

FROM THE MAKERS OF INCRA JIG!



# Miter Slider™

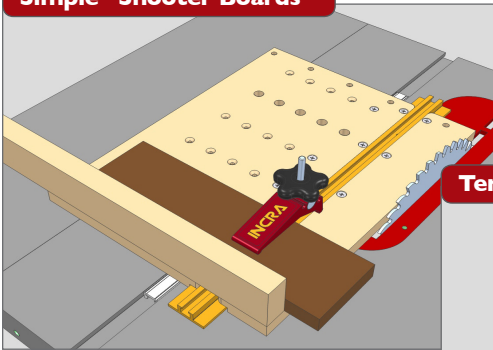
PATENT #5,275,074

INCLUDES ILLUSTRATED PLANS FOR MAKING THESE AND OTHER POPULAR JIGS AND FIXTURES. AND MANY MORE AVAILABLE AT: [WWW.INCRA.COM](http://WWW.INCRA.COM)

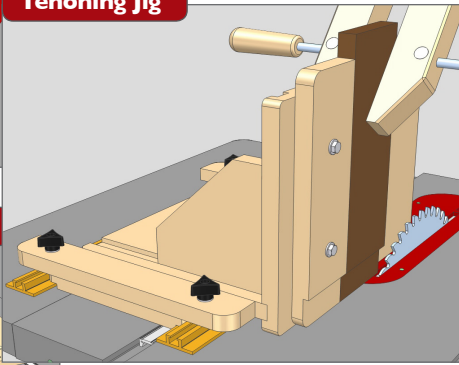
Adjustable Aluminum Runner for Sliding and Stationary Table Saw Jigs

## OWNER'S MANUAL & JIG PLANS

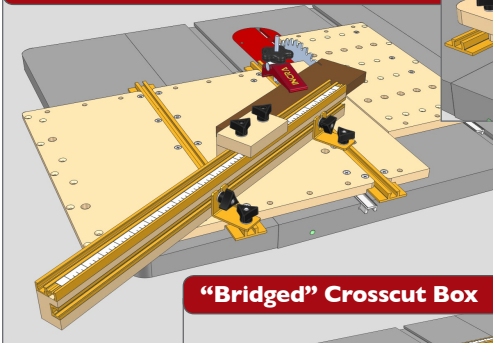
### Simple "Shooter Boards"



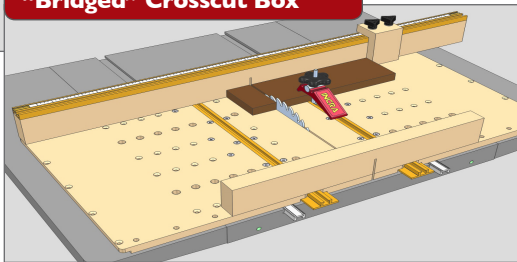
### Tenoning Jig



### Adjustable Crosscut w/ Drop Panel



### "Bridged" Crosscut Box



The use of special purpose jigs and fixtures in the workshop is an essential part of many woodworking operations. Used by amateurs and professionals alike, table saw and other stationary tool jigs take the work out of difficult and time-consuming setup operations. They increase safety and productivity while maintaining accuracy and repeatability.

But for all the advantages they offer, many beneficial jigs and fixtures are overlooked or avoided altogether simply because of the time and effort required to get the jig's base platform up and running. Most jig bases begin with a plywood or MDF panel that is carefully drilled and counterbored to accept a wooden or plastic runner, followed by a series of carefully placed mounting holes for attaching the fences or other accessories required for the jig's functions. Easy enough right? But then you find the runners expand and won't slide smoothly, or contract and become sloppy. The critical hole positions

are slightly off and you end up with a fence that's not quite square and offers no means of adjustment. Before you know it, you're making the cuts for your project with no jig at all, taking chances with safety and compromising the quality of your craft.

Your new Inkra Miter Slider will make your next jig-making experience a pleasure and a success. Inkra's Miter Slider combines the stability and strength of a hard anodized aluminum body with a bar width adjustment mechanism to provide a perfect fit in your miter slot. A fit that lasts, season after season. Add the new Build-It System components, including the pre-cut and pre-drilled Build-It Panels along with the Build-It T-Slot Panel Connectors and Build-It Brackets, and you can put together your next jig project in minutes with only a screwdriver. Just connect the parts.

**The possibilities are endless!**

## Content

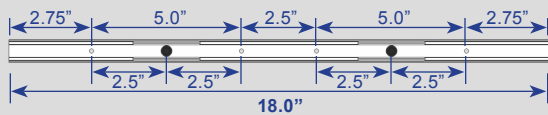
<b>General Mounting</b> .....	<b>page 2</b>
◦ Covers basic mounting procedures for attaching to your jig design	
<b>Build-It System Mounting</b> .....	<b>page 4</b>
◦ Covers mounting procedures for attaching to Build-It Panels	
<b>Build-It System Jig Plans</b> .....	<b>page 5</b>
◦ Shooter Board Squaring Jig	◦ Adjustable Angle Crosscut
◦ Bridged Crosscut Box	◦ Tenoning Jig

### SAFETY:

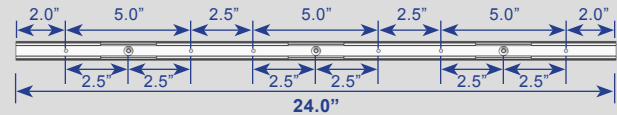
- Before using the Miter Slider with any jig, read and follow all of the instructions and safety information in this manual.
- When using a Miter Slider in conjunction with any other tool, first read and follow all instructions and safety information in that tool's owner's manual.
- Use appropriate safety devices and keep hands clear of the blade. When appropriate, always use a push stick, rubber soled push block, or other safety device to keep your hands safely away from the cutting tool.
- Always make sure that the Miter Slider can be operated over its full length of travel without binding.
- Always turn off the power and make sure that the bit or blade is fully stopped before changing the position of any stop blocks used.
- Always wear safety glasses and follow all normal shop safety practices.

## Mounting Hole Dimensions

### 18" Length



### 24" Length



## Adjusting Your Miter Slider Expansion Mechanisms

You can adjust the fit of the Miter Slider in your table saw or other stationary tool miter slot prior to attaching it to your jig's base platform. Simply place the bar in the miter slot, and with the supplied allen wrench, turn the expansion screw counterclockwise to loosen the fit or clockwise to tighten the fit. Turning the screw a little more clockwise will lock the Miter Slider in place for stationary jigs such as a feather board.

**Tip:** Binding is often caused by a variance in the width of the miter slot. To find the location of the constriction, loosen all but one of the expansion mechanisms and slide the bar to cover the full length of the slot with the one adjusted mechanism. Mark the trouble spots and lightly file or sand the slot.

## General Mounting Instructions

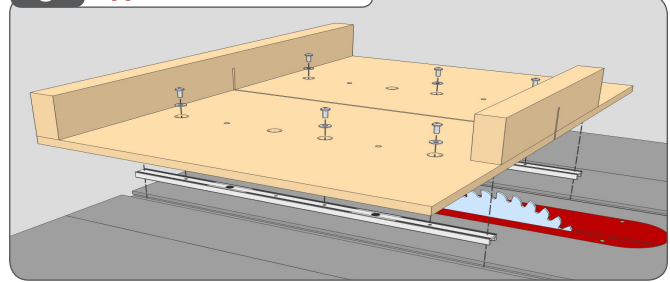
Use these mounting instructions if you intend to build your jig design from scratch using a plywood or MDF panel. (If you want to avoid the measuring, drilling and counterboring required, take a look at Incra's new Build-It System components starting on page 4.) Use good quality 1/2" stock to ensure many years of service. Begin by determining if your jig will need one or two Miter Sliders. Any jig whose width spans the distance between the two miter slots on a table saw should use two Miter Sliders for stability. Adjust each Miter Slider for the desired fit in your application's miter slot. The example to follow shows setting up for a table saw application.

**1.** After cutting your sheet stock to size for your jig design, determine where the saw kerf will be located and place a mark on the outfeed edge of the jig's base panel, **Fig. 2**.

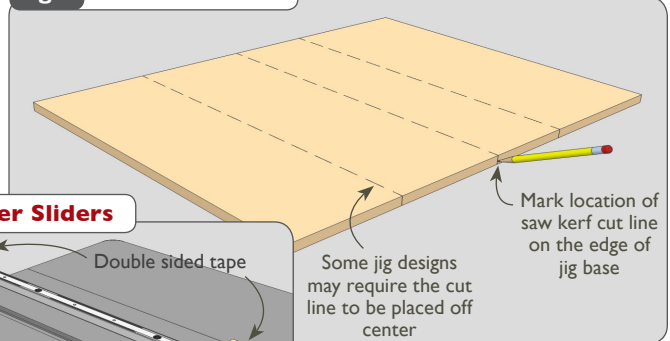
**2.** Place a piece of double-sided tape on the top of your Miter Sliders at each end, **Fig. 3**. Drop two dimes into each miter slot, then place the Miter Sliders into the slots on top of the dimes. The dimes act as shims to raise the Miter Sliders slightly above the top of the miter slots. Position the end of the Miter Sliders flush with the infeed edge of the table saw.

**3.** Lower the jig base onto the table saw top, **Fig. 4**, but don't allow the tape to adhere to the panel until you have aligned your cut line with the throatplate opening and the back edge directly over and flush with the infeed edge of the saw. Now press the jig base down so the tape adheres.

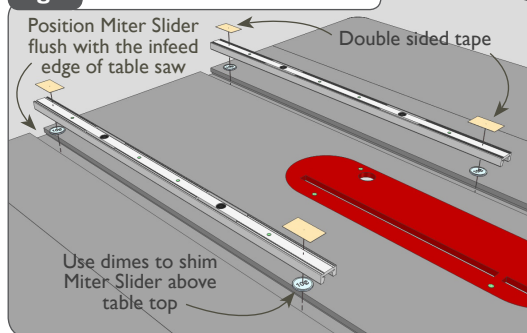
**Fig. 1 Typical Crosscut Box**



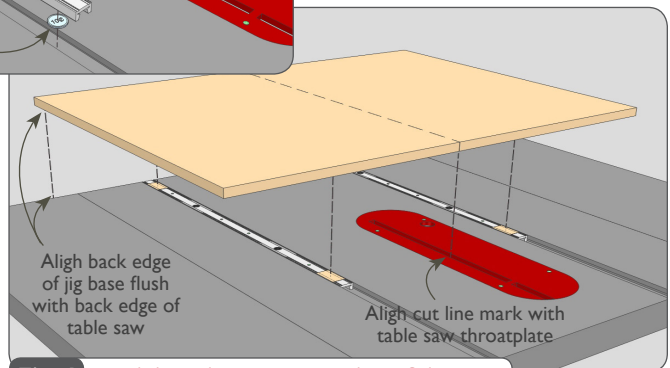
**Fig. 2 Mark Saw Kerf**



**Fig. 3 Position Miter Sliders**



**Fig. 4 Position Jig Base on Miter Sliders**



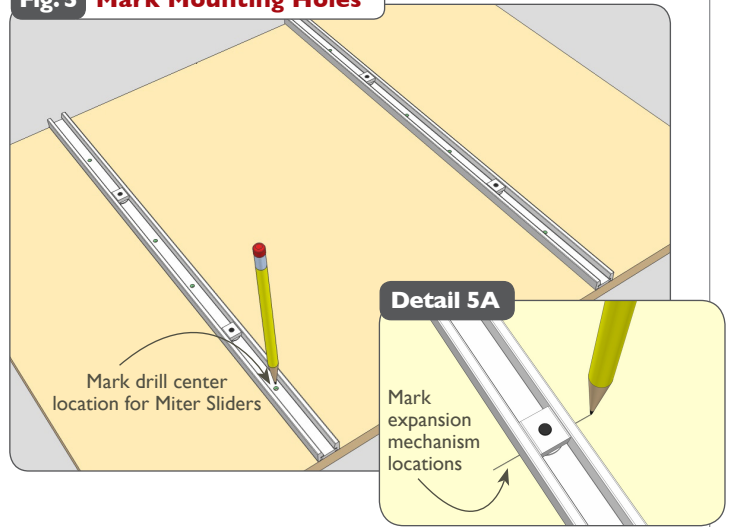
4. Carefully slide your jig platform out of the miter slots. The Miter Sliders should be firmly attached. Remove the dimes from your miter slots. Flip the base panel over and mark the drill center locations for mounting holes through the threaded holes in the Miter Sliders, **Fig. 5**. Place a mark on each side of the bar at the expansion screw locations to aid in later locating and drilling access holes, **Detail 5A**. After marking your panel, pull the Miter Sliders off and remove the double-sided tape.

5. Mounting hardware includes 3 ea #10-24 x 1/2" Phillips machine screws and washers. These will be used to secure the Miter Slider to your jig base. (The additional 3/4" screws are for mounting to Build-It Panels as described on page 4.) On jig bases less than 15" long, only two mounting screws need to be used. Jig bases longer than 15" should use a mounting screw in the first hole, the last hole, and one of the interior holes, **Fig. 6**.

6. Drill a 1/4" hole at each of the selected locations. Counterbore each mounting hole from the top of the panel with a 5/8" Forstner bit. The depth of the counterbore is 1/4". Note: If you are using a 3/4" panel, make the counterbore 1/2" deep, or use longer mounting screws. It is not necessary to counterbore the expansion screw access locations, **Fig. 7**.

7. Mount the Miter Sliders to your jig platform using the included hardware. Before tightening the fasteners, slide the Miter Sliders back into your miter slot and square the edge of the base panel with the saw blade, **Fig. 8**. Securely tighten the fasteners.

**Fig. 5 Mark Mounting Holes**

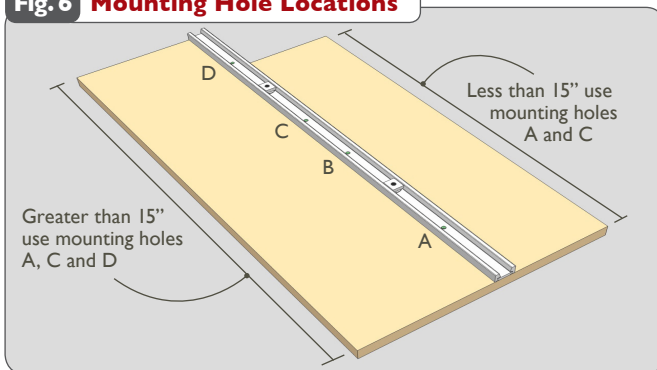


Now you can continue by adding all the things that make your jig unique for the cutting situations in your shop, from bridges and fences to T-Tracks, hold downs and toggle clamps, **Fig. 9**. See pages 4-8 for some great jig and fixture ideas featuring the new Incra Build-It System modular jig and fixture components. Also, keep an eye on our website at [www.incra.com](http://www.incra.com) for free plans for the jigs shown in this manual as well as others as they become available.

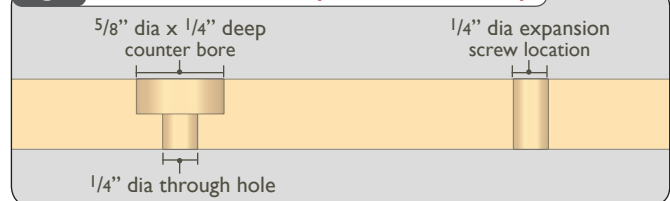
**Tip: Adjusting your jig**

The drill and counterbore dimensions are slightly oversized to allow some adjustment of the jig's angle later on. By loosening the mounting fasteners and twisting the jig platform, you can change the angle by  $\pm 2^\circ$ . Be sure to always re-tighten the mounting screws before using your jig.

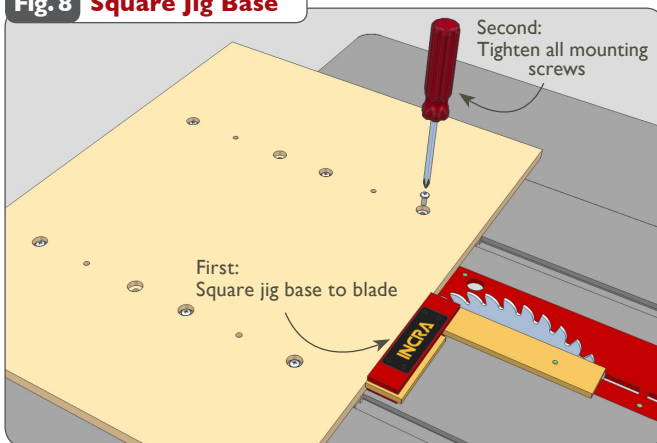
**Fig. 6 Mounting Hole Locations**



**Fig. 7 Hole Dimensions (1/2" sheet stock)**



**Fig. 8 Square Jig Base**



**Fig. 9 Jig Accessories**



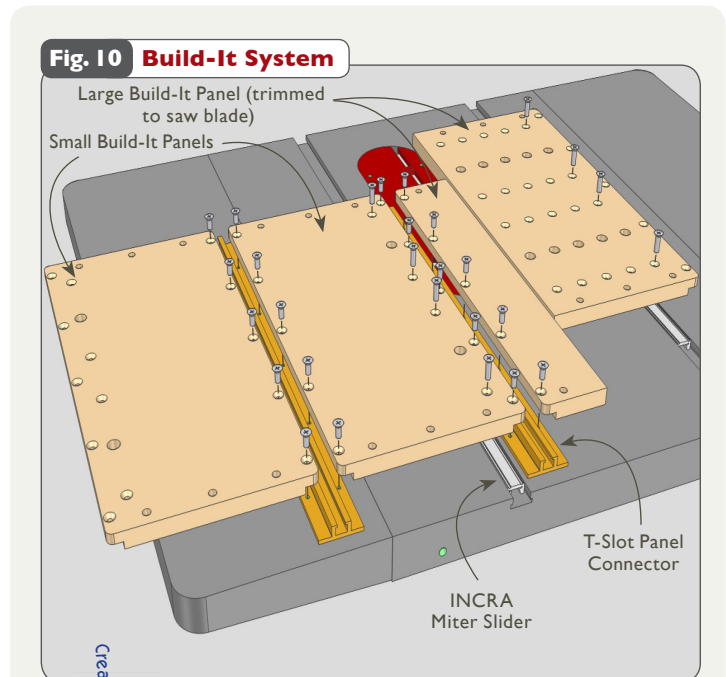


## Build-It System Mounting Instructions

Using Build-It Panels, rather than making your own base panel, offers some distinct advantages. First of all, they are pre-drilled to accept the Incra Miter Sliders. No measuring, marking or drilling required. Second, the panels can be interconnected with the Build-It System's T-Slot Panel Connectors, making it easy to change your platform's size at any time while simultaneously adding the strongest T-Slot in the industry to your jig's design. One or more of these T-Slots are perfect for adding jig accessories to the platform, from fences, bridges and other support structures to hold downs, feather boards and other safety features. Just connect the parts, and you can easily transition from the Build-It System assembly shown in **Fig. 10** to the finished jig in **Fig. 11** in minutes. It's just that easy!

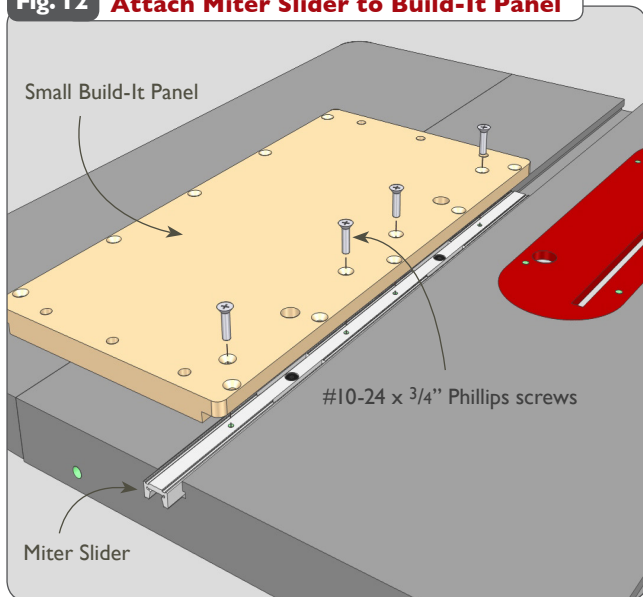
Before mounting your Miter Slider to a Build-It Panel, read the instructions on the reverse side of the Build-It Panel's wrapper. The instructions there introduce a few Build-It Assembly concepts and options to consider when designing your jig's base platform. Use the #10-24 x 3/4" flat head Phillips screws included with your Miter Slider hardware to attach the Miter Slider to the line of holes on your Build-It Panel, **Fig. 12**. (Small Build-It Panel shown.) Don't forget to adjust each of the Miter Slider's expansion mechanisms using the included hex key for a good sliding fit in your application's miter slot. Now let's take a look at some specific jig plans featuring the Build-It System components.

**And be sure to keep an eye on our website at: [www.incra.com](http://www.incra.com) for free plans for these and other useful jigs for the many applications in your shop.**

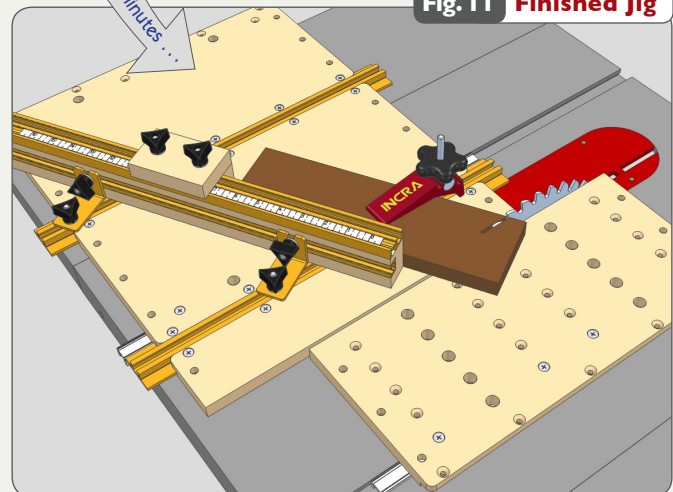


Create your own jig in minutes...

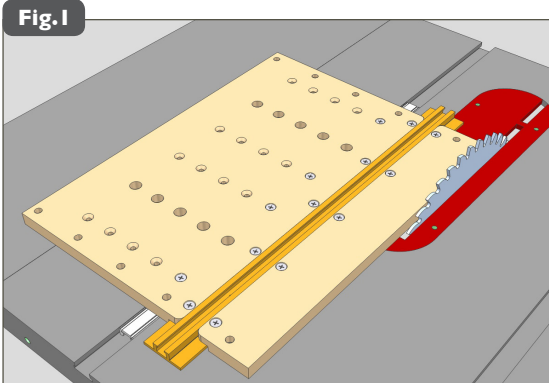
**Fig. 12 Attach Miter Slider to Build-It Panel**



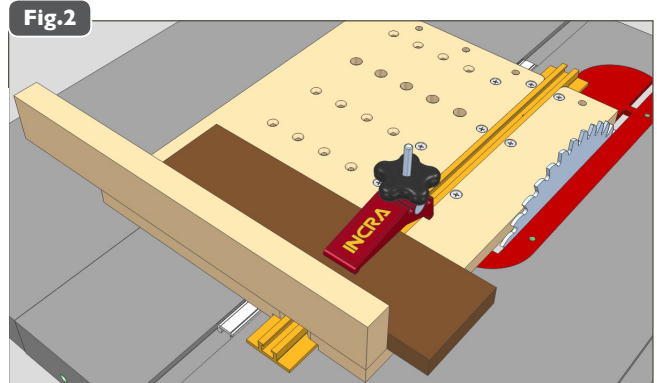
**Fig. 11 Finished Jig**



# SHOOTER BOARD SQUARING JIG



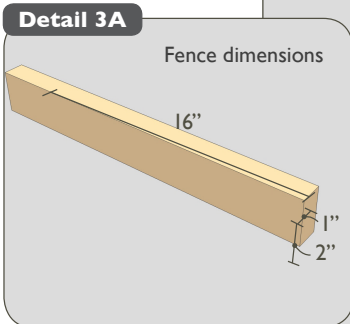
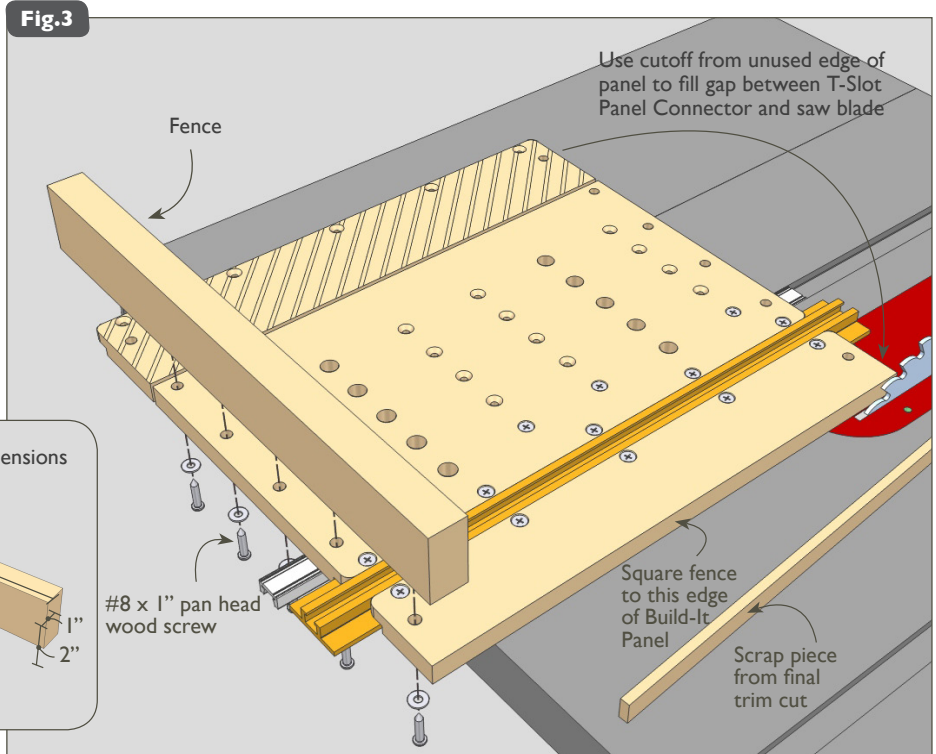
- Build-It Platform Components Required:**
- 1 Large Build-It Panel
  - 1 T-Slot Panel Connector
  - 1 Miter Slider



- Just add:**
- Build-It Clamp

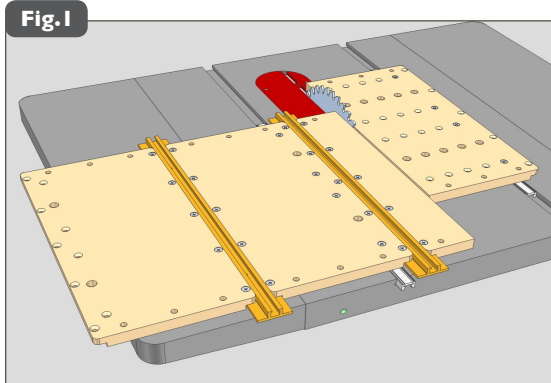
Sometimes the simplest jig designs provide the best solutions to woodshop cutting situations. Take this simple shooter board styled squaring jig. While it doesn't include the longer fence and stop positioning capabilities of the bridged crosscut box, it does provide a quick and sure means of squaring the end of your workpiece in preparation for subsequent cutting operations. A similar jig made with the blade tilted to 45 degrees would be a great asset for mitered box making.

Start by adding a Miter Slider to the line of mounting holes closest to the edge of a large Build-It Panel and adjust for a good fit in your table saw's miter slot. Add a T-Slot Panel Connector to the edge nearest the Miter Slider. With the Build-It assembly in your miter slot, measure the distance between the T-Slot Panel Connector and the blade. Flip the assembly upside down and cut a section off the UNUSED edge of the Build-It Panel that is about 1/4" wider than your measurement. Place the Build-It assembly back in your miter slot and attach the cutoff to the T-Slot Panel Connector. Now run the assembly through the saw to trim the jig to the blade. Using #8 x 1" pan head wood screws with washers, attach a fence to the trailing edge of the Build-It Panel. Square the fence to the cut edge nearest the blade before tightening the fasteners.

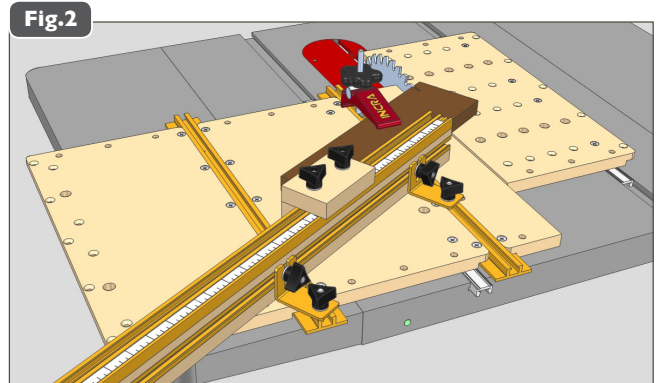


Don't forget the Build-It Clamp for safe and secure cutting. ■

# ADJUSTABLE ANGLE CROSSCUT W/DROP PANEL



- Build-It Platform Components Required:**
- 1 Large Build-It Panel
  - 2 Small Build-It Panels
  - 2 Miter Sliders
  - 2 T-Slot Panel Connectors

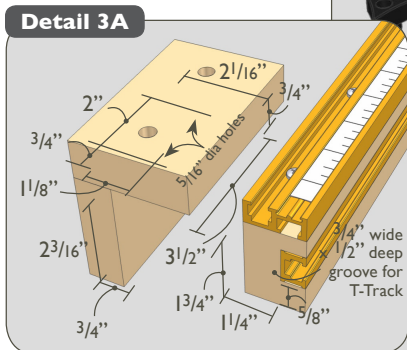
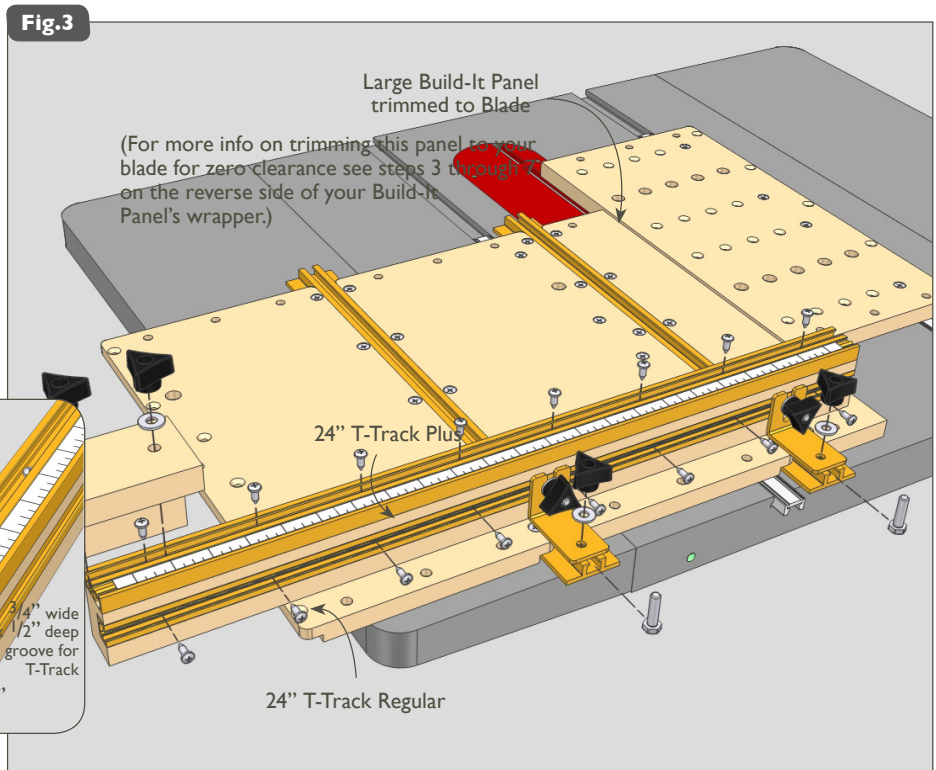


- + Just add:**
- 24" T-Track Regular
  - 24" T-Track Plus
  - Build-It Knobs
  - Build-It Brackets
  - Build-It Clamp

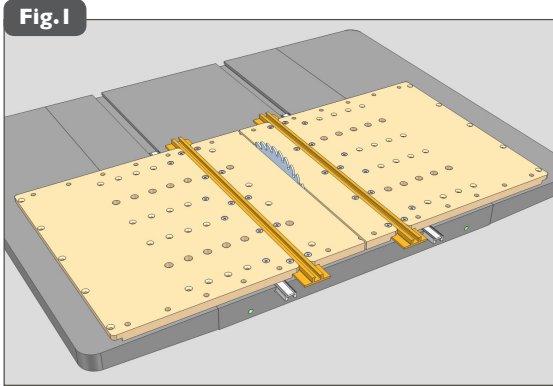
**B**ased on a simple shooter board styled squaring jig, this wonderful implementation of the Built-It System components offers much more than just 90 degree cutoff control. The T-Track Plus and user-made stop positioner provide repeatable crosscut length control. The rear mounted T-Track Regular combined with a pair of Build-It Brackets along with the twin T-Slot Panel Connectors allow for unlimited adjustment of the fence angle. And the locking drop panel safely catches any off cuts from your workpiece.

Begin by adding a Miter Slider to a small Build-It Panel. Place in your table saw's miter slot and adjust for a good fit, then add a T-Slot Panel Connector to each edge. Increase the platform width away from the blade by adding another Build-It Panel. Add a large Build-It Panel to the opposite edge. Trim to the blade and then use the remaining piece of the large panel along with another Miter Slider to

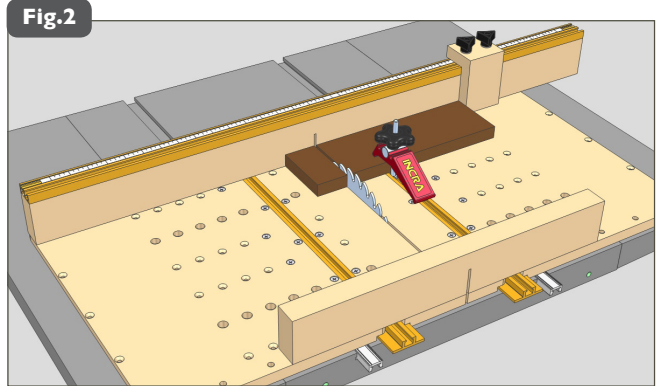
make the drop panel as described in Steps 3 through 7 shown on the reverse side of your Build-It Panel's wrapper. Make the 24" fence and stop as shown in Fig. 3 and Detail 3A using 24" T-Track Regular and T-Track Plus components, then attach to the T-Slot Panel Connectors using a pair of Built-It Brackets. Lock the drop panel adjacent to the saw blade to catch the off cuts, adjust the fence angle to suit your project and cut away. ■



# BRIDGED CROSSCUT BOX



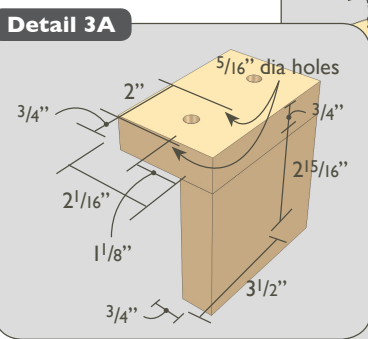
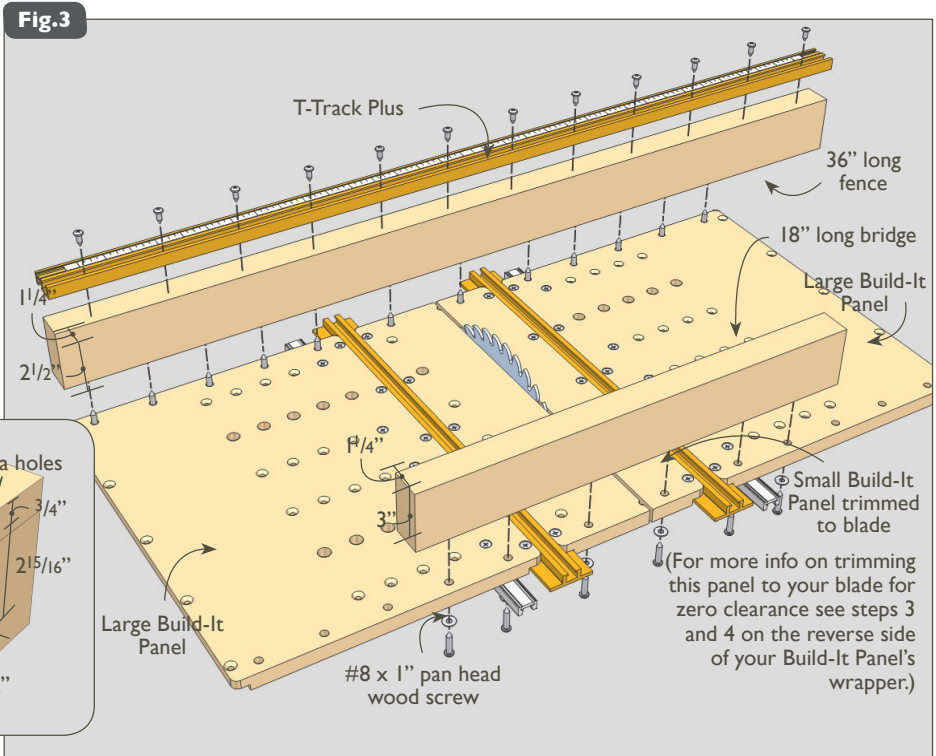
- Build-It Platform Components Required:**
- 2 Large Build-It Panels
  - 1 Small Build-It Panel
  - 2 Miter Sliders
  - 2 T-Slot Panel Connectors



- Just add:**
- 36" T-Track Plus
  - Build-It Knobs
  - Build-It Clamp

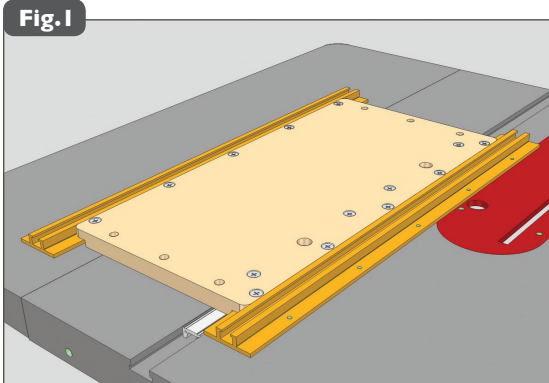
The crosscut box is by far the most common and, in many cases, the most important jig in the shop. While it's most obvious benefit is that of providing support and accurate results when crosscutting large planks, it is also a necessity for the safe handling and cutting of small pieces. Since both sides of the crosscut box slide together, nothing is left next to the blade after the cut is made and the jig is moved back to the starting position. You can quickly and safely remove the cutoff and advance your stock for the next cut. Add a Build-It Clamp to provide a secure hold on your workpiece and a 90-degree cut for your next slice and dice operation is a sure thing.

Add a Miter Slider to each of the 2 large Build-It Panels using the line of mounting holes closest to the edge of the panel. Attach a T-Slot Panel Connector to this same edge on each panel. Adjust one of the sliding assemblies for the left miter slot and the other for the right. Remove the assembly from the right slot. Attach the small Build-It Panel to the left side assembly and run through the saw blade to trim off the excess. Remove the left side assembly. Now, replace the right side assembly in the right hand miter slot. Add the remaining piece of the small Build-It Panel and run it through the saw to remove the excess panel. Replace the left side assembly and use double-faced tape and a square to add the bridge and fence to the Build-It platform. Position the fence to favor the left or right side of the blade to suit. Carefully slide the assembly out of your miter slots and turn upside down. Use #8 x 1" pan head wood screws with washers in the counterbored holes to secure the bridge and fence to the panels. Add a T-Track Plus and make the stop shown for repeatable cut length control.



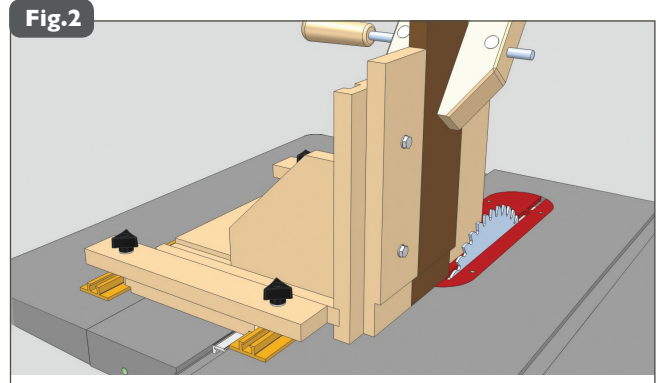
**Detail 3A**  
See the tip on the reverse side of your Build-It Clamp's packaging for info on adding the clamp to the T-Slot Panel Connector. ■

# TENONING JIG



**Build-It Platform Components Required:**

- 1 Small Build-It Panel
- 1 Miter Slider
- 2 T-Slot Panel Connectors



**+ Just add:**

- Build-It Knobs

A tenoning jig can be an extremely valuable tool at the table saw. Not only does it provide a carrier for narrow pieces when tenoning, but with the vertical backstop removed, the jig can also be used for raised panel cutting. The sliding base provides plenty of range of motion for positioning and locating your cuts, while the large 10" x 10" faceplate provides ample support and clamping area for the largest of panels.

Begin by adding a Miter Slider to a small Build-It Panel. Place in your table saw's miter slot and adjust for a good fit. If the blade tilts right, place it in the left hand miter slot. If the blade tilts left, place it in the right hand miter slot. Add a T-Slot Panel Connector to each edge of the panel. Cut the slotted holes and grooves as shown on the (2) 10" x 10" x 3/4" thick panels.

If you are using MDF, you can cut the grooves with a 3/4" straight bit at your router table. If you are using plywood, remember it is often slightly undersized so an undersized "plywood bit" is recommended for the cuts. The depth of cut should be 1/4" and the fence to bit distance is 5/8" for all of the grooves. Before gluing up the panels and braces, drill the (2) 5/16" dia. holes in the faceplate panel. Make the (2) edge guides as shown. Attach the first edge guide to the Build-It Platform and square it to the edge of the platform. Slide the right angle assembly up against the edge guide, then add the other edge guide. Drill and attach the backstop to finish. ■

