



SERIES 'B' & 'C' ROLLER DOORS

INSTALLATION GUIDE

***THESE INSTRUCTIONS ARE PROVIDED 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.***



GENERAL WARNING!

To install this door safely, several 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 to achieve proper and safe operation.
- The Steel-Line Series 'B' & 'C' roller doors are designed as a light industrial chain operated door to suit a maximum opening of 5100mm High x 5500mm Wide. The door weight, depending on size, can be as much as 225kg (495lbs) and the forces generated in the springs are generally equal to the door weight. Proper care must be taken not to release those forces violently as it could result in serious physical injury.
- All the components which have been supplied are designed for this specific roller door. Replacement or adding additional components may have an adverse effect on the performance, safety and the guarantee of the door.
- Shaft of door is under strong spring tension. Do not attempt to loosen U-bolts on shaft while under tension, without ensuring a suitable pipe wrench is locked onto shaft and wedged against wall, or held securely while loosening the U-bolt. 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.

July 2017	Importance of Installer inspection of opening construction highlighted. Technical data sheet added as Appendix. RDC doors included.
July 2014	Side clearances were 125 & 185

SECTION 1: Pre-Installation Checks

A Roller Door is designed to be fitted behind the opening so the following dimensions and conditions need to be checked, before fully unpacking the door for installation.

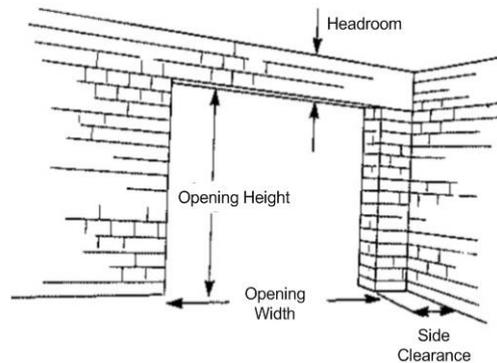
Refer Appendix at back of this guide for Roller Door Technical Data Sheet.

- Opening Width:** Check that the curtain supplied overlaps the daylight opening width by a minimum of 50mm.
- Side Clearance:** The minimum side clearances are (based on 50mm overlap):

Plain Side	Direct/Planetary Gear Drive Side
125mm	185mm

NB: If door is to be motorised you will need to check with motor installation instructions for side room required for that motor.

- Opening Height:** Your door will fit any opening height up to that stated on the package.
- Headroom:** A minimum clearance between the underside of the lintel and the ceiling. This varies with height of the opening. See Chart below:



Door Height	Minimum Headroom * (mm)
3300mm	510
3600 - 4200mm	540
4800 - 5100mm	570

* This clearance must extend for a minimum of 600mm back from the opening. The headroom stated above is minimum required if whole door is to be hidden from view from outside the garage. It is possible to use less headroom than stated, but there will be a corresponding reduction in door daylight open height.

5. Structural Condition of Opening:



IT IS THE INSTALLER'S RESPONSIBILITY TO ENSURE THE AREA AROUND THE OPENING IS STRONG ENOUGH TO SUPPORT THE DOOR.

The lintel and jamb surface where the door is to be fitted must be flush and reasonably smooth. Small irregularities are acceptable.

6. Fitting Notes:

- a) For doors over 2.5m wide it is recommended that 2 people are available for fitting.
- b) **THE DOOR MUST BE FITTED SQUARE AND LEVEL, IRRESPECTIVE OF THE SHAPE OF THE OPENING. ON NO ACCOUNT SHOULD ANY COMPENSATION BE MADE TO DOOR TO SUIT AN IRREGULAR OPENING.**
- c) Ensure all necessary tools are at hand before starting.
- d) The door package and its contents should be checked for obvious damage before removal of wrapping. The package should contain:
 - i). The curtain rolled up and wrapped.
 - ii). One pair of tracks. These come in standard lengths of 3600mm, 4200mm and 5100mm to suit the specified door opening height. These may need to be cut to suit specified opening height.

Rule: Track Length = Opening Height Dimension + 150mm
 - iii). One accessory box and fixing bag. Accessory box containing a pair of brackets, two saddles, two 'U' bolts with washers and nuts, direct drive chain wheel OR planetary gear chain wheel, chain, chain guide and chain lock. Fixing bag contains some fixing options for tracks only.

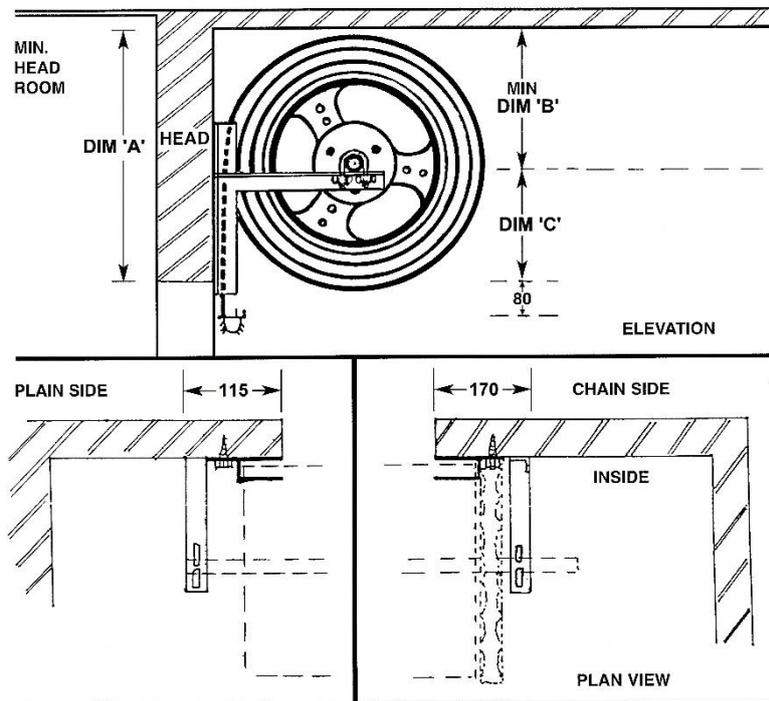
IF THERE IS ANY OBVIOUS DAMAGE YOUR SUPPLIER SHOULD BE CONTACTED IMMEDIATELY.

SECTION 2: Installation



DO NOT CUT PACKAGING AROUND ROLLED CURTAIN UNTIL INSTRUCTED IN STEP 3.

- Fit Brackets:** Decide which side the chain operation will be on. Fit main support brackets to the wall in position as per figure below. It is imperative to get the brackets level with each other and using a water level is recommended. The 'B' dimension from the ceiling is a minimum and may be increased, but the 'C' dimension should be maintained wherever possible. Fix support brackets by welding, masonry anchors or hex head bolts & nuts as suitable for the building opening material. A good, solid fix is required, particularly on large doors, where curtain assembly can weight up to 225kgs.

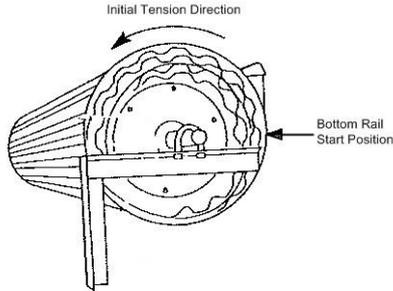


Door Height	Minimum Headroom DIM 'A' (mm)	DIM 'B'	DIM 'C'
3300mm	510	235	275
3600 - 4200mm	540	250	290
4800 - 5100mm	570	265	305

- Fit Chain Wheel:** Fit the chain wheel onto the required side of the curtain using bolts and locknuts provided. Line up with holes in the drum wheel (drilling is not required). Slip chain guide onto shaft, outside the chain wheel.

On doors 4.2m & higher planetary gearing is supplied to reduce opening force although more chain must be moved to achieve the same door travel. Generally, planetary gearing is slower but requires far less effort. The unit comes in 2 parts – an internal ring gear with 3 bolts and locknuts and the fully assembly planetary gears already fitted to the chain wheel. Fit the internal

ring gear onto the required side using bolts and locknuts provided. Line up with holes in the drum wheel (drilling is not required). Make sure the locknuts are inside the drum. Give the axle a $\frac{1}{4}$ turn and let go. This is important as it will make the shaft centre itself. Slip chain wheel assembly over the shaft so the 4 planetary gears are fully inside the ring gear. Mark the position of the hole on the little piece of metal tubing coming out of the chain wheel and drill an appropriate hole through the axle. Slip bolt through and secure with lock nut. Fit shaft collar to opposite end of axle leaving about 1mm gap between it and drum wheel.

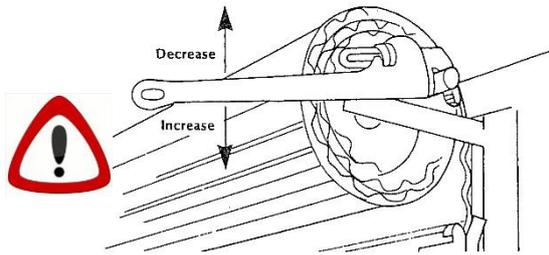


3. **Mount Door To Brackets:** Lift the door onto the brackets. On large doors, you will need a mechanical lifting device/s suitable for the maximum weight of curtain (**Note: Do not use brackets as fixture for lifting device**). Slip the cast saddles under the axle, locate between the 2 oblong holes in the bracket and fit with the 'U' bolts, washers and nuts ensuring they are finger-tight only at this stage. Make sure door is central on the axle and gap between rolled curtain and head wall is approximately 25mm - 35mm.

Move axle sideways if necessary. Rotate the curtain in the direction shown for initial tension until the bottom rail is level with the axle at the back of the door from the inside of building. Tighten the U-bolts securely. Pre-tension the door rotating forward in the direction shown in figure by $1\frac{1}{2}$ - $1\frac{3}{4}$ turns. Large doors may have 4 springs and you may not be able to achieve these turns. If this is the case put as much pre-tension as physically possible and follow Step 7 after fitting tracks and chain to complete final tensioning. Hold door in position and cut wrapping/strapping (this might require another person) and pull the door down about 500mm. Fit a softwood chock (about 300 – 400mm long) between door roll and door curtain as shown to prevent door from winding up. Take care to ensure chock will not to damage door surface.

4. **Cut And Fit Tracks:** Cut the tracks (cut surplus from bottom of track only) according to the rule noted above (opening height + 150mm). Push track against wall or frame and ensure it is vertical and allowing approximately 2mm running clearance per side of track at guide block fixed in the aluminium bottom rail. Drill wall or frame and fix top lug, plumb tracks and fit rest of fixing. (Aim to drill holes in centre of slot in lugs). Do the same with opposite track. Ensure there is a bottom lug 150 – 250mm above floor, if not remove a lug and re-weld lug into that location. Make sure the bottom rail return is below the stops welded to the top of the tracks and the lead-ins are bent out sufficiently to allow the curtain to feed in without snagging.
5. **Fit Chain:** Fit the chain over the chain wheel and through the chain guide. After ensuring no twist in the chain, cut one end link to join and hammer or bend closed. Fit chain lock onto the wall approximately 1500mm up from floor and directly in line with the chain wheel. This provides your locking mechanism. With the chain in the lock, the drum cannot be turned.
6. **Adjust Tracks:** Remove the wooden chock and carefully pull the door down ensuring it runs freely. If it does not, reposition the tracks as necessary.

7. **Adjust Door Tension:** The initial tension already put in the springs may either be too great or too little, making the door feel either light or heavy. The ideal tension will be where the door is just a little heavy in the down position ensuring that it stays down and just a little light in the up position ensuring that it stays up. You will probably need an assistant to adjust the tension.



First roll the door up and tie a rope around the whole door in the centre. This will prevent the door from running down if you accidentally lose tension. Slacken off the nuts of the “U” bolt on one end. One ‘U’ bolt will retain the tension **so long as the door is fully open**. Fit a set of large self locking grips or stilsons to the axle on this end, remembering that the axle will try to turn in the decrease tension direction. While holding the

grips tightly, have your assistant slacken off the “U” bolt nuts on the other end. Increase or decrease the tension as required by rotating the axle no more than 1/4 of a turn at a time. Your assistant can now tighten the “U” bolt at the other end. Tighten the “U” bolt at your end as well and carefully try the door again. It may be necessary to repeat this operation several times until the tension is just right.

NEVER ALTER DOOR TENSION UNLESS DOOR IS IN UP POSITION AND ROPED.

WHEN TENSIONING, NEVER STAND WITH FACE IN LINE WITH STILSONS, OR SELF LOCKING GRIPS.

8. **Confirm Door Operates Correctly:** The installation is now complete. Operate the door several times and confirm that it runs smoothly. See next section if problems occur.

SECTION 3: Problem Check

1. Difficult To Operate In Either Direction:

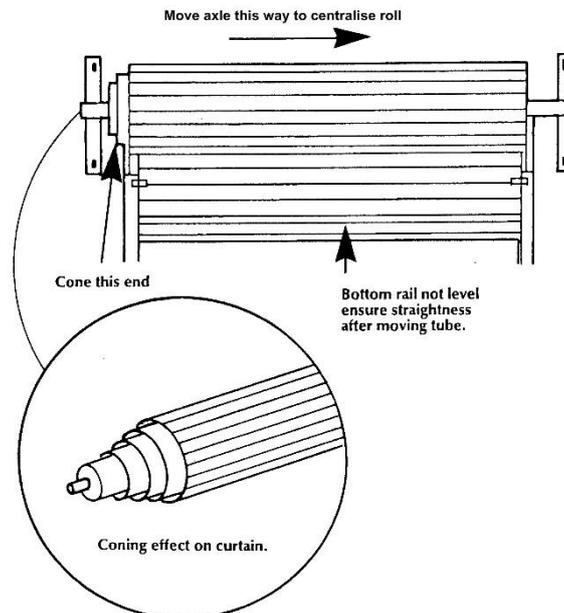
- a) Check curtain not jamming in the tracks.
- b) Check running clearance in the tracks ($\approx 2\text{mm}$ per side).
- c) Check tracks are upright and clean. Lubricate with silicon spray only.

2. Difficult To Close OR Open: Decrease OR increase spring tension (see Step 7 above).

3. Track/Shaft Relationship: If the door is very difficult to close the last 600mm, check the tracks are fitted in correct relationship to the brackets and that the axle is correct distance from wall (210mm – 250mm) i.e. repeat Step 4.

4. Coning: If the curtain rolls up un-evenly (*cones out at one end*) and the bottom rail appears out of parallel with door roll and tracks, confirm the following:

- a) Brackets are level with each other.
- b) Axle is correctly centralised in roll (refer Step 3). If brackets are level, removing coning by moving axle through the roll in opposite direction to coning and distance roughly equal to length of coning.

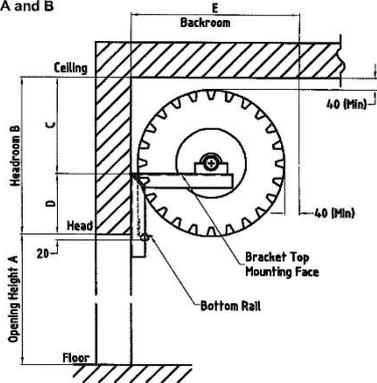


APPENDIX

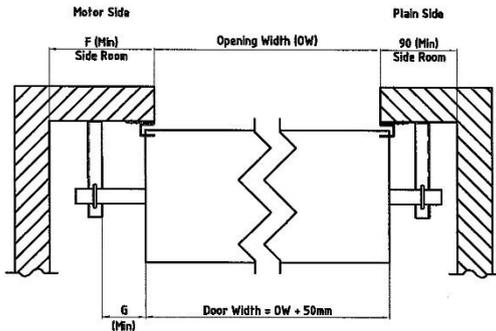
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STEEL-LINE DOMESTIC ROLLER DOORS

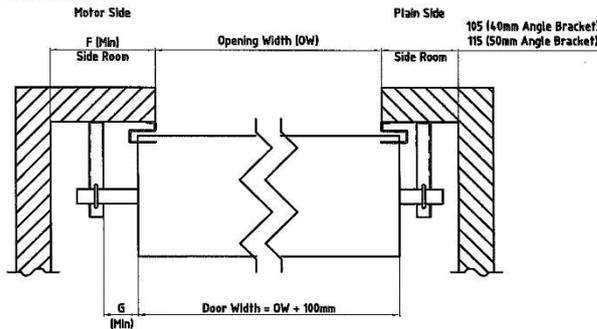
Elevation View
Series A, AA and B



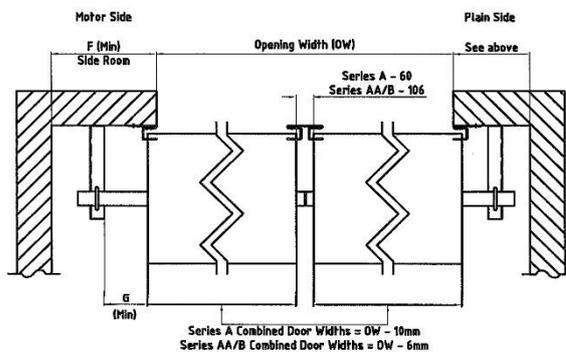
Plan View
Series A



Plan View
Series AA and B



Plan View
Mullion Pair



Series A Standard Roller Doors
For curtain widths up to 3430mm (Max. Ht 3000)

Minimum dimensions (mm)	Dim 'A' = Opening height		
Dim 'A'	1200-2100	2200-2600	2700-3000
Dim 'B'	430	480	510
Dim 'C'	235	260	275
Dim 'D'	195	220	235

Minimum backroom required (mm)
Dim 'E'

450	500	530
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Minimum side room for motor (mm)
Motor: Boss RD1 Boss RD11

Dim 'F'	130	120
Dim 'G'	30	45

Series AA Standard Roller Doors
For curtain widths greater than 3430mm (Max. Ht. 3000)

Minimum dimensions (mm)	A = Opening height	
Dim 'A'	2200-2600	2700-3000
Dim 'B'	480	510
Dim 'C'	260	275
Dim 'D'	220	235

Minimum backroom required (mm)
Dim 'E'

510	540
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Minimum side room for motor (mm)
Motor: Boss RD1 (Max. 12.5m²) Boss RD11

Dim 'F'	155	150
Dim 'G'	30	45

Series B Roller Doors
For curtain widths 3100 to 5500mm

Minimum dimensions (mm)	Dim 'A' = Opening height		
Dim 'A'	3000-3300	3600-4200	4800-5100
Dim 'B'	510	540	570
Dim 'C'	275	290	305
Dim 'D'	235	250	265

Minimum backroom required (mm)
Dim 'E'

540	570	600
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Minimum side room for operator (mm)
Operator: Direct or Planetary Gear Drive Boss RD11 (max. 16.5m²)

Dim 'F'	170	150
Dim 'G'	65	45

Notes: 1. Top mounting face of the wall bracket should be level with the track top or higher. Values in the tables indicate the minimum space required. If there is insufficient headroom at the site, the bottom of the curtain roll may infringe the height of opening.

2. Other brands of motors may increase/decrease side room noted above. Please refer to motor's owners manual for clearance/s required.

2 REDRAWN & REVISED.			
REV	DESCRIPTION	DATE	
STEEL - LINE GARAGE DOORS ACN 124 164 003 ABN 52 124 164 003 http://www.steel-line.com.au		PROJECT ROLLER DOOR	
DATE 9/7/2014 SCALE		TITLE TECHNICAL DATA SHEET	
DRAWN JS	CHECKED		
APPROVED & DATE	SIZE	DRAWING NO.	REV. SHEET
FILE S-L/Projects/RD General	A4	RollerDoorTDS	2 1/1

STEEL-LINE GARAGE DOORS HAS A CONTINUOUS PROGRAM OF PRODUCT DEVELOPMENT AND RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE.

U.S. DIMENSIONS IN MILLIMETRES