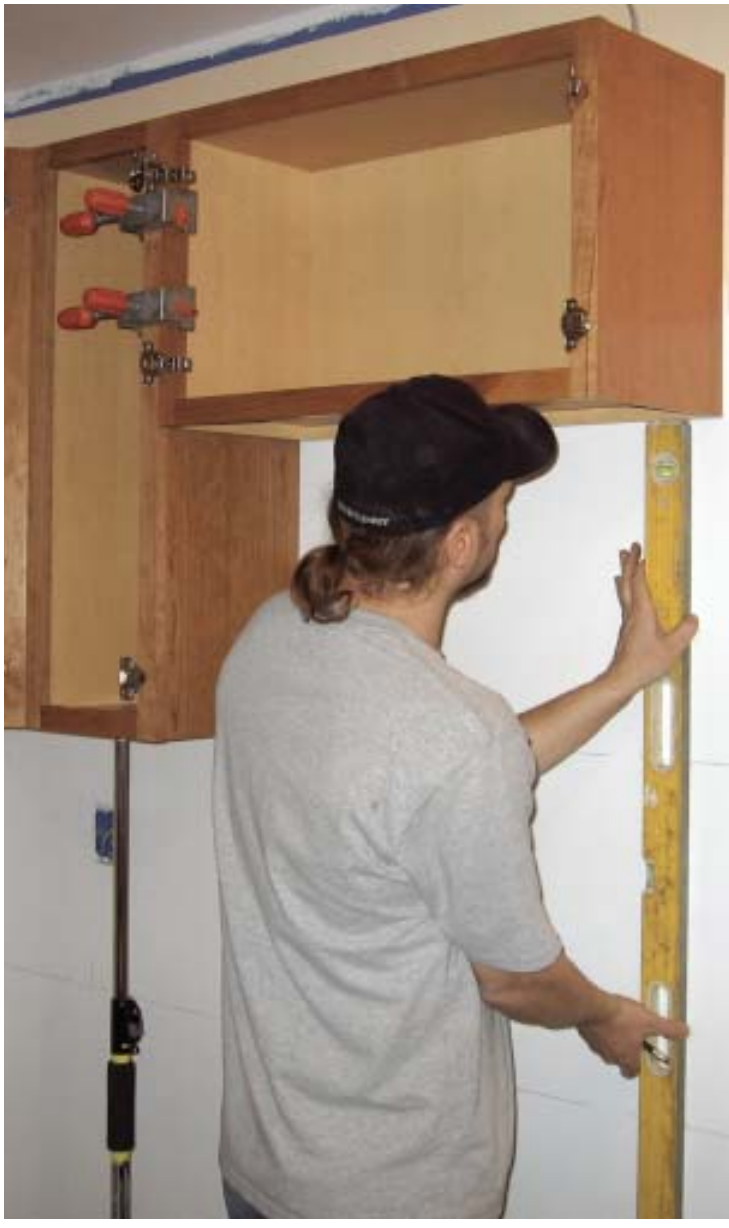
Installing Stock Cabinets

Turning a profit on a home-center cabinet job starts with the first site visit



by Rob Corbo

A few years ago, while looking for ways to grow our small construction company, we began installing kitchen cabinets for the local Home Depot. Though well aware of the potential difficulties of dealing with a large home center, we wanted small, quick, profitable jobs that we could work on between larger projects. Our goal was to stay busy, and we hoped these jobs would lead to larger projects and repeat business.

It turned out to be a good business decision. Not only did the home center provide us with eight to 12 kitchen installations each year, but our business foundation has been considerably strengthened by the contacts we've established with homeowners, real estate agents, interior designers, and architects. The large addition we are currently working on can be traced back to a home-center kitchen we did three years ago.

But working with a home center means dealing with stock cabinetry and designers with varying degrees of experience. To sell our services in this low- to medium-priced kitchen renovation market, we needed a set of procedures that would minimize our risk and make our installations more efficient and profitable.

Working With the Designer

Early on, we learned that a good relationship with the designer — regardless of his or her experience

— is an important part of the process. During our initial site visit, we spend as much time as necessary reviewing the design to make sure it will work with the stock cabinets typically used by home centers. Afterward, we help the designer tweak the layout so that the actual installation will go smoothly.

Site visit. The first thing we do when we receive a kitchen design from the home center is contact the customer and arrange for a site visit. At the home, we carefully measure the kitchen to double-check the designer's layout dimensions. We also find out if the homeowners want any additional work done besides the removal of existing cabinets and the installation of new ones (typically, our kitchen-renovation referrals range from simple cabinet replacement to full guts), which must be factored into the estimate.

We also discuss the schedule. A realistic time line upfront helps avoid unrealistic expectations later on.

As part of the initial design review, we note existing lighting, switching, and box locations, and compare them with any new electrical plans and appliance specification sheets. If the plans require any electrical work (most of them do), we'll ask the electrician to install undercabinet wires 54 inches off the finished floor and countertop boxes 44 inches off the finished floor. We specify that locations are measured off the floor's high point. And because so many of our kitchen splashes are tiled, we specify depth-adjustable countertop receptacle boxes.

To help identify and keep track of potential electrical, plumbing, and other problems, we've developed a checklist (**shown at right**). Sharing this list with the homeowners during the site visit is a good way to let them know what to expect.

Estimate. After the site visit, we call the designer to discuss any problems we've identified, such as a sink cabinet that doesn't center under a window, or inadequate allowances for door and window casings. Sometimes we fax a summarized version of our checklist as well. Then it's up to the designer to make any necessary changes with the homeowners and amend the cabinet order.

We also generate a standard Home Depot estimate based on the initial plan and our site visit, which the designer presents to the owners. If the homeowners still want to proceed, they can then purchase the cabinets and the installation as a package, charging it to their

Kitchen Estimate/Installation Checklist

Cabinets
- ✓ Measure all runs
- ✓ Check cabinets will fit
- ✓ Check sink base is centered on window
- ✓ Check wall cabinets are symmetrical on both sides of window
- ✓ Check refrigerator width and height to wall cabinet above
- ✓ Check plumbing in existing sink base:
  - ✓ Check condition
  - ✓ Check if water supply is thru wall or floor
  - ✓ Check wastewater alignment
  - ✓ Will refrigerator need a water supply?
- ✓ Check location of range gas feed
- ✓ Check to see if exhaust is vented and how
- ✓ What material will the countertop be?
- ✓ Will any appliances be relocated or added?

Demolition
- ✓ How extensive a demolition?
  - Cabinets
  - Appliances
  - Floor
  - Gut

Electric
- ✓ Will dedicated lines be needed?
  - Disposal
  - Microwave
  - Refrigerator
  - High hats
  - 220 range
- ✓ Will additional ceiling lighting be added?
- ✓ Will under- and/or overcabinet lighting be added?
- ✓ Are additional countertop receptacles needed?
- ✓ Are there two countertop circuits in place?
- ✓ Kick heater

Plumbing
- Sink/faucet hookup
- Disposal
- Range
- Refrig water
- Kick heater
- Relocate radiator

Floor
- ✓ Will there be a new floor?
  - Tile
  - Wood
  - Laminate

Splash
- ✓ What will the splash be?
  - Tile
  - Full
  - Rock

During the preliminary site visit, the author uses a simple checklist to help manage common kitchen-cabinet installation issues.

Essential tools for efficient cabinet installation include an assortment of drills and drivers, Pony Cabinet Claw clamps (top), and telescoping support poles (above).

credit cards if they like. Up until now, our work is speculative (close rates vary; ours ranges from 65 percent to 70 percent). Installers don't get paid until the cabinet installation is complete.

Cabinet Design Review

When a custom-designed kitchen plan doesn't work out, the installer stands a good chance of escaping blame. But when a stock-cabinet design for a home center doesn't work out, the installer may be faulted for not identifying the problem early on. So we carefully check the kitchen dimensions used by the designer against those we gathered during our site visit.

First, we verify that the linear inches of cabinets specified by the designer fit into the actual space. We also double-check corner clearances, blind cabinets and sink bases, appliance openings, and cabinet reveals at windows and doors.

Stock cabinets are available in a limited range of sizes, typically in 3-inch increments. Wall cabinets rarely exceed 36 inches in width, while base cabinets are usually less than 45 inches wide. To make everything fit together, we use fillers supplied by the manufacturer.

Available in 3-inch and 6-inch widths, fillers are handy not only for completing cabinet runs, but also for solving numerous problems and measuring mistakes. We use them to center sink bases on windows, set blind cabinets, align base and wall cabinets at appliance openings, and provide cabinet-drawer or dishwasher-door clearance with opposite-corner cabinet handles. We always ask the designer to include extra fillers in the order.

Sink base. Nine times out of 10, the sink base is centered on the window above it. We find the center of the window and plumb down, marking the center line to the floor. After dividing the sink base width in half we measure left and right the appropriate distance to spot the sink base's exact location. From the sink base, we measure the cabinet run in both directions to determine if any fillers are needed to align cabinets at appliance openings or to evenly end wall and base cabinet runs.

Corner clearances. In L-shaped and U-shaped kitchens, appliances and cabinet drawers and doors on opposing corners must clear each other when they are open. We like to specify at least 2½ inches of face frame or filler at each corner, which allows enough clearance for ¾-inch-thick overlay doors with 1-inch-deep handles.

Occasionally the door of an appliance — such as a dishwasher, range, or compactor — may need to clear a cabinet handle; it too will need to be installed 2½ or 3 inches off the corner. When necessary, we can add a filler to the cabinet face frame to achieve the proper clearance.

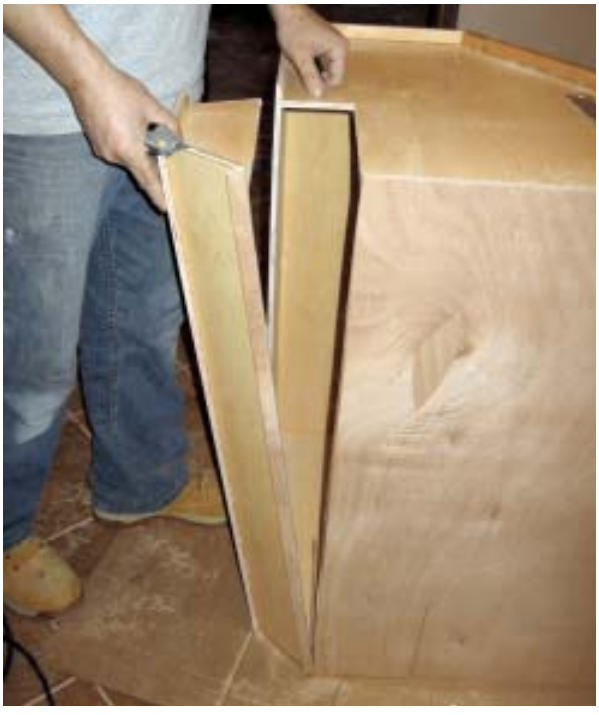
Blind units. Stock wall or base blind units, which are installed at corners, are often listed as measuring 33 or 45 inches, but they actually measure 31 or 42 inches. This difference allows the installer to adjust the cabinet off the wall enough to attain proper corner cabinet clearance. Any space between the wall and the cabinet will be hidden by the adjoining cabinet (in the case of a wall cabinet) or by the countertop (in the case of a blind base).

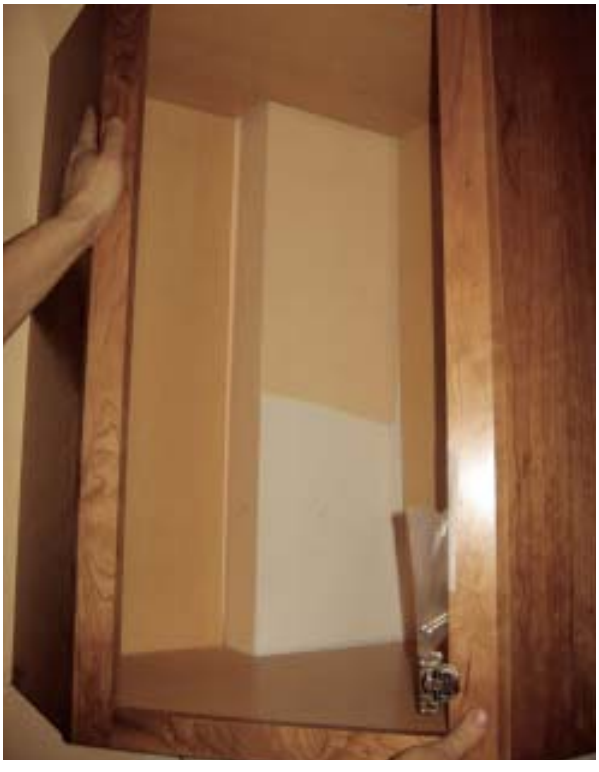
Appliances. Ranges with microwaves or fans above require that wall and base cabinets line up evenly to create the proper opening. Undercabinet appliances — like dishwashers, compactors, and wine coolers — require only the appropriate width between base cabinets.

We pay particular attention to refrigerators because they vary in both width and height. We've found that designers and homeowners usually get the refrigerator width right but occasionally miss sizing the cabinet height above; the taller the refrigerator, the smaller the cabinet height.

While measuring cabinet runs, the sink-base location, and appliance openings, we also check cabinet distances from all windows and doors. For visual symmetry, cabinets should be an equal distance from door and window openings. Once again, we use fillers to help align cabinets at windows, doors, corners, appliances, and ends of runs.

Sometimes there are situations that can't be addressed with fillers, such as a pipe chase. While a custom cabinet can be built to fit around such irregularities, a stock cabinet must be cut on site to accommodate them.

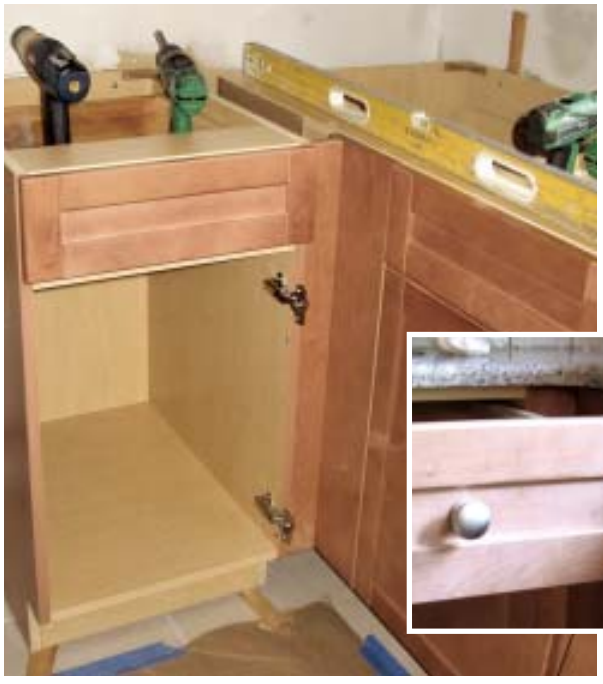


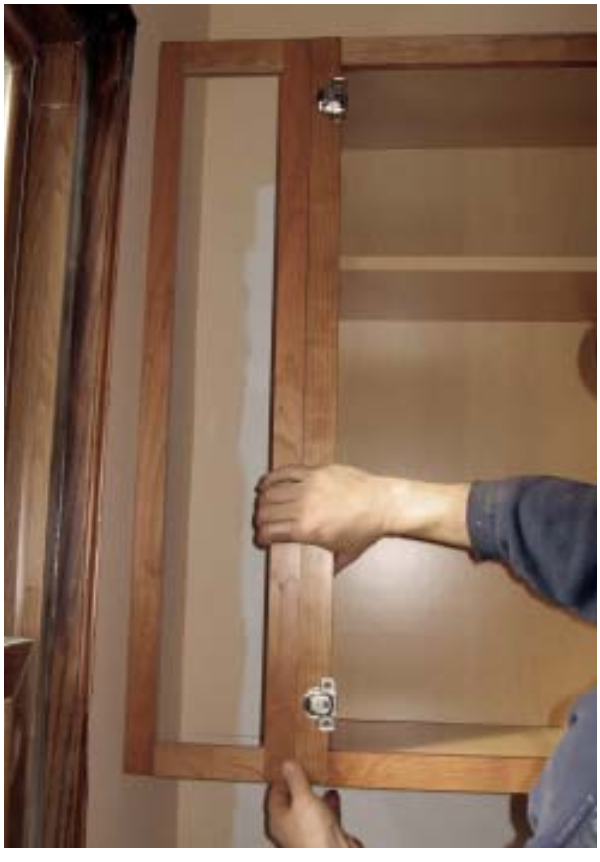


Stock cabinets sometimes need to be modified to fit site conditions. Removing a section from the back of this corner cabinet (top) allowed it to fit around a duct chase (above).

Installing the Cabinets

To reduce mistakes and increase efficiency, we try to make our kitchen-cabinet installations logical and





The author uses filler strips at corners, where cabinets and appliances need at least 2½ inches of clearance for drawers and doors to open properly (top). When filler strips aren't wide enough, a face frame can be assembled from filler strips to complete the run. The one above will be finished with a special-order matching door.

orderly, regardless of whether we're installing stock or custom cabinets. We start by checking the floor and ceiling (or soffits) for level, corners for square, walls for plumb, and walls for bulges and depressions.

Layout. We start the layout from the floor's high point to ensure a level run. From the high point, we measure off the finished floor 34½ inches and 54 inches, and level around the room at both heights with a 4-foot level. These heights represent the top of the base cabinets and the bottom of the wall cabinets.

Stock wall cabinets come in heights of 30, 36, and 42 inches, resulting in heights off the finished floor of 84, 90, or 96 inches. An out-of-level ceiling can present a visual problem for 30-inch and 36-inch cabinet heights. But when the kitchen has 8-foot ceilings and the design calls for 42-inch-tall wall cabinets, out-of-level ceilings become an installation problem. So we're careful to establish the ceiling or soffit low point, lowering the wall-cabinet level line (and therefore the height of the splash area) as necessary to compensate.

When we discover problems like these, we consult the homeowner as early as we can in the project. This helps establish a good line of communication and avoid surprises later on. We review all our level, square, and plumb findings with the owner before any cabinets go up, and offer any solutions we may have to solve the problems.

Next we mark wall stud layout and the locations of the base and wall cabinets. Once we've determined the cabinet layout lines, stud locations, level lines, and corner and wall conditions, we can determine the number, location, and size of fillers needed (if any) to make the installation work.

Upper cabinets. Usually we start our installations in a corner, especially for L-shaped or U-shaped kitchens. We prefer to hang the wall cabinets first, simply to avoid leaning over base cabinets. Also, if we drop a tool, the only damage will be to flooring that will be covered later by cabinets.

To minimize the influence of the room's imperfections — out-of-square corners, wall bulges, wall depressions, and the like — we assemble individual

cabinets into larger single units. Most face frames extend 3/16 inch past the sides of the cabinet box, so we use 3/8-inch-thick blocks at the back of the cabinets to keep them square.

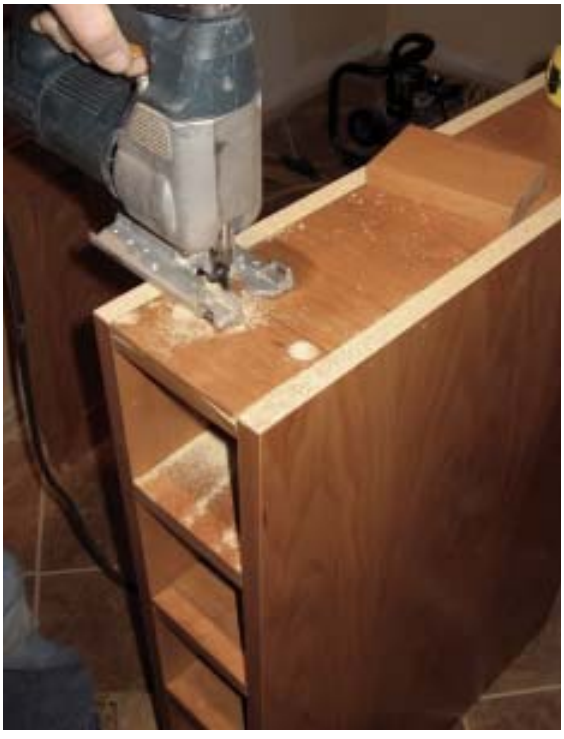
When we have to install finish fillers at the cabinet fronts, we block out the backs of the cabinet with mirror fillers (usually cut from No. 2 pine). Fillers that are used to end runs must be scribed or ripped to fit the space, and are installed after the main cabinet runs are in place.

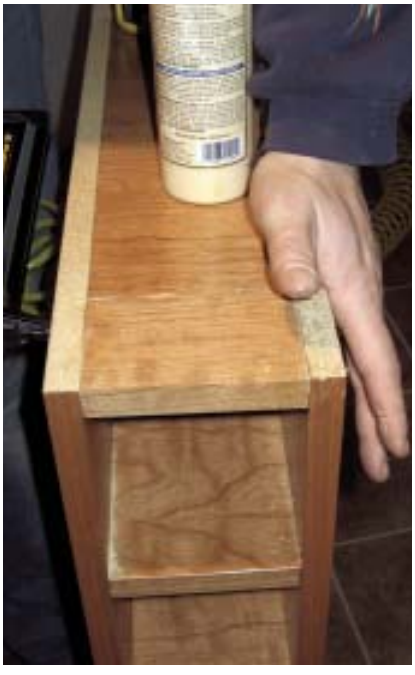
For assembly and installation, we use six cordless drills. Four are set up for cabinets (each with a different bit: a Phillips head bit, a square drive bit, a countersink, and a drill bit for predrilling) and two are set up for handles (one with a Phillips bit and one with a drill bit). We also have on hand an assortment of levels, a small compressor and a finish gun for installing moldings, a table saw, a sliding-compound miter saw, a 4-foot ladder, and support poles.

We begin assembling wall cabinets by removing doors and shelving. Besides lightening the load and protecting the door finish during assembly and installation, this makes it possible to use Pony Cabinet Claw clamps (312/666-0640, www.adjustableclamp.com) to put the cabinets together. Available for both face-frame and frameless cabinetry, these indispensable clamps pull cabinet stiles tightly together while flushing up the faces, and include a drill guide and pilot hole for predrilling frames.

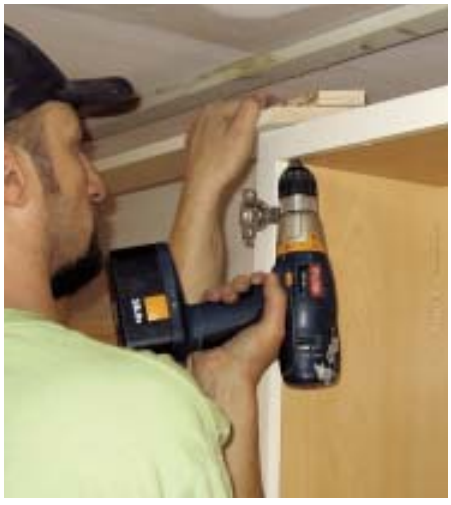
To fasten cabinets together, we use stainless steel square-drive trim-head deck screws. Though these color-coated screws are expensive, they're strong — which minimizes snapping or stripping — and they blend in well with most cabinet colors. We countersink before driving the trim heads home.

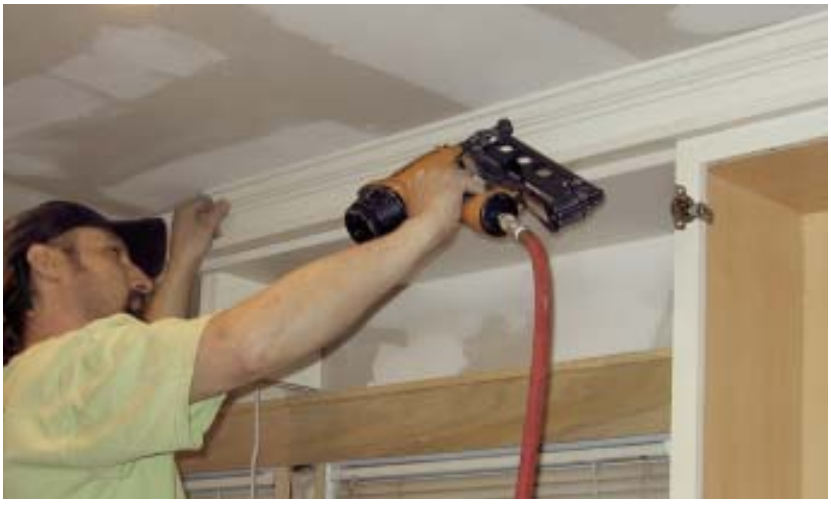
Under- and overcabinet lighting wires (if any) must be brought through the wall cabinets before they can be fastened. We transfer lighting locations from our layout to the cabinetry, then bore holes through the recessed top and bottom lips to feed the lighting wires through as the cabinets are lifted into





Repairing cabinets that arrive on site damaged is often quicker than waiting for a replacement. After removing a damaged section of cabinet (top), a carpenter glues and fastens a section of filler (above). To make the repair less noticeable, the wall cabinet will be installed upside down and the door rehung.





Moldings give stock cabinets a built-in look. Here, a carpenter fastens a nosing to the upper cabinets (top left). Crown molding hides gaps between the cabinetry and an out-of-level ceiling (top right). Wiring for the light over the sink runs through the double-sided divider in the valance (center). The same molding profile links the refrigerator recess and adjacent cabinetry (above).

place. And if the wall cabinets are finished with crown molding (or a similar molding), we add any necessary nailers to the ceiling or top of the cabinets before installation.

To make installation easier, we fasten a temporary ledger along the 54-inch level line. It helps carry the weight of the cabinets, allowing one man to hold the run in place while the unit is fastened to the wall. We use telescopic cabinet poles in conjunction with the ledger for additional support.

Most of the wall cabinets we install have recessed tops and bottoms, so we try to fasten the cabinets through the recess lip instead of from inside the cabinet. This makes it easy to see stud locations and helps hide the fasteners (which is particularly important on cabinets with glass doors). We use 3-inch-long #10 truss-head screws (available in nickel and almond), predrilling and countersinking before fastening the cabinet to the wall.

Of course, cabinets usually have to be shimmed. We identify existing wall conditions during our initial review, then shim as necessary during installation so that the cabinets are plumb. It helps to have someone holding the cabinets at the ledger who can also check for plumb as the cabinets are adjusted.

Base cabinets. Just as we did with the wall cabinets, we assemble base cabinets into units. Then we move the cabinets into place, shim to the level line 34½ inches off the floor, and shim the cabinets plumb and level.

The three lines of cabinets carried by our local Home Depot all have built-in base toekicks, so we shim directly under the side walls to get maximum surface contact between shims and cabinets. When properly installed,

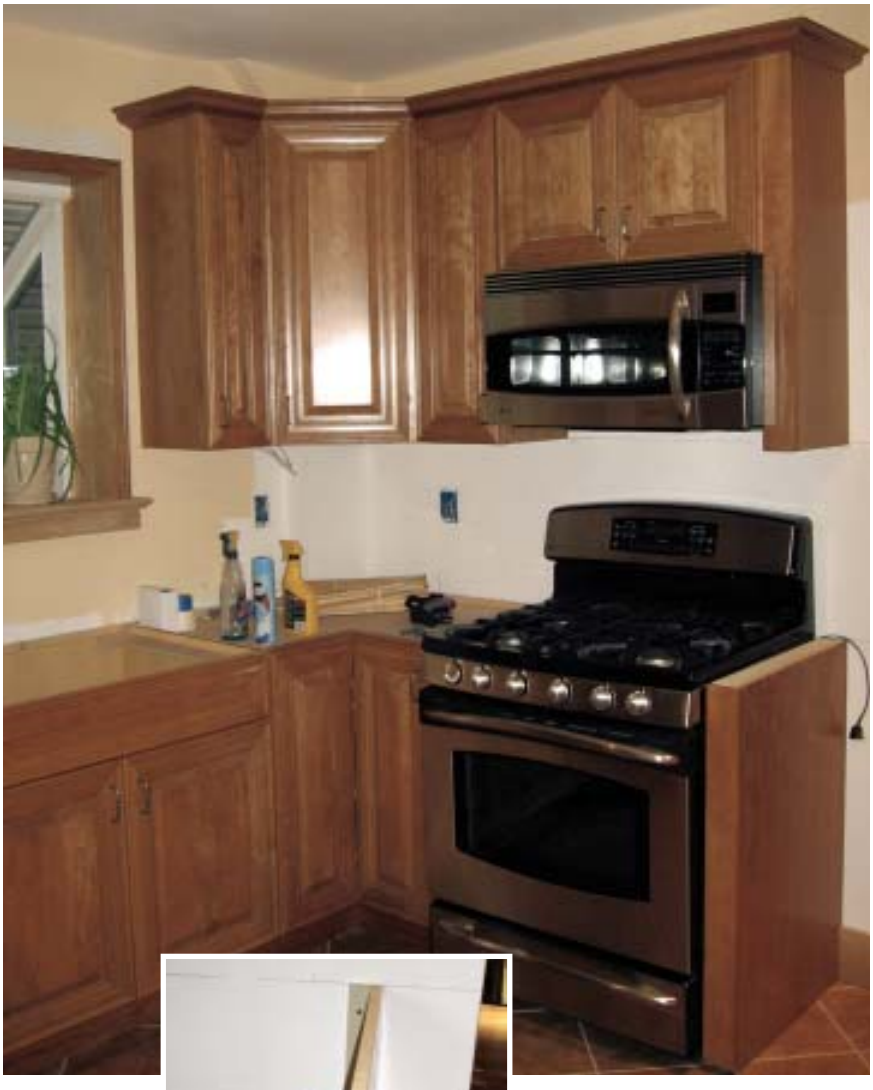
base cabinets should be level from side to side and from front to back, and plumb across the cabinet fronts.

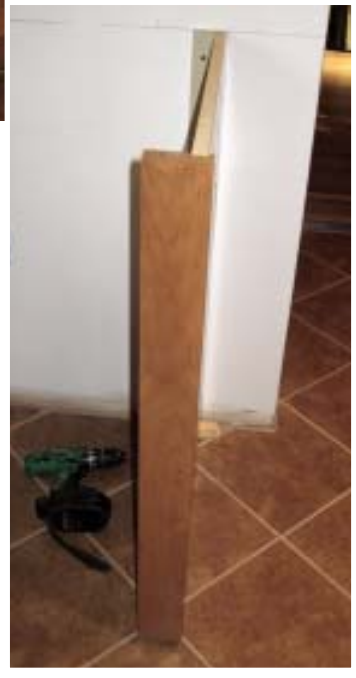
The sink base requires utility-line cutouts. To get our hole locations, we measure from the level line down to water-supply and waste lines protruding from the wall, and use the cabinet center line to measure right to left. We then transfer those numbers to the back of the cabinet and set the cabinet as close to the pipes as possible for a visual check before cutting. Using hole saws (which make fast, clean cuts), we start cutting from the back where our marks were made, then finish from the inside to minimize blowouts on the interior.

Islands and peninsulas. To ensure that freestanding cabinets don't move or tip over, we fasten them to cleats attached to the floor. When we reposition the cabinets and screw through the kick and back to secure the unit, the fasteners will be concealed by the kick cover and the back screws by the plywood skin accompanying the cabinet order.

Knobs and handles. Whereas knobs require only one hole, pulls require two holes drilled straight and level. We use combination squares to mark center lines for hardware holes, measuring off the bottom and side of the door to locate the center of each hole. We start drilling with the door closed, then pull it open to make sure the drill bit clears the face frame. (A door can be replaced easily, but a damaged cabinet frame is a bigger problem.)

When we're done, we fit spacers to appliance openings to fix the cabinets in place. Then we do a walk-through of the cabinet installation with our client, verifying clearances and dimensions and that the cabinets are plumb and level. That way, if painters, flooring subs, or appliance installers knock our cabinets around later on and we have to come back and fix the problem, we can charge.





When a cabinet run stops at an appliance, an end panel can furnish a finished look. This panel will be capped with a small matching section of stone when the granite countertops are installed.

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