Step 1: Installing the first deck board

Apply WiseWrap JointTape™ or a bead of exterior adhesive to each joist approximately 3/8" in width. For adhesives, you may want to do this as you go so that, it does not dry before completion if you have a larger area to install. While adhesive adds hold-down strength to the boards, it does not prevent wood rot. WiseWrap JointTape™ prevents joist wood rot as well as seals around deck screws. Even though joists may seem even, changes in weather can cause board movement. Both WiseWrap JointTape™ and/or adhesive will also help prevent squeaking from unlevel joists.

Step 2: Drill a 1/8" pilot hole

Use a 1/8" drill bit to pre-drill pilot holes every 24" along the ledger board to secure the starter board. Drill deep enough to penetrate the deck board and not the underlying ledger. All Ipe Clip® Hidden Deck Fastener systems, 175 count and above, include a 1/8" high speed drill bit. We suggest using the 3-in-1 DeckWise® Drill&Drive™ (not included in Ipe Clip® Fastener kits), which has a 1/8" drill bit, 3/8" countersink bit, and screw gun T15 tip that will help speed up this process.

Step 3: Drill a 3/8" countersink hole approximately 3/8" deep

Use a 3/8" countersink bit to bore a hole approximately 1/4" to 3/8" deep (depending on your deck board thickness) for each screw to be hidden by a hardwood plug. Be sure your countersink bit is sharp and leaves a clean edge.

Step 4: Install deck screws through the countersunk hole

Next, firmly drive a deck screw down into the countersunk hole into the joist below. All Ipe Clip® fastener kits, 175 count and above, have extra stainless steel deck screws included in them for starter boards. (Wood plugs will next be installed into the countersunk holes to hide the deck screws and create a smooth, family friendly surface free of screw heads.)

Step 5: Gluing plugs

Place a drop of wood glue (Gorilla Glue® is suggested) into the countersink hole from the above steps. This will guarantee the wood plug from popping up in the future. Plus, it will act as a moisture barrier, sealing the countersunk hole and screw.

Step 6: Insert hardwood plug

Insert a 3/8" tapered (or Extreme® ribbed) wood plug and tap it down with a hammer so it fits snug into the hole. Wipe away any excess glue that may squeeze out. (NOTE: We always encourage finding the wood grain in the plug and aligning it with the deck board wood grain. This will help ensure the plug is hidden as much as possible on the surface.) When installing hardwood plugs, Gorilla Glue® reaches 80% cure after just 1-2 hours. For best drying results a 24 hour wait period will achieve a 100% cure before trimming excess plug material.

Step 7: Flush cut excess plug material

Once the plug is hammered in and the glue is dry, remove any excess plug material protruding above the surface of the deck board. You can accomplish this by using a flush cut pull saw, belt sander or an orbital sander with 80 grit sand paper.

Step 8: Sand for hardwood finishes

Sand smooth all areas where a hardwood plug was installed so the plug is flush with deck surface. A round, random orbit sander with 80-120 grit sand paper works best. When sanding is finished, we suggest using Ipe Oil® or WiseCoat® for a beautiful natural wood color over your entire deck.

Step 9: Cut slots for Ipe Clip® Fasteners

Use a biscuit joiner or a router (with a 5/32" X 1/2" slot cutting bit) to cut a slot in the edge of deck board above each joist. You will want to center this groove in the board so there is a symmetrical profile for best results using the Ipe Clip® Hidden Deck Fasteners by DeckWise®.

NOTE: Pre-grooved deck boards are now available from many decking suppliers. If you are using pre-grooved decking, skip this step and proceed to step 10.

Tools Needed

**ELECTRIC SCREW GUN, BITS & TIPS** - Used to drill pilot holes and for installing the stainless steel screws. (A cordless screwgun with an adjustable clutch is recommended so torque can be properly set to avoid over-tightening of screws.) Use a 1/8" drill bit and a 3/8" countersink bit or the 3-in-1 DeckWise® Drill&Drive™ Drill Bit Set.

**WISEWRAP® FLASHING TAPE** - Prevent joist, ledger board, and wooden posts from rot and decay.

**CAULK GUN & EXTERIOR CONSTRUCTION ADHESIVE** - Used as a leveling agent for uneven joists.

**BISCUIT JOINER®** - A common cabinet maker tool available at most hardware stores and home centers. Used to make a slot in the edge of the deck boards to allow insertion of the Ipe Clip® fasteners.

**ROUTER®** - Can be used if you do not have access to a biscuit joiner. Use the DeckWise® 4-Wing Slot Cutter Router Bit or a #20 biscuit cutting router bit, also called a 5/32" slot cutting bit. This method is actually preferred by some installers. **Not required for use with pre-grooved decking.**
IPE CLIP® FASTENER INSTALLATION INSTRUCTIONS (CON’T)

**STEP 10: Predrill a pilot hole** *(HARDWOOD DECK MATERIAL)*
Insert one Ipe Clip® fastener into the slot or groove of the deck board above each joist. Where two boards meet on a single joist, only one fastener is needed. Pre-drill a 1/8” pilot hole at a 45° angle for each screw when installing Ipe Clip® fasteners into hardwood decking. You only need to pre-drill through the hardwood, not into the joist. Pre-drilling avoids splintering and ensures the decking is pulled tight to the joist by the screw in the next step.

**STEP 11A: Securing Ipe Clip® Fasteners** *(HARDWOOD DECK MATERIAL)*
Run a stainless steel screw at approximately a 45° angle through the hole in the center of the Ipe Clip® fastener, through the pre-drilled deck board, and down into the joist. It should not take much downward pressure to tighten the deck board. Once the board is snug to the joist you can install another fastener clip over the next joist. A screw gun with an adjustable clutch works best for this by turning the clutch down to avoid overdriving screws. Secure each board using one fastener and one screw per joist.

**END-TO-END-BOARDS: How to install “butt joints”** *(HARDWOOD & COMPOSITE DECK MATERIAL)*
Where two boards meet on a single joist, the preferred method is to use a sister joist parallel to the main joist. Install 2 (two) Ipe Clip® Hidden Deck Fasteners — one on each joist — where the boards meet. However, only one centered fastener can be installed at their meeting point.

**STEP 11B: Securing Ipe Clip® Fasteners** *(COMPOSITE/PVC DECK MATERIAL)*
Run a stainless steel screw straight down through the center of the Ipe Clip® fastener and into the joist below. It should not take much torque to secure the deck board. Once the board is snug to the joist you can install another fastener clip on the next joist. A screw gun with an adjustable clutch setting is best to avoid overdriving screws. Fasten each board using one fastener and one screw per joist.

**STEP 12: Installing the next board over the exposed side of the clip**
Slide the next deck board onto the installed Ipe Clip® fastener protruding from the previous deck board. Again, if pre-grooved decking is not being used, use a biscuit jointer or a router (with a 5/32” X 1/2” slot cutting bit) to cut a slot into the edge of this deck board above each joist. Keep in mind, the board will not need a screw on this side as it slips over the clip. This next board will again have Ipe Clip® hidden fasteners installed on the opposite edge for fastening, and so forth.

**NOTE:** When using Ipe Clip® ExtremeKD® or Extreme4® fasteners, use the DeckWise® spacer tools provided to ensure fastener spacer legs are not overly compressed while installing deck boards. Remove spacer tools after each deck board is fastened.

**STEP 13: Installing the last deck board**
On the last deck board, fastening clips will not be used and it will be necessary to fasten the outside edge with face screws every 24 inches. Optionally, these screws can be concealed by countersinking a 3/8” hole and using hardwood plugs supplied. It is also recommended to apply a small amount of construction adhesive on the outside joists for leveling and to reduce possible noise.

**Repeat steps 10-12 until all deck boards are installed up to the last board**

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**Recommended Tools and Hardwood Finishes**

**Ipe Oil**
Hardwood Deck Finish

- Low 100 VOC & 250 VOC oil-based formula for hardwoods.

**Wisecoat**
Hardwood Deck, Siding & Fence Sealer

- Low VOC water-based formula for hardwoods.

**Wisewrap Joist Tape** and **Ledger Tape** are a polyethylene waterproof wood flashing using a rubberized asphalt mastic adhesive. Easily apply to decking joists, ledger boards and around deck support posts to protect against wood rot.

**Helpful Installation Tips**

- If the fastener is tipping down when a screw is secured (making the next board difficult to slide on) it may be too tight. Reinstall the screw to stand more vertical. The screw should be installed at approximately a 45° angle.

- Do not over tighten screws. They should be flush or slightly above the surface of the Ipe Clip® fastener tucked into the stainless steel insert.

- Use an end wax on end grain cuts to help prevent checking. Ipe Seal® or similar product is recommended.

- The Hardwood Wrench™ is a self-locking board straightening tool with 1,100 pounds of bending force and works seamlessly with Ipe Clip® Hidden Deck Fasteners to hold deck boards straight while fasteners are being installed.