

KATIE JIG[®]

the

Katie Jig Jr. manual

All the instructions and
information you need to
help you create perfect
dovetail joints quickly
and easily.

HAMPTON

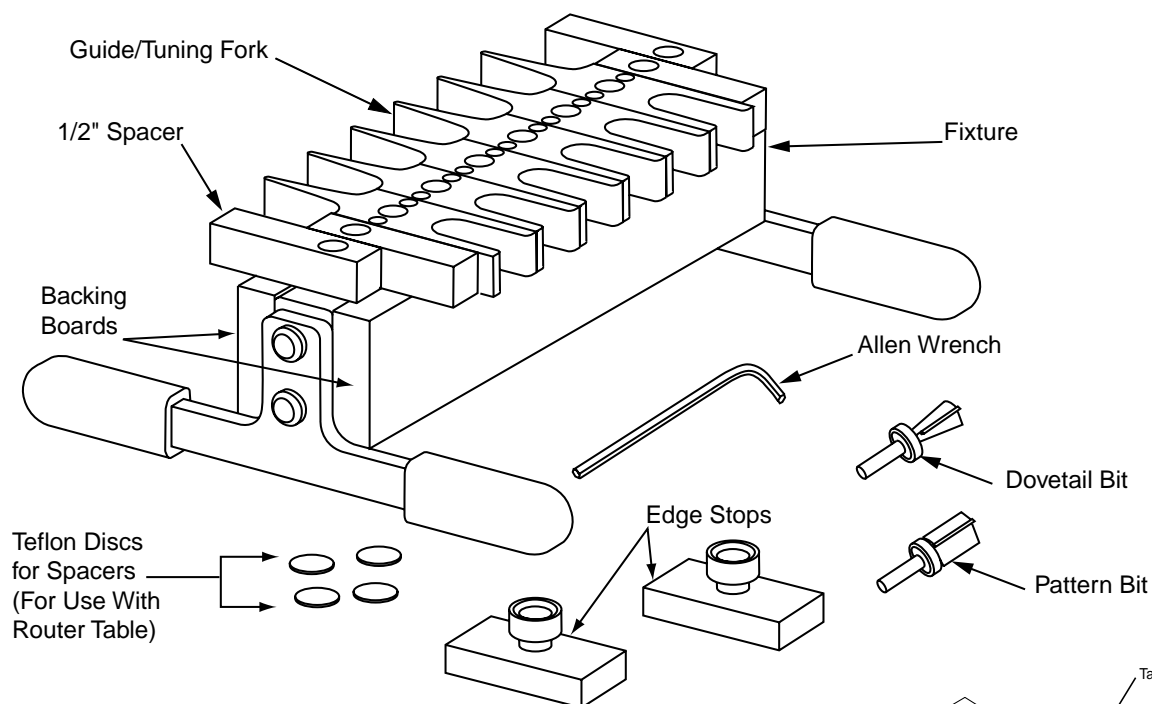


HOUSE[®]

U.S. Patent #5,832,977 & 6,116,303
Proudly Made in the U.S.A.

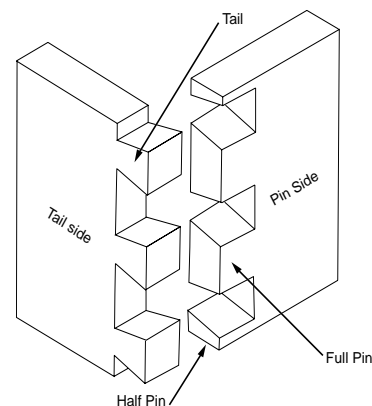
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Dovetail joints are simple and easy to make with the KATIE JIG® Jr. System!

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Important Safety Information

WARNING

This tool was designed for certain applications. This tool should NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written Hampton House, Inc. and we have advised you. Hampton House, Inc., PO Box 7103, Greenwood, IN 46142.

SAFETY INSTRUCTIONS

WARNING: When using any electric tool, basic safety precautions must always be taken to reduce the risk of fire, electric shock or other personal injury. Please:

READ AND FOLLOW ALL INSTRUCTIONS.

1. **LIGHTING.** Always work in well lighted areas.
2. **AVOID ELECTRIC SHOCK.** Do not make body contact with grounded surfaces such as pipes, radiators, ranges, refrigerators enclosures, etc.
3. **STORE TOOLS WHEN NOT IN USE.** When not in use, tools should be stored in a dry space that is locked or out of reach of children.
4. **DO NOT FORCE OR OVEREXTEND TOOL.** Do not attempt to force tool to work at a faster rate, or on heavier materials than intended. The tool will do a better job and is safer at the rate and on the materials for which it is intended.
5. **CLEAN WORK AREA.** Cluttered work areas and environments invite injuries.
6. **WEAR PROPER CLOTHING.** Do not wear loose clothing, draw strings or jewelry. Such items can be caught in moving parts. Long hair should be pulled back and kept clear of the tool. When working outside, wear rubber gloves and non-skid footwear.
7. **AVOID DANGEROUS ENVIRONMENT.** Don't expose or use power tools in rain or in damp or wet locations. Avoid chemical or corrosive environment and do not use tool in presence of flammable liquids or gases.
8. **SAFETY EQUIPMENT.** Wear safety glasses at all times while operating power tools. Ear protection should also be used to guard against possible hearing loss. A face or dust mask is recommended if operation creates dust. Anyone else in the immediate area should wear similar protective gear.
9. **NEVER ABUSE ELECTRICAL CORD.** Never carry a power tool by its cord or yank the cord to unplug it. Keep cord away from heat, oil, and sharp edges. Replace damaged or worn power cord immediately. Never attempt to repair a worn or damaged power cord. When tool is used outdoors, use only extension cords marked "Suitable for use with outdoor appliances."
10. **KEEP OTHERS AWAY.** Do not let visitors, especially children, contact tool or extension cord. All visitors and children should be kept away from work area.
11. **SECURE WORK FIRMLY.** All materials should be held firmly by clamps or a vise while using tool. This provides safety and allows you to use both hands to operate tool.

12. **KEEP BALANCE.** Keep balance and proper footing when using tool.
13. **DISCONNECT IDLE TOOLS.** Disconnect all tools from the power supply when not in use. ALWAYS disconnect before servicing, and when changing accessories such as blades, bits, cutters, etc.
14. **ADJUSTING KEYS AND WRENCHES.** Be sure all keys and adjusting wrenches are removed from the tool before turning it on.
15. **SAFEGUARD AGAINST UNINTENDED STARTING.** Keep fingers clear from trigger switch unless operating tool. Be sure switch is in the off position when plugging in and keep blades, bits, cutters, etc., away from hands, body and clothing when plugging in the tool.
16. **MAINTENANCE.** All tools should be kept sharp and clean for better performance and safety. Replace all worn, broken or damaged parts immediately. Follow all lubricating instructions and instructions for changing accessories. Inspect tool cords prior to each use and have any damaged cords repaired by authorized service facility. Do not use damaged extension cords. Keep handles dry, clean and free from oil and grease.
17. **BE ALERT.** Always be alert when using power tools. Do not operate tools when tired or while under the influence of medication, alcohol or drugs.
18. **ROUTINE INSPECTION.** Inspect the tool before each use. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any defective switches, guards or other parts that are damaged should be properly repaired or replaced by an authorized service center before further use.

ADDITIONAL SAFETY TIPS

1. Be sure the KATIE JIG® System with material stock is anchored securely to prevent movement.
2. Keep electrical cord free so it will not hang up or catch during routing operations.
3. Maintain a firm grip on the router when starting to resist torque and keep hands clear of cutter when motor is running to prevent personal injury.
4. Keep cutter free, clear of all foreign objects while motor is running.
5. Allow router motor to come to a complete stop before removing router from the KATIE JIG® System.
6. Tighten all adjustment screws before starting router.
7. Read and follow all safety instructions in the instruction manual supplied with your router.
8. Use extreme caution with any wood or other material that may contain preservatives that may be toxic. Respirators may be required to prevent inhalation and skin contact with these materials should be avoided when working with these materials. Request, and follow, any safety information available from your material supplier.

Warranty

One Year Limited Warranty and Limitation of Liability

Hampton House, Inc. warrants that its products shall be free from defects in workmanship or materials for a period of one year from the date of purchase. There are no other warranties, express or implied. **ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED.**

Hampton House, Inc. will repair or replace, at its option, any part or parts of the product covered under its express warranty, which after examination, proves to be defective in workmanship or materials during the warranty period. Hampton House, Inc., shall not be responsible for any repair or replacement required due to misuse, abuse, normal wear and tear or repairs attempted or made by anyone other than Hampton House, Inc.

For further information on warranty performance, write to Hampton House, Inc., PO Box 7103, Greenwood, IN 46142.

Hampton House, Inc.'s liability for any claim of any kind shall not exceed the amount of the purchase price of the product or portion thereof, which gives rise to the claim, whether such claim shall be breach of contract, breach of warranty, or negligence and whether such claims arises out of or results from this contract or from the design, manufacture, sale, delivery, resale, technical direction, inspection, repair, operation or use of any product furnished by Hampton House, Inc. Hampton House, Inc., shall not be liable in any event for special or consequential damages including, but not limited to, loss of profits or revenue, loss of use of the product or any associated equipment, cost of capital, cost of substitute equipment facilities or services, downtime costs, or claims of customers or purchaser for such damages.

Some states do not allow the limitations and exclusions contained herein and to the extent they are not allowed by law, the limitations and exclusions may not apply to you. This agreement gives you specific legal rights. You may also have other legal rights which vary state to state.

Introduction

The KATIE JIG® Jr. System is a revolutionary new product designed to make it easy for you to create fixed and variable spaced through dovetail joints simply, quickly, and easily.

Ready to use kits are available. The kit ships with 11/32 inch dovetail guide/tuning forks. (See the parts and accessories listing on page 6 for a complete list of what is included in the kit.)

The KATIE JIG® Jr. System works with material 1/8 to 1/2 inch (recommend 1/4 inch) thick and up to 6 inches wide in one simple setup. You can join two KATIE JIG® Jr. Systems end-to-end with the optional 2x Kit or use two setups with a single KATIE JIG® Jr. System to work with material up to 12 inches wide.

You can purchase additional accessories to use with your KATIE JIG® System to make other types and sizes of joints, AND you can mix and match those joints in the same project.

Contacting Hampton House, Inc.

If your package is missing a part or you have a broken part, please contact Hampton House, Inc. to obtain replacement parts.

Hampton House, Inc.
PO Box 7103
Greenwood, IN 46142

Phone: 317-881-8601
FAX: 312-453-0667

Email: info@katiejig.com
Web: <http://katiejig.com/>

What You Need to Get Started

To begin using your KATIE JIG® Jr. System, you'll need a KATIE JIG® Jr. System Kit and the following additional supplies and equipment:

- Eye protection (required)
- Ear protection (required)
- Sliding bar clamps (screw-type) (recommended)
- Flush trim bit (optional)
- Small router with 1/4 inch collet
- Workbench with vise OR a router table

KATIE JIG® System Parts and Accessories

KATIE JIG® Jr. System parts and accessories may be ordered directly from Hampton, House, Inc. or from the KatieJig.com web site (<http://katiejig.com/>). For current pricing, please check the KatieJig.com web site or contact Hampton House, Inc.

Item/Description	Part Number
KATIE JIG® Jr. System Kit	KJ2-JR000001
<i>Kit includes:</i> fixture pre-assembled with one set (KJ2-JR000010) router table handles, two (KJ2-JR000011) backing boards, five (KJ2-DVT00344) 11/32 inch dovetail guide/tuning forks, six (KJ2-JR000014) 1/2 inch spacers, four (KJ2-JR000015) Teflon discs for spacers in optional router table use, two (KJ2-JR000012) edge stop assemblies, one (KJ2-D0000344) dovetail bit, one (KJ2-PB000250) pattern bit, one (KJ1-000AHK20) 5/32 inch allen wrench.	
Router table handles.....	KJ2-JR000010
Allen wrench (5/32 inch).....	KJ1-000AHK20
Backing board.....	KJ2-JR000011
Edge stop.....	KJ2-JR000012
Manual for KATIE JIG® Jr. System.....	KJ2-JR000013
Guide/tuning forks:	
Dovetail guide/tuning fork (11/32 inch)	KJ2-DVT00344
Dovetail guide/tuning fork (1/4 inch)	KJ2-DVT00250
Router bits:	
Dovetail bit	KJ2-D0000344
Pattern bit.....	KJ2-PB000250
Spacers:	
Aluminum spacer (1/2 inch)	KJ2-JR000014
Teflons discs for spacers.....	KJ2-JR000015
2X Kit for Katie Jig Jr. System Kit	KJ2-JR000100

Instructions for Using the KATIE JIG® Jr. System

Preparing the Wood

1. Determine the outside dimensions of the box. Note: the pins and tails will extend beyond the outside surface of the box. The excess material may be easily removed with a flush trim bit or sanded flush for a perfect-looking finish. See “Removing Trim Stock” for details on how this is done.

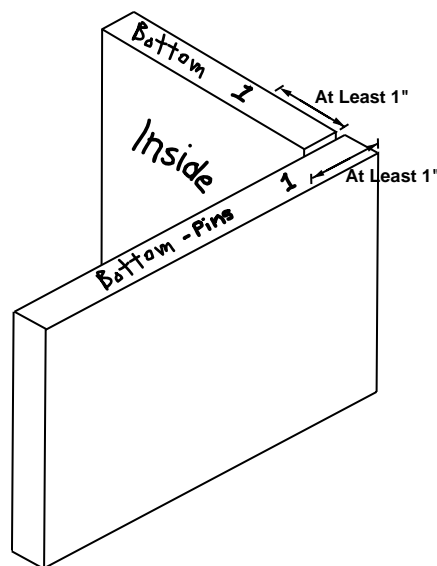
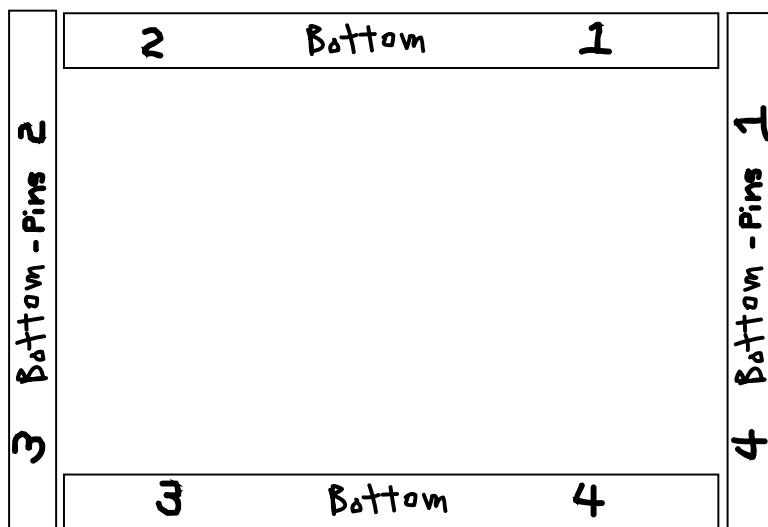
Cut the boards to the outside dimensions plus an allowance for trim stock determined from the following table:

Board Thickness	Recommended Trim Stock*	Add to Outside Dimension of Box
5/16" (1/4" guide forks)	1/32"	1/16"
13/32" (11/32" guide forks)	1/32"	1/16"
1/2" (3/8" or larger guide forks)	0"	0"

* More trim stock may be required to adjust for bit depth. See “Setting Up the Router” for information on determining the amount of trim stock needed.

If the pin board and tail board are different thicknesses, use the thickness of the mating piece in calculating the length. For instance, if the tail board is 1/4 inch thick and the pin board is 13/32 inch thick, add 1/16 inch to the length of the tail board and 1/16 inch to the length of the pin board. See “Setting Up the Router” for more information.

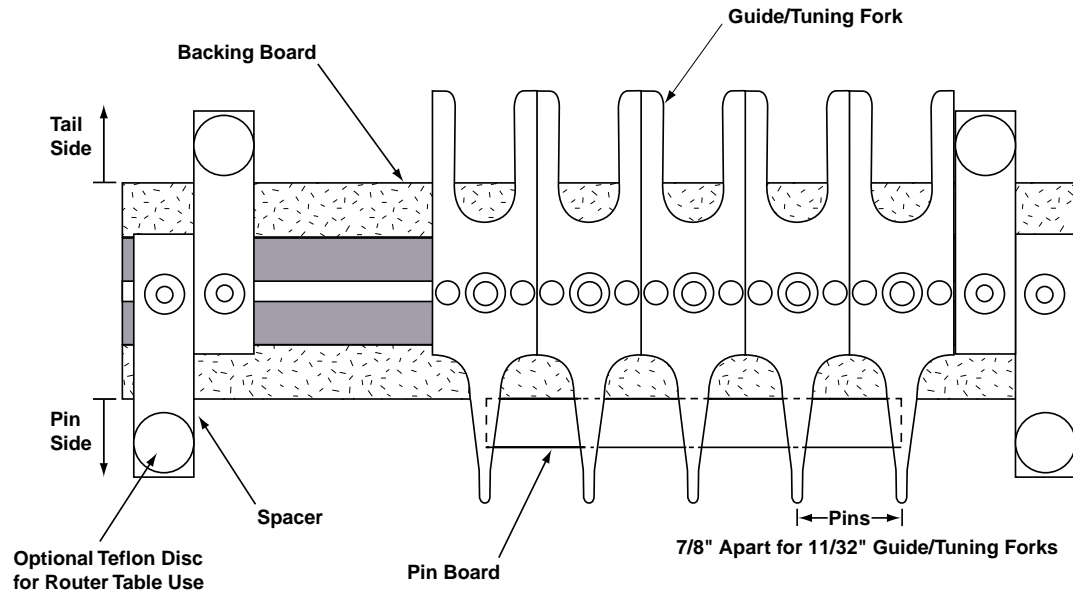
2. Mark and number each corner of the box. (Place the numbers on the bottom at least 1 inch from end of board—see diagrams below.)
3. Mark the two boards that will be the pin boards.
4. Mark the inside of each board.



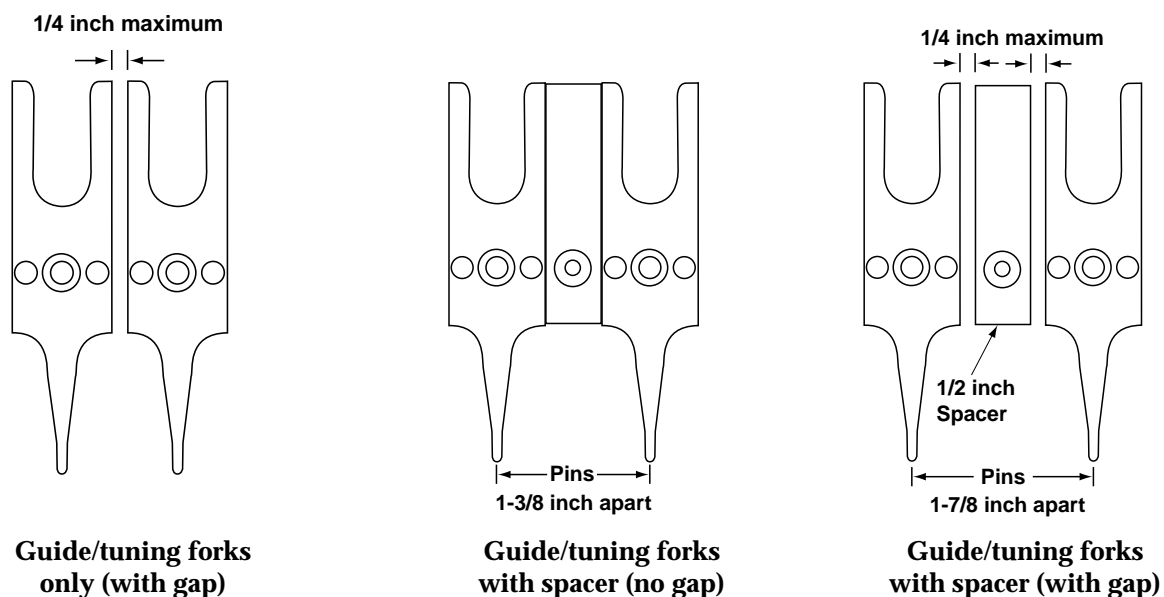
Setting Up and Adjusting the KATIE JIG® Jr. System

1. Locate and adjust the spacing of the guide/tuning forks on the fixture—position the center of the pin side of each guide/tuning fork at desired location of each pin. For best results there should be one-half of a pin at each end of the board. Arrange guide/tuning forks and spacers or guide/tuning forks alone for desired spacing.

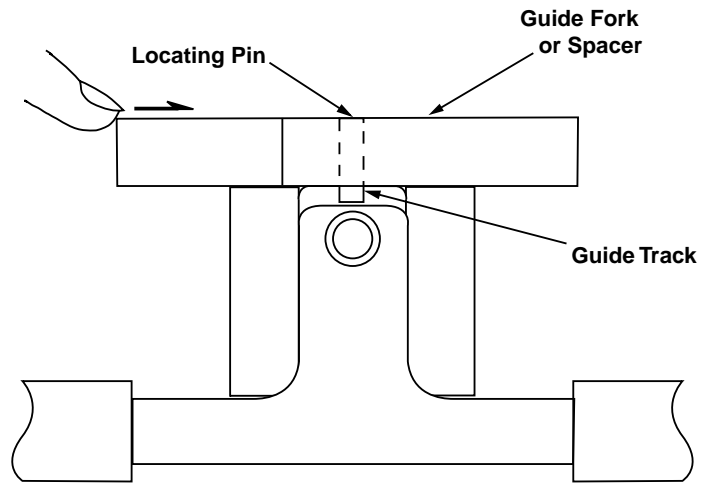
For optional router table use, you may apply the Teflon discs to the spacers as shown. The Teflon discs allow the KATIE JIG® Jr. System to slide easily on the router table.



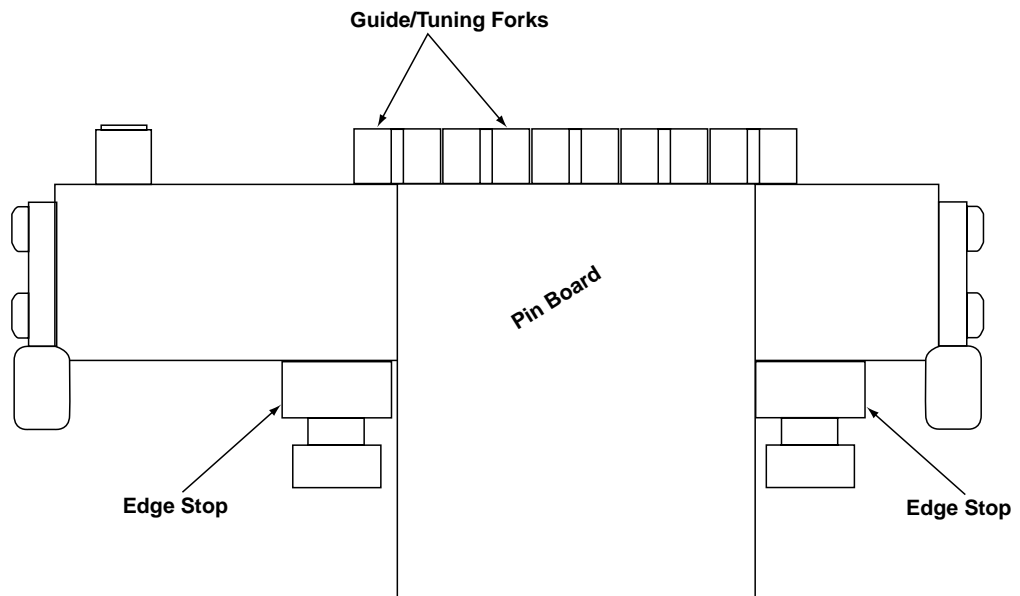
CAUTION: To prevent damage to the KATIE JIG® Jr. System, the maximum gap between guide/tuning forks or guide/tuning forks and spacers is **1/4 inch**. If gaps between guide/tuning forks or guide/tuning forks and spacers are greater than the maximum spacing, additional spacers can be made from scrap lumber.



2. After the guide/tuning forks and spacers are in the desired position, securely tighten in place using the allen wrench included with the KATIE JIG™ Jr. System. When tightening the guide/tuning forks, gently push the fork to one side so that both locating pins are positioned firmly against the side of the guide track. Make sure that all guide/tuning forks and spacers are securely tightened before proceeding to the next step.

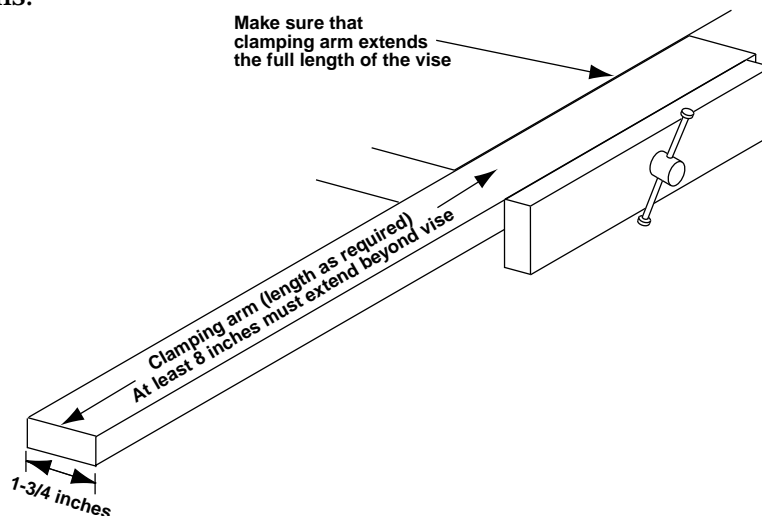


3. Locate the edge stops so that the boards are positioned where desired. When tightening the edge stops, gently push the stop to one side so the stop is positioned firmly against the side of the guide track. Do not squeeze the boards between the edge stops—allow approximately 1/16 inch clearance.

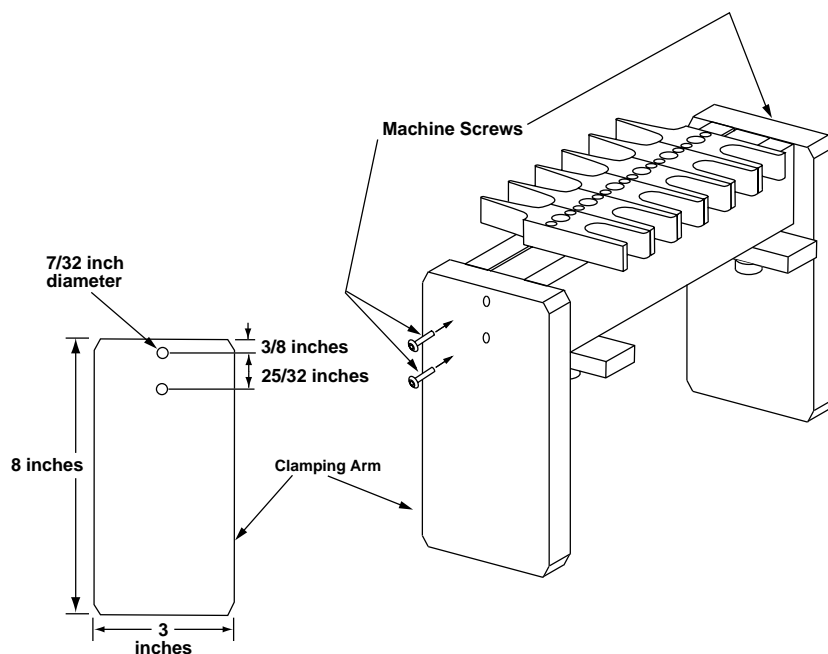


Note: The KATIE JIG® Jr. System may be used with a router table using the Router Table Handles attached to the KATIE JIG® Jr. System, or the KATIE JIG® Jr. System may be clamped to a workbench or work space. If you are using the KATIE JIG® Jr. System with a router table, please continue with the next section on “Setting Up the Router” on page 11. If you are not using a router table, please continue with step #4, below.

4. Select a method for clamping the KATIE JIG® Jr. System to your workbench or work space. Three clamping options are recommended, select the one which best fits your particular situation:
 - a. Clamping option #1 requires a clamping arm similar to the one shown in the diagram below and will work with most woodworking vises. The length of the clamping arm will depend upon your particular vise—see the diagram below for details.



- b. Clamping option #2 requires two clamping arms for the KATIE JIG® Jr. System according to diagram below and will work with most general purpose workcenter-type work benches with at least a 9 inch vise capacity. Remove the Router Table Handles from the KATIE JIG® Jr. System, and securely attach the clamping arm to each end of the KATIE JIG® Jr. System with two #10 - 32 x 1 inch or 5 mm x 20 mm machine screws for each arm.

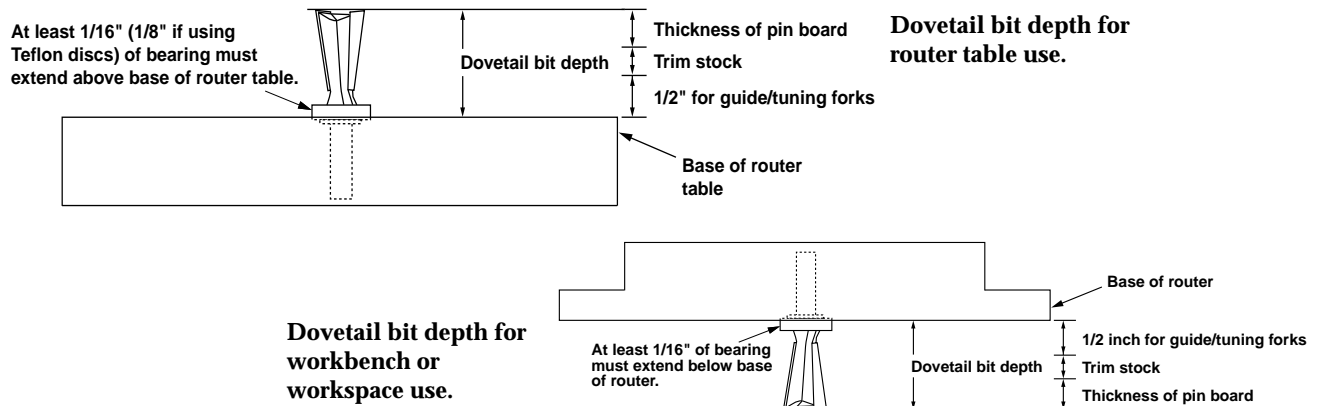


- c. Clamping option #3 requires a workbench with a woodworking vise to clamp onto the pin or tail board once the boards have been clamped to the KATIE JIG® Jr. System. (See picture on page 15)

Setting Up the Router

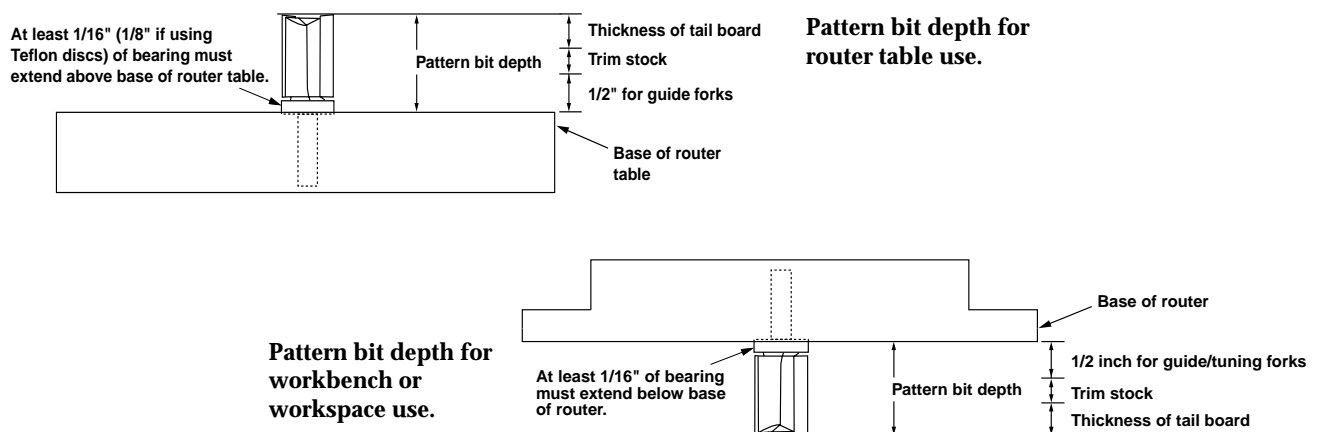
1. Determine the depth to set the dovetail bit:
 - a. Measure thickness of the pin board.
 - b. Add to that measurement the allowance for trim stock.
 - c. Finally, add 1/2 inch to allow for the width of the guide/tuning forks.

CAUTION: The dovetail bit bearing must extend at least 1/16 inch (1/8 inch if using Teflon discs) below the base of the router. Add more to the trim stock measurement if you need to adjust the dimensions to extend the bearing below the router base.



2. Determine the depth to set the pattern bit:
 - a. Measure thickness of the tail board.
 - b. Add to that measurement the allowance for trim stock that you determined in the "Preparing the Wood" step.
 - c. Finally, add 1/2 inch to allow for the width of the guide/tuning forks.

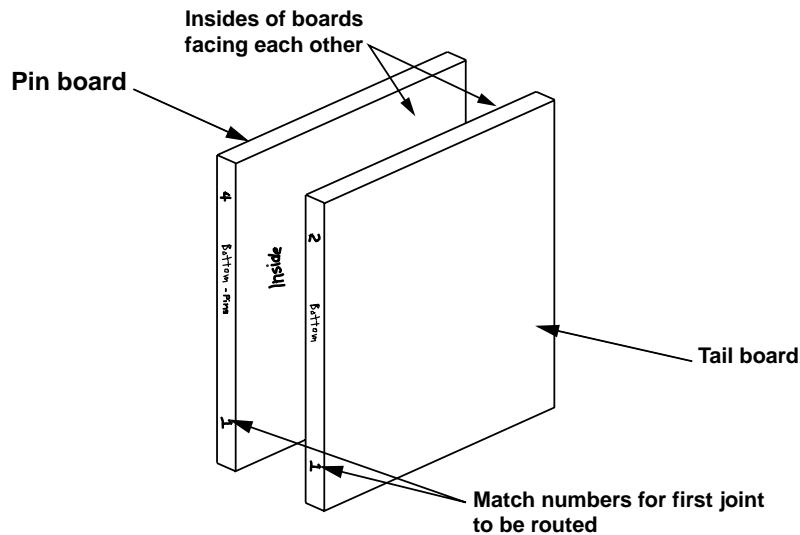
CAUTION: The pattern bit bearing must extend at least 1/16 inch (1/8 inch if using Teflon discs) below the base of the router. Add more to the trim stock measurement if you need to adjust the dimensions to extend the bearing below the router base.



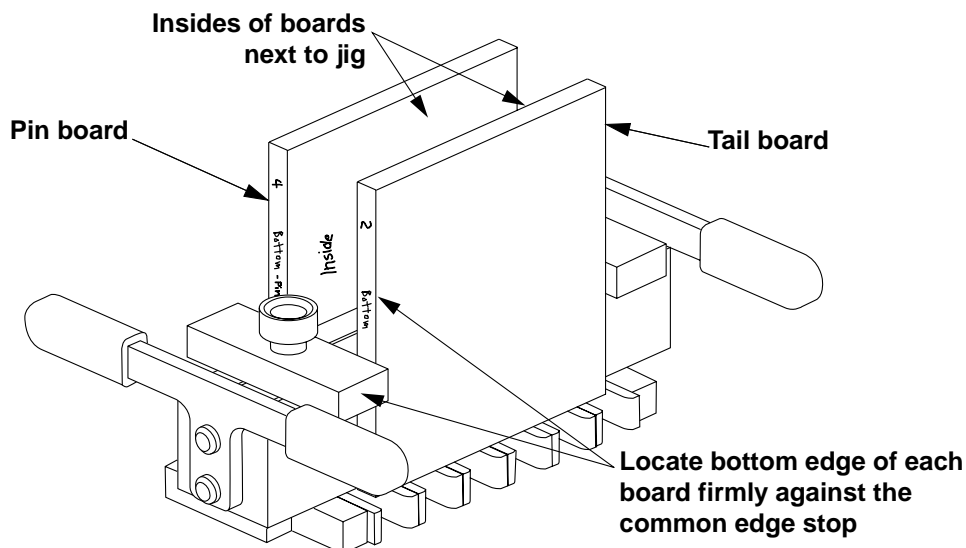
Note: for more consistent results, use 2 routers (one for routing tails with the dovetail bit and the other for routing the pins with the pattern bit) to eliminate variability in bit depth when changing bits.

Clamping the Wood to the KATIE JIG® System

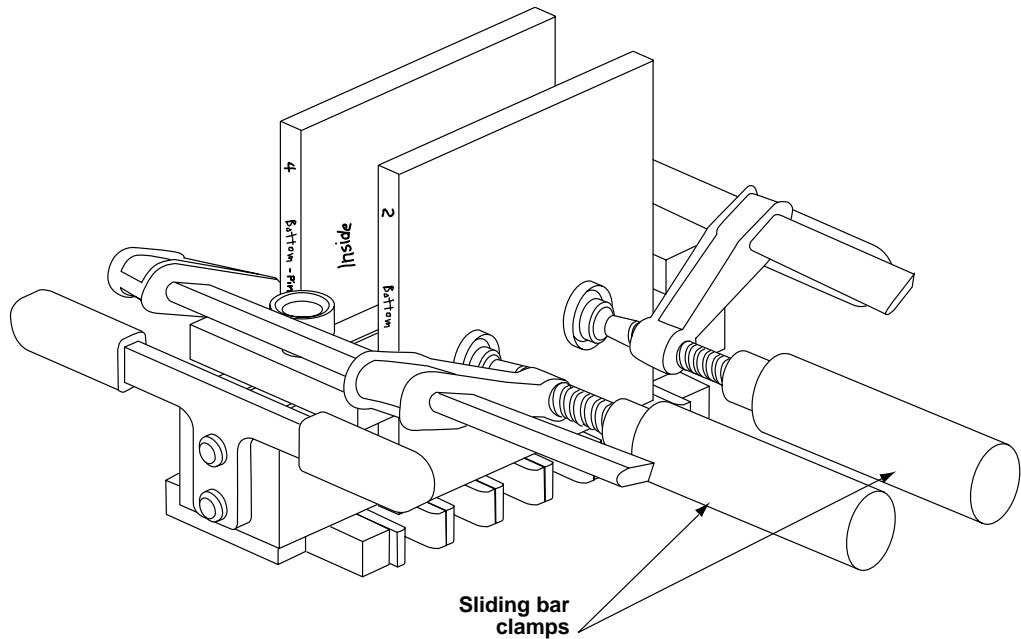
1. Turn the KATIE JIG® Jr. System so that the guide/tuning forks are down and place the KATIE JIG® Jr. System on a sturdy surface such as a workbench.
2. Align the boards for the first joint to be routed—match bottoms and the numbers for the joint and place the boards so that the insides are facing each other.



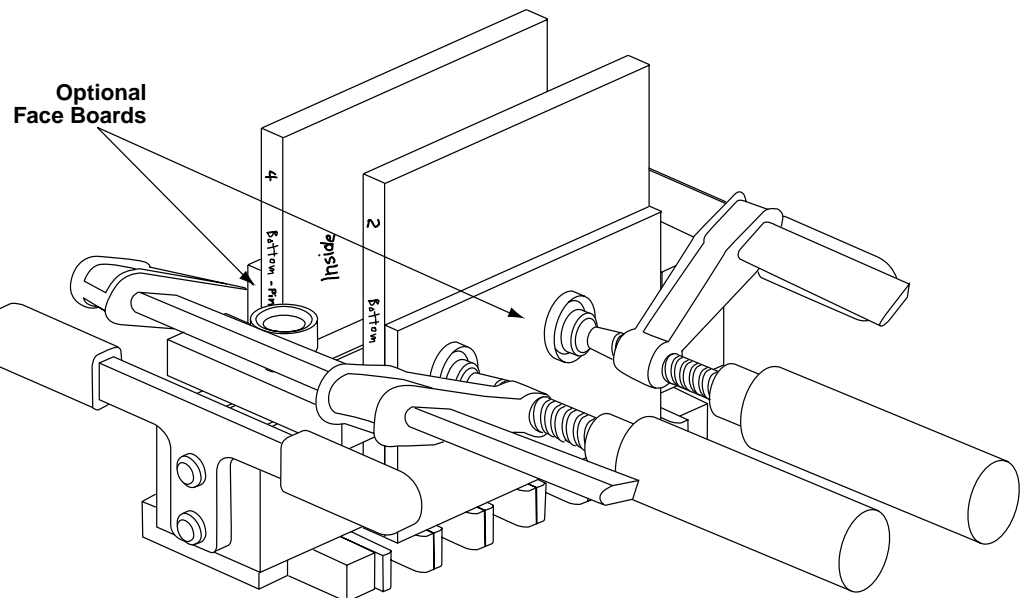
3. Position the boards on the KATIE JIG® Jr. System:
 - a. Place a pin board on the pin side of the KATIE JIG® Jr. System with the inside of the board toward the jig.
 - b. Place the corresponding tail board on the tail side of the KATIE JIG® Jr. System with the inside toward the jig.
 - c. Locate the bottom edge of each board firmly against the edge stop. (Note: the bottom edge will be against the other edge stop on alternating joints.)



4. Securely clamp the boards to the KATIE JIG® Jr. System using 2 clamps. (Screw-type sliding bar clamps are recommended—cam-type clamps can cause misalignment.) Make sure the boards remain squarely against the guide/tuning forks and edge stop. Clamp the boards as shown below with the edge of the board located firmly against the guide/tuning forks.

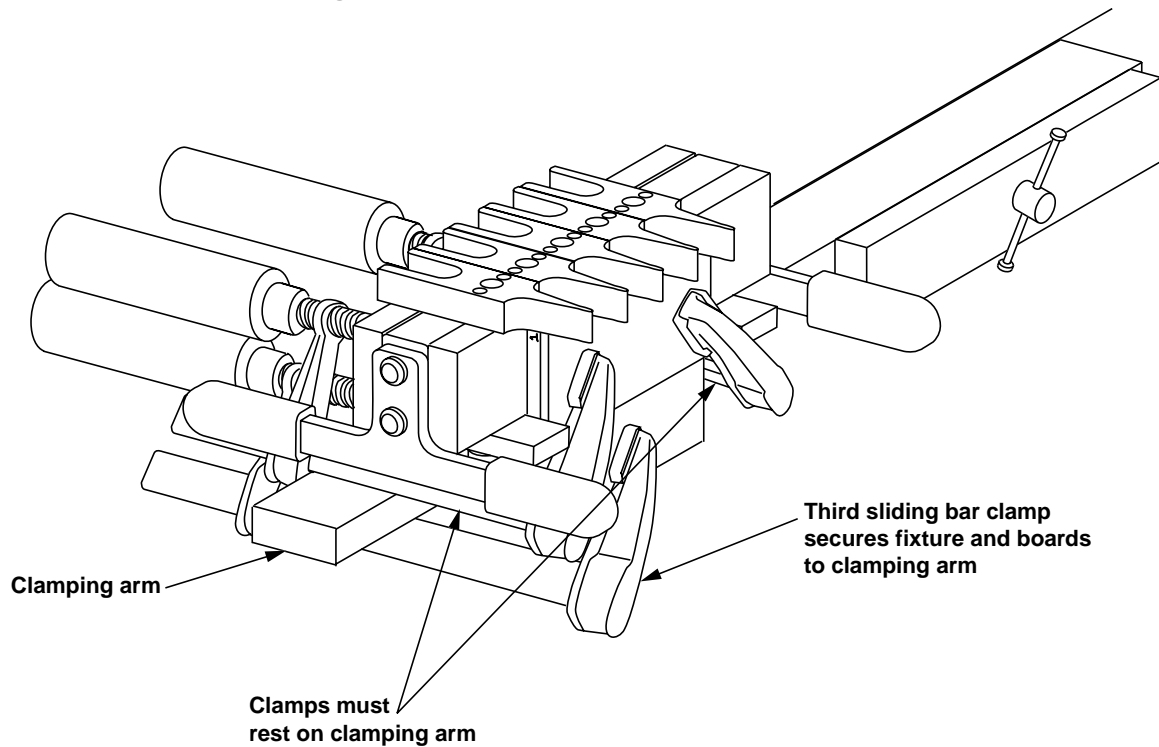


5. To prevent the boards from splintering during routing, an optional face board may be clamped against the pin and tail boards.

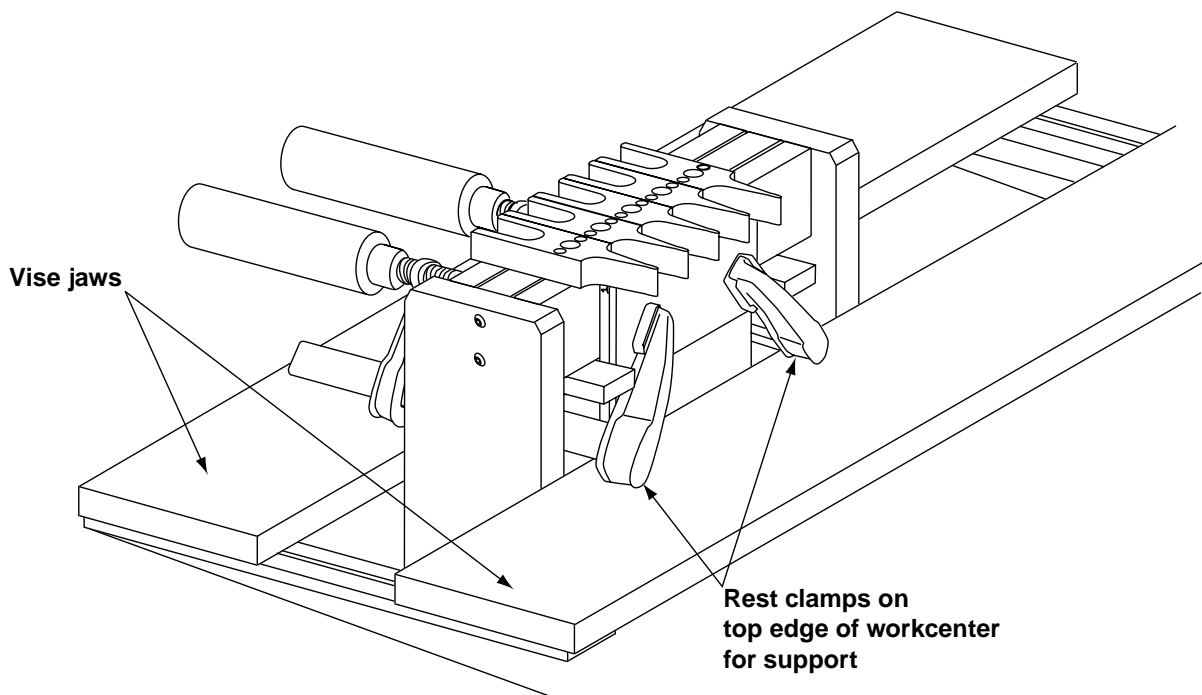


Note: if you are using a router table with the KATIE JIG® Jr. System, please proceed to the next section “Routing Pins and Tails,” otherwise, proceed to Step #6.

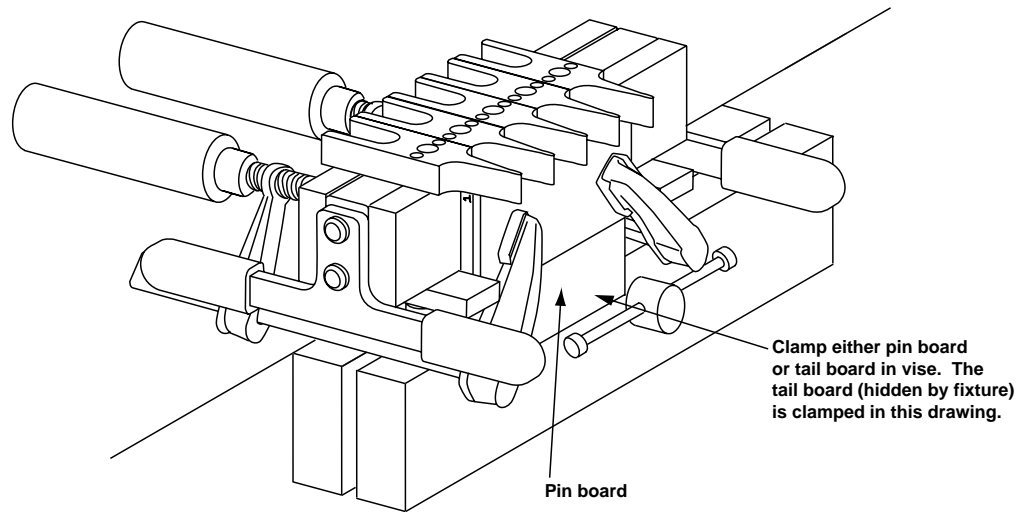
6. Securely clamp the KATIE JIG® Jr. System/board assembly in a wood vise or workcenter workbench with the KATIE JIG® System oriented so that the guide/tuning forks are on top.
- a. Clamping option #1 - securely clamp the KATIE JIG® Jr. System to clamping arm with a third sliding bar clamp.



- b. Clamping option #2 - securely clamp the KATIE JIG® Jr. System between the vise jaws of the workcenter workbench.



- c. Clamping option #3 - securely clamp either the pin board or the tail board between the vise jaws of the woodworking vise.



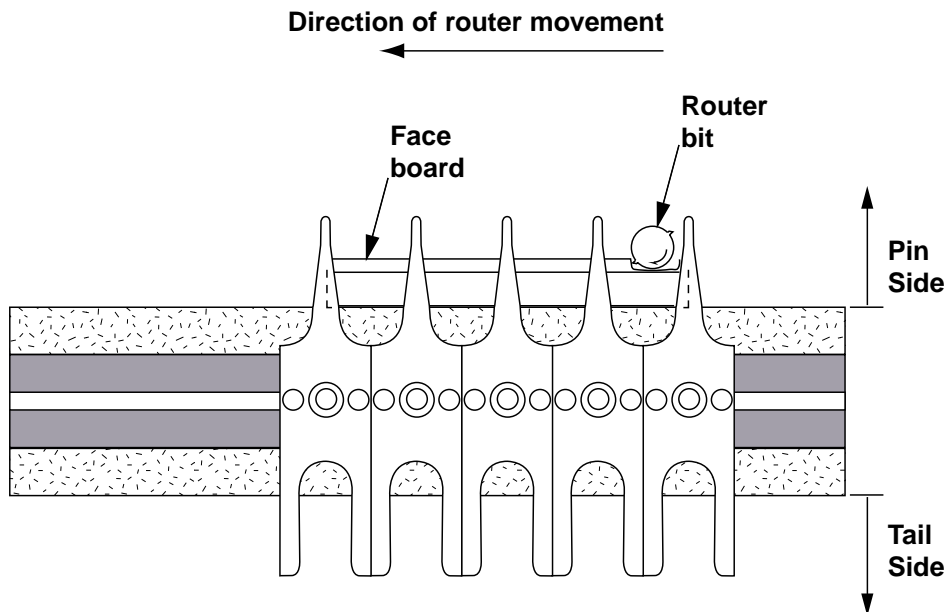
Routing Pins and Tails

CAUTION: Recheck that all guide/tuning forks are securely tightened before proceeding with the next two steps.

CAUTION: Always move the router against the rotation of the router bit.

CAUTION: For boards over 3/8 inch thick, make several passes with the pattern bit on the face of the material. Do not try and remove all material in a single pass.

CAUTION: To prevent damage to the router bit and the KATIE JIG® Jr. System, do not pick up router until bit has completely stopped turning.

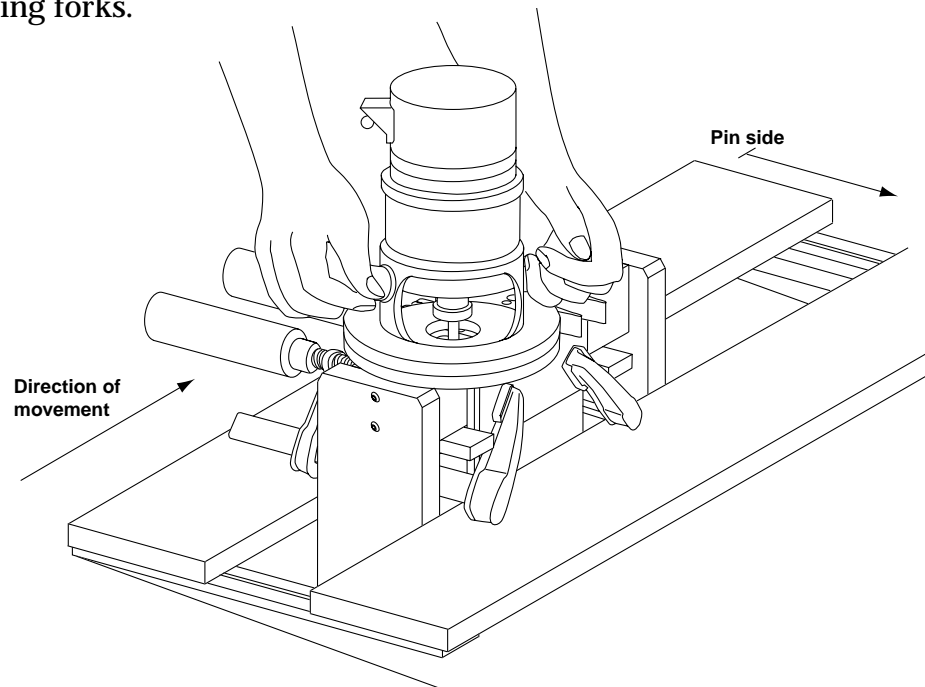


Note #1: part of the backing board will be removed by the router bit.

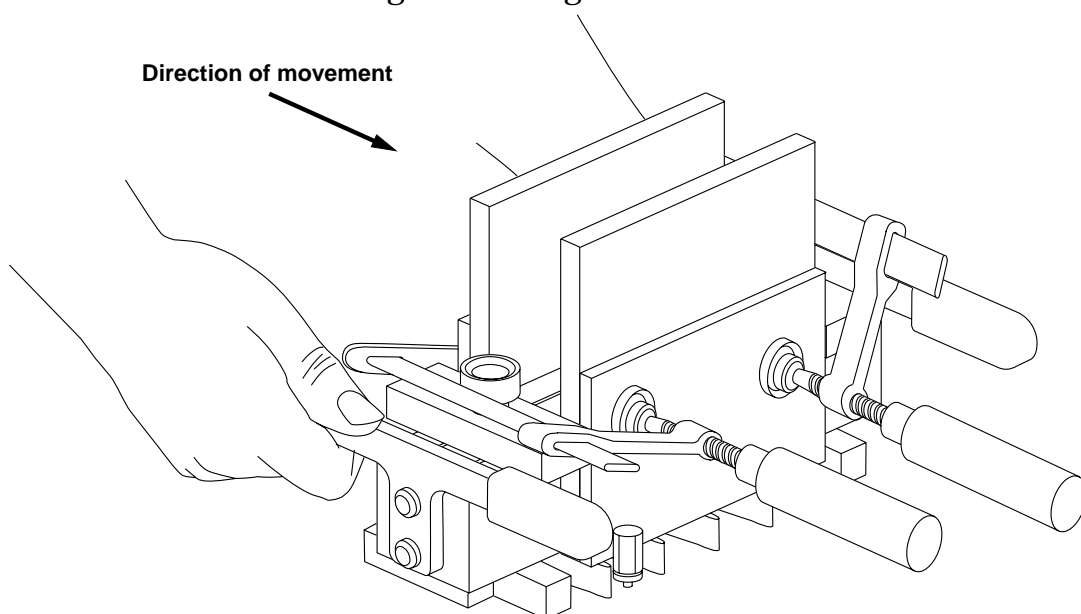
Note #2: if the position of the guide/tuning forks is changed, the backing board may need to be replaced to prevent splintering of the boards during routing. Because dimensions are critical on the pin side, please use Hampton House replacement or backing boards measuring the same dimensions as the originals.

1. Route the pin board:

- a. **Non-router table:** Place the router with the pattern bit on the pin side of the KATIE JIG® Jr. System. Stand on the opposite side (tail side) of the KATIE JIG® Jr. System and turn the router on . Carefully route the areas between the the guide/tuning forks.

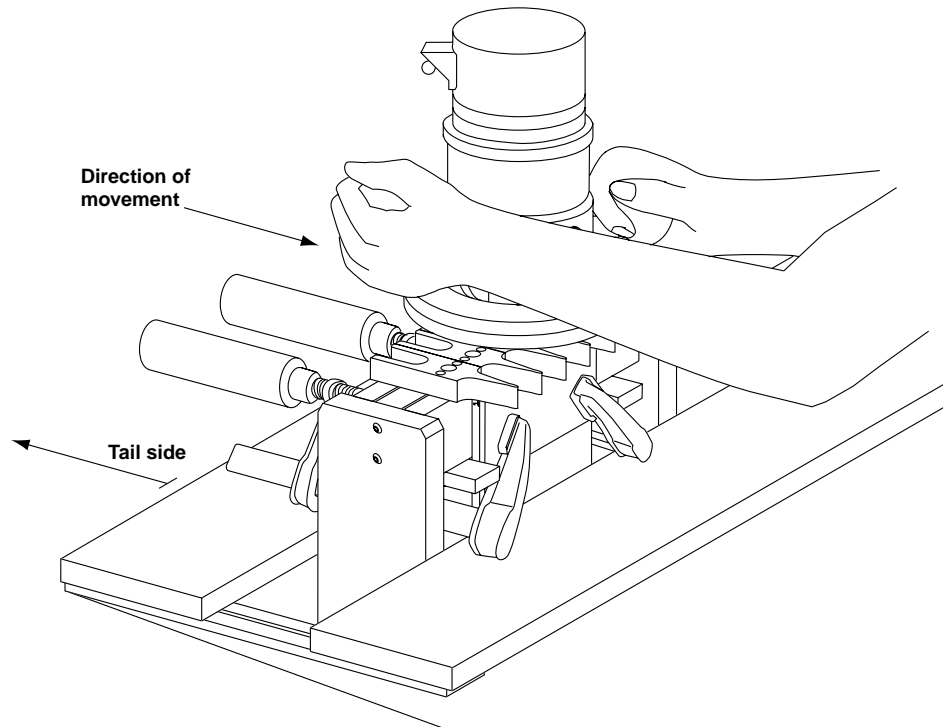


- b. **Router table:** Place the pattern bit in the router. Grasp the router table handles on the tail side of the fixture (opposite the pin side) and turn on the router. Slide the KATIE JIG® Jr. System toward the bit. Carefully route the areas between the the guide/tuning forks.

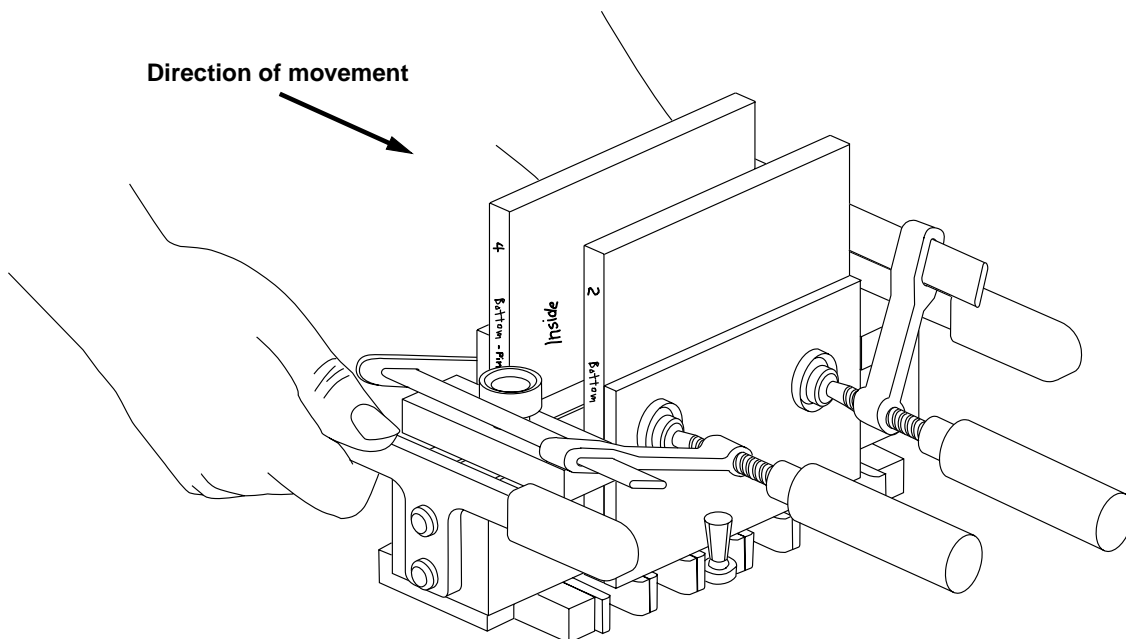


2. Route the tail board:

- a. **Non-router table:** place the router with the dovetail bit on the tail side of the KATIE JIG® Jr. System. Stand on the opposite side (pin side) of the KATIE JIG® Jr. System. Turn on the router and carefully route the areas between the guide/tuning forks.

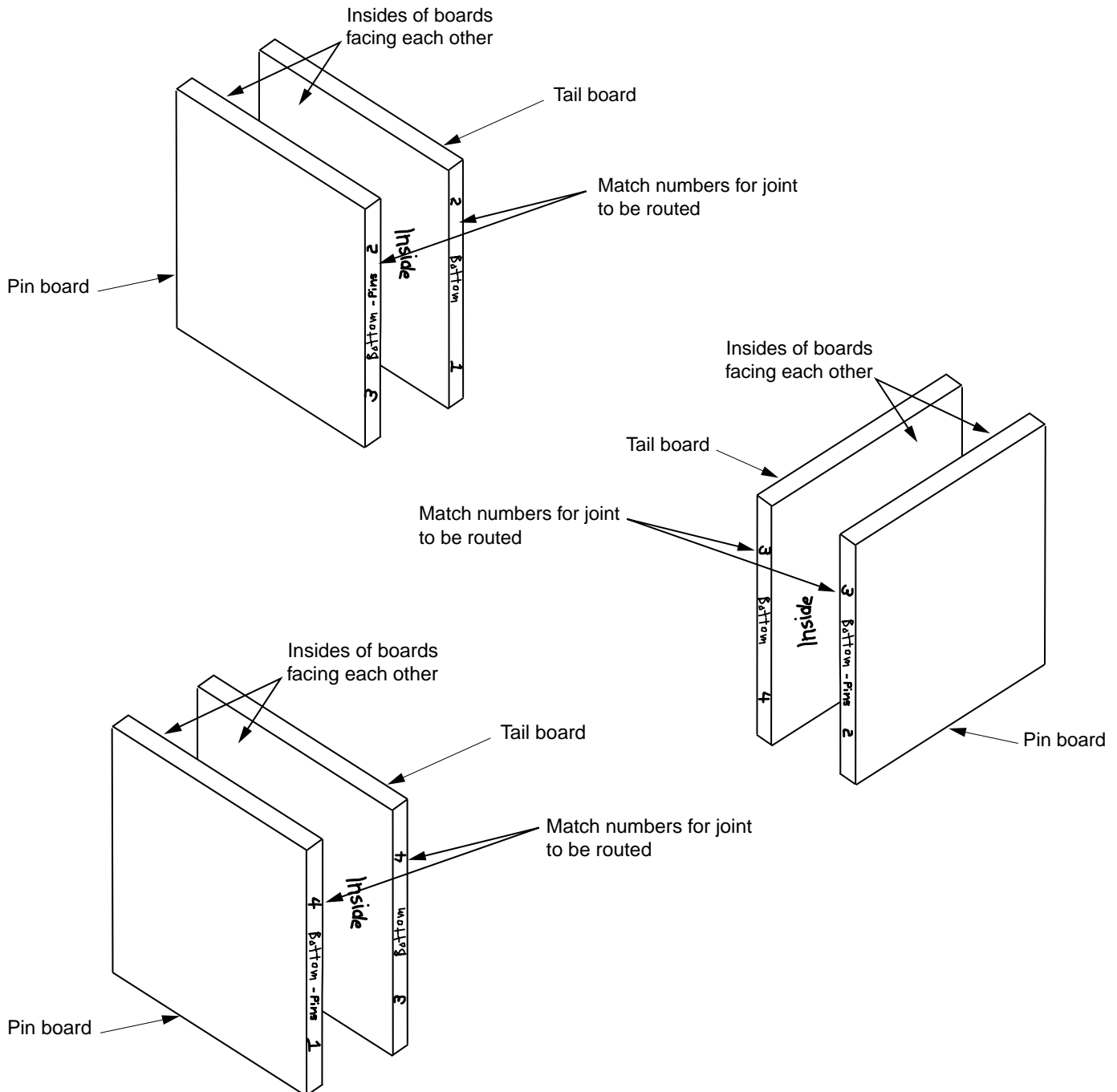


- b. **Router table:** Place the dovetail bit in the router. Grasp the router table handles on the pin side of the fixture (opposite the tail side) and turn on the router. Slide the KATIE JIG® Jr. System toward the bit. Carefully route the areas between the the guide/tuning forks.



Setting up for Next Joint

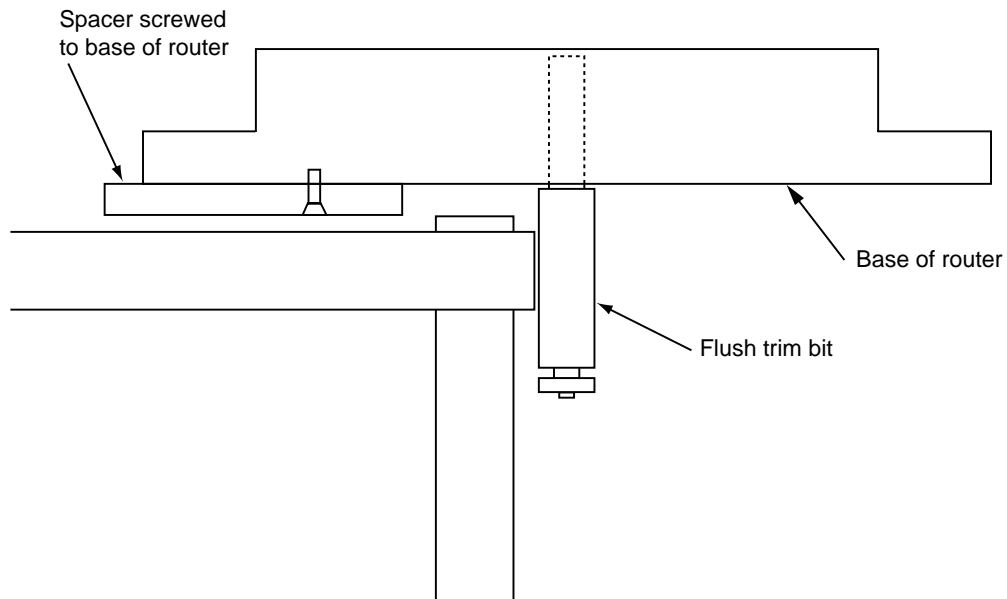
1. Remove clamps and boards from the KATIE JIG® Jr. System.
2. Determine which joint will be routed next.



3. Place a pin board on the pin side of the KATIE JIG® Jr. System with the inside of the board toward the jig.
4. Place the corresponding tail board on the tail side of the KATIE JIG® Jr. System with the inside toward the jig.
5. Clamp and route as previously described.

Removing Trim Stock

1. Assemble and glue box.
2. Secure box in wood vise.
3. Insert flush trim bit in router and attach a spacer or router jig to base of router (the spacer or router jig needs to be thicker than the stock to be trimmed from the box).



4. Remove trim stock from one side of box.
5. Remove box from vise, rotate to next side to be trimmed and then secure box in wood vise.
6. Continue removing trim stock and rotating box in vise until all trim stock is removed.

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