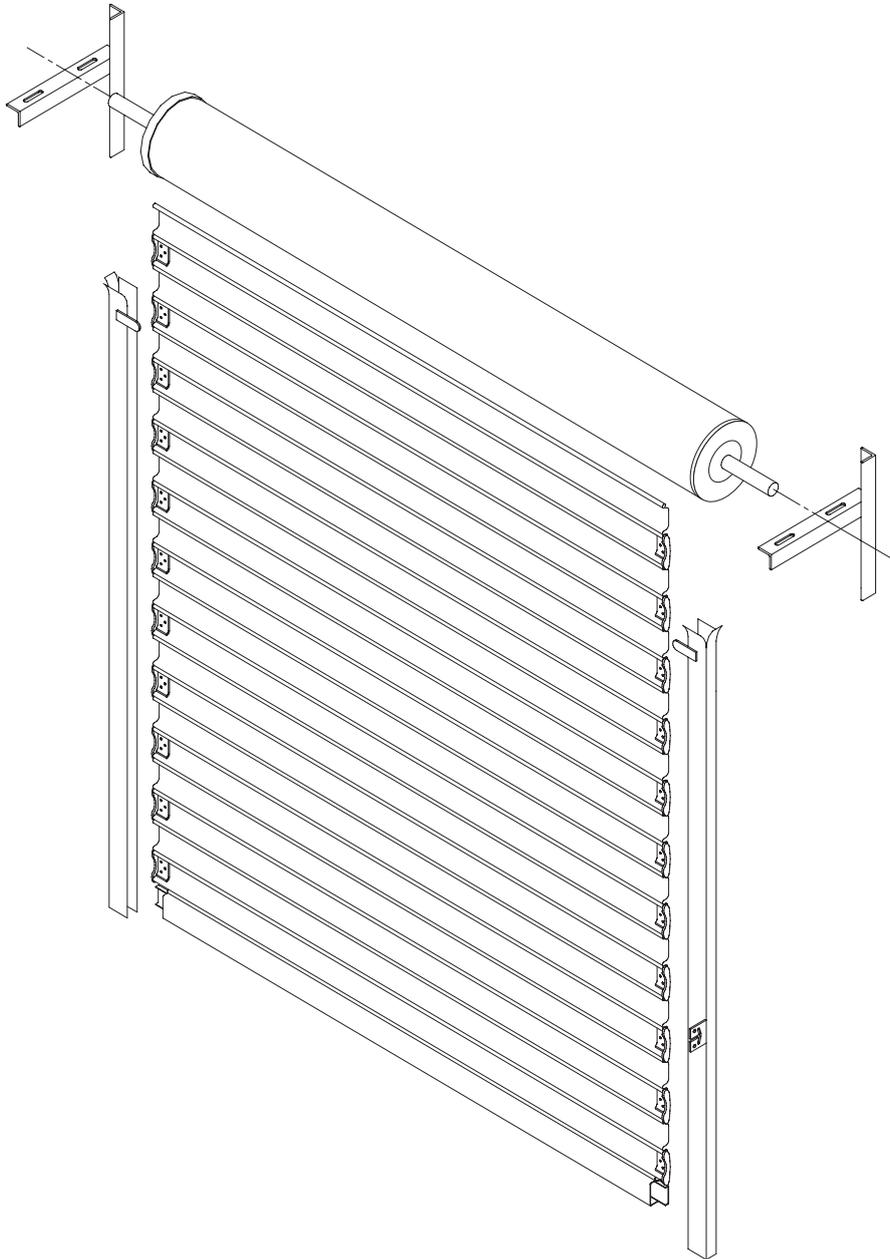


b&d

Roll-A-Shutter®

Aluminium Shutter Series

Roll-A-Shutter® 40, 65 & 90, Roll-A-Grille® 12 & 19, Clear-A-View™ & Crystal View
installation instructions PART NO: 9235



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

PART NO: 9235. REVISION 2 - OCTOBER 2016

www.bnd.com.au

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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.

hazard	control
<ul style="list-style-type: none"> Housekeeping - risk of slip trip or fall Housekeeping - risk of injury to other people or animals in the installers work area 	<ul style="list-style-type: none"> 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 If the Site housekeeping is deemed to be unsafe do not install the door Keep all people well clear of installers work area with appropriate signage and discussion with owner
<ul style="list-style-type: none"> Manual or mechanical handling when moving the door from the Trailer or Ute to the installation area - risk of musculoskeletal injury Manual or mechanical handling when installing Doors & Openers particularly above head height - risk of musculoskeletal injury or twisting Manual or mechanical handling when installing tracks and torsion bars - risk of musculoskeletal injury Manual or mechanical handling when installing the door opener - risk of musculoskeletal injury or twisting Ensure product is secured to mechanical lifting device 	<ul style="list-style-type: none"> Correct lifting technique for Roller Door/Shutter Use of 2 person lifts Use of mechanical aids such as lifting stands, forklift, cranes Avoid twisting (Practice correct lifting techniques) Correct use of ladders while installing tracks Use of correct technique of knotted rope installation aids Use of correct slings, spreader bars etc.
<ul style="list-style-type: none"> Working at heights and working with ladders, scissor lifts, scaffold - risk of fall from height 	<ul style="list-style-type: none"> Ladder check Ladder placement Do not work off the top rung
<ul style="list-style-type: none"> Sharp edges on Door, tracks or related jewellery - risk of laceration 	<ul style="list-style-type: none"> Wear appropriate PPE (Dyneema cut off Gloves) Follow instruction explicitly particularly for the installation of some parts of the doors as the unrolled cut out edges presents a very sharp edge
<ul style="list-style-type: none"> Pinch points - risk of cut, puncture or crush injury 	<ul style="list-style-type: none"> Wear appropriate PPE and keep hands well clear of pinch points Ensure hands well clear of the panels
<ul style="list-style-type: none"> Use of hand tools - risk of eye injury, laceration cut stab or puncture injuries (Tools checklist) Use of Electric/ Battery or pneumatic tools - noise hazard Use of cutting tools creating sparks - risk of fire 	<ul style="list-style-type: none"> Wear appropriate PPE and utilise operators manual 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
<ul style="list-style-type: none"> Tension spring - risk of release of stored energy (various door parts, tools, jewellery striking installer on the head or body) 	<ul style="list-style-type: none"> Ensure door is correctly secured 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 the correct length pipe wrench, bars or other equipment is utilised 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 hands clear of the pipe wrench at all times Keep head clear of the pipe wrench at all times
<ul style="list-style-type: none"> Position the door on the brackets, there is a risk of the door falling from the brackets striking a person 	<ul style="list-style-type: none"> Ensure the door is immediately fastened to the bracket with the "U" Bolt Ensure no-one ever walks under a door sitting on a bracket

1.2 fastener recommendations for fitting garage doors

material	fastener type(s)	diameter or type		length of fastener (see note)
New Solid Brick	Coach Bolts (Hex Lag Screw) - combined with wall plugs	5/16"	X	1½"
		3/8"	X	2"
	Macplugs (wall plugs) to suit above	5/16"	X	50mm
		3/8"	X	60mm
	HLC Sleeve Anchors (Dyna Bolts)	12mm	X	55mm
New Hollow Brick	HRD-VGK or HGK-VGS (Hex Head) Frame Anchors	10mm	X	60mm
New Solid Concrete	Coach Bolts (Hex Lag Screw) - combined with wall plugs	5/16"	X	1½"
		3/8"	X	2"
	Macplugs (wall plugs) to suit above	5/16"	X	50mm
		3/8"	X	60mm
	HLC Sleeve Anchors (Dyna Bolts)	12mm	X	55mm
Aerated Concrete e.g. (HEBEL)	Fischer Nylon Twist Lock Anchor Type GB 14	14mm	X	85mm
Steel Framing e.g. BHP Framing (with rear access)	Hex Head Bolt Zinc Plated, Hexagon Nuts Zinc Plated, Washers Zinc Plated	5/16"	X	1"
		3/8"	X	1"
		10mm	X	25mm
		12mm	X	25mm
Heavy Gauge Steel	Hex Head Tek	14-20	X	22mm
Light Steel Framing e.g. BHP House Framing (no rear access)	Heavy Duty Kap Toggle	10mm	X	100mm
		12mm	X	100mm
	Hex Head Tek	6-10	X	20mm
New Timber	Coach Bolts (Hex Lag Screw)	5/16"	X	1½"
		3/8"	X	2"
	Hex Head Tek	14-10	X	50mm

important notes

1. For installation to materials not covered in the above chart, the installer should seek expert advice from a qualified builder.
2. Minimum length of fastener does not exclude use of longer lengths. Decision must be made by fitter to ensure adequate strength.
3. 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.
4. HEBEL Fischer type fastener should be installed 150mm from edge of blocks.

important information on fasteners

Coach bolts/screws supplied with this product are suitable for fastening to timber jambs. Correct and safe fastening to other materials may require different fasteners. The installer must select and use fasteners appropriate to the material into which they are being fixed.

1.3 requirements before installation

B&D Roll-A-Shutters® and B&D Roll-A-Grille® are normally installed to operate behind or between the opening. They must be ordered to accommodate clearances for the support brackets and guides.

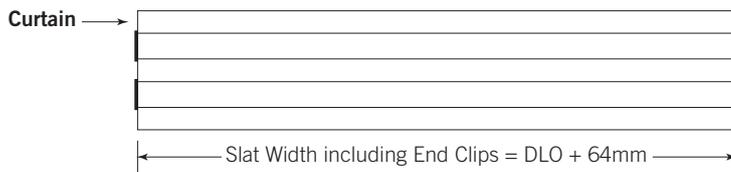
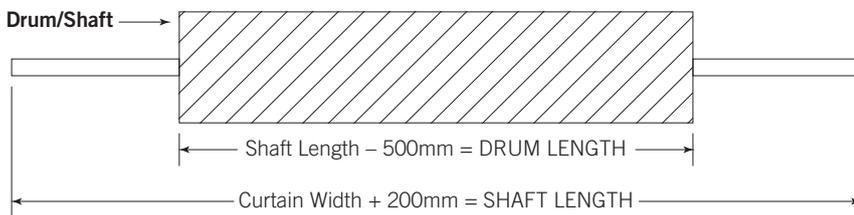
The door is supported on brackets above the opening at each end and requires headroom for the door to roll up (see Table 1). Piers or door posts must extend beyond the top of the opening to provide fixing for the support brackets.

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

WARNING! NO GUARANTEE WILL BE GIVEN OR RESPONSIBILITY ACCEPTED BY THE MANUFACTURERS IF THE DOOR IS NOT INSTALLED AS INSTRUCTED.

For satisfactory door operation please follow the instructions carefully.

1.4 preparation checklist



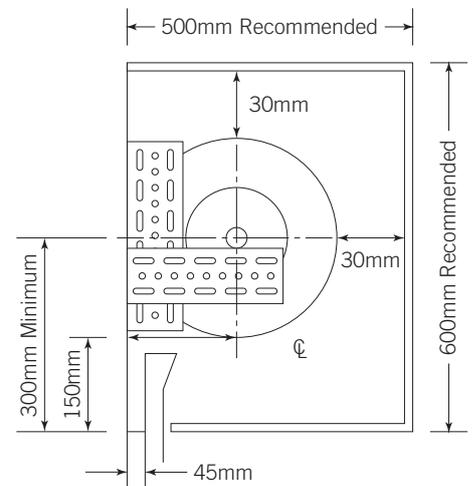
Measure the door opening and check against axle and curtain length to ensure you have the correct door size:

Curtain width (end clip to end clip):
(bottom rail width is also equal to:)
Door opening (DLO) + 64mm

Shaft width: Curtain width + 200mm

Drum width: Shaft length - 500mm

Guide height: Door opening +150mm



1.5 weight chart

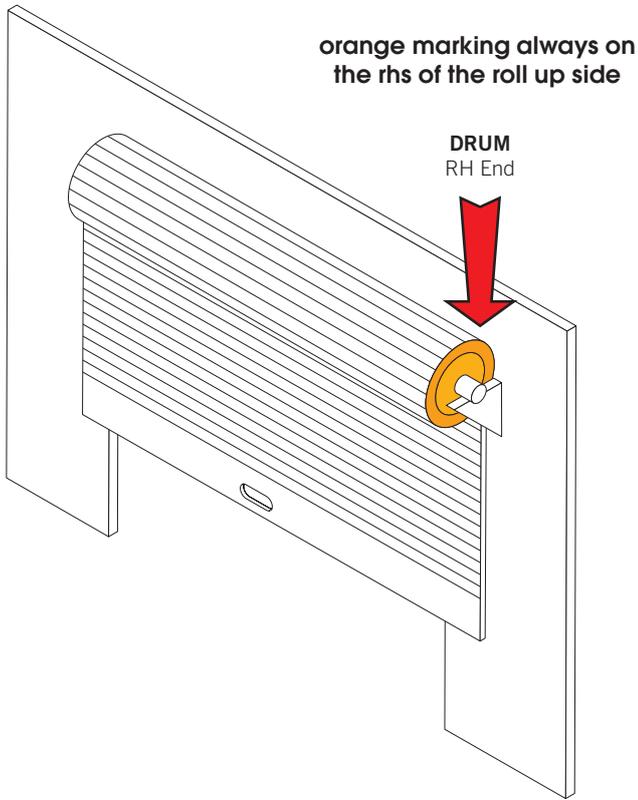
Clear-A-View	5 KG/M ²
Roll-A-Shutter Series 40	7.8 KG/M ²
Roll-A-Shutter Series 65	7.5 KG/M ²
Roll-A-Shutter Series 90	10 KG/M ²
Roll-A-Grille 12	3 KG/M ²
Roll-A-Grille 19	4.6 KG/M ²
Crystal View	4.6 KG/M ²

Hand lift Drum Weight	7.5KG/M
Central motor drum	15KG/M
Grifco/ATA motor drum	23KG/M
Elektromaten motor drum	22KG/M

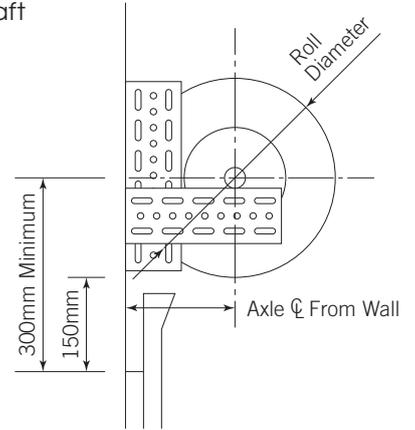


2.0 installation

2.1 fitting instructions



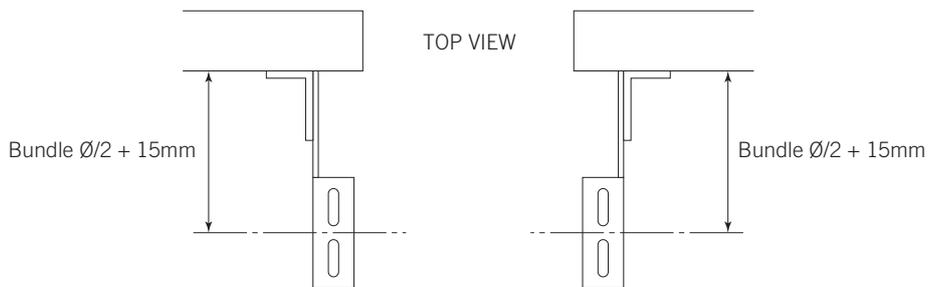
Centre line of the shaft and drum should be 300-350mm up from the bulkhead.



To locate bracket position: Measure the bottom rail. Add 50-100mm to the bottom rail measurement.

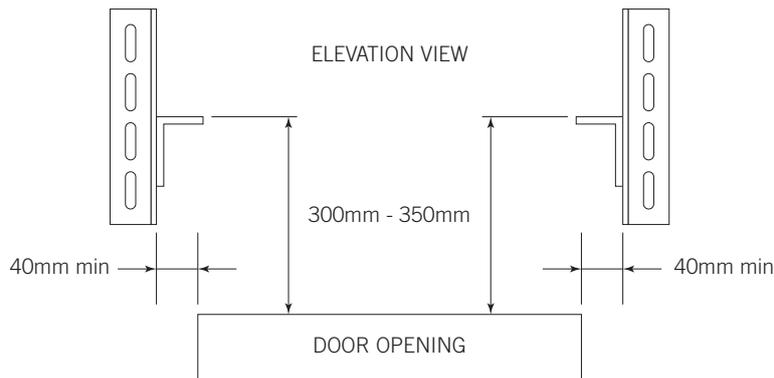
Typical behind wall fix

Keep the mounting brackets on the outside of this measurement.



Typical between wall fix

Keep the mounting brackets on the outside of this measurement.



To determine the centre line of the shaft to the inside of the bulkhead, refer to the door bundle schedules on page 8:

Bundle diameter ÷ 2 +15mm

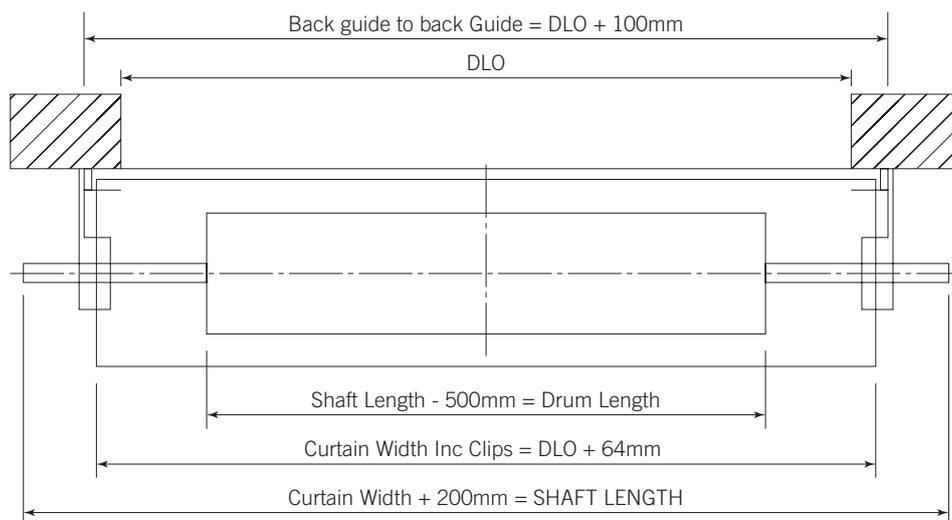
Eg. Bundle diameter for Series 40 - 65mm if drop is 3000mm on a Ø150mm drum.

It would be:

$$300 \div 2 = 150\text{mm} + 15\text{mm} = 165\text{mm}$$

This makes the axle centreline 165mm from the wall.

This is how the door and components arrive. The shaft will have to be cut to size.



2.2 bundle diameter

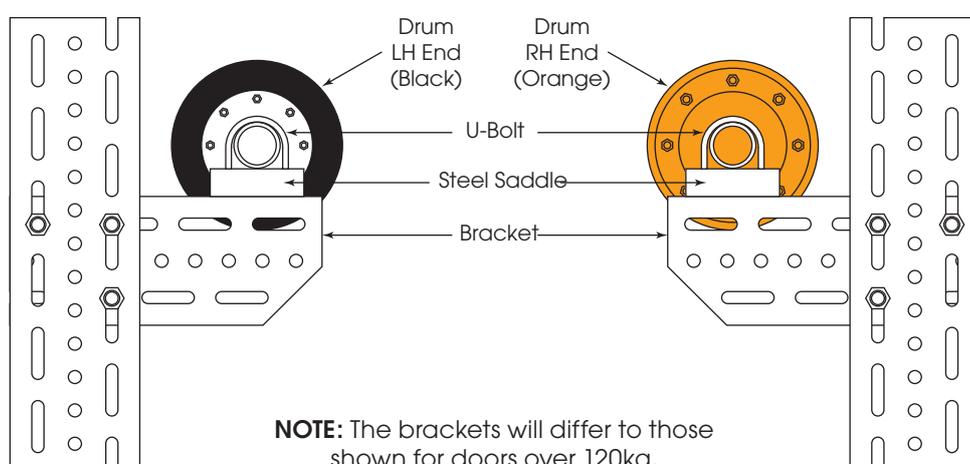
	Clear-A-View	RAS 40		RAS 65		RAS 90		RAG 12	RAG 19		Crystal View
drum diameter	230mm	150mm	230mm	150mm	230mm	150mm	230mm	230mm	150mm	230mm	230mm
opening height											
900	290	200	270	260	305	260	325	310	326	326	290
1200	290	215	280	260	305			315			290
1500	290	230	290	260	320	275	346	325	326	378	290
1800	300	250	290	270	330			330			300
2100	300	260	310	270	350	325	356	350	330	394	300
2400	310	260	320	280	350	360	380	365	364	398	310
2700	310	275	340	300	360			375			310
3000	320	290	340	300	370	360	392	380	378	434	320
3300	320	315	355	340	380			390			320
3600	340	325	370	360	395	390	400	420	415	448	340
4000	340					410	420	440	435	453	340

2.3 installing drums

Install drum to brackets with steel saddles placed between the axle and bracket. Fit U-bolt down through saddle and bracket.

Fit nuts and washers to U-bolts, tighten nuts so you can still rotate shaft with a pair of stilsons.

If the aforementioned process has been followed correctly a clearance of approximately 15mm from the curtain to the bulkhead should be achieved.

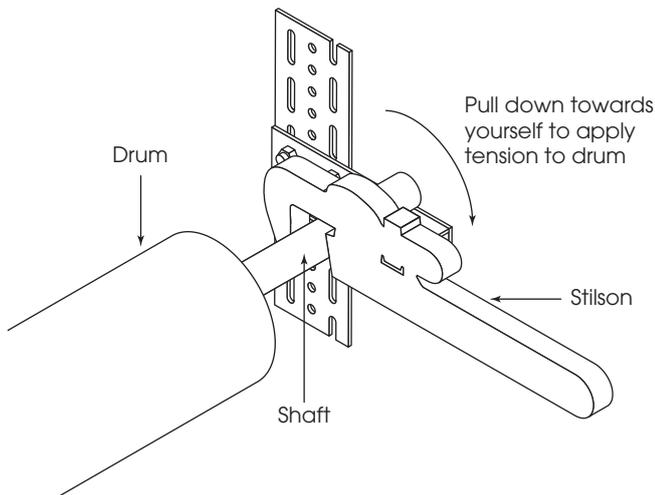


NOTE: The brackets will differ to those shown for doors over 120kg.

2.4 install curtain to drum

Remove tape from the metal straps that are attached to drum, insert metal straps through slot in mini slat (for shutters) or loop metal strap around top tube (for grilles) at the top of the curtain. Fold through and line up the two holes in the straps. Rivet together with 5/4 rivets.

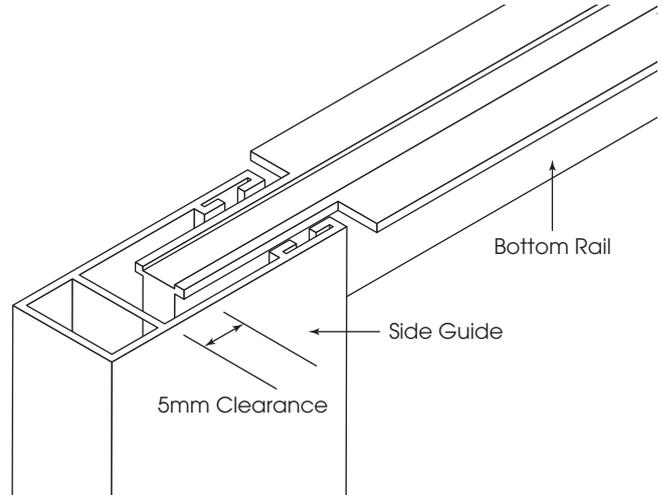
2.5 applying tension



To put tension on door place stilsons on shaft from inside. Now pull down back towards you from inside of the drum. As the door tension increases the shaft will want to slip backwards. Hold shaft in place with stilsons and gently tighten U-bolt nuts further. Proceed with applying tension until the curtain rises approximately 100 - 200mm from the floor. At this distance the tension should be correct. Then tighten U-bolts on both ends.

For 240V motors, The correct tension should be applied by driving the drum forward with the motor. To do this the power must be connected prior to fitting the curtain. The door should drive up and down with the load on the motor roughly even.

WARNING: ALL ELECTRICAL WORK MUST BE CARRIED OUT BY AN APPROPRIATE LICENSED CONTRACTOR.



Fit side guide to the wall (bottom rail to have 5mm clearance between guide and slat each side of opening).

Now re-check tension.

If door is too heavy to lift or falls, place more tension on drum.

If the door rapidly ascends you will have to take tension off.

The operation of the door should need about the same pressure to open and close the door.

This will be up to the installer to decide on the tension. Doors should just hold at the top.

Check bottom rail to ensure the outer lip catches on the bulkhead.

Stops should also be fitted to the inside of the guide to prevent door from going back over the top.

Pull down door, mark locking holes in guides. Drill guides and check door locks operate with ease.

Check all U-bolts, nuts and screws have been adequately tightened.

Clean door - if Polycarbonate door, **DO NOT** use petroleum based products, just a soft cloth and soapy water.

3.0 after installation care

general care of your Roll-A-Shutter® & Roll-A-Grille®

cleaning

Your B&D Roll-A-Shutter® and Roll-A-Grille® has been manufactured from galvanised steel, anodized or powder coated aluminium, 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 is recommended – particular care should be taken to clean areas of the door not normally washed by rain.

DO NOT use petroleum based products to clean Poly carbonate or any plastic components.

lock

Your lock does not require special maintenance, however, if the mechanism 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 Roll-A-Shutter® and Roll-A-Grille® 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: 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.

If 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.

WARNING: The springs on the door are under extreme tension. On NO account should they be adjusted by an inexperienced person. B&D recommends regular servicing and safety checks be carried out at least annually, more frequently in extreme conditions or in high use environments.

warranty

B&D Roll-A-Shutter® and Roll-A-Grille® 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

b&d doors office locations

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your representative is