



ekodeck®

INSTALLATION GUIDE



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To achieve a safe and long lasting Ekodeck installation, it is important to read the following guide in full.

The installation guide is intended to be viewed along with the Ekodeck installation videos found on our website www.ekologix.com.au

HEALTH & SAFETY

Always use proper protective clothing and safety equipment when cutting and drilling.

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

Ekodeck Should Not:

- Be used in a substructure application.
- Be applied directly to a solid surface such as concrete.
- Have a cantilever (overhang edge of an Ekodeck board) greater than 20mm.

Warnings

1. It is the sole responsibility of the homeowner, contractor or installer to determine the specific requirements, effectiveness, suitability and safety in regards to any application or use of Ekodeck products.

2. Ekodeck is not designed to be a freestanding product. It must be installed safely and correctly fixed down to a substructure.
3. The substructure must comply with all the relevant regulations and aspects of the Building Code of Australia. The substructure must be anchored to the ground on all sides including the house.
4. Ekodeck should be fixed with 2 fasteners at every joist and any single piece of Ekodeck must be installed over at least 2 spans (i.e. 3 joists) to keep within the structural load bearing limits of its design.

NATURAL VARIANCES & WEATHERING

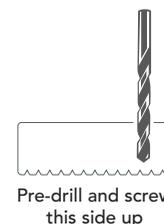
Ekodeck is made from reclaimed and recycled materials. Whilst every care is taken to ensure consistency of performance and quality, natural variances will occur from one board/batch to the other in appearance, colour and texture. These natural variances are similar with those naturally found on timber decking and are designed to even out with time and weathering once installed.

The weathering process for Ekodeck will vary according to exposure to different climates, sunlight and moisture. Ekodeck boards will usually achieve their fully weathered colour within 3-6 months. Slight colour variation of Ekodeck boards will occur and are considered normal and not a defect or fault. Our aim is to replicate the variations found in natural timber to give your deck the most natural look possible.

INSTALLATION & FASTENING

Pre-drilling and countersinking all holes is recommended when installing Ekodeck. This is to avoid mushrooming (i.e. when the material rises up above the screw and the surface of the deck).

Pre-drilled holes must be at least 20mm away from the end edge and 20mm from the side edges of the boards.



VENTILATION & CLEARANCE

When designing your deck, consideration must be given to ventilation. Proper ventilation and air circulation underneath and between boards is necessary to facilitate the evaporation of moisture and heat dissipation. If under direct sunlight, we recommend a ground clearance of 300mm and a 6mm gap between boards to facilitate optimum airflow. However, if undercover, we recommend a minimum ground clearance of 100mm and a 6mm gap between boards to facilitate optimum airflow.

Avoid the tendency to box or seal the deck in completely.

CUTTING

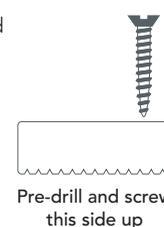
For best results, use carbide tipped blades. When using a drop saw we recommend a 60-80 teeth blade for cutting.

FIXING TO TIMBER JOISTS

Stainless steel 10G x 50mm/65mm screws is required when fixing Ekodeck to timber joists.

Pre-drill and countersink the boards using a 10G quickbit/smartbit tool that has an appropriate countersink to suit the head of the screw (to avoid mushrooming). In locations that experience large temperature variations, you may need to pre-drill holes slightly larger than the diameter of the screw to allow for increased movement caused by expansion and contraction.

Nailing is not recommended



FIXING TO STEEL JOISTS

High quality galvanised 10G x 50mm/65mm screws that are appropriate for steel applications is required when fixing Ekodeck to steel joists.

Pre-drill and countersink the boards using a 10G quickbit/smartbit tool that has an appropriate countersink to suit the head of the screw (to avoid mushrooming). **You will need to further drill out the holes in the boards slightly larger than the diameter of the screw to allow for increased movement caused by expansion and contraction (Tip: you should be able to push the screw through the boards with your thumb).**

Wing Tek screws are not recommended

HIDDEN SCREW FIXING SYSTEM

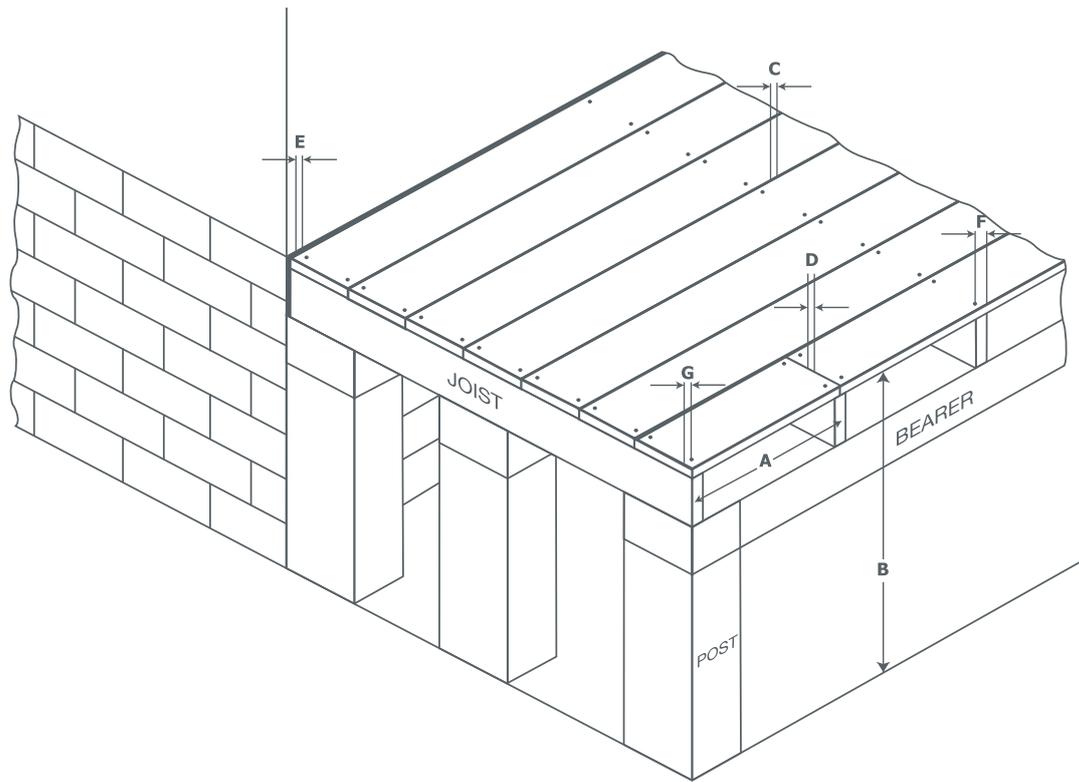
If you would prefer to use a hidden screw system, where the screws are neatly hidden from view, then we recommend the Ekodeck Plus and Quickfix System available through Bunnings.

FIXING SPECIFICATIONS

	Specification (mm)
A. Residential centre-to-centre joist spacing (max)	450
B. Minimum ground clearance	100-300*
C. Minimum side-to-side gap	6
D. Minimum end-to-end gap (butt joint)	0-4**
E. Minimum gap from side and end edge of board to solid structures	2-6**
F. Minimum distance from side edge for fastening boards	20
G. Minimum distance from end edge for fastening boards	20
Pre-drill and countersink	Required
Minimum gap from end edge of board to breaker board	1-3**

*Please refer to section on Ventilation & Clearance for more information.

**Please refer to section on Expansion & Contraction for more information.



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 proper consideration during installation of your Ekodeck. Failure to do so can void any warranty claim.

The amount of expansion and contraction you experience is dependent on several different factors including:

- Seasonal climate – installing in the peak of summer or winter
- Deck position – if the deck is in direct sunlight or part shade etc
- Local climate – if the local area is subject to large changes in temperature during the day compared to the night
- Board length – the longer the board, the more it will expand and contract
- Fully fastened boards – you will notice less movement in the boards once they are fully installed/fastened down to the substructure.



BUTT JOINTS AND EXPANSION GAPS

As a result of the aforementioned factors, leaving a 0mm-4mm expansion gap at the butt joint is a good guide. However, if you are installing in the peak of summer or on one of the hottest days for your location, close this 4mm gap and butt the boards together. If you are installing in the peak of winter or on one of the coldest days for your location, the required 4mm should be left as the boards have already contracted and need adequate room to expand as the temperature rises.

In moderate temperatures, we recommend leaving an approximate 2mm-3mm gap so it still has room to expand and contract as the temperature increases or decreases respectively.

Temperature	End-to-end gaps (butt joints)
Hottest day of the year	0mm (butt it up)
Average temperature	2mm-3mm
Coldest day of the year	4mm

Evenly spread your butt joints across the area of the deck concentrating them on 1 or 2 joists. Additional joist support is recommended to provide a greater fastening area and to avoid splitting the joist or the board (i.e. double blocking or double joist).

An alternative to using butt joints is breaker boards. Breaker boards can be used instead of butt joints in your installation and should be used if your deck is larger than 5.4m. For more information please refer to the section titled "Breaker Boards".

Tips:

- Allow the boards a few days to acclimatise to your site conditions. This allows your Ekodeck to adapt to the ambient heat typical of your location.
- Delay any edge/length trimming after installation is complete and preferably trim on a cool/moderate day.

BREAKER BOARDS

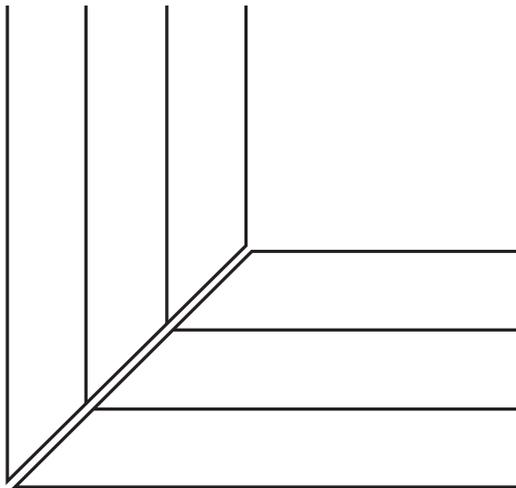
The longer the board length, the more the board will expand and contract. While Ekodeck comes in long 5.4m lengths suitable for most areas, you should use breaker boards where the deck length is greater than 5.4m. Ekodeck boards only expand and contract length ways, not widthways.

The use of breaker boards is an alternative design to butt joints and can be used to limit the visual effect of butt joint and mitre joint gaps opening and closing. A minimum end gap of 1mm-3mm applies when using breaker boards. If you are installing in the peak of summer or on one of the hottest days for your location, you can reduce this gap to 1mm. If you are installing in the peak of winter or on one of the coldest days for your location, a gap of approximately 3mm should be left. The diagrams below are for illustration purposes only.

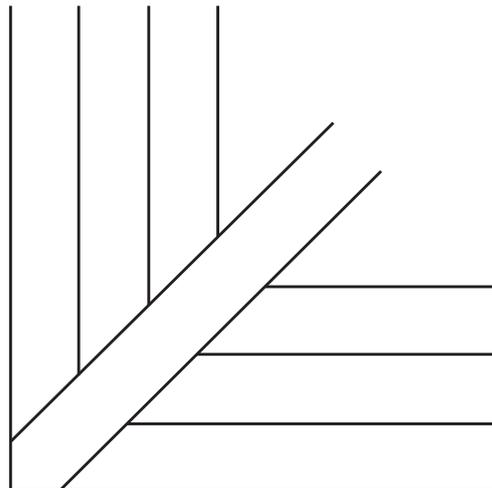
Example of a breaker board design (recommended for decks longer than 5.4m):



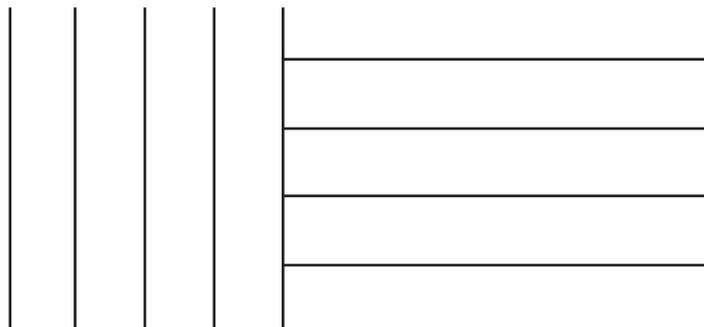
Multiple mitre joint design (not recommended):



Multiple mitre joints with a breaker board (recommended):



Another recommended option is to change the direction of the boards at the corner of the house:



You may choose to position your breaker boards to tie in with certain features of your home – for example: doorways, windows or just creating the feeling of a separate area. The use of breaker boards can greatly enhance the design of your deck.

SOLID STRUCTURES

A minimum end gap of 2mm-6mm applies when installing against solid structures. If you are installing in the peak of summer or on one of the hottest days for your location, you can reduce this gap to 2mm. If you are installing in the peak of winter or on one of the coldest days for your location, a gap of approximately 6mm should be left.

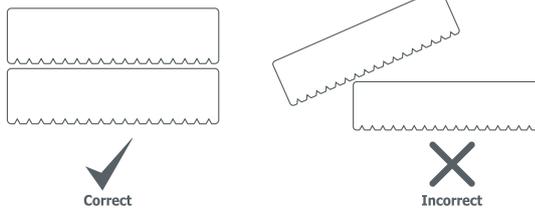
A minimum side gap of 3mm applies when installing against solid structures.

STORAGE & HANDLING

Ekodeck 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.

Storage



CLEANING AFTER INSTALLATION

A general clean is essential immediately after installation to remove tannins and surface debris from installation. To perform a general clean, scrub the deck in the direction of the grain with hot water mixed with dishwashing liquid or sugar soap using a medium bristle brush. Wash down thoroughly with a high-pressure washer or a garden hose with a fan spray nozzle. Squeegee off the water and mop any wet areas.



The use of a pressure washer greater than 1,500 PSI and/or applied closer than 30cm from the decking surface could damage the deck. Do not use dirt blaster type nozzles.

WARRANTY

For complete peace of mind Ekodeck comes with a 10 year warranty against manufacturing faults or defects. For a copy of our warranty statement please visit www.ekologix.com.au



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