

making the **DOORS & DRAWERS**

A pair of frame and panel doors and four drawers complete the base cabinet. Together they give the piece an elegant look and provide useful storage for the things you'll want to keep close at hand.

BEVELED GLASS DOORS. Since the center compartment of the cabinet is designed to house electronic gear, I decided to use glass doors so I could control the components with an infrared remote control. But rather than having the glass rest

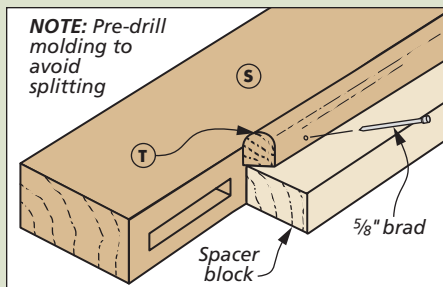
in a channel in the rails and stiles, I attached stops on both sides of the glass with brads. The advantage of this is a tighter fit of the glass which results in less rattling.

RAILS & STILES. I started by cutting the rails and stiles to size. Then I cut mortises in the stiles and matching tenons on the rails. Detail 'a' shows the exact fit of the two door parts. After assembling the frame, you're ready to move on to adding the moldings and glass.

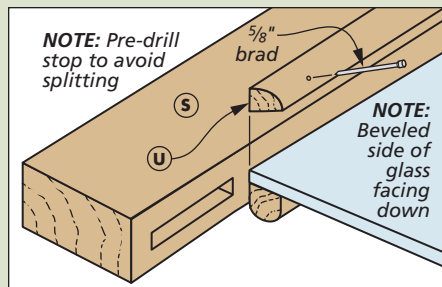
BEAD MOLDING & GLASS STOPS. Bead molding mitered around the outside and quarter-round molding on the inside serve as stops for the glass. You can find out more about making them both in Shop Notebook on page 29. The box below shows how to attach them.

HINGES & DOOR CATCH. I chose surface-mounted hinges for the look and ease of installation. A door stop in the center of the opening holds magnetic catches (detail 'b').

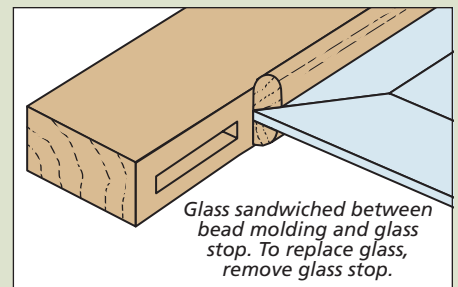
How-To: Install Glass Stops



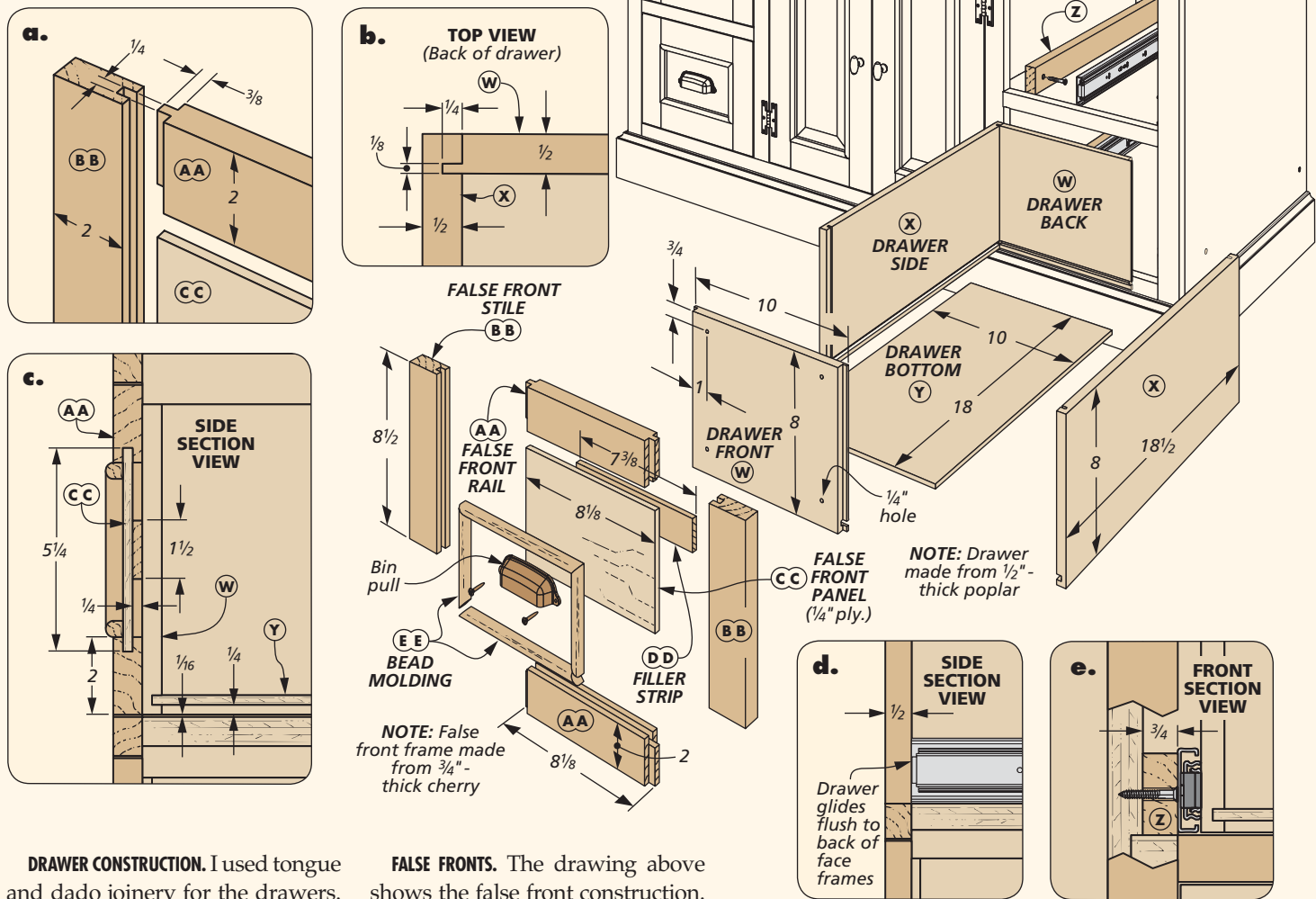
Bead Molding First. Use a spacer to support the bead molding in position and attach the molding with brads.



Add the Glass Stop. Now turn the frame over, insert the glass, and attach the quarter-round glass stop with brads.



Finished Look. This method not only provides an attractive look, but allows for easy replacement of the glass.



DRAWER CONSTRUCTION. I used tongue and dado joinery for the drawers. You can't beat this technique for simplicity and strength. You can start by cutting the dado on the sides at the table saw. Then it's just a matter of cutting a matching tongue on the front and back pieces to complete the joint (detail 'b'). A groove near the lower edge of the front, back, and sides holds the plywood bottom. Now you can assemble the drawers.

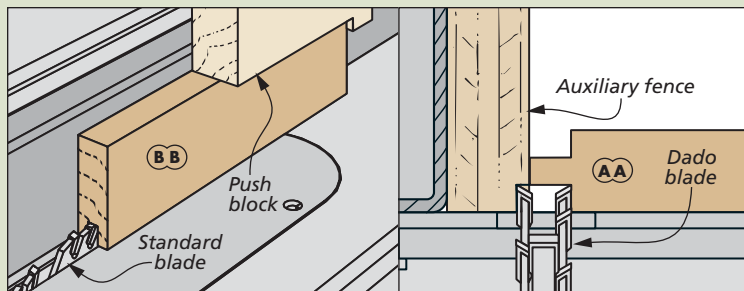
FALSE FRONTS. The drawing above shows the false front construction. It's nothing more than a frame and panel with bead molding mitered around the inside of the frame. I used stub tenon and groove joinery for the rails and stiles (box below).

After cutting the joinery for the rails and stiles, cut the panels to size and assemble the false front. You'll want to add a 1/4"-thick filler strip behind the panel to make it easier to attach the drawer pulls.

Now you're ready to add the bead molding. All you need to do is miter it to fit and glue it in place. Then add the pulls and the drawer slides to complete the base cabinet. The photo below shows how well it works as a stand-alone unit. But if you want to build the rest of the entertainment center, that story begins on the next page.

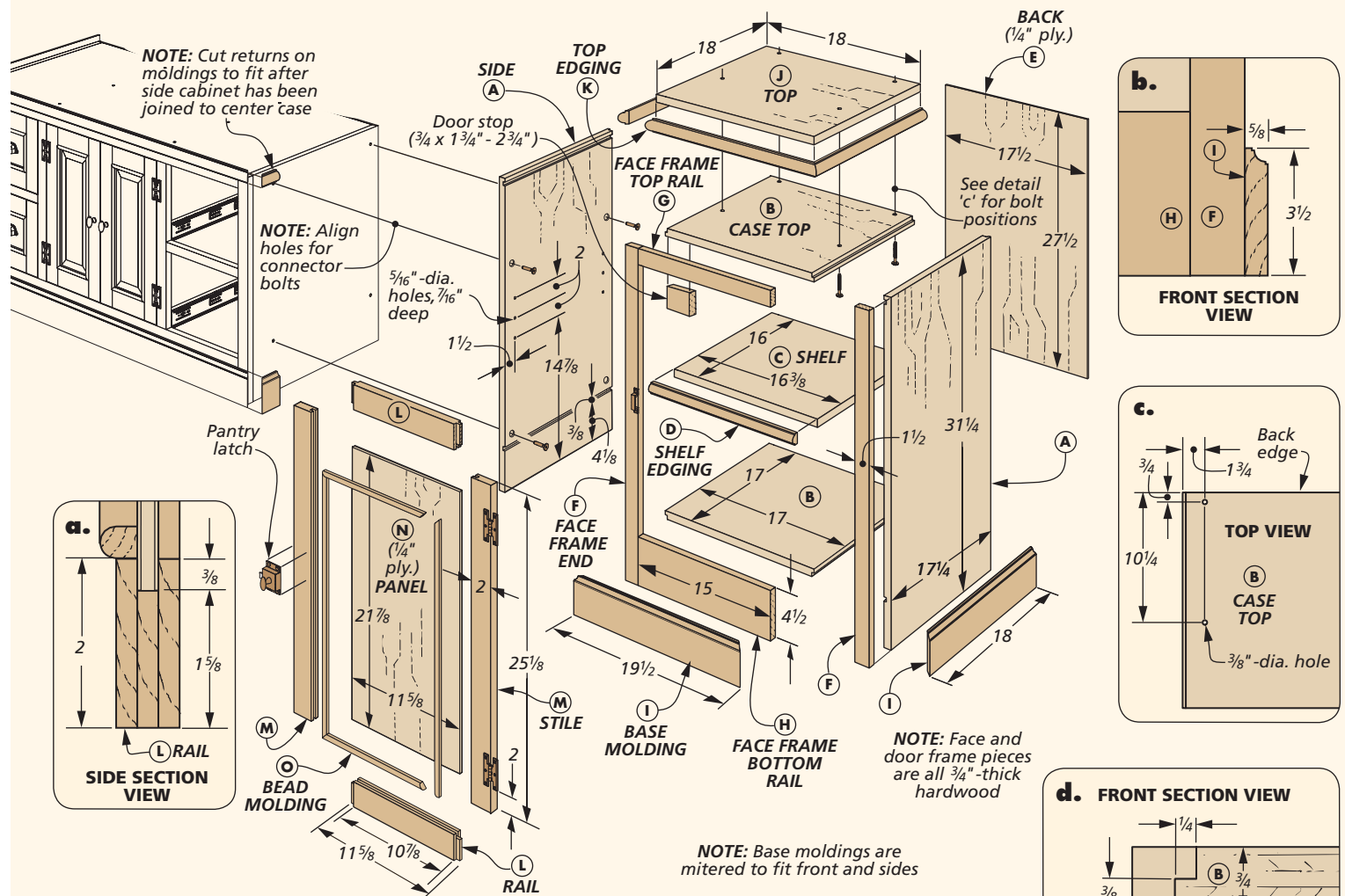
▼ The base cabinet stands on its own as a great addition to any room.

Stub Tenon & Groove



Getting a Tight Fit. Cut the groove, then flip the workpiece end-for-end and repeat to center the groove on the edge. Then raise the blade in small increments to sneak up on a tight fit for the tenon.





adding the SIDE CABINETS

After assembling the center base cabinet, building the remaining cabinets that complete the media center isn't at all difficult. The construction methods and techniques used before are also employed throughout the remaining pieces. So, as I go through the process, I'll focus more on the differences in the components rather than explaining the familiar tasks over again.

On each side of the center base cabinet is a tower consisting of two separate cabinets — a base and an upper cabinet. You can get started by building the base.

SIDES. In addition to the dados that hold the top and bottom and the rabbet for the back panel, the sides also have a series of holes to

accommodate an adjustable shelf. Since there are only three positions, you can just lay out these holes using a square and drill them at the drill press.

TOP, BOTTOM, & SHELF. The case top and bottom each need a tongue on the ends to fit into the dados on the sides. A dado blade and an auxiliary fence on the table saw make quick work of these cuts. The shelf is simply edged with hardwood trim you make on the router table. One thing of note is that you'll need to drill holes as shown in the drawing to attach the upper cabinet.

ASSEMBLY. With these parts complete, you can assemble the case. After the glue has dried, attach the plywood back with screws. It's a good idea to test the fit of your shelf at this point as well.

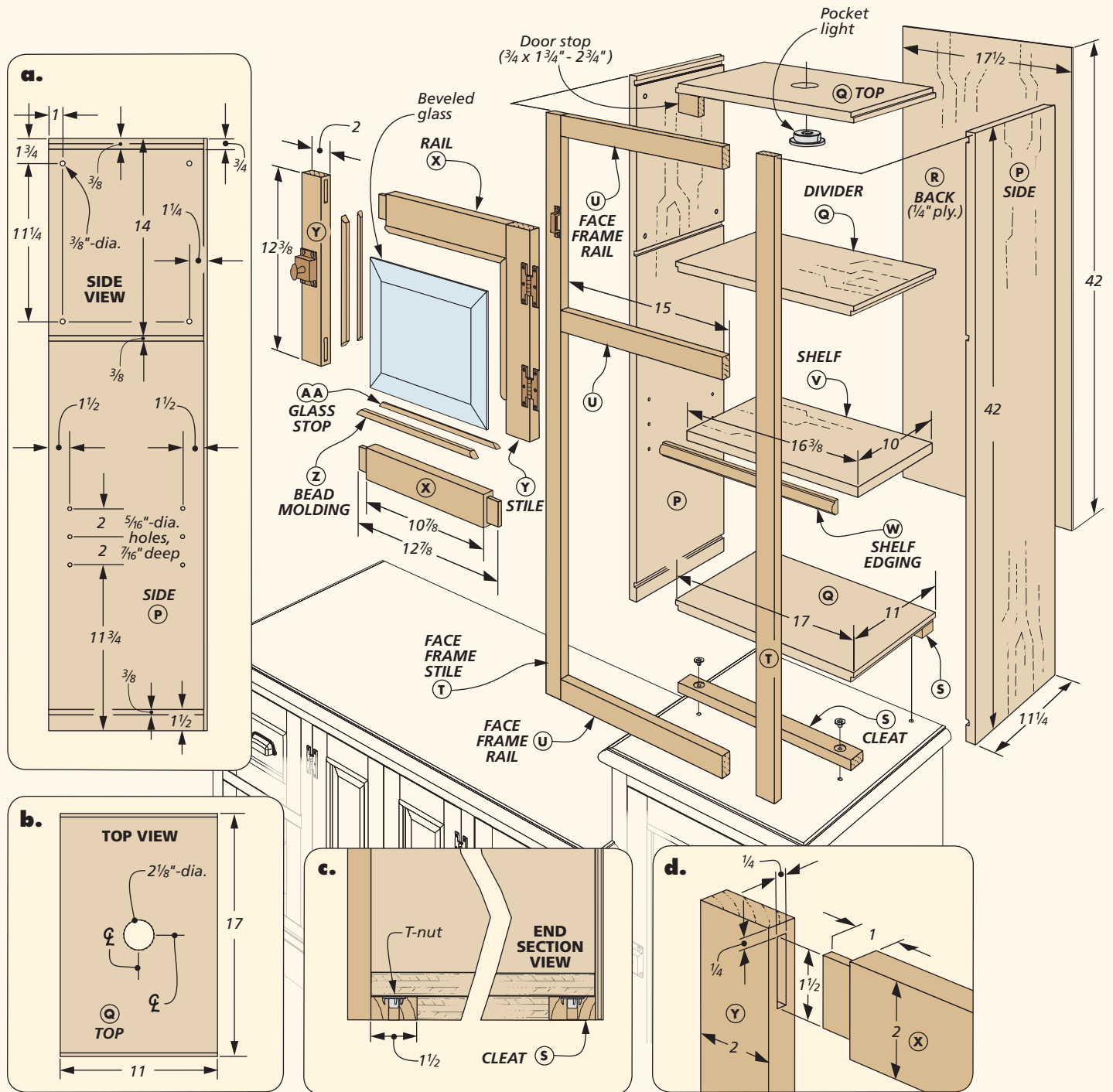
FACE FRAME. Once again, the plywood edges of the case need to be covered and simple hardwood face frame fills the bill. Starting with the end pieces gives you the

chance to take an exact measurement for the remaining pieces and ensure a tight fit.

BASE MOLDING. The base molding matches that on the center cabinet, providing continuity throughout the different pieces. The thing to remember here is that base molding will only be attached to the outside of the cabinet. The side that attaches to the center cabinet has no base molding.

TOP. This cabinet also has a plywood top wrapped in the same molding you used on the center base. After mitering the molding to fit the panel, attach the top with screws from inside the cabinet.

DOORS. A frame and panel door completes the base. And because these doors have plywood panels, I chose to use stub tenon and groove joinery. After assembly, you can add bead molding, mitered



to fit inside the frame. Add the hinges, latch, and the door stop and you're ready to move on to the upper cabinets.

UPPER CABINETS

The upper cabinets feature a divider and an adjustable shelf. A glass panel door encloses the lighted interior of the top recess. You'll also add cleats with T-nuts underneath to fasten the cabinet to the base.

CONSTRUCTION TECHNIQUES. By now, you have a pretty good idea how the cabinet assembly works. Just follow the same process starting

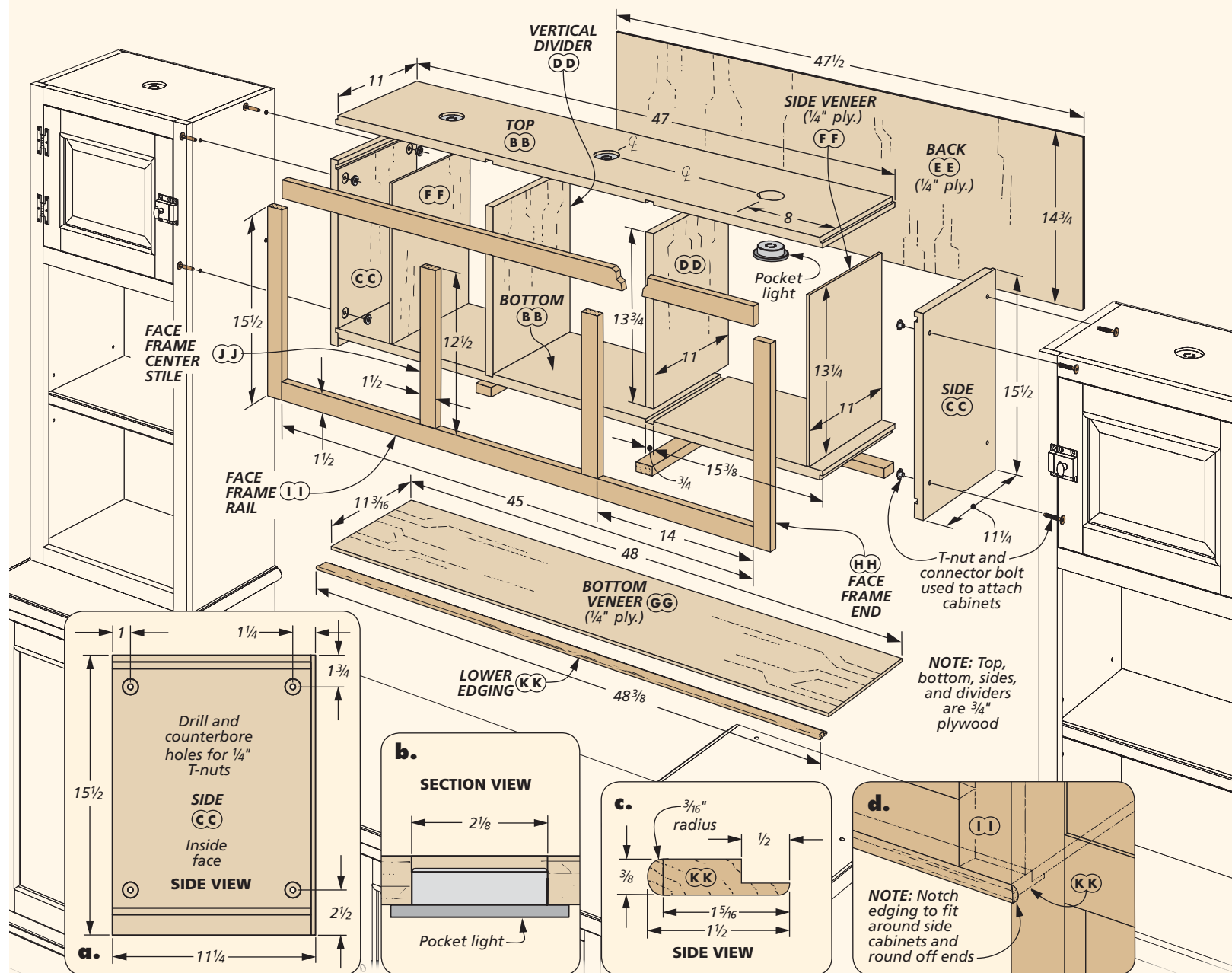
with the sides, the top and bottom, and the divider. Detail 'a' shows where to position the holes for the adjustable shelf. The face frame follows the same pattern.

A COUPLE OF DIFFERENCES. Unlike the other cabinets you've built up to this point, the top of this one needs to be drilled for the pocket light. Detail 'b' shows the diameter and placement for the hole.

I added cleats to the underside of the cabinets to attach to the base. T-nuts fit into holes in the cleats, allowing you to use connector bolts from inside the bottom

cabinet to provide a strong, stable connection. Detail 'c' has all the information you'll need.

FACE FRAME & DOOR. There's nothing unusual about adding the face frame to this cabinet. It's the same process that you used before. The door is also built the same way as the one on the center base cabinet, only the size is different. The joinery and the method for using glass stops and bead molding to hold the glass is also the same. When you're finished, you can move on to building the bridge that connects the two upper cabinets.



connect the towers with a **BRIDGE & CROWN MOLDING**

The last component of the modular media center is the bridge cabinet that spans the two towers. In addition to giving the piece a more finished look, the bridge contains a bank of lights, making it an ideal display cabinet. And once again, the construction is similar to everything you've done so far.

SIDES. One of the first differences you'll notice in the bridge is the holes in the sides for T-nuts. You can drill these at the locations shown in the drawings above.

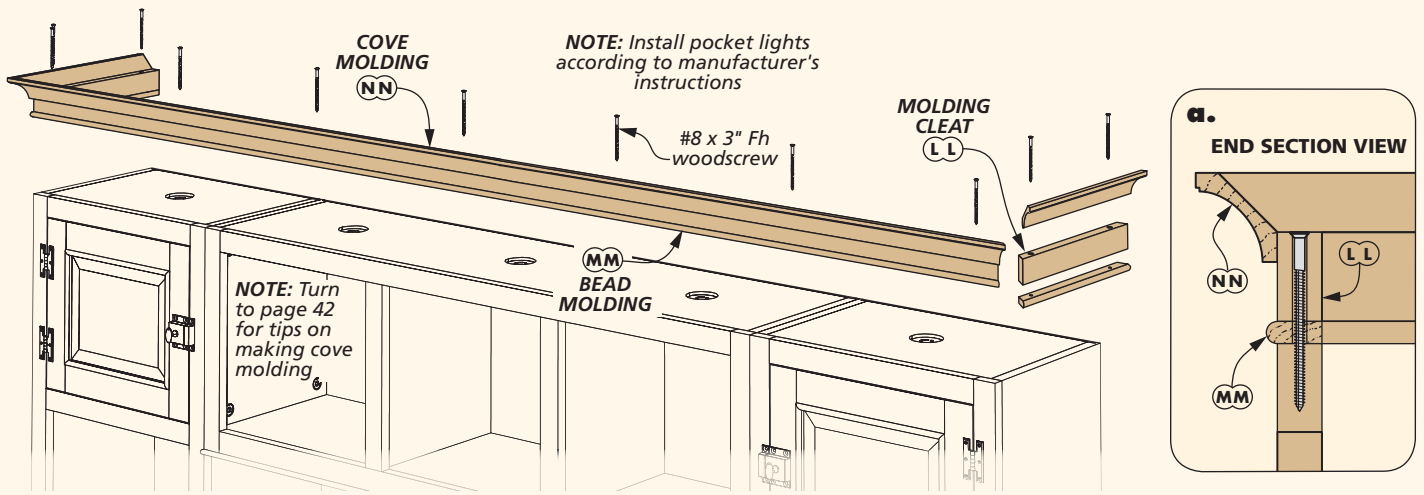
Rather than leaving the T-nuts exposed, I added a veneer of $\frac{1}{4}$ " plywood to cover them up. Before assembling the case you can add the veneer with just a little glue on the plywood and a few cauls to clamp them up. You'll use connector bolts in the upper cabinets to lock the bridge in position.

LIGHTS. Like the upper cabinets, the bridge also has lights in the top. You can see how they're positioned in the case in the main drawing above. It's a simple task

to drill holes for them using a large Forstner bit on the drill press.

Sources on page 51 has information on where you can find the lights and other hardware. You'll find instructions for wiring the lights included in the package.

FALSE BOTTOM. I didn't want to leave the underside of the bridge exposed, so I attached cleats to the bottom and covered them with a piece of $\frac{1}{4}$ " plywood. A section of bead molding along the edge finishes it off (detail 'c').



CROWN MOLDING. To tie the components together and complete the media center, I added built-up crown molding to the top. You can see how the pieces all fit together in the drawings above.

I started by gluing bead molding to a hardwood cleat. Then you can attach the cleat to the top of the three cabinets with screws. The cleat and bead molding span the

width of the pieces and provide a foundation for attaching the cove molding (detail 'a'). After mitering the pieces to fit, the cove molding is glued to the cleats.

You can purchase cove molding or make your own at the table saw. The advantage of making your own is that you're more likely to get a good color and grain match of the hardwood you've used for the rest

of the project. The article on page 42 will walk you through the process.

PUT IT ALL TOGETHER. After finishing the individual components, you can connect the cabinets using bolts. The illustrations below will help you out during this final assembly.

Now you can plug in the TV and relax. No doubt this media center will be a treasured piece of furniture for years to come. **W**

