The biggest challenge to making any router tabletop is cutting an opening for the insert plate so that it fits perfectly. To answer that challenge when it came to building the ultimate router table, I used a foolproof method that doesn’t require any tedious measuring or layout. Just a few common shop tools. The nice thing about this method is you can use it to create an opening for any size or type of plate.

Template & Guide Strips. This method works because you use the actual plate as a template for positioning a set of strips that guide a pattern bit when you’re cutting the opening. Note: Most pattern bits will require 1”-thick strips.

**Step 1**
To locate the guide strips, use the insert plate as a template. Start by fastening one strip in place with carpet tape so it’s parallel with one edge of where the plate is to be located. After positioning the plate along this strip so it’s in its final location, you can “wrap” the plate with the remaining guide strips.

For smooth cutting through laminate, apply a spray lubricant to the hole saw before drilling the hole.

**Step 2**
To provide a starting point for the bit and create relief holes for dust, drill a 1½”-dia. hole in each corner. A hole saw works great for this, but you’ll need to wrap the body with masking tape to compensate for the set of the teeth, as you can see in detail ‘a.’ Once the teeth cut through the laminate, remove the tape and complete the hole.

**Locate Guide Strips.** After making the guide strips, you’re ready to locate the opening. To do this, use double-sided tape to position one of the guide strips so it’s parallel with one edge of where you’d like the plate located. Then use the insert plate to locate the other strips, as shown in Step 1.

**Cut Opening.** Once you have the guide strips located, you’re ready to cut the opening by following Steps 2 through 5. With the opening complete, all that’s left to do to complete the installation is mount the router to the insert plate. Most insert plates are predrilled to match your router. If your plate isn’t drilled, just take a look at Step 6.
Step 3
Before routing the lip, set the bit depth to match the exact thickness of the insert plate. To do this, mount the pattern bit in the router. Then place the insert plate on top of a guide strip. Set the router on the plate and lower the bit until it barely touches the top (see detail). If you rout too deep, see the margin for a quick fix. (For access plate, set bit for $\frac{1}{4}$"-deep cut.)

Step 4
At this point, set the bit into the opening in one of the corners so the router is resting on the guide strips. Then use the strips to guide the bearing on the bit (see detail) as you rout around the inside of the strips in a clockwise direction. Note: To maintain the radius in the corners, rout only to the edge of starter holes. (For access plate, make multiple $\frac{1}{4}$"-deep passes through plate.)

Step 5
Once the lip has been routed, you’re ready to remove the waste. A jig saw makes quick work of this. All you need to do is follow the inside edge of the groove formed when you routed the lip (see detail). A little sanding will clean up the rough edges.

Step 6
All that’s left is to attach the router to the mounting plate. This requires drilling holes for the machine screws that hold it in place. An easy way to locate the holes for the screws is to use the existing base on your router. (I used carpet tape to keep the base from shifting.

- Pattern Bit. The guide bearing at the top of a pattern bit makes it easy to cut a lip or opening in the center of a workpiece.
- Levelers. If the lip is routed too deep, installing a set of flathead screws allows you to raise the insert plate so it’s flush with the top of the router table.