These instructions are intended for professional garage door installers. All references are taken from inside looking out.

Substrate fasteners are not included, the recommended fasteners and high wind compliant B&D Roll-A-Door® fasteners can be downloaded from the installation section on the B&D website.
# Roll-A-Door® Series R2I, R2W, R2L, R2F windrated installation instructions

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1.0 before you start

1.1 safety checklist

The following hazards and hazard controls have been identified for installers during the installation of this door.

<table>
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<th>hazard</th>
<th>control</th>
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<tr>
<td>• Housekeeping - risk of slip trip or fall</td>
<td>• Tidy up site prior to start work as a minimum area should be at least the area of the installation back into the garage and 2 metres in front</td>
</tr>
<tr>
<td>• Housekeeping - risk of injury to other people or animals in the installers work area</td>
<td>• If the site housekeeping is deemed to be unsafe do not install the door</td>
</tr>
<tr>
<td>• Manual handling when moving the door from the Trailer or Ute to the installation area - risk of musculoskeletal injury</td>
<td>• Keep all people well clear of installers work area with appropriate signage and discussion with owner</td>
</tr>
<tr>
<td>• Manual handling when installing Doors &amp; Openers particularly above head height - risk of musculoskeletal injury or twisting</td>
<td></td>
</tr>
<tr>
<td>• Manual handling when installing tracks and torsion bars - risk of musculoskeletal injury</td>
<td></td>
</tr>
<tr>
<td>• Manual Handling when installing the door opener - risk of musculoskeletal injury or twisting</td>
<td></td>
</tr>
<tr>
<td>• Working at heights and working with ladders, scissor lifts, scaffold - risk of fall from height</td>
<td>• Correct lifting technique for Roller Door</td>
</tr>
<tr>
<td>• Sharp edges on Door, tracks or related jewellery - risk of laceration</td>
<td>• Use of 2 person lifts</td>
</tr>
<tr>
<td>• Pinch points - risk of cut, puncture or crush injury</td>
<td>• Use of mechanical aids such as lifting stands, forklift, cranes</td>
</tr>
<tr>
<td>• Use of hand tools - risk of eye injury, laceration cut stab or puncture injuries</td>
<td>• Avoid twisting (practice correct lifting techniques)</td>
</tr>
<tr>
<td>• Use of Electric/ Battery or pneumatic tools - noise hazard</td>
<td>• Correct use of ladders while installing tracks</td>
</tr>
<tr>
<td>• Use of cutting tools creating sparks - risk of fire</td>
<td>• Use of correct technique of knotted rope installation aids</td>
</tr>
<tr>
<td>• Tension spring - risk of release of stored energy (various door parts, tools, jewellery striking installer on the head or body)</td>
<td>• Ensure door is correctly secured</td>
</tr>
<tr>
<td>• Position the door on the brackets, there is a risk of the door falling from the brackets striking a person</td>
<td>• Ensure that pipe wrench is fitted correctly to the axle and if it is gripped onto the axle do not underestimate the tension in the spring when undoing the clamps</td>
</tr>
<tr>
<td>• Ensure correct length pipe wrench is utilised</td>
<td>• Ensure correct bolts are tightened or loosened to ensure there is no release or controlled release of energy from the spring through the pipe wrench</td>
</tr>
<tr>
<td>• Keep hands clear of the pipe wrench at all times</td>
<td>• Keep head clear of the pipe wrench at all times</td>
</tr>
</tbody>
</table>

1.2 preparation

DO NOT CUT THE PACKAGING THAT HOLDS THE DOOR IN A ROLL

At a later stage during the installation you will be told just when to cut the packaging.

Remove brackets, guides and bag of small parts from each end of the door roll.
1.3 substrate fastener recommendations (refer to the DTCM web site)

important information on fasteners

Coach bolts/screws supplied with this product are NOT suitable for windrated doors. The installer must select and use fasteners appropriate to the material into which they are being fixed. REFER TO THE DTCM DRAWINGS

1.4 requirements before installation

B&D Roll-A-Doors® are installed to operate behind the opening, overlapping as described in the dimension sketch, opposite. Openings should therefore have sufficient return on both sides to accommodate the support brackets and door guides.

The door is supported on brackets above the opening at each end and requires headroom for the door to roll up in (see dimension panel). Consequently, piers or door posts must continue up past the top of the opening to provide fixing for the support brackets.

It is preferable that lintels (or ‘heads’) be built flush with, or slightly forward, to the back of the door posts if possible. This avoids an excessive gap between the door and the lintel, while allowing sufficient working clearance to prevent the door rubbing against the back of the lintel.

door size

Width: The door curtain should be 100mm (see dimension panel) wider than the opening if fitting to steel or 180mm if fitting to masonry. However, a wider than normal door can be fitted by allowing the door to overlap further on each side, providing the additional sideroom is available.

Height: A door can not be installed higher than its maximum size; however, it can be installed in a lower position (providing the door guides are cut to suit – as shown later).

NOTE: If the chain mechanism is fitted to the r/h side A1&A2 detail is reversed and 40mm must be added to the A1 measurement.

dimension panel

<table>
<thead>
<tr>
<th>height</th>
<th>width</th>
<th>A1</th>
<th>A2</th>
<th>B</th>
<th>C1</th>
<th>D</th>
<th>E1</th>
<th>F</th>
<th>operation</th>
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</thead>
<tbody>
<tr>
<td>up to 2400</td>
<td>up to 5500</td>
<td>175</td>
<td>175</td>
<td>35</td>
<td>540</td>
<td>555</td>
<td>245</td>
<td>295</td>
<td>hand operated</td>
</tr>
<tr>
<td>up to 2400</td>
<td>over 5500</td>
<td>175</td>
<td>175</td>
<td>35</td>
<td>540</td>
<td>555</td>
<td>245</td>
<td>295</td>
<td>hand operated</td>
</tr>
<tr>
<td>2401-3000</td>
<td>up to 5500</td>
<td>175</td>
<td>175</td>
<td>35</td>
<td>620</td>
<td>565</td>
<td>310</td>
<td>310</td>
<td>direct drive</td>
</tr>
<tr>
<td>3001-3300</td>
<td>up to 5500</td>
<td>230</td>
<td>175</td>
<td>35</td>
<td>620</td>
<td>565</td>
<td>310</td>
<td>310</td>
<td>planetary gearing</td>
</tr>
<tr>
<td>3001-3300</td>
<td>over 5500</td>
<td>230</td>
<td>175</td>
<td>35</td>
<td>620</td>
<td>565</td>
<td>310</td>
<td>310</td>
<td>planetary gearing</td>
</tr>
<tr>
<td>3601-4200</td>
<td>up to 5500</td>
<td>230</td>
<td>175</td>
<td>35</td>
<td>620</td>
<td>565</td>
<td>310</td>
<td>310</td>
<td>planetary gearing</td>
</tr>
<tr>
<td>4201-5100</td>
<td>Up to 5500</td>
<td>230</td>
<td>175</td>
<td>35</td>
<td>635</td>
<td>615</td>
<td>310</td>
<td>325</td>
<td>planetary gearing</td>
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Dimension columns A1 & A2 are minimum measurements for fixing to steel. An additional 80mm must be added if fixing to masonry. Dimensions are recommended and suit Normal Headroom Installations, top of guide will be level with top of bracket arm.

All measurements are in millimeters and are minimum unless otherwise shown.
2.0 installation

2.1 bracket fixing

NOTE TO BUILDERS: The structure substrate must conform to the DTCM requirements, refer to the compliance page in these instructions for directions.

Check the opening dimensions to ensure you have the correct door size. Check floor and lintel levels and work from the lowest side or from the side with the least headroom. Mark out first bracket after checking dimension panel for height of brackets above lintel, E1 for normal headroom installation. (if insufficient headroom, measure down from ceiling or obstruction using dimension C1 and mark a new line and treat as the lintel). Mark out one bracket, drill and fix after allowing sufficient side clearance for door curtain. Using an accurate leveling device, transfer position of top of first bracket arm to opposite side of opening, then mark, drill and fix second bracket. (NOTE: the brackets must be perfectly level for correct door operation). Also ensure that the brackets are secure and the correct fixings have been used. REFER TO THE DTCM WEBSITE FOR STRUCTURAL REQUIREMENTS.

NOTE:
1. The bottom rail of doors below 2400mm high will hang below lintel and reduce walk in height by 65mm. For doors above 2400mm high, the bottom rail will be flush with the lintel.

2.2 position door on brackets

With the door the correct way round carefully lift door onto the brackets using block and tackles attached to the door axles, or other suitable lifting equipment – avoid curtain damage.

A. position bottom rail here
   “U” bolt axle clamp
   for doors up to 3000mm high with single saddle and “u” bolt fixing
   saddle

B. position bottom rail here
   keeper plate
   for doors over 3000mm high with double saddles through bolts and keeper plates
   double saddle

For doors up to 3000mm high, rest the axle on two cast iron saddles. Immediately loosely secure with “U” bolts, nuts and washers, through slots in bracket arm. This eliminates the door falling from the brackets (see sketch A). If chain gear is fitted, ensure that the chain is placed around the chain wheel and hangs down freely.

Before tightening “U” bolts or saddle bolts, position the door correctly on the brackets as follows:
1. So that it overlaps the opening evenly both sides.
2. So that the axle is positioned on the bracket arm slots as far forward as possible, while still allowing the bottom rail to pass the lintel when the door roll is rotated (see sketch B).
3. Rotate both the door and the axle so that the bottom rail is level with the bracket arm (see sketch B). Now tighten the “U” bolts or saddle bolts, using washers under nuts, to a torque of 40 newton metres or 30 ft.lb.

WARNING: Axle must be securely clamped otherwise door will lose spring tension.
2.3 spring tensioning bottom rail stops

After ensuring axle is securely clamped apply tension to the springs by rotating door approximately two (2) complete turns in a forward direction (see arrow on sketch A). The amount of tension required for satisfactory operation may vary with individual doors, depending on size. Final adjustment should be made later.

WARNING: Once the packaging containing the door roll is cut, the door will have a strong tendency to rise and revolve. If uncontrolled, the rapidly unrolling door could cause damage or injury. Therefore, it must be securely held until bottom rail stops and guides are fitted.

2.4 guide installation

The guide must be the correct length and level with the top of the bracket arm for recommended fixing. (Fig. 1)

Cut from the bottom of the guides if they require shortening.

Reshape guide lead in (see Fig. 2).

Fit bottom rail stops using self locking nuts provided. Allow door to rise and to rest against head stops (see Fig. 4).

After operating the door several times to ensure 3mm clearance is correct and the wind clips enter correctly without catching.

When satisfied fully fasten both sides of each guide after referencing fixing type and centres from the DTCM drawings.

NOTE: These instructions must be adhered to (REFER TO THE COMPLIANCE PAGE IN THESE INSTRUCTIONS).

Lightly grease the guides on the surface that the nylon clips will contact.

final adjustment

Operate door up and down a number of times to check operation. If operation is uneven or not smooth, rectify as below:

Faults
1. Door hard to operate in one direction.
2. Door hard to operate in both directions.
3. Door is stiff to work and rattles over lead in on top of guides.
4. Door is scraping in the guides.

Remedies
1. Adjust spring tension.
2. Check guide clearances (see that door is not jamming). Also ensure guides are lightly greased.
3. i) Check that guides are not too long. Move the door closer to the lintel.
   ii) With the door up and chain secured, loosen one “U” bolt/saddle bolt and push that side of the door towards opening as far as possible without scraping lintel. Tighten the “U” bolt and repeat operation with the other side, ensuring that the axle is still parallel with opening.
4. Check that the guides are plumb, the clearances are correct and the door is correctly centred with the opening. Also check that the brackets are level.
2.5 locking

Fig. 1 indicates the position and hole size for the internal waist high locking or the centre lift lock hole.

Fig. 2 is additional to Fig. 1 if a padlock is required to be used.

Fig. 3 bottom rail shoot bolt locking.

**method of fitting optional padbolt type locking**

- Wave washer (flat washer)
- Outside locking bar
- Bottom rail
- Inside locking bar
- Head stop

**IMPORTANT** (see note)

**locking bar assembly**

**centre lift lock**

- Undo screws to separate lock from faceplate.
- Fit faceplate to outside of door. Fit hooks onto curtain edge, then slide faceplate as far to the right as possible. Use adhesive tape to hold in position.
- Attach the lock body to the faceplate from the inside, using the mounting screws and washers. Do not over-tighten the screws.
- With the door in the closed position make the lock hole position in the side guides.
- Drill and file out a rectangular slot on longer than 32mm and no wider than 10mm. Ensure top of the slot remains in line with top of locking bar (Fig. 1).
- Slide bars through guide slot, then back, onto lock arms. Screw on securely using 4mm x 6mm screws supplied.

**Attach self adhesive lock bar retainers. For additional strength drill 2 x 1/8 holes from inside using retainer as a template and fit 2 x 1/8 pop rivets to each retainer from the face of the door.**

**Fig. 1**

**Fig. 2**

**Fig. 3**
self adhesive lock bar retainers
Position as indicated and clean the surface before proceeding.
1. Peel back and stick in position.
2. For additional strength drill 2 x 1/8 holes from inside using retainer as a template.
3. Fit 2 x 1/8 pop rivets to each retainer from the face of the door.

adjusting spring tension if necessary
Hand operated and direct drive doors only
With door in open position (rolled up), tie two ropes right around door approximately 12’ from each end. With a person at each end secure a firm hold on axle with stillson or pipe wrench and loosen axle clamp with socket spanner. Axle can then be rotated in required direction (see diagram below) until approximate tension is gained. It is recommended that alteration to spring adjustment be only by small degrees till the best position is found. Axle clamps must then be re-tightened to a tension of 40 Newton metres or 30 ft.lbs. Before releasing hold on pipe wrench (stillson). Repeat process if spring still requires further tension.

WARNING: Hold Axle before loosening “U” bolts.

IMPORTANT: Do not attempt to loosen “U” bolts before securing firm hold on Axle with Pipe Wrench (stillsons). Do not use filters or similar brittle steel tools such as Tommy Bars.

Doors with planetary geared chain wheel only
If the door tension needs adjusting and the door is fitted with Planetary Gearing then follow the steps below:
1. Ensure that the door is in the OPEN position
2. Secure a rope around the centre of the door roll and use vice grips to clamp the guides just under the bottom rail of the door to prevent the door from closing suddenly during the re-tensioning process.
3. Secure both chains in the chain clip.
4. Carefully loosen the axle clamps
5. Adjusting Tension
   a. To increase spring tension, carefully pull down on the rear chain, Lock the chain in the chain clip.
   b. To reduce spring tension, hold the rear chain firmly, carefully release chain from the chain clips and allow the rear chain to move upwards, take care that the full tension is not removed from the springs. Lock the chain in the chain clip.

NOTE: As a safety precaution to protect both the door and the installer, lock a section of the chain in the chain clip so that the chain is restricted to short movements.
6. When the tension is correct, secure the chain in the chain clip and re-tighten the axle clamps to the correct tension.
7. The correct adjustment will only be found by trial and error, adjustments should be restricted to approximately one revolution of the chain wheel.
3.0 compliance

PLEASE ENSURE YOU ARE COMPLYING TO THE LATEST DETAILS

We have also been granted DTCM certification for the below B&D products in accordance with the National Construction Code. To download the latest DTCM drawings visit their product page on our website www.bnd.com.au where you will be directed to the DTCM website.

Series 1 (R1D, R1F, R1R, R1M, R1ME)
Series 2 (R2I, R2W, R2F)
Windpanel Tracklock (WTG 2, 3, 4)
Roll-A-Shutter (6/100, 8/100, 10/100, 12/100)

The NT Deemed To Comply Manual (DTCM) is referenced in the Building Code of Australia.
4.0 after installation care

general care of your Series 2 Industrial door

cleaning
COLORBOND® & COLOURED STEEL FINISH
Your B&D Series 2 Industrial door has been pre-painted with a silicone modified polyester formulation, which is one of the best paint films commercially available today. However, all exposed surfaces require some attention to guard against the premature onset of corrosion and any other harmful atmospheric effects. In our atmosphere there are harmful deposits that gather on the door surface and if not removed regularly, will seriously affect the appearance and life of the door.

Washing of the door with clean water and a cloth every 14 days is recommended – particular care should be taken to clean areas of the door not normally washed by rain.

lock

Your lock does not require special maintenance, however, if the keyway becomes stiff, the application of powdered graphite is recommended – do not grease or oil the lock.

regular maintenance required

B&D recommends that you check the operation of your Series 2 Industrial door at least every six months (more regularly in extreme environments or frequent use). The effort required to manually open and to manually close the door should be about the same (if door has an automatic opener, put into manual mode before testing door).

NOTE: do not grease or oil the guides on doors fitted with Nylofel. (Series 2 windlocked guides should be lightly greased).

If the door is difficult to operate in either direction (up or down) then check that the inside surfaces of the guides are clean and free of obstructions.

This service should only be carried out by an experienced door technician, using the correct tools.

If you have an automatic opener fitted to your door, it is particularly important that you ensure the optimum operation of the door, otherwise you may reduce the effective life of the opener.

To keep your door running well, it is recommended that your door be serviced, by an experienced door technician, every 12 months (more regularly in extreme environments or frequent use), or earlier if required.

spring tension

It is natural for springs to lose tension over time. When spring tension is adjusted or when your door is first installed it is usual to apply a little more tension than is required for balanced operation, to allow for the normal “settling in” of the springs.

warranty

The B&D Series 2 Industrial door in residential use is covered by a 12 month warranty for complete door and parts, surface (excludes salt corrosion).

Warranty conditional on proper care as recommended above. Full details of the warranty are available from www.bnd.com.au