AT 600

Oil bath electromechanical reduction gear operators for sliding gate

FOSHAN AUTO

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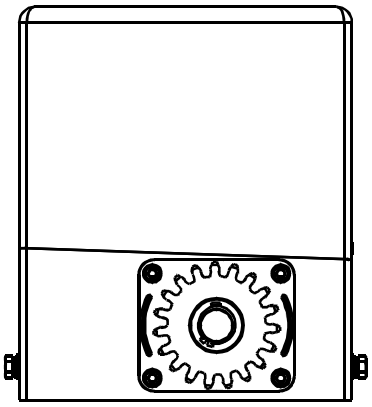
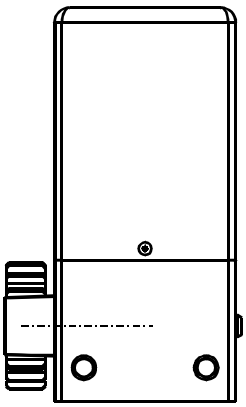
09/01/2008	09/01/2008





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Please read this document carefully before any operation.
Be sure the gate configuration allows the installation of an automatic device.

This product is designed to be used according to the specifications included in this manual. Any other use could affect the mechanism reliability, cause malfunctions or severe injuries to the persons.
The installation must follow the in force regulation concerning automatic devices safety. FOSHAN AUTO company will not assume the responsibility of any malfunction, damage or injury occurred if the product is used out of the above specifications.

In case of abnormal operation, the user will have to power down and disengage the system to enable the gate to operate manually. The maintenance operation must be performed by a qualified technician.
Set a differential circuit breaker and ground the mechanical parts for an effective electric protection.

The user must preserve this document for future reference and must be informed about system disengagement procedure in case of emergency.

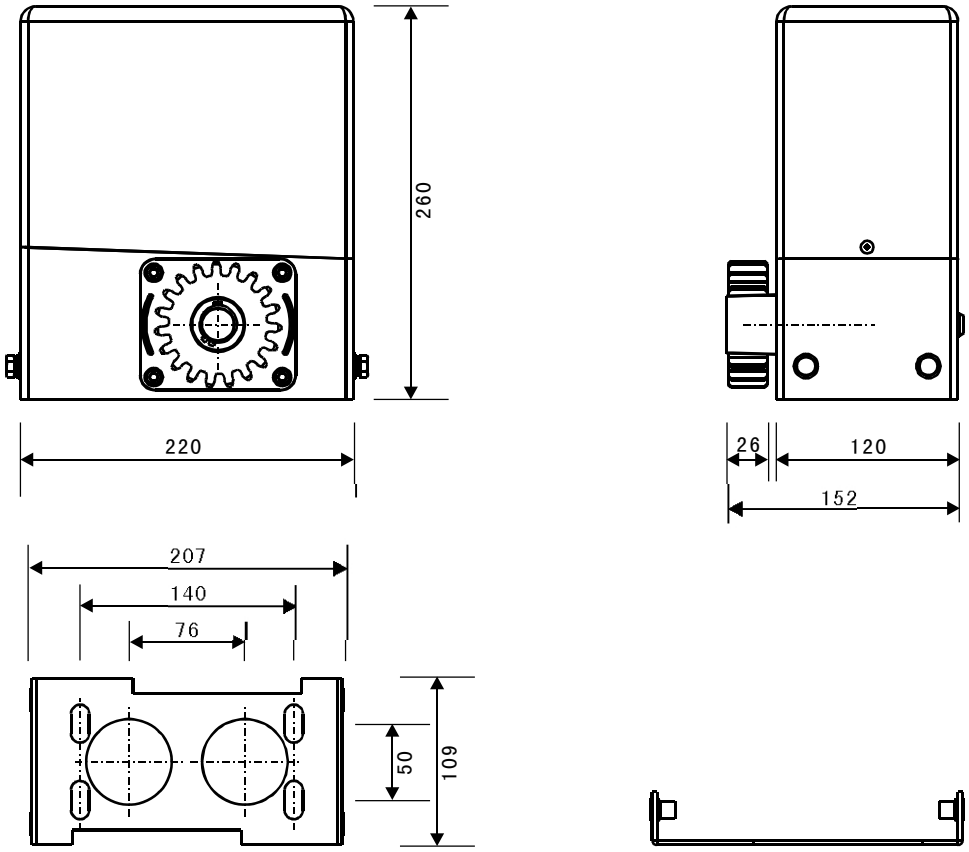
1. SPECIFICATIONS

1.1 Characteristics

This electromechanical reduction gear operator is designed for domestic and middle range collective applications. The small size allows setting it in reduced areas.
The sliding gate must be well made (rigid). It must operate smoothly when it is moved manually on a perfectly horizontal rail.

Domestic and collective applications (400 cycles/day), weight of gate up to 600kg, a built-in electronic control unit is included.

1.2 Dimensions



2. INSTALLATION ADVICES

2.1. Before installation

During the movement, the gate must not bow and the lower guiding wheels specification must be according to the gate weight.
Two stoppers must limit the gate movement at opening and closing operations (after working time adjustment setting, the gate must stop 10 to 30 mm before it reaches the stoppers).

2.2. Base plate and motor setting up

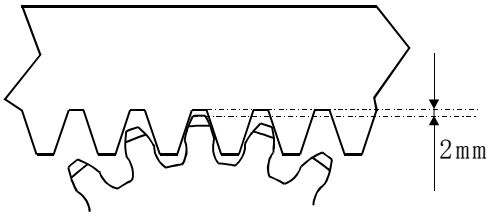
- At first screw the motor holder on a concrete area, please note that the holder height must be sufficient to avoid the water splashing into the engine. The reduction gear motor must be hard fastened to avoid it drags away during the movement. The plate hole allows to fasten the motor. A window is available for cables crossing. The distance between the motor base and the gate is very important. The motor must be out of vehicle.
- Fasten the engine on the base plate, then perform the wiring connections.

2.3. Rack assembling

The rack must be set completely parallel to the ground rail guide:
- Fasten the braces to the rack oval holes centre
- Set the rack to the motor cogged wheel
- Weld the braces to the gate

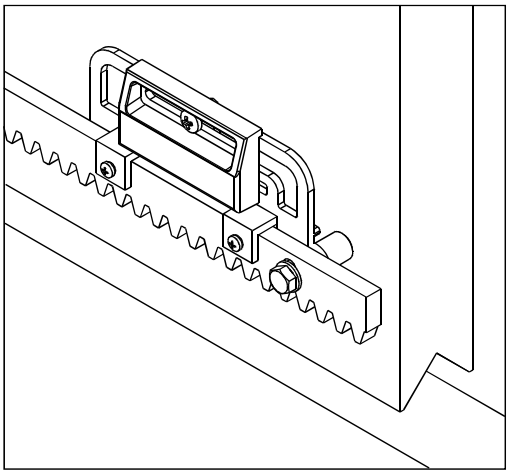
▪ ▪ ▪ ▪ WARNING ▪ ▪ ▪ ▪

Never connect soldering station ground line directly to the engine to avoid damages due to metal sparks.
2mm gap between motor gear and rack is required.



2.4. Magnetic limit switches setting up

Set the magnets to the appropriate holders and fasten them to the rack.
Close the gate manuallly and let 10 to 30 mm gap between the gate and the pillar. Set the magnet holders to the rack, 5 to 10 mm gap is required between magnet and motor.



3. Maintenance

In case of abnormal operation, power the system down and call the nearest maintenance service.

To keep your system is good conditions, please follow the below instructions twice per year:
- Clean alll screens and lenses of infrared photocells.
- Check manual engagement and disengagement systems
- Check opening and closing limit switches
- Check the rack and the guiding rail
- Check the engne torque power

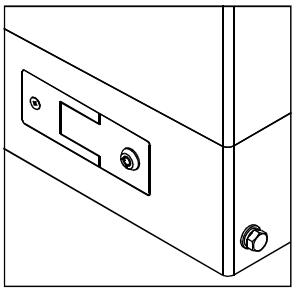
4. Security and options

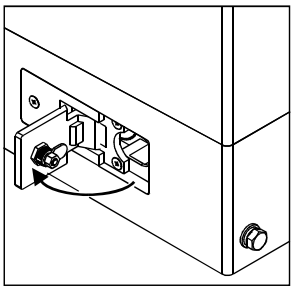
4.1. Torque power adjustment

FOSHAN AUTO company suggests that the system movement must be stopped when a maximum of 15DaN force is applied to the device. If it's impossible to set it under this value, safety edges and infrared photocells are required.

The torque power adjustment efficiency is bound up with the gate mechanical conditions (must move smoothly manually).
The main failure reasons are: bad gate guiding, weight over range, gate and rack alignment mismatch, gravel presence, etc…

4.2. Manual disengagement system





For manual operation:
- Switch the power off
- Insert the key inside the lock and turn it anticlockwise
- Open the small door

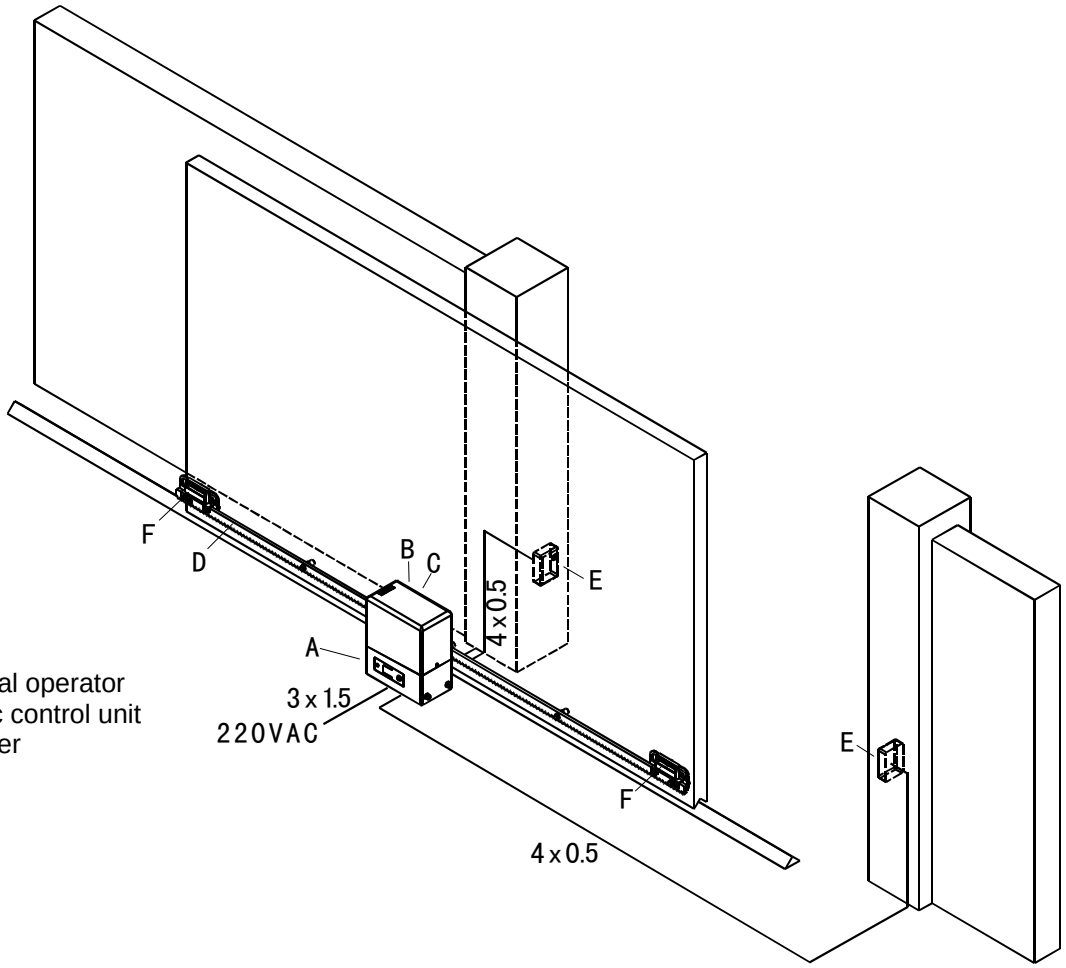
4.3. Photocells setting up

The photocells should be set about 40 cm from the ground, on the pillars outside and on the adapted column supports inside.
To enhance safety, devices as safety edges, photocells, warning light, magnetic loop … are available.

5. TECHNICAL FEATURES

Max gate weight	**600 kg**
Operating voltage	**220V – 50 Hz**
Max power rating	**350 W**
Capacitor	**14 µF**
Gate speed	**9,5 m/min**
Cogged wheel	**19 cogs**
Limit switches	**Built-in**
Operating temperature	**-25 ℃ / +70 ℃**
Thermal protection	**110 ℃**
Motor speed	**1400 Rpm**
Motor weight	**11,5 kg**
Carter	**Aluminium**
Protection range	**IP 55**

6. SETTING UP EXAMPLE



A. Electromechanical operator
B. Built-in electronic control unit
C. Pluggable receiver
D. Metal rack
E. Photocells
F. Magnets

AT 600

Built-in electronic control unit designed for sliding gate operations

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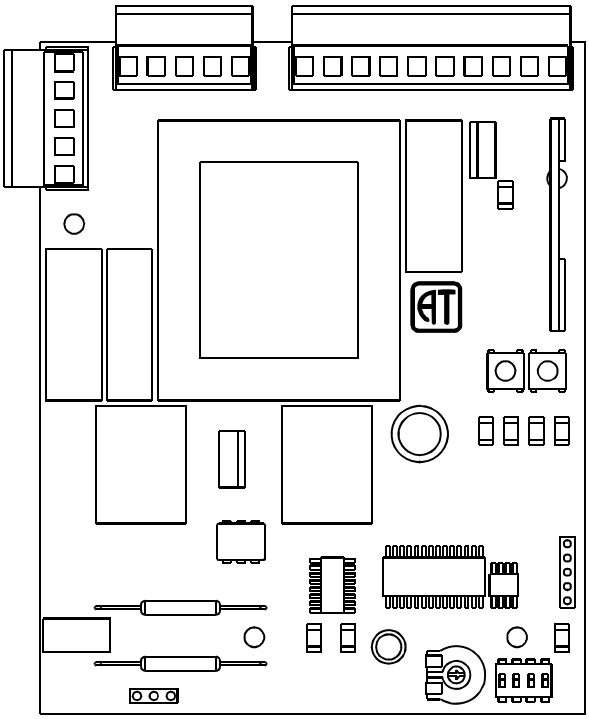

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The **AT600** electronic control unit is designed for sliding gate operations, full programmable, including limit switches, torque power adjustment and independent slowing down sequence adjustment function.

▪ ▪ ▪ ▪ CAUTION ! ▪ ▪ ▪ ▪

Before installation, please read this technical notice carefully in order to understand the programming concept of this product. Be careful to the AT600 setting position to avoid misconnections. Power the system down for any setting up or maintenance operations.