

CARDELL

C A B I N E T R Y

KITCHEN CABINET INSTALLATION HAND BOOK



Easy to follow step-by-step kitchen cabinet installation instructions

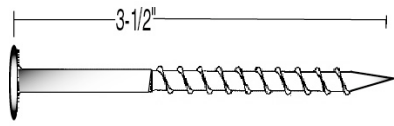
TOOL AND MATERIAL LIST

- Hammer
- Screwdriver – Standard, Phillips
- 4' Level
- Tape measure
- Pencil
- Drill
- Pry bar
- 6" C-clamps
- Stud finder
- 3/16" Drill bit
- #8 x 2 1/2" wood screws
- Wood shims
- Long straight edge
- Miter saw
- Saw
- Small finishing nails
- Wax

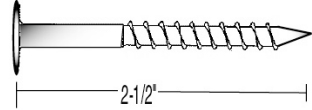
START Important Information for Installing Cabinets

Screws Required:

Cabinet screws are for attachment to wall studs, face frame-to-face frame, face frame to filler, etc...



#10 Phillips Truss Head – Cabinet Mounting Screw



#10 Round Washer Head with No.2 Square Recess Drive – Face Frame to Face Frame, Face Frame to Filler, etc...

CAUTION: Do NOT use nails or drywall screws to install base or wall cabinets. Use recommended screws as shown above. Using nails or drywall screws may result in cabinets falling from wall, possibly causing personal injury. Cabinets installed with nails or drywall screws will void the product warranty.

WARNING: Upper cabinets must be screwed to the wall by both, top and bottom hangers to avoid having cabinet fall from wall, or possibly causing personal injury.

Wall Cabinet Attachment:

If a cabinet is not bordered by cabinets on both sides, the face frame must be screwed into the soffit joists or ceiling joists, or supported by the countertop.

Cabinets up to 18" wide:

Screw a top and bottom wall attachment screw into one wall stud and face frame to at least one adjacent cabinet.

Cabinets 21" to 39" wide:

Screw top and bottom wall attachment screws into two wall studs and face frame to at least one adjacent cabinet.

Cabinets 42" to 48" wide:

Screw top and bottom wall attachment screws into three wall studs or use wall anchors or toggle bolts if three wall studs are not present.

NOTE: Cabinets that are not shimmed may result in improper door and drawer alignment as well as structurally weakening the cabinet.

CAUTION: Tightening hanger nails against crooked walls without shims may cause the joint between the hanger rail and the rest of the cabinet to break. This may result in the cabinet falling off the wall when loaded and will void the product warranty.

Loads and Weight Limits:

Properly installed cabinets can safely support an evenly distributed load of 15 pounds per square foot of shelf, tray and drawer space. Be sure that you load all cabinet bottoms, shelves and trays evenly.

WARNING: Installation of wall cabinets by itself, where both ends are exposed is NOT recommended, unless additional support is provided, such as an attachment to a soffit, ceiling or supported by the countertop.

Wall, double-faced (peninsula) cabinets MUST be attached to a soffit, ceiling or supported by the countertop.

Shelf supports must be installed with the support ledge under the shelf with the retaining clip. Damage or injury will result if supports and shelves are improperly installed.

STEP 1. Remove Existing Kitchen

Shut off all existing water, power and utility lines. Remove existing appliances (stove, oven, refrigeration, sink, and dishwasher). It is best to move these out of the kitchen for easier access to the work area while the remodeling is being done. Remove old cabinets and countertops. Remove any moldings from the walls where cabinets are to be installed.

NOTE: IF YOU ARE UNFAMILIAR OR UNSURE OF HOW TO HANDLE UTILITY CONNECTIONS, HAVE A QUALIFIED PROFESSIONAL PERFORM THESE DUTIES.

STEP 2. Uneven Floors & Walls

Some floors and walls have uneven (high or low) spots, which will affect the installation. It will be necessary to locate these uneven areas and shim or scribe cabinets in order to make the installation plumb, true and square. Use the following procedures to identify your uneven areas.

FLOORS

Using a long straight edge (2 x 4) and carpenter's level, find the high point of the floor (See Illustration A). Check all around the room within 24" of the wall where base cabinets will be attached. From the high point, mark a level horizontal line with a pencil along the straight edge on the walls where the cabinets will be attached. This will be called the base level line. From the base level lines you just marked, measure up 34 1/2" and mark another level horizontal line for the base cabinets and 84", 90" or 96" for the tall and wall cabinets (depending on the height of the tall and wall cabinets). The top of your base, tall and wall cabinets will be located on these marks.

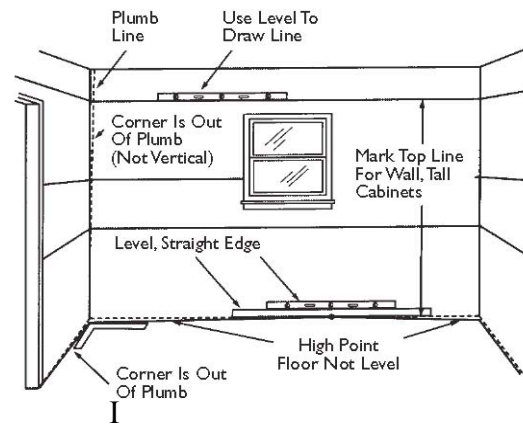


Illustration A

WALLS

It is a good idea to mark the outlines of all the cabinets on the wall to check actual cabinet dimensions against your layout to confirm that the kitchen design used will work (See Illustration B).

NOTE: When measuring the wall space be sure to use the cabinet front frame dimension and not the box dimension. The front frame of the cabinet overhangs the box by 3/16" on each end. Therefore, any measurements on the wall must coincide with the front frame measurements of each cabinet.

Using a long straight edge (2 x 4) and a 4' level, check the walls for uneven spots. Wall unevenness can cause cabinets to be misaligned resulting in racking or misalignment of the doors and drawer fronts. At the point where these uneven spots interfere, high spots should be removed by scraping and sanding off excess plaster or sheet rock. Low spots should be shimmed with pieces of wood shims.

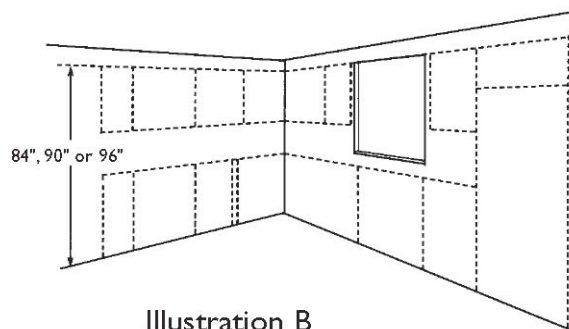


Illustration B

STEP 3. Finding the Studs

Locate the wall studs with the use of a magnetic stud finder or by tapping on the wall gently to find a "solid" sound. Verify the position of your studs by driving a small finishing nail into the wall. Make sure that you do this in an area that will be covered by a cabinet. Mark all the studs on the walls that cabinets will be installed (See Illustration C).

You are now ready to begin the installation of your new cabinets. First you must remove all of the doors and drawers from your cabinets.

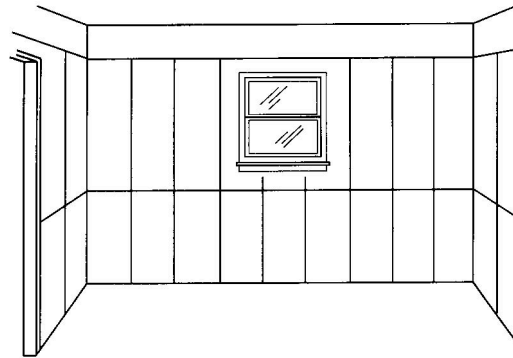
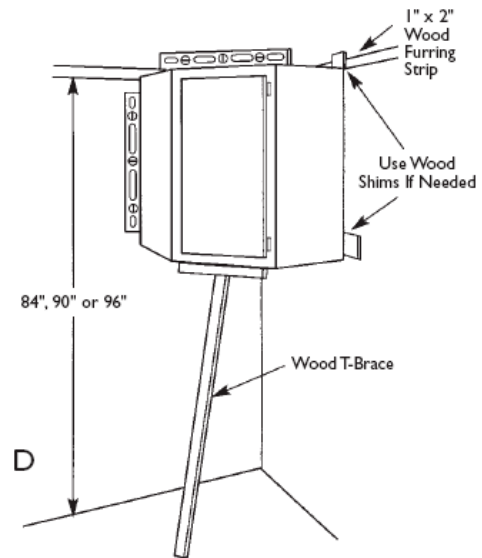


Illustration C

STEP 4. Installation of the Corner Wall Cabinet

Nail a 1" x 2" wood furring strip with its bottom edge on the tall or wall cabinet line that you previously marked. You must begin your installation in a corner. Measure from the corner to the first stud mark and transfer the measurement to the inside of the cabinet to be installed. Repeat this step for each and every stud. Now drill a 3/16" hole through the hang rail inside of the cabinet 3/4" down from the top and 3/4" up from the bottom. Raise the cabinet up into place against the Furring 1" x 2" wood furring strip and support it underneath with a wood t-brace made from scrap lumber (See Illustration D). Fasten the cabinet to the wall with #8 x 2 1/2" wood screws. Applying wax to the screw will reduce the amount of friction experienced during this process. Do not fully tighten the screws.

NOTE: When installing a blind wall cabinet, make sure the cabinet is pulled out from the wall the appropriate distance as called for in your kitchen plan. See Specifications book for blind cabinet pull specifications.



Illustration

STEP 5. Installation of Subsequent Wall Cabinets

Follow instructions in Step #4 to hang the next wall cabinet. Again, do not fully tighten the screws. Using two C-clamps, align the vertical stiles of the adjoining cabinets and clamp together. Drill pilot holes at hinge level through the stile of the second cabinet and just barely into the stile of the first cabinet. Using #8 x 2 1/2" wood screws tighten securely (See Illustration E). Applying wax to the screw will reduce the amount of friction experienced during this process. Then, after making sure both cabinets are plumb and level, shimming where necessary, tighten all screws securely to the wall. Now continue this procedure around the room. It is important to secure all cabinets together before shimming for plumb and level. Only then should you screw the cabinets tightly to the wall.

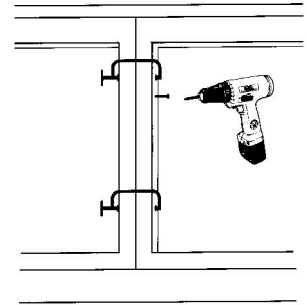
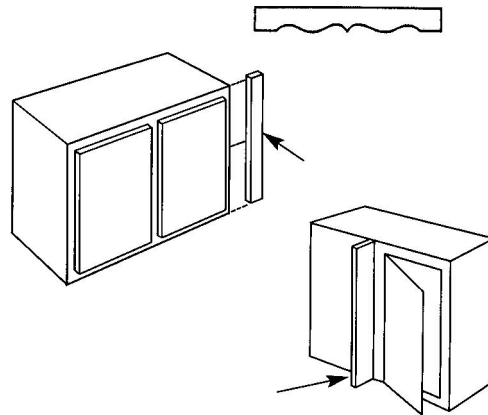


Illustration E

STEP 6. Installing Fillers and Valances

Fillers are needed to take up odd dimensions when cabinets are installed next to a wall. They also allow clearance for doors and drawers to operate properly when turning a corner with a blind corner cabinet. A filler may have to be cut to size when used to take up odd dimensions next to walls. Hold the filler in place, turn it over and on the back side make a pencil mark at top and bottom where it should be cut. Join the two marks with a pencil line and saw along that line. Put the filler in place and drill a pilot hole at hinge level through the cabinet stile and into the filler. Attach filler to the adjacent cabinet by fastening together with #8 x 2 1/2" wood screws. Applying wax to the screw will reduce the amount of friction experienced during this process. Valances are installed in a similar manner; however, if trimming is necessary, you should cut from both ends equally so the valance design remains symmetrical.



STEP 7. Installation of Corner Base Cabinets

WHEN USING A CORNER BLIND CABINET proceed as follows: Shim so the top of the cabinet is at the 34 1/2" mark on the wall. Attach loosely to the wall by screwing into the wall studs through the hanging rail with #8 x 2 1/2" wood screws as previously described. Applying wax to the screw will reduce the amount of friction experienced during this process. Attach the filler to the adjacent cabinet and fasten the two cabinets together using the same procedures as step 5&6. (See Illustration G).

NOTE: When installing a blind base cabinet, make sure the cabinet is pulled out from the wall the appropriate distance as called for in your kitchen plan. See Specifications book for blind cabinet pull specifications.

WHEN USING A ROTATING OR EASY REACH CORNER BASE attach the adjacent cabinets to the carousel by drilling a pilot hole at hinge level through the stile of the adjacent cabinets into the stiles of the corner cabinet. Screw together using #8 x 2 1/2" wood screws. Applying wax to the screw will reduce the amount of friction experienced during this process. Place the three cabinets as one unit into the corner and fasten to the wall through the hanging rail of the two adjacent cabinets, as previously described (See Illustration H). Install countertop support braces as shown on the wall at the 34 1/2" horizontal base cabinet level line.

WHEN USING A BASE CORNER FILLER fasten the two adjacent cabinets to the filler by drilling through the cabinet stile at hinge level and into the base corner filler. Screw together using #8 x 2 1/2" wood screws. Applying wax to the screw will reduce the amount of friction experienced during this process. Place the three pieces into the corner as one unit and attach to the wall through the cabinet hanging rail as previously described. Now make sure all cabinets are plumb and level. Shim where necessary and tighten all screws (See Illustration I). Install countertop support braces as shown on the wall at the 34 1/2" horizontal base cabinet level line.

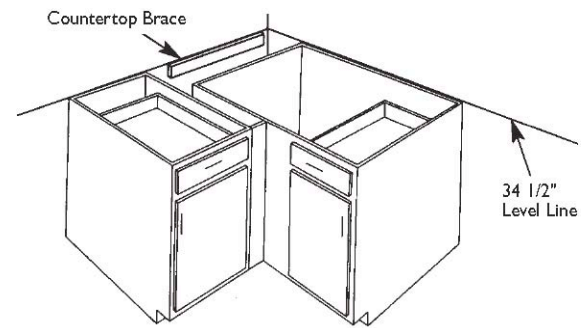


Illustration G

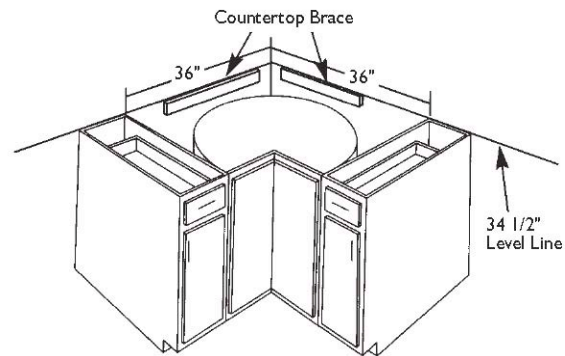


Illustration H

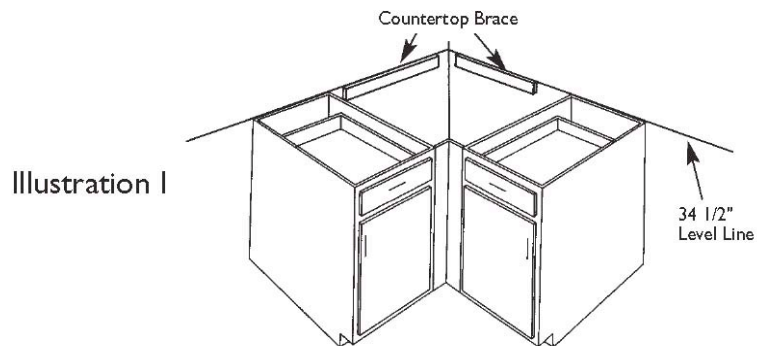


Illustration I

STEP 8. Installation of Subsequent Base Cabinets

The remaining base cabinets are installed in the same manner. Using the two C-clamps, align stiles, drill and screw together as described in Step 5. Proceed around the room making sure all cabinets are plumb and level, shimming where necessary, then tighten all screws (See Illustration J).

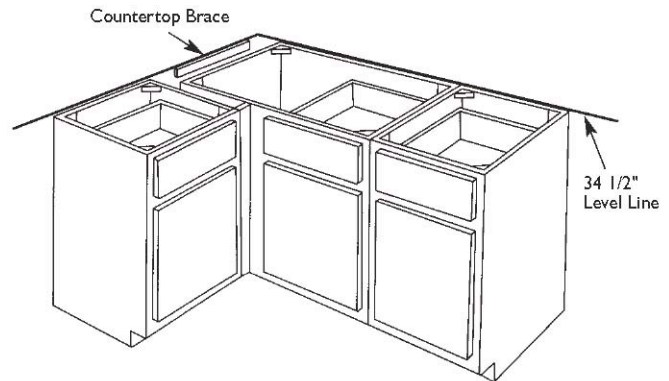


Illustration J

STEP 9. Countertop Installation

Carefully place new countertop on cabinets. Attach countertops by screwing through the pre-drilled cabinet corner braces (See Illustration K and L). If a solid surface counter top is being installed DO NOT use screws to attach. Consult the counter top manufacturer for recommended installation.

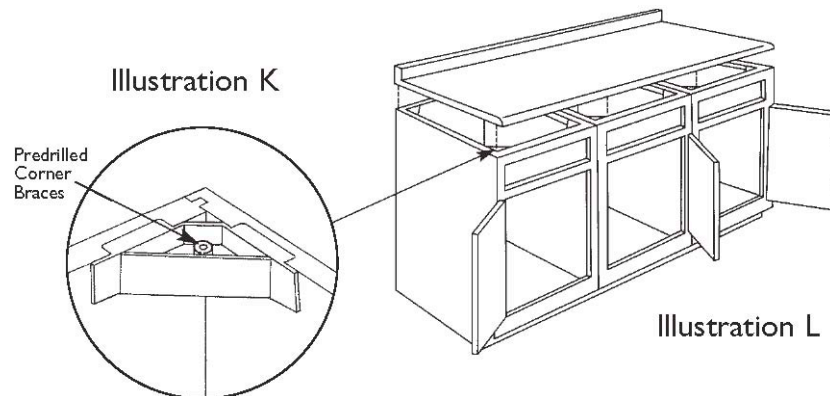


Illustration K

Illustration L

STEP 10. Trim and Molding

Trim molding is used to trim out cabinetry where cabinets meet an adjacent wall, soffit, or ceiling. Carefully measure and cut to proper length. When moldings meet at a 45-degree angle, use your miter saw for a proper cut. Use small finish nails or a pin nailer to attach the molding to the face frame of the cabinet.

STEP 11. Final Touch-up and Door Adjustment

Now that you have finished installing your kitchen you may notice a few things such as misaligned doors, minor nicks or scratches. Make all adjustments necessary to bring doors and drawers into perfect alignment. Make sure all screws are tight. Then touch-up any nicks or scratches that may have occurred during shipping and handling or cabinet installation. Touch-up kits are available from your dealer.

STEP 12. Trouble Shooting

The factory has very strict inspections, but problems can happen during the shipping and handling procedures, as well as during the installation. We have listed below several common problems and causes, with simple solutions.

Problem Situation	Possible Cause	Solution
Large gaps on top or bottom of door against face frame	<ol style="list-style-type: none"> 1. Hinge needs adjustment or cabinet out of level. 2. Very dry conditions can cause door warpage. 	<ol style="list-style-type: none"> 1. Check cabinet alignment for level and plumb. Adjust cabinet and door hinge. 2. Try to control humidity level at 35°.
Double doors do not line up top or bottom.	Cabinets mounted on wall out of plumb and/or out of level.	<ol style="list-style-type: none"> 1. Loosen screws and use shim's to align cabinet. 2. Loosen door hinge screw's and adjust.
Drawer front will not fit flush against cabinet.	Drawer track glide out of adjustment.	<ol style="list-style-type: none"> 1. Remove drawer and adjust drawer guide up or down. 2. Insert drawer back on track.

Door Hardware

NOTE: Ensure screw heads from door hardware will not scratch the face frames. To avoid this, countersink screw heads so they can not strike face frame.

CAUTION:

Self-cleaning appliances are cleaned by intense heat during the cleaning cycle. If the oven door gasket does not seal properly, intense heat may escape from the appliance. This may cause severe damage to all surrounding cabinetry and accessory items.