



Ekodeck® Decking

Designer Series / Installation Guide



No oiling, staining
or sealing



Tested & built
to last longer

25^{YRS}

Up to 25-year
warranty

ekodeck.com.au

Ekodeck® Decking / Designer Series

INSTALLATION GUIDE

Read this first

Being a composite product, Ekodeck Decking behaves and has different characteristics to timber. To achieve a safe and long lasting Ekodeck Decking installation, it is important to read the following guide in full.

Warnings

1. Ekodeck Decking is a pre-finished product, use care when storing, handling and installing to avoid damage.
2. It is the sole responsibility of the homeowner, contractor or the installer to determine the specific requirements, effectiveness, suitability and safety with regard to any application or use of Ekodeck products.
3. Ekodeck Decking is not designed to be a freestanding product. It must be installed safely and correctly fixed down to a substructure.
4. The substructure must comply with all the relevant regulations and aspects of the Building Code of Australia.
5. Ekodeck Decking should not:
 - A. Be used in a substructure application
 - B. Be applied directly to a solid surface such as concrete
 - C. Have a cantilever greater than 50mm
6. Any single piece of Ekodeck Decking must be installed over at least 2 spans (i.e. 3 joists) to keep within the structural load bearing limits of its design.
7. Ekodeck Decking must have sufficient gaps provided between boards and at joins and edges to allow for proper thermal movement and ventilation.

Static electricity

All co-extruded composite decking, including Ekodeck Designer Series can, under certain conditions, exhibit build-up of static electricity.

Low humidity and dry environmental conditions are the biggest contributing factors of static electricity build-up. Other factors include, but are not limited to, subframe materials, earthing and/or balustrading.

This phenomenon may be reduced by using an anti-static spray (such as ACL Staticide). These products are water based and may require additional applications after rain or other weather conditions. Anti-static mats or insulating touch points such as balustrades or door handles may also assist.

Generally, the static build-up tends to reduce over time as the boards wear in. Ekodeck does not warrant against static build-up in Designer Series boards.

Safety

Always use proper protective clothing and safety equipment.

Ekodeck Decking boards are heavier than traditional timber. Always exercise precaution and care when lifting.

Storage & handling

Ekodeck Decking boards must be:

- Supported at least every 600mm on a level plane.
- Laid flat especially during transportation and never at an angle.
- Never be dropped or 'dumped' when unloading.
- Stored on a flat, dry surface.
- Covered until it is time to use them for installation.



Carry this side up



Install either side up

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Natural variances & colour

Ekodeck Decking is made by combining reclaimed timber with a mix of new and recycled plastics. It is designed to have a variation of colour and tone from one board/batch to another.



It is necessary to lay out your boards to ensure you have an even mix of both light and dark tones across the deck prior to cutting or installing to avoid large blocks of single tones. Boards cannot be exchanged or returned after they have been cut. If you do not accept the colour/finish of the board, do not cut or install it.



Ekodeck Decking boards are subject to normal manufacturing variations and tolerances. Reasonable variances in board dimensions are not considered a product fault and due care should be taken when installing to allow for these.

Slip rating

Ekodeck Decking boards are supplied with a certified anti-slip rating as per AS4586:2013. Over time, dependent on traffic, environment and other external factors, the surface may wear. It is the responsibility of the owner to periodically test the boards to ensure anti-slip rating requirements are being met.

Surface protection

It is recommended to use surface protection on furniture and objects to avoid scratching or marking.

Pressure washing

Do not use a pressure washer on Designer Series decking boards. The use of a high-pressure washer could cause irreparable damage to your deck.

Gaps & spans

	Uniformly Distributed Actions	Concentrated Actions	Centre-to-centre joist spacing
Residential*	1.5kPa	1.8kN	450mm
Residential stairs & landings*	2.0kPa	2.7kN	400mm
Commercial*	2.0kPa	2.7kN	400mm
Min. ground clearance (with adequate drainage)			40mm
Min. ground clearance (without adequate drainage)			90mm
Min. side-to-side gap			Auto-spaced by clip
Recommended end gap			Refer to Expansion Gaps table
Edge Boards			Should be fully supported

*As per AS/NZS 1170.1. Visit ekodeck.com.au for engineering and compliance certificates and for more information on spans, loads and Residential and Commercial applications.

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Ventilation

We recommend a minimum of 40mm ground clearance, so long as there is adequate drainage beneath the deck. Otherwise, we recommend a minimum of 90mm ground clearance.

Cutting

For best results, use hardwood blades. When using a drop saw we recommend a 60-80 tooth blade for cutting.

Where possible, delay any trimming of length until all boards are fully fastened and trim at the same time to achieve a uniform length for all boards across your deck.

Thermal expansion & contraction

Ekodeck expands and contracts in length with changes in temperature. This is normal behaviour of any wood plastic composite and is not a product fault.

It is most important to take this into consideration during installation of your Ekodeck Decking.

For decks up to 5.4m in length we recommend running full length boards.

For decks longer than 5.4m we recommend the use of breaker boards.

Expansion gaps

It is important to take Thermal Expansion & Contraction into account when gapping your boards.

The below table can be used as a guide when discerning the appropriate gap (in mm) to leave at each end of your board, depending on board length and ambient temperature during installation.

		Ambient temperature during installation (°C)			
		10°C	20°C	30°C	40°C
Board length (m)	1m	2mm	1mm	1mm	1mm
	2m	2mm	1mm	1mm	1mm
	3m	2mm	1mm	1mm	1mm
	4m	3mm	2mm	1mm	1mm
	5.4m	3mm	2mm	1mm	1mm

e.g. If temperature during installation is 20°C, the recommended end gap for a 5.4m board is 2mm.

Guidelines to best manage gaps

- During installation, if the board is warm to the touch or has been sitting in full sun (i.e. hotter than ambient temperature) we advise to reduce the end gap.
- Ensure you leave a sufficient gap to solid structures, posts or walls to allow for expansion/contraction of Ekodeck and avoid damage to the boards or surroundings.
- Allow the boards to acclimatise to your site conditions. This allows your Ekodeck to adapt to the ambient heat typical of your location.
- For each section of decking, leave your boards overlength. Fasten them down using Quickfix, then trim to length using a circular saw and straight edge to ensure all boards are the same length. This is best done after the boards have settled. (i.e. The following day after installation)

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Breaker boards & picture framing

The use of breaker boards or picture framing your deck is strongly recommended.

Picture framing ensures a clean finish of your deck when using Ekodeck Decking boards.

Breaker boards enable a single-board-length installation method, which helps manage the expansion and contraction characteristics of composite boards.



Example of a breaker board design (recommended for decks longer than 5.4m):



Example of a picture frame design (recommended):

Mitre joints

When using a picture frame design on your deck, the corners of your picture framing boards can meet at an angled mitre joint.

To reduce the likelihood of gaps opening, we recommend reducing the end gap suggested by the *Expansion gaps* table by 2mm.

Butt joints

Due to the thermal expansion properties of Ekodeck we advise against the use of butt joints, regardless of the size of your deck.

It is difficult to ensure consistent and uniform gaps across your entire deck when using butt joints and boards of various lengths.

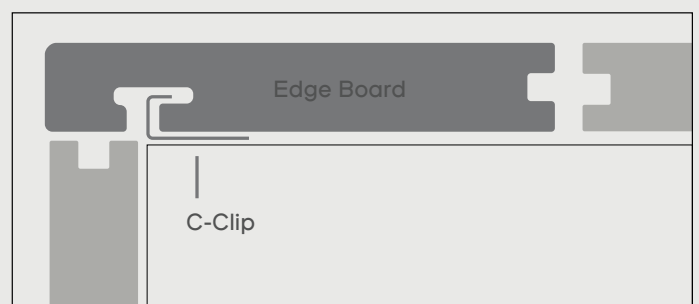
Edge board finishing

We recommend the use of Ekodeck Designer Series Edge Boards for the edge of your deck, as well as steps. This ensures a clean finish.



Edge board installation

1. Install the leading edge of your Edge Board using C-Clips.
2. Ensure C-Clips are aligned correctly on the joists to achieve your desired overhang.
3. Install C-Clips on every joist, or every 450mm, using the supplied screws in the C-Clip pack.
4. Push Edge Board into C-Clips using the groove on the bottom of the board.
5. Continue to fasten your Edge Board and your deck using Quickfix - refer to 'Fastening Boards' section.



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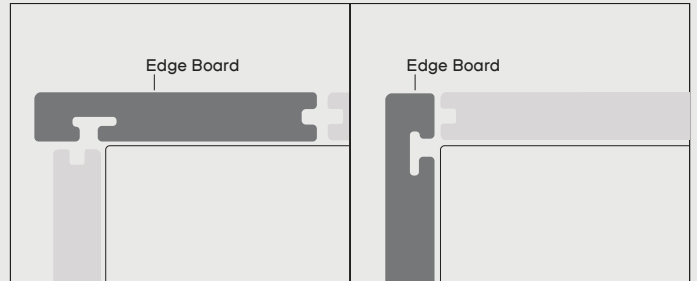
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Edge board positioning

Position the Edge Board either horizontally or vertically, whichever your preference is.

Be sure to overhang the Edge Board enough to allow for a fascia to be set beneath it.

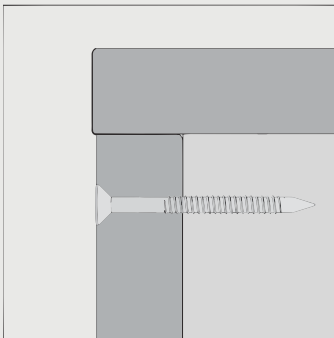
Over time, a vertical Edge Board may fill with debris - this is something to be mindful of.



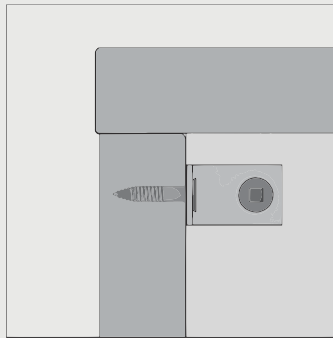
Fascia fixing options

See below various ways to fix your fascia board. Fascias should be fastened every 450mm.

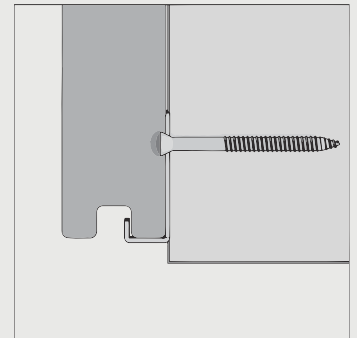
Face-fix



Angle bracket



C-Clip



Prior to cutting & installing



It is necessary to lay out your boards to ensure you have an even mix of both light and dark tones across the deck prior to cutting or installing to avoid large blocks of single tones. Boards cannot be exchanged or returned after they have been cut. If you do not accept the colour/finish of the board, do not cut or install it.



Top-fixing

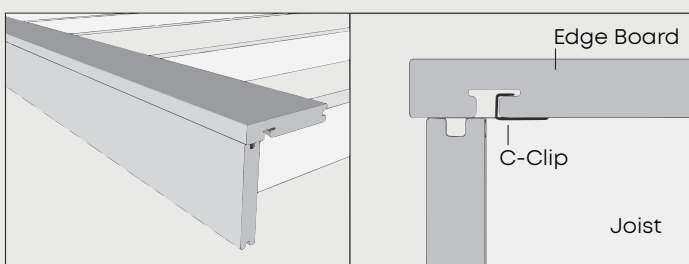
Do not top-fix the entire deck, only the fascia board or where absolutely necessary.

Top-fixing the entire deck will void your warranty.

Starting from a step or edge (recommended)

For best results, we recommend starting at the edge of your deck and working back to your wall/house. This ensures you have a full board at the edge or step of your deck where it is most exposed as well as offering a wider range of options to finish and fasten the leading edge of your board and fascia.

1. To begin, install your Edge Board using C-Clips as set out in the Edge Board Installation section.



2. Consult the Fascia fixings options above and install your fascia boards if appropriate.

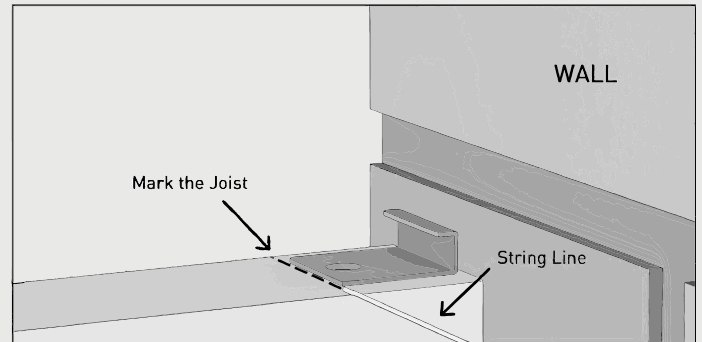
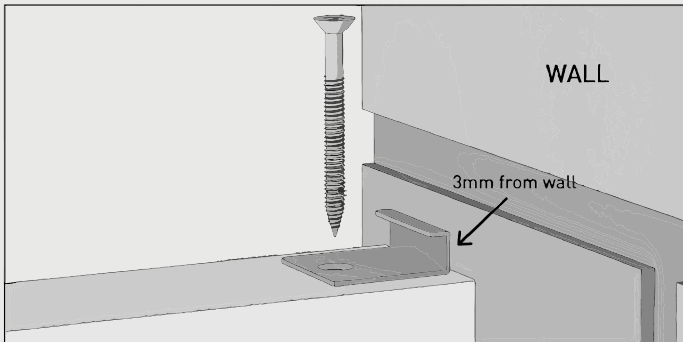
3. You can now begin to fasten your boards using Standard and Locking Clips - refer to Fastening Boards section.

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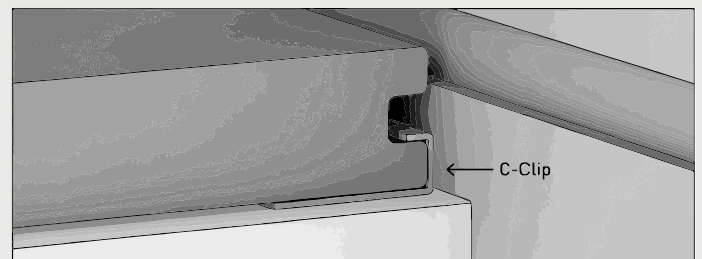
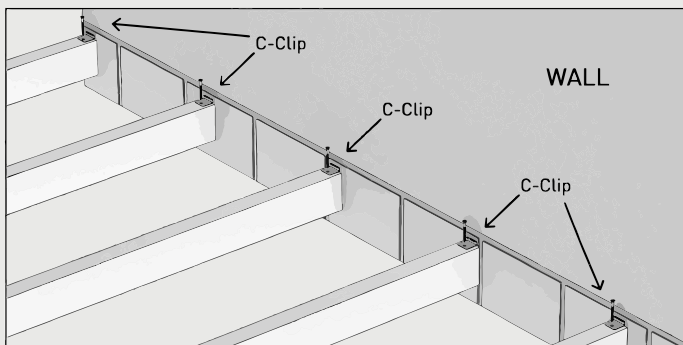
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Starting from a wall

1. Position C-Clip on top of the first joist a minimum of 3mm from the wall and screw into place. Repeat on last joist.
2. Run a string or chalk line from the front edge of the C-Clip between the first and last C-Clip and mark the remaining joists.



3. With the top of the joists now marked, install C-Clips on the remaining joists. If necessary, C-Clips can be placed on every second joist. Gently push the first Ekodeck board into the C-Clips. You may need to angle the board slightly to push into the C-Clips.
4. You can now begin to fasten your boards using Standard and Locking Clips - refer to Fastening Boards section.

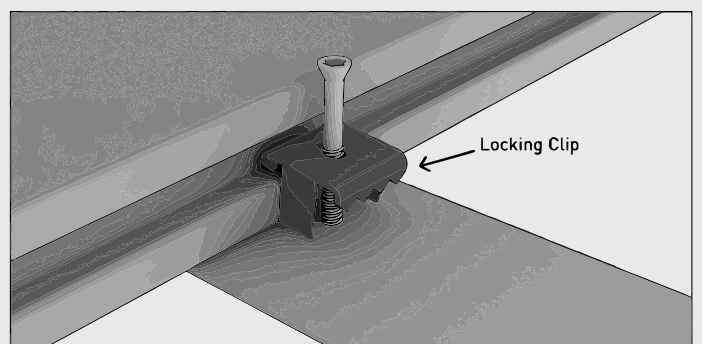
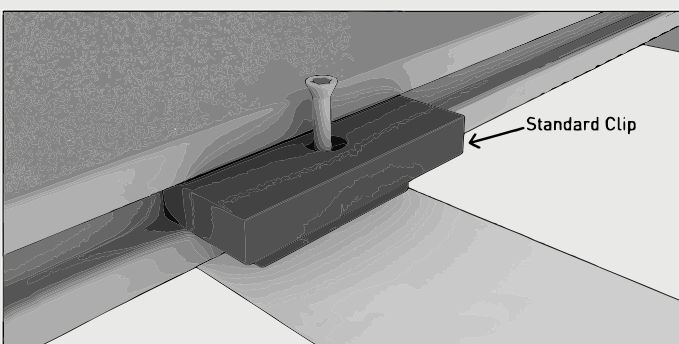


Fastening boards

Depending on which Quickfix system you are using, the fastening of your Ekodeck boards will slightly differ.

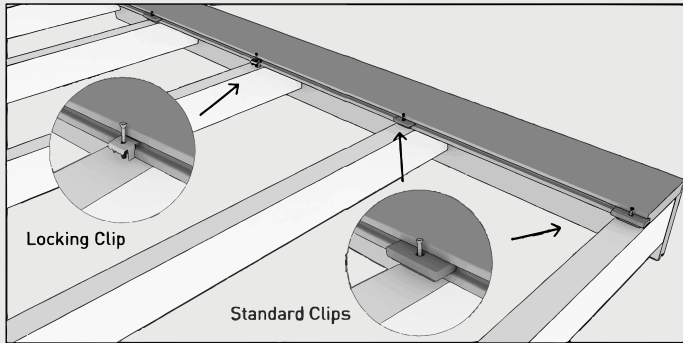
6mm board spacing

1. Insert Standard Clips and Locking Clip into the groove of the board. **Note: you must use 1 (one) Locking Clip only per board, which is placed nearest the centre of each board.** Screw down approximately 2mm to hold the clips in place.



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Note: If installing on hardwood joists, it is recommended to predrill your joists to avoid shearing screws. If you are shearing screws, increase your predrill size.

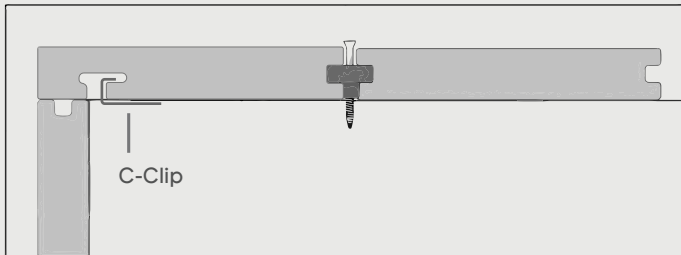
If you are installing on a steel frame, predrilling steel joists is necessary. The following table should be used as a guide to determine the size of drill bit needed.

Steel thickness	Drill bit size
<1.5mm	3mm
1.5-2.4mm	3.5mm
>2.4mm	3.75mm

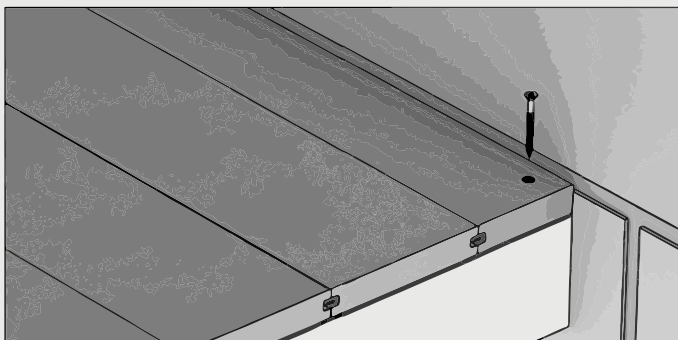
Ensure you have 1 (one) Locking Clip per board.

Failing to install a Locking Clip will allow your boards to shift and come out of alignment.

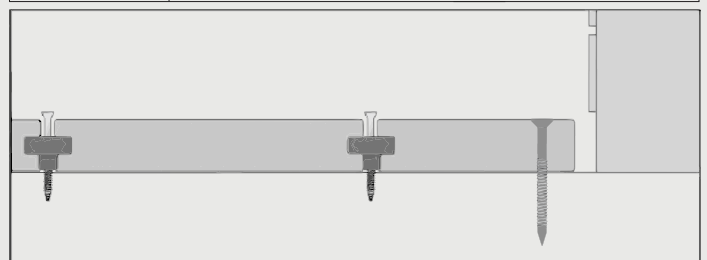
2. Push the next board into position.



3. Repeat these steps and lay approximately 6-10 boards before screwing down properly (this is a guide only). Measure out from the first board to the last board to ensure that the boards are square.
4. Screw down this section of decking. Do not overtighten screws. If the screws are pulling through the clip, you are over tightening the screws.
5. When securing the Locking Clip, ensure that the screw is tightened sufficiently so the teeth bite into the groove of the Ekodeck boards.
6. Repeat steps 1-5 until complete.
7. Once you reach the end of your deck, you will likely need to rip the last board down to fit. Secure the last edge of your board by top fixing. Be sure to pre-drill and countersink the board and fasten every 450mm.



Joist material	Recommended screw
Timber	10g x 65mm 316SS countersunk screw
Metal	10g x 40mm countersunk screw suitable for metal

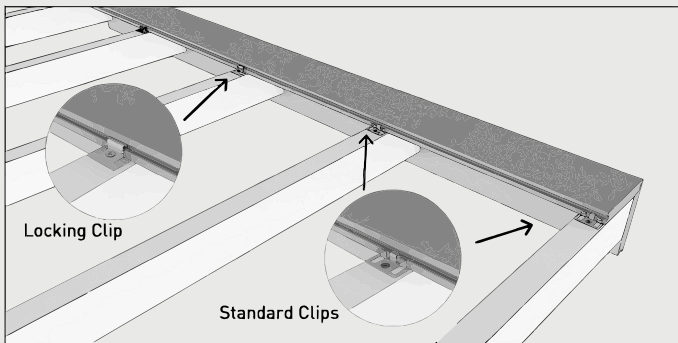
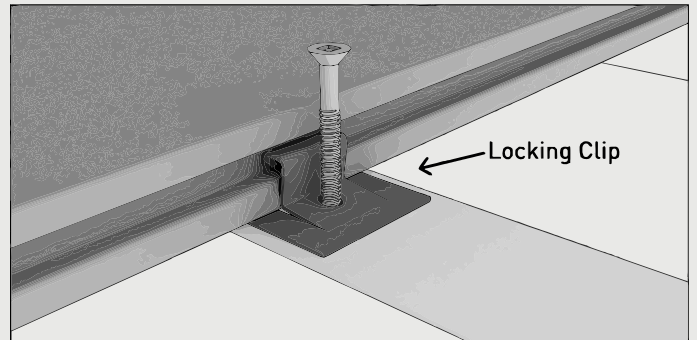
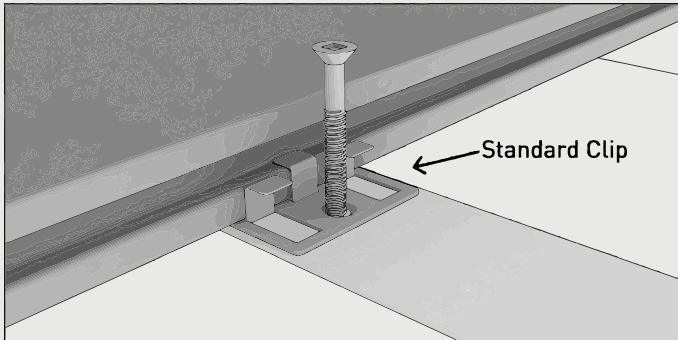


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3mm board spacing

1. Insert Standard Clips and Locking Clip into the groove of the board. **Note: you must use 1 (one) Locking Clip only per board, which is placed nearest the centre of each board.** Screw down approximately 2mm to hold the clips in place.



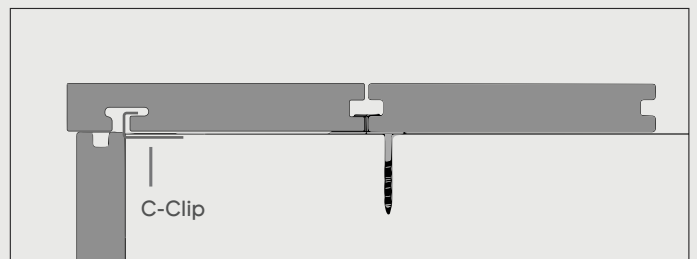
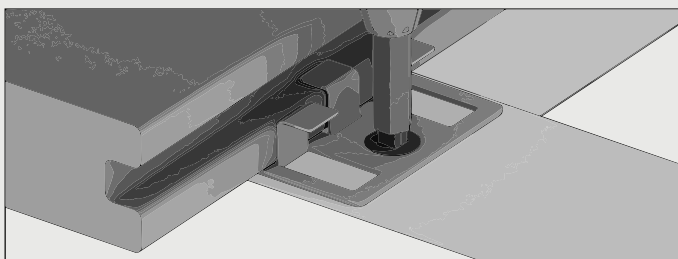
Ensure you have 1 (one) Locking Clip per board.

Failing to install a Locking Clip will allow your boards to shift and come out of alignment.

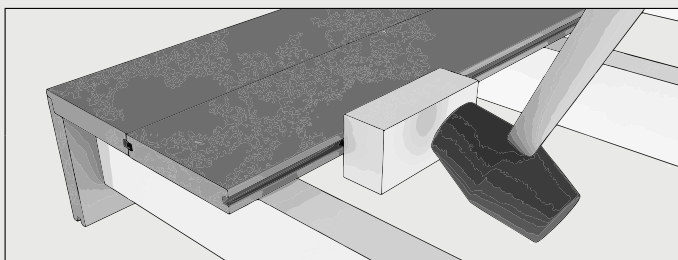
Note: If installing on hardwood joists, it is recommended to predrill your joists to avoid shearing screws. If you are shearing screws, increase your predrill size.

If you are installing on a steel frame, you may need to predrill.

2. Screw down the clips ensuring they are tight and secure.



3. Push the next Ekodeck board into the clips. You may need to use a rubber mallet and block to seat the boards firmly in the clips.

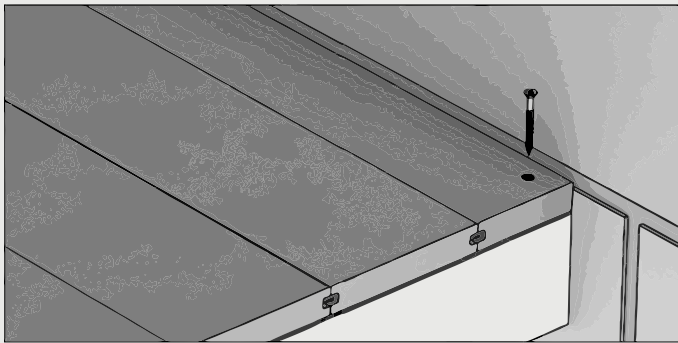


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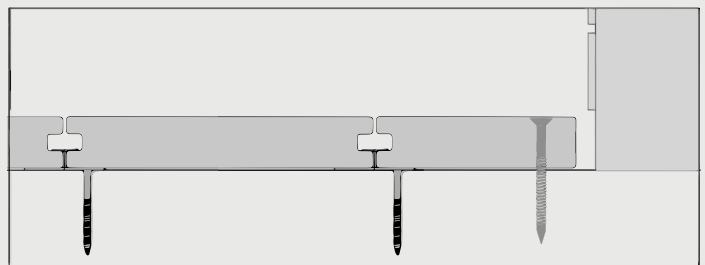
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3mm board spacing

- Repeat steps 1-3 until complete, periodically measuring out from the first board to ensure your deck is square.
- Once you reach the end of your deck, you will likely need to rip the last board down to fit. Secure the last edge of your board by top fixing. Be sure to pre-drill and countersink the board and fasten every 450mm



Joist material	Recommended screw
Timber	10g x 65mm 316SS countersunk screw
Metal	10g x 40mm countersunk screw suitable for metal



Breaker boards & picture framing

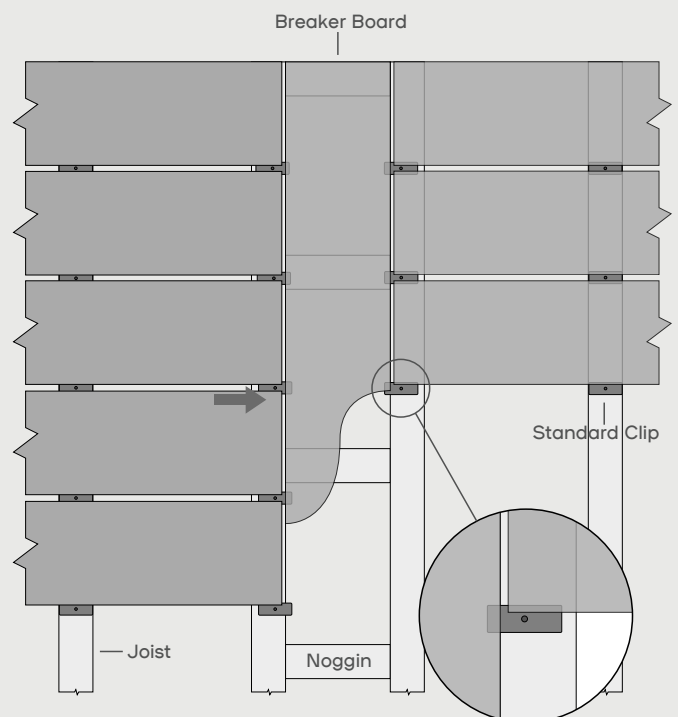
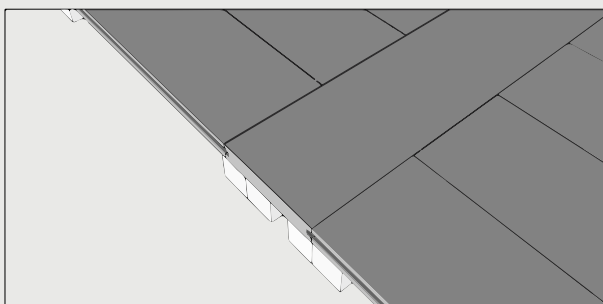
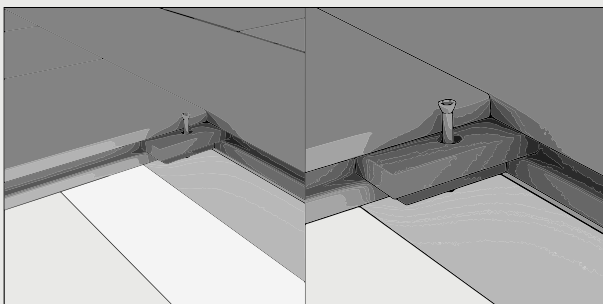
Depending on which Quickfix system you are using, installing breaker boards and picture frame boards will slightly differ.

6mm board spacing

To secure your breaker board or picture frame you can use Standard Clips.

Use the overhanging (short) edge of the Standard Clip to secure the breaker board.

Suggested framework and clip placement

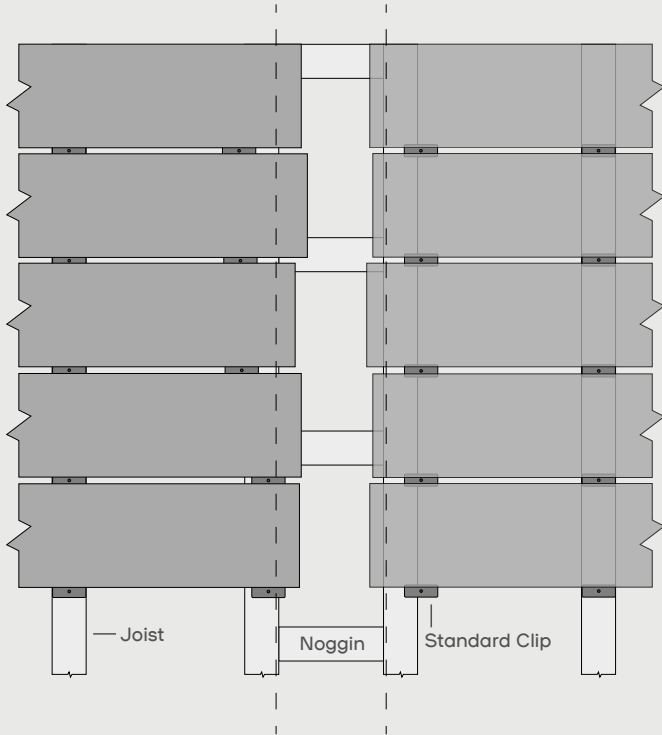


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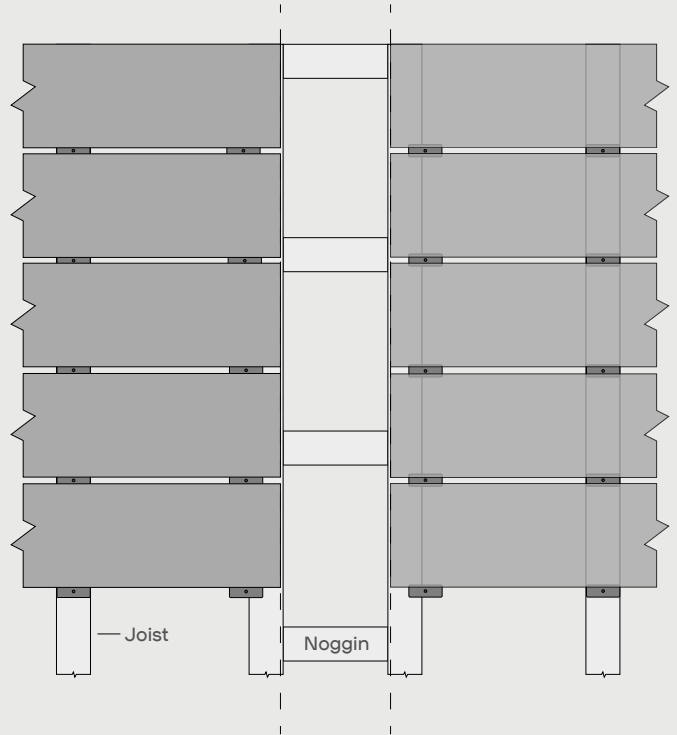
Step 1/4

Cut boards over-length. Install using Quickfix.
Leave last row of Standard Clips unfastened.



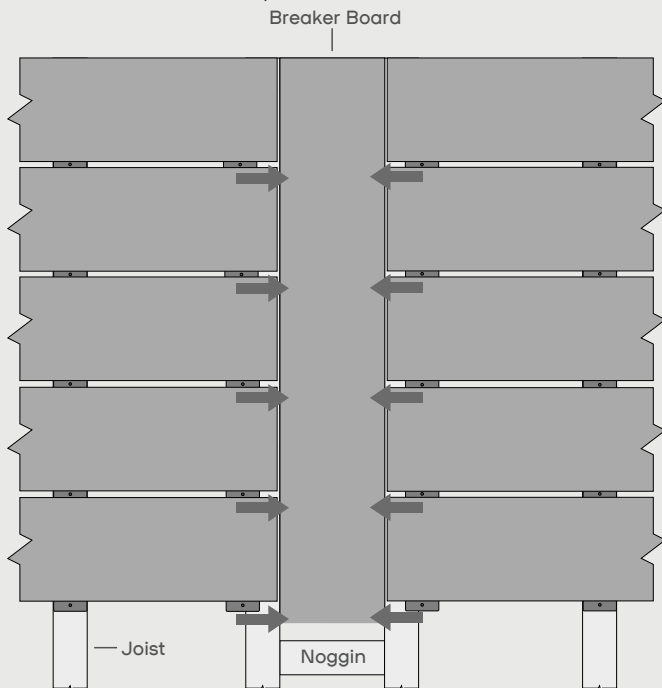
Step 2/4

Mark out breaker board location.
Trim boards to length using circular saw and straight edge.

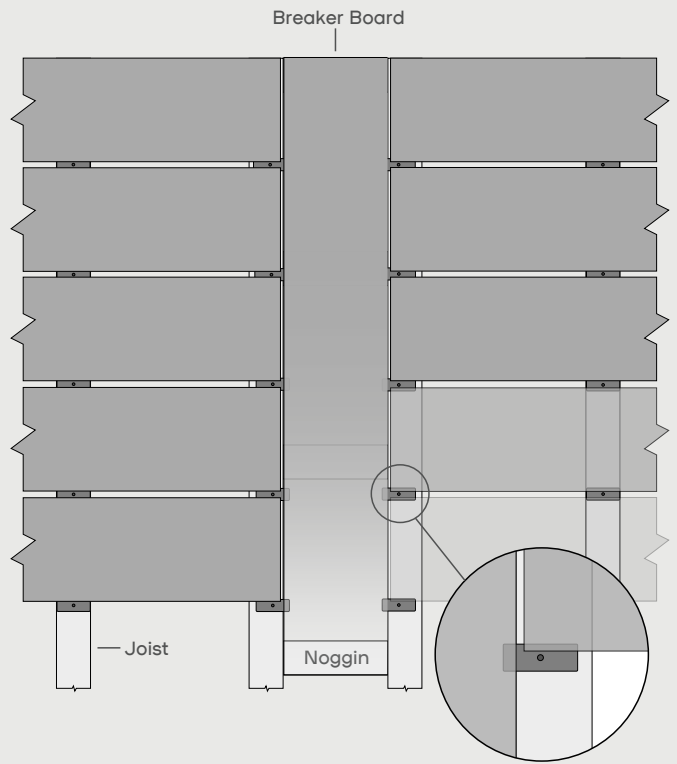


Step 3/4

Drop in breaker board.
Slide end of standard clips into breaker board and screw down.



Step 4/4



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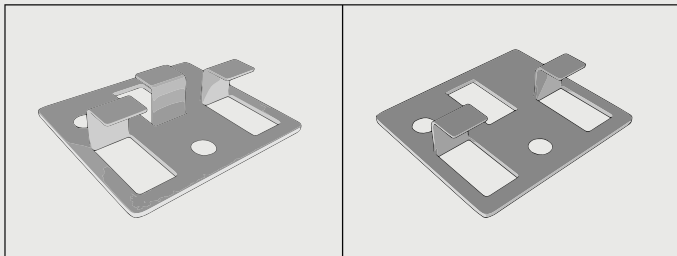
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3mm board spacing

To secure your breaker board or picture frame you can use one of two methods.

- Modifying Standard Clips to make them single sided.
- Using C-Clips.

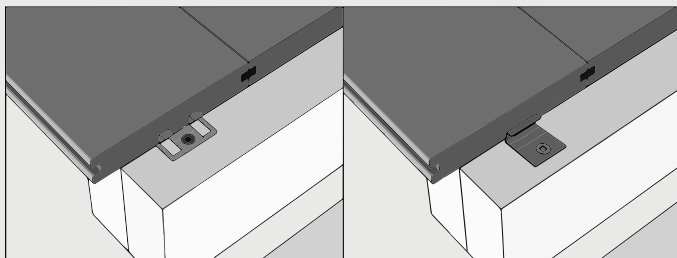
A Standard Clip can be modified by using a punch to flatten or completely remove the single tab



Standard Clip

Modified Standard Clip

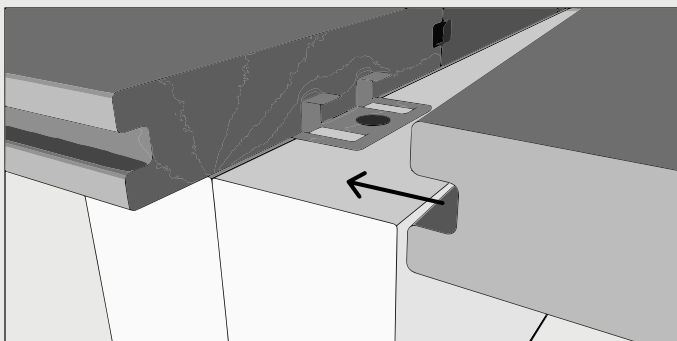
- Install clips every 450mm.



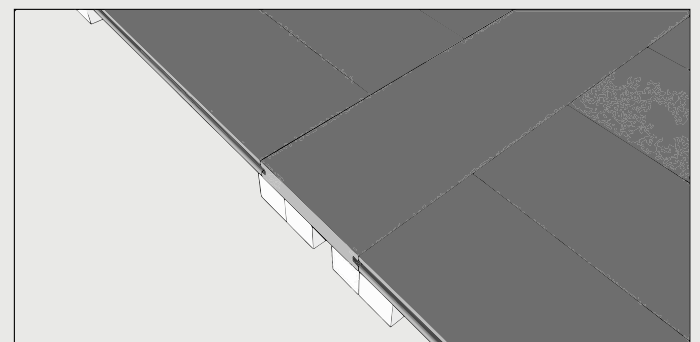
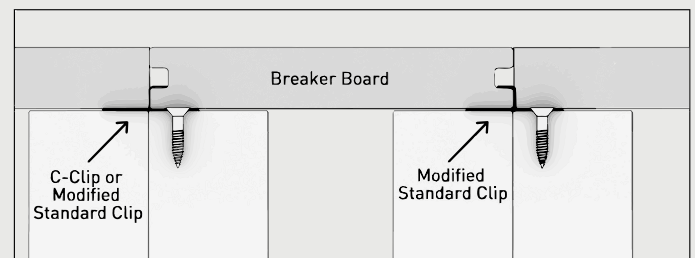
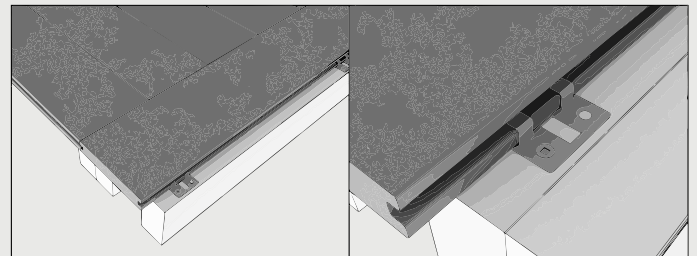
Modified Standard Clip

C-Clip

- You can now push your breaker board or picture frame board into place.



- If installing a picture frame board, secure the finishing edge of your board using brackets as seen in 'Finishing/Fascia Options.'
- If installing a breaker board and are continuing your deck, secure the second edge of your breaker board using a modified Standard Clip. Be sure to install a Locking Clip in the middle of the board.



With your breaker board now installed, you can continue to lay the rest of your deck.

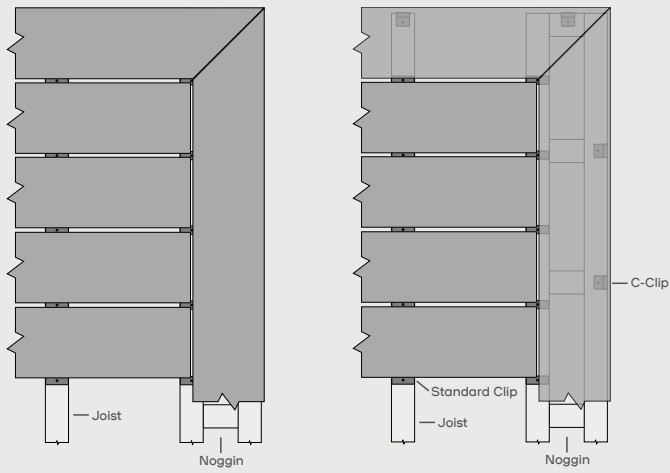
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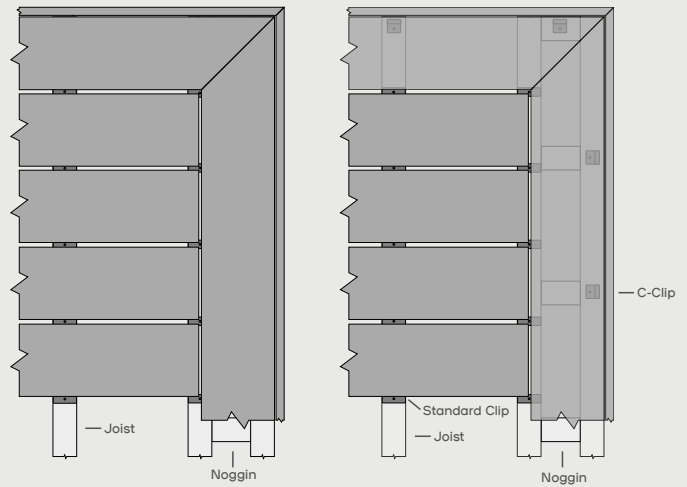
Finishing Options

There are a variety of designs to choose from when it comes to finishing the corners and edges of your Ekodeck Designer Series deck. The following examples are shown using the 6mm Quickfix system.

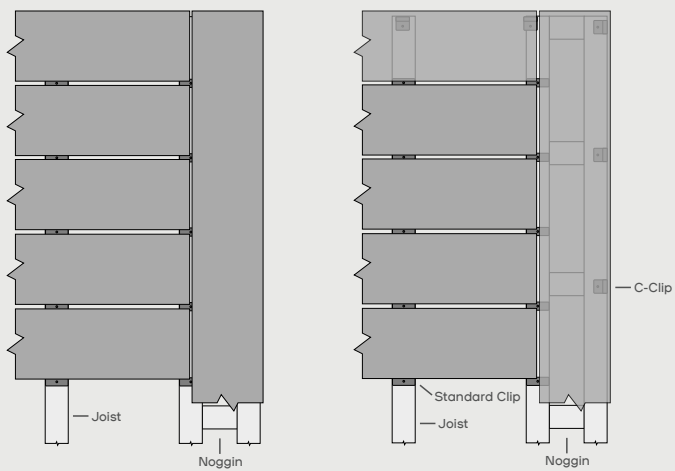
Picture framing



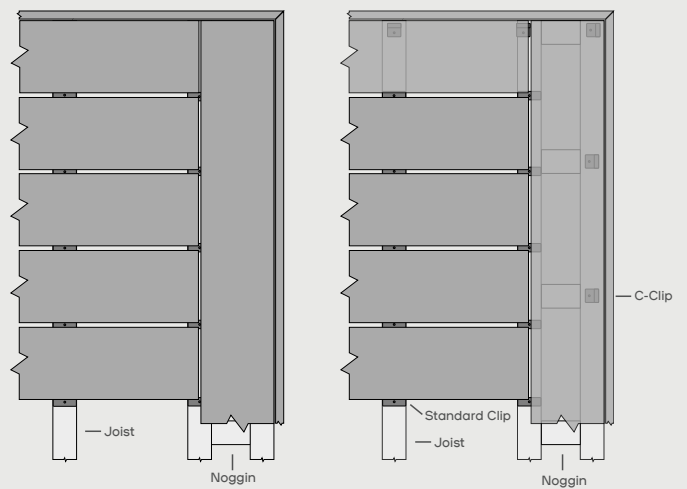
Picture framing with fascia board



Single border



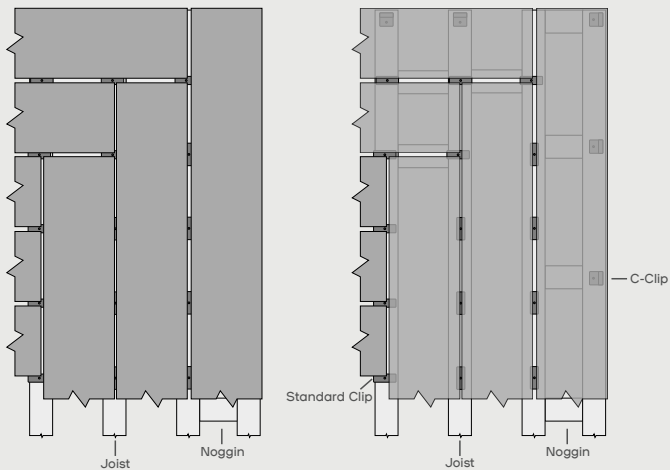
Single border with fascia board



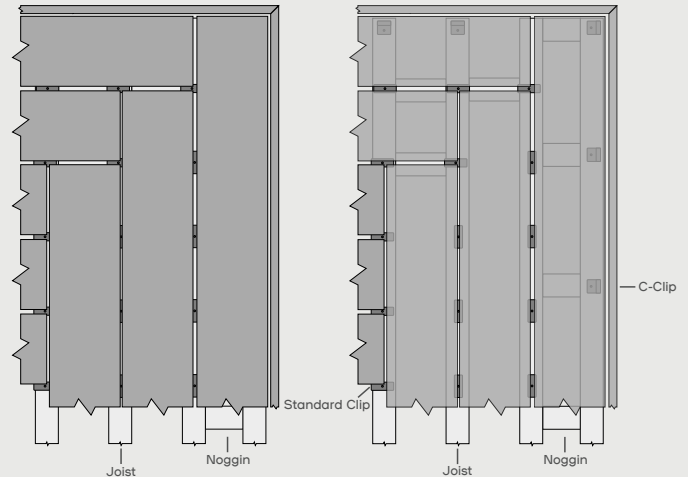
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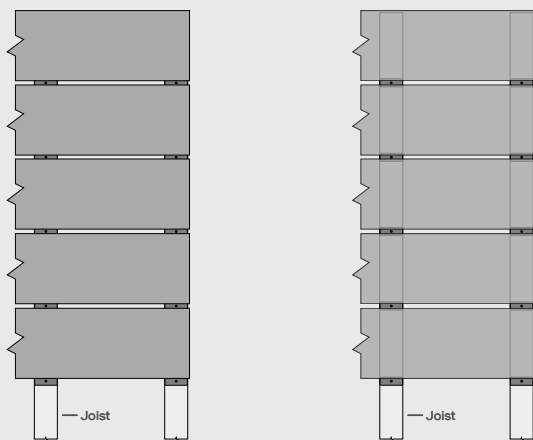
Herringbone detail



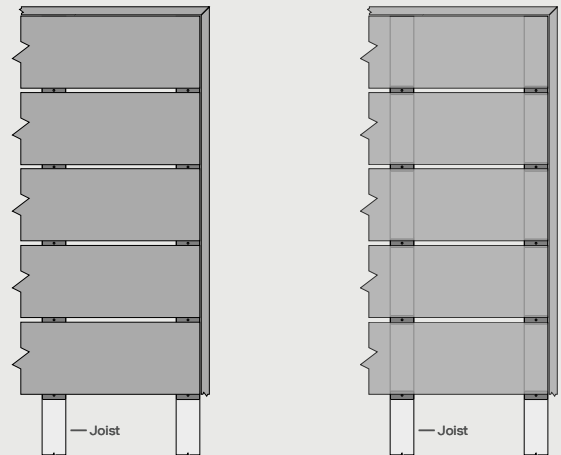
Herringbone detail with fascia board



No framing



No framing with fascia board



Cleaning

It is recommended to clean your deck immediately after installation and periodically as you see fit:

1. Wash the deck with hot water and dishwashing liquid using a soft broom or mop.
2. Rinse your deck - a garden hose is recommended.

Cleaning requirements will vary depending on product use, surrounding environment and weather exposure. We recommend a General Clean is performed at least annually.

Foreign substance stains should be cleaned immediately.

Refer to our Care & Maintenance guide for more information.

Weathering

Ekodeck is a colour-fast and UV-stabilised product that will not lose its colour.

Like any outdoor building material, there may be a slight colour shift upon initial exposure to UV. This may be noticeable in areas where pots, mats or other furniture has been left for extended periods of time. This is to be expected and is not a product fault.