

Installation Guide

Frameless Cabinetry



Design·Craft®

Great design. Greater capacity.

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Keep In Mind: The beauty of real hardwood comes from natural variations in grain, texture, and color. Cabinet colors also darken or lighten over time due to sunlight, smoke, household cleaners, age and other environmental conditions.

Most cabinets are also constructed from several pieces, which each accept stain slightly differently. Neither these variations nor natural grain and texture variations are considered reason for replacement.

Some of our door styles use solid wood center panels. Some expansion and contraction will occur, depending on the season and humidity levels. Painted surfaces will develop hairline cracks at joints caused by seasonal humidity changes and the expansion/contraction of the wood. This is the nature of hardwood, and hairline cracks on painted surfaces will not be considered reason for replacement.

We reserve the right to substitute discontinued product with the most similar styling, wood species, and color available at the time a warranty claim is submitted.

Should you have any further questions regarding the care and maintenance of your cabinetry, please contact your place of purchase.

For complete warranty information, please visit designcraftcabinets.com.

This guide is not intended to be an all-inclusive, step-by-step installation manual. Its purpose is to alert you to situations unique to the installation of frameless cabinetry and to illustrate our installers' recommended solutions to some of the challenges common to this type of installation. If you encounter variations in your kitchen, please consult a licensed professional.

Before You Begin

Please inspect ALL of the cabinetry for damages and color variation before you begin to tear out **your existing kitchen**. Report all issues at one time to your place of purchase and not as you install the product. Multiple replacement requests will further delay your project. Remember, installation of the product indicates acceptance and will not be eligible for replacement or credit.

First things first. SAFETY!

- Use safety glasses and work methodically.
- Only use properly grounded electrical tools.
- Keep the work area free of clutter.
- If possible, create a flat raised surface on which to work/connect cabinets together.

What you will need

For both strength of connection and appearance of workmanship, it is highly recommended using cabinet connector bolts for joining cabinets to each other.



- Safety glasses
- Carpenters square
- Miter saw – (Moldings)
- Pencil(s)
- Shims
- Tape measure
- Clamps - heavy duty (4 or 5)
- Ladder(s) 4' and or 6'
- Air compressor
- Pin nailer gun
- Pin nails
- Touch-Up kit
- 4' level
- 6' level
- Power screwdriver
- Drill and bits
- Countersink bits
- Stud finder
- Blue tape
- Extension cord
- Waste basket
- Vacuum cleaner
- Broom and dustpan

OPTIONAL TOOLS

- Laser level
- Table saw
- Speed square
- Hammer (non marring)
- Chalk line
- Fast Cap System

Fasteners you will need

SCREWS

REMEMBER: Pre-drill all holes!

- Round washer cabinet screws
 - 3" Hardened screws (to attach cabinets to studs)
 - 1" screws
 - $\frac{5}{8}$ " screws



CONNECTORS

- Cabinet connector bolts
- Use a $\frac{13}{64}$ " drill bit

PIN NAILS

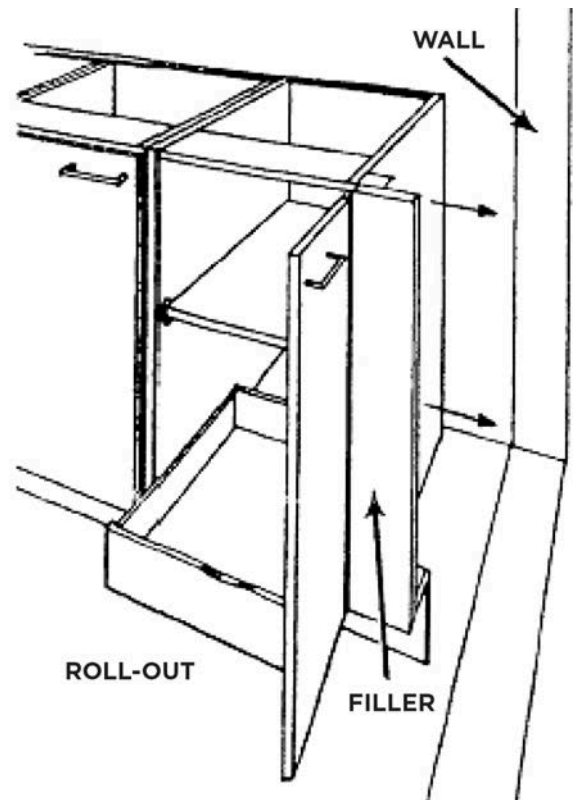
- 1" headless pin nail (for crown moldings)
- 1 $\frac{1}{4}$ " 18 gauge nail-misc.

GLUE

- A good quality carpenter's glue

What's unique about installing frameless?

- 1/16" reveals mean you must be **much more exact** with your measurements than with face frame cabinetry.
- Cabinets can be heavy. You need **a partner or a good cleat system** to hang wall cabinets.
- Working with melamine interior/exterior means you **must pre-drill all holes**. Use of a "sacrifice board" (illustrated in later slides) is recommended.
- Our recommended wall installation means you will **attach adjoining cabinets together** prior to attaching to the wall. You will most likely need a partner to help. Follow all safety recommendations for heavy lifting.
- Because doors and drawers have a 1/16" reveal, you need a **scribing filler** wherever a cabinet meets a wall or blind corner to ensure proper clearance.
- Fillers may also be needed next to appliances so a door can open a bit more than 90° to allow internal accessories like roll-out shelves to function.



Step 1

Cross check the entire shipment

Check every box and package delivered against the cabinet order acknowledgment.

Make note of any missing items on the box and immediately address any discrepancies.



Step 2

Un-box and Inspect for damage

Carefully remove packaging. Turn all wall cabinets right side up.

Inspect ALL of the cabinetry for damages and color variation before you begin to tear out your existing kitchen. Report all issues at one time to your place of purchase and not as you install the product. Multiple replacement requests will further delay your project. Remember, installation of the product indicates acceptance and will not be eligible for replacement or credit.

Verify the sequence of cabinets to confirm where finished ends and fillers will go. Refer to the floor plan and elevations.

TIP: Re-use cardboard to cover the floor to protect from damage.



Step 3

Mark every cabinet part for identification

Remove doors and drawers (extra weight). Use blue tape to number the cabinets and their corresponding doors, drawers and shelves. Carefully store to avoid damage.

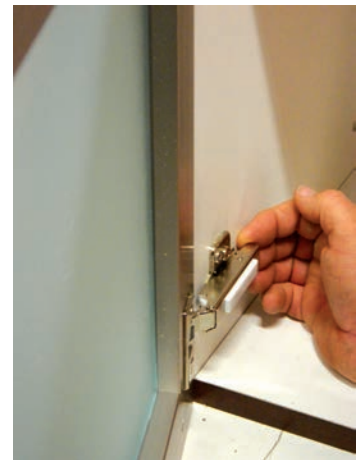
TIP: Cut shipping information from the box and place in each cabinet for easy identification.



How to remove doors and drawers

All hinges are designed to easily snap on and off. Place your index finger behind the nameplate and pull towards you.

Drawers with undermount glide systems are removable by squeezing the clips on left and right of the underside of the drawer and lifting free.



Step 4

Preparing the room

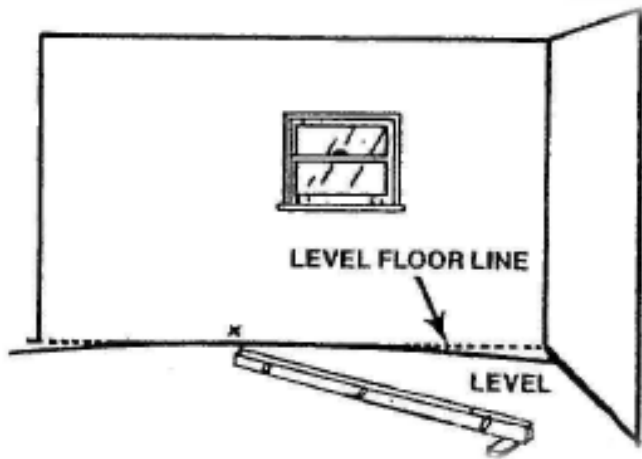
- First, shut off all existing water, power and utility lines. Always reference local building codes before beginning a home project.
- After the old cabinets have been removed, you'll need to prep the walls. Fill in holes with spackling. Mark where new cabinets will be located and prime and repaint all areas not covered by cabinets.
- Move any electrical outlets that need to be relocated to accommodate your new design.



Step 5

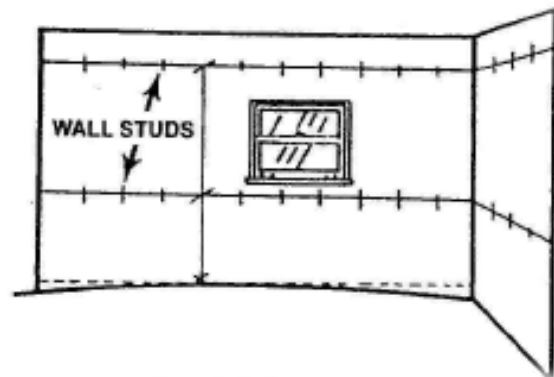
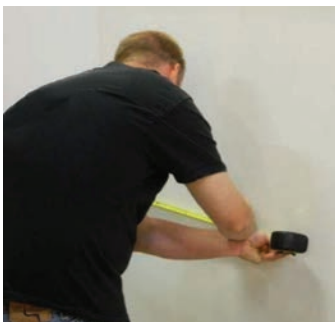
Level, Plumb and Square

Determine whether the flooring under your cabinets is level by placing a 4', 6' or 8' level across the floor. Mark the high spot on the wall and draw a continuous level line from that high spot along the wall. This line shows you where base cabinets will need to be shimmed.



Your best friend during the installation process is a level!

Mark a second continuous level line on the wall at 34 1/2" (base cabinet height) from your floor's highest point. Mark a third level line at the top of your finished wall cabinet height. Mark all stud locations on the top two lines.



THE BOTTOM LINE!

Regardless of the condition of floors or walls, cabinets must be installed plumb, level and square. Any racking of the cabinet will mean that drawers and doors will bind and misalign.

Step 6

Setting the first cabinet

Although many installers begin with wall cabinets, our preference is to install base cabinets first. This gives us a “platform” to install upper cabinets. In order to plan for fillers, temporarily place all base cabinets in their designated locations (make sure you know the exact width of appliances in your design). From that it is determined a 3" filler will be attached to the left of the first cabinet that is placed in the corner. ►

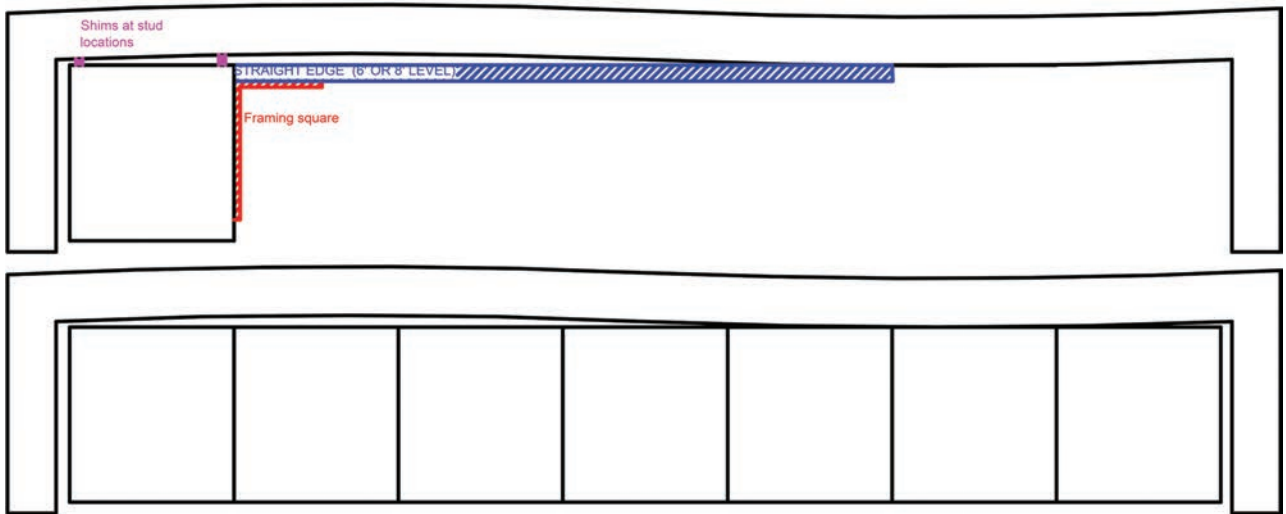
Prior to attaching, layout cabinets to determine filler placement and sufficient appliance clearance. Are all outlets and gas lines in place for appliances?



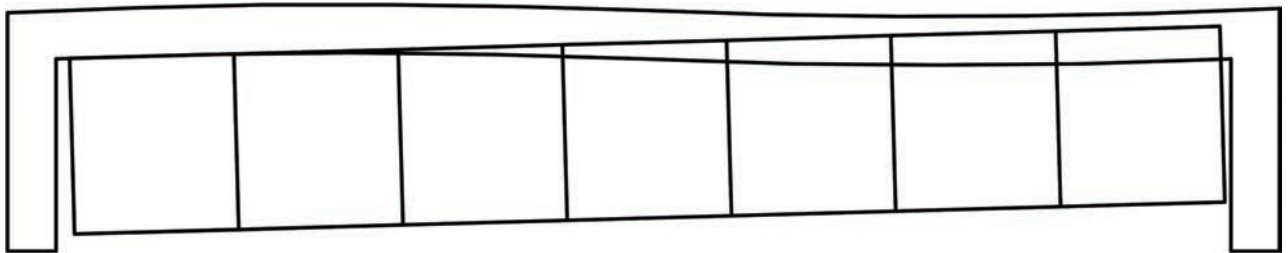
Step 6 – continued

Setting the first cabinet

Make sure cabinet is square with the wall so the rest of your cabinets run straight along the wall. ►



Results after squaring first cabinet to wall

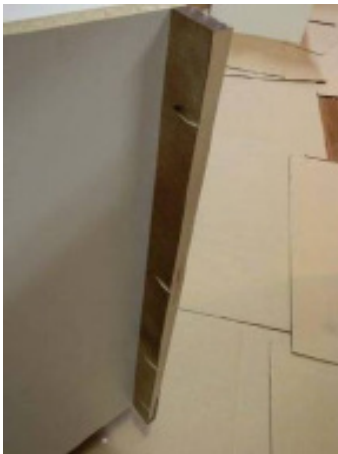


Results from not squaring first cabinet with wall

Step 6 – continued

Setting the first cabinet

If fillers are being used, attach the filler edge of base cabinet with three deep thread screws. A wood strip of matching width is attached to back edge of base to square up cabinet. Move cabinet into place.



Fillers don't usually receive pocket screws. Most are attached by screwing through the inside of the cabinet into the filler.

squaring strip

filler



Step 6 – continued

Setting the first cabinet – Scribing

To get a tight fit against the wall, our installers needed to scribe the filler (now attached to the cabinet). Here's one way to do it:

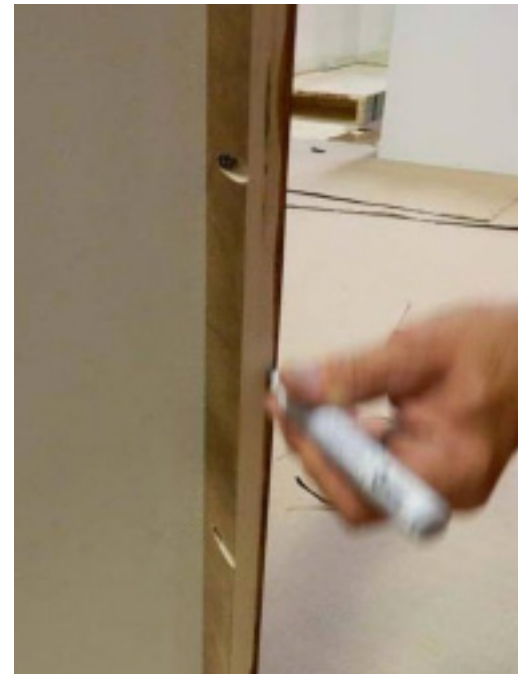
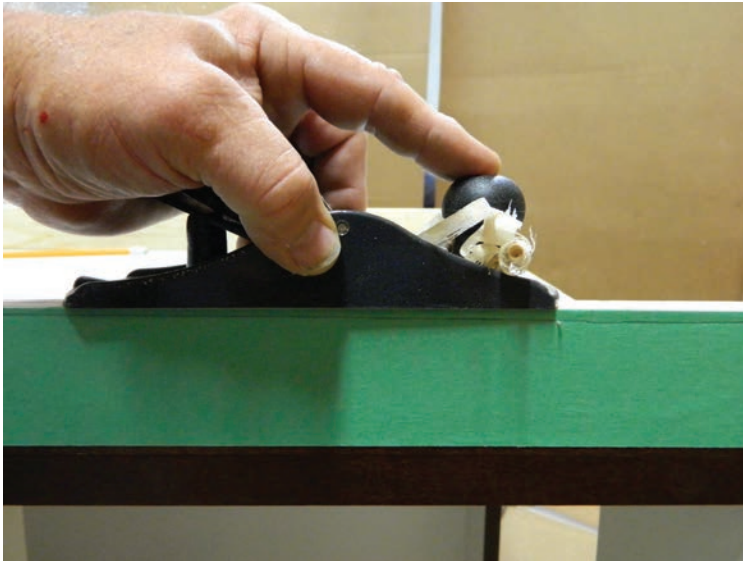
1. Place tape along entire front edge of the filler.
2. Shim cabinet as needed to make sure it is level left, right, front and back with the filler tight to the wall.
3. Holding a pencil flat against the wall, draw a line down the length of the filler. The line drawn on the tape will be your guide as to where the filler needs to be planed (trimmed).
4. If there is a gap wider than the pencil, use a scribe tool (compass).



Step 6 – continued

Setting the first cabinet – Scribing

Carefully plane down to the pencil line. The edge of the cabinet now conforms to the shape of the wall. Use a touch-up pen to finish front edge of the filler prior to placing it against the wall.



Use a touch-up pen anytime you trim a filler.

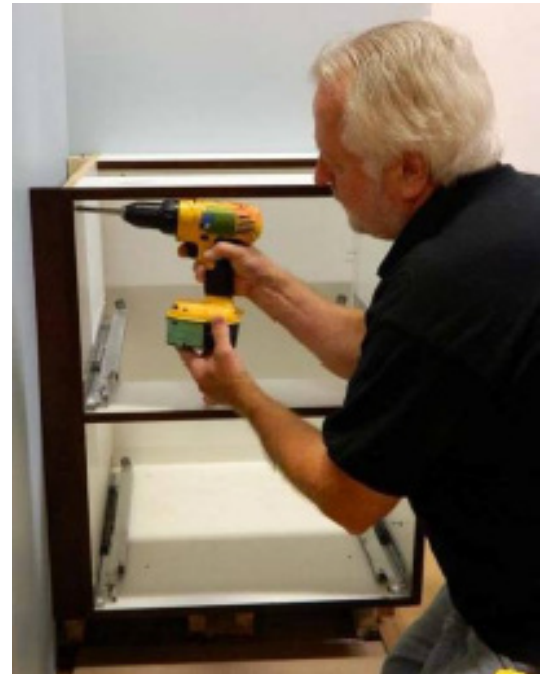
Step 7

Attaching the first base cabinet

Check with a level and shim where necessary. Dips in the wall require shims or cabinets may be broken when tightening. To attach cabinet to the side wall, pre-drill all holes using a 1/8" bit and use 6 screws (3 through front filler; top, middle and bottom, and 3 through squaring strip in back).

NOTE: Screws need to be long enough to be anchored to the wall including filler width. ►

REMEMBER: Cabinets have a light interior. Plan for discreet placement of screws.



Step 7 – continued

Attaching the first base cabinet

Use (4) 3" screws (two at the top inside corners of cabinet, two at the bottom) to attach cabinet to studs in the back wall. If there are insufficient studs within cabinet dimension, you will need to use toggle bolts.

You may choose to countersink all screw holes for a clean, finished look.

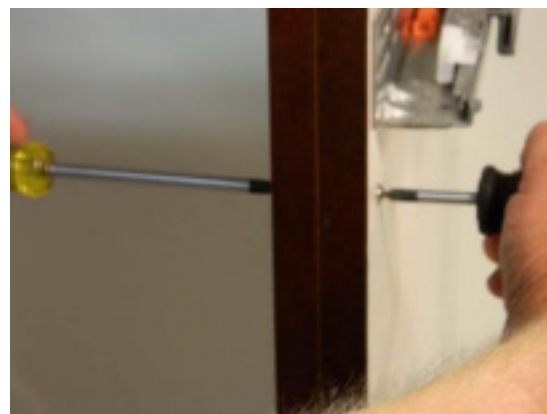
Screw into studs top and bottom or supplement with toggle bolts.



Step 8

Preparing to connect two cabinets prior to installing

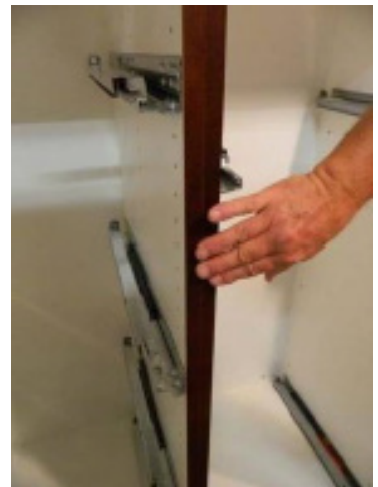
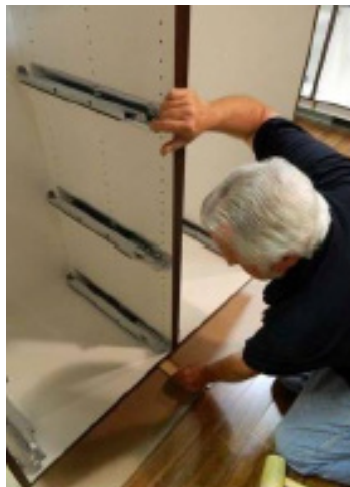
For both strength of connection and appearance of workmanship, use cabinet connector bolts for joining cabinets to each other.



Step 9

Connecting cabinets prior to installing

Use heavy duty clamps to hold the cabinets together – front (top and bottom) as well as on the back, close to the top. Use shims as needed to level cabinets.



Once clamped, use a level to check alignment prior to pre-drilling for connector bolts.



Step 10

Drilling through a sacrifice board

Now it's time to pre-drill. Clamp a sacrifice board where the drill bit will emerge to help eliminate unsightly chip out.



To prevent chipping, melamine requires pre-drilling with a clamped sacrifice board.

Step 11

Adding a decorative end

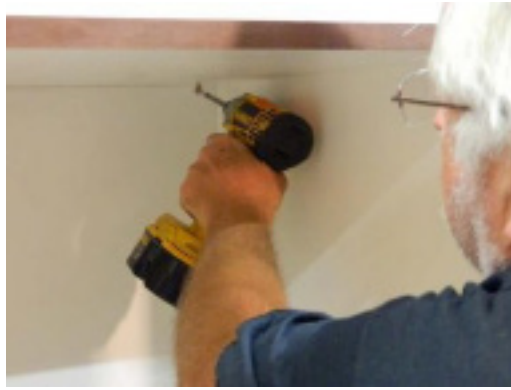
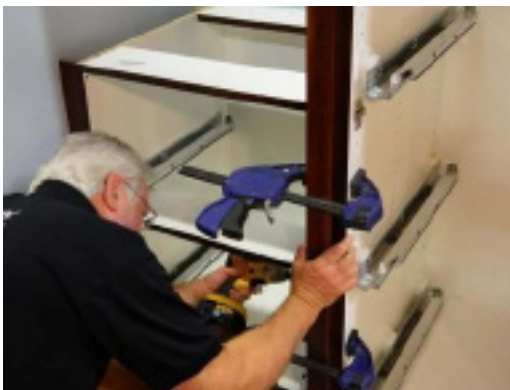
Place shims, pre-drill holes and attach end panel using three 1" round washer cabinet screws. Notice that the screws are placed inconspicuously underneath roll-out shelf hardware. Screws should be placed approximately 1 1/2' apart running the length of the cabinet in front and back.



Step 12

Placing, leveling and attaching the next base cabinets

Move cabinets into place, plumb and level, shim where necessary, clamp the next cabinet to the existing installed cabinets, and pre-drill through both the sides and the back to secure cabinets to the wall and to base cabinet on the left.



Step 13

Preparing to hang wall cabinets

A temporary support frame will assist in hanging wall cabinets. Most often placed on a countertop, the support frame is built to the exact dimension of the desired space below the wall cabinet MINUS 1/8". **(Shim support frame the remaining 1/8" so it can be removed once cabinets are hung.)**

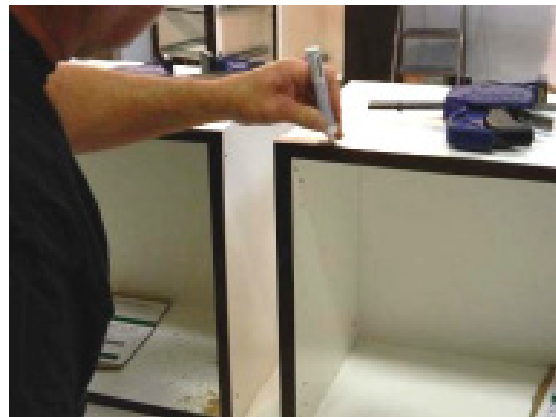
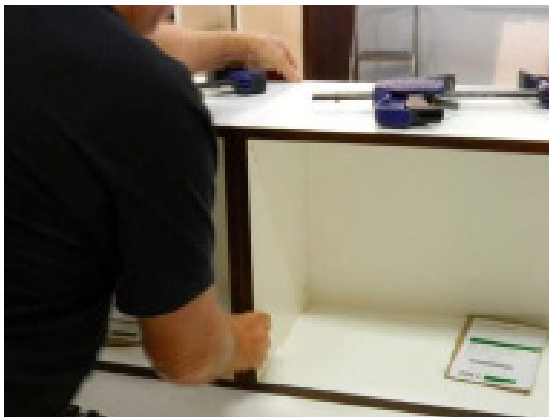
Place support frame atop the utility cabinets to achieve a finished top height that will be flush with the rest of the wall cabinets.



Step 14

Connecting the wall cabinets

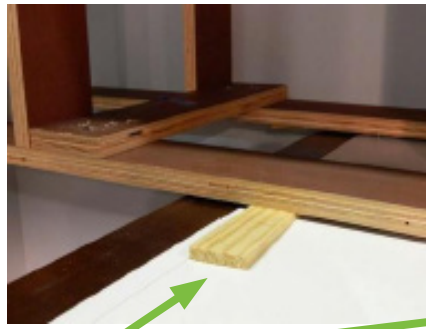
If there are adjoining wall cabinets, they can be connected together prior to mounting them on the wall. Melamine edges are touched up, cabinets are clamped together in both front and back, leveled and all connector holes are pre-drilled using a sacrifice board.



Step 15

Hanging wall cabinets

Lift wall cabinets onto temporary support frame*. Transfer stud locations to inside of cabinets, make sure cabinets are plumb and level, shimming where necessary.



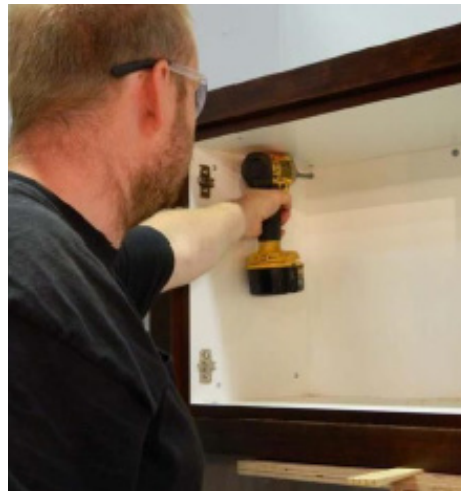
Shim the support frame to the finished wall cabinet height so it can be easily removed.

* If you do not have a temporary support frame, skip to page 28 for wall cleat installation method.

Step 15 – continued

Hanging wall cabinets

Pre-drill holes into studs, two on top and two at the bottom. Attach with round washer cabinet screws into the studs or proper anchor bolts when there are no studs available.



Remove support frame.

Step 15 – continued

Hanging wall cabinets

Alternately, instead of using a temporary support frame, a temporary wall cleat can be attached to the studs onto which the cabinet can be held at correct height prior to screwing to the wall.



Although the wall will need minor repairs after the cleat is removed, ledger boards allow for precise placement of wall cabinetry.



Lift cabinet in place on the wall cleat. Shim cabinet so top is level with wall cabinets to the left.

Step 15 – continued

Hanging wall cabinets

Clamp cabinets together, make sure cabinets are plumb, level and use shims as needed, pre-drill for connectors and attach cabinets together. To attach to the wall, pre-drill holes into studs, 2 inches from top and bottom and attach with round washer cabinet screws proper anchor bolts when there are no studs available. Remove cleat and make repairs on the wall.

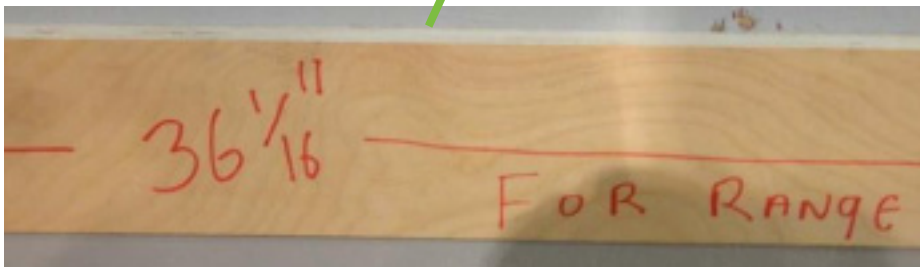


Step 16

Leaving exact space for an appliance

In order to leave room for an appliance, place a board the exact width of the range flush against the newly installed base cabinet. Use precisely measured spacer boards to stand in for appliances not yet set in place.

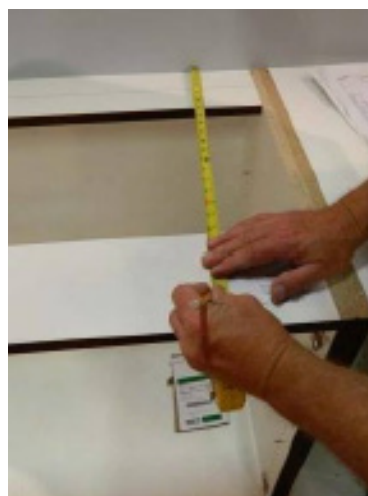
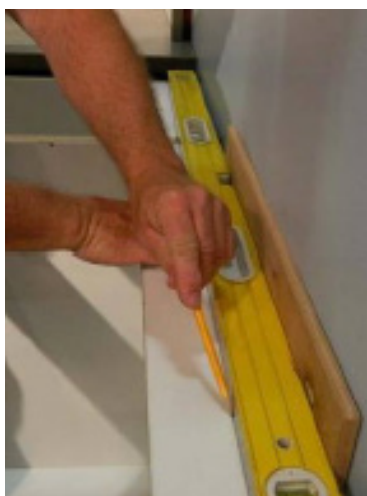
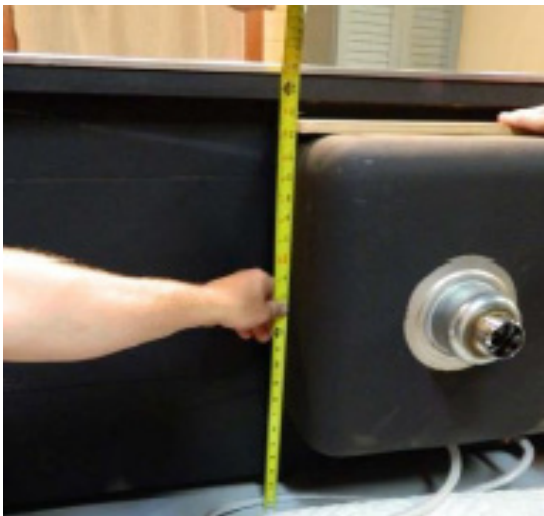
NOTE: Also make sure opening in the front is equal to the back, if it is not, check cabinets for square.



Step 17

Preparing sink base

To ready a sink base to receive the sink, first determine the exact dimensions of the opening. (A scrap piece of wood on either side of the rounded-corner sink extends the cut line and prevents costly errors.) Using a level as a straight edge, transfer these measurements to the base cabinet.



Step 17 – continued

Preparing sink base

Use a jig saw to carefully cut out the required space.

NOTE: Sink base stretchers can be cut to within 1" of the front and or back.



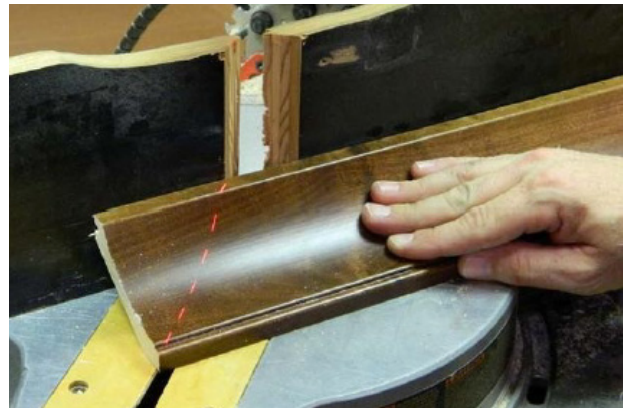
Step 18

Applying molding

Molding on frameless cabinetry is installed in the same manner as on framed cabinets. Carefully measure the area which will receive molding.



Molding is cut at an angle away from the most likely viewing location (ie; the entranceway) to make splices less noticeable.



Dry-fit the molding to make sure it's a seamless fit. Touch up edges with touch-up pen so unfinished wood won't show if the wood contracts slightly.



Step 18 – continued

Applying molding

Apply wood glue to mitered corners then pin nail joints together.



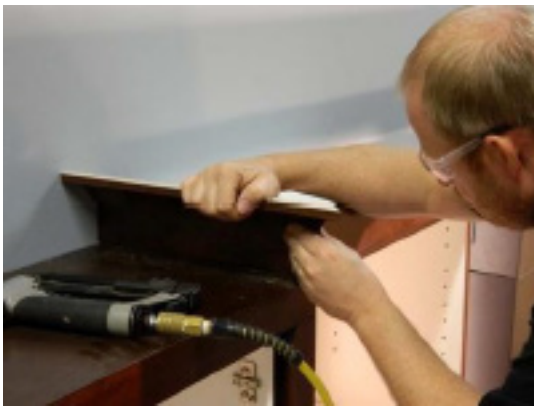
Clamp molding tight to cabinets and screw starter molding into the cabinet top.



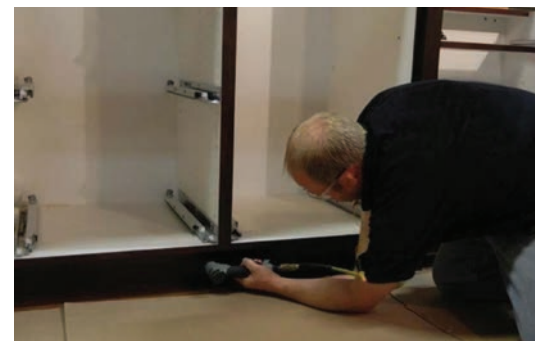
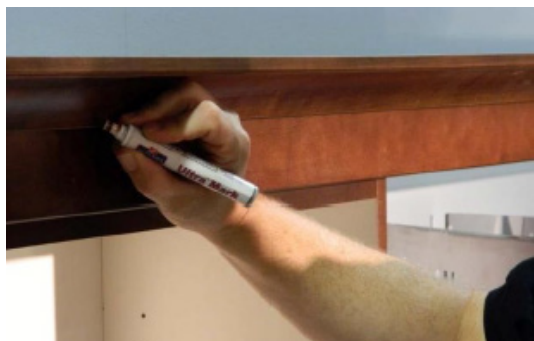
Step 18 – continued

Applying molding

Pin nail crown molding to starter molding, glue joint and pin nail second section to first. Continue around the tops of cabinets following design as specified.



Mitered splices are touched up on all the moldings. Toe kicks are also cut and nailed in the same manner as the moldings.



Step 19

Replacing shelves, doors and drawers

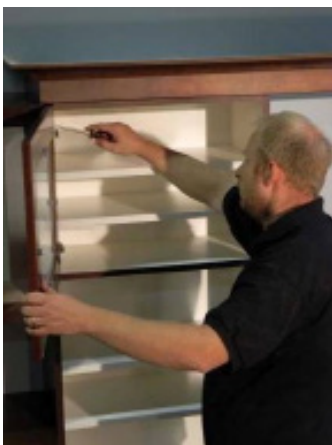
Take note of how drawers and slide-out accessories snap out when you remove them to make it easier to replace. Most of our accessories involve tilting the shelf or drawer upward in order to disengage from the glides.



Step 19 – continued

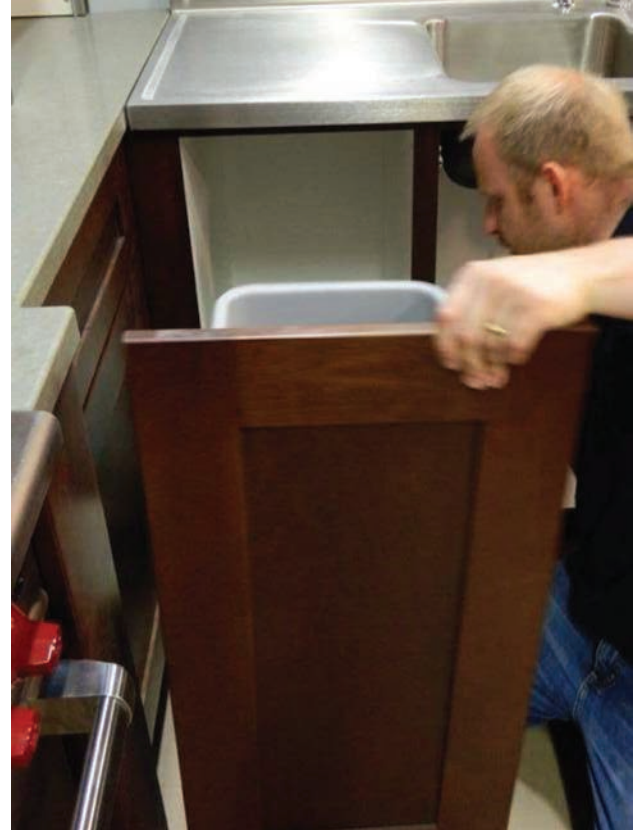
Replace and adjust doors and drawers

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Step 19 – continued

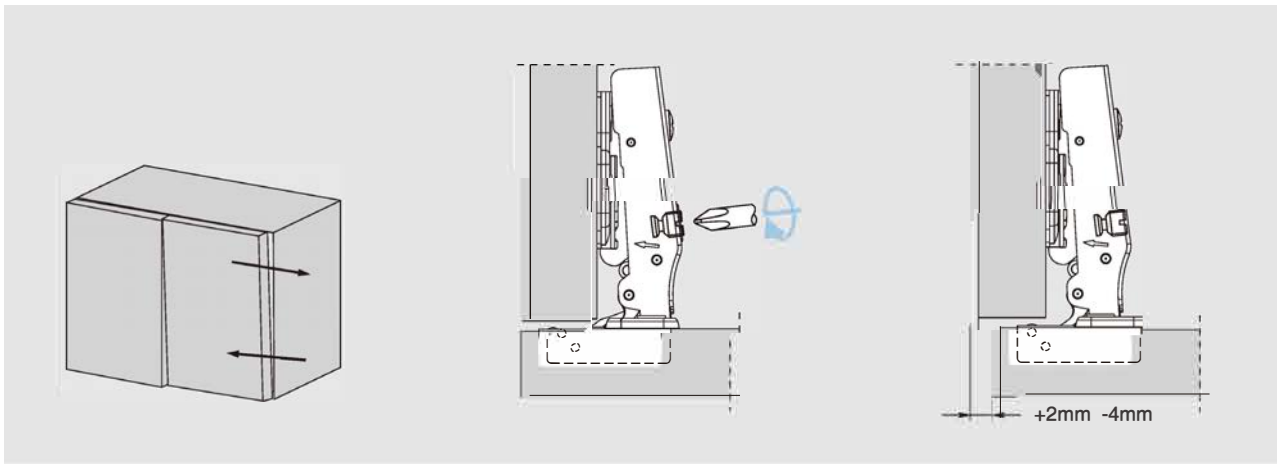
Replace and adjust doors and drawers



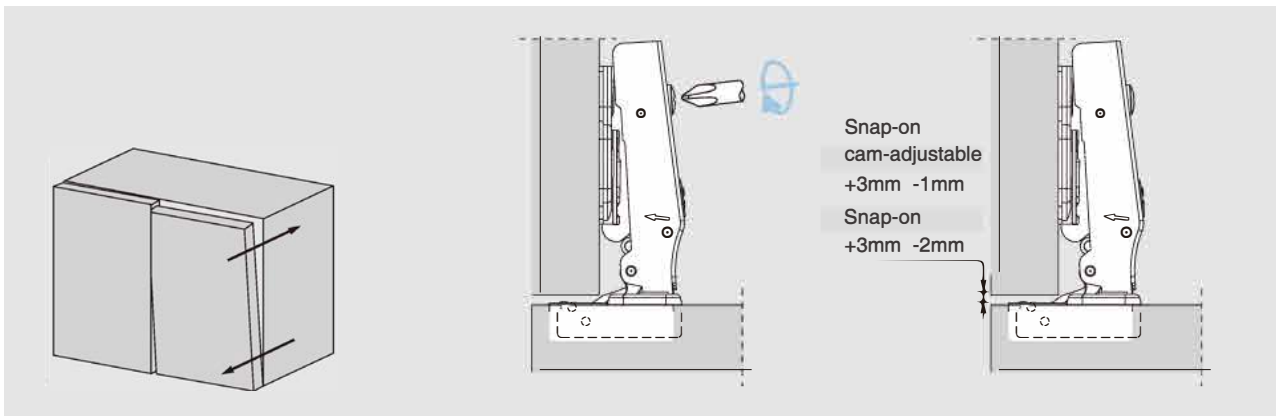
Step 20

Adjust door hinges and drawers

CONCEALED CLIP-TOP HINGE ADJUSTMENTS



Side adjustment of the door is made by using the indicated screw.*

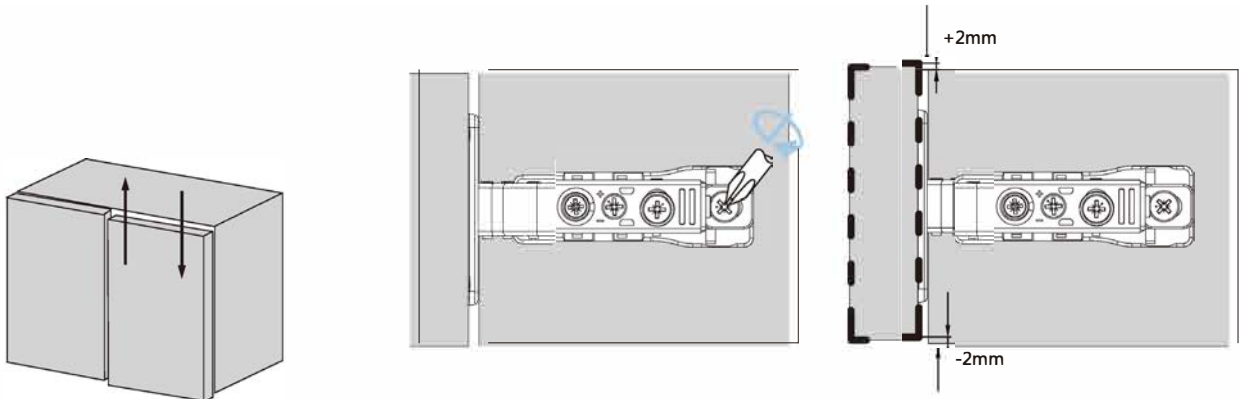


Depth adjustment is made without loosening any screw. The door can be moved in or out by rotating the cam adjuster on the hinge arm.*

* Door hinge and drawer box adjustment hardware may vary slightly. Please check manufacturer's guidelines.

Step 20 – continued

Adjust door hinges and drawers



Height adjustment is made without loosening any screw. The door can be moved up or down by rotating the adjustment screw on the mounting plate.*

DRAWER BOX ADJUSTMENTS



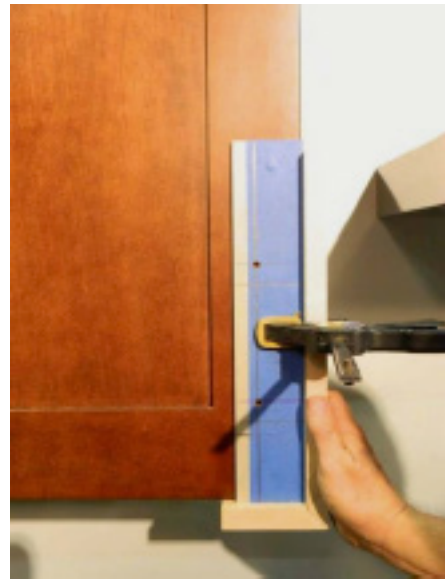
**Up and down
adjustment**

* Door hinge and drawer box adjustment hardware may vary slightly. Please check manufacturer's guidelines.

Step 21

Decorative Hardware

- Install decorative knobs or pulls as desired.
- When installing handles and pulls remember that hardwood doors are susceptible to splintering when drilled.
- Drill from the front through to the back into a tightly clamped piece of wood block.



Step 22

Final touchup and cleanup

TIP: Use a hairdryer to soften fill-stick when filling nail holes and miter or scarf joints.



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