SAFETY
• Before using the INCRA Miter V27, read and follow all of the instructions and safety information in this document.
• When using the INCRA Miter V27 in conjunction with any other tool, first read and follow all instructions and safety information in that tool’s owner’s manual.
• When using the INCRA Miter V27, 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 V27.
• Always securely tighten the large black clamping knob before starting any cut.
• Wear safety glasses, hearing protection, and follow all normal shop safety practices.
• After making any adjustments to the miter angle of your INCRA Miter V27, always verify safe clearance between the cutter and protractor before turning on the power.

SETUP
Adjust the Miter Bar for a Perfect Fit in Your Miter Channel

1. Place the V27 in your tool’s Miter Channel. **NOTE:** If the miter channel does not have a T-slot, remove and save the Retaining T-clip and screw located at the end of the miter bar as shown in Figure 1.

2. 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 Figure 2. Turning the fastener clockwise EXPANDS the bar width. The disks are designed to require a fair amount of adjustment torque for proper expansion.

3. 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 Figure 3. Replace the large clamping knob.
Square Miter Faceplate to your Application  
(table saw, router table, etc.)

1. **Caution:** Always unplug the power tool before squaring the faceplate to your application. Loosen both the large and the small clamping knobs. Set the indexing tooth to 0 degrees, and tighten the small clamping knob, then tighten the large clamping knob. See Figure 4.

2. Loosen the (4) Phillips head screws that secure the faceplate to the protractor, and depending on your application, square the faceplate to the blade, miter slot, sanding belt, etc. **NOTE:** When squaring to a saw blade (see Figure 5), use a reliable square for this important alignment. Securely retighten the (4) Phillips head screws to complete the alignment. This important one-time adjustment prepares your INCRA Miter V27 for perfect angles at all other indexing tooth positions. Verify the accuracy of your alignment with a test cut, and re-align if the cut is not exactly 90 degrees.

**Operation**

Your INCRA Miter V27 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 knob (the small knob), then lock the large clamping knob.

**Adding a Wooden Auxiliary Fence**

Your INCRA Miter V27's vertical support surface 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. See Figure 6.

Adjustable Fence Mounting Bracket

INCRA Fences are adjusted square to the table at the factory. So if your miter gauge comes equipped with an INCRA Fence, you can skip these instructions. Incra’s fence mounting bracket enables any fence to be quickly and easily adjusted for perfect squareness to the table. We have provided two adjustment points so you can also neutralize twist or thickness variation that is sometimes present in homemade wooden fences or sub-fences.

1. Place a square against the front face of your fence. If you see a gap between the top of the fence and your square first loosen both outside nuts. Tighten one of the inside nuts about 1/6 turn against the rear leg of the bracket as shown in Figure 7, and then tighten the other inside nut by the same amount in the same direction against the rear leg. Alternate this 1/6 turn procedure between the two nuts until the fence is perfectly square to the table. **DO NOT TURN THE SET SCREW** and **DO NOT over tighten the nuts.** It usually takes less than 1 full turn of the nuts to square your fence to the table.

**OR**

If you see a gap between the bottom of your fence and the square, first loosen both inside nuts. Tighten one of the outside nuts about 1/6 turn against the rear leg of the bracket as shown in Figure 8, and then tighten the other outside nut by the same amount in the same direction against the rear leg. Alternate this 1/6 turn procedure between the two nuts until the fence is perfectly square to the table. **DO NOT TURN THE SET SCREW** and **DO NOT over tighten the nuts.** It usually takes less than 1 full turn of the nuts to square your fence to the table.

2. After the fence has been squared to the table as described above, tighten both of the loose nuts against the rear leg of the bracket to secure your setting, Figure 9. **DO NOT TURN THE SET SCREW.**