

# Screen Gem

Add character to your backyard with our cedar privacy screen.

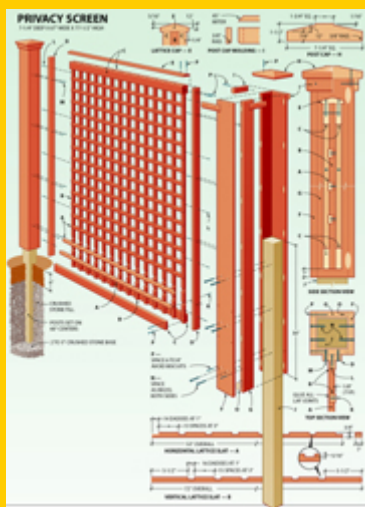


Whether you have a small garden in town or an expansive country estate, there's nothing like relaxing in your own backyard. When the weather's fine, it's the ideal place to shed that cooped-up feeling--without leaving home. Sometimes, though, your personal wide-open spaces might be a little too wide-open for that quiet lunch with a good book. What you need to do is define the area without limiting it. And, one great way to do this is with a privacy screen.

Our screen is essentially a short fence with large lattice panels that provide a sense of intimacy, but are open enough to allow for a view. We built it out of red cedar, a good wood for exterior projects that's available at home centers and lumberyards. To get the most out of your lumber, buy 1 x 6 stock for the post faces, rails, caps and end strips, 1 x 8 stock for the lattice slats and post sides, and 2 x 8 stock for the post caps.

Note that our drawing, materials list and text describe the construction of one lattice and two posts. For more

sections, simply multiply the pieces as needed.



### Materials List--Privacy Screen

| Key | No.      | Size and description (use)              |
|-----|----------|-----------------------------------------|
| A   | 16       | 3/4 x 1 x 53" cedar (horizontal slat)   |
| B   | 14       | 3/4 x 1 x 72" cedar (vertical slat)     |
| C   | 4        | 3/4 x 2-1/2 x 53" cedar (rail)          |
| D   | 2        | 3/4 x 2-1/4 x 72" cedar (lattice end)   |
| E   | 1        | 3/4 x 2-3/4 x 54-1/2" cedar (top cap)   |
| F   | 4        | 3/4 x 5-1/4 x 76" cedar (post face)     |
| G   | 4        | 3/4 x 3-3/4 x 76" cedar (post side)     |
| H   | 2        | 1-1/2 x 7-1/4 x 7-1/4" cedar (post cap) |
| I   | 8        | 1/2 x 1-1/2 x 6-1/4" cedar (molding)    |
| J   | 2        | 6'-long 4 x 4 pressure-treated post     |
| K   | 224      | 3/4" No. 4 fh brass woodscrew           |
| L   | 10       | 1-1/2" No. 8 fh brass woodscrew         |
| M   | 16       | 1-1/2" No. 10 fh brass woodscrew        |
| N   | 24       | 2" No. 10 fh brass woodscrew            |
| O   | 56       | No. 0 plate                             |
| P   | as reqd. | 6d galvanized finishing nail            |

**Note:** Quantities based on one lattice and two posts.

**Misc.:** 120-grit sandpaper; Benjamin

Moore Moorwhite Penetrating Alkyd Primer 100 and MoorGlo 100% Acrylic House & Trim Paint 096, [www.benjaminmoore.com](http://www.benjaminmoore.com).

### Making The Lattice

First, crosscut 1 x 8 stock to length for the vertical and horizontal lattice members. Clamp each set of blanks in a stack with the ends flush, and mark the locations of the half-lap joints on the stock edges.

Use a dado blade to cut 5/16-in.-deep notches at the half-lap joint marks (Photo 1). Make two passes to complete each notch. Then, rip the lattice slats from the wide stock (Photo 2).

To assemble a lattice panel, first lay out the horizontal slats with a 3-in. space between each. Spread glue in the notches of a vertical slat and in the mating notches on the horizontal slats. Firmly seat the joints, and drive a 3/4-in. No. 4 brass screw at each intersection (Photo 3). Install the remaining vertical slats in the same way.

Rip and crosscut the top and bottom rails to size, and fasten them to each side of the lattice with 6d galvanized finishing nails (Photo 4). Cut the vertical end strips to size, and nail them to the ends of the top and bottom rails. Attach the end strips to the end vertical lattice slats with screws placed in between the horizontal slats (Photo 5).

Rip and crosscut blanks for the lattice panel cap. Then, tilt your table saw blade to 12° and cut the top bevels. Smooth the cut surfaces with 120-grit sandpaper and use galvanized finishing nails to fasten the cap to the top rails and end strips (Photo 6).



After cutting the 1 x 8 lattice stock to length, lay out the half-lap joint notches and cut them with a dado blade.



When the notches are cut, rip the 1-in.-wide horizontal and vertical lattice strips from the 1 x 8 blanks.



Apply glue to the half-lap joints and press the lattice strips together. Reinforce each joint with a single screw.



Position the top and bottom rails along each side of the lattice panel, and secure them with galvanized finishing nails.



Nail the vertical end strips to the top and bottom rails, and add screws between the horizontal lattice members.



After ripping the angles on the top of the lattice cap, fasten the cap to the rails and end strips with finishing nails.

## The Posts

Rip and crosscut the post faces and sides to finished size. While it's not necessary to use fasteners other than nails, post assembly is easier if you use joining plates to help position the parts.

Clamp a fence to the worktable and cut plate-joint slots in the post faces (Photo 7). Then, cut the corresponding slots in the edges of the post sides. Install the joining plates in the faces. Since the plates are only positioning aids, it's not necessary to use glue. Position the side pieces over one face, add the opposite face and secure with 6d galvanized finishing nails. Take care not to nail through the joining plates (Photo 8).

Cut 2 x 8 stock into 7-1/4-in. squares for the post caps, and set up the table saw to make the angled cuts on the caps. Begin by clamping a tall guide to the table saw fence. Tilt the saw blade to 12° and raise it so the top of the blade is 2-3/4 in. above the table. Adjust the fence so it's 7/8 in. from the blade at the table. Clamp one edge of a cap block to a 2 x 6 x 12-in. backer board. Turn on the saw and cut one of the angled faces (Photo 9). When the blade enters the backer board, shut off the saw, wait till the blade stops and remove the assembly. Then make the remaining cuts in the same way. If using the raised fence, backer board and clamps seems too complicated, simply shape the cap bevels with a hand plane. This may take longer, but it's a more relaxed procedure.

Mount a 3/8-in.-radius, quarter-round bit in your router table and shape the bottom edges of the post caps. Sand the caps and nail them to the post tops (Photo 10). Then, use the same bit to round one edge of 1/2 x 1-1/2-in. stock for the cap molding. Cut the molding pieces to length with a miter saw, and nail the mitered pieces under the post caps (Photo 11).



Lay out plate joints in the post parts and cut the slots. The plates keep the pieces aligned during assembly.



Assemble the box posts with plates but no glue. Then, use galvanized finishing nails to fasten the pieces together.



Use a tall auxiliary fence when cutting the post cap angles. Clamp stock to a backer board to support the cut.



Position the cap so it overhangs the post uniformly. Then, fasten it to the top of the post with galvanized finish nails.



Miter the ends of the cap molding pieces. Fit each piece under a cap and secure with galvanized finishing nails.

### Assembly And Finishing

Bore screwholes in the lattice panel side strips, position a panel on one of the posts and secure with screws (Photo 12). Repeat the procedure for each lattice/post joint. If you're constructing more than one screen section, disassemble the parts into separate lattice/post subassemblies so they're easier to carry.

Cut pressure-treated 4 x 4s to 6-ft. lengths. Slide one of these pieces into the bottom end of each post so that 30 to 36 in. protrudes. Notice that the post cavity is 1/4 in. wider than the 4 x 4 to make installation easier. Drive two screws through the post into the 4 x 4 to temporarily hold it in place. After you install the screen you can remove the screws to adjust the relative heights of the posts.

Set all nail holes, then prime the screen with a quality exterior-grade primer. We used Benjamin Moore Moorwhite Penetrating Alkyd Primer 100.



Bore screwholes in the lattice side strips and position the lattice on a post. Attach with screws.

Fill all nail holes with glazing compound or painter's putty, then apply a coat of a 100 percent acrylic topcoat, such as Benjamin Moore MoorGlo 100% Acrylic House & Trim Paint 096.

To install the screen, mark the post centers on the ground, and use a posthole digger or shovel to dig holes at least 30 in. deep. Place a few inches of crushed stone in the bottom of each hole.

Bring the screen to the site and reassemble it. Tip the 4 x 4 post ends into the holes, and brace the screen so that the posts are plumb. Fill the holes with more crushed stone to within 6 in. of the surface, tamping it down to provide a solid base. Then top off the holes with topsoil. Check that the bottom rail of the screen is level. If necessary, remove the screws that hold the posts to the 4 x 4s and adjust the height of the screen as required. Install more screws to hold the posts to the 4 x 4s, then fill the holes over the screwheads and touch up the paint. This system will work for locations where the ground slopes no more than 2 in. from one end of the screen to the other. For dramatically sloped yards, you'll need to construct posts that accommodate the difference in grade.

# PRIVACY SCREEN

7-1/4" DEEP X 67" WIDE X 77-1/2" HIGH

