Marine Rescue Middle Harbour feat. Alu Selekta Castelation Screenclad in Silver Top Ash
Architect: Centric Architects
Builder: Farindon Constructions
Photographer: Pixel Collective

Alu Selekta

Installation Guide

Castelation Screenclad | Channel

For installation support: 1800 156 455

modinex.com.au

Last updated: June 2026

Contents

1. Introduction

Alu Selekta Channel and Castelation is a non-combustible aluminium cladding system designed to replicate the look of natural timber without the maintenance. Profiles are solid extruded aluminium, finished with MX Dura, a UV-stable powder-on-powder coating with realistic 3D timber grain and no visible repeat pattern.

CodeMark certified and tested to AS 1530.1, Alu Selekta is non-combustible and carries a BAL-29 rating for use in bushfire-prone areas.

2. Before You Begin

Before Installation

Before you begin, ensure you understand all relevant building codes and compliance requirements for your project location. These vary by state or region and must always take precedence over these installation recommendations.

This guide supports the correct installation of the Alu Selekta system. It does not replace professional judgement, site-specific engineering, or legal obligations under the National Construction Code (NCC).

Installation must be carried out by qualified trades in accordance with this guide and all applicable codes.

> **Important:** Check with your local regulatory authority for any special code requirements before commencing work.

For technical assistance, contact Modinex on 1800 156 455.

Delivery

On delivery, inspect all materials to confirm the correct products have been supplied and that there is no visible damage. Any defect, shortage, or discrepancy must be reported to Modinex in writing within 7 days of delivery. Check materials within 48 hours where possible.

3. Safety, Storage & Tools

Safety

Standard safe work practices always apply. Always wear appropriate PPE when cutting or drilling profiles:

- Safety glasses
- Hearing protection when cutting or using power tools
- Dust mask when cutting timber profiles
- Gloves when handling aluminium profiles with sharp edges

> **Warning:** Ensure any overhead work is carried out from stable, rated access equipment. Never stand on incomplete ceiling systems.

Storage

Once on site, storage is the responsibility of the client or installer. Store all products:

- Flat, undercover, and off the ground
- In a dry, protected area away from weather and site traffic
- Clear of activities that may cause damage

> **Note:** Lay out all boards before installation to check colour mix and grain consistency.

Tools Required

Standard aluminium-compatible tools:

- Aluminium-compatible saw blade only: standard steel blades will damage the coating
- Impact driver
- Spirit level for checking alignment every 4 to 5 boards
- Measuring tape, square, and pencil for layout

4. Components

Understand the purpose of each component before beginning installation.

Trim and Joiner Profiles

Component	Use / Description
2 Piece Connection Cover, Part A	Joining boards for long horizontal runs; transition between two areas of similar thickness
2 Piece Connection Cover, Part B	Joining boards for long horizontal runs; transition between two areas of similar thickness
External Corner Part A	External corners. Install Part B against framing first
External Corner Part B	External corners. Install against framing first
2 Piece Edge Cover Part A (40mm)	Perimeters, around penetrations, window surrounds, transition edges, soffits and internal corners
2 Piece Edge Cover Part B (25mm)	Perimeters, around penetrations, window surrounds, transition edges, soffits and internal corners
Aluminium Angle 20x20mm	Universal trim. 5400mm lengths
Aluminium Angle 25x25mm	Universal trim; convex curving to 300mm minimum radius. 5400mm lengths
Aluminium Angle 40x20mm	Universal trim; convex curving to 300mm minimum radius. 5400mm lengths
Soffit Return Profile (F Profile)	Terminating vertical faces and edge trimming for soffit returns. 5400mm lengths
Y Profile	Non-weatherproof external corners. 5400mm lengths
Z Profile	Top edge of window flashing; joining boards on long vertical runs. 5400mm lengths

Starter Profiles and Fixings

Component	Use / Description
Horizontal Starter Profile	Starting boards in horizontal installations. Cannot be curved
Vertical Starter Profile	Starting boards in vertical installations. Cannot be curved
Galvanised Steel Screws	Standard fixing screws for general applications
Stainless Steel Screws	Fixing screws for coastal and high-corrosion environments

5. Design Considerations

Coverage & Estimating

Use the table below to calculate linear metres of profile and screw quantities per m². All figures are based on 600mm fixing centres. Allow a minimum 10% wastage for cutting and layout. Use the longest available board length to minimise joins.

Profile	Variations	Cover Width	Length Options	Lm/m²	Screws/m² (approx. 600 mm ctrs)
Channel 75		75mm	5.4 / 6.4 m	13.3 lm/m²	34
Channel 155		155mm	5.4 / 6.4 m	6.45 lm/m²	17
Castelation 40	Concave/Convex	40mm	5.4 / 6.4 m	25 lm/m²	66
Castelation 160		160mm	5.4 / 6.4 m	6.25 lm/m²	17

Note: Profiles are available in 5.4m and 6.4m lengths. Refer to the Generic Structural Design Certificate for maximum span requirements and structural specifications.

6. Installation

Preparation

Prior to commencing the installation of Alu Selekta products:

1. Confirm that top hats are plumb and level.
2. Maintain a minimum 20mm cavity between the wall substrate and sub-frame.
3. Allow for expansion at 1mm per linear metre, based on a 40 °C temperature variation.
4. In coastal applications (within 50km of coastline), protect all cut edges against corrosion. Apply compatible aluminium primer or touch-up paint to all cut ends.
5. Ensure all building wraps, sarking, flashing tapes, and sub-systems are installed in accordance with the relevant manufacturer's specifications.
6. Before fixing, lay out profiles across the wall to check colour consistency between batches. Mixing batches without checking can result in visible colour variation.

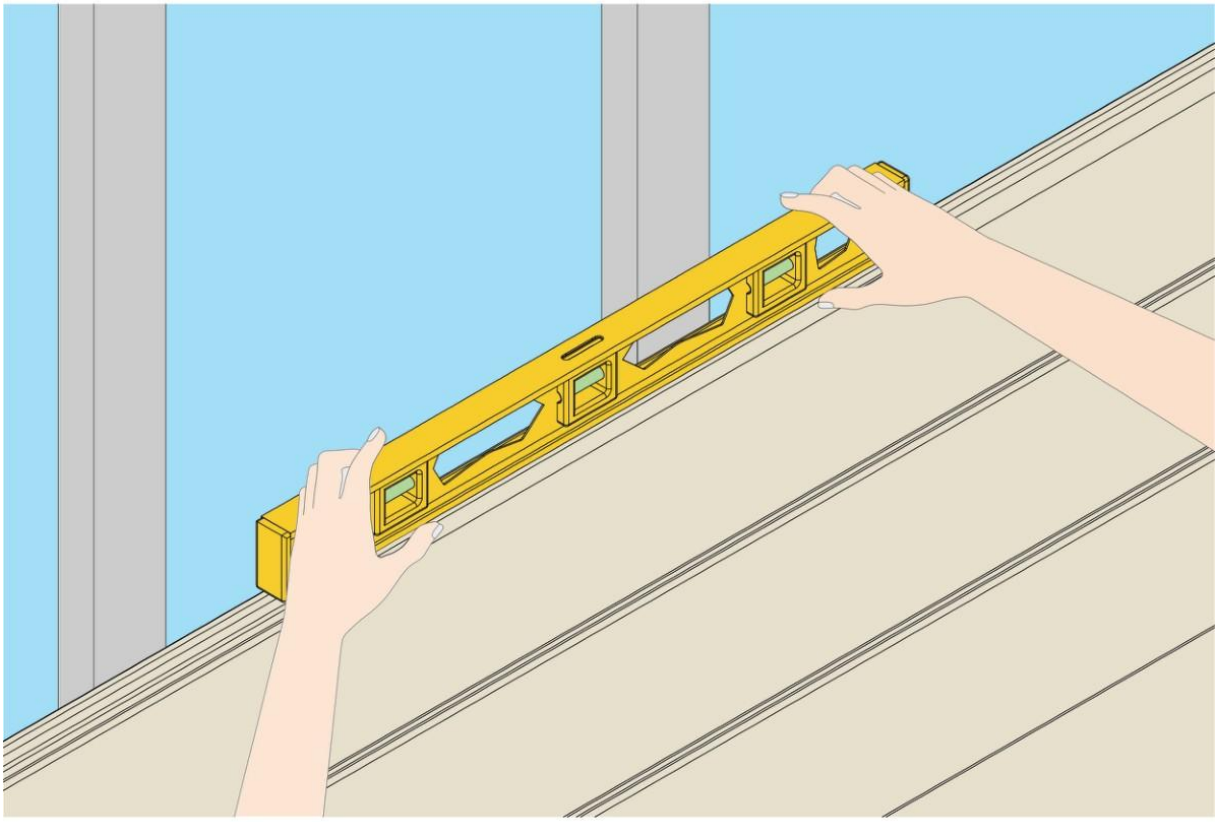


Figure 7.1: Preparation: checking top hat level and plumb before boarding

Horizontal Installation

Boards run horizontally across the wall, fixed through a concealed groove at each top hat with metal self-tapping screws. Each board interlocks with the one below, working from the base of the wall upward.

Key rules

- Top hats run vertically at max 625mm centres
- Reduce to max 300mm centres in corner zones and edge zones
- Boards run full length where possible; stagger joins if required
- Use a horizontal Starter Profile at the base course
- Fix through the pre-punched groove at each top hat
- Install from bottom up

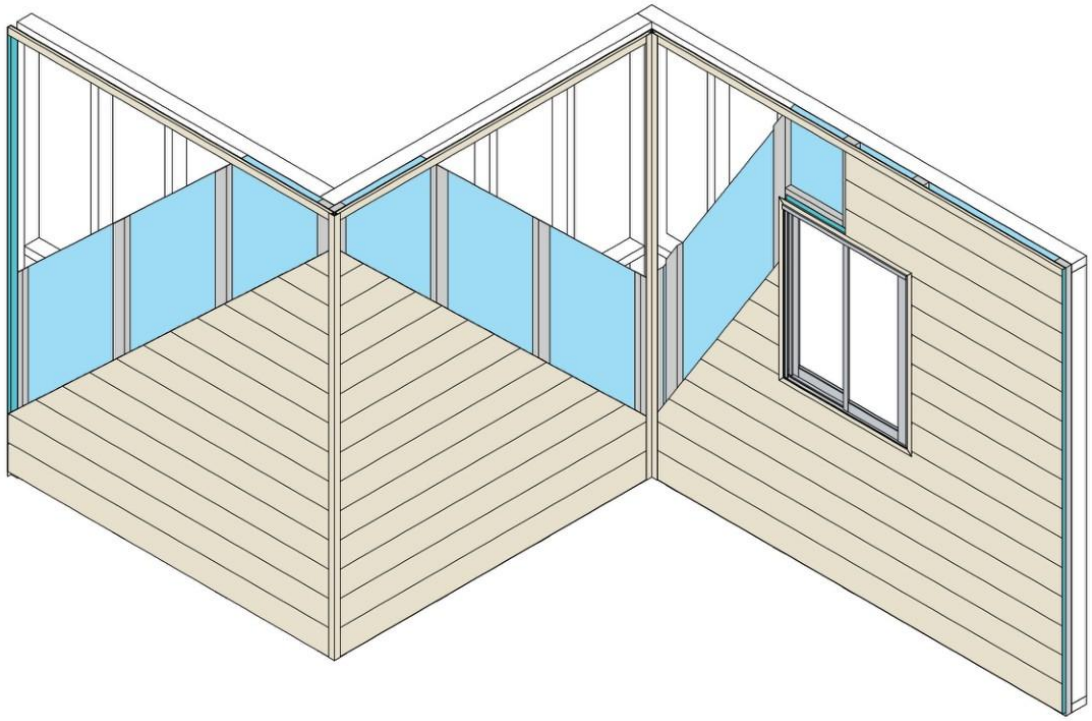
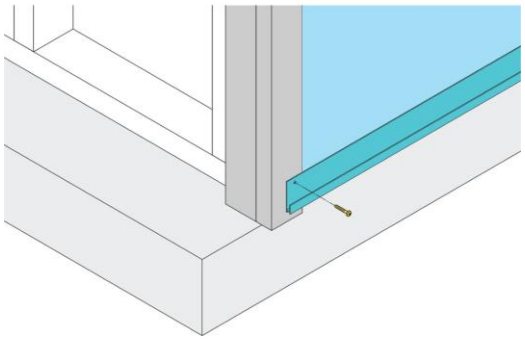


Figure 7.2: Horizontal installation overview: top hat layout, starter profile position, and boarding direction

Horizontal Fixing Sequence

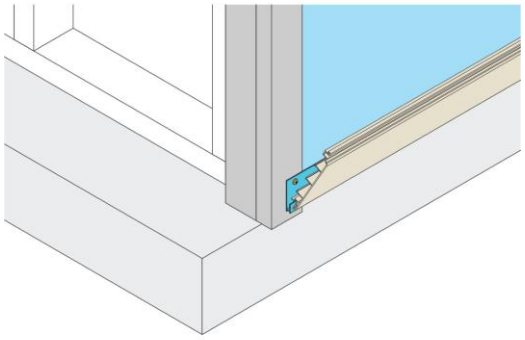
1. Confirm sarking, flashings, and plumb top hats are installed at correct centres.

2. Attach horizontal starter profile to top hats. Ensure it is level and more than 50mm clear of finished ground level.



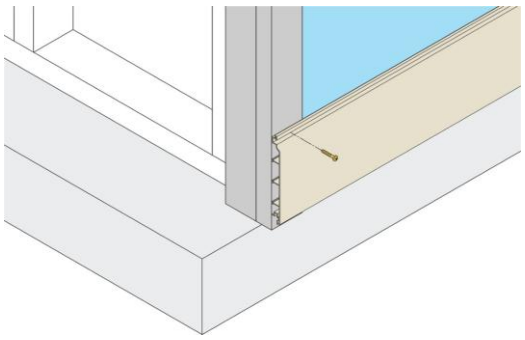
Step 2: Starter profile fixed

3. Install first board by locating the groove onto the starter profile. Fix through the groove at each top hat (max 625mm centres; max 300mm at corners).



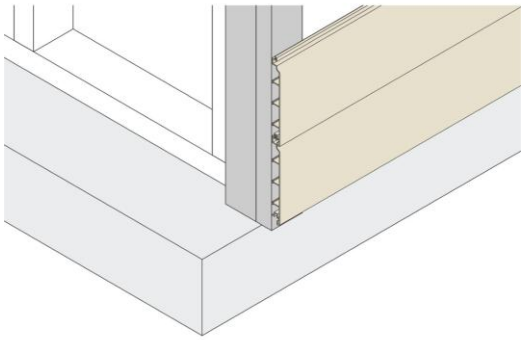
Step 3: First board engaged

4. Continue boarding upward. Check level every 4 to 5 rows using a spirit level. Adjust the next board if needed.



Step 4: Boarding in progress

5. Where board lengths do not reach a full run, use a joiner. Insert Connection Cover profile over the joiner once fixed.

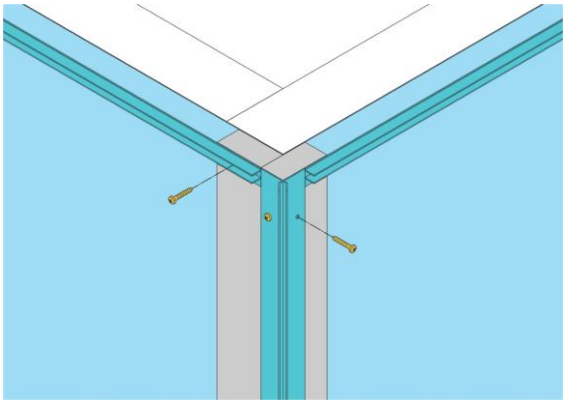


Step 5: Joiner detail

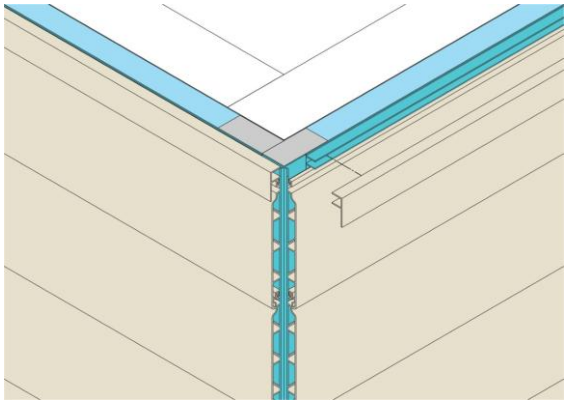
6. Fit cover profiles, trims, and corner flashings progressively as you go.
7. Finish the top course with capping or flashing per the construction drawings.
8. Final inspection: check all fixings are seated, gaps are consistent, ventilation is unobstructed, and all flashings are lapped and sealed.

Horizontal Corner Details

1. Reduce fixing centres to max 300mm in all corner zones.
2. For external corners, use the Adjustable Corner (Part A and Part B), sliding Part B over Part A once boards are fixed.



External corner: profile being placed



External corner: finished (clipped over)

3. For internal corners, use Connection Cover profiles on both sides of the corner. Each side requires its own trim.

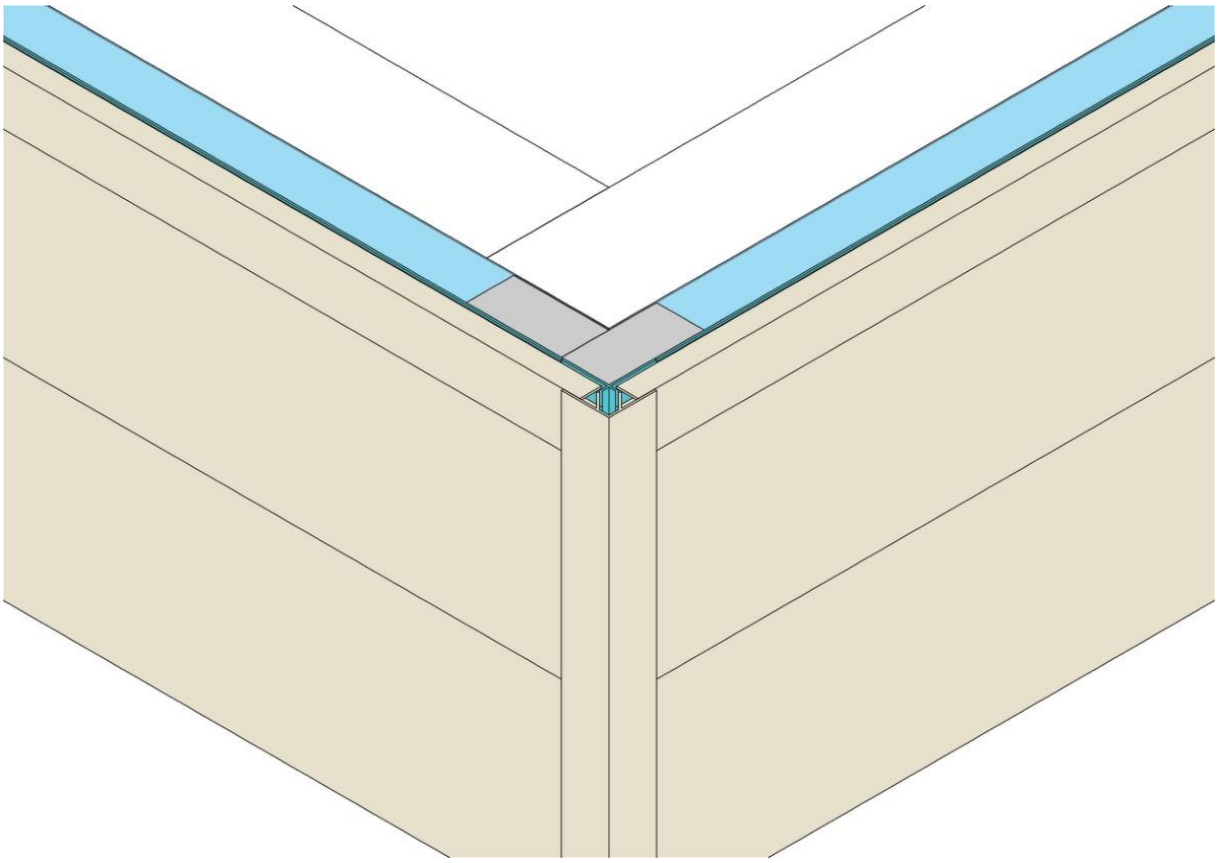
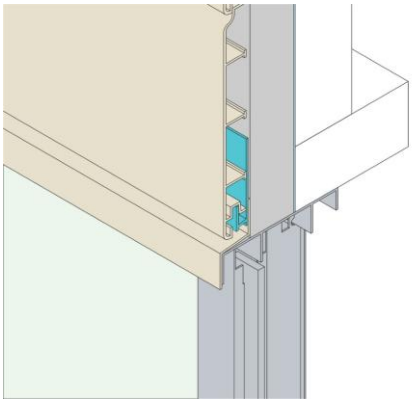


Figure 7.3: Internal corner detail

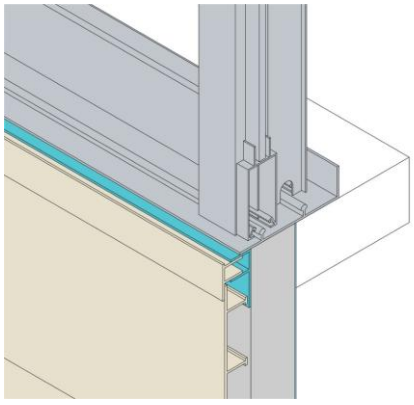
4. Secure corner and edge profiles to the sub-frame with screws. Do not rely solely on the clip action for structural retention.

Additional Notes

- Always maintain a 20mm minimum ventilation cavity behind cladding
- Refer to window head, sill, and jamb details for trimming and flashing requirements around openings
- Include thermal breaks in the sub-frame where required for Section J energy compliance
- For top-of-wall terminations, ensure flashings lap and drain away from the wall face



Window head detail: board termination and flashing



Window jamb detail: flashing and trim

Vertical Installation

Boards run vertically up the wall, fixed through the groove at each top hat with metal self-tapping screws. Top hats are oriented horizontally. Install from one end across the wall.

Key rules

- Top hats run horizontally at max 625mm vertical centres
- Reduce to max 300mm centres in corner zones
- Use a vertical Starter Profile or F Profile at the starting edge
- Fix through the groove at each top hat, working across the wall
- Check plumb every 4 to 5 boards
- Apply corner and edge trims progressively

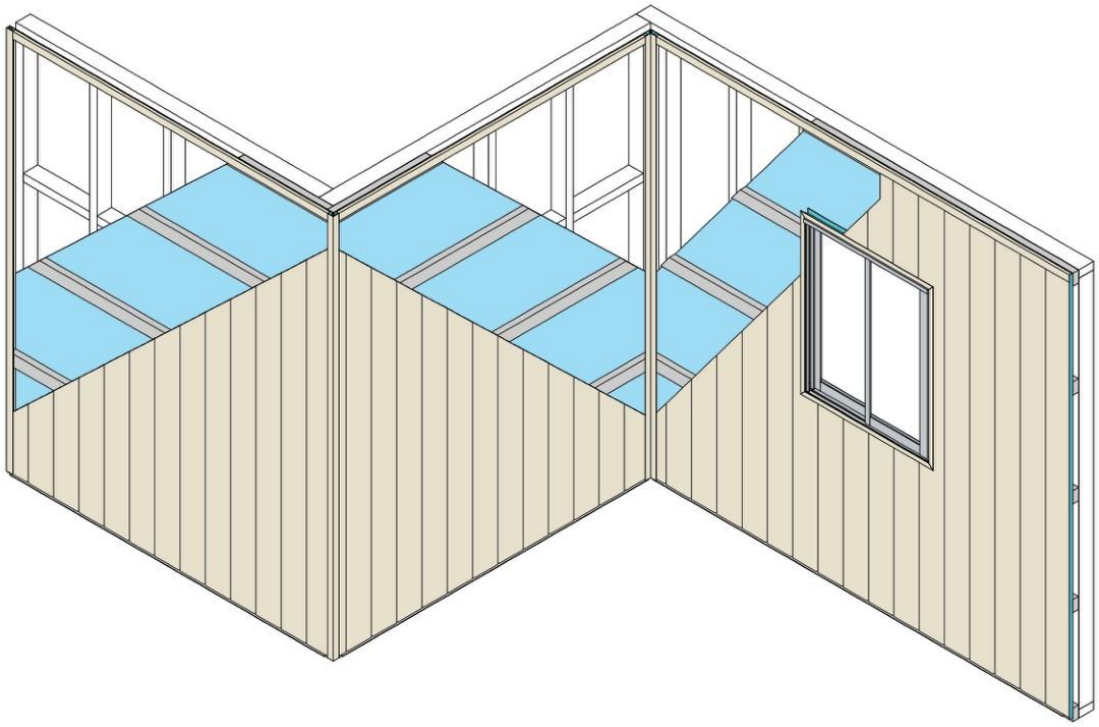
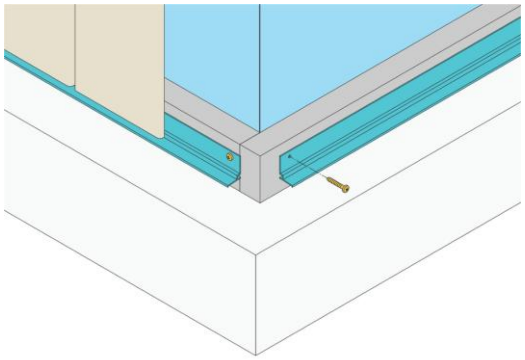


Figure 7.4: Vertical installation overview: horizontal top hat layout and direction of boarding

Vertical Fixing Sequence

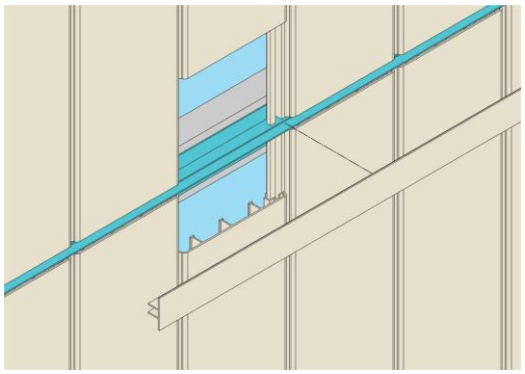
1. Confirm sarking, flashings, and horizontal top hats are installed at correct centres.

2. Fix starter profile (or F Profile at upper levels) level at the starting edge. Maintain more than 50mm clearance from finished ground level at base.



Step 2: Starter/F profile fixed

3. Install first board plumb; fix through groove at each top hat (max 625mm centres; max 300mm at corners).

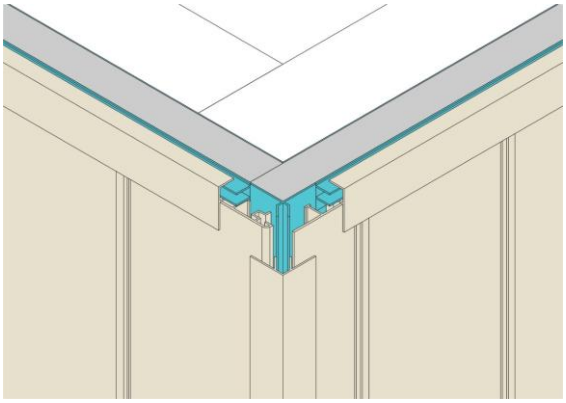


Step 3: First board plumb and fixed

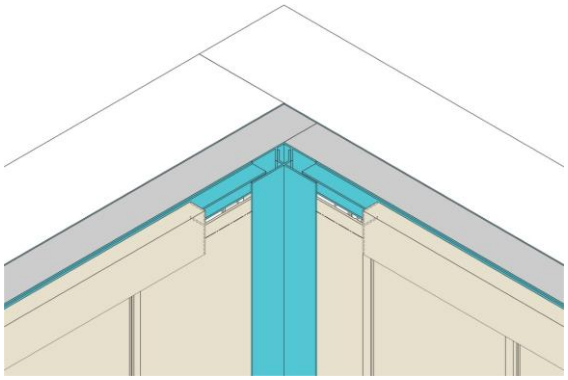
4. Continue across, checking plumb every 4 to 5 boards.
5. Where boards join end-to-end, insert a joiner with adequate expansion gap. Cover with Connection Cover profile.
6. Fit cover profiles, corner trims, and flashings progressively.
7. Finish with capping or flashing at top termination.
8. Inspect all fixings, joints, ventilation clearances, and weatherproofing.

Vertical Corner & Junctions

1. Reduce fixing centres to max 300mm in all corner zones.
2. External corners: use Adjustable Corner (Part A and B). Part B clips over Part A once boards are installed.



Vertical external corner: adjustable profile



Vertical internal corner profile

3. Internal corners: use Connection Cover profiles on both wall faces, or conceal with a Z Profile behind the boards at the return.
4. Ensure all junctions are detailed in line with the project construction drawings.

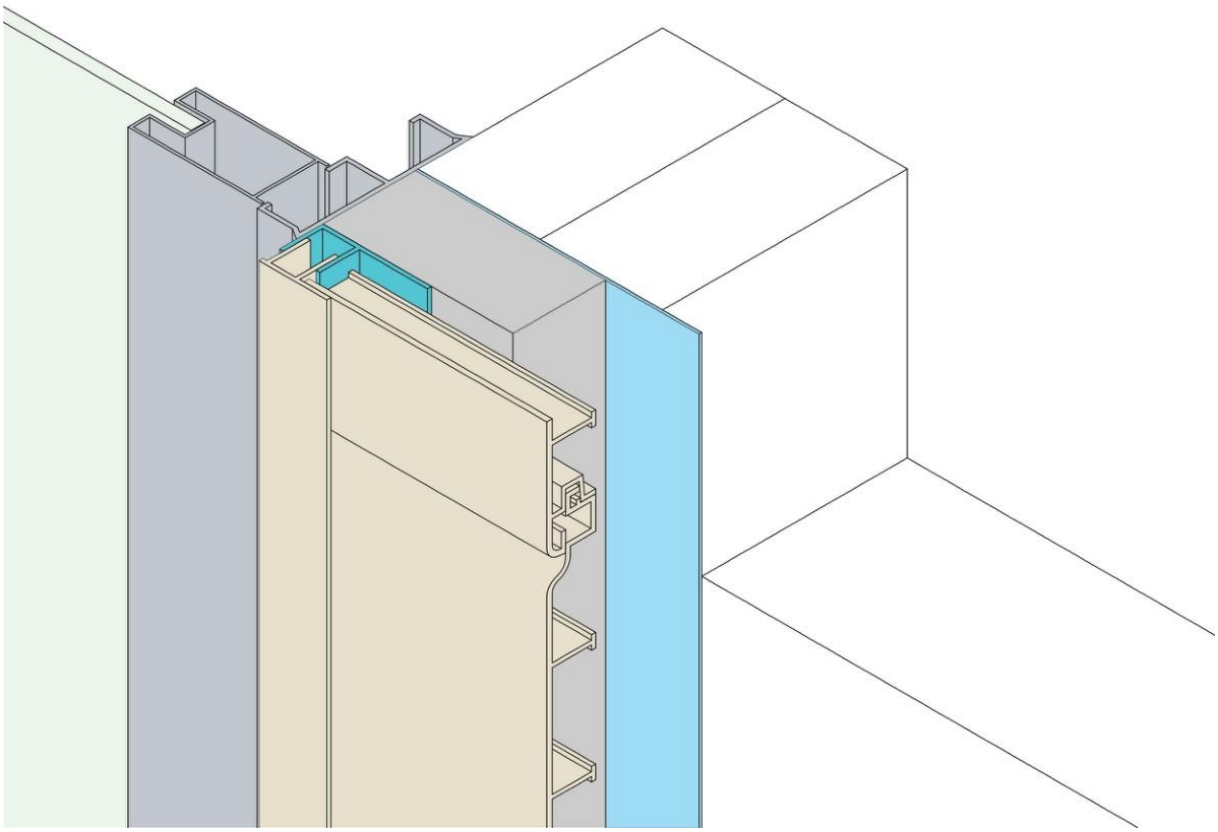


Figure 7.5: Vertical corner junction section detail

Additional Notes

- Maintain a 20mm minimum ventilation cavity behind cladding
- Refer to window head, sill, and jamb details for trimming and flashing requirements around openings
- Include thermal breaks in the sub-frame where required for Section J energy compliance

Soffit Installation

Boards are installed to the underside of soffits with top hats fixed to the soffit substrate. Profiles positively interlock and are self-supporting once in position.

Key rules

- Fix top hats per engineering specifications
- Work from the starting edge inward
- Fix each profile at max 625mm centres
- Profiles interlock positively; no additional mid-span support required
- Use joiners and Z profiles for concealed end terminations
- Refer to construction drawings for corner and edge details A, B, C, and D

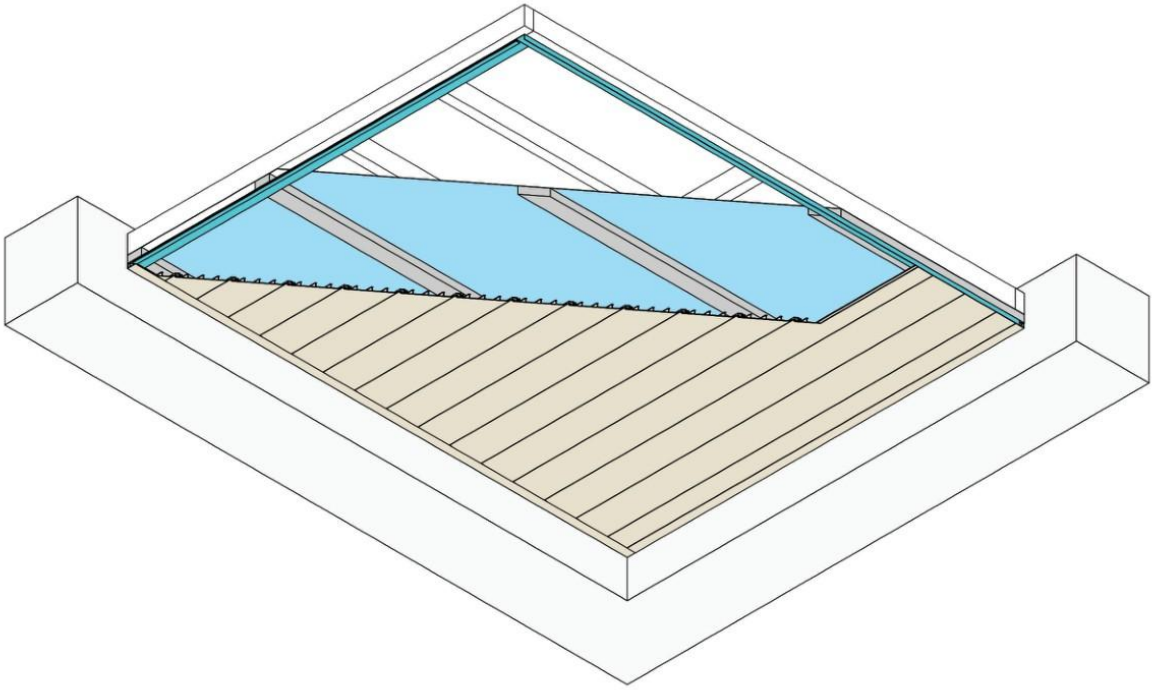


Figure 7.6: Soffit installation overview: boarding in progress

Soffit Fixing Sequence

1. Fix top hats to the underside of the soffit substrate per engineering specifications.

2. Attach starter profile flush with the leading edge of the soffit.

3. Install Alu Selekta profiles perpendicular to the top hats, working from the starting edge inward.

4. Fix each profile through the groove with 8-18x16 metal self-tapping screws at max 625mm centres.

5. Profiles interlock positively and are self-supporting; no additional mid-span support required.

6. Use joiners and Z profiles for concealed end terminations where required.

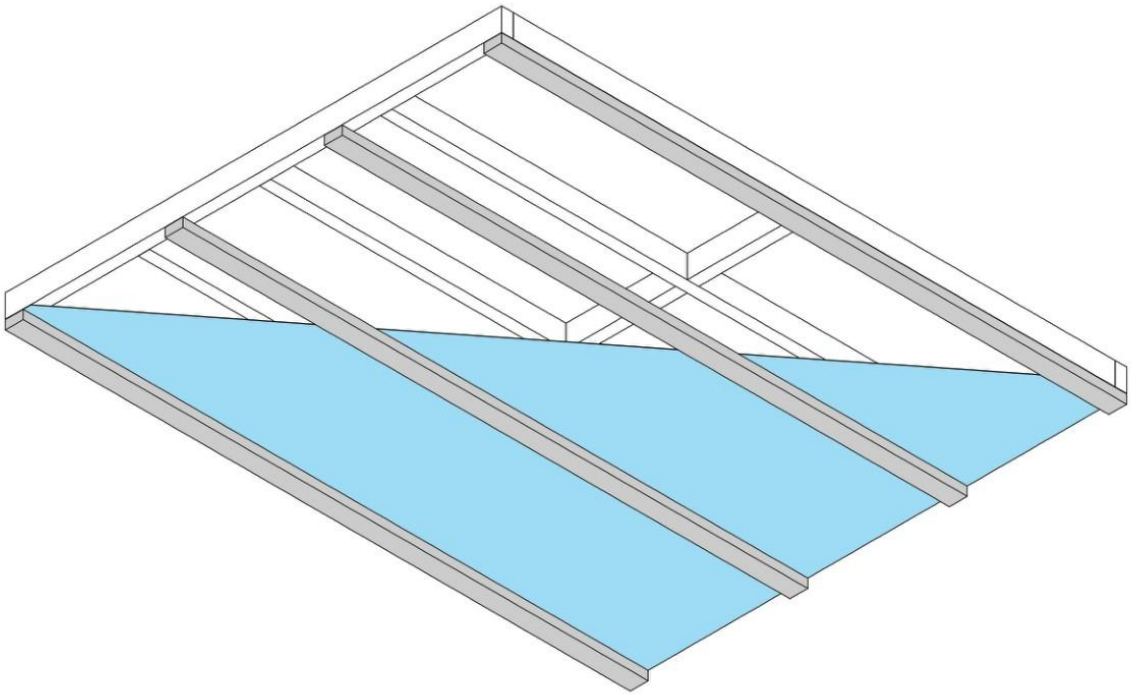
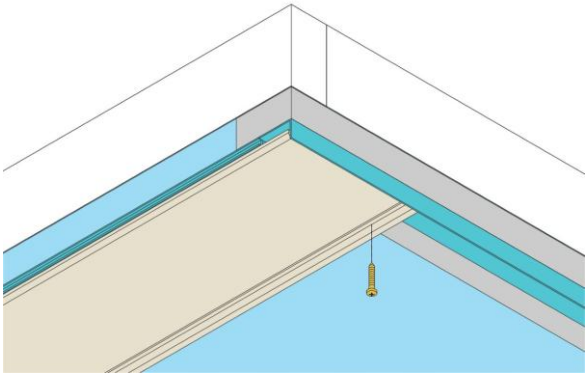


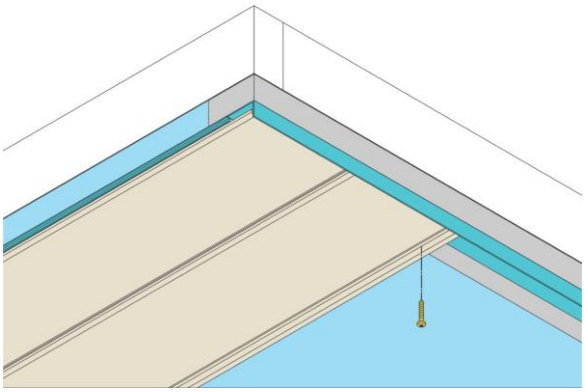
Figure 7.7: Soffit fixing sequence: profile interlocking detail

Key Considerations

– Profiles are designed with positive interlock and are self-supporting once fixed; no additional support required between fixings



Soffit: positive interlock detail



Soffit: perimeter termination

- Use joiners and Z profiles for concealed perimeter terminations
- Ensure sarking and thermal break requirements are met as per the project specification
- Refer to construction drawings for corner and edge details A, B, C, and D

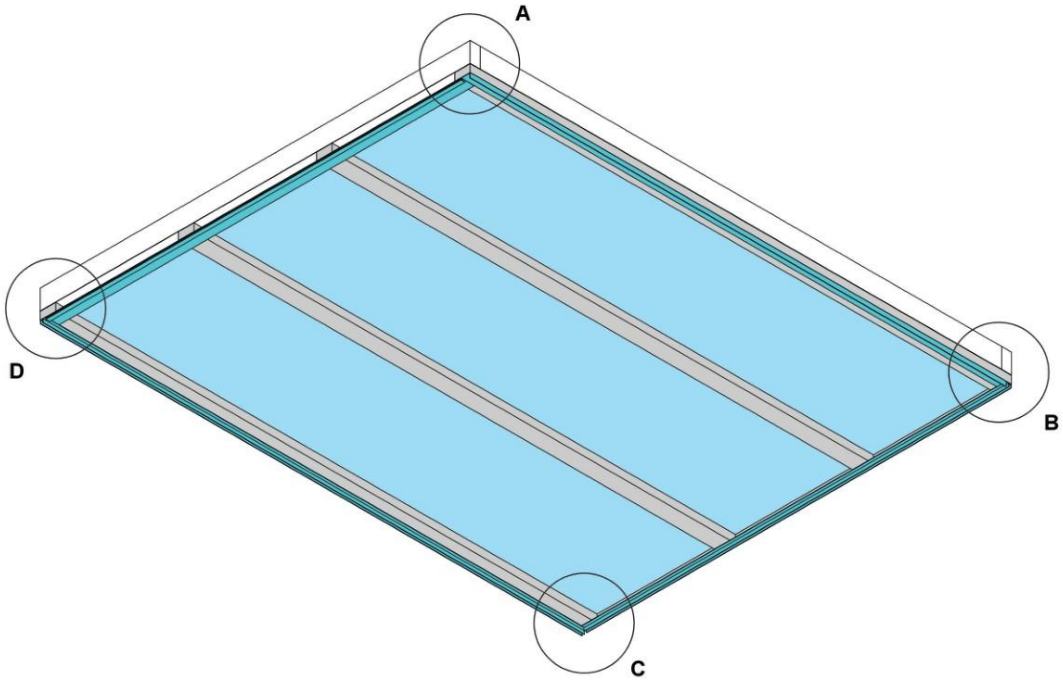


Figure 7.10: Soffit edge and corner details A, B, C, D with cross-section fixing details

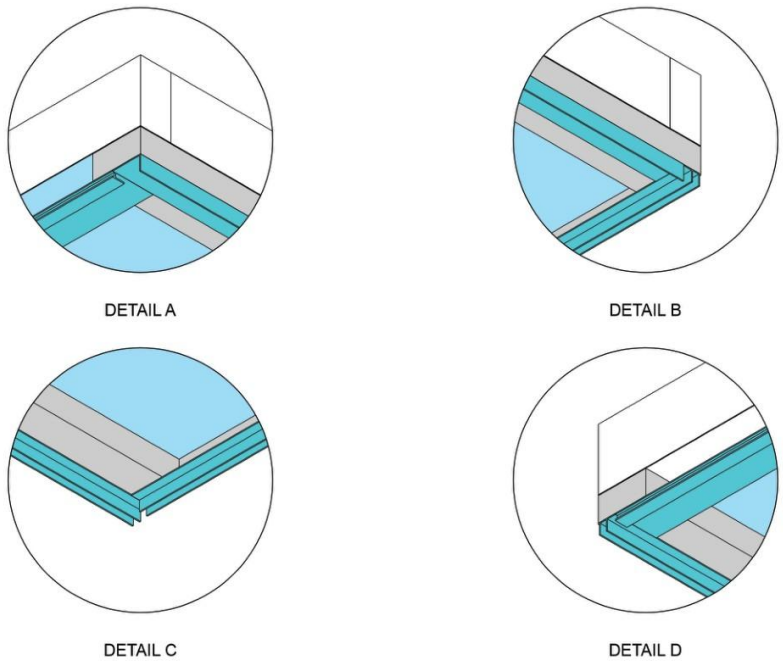


Figure 7.10 continued: Soffit fixing cross-section detail

Specialty Installations

Curved Wall Installation

The Alu Selekta Channel range can be curved to the following minimum convex radii:

- Channel 75: minimum convex radius of 700mm
- Channel 155: minimum convex radius of 1,200mm
- Castelation profiles: not suitable for curved applications; contact Modinex
- Curved forming is carried out by Modinex prior to supply; specify the radius at time of ordering
- Sub-frame must match the required radius; consult your structural engineer

Garage Door Application

- Alu Selekta Channel can be used on sectional tilt-panel garage doors when pre-fitted to aluminium backing panels
- The cladding system must not restrict the mechanical operation of the door
- All fixings must be compatible with the door manufacturer's requirements
- Contact Modinex for garage door application technical support: 1800 156 455

7. Maintenance

Aluminium profiles are low maintenance. Periodically inspect the finish and clean with mild detergent and water. The following are the quality benchmarks for Alu Selekta aluminium finishes:

- No visible cracking or checking of the applied finish
- No chalking in excess of No. 8 rating per ASTM D4214
- Colour change not greater than 5 CIE Lab AE units per ASTM 2244 Section 6.3
- Gloss retention minimum 30% of original after exposure
- No film removal when tested to AAMA 2604-02 Clause 7.4.2

Warning: Do not use pressure washers, harsh detergents, or abrasive chemicals. These will damage the powder coat and void the warranty.

Contact & Support

The Modinex team is available for installation guidance, technical queries, and project-specific assistance.

Installation Support
1800 156 455
Monday to Friday, 7:30am-4:30pm.

Website & Resources
modinex.com.au

Modinex

For installation support: 1800 156 455

modinex.com.au