

## Secret Compartment Jewelry Box with Inlay Top



### Router Bits Used:

Lock Miter Bit #7847 / 5547 (for 3/8" to 1/2" stock)  
1/4" Straight Bit #5470 / 7770 or Spiral Downcut Bit #5177 / 5145  
Molding Plane Profile Bit #7965  
1/2" Rabbeting Bit #7693 / 5393  
1/4" Radius Beading Bit #8752 / 6452

### Additional Tools & Supplies Needed:

Miter Saw or Table Saw with 45-degree Cut Off Table  
1/2" Chisel  
Router Table  
Merle Multi – Corner Clamp (2)  
1" x 1" Hinges – for 1/2" wide stock  
Felt for Jewelry Box Bottom (Optional)

### Creating the Box Carcass:

Plane approximately 5" wide stock, which will be used to make the jewelry box carcass, to a uniform thickness of 1/2". It is important that the stock be of uniform thickness for the lock miter joint to properly align. At this same time, plane down enough stock to 1/2" to make a 10" wide x 13-1/2" long glued up blank for the jewelry box top. This will be trimmed to the final dimension later. Use biscuits to align and strengthen the glue joint (see Figures A & B).



Figure A



Figure B

Cut the pieces for the front, back and side to the finished lengths of 12-3/8" for the front and back and 9" for the sides. Leave them at the approximately 5" width for now, it will allow you to trim off the edges and clean up any tear out you may encounter when routing with the lock miter bit.

Follow the instructions on the MLCS web site for using the lock miter bit and cut the lock miter joint profile on the front, back and side pieces. Run the front and back pieces flat on the router table when routing the lock miter profile and run the side pieces vertically when routing the lock miter profile (see Figures C & D).



Figure C



Figure D

Rip the pieces for the front, back and side to the finished width of 4-1/8”.

Before the box can be assembled, the 1/4” wide x 1/4” deep slot to accept the bottom of the box needs to be made. Adjust the router table fence so the slot is 1/4” from the bottom edge of the box pieces. Create the slot along the length of all pieces, making sure to cut the slot on the inside of the pieces (see Figure E).

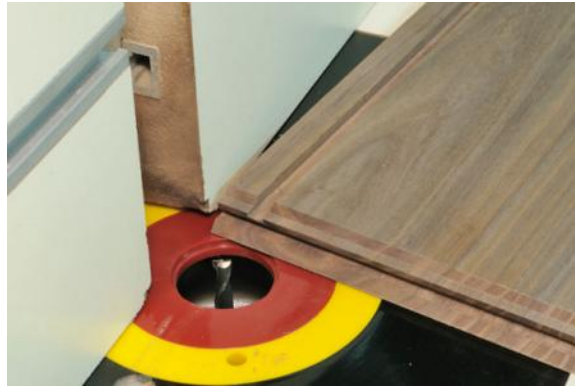


Figure E

Cut the box bottom to the finished dimension of 11-7/8” x 8-1/2”. Glue up three sides of the box and, before gluing the fourth piece, slide the box bottom into the slot. Then attach the final side. Use (2) Merle Multi-Corner Clamps to clamp the box and set this aside to allow the glue to dry (see Figure F).



Figure F

### Creating the Molding Base:

Using 1-3/4" wide x 3/4" thick stock, rout a 5 foot long piece of stock with the molding plane profile bit #7965 to create the secret compartment frame. After you have completed the molding profile, use a 1/2" rabbeting bit and rout the length of the 5 foot molding for the secret compartment frame. This rabbet will allow the main jewelry box to sit on a ledge that is created along the inside of the secret compartment frame (see Figures G & H).



Figure G

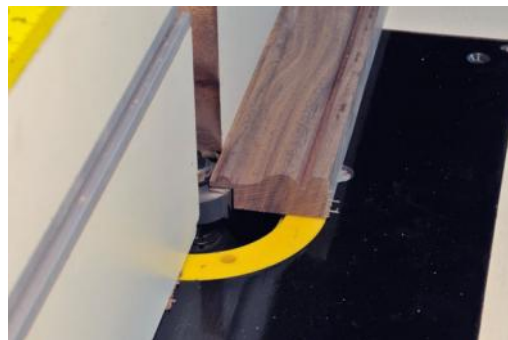


Figure H

Using the main jewelry box as a template, mark and miter cut the molding so that the secret compartment molding sits on the rabbet created along the top of the inside of the secret compartment. The main jewelry box should fit tightly enough to not see any gaps between the secret compartment frame and jewelry box, but must not be too tight that the jewelry box cannot lift out of the secret compartment frame (see Figures I, J, K & L).

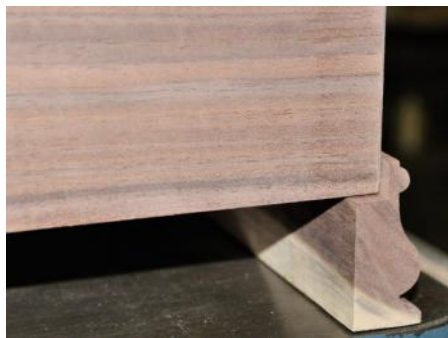


Figure I



Figure J



Figure K



Figure L



After mitering all the pieces for the secret compartment, dry fit them around the main jewelry box and check for proper size and clearance. When you are satisfied with the fit, glue up the molding pieces for the secret compartment. A solid wood bottom will be added to close up the bottom of the secret compartment.

Out of 3/4" stock, biscuit joint and glue up a solid wood blank from the bottom of the secret compartment jewelry box. The bottom needs to be a finished size of 11" wide x 14-1/4" long, so leave the glue up a little larger and trim to the final size after the glue has dried. Cut the bottom to the final dimension after the glue has completely dried.

The jewelry box top and bottom will both have the same 1/4" beaded edge routed on them. Set the bit height to produce the radius with a 3/32" fillet above the radius and rout around the perimeter of both the top and bottom pieces. Make the end grain cuts first before making the cuts with the grain to help with any tear out you may encounter as the router exits the work piece on the cross grain cuts (see Figure M).



Figure M

### **Attaching the Secret Compartment Frame to the Bottom:**

Center the secret compartment frame over the bottom side of the bottom piece and mark the inside of the secret compartment frame on the bottom piece with a pencil. Use a countersink drill bit to drill two holes 3” from the ends of the bottom piece and 5/16” to the outside of the line that was traced using the secret compartment frame. Make the screw holes on the long side of the bottom piece. Center the secret compartment frame on the topside of the bottom piece and flip this over to install the bottom to the secret compartment frame using (4) 1-1/4” #6 wood screws (see Figure N).



Figure N

### **Attaching the Lid to the Jewelry Box:**

*If you wish, now is the time to do the inlay in the lid if you choose to include this option. To create the inlay and recess in the lid, refer to MLCS instructions for our Router Inlay Kit. An inlay will add a personal, decorative touch to the jewelry box.*

To attach the lid to the jewelry box, place the lid topside down on a flat surface. Center the jewelry box carcass over the lid and trace a line along the back edge of the carcass. Mark the position for the hinge by making two lines, one at 2” and the second at 3”, from the ends of the jewelry box lid along the line traced on the back edge of the underside of the lid. Using one of the hinges as a template, mark the position of the screw holes for the hinge (see Figure O). Remove the hinge and drill a pilot hole for the mounting screw, being careful not to drill through the lid. Attach the hinges to the lid using the 3/8” long screws provided with the hinges.



Figure O

After attaching the hinges to the lid, once again place the lid topside down and re-center the jewelry box carcass over the lid. Mark the position of the hinges onto the box carcass and mortise the hinge recess on the top of the box carcass (see Figures P & Q).



Figure P



Figure Q

Attach the lid to the jewelry box carcass with the 3/8" long screws provided with the hinges. Your jewelry box is now complete. Sand and apply a finish of your choice. After the finish has dried, you may wish to put a felt liner in the bottom of the jewelry box. Your secret compartment will hold your valuables such as important papers, passports, money or any other small valuables you may wish to store in an inconspicuous place.

### Cut List

<u>Parts Description</u>	<u>Width</u>	<u>Length</u>	<u>Thickness</u>	<u>Quantity</u>
Jewelry Box Front / Back	5"	12-3/8"	1/2"	2
Jewelry Box Sides	5"	9"	1/2"	2
Secret Compartment Front / Back *	1-3/4"	18"	3/4"	2
Secret Compartment Sides *	1-3/4"	12"	3/4"	2
Jewelry Box Top	9-5/8"	12-7/8"	1/2"	1
Jewelry Box Base	11"	14-1/4"	3/4"	1
Jewelry Box Bottom Panel	8-1/2"	11-7/8"	1/4"	1

\* Parts will cut to final mitered length to fit around jewelry box carcass