

Instructions for mounting Laser Guide to DeWalt 625 plunge router



Attach mounting plate

Attach laser guide mounting plate to rear base of router using two 6mm x 20mm nylon screws.



Attach laser bracket

Assemble laser bracket as shown. The lower knob screws into a t-slot nut which slides into mounting plate t-slot. Ridge in bottom of bracket fits into t-slot to keep the bracket square with mounting plate.



Insert stops

Assemble two stops using a 1/4" nylon screw and t-slot nut for each. On each side of laser bracket, slide a stop into mounting plate t-slot.



Mount laser unit

Insert laser unit into holder on laser bracket and tighten thumb screw to secure the unit. Tip of laser unit should protrude only slightly below the holder.



Attach battery pack

Remove backing paper from Velcro strips and stick Velcro to back of router and to back of battery pack as shown. Press the Velcro together to attach battery pack to router. The Velcro allows the battery pack to be easily removed and reattached.



Clip connectors together

Clip battery pack and laser electrical connectors together to complete installation.



Test laser and positioning

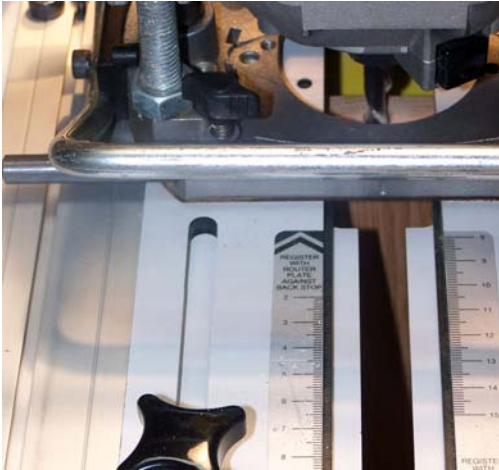
Slide switch on battery back to "on" to test laser operation. Note that the laser projects a bright cross hair. Since the cross hair remains stationary relative to router and bit it can be used to accurately position the router or work piece for joinery operations.

To adjust position of the cross hair, loosen upper knob and rotate laser holder or loosen lower knob and slide bracket in t-slot. The t-slot stops allow you to set a position and quickly return to it. See our techniques for using laser guide for cutting box joints, tenons, mortises, dados and dowel joints.

Since the laser light is very bright the target work piece should also be well lit.

Caution – never stare directly into laser lens.

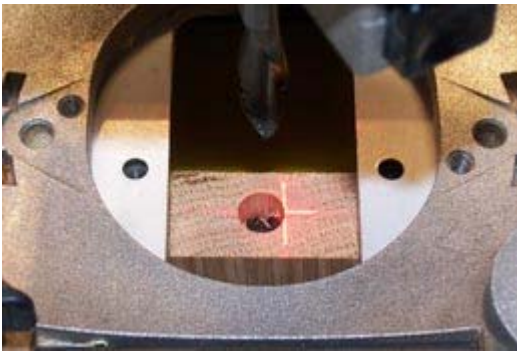
**Technique for cutting Dowel Joints and Dados with WoodRat®
using our laser guide, brass gauge bars, quick clamp, plunge bar and router bits**



Plunge cut an alignment hole

Select and chuck a straight bit. In this demo we use a 3/8" spiral bit to align laser and cut a dowel joint. We then switch to a 9/16" dovetail bit for a stopped dado cut.

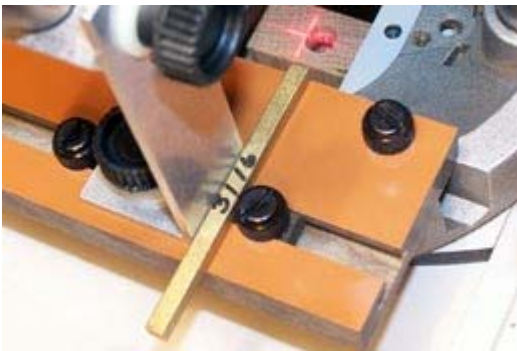
Clamp a small scrap board to sliding bar flush under base plate, position bit over the board, lock router plate with star knob and plunge the bit to drill a shallow hole.



Align laser on right center of bit

Turn on laser and align laser beam as shown with center of cross hair touching right edge of alignment hole.

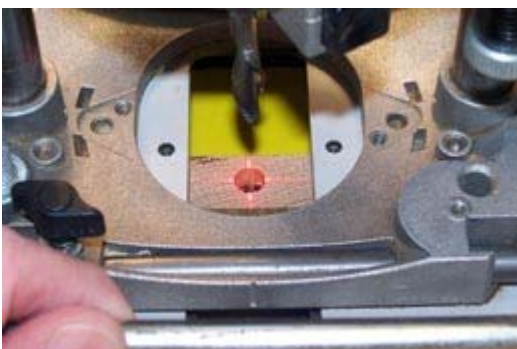
Tighten laser bracket knobs to lock laser in this position.



Set a stop

Using a brass gauge bar, set a stop in laser mount t-slot a distance from laser bracket equal to 1/2 diameter of bit.

Tighten the stop screw to secure it in place.



Move bracket to stop

Remove gauge bar, loosen laser bracket knob and slide bracket forward to the stop.

This moves laser beam to bit center.



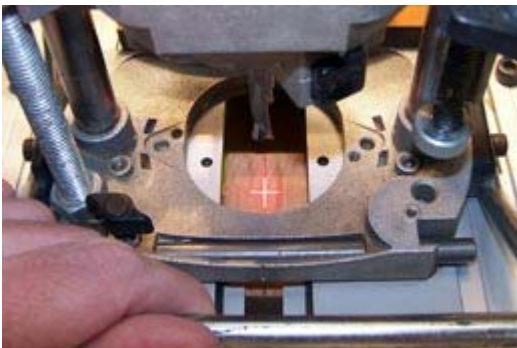
Mark positions of dowels

Layout dowel positions on boards to be joined.



Clamp board to machine

With layout marks on top, clamp board to be joined onto sliding bar flush with underside of base plate.



Position for dowel hole

Loosen star knob to free router movement.

Power feed board and position router so that center of cross hair is positioned on location for dowel. Tighten star knob.



Set plunge depth

Zero bit on top of board. Use brass gauge bars to set router depth stop to desired depth for the dowel.

It helps to have removed turret from depth stop mechanism.



Plunge bit

Turn on router and plunge bit to depth stop to cut dowel hole.



Repeat for remaining dowels

Repeat above procedure to drill any additional dowel holes in the board.



Mark position of dado cut

We will use a dovetail bit to cut a stopped dado for a sliding dovetail. Laser alignment is same as for dowel joint.

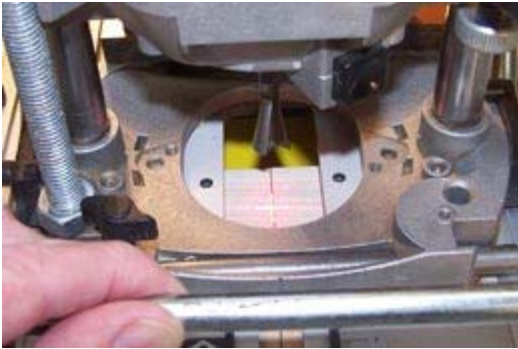
Layout position for the dado cut.



Clamp board to machine

With layout mark on top, use a brush as a feather board to hold board flush to underside of base plate. The brush is clamped to sliding bar directly under bit.

After board is positioned for cut, secure with quick clamp.



Position for dado

Loosen star knob to free router movement.

Position board and router so cross hair line of laser overlays line marking dado location. Tighten star knob.



Set plunge depth

Zero bit on top of board. Use brass gauge bar to set router depth stop to desired depth for the dado cut.



Cut stopped dado

Push router behind board. Turn on router and plunge bit to depth stop. Pull router forward to cut the dado stopping before exiting other side of board.



Examine the dado cut

With our laser guide it is simple to position board and bit for a dowel or dado cut including dados for sliding dovetails.

Since the router is "right way up" you can see the cut as it is made and stop the cut at any point.

Please email us at info@thecraftsmangallery.com with any corrections or improvements to these techniques. Our laser guide techniques are not the same as techniques in the WoodRat manual. Check our web site www.chipsfly.com for additional techniques and information.