Woodsmith PLANS

MITER GAUGE UPGRADE

miter gauge Upgrade

Right out of the box, a new table saw is equipped with what you need to get started making cuts and building projects. But I've found that making a few upgrades can deliver safer, easier, and more accurate cuts.

One of the first candidates for an upgrade is the miter gauge. The miter gauge is the counterpart to the rip fence for guiding a workpiece through the blade. It's used for crosscuts, miters, cutting panels to length, as well as joinery like dadoes and rabbets.

▲ The miter gauge that comes with your table saw is only the starting point for making accurate crosscuts.

Unlike the rip fence, the miter gauge isn't locked in position to make a cut. It travels with the workpiece riding in a slot milled in the saw table. The head is adjustable for cutting angles on the end of a workpiece (or angled joinery).

LIMITATIONS. The problem is a stock miter gauge leaves a lot to be desired. The head on most miter gauges isn't very wide, as shown in the lower left photo. This doesn't provide much support for cutting a long workpiece. Also, during crosscutting, the back edge of a workpiece is prone to tearing out as the blade completes the cut. Finally, there's no good way to quickly cut multiple parts to the same length.

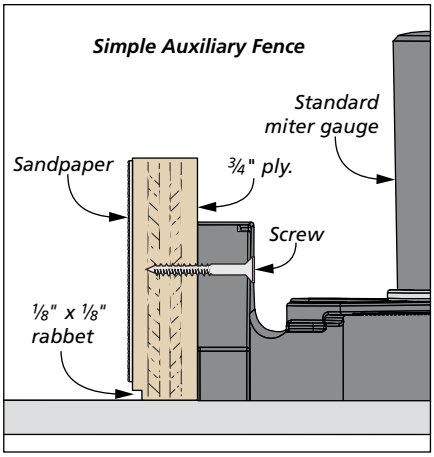
A PLYWOOD FENCE. Thankfully, the resolution to all of these issues is simple and inexpensive. It starts with an auxiliary miter gauge fence. The fence is a strip of plywood that's screwed to the miter gauge, as in the photo above. In fact, most saw manufacturers anticipate this by including holes or slots for screws to attach the fence. The fence increases the bearing surface for greater control and backs up the workpiece, as well.

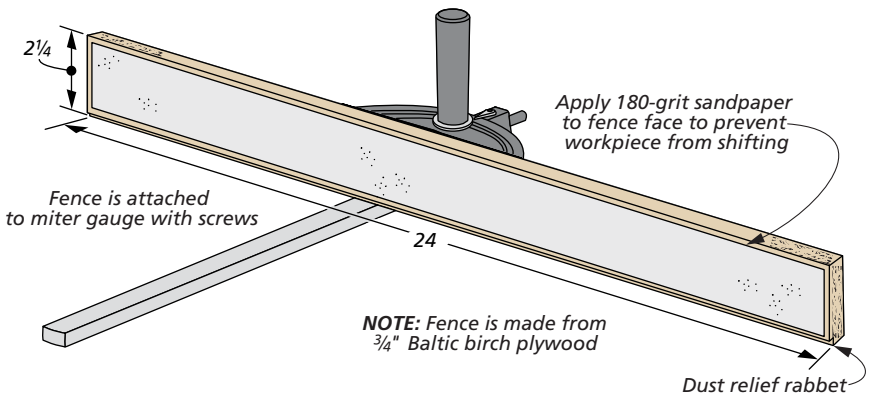
This humble strip of plywood has a lot of benefits packed into it that can be easily overlooked. For starters, a small rabbet along the bottom edge helps prevent dust and chips from interfering with the placement of the workpiece, as shown in the drawing on the next page.

I applied a strip of adhesive-backed sandpaper to the face to provide a non-slip surface to assist in holding the workpiece steady during the cut.

You'll notice that the fence is attached so that it extends past the waste side of the blade. This allows you to push waste pieces safely clear of the blade. In addition, the kerf created by the blade serves as a handy reference for lining up a layout line for accurate cuts.

At the risk of sounding like a late-night infomercial — But wait, there's more.





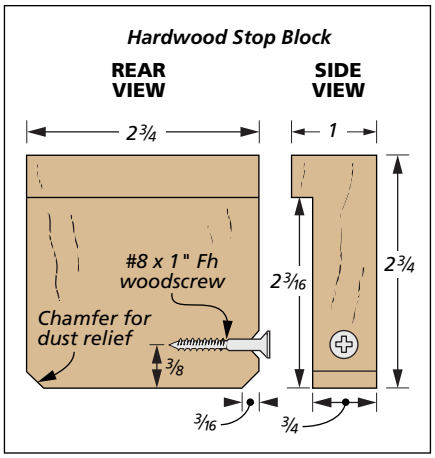
STOP BLOCK. Cutting one piece to a given length is relatively easy to accomplish with a miter gauge and a clear layout line. But many projects require cutting several parts to an identical length. Laying out each cut and lining it up with the kerf in the fence is a tedious task that's prone to error. The key to doing it accurately and quickly is a small hardwood stop block, as shown in the photos and drawing below.

Even this simple stop block is tricked out with details. A wide, shallow rabbet on the back face creates a lip on the upper back edge. This makes the stop block less likely to shift out of place when bumping a workpiece up to it. Like the fence, the stop block has dust relief. Here, it's a chamfer on the lower edges.

The final detail I want to highlight is a countersunk screw on the edge. The purpose of the screw is to allow you to fine-tune the length of a part without repositioning the stop block. This means you can sneak up on the final length of a workpiece by making subtle adjustments with a screwdriver. The box below shows a couple of commercial accessories that add a few other benefits to any shop-built fence.

In less than a half hour and with a couple scraps, you can take your table saw to the next level of accuracy. After making these upgrades, you'll find the return on your investment is pretty significant.

▲ To shorten a board in small increments, use a screwdriver to back out the screw in the stop block a little at a time.



Upgrade: T-TRACK & FLIP STOP

You can improve your miter gauge even more by adding a length of T-track. I used *Kreg's Top Trak* (left photo). The advantage of this track is that you can use a flip stop. This lets you cut longer parts without altering the stop setting. Simply flip the stop up out of the way (right insert photo). The T-track mounts to the back of the fence. You can attach an adhesive-backed measuring tape to simplify setting the stop.

Note: Depending on the height of your miter gauge, you may need to add a ¼" hardboard spacer between the miter gauge and fence to prevent the track from contacting the miter gauge.

▲ A flip stop allows you to cut other parts to rough length without losing your setting. Just pivot the stop block up and out of the way (inset) to make a cut.

MAIL ORDER SOURCES

Kreg Tool
800-447-8638
kregtool.com

Project Sources

- **Kreg**
  Top Trak KMS7712
  Swing Stop KMS7801

Manufacturers and retailers will periodically redesign or discontinue some of their items. So you'll want to gather all the hardware, supplies, and tools you need before you get started. It's easy to adjust dimensions or drill different-sized holes to suit your hardware.