## SECTION B

TABLESAW + ADD-ON SLIDING TABLE KIT + SLIDING TABLE PANEL SAW

# TABLE SAW - OVERVIEW OF TABLESAW ALIGNMENT -

Here are a few facts that become very obvious, once explained. A standard tablesaw has a miter slot machined into the table saw. Obviously it is a fixed reference feature that cannot be changed or adjusted. The manufacturers have built in adjustments into: A/ saw blade trunnion B/ the rip fence assembly and C/ the miter gauge assembly. They all need to be adjusted and aligned **relative to the machined miter slot**.

Adjusting the saw blade parallel to the miter slot. In the Contractors [motor outside of frame] type saw, the trunnion is adjustable. On the Cabinet saw, [saw is totally enclosed] the table top can be loosened for adjustability.



Using an accurate straight edge steel rule, check the flatness of the table top. TIP: Sprinkle talcum powder on the table top and carefully drag the straight edge across the table top surface. This is much like a concrete mason dragging his top leveler across the fresh cement to get it flat. This method will give you a visual indication of the high and low spots of the table top. When finished simply rub the talcum powder into the table top. The talcum powder will not harm the metal surface.

Use 2.0 inch dial indicator extension with ¼ inch dial indicator flat tip. Contact arbor shaft on smooth surface [not threads]. Rotate arbor by hand. Readings should be in the 0 001 inch range.





Wipe face flange clean and run fingers across flange to insure there are no burrs. If there are – carefully remove them with a file.

TIP: Rotate the saw motor assembly 45 degrees so that the face of the face flange is directly 90 degrees to the Dial Indicator stem for the most accurate readings. Rotate the flange by hand and read the run out. It should be within 0.001 inches

Using the round tip on the dial indicator, make contact with the saw blade near the top of blade. Rock the blade gently side to side to check bearing wear. Check with the saw manufacturer for bearing wear allowances.



Fence alignment: Attach the Miter Slot Cradle Bar to the *MasterGage/Pro*. Traverse the length of the fence and adjust parallel to the miter slot. Check for any fence warpage.

HINT: Adjust the fence so that the fence is .004 to .006 further away from the back of the fully extended blade, relative to the front of the blade.





Square the rip fence with the *MasterGage/Pro* protractor. Some European systems have fences that tilt to any desired angle. These fences can be easily set to any angle with the *MasterGage/Pro* Protractor.

TIP: Use the Protractor *"INSTANT RECALL"* feature

Square the miter gauge to the saw blade using the *MasterGage/Pro* Protractor.

- TIP: Use the *MasterPlate* for this calibration. It will give you a precision flat surface to accurately establish squareness and set any desired angle very accurately.
- TIP: Use the Protractor *"INSTANT RECALL"* feature.





OPTION 1: Use the *MasterPlate* to square the miter gauge

TIP: Use the Protractor "INSTANT RECALL" feature to recall any miter angle accurately



Square saw blade to table top – set table saw blade tilt pointer to zero. Notice that the "Knife Edge" is thin enough to fit between the carbide teeth.

TIP: Set any bevel angle required to within 1⁄4 degree

TIP: Use the Protractor "INSTANT RECALL" feature to recall any bevel angle accurately



OPTION 2: Use a machinist square to adjust the miter gauge 90° to the *MasterPlate* 



OPTION: Use the *MasterPlate* to establish squareness to table top.

TIP: *MasterPlate* is perfect for setting any bevel angle extremely accurately. Also great for using the "*INSTANT RECALL*" feature.

With the Miter Slot Cradle Bar attached to the *MasterGage/Pro*, perform the following steps. 1. Mark a carbide tooth on the blade, in the forward position (toward you) 2. Measure the distance with the *Pro* and the dial indicator. 3.Rotate the blade forward. 4. Repeat step #2. This will give you distance variation from blade to miter slot. Adjust the saw blade parallel to the miter slot.

TIP: The *MasterPlate* is ideal to accomplish this task - giving you a full 10 inches of flat surface of measurement.





Align the splitter unit both parallel and center to the saw blade

OPTION: Use a machinists square with the *MasterPlate* to establish 90 degrees between the *MasterPlate* and the table top





- e The *MasterGage/Pro* is designed to measure angles greater than 90 degrees. This allows you to measure directly against the saw blade for the full 3 ½ inches of the protractor "Knife Edge". This method gives you more surface to measure to and more accuracy. The *Pro* can measure both left tilting <u>and</u> right tilting blade angles.
  - TIP: Use the Protractor "INSTANT RECALL" feature to recall any bevel angle
  - TIP: Measure/set the angle from the back [obtuse] part of the saw blade as shown. This gives you the maximum contact area for the Knife edge against the blade.



If your saw is equipped with a scoring blade, we suggest the following procedure:

- 1. Mount the *MasterPlate* to the scoring blade arbor. You may find that the *MasterPlate* may have to be rotated slightly to clear the table opening. This may be due to the fact that the scoring blade is located lower and behind the insert plate opening.
- 2. Using the *MasterGage/Pro* with the Miter Slot Cradle Bar, you can now set the scoring blade parallel to the miter slot and the saw blade.

#### CHECKING THE SAW BLADE MECHANISM FOR TRACKING ACCURACY

Once the tablesaw has been aligned, it is important to verify that both the vertical motion and tilting motion mechanisms tracks accurately. Below are illustrations on verifying these motions. The SawStop Owner's Manual specifically describes the following two required adjustments in detail. The *MasterGage/Professional* and *MasterPlate* make these procedures a breeze.

After the *MasterPlate* is aligned 90 degrees perpendicular to the table top, perform the following. With the dial indicator stem registered against the *MasterPlate*, move the saw blade mechanism to the maximum up and maximum down position. This will tell you if the mechanism is tracking true through the full vertical range motion.





Once the *MasterPlate* is aligned parallel to the miter slot, the following procedure should be performed to verify the accuracy of the blade tilt mechanism as it travels from 90 degrees to 45 degrees. (This applies to both right and left tilting blades.) Once you have aligned the saw blade [*MasterPlate*] parallel to the miter slot. Proceed to measure the distance from the miter slot to the saw blade (*MasterPlate*), approximately every 15 degrees, from 0 to 45 degrees. The measurements should read the same as the MasterPlate in its 90 degree position. This should be within 0.002 to 0.004 inches. This exercise will verify that the tilting mechanism is tracking true, through the full tilt cycle of 90 to 45 degrees.

#### SET ANY HEIGHT:

- 1. Set the Level Arm at the desired height [do not lock the locking knob].
- 2. Raise the blade until it almost touches the Level Arm.
- 3. Carefully rotate the blade toward the back of the saw [this keeps the cutting edge of the tooth from damaging the Level Arm]. Allow the tooth to glance the Level Arm to establish height desired.
- TIP: Use the Height Gauge *"INSTANT RECALL"* feature to recall any height required





After all of the elements of your tablesaw are aligned and calibrated, install your saw blade. Rotate the blade by hand and check the saw blade run out. Now you know with confidence that you can check out the accuracy on all your saw blades.