PIVO HOME

Technical Manual

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WARNING:
Do not use the device without referring to this manual first.

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CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

Recommendation:
When istalling the operator, the PPA's specialist installer must comply with all the instructions present on both this **technical manual** and the **user manual**.

By using the **user manual**, the installer must present all information, uses and security items of the device to the end-user.

Prior to installing the operator, carefully read and observe the instructions contained herein.

- Prior to installing the operator, ensure that the local grid power complies with the technical data appearing on the gate's label;

- Do not connect the operator to the source of power until the installation / maintenance (or servicing) is over. Proceed the wiring of the control unit with the control box power switched OFF;

- After installing the operator, make sure the gate system is placed far enough from the sidewalk;

-The system's power supply network MUST include a disconnection device (not supplied).

TECHNICAL FEATURES

	PIVO HOME CUSTOM	PIVO HOME	PIVO HOME CUSTOM JETFLEX	PIVO HOME JETFLEX
TYPE OF GATE OPERATOR	Swing	Swing	Swing	Swing
MOTOR	Single-phase	Single-phase	JetFlex	JetFlex
POWER SUPPLY	127V/220V	127V/220V	127V/220V	127V/220V
RATED FREQUENCY	60 Hz	60 Hz	60 Hz	60 Hz
RATED POWER	320W/470W	370W/500W	300W/290W	350W/330W
MOTOR RPM	1740	1740	1740	5800
RATED CURRENT	2.7A/2.2A	3.1A/2.2A	3.4A/2.3A	3.6A/2.4A
REDUCTION RATIO	1:30	1:23	1:30	1:23
LINEAR SPEED	1.75meter/minute	2.3meters/minute	5.8meters/minute	7.6meters/minute
CYCLES / HOUR	20	30	30	40
PROTECTION RATING	IPX4	IPX4	IPX4	IPX4
OPERATING TEMPERATURE	-5°C/+50°C (23°F/122°F)	-5°C/+50°C (23°F/122°F)	-5°C/+50°C (23°F/122°F)	-5°C/+50°C (23°F/122°F)
INSULATION SYSTEM	Class B, 130°C (266°F)	Class B, 130°C (266°F)	Class B, 130°C (266°F)	Class B, 130°C (266°F)
LIMIT SWITCH SYSTEM	Analog	Analog	Hybrid (Analog and digital)	Hybrid (Analog and digital)
MAX LEAF WEIGHT	~221lb (100Kg)	~276lb (125Kg)	~331lb (150Kg)	~386lb (175Kg)
MAX LEAF SIZE	HEIGHT = ~8.3 ft (2.5m) LENGTH* = (According to each gate operator model)	HEIGHT = ~8.3 ft (2.5m) LENGTH* = (According to each gate operator model)	HEIGHT = ~8.3 ft (2.5m) LENGTH* = (According to each gate operator model)	HEIGHT = ~8.3 ft (2.5m) LENGTH* = (According to each gate operator model)

* The operator is available with ANALOG, DIGITAL or HYBRID limit switch systems. Check the model on its carton or label.

** The maximum length is determined by the operator model, either Standard (1.5 m / ~5 ft) or Super (3 m / ~10 ft).

BASIC TOOLS NEEDED FOR INSTALLATION

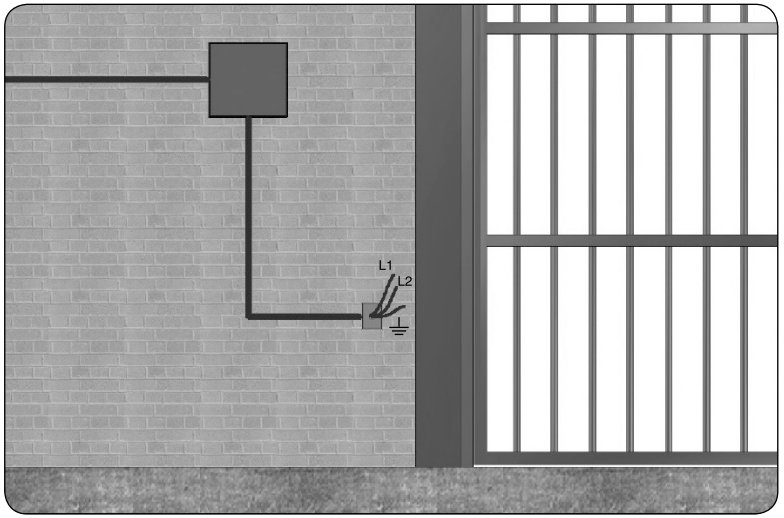
Tools needed:

ELECTRICAL CONNECTIONS

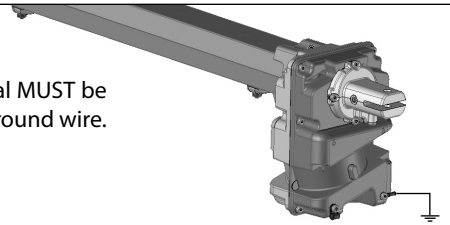
For the electrical set-up, the power grid must have the following features:

- 127 V / 220 V Power Supply;
- 5A Circuit Breakers in the Electrical Panel;
- 3/4" diameter conduits between the electrical panel and the disconnection device;
- 3/4" diameter conduits between the disconnection device and the outlet;
- 1/2" diameter conduits for (optional) external pushbuttons;
- 1/2" diameter conduits for photocells (required).

- The cable used for the wiring must comply with the NBR NM 247-3 standards (Brazil);
- The mains cable (of an internal use product) must be a 3 x (Tri-rated) 0.75 mm² / 500 V flexible cable, according to the NBR NM 247-5 standards (Brazil);
- The mains cable (of an internal use product) must be a 3 x (Tri-rated) 0.75 mm² / 500 V flexible cable; according to the IEC 60245-57 standards (Brazil).



The ground terminal MUST be connected to the ground wire.



IMPORTANT
The operator must be powered through a Differential Residual (DR) Current device with a Nominal residual operating current not exceeding 30 mA.

PRECAUTIONS WITH THE GATE BEFORE THE INSTALLATION

Before proceeding with the product's installation, some procedures must be taken:

- Check the movement (opening / closing) of the gate, before the installation;

- Check the effort required to open / close the gate. One must be able to perform it smoothly on the entirety of its movement. In order to check such effort, move the gate 80 cm (~2.63 ft) away from the hinge (spot where the operator exerts force to move the gate);

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

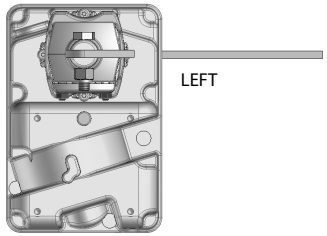
INSTALLING AND MOUNTING THE OPERATOR

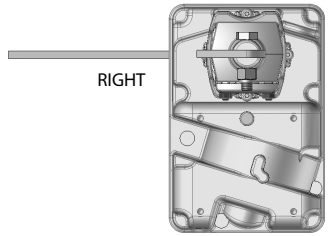
Before proceeding with the product's installation, disconnect any unnecessary cables as well as any devices or systems from the mains power supply.

In order to install the product, follow the procedures below:

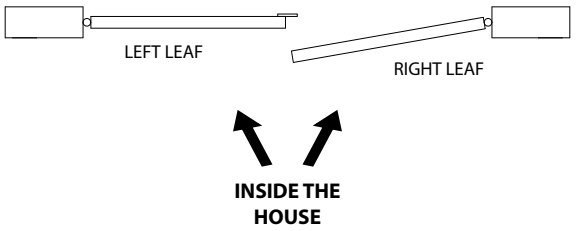
Swing operators are provided to be installed on either the right or the left side of the gate. Therefore, in order to identify which side is it, follow the procedures:

- Observing the operator, according to the picture below, check the position of the cable of the motor. If it is to the right, the operator is the right one. If it is to the left, the operator is the left one.



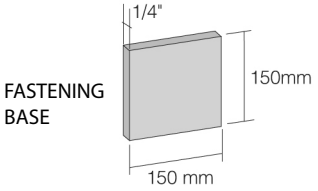


In order to figure out which leaf of the gate is the left one and which is the right one, place yourself inside the house, facing the gate. Thus, the leaf to your right is the right one and the laf to your left is the left one.

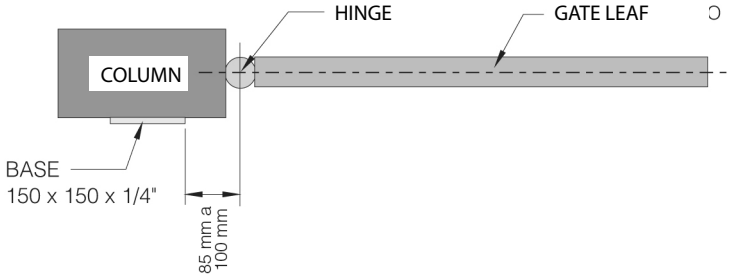


In order to mount the operator, carefully follow the instructions below:

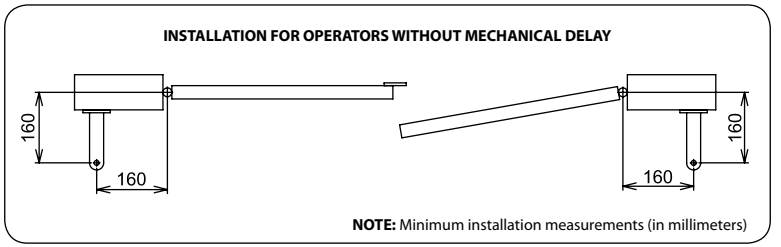
Step 1: The gate must close inwards. Provide an iron base (150 mm x 150 mm x 1/4”). It will be the fastening base.

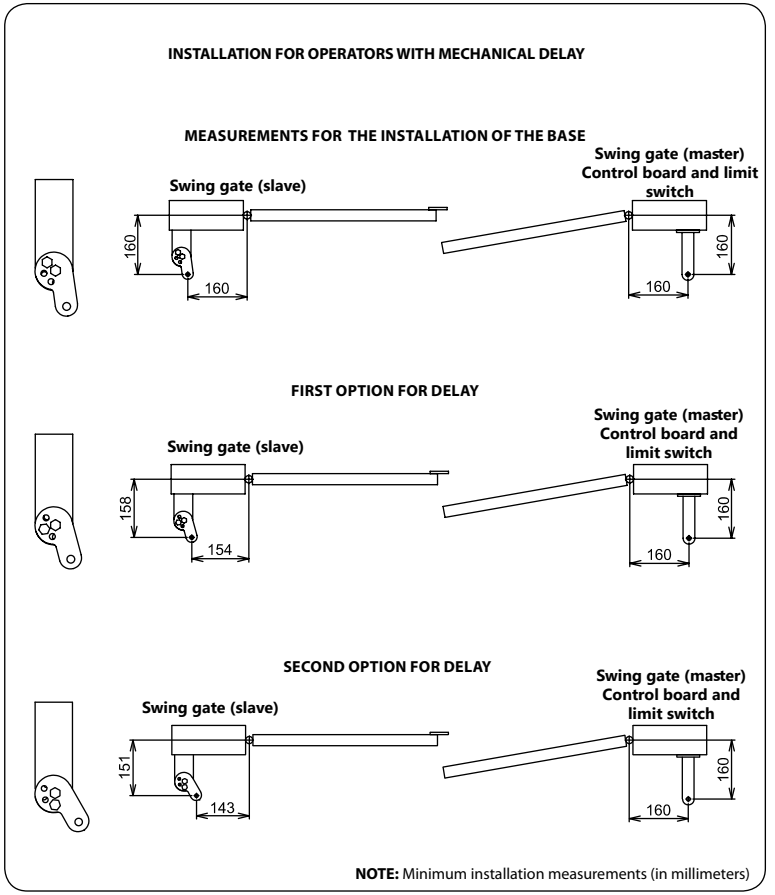


Step 2: Fasten, either on the wall or on the gate column, the fastening base, about 85 to 100 mm (3.4 to 4 in) away from the gate hinge, and at the desired height to mount the operator, according to the picture below.

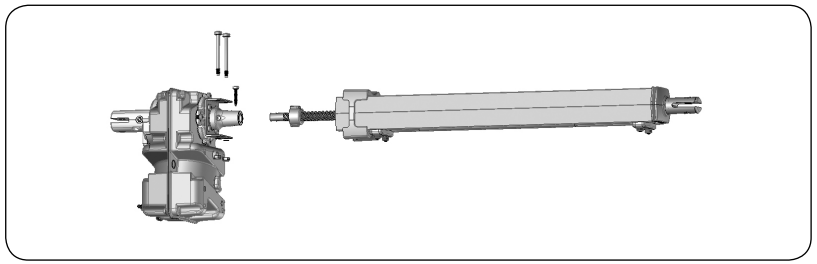


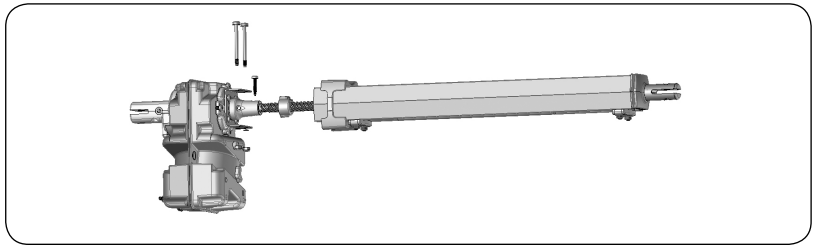
Step 3: Weld the fastening base according to the instructions / pictures below.

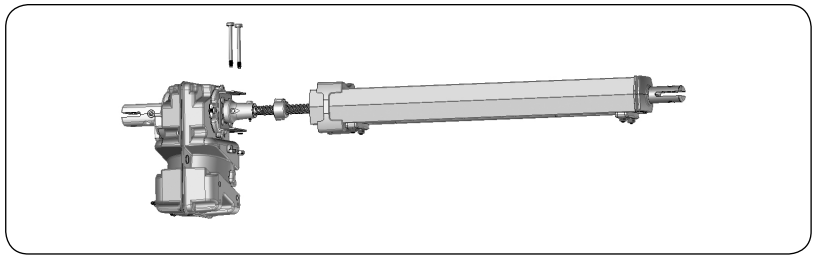


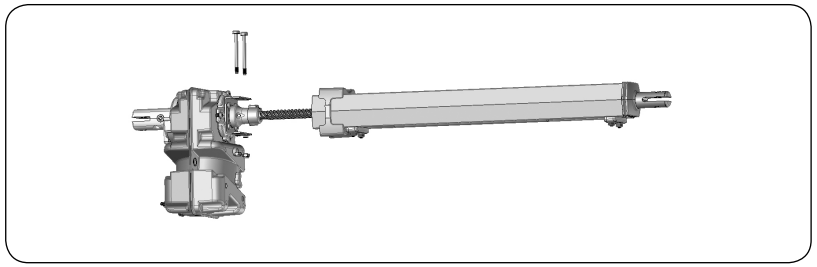


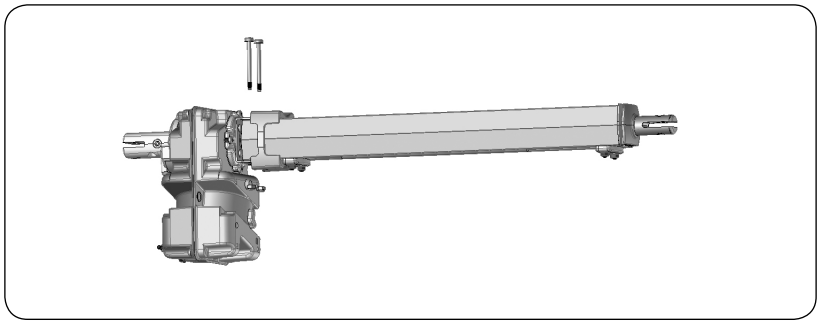
Step 4: Connect the gear motor to the actuator, according to the instructions / pictures below.

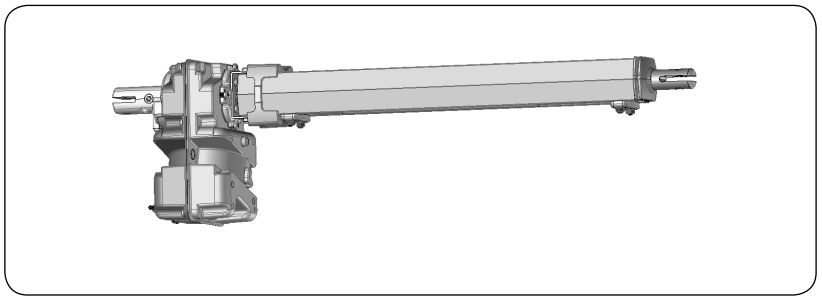




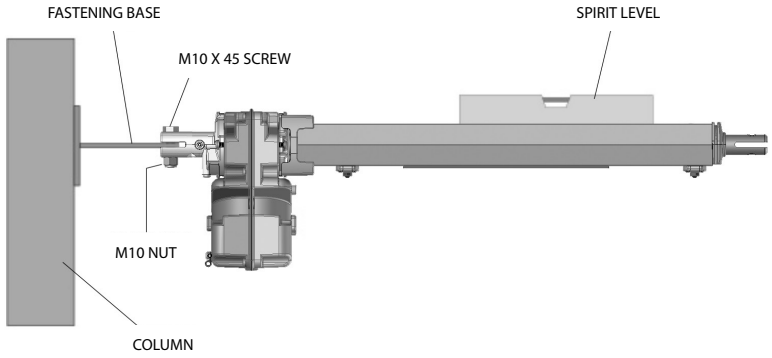




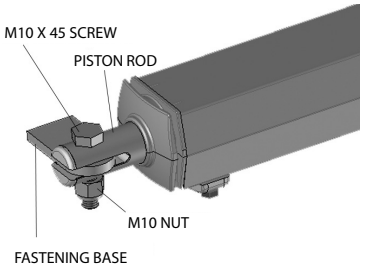




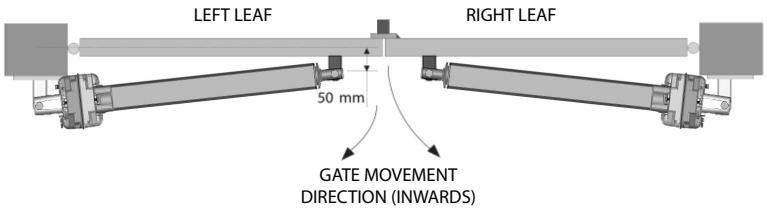
Step 5: Fit the gear motor to the fastening base, tighten the M10 x 45 screw and fix it by means of a M10 hex nut (provided), according to the picture below.



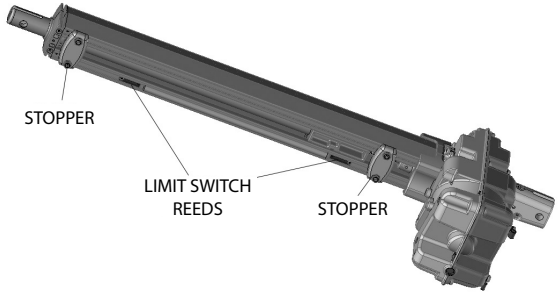
Step 6: Then, fit the fastening base to the tip of the piston, and fasten it by means of a M10 x 45 mm screw, as well as a M10 hex nut (provided), according to the picture below.



Step 7: With the gate closed, fully extend the piston rod and weld the fastening base to the gate leaf.

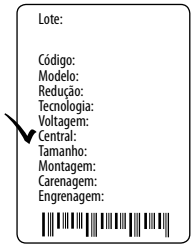


Step 8: Adjust the stoppers and place the open / close limit switch reeds on the rail, so that they activate once the gate leaf complete its movement. Fasten the limit switch reeds by means of the '3 x 6' screws (fixed on the reeds) and connect it to the control board.



Before running the operator, one must screw the operator housing by means of the 4 provided 3.5 x 16 mm screws).

CONTROL UNIT:
Check on the product's lable (as seen on the picture to the right) which is the proper control board for this operator. That done, refer to the control board manual available to download on **www.ppa.com.br** and perform all connections and settings accordingly.



TROUBLESHOOTING

The table below contains useful information on some PROBLEMS — SYMPTOMS, PROBABLE CAUSES AND POSSIBLE SOLUTIONS which might affect your operator. Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply.

SYMPTOMS	PROBABLE CAUSE(S)	ACTION(S)
Manouver fails to start	A) No power supply B) Open / Blown fuse C) Gate jammed D) Defective limit switch	A) Ensure that the power cable is correctly inserted in the power outlet. B) Substitute the fuse for another one with the same specifications C) Ensure there are no obstruction on the gate travel D) Substitute the (analog and/or digital) limit switch system
Motor won't run	A) Reversed wiring B) Gate or operator jammed	A) Check the wiring B) Change to manual mode and check it separately
Control board does not accept a command	A) Blown fuse B) No power supply C) Defective remote control / Low battery D) Remote control range	A) Substitute the fuse for another B) Ensure that the power cable is correctly inserted in the power outlet C) Check and substitute the battery D) Check the position of the receiver's antenna and, if necessary, try adjusting it, if you think the signals to be weak
Motor only runs in one direction	A) Reversed wiring B) Reversed limit switch system C) Defective control board	A) Check the motor wiring B) Reverse the limit switch connector (analog and/or digital) C) Substitute the control board