

Instructions for Installing Hinges
Regular Side Rail (#062)
Heavy Duty Side Rail with Lid Stay (#061)

Tools Needed

An inverted table router is the easiest method for installation. It will be difficult to use a hand router with the tolerances needed. Router bit should be 5/16" carbide tipped straight flute, 2 flutes. Ask for bits that are on the plus side of 0.3125". You will also need a small laminated trimmer router with a 1/4" router bit to deepen the rear of the mortise for the hinge pivot clearance. Freud 04-118 and Freud 04-104 are recommended.

Installation Information

There are four dimensions that have to be measured precisely in order for the box lid and bottom to line up properly together once the box is closed.

- 1) The router bit (5/16" dia.) must be 1/8" (.125") above the router table.
- 2) The distance between the side edge of the box and the mortise must be the same on both left and right sides. This can be any size, but .200" is recommended. Use a dial caliper to measure.
- 3) The back stop must be set so the pivot pin on the hinges lines up with the back edge. From the front edge of the bit, this distance is 1-7/16" for the Regular Side Rail (#062) and 1-7/8" for the HD Side Rail with Lid Stay (#061).
- 4) If fitting to tight, the width of the mortise can be opened slightly using the 5/16" router bit. After making the initial left mortise, tap the fence slightly (1/64") to the left to widen the mortise. With the right fence, tap to the right. This wider mortise allows slight adjustments in the sides once the hinges are installed.

Installing Regular Side Rail Hinge (#062)

The side rail hinges are designed to extend out beyond the back edge of the box. The pivot pin on the hinge lines up with the back edge. (See Illustration A)

1. Make a fence, 1/4" high x 1-1/2" wide x length of table router. 1/4" high is recommended for best accuracy as it is nearest to the lip of the box.
2. Set up a fence on the inverted router table and align so that the router bit runs down center line of the side rail. If you have 2 inverted router tables, you can set one up for left mortise and the other for the right mortise. Otherwise you will have to switch left and right stops to make all four mortises. (See Illustration B)
3. Set up stop to 1-7/16" from the front edge of the router bit. (See Illustration C)
4. Set router bit height to 1/8" (.125") above the table. Run a sample piece of wood to test height adjustment.
Note: Hinge should be flush with the top of side rail.
5. After making all four mortises, the next step will be to undercut the rear of each mortise to allow movement for the hinge pivot (see illustration D below). This cut should be 1/16" deeper than the mortise cut or 3/16". It is only 1/4" from rear of the back edge of the box. If careful, it can be done with a small hand router - preferably a laminate trimmer with a 1/4" router bit.
6. Drill 4 screw holes.
7. You are ready to sand!

Note: The above steps can be done in a matter of minutes if you have 2 inverted router tables, a hand laminate trimmer and all of the stops are set. Be sure to make a test box first. Also, if the back edges of the box are rounded using a 3/16" round over router bit, the box lid will pivot more easily.

Installing Heavy Duty Side Rail Hinge with Lid Stay (#061)

1. The length of the rout is 1-7/8" instead of 1-7/16".
2. There is no rear undercut mortise necessary as the rear of the hinge is round and not square.
3. An additional well mortise of 1" deep (from the top lip of the box) x 3/4" long x 3/16" wide, is needed for the stay support in all 4 mortises. For this cut you will need a 3/16" HHS up Spiral router bit. Rout multiple passes of only 1/4" deep per pass. Otherwise the bit will heat up, become dull, and may eventually break. This operation can also be done with a 3/16" chisel mortiser on a drill press. (See illustration E)

Final Note: When installing hinges, you can place a small pieces of double stick foam tape under each hinge arm, top and bottom, so that you can adjust and level the top lid. The foam allows the hinge to spring up when loosening the screws and compress nicely when tightening the screws. The rear screws behind the stay support are the most difficult to install, but can be done easily with an extended bit driver. Try to use a drive that is 1/4" round diameter x 2" long with a #1 point.

Illustrations

