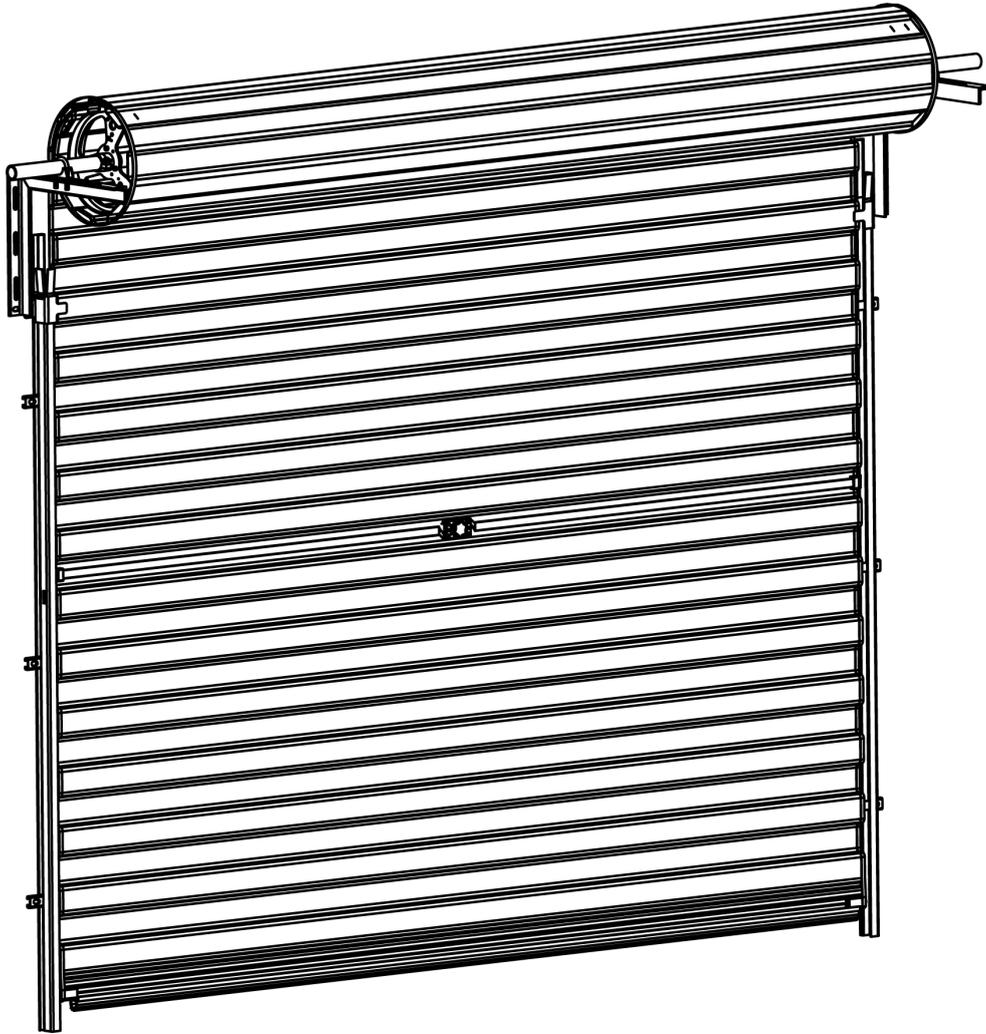


S1 - ROLLER DOOR

for residential application



INSTALLATION INSTRUCTIONS

BEFORE YOU BEGIN MAKE SURE THESE INSTRUCTIONS ARE READ AND UNDERSTOOD COMPLETELY.
THESE INSTRUCTIONS ARE INTENDED FOR PROFESSIONAL GARAGE DOOR INSTALLERS.

ALL REFERENCES ARE TAKEN FROM THE INSIDE LOOKING OUT.

DISCLAIMER: SOME PARTS INCLUDED IN KIT MAY DIFFER SLIGHTLY.

Windsor Doors Auckland

347 Great South Rd, Takalani,
Auckland
Ph: 09 298 8655 Fax: 09 298 0626
www.windsordoors.co.nz
info@windsordoors.co.nz

Windsor Doors Hamilton

170 Maui St, Pukete
Hamilton
Ph: 07 850 6140
www.windsordoors.co.nz
hgd@windsordoors.co.nz

Windsor Doors Wellington

95 Nelson Street, Petone
Wellington
Ph: 04 589 3917 Fax: 04 589 3906
www.windsordoors.co.nz
wellington@windsordoors.co.nz

Windsor Doors Christchurch

9 Doric Way, Waterloo Business Park
Christchurch
Ph: 0800 78 88 98
www.windsordoors.co.nz
sales@windsorsouth.co.nz

There are many potential hazards associated with sectional garage door installation. These hazards can result in serious injury or death and all precautions should be taken by the installer to minimise the risk of such hazards. Windsor Doors is not liable for any damage to the door or persons sustained during the installation of this door. If you are not trained in how to install roller doors then please seek the advice of a trained professional. Please contact Windsor Doors should you wish to discuss best installation practices or seek the advice of a professional.

SAFETY DISCLAIMER: it is the installer's responsibility to identify and minimise potential hazards associated with the installation of this door. Below is a table of identified potential hazards that may be encountered throughout the installation process.

PLEASE READ THESE CAREFULLY and take all precautions to minimise the risk these hazards may pose. **Note:** potential hazards are not limited to this list.

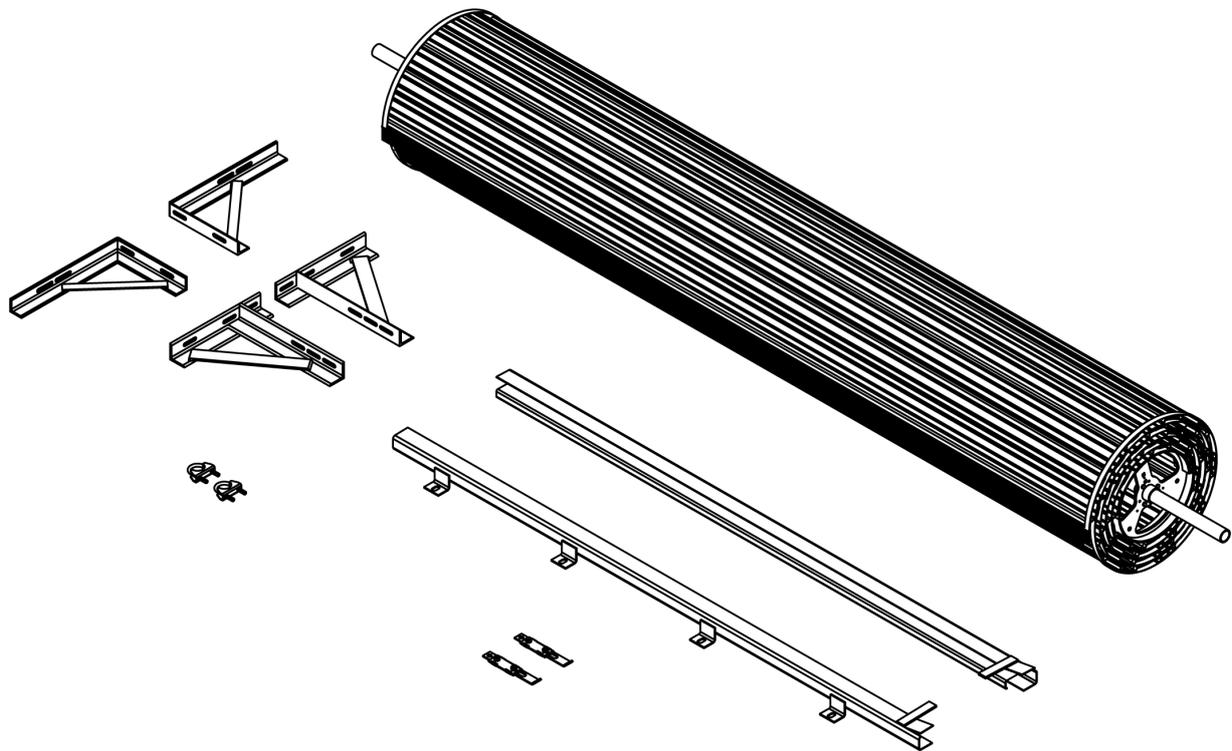
Hazard	Control
Working at Heights	Ensure all ladders are checked and placed correctly on level ground. Use a supervisor when working on ladders. DO NOT work on the top rung. Correct safety headgear with chin strap fastened must be used when operating over 2m.
Heavy Lifting	Observe correct lifting techniques when lifting heavy objects. Use 2 people to lift objects heavier than 25kg. DO NOT manually lift any object heavier than 35kg.
Sharp Edges	Wear appropriate PPE (slash proof gloves) throughout the installation process, especially when handling metal.
Crush Risk	Wear appropriate PPE (steel capped boots) throughout the installation process.
Use of Power Tools	Wear appropriate PPE (gloves, hearing protection, eye protection throughout the installation process.
Springs Under Tension	Ensure two people are working together when springs are under tension. Ensure door is always secured in a stable position whilst adjusting spring tension.

Please ensure that the content of your Windsor Doors S1 Series Roller Door kit is complete as per the diagram below.

If you intend to install this door with automation please ensure that you read the automation manufacturer's instructions carefully before you begin the door installation process.

Note: do not remove the roller door from its packaging until instructed to do so.

SAFETY NOTICE: to install this door properly and safely requires two people. DO NOT install this door on your own.



- a. Door assembly (in manufacturer's packaging) B - Hanging brackets, left and right
- b. Door guides, left and right
- c. U bolt assemblies
- d. Locking bars
- e. Track stop guides
- f. Guide fixing lugs
- g. Locking assembly and faceplate (not present in all door kits)

Note: timber TEK screws are supplied as standard fixing with Windsor Doors S1 Series Roller Doors. Should you be fixing to a non- wood substrate, please ensure you have the correct fixings appropriate for the material.

Roller doors are installed to operate behind the opening.

It is necessary to have an opening with sufficient return on both sides to accommodate the hanging brackets and door guides, with necessary working clearances.

The diagrams below show minimum spacings for both the side room and head room. Should you not have sufficient space, contact Windsor Doors Garage Doors for low room kits.

If the opening is too high, the door should be installed at the maximum door height position and the opening reduced.

WARNING: no guarantee will be given or responsibility accepted by the manufacturer if the door is not installed as instructed. For satisfactory door operation please follow the instructions carefully.

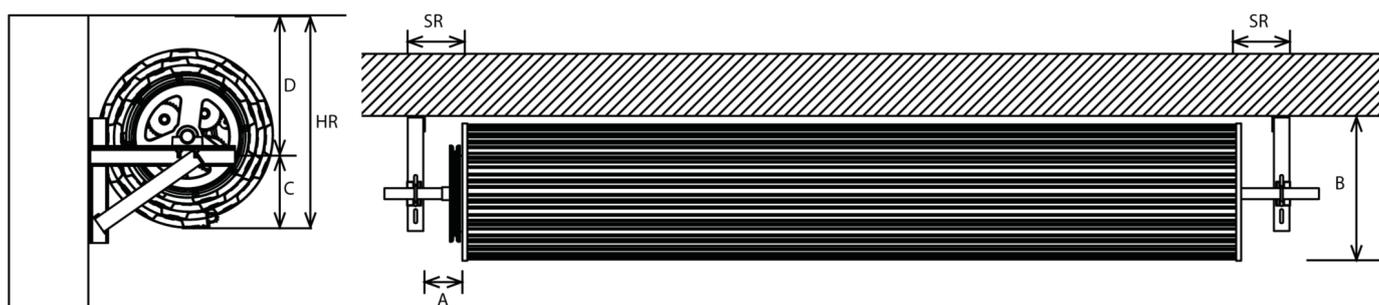


Figure 2.1

Door Clearances & Dimensions

S1 Doors

Dimension Panel (minimum sizes in mm)

Door Height (mm)	Side Room (SR)	Head Room (HR)	A	B	C	D
2100	90	400	50-100	440	170	230
2400	90	400	50-100	440	170	230
2700	90	420	50-100	480	165	255
3000	90	420	50-100	480	165	255

Curtain Width Daylight opening plus 50mm

- Confirm both the floor and lintel are level. It is important to confirm this before any measurements are taken. **DO NOT** assume the floor or lintel are level.
- Measure the curtain width of your door and use this measurement to mark the intended curtain position on the door frame, making sure the curtain will sit evenly across the door space.
- Measure and mark between 50-100mm from the intended curtain position mark. **Note:** if fitting automation, consult the installation manual of the unit being installed for their recommended clearances as they may differ from the recommendations above.
- Mark the vertical position such that the top of the bracket sits 150mm above the top of the door opening.
- Fix hanging bracket with 2 x TEK 17 x 75mm screws and flat washers. Refer to Figure 3.1 for correct orientation.

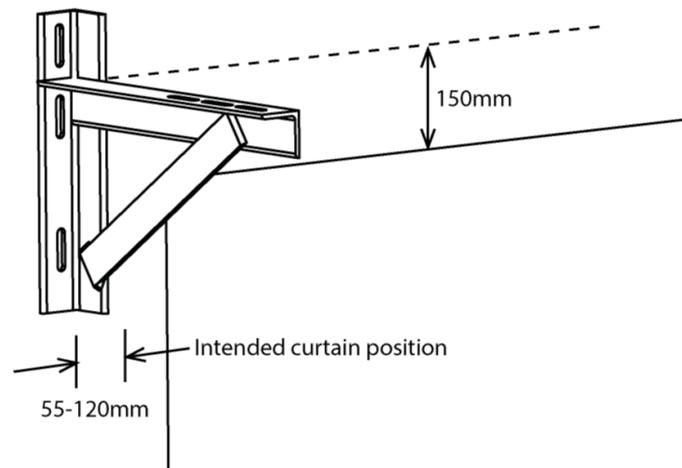


Figure 3.1

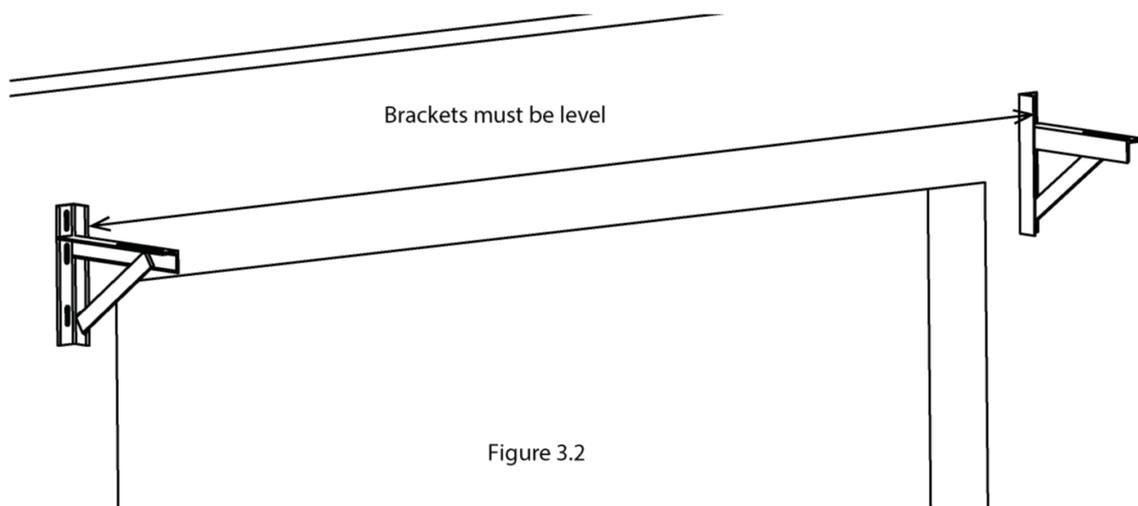


Figure 3.2

Preparing the Door for Hanging

- Measure the axle length and confirm it will fit within the door space. Should the axles be too wide then trim them down with a hack saw, making sure to file any burred edges.
- Centre the axle by releasing the plastic collars on both ends of the door and rotate the axle a 1/4 turn clockwise and counter clockwise. Re-tighten the collars.
- Place the door below the hanging bracket in the correct orientation so that the door will roll down the front of the opening as shown in Figure 4.1. **Note:** the manufacturer's packaging should still be intact at this point.

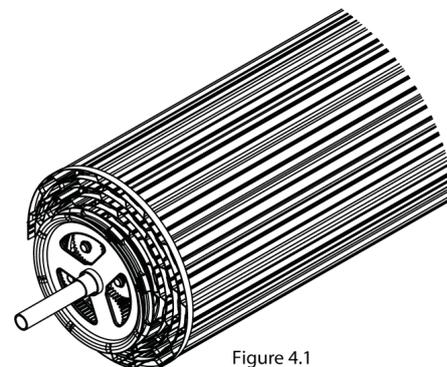


Figure 4.1

Placing Door on Brackets

SAFETY WARNING: lifting heavy weights at height. Use correct lifting techniques when lifting door.

- With at least two people, lift the door unit on to the mounting brackets.
- Line up the curtain with the intended curtain mark to make sure the door is evenly spaced across the opening.



Figure 4.1

Note: the door should be sitting in place as shown with the manufacturer's packaging still in place.

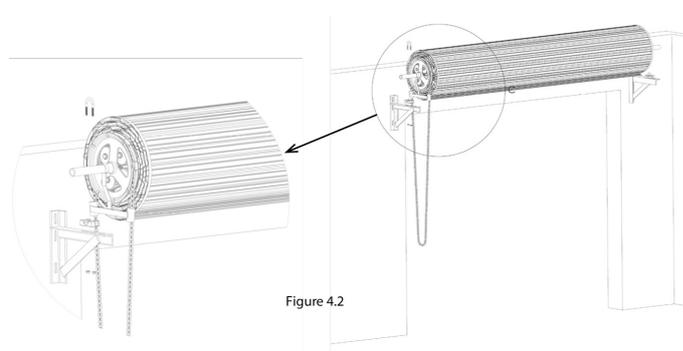


Figure 4.2

- As one person holds the door

steady on one side, lift the axle of the hanging bracket and place the U bolt cradle underneath. Loosely fit the U bolt with the flange nuts as shown in Figure 4.2 using a 13mm socket.

- Repeat a) on the other side of the door.
- Space the door approximately 250mm from the back of
- the door opening as shown in Figure 4.3.
- Let the bottom rail rotate into the 6 o'clock position.

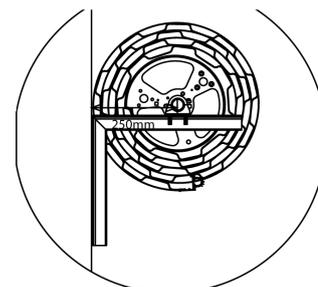
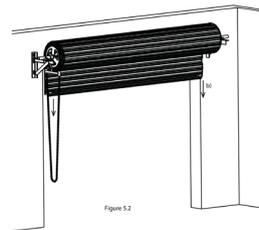
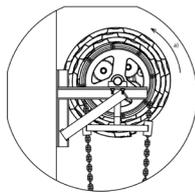


Figure 4.3

Note: the door should be sitting in place as shown with the manufacturer's packaging still in place.

- a. Loosely fit the track stop guides to both of the vertical guides and measure from the bottom of the guide to the bottom edge of the top stop. **Note:** the track stop guides can be removed at this point as it will be fixed later on.
- b. Cut the guides using a hacksaw so that they fit the door opening height less 20mm. File smooth any burred edges.
- c. Using a hammer, tap in a guide fixing lug 150mm from the bottom end of the left hand vertical guide.
- d. Tap the next guide fixing lug in line with the top stop guide.
- e. Evenly space out the remainder of the guide fixing lugs between the top and bottom lugs and tap into place.
- f. Repeat step c)-f) on the right hand vertical guide.

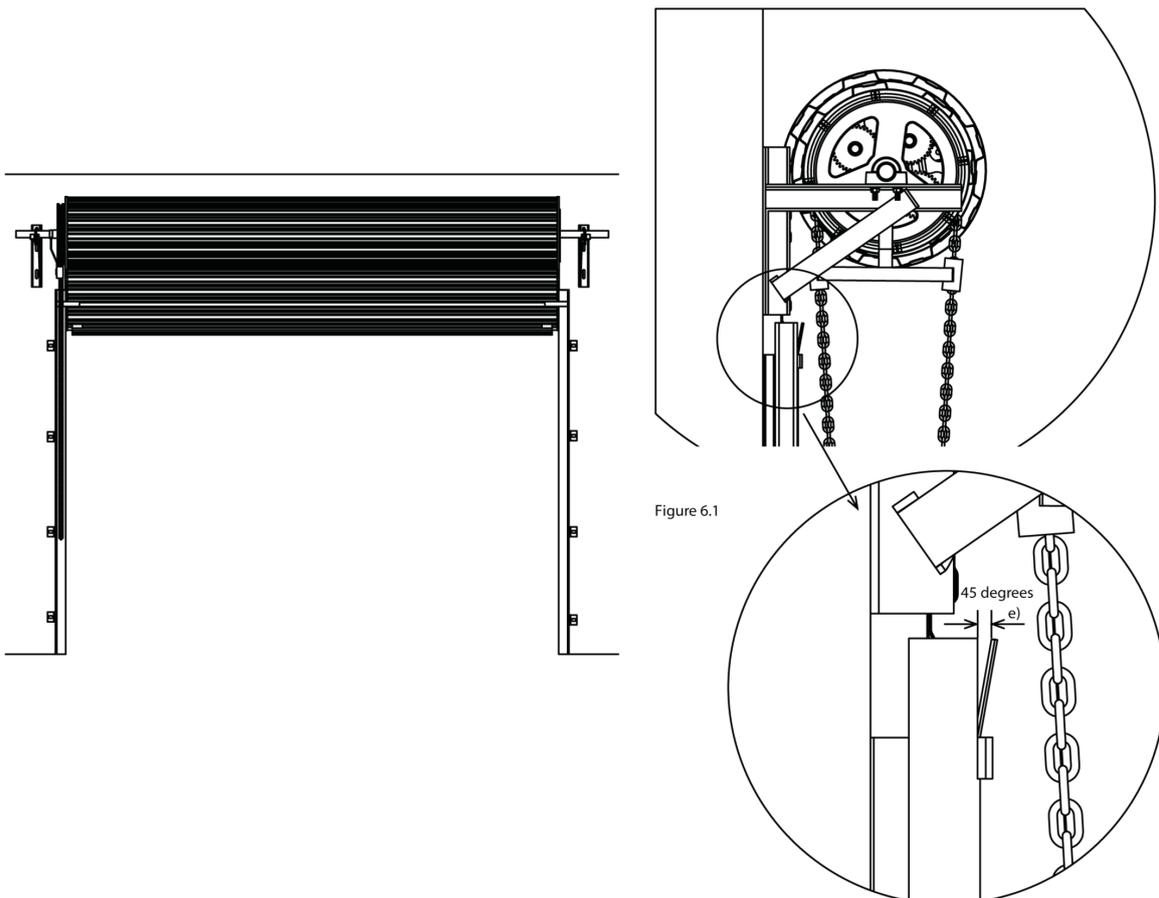
Note: the exact number of lugs will vary depending on the height of the door. Ensure that the number of guide fixing lugs is evenly distributed between the left and the right guides.



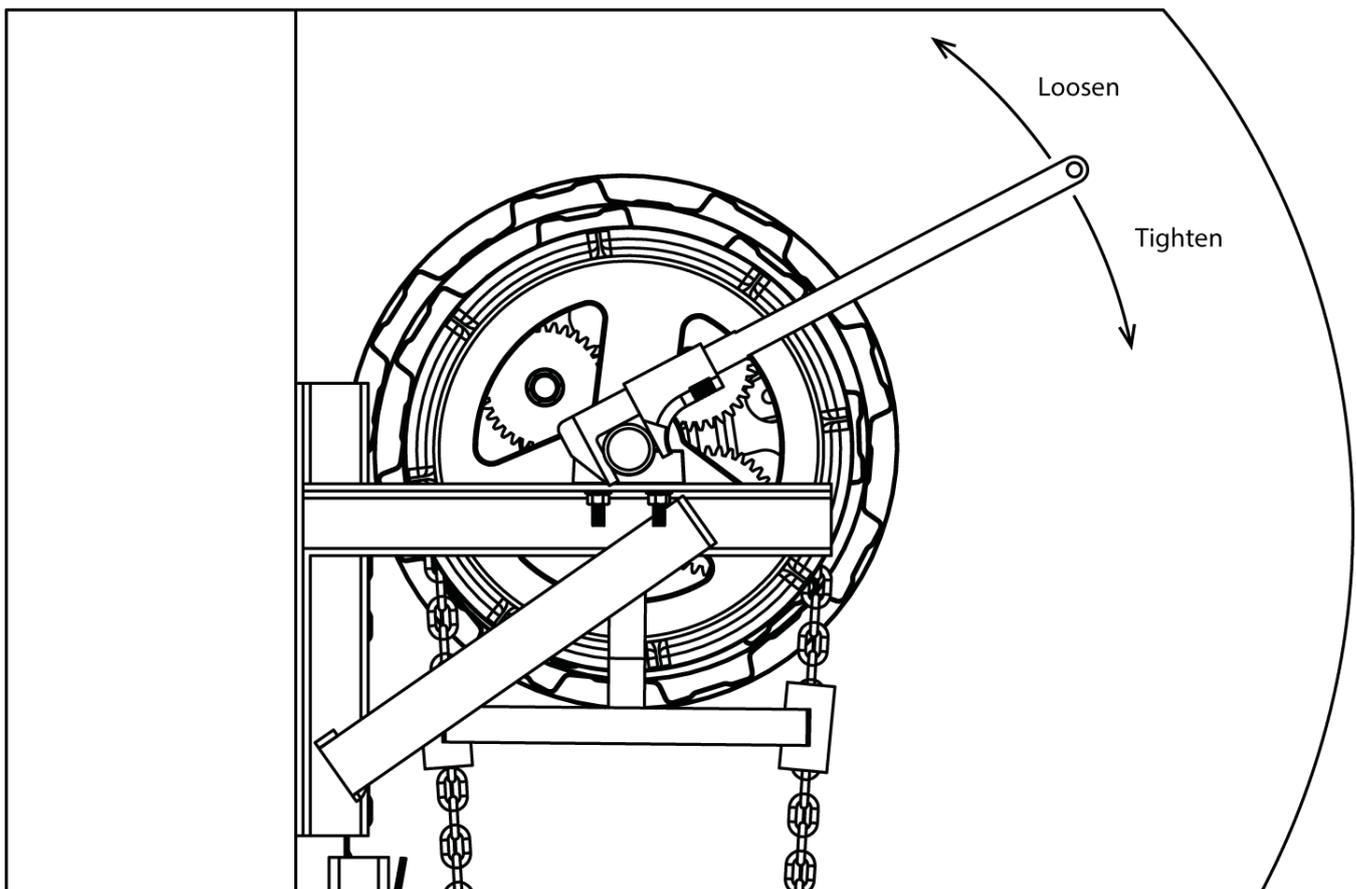
WARNING: doors under tension are an extreme hazard. This step must be undertaken using at least two people. Please read these steps carefully before tensioning the springs.

Note: ensure that both U bolt assemblies are correctly tightened at this point and that the vertical guides are cut, assembled and laid out ready for installation.

- With the door in the 6 o'clock position, rotate the door 2 turns upward (counter clockwise) to apply tension (Figure 6.1 (a)). **DO NOT** let go of the door.
- Cut the manufacturer's packaging from end to end along the underside of the aluminium track with a sharp safety knife. Be careful not to cut the weather seal.
- Slowly pull the curtain down approximately 100mm (Figure 6.2(b)) and have one person hold the door in place. This person must keep the door in this open position while the tracks are being installed to maintain the spring tension on the door.



- a. Take the left hand vertical guide assembly and fit it on to the side of the door curtain. This may be done by pulling the curtain out slightly and placing the guide over the top of the curtain.
- b. Fix the top of the vertical guide to the wall using a 17 x 50mm TEK screw and washer with a 3/8" driver bit.
- c. Level out the guide to ensure it is sitting flat and vertical and fix the bottom lug with the same fixing as above. **Note:** maintain a 3mm clearance between the curtain and the side rail as you determine the final fixing points for the vertical guide.
- d. Fix the top stop bracket to the vertical guide using 2 x 17 x 50mm TEK screws and washers with a 3/8" driver bit.
- e. Release the door from its tensioned position. **WARNING:** the spring tension may not be balanced at this point and the door may recoil up or drop down suddenly resulting in crush injuries. Make sure the door is released gently and that hands and feet are well away from the door.
- f. Repeat steps a)-c) with the right hand guide.
- g. Using broad nosed pliers, bend the top of the guides out to an angle of approximately 45 degrees as shown in Figure 7.2. This is to ensure the door curtain has a smooth entrance into the vertical guides.
- h. Check that the curtain closes and opens without catching. **Note:** should the door not open and close properly, please consult the troubleshooting guide on page 12.



Adjusting Spring Tension

WARNING: doors under tension are an extreme hazard. This step must be undertaken using at least two trained garage door installers. Please read these steps carefully before tensioning the springs.

- Roll the door up and fix the door in position by tying two ropes around the door barrel approximately 300mm from the end of each side.
- With one person on each side, use a 450mm pipe wrench to hold the axle firmly in place.
- Whilst keeping a FIRM GRIP on the wrench, slowly loosen the U bolt nuts at both ends.
- To loosen the springs, rotate the axle upwards; to tighten the springs, rotate the axle downwards. **Note:** use small incremental turns to ensure the spring doesn't over or under tension.
- Tighten the U bolts before letting go of the wrench.
- Test the door to ensure the tension is correct. Repeat the process if further adjustment is necessary.

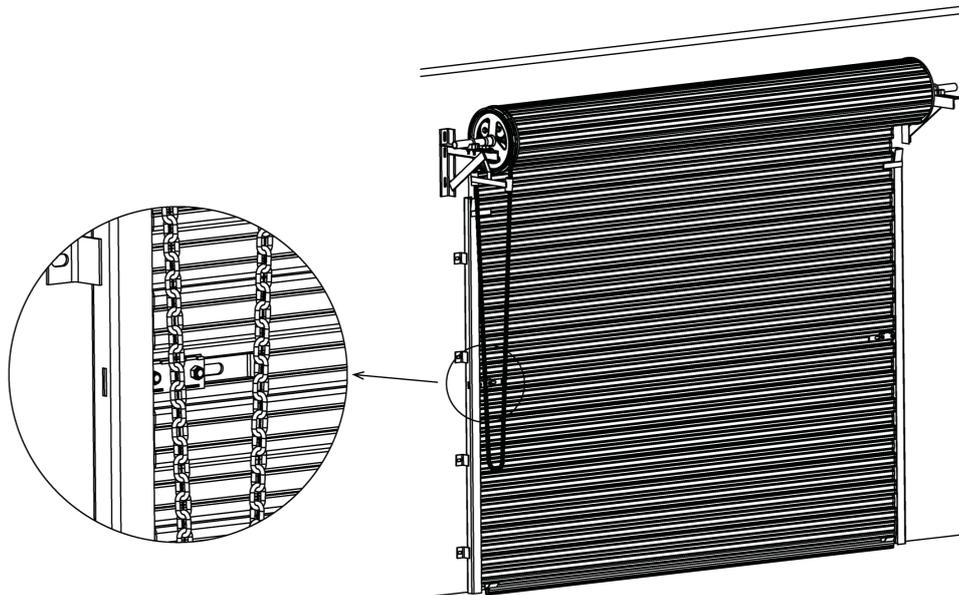


Figure 8.1

- a. Put the door into its fully closed position.
 - b. Extend the locking bar so that it touches the side railing. Mark this position.
 - c. Cut a rectangular hole that is no longer than 25mm and no wider than 10mm (Figure b).
 - d. Ensure the locking bar slides smoothly through the locking hole and doesn't catch.
- Note:** should the locking bar protrude more than 20mm, this should be trimmed to suit.

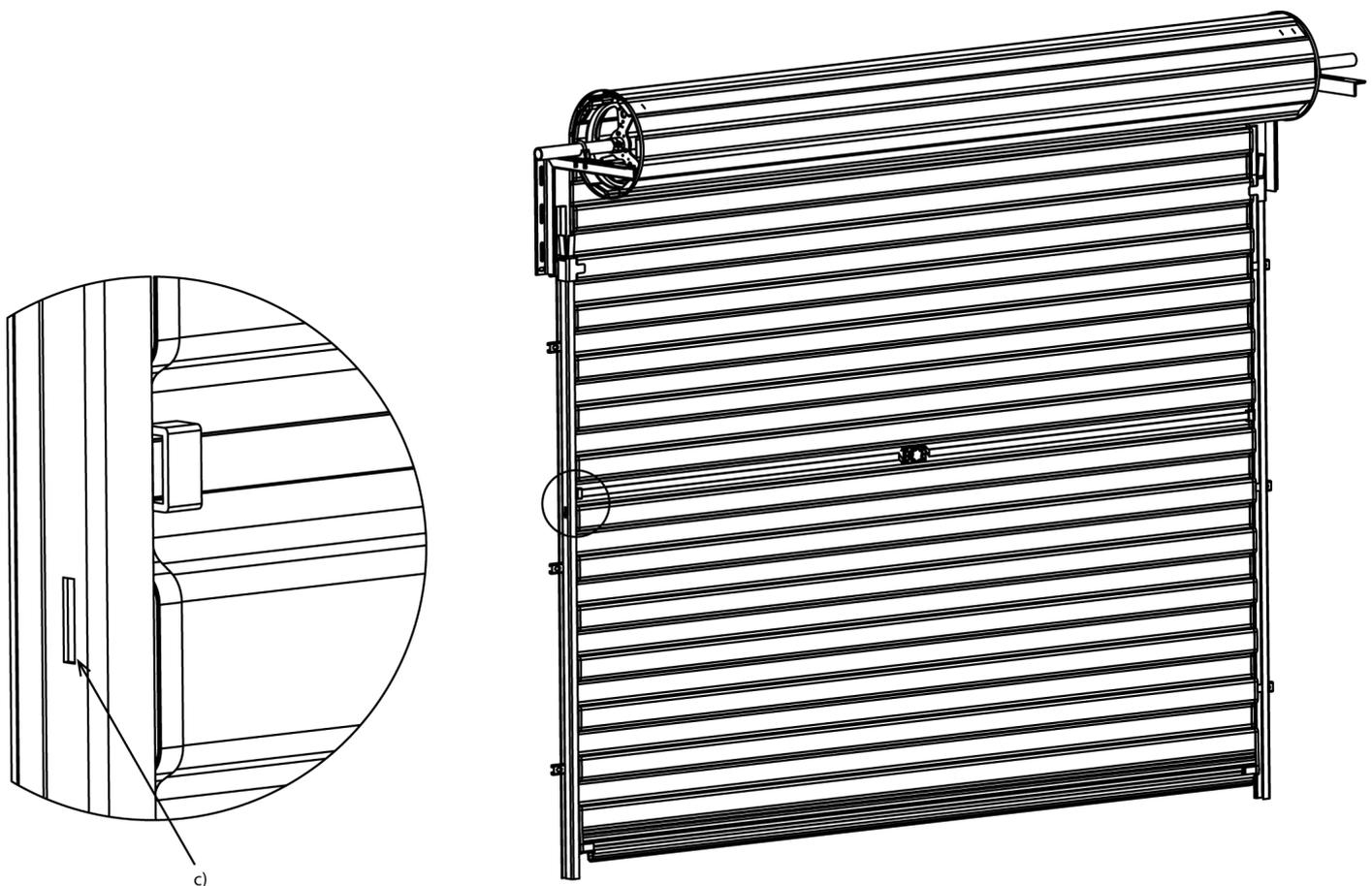


Figure 9.1

Door Not Running Smoothly

If the door is not running smoothly in either direction, there are a few checks to run through:

- a. Check the 3mm guide clearance on both sides.
- b. Check that the guides are level and plumb.
- c. Check the guide surfaces are free from blockages.
- d. Check the locking bars are the correct length.
- e. Check the weather seal is the correct length.

If the door is only running in one direction, then the spring tension is out.

- a. If the door is hard to lift but easy to drop then the tension needs to be increased.
- b. If the door is hard to drop but easy to lift then the tension needs to be decreased.

Note: adjusting spring tension can be dangerous because large amounts of stored energy may be released quickly. **DO NOT** attempt to adjust the spring tension unless you are a trained professional.

If the door runs crooked through the guides you must check:

- a. The brackets are level.
- b. The axle is centred.
- c. The guides are level and plumb.