**Safety**

Before using the INCRA Miter V120, read and follow all of the instructions and safety information in this document.

- When using the INCRA Miter V120 in conjunction with any other tool, first read and follow all instructions and safety information in that tool's owner's manual.
- Always securely tighten the large black clamping knob before starting any cut.
- When using the INCRA Miter V120, always keep your hands clear of the cutter and the line of cut.
- Always turn off the power and make sure that the cutter comes to a complete stop before changing the setting of any part of the INCRA Miter V120.

**Setup & Calibration**

1. Place the Miter V120 in your Shopsmith's miter channel. The T-slot retainer has a rubber o-ring between the retainer and the underside of the bar to permit tightening the retainer to lock the Miter V120 into your miter slot. This will allow you to use the Miter V120 as a guide for horizontal boring or disc sanding. Take care not to overtighten the screw when using the locking feature. Over tightening can cause the retainer to take a set (a slight bend). If this happens, simply turn the retainer upside down and re-install, Fig. 1.

2. Screw the large clamping knob with washer through the protractor into the miter bar. Remove the 1/4-20 x 1/2" packing bolt from the indexing tooth actuator located at the end of the miter bar and replace with the included knurled aluminum clamping knob, Fig. 2. Use the steel washer under the head of the clamping knob.

3. Using the supplied 3/32" hex key, adjust each of the (3) visible miter bar expansion disks for a zero-side play, sliding fit in your miter channel as shown in Fig. 3. Turning the stener clockwise EXPANDS the bar width. The disks are designed to require a fair amount of adjustment torque for proper expansion.

4. Remove the large clamping knob and disengage the indexing tooth from the protractor. Pivot the protractor head to access and adjust the fourth expansion point. See Fig. 4. Replace the large clamping knob.

5. Caution: Always unplug the power tool before squaring the faceplate to your application. Loosen both the large and small clamping knobs. Set the indexing tooth to 0 degrees, and tighten the small clamping knob, then tighten the large clamping knob. See Figure 5.

6. Using the supplied 1/8" hex key, loosen the (4) button head fasteners that secure the faceplate to the protractor and square the faceplate to the saw blade. NOTE: When squaring to the saw blade use a reliable square for this important alignment, Fig. 6. Securely re-tighten the (4) button head fasteners to complete the alignment. This important one-time adjustment prepares your INCRA Miter V120 for perfect angles at all other indexing tooth positions. Fine adjustments to the angle between the faceplate and your table top can also be made by loosening the same fasteners and placing a paper shim between the faceplate and the underside of the protractor.
ATTACH SHOPSmith SAFETY GRIP

Note: If you are planning to use the Safety Grip from an existing Shopsmith Miter Gauge, you'll first need to remove the Safety Grip handle assembly from the miter gauge as described in steps 1 and 2 below. If you are assembling the Safety Grip purchased with the Miter V120, begin with Step 3.

(1) Use a screwdriver to remove the #10-24 x 1-3/8" Fillister head screw (132066) located at the base of the Safety Grip handle. This is the screw that is used to attach the Grip to the Shopsmith Miter Gauge Indicator Mount & Plunger Assembly (514-924), Fig. 8. Retain the screw for use in attaching the Safety Grip to the INCRA Miter V120.

(2) Insert a small Phillips head screwdriver shaft or Allen Wrench into the cross hole bored through the 1/2" dia. Miter Gauge Safety Grip Stud and unscrew the stud from the threaded hole in the top center of Shopsmith Miter Gauge, Fig. 9.

(3) Thread the 3/8-16 threaded stud on the Shopsmith Safety Grip into the hole on the top of the aluminum clamp block attached to the rear of the Miter V120 faceplate. Tighten the stud by inserting a small Phillips head screwdriver into the cross hole bored through the slab, Fig. 10.

(4) Position the 7/8" wide notch located at the base of the Safety Grip Handle over the top of the Screw Block (592555) as shown in Fig. 11. Insert the #10-24 x 1-3/8" Fillister head screw into the screw hole in the handle and through the Screw Block. Tighten the screw securely.

OPERATION

Your INCRA Miter V120 is now ready to easily and accurately produce perfect angles. Just loosen both clamping knobs, and engage the indexing tooth at the desired angle. Lock the indexing tooth clamping kn (the small knob), then lock the large clamping knob.

ADDING A WOODEN AUXILIARY FENCE

Your INCRA Miter V120 faceplate doubles as a Universal Mounting Bracket that makes it easy to attach your own user made auxiliary fence if you ever need one. Just cut a straight piece of wood to the desired length (18" to 24" is a good size), and attach with user supplied wood screws and washers through the two slotted holes, Fig. 12.