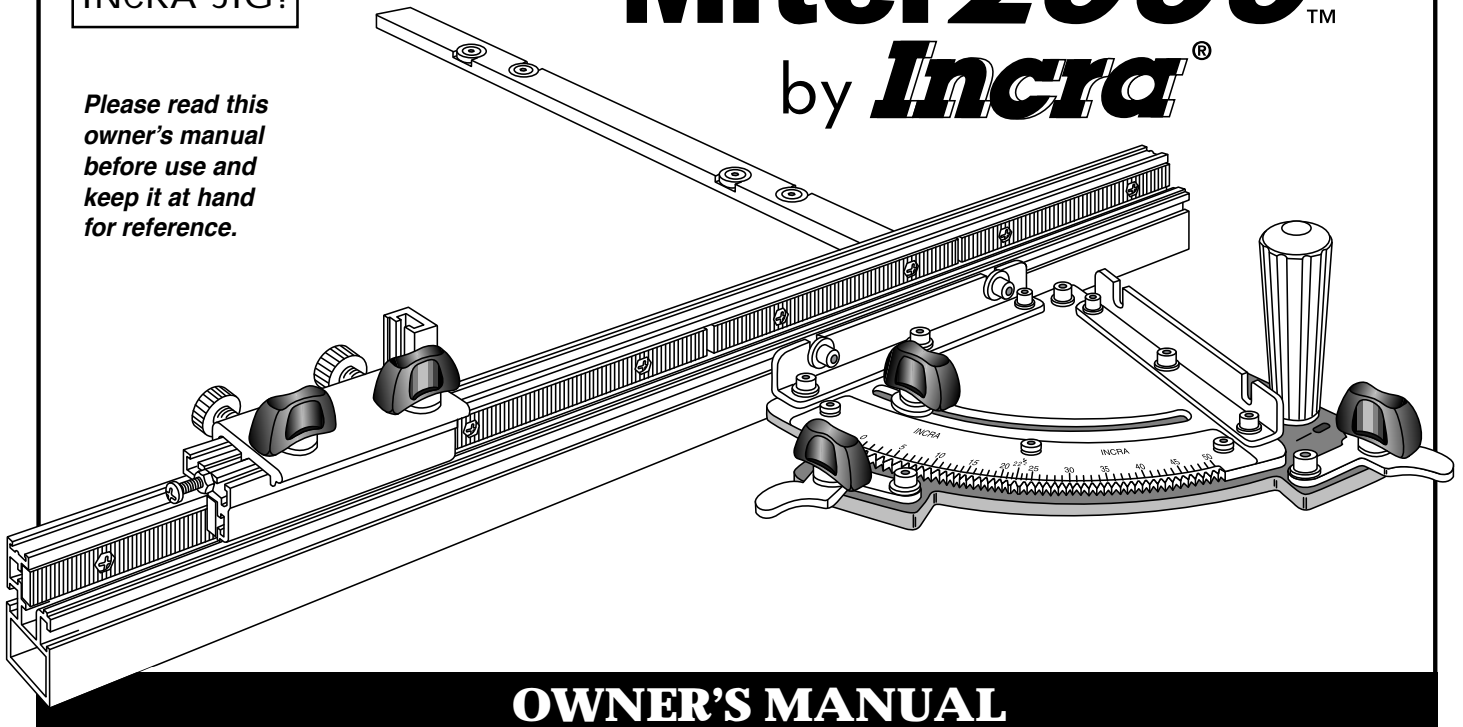


From the
makers
of the
INCRA JIG!

*Please read this
owner's manual
before use and
keep it at hand
for reference.*

Miter 2000™

by **Incra**®



OWNER'S MANUAL

Your new INCRA Miter Gauge at long last solves that frustrating problem all too familiar to woodworkers – making perfect miter cuts on the table saw. Whether you're constructing a simple picture frame, complex compound miters, or a 20-sided object, your INCRA Miter Gauge delivers perfect, repeatable accuracy without trial and error setups – first time, every

time. It's all made possible by INCRA's *Angle Indexing System™*. While an average miter gauge offers positive stops at 0° and 45° and a good miter gauge offers stops at 0°, 15°, 22 1/2°, 30°, and 45°, the INCRA Miter Gauge's *AngleLOCK™ Indexing System* offers 110 stop positions on each side of 0°. But that's just half the story. The fence on your INCRA Miter Gauge is

equipped with INCRA's patented *Automatic Positioning Control™* and the highly versatile INCRA Shop Stop™. With this combination, you not only have absolute control over the angle of your cut, but you also have perfect, instant control over the length of your cut as well. Like all INCRA tools, the INCRA Miter Gauge really does work **EXACTLY as promised.**

SAFETY *Important safety instructions for using the INCRA Miter Gauge*

- Before using the INCRA Miter Gauge, read and follow all of the instructions and safety information in this owner's manual.
- When using the INCRA Miter Gauge in conjunction with any other tool, first read and follow all instructions and safety information in that tool's owner's manual.
- Never let the saw blade come in contact with the aluminum or steel components of the INCRA Miter Gauge, including the fence and the INCRA Shop Stop.
- When using your INCRA Miter Gauge, always keep your hands clear of the line of cut and the saw blade.
- Always use the tall black knob as a handle to push your INCRA Miter Gauge during a cut.
- Always turn off the power and make sure that the saw blade comes to a complete stop before changing the setting of any part of the INCRA Miter Gauge or INCRA Shop Stop.
- Always securely tighten the small black miter 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 or fence position of your INCRA Miter Gauge, always verify safe clearance between the blade and fence before turning on the saw.
- After making any adjustments to the fence position on the Incra Miter Gauge, always make sure the two socket head screws are securely tightened.
- Whenever using the INCRA Shop Stop to position a piece for a cut, always hold or otherwise clamp a piece between the stop and the blade.

ASSEMBLY

- 1 Remove the INCRA Miter Gauge from the box. Pivot the miter head around until the hole in the black bottom plate aligns with the threaded hole in the miter bar. Insert the large miter push knob with washer through the hole and thread into the miter bar. See Fig. 1.

NOTE:

Do not insert the handle through the slotted hole.

If the miter slot in your table saw is a T-slot, attach the "T" clip to the end of the miter bar as shown in Fig 1A.

FIG. 1A

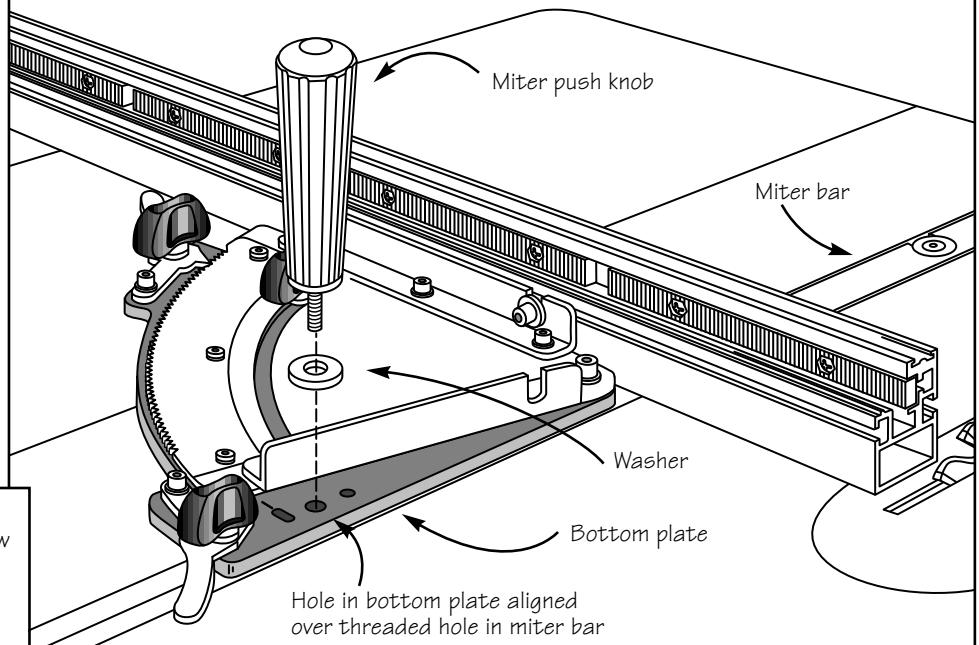
Assemble miter bar clip

T-clip

Miter bar

#10-24 x 5/16"
flat head screw

FIG. 1
Insert miter push knob through hole in bottom plate and thread into miter bar.



TIP

The method used to join the fence mounting brackets to the miter head top plate makes it easy to fine-tune the angle of the fence perfectly perpendicular to your table top. To adjust, loosen the (3) #10-24 socket head cap screws that secure the brackets to the top plate and slide a paper or plastic shim between the bracket and top plate. Placing the shim *behind* the screws will *decrease* the fence to table angle. Placing the shim in *front* of the fasteners will *increase* the fence to table angle.

- 2 Place the INCRA Miter Gauge in the left hand miter slot at your table saw. Loosen the (2) 1/4-20 socket head cap screws that secure the fence to the fence mounting bracket and slide the fence to a position that leaves safe clearance between the end of the fence and the blade. Tighten the (2) 1/4-20 fasteners. Fig. 2.

FIG. 2

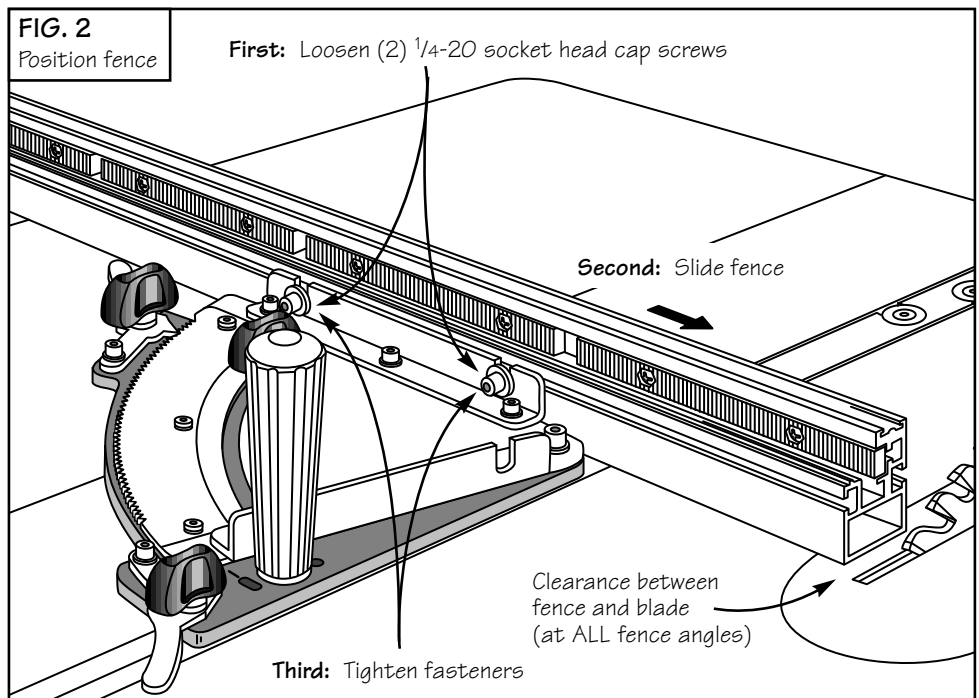
Position fence

First: Loosen (2) 1/4-20 socket head cap screws

Second: Slide fence

Clearance between fence and blade (at ALL fence angles)

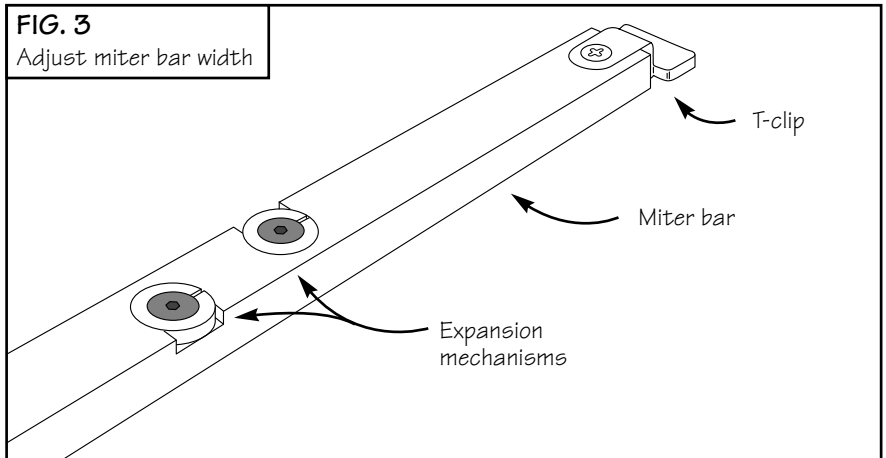
Third: Tighten fasteners



CALIBRATION

Adjust the Miter Bar

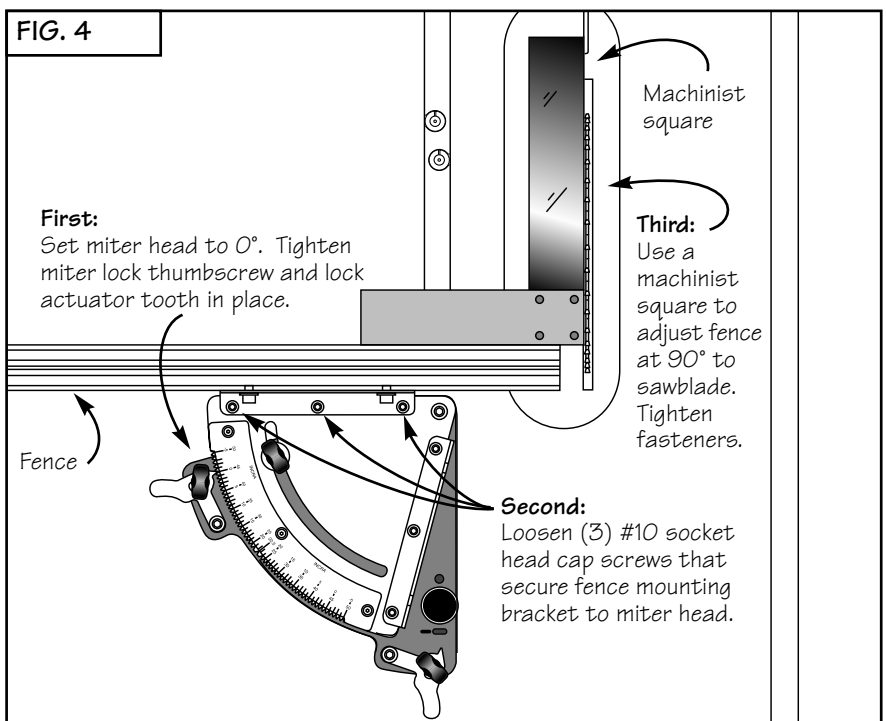
1 Adjust the miter bar at each of the (6) expansion mechanism locations for a good fit in your table saw's miter slot. Turning the screw clockwise expands the mechanism. You'll find three of the expansion locations in front of the fence and one underneath the fence (you'll need to slide the fence for access). Adjust these forward (4) expansion points first, expanding a little at each of the locations until the bar slides smoothly. Finally, remove the large miter push knob and pivot the miter head away from the bar for access to the remaining (2) expansion points.



Adjust Fence Mounting Bracket 90° to Saw Blade

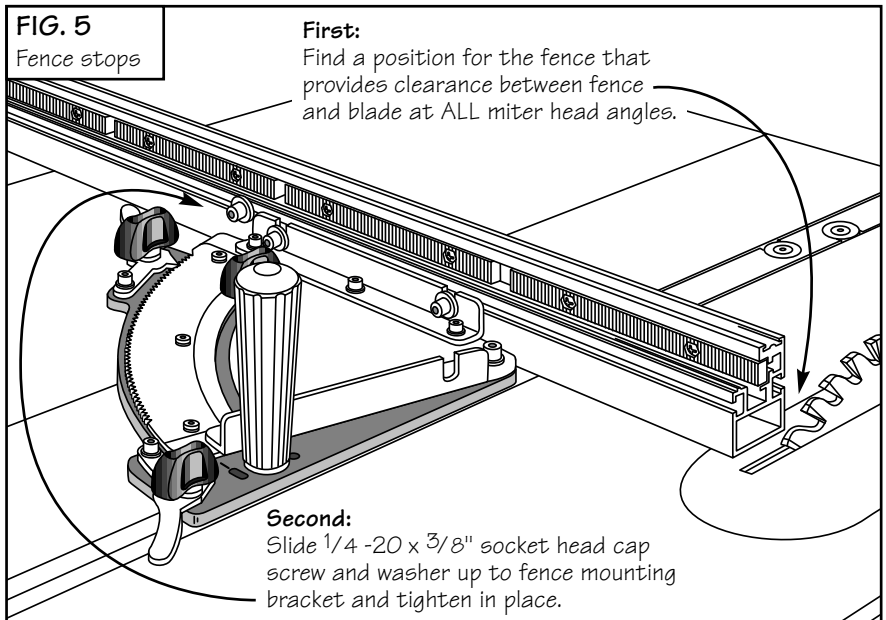
2 Set the miter head to read 0° (the tooth on the actuator should point to 0° on the scale). Tighten the miter lock and the actuator thumbscrews. Using the supplied 5/32" hex key, loosen the (3) #10-24 x 5/16" socket head cap screws that secure the fence mounting bracket to the miter head. Unplug your table saw, then use a reliable machinist square to set the fence at 90° to the saw blade. Tighten the (3) socket head cap screws.

This one-time calibration prepares your INCRA Miter Gauge for work in the left hand miter slot. To calibrate for right hand miter slot usage, reverse the miter gauge as described on page 5, then repeat the above adjustments. Just remember that the accuracy of The INCRA Miter Gauge on any subsequent setting is dependent upon the accuracy of your initial 90° calibration. It is a good idea to verify your setup with a trial cut at 90°.



Safety Tip: Fence Stops

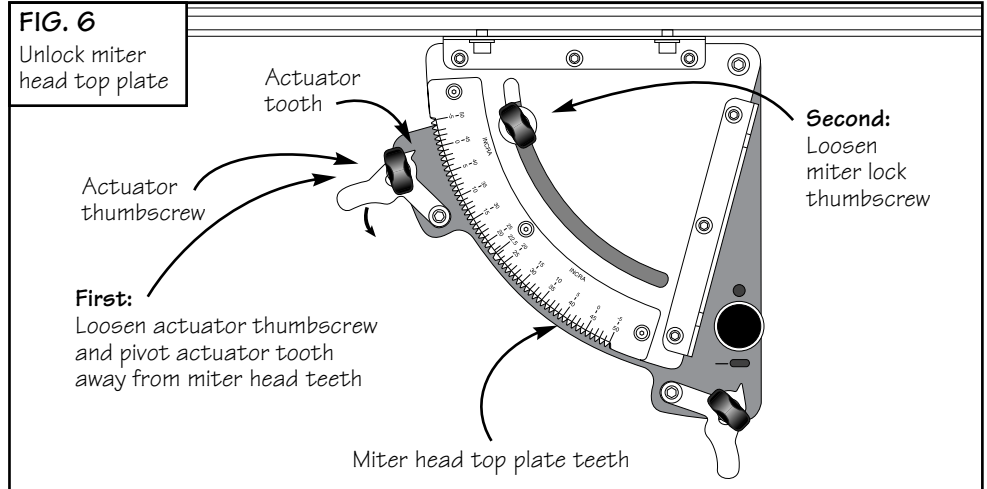
After calibrating your INCRA Miter Gauge for use in the left miter slot, find a single position for the fence that provides safe clearance between the fence and blade at all angles. Loosely assemble one of the 1/4 -20 x 3/8" socket head cap screws with washer and rectangular nut found in your hardware pack. Slide the nut into the rear T-slot on the fence and up to the fence mounting bracket. Make sure the washer is firmly against the fence mounting bracket as you tighten the fastener. **See Fig. 5.** Repeat for the right miter slot setup. Now, when the fence is later removed for work on the opposite side of the blade, the fence stop will retain your original position.



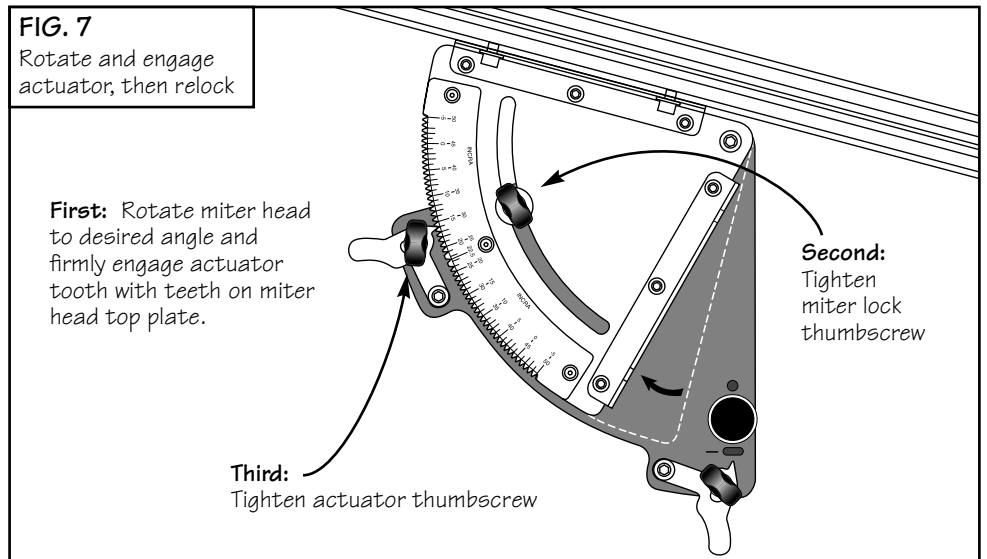
OPERATION - Changing the Angle Settings

One-degree Indexing

1 Loosen the actuator thumbscrew and pivot the actuator tooth away from teeth on miter head top plate. Loosen the miter lock thumbscrew. See Fig. 6.



2 Rotate miter head top plate to desired angle, then firmly engage tooth on actuator with teeth on miter head. The actuator tooth should point directly to the desired angle on the scale. Tighten the miter lock thumbscrew, then tighten the actuator thumbscrew. Fig. 7.



Caution:

After making any adjustments to the miter angle of your INCRA Miter Gauge, always verify safe clearance between the fence and the blade before turning on the saw.

Half-degree Indexing

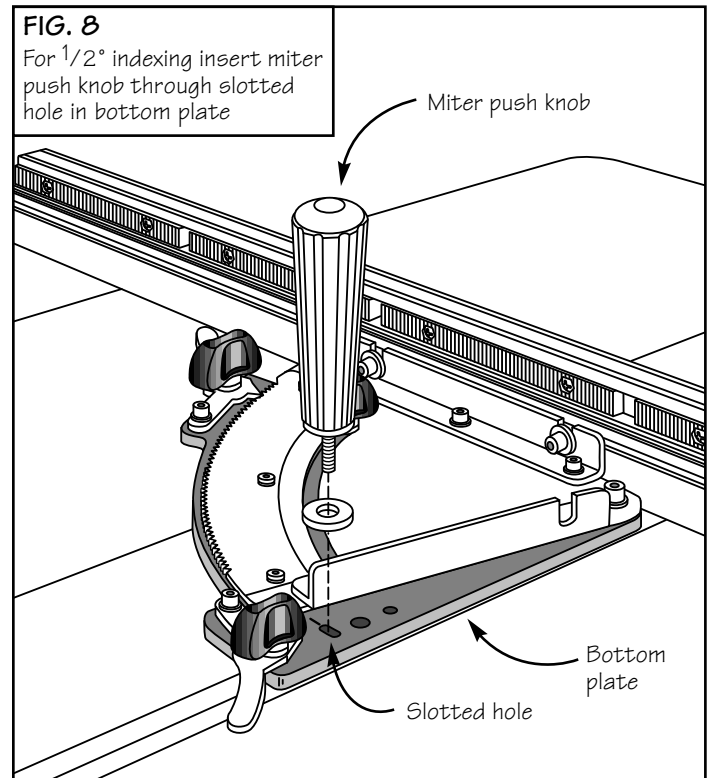
1 To adjust the Miter Gauge to $1/2^\circ$ settings, remove the large miter push knob from the hole in the top plate and thread it into the slotted hole. See Fig. 8. Before tightening the knob, rotate the miter head to move the white "minus" sign engraved in the black plate toward the knob. Tighten the knob. Now at every tooth setting for the actuator subtract $1/2^\circ$. (Example: If the actuator tooth is locked at 5° , you are at $4\ 1/2^\circ$.)

2 If you want to add $1/2^\circ$ to every tooth setting, loosen the miter push knob and rotate the miter head to move the white minus sign away from the knob.

Continuous Adjustments

NOTE: For continuous angle adjustment the miter push knob should be installed in the hole, not the slot, on the black bottom plate.

1 If you need angle settings finer than $1/2^\circ$ increments, just pivot the actuator away from the miter head teeth. You'll notice a white hairline cursor engraved in the black plate. Use this hairline as a reference for your adjustments. For continuous angle adjustments use only the miter lock thumbscrew to hold your angle.



REVERSING THE MITER GAUGE

Converting from Left to Right Miter Slot Use

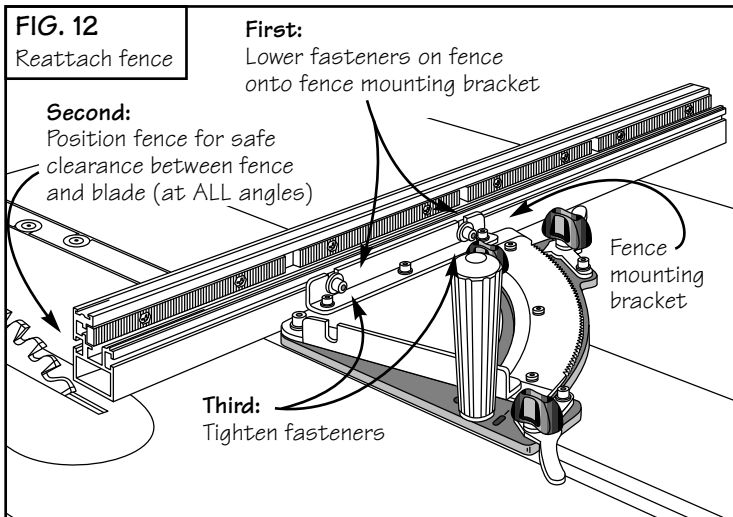
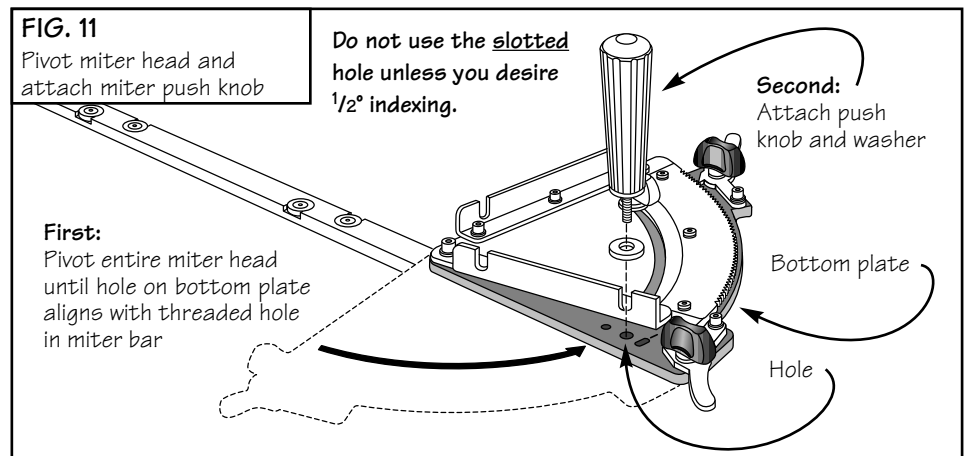
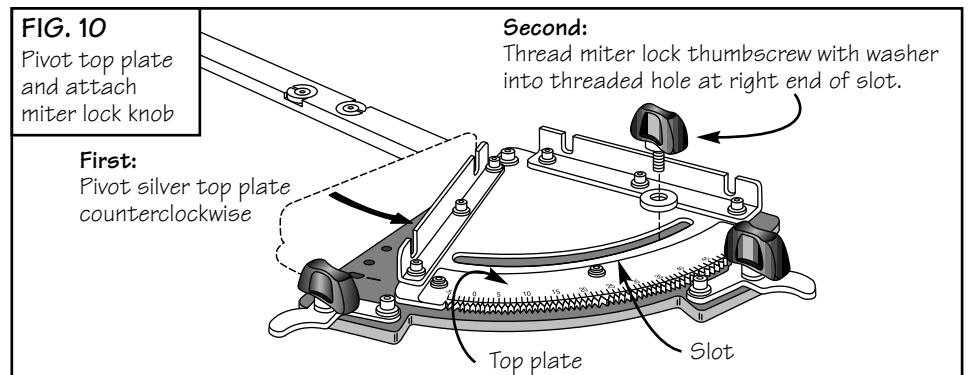
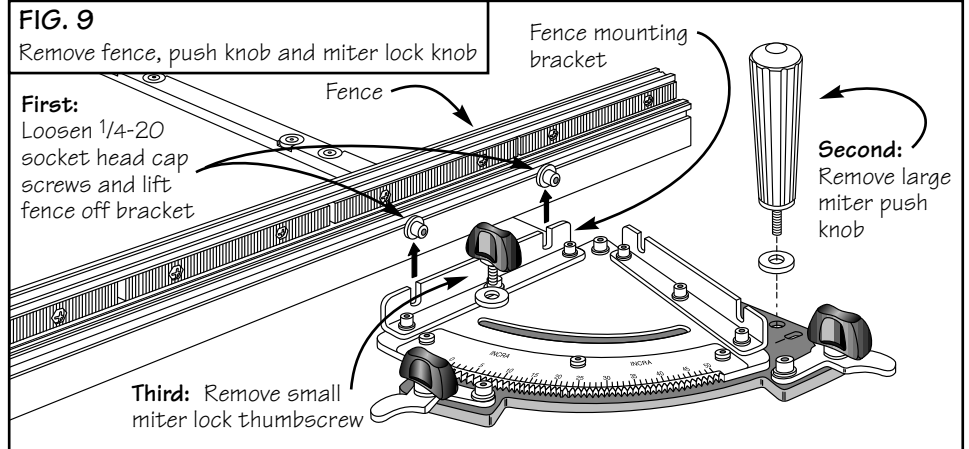
Your INCRA Miter Gauge is designed for use in either the left or right miter slot of your table saw. Since most of the time you will be using your INCRA Miter Gauge in the left hand miter slot, the instructions that follow describe converting from left to right miter slot use. To convert back to the original left miter slot setup, just reverse the steps.

1 Place the INCRA Miter Gauge in your table saw's right hand miter slot. Loosen the (2) 1/4-20 socket head cap screws that secure the fence and lift the fence straight up and off of the fence mounting bracket. Remove the large miter push knob and the small black miter lock thumbscrew. **Fig 9.**

2 Pivot the silver top plate on the miter head counterclockwise until you see the threaded hole through the right end of the slot. Screw the small black miter lock thumbscrew with washer into the threaded hole. **Fig 10.**

3 Pivot the entire miter head counterclockwise until the through hole on the left side of the black bottom plate aligns over the threaded hole in the miter bar. Screw the large miter push knob with washer into this hole and tighten. Do not use the slotted hole unless you desire 1/2° indexing. **Fig 11.**

4 Lower the fence back onto the fence mounting bracket. Before tightening the (2) 1/4-20 socket head cap screws, adjust the fence position to provide safe clearance between the fence end and the blade. Tighten the fasteners. **Fig 12.**



Caution:

After making any adjustments to the miter angle or fence position of your INCRA Miter Gauge, always verify safe clearance between the blade and fence before turning on the saw.

NOTE: When using the INCRA Miter Gauge in the right hand miter slot, use the right hand actuator and the smaller numbers on the scale to set the miter head angle. When using the INCRA Miter Gauge in the left hand miter slot, use the left hand actuator and the larger numbers on the scale to set the miter head angle.

AUXILIARY FENCES

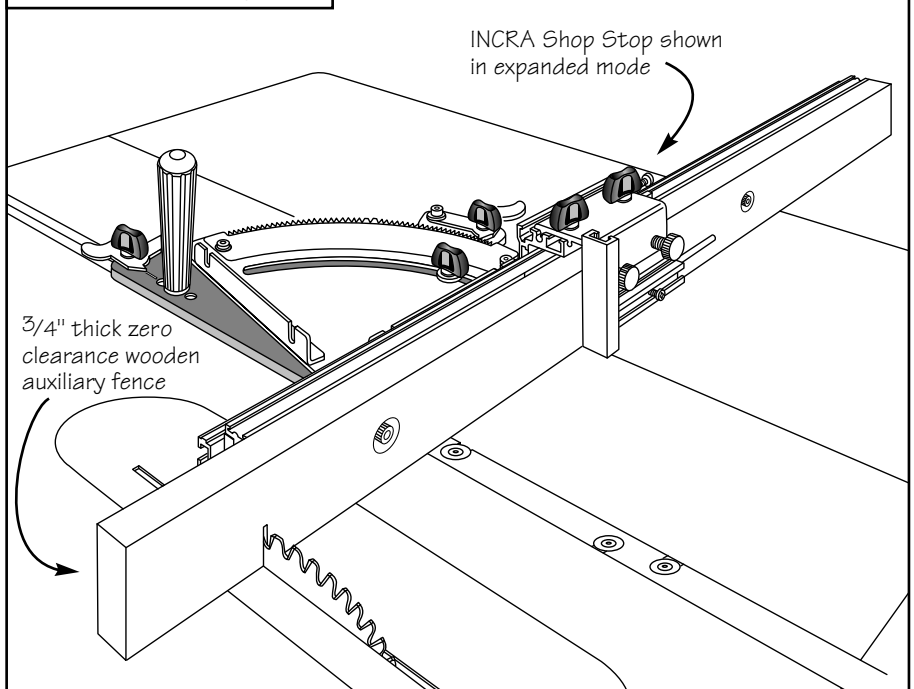
Zero Clearance

Adding a wooden auxiliary fence to the front of your INCRA Miter Gauge fence offers several benefits. Often, the most important benefit is the ability to add zero clearance backing for all of your crosscutting and mitering operations. A zero clearance auxiliary fence extends beyond the end of the miter gauge fence and crosses the line of cut to provide tearout control during a cut. It also carries any small cutoff pieces safely past the blade. In the expanded clamping mode, your INCRA Shop Stop will clamp to your Miter Gauge fence with auxiliary fences up to $\frac{3}{4}$ " thick. See Fig. 13.

Extending Stop Range or Fence Height

Another reason to add an auxiliary fence to your INCRA Miter Gauge is to extend the stopping range or fence height when used in conjunction with the INCRA Shop Stop. By adding a $\frac{3}{4}$ " plywood or hardwood auxiliary fence that extends beyond the end of the miter gauge fence away from the blade and using the Shop Stop in the standard clamping mode, you can clamp the stop directly to the auxiliary fence. Using the Shop Stop in this way allows the use of taller auxiliary fences as well.

FIG. 13
Zero clearance auxiliary fence



NOTE:

Set the INCRA Shop Stop to expanded mode as described in the Shop Stop owner's manual (page 3, Fig. 7) when using an auxiliary fence up to $\frac{3}{4}$ " thick.

Attaching an Auxiliary Fence

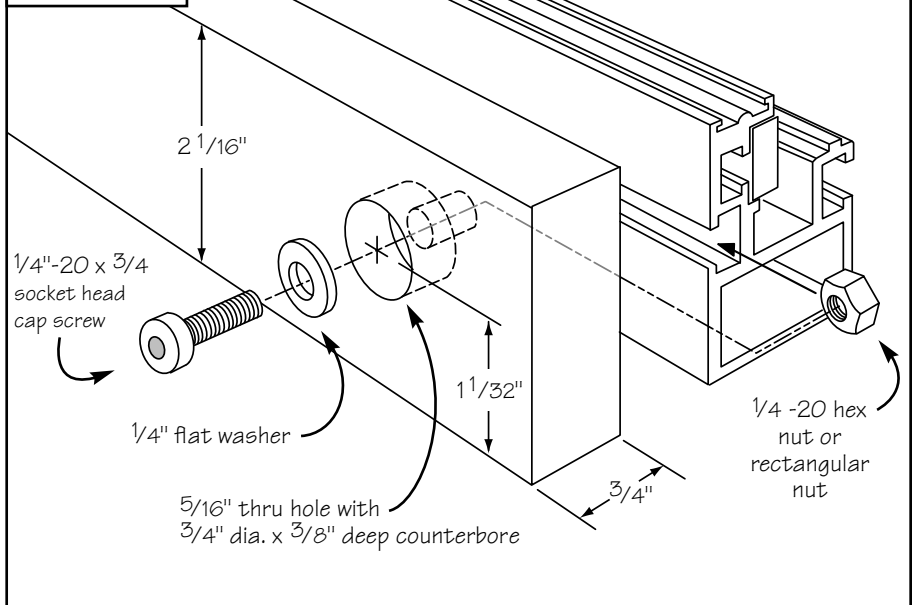
For auxiliary fence applications where incremental use of the Shop Stop is required, the wooden auxiliary fence should be flush with the top of the INCRA Miter Gauge fence. Use the dimensions shown in Fig. 14.

Provided in your hardware pack are $\frac{1}{4}$ "-20 x $\frac{3}{4}$ " fasteners with washers and nuts.



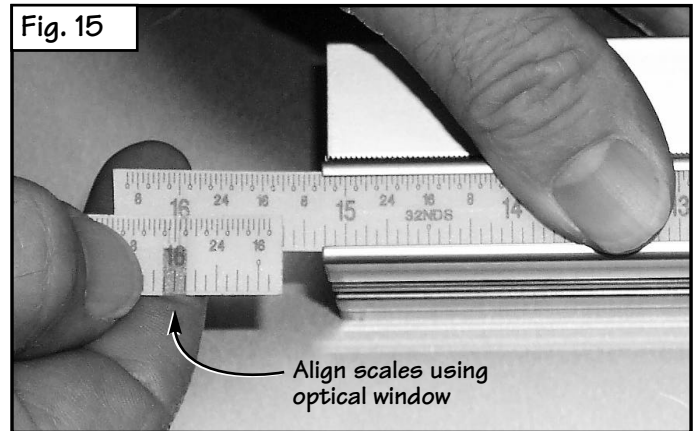
To increase holding power when crosscutting or mitering, add a strip of adhesive backed sandpaper to the front face of your wooden auxiliary fence. A sandpaper with a 150 to 180 grit works best.

FIG. 14
Auxiliary fence dimensions



ABOUT YOUR FENCE SCALES

All Incra products use overlapping 16" long Lexan scales. The overlap allows fine-tuning the scale from one end to the other to agree with the high degree of accuracy provided by the Incra saw toothed positioning racks. These scales are printed initially in 16" lengths (0-16", 16-32", 32-48" etc.). As they are slid into the scale slot on the fence, the ends are overlapped and aligned using the optical window located at the end of the second scale. **Fig 15.** The friction fit will keep the scales in place. If you wish, you can use a small piece of double faced tape at the overlap to ensure that the scales move together when changing your zeroed setups for mitering.



PARTS AND OPTIONAL ACCESSORIES

PART #	PART DESCRIPTION	PRICE
SHOPSTOP	INCRA Shop Stop <i>Add a second Shop Stop to your IncraLOCK™ Cut-off Fence</i>	\$ 32.95
MITERFNC27	27" IncraLOCK™ Cut-off Fence <i>Extra 27" IncraLOCK™ Cut-off fence with positioning racks</i>	\$ 34.95
MITERFNC52	52" IncraLOCK™ Cut-off Fence <i>Extended 52" IncraLOCK™ Cut-off fence with positioning racks</i>	\$ 49.95

PRODUCT INFORMATION

For a product information update on the complete INCRA line of tools, please see your nearest dealer. If you are unable to locate a store nearby, or if you have trouble finding a particular product, we will honor your order directly.

For a product information brochure, call, write or fax to:
Taylor Design Group, Inc.
P.O. Box 810262, Dallas, Texas 75381
 Tel: 972-242-9975 Fax: 972-242-9985
www.incra.com

WARRANTY

Taylor Design Group, Inc. warrants this product for one year from date of purchase. We will repair any defects due to faulty material or workmanship, or at our option, replace the product free of charge. Please return the failing component only, postage prepaid, along with a description of the problem to the address below. This warranty does not apply to parts which have been subjected to improper use, alteration, or abuse.

LIFETIME WARRANTY ON POSITIONING RACKS

If an INCRA linear positioning rack in this tool becomes damaged for ANY reason, Taylor Design Group will replace it free of charge for as long as you own your tool. Return the damaged rack, transportation prepaid, and allow 1 to 2 weeks for delivery.

Made in America by:

Taylor Design Group, Inc. ■ P.O. Box 810262 ■ Dallas, Texas 75381

09/2000

Printed in the U.S.A.

© 1999, 2000 Taylor Design Group, Inc.

INCRA is a registered trademark of Taylor Design Group, Inc.