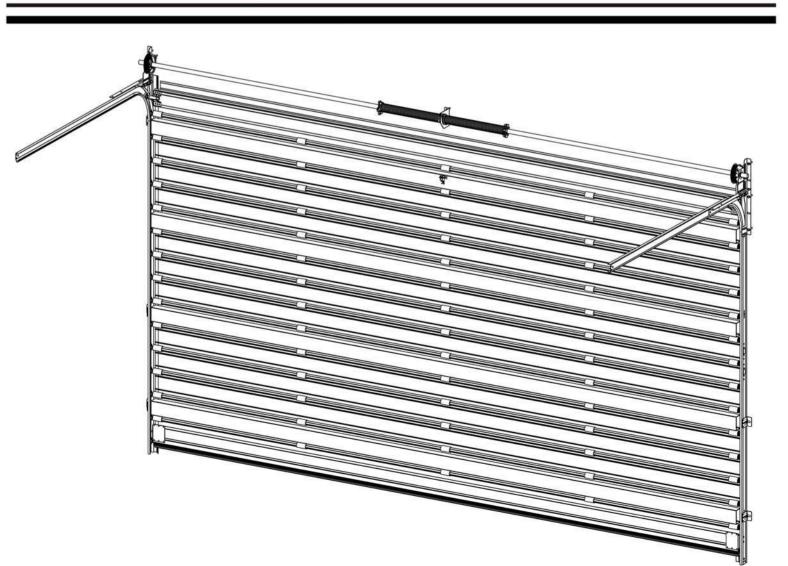
INSTALLATION MANUAL

for

DOUBLE SECTIONAL ALUMINIUM DOOR

Torsion Spring System

Maximum Door Dimensions: 4880mm wide X 2135mm High



Terms and Conditions of Warranty for Garage Door Hardware

1 DEFINITIONS:-

In these terms and conditions:-

- 1.1 Brano shall mean Brano Industries (Pty) Ltd. or its successors in title or assign.
- 1.2 The "owner", "purchaser", or "end user" shall mean the individual in whose name the ownership of the equipment is registered in terms of this agreement.
- 1.3 "Distributor" shall mean the wholesaler or distribution agent appointed by Brano.
- 1.4 "Dealer" or "Installer" who acts as a re-seller of the equipment and who may also be the installer of the equipment.

2 SCOPE OF SUPPLY:-

This Warranty applies only to the Garage Door Hardware. Garage Doors "per se", Garage Door Operators and Controls, accessories such as door adaptor kits, site work, labour or travelling expenses are not considered as integral to the scope of supply.

3 GENERAL CONDITIONS of WARRANTY

- 3.1 This Warranty covers the "branodor" Garage Door Hardware against faulty or defective materials, components and / or manufacturing workmanship for a period of 12 months from the date of purchase.
- 3.2 Proof of purchase in the form of an Invoice or the serial number of the hardware kit is required.
- 3.3 Brano undertakes to repair or replace, at it's sole discretion, free of charge, any component of the "branodor" garage door hardware kit, subject to the conditions stated herein. Please note the exclusions to this warranty.
- 3.4 Incidental and Consequential Losses. Under no circumstances will Brano accept liability for "incidental" and / or "consequential" losses, (damages), resulting from the use of the product.

4 PACKING LIST/DOOR INFORMATION CARD:-

An "Information Card" / Packing List is included in the "branodor" hardware kit. The card should be completed and filed away for future reference. This card may be required in the event of a warranty claim being made. Be sure to record all the information requested.

6 EXCLUSIONS:-

Items Excluded From This Warranty

Specifically excluded from the scope of this warranty is equipment such as:-

- 6.1 Door operators, controls, and accessories.
- 6.2 The garage doors "perse".
- 6.3 Items which are used in conjunction with the door hardware but which are manufactured or supplied by third parties. Such items shall carry the warranties / quarantees offered by said third parties.

The following components, services and work are also **excluded** from the **Scope of this Warranty**, whether specifically stated or implied:-

This Warranty is invalid for the repair or replacement of Door Operating Equipment and Components which are:-

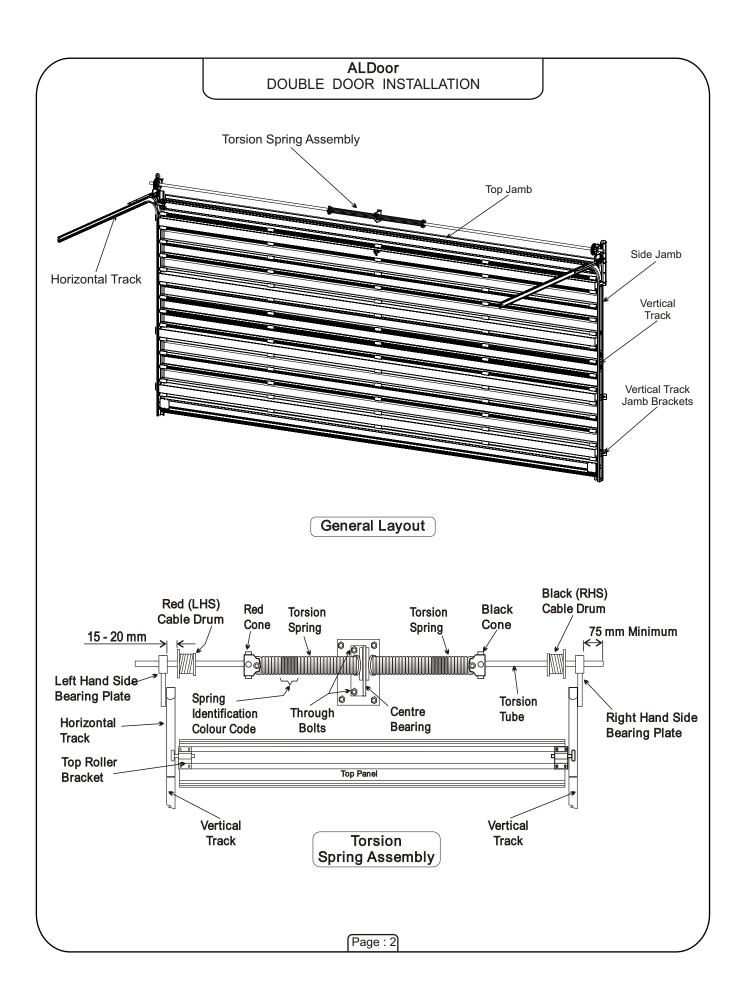
- 6.4 not supplied by Brano.
- 6.5 not specified by Brano. The door hardware, (e.g. springs, track lengths, etc.), are made to suit the information supplied by the door manufacturer / installer. Brano accepts no liability for hardware which does not work properly if the specifications are incorrect.
- 6.6 damaged by an act of **GOD**, (e.g. lightning strike, flood, fire, power-surge, etc., etc.)
- 6.7 damaged due to misuse or abuse of the equipment, as when installing the "standard" door hardware onto nonstandard size doors or using lighter, less expensive components, on doors which have high duty requirements or are very heavy.
- 6.8 used for purposes other than that for which it has been designed.
- 6.9 used on doors which are not properly designed or manufactured.
- 6.10 damaged due to malicious causes or sabotage.
- 6.11 damaged due to faulty or incorrect installation techniques and sub-standard workmanship.
- 6.12 damaged or have their settings disturbed due to tampering with the equipment by unqualified persons.
- 6.13 damaged due to fair wear and tear which is not attributable to the fault of the company.

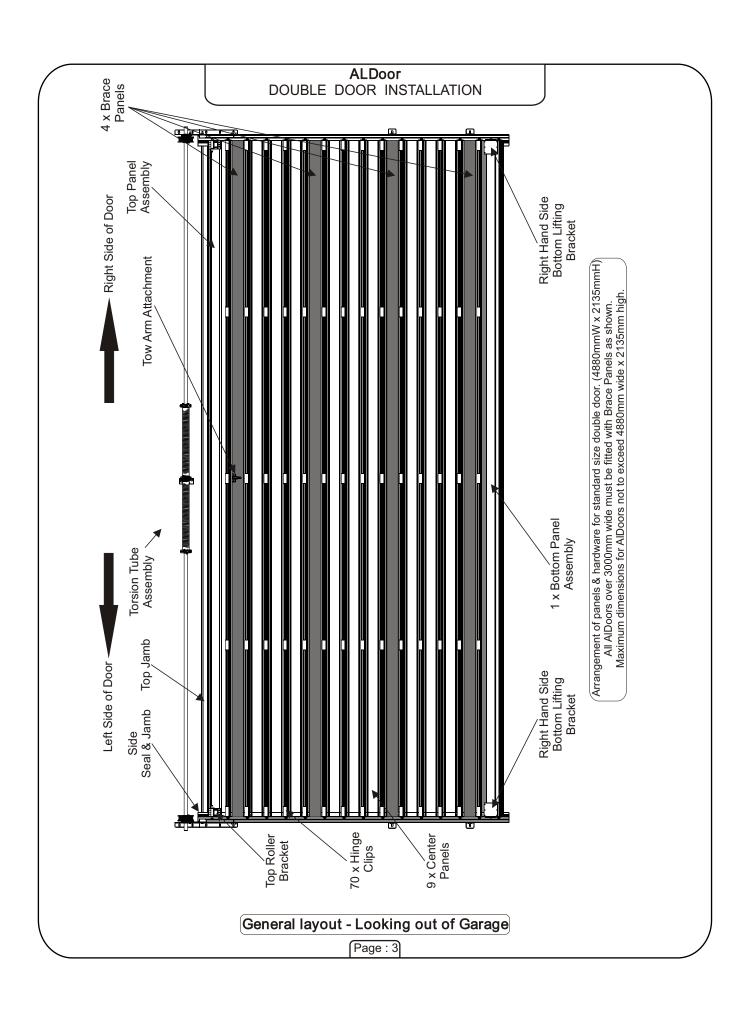
7 MAINTENANCE OF THE GARAGE DOOR.

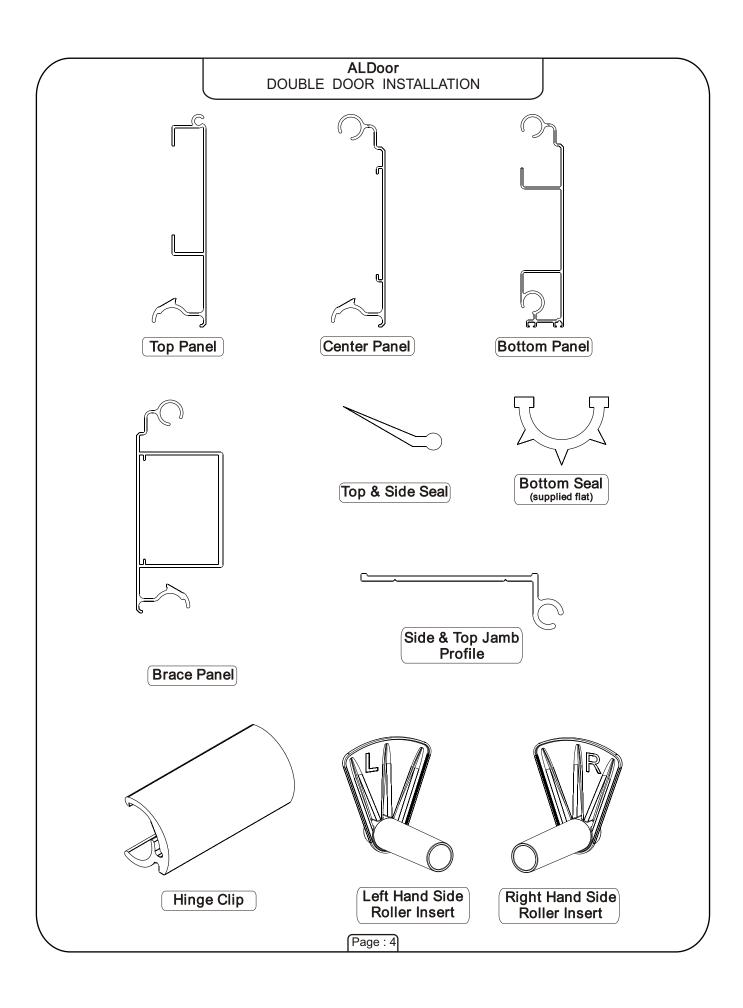
It is, furthermore, a condition of this warranty that the garage door itself be maintained in a serviceable condition in accordance with the door manufacturer's instructions and in the relevant sections of the SABS - IEC 60335-2.

Proof of service to the doors may be required.

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Step 1 Bottom Panel Assembly

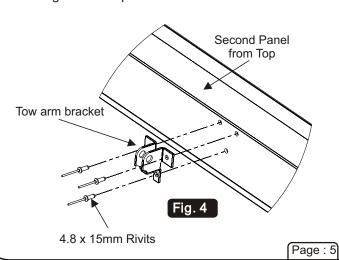
- 1 Attach the bottom corner lifting brackets to the panel as shown in Fig.1. Position the bracket so that the side tab is against the door panel & the top edge of thebracket is flush with mounting flange. Using the holes in the bracket as guides, drill 6.5mm dia. holes through the mounting flanges on the door panel and then attach the brackets with the supplied 6.5x15mm rivits.
- 2 Slide the bottom seal into place.
- 3 Firmly push the roller insert into place as shown. The roller inserts are handed, and marked "L" for

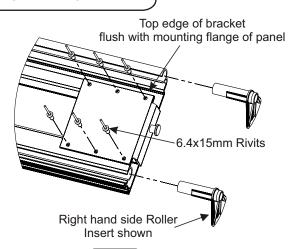
Step 2 Top Panel assembly

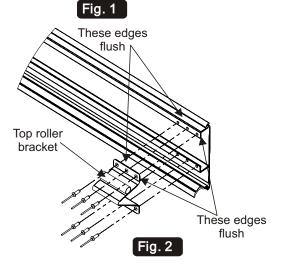
1 Place the 2 top roller brackets in place, (Fig. 2) and drill 6 x 6.5mm dia. holes through the prepunched holes and rivit in place using the supplied 6.4 x 15mm rivits. The adjustable part of

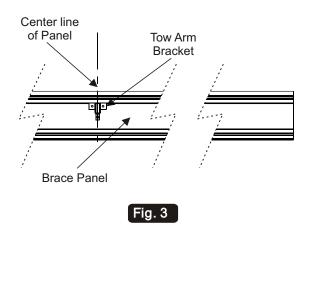
Step 3 Tow Arm Bracket Attachment

- 1 Place the door tow arm bracket in place on one of the 4 brace panels on the center line of the panel, as shown in fig. 3. This panel will be installed second from the top.
- 2 Using the pre-drilled holes in the Tow arm attach bracket, drill 3 x 5mm holes through the mounting flanges and the pane.I









Step 4 Assemble Remaining Panels

All that remains to be done on the remaining panels is to push the roller inserts into

Step 5 Tracks

Assembling the Vertical

1 Fit 2 jamb brackets to each vertical track using the supplied 6mm kep screws and nuts as shown in fig.6. Do not tighten the nuts yet.

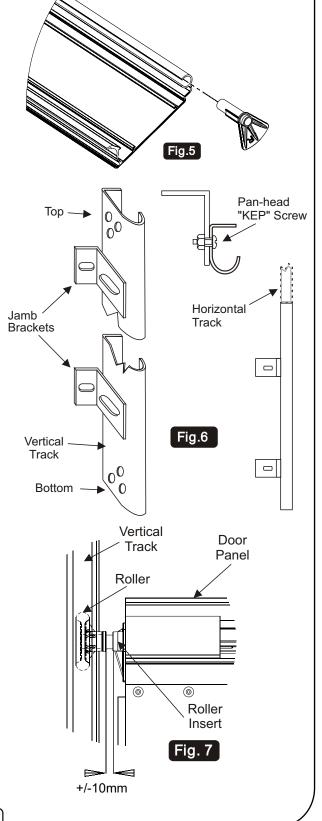
Step 5

Setting up vertical tracks & bottom panel

It is <u>necessary</u> to face the sides & top of the door opening with timber jambs in order to provide a uniform flat surface to mount the door hardware.

The jambs should ideally be 125 to 150 mm wide & not less than 32mm thick.

- 1 Place 4 rollers into the assembled bottom panel & position it in the opening centered, so that each edge overlaps the edge of the jamb equally on both sides,
- 2 Place the vertical track assemblies adjacent to the bottom panel with the rollers inside the tracks. Position each track assembly so that there is +/- 10 mm between the roller and roller insert. (Fig.7)
- 3 Use a spirit level to ensure that the track is vertical, & tighten the screws holding the L-brackets to the wall.
- 4 Ensure that the tops of the vertical tracks are at the same level. Unlike conventional sectional doors, the vertical tracks must be perfectly vertical when viewed from the side, and *not* inclined away from the wall.



Step 8 Side Seal Holders

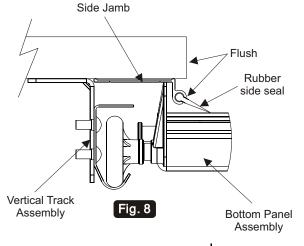
- 1 Position the side seal holders flush against the edge of the opening as shown in Fig. 8. The bottom edge of the seal holder should rest against the floor.
- 2 If needed, trim the top of each seal holder to length. The top of the seal holder should extend approximately 30mm above the top of the opening.
- 3. Attach the seal holder to the jamb using the supplied 8x90 lag screws.

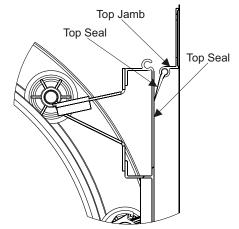
Step 9 Top Jamb

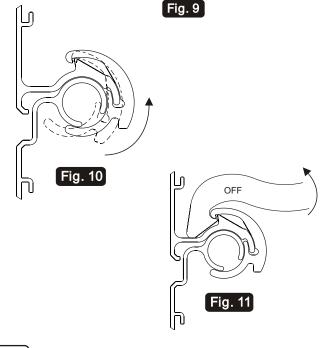
- 1 Position the top Jamb against the top edge of the opening as shown in Fig. 9. If needed trim the aluminium so that it fits in between the 2 side jambs. Fix in place using 8x90 Lag screws.
- 2 Slide the top seal into place. The same rubber

Step 10 Place remaining panels in the tracks

- 1 Insert rollers into each panel & slide them into place from the top of the vertical tracks making sure that the edges of all the panels are flush.
- 2 The lock, if fitted, should be the 7th panel from the floor.
- 3 Do not place the top panel in place yet.
- 4 Rotate the plastic hinge clips into place as shown in fig. 10 There are 5 clips evenly spaced out per panel. (See the layout diagram on page 3)
- 5 Press the vertical tracks forward until the "wings" of the roller inserts touch the side seal holder.
- 6 Tighten the kep screws & bolts holding the tracks to the L-Brackets.
- 7 If the clips need to be removed, insert the end of



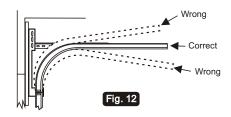


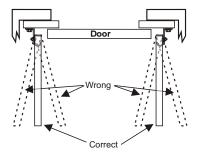


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Step 1 Align the Horizontal Tracks

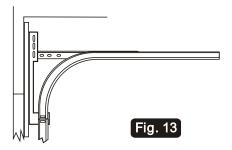
- 1 The tracks must be the same height from the floor and parallel to each other. (Fig. 12)
- 2 The tracks must not converge towards one another or diverge away from each other. (Fig. 12)

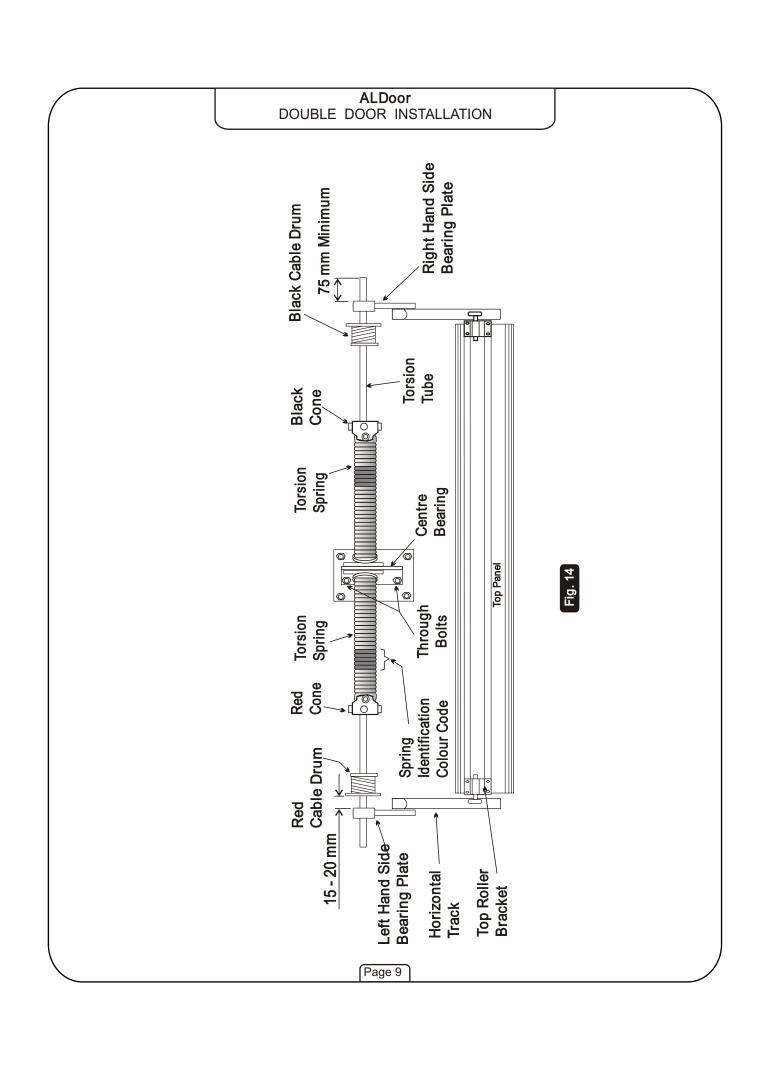




Step 12 Setting up horizontal tracks

- While supporting the rear of the horizontal track, place the track in position as shown in fig. 13.Fix the curved section to the lower part of the flag bracket.
- 2 Attach the horizontal track angle to the top part





Step 13 Torsion Tube Assembly

- 1 Assemble the torsion tube on the floor.
- 2 Slide the center bearing onto the tube up to the middle point.
- 3 Slide the torsion springs onto the tube with the stationary cones towards the center bearing.
- 4 Slide the two cable drums onto the tube with the Red drum to the left hand side and the Black drum to the right hand side of the center bearing.
- 5 Slide the two side bearings onto the tube.

NOTE:

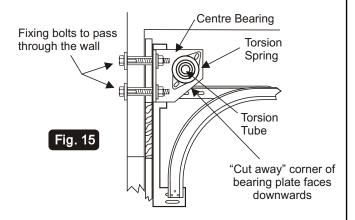
- 1) The *Red* winding cone is on the left hand side of the center bearing and the *Black* one to the right hand side.
- 2) The side bearings are left and right handed.
 - 3) Do not fix anything in place yet.
- 6 Lift the whole assembly into place.
- 7 Bolt the side bearings to the horizontal track angles as shown. (Fig 16).
- 8 Position the Center bearing over the packing block.
- 9 Level the torsion tube and mark the positions of the fixing bolts for the center bearing.
- 10 Drill 10mm holes through the wall and anchor the center bearing with long bolts.
- 11 Be sure to allow the torsion tube to extend at least 75 mm beyond the side bearings at each end.(Fig. 14)
- 12 Attach the door lifting cables to the cable drums.

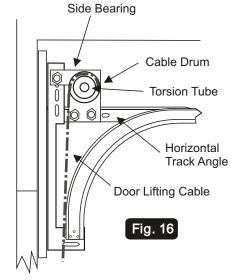
- 13 Start with the left hand side drum: Position the cable drum +/-20mm from the side bearing and fasten it to the torsion tube using the square headed screws provided on the drum.
- 14 Rotate the torsion tube to take up the slack in the lifting cable. Use a pair of Vice grips to prevent the torsion tube from turning. (Fig 17)
- 15 Right hand side drum:

Position the cable drum +/-20mm from its side bearing. Rotate the drum to take up the slack in the lifting cable. Fasten the drum to the torsion tube (Fig 16)

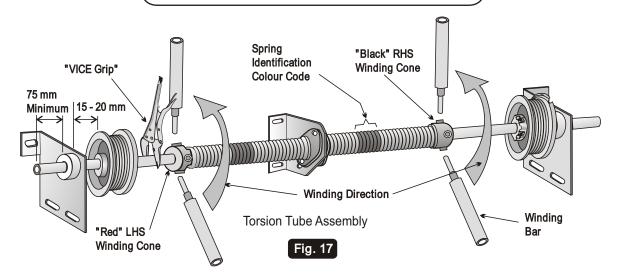
TAKE NOTE:

It is very important to make sure that the lifting cables are of the same





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Step 1² Winding up the torsion springs

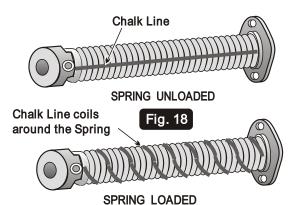
1 Before winding up the springs, make absolutely certain that all bearing plates are secure, *especially* the center bearing.

The stored enegry in the springs is great, and very serious injuries may be sustained if incorrect procedures or inferior tools are used!

Only use the proper winding bars to wind the springs!

A strong and stable ladder must be used!

- 2 It is recomended that the springs are given an initial wind and then unwound to allow the springs to settle in. The manufacturers spring information card should state the number of turns to be wound onto the spring.
- 3 Draw a straight chalk line along the length



CAUTION! CAUTION! CAUTION!

Take great care when winding the springs!

Use only the correct type and size Winding Bars! Two bars are required! Do not use Screw Drivers or other ill-fitting bars!

Never stand directly behind or below the bars when winding the springs! Never!, Never!...Apply more

It is vital that the Centre Bearing is very secure. The Centre Bearing is restraining the total forces being applied by the springs.

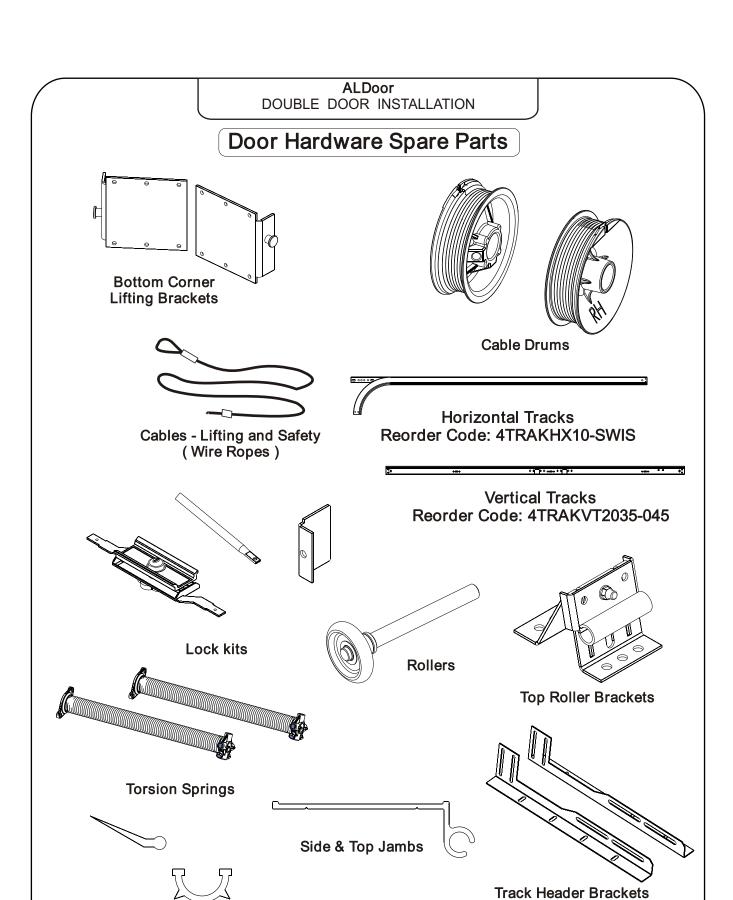
If the Centre Bearing should come loose, the repercussions could be disastrous!!!

It is not sufficient to use plastic Wall Plugs as anchors for the fixing screws.

Caution! Caution! Caution!

Before lifting the garage door, check and re-check the following:-

- 1) All fasteners are secure, especially those that secure the jambs to the wall and the track fasteners.
- 2) Pay particular attention to Track Hanger Brackets and Spring Anchor brackets.

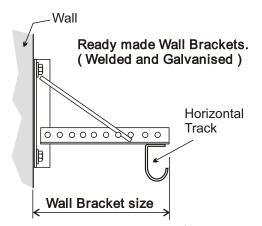


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Weather Sealers and Retainers.

(Flag Brackets)

Wall Brackets for Horizontal Track Mounting - (Ready made).



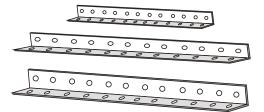
ORDERING INFORMATION

150 mm long 4BRKWALL150 250 mm long 4BRKWALL250 350 mm long 4BRKWALL350 450 mm long

Selecting the Correct Size of Wall Bracket

Measure the Nib of the garage. The Wall Bracket size conforms to the size of the Garage Nib, (e.g. if the nib size is 350 mm then use a 4BRKWALL350 size Wall

Punched Angle - Galvanised - ("Handy-angle")



ORDERING INFORMATION

20 x 20 x 1,2 x 1500 mm long 1 AP 20 30 x 30 x 1,6 x 2400 mm long 1 AP 30 40 x 40 x 2,0 x 2400 mm long 1 AP 40