

the helpful guide to
cabinet installation

Diamond



table of contents

Introduction	2
Tools You'll Need	3
Step 1 - Preparation	4
Step 2 - Removal	4
Step 3 - Wall Cabinets	4
Step 4 - Make a "Map"	5
Step 5 - Mark for Base	6
Step 6 - Installation of Wall Cabinets	7
Step 7 - Install Base Cabinets	9
Lazy Susan Installation	10
Specialty Cabinets Installation	10
Step 8 - Putting on the Counter Top	11
Step 9 - Door and Drawer Alignment	12
Step 10 - Putting on the Hardware	13
Wood Dust Caution	13
Warped Door Policy	14
Care and Cleaning	15
Trouble Shooting	15



This booklet covers the basic guidelines of installation and is a great help when installing yourself. However, you should be aware that each project will have some unique characteristics and no installation guide could cover them all. As the installer, you are fully responsible for your finished product. MasterBrand Cabinets disclaims all responsibility for any damages arising from cabinet installation. In addition, the warranty on your cabinets becomes void if the cabinets are in any way modified, improperly installed or damaged prior or during installation.

Thank you for purchasing Diamond Cabinetry!

tools you'll need

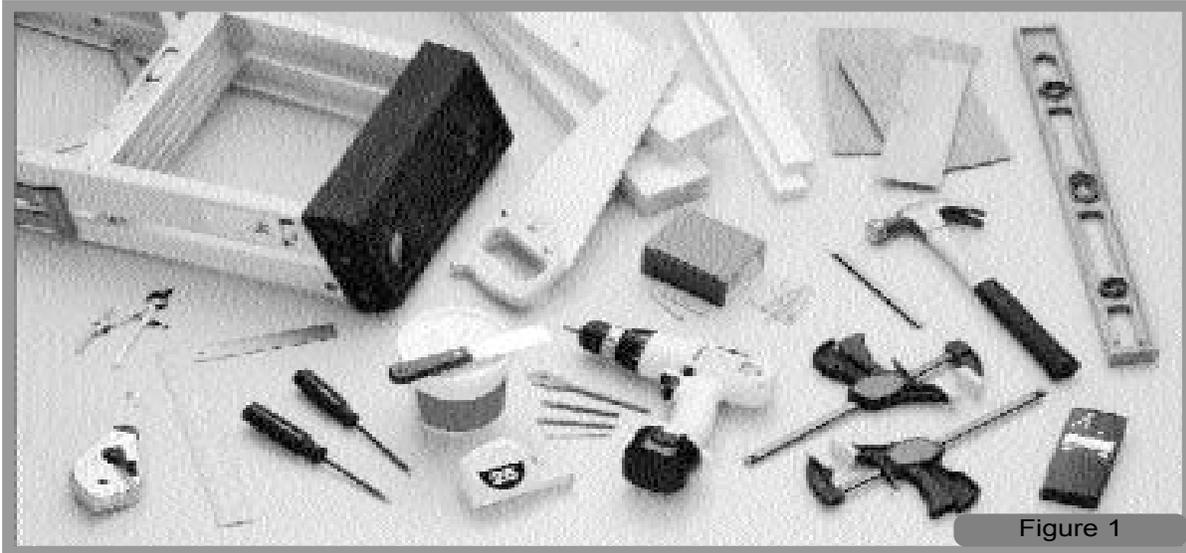


Figure 1

- Steel tape measure
- Carpenter's level at least 24" in length
- Chalk line or string
- A few cedar shakes, shingles or other suitable tapered pieces of wood for shims
- Scribing tool and pencil
- Variable speed drill with $\frac{7}{32}$ ", $\frac{3}{16}$ " and $\frac{1}{4}$ " drill bits and screwdriver attachments
- Step ladder
- Extension cord
- 2 – 6" bar clamps ("C" clamps will also work)
- Carpenter's square
- Stud finder
- Patching plaster and putty knife
- Small carpenter's saw
- Claw hammer
- Assortment of straight blade and Phillips head screwdrivers

IMPORTANT

Shut off water to the sink and dishwasher. We suggest a plumber handle the water shut-offs.

Turn off gas or electricity to the range, cook top and oven.

step 1 - preparation

Familiarize yourself with the kitchen plan and make sure all cabinets and accessories have been delivered and are free of damage.

Next, check all dimensions on your plan with the actual cabinets to make sure everything fits. With a stud finder or by gently tapping the walls, locate and mark studs (usually located 16" apart - on center).

Verify stud location by driving a small finishing nail into the wall (an area that will be covered by the cabinets).

step 2 - removal

Removing old cabinets, as well as appliances and unattached items, provides a better work space and ensures accurate measuring.

Counter tops are usually screwed through the cabinet corner braces. Locate these screws, back them out and lift the tops off. If nailed, simply use a crowbar.

Now you can remove the base cabinets. Most will be screwed to the wall through the back of the cabinets. Again, back the screws out unless nailed.

Now you can remove the wall cabinets. **FIRST**, unscrew adjoining cabinets. Then, remove screws from the back of cabinets. If there is a soffit, remove screws at the top. If wall cabinets were nailed, pry them loose. Be careful an entire section doesn't come down at once.

Finally, remove any mouldings that will interfere with cabinet installation.

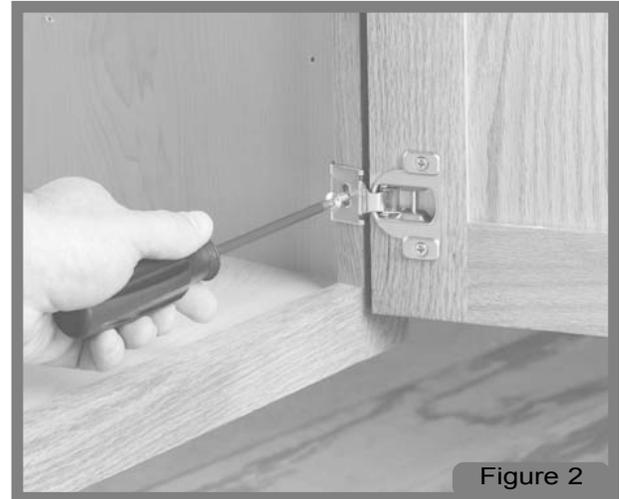


Figure 2

step 3 - wall cabinets

Wall cabinets are usually installed first, so the installer can stand in front or to the side of the cabinet. We recommend that you remove the doors from the cabinets before installing by unscrewing the hinge from the cabinet frame (Figure 2). This ensures easier handling and prevents damage to the doors during installation. Remember to mark the doors and cabinets with a system that will help determine the original pairing of door and cabinet.

Remove all shelving from the cabinet.

HINTS

- 1.) Remove doors, drawers and shelves for full access during installation.
- 2.) Mark them accordingly so proper components are returned to correct cabinets.

step 4 - make a "map"

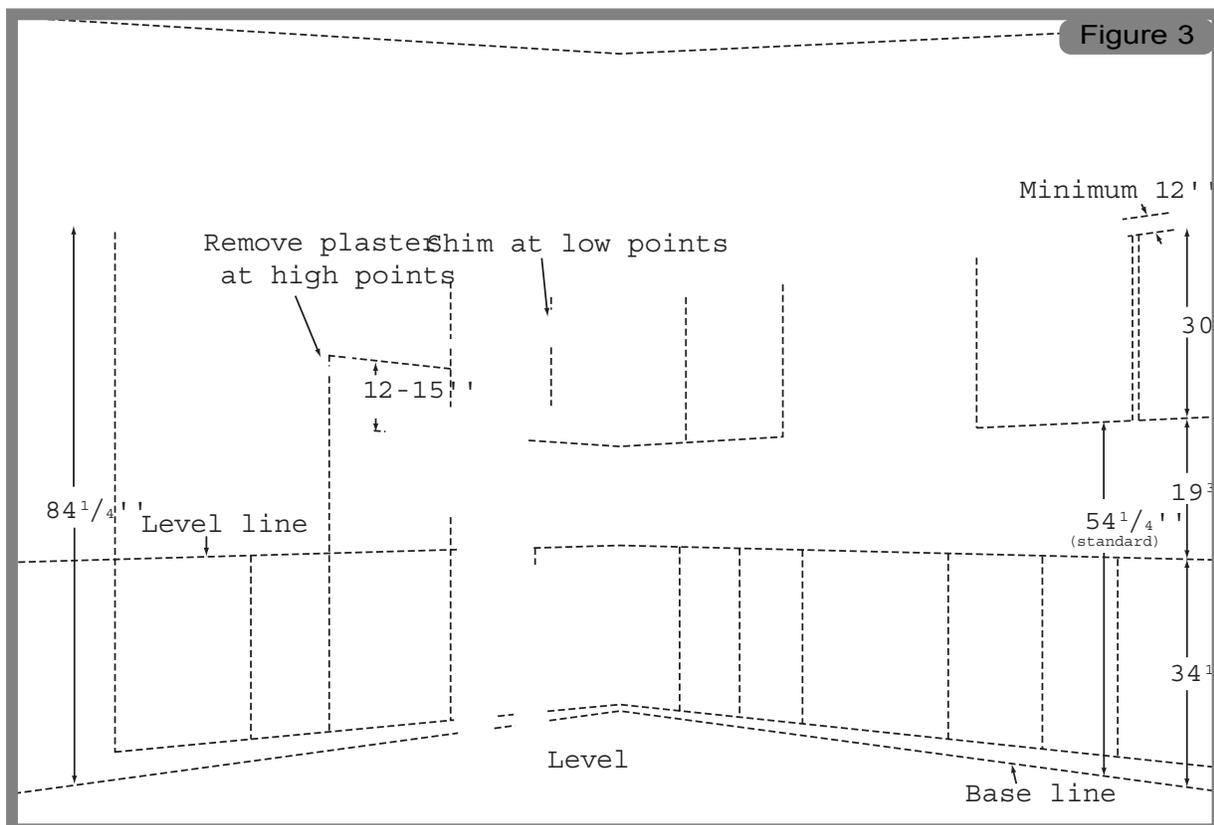
It's helpful to transfer your kitchen plan right onto the actual walls of your kitchen. Here's how to do it.

Determine the HIGH POINT in the floor by laying a straight 2 x 4 on edge. Draw a BASE LINE on the wall at the level of this high point (see Figure 3). ALL vertical measurements must be taken from this point. If the kitchen has a pre-built soffit, it is important that the bottom of the soffit be at least $84\frac{1}{2}$ " and not more than $84\frac{3}{4}$ " from the high point of the finished floor. The minimum is needed to allow a tall cabinet to be installed under the soffit but the maximum of $84\frac{3}{4}$ " should be held so that trim moulding is able to cover the gap between the top of the cabinets and the bottom of the soffit.

Draw a level line on the wall $54\frac{1}{4}$ " up from the BASE LINE on the floor. If a tall cabinet is not used, the wall cabinets may be hung at any

desired height from 51" to $54\frac{1}{4}$ " from the finished floor. (Some prefer to have their wall cabinets hung a little lower so that the top shelves are more accessible.) Extend the level line to the corner of the room that will be the starting point. Then, continue the line around the corner to the end of the cabinet run. Draw vertical lines where cabinets join together. If 15" or 18" high cabinets are used anywhere in the run, another level line should be drawn 12" or 15" up (whichever is required). This line should be horizontal between the two vertical lines that indicate the space where this cabinet will be located. This will be the bottom line of the 15" or 18" high cabinet.

Place a length of 2 x 4 (or other suitable straight edge) against the wall to find the high and low spots on the wall. Tack shims to the low spots and remove high spots with a scraper. Take care to remove plaster only in places that will be covered by the cabinets.



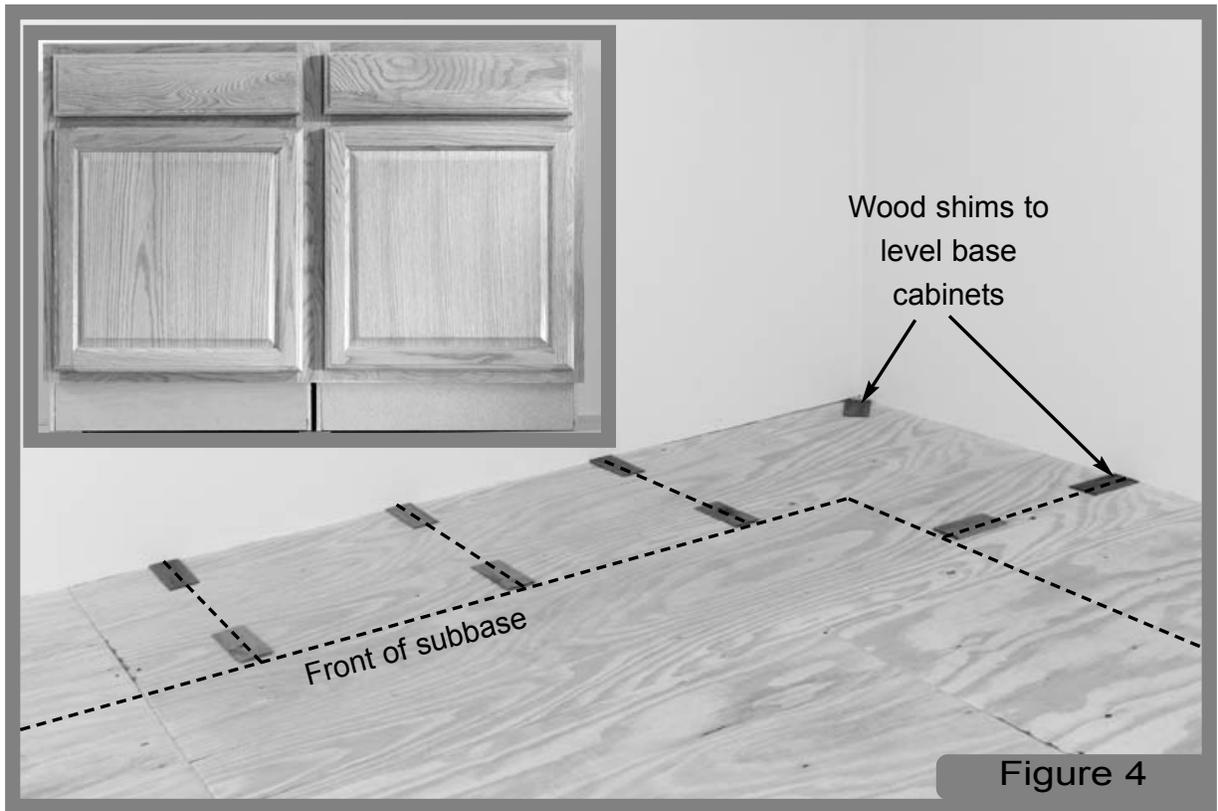


Figure 4

After high and low spots have been handled, ensure that cabinets hang plumb by placing a level along the vertical lines where cabinets join together and tack shims where needed. (Shims are not always required.) Shims should not stick out below or past the run of cabinets.

step 5 - mark for base

Bring the rest of the floor up to the high point in this manner: draw a line on the floor at the front edge of the subbase (Figure 4). Draw lines at right angles to where cabinet ends will rest. The corners of these lines are the only points that need to be shimmed up to the level of the high point. Check level from front to back as well as from side to side. When leveling, place a shim to support corners of two adjoining cabinets, giving them the same level (Figure 4).

You need 41" of height underneath windows and electrical outlets to fit in your new base cabinets and counter top comfortably. If you have only 40" plus a fraction, it still works. If you have less than 40", talk it over with your Diamond dealer. Draw a level line on the wall 34 1/2" up from the high point on the floor. This is the level line of your base cabinets (Figure 5).



Figure 5

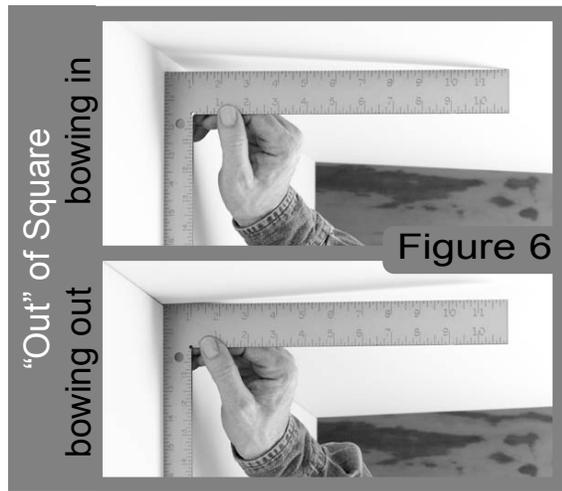


Figure 6

See if your corners are “square.” Place framing square into the corner. If your square fits snug in the corner and against each wall, you’re “in square” (not illustrated). If your square won’t fit into the angle where the walls meet, or if the square fits into the corner and one wall “falls away” (Figure 6), you are “out” of square. Tell your Diamond dealer if the wall is out of square and how the wall is bowing (in or out), and he’ll cover the defect by ordering your counter top cut properly at that corner. If there is an “L” shape run of cabinets, he’ll order the miter cut at the correct angle. Your counter top will cover the defect (Figure 6).

step 6 - installation of wall cabinets

A soffit or furring is the enclosed section which extends from the top of the wall cabinets to the ceiling.

Soffits give extra installation stability, but many kitchen designs do not include them. In a kitchen where



you do not have a soffit, *crown moulding* is a very stylish addition to the kitchen. It may be easily installed with small finishing nails.

Make a floor “T” brace from scrap lumber, covering the top of the “T” with carpet or heavy fabric. This will help you keep cabinets braced as

you position and fasten them to the wall.

START in a corner. Measure from the corner to the first stud mark and transfer this measurement (allowing for the front overhang and the thickness of the cabinet wall) to the inside of the cabinet to be installed in the corner. Mark the next stud, etc. Raise the cabinet in place up to the line on the wall and support with the “T” brace. Being careful to avoid electrical lines, drill $\frac{7}{32}$ ” holes (top, middle and bottom) through the cabinet and the wall, into the stud. Using screws furnished, fasten cabinet to wall (Figure 7).

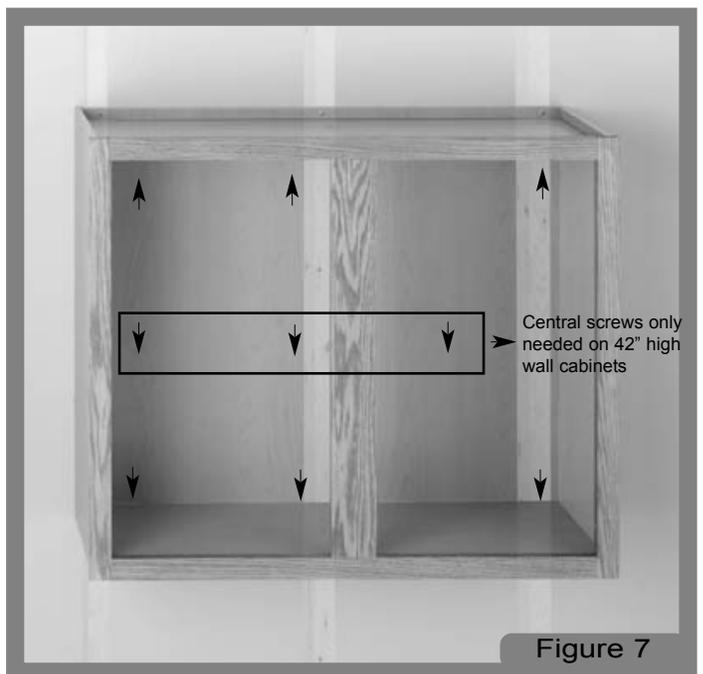


Figure 7

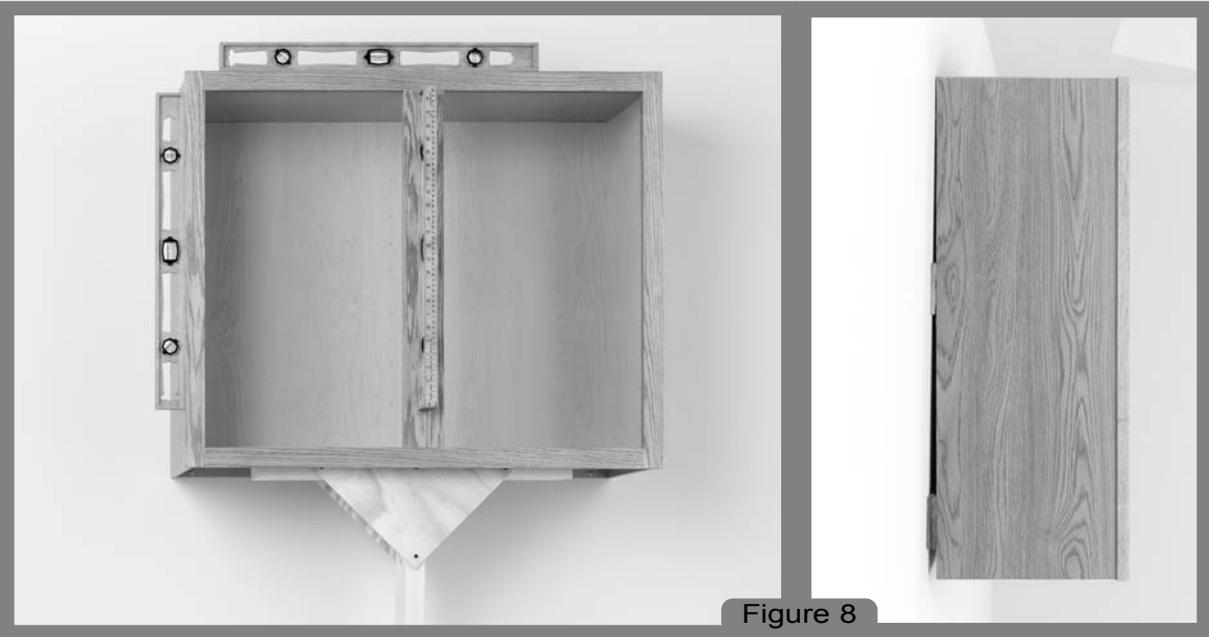


Figure 8

HINT

Hide screw heads by positioning behind hinge plates.

When using an alternate anchor method, use a $\frac{1}{8}$ " drill bit to drill through the cabinet back and into the wall to mark the expansion bolt placement. Then follow manufacturer's instructions packaged

with the anchor bolts. Make sure the cabinet has been leveled from side to side and front to back and properly shimmed (Figure 8). Move the next wall cabinet into position and repeat the installation procedure.

Once two cabinets are mounted to the wall, use the two bar clamps to clamp the stiles tightly together, being careful to line up the bottom horizontal edges. Drill a $\frac{3}{16}$ " pilot hole through the stile in the first cabinet (Figure 9) and $\frac{1}{4}$ " deep into the stile of the second cabinet. Locate two holes, one at the top and one at the bottom about four inches from the cabinet top and bottom and join with #8 x $2\frac{1}{2}$ " drywall screws. A

little soap on the screws will help seat them easily. Pull the two stiles tightly together and remove the clamps. Continue installing the wall cabinets next to one another in a similar manner.

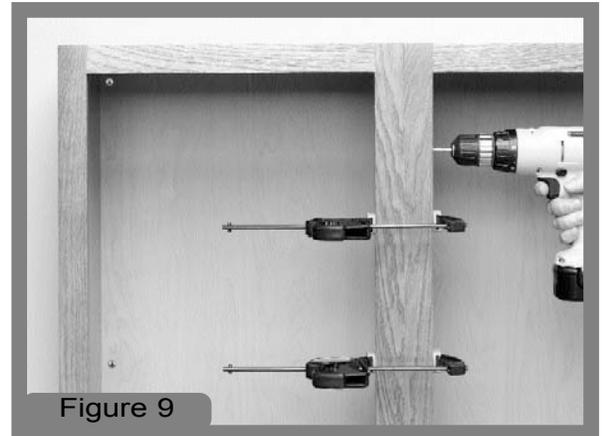


Figure 9

HINT

If you know where you want your shelf, position interior screws so they will be hidden by it.

step 7-install base cabinets

Move all base cabinets in place starting with the corner cabinets to check for fit (Figure 10). Once the corner cabinet is positioned properly (leveled front to back, side to side and plumb, Figure 13), use the stud marks on the wall to locate the position of the screws for mounting the base cabinets to the wall. Drill a $\frac{7}{32}$ " hole at the stud location through the back of the base cabinet approximately 2" from the top through the $\frac{3}{8}$ " thick back and into the stud. Attach the cabinet to the wall with the screws provided inside each cabinet. Be sure to use shims under the cabinet base to bring it up to the previously established cabinet level line.

To attach filler strip to the adjoining cabinet, drill $\frac{3}{16}$ " countersunk holes in the vertical stile. These should be top and bottom on the corner cabinet side, located just below the top hinge and above the bottom hinge areas and one centered in between. Clamp the filler strip in place on the vertical stile. Drill pilot holes $\frac{3}{4}$ " deep through the cabinet frame into the filler strip (Figure 11). Attach the filler strip with 2 $\frac{1}{2}$ " wood screws (Figure 12).

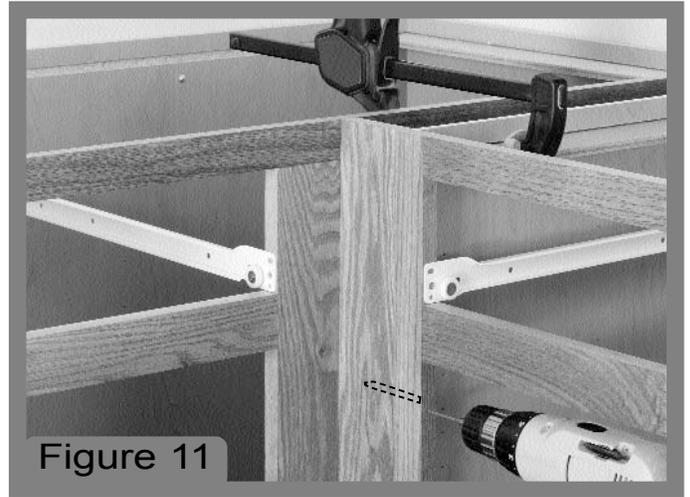


Figure 11

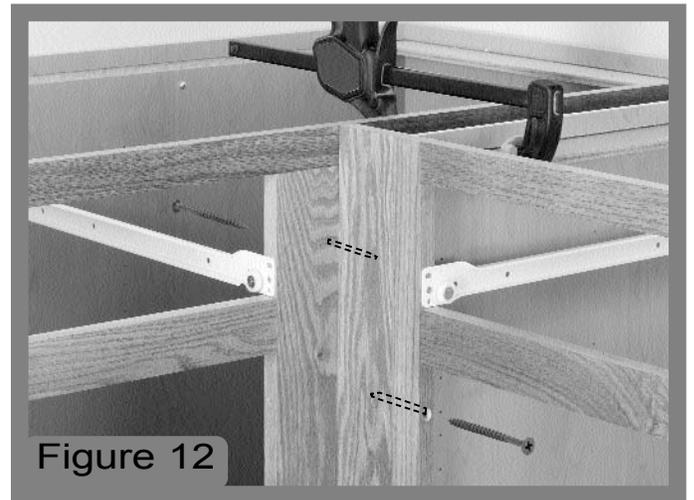


Figure 12

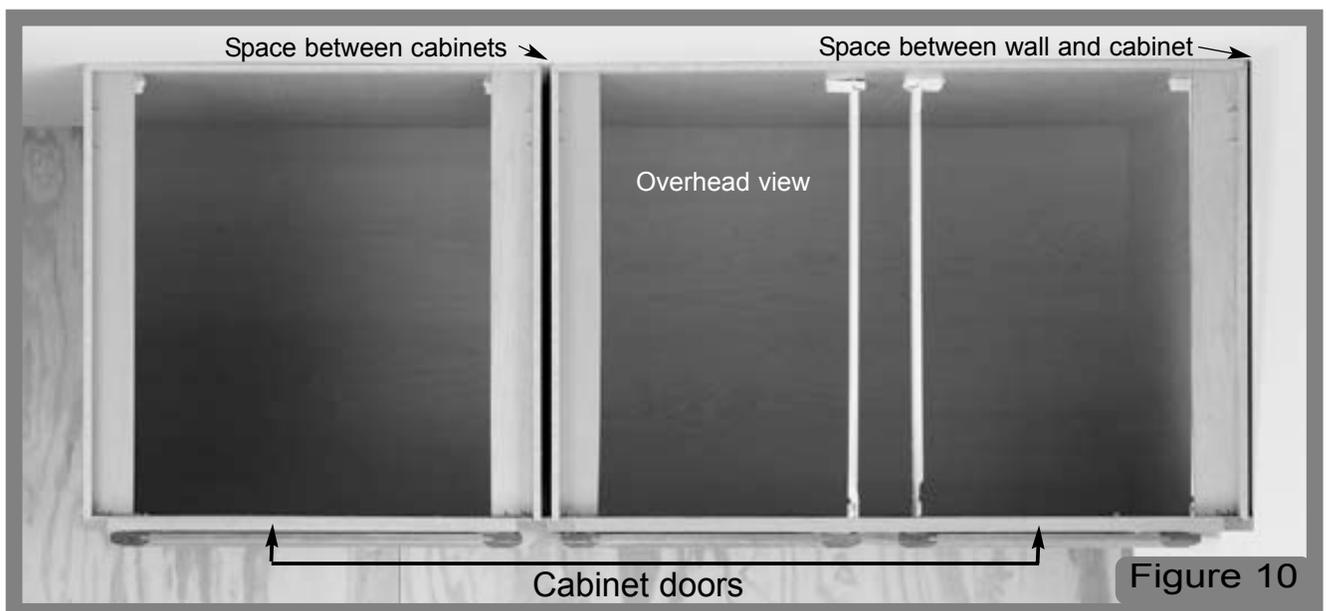


Figure 10



Figure 13

Clamp the corner cabinet and adjoining base cabinet together with the filler strip in place between them. Drill $\frac{3}{16}$ " countersunk holes in the front frame of the corner cabinet. Drill pilot holes into filler and attach. Check the level of each cabinet (front to back, across and plumb, Figure 13).

Install the next base cabinet. Using two bar clamps, clamp the vertical frame members (stiles) tightly together making sure the horizontal frame members form a level and straight line. Drill two $\frac{3}{16}$ " holes through the first stile four inches from the top and four inches up from the bottom. Drill completely through the first stile and $\frac{1}{4}$ " into the second stile. Using #8 x $2\frac{1}{2}$ " screws, draw the two frames together until snug.

Continue installing base cabinets one next to the other so they are all level and follow the base cabinet level line on the wall.

lazy susan installation

Set the units flush with the frames of the cabinets on each side. Measure from the cabinet frame to the wall to make sure you're using 36" of wall space in each direction (Figure 14).

Leaving the Lazy Susan unit in place, attach the base cabinet on either side to the wall studs. Now attach the Lazy Susan frame to the front frames of the two adjacent cabinets.

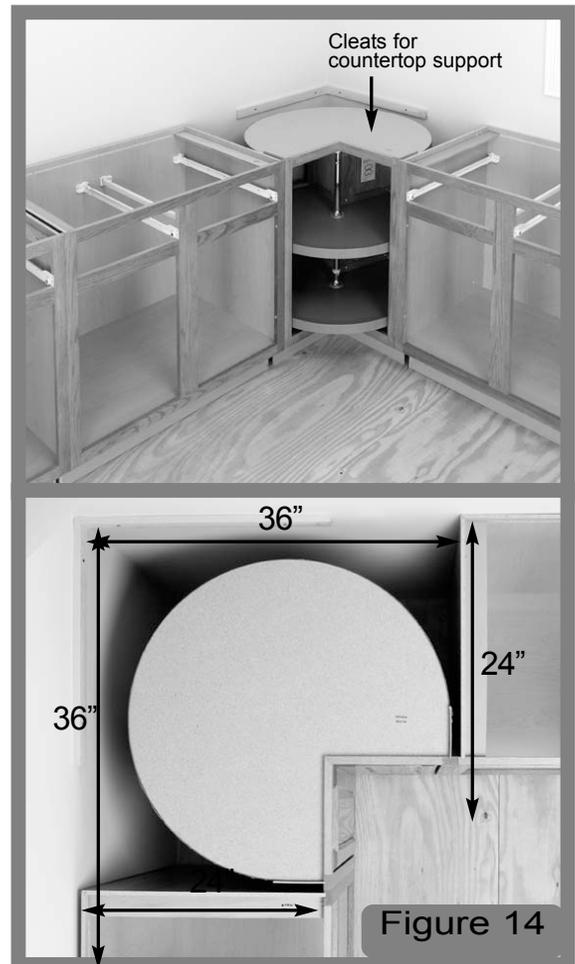
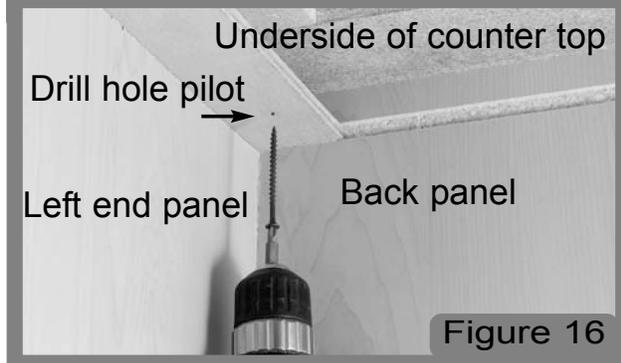
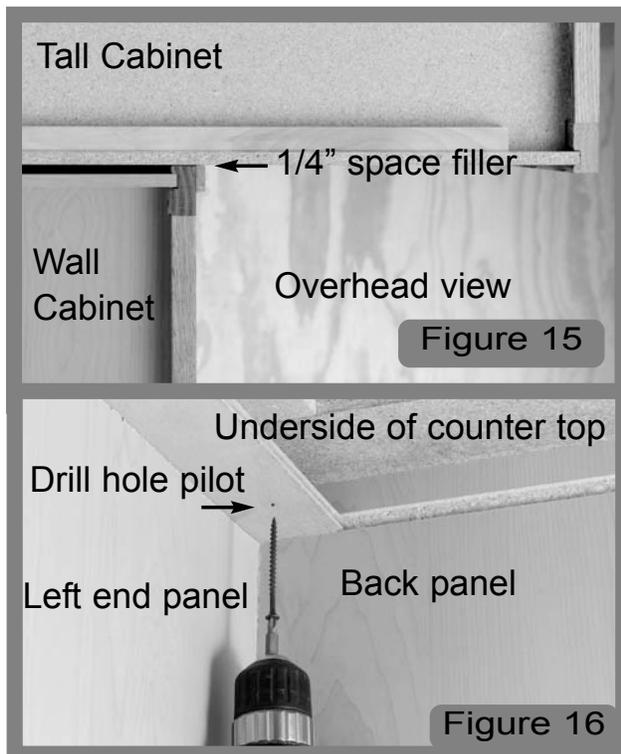


Figure 14

specialty cabinets installation

For SINK CABINETS, you will need to cut a hole in the bottom or back of the sink base cabinet for plumbing. Then put the cabinet in place so the plumbing comes through the hole you've cut. When you slide a TALL CABINET into place, you'll see you have a mismatch if it adjoins a wall cabinet. You'll be matching a 12" deep wall cabinet against a much deeper tall cabinet - and looking at a gap between the two. The answer is to use 1/4" space filler. Cut the filler to length and tack it to the edge of frame on the 12" deep cabinet. Fit the tall cabinet against the filler (Figure 15). The same applies to microwave cabinets.

Be sure to follow the installation instructions provided by the oven manufacturer. It is important to be sure oven weight is supported evenly on the front and back of your OVEN CABINET.



A filler trimmed to 1/4" in thickness or scribe moulding is recommended to conceal the small gaps between the top of the cabinets and the soffit or ceiling.

When hanging cabinets from the ceiling or soffit, such as peninsula wall cabinets over an island, cabinets should be installed using at least one #8 "washer head" screw per every 16 inches of cabinet width. These screws should go through 3/16" pilot holes, pre-drilled in the front frames and should have at least 1 1/2" of penetration in solid wood such as ceiling joists or soffit frames.

step 8- putting on the counter top

It is best to wait until all the cabinets are secured in place before ordering your counter top. After cabinets are installed, measure all surfaces that the counter top is required to cover. Take these measurements to your local counter top manufacturer or have him come to your kitchen and take field measurements of the kitchen. Remember, once you order the top from your own measurements and it does not fit, the problem can become complicated and costly.

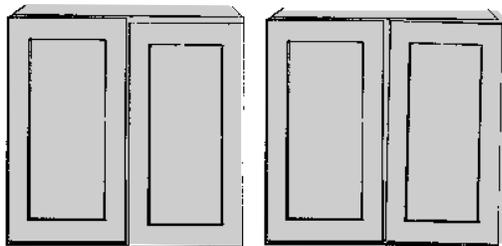
Carefully place the counter top on the cabinets and check alignment. You will notice each base cabinet has lineal end panel braces. Carefully drill up through these braces within the front and back quarter of the brace length into the bottom frame of the counter top (Figure 16). Be careful to measure this distance and select the proper length screws. Also, be extremely careful to drill the proper depth hole into the counter top. Do not drill through the counter top.

It may be necessary, if you have uneven walls or corners "out" of square to have an extra piece of laminate called a "scribe" attached to the counter top by the manufacturer. This may be marked and then cut to fit the irregularities before installing the tops.

step 9- door and drawer alignment

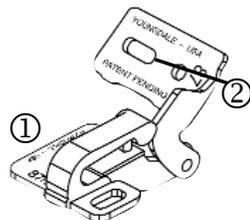
Now it's time to finish your job. Prior to installing your hardware, it is necessary to re-install and properly align doors and drawers. First, make a final check on squareness by using a level on all horizontal and vertical cabinet surfaces. If any cabinet is out of square, now is the time to correct it. Loosen from the wall and use shims to properly square the cabinet. Then, reinstall doors and drawers and get in perfect position to accept hardware.

If doors do not line up vertically (up and down) or where they meet (in the middle), adjust hinges, as shown.



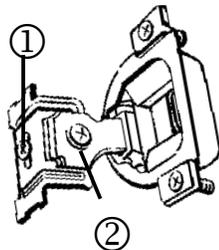
Knife Hinges - For side adjustments: Loosen screws adjust the door left or right and tighten screws.

For height adjustments: Loosen screw 1 on mounting plate, adjust door up or down and tighten screw.



Cup Hinges - There are several different types of cup hinges on Diamond cabinetry. Adjustment for all is the same.

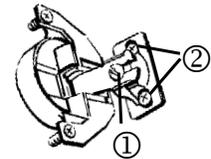
For side adjustments: Loosen the screws 1 and 2 attaching hinge to the frame plate; tighten when the proper position is achieved.



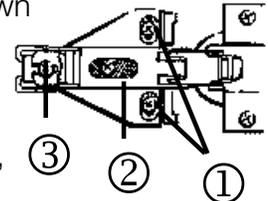
For height adjustments: As shown here, simply loosen the screws 1 and 2 attaching the hinges to the frame and move the door up or down to the desired position.

Oven Cabinet Hinges - For side adjustments: Loosen screw 1 on hinge, adjust the door left or right and tighten screw.

For height adjustments: Loosen screws 2 on door, adjust door up or down and tighten screws.

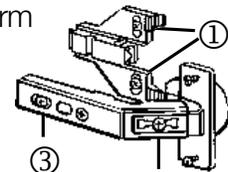


Easy Reach Hinges - For side adjustments: Locate the concealed Phillips head screw 2. Turn to desired adjustment. For height adjustments: Loosen screws 1 on hinge plate, adjust door up or down and tighten screws.



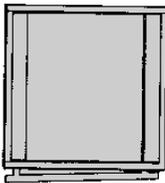
For forward or backward movement, adjust Phillips head screw 3 at the end of hinge arm.

Bi-fold Easy Reach Hinges - For adjusting the gap between doors: loosen screw 2 on the shortest arm of the bi-fold hinge; tighten after adjustment.



For height adjustments: Loosen screws 2 on hinge plate, adjust door up or down and tighten screws.

For forward or backward movement, adjust inner screw 3 on the longer arm of the hinge.



If drawer does not close evenly, manually adjust drawer guide socket. To correct drawer guide alignment, adjust the drawer guide member attached from the front edge of the cabinet to the back, by manually realigning the back socket. Once realigned, be sure to check that the drawer guide rollers stay in their track and operate smoothly.

step 10-putting on the hardware

If you want to reverse the swing on square doors (change from a right hand to a left-hand hinge), just remove the door and attach it to the opposite side of the frame. Door can mount upside down. (Certain door styles are not reversible. Check with your dealer.)

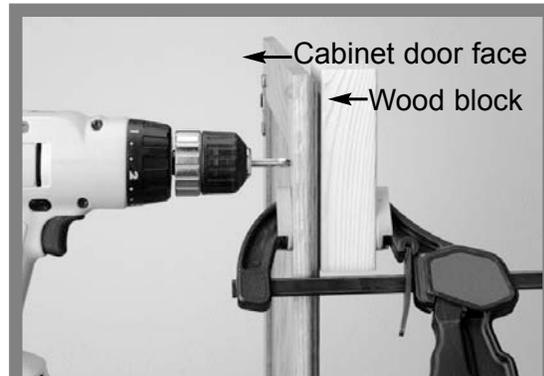
Now, install all pulls and other hardware. Remember that all hardwood doors are susceptible to splintering when drilled.

Use a sharp $7/32$ " bit to drill holes from the backside of the door. Drilling into a wood block clamped tightly to the face of the door will minimize splintering (Figure 17).

A touch-up marker can conceal small installation problems.

Now, install all pulls and other hardware. Remember that all hardwood doors are susceptible to splintering when drilled.

Use a sharp $7/32$ " bit to drill holes from the backside of the door. Drilling into a wood block clamped tightly to the face of the door will minimize splintering (Figure 17). A touch-up marker can conceal small installation problems.



HINT

In case of scratch, touch-up materials are available from your Diamond dealer.

wood dust caution

Sawing, sanding, or machining wood products can produce wood dust which can cause a flammable or explosive hazard.

Wood dust may cause lung, upper respiratory tract, eye and skin irritation. Some wood species may cause dermatitis and/or respiratory allergic effects. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

- Avoid dust contact with ignition source.
- Sweep or vacuum dust for recovery or disposal.
- Avoid prolonged or repeated breathing of wood dust in air.
- Avoid dust contact with eyes and skin.
- FIRST AID: If inhaled, move to fresh air. In case of contact, flush eyes and skin with water. If irritation persists, call a physician.

For additional information, contact your dealer for a Material Safety Data Sheet (MSDS) or call 1-765-935-2211 to request a direct mailing.

warped door policy

Diamond cabinets are constructed to strict specifications, including wood's moisture content. When the moisture content is constant, expansion and contraction are limited. Too much expansion and contraction can cause warping. By controlling the amount of humidity during manufacturing, Diamond helps ensure a quality product.

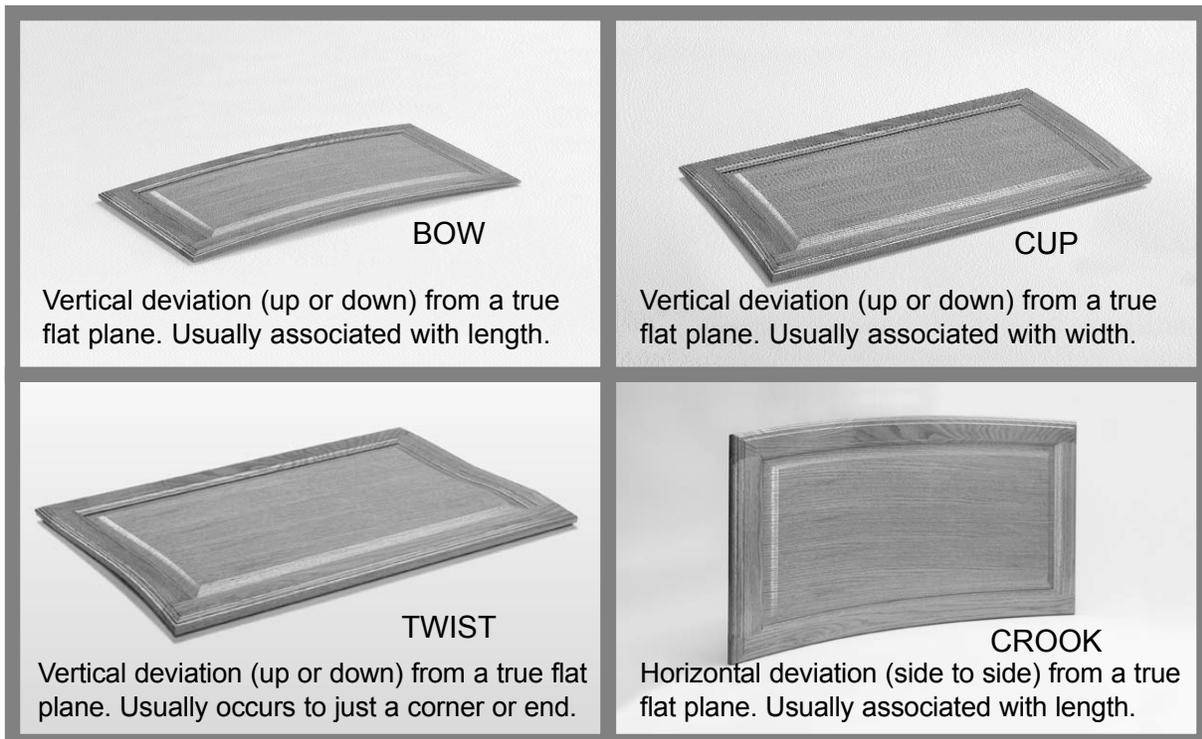
If you feel you have a warped door, Diamond requires that you perform initial testing:

1. Remove the door and decorative surface knobs, pulls and hinges.
2. Place the door on a flat surface and alternately press on the opposite corners to see if the door "racks" or pulls away from the surface.
3. If you observe a gap between the door and flat surface, measure the distance to determine the amount of warpage.
4. If the door does not pull away from the flat surface, it is not warped. Incorrectly installed cabinets (not level or out of plumb), can make doors appear warped. Check installation.

A door must be warped at least 1/4" before it can be considered for replacement. To order a replacement, contact your Diamond Dealer.

If warping is less than 1/4", allow a complete heating and cooling cycle (summer to winter) to let the door reach equilibrium. Magnetic catches or roller catches will often correct minor problems.

classification of warped doors



care and cleaning

The fine “furniture” finish of Diamond cabinets is designed to withstand hard usage. All wood and laminate surfaces may be cleaned with a soft cloth moistened with pure soap suds (not detergent) then wiped dry with another soft cloth.

Once or twice a year, after cleaning, a light coat of self-cleaning wax may be applied to laminate surfaces for added protection. For wood surfaces, a light coat of furniture polish is

recommended. Take extra care on the bottom edge of base cabinets and base cabinet doors where moisture often collects.

Do not use detergents, soap pads, steel wool or other harsh abrasive material on your Diamond cabinets.

For complete guidelines refer to Diamond’s website, www.diamond-cabinets.com for Diamond’s Care.

trouble shooting

As a do-it-yourselfer, you have assumed the role of the contractor. In assuming this role, there are certain responsibilities that could become necessary to “finish” the job once installed.

CONDITION	POSSIBLE CAUSE	REMEDY
Double doors on cabinet or base do not line up.	1. Cabinet not set level and square (plumb) or cabinet is in a twist (racked).	1. Loosen screws in wall and use shims to make cabinet plumb. 2. Loosen hinge* screws on cabinet frame and adjust alignment. Re-tighten screws to frame.
Door is not flush with cabinet face frame at either top or bottom.	1. Hinge twisted. Cabinet racked. 2. Door warped due to insufficient humidity.	1. Make sure cabinet is plumb and level. Then, adjust hinge*. 2. Refer to warped door policy on previous page.
Drawer face does not fit flush with cabinet.	1. Drawer guide out of alignment.	1. Before counter tops are installed, adjust the guide by sliding it right or left in the back bracket. Guides must be parallel.

*See Step 9-Door and Drawer Alignment for details



Diamond cabinets meet or exceed the strict recommended performance and construction standards set forth by the Kitchen Cabinet Manufacturers’ Association.

