

## PLEASE READ PRIOR TO INSTALLATION

Select the location of your decking carefully taking into account privacy, sun, shade and wind. Consider the layout for exit and entry to the home. Keep the size of the deck in proportion to your home and garden. For all but a simple ground level decking, installers should satisfy themselves as to whether planning regulations apply. If you are unsure, always contact your local planning office to discuss your intentions.

### DRAINAGE AND VENTILATION

When designing and building decking always plan to achieve a structure that will enable water to freely drain away via ground preparation, sub structure and the deck itself. If the water does not run off freely from the support structure or the water collects on the surface of the deck for a long period, the boards may start cupping and structural damage may occur due to moisture absorption.

To achieve rain water "run off", decking should be laid on a slight gradient of at least 1 in 80 (1.25%) in the direction of the long side of the boards in the grooves direction. Good drainage and ventilation around and under the deck is required.

### SAFETY INSTRUCTIONS

When handling and processing Builddeck products always wear gloves, eye protection and work in a well ventilated area.

Always wash your hands after handling Builddeck products, especially before eating or drinking. Wear eye protection when pressure washing or scrubbing the decking. Keep children and animals away from the work area until the job has been completed and the tools have been stored in a safe place. When cutting, planing or sanding our products, be aware that the creation of dust and noise will occur.

We recommend that all operatives carrying out these tasks wear suitable P.P.E including gloves, eye protection, dust masks and ear defenders.

Slip test pass results apply to the groove side of the boards only.

### WEATHERING & STORAGE

Builddeck composite products are made from 60% natural material and each board is designed to imitate traditional timber often with naturally occurring variations in colour, texture and grain pattern, for this reason, slight colour variations may occur (more noticeable when purchasing different products). We will always endeavour to pick all products from the same batch however, when orders are added or amended at a later date the boards will likely be from a different batch therefore colour variation is likely. Please ensure you order the correct amount of boards on the initial order.

Where possible, Builddeck composite should be stored indoors and away from any direct sunlight to avoid any natural colour weathering prior to installation. Should indoor storage not be possible, the boards should be kept covered in a shaded, free draining area and supported off the ground by level bearers set at **400mm (300mm if handling Builddeck Victoria boards)** apart, centre to centre.

## PREPARE YOUR SITE

Clear any plants or vegetation, trees and rocks from the area taking care not to disturb any underground cabling or drains. If the area to be decked is currently grass, remove the turf or cover the area with a weed barrier ensuring to bury and tuck the material around the edges.

Once the above has been done, the area must be solid prior to installing joists. Standard recommendations such as a concrete base or compacted gravel or hardcore is suitable as it allows for drainage and provides a strong solid structure on which to build the subframe.

## JOIST CONFIGURATIONS

Timoc recommend a minimum of **200mm** elevation between the ground and joists is required beneath Builddeck decking. Always leave at least 2 sides of the subframe open to allow for cross ventilation under the decking.

**Always** lay deckboards groove direction in the same direction of the drainage gradient so water can drain freely with a gradient across the whole length of the deck of at least 1:80 (1.25%). Ventilation is very important, composite wood will absorb moisture from the ground beneath the deck. If adequate ventilation is not adhered to, the moisture underneath the deck is likely to cause swelling, e.g. expansion, cupping and or bowing. Ventilation should always be considered prior to construction.

### Box Construction

Ideal for garden area that drains well.

- Replace 100mm topsoil with compacted gravel or hardcore.
- Position a minimum of 2 deck support posts in footings to act as frame anchors.
- Lay weed barrier.
- Lay subframe allowing for 50mm drainage gap all round and drainage gradient of 1:80 (1.25%) as standard.
- Attach to post anchors.
- Backfill around frame with gravel or pea shingle.
- Fit timber or composite newel posts after if balustrade is required.

### Low Level Construction

Ideal for sloping sites, multi-tier decks or where final deck height is not an issue.

- Install subframe allowing for 50mm drainage gap all round and drainage gradient of 1:80 (1.25%) as standard.
- Lateral bracing of the beams may be necessary.
- Ensure industry standard balustrade regulations are met.
- Fit timber or composite newel posts after construction if balustrade is required.

### Raised Deck Construction

Ideal for restricted final deck height.

- Install subframe allowing for 50mm drainage gap all round and drainage gradient of 1:80 (1.25%) as standard.
- Ensure suitable ventilation is available.
- Deck support posts are either supported in 'U' proprietary brackets (on footing) or supported in a footing. Joists are attached to beams using mini joist hangers.
- Fit timber or composite newel posts after if balustrade is required.

### Construction Over Existing Patio

Ideal only when existing structurally sound concrete slab is present.

- We do not recommend using existing patio slabs as a base as they tend to subside causing problems later. If you do not know what is under the slabs it is best to pull them up and relay.
- Install subframe allowing for 50mm drainage gap all round and drainage gradient of 1:80 (1.25%) as standard.
- Joists are supported off the slabs using strong angle brackets and durable packing pieces.

## PRODUCTS REQUIRED

### 3.6 Solid Board Clip System & Victoria Boards



### 2.4 Solid Board Clip System



### Solid Board Screw System

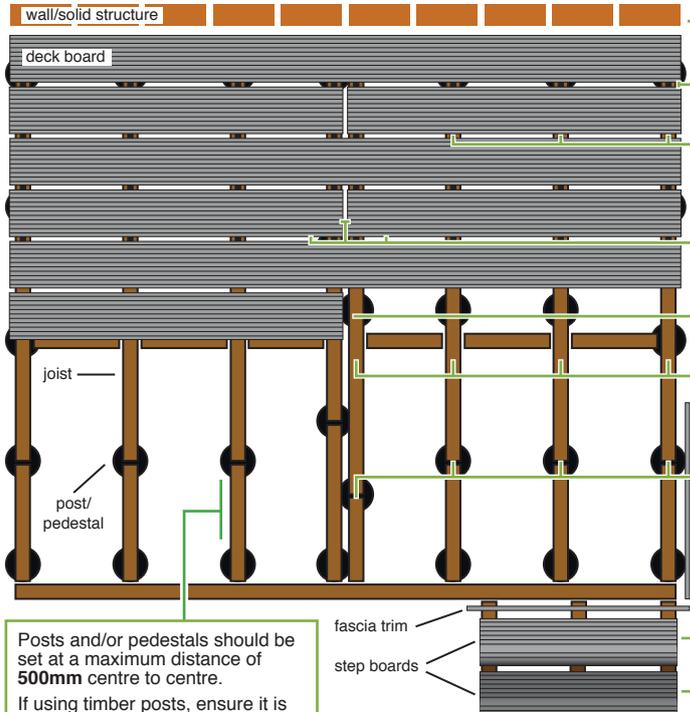


Applies to Builddeck Heritage, Vintage, Classic & Victoria boards, installed using the **Concealed Clip System ONLY**

See **page 3** if installing using screws

## JOIST CENTRES

When designing your deck please make note of the joist spacing in your frame. Composite wood behaves differently to traditional timber, hence for different spacings than you may be used to. Expansion prediction is crucial when it comes to composite decks. If you need any advice please let us know prior to commencing the job.



- A gap of **20mm** must be left between the decking and any walls or existing structures.
- Any overhang must be at a maximum of **20mm**.
- Fix Locking/Nylon Clips on each joist at **400mm (300mm for Victoria)** centre to centre.
- For water drainage, the height of the decking must fall **12.5mm** for every **1000mm** length. Always pitch down the length of the boards away from any buildings or structures.
- A minimum gap of **6mm** must be left between each board in any direction to allow for expansion.
- Abutted boards must be supported by double joists
- All main joists within the subframe must be set at a maximum of **400mm (300mm for Victoria)** apart, centre to centre. This applies to both timber and aluminium substructures.
- To install fascia trim, pre-drill holes and fix using single screws along the length, in the centre of the trim.
- All joints must be supported by a pedestal or joist foot.
- Builddeck composite will expand and contract up to **0.25%** of the boards length. Locking clips can be used to control the direction of the expansion.
- Pre-drill appropriate holes and fix step boards to the subframe using screws. (**25mm** from all edges)
- Install subframe in accordance to relevant installation guide.

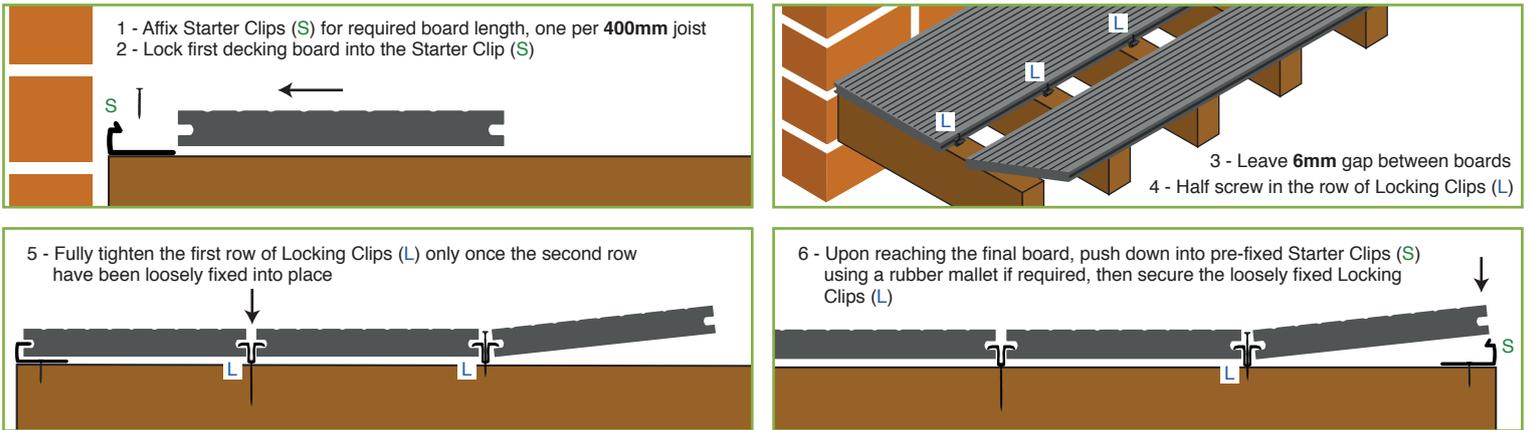
Posts and/or pedestals should be set at a maximum distance of **500mm** centre to centre.  
 If using timber posts, ensure it is suitable for British Standard Use, HC4 ground contact applications.

**IMPORTANT - Always pre-drill composite wood to avoid cracking or splitting.**

## Concealed Clip System - see page 3 if installing using traditional screw system

Builddeck composite boards will expand and contract due to weather and temperature changes. We advise following the below instructions for **3.6 metre** length boards using Locking Clips (L) to help control expansion. For **2.4 metre** length boards, Nylon Clips (N) can be used in place, fixing Locking Clips (L) at specific points to control the direction of any expansion if required. Please see expansion diagram on **page 4** for a more detailed explanation.

- Affix Starter Clips (S) for required board length, one per **400mm** joist
- Lock first decking board into the Starter Clip (S)
- Leave **6mm** gap between boards
- Half screw in the row of Locking Clips (L)
- Fully tighten the first row of Locking Clips (L) only once the second row have been loosely fixed into place
- Upon reaching the final board, push down into pre-fixed Starter Clips (S) using a rubber mallet if required, then secure the loosely fixed Locking Clips (L)

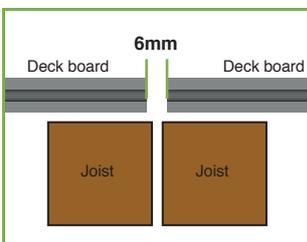


Prepare the groundwork prior to commencing the fit. Building regulations and Builddeck recommend the finished decking surface has a drainage gradient of 1 in 80 (1.25%) to allow for water to "run off" freely.

Lay your Joists **400mm (300mm** if installing Victoria boards) centre to centre, running the opposite way to the intended direction of the Deck Boards. Make sure to leave a **20mm** gap between any walls / fencing / immovable objects such as fixed planters, to allow for expansion.

Ensure cross ventilation is allowed around and under the decking.

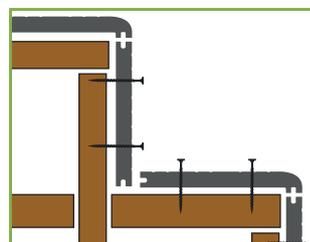
### Abutted Boards



Ensure all abutted boards are supported by double joists. In certain areas where this is not possible, affix a secondary joist to the main joist using two screws, set at least **25mm** from all edges.

If preferred, an optional gap of **4mm** can be left between joists to help with drainage.

### Step Boards



Step boards should be fixed to joist subframe using two screws per joist, pre-drill holes and set at least **25mm** from all edges.

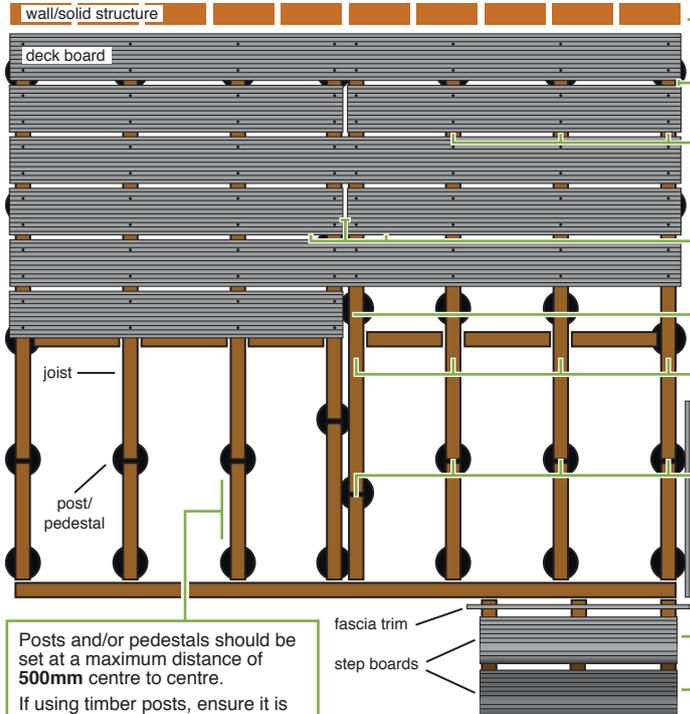
Deck boards can be screwed vertically to mask the subframe beneath, again ensuring all screws are fixed to joists through pre-drilled holes and set at least **25mm** from all edges.

Applies to Builddeck Heritage, Vintage & Classic boards, installed using the **Traditional Screw System ONLY**

**Not suitable for Builddeck Victoria range**

## JOIST CENTRES

When designing your deck please make note of the joist spacing in your frame. Composite wood behaves differently to traditional timber, hence for different spacings than you may be used to. Expansion prediction is crucial when it comes to composite decks. If you need any advice please let us know prior to commencing the job.



- A gap of **20mm** must be left between the decking and any walls or existing structures.
- Any overhang must be at a maximum of **20mm**.
- Fix two Screws at each joist at **400mm** centre to centre, minimum **25mm** from all edges.
- For water drainage, the height of the decking must fall **12.5mm** for every **1000mm** length. Always pitch down the length of the boards away from any buildings or structures.
- A minimum gap of **5mm** must be left between each board in any direction to allow for expansion.
- Abutted boards must be supported by double joists
- All main joists within the subframe must be set at a maximum of **400mm** apart, centre to centre. This applies to both timber and aluminium substructures.
- To install fascia trim, pre-drill holes and fix using single screws along the length, in the centre of the trim.
- All joints must be supported by a pedestal or joist foot.
- Due to weather and temperature changes, Builddeck composite will expand and contract up to **0.25%** of the boards length.
- Pre-drill appropriate holes and fix step boards to the subframe using screws. (**25mm** from all edges)
- Install subframe in accordance to relevant installation guide.

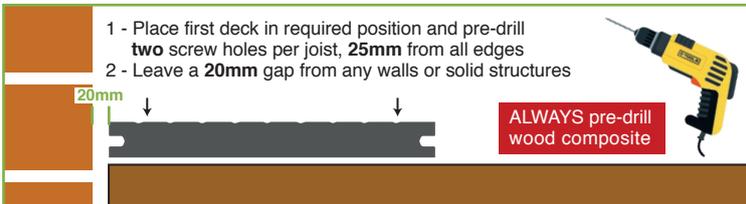
Posts and/or pedestals should be set at a maximum distance of **500mm** centre to centre.  
If using timber posts, ensure it is suitable for British Standard Use, HC4 ground contact applications.

**IMPORTANT - Always pre-drill composite wood to avoid cracking or splitting.**

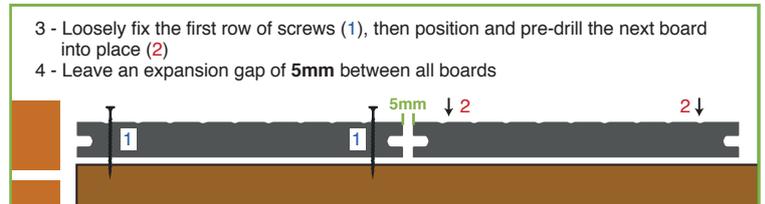
Traditional Screw System - see page 2 if installing using concealed clip system

- Place first deck in required position and pre-drill **two** screw holes per joist, **25mm** from all edges
- Leave a **20mm** gap from any walls or solid structures

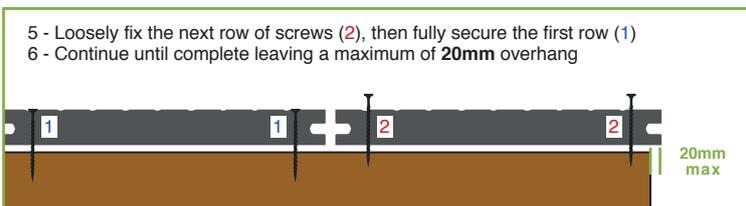
**ALWAYS pre-drill wood composite**



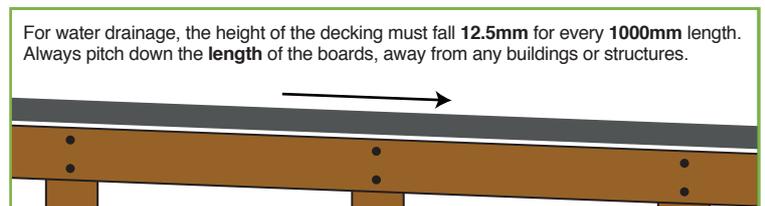
- Loosely fix the first row of screws (1), then position and pre-drill the next board into place (2)
- Leave an expansion gap of **5mm** between all boards



- Loosely fix the next row of screws (2), then fully secure the first row (1)
- Continue until complete leaving a maximum of **20mm** overhang



For water drainage, the height of the decking must fall **12.5mm** for every **1000mm** length. Always pitch down the **length** of the boards, away from any buildings or structures.

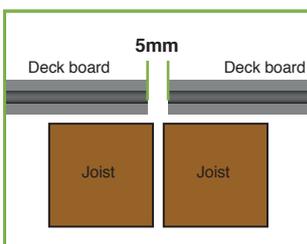


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Ensure cross ventilation is allowed around and under the decking.

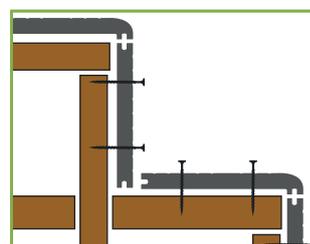
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If preferred, an optional gap of **4mm** can be left between joists to help with drainage.

### Step Boards

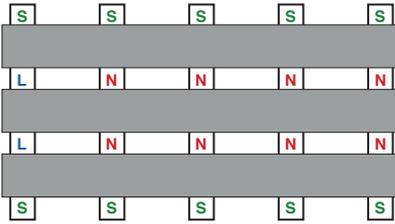


Step boards should be fixed to joist subframe using two screws per joist, pre-drill holes and set at least **25mm** from all edges.

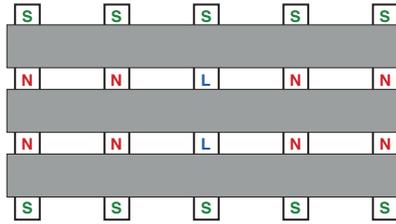
Deck boards can be screwed vertically to mask the subframe beneath, again ensuring all screws are fixed to joists through pre-drilled holes and set at least **25mm** from all edges.

## Expansion control Applies to 2.4m boards only

Builddeck composite decking boards will expand and contract at a rate of around 0.25% of the boards length. However, the direction of expansion can be controlled using Locking Clips (L).



Example A: The clips are set to let the boards expand to the right in direction, since the Locking Clips (L) on the left block the boards expansion.



Example B: The clips are set to let the boards expand from the centre out in both directions, since the Locking Clips (L) are fixed in the centre.

Key:

S - Starter Clip N - Nylon Clip L - Locking Clip

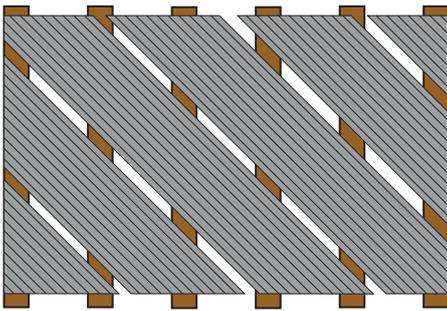
## Installing fascia trim

Measure and pre-drill screw holes in the centre of the fascia trim and continue along the length at every 300mm. Screw the trim directly into the joist as shown below. Fascia trim is for decorative use ONLY and is not designed to be walked on.



## Installing joists for 45° angle decking

For decking installed at 45° in entirety, the maximum gap between joists should be set at 250mm centre to centre.



## Installing joists for 45° angle corners

To finish the corners with 45° angles, set the joists according to figure 1 below. Joists 1 and 2 should be set to the full width of the board final board along the edge. Joist 3 should be positioned at the start of the main boards length, taking into account required expansion gaps (see relevant decking installation guide) and must not allow an over hang of more than 20mm. From joist 3 continue gaps as per relevant decking installation guide.

Figure 1

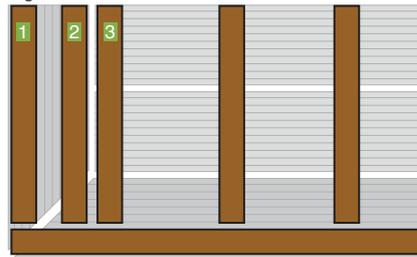


Figure 2



### MAINTENANCE

Regularly use a brush and hot soapy water to wash Builddeck WPC. For water stains or any marks caused by birds, berries or leaves, use a soft cleaning detergent to wash off. For harder stains such as marks containing dyes that leave permanent stains, clean the surface using wire wool or sandpaper lightly to carefully remove. If using a power washer to clean your product, keep a distance of at least 30cm from the boards. Do not use solvent based materials on Builddeck WPC. Do not stain, oil or paint any Builddeck WPC without guidance.

### MINOR DAMAGE

As with any product that is meant for outdoor use, scratches and acts of nature will inevitably occur. If this does happen a 200 grit or finer sandpaper can be used to remove the scratch with no detrimental effect to the longevity and performance of the decking.

### COLOUR EXPECTANCY

Builddeck's composite products will fade due to sun bleaching over time. As our composite wood is a man made partially recycled product, colour variations and dimension tolerance are to be expected. Our warranty does not cover colour fade, discolouration tolerance or water marks, or stains on our products. On deliveries colour variations may occur in different batches.

### DISCLAIMER

The information given in this publication is based on those guidelines for installation on domestic properties. Commercial decks require more robust design, materials and construction to deal with the loads placed on them and are not covered by the guidance in this brochure.

Builddeck installation manuals are designed as a general guide. They may not cover every installation scenario envisaged. Since each installation is unique; the installation method used and/or the actual installation and its actual performance are the sole responsibility of the installer.

Builddeck recommends that all designs be reviewed by a licensed architect or engineer before installation. Please ensure your plan and/or design meets building regulations and permission before you begin installation.

If you are unsure of the best practices, please use suitably qualified personnel such as GQA accredited to prevent injuries or accidents and get the best performance from Builddeck Wood products.

If you require any further assistance or have any questions regarding the installation of Builddeck composite decking products, please call on **01438 362 547** or email us at **info@builddeck.co.uk**.