

Gear-motor for sliding gates



**KALOS 50**

**KALOS 80**

**KALOS 120**

**KALOS 80 120 Vac**

**KALOS 70 24V**

**KALOS 110 24V**



Ⓜ INSTRUCTION MANUAL

 **ALLMATIC**

MADE IN ITALY

CE

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### IMPORTANT REMARKS

For any installation problems please contact  
Allmatic S.r.l. TEL. (+39) 0437 751175

has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.



**Please read this instruction manual very carefully before installing and programming your control unit.**

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

### **AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:**

**EN 60204-1** (Machinery safety, electrical equipment of machines, part 1: general rules)

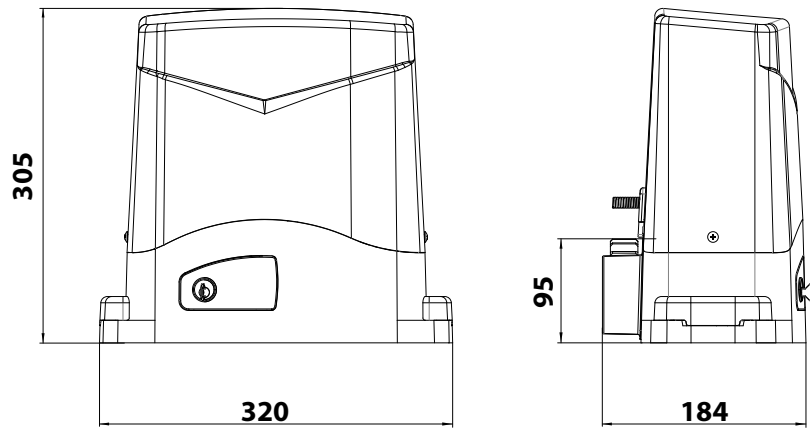
**EN 12445** (Safe use of automated locking devices, test methods)

**EN 12453** (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetothermal switch) ensuring the omnipolar sectioning of the equipment from the power supply.  
The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- The plastic case has an IP55 insulation; to connect flexible or rigid pipes, use pipefittings having the same insulation level.
- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (Machine Directive 2006/42/CEE, Annex IIA).
- The automated vehicular gates shall comply with the following rules: EN 13241-1, EN 12453, EN 12445 as well as any local rule in force.
- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike.
- The door thrust force adjustment shall be measured by means of a proper tool and adjusted according to the max. limits, which EN 12453 allows.
- We recommend to make use of an emergency button, to be installed by the automation (connected to the control unit STOP input) so that the gate may be immediately stopped in case of danger.
- The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children being supervised do not play with the appliance.

## MODELS AND SPECIFICATIONS TECHNICAL DATA

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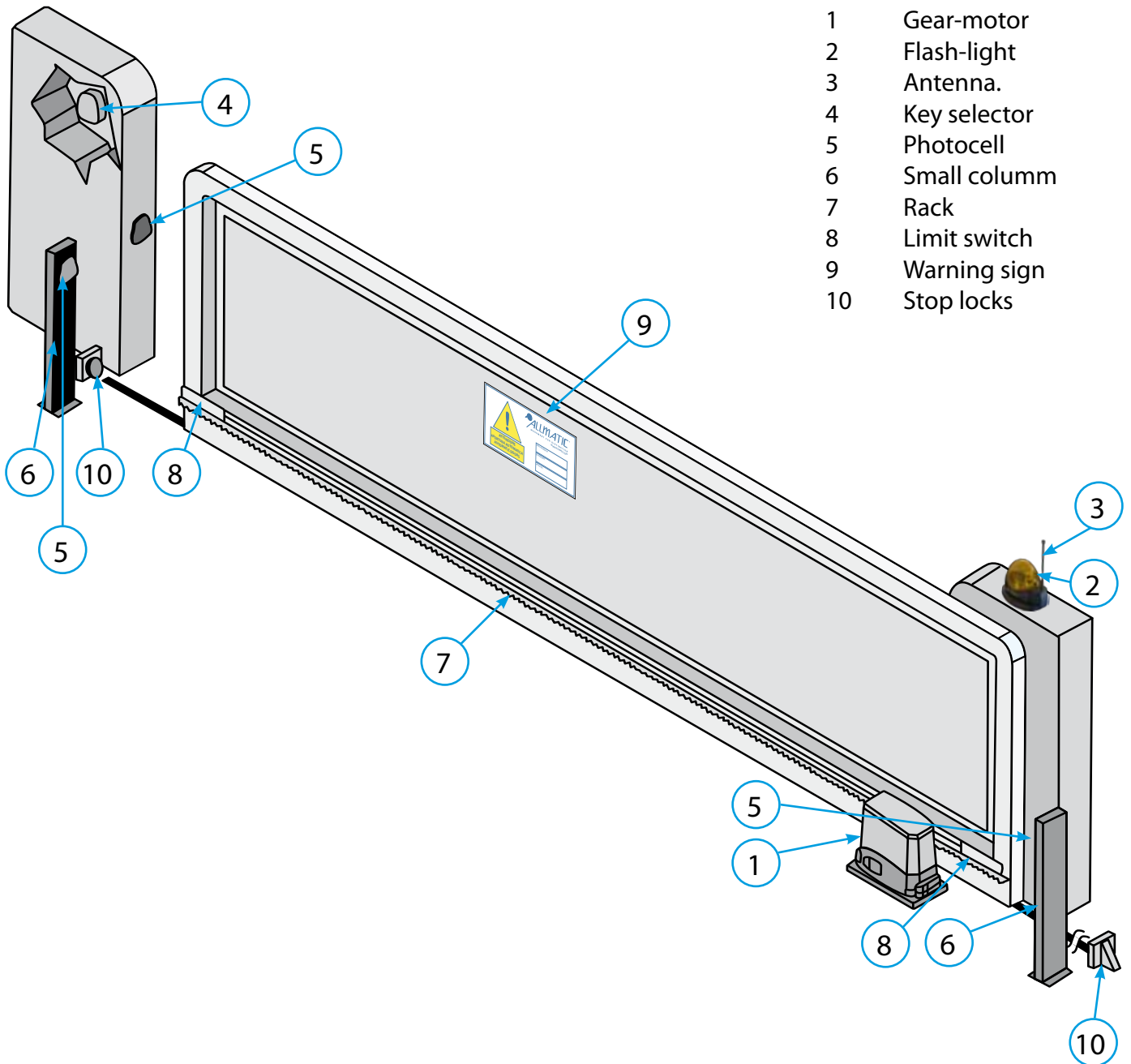
MODELLO	KALOS 50	KALOS 80	KALOS 120	KALOS 80 120 Vac
Control unit	ERMES2/BIOS1	ERMES2/BIOS1	ERMES2/BIOS1	ERMES2/BIOS1
Power supply	230 Vac	230 Vac	230 Vac	120 Vac
Maximum power	300 W	450 W	600 W	450 W
Idling current	1,3 A	1,9 A	2,6 A	3,8 A
Capacitor	12,5 µF	16 µF	20 µF	50 µF
Protection	IP 44	IP 44	IP 44	IP 44
Maximum thrust	16 Nm	29 Nm	40 Nm	29 Nm
Gate maximum speed	0,16 m/s	0,16 m/s	0,16 m/s	0,19 m/s
Maximum thrust	400 N	650 N	1000 N	650 N
Gate maximum weight	500 Kg	800 Kg	1200 Kg	800 Kg
Thermoprotection	150 °C	150 °C	150 °C	160 °C
Duty cicle	30 %	30 %	30 %	30 %
Operation temperature	-20° +55°C	-20° +55°C	-20° +55°C	-20° +55°C
Weight	12 Kg	12,5 Kg	13,5 Kg	12,5 Kg

MODELLO	KALOS 70 24V	KALOS 110 24V
Control unit	SCOR.AS	SCOR.AS
Motor power supply	24 Vdc	24 Vdc
Maximum power	60 W	55 W
Idling current	2.5 A	2.3
Capacitor	-	-
Protection	IP 44	IP 44
Maximum thrust	24 Nm	36 Nm
Gate maximum speed	0,18 m/s	0,18 m/s
Maximum thrust	600 N	900 N
Gate maximum weight	700 Kg	1100 Kg
Thermoprotection	-	-
Duty cicle	80 %	80 %
Operation temperature	-20° +55°C	-20° +55°C
Weight	12 Kg	12 Kg

## SET PANEL

ENGLISH

- 1 Gear-motor
- 2 Flash-light
- 3 Antenna.
- 4 Key selector
- 5 Photocell
- 6 Small column
- 7 Rack
- 8 Limit switch
- 9 Warning sign
- 10 Stop locks



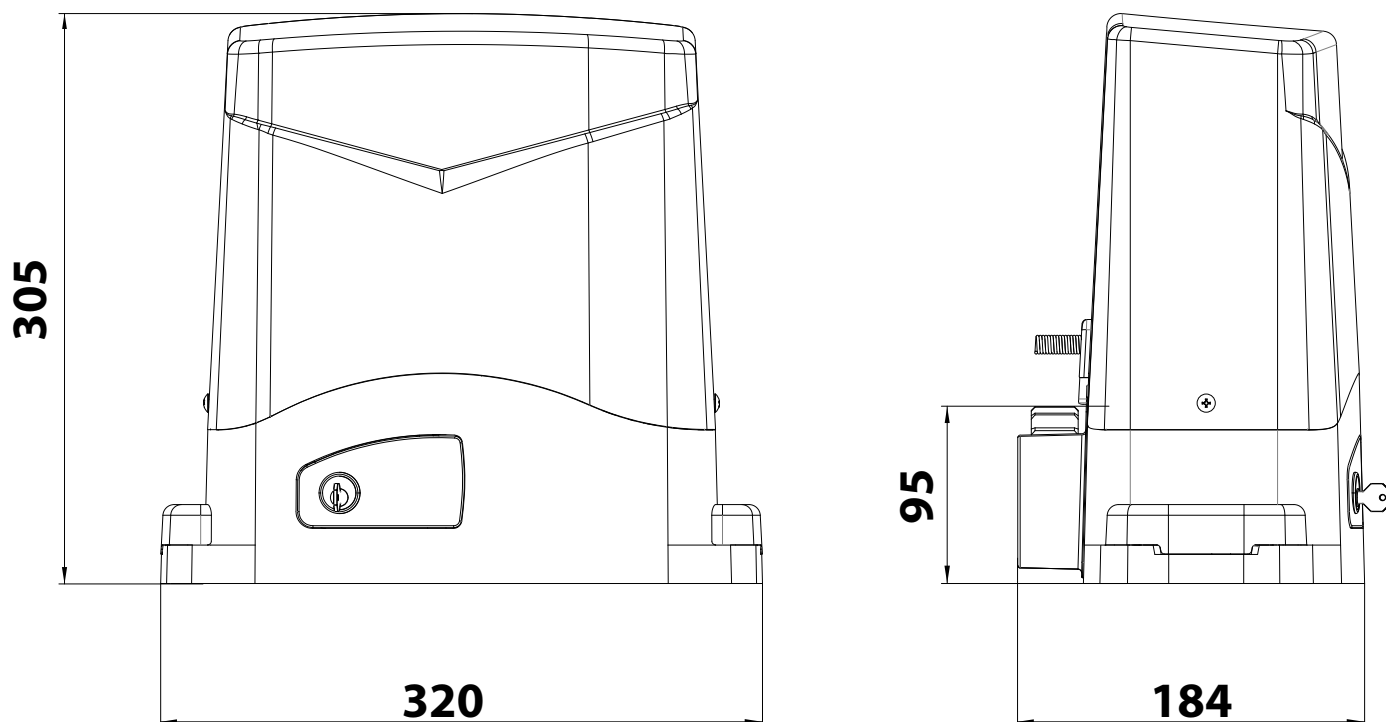
### PREVIOUS INSPECTIONS

Before the installation starts, we suggest to carry out following inspections and operations:

- 1\_ The gate framework must be strong and suitable.
- 2\_ The gate must not show too many sideways slide skids during the running.
- 3\_ The system of wheels/lower rail and roller/upper runner must work without too many frictions.
- 4\_ To avoid the gate derailment you must install the stop beats of the sliding, whether at the opening or closing, and a second upper roller/runner in full observance of the current law.
- 5\_ Remove any manual lock in the beforehand gates.
- 6\_ Take on the gate bottom the feed raceway of the feeding cables ( $\varnothing 25-50\text{mm}$ ) and of external connection (photocell, flash-light, key selector, etc...).

## OVERALL DIMENSIONS

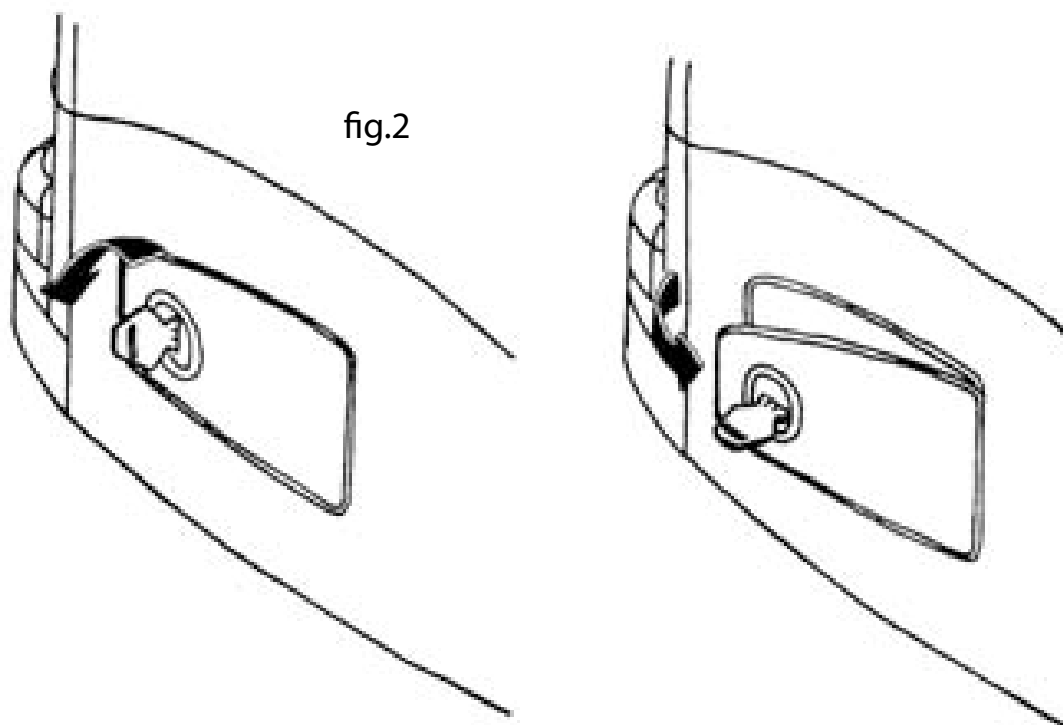
fig.1



ENGLISH

## MANUAL RUNNING

- 1\_ Insert the key and turn it 90° in anticlockwise direction.
- 2\_ Pull the knob till it is perpendicular to the gear-motor.



## INSTALLATION

Respecting the overall size, fix to ground the base-plate through 4 sturdy screw-anchors (fig.n.3) or drown it into the concrete (fig.n.4).

Plan for one or more sheathing for the passage of the power lines.

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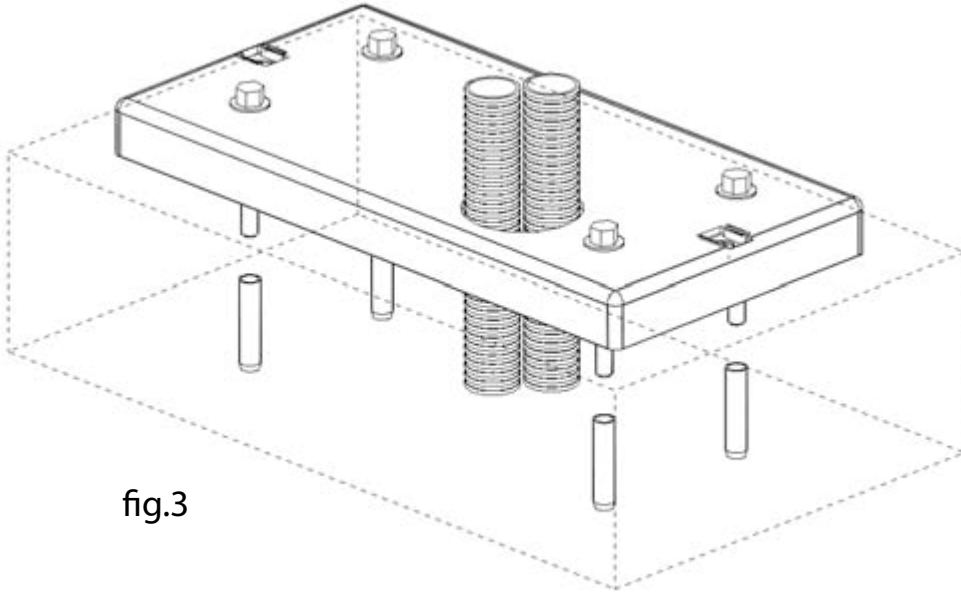


fig.3

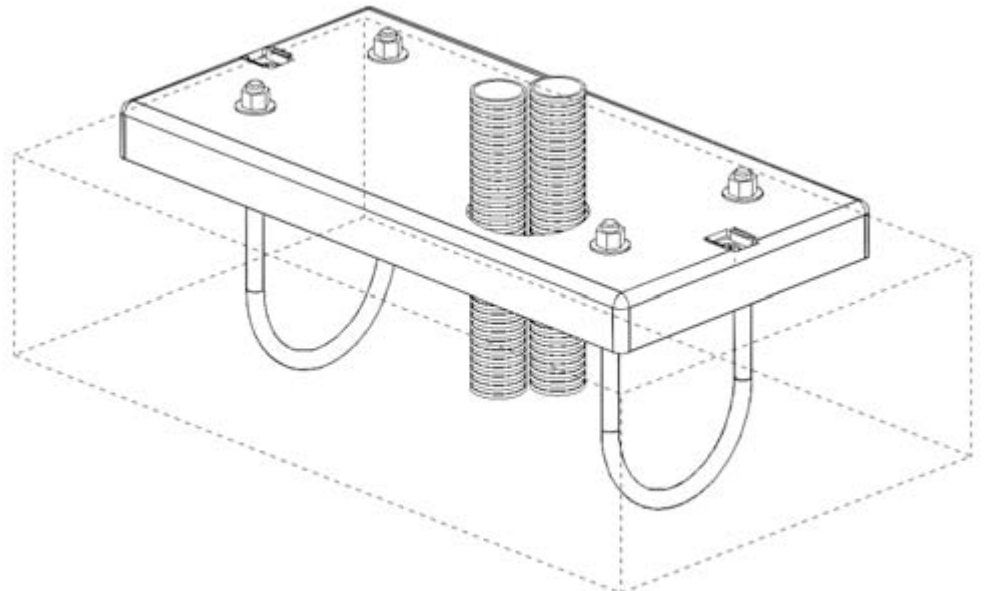


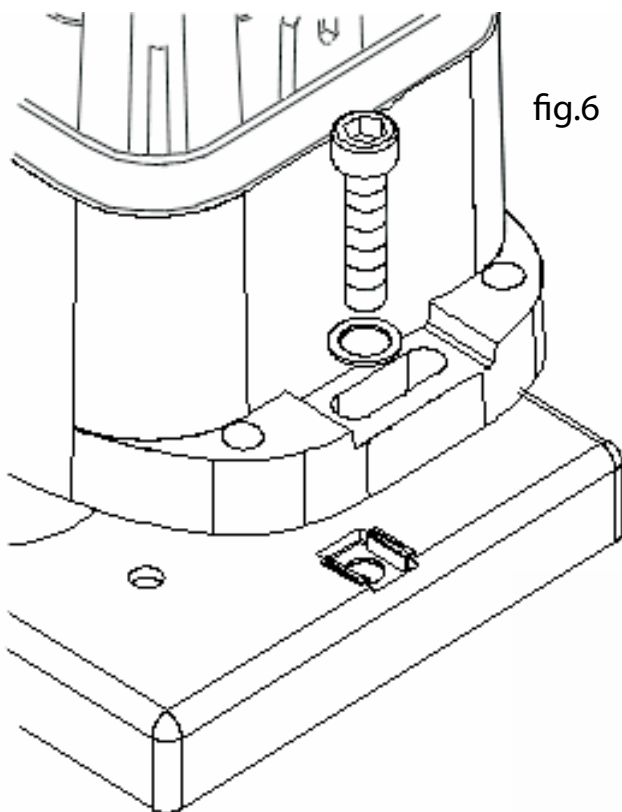
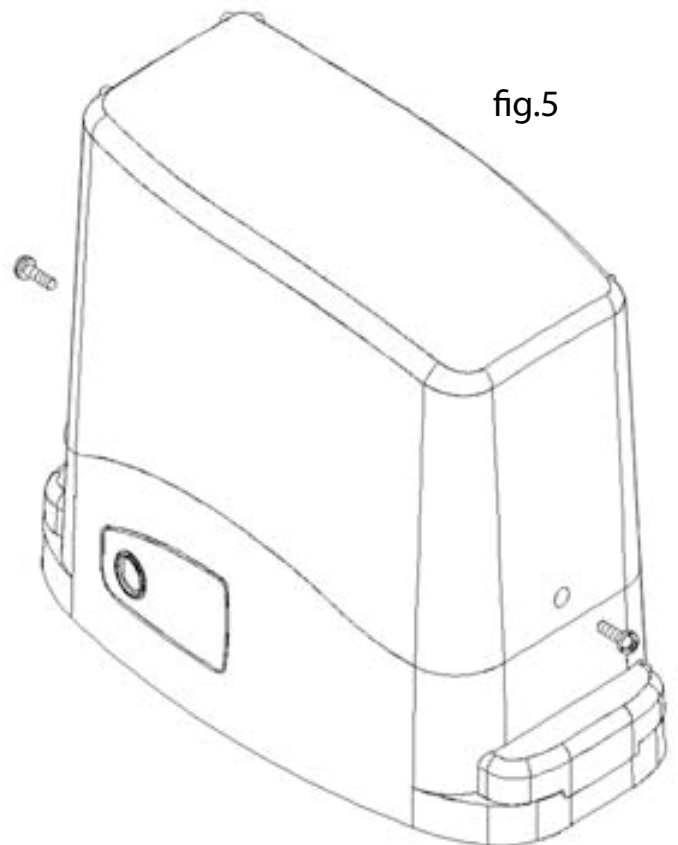
fig.4



NB: It is necessary to know the rack dimensions to can calculate exactly the counter-plate positioning.

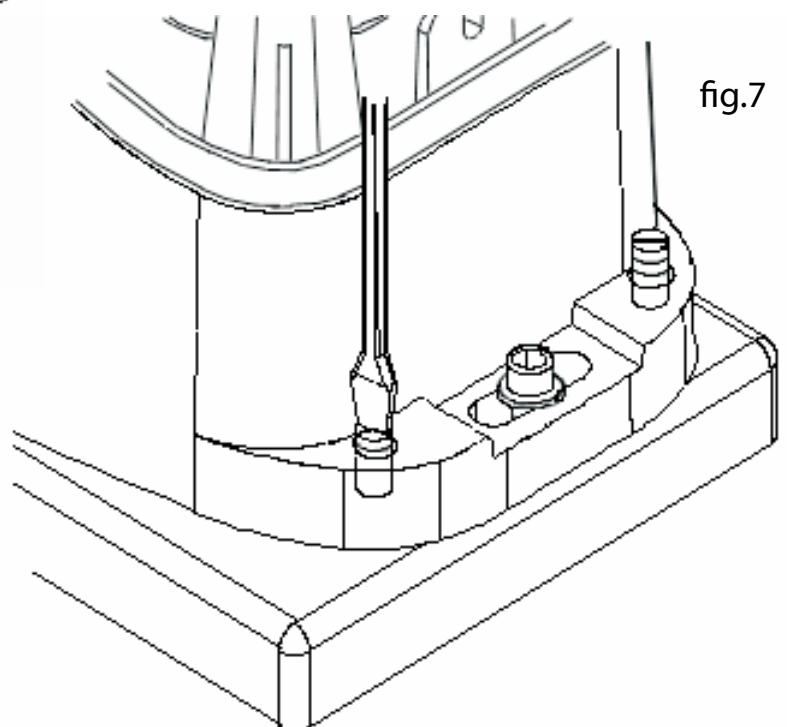
## FIXING

Take the lid off unscrewing the screws (fig.5).  
Put the gear-motor on the plate.  
Insert the two socket head screws (fig.6).



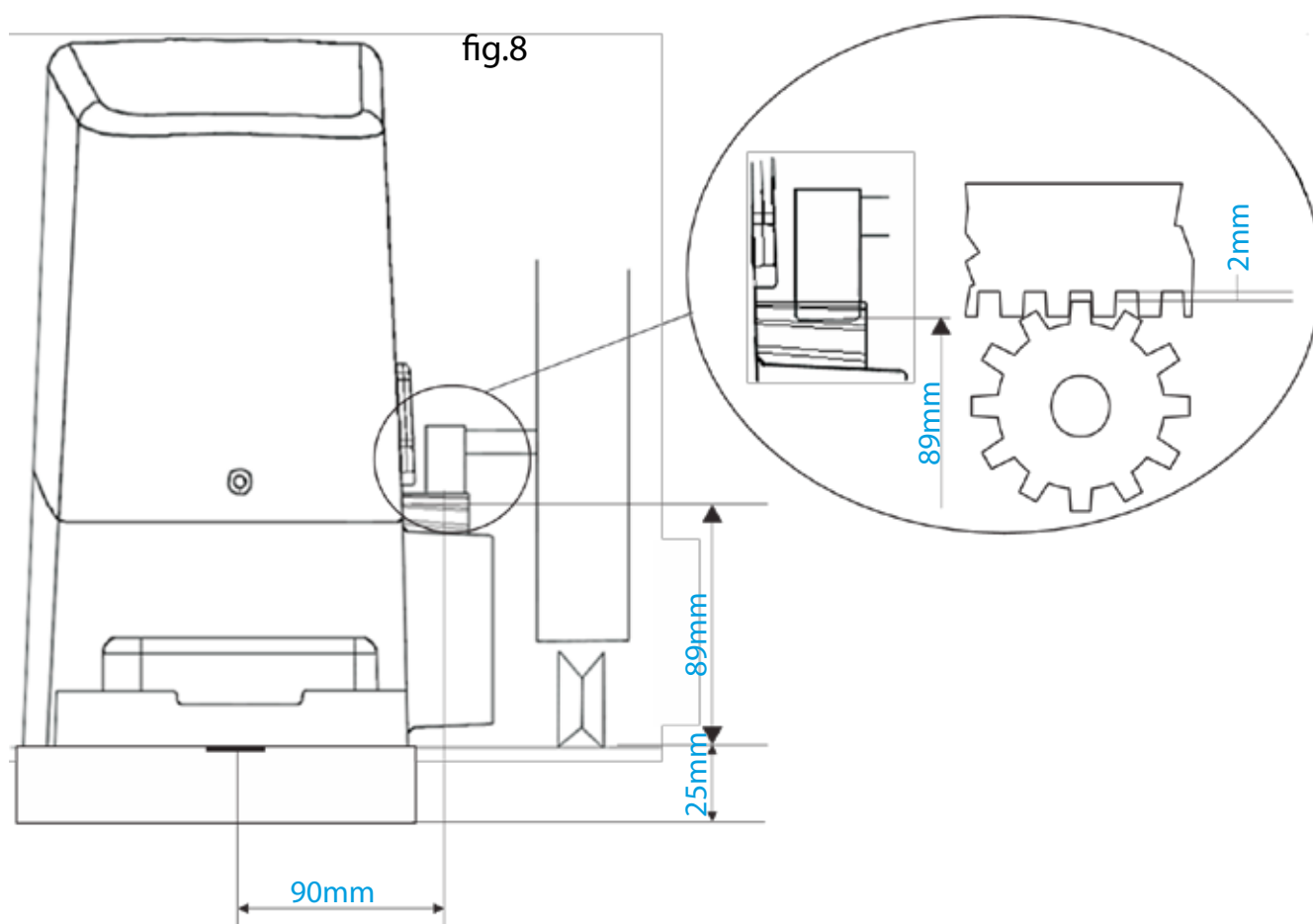
It is important to lock the two socket head screws forcefully, making sure, that the gear-motor is steady on the ground, during the whole gate running.

If the regulating allowed by the rack is not sufficient, it is possible to counterbalance the gear-motor high working on the four screws (fig.7).



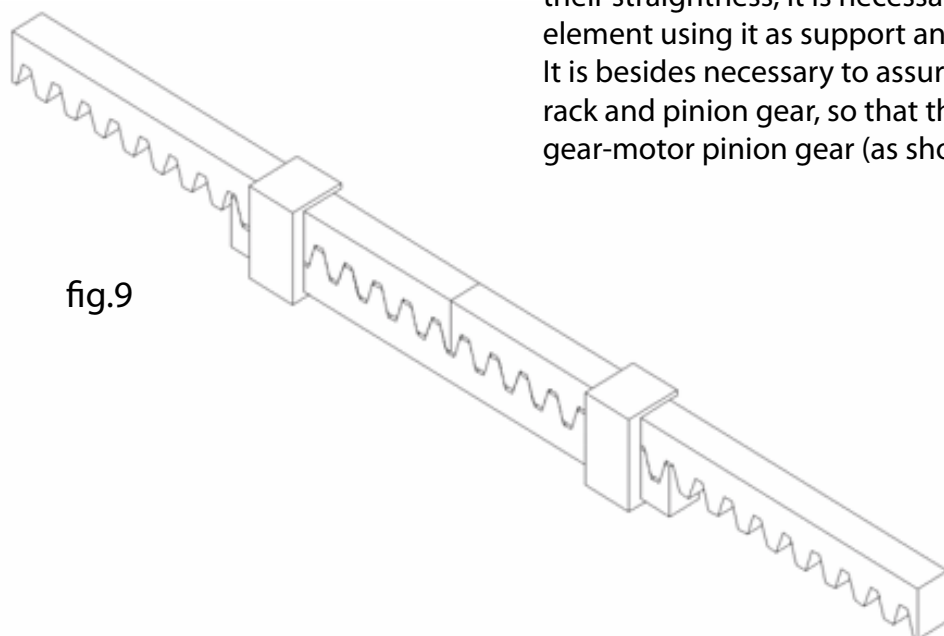
## RACK ASSEMBLING

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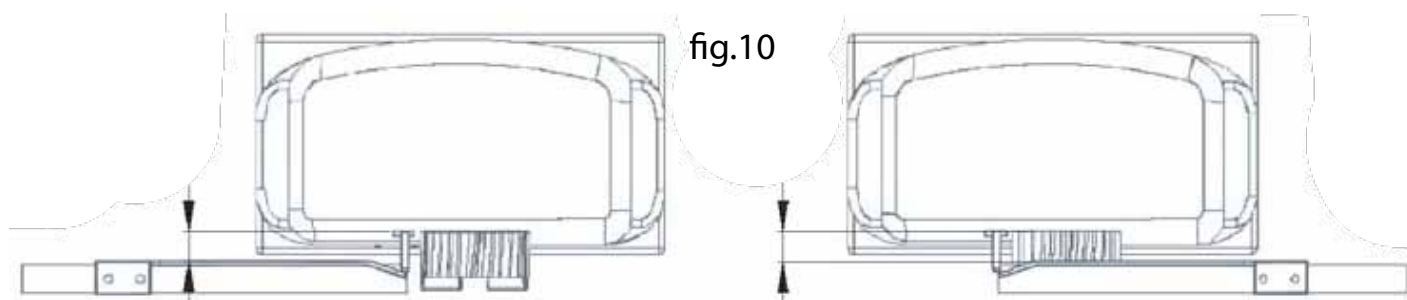
Release the gear-motor as indicated by the fig.1/2 and open entirely the gate. Put a rack element on the pinion gear and fasten it to the gate with screw and spacing bars. Move the gate manually bringing the pinion gear into line with the last spacing bar. Fasten the rack element for good.

For a correct positioning of the other elements and to assure their straightness, it is necessary to employ a rack element using it as support and reference (fig.9). It is besides necessary to assure an aperture of 2 mm between rack and pinion gear, so that the gate weight doesn't rest on the gear-motor pinion gear (as shown in the fig.8).





## LIMIT SWITCH FIXING



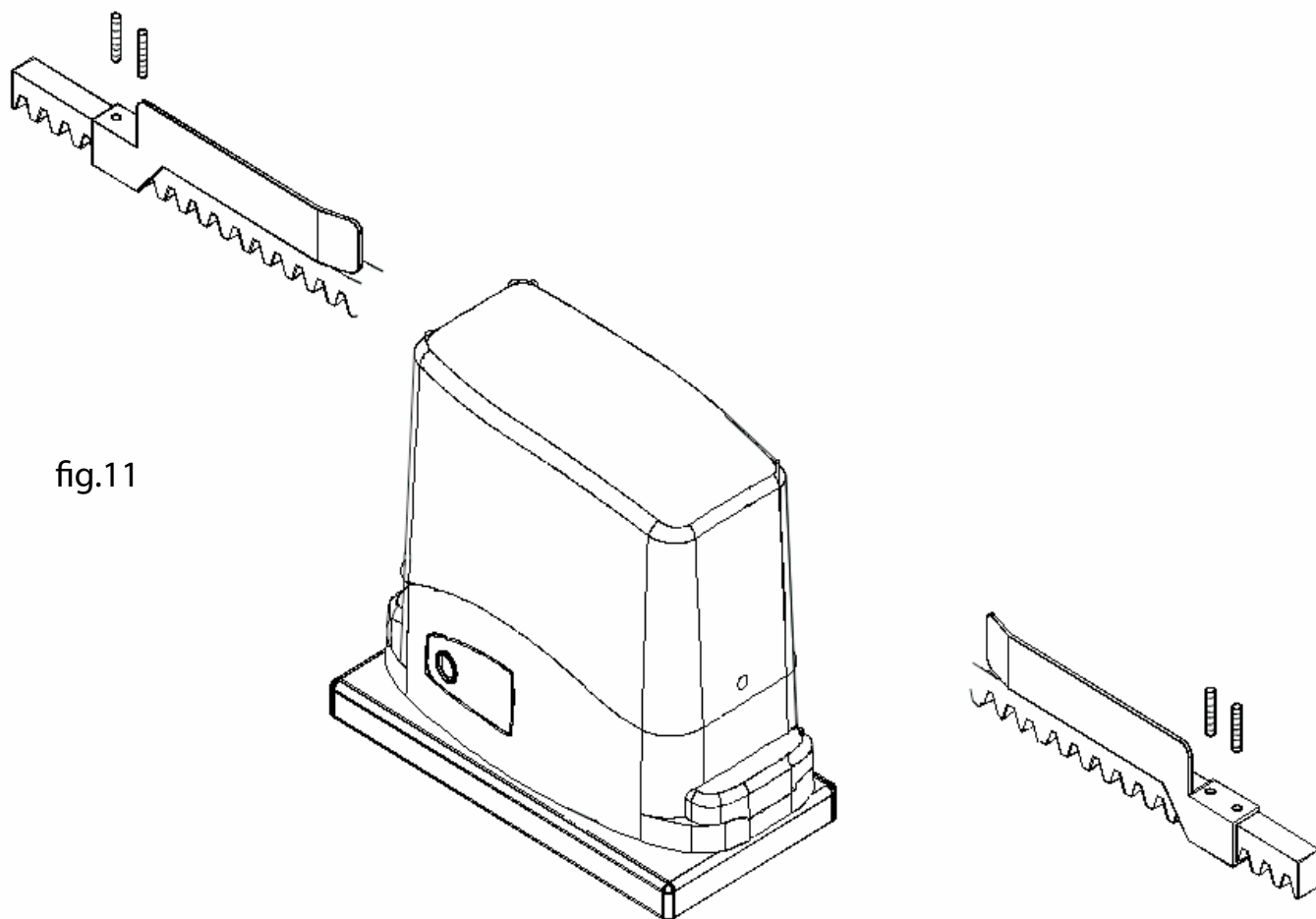
ENGLISH

The gate has to be equipped with stop locks at the opening and closing, which prevent the gate derailment.

The stop lock position must assure that the limit switch brackets don't collide with the pinion gear. Haul the gate manually at the opening leaving, depending on the gate weight, a crack from 30 to 50 mm between the main gate and mechanical stop.

Fasten the limit switch bracket through the dowels (fig.11) so that the limit switch is pressed (fig.10).

Repeat the operation with the main gate at the closing.



## MAINTENANCE



### DANGER:

For any kind of maintenance, disconnect the power supply.

The reduction grease is supplied with permanent lubrication grease and therefore does not require maintenance.

For the correct maintenance of the system where the reduction gear is operative, proceed as follows:

Clean and clear from debris periodically the rail and its wheels.

In the event of malfunction, the system must not be used.

Contact specialized personnel.

## DISPOSAL



Dispose of materials in compliance with current standards



## GENERAL WARNINGS

Attach labels that warn against crushing in a highly visible place or near the fixed controls;

- Permanently attach the labels concerning manual release and place them near the manoeuvre device;
- Markings must be visible even after the device has been installed. If markings are hidden after installation, this must be indicated in the instructions.
- The movement motors must be provided with a label that instructs to keep children away from the moving door, or place the appropriate symbol (ISO 3864, see symbol)

## FINAL RECOMMENDATIONS

Keep the remote control out of the reach of children and do not let them play with the control devices.

- Supply the system with security systems such as photocells, sensitive frame, torque limiter. When the system is in proximity of a public street it is necessary to install at least two of the aforementioned devices (choose among three types or even of the same type).
- Realize the system in compliance with current standards.
- Always keep the supply cables separate from the control cables.
- Carry out grounding.
- It is absolutely necessary for the door to be provided with check stops prior to installation of the reduction gear.
- In order to unlock it is necessary for the gate, once it is closed, not to push on the stop bead.
- Control over the thrust force must be given by a torque limiter in the system.
- All maintenance, repair and adjustment must be carried out by qualified personnel.
- Motors with pressure-sensitive systems must be equipped with a label that says

ATTENTION: RISK OF CRUSHING.

# CERTIFICATO DI GARANZIA

(In riferimento all'articolo 1519 bis ss. cc.)

Allmatic si congratula con Lei per la scelta effettuata, al fine di avere una durata massima dell'impianto. Le ricordiamo di utilizzare solamente accessori, ricambi e componenti Allmatic.

Il presente certificato dovrà essere letto accuratamente, compilato in tutte le sue parti e conservato pena l'annullamento della garanzia.

La garanzia decorre dalla data di acquisto/installazione dell'impianto ed ha validità 24 mesi.

Ricordiamo all'utente che per attivare la garanzia è necessario rispedire il tagliando relativo all'azienda costruttrice a mezzo raccomandata presso:

**Allmatic S.r.l.**  
**Via dell'Artigiano**  
**32020 Lentiai (BL)**

Allmatic garantisce che i suoi prodotti sono esenti da difetti di produzione e sono stati sottoposti a test di qualità e funzionalità.

Il giudizio sull'applicabilità della garanzia è delegato al servizio tecnico di Allmatic ed è insindacabile.

La garanzia perde di validità qualora:

- Siano passati i termini previsti di 24 mesi dalla data di acquisto/installazione;
- Installazione e/o uso non conforme alle istruzioni;
- Manomissioni, negligenza o danni da trasporto;
- Manutenzione non conforme o effettuata da personale non autorizzato;
- Sia evidente che il prodotto è stato alterato o smontato senza assistenza tecnica;
- Fenomeni naturali, dolo o traumi esterni non imputabili a Allmatic;
- Mancata presentazione di tagliando di garanzia e/o scontrino/fattura fiscale;
- Mancata compilazione e spedizione del tagliando allegato.

Allmatic declina ogni responsabilità per eventuali danni diretti od indiretti a cose, persone o animali derivanti dalla inosservanza di tutte o parti delle prescrizioni ed istruzioni allegate al prodotto e alla mancata osservanza delle direttive di installazioni vigenti.

Ricordiamo inoltre al cliente di conservare lo scontrino o la ricevuta fiscale per poterlo esibire ogni qualvolta si renda necessario un intervento tecnico.

Qualora il cliente desiderasse contattare il centro assistenza più vicino potrà visitare il nostro sito **www.allmatic.com**, dove troverà indirizzi e numeri di telefono utili.

# GUARANTEE CERTIFICATE

Allmatic congratulates with you for the excellent choice. We would like to remind our customers that in order to obtain the maximum operation of the system it is necessary to use only accessories, spare parts and components sold by Allmatic.

This certificate should be read carefully, filled in all its parts and preserved to avoid the guarantee to become invalid.

The guarantee takes effect from the date of purchase/installation of the system and it lasts for 24 months. We remind users that products will be covered by guarantee only if the coupon concerning the producing company is sent back through certified mail to:

**Allmatic S.r.l.**  
**Via dell'Artigiano**  
**32020 Lentiai (BL)**

Allmatic ensures that its products are flawless and that they underwent quality and functionality tests. Allmatic technical service will decide whether the guarantee is to be applied and its judgement will be incontrovertible.

The guarantee is no longer valid in the following cases:

- Products sent back after more than 24 months from purchase/installation;
- Installation/use not in compliance with given instructions;
- Disregard, inappropriate repair or damage caused during transport;
- Repairs carried out by not authorized personnel or inadequate;
- It is clear that the product was damaged and disassembled without technical assistance;
- Natural phenomena, fraud or external causes for which Allmatic is not responsible;
- The guarantee coupon and/or the receipt/invoice has not been preserved;
- The enclosed coupon has not been filled in and sent it back.

Allmatic declines every responsibility for possible direct or indirect damage to things, people or animals caused by the non-compliance of all or some of the prescriptions and instructions enclosed to the product and by the lack of compliance with directives of installations in force.

We would also remind customers to preserve the receipt or invoice in order to be able to submit it, if technical interventions are needed.

In our web site **www.allmatic.com**, customers can find useful addresses and telephone numbers, in case they need to contact their nearest centre of assistance.

## DICHIARAZIONE "CE" DI CONFORMITA' / DECLARATION OF CONFORMITY "CE"

Il costruttore: **Allmatic S.r.l.**

The manufacturer:

Indirizzo: **Via dell'Artigiano, 1, 32020 Lentiai (BL)**  
Address:

## DICHIARA CHE IL SEGUENTE APPARATO / DECLARES THAT THE FOLLOWING EQUIPMENT

**Descrizione:** Motoriduttore elettromeccanico irreversibile per cancelli scorrevoli

**Description:** Electromechanical irreversible gear motor for sliding gates

Modello: **KALOS 50**  
Model: **KALOS 80**  
**KALOS 120**  
**KALOS 70 24V**  
**KALOS 110 24V**

Risulta conforme a quanto previsto dalle seguenti direttive comunitarie:

*Appears to be in conformity with the following community (EC) regulations:*

Direttiva macchine / *Machinery Directive 2006/42/EC*

Direttiva bassa tensione / *Low Voltage Directive 2006/95/EC*

Direttiva compatibilità elettromagnetica / *EMC Directive 2004/108/EC*

Risulta conforme a quanto previsto dalle seguenti norme armonizzate:

*Appears to be in conformity with the following harmonized standards regulations:*

EN 55014-1 + EN 55014-2

EN 61000-3-2 + EN 61000-3-3

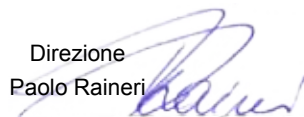
EN 60335-1 + EN 60335-2

EN 55022

Inoltre dichiara che non è consentita la messa in servizio prima che la macchina in cui il prodotto stesso è incorporato non sia dichiarata conforme alla direttiva macchine 2006/42/CE. / *He declares, moreover, that is not allowed to use the above mentioned product until the machine, in which this product is incorporated, has been identified and declared in conformity with the regulation 2006/42/EC.*

Lentiai

Direzione  
Paolo Raineri





*MADE IN ITALY*