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.

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.

<table>
<thead>
<tr>
<th>Suggested Router Bit Speeds</th>
<th>Max. Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bit Diameter</td>
<td></td>
</tr>
<tr>
<td>1&quot; (25mm)</td>
<td>24,000 RPM</td>
</tr>
<tr>
<td>1-1/4&quot; - 2&quot; (30-50mm)</td>
<td>18,000 RPM</td>
</tr>
<tr>
<td>2-1/4&quot; - 2-1/2&quot; (55-65mm)</td>
<td>16,000 RPM</td>
</tr>
<tr>
<td>3&quot; - 3-1/2&quot; (75-90mm)</td>
<td>12,000 RPM</td>
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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

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 1/4" shoulder bolts from one of the clamping blocks and slide the clamping block on the carriage (Figure 2)

![Figure 2](image)

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 1/4-1.5 Shoulder Bolt you removed in step 2.

4. Repeat this for all four carriage clamping blocks

<table>
<thead>
<tr>
<th>ROUTER CHART</th>
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</thead>
<tbody>
<tr>
<td><strong>Porter Cable 7518, AUK MK II</strong></td>
</tr>
<tr>
<td><strong>Porter Cable 690/890, Bosch 1617/1618, DeWalt 610/618, Craftsman 17543/17540/28190</strong></td>
</tr>
<tr>
<td><strong>Makita 1101</strong></td>
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<tr>
<td><strong>Hitachi M12VC/KM12VC</strong></td>
</tr>
<tr>
<td><strong>Felisatti RF62/1500VE</strong></td>
</tr>
<tr>
<td><strong>Rigid R29302 / AEG 1400KE</strong></td>
</tr>
</tbody>
</table>

![Figure 1](image)
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.

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).

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.

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

NOTE: WHEN INSTALLING A FELISATTI RFG2/1500VE ROUTER, ALIGN THE POSITION OF THE ROUTERS SPINDLE LOCK WITH THE NOTCH IN THE CENTRE RING OF YOUR EXCEL II TABLE TO ALLOW THE ROUTER COLLET TO BE ADJUSTED ABOVE THE TABLE FOR BIT CHANGES!
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 recess machined into the top. INCRA offers router table tops with pre-machined recesses for all JessEm router lifts. If you are installing this Lift in a custom table application you will have to fabricate this opening yourself. INCRA offers a separate template for this operation.

LEVELING THE LEFT IN THE TABLE TOP

Note: If installing in an INCRA router table, do not use the set screws described below. Instead, use the threaded holes for access to the pre-installed plate leveler screws built into the router table.

With the Mast-R-Lift™ II in the table top opening, install (10) set screws into the holes around the lift perimeter. Adjust the four corners first (Figure 8) 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.

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)

The INCRA Special Edition model also includes the top mounted CamLOCK plate locking system. See included addendum for instructions.

MAGNALOCK RING INSERT SYSTEM

Note: The INCRA Special Edition Mast-R-Lift™ II incorporates INCRA’s 5 Piece MagnaLOCK Ring Insert System. See included addendum for detailed instructions.
**USING YOUR MAST-R-LIFT™ II**

To raise your router, turn the height adjustment handle clockwise. To lower, turn the handle counterclockwise. Keep in mind that one complete revolution equals 2 mm, 1/2 revolution = 1 mm of change and 1/4 revolution = 1/2 mm 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.

**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.

**READJUSTING 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 1/4-20 x 1” Cap Screws from the Carriage Nut Cover (Figure 11) and remove the cover and o-ring (Figure 12).

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

To lock your lift, turn lift handle clockwise to the “LOCKED” position.

To unlock your lift, turn lift handle counterclockwise to the “UNLOCKED” position.

![Figure 11](image1)

![Figure 12](image2)
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)

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

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**JESS EM 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.