

# **Versa Frame Instruction Manual**



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Read the instructions through carefully prior to construction.

### **General Introduction**

The Versa Frame System is used to build high quality galvanised Sliding Door Chassis without the usual problems encountered with metal fabrication, such as welding and painting.

The system is very adaptable using standard components to make a wide range of doors up to 5M high by 5M wide. By simple straight cutting it is possible to build a door to virtually any size.

The doors are bolted together using patent Roto Nuts and Locking Bolts. Roto Nut tabs locate into the frame section and once the locking bolts are tightened to a torque of 2Kg/M the joint is securely fastened. It is not necessary to tighten the roto nuts until they distort.

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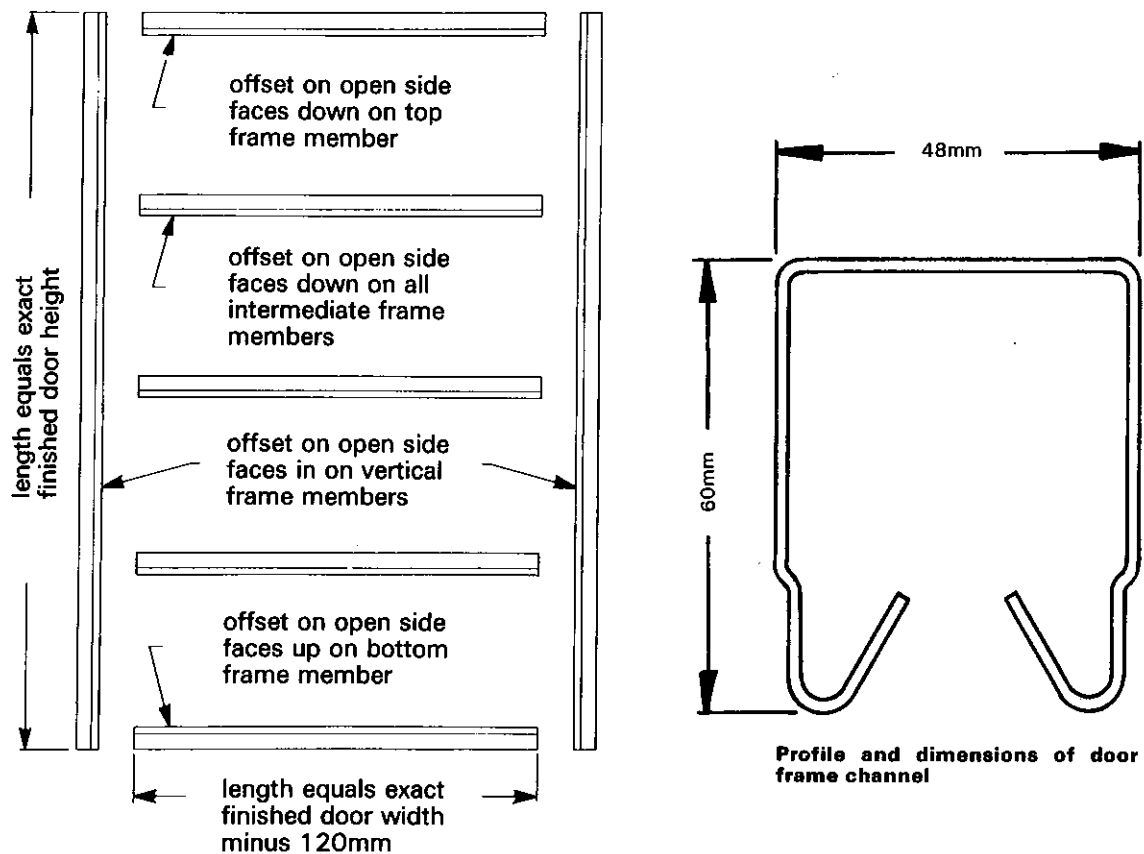
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## PCH VERSA FRAME DOOR SYSTEM

### Cutting to Size

Door kits are supplied for doors of 2M, 3M, 4M and 5M in height. At the maximum stated height for a kit, sufficient horizontal components must be purchased to have cross braces at 1M centres maximum. As the height of the door reduces, the distance between horizontal brace centres is reduced. However, it is advisable to keep the braces equally spaced. See diagrams on Page 3.

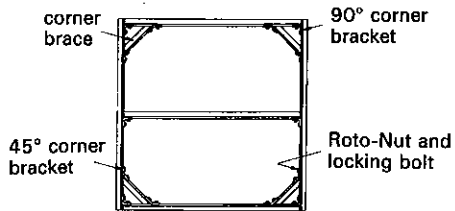


Finished doors are 120mm wider than the length of the door horizontals, and the same height as the two edge components.

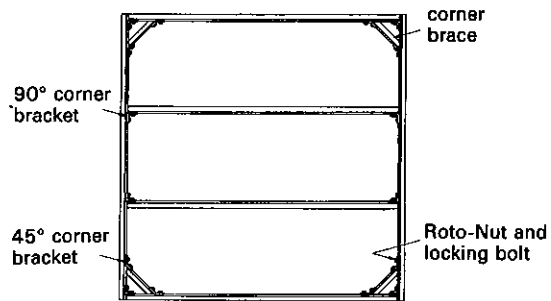
All components may be cut to the desired length by hacksawing.

The diagram below shows how many horizontals are required for doors of different heights.

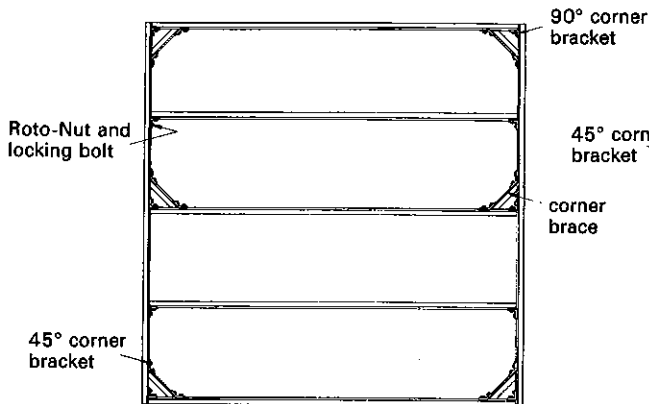
**Doors up to 2M high = 3 Horizontals**



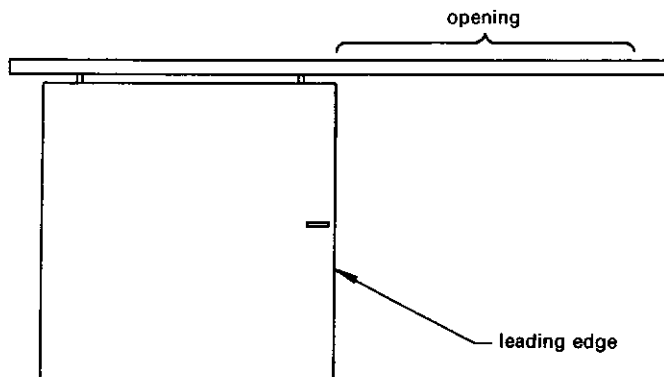
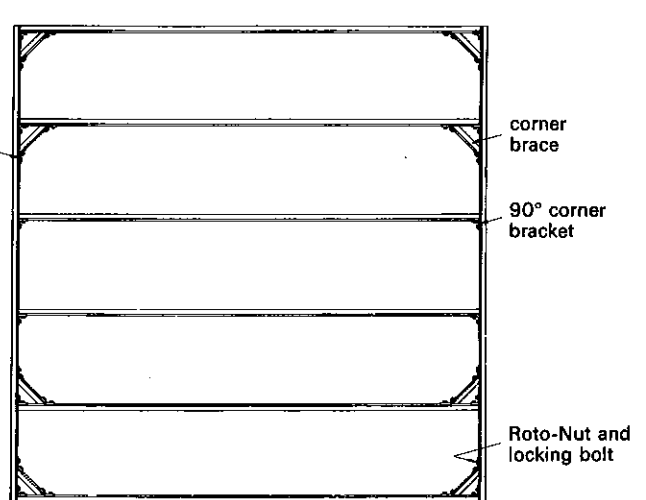
**Doors up to 3M high = 4 Horizontals**



**Doors up to 4M high = 5 Horizontals**



**Doors up to 5M high = 6 Horizontals**

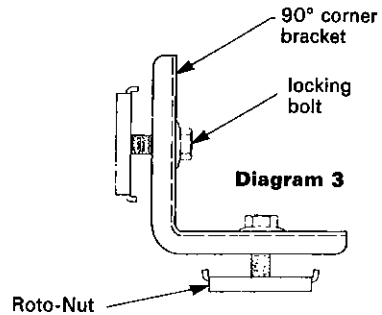


# PCH VERSA FRAME DOOR SYSTEM

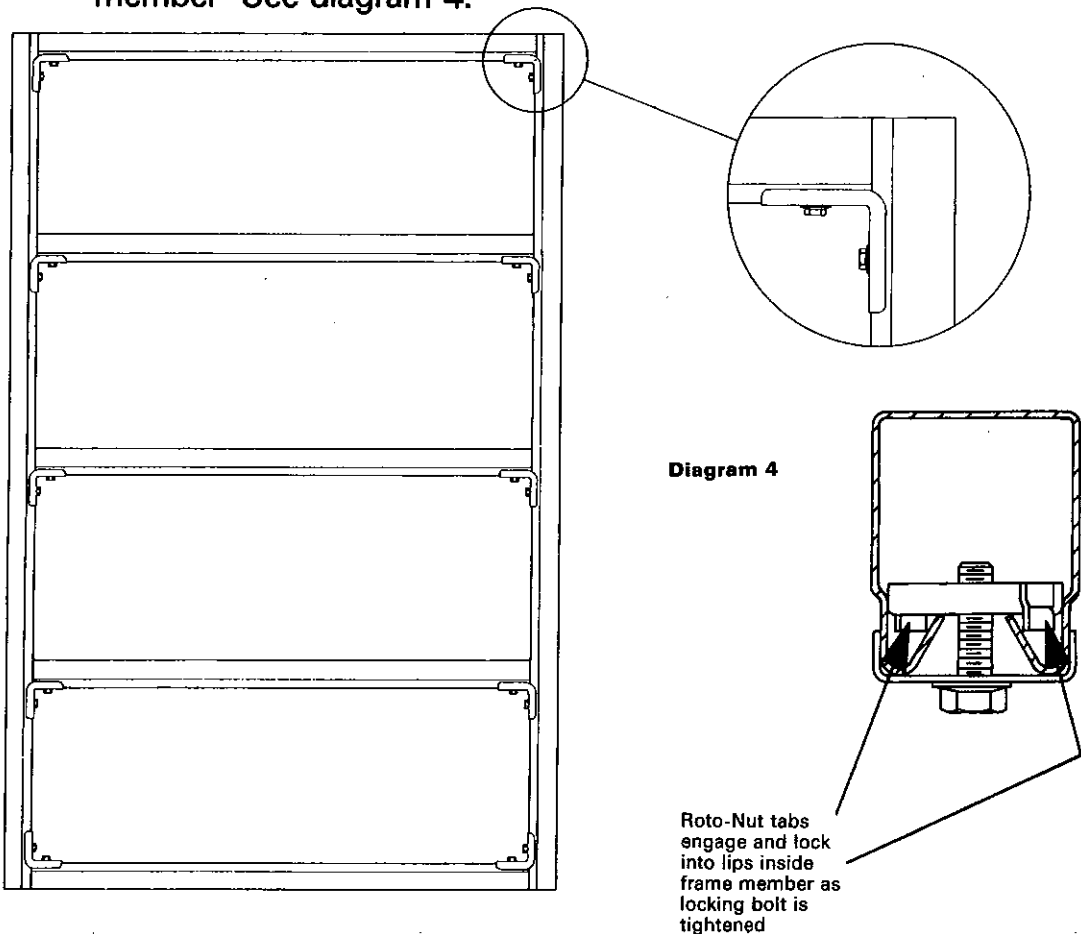
## Assembling the Door Chassis

1. Use a flat area large enough to accommodate the finished door, or ensure that sufficient supports are to hand to hold the door level throughout construction.

2. Make up the corner bracket assemblies for each joint required, as shown in Diagram 3



3. At each joint, press 90° corner bracket assemblies into place on open sides of door frame members so that Roto-Nuts pass into the open side and the corner brackets "lip over" the offset on the open side of the frame member. Tighten locking bolts by hand. As bolts are tightened, Roto-Nuts will pivot slightly inside the door frame member and tabs on Roto-Nuts will automatically engage and lock into the lips inside the frame member—See diagram 4.



4. Tighten locking bolts to approx. 2 Kg/M. (It is not necessary to tighten until the Roto-Nuts are distorted). Tighten outside corners of frame first, then tighten intermediate corners. Check squareness of frame after tightening outside corners.
5. **For doors with optional Lock and Latch only. Before you fit the leading edge vertical member, you will need to fit the lock and latch kit. Please refer to Page 10 for detailed instructions.**
6. **For door with optional Farm Guide System only. On lower corner of finished door leading edge it will be necessary to fit the door guide bar and door guide bar clamp. Full details are given on Page 7.**

**NOTE:** The lock and latch kit and farm guide bar are fitted to the leading edge vertical member before the member is fitted to the horizontals, which then completes the frame, as they use the locking bolts for the frame assembly.

7. Into each corner a heavy duty brace is fitted using locking bolts and Roto-Nuts and 2 x 45° corner brackets. Simply thread bolts into Roto-Nuts and give them two turns so that the Roto-Nut tabs face towards the 45° corner bracket. See Diagram No. 5.

Press one 45° corner bracket so that it "lips over" the open side of the brace. Tighten locking bolts by hand. See Diagram No. 6.

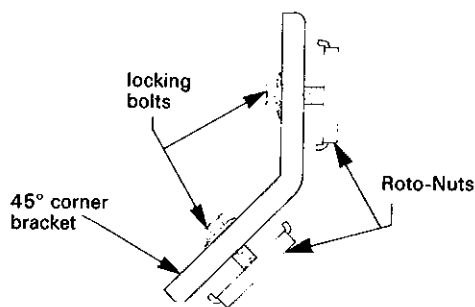


Diagram 5

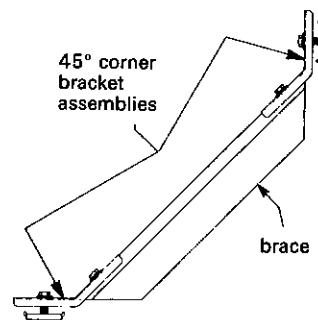


Diagram 6

## PCH VERSA FRAME DOOR SYSTEM

Align untightened Roto-Nuts with open side of door-frame members at corner of frame and press the brace assembly into place. Tighten locking bolts by hand. See Diagram No. 7.

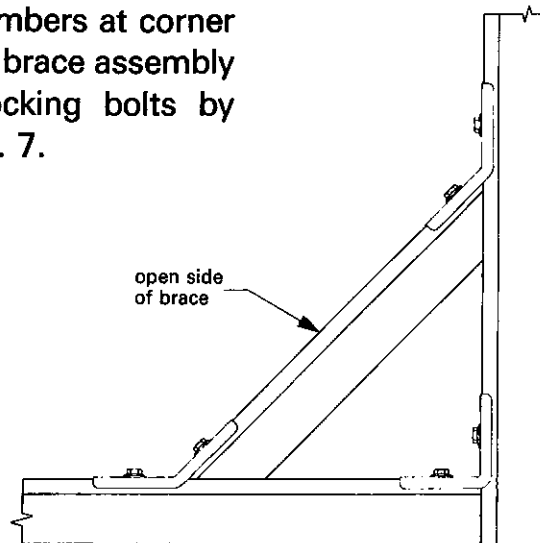


Diagram 7

Check that the frame is now square. Do this by measuring the diagonal dimension across the frame corner and verifying that they are equal. Adjust until this is achieved.

When the frame is square, tighten all bolts to 2 Kg/M.

### Fixing the Door Cladding

The Versa Frame System is designed to accept a variety of cladding options, therefore, the supply of cladding materials and fixings is left to the discretion of the door builder.

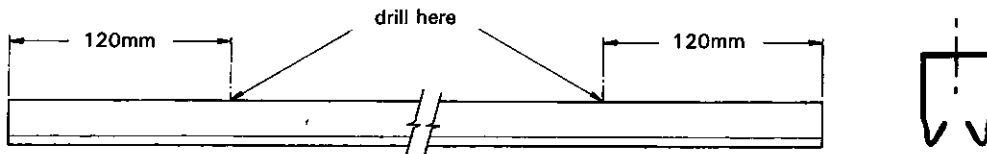
The chosen cladding material should be fixed evenly across the door face. If the door is to be guided using the Farm Guide System, ensure the cladding is at least 30mm clear of the bottom edge of the door to allow uninterrupted control by the door guide rollers.

Raw vertical edges should be protected using door trim angle which can be purchased from your Henderson stockist. Place the angle trim over the edge and fix in place using Drill Kwick screws. These screws will cut their own holes into the steel and run up tight when used with a mechanical drill/screw driver.

## Fitting Bottom Guide System

### a) Standard System

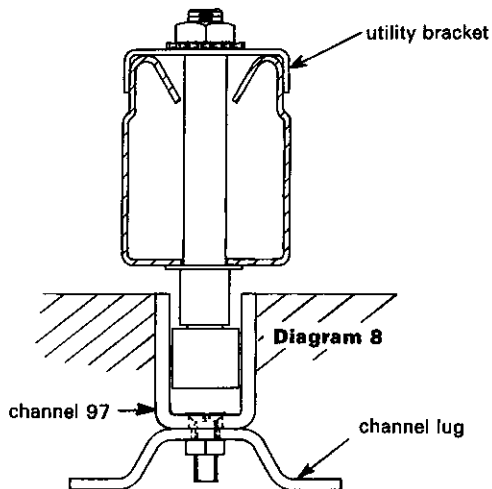
Decide which is to be the bottom of the door, drill two holes 14.25mm diameter through the bottom edge on the centre line of the bottom rail, approximately 120mm from each end, as shown.



Bolt the door bottom roller through the holes using the Utility Brackets as shown in diagram 8.

Directly below the door track fit the door guide channel in position using the door guide couplings and lugs provided in the standard guide kit, ensuring the guide channel is held in a fixed and straight position as shown in diagram 8.

(The door guide channel is available as a standard part from any Henderson Sliding Door Gear stockist. Henderson Bottom Guide Catalogue reference 97 is recommended).



### b) Farm Guide System

For conditions where a traditional channel door guide could block with debris, the Farm Guide system offers an alternative.

Note the Farm Guide Systems contains enough components for one sliding door. Two Farm Guide packs are needed for bi-parting doors.

**Note that the door guide clamp and the door guide must be fitted while the door frame is being constructed, before the lower leading edge corner bracket is fitted.**

Insert the Door Guide Clamp and door guide bar as shown (Diagram 9) and use the locking bolt of the 90° corner bracket to engage in the threaded hole on the door clamp (no Roto-Nut required). Once fitted 22mm of vertical adjustment is available.

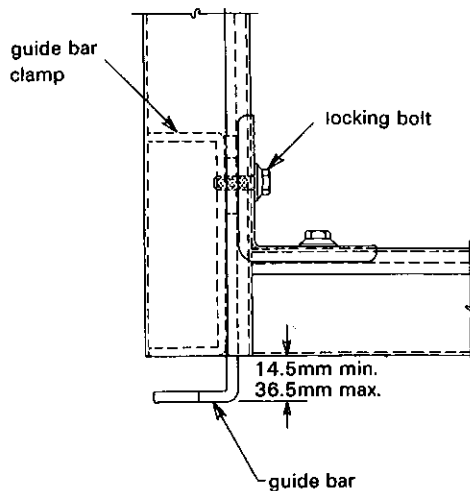


Diagram 9

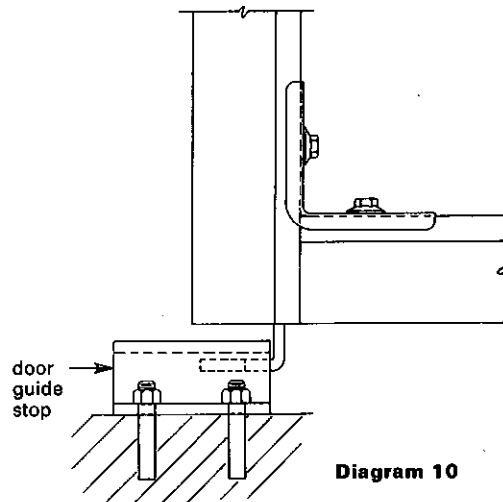
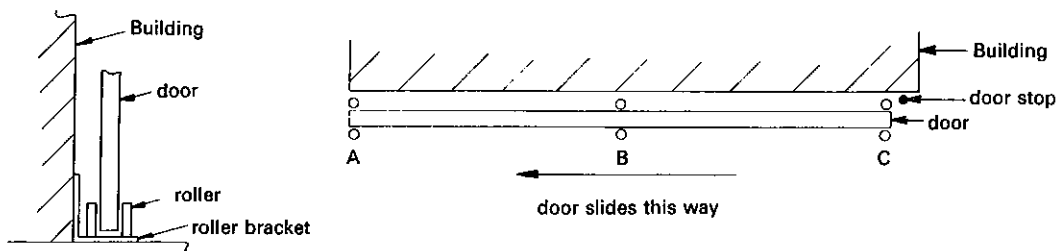


Diagram 10

The door guide/stop should be bolted to the ground or a suitably positioned post with appropriate fixings in such a position that the door guide rests comfortably underneath the centre portion of the stop as shown (Diagram 10).

The door is hung in the usual manner. The roller guide brackets should be fitted to the building as shown overleaf. Suitable fixings will need to be supplied by the door builder.

Adjust the rollers to lightly guide the door throughout its travel. The standard pack contains three roller guides which should be fitted in positions A, B and C shown below.



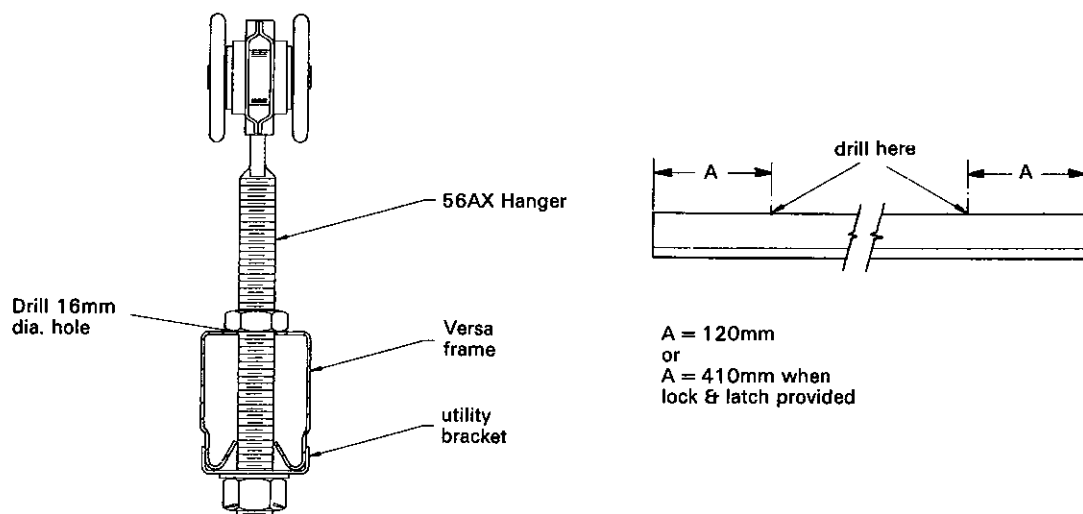
Ensure that the door always remains in contact with guide A, when the door is in the open and closed positions.

To stop the door at the door jamb, use the door stop provided.

**Fitting the Top Rollers**

Henderson Sliding Door Track and gear of the 301 type should be used to support and run the door.

Standard 56AX hangers are fitted by drilling holes, 16mm dia., on the centre line of the door as shown. The hanger is secured in position using a utility bracket.



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## Fitting the Optional Lock and Latch Set

**NOTE:** The latch bracket must be fitted prior to fitting the leading edge vertical door frame member.

On the door jamb, or in the centre on Bi-parting double doors, the lock and latch is fitted inside the top leading edge of the door as shown (Diagram 11).

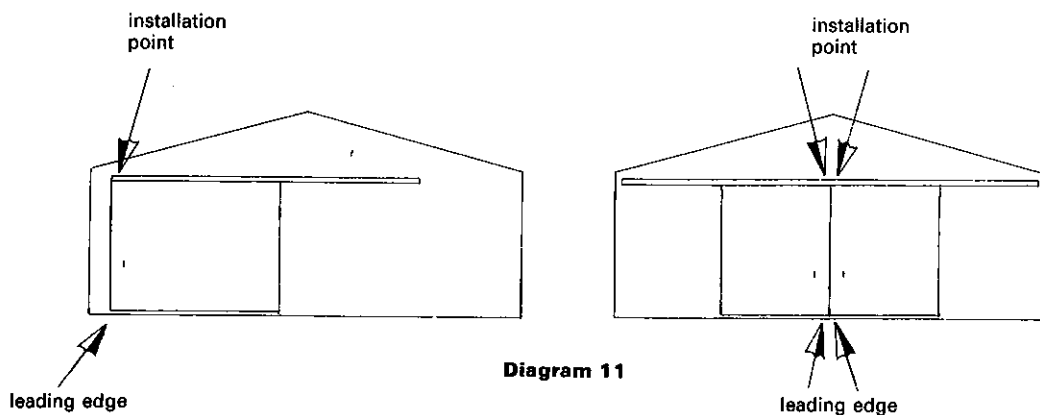


Diagram 11

Assemble the latch bracket, latch bolt, latch spring with the 'S' hook and chain provided. (Diagram 12).

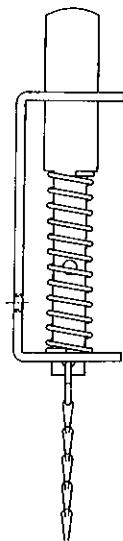


Diagram 12

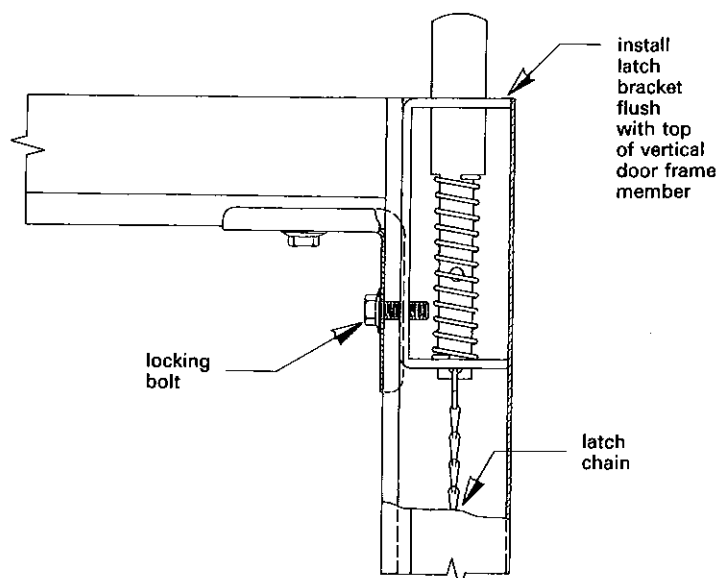
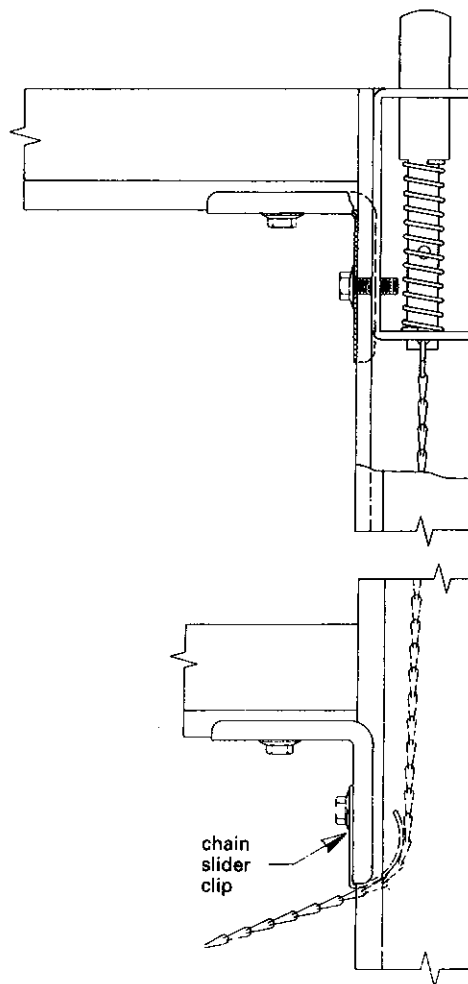


Diagram 13

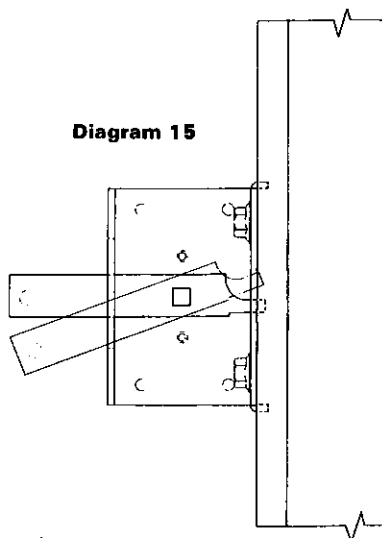
Insert the latch bracket into the top edge of the door and fix with locking bolt passing through top 90° corner bracket (no Roto-Nut required). (Diagram 13).

The latch chain passes down the door leading edge and may be withdrawn at the level required by fitting a chain slider clip as shown to the locking bolt holding a horizontal member 90° corner bracket. (Diagram 14).



**Diagram 14**

The locking handle bracket is fixed to the door leading edge upright as shown. (Diagram 15).



**Diagram 15**

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The door handle stem support bracket is also positioned prior to the locking bolts being tightened into the Roto-Nuts.

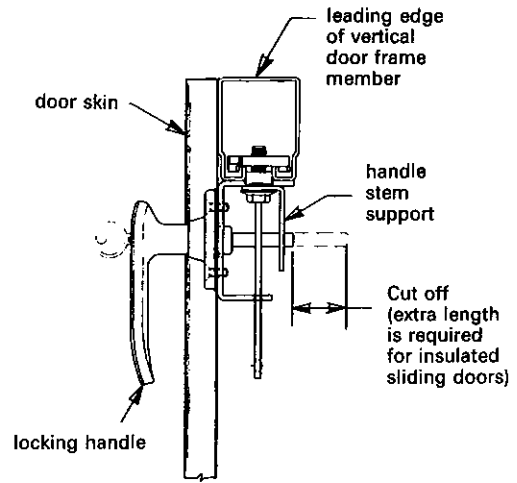


Diagram 16

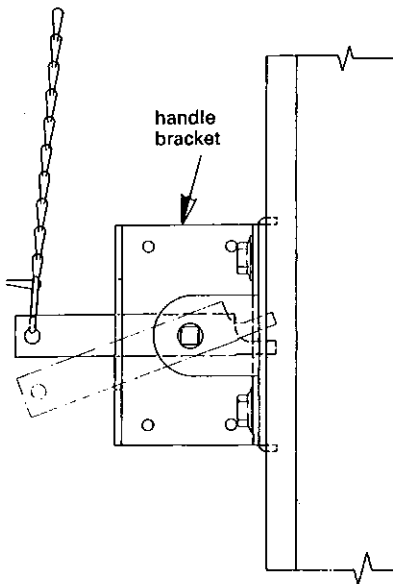


Diagram 17

The latch chain is coupled to the handle lever and adjusted to action the spring loaded latch bolt. (Diagram 17).

Once the door is operational the latch strike may be fitted in the door track using locking bolts and Roto-Nuts provided, as shown. (Diagram 18).

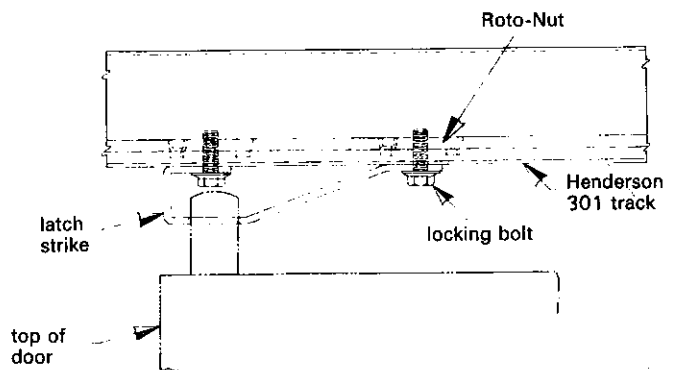


Diagram 18