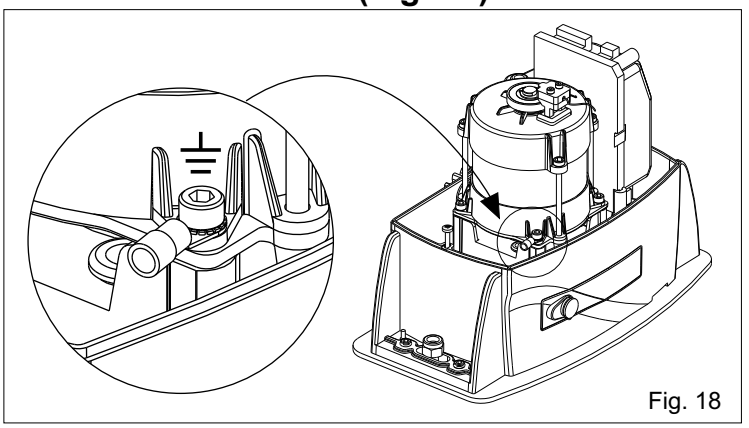


Fig. 16


Fig. 17

Atraves de la regulación del trimmer de frenada puesta en la tarjeta electronica es posible obtener el stop de la cancela en el punto deseado.

8. PUESTA A TIERRA (Fig. 18)


Fig. 18

9. REGULACION DE LA FRICCION *(Saturn 1000 e 2000)*

9.1. Quitar la tension de la alimentación.

9.2. Para regular la fricción operar como sigue :
- Actuar sobre los tornillos sin cabeza “A” (Fig. 19) en el modo siguiente:
- Sentido horario = menor sensibilidad y mayor fuerza de empuje.
- Sentido antihorario = mayor sensibilidad de la fricción y menor fuerza de empuje.

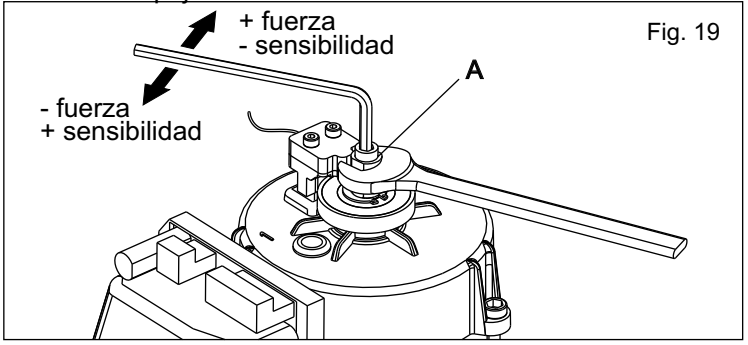
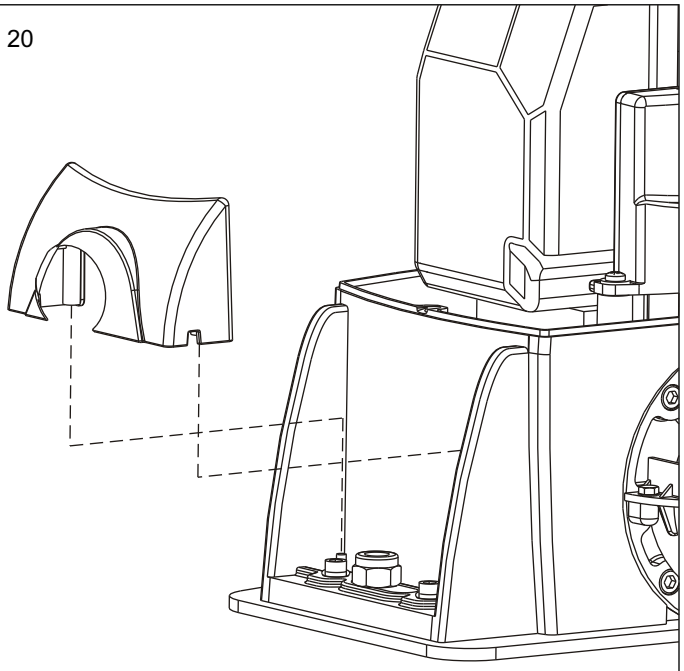


Fig. 19

10. MONTAJE CUBRETORNILLOS

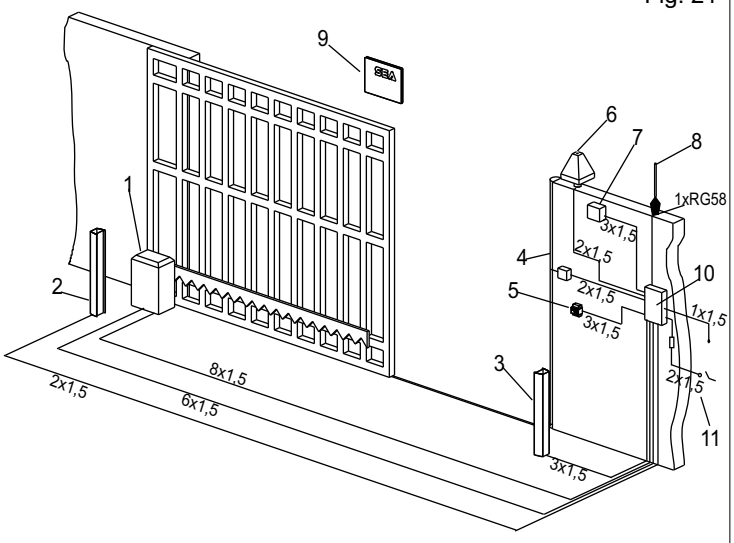
Al final de la instalación mecanica y despues de haber efectuado todas las regulaciones necesarias, montar los dos cubretornillos al motoreductor como esta mostrado en la Fig. 20.

Fig. 20



11. CONEXIONES ELECTRICAS DE LA INSTALACION (Fig. 21)

Fig. 21

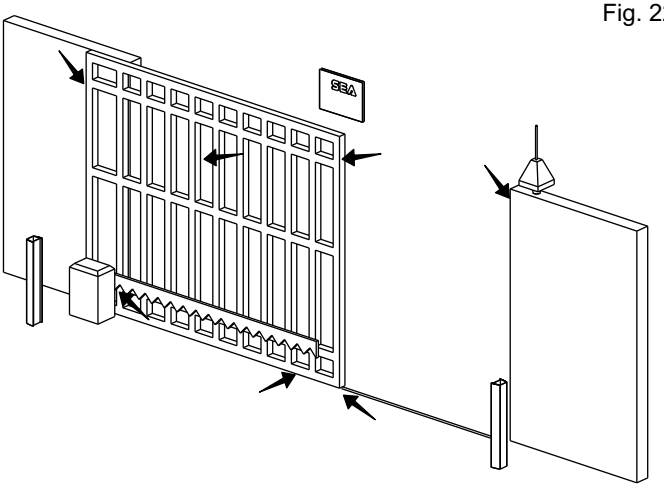


1) Saturn
2) Fotocelula Sx
3) Fotocelula Dx
4) Costa mecanica
5) Selector de llave
6) Lampara
7) Receptor
8) Antena
9) Cartel de aviso
10) Caja de derivacion
11) Diferencial 16A - 30mA

12. ANALISIS DE RIESGOS

Los puntos indicados por las flechas en Fig. 22 son considerados potencialmente peligrosos por tanto el instalador debe efectuar un cuidadoso analisis de los riesgos de manera de prevenir los peligros de aplastamiento, arrollamiento, aguillotinamiento, enganchamiento, trabarse, garantizando asi una instalacion segura que no cause daños a personas, cosas, animales (Rif. legislacion vigente en el pais de instalacion).

Fig. 22



LEER ATENTAMENTE

La SEA S.r.l. No se hace responsable por daños o accidentes que puedan ser generados por un eventual daño del producto desde el momento que estos sucedan por inobservancia de cuanto esta expresamente reportado y referido en este manual. El no utilizo de los repuestos originales SEA ademas de invalidar la garantia, anula la responsabilidad del constructor relativa a la seguridad (en referencia a la directiva de maquinas).La instalacion electrica debe ser efectuada y certificada por un profesional habilitado que dejara la documentacion prevista en base del D.L. 46/90. Cuanto alli escrito es un estracto del fasiculo de ADVERTENCIAS GENERALES que el instaldor debe leer antes de efectuar el trabajo y entregar al usuario final. Los elementos del embalaje tales como bolsitas, anime espanso, clavos etc, no deben ser dejados al alcance de los niños ya que es fuente de potencial peligro.

Mantenimiento periodico

Controlar el nivel de aceite (solo Saturn 1000 e 2000) (Utilizar el asta de nivel de aceite)	Anual
Cambiar el aceite	4 años
Verificar la funcionabilidad del bloqueo	Anual
Verificar la funcionabilidad de la fricción (1000 y 2000)	Anual
Verificar la distancia entre piñon y cremallera (1.5 mm)	Anual
Verificar el estado de uso del piñon y de la cremallera	Anual
Controlar los tornillos de fijación	Anual
Verificar la integridad de los cables de conexión	Anual
Verificar la funcionabilidad de los finales de carrera en apertura y cierre y las correspondientes plaquitas	Anual

Todas las operaciones arriba descritas, deben ser efectuadas solamente por un instalador autorizado.

DECLARACION DE CONFORMIDAD

La SEA declara bajo la propia responsabilidad que los productos

Saturn 600, Saturn 1000, Saturn 2000

responden a los requisitos esenciales previstos de las siguientes directivas europeas y sucesivas modificaciones:
89/392/CEE (Directiva Maquinas)
89/336/CEE (Directiva compatibilidad Eletromagnetica)
73/23/CEE (Directiva baja tensión)

ADVERTENCIAS:
La instalacion electrica y la selección de la logica de funcionamiento deben estar de acuerdo con las normativas vigentes. Preveer en cada caso un interruptor diferencial de 16A y un umbral de 0,030A. Tener separados los cables de potencia (motores, alimentacion) de aquellos de comando (pulsantes, fotocelulas, radio etc.). Para evitar interferencias es preferible preveer y utilizar dos fundas separadas.

DESTINACION DE USO:
El motoreductor SATURN ha sido proyectado para ser utilizado unicamente para el automatizar de cancelas corredizas.

REPUESTOS:
La solicitud de repuestos debe ser efectuada a traves de:
SEA s.r.l. - Zona Ind.le, 64020 S.ATTO - Teramo - Italia

SEGURIDAD Y COMPATIBILIDAD AMBIENTAL:
No desperdiciar en el ambiente los materiales de embalaje del producto y/o circuitos.

La movimentacion del producto debe ser efectuada con medios idoneos.

PUESTA FUERA DE SERVICIO Y MANUTENCION:
La desinstalacion y/o puesta fuera de servicio y/o mantenimiento del motoreductor SATURN debe ser efectuada solo y exclusivamente por personal autorizado y experto.

N.B. EL CONSTRUCTOR NO PUEDE CONSIDERARSE RESPONSABLE POR EVENTUALES DAñOS CAUSADOS POR USOS INPROPIOS, ERRONEOS Y IRRAZONABLES

LA SEA se reserva el derecho de aportar modificaciones o variaciones que se retengan oportunas a los propios productos y/o al presente manual sin alguna obligacion de preaviso.

SATURN 600 - 1000 - 2000

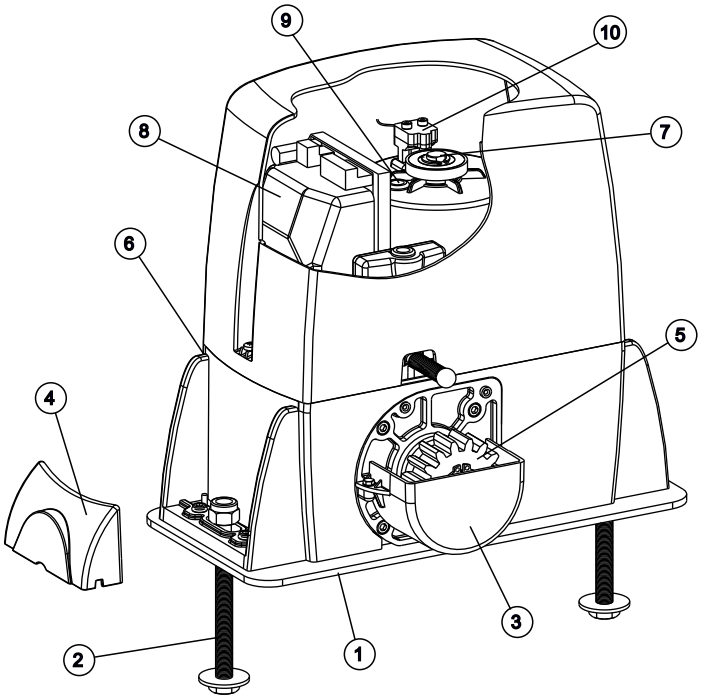
MONTAGEANLEITUNG UND VERKABELUNGEN

DEUTSCH

Der **SATURN** Antrieb wird zur Automatisierung von Schiebetoren eingesetzt. Das Getriebe ist in der **600** Ausführung mit Fett geschmiert während es sich in der **1000** und **2000** Ausführung komplett im Ölbad befindet. Die **Irreversibilität** des Motors gewährt das perfekte und sichere Anhalten des Tores und macht die Montage eines Elektroschlosses überflüssig. Bei Stromausfall kann das Tor mit Hilfe eines Entriegelungssystems, auf der Vorderseite des Motors, manuell geöffnet und geschlossen werden. Der Motor ist in der **600** Ausführung mit einer elektronischen und in den **1000** und **2000** Ausführung en mit einer einstellbaren, mechanischen Kupplung ausgestattet, mit der die Schubkraft auf dem Tor reguliert werden kann. Ausserdem, macht das elektronische Inversionssystem (optinal), das mit Hilfe des **Encoder** hergestellt wird aus dem SATURN einen sicheren und zuverlässigen Antrieb, mit dem man auf einfache Art und Weise, den im Installierungsland geltenten Gesetzen entspricht.

HAUPTBESTANDTEILE

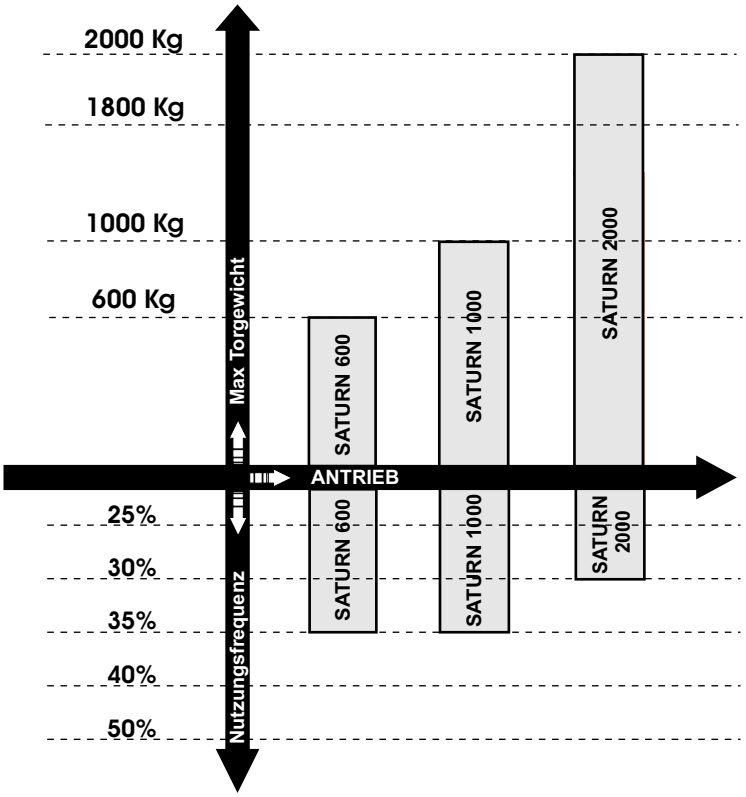
1 Regulierbare Grundplatte
2 Verankerungsbolzen
3 Zahnradabdeckung
4 Abdeckung Regulierungsschr.
5 Zahnrad
6 Antriebsentriegelungshebel
7 Regulierungsschr. mech. Kupplung (nur in der 1000 und 2000 Ausf.)
8 Elektronische Steuerung
9 Stöpsel Ölauffüllung
10 Magnetischer Encoder



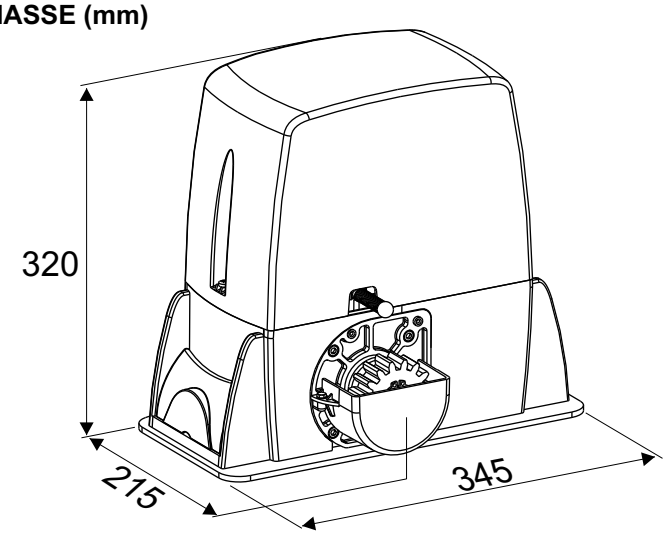
TECHNISCHE DATEN	600	1000	2000
Speisung	230 V (±5%) 50/60 Hz		
Stärke	330W	550W	750W
Stromverbrauch	1,6 A	2,6 A	3,0 A
Startkondensator	10 uf	12,5 uf	12,5 uf
Betriebsfrequenz	35%	35%	30%
Betriebstemperatur	-20°C +55°C		
Thermoschutz	150°C		
Gewicht	12 Kg	13 Kg	14,5 Kg
Kupplung gegen Quetschungen	Elektronisch	Elettronisch/Mechanisch	
Schutzgrad	IP55		
Zahnrad Geschwindigkeit Z16 (Z20)	9,5 (11) m/min		
Max. Drehmoment	30 Nm	55 Nm	70 Nm
Max. Torgewicht	600 Kg	1000 Kg	2000 Kg
Mech. Kupplung	nein	ja	ja
Induktiver oder mechanischer Endschalter			

Nur die OIL Ausführung verfügt über eine Kupplung

GRAFIK INBETRIEBNAHME ANTRIEB SATURN



MASSE (mm)



1. VORBEREITUNG DES TORES

Bevor mit der Installierung begonnen werden kann, muss zuerst sichergestellt werden, dass sämtliche Teile des Tores (feste und bewegliche) über eine widerstandsfähige und so wenig wie möglich verformbare Struktur verfügen. Daraufhin überprüfen, dass:
a) der Torflügel ausreichend fest und stabil ist;
b) die untere Torschiene absolut gradlinig und horizontal verläuft und frei von Hindernissen ist, die den Torlauf hemmen könnten;
c) die unteren Laufrollen mit Kugelellagern ausgestattet sind, die schmierbar oder abgedichtet sind.
d) die obere Torschiene so hergestellt und installiert ist, dass das Tor sich in absolut vertikaler Postion befindet;
e) immer Endschalteranschläge des Flügels montiert sind, um Entgleisungen des Torflügels zu verhindern.

2. VERANKERUNG DER GRUNDPLATTE

Zur Verlegung der Grundplatte wie folgt vorgehen:

2.1. Ein Fundament aus Zement gemäß den in Abbildung 1 vorgegebenen Maßen herstellen, auf dem die Grundplatte und die Verankerungsbolzen einzementiert werden.

Achtung: Soweit es die Torstruktur erlaubt, wird empfohlen die Platte um 50mm vom Boden anzuheben, um eventuelle Wasseransanstaungen zu vermeiden (Fig.1).

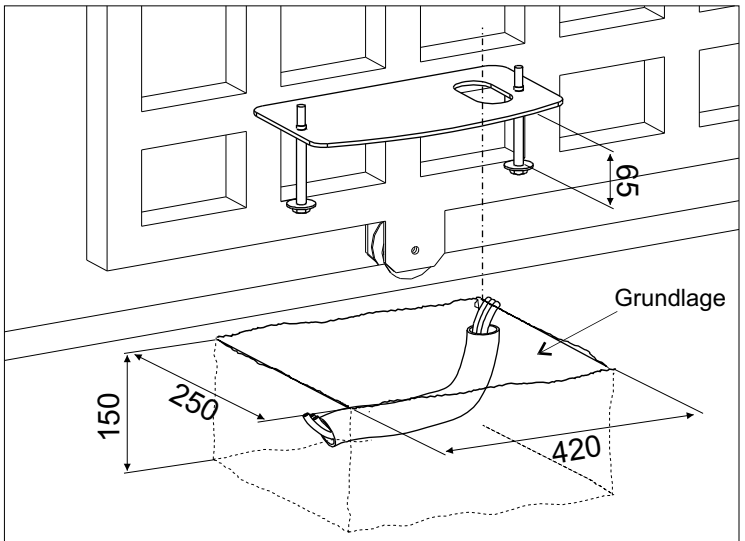


Abb. 1

2.2. Bevor die Platte einzementiert wird, muss eine flexible Kunststoffhülse mit einem Durchmesser von mindestens 30 mm in die entsprechende Öse der Platte eingeführt werden.

2.3. Sich vor Einzementierung der Verankerungsplatte vergewissern, dass sie genau horizontal positioniert ist und dass der Abstand von 50 - 55 mm, wie in Abb. 2, eingehalten wurde.

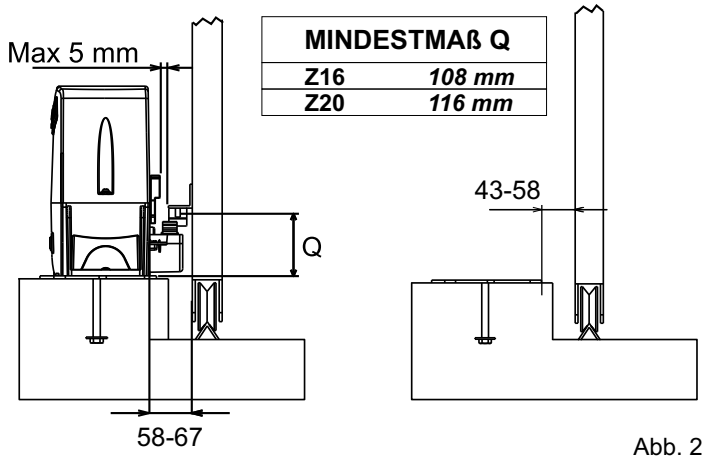


Abb. 2

3. KABELDURCHLASS

SATURN ist mit zwei Bohrungen, die als Durchlass der elektrischen Kabel dienen ausgestattet. Es ist sehr wichtig, dass die Hochspannungskabel (230Vac) durch eine Bohrung und die Niederstromkabel (24Vdc) durch die andere Bohrung gezogen werden.

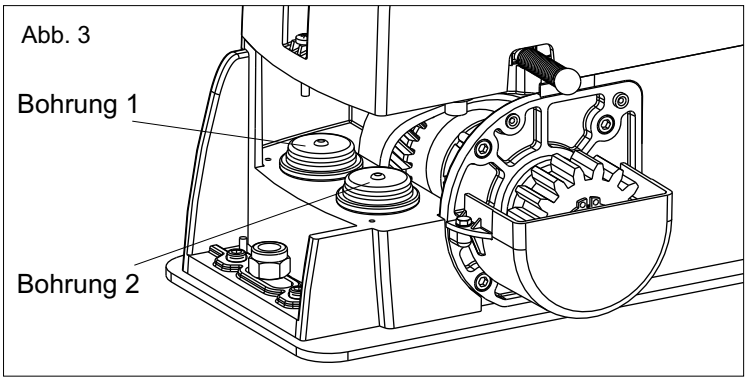


Abb. 3

4. MONTAGE DES ANTRIEBS

4.1. Die 4 Stifte in die dafür vorgesehenen Bohrungen einsetzen, sodass die Höhe des Antriebs auf der Platte eingestellt werden kann (Abb.4).

Am Ende der Installierung überprüfen ob die Befestigungsschrauben fest an die Grundplatte greifen.

4.2. Den Antrieb mit Hilfe der 2 mitgelieferten Bolzen an der Grundplatte befestigen und dabei die seitliche Position (Abb.5) nach den in Abb. 2 angegebenen Massen regulieren.

4.3. Den Stoepsel der Ölauffuellung entfernen (rot) und mit dem gelöcherten austauschen (schwarz).

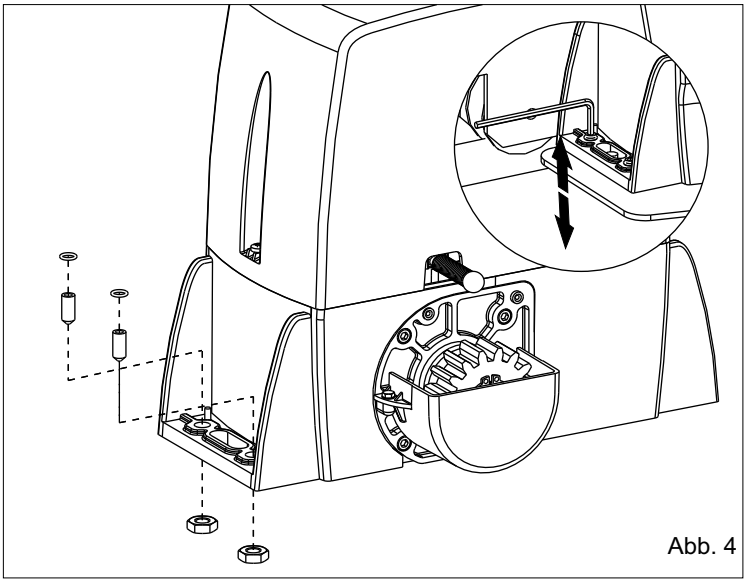


Abb. 4

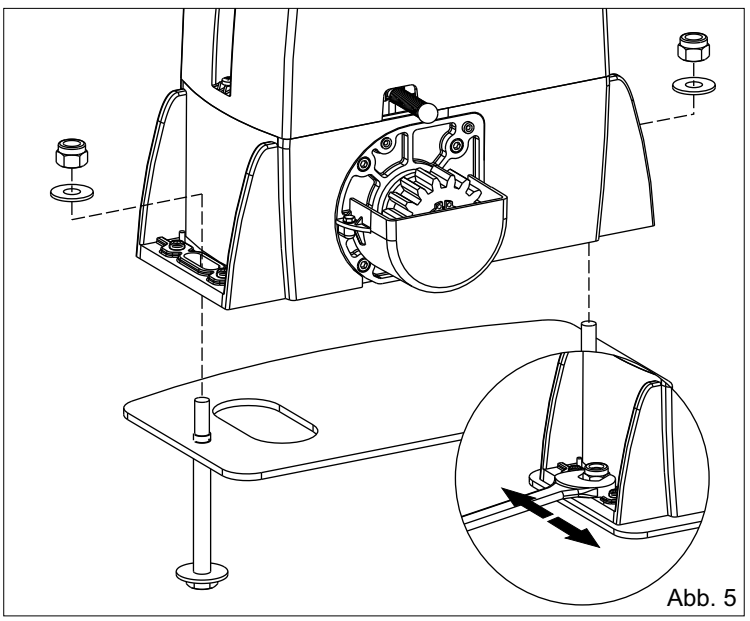


Abb. 5

5. ENTRIEGELUNGSSYSTEM

5.1. Zum Entriegeln wie folgt vorgehen:

-Die Schutzklappe des Schlosses öffnen, den Schlüssel einführen und um 90° im Uhrzeigersinn drehen (Abb.6).

-Den Entriegelungshebel bis zum Anschlag ziehen, ca. 90° (Abb.7).

5.2. Zum Blockieren wie folgt vorgehen:

- Den Entrieglungshebel bis zur kompletten Schliessung schieben

- Den Schlüssel gegen den Uhrzeigersinn drehen und herausziehen

- Den Schutzdeckel des Schlosses schliessen

Die elektronische Steuerung reaktiviert sich, wenn die Blockierung wieder hergestellt wurde.

Achtung: Wird der Entriegelungshebel gezogen geht, mit Hilfe eines Mikroschalters im Innern, ein Stoppimpuls an die elektronische Steuerung.

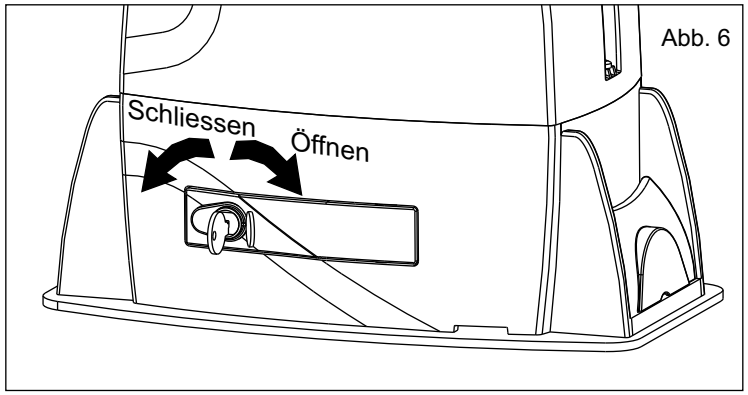
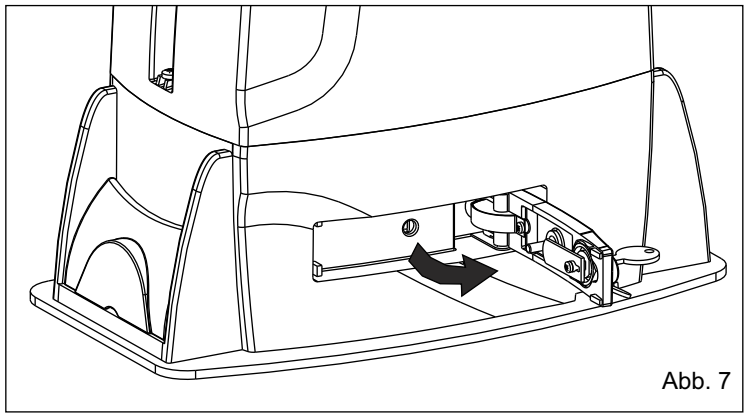


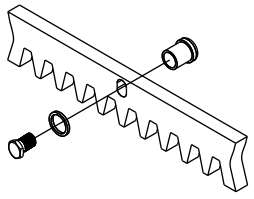
Abb. 6


Abb. 7

6. MONTAGE DER ZAHNSTANGE

6.1. Den Antrieb entriegeln und den Torflügel vollständig öffnen.

6.2. An jedes Zahnstangenteil die Befestigungsklinken mit den entsprechenden Befestigungsschrauben im oberen Bereich der Öse befestigen (Abb.8);


Abb. 8

6.3. Das Zahnstangenelement auf das Zahnrad des Antriebs lehnen, sodass es parallel zur Bodenschiene des Tores liegt, wie in Abb. 9 positionieren und den mittleren Stift an die Torstruktur festschweissen (Abb 10).

Das Tor manuell verschieben bis Klinke C mit dem Zahnrad übereinstimmt, dann festschweissen. Den Vorgang für Klinke A wiederholen, nachdem sie in die dem Zahnrad entsprechende Position gebracht wurde;

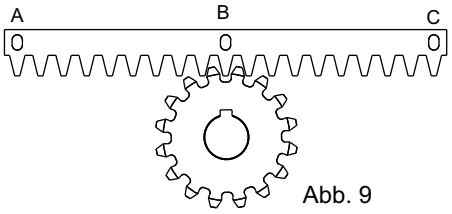


Abb. 9

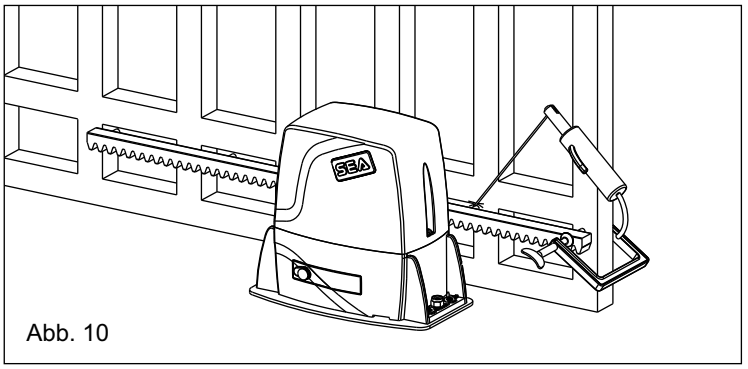


Abb. 10

6.4. Sich vergewissern, dass sämtliche Zahnstangenglieder bindig aneinandergereiht und ordentlich verlegt wurden (synchronisierte Verzahnung). Es wird empfohlen, zwei aneinandergereihte Glieder, einem dritten, wie in Abb. 11 gegenüberzustellen.

6.5. Die oben beschriebene Vorgehensweise für den Rest der zu montierenden Zahnstangenteile wiederholen;

6.6. Um zu verhindern, dass sich das Torgewicht auf das Zahnrad verlegt, die gesamte Zahnstange um 1,5mm anheben (Abb. 12);
Achtung: Ein Spiel von mindestens 0,5 mm zwischen Zahnradzahn und Zahnstangenzahn lassen;

6.7 Sich vergewissern, dass die Zahnstange auf der Zahnradmitte entlang aller Zahnstangenglieder arbeitet, gegebenenfalls die Länge der Dinstanzhalter entsprechend einstellen.

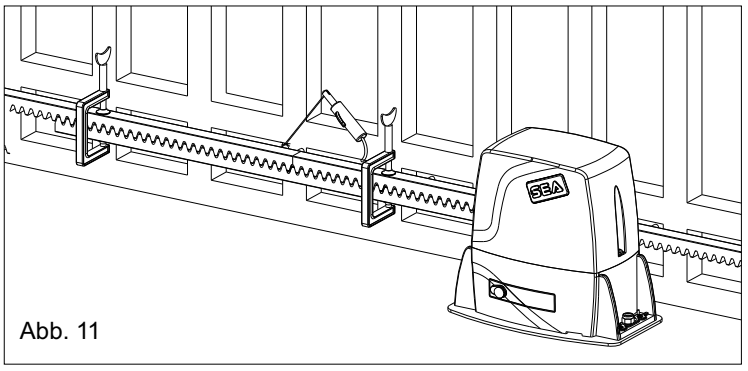


Abb. 11

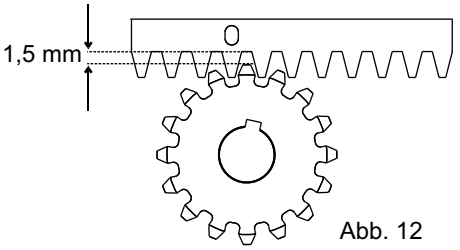


Abb. 12

7. EINSTELLUNG DER ENDSCHALTER

7.1. Um die Endschalter in Öffnung zu installieren, wie folgt vorgehen (Abb. 13):
- Das Tor komplett öffnen
- Das Plättchen auf der Zahnstange so positionieren, dass der Endschalter (Metallblättchen bei mechanischen Endschaltern (Abb. 14); Anzeigepfeil bei induktiven Endschaltern (Abb.15)) im oberen Bereich dem Punkt X entspricht, der sich 50 mm von der geknickten Seite des Plättchens befindet (Abb. 16) und mit den mitgelieferten Schrauben befestigen (Abb. 17).

7.2. Zur Installierung und Einstellung der Endschalter in Schliessung wie folgt vorgehen (Abb. 13):
- Das Tor komplett schliessen
- Das Plättchen auf der Zahnstange so positionieren, dass der Endschalter dem Punkt X, der sich 50 mm von der geknickten Seite des Plättchen befindet entspricht (Abb. 16) und mit den mitgelieferten Schrauben befestigen (Abb. 17).

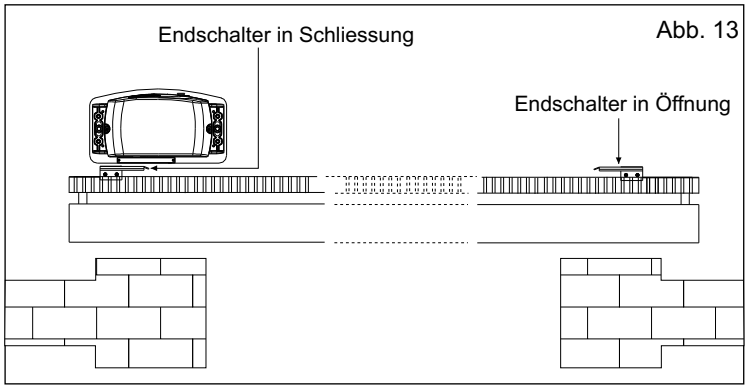
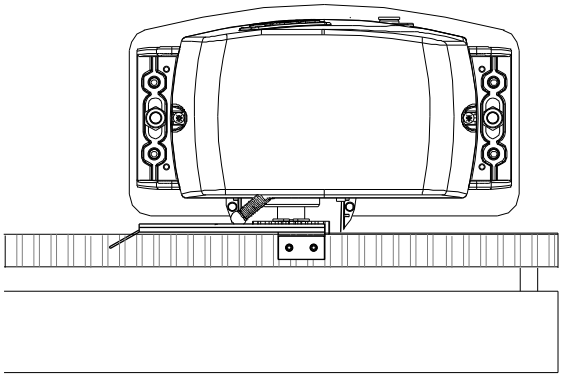
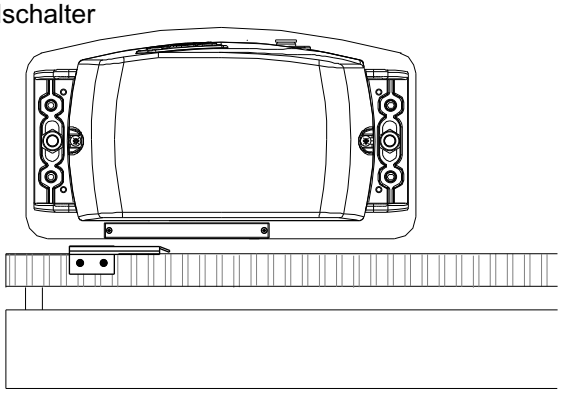


Abb. 13

Mechanischer Endschalter


Abb. 14

Induktiver Endschalter


Abb. 15

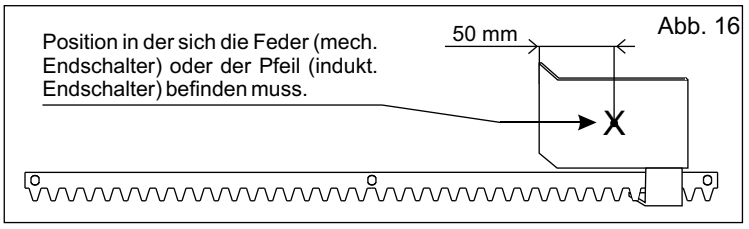
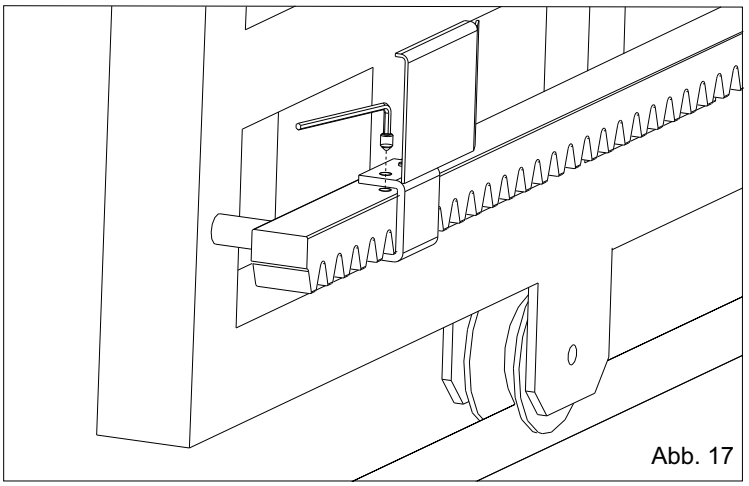
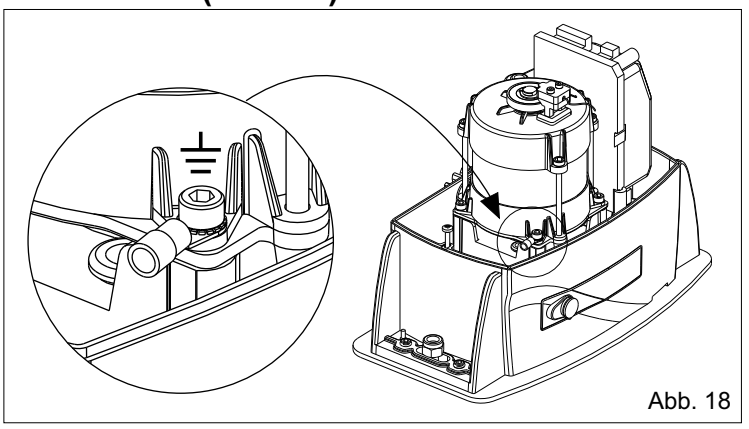


Abb. 16


Abb. 17

Mit Hilfe des Trimmers für die Abbremsung, der sich auf der elektronischen Steuerung befindet, ist es möglich das Tor auf dem gewünschten Punkt anhalten zu lassen.

8. ERDUNG (Abb.18)


Abb. 18

9. KUPPLUNGSEINSTELLUNG
(Saturn 1000 und 2000)
9.1. Stromzufuhr einstellen.
9.2. Um die Kupplung einzustellen wie folgt vorgehen:
- Stift "A" (Fig. 19) wie folgt drehen:
- Im Uhrzeigersinn = weniger Sensibilität der Kupplung/höhere Schubkraft
-Gegen den Uhrzeigersinn = höhere Sensibilität der Kupplung/weniger Schubkraft

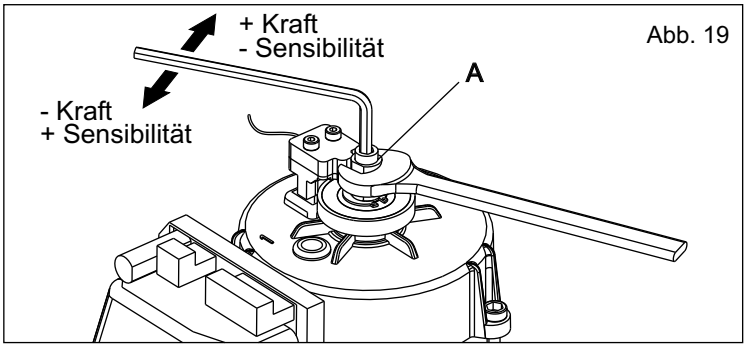
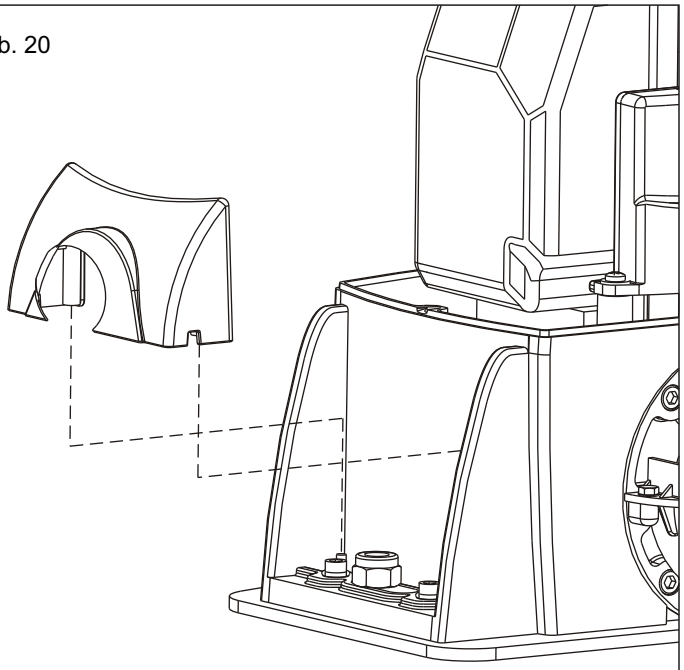


Abb. 19

10. MONTAGE SCHRAUBENABDECKUNG

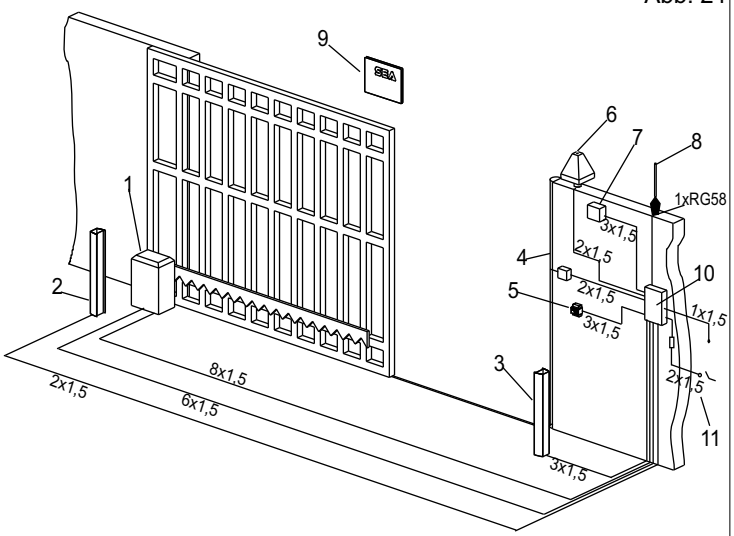
Am Ende der mechanischen Installierung und nachdem alle notwendigen Einstellungen durchgeführt wurden, die zwei Schraubenabdeckungen wie in Abb. 20 am Motor montieren.

Abb. 20



11. ELEKTRISCHE VERKABELUNG DER ANLAGE (Abb.21)

Abb. 21

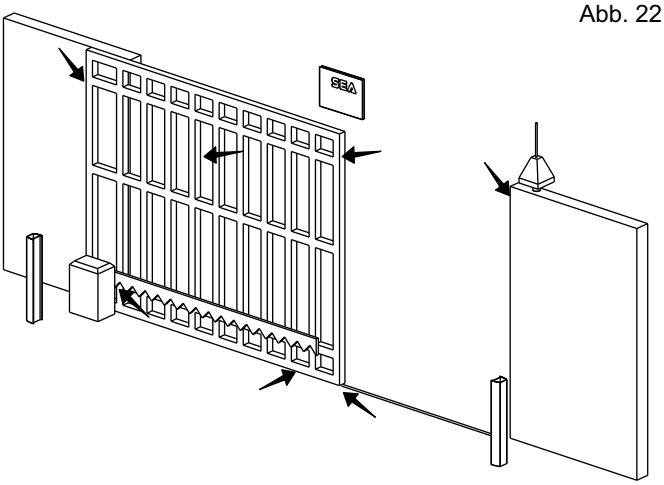


1) Saturn
2) Lichtschranke Sx
3) Lichtschranke Dx
4) Mech.Sicherheits.
5) Schlüsselschaler
6) Blinklampe
7) Empfänger
8) Antenne
9) Warnschild
10) Nebenschlußdose
11) Differentialschalter 16A - 30mA

12. GEFAHRENANALYSE

Die mit Pfeilen gekennzeichneten Punkte in Abb.22 weisen auf potentielle Gefahren hin und dienen zur Gefahrenanalyse, die vom Installateur mit größter Sorgfalt durchgeführt werden muß. Auf diese Weise werden Risiken wie Quetschungen, Mitreißen, Amputation, Aufspießen oder Einsperren vorgebeugt und verhindert und es wird gewährleistet, dass die Installierung sicher ist und keine Gefahr fur Mensch, Tier und Dinge darstellt. (Bez. Die im Installierungsland geltenten Gesetze).

Abb. 22



AUFMERKSAM DURCHLESEN

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PERIODISCHE WARTUNG

Ölstand überprüfen (Nur Saturn 1000 und 2000) (Ölmessstab benutzen)	Jährlich
Ölwechsel	4 Jahre
Entriegelungsfunktion überprüfen	Jährlich
Kupplungsfunktion überprüfen (1000 und 2000)	Jährlich
Abstand zwischen Zahnrad und Zahstange überprüfen (1.5 Mm)	Jährlich
Abnutzungsstand des Zahnrads und der Zahnstange überprüfen	Jährlich
Befestigungsschrauben überprüfen	Jährlich
Zustand der Verbindungskabel überprüfen	Jährlich
Die Funktionstüchtigkeit und den Zustand der Endschalter und der entsprechenden Platten in Öffnung und Schliessung überprüfen	Jährlich

Alle oben beschriebenen Arbeiten müssen von einem autorisierten Installateur durchgeführt werden.

KONFORMITÄTSERKLÄRUNG

SEA erklärt unter eigener Verantwortung, dass die Pordukte

Saturn 600, Saturn 1000, Saturn 2000

den grundlegenden Erfordernissen, die von den folgenden europäischen Richtlinien und späteren Änderungen vorgesehen sind, entsprechen (da wo anwendbar):
89/392/CEE (Maschinenrichtlinie)
89/336/CEE (Richtlinie Elektromagnetische Verträglichkeit)
73/23/CEE (Niederspannungsrichtlinie)

HINWEIS:
Die Installation der elektrischen Anlage und die Betriebsart-Auswahl sind gemäß der jeweils geltenden gesetzlichen Bestimmungen vorzunehmen. Auf alle Fälle einen Differential-Schalter vorsehen (16A und Schwellenwert 0,030A). Die Strom-Verkabelungen (Motoren, Stromzufuhr) sind von den Steuer-Verkabelungen (Schalter, Lichtschranke, Funk, etc.) zu trennen. Zur Vermeidung von Störungen wird empfohlen zwei getrennte Isolierhülsen zu verwenden.

EINSATZ:
Der Antrieb SATURN wurde ausschließlich für die Automatisierung von Schiebetoren hergestellt.

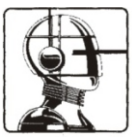
ERSATZTEILE:
Ersatzteillanforderungen an folgende Adresse richten:
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HINWEIS: DER HERSTELLER ÜBERNIMMT KEINE VERANTWORTUNG FÜR SCHÄDEN, DIE DURCH UNSACHGEMÄßEN, FEHLERHAFTEN ODER UNGEEIGNETEN EINSATZ VERURSACHT WURDEN.

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