



**INSTRUCTIONS & ILLUSTRATIONS**  
**THE EDGE 400 - 4'5" WIDE**



**ELITE GREENHOUSES LTD**

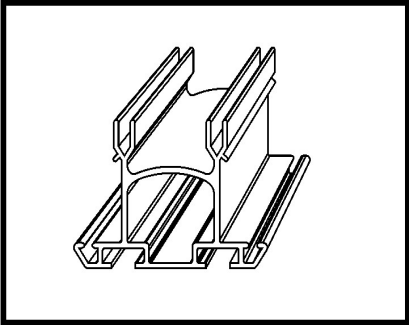
BENT SPUR ROAD, KEARSLEY, BOLTON BL4 8PD

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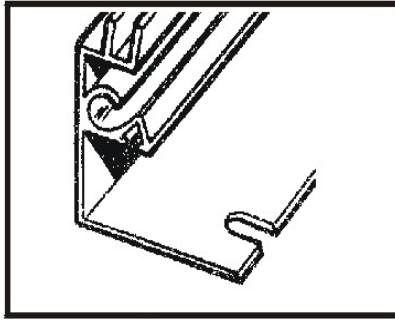
[enquiries@elite-greenhouses.co.uk](mailto:enquiries@elite-greenhouses.co.uk)

[www.elite-greenhouses.co.uk](http://www.elite-greenhouses.co.uk)

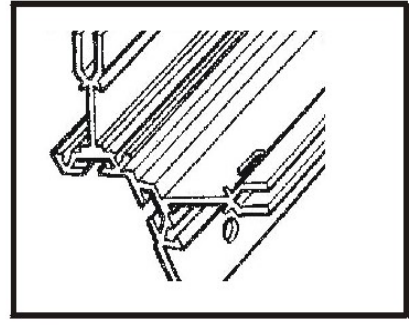
COMPONENT DRAWINGS (NOT TO SCALE)



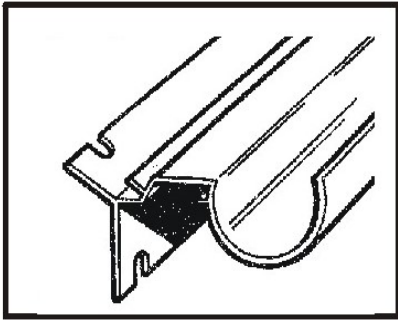
DOOR WAY GLAZING BAR



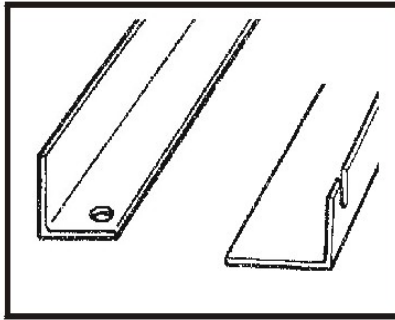
RIDGE



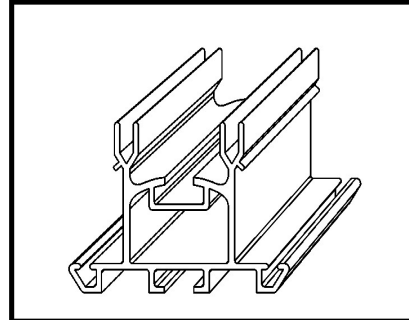
CORNER BAR



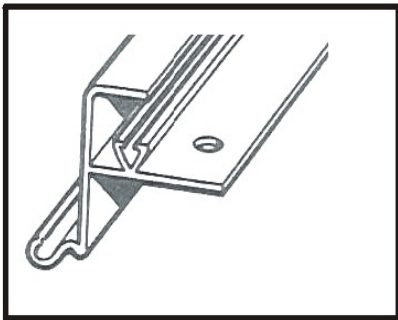
EAVES BAR/GUTTER



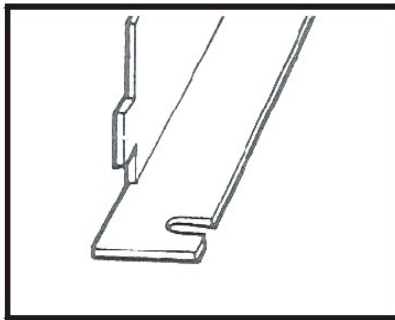
BRACING ANGLE & HORIZONTAL BRACE



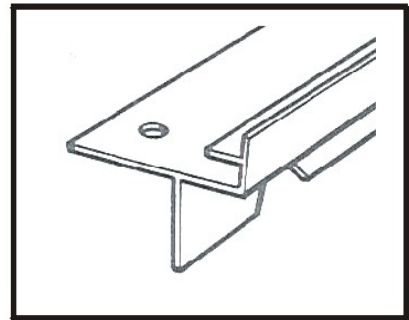
GLAZING BAR



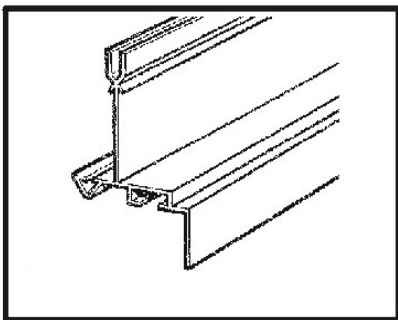
VENT TOP RAIL



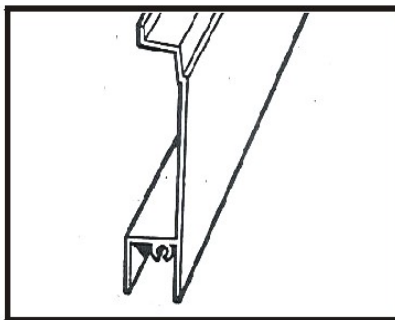
VENT SLAM BAR



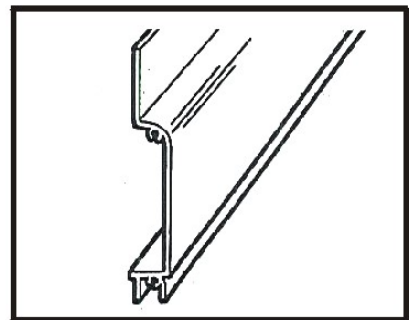
VENT BOTTOM RAIL



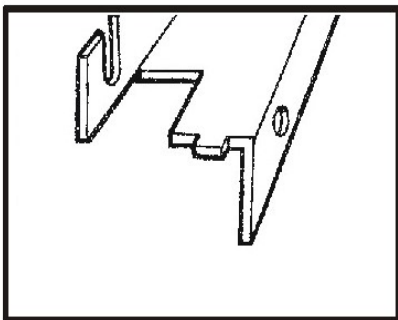
VENT SIDE RAIL



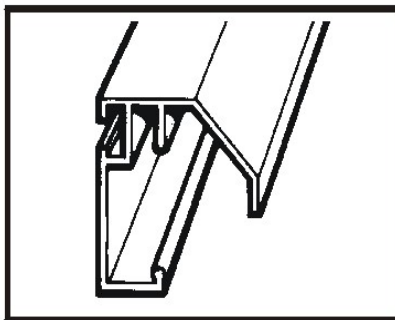
DOOR INFIL PANEL



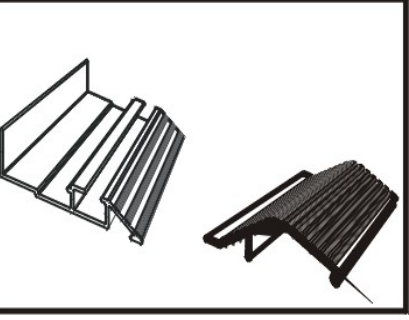
DOOR TOP/BOTTOM PANEL



DOOR TRACK SUPPORT



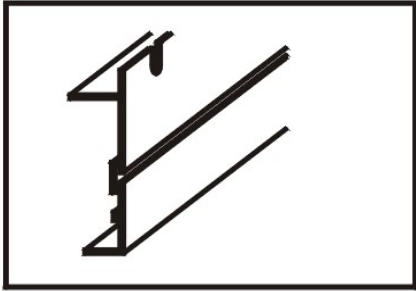
TOPDOOR TRACK



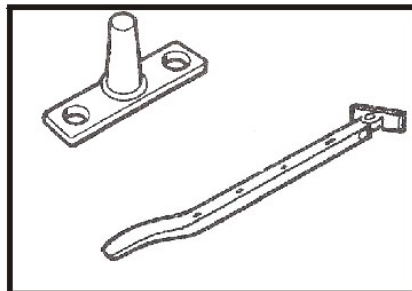
DOOR END CILL + RAMP



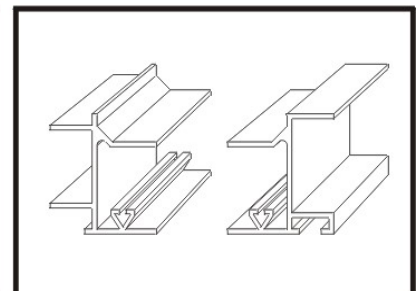
**FITTINGS WITHIN THE KIT (NOT TO SCALE)**



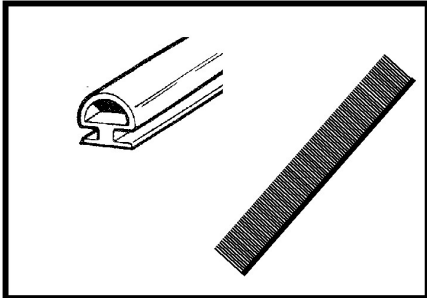
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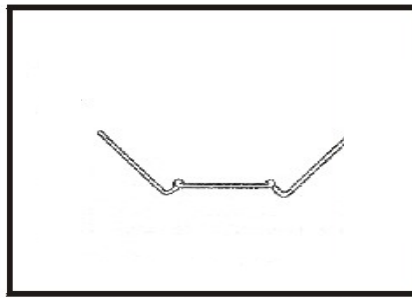
**CASEMENT STAY + PINS**



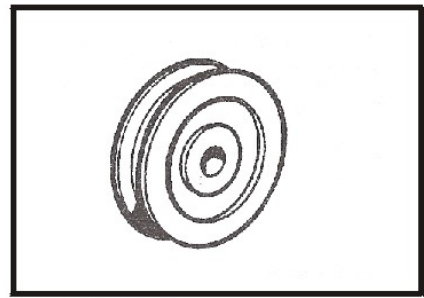
**HANDED DOOR POSTS**



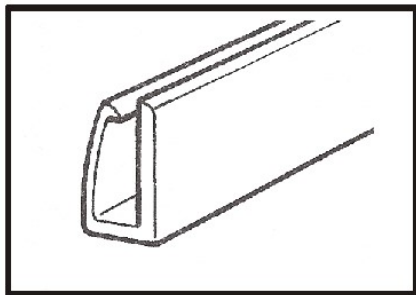
**NEOPRENE BEADING, +  
DRAUGHT EXCLUDER**



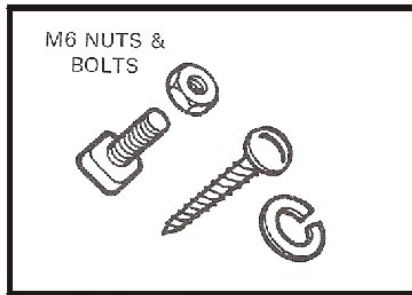
**Wire Clips**



**DOOR WHEEL**

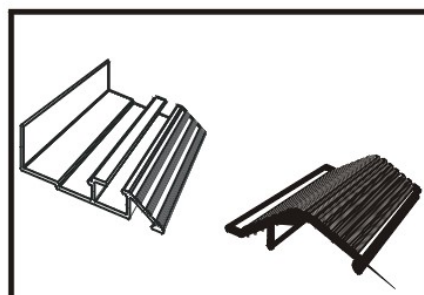


**BLACK DOOR SKID**

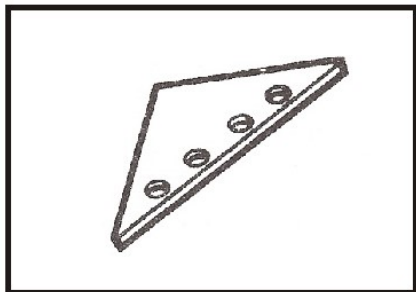


**M6 NUTS &  
BOLTS**

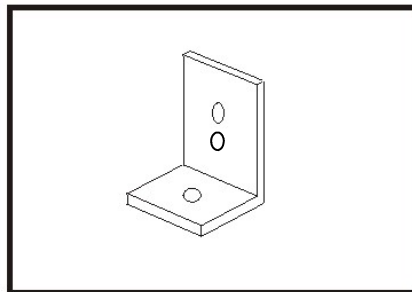
**SELF TAPPING SCREWS  
SPRING WASHER**



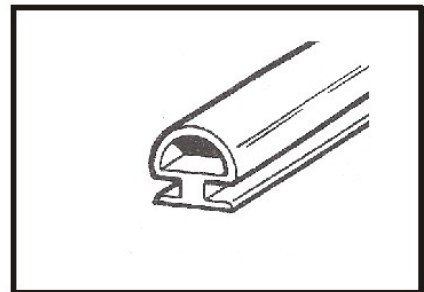
**DOOR END CILL + RAMP**



**EAVE GUSSET PLATES**



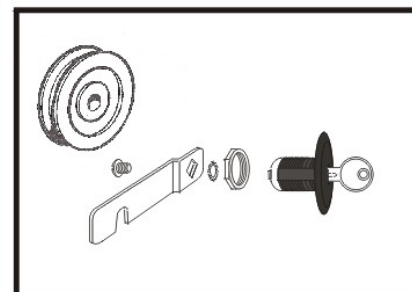
**ANGLE BRACKET**



**NEOPRENE BEADING**



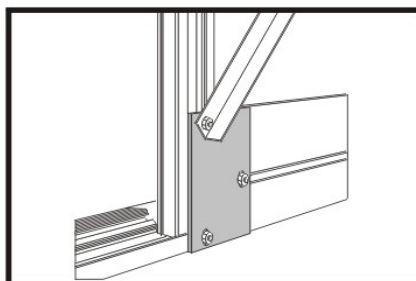
**RAWLPLUGS & WOOD SCREW**



**DOOR WHEEL + DOOR LOCK**



**BEWARE!**



**DOOR END PLATE**

## PARTS LIST—THE EDGE 400

		8 X 4	10 X 4	12 X 4
1	50' Glazing beading	1	0	0
2	100' Glazing beading	2	3	3
3	Eave gusset plate (can be found in the bag of fittings)	2	2	2
4	Black draught excluder	2	2	2
5	Top door panel	Taped together and marked door X2	1	1
6	Bottom door panel		1	1
7	Door infill panels		3	3
8	Door track support	Box 2	1	1
9	Ridge	Box 2	2	2
10	Gutter / Eave	Box 2	1	1
11	Back Integral Base	Box 2	1	1
12	Back glazing bars	Taped together (Box 2)	3	4
13	Back diagonal bracing angle		2	2
14	Gable End Integral Base	Box 1 (end)	1	1
15	Gable End glazing bar	Tapes together Box 1	2	2
16	Gable End horizontal bracing angle		1	1
17	Gable End diagonal bracing angle		1	1
18	Front Integral Base	Box 2 (Front Door End)	2	2
19	Front glazing bars	Taped together and marked Front	2	3
20	Front diagonal bracing angle		2	2
21	Door glazing bars—marked door	Taped together	2	2
22	Door glazing bars—handed		1 x LH 1 x RH	1 x LH 1 x RH
23	Corner bars—taped in two packs 1 = left end, 1 = right end		6	6
24	Vent (in packs)		2	2
25	Louvre (in packs)		1	1
26	Door track		1	1
27	Roof glazing bars		3	4
28	<p>The following items can be found in the bag of fittings or additional packages. Eave gusset plates (2), anchor brackets, stainless steel screws, plastic plugs, M10 nuts and bolts, stainless steel clips, wire clips, casement stays, stay pins, M4 pins, nuts and bolts, door catch, short and long self tapping screws, door wheels and fittings.</p>			



## Glass

For toughened glass, please refer to the relevant glass plans towards the rear of this booklet.

## HELPFUL HINTS

Please do take your time during construction and follow the safety code.

- Read all instructions carefully.
- Ensure that your base is level and square and built to the minimum measurements indicated on the base section of this booklet.
- Do not alter the dimensions or shape of any component unless indicated to do so.
- This plan covers the entire range of 4' wide Edge models and their options including door positions, louvre location, and vent construction.
- This detailed assembly instruction booklet will explain the construction procedures you require to correctly install your particular structure.
- For the purpose of coloured models:

1. There may be some jig holes in some bars, these holes play no part in the assembly but assist in the painting process.
2. Extra care must be taken in assembly of all coloured models so as not to scratch the paint and hence affect the appearance of the structure.

## SAFETY

- When using electrical equipment outside always use a circuit breaker.
- Do not attempt to construct frame or glazing of the structure in high winds.
- Glass is fragile, so safety gloves and eye protection should be worn when glazing any part of the structure.
- Do not place structure in vulnerable situation. Children should not play near glass greenhouses.
- Failure to observe these rules could result in personal injury or property damage.

## REQUIRED TOOLS

M10 Spanner	Masonry bit
Heavy duty flat screwdriver	Hacksaw
Pair of pliers	Sharp cutting tool
Electric drill/circuit breaker	Metal file



## CONSTRUCTION OF FRAMEWORK AND WORK PROCEDURE

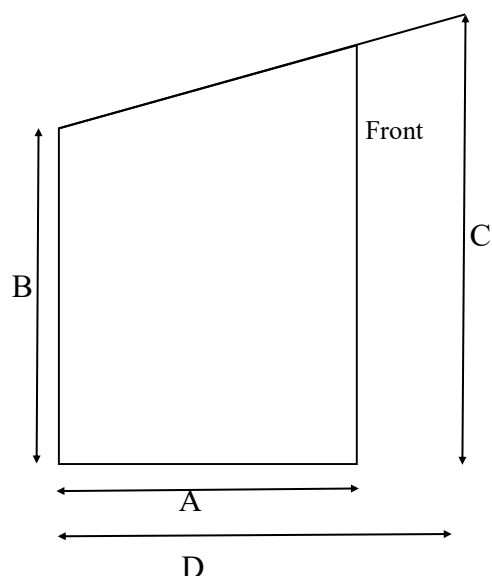
The structure should be completed from start to finish in the following order

1. Base preparation
2. Construction of frame assemblies
3. Joining of sub-assemblies to make full size frame
4. Glazing
5. Anchoring to the floor
6. Finishing off

Each of the above procedures are detailed at the appropriate stages of this booklet.

### BASE SIZE AND PREPARATION (for brick/concrete bases only)

The Edge 400 (L x W)	Length	Width (A)	√ Square	Eaves Height (B)	External ridge (C)	Width Inc overhang (D)
8 x 4	2538mm	1357mm	2878mm	1900mm	2400mm	1530mm
10 x 4	3156mm	1357mm	3435mm	1900mm	2400mm	1530mm
12 x 4	3774mm	1357mm	4011mm	1900mm	2400mm	1530mm
14 x 4	4392mm	1357mm	4597mm	1900mm	2400mm	1530mm
16 x 4	5010mm	1357mm	5191mm	1900mm	2400mm	1530mm
18 x 4	5628mm	1357mm	5789mm	1900mm	2400mm	1530mm
20 x 4	6246mm	1357mm	6392mm	1900mm	2400mm	1530mm



DOUBLE DOOR: 1910MM HIGH X 1150MM WIDE

The door is situated on the front (Length)

**NB.** If you have a corner location, i.e. one end missing (R-type) or a modified building—please request a base plan

All bases of any material must be level and square and built to exact outside measurements.

## CONSTRUCTION OF THE FRAMEWORK ASSEMBLIES

The building is divided into a number of different frame assemblies.

1. Right hand gable end frame
2. Left hand gable end frame
3. Front assembly
4. Back frame assembly
5. Roof frame assembly (unlike the other frame assemblies, this is not an individual frame)
6. Double door assembly
7. Vent assembly
8. General assembly of greenhouse unit.
9. Construction and installation of louvre

The installation procedure should follow the above format and it is recommended that you complete each one fully before moving onto the next frame.

For the purpose of this booklet, we have used an 8 x 4 Edge as the basis for construction. If you have purchased another size, the principles of the job are identical. There are just more roof, front and back glazing bars.

**All bases, of any material must be level and square and built to the minimum outside measurements**

If you are putting a concrete footing down it is wise to dig a trench around the perimeter removing all top soil, insert some hard-core (broken brick etc) into the trench and back fill with concrete. You can now begin to lay the required course of brick, remembering to insert a damp-proof strip one or two courses above ground level.



## RIGHT HAND GABLE END FRAME

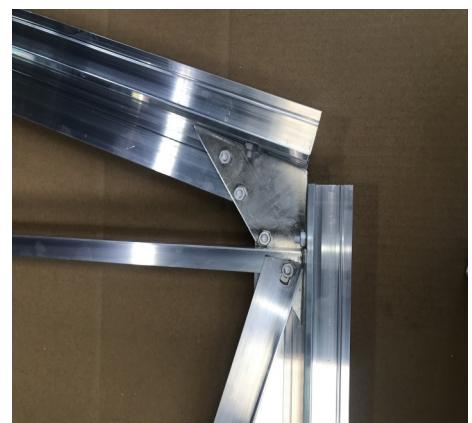
Please note that for the purpose of this plan, we have made the right hand gable the main end for construction details, but it could just as easily be the left hand gable end. So please read this section and the left hand gable end section with the alternative in mind.

From the main box you require:

1. Set of corner bars marked  
RIGHT END CORNER BARS  
Long Corner Bars
2. Set of glazing bars, angle and cill marked END  
This contains
  - \* Bottom cill
  - \* Glazing bars
  - \* Horizontal bracing angle
  - \* Diagonal bracing angle

From the bag of assorted fittings and fitting within the box, you will require

- \* One eave gusset plate
- \* Nuts and bolts
- \* Coil of glazing bead

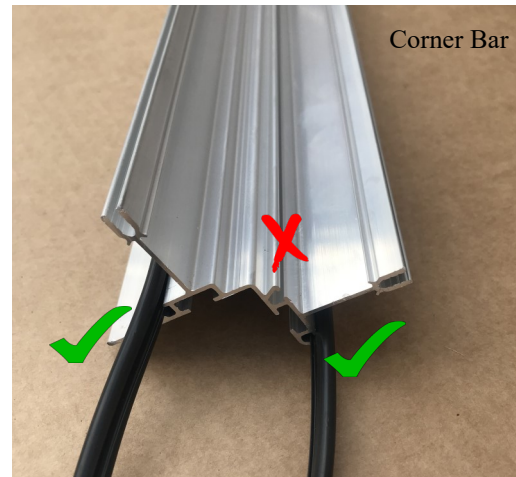


**N.B.** See front of booklet for component diagram key.

Inside View—Right Hand Corner assembly

## Procedure

Split the tape holding the corner bars together and also the tape holding the glazing bar, angle and cill. Slide glazing beading along the beading channel of the two outer grooves of the corner bars and also the glazing bars



The use of pliers is recommended for the beading process.

When threading the glazing beading along the bars, there is a tendency for it to stretch and later contract. It is therefore advisable to have the beading protruding approx. 25mm at each end of each bar which can then be pushed back at either end if necessary. Before assembly, you must ensure that the beading is flush with the ends of the bar. It may be necessary to trim the beading to size.

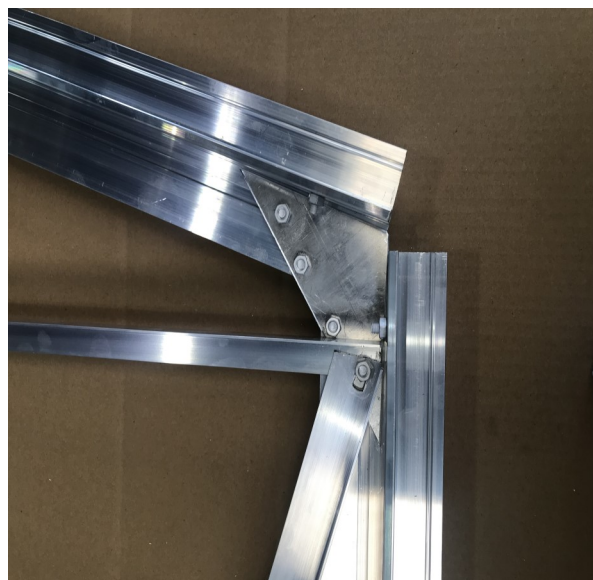
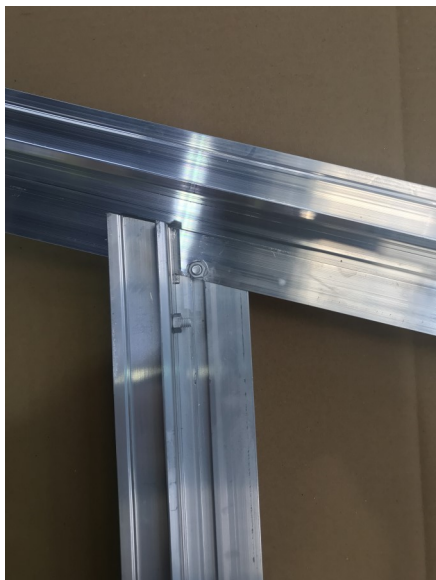
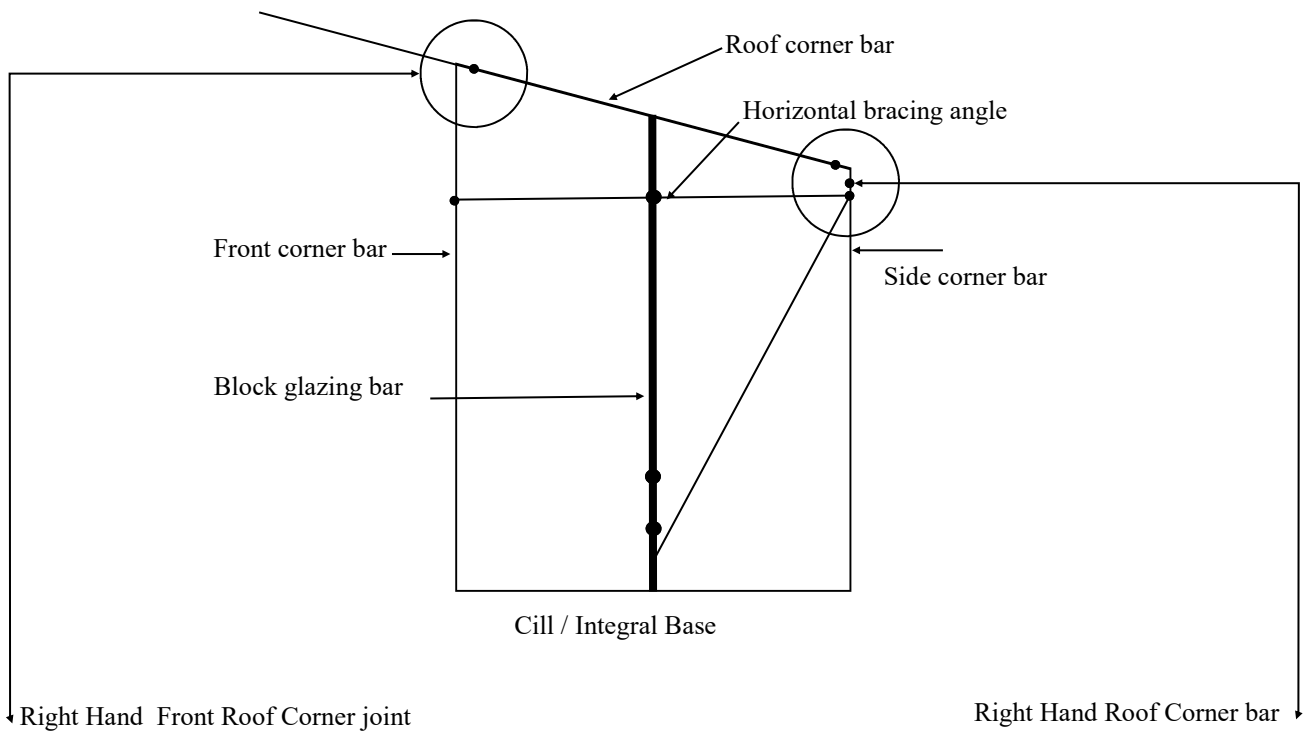
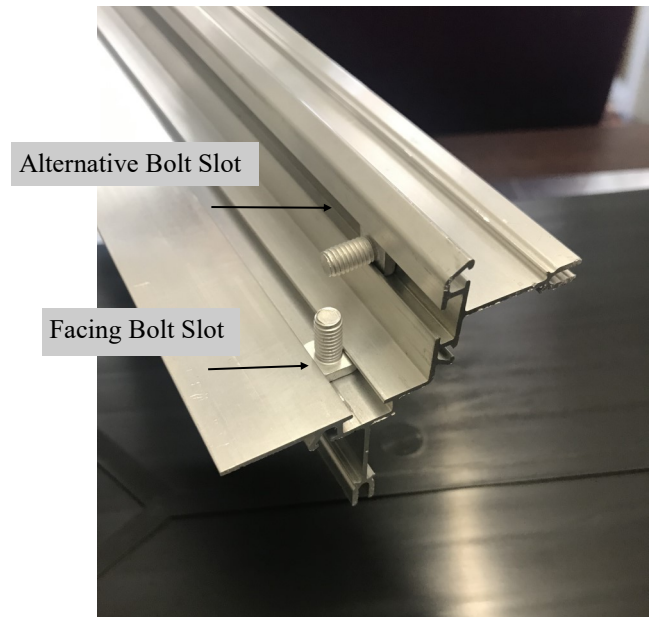
3. The corner bars now need to be distinguished between a roof corner bar, a rear corner bar, and a front corner bar (fabricated at the top)
  - \* The roof corner bar is 2221mm long and has 4 holes in the flange, and is mitred at both ends.
  - \* The rear corner bar is 1795mm long and has 1 hole in the flange, and is mitred at one end only. The front corner bar is 2325mm and is squared off at the bottom and mitred to 16 degrees at the top

Having determined which corner bar is the roof, rear and front you must now establish which way round they go for assembly purposes.

- \* Rear corner bar  
The end that is mitred and with only one hole in the flange near to the mitre is the top of the bar. The bolt slots are to be on the inside for assembly purposes and beading channels on outside
- \* Roof corner bar  
There is a mitre at both ends and 4 holes in the flange. The smallest of the two mitres is to be the top of the bar i.e. it is to be placed nearest to the ridge. The other end with the most severe mitre will go to the eave to marry up with the rear corner bar.
- \* Front corner is square cut at the bottom and mitred and slotted at the top

4. Lay out the component parts on the ground with the bolt slots uppermost in the positions shown below.

Now you must add the nuts and bolts to the bars. The diagram below illustrates the bolt configuration for the right hand gable. Where a Dot appears below, a bolt with a finger tip tightened nut should be slid along the bolt slot of the bar. In the case of the corner bars, the bolt should be slid along the facing bolt slot which faces up, and not the bolt slot facing sideways. In to the bolt slot facing sideways on each corner bar, slide 2 bolts – 1 top and 1 bottom, put a nut on and finger tip tighten, these will be used later in the general assembly.





6. Starting with the rear corner bar, place the bottom hole of the gusset plate over the bolt that was inserted in the facing bolt channel of the rear corner bar. Slide the plate left or right until the next hole i.e. 2<sup>nd</sup> from the bottom in the gusset plate lines up with the hole in the flange of the side corner bar. Put nuts on and leave loose
7. Next using the bolt previously inserted in to the bottom of the roof corner bar in the facing bolt slot, place the gusset plate over utilising the top hole in the plate. Put the nut on loose
8. Slide the gusset plate left or right until the last hole not used (i.e. 2<sup>nd</sup> hole from top) lines up with the hole in the flange of the roof corner bar. Put a nut on the bolt and leave loose. The diagram of the gusset plate on the previous page will assist in the construction.

9. Attach the built in base to the side corner bar using the previously inserted bolt in the facing bolt slot of the rear corner bar. Slide the bolt downwards and into the slot on the cill. Put the nut back on and (see diagram for more detailed description of this assembly).
10. Next attach the tall front corner bar and glazing bar and glazing bar to the cill (having first threaded the glazing bead in to the channels of both bars). Starting with the tall corner bar, using the bottom bolt previously inserted into the facing bolt channel bar, offer the tall corner bar to the slotted hole in the bottom left side of the cill. Move the bolt downwards and into the slotted hole. Put the nut back on and tighten.
11. The two intermediate glazing bars can now be attached to the cill in the same way as the tall corner bar.



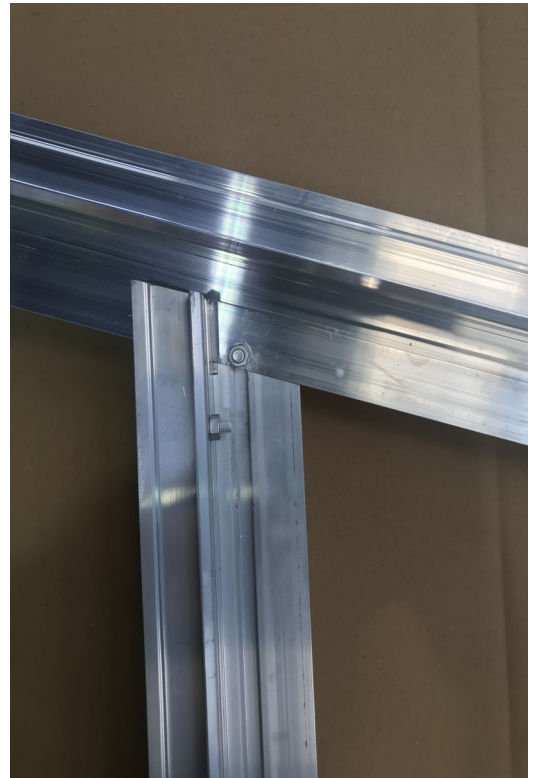
You must use a heavy duty angle brackets and a white washer and 3 long bolts.

Slide a long bolt into the bolt channel of the built in base to line up with each vertical glazing bar.

Slide 2 long bolts into the bottom of each long glazing bar and place a plastic washer on to the higher bolt.

Place the heavy bracket over all 3 bolts in each bar and tighten ensuring the glazing bar is tight down to the base and the bottom of the bracket is level with the bottom of the base.

12. Both the glazing bar and tall corner bar can now be fitted to the flange in the roof corner bars. Insert the bolt at the top of the tall corner bar and intermediate glazing bars in to the holes in the flange of the roof corner bar. The front corner bar has a vertical slot. Ensure the slot is fitted either side of the roof corner bar as shown. Put a nut on both bolts and finger tip tighten.
13. The angle can be fitted downwards. Place one end to the bottom bolt of the gusset plate. Put a nut on and finger tip tighten. Now utilising the highest bolts previously inserted into the tall corner bar and glazing bar, slide these bolts up or down so that they are in line with the horizontal bracing angle and insert them through the holes in the horizontal bracing angle. Put nuts back on and finger tip tighten.
14. Attach the diagonal angle to the bottom bolt of the gusset plate (meeting the horizontal angle) and to the 1st glazing bar at the base using the bolt that secures the glazing bar to the cill.



15. This gable end is almost complete. Before tightening all nuts, you must ensure the following.
  - A) The corner joint behind the eave gusset plate is tight, i.e. Corner bars are touching behind the gusset plate.
  - B) The glazing bars are pushed right up to the roof corner bar and the roof corner bar is pushed all the way down into the slot of the front corner bar
  - C) The glazing bar is pushed right down to the angle of the cill
  - D) The horizontal bracing angle is on the bottom bolt of the eave gusset plate and that it is parallel to the cill.
15. Tighten all the nuts. Take care not to over tighten
16. The louvre is an independent frame and is better fitted to this gable when the house is assembled, prior to glazing. It can only be installed to the centre bay if this is your chosen position

## LEFT HAND GABLE END FRAME

From the main box you will require:

1. Set of corner bars marked LEFT HAND END CORNER BARS.

2. Set of glazing bars, angle and cill marked END.

This contains:

1. Long Corner Bar
2. Cill
3. Glazing bars
4. 1 Horizontal bracing angle
5. 1 Diagonal angle

From the bag of assorted fittings and fittings within the box, you will require:

- 1 One eave gusset plate
- 2 Nuts and bolts
- 3 Coil of glazing bead





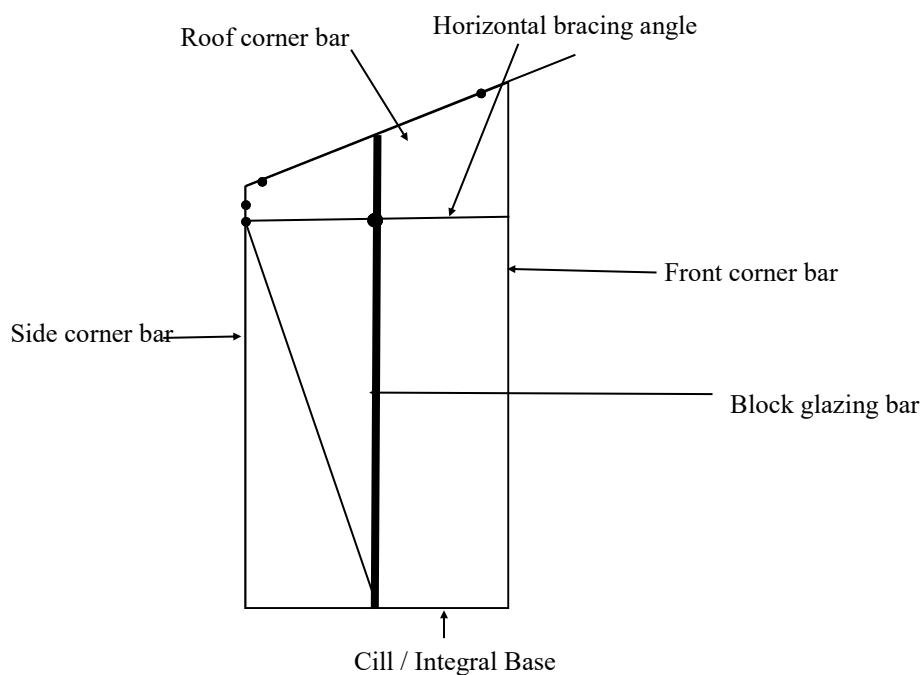
## Procedure

1. The initial construction of this gable is identical to the right hand gable but because the up rights are mitred everything is a mirrored image of the left hand end

### Front Corner Bar



Now you must add the nuts and bolts to the bars. The diagram below illustrates the bolt configuration for the left hand gable. Where a Dot appears below, a bolt with a finger tip tightened nut should be slid along the bolt slot of the bar. In the case of the corner bars, the bolt should be slid along the lower bolt slot which faces up, and not the bolt slot facing sideways. In to the bolt slot facing sideways on each corner bar, slide 2 bolts – 1 top and 1 bottom, put a nut on and finger tip tighten, these will be used later in the general assembly.



## REAR FRAME ASSEMBLY

From the main box and subsidiary extension packages you will require:

Eave/gutter bar

1- Built in Base – Taped together in one bundle marked  
FRONT (the ridge is also in this pack)

1- Pack of glazing bars marked REAR

2- Bracing angles (taped together with glazing bars above)

Heavy Angle Brackets—1 per glazing bar

**if unit is:**

6' long = 2 glazing bars

8' long = 3 glazing bars

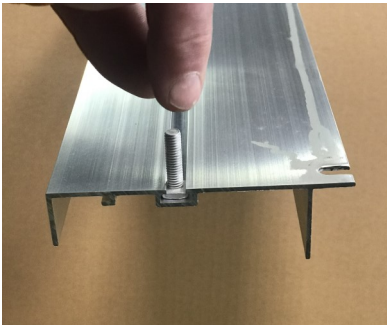
10' long = 4 glazing bars

12' long = 5 glazing bars



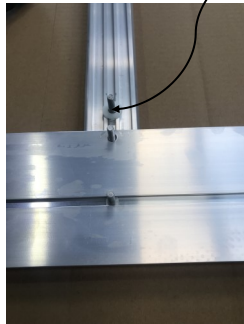


## REAR FRAME ASSEMBLY



Insert long bolts into the channel of the built in base and slide along the channel. The number of bolts will depend on how long the greenhouse is.

One bolt is needed every 2'. Therefore for a 8' long greenhouse 3 bolts are needed



washer

Now insert bolts into the rear end glazing bar. 2 bolts are needed per glazing bar. Lift the built in base section over the bottom bolt and insert a plastic washer to the remaining bolt. Place the heavy duty angle bracket so it is inline with all the bolts and place a nut over two of the bolts and tighten.



On the outer glazing bars only, insert the diagonal angle to the top bolt in the angle bracket and secure with a nut as shown.

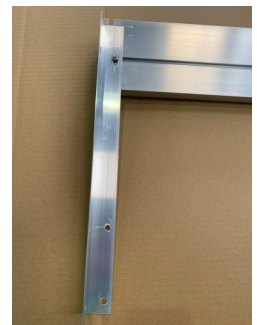
The diagonal angles must be arrange so that the widest each angle face each other



### Base Legs (400mm long)



If your greenhouse is being sited on a soft ground you need to use the base legs (shown right). At this stage only two of the base legs are needed. They need to attach at either end of the built in base section



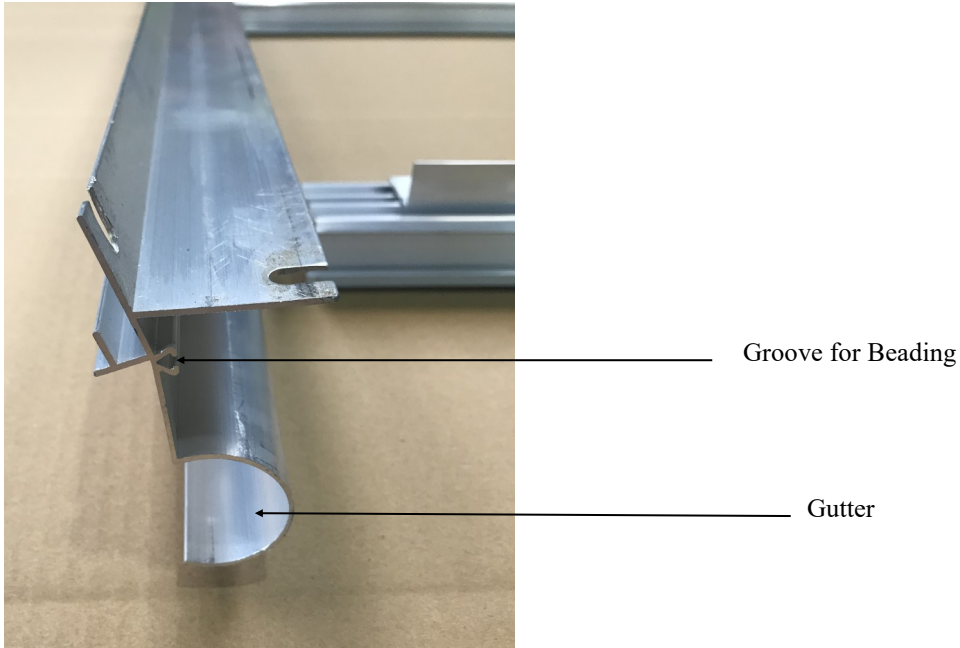
If your greenhouse is being sited on a hardground you need to use the base legs (shown right). Line the base leg up against the built in base section and using a hack saw—cut to length. At this stage only two of the base legs are needed. They need to attach at either end of the built in base section.



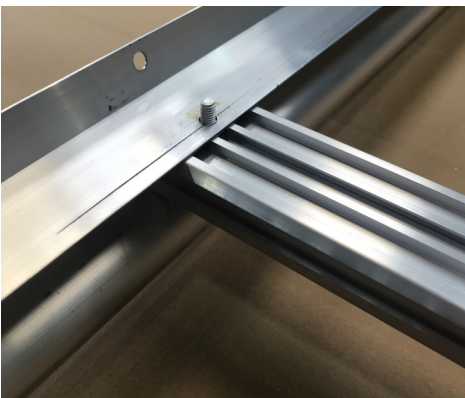


## Procedure:

1. Insert the glazing bead in to the gutter/eave bar and glazing bars (in the manner previously outlined)



2. Lay out the component parts on the floor with the bolt slots uppermost. The gutter and cill are facing the ground.
3. Insert a bolts into each glazing bar at the top
4. Attach the gutter/eave bar to the top of each glazing bar utilising the bolt in each glazing bar as illustrated below.



5. Ensure all points are tight and frame is square before tightening nuts.

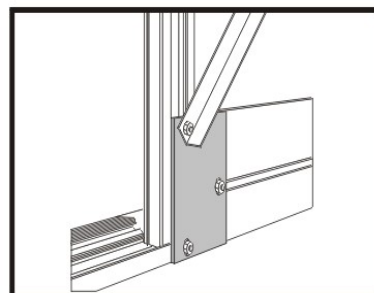
## FRONT DOOR FRAME ASSEMBLY

From the main box of aluminium you require:

1. 1 Ridge
2. 2 Integral base sections
3. 2 GX Bars
4. 2 Diagonal angles
5. 2 Small rectangular plates
6. 1 Main door track support
7. 1 Short block bar
8. Neoprene beading
9. 2 Small angle brackets
10. Heavy Duty angle brackets if greenhouse is over 8' long
11. 2 Corner Brackets / Base Legs
12. Door End Cill



This frame is assembled in a similar way to the rear frame, the two long glazing bars are linked to the integral base, cill angles and glazing bar by the small rectangular plate

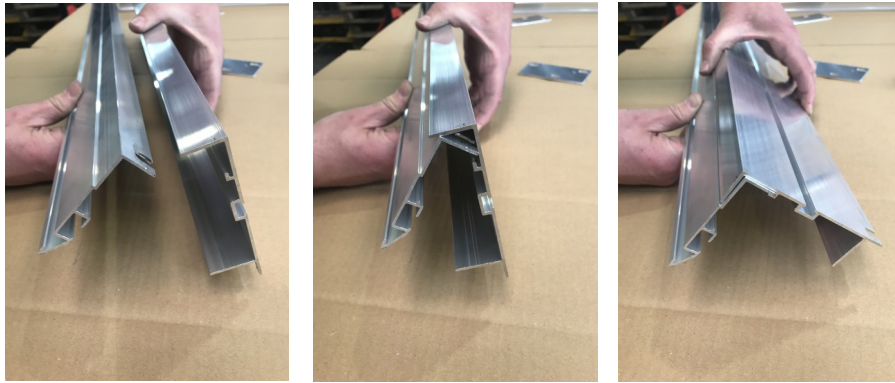


DOOR END PLATE

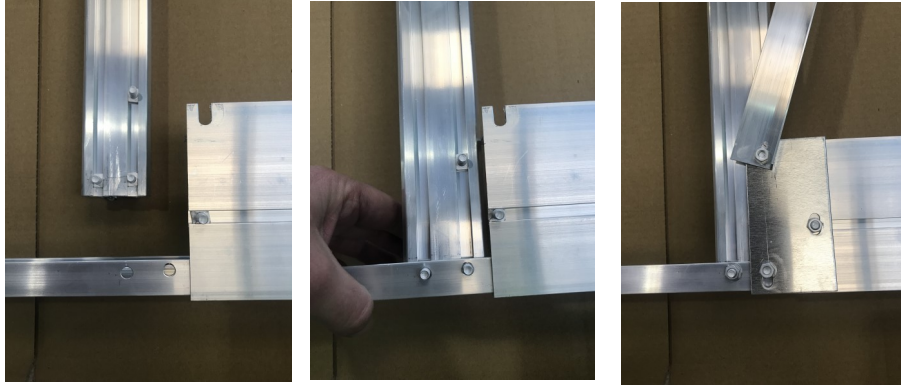
## FRONT ASSEMBLY

From the main bag of fittings you need: nuts and bolts, glazing beading

1. Now engage the door end cill with the 2 built in base cills by pushing the angle of the cill under the locator as shown in the diagram. At this stage the cill will move freely left and right but will remain located to the built in base cill.



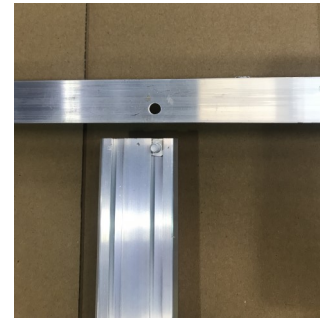
2. Slide 2 bolts into the bottom of each glazing bar and 3 bolts into the free end of each built in base section. Attach the 2<sup>nd</sup> bolt in the glazing bar to the hole in the door end cill, but do not put a nut on yet. **The door end glazing bars do not sit on top of the base (as the rear glazing bars do), they go down the side of the base and attach to the bottom cill. (Key point). See below**



3. If the greenhouse is longer than 8', additional glazing bars are required. They fit to the top of the base using the heavy duty angle bracket and long bolts in the same way as the rear end
4. Attach the rectangular plate (with 3 slotted holes) to the 2 bolts inserted in the glazing bars and the last bolt inserted into the base ensuring that the glazing bar is tight down into the angle of the door end cill,. Attach the diagonal angle to the top bolt of the rectangular plate, and then to the bottom bolt of the eaves gusset plate. The 2 unoccupied bolts in the base sections will be used to anchor the greenhouse to the floor and for the base legs.



5. Attach a corner bracket/base legs to the outside ends of the 2 front built in base sections. These will be used later to attach the sides to the end assemblies.
6. Slide 3 bolts into the outer bolt slot of the top of 2 GX glazing bars and 1 into the inner bolt slot of the same bars. If the greenhouse is over 8' long, slide 1 bolt into the top of the additional bars
7. Attach the GX glazing bar to the ridge using the highest bolt inserted above
8. Attach the main door track support (shaped like a letter Z) to the lower pre inserted bolt in the GX glazing bars. This 'Z' shaped bar must be fitted with the two outside slots facing upwards (as illustrated) **not** downwards. **(Key point).**



Outer Bolt Slot

Inner Bolt Slot

small glazing door track support the ridge bar

9. Attach the bar to the slot in the support and the hole in as shown
10. Stand the frame up and bolt the door track to the main door track support by inserting 3 bolts into the bolt slot of the door track. Position the bolts through the 3 holes in the door track support above the door opening.
11. Check that all joints are tight and all braces are in position, and then tighten up all nuts. At this stage the top of the diagonal brace is unoccupied. The end is now complete.

N.B. Please note carefully the correct position of the main door support. The slotted holes at either end are facing skywards NOT downwards. **(Key point).**

Please note, you only require approx. 400mm of beading in the inside 'v' groove of the long door end glazing bars.

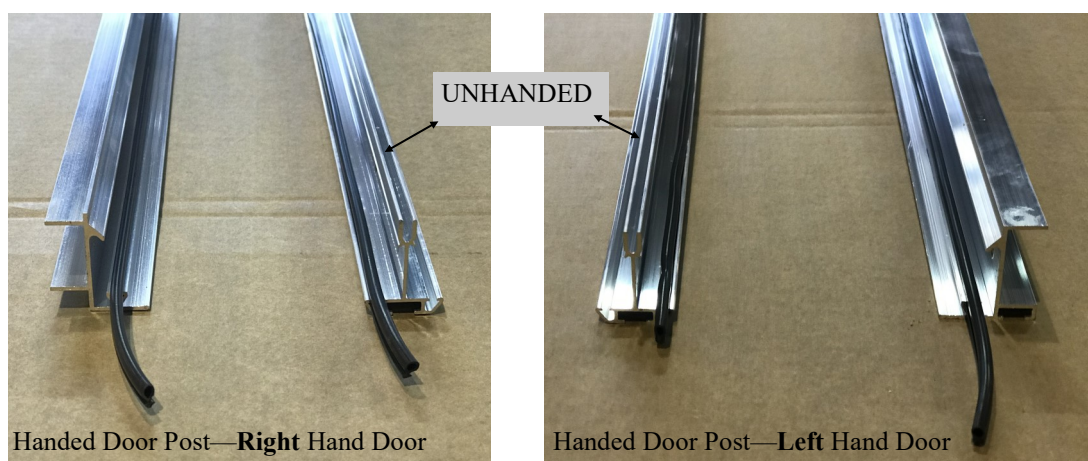
## DOOR FRAME ASSEMBLY

Each Door consists of:

- 1 unhande door post
- 1 handed door post (handed post for left door is different profile to the handed right hand door post)
- 3 infill panels (1 with pre fabricated lock hole– right hand door only) for lock barrel
- 1 top and bottom door panels
- 3 panels of glass which must be fitted during door assembly. **It is not possible to fit glass after the door is built.**

From the main bag of fittings you require;

- 2 door wheels
- 1 clip on nylon door skid (this might already be fitted to the bottom door panel)
- 2 lengths of black brush draught excluder with PVC carrier
- Door lock, self tapping screws and spring washers
- 12' glazing beading
- Door handles
- 3 PVC Glass strips



**Left Door from outside)**

**hand (viewed**

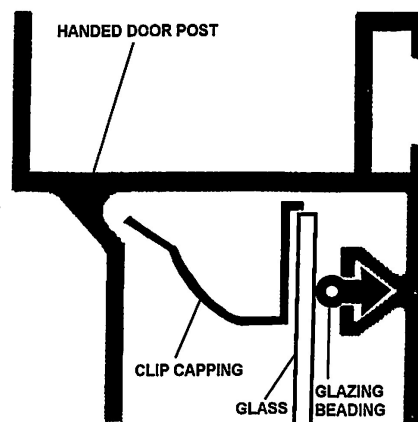
**Identify the correct door posts.** The handed door post for the left hand door has a bolt channel, whereas the handed door post for the right hand door post does not. **(Key point).**

1. Place one unhande post and the handed post for left hand door on a level surface roughly two feet apart with the bolt slots facing downwards. (Unhande door post on the left, handed door post on the right). The top of each side post has two screw holes in it, the bottom has three. **(Key point).** Slide the glazing beading into the groove of each bar i.e. only one length of glazing beading per bar.
2. Place the top, bottom and 3 infill panels in position as shown by the position of the screw holes in the side pieces and the panels. The top panel has the greenhouse name on it. The bottom panel has the edge for the door skid to fit on. The lower infill panel locks on to the bottom panel. The infill panel for the left hand door **does not** have a pre fabricated hole for the lock barrel.
3. Fix the left hand door post to the door panels by screwing through the door side pieces into the holes provided in the edge of the panels with the self tapping screws. The screws will go in more easily and with out danger of trying to go crooked if you can put a small amount of grease on the screw before assembling the doors. Alternatively, you could insert the screws into the screw eyes of the door panels before assembling the door; this would have the effect of pre-self tapping the panels prior to assembly, making assembly easier.
4. **GLASS MUST BE FITTED TO EACH DOOR BEFORE THE 2ND DOOR POST IS FITTED. (KEY POINT).**

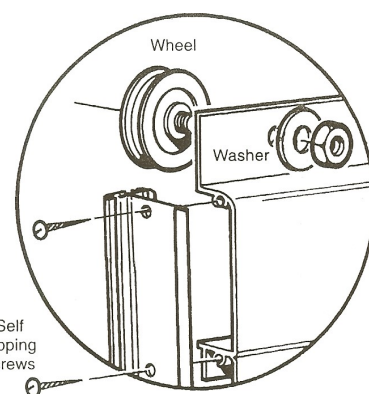


5. Before fitting the unhanded door post, offer the glass panels to the door (see glazing plan in booklet for glass size guide on door), slide them in from the side. Carefully attach the unhanded door post in the same way as before, ensuring the glass is sitting in the correct position (sitting on the beading channels of the door posts) before tightening the screws.

6. Make sure all angles are square and tighten all screws. Now insert 2 glazing clips to the glass on the unhanded door post. The other side of the door is clipped using a pvc glass strip (or clip cap). Cut the strip to the correct length and push into the cavity between the glass and the handed door post. The cap when fitted acts as a wedge to prevent movement of the glass. Metal clips are not fitted to this bar.



7. Fix each door wheel into position by pushing the bolt provided through the centre of the wheel and then through the hole in the top door panel from underneath (i.e. from the inside of the door). Put the washer over the bolt and secure with the nut provided, tightening until there is no movement on the bolt. The nuts are lock-nuts and are harder to put on than normal nuts in general assembly. The wheel will revolve freely because it has ball bearings in it. **The wheel has a collar protruding from the centre, this collar goes against the inside face of the top door panel.** (See picture).



8. Slip the nylon door skids on each of the bottom panels. This may already have been done prior to delivery. After fitting the doors (see later in the booklet), you may need to lower the door skid so that it engages with the bottom door cill to allow smooth movement of the door. Lower the skid on each door and insert a self tapping screw at each end of the skid to rein force the position.

9. Build the right hand door using the remaining handed and unhanded door post. Viewed from the outside, the handed door post will be on the left of the door, while the unhanded door post will be on the right. At this point you must decide the height you would like your door lock. The hole to take the door lock is on the left hand side of the infill panel. You can decide to fit this panel to the 2nd or 3rd panel down. **Make sure you fit the glass before final fixing of the door.** See glazing plan towards the back of this booklet.

10. Thread the stainless steel backed brush extruder into the PVC carrier. This may already have been done prior to delivery.

11. Turn the doors over and insert the black brush draught excluder in the groove (bolt slot) in the unhanded door posts. Insert a nut and bolt at the bottom of each unhanded door post and tighten so that the brush will not slip down when the door is in its upright position. Cut off the surplus brush and carrier at the top of the bar.

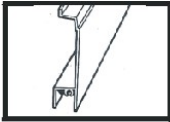
12. Do not fit the door to the gable at this stage – wait until the structure is fully assembled prior to glazing.

13. Door handles can now be fitted.

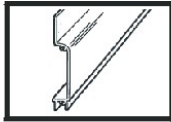
# DOOR FRAME ASSEMBLY



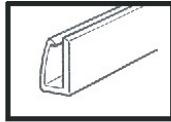
DRAUGHT EXCLUDER



DOOR INFIL PANEL



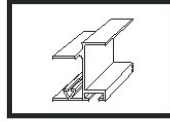
DOOR TOP/  
BOTTOM PANEL



DOOR SKID



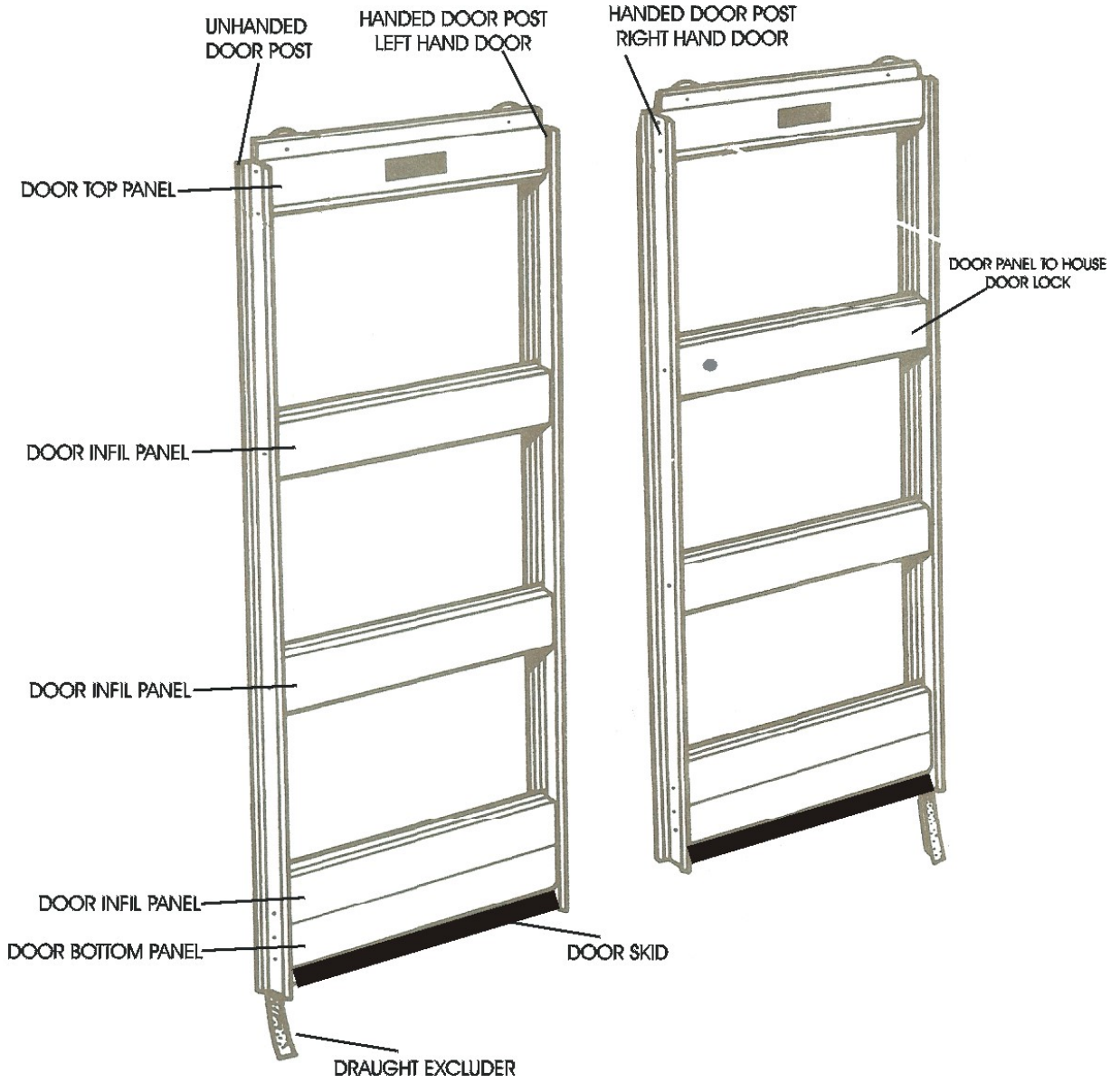
UNHANDLED  
DOOR POST



HANDED DOOR POST  
LEFT HAND DOOR

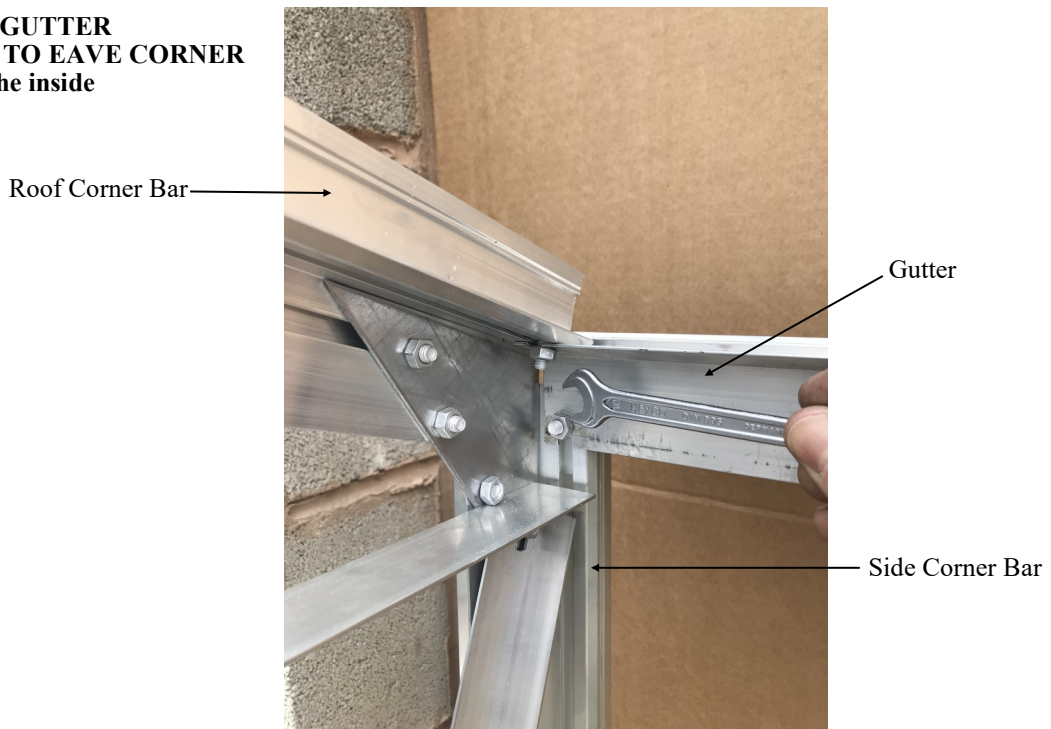


HANDED DOOR POST  
RIGHT HAND DOOR



## GENERAL ASSEMBLY OF GREENHOUSE UNIT

### DETAILS OF GUTTER ATTACHING TO EAVE CORNER Viewed from the inside



### A Attach right and left hand gables to back frame

1. Stand the left hand end frame and the front up so that they meet at the left back corner. Push the gutter/eave bar into the small gap between the roof and side corner bars so that the slotted holes at the end of the eave flanges line up with the bolt slot in the corner bar. The gutter is OUTSIDE the end frame and the two flanges that form the angle of the roof and side are INSIDE and tight up against the bolt slots of the roof and side corner bars (**Key point**).

The extra bolts inserted into the alternative bolt channel of the corner bar during gable end assembly can now be slid into the slots in the eave bar to secure the corner.

2. The built in base attaches to the inside of the corner bar. The bolt placed in the alternative bolt channel of the corner bar at gable end assembly will slide down into the slotted hole at the end of the base
3. Do the same operation with the right hand gable and front frame.



Next, attach the two diagonal angles to the corner bars. Because they are not in a fixed position you can move the back left and right until the frame is completely square.

Leave the top bolt on the diagonal brace loose until you arrive at the glazing bar



**B Do the same with the front frame which will attach to the gable end corner bars in a similar way to the back frame**



The top bar (ridge) on the front frame assembly is attached to the side frame corner bars by lining up the slot in the ridge to the bolt channel of the corner bar. Slide the bolt previously inserted in the alternative bolt channel of the corner bar so as to engage with the slot of the ridge. Tightened up



## C The next step is to put the roof on

### 1 Attaching the outer ridge

Firstly insert the glazing beading into the vee groove, then in the same way the gutter slotted into the corner bars so too does the ridge. Slot the ridge on to the end of the corner bar, ensuring the flat part faces outwards. The bolts inserted in the roof corner bars at original frame assembly can now be slid into the slots at the end of the ridge. **(Key point)**

2 Firstly thread the glazing bead into the grooves of each roof glazing bar, as previously described in an earlier section.

3 Slide one bolt along the bolt slot of each roof glazing bar at each end and on extra bolt in the middle bar and attach to the gutter and ridge as shown in the diagram. Add a nut and tighten.

4 Attach all the other glazing bars to the gutter and ridge in the exact same way as above.

5 Tighten all the nuts taking care not to over tighten.



### Off Set Roof Bracket

Using the unoccupied bolt in the middle glazing bar and the top bolt of the short glazing bar over the door, attach the offset bracket to pin the roof



## ROOF SUPPORT CANTILEVER BRACKETS

The roof bars are secured to the front and rear assembly using cantilever brackets fitted on the inside.

Starting with the bottom of the roof bar, insert a cropped head bolt into the bolt channel and attach the cantilever using a nut. Now insert a cropped head bolt into the vertical glazing bar of the rear assembly and secure the vacant end of the cantilever. Repeat this for every roof bar, including each corner bar. Tighten the nuts

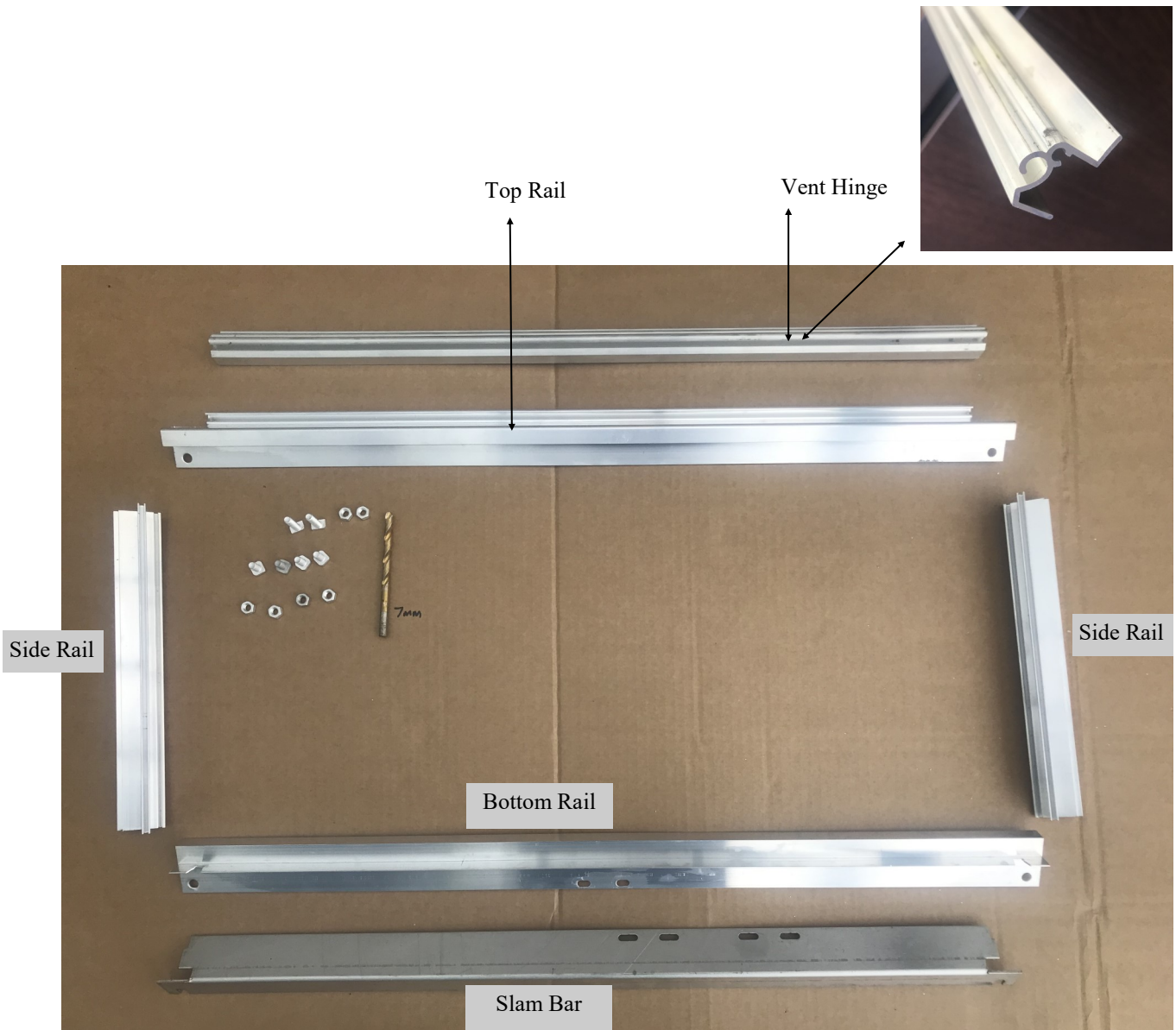


Repeat the same process for the cantilever at the top of the roof bar where it meets the vertical glazing bars of the front assembly. You will notice the fold on this cantilever is different at each end so be careful to fit the correct way round.



## VENT ASSEMBLY

The Edge comes as standard with two roof vents. Each vent pack has 6 pieces of aluminium: and from the main box of fittings you require 6' of glazing beading, 6 nuts and bolts, 1 casement stay pins, 1 casement stay and 6 M4 stainless steel nuts and bolts.



Slam Bar and Pins



### Sliding the hinge into position

- 1 The vent hinge has two round holes in approximately 50mm from either end.
- 2 Offer the vent hinge section to the space between the long upright corner bar and the doorway glazing bar so that the flange with the two holes in faces up to the flange in the ridge. Mark the inner ridge flange with a marker, remove the hinge bar and drill two 7mm holes in the inner ridge at the point when you marked it.
- 3 Don't attach the Vent hinge just yet.



### Build the Vent

- Attach the casement pins to the Slam Bar
- Insert beading into both side rails, top and bottom rails



Slide a bolt into each end of both side rails and attach the vent top and bottom rail ensuring that the beading channels are on the outside and the bolt channels are on the inside





## Fitting the Slam Bar

The vent slam can now be fitted to the two bars underneath the inner ridge approximately 400mm down from the ridge. The ends of the slam bar are cut out to go round the profile of the glazing bars. Secure the slam bar with the two bolts that were inserted when you made the front and the gable.

The slam bar is an unequal angle and it attaches to the glazing bars with the longer part of the angle pointing outwards, i.e. toward the bottom rail of the vent, and the shorter part of the angle pointing to the floor.

Viewed from the inside

Glazing bar



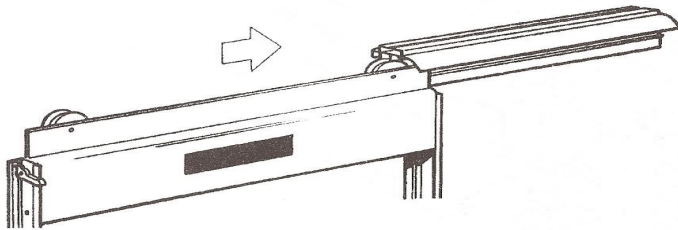
- 1 Interlock the vent with the vent hinge. Offer the hinge and vent to the vent position, line up the holes in the hinge with the holes you have previously drilled in the ridge and secure with a long crop head nut and bolt
- 2 Adjust the slam bar up/down so the vent bottom rail engages correctly with the casement stay and pin.



Viewed from the inside

## FITTING THE DOOR

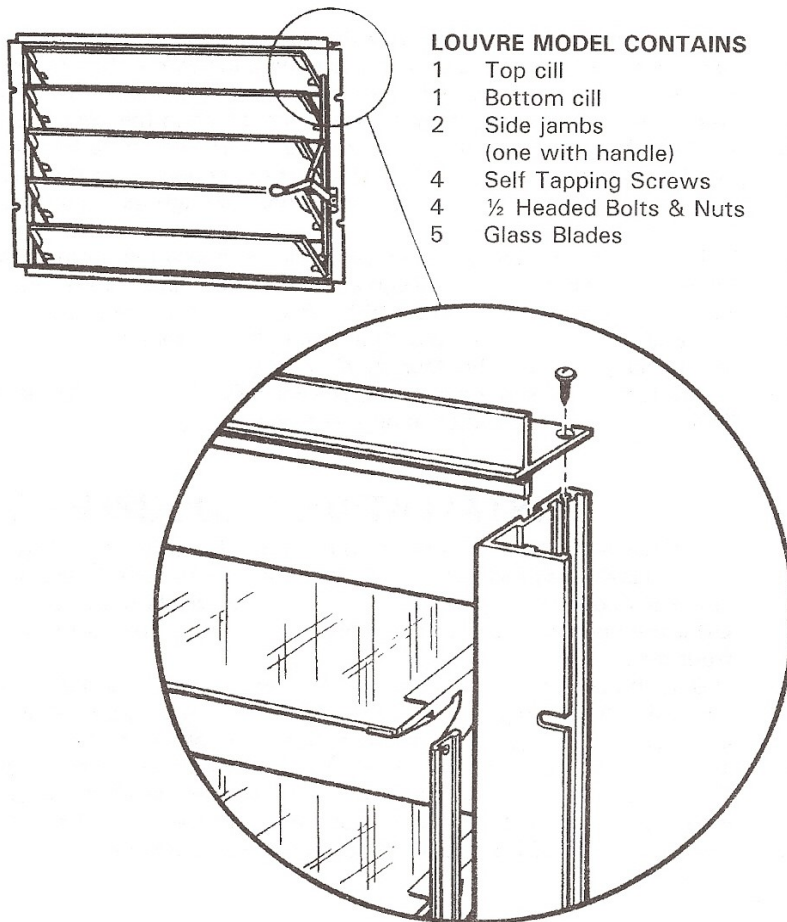
- 1 Hold the door frame assembly in front of the door opening, to the left for the left hand door (to the right for the right hand door)
- 2 Align the door wheels with the guides in the upper track.
- 3 Set the first door wheel into the track with the bottom of the door inside the cill section.
- 4 Slowly push the door towards the doorway opening, making sure the nylon door skid remains in the bottom cill guide.
- 5 Continue moving the door towards the doorway opening making sure the second wheel correctly enters the top door track.
- 6 Make sure the nylon guide remains in the door guide at the bottom.
- 7 The door can now be adjusted slightly up or down to afford proper unhindered movement by loosening the bolts, holding the door track support and moving it up and down.
- 8 Bolt a small flat bar bracket to the top door track, one = top left, one = top right angle down so that the smaller hole lines up with the vertical groove on the glazing bar or corner. Insert a small self tapping screw through the bracket and in the glazing bar.



## 5 BLADE LOUVRE

### Procedure

1. Place top cill into position on side jamb of louvre and secure with self tapping screws.
2. Do same on the other top corner.
3. Do same with bottom cill.
4. Please note that the handle is on the right hand side, the above diagrams are viewed from the middle.
5. To fit the louvre to the side, utilise the extra bolts you inserted during side frame assembly. Insert a glass pane at the bottom, bolt the louvre to the framework and slide it down so that the bottom cill of the louvre frame is touching the pane of glass. With the louvre in the open position, insert the 5 glass blades from the inside. Insert the upper pane above the louvre.





## INSTALLATION OF 5 BLADE LOUVRE

The louvre can be installed to either the fixed gable end or front assembly (but must be between 2 glazing bars, not corner bars). This position might not be variable depending upon your door position.

1. The louvre must be fitted after the unit has been fully assembled and anchored to the wall and base, and prior to glazing.

2. The louvre is fitted to the glazing bars of the fixed gable end utilising the 4 unoccupied bolts previously inserted into the bolt slots of the glazing bars concerned during original assembly.

3. The louvre is fitted from the inside of the structure with the angle jambs fitting around the glazing bar.

**N.B.** The handle is on the inside of the greenhouse and the right hand side as viewed from inside the structure.

4. To determine the height, install a pane of glass under the louvre (glass size dependant upon desired louvre height- see relevant glazing plan).

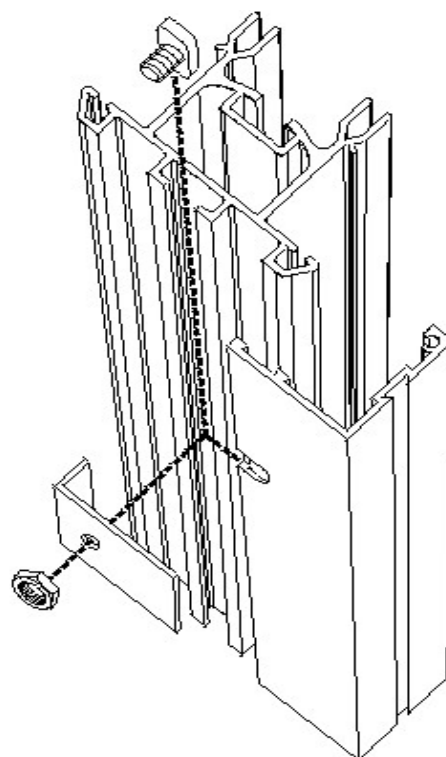
5. Inside the fitting you will have 4 louvre clamps/louvre.

6. Using the previously inserted bolts (or using 1/2 head bolts supplied) loosely fit the 4 brackets as shown to the greenhouse frame, and then tighten so as to clamp the louvre frame to the greenhouse.

7. Offer the louvre frame to the bolts; add the nuts and finger tip tighten.

8. Slide the completed framework to the top of the pane of glass so that the bottom cill of the louvre rests on the glass.

9. Tighten all nuts.



BRACKET FIXING TO  
LOUVRE FRAME

## GLAZING THE LOUVRE

- 1 The louvre must be glazed after it has been installed to the structure
- 2 Open the louvre using the handle
- 3 Slide individual blade of glass between the jambs into the aluminium holders
- 4 The glass will come to rest in the holder at the bottom of the jambs

## GLAZING THE STRUCTURE

Having anchored the structure to the base floor, observing the earlier comments about levels, square etc. you can commence glazing

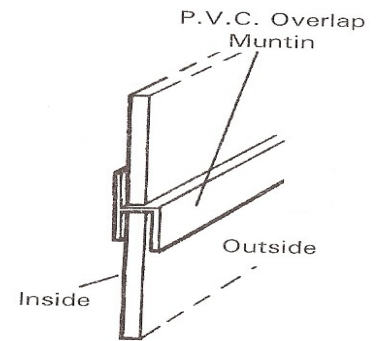
If you are out on any of the 3 key points i.e.

- 1 Level base
- 2 Square base
- 3 The 4 walls of the building being 90° to each other

Then you will have difficulty in glazing. So please be sure starting this section of construction.

## Toughened Glass

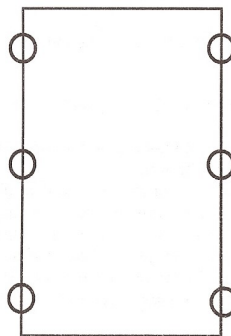
- \* The toughened glass option is in single sheets, apart from the shapes.
- \* Use 8 stainless steel wire clips per large pane of glass.
- \* Where you have an "overlap" you use the PVC muntin as indicated.



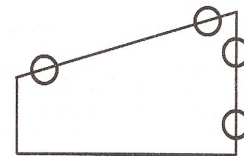
The glass to fit along the back (under the gutter) is required to be longer than the glass supplied. To overcome this, you will find a number of PVC spacer bars inside the packet of glass delivered (full sheet toughened glass only). This spacer must be fitted to the top of the front pane before the glass is installed to the front assembly. Please see diagram below

### CLIP CONFIGURATION FOR TOUGHENED GLASS

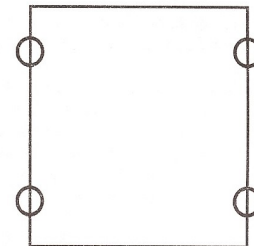
For panes of glass not exceeding 1100mm long



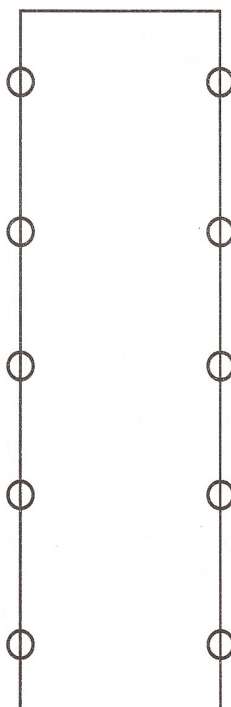
For shapes, stainless steel clips should be arranged as seen below (in all the following diagrams, a circle indicates a clip)



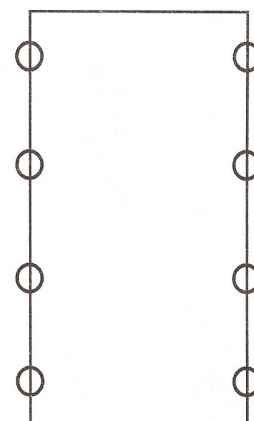
For panes of glass not exceeding 750mm long



For panes of glass not exceeding 2000mm long

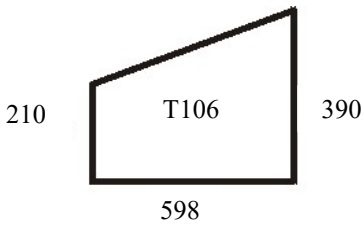
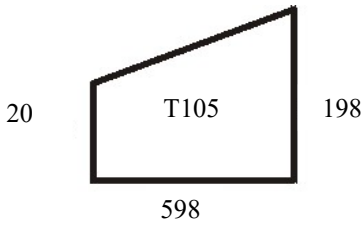
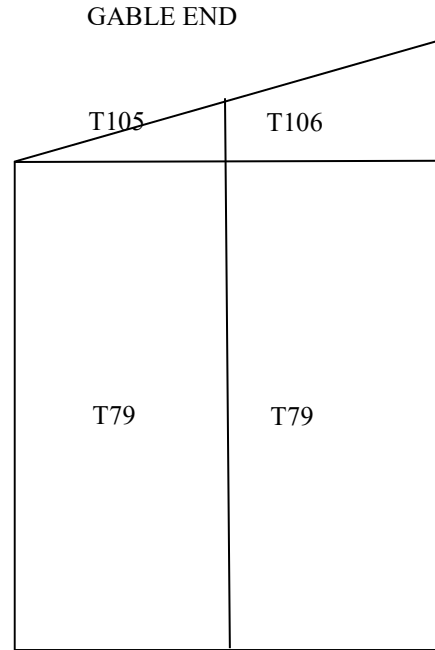
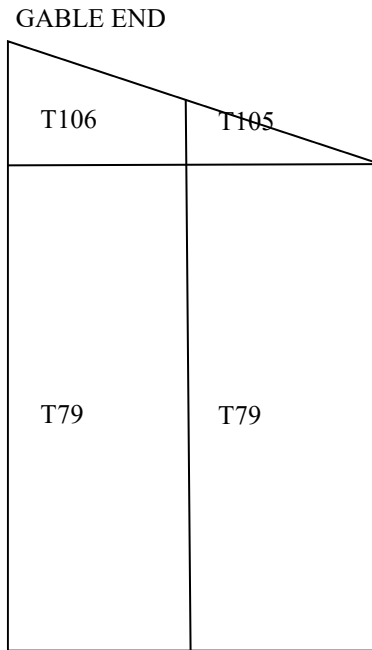


For panes of glass not exceeding 1500mm long



# 4' WIDE THE EDGE 4MM TOUGHENED GLASS PLAN

Glass pane for double doors on the front. Louvre on the rear end.



BACK

SPACER	SPACER	SPACER	SPACER
T79	T80	T12	T79
		5@22	
		21	

ROOF

T103	T104	T104	T103
------	------	------	------

FRONT DOUBLE DOORS— 8' wide model demonstrated

VENT 108	T107	T107	VENT T108
T97			T97
3	19	19	3
	19	19	
	18	18	

The glazing specification alters as the door position changes or the length is increased. Please refer to the dedicated glazing plan which is attached to your delivery note

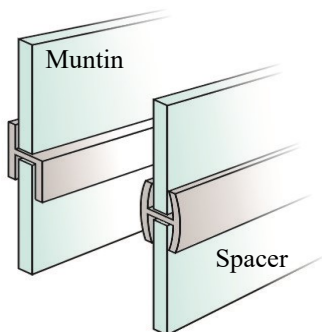
FRONT DOUBLE DOORS— 10' wide model demonstrated

VENT 108	T110	T107	T107	VENT T108
T97				T97
T79	T79	19	19	3
		19	19	
		18	18	



## SCHEDULE: 4mm TOUGHENED GLASS

Code	Width x Length(mm)
T79	598 X 1775
T80	585 X 1775
T12	585 X 1197
T83	585 X 131
T103	598 X 1600
T104	585 X 1600
T108	610 X 260
T107	573 X 318
T97	598 X 115
3	610 X 1775
19	610 X 457
18	610 X 610
T97	598 X 115
T110	598 X 385



**PVC Glass spacers and muntins can be found in with the shaped pieces of glass.**

## TOUGHENED GLASS

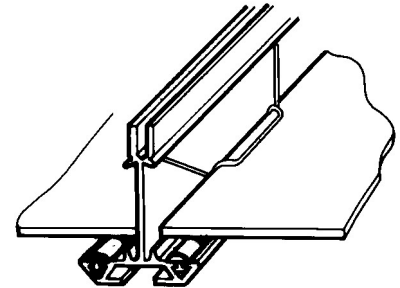
**Always handle glass with extreme care as failure to do so can result in injury.**

Your greenhouse is supplied with PVC bar capping and you will find the bar capping installation instructions with the bundle of capping.

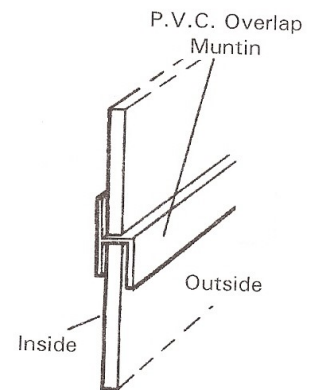
Your greenhouse is glazed using both wire clips and then bar capping on top.

### Wire Clips

Start with the panes of glass on the side (see glazing plan later in this booklet), Insert 4 wire clips as illustrated, put one 'wing' of the clip under the ridge at the front of the bar, then insert the two shoulders just behind the edge of the glass. The other 'wing' of the clip, which is not yet engaged in the bar can now be pushed downwards until it clicks into and under the ridge on the front of the glazing bar. 2 on either side of the pane approx. 100mm from the bottom and the top. The upper 2 clips approx. ½" (13mm) from the top edge of the glass. Now insert the intermediate clips so as to have 8 clips per large pane.



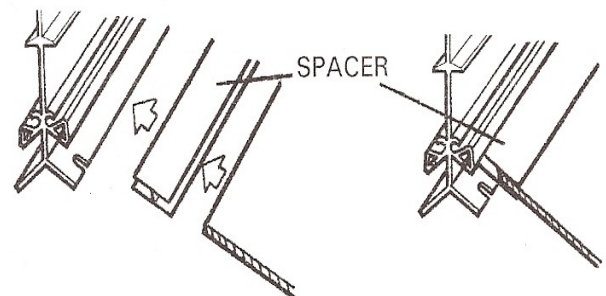
With single sheet toughened glass the traditional overlap system used with the horticultural glass is replaced by a rigid P.V.C muntin. Muntins are only used where 2 pieces of glass butt together. Position the muntin on top of the lower pane of glass taking care to have the inside and outside as indicated. Put the next pane on top of the muntin (into the rebate) and clip the glass in, as previously described. There are enough stainless steel clips in your kit for 8 clips per large pane of toughened glass over 1.2m.



### GLASS SPACER

The roof glass is fitted by utilising a PVC roof spacer as illustrated.

Place the vent spacer onto the top of the roof pane (thus increasing the overall length of the glass). **N.B.** The spacer can increase the glass size by 9mm or 11mm depending which way round you fit it. It is designed this way to allow for the glass/alloy tolerances. Offer the glass to the glazing bars pushing it upwards towards the ridge. In order to fit the spacer end of the glass under the beading in the ridge, you need to lift the glass up from the bottom whilst simultaneously pushing upwards until the spacer is firmly 'inside' and touching the ridge.





To support the glass in the roof vent, 2 small aluminium clips need to be fitted. Hook the folded part over the aluminium in the vent bottom rail. Apply the glass and fold the clip up to secure the glass as shown.

**BAR CAPPING**  
**YOUR GREENHOUSE IS PROVIDED WITH PVC BAR CAPPING AS STANDARD. THE INSTRUCTIONS FOR THIS ARE WRAPPED WITH THE BAR CAPPING**

## ANCHORING THE STRUCTURE TO THE FLOOR

Before anchoring down you must ensure that the structure is level and square. If you measure the frame diagonally from corner to corner in both directions the measurement should be the same.

### BASE SIZE AND PREPARATION (for brick/concrete bases only)

The Edge 400 (L x W)	Length	Width (A)	√ Square
8 x 4	2538mm	1357mm	2878mm
10 x 4	3156mm	1357mm	3435mm
12 x 4	3774mm	1357mm	4011mm
14 x 4	4392mm	1357mm	4597mm
16 x 4	5010mm	1357mm	5191mm
18 x 4	5628mm	1357mm	5789mm
20 x 4	6246mm	1357mm	6392mm



Attach the heavy duty angle brackets to the inside of the base using the unoccupied bolts previously inserted

If your greenhouse is being sited on a soft ground you need to use the base legs (shown right). At this stage only two of the base legs are needed. They need to attach at either end of the built in base section





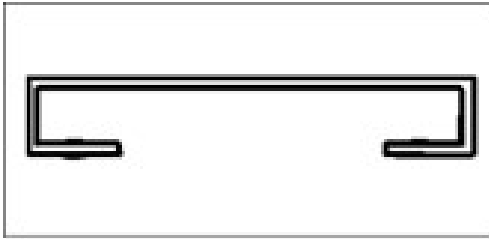
## FINISHING OFF

Now you have successfully completed the full installation of your Edge greenhouse, there may be just a couple of things that require attention.

1. At the part where the corner bars and gutters meet and, a gap can occur that may require filling by inserting a small bead of silicone.
2. To avoid seepage of water between the cill of the structure and the brick base, or floor it is best to put a fillet of cement to cover any gaps that are 10mm plus. Anything less than 10mm you can use the silicone
3. Ensure that all nuts and bolts are tight and that glazing clips and overlap clips are pushed securely into place.
4. Check that the door runs correctly and is properly secured.
5. Maintenance with an alloy greenhouse is minimal but ensure that the door top and bottom tracks are free from debris which will inhibit its movement. The louvre has a number of moving parts which may require lubrication once in every 6 months with lubricating fluid of some kind.
6. Replacing broken glass requires care and attention:
  - a) Always wear protective gloves and eye protectors.
  - b) Remove the broken pieces from the frame, you may need a screwdriver or a knife to remove some of the smaller bits.
  - c) Do not attempt to remove a piece of glass still held in with clips, use a pair of pliers to remove the clip.
  - d) If it is a lower pane of glass that needs to be replaced or removed, you must first remove the upper panes.

## FITTING THE DOOR HANDLES

The handles are fitted to the infill panel on each door (choose between 1st or 2nd panel down). Position the handle centrally, and mark the hole position. Drill 7mm diameter holes (2 holes per door), then fit the handles, and secure with a nut and bolt.



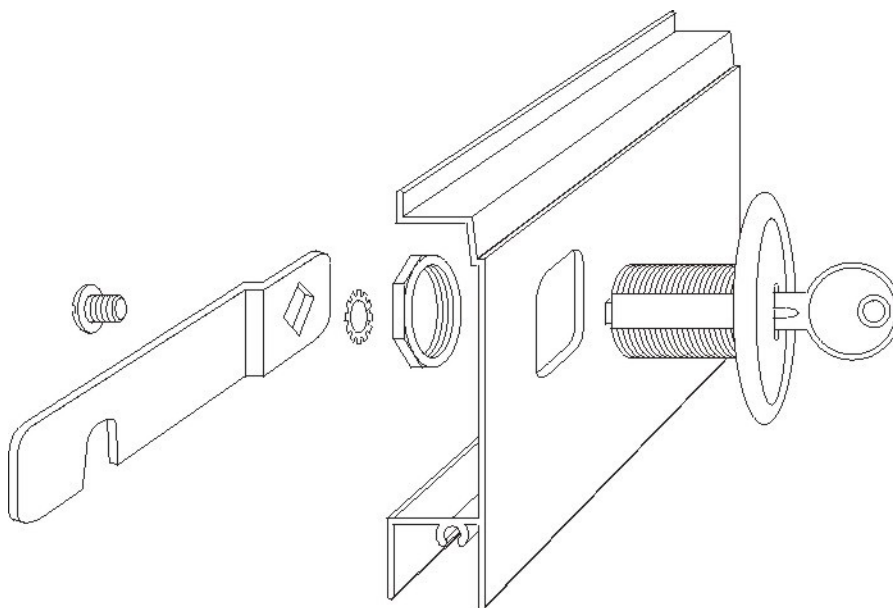
DOOR HANDLE

## FITTING THE DOOR LOCK

The door lock must be fitted after the door is in position (**Key Point**). Undo the ring bolt from the door lock, and insert the barrel through the hole in the panel from the outside. Reattach the ring bolt to the barrel on the inside, and tighten.

Now attach the cam lever and screw. Check before tightening that the cam moves in the correct direction to lock when the key is turned.

The key can be taken out of the lock when in the lock or unlock position.



## FINISHING OFF

To prevent the door from sliding past its opening, you must fix 2 angle brackets to the door end assembly. Insert a cropped head into the bolt channel at top of the left hand glazing bar (viewed from the inside) and fix an angle bracket as shown in the picture below.

The bracket must be fitted at the same height as the door panel so that, as the door moves left or right, the bracket prevents the door from moving too far along the top door track.

Repeat at the bottom of the door

Repeat for the 2nd door



outside



inside



To facilitate smooth running of the door, fit 1 flat bar / door track support at each end of the top door track.

The flat bar has 2 holes (1 each end). Attach the larger hole to the channel at the end of the top door track. The other end of the flat bar is self-tapped into the vertical screw groove of the closest glazing bar / corner bar. Repeat for the other door.

Finally, a draught strip needs to be fitted to the joint between the front assembly and the roof. Drill a small hole at each end of the black plastic skid as shown. Offer to the gap above the lower ridge and self-tap into position as shown



# OPTIONAL EXTRAS

## RAIN WATER KIT FOR GUTTERING

