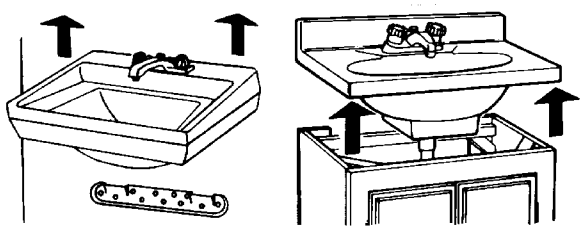
HOW-TO BOOKLET #3023

LAVATORY PUT-INS

Fig. 1



Methods of removing an old lavatory.

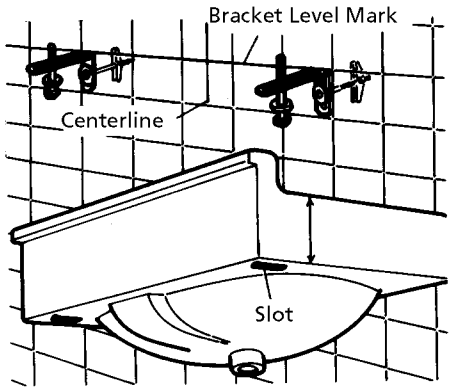


Fig. 2

If lavatory has slots at bottom of the back, it is supported with this type of bracket. The holding bolts are adjusted for level with a wrench.

TOOL & MATERIAL CHECKLIST

- ❑ Pipe Wrench
- ❑ Basin Wrench
- ❑ Level
- ❑ Plumber's Putty
- ❑ Electric Drill
- ❑ Silicone Sealer
- ❑ Hammer
- ❑ Spud Wrench
- ❑ Basin Clips
- ❑ Saber Saw
- ❑ Adjustable Wrench
- ❑ Screwdrivers
- ❑ Tape Measure
- ❑ Caulking Compound

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

Replacing an old washbasin or lavatory with a new one is a very easy project. When installing a new lavatory, you have a choice of two designs: wall-mounted and cabinet-mounted. In the latter, often called a vanity, the lavatory is set into a cupboard or cabinet rather than supported on a pedestal or brackets as is the case with a wall-mounted type.

Installing a new lavatory from scratch where plumbing runs are involved can be done by a do-it-yourselfer, but this involves tapping into the water and sewer system. You might want to consult a professional plumber.

OLD LAVATORY OR VANITY REMOVAL

To remove an old lavatory or vanity unit, proceed as follows:

1. Shut off the water supply at the stop valve or main source.
2. Open the faucets to the drain line.
3. Disconnect the supply lines at the stop valve or faucet.
4. Place a bucket under the trap and unscrew (counterclockwise) the slip nuts at both ends of the trap. Remove the trap.

The lavatory may be lifted from its wall bracket (**Fig. 1**). However, a vanity may require further disassembly. Inspect the underside of an enclosed lavatory or vanity top for attachments (screws or nuts) to the cabinet and remove them. Lift off the lavatory or vanity top. Inspect the back panel of the cabinet for attachments (screws or nuts) and remove them. Remove the cabinet. If a lavatory wall bracket is involved, remove attachments (screws or nuts) and bracket from the wall.

INSTALLING A WALL-MOUNTED LAVATORY

If you are exchanging an old lavatory basin for a new one, chances are the hanging bracket for the basin is already fastened to the wall. However, the bracket may not fit the new basin and it will have to be replaced in order to fit.

There are three standard types of lavatory brackets: bottom slot, recessed, and lug style bracket (**Figs. 2, 3, and 4**). Check the back of the new lavatory to determine which type of bracket is needed for the lavatory that you will install.

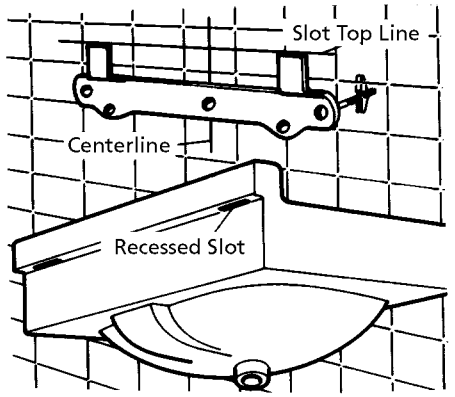


Fig. 3

Recessed slots also are used for bracket assembly. The bowl is simply set down over the bracket assembly.

Install lavatory bracket. Brackets are manufactured to attach to the stud framing behind the wall covering. If the studs are not properly spaced—or in the proper position for basin mounting—you can attach the brackets with toggle bolts. Measure up from the floor to the spot where the hanging device will be positioned. Standard distance is from 31" to 34" with average at 31" to the top edge of the lavatory bowl. The bracket position, depending on the design of the bowl, probably will be slightly higher than the level of the bowl. One way to determine this measurement is to measure the distance from the lugs on the lavatory to the top of the bowl (**see Fig. 4**).

If the hanger will be attached to the studs, draw a line across the wall where the top of the hanger will go. Then drive one holding screw through the holes provided in the hanger into the stud. With a level on the hanger, drive in the other opposite screw. Have a helper hold the bracket while you level and fasten it in position. If you will use toggle bolts, follow the same measuring procedure. Then, with a pencil, mark the hole positions on the wall after the bracket is level.

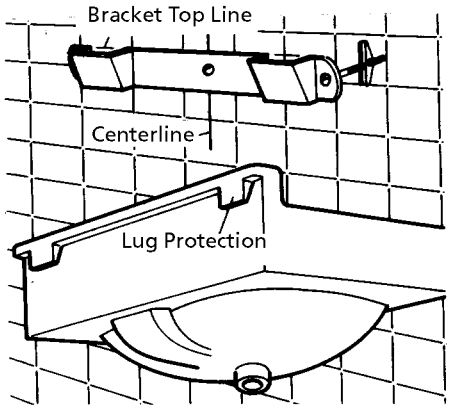


Fig. 4

Lug style bracket is similar to bracket shown here. The bowl lugs slip into the bracket assembly to make the necessary connection.

Drill the holes for the toggle bolts at the pencil marks. Insert the threaded bolt part of the toggle through the holes in the bracket and then screw on the spring-loaded wings of the bolts. Insert both wings into the holes and tighten the bolts with a standard slot screwdriver turned counterclockwise.

Install the faucet assembly on the lavatory before you set the lavatory on the brackets. Lavatories are designed for either a 4" or 8" faucet assembly. Your old faucet may fit the holes provided in the lavatory, but check to make sure. You may want to purchase a new faucet assembly to go with the new lavatory. Many styles in a wide price range usually are available in the plumbing departments of home center, building material, and hardware outlets, as well as plumbing supply stores.

Set the faucet in a bed of plumber putty (stainless steel putty for stainless steel lavatories) and snug down the nuts holding the faucet assembly in position. Do not overtighten the nuts.

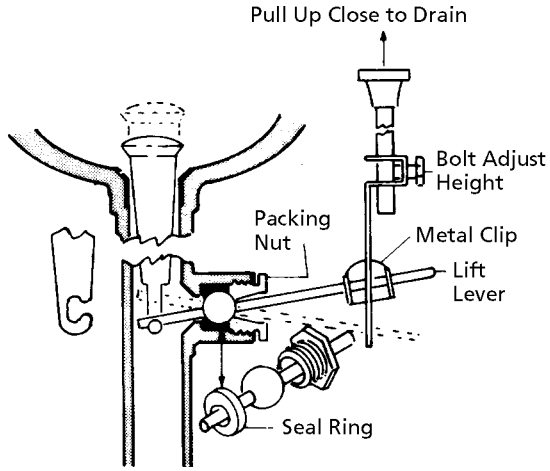


Fig. 5

Push rod closes this type lavatory drain. The open/close action is reversed by a short lever in a ball joint inside the packing nut.

Tip the lavatory over and, with a helper, hang it on the bracket, making sure the lugs on the lavatory are positioned over the bracket properly. Test the connection before you let go of the lavatory.

Connect the water supply lines to the faucet. Then connect the stopper assembly (**Fig. 5**), if needed, and install the trap to the tailpiece of the lavatory.

The drain assembly probably will be a "push fit" into the drain opening in the lavatory. The flange of the drain is seated in plumber's putty, then fastened to the lavatory via a nut from the underside of the lavatory bowl. Tighten this nut until some of the plumber's putty oozes out from underneath the drain flange. Do not overtighten. The drain will have a tailpiece (usually) that fits into the trap assembly directly below the tailpiece. The only connection here is a nut and a washer at the top of the trap. The size of this pipe usually is 1-1/4". Pipe for sink traps is 11/2". Check the dimensions before you buy.

Once the drain assembly is in place, you can connect the stopper assembly that connects to a lift lever.

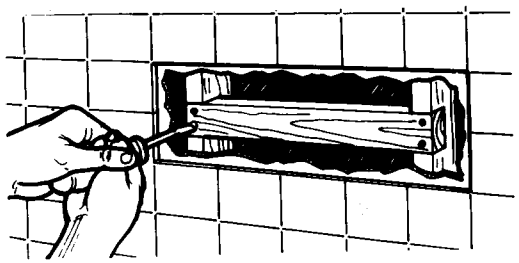


Fig. 6

Alternate bracket support is a 1X3 or 1X4 horizontal framing piece mortised into the stud under the wall covering. The bracket is then screwed to the horizontal strip. Since the lavatory covers the bracket, you may not have to patch around the open wall.

If you have small children that might climb up on top of the lavatory, you may want to increase the holding power of the wall bracket, instead of using toggles, with an inlaid strip of wood between studs (**Fig. 6**). Or, you can mount legs on the front corners of the lavatory to support extra weight of the lavatory (**Fig. 7**).

ASSEMBLING A CABINET FOR THE BATHROOM

Lavatory cabinets or vanities are available at home centers and plumbing supply shops in already-assembled or in pre-fabricated units. Most vanities are 18" to 24" deep and 18" to 72" wide. Combine two or more cabinets to create a wider vanity. The standard height, including countertop, is usually 31". The addition of spacers provides more height, if desired. If you want two basins, the vanity should be at least 48" wide. Many manufacturers offer other bathroom accessories to match their vanities. Dealers often sell a package that includes a specific countertop. In many cases, however, you can specify a countertop to suit your bathroom.

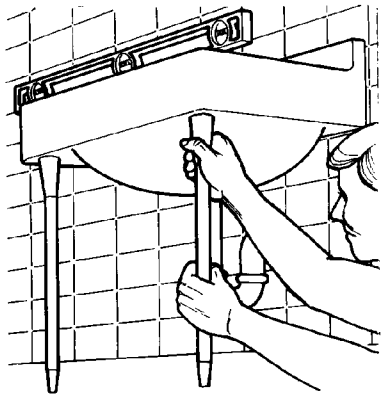


Fig. 7

Best support for lavatory is with legs fastened to the front of the lavatory. There are several models available from which to choose. Be sure to level the front of the lavatory before the legs are attached. The back of the lavatory is supported by a wall bracket fastened to studs.

Most pre-fabricated units come flat-packed and need no more than a screwdriver to put together. But as with all self-assembly furniture, you should read the instructions and identify all the parts before going ahead. Leave the doors off until all the plumbing work has been completed, but fit the top. You may have to notch or drill shelves to accept the pipes.

Position the assembled unit against the wall. If necessary use wooden shims to level the vanity cabinet. With wood or lag screws and washers, secure the cabinet to the wall studs through the vanity backboard, or anchor to the wall with toggle bolts or similar fasteners.

There are two types of vanity lavatories: self-rimming and frame-mounted.

SELF-RIMMING VANITY LAVATORY

Two types of self-rimming vanity lavatories are available. One type is held in place by its own weight and a special bonding sealant between the rim and the counter; the other by means of special clips beneath the countertop.

To install either type of self-rimming vanity lavatory, following the manufacturer's directions, measure and mark the exact position of the lavatory on the countertop making sure the fixture is squared off and that there is enough clearance under the countertop for fitting the hot and cold supply lines to the faucet. Most manufacturers supply a template for this purpose. If not, place the lavatory upside down on the countertop as a guide to mark the hole. The finished cut line should be marked a maximum of 3/8" inside the original line (**Fig. 8**). On clip-type models the lavatory, placed upside down, is also used as a guide to mark the hole with the finished cut line marked 3/8" inside the original line.

Drill a hole on the inside edge of the line and with a saber saw, cut accurately on the line and remove the cutout. Mount the faucet and remote-control drain on the lavatory following the manufacturer's directions. The installed faucet makes a convenient hand-hold when positioning the fixture.

Lavatories Without Clips. Practice positioning the lavatory several times before applying silicone sealant. During actual installation, the unit should not be repositioned. While in position, check to be sure the faucet and drain assembly have ample clearance underneath. Also check around the rim of the lavatory. If the counter is warped, the unit must be shimmed to provide an equal bond at all points.

1. Place the lavatory upside down on some blocks so it can be picked up easily after sealant is applied. Be sure the rim of the lavatory and the countertop are free of grease and dirt.
2. Squeeze a generous amount of sealant all around the lavatory rim (**Fig. 9**).
3. Lift the lavatory and gently lower it in place. Wipe up sealant that squeezes out with a clean, damp cloth, leaving a smooth, evenly leveled edge around the entire lavatory. If there is a gap, fill it immediately with more sealant and wipe again. Clean up immediately as the sealant will set up rather fast. Allow at least 4 hours curing time before connecting the supply lines and drain. Full curing requires at least 24 hours.

Lavatories With Clips. To install a lavatory with clips, perform the following:

1. Install the faucet and pop-up drain. Be sure the unit fits the countertop hole and ample clearance is provided for faucets and drain.
2. Using a plumber's putty, place a continuous bead around the outside and inside edge of the rim to insure a watertight seal.
4. Set the fixture into the countertop. Be sure the fixture is square with the front edge of the countertop.
5. From underneath, hook the mounting clips to the fixture and tighten carefully. Be careful not to overtighten as this could result in damage. Wipe off excess putty. Connect supply lines and drain.

FRAME-MOUNTED VANITY LAVATORIES

To install frame-mounted lavatories, perform the following procedure:

1. Remove the lavatory and mounting frame from the cartons. Make sure the frame fits the fixture properly. Place the frame right side up on the countertop exactly where the fixture is to be positioned. Make sure the frame is squared off and that there is enough clearance under the countertop for fitting the hot and cold supply lines to the faucet. Using a pencil, draw a line around the outside edge of the vertical leg (not the outer edge of the frame) surface of the countertop.
2. Drill hole on the inside edge of the outline. Using a saber saw, cut accurately along that line and remove the cutout of the countertop.
3. Mount the faucet and remote-control drain. This is also a good time to connect the hot and cold supply lines to the faucet. The faucet makes a convenient hand-hold when positioning this fixture.
4. Using plumber's putty, place a continuous bead around both the inside and outside edges of the mounting rim to assure a watertight seal after installation.
5. Position the mounting frame on the fixture. Set the fixture into the countertop. Be sure the fixture is square with the front edge of the countertop.
6. From underneath, hook the mounting fasteners to the mounting frame. Begin by locating one fastener in the middle of each side and position the balance of the fasteners uniformly around the frame. Tighten all fasteners until the mounting frame is seated without gaps. Be careful not to overtighten, as this could result in damage. Wipe off excess plumber's putty on the countertop.
7. Connect the water supply lines and drain trap. Use plumber's pipe compound on all metal threads to insure proper seal. The weight of the lavatory-vanity top and properly installed supply lines and drain trap will hold the top firmly in position. No mounting hardware is generally required.

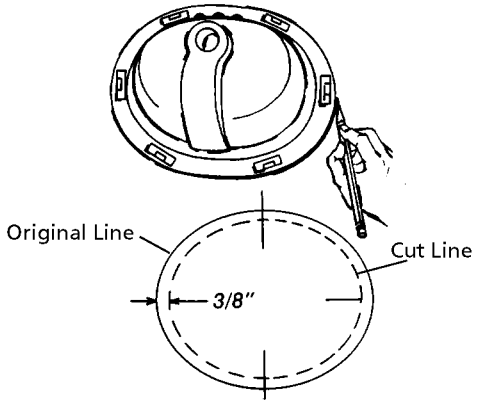


Fig. 8
Marking the cutout for a clip-type lavatory.

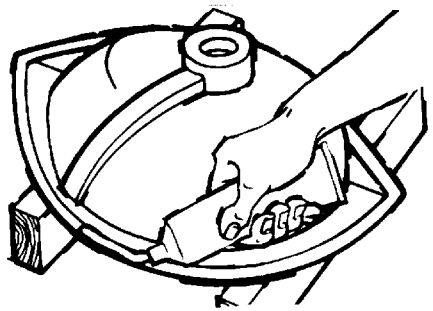


Fig. 9
Applying silicone sealant to rim