

Router Combo Kits

A pair of bases with an interchangeable motor gets you two different machines for little more than the price of one

BY TOM BEGNAL



Fixed-base mode

With the motor mounted in the fixed base, the router is relatively lighter and more compact than when it's in plunge mode (right). Plus, in the fixed-base mode, the router has a low center of gravity that makes it easier to control.

Plunge routers and fixed-base routers have more similarities than differences. Why, then, do many woodworkers purchase one of each? Because each type has its advantages.

A plunge router lowers, or plunges, a spinning bit straight down into the workpiece to start a cut, and then raises the bit out of the workpiece at the end of the cut. It also makes it very easy to lower the bit after each pass and make successively deeper cuts. Because the base of the router remains firmly on the workpiece, the plunge router is the best choice for making a stopped cut—one that does not extend all the way to the edges or ends of a workpiece. So any time a stopped cut is required, whether it's a groove, a dado, a rabbet, or a mortise, I reach for the plunge router. On the other hand, a fixed-base router is lighter and more compact than a plunge router with the same horsepower.

So it's my router of choice for the 90% of my work that doesn't involve stopped cuts.

The big drawback of owning both types of router used to be that you had to open your wallet extrawide to pay for them. But with the relatively recent advent of router combination kits, it's a lot cheaper to own both a fixed-base and a plunge router. These unique kits come with two bases and one motor to service both. The net result is two routers for not much more than the price of one.

What's new on the market

Currently, six manufacturers offer router combination kits. They include the Bosch 1617EVSPK, DeWalt DW618PK, Makita RF1101KIT2, Porter-Cable 895PK, Ryobi RE1803BK, and Skil 1825. Each has a motor that falls into the 2-hp to 2¼-hp range, which is enough muscle for most any task. Porter-Cable also offers another combo kit, model 693VSPK; it wasn't included in this review because it has a smaller (1¾-hp) motor.

All of these routers have variable-speed motors, so you can reduce the speed (rpm) when running large bits. To limit the tendency of a router to twist in your hand at start-up, all but the Skil have motors with a soft-start feature. Also, except for the Skil, each router has a constant speed-control feature that helps the motor maintain its speed even when the bit runs into a tough area or is asked to make a deep cut.

The bases in most of these combination kits, especially the plunge bases, are not exact copies of the manufacturers' dedi-



Plunge-base mode

Mount the motor in the plunge base, and the router immediately becomes well suited for making stopped cuts. That's because a plunge base allows the router bit to be lowered straight down into a workpiece and then raised up at the end of the cut.

Features at a glance



Sweet switch. A conveniently located toggle switch on the DeWalt allows you to keep both hands on the handles when turning the router on or off in plunge or fixed mode.



Best for bit changing. Lots of open space around the collet and a one-wrench changing system made the Ryobi a favorite when it came to removing or replacing a bit in either plunge or fixed mode.



A lock for the bases. The oversize lever on Porter-Cable's fixed and plunge bases helped make it easy to lock the motor in each base.

cated versions with the same horsepower rating. One exception is Makita, whose combination and dedicated routers are twins. The fixed bases of the Bosch and Porter-Cable combination kits are identical to the companies' dedicated routers, but the plunge bases differ. And both bases in the DeWalt, Ryobi, and Skil router combination kits differ from their companies' dedicated versions of each router.

As a general rule, when the bases on a combination kit and a dedicated router differ, the dedicated version is going to have the better features. At the end of the day, though, they both get the job done.

Each of these routers accepts bits with shanks of either $\frac{1}{4}$ in. or $\frac{1}{2}$ in. dia. Except for the Ryobi and the Skil, all of the combination kits include both $\frac{1}{4}$ -in. and $\frac{1}{2}$ -in. collets. The Ryobi and Skil kits are sold with a $\frac{1}{2}$ -in. collet as well as an adapter for $\frac{1}{4}$ -in.-shank bits.

If you prefer a D-handle router for an extra measure of comfort and control, the Ryobi kit includes a D-handle base, while the DeWalt, Makita, and Porter-Cable are available with an optional D-handle accessory. DeWalt also sells a kit that includes a D-handle base along with a fixed and a plunge base (model DW618B3). And the Porter-Cable 894PK kit comes with a D-handle and a plunge base.

Combo kits put to the test

To compare performance, I gave each router combination kit a hands-on evaluation in the *Fine Woodworking* shop. First, I looked at how they performed in their fixed bases, and then I tested

them in their plunge bases. Finally, because routers often end up in router tables, I gave some consideration to how each behaved upside down.

In the process, I looked at motor-changing ease, along with comfort and convenience of the handles and controls. I also measured the routers for runout, vibration, and noise. Plus, I made test cuts to get a sense of power and cut quality. (For the results of each test, see the chart on pp. 54-55.)

Measuring vibration and noise—All routers vibrate in use; there's no way to avoid it. But a router with minimal vibration not only is going to make smoother cuts, but it also will feel better in your hands. In the vibration test, the Bosch, DeWalt, Makita, Porter-Cable, and Skil routers garnered excellent scores. The Ryobi came away with a grade of fair.

In use, all routers are noisy enough to require you to wear ear protection, but a relatively quiet router gets bonus points over one that sends the family dog fleeing to the neighbor's yard. When it came to noise, the Makita and Porter-Cable were relatively quiet, with a decibel (db.) rating of 86 and 87, respectively. The Bosch, DeWalt, Ryobi, and Skil were noisier, at 91 db., 93 db., 91 db., and 96 db., respectively. But those results compare to an average rating of 93.6 db. measured during the last *Fine Woodworking* router test a few years ago (see "Midsized Plunge Routers," *FWW* #149, pp. 46-53).

Cutting tests—Once a router is turned on, I want it to do mainly two things: cut without bogging down easily, and produce good-



Micro-adjust is best. With a micro-adjust dial reading to $\frac{1}{256}$ in., the Bosch fixed base proved to be the favorite for setting bit depth.

FIXED-BASE DEPTH ADJUSTMENT

In the fixed-base mode, depth-adjustment mechanisms come in two basic types: dials (left) and rings (below).



Eye strainer. The black-on-black depth-adjustment ring on Makita's fixed base makes your eyes work way too hard.

PLUNGE-BASE DEPTH ADJUSTMENT

Except for the Ryobi model, all of the router kits made bit-depth adjustments using some sort of multistop system that's part of the plunge base.



Multistop system. The Makita (shown) and Porter-Cable plunge bases have three adjustable stops to fine-tune plunge depths.



Thumb's the word. A unique system on Porter-Cable's plunge base lets you change to a new bit stop just by turning a shaft with your thumb.

quality cuts. To get a sense of motor power, I set up each router in its fixed base and installed a new $\frac{1}{2}$ -in.-dia. straight router bit. With the bit set to make a $\frac{1}{2}$ -in.-deep cut, I made several full-depth passes along the grain in poplar and red oak. Despite the heavy cut, all of the routers were up to the task, and none showed any signs of bogging down. By the way, Ryobi recommends not making any cuts that exceed a depth of $\frac{1}{8}$ in. per pass.

Next, I ran a simple test to see if there would be any noticeable difference in cut quality from one router to another. Starting with the fixed-base versions, I equipped each router with a new $\frac{1}{2}$ -in.-dia. straight bit. Then, with the base of the router held firmly against the fence, I trimmed $\frac{1}{8}$ in. of stock from the edge of $1\frac{1}{8}$ -in.-thick soft maple.

Then I changed the motors to the plunge bases, lowered the bit a full $\frac{1}{2}$ in. in a single plunge, and cut an 8-in.-long groove in the soft maple. After each cut I checked the groove with calipers to see how close the cuts came to the measured diameter of the bit. Any number beyond that figure represented a less-than-ideal cut.

All of the routers did well in both tests. As a result, I rated the cut quality for all of them as very good.

Checking for stickiness—Some plunge routers I've used have tended to stick somewhat as they move up and down. A sticky plunge action not only is annoying, but it also can affect the accuracy of a cut, mainly because the focus of concentration goes from the cutting process to getting the housing to plunge.

On each router in this test, I used a $\frac{1}{2}$ -in.-dia. straight bit to make three progressively deeper plunge cuts. While making the cuts, I

Router-table convenience

When the Porter-Cable is mounted to a router table in the fixed-base mode, a special wrench (included) lets you change bits and adjust the collet height from above the table.



was careful to note the stickiness factor. The Bosch router was the slickest operator here, with a comfortably smooth up-and-down sliding action; the DeWalt was almost as good. The Makita and Porter-Cable moved exceptionally smoothly when the same amount of downward pressure was applied to each of the handles. However, as soon as the pressure became unbalanced, with more pressure on one handle than on the other, the plunge mechanism immediately became sticky.

How the kits measured up

After reviewing the pros and cons of each router, I awarded Best Overall to both the Bosch and the Porter-Cable. If I had no plans to use a router table, I'd choose the Bosch. On the other hand, if the router were going to see regular use in a table, the Porter-Cable is an easy first choice.

The Bosch got high marks in many areas: handle comfort;



BOSCH 1617EVSPK

877-267-2499 www.boschtools.com

	Model	Price	Motor	Amps	Vibration	Quality of cut	Noise level	D-handle included	Edge guide included	Ease of base changes
AUTHOR'S BEST OVERALL CHOICE	BOSCH 1617EVSPK	\$230	2¼ hp	12	Excellent	Very good	91 db.	No	No, \$40 accessory	Very good
	DEWALT DW618PK	\$240	2¼ hp	12	Excellent	Very good	93 db.	No, \$75 accessory	No, \$40 accessory	Very good
	MAKITA RF1101KIT2	\$250	2¼ hp	11	Excellent	Very good	86 db.	No, \$138 accessory	No, \$22 accessory	Very good
AUTHOR'S BEST OVERALL CHOICE	PORTER-CABLE 895PK	\$270	2¼ hp	12	Excellent	Very good	87 db.	No	No, \$39 accessory	Excellent
	RYOBI RE1803BK	\$150	2 hp	9½	Fair	Very good	91 db.	Yes	Yes	Fair
AUTHOR'S BEST VALUE CHOICE	SKIL 1825	\$100	2¼ hp	11	Excellent	Very good	96 db.	No	No, \$15 accessory	Fair

fixed-mode bit changing; plunge-lock convenience; bit-depth setting in the fixed mode; and vibration. The Porter-Cable placed first or second in a number of other categories, including switch convenience in the router table; bit changing in the router table; housing lock; ease of changing from one mode to another; setting the bit depth in fixed, plunge, and table modes; vibration; and noise.

If a D-handle is important to you, the DeWalt and Makita are your best options; both offer a D-handle as an accessory. And like the Bosch and Porter-Cable, the DeWalt and Makita are routers built to run every day.

If you're on a tight budget, and if you run a router only a few hours a year, the Ryobi and Skil are worth considering. The Ryobi combination kit is the only one that includes a D-handle. And the Skil gets you both a plunge and a fixed base for less than I've paid for a few good router bits. Its low price makes it the Best Value. □

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PORTER-CABLE 895PK

800-368-1487
www.porter-cable.com



DEWALT DW618PK

800-433-9258 www.dewalt.com



MAKITA RF1101KIT2

800-462-5482 www.makitausa.com

Router-table suitability	FIXED-BASE RATINGS				PLUNGE-BASE RATINGS					
	Handle comfort	Ease of bit changes	Ease of setting bit depth	Switch convenience	Handle comfort	Ease of bit changes	Ease of setting bit depth	Switch convenience	Plunge performance	Stop system
Very good	Very good	Very good	Very good	Good	Excellent	Very good	Good	Good	Excellent	Good
Very good	Good	Good	Good	Very good	Good	Very good	Good	Very good	Very good	Good
Very good	Good	Very good	Fair	Fair	Good	Very good	Fair	Fair	Fair	Very good
Excellent	Good	Good	Good	Good	Good	Very good	Good	Good	Fair	Excellent
Good	Fair	Excellent	Good	Good	Very good	Excellent	Fair	Good	Fair	Fair
Good	Excellent	Good	Good	Very good	Very good	Excellent	Fair	Very good	Fair	Fair



RYOBI RE1803BK

800-525-2579 www.ryobitools.com



SKIL 1825

877-754-5999 www.skil.com