The Festool OF1010. Part 2

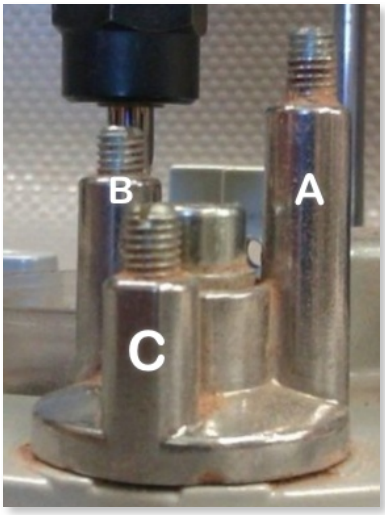
In part 1 we took a good look at all the features of the OF 1010 from the top of the machine down and began to look at the precision depth set mechanism that is an awesome feature of this gutsy little machine.

In Part 2, we'll continue our tour of the machine looking closely at the depth setting mechanism and detailing, in simple steps, how to insert a cutter and how to adjust the router to achieve the best result.

Part 3 of this series will cover the accessories available for the OF1010 and how they elevate it from being a simple handheld router, to the heart of a woodworking system.

Depth Setting mechanism

As with most routers on the market the OF 1010 utilizes a 3 step rotatable turret to help you set the correct depth for each pass you make, and to prevent you from plunging wildly into the workpiece. Used in conjunction with the guide bar you'll be able to make passes which are of a consistent depth and don't overtax the router or the cutter.



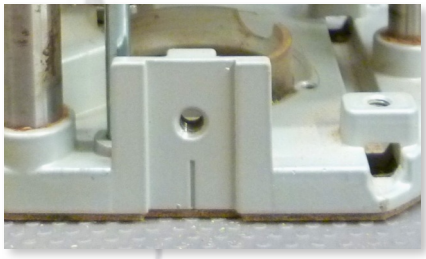
The rotatable turret consists of 3 different sized posts mounted on a rotatable base. Fitted into each of these posts is a screw thread which enables you to raise or lower the stop depth to suit the depth of pass you wish to make with the router. On the OF 1010 the minimum and maximum heights of the stops are as follows.

Stop A: Min 54mm, Max 67mm
Stop B: Min 44mm, Max 54mm
Stop C:Min 38mm, Max 44mm

We'll go into more detail a bit further on when cover how to set up the OF 1010 for use.

Centre of cutter mark.

One of the features I love on the of 1010 is the centre of cutter mark which is the line that appears on all sides of the router base. This mark aligns exactly with the centre of the cutter and makes using layout lines on your project very simple and accurate.
The trick to I using these marks is to allow for half of the diameter of the cutter when doing your layout marks



For example: if you're using a 19 mm cutter to cut a trench that has to stop 50mm from the edge of the board

Use the following equation.

Distance from edge of board. 50mm
+ half of cutter diameter. 9.5
Overall distance of stop line
from edge of board. 59.5mm

Spindle lock

The spindle lock is the green button which sits underneath the motor housing and adjacent to the main shaft and collet.
It locks the spindle in place so that the collet can be undone or done up to remove or insert router cutters.

Router collet

The collet is one of the most important parts of any router as it holds the cutter firmly in place whilst the router is in operation.

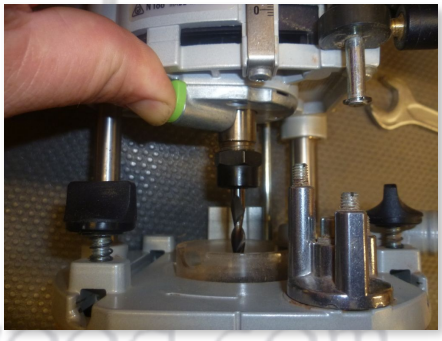
The OF 1010 comes fitted with a 1/4" collet for the Australian market but there are 6mm and 8mm collets available as accessories.

When loosening the collet to remove a cutter remember that all Festool routers feature a unique dual collet lock for additional safety.
When removing a cutter depress the spindle lock and rotate the collet until the spindle lock engages, then use the spanner to loosen the collet nut. When it moves freely, maintain pressure on the spindle lock, then use your fingers to loosen the nut further until you feel it lock again.

At this stage you simply use the spanner again to release the secondary lock then use your fingers to loosen the collet nut until you can easily remove the cutter. The secondary lock is there as an additional layer of safety and helps to minimize the risk of the collet loosening whilst the machine is in operation.

Setting up the OF 1010

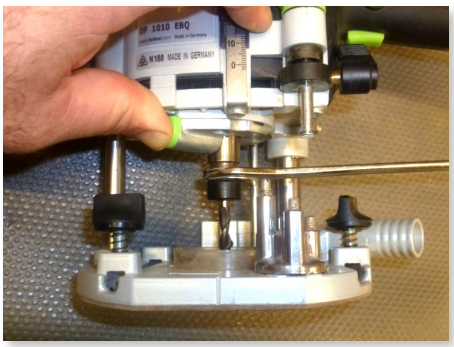
Now that we've covered all the major features of the OF 1010, let's look at how we set up the rout to cut a 15mm trench in a piece of 19mm thick board. For the purposes of this example I'll be using a 6mm spiral up cutter into a piece of 19mm Blackwood.



Step 1: Lay the router in its back with the base toward you and the handle to your right.

Step 2: Depress the spindle lock with your left thumb and loosen the collet nut with your right hand.

Step 3: Whilst still depressing the spindle lock, insert the router cutter in the collet. Insert the cutter until you feel it hit the end of the spindle, then pull it back by about 5mm. Never leave a cutter touching the end of the spindle as this can increase the risk of the cutter locking itself to the spindle and jamming in the router collet.



Step 4: Still holding the spindle lock, begin to tighten the nut on the router collet, first with your fingers and then with the spanner. You need the nut to be firmly tightened but not overdone.

Step 5: When fully tightened, release the spindle lock.

Setting the Plunge Depth

Now that we've got the cutter in place, the next step is to set the depth for our 15mm deep trench.

Zeroing the Cutter

In order to set an accurate depth the first step is to zero the cutter. Once the bit is locked in the collet, place the router on the workpiece and carefully lower the machine head until the tip of the router cutter is touching the workpiece. Once you've done this lock it into place with the plunge lock.

Setting the Measuring Scale.

Once you've zeroed the cutter, the next step is to set the measuring scale.

The zero point on the measuring scale represents the top surface of the workpiece so our next step is to set the overall depth of the cut, or where we want the bottom of our trench to be.

With the plunge lock still set, rotate the depth turret until the shortest turret, ("c" in the photo above), is directly below the guide bar, then loosen the guide bar lock so that the guide bar rests on the top of turret (c).

Move the black plastic cover on the depth assembly until the edge of the cover sits on the zero mark on the measuring scale as shown in the photo to the left. The bottom of the guide bar should still be resting on the top of the depth turret (c) at this point

Adjust the cover using the plastic tab which runs from the top of the depth stop to the top of the measuring scale, (see photo)

At this stage, make sure you don't lock the guide bar in place.

The router is now zeroed to the workpiece.
Our next step is to set the measuring scale to the depth of the trench we need.

To set the depth of the trench, using the plastic tab shown here, raise the plastic cover up until the edge rests in the "15" mark on the measuring scale, then lock the guide bar lock into place. You'll probably of noticed that the guide bar raised from the top of depth turret "c" when you raised the measuring assembly.

Don't release the plunge lock yet!

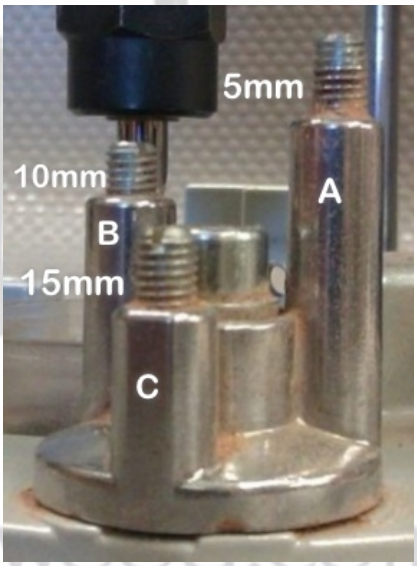
If you were to measure the space from the bottom of the depth guide bar to the top of turret "c" you should find that it is 15mm, the same as on the measuring scale.

Now that we've set the depth of the trench that we're going to cut we need to set the heights of the depth turrets "a & b" .

The reason we use the depth turret is that it provides you with a mechanism that allows you total control over the depth of each pass you make. This means that you don't overtax the cutter and you'll end up with a better cut and more consistent results over the entire project.

Depth turret "c" is set at 15mm which is the final depth that's required so now we need to determine where to set the stops on turrets a and b

For this exercise we'll set stops "A and B" on the depth turret at 5 mm intervals so we will end up with the turrets set as shown below.



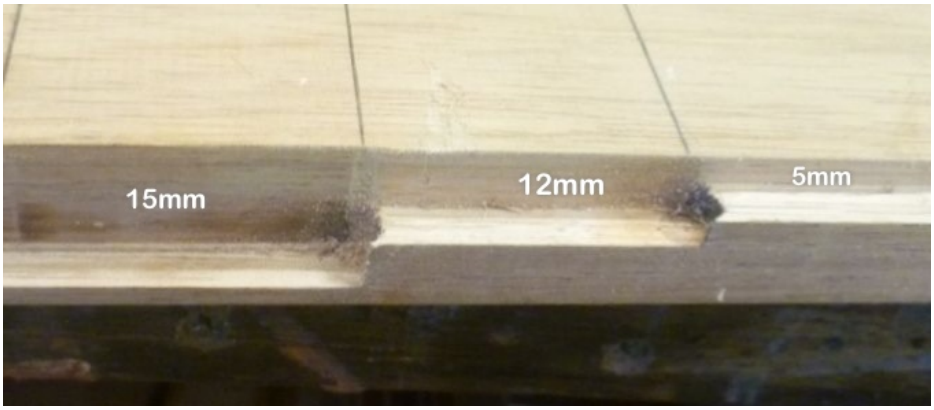
Depth turret "A" which is our first pass is set at 5mm.

Depth turret "B" which is our second pass Is set at 10mm.

Depth turret "C" which we previously set to 15mm is our third and final pass.

Once you've set the depth on turrets "A & B" release the plunge lock and you're ready to go.

A cutaway photo showing each of the
three passes in a timber section is shown in the photo below.



Well, that's about it for this section

Remember to make sure that your work piece is properly secured to a solid surface and that you use appropriate personal protective equipment before using the router.

If your uncertain about or have any questions about any of the content in this article or any other general questions on routers or router technique, please ask!

I'm happy to help and if I don't know the answer I'm pretty sure that I'll know somebody who does.

Part three of this series on the OF 1010 will detail all the accessories that are available and how to use them on this machine.

Be safe and have fun

Cheers

Bryan