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.
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.

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working at Heights</td>
<td>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.</td>
</tr>
<tr>
<td>Heavy Lifting</td>
<td>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.</td>
</tr>
<tr>
<td>Sharp Edges</td>
<td>Wear appropriate PPE (slash proof gloves) throughout the installation process, especially when handling metal.</td>
</tr>
<tr>
<td>Crush Risk</td>
<td>Wear appropriate PPE (steel capped boots) throughout the installation process.</td>
</tr>
<tr>
<td>Use of Power Tools</td>
<td>Wear appropriate PPE (gloves, hearing protection, eye protection throughout the installation process.</td>
</tr>
<tr>
<td>Springs Under Tension</td>
<td>Ensure two people are working together when springs are under tension. Ensure door is always secured in a stable position whilst adjusting spring tension.</td>
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</tbody>
</table>
Please ensure that the content of your Windsor Doors Sectional Garage 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.

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

### Parts Checklist

- **A** - Door panels
- **B** - Horizontal hockey stick tracks
- **C** - Horizontal track braces
- **D** - Vertical straight track
- **E** - Torsion tube
- **F** - Top hut anti-sag strut

### Small Parts Box

- **G** - Spring(s) - left and right
- **H** - Side bearing brackets - left and right
- **I** - Cable drums - left and right
- **J** - Spring anchor bracket
- **K** - Lifting cables
- **L** - Wheel axles
- **M** - Flag brackets
- **N** - Vertical track brackets
- **O** - Butt hinges
- **P** - Finger-safe hinge/wheel assembly
- **Q** - Top panel hinge
- **R** - Bottom bracket hinge
- **S** - Handle

### Extras

Doors over 5000mm wide will have a number of double end stile panels. Doors over 3550mm will have associated panel reinforcement included.

**Note:** timber TEK screws are supplied as standard fixing with Windsor Doors Sectional Doors. Should you be fixing to a non-wood frame, please ensure you have the correct fixings appropriate for the material.
**Note**: all instructions are from the inside looking out.

Ensure that the door opening and the supplied door will fit. This can be done by measuring the height of one panel and multiplying it by the number supplied.

Ensure that you have at least 120mm of side room on each side and 340mm of head room before you continue.

The backspace should be the door height + 1.0m to allow for automation and door height + 150mm for a manual door.

**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.
Before you begin installing the flag brackets

a. Ensure you have all the components shown in Figure 3.1.
b. Ensure the lintel is level.

Note: if the lintel is not level, then measurements taken from the lintel should be adjusted to account for this.

Installing the Flag Brackets

a. On the left hand side of the door opening, measure down 200mm from the bottom of the lintel and mark the door jamb.
b. Measure from the side of the frame across 70mm and mark.
c. At the intersection of both marks, fix the right hand flag bracket with 4 x 50mm wood TEK screws or appropriate fixings.
d. Repeat steps a)-c) on the right hand side.
a. Measure the length from the bottom of the floor rebate to the centre of the flag bracket’s bottom fixing point.
b. Orientate the tracks properly so that the “U” section faces into the door opening and the flat section is against the wall.
c. Measure from the top of the vertical track and mark the bottom of the track with the measurement from a).
d. Cut the track with a hack saw.
e. Repeat steps a)-d) for the other track and set both tracks aside.
Before you Begin Assembling the Bottom Door Panel

a. Ensure you have all the components as shown in Figure 5.1.
b. Identify the bottom panel by the rubber weather seal at the bottom of the panel.

Assembling the Bottom Panel

a. On the right side of the panel, fix the bottom bracket hinge to the bottom corner of the panel using 4 x M10x25 TEK screws. **Note:** the bracket should sit 5mm up from the weather seal.
b. Repeat on the left hand side.
c. Separate the wheel assemblies from the mounted finger-safe hinges to allow for easy drilling of the fixings.
d. Fit the mounted finger-safe side hinges to the top of the panel using 4 x M10x25 TEK screws. **Note:** the top of the hinge pivot should be fixed using the two pre-punched holes on top of the panel.
e. Loosely re-attach the wheel assemblies and slide the wheel axles into place. **Note:** do not fully tighten the wheel assemblies at this point. The assemblies should slide freely up and down the hinge.
f. Fix the middle finger-safe hinge to the centre muntin using 2 x M10x25 TEK screws. **Note:** the hinge pivot should sit flush in the valley of the door panel.
g. Attach both of the lifting cables by placing the cable loop over the mushroom stud on the bottom bracket hinge.
Hanging the Vertical Tracks

a. Loosely bolt the vertical tracks to the flag brackets using 2 x M6x16 zinc special bolts and M6 wiz nuts as shown in Figure 6.1.
b. Sit the assembled bottom panel in place evenly across the door opening so that each side of the panel overlaps the door opening by 25mm as shown in Figure 6.2.
c. Ensure the panel is sitting level on the floor. **Note:** use packing to level the panel should the floor not be even.

Fixing the Vertical Tracks

a. With the vertical tracks hanging loosely, fit the vertical tracks over the bottom panel wheel assemblies.
b. Bolt the 6’ vertical track brackets to the central pre-punched holes on both vertical tracks using an M6x16 zinc special bolt and M6 wiz nut as shown in Figure 6.3.
c. Bolt the 5’ vertical track brackets to the bottom pre-punched holes on both vertical tracks using an M6x16 zinc special bolt and M6 wiz nut is shown in Figure 6.4.
d. Fix both central track brackets to the door jamb 70mm from the door opening using 50mm wood TEK screws or an appropriate fixing.
e. **Note:** make sure the tracks are level and plumb.
f. Fix both bottom track brackets to the door jamb 70mm from the door opening using 50mm wood TEK screws or an appropriate fixing.

Installing the Door Panels

a. Separate the wheel assemblies from the finger-safe side hinges and set aside.
b. Remove the protective plastic layer from the next door panel and sit it on top of the bottom door panel. **Note:** the door panels should fit neatly together with the tongue and groove configuration.
c. Attach the finger-safe side hinges in the same manner as the bottom panel using 4 x M10x25 TEK screws as shown in Figure 6.5.
d. Re-attach the wheel assemblies, with the wheel axle installed and inserted into the vertical track, on to the finger-safe side hinge. **Note:** do not fully tighten the wheel assemblies at this point. The assemblies should slide freely up and down the hinge.
e. **Fix the middle finger-safe hinge to the centre muntin using 2 x M10x25 TEK screws. Note:** the hinge pivot should sit flush in the valley of the door panel.
f. Repeat steps b)-e) for all the remaining panels except the top panel as shown in Figure 6.6.
Assembling the Horizontal Tracks

a. Orientate the horizontal and hockey stick tracks on the ground as shown in Figure 7.1.

b. Bolt the horizontal and hockey stick tracks together using 3 x M6x16 zinc special bolts and M6 wiz lock nuts as shown in Figure 7.1.

Installing the Horizontal Track Assemblies

a. Fix the horizontal section of the track assembly to the top of the flag bracket using an M8x20 gutter bolt and M8 wiz lock nut.

b. Fix the vertical section of the track assembly to the bottom of the flag bracket using 2 x M6x16 bolts and M6 wiz lock nuts. Note: ensure the vertical and horizontal track assemblies are fitted in line with each other to form one continuous track.

c. Repeat steps a)-b) on the other side.

d. Tighten all track fixings.

Installing the Ceiling Hanging Bracket

a. Measure from the door opening along the horizontal track to a point approximately 3/4 of the door length.

b. Identify a solid ceiling fixing point around this point and measure down to the horizontal track.

c. Cut the ceiling hanging bracket to length such that the final installed position will leave the horizontal track assemblies level.

d. Fix the ceiling hanging bracket to the ceiling using 50mm wood TEK screws or appropriate fixing.

e. Bolt the ceiling hanging bracket to the horizontal track using M6x16 bolts and wiz locking nuts. Note: the final hanging position of the horizontal track assemblies should be level, parallel to each other, and square to the door opening.
Before you begin assembling the spring axle assembly, layout the spring assembly components as shown in Figure 8.1.

**Note:** right handed components can be identified by their black markings and left handed components by their red markings.

- a. Cable drum: left and right.
- b. Spring assemblies: left and right.
- c. Axle.
- d. Side bearing brackets.
- e. Spring anchor bracket.
- f. Spring bearing.

**Spring Axle Assembly**

- a. Slide the spring bearing to the middle of the axle.
- b. Slide on the left and right spring in the correct orientation until they are up against the spring bearing.
- c. Place the left and right cable drums on to the axle in the correct orientation.
- d. Position the left and right side bearing brackets on to the ends of the axle.

**Note:** do not tighten the cable drum or spring worm screws at this point.
a. With two people, carefully lift the spring axle assembly and slide it into position in line with the flag brackets.

b. Bolt both side bearing brackets to the flag brackets using 2 x M8x20 gutter bolts and M8 wiz lock nuts per side. **Note:** the nuts should be facing the outside of the door.

c. Fix the spring anchor bracket approximately to the centre of the lintel using 50mm wood TEK screws or appropriate fixings. **Note:** this diagram shows how the spring should be installed in low headroom situations.

d. Bolt springs to spring anchor bracket using M10x40/28 zing bolt with nuts and washers.
a. Feed the right hand lifting cable behind the door so that the wire is between door frame and wheel axles.

b. Fit the end of the wire into the groove of the wheel drum so that the wire sits flush in the door groove.

c. Wind the wire on to the drum by rotating the drum clockwise until all the slack in the wire is removed.

d. Tighten the cable drum grub screws on to the axle using a 10mm open spanner.

e. Whilst keeping the wire tight, attach two pairs of vice grips to the end of the axle to secure it in place. **Note:** the vice grips should be orientated so that one grip is facing upwards and one is facing downwards. This is to ensure the axle doesn’t move when tightening the springs, allowing the cables to remain in the correct position.
a. Attach the top panel finger-safe side hinges in the same manner as the bottom panel using 4 x M10x25 TEK screws.

b. Re-attach the wheel assemblies, with the wheel axle installed and inserted into the vertical track, on to the finger-safe side hinge. **Note:** do not fully tighten the wheel assemblies at this point. The assemblies should slide freely up and down the hinge.

c. Secure all the panels together by screwing the hinges together with M10x25 TEK screws. d) Tighten all wheel assembly nuts and bolts.
a. Check all hinges are attached and nuts and bolts are tight.

b. Measure and cut the anti-sag top hat rail to the door panel width.

c. Fix the anti-sag top hat rail hard up against top hinges of the top panel with M10x25 TEK screws. **Note:** the required anti-sag top hat is provided in a single length appropriate to the door size. Install on the top panel first and then on to subsequent panels until the supply is exhausted.
**WARNING:** springs under tension are an extreme hazard. If you are unclear on how to correctly tension the door spring then seek the advice of a trained professional.

a. Insert two winding bars into the spring as shown in Figure 13.1.

b. Rotate the bars upwards, ensuring a firm grip is always maintained on at least one of the torsion bars at all times. **Note:** to achieve the correct tension, the spring should be wound a full turn for every foot in door height. E.g. an 8 foot door will be wound 8 full turns.

c. Once the correct tension is achieved, tighten the two grub screws with a 10mm open ended spanner.

d. Final Check

Remove the clamps from the axle and test the doors movement. The door should lift up and down with pressure from one hand and be stationary with no added pressure. Refer to the trouble shooting appendix if the door doesn’t work properly.
Torsion Bar Moving
• Cable drums not adjusted correctly
• Springs not adjusted correctly
• Shaft collar not fitted (single spring)
• Check end bearing brackets are square and vertical

Door Will Not Hold Up In Open Position
• Adjust tension on door
• Incorrect springs
• Panel reinforcing fitted incorrectly

Door Not Level
• Check level marks are correct
• Lifting cable not equally taut

Lifting Cables Loose When Door Is Opened
• Cable drums have slipped
• Diagonals out of square
• Check length of lifting cables

Door Moving To One Side
• Clearance incorrect
• Cable drum not hard up against end bearing brackets

Door Panels Jamming/Rubbing On Tracks
• Incorrect clearance between wheel and vertical track
• Door out of Level
• Cable drum not lined up correctly
• Vertical tracks not parallel
• Lifting cables slipping

Door Hard To Lift
• Incorrect tension on springs
• Spring may have slipped on set screws
• Wrong spring
• Check all panel reinforcing on door panel