

MLCS

Marvel 60 & 62 Router instructions

**TO AVOID CONFUSION DURING INSTALLATION
follow steps 1 through 5 listed below**

- Step 1. Remove pages 2 through 6 from book**
- Step 2. Remove your router install pages**
- Step 3. Return extra pages to box**
- Step 4. For smoothest plunging action purchase
STP® before installation. SEE PAGE 3**
- Step 5. See page 2 for parts diagram**

Router Install Pages

MLCS Marvel 60* **7-8-9*

MLCS Marvel 62* **10-11-12*

For Parts or Installation Assistance Contact

**MLCS Woodworking
1-800-533-9298
mlcswoodworking.com**

METRIC EQUIVILANTS FOR INTERNATIONAL CUSTOMERS

Note: The following metric drill bit or wrench sizes may be substituted for all operations other than drilling hole for #30 Dust Cover Insert.

1/8" = 0.125"	3.20mm = 0.126"
3/32" = 0.093	2.4mm = 0.094
5/32" = 0.156"	no metric equivalent, this hole must be drilled to 5/32"
7/32" = 0.218"	5.5mm = 0.216"
5/16" = 0.312"	8.0mm = 0.315
21/64" = 0.328"	8.3mm = 0.326" or 8.5mm = 0.334"
1/2" = 0.500"	12.8mm = 0.503 or 13mm = 0.511
11/16" = 0.687"	17.5mm = 0.689" or 18mm = 0.708"
3/4" = 0.750"	19.0mm = 0.748

30 Dust Cover Insert must be 0.500" use a 12.5mm bit and sand hole to fit cover. 12.5mm = 0.492"

This instruction manual covers several different makes and models of plunge routers. The instructions are written for a person with some mechanical ability. If you understand the parts and operation of a plunge router, installing the Router Raizer is not difficult. Before beginning installation compare the illustrations and photos to your router, original subbase or router table insert plate. Understand the location and function of both original and Router Raizer parts. Keep all spare parts, instruction manual and templates for future reference.

Responsibility of the Owner

Important: Read, understand and follow instructions to avoid personal injury.

1. The responsibility of the owner is to follow the instructions, cautions, and warnings bellow and in the instructions
2. Know and understand the location of both original and Router Raizer parts.
3. Follow all the assembly instructions carefully.
4. Correctly adjust the components making sure the plunge action is smooth and plunge lock operates properly.
5. Carefully read and follow all notes, tips, cautions and warnings.
6. Make sure all operators of the Router Raizer know how to correctly use it.

Caution: Before and during installation of Router Raizer make sure power switch is in the off position and tool is disconnected from power source to avoid accidental starting of the tool which may result in personal injury.

Caution: Always make sure router power switch is in the off position and disconnected from power source before and during any adjustments to the router or Router Raizer.

Warning: Never remove or reinstall #31 dust cover or make any depth of cut adjustments from either end of #1 mainshaft until router power switch is off, cutting tool has completely stopped rotating and tool is disconnected from power source.

Caution: Always secure plunge lock before and during routing operations.

ROUTER TECHNOLOGIES LIMITED TWO YEAR WARRANTY

Router Technologies warrants the Router Raizer to be free from defects in material and workmanship for a period of Two (2) Years from the original date of purchase to original owner. Our responsibility under this warranty is to replace, at no cost, any part which upon inspection at our facility is found to be defective in either material or workmanship. This warranty does not imply that the product is fit for a particular use or application, this warranty does not apply to parts which have been modified, altered, misused, damaged by improper storage. It also does not cover loss of parts during use, or mechanical adjustments which are covered in the instruction manual. In no event shall Router - Technologies be liable for any indirect, incidental or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.

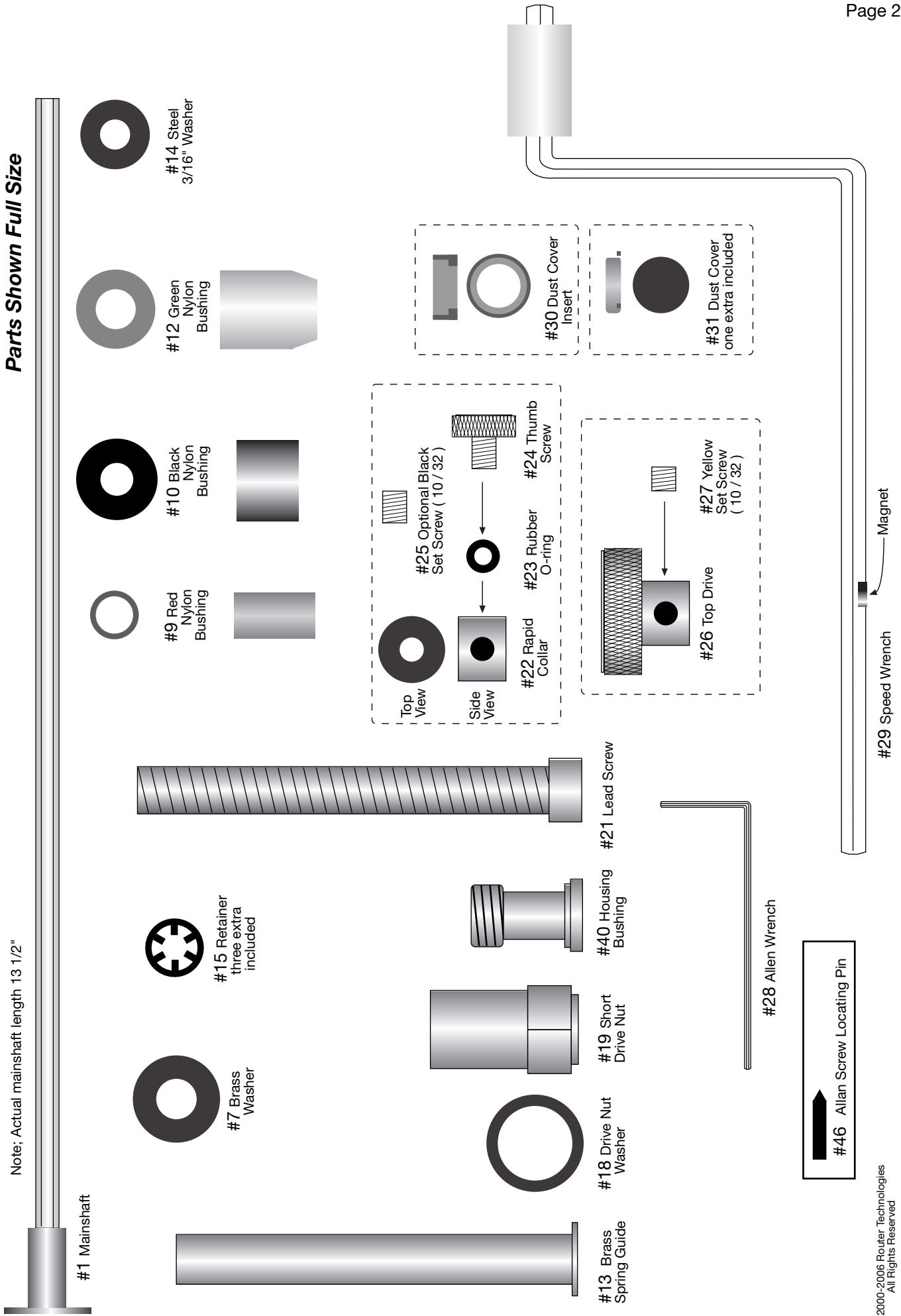
This warranty is your only remedy and parts are to be returned prepaid to our facility for inspection at Router Technologies, 2729 Delaware Ave, Des Moines, IA. 50317.
This warranty gives you specific legal rights, and you may have other rights which may vary from state to state. Any legal actions must be brought in Polk County Iowa.

Caution: Before and during installation of Router Raizer make sure power switch is in the off position and tool is disconnected from power source to avoid accidental starting of the tool which may result in personal injury.

MLCS Marvel Parts Diagram

Parts Shown Full Size

Note: Actual mainshaft length 13 1/2"



1. Remove Pages From Book

Before installation please remove the pages required for your router from this book.
Failure to do so can result in referring to the wrong page, confusion and damaged parts!

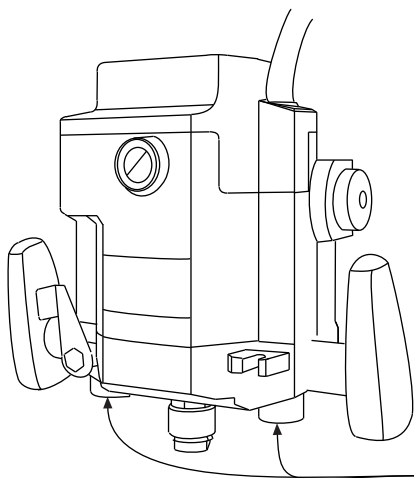
2. Installation

The Router Raizer is designed to make the plunge router easy and enjoyable to adjust. It may appear to be complex and difficult to install, but the plunge router is an easy tool to disassemble and reassemble. Allow approximately 1 1/2 hours for installation.

3. Multiple Parts (After installation you will have extra parts)

This kit contains parts for all MLCS Marvel routers. Each instruction page lists the parts required for installation into that router. We advise keeping and storing all the extra parts and instructions.

4. STP® for Lubricating The Plunging Action (All Plunge Routers)



For maximum performance and smoothest plunging action all plunge posts require a light film of lubrication. We only recommend using STP® MOTOR OIL TREATMENT.

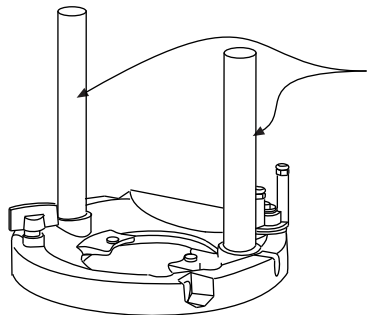
Before beginning the installation please purchase a bottle of STP®. Apply a light film to the posts and inside the post bushings just before reassembling the router.

1. Install the Router Raizer components into the base and motor housing of the router.
2. Before reinstalling the motor housing onto the base, use a Q tip, brush or little finger to apply a film of STP® to the inside of both post bushings and the outside of both plunge posts.

NOTE: STP® on the posts can attract dust, but the lubricating properties are not affected. Periodically wiping the posts clean and reapplying STP® to the posts only will keep the router operating smoothly.

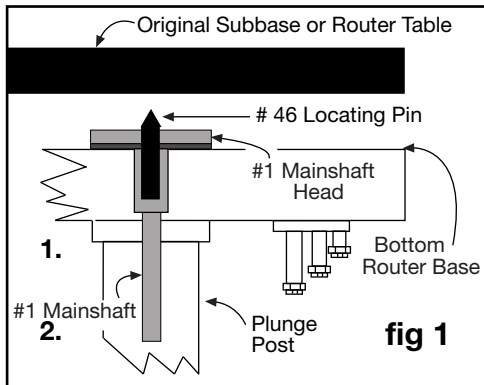
Post Bushings Apply light film on the inside surface of both post bushings.

Plunge Posts Apply light film to the outside surface of both plunge posts.



Using the #46 Locating Pin

Use this pin to simplify locating the Router Raizer access hole required through the original subbase or router table.



Locating Hole in Original Subbase

Using fig 1 support router upside down on bench and place locating pin into bottom of #1 mainshaft head. Secure subbase to router base gently tightening screws. Using a hammer gently tap the subbase over the pin. Remove subbase and drill hole on center punch mark using the Router Raizer template instructions.

Locating Hole in Router Table

If your router table is already drilled to mount the router, use above step using table or insert plate in place of original subbase.

If your router table or insert plate have not been drilled use the provided paper template or original subbase to first locate and drill the router mounting holes, then use #46 locating pin to drill Router Raizer access hole.

NOTE: For highest accuracy, the locating pins point should just project above the #1 mainshaft head. Shorten the pin to desired length by securing pointed end of locating pin in jaws of cordless or electric drill. Grind but end of pin off and debur ground end. Cool pin before removing from chuck jaws!

Preparing and Drilling Router Table Top

NOTE: All installations require a 1/2" diameter hole drilled through the top of your router table top or insert plate to accept the #30 dust cover insert

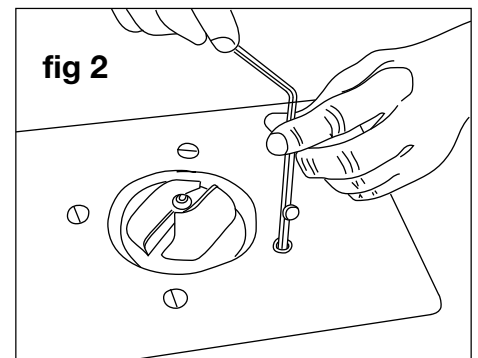
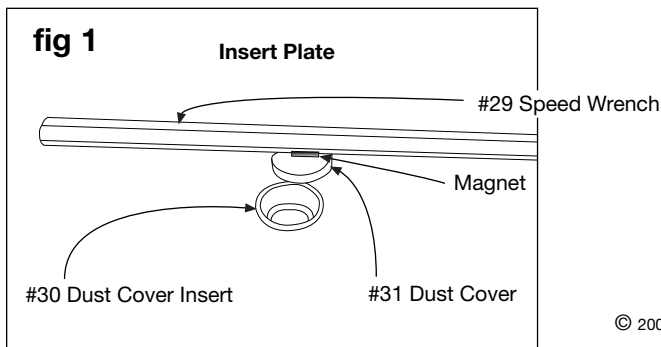
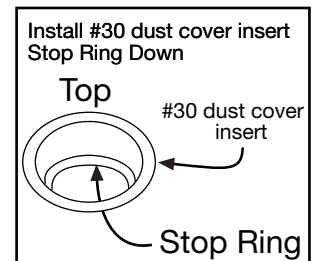
Installing #30 Dust Cover Insert and #31 Dust Cover

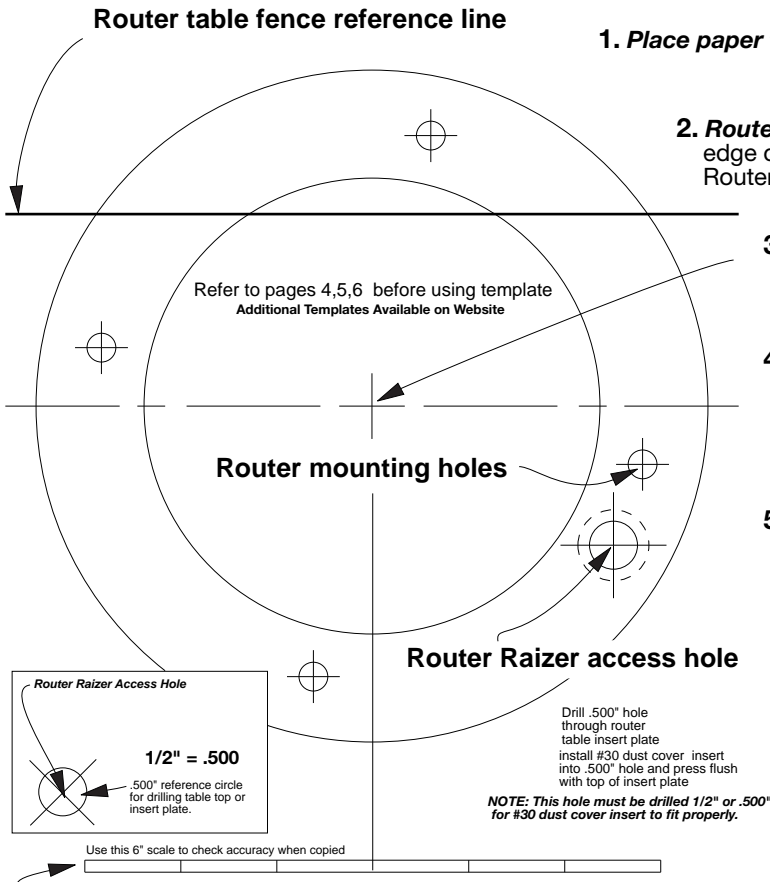
- Using (fig 1) select #30 dust cover insert (1/2" dia, X 3/16" tall, turned aluminum ring) and #31 dust cover (3/8" dia. X 1/8" thick stamped steel plug) From top of insert plate, press #30 cover insert into the 1/2" Router Raizer access hole until flush.

Tip: If cover insert fits loosely, secure with drop of Super Glue® or Krazy Glue®.

- Mount router to insert plate and install into table

- Place #31 dust cover into #30 dust cover insert. Using (fig's 1 & 2) remove #30 dust cover with magnet on back of #29 speed wrench. With dust cover on speed wrench, insert wrench to make adjustments. To reinstall dust cover, place cover into insert and slide wrench away. **Caution: Remove dust cover with speed wrench before removing router from table or cleaning table with vacuum sweeper.**





1. Place paper template lettering up onto top side of router table or inset plate.

2. Router table fence reference line. Setting this line parallel with the back edge of the router table or inset plate positions the router so the Router Raizer access hole will be drilled out in front of the fence.

3. Center cross hairs. Accurately center this point in the hole of the router table or inset plate, using a pencil compass or tape measure. Tape in place and recheck before drilling holes.

4. Router mounting holes. For highest accuracy place the routers original subbase over the templates router mounting holes and tape subbase down. Use a Vix bit, center punch or drill bit to transfer holes to the router table or insert.

5. Router Raizer access hole. Use page 4 and # 46 locating pin to accurately mark the access hole location

WARNING: A 1/2" HOLE IS REQUIRED IN THE TABLE TOP TO ACCEPT THE #30 DUST COVER INSERT.

IF ORIGINAL SUBBASE IS USED BETWEEN ROUTER AND TABLE TOP USE #46 LOCATING PIN THEN DRILL 3/8" HOLE THROUGH ORIGINAL SUBBASE.

Drill .500" hole through router table insert plate install #30 dust cover insert into .500" hole and press flush with top of insert plate

NOTE: This hole must be drilled 1/2" or .500" for #30 dust cover insert to fit properly.

Use this 6" scale to check accuracy when copied

6" Scale. If template is copied or downloaded from web site, use this scale to accurately check template size.

Troubleshooting

Problem	Cause	Solution
Router Raizer will not raise or lower the router	#19 or #20 Drive nut loose	The drive nut cannot rotate, Retighten the drive nut on router.
	Router plunge posts dry	Clean posts and lubricate with STP® MOTOR OIL TREATMENT
Router Raizer Speed Wrench turns hard	#21 lead screw has no lubrication	Re lubricate using supplied red grease or heavy wheel bearing grease.
	Router plunge posts dry	Clean posts and lubricate with STP® MOTOR OIL TREATMENT
Router Raizer will not raise router high enough	Turret stop on router improperly set	Locate rotating turret stop on base of router and adjustable stop directly above. Adjustable stop must be retracted as high as possible. Turret stop must be rotated so shortest post is under adjustable stop.
	Reached maximum plunge depth of router	All plunge routers have a predetermined plunge stroke, the Router-Raizer will not increase this stroke. With router fully compressed-check amount of plunge post still visible. 1/16" to 1/4" post should be visible. If more than 1/16" to 1/4" of post is visible, Call 1-866-266-1293 Addition of a collet extension is required to safely run some bits.
Router becomes harder to raise and lower	Router plunge posts dry	Clean posts and lubricate with STP® MOTOR OIL TREATMENT

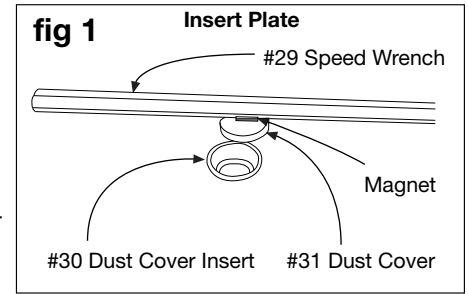
Caution: Always make sure router switch is in the off position, and tool is disconnected from power source when performing maintenance or making any adjustments to either the router or height adjustments to avoid accidental starting of tool which may result in personal injury.

Using in a Router Table

Dust Cover Insert and Dust Cover

The dust cover insert and dust cover allow easy adjustment access to the Router Raizer mainshaft and restricts dust and debris infiltration during use. A small magnet is recessed into speed wrench handle to remove and hold the dust cover during adjustments.

- 1. Removing dust cover:** Using (fig 1) place #29 speed wrench over #31 dust cover, lift speed-wrench to remove dust cover. Leave dust cover on wrench while making height adjustments.
- 2. Replacing dust cover:** Position speed wrench with dust cover over the insert, press cover into insert and swipe wrench away leaving the dust cover in the insert.



- 3. Always remove #31 dust cover before removing router and insert from table. Or cleaning table with vacuum sweeper**
Warning: Never remove the dust cover while the router is running. Always wait until the bit has stopped spinning.

- 4. Rapid collar positioning:** The rapid collar is for hand held use only, for router table use position collar against retainer clips and top drive (fig 2). Secure with #24 thumb screw or optional #25 black set screw.

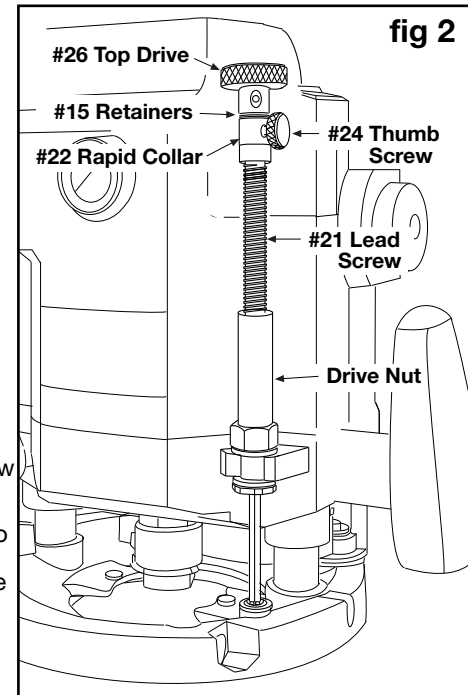
Using Handheld

When used hand-held the hex shaped #1 mainshaft provides a constant engagement of the Router Raizer mechanism, allowing easy height adjustments while retaining original plunge capabilities and all other original functions of the router.

- Height adjustments can be made from either end of the router. To adjust from the base, engage #29 speed wrench into the head of #1 mainshaft. To adjust from the top, engage #29 speed wrench into the top of #26 top drive. The knurled #26 top drive also allows adjustments by hand.

The #24 thumb screw and #22 rapid collar allow positioning the cutter to height. bypassing multiple revolutions of the speed wrench

- (fig 2) Illustrates compressing the plunge router with rapid collar locked in the router table position. Insert #29 speed wrench into #26 top drive, or lay router on its side and insert #29 speed wrench into bottom of #1 mainshaft. Rotating the speed wrench will thread #21 lead screw in or out of the drive nut, compressing and un compressing the router.
- (fig 3) Illustrates compressing the plunge router with the rapid collar. Thread #21 lead screw into the drive nut leaving approx 1/2" exposed threads, the router will be un compressed. Secure desired router bit in collet, stand router upright hand plunge to approx desired depth lock plunge lock lever. Release #24 thumb screw and drop rapid collar into contact with #21 lead screw. secure thumb screw and release plunge lock lever. Insert #29 speed wrench into #26 top drive, or lay router on its side and insert #29 speed wrench into bottom of #1 mainshaft and adjust to required depth. Re lock plunge lock before routing. When done release thumb screw and router will quickly return to the un compressed position for easier bit removal.



Caution: #22 rapid collar is not designed to maintain cutter height during routing operations. Always secure plunge lock before and during all routing operations.

- If #24 thumb screw will not provide enough pressure to secure #22 rapid collar, replace thumb screw with #25 optional black set screw and #28 allen wrench.

Direction of Rotation for Adjustment

Adjustments from #26 top drive:

Clockwise rotation Decreases depth of cut. Counterclockwise rotation Increases depth of cut.

Adjustments from #1 Mainshaft Head :

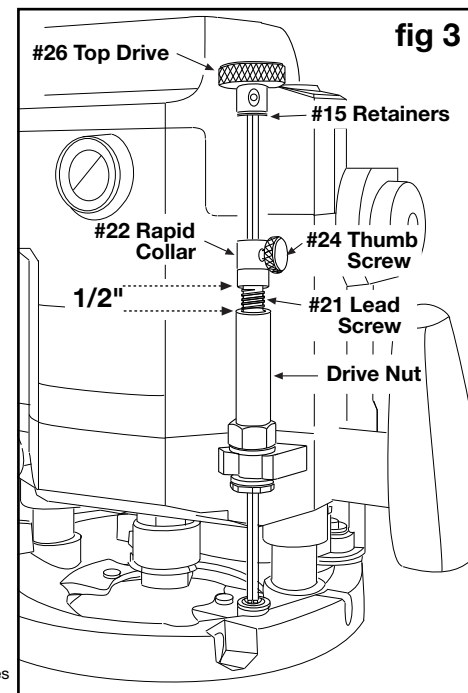
Clockwise rotation Increases depth of cut. Counterclockwise rotation Decreases depth of cut.

One complete rotation of the speedwrench, raises or lowers the bit 1/16"

Caution: Always secure plunge lock during routing operations.

Transporting or Storing Router

To prevent damage to the #1 mainshaft and #21 lead screw, adjust the lead screw leaving 1/2" threads exposed. Grasp router handles, release plunge lock, advance router up until lead screw rapid collar and retainers are all in contact, engage plunge lock.



TOOLS REQUIRED: Phillips screwdriver, straight screwdriver, hammer, 12.8mm or 1/2" and 8mm drill bits.

ROUTER RAIZER PARTS REQUIRED: #1, #7, #9, #10, #12, (#13 for installation tool only), #14, (three of #15) #18, #19, #21, #22, #23, #24, #26, #27, #28, #29, #40

Note: before installation refer to page 26 lead screw update, check parts.

NOTE: Cut #1 mainshaft to 13" overall length and lightly debur cut end.

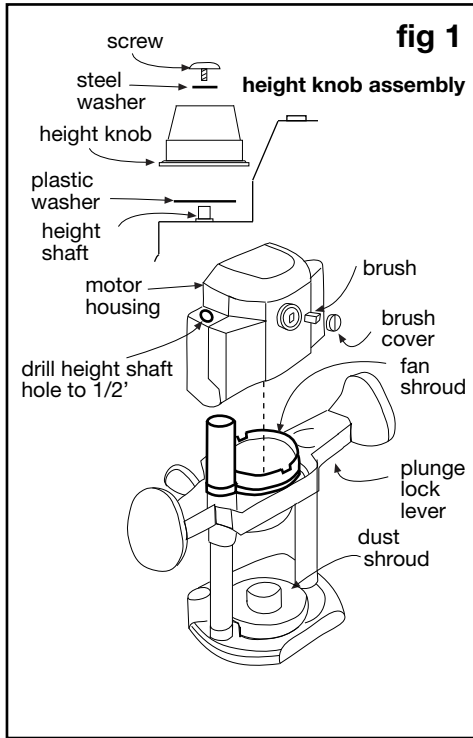


fig 1

1. Remove height knob assembly (fig 1). Remove both brush covers (fig 1) remove brushes one at a time, labeling the top and side of router removed from on each brush.

2. Remove four screws securing lower motor housing (fig 2). Secure the power switch in the on position by wrapping it with tape or a plastic tie strap, to hold it in position when the router is separated. Separate the upper and lower case halves by pulling them apart. No loose parts will fall out., the armature will remain in the bottom housing.

3. Remove subbase (fig 2). Stand bottom housing upright, Using (fig 3) press down black spring cover and remove C clip. Remove black spring cover, spring, and spring bushing. Using a small screwdriver remove internal C clip (fig 4) **NOTE: unthreading height shaft from internal nut improves C clip removal.** Remove internal nut. The pressed plug and plastic spacer in bottom of post must be removed. Place height rod into post, tap with hammer to remove plug. Store plug, plastic spacer, internal nut & height rod, internal C clip, external C clip washers & height knob.

4. Using (fig 3) Remove black spring cover and top spring from the bottom housing. Select 1/2" drill bit and drill. Using fig's (1 & 5) Enlarge height shaft hole in top motor housing and hole in the black spring cover both to 1/2". Select #19 short drive nut #18 drive nut washer #40 housing bushing. Using fig (5) The black spring cover will be secured to the inside of top housing with #40, #18 and #19. Drop #40 housing bushing, threads up onto #1 mainshaft. Using mainshaft as installation tool only, feed small end of mainshaft into bottom of black spring cover

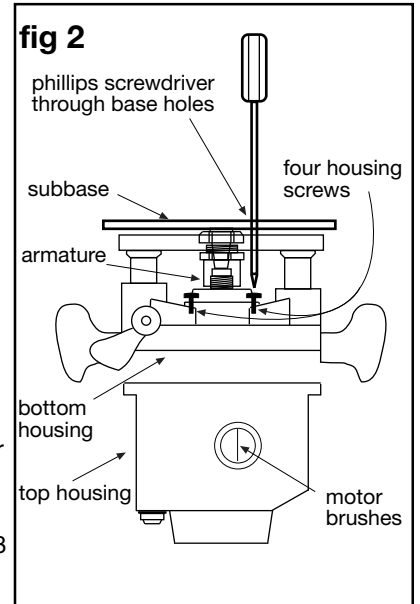


fig 2

up through enlarged 1/2" hole. Feed mainshaft up through 1/2" hole in top motor housing, pull mainshaft until threads on #40 housing bushing are exposed above the top housing. Drop the #18 washer, then #19 drive nut onto the mainshaft. Thread #19 onto #40 housing bushing. Tighten #19 onto #40 using 11/16 wrench (fig 5).

Tip: If nut will not tighten insert flat blade screwdriver into black spring bushing, wedge #40 while tightening the nut. Remove mainshaft.

5. Select #10 black nylon bushing, turn bottom housing upside down, Place plunge post upside down onto block of scrap wood. Drive #10 black bushing into post until flush with bottom of post (fig 5). **NOTE: the black bushing will drive in hard, sanding slight bevel on edge will aid in installing. Do not reduce size of bushing, it must be tight in the post. Use #12 GREEN bushing to drive the black bushing in flush with bottom of the post.** Drill the hole in the black bushing with 8 mm drill bit. #1 mainshaft must spin free when placed into black bushing. Select #1 mainshaft #7 brass washer #9 red bushing #14 3/16 steel washer, one #15 retainer clip #13 hollow spring guide.

6. Place small amount of included red grease onto both sides of #7 brass washer, place washer down #1 mainshaft. Slide mainshaft through #10 black bushing until flush with base. Stand base upright place #9 red bushing first, followed by #14 3/16 steel washer onto #1 mainshaft drop both into the post. Select #13 hollow spring bushing, place #15 retainer clip teeth up onto the top of the mainshaft. Using #13 hollow guide flange up, advance #15 clip down shaft. Place screwdriver or #29 wrench on flange of #13 guide, advance #15 clip into post until tight. #1 Mainshaft should be secure in the base if you can move it back and forth, retighten #15 retainer clip **Remove and store #13 guide.**

7. Place original black spring bushing into top of post, place spring on top of bushing and plastic spring cover over spring. Reassemble housings, aligning mainshaft through the housing bushing. Secure housings with four housing screws. **See other side to finish installation.**

See other side to finish installation.

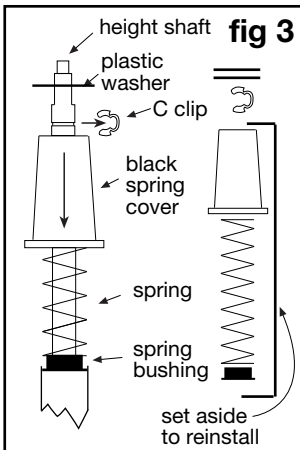


fig 3

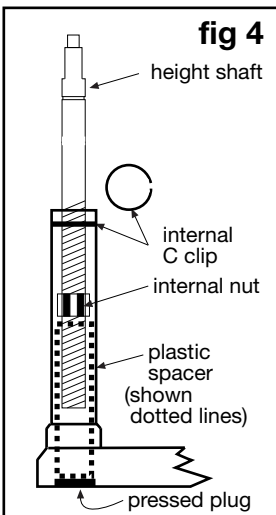


fig 4

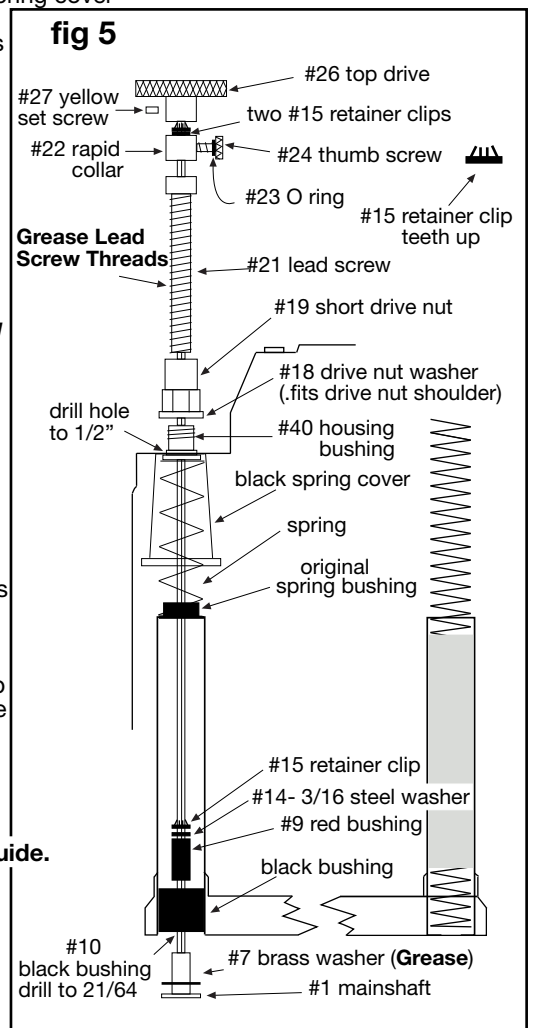
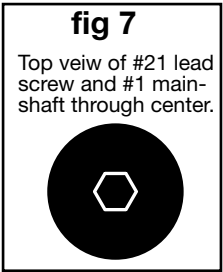


fig 5

8. Select #12 green bushing (Two #15 retainers) #21 lead screw, #22 rapid collar, #23 O-ring, #24 thumb screw, #26 top drive, #27 yellow set screw, #28 Allen wrench, red grease. Using (fig 6) place grease on threads of #21 lead screw, Place lead screw down #1 mainshaft and thread into #19 short nut until one inch of mainshaft extends above the head #21 lead screw. Alignment of #1 mainshaft and #21 screw hex is required (fig 7).
Tip: #29 speed wrench can be used to speed threading.

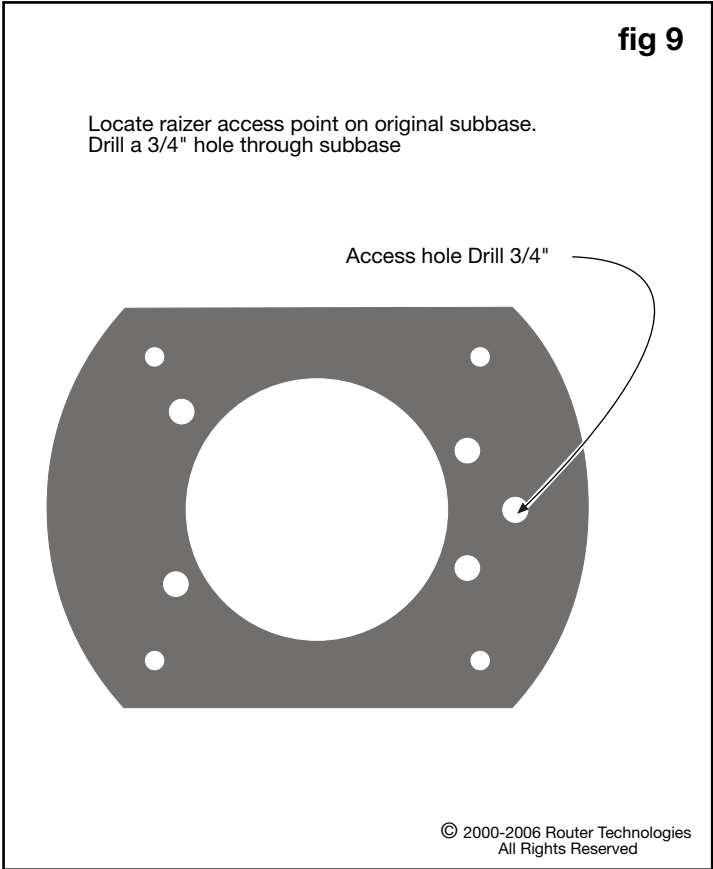
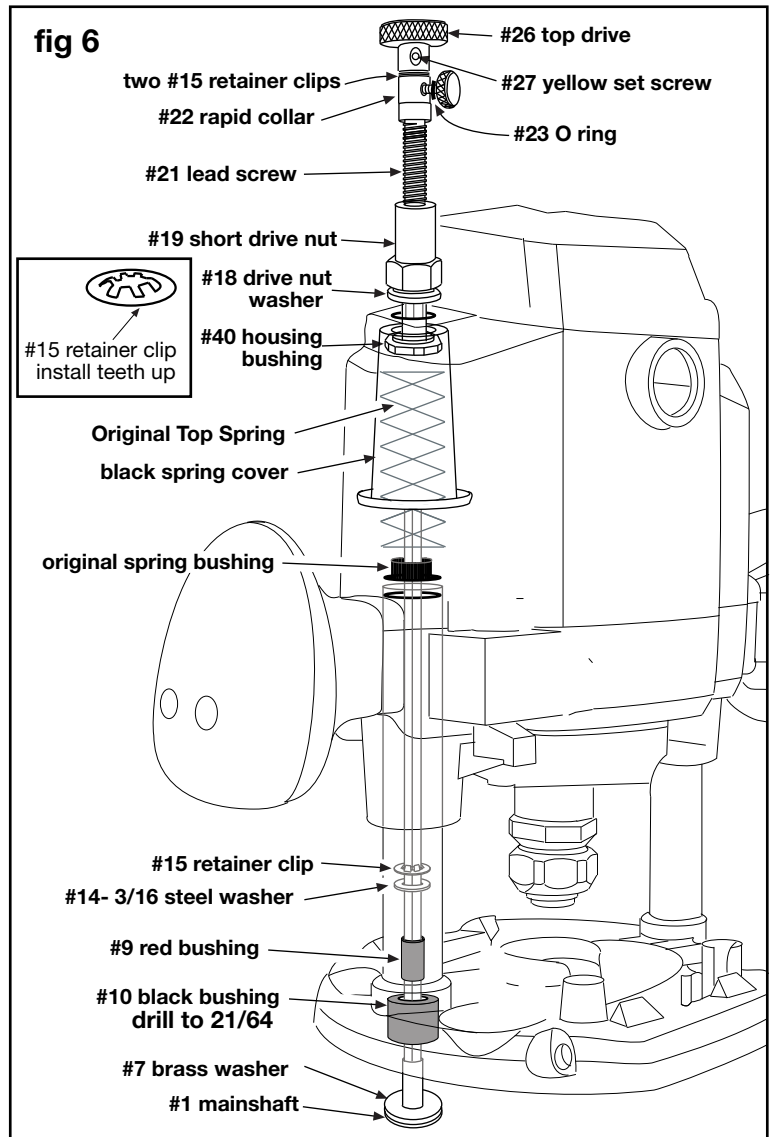
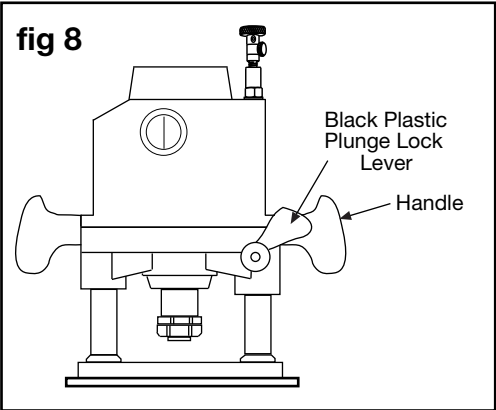


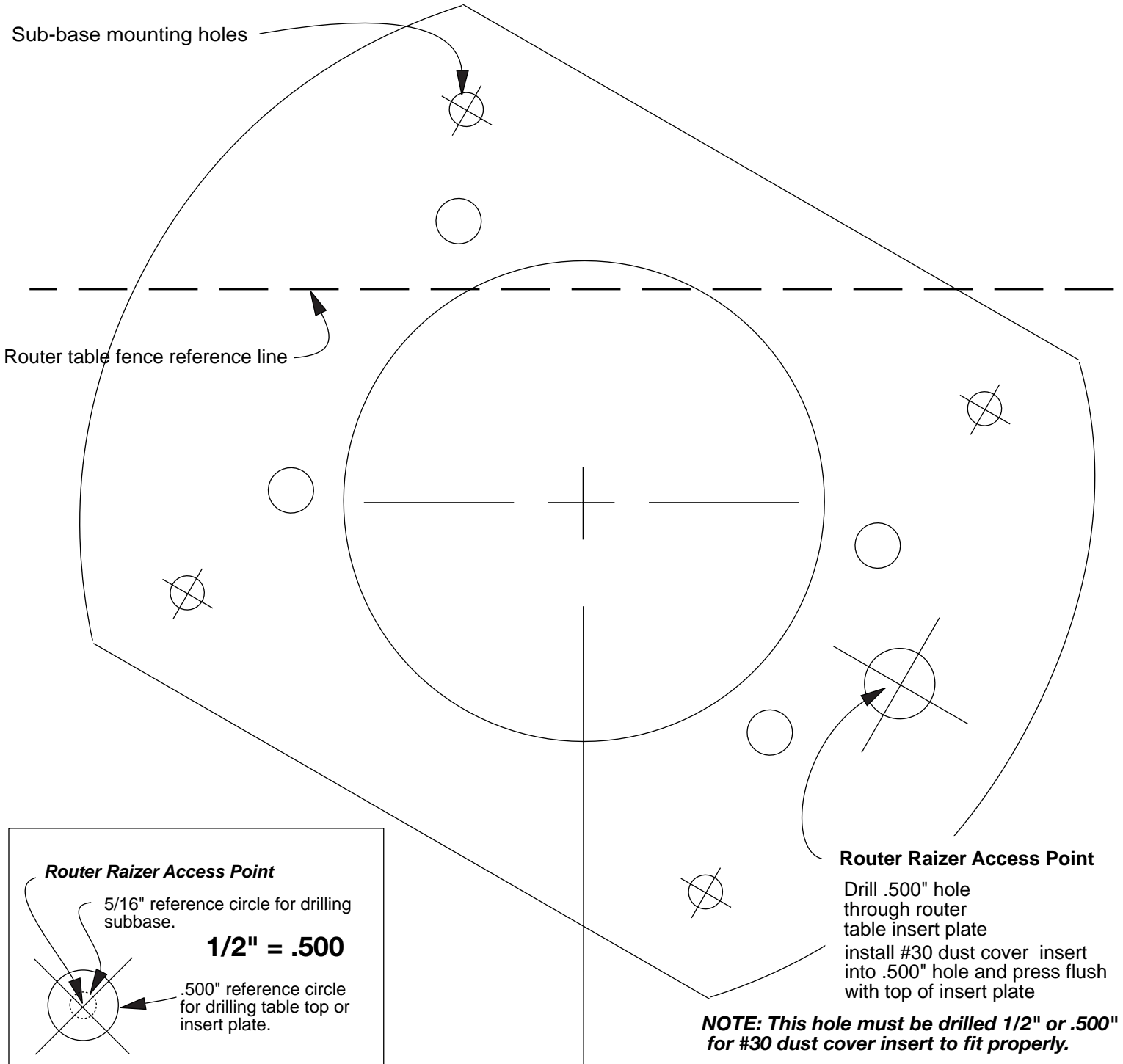
9. Press #23 O-ring onto #24 thumb screw shaft. Thread thumb screw into #22 rapid collar. Place rapid collar onto #1 mainshaft 1/2" from top of mainshaft to top of rapid collar and tighten (fig 6). Release plunge lock and slowly raise the router until lead screw contacts the rapid collar. If the collar moves, reset to 1/2". Place one #15 retainer teeth up on top of #1 mainshaft, using #12 green bushing as installation tool press retainer into contact with collar, repeat with second #15 retainer and press flush with first retainer. **Return #12 green bushing to box.** Place #26 top drive onto #1 mainshaft until it contacts retainer clip, Thread #27 yellow set screw into #26 top drive using #28 allen wrench and tighten. Reinstall motor brushes

10. To ease router raizer adjustments, using fig (8) slide the small tail of the plunge lock lever spring off the aluminum boss, allowing the handle to remain in the unlocked position.

Sub-base Plate or Router Table Insert Plate Installation

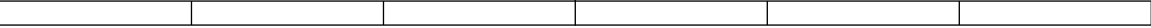
1. Use #46 locating pin to locate the Router Raizer access hole on the original subbase or router table. For detailed instructions see page 4.
2. See pages 4-5-6 for further instruction, #30 dust cover insert and #31 dust cover, are router table only. Drill a 1/2" hole through insert plate at the Raizer access point and press #30 in from top until flush. #31 sets in #30 and is removed during adjustments with magnet on back edge of #29 speed handle. These components keep dust from entering the Router Raizer hex drive.
3. Periodic inspection and re-greasing of #21 lead screw is recommended.





MLCS Marvel 60

Use this 6" scale to check accuracy when copied

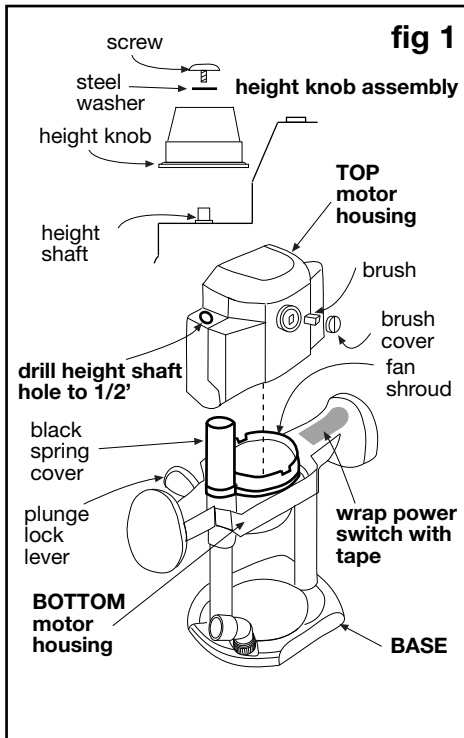


Note: Cross lines for locating and drilling holes are accurate. The illustration of subbase may vary slightly in size and design, but is accurate enough for cutting the rubber gasket if required.

TOOLS REQUIRED: Phillips screwdriver, straight screwdriver, hammer, 1/2" and 5/16" drill bits.

ROUTER RAIZER PARTS REQUIRED: #1, #7, #10, #12, (#13 for installation tool only), #14, (three of #15) #18, #19, #21, #22, #23, #24, #26, #27, #28, #29, #40

1. Use mainshaft full length. DO NOT SHORTEN FOR THIS ROUTER

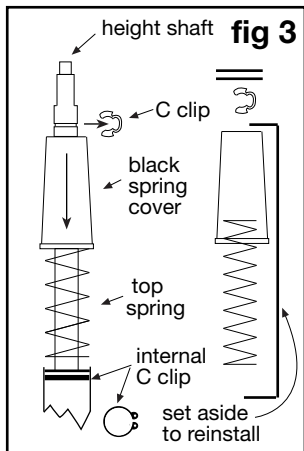
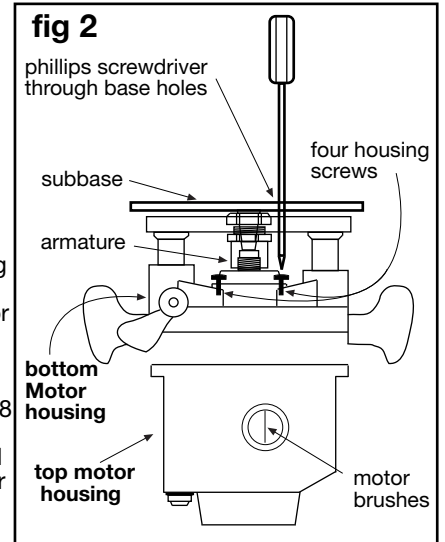


Separating the Motor Housing

- Using (fig 1). Unplug router from power source, place power switch in the on position and secure switch with a nylon tie strap or wrap handle and switch with tape. This step retains the switch mechanism during separation and installation.
- Remove height knob assembly (fig 1). Remove both brush covers (fig 1) remove brushes one at a time, labeling the top and side of router removed from on each brush.
- Locate the stepped turret stop on the base of the router. Directly above is the adjustable stop bar, unlock the bar so it moves up and down freely, then remove the knurled fine adjust screw lock nut and washer from the end of the bar (set aside to reinstall)
- Remove four screws securing bottom motor housing (fig 2). Separate the bottom and top housings by pulling them apart. No loose parts will fall out, the armature will remain in the bottom housing. Retighten step 3 stop bar knob to retain its clamp during install.

Preparing Top Motor Housing

- Using (fig 3) Remove black spring cover and top spring from the bottom housing. Select 1/2" drill bit and drill. Using fig's (1 & 5) Enlarge height shaft hole in top motor housing and hole in the black spring cover both to 1/2". Select #19 short drive nut #18 drive nut washer #40 housing bushing. Using fig (5) The black spring cover will be secured to the inside of top housing with #40, #18 and #19. Drop #40 housing bushing, threads up onto #1 mainshaft. Using mainshaft as installation tool only, feed small end of mainshaft into bottom of black spring cover up through enlarged 1/2" hole. Feed mainshaft up through 1/2" hole in top motor housing, pull mainshaft



until threads on #40 housing bushing are exposed above the top housing. Drop the #18 washer, then #19 drive nut onto the mainshaft. Thread #19 onto #40 housing bushing. Tighten #19 onto #40 using 11/16 wrench (fig 5).
Tip: If nut will not tighten insert flat blade screwdriver into black spring bushing, wedge #40 while tightening the nut.
Remove mainshaft.

Removing Original Height Shaft

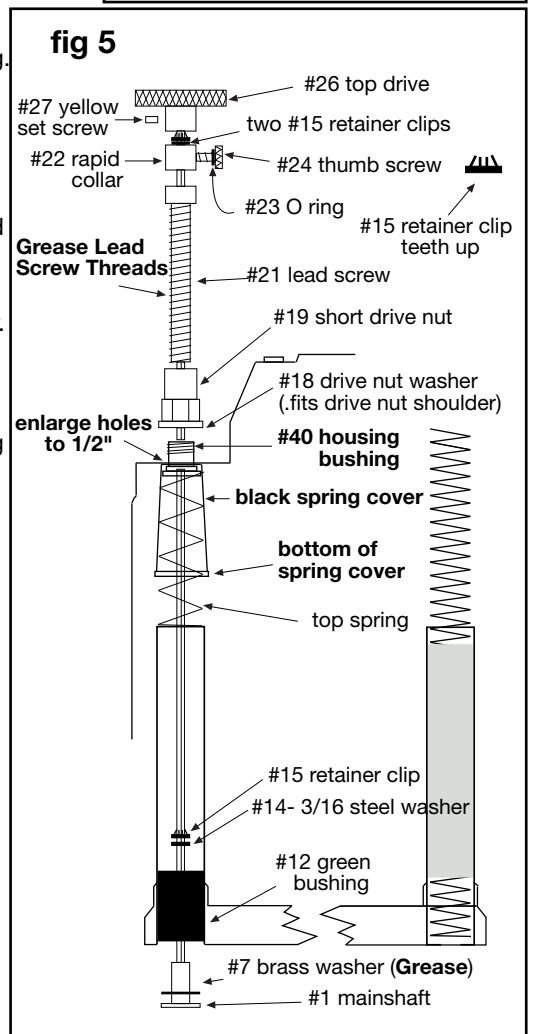
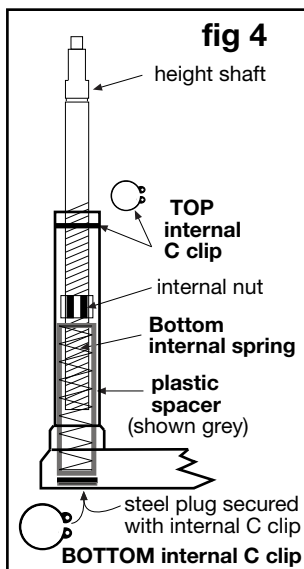
- Select the bottom motor housing. Remove subbase (fig 2), and long spring, Stand bottom housing upright, Using (fig 4) The height shaft assembly is retained in the post with a small top internal C clip. Remove the clip using C clip pliers or by driving it down and sideways with a punch or screwdriver and hammer. Once the clip is sideways simply pry it out with the screwdriver
NOTE: A bottom internal spring places pressure on the bottom side of the C clip, Pressing down on the height shaft improves C clip removal.
 Once removed, pull height shaft, internal nut and internal spring out of the post. Turn housing over and remove C clip and plug from bottom of post. Use long screwdriver to push plastic spacer from bottom of post. Height shaft and nut, C clips bottom plug and internal spring and plastic spacer will not be reinstalled, STORE IN BOX.

Installing #12 Bushing

- Select #10 black and #12 green nylon bushings, turn bottom housing upside down, Place plunge post upside down onto block of scrap wood. Drive #12 green bushing Bevel end first into post until recessed with bottom of post (fig 5).
NOTE: the green bushing will drive in hard, do not reduce size of bushing, it must be tight in the post. Use #10 black bushing to recess the green bushing in flush with bottom of the post.
 Drill the hole in the green bushing with 5/16" drill bit. The #1 mainshaft must spin free when placed into green bushing.

Installing #1 Mainshaft

- Select #1 mainshaft, #7 brass washer, #14 3/16 steel washer, one #15 retainer clip, #13 hollow spring guide, red grease.



Installing #1 Mainshaft

- Place small amount of included red grease onto both sides of #7 brass washer ,place washer down #1 mainshaft. Slide mainshaft through #12 green bushing until flush with base. Stand base upright place #14 3/16 steel washer onto #1 mainshaft drop into the post. Select #13 hollow spring bushing, place #15 retainer clip teeth up onto the top of the mainshaft. Using #13 hollow guide flange up, advance #15 clip down shaft. Place screwdriver or #29 wrench on flange of #13 guide, advance #15 clip into post until tight. #1 Mainshaft should be secure in the base if you can move it back and forth, retighten #15 retainer clip **Remove #13 guide.**

Reassembling Top and Bottom Housings

- The internal bottom height shaft spring will not be reinstalled, eliminating needed spring pressure, To compensate stretch both remaining plunge springs approx one inch. Place short top spring down #1 mainshaft, place long spring in remaining post. Loosen the stop bar knob. Reassemble housings, aligning mainshaft through the #40 housing bushing. Secure housings with four housing screws, replace the knurled fine adjust screw lock nut and washer into the end of the bar.

Finishing Installation

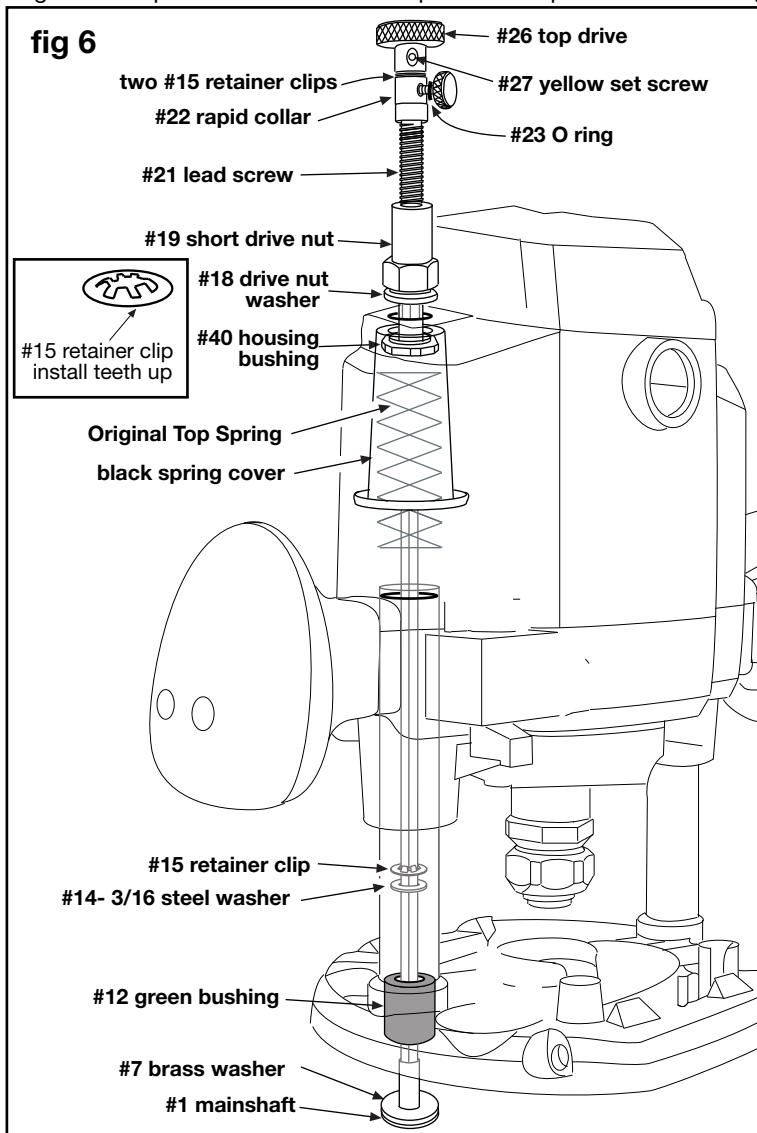
- Select #13 brass bushing (Two #15 retainers) #21 lead screw, #22 rapid collar, #23 O-ring, #24 thumb screw, #26 top drive, #27 yellow set screw, #28 Allen wrench, red grease. Using (fig 6) place grease on threads of #21 lead screw, Place lead screw down #1 mainshaft and thread into #19 short nut until one inch of mainshaft extends above the head #21 lead screw. Alignment of #1 mainshaft and #21 screw hex is required.

Tip: # 29 speed wrench can be used to speed threading.

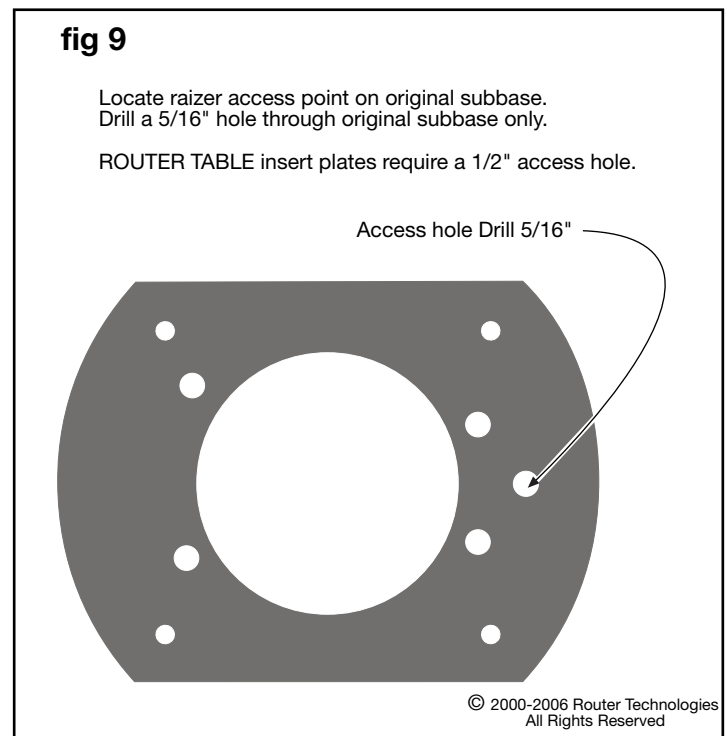
- Press #23 O-ring onto #24 thumb screw shaft. Thread thumb screw into #22 rapid collar. Place rapid collar onto #1 mainshaft 1/2" from top of mainshaft to top of rapid collar and tighten (fig 6). Release plunge lock and slowly raise the router until lead screw contacts the rapid collar. If the collar moves, reset to 1/2". Place one #15 retainer teeth up on top of #1 mainshaft, using #13 brass bushing as installation tool press retainer into contact with collar,repeat with second #15 retainer and press flush with first retainer. **Return #13 brass bushing to box.** Place #26 top drive onto #1 mainshaft until it contacts retainer clip, Thread #27 yellow set screw into #26 top drive using #28 Allen wrench and tighten. Reinstall motor brushes

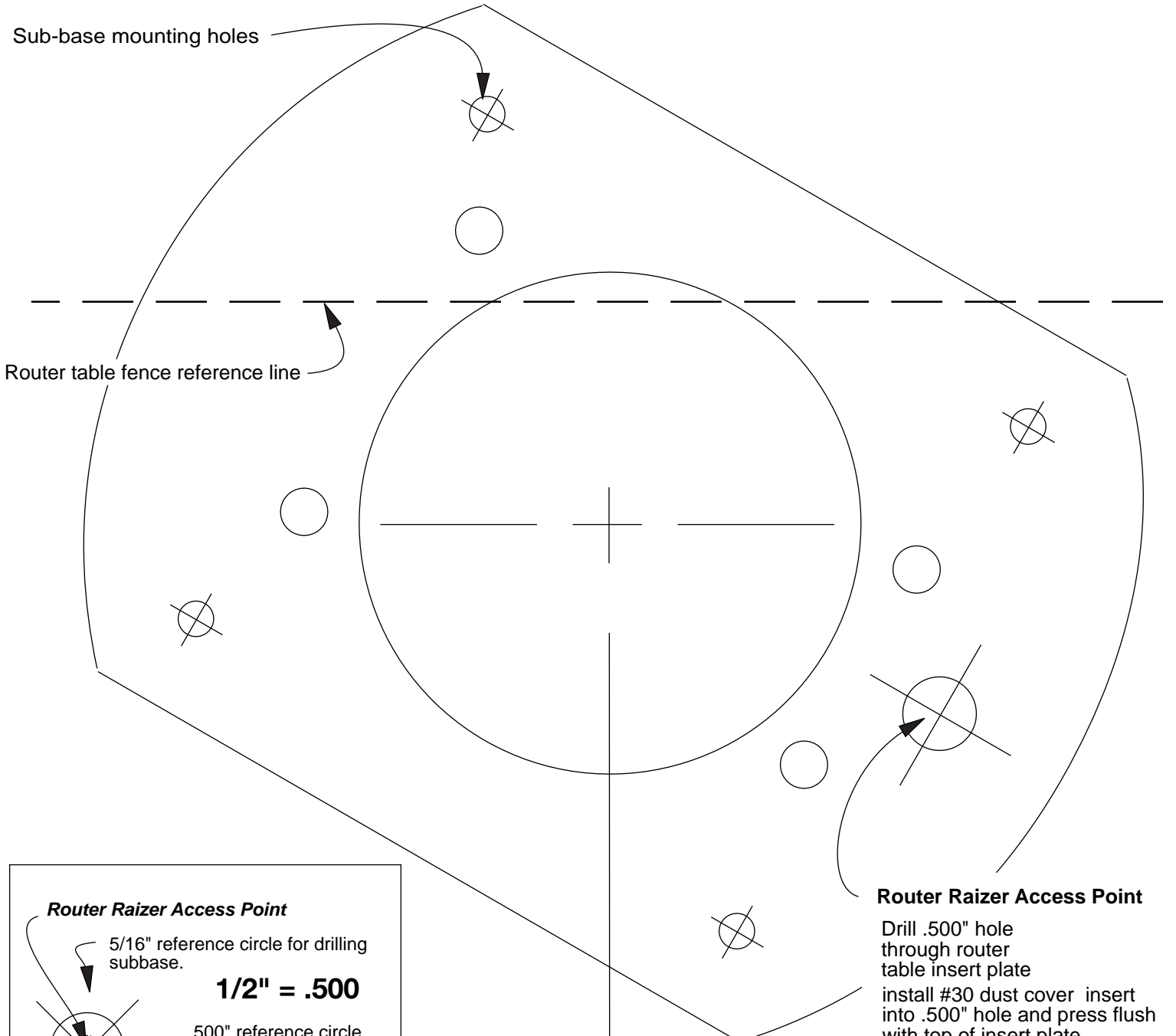
Subbase Plate or Router Table Insert Plate Installation

- Use #46 locating pin to locate the Router Raizer access hole on the original subbase or router table. For detailed instructions see page 4.
- See pages 4-5-6 for further instruction, #30 dust cover insert and #31 dust cover, are router table only. Drill a 1/2" hole through insert plate at the Raizer access point and press #30 in from top until flush. # 31 sets in #30 and is removed during adjustments with magnet on back edge of #29 speed handle. These components keep dust from entering the Router Raizer hex drive.



- Periodic inspection and re-greasing of #21 lead screw is recommended.





Router Raizer Access Point

5/16" reference circle for drilling subbase.

1/2" = .500

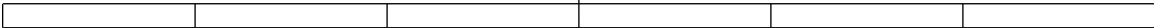
.500" reference circle for drilling table top or insert plate.

Router Raizer Access Point

Drill .500" hole through router table insert plate
install #30 dust cover insert into .500" hole and press flush with top of insert plate

NOTE: This hole must be drilled 1/2" or .500" for #30 dust cover insert to fit properly.

Use this 6" scale to check accuracy when copied



MLCS Marvel 62

Note: Cross lines for locating and drilling holes are accurate. The illustration of subbase may vary slightly in size and design, but is accurate enough for cutting the rubber gasket if required.