

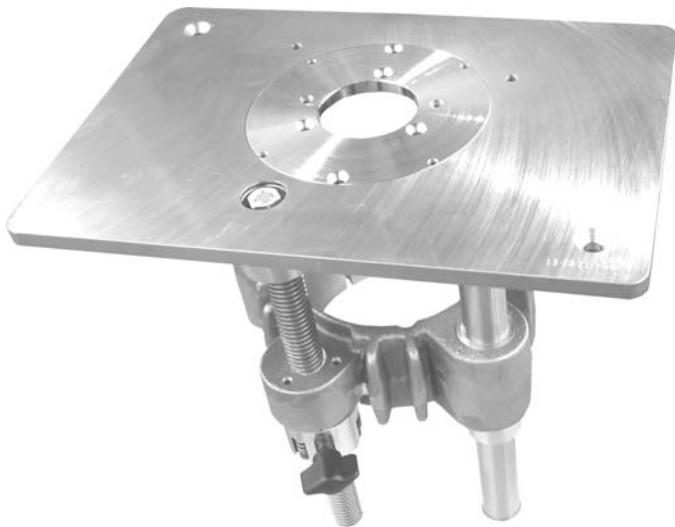
ProLift™

Router Adjustment System

Stock No. 40-016

Thank you for purchasing ProLift. Your ProLift was designed to make adjusting and changing your router bits quick, easy, convenient, and safe. Moreover, you now have the ability to fine adjust your bits, and zero out your setting from any bit height. And remember, all this is done from above the router table!

Be sure to check out the great accessories designed for your ProLift.



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QUESTIONS?

1-800-786-8902

Be sure to check out our web site for all the latest and greatest accessories and tools.

benchdog.com

Owner's Manual

Contents of Box

1	ProLift (partially assembled)
3	cap screws, 1/4-20 x 1-1/2"
2	cross dowels, 1/4-20"
2	split type lock washers, 1/4"
2	flat head mach.screws, 1/4-20 x 1"
1	column locking knob and spring
1	2" reduction ring
1	2.625" reduction ring
1	3.75" reduction ring
13	set screws, #8-32 x 5/16
2	flat head cap screws #8-32 x 5/8"
1	antivibration shim
1	starting pin
1	fine adjustment dial assembly
1	socket for fine adjust. tool (9/16" or 14mm)
1	custom speed wrench
1	hex wrenches .050", 3/32, 5/64, and 3/16"
1	tube, Thread-Lock

Compatibility

Does not fit plunge routers!

For fixed base routers only!

Fits 4.2" diameter router motors. The Porter Cable model 7518 is currently the only 4.2" diameter router motor. Also fits 3.5" diameter (and smaller) motors with our optional adapters, sold separately. See below for details.

Stock No.	Description
40-002	4.2" to 3.5" adapter (Porter Cable 690/890 series, Bosch 1617/18 series, DeWalt 610 and 616/618 series.)
40-003	4.2" to 3.2175" adapter (Makita RF1100/01 series, Hitachi M12VC)
40-078	4.2" to 3.270" adapter (Hitachi M12VC)

IMPORTANT!

The plate on your new ProLift has been treated with an industrial grade electroless nickel plated coating for longer wear. Light scratches and surface blemishes are common, and do not indicate a defective part.

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.

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 DISCLAIMS AND BUYER EXPRESSLY WAIVES ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED CONDITIONS OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR ANY OTHER MATTER.

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. These instructions do not constitute an instruction manual 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 ProLift free handed, only use when mounted in a quality and robust router table.
2. Make sure all power cords are clear of the ProLift components.
3. Your router bits must never contact the router bit reduction rings.
4. Keep work area clean, dry and well lit.
5. The hardware affixing the insert to the routertop must be installed for safe use. Tighten insert hold-down screws before each use.
6. Safe operation requires a router table fence, bit guard, dust collection system, starting pin or fulcrum, and speed reducer for large diameter bits. You must reduce the router speed for 1" or larger diameter bits. Consult your router bit manufacturer for the speed reduction data.
7. Use the right tool for the job. Do not force a tool or attachment to do a job for which it was not designed.
8. Secure your work with a featherboard, clamps, or a vice when appropriate. The use of inappropriate accessories may cause injury.
9. 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.
10. Do not wear gloves or jewelry while using a power tool and ProTop.
11. 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.
12. Disconnect the power before moving, adjusting, or repairing parts, or otherwise maintaining your router table and any accessories you may be using.
13. Keep children, pets, and those who may disregard safety away from work area, cords, sockets and tools.
14. Wear snug fitting clothes and keep long hair back to avoid catching in moving parts.
15. Do not overreach. Maintain balanced footing and stance.
16. 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 Street NE, Mpls., MN 55413 USA, (612) 782-8205 or 1-800-786-8902. On the internet, you may reach us at www.benchdog.com.

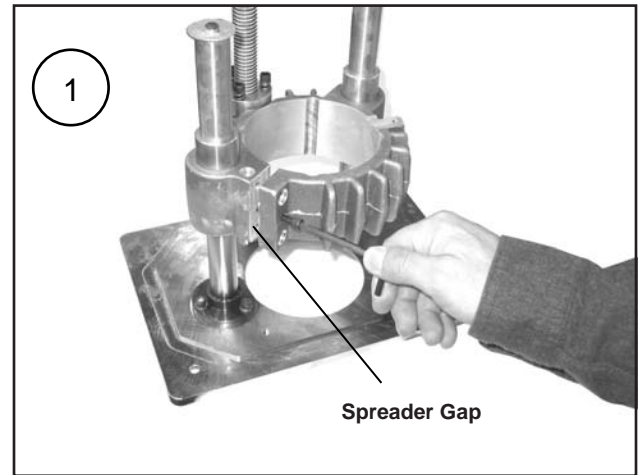
Assembly Instructions

1. Install the middle spreader bolt.

Install a 1/4-20 x 1-1/4" cap screw into the housing's middle hole, as shown. Keep turning in the bolt until you see the housing spread apart a little. In step 3 you will spread the housing until your router motor drops into place.



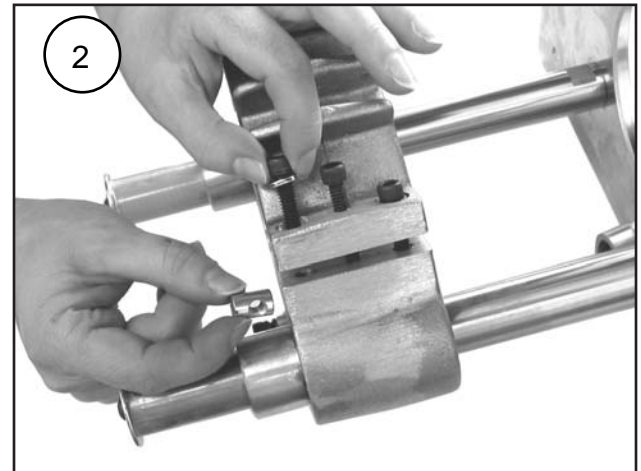
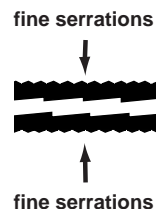
SPREADER GAP NOT TO EXCEED 3/8"!



2. Install the housing clamping bolts.

Install the (2) 1/4-20 x 1-1/4" cap screws, lock washers, and cross dowels, as shown. Only finger start the bolts at this time. Note: the cross dowels must first be installed into the hole. **DO NOT TIGHTEN THESE BOLTS YET!**

This type of lock washer uses two halves for each washer assembly. Position the fine serrations, as shown!

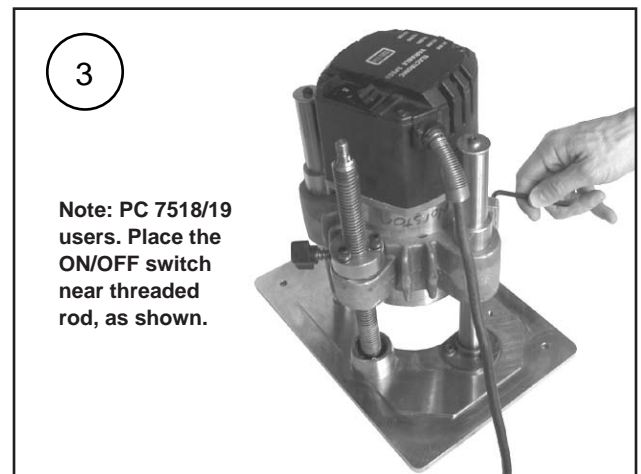


3. Install your router motor.

Slowly tighten the middle bolt to spread apart the housing until your router drops into the housing. Do not overspread the housing! Spreader gap must NOT exceed 3/8". **Important: Porter Cable routers have (4) locating pins. Align these pins with the grooves machined into the ProLift housing (and motor adapters).**

See the Router Adapter Appendix if your router motor is NOT the Porter Cable model 7518/19 (4.2" motor diameter).

Remove the cap screw from the middle hole after your router is positioned in the housing.



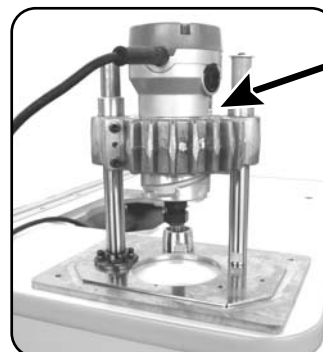
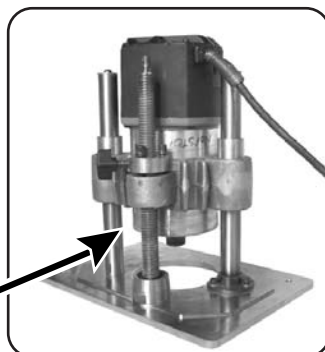
No portion of the router's power cord and related housing must contact any part of the ProLift.



SPREADER GAP NOT TO EXCEED 3/8"!

For PC 7518/19 motors leave approximately 1.5" of protrusion, as shown.

1.5" protrusion



Motor adapters MUST be fully contained inside the ProLift housing!

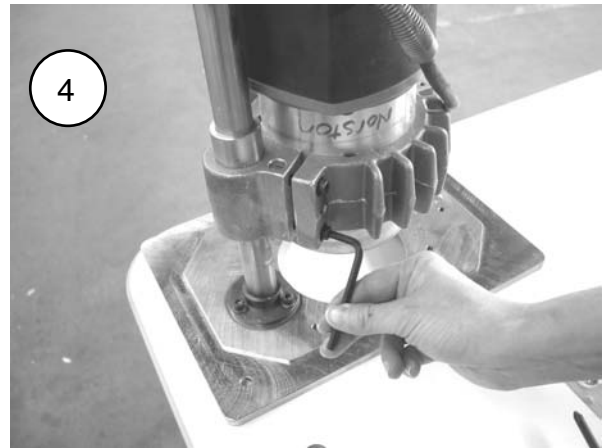
For all router motors smaller than 4.2" in diameter, center the adapter in the housing, as shown. No portion of the adapter should be above or below the ProLift housing. See the Router Adapter Appendix for proper adapter orientation and notes for your specific router.

4. Tighten the motor housing.

Make sure the cap screw from the middle hole has been removed. Tighten the two bolts securely. **Retighten after the first hour of use, and again after the next four hours.**



Remove center bolt before tightening housing!



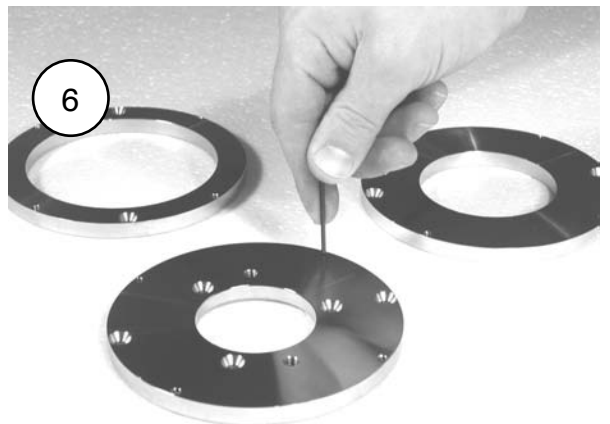
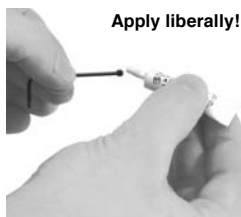
5. Adjust the column.

Now that your router is installed and the motor housing is tight, you must release the tension and misalignments caused by slight variations in router motor diameters. Position the router and housing about half way up the threaded rod, as shown. Next, loosen the (3) cap screws with the 5/32" wrench, and then retighten. **Retighten after the first hour of use, and again after the next four hours.** Note: if any of the bolts should ever become detached, be sure to properly reassemble the washers. See step 2.

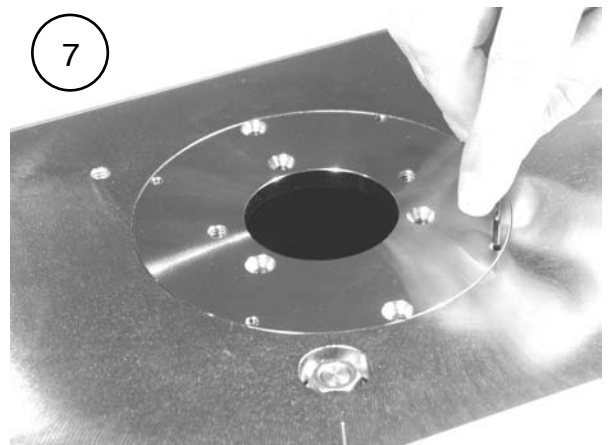


6. Install the reduction ring leveling screws.

The leveling screws require thread lock to prevent unwanted movement. Apply thread lock adhesive to completely cover the threads. Use the (12) #8-32 x 5/16" leveling screws (four for each ring) and 5/64" hex wrench. Turn the screws until they are flush with the bottom surface of the ring.

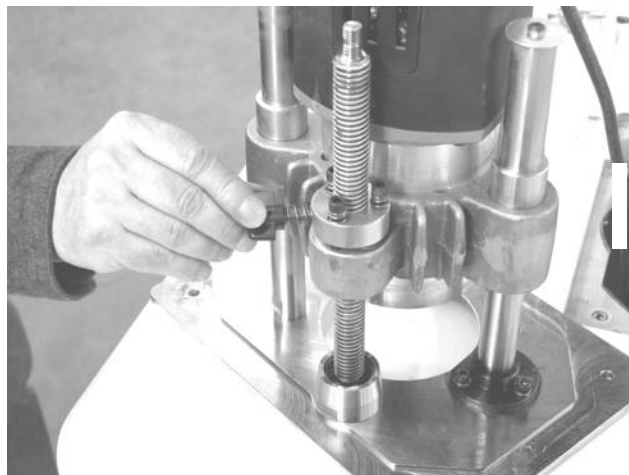


7. Once the thread lock adhesive is set up, adjust the screws to level the reduction rings. Minimum set-up time for the thread lock adhesive is about 10 minutes. It fully cures in 24 hours. If the screws loosen simply reapply the thread lock.



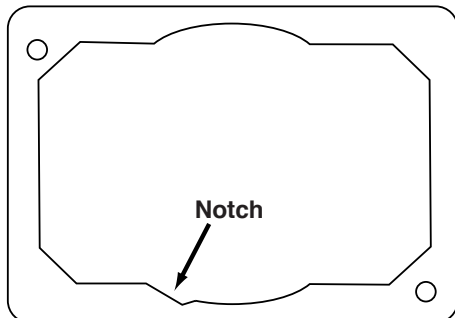
8. Install the column lock knob.

Use the t-knob with brass stud and spring.

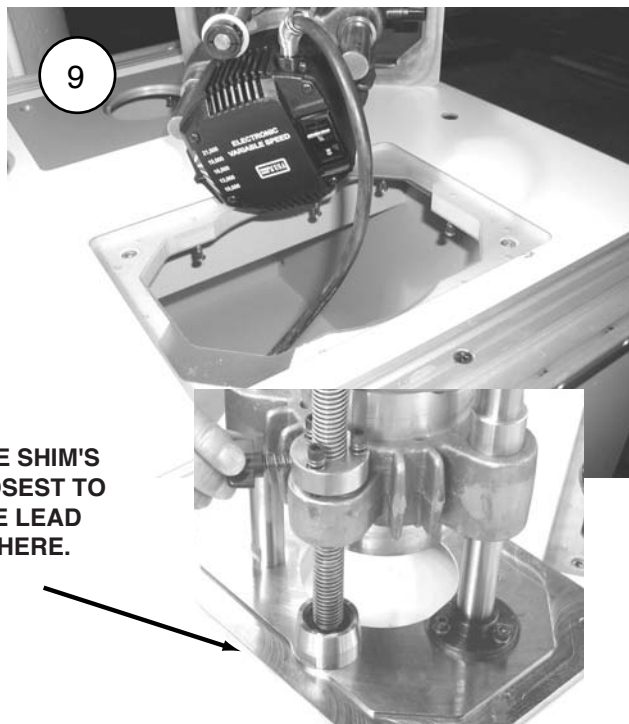


9. Install ProLift into your router table.

Always use the plastic antivibration shim between your ProLift and the router table (leveling screws). If your ProLift sits proud of your Bench Dog brand router table, be sure that all the leveling screws in the router table are backed off, and that any mounds of material are sanded smooth.

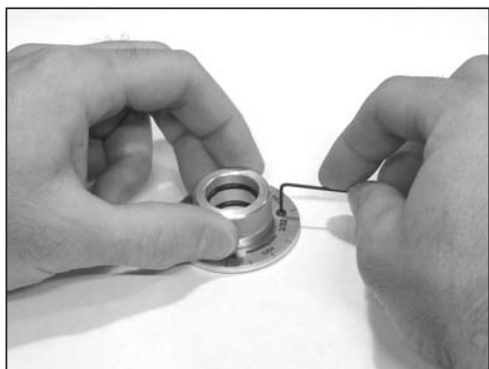


ORIENT THE SHIM'S NOTCH CLOSEST TO THE ACME LEAD SCREW, HERE.



10. Assemble the fine adjustment tool.

Follow the instructions below.



A. Install graduated dial.

Peel away the protective plastic film and attach the dial to the aluminum housing using the (2) small screws and the .050" hex wrench.



B. Install o-rings.

Install the (2) o-rings into the inner grooves, as shown. These o-rings hold the adjustment socket in place. You may need a little grease to help the socket into place.



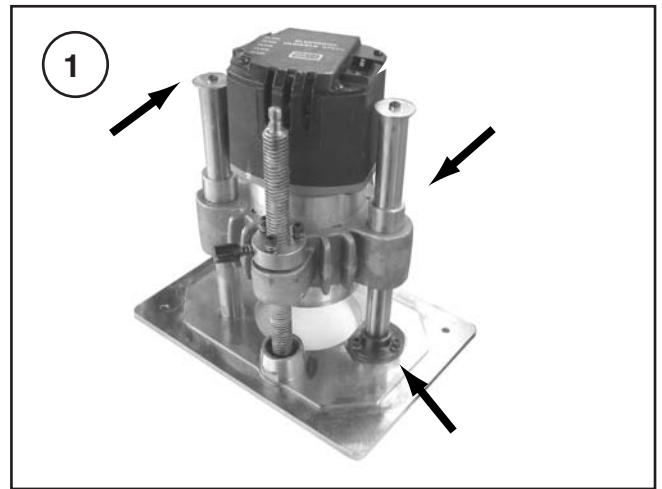
C. Attach the anti-friction ring.

Remove the protective paper backing and stick the ring to the bottom of the adjuster, as shown. This will prevent the adjuster from scratching your ProLift.

Maintaining Your ProLift.

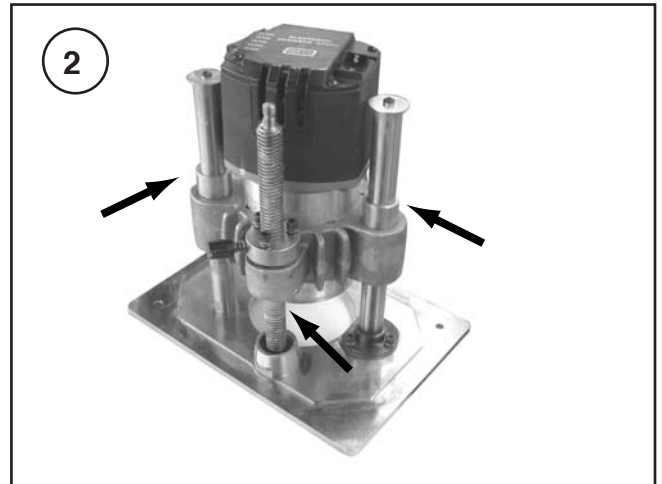
1. Tighten bolts.

During the break in period you must retighten all the bolts after one hour, and again after four more hours of use. Periodically check all bolts to ensure they are tight, especially the (3) column mounting bolts and (2) router motor housing bolts. This should be done at least every 20 hours of use.



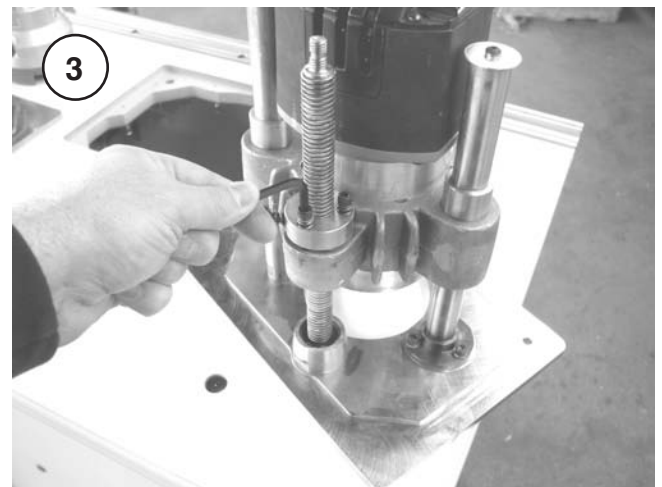
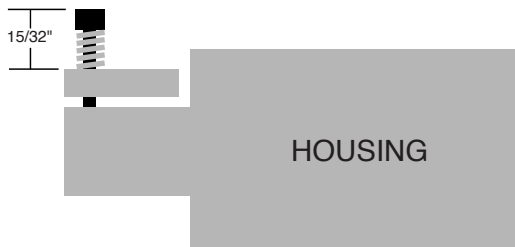
2. Grease.

At least once a year (more if needed) remove the grease from the columns and acme threaded rod. WD-40 and a brush will make the job easier. Reapply a good quality multi-purpose grease (such as white lithium) to the acme rod and columns. Wipe off excess grease. Keeping up with this step will greatly increase the life of your ProLift.



3. Backlash adjustment.

After a fair amount of wear the anti-backlash nut may need adjustment. If your router back drives downward you know it's time to adjust the preload nut. To do so, simply tighten the three preload screws 1/4 turn. Factory setting for the preload nut is 15/32". See the illustration below.



4. Clean your router (no photo shown).

Use an air hose or vacuum to keep your router motor as clean as possible. Built up dust and debris is a fire hazard. Never walk away from your router without confirming it's clean and free from dust and debris and the potential for fire.

5. Dust collection (no photo shown).

Use dust collection. Dust collection in your cabinet and at the fence will dramatically reduce the amount of dust and debris build-up on your ProLift. It will also ensure your router runs cooler, and will make maintaining your ProLift much easier.

Using Your ProLift.

The following instructions are not a substitute for knowing how to use your router table. Please, know and understand how to use a router table before using this product.

1. Adjusting bit height.

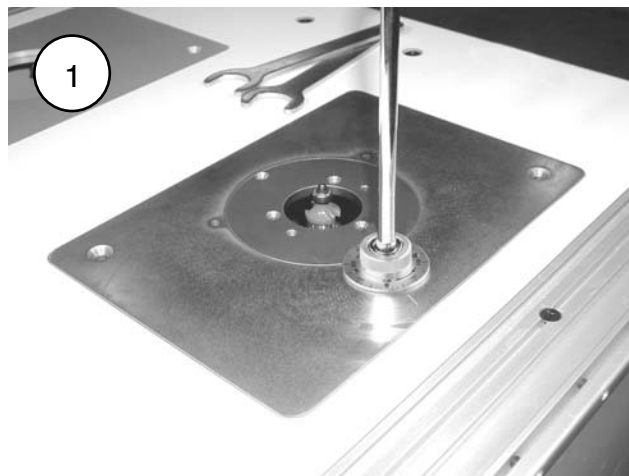
This is done from the top. Use the 9/16" deep well socket and speed wrench. Turning the socket clockwise will raise the router.



Do not forcefully bottom out ProLift. This will damage the product.

2. Using the fine adjuster.

ProLift allows you to "zero-out" the fine adjuster no matter the height of the bit. To zero out the adjuster, simply take up the socket slack in the direction you're planning to rotate, and then spin the fine adjuster around the socket until the zero lines up with the engraved line on the plate. The socket must not turn during the step. One revolution raises or lowers the lift exactly 1/8". The seven short engravings to the left and right of the zero mark represent .0025".



3. Changing router bits.

Change your router bits from above the router table! Simply raise the bit until the motor protrudes out the top. Remove the router bit reduction ring hold down screws, if installed.



Unplug your router before changing router bits!

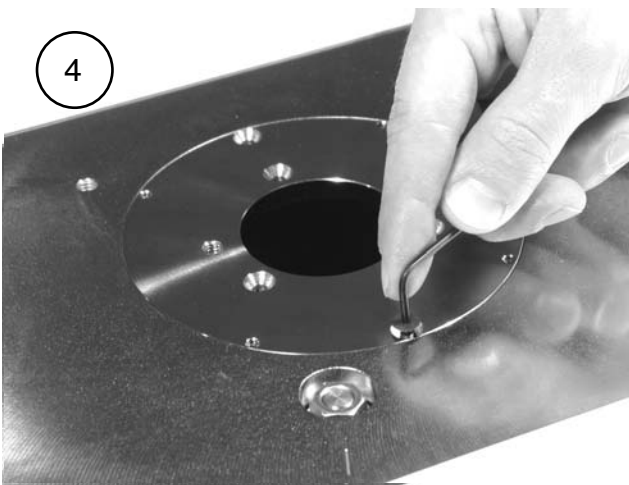


4. Selecting router bit reduction rings.

ProLift Ni comes with three steel rings, 2", 2.625", and 3.75". Use the ring that most closely matches your router bit diameter. You must use the (2) ring hold down screws when using the starting pin (included), Porter Cable guide bushing adapter (optional), and zero clearance insert (optional). These screws prevent the rings from lifting or rotating.



Confirm that your router bits do NOT contact the reduction rings!

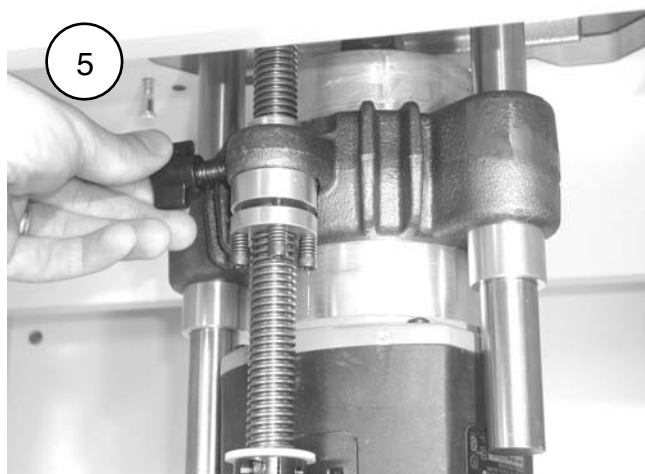


5. Using the column lock knob.

The column lock is used to preserve your setting from accidental movement, and to prevent backdriving during extreme vibration. The column lock will also prevent backdriving even if your preload nut is out of adjustment or worn out. Use of the column lock is also recommended when using the tool for extended periods of time at full speed.



Always disengage the column lock before attempting to adjust ProLift.

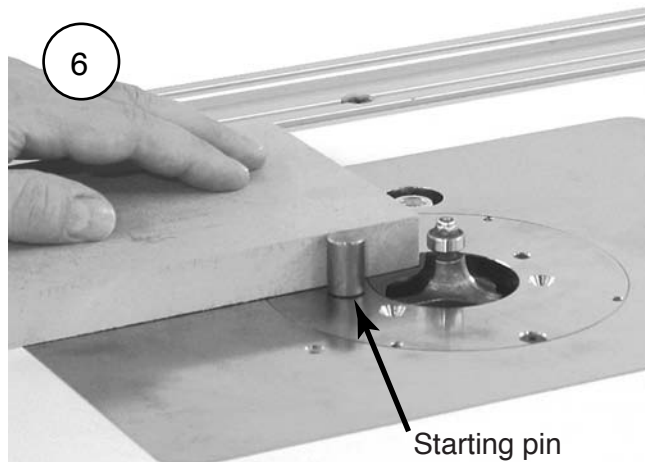


6. Using the starting pin.

Depending on which reduction ring you have installed, you have up to four locations to install the starting pin. The starting pin acts as a fulcrum for gaining leverage during the beginning of your cut. At the beginning of your cut, before your stock engages the router bit guide bearing, the stock is most vulnerable to catching the bit and being thrown. Use of a starting pin greatly reduces this possibility. Be sure the pin is screwed in tightly before use.



Always use ProGuard (sold separately) when freehand routing. Shown without guard for clarity of starting pin location.



7. Using the ProGuard option.

Always use ProGuard for free hand routing. ProGuard protects your hands, serves as a starting pin, and has an integrated dust collection port for 2.5" Shop-Vac style hose. See your retailer for availability, or call Bench Dog at 1-800-786-8902.



ProLift Options

ProGuard™
Multipurpose Freehand Accessory

Stock No.
40-022

ProGuard
Multipurpose freehand routing accessory. ProGuard is a bit guard, starting pin/fulcrum, and dust collection port.



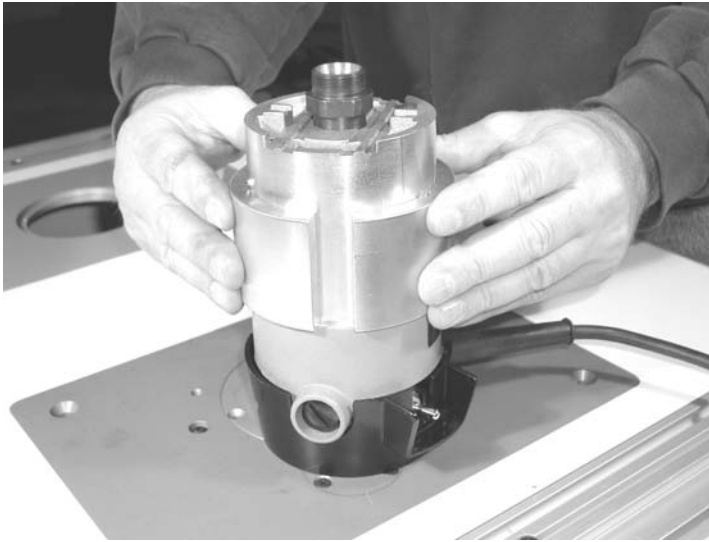
Stock No. 40-039
Zero Clearance Insert
The zero clearance insert option attaches to the 2" ProLift insert ring.



Stock No. 40-015
Porter Cable Guide Bushing Adapter w/ Centering Cone
This adapter attaches to the 2" ProLift insert ring. Includes centering cone for set-up accuracy.

Router Adapter Appendix

Routers with motor diameters **SMALLER** than 4.2" require the proper adapter. Find your router model number below, and be sure to read any special notes that apply. Confirm that your adapter matches the Stock No. listed.



Porter Cable 690/890 series, Bosch 1617/18 series, DeWalt 610, 616/618 Series.

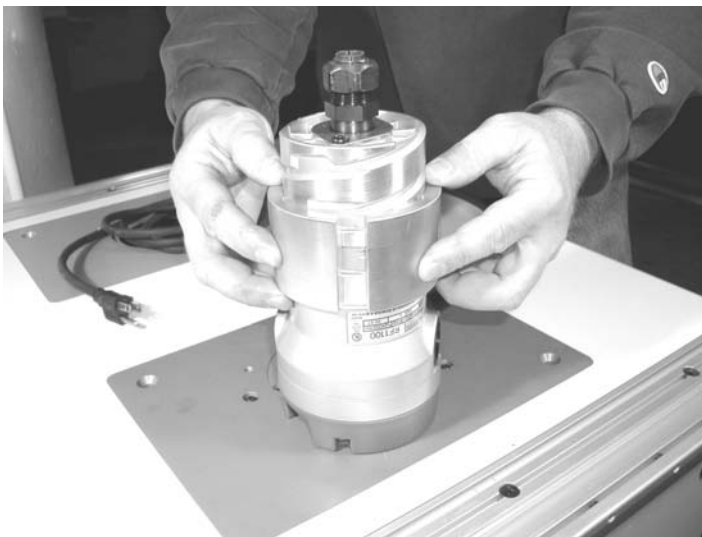
Use adapter Stock No. 40-002

Note - Porter Cable 890 series routers:
You must first remove the factory height adjustment rack from the motor housing.

Note - DW610 routers:
You must first remove the factory height adjustment rack from the motor housing. Also, be sure to use the factory supplied stainless steel shim that wraps around the motor housing. Make sure there are no kinks in the shim before placing the adapters around the motor.



Do not align the two gaps in adapter with the spreader gap in the ProLift housing!



Makita RF1100 Series

Use adapter Stock No. 40-003



Do not align the two gaps in adapter with the spreader gap in the ProLift housing!