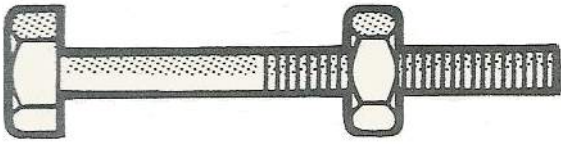


INSTRUCTION MANUAL



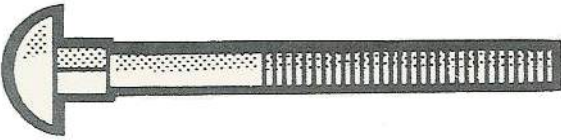
FAIRFORD 60

Fixing Accessories



HEX. BOLT c/w HEX. NUT

When tightening all bolts observe the following rule: Bolts should be turned by hand and then be given no more than two turns of a spanner as over-tightening is neither necessary nor desirable



COACH BOLT

Washers are not required under the heads of coach bolts, when adjacent to timber or metal surfaces.



TAPERED WASHER

Fitting to **HEX. BOLTS** and **COACH BOLTS** when used against splayed concrete surfaces, e.g. the inside faces of concrete panels.

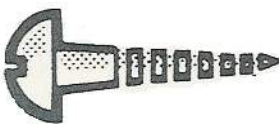


WASHER

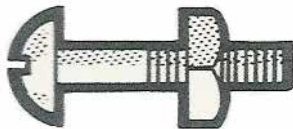
Fitting to **HEX. BOLTS** and **COACH BOLTS** when used against splayed concrete surfaces, e.g. the inside faces of concrete panels.



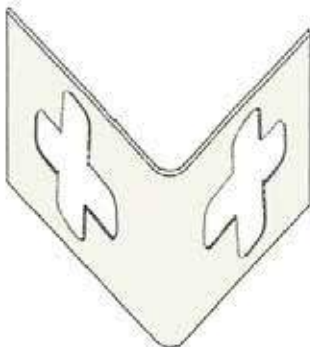
COUNTERSUNK (CSK.) SCREW



ROUNDHEAD (RD. HD.) SCREW

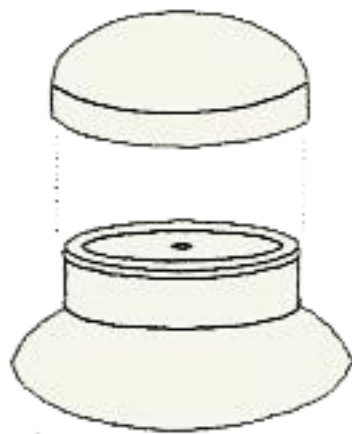


SEAM BOLT c/w SQUARE NUT



M1500 (90 Degree Bracket)

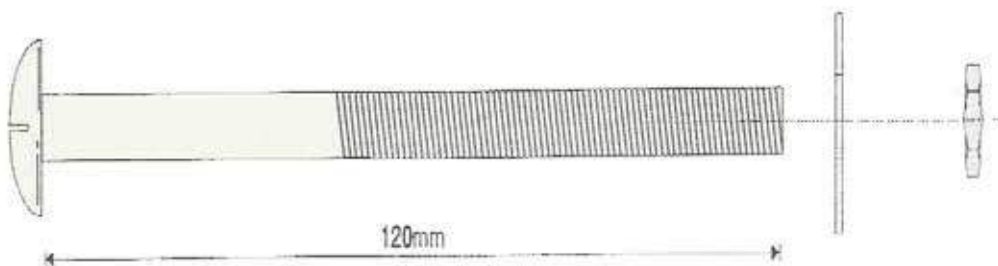
Component Identification Sheet



M6 SELACAP

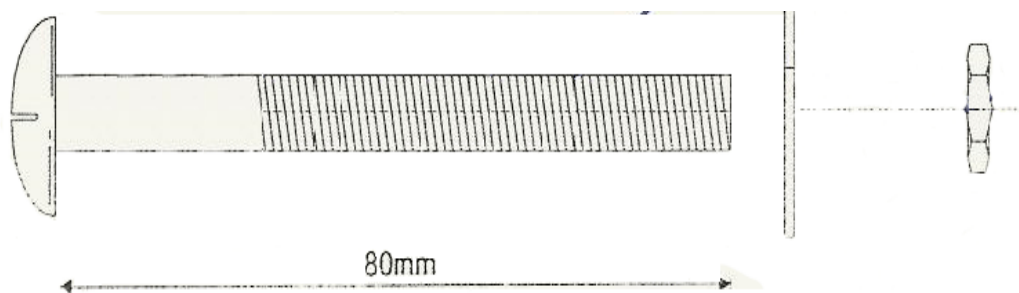
**M8
BOLT**

**M8
WASHER** **M8
NUT**



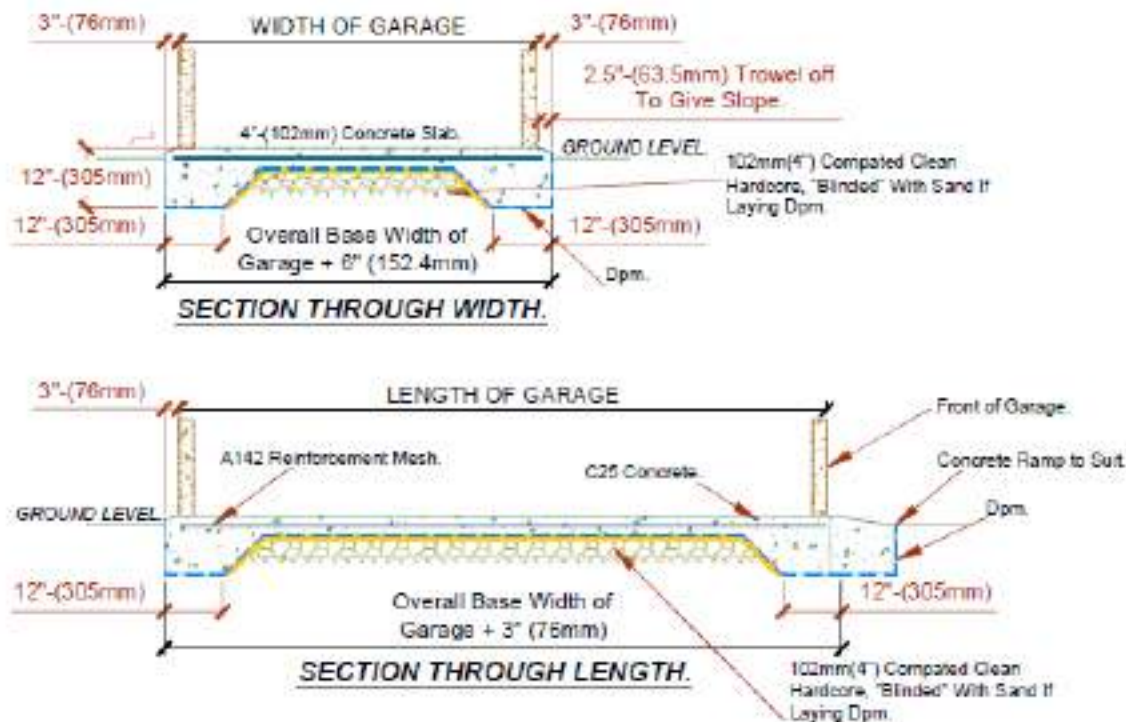
**M6
BOLT**

**M6
WASHER** **M6
NUT**



The Base

Ensure that you have a **CLEAR** and **LEVEL** base on which to assemble garage.



Concrete Garage Base

Why do I need a concrete base? Can't I use paving blocks or slabs, or just put it on tarmac?

The design of the concrete prefabricated building with panels bolted together requires a strong concrete raft base. Any movement in the base will cause the garage to move, and will invalidate the product guarantee.

Responsibility for the concrete base is the customer's responsibility

The old saying, "a building is as good as its foundations", is as true for your concrete sectional garage as it is for any other type of building. The better the specification of the base, the more peace of mind you will have in the future. If you skimp on the base, you may regret it later!

Concrete base design

Your concrete base needs to be designed properly to be strong enough not to crack or sink over the lifetime of your garage. A typical concrete sectional garage will weigh between 3 and 4 tons.

Your garage base should be designed to suit the soil on your site. For instance, if the soil is clay, with the likelihood of movement in the future, you will need to reinforce it, and probably make the raft thicker. If your building is over 30sq m, you will need to gain approval from your local control office, who will need to inspect and approve your concrete garage base plans.

You should thicken the edges of the base to a depth to suit the ground conditions. The thickness of the concrete in the base will also depend on the soil conditions. The concrete mix design should be suitable for a garage base – speak to your supplier and tell them what the concrete is intended for so they can provide the correct mix. A minimum concrete thickness of 100mm (4”) is normally recommended, laid over at least the same thickness of well compacted clean hardcore. The hardcore should be “blinded” with sand if you are going to lay a damp proof membrane (dpm), normally 1200g polythene sheet. Steel reinforcement mesh will further strengthen your base, your local builder will advise.

If you intend to store items in your garage once it has been built, we recommend the inclusion of a dpm. Without the dpm there is no guarantee that damp will not spread into the building. Don’t forget that the base will need time to “go off” or cure, before we can build on it, allow at least a week, more in winter.

The concrete base should be Square. The garage is a rectangle, and needs to sit on a base about 75mm (3”) larger all round. When setting out your base, make sure that the shuttering is square. To make sure your base is square, measure the diagonals AD and BC – they should be the same. If not, adjust your shuttering until they are – your base will be Square.

The external dimensions should be 150mm (6”) larger (75mm each side and front and rear) than the size of the building you have bought. If in any doubt, seek advice and confirmation of the size of your building from the company.

The concrete base should be level. There must be no slope from side to side, back to front or front to back.

If you build your concrete garage on an unlevel base, the panels may not fit together properly, it will be difficult to lay the necessary concrete fillet, there could be a gap under the Up and Over door, and the roof may not fit properly. If the fall is to the rear, you may well get puddles forming at the back of the garage.

The base must be higher than the surrounding area. It should stand out of the ground by at least 25mm (1”). If not, water will stand on the base and will leak under the panels.

If the ground slopes down to the base, you should ideally dig out the ground for 150mm (6”) around the base, and dig out a trench 150mm (6”) deep, backfilling with gravel or pea shingle, after retaining the existing ground. Don’t forget to take into account surrounding ground levels when you position your personnel door – if the ground is higher than the base, it will catch as you open it. Obvious when you think about it, bit late when you have built the garage! If your concrete garage is at the bottom of a sloping drive, you need to put in a gully to take rainwater away to a suitable drain. We can provide a timber weather bar to help prevent water getting under the Up and Over door, but in the event of a sloping driveway, a gully is essential.

So, your base should be designed to suit your local conditions. It should be strong enough, flat, square and level, higher than surrounding ground and 150mm (6”) larger than the building size (external dimension).

Finally, your concrete base should be positioned properly. Don’t forget that the Up and Over door can project up to 1220mm (4ft) in front of the building when it is being opened, so position the base so that the door doesn’t foul a wall or another building when you open it. A standard 1981mm (6’6”) Up and Over door projects 910mm (3ft).

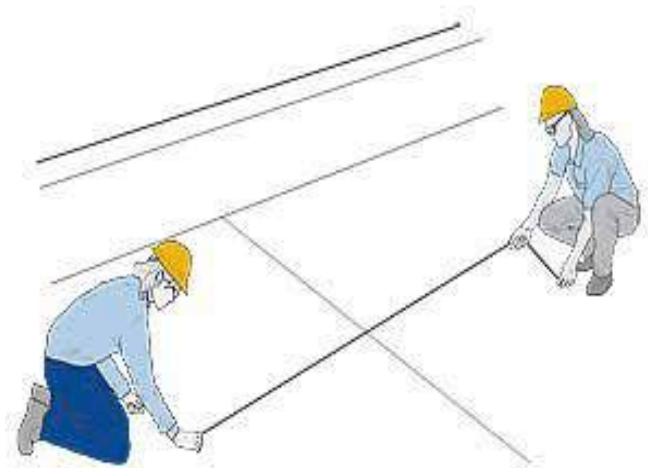
PLEASE LOOK UP! Trees, buildings etc can overhang, branches and gutters can affect the positioning. Just because it fits on the base doesn't mean it will fit at eaves height!

Don't position the building too close to other buildings or walls, as this can form a water trap – always specify gutters on your garage to minimise the potential for water leaking into your garage. Allow for guttering on your building if you order it – add in 150mm each side (apex) or 125mm to the length for guttering.

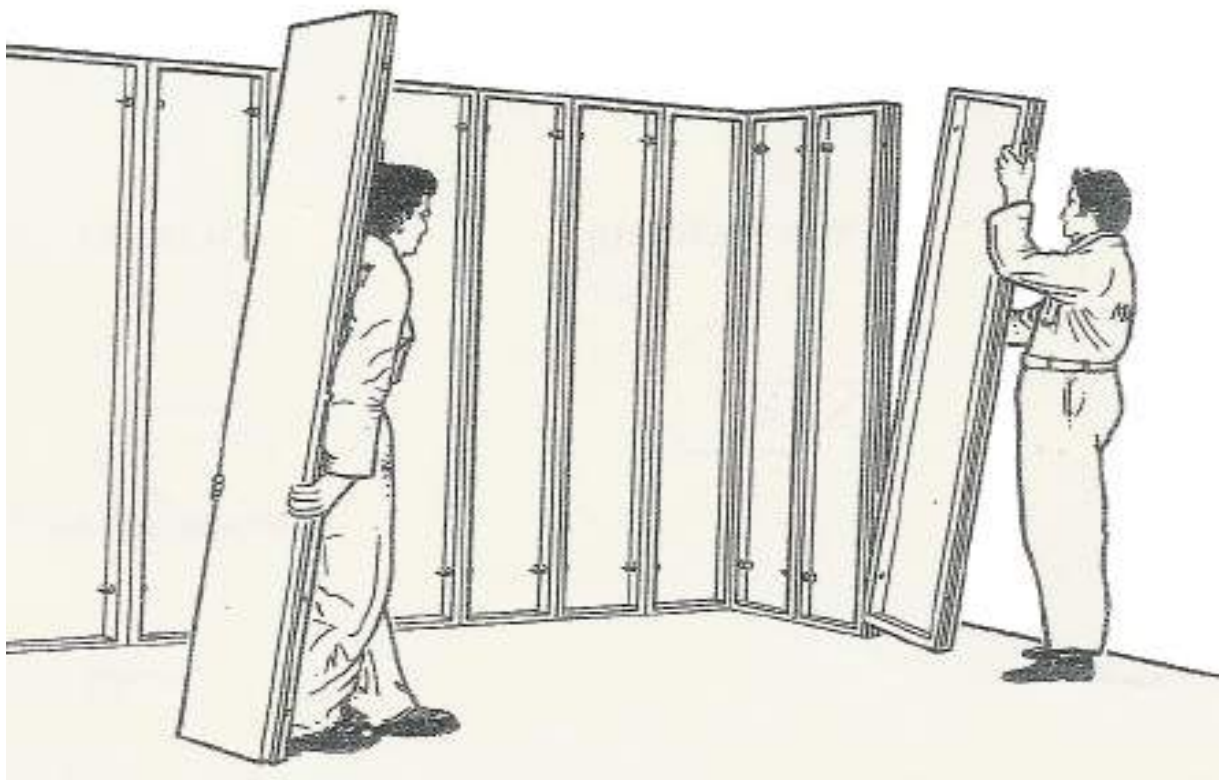
If you are using a local builder to carry out the base works for you, please give him this before he starts work.

Step 1

With a **CHALK LINE** mark out your external size of garage assuring that it is square, then **APPLY** Black Bitumen tape to the base just inside the CHALK LINE, so that you can still see the CHALK LINE when your concrete panel is in position.



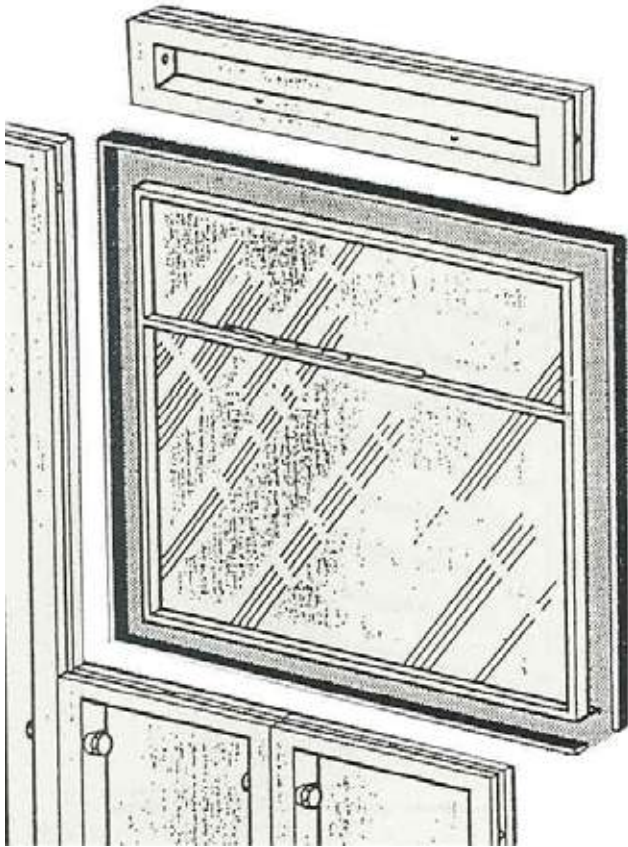
Step 2



Starting in the **LEFT** hand **REAR CORNER**, assemble the corner then using the **HEEL AND TOE** method of assembling. Assemble 3 panels either way loosely, then using a **SPIRIT LEVEL** upright your panel and tighten the bolts ensuring that the external tops are flush against each other.

Once you have done this **CONTINUE** with the rest of your building keeping it fairly even until all of your concrete is assembled. Place your doors and windows in the required positions with the header panels fitted above them.

Step 3



Windows

Where required, a window consists of the frame, two short panels and a lintel. Butt the short panels together and fix to a standing standard panel. Secure with **Hexagon head bolts 4"** (100mm) long, nuts and **tapered washers**.

Fit plastic angle on top of window panels.

Stand the window on top of the short panels with the outside face of the panels and the small sill projecting over the short panels, square to the inside of the surrounding concrete panels. Support the window until the lintel and the next panel are fixed.

Place the concrete lintel on top of the window and secure to the adjacent standard panels with **Hexagon head bolts 4"** (100mm) long, nuts and **tapered washers**.

NOTE there must be at least one standard panel width between windows or between a window and a personal door.

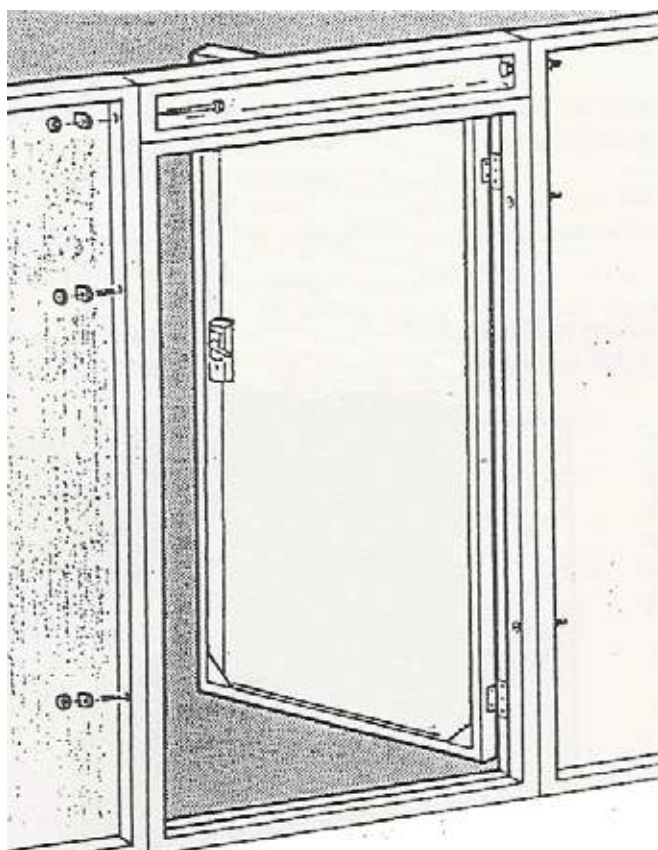
Window Fixing

Fix the adjacent standard panels to the short panels and lintel. Secure with **Hexagon head bolts 4"** (100mm) long, nuts and **tapered washers**.

Fix the window to the short panels and to the lintel with **80mm Self Drill Screws**.

Step 4

Doors



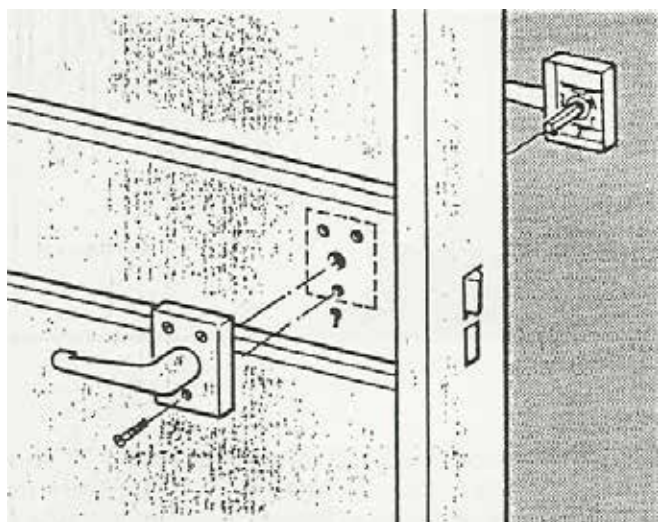
Fort Knox Personal Door

Butt the door frame to the standard panel in the required position. Secure to the steel frame with **coach bolts 4"** (100mm) long, nuts and **tapered washers**.

Place a lintel above the frame and fix to the standard panel with **Hexagon head bolts 4"** (100mm) long, nuts and **tapered washers**.

Fit the adjacent standard panel and secure to the frame and lintel with **Hexagon head bolts 4"** (100mm) long, nuts and tapered washers.

NOTE: It may be necessary to remove and refix the weather strip from the steel frame to gain access for the **coach bolts**.



Closure Set

Fit square bar through the hole in the door and place the handle / lock sets on the ends of the square bar. Fix the handle / lock sets with the screws provided and check operation of the handles and lock.

Step 5

Now that you have assembled your **concrete panels** you need to put your **FRONT** and **REAR** fascias up so that they are flush with the outside of the building. Once you have done this you need to put the **WALL PLATES** on, keeping them flush with the inside of your panels allowing an **overhang** on the outside of the building for your fascia boards.

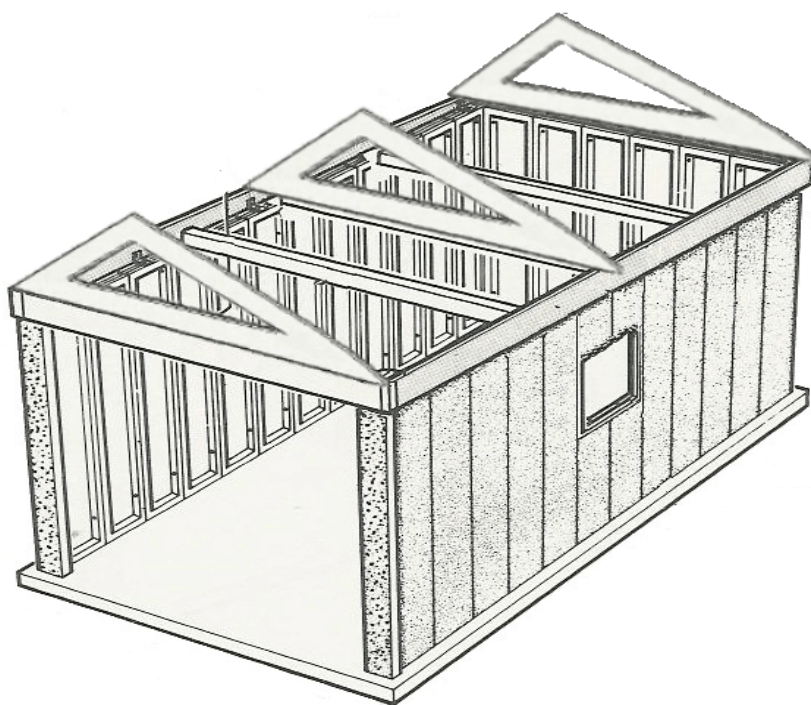
Fit wall plate with **M8 x 120 Bolts**

Fascias

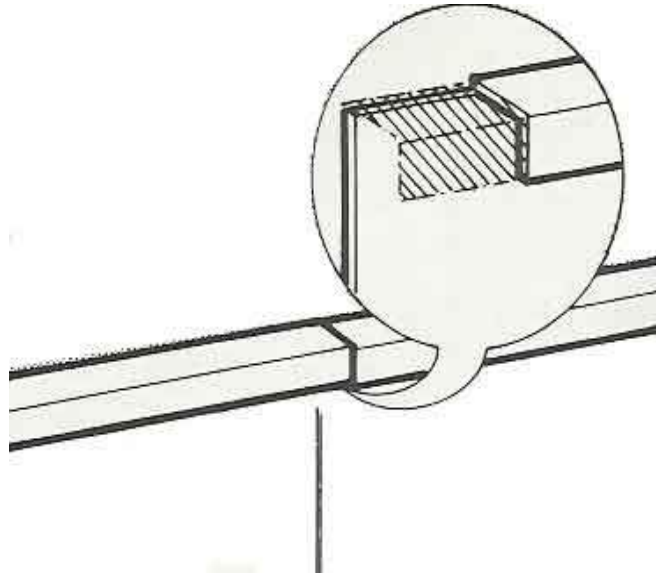
General

Timber fixing battens are slotted into the back of a fascia and can be slid along it's length to align with the metal support brackets which are bolted to the walls and front lintel of the building. **5/8" number 8 CSK screws are used to fix each bracket into a batten.**

Where two or more pieces of fascia are required to make up the necessary length, an overlap will occur and it will be necessary to neatly cut away the top edge of the hidden fascia with a hacksaw.



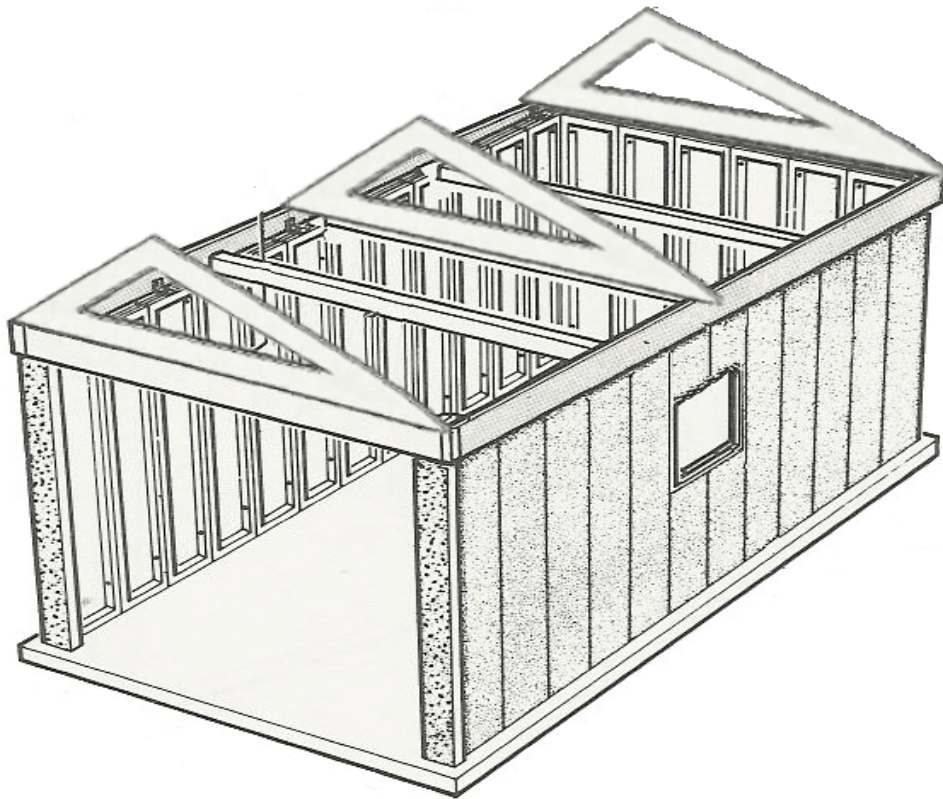
Step 6



Ensure that the lintel and purlin units are correctly positioned, firmly seated and securely fixed before proceeding.

Offer up the front fascia to the brackets, keeping the bottom edge of the fascia level with the bottom edge of the lintel and an equal amount of projection of post at each side. Secure through the brackets into the battens.

Step 7



Rear Fascia

Temporarily fix one bracket to the top of the panels at each end of the rear wall with **65mm coat bolts** and space the remaining two brackets evenly between these two.

Offer up the fascia to the brackets, aligning the height at each end with the side fascias, and establish the location of the battens and their bracket fixing holes. Withdraw the fascia and remove the brackets from the wall. Secure the brackets to the fascia in the positions marked.

Step 8

Decide at which rear corner the down pipe is to be fitted as the guttering, when finally secured, should be given a slight fall to the downpipe position.

Lay out the gutter components on the fascia in their correct order and using a string line to determine the fall available, position the front vinyl gutter brackets accordingly, securing each with two 5/8" **No. 8 screws** at not more than 3" centres to a batten.

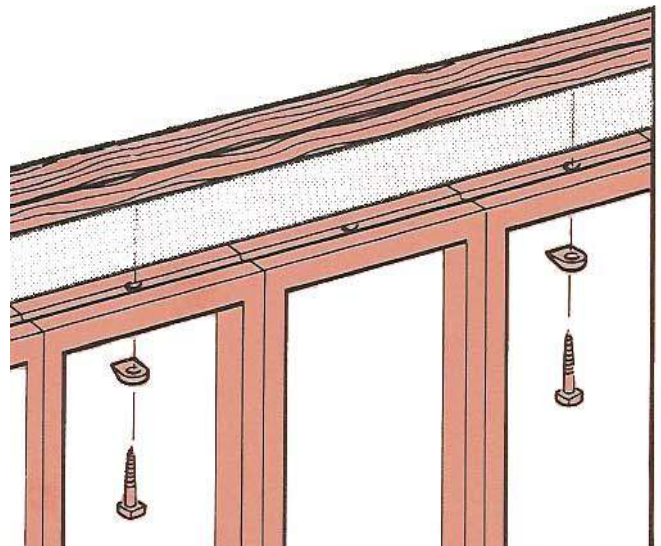
Bolt the complete fascia assembly to the rear wall and clip the length of guttering into the vinyl brackets, cutting to correct length where necessary with fine tooth hacksaw. Where it has been necessary to cut a gutter to length, notches must be made at the ends to accommodate the gutter joint straps.

Wall Plate

Temporarily position a timber wall plate 3 and 3/8" (85mm) wide by 2" (50mm) deep on top of both flank walls. Each wall plate should be extended the full length of the wall and be trimmed inwards approx 1" (25mm) from each end to allow for the end trusses.

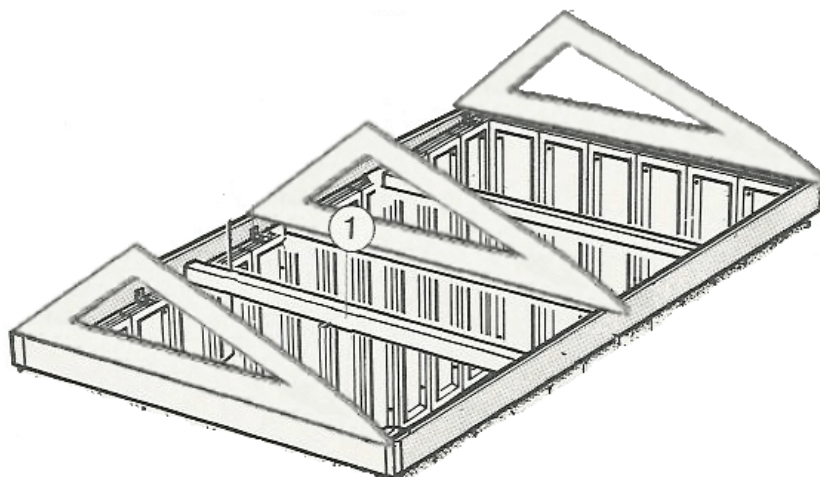
Note that each wall plate may be supplied as two separate pieces which are butted together on assembly.

Mark fixing hole positions in the timber through holes in the tops of the panels at 2' 8" (800mm) intervals. Remove the wall plates and drill pilot holes 3/16" (4.5mm) dia. into the timber approx. 1 1/2" (40mm) deep. Reposition the wall plate and fix with **coach screws** 3" (75mm) long and **tapered washers**.



Step 9

Attach your internal **ROOF TRUSSES** into position using the **COACH SCREWS** at **4ft INTERVALS** then once you have done this prop them up so they are upright and attach your **TIMBER PURLINS** to the roof.

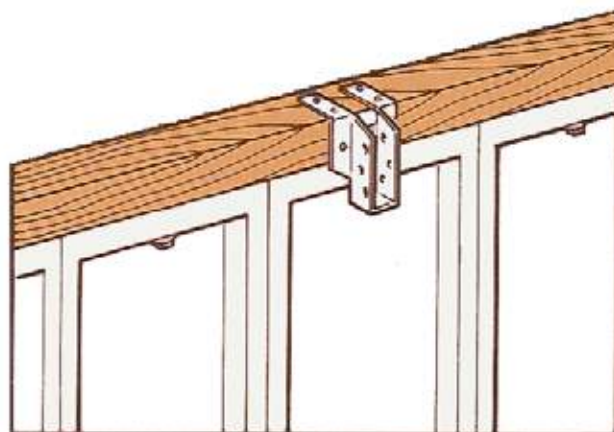


Truss Hangers

Place truss hangers on wall plate equi-distantly along the wall plates at a maximum distance of 3ft 4" (1m) apart.

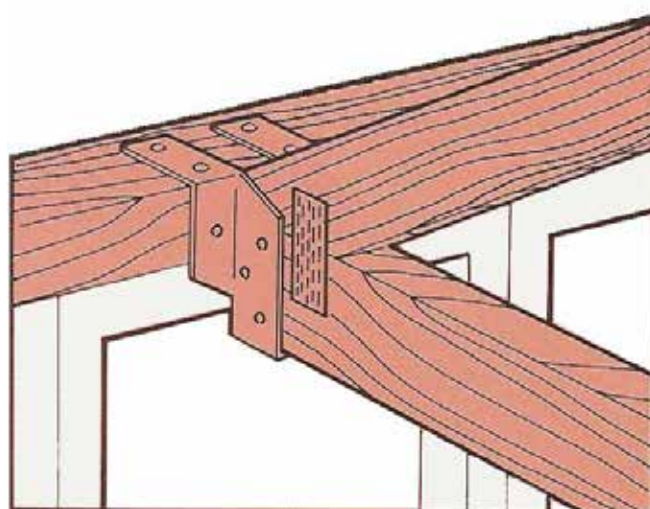
Ensure hangers on opposite walls are in line to ensure intermediate trusses will be square to the walls.

Fix truss hangers by nailing **square twisted nails** 1 1/2" (40mm) long into the tops of the wall plates. The inside face of each truss hanger must be flush with the inside face of the wall plate.



Intermediate Trusses

Lower intermediate trusses into truss hangers and fix in position with **square twisted nails** 1 1/2 (40mm) long.



Step 11

Now attach your uPVC fascia boards with **50mm Poly Top Pins** to the outside of your building, making the two ends flush with your front and rear fascias. The gutter brackets can be attached to your desired fall.

Fixing Gutter Brackets to Wall Plate

Decide at which rear corner the downpipe is to be fitted as the guttering, when finally secured, should be given a slight fall to the downpipe position.

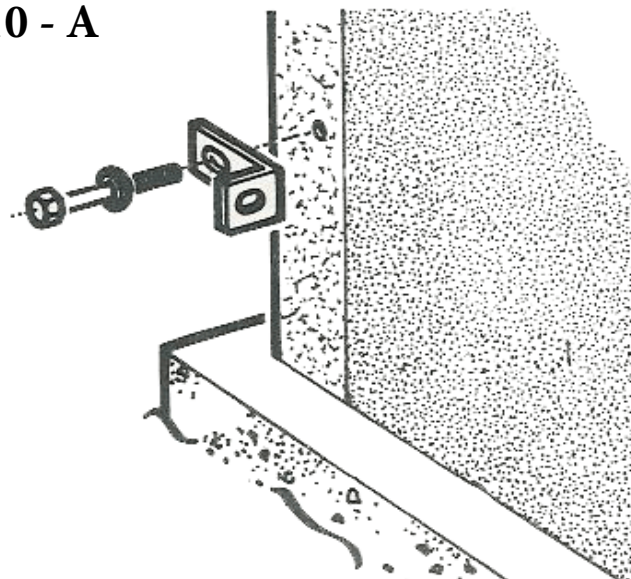
Using a string line, mark the positions for the gutter brackets on the outside edge of the wall plate. A fall is necessary for the gutter and depends on whether the customer wants the fall at the front or the rear. A fall should be taken from 1" down to 2" and marked with the chalk line.

Fix one bracket 1' (300mm) in from each end of the wall plate with the tops of the brackets in line with the mark. Fix brackets with two No. 8 **countersunk screws** 5/8" (16mm) long. Fix remaining brackets at equal distances between the end brackets and not more than 3' (900mm) apart.

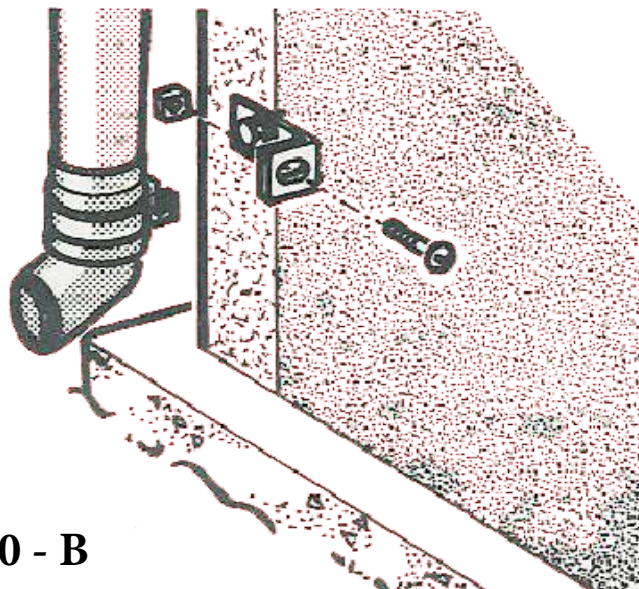
Bolt a metal bracket (S89) to the top and bottom of the rear corner panel at which the downpipe is to be fitted - special holes are provided for this purpose. (fig 10 - A)

Attach one plastic pipe clip to the barrel of the downpipe at a position corresponding to the top metal bracket and add a second clip to the shoe, which slopes over the bottom of the downpipe. Offer up the downpipe to the gutter outlet and secure via the plastic pipe clips to the metal brackets with one seam bolt per bracket (fig 10 - B)

10 - A



10 - B



Step 12

Now you have done this you are ready to assemble your gutter and downpipes, once you have done this you can now silicone and stone all the external panels on your building.

Maintenance FREE gutters and down pipes, self coloured - therefore never in need of painting - and virtually unbreakable, are supplied with the garage complete with all fixing brackets etc.

Decide at which rear corner the downpipe is to be fitted as the guttering, when finally secured should be given a slight fall to the downpipe position.

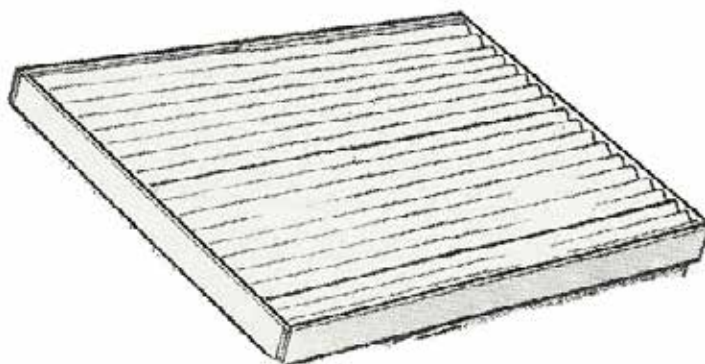
Layout the gutter components on the fascia in their correct order and using a string line to determine the fall available, position the four vinyl gutter brackets accordingly, securing each with two 5/8" No. 8 screws at not more 3' centres to a battern.

Step 13

Roof Sheets

NOW you are ready to attach your **ROOF SHEETS**, place your roof sheets one at a time making sure you have **ADJUSTABLE OVERHANG** either side and that they are square and fix them as required using the **WASHERS** and **CAPS** supplied.

WARNING: Whilst fixing roof sheets, a ladder or duck-boards must be used to ensure and to avoid damage. Observe utmost caution when working on roof sheets which are wet or frosty.



A **No8 x 65 round head screw** and **sela washer** and **cap** to be used to fix the roof sheet. Lay the first roof sheet against the back front fascia with the same overhang each side fix, to timber roof battens with **No8 x 65 round head screw**, screws evenly spaced.

Lay the rest of the roof sheet's along the roof with a minimum of one overlap, fix in the same way as before.

Fixing

When the fascias are securely fixed, place the sheets on the roof structure.

Mark accurately the position of all fixing holes on the roof sheeting for intermediate purlins.

All fixing holes must be. Fix all screws complete with plastic sealing washers in the positions shown, tightening sufficiently to seat the plastic washer firmly over the corrugations.

Step 14

FIT your garage door as per the instructions attached to the door. Once you have done this silicone all internal joints between panels with clear silicone.

External Finish - Joints

Ensure joints are clear then seal the external joints between panels by applying mastic with the gun provided. Cut the nozzle of the cartridge so that a bead of approximately 1/4" (6mm) is delivered.

After applying to the outside of all joints press finishing granules into the surface of the mastic on every joint, covering the panel joints.

Where, as an optional extra, the outside walls are to be separately finished with a textured weather coating do not apply a mastic filling.

