Table Router Manual

<u>TOOLS:</u> See right top drawer for the tools needed to set up the router table for use.

Other drawers:

Bottom right: Extras drawer

Top left: various router bits – use with caution. May not be sharp

Bottom left: various router bits – use with caution. May not be sharp.

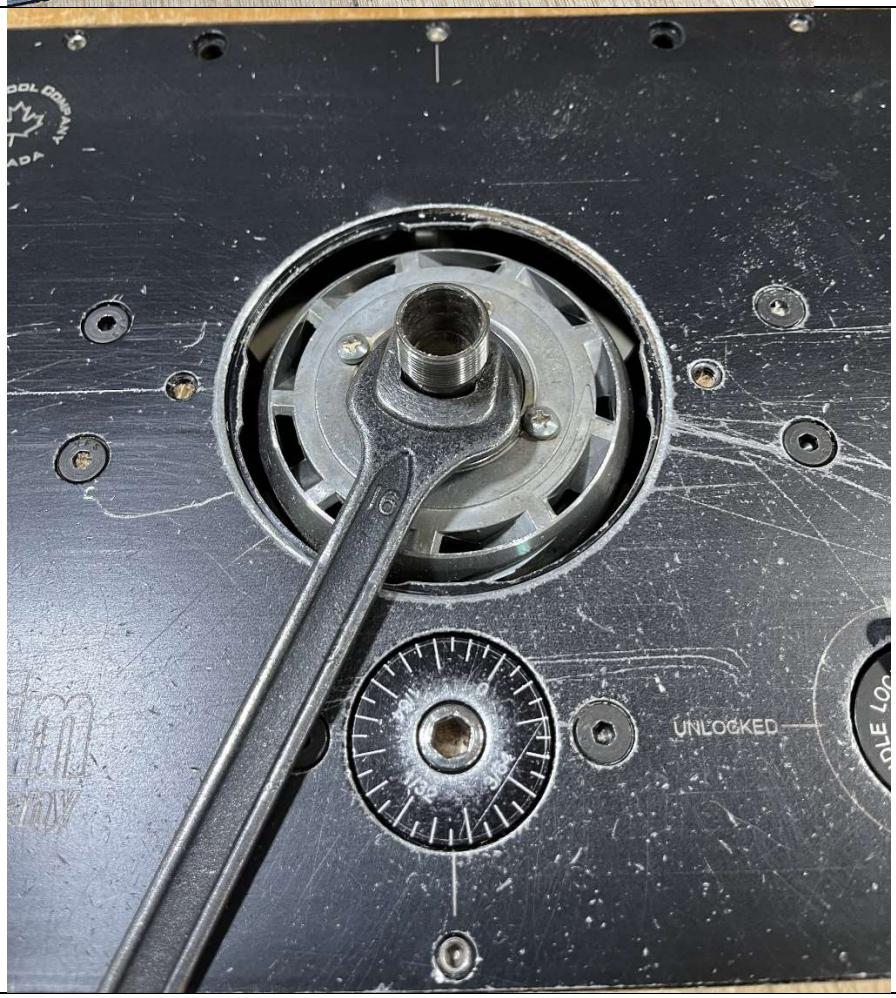
RAISING THE ROUTER TO INSERT ROUTER BIT:

If router shaft is not above the table, use the hex wrench shown inserted into hex slot. Turning clockwise raises the router out of the table – counter-clockwise lowers the router into the table.

TIGHTENING ROUTER BIT INTO ROUTER: **UNPLUG ROUTER!**

Use smaller (16mm) wrench to hold the router shaft from moving. [Collet and collet nut removed for clarity to show where smaller wrench sits on shaft].

NOTE: DO NOT USE THE 24mm NUT NEAREST THE ROUTER.



Choose the correct collet – ¼ or ½ inch, screw on the collet nut, the use larger (24mm) wrench to tighten the collet nut while holding the shaft from moving with the 16mm wrench shown above.

Reverse this process to retrieve router bit. **UNPLUG ROUTER BEFORE RETREIVING ROUTER BIT**

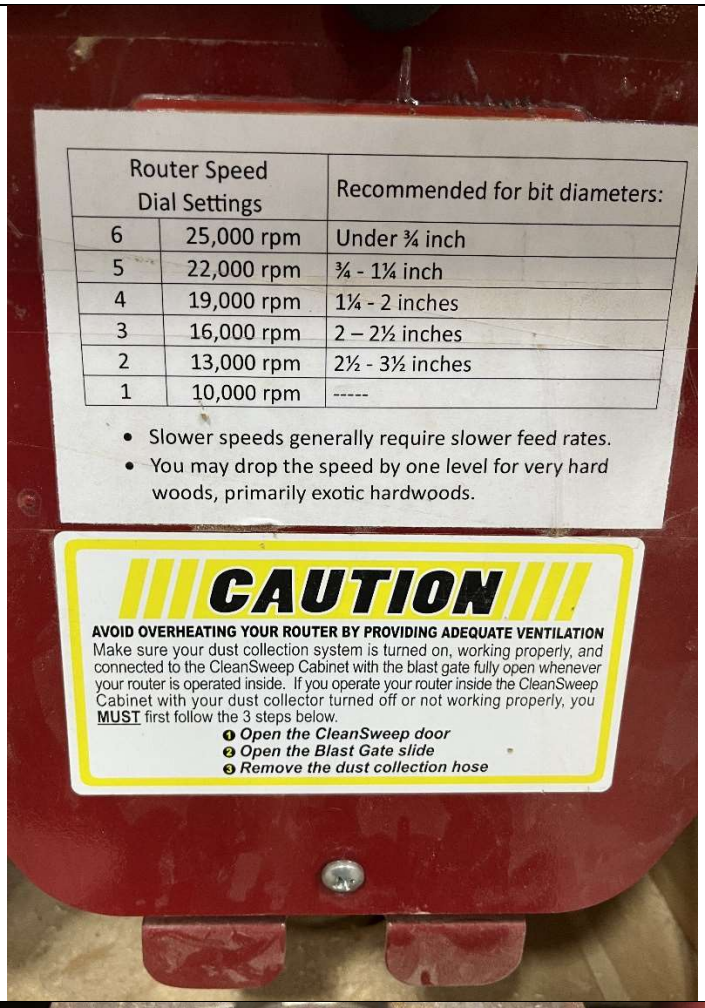
Collets (with collet nut):

TABLE INSERTS:

Insert round insert into area between router shaft and table. Use special spanner wrench to secure or remove the plastic insert. Couter-clockwise secures the insert to the table

ROUTER SPEED:
Please see front of router housing for guidance, then dial in the recommended speed.

(Unfortunately, these settings are not applicable to the currently installed router, which has a high speed dial of 9. Stay tuned to possible new chart for current router).



Router Speed Dial Settings		Recommended for bit diameters:
6	25,000 rpm	Under ¾ inch
5	22,000 rpm	¾ - 1¼ inch
4	19,000 rpm	1¼ - 2 inches
3	16,000 rpm	2 – 2½ inches
2	13,000 rpm	2½ - 3½ inches
1	10,000 rpm	-----

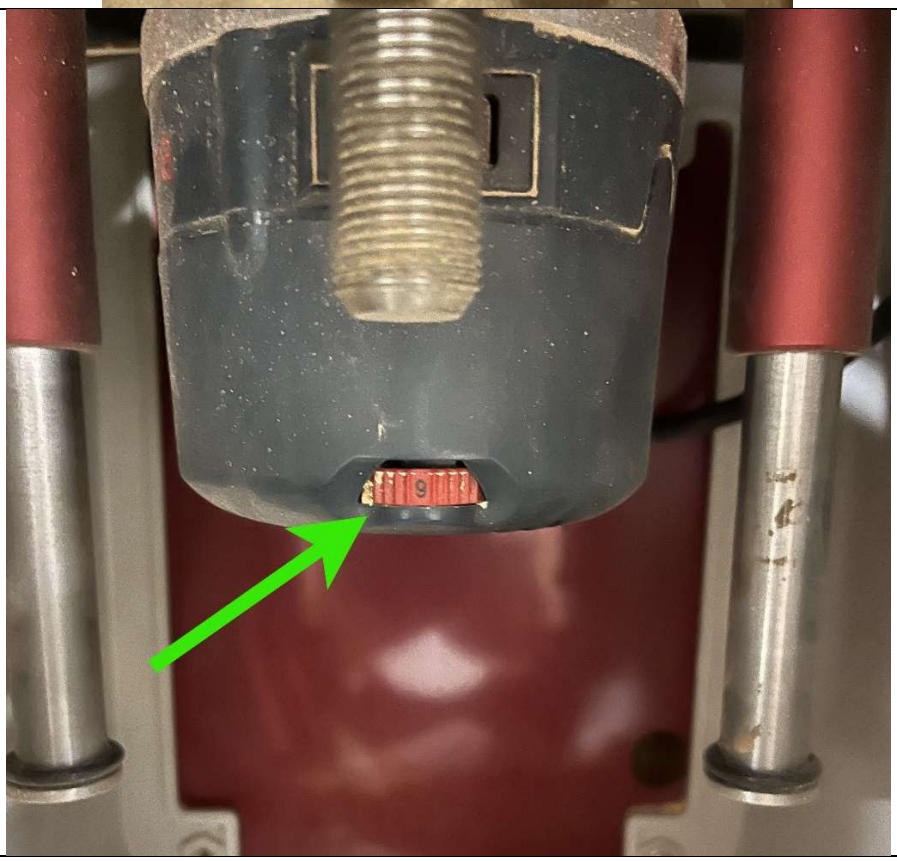
- Slower speeds generally require slower feed rates.
- You may drop the speed by one level for very hard woods, primarily exotic hardwoods.

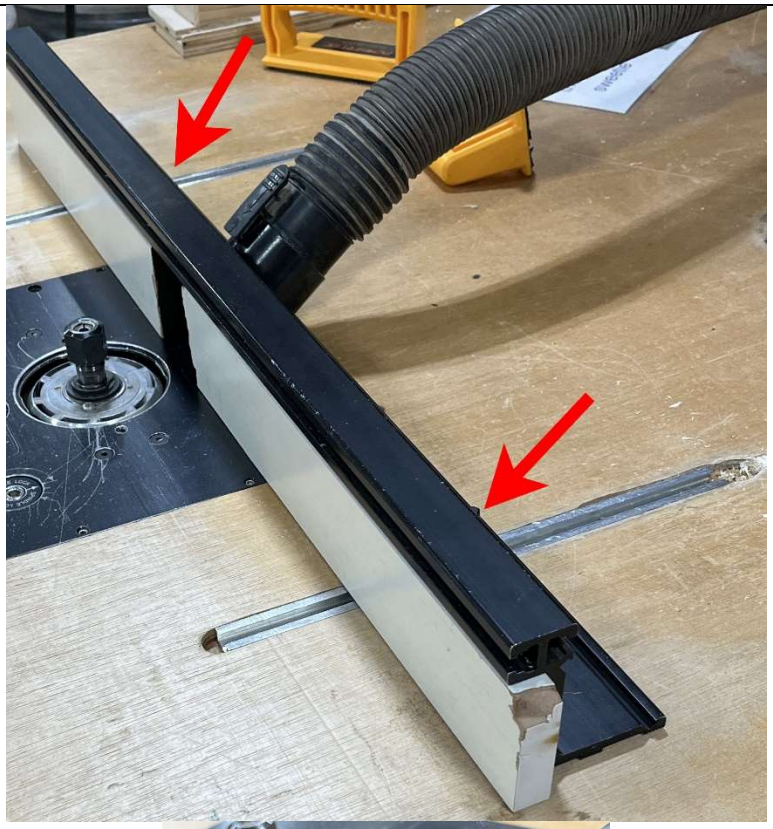
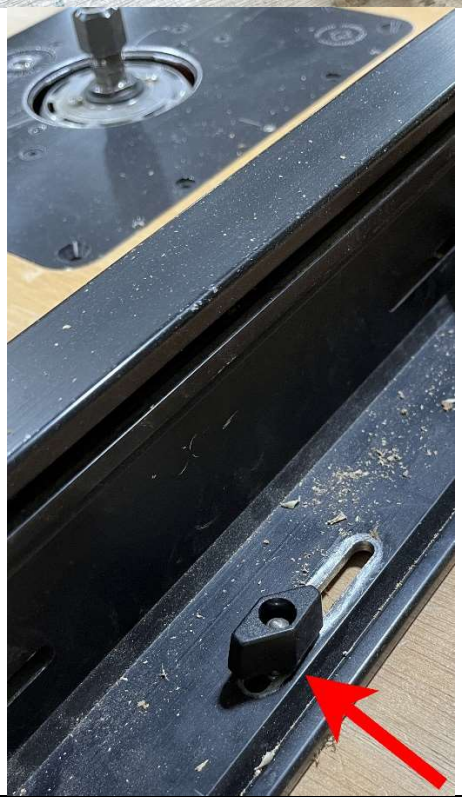
CAUTION

AVOID OVERHEATING YOUR ROUTER BY PROVIDING ADEQUATE VENTILATION
Make sure your dust collection system is turned on, working properly, and connected to the CleanSweep Cabinet with the blast gate fully open whenever your router is operated inside. If you operate your router inside the CleanSweep Cabinet with your dust collector turned off or not working properly, you MUST first follow the 3 steps below.

1. *Open the CleanSweep door*
2. *Open the Blast Gate slide*
3. *Remove the dust collection hose*

ROUTER SPEED ADJUST:
At the bottom of the router body. Slide down front panel to access (one with table of speeds, [see picture above]).



<u>TABLE FENCE:</u> Align the fence at desired distance from the router bit, then tighten each finger turn screw. Better view of turn screw.	 

POWERING THE ROUTER:
Plug in the router into the AC plug located in the upper corner of the router table front opening. [plug is power switched by the Start/Stop switch shown below].

Use the large Switch – green START button to turn on, red STOP to turn off.

See Below For JessEm MastRLift II User Manual

Mast R Lift™ II

User Manual

Model #02120, 02121

JessEm

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Thank you for choosing this product from JessEm Tool Company. We appreciate your support and hope that our product serves you well. This product is designed to provide many years of reliable service provided it is used as intended and taken care of.

This user manual will assist you in assembly and general operation of this product. It is not our intent to teach you about woodworking. It is assumed that you are an experienced woodworker with the basic skills and experience necessary to use this product safely. If after reading the following instructions, if you are unsure or uncomfortable about safely using this product we urge you to seek additional information through widely available woodworking books or classes.

Suggested Router Bit Speeds

Bit Diameter	Max. Speed
1" (25mm)	24,000 RPM
1-1/4" - 2" (30-50mm)	18,000 RPM
2-1/4" - 2-1/2" (55-65mm)	16,000 RPM
3" - 3-1/2" (75-90mm)	12,000 RPM

As part of our Continuous Product Improvement Policy, JessEm products are always advancing in design and function. Therefore there may be differences between what is shown in our catalogs, website or at retail display and what is sold at time of purchase. We reserve the right to make positive changes to our products at our discretion.

IMPORTANT!
Read and understand the contents of this manual before assembly or operation of this product.

CONTENTS:

1-Mast-R-Lift™ II
1-Height Adjustment Handle
10 - 1/4-28 x ¼" Leveling Set Screws
1- 5/32 Hex Key
Also includes 1-Insert Ring, 1-Insert Ring Wrench, 1/8" Hex Wrench, 1-Start Pin
4 - M6 x 30mm Mounting Screws (Used for Mast-R-Top #03004A and #03005)
4 – ¼-20 X 1" Flat Head Cap Screw (Used for Mast-R-Top Model #03004)

IMPORTANT SAFETY PRECAUTIONS

- Before operating any router, read and understand all safety instructions in the owner's manual that came with the router.
- If you do not have a manual, contact the manufacturer and obtain one before using any power tool.
- Always wear eye protection in compliance with ANSI safety standards when operating any power tool.
- Always use proper guards and safety devices when operating power tools and machinery.
- Carefully check router bits before each use. Do not use if damage or defect is suspected.
- Do not exceed the recommended RPM for any router bit.

IMPORTANT SAFETY PRECAUTIONS CONT'D

- Do not wear loose clothing or jewelry that may catch on tools or equipment.
- Unplug the tool or machine when mounting or making any adjustments to mechanical performance

DO NOT USE A CORDLESS DRILL TO RAISE AND LOWER THE LIFT CARRIAGE. THE AMOUNT OF FRICTION WILL CAUSE PREMATURE WEAR OF THE THREADS AND WILL VOID WARRANTY

ROUTER SAFETY PRECAUTIONS

- Never force the bit or overload the router beyond the expectations of the tool.
- Be sure that at least 3/4 of the shank length is inserted securely in the router collet.
- Never bottom out the bit in the collet. Allow 1/8" clearance between shank and bottom of collet.
- Always make sure the fence on your router table is locked into position before each use.
- Always rout in two or more passes when large amounts of stock must be removed.
- Use reduced RPM speeds for large diameter bits.

INSTALLING THE ROUTER

Place the crank handle into the hex hole in the lift's dial on the top plate. Crank the lift carriage up so that it just contacts the O-rings at the top of the carriage shafts. The carriage should be all the way toward the top plate.

Figure 1

Before installing the router motor, prop the unit up on blocks of wood (Fig. 1) so the router's collet can extend through the center hole in the top plate. The motor housing must be able to slide all the way through and contact the inside back of the center hole on the plate.

1. With a 1/8" hex key, remove one of the ¼" shoulder bolts from one of the clamping blocks and slide the clamping block on the carriage (Figure 2)

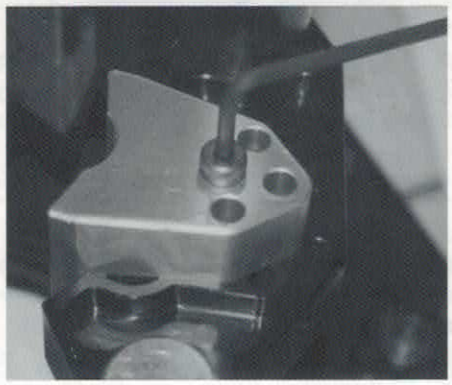


Figure 2

2. Locate your router on the chart below.
3. Align the letter and number associated with your router (Figures 3 and Figure 4) and reinsert and tighten the ¼- x 1-1/2" Shoulder Bolt you removed in step 2.
4. Repeat this for all four carriage clamping blocks

ROUTER CHART

Porter Cable 7518 JessEm 05200 Pow-R-Tek Motor with Remote Switch	A1
Porter Cable 690/890, Bosch 1617/1618, DeWalt 610/618, Craftsman 17543/17540/28190	F4
Makita 1101	C1
Hitachi M12VC/KM12VC	E2
Milwaukee 5626	D3
Milwaukee 5615/5616/5619	G3
Rigid R29302	B1

Carriage

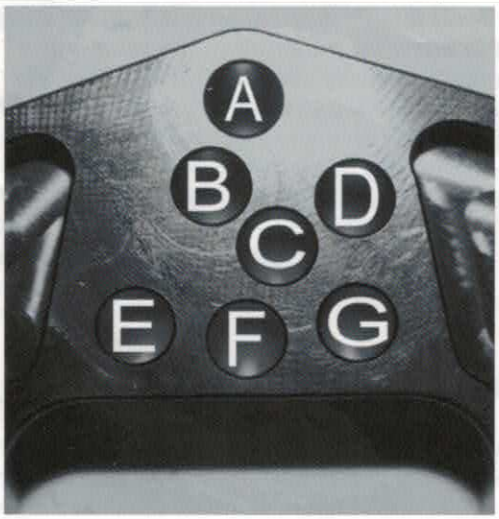


Figure 3

5. With the Mast-R-Lift II Crank Handle loosen the tensioning cap screw sufficiently to force the carriage to spread (Figure 5). This allows the router to be installed easily.

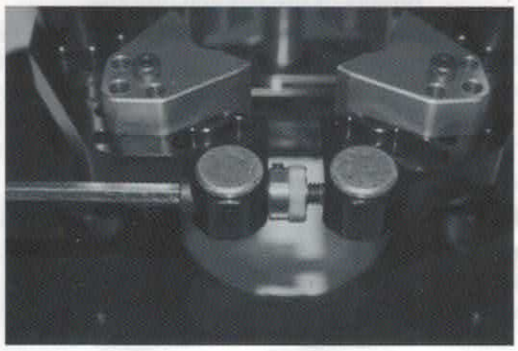


Figure 5

6. Now slide the router motor into the carriage so the top of the motor housing just makes contact with the inside surface of the center hole in the top plate (Figure 6)

Figure 6

Clamping Block

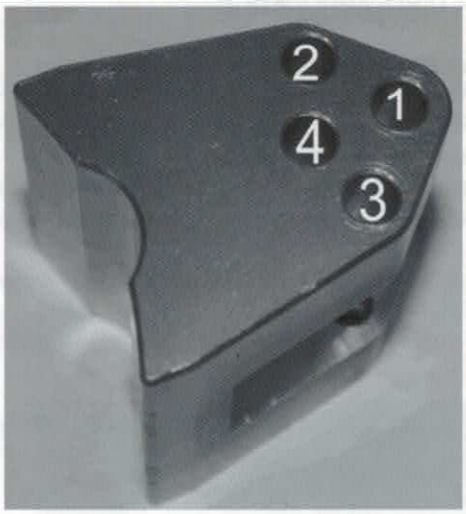


Figure 4

7. Rotate the router so that when the final installation is made all router controls will be positioned for convenient access an there is no interference. Then back the motor off approx. 1/16" from contacting the top plate and tighten the cap screw on the carriage assembly.

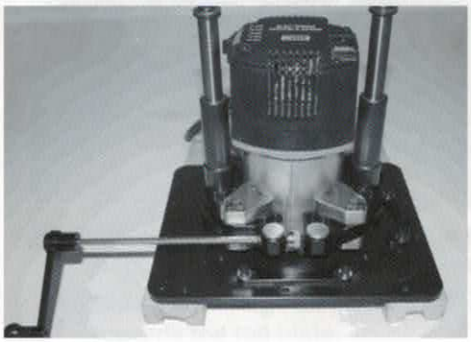


Figure 7

8. With the Mast-R-Lift™ II Crank handle, re-tighten the tensioning cap screw. (Figure 7)

The Mast-R-Lift II is manufactured to precise tolerances. Due to the manufacturing tolerances of the different router motors that the Mast-R-Lift II will accommodate, you may find that your Lift is not as smooth as it should be after the router is installed. To correct this, first: raise the Lift carriage with the router installed to a position close to the top plate. Then, loosen the two 5/16-18 socket screws holding each shaft onto the top plate a quarter of a turn and re-tighten. This relieves any stress on the shafts to center themselves with respect to the carriage after the router is installed ensuring there is no resistance in the movement of the carriage up and down.

INSTALLING A JESSEM LIFT IN A CUSTOM ROUTER TABLE APPLICATION

A JessEm router lift is similar to using a router mounting plate. Your table top must have a port machined into the top. JessEm offers solid phenolic router tables tops with pre-machined ports for all JessEm router lifts. If you are installing this Lift in a custom table application you will have to fabricate this opening yourself. JessEm offers a separate template for this operation. See your JessEm distributor for the proper template for your JessEm Mast-R-Lift II.

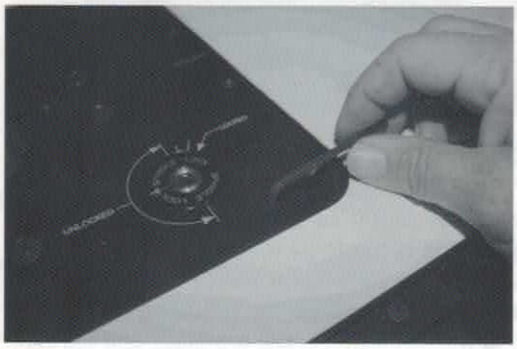


Figure 8

LEVELING THE LIFT IN THE TABLE TOP

1. With the Mast-R-Lift™ II in the table top opening, install (10) set screws into the holes around the lift perimeter. Adjust (Figure 8) the four corners first to align the lift surface to the table surface so that both are flush. Adjust the remaining set screws on the sides to provide added support.

Figure 9

ADJUSTING THE FIT IN THE TABLE PORT

Your Mast-R-Lift™ II comes with adjustable snugger bars to allow for a tight fit in the table top opening and eliminate any movement of the plate. Use the 3/16" hex key provided to loosen the cap screws on the snugger bars. Move the bars out slightly and check for fit. Adjust again if necessary. (Figure 9)

TAB-LOC PHENOLIC INSERT RINGS

Your Mast-R-Lift™ II comes with one 2" insert ring with a pre-drilled center hole. Additional ring sets are available with different diameter pre-drilled holes and/or no pre-drilled holes for creating your own custom center hole diameters. See your JessEm distributor for these and other accessories

1. Place the insert ring into the center hole of the Lift's top plate (Fig. 5).
2. With the insert wrench provided, insert the prongs of the wrench into the corresponding holes in the insert ring and turn the insert ring counter clockwise to tighten.

Turn the insert wrench clockwise to loosen and remove the ring. If the insert ring becomes too tight to loosen with hand pressure, a tap clockwise on the insert wrench with a block of wood will loosen it.

Figure 10

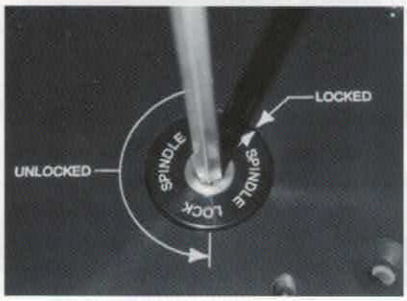
USING YOUR MAST-R-LIFT™ II

To raise your router, turn the height adjustment handle clockwise. To lower, turn the handle counter-clockwise. Keep in mind that one complete revolution equals 1/16" of change. When your adjustment is complete, remove the handle and place somewhere off the work surface for safety. Refer to the chart below for fractional and decimal adjustments based on amount of revolutions made.

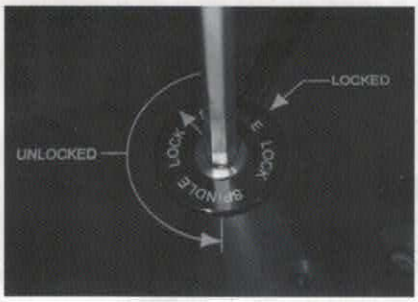
Fraction	Decimal	Number of Revolutions
1/64"	0.016"	1/4 Revolution
1/32"	0.031"	1/2 Revolution
1/16"	0.062"	1 Revolution
1/8"	0.125"	2 Revolutions
1/4"	0.250"	4 Revolutions
1/2"	0.500"	8 Revolutions

USING THE CAM LOCK ON YOUR MAST-R-LIFT™ II

With the Mast-R-Lift™ II you have the added benefit of locking your Lift in a desired position for long term routing operations and having the comfort in knowing the position you have set is locked in place.



To lock your lift turn lift handle clockwise to the "LOCKED" position



To unlock your lift turn lift handle counter-clockwise to the "UNLOCKED" position

RE-ADJUSTING THE THREAD TENSION

All JessEm Lifts feature our patented thread tensioning design. Thread tension is set at the factory and depending on the amount of use you may have to reset this adjustment periodically, depending on the amount of tension you desire.

If the bit height ever begins to change (or drop) during use, the thread tensioning likely needs to be reset.

1. Turn the Lift upside down on a table with the threaded height adjustment rod facing you.
2. Remove the ¼-20 x 1" Cap Screws from the Carriage Nut Cover (Figure 11) and remove the cover and o-ring (Figure 12)

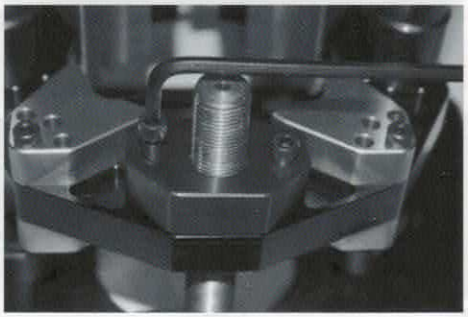


Figure 11

3. Slide the carriage all the way up to the towards the top plate.

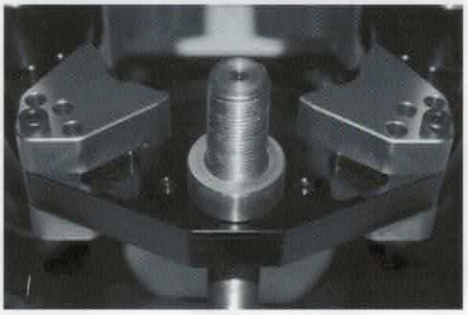
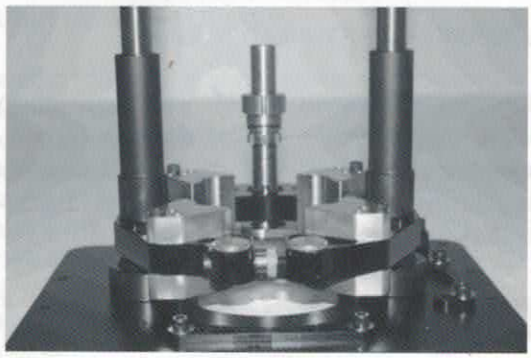


Figure 12



4. Turn the carriage nut clockwise ensuring when you complete your adjustment that the slot in the carriage nut aligns with one of the slots on the anitbacklash nut. (Figure 14)

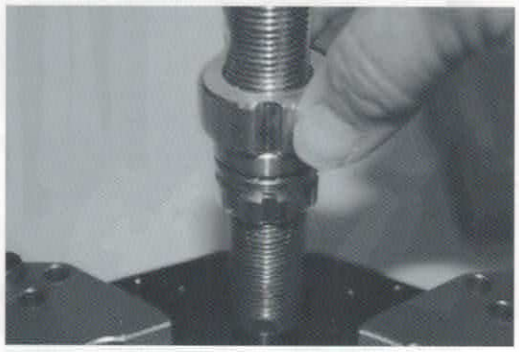


Figure 14

5. Slide the carriage back up ensuring the dowel pin in the carriage aligns with the slot in the carriage nut. (Figure 15)

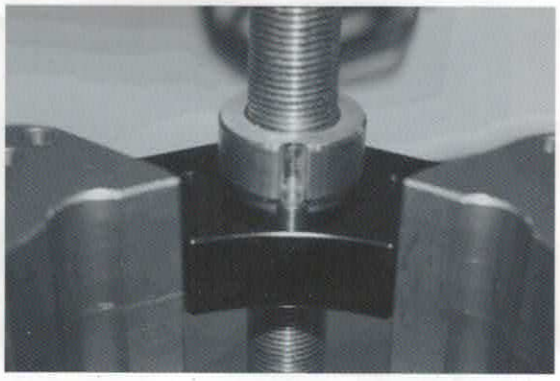


Figure 15

6. Place back the o-ring and carriage nut cap and with the screws you removed in Step 2 (Figure 11) fasten the carriage nut cap securely

JESSEM TOOL LIMITED WARRANTY

All JessEm products are warranted to be free from defects in material and workmanship. JessEm will repair or replace any product which upon inspection proves to be defective for a period of (1) year from dated receipt and proof of purchase. All warranty claims should be made direct to JessEm Tool Company. Contact JessEm for a warranty claim return authorization and instructions to proceed. The consumer is responsible for shipping costs to return product to JessEm Tool Company. We will repair or replace the product at our discretion and JessEm Tool will return shipment to you at no charge.

WARRANTY LIMITATIONS

This warranty does not cover:

- Repairs or alterations made or attempted by anyone other than JessEm Tool Company or an authorized JessEm service professional.
- Normal wear and tear
- Abuse, misuse or neglect.
- Improper care or maintenance.
- Continued use after partial failure.
- Products that have been modified in any way.
- Products used with improper accessories.
- Premature thread wear due to adjusting height with electric or cordless drill.

⚠ **WARNING:** This product can expose you to chemicals, including chromium which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

⚠ **WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a sub-stance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. www.P65Warnings.ca.gov/wood