

MAST-R-FENCE III

Owners Manual
Model #04400



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JESSEM TOOL COMPANY - LIMITED WARRANTY WARRANTY LIMITATIONS

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 from an authorized JessEm Distributor. 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.

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

MESSAGE TO OUR CUSTOMERS

Thank you for choosing the Mast-R-Fence III router table fence Model: #04400 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.



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

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, you are unsure or uncomfortable about safely using this product, we urge you to seek additional information through widely available woodworking books or classes.

CONTINUOUS PRODUCT IMPROVEMENT POLICY

As part of our Continuous Product Improvement Policy, JessEm products are always advancing in design, quality and function. Therefore, there may be differences between what is shown in our catalogs, on our website, on retail displays and what is sold at time of purchase. We reserve the right to make positive changes to our products at our discretion to ensure you, the customer, have the very best product.

State of California:  **WARNING**
Cancer and Reproductive Harm.
www.P65Warnings.ca.gov

IMPORTANT SAFETY PRECAUTIONS

ROUTER AND ROUTER FENCE SAFETY PRECAUTIONS

Always make sure the fence on your router table is locked firmly into position before each use.

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 1/16" clearance between shank and bottom of collet.

Always rout in two or more passes when large amounts of stock must be removed.

Use reduced RPM speeds for large diameter bits.

Suggested Router Bit Speeds	
Bit Diameter	Max. Speed
1" (25mm)	21,000 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

Before operating any machinery or power tool, 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.

A) Personal Safety

i) Stay alert, watch what you are doing and use common sense when operating a tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. Serious personal injury could result if complete attention is not given while operating power tools.

ii) Always wear safety glasses. Everyday eyeglasses are not safety glasses. Safety glasses have specially constructed frames, lenses and side shields for better protection.

iii) Use safety equipment. Use a face or dust mask when the cutting operation is dusty. Safety equipment such as dust masks, hard hats, non-skid safety shoes and hearing protection reduces personal injuries when used for appropriate conditions. If devices and tools allow for dust extraction and collection, ensure these are connected and properly used.

iv) Do not overreach. Keep proper footing and balance at all times. This allows for better control of the power tool in unexpected situations.

v) Never stand on the machine. Serious injury could occur if the tool tips or if the cutting tool is unintentionally contacted.

vi) Secure workpieces. Use clamps or vises to hold work when practical. This is safer than using your hands and frees both hands to operate the tools.

vii) Dress appropriately. Do not wear loose clothing or jewelry. Ensure you keep clothing, hair and gloves away from moving parts. Loose clothing, jewelry or long hair can be caught in moving parts. Roll up long sleeves to the elbow. Wear protective hair covering to contain long hair.

viii) Avoid accidental starting. Ensure the switch is in the off position before you plug it in. Carrying a power tool in your hands with your finger on the switch or plugging in a power tool that has the switch on is inviting accidents.

ix) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool could result in personal injury.

B) Work Area Safety

i) Make your workshop child proof. Use padlocks, master switches, or remove starter keys. **ii)** Keep work area clean and well lit. Clutter and/or dark areas encourage accidents.

ii) Keep children and bystanders away while operating a power tool. Complete attention is required when operating a power tool.

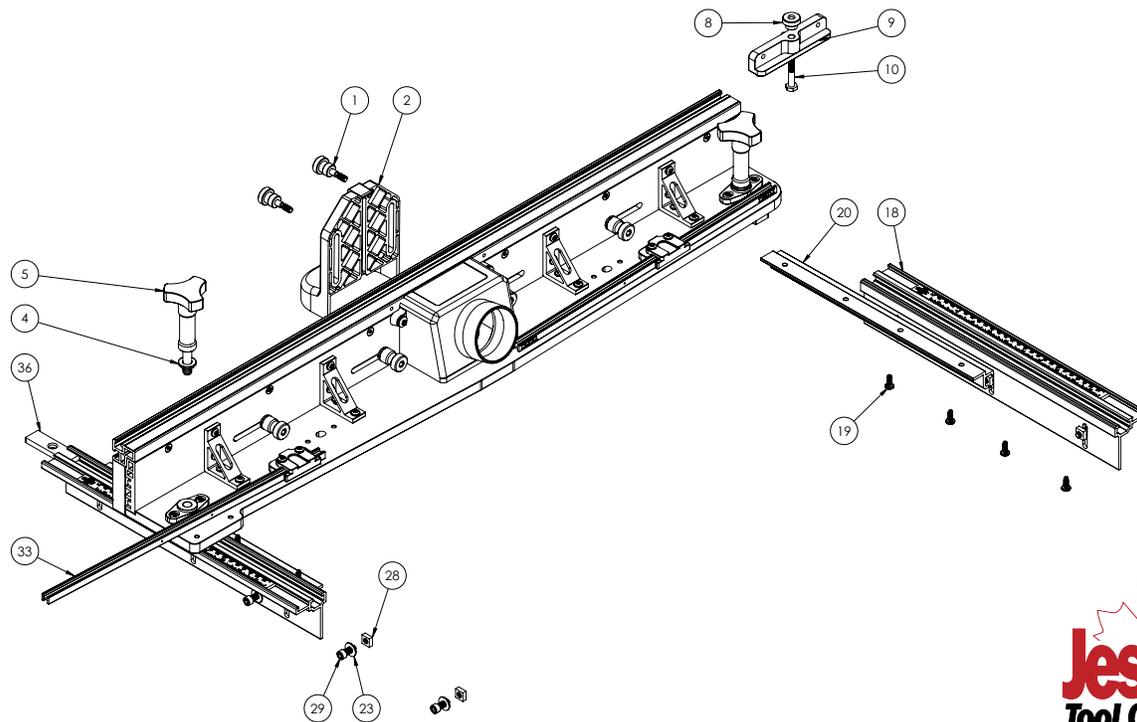
C) Electrical Safety

i) Ground electrical tools. If the tool is equipped with a three-prong plug, it must only be plugged into a grounded three-hole electrical outlet. If required, a qualified electrician can install one. Never remove the third prong or modify the plug that is provided in any way.

ii) Never expose a power tool to rain or wet conditions. You will increase the risk of electric shock if water enters the power tool.

iii) Using power tools in damp or wet locations or conditions is extremely dangerous.

iv) Do not operate any power tool in an explosive atmosphere, in the presence of flammable liquids, gases or dust. Power tools can create sparks which may ignite the fumes or dust.



CONTENTS OF PACKAGING

Item No.	Part Description	Qty
-	MAST-R-FENCE III Assembly	1
2	Guard	1
5	Track Clamping Knob	2
9	Guard Mount	1
18	Fence Track	2
20	Fence Mounting Angle	2
33	Fence Shimming Bar	2

TOOLS REQUIRED FOR ASSEMBLY (SUPPLIED)

Item No.	Part Description	Qty
-	JessEm T-25 Torx Screwdriver	1
-	3/16" Hex Key	1
-	5/64" Hex Key	1

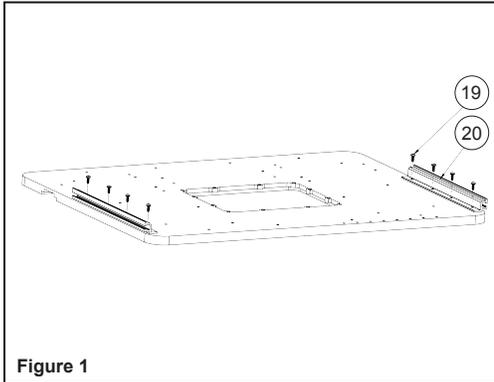
HARDWARE INCLUDED

Item No.	Part Description	Qty
1	Guard Height Adjustment Knob	2
4	Track Clamping Knob Washer	2
8	Guard Mount Clamping Knob	1
10	1/4"-20 X 1-1/2" Hex Head Screw	1
19	#10-24 X 1/2" Self Tapping Pan Head Torx Screw (Self tapping screws have a flat notch on the end to facilitate cutting into the phenolic)	8
23	1/4" Washer	6
28	1/4"-20 Square Nut	6
29	1/4"-20 X 5/8" Socket Head Cap Screw	6
36	Fence Knob T-Nut	2

THE FOLLOWING INSTRUCTIONS ARE FOR MOUNTING THE #04400 MAST-R-FENCE III TO A JESSEM MAST-R-TOP OR A JESSEM MAST-R-LIFT EXCEL II TOP

NOTE: If you are mounting your Mast-R-Fence III to a Non-JessEm top, please skip to step 2.

Step 1: Securing fence mounting angles (part #20) to table top



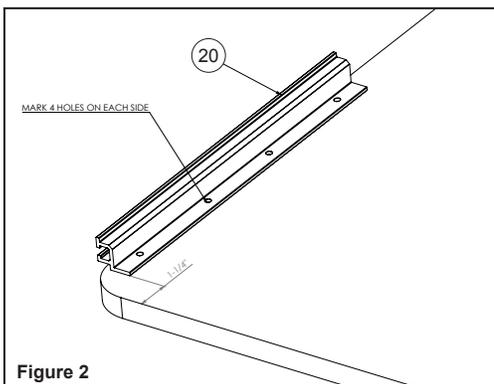
- a. JessEm's Mast-R-Top and Mast-R-Lift Excel II table tops are pre-drilled for easy assembly.
- b. Using two wooden spacers, at least 2" high flip your table top upside down on a table to raise the table off your working surface a couple of inches. **See Figure 1.**
- c. Position the left and right fence mounting angles on each side of the table (part #20).
- d. With the #10-24 x 1/2" self tapping torx drive screws (part #19), fasten and secure the fence mounting angle to the table. **See Figure 1.**
- e. Skip to step 3.

THE FOLLOWING INSTRUCTIONS ARE FOR MOUNTING THE #04400 MAST-R-FENCE III TO A NON-JESSEM TOP

NOTE: If you are mounting your Mast-R-Fence III to a JessEm top, please skip step 2.

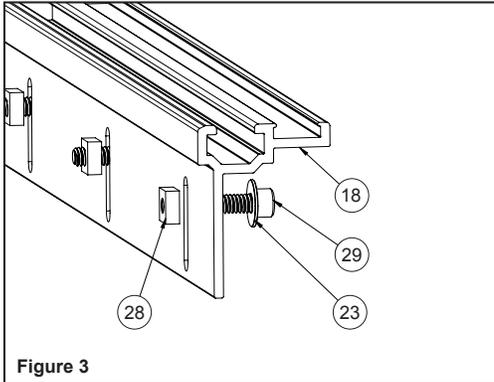
NOTE: You will need to source (8) wood screws. The length of the screws will depend on the thickness of your table top. Typically you would want screws that are about 1/4" less than the thickness of your top. (Example: 1" table top would require 3/4" screws.)

Step 2: Marking and drilling your holes



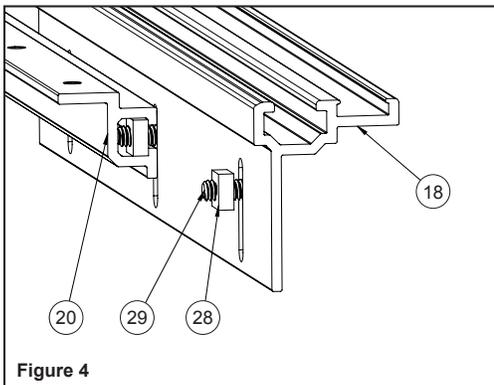
- a. Take one of your fence mounting angles and with a pencil, mark your holes on the underside of your table top, using the fence mounting angle (part #20) as a template. **See Figure 2. NOTE: THE MOUNTING ANGLES SHOULD BE APPROXIMATELY 1-1/4" FROM THE BACK OF THE TOP.**
- b. Pre-drill the holes using a 1/16" diameter drill bit and be sure you do not drill through the table top surface. It is suggested you use masking tape on your drill bit to prevent this.
- c. Secure the track mounting angles to the table top with the #10 wood screws you sourced. Repeat this step for the other side.

Step 3: Attaching the square nuts

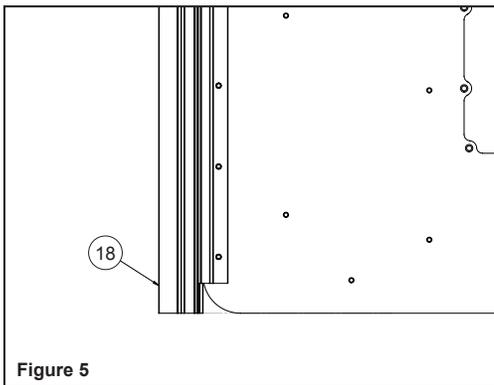


- a. Place 1/4" washers (part #23) onto the 1/4"-20 X 5/8" socket head cap screws (part #29).
- b. Slide the screws through the slots in the left and right hand track (part #18) **See figure 3.**
- c. Thread the square nuts (part #28) onto the screws. **(DO NOT** tighten the square nuts. Leave loose for the next step)

Step 4: Mounting of tracks to mounting angles



- a. Slide the square nuts (part #28) into the T-slot in the mounting angle (part #20). **See figure 4.**



- b. Align the track so that the back of the track is flush with the back of the top. **See figure 5.**
- c. Snug the 1/4"-20 X 5/8" socket head cap screws (part #29).

Step 5: Levelling the tracks to the table top

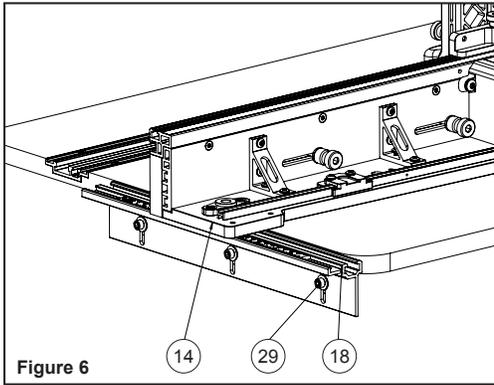


Figure 6

NOTE: The Tracks of the Mast-R-Fence III are slotted to allow for vertical adjustment to ensure the fence tracks are perfectly flush with the table top.

- a. Turn your top right side up on the 2" spacers or you can now mount the top to a stand.
- b. Place the fence on the table top in its upright position and allow it to hang over the table edge and lie across the front end of the fence track.
- c. Loosen the (3) $\frac{1}{4}$ "-20 x $\frac{5}{8}$ " socket head cap screws (part #29). Raise the fence track so that it is flush with the bottom of the fence. **See figure 6.**
- d. With the $\frac{3}{16}$ " hex key provided, tighten the front screw.
- e. Move the fence to the back of the table and use it to position the rear end of the track in the same way.
- f. Tighten the center screw to complete the leveling of the fence track. Repeat step 5 to level the fence track on the other side of the table.
- g. Check that the tracks are flush with the table top and readjust as necessary.

Step 6: Mounting your fence to the tracks

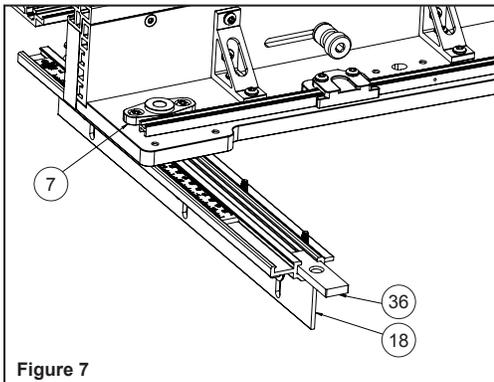


Figure 7

- a. Slide the $\frac{3}{4}$ " x 2- $\frac{1}{2}$ " rectangular T-nut (part # 36) for the extension knob into the T-slot. **See Figure 7.** Slide the clamping T-nut into the T-slot until the threaded hole aligns with the hole in the knob mount (part #7). Repeat this step for the other side of the fence.

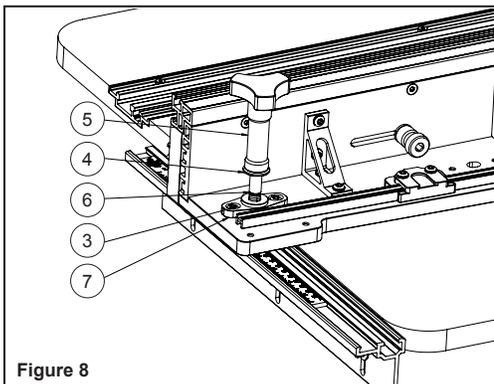


Figure 8

- a. Loosen the (4) #10-24 X $\frac{1}{2}$ " pan head torx screws (part #3) so that the knob mounts (part #7) can slide.
- b. Slide the clamping knob washers (part #4) onto the clamping knob studs (part #6).
- c. Tighten the clamping knobs into the clamping knob T-nuts (part #36).
- d. Once the fence is centred and the clamping knobs are tight; tighten the (4) #10-24 X $\frac{1}{2}$ " pan head torx screws (part #3). Repeat step 6 for both sides of the fence.

MOUNTING THE MAST-R-FENCE III TO EMBEDDED TABLE TOP TRACKS

NOTE: If you are mounting your Mast-R-Fence III with the provided tracks, please skip step 7.

NOTE: You will need to source a T-nut or hex nut with a $\frac{3}{8}$ "-16 thread which matches the width of the T-slot in your top.

Step 7: Mounting your fence to in table T-slots

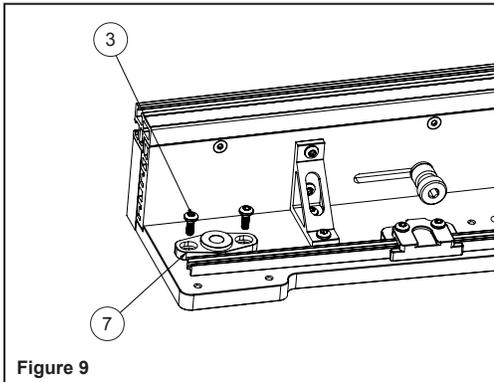


Figure 9

- a. Remove the (2) #10-24 X $\frac{1}{2}$ " pan head torx screws (part #3) from each knob mount (part #7).

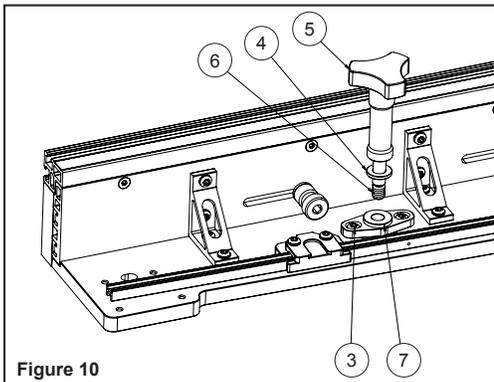


Figure 10

- b. Move the knob mount (part #7) to the pre-drilled holes in the base (part #14). **See figure 10.**
- c. Retighten the #10-24 X $\frac{1}{2}$ " torx screws to secure the knob mount in place.
- d. Refer to step #6 for mounting the clamping knobs to the tracks.

SETTING FENCE SCALES

Step 8: Now that your fence is fastened to the fence tracks, you will need to align the fence to the bit opening and adjust your scales accordingly.

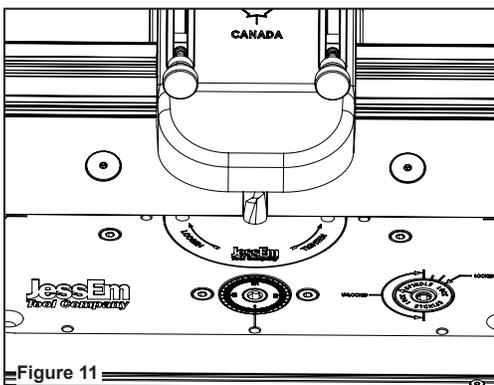
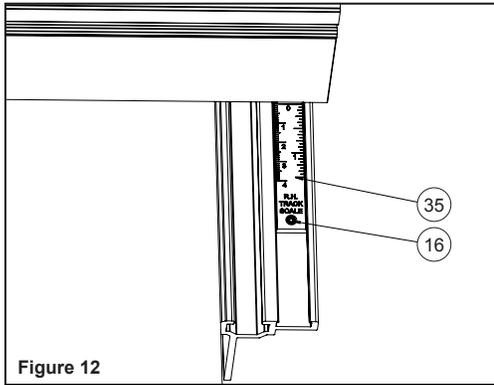


Figure 11

- a. Ensure your router is mounted in the table top with a router bit in your router.
- b. Loosen the clamping knobs (part # 5), and slide your fence so it is centred around the router bit.
- c. Check that the fence is parallel to the front edge of the table.
- d. Tighten the fence clamping knobs.

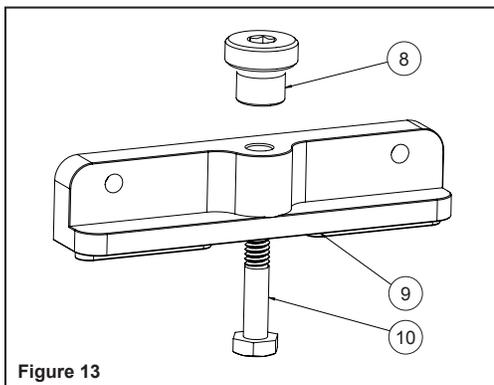
Step 8: Continued



- e. Ensure the right and left hand track scale (part #17 & #35) are on the proper sides. **See Figure 12.**
- f. With the $\frac{1}{8}$ " hex key provided, loosen the set screws (part #16) on the front of the left and right hand scales. **See Figure 12.**
- g. Slide the scale to align the "0" on the scale with the front edge of the fence. **See Figure 12.**
- h. Tighten the set screw. Repeat this for the other scale on the opposite side of the fence. The Mast-R-Fence III should now be centred on your router table.

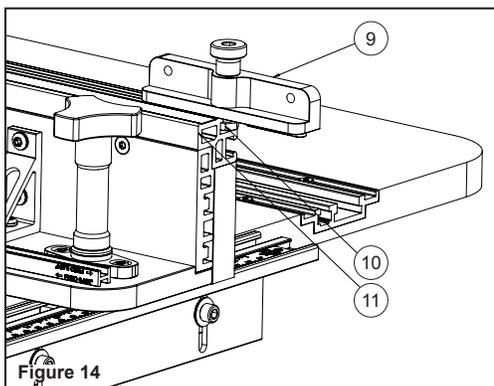
ASSEMBLING AND ATTACHING THE MAST-R-FENCE III GUARD

Step 9: Attaching the guard to the fence



Assembling the guard mount:

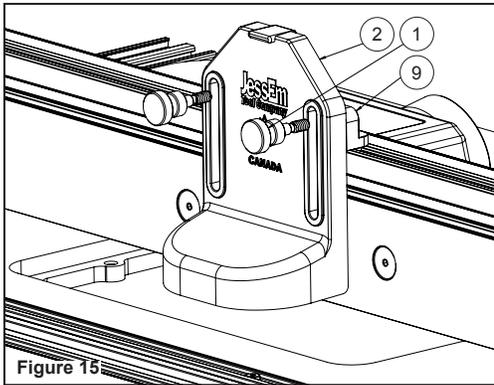
- a. Slide the $\frac{1}{4}$ "-20 X 1- $\frac{1}{2}$ " hex head screw (part #10) up through the centre hole in the guard mount. **See figure 13.** Thread the guard mount clamping knob (part #8) onto the hex head screw. **DO NOT** tighten all the way. Leave loose enough to slide into the T-slot in the upper fence (part #11).



Attaching the guard mount to the fence:

- b. Slide the guard mount (part #9) into the T-slot by aligning the $\frac{1}{4}$ "-20 X 1- $\frac{1}{2}$ " hex head screw (part #10) in the top of the upper fence (part #11).

Step 9: Continued

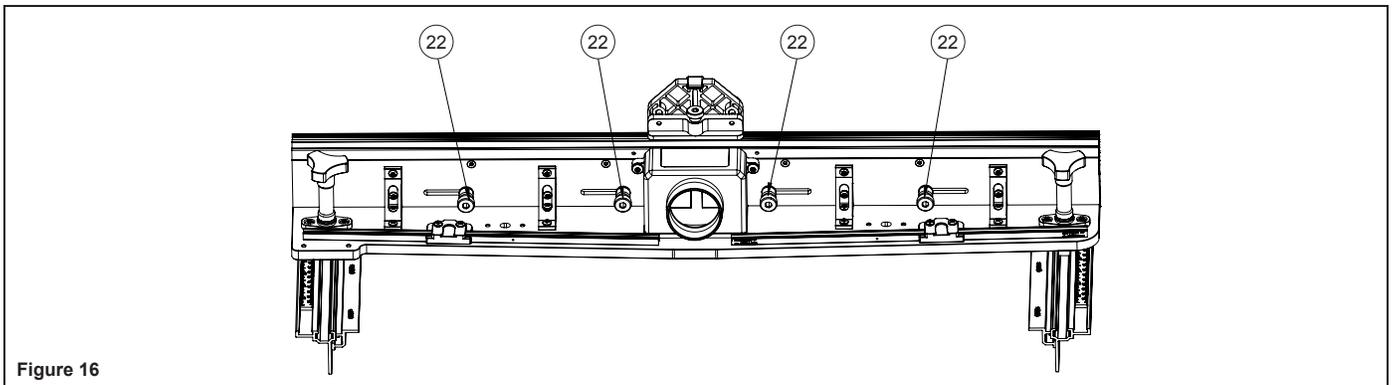


Attaching the guard:

- Attach the guard (part #2) to the guard mount (part #9) using the (2) guard height adjustment knobs (part #1).
- To adjust the height of the guard during use, loosen the guard height adjustment knobs and slide the guard to the desired height; then re-tighten.

ADJUSTING THE WOODEN FENCE FACE (PART #37) ON THE MAST-R-FENCE III

Step 10: Loosen the (4) fence face clamping knobs (part #22). See figure 16.



Step 11: To avoid damaging the wooden fence faces, slide to desired width so your fence faces completely clear your router bit. Re-tighten the (4) fence face clamping knobs to clamp the fence faces in place. See Figure 16.

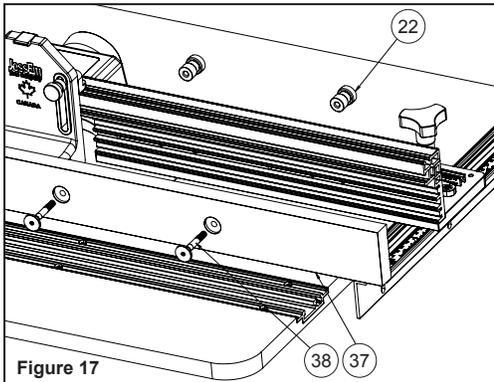


CAUTION

ENSURE THE FENCE FACES COMPLETELY CLEAR THE DIAMETER OF THE ROUTER BIT BEFORE STARTING THE ROUTER.

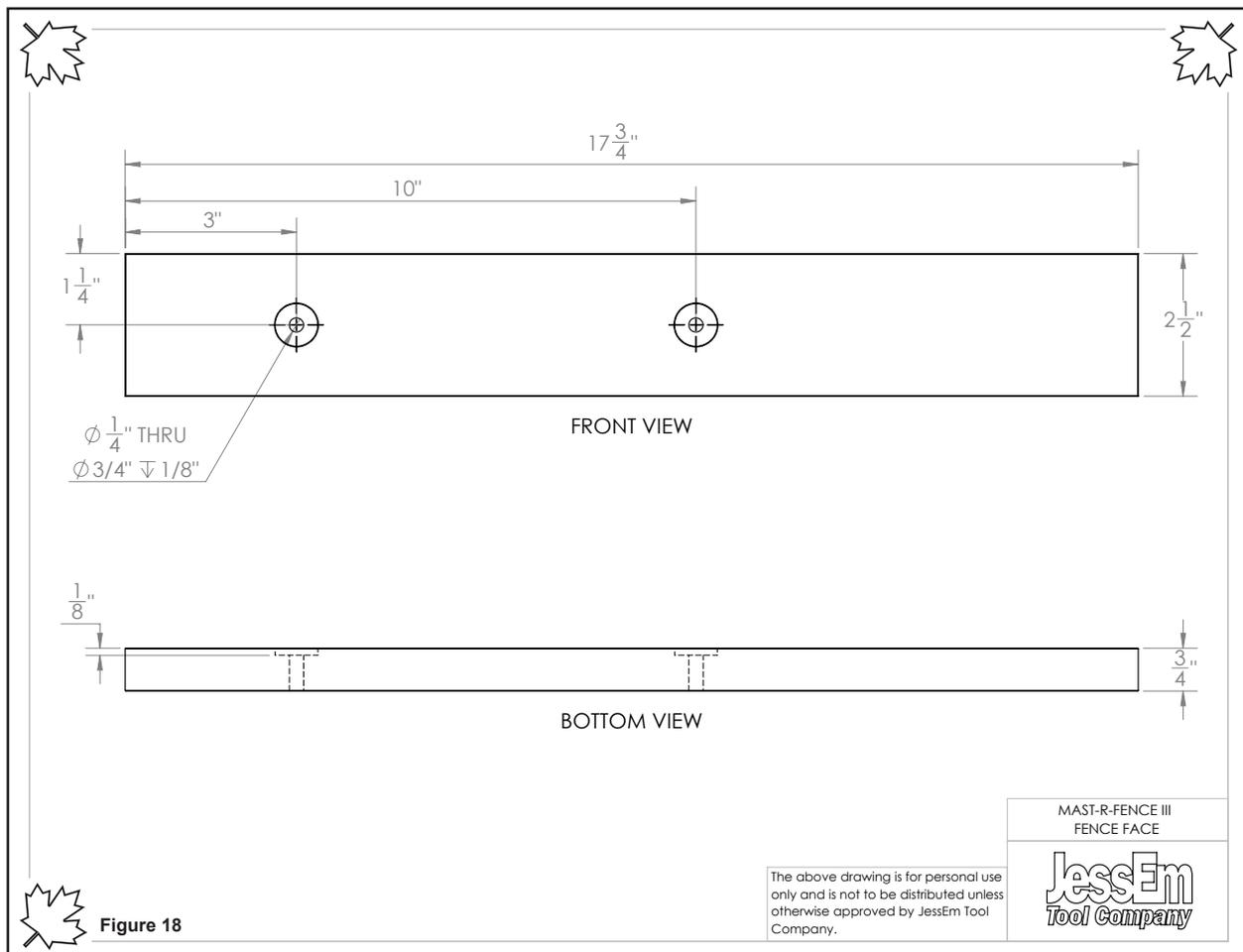
REPLACING THE WOODEN FENCE FACE (PART #37) ON THE MAST-R-FENCE III

Step 12: Removing the fence faces

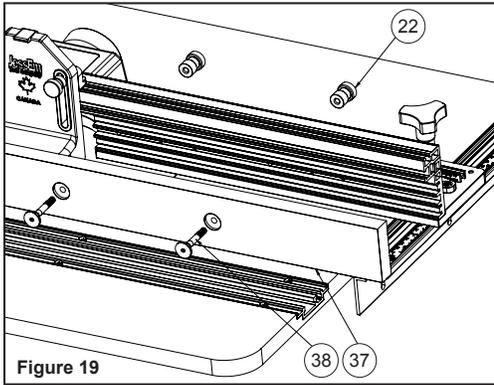


- a. Remove the (2) fence face clamping knobs (part #22) from the backside of the fence. (HINT: If the knobs are too tight to remove use a 1/4" hex key to loosen).
- b. Slide the fence face straight out the front (the fence face screw (part #38) will stay in the fence face (part #37)). Using a hammer or something hard, tap the fence face screws (part #38) out of the fence face (part #37).

Wooden Fence Face Drawing



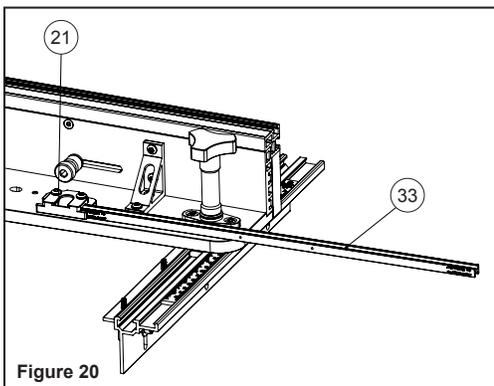
Step 13: Attaching new fence faces



- a. Slide the fence face clamping knobs (part #38) into the previously drilled holes in your new fence faces. **See figure 19.**
- b. Slide the fence face clamping knobs into the slots in the fence uprights (part #12).
- c. Reattach with clamping knobs (part #22).

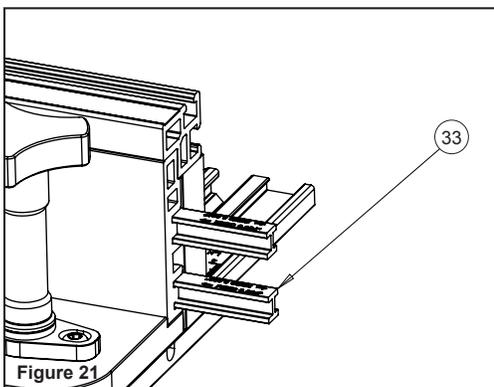
MAST-R-FENCE III JOINTING

Step 14: Storage of shimming bars (when not in use)

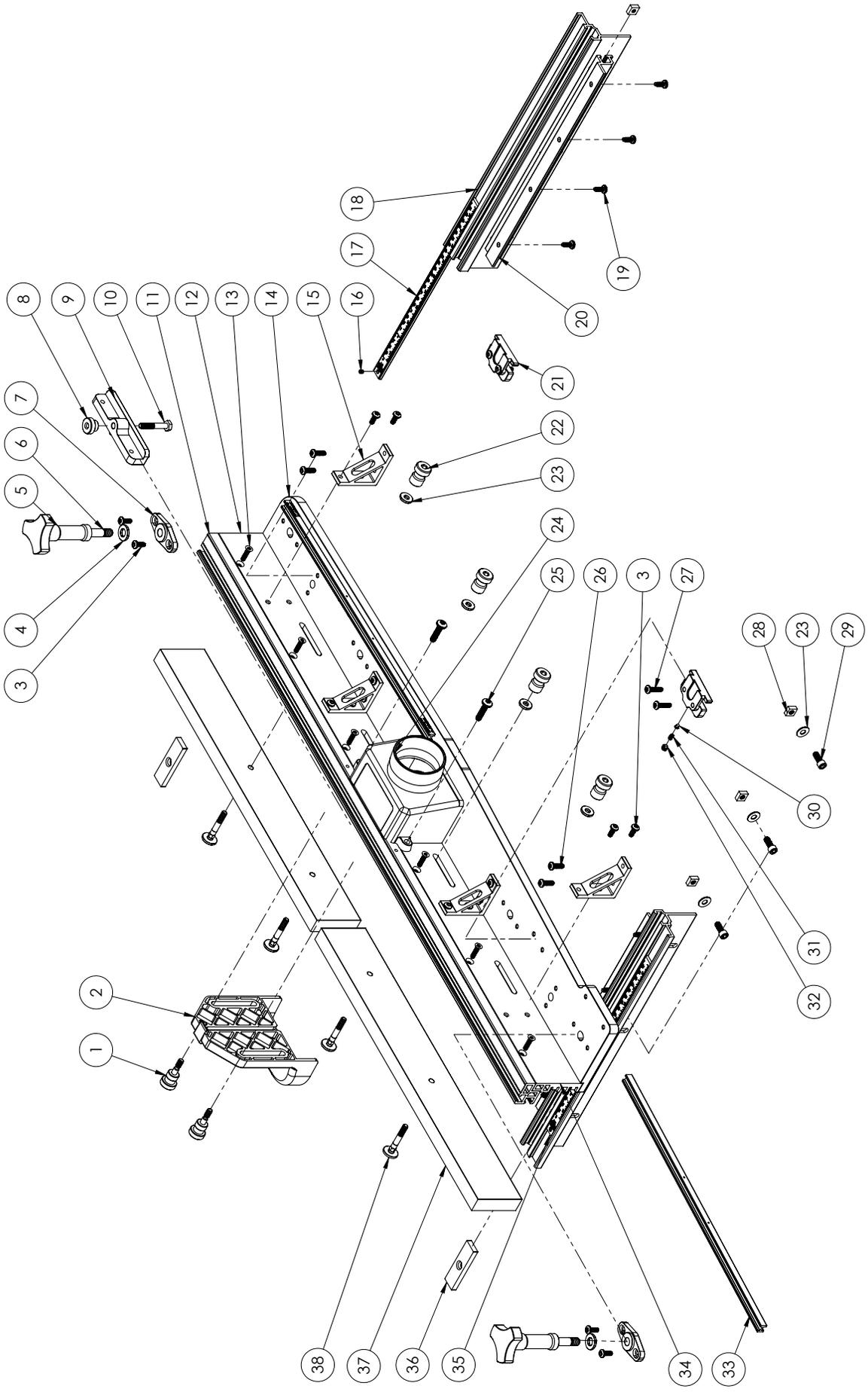


- a. Slide the shimming bars (part #33) into the shimming bar holders (part #21) until the detent “clicks” into place.

Step 15: Using the shimming bars



- a. Loosen the fence face clamping knobs (part #22) until there is enough play behind the fence face to slide the shimming bars behind.
- b. Slide the fence shimming bars (part #33) into the matching grooves on the left hand fence upright (part #12, outfeed side).
- c. When sliding the shimming bars into the left hand fence upright (part #12) match the laser engraved feed direction to the desired jointing spacing. ($\frac{1}{16}$ " or $\frac{1}{32}$ ").
- d. Once the shimming bar is behind the fence face, tighten the fence face clamping knobs (part #22).



MAST-R-FENCE III™ PARTS LIST

Item No.	Part No.	Part Description	Qty
1	S0053-17	Guard Height Adjustment Knob	2
2	M0286	Guard	1
3	F0363	#10-24 X ½" Pan Head Torx Screw	12
4	S0064-12	Track Clamping Knob Washer	2
5	E0131-5	Track Clamping Knob	2
6	S0065-10	Track Clamping Knob Stud	2
7	E0041-4	Track Clamping Knob Mount	2
8	S0053-6	Guard Mount Clamping Knob	1
9	E0312-1	Guard Mount	1
10	F0501	¼"-20 X 1-½" Hex Head Screw	1
11	E0256-2-3	Upper Fence	1
12	E0309-1	Left Hand Fence Upright	1
13	F0364	#10-24 X ¾" Flat Head Torx Screw	6
14	M0378-1	Base	1
15	E0314-1	Fence Upright Bracket	4
16	F0355	#8-32 X ⅜" Flat Point Set Screw	2
17	E0295-3	Left Hand Scale Bar	1
18	E0306-1	Fence Track	2
19	F0330	#10-24 X ½" Self Tapping Pan Head Torx Screw	8
20	E0307-1	Fence Mounting Angle	2
21	E0228-3	Shimming Bar Holder	2
22	S0053-1	Fence Face Clamping Knob	4
23	F0348	¼" Washer	10
24	M0280	Vacuum Shroud	1
25	F0365	¼"-20 X 1" Pan Head Torx Screw	2
26	F0435	#10-24 X ⅝" Pan Head Torx Screw	8
27	F0370	#10-24 X ¾" Pan Head Torx Screw	4
28	F0028	¼"-20 Square Nut	6
29	F0347	¼"-20 X ⅝" Socket Head Cap Screw	6
30	S0075-4	Spring Plunger	2
31	M0391	Spring Plunger Compression Spring	2
32	F0433	¼"-20 X ⅜" Cup Point Set Screw	2
33	E0308-1	Fence Shimming Bar	2
34	E0309-2	Right Hand Fence Upright	1
35	E0295-3	Right Hand Scale Bar	1
36	S0014-5	Fence Clamping T-Nut	2
37	M0401-1	Fence Face	2
38	S0053-37-C	Fence Face Screw	4