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Technical Manual

PIVO CONDOMINIUM INOX

All images in this manual are for illustrative purposes only.

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Rev. 0

WARNING:
Do not use the equipment without first reading the instruction manual

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IMPORTANT SAFETY INSTRUCTIONS

Recommendation:
For the installation of the equipment, it is important that the PPA specialized installer follow all the instructions mentioned in this **technical manual** and in the **user manual**.

Equipped with the **user manual**, the installer must present all the information, uses and safety items of the equipment to the user.

Before using the operator, read and strictly follow all instructions contained in this manual.

-Before installing the operator, make sure that the local electrical network is compatible with that required on the equipment identification label;

-Do not turn on the mains until the installation / maintenance is completed. Make the electrical connections of the command center always with the power grid turned off;
-After installation, make sure that the gate parts do not extend over the streets and the public footpath;

-The use of total shutdown devices is mandatory when installing the operator.

TECHNICAL CHARACTERISTICS

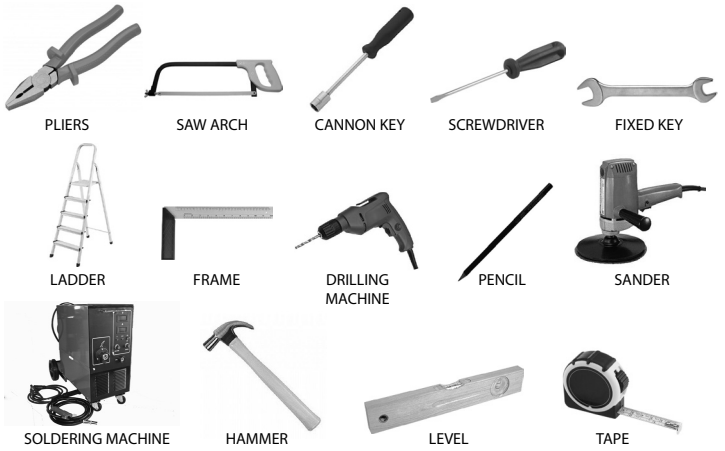
	PISTON CONDOMINIUM	PISTON CONDOMINIUM JETFLEX	PISTON CONDOMINIUM JETFLEX BRUSHLESS
OPERATOR TYPE	Pivoting	Pivoting	Pivoting
MODEL	Single Phase	Jet Flex	Brushless
RATED VOLTAGE	220 V / 127 V	220 V / 127 V	220V / 127V
NOMINAL FREQUENCY	60 Hz	60 Hz	60 Hz
RATED POWER	395 W / 350 W	150 W	155 W / 195 W
ENGINE ROTATION	1740 RPM	5800 RPM	4500 RPM
ENGINE CURRENT	1.8 A / 2.9 A	1.2 A / 2.1 A	0.7A / 2.1A
REDUCTION	1:23	1:23	1:30
LINEAR SPEED	2.7 m/min	9 m/min	5.4 m/min
MANEUVERS	60 cycles/h	80 cycles/h	90 cycles/h
DEGREE OF PROTECTION	IPX4	IPX4	IPX4
TEMPERATURE RANGE	-5°C / +50°C	-5°C / +50°C	-5°C / +50°C
TYPE OF INSULATION	Class B, 130°C	Class B, 130°C	Class B, 130°C
LIMIT SWITCH	Analog / Digital / Hybrid *	Analog / Digital / Hybrid *	Analog / Digital / Hybrid *
MAXIMUM MASS OF THE GATE LEAF	300 Kg	350 Kg	350 Kg
MAXIMUM GATE DIMENSION	HEIGHT = 2.5 m LENGTH** = (Value determined according to the operator model)	HEIGHT = 2.5 m LENGTH** = (Value determined according to the operator model)	HEIGHT = 2.5 m LENGTH** = (Value determined according to the operator model)

*The operator is available in ANALOG, DIGITAL or HYBRID limit switch models. Check the model of the operator on the product packaging or label.

**Maximum length is determined by the operator model, being Standard (2.0 m), Super (3.5 m) and Mega (4.5 m).

TOOLS REQUIRED FOR INSTALLATION

Below are some tools needed to install the operator:

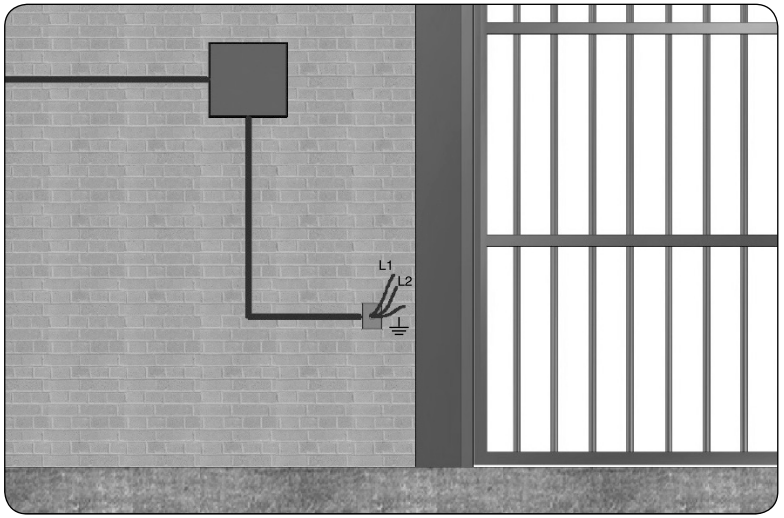


ELECTRICAL INSTALLATION

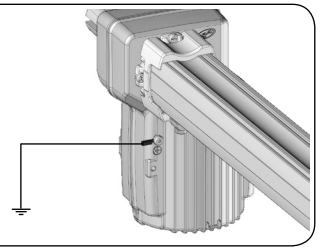
For electrical installation, the network must contain the following characteristics:

- Mains 127 V or 220 V;
- Have 5 A circuit breakers in the electrical energy distribution box;
- 3/4" diameter conduits between the electrical power distribution box and the total shutdown device;
- 3/4" diameter conduits between the total shutdown device and the operator connection point;
- 1/2" diameter conduits for external and optional push buttons;
- 1/2" diameter conduits for safety photocells (mandatory).

- The cable for the fi xed wiring must comply with NBR NM 247-3;
- The power conductor, of a product for internal use, must be a flexible cable 3 x 0.75 mm^2; 500 V, according to the NBR standard NM 247-5;
- The power conductor, of a product for external use, must be a flexible cable 3 x 0.75 mm^2; 500 V, as per IEC standard 60245-57



It is mandatory that the ground terminal is connected to the mains ground cable.



IMPORTANT
The instrument shall be powered via a residual differential current (DR) device with a nominal residual operating current exceeding 30 mA.

GATE CARE BEFORE AUTOMATION

Before applying the operator to the gate, some procedures must be taken:

-Check the performance of the gate before starting the machine installation;

-Verify the effort required to move the gate. It should be moved smoothly along the entire route. To check this effort, move the gate at a distance of 80 cm from the turning point (where the operator exerts force to move);

-The gate must have a resistant structure and, as much as possible, non-deformable.

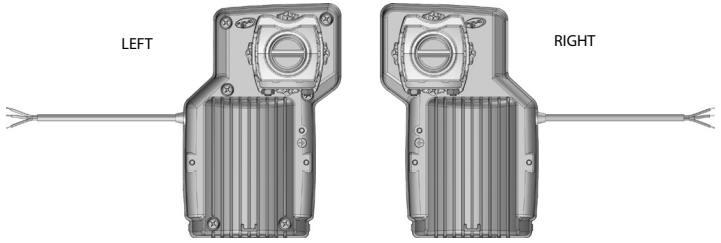
INSTALLATION AND FIXATION OF OPERATOR

Before installing the operator, remove all unnecessary cables and disable any equipment or system connected to the electrical network.

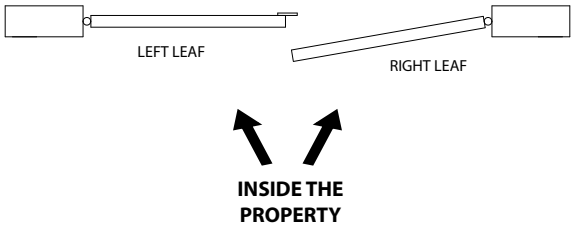
To install the equipment, follow the steps mentioned below:

The pivoting equipment is supplied with a left or right side. Therefore, for your identification, follow the instructions below:

-Observing the operator, as shown in the image below, check the position of the motor cable. If the cable is on the right side, the operator is on the right. If the cable is on the left side, the operator is on the left.

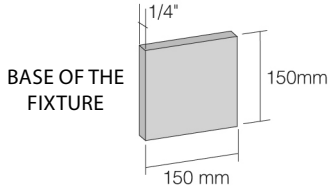


To check which leaf of the gate is on the left and which is on the right, stand on the inside of the property, in front of the gate. In this way, the leaf of the gate that is on your right side is on the right and the one on your left is on the left.

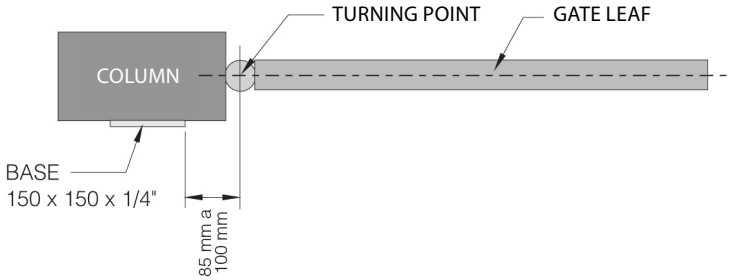


To fix the equipment, carefully follow the instructions below:

1st Step: The gate must open to the interior of the property. Provide a 150mm x 150mm x 1/4" flat iron base. This will be the base of the fixture.



2nd Step: Fix, on the wall or on the gate column, the base of the fixing bracket at a distance of 85 to 100 mm from the turning point of the gate and at the desired height for fixing the operator to the gate, as shown in the figure below.



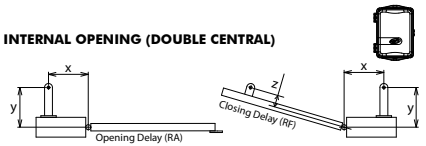
3rd Step: Weld the fixing bracket on the base, according to instructions / illustrations below:

REFERENCE TABLE (DOUBLE CENTER)

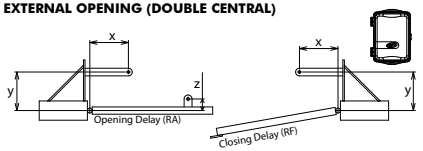
ACTIVATION	OPERATOR	X	Y	Z	MAXIMUM LEAF LENGTH
STANDARD	PISTON CONDOMINIUM	190	190	50	2000
SUPER	PISTON CONDOMINIUM	370	370	50	3500
MEGA	PISTON CONDOMINIUM	400	400	50	4500

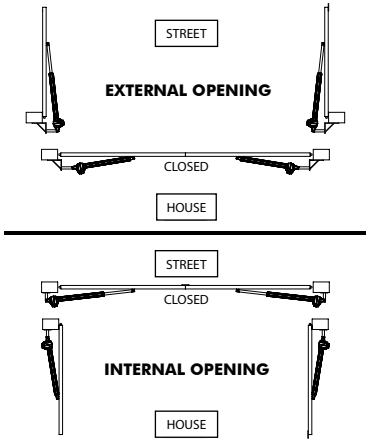
Maximum allowable measurements for standard installation (in millimeters).

INTERNAL OPENING (DOUBLE CENTRAL)



EXTERNAL OPENING (DOUBLE CENTRAL)

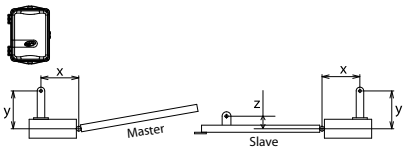




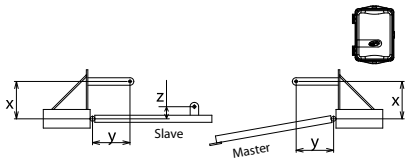
SUPPORT FOR MECHANICAL DELAY PPA

Measure for installing the leaf

INTERNAL OPENING (WITH MECHANICAL DELAY)



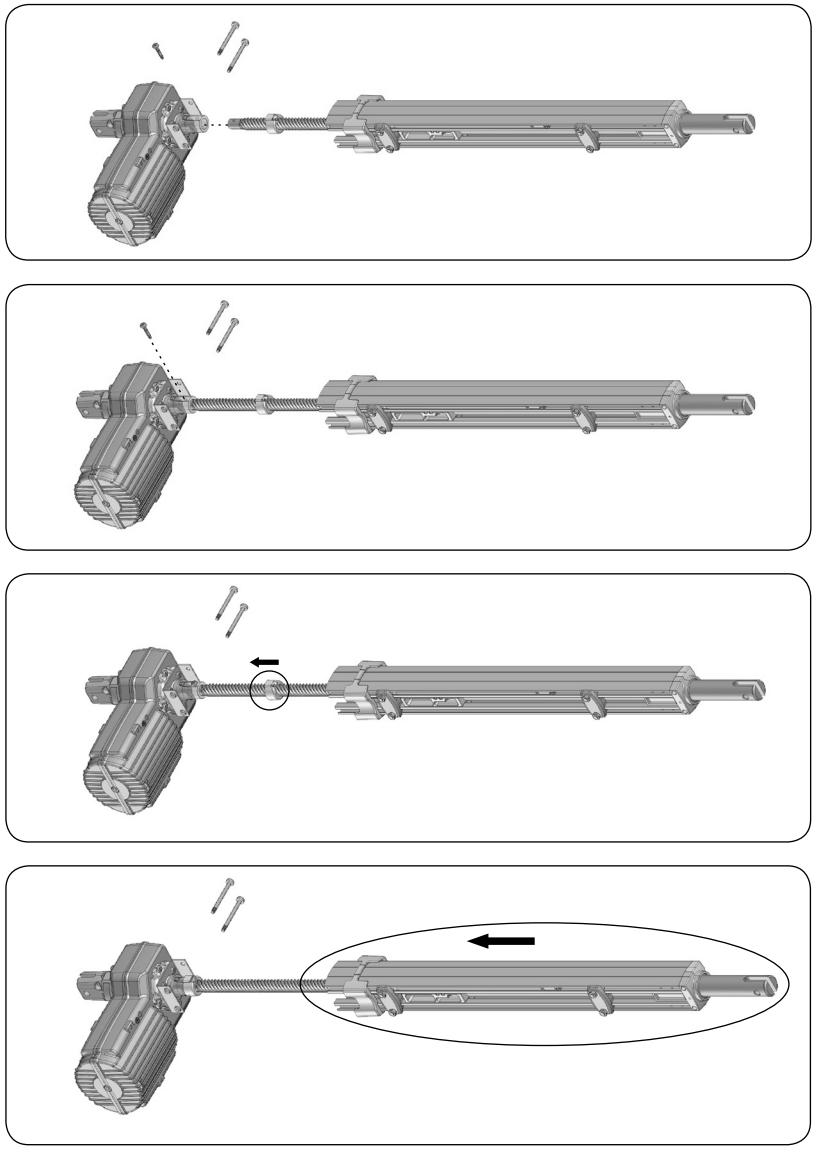
EXTERNAL OPENING (WITH MECHANICAL DELAY)

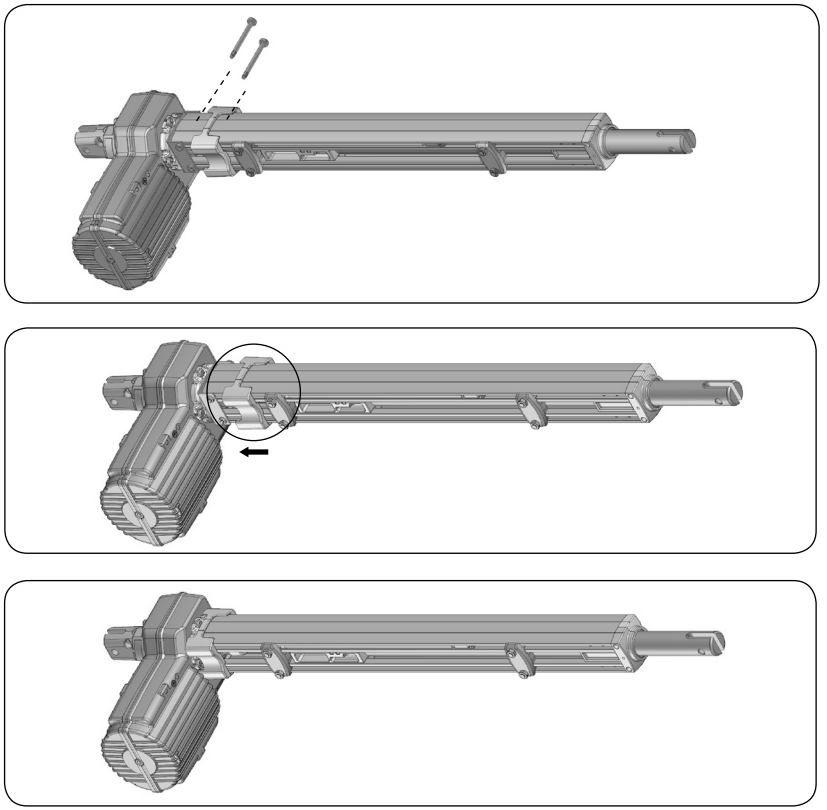


SUPPORT MEASURES FOR INSTALLING PPA PIVOTING OPERATORS WITH MECHANICAL DELAY								
ACTIVATION	OPERATOR	SLAVE LEAF Internal opening or external			LENGTH MAXIMUM SHEET	MASTER LEAF		
		X	Y	Z		X	Y	Z
STANDARD	PISTON CONDOMINIUM	180	180	50	2000	190	190	50
SUPER	PISTON CONDOMINIUM	360	360	50	3500	370	370	50
MEGA	PISTON CONDOMINIUM	390	390	50	4500	400	400	50

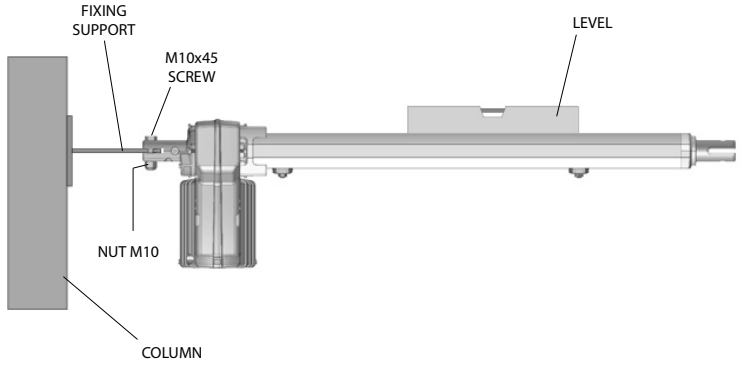
Maximum allowable measurements for standard installation (in millimeters).

4th Step: Couple the gearmotor to the drive, as instructed / illustrated below.

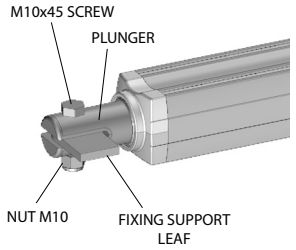




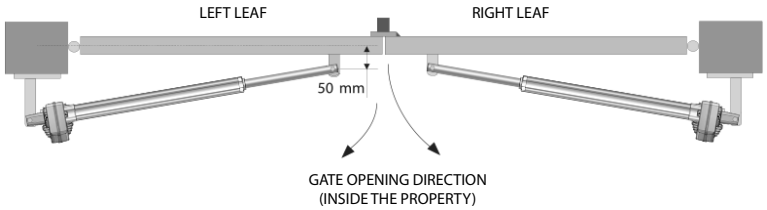
5th Step: Fit the operator to the fixing bracket, place the M10 x 45 mm screw and fix it with the M10 hex nut (available in the kit), as shown in the figure below.



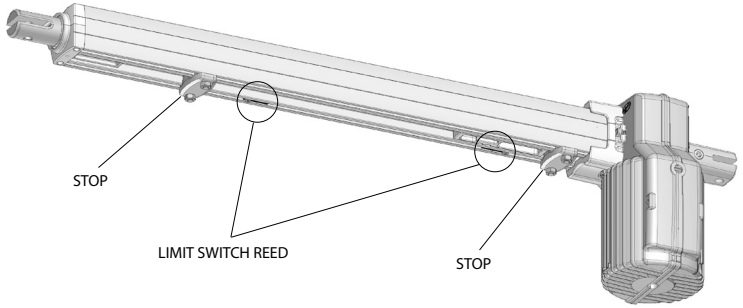
6th Step: Then, fit the sheet fixing bracket on the end of the plunger and fix it with M10 x 45 mm screw and M10 hex nut (available in the kit), as shown in the figure below.



7th Step: With the gate closed, advance the plunger fully and weld the fixing bracket to the gate leaf.



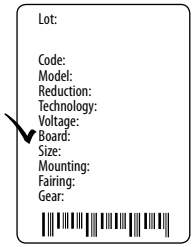
8th Step: Adjust the stops and position the opening and closing limit switches on the rail, so that they activate when the gate leaf completes its movement. Fix the limit switch reeds with the 3 x 10 screws (available in the kit) and connect it to the board.



⚠ Before the operator works, it is mandatory to screw board cover with 4 screws 3.5 x 16 mm (available in kit).

COMMAND BOARD:

Check the label attached to the product (according to the model on the side) which is the operator board. Once this is done, consult the board manual which is available for download at **www. ppa. com.br** and perform all connections and settings.



MAINTENANCE

In the table below, some PROBLEMS will be mentioned — DEFECTS, PROBABLE CAUSES AND CORRECTIONS — that may occur in your Operator. Before any maintenance, it is necessary to completely disconnect the electrical network.

DEFECTS	PROBABLE CAUSES	CORRECTIONS
Engine does not start / does not move	A) Power off B) Open / blown fuse C) Locked gate D) Limit switch Defective	A) Make sure the electrical network is connected correctly B) Replace fuse with same specification C) Make sure there is no object blocking the gate operation D) Replace the limit switch system (analog and/or digital)
Engine blocked	A) Inverted motor connection B) Gate or switch locked	A) Check motor wires B) Put in manual mode and check separately
Electronics board do not accept command	A) Blown fuse B) Mains disconnected (power) C) Defect in remote control unloaded D) Transmitter range (remote control)	A) Replace the fuse B) Connect the network (power) C) Check and replace battery D) Check the position of the receiver antenna and, if necessary, reposition it to ensure reach
Motor only runs for one side	A) Inverted motor wires B) Inverted limit switch system C) Defect in command board	A) Check motor connection B) Invert the limit switch connector (analog and/or digital) C) Replace the command board