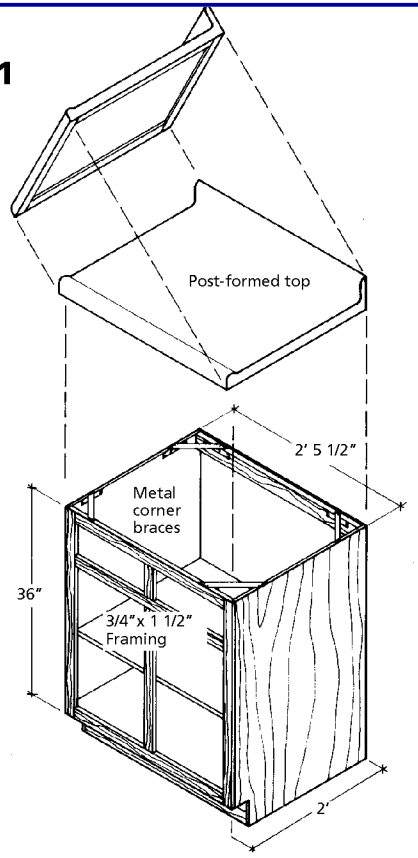
HOW-TO BOOKLET #3022

PUTTING IN SINKS



Metal corner braces support counters on narrow base cabinets. Use support braces—1x2s or 2x4s—along the edges of the unit.

TOOL & MATERIAL CHECKLIST

- ❑ The New Sink
- ❑ Adjustable Wrench
- ❑ Plumber's Putty
- ❑ Saber Saw
- ❑ Marking Pencils
- ❑ Pipe Wrenches
- ❑ New Countertop and/or Base Cabinet
- ❑ Phillips Standard Slot Screwdrivers
- ❑ Carpenter's Square
- ❑ Drill Bits

Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in the Basics Listed Above.

Changing a kitchen sink, that is, removing the old sink and putting in a new sink, is not difficult for a homeowner/do-it-yourselfer. In fact, it's simply a matter of buying a new sink that will fit the cutout in the countertop, unhooking the faucet (after you turn off the water) and disconnecting the trap. This procedure is reversed in re-assembly.

Installing a new kitchen sink from scratch, i.e., putting in a new base cabinet, countertop, sink, and faucet and trap assemblies, is a little more complicated than a switch-over, but it is within the skills of most do-it-yourselfers.

In this How-To Booklet you'll find the basics of changing a kitchen sink and the basics of installing a kitchen sink from scratch. Please read this Booklet from start to finish. It could save you lots of time, trouble, and money before you start a new sink project.

NEW SINK INSTALLATION

Check the countertop. Note the top's surface (laminate, tile, etc.) and whether the counter top is post-formed with the backsplash an integral part, or whether the corners are square. See **Fig. 1** for details. Open the cabinet doors and check the underside of the countertop.

Countertops are usually about 1-1/2 inches thick at the supports and are typically 25 inches deep. Since the base cabinets are typically 24 inches deep, the countertop overhangs the cabinet 1 inch at the front. This is important for the sink layout.

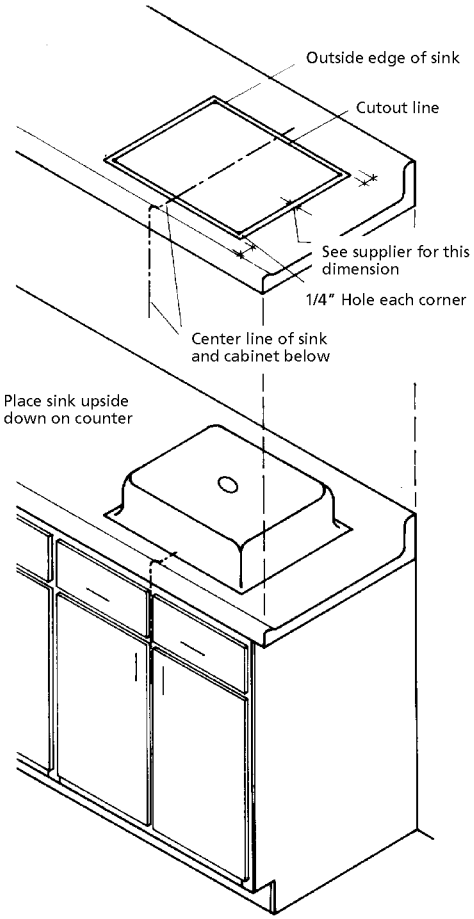
To locate the sink position on the counter top, first mark the center of the sink edges. Refer to **Fig. 2** for details. Marking the edges where the centerline occurs will help line the sink up with the desired position on the countertop.

Lay the sink (assuming it is self-rimmed) upside down on the counter about where the sink will be installed. A sink will typically be over a sink cabinet with two doors underneath and a phony drawer that matches the other, adjoining, drawers (or, sometimes, doors).

If this is the case, you want the sink centered over the sink cabinet. Locate the center of the sink cabinet in front, transfer the mark to the front edge to the countertop, and extend the mark all the way across the top of the countertop to the backsplash. The line you mark will help you line up the sink cutout hole (**Fig. 2**). Position the sink so that the centerlines match and draw the outline of the sink on the countertop using the sink as a template. Use a China marker.

If the sink is steel-rimmed, center the rim on the countertop, but keep the rim upright, and draw the outline of the rim, using the rim as a template or pattern. Either type of sink can be put nearly anywhere you want it as long as it is at least 2 inches from the front and at least 1 inch from the backsplash. Also, be aware that many sink manufacturers include templates for cutouts in the sink package. You use these templates the same way as you would use the sink as a template, without the weight of the sink, of course.

Fig. 2



Find the center line of the sink. Put the sink upside down, lining the sink centerline with the centerline of the base cabinet.

For a self-rimmed sink, mark points about 1/4 inch inside the outline of the sink. If not furnished with the sink, ask the retailer where you purchased the sink for the exact cutout dimensions. The 1/4-inch mentioned is typical and sufficient for most sinks to rest on and for most hardware fittings for such sinks. But, you need the exact dimensions for your particular sink brand. For rectangular sinks, make one mark at each corner. For round or oval sinks, make 4 or more marks around the circumference. Drill 1/4 inch holes through the top where the marks are.

Draw the inside outline very carefully. Use the holes as a guideline. The outline made by the inside line is the area you will cut out for the sink. If you want a real check on measurements, create a paper pattern and then fit it over both the outline and the sink outline for a perfect match.

THE RIGHT SUPPORT

Before starting a cut, look underneath the cabinet top, inside the base cabinet, to see where the holes are positioned. If they penetrated a countertop support, that support should be replaced just far enough from the sink so that it does not interfere with the installation of the sink or its hardware.

The supports are screwed to the countertop from the bottom. Simply duplicate the way your supports were installed when you install the replacement support. The old support, the one you drilled through, must be removed, if it interferes with the sink clips or other hardware. If it does not interfere, you can cut through it when you make the countertop cutout and leave the remainder in position.

At this point the opening for the sink may be made. Use a sabre (jigsaw) for the cut. Start from any of the 1/4-inch holes that are in the top. Work slowly and keep the saw square to the top.

Steel-rimmed sinks. The directions above are for a self-rimmed sink. However, the procedure for a steel-rimmed sink is the same—except that a cutout is made along the outline formed by the steel rim. Keep the rim right-side up when you draw its pattern on the countertop.

HANG THAT SINK

Self-rimmed sinks are fastened in the top with metal clips that fit into channels on the underside of the sink. See **Fig 3**. All the hardware needed should come with the sink that you purchase. However, just to make sure, you will need an absolute minimum of 2 clips on each side of the sink (or the equivalent if the sink is round). The more clips that you use, the better. The forces holding the sink in place will be uniform.

When you are ready to hang the sink, install a 1/4-inch bead of plumber's putty around the top edge of the countertop opening. The putty should be placed so that it uniformly seals the area where the sink is pressed to the counter. Lower the sink into the opening.

Tighten each clip screw all around the sink snugly, but not all the way. Check the fit of the sink all around. Some clips may need to be slightly tighter than others to bring the sink and counter together without gaps. Continue tightening the clip screws, gradually, until they are just tight enough to hold the sink firmly to the counter. How tight is a matter of judgement: just don't overtighten the screws or the sink could be damaged. Clean up any excess putty that squeezes out beneath the rim.

Stainless-steel rim sinks. Steel-rimmed sinks, as the name implies, have a steel rim that fits around the sink. The rim performs the same function as the channel on self-rimmed sinks and the clip-screw hardware of both types of sinks is about the same.

You will need a helper to install a steel-rimmed sink because there is no lip over the counter for the sink to rest on while you tighten it down (**Fig. 4**). If you can't find help, hold the sink in position with a few lengths of 2x4 and a wire or rope (**Fig. 5**).

Before positioning the sink and rim through the counter, install a 1/4-inch bead of plumber's putty around the edges of the hole. Put the sink in position and tighten the clip screws all around.

Place another putty bead between the sink edge and the metal rim before you draw the sink up tight. Tighten the clip screws all around, gradually, until the sink and the counter fit tightly together. As with a self-rimming sink, do not tighten the sink too much or you may damage it. Clean away any excess putty.

WATER AND DRAIN CONNECTIONS

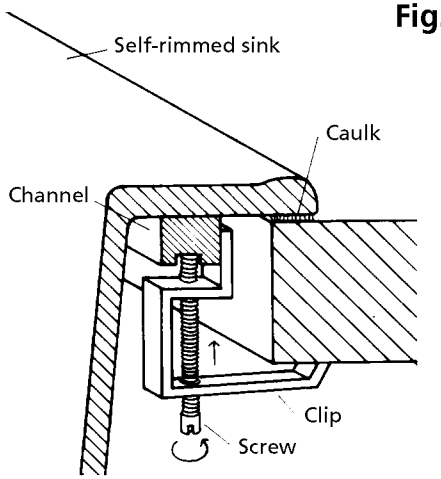
Hot and cold water connections and the sink drain hook-up are very simple if the same supply and drainage pipes are used. If you are building anew, however, these pipes must be extended from the existing plumbing to the sink. A typical hookup is illustrated. The hookup is within the skills of some do-it-yourselfers, but since codes and special cuts are involved, you may want to call in a professional to handle this for you. The drawings show you the necessary tees, els, and other connection fittings that are needed (**Fig. 6**).

If you are using old pipes for the new sink, we suggest that you buy a new trap assembly, tailpiece for the drain, and the drain basket. These parts are standard and readily available at low cost. We also suggest that you buy a new faucet kit since the old valve may not match the new sink. Prices for faucets also are competitive.

It is easier to connect the new faucet to the sink before the trap assembly is installed. In fact, you may be able to assemble the faucet to the sink before you set it into the countertop. The only hookup, then, will be to the water supply and the trap to the sink.

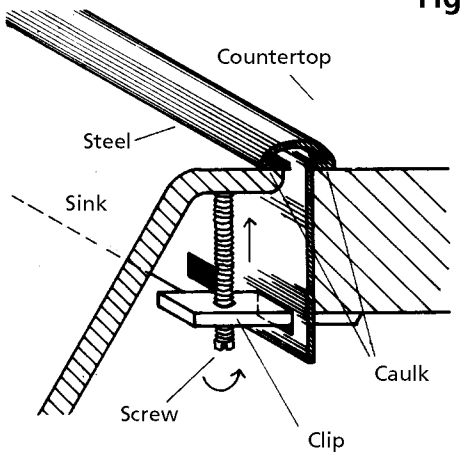
Complete instructions usually are provided in faucet packages. If not, the hookup is a matter of screwing the faucet connection to the pipe connections. The hot water is on the left; the cold water on the right.

Fig.3



Clips for self-rimmed sinks look like this. You embed the rim in putty, then tighten the screw on the clip to secure the sink unit.

Fig. 4



Steel-rimmed sinks have a rim that goes around the sink and it is secured by a screwtype fastener. There is no lip on the sink.

SWITCHING SINKS

Removing an old sink and replacing it with a new sink is easy to do. Follow these guidelines:

1. Carefully measure the sink now in place—the width, length, and depth. Also note how many holes it has in its rim for faucets and hose sprayers, and the distance these holes are apart. Example: a faucet utilizes just two holes and the holes are usually 4 inches apart. You will need this information at the sink store.
2. Remove the trap assembly from the old sink. This involves turning the top slip nut at the trap and tailpiece connection. If a garbage disposer is involved, turn off the power to the disposer at the main electrical service entrance. Disconnect the power wires to the disposer, and then unscrew the three (usually) bolts that hold the disposer to the bottom of the sink drain.
3. Turn off the water either at the supply stop valves at the bottom of the sink or at the main water service entrance. Make sure the water is off; test the faucets.
4. Disconnect the water supply at the faucets. Then, if the sink is held by bracket hardware from underneath the countertop, remove these brackets. You'll need a screwdriver and, perhaps, an adjustable wrench. The sink now should be "free." Just lift it up and out of the countertop hole.
5. Clean the countertop and set the new sink into position in plumber's putty as detailed above for a new sink. You may be able to connect the faucet assembly and the drain basket and tailpiece before you set the sink into the lavatory.
6. If the sink is held by brackets, install them at this point—also detailed above.
7. Connect the faucet to the water supply pipes. Then install the disposer; it is held to the sink drain opening with a bolted flange. Reconnect the wires. Attach the unit to the trap. Or, if there is no disposer, attach the tailpiece of the sink drain to the trap assembly.

If you will recover the old countertop with plastic laminate or tile or whatever, this shouldbe completed before you install the new sink, but after the old sink is out of the top.

Use plumber's putty to bed sink drains. If the sink is stainless steel, use stainless steel plumber's putty for the project. It won't spot or damage the stainless steel surfaces. You can use regular plumber's putty to bed both types of sinks into the countertop, but it is recommended that you use stainless steel putty if the sink is stainless steel.

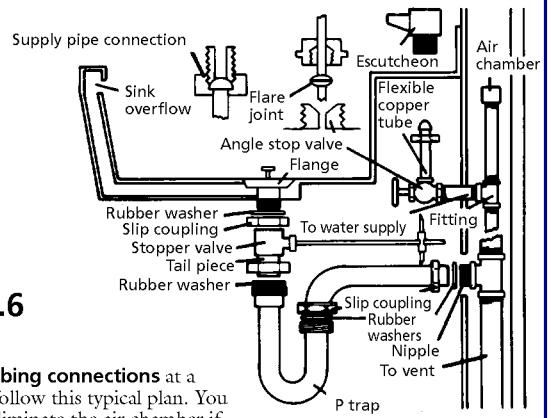
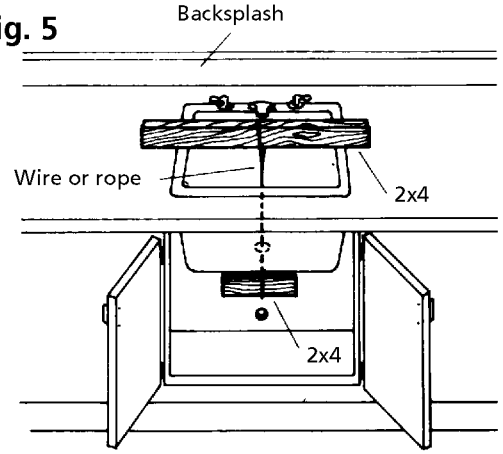


Fig.6

Plumbing connections at a sink follow this typical plan. You can eliminate the air chamber if water hammer isn't a problem in the system. Set the flange in plumber's putty; the faucet assembly usually sets on a gasket or is set in plumber's putty. All fittings are standard.

Fig. 5



Support a steel-rimmed sink like this, if you don't have a helper. Use 2x4s for strength and a length of wire or rope, as shown

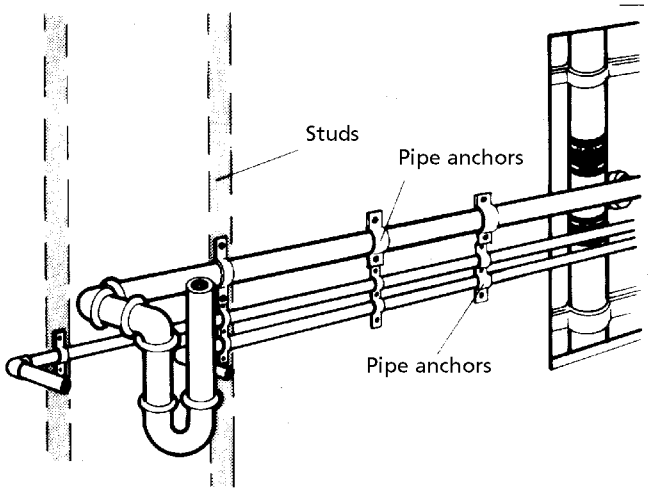


Fig. 7

Sink hook-up to water and drainage that is extended from the sink involves tees and 45-degree elbows. If distances are not too far, you may be able to re-hook to the existing supply pipes and drainage line.