



Installation Instructions

Real Plywood Paneling



Superior Products. Brilliantly Crafted. Made in the USA.

Materials

Thank you for your purchase!

Our paneling may be applied with nails or panel adhesive. The advantage of using adhesives is that the panel surface is unmarked by depressions that result from the use of nails and, therefore, adhesives typically give a better appearing job. Trim molding may also be applied with paneling adhesive.

Before beginning to install your paneling, read through these instructions and assemble the recommended tools and supplies. Also, determine in advance of the installation where and how you are going to use trim molding as this has an impact on where your installation begins and ends.

Recommended Tools and Supplies

The following tools and supplies are useful for installing veneered or laminated plywood sheet panels:

- Claw Hammer
- Nail Set
- Flat Screw Driver
- Wood Rasp
- Tape Measure
- Nails (see below*) and/or Paneling Adhesive/Caulk Gun
- Carpenter's Level
- Plumb Line device
- Carpenter's Square
- Sandpaper, medium grit
- Wood Blocks (e.g., 2" x 4")
- Drill
- Coping Saw
- Keyhole Saw
- Any one of: Hand, Table, Radial Arm, Portable Circular, or a Sabre Saw

**For panel installation using nails:*

Furring Strips, studs, backing board: 3 penny (1 ¼") Finishing nails and putty or 1" colored nails

Gypsum wallboard or plaster: 6 penny (2") Finishing nails and putty or 1-5/8" colored nails

Molding and trim : 3 penny (1 ¼") Finishing nails and putty or 1-5/8" colored nails

Finishing nails should be carefully countersunk 1/32" with your nail set and avoid damaging the paneling surface. A wood putty that blends with the panel finish is recommended to fill countersunk nail holes and if you use colored nails, do not countersink them. Take extra care not to dimple the paneling surface as you drive the nail with your hammer or nail set.



Planning Your Installation

How to measure and plan

We've plotted the floor and walls of a 16' x 20' dining room to make our explanation clear. Notice that we've allowed each square to represent a full twelve inches, and that we've shown doorways and windows in scale (appropriate size) and in their exact positions.

Now, by marking off 4' segments along the sketch of each wall, we know how many 4' x 8' panels we'll need. For your own room, first measure and sketch each wall in turn. Measure and mark the position and size of doorways and openings.

How many panels?

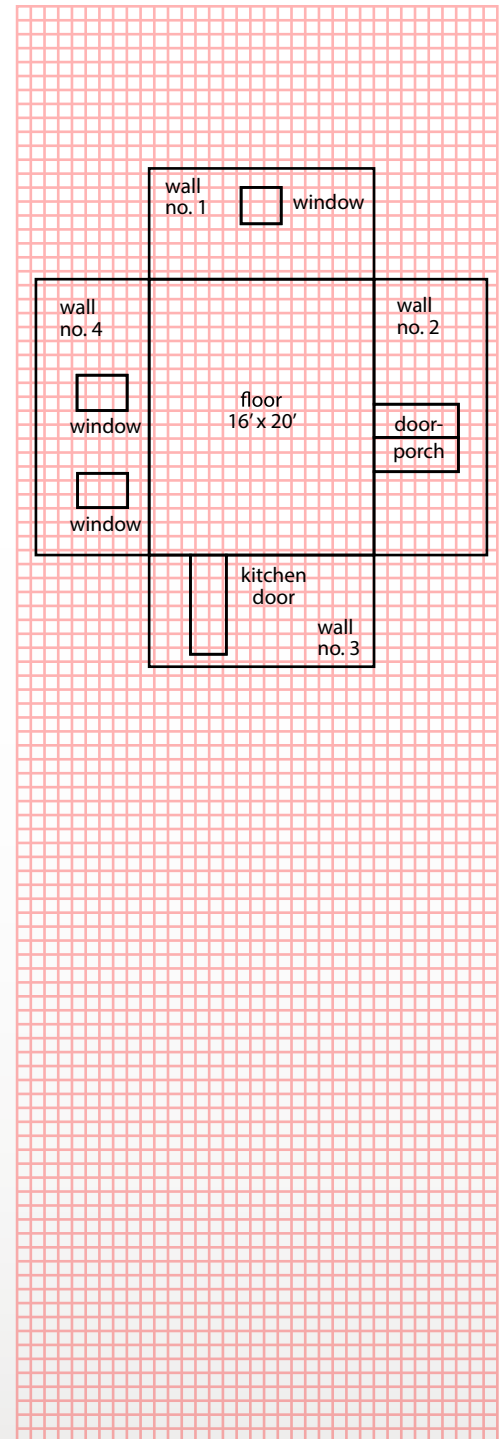
As we mentioned, each panel (when used vertically) covers four feet along the floor. Simply add up the lengths of the walls, and divide by 4. For instance, for 8' paneling in an 8' high x 16' x 20' room, we'll add $16' + 16' + 20' + 20'$ to get 72'. Dividing 72' by 4' (panel width) we need 18 panels.

Or, even simpler, count off four-foot segments along the floor on the chart. Cutouts you'll be making for large openings (doorways, windows) can often be used to panel over and under windows, for instance, or at stairways. You can estimate this by measuring carefully.

For a four-foot high wainscot, divide by 8. (For the same 16' x 20' room, with 72 feet of wall perimeter, $72' \div 8 = 9$ panels needed.) You'll also need chair rail or other decorative molding at the top of the wainscot panels. (72' perimeter minus window and door opening measurements within the wainscot area.)

Wainscoting

American Paneling may be cut to the desired height and installed as a wainscoting. When used as a wainscot, installation is as previously described for that particular type of American Paneling and as recommended for the various wall conditions. Wall preparation is also as previously described. A chair rail or other decorative molding should be applied over the horizontal joint at the top of the wainscoting.



1

Preparation

For at least 48 hours, let air get to all panel faces and backs. Stack the panels, separated by furring or shims, in the room you're going to decorate to allow panels to assimilate room temperature and humidity.

New construction

Our 1/4" (5.2mm) solid plywood paneling can be installed directly to smooth studs without furring. Our 1/8" (2.7mm) thick paneling must be installed over solid, dry backing. Use a wood plane to smooth the projections or shim out low spots if studs aren't perfectly straight. Foil backed gypsum board, plastic sheeting or other vapor barriers, having a perm rating of 1 perm or less, installed on the warm side of exterior walls will protect paneling from moisture.



Existing walls/plaster and dry walls

Walls are usually constructed of 2 x 4 studs (verticals) with plates (horizontal) at floor and ceiling. (Fig. 2). Studs are set every 16" (16" on centers) and at doors and windows. Very often you'll find double construction (two 2 x 4's) at doorways and windows. To locate each stud, tap finished wall with a hammer. (At a stud the sound will be solid). Or use a magnetic stud finder. Nailheads that show in dry wall or baseboards or chair rails indicate nails that have been driven into studs. You'll need these studs, to hold furring and shims that we'll discuss later.



Over masonry, basement, or any damp wall

Masonry walls, especially when below ground level, pose only one serious problem... they're damp. The paneler must be certain that dampness released by concrete or brick or stone will not harm the panels.

First, cure any problems of dampness. Be sure the paneling you select is appropriate for the location you have in mind.

Second, install a continuous vapor barrier of plastic sheeting over damp masonry or basement walls prior to installing furring or paneling.

Third, either 1) attach furring strips to wall with masonry nails-or 2) (the preferred method) build a suitable frame of 2 x 3 lumber over the entire wall (Shim out as necessary). Fasten the frame directly to the wall with nails or screws into plugs or expansion shields, or fasten with hardened cut nails, bolt anchors, adhesive anchors or adhesive. Or (easiest of all) add 1 x 2 furring spacers between the frame and the masonry wall and wedge and nail the frame tight against floor and ceiling.

Fourth, install paneling to frame just as you would upstairs, over furring. Shim out frame from wall where necessary. Use same nailing schedule or adhesive method as with furring on a dry wall. Conditioning of the panels prior to installation is most important in below-grade application.



2

Preparation (cont'd)

Preparing the room

Most walls are in pretty good shape. You'll want to remove moldings and so forth, but generally there's very little preparation needed. However, if there's loose plaster, tear it out and build out the wall with furring or repair it with patching plaster. If wallboard isn't exactly flat and tight, nail it tight to the studs. If damaged, replace that section. Paneling will hide many minor wall defects. Just be certain that the defect won't get worse, to spoil your paneling efforts sometime in the future.

It's best to remove moldings around doors and windows. Do it carefully to avoid splitting, with a wedge or carpenter's pry-bar. Or drive the nails clear through moldings with hammer and nailset. Should you discover a void in the wall, or if you've removed an electric outlet or are filling in a larger opening (such as to change a window into a smaller pass-through) build out with studding and/or shims to match the vertical plane of the rest of the wall.

Furring

Paneling can be readily installed against any dry, non-masonry wall, but furring is always recommended when wall is unsound, below grade, or very uneven. Take the time to check your walls for flatness. Hold a level or a flat length of 2 x 4 against various areas of the wall. Double check yourself; use both sides of the 2 x 4 to be certain. Check walls vertically. They can fool you. A large carpenter's level is the best way. Or use a good plumb line (a small weight called a plumb-bob on a cord).

If you turn up an unusual condition, mark the wall so you'll be sure to correct it when you're furring and shimming. If necessary, nail furring strips over the old wall, directly into the studs. Use standard 1 x 2 furring strips or cut 1/2" wide strips from sheets of plywood sheathing. Space horizontal furring strips every 16" (measure from center of one strip to center of the next) and vertical furring at least every 48" so that all panel edges will be held tight and solid. Paint vertical furring to match color of panel grooves. Apply additional furring around doors, windows, etc. Don't skimp - use extra furring when in doubt. Where necessary, shim out furring to establish even planes horizontal as well as vertical. On an uneven wall, take special care to provide a firm, even base for the paneling. If the wall is extraordinarily rough, paneling could be installed over full sheets of 5/16" plywood sheathing.



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Installation Using Nails

If panels have a design or pattern, make sure the pattern is placed in the same direction on all panels before cutting. If trim molding is to be installed along the ceiling, leave $\frac{1}{4}$ " gap between top of panel and ceiling. If not installing molding, place panel against ceiling.

Plywood paneling less than $\frac{1}{4}$ " thick should be nailed to furring, studs or sheathing with 1" brads or 3d (three penny, $\frac{1}{4}$ ") finishing nails, every 6" along paneling edges and every 12" along intermediate furring. Toe-nail (at an angle) at joints through bevels and grooves. Conceal nail heads with matching putty or use color matching nails. Be careful not to dent or mark the panel face with hammer head. Use a nail set.

Most corners are not perfectly true. Usually, panels must be trimmed to fit into the corner. Here's how:

- 1) Tap two finishing nails into groove at top edge of panel so that they just protrude through the back.
 - 2) Place panel in corner using a carpenter's level to assure that panel is plumb vertically. When level, drive the nails partially into studs to hold panel in place.
 - 3) Mark the panel edge, parallel to corner. If the walls are irregular or exceptionally rough (for example, against a brick fireplace), you might want to scribe (an art compass makes the best tool for this).
 - 4) Cut, plane, file, or sand carefully to fit panel into corner.
- Note: It might not be necessary to scribe and fit to compensate for slight irregularities or corners only slightly out of plumb, especially if you are paneling both walls of an inside corner, or if you're planning to use inside corner molding.

The next panels

Butt edges against previously installed plywood panels. Be sure to maintain a true vertical line, for good alignment at the next corner, doorway, etc.

Paneling into a corner

Cut off panel at edge going into the room corner, leaving an inch or more excess to permit scribing and/or accurate measuring to compensate for out-of-plumb corner. Keep panel edge exactly parallel with previously installed panel. (Slight irregularities will be concealed by corner molding.)



3

Cut Panels To Fit

Cutouts for doors, windows, outlets, etc.

It's always more satisfactory to measure and mark when you can visualize the cutout to be made. Even if it should require considerable moving and jockeying of full-size panels back and forth between the room you're paneling, and your shop, it's worth the trouble to have the panel handy for marking while you're measuring.

For outlet boxes

Measure to edge of adjacent panel. Mark panel to be cut. Drill pilot holes at corners of cutout area for cutting with saber saw or keyhole saw. Or drill holes close together within cutout area, and press out the scrap piece. Shim outlet flush with panel face. Note: Cutout can be up to ¼ in. (6.4mm) oversize and still be covered by the switch plate.

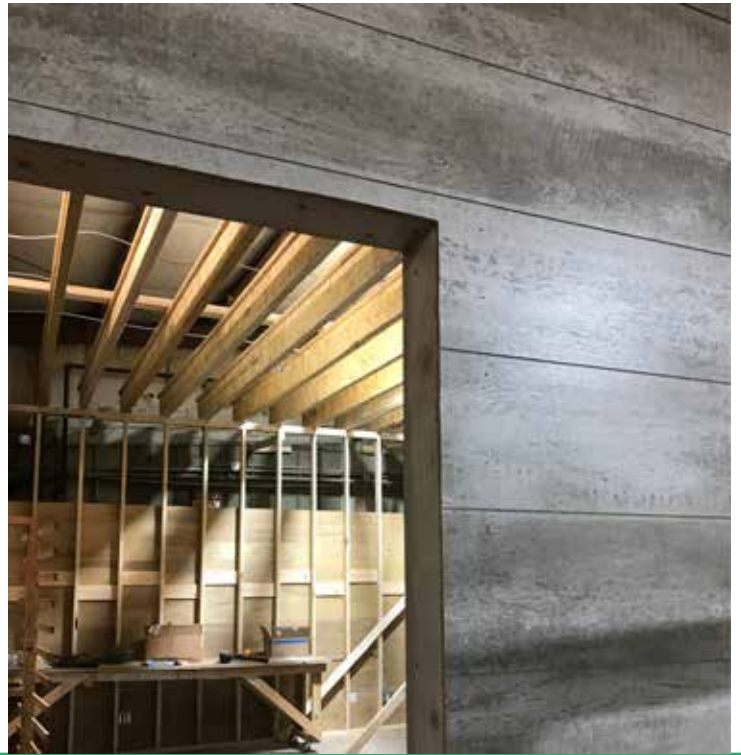
For a door or window

Stand the panel next to the opening. Plumb the panel into position. Measure for cutout and transfer measurements to the panel with a grease pencil or chalk.

If walls are furred out, door jambs must be extended, to compensate for the thickness of the furring. Clear pine is recommended, available from your local lumber yard.

For radiator or convector enclosure

Do it the same as for door and window cutouts. Furring around enclosure provides solid base for paneling.



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Installation Using Adhesive

If panels have a design or pattern, make sure the pattern is placed in the same direction on all panels before cutting. If trim molding is to be installed along the ceiling, leave $\frac{1}{4}$ " gap between top of panel and ceiling. If not installing molding, place panel against ceiling.

If panels will be fastened with adhesive, the edges of the paneling may sometimes separate from the wall. Separation can occur as a result of improper application of panel adhesive. So that edges of panels can be attached to wall with nails if adhesive fails at a later time, it is a good idea for edges to be located on centers of studs or furring strips.

The first panel must be plumb. Therefore, the wall must be marked with a plumb line for aligning the leading edge of the panel. Edge [5] and [2] must fit into the corner, and may need to be trimmed if the corner itself is not plumb.

1) Trim panel edge [1] so that it fits into the corner well, and that edge [2] aligns with plumb line (on stud if possible).

2) Drive four 3-penny (1 $\frac{1}{4}$ ") finishing nails partway into panel 1" from the top edge.

3) Following manufacturer's instructions, apply panel adhesive to wall, studs or furring strips. Starting in the corner, run a small bead of adhesive along the studs, furring, or if you are installing on solid wall, apply adhesive in a grid pattern. Do not apply adhesive beyond area to be covered by panel.

4) Place panel at installed position and press lightly to spread adhesive to back of paneling.

5) While holding at installed position, drive the four nails $\frac{1}{4}$ " to $\frac{1}{2}$ " into the wall, leaving enough of nail exposed for easy removal.

6) Pull bottom of paneling away from the wall until it becomes tacky, using scrap wood at the bottom as a spacer. Once tacky, remove the scrap wood and press paneling firmly into wall, then, using a fabric-wrapped block of wood against the paneling to protect it, use the hammer to carefully set the paneling against the wall. (We recommend driving nails at 6 to 12" spacing along the top and bottom edges of the paneling, but this is optional.)

7) Countersink any nails with your nail set, and fill any nail holes with a color-matched putty and wipe off any exposed adhesive.



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Installation Using Adhesive (cont'd)

The next panels

Butt edges against previously installed plywood panels. Be sure to maintain a true vertical line, for good alignment at the next corner, doorway, etc.

Paneling into a corner

- 1) Measure and record distance [2] from panel and corner at several places.
- 2) Beginning at edge [4], measure and mark distances recorded in Step 1.
- 3) Using marks as a guide, draw a line on panel, and cut to size to fit corner. Sand edge.
- 4) Drive two 3-penny nails part-way into top of paneling, 1" from top edge.
- 5) Repeat previous installation instructions for the last panel.



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Installation Tips & Hints

Hints for basement rooms

You'll be facing certain characteristic situations (pipes, beams, columns, etc) in paneling your basement that just don't happen in other rooms. However, once again, the solution to any of these problems is not difficult.

One very general hint. Very often you can afford to waste a little floor space in the basement and still come out with a large enough room. Instead of boxing in close to a water heater, for instance, it might prove better to build a large storage area which encloses this water heater and the washer or whatever you have in mind. Plan the basement carefully. Don't be intimidated by stairways, columns, fuel tanks, etc.

Closing in the stairs

Converting open cellar stairs into a closed stairwell calls for only relatively simple. Alternate plans for closets, exposed shelving, etc., should be developed before paneling is begun.

Enclosing center beams

Establishing a ceiling height below the ever-present center beam of the house would usually prove impractical. Instead, use furring strips to build a simple frame around the beam. Now apply your paneling to the sides and bottom and you have an installation that blends in with the walls. Lally columns can be handled in the same way. Build a simple box around the column and apply paneling right over it.

Closets and interior framing

You may want to add a corner closet or partition an existing room. This is not a difficult job but it does require some preliminary planning and framing. Measure the spaces desired for your closet and mark it out on the floor, being careful to avoid existing electrical wiring and plumbing pipes in the floor and walls.

Next-cut 2 x 4's to size, for your base plates and top plates. When nailing the base plate to the floor, leave an opening for the door frame. Measure and mark the top and base plates for placement of the studs, which should be toe-nailed 16 inches on centers. Tilt up wall frame and nail to floor and ceiling.

The outside corner is made up from three 2 x 4's and installed so that it provides inside and outside nailing surfaces that are as thick as the other studs. Now-add drywall to the inside of the closet. 1/4" Plywood may be nailed directly to the studs. When the panels are up, install the door frame. Then add your corner molding, cove molding and base molding.

The result - a neat, attractive, professional looking closet installation.

