



# MARK V 520 – RIP FENCE SCALE UPGRADE PACKAGE 522292

## Your Model 520 Rip Fence Scale Upgrade Package Includes:

- (1) 45" long Stainless Steel Scale
- (1) 16" long Stainless Steel Scale
- (1) 17-1/2" Main Table Front Rail
- (3) 7-1/2" Extension/Floating Table Front Rails
- (2) Aluminum Alignment Gauges

## Tools Needed

- √ 7/16" Open End Wrench
- √ 5/32" Allen Wrench
- √ (2) Alignment Gauges (521097) - Included

## SAFETY

**WARNING**

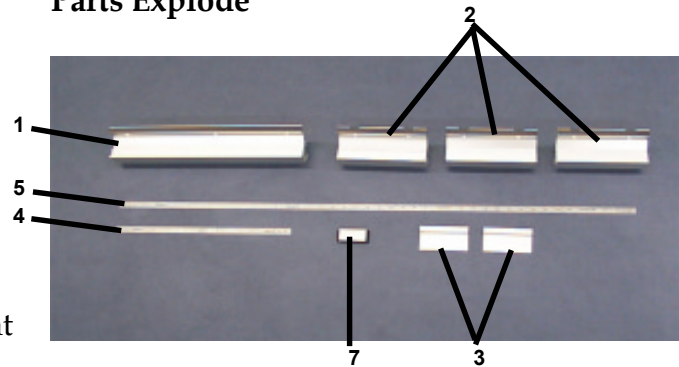
- Please read, understand and follow ALL of the assembly and alignment procedures covered in this instruction sheet prior to upgrading your Model 520 Pro Fence System to accept the Direct-Reading Scales.

## CONVERSION INSTRUCTIONS

### Remove the Old Front Rail Assemblies

1. Start by removing your Saw Table, Extension Table and Floating Tables from your Model 520 MARK V and placing them upside-down on your workbench or other flat surface.

### Parts Explode



Parts List			
Ref No.	Part No.	Item Description	Qty
—	522292	MKV Fence Scale Upgrade	
1	522298	Front Rail Asmy. Main Table ....	1
		(includes 522271)	
2	522297	Front Rail Asmy. Ext Table .....	3
		(includes 522279)	
3	521097	Alignment Gauge .....	2
4	522269	38" Scale .....	1
5	522270	9 1/2" Scale .....	1
6	522271	8- 3/4" Rubber Magnet .....	2
7	522287	Indicator Block .....	1
8	522273	Two Sided Tape .....	1
9	522279	7-1/2" Rubber Magnet .....	3

2. Using a 7/16" open end wrench and your 5/32" Allen wrench, remove the Keps Nuts (515294), Flat Washers (120392, if used), Spacers (518403) and Flat Head Screws (518460) from the FRONT (only) Rail Assemblies on each Table.
3. Remove the old Front Rail Assemblies (518488 & 518489) from the main Table and the Extension Tables and set aside.

### NOTE

Save the Keps Nuts (515294) Spacers (518403), Flat Head Screws (518460) and Flat Washers (120392, if used) for use in attaching the new Front Rail Assemblies to the Tables. Refer to the exploded view drawings for part references.

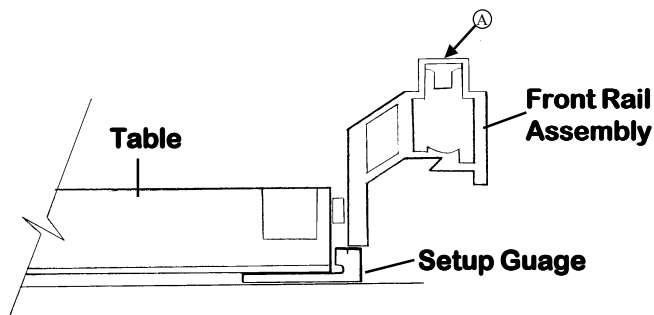


Figure 1

## Install the New Front Rail Assemblies

4. With your Saw Table upside-down, slide the two aluminum Alignment Gauges under the front edge of the Table...one near the left corner and the other near the right corner. The thick part of the Gauge should protrude out from under the Table and up towards its underside, as shown In Fig. 1.
5. Insert the Flat Head Screws (518460) through the Front Rail Assembly (522298) from the front. Slide the Spacers (518403) onto the Screws between the Table and Rail Assembly, then slide the Screws through the Table mounting holes.
6. Place the Flat Washers (120392, if used) onto the Screws, followed by the Keps Nuts (515294) and finger-tighten only.

### NOTE

**Make certain the Alignment Gauges are flat against the surface of your Table and against the Front Rail Assembly. Tighten Keps Nuts securely.**

7. Remove the Knobs (515859) and springs (518462) from your old Rail Assembly and install them on your new Rail Assembly. Be sure the small diameter ends of the springs are slid onto the Knobs first, as

shown in Fig. 2.

8. Thread the Knobs (with springs in position) into the threaded inserts near each end of the Rail Assembly (see A in Fig. 1).

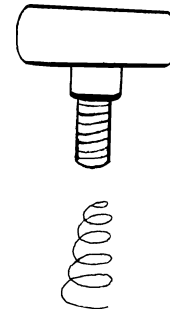


Figure 2

9. Repeat steps 4 through 8 for your Extension Table and Floating Tables, using a single Alignment gauge centered under the front of each Extension Table.
10. Re-mount all Tables back onto your MARK V.

## Install the Scale Indicator Block

11. Remove your Rip Fence and lay it upside-down on your workbench surface with the Locking Handles toward you.
12. Clean the area with rubbing alcohol or denatured alcohol.
13. Peel the backing off the double-stick tape on the flat side of the Indicator Block.
14. While carefully holding the Block off the surface of the Rip Fence (to temporarily keep it from adhering), position the Block so that an equal amount projects beyond each side of the Fence...and the side of the Block rests squarely against the Fence Base (518418), where it meets the Fence Extrusion (518400)..

15. When you're confident that the alignment of the Block is correct, press it firmly into position. See Figure 3.



Figure 3

## USING THE RIP FENCE SCALE

### **POSITIONING — Left Or Right Of Blade**

1. Both scales contain a "0" point that is 6-1/2" to the right of the Scale's left end.
2. Although most woodworking operations are normally performed with the Rip Fence to the RIGHT of the blade, some operations such as Molding can require that the Fence be installed to the LEFT of the Blade or Cutter. This short section of the Scale is designed for these occasions.

### NOTE

#### *For Left-Handed Operators*

If you're left-handed and prefer to work with the Rip Fence to the LEFT of the blade, you may do so by positioning the Scale on the Table Rails with the numbers upside-down.

### NOTE

- ◆ These precision Scales are thin and **MUST be handled with extreme care. Bending or kinking the scales will break them.**
  - ◆ To prevent the indicator marks from wearing off through use, each mark is lightly etched prior to the application of black paint.
  - ◆ This process makes the Scales easier to read...but also makes them more susceptible to breakage...particularly at the "inch" marks where the scoring is nearly full-width.
- ◆ It is also important to note that the Lock Nut (518459) for the Rip Fence Infeed Locking Bar (518407) may snag the Scale and alter its location if the Fence is not positioned with care on the Table surface.

### **Zeroing The Scales**

3. To ensure accuracy, the Scale will have to be re-Zeroed each time you change a Blade or Cutter, alter the position of the Quill Feed or change the distance relationship between the MARK V Headstock and Carriage.
4. To perform this operation, begin by locking the positions of the Headstock, Carriage and Quill Feed.
5. Next, position the Rip Fence exactly 3" from the side of the blade tooth (or Cutter) nearest the Fence and lock the Fence into position.
6. With the Fence locked into position, slide the magnetic Scale left or right until the Fence Indicator aligns exactly at the 3" point.

7. Following safe table sawing procedures, use a piece of scrap stock to make a trial cut. If the cut piece of stock doesn't measure exactly 3", adjust the Scale accordingly before going to work.

### NOTE

Once the Scale is set properly, no re-adjustment will be required...

...unless you change a Blade or Cutter, alter the position of the Quill Feed or change the distance relationship between the MARK V Headstock and Carriage.

### Using The Scales

8. Once the Scale is set properly, using it to measure rip sawing, dadoing, molding or other table sawing operations is a simple matter of moving the fence to the desired distance, locking it into position and making your cut.

### NOTE

In the event your operation requires the use of a shop-built, add-on auxiliary Rip Fence extension or "sacrificial" face, be sure to compensate for the thickness of the add-on by adjusting the scale away from the Fence by the thickness of that extension or face.

### Non-Table Saw Applications

The Scales are also usable for operations such as...

- Molding
- Drilling a line of holes equidistant from the edge of a piece of stock
- Mortising
- Disc Sanding duplicate workpieces to identical lengths
- Routing slots, grooves or dadoes
- Routing or Shaping decorative edges

### NOTE

When performing the above operations, Scale positioning will, of course, have to be measured from the center (in the case of drill bits) or outer edges of the cutter you plan to use.

### NOTE

If you have any questions about your Direct reading Scales, please call our Customer Service Department TOLL-FREE at 1-800-762-7555, or drop us an e-mail at [techsupport@shopsmith.com](mailto:techsupport@shopsmith.com), or visit our website at [www.shopsmith.com](http://www.shopsmith.com), or write to us at:

Shopsmith, Inc.  
Attn: Customer Service Technical Dept.  
6530 Poe Avenue  
Dayton, Ohio 45414

