

**TORONTO TOOL MANUFACTURING INC.**

# ***Pro-Cut 50***

## User Manual



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[www.torontotool.com](http://www.torontotool.com)

# Pro-Cut 50 User Manual

## Pro-Cut 50 Professional ( Table Saw and Router System)



Thank you for purchasing the Pro-Cut 50 Professional (Table Saw and Router System). Below you will find Safety Procedures, set-up procedures and operating instructions. **For video demonstrations, be sure to visit the “How To” section of our web site [www.torontotool.com](http://www.torontotool.com)**

### *Canadian Made, Professional Grade Products*

***It's time for a change! Introducing the Pro-Cut 50 Professional Table Saw and Router System!*** Conventional table saws have been around for years and have been virtually unchanged from the original design. There are a number of challenges when using a conventional table saw that many people have struggled with and tried to improve over the years. A conventional table saw is good for rip cutting boards and smaller panels, but depends on the operator to feed material evenly and tight against the side fence to produce straight cuts. You also have to ensure the material is held down on the table top so it doesn't "ride the blade" while feeding. This is true more so with thinner material such as ¼" plywood. A conventional table saw also relies on the side fence clamping exactly parallel to the blade. If the side fence is not parallel to the blade, the resulting cut will have excessive "tear out" and also greatly increases the possibility "kick back". The fact that a side fence moves means it will have some play and a good possibility of error.

### **Next Generation Table Saw**

The new Pro-Cut 50 is the next generation table saw with numerous features and benefits to address the inherent disadvantages of a table saw. The Pro-Cut 50 rip cuts material like a conventional table saw but, unlike a conventional table saw, the material is fully guided on both sides thus eliminating feed errors. In addition, boards or panels move through the saw with ease on the built-in roller table. The fence is fixed at exactly 90° to the saw thus eliminating any side fence error as can be experienced on conventional table saws. For cutting angles you simply tilt the saw to any desired angle. The Pro-Cut 50 is based on Toronto Tool's industrial design where the saw moves along precision guide rails with adjustable height up to 3-1/2". The smooth movement of the sled includes (8) sealed roller bearings and (4) industrial grade bearing blocks to ensure precision and accuracy of movement. Rip cutting narrow boards or full 4' x 8' panels has never been easier. A conventional table saw is prone to "kick back" due to design but the top mounted saw of the Pro-Cut 50 encapsulates your material thus virtually eliminating the possibility of "kick back". The Pro-Cut 50 comes with the top of the line, premium grade Hitachi PCC7BMR saw chosen for its quality of construction, power and accuracy.



## ***PRO-CUT 50***

Professional Table Saw and Router Guide System



## **PCC7BM**



## **INCLUDED** with the ***PRO-CUT 50***

Hitachi PCC7BMR 7-1/4" Saw Featuring IDI Technology

Powerful 15 amp motor to tackle the toughest cutting jobs. Patented IDI (Internal Double Insulation) technology reduces vibration and extends tool life. Bevel capacity adjustable from 0-55° with positive stops at 45° and 55°. Heavy duty die-cast aluminum base with integrated scale provides stability and accuracy. Large all metal levers for adjusting depth and bevel angles. Electric brake stops the blade quickly after the switch is released. Magnesium housing, gear cover, blade cover and lower guard for increased strength and smooth operation.

## **Cross Cutting Advantage**

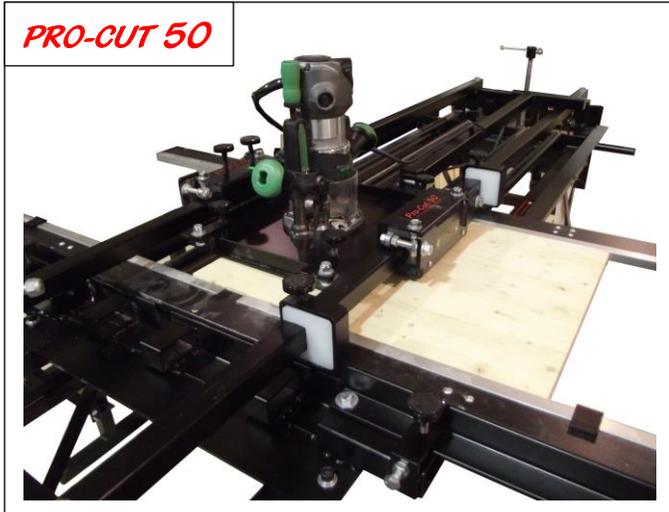
Cross cutting on a conventional table saw can be a challenge at the best of times and involves moving the entire piece of material through the blade. An uneven feed while cross cutting can cause pinching of the material and most likely result in "kick back". A number of people build a cross cut sled for their table saw that rides in the small groove on the table top. This method generally works for smaller panels and boards but does not work well for larger panels. A good number of people don't even attempt cross cutting large panels on their table saw. They resort to a guide and circular saw. Even if you are fortunate enough to have a sliding cross cut table set up for your table saw, you still have to move the entire sheet. In a lot of cases, the crosscut add-on costs more than the table saw itself and takes up a tremendous amount of floor space in your shop. Cutting wood across the grain in one pass will most likely produce chipping or tear out. This can be minimized by using a quality finish blade with a high tooth count but still doesn't eliminate "tear out" and/or "chipping". The only proven method for eliminating "tear out" or "chipping" is by kerf cutting. A pre-cut or kerf blade is only found on the most expensive table saws.

## **A Different Approach**

The Pro-Cut 50 uses an entirely different approach to crosscutting. The board or panel is locked in place on the Pro-Cut 50 and the saw slides through the material on precision guide rails. No more reaching over the panel or trying to hold a panel square and tight against the side fence while also making sure to keep the panel flat on the table surface so it doesn't "ride the blade" and, at the same time, trying to feed it smoothly into the saw blade.

The Pro-Cut 50 will eliminate “tear out” and “chipping” when cutting across the grain. Easily perform by kerf cutting a board or panel for perfectly smooth cuts. Due to the precision guide system of the Pro-Cut 50, you simply raise the blade of the saw to make a pre-cut, also known as a kerf cut, on the board or panel then lower the blade to complete the cut. The result is a perfectly smooth cut against the grain on both the top and bottom of any material including hardwood, softwood, veneer panels and melamine.

### *The PRO-CUT 50 is also a full “X” and “Y” Router Table*



### **Take full advantage of your router using the Pro-Cut 50**

By simply unlocking and removing the saw from the Pro-Cut 50 sled and placing the router in its place, you have instantly converted your Pro-Cut 50 from a precision table saw to a full size precision “X” & “Y” router table. The Pro-Cut 50 has the ability to rout in both the “X” and “Y” directions on all projects from something as small as a bread board right up to 50” wide panels. Your material can be of any length in the “Y” direction. Perfect for making your own custom moldings, window frames, small and large cabinet doors, custom table tops, picture frames, fluted rails just to name a few. You can also dado both side panels of a cabinet at the same time on the Pro-Cut 50. This is perfect for exact placement of shelves in cabinets of any height. Routing cutouts for inlays in any project is also a breeze on the Pro-Cut 50. The Pro-Cut 50 comes with the router insert plate, 2 router guide stops and 2 panel stops for quick and easy set-up for routing any project. Virtually anything you can imagine can be made using the Pro-Cut 50. The router is top mounted on the Pro-Cut 50 so you can always see the cut in progress. This is a huge advantage over a conventional router table where the router is mounted underneath. A conventional router table is one dimensional and will only produce cuts in one direction and is also limited in width of cut thus limiting the wide range of uses a router is capable of. The Pro-Cut 50 allows an operator to take full advantage of the router and the countless operations a router is able to perform. You can even glue another board(s) or panel to the top of your project and continue routing. Great for making true raised panel doors for example. The Pro-Cut 50 is designed for ease of use, precision and productivity for rip cutting, crosscutting and all your router needs. The Pro-Cut 50 is also designed for easy storage when not in use with fold up legs and wheels.

# For Your Own Safety Read Instruction Manual Before Operating Tool

## Save it for future reference

### GENERAL SAFETY PRECAUTIONS

(For All Tools)

1. **KNOW YOUR POWER TOOL.** Read the owner's manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards particular to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lit. Don't use tool in presence of flammable liquids or gases.
6. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
7. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewellery which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair. Always wear safety glasses.

### SPECIFIC SAFETY RULES

**DO NOT** let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

**Always use a push stick to complete cuts. Never place fingers near the cutting blade under any circumstances.**

### Setting up your Pro-Cut 50 Professional for the first time

When un-packaging your new Pro-Cut 50 please inspect all parts for damage and report any damage to Toronto Tool Manufacturing Inc. right away.

Depending on the shipping arrangements, your machine may arrive in 2 separate shipping boxes or can be, at your request, fully assembled. One box will contain the main frame of the Pro-Cut 50 and the other box will contain the Pro-Cut 50 sled, sled rails, premium grade circular saw, legs and accessory parts.

Assembly is straight forward and will take approximately 1 hour. In addition, adjustments will take approximately ½ to 1 hour. Please follow the step by step instructions provided below. You will need (2) 9/16" wrenches, a large "T" square, a red handled Robertson screw driver and an adjustable wrench that opens to at least 1" to complete the assembly.

- 1) Unpack the box containing the main frame of the Pro-Cut 50 and place it on the floor.
- 2) Unpack the 2<sup>nd</sup> box containing the leg assemblies.
- 3) You will notice the leg assembly attachment bolts are placed in the leg mounting holes of the frame.
- 4) Remove the leg attachment bolts from the frame and position one of the leg assemblies so the mounting holes in the leg assembly line up with the mounting holes in the frame. (*see fig 1 below*)
- 5) Place a washer on the (2) leg assembly mounting bolts and feed the bolt through the frame mounting holes and through the Leg assembly mounting holes. Place a washer and the 3/8" lock nut on the mounting bolts and slowly tighten the lock nuts evenly on both sides. Be sure the leg assembly is

centered in the frame with an even space on both sides. Tighten the lock nuts only enough to remove any side to side movement of the leg assembly. **NOTE: Do not over tighten the lock nuts. The legs are designed to freely fold up and down.**

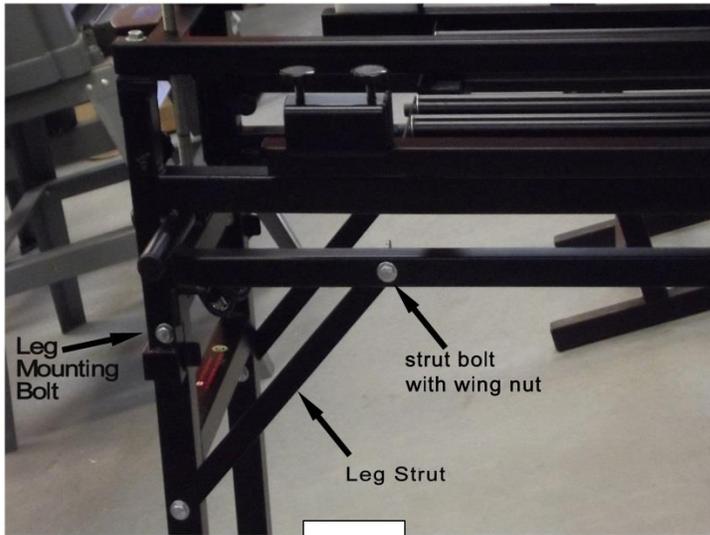


Fig 1

- 6) A leg strut is attached to either side of the leg assembly. A bolt and wing nut is located in the Pro-Cut 50 frame on either side of the frame that the leg strut attaches to. Remove the wing nut from the bolt along with the washer on one side. Fold the leg strut up to allow the drilled hole in the leg strut to line up with the bolt. Insert the bolt into the leg strut, attach the washer and wing nut and tighten. Follow the same procedure for the opposite strut of the leg assembly.
- 7) Repeat the same procedure for the other leg assembly on the opposite end of the Pro-Cut 50 frame.

### Attach the Sled Guide Rail Sub Frames.

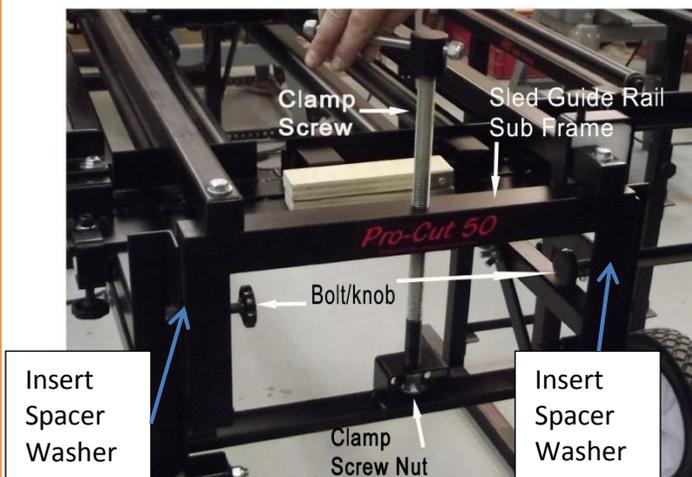


Fig 2

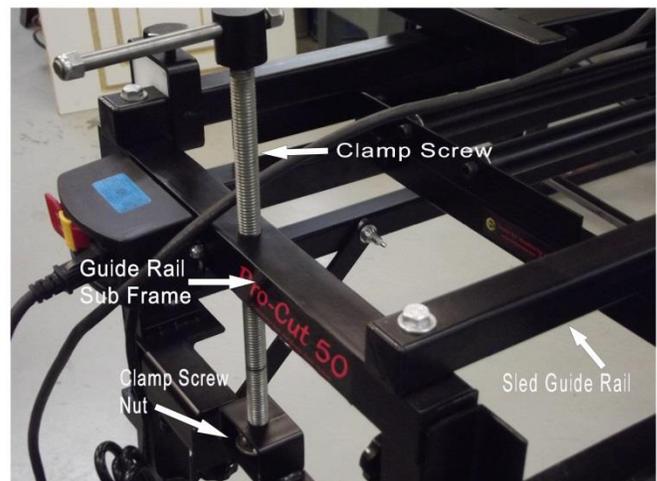
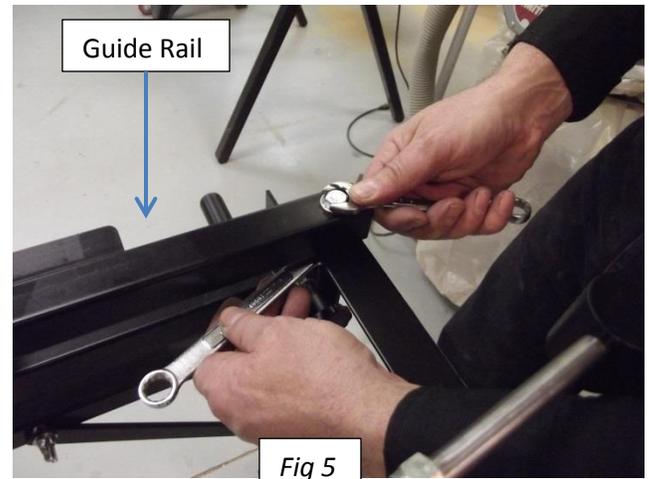
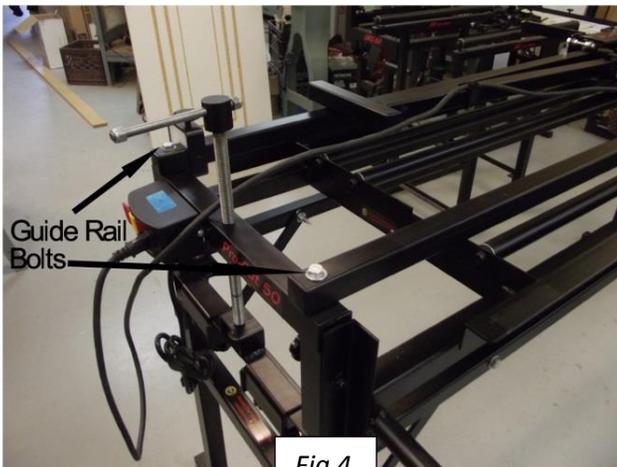


Fig 3

- 1) Locate the (2) Guide rail sub frame ends that have a 5/8" x 16" Clamp Screw, 5/8" washer and 5/8" Clamp Screw Nut with welded washer already mounted to each of the guide rail sub frames.
- 2) You will notice (2) long bolt/knobs screwed into the Pro-Cut 50 frame on either side of the Pro-Cut 50 frame and another (2) long bolt/knobs at the other end of the Pro-Cut 50 frame.

- 3) Remove (2) bolt/knob screws from one end of the Pro-Cut 50 frame and place the guide rail frame so the slots in the guide rail frame line up with the mounting holes in the Pro-Cut 50 frame. You will notice there are 2 washers on the bolt/knob. Both washers must be placed as described below. Place a washer on the bolt/knob. There will also be a washer placed on the bolt/knob between the slotted guide rail sub frame and the Pro-Cut 50 frame. (See Fig 2) This washer acts as a spacer as well as allow the guide rail frame to raise and lower smoothly. Screw the bolt/knob into the Pro-Cut 50 frame. Follow the same procedure for the opposite side of the guide rail frame. Allow the bottom of guide rail frame to rest squarely on the Pro-Cut 50 frame.
- 4) Screw the clamp screw assembly down until it enters the 5/8" hole of the Pro-Cut 50 frame bracket. As soon as the clamp screw assembly clears the 5/8" hole of the Pro-Cut 50 frame bracket, place a 5/8" washer on the Clamp Screw then screw the 5/8" nut with welded washer onto the Clamp Screw. (see fig 2 and 3) Using an adjustable wrench and holding the clamp screw handle tightly, tighten the clamp screw nut onto the clamp screw. Raise and lower the guide rail sub frame to be sure it operates smoothly.
- 5) Follow the same procedure for the other guide rail sub frame on the opposite end of the Pro-Cut 50 frame.

### Attaching the Guide Rails to the Guide Rail Frame



- 1) Locate the (2) long sled guide rails with the Pro-Cut 50 Sled and (2) guide rail router stops mounted on the rails. You will notice the mounting bolts for the guide rails are already in place on the Guide rail sub frame. You will also notice these guide rail bolts sit in 1" slots on the Guide rail sub frame. The slots will be used to adjust for the exact position of the guide rails (explained later).
- 2) Remove the nuts, bolts and washers from the (2) Guide rail sub frames.
- 3) Orientate the guide rails so the guide rail router stops on the guide rails are facing towards the front of the Pro-Cut 50. Carefully lift and place the guide rail assembly with the drilled holes of the guide rails placed exactly over the slotted holes in the guide rail sub frame.
- 4) Place a bolt with a washer in each of the four drilled holes in the guide rails. Push the bolt through the drilled hole of the guide rails and also through the 1" slots of the guide rail sub frame. Place a washer and nut on each of the (4) bolts. **Do not tighten the nuts at this point.** We will adjust the position of the guide rails and tighten the nuts later.
- 5) It is important to keep the guide rails clean and waxed. A good quality furniture polish applied once a day of before use does the trick nicely.

## Attaching the Side Fence

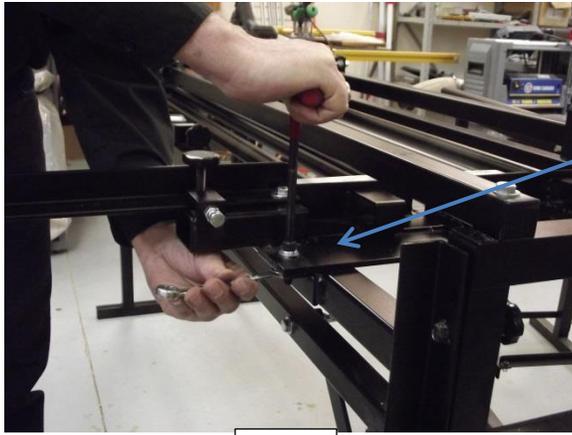


Fig 6

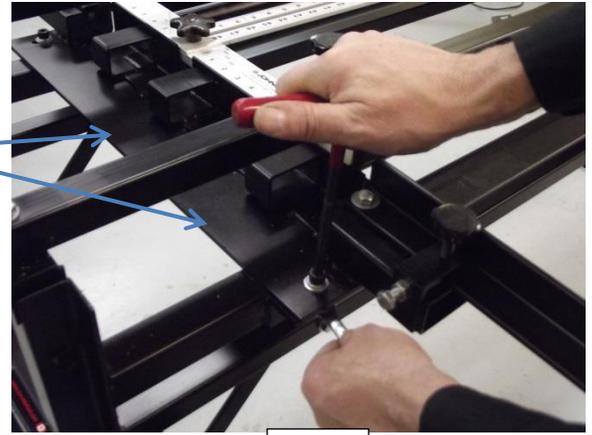


Fig 7

- 1) Locate and remove the side fence from the packaging.
- 2) Note the two slotted side fence brackets welded to the Pro-Cut 50 frame located just before the roller table. Also note bolts, nuts and washers placed in the slots of the side fence brackets. Remove the nuts, bolts and washers. Place the side fence so the drilled holes in the base of the side fence line up with the slots of the side fence brackets of the Pro-Cut 50 frame. (see Fig 6 and 7)
- 3) Place the 1" hex bolts with washer through the drilled holes of the bracket and through the slot of the side fence bracket. Place a washer and screw on a nut. **Do not tighten the nuts at this point.** Adjustment of the side fence is explained in the next section.

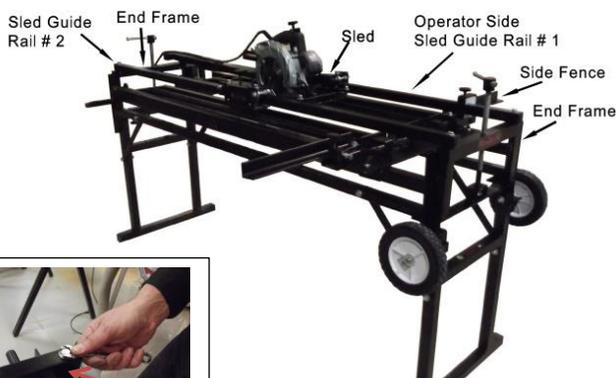
This completes the assembly of the Pro-Cut 50. Now we will make adjustments to the machine as explained below.

## Pro-Cut 50 Adjustment and Calibration

The Pro-Cut 50 is adjusted and calibrated at our facility however if adjust is required, follow the steps below.

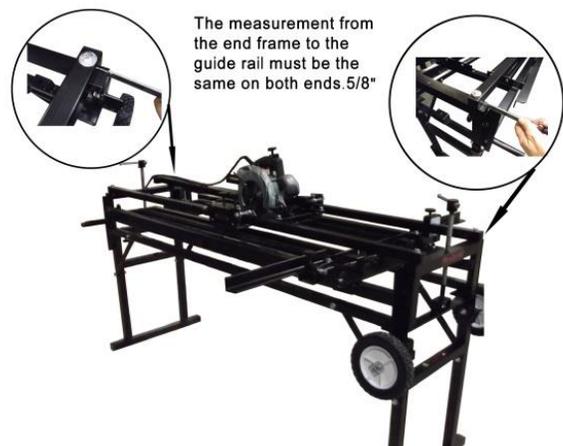
**The following are step by step calibration and set up procedures for the Pro-Cut 50: There are additional images at the end of this section to help further identify calibration and adjustment points**

Fig C-1



Loosen the nuts and bolts on both ends of both guide rails 1 & 2

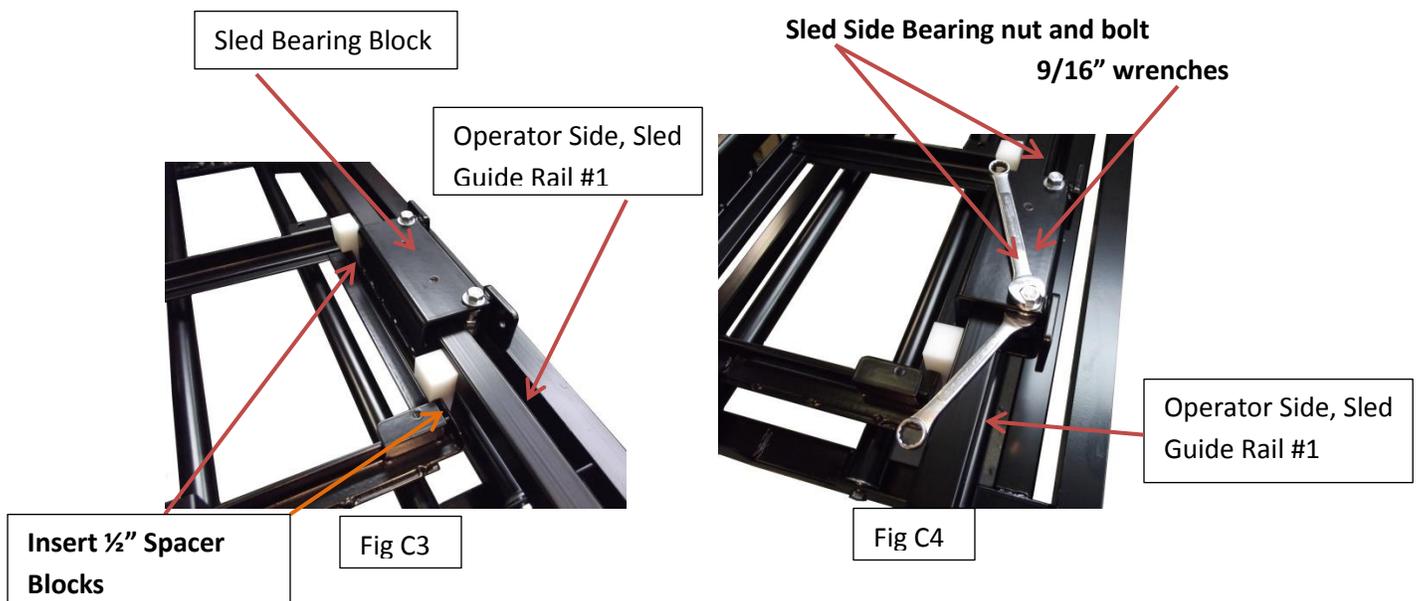
Fig C-2



- 1) Loosen all (4)  $\frac{3}{8}$ " nuts and bolts that hold both operator side, Sled Guide Rail #1 and Sled guide Rail #2. Be sure both end frames are securely locked. Measure the distance from the Operator Side, Sled Guide Rail #1 to the edge of the end frames of the Pro-Cut 50 (see Fig C-1 and C-2). This measurement should be  $\frac{5}{8}$ " on both ends of Operator Side, Sled Guide Rail #1. The measurement on both ends of the sled guide rail to the end frame can be slightly  $\pm \frac{5}{8}$ " but both measurements **must be exactly the same** since sled guide rail #1 will be used as reference to calibrate and set up the rest of the machine.

Adjust the Operator Side, Sled Guide Rail #1 and tighten the  $\frac{3}{8}$ " nuts and bolts on both ends of **only** the Operator Side, Sled Guide Rail #1. **Re-check the measurement ensuring both measurements are exactly the same.** Sled Guide Rail #2 will be adjusted later.

- 2) The next step is to adjust the Sled Guide Rail Roller Bearings against the Operator Side, Sled Guide Rail #1.



Loosen all (4) nuts and bolts that hold the (4) Side roller bearing on both the left and right sled bearing blocks. *(the side roller bearings are the ones that roll on the sides of both the operator Side, Guide Rail #1 and Guide Rail #2)*

Adjust only the (2) **Operator Side, Sled Roller Bearings** that run on the Operator Side, Sled Guide Rail #1 at this point. *(NOTE: The top roller bearings of the sled are fixed and require no adjustment).*

Place (2)  $\frac{1}{2}$ " spacers, (as shown in Fig C-3), between the Operator Side, Sled Guide Rail #1 and the Sled Frame as shown. You can use any spacer that measures  $\frac{1}{2}$ " thick.

You will need (2)  $\frac{9}{16}$ " wrenches as shown (Fig C-4) to make this adjustment. Place one  $\frac{9}{16}$ " wrench on the lower nut (Fig C-4) of the side roller bearing and, with spacers in place, push the side roller bearing against the Sled Guide Rail. Tighten the nuts to lock the bearing in place.

Follow the same procedure for the second side roller bearing on the same sled bearing block. Roll the sled back and forth. The sled should have some resistance but still move freely back and forth. If the bearings are too tight, restricting the sled movement, loosen the side bearing nuts and slacken them slightly. Re-tighten the nuts and re-check the movement.

### 3) Adjusting and securing Sled Guide Rail #2

Sled Guid Rails must be parallel to each other and be spaced 13-1/4" apart

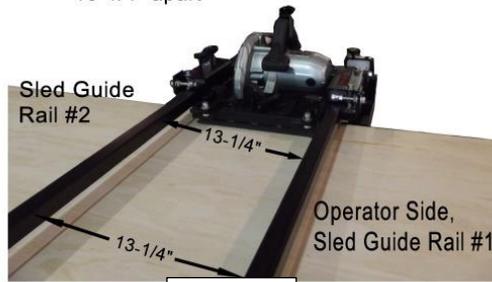


Fig C-5

- 6) Next, position the sled at one end of the guide rails against the end frame. You will now adjust and secure Guide Rail #2 on both ends of the rail. Hand tighten the 3/8" nuts and bolts on either end of Guide Rail #2. Using a measuring tape, adjust Rail #2 so it is 13-1/4" on both ends of the Operator Side, Guide Rail #1. (Fig C-5) (13-1/4" is the inside measurement From Rail #1 to Rail #2) It is important to ensure both rails are parallel to each other. Tighten the 3/8" nuts and bolts on either end of Rail #2 ensuring Rail #2 does not move when you tighten the nuts and bolts. After the rail #2 is secured, re-check your measurement. Next, slide the sled back and forth. The sled should have slight resistance but move freely back and forth. If the sled does not move freely, then adjust Rail #2 to slightly less than 13-1/4" on both ends of rail #2 ensuring the rails stay parallel to each other and re-tighten the nuts and bolts. It is important to be sure Rail #2 is parallel to Rail #1. It is important to keep the guide rails clean and waxed. A good quality furniture polish applied once a day of before use does the trick nicely.
- 4) Adjusting the remaining (2) Sled, Side Roller Bearings against Guide Rail #2. *(NOTE: The top roller bearings of the sled are fixed and require no adjustment).*

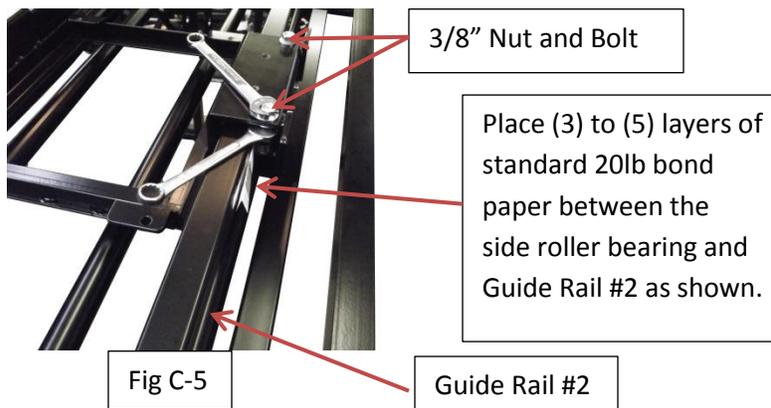
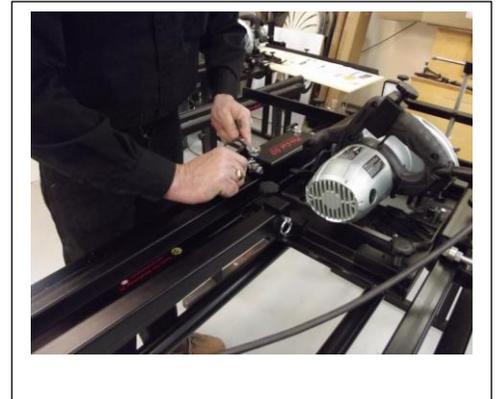


Fig C-5

Guide Rail #2



The 3/8" nuts and bolts on the sled bearing block holding the side roller bearings should still be loose. *(Please keep in mind the tighter you make the tolerance the more resistance the sled will have when pushing it back and forth while cross cutting and routing).* For a very tight tolerance use (3) layers of 20lb bond paper. *NOTE: Most people find that 5 layers of 20lb bond paper is a better compromise between accuracy and ease of use. Using 5 layers of 20lb bond paper will give you the accuracy of approximately 1/100".*

With your paper shims in place as shown in Fig C-5, press the roller against the paper using the bottom wrench while tightening the top 3/8" nut. With the roller bearing nut tight, remove your paper shim. The

paper shim should have resistance when pulling it out. If you cannot pull the shim out without moving the sled then the adjustment is too tight.

Follow the same procedure for the other roller bearing.

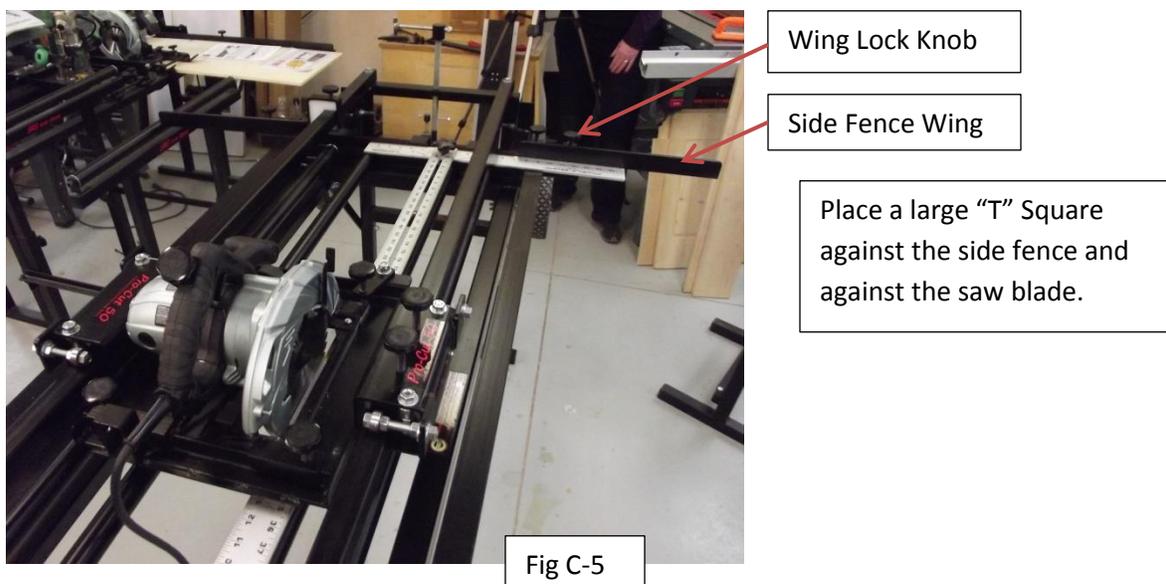
You now have both guide rails positioned and parallel to each other all 4 sled side roller bearings adjusted. At this point move the sled back and forth. If calibrated correctly, the sled should move freely back and forth with some resistance but there should be no side to side movement of the sled.

If you find the sled has excessive resistance and is difficult to move back and forth then most likely the bearings are slightly too tight against the guide rails. To check to see if this is the case, move each of the (4) side bearings individually by hand to see if one or two bearings are too tight and will not roll. If this is the case then re-adjust that bearing(s).

If you find the sled moves well on one end of the guide rails but has excessive resistance on the other end of the guide rails then this means the guide rails are not parallel to each other. If this is the case then it will be necessary to re-adjust the guide rails to be sure they are parallel to each other.

If you are satisfied with the movement of the sled then you can move on to the next step.

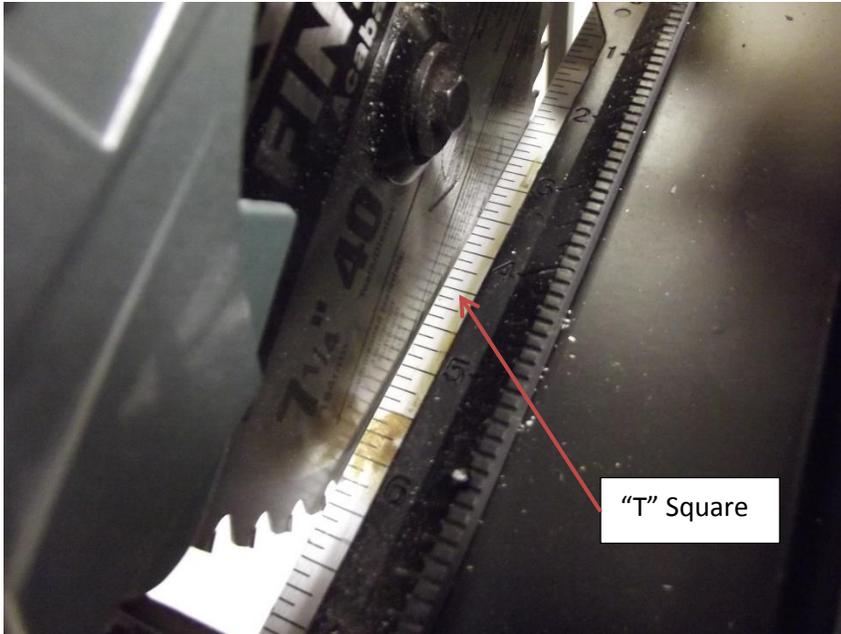
- 5) The next step is to adjust the side fence wings so they are in line with the side fence center. Fold the side fence wings out and lock them in position and tighten the wing lock knobs. Place a long straight edge along the side fence and, if adjustment is necessary on either wing, loosen the jam nut on the calibration bolt. Adjust the calibration bolt until the wing is in alignment with the side fence center. Lock the jam nut in place.
- 6) Next, adjust the side fence so it is exactly 90° to the saw blade. For this adjustment, the saw should be mounted and locked in the sled in the cross cut position with the saw blade lowered to full depth.



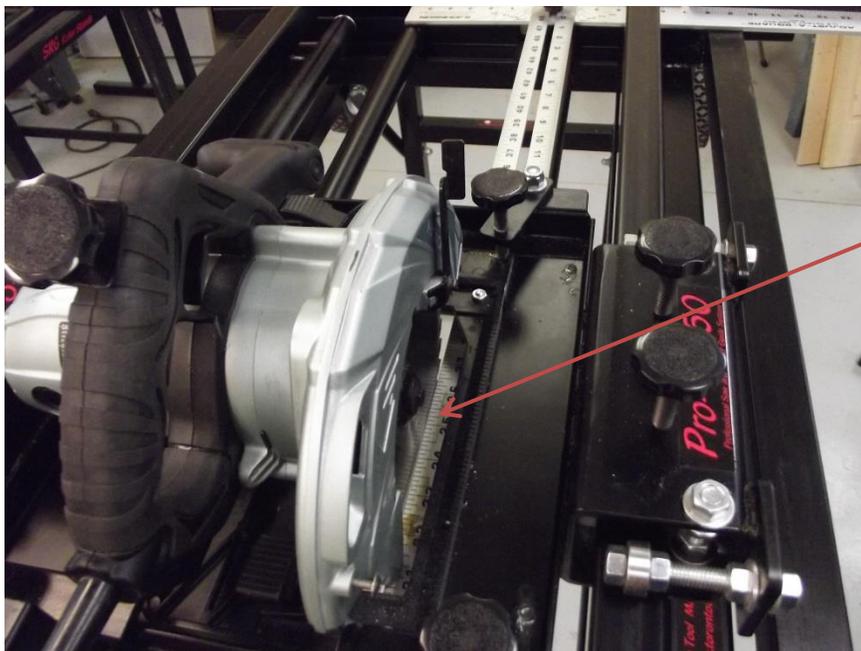
It may be easier to remove the Sled Push Rail to make this adjustment. Hand tighten the (2) 3/8" nuts and bolts that hold the side fence in position. Place a large "T" square against the side fence and against the blade of the saw. (*The saw blade should be set to full depth for this adjustment*). While firmly holding the "T" Square against the side fence, move the sled towards the side fence while watching the blade of the saw riding against the "T" Square. The blade of the saw should run "true" to the "T" Square. If not, reposition the

side fence and move the sled back and forth until you have the blade of the saw running “true “ to the “T” Square. Once you have the side fence positioned so the saw blade is running true to the “T” Square, tighten the 3/8” nuts and bolts that hold the side fence in position. After the nuts and bolts are tightened, re-check to be sure the saw blade is still running “true” to the “T” Square.

7) The final adjustment to be made is to “True” the saw.



When the “T” Square is held tightly against the side fence, this image shows the saw blade is slightly out of “True” when placed against the “T” Square.



This image shows the saw blade is perfectly “true” to the “T” square.

To adjust the saw blade for “true”, loosen the (4) mounting bolts that hold the saw to the saw insert plate. You will need a red handled Robertson screw driver and a small wrench. With the mounting bolts loose, move the saw until the saw blade is “true” to the “T” square. Tighten the saw insert mounting bolts.

This completes the set up and calibration of the Pro-Cut 50. It is advisable to make a few test cuts in material to check the set-up.

**The following are some images to help further identify calibration and adjustment points**

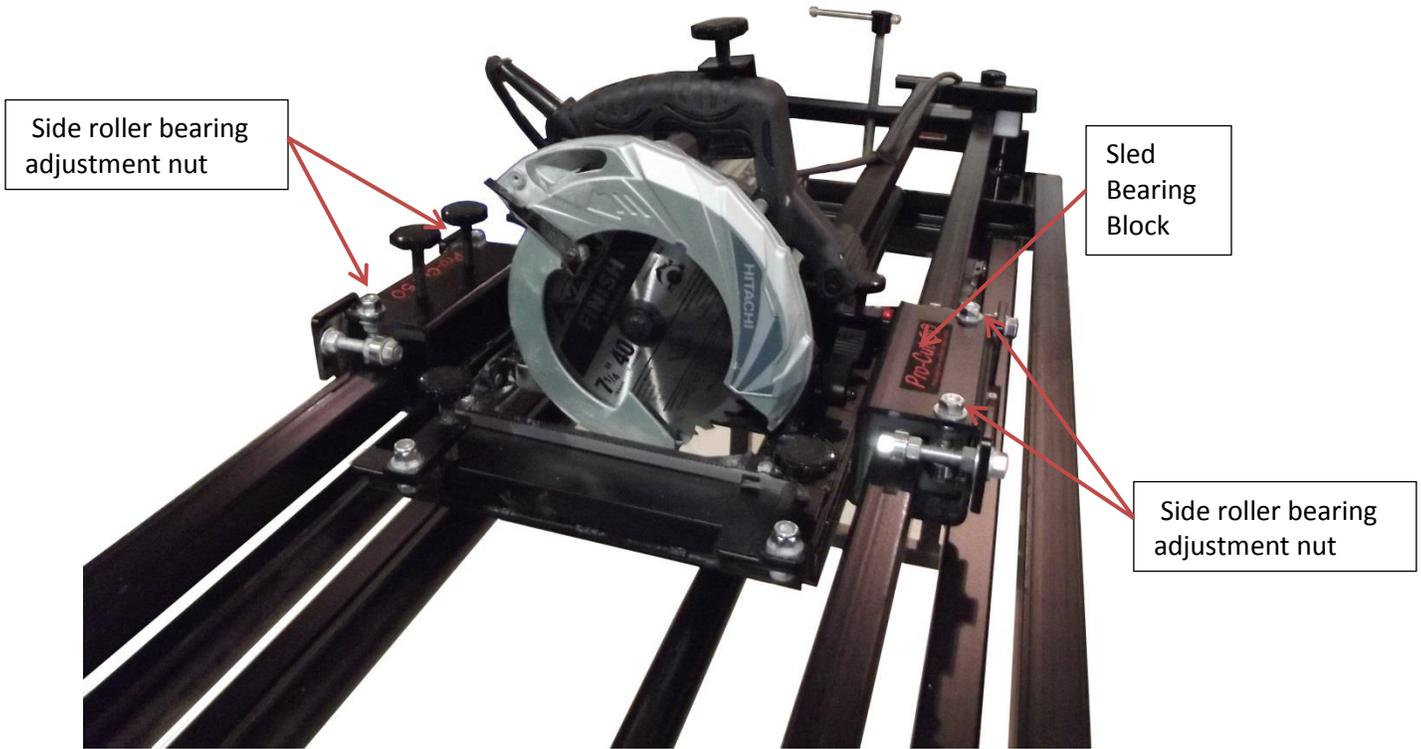


Fig 13

### **Squaring the Side Fence to the Guide Rails and Saw Blade**

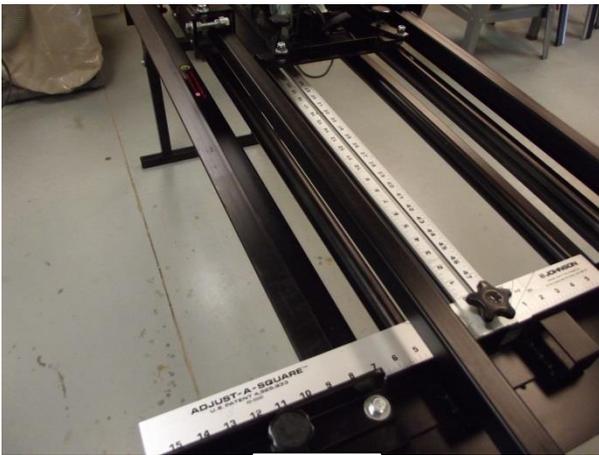


Fig 14

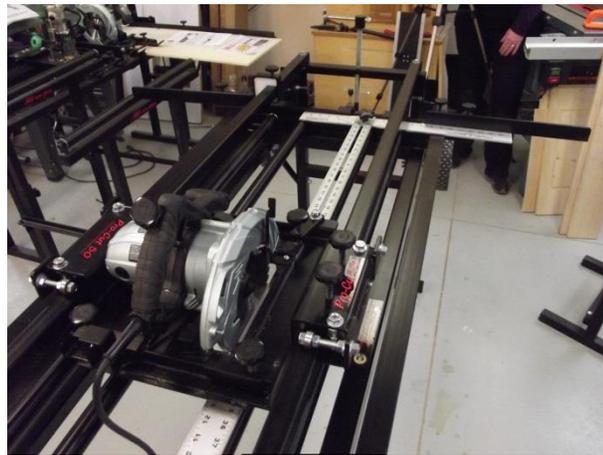


Fig 15



Fig 16

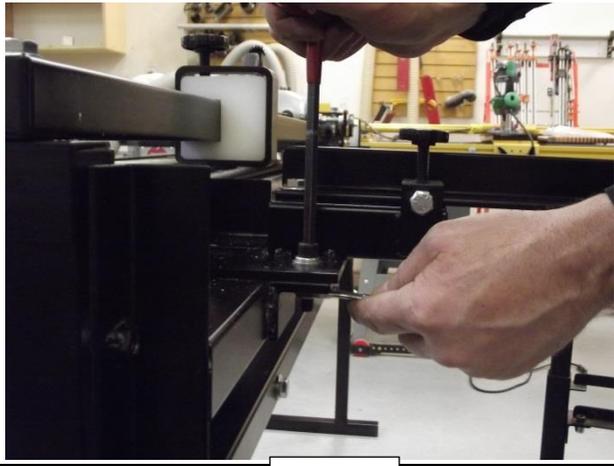


Fig 17

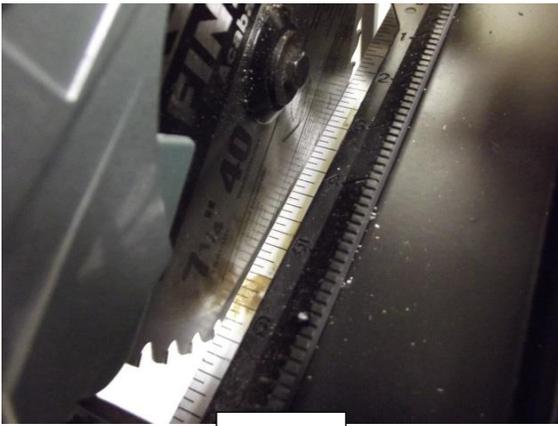


Fig 18



Fig 19

### Adjusting the Side fence Wings

The side fence has two fold out wings that extend the overall length of the side fence. The wings fold in for ease of storage when not in use.

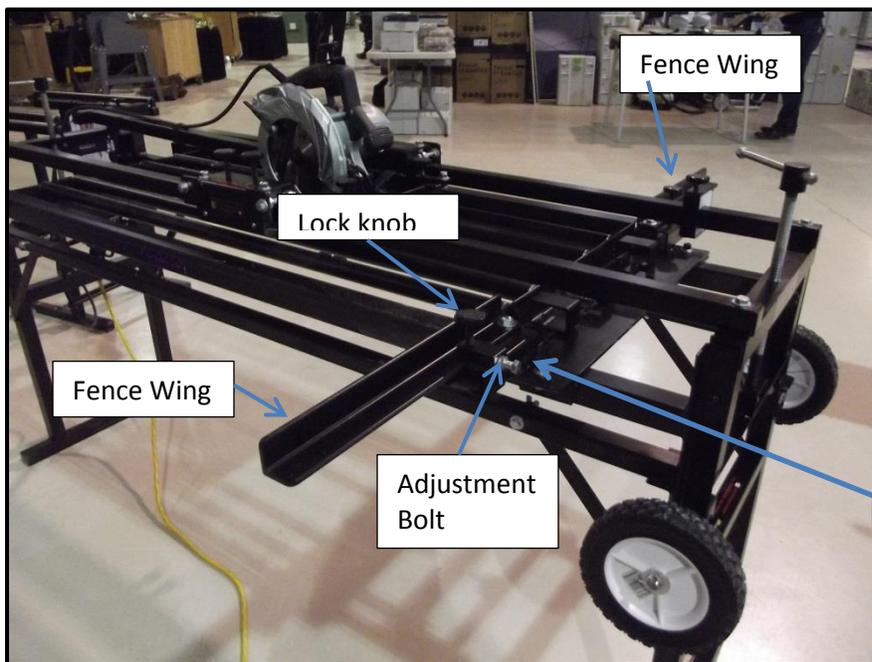
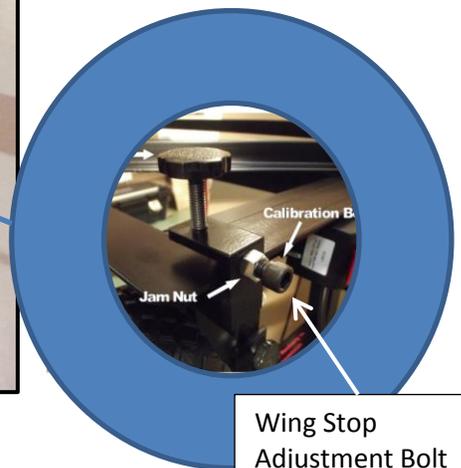


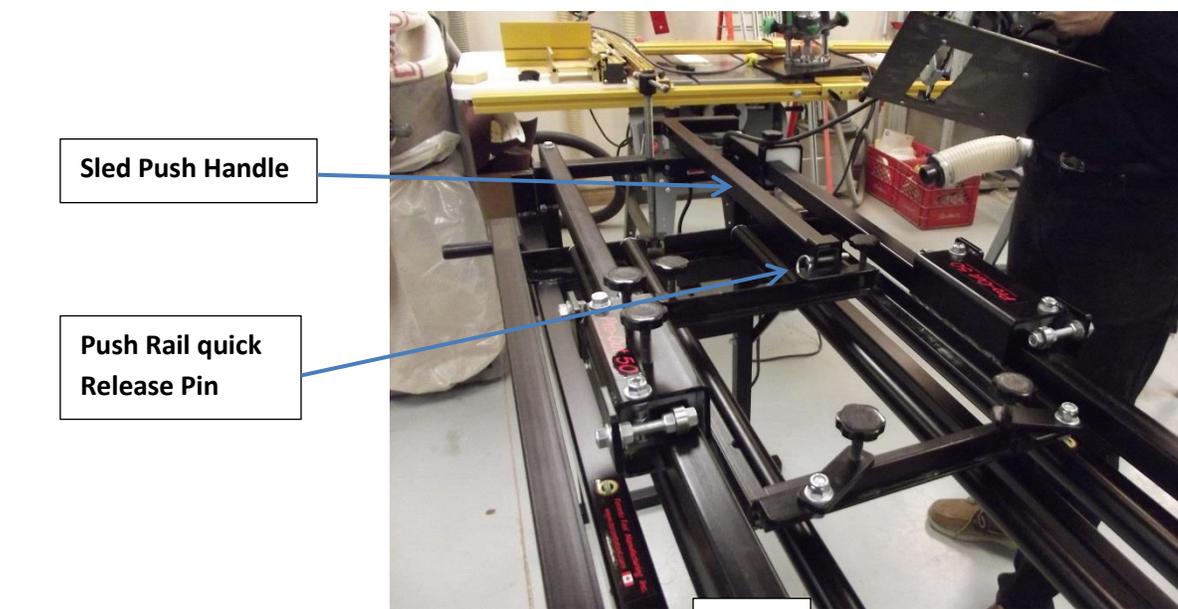
Fig 20



Wing Stop Adjustment Bolt

- 1) With both wings folded out and locked in place tight against the wing stop adjustment bolt, place a long straight edge against the side fence to check alignment.
- 2) All three sections of the side fence should be "true" to the straight edge. Be sure the side fence wings are resting firmly against the wing stop adjustment bolt.
- 3) If adjustment is necessary, loosen the jam nut (Fig 20) and adjust the wing stop adjustment bolt until the side fence wing is "true" and in alignment with the center section of the side fence.
- 4) Once adjusted, tighten the jam nut. Be sure the wing stop adjustment nut does not move while you tighten the jam nut. Re-check the alignment.
- 5) Follow the same procedure for the other side fence wing.

## Sled Push Handle

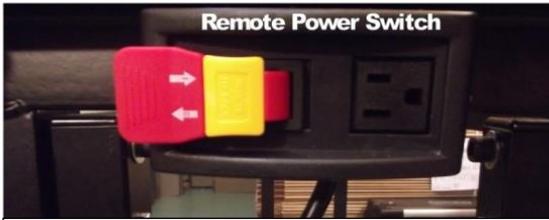


**Fig 21**

To install the sled push handle, slide the rail into the push rail bracket on the sled, line up the holes and install the quick release pin. For most operations you will probably leave the sled push rail installed however for small routing projects it may be easier to remove the sled push rail.

## Remote Power Switch and Saw Trigger Lock





The power switch box is used to plug the power tool into and comes equipped with a power lock out.

Fig 22

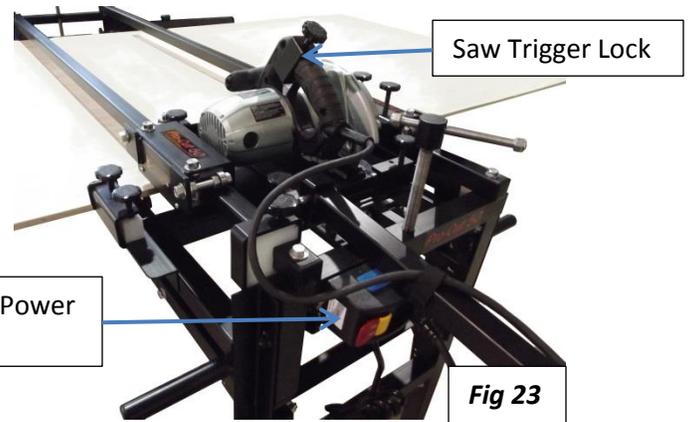


Fig 23

The Pro-Cut 50 is designed to allow the saw to operate without the necessity of holding the power switch of the saw in the on position while cutting material. To accomplish this, a saw trigger lock and remote power switch are included with the Pro-Cut 50.

**Caution must be taken when installing the saw trigger lock.**

**Be sure the saw is unplugged from the power source when installing the saw trigger lock.**

Carefully place the saw trigger lock over the saw trigger. It will be necessary to depress the safety lock on the saw trigger lock while holding the saw trigger lock up against the saw trigger. Slowly tighten the screw knob on the saw trigger lock being careful not to damage the saw trigger switch. Do not over tighten the saw trigger lock as it could result in damage to the saw trigger switch.

### Placing the Saw in the Pro-Cut 50 Sled

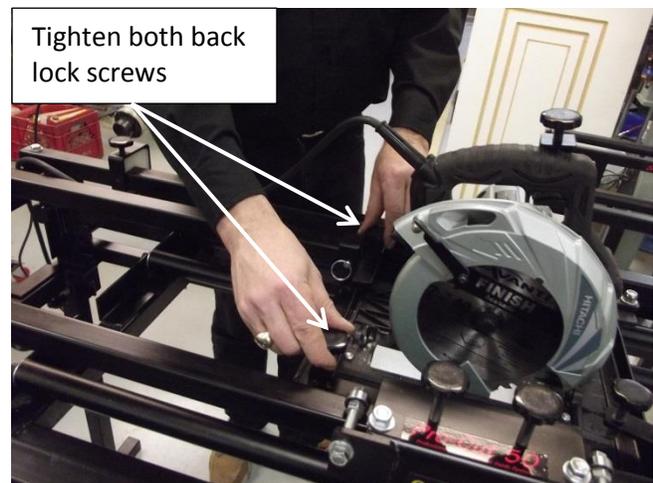
A premium grade saw is included with the Pro-Cut 50 system and comes pre-mounted to the saw insert plate. Installing or changing the saw position in the sled is fast and easy. The saw is installed in one direction for cross cutting and another direction for rip cutting as shown below.

### **Installing the saw for cross cutting**



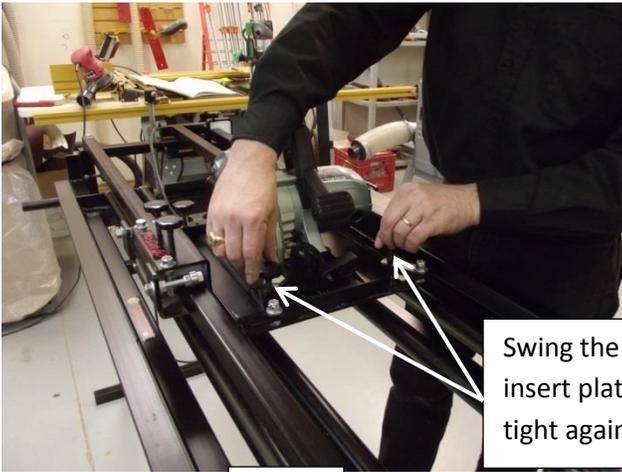
Slide insert plate under the back lock screws

Fig 24



Tighten both back lock screws

Fig 25



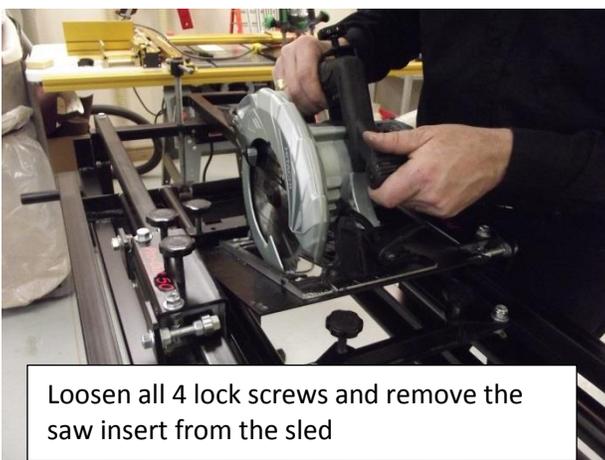
Swing the front insert lock arms over the insert plate and screw the lock knobs tight against the insert plate

Fig 26

The saw insert is locked in the sled with (4) lock positions. There are 2 back lock screws and two front swing arm lock screws.

- 1) To install the saw for cross cutting, position the saw as shown in Fig 24.
- 2) Slide the insert plate under the two back lock screws as shown in Fig 24, 25 and tighten the back lock screws against the insert plate.
- 3) Swing the front insert lock arms over the saw insert plate and screw down the lock knob screws tight against the insert plate.

### Installing the Saw Insert for Rip Cutting



Loosen all 4 lock screws and remove the saw insert from the sled

Fig 27



Turn the saw 90° and place the saw insert back into the sled.

Fig 28

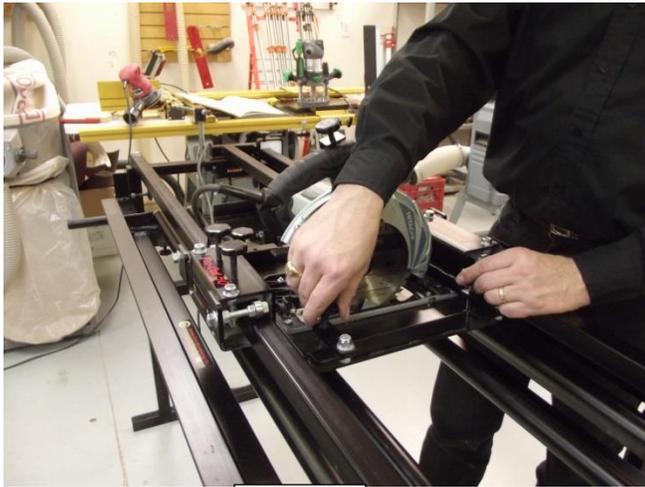


Fig 29

Slide the saw insert plate under the back screw locks and screw the locks down tight against the saw insert plate. Swing the screw lock brackets over the saw insert plate and tighten the screw locks against the saw insert plate.

The steps for installing the saw insert plate for rip cutting are exactly the same as for cross cutting except the saw insert plate is turned 90°.

### Installing Your Plunge Router to the Router insert Plate

Included with the Pro-Cut 50 is a separate router insert plate. The router insert plate is exactly the same size as the saw insert plate so interchanging the two requires no adjustment.

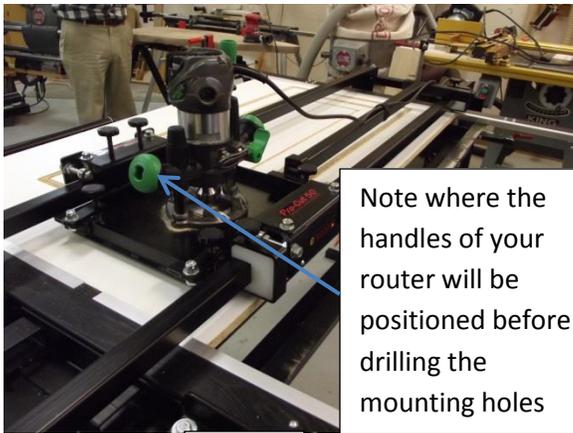


Fig 30

Note where the handles of your router will be positioned before drilling the mounting holes

Mount router directly to router plate

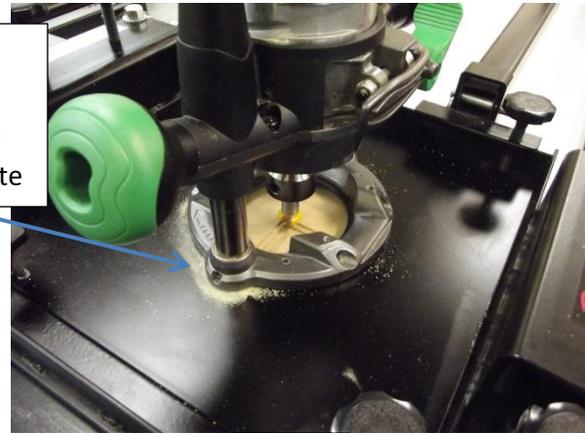


Fig 31

The Router insert plate has a pre drilled center hole but it will be necessary to drill the 3 router mounting holes in the router insert plate as described below.

- 1) Remove the plastic base plate from your plunge router by unscrewing the 3 mounting screws that hold the base plate to the router.
- 2) Use the router base plate as a template to mark where you will drill the three mounting holes in the Pro-Cut 50 router insert plate. **Be sure the router handles are facing the way you want before you drill the 3 mounting holes in the router insert plate.(See Fig 30)**

- 3) Center the plastic router base over the cut out hole in the Pro-Cut 50 router insert plate and, using a marking pen, mark the three hole positions to be drilled. It is a good idea to use a punch to make a start position for the drill bit before you start drilling the holes.
- 4) Drill the 3 mounting holes in the Pro-Cut router insert plate. You can use a countersink bit to make the router mounting bolts flush with the insert plate but this is not necessary.
- 5) The plastic router base is not used when mounting the router to the Pro-Cut 50 router insert plate. Using the same screws, mount the router directly to the Pro-Cut 50 router insert plate. (Fig 31)

### **Adjusting the Saw Carriage Height**

The Pro Cut 50 is pre-set to cut material up to  $\frac{3}{4}$ " without adjustment. For thicker material, the Pro-Cut 50 has adjustable height up to 3-1/2". To raise the height of the saw carriage, simply unlock the (4) lock knobs (Fig 32, 33), located on either end of the Pro-Cut 50, and screw up the clamp screw (Fig 34) on both ends of the machine until you reach the desired height. To save time and to insure height adjustment accuracy, it is a good idea to simply use spacer blocks. The Pro-Cut 50 is pre-set for  $\frac{3}{4}$ " material but if you wanted to set the height, for example, to 1-1/2" material, place  $\frac{3}{4}$ " spacer blocks under each of the 4 corners of the carriage as shown in Fig 35 and Fig 36. The spacer blocks would always be whatever additional height you desire. If you want to set the height to 2", you would use 1-1/4" spacer blocks. ( $2" - \frac{3}{4}" = 1-1/4"$ ). With the spacer blocks in place, screw down the clamp screws on both ends of the Pro-Cut 50 to lock the height adjustment in place against the spacer blocks. Also lock the 4 lock knobs located on either end of the machine.



Fig 32

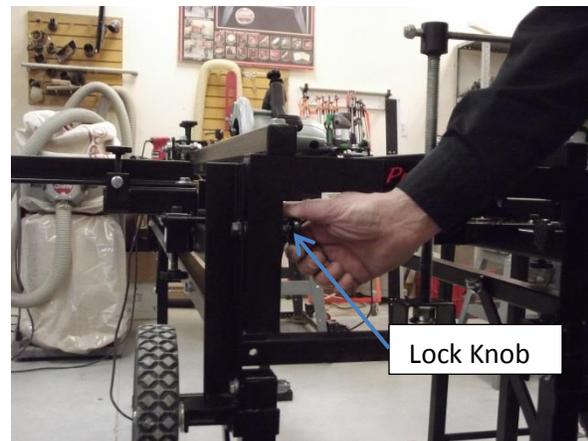


Fig 33

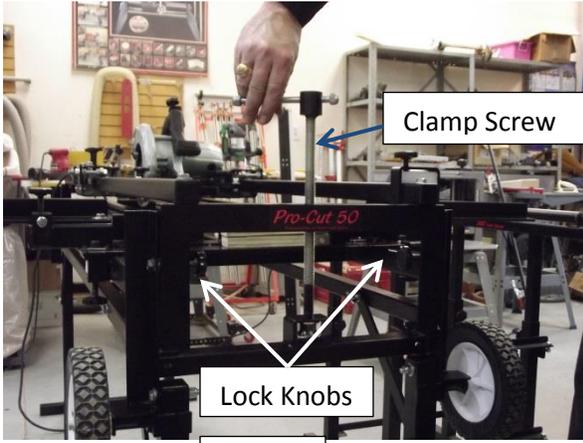


Fig 34

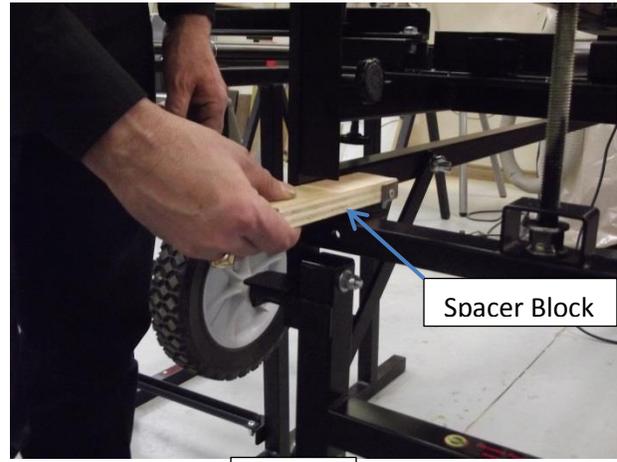


Fig 35

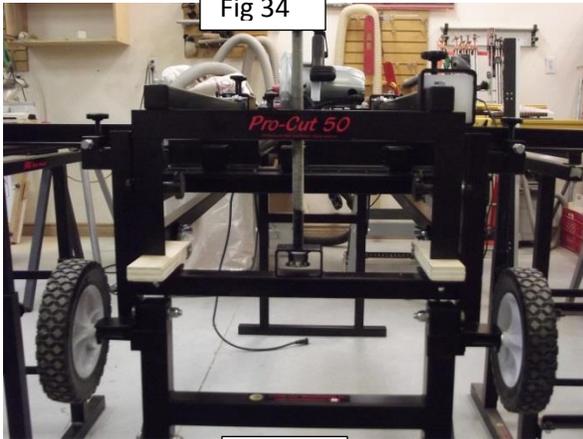


Fig 36

**The Pro-Cut 50 is “the Next Generation” Table Saw**

The Pro-Cut 50 is ideal for rip cutting narrow boards to large panels up to full 4’ x 8’ sheets. The Pro-Cut 50 rip cuts material like a conventional table saw but, unlike a conventional table saw, the material is fully guided on both sides thus eliminating feed errors. In addition, boards or panels move through the saw with ease on the built-in roller table. The fence is fixed at exactly 90° to the saw thus eliminating any side fence error as can be experienced on conventional table saws. For cutting angles you simply tilt the saw to any desired angle. (See Fig 41, 42, 43)

Position saw for rip cutting

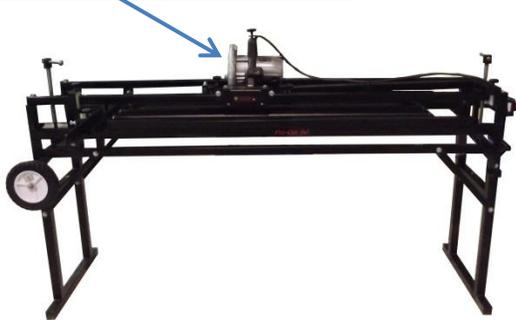


Fig 37

Increased accuracy for rip cutting panels or boards using the included side guide

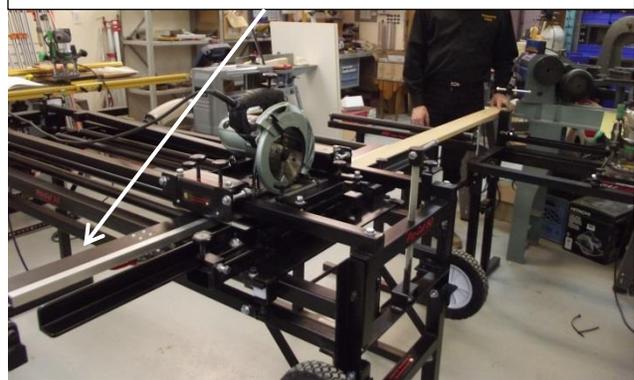


Fig 38

Rip cutting boards has never been easier or more accurate. The board is guided on both sides with the side fence on one side of the board and the side guide on the opposite side of the board. (Fig 38) Simply slide the side guide up to the board with enough pressure to hold the board “true” but loose enough to allow the board to feed through while you rip cut. Because the saw is top mounted and guided on both sides the board is encapsulated thus virtually eliminating the possibility of kick back. Rip cutting panels is easy by using the side guide as shown in Fig 39 and Fig 40. For a factory edge you can kerf cut or pre-cut a panel to prevent chip out or splintering. To kerf cut, raise the saw depth to cut a 1/8” score and then lower the blade to ¼” below the material to complete the cut. For quality cuts, the blade you use is very important. See the section on “selecting a blade”.

### To rip-cut a board or panel

- 1) Measure and mark the end of the board or panel where you want the cut to be. (Fig 40, 43)
- 2) Place the saw in the correct orientation for rip cutting in the Pro-Cut 50 sled.
- 3) Slide the board or panel into the Pro-Cut 50 just short of the saw blade.
- 4) Be sure the board or panel is tight against the side fence
- 5) Slide the side guide up to the other side of the board or panel. Clamp the side guide in place. **Note: The side guide should be tight enough against the board or panel to keep the material “true” as you push it through the saw but not so tight as to restrict the movement of the board or panel.**
- 6) Slide the sled along the guide rails so the saw blade lines up with your cut mark on the board or panel.  
*Tip: be sure you set the saw blade on the proper side of the cut mark to be sure your cut material is the size you want.*
- 7) Lock the sled (See Fig 40)
- 8) Make the cut

**TIP:** For a factory edge in sensitive material that is prone to chipping such as melamine you can pre-cut or kerf cut the board or panel by raising the blade to cut a 1/8” kerf cut. Run the material all the way through. For the second cut, set the blade depth so the blade extends ¼” below the material to be cut and make the second cut. Blade selection is also important. Use a minimum of a 40 tooth, thick kerf blade. You can also use a 50, 60 or even 80 tooth blade for an even smoother cut. The down side is, the higher the tooth count, the slower the feed rate. (See the section on “choosing a cutting blade for your saw”)



Slide the side guide up to the board and lock it

Fig 39

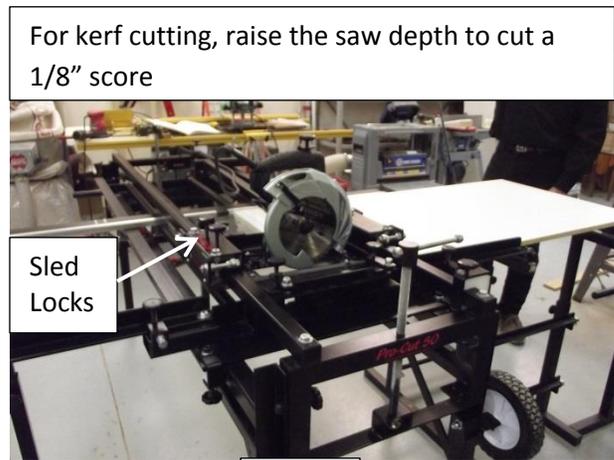


Fig 40

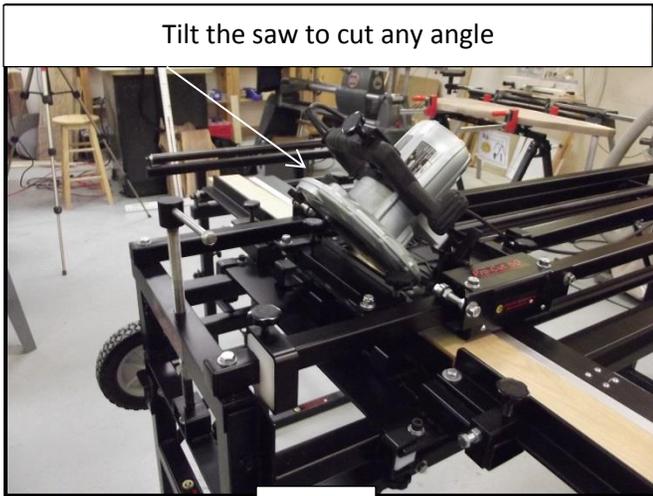


Fig 41

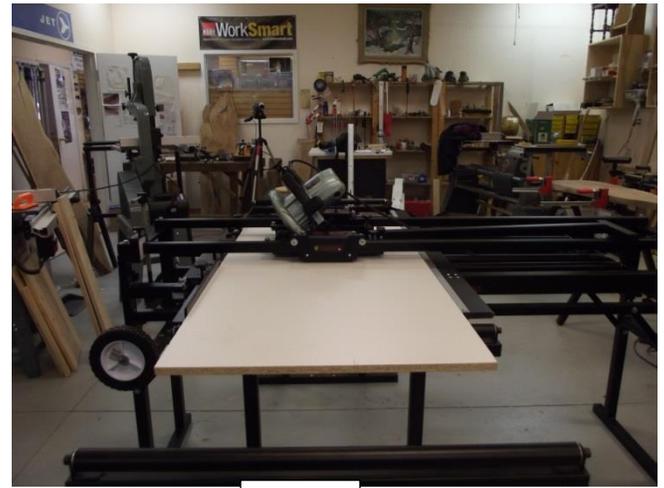


Fig 42



Fig 43



Fig 44

As with any power tool, it is important to use proper in-feed and out-feed supports when rip cutting large panels. The SRG Roller Stands (Fig 44) are perfect for this application and were designed specifically for the Pro Cut 50 and the SRG-50 systems. They can be also used for many different applications such as in-feed and out feed for planers, jointers and miter saws to name a few. The SRG-29 Double Roller Stands are considered to be the best roller stands available on the market due to their quality of construction, portability and variety of applications.

### Choosing a Cutting Blade for Your Saw:

The most important aspects in choosing a rip cutting blade for the SRG-50 and Pro-Cut 50 is the number of teeth on the blade and the amount of flex in the blade. In addition to using a quality circular saw, the blade selection is equally important and some may argue more important than the saw itself. It is recommended to use a blade with at least 40 teeth for rip cutting with a minimum amount of blade flex. Be sure to set the depth of cut to no more than 1/4" below the material to be cut. The blade determines the quality and ease of cut. A 40 tooth carbide tipped blade with a minimum amount of blade flex will provide smooth cuts and is considered a good general purpose blade for both cross cutting and rip cutting. **The amount of flex in the**

**blade along with the blade depth will determine the accuracy of cut.** There should be a minimum amount of blade flex to prevent the blade from flexing or wandering during the rip cut. Excessive blade flex will result in binding and most likely produce a wavy cut. The same rules for rip cutting on a table saw hold true for rip cutting on the SRG-50 and the Pro-Cut 50 and therefore you will want to choose a blade with a minimum amount of flex. To determine the amount of flex in a blade you simply press both thumbs to the center hole of the blade while flexing the blade on the outer edges. **If the blade is easy to flex then you should avoid using this blade and select a blade that is more rigid. It is also important to set the depth of cut to not more than ¼" below the material you are cutting to avoid blade binding. This is a standard practice with any cut on any tool such as a table saw, the SRG-50 and Pro-Cut 50. To adjust the depth of cut, simply adjust the depth of cut on the circular saw.**

**Tip:** If material requires excessive pushing force to feed while rip cutting, binds and/or burns the material, it is likely due to a dull blade, excessive blade flex or the blade depth is set to low. A saw blade that flexes while rip cutting will result in the blade wandering, binding and possibly burning of the material. The most visible result of excessive blade flex is a wavy rip cut even though the material was held tight against the side fence and fed squarely through the tool. To avoid this situation use a sharp blade with a recommended 40 tooth or more configuration. It is also recommended to select a blade with a minimum amount of blade flex. Be sure the blade depth is set to no more than ¼" below the material you are cutting. To set the depth, adjust the depth of cut on the circular saw. Avoid using rough cut blades such as 18 tooth blades with excessive blade flex. This will result in poor cut quality, excessive tear-out, wavy cuts and excessive binding that makes it very difficult to push material through the tool while rip cutting.

For rip cutting veneered plywood such as oak or melamine you will want to use **at least** a 40 tooth blade with minimal amount of blade flex. A 50 to 80 tooth blade will provide an even cleaner cross cut on grained wood, veneer plywood and melamine to further minimize tear-out. Always make sure your blade is sharp as a dull blade will burn the wood and cause poor, uneven cuts. Kerf cutting is always the best way to avoid tear out or chipping as explained above.

**CAUTION: Never place your fingers under the base of the circular saw or in close proximity to the blade in any circumstance when rip cutting or performing any other application. This may result in serious injury. When rip cutting, always use a push stick to complete the rip cut of all material.**

## **Cross- Cutting on The Pro-Cut 50**

### ***Cross-Cutting Has Never Been Easier***

The Pro-Cut 50 uses an entirely different approach to crosscutting. The board or panel is locked in place on the Pro-Cut 50 and the saw slides through the material on precision guide rails. The Pro-Cut 50 will eliminate “tear out” and “chipping” when cutting against the grain. This is easily accomplished by kerf cutting a board or panel for perfectly smooth cuts. Due to the precision guide system of the Pro-Cut 50, you simply raise the blade of the saw to make a pre-cut, also known as a kerf cut, in the board or panel and then lower the blade to ¼" below the material to complete the cut. The result is a perfectly smooth cut against the grain on both the top and bottom of any material including hardwood, softwood, veneer panels and melamine.



Fig 45



Fig 46

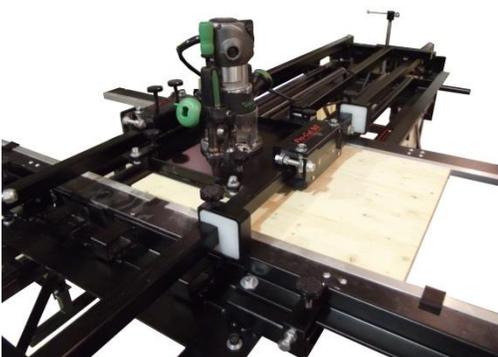
**Follow the steps below to set up for cross-cutting a board or panel:**

- 1) Position the saw in the Pro-Cut 50 sled for cross-cutting (Fig 45)
- 2) Mark the cut line on the edge of the board or panel
- 3) Slide the saw up to the cut mark on the board or panel *Tip: be sure you set the saw blade on the proper side of the cut mark to be sure your cut material is the size you want.*
- 4) Push the board or panel tight up against the side fence
- 5) Firmly lock the side guide against the board or panel so the board or panel does not move during cross cutting.
- 6) Make the cut

**TIP:** For a factory edge in sensitive material that is prone to chipping such as melamine you can pre-cut or kerf cut the board or panel by raising the blade to cut a 1/8" kerf cut. Run the saw all the way through the material. For the second cut, set the blade depth so the blade is 1/4" below the material to be cut and make the second cut. Blade selection is also important. Use a minimum of a 40 tooth, thick kerf blade. You can also use a 50, 60 or even 80 tooth blade for an even smoother cut. The down side is, the higher the tooth count, the slower the feed rate. (*See the section on "choosing a cutting blade for your saw"*)

## The Pro-Cut 50 is an "X" and "Y" Router Table

Take full advantage of your router using the Pro-Cut 50



By simply unlocking and removing the saw from the Pro-Cut 50 sled and placing the router in its place, you have instantly converted your Pro-Cut 50 from a precision table saw to a full size precision “X” & “Y” router table. The Pro-Cut 50 has the ability to rout in both the “X” and “Y” directions on all projects from something as small as a bread board right up to 50” wide panels. Your material can be of any length in the “Y” direction. Perfect for making your own custom moldings, window frames, small and large cabinet doors, custom table tops, picture frames, fluted rails just to name a few. You can also dado both side panels of a cabinet at the same time on the Pro-Cut 50. This is perfect for exact placement of shelves in cabinets of any height. Routing cutouts for inlays in any project is also a breeze on the Pro-Cut 50. The Pro-Cut 50 comes with the router insert plate, 2 router guide stops and 2 panel stops for quick and easy set-up for routing any project. Virtually anything you can imagine can be made using the Pro-Cut 50. The router is top mounted on the Pro-Cut 50 so you can always see the cut in progress. This is a huge advantage over a conventional router table where the router is mounted underneath. A conventional router table is one dimensional and will only produce cuts in one direction and is also limited in width of cut thus limiting the wide range of uses a router is capable of. The Pro-Cut 50 allows an operator to take full advantage of the router and the countless operations a router is able to perform. You can even glue another board(s) or panel to the top of your project and continue routing. Great for making true raised panel doors for example.

Making everything from specialty moldings to full size cabinets and furniture just got a whole lot easier using the Pro-Cut 50.

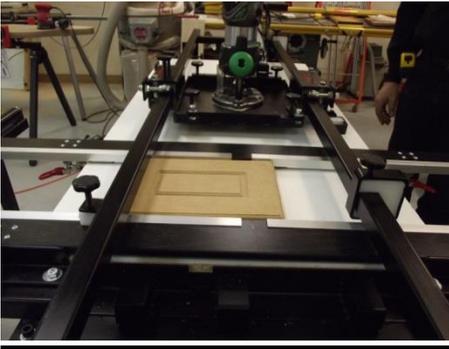


Fig 47



Fig 48

Make moldings of any length, contour, or width up to 50” wide. The entertainment center, for example, shown above (Fig 48) is easy to build and takes half the time using the Pro-Cut 50. All of the cabinet parts including panels, doors, moldings, and trim are manufactured using the Pro-Cut 50. The dados in both side panels for shelving are done at the same time guaranteeing a perfect fit every time using the Pro-Cut 50. The back panels of the shelving units are recessed into the side panels adding strength and a factory finished look. Even the crown molding on the top of the cabinet is easy to make using the Pro-Cut 50.



(Fig 49) Small Panel



(Fig 50) Medium Size Panel



(Fig 51) Larger Panel

You can perform countless router applications using the “X” and “Y” capabilities of the Pro-Cut 50. As an example, the Pro-Cut 50 is set up to router a small panel as shown in (Fig 49) and, as shown in (Fig 50), set up to router a medium sized cabinet door or a large panel (Fig 51). In addition the Pro-Cut 50 is excellent for dados in panels of any length including cutting dados in both sides of a cabinet at the same time to guarantee a perfect fit for the shelves. The Pro-Cut 50 can also be set up like a shaper to produce unlimited lengths of specialty moldings.

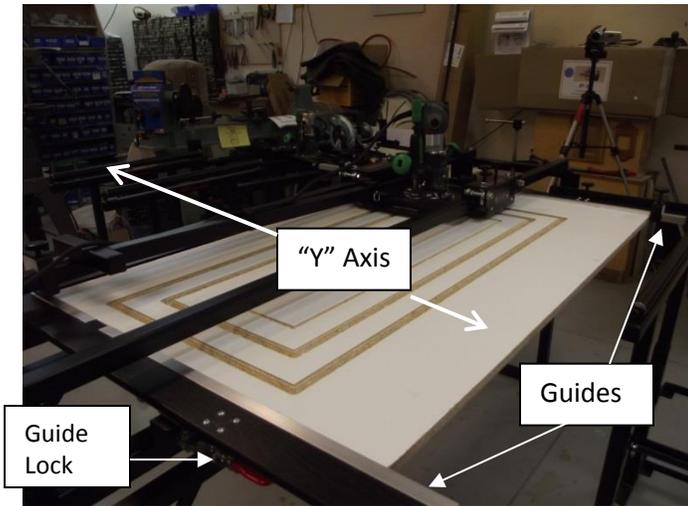
## Set-Up for Routing on the “X” and “Y” Directions

To rout medium to larger panels or routing lengths of moldings it is best to use the built in roller table so your material rolls back and forth easily in the “Y” direction. For smaller panels it may be easier to use a table top as explained later in this section.

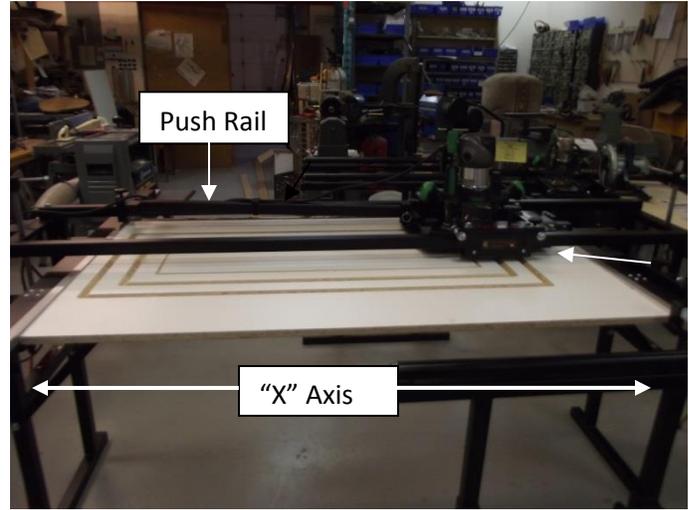
The following steps explain the basic set-up for routing in the both the “X” and “Y” directions

- 1) Place side guides one either side of the panel (Fig 52) or you can place the panel against the side fence and use the side guide included with the Pro-Cut 50 on the other side of your panel. If you choose to use two side guides, push one guide tight up against the side fence and lock the guide in place. Place your project material against the first guide then push the second guide against your project material and lock the guide in place. **Note: The second guide needs to be tight enough against the panel to keep it “true” as you push the panel through in the “Y” direction but loose enough (with some resistance) to allow back and forth movement of the panel.**
- 2) Measure and mark the location on all 4 sides of the panel where you want the router to cut (Fig 56)
- 3) Set the panel stops and guide stops so the router will stop at the measured marks on your panel (Fig 68)
- 4) To rout in the “Y” direction, lock the sled in place using the 2 sled lock knobs and push the panel back and forth between the two guides. (Fig 52)
- 5) To router in the “X” direction, unlock the sled and slide the router back and forth using the push rail. (Fig 53)
- 6) Start at a corner and slowly plunge the router to start the cut in your panel. It is always best to work down to your finished depth of cut by making multiple passes. There are videos listed in the “How To” section of on our web site that will show you the technique. [www.torontotool.com](http://www.torontotool.com)
- 7) **NOTE: Never force the router by cutting too fast or too deep as this may damage your router or router bits. This is especially true for larger bits such as raised panel bits or wide groove bits. Always listen to**

the sound of the router. For side cutting, work the router back and forth until you reach the desired shape. Even for bits with roller bearings for side routing, work the router back and forth until the roller bearing engages the material. When cutting grooves, dados or raised panels the same holds true, listen to the sound of the router. If the router “bogs down” decrease the depth of cut. It is always better to make multiple passes for a clean cut.

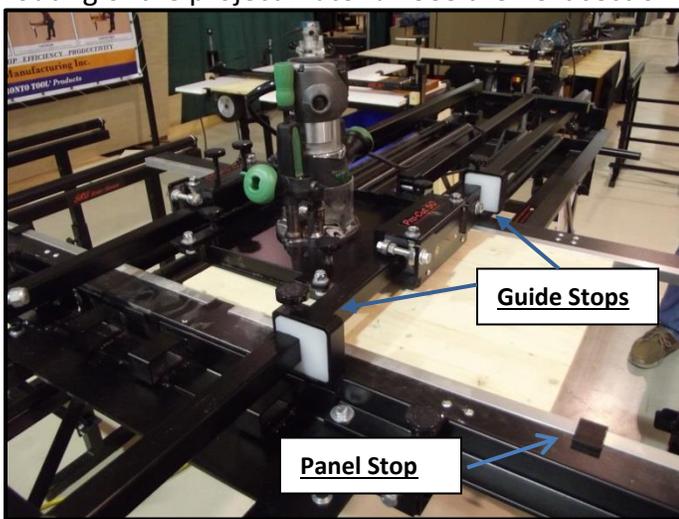


(Fig 52)

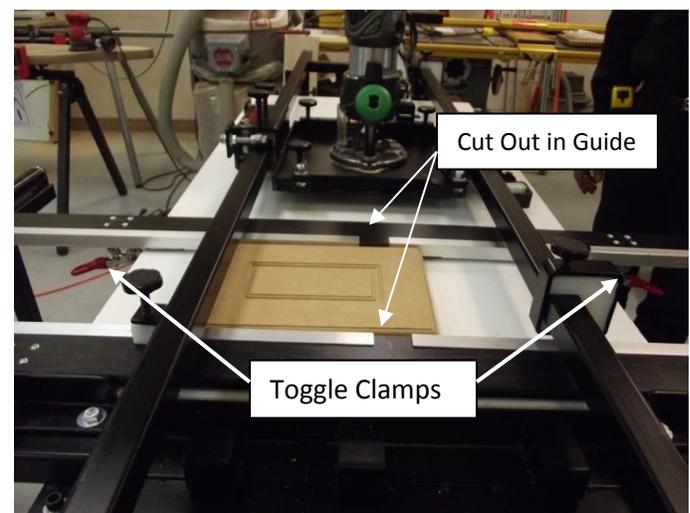


(Fig 53)

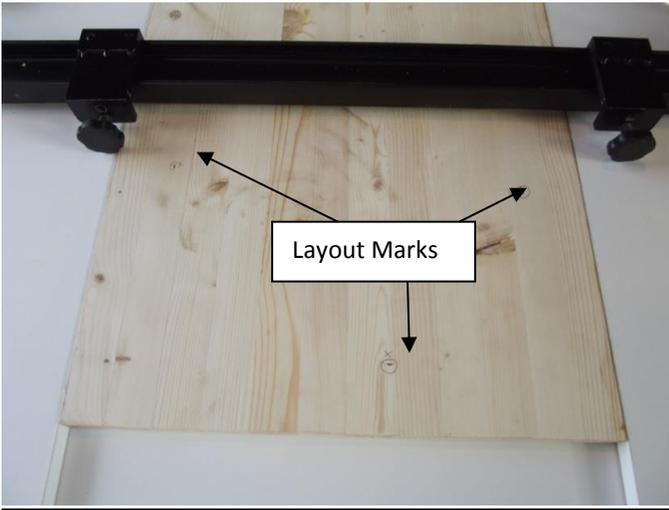
For routing small panels or boards it may be easier to use a table top. A table top is simply a piece of material clamped to the rails of the Pro-cut 50 as shown in Fig 55. It is best to use a material with low resistance such as melamine so your material will slide back and forth easily. When you use a table top it will not be possible to use the guide rails supplied with the Pro-Cut 50 however you can simply use straight boards. Melamine with finished sides works well for guides. **Keep in mind that the guides you make should be at least twice as long as your project material to allow for placement of the panel stops.** The guides you make can use toggle clamps as show in Fig 55 or you can simply use “C” clamps to lock your guides in place. We have made cut outs in the aluminum of the guide rails as shown in Fig 55 to allow the router bit to cut into the guides for side routing of the project material. See the next section on table tops.



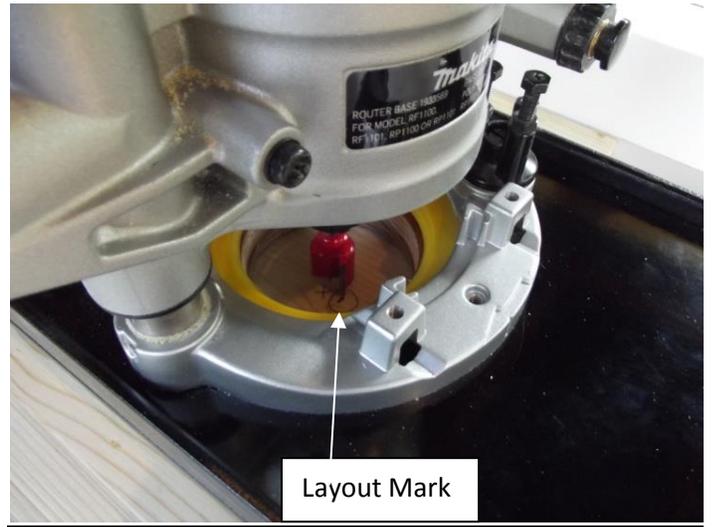
(Fig 54)



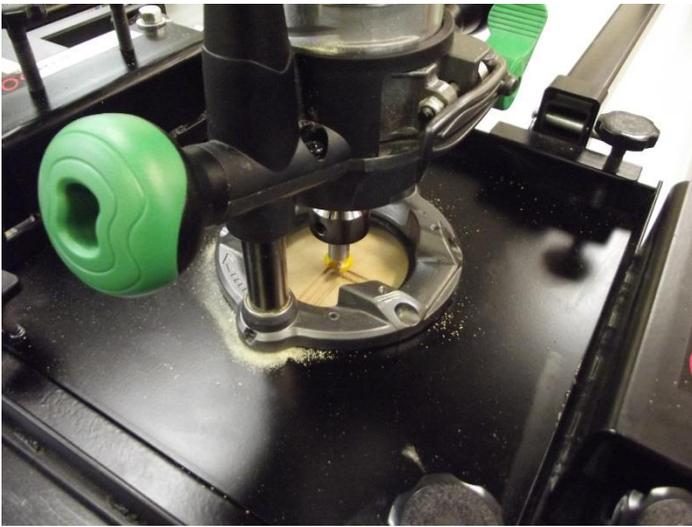
(Fig 55)



(Fig 56)



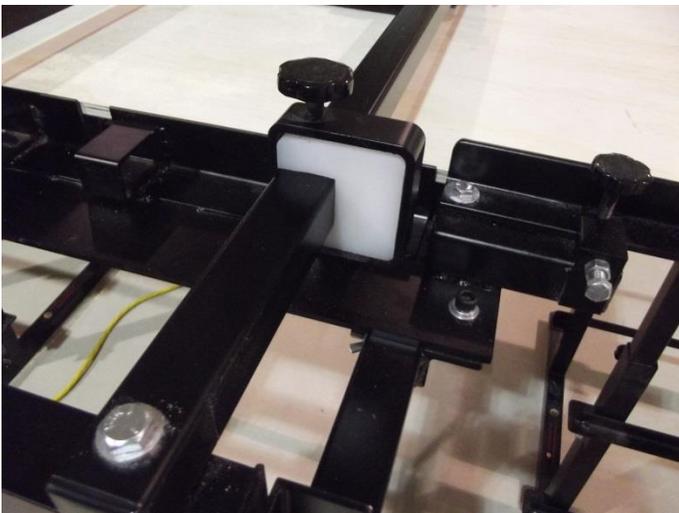
(Fig 57)



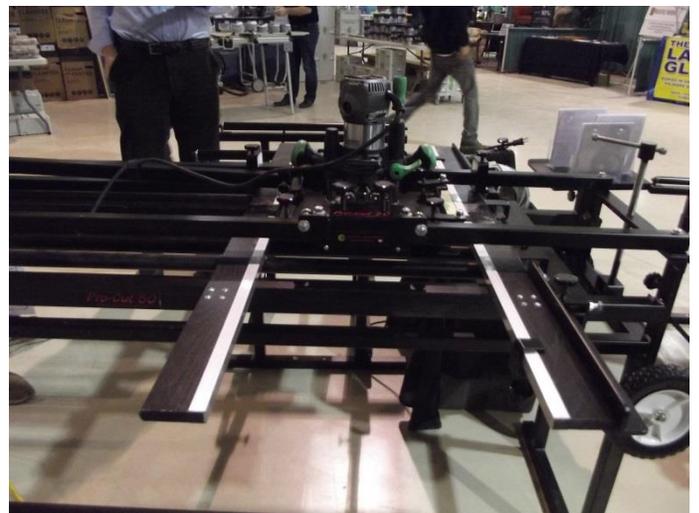
(Fig 58)



(Fig 59)



(Fig 60)



(Fig 61)

## Placement of Guide Stops and Panel Stops

1) Layout where you want your cut lines to be on your project as shown in Fig 68



(Fig 62)

2) Line the router bit up to the first project layout mark



(Fig 63)

3) Slide a router guide stop into position against the sled and lock in place



(Fig 64)

4) Line the router bit up to the second layout mark



(Fig 65)

5) Slide the second router guide stop into position against the sled and lock in place



(Fig 66)

6) Line the router bit up to the third layout mark and lock a panel stop in place



(Fig 67)

7) Line the router bit up to the last layout mark and lock the second panel stop in place

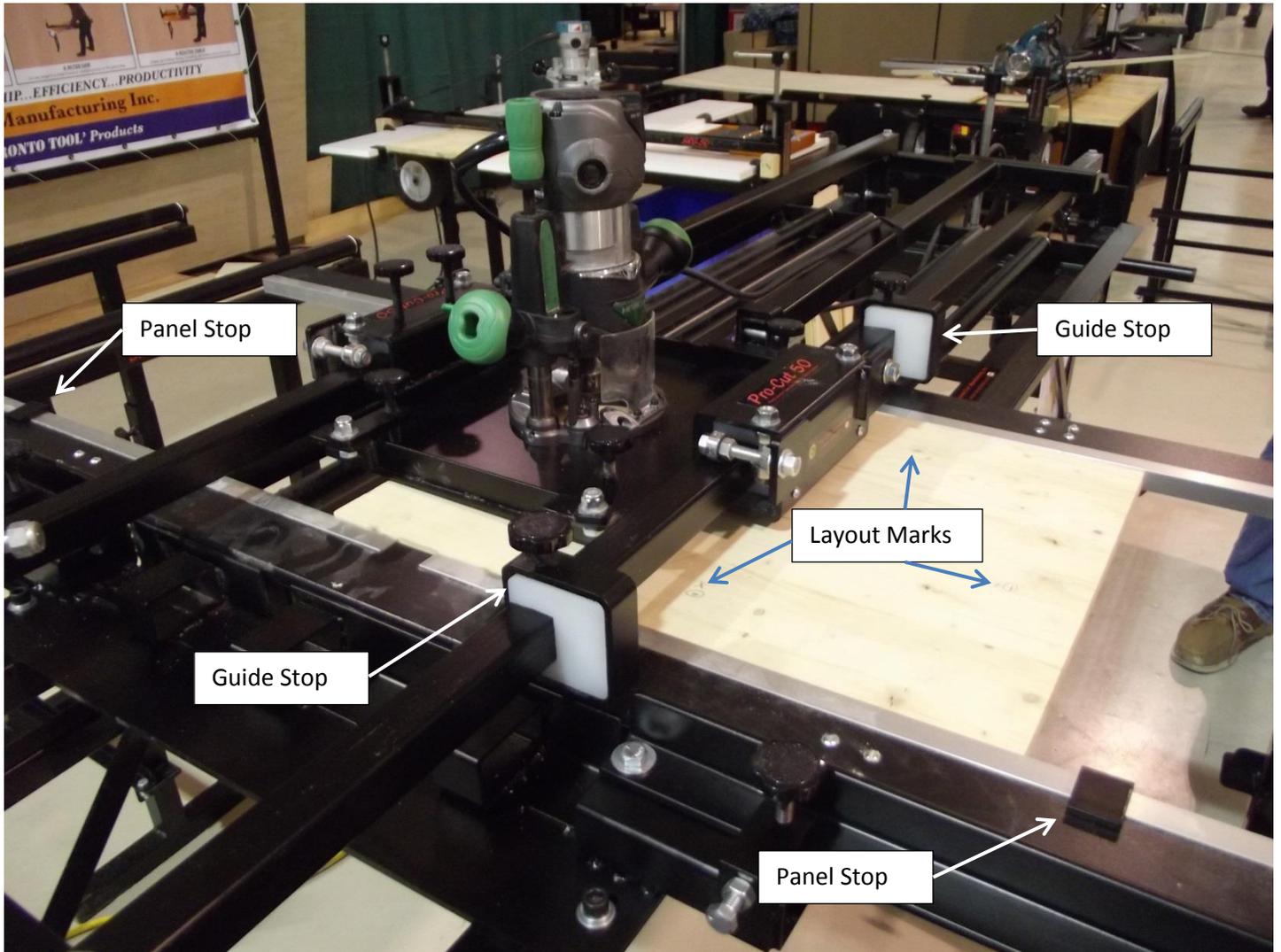
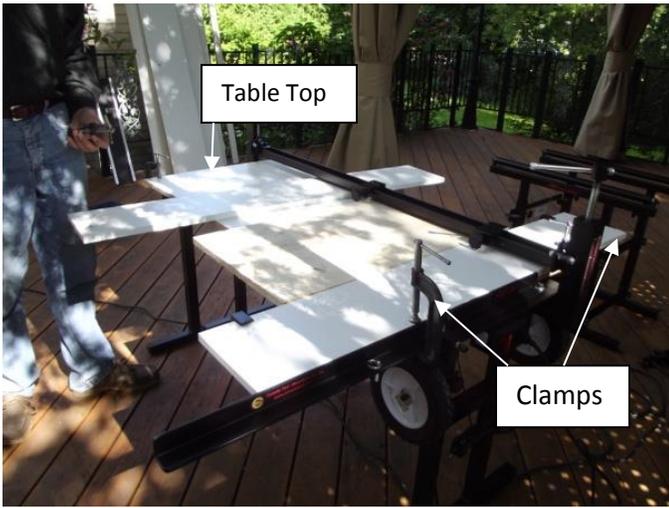


Fig 68

### Table Tops:

Shown below is a table top and guides for our SRG-50 however the table top set-up for the Pro-Cut 50 uses exactly the same principal.

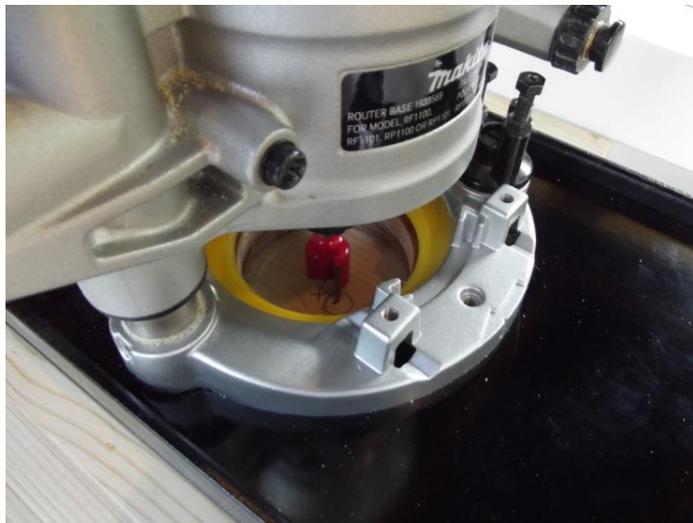
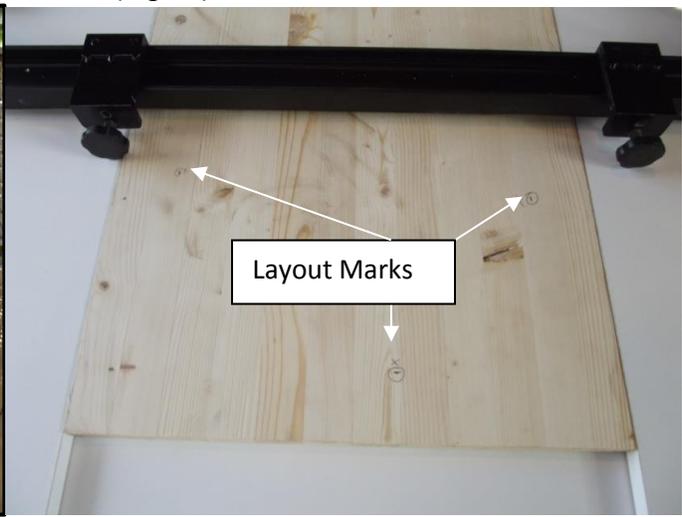
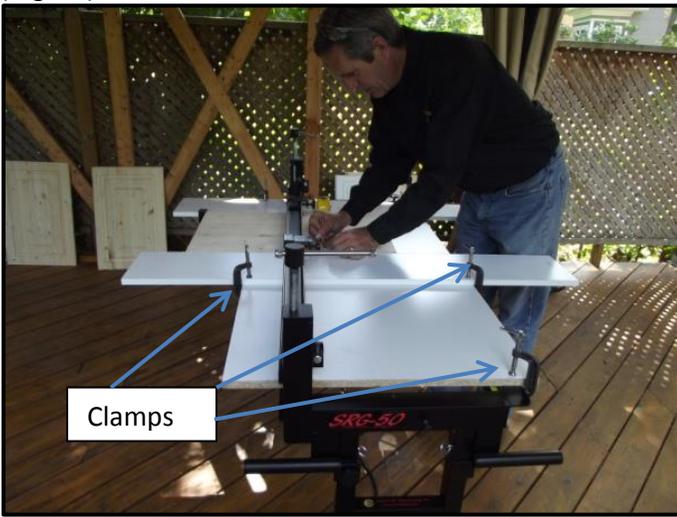
### Using a Table Top For Routing in the "X" and "Y" direction



(Fig 69)  
(Fig 71)



(Fig 5 70)  
(Fig 72)



(Fig 73)



(Fig 74)

**NOTE:** When using a table top, raise the guide carriage of the Pro-Cut 50 the thickness of the table top. You can use the same material as the table top as spacers when adjusting the carriage height. See the section on **Carriage Height Adjustment.**

In the set up shown above, a table top is clamped to the frame using standard “C” clamps.

- 1) Place the table top square against the side fence and clamp to the frame of the Pro Cut 50 using “C” clamps (Fig 71). The table top shown is 30” x 48”W x 5/8” thick. Select a table top material with low resistance for sliding project material back and forth. Melamine works well for a table top.
- 2) You can use any material for the 2 guides but we used (2) 6” wide melamine panels with finished edges to allow for easy sliding of project material. **Note: The guides you use should be twice the length of the project material length. For example: if you are routing cabinet doors that are 2’ in length, then the guides should be at least 4’ in length as shown above.**
- 3) Place one of the guides on the table top squarely against the side fence and clamp it in place using (2) “C” clamps (Fig 69, Fig 70).
- 4) Place your project material squarely against the guide (Fig 69).
- 8) Place the second guide against your project material and clamp the guide in place (Fig 70). **Note: The second guide needs to be tight enough against the panel to keep it “true” as you push the panel through in the “Y” direction but loose enough (with some resistance) to allow back and forth movement of the panel.**
- 5) With the guide system set up, you are now ready to measure where you want to router.
- 6) Measure and mark all four sides of your project material as shown in (Fig 72)
- 7) Line the router bit up with the layout marks (Fig 73)
- 8) Place Router Guide Stops for the “X” Axis and Panel Stops for the “Y” Axis as shown in (Fig 54). The Pro-Cut 50 comes with 2 Router Guide Stops and 2 Panel Stops.
- 9) Turn on the router and make your cut.
- 10) **NOTE: It is best to make multiple passes to reach your desired depth of cut. This is to prevent overloading the router, damaging your router bit, burning the wood, or causing “chip-out” in your project material.**
- 11) For routing on the “X” Axis, **unlock** the two sled guide locks and slide the sled back and forth within the guide.
- 12) For routing on the “Y” Axis, **lock** the two SRG Sled guide locks and move the project material within the two guides.

You can also end mill or decorate panels or boards up to 49” wide. End milling allows for a professional look to inset panels to hide the edges. For example, end milling is the professional way to inset a ¼” thick back panel into the sides, top and bottom of any cabinet. Measure, clamp and router.....it’s that easy.

Shown below is a set up for routing dados in both side panels of a cabinet. Shown is the SRG-50 but the procedure is exactly the same for the Pro-Cut 50. We have clamped the two panels on one end so they stay perfectly positioned. For this application, router guide stops are positioned on the clamp guide rail to stop the router at the desired locations for the shelf inset distance.



For a professional finish, added strength and perfect fit, it is always recommended to inset shelves using dados.

You can also router dados in just one sheet and rip cut the panel to make the two side panels after the routing is completed. For this application, router guide stops are positioned on the clamp guide rail of the Pro-Cut 50 to stop the router at the desired locations.



This set-up guarantees a perfect fit and a professional look. This feature allows, for example, the installation of multiple shelves or any other project that requires material to be inset into another panel using dados. To give a professional look to all your projects such as bookcases, custom kitchen cabinets or display cabinets, it is always recommended to inset shelves using dados.

## SRG Roller stands



The SRG-29 Roller Stands are used in conjunction with the Pro-Cut 50 and SRG-50 as in-feed and out-feed rollers for smooth rip cutting of large panels without assistance. They are also perfect for supporting long boards and planks for many other applications such as with your planer, miter saw or jointer to name a few.

The SRG Roller Stands are easy to transport, easy to store and easy to set up. The heavy duty, sturdy construction of the SRG Roller Stands make them ideal for the "woodworker on the go" with their light weight (34lbs.) and compact size of only 4 inches deep when folded.

The Roller Stands are fully adjustable in height from 23-1/4" to 37" and can be used for a wide variety of applications. Each roller independently adjusts for height, allowing you an offset from one roller to the next for out-feed applications.

### **Lubrication**

The clamp screws should be lubricated from time to time using synthetic oil. EZoil is the best we have found however you can use any light weight oil. To apply the oil, screw the clamp screws all the way to the top position and apply a few drops of oil around the clamp support where the thread enters the support. As you screw the clamp screws down, the thread will be lubricated. It is advisable to keep the Pro-Cut 50 guide rails clean and waxed. A simple furniture polish works well and should be used on a daily basis

***Toronto Tool Manufacturing Inc.***

### **WARRANTY**

**(One Year Warranty Applies only to Canada & the United States)**

- Toronto Tool Manufacturing Inc. Warrants Toronto Tool Products- Pro Series®-BT Series and SRG-50 and accessories against any defects in material or workmanship for a period of ONE(1) year from date of original purchase. The original sales receipt is required as proof of purchase for all warranty claims.
- Providing the product was properly assembled and operated in accordance with the machine operating instructions and further provided the product was not misused or abused.
- In case of claim, do not return the product to store of original purchase. Call, email or write customer service at Toronto Tool Manufacturing Inc. to describe the nature of the problem. Toronto Tool Manufacturing Inc., at its sole discretion, will evaluate the claim and, where acceptable, provide replacement parts or product. Any replacement parts or machines will be guaranteed only to the extent of the original warranty period.
- We shall in no event be liable for injuries, accidental or otherwise, death to person or damage to property or for incidental, and contingent, special or consequential damages arising from the use of our products.

### **Not Covered Under Terms of Warranty:**

- Damage due to fire, theft, floods, and/or acts of God, misuse, abuse, negligence or accidents, product has been modified in any way, product used for other than the intended use, improper assembly or operation.
- Normal wear and tear.
- Shipping damage and handling costs associated with replacement of parts, accessories or product.
- Consequential or accidental damage. (However, some provinces or states do not allow this exclusion or limitation of consequential or incidental damages so this limitation may not apply to you.)
- This warranty gives you specific legal rights and you may also have other rights that vary from state to state or province to province.

### **Limitation of Liability**

Toronto Tool Manufacturing Inc. shall not be liable for any indirect, special, incidental or consequential damage including personal injury but not limited to loss of use, loss of business or profits. Some states or provinces do

not allow the exclusion or limitation of incidental or consequential damages, therefore, in some cases, the above limitation or exclusion may not apply to you. Please read and understand all safety instructions included with power tools used in conjunction with any tool manufactured by Toronto Tool Manufacturing Inc. Always wear safety equipment including eye protection.

For up-to-date information and other products manufactured by Toronto Tool Manufacturing Inc. please visit our web site [www.torontotool.com](http://www.torontotool.com).

We would be pleased to answer any questions you may have. You can email your enquiry to us at [sales@torontotool.com](mailto:sales@torontotool.com) or contact technical support 416-250-6728.

Be sure to visit our web site to view our growing list of “how to” videos and our workshop tips and tricks. You can also visit the dealer location section of our web site to find a dealer near you.



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