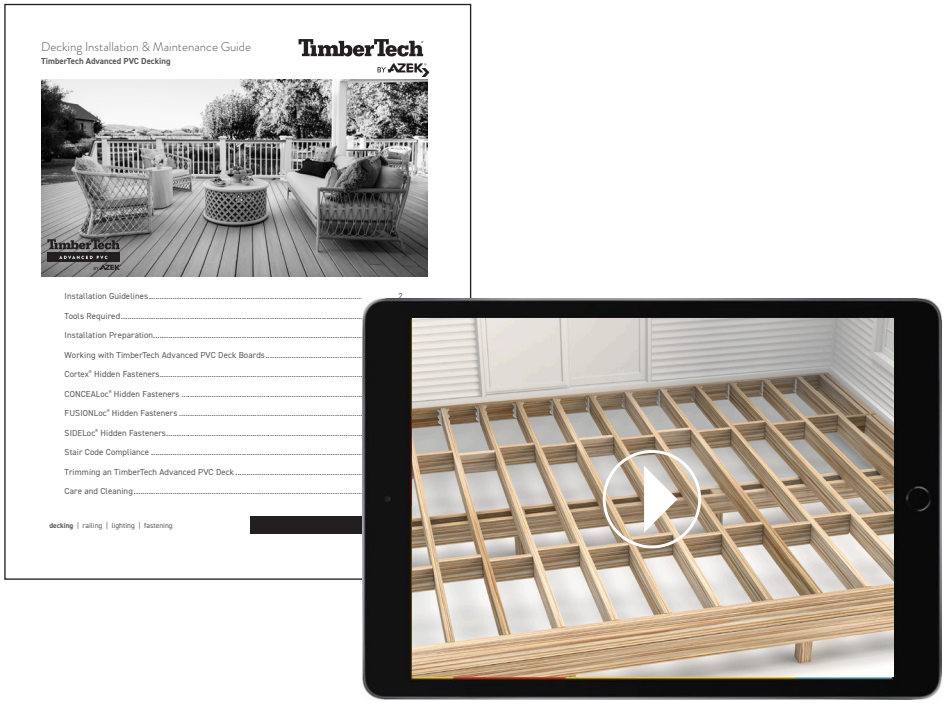
TimberTech®

BY AZEK®

Joist Spacing and Blocking
Quick Reference Guide

Joist Spacing and Blocking Quick Reference Guide

Use this guide in conjunction with the proper TimberTech installation manual. Watch online at https://www.timbertech.com/resources/deck-building/deck-joist-spacing/



DISCLAIMER

TimberTech® Advanced PVC and Composite decking should be installed using the same good building principals used to install wood or composite decking and in accordance with the local building codes and the Installation Guidelines found at the website below. AZEK Building Products LLC, its affiliates, successors, and assigns accepts no liability or responsibility for the improper installation of this product. TimberTech Advanced PVC and Composite decking may not be suitable for every application, and it is the sole responsibility of the installer to be sure that TimberTech Advanced PVC and Composite decking is fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific requirements for each Deck application. TimberTech recommends that all applications be reviewed by a licensed architect, engineer, or local building official before installation. Prior to your purchase, TimberTech also recommends that you review the full Installation Guidelines for more details regarding installation as well as information on care and maintenance, storage and handling, reference to warranty coverage, and other important product information. Installation Guidelines can be found at: https://www.timbertech.com/resources/installation-help/

Considerations and Tools

ESTIMATED TIME:
1 Hour*

RECOMMENDED MAN-POWER:
1 Person*

PRE-REQUISITE 1: Deck plan (size, layout) - including railing
PRE-REQUISITE 2: Pre-existing secured framing attached to the house

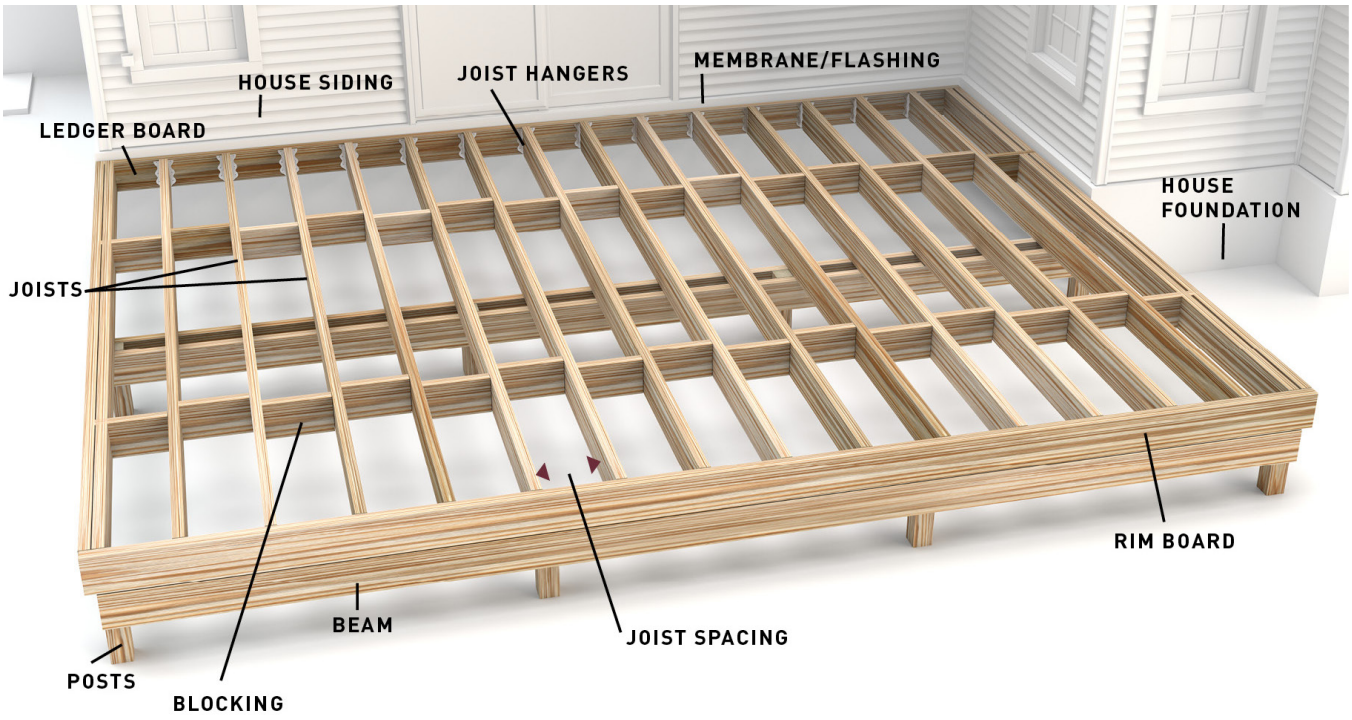
STEPS:
1. Checking your framing
2. Measuring joist spacing
3. Installing required blocking
4. Applying joist tape

TOOLS NEEDED:
- Safety glasses
- String line (to check framing is even along tops
- Hammer or mallet
- Replacement lumber
  (if required, generally at least 2" x 8")
- Drill
- Screws (Exterior grade wood screws)
- Miter saw/ circular saw
- Tape measure
- Level (4' or longer)
- TimberTech ProTac joist tape

NOTE! There are several framing configurations; if you're unsure whether your system is sound and built to code, consult a deck building professional.

*Estimate based on a 12'x12' deck. Installation time may vary based on the design complexity and experience of the installer.

Understand Your Framing



STEP ONE

Check Your Framing Before Laying the First Board

Best practice is to ensure your deck framing is structurally sound; if you are unsure, call a professional.

Regardless of whether your frame is new or not, consider these:

- Check for soft spots, broken pieces, splits, cracks and other damage to the wood from moisture or the elements
- The frame should be securely fastened to the home and/or to a properly secured post and beam frame; no floating sub-structures
- Ensure the framing is held with exterior grade screws; it may require fastening reinforcement
- Inspect framing for separation due to contraction of structural lumber and ensure all fasteners are sound and showing no signs of corrosion
- Additional exterior grade screws may be required to secure existing framing
- Look for any highs/lows/uneven joists; joists must be even and in plane across the tops of each- use a tight string line to verify
- There should be a drip cap, flashing or other system in place at ledger board and wherever framing meets the home to move water away from the home and away from the deck
- Note any screws or fasteners that may be protruding on the surface of the joist will need to be removed

STEP ONE

Check Your Framing Before Laying the First Board

STRING LINES

Before installing any decking, run string line frequently to ensure that the tops of the joists are in plane, as TimberTech Decking will conform to the contour of the joists to which it is attached.

ENSURE ALL JOISTS ARE EVEN ACROSS THE TOPS

While a particular joist may be level itself, the top of that joist may still not be in plane with surrounding joists and could result in high or low spots throughout the deck.

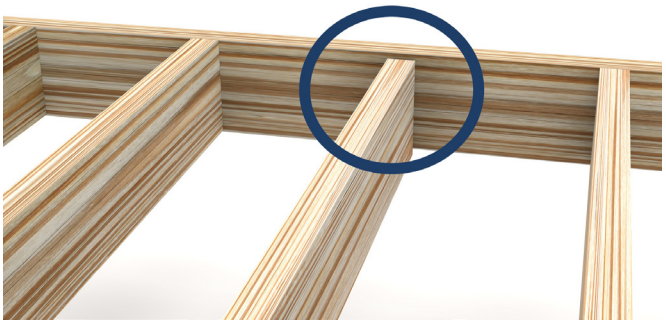
Example above showing the effect on decking when attached to uneven joists/framing.

WHY?
Installed alternative/composite decking will follow the contour of the joists beneath; if the joists are uneven, the result can be a wavy looking deck.

STEP ONE Check Your Framing Before Laying the First Board

Avoid! Uneven Joist Heights

Top of joist may sit too high against beam



Joist may sit too low against beam

All joists/framing is even and in plane at top

STEP ONE

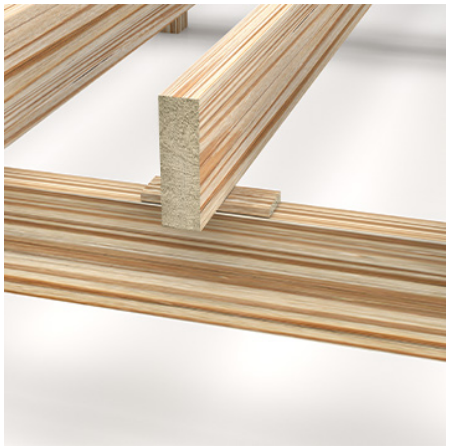
Check Your Framing Before Laying the First Board

If you are purchasing new joists, measure to ensure they are the same size. If not, you may need to adjust for slight inconsistencies.

You may need to notch or shim your joist on top of the beam:

New joist may be slightly wider than existing joists, requiring a notch in the board to align with the correct height.

New joist may be slightly narrower than existing joists, requiring an extra shim to raise to correct height. Recommended to use a moisture-resistant shim.



When adding or replacing framing to the substructure consider using kiln dried lumber for best results.

Beware of lumber size inconsistencies; it's important to properly measure your joist widths and adjust as needed.

STEP ONE Check Your Framing Before Laying the First Board

It may be necessary to shim, notch, plane, or replace joists due to size variations, crowning, reverse crowning, or improperly positioned joists/framing. Be sure to sort and exclude any extremely crowned and/or twisted joists/lumber material.

PROBLEM: High Joist

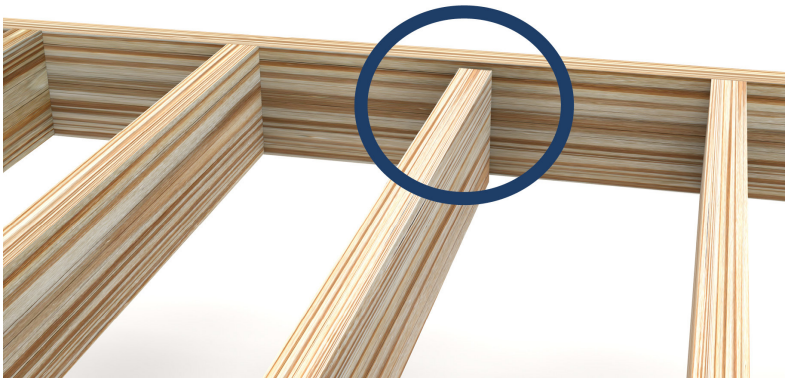
POTENTIAL SOLUTIONS:

- Remove and replace
- Cut fasteners and lower. Reattach.
- Use a power planer or power sander

PROBLEM: Low Joist

POTENTIAL SOLUTIONS:

- Remove and replace
- Leave the low joist and apply sister joists (sandwich the board w/ 2 new joists)
- Cut fasteners and raise. Reattach.



STEP ONE

Check Your Framing Before Laying the First Board

It may be necessary to shim, notch, plane, or replace joists due to size variations, crowning, reverse crowning, or improperly positioned joists/framing. Be sure to sort and exclude any extremely crowned and/or twisted joists/lumber material.

PROBLEM: Crowned Joist (up)

POTENTIAL SOLUTIONS:

- Remove and replace
- Use a power planer or power sander

PROBLEM: Reverse Crowned Joist (down)

POTENTIAL SOLUTIONS:

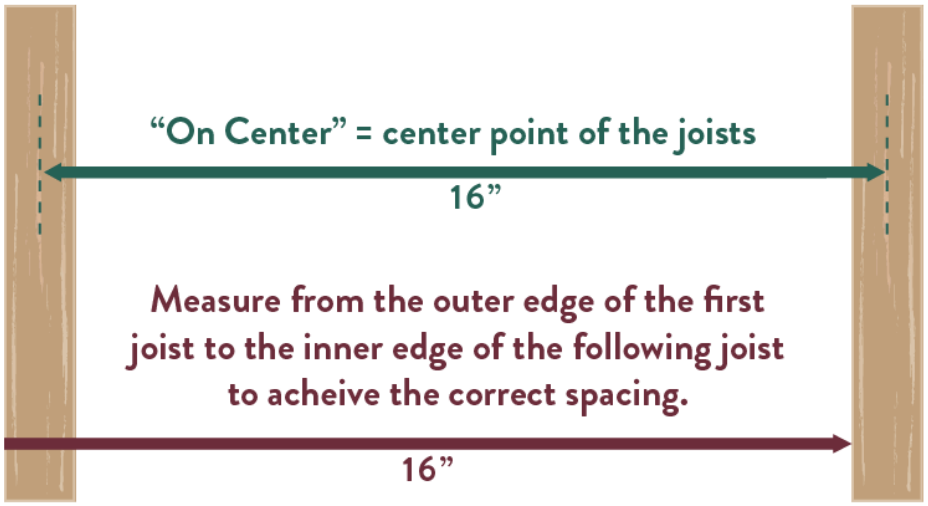
- Remove and replace
- Leave the crowned joist and apply sister joists (sandwich the board w/ 2 new joists)

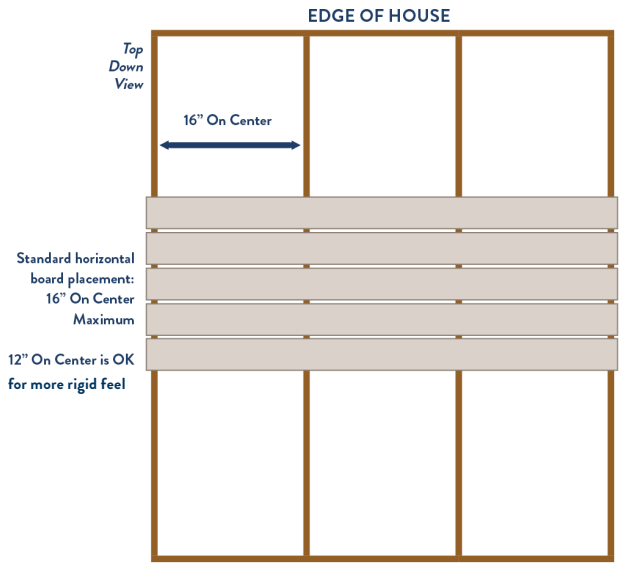
Always make sure your joist, blocking and any added framing are even and in plane with each other across the tops.

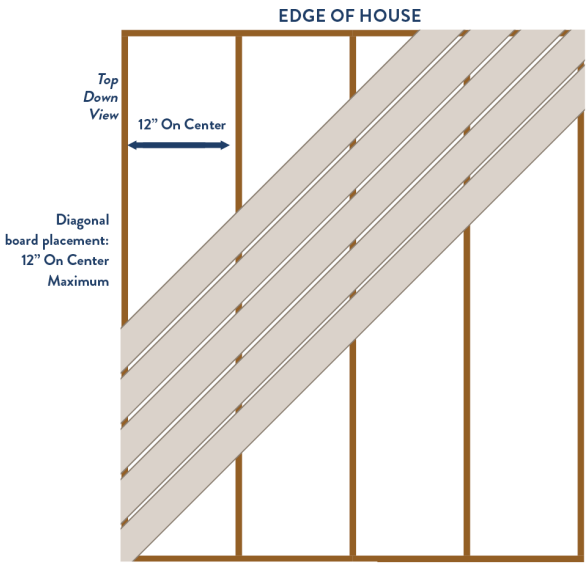
STEP TWO

Confirm Proper Joist Spacing

Proper joist spacing is required for proper installation. Joist spacing should never exceed 16" on center unless using TT/Advanced PVC Max board= 24" max. For a more rigid feel, 12" or less, may be preferred. If adding additional framing be sure to keep all boards even and in plane across tops.







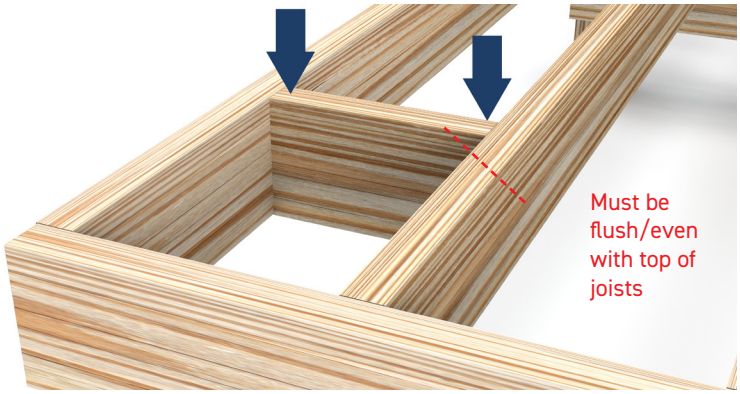
STEP THREE Required Blocking

RECOMMENDED MAN-POWER:
1 Person*

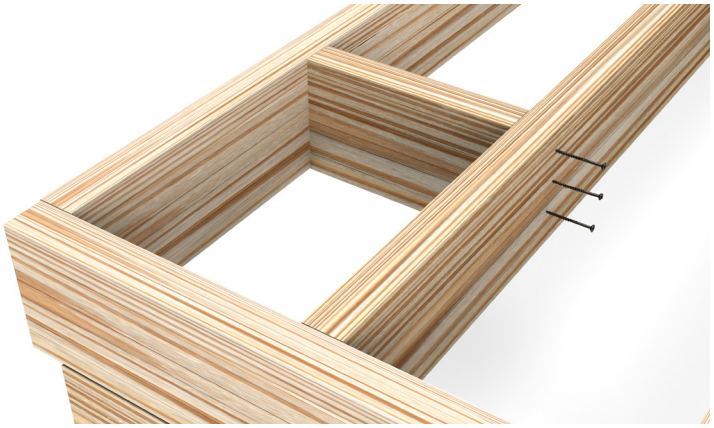
TOOLS NEEDED:

- Safety glasses
- Appropriately sized solid wood blocking, typically "the same size as the joists
- Drill
- Hammer
- Level 4' or longer
- Miter saw/ circular saw
- Exterior grade screws
- Tape measure

Place solid wood blocking between each joist, placed in rows at maximum every 4' - 6' within the structure.



Use exterior grade screws & fasten through the outside of the joist into blocking.



STOP

Stop!! Always make sure your joist, blocking and any added framing are even and in plane with each other across the tops.

*Estimate based on a 12'x12' deck. Installation time may vary based on the design complexity and experience of the installer.

STEP THREE

Required Blocking

Blocking must be equally spaced in rows, maximum of 4 to 6 feet apart.

Blocking required every 4' - 6'.

Blocking: should be installed edge to edge to allow for fastening of the interior blocking.

WHY IS BLOCKING NEEDED?
Solid wood blocking will help reduce up or down movement and/or twisting of joists. Limiting joist movement can help reduce excessive gapping and also ensure a more uniform finished surface of your TimberTech Deck.

STEP THREE Required Blocking

STOP

Stop!! Always make sure your joist, blocking and any added framing are even and in plane with each other.

Complete your final framing checks.

Double check that all blocking and joists are even and in plane across the tops.


Decking Installation & Maintenance Guide
TimberTech Advanced PVC Decking

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Re-consult the TimberTech deck manufacturer's installation guide to ensure proper joist spacing and blocking requirements are met.

STEP FOUR

Apply TimberTech Pro™ Tac Joist Tape

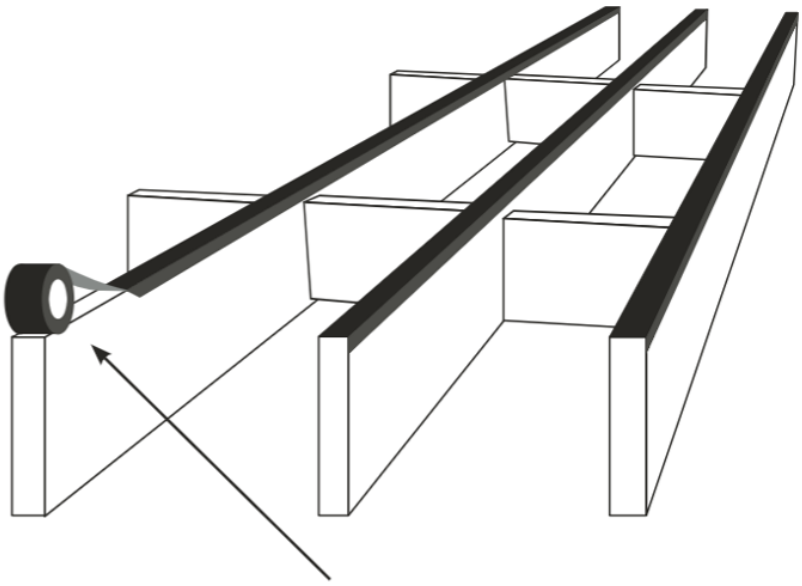
To extend the life of your decking substructure, apply joist tape. This will help prevent water penetration and will protect the joist lumber from rot.

Select a tape width that allows for overhang on each side. Use 1.625" or 2.5" tape for single joists, and 3.25" tape for double beams for general flashing, use 4" and 12" tape.

- It's best to apply this tape to clean, dry lumber

Apply the tape to the top of a joist or beam using firm pressure (preferably with a hand roller) to ensure adequate adhesion.

- Try to avoid wrinkles or air bubbles during application



Apply PRO-Tac tape to the top of joists before installing deck boards.

Application temperatures from 20°F to 170°F
Service temperatures from -70°F to 200°F