

WIND BRACE SECTIONAL DOOR

INSTALLATION GUIDE

(incl. C2/C3 "Inspiration" Doors)

THESE INSTRUCTIONS ARE FOR USE BY EXPERIENCED INSTALLERS OF GARAGE DOORS

By undertaking the installation of this door, the installer understands the dangers associated with the installation.

Steel-Line Garage Doors is not responsible for any and all liability resulting in the injury and or death derived from an improper installation.

Revised June 2017

Revisions

July 2015 – C3 & C4 SD's added to instructions, with other minor general revisions.

Sept 2015 – LHRR headroom was 170 & 220.

Aril 2016 –Noggin diagram to suit Merlin operators replaced previous noggin diagrams. Centre Shaft Bracket was fixed bearing type.

Jan 2017 – Wind Brace Inspirations Doors added. Title was "Installation Instructions". Removed lockset instructions.

June 2017 – Post drawings revised.



GENERAL WARNING

To install this door safely, a number of precautions must be taken. For safety of all concerned, pay heed to the warnings and instructions given below.

SPECIAL SAFETY WARNINGS OR REMARKS IN THIS MANUAL ARE INDICATED WITH THIS SYMBOL. PLEASE READ WARNINGS CAREFULLY.

- Please read this installation manual completely prior to installation. It is very important to install
 this door correctly in order to achieve proper and safe operation, as well as ensure the door
 performs to specification in cyclonic conditions.
- All the components which have been supplied are designed for this specific sectional overhead door. Replacement or adding additional components may have an adverse effect on the performance, safety and the guarantee of the door.
- Springs, cables and bottom brackets are under strong tension. Do not attempt to loosen any
 fasteners on these components while under tension, otherwise the sudden release of the spring
 forces will result in severe risk of injury.
- All instructions are given as if viewing the door from inside looking out.

General Note

It is recognised that experienced installers may carry out the installation in a different manner, or vary the sequence of installation that is contained in this manual. Also the use of different horizontal track hangers and/or fixings (taking into account the first & second warnings noted above) may occur, or different techniques and/or varying dimensions that are contained in this manual may be used to achieve the same outcome, **except** where noted for the door to achieve its rated wind performance. This manual is only intended to be a general guide on how to install a Wind Brace Steel-Line sectional overhead door and is not intended to be presented as the only way to install this door.

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Parts Check List

Before installation, check that the following list of parts have been provided. If anything is missing from this list, please contact your nearest Steel-Line branch or Steel-Line distributor/reseller.

- Pack of door panels, one fitted with bottom weatherseal.
- One pair of vertical tracks (straight). Low Headroom Doors (LHR) will have 2 pairs of straight tracks – one pair longer than the other.
- One pair of horizontal tracks (curved).
- One shaft (usually a galvanised steel tube).
- Pack of spring/s.
- One hardware box.
- Reinforcing struts are provided for every panel of door (length = door width +0;-20mm). For C3 & C4 wind rated steel doors 2 struts per panel are provided.
- Wind Brace Post/s:
 - C2 Wind Rated Door Doors up to & including 4000 wide = 1 post; Doors over 4000 wide = 2 posts Maximum Width is 6000 wide) plus fixings & fittings for post/s.
 - C3 Wind Rated Door Doors up to & including 3000 wide = 1 post; Doors over 3000 & including 4500 wide = 2 posts; Doors over 4500 to Maximum Width is 6000 wide = 3 posts, plus fixings & fittings for all post/s.
 - C4 Wind Rated Door Doors up to & including 3600 wide = 2 posts; Doors over 3600 & including 4800 wide = 3 posts; Doors over 4800 to Maximum Width is 6000 wide = 4 posts, plus fixings & fittings for all post/s.

Inspiration Door - C2 Wind Brace Post/s - Doors up to & including 4000 wide = 1 post; Doors over 4000 wide = 2 posts - Maximum Width is 5600 wide) plus fixings for post/s.

Inspiration Door - C3 Wind Brace Post/s - Doors up to & including 4600 wide = 2 post; Doors over 4000 wide = 3 posts - Maximum Width is 5500 wide) plus fixings for post/s.

The hardware box should contain:

- 2 End Bearing Brackets.
- 2 Centre Bracket with 2 loose Bearings (2 required for 3 or 4 spring doors).
- Pair of Flag Brackets (L/H & R/H).
- 2 Support Angles (for horizontal track to Flag Bracket).
- 4 or 8 (wide/tall doors) lengths of Perforated Angles for mounting horizontal track off wall/ceiling.
- Track Brackets 14 off (doors up to 2285 high); 18 off (doors up to 2850 high); 20 off (doors > 2855 high)
- 2 Cable Drums Red for L/H; Black for R/H.
- 2 Cables.
- Pair of Bottom Bracket Assemblies (L/H & R/H) complete with long axle roller with roll pin fitted.
- 4 Adjustable Top Panel Top Brackets

- Long Axle Rollers with 2 axle holders & roll pin fitted as an assembly (L/H & R/H) 8 (4 panel doors); 10 (5 panel doors); 12 (6 panel doors).
- Metal Side & Centre/Intermediate Hinges (number dependant on door size).
- Bags of various fasteners.

Low Headroom Rear Spring Doors should also contain:

- Pair of LHR Support Plates (L/H & R/H).
- Pair of Plastic Curves (L/H & R/H).
- 6 Dual Track Joiners.
- 2 Cable Pulleys.
- 2 Cable Pulley Brackets.
- Pair of Reinforced External Cable Bottom Panel Brackets (L/H & R/H) with clevis pin & split pin for cable attachment.
- Additional Fasteners for above.

SECTION 1: Pre-Installation Checks

A Sectional Overhead Door is designed to be fitted behind the opening so the following dimensions need to be checked before fully unpacking the door for installation.

1. Opening Width: Check that the panels supplied overlap the daylight opening width by a minimum 50mm each side.

<u>NB:</u> It is important that this is confirmed as door performance in cyclonic conditions requires this clearance.

2. Side Clearance: The minimum side clearances are (based on 50mm overlap per side):

Door Type	Minimum Side Clearance (per side)
Standard Headroom	150mm
Low Headroom	175mm

- **3. Opening Height:** The maximum opening height for the supplied door is the specified door height (refer packing list for door size supplied) less 50mm.
- **4. Headroom:** A minimum clearance between the supplied door height and the ceiling and clear opening distance from lintel back into garage. See Chart below:

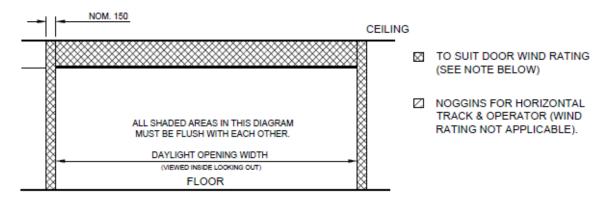
Door Type	Standard Headroom	Low Headroom – Rear Spring Mount	
Manual			
Minimum Headroom (mm)	290	150	
Minimum Clear Opening Distance	Door Height + 200mm	Door Height + 250mm	
Motorised			
Minimum Headroom (mm)	340	200	
Minimum Clear Opening Distance *	4200mm OR 4750mm (Doors > 2.58m high) *		

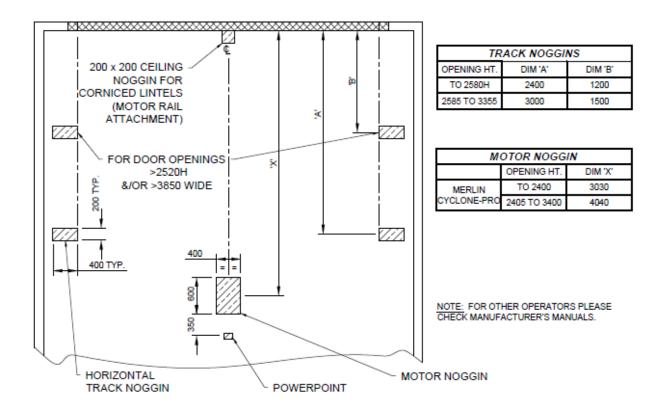
^{*} This clearance is for Steel-Line operators and is a general guide only. Motor and drive track can be measured on site to confirm minimum clear opening distance.

5. Structural Condition of Opening: THESE DOORS HAVE A MAXIMUM WIND RATING OF EITHER C2, C3 OR C4 (as per Table 5.2 in AS/NZS 4505:2012). (as per Table 5.2 in AS/NZS 4505:2012). THE SUITABILITY OF DOOR LINTEL AND JAMBS TO CARRY THE LOADS IMPOSED BY THE DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABILY QUALIFIED PERSON.

"Inspirations" Door – Maximum Wind Rating of C2 or C3 as per Table 5.2 in AS/NZS 4505:2012.

Copy of Steel-Line recommended nogging details for all doors follows:





THESE DOORS HAVE A MAXIMUM WIND RATING OF EITHER C2, C3 OR C4 (as per Table 5.2 in AS/NZS 4505:2012). THE SUITABILITY OF DOOR LINTEL AND JAMBS TO CARRY THE LOADS IMPOSED BY THE DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABILY QUALIFIED PERSON.

Revised: APRIL 2016

SECTION 2: Installation

1. Assemble Bottom Panel: Select bottom panel (fitted with bottom rail & weatherseal) and fit the 2 bottom bracket assemblies to bottom corners of panel using a minimum of 8 self-drilling metal screws provided as shown in Figure 1. The small temporary stile mounting screws need to be removed first, before aligning the bottom corner hole of outer bracket with corner stile hole and corresponding hole in panel and should be fixed first. Screw the remaining 3 screws into this bracket (refer Figure 1) before fixing inner bracket. Ensure location of inner bracket allows the wheel axle to slide freely from side to side and fix it to the inner stile as shown.

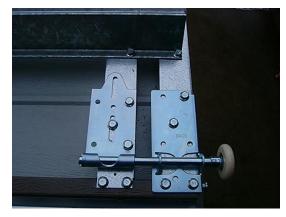


Figure 1 – Bracket & Strut Position on Bottom Panel

"Inspirations" Door – Fix 2 bottom bracket assemblies to bottom corners of panel (bottom of corner bracket flush with bottom of panel) using a 9 self-drilling metal screws provided as shown below, with gap minimum of 10mm between red arrows, ensuring the roller axle can move freely side to side.



NB: LHR rear mount doors the outer bottom bracket needs to be replaced by reinforced external cable bottom bracket by removing the roll pin from wheel axle and exchanging the brackets and re-fitting roll pin. Attach LHR bracket first using the closest centre hole in stile to mounting screws of stile (this will ensure brackets are equal height from bottom) followed by rest of the 7 screws needed. Refer Figure 2.

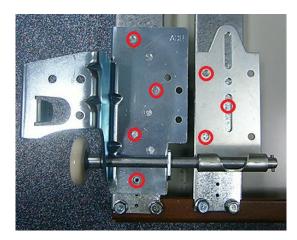


Figure 2 – LHR Rear Bracket on Bottom Panel – Circles indicate location of Tek screws

Next attach the bottom half (the biggest half, or adjustable wheel height half) of metal Adjustable Side Hinges to the top corners of bottom panel, again fixing through the stile mounting holes after removal of temporary holding screw/s. The first hole adjacent hinge edge should be fixed first. Fix adjacent screw and then fix other end of adjustable section to stile (refer Figure 3). Repeat for the second side hinge on adjacent stile.

Fit a strut to bottom panel approximately in middle of panel face height and fix to all the stiles of panel using self-drilling screws in a diagonal pattern as shown in Figure 4.

NB: It is important that strut is fixed to stile in this diagonal pattern to ensure the door can achieve its rated wind performance.

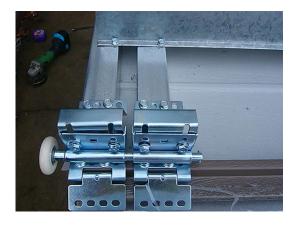


Figure 3 – Adjustable Side Hinge Fixing (viewed from top of panel)



Figure 4 – Typical strut fixing pattern for all stiles.

For C3 & C4 wind rated doors 2 struts per panel need to be fixed to panel. The bottom strut should be mounted adjacent to the outside bottom bracket, while top strut should be fixed adjacent to adjustable side hinges as shown in Figure 5 below.

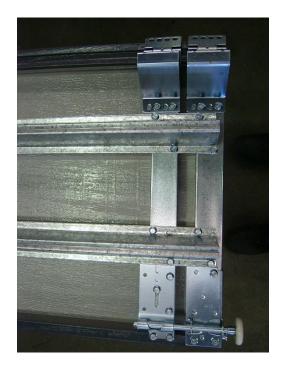


Figure 5 – Strut Fixing For C3 & C4 Wind Rated Steel Door Bottom Panel

"Inspirations" Door — Fix as above with outer hinge edge flush with panel edge and 10mm gap between red arrows shown in photograph. NB: Roller Axle assembly is assembled to hinges on installation of panel to door tracks.



"Inspirations" Door – Fix strut on the strut support as shown below. Stiles should be fixed in diagonal pattern similar to steel door.

NB: Photos below are for showing fixing only and not representative of what is supplied from factory.





The Centre/Intermediate hinges are fixed similarly to side hinges through the stile mounting holes (again after removing temporary screws) to top of every second intermediate stile (do not count inner stile adjacent to end stile) in panel using 2 self-drilling sheet metal screws screwing through the punched holes in stiles.



Figure 6 – Typical Centre/Intermediate Hinge Fixing

Table 1 below can be used as a reference to aid in location of the correct position of these hinges.

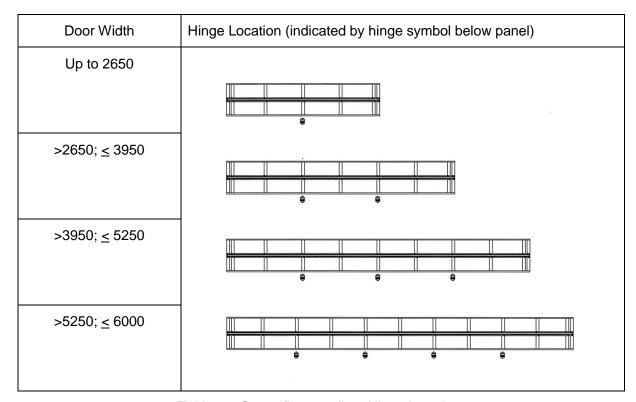


Table 1 – Centre/Intermediate Hinge Locations

"Inspirations" Door – Fix Centre/Intermediate Hinges in line with each stile as shown below.



Once all hinges are all fixed to the bottom panel, all the remaining stiles of panel need to have the temporary screw removed and each stile fixed with 2 screws top & bottom with the self-drilling screws provided (refer Figure 6).

NB: It is important that all the temporary screws that secure stile to panel for transport are replaced with screws provided to ensure the door can achieve its rated wind performance.



Figure 7 – Typical Strut & Stile Fixing

Trim weatherseal with a knife so about 10 - 15mm protrudes out each end. Centralise bottom panel in the door opening so that overlap is even on both sides. Check level of panel with a spirit level and shim one end of panel, if required. Temporarily fix or hold panel to jamb for the next step.

2. Fix Vertical Tracks: Using table below measure and cut the vertical tracks (straight lengths of track) to correct size, removing any surplus from the bottom of the track (top of track has 2 horizontal holes that line up with bottom of flag bracket).

Door Type	Vertical Track Length
Standard Headroom	Door Height* less 250mm (min)
Low Headroom	Door Height* less 380mm (min)

^{*} Note: This is **NOT** the opening height.

Fit the correct hand flag bracket (mounting flange facing outwards away from door) to the top of the vertical track so that the dimension from back of flag bracket mounting flange to the back of the track measures 65mm for 4 panel doors and 70mm for 5 & 6 panel doors. Use the ribbed mushroom head bolts, but only tighten the flanged nuts just enough to hold track at this stage. See Figures 7 & 8.

Attach track brackets to tracks, using the same fixings and tightening flanged nuts as above.

NB: Tracks are provided with mounting holes every 300mm. It is important that track lugs/cleats being fixed every 300mm to ensure the door can achieve its rated wind performance.

With a gap of 5–10mm between roller axle step and outside edge of bottom bracket, slide a track down over wheels, ensure track is vertical, the rollers are sitting in the centre and just touching the vee groove of the track. Mark flag & bracket position onto jamb/lintel (mark centre of slot in bracket to allow later adjustment if required).

Fix Flag Bracket/Vertical Track assembly to jamb/lintel using the following choice of fixings:

Substrate	Fixing Size & Type	
Timber	M8 x 75 Coach Screws with M8 flat was	
	2 @ #14 Type 17 x 75 Tek Screws end of slotted hole) & Flat Washers	(one each
Steel	M8 Bolts, Nut & Flat Washers	OR

	M8 'TAPTITE II' Bolts & Flat Washers (or equivalent) OR
	2 @ #14-20 Tek Screws(one each end of slotted hole) & Flat Washers
Concrete/Masonry	M8 Trubolts (Ramset #T08090 or equivalent).

Flag bracket should be fixed using minimum of 3 of the appropriate fasteners to suit jamb/lintel material as noted above. Do the same for opposite hand flag bracket/track assembly.

The top of both tracks should be checked that they are level with each other. If not level, either trim bottom of one track, or lift one track up. Do not leave gap larger than 10–15mm off floor. Tighten all fixings just enough to hold track at this stage.

3. Mount Horizontal Tracks: Fit one end of support angle to flag bracket using one cuphead bolt provided. Fit curved end of horizontal track to bottom of flag bracket and support angle as shown in Figure 7 using the ribbed mushroom head bolts leaving the nuts finger tight. Aim for 1–3mm gap between tracks, as too much gap will cause rollers to drop into gap making door operation noisy.

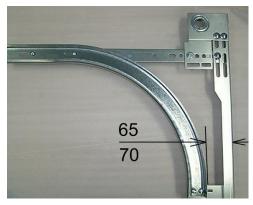


Figure 8 – Mounting Horizontal Track/Support Angle & End Bracket

The other end of horizontal track should be supported by a suitable stand, a ladder or rope initially, or fixed loosely by the perforated angles supplied, or by using Series A Roller Door bracket. When fitting the rear hanger/s to the ends of the horizontal tracks, ensure that tracks are level and square to the opening (measure across diagonals and adjust as necessary) and level. Refer Figure 9 for typical rear track hanger/s. Figure 10 shows a suitable track support stand.

Rear hangers can be mounted off the wall in situations of tight side room, supporting track from underneath and fixing with small length of angle, or track bracket for LHR doors. The horizontal leg of hanger should not protrude more than 30mm past track otherwise it may interfere with door operation. Ideally both hangers should be mounted off wall, or off ceiling, but there may be some situations where it is necessary to mount one side off wall, the other off the ceiling.



A sway brace should be fitted to perforated angle hanger brackets to prevent any spreading movement of track which could allow door to fall. Rear hangers need to be fixed securely as they support weight of door when fully open.

For low head room (LHR) doors the LH & RH support plates from LHR kit replaces the standard support angle above. The plastic curve and LHR horizontal top track (the longer of the 2 pairs of straight lengths provided) and standard horizontal track are fitted to this plate. Refer Figure 9 for LHR rear mount. Past the support plate the dual horizontal tracks are held together by track connecting plates contained in LHR kits. Fasten with the ribbed mushroom head bolts.





Figure 9 – Low Head Room Rear Track Assembly (Top Horizontal Track not shown)



Figure 10 – Typical Rear Track Hangers for End of 2400 Horizontal Track (Optional Horizontal Track Bracket shown)



Figure 11 – Typical Support Stand

4. Shaft Assembly: If necessary cut shaft to suit door and side room (Rule of Thumb: Shaft Length = Door Width + 300mm). Slide the centre bearing/s, springs, cable drums and end bearing brackets in that order onto shaft. The LH spring & cable drum are painted RED, while RH versions are painted BLACK to aid assembly. The end bearing bracket tab (& protruding bearing) for lintel attachment should face outwards away from door. Refer Figure 7.

Note 4.1: For the LHR Rear with external reinforced cable bottom brackets, the cable drum will need to fit outside the end bearing brackets. End bearing brackets need to be fitted

opposite to above, i.e. bearing & bracket tab should face inwards towards centre of door (this prevent possibility of bearing being pushed out of bracket by sideways movement of door). The cable drums are also reversed (i.e. LH drum fitted to RHS; RH drum fitted to LHS) to give better access to square head screws.

Note 4.2: For 4 spring doors the two inner LH & RH springs need to be slid on first, followed by centre bearings, outer springs, cable drums & end bearing brackets as noted above.

Using assistance if necessary, place shaft assembly on top of each support angle (or support plates for LHR front doors) and fit to flag brackets/support angle/plate using the cuphead bolts supplied (refer Figure 7 for standard headroom or Figures 8 for LHR rear doors). End bracket should also be fixed to lintel unless height restrictions prevent this occurring, in which case the bent up tab for lintel fixing should be removed from end bearing bracket to facilitate lowering of this bracket, but lintel to shaft dimension must match centre bracket. Shaft should be centred so equal amount of shaft protrudes from each end bearing bracket.

The centre bracket can now by fixed to lintel. Ensure the shaft is level and that there is sufficient side room for springs, then mark and fix bracket around the centre of the door opening using two of the fasteners to suit lintel material.



It is important that centre bearing bracket/s is securely fastened to lintel as this bracket supports the full spring force (roughly equivalent to weight of the door).

For LHR Rear Mount doors the shaft assembly end bearing brackets should be fixed to end of the dual track (refer Figure 11) and centre bearing bracket securely fastened to ceiling, heeding the warning noted above.





Figure 12 - LHR Rear Shaft assembly

5. Assemble & Fit Intermediate Panels: Fit bottom halves of intermediate hinges to top of intermediate stile of next panel following same procedure as per bottom panel (refer Table 1). Fit the side hinges to top of second panel as per bottom panel procedure above. If both supplied fit strut/s first, either in centre of panel height (C2 rated doors only) or adjacent the different hinge extents (C3 & C4 doors only – refer Figure 13 below).

Place panel on top of bottom panel and temporarily clamp to jamb/track, or with an assistant holding panel, fit roller wheel assembly into track between bottom & second panel and fix (finger tight only) the axle holders to each respective side hinge. Do the same for the opposite corner.

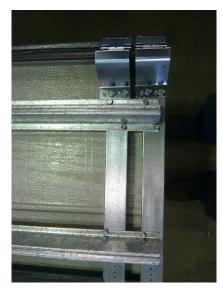


Figure 13 – C3 & C4 Strut Fixing (Bottom strut adjacent top of centre hinge)

Remove temporary clamp (if used), line second panel edge up with bottom panel and fix the top half of side hinge/s into bottom corner of second panel using self-drilling screws and aligning holes in hinge with mounting holes in end stiles (removing the temporary screws first). Do the same for opposite end and then fix all the top halves of intermediate hinges between both panels.

Repeat above for all the intermediate panels.

6. Adjust & Tighten Tracks: Fully tighten the fixings between track & track lug/cleat. Starting from side hinge closest to ground adjust roller wheel assembly so that the panel faces have the smallest consistent gap to ensure door operation without rubbing against jamb. Ensure axles are parallel to ground and when tightened ensure axle can readily move sideways between its constraints. On inconsistent surfaces such as brick work adjust panel face so it just rests on highest protrusion and panels are vertical.

The horizontal track fittings can be tightened ensuring a continuous channel for wheels to travel from vertical track to horizontal track and horizontal track is square with opening, parallel and level.

7. Assemble Top Panel: Fit both V brackets as per the procedure for fitting the bottom halves of side hinges with the slots for adjustable axle holder facing up with top holes lining up with stile mounting holes into panel, while fixing bottom holes either end of stile (refer Figure 10). This bracket orientation is important as the aim is to get top wheel as far into curve of horizontal track as possible to minimise load (and potential activation of obstruction safety system) on motorised doors, while ensuring top panel is vertical in the closed position.

Fit strut to the middle of the panel (same position as other panels) & fix as per previous panels.







Figure 15 – Top Bracket with Struts (C3 & C4 Rated Door Shown)

"Inspirations" Door – Fix top brackets with same spacing as noted for the adjustable side hinge brackets under Section 1.

Place top panel on top of other panels and temporarily fix, or get an assistant to hold, while fitting the roller wheel assembly and holder to the top panel adjustable bracket. Adjust roller axle holder up or down bracket to get top panel face vertical with rest of panels, then tighten holders into position, again ensuring axle is parallel to ground and axle can readily move between its constraints.

For LHR doors the roller wheel axle assembly should be adjusted to suit plastic curve with roller up into curve as much as possible to aid door operation, while ensuring top panel is vertical in closed position.

8. Assemble Springs and Cable Drums: Fit cable loop over bottom bracket pin and feed cable up behind rollers to cable drum, putting cable end into slot on outside face (away from door) of cable drum. Ensure cable has a straight run with no interference.

LHR rear doors will have external cable bracket on the bottom panel. Cable is fitted to bracket via a clevis pin and split pin.

Take up slack in cable by winding drum up and over away from lintel, ensuring cable lays correctly into grooves on drum. Once cable is taut, push the drum up against end bearing and continue to hold cable taut while tightening the square-head set screws to secure drum to shaft.

Repeat for the opposite hand cable & drum ensuring both cables have equal tension. If not adjust one cable drum until tension in both cables is the same. Tighten cable drum screws securely (Rule of Thumb – once screw has engaged shaft tighten a further 1½ turns).

Fix spring/s to centre bearing using hex bolts & nuts supplied and ensure they are fully tightened

9. Tensioning the Springs



Assume the spring could break or the winding bar could slip from the spring fitting whenever you wind or unwind a spring.



While tensioning keep face, hands and body wherever possible clear of spring, spring cone and winding bars.



Never use screwdrivers. Only use winding bars of the correct size.

Winding Bars

Use two winding bars 400-500mm long. The winding bars should be made from solid cold rolled steel bar.

There are two acceptable designs for winding bars. The sizes given below suit spring winding plug sizes of 50.8mm (2") and 66.7mm ($2^{5}/8$ ").

Straight Bar Design

For a straight bar design the whole bar should be Ø12.7mm. Add tape to show when the bar is fully inserted into the spring fitting.

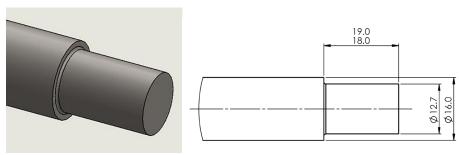
The ends that insert into the spring fitting should be cut off square and sharp – not rounded.



Stepped-Down Design

In a stepped-down design, the bar is bigger in diameter (e.g. Ø16mm) and stepped-down only on the end 18–19mm to diameter Ø12.7mm.

The ends that insert into the spring fitting should be cut off square and sharp – not rounded.



Place vice-grips or a G-clamp in the vertical track on one side above a roller to prevent door from lifting during tensioning.

Firmly attach a pair of vice-grips over the top of spring shaft so that handles of vice-grips are wedged up against the lintel or ceiling. This prevents the shaft turning during tensioning of springs. Refer Figure 16.



Figure 16 – Clamping Shaft Prior to Spring Tensioning (vice-grips resting against ceiling in this case)

The springs may have a horizontal line marked on them to make it easy to count spring revolutions. If not, mark a horizontal line from one end of each spring to the other with chalk or paint.

Use two winding bars. (NB: Never use screwdrivers!) Insert first bar into the spring winding cone and rotate up towards the ceiling and hold until second bar is inserted. See Figure 17.



Figure 17 - Tensioning Springs

Repeat this operation until the number of turns of springs matches the specified number of turns marked on Barcode label attached to springs.

It is good practise to stretch the spring outwards about 5mm to provide a small gap between coils. This minimises potential binding and spring noise as the door operates. Do this by securely holding a winding bar in the spring cone and tapping it outwards with a hammer.

Hold the spring winding cone in final position while securely tightening the two square-head set screws onto shaft (Rule of Thumb – once screw has engaged shaft tighten a further 1½ turns).

Repeat for each spring. All springs should have same number of turns.

10. Checking Spring Tension: Carefully release vice-grips on shaft, then remove vice-grips/clamps from track and check balance of door for ease of operation. Lubricate the springs with grease or spray-on lubricant.

Check alignment of horizontal tracks as door is being raised. The door should operate as follows:

- Door should rest on floor and not begin to open until lifted. If the door is difficult to lift, first check door is not too tight against jamb.
- A small lifting force is all that should be required to start opening door.
- At halfway opening point door should remain stationary by itself. A little movement either way is acceptable, but door should not take off in either direction.
- Door should roll smoothly and slowly to rest slightly under bottom edge of lintel and stay there. It should not move down by itself, or be hard to pull down from fully open position.
- Closing the door should require a small pull force away from fully open position, it should stay by itself around halfway position and stay down when it has reached the floor.

If door does not display the above, first check all tracks to ensure door rolls smoothly without binding in track and cable is not rubbing against anything. If OK, then reduce or increase tension in all springs by maximum ½ to ½ turn until happy median is achieved.



Never touch a spring set screw without first inserting a winding bar.

Test door several times to ensure its operation is correct. Check that all fastenings are fully tightened.

If door still doesn't perform as expected consult your Steel-Line supplier.

- **11. Fitting Wind Brace Post Assembly:** Please refer to drawings at back of document to check number and location of wind brace posts for the C2, C3 or C4 Wind Rated Door supplied, or C2 & C3 Inspirations Door.
 - (i) **Doors with Single Post:** The post needs to be offset slightly from position of centre stile in bottom panel for ease of fitting the chain restraint around the strut. To do this mark the centre of centre stile on floor and put another mark 75 95mm to the left or right of this mark which will be the centreline of post. Assemble post into its bottom plate (top inner sliding portion of post can be removed if need be) and push it into position along floor so centre of base plate aligns with the offset position marked on floor and mounting holes are parallel to door (orientation of "key" slot in base plate is not important). With post just resting on all the struts of door equally, mark position of bottom plate on floor, remove the post and fix the bottom plate top floor using 2 @ M10 'AnkaScrew' (Ramset AS10060 or equivalent).

"Inspirations" Door – Post should be lined up with centre stile and chain of Post to Strut bracket fee through strut support channel.



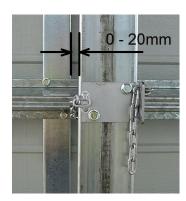




Figure 18 - Post Base, Post Location Relative to Door Stile & Top Inner Post

(ii) **Doors with Multiple Posts:** If the door comes with 2, 3 or 4 posts, they need to be equal distance between each other and the ends of the door. If this means the post ends up aligning, either partially, or fully with the stiles of the door the post location should be offset from stile. For partial alignment move post location the least distance required to obtain a gap shown above in Figure 18. For full alignment use same procedure (i) above to achieve gap required.

"Inspirations" Door – C2/C3 Posts to line up with stiles that are equidistant across door width (refer to C2 & C3 post to infill configuration drawings at back of guide).

Mark a line a minimum 130mm above and parallel to lintel where top of post is likely to end up, but ensuring that top of wall bracket with its mounting holes on the line will clear the door springs when arm is fitted. With post fully assembled (i.e. top inner post with wall bracket attached – ensure arm of top inner post is pointing in the same direction as the "key" at base of post), fit base of post into base plate and rotate ¼ turn so that arm of top inner post with wall bracket faces lintel. With the post vertical and wall plate against lintel (lifting top inner post if required) mark position of holes on the line, remove wall bracket and fix to lintel using fixing listed below:

Substrate	Fixing Size & Type
Timber	2 @ M10 x 100 Coach Screws
Steel	2 @ M10 Bolts & Nut (Grade 4.6) OR 2 @ M10 'TAPTITE II' Bolts (or equivalent)
Concrete/Masonry	M10 Trubolts (Ramset #T10120 or equivalent).

"Inspirations" Door – There are 2 variations of lintel wall brackets to suit this door – one to suit acrylic infill or louvre options (has number "38" stamped on bracket; the other to suit composite facing attached to outside of panel (has number "44" stamped on bracket). Refer post drawing attached to back of guide.

Install post in base plate and fix top inner post arm to wall bracket. Place the post to strut bracket/chain against back of post with slot up so top of bracket is roughly level with top edge of the strut and feed the chain around back of strut (go under strut first) and bring

chain to opposite side of post, pulling the chain taut and dropping the nearest link of chain that will fit neatly into slot provided. Move the bracket up to take as much slack out of chain as possible while still enabling the chain link in slot to be readily removed and put back, to minimise door movement under windy conditions while allowing easy assembly of chain. Mark position of this bracket and fix to back of post using the #14-20 Tek Screws provided. Repeat for all struts and each post.

"Inspirations Door – Align strut bracket/chain as above, but feed chain underneath 80 x 25 channel supporting the strut and fix as above.

Once finished remove post and place in a handy position for fitting of post when required.

Wall Wind Brace Post Storage Brackets - Choose in an appropriate position on a wall close to door, that doesn't interfere with the operation of the door. Mount bracket (with slots up) about chest height above the closest post to strut bracket position on post so chain can be used to hold post to wall bracket.

NB: Top inner post can be fixed in its installed position relative to the base post using metal Tek screws, one each side to engage the 2 flats of top inner post to make installing post easier. However, where 2 posts are required it may be necessary to mark each post in some way so it is installed on the correct side of door when required.

12. Fitting Accessories: With door in fully open position fit the door stops into position in the tracks.

If door came with motorised operator or jamb seals, these can be fitted now.

SECTION 3: Drawings

Sectional Door Windbrace System - C2 General Assembly Sheet - 1 of 3

Sectional Door Windbrace System - C2 Post Connection Details Sheet - 2 of 3

Sectional Door Windbrace System – C2 Post Details Sheet - 3 of 3

Sectional Door Windbrace System - C3 General Assembly - Sheet 1 of 4

Sectional Door Windbrace System - C4 General Assembly - Sheet 2 of 4

Sectional Door Windbrace System - C3 & C4 Post Connection Details - 3 of 4

Sectional Door Windbrace System – C3 & C4 Post Details - Sheet 4 of 4

Inspirations C2/C3 Wind Brace System – C2 Wind Brace – General Assembly – Sht. 1 of 6.

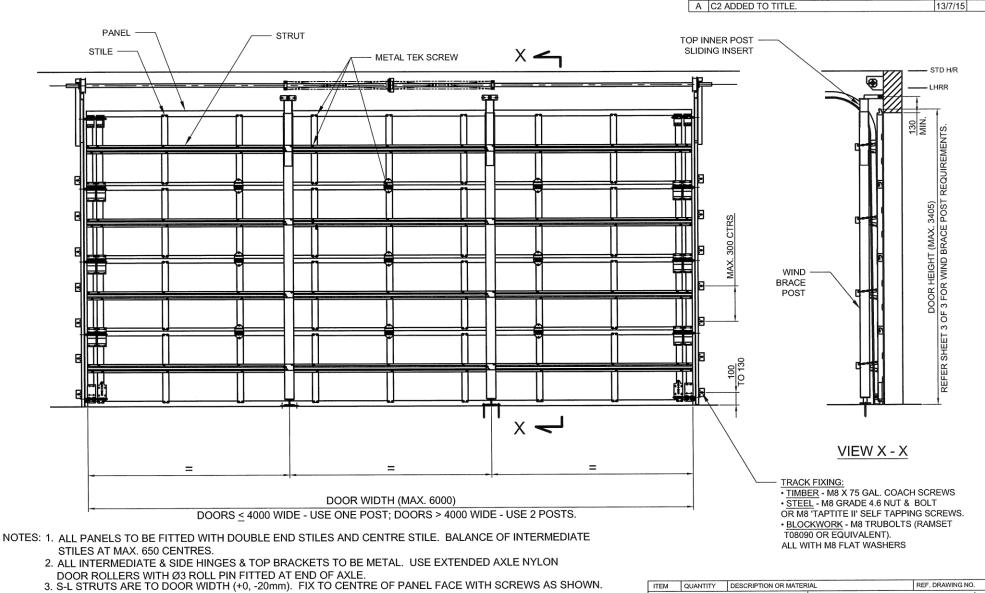
Inspirations C2/C3 Wind Brace System – C2 Wind Brace – Infill vs. Post Configuration – Sht. 2 of 6

Inspirations C2/C3 Wind Brace System – C3 Wind Brace – General Assembly – Sht. 3 of 6.

Inspirations C2/C3 Wind Brace System – C3 Wind Brace – Infill vs. Post Configuration – Sht. 4 of 6

Inspirations C2/C3 Wind Brace System – C2/C3 Wind Brace – General Assembly – Sht. 5 of 6.

Inspirations C2/C3 Wind Brace System – C2/C3 Wind Brace – Post Details – Sht. 6 of 6.



USE STANDARD TRACK WITH ADDITIONAL TRACK BRACKETS AS NOTED.
 POST FOR DOORS ≤ 4000 WIDE ARE SLIGHTLY OFFSET OF DOOR CENTRE STILE TO ALLOW CHAIN PATH TO BE AS DIRECT AS POSSIBLE.
 DOOR OVERLAP WITH OPENING IS 50mm MINIMUM ALL THE WAY AROUND.

7. THE DOOR HAS MAX. WIND RATING OF C2, AS PER TABLE 5.2 OF AS/NZS 4505:2012. SUITABILITY OF DOOR LINTELS & JAMBS TO CARRY LOADS IMPOSED BY DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABLY QUALIFIED PERSON.

U.O.S. DIMENSIONS IN MILLIMETRES

TITEM QUANTITY DESCRIPTION OR MATERIAL REF. DRAWING NO.

STEEL-LINE SECTIONAL DOOR C2 WIND BRACE SYSTEM

TITLE GENERAL ASSEMBLY
INSTALLATION DRAWING

APPROVED & DATE
FILE

FILE

DRAWING NO.

AS DAWING NO.

AS DAWING NO.

AS DAWING NO.

AS DAWING NO.

AS DWIND BRACE SYSTEM

TITLE GENERAL ASSEMBLY
INSTALLATION DRAWING

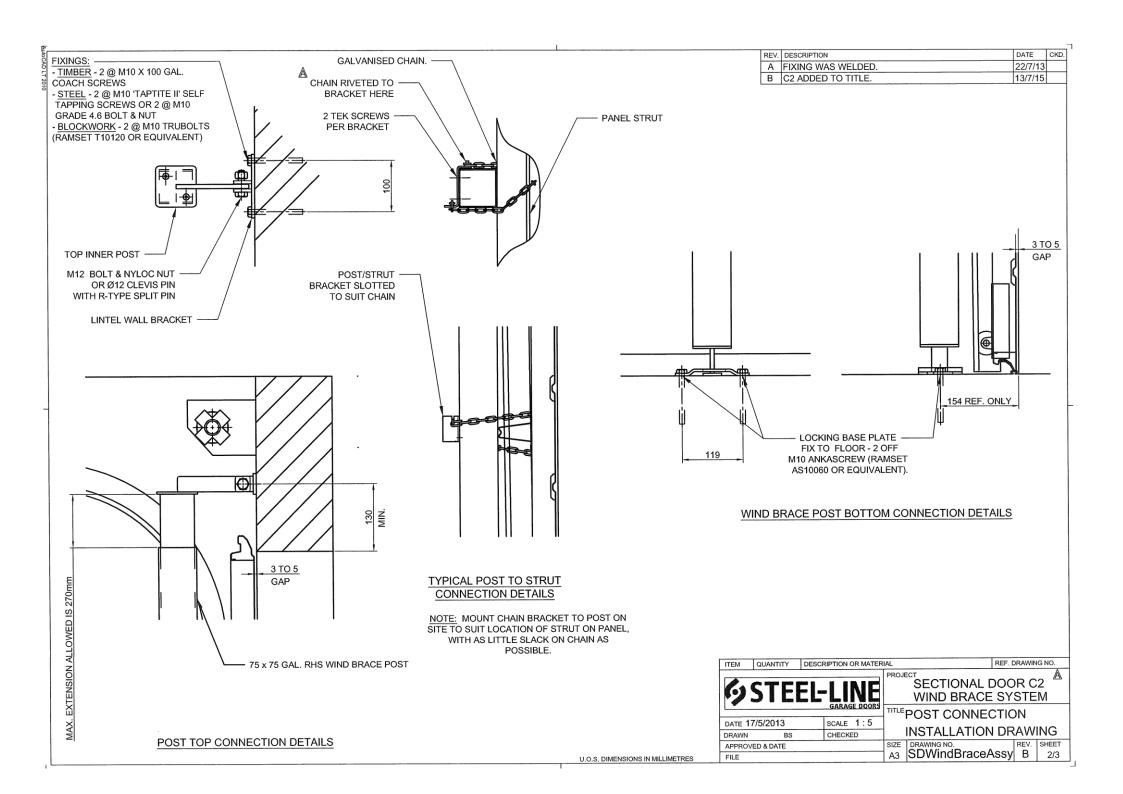
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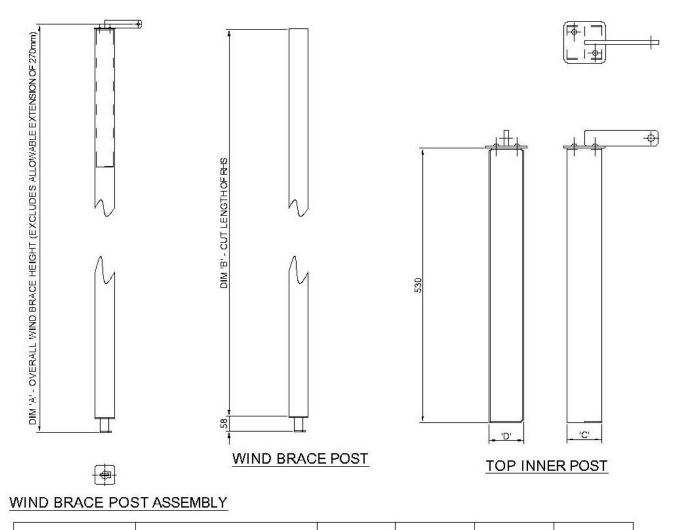
AS DWING NO.

REV. DESCRIPTION

DATE

CKD.





 REV. DESCRIPTION
 DATE
 CKD

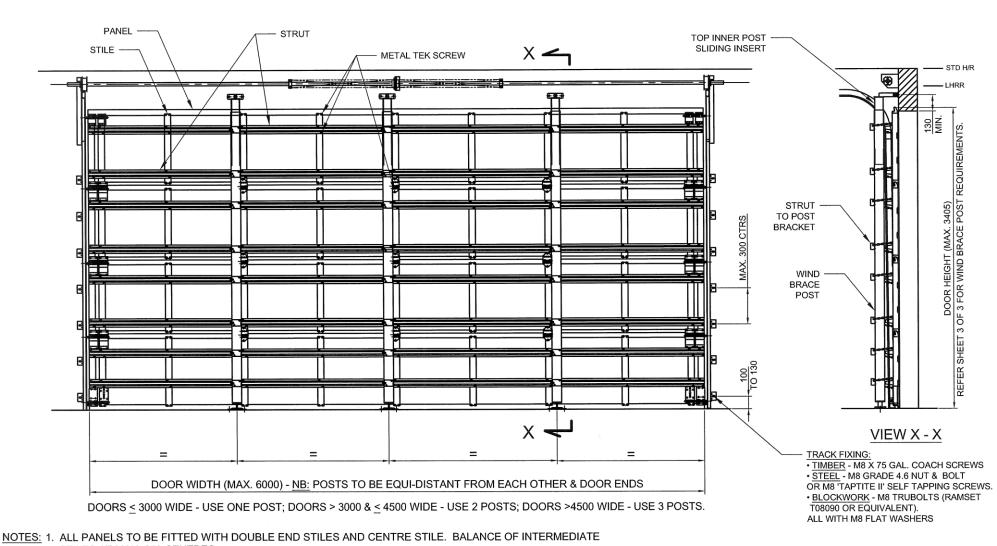
 D DIM 'D' ADDED.
 1/6/17

LINTEL WALL BRACKET

	DOOR HEIGHT	MATERIAL (C450 U.N.O.)	DIM 'A'	DIM 'B'	DIM 'C'	'D' MID
	2010 TO 2280	75 GAL RHS x 2.5 WT	2090	2013		
	2290 TO 2560	75 GAL RHS x 3.0 WT	2370	2293	67	66
8	2570 TO 2842	75 GAL RHS x 3.0 WT	2650	2573		
8	2855 TO 3125	75 GAL RHS x 4.0 WT	2935	2858	64	63
	3135 TO 3405	75 GAL RHS x 6.0 WT (C350)	3215	3138	62	51

U.O.S. DIMENSIONS IN MILLIMETRES

ITEM	QUANTITY	DESCRIPTION OR MATE	RIAL	REF	. DRAWI	NG NO.
6)	STE	EL-LINE	PROJ	SECTIONAL DO WIND BRACE S POST PARTS		AVO
DATE 1	1/6/2017	SCALE NTS				503 <u>0</u> 23
DRAWN	BS	CHECKED	INSTALLATION DETAILS		LS	
APPROVED & DATE		SIZE	DRAWING NO.	REV.	SHEE	
FILE	S-L/	Projects/SD//Vindbrace	A3 SDWindlockAssy		C	3/3



- STILES AT MAX. 650 CENTRES.
 - 2. ALL INTERMEDIATE & SIDE HINGES & TOP BRACKETS TO BE METAL. USE EXTENDED AXLE NYLON DOOR ROLLERS WITH Ø3 ROLL PIN FITTED AT END OF AXLE.
 - 3. S-L STRUTS ARE TO DOOR WIDTH (+0, -20mm). FIX 2 PER PANEL WITH TEK SCREWS AS SHOWN.
 - 4. USE STANDARD TRACK WITH ADDITIONAL TRACK BRACKETS AS NOTED.
 - 5. WHERE POST ALIGNS WITH STILES OF PANEL, POST/S CAN BE SLIGHTLY OFFSET OF STILE TO ALLOW CHAIN PATH TO BE AS DIRECT AS POSSIBLE (AS SHOWN).
 - 6. DOOR OVERLAP WITH OPENING IS 50mm MINIMUM ALL THE WAY AROUND.
 - 7. THE DOOR HAS MAX. WIND RATING OF C3, AS PER TABLE 5.2 OF AS/NZS 4505:2012 (REFER JCU CTS REPORT TS1015). SUITABILITY OF DOOR LINTELS & JAMBS TO CARRY LOADS IMPOSED BY DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABLY QUALIFIED PERSON.

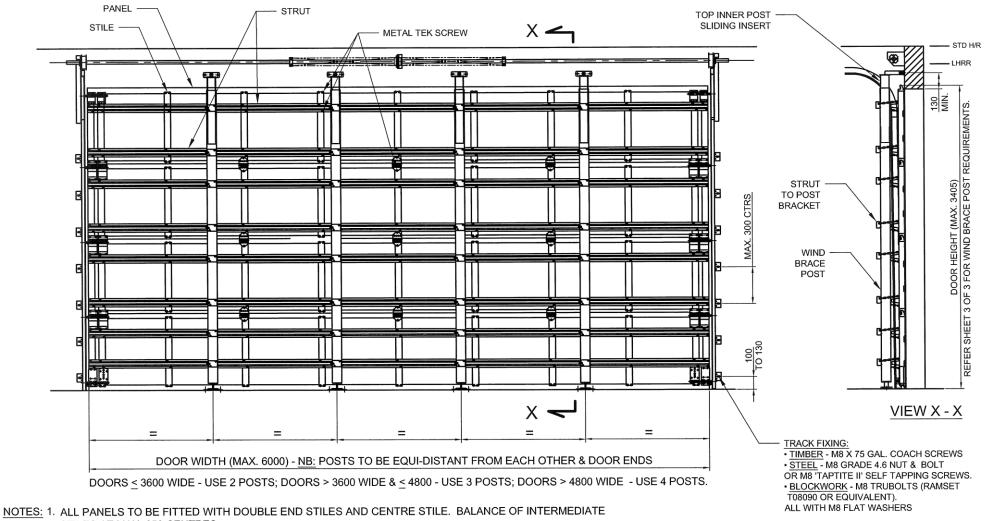
U.O.S. DIMENSIONS IN MILLIMETRES

	STEEL-LINE		SECTIONAL DOOR C3 WIND BRACE SYSTEM TITLE GENERAL ASSEMBLY				
DATE 10/7/2015 SCALE NTS		1					
DRAWN BS CHECKED]	INSTALLATION DF	KAVV	ING		
APPROVED & DATE		SIZE	DRAWING NO.	REV.	SHEET		
	FILE	S-L/Projects/S	SD/SD Windlock	A3	C3SDWindBraceAssy	-	1/4

REV. DESCRIPTION

DATE

DATE CKD. REV. DESCRIPTION

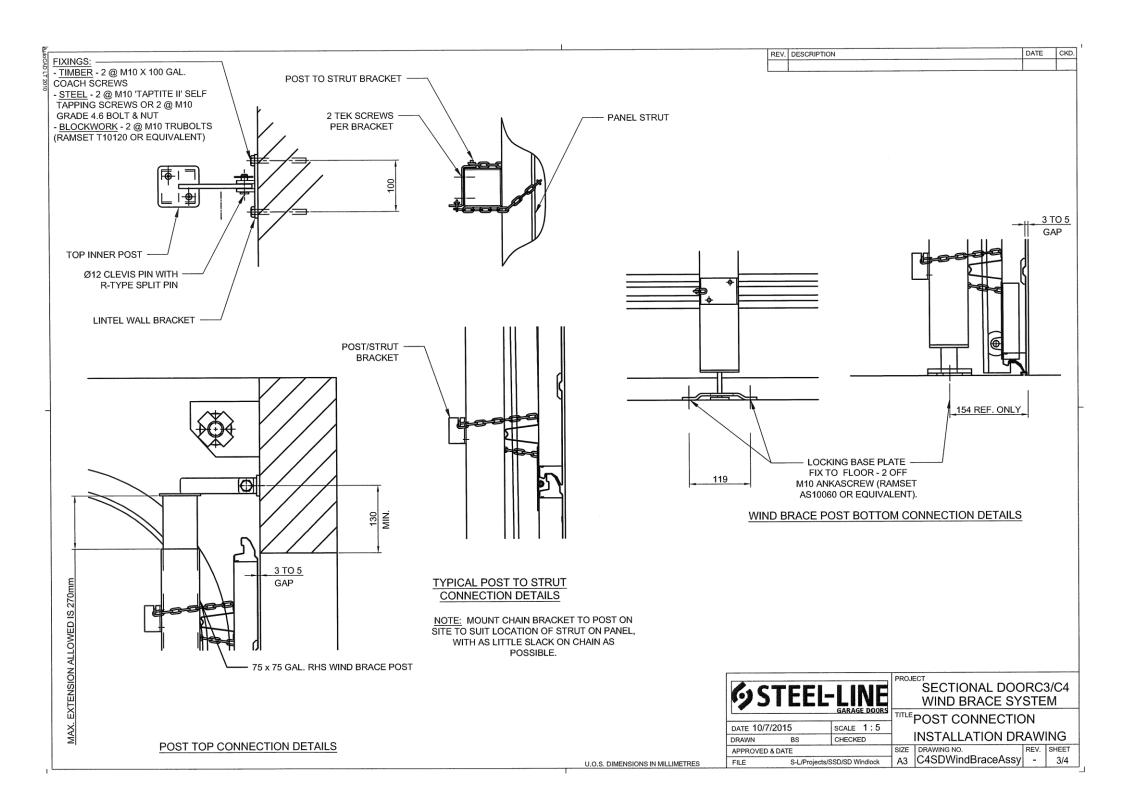


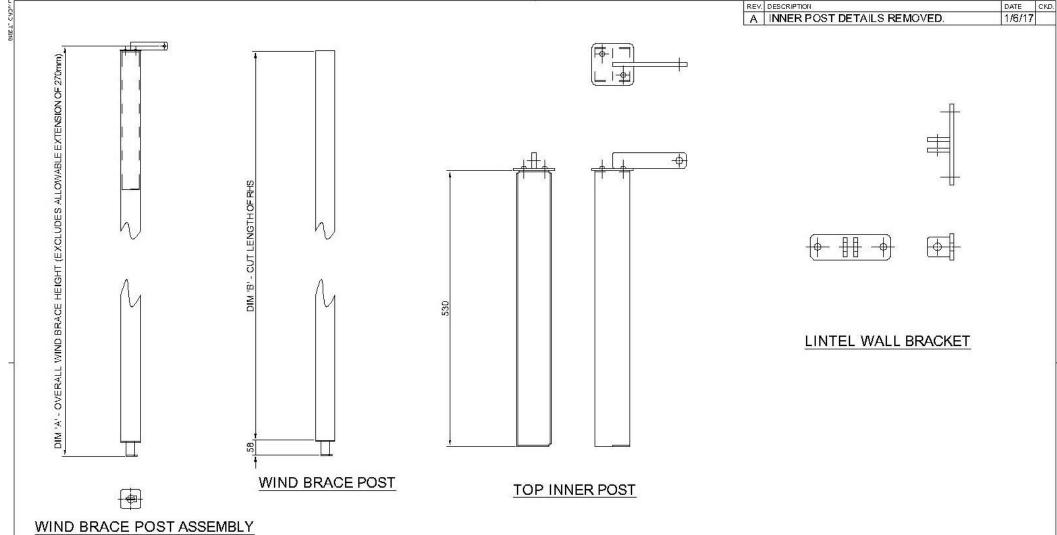
STILES AT MAX. 650 CENTRES.

- 2. ALL INTERMEDIATE & SIDE HINGES & TOP BRACKETS TO BE METAL. USE EXTENDED AXLE NYLON DOOR ROLLERS WITH Ø3 ROLL PIN FITTED AT END OF AXLE.
- 3. S-L STRUTS ARE TO DOOR WIDTH (+0, -20mm). FIX 2 PER PANEL WITH TEK SCREWS AS SHOWN.
- 4. USE STANDARD TRACK WITH ADDITIONAL TRACK BRACKETS AS NOTED.
- 5. WHERE POST ALIGNS WITH STILES OF PANEL, POST/S CAN BE SLIGHTLY OFFSET OF STILE TO ALLOW CHAIN PATH TO BE AS DIRECT AS POSSIBLE.
- 6. DOOR OVERLAP WITH OPENING IS 50mm MINIMUM ALL THE WAY AROUND.
- 7. THE DOOR HAS MAX, WIND RATING OF C4, AS PER TABLE 5.2 OF AS/NZS 4505:2012 (REFER JCU CTS REPORT TS1015). SUITABILITY OF DOOR LINTELS & JAMBS TO CARRY LOADS IMPOSED BY DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABLY QUALIFIED PERSON.

SECTIONAL DOOR C4 WIND BRACE SYSTEM TITLE GENERAL ASSEMBLY DATE 10/7/2015 SCALE NTS INSTALLATION DRAWING CHECKED DRAWN SIZE DRAWING NO. REV. SHEET APPROVED & DATE A3 C4SDWindBraceAssy S-L/Projects/SD/SD Windlock

U.O.S. DIMENSIONS IN MILLIMETRES

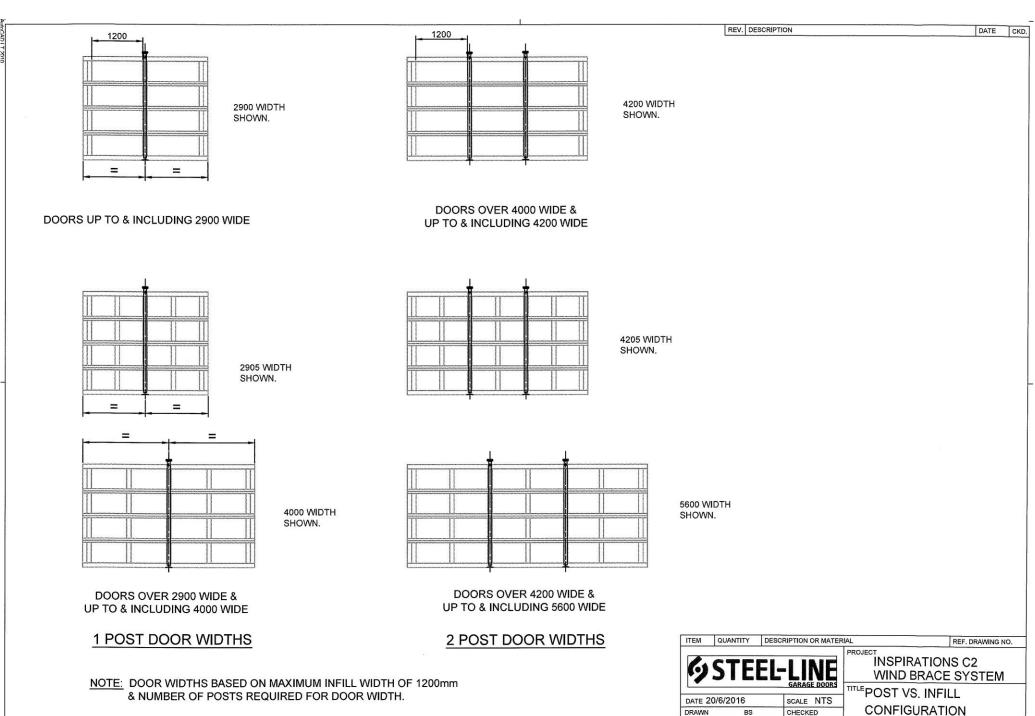




DOOR HEIGHT	POST (G450 MAT'L)	DIM 'A'	DIM 'B'
2010 TO 2285	75 GAL RHS x 2.5 WT	2090	2013
2290 TO 2560	75 GAL RHS x 3.0 WT	2370	2293
2565 TO 2850	75 GAL RHS x 4.0 WT	2650	2573



U.O.S. DIMENSIONS IN MILLIMETRES



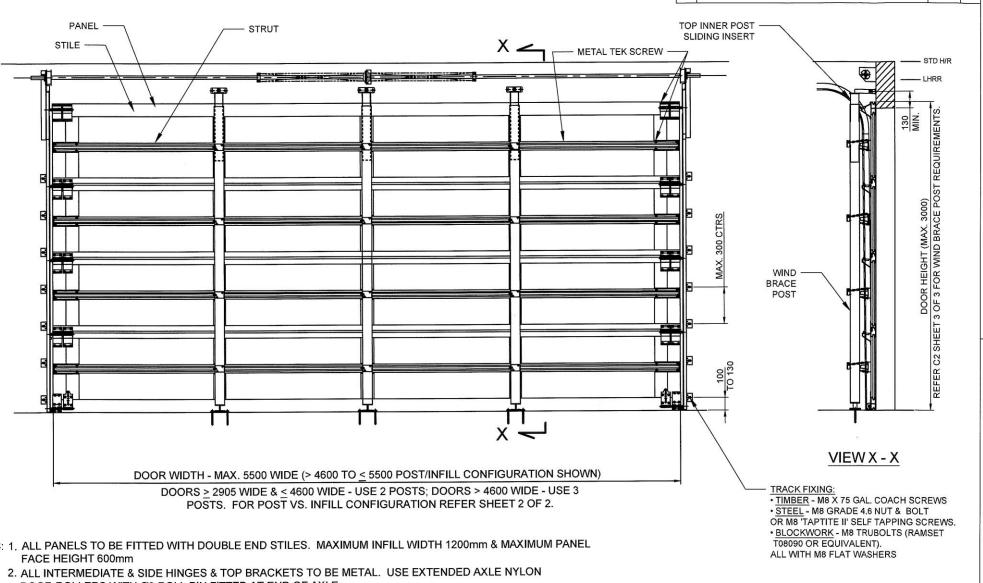
U.O.S. DIMENSIONS IN MILLIMETRES

APPROVED & DATE

FILE S-L/Projects/Spec, Doors/Alum./Inspirations

SIZE DRAWING NO.

InspWindBraceAssy - 2



NOTES: 1, ALL PANELS TO BE FITTED WITH DOUBLE END STILES. MAXIMUM INFILL WIDTH 1200mm & MAXIMUM PANEL

- DOOR ROLLERS WITH Ø3 ROLL PIN FITTED AT END OF AXLE.
- 3. S-L STRUTS ARE TO DOOR WIDTH (+0, -20mm). FIX TO ALUMINIUM CHANNEL WITH SCREWS AS SHOWN.
- 4. USE STANDARD TRACK WITH ADDITIONAL TRACK BRACKETS AS NOTED.
- 5. POST/S TO BE MOUNTED DIRECTLY BEHIND CENTRE STILE (DOORS > 4600 WIDE), AND/OR BEHIND STILES EITHER SIDE OF DOOR CENTRE STILE (ALL WIDTHS).
- 6. DOOR OVERLAP WITH OPENING IS 50mm MINIMUM ALL THE WAY AROUND.
- 7. THE DOOR HAS MAX, WIND RATING OF C2, AS PER TABLE 5.2 OF AS/NZS 4505:2012. SUITABILITY OF DOOR LINTELS & JAMBS TO CARRY LOADS IMPOSED BY DOOR WHEN SUBJECT TO WIND LOADS SHALL BE DETERMINED BY A SUITABLY QUALIFIED PERSON. U.O.S. DIMENSIONS IN MILLIMETRES

INSPIRATIONS C3 WIND BRACE SYSTEM TITLE GENERAL ASSEMBLY DATE 20/6/2016 SCALE NTS INSTALLATION DRAWING DRAWN CHECKED APPROVED & DATE SIZE DRAWING NO. REV. SHEET A3 InspWindBraceAssy FILE

DESCRIPTION OR MATERIAL

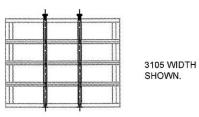
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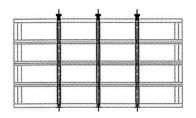
REV. DESCRIPTION

DATE

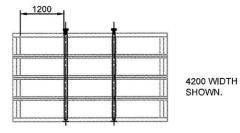
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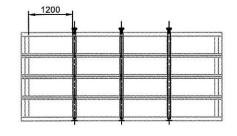
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4605 WIDTH SHOWN.

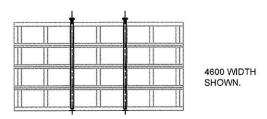




5500 WIDTH SHOWN.

DOORS OVER 2900 WIDE & UP TO & INCLUDING 4200 WIDE

DOORS OVER 4600 WIDE & UP TO & INCLUDING 5500 WIDE

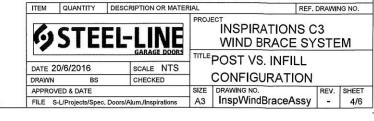


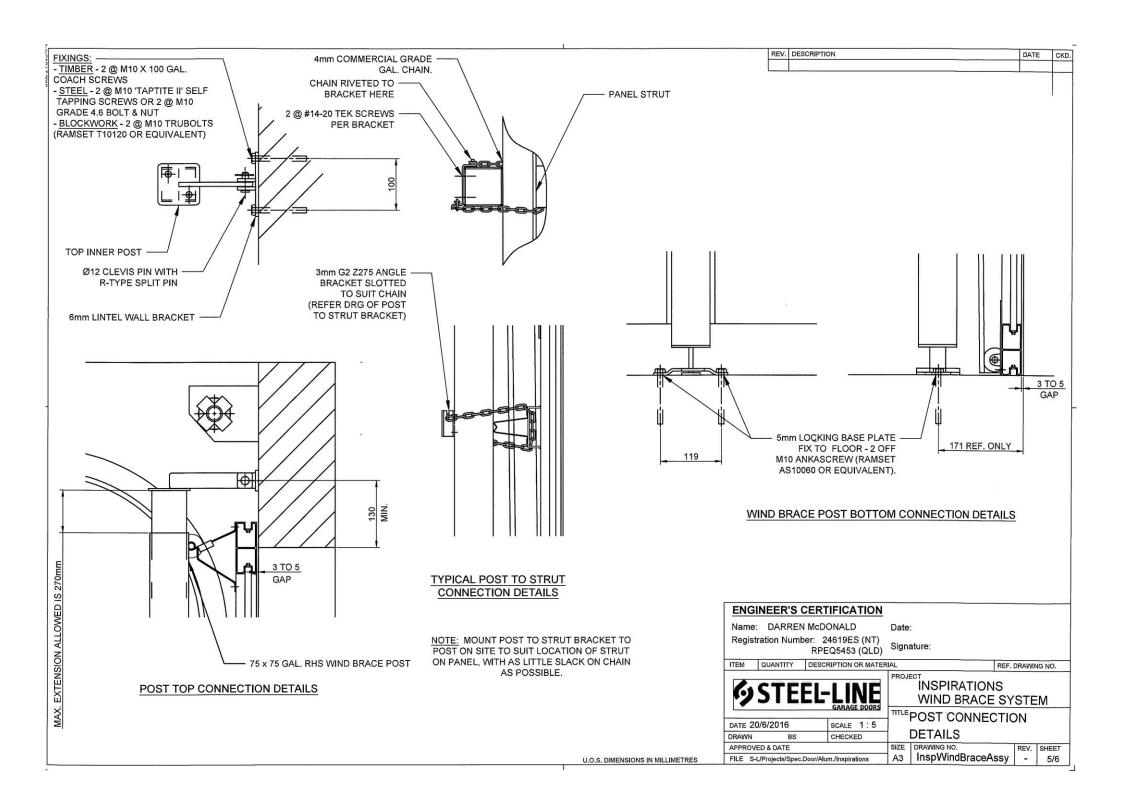
3 POST DOOR WIDTHS

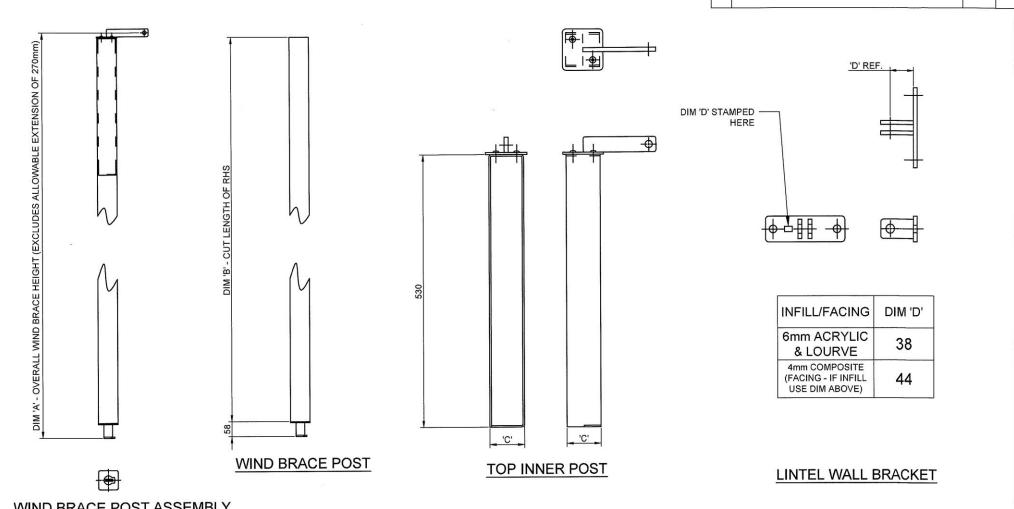
DOORS OVER 4200 WIDE & UP TO & INCLUDING 4600 WIDE

2 POST DOOR WIDTHS

NOTE: DOOR WIDTHS BASED ON MAXIMUM INFILL WIDTH OF 1200mm & NUMBER OF POSTS REQUIRED FOR DOOR WIDTH.







WIND BRACE POST ASSEMBLY

DOOR HEIGHT	POST	REFER SDWindlock Assy Sht 3
2010 TO ≤ 2280	75 GAL RHS x 2.5 WT	SAME AS C2 POST #1
> 2280 TO ≤ 2560	75 GAL RHS x 3.0 WT	SAME AS C2 POST #2
> 2560 TO ≤ 2842	75 GAL RHS x 4.0 WT	SAME AS C2 POST #3
> 2842 TO ≤ 3000	75 GAL RHS x 5.0 WT	SAME AS C2 POST #4

QUANTITY DESCRIPTION OR MATERIAL REF. DRAWING NO. INSPIRATIONS WIND BRACE SYSTEM TITLE POST PARTS DATE 20/6/2016 SCALE NTS **INSTALLATION DETAILS** DRAWN BS CHECKED APPROVED & DATE SIZE DRAWING NO. A3 InspWindBraceAssy FILE S-L/Projects/Spec. Doors/Alum/Inspirations

REV. DESCRIPTION

DATE CKD.

U.O.S. DIMENSIONS IN MILLIMETRES