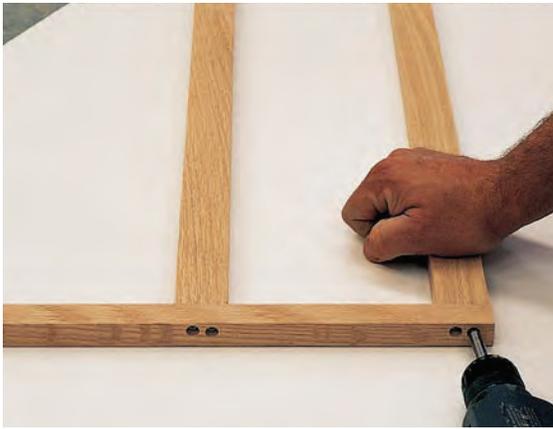


SHOP ASSEMBLY PROCEDURES

SOME HELPFUL HOW-TO' S

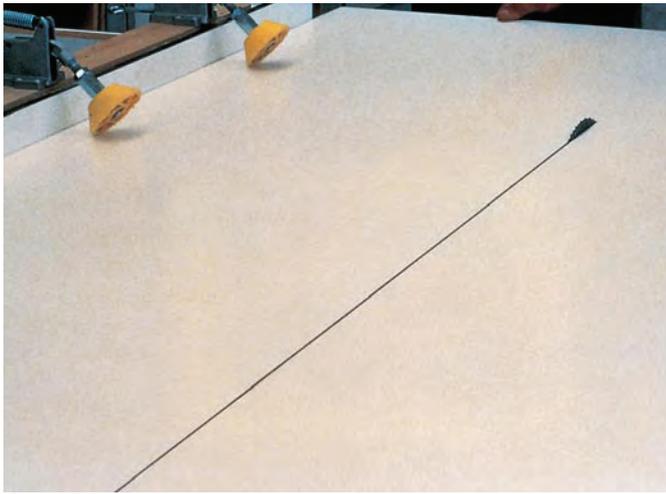


1 If you are building the face-frame version, cut to size and assemble the hardwood face frames so they can be sanded and finished. For this particular kitchen project I finished the face frames with three coats of clear satin polyurethane. Do not finish the back side of the face frame, as it will be glued to the carcass edge.

You will be able to start assembling the carcasses while finishing the face frames and doors. You can also calculate how many, as well as the sizes of, end panels and undercabinet $\frac{1}{4}$ " veneer plywood panels required. They can be cut and finished along with the face frames and doors.

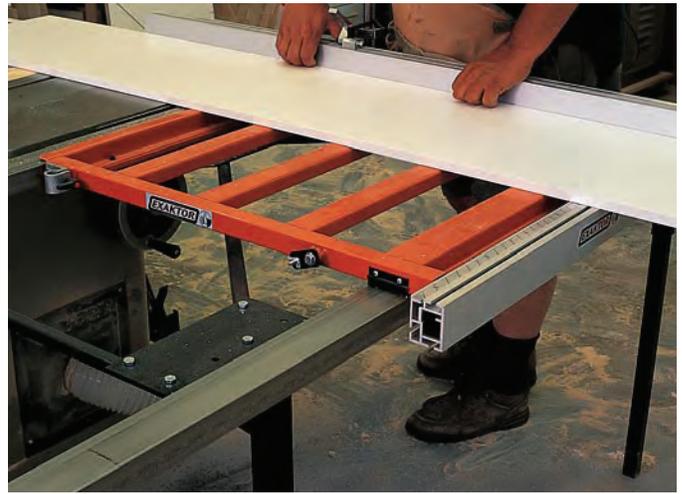


2 Assemble and finish doors and drawer faces with the face frames while cutting and assembling the carcass.



3 Rip 4' x 8' sheets of sheet material to size with the aid of the cutting lists and layout sheets. Melamine-coated particleboard edges chip easily, so take special precautions. Primarily, equip your table saw with a carbide-tipped melamine PB blade. Melamine PB has a tendency to chip on one side more than the other. I orient the boards during cutting so the good side is always maintained.

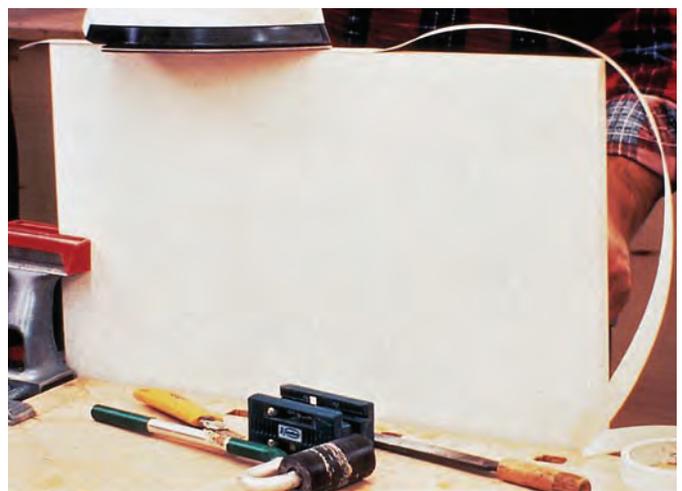
The only boards that will be exposed on both sides are the shelf boards and the drawer carcass sides. Chipping can be minimized on these boards by double-cutting: Set the saw blade at half the thickness of the melamine PB and cut on one side, then flip the PB over to complete the cut on the other side.



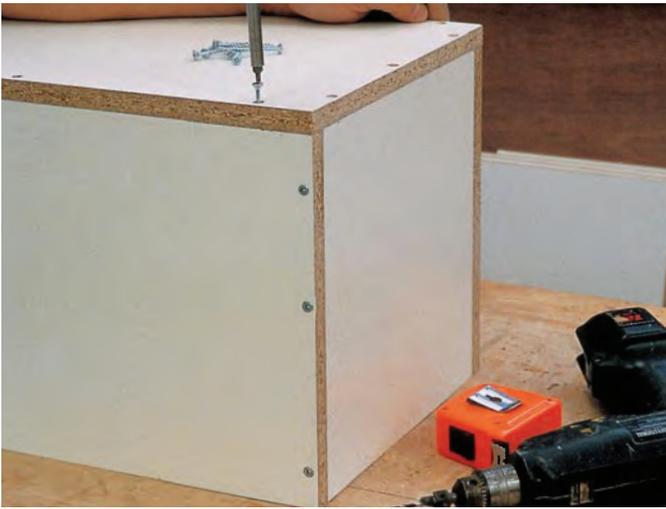
4 Following the ripping step, crosscut the boards on a radial-arm or table saw. If the boards are extra wide, such as in the case of the base cabinet boards, I use a sliding table attachment on my table saw, or you can just as easily use a circular saw and straightedge. Since the saw chips on one side more than the other, always pay attention to the board's good side when you orient it. Mark each piece with its reference number.



5 Verify the board sizes, then begin the assembly of the cabinets. First, drill the upper cabinet sides for the adjustable shelf pins.



6 If you are building the frameless cabinet version, apply edge tape to all edges that will be visible after the cabinet is installed. Use wood veneer or white melamine edge tape to match the cabinet doors.



7 Now fasten the sides to the top and bottom boards with 2" particle-board screws. Install the back flush with the bottom and top board, as well as one side board.

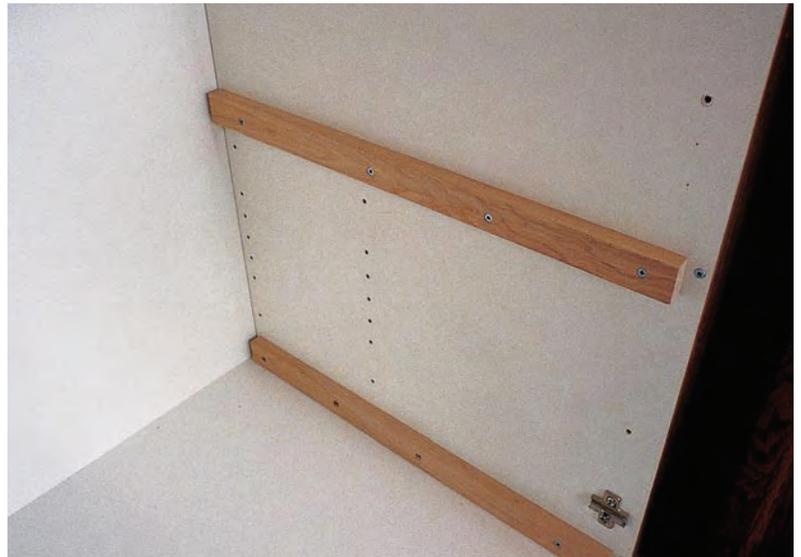
When using the 2" PB screws, make certain to drill a $\frac{1}{8}$ " pilot hole through the board to be secured, and into the center of the edge of the second board. Use a marking gauge set at $\frac{5}{16}$ " for $\frac{5}{8}$ " material and $\frac{3}{8}$ " for $\frac{3}{4}$ " stock as a guide for the drill bit. The screws should be tight; however, be careful they are not overtightened. I use a $\frac{1}{8}$ " drill bit in a carbide-tipped $\frac{3}{8}$ " countersunk assembly to a depth that allows the screw head to be set flush with the surface of the PB.



8 Install the face frame on the cabinet, making sure of the orientation of any special face frames. For example, if cabinet A has a $1\frac{1}{2}$ " stile on the left side, designated on the drawing as + $\frac{1}{2}$ " L, the face frame must be installed with respect to that orientation. Set the face-frame outside top flush with the carcass outside top. The carcass edges should be hidden, and then glue and nail the face frame to the carcass as previously described.



9 Cut the plastic cap moulding to fit the exposed edge of the shelves and secure with contact cement or a glue gun. The cap moulding fits tightly on the $\frac{5}{8}$ " melamine; however, I add a little glue to make sure it's held firmly in place.



10 The first step in assembling the base cabinets is determining whether the cabinet will have a shelf or pullout installed. Drill holes for the shelf pins or fasten the wood cleats at the correct height, with $\frac{1}{4}$ " screws in pilot holes, through the outside of the cabinet side into the cleat.



11 Fasten the sides to the bottom board and install the backboard. When installing the backboard, verify that the inside dimension of the cabinet is correct at the top of the cabinet, between the two sides. The base cabinet does not require a top board; however, you must make sure the inside dimension, at the top, is correct, to guarantee a square and plumb cabinet.

The top edge of the backboard must be aligned with the top edges of the sides so the countertop will sit flat on the cabinet. If you are building the frameless version, install the upper rail as detailed in chapter ten.



12 Install the cabinet legs, four on cabinets under 30" wide and six on cabinets over 30" wide, on the base's bottom board. Install the legs so that they extend out from the baseboard by $\frac{5}{8}$ " to help support the sides. The exception is when the cabinet is an open-ended cabinet and the kick-board has to be recessed $3\frac{1}{2}$ " from the cabinet edge. Install the cabinet legs so that they are $3\frac{1}{2}$ " back from the face edge of the bottom board.



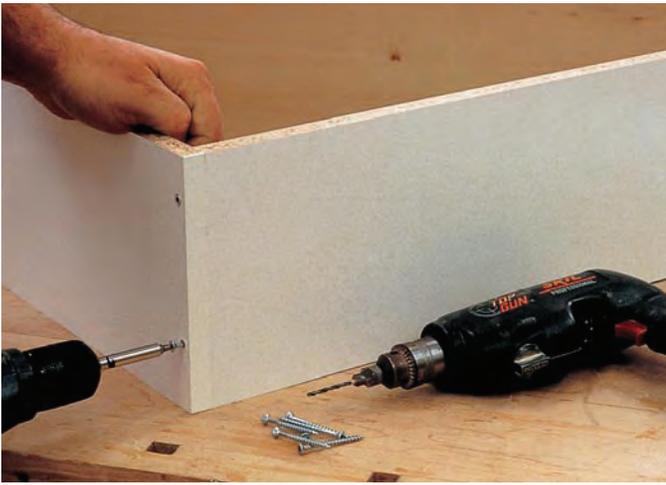
13 Install the countertop brackets with $\frac{5}{8}$ " screws. Use two brackets per panel on the back of the top rail, making sure they are flush with the top edges of the cabinet.



14 Install the face frame as previously described, noting any special orientation. Check that the top of the face frame is flush with the top of the sides and that the side overlaps are equal.



15 At this point, cut to size and apply $\frac{1}{4}$ " plywood veneer to any cabinet side that will be visible. In the sample layout in chapter twelve, veneer plywood will be attached with contact cement to the right and left side of cabinet J, the left side of cabinet K, the right and left side of cabinet B, the left side of cabinet D, the right side of cabinet F and the left side of cabinet H. On the upper cabinets, extend the veneer plywood below the side so that it will cover the end of the veneer plywood that will be applied to the underside of the upper cabinets. If you want to add wood doorstop moulding as a perimeter trim with standard 1"-wide stiles, you must use a thinner veneer. Apply a $\frac{1}{8}$ "-thick, or less, veneer to the cabinet sides so that you can use the $\frac{1}{4}$ "-thick wood doorstop moulding.



16 Assemble the drawers, as previously detailed in chapter nine, and check the operation. Follow the drawer glide manufacturer's instructions with respect to clearances. Drawer side clearances are critical, so try to be as accurate as possible with your cutting and assembly procedures.



17 Drill the doors with a 35mm flat-bottom drill bit at 3" or 4" centers from the top and bottom of the door, and $\frac{1}{8}$ " in from the door edge. Pay particular attention to the door orientation if the door is designed with a top and bottom. Some door styles can be reversed while other designs, such as a cathedral style, must be installed one way. In some instances you have a right and left door. With single-door cabinets, the side you want the door to open on will determine where the holes are drilled. Mount the doors on the cabinets as previously described in chapter nine.



18 Drill the holes in the drawer faces for the handles you will be installing. Position the drawer faces on the cabinet with the drawer box in place. Drive screws through the handle holes, into the drawer box, to temporarily secure the face. Open the drawer, with face attached, and drive $1\frac{1}{4}$ " screws through the back of the drawer box front board and into the back of the drawer face.

Remove the temporary screws and drill holes through the drawer box, using the drawer face holes as a guide, and then install the handles.



19 Leave the kickboards longer than required to allow custom fitting during installation. Test fit a sample section to verify correct leg placement and kickboard height.



20 Order your countertops if you plan to use the standard roll style for your kitchen project. If you're making the wood-edged top, follow the steps in chapter eight.

This completes the assembly process and the cabinets are ready to be installed. Compare the cabinets, noting any special features such as drawers, pullouts, wider stiles and door opening direction, with the layout to guarantee that all dimensions and requirements are correct.