

Router Table Organizer

By Chris Marshall

Turn empty space under your router table's top into useful storage with this easy-to-build shop project.



This Organizer fits Rockler's Router Table Steel Stand #48426

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If the area inside the base of your router table is empty, you're missing an opportunity for better storage. After all, there are accessories that go along with table routing — bits, wrenches, bit insert rings and featherboards, to name a few. You might also have a box joint jig, other boxed sets of specialized bits or guide collars, push pads and various odds and ends that could really use a drawer.

While sizing up my Rockler router table recently, I set out to give that empty "real estate" under the tabletop more productive purpose. Made of 1/2" and 3/4" Baltic birch plywood, this organizer provides a catchall drawer, a place to stow necessary tools and two racks that can hold 70 router bits. A metal track in back (see inset, above) offers a spot to hang featherboards when they're not needed. The project's design



is modular, too: the base, drawer cabinet and two bit racks can slide into place without having to take the router table's base apart.

Building the Center Drawer Cabinet

Let's kick this project off by cutting the drawer cabinet's top, bottom and sides to size. You'll notice in the *Drawings* that the top and bottom panel require 3/4"-wide, 3/8"-deep rabbets milled into their ends to fit the side panels. Cut those rabbets now with a wide dado blade buried partially in a sacrificial fence at the table saw.

Dry assemble the top, bottom and sides so you can take final measurements for the back panel — it simply butts against the back of the cabinet rather than fitting into it. Cut the back panel to final size.

I decided to install the cabinet back using pocket screw joints, so I bored four holes into the inside faces of each cabinet side for this purpose. If you don't have a pocket screw jig, you could attach the back with brads, screws or even glue alone, if you'd rather not see fasteners. Give the cabinet part surfaces a light sanding, then spread glue along the top and bottom panel rabbets, and assemble the carcass with clamps.

When the glue dries, attach the cabinet-side drawer slide components to the side panels with screws. Center them vertically, making sure they're parallel with the cabinet top and bottom so the drawer will slide smoothly. A couple of scrap spacers can make this process easier and more foolproof than aligning the hardware by measuring.

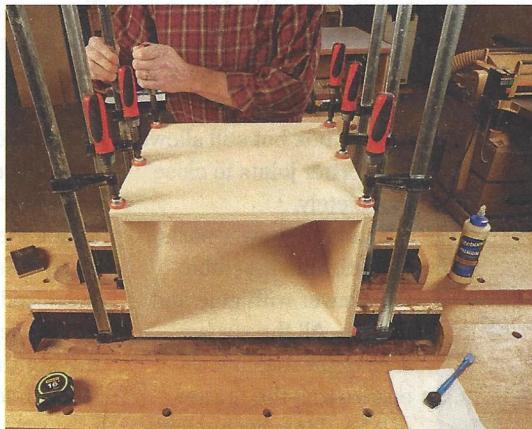
Install the back panel on the cabinet. Its edges should be flush with the outside edges of the carcass.



Form 3/4"-wide, 3/8"-deep rabbets along the ends of the cabinet's top and bottom panels with a wide dado blade.



Hidden pocket screw joints attach the back panel and remain accessible from inside the cabinet.



Spread glue on the rabbets and assemble the cabinet's top, bottom and sides with clamps.



Scrap spacers ensure that the drawer slides are centered and parallel inside the cabinet.

Making the Drawer

On a shop project like this, I like to keep drawer construction simple but strong, and there are other options besides dovetails. While they aren't the fanciest choice, rabbet-and-dado joints have stood the test of time for me, so that's what I used for this drawer. Start the construction process by cutting the front, back and side panels to shape.

A 1/4"-wide dado blade, raised 1/4", will take care of all the cuts you'll need to make for the corner joints and drawer bottom groove. Set your table saw's rip fence 1/4" away from the blade, and cut a dado across the inside face of the side panels on both ends. Now, without moving the fence, cut a drawer bottom groove along the inside face of the front, back and side panels.

Rabbet-and-dado joints are easy to mill at the table saw with a 1/4"-wide blade, and their ample glue surface area makes them strong.

Install a sacrificial facing on the rip fence, and slide it over until the dado blade just "kisses" the fence facing; this sets up the rabbet cuts for the corner joints. Make a test cut on a scrap piece of 1/2" plywood, and see if it fits the drawer side dadoes. Raise or lower the blade a nudge, if needed, so the rabbets will fit their dadoes snugly. Cut rabbets across the ends of the outside faces of the drawer front and back, to complete these joints.

Dry assemble the drawer box, and measure the length and width of its





Assemble the drawer components all at once with glue and clamps. Check for matching diagonals to ensure the box is square.



Washerhead screws are designed for installing drawer faces. Driving them through oversized holes allows for final adjustment.



Cut four 1/8"-deep dadoes across the bit rack sides for storage shelves. Set the dado positions using a clamped stop block.

inside opening. Add 1/2" to each of these dimensions, and you'll have the final proportions for the drawer bottom panel. Cut it to size.

Reinstall the 1/4" dado blade and sacrificial fence again and, with it raised 1/4" above the table, mill a rabbet around all four sides of the bottom face

opening to provide clearance when the drawer is opened and closed.

I attached the drawer face to the drawer box with several strips of double-sided tape to align it right where I wanted it, checking its position with the drawer installed in the cabinet. Then, I marked the face for the drawer pull

of the drawer bottom panel. Test your setup first on a scrap to be sure the rabbet proportions are dialed in correctly; you want the drawer bottom rabbets to fit their grooves so the panel seats inside the drawer box but still allows the corner joints to close completely.

Sand the drawer parts smooth, and assemble the drawer with glue and clamps. All the surface area of these joints will ensure that the drawer will be plenty strong without any added fasteners. Check it for square by measuring the diagonals. Adjust your clamps, if needed, until the diagonal measurements match.

When the clamps come off, attach the drawer-side slide components to the drawer sides, centering them vertically and making sure they're parallel. Now install the drawer in the cabinet to check its sliding action. If all is well, cut a drawer face to size; the *Material List* dimensions account for the drawer face having 1/16" of inset on the sides and bottom of the cabinet

and drilled a pair of 3/16"-dia. holes through both the drawer face and the drawer front. The holes in the drawer face, of course, allow for the wire pull's installation screws. The holes in the drawer front serve a different purpose: here, I enlarged these holes with a 1/2" Forstner bit. This way, once the wire pull is installed and the drawer face is mounted on the drawer, I'll always have access to the wire pull's screw heads from inside the drawer, should they ever loosen up (and often, they do). I used four 1"-long washerhead screws to attach the drawer face permanently. The top two screws were installed first into oversized holes in the drawer front to give me a final bit of adjustability before driving the bottom two screws into regular screw clearance holes.

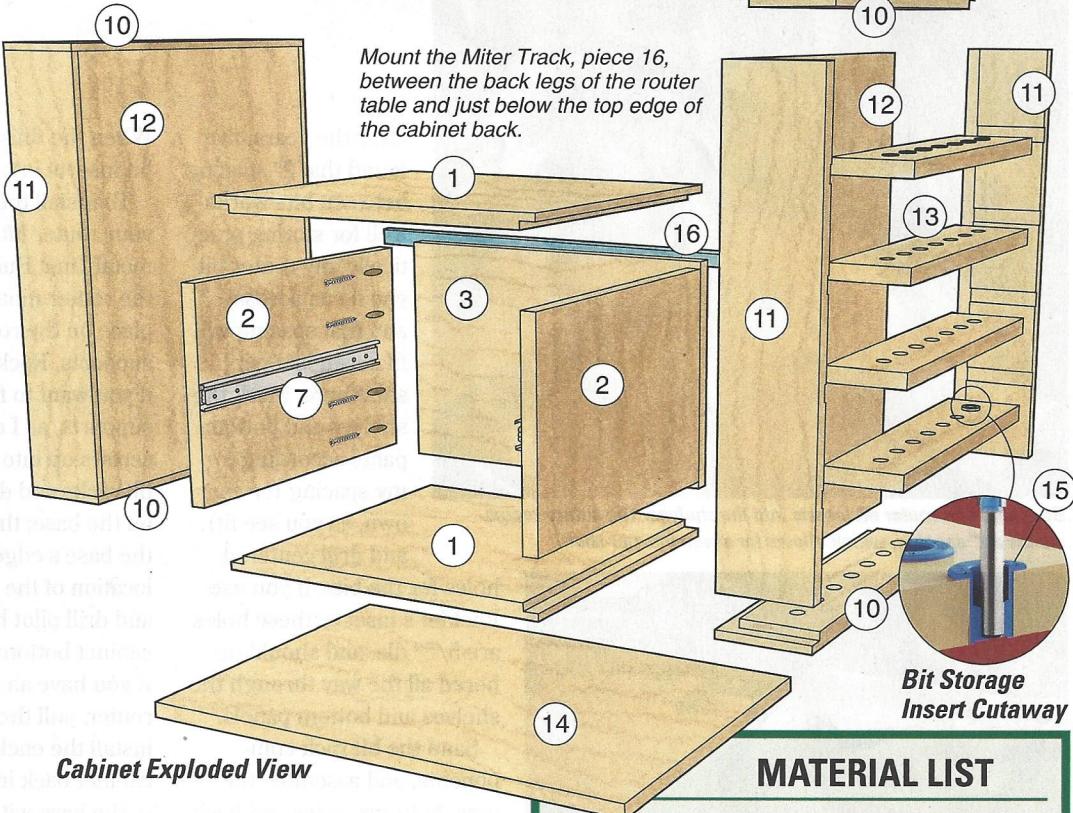
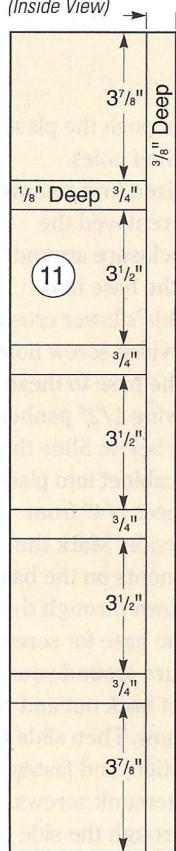
Constructing the Bit Racks

The two bit racks are identical, so go ahead and cut four tops, bottoms and sides to size. Then, just as you did for the drawer cabinet, load a wide dado blade in the table saw to cut 3/4"-wide, 3/8"-deep rabbets. Cut rabbets in the top and bottom panels for the side panels, then cut a rabbet along the inside back edge of the tops, bottoms and sides for the back panels.

Each side panel also receives 1/8"-deep, 3/4"-wide dadoes cut across the inside face for four bit shelves. Make sure to adjust the width of your dado blade, as needed, to match the thickness of the 3/4" plywood you're using for this project — its thickness is probably closer to 23/32", and you want the bit shelves to fit their dadoes without gaps. Follow the *Elevation Drawings* on the next page to space these dadoes apart evenly. I cut them with the shelves backed up against a long fence attached to my saw's miter gauge, using a stop block to set the position of each cut. Flipping the side panels end for end will enable you to make two dado cuts per stop block setting.

Bit Rack Side

(Inside View)

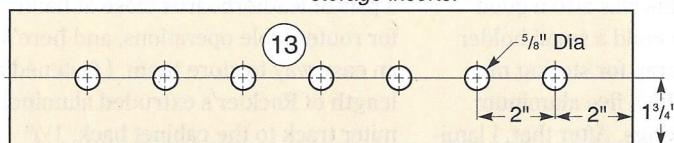


Cabinet Exploded View

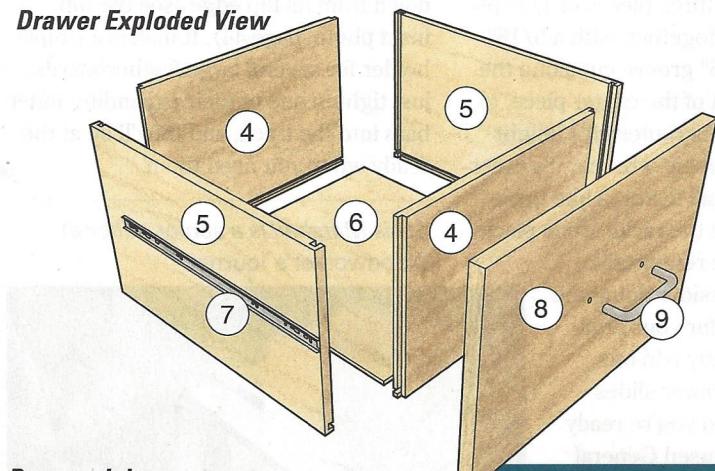
Bit Storage Shelves

(Top View)

The 5/8"-dia. holes accommodate Rockler's plastic router bit storage inserts.

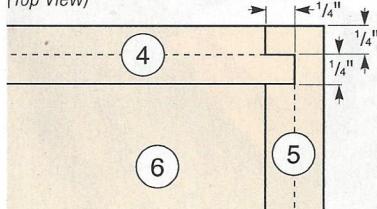


Drawer Exploded View



Drawer Joinery

(Top View)



Router Cabinet Hard-to-Find Hardware

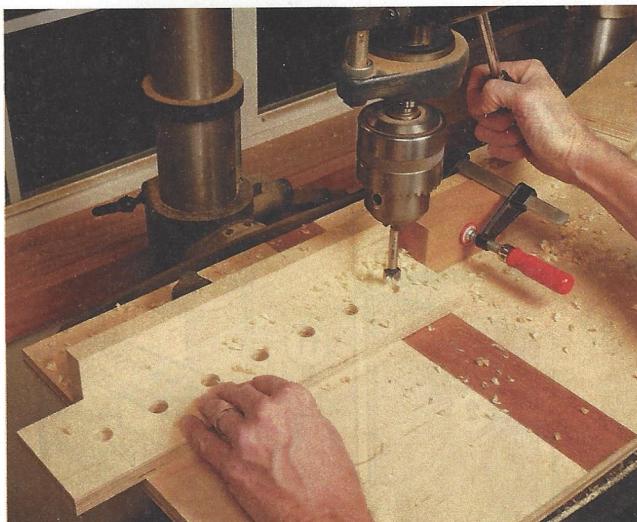
Centerline® 14" Full-extension Drawer Slides (1) #44506	\$11.99 pr.
4" Brushed Satin Nickel Wire Pull (1) #1010901	\$4.49 ea.
Router Bit Storage Inserts, 10-Pack (7) #57223	\$7.99 pk.
Rockler 36" Miter Track (1) # 48037	\$19.99 ea.

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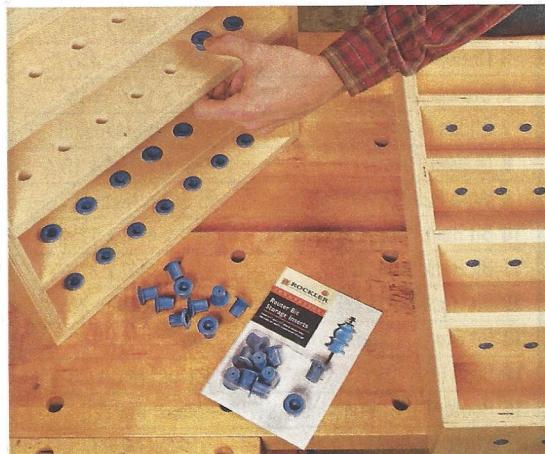
VIDEO To take a tour of this project's features and add-ons, please visit woodworkersjournal.com and click on "More on the Web" under the Magazine tab.



Bore holes for router bit inserts into the shelves. The author recommends a 2" spacing, which allows for seven bits per shelf.



A few parts attached to the bit racks can add storage options for bit insert rings and a router lift adjustment wrench.



Rockler's new plastic Router Bit Storage Inserts simply press into 5/8"-dia. holes and can hold either 1/4" or 1/2" bit shanks.

With the joinery completed, fit the bit racks together temporarily so you can determine the final dimensions of the back panel and the length of the shelves. Cut the two back panels and eight shelves to size.

All that's left to do before final sanding and assembly is to drill holes in the shelves and bottom panel for router bit shanks. I'm using Rockler's new plastic Router Bit Storage Inserts, which will hold either 1/2"- or 1/4"-shank bits.

Over the years, I've found that 2" spacing between bits works well for storing practically any router bit you'll run across, and that spacing will fit seven bits per shelf here. Mark the shelves and bottom panel according to my spacing (or your own, as you see fit), and drill centered

holes for the bits. If you use Rockler's inserts, these holes are 5/8" dia. and should be bored all the way through the shelves and bottom panels.

Sand the bit rack components, and assemble the tops, bottoms, sides and back panels with glue and clamps.

Finishing and Installation

Next, I cut a base panel to size. This was also a good time to build a small holder from scrap for storing my router lift's five aluminum insert rings. After that, I laminated three pieces of 1/2" plywood together, with a 5/16" x 5/16" groove cut along the length of the center piece, to stow my router lift's height adjustment wrench. It's easier to install features like these before the racks are in place on the router table, so consider doing the same for your organizer now, with any add-ons.

Remove the drawer slides and wire pull, and you're ready to apply finish. I used General Finishes water-based High Performance varnish, which applies beautifully with a brush or foam roller and dries quickly.

This project's base, cabinet and bit racks are modular, making them easier to install without needing to dismantle the router table's leg base.

When the finish cures, push the plastic bit inserts into their shelf holes.

To install the organizer, first remove your router lift. I also removed the metal Dust Bucket enclosure around the router motor. Fit the base into place on the router table's lower cross supports. Rockler provides screw holes if you want to fasten the base to these supports, as I did, driving 1/2" panhead screws up into it from below. Slide the bit racks and drawer cabinet into place on the base; they're inset 1/4" from the base's edges and ends. Mark the location of the components on the base, and drill pilot holes down through the cabinet bottom into the base for screws. If you have an enclosure around your router, pull the cabinet back out and reinstall the enclosure now. Then slide the cabinet back into position, and fasten it to the base with countersunk screws. Drive more screws through the side walls of the cabinet and into the backs of the bit racks to secure them.

Sooner or later, you'll want to have a pair of featherboards close at hand for router table operations, and here's an easy way to store them. I fastened a length of Rockler's extruded aluminum miter track to the cabinet back, 1 1/2" down from its top edge (see the top inset photo, page 44). It makes a simple holder for several large featherboards: just tighten one of their expanding miter bars into the track, and they'll be at the ready when you need them.

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