



Fits routertops from 24" to 32"
(.75" to 1.5" thick)

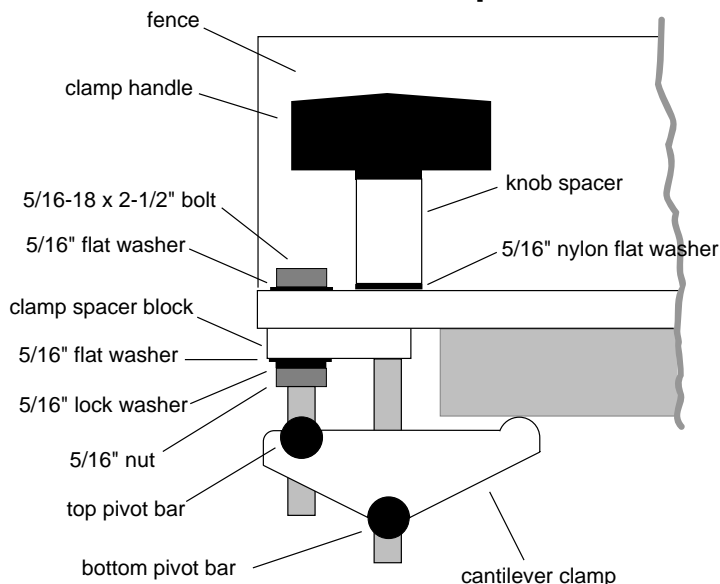


Fits routertops from 20" to 24"
(.75" to 1.5" thick)

ProFence brings table-based routing to a new level by providing woodworkers with unmatched accuracy and functionality. Both the 28" and 36" versions incorporate jointing, dust collection, a bit guard, and outboard clamping. You will appreciate the front and back accessory tracks for mounting such options as our Feather-Loc featherboards, Fence Riser (for vertical raised panel work and sliding dovetails), and Panel-Loc (for raised panel work).

Thank you for choosing Bench Dog!

Fence Clamp Detail



Contents of Box

- 1 fence, extruded aluminum
 - 1 dust port (preinstalled)
 - 2 MDF subfences (partially or fully installed)*
 - 6 or 4* 1/4-20 x 1-5/8" sub-fence bolts
 - 8 or 6* small knobs for sub-fence and bit guard
 - 2 cantilever clamps (aluminum)
 - 2 clamp spacer blocks (aluminum)
 - 2 5/16-18 x 2-1/2" bolts, lock washers, nuts
 - 4 5/16" steel flat washers (steel)
 - 4 pivot bars with 5/16-18" threads
 - 2 clamp handles with 5/16-18 x 4-1/2" studs
 - 2 handle spacers
 - 2 5/16" nylon washers for knob spacer. **Do not confuse with the steel washers.**
 - 1 dual position bit guard
 - 2 1/4-20 x 3/4" bolts for attaching bit guard
 - 1 aluminum jointer bars (pair)
- * Depending on model

Requirements

- 2 1/2" open end wrenches (you supply)
- 1 dab of multi purpose grease (you supply)

Symbols Used in Manual



Warning



Important



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Read and understand the entire contents of this manual before attempting assembly or operation of this tool! Inspect contents for shipping damage and shortages. Report problems directly to Bench Dog, Inc.

QUESTIONS?

1-800-786-8902

www.benchdog.com

General Conditions / Limited Two Year Warranty

We make every effort to assure that our products meet quality and durability standards, and warrant to the original retail purchaser that this product is free from defects in materials and workmanship for two years. Remedy shall be limited to Bench Dog's choice of repair, replacement or refund. This warranty does not provide remedy for consequential economic loss.

This is a limited two year warranty. It requires the purchaser to contact Bench Dog in writing within 30 days of discovering the defect. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations, or due to lack of maintenance. It excludes components and parts not manufactured by Bench Dog, defects caused by failure to provide a suitable installation environment, and damage caused by use for purposes other than those for which the product was designed.

Bench Dog, Inc. reserves the right to make product changes without notice and without obligation to make these changes on products previously sold.

Important Safety Points

Before operating your router table please read this manual thoroughly. Retain it for future reference. Refer to your router owner's manual for safety instructions regarding use of that tool. This manual is not an instruction book on how to do woodworking with a power tool. Bench Dog encourages all woodworkers to continually seek improvement in their woodworking skills, regardless of their craftsmanship or years of experience. The router table, fence and accessories must only be used for their intended purpose: woodworking via normal routing operations. "Normal operations" means basic shaping of wood in conditions where grounded electricity, sharp tools, dust, and rapidly spinning parts can be used or encountered safely. The following instructions elaborate on this concept.

1. Do not use your router table as a step or seat.
2. The top and cabinet must be properly secured, and be level before use. Inspect your table and base for damage and levelness prior to each use.
3. Keep work area clean, dry and well lit.
4. The hardware affixing the insert to the routertop must be installed for safe use. Tighten insert hold-down screws before each use.
5. Safe operation requires a router table fence, bit guard, dust collection system, starting pin or fulcrum, and speed reducer for large diameter bits. We recommend reducing router speed for 1" or larger diameter bits. Consult your bit manufacturer for the exact speed.
6. Use the right tool for the job. Do not force a tool or attachment to do a job for which it was not designed.
7. Secure your work with a featherboard, clamps, or a vice when appropriate. The use of inappropriate accessories may cause injury.
8. Wear safety glasses, dust mask, face shield and ear protection. This is not an exhaustive list. Every-day eye glasses do not substitute for safety glasses.
9. Do not wear gloves or jewelry while using a power tool and ProTop.
10. Maintain your equipment and its accessories in good working condition. Look for wear, poor alignment of moving parts, binding of moving parts, breakage, poor mounting, or other conditions that may affect operation and safety. Repair or replace any damaged parts.
11. Disconnect the power before moving, adjusting, or repairing parts, or otherwise maintaining your router table and any accessories you may be using.
12. Keep children, pets, and those who may disregard safety away from work area, cords, sockets and tools.
13. Wear snug fitting clothes and keep long hair back to avoid catching in moving parts.
14. Do not overreach. Maintain balanced footing and stance.
15. Stay alert. Use common sense.

In any correspondence with Bench Dog, Inc., please refer to the date and place of purchase. You may reach us at Bench Dog, Inc. 3310 5th St. NE, Mpls., MN 55418 USA, (612) 782-8205 or 1-800-786-8902. On the internet, you may reach us at www.benchdog.com.

Assembly Instructions

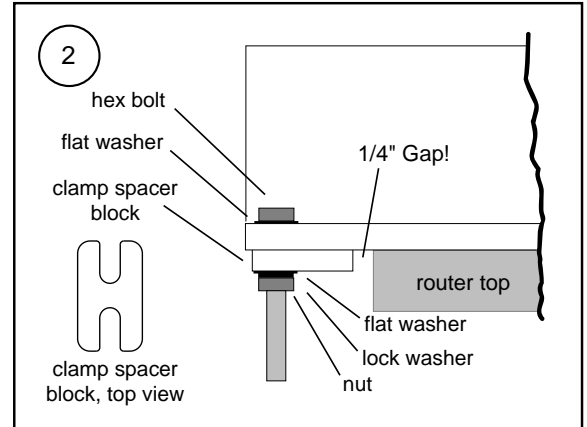
1. Attach the subfences

Attach the MDF subfences to the fence. Use the 1/4-20 x 1-5/8" black shoulder bolts and small knobs. If the bolts are oily, please wipe them off with a clean rag before installing.



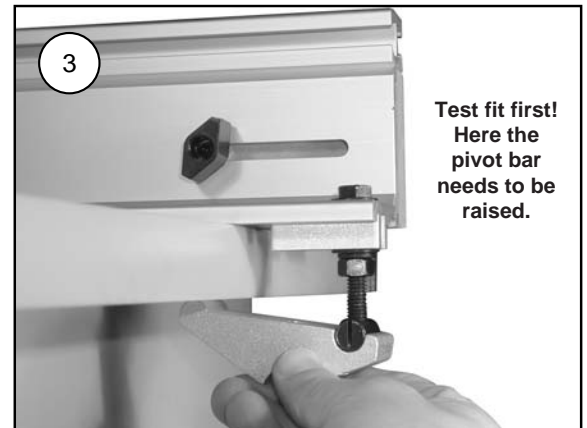
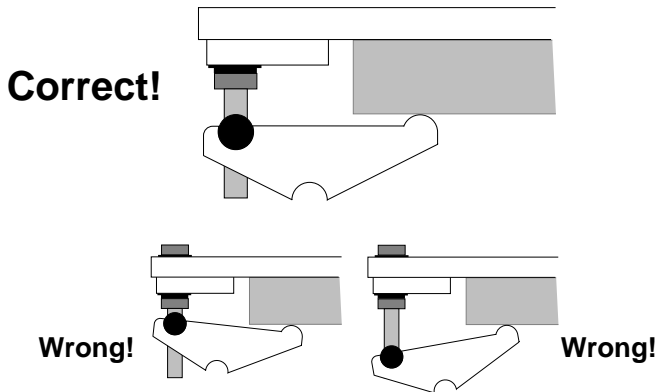
2. Install the (2) clamp spacer blocks.

Install the spacer blocks. Use the (2) 5/16-18 x 2-1/2" hex bolts, (4) flat washers, (2) lock washers, and (2) hex nuts. Be sure to leave about a 1/4" gap between the blocks and the router top. This will prevent the fence from binding as it is adjusted and slightly pivoted.



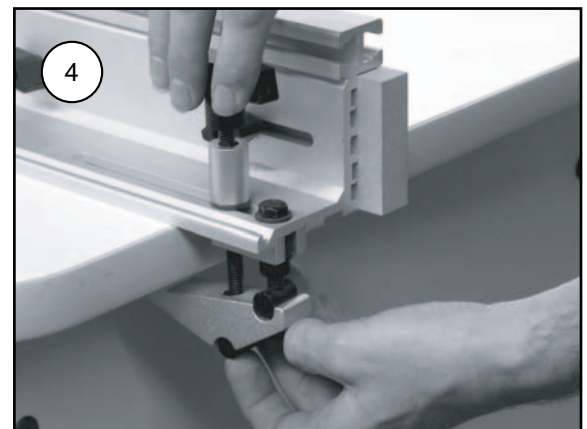
3. Install the top pivot bar onto the bolt.

Use the cantilever clamp to adjust the top pivot bar until the the clamp is level with the router top. You will need to temporarily drop the clamp downward before turning the pivot bar.



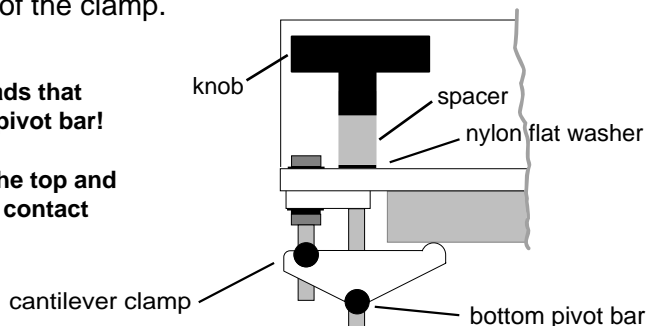
4. Install the cantilever clamps.

First install the clamp handle. Note the spacer and flat washer orientation in the illustration below. Next, place the cantilever clamp into position. Finally, thread the bottom pivot bar onto the knob's stud. Hint: use one hand to position the clamp, as shown in the photo, and use your other hand to thread the pivot bar onto the clamp handle's stud until it contacts the bottom of the clamp.



Grease the threads that engage the lower pivot bar!

Also, grease both the top and bottom pivot bar contact points.



5. Attach the dual position bit guard to fence.

Pre-assemble the guard with the (2) 1/4-20 x 3/4" hex bolts and (2) knobs. Slide both bolt heads into the fence's T-slot to attach to fence.

Note: The bit guard is designed for dual positioning. The larger, curved side is used for general routing of small and medium sized bits. The smaller angled side is intended for edge jointing and small diameter bits.



Always use your bit guard!



Basic Operations

Dust Collection

The integral dust collection port is designed to accept a standard 2-1/2" fitting, typical on most shop vacs. Most of these fittings actually measure 2-1/4" (outside diameter). Bench Dog recommends 2-1/2" hose, or larger, because it is more effective at evacuating dust and chips, and provides proper air flow over the router motor. Any hose larger or smaller than 2-1/2" requires an adapter you must provide. If additional dust collection is needed, a dust port can be added to your cabinet or motor area. **DO NOT USE YOUR ROUTER TABLE WITHOUT DUST COLLECTION!**



Using a Miter Gauge

The miter track has two slots: an accessory T-slot and a T-bar compatible miter gauge slot. The accessory T-slot is the narrower of the two. It accepts 1/4" hex bolts for attaching Feather-Loc featherboards (see Bench Dog accessories) and other fence accessories like Panel-Loc and Power-Loc. The miter gauge slot is used in conjunction with a miter gauge, and fits standard 3/8" x 3/4" miter bars (with or without the T-bar). The miter gauge is not included.

To adjust fence perpendicular to miter gauge, set miter gauge to 90°, and place in slot (make sure miter track is adjusted, see step 12). Loosen the fence's lock knobs and align the miter gauge to fence using a square, as shown.



Feed Direction

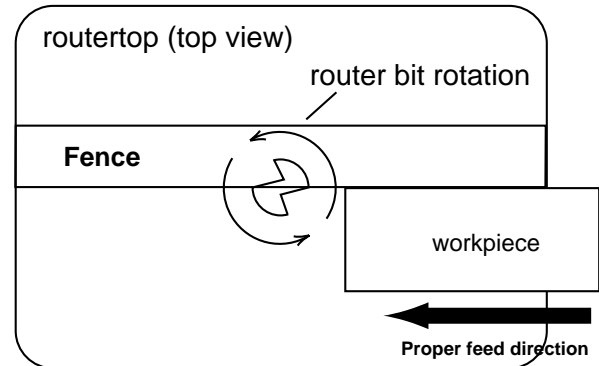
Always feed the workpiece *against* the cutter rotation, as shown. Feeding the workpiece *with* the cutter rotation is called "climb cutting". Climb cutting is **very dangerous**, because the cutter will grab the workpiece and thrust it the same direction as the cutter rotation. Even small router bits will overpower your ability to hold onto the workpiece during a climb cut.

Do not use this router table until you understand proper feed direction and bit rotation. If climb cutting is still unclear, ask your retailer for help, give us a call, or reference a book on router table usage.



Never Climb Cut!

A typical set-up. Here, the fence is partially covering the router bit.



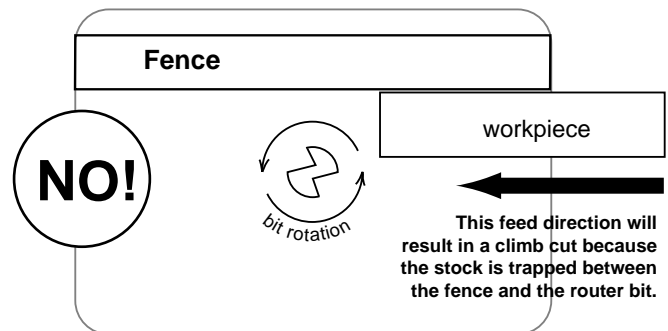
Avoiding Fence Traps

Fence traps occur when the work piece is fully "trapped" between the router bit and fence. Fence traps pose two real concerns: the possibility of climb feeding, and human exposure to the router bit. As stated earlier, climb cutting should be avoided as loss of control of the operation is a possibility!

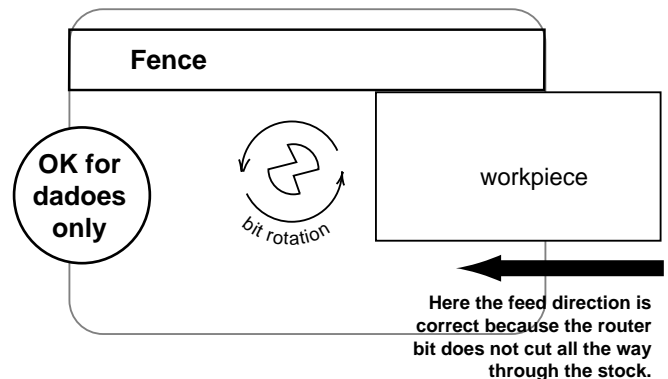
The top drawing shows a classic trap to be avoided. What appears as a normal feed direction (working from right to left) is wrong, and will instead produce a climb cut. Because the work piece is trapped it can easily be pulled from one's grip and thrown with great velocity. Feeding the stock from left to right will eliminate the climb cut but not the danger. It will be difficult to keep the stock tight against the fence as the bit's rotation will thrust the stock away from the fence. Also, your body will be dangerously exposed to the spinning router bit. The bit guard will not protect you against flying stock, nor guard against this level of exposure.

The second drawing is not a trap, as long as the router bit cuts only partially into the stock. In other words, the router bit must not completely cut through the workpiece. In this cut, the bit will grab and push the stock toward the fence. This is good, as the fence will control the workpiece better than your hands. Typical dado cuts resemble this set-up, and are commonly performed on router tables. If the dado is to be widened with two (or more) passes, be careful not to set a classic trap or climb cut.

A classic trap resulting in a climb cut. Always avoid this set-up!



Not a trap as long as the router bit does not cut all the way through the stock.



Adjusting the Subfences

The (2) MDF (medium density fiberboard) subfences are designed to slide along the fence approximately 2". This results in a router bit opening from 0 to 4".

A. "Close" Setting

Many applications require adjusting the subfences close to the router bit. This accomplishes nearly the same benefits of a true "zero clearance" setting (see "B") without cutting the subfences. Before the router is turned on, and after the fence and router bit height are properly adjusted, slide the subfences toward the bit to reduce the gap. **Confirm that the router bit can freely rotate without touching the subfences!**

B. "Zero Clearance" Setting

Cutting the subfences into the router bit profile produces "zero clearance". Zero clearance eliminates the gap between the fence and router bit. This prevents the workpiece from getting pulled into the fence just before the router bit. Moreover, a zero clearance setting achieves a cleaner cut because the subfence supports the workpiece fibers. If a true zero clearance setting is desired, follow these steps:

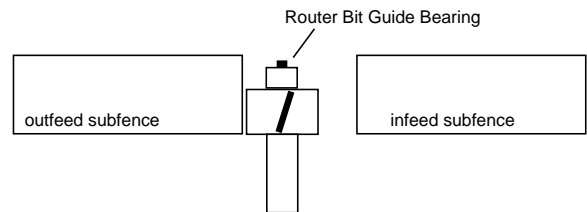
1. Adjust the bit height and fence position. Note: the subfences must NOT contact the router bit at this time.
2. Install the bit guard and secure.
4. Start router, and use dust collection. From the back of the fence, slightly loosen the subfence knobs and carefully slide the infeed subfence into the spinning router bit. Hold onto the subfence knobs.
5. After the subfence has reached the guide bearing of the router bit, fully tighten the knobs on the subfence. Note: If the bit does not have a guide bearing (i.e. vertical raised panel bits), slide the subfence half-way into the bit, then tighten the subfence knobs.



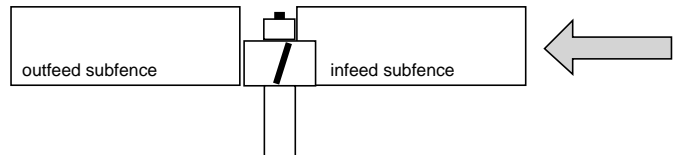
Caution: Never adjust or slide the subfences from the front! Always work from the back with both hands on the adjustment knobs.



The infeed subfence is wide open, and the outfeed subfence is set to "close".



Here the infeed subfence has been adjusted to zero clearance.



Important Notes:

The outfeed subfence is rarely set to zero clearance, because doing so has little performance benefit and can damage the subfence. A "close" setting is more desirable for most applications. Setting the outfeed subfence to zero requires great care because the router bit can cause a portion of the subfence to chip or break. If an outfeed zero clearance is absolutely necessary, slide the outfeed subfence very slowly into the bit to minimize the chipping and tearing.

The subfences can be flipped when changing profiles or bit heights. New, replacement subfences are available when a new profile is to be created or if the subfence cannot be trimmed to provide a fresh edge.

MDF works very well as a subfence because it is softer than most woods and is much less likely to damage expensive router bits. MDF also retains the shape of delicate profiles and thus allows proper support for zero clearance settings.

When adjusting the fence, ensure that no part of the aluminum fence body could contact the router bit.

Jointing

Jointing is the process of making flat, square and straight mating edges. Jointing is necessary when two boards are edge glued to create a larger panel. It is also used to "fit" pieces together, as well as to trim stock to size.

Note: Jointing on a router table is not intended to replace a free-standing power jointer, especially for stock wider than 1.25". However, jointing with the router table does have advantages over the jointer. First, small and short pieces of wood can be safely jointed because the opening of the fence can be made very small: about 1/2". Second, the quality of the cut is usually better because the router bit spins much faster than the jointer's cutter head. A faster cutter speed is especially useful on woods prone to tear-out, like bird's eye maple and quilted cherry. Be sure not to move too slowly, as this will leave burn marks in your workpiece.

Your fence has built-in jointing slots to accept the (2) small aluminum jointer bars that shipped with your router table. Installed in pairs, these bars "shim out" the out feed subfence either 1/32" or 5/64" (2mm).

Set-up the Fence

Unplug router and install a 1/2" diameter straight or spiral up-cut router bit.

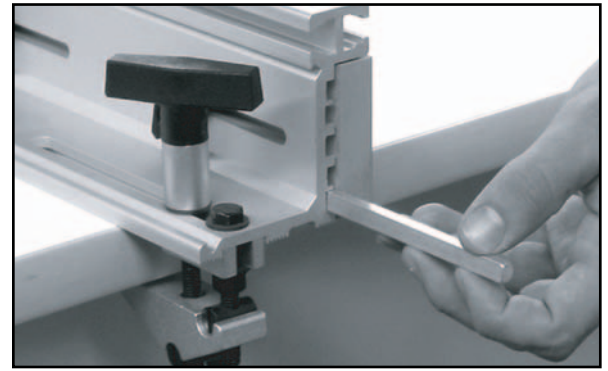
Caution: Use only 1/2" shank bits for jointing. The bit's cutting length must not exceed 1.25". Set the bit height to 1.25" or less.

Loosen the outfeed subfence mounting knobs and slide both aluminum jointer bars (always installed in pairs!) under the outfeed subfence in either the 2nd and 4th slots, or the 1st and 3rd slots (see illustration).

Use a straight edge to adjust the router bit and outfeed subfence to the same plane (see illustration below). Readjust if necessary. Remove straight edge when done.

Slide both subfences toward the bit to decrease the amount of gap around the router bit. Be sure the subfences are not touching the router bit. Also be sure the router bit is not touching the fence's aluminum body. Tighten the subfence knobs and place the bit guard in position.

First make a test cut in scrap stock. Readjust if necessary.

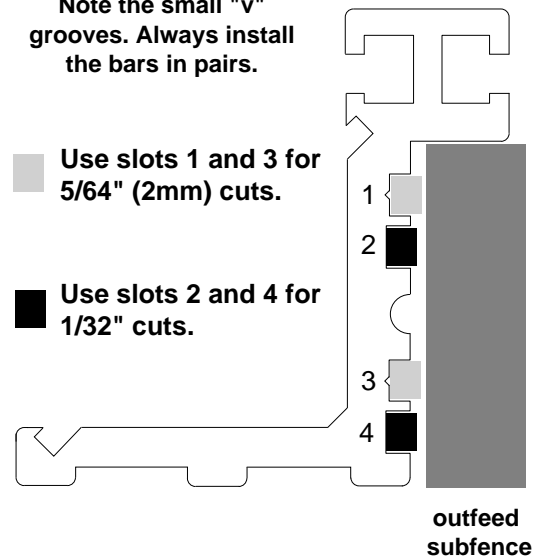


In this photo, the user is sliding the second bar into position. Be sure to tighten the subfence knobs when done!

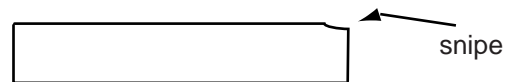
Note the small "v" grooves. Always install the bars in pairs.

Use slots 1 and 3 for 5/64" (2mm) cuts.

Use slots 2 and 4 for 1/32" cuts.



If board "snipe" occurs, realign the out-feed subfence to the router bit. Don't be surprised if it takes a few tries to master this operation.



(Bit guard not shown for clarity, only!)

