

Fitting a Router Mounting Plate in a Router Table



I'm building my own router table, and I'm going to use one of your drop-in plates for mounting my router. I want the plate to fit very precisely in the tabletop. Do you have a template, instructions or suggestions for cutting the opening exactly right?



Let us begin by contemplating the ancient woodworking adage: "If you can't make it perfect, make it adjustable!" Unless your tabletop is made of Corian or solid phenolic resin, there's not much point in sweating a perfect fit for your drop-in base. Even when coated with melamine or plastic laminate, common table materials like MDF (medium density fiberboard), particle board and plywood are not dimensionally inert. Though they don't move in the same way as solid wood, wood-based materials nevertheless expand as humidity increases and shrink as it decreases. If you do manage to create a "perfect" fit today, it won't be perfect tomorrow—so why bother? The most graceful alternative is to make the opening adjustable, so you can always establish a good fit regardless of what the weather has done to your table on any given day. Make the rabbet around the opening in your table top just a little larger and a hair deeper than the router mounting plate, so it will fit even during the driest month of the decade.

In the MDF top on our Highland Hardware router table, we fitted the rabbeted plate opening with set screws for leveling the plate and for eliminating X-Y axis loose play as well. We didn't put the screws in the plate itself, as they'd have simply cratered the relatively soft core of the MDF. It's a simple system which works flawlessly for about ten years now.

Installing the screws is easy. Drill 3 pilot holes in both front and rear horizontal support ledges. Drill two holes each in the vertical walls of the rabbet at the left and rear edges only. Use a tap or a thread-cutting screw to cut threads into the pilot holes. Push the tap firmly through the first few revolutions to make sure it pulls itself into the MDF rather than simply augering fiber out of the pilot hole. MDF yields slightly under pressure from the tap, insuring that your set screws will fit snugly and won't be loosened by vibration or dimensional cycling.

Adjust the screws in the vertical walls to eliminate side to side and front to back play without making it hard to drop the mounting plate into the table opening. To set the plate's height, first drive the two center screws in the horizontal ledges right down flush with the surface. Then adjust both front and rear screws at the right end of the opening so the plate rests just a scant hair below the table surface. Next, adjust front & rear screws at the left end so the plate sits ever so slightly higher than the table surface. Tap the plate at all four corners; a rattling sound indicates the set screw beneath isn't quite making contact with the plate. To adjust the center screws, place a fingertip across the line between table and plate just above the front screw. Press the plate firmly with your other hand, and you'll feel it give beneath your fingertip. Raise the set screw until the plate no longer deflects under pressure, then repeat the process with the rear center screw. Tap all four corners and both centers to be sure all six screws are supporting the plate, and you're ready to go to work.