

:AGO

AGO (400-600-424E-624E)

Electromechanical reduction gears INSTRUCTION FOR INSTALLATION

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### INTRODUCTION

Our compliments for your excellent choice. AGO electro-mechanical gear motor has been produced for reliability and high quality.

This Manual will offer information you may need to install your gear motor assuring long-lasting performance and to safeguard your safety.

HOWEVER, CAUTION IS UNQUESTIONABLY INDISPENSABLE AND NOTHING IS BETTER THAN PREVENTING ACCIDENTS.

Gi.Bi.Di. Srl products have been made to conform with rules and laws in force at time of manufacture.



#### WARNING: IMPORTANT SAFETY INSTRUCTIONS.

It is important for the safety of persons to follow these instructions. Keep this instruction manual.

#### INSTALLATION WARNINGS



This manual is designed exclusively for the specialized installation expert in the criteria of construction and equipment to assist in the protection against accidents in the installation and use of the gate; door and automation of such gates (adhere to the rules and laws in force).

On completion, the installer should issue to the end consumer an instruction manual according to EN 12635.



Before proceeding with the installation, the installer must provide an analysis of the identification and management of risks as per the standards EN 12453 and EN 12445).



All wiring of the various external electrical components connected to the automation (e.g. Photocells, flashing lights, keypads etc.) must be carried out according to EN 60204-1 and the amendments made of the point 5.2.2 of EN 12453.



/ It is prohibited to do any repair or adjustment of the equipment if you have not taken all necessary precautions to avoid possible accidents (example: power supply disconnected, engine block). All mechanisms in motion must be equipped with appropriate protections.



The mains power line must be protected for maximum current in locked rotor condition.



Install the gear motor on gates that conform to EN 12604.



Perform the measure of strength developed by the gear motor and adopt the measures as per EN 12445.

Positioning photocells: These safety devices must be installed at a height not exceeding 70cm from the ground and at a distance from the floor movement of the door of no more than 20cm. Their proper functioning of the photocells must be verified at the end of installation according to Section 7.2.1 of EN12445.



Qualified people must carry out all repairs.



Keep the activation controls of automation out of reach of children. The controls should be installed at a minimum 1.5m height above the ground and outside the range of actions of moving parts such as the gate.



Operate the remote only in view of automation. All activation actions must be executed only at points from where the automation is fully visible.



Any unauthorized and arbitrary modification made to this product releases the company Gi.Bi.Di. Srl from any liability resulting from damage or injury to things, people or animals.



The non-observance of regulations and of safety standards here listed releases the company Gi.Bi.Di. Srl from any liability resulting from damage or injury to things, people or animals.



Store carefully this manual in a suitable place known to all interested people.

The automation must be coupled to a control board equipped with torque regulation that provides an anti crushing safety as described in EN 12453 - EN 12445.

## SAFETY RULES

During the installation and the use of the automation, pay attention to the following safety rules:

- Distance security!
  - Mechanisms moving!

Do not install automation in an environment saturated with explosive mixtures!

Electric Shock!

I Use gloves!

Use welding glasses!

Maintain ear protection!

## MAINTENANCE

Before each intervention remove power through the switch and lock in that position.

The equipment must be maintained so as to preserve the conditions that ensure safe and efficient operation.



Always use original spare parts.





Do not make interventions that modify the machine. The modified equipment requires new CE mark.



The settings of the operator must be performed by qualified personnel, in accordance with the rules of reference. During these operations, provide the presence of two operators for safety.



#### DEMOLITION

You have to operate the elimination of the materials in conformity with the regulations in force. All materials must be divided by type (copper, aluminium, plastic, electrical parts, etc.).

#### DISMANTLING

In order to move away the automation, follow these instructions:

- 1 Cut off the power supply and disconnect the electrical installation;
- 2 Dismantle the control console and all the other components of the installation.

If you have noticed that some components have been damaged, you have to replace them.

## **USE OF THE AUTOMATION**

The gearmotor AGO is designed and built for the opening of gates with max of 5 m leaf or weight max. 300Kg. Gi.Bi.Di. Srl assumes no responsibility for a purpose other than that provided by gearmotor AGO.

Since automation can be put into motion in view by button or remotely by remote control, it is essential to check frequently the perfect efficiency of all safety devices.

It is advisable to check periodically (every six months) the regulation of electronic friction of which must be equipped the electronic control board.

#### EQUIPMENT

For the installation of the automation, the following equipment is required: wrenches, screwdriver, metre, bubble level, saw, drill, welding machine.

#### **PRELIMINARY CHECKS**

- 1 Read carefully the instructions enclosed in this manual.
- 2 Make sure that the gate has a rather solid structure and that there is no friction points in its movement.
- 3 Make sure that the leaf is suitably balanced, even after the installation of the gear motor.
- 4 Check that the electrical installation is in accordance with the characteristic required by the gear motor.

## **TECHNICAL DATA**

	AGO 400	AGO 600	AGO 424E	AGO 624E
Maximum length of the gate	4.0 m	5.0 m	4.0 m	5.0 m
Maximum weight of the gate	300 kg	300 kg	250 kg	250 kg
Stroke	40 cm	60 cm	40 cm	60 cm
Power	330 W	180 W	70 W	70 W
Power supply	220/230 V	220/230 V	24 Vdc	24 Vdc
Absorption	1.5 A	1.5 A	0.5 - 5.5 A	0.5 - 5.5 A
Max. thrust	1600 N	1600 N	1500 N	1500 N
Operating temperature	-25°C +60°C	-25°C +60°C	-25°C +60°C	-25°C +60°C
Opening time	22 sec.	33 sec.	22 sec.	33 sec.
Use frequency	30%	30%	90%	90%
Thermal protection	150°C	150°C	-	-
Lubrication	Grease	Grease	Grease	Grease

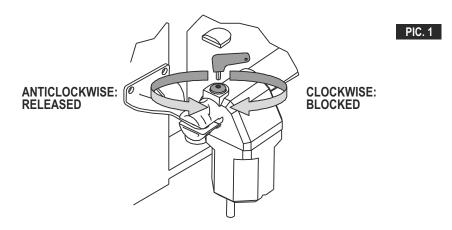
## SCHEDULED MAINTENANCE

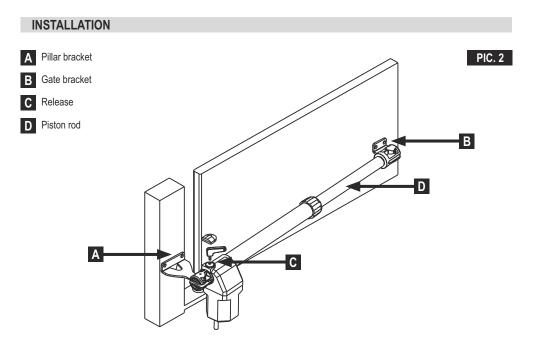
Description	Frequency	Entrusted	Operation
Photocells cleaning	Monthly	Operator	Clean with damp cloth
Control of gate hinges and supports, balancing of the gate	as needed	Operator	Check the status of welds and corrosion. Unhook the engine and check the balancing and the eventual points of friction
Controlling the sensitivity of electronic friction (torque adjustment) of the control board	Semiannual	Technician	Check the adjustment of the couple as described in EN 12453 - EN 12445
Controlling degree of protection	Semiannual	Technician	Check that there are no traces of moisture or water inside electrical casings
Monitoring current dispersion	Annual	Technician	Verify that the dispersion of current is less than 7.5 A
Control of signals	Semiannual	Operator	Verify that the safety warning signage is complete and intact

## **EMERGENCY MANOEUVRE**

For the manual door locking and unlocking act with the supplied key on the screw C (See PIC. 1).

- 1 Remove the protection cap
- 2- Insert the key into the seat allocation as in FIG.1 and turn the key in the sense of the arrow to the top of the gearmotor to unlock and in the opposite block.





## AGO

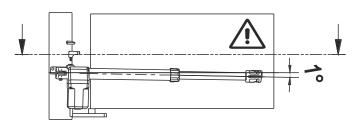
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PIC.3

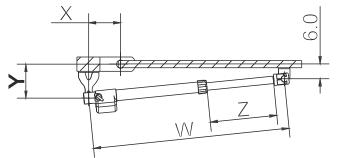
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## To operate a good installation of the gear motors AGO, follow these instructions:

- 1 Open the box and take out gear motor. Make sure that it has not been damaged during the transport.
- 2 Make sure that the leaf of the gate is perfectly horizontal.
- 3 Place the gear motor tilted approximately 1° below the horizontal line (PIC. 3).

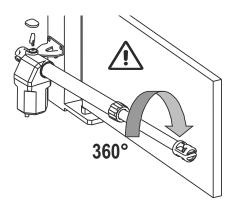


4- Fix the support plate A on the pillar beside the leaf, taking in account the measures shown in TAB. 1 and PIC. 4. Do not forget inclination.



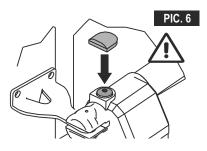
PIC. 4

- 5 Install the gear motor on to the support plate A and fix it with the bolt.
- 6 With gate's leaf closed, turn and slide the screw of gear motor's D shaft, until the end of the stroke.
- 7 Screw D shaft back on 1 complete turn of 360° (PIC. 5).



PIC. 5

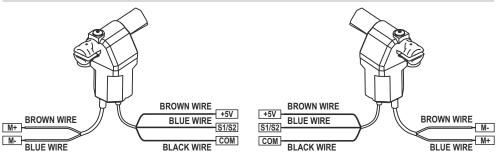
- 8 Place B support plate in the hole of D shaft and position it against the gate leaf.
  Fix it to the gate leaf taking in account the inclination (point no. 3).
- 9 Proceed in the same way with the other gate leaf.
- 10 Connect the electrical wires and safety devices: place the mechanical limit stops.
- 11 Place the cover on the unblocking screw (FIG. 6).

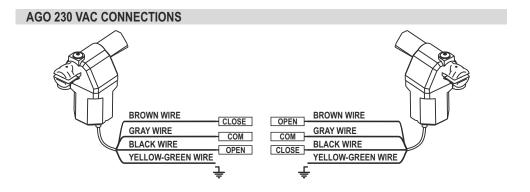


### **TAB.** 1

MOTOR	ROTATION 95°			N 95° ROTATION 120°				
	W	Х	Y	Z	W	Х	Y	Z
AGO 400/424E	1122	145	145	478	1122	170	110	478
AGO 600/624E	1532	280	280	678	1532	310	120	678

## **AGO 24 VDC CONNECTIONS**





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### DISPOSAL

GI.BI.DI. advises recycling the plastic components and to dispose of them at special authorised centres for electronic components thus protecting the environment from polluting substances.



# **CE** Declaration of conformity The manufacturer: GIBIDISTI Via Abetone Brennero, 177/B, 46025 Poggio Rusco (MN) ITALY declares that the products: ELECTROMECHANICAL GEARMOTOR AGO 400-600-424E-624E are in conformity with the following CEE Directives: LVD Directive 2006/95/CE and subsequent amendments; • EMC Directive 2004/108/CE and subsequent amendments; and that the following harmonised standards have been applied: • EN60335-1. • EN61000-6-1, EN61000-6-3

Moreover declares that the product must not be used until the machine in which it has been incorporated has not been declared in accordance with 2006/42/CE Directive.

Date 20/04/2017

The legal Representative Michele Prandi

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## NOTES

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#### GI.BI.DI. S.r.I.

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