



VPI BUILDING PRODUCTS

VINYL CLADDING INSTALLATION GUIDE



A BASIC GUIDE TO INSTALLATION PROCEDURES AND GENERAL PRACTICE TIPS

It is necessary to read this information completely before commencing the task.

* The information supplied within is a general guide and does not override any manufacturer's stipulations on particular materials or usage. If you are unsure about any material contained herein, do not hesitate to call VPI Building Products on (02) 4782 0600 for more detailed information.

VPI VINYL CLADDING

Designed and manufactured in Australia, our products suit both traditional and contemporary house exteriors. Our cladding has been subjected to the rigorous physical test requirements and has passed with ease. VPI's boards have been developed here in Australia to suit Australian homes.

Our products are formulated with careful attention to the UV conditions of the harsh Australian climate. The extrusion processes we have developed ensure that the colour and UV resistance are consistent all the way through each product – not just limited to the surface. These features, presented with clean glossy lines and embossed woodgrain surfaces, bring you products that deliver years of effective and stylish good looks with minimal upkeep.

All our products come with a complete suite of trims to complement the finished walls. Whether used for enhancing new work or upgrading existing homes, the results are long-lasting and eye-catching. We also provide a factory warranty on all products, copy available on request. This warranty gives full (not pro rata) protection for ten years. Our cladding is lightweight and most installations take just a few days with minimum disruption. Maintenance is not demanding – a quick wash down from time to time will keep the appearance fresh and attractive. A mild detergent can be used – refer to our care guide for complete information.

- ✓ **GLOSS TIMBER LOOK**
- ✓ **DISTINCTIVE PROFILES**
- ✓ **AUSTRALIAN MADE**
- ✓ **UV RESISTANT**
- ✓ **NO PAINT NEEDED**
- ✓ **100% COLOUR DEPTH**
- ✓ **FLAME RESISTANT**
- ✓ **ROT AND TERMITE PROOF**
- ✓ **EASY MAINTENANCE**

Storage & Handling of VPI Vinyl Cladding

It is recommended that both handling and installation is carried out by two people.

When in storage, boards must be laid flat in the original packaging directly on level ground out of the way of passing traffic and where practical out of direct sunlight.

When removing the boards from packaging, cut through full length of external packaging and lift out.

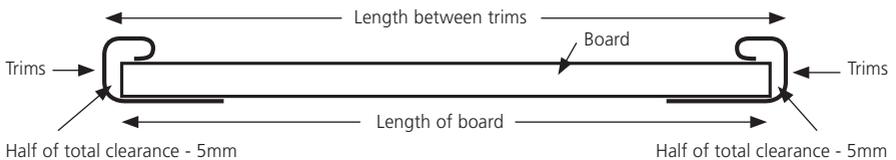
Before commencing the task - IMPORTANT

It is necessary to compensate for natural horizontal expansion and contraction of the VPI Vinyl Cladding. As a general rule expansion can be confined to 1 mm per lineal meter, but read carefully the section on “Allowance for Expansion & Contraction” Vertical expansion is insignificant and need not be compensated for.

Allowance for Expansion and Contraction

It is important that allowance is made for the natural expansion and contraction due to the ambient temperature variation of VPI Board.

As a rule, allow 5 millimeter clearance at each end of the board (a 10 millimeter total), but refer to the table below for extra allowance due to extreme weather.



Ambient Temperature on Day of Fitting	Total Clearance to Allow in Millimeters
0°C	2.0 mm per lineal meter of board length + 10mm
10°C	1.5 mm per lineal meter of board length + 10mm
20°C	1.0 mm per lineal meter of board length + 10mm
30°C	0.5 mm per lineal meter of board length + 10mm
40°C	0.0 mm per lineal meter of board length + 10mm

Examples:

We are fitting a board to a section of wall that is 5.00 meters length inside the trim.

1. The temperature is 20°C: The calculation for 20°C is 1 millimeter per lineal meter of board length plus 10 millimeters. The calculation is:

$$1 \text{ millimeter} \times 5 \text{ metres} + 10 \text{ millimeters} = 15 \text{ millimeters.}$$

Therefore, we cut the board at 4.985 meters. Fit the board so that there is an equal gap between the trim and the board at each end.

2. If the temperature was 10°C, then the calculation is:

$$1.5 \text{ millimeters} \times 5 \text{ metres} + 10 \text{ millimeters} = 17.5 \text{ millimeters.}$$

Therefore, we cut the board at 4.983 meters. Fit the board so that there is an equal gap between the trim and the board at each end.

3. If the temperature was 30°C, then the calculation is:

$$0.5 \text{ millimeters} \times 5 \text{ metres} + 10 \text{ millimeters} = 12.5 \text{ millimeters.}$$

Therefore, we cut the board at 4.988 meters. Fit the board so that there is an equal gap between the trim and the board at each end.

4. If the temperature was 40°C, then the calculation is:

10mm extra allowance

Therefore, we cut the board at 4.990 meters. Fit the board so that there is an equal gap between the trim and the board at each end.

Necessary Tools & Equipment

- Hammer
- Nails
- Screws
- Chalk-Line
- Ladder
- Plank
- Tin Snips
- Tape Measure
- Utility Knife
- Carpentry Saw
- Circular Saw
- Spirit Level
- Water Level
- Pencil
- Screw Driver
- 4" Right-Angle Grinder

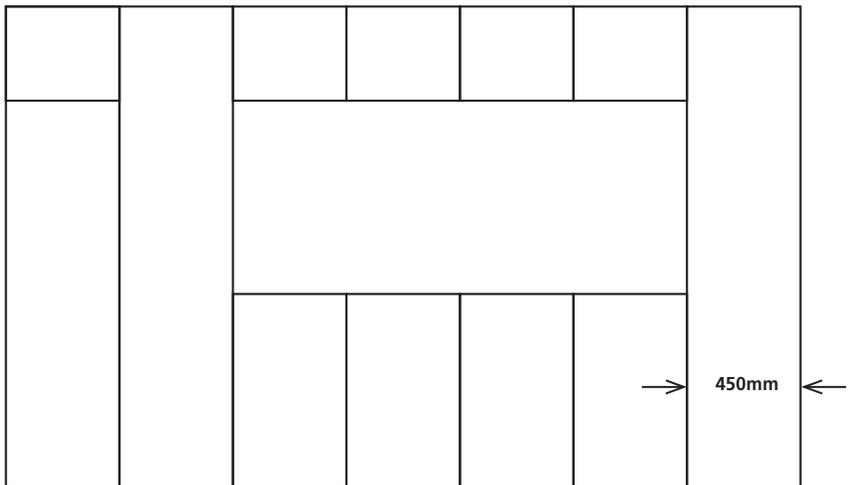
Preparation of Sub-Surface

Before installing the VPI Vinyl Cladding first remove all shutters, down pipes, cover moulds and other external obstructions. Nail down all loose boards and flashings. This prevents any pressure being placed on the cladding from behind once installed.

Remove and replace any damaged studs. Uneven walls should be packed with battening where necessary to produce an even surface. This will result in an even, regular finish once cladding is installed.

Installing VPI Vinyl Cladding over Masonry Walls

Using masonry nails, screws or plugs, install 75mm by 25 mm battens over the entire area to be clad at 450 mm centers. Battens should also be used around all wall perimeters including windows, doors, verandas etc. This allows for rigid fixing of trims.



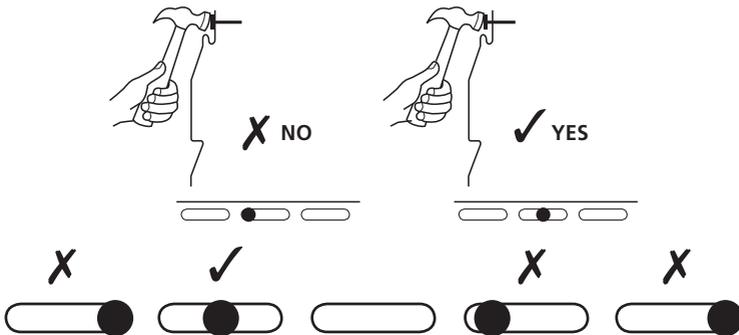
Basic Rules to follow

These basic rules will ensure the proper installation of solid vinyl products.

1. Fix the cladding at **450mm centres maximum**. If your studs are at centres greater than 450mm, VPI recommends the use of ply sheet fixed to the studs. Cladding is then fixed to the ply.
2. Unless indicated otherwise in these instructions, always place the nails in the centre of the nailing slot. Never nail directly through the VPI Vinyl Cladding. Never nail too tightly.
3. All VPI Vinyl Cladding accessories should be overlapped except where noted otherwise as shown in the following section where trims are listed.
4. Where boards fit into trims, a 5 millimeter clearance should be left at each end of the board for the normal expansion and contraction. If installation is carried out in high temperatures consideration should be mostly given for **contraction**. See the section on Allowance for "Expansion and Contraction" for more detail.
5. Ensure all panels are fully interlocked when fastening.

Nailing

Nails should have a corrosion resistant coating with a flat head of 10 millimeters diameter with a shank thickness of no more than 2 millimeters. They must be long enough to penetrate 25 millimeters into a hardwood frame or 35 millimeters into a softwood frame. On VPI Vinyl Cladding and accessories, fit nails back 150 millimeters from the ends when overlapping. **IMPORTANT:** Cladding must not be nailed tightly to wall; this will restrict expansion as will nailing at the ends of the slots.



REMINDER: DO NOT NAIL AT THE ENDS OF THE SLOTS.

Caulking

Caulking is only necessary only in areas where water penetration is possible (Pipes or other items that occur through the solid vinyl cladding.)

A non hardening type preferably the same colour as the siding should be used.

Do not use oil based caulking.

Caulking is not to be used to fill gaps created by ill fitted components.

Accessories

NOTE: Joins in all accessories with the exception of the starter strip must be overlapped.

Shaded areas represent portions to be cut away for proper overlapping. Cut outs should be 40 millimeters in length with only half of the distance being overlapped (i.e.: 20 millimeters overlap on a 40 millimeter cut out.)

All materials must be nailed as described in application instructions.

STARTER STRIP

To be nailed at 200 millimeter intervals on the centre of the slot. Do not overlap.



**I25
Starter Strip**



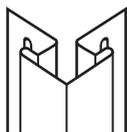
**I10 / I15 / I20
Starter Strip**



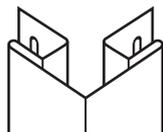
**Armour
Starter Strip**

OUTSIDE CORNER POSTS

Outside Corner Posts are to be nailed at 300 millimeter intervals on slot centers except initial holding nail at centre.



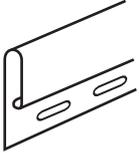
OCP 20



OCP 30

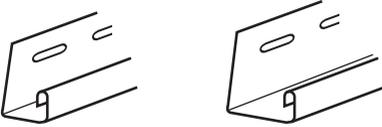
UNDERSILL

Undersill is to be nailed at 200 millimeter on slot centers. For all non-insulated sidings.



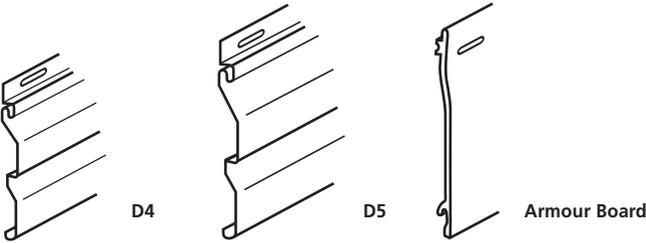
J CHANNEL

J Channel is to be nailed at 300 millimeter intervals on slot centers.



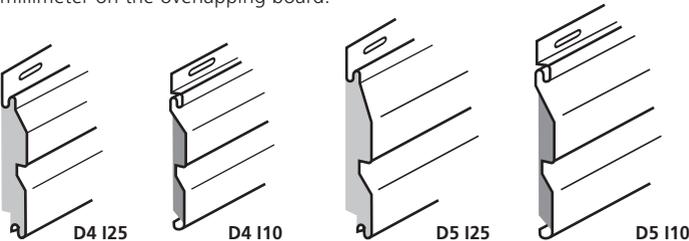
NON INSULATED SIDINGS

To be nailed at 450 millimeters on the centre of the nailing slots.



INSULATED SIDING

To be nailed at 450 millimeters on the centre of the nailing slots. Foam is to be cut back 50 millimeter on the overlapping board.



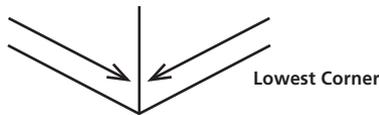
Vinyl Siding Installation

STARTER STRIP

The Starter Strip must be straight, level and line up at the corners as this will determine whether the boards will line up on corresponding walls. Check the whole building to ascertain at which level the siding will be started. Measure the width of the starter strip from the lowest point. This will be the level at which the chalk line will be set to mark the top edge of the starter strip.

LOWEST CORNER

Using a water level, establish the corresponding point at the other end of the wall marking it with the chalk line then fix the starter strip. Repeat this on all other walls ensuring all corners match up and the last line matches the first line. When fixing the starter strip it should be stopped short of all corners to allow fixing of the corner post. Approximately 75 to 100 millimeters is acceptable.

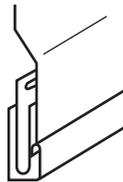
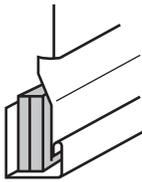


ALTERNATIVE METHOD

If the house is out of level more than can be compensated for by the starter strip width, sometimes it is appropriate to set the starter strip parallel to the existing wall level. The reason for this is if the wall height is consistent and the bottom board is cut with a taper to start off with, then the windows which will have drooped with the wall will not be parallel to the siding and the top board will also need to be cut on a taper thus making the whole wall look crooked as it is. If it is done parallel to existing, the droop will not be particularly noticeable and will be much more pleasing to the eye.

Patios, Entrances or other Variations of Level.

At these obstacles starter strip is not appropriate as the portion of the board which engages the starter strip will be cut off. In these cases a 'J' channel should be used. The 'j' will require a packing piece in the back of it or an undersill, which ever is appropriate to maintain its original profile.

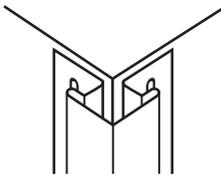


Outside Corner Posts

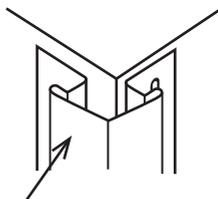
Measure from the top point on the corner of the house (i.e.: to the eave level) down to the bottom of where the first board will be. This is the length of the corner post. Begin by nailing at the top of the slot, halfway up the post. The rest of the nailing must be in the centre of the slots. If more than one length is required, refer to the section on materials for cutting and overlapping instructions.

NOTE: If you are installing eave linings as well, these should be done first, so that the wall trims can be fitted up against them.

It is important that the outside corner posts are installed accurately and squarely to the corner. It is possible to pull the corner out of shape if care is not taken, resulting in unevenness.



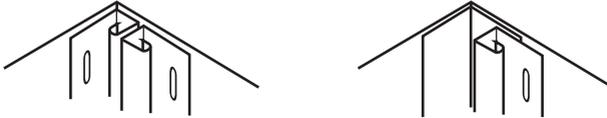
Correct



This edge pulled out too far – pulling other edge

Internal Corner Posts

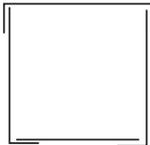
Internal Corner Posts should be finished with two 'J' channels with caulking between them to prevent water entry or alternatively one 'J' channel with an effective flashing behind.



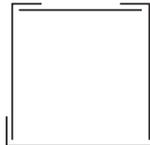
" J " Channel

'J's' are to be used as trims around the perimeter of windows and doors, tops of walls and perimeters of gables, meter boxes, verandahs etc.

"J's" are to be cut in such a way that they are folded for internal bends so that they act like a watercourse.



Rain can't get
in at joints



Rain gets in
every joint

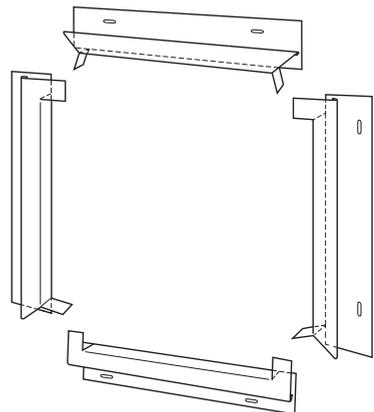
***NOTE: Wooden windows must have their sill horns cut flush with outside edge of side architraves.

"J's" for doors, windows, air conditioners, etc., should be cut like this:

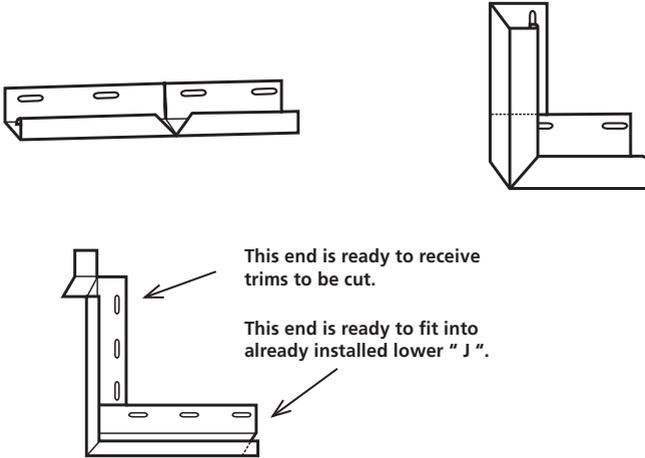
As you can see these trims will all interlock serving two purposes:

1. To make neat mitred joins, and
2. To help keep water from the window frame

Basic Rule: All **higher "J's"** overlap **lower "J's"**.



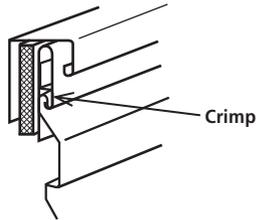
When this trim is folded it will overlap the right hand side of itself forming a weather lip but most importantly will conform to the system of overlapping all of the trims (i.e.: Top piece overlaps bottom piece). Similarly for steps;



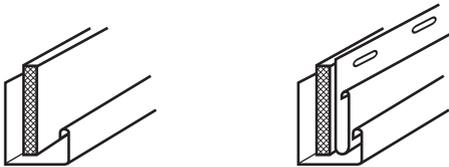
"J" channeling should always be started at the lowest point and work up.

Undersill (U/S) or Finishing Trim

U/S is installed inside a "J" Channel only. It can be used anywhere there is a longitudinal cut on the wall boards (i.e.: over and under doors, windows, meter boxes, verandas, etc). One of its uses is to hold the siding rigid where it has had to be cut off. BUT most importantly, it is used as a fastening system for the top board of a wall or under a door or window. The U/S trim should be positioned so as to maintain the natural profile of the siding.



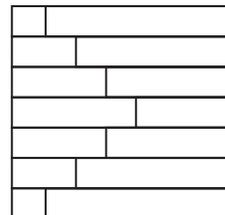
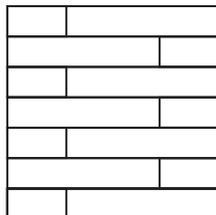
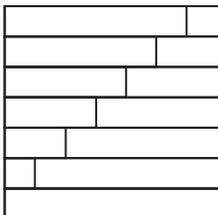
U/S trim can also be used over windows and verandas in the same way.



U/S F/T overlaps as shown in the previous section on trim description is for a 40mm cut out with a 20mm overlap

Siding Panels

On the front and back walls, overlaps are to face away from entering pedestrians, to make them less noticeable. On the sidewalls, the overlaps should be facing the rear. In some instances, joins can be concealed behind gateposts, down pipes, sewer vent pipes, pergolas and all the like. However, where there is no camouflage, overlaps should be either stepped up the wall starting the first step to the rear, or if it is the customer's preference a brick work pattern may be appropriate.



Always check overlapped ends for neatness before application. The overlap cut should be cut out at the top of the overlapping boards; the under lap cut out at the bottom of the under lapped board.

Overlaps must never be stacked upon each other as they rely on the board above and the board below to lock them into position.

If joins must be stacked, they have to terminate in a "J" Channel and begin again from another (i.e.: back to back "J's").

Wallboard overlaps should be 35-40mm in a 50mm cut out.

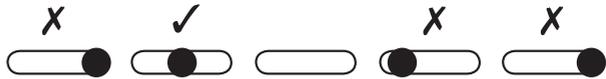
Application

No board should be cut less than 1000mm where it is used to make up the full length of a wall longer than the full board length (i.e.: If a wall is 8.5m long, don't use 8m+ .5m, use 7.5m+ 1000 or 7m+ 1500mm etc).

The first panel is engaged into the starter strip and the corners or J channels and nailed in the centre of the board. Nail both way at 450mm centers (i.e.: stud spacings).

Ensure that the siding is not nailed so tightly to the wall as to prevent its natural expansion. Also that the 5mm has been observed at the ends of the board for the same reason. (See section "Allowance for expansion and contraction").

EXPANSION ALLOWANCE

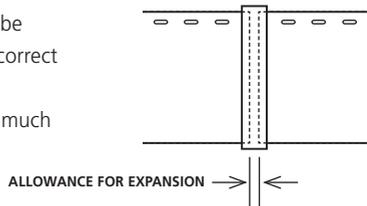


Remember: Always allow for expansion.

REMINDER: DO NOT NAIL AT THE ENDS OF THE SLOTS.

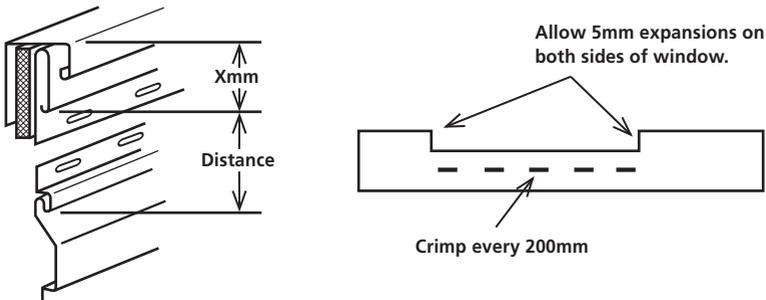
Armour Board

When fitting Armour Board joiners, the joiner should be inserted against the end of the fitted board, and the correct allowance made for expansion and contraction when cutting the next board. Do not fit the board with too much clearance, otherwise the joiner may fall out.



Windows and Doors – (Chamfer & I10 Board)

To fit the siding under obstructions such as windows, doors, meter boxes and the like, measure from the bottom of the locking strip. At the last full panel of siding, add Xmm to this distance to allow the panels top edge to engage the under sill trim.



Alternative method for checking cut out width of board is to use a scrap piece and then taking the measurement from the marked piece.

Use the snap lock punch (crimper) to perforate the trimmed edge of the siding panel at 200mm intervals. Ensure the punched ears are facing forward so they will engage in the under-sill trim. Lock the top edge of the trimmed board into the under-sill trim ensuring at the same time that it is engaging the locking lip of the board below.

The snap lock punch (crimper) must be used on all upward locking. Shell and I10 boards when a trimmed panel is engaged in an under-sill trim.

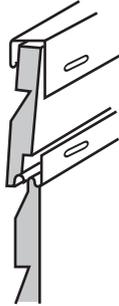
To fit siding over the top of a window or door, etc. cut the bottom section of the panel (leaving clearance for expansion/contraction) so that the trimmed edge engages fully in the under-sill or "J".

Windows and Doors (D5 I25 & Armour Board)

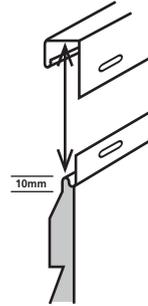
Under-sill may be required for Armour Board. Fit as for I10 above. No under-sill trim is required for I25 board, because of its backing and its fastening system, also the measurements are taken differently.

When cut to size this panel will sit as the above to complete its installation. An upward push hit with your hand, on the bottom edge of the board starting at one end and traveling along as it snaps in, is the preferred method.

Alternatively a scrap piece may be used as a gauge.



Distance + 10mm



NOTE: The top edge of the board must first be placed in position.

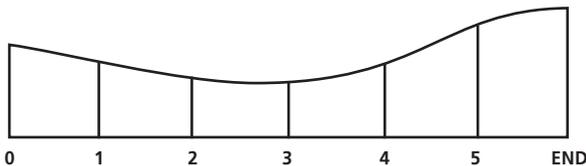
Certain instances, where the top board finishes at its thinnest point, the back face of the J30 must be packed to ensure that the top board will not be loose when installed.

Note: A 2 part J may be used at the top of walls.

Top of Wall Finish

Siding is measured and finished off at the top of the wall in exactly the same fashion as under a window or door for each of the insulated or non-insulated types.

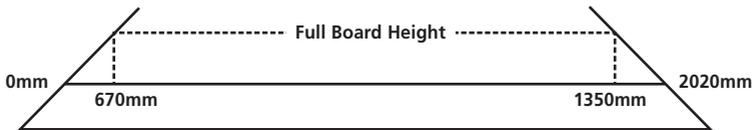
In some unavoidable instances you will observe a bow or a sag in the eave line that cannot be practically remedied. To cut the board accurately, you should mark the wall at 1000mm intervals and measure the height at each interval.



0 = 150 1 = 140 2 = 130 3 = 130 4 = 140 5 = 160 END = 165

Finishing Gables

Trim the gables around the perimeter and cut the boards on the correct angle allowing expansion and fasten as per wall cladding. In instances where fastening is limited, the gable may need to be battened.

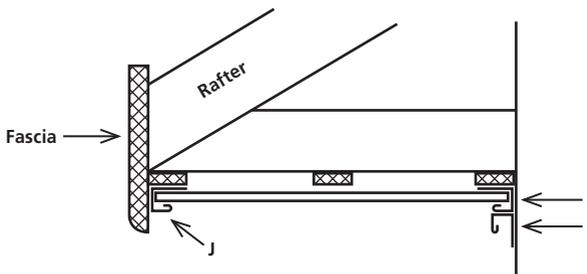


Board height should be checked first to find the point of intersection with the 'J' channel. These points are then marked as a measure along the top edge of the already installed board. This will show the height at start or 0 mm, length as 0mm. The point of intersection (i.e.: boards full heights) as 670mm. The point it meets the 'J' again as 1350 mm and the point it finishes at 0mm high as 2020mm. Check the expansion space on every board before fixing.

Eaves

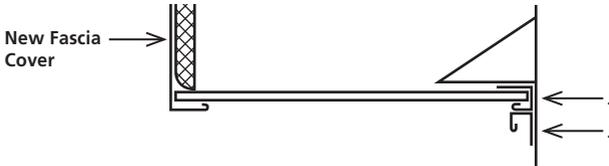
To be fastened at 450mm intervals.

For eave applications on houses with enclosed overhangs, start by installing the J channel at either side then cutting board with an allowance for expansion.

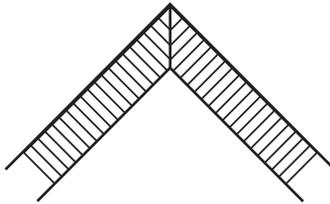


For application on buildings with open rafter construction, the wall must have a batten installed for the j channel fastening and the eave lining fastening. An intermediate nailing batten will be needed if the overhang exceeds 450mm.

For eave installations with a new fascia cover, the outside J can be deleted. However, the inside eave J should be installed as a water proofing agent. The top wall J should be sealed against the inside eave J.



To mitre eave linings, install back to back "J" channels and cut out eave linings to suit.



IMPORTANT NOTES

NAILS: The size of the nail head is very important, as a "fitted" board can be inadvertently lifted off its nail when installing the board, if a nail with too small a head is used. Minimum head diameter 8mm, minimum hardwood frame penetration is 25mm, minimum softwood frame penetration is 35mm, hence fiber cement (fibro) over hardwood house would need a 30 x 2.8mm gal clout. And a fibro over softwood needs a 40mm gal clout. A weatherboard over hardwood would require a 45-50mm gal clout min.

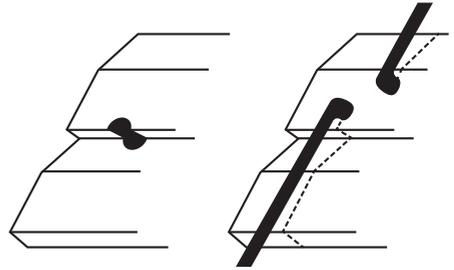
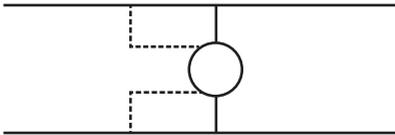
Obviously thicker weatherboards need longer nails.

STUD FINDING: On internal corners of house walls, some eave applications, and around doors, windows, meter boxes etc, you will be unable to get fixing onto studs. In these instances satisfactory fixing can be obtained by using the drywall screw with a button or mushroom head. Be careful not to tighten the screw so that it restricts expansion.

NO SLOTS: Where you are unable to match the trim-nailing slot with a stud, you should use a slot-punching tool to facilitate such. Do not nail directly through trim.

HOLES: When cutting holes to accommodate plumbing that remains on the wall, the cut that is made to enable the board to go over the pipe should be hidden as best as it can behind the pipe, other wise the cut should be made vertically downwards. If the hole is near the board at the end, a cut can be made along the under side of the step.

Where a wall must have joins and there are pipes coming through the wall, a join can be made at the pipe.



WAVERING EAVES: Quite often eaves can waver up and down; these can be straightened out usually by installing eave J15 on a straight line rather than following the existing waver.

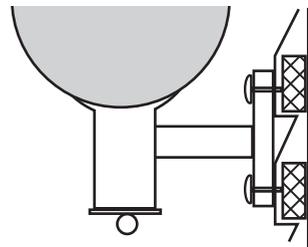
CUTTING: Extreme caution should be exercised when cutting siding with power tools, because of its light weight. Cutting should be done with the blade installed back to front; otherwise the siding may throw off dangerous fragments.

Use plywood cutting blade or similar.

Extreme caution must be exercised to stop the blade from “running on” on the board.

*******ALWAYS WEAR EYE PROTECTION*******

LIGHTS AND DOORBELLS: When fitting lights and other fixtures over cladding it is sometimes necessary to pack behind the cladding to prevent crushing of the profile. Also slot holes laterally and do not over-tighten fittings as to prevent expansion and contraction.



TRIMS: The recess in an OCP and a ‘J’ channel are the same width. This creates a difficulty with intersecting them. The most appropriate way is not to fasten the top and the bottom 450mm of the OCP until the ‘J’ is inserted both flanges of the ‘J’ behind the flanges of the OCP. When the ‘J’ is positioned accurately the corner may then be manipulated to sit correctly and not flare at top or bottom.

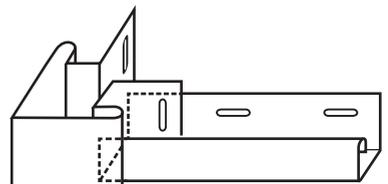
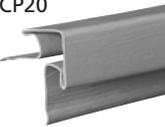
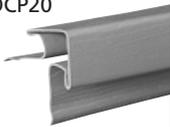
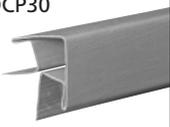
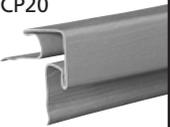
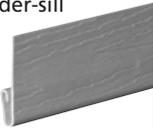
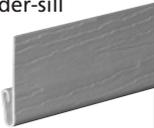
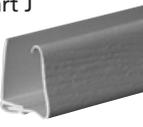
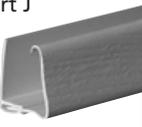
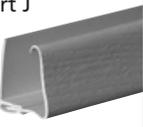
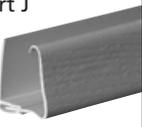


Table of Components

D5 I10 D5 CH V5 D4 / D5 Extec	D5 I15 D4 I10	D5 I20	D5 I25 D4 I25	ARMOUR BOARD
J15 	J20 	J30 	J30 	J20 
OCP20 	OCP20 	OCP30 	OCP30 	OCP20 
Starter Flat 	Starter Flat 	Starter Flat 	Starter Insul 	Starter Armour 
Under-sill 	Under-sill 	Under-sill 		Joiner & Under-sill 
2 Part J 	2 Part J 	2 Part J 	2 Part J 	2 Part J 