



Photo courtesy of Alcoa Home Exteriors, Inc.

**Vinyl siding** can look very similar to wood lap siding, but it doesn't require regular upkeep. Vinyl can be installed on any type and style of house.

## Installing Vinyl Siding

Vinyl has become one of the most popular sidings due to its low cost, uniform appearance, and maintenance-free durability. Installation is fairly simple, with each row locking onto the lip of the underlying course, then nailed along the top.

There are a couple of key factors that will make or break your siding project. First, the sheathing must be straight and solid before the siding is applied. The siding will only look as straight and smooth as the wall it's on. Second, determine how the siding should overlap to hide the seams from the main traffic patterns. This usually means starting in the back and working toward the front of the house.

Do not nail the siding tight to the house. The panels need to slide back and forth as they expand and contract with changes in the temperature. If the siding can't move, it will bow, and will need to be reinstalled. Keep a  $\frac{1}{2}$ " gap between the head of the nail and the siding.

Vinyl siding is available in a wide variety of colors and styles, and with a lot of accessories, such as

trim, fluted lineals, vertical columns, crown molding, and band boards. The most common vinyl siding is horizontal lap siding, which is shown starting on page 118. This project shows using a foam underlayment, which reduces outside noise, protects the siding from dents, and adds an insulation value. Vertical vinyl siding is also available. It's specifically made for vertical applications. Pages 124 to 125 show how this type of vinyl siding is installed. Vinyl shakes are another type of vinyl siding, and that installation is shown on pages 126 to 127.

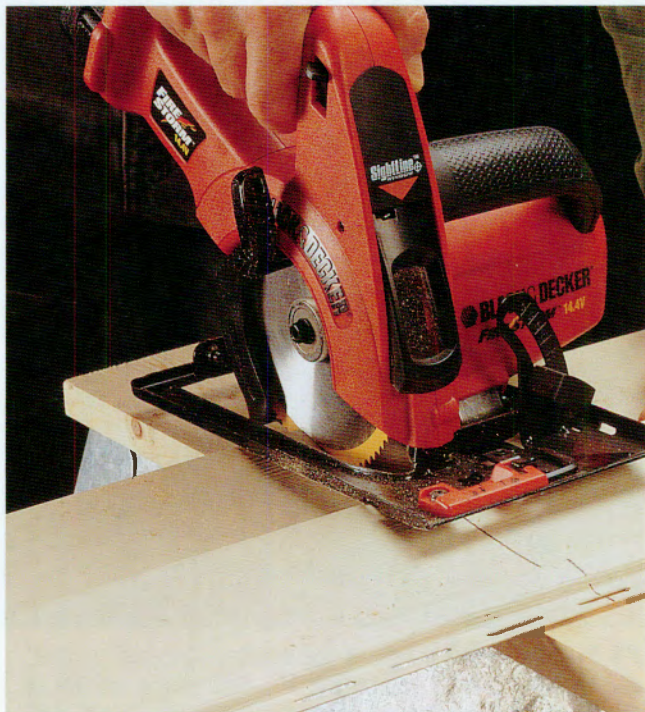
### *Everything You Need*

**Tools:** hammer, circular saw or radial-arm saw, clamps, tape measure, string, straightedge, utility knife, aviation snips, level, chalk line, framing square, nail slot punch, zip-lock tool, snaplock punch, caulk gun.

**Materials:** vinyl siding, J-channel, corner posts, undersill, starter strip, nails, cutting table, safety glasses, silicone caulk.



## Tips for Cutting Vinyl Siding



Use a fine-tooth blade installed backward in the saw to cut vinyl siding. Use a radial-arm saw or a circular saw, and move the blade slowly through the siding. Always wear safety glasses when cutting siding.



Support the siding on a cutting table when cutting. Vinyl siding is too flimsy to be placed across sawhorses without support. You can build a cutting table by fastening a long piece of scrap plywood between two sawhorses.

## Tips for Using Specialty Tools



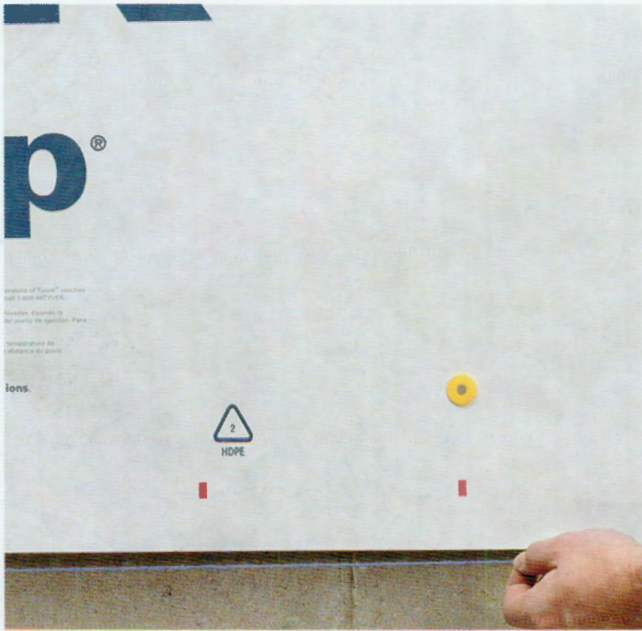
A snaplock punch is used to make raised tabs, or dimples, in a cut edge of siding where the nailing helm has been removed. This eliminates the need to face nail the panel.



A nail slot punch is used to make horizontal nail slots in the face of panels. It can also be used to add or elongate the opening of an existing nail slot to match irregular stud spacing.



## How to Install Vinyl Siding



**1** Install housewrap following instructions on pages 114 to 115. Identify the lowest corner of the house that has sheathing, and partially drive a nail  $1\frac{1}{2}$ " above the bottom edge of the sheathing. Run a level string to the opposite corner of the wall and partially drive a nail. Do this around the entire house. Snap chalk lines between the nails.



**Option:** Install vinyl siding underlayment on the house, using cap nails. Align the bottom of the underlayment with the starting strip. To cut panels to size, score them with a utility knife, then break them over your cutting table. Some panels need to be taped at the seams. Follow manufacturer's recommendations.



**2** Place the top edge of the starter strip along the chalk line and nail every 10". Nail in the center of the slots and don't nail tight to the house. Keep a  $\frac{1}{4}$ " gap between strips, and leave space at the corners for a  $\frac{1}{2}$ " gap between starter strips and corner posts.



**3** Install a corner post, keeping a  $\frac{1}{4}$ " gap between the top of the post and the soffit. Extend the bottom of the post  $\frac{1}{4}$ " below the bottom of the starter strip. Drive a nail at the top end of the uppermost slot on each side of the post (the post hangs from these nails). Make sure the post is plumb on both sides, using a level. Secure the post by driving nails every 8" to 12" in the center of the slots. Do not nail the post tight. Install the other posts the same way.





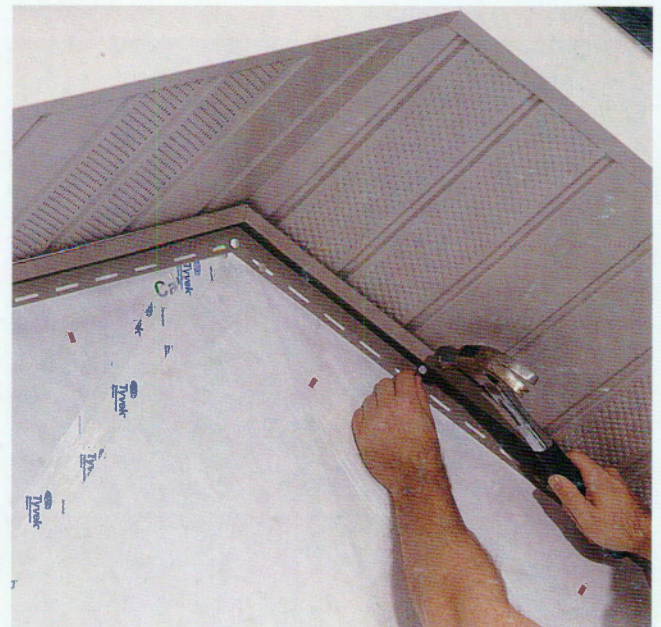
**4** If more than one corner post is needed to span the length of a corner, the upper post overlaps the lower post. For an outside corner post, cut off 1" from the nailing flanges on the bottom edge of the top post. For an inside corner post, cut off 1" from the nailing flange on the upper edge of the bottom post. Overlap the posts by  $\frac{3}{4}$ ", leaving  $\frac{1}{4}$ " for expansion.



**5** Measure and cut two J-channels that are the length of a window plus the width of the J-channel. Place one of the J-channels against the side of the window, aligning the bottom edge with the bottom edge of the window. Nail the channel in place. Nail the second J-channel against the opposite side of the window the same way.



**6** At the top of the window, measure between the outside edges of the side J-channels and cut a piece of J-channel to fit. Cut a  $\frac{3}{4}$ " tab at each end. Bend the tabs down to form a drip edge. Miter cut the face at each end at 45°. Center the J-channel over the window and nail it in place. The top J-channel overlaps the side pieces, and the drip edges fit inside the side pieces. Do this for each window and door.



**7** Measure, cut, and install J-channel along the gable ends. Nail the channels every 8" to 12". To overlap J-channels, cut 1" from the nailing hem. Overlap the channels  $\frac{3}{4}$ ", leaving  $\frac{1}{4}$ " for expansion. At the gable peak, cut one channel at an angle to butt against the peak. Miter the channel on the opposite side to overlap the first channel.

(continued next page)



## How to Install Vinyl Siding (continued)



**8** To install J-channel over a roof line, snap a chalk line along the roof flashing,  $\frac{1}{2}$ " above the roof. Align the bottom edge of the J-channel along the chalk line, and nail the channel in place. Make sure the channel does not make direct contact with the shingles.



**9** Measure, cut, and install undersill beneath each window. The undersill should be flush with the outside lip of the side channels.

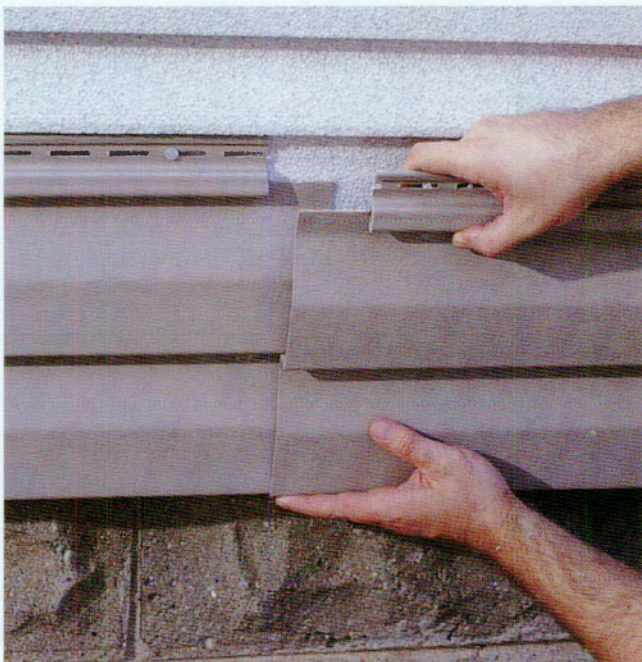


**10** Measure, cut, and install undersill along the horizontal eaves on the house. If more than one undersill is needed, cut the nailing hem  $1\frac{1}{4}$ " from the end of one undersill. Overlap the undersills by 1".



**11** Snap the locking leg on the bottom of the first panel onto the starter strip, making sure it's securely locked in place. Keep a  $\frac{1}{4}$ " gap between the end of the panel and the corner post. Nail the panel a minimum of every 16" on center. Don't drive the nails tight. Note: This installation shows a vinyl siding underlayment in place.





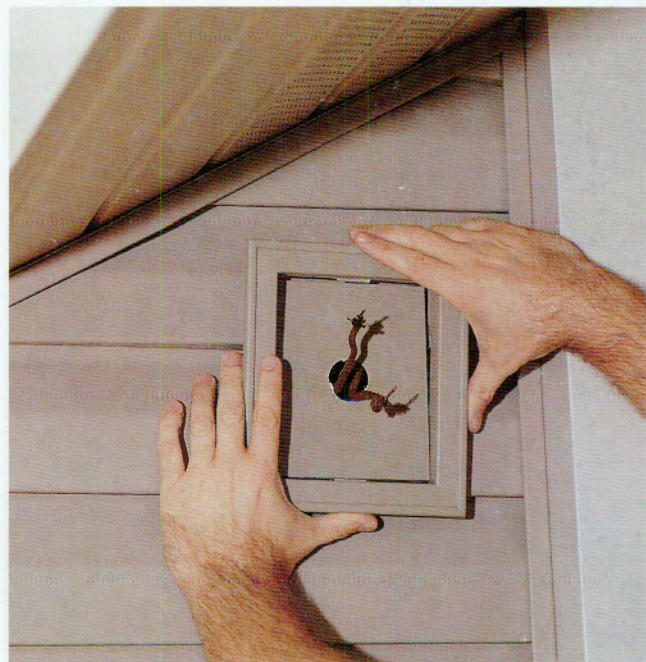
**12** Overlap panels by 1". Cut panels so the factory cut edge is the one that's visible. Keep nails at least 6" from the end of panels to allow for smooth overlap. Do not overlap panels directly under a window.



**13** Place the second row over the first, snapping the locking leg into the lock of the underlying panels. Leave 1/4" gap at corners and J-channels. Install subsequent rows, staggering seams at least 24" unless separated by more than three rows. Check every several rows for level. Make adjustments in slight increments, if necessary.



**14** For hose spigots, pipes, and other protrusions, create a seam at the obstacle. Begin with a new panel to avoid extra seams. Cut an opening 1/4" larger than the obstacle, planning for a 1" overlap of siding. Match the shape and contour as closely as possible. Fit the panels together around the obstruction and nail in place.



**15** Place mounting blocks around outlets, lights, and doorbells. Assemble the base around the fixture, making sure it's level, and nail in place. Install siding panels, cutting them to fit around the mounting block with a 1/4" gap on each side. Fasten the cover by snapping it over the block.

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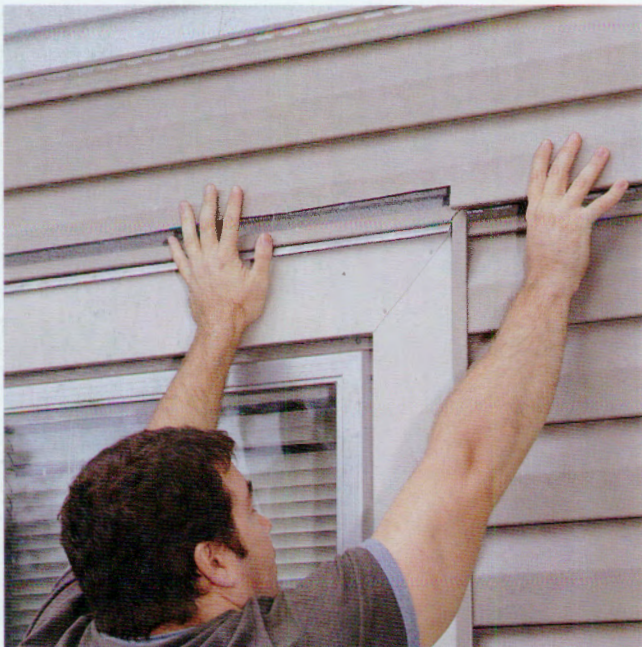
## How to Install Vinyl Siding (continued)



**16** Where panels must be notched to fit below a window, position the panel below the window and mark the edges of the window, allowing for a  $\frac{1}{4}$ " gap. Place a scrap piece of siding alongside the window and mark the depth of the notch, keeping a  $\frac{1}{4}$ " gap. Transfer the measurement to the panel, mark the notch, and cut it out. Create tabs on the outside face every 6", using a snap lock punch. Install the panel, locking the tabs into the undersill.



**17** Install cut panels between windows and between windows and corners as you would regular panels. Avoid overlapping panels and creating seams in small spaces. The panels need to align with panels on the opposite side of the window.

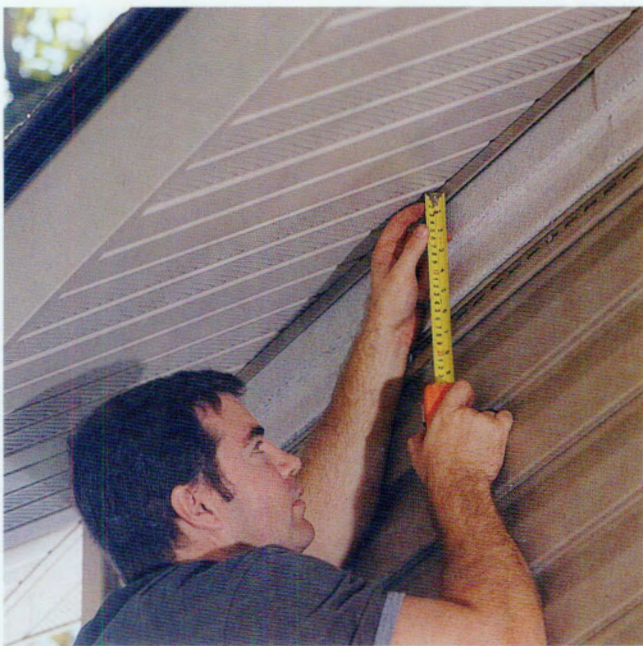


**18** To fit siding over a window, hold the panel in place over the window and mark it. Use a scrap piece of siding to mark the depth of the cut. Transfer the measurement to the full panel and cut the opening. Fit the cut edge into the J-channel above the window, lock the panel in place, and nail it.



**19** For dormers, measure up from the bottom of the J-channel the height of a panel and make a mark. Measure across to the opposite J-channel. Use this measurement to mark and cut the panel to size. Cut and install panels for the rest of the dormer the same way.





**20** Measure the distance between the lock on the last fully installed panel and the top of the undersill under the horizontal eaves. Subtract  $\frac{1}{4}$ ", then mark and rip a panel to fit. Use a snaplock punch to punch tabs on the outside face every 6". Install the panel, locking the tabs into the undersill.



**21** Place a scrap panel in the J-channel along the gable end of the house. Place another scrap over the last row of panels before the gable starts, slide it under the first scrap, and mark the angle where they intersect. Transfer this angle to full panels. Make a similar template for the other side. Cut the panels and set the cut edge into the J-channel, leaving a  $\frac{1}{4}$ " gap.



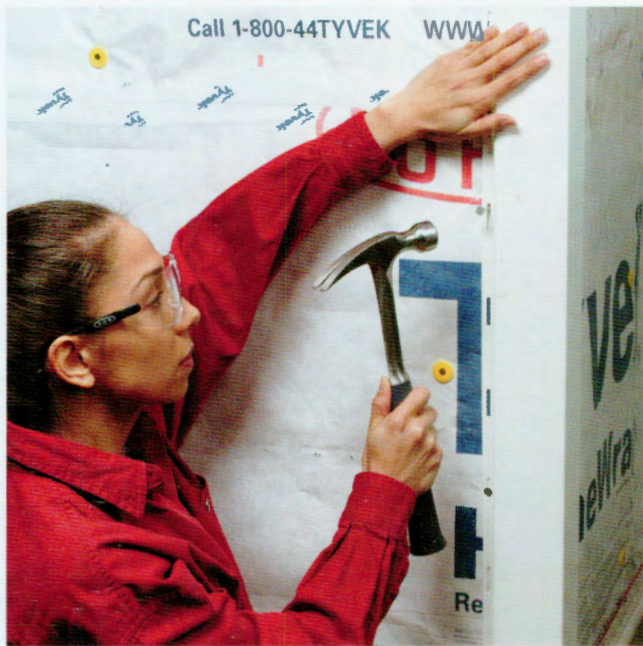
**22** Cut the last piece of siding to fit the gable peak. Drive a single aluminum or stainless steel finish nail through the top of the panel to hold it in place. This is the only place where you will face nail the siding.



**23** Apply caulk between all windows and J-channel, and between doors and J-channel.



## How to Install Vertical Vinyl Siding



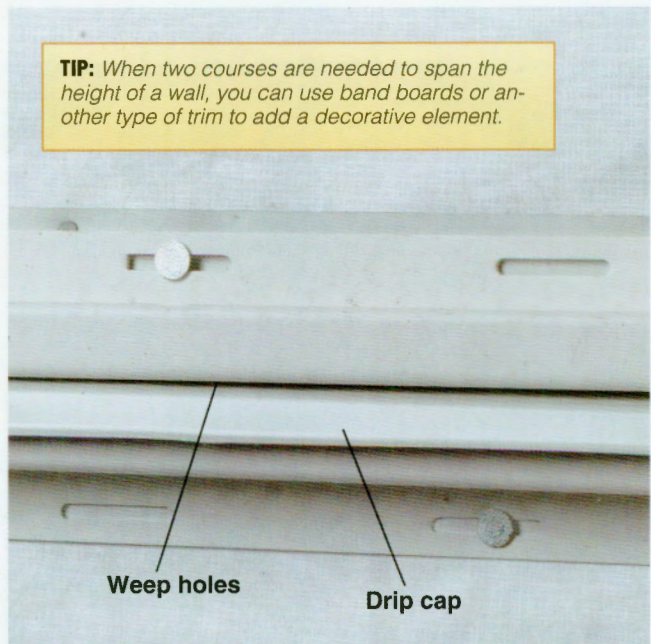
**1** Cover the walls with housewrap (see pages 114 to 115). Snap a level chalk line around the base of each wall where the siding will start. Install corner posts, following step 3 on page 118. Install J-channel around doors and windows, following steps 5 to 6 on page 119. Note: Under windows, use J-channel rather than undersill.



**2** Drill  $\frac{1}{4}$ " weep holes in J-channel every 24". Align the bottom edge of this J-channel, which serves as starter strip, with the chalk line. Drive nails in the center of the slots every 8" to 12". Install inverted J-channel (without weep holes) along the eaves and gables the same way. Overlap channels  $\frac{3}{4}$ ", following step 7 on page 119. Keep channels  $\frac{1}{4}$ " from corner posts.



**Variation:** If the exterior sheathing isn't plywood or a wood substrate that can hold nails, install 1 x 3 furring strips every 12" to 16" horizontally on the walls and around doors and windows. Nail them to studs. When installing siding, drive nails into the furring strips.



**TIP:** When two courses are needed to span the height of a wall, you can use band boards or another type of trim to add a decorative element.

**3** If a single panel won't span the height of a wall, install J-channel where the first course will end, keeping a  $\frac{1}{4}$ " gap between the top of the siding and the channel (there should also be a  $\frac{3}{8}$ " gap at the bottom of the panel). Fasten drip cap over the J-channel. Drill weep holes in J-channel and nail in place over the drip cap.





**4** Nail a furring strip inside the receiving channel of a corner post. Install undersill over the furring strip.

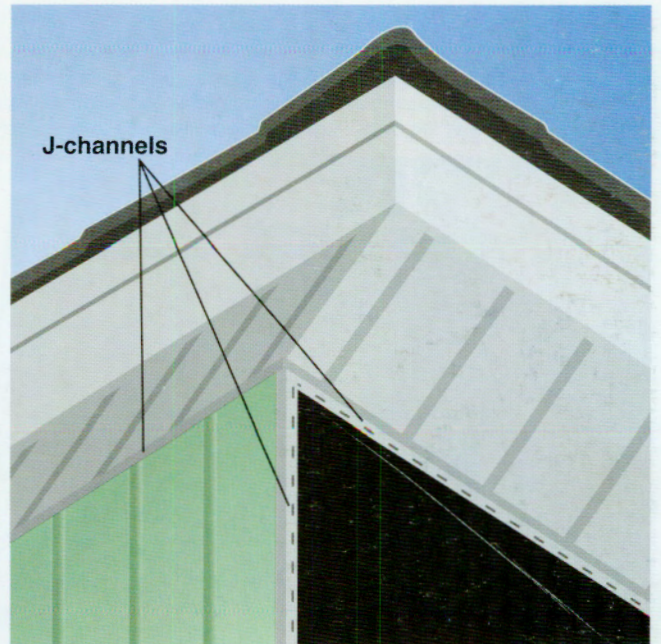


**5** Cut off the locking channel opposite the nailing flange on the first panel. Create tabs  $\frac{1}{4}$ " from the edge, every 6", using a snaplock punch. Snap the panel into the sill in the corner post. Keep a  $\frac{1}{4}$ " gap at the top and a  $\frac{3}{8}$ " gap at the bottom of the panel. Use a level to make sure the panel is plumb. Nail it at the top of the uppermost slot, then every 12" in the center of the slots.



**TIP:** Vertical panels expand mostly downward. When installing, keep a larger gap at the bottom than top.

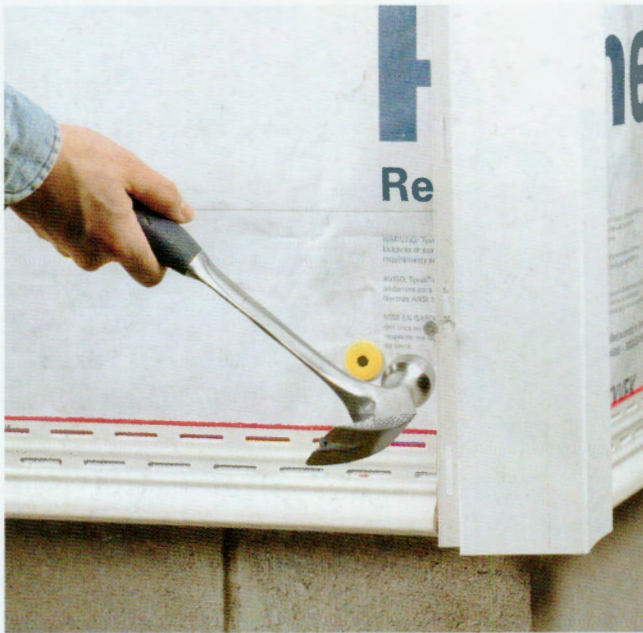
**6** Place the second panel over the first, locking them together. Nail every 12". Install remaining panels the same way. Cut panels to fit around doors and windows with a  $\frac{1}{4}$ " gap, following steps 17 to 19 on page 122. Where needed, install furring strips over J-channels to hold panels snug in place. At the opposite corner, install a furring strip and undersill in the corner post. Rip the last panel to fit, create tabs, and slide in place.



**7** For gables, mark a line straight down from the peak. Install flashing over the line. Install two J-channels, back to back, over the flashing. Cut the angle for the top of the panel, following step 21 on page 123. Cut the panel to size, keeping a  $\frac{1}{4}$ " gap at both ends, and install in the center channel. Install remaining panels, then do the same for the other side of the J-channel.



## How to Install Vinyl Shakes



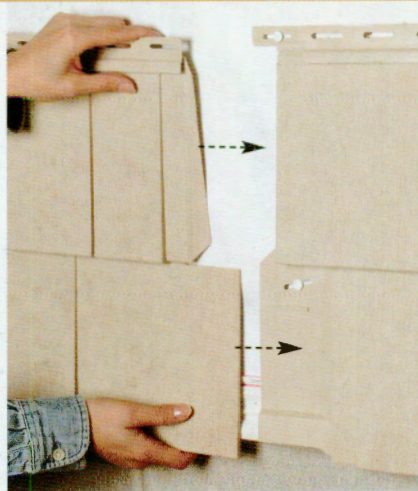
**1** Follow steps 1 to 7 on pages 118 to 119 to prepare the walls, install starter strip and corner posts, trim the doors and windows, and fasten J-channel along the gable end of the house. Install J-channel under the horizontal eaves, and use channel rather than undersill under windows.



**2** Cut a straight line along the non-flanged (right) edge of the first panel, using a circular saw with a carbide-tipped blade. Do not reverse the blade. If the panel has a manufacturer's mark for the cut, follow the mark. Lock the bottom of the panel over the starter strip and slide it into the corner post, keeping a  $\frac{1}{4}$ " gap between the panel and post.



**TIP:** Vinyl shake panels must be acclimated to the outside temperature for at least an hour before installation. Panel spacing is determined by the temperature. Follow manufacturer's directions, and check the temperature at the beginning of each new course to see if adjustments are needed.



**3** Follow the exact nailing sequence prescribed by the manufacturer. For this siding, it starts with the nail slot at the top right, then the top left, then the left side flange, followed by the center of the panel. Nails are then driven every 8".

**4** Fit the next panel into position over the starter strip. The nailing hem and bottom half of the panel fit over the first panel; the top shakes fit under the first panel. Overlap the panels following temperature guidelines. Nail in place, using the nailing sequence.

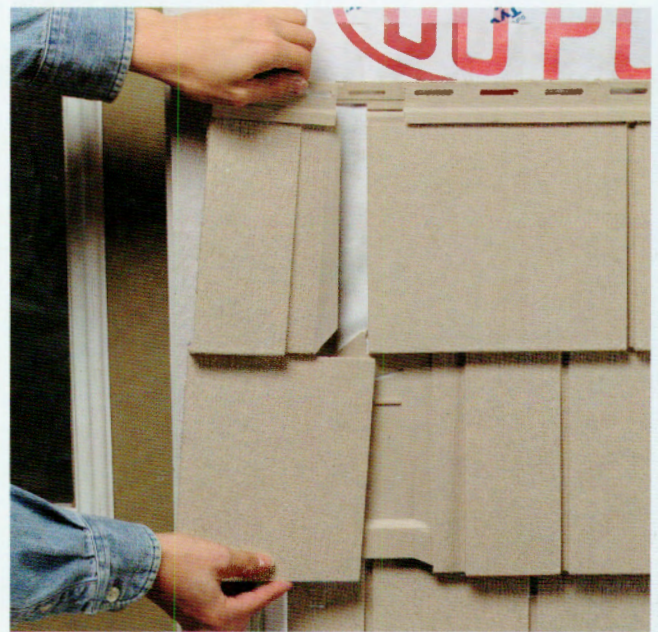


**5** Install remaining panels in the row. For the last panel, measure from the correct temperature line on the last installed panel to the corner post, and subtract  $\frac{1}{4}$ ". Cut the panel to size along the left side and install.



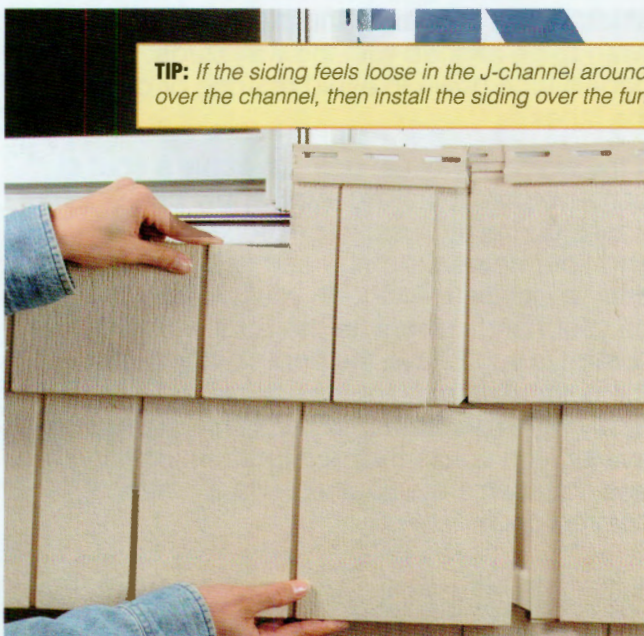


**6** Measure from the left alignment line on the first panel of the first course to the corner post, and subtract  $\frac{1}{4}$ ". Cut a panel to this size, removing the non-flanged edge. Place the panel over the first row, snapping the lock together and pulling up so the panel is tight. Align the left side flange with the left alignment line of the underlying panel, and nail in place.

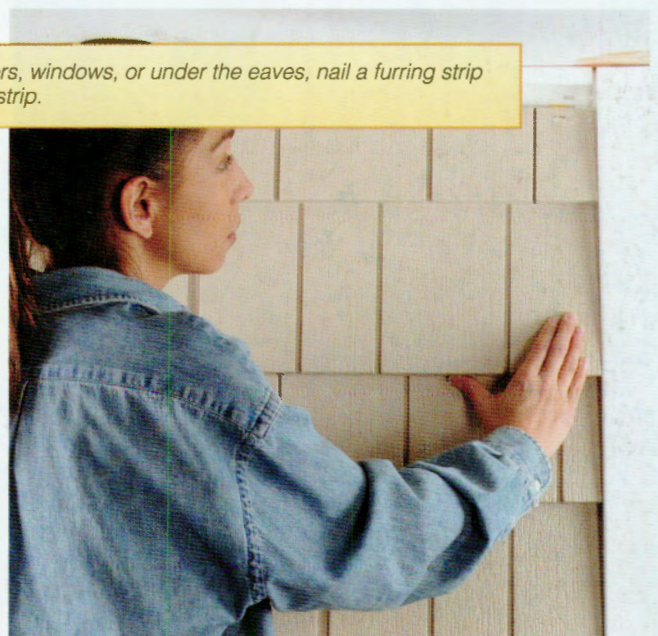


**7** For the third course, measure from the right alignment line of the second panel in the second row to the corner post, and subtract  $\frac{1}{4}$ ". Cut a panel to this size, removing the right edge. Install the panel, aligning the left side flange with the right alignment line. Install remaining rows, following step 6 for even rows and step 7 for odd rows. Cut panels to fit the opposite corner and abut doors, leaving a  $\frac{1}{4}$ " gap.

**TIP:** If the siding feels loose in the J-channel around doors, windows, or under the eaves, nail a furring strip over the channel, then install the siding over the furring strip.



**8** Cut panels to fit around windows, following steps 17 to 19 on page 122. Make a nail slot every 8" along the cut edge of the panels, using a nail slot punch. Set the panel in place. Drive nails through the slots at an angle. The J-channel should hide the nail heads.



**9** Measure the height for the last row of panels under the eaves, keeping a  $\frac{1}{4}$ " gap for movement. Rip the panels to size. Create nail slots every 8" along the cut edge. Install the panels, and nail through the slots.