

Cook Up a Kitchen Makeover in Your Shop

How to affordably breathe new life into a kitchen using tools and skills you already have.



Before



Before & After

**A**

A wall oven limits access to the upper cabinets, and the peninsula lacks a snack counter for casual meals.

**B**

Replacing the wall-oven cabinets with a pantry mirrors the bump-out created by the refrigerator surround.

PULL-OUTS ADD CONVENIENCE

**C**

Replacing a narrow cabinet with a pull-out cookie sheet organizer takes advantage of space that was wasted in the old kitchen.

Think of your kitchen as a wood-working project, not a remodeling job, and you'll see how easy it is to bring old cabinets back to life. Your skills can create a fresh look that also boosts your home's value.

The secret: Reuse existing cabinets and only add new ones to solve kitchen layout problems. To prove that's possible, we changed the following in this '50s-era kitchen for less than \$2,000:

- ☒ Replaced the doors and drawers.
- ☒ Stained the existing face frames to match the new doors and drawer fronts.
- ☒ Replaced the wall oven with a pantry cabinet [Photos A and B].
- ☒ Replaced the cooktop peninsula with a snack counter that houses a range.
- ☒ Added decorative cabinet accents, such as a simple crown molding, and up-to-date knobs and pulls.

Added pull-out organizers [Photo C].

On top of what we did for \$2,000, the homeowner added a new dishwasher, sink, faucet, lights, and countertops.

First, size up the project

Older kitchens, such as the one shown, may have one large site-built cabinet with several doors and drawers instead of individual one- or two-door cabinets. Plan any cabinet alterations, such as the refrigerator surround [Photos D and E], to avoid removing the entire assembly.

Now decide whether to match new doors and drawers to the existing wood color, or choose a new tone and stain the face frames and end panels to match. In this kitchen, the owner wanted to change it from a drab brown to a more contemporary cherry color.

Finally, list the new or replacement parts you'll need to make. Photocopy "Doors and drawers you'll need to build" on page 64 (or make one of your own) and list the number and size of each door and drawer front needed. You may be able to apply the old door dimensions to the new ones, but make sure they'll work with the hinges you'll install. We mounted 110° European-style hinges (see **Sources**) to doors with a $\frac{3}{4}$ " overlay because they're easy to install and adjust, and a closed door hides them.

We'll outline the basics of making doors and drawers. You can get detailed information on these and other kitchen makeover skills at **More Resources** on

page 67. Now, with your lists in hand, it's time to head for the shop.

Build stylish new doors

Once you add up the number of cabinet doors you'll need, list the part dimensions for each door size. Cut the stiles, rails, and panels to size for each group of doors. Then rout rail-and-stile profiles [Photo F] or saw stub tenons and grooves [Drawing 1]. Sand and stain the panels, then assemble the doors. Clamp each glue-up for a couple of hours, but allow doors to dry overnight before you sand, stain, and finish them.

To mount European-style hinges on each cabinet door, mark the 35mm (or

Before & After

**D**

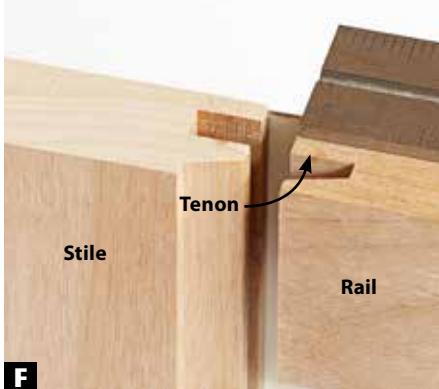
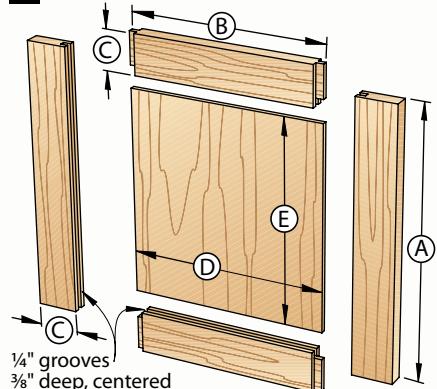
The shiny refrigerator dominates the kitchen and nearby breakfast room. Cabinets of the same depth line up in plain rows.

**E**

Deep cabinets break up the line of wall cabinets, add storage, and ease access to items above the fridge.

HOW TO CALCULATE CABINET DOOR DIMENSIONS

1 SIMPLE STUB-TENON DOOR



To size a door so that $\frac{3}{4}$ " along each edge overlaps the face frame, begin by adding $1\frac{1}{2}$ " to the width and height of the cabinet opening. Then do the following:

- Cut the stiles (A) to the length you calculated.
- Measure the length of the tenon. You can cut tenons on your tablesaw or with a stick-profile router bit. For the profile shown in Photo F, the tenon measures $\frac{3}{8}$ ".
- Figure the rail length (B) by taking your frame width, *subtracting* two times the stile width (C) and *adding back* two times the tenon length.
- Measure between the bottoms of the stile grooves on an assembled frame. Subtract $\frac{1}{16}$ " for the panel width (D) and between the rail grooves minus $\frac{1}{16}$ " for the panel height (E).

$1\frac{3}{8}$ ") hole location and drill mounting-screw pilot holes [Photo G]. Drill the hinge-cup hole. Then screw the hinge-cup side to the door.

Next, center the door on the height of the frame opening and drive one screw through each hinge into the face frame [Photo H]. Adjust the door alignment before driving the remaining screws.

Finally, mount a pull on each door and add bumpers to the inside of the frame to keep the door from marring the cabinet frame.

Now, match drawers to your doors

When it comes to drawers, you have two options: Replace only the drawer fronts while saving the drawer boxes or replace the entire drawer. If the existing drawer

boxes have held up well and slide smoothly, simply replace the drawer fronts. You can make frame-and-panel drawer fronts to match the cabinet doors using the same method. For solid-wood drawer fronts like the ones we used in this kitchen, cut panels to match your door widths [Photo I]. Or, for a stacked-drawer cabinet with no door, duplicate the sizes of the old drawer fronts. Then drill and mount drawer pulls and screw the fronts to the old drawer boxes.

If the drawer boxes fell apart, or if the old drawer lacks a detachable front, build new boxes using our super-simple drawer method. (Watch free videos about building and installing these drawers. See **More Resources**.) First cut drawer-box parts from $\frac{1}{2}$ "-thick stock the width of the original drawer sides.

Doors and drawers you'll need to build

Total up the replacement doors and drawer fronts of each size you'll need.

Cabinet door 1

Door size: ____" wide x ____" long
Quantity: ____
____ stiles, ____" wide x ____" long
____ rails*, ____" wide x ____" long
____ panels, ____" wide x ____" long

Cabinet door 2

Door size: ____" wide x ____" long
Quantity: ____
____ stiles, ____" wide x ____" long
____ rails*, ____" wide x ____" long
____ panels, ____" wide x ____" long

Cabinet door 3

Door size: ____" wide x ____" long
Quantity: ____
____ stiles, ____" wide x ____" long
____ rails*, ____" wide x ____" long
____ panels, ____" wide x ____" long

Cabinet door 4

Door size: ____" wide x ____" long
Quantity: ____
____ stiles, ____" wide x ____" long
____ rails*, ____" wide x ____" long
____ panels, ____" wide x ____" long

Drawer front 1

Size: ____" wide x ____" long
Quantity: ____

Drawer front 2

Size: ____" wide x ____" long
Quantity: ____

Drawer front 3

Size: ____" wide x ____" long
Quantity: ____

Drawer front 4

Size: ____" wide x ____" long
Quantity: ____

* Include tenon lengths in rail lengths.

REMODELING TIP

To save money down the road, replace dated appliances. Today's refrigerators and dishwashers operate 30 percent more efficiently than ones sold only 10 years ago. Make appliance decisions before planning your cabinet work to allow for different dimensions.



G Create a jig to suit your hinge type with the hinge-cup marking hole centered on the gauge length. This one has countersinks to accept a self-centering drill bit.



H A scrap strip clamped to the lower cabinet rail supports the door while you screw the hinge to the face frame. Center screws in the hinge holes to allow for adjustment.

MATCH DRAWERS TO DOORS

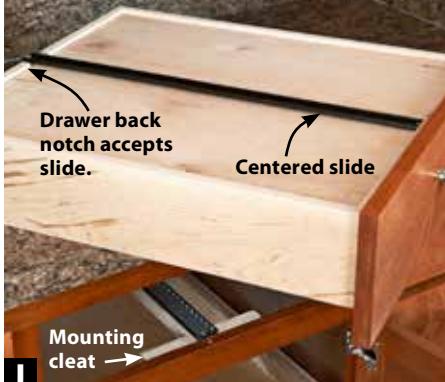


I
By installing the cabinet doors first, you can align overlay drawer fronts with doors of the same width.

If you're building drawers for a new cabinet, make the drawer box 1" shorter than the cabinet depth and up to $\frac{1}{4}$ " narrower than the height of the drawer opening. Make the drawer box width 1" narrower than the width of the drawer opening to accept side-mounted slides, or $\frac{1}{4}$ " for bottom-mounted slides.

Cut lock-rabbet joints in the drawer parts [Drawing 2] and grooves on the

DRAWERS RIDE ON A SINGLE SLIDE



J
Centered slide parts automatically center the drawer within the opening. The mounting cleat helps the slide fit this cabinet depth.

inside faces of the sides, front, and back to accept $\frac{1}{4}$ " bottoms. Measure between the bottoms of the grooves from side to side and front to back, and cut drawer bottoms to fit. Working on a dead-flat surface, glue and clamp the drawer boxes together [Drawing 3].

To mount the drawer fronts, cut a spacer the distance you want between drawers or between a drawer and cabinet

BARE WOOD IN ONE PASS



K
Unlike sanding, chemical stripper dissolves finish even down inside the pores of the wood, making it easier to stain.

door below. Use double-faced tape to hold the drawer front in place while you screw it to the drawer box from inside.

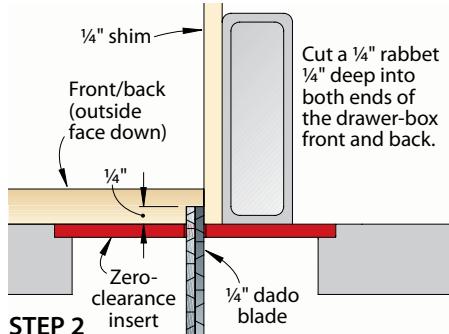
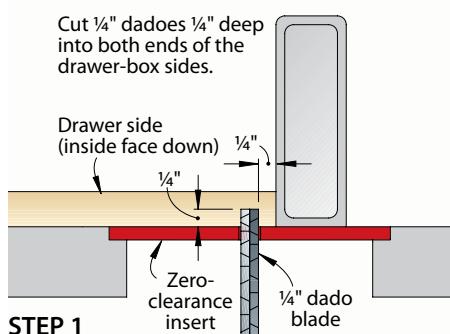
Finally, install drawer slides. We chose single under-mount drawer slides (see **Sources**) that were easy to install without the pairs of mounting blocks needed for side-mounted slides. First, center the cabinet-mounted portion of the slide within the drawer opening [Photo J]; then screw it to the cabinet back and face frame. (We added a cleat to help the slide reach to the back of the cabinet.) Then center and screw the rest of the slide to the underside of the drawer-box front and back.

Put a new face on frames

Now you're ready to transform the face frames. Begin by wiping the old finish with a rag soaked in mineral spirits to remove old polish and cooking grease that could contaminate the surface. Then test the old finish by first wiping it with lacquer thinner. If the finish comes off, remove the rest of it using lacquer thinner while wearing a respirator and with lots of ventilation.

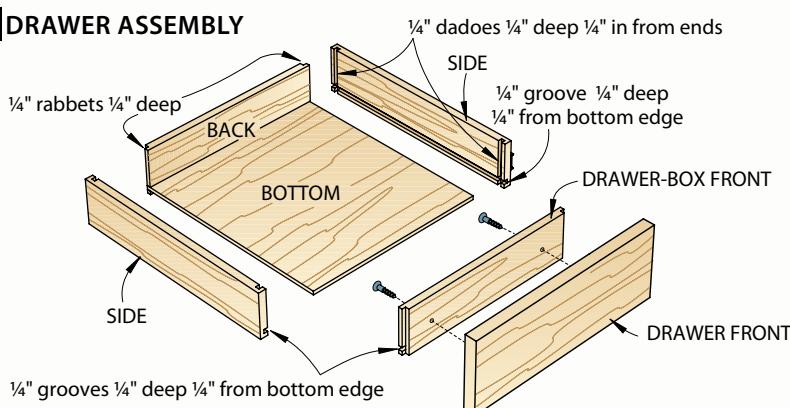
If lacquer thinner doesn't work, you're probably dealing with a varnish that's

2 CUT LOCK-RABBIT JOINTS WITH A SINGLE TABLESAW SETUP



To test the fence and blade setups in Step 1, dado two scraps and check that they interlock end to end. Then dado both ends of each drawer side. For Step 2, mount a 1/4"-thick shim to the rip fence with double-faced tape, and rabbet both ends of each drawer front and back.

3 DRAWER ASSEMBLY



REMODELING TIP

We reused as many kitchen cabinet parts as possible, but in some situations, new parts may save time. For example, we replaced trim panels on the sides of some end cabinets instead of refinishing them. That eliminated time spent stripping finish and sanding the panels. And because they were stained and finished at the same time as the new doors and drawer fronts, they matched better than where we stripped and stained old panels.

TEST STAINS ON OLD DOORS



L First test stripper on the varnish. Then see how different stains and multiple stain coats will look on the face frames.

best removed using a gel-type stripper according to the manufacturer's directions [Photo K]. Stripping finish also requires good ventilation.

After stripping the old finish, sand the face frames up to 120 grit if you'll leave the wood its natural color, or up to 180 grit if you'll stain it. (A detail sander speeds up this job and reaches into tight corners and face-frame edges.) Finally, hand-sand with the grain using your final grit and clean off all dust.

Now you need to match the color of your old frames and the new doors and drawers. If the old doors were made from the same wood as the face frames, strip and sand the door to use as a test board. Try different sanding grits and stains to fine-tune the color [Photo L]. You can tweak stain colors by applying multiple

COLOR DIFFERENCES DISAPPEAR



M Face frames can vary slightly from stain colors on doors and drawer fronts and still blend together in the finished kitchen.

coats or sanding to a lower grit to darken the wood. For lighter color, sand to a grit higher than 180. After you find the right sanding and stain combination, stain the face frames to match your new doors and drawers [Photo M].

You'll need a tough, clear finish, such as polyurethane, for the face frames, doors, and drawer fronts because they need to survive dings, splashed water, and airborne cooking grease. Brush finish onto newly sanded or stained face frames just thick enough to cover the surface; then check for drips and sags in an angled light. Apply three coats, sanding with 320 grit between coats.

Tackle the big changes

To make room for the combination cooking peninsula and snack counter

GET CREATIVE WITH DETAILS



N Shop-made brackets below the snack counter provide a personal touch. You can also buy ready-to-stain brackets in many styles.

shown on page 67, we first removed the old countertop and separated the old peninsula from the adjoining cabinets.

Don't let the size of the new peninsula intimidate you. The side seen from the breakfast area goes together like a wide, flat-panel door [Drawing 4], with support brackets [Photo N] screwed to the stiles. We then screwed a framed end panel to the front panel. On the kitchen side of the peninsula, we left an opening to hold the new range [Photo O]. After finishing the peninsula and end panel to match the cabinet doors, we screwed them to both the floor and adjoining cabinet. We then topped the peninsula with plastic-laminate counters that are glued and clamped in place.

Another big change was to shroud the refrigerator from the nearby eating area.

A NEW HOME FOR THE RANGE



O A spacer to the right of the range provides clearance for the oven door. A laminate backsplash makes cleanup easy.

PANTRY CREATES SUPER STORAGE



P For the 53"-tall doors on this pantry, we divided the panels with center rails and added a third hinge for support.

MIX UP MOLDINGS



Q Coped quarter-round molding follows the soffit above the cabinets. Chamfered molding tops the bumped-out cabinets. Flexible quarter-round molding follows the soffit above the cabinets.

We cut away the shallow cabinets over the fridge and replaced them with extra-deep cabinets [Photo E] with long sides that would mirror the pantry cabinet.

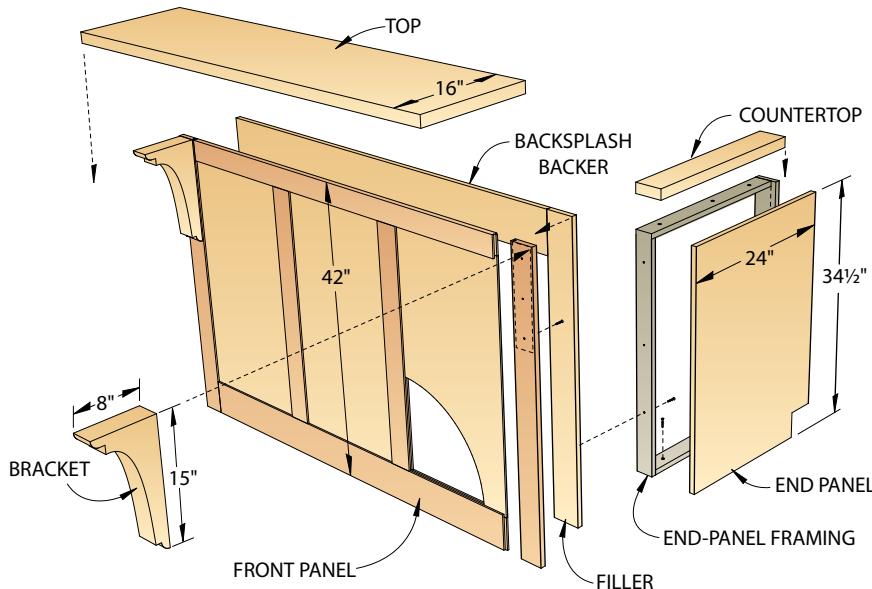
We also extended the cabinets above the former wall-oven location and tied the old and new cabinets together with a shared face frame. Extra-tall doors turned it into a pantry [Photo P].

Put it all together

Our cabinet crown molding plans hit a snag when the rigid molding wouldn't conform to waves in the soffit. Instead, we used quarter-round molding to follow the soffit, and a chamfered crown molding atop the two extra-deep cabinets [Photo Q]. For other ways to dress up your kitchen, see "Give your kitchen a woodworker's touch" below.

With the final details in place, you're ready to reinstall or replace the countertops and appliances. Then fire up the stove and prepare a meal of your favorite foods to celebrate your new kitchen.

4 KITCHEN PENINSULA



Give your kitchen a woodworker's touch

To keep your kitchen from looking like everyone else's, add woodworking accents. Faux feet and a strip along the bottom cabinet rail (right) give base cabinets the look of fine furniture. Turned table legs from mail-order sources such as Osborne (bunfeet.com) relieve the boxy look of kitchen island cabinets (below). If your tastes exceed your carving skills, buy corbels to attach as counter supports. Then rout flutes in extra-wide face-frame stiles (below right).



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MORE RESOURCES

FREE VIDEOS

- "Cutting Crown Molding"
woodmagazine.com/crownmldg.

Sources

Drawer slides: 22" center-mount slide no. 02K40.22, Lee Valley Tools, 800-871-8158 or leevalley.com.
Hinges: 110° edge-mount European-style hinge no. 00B07.03, Lee Valley Tools.
Knobs: Westerly Suite 1 1/4x1 1/8" satin-nickel finish round knob no. 02A16.51, Lee Valley Tools.
Stain: Minwax Gunstock no. 231, home centers.
Clear finish: Semigloss polyurethane, Old Masters, 800-747-3436 or oldmastrs.com (thepaintstore.com).

COMING NEXT ISSUE

We stretched this kitchen's storage space by building in slide-out trays and organizers. For the details on making organizers to fit your own kitchen, see issue 198 (July 2010).

