Congratulations with your new flooring purchase. Before starting with your installation, it is critical that you read the following instructions carefully. Failure to do so will inevitably result in problems occurring and will void your warranty.

"INSTALLATION OF FLOORING IMPLIES THAT YOU HAVE READ AND ACCEPTED THESE INSTRUCTIONS. NO WARRANTY WILL BE OFFERED FOR APPEARANCE RELATED CLAIMS ONCE THE PRODUCT HAS BEEN INSTALLED. IF YOU ARE UNSURE ABOUT ANY ASPECT OF THESE INSTRUCTIONS PLEASE CONTACT US IMMEDIATELY."
Checklist of Critical Guidelines

UNTIL THE FOLLOWING GUIDELINES HAVE BEEN MET, THE JOBSITE IS NOT READY FOR BAMBOO FLOORING TO BE INSTALLED.

The following checklist must be completed prior to the installation of your bamboo flooring product.

The information on this checklist **MUST** be followed in every way. If any of these requirements are **NOT** completed you run the risk of damaging the flooring and/or voiding your warranties and guarantees.

Once the information has been filled in below you should keep a signed copy in a safe place in case you have any future concerns or issues.

ROOM CONDITIONS:

1. All wet trades (Tile, Paint, Plaster, etc) have been completed on site?
   - **YES** / **NO**

2. All heating is in place and is operating correctly?
   - **YES** / **NO**

3. The building is weather tight, including doors and windows?
   - **YES** / **NO**

4. Is the temperature and relative humidity within the specified range listed in these instructions (Temp between 17˚ - 22˚C and relative humidity between 45 - 65%)?
   - **YES** / **NO**

CONCRETE SUB FLOOR:

1. Do you have underfloor heating?
   - **YES** / **NO**

   If yes, has your underfloor heating been commissioned and running for 10 days, and then turned off for 3 days before subfloor testing commences?
   - **YES** / **NO**

2. Has a DPM (damp proof membrane) been installed?
   - **YES** / **NO**

3. Does the concrete have a moisture content of under 65% RH or Tramex 3.5% H2O?
   - **YES** / **NO**

4. Is the sub-floor flat and free from ridges or dips?
   - **YES** / **NO**

WOODEN SUB FLOOR:

1. Is the sub-floor flat and free from ridges or dips?
   - **YES** / **NO**

2. Is the moisture content of the wooden subfloor no more than 15% MC?
   - **YES** / **NO**

What type of testing equipment was used?

<table>
<thead>
<tr>
<th>Make &amp; Model</th>
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<tr>
<td>____________________________</td>
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<tr>
<td>RESULTS/ READINGS: ____________________________</td>
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<tr>
<td>Subfloor % RH/MC (delete as appropriate): ____________________________</td>
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<tr>
<td>Temperature: ____________________________</td>
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<td>Relative Humidity: ____________________________</td>
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<td>INSTALLER: ____________________________</td>
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<td>COMPANY: ____________________________</td>
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<td>TEL: ____________________________</td>
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I verify jobsite is ready for bamboo flooring installation.

Signed: ____________________________
Date: ____________________________

PRE-INSTALLATION EVALUATION OF JOB SITE

Date/ Time: ____________________________
Job Name: ____________________________
Address: ____________________________
Phone Number: ____________________________
Guidelines

All instructions and recommendations are based on the most recent information available. They should be followed for an ideal installation. They should also be read in conjunction with the relevant sections of the current British Standards BS 8201, and any referenced standards within this standard.

1. NEVER install outdoor, or in areas subject to water and high humidity.

2. Ensure a stable temperature and the humidity is within acceptable limits.
   - A stable atmosphere prevents stress to the Bamboo. Stable means keeping the temperature steady within ± 3°C and the air relative humidity within ± 5% RH but above 45% RH and below 65% RH. An ideal atmosphere is ambient temperature between 17°C (62.6°F) to 22°C (71.6°F) and relative humidity 45% RH to 65% RH. Quick and large changes of temperature should be avoided, as this will negatively affect the Bamboo.
   - The sub-floor temperature is also important and should be at a minimum 15°C (59°F) maximum 27°C (81°F).
   - The Bamboo and room should be kept at a steady temperature 48 hours before, during and 48 hours after installation, including overnight.

3. Acclimatise the Bamboo flooring
   Acclimatise the Bamboo in the climate-controlled location(s) (as described above) for a minimum of 48 hours (ideally 72 hours) before starting the installation. Keep in the packaging and store flat at no more than 6 packs high, away from direct sunlight and not against radiators or tight against walls. If underfloor heating is present, store the packages off the floor (on battens, providing the packs are fully supported) this will reduce the bottom packs from heating up to a higher degree, than those at the top of the pile.

4. Preparation of the area
   - Only deliver and install after the jobsite has been cleaned and cleared of debris, that could potentially damage the Bamboo prior to or the finished installation. The site conditions must also be within acceptable tolerances, see above.
   - Bamboo is a natural product that has a variation of shade. It is advised to mix the boards from several different cartons to blend their natural shade characteristics. The installer is responsible for the final selection, and should select carefully to give a good overall appearance. If you have any questions, please contact your supplier. We will not accept a claim for poor appearance based on the selection and distribution of boards in the installation.
   - Bamboo is manufactured to high quality standards, and is carefully inspected prior to leaving the manufacturer. Occasionally however, defects are not detected. If you notice a visible defect with the Bamboo you are installing, discard the affected board or use for a cut, removing the offending fault. An extra 5% allowance to cover these points and any errors created during fitting when calculating is a normal procedure. If you find a number of defects, stop the installation and contact your supplier. Visually obvious defects that could be seen during installation will not be accepted as a complaint once the flooring have been installed.
   - Areas over 10m in length and 8m in width should incorporate an intermediate expansion. This can be achieved by leaving a small gap between the long joins. Please consult your supplier for advice on large areas.
5. Check the suitability of the area to be installed

Prior inspection of the areas is vital to the performance and longevity of the product!
Main points to consider during the inspection which are not exhaustive:

Flatness of the sub-floor

Uneven sub-floors will affect the stability of the Bamboo. British Standards and manufacturers state the sub-floor should be measured using a 2m straight edge placed in contact with the sub-floor. Any gaps underneath which should be less than 3mm. Isolated ridges or dips should also be considered. Any undulations should be smoothed out using an appropriate compound, and ridges should be ground off on solid sub-floors. Always consult the smoothing compound manufacturer for a specification. See section 12 for wood sub-floors. As an extra check you can dry lay a few boards and walk over them in different positions checking for any bounce. Do not level a floor with the adhesive!

Cracks in the sub-floor

There are many reasons for cracks, including stress and settlement. All cracks must be attended to prior to applying a smoothing compound and they must be investigated to ensure the movement has not fractured the membrane under the screed. Just filling the cracks could lead to longer-term problems with movement and moisture. If in doubt seek professional advice.

Dry sub-floor

Sub-floors solid or wood need to be dry. British Standards state a screed should be tested using Hygrometry as described in annex A in the standards. The maximum permissible level of relative humidity for all installations is 65% RH. There are many manufacturers of moisture testing equipment for concrete floors such as Tramex and Protimeter, who’s instruments can be used to identify areas for further testing with a hygrometer. These instruments can also be used to check the relative humidity to British Standards. The duration of the test will depend on the sub-strate. Sand and cement will normally require 2 to 3 days, power floated screeds will require at least 7 days. A 2-pronged moisture meter should never be used to test concrete as it will give a false reading. Never test floors with underfloor heating or artificial drying aids (de-humidifiers) switched on. Switch off for at least 3 days prior to setting the hygrometer, and they should remain off during the test period. Any test should be logged and preferably witnessed so that if there is a problem this evidence can be produced to help to resolve potential issues.

- As a guide a new sand and cement screed will dry at a rate of 1mm per day for the first 75mm, and 0.5mm per day up to 100mm. Thicknesses greater than 100mm can take considerably longer (150mm up to and over 1 year) given ideal drying conditions 20ºc and 65% RH. Calcium Sulphate (Anhydrite) screeds dry at a similar rate providing the surface laitance has been sanded off to allow evaporation, or treat as power floated.

- Some types of (not all) sub-floors can be coated with a liquid damp proof membrane to prevent excess moisture affecting the Bamboo. Always consult the DPM manufacturer for suitability. DPM’s are not always compatible with underfloor heating, so please contact the DPM manufacturer for suitability.

- Rooms below ground level are particularly vulnerable to high moisture and humidity levels see section 10 below.

- Wood sub-floor moisture also needs to be checked. This can be done using the equipment described above, with a spike attachment. These work by pressing the spikes into the wood with the spikes (2) in line with the grain. The maximum moisture level is 15%, although ideally as stated in British Standard 8201 the maximum moisture content of existing boards should be within ±2% MC of the Bamboo being installed. Moisture levels above 17% need to be investigated. High levels could be caused by poor or no ventilation under the suspended sub-floor. If in doubt seek expert advice.
6. Contaminated sub-floors for example, oil, wax, varnish, adhesive, paint etc.

All contamination should be removed prior to applying damp proof membranes, smoothing compounds and adhesive, (do not apply a DPM on wood based sub-floors). Some preparation manufacturers have products that will adhere to small amounts of adhesive residues, but please check with them for suitability. Oil is a serious problem that may require the removal of the screed.

7. Building movement join(s)

Movement joins are required to be left clear and should be bridged over with a suitable cover strip (not the Bamboo floor!). These can affect the aesthetics of the Bamboo floor, but with prior consideration they can be designed into the installation.

8. Underfloor heating suitability

The sub-floor surface temperature should not exceed a maximum of 27°C (81°F). Temperatures should only be increased by a maximum of 3°C (37°F) each 12 hours. It is suggested that the sub-floor surface temperature is set at a minimum 15°C (59°F) maximum 27°C (81°F). Note: some systems need to be set at a maximum 25°C as when switched off they can peak over 27°C (81°F) before dropping. Electric and water type underfloor heating systems must not be in direct contact with the Bamboo. We suggest laying a suitable overboard over the systems to distribute the heat evenly, and to avoid hot spots. Electric type systems can create hot spots if rugs are placed over them without laying a suitable board over the elements.

9. Structurally sound sub-floor i.e. minimal vertical movement and firm screed

- Excess vertical movement can cause stress to the Bamboo. Measuring this is not easy, but as a guide place a straight edge across the floor and walk next to the straight edge. If the sub-floor dips by more than 5mm you should consider strengthening. Also if you walk with one foot either side of a join in the sub-floor and the joins move independently this will affect the stability of the Bamboo flooring. Wood sub-floors can be over-laid with plywood with at least a 6mm thickness, and should be laid at right angles to the run of the board long joins. We recommend applying a primer to the plywood when fully bonding Bamboo to the sub-floor, to give a better bond (follow primer manufacturer’s instructions). Solid sub-floors such as sand and cement with day joins or cracks could be stitch bonded to stabilize the movement. If in doubt seek expert advice.

- Laitance can be present on new screeds particularly Anhydrite screeds, and should be removed by sanding or grinding. To check for laitance or a friable surface of a screed, scratch the surface with a hard sharp object such as a nail, awl, knife or similar (a “tear“ device guarantees a constant pressure when scratching the screed). Scratch two lines approximately 10mm apart horizontally and vertically crossing each other. The appearance of the edges (for example, jagged or clean) provides a hint about the surface firmness of the screed, as does the de-lamination of the surface between the lines. Be careful with Anhydrite screeds as laitance can form to a hard finish if not sanded within two to four weeks of laying the screed. This surface may appear firm but may de-laminate with time and usage.

10. Below ground level areas

- These are not recommended or ideal areas for Bamboo installations! If you proceed we cannot give a guarantee. If proceeding, ensure these areas are suitably ventilated to prevent a build-up of humidity and to reduce the risk of condensation. These areas should be constantly monitored for humidity levels that should be between 45%RH to 65% RH. Always consider installing a humidity controlled re / de-humidifier.

- Moisture can penetrate the walls as well as the sub-floor, and could affect the stability of the Bamboo. Always check the moisture level using a suitable instrument or seek expert help.
11. Existing floorcoverings

- Ceramic tiles should be checked for full bond to the sub-floor and made smooth / level by applying a suitable smoothing compound or repair mortar when gluing over ceramic tiles, scarifying and or priming is normally required. Always follow the manufacturer’s instructions.

- Do not install bamboo by full adhesion above old resilient (vinyl) flooring, as the adhesive could be affected by plasticiser migration that will de-grade the adhesive.

- Do not fit bamboo on top of old textile (carpet) floorcoverings and do not use the old or new carpet underlay.

- Do not fit bamboo over wood block floors.

- Do not sand, dry scrape, bead blast or mechanically pulverize existing resilient flooring, backing or lining felt. These products may contain asbestos fibres that are not readily identifiable. The procedures described above can create asbestos dust. The inhalation of asbestos dust may cause asbestoses or other serious bodily harm.

12. Wood based sub-floors

- Floorboards, chipboard and OSB need to be flat. Ideally overlay with plywood of at least 6mm in thickness which should conform to a suitable standard and should include the following.

  - Exterior quality complying with BS EN 314-1:2004 Class 3. (commonly referred to as WBP)
  
  - Be resistant to both static and impact indentation.

- Have a written warranty for suitability and performance from the panel manufacturer or have a history of proven performance.

- Plywood should be securely fixed to the sub-floor by either mechanically fixing using a suitable fixing such as ring shank nails, screws, serrated staples, divergent staples all of which need to be of a suitable gauge (not small electric staples even though they are divergent). Alternatively plywood can be fixed by full adhesion using a suitable adhesive. All joins should be sanded to smooth out any variation in the panel thickness. Note: Always acclimatise the plywood prior to installation.
Installation

Setting out / planning the area.

• Expansion gap. All Bamboo products regardless of method of installation, require an unfilled expansion gap. A minimum 12mm gap should be allowed when fully bonding. Large areas (above 80 sq m) may require intermediate expansion between the boards, please contact your supplier for advice.

• Always leave an expansion gap of at least 12mm between all rooms. This expansion gap should not be filled with the base of the profile.

Installation fully bonded

• Undercut the architraves to allow the Bamboo to slide underneath, leaving an expansion gap. Never undercut the newel post, as this is a structural part of the stairs. There are a number of electric and manual undercut saws to carry out this task. The thickness of the cut is important, so as not to leave a gap between the board and architrave. Tip: measure the thickness of the Bamboo and either set the saw to the correct depth or use a spacer for manual cutting to achieve the correct height.

• Open at least three packs and spread out the boards to check for natural shade compatibility, with the adjoining board. Bamboo is a natural product and will show variations in shade detail that is not a manufacturing fault. The installer assumes all responsibility for the final selection that may require input from the customer. If you find lighter or darker boards that do not blend easily, use these for cuts or in an area of minimal view. You should allow a 5% wastage factor into your planning so that any obvious variations or accidents when cutting can be discarded.

SAFETY:

Always work on a suitable bench and clamp the Bamboo prior to cutting. Ensure the cutting equipment has been electrically tested (P.A.T.) and wear suitable work wear that does not have loose tags etc that could catch in the saw blade or any other moving part. Remove or secure all jewellery. Safety is your responsibility!

Parquet Block Installation (Tongue and Groove strand woven)

It is important to be accurate and precise when installing parquet bamboo flooring. Correctly positioned the first row is the most important. Always start from the centre point of the room. To avoid movement and repositioning during the installation process, you should fully bond down the initial row, prior to further installation. This whole initial row will be your fixed starting point.

Step 1 - Setting out the first row

Firstly, plan the direction of the parquet pattern, this will usually follow the length of the room, but always check with the end user. Find the centre of the room and use a plumb line to mark out a centre line. The apex of the first row of blocks will run along this line.

Using a square template can greatly help to lay the first rows of parquet block bamboo flooring. We recommend making a template from plywood, ensuring it is a true square (check the diagonal measurements are equal). The sides of the square should be equal to or larger than the lengths of the parquet blocks.

Note: If the square template is to be used then you will need to offset the centre line to the right by 5mm (to allow for the tongue) then place the square template along the offset line so that the line bisects it diagonally.

Place the square template in to position so that the centre line bisects it diagonally, once positioned screw the template to the subfloor. Its purpose is to provide a solid starting point, making installation easier.

By working from the square template, you will ensure the apex of the first rows follow the centre line.
Apply flexible floor adhesive with a suitable applicator trowel (4mm notched) to the area in front of the square template. Either stand on or behind your square template to do this.

Tip: Loose lay the first row to ensure you are happy with the orientation guide line and placement of the square template.

As per the diagram to the right, place block 1, with the tongue against the left-hand side of the square template so that the leading header is in line with the right-hand edge of the square template.

Place block 2 with the tongue facing away so that the grooved edge is pressed against both the header joint of block 1 and the righthand side of the square template.

Repeat the above two points placing blocks onto the bed of adhesive ensuring that they connect, the leading corner of the herringbone pattern should be positioned over the centre line which is 5mm to the left of the guide line.

Tip: Use a hammer and a tapping block to push the blocks together, occasionally lift a block and check the adhesive has full coverage.

When your first row has reached the end of the room (or the finish point), you should use a tapping block and hammer to make any adjustments while the adhesive is still wet. Also, remove any adhesive from your subfloor which has not been covered, and any adhesive spills on the face of the blocks (while it is still wet).

Allow the adhesive to fully dry (check the manufacturer’s guidelines). This first row now forms a fixed point for the subsequent rows.

Step 2 - Completing the installation

Once the first row is fully set, work from this fixed point. Loose lay the second row checking that the apex of the second row is parallel to the centre line. Once you are happy to install, apply adhesive to the area adjacent to the first row.

Starting at the end of the first row (see diagram to the left) install the first half of the second row in two halves. The first block (27) should be placed so that the long grooved edge is pressed against the header joint from the last block in the first row (26) and the header joint groove connects with the next section of exposed tongue from block (24) in the first row. Repeat this process with the first half of the second row until the square template is reached.

Once the first half of the second row is in position you no longer need to wait for the adhesive to set, the second half of the second row can be installed straight away. Beginning at the “start wall” place the next block (40) so that the long grooved edge is pressed against the header joint of the last block (39) and the grooved header joint connects with the exposed tongue of the next block (38).

Continue to repeat this process to fill both sides of the first row cutting any blocks around the perimeter of the room so that an adequate expansion gap (12mm) is maintained.

The advice given is for general guidance only. It is the responsibility of the floor layer to ensure that site conditions are suitable for bamboo flooring. If specific advice is required, please contact The Bamboo Flooring Company.

We recommend the use of MS wood floor adhesive for bonding the blocks to a suitably prepared sub floor. Do not apply more adhesive than can be worked in 10 minutes.

Keep foot traffic off the floor for 24 hours. If foot traffic is required due to location, place plywood or similar over the Bamboo to distribute the weight. Check the plywood is smooth with no debris underneath, possibly lay some underlay underneath to prevent scratching. Never cover Bamboo flooring with plastic. This will make the floor sweat affecting the adhesive curing and stability of the Bamboo.
Finishing the job

- After 24 hours remove the wedges, then either fit skirting boards or quadrants / scotia’s. Also fit radiator pipe covers over the expansion around pipes.

- Keep the room temperature constant for 48 hours after completing the installation, that includes through the night. Allowing the temperature to drop overnight could and in many cases does cause the Bamboo to move and lift off the adhesive. Any void under the Bamboo will prevent a bond causing longer-term problems. Do not wash the floor for a minimum of 48 hours after installation. When cleaning only used special purpose mops and cleaners, and ensure any mop or cloth is well rung out.

- Check and remove any excess adhesive immediately with a wet wipe (adhesive wipes are available). Dried adhesive should be removed with a suitable non-flammable cleaner. Do not use solvents as these can affect the surface finish. Always try a test area on a spare piece of Bamboo or in an inconspicuous place. Dried adhesive may be difficult to remove, take care when removing the adhesive. Do not use a scouring pad, use a natural cloth with no dye as this could transfer to the Bamboo. If using a liquid, read the instructions carefully as some may be too aggressive and damage the surface of the Bamboo.

- Always sweep or vacuum prior to wiping with a cloth to reduce the risk of scratching. Tip: Although a well rung out cloth / mop can be used, wet wipes are a good idea as these do not leave excess water on the surface. Wipe the floor in line with length of the board to reduce leaving dirt deposits in the joins.

Bamboo floors are durable, but eventually the surface will require maintenance. There are a number of products that can be used as a regular treatment (follow manufacturer’s instructions) or when the time comes, the Bamboo can be sanded and re-lacquered. A professional should carry out this task. The time scale will vary depending on usage but as a guide if the surface starts to look dull (sad) consider re-treating.
Preventative and regular maintenance

1. Use protective mats in front of external doors to remove dirt and water from your shoes. Ideally place a grill plate / matt outside which will help to remove grit, that can damage the surface of the Bamboo. Always check for suitability with the mat manufacturer.

2. Fit felt pads to the bottom of the legs of chairs and tables to reduce the risk of damage from scratching. Clean the felt pads regularly to remove any grit or build-up of dirt that may have become embedded. Care must always be taken when moving furniture to avoid scratching and damage to the surface of the Bamboo. Always lift and not drag these items. Safety! Care must be taken with heavy and or awkward shaped items.

3. Do not place heavy items on newly installed glued or floating Bamboo floors, for at least 24 hours after completion to allow the adhesive to cure. Do not fix furniture (kitchens etc) through floating floors as this will eliminate the expansion and natural movement. Furniture with small castors could indent into the Bamboo which will leave a permanent mark. Use special cups to distribute the weight.

4. To keep your floor looking its best, dust mop or vacuum your floor at least twice per week. Do it more often on floors with heavy traffic. Do not use a household dust treatment chemical of any kind, as this may cause the floor to become slippery or dull the finish. Simply sweep the floor as required.

5. Do not pour water on your floor to clean. Excessive water can cause damage to your Bamboo floor and possibly the sub-floor. Use a bucket, and wring out the mop to remove excess water. There are special purpose mops for cleaning Bamboo floors. If a liquid cleaner is to be used, spray the liquid onto the mop head and not the floor which will reduce localised wetting.

6. Do not allow pets with unclipped or sharp nails to scurry across the floor. It could cause severe scratching to the surface.

7. Clean up food spills by removing any excess food, and then clean as described above. We do not recommend powdered cleaners, oil soaps, dishwashing detergents, or other dusting products. Some products leave residues that could affect the performance of the Bamboo floor.

8. Shoe marks and scuffs can be removed by using a wet wipe or cleaner as described above.
9. If your floor has been exposed to excessive water, for example by accident or flooding, remove the water as soon as possible, by mopping and ventilate the room. A dehumidifier should be promptly turned on in the room to reduce the moisture level to normal. Do not dry the room below the normal moisture level that existed previously. Once the excess water is removed monitor the Bamboo to see if there is any distortion (cupping, crowning or lifting). We would recommend advising your insurance company of a potential problem so they can log the incident which could save time and problems afterwards, as any problems could take a few weeks to manifest themselves.

10. If accidental deep scratches or damage occurs, repairs can sometimes be undertaken by either using filler or replacing a board. Always keep spare boards but keep them dry and lay flat. Suggestion, under a bed or on top of a wardrobe, never in a garage or shed as these can be damp areas. Consult The Bamboo Flooring Company for advice on how to carry out repairs.

11. Bamboo flooring subjected to excessive heat will dry out the natural moisture level of the Bamboo, and cause distortion such as cupping or crowning. Use precautions to minimize, reduce or eliminate the potential effects on the Bamboo from strong sunlight. Windows can be coated with film to reflect UV rays from the sunlight or with new windows they can be designed with built in protection.

12. As bamboo flooring is a natural product it can be subject to fading from natural sunlight. Please ensure all matting and furniture are moved periodically to ensure a well-balanced colour across your flooring.

13. A stable atmosphere prevents stress to the Bamboo. Stable means keeping the temperature steady within ± 3ºc and the air relative humidity within ± 5% RH but above 45% RH and below 65% RH. An ideal atmosphere is ambient temperature between 17ºc (62.6°F) to 22ºc (71.6ºf) and relative humidity 45% RH to 65% RH. Quick and large changes of temperature should be avoided, as this will negatively affect the Bamboo.