

Installation Instructions For

CANOPY

Unframed Metal/Timber/GRP Garage Door

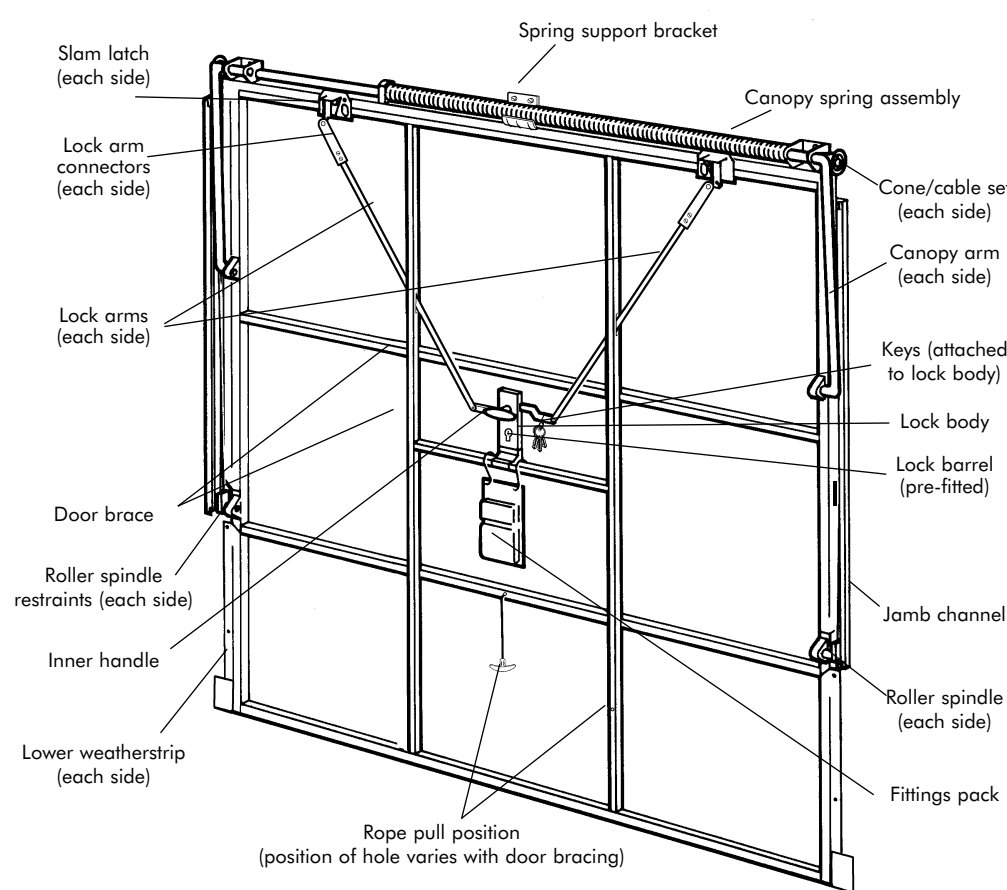
Always read the care and maintenance label thoroughly.
Part No. 002844
Issue No. 05 January 2004

PC Henderson Limited
Durham Road, Bowburn, County Durham DH6 5NG
Telephone: 0191 377 1441 Fax: 0191 377 2972

HENDERSON
A company in the Cardis Group

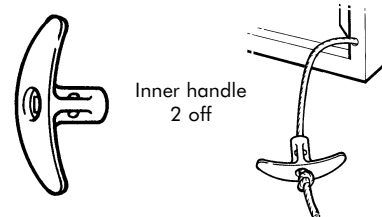
UNFRAMED CANOPY DOOR

Familiarize yourself with the terms for the door components before starting the installation. The door and components must be installed by suitably trained and qualified persons, in accordance with the instructions provided. If in doubt contact a professional installer. It is important that the installation does not deviate from the instructions provided such that all requirements of EN 12604 and EN 12453 are met and if necessary verified (from May 2004). Once installed the door should be labeled in accordance with EN 13241 (from May 2004).



Note: The door bracing differs with each door style
Illustration shows pattern for vertical and horizontal type panels.

NOTE: Two inner handles are provided to make the door easier to lift during transit. They are attached by ropes to the bottom sides of the door chassis and should be removed once the door is secured in position. They will be used in step 13.



IMPORTANT

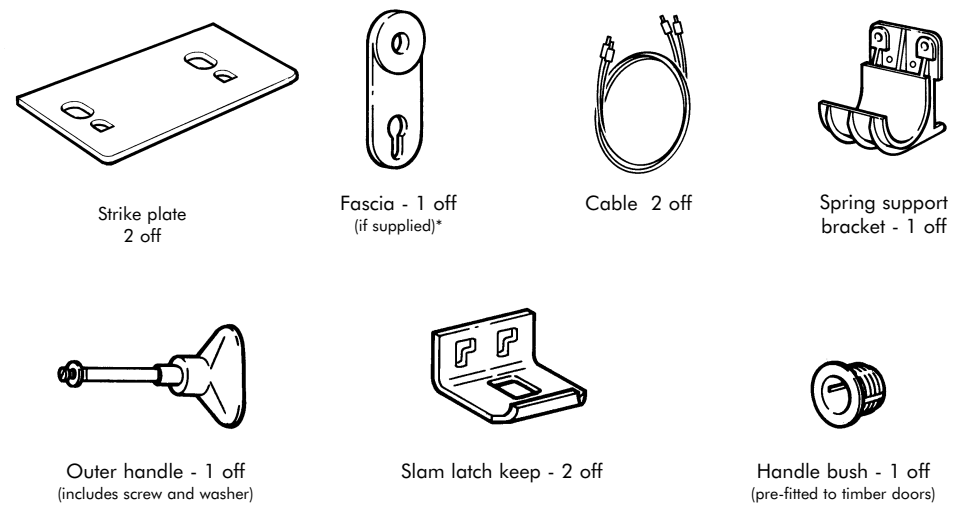
Check that all contents are included in the packs and that the door size is correct for the opening (see label on side of door - the label refers to the size of opening and not size of door). The following parts are supplied strapped to the door and must be detached and checked before starting installation: -
Weatherstrip pack 1 off - includes 2 plastic lower weatherstrips
Fittings pack 1 off - see contents list
Installation is carried out from inside the garage. Ensure that you have adequate lighting and that all tools and fittings are inside the garage BEFORE you start.

Ensure you have the outer handle with you before leaving the garage during installation. Whilst operating the door be aware of the area it moves through. Keep people and objects out of the way. When manually operating the door, control the leading edge of the door by hand throughout the opening and closing cycle. When the door is in the open position, always ensure it is fully open/as far back as possible - the roller should ride over the jamb channel formed retention lug.

Ensure that good safety practices are employed during installation. Use good quality tools and take appropriate care if using any electrical equipment. Always check for dangerous features in the workspace such as sharp edges, protrusions or concealed or damaged electrical wiring

Note: When considering automating a canopy door, a converter system must be used. Contact your installer/supplier for details.

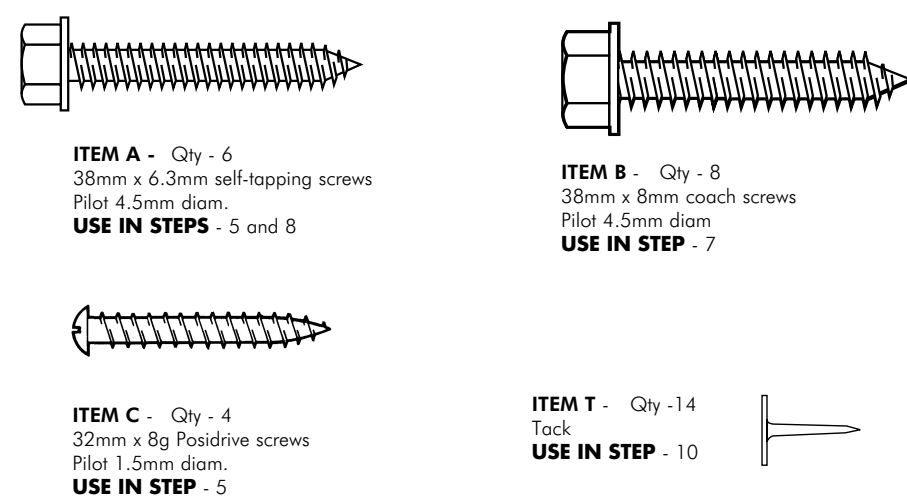
CONTENTS OF THE FITTING PACK



Note: The fascia is not used on Merlin, Durham, Doric and Victoria Steel Doors and is pre-fitted to timber doors. If you are short of any of the items mentioned, please contact your supplier.

LIST OF FIXINGS SUPPLIED IN FITTING PACK

SHOWN ACTUAL SIZE

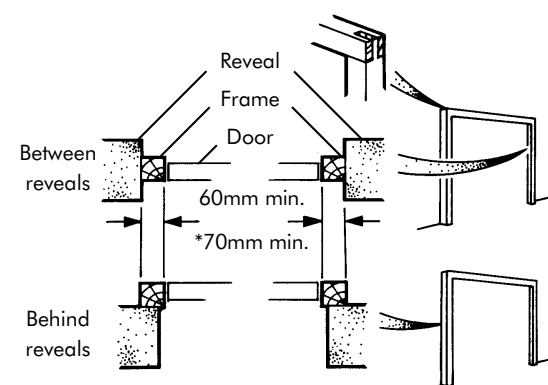


1 CHECK EXISTING FRAME DIMENSIONS

Before installation ensure a suitable good quality frame is fitted, ideally hardwood or softwood timber 76mm x 76mm.

Timber of different sizes may be used:-
Head 70mm minimum
Side 60mm minimum
(70mm if fitting an electric operator)

The frame may be between or behind the reveals, must be secure, square and upright. It is important that the back surfaces of the frame are flush.

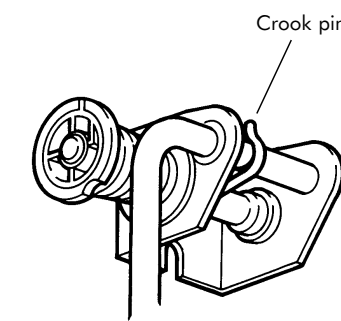


Note: All doors include the necessary clearances.

2 REMOVE LOOSE ITEMS FROM THE DOOR

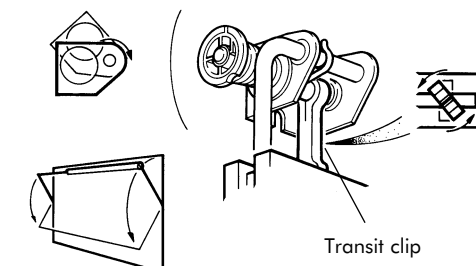
Note: Do not remove the crook pins until step 11.
Caution - The spring is pre-tensioned and the crook pins resist a high spring tension.

You should carefully remove the fittings pack and other loose items attached to the door.
Remove the protective wooden batten from the bottom of the door (where fitted). Handle the door carefully to avoid damage.



3 LOWER THE CANOPY SPRING

Support the canopy spring to prevent uncontrolled movement
Cut the ties attaching the spring assembly to the top of the door.
Some doors may be fitted with transit clips in place of the cable clip. Twist the cable clips firmly to remove them from the door and discard.
Rotate the canopy spring assembly as shown and carefully lower the spring down to rest against the back of the door.

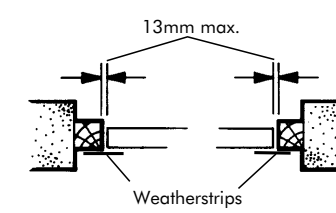


4 PLACE THE DOOR IN POSITION

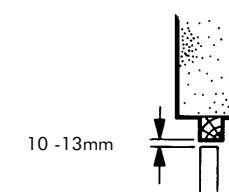
At this stage ensure that all equipment and fittings are inside the garage.

Position the door within the frame, ensuring that the top weatherstrips are flush against the frame legs.

Temporarily secure the door in position. Place 2 x 10mm packers in the top of the door, lift and wedge the door on both sides until it is in contact with the packers at the top. Ensure that the following clearances are established between the door and frame.

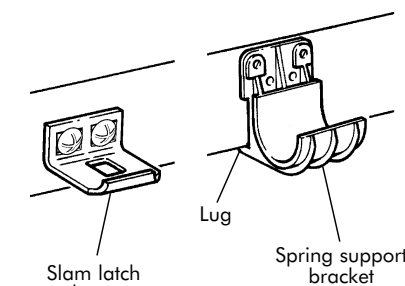


Top = 10-13mm
Each Side (Premier Door) = 8-11mm
Each Side (Castle Door) = 10-13mm
Bottom = 10-15mm



5 FIT THE SPRING SUPPORT BRACKET & LATCH KEEPS

Position the slam latch keep to correctly engage over the slam latch. A 2mm clearance should be provided between the adjacent faces of the slam latch keep and the slam latch bracket to allow free movement of the door leaf at opening. Pilot drill as recommended and secure the slam latch keep in position using two 32mm x 8 gauge posidrive screws C. Fit the second keep.



Position the spring support bracket in the centre of the frame head, with the lugs up against the underside of the frame as shown. Drill pilot holes through the two highest holes and secure in position using two 38mm x 6.3mm screws item A. Two lower holes are provided for applications using the narrow timber. In this instance, carefully trim the top of the spring support bracket to fit.

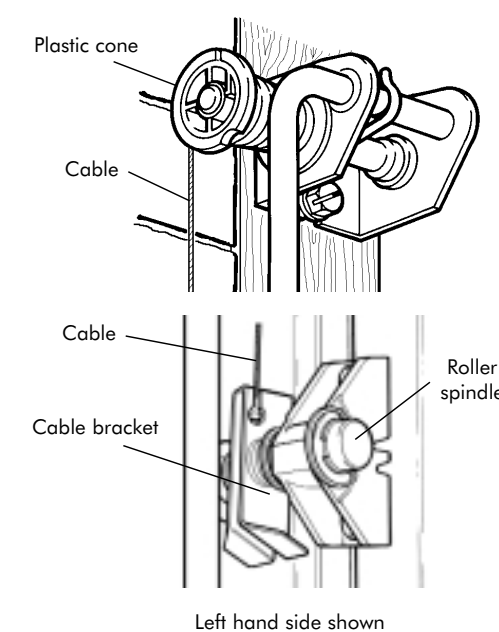
6 FIT THE CABLES

Remove any remaining packing and cable ties from the spring.

Attach one end of the cable to the cone ensuring that the cable is fully engaged in the slot along the end of the cone. The end of the cable must be correctly supported within the cone support. The cable must emerge from the rear of the cone and be positioned in the outer groove. Fit the other end of the cable into the bracket on the canopy spindle as shown. Repeat for the other side.

It is Essential That Both Sides Are The Same.

Raise the canopy spring assembly and hook it over the spring support bracket.

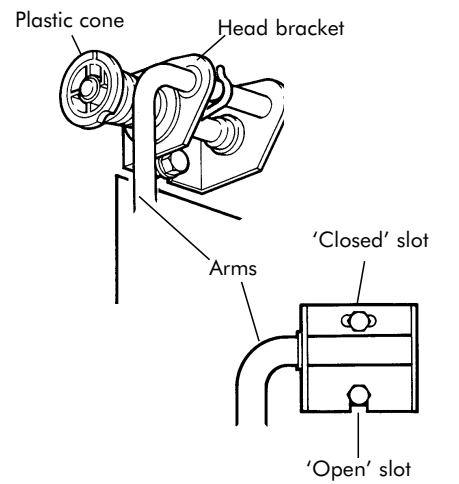


7 FIT THE HEAD BRACKETS

Position the head brackets flat against the frame head, (ensuring that the head brackets rest against the inside edges of the plastic cones).

Ensure that the arms hang parallel to the door edges.

Drill 4.5mm diameter pilot holes through the centre of the 'closed' slots and fit two 38mm x 8mm coach screws item B - one each side - Right Hand side first to hold the head brackets in position. Repeat for the open slots and fully tighten all screws to secure the brackets.

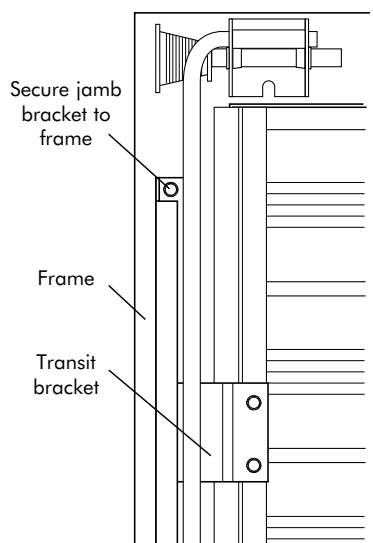


8 SECURE THE JAMB CHANNELS

It is important to ensure that the jamb channels are positioned correctly and securely. The jamb channels are correctly positioned on the transit brackets. Drill a pilot hole at the holes through each end of the jamb channel and secure to the frame using a 38mm x 6.3mm screws A. Repeat for the other side.

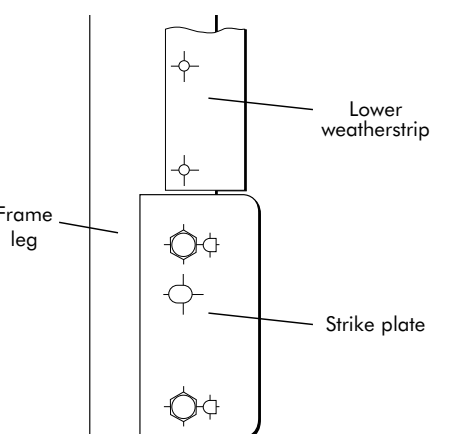
Secure the centre of the jamb channel to the frame using one 8g x 32 mm posidrive Item C (pilot drill 1.5mm). This will cut into the jamb channel hole and drive into the timber frame. Repeat to fix the opposite side jamb channel.

Remove the transit brackets (2 positions on each side) from the jamb channel and door chassis by removing the sixteen M6 securing bolts. The bolts and four brackets can be suitably disposed. If required eight M6 bolts can be refitted into the door leaf to secure the weatherstrip to the chassis.



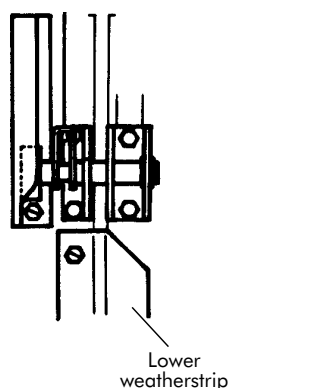
9 FIT THE STRIKE PLATES

Align the flat of the 'D' hole on the strike plate with the inside edge at the bottom of the frame leg. Position the strike plate and secure using 2 off 38mm x 8mm self tapping screws B.



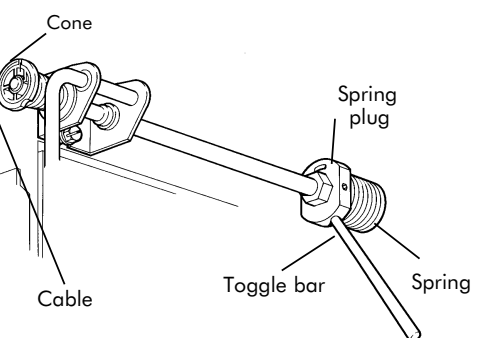
10 SECURE THE LOWER WEATHERSTRIPS

Position the weatherstrip to butt against the top of the strike plate. Ensure that the weatherstrips have been positioned correctly and that they lie flat against the frame legs. The weatherstrip should approach the bottom of the roller spindle cast bracket. If necessary remove any excess using scissors. Secure the weatherstrips to the frame using tacks T. The tacks should be hammered into position carefully.



11 REMOVE THE CROOK PINS

With pliers or a suitable lever carefully remove the right hand crook pin then the left hand pin by easing the spring pressure using a toggle bar in the spring plug as shown. Ensure that both cables emerge from the rear of the cones and are correctly located in the outer grooves. Ensure that the cable brackets are positioned correctly and that the cable tension is supported at the cable bracket.



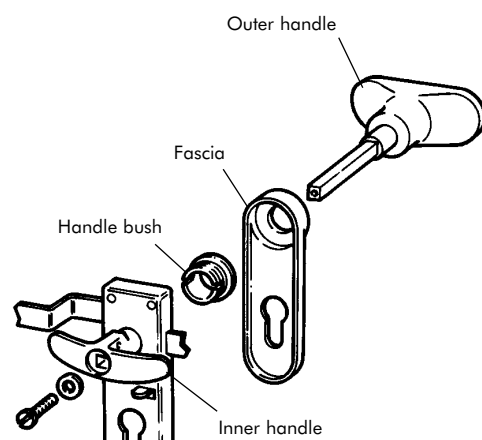
12 OPEN THE DOOR

Remove the items being used to temporarily secure the door in position. Grip the door and simultaneously release the catches by pulling the lock arms. Slowly and carefully open the door. The canopy spring tension will assist the lifting action and the door should be controlled manually. Ensure that the rollers are running smoothly in the jamb channels and that the cable winds onto the cones.

This door is fitted with an anti drop device. This device should not effect the normal door operation. The device will not engage while there is tension in the cable. During opening and closing of the door the cable bracket should pass freely over the de-tents in the jamb channel. If the cable bracket is not running freely see the detailed instructions on the anti drop device.

13 FIT THE LOCK

With the lock supported on the inside, push the handle bush into position from outside and fit the fascia by inserting the fixing lugs into the holes until they 'snap-in'. Remove the screw and washer from the outer handle and pass the handle through the lock as shown. Fit one of the inner handles and secure using the screw and washer just removed. Check the operation of the handle and lock mechanisms. The second inner handle should now be attached with the rope below the lock body, on the door bracing. Thread the rope through the hole provided (in either the lower door brace or bottom lock plate bracket) and knot securely to make a 'rope pull'.

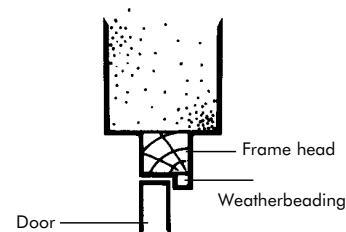


Note: The fascia is not supplied for the Merlin, Doric, Durham and Victoria steel doors and is supplied pre-fitted to timber doors. The 'rope pull' is supplied pre-fitted to GRP doors.

14 COMPLETING THE INSTALLATION

When the installation is complete oil along the top of the spring and pivot points. Do not oil the jamb channels.

When installing into a timber frame of the recommended size, fit a 25mm x 25mm weather beading to the outside of the frame head as shown.

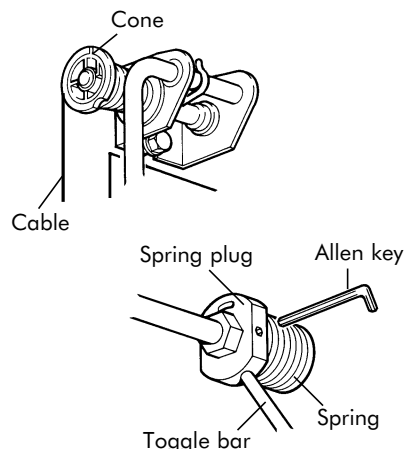


15 SPRING TENSIONING

The door can not be opened or closed without sufficient spring tension as this will engage the anti drop device. Always ensure that the spring is tensioned sufficiently to allow free running of the cable bracket.

The door should open to approximately waist or chest height under its own spring tension.

If the spring requires tensioning or slackening - replace the crook pin on the right hand side. Hold the spring plug tight with a toggle bar in one of the four holes to maintain the tension. Loosen the two Allen screws (5/32 (A/F) in the spring plug. Using a second toggle bar, turn the spring plug one or two turns up to tension or down to slacken the spring. Tighten the two Allen screws and carefully allow the spring to take up the tension before removing the original toggle bar.



Ensure that the cables run down behind the cones and are in the outer grooves as shown. Remove the crook pin. Operate the door to make sure it is correctly balanced. Readjust as necessary.

16 TROUBLE SHOOTING

If you experience any problems with the operation of your door firstly check the frame installation as shown in steps 1 & 4 and ensure all installation steps have been followed correctly.

PROBLEM SOLVING

Problem Solution	When in the open position the door is slightly lower to one side. This is sometimes characteristic of Canopy Doors and may not be a mechanical problem. Check that the cables have wound onto the cones correctly see steps 6 and 15.
Problem Solution	The handle is stiff to turn. Apply a drop of lubricating oil to the handle bush. See step 13.
Problem Solution	The door operation is not smooth. 1. Lubricate spring and pivot points. Do not lubricate jamb channels. 2. Ensure clearances between the roller and jamb channel are maintained. Adjust as necessary. See step 8 3. Check the spring tension. See step 15
Problem Solution	The door operation is restricted. Check the free running of the cable bracket. See step 12 and 17 and the notes for the anti drop device.

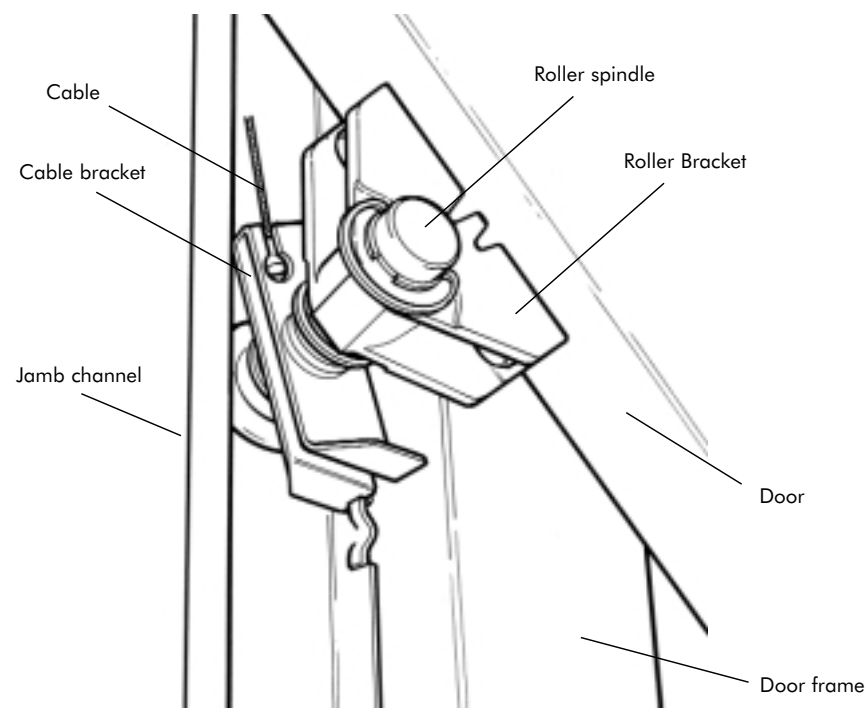
17 THE ANTI-DROP DEVICE

This garage door is fitted with an anti drop device which reduces risk of injury. The device will prevent the door falling in the event of a single suspension component failure such as a cable or spring. To ensure that this device will operate effectively it is important that the door is well fitted and well maintained throughout its service.

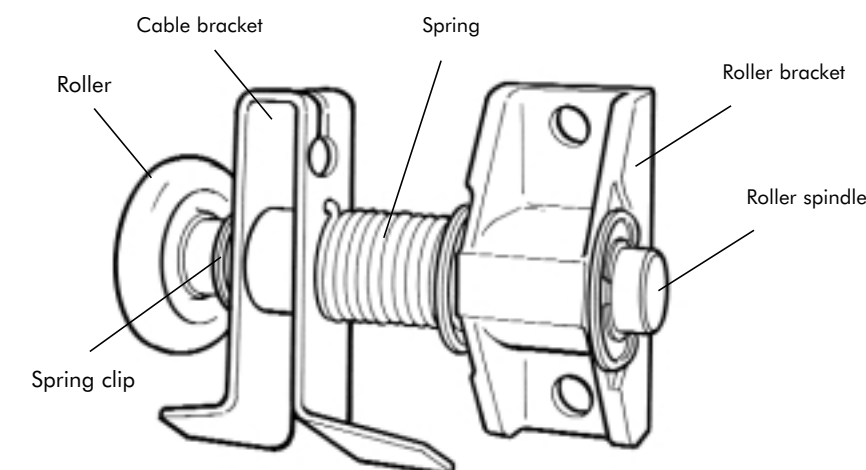
Once activated the anti drop device will support the door leaf and prevent sudden and uncontrolled closing. If the device activates the door is in a potentially dangerous situation and the closing procedure must only be undertaken by trained installers. Untrained users should contact P.C. Henderson Customer Service for the name of a qualified installer. The following instructions are provided for the benefit of trained personnel only.

The anti drop device will activate when either the canopy torsion spring has failed or a cable has broken. Although it is easier to bring the door to a closed position by two people it can be undertaken single-handedly. The following steps should be followed carefully.

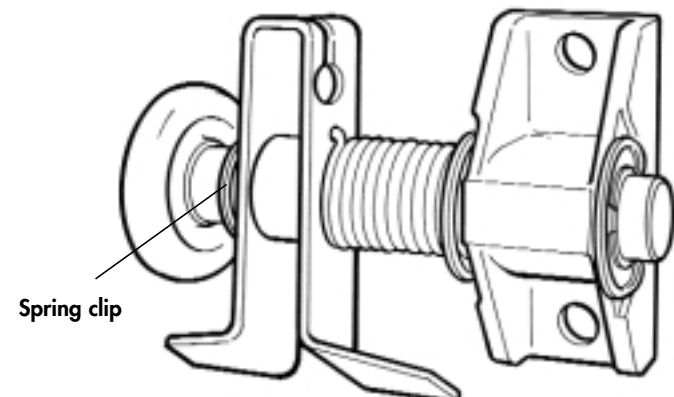
- 1 Keep people, especially children, away from the garage opening.
- 2 Carefully check the door to ensure that it is safely at rest. Always move around the door carefully and avoid moving beneath the door leaf if at all possible.
- 3 Do not try to force the door closed. Excessive force might cause unnecessary damage.
- 4 Carefully check the cable bracket to view engagement into the jamb channel de-tents. At this stage do not attempt to move the cable brackets or the door leaf. Determine whether both cable brackets are engaged (possible spring failure) or if only one cable bracket has engaged (single cable failure).
- 5 It is not recommended that intact cables be cut. This might release the torsion spring to rotate freely, which can damage the torsion spring. Additionally, when a cable is cut it might allow the cones and loose cables to spin with the spring shaft. This can be dangerous particularly to the eyes.
- 6 Prepare a suitable prop and lift the front of the door approximately 40mm. This will lift the cable bracket out of the de-tent in the jamb channel.
- 7 Ensure that the door is well supported - preferably using an assistant who can ensure that uncontrolled movement is avoided.
- 8 Attend the cable bracket that had been engaged in the jamb channel and remove any loose cable. The cable bracket will have the bottom legs inclined towards the face of the jamb channel. A torsion spring supported on the roller spindle provides the force and this must be overcome to release and close the door. This can be achieved in several ways. The roller bracket assembly has been designed to allow the spring to be disengaged from the cable bracket as follows,



Cable bracket engaged into jamb channel detent

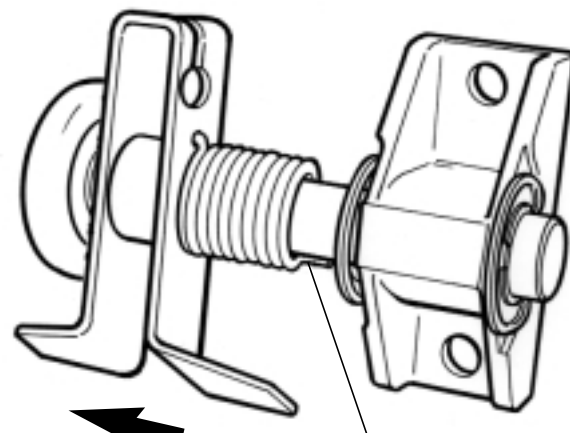


Cable bracket assembly



Spring clip

Remove the spring clip between the roller and the cable bracket



Spring disengaged from roller bracket

Slide the cable bracket towards the roller and disengage the torsion spring leg from the cast roller bracket

9 The door must now be closed - this can be difficult and it is recommended that two people complete this task. Ensure that tools and light are available inside the garage. One person should stand on the inside of the door. Ensure that people are kept out of the door leaf closing envelope. Firmly grip and support the door leaf and then remove any temporary supporting props. Lower the door leaf carefully, to a closed position. If one cable is supporting the door, then it may be necessary to use some force to push the outside of the door closed at the side of the remaining intact cable.

10 When the door is safely in the closed position inspect all parts for signs of damage. If the jamb channels, retaining features or cable bracket have been deformed then they must be replaced. Note the cable bracket is supplied as part of the roller spindle assembly. If a cable has broken then both cables must be replaced and if the canopy torsion spring has failed it will be necessary to replace the canopy spring assembly. If in doubt change all of the associated parts.

11 After replacing all damaged parts pay particular attention to the installation instructions, steps 8, 12 and 15.

12 Always leave the door in a safe condition and ensure that the users understand any potential dangers and how to operate the door safely.

Important Note

When repairing the door always ensure that the anti-drop features are assembled correctly and that the torsion spring is acting to push the bottom of the cable bracket towards the bottom of the jamb channel. The spring clip must be fitted to ensure that the cable bracket is engaged correctly with the torsion spring

18 DISMANTLING

The door must be dismantled with care. Always ensure that the structure is well supported during dismantling and that parts are not allowed to fall or pivot in an uncontrolled manner.

Start from inside the garage and ensure that all necessary lighting, tools and personnel are available. The door should be closed and propped securely in the opening. If the door is to be disposed of then the spring tension should be carefully released - see note 15 for reference. If the door is to be reinstalled then the cables should be disengaged from the cable bracket by using a toggle bar and the crook pins to release the cable tension. - see note 11 and ensure that both crook pins are correctly fitted.

Remove the jamb channels by removing the bottom, small centre and finally top screws. Support the channel when removing the top screw and release by sliding the channel outwards away from the door - see note 8 for reference.

The head brackets can now be removed from the frame head by releasing the four fasteners while ensuring that the spring assembly is not free to drop - see note 7 for reference.

Release the spring assembly by lifting over the spring support bracket and lower the spring assembly to rest against the door leaf - see note 6 for reference.

Remove the top slam latch keeps to release the engagement of the slam latch - see note 5 for reference.

The door can now be carefully handled; the prop supports removed and the door will release from the opening. Ensure that hands will not come into contact with any sharp edges and wear gloves if necessary. Always take care when handling heavy items.

Carefully remove the lower weatherstrips and tacks ensuring that they are not left in the vicinity where they can be trodden or driven upon.

Remove the spring support bracket - see note 5 for reference.

Dispose of all unwanted parts in accordance with best practices and legislation.