



BY RON FOX

Routers have been steadily evolving since the first one was invented early in the 20th century. In the past years this evolution has become a revolution, with a host of new models sporting features not seen before

Routers: the new generation

The innovations cover several areas of design including power, longer motor spindles, automatic spindle locking, and cutter adjustment from above or below the router base. In addition, several models incorporate other detailed improvements such as plug-in mains leads, improved safety switches, and better dust extraction.

Upping the power

Many established models have had a noticeable power increase. At the heavy end of the range, models such as the DeWalt DW625 (plus its derivatives), and the Hitachi M12V2 have been upgraded from 1850W to 2000W, while Bosch have the GOF 2000 CE as their flagship model. Even more powerful brand new models, such as the DeWalt DW626 at 2300W and the Festool 2200 EBQ at 2200W, have also been introduced.

More in the middle

You can now take your pick of new models in the 1100-1400W range, joining the

established Bosch GOF 1300 and DeWalt DW621. One or two of the new models have 1/2 inch collets, enabling a lot of handwork such as dovetailing and housings to be done more efficiently without having to grapple with one of the heavyweight machines.

Bargain basement

This increase in power isn't confined just to the quality end of the market. The two Chinese-made Bosch routers have both been upgraded, from 1100W and 1300W to 1200W and 1400W respectively, while Screwfix, Argos, and the DIY superstores are now offering a number of inexpensive models in the 1500-2000W plus range.

A deeper plunge

Several of the new models feature a longer motor spindle. This enables the collet, when fully plunged, to protrude through the router base. Examples include the Triton 1400, Festool 2200, and Freud 3000. This has obvious advantages for table work, making

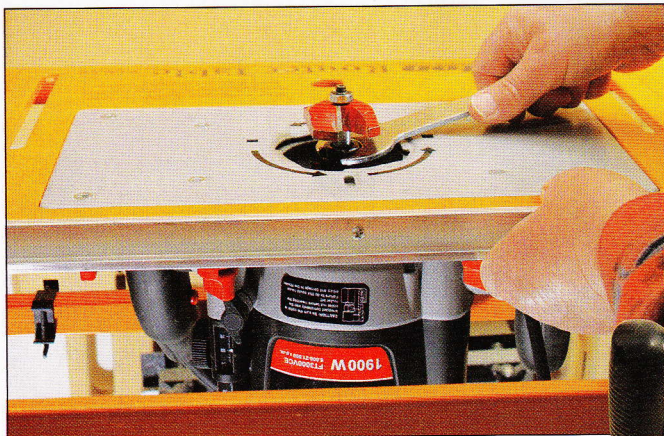
it possible in most cases to insert and remove cutters from above the table, but it also makes cutter changing easier.

Automatic locking

The Triton 1400 and the Freud 3000 both incorporate simple but ingenious devices that lock the motor spindle when the router is fully plunged. A spring-loaded tongue with a bevelled edge is pushed in by a bar or cone on the router base as the router is plunged, and engages with the locking hole in the spindle when it is rotated. Combined with the longer motor spindle, this makes cutter changing with the router in a table a doddle, even with the very thick Record tabletop.

A snag with the controls

However, there are possible snags. The Triton has a switch with a cutout in it, and the switch has to be 'OFF' for the spindle lock to work. If you're operating your Triton through an NVR switch – in the Triton table, for example – you would normally leave the



Removing a cutter from above the table with the Freud 3000

router switch 'ON' and use the NVR switch to control operations. Now to use the spindle lock you have to remember to switch off at the router and switch on again to restart. With the Freud, there is no safety cutout in the switch, so it's possible to install a cutter and switch on again with the spindle lock engaged, with dramatic consequences.

Setting depth of cut

Possibly the major innovation in the latest routers is the ability to set depth of cut precisely, from above or below the router base. This is found in the Bosch 1400 Duo, Freud 3000, Trend T11 and Triton 1400, and is achieved by means of some form of winding handle, which engages in either end of the fine height-adjuster rod.

There are obvious advantages for table routing. Trend now supply their PRT table ready-drilled for the T11 handle.

Insert plates

Other table insert plates have to be drilled for the router concerned. I installed the Triton 1400 in the Triton table, cutting the required hole in the insert plate, and regard this particular combination, along with the T11 in the Trend PRT table, as one of the best commercial table set-ups.

These new depth setters look as though they might have been developed from the now familiar router insert plates, such as the Axminster Rotalift, with their built-in lifting mechanisms. They are to my mind, however, far superior as they remain on the router when it is removed from the table.

Add-on goodies

For routers without the latest built-in height adjustment, there is the Router Raizer, available from Woodworkers Workshop. This is a US-made after-market accessory which does exactly the same job. I've had

one fitted to the DeWalt DW625 in my home-made table for some years now, and it is my standard table-routing machine.

The Router Raizer is available for a wide range of routers. Fitting it to the DeWalt DW625 and its clones is easy, but other models require more work. The fitting instructions that come with it, however, are excellent.

The new adjusters

Although a great step forward in table routing, the new adjusters take quite a time to wind up and down over their whole range. The process is much quicker with the Triton 1400 (and the DeWalt DW625 with the Router Raizer) where the winder is in the form of a cranked handle.

The Freud and Trend winders can be drilled to take something like an Allen key or

The Trend T11 in the PRT table showing above-table height adjustment



Trend T11, Freud 3000, Triton 1400 routers with depth setting handles

a tommy bar as a makeshift handle, but my optimum solution is to use the DW625 fitted with both the Router Raizer and the WoodRat PlungeBar. These work independently of each other, and I use the PlungeBar for cutter changing and most depth setting, with the Router Raizer in reserve for precise depth setting.

Dealing with dust

Dust extraction has always been considerably less than 100 per cent efficient for hand-held routing, except for those few models where the machine has been designed around efficient extraction. In my experience the best of those models is the DeWalt DW621.

Among the newer machines, good hand-held extraction is found with the Festool 1400, the Freud 3000, the Hitachi M12V2, and above all the Festool 2200.

Dust on the table

For table routing, you might well decide to stick with the orthodox set-up – the extractor hose connected to the table fence – but if you want to make the extra connections to the router, the Freud and T11 give the best results.

The Festools, in principle, give good table extraction, but a major limitation with them is that they are designed to be used in the Festool table and don't lend themselves to fitting to other tables. They both have two 6mm tapped holes in their base, but I'd be reluctant to rely on just these to hold the router, particularly with the 7.8kg 2200 model. The 1400 can be clamped in the Triton table, but the 2200 has too big a base for the Triton insert plate, although it will go in the Record table.

Other innovations

One of the more interesting new models is the Bosch 1400 Duo. It has two separate motor housings (bases) – one plunge and one fixed. The motor is fitted to whichever base is best for the job in hand.

The fixed base is popular for table routing. It can be attached to the insert plate before the motor is installed, and depth of cut and cutter changing can be performed from above the table. Alternatively, the motor can be removed from the base for easier cutter changing. Unusually, the collet requires two spanners.

This model has attracted a lot of attention, but it isn't a new idea. I have a 28-year-old Black & Decker HD1250 non-plunging router. It has only the non-plunge base, but the motor can be removed for cutter changing.

DeWalt offer similar multi-base routers in the USA, and it wouldn't surprise me if they soon become available in Europe.

The list goes on

Other detailed improvements abound. The plunge spring can be removed from the Triton 1400 and disabled in the Bosch 2000 to facilitate table work. Snap-in guide bushes are becoming more common, and can be found on both the Festool mentioned here as well as the Bosch.

Both Festools have electronic braking, and the new 2200 bristles with additional features, including an offset base and other extra bases, skew handles, twist-handle plunge that locks both plunge legs, and excellent dust extraction. Table use is effectively restricted, however, to Festool's own table or the large clamp-based Record table.

Setting depth of cut with the Triton 1400 in the Triton table

