



RODMAN

Installation Manual

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IMPORTANT REMARKS

For any installation problems please contact

Key Automation S.p.A. TEL. (+39) 0421 307456

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)

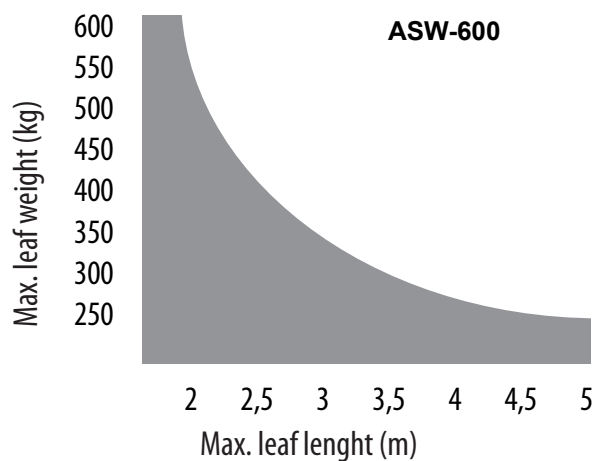
- The installer must provide for a device (es. magnetothermal switch) ensuring the omnipolar sectioning of the equipment from the power supply.
The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- The plastic case has an IP55 insulation; to connect flexible 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.

TYPE	CODE	DESCRIPTION
STAR 500	900PS400-24FA	Electromechanical irreversible gear motor for wing doors 5 m Long  Vdc

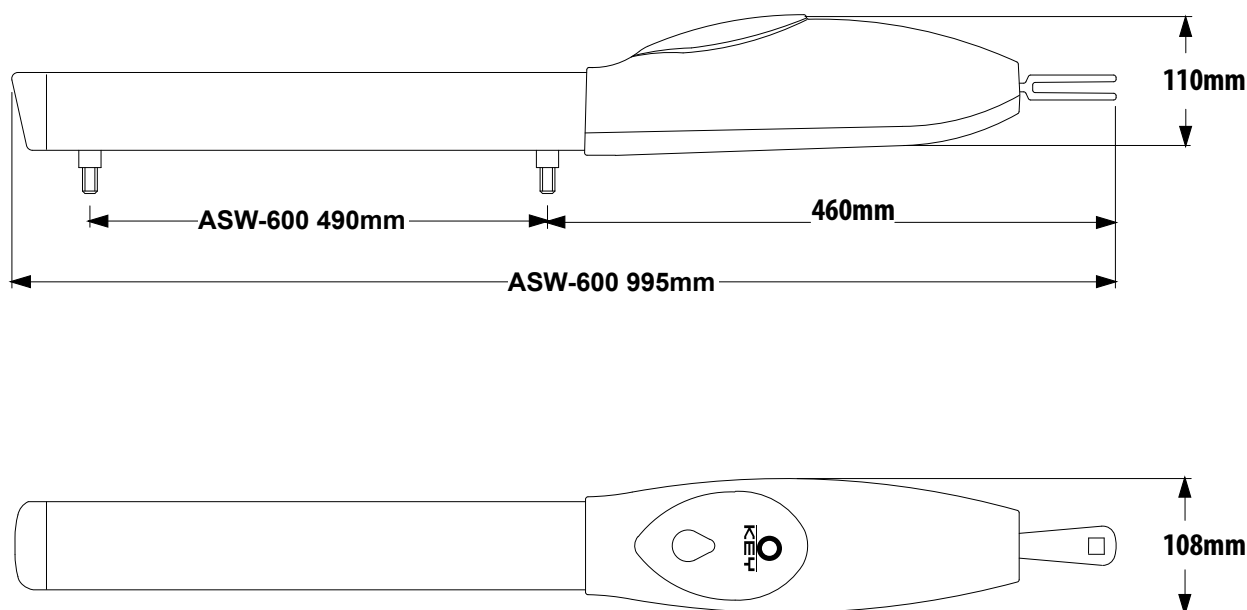
TECHNICAL DATA

900PS400-24FA

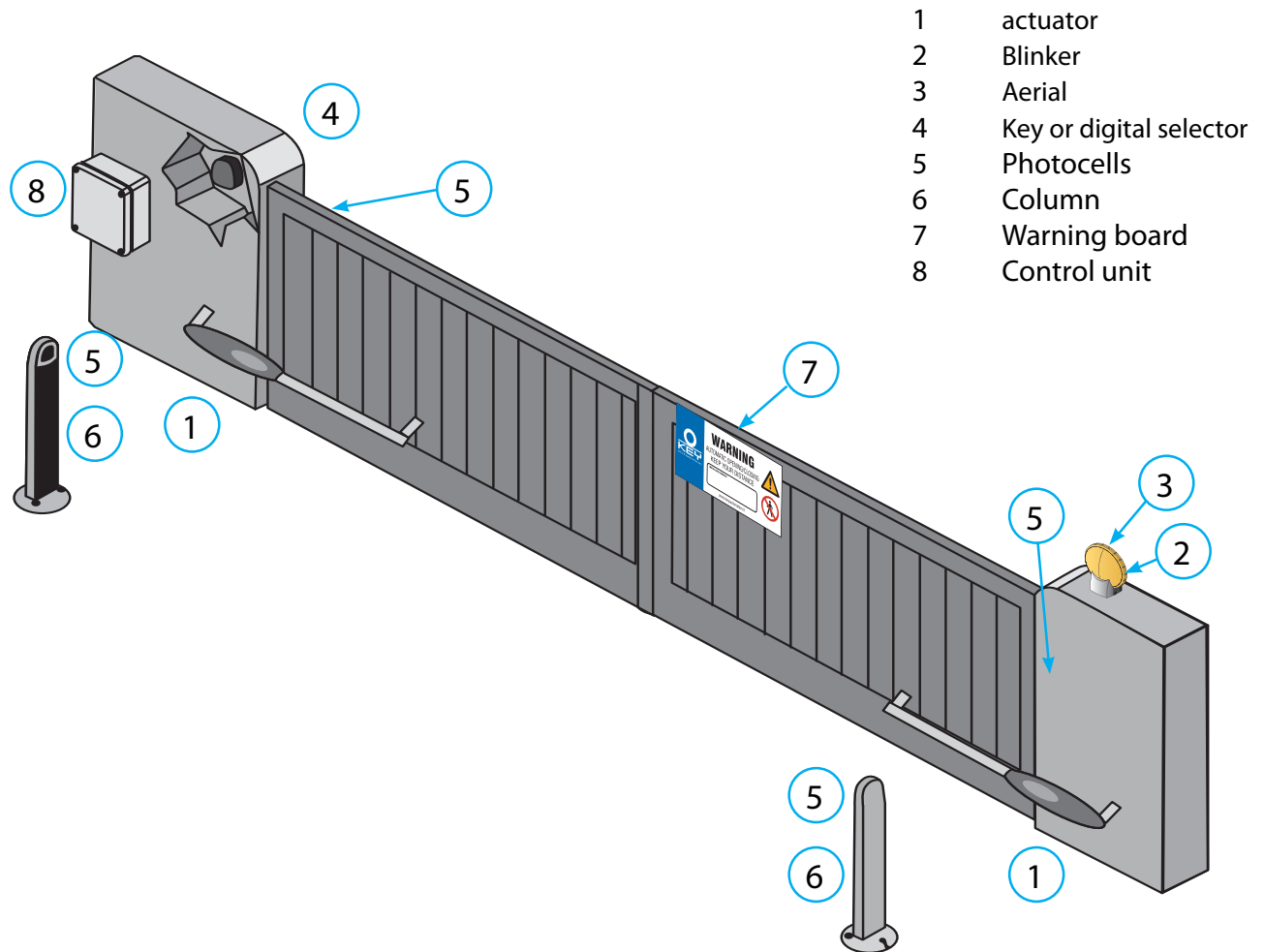
Suggested control unit	(CT-824S)*
Power supply	24 Vdc
Maximum Power	120 W
Idling current	5 A
Capacitor	-
Protection	44 IP
Maximum thrust	1500 N
Shutter opening	90°/120° Max
Working cycle	80 %
Thermoprotection	-
Opening time at 90°	25 sec
Working temperature	-20° +70°C
Motor weight	8,5 Kg



OVERALL DIMENSIONS



INSTALLATION LAYOUT



PREPARATORY STEPS

The new series of actuators STAR, has been devised to serve gates up to 600 Kg with leaf up to 5 meters wide.

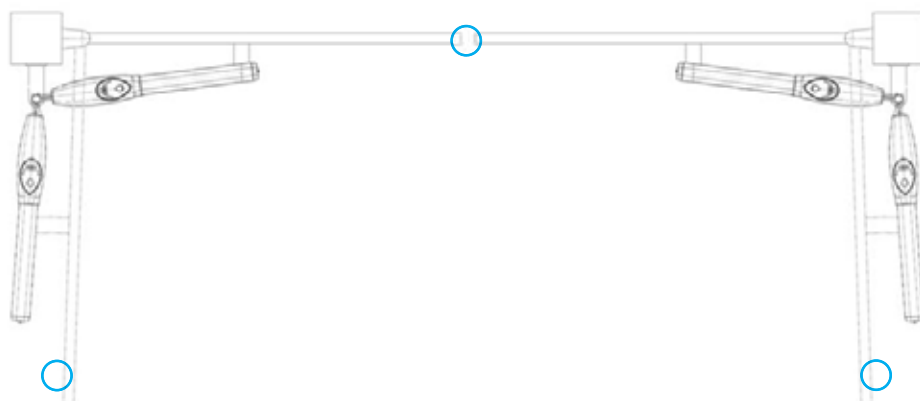
Before proceeding with the installation, please make sure that your gate opens and closes freely, and that:

- Hinges and pins are in optimum condition and properly greased.
- No obstacles are within the moving area.
- There is no friction with the ground or between the leaves.
- Your gate is equipped with a central latch.

INSTALLATION

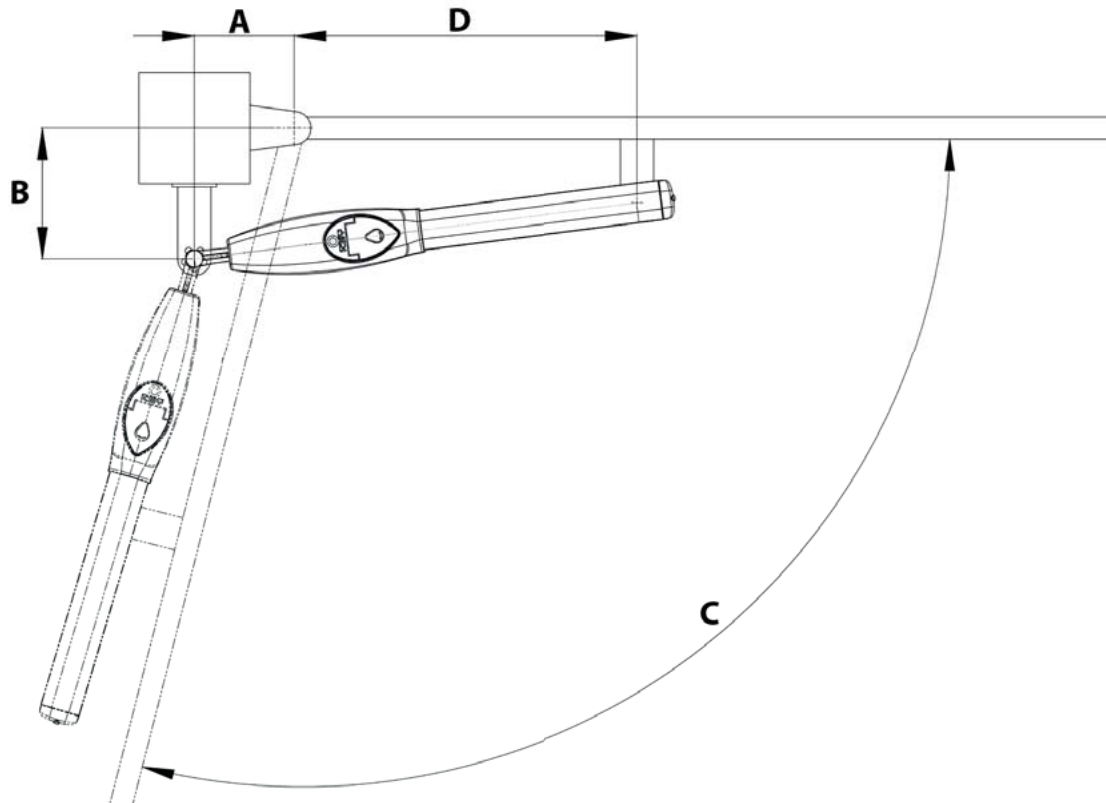
Open the packaging and check that the gear motor has not been damaged during transport

Install the ledges for the opening and closing



INSTALLATION MEASURES

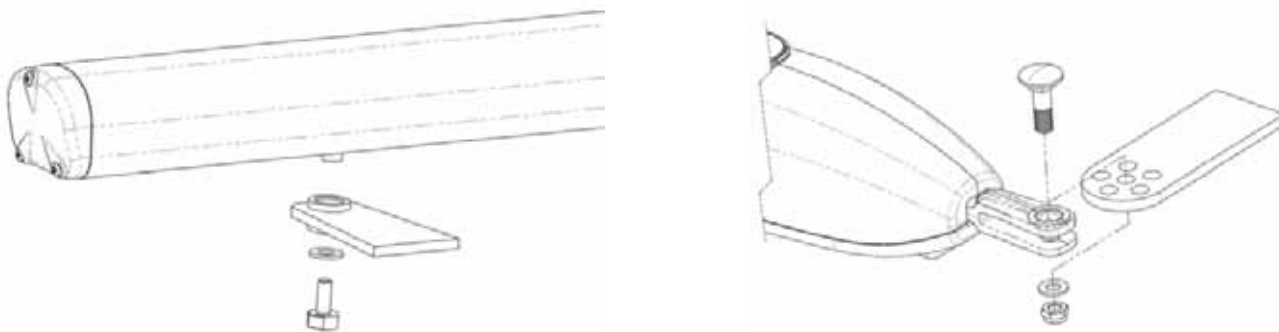
To carry out a proper installation of the operator parts as well as to ensure the best automation performance, the measurement levels shown in the following table shall be complied with.
Change the gate structure to adapt it to one of the cases in the table, if necessary



ASW-600

		OPENING ANGLE C							
		A							
		120	140	160	180	200	220	240	260
B	100	120°	120°	120°	120°	120°	120°	120°	
	120	115°	120°	120°	120°	120°	120°	120°	
	140	115°	120°	120°	120°	120°	120°	120°	
	160	110°	115°	120°	120°	120°	120°		
	180	110°	115°	120°	120°	120°	120°		
	200	110°	115°	115°	120°	120°			
	220	105°	110°	115°	115°	120°			
	240	105°	105°	110°	115°				
		POSITION FRONT CLAMPS D							
		A							
		120	140	160	180	200	220	240	260
D		800	780	760	740	720	700	680	660

Mount the support clamp on the gear motor, using the available screw

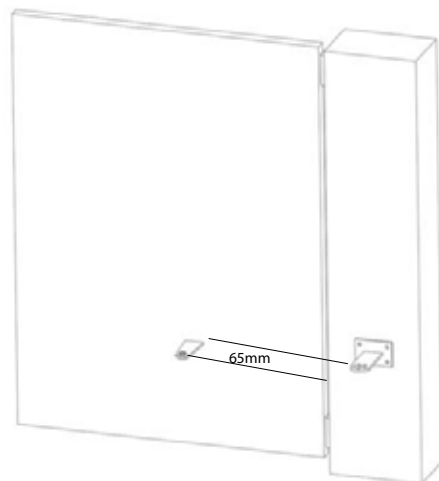


After having set on the pillars the measures chosen from the table of the previous page, go ahead and proceed with the following operations:

According to the opening your gear motor has to do, from a maximum 120°, decide the position where you want to install it.

! ATTENTION: the front bracket must be positioned 65 mm lower than the rear bracket.

Disassemble the gear motor from support clamps. Fix the clamps on the column and on the gate.



Mount the gear motor on the support clamps and fix the extremity with the available screw and the nuts.

Unlock with the system the gear motor and decide limit switch position.

Be sure that the gear motor is in perfectly horizontal.

Feed the motor only after you have checked that safety devices have been installed.

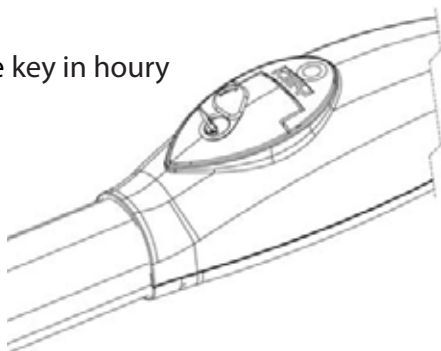
EMERGENCY RELEASE

In case of lack of electrical power, or loss of power, bypassing the motor can unblock the gate:

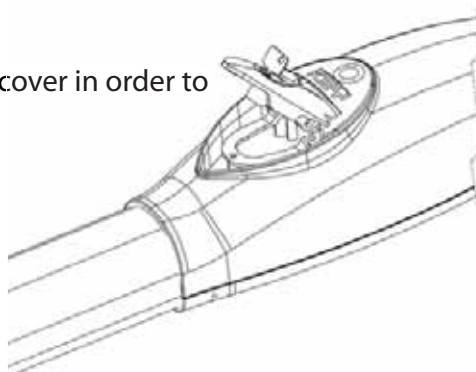
- Insert the unlock key you've found with the motor and turn it 90 ° Lift the cover in order to unlock.
In this way you unlock the internal reduction system

- In order to re-insert the trasmission you just need to close the cover and put it at the beginning position, so the rotation system of the gear motor will be re-loocked.

Turn the key in hourly
sens



Lift the cover in order to
unlock

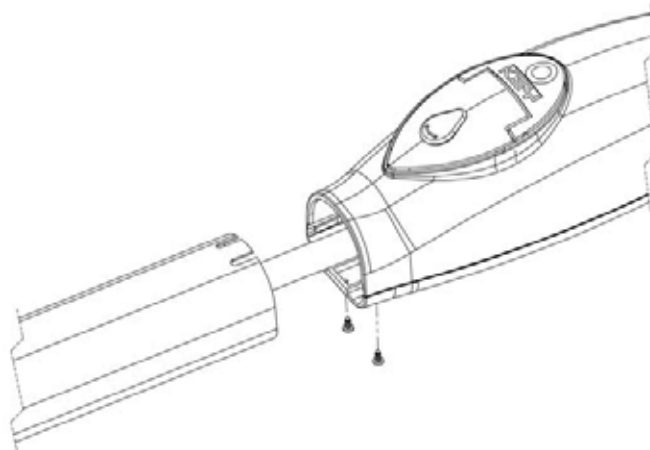


OPERATION END-STOP



CAUTION:

To facilitate the adjustment of limit switches, you can remove the aluminum that covers the screw slider. The profile of the slots can be removed simply by unscrewing the 2 screws that secure the motor hood.

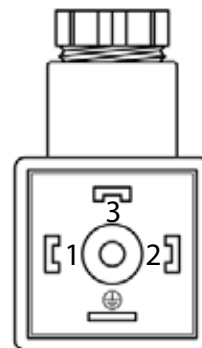
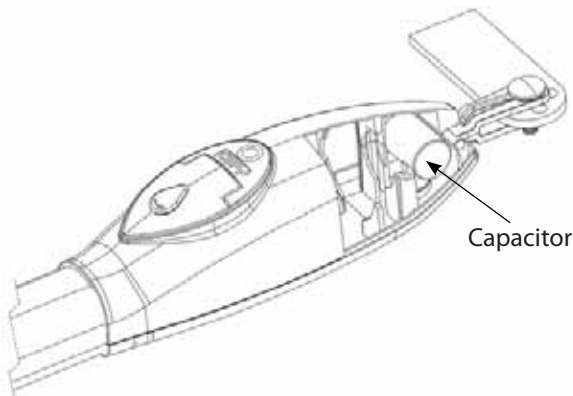


For the end-stop operation, proceed as follows:

- Bring the shutter in position of maximum opening, then lock the mechanical stop by fastening the bolt
- Bring the shutter in position of maximum closing, then position the mechanical stop

ELECTRICAL CONNECTIONS

STAR 230V (900PS-300FA/900PS-300FA-R/900PS-400FA/900PS-400FA-R)



- 1 Close
- 2 Open
- 3 Common Ground

STAR 24V (900PS300-24FA/ 900PS400-24FA)		
MOTOR CABLE	Motor DX	Motor SX
Blue	Opening	Closing
Brown	Closing	Opening
Black	+ encoder	+ encoder
Yellow/Green	S encoder	S encoder
Gray	- encoder	- encoder



ATTENTION:

For encoder operation, when in the closed position, both gate panels must rest against a mechanical stop.



WARNING:

Always connect the earth cable to the mains power earth system with a cable minimum cross sectional area of 2.5 mm²



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.

MAINTENANCE



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.



Downee

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