



Ditec ARC

Swing gates

(Original instructions)

IP1725EN
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



Failure to respect the information given in this manual
may cause personal injury or damage to the device.
Keep these instructions for future reference

This installation manual is intended for qualified personnel only. Installation, electrical connections and adjustments must be performed by qualified personnel, in accordance with Good Working Methods and in compliance with the current regulations. 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 they 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 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 or gate.

The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorised door or gate.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorised door or gate. When necessary, connect the motorised door or gate to an effective earthing system that complies with the 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 if component parts not compatible with safe and correct operation are fitted.

Only use original spare parts for repairing or replacing products.



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

General safety precautions for the user



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.

Avoid operating in the proximity of the hinges or moving mechanical parts. Do not enter within the operating range of the motorised door or gate while it is moving.

Do not obstruct the motion of the motorised door or gate, as this may cause a dangerous situation.

The motorised door or gate may be used by children over the age of 8 and by people with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, as long as they are properly supervised or have been instructed in the safe use of the device and the relative hazards.

Children must be supervised to make sure they do not play with the device, nor play/remain in the sphere of action of the motorised door or gate.

Keep remote controls and/or any other command devices out of the reach of children, to avoid any accidental activation of the motorised door or gate.

In the event of a product fault or malfunction, 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.

Any repair or technical intervention must be carried out by qualified personnel. Cleaning and maintenance work must not be carried out by children unless they are supervised.

To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance on the motorised door or 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.

Only lock and release the door wings when the motor is switched off. Do not enter within the operating range of the wing.



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

2. Declaration of incorporation of partly completed machinery

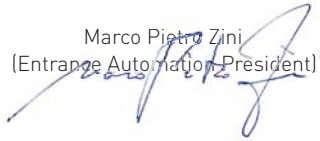
(Directive 2006/42/EC, Annex II-B)

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

- is designed to be installed on a manual gate to form a machine pursuant to Directive 2006/42/EC. The manufacturer of the motorised gate must declare conformity with Directive 2006/42/EC (annex II-A) prior to initial machine start-up;
- 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;
- conforms to the R&TTE Directive 1999/5/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, 13-01-2013

Marco Pietro Zini
(Entrance Automation President)






2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorizes 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 motorized 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 motorized door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

3. Technical data

	ARCBH	ARC1BH
Power supply	24 V $\overline{\text{---}}$	24 V $\overline{\text{---}}$
Absorption	3 A	12 A
Torque	150 Nm	300 Nm
Opening time	15±18 s / 90°	15±30 s / 90°
Service class	4 - INTENSIVE	4 - INTENSIVE
Intermittence	S2 = 30 min S3 = 50%	S2 = 30 min S3 = 50%
Temperature	min -20° C max 55° C min -35° C max 55° C with NIO enabled	min -20° C max 55° C min -35° C max 55° C with NIO enabled
Degree of protection	IP54	IP54
Control panel	E2HAR VIVAH	VIVAH
Applications m = leaf width kg = leaf weight 		

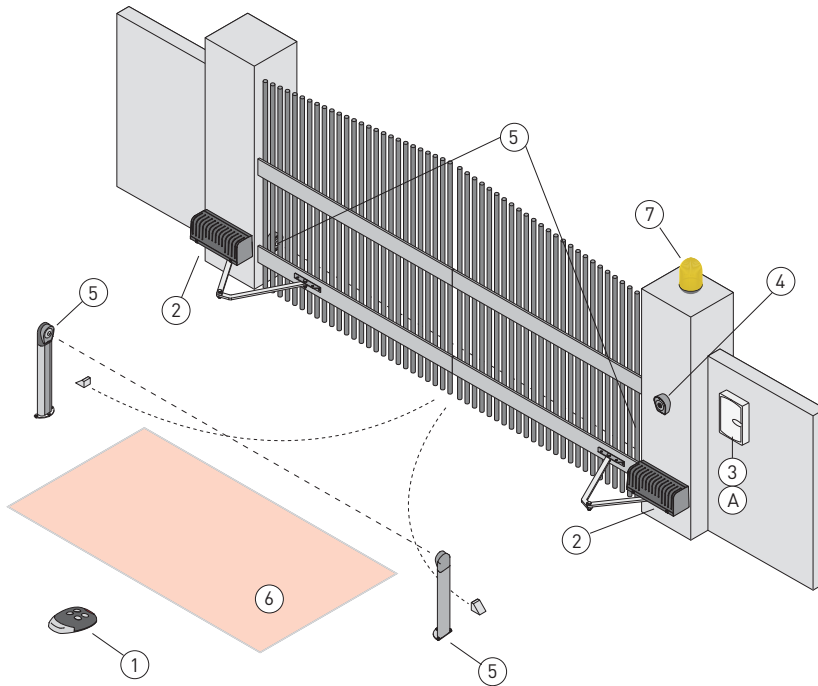
3.1 Operating instructions


Service class: 4 (minimum 100 cycles a day for 10 years or 200 cycles a day for 5 years)

Use: INTENSIVE (For vehicle or pedestrian accesses to large condominiums, industrial or commercial complexes and parking lots with very 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

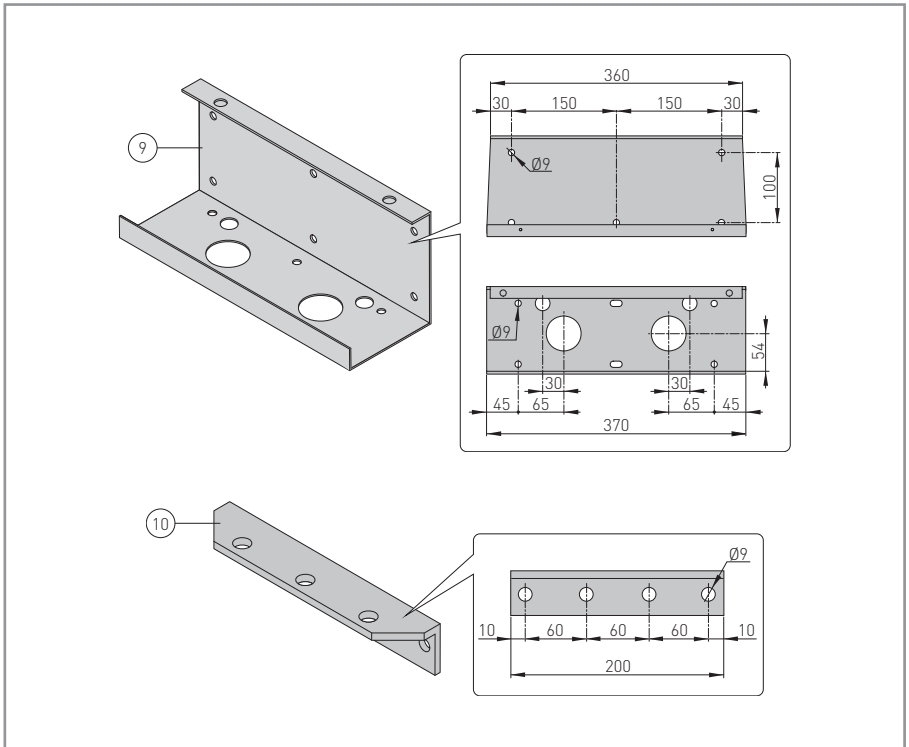
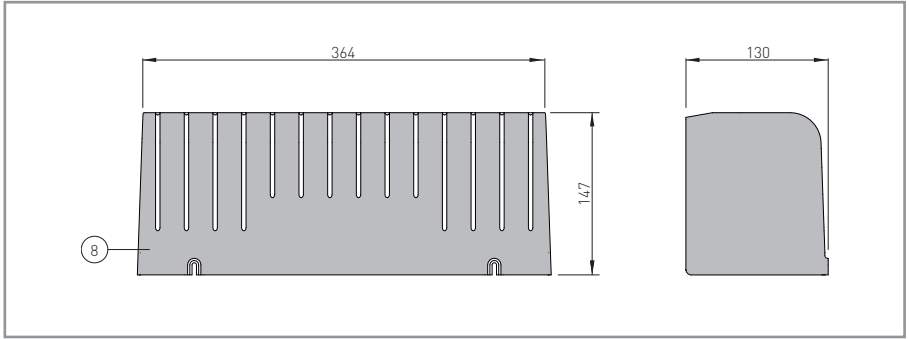


Ref.	Code	Description
1	GOL4	Transmitter
2	ARCBH	Actuator for door wing of up to 2,5 m
	ARC1BH	actuator for door wing of up to 5 m
3	E2HAR	Control panel with radio receiver incorporated
	VIVAH	Control panel
4	XEL5	Key selector
	GOL4M	Codified via radio control keyboard
5	XEL2	Photocells
	LAB4	Photocells IP55
6	LAB9	Magnetic loop detection device for traffic monitoring
7	LAMPH	Flashing light
A		Connect the power supply to an approved omnipolar switch with an opening distance of the contacts of at least 3mm (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices.



NOTE: the given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

4.1 Dimensions



Ref.	Description
8	Housing
9	Fastening plate
10	Gate attachment bracket

5. Installation

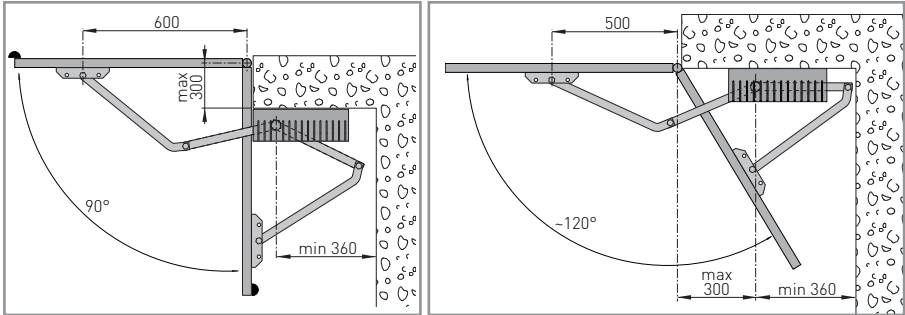
Unless otherwise specified, all measurements are expressed in millimetres (mm).

5.1 Preliminary checks

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

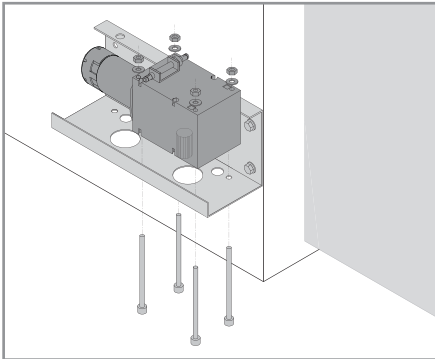
5.2 Gearmotor installation

- Disassemble the reduction gear from the fastening plate [9].
- Fasten the fastening plate [9] to the gate pillar and the gate fastening bracket [10] to the gate wing, according to the type of installation, as shown in the figures.

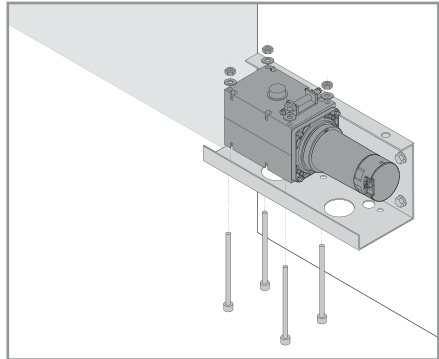


- Assemble the geared motor on the fastening plate [9].
PAY ATTENTION TO THE TYPE OF INSTALLATION.

FITTING ONTO THE LEFT PIER,
INSIDE VIEW



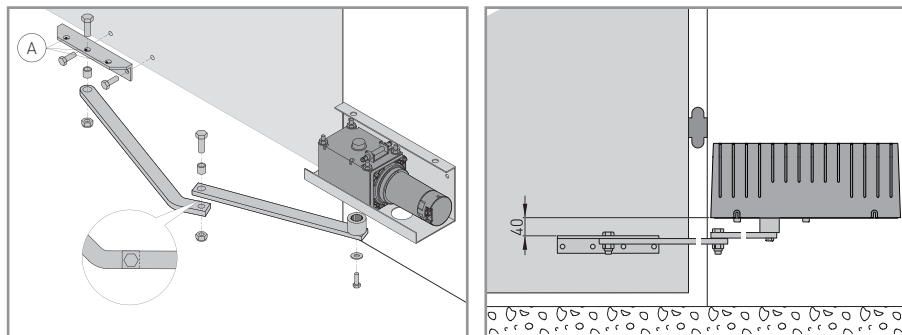
FITTING ONTO THE RIGHT PIER,
INSIDE VIEW



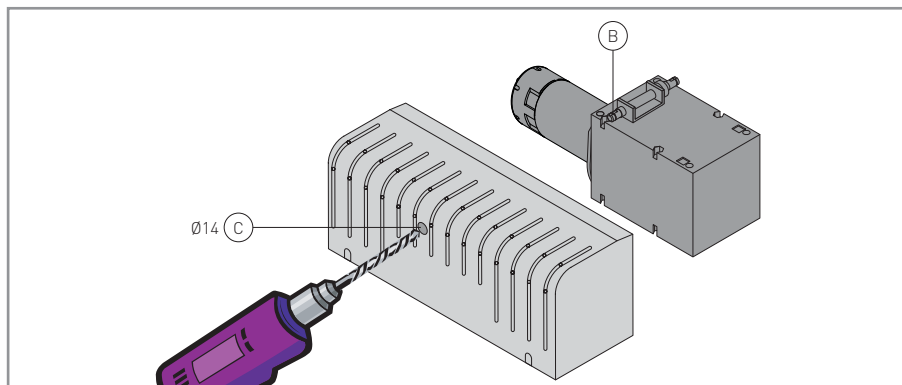
- Attach articulated arms, as shown in figure.

Attention: bring the leaf to the stop line, align the arms by means of holes [A]

- The articulations on the arms should be lubricated and the screws tightened in such a way as not to block arm movement.



- Drill the cover $\varnothing 14$ near release shaft [B] (there are two drilling templates [C] inside the cover).
- Insert the rubber plug and attach the cover to the geared motor.



6. 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 electrical connections and starting of the ARC gearmotor are illustrated in the E2HAR and VIVAH control panel installation manual.

To reverse the direction of rotation, exchange the motor phases.

7. Routine maintenance plan

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

Without 230 V~ power supply and batteries if present:

- Lubricate the levers of the gearmotor.
- Lubricate the rotation pivot of the gate leaf.
- Lubricate the gate leaf hinges.
- Check the good conditions of the electric connection.
- Check that the fixing screws of the gearmotor are firmly tightened.

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


- Check the power adjustment.
- Check the good operation of all command and safety functions (photocells).
- Check the good operation of the release system.



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

Operating instructions

General safety precautions for the user

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Do not obstruct the motion of the motorised door or gate, as this may cause a dangerous situation.

The motorised door or gate may be used by children over the age of 8 and by people with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, as long as they are properly supervised or have been instructed in the safe use of the device and the relative hazards.

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

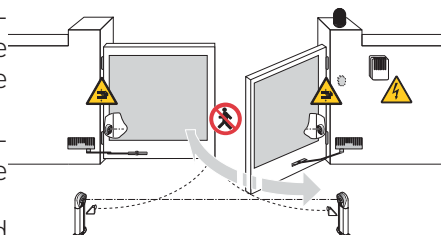
Keep remote controls and/or any other command devices out of the reach of children, to avoid any accidental activation of the motorised door or gate.

In the event of a product fault or malfunction, 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.

Any repair or technical intervention must be carried out by qualified personnel.

Cleaning and maintenance work



must not be carried out by children unless they are supervised.

To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance on the motorised door or gate. In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.

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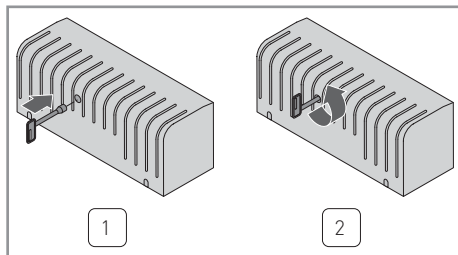
Only lock and release the door wings when the motor is switched off. Do not enter within the operating range of the wing.

To dispose of electrical and electronic equipment correctly, users must



take the product to special "recycling centres" provided by the municipal authorities.

Manual release instructions



In case of faulty operation or power failure, remove the plug and insert the release key supplied in the special hole on the cover. Turn clockwise to release the right leaf; counterclockwise to release the left leaf. Manually slide the gate open.

At end of operations, lock the geared motor again.



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



For any problems and/or information, contact the Technical Service.

ENTRE//MATIC



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