



## Ditec OBBI

### Swing gates automation

(Original instruction)

IP1639EN

Technical manual



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## Caption



This symbol indicates instructions or notes regarding safety, to which special attention must be paid.



This symbol indicates useful information for the correct functioning of the product.

# 1. General safety precautions



This installation manual is intended for qualified personnel only.

Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards. Read the instructions carefully before installing the product.

Bad installation could be dangerous.



The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of danger.

Before installing the product, make sure it is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.

Before installing the motorisation device, make all the necessary structural modifications in order to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.

Make sure the existing structure is up to standard in terms of strength and stability. The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised or for any deformation during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door.



The safety devices must protect the crushing, cutting, trapping and general hazardous areas of the motorised door.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorised door.

When requested, connect the motorised door to an effective earthing system that complies with current safety standards.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The automation protection casing must be removed by qualified personnel only.



The electronic parts must be handled using earthed antistatic conductive arms.

The manufacturer of the motorisation declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.

Use original spare parts only for repairs or replacements of products.

The installer must supply all information on automatic, manual and emergency operation of the motorised door and must provide the user with the operating instructions.

## 2. Declaration of incorporation of partly completed machinery

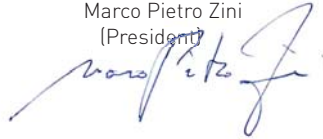
(Directive 2006/42/EC, Annex II-B)

The manufacturer Entrematic Group AB with headquarters in Lodjursgatan 10, SE-261 44 Landskrona, Sweden, declares that the automation for Ditec OBBI type swing gate:

- has been constructed to be installed on a manual door to construct a machine pursuant to the Directive 2006/42/EC. The manufacturer of the motorised door shall declare conformity pursuant to the Directive 2006/42/EC (Annex II-A), prior to the machine being put into service;
- conforms to the applicable essential safety requirements indicated in ANNEX I, Chapter 1 of the Directive 2006/42/EC;
- conforms to the Low Voltage Directive 2006/95/EC;
- conforms to the Electromagnetic Compatibility Directive 2004/108/EC;
- the technical documentation conforms to Annex VII-B of the Directive 2006/42/EC;
- the technical documentation is managed by Marco Pietro Zini with headquarters in Via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY;
- a copy of technical documentation will be provided to national competent authorities, following a suitably justified request.

Landskrona, 06-05-2013

Marco Pietro Zini  
(President)



### 2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorises a door or gate has the same obligations as the manufacturer of machinery and as such must:

- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive;  
(The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorised door in accordance with point 1.7.3 of Annex I of the Machine Directive.

### 3. Technical specifications

	Ditec OBBI3BH	Ditec OBBI3BFCH
<b>Power supply</b>	24 V=	24 V=
<b>Absorption</b>	3 A	3 A
<b>Thrust</b>	1500 N	1500 N
<b>Max run</b>	350 mm	350 mm
<b>Opening time</b>	25 s / 90°	25 s / 90°
<b>Service class</b>	3 - FREQUENT	3 - FREQUENT
<b>Intermittence</b>	S2 = 30 min S3 = 50%	S2 = 30 min S3 = 50%
<b>Temperature</b>	min -20° C max +55° C	min -20° C max +55° C
<b>Degree of protection</b>	IP54	IP54
<b>Control panel</b>	E2HOB	E2HOB
<b>Limit switch</b>	-	Magnetic
<b>Applications</b> m = leaf width kg = leaf weight		
<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 20px; background-color: yellow; margin-right: 5px;"></div> <span>Limit dimensions</span> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 20px; background-color: green; margin-right: 5px;"></div> <span>Recommended dimensions</span> </div>		

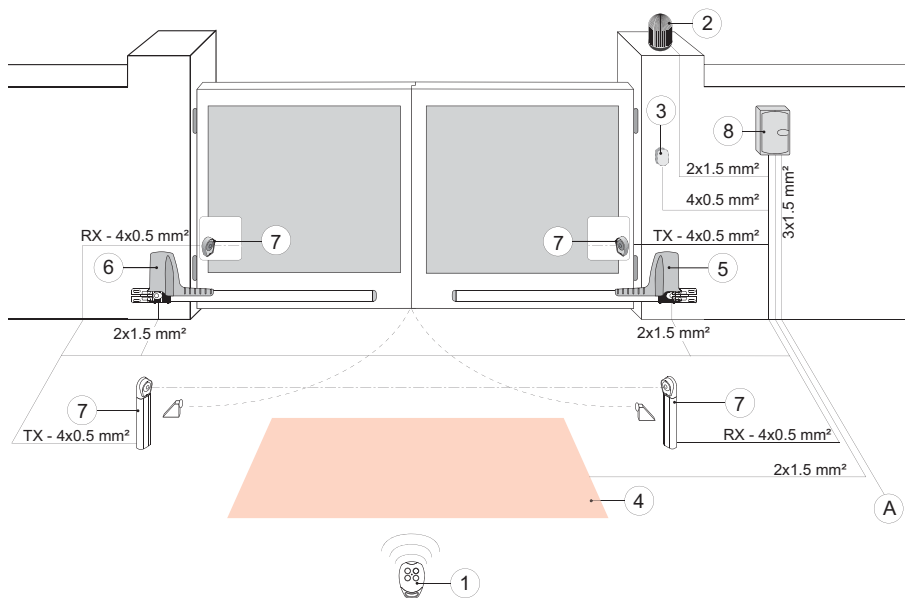
#### 3.1 Operating instructions

Service life: 3 (minimum 10÷5 years of working life with 30÷60 cycles a day)

Applications: FREQUENT (For vehicle or pedestrian accesses to town houses or small condominiums with frequent use).

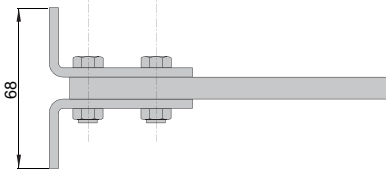
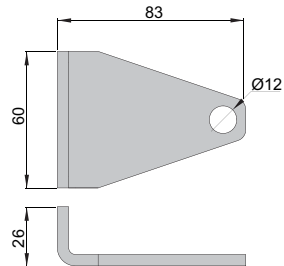
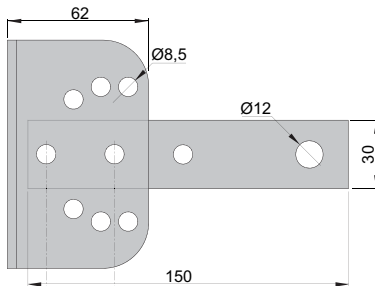
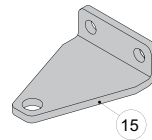
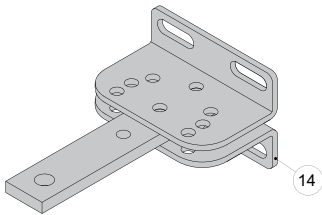
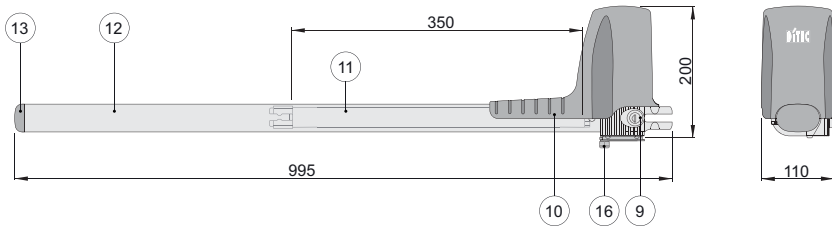
- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). When used with the maximum permissible weight a reduction in the above mentioned performance can be expected.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative Having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use.
- Each automatic entrance has variable elements such as: friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic entrance or curtail its working life or parts thereof (including the automatic devices themselves). The installer should adopt suitable safety conditions for each particular installation.

## 4. Standard installation



Ref.	Code	Description
1	GOL4	Transmitter
2	LAMPH	Flashing light
3	XEL5 GOL4M	Key selector Codified via radio control keyboard
4	LAB9	Magnetic loop detection device for traffic monitoring
5	OBBI3BH OBBI3BFCH	Right geared motor Right geared motor with limit switch
6	OBBI3BH OBBI3BFCH	Left geared motor Left geared motor with limit switch
7	XEL2 LAB4	Photocells Photocells IP55
8	E2H0B	Control panel
A	Connect the power supply to a type-approved omnipolar switch, with a contact opening distance of at least 3 mm (not supplied). Connection to the mains must be via independent channels and separate from the connections to the control and safety devices.	

## 5. Geared motor references



Ref.	Code	Description
9		Key release
10		Casing
11		Draft tube
12		Tube cover
13		Closing plug
14		Tail bracket
15		Head bracket
16		Cable guide sheath hooking bracket



# 6. Installation

The given operating and performance features can only be guaranteed with the use of ENTREMATIC accessories and safety devices.  
 Unless otherwise specified, all measurements are expressed in mm.

## 6.1 Preliminary checks

Check that the structure is sufficiently rugged and that the hinge pivots are properly lubricated.  
 Provide an opening and closing stop.

## 6.2 Geared motor installation

Check the installation measurements on the basis of the distance between the hinge of the door wing and the corner of the pillar [C] and of the desired opening angle [D].

The installation measurements indicated in the table allow you to choose the values of [A] and [B] on the basis of the desired opening angle and in relation to the on site spaces and overall dimensions.

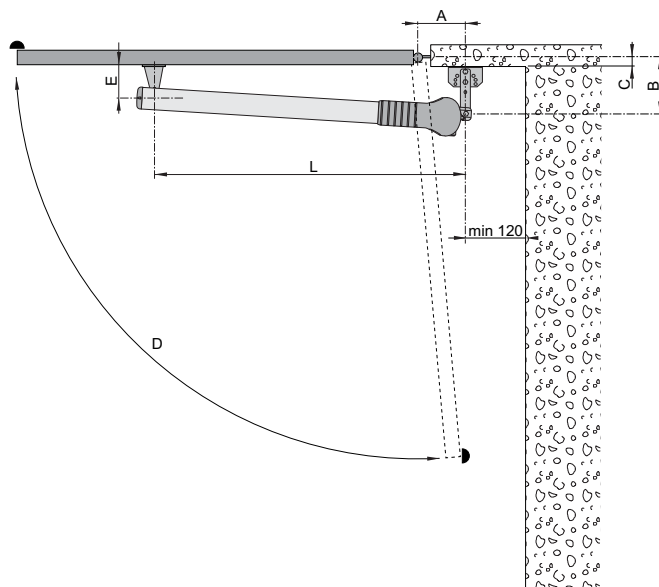
NOTE: The measurements [A] and [B] must be the same, in order to have a regular movement.

Increasing [A] decreases the coming up speed during opening.

Increasing [B] decreases the coming up speed during closing and improves burglar-proofing.

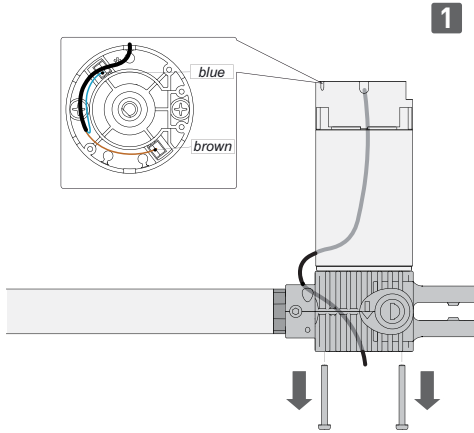
Reducing [B] increases the extent of gate opening.

Measurements [A] and [B] must in any case be compatible with the useful travel of the piston so that; if [A] is increased, [B] must be decreased and vice versa.

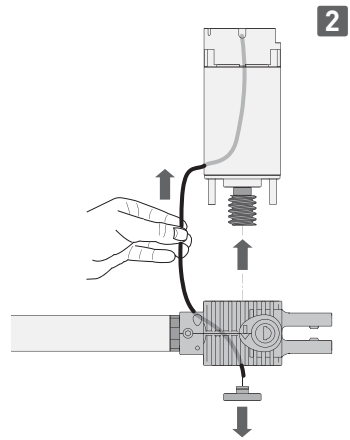


A	B	C max	D max	E	L
150	150	85	100°	75	910
120	160	95	100°		
120	180	115	100°		
160	120	55	110°		

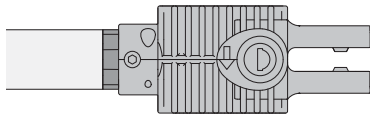
- If the gearmotor opening direction needs to be modified, proceed as shown in the figure (example of motor transformation with opening direction from right to left).



- Loosen the motor fastening screws.

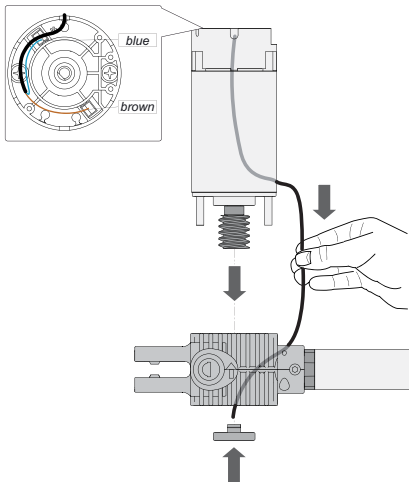
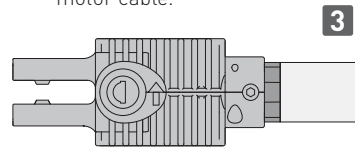


- Extract the motor and the reducer cap and unthread the motor cable.

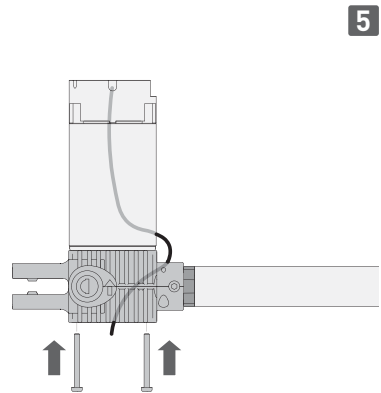


- Rotate the reduction gear by 180°.

180°

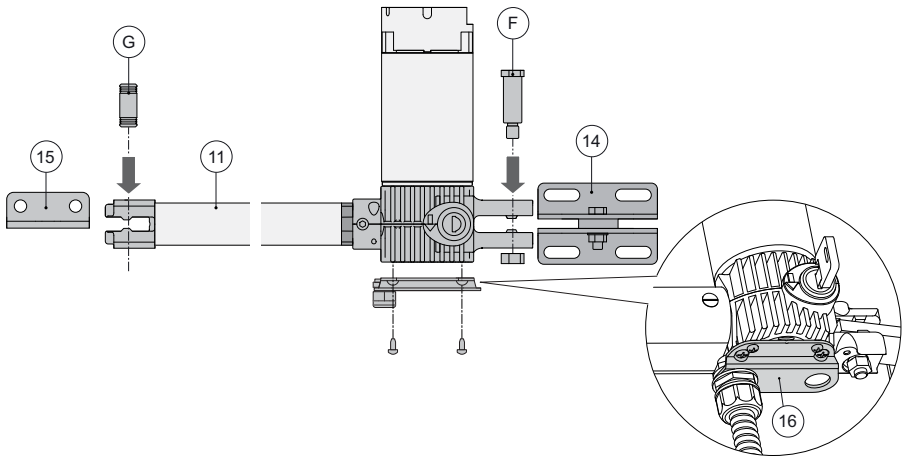


- With the reduction gear rotated, insert the motor and cap, and insert the cable.  
WARNING: the motor must be assembled so that the cable remains on the side opposite the release

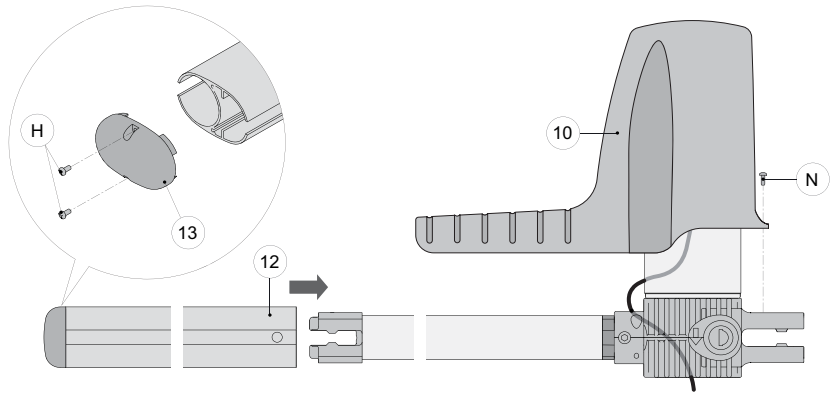


- Insert and fix the motor fastening screws.

- Fix the tail bracket [14], respecting measurements [A] and [B] on the basis of the desired opening angle [D].  
On the tail bracket there are holes that facilitate the assembly operation.
- Fix the piston to the rear bracket [14] with the pin [F] supplied.
- Extend the haulage tube completely [11] to its maximum length, then shorten it by approximately 20 mm.  
WARNING: the stops must keep a 10 mm margin of tube stroke, in both the door wing closed and door wing open positions.
- With the gate completely closed, position the front bracket [15], check it is aligned with the rear bracket and fix it to the gate.
- Fix the piston to the front bracket with the pin [G] supplied. To work correctly, the gearmotors must be assembled with the motor casing at the top.
- Unblock the gearmotor and check (moving the gate manually) the entire stroke is free of interference. Slightly lubricate the front and rear articulated joints.



- Assemble the tube cover [12] with the cap [13] and seal, and fix it with the screws [H] supplied. Pay attention to the insertion direction. The slits on the closing cap [13] must be on the lower part in order to help the water to come out.
- Assemble the casing [10], fixing it with the screw [N], paying attention to the positioning of the cable.



## 7. Electrical connections

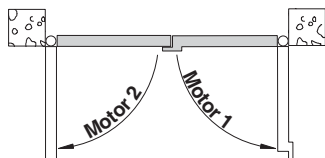
Before connecting the power supply, make sure the plate data correspond to that of the mains power supply.

An omnipolar disconnection switch with minimum contact gaps of 3 mm must be included in the mains supply.

Check that upstream of the electrical installation there is an adequate residual current circuit breaker and a suitable overcurrent cutout.

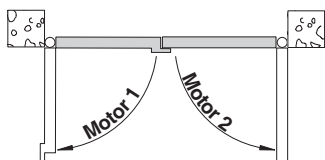
The gearmotors OBB13BH-OBB13BFCH can be connected to the E2HOB control panel.

The electrical wiring and the start-up of the gearmotors OBB13BH and OBB13BFCH are shown in figure and in the installation manuals of the E2H control panel.



Motor 1	E2HOB control panel terminal board		
	31	32	33
OBB13BH	Blue	/	Black
OBB13BFCH	Brown	Green	White

Motor 2	E2HOB control panel terminal board		
	34	35	36
OBB13BH	Black	/	Blue
OBB13BFCH	White	Green	Brown



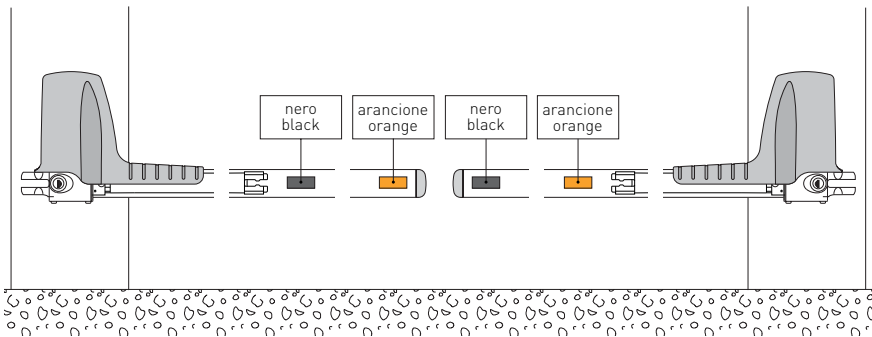
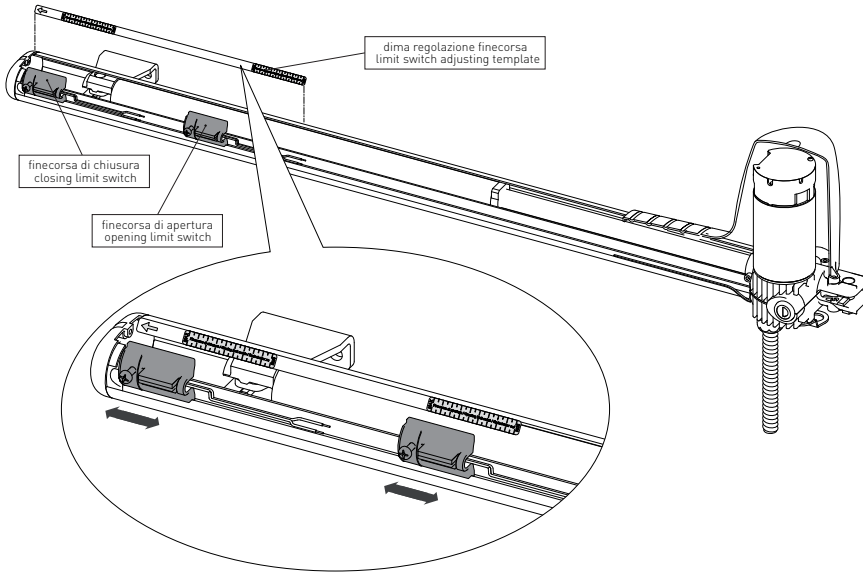
Motor 1	E2HOB control panel terminal board		
	31	32	33
OBB13BH	Black	/	Blue
OBB13BFCH	White	Green	Brown

Motor 2	E2HOB control panel terminal board		
	34	35	36
OBB13BH	Blue	/	Black
OBB13BFCH	Brown	Green	White

## 7.1 OBBI3BFCH limit switch adjustment

The OBBI3BFCH geared motor is fitted with magnetic limit switches.

Adjust the limit switches in order to obtain the correct opening and closing of the automation, as indicated in figure.



## 8 . Routine maintenance plan

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Disconnect the 230 V~ power supply and batteries if present:

- Clean and lubricate, using neutral grease, the turning pins, the hinges of the gate and the drive screw
- Check that fastening points are properly tightened.
- Check the electrical wiring is in good condition.

Reconnect the 230 V~ power supply and batteries if present:

- Check the power adjustments.
- Check the good operation of all command and safety functions (photocells).
- Check the good operation of the release.
- If the E2HOB control panel is mounted, check for battery continuity by powering off and performing several manoeuvres in sequence. Upon test completion, power back on (230 V~).



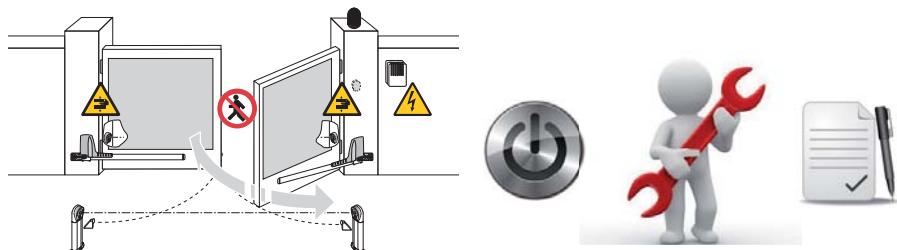
**WARNING:** For spare parts, see the spares price list.






# Operating instructions

## General safety precautions



 These precautions are an integral and essential part of the product and must be supplied to the user.

Read them carefully since they contain important information on safe installation, use and maintenance.

These instructions must be kept and forwarded to all possible future users of the system.

This product must only be used for the specific purpose for which it was designed.

Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use.

This product must not be used by people (including children) with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, unless they are given proper surveillance and instructions for operating the device by a person responsible for their safety.

Avoid operating in the proximity of the hinges or moving mechanical parts.

Do not enter within the operating range of the motorised door while it is moving.

Do not block the movement of the motorised door since this may be dangerous.

Do not allow children to play or stay within the operating range of the motorised door.

Keep remote controls and/or any other control devices out of the reach of children in order to avoid possible involuntary activation of the motorised door.

In the event of a fault or a malfunction of the product, turn off the power supply switch, do not attempt to repair or intervene directly and contact only qualified personnel.


Failure to comply with the above may cause a dangerous situation.

All cleaning, maintenance or repair work must be carried out by qualified personnel.

To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must see to the routine maintenance of the motorised gate.

In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.

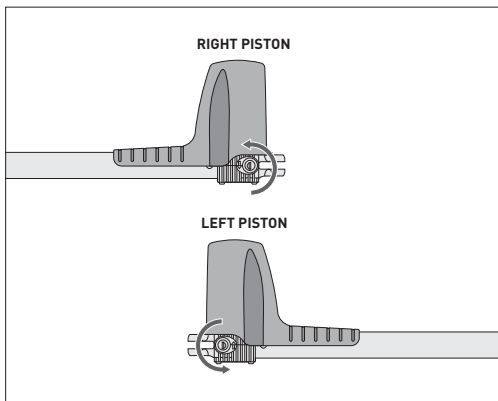
All installation, maintenance and repair work must be documented and made available to the user.

 To dispose of electrical and electronic equipment as well as batteries correctly, users must take them to special "recycling centres" provided by the municipal authorities.

# Manual release instructions

In the event of a fault or blackout, release any electric lock, insert the key and turn it anticlockwise (in the direction indicated by the arrow on the gearmotor). Manually open the gate.

To block the door wings again, turn the key clockwise (in the opposite direction to the arrow on the gearmotor). To facilitate the operation, move the door wing slightly.



**WARNING:** the door wing block and release operations must be performed with the motor idle.



For any problems and/or information, contact the support service.

Installer's stamp	Operator
	Date of intervention
	Technician's signature
	Customer's signature

Intervention performed \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Entrematic Group AB**  
 Lodjursgatan 10  
 SE-261 44, Landskrona  
 Sweden  
 www.ditecentrematic.com

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**Entrematic Group AB**  
Lodjursgatan 10  
SE-261 44 Landskrona  
Sweden  
[www.ditecentrematic.com](http://www.ditecentrematic.com)

