

Mast^RLift

User Manual

Model #02101, 02102



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

JessEm

Tool Company

124 Big Bay Point Road
Barrie, Ontario, L4N 9B4
Canada

866-272-7492 Toll Free
705-726-6145 Local Phone
705-726-6055 Fax
Email: jessem@jessem.com
Website: www.jessem.com

IMPORTANT!

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

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.

CONTENTS:

1-Mast-R-Lift
1-Height Adjustment Handle
Also includes 1-Insert Ring, 1-Insert Ring Wrench, 1-1/8" Hex Wrench, 1-Start Pin

TOOLS REQUIRED FOR ASSEMBLY:

5/16" Hex Wrench

TOOLS REQUIRED FOR ADJUSTMENT:

7/16" Wrench

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.
- 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

1. 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.

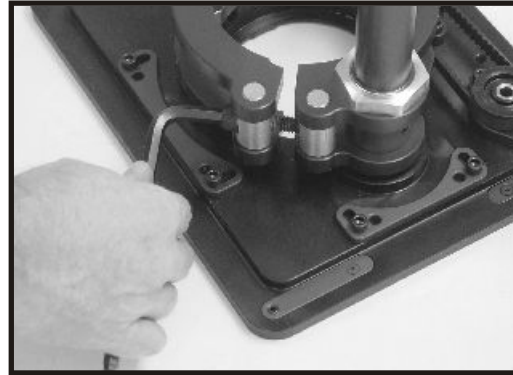


FIG. 1

2. With a 5/16" hex wrench, loosen the cap screw on the carriage clamp to allow the motor to slide into the carriage assembly (Fig. 1). The Mast-R-Lift will accept the Porter Cable 7518 out of the box. If you are using a smaller diameter router motor insert the adapter collar into the opening.



FIG. 2

3. Before installing the router motor, prop the unit up on blocks of wood (Fig. 2) so the router's collet can extend through the centerhole in the top plate. The motor housing must slide all the way through and contact the inside back of the centerhole on the plate.

Now slide the router motor into the carriage so the top of the motor housing just makes contact with the inside surface of the centerhole in the top plate.

INSTALLING THE ROUTER (cont'd)

Rotate the router so that when the final installation is made all router controls will be positioned for convenient access. Then back the motor off approx. 1/16" from contacting the top plate and tighten the cap screw on the carriage assembly.

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 router lift.

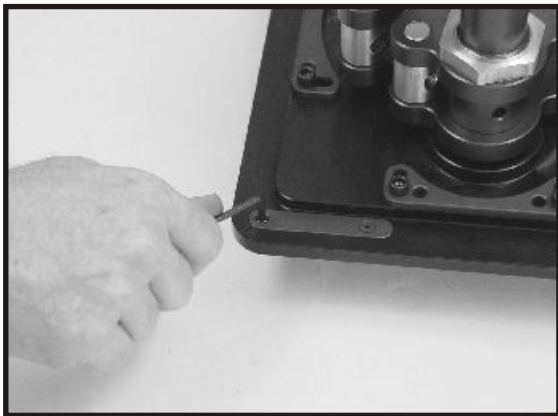


FIG. 3

LEVELING THE LIFT IN THE TABLE TOP

1. The Mast-R-Lift features built-in plate levelers to adjust the surface of the top plate flush with the router table surface (Fig. 3). Using the 1/8" hex wrench included with your lift adjust all four levelers so they are flush with the underside of the plate surface. Then place the lift in the table top and determine amount of adjustment needed. Take the lift out of the table and make the same amount of adjustment on all four levelers. Be sure to make all adjustments equal in terms of rotations and/or fractions of a rotation. Place the lift back in the table top and check for level. If necessary repeat until desired level is achieved.

Note: If you are using a JessEm table top there are pre-drilled holes in the bottom of the table to allow access from underneath the table. This allows you to make the leveling adjustment with the Lift installed in the table top.

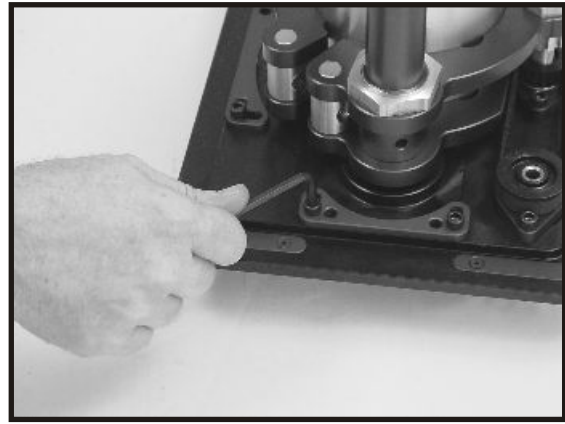


FIG. 4

ADJUSTING THE FIT IN THE TABLE PORT

Your Mast-R-Lift comes with adjustable snubber bars to allow for a tight fit in the table top opening and eliminate any movement of the plate. Use the 1/8" hex wrench provided to loosen the cap screws on the snubber bars. Move the bars out slightly and check for fit. Adjust again if necessary.

TAB-LOC PHENOLIC INSERT RINGS

Your Mast-R-Lift comes with one 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 centerhole diameters. See your JessEm distributor for these and other accessories

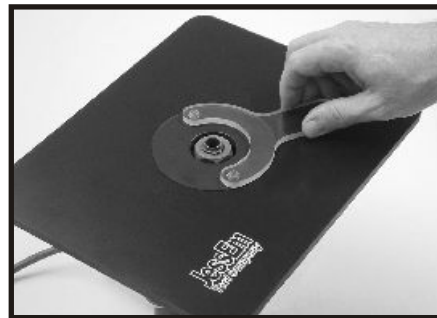


FIG. 5

1. Place the insert ring into the centerhole 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.
3. 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.

USING YOUR MAST-R-LIFT

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.

<u>Fraction</u>	<u>Decimal</u>	<u>Number of Revolutions</u>
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

RE-ADJUSTING THE THREAD TENSIONING

All JessEm Lifts feature our patented thread tensioning design. This feature is why it is not necessary to lock the router into position after setting the cutting height. The design keeps tension on the position wherever you set the height. Thread tension is set at the factory and depending on the amount of use you may have to reset this adjustment periodically. If the bit height ever begins to change (or drop) during use, the thread tensioning likely needs to be reset.



FIG. 6

1. Turn the Lift upside down on a table with the threaded height adjustment rod facing you.

2. With a 7/16" open end wrench, (Fig. 6) loosen the 1/4" - 20 hex nut that is located on the right side of the brass post next to the threaded rod. Then use a hex wrench to back out the set screw that threads through the nut until the brass tensioning collar can be turned.

3. Rotate the brass tensioning collar with vertical grooves, so it tightens against the rubber washer. Note: a drop of oil on the rubber washer eases the rotation of the brass collar.

4. Be certain when you tighten the brass collar the set screw seats in one of the vertical grooves.

5. Tighten the 1/4"-20 nut with the 7/16" wrench again and the adjustment is complete.

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.