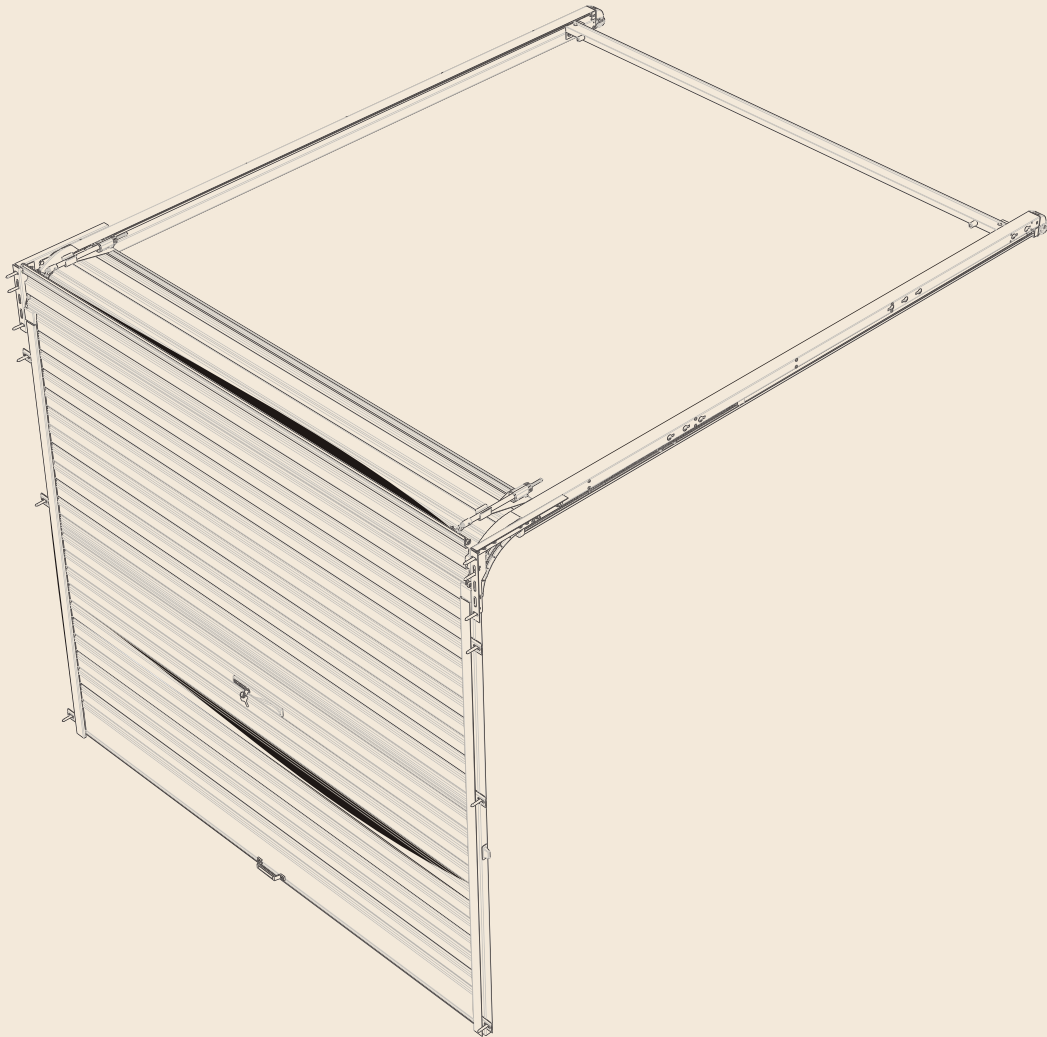




Flex-A-Door[®]

SLIDING OVERHEAD GARAGE DOOR INSTALLATION INSTRUCTIONS



DISCLAIMER

***THESE INSTRUCTIONS ARE INTENDED FOR
PROFESSIONAL GARAGE DOOR INSTALLERS***

Note: All references are taken from inside looking out



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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
- Housekeeping - risk of slip trip or fall - Housekeeping - risk of injury to other people or animals in the installers work area	- 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
- Manual handling when moving the door from the Trailer or Ute to the installation area - risk of musculoskeletal injury - Manual handling when installing Doors & Openers particularly above head height - risk of musculoskeletal injury or twisting - Manual handling when installing tracks and torsion bars - risk of musculoskeletal injury - Manual Handling when installing the door opener - risk of musculoskeletal injury or twisting	- Correct lifting technique for Roller Door - Use of 2 person lifts - Use of mechanical aids such as lifting stands - Avoid twisting (Practice correct lifting techniques) - Correct use of ladders while installing tracks - Use of correct technique of knotted rope installation aids
Working at heights and working with ladders - risk of fall from height	- Ladder check - Ladder placement - Do not work off the top rung
Sharp edges on Door, tracks or related jewellery - risk of laceration	- 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
Pinch points - risk of cut, puncture or crush injury	- Wear appropriate PPE and keep hands well clear of pinch points - Ensure hands well clear of the panels
- 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	- 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
Tension spring - risk of release of stored energy (various door parts, tools, jewellery striking installer on the head or body)	- 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 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

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:

- For installation to materials not covered in the above chart, the installer should seek expert advice from a qualified builder.
- Minimum length of fastener does not exclude use of longer lengths. Decision must be made by fitter to ensure adequate strength.
- 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.
- Fasteners for sectional door spring brackets and top track brackets in masonry should be at least 5/16" x 2.5" long or metric equivalent.
- HEBEL Fischer type fastener should be installed 150mm from edge of blocks. Minimum overlap of door should be approximately 115mm (S1), 110mm (S3) and 90mm (Panelift). Add 50mm more if mounted on panels instead 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.

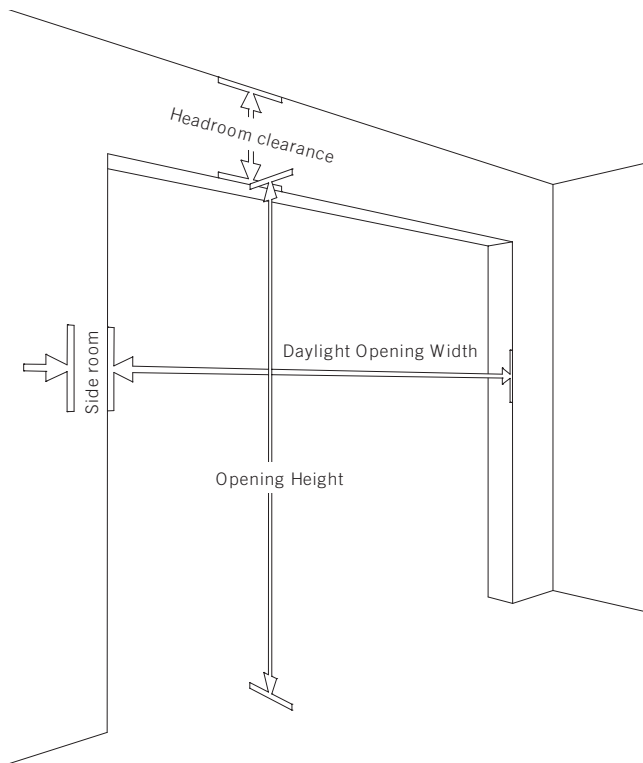
1.3 FLEX-A-DOOR®

Your new B&D Flex-A-Door® has been designed to provide security, attractive appearance and smooth, low effort operation. Your door will not provide optimum performance unless it is installed correctly.

NOTE: Warranties are void if the door is not installed as instructed. For satisfactory door operation please follow the instructions carefully.

WARNING: Incorrect installation may cause serious injury.

1.4 OPENING REQUIREMENTS



LEVEL AND PLUMB

The door must be installed in an absolutely level condition. If opening is not level and square, appearance and/or sideroom requirements will be affected. Where jambs are out of plumb, extra sideroom or opening modifications may be required to allow the door guides to stand back from the opening edge. The floor should be level or recessed across the opening to avoid gaps.

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 builder or professional door installer.

HEADROOM

Headroom is the amount of height, measured from the ceiling or lowest ceiling obstruction, that the door requires for operation. If headroom clearance is 160mm or more, can use standard door with no impact on opening height. If headroom clearance is 210mm or more, can use standard door with an opener with no impact on opening height. If aesthetics are not important (you don't mind the top 200mm of curtain curving inwards), Flex-A-Door® requires 40mm headroom or 130mm headroom if an opener is to be installed.

SIDEROOM

100mm standard using guide clips

DEPTH

Installations can protrude up to 4 metres into the garage from the door jamb, if there are structural members such as beams across then all headroom related measurements proceed from this point.

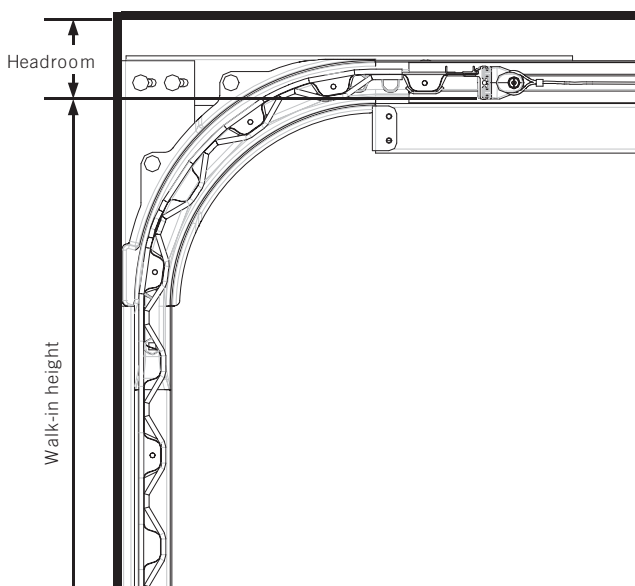
RETRACTABLE HEAD INFILL PANEL

This option allows maximisation of walk-in height in situations with no lintel or a very small one.

A manual door requires 80mm headroom

A door with operator requires 130mm headroom

NOTE: Walk-in height is determined by measuring from the floor to the lowest obstruction from the ceiling, such as beams and so forth.



FIXINGS

Coach screws are supplied with the door for fitting to timber.

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.

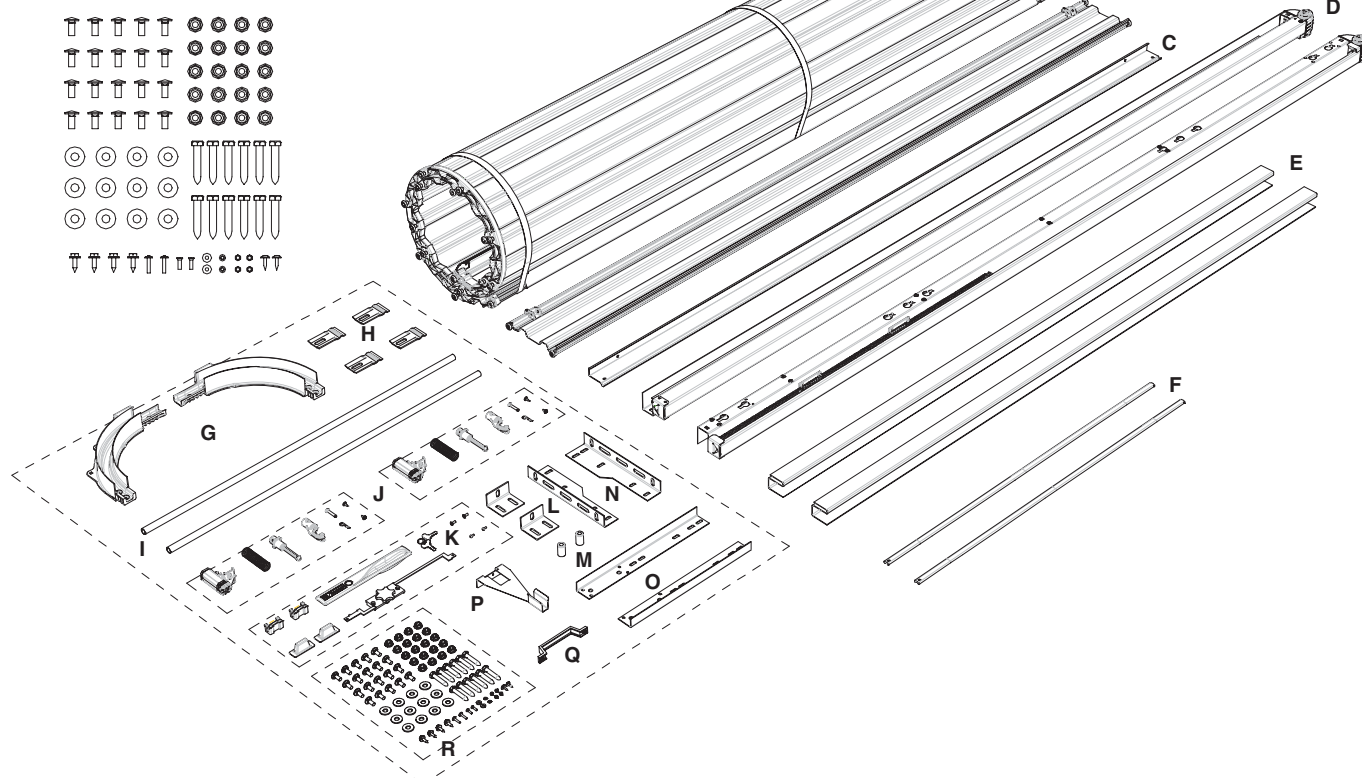
NOTE: It is the installer's responsibility to ensure that the fixing methods are sound.

TOOLS REQUIRED

Tools required to install the door. You will also need assistance to help you lift the door up safely and carry out some other steps.

- a power drill & bits
- a file
- a hacksaw
- 2 stepladders
- adhesive tape
- marking pen
- phillips head screwdriver
- a socket set
- spirit level
- stanley knife
- water level
- (10mm diameter clear tube by 6m long)
- 2 lengths of rope
- 2 curtain guides shown right (available for order from B&D)

THE DOOR

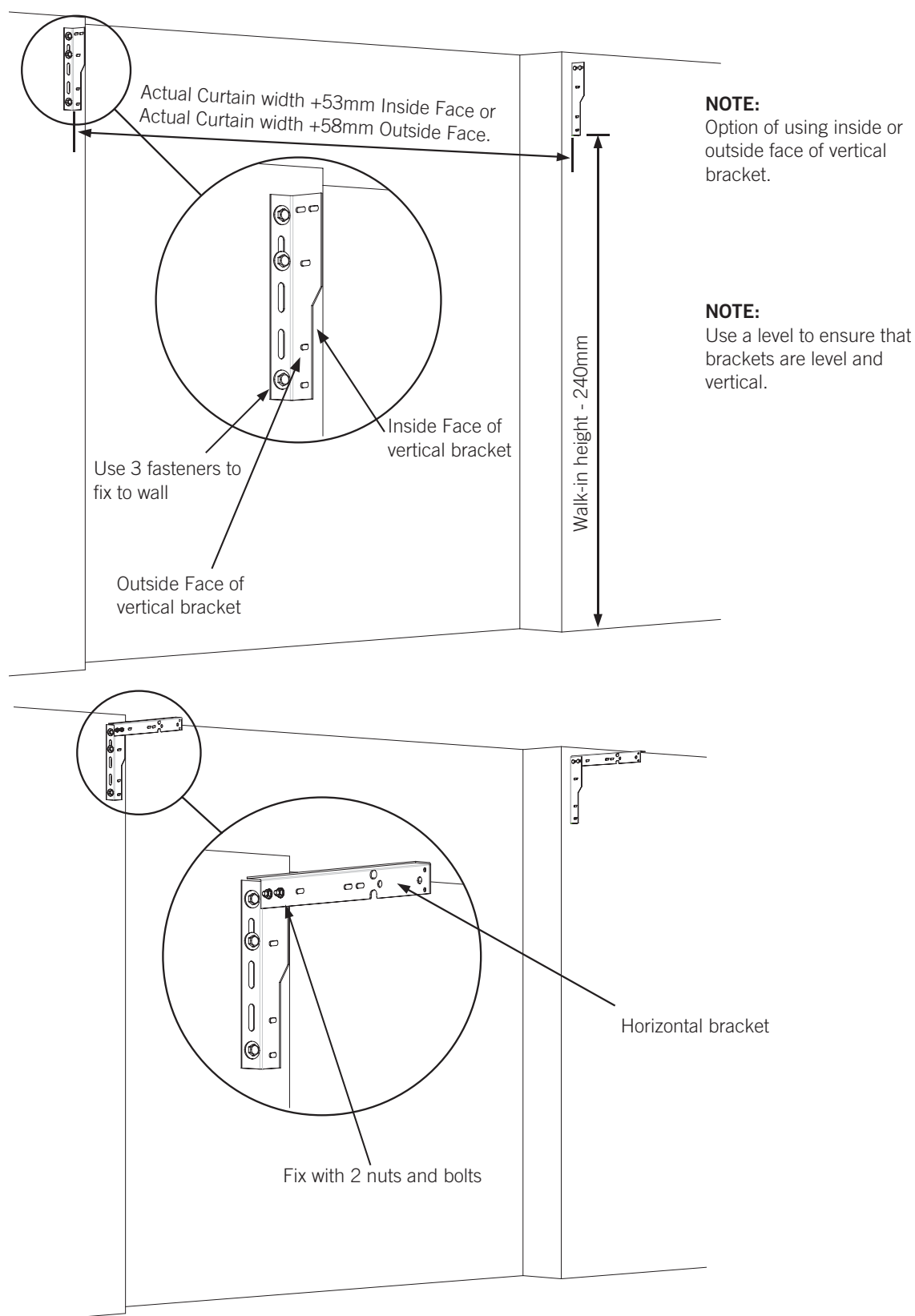


The door will come in two boxes, please unpack and check that all parts have been included before proceeding.

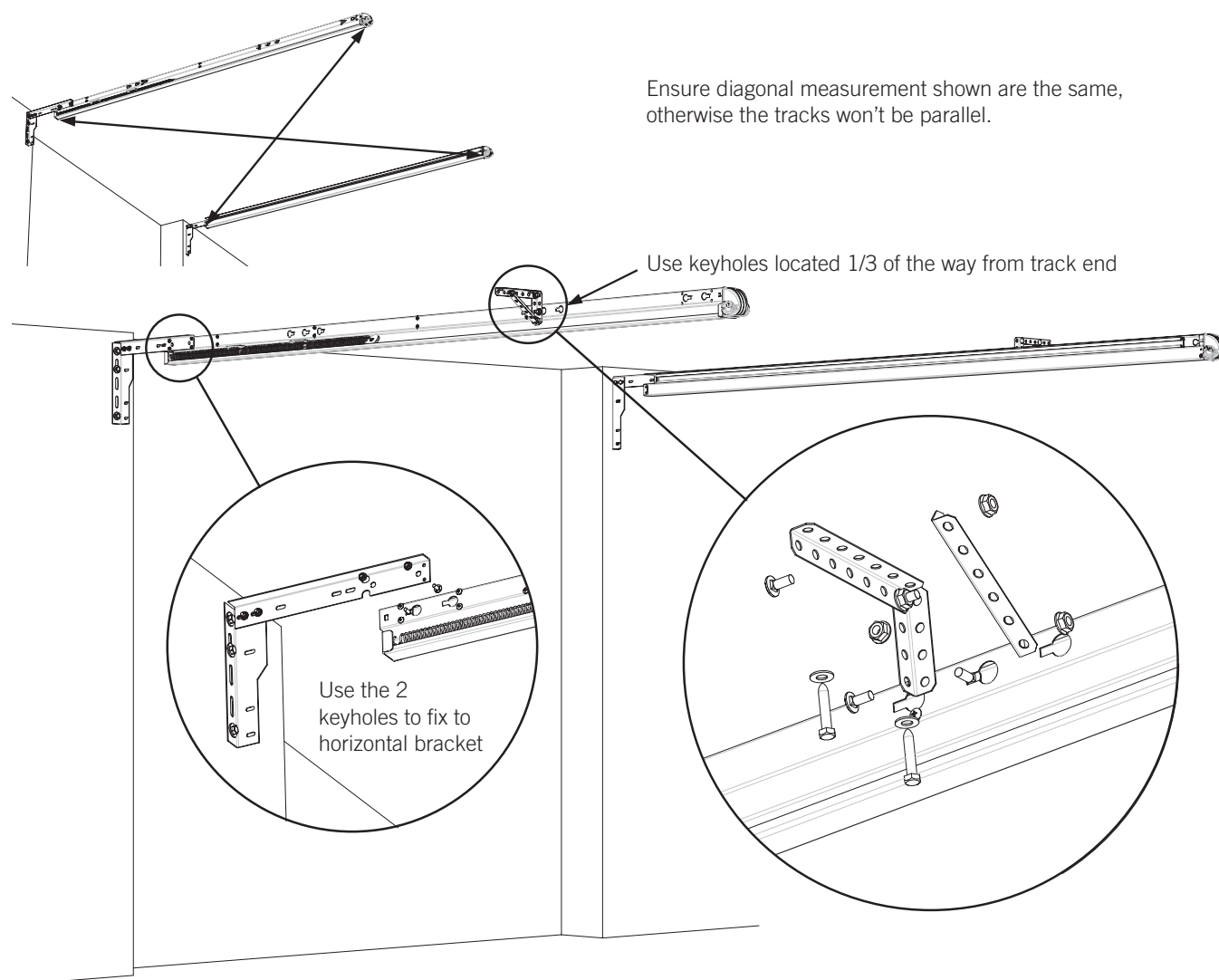
- | | |
|--|--|
| A. Rolled up curtain | J. Kit arm assembly retractable head infill panel |
| B. Retractable head infill panel (optional) | K. Lock bag |
| C. Rear Brace | L. Track Bracket No1, pair |
| D. Horizontal track left and right | M. Rubber stops, pair |
| E. Vertical Tracks, pair | N. Vertical bracket, left and right |
| F. Locking bars, pair | O. Horizontal bracket, left and right |
| G. Plastic curves left and right | P. Guide retractable head infill panel |
| H. Guide clips, 4-6 | Q. Handle |
| I. 16mm Tube 1m long, pair (optional) | R. Fasteners |

2.0 DOOR INSTALLATION

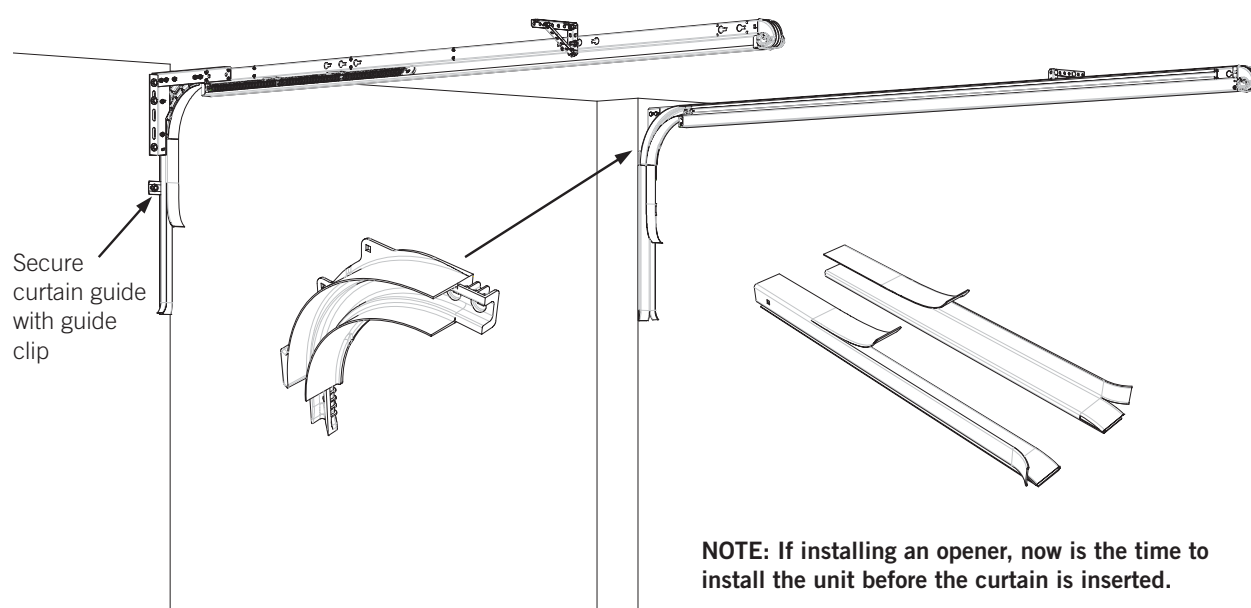
2.1 VERTICAL & HORIZONTAL BRACKETS



2.2 HORIZONTAL TRACK ASSEMBLY

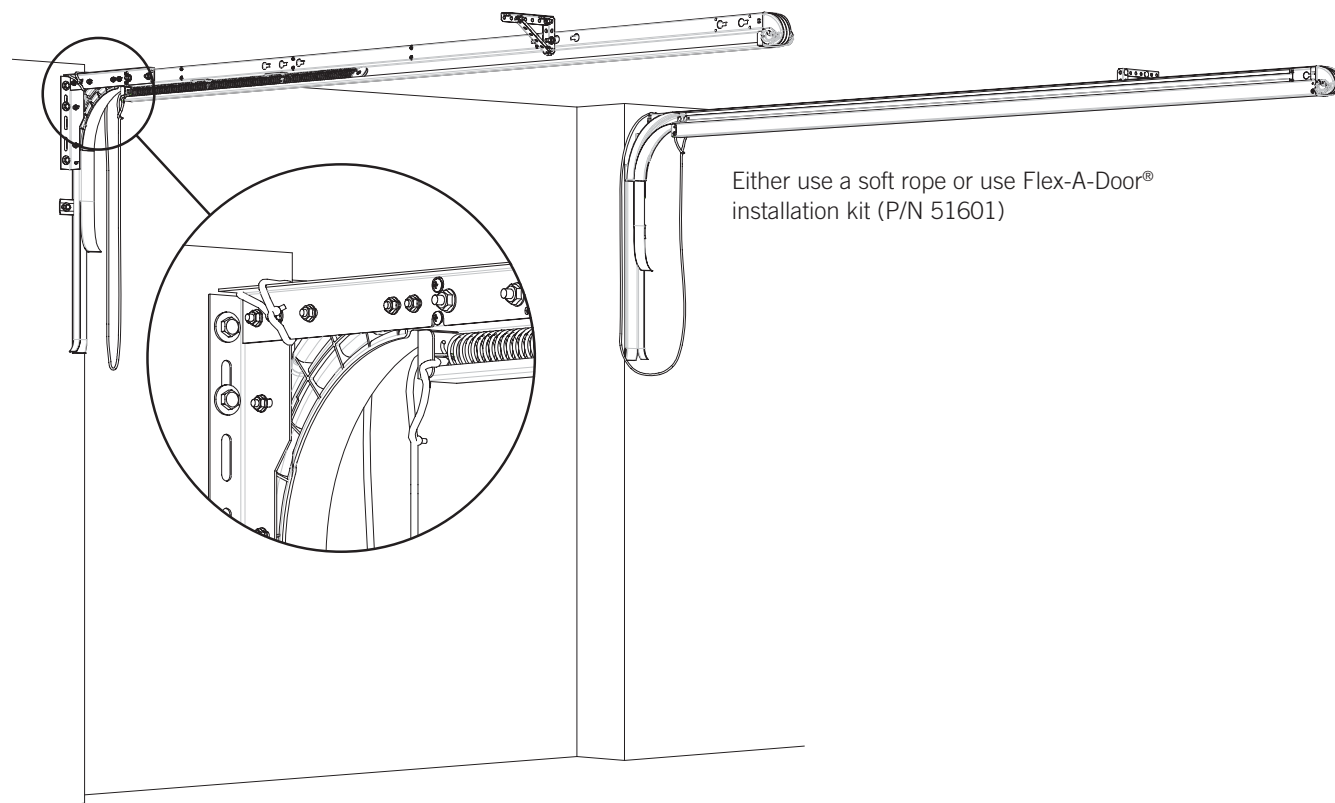


2.3 INSERT PLASTIC CURVE & CURTAIN GUIDE TOOL

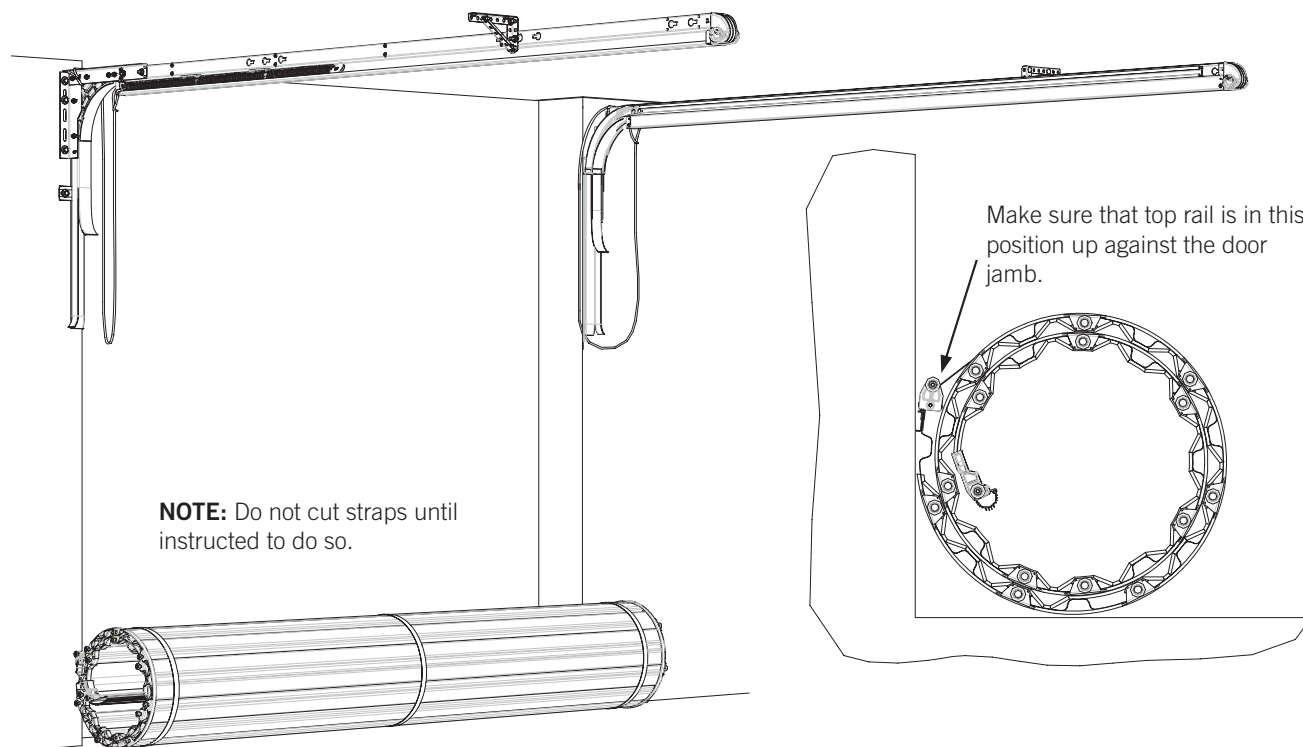


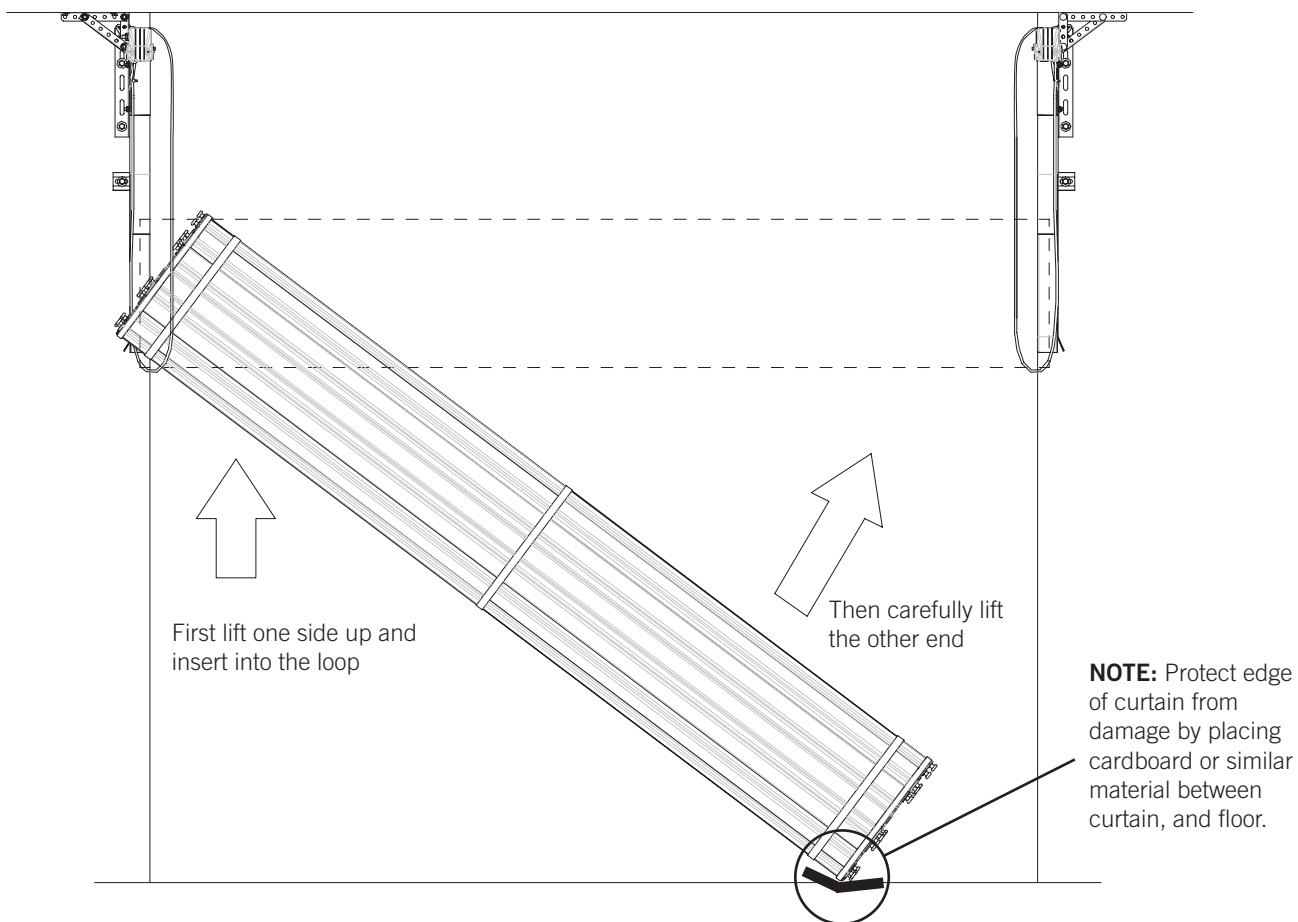
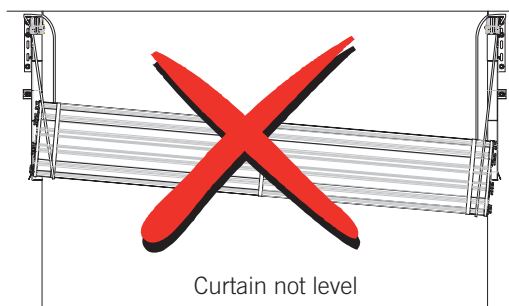
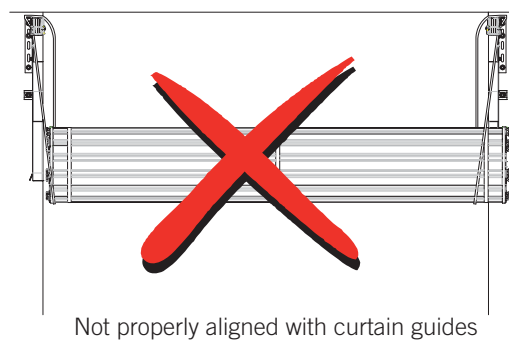
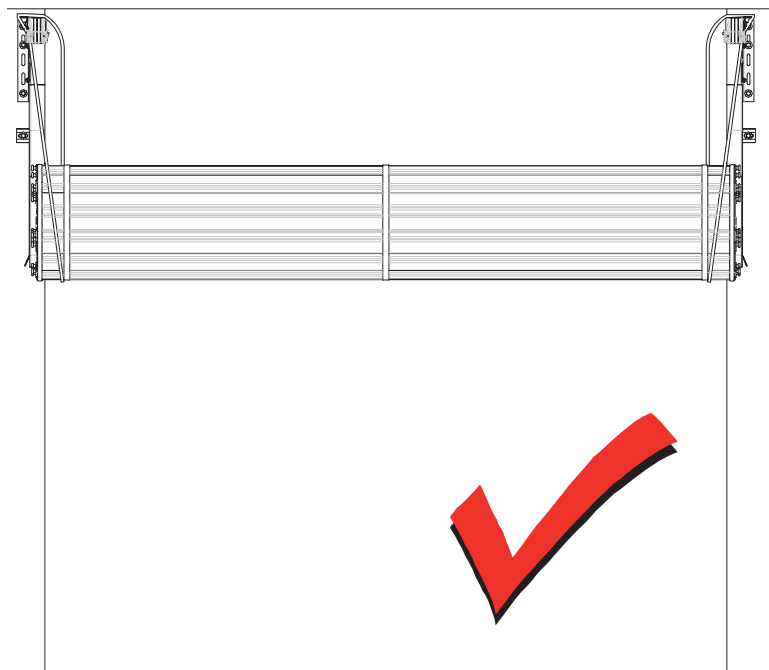
2.4 INSERTING THE CURTAIN

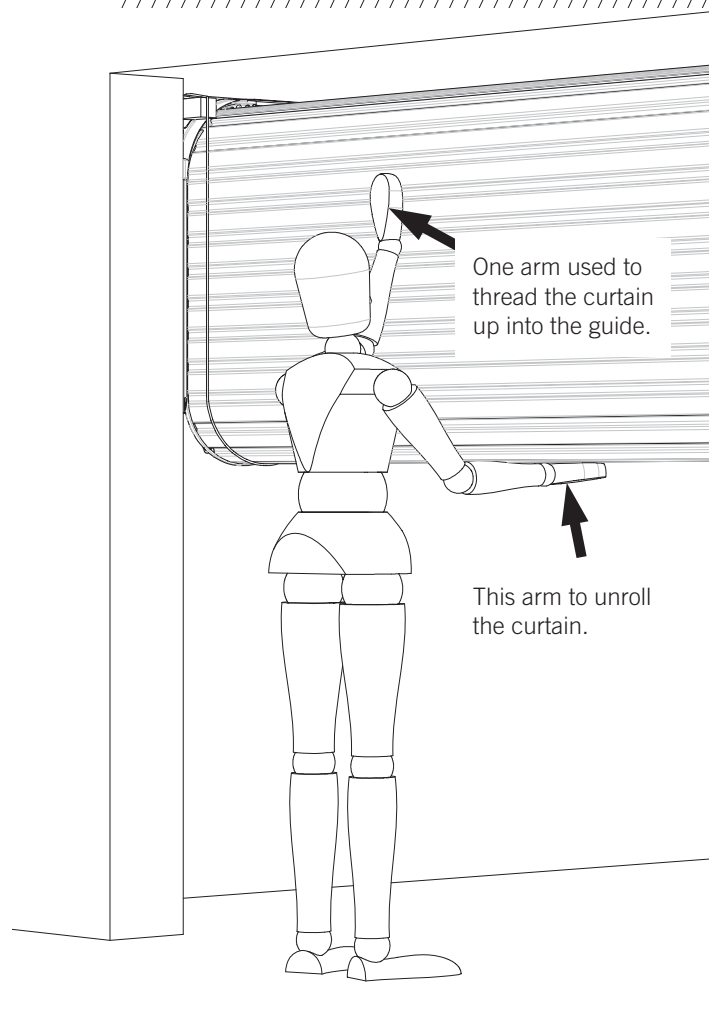
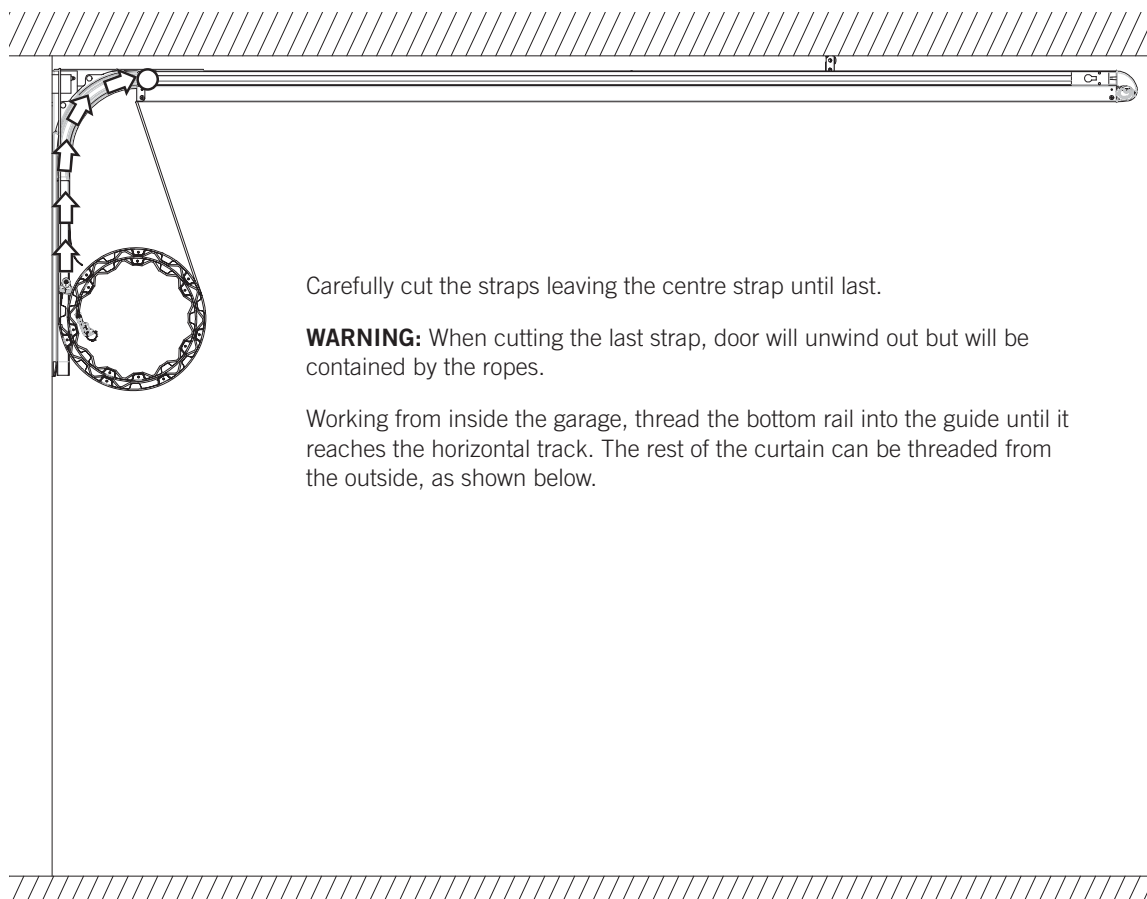
SETTING UP THE ROPES/HOOKED ADJUSTABLE STRAPS



PREPARING TO LIFT CURTAIN



LIFTING CURTAIN**CENTERING CURTAIN**

THREADING CURTAIN INTO THE GUIDE

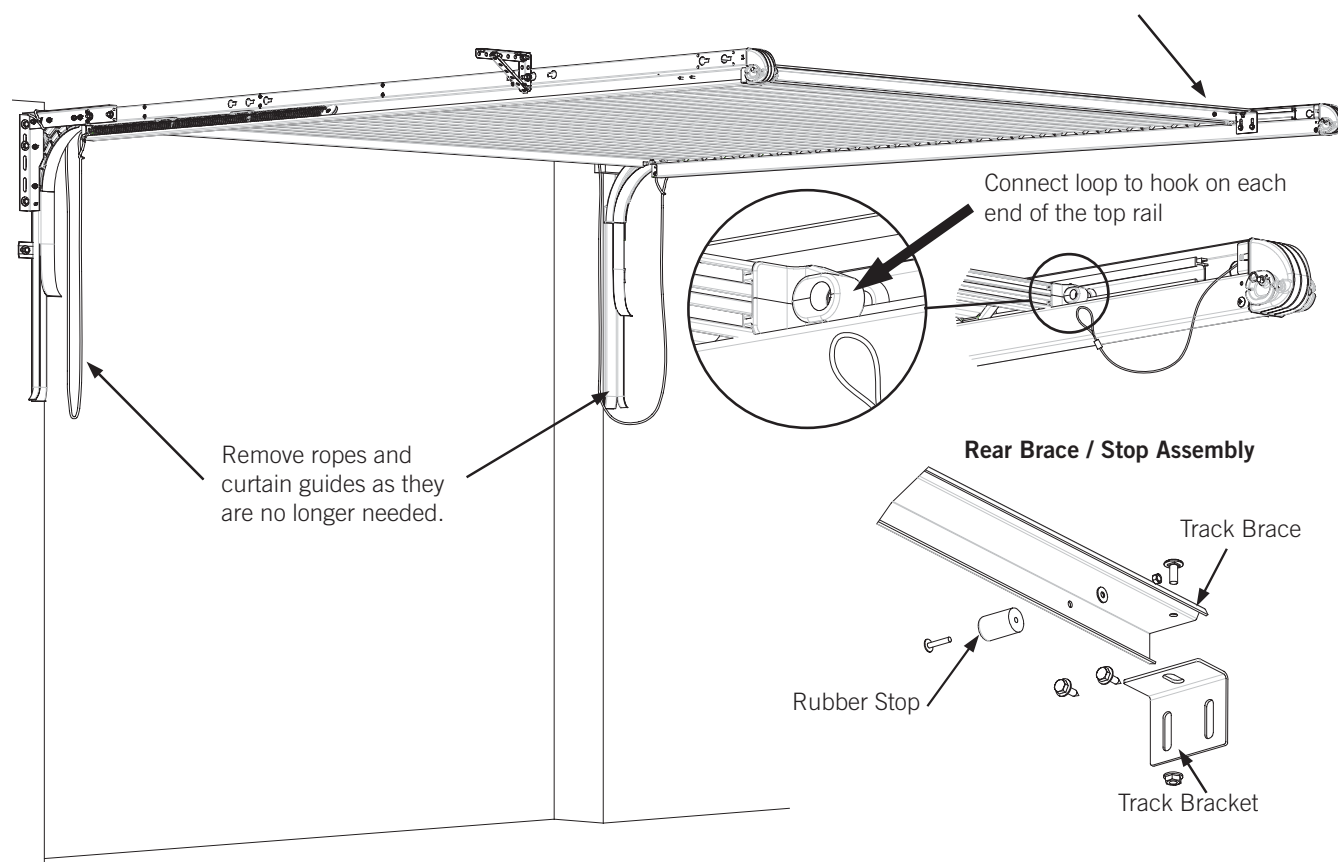
The remainder of the curtain can be easily threaded from the outside, as shown in the diagram. One arm is used to unroll the curtain and the other used to push the curtain up. In this way one hand is always on the curtain at all times.

Fully insert the curtain into the horizontal track.

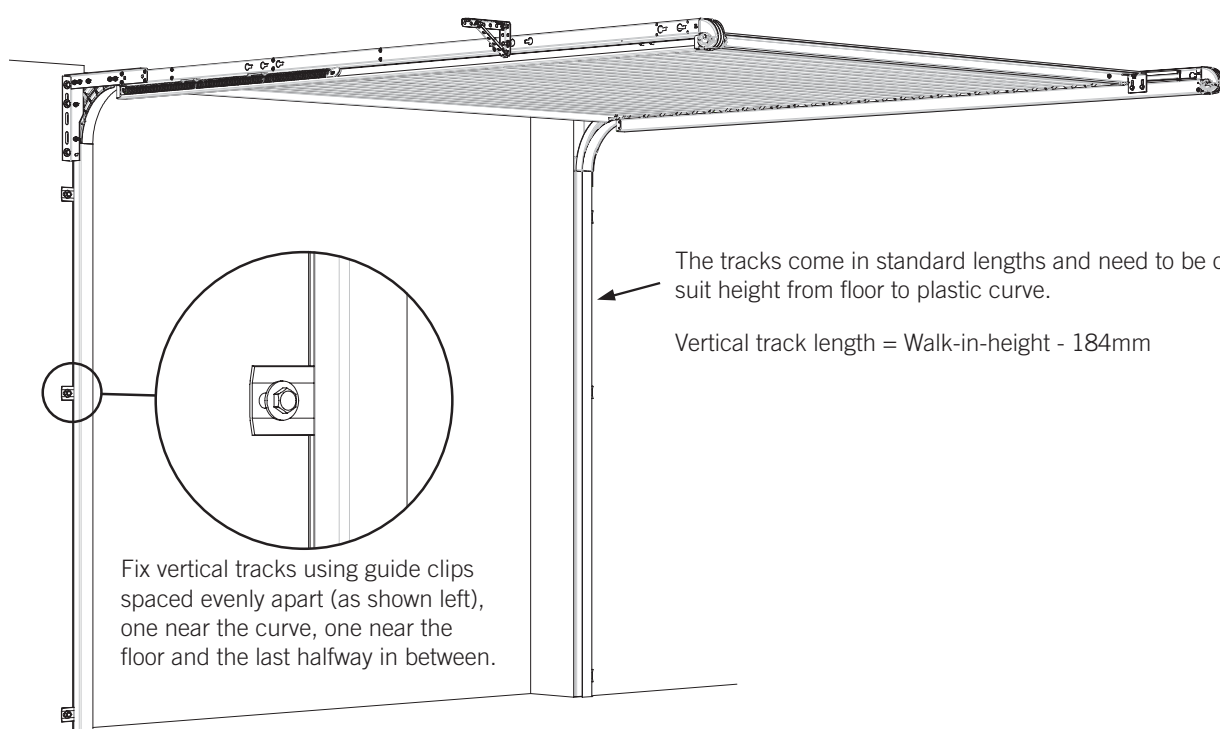
2.5 CONNECTING THE CABLE, ADDING THE REAR BRACE

WARNING: Fit Clamps to guides to prevent curtain accidentally slipping out of horizontal tracks.

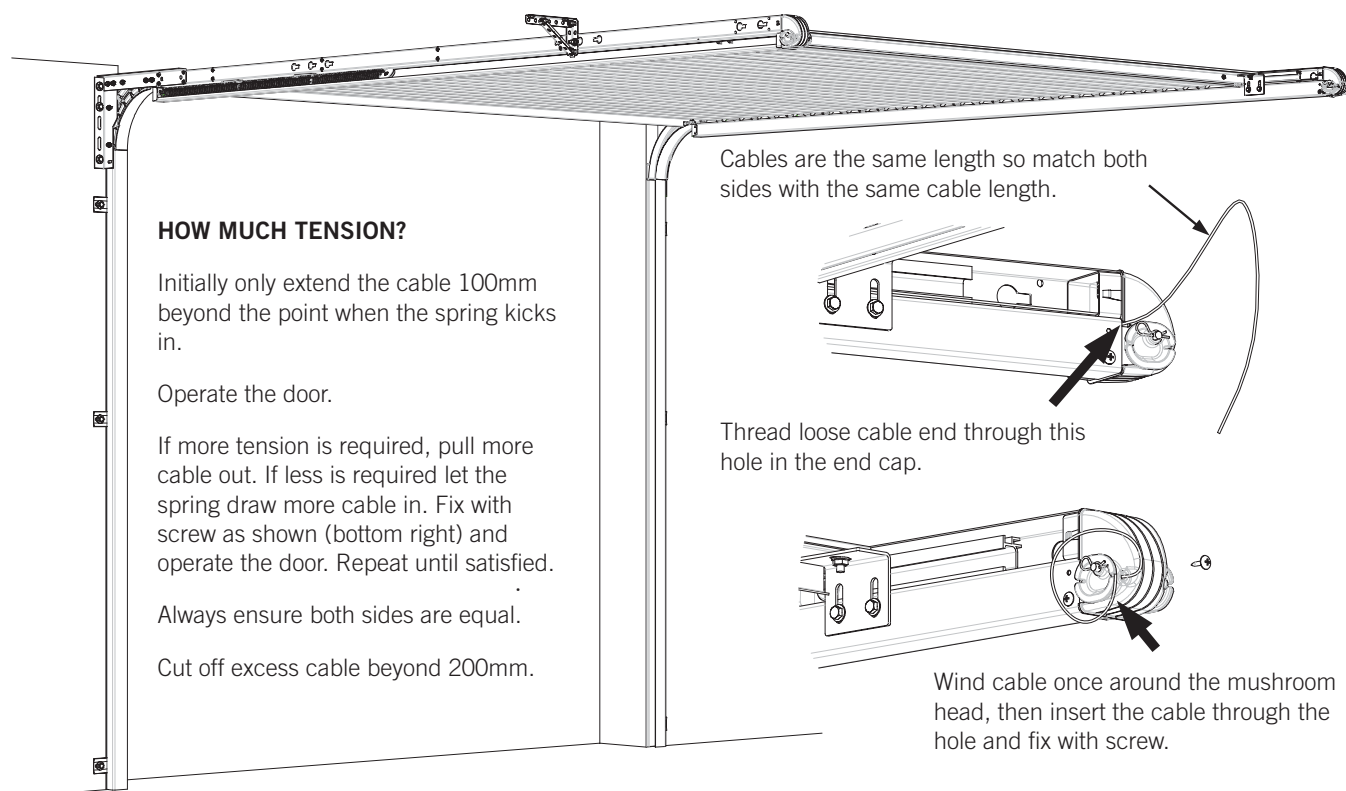
When installing the rear brace, ensure the curtain is in the desired open position (generally aligning the bottom rail with the desired opening height), then fit the brace so that the rubber stops engage the curtain's top rail.



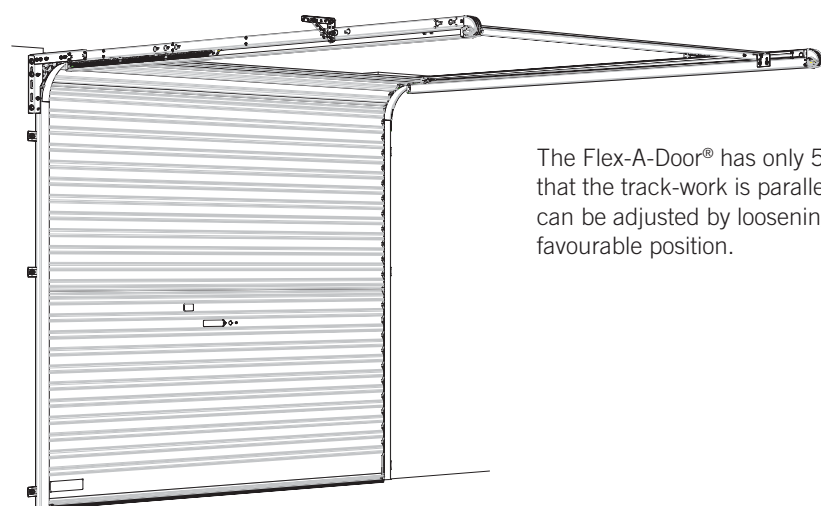
2.6 INSTALLING VERTICAL TRACKS



2.7 CONNECTING THE SPRING COUNTERBALANCE



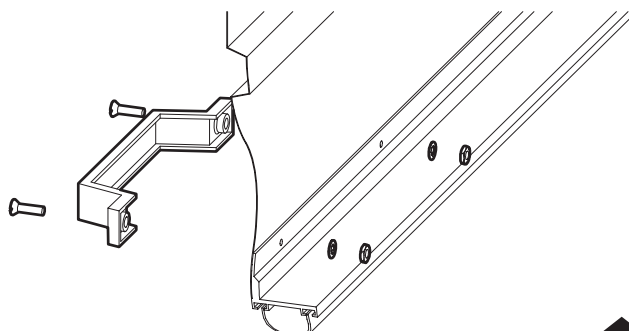
2.8 ADJUSTING DOOR



The Flex-A-Door® has only 5-6mm of sideways movement so it is critical that the track-work is parallel and square. The brackets and guide clips can be adjusted by loosening the fasteners and tapping them into a more favourable position.

2.9 HANDLE

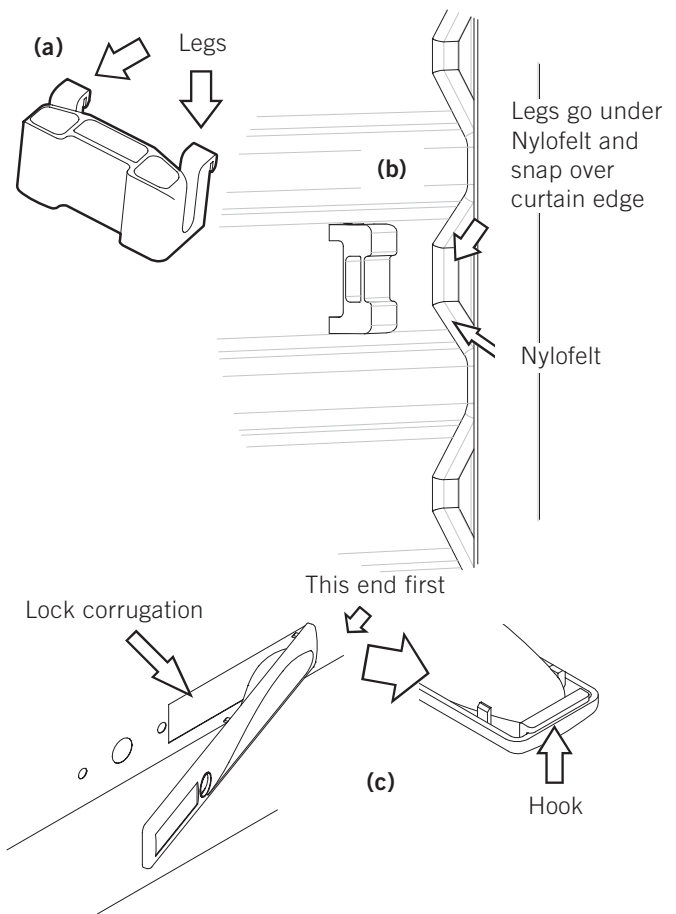
Fit the handle to the outside of the door using the screws, nuts and washers provided.



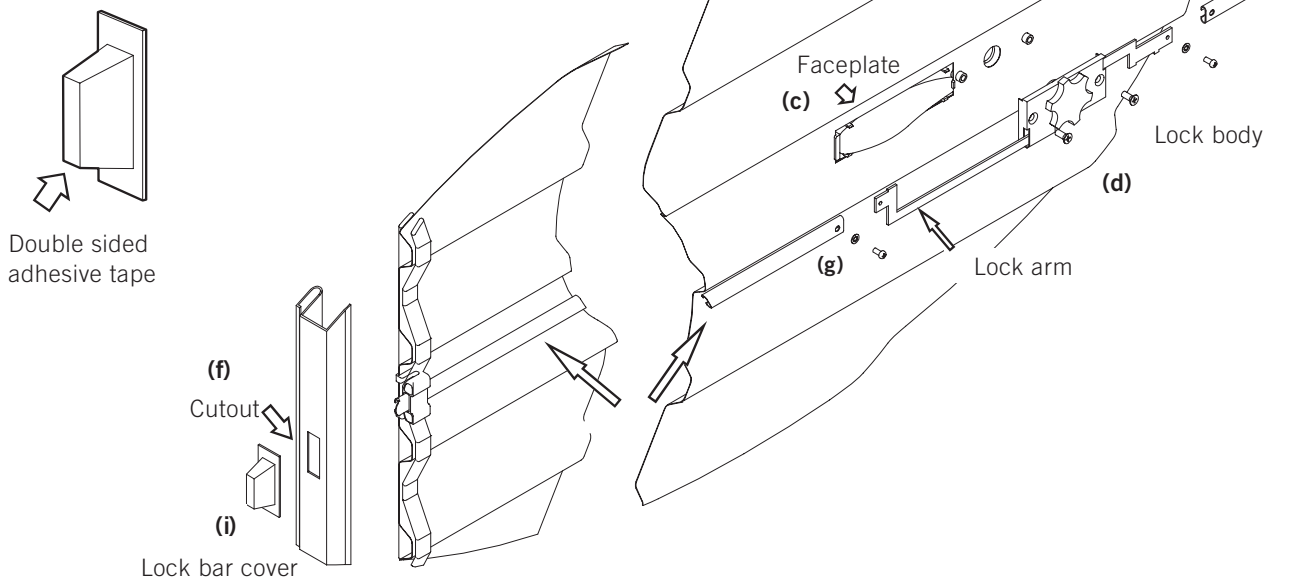
2.10 CENTRE LIFT LOCK

1. Ensure curtain is in the closed position.
2. Install locking bar retainer, figure (a), in line with lock corrugation by pushing retainer towards door edge, sliding the legs under the Nylofelt® and hooking them over the curtain edge (it is easier to hook legs one at a time). Ensure lock bar retainers sit squarely on door curtain. See Fig (b).
3. Fit faceplate to outside of door where the hook will latch onto curtain edge, then slide faceplate as far to the right as possible, see figure (c). Use adhesive tape on outside to hold in position.
4. Attach the lock body to the faceplate from the inside, using the mounting screws. Do not over tighten the screws. See Fig (d).
5. With the door in the closed position slide the end of the locking bars through the locking bar retainers. While holding the bars level mark the side of the guides.
6. Drill and file out a rectangular slot no longer than 25mm and no wider than 10mm. Ensure top of slot remains in line with top of locking bar.
7. Slide bars through the guide slot, then back onto lock arms. Screw on securely using the 4mm x 6mm screws supplied. Ensure that locking bars do not protrude more than 20mm beyond guide when engaged in locked position, if so, trim to suit.
8. Ensure a clean and dry guide surface. Wipe guide with clean rag.
9. Peel off lining from lock bar cover and position over hole. Check that the movement of the locking bar is free.

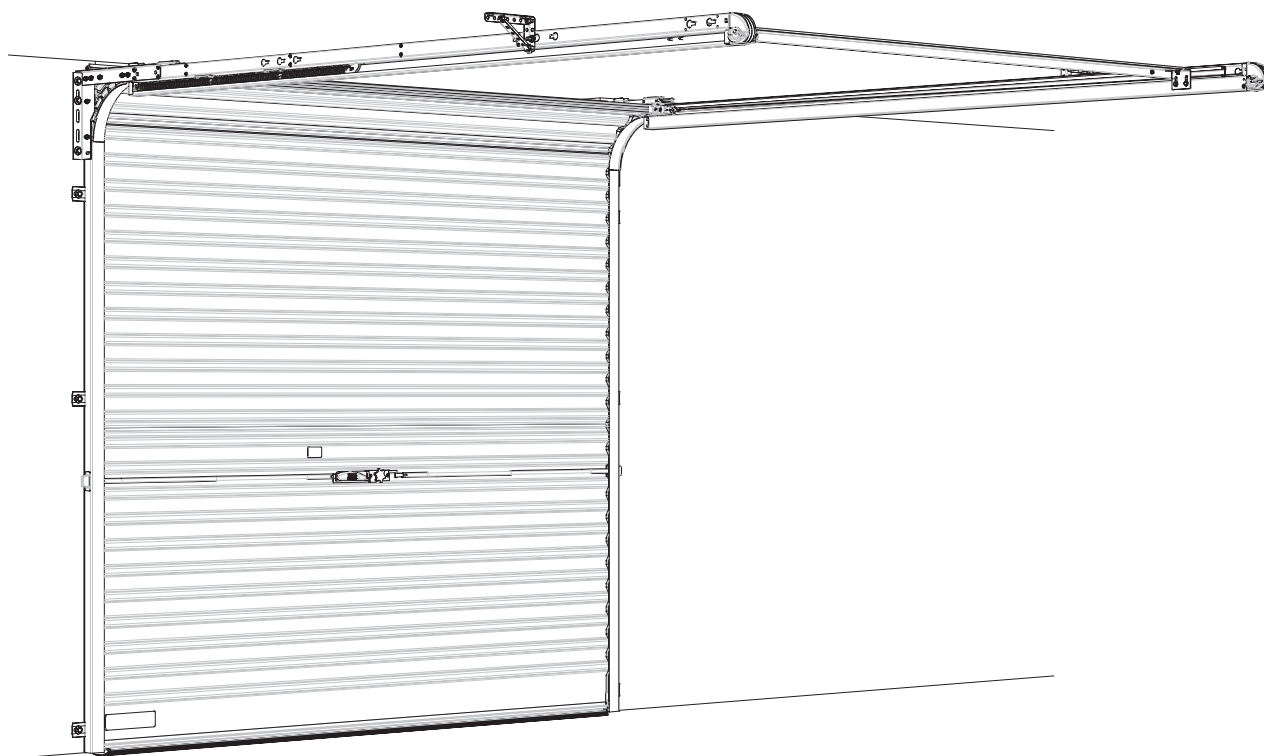
NOTE: The fitting of the lock bar covers is important to prevent possible finger entrapment - especially when the door is fitted with an automatic garage door opener.



Lock bar cover



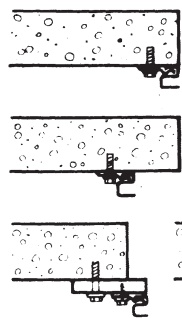
3.0 FINISHED INSTALLATION



FIXING ALTERNATIVES

1. ALTERNATIVE GUIDE FITTING

BRICK WALL CONSTRUCTION

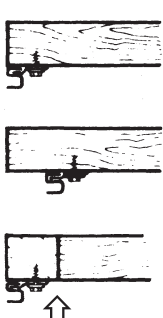


(a)

(b)

(c)

TIMBER FRAME CONSTRUCTION



(a) Exact opening size: Door overlaps 50mm each side.

(b) Door is too wide: The guides can be set back inside from the opening edge.

(c) Door is too narrow: Reduce opening with quad or suitable timber ensuring that back of opening surface remains flush.

Reduce width with suitable timber

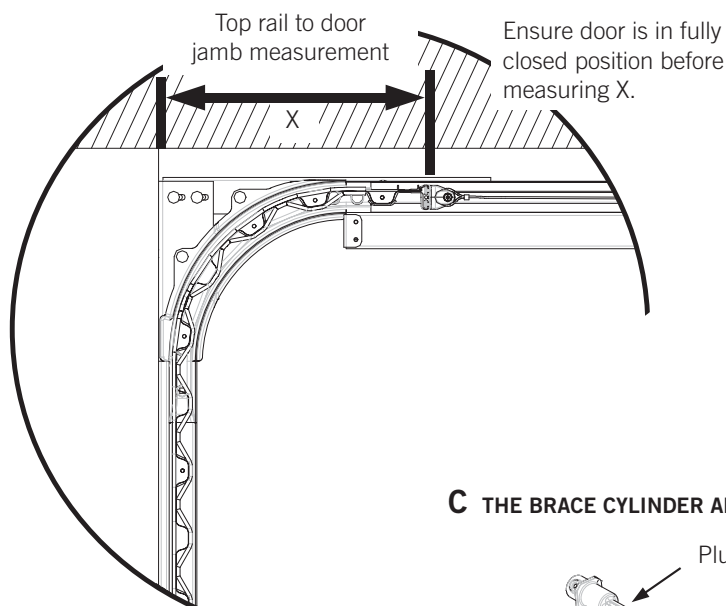
2. FIXED HEAD INFILL PANELS

If walk-in height is not critical a fixed head infill panel can be used instead of the retractable head infill panel. A false head can also be fitted to improve the external appearance of garage opening. Note that the false head should be installed with ample clearance so the door curtain does not contact the head during door operation.

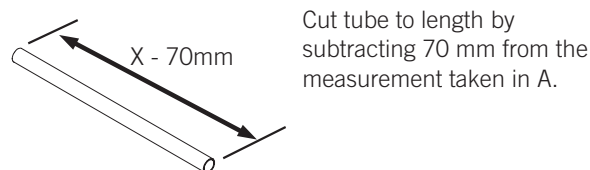
B&D Head Infill Panels are available to match or contrast with your Flex-A-Door®.

3.1 OPTIONS: ASSEMBLING THE RETRACTABLE HEAD INFILL PANEL

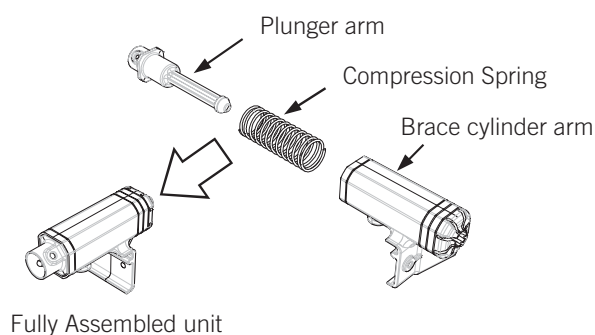
A TOP RAIL TO DOOR JAMB MEASUREMENT



B CUTTING THE TUBE



C THE BRACE CYLINDER ARM ASSEMBLY



CONNECTING AN OVERHEAD OPENER

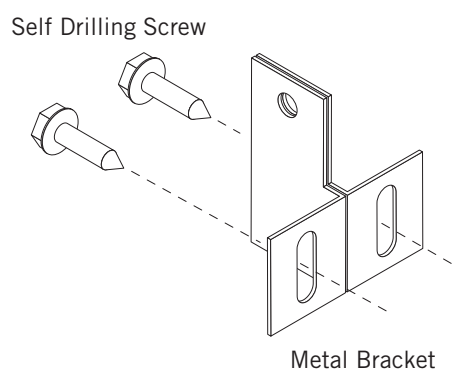
When fitting an overhead opener discard the straight and hockey stick shaped arms included with the opener, connecting the opener with them will be detrimental to the door.

Approximately 50mm clearance is required above the door and retractable infill panel for the opener 'C' rail.

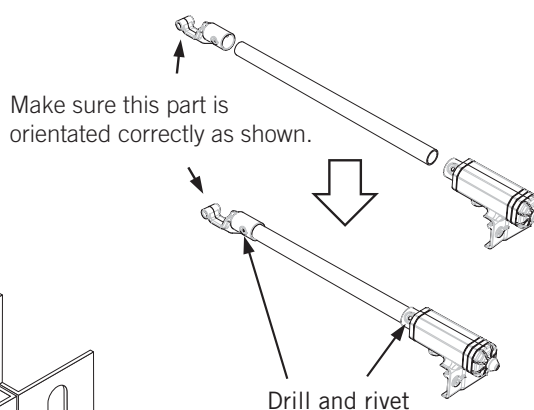
Connect the pressed metal bracket part no. 51748 to the centre of the top aluminium rail of the curtain using two self drilling screws, do not offset to one side.

The 'C' rail should be fitted parallel to the door curtain so that the bracket can be attached directly to the 'C' rail shuttle.

All other instructions are as per the opener instructions manual.

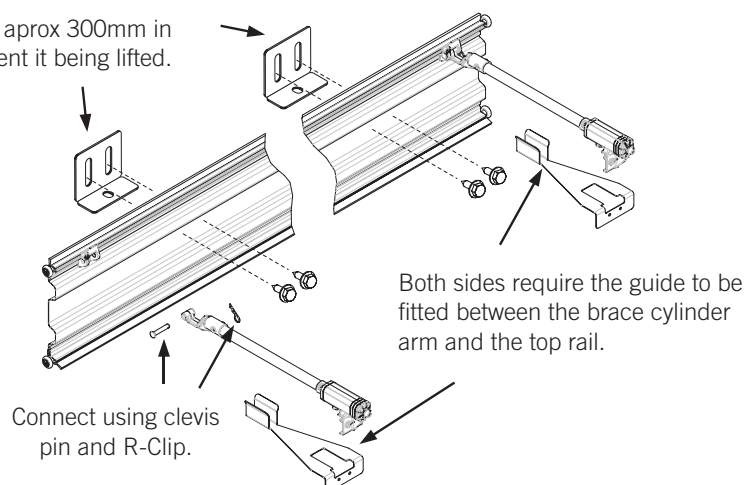
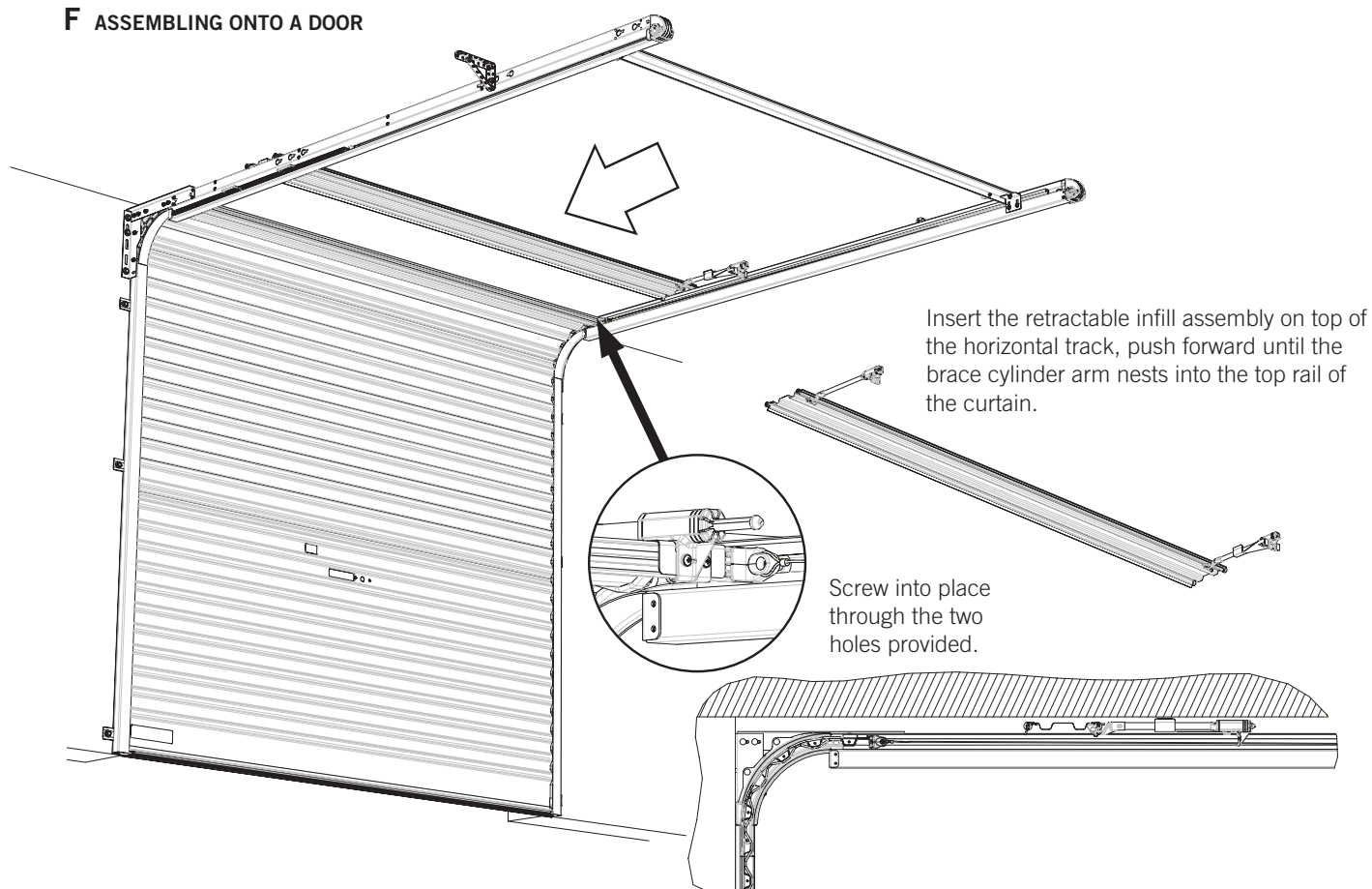


D THE RETRACTABLE HEAD INFILL PANEL MECHANISM



E THE RETRACTABLE HEAD INFILL PANEL ASSEMBLY

Attach two angle brackets to the lintel approx 300mm in from each end above the panel to prevent it being lifted.

**F ASSEMBLING ONTO A DOOR**

4.0 AFTER INSTALLATION CARE

GENERAL CARE OF YOUR FLEX-A-DOOR®

BLUESCOPE COLORBOND® FINISH Your B&D Flex-A-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, 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 may be required.

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

ZINC COATED STEEL FINISH

Painting of Bluescope zinc coated steel requires special attention. If you wish to paint this surface we recommend you seek advice from your nearest paint specialist or hardware store or by contacting Bluescope Steel for expert advice.

IMPORTANT: DO NOT paint inside the guide tracks or on the Nylofelt® running strips – remove paint immediately if it gets on these areas.

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 plastic section of 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 and do not allow paint to enter the lock keyway.

When opening the door, always make sure the key is withdrawn 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 turpentine or mentholated 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.

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 Flex-A-Door® at least every six months (more regularly in extreme environments or frequent use). The effort required to manually open and 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; 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. If the door requires adjustment please contact a qualified B&D installer.

WARRANTY

The B&D Flex-A-Door® in normal residential use is covered by a one year warranty for complete door and parts, conditional on proper care, as recommended above. Full details of the warranty are available, on request, from your nearest B&D office.

B&D Doors Office Locations:

New South Wales:	34 Marigold St, Revesby 2212.	Phone: (02) 9722 5555
Queensland:	17 Oasis Court, Clontarf 4019.	Phone: (07) 3883 0200
Newcastle:	Unit 1/108 Mitchell Rd, Cardiff NSW 2285.	Phone: (02) 4956 8533
Victoria:	147-153 Canterbury Rd, Kilsyth 3137.	Phone: (03) 9237 7766

South Australia:	23 Frederick Rd, Royal Park 5014.	Phone: (08) 8440 4747
Western Australia:	96 Mulgool Rd, Malaga 6090.	Phone: (08) 9247 8777
International/Export:	34 Marigold St, Revesby 2212.	Phone: +61 (0)2 9722 5555



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