



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

DOC# 165019_04 RELEASED: 24/11/21

www.bnd.com.au



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1.0 before you start

1.1 installation safety warnings

This B&D Roll-A-Door is designed and tested to provide security, attractive appearance and smooth, low effort operation provided it is installed and operated in strict accordance with the following safety warnings. Failure to comply with the following instructions may result in death, serious personal injury or property damage.

NOTE: No guarantee will be given or responsibility accepted by the manufacturers if the door is not installed as instructed.



WARNING!

Tension Springs

ELECTROCUTION!

LACERATION:

CAUTION: Muscular strain

Fall from ladder

Hand Tools

Entanglement

TWO PERSON LIFT:

Crush injury from unsecured door

- Place a 2 metre exclusion zone around area under the garage opening while installing door. If sufficient area is not available DO NOT install door.
- Do not move under a door while it is on the door support (or lifting device).
 Follow the installation instructions.
- Fit door support (or lifting device) snugly under door before lifting.
- Ensure door support (or lifting device) is on flat ground.
- Ensure the door is immediately fastened to the bracket with the "U" Bolt.
- Ensure no-one walks under a door sitting on brackets.
- Ensure door is correctly secured at all times when making adjustments.
 - Ensure the correct length pipe wrench is utilised.
 - 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.
 - 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.
 - Keep head clear of the pipe wrench at all times.
 - Check risk assessment for any highlighted electrical power concerns.
- Ensure power source is isolated prior to commencement of job.
- Turn off electricity to site when necessary.
- Wear rubber soled footwear.
- Wear appropriate PPE (Dyneema cut off gloves) and keep hands well clear of pinch points.
- Follow instructions explicitly, particularly for the installation of some parts of the doors, as the unrolled cut out edges presents a very sharp edge.
- Practice correct lifting techniques when required to lift the door.
- Use mechanical aids such as lifting devices, forklift and cranes where possible.
- Avoid twisting.
- Use correct technique of knotted rope installation aids.
- Ensure ladder is the correct type for job.
- Ensure ladder is on flat firm ground that will take the weight without the legs sinking.
- Ensure user has 3 points of contact while on ladder.
- Wear appropriate PPE and utilise operators manual of all tools.
- Use appropriate noise/hearing protection in the form of ear plugs or ear muffs.
- Ensure appropriate fire protection available and housekeeping to ensure that flammable liquids or materials are removed from the area of work.
- Keep hands and loose clothing clear of moving door and guides at all times.



• When a mechanical aid is not used this product requires a two person lift to raise onto the brackets. Use proper techniques and equipment to lift the door from the trailer and up onto brackets.



1.2 substrate fastener recommendations

WARNING! Coach bolts/ screws are NOT suitable for windrated doors. <u>Refer</u> to High Wind drawings on the B&D Website.

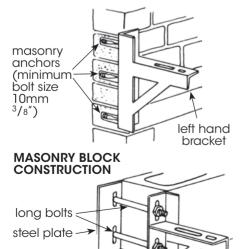
WARNING! The installer must select and use fasteners appropriate to the material into which they are being fixed.

important notes

- a) For installation to materials not covered in the chart, the installer should seek expert advice from a qualified builder.
- b) Minimum length of fastener does not exclude use of longer lengths. Decision must be made by fitter to ensure adequate strength.
- c) Recommendations for old materials or materials not in good condition are not included. If in doubt about the strength of the material seek specialist advice.
- d) Fasteners for brackets in masonry should be at least 8mm x 75mm long or metric equivalent.
- e) Use the washers supplied in the parts bag to all fixings.

BRICK CONSTRUCTION

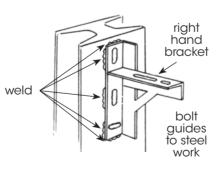
Fig: 2.1.1



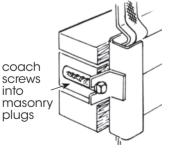
right hand bracket

er recommendations							
material	fastener type(s)	diameter or type		length of fastener (see note)	ВКТ	GUIDE	
	Coach Bolts (Hex Lag Screw) and	5/16″	х	50mm		•	
	washers - combined with wall plugs	5/16″	х	80mm	•	•	
New Solid Brick	Macplugs (wall plugs) to suit above	5/16″	х	50mm		٠	
		5/16″	х	80mm	•	•	
	HLC Sleeve Anchors (Dyna Bolts) with washers	12mm	х	55mm	•		
New Hollow Brick	Screw Masonry Flange Hex Head (M8 x75)	8mm	x	75mm	•	•	
	Coach Bolts (Hex Lag Screw) and	5/16″	х	fastener (see note) 50mm 80mm 50mm 80mm 55mm 75mm 50mm 50mm 55mm 75mm 50mm 80mm 50mm 80mm 50mm 100mm 100mm		•	
	washers - combined with wall plugs	5/16″	х	80mm	•	•	
New Solid Concrete		5/16″	х	50mm		•	
	Macplugs (wall plugs) to suit above	5/16″	х	80mm	•	•	
	HLC Sleeve Anchors (Dyna Bolts) with washers	12mm	х	55mm	•		
		5/16″	х]″		•	
Steel Framing	Hex Head Bolt Zinc Plated,	3/8″	х]″	•	•	
e.g. BHP Framing (with rear access)	Hexagon Nuts Zinc Plated, Washers Zinc Plated	10mm	х		•	•	
		12mm	х	25mm	•		
Heavy Gauge Steel	Hex Head Tek and washers	14-20	x	22mm	•	•	
Light Steel Framing		10mm	х	100mm	•	•	
e.g. BHP House Framing	Heavy Duty Kap Toggle	12mm	х	100mm	M - M -		
(no rear access)	Hex Head Tek and washers	6-10	х	20mm		•	
	Coach Bolts (Hex Lag Screw) and	5/16″	х	50mm		•	
New Timber	washers	5/16″	х	80mm	•	•	
	Hex Head Tek and washers	14-10	х	50mm	•	•	

STEEL CONSTRUCTION



SECURE GUIDE



WARNING! Masonry blockwork should be properly filled and reinforced if brackets are to be mounted directly to blockwork with masonry anchors. Where the blockwork is not solidly filled but structurally sound, long bolts should be passed through the blockwork using suitable steel plates under bolt heads.

Special consideration should be given to brick type and construction of wall, to ensure satisfactory fixing e.g. welding detail if fixed to steel.



1.3 preparation

WARNING! If you need to remove an old door prior to installing a B&D door ensure to:

- Roll the door up and place a secure tie around the middle
- Place door support on flat ground
- Fit door support snugly under door before loosening the brackets or locating U bolts.
- Slowly undo bolts to release the spring tension and the door from the brackets.
- Slowly lift the door from the brackets keeping it balanced as it is lowered to the ground.

1.4 before installation

1.4.1 requirements

mounting - The door is designed to be mounted behind the opening.

obstructions - Ensure that the surface where the door will be fitted is flush and smooth, and the area behind the opening is free from any protrusions.

structural suitability - Ensure the opening is strong enough to support the door. If unsure, consult a builder.

level and plumb - The door must be installed in an absolutely level position, if opening is not level and square, appearance and/ or sideroom requirements will be affected. The floor should be level or recessed across the opening to avoid gaps.

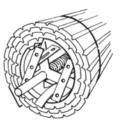
1.4.2 measurements

opening width - As the standard door overlaps each side by 50mm or more, the door should be 100mm wider than the opening. A wider door can be fitted as long as additional sideroom and fixing is available. (Fig 1.4.1a) Wind-Locked doors require additional overlap dependent on the substrate, consult the B&D High Wind Certification Drawings for more detail.

opening height - The door opening height (or drive through clearance) indicates the distance between the ground and rubber seal at the bottom of the door, with door fully open. Max drive through heights for each door height are listed in **Fig 1.4.1b**.

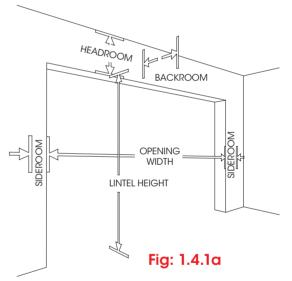
headroom - A minimum headroom is required for all doors. Refer to **Fig 1.4.2 - 1.4.5** for measurements. If the door is installed lower into the opening than shown in Fig 1.4.2, additional loss of door opening height will result.

backroom - refer to Fig 1.4.2 - 1.4.5 for measurements.



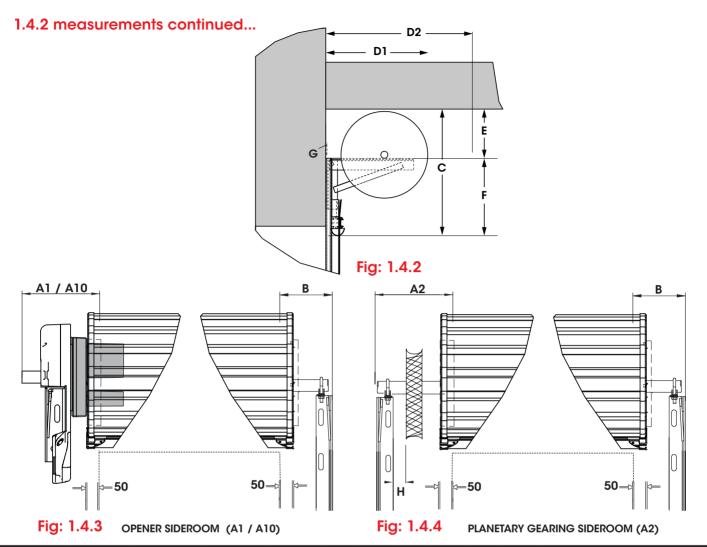
DO NOT CUT THE PACKAGING THAT HOLDS THE DOOR IN A ROLL

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.



Rollmasta **Squareline Deluxe** Industrial Name Description Series 3 Series 3 Series 3 Type Model code R3F R3W **R3I** Max Drive Max Drive Max Drive Door Height Door Height Door Height Height Height Height 1200 1200 _ 1200 1200 1800 1700 1800 1700 2100 2005 2100 2005 2100 2005 Door & Max Drive Through Heights (mm) 2400 2305 2400 2305 2400 2305 (non-Wind-Lock Doors) 2700 2605 2700 2605 2700 2605 3000 2905 3000 2905 3000 2905 3300 3300 _ _ 3600 3600 --5100mm 5500mm 5500mm Max Door Width (including overlap)

Fig: 1.4.1b



dimension panel													
installation	height	width	Α		В	С	[)	E	F	G	н	operation
installation	(mm)	(mm)	A1*/ A10*	A2	В	C	D1	D2*		г	9	п	operation
	up to 2100	up to 5500		135	135	535	485	525	260	275	0	0	hand operated
	2101-2400	up to 5500		135	135	535	485	525	260	275	0	0	hand operated
Decommonded	2401-2700	up to 5500	145/045		135	535	485	525	260	275	0	35	direct drive
Recommended	2701-3000	up to 5500	145/245	145/245 - 195 -	135	565	525	555	275	290	0	35	direct drive
	3001-3300	up to 3600			135	565	525	555	275	290	0	35	direct drive
	3301-3600	up to 3760			135	565	525	555	275	290	0	35	direct drive
	up to 2100	up to 5500	105	135	475	485	525	260	215	60	0	hand operated	
	2101-2400	up to 5500		135	135	475	485	525	260	215	60	0	hand operated
Restricted	2401-2700	up to 5500	145/245	105	135	475	485	525	260	215	60	35	direct drive
Kesincied	2701-3000	up to 5500	143/243		135	535	525	555	275	260	30	35	direct drive
	3001-3300	up to 3600		195	135	535	525	555	275	260	30	35	direct drive
	3301-3600	up to 3760			135	535	525	555	275	260	30	35	direct drive
Windleskad	up to 2400	up to 5500	105/205	195	175	535	485	525	260	275	0	0	hand operated
Windlocked	2401-3000	up to 5500	195/295	190	175	565	525	555	275	290	0	35	direct drive

*A1 Based on a Controll-A-Door PowerDrive and GDO-12 Hiro.

*A10 Based on a GDO-10 Toro (Right Hand Side install).

If an opener is installed there is no H measurement required.

D1 & D2 * are the minimum measurements and optimum backroom clearance required for installation.

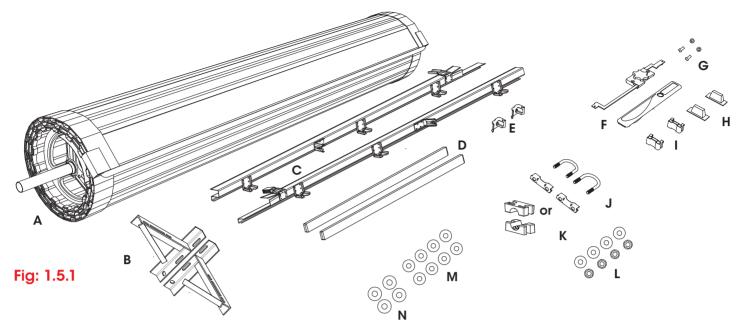
NOTE: Wind-Locked doors will need between 55 - 68mm curtain overlap on both sides, depending on the substrate used.

R3F has a maximum width of 5100mm.

Fig: 1.4.5

NOTE: It is not recommended that doors fitted in restricted headroom be fitted with openers.

1.5 parts checklist



	SERIES 3 ROLL-A-DOOR	R3F & R3I	R3W	HW
ITEM	DESCRIPTION	QTY	QTY	QTY
Α	ROLLED PLASTIC WRAPPED DOOR	1	1	1
В	BRACKETS, LEFT AND RIGHT HANDED	2	2	2
С	DOORS GUIDES LEFT AND RIGHT HANDED	2	2	2
D	STEEL LOCKING BARS	-	2	2
	SMALL PARTS BAG CONTAINING			
E	BOTTOM RAIL STOPS AND SCREWS	2	2	2
F	FACEPLATE AND LOCK ASSEMBLY	-	1	1
G	MUSHROOM HEAD SCREWS FOR LOCKING BAR	-	2	2
Н	LOCKING BAR COVERS	-	2	2
	LOCKING BAR RETAINER	-	2	2
J	"U" BOLTS	2	2	2
K	AXLE / BRACKET SADDLES	2	2	2
L	NUTS FOR "U" BOLTS	4	4	4
М	SMALL WASHERS (DOOR SIZE DEPENDENT)	8-12	8-12	8-12
Ν	LARGE WASHERS	4	4	4

1.6 initial calculations



Standard Series 2 doors = 50mm (minimum) overlap each side Windlock (HW) Series 2 doors = 55+mm (minimum) overlap each side

- a) Measure the opening width of garage.
- b) Measure the door curtain width.
- c) Calculate over lap for each side: door width opening width ÷ 2 = over lap
- d) Mark the line for the edge of door curtain (over lap) on each side of the opening.



7



2.0 installation 2.1 install first bracket

	dimension panel							
	height	width	Α		В	с	Е	F
	(mm)	(mm)	A1*/A10*	A2	D	0	-	•
	up to 2100 up to 5500 2101-2400 up to 5500		135	135	535	260	275	
nd		155	135	535	260	275		
Recommend	2401-2700	up to 5500	145/245		135	535	260	275
m	2701-3000	up to 5500		195	135	565	275	290
0	3001-3300	up to 3600			135	565	275	290
Re	3301-3600	up to 3760			135	565	275	290
	up to 2100	up to 5500		135	135	475	260	215
ð	2101-2400	up to 5500			135	475	260	215
cte	2401-2700 up to 5500		135	475	260	215		
Restricted	2701-3000	up to 5500	145/245	105	135	535	275	260
Re	3001-3300	up to 3600		195	135	535	275	260
	3301-3600	up to 3760			135	535	275	260
ğ	up to 2400	up to 5500		195	175	535	260	275
Wind	2401-3000	up to 5500	195/295		175	565	275	290

*A1 Based on a Controll-A-Door PowerDrive, GDO-6 EasyRoller and GDO-12 Hiro.

*A10 Based on a GDO-10 Toro (Right Hand Side install).

A2 is the minimum measurements without an opener.

R3F has a maximum width of 5100mm.

Fig: 2.1.1



Take note of drive through clearance heights in fig 1.4.2b as the bottom rail will hang into the opening on some doors, therefore reducing the opening.

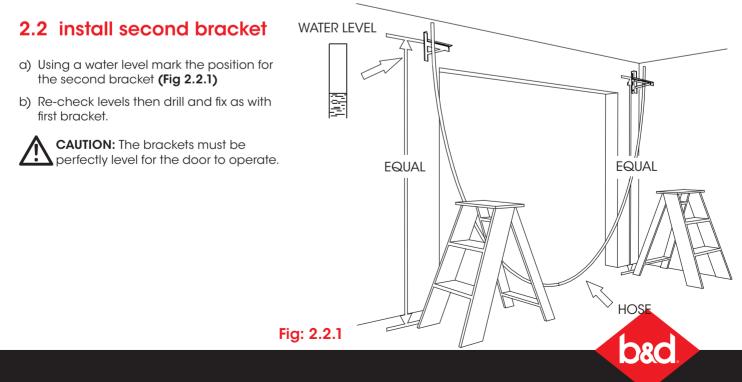
Fig: 2.1.2

- a) Use above diagrams Fig 2.1.1 and 2.1.2 for head and sideroom clearances.
- b) Mark three hole positions using slots of the bracket \mathbb{B} .

c) Drill holes, then attach bracket using six 10mm (3/8") bolt size masonry anchors; (dynabolts or similar).



WARNING! The structure substrate must conform to the DTCM requirements. Refer to <u>bac.nt.gov.au</u> for the <u>DTCM Manual</u> or <u>High Wind drawings on the B&D Website</u>.



2.3 place door on brackets



TWO PERSON LIFT: this product requires a two person lift to raise onto the brackets. Use proper techniques and equipment to lift the door from the trailer and up onto brackets.



CAUTION: DO NOT CUT THE PLASTIC WRAP OR PACKAGING YET

- a) Check the axle length and cut if sideroom is limited. Before cutting, make sure the floating axle is free and centred (Fig 2.3.1). Centre will be found by rotating the axle a quarter turn in either direction then releasing. With centre found, make a clear mark on the axle against the hub for later reference.
- b) With the door the correct way round (the curtain rolls down the rear of the opening) carefully lift door onto the brackets using block and tackles attached to the door axles, or other suitable lifting equipment – to avoid curtain damage.
- c) Loosely fit "U" bolt ① and/or saddle (K), or double saddle and position the door so that it overlaps the opening evenly both sides so that the axle is positioned on the bracket arm slots as far forward as possible (Fig 2.3.2) Fitting the saddles eliminates the door falling from the brackets.
- d) Centre the door with the opening, while ensuring the floating axle is also centred with the door.

Do this by lining up previous marks with the hub, then lift both the axle and the door together until it is centred with the opening. Rotate both the door and the axle so that the bottom rail is level with the arm of the bracket.

e) Now tighten the "U" bolts saddle (K), or double saddle (door size dependent), using washers under nuts (L), to a torque of 40 newton metres or 30 ft.lb.

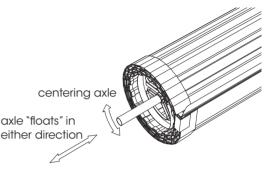
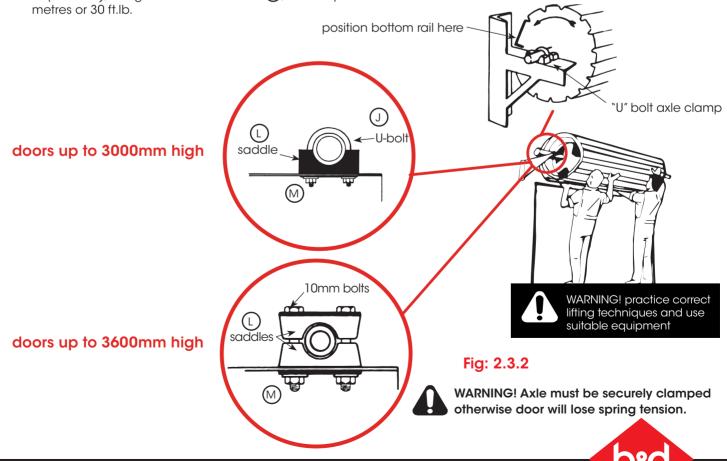


Fig: 2.3.1



2.4 install guides

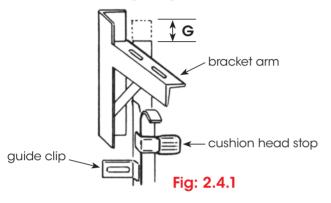
2.4.1 positioning guides



WARNING! Do not grease the guides. Grease will damage the Nylofelt[®] running strips and make doors heavier to operate.

 \triangle

CAUTION: Restricted headroom installation is not recommended for automated doors unless the door is installed lower into the opening. NOTE: This will reduce the drive through height.



	dimension panel						
	height (mm)	width (mm)	G				
ð	up to 2100	up to 5500	0				
pde	2101-2400	up to 5500	0				
Recommended	2401-2700	up to 5500	0				
L L	2701-3000	up to 5500	0				
00	3001-3300	up to 3600	0				
Re	3301-3600	up to 3760	0				
	up to 2100	up to 5500	60				
<u>S</u>	2101-2400	up to 5500	60				
Restricted	2401-2700	up to 5500	60				
estr	2701-3000	up to 5500	30				
Re	3001-3300	up to 3600	30				
	3301-3600	up to 3760	30				
Wind	up to 2400	up to 5500	0				
Ŵ	2401-3000	up to 5500	0				
R3F has a maximum width of 5100mm.							

WARNING! All High Wind installations must adhere to fixing types and centres as referenced in the <u>DTCM</u> Drawings and B&D High Wind Drawings.

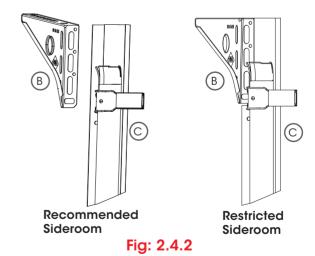
If securing to uneven brickwork, packers may be required behind clips, to prevent them twisting out of square; also ensure that clips are positioned on secure bricks.

- a) Check that curtain overlaps equally on both sides.
- b) Check that guides are the correct length, that is, starts level with the brackets (or as per table above at position G). (Fig 2.4.1) If guides need to be shortened cut from bottom of guide.
- c) For Series 2 Doors:
 - (i) Now position one guide over the edge of the door curtain. Mark and drill the top fixed guide clip and secure using correct fixing and washers as per table in **Section 1.2**, allowing 3-4mm clearance between the door and the inside of the guide.
 - (ii) Ensuring guide is plumb, using spirit level, then drill and fix remaining clips and head stop.

For Series 2 Windlock Doors:

- (i) If there is limited sideroom available the guide may need to have the side cut out to accommodate. See Fig 2.4.2 for recommended and restricted sideroom with a clearance of 2-5mm to the bottom rail roller.
- (ii) Now position one guide over the edge of the door curtain. Mark and drill at top guide hole and secure guide using fixing types as per <u>High Wind Certification</u> <u>Drawings</u>, taking note of the specific spacing requirements.
- (iii) Ensuring guide is plumb, drill and fix remaining holes in guide as per spacing details listed.
- d) With the top of the 2nd guide level with the first, repeat (c) for the specific door type.

NOTE: Welding of guides to steelwork is usually not recommended



bad

2.5 tension the springs

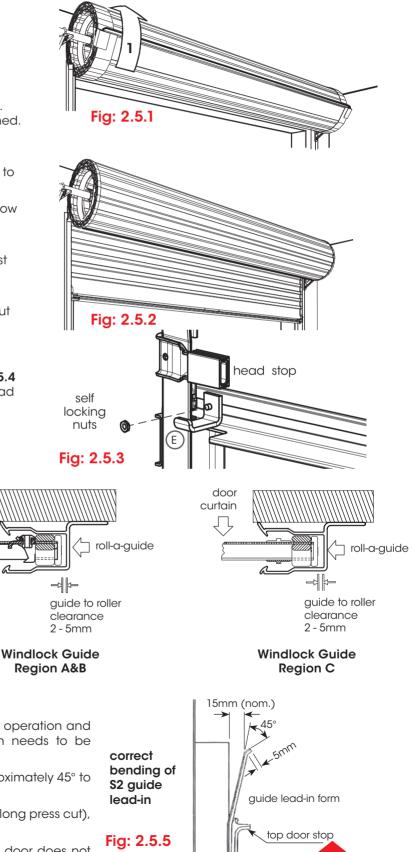


WARNING! Once the packaging containing the door roll is cut, the door will have a strong tendency to rise and revolve. If uncontrolled, the rapidly unrolling door could cause damage or injury.

2.5.1 tensioning and adjustments

- a) Ensure that the bottom rail is at the 9 o'clock position as shown in Fig 2.5.1.
- b) Ensure both "U" bolts are tightened, then -
 - 1. Rotate the door approximately 2 complete turns in a forward direction to apply tension. Do not let go as the springs are now tensioned. See arrow in Fig 2.5.1.
 - 2. Hold the door firmly, NOW cut the plastic wrap along the bottom rail (taking care not to damage door surface).
- c) Pull the curtain down slowly into the guides below the head stop in Fig 2.5.2.
- d) Fit bottom rail stops 🕑 using self locking nuts provided. Allow the door to rise and rest against head stops Fia 2.5.3.
- e) Test the door operation by moving it up and down. The curtain must feed in smoothly without bumping.
- f) Reposition the guides as necessary to allow smooth and even operation with clearances shown below throughout. See images in Fig 2.5.4 for each specific guide / wind region adjust lead in as required Step 2.5.2.

roll-a-guide





door

curtain

2.5.2 creating proper guide lead-in

guide to roller

clearance

1 - 3mm

The shape of lead-in is critical for successful door operation and trouble free performance. The shape of lead-in needs to be formed by the installer, refer to (fig 2.5.5).

door

curtain

- a) With multigrips, bend top 5mm of lead-in approximately 45° to prevent Nylofelt® catching on lead-in.
- b) Bend lead-in from door stop to top of lead-in (along press cut), to finish 15mm from its original position.
- c) Check top of guide lead-in to ensure that the door does not make contact when rotated. Damage to Nylofelt[®] could result.

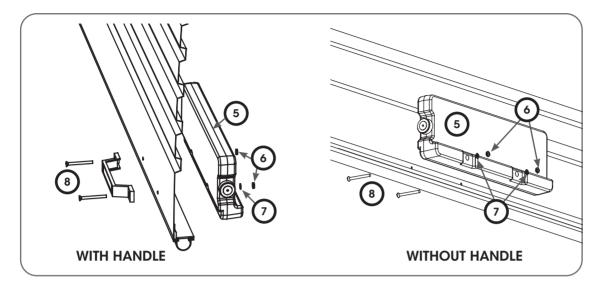
080



Installer may need to increase the 15mm dimension for larger door heights to ensure the smooth operation of the door.



WARNING! For all doors that are fitted with openers. To reduce the risk of damage to persons or property, be sure to cut off any excess thread of the screw that protrudes the weight bottle and file any burs.



2.6 locking

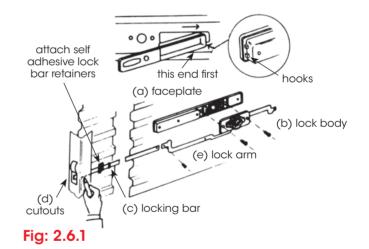
2.6.1 centre lift lock (only with R3W & R3F)

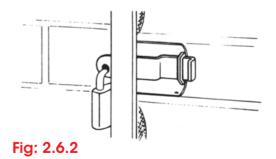
- a) Fit faceplate to outside of door. Fit hooks onto edge of aperture then slide faceplate as far to the right as possible. Use adhesive tape to hold in position Fig 2.6.1.
- b) Attach the lock body to the faceplate from the inside, using screws supplied. Do not overtighten the screws.
- c) Pull the curtain down slowly into the guides below the head stop.
- d) Assemble locking bar to retainer and through plastic edge retainer. Mark the position of lock bar on side of guide. Transfer location mark to inside back face of guide and drill a file slot 10mm wide x 25mm long. Equally spaced on centre line of guide. Allow approximately 5mm clearance from top of slot to top of locking bar.
- e) Slide bars through guide slot, then back onto lock arms. Screw on securely using 4mm x 6mm screws supplied.

2.6.2 internal waist high slide bolt (R3I)

(left hand side shown - viewed from inside)

With door fully closed check that bolt slides through guide. Adjust hole if necessary.

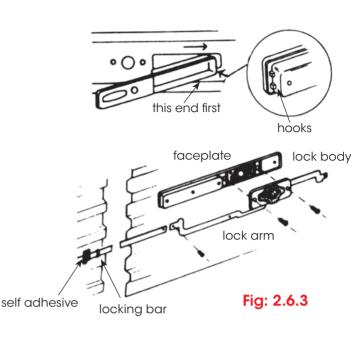


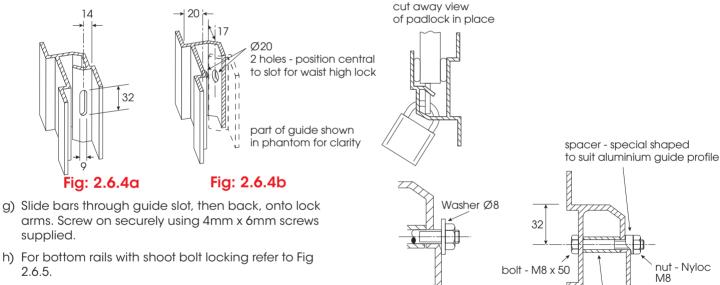




2.6.3 high wind centre lift lock (only with R3W & R3F)

- a) Undo screws to separate lock from faceplate.
- b) Fit faceplate to outside of door. Fig 2.6.3. Fit hooks onto curtain edge, then slide faceplate as far to the right as possible. Use adhesive tape to hold in position.
- c) Attach the lock body to the faceplate from the inside, using the mounting screws and washers. Do not over-tighten the screws.
- d) 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.
- e) With the door in the closed position make the lock hole position in the side guides.
- f) Drill and file out a slot:
 - NO PADLOCK no longer than 32mm and no wider than 10mm as in Fig 2.6.4a. Ensure top of the slot remains in line with top of locking bar.
 - ii) WITH PADLOCK create slot as per i) then, additional 2 holes no smaller than 20mm, positioned central to slot for waist high lock as in Fig 2.6.4b.





a) For fitting optional padbolt type locking, refer to Fig 2.6.6.

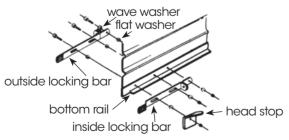
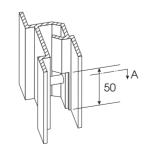
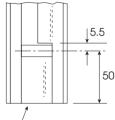


Fig: 2.6.6







spacer

bottom edge of guide

 $\mathbf{O8C}$

Fig: 2.6.5

NOTE: Please contact your B&D representative for all other lock solutions

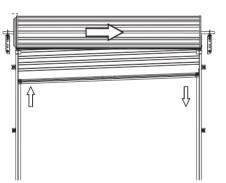
2.7 troubleshooting

Symptom	Possible cause	Remedy
Door is hard to operate in ANY DIRECTION	Door jamming in the guides	Check: a) the guide clearances b) the guides are plumb c) that the guide surfaces are clean and free from oil d) that the locking bars are the correct length e) that the weatherseal is correct length
The door is hard to operate in ONE DIRECTION	The spring tension requires adjustment	 a) if the door is hard to lift, but tends to drop, refer to step 2.9 to increase the spring tension b) if the door is hard to close, but tends to rise, refer to step 2.9 to decrease the spring tension
If the door rolls up crooked	Brackets are not level	Make sure brackets are level, refer to step 2.2.
	Guides are not plumb	Make sure the guides are plumb, refer to step 2.4.
	Axle is not centred	Centralise the axle, refer to step 2.8.

2.8 centralise the axle when door is mounted

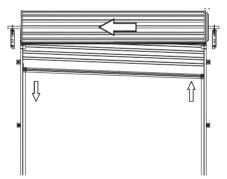
WARNING! Ensure that pipe wrench is fitted correctly to the axle and if it is gripped onto the axle do not underestimate the tension in the spring when undoing the clamps.

CAUTION: THIS ADJUSTMENT REQUIRES 2 PERSONS TO COMPLETE.



If the door rolls up crooked with the **RIGHT HAND SIDE** higher than the left proceed as follows:

- a) Roll the door up as high as possible and tie two ropes around the door roll approximately 300mm from each end, as a safety precaution.
- b) With a person at each end of the door, hold the axle firmly with a large pip wrench (Stillson) at least 450mm long.
- c) Loosen the "U" bolt nuts at both ends and **KEEP A FIRM GRIP ON WRENCH.**
- d) Move the axle to the **RIGHT** between 20 40mm.
- e) Re-tighten "U" bolts before releasing pipe wrench.
- f) Test and repeat if further adjustment in needed.
- g) If the door is stiff to work or rattles over lead-in on top of guide, then refer to Step 2.4.



If the door rolls up crooked with the **LEFT HAND SIDE** higher than the left proceed as follows:

- a) Roll the door up as high as possible and tie two ropes around the door roll approximately 300mm from each end, as a safety precaution.
- b) With a person at each end of the door, hold the axle firmly with a large pip wrench (Stillson) at least 450mm long.
- c) Loosen the "U" bolt nuts at both ends and **KEEP A FIRM GRIP ON WRENCH.**
- d) Move the axle to the LEFT between 20 40mm.
- e) Re-tighten "U" bolts before releasing pipe wrench.
- f) Test and repeat if further adjustment in needed.
- g) If the door is stiff to work or rattles over lead-in on top of guide, then refer to Step 2.4.



2.9 adjusting spring tension

2.9.1 hand operated and direct drive doors only

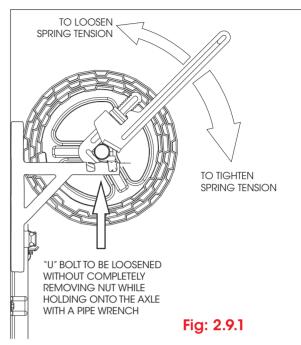


WARNING! Ensure that pipe wrench is fitted correctly to the axle and if it is gripped onto the axle do not underestimate the tension in the spring when undoing the clamps.



CAUTION: THIS ADJUSTMENT REQUIRES 2 PERSONS TO COMPLETE.

- a) With the door rolled up tie two ropes around the door roll approximately 300mm from each end, as a safety precaution.
- b) With a person at each end of the door, hold the axle firmly with a large pipe wrench (Stillson) at least 450mm long.
- c) Loosen the "U" bolt nuts at both ends and KEEP A FIRM GRIP ON WRENCH.
- d) Rotate the axle in the required direction (Fig 2.9.1).
- e) Re-tighten the "U" bolts to a tension of 40 Newton metres or 30 ft.lbs **BEFORE** releasing pipe wrench.
- f) Test and repeat if further adjustment is necessary.



2.9.2 doors with planetary geared chain wheels only



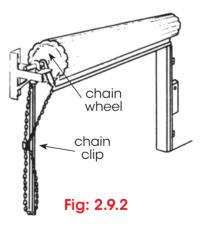
WARNING! As a safety precaution to protect both the door and the installer, lock a section of the chain in the chain clip at all times so that the chain is restricted to short movements.



CAUTION: The correct adjustment will only be found by trial and error, adjustments should be retricted to approximately one revolution of the chain wheel.

If the door tension needs adjusting and the door is fitted with Planetary Gearing then follow the steps below:

- a) Ensure that the door is in the OPEN position.
- b) With the door rolled up tie 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, as a safety precaution.
- c) Secure both chains in the chain clip (Fig 2.9.2).
- d) Carefully loosen the "U" bolt nuts at both ends.
- e) Adjusting tension -
 - 1. To increase spring tension, carefully pull down on the rear chain, whilst chain is in the chain clip.
 - 2. 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.
- f) When the tension is correct, secure the chain in the chain clip and re-tighten the "U" bolt nuts to a tension of 40 Newton metres or 30 ft.lbs.
- g) Release rope from door and remove vice grips from guides.





3.0 appendix

3.1 after installation care

cleaning

COLORBOND® and coloured steel FINISH DOORS: Your B&D Roll-A-Door® door has been pre-painted with a high durability polyester paint system especially designed and tested for the harsh Australian conditions. 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, including the top of the door roll inside the garage.

NOTE: In locations where there is likely to be salt in the air or industrial fallout is severe, more frequent washing is advisable and additional protection of the surface maybe required.

Touch-up paint, if required, is available from your B&D dealer.

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. The faceplate should be washed with soapy water and rinsed well. Strong solvents, such as acetone, should not be used – these will damage the surface. **WARNING!** Do not disassemble the lock mechanism.

When opening the door, always make sure the key is with drawn from the lock – if this is not done, the lock mechanism could be damaged and the key bent or broken.

We suggest you record your full Key letter and Number on the front of this manual and if replacement keys are required they can be obtained from your nearest B&D office, simply by quoting this number. If the keys have been lost and the number not recorded, it can be found stamped into the locking arm at the back of the mechanism.

NYLOFELT®

On no account should you use grease or oil in the door guides or on the Nylofelt[®] running strips – the grease or oil will clog the Nylofelt[®] and spoil the operation of the door. An occasional wipe with a cloth dampened with mineral turps or methylated spirits, down the inside of each guide, is very beneficial in removing any trace of grease or dirt.

After the guides have been cleaned, a silicon spray may be used in the guides.

NOTE: WD40 or similar oil based sprays are not silicon and should not be used.

b&d doors office locations

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17 Oasis Court, Clontarf 4019
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Care should be taken not to damage the Nylofelt[®], however, if Nylofelt[®] is cut or damaged, a lighted match should be used to quickly seal the ends of the nylon braiding, so as to stop any further deterioration.

regular maintenance required

B&D recommends that you check the operation of your Roll-A-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). If the door is difficult to operate in either direction (up or down) then check:

- that the Nylofelt[®] running strips on each side of the door have not slipped from the edge and are jamming the door;
- 2) that the door is running correctly in the guides and the guides are straight and perpendicular; and
- that the inside surfaces of the guides are clean and free of obstructions. (see paragraph on care of Nylofelt[®])

If you have checked these (and corrected where necessary) and the door is still difficult to operate, , then your door will need a service to adjust the spring tension and possibly other operational parts of the door. 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

Warranty conditional on proper care as recommended above. Full details of the warranty are available in your owners handbook, from your nearest B&D office or visit the B&D website **www.bnd.com.au**

your representative is

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