

# **BASTION<sup>®</sup>**

**BUILDING MATERIALS**

## **DIY SINGLE CAR GARAGE DOOR**



## **INSTALLATION INSTRUCTIONS**

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# 1.0 BEFORE YOU START

## 1.1 REQUIREMENTS FOR INSTALLATION

**STRUCTURAL SUITABILITY** – Before commencing installation of your new Bastion Single Garage Roller Door you must ensure the structure is strong enough to support the door. If you are unsure, consult a suitably qualified builder or structural engineer.

### OPENING REQUIREMENTS

Your Garage Roller Door is designed to be mounted behind the opening therefore you will need to measure and check the following;

OPENING WIDTH – 2500mm

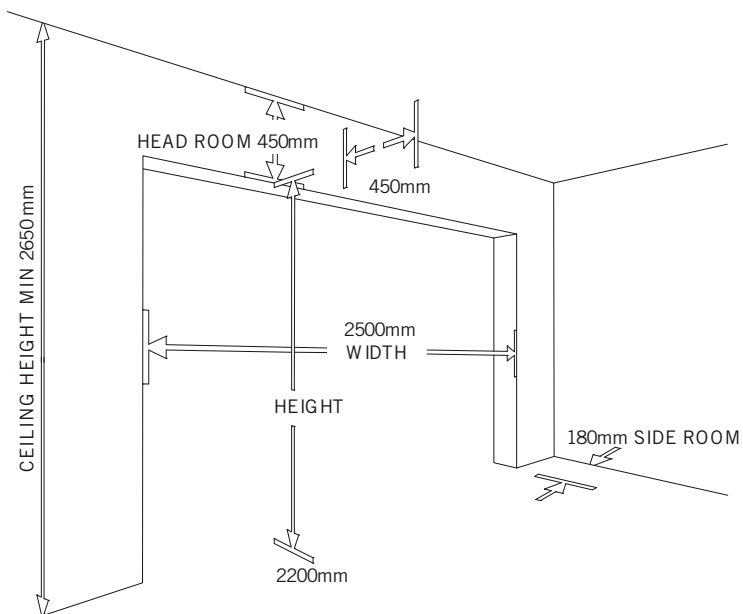
OPENING HEIGHT – 2200mm

CEILING HEIGHT – 2650mm minimum

**LEVEL AND PLUMB** – This door **MUST** be installed in an absolutely level position, if opening is not level and square, appearance and/or side room will be affected.

**HEADROOM** – See diagram below

**SIDEROOM** – A minimum of 180mm of side room is required beside the opening to allow for a door opener to be fitted now or in the future.



## 1.2 FIXING REQUIREMENTS

Your Garage Roller Door can be installed on various building materials including Solid or Hollow Brick Work, Timber Framing, Concrete inc. HEBEL and Steel Framing.

Important Note: The Installer must select and use fasteners appropriate to the material into which they are being fixed and that these fixings are installed in accordance with the fixing manufactures recommendations.

## 1.3 TOOLS CHECKLIST

Tools required to install your door. You will also need assistance to help lift the door up safely.

- a power drill and bits
- socket set
- spirit level
- 2x stepladders
- File
- water level (10mm diameter clear tube by 6m long)
- felt tip marking pen
- pipe wrench
- 400mm softwood chock
- Screwdriver

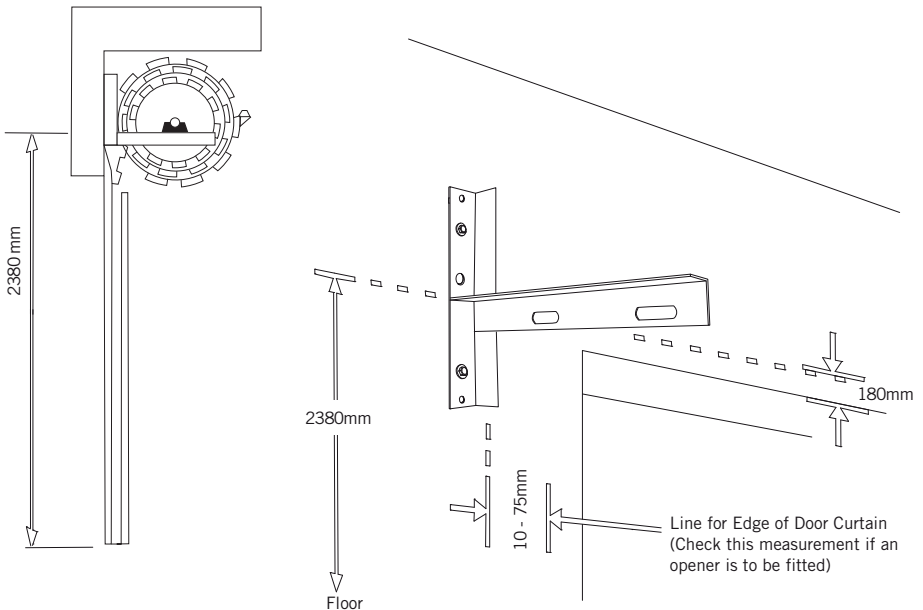
# 2.0 INSTALLATION

**NOTE: DO NOT CUT THE PLASTIC WRAP OR PROTECTIVE PACKAGING YET**

## 2.1 INSTALL FIRST BRACKET

The first step in the installation process is to determine the mounting bracket location.

- a) Measure the door curtain width and mark where the edge of the curtain will be, allowing for an overlap on each side of the opening.
- b) Mark two hole positions where you intend to secure fasteners through the mounting bracket with a felt tip pen.
- c) It is important that the intended fixings are located in the centre of the slots on the bracket. This allows for minor levelling adjustments.
- d) Drill both holes, then attach the bracket using your selected fasteners to suit the wall type.

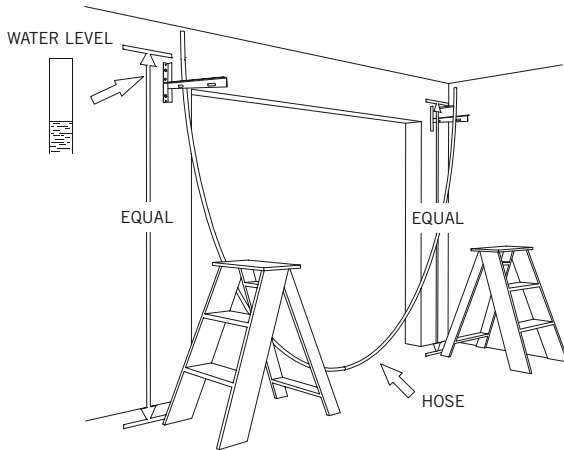


## 2.2 INSTALL SECOND BRACKET

- a) Using a water level mark the position for the second bracket.
- b) It is extremely important that the brackets are level. This can only be achieved with a water level (not a spirit level)

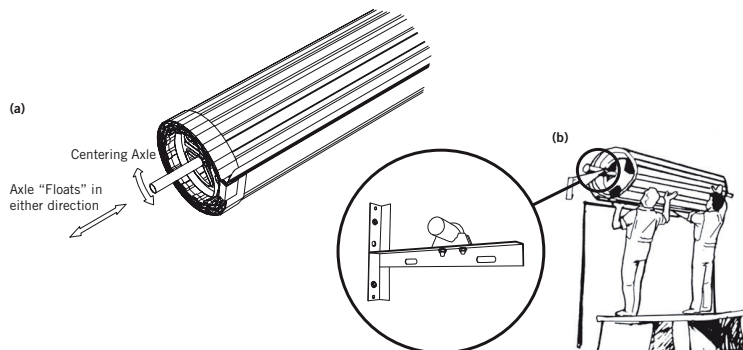
NOTE: The brackets must be installed perfectly level for the door to operate.

Re-check levels then drill and fix as with the first bracket.



## 2.3 DOOR INSTALLATION

- a) Before lifting the door onto its brackets ensure the axle is sitting in it's neutral position by pushing it into the door from one whilst rotating  $\frac{1}{2}$  a turn. The axle will spring back and find it's neutral position. Mark the position of the drum wheel on the axle with a marking pen for later reference.
- b) Lift the door onto the brackets (ensure the door is right way so that the door will roll down from the front of the opening)
- c) Immediately loosely fit the "U" bolts, saddles washers and nuts to the bracket.
- d) Do not over tighten the nuts at this time. Repeat at the opposite end.

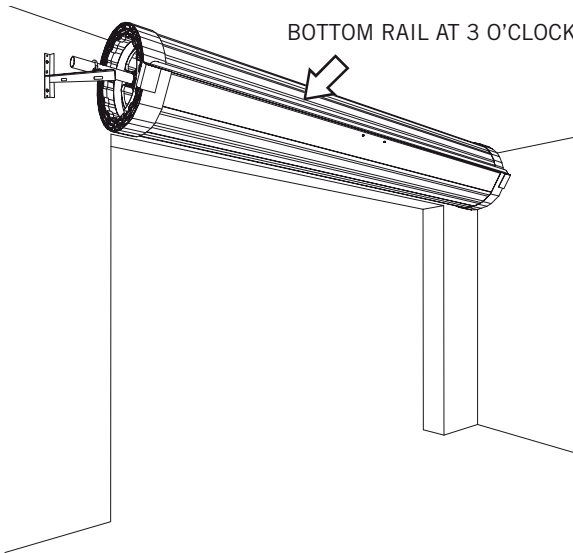


## 2.4 POSITION DOOR

- a) Centre the door with the opening and align the drum wheel with the mark you left on the axle for this purpose.
- b) Check the axles are parallel with the opening.
- c) Rotate the curtain axle 1 ½ turns.
- d) Securely tighten the "U" bolts.

Considerable tension will be applied to these "U" bolts when the springs are tensioned so it is important to ensure the "U" bolts are well tightened but not overtightened so as to distort the saddles.

Cutting or removing the wrapping prior to tensioning the door springs will result in the door unravelling which may damage the door or result in injury.

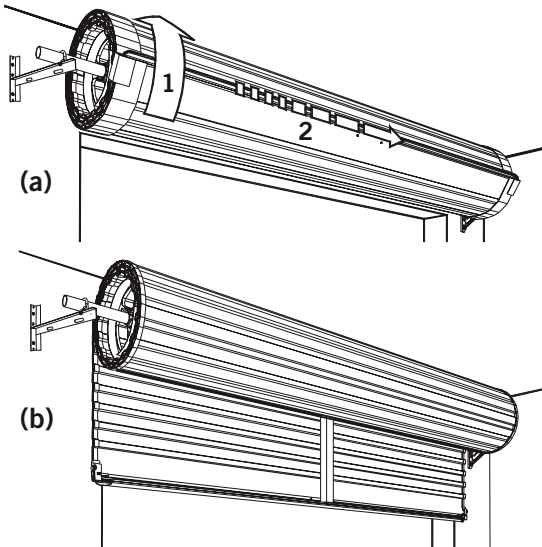


## 2.5 TENSION THE SPRINGS

FIRST PREPARE A SOFT WOOD CHOCK, APPROX. 400MM LONG

- a) Tension the springs by spinning the door in the direction as shown in Figure a. Rotate the door 1 ½ turns in the forward direction to apply tension. Do NOT let go as the springs are now tensioned.
- b) Hold the door firmly, NOW cut the plastic warp along the bottom rail. (taking care not to damage door surface or weather seal)
- c) Once the plastic is released, pull the curtain down slowly and carefully position a softwood chock as shown to prevent the door rolling up. Take care not to damage the door surface. Figure b.

The chock will help hold the door until the guides are fitted.

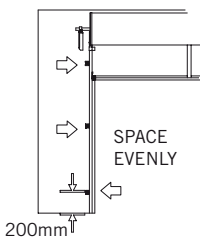
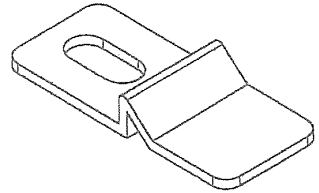




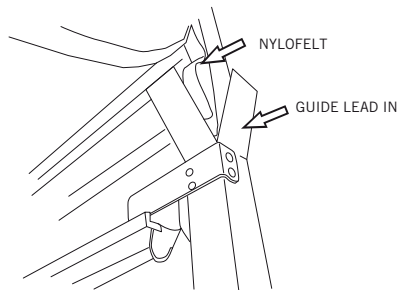
## 2.6 GUIDE FITTING

Guides are supplied in *pairs* and the correct track for each side must be identified.

- a) Measure between the top of the bracket and the floor on each side of the opening. In the event you need to trim the bottom of your guides do so now. The bottom of guide track is the opposite end to the stop welded to the track.
- b) Using a rag dampened in kerosene clean the inside of the tracks.
- c) Prepare the three mounting clips to each side.
- d) Slide the tracks over the exposed door curtain and fix the tracks to the wall with suitable fixings allowing a 2-3mm clearance between the inside guide and the roller door curtain.
- e) Position the bottom clip approximately 200mm from the floor with the rest evenly spaced.
- f) Ensure the tracks are perpendicular, Figure a. All fixings should be central in the slot of the track lug to allow for minor adjustments. (Note: if securing to even brickwork, packers may be required behind the clips)
- g) Install and secure all guide mounting clips and fix to wall. Do not tighten fixings at this stage rather the fixings should be snug fit only.
- h) Remove the chock and allow the door to travel to the floor and check for correct tension adjusting guide positions as needed. Tighten all guide fixings securely.
- i) Ensure the bottom rail is below the door stop weld to the guide and the leads are bent out sufficiently to allow the curtain to feed into the guide without snagging. Figure b.



(a)



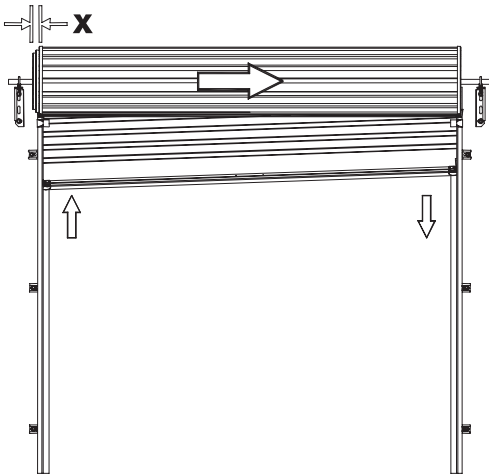
(b)

## 2.7 FINAL ADJUSTMENT

1 If your door is hard to operate in **ANY DIRECTION** check that the door is not jamming in the guides

Check the following:

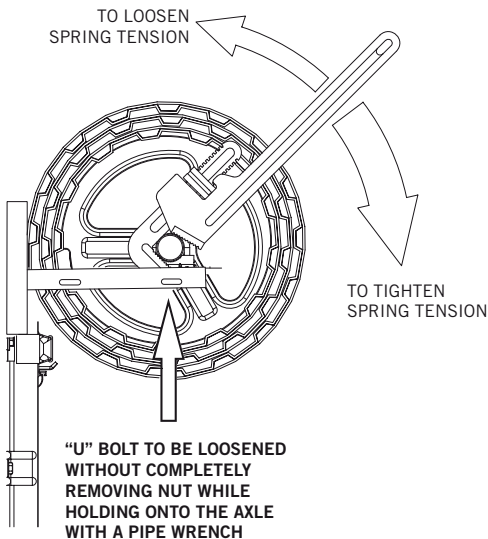
- a) the guide clearance,
  - b) that the guides are plumb,
  - c) that the guide surfaces are clean and free from oil,
  - d) that the weather seal is impeding movement.
- 2 If the door is hard to operate in **ONE DIRECTION**, the spring tension requires adjustment (see Step 2.8)
- a) If the door is hard to lift, but tends to drop, then increase the spring tension.
  - b) If the door is hard to close, but tends to rise, then decrease the spring tension.
- 3 If the door rolls up crooked as shown below then; check:
- a) Brackets are level, refer to Step 2.
  - b) Axle is centralised.
  - c) Guides are plumb.



## 2.8 TO ADJUST SPRING TENSION (FOLLOW CAREFULLY)

**CAUTION MUST BE EXERCISED WHEN UNDERTAKING THIS STEP SO THAT THE TENSION ON THE SPRING DOES NOT SLIP DURING THE PROCESS.**

- 1 With the door rolled up tie two ropes around the door roll approximately 300mm from each end, as a safety precaution.
- 2 With a person at each end of the door, hold the axle firmly with a large pipe wrench (Stillson) at least 450mm long
- 3 Loosen the "U" bolt nuts at both ends and **KEEP A FIRM GRIP ON THE WRENCH.**
- 4 Rotate the axle in the required direction (see diagram)
- 5 Re-tighten the "U" bolts **BEFORE** releasing the pipe wrench.
- 6 Test and repeat if further adjustments are necessary.



## 2.9 LOCK HOLES

In the case of manual doors only (no automatic opener fitted)

- a) Close the door so the weather seal engages the floor but is not compressed and mark the top of the lock rods accurately on both guides.
- b) Drill a hole through the guide using a 12mm bit so that the top of the hole is 5mm below the top of the guide mark.
- c) Close the door and with minimum effort compress the weather seal and lock the door.
- d) Adjust the lock hole with a round file to obtain a satisfactory fit of the weather seal to the floor and easy key operation.
- e) Clean off all burrs.

## 3.0 AFTER INSTALLATION CARE

### LOCK –

Your lock does not require special maintenance, however if the keyway becomes stiff, the application of powdered graphite is recommended – do not grease or oil the lock.

When opening the door, always remember to make sure the key is drawn from the lock – if this is not done, the lock mechanism could be damaged and the key could become bent or broken.

Key Blanks are available by contacting Hartman Pacific customer service on the number below.

### NYLON RUNNING FELT –

Do not under any circumstances grease or apply oil to the nylon tracks or guide rails. This will cause the track to clog and effect the operation of your door.

An occasional wipe with mineral turps or methylated spirits, down the inside of each guide, this will remove traces of grease or oil.

After the guides have been cleaned, a silicon spray may be used in the guides.

NOTE: WD40 or similar oil based sprays are not silicon and should not be used.

### SPRING TENSION –

It is natural for springs to lose tension over time. When spring tension is adjusted or when your door is first installed it is usual to apply a little more tension than is required for balanced operation, to allow for the normal “settling” of the springs.