

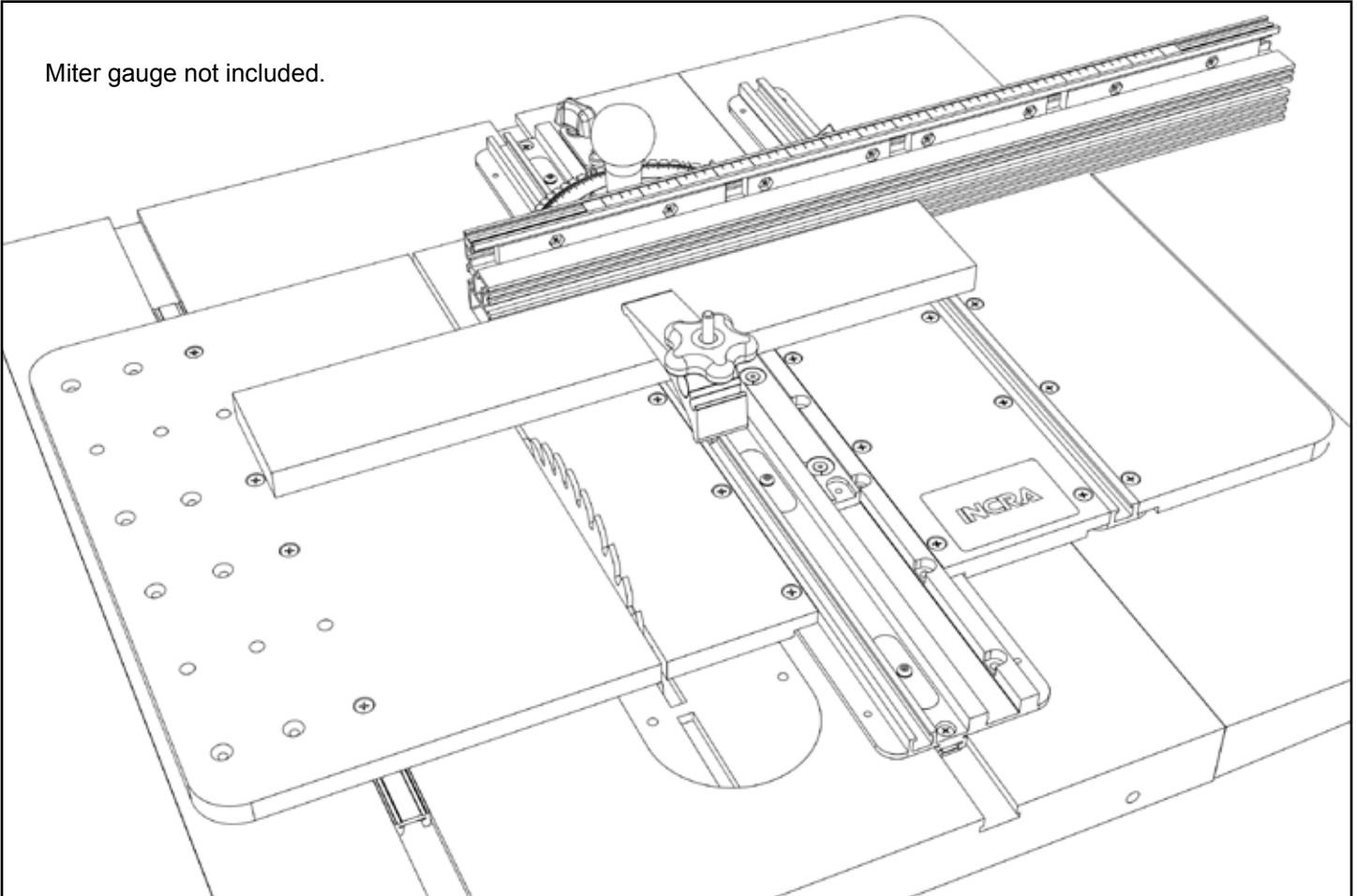
# MITER EXPRESS

Upgrades your miter gauge to a sled for increased accuracy, control and safety on work pieces large and small.

Another innovation in precision from **INCRA®**

## OWNER'S MANUAL

Miter gauge not included.



## SAFETY

### *Important safety instructions for using the INCRA Miter Express*

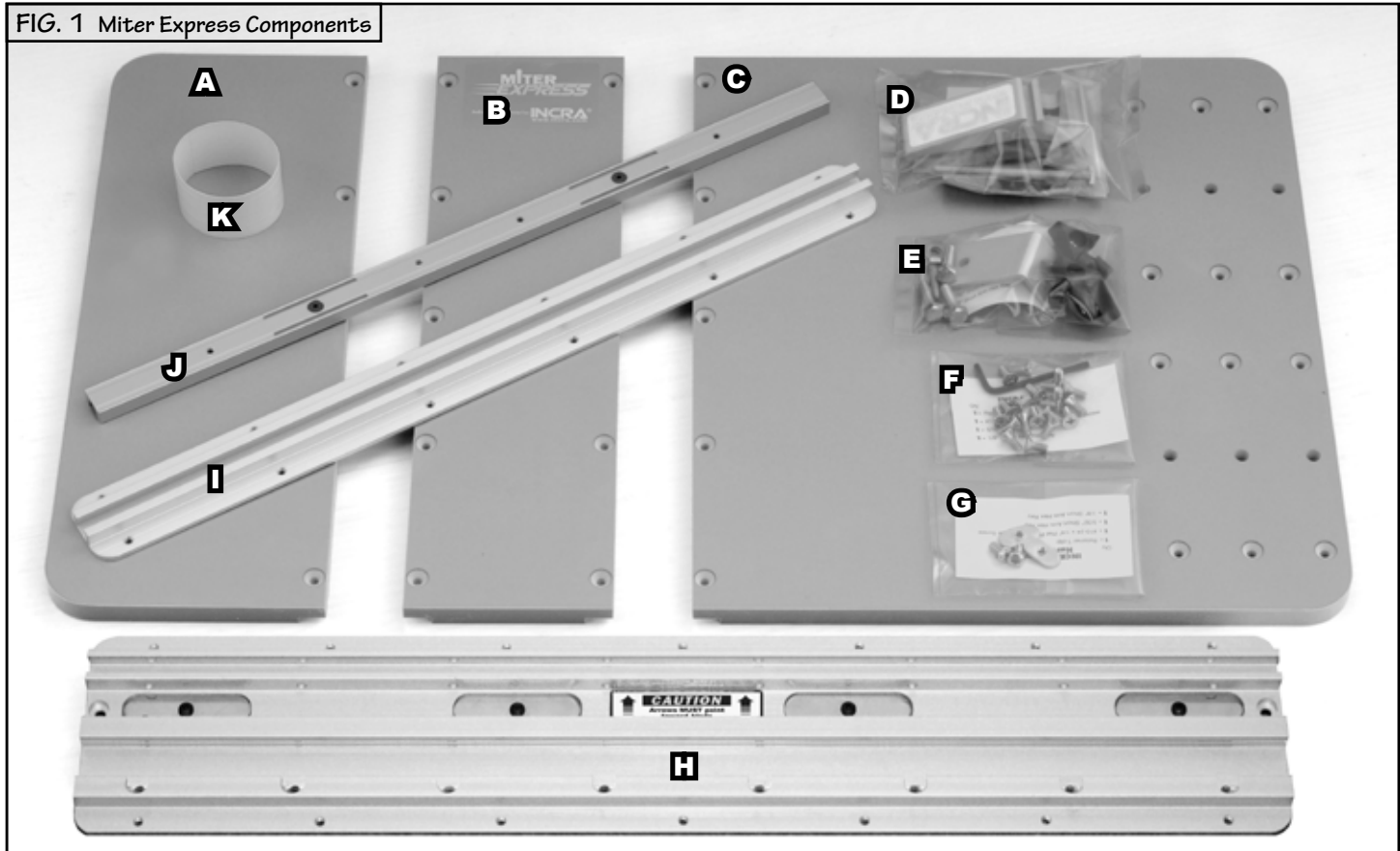
- Before using the INCRA Miter Express, read and follow all of the instructions and safety information in this owner's manual.
- When using the INCRA Miter Express in conjunction with any other tool, first read and follow all instructions and safety information in that tool's owner's manual.
- Never let the saw blade come in contact with the aluminum or steel components of the INCRA Miter Express.
- Before making any cut, always make sure that the INCRA Miter Express cutoff drop panel is locked securely in the miter slot.
- When using the INCRA Miter Express, always keep your hands clear of the saw blade and the line of 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 Express.
- Always securely tighten your miter gauge's 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 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 Express, always make sure that all knobs and fasteners on the fence mounting bracket and the outboard fence lock are securely tightened.
- When using a stop to position a piece for a cut, always hold or otherwise clamp the board between the stop and the blade.
- Always make sure the arrows on the Miter Express caution label point toward the table saw blade.

# PARTS LIST

## Carefully Unpack Components

After carefully unpacking all components, check the contents against the photo in **Fig. 1** and parts list below.

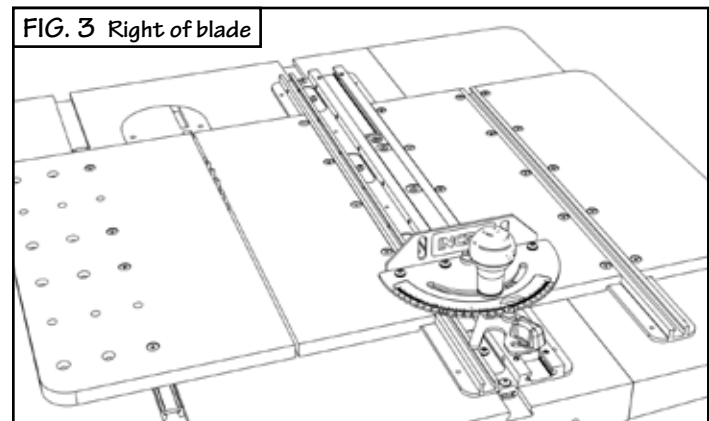
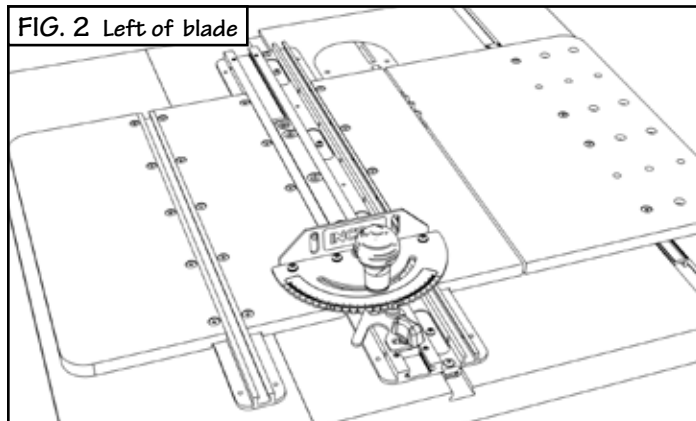
- A** Small Miter Express Panel w/rounded corners
  - B** Small Miter Express Panel w/square corners
  - C** Large Miter Express Panel
  - D** Hold Down Clamp
  - E** Hardware Pack C-15 (Outboard Fence Support and Fasteners)
  - F** Hardware Pack C-13 (Panel Assembly Fasteners and Hex Keys)
  - G** Hardware Pack C-14 (T-Slot Retainers and Cam Screws)
  - H** Utility Plate
  - I** Panel Connector
  - J** Aluminum Miter Bar
  - K** UHMW Glide Strips
- Miter Express Owner's Manual (not pictured)



## ASSEMBLY

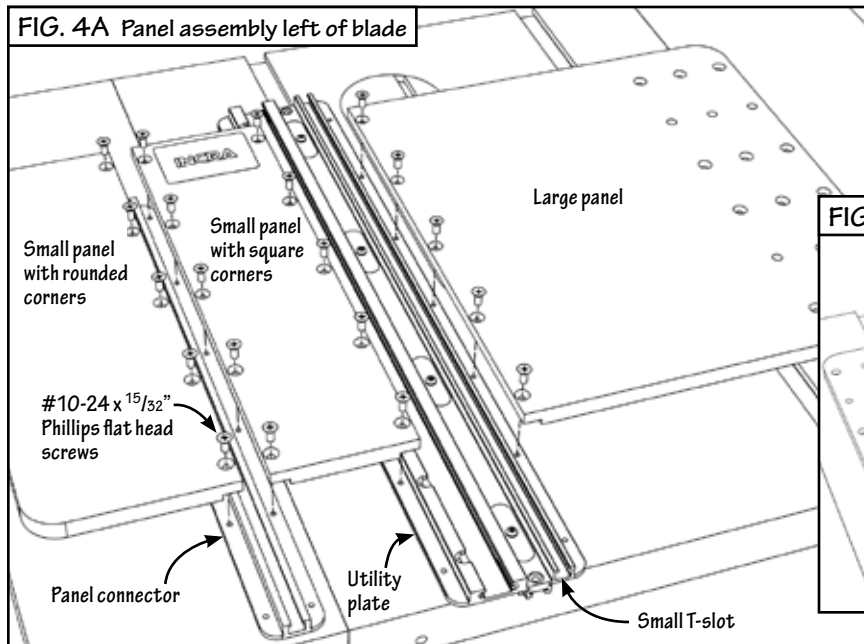
### 1 Left or Right Miter Slot

Before beginning the panel assembly, you'll want to first determine on which side of the blade you want the miter sled. Typically, if your blade tilts to the right, you'll want the miter sled to the left of the blade (Left Miter Slot), **Fig. 2**. If your blade tilts left, then you'll want the sled on the right side of the blade (Right Miter Slot), **Fig. 3**.

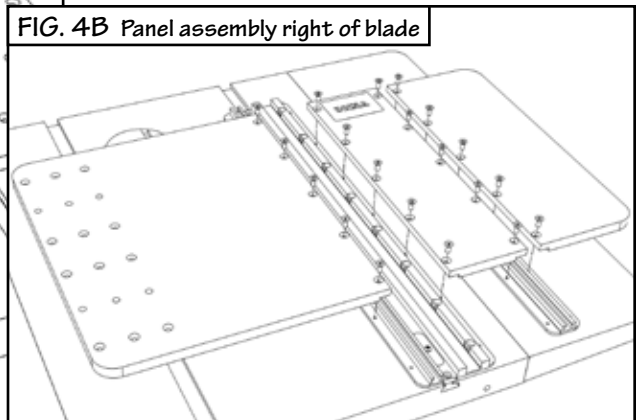


## 2 Attach Panels to Utility Plate and Panel Connector

Place the Utility Plate in the miter slot selected for use. Orient the Utility Plate so that the small T-slot on the plate is between the miter slot and your blade. The arrows on the Utility Plate Caution label MUST point toward the blade. Open Hardware Pack C-13 and using the supplied #10-24 x  $1\frac{5}{32}$ " Phillips flat head screws, attach the panels to the Utility Plate and Panel Connector as shown in Figs. 4A and 4B. The large panel will mount to the Utility Plate using the holes closest to the blade. The small panel with square corners mounts to the opposite edge of the Utility Plate. Use the Panel Connector to join the small panel with rounded corners to the remaining edge of the small panel with square corners.



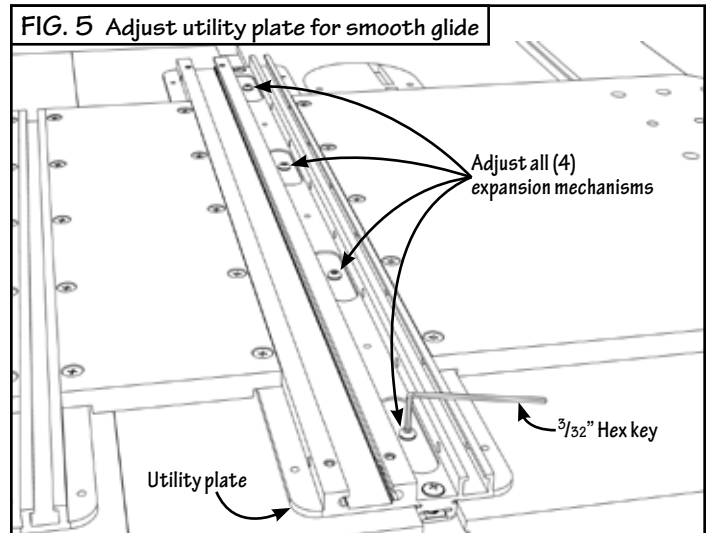
**NOTE:** All illustrations following Fig. 4B will show only assembly illustrations for left side of blade on right tilt table saws.



## 3 Adjust Utility Plate for Smooth Glide in Your Miter Slot

Using the included  $\frac{3}{32}$ " hex key, adjust the (4) expansion mechanisms in the Utility Plate for a good sliding fit in your table saw's miter slot, Fig. 5. Turning the screw clockwise expands the mechanism. Expand a little at each of the locations until the Utility Plate slides smoothly with no side play.

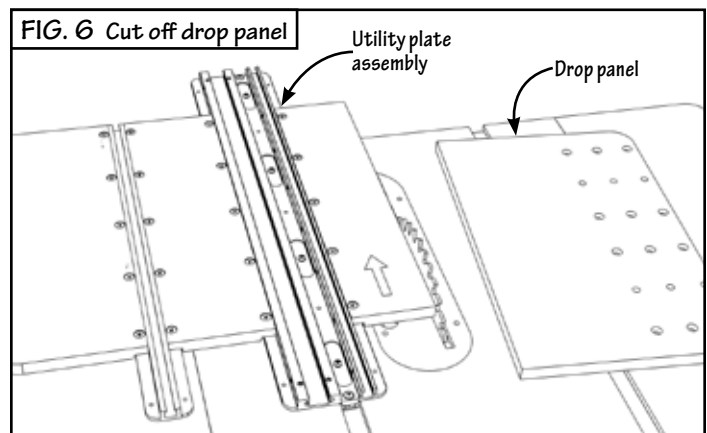
**NOTE:** To relax the expansion mechanism, turn the screw counter-clockwise as you push down on the hex key.



## 4 Raise Saw Blade and Cut Drop Panel

**BLADE ANGLE NOTE:** If your primary use for the Miter Express is mitering with the blade at  $90^\circ$ , make sure the blade is set at  $90^\circ$  before continuing.

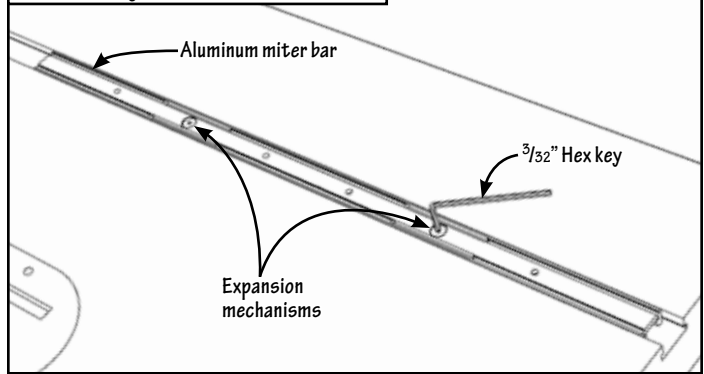
Raise your saw blade about  $\frac{3}{4}$ " and make a cut to remove the portion of the large panel that extends across the line of cut, Fig. 6. This cut off will be used for the drop panel described in Step 6. Turn off the saw, lower the blade and remove the Utility Plate assembly from the saw.



## 5 Adjust Aluminum Miter Bar

Using the supplied  $\frac{3}{32}$ " hex key, adjust the aluminum miter bar at each of the (2) expansion mechanism locations for a good sliding fit in your table saw's remaining miter slot. Turning the screw clockwise expands the mechanism. Expand a little at each of the locations until the bar slides smoothly with no side play, **Fig. 7**.

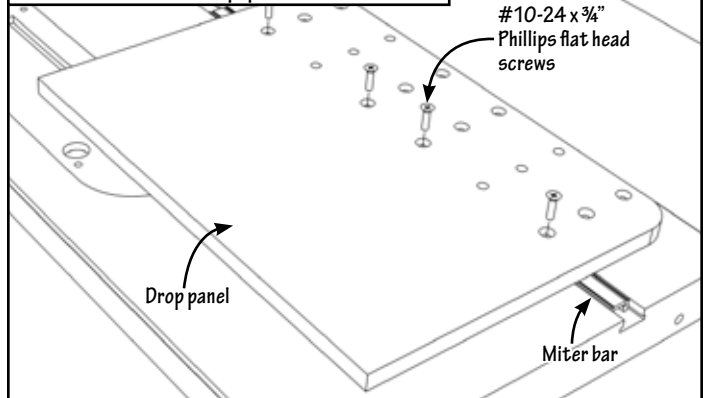
FIG. 7 Adjust aluminum miter bar



## 6 Attach Drop Panel to Aluminum Miter Bar

Using (4) #10-24 x  $\frac{3}{4}$ " Phillips flat head screws, attach the drop panel to the aluminum miter bar. Use the mounting holes that permit the least amount of panel overhang beyond the line of cut, **Fig. 8**.

FIG. 8 Attach drop panel to miter bar

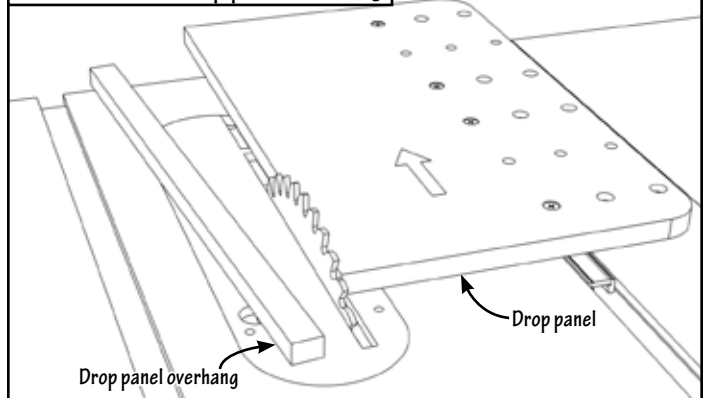


## 7 Cut Off Drop Panel Overhang

Raise the saw blade about  $\frac{3}{4}$ " and make a cut to remove the portion of the drop panel that extends beyond the line of cut, **Fig. 9**. Turn off the saw, lower the blade and return the Utility Plate assembly to the table saw.

**CAUTION:** In use, only the Utility Plate assembly slides to move your workpiece through a cut. The drop panel will be positioned adjacent to the blade and locked in place by tightening the (2) expansion mechanisms to provide zero clearance and workpiece cutoff support. (See Fig. 12)

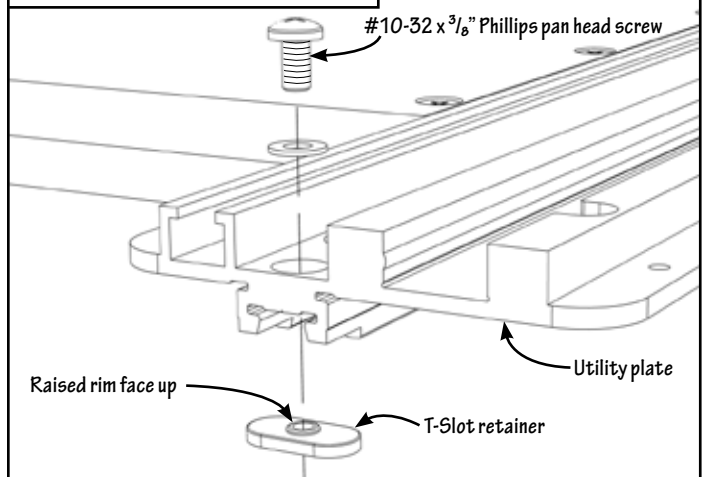
FIG. 9 Cut off drop panel overhang



## 8 Attach T-Slot Retainers

**Note:** Skip this step for non T-slot miter channels. Open Hardware Pack C-14. Slide the Utility Plate panel assembly to overhang the edge of your table saw and attach the T-slot retainer using the #10-32 x  $\frac{3}{8}$ " Phillips pan head screw as shown in **Fig. 10**. The raised rim around the T-slot retainer's threaded hole should face upward. Repeat for the opposite end of the Utility Plate.

FIG. 10 Attach T-slot retainers



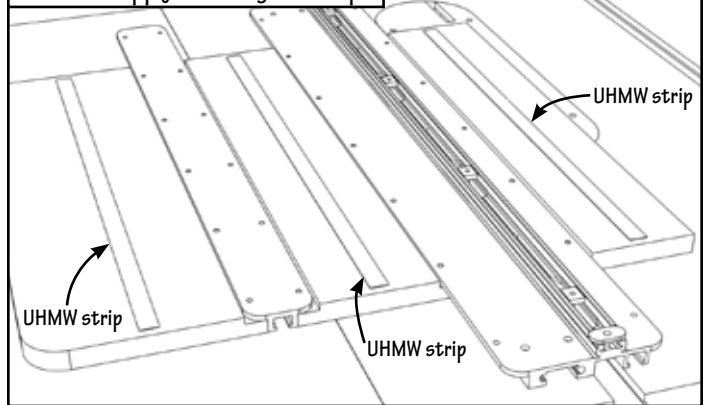
## 9 Apply UHMW Glide Strips

Apply one strip of PSA backed UHMW to the underside of each of the (3) panels that make up the Utility Plate panel assembly, **Fig. 11**.

Align the UHMW so that it contacts only smooth surfaces on your table saw. The UHMW strips serve to raise the Miter Express panels just slightly above the drop panel while simultaneously lowering friction between your table saw and the panels.

**NOTE:** Do not apply UHMW glide strips to the underside of the drop panel.

FIG. 11 Apply UHMW glide strips

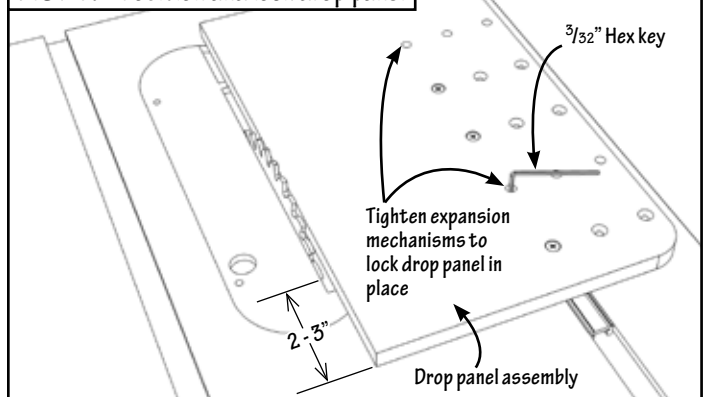


# OPERATION

## 1 Position and Lock Drop Panel

Slide the drop panel assembly in your miter slot and position adjacent to the saw blade. The infeed edge of the drop panel should be about 2-3" in front of the saw blade. Use the  $\frac{3}{32}$ " hex key to tighten both expansion mechanisms to lock the drop panel in place, **Fig. 12**.

FIG. 12 Position and lock drop panel



## 2 Position Miter Gauge in Receiving Slot of Utility Plate

Slide the Utility Plate assembly into the remaining miter slot and lower your miter gauge into the receiving slot of the Utility Plate, **Fig. 13**.

Once in the receiving slot, a variety of positions for the miter gauge can be achieved to accommodate different cutting situations. For small piece work you'll want the miter gauge positioned forward on the Utility Plate so that the work piece will be fully supported by the Miter Express panels. For maximum crosscut you'll want to position the miter gauge fence mounting plate near the infeed end of the Utility Plate. **Figs. 14A and 14B**.

FIG. 13 Position miter gauge in receiving slot

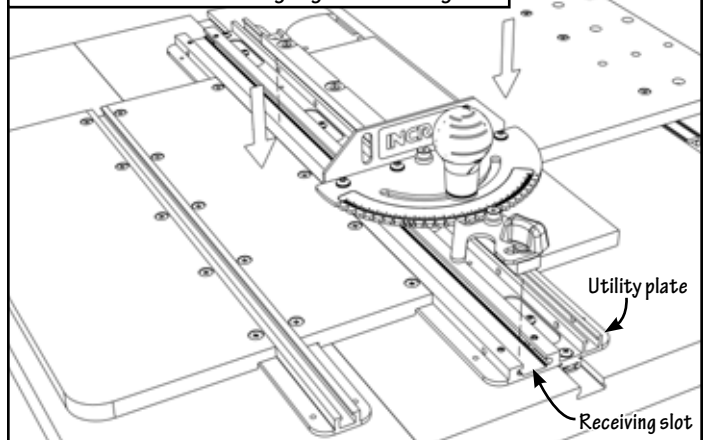


FIG. 14A Gauge position for small piece work

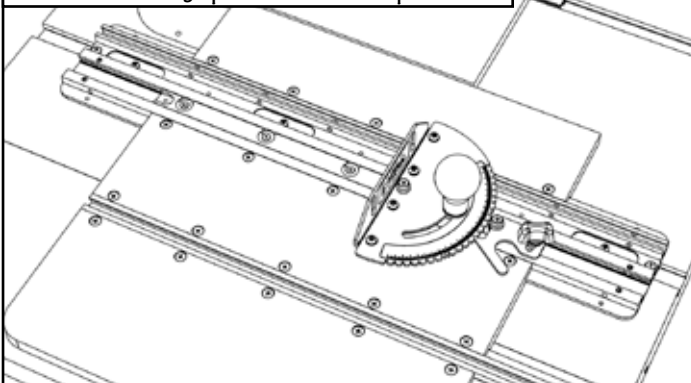
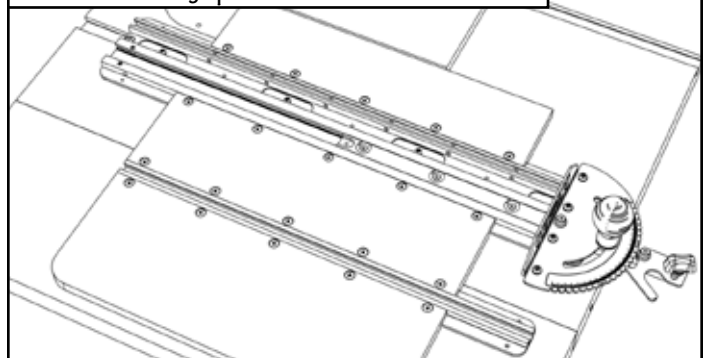


FIG. 14B Gauge position for maximum crosscut



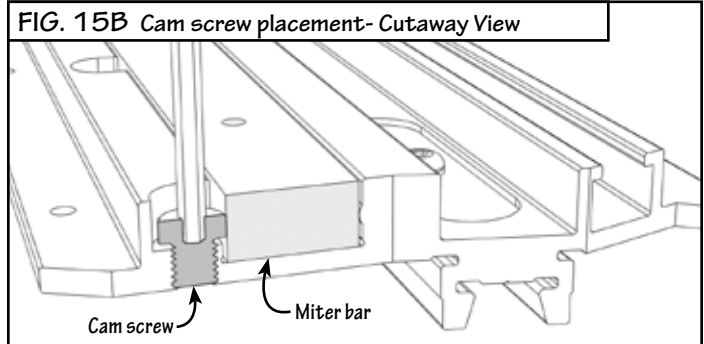
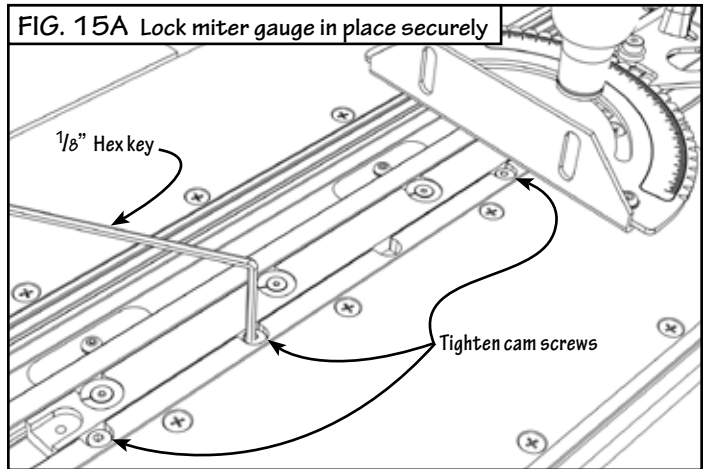
### 3 Lock the Miter Gauge in Place

**CAUTION:** All THREE of the supplied cam screws (Hardware Pack C-14) must be positioned and **FIRMLY TIGHTENED** against the side of your miter gauge's miter bar. **CONFIRM** that your miter gauge is securely locked in the Miter Express before making any cuts.

After determining your miter gauge's position on the Miter Express (Step 2, Fig. 14A & 14B), remove the gauge from the receiving slot and install one of the three cam screws in the threaded cutout that will be closest to the miter gauge's protractor head (either in front or behind is OK as long as it will bear against the miter bar). Install the other two cam screws so they will be adjacent to any other two points along the miter bar, **Fig. 15A**

Use the supplied  $\frac{1}{8}$ " hex key to tighten each cam screw as far down as it will go, THEN back it out one full turn. Now rotate each cam screw clockwise until there is enough head clearance for the miter bar to drop all the way into the receiving slot. Continue tightening each cam screw until it is **FIRMLY** tightened against the miter bar.

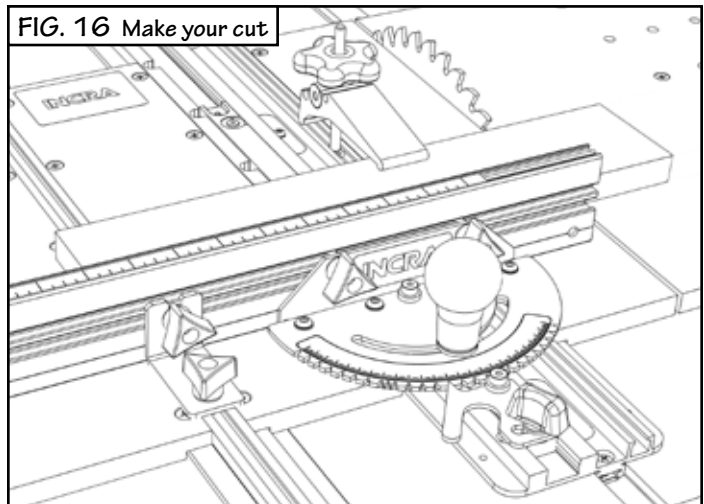
**NOTE:** When properly installed, each cam screw will be roughly centered on the  $\frac{3}{8}$ " thickness of the miter bar. This means the cam screws should bear against the middle of the miter bar, NOT the very top and NOT the very bottom, Fig. 15B.



### 4 Make Your Cut

Now use your new Miter Express as you would any miter gauge. Just set your miter angle, check for safe clearance between your miter gauge's fence and the blade and make the cut, **Fig. 16**.

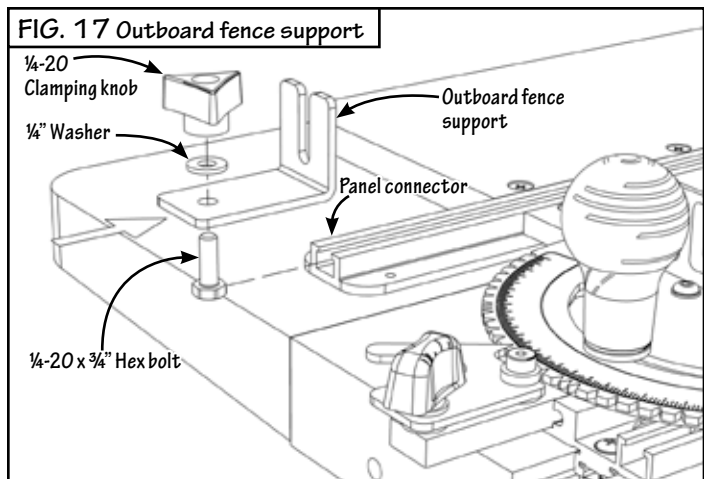
Be sure to read the accessories section of this manual for information on the included Outboard Fence Support and INCRA Hold Down Clamp.



## ACCESSORIES

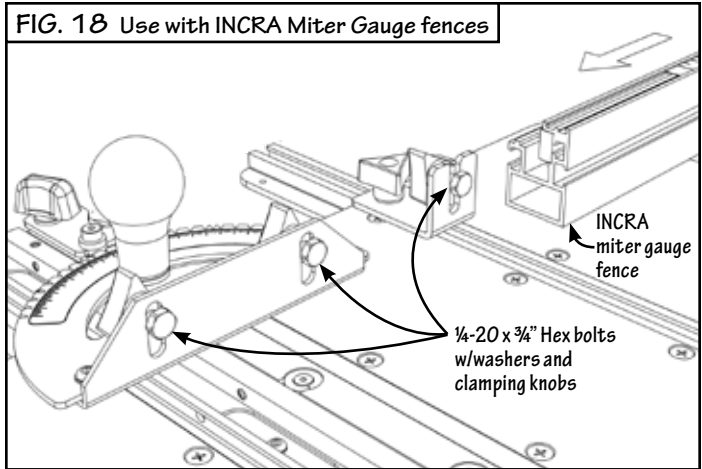
### 1 Outboard Fence Support

For heavy duty applications, use the included outboard fence support to provide a rock solid backing for the end of your miter gauge's fence. To use the support, open Hardware Pack C-15. Loosely install one of the  $\frac{1}{4}$ -20 x  $\frac{3}{4}$ " hex bolts with washer and  $\frac{1}{4}$ -20 knob through the hole in the outboard fence support, then slide the head of the bolt into the T-slot on the panel connector, **Fig. 17**.

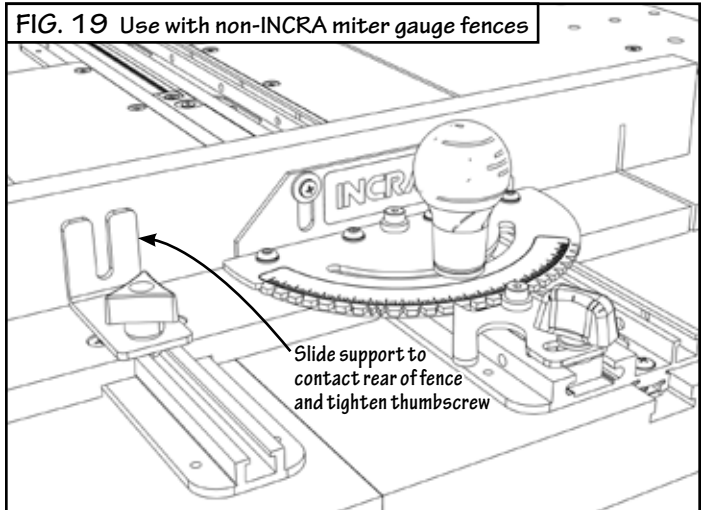


For use with most INCRA Miter Gauge fences, you can use the remaining hex bolts with washers and knobs to attach the fence to both the outboard fence support and to the Miter Gauge's fence mounting bracket, **Fig. 18**. (You can continue to use the socket head fasteners provided with your INCRA Miter Gauge if you prefer.)

In operation, after setting the protractor head angle and tightening the large clamping knob, you must tighten the outboard support to the fence before tightening to the panel connector. After making a cut, be sure to loosen both clamping knobs before changing miter angles. Try setting a few angles to get the hang of it.

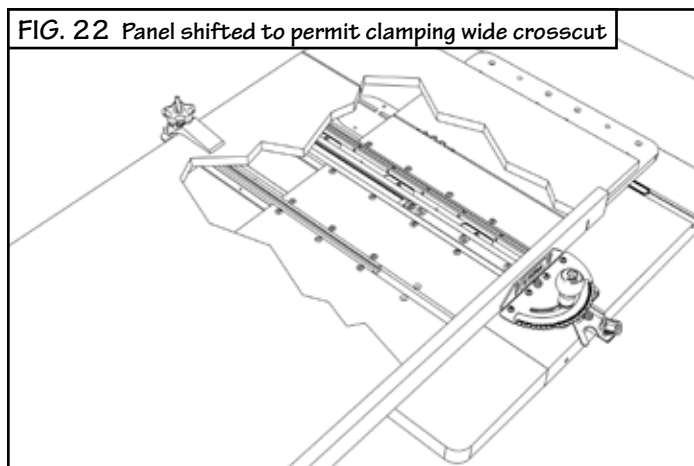
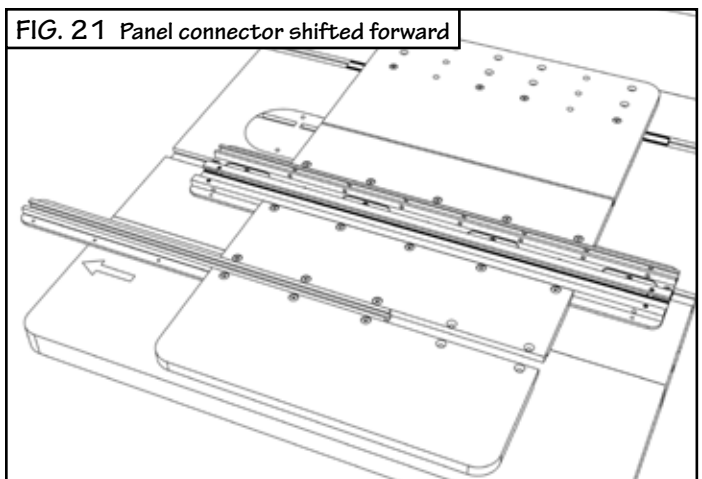
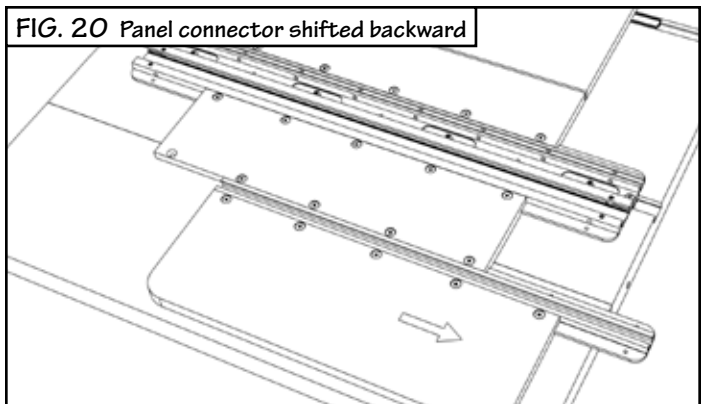


For use with other non-INCRA miter gauge fences, after setting the protractor head angle and tightening the large clamping knob, slide the support up to contact the back of the fence and tighten the clamping knob to secure the support to the panel connector, **Fig. 19**



To use the outboard fence support for angle settings that pivot the fence off of the Miter Express base, you can shift the position of the panel connector. Just remove the fasteners and shift the panel connector backward or forward a few holes, **Figs. 20 and 21**.

A forward shift is beneficial when using the included hold down clamp for wide material crosscuts, **Fig 22**.

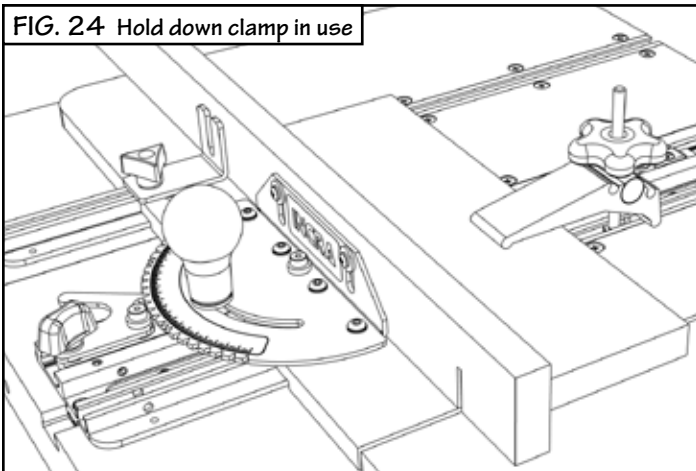


## 2 INCRA Hold Down Clamp

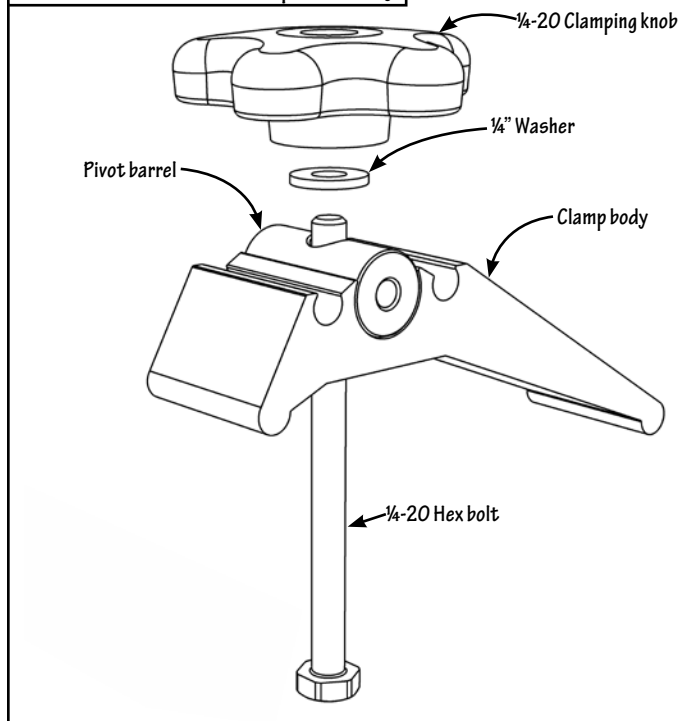
Open the INCRA Hold Down Clamp hardware bag and assemble the clamp as shown in **Fig. 23**.

The INCRA Hold Down Clamp slides into either of the (2) T-slots on the Miter Express to provide a secure grip on your work piece, large or small. Either end of the clamp can be used to clamp your workpiece. Just slide the clamp into the selected T-slot and tighten the clamping knob, **Fig. 24**.

**FIG. 24** Hold down clamp in use



**FIG. 23** Hold down clamp assembly



**CAUTION:** Never allow any part of the INCRA Hold Down Clamp to cross the line of cut.

# 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.

07/05

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