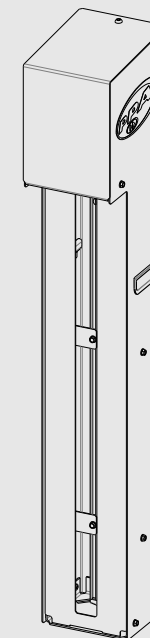




Technical Manual

BARREIRA DE CORRENTE BC1



All pictures in this manual are for illustrative purposes only.



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ATTENTION:

Do not use the equipment without first reading the instruction manual.

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PLACE OF INSTALLATION

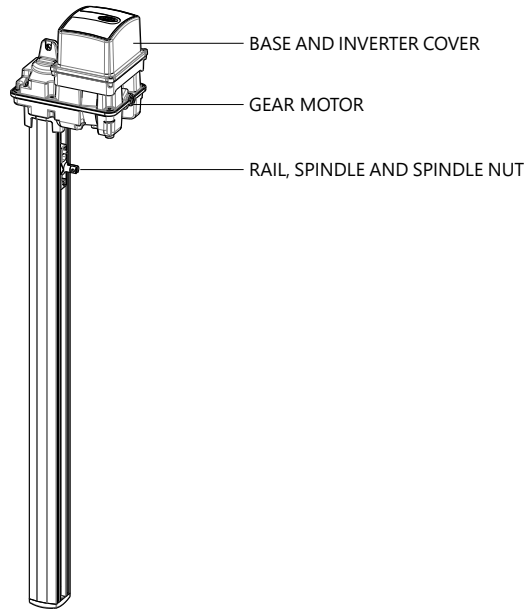
The location where the BC1 will be installed must be previously analyzed, checking the entire infrastructure, floor conditions, electrical network, the width of the passageway, the flow of vehicles and the need to use optional accessories.

ⓘ IMPORTANT

It must be checked if there are any obstacles that could interfere with the total opening and closing of the chain. In this case, the installation of the equipment will be impaired, and repairs to the local infrastructure will be necessary. Note the need for optional accessories. Calculate the flow of vehicles on site.

☑ **NOTE:** If the floor does not meet the above specifications, a concrete base must be provided for fixing the BC1, taking into account the dimensions of the cabinet base. The base must have a minimum possible elevation above ground level, with a maximum height of 50 mm, it must not be too high so that there is no gap between the chain and the floor, hindering the passage of vehicles when it is fully open.

INTERNAL CABINET COMPONENTS



Site preparation:

1. Run a 3/4" pipe through the floor or concrete base from the center of the base to the circuit breaker box installed on site, from where the electrical supply to the equipment will come.
2. Provide the passage of power cables through this pipe to the place where the equipment will be operated. See the table below for the choice of cable, according to the NBR 5410 standard.

Operator Power Supply	Cable type and size
110V	1 PP cable of 2 x 2.5 mm
220V	1 PP cable of 2 x 2.5 mm

☑ **NOTE:** If accessories are used, provide piping and cables as needed. Provide a grounding rod that will be fixed close to the BC1 body.

GENERAL FEATURES

- BC1 cabinet that allows the installation of the chain for use in private or public car parks and in residential and commercial areas;
- Electronic board with frequency inverter
- System activation through gearmotor, rail and spindle;
- Galvanized steel cabinet with anti-corrosion treatment and electrostatic painting that guarantee great resistance against the action of time;
- Limit switch system with encoder;
- Electronic brake;
- Allows the installation of various accessories (traffic light, photocell, pushbutton, etc.).

☑ **NOTE:** This product requires installation by an authorized and qualified PPA professional.

TECHNICAL SPECIFICATIONS

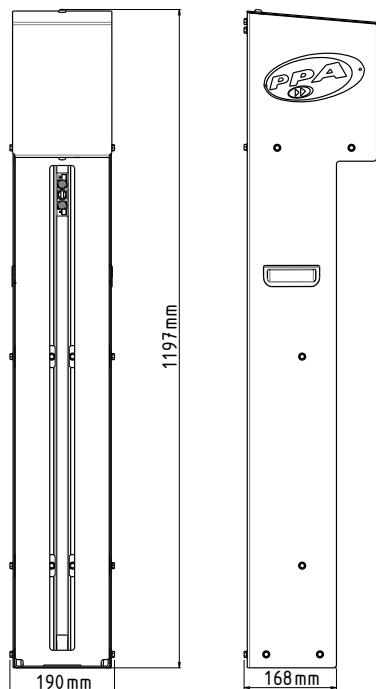
BC1 (galvanized steel chain)

Chain length	Cycles/hour	Opening (adjustable)	Closing (adjustable)	Voltage
8 Meters (Chain 9 mm)	40	5 seconds	5 seconds	127 and 220V
16 Meters (Chain 5 mm)	40	5 seconds	5 seconds	127 and 220V

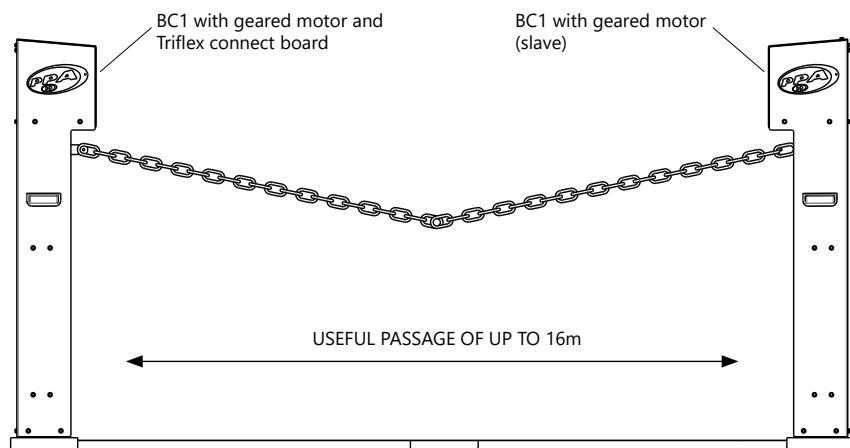
BC1 (plastic chain)

Chain length	Cycles/hour	Opening (adjustable)	Closing (adjustable)	Voltage
16 Meters (Chain 5, 9 and 15 mm)	40	5 seconds	5 seconds	127 and 220V

EQUIPMENT DIMENSIONS



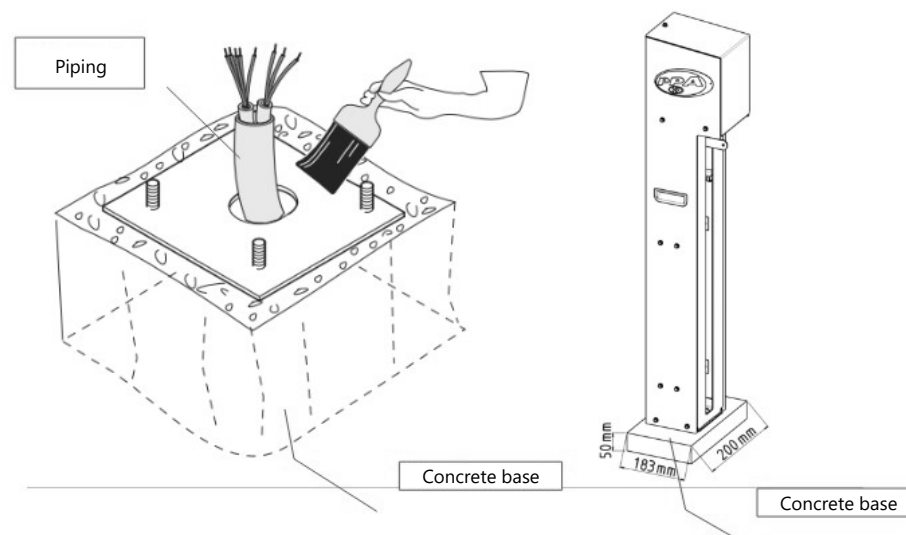
DEFAULT INSTALLATION



CONSTRUCTION OF THE BASE FOR FIXING THE CABINET

Build a concrete base always located towards the curb (street, vehicle stop) following the measurements in the image below.

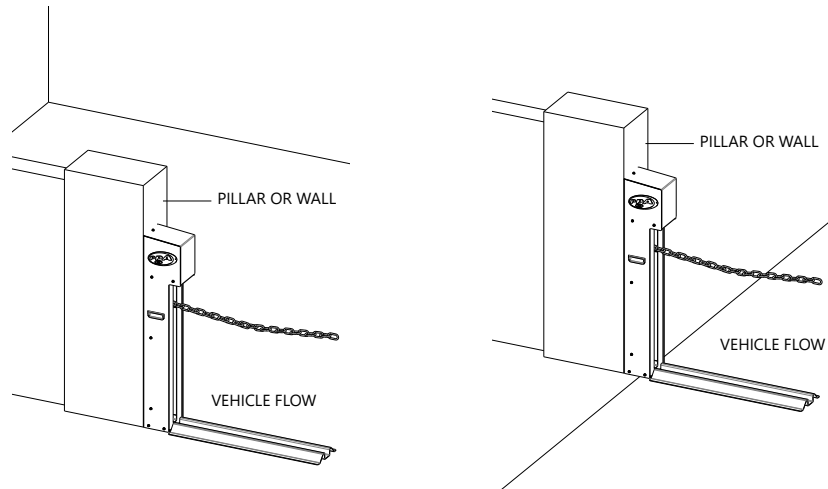
NOTE: The base must be built below the height of the ground, and finished leveling with the height of the same; this base cannot be too high so as not to harm the passage of vehicles because when the chain is open, it will not completely touch the floor.



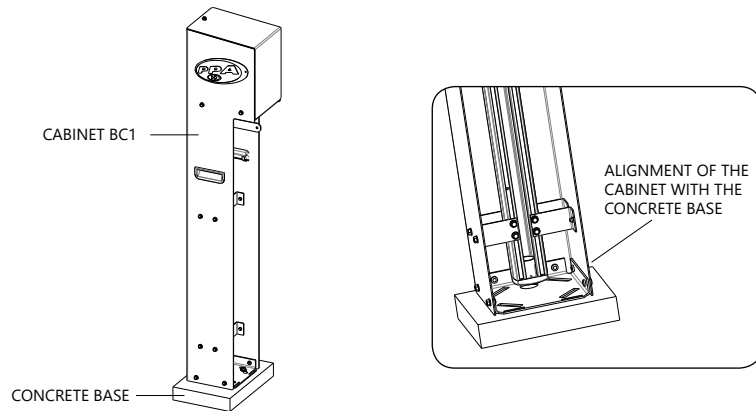
Note: Measurements in millimeters. It is very important that the base is level; this will allow the product to perform better.

INSTALLATION PRECAUTIONS

1. When fixing the BC1, note that the front of the cabinet must face the side of the road or the place where vehicles pass.



2. Position / align the cabinet on the base and mark the holes, so that the front of BC1 (inspection door side) is located towards the curb (street, vehicle crossing).

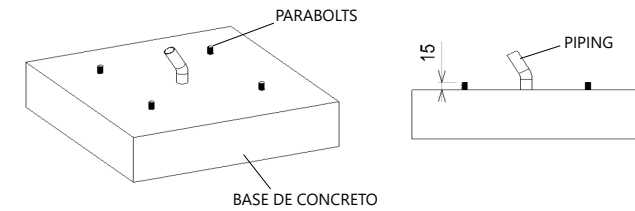


3. Remove the cabinet from the base and drill holes in the previously marked locations.

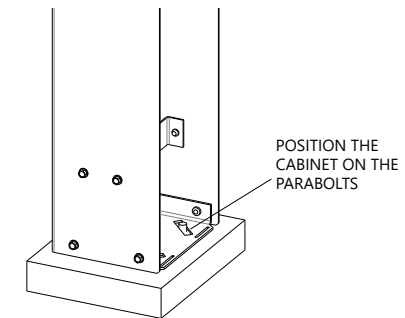
Note: Make 04 holes with a Ø10mm diameter drill bit and at least 80mm deep.

4. Insert the parabolts into the holes in the base as shown below.

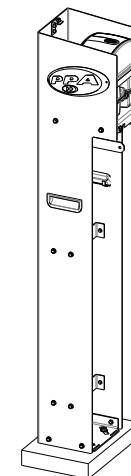
Note: The parabolts must not be inserted completely, they must be more or less 15mm above the base.



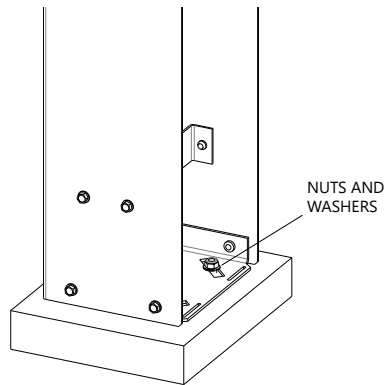
5. Position the cabinet on the base, fitting the holes in the cabinet on the parabolts.



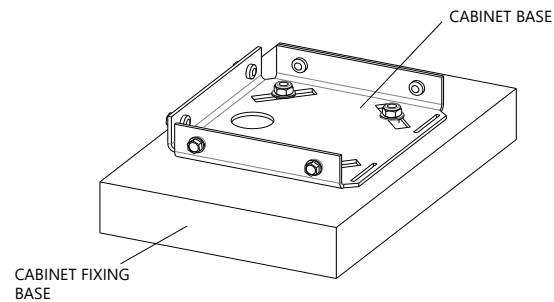
6. Recheck the cabinet alignment. If necessary, move it in a circular fashion as desired.



7. Insert the washers and nuts for the definitive fixing of the cabinet.



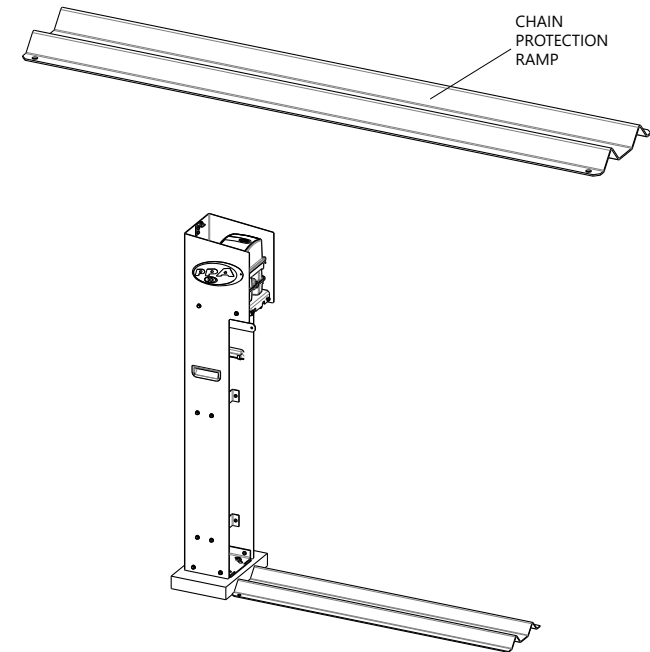
8. For a better fixing of the cabinet, it is recommended to release the side plates of the cabinet from the fixing plate of the concrete base.



9. After fixing the cabinet and checking the alignment, calculate the number of cables to connect one cabinet (gearmotor and board) to the other (slave).

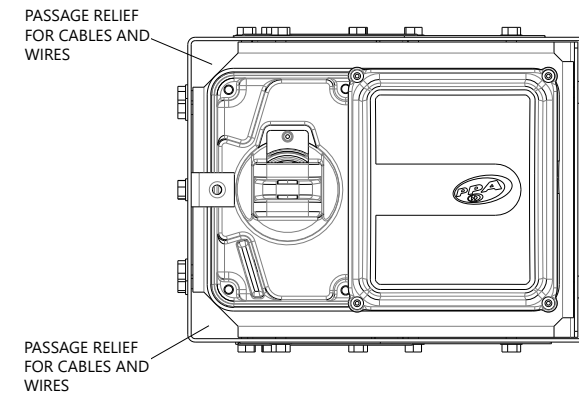
NOTE: Cables can be passed under the current protection ramp plate, where there is no need to break the floor.

10. Fix the current protection ramp plates (product sold separately) centered with the cabinet.

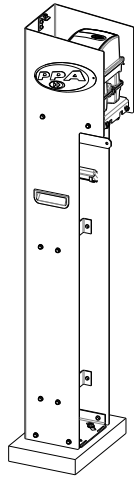


11. Power/energize BC1 according to product voltage purchased (127V or 220V).

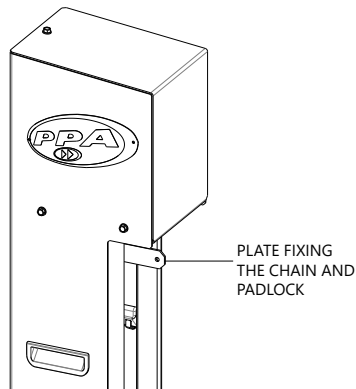
NOTE: Use 2.5 mm² wires. Use a dedicated circuit breaker, that is, it will only be connected to BC1.



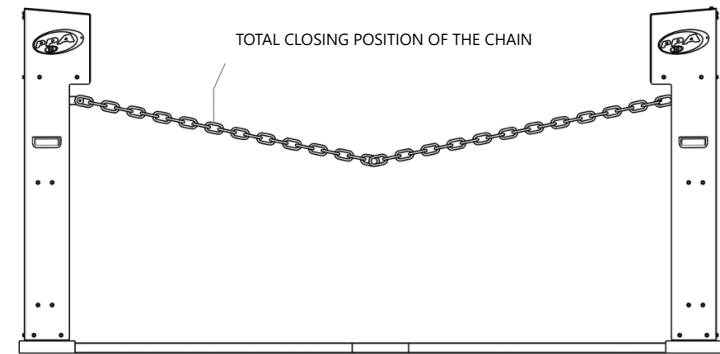
12. Check/set the chain alignment (opening and closing). Use mechanical stops for this situation, moving them as needed.



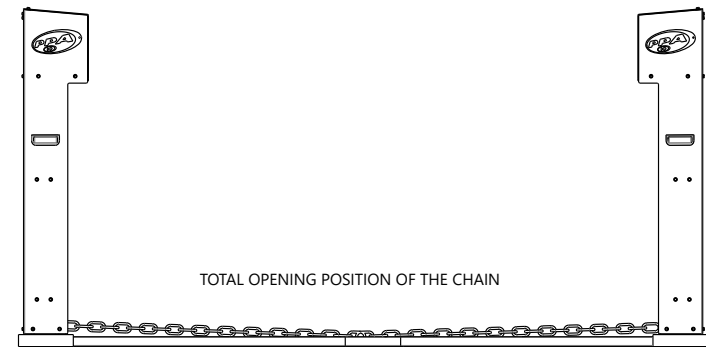
13. Insert the chain into the plate of the nut and spindle assembly, securing it with a padlock.



14. BC1 will be in good working condition at closing, when the current is in the conditions shown below in the image.



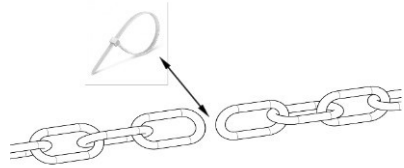
15. BC1 will be in good working order upon opening, when the current is in the conditions shown below in Image.



Note: In the first activation, the chain will move slowly in the opening and closing direction, as it will be reading the path, soon after the reading, the operation is normalized, starting to operate at the factory default speed, for more accurate adjustments, consult options of electronics board.

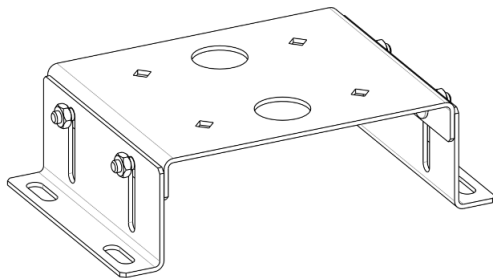
RECOMMENDATIONS

For the safety of vehicles and for the protection of BC1 against possible damage caused by collision with the chain, it is recommended to place a breaking device or splice the end of the chains with a hellerman clamp 2.5 mm x 60 mm as shown in the image below, of this way, a system for impact release is created.



BC1 BASE FLEX (PRODUCT SOLD SEPARATELY)

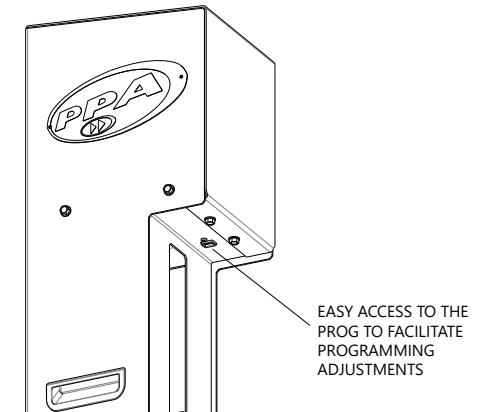
This base facilitates installation because there is no need to modify or build a concrete base, and it also corrects the unevenness that exists in the ground. It must be positioned, fixed and adjusted to correct the unevenness and facilitate the installation of the BC1 cabinet, whenever possible adjust the Flex base so that it is not too high due to the ground conditions, preventing it from harming the passage of vehicles when the current is fully open.



OPERATION

BC1 operation is done by a board with frequency inverter, activated via remote control or any other device that provides a NO (normally open) contact.

The adjustments in the functions of the electronic board are carried out through the PROG that has been placed on the external panel of the cabinet to facilitate access.



TRIFLEX CONNECT COMMAND BOARD

The command board operates with a frequency inverter, whose function is to drive the three-phase induction motor from a single-phase AC network and a logic controller to carry out the inverter operations. For more information, consult the TRIFLEX CONNECT / TRIFLEX FULL RANGE command board manual.

NOTE: For the correct functioning of the chain barrier, the residential or condominium automation models must be used as programming of the command board, programming that is carried out through the PROG.