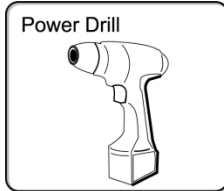
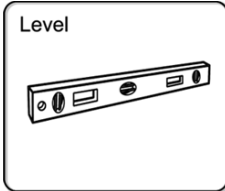
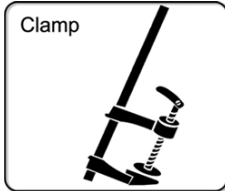
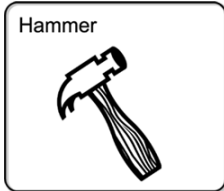
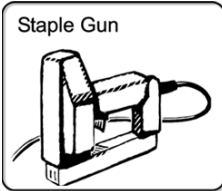




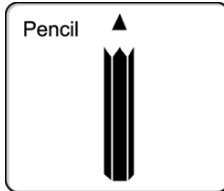
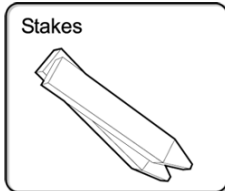
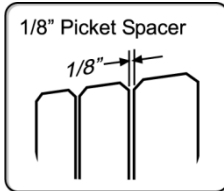
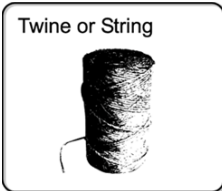
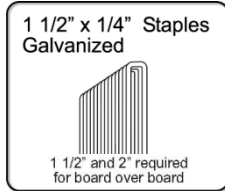
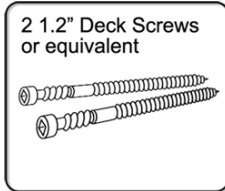
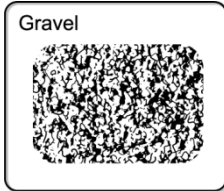
Composite Fencing Installation Instructions

Enduring Products. Enduring Beauty.

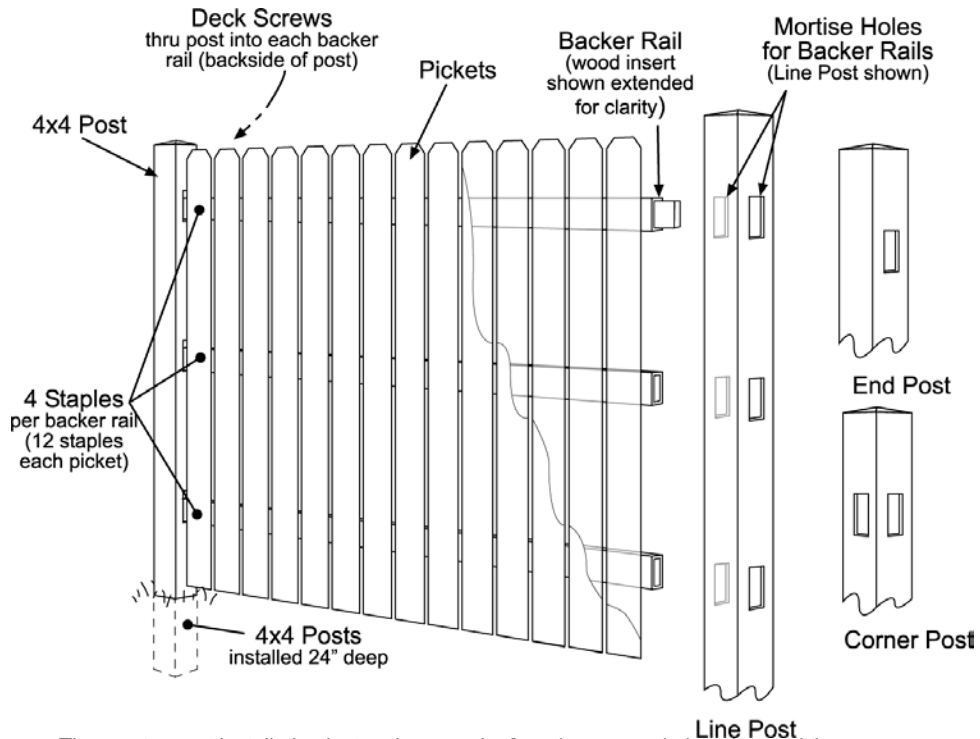
INSTALLATION TOOLS:



SUPPLIES:



ITEMS USED IN A 6' SECTION:



The most recent installation instructions can be found on our website, please visit: www.goveranda.com or call customer service at: 800.230.7547
VER-0024-LIT 11/2010

Prior to installing fencing:

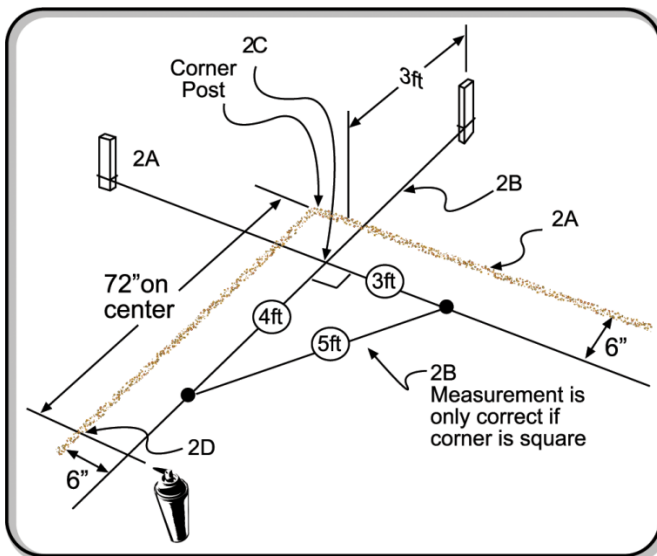
- Prior to digging, confirm location of underground utilities with local authorities.
- Apply for permits if required by local authorities and codes.
- Local zoning laws, neighborhood associations and/or historic districts may regulate size, type, placement and ability of fencing. Ensure compliance prior to installation.

Step 1: Planning

Determine total area to be fenced.

- Total the length of fence required, dividing by 6 to establish the number of 6' sections.
 - Pre-Built Panels: Determine number of 6' panels required.
Note: Pre-Built Panels can only be installed on absolutely flat terrain. Panels are available in limited markets only.
 - Site-Built installation: Ensure 14 pickets/3 rails for each 6' run (17, if installing Shadow Box or Board on Board Style, see Step 6).
- Make adjustments for odd widths at the back corners.
- Determine the number of posts (end, corner, and line), and gate location (if applicable).
- Installations are facilitated with the use of an air compressor or air driven staple gun. Approved fasteners are 1/4" - 1/2" crown x 1 1/2" galvanized staples or stainless steel staples, Minimum 18ga.

Step 2: Layout

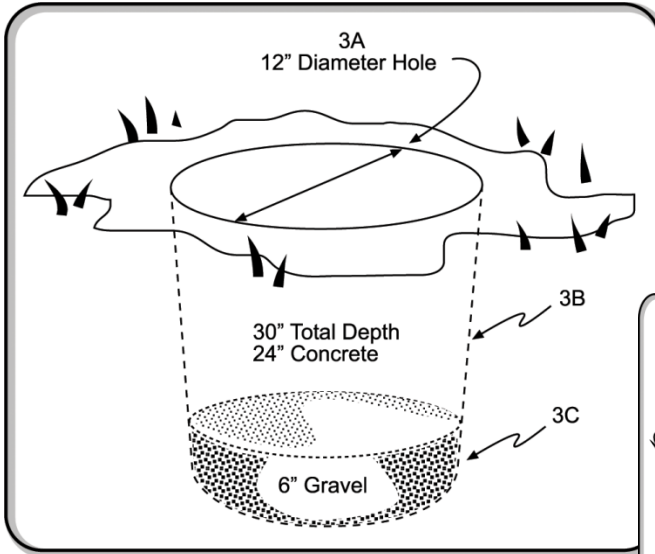


- 2A. Establish total area to be fenced. Insert stakes 6" inside of proposed area extending an additional 3' laterally so as not to disturb string lines when digging post holes.
- 2B. Attach string line to staked area. Verify corners are square using the 3' x 4' x 5' method.
- 2C. Fence corners are determined by where strings intersect.
- 2D. Mark locations for subsequent posts starting with the first location and measuring every 72" on center.
- 2E. Mark gate location and size. Allow 48" from post to post for a 4 foot gate.
- 2F. Place proper post (end, corner, line) at each location.

Tip: When marking measurements with spray paint, mark both the ground *and* string (see illustration).

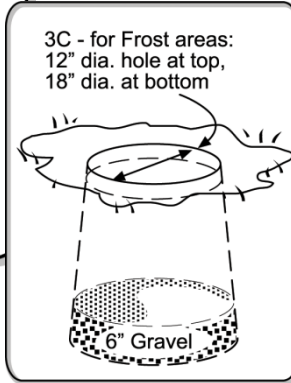
Step 3: Dig Post Holes

Note: The first post installed is customarily an end or corner post.



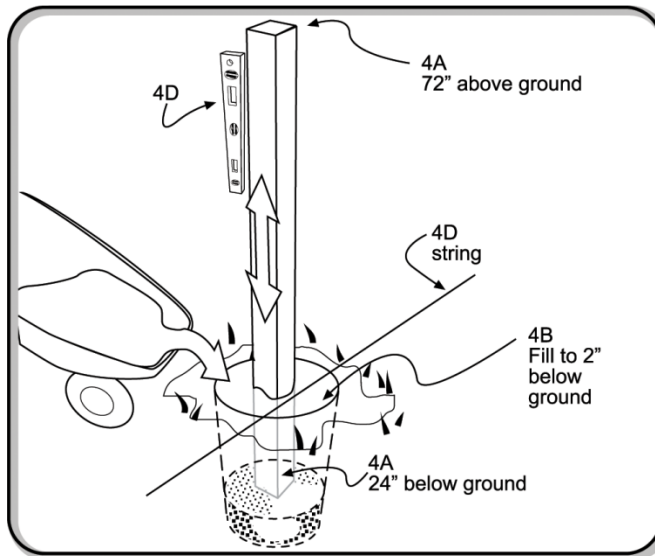
- 3A. Dig all holes 12" in diameter x 30" deep making sure not to interfere with strings or stakes.
- 3B. Clean holes and check for straight walls.
- 3C. Fill all holes with a 6" layer of gravel to allow drainage.

Note Frost Lines: Consult local building codes in regards to depth of hole if frost lines are applicable. A "bell" shaped hole, with 6" of gravel, and concrete filled up to 2" below grade may help reduce the chance of frost swell. If depth needs to be increased, fill with gravel / concrete accordingly to ensure post is 72" from level of ground to top of post. In extreme Northern climates, driving re-enforcing rods through gravel and area filled with concrete, may be beneficial.



Step 4: Set Initial Post

Accurately locating posts 72" above the ground, and 72" on center (68" between posts), is critical for accurate fence installation.



Quick-Set Concrete Mix recommended for installation.

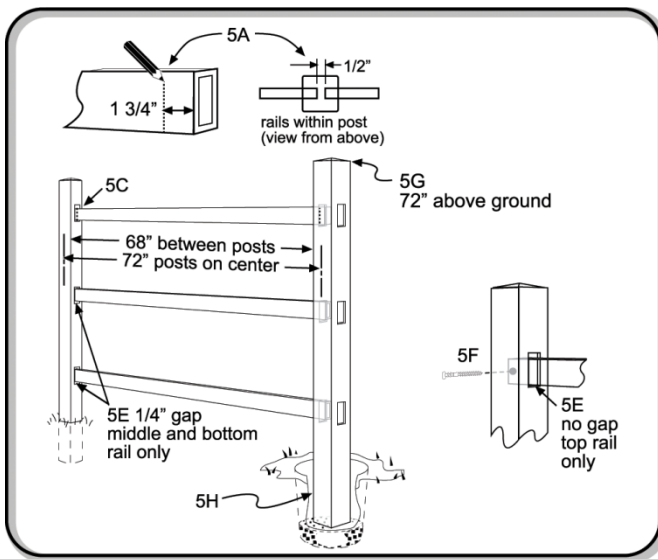
- 4A. Insert initial post. Verify post is 72" from ground to post top (and 24" below ground). Make sure post is next to string, but not touching.
- 4B. Fill the hole around post with concrete mix to approximately 2" below ground.
- 4C. Tamp concrete in hole to eliminate air pockets.
- 4D. Square and plumb post. *Ensure continued accuracy of marked measurements from Step 2D.*

Allow concrete to set and cure per manufacture instructions before continuing with installation.

Pre-Built Panel Installation: Skip to Pre-Built Installation page (available for flat terrain only)

Step 5: Site-Built Backer Rail Installation (3-rail system)

Posts and Rails are installed in a pattern, follow: Post > Rails > Post > Rails > Post method of installation.



Repeat Step 4 and Step 5 until all posts and rails are installed, secured, set and cured in concrete before continuing with the picket portion of application.

Install rails only after initial post is fully cured in concrete.

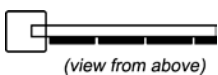
- 5A. Mark line 1 3/4" from edge of each rail indicating the distance each rail should be inserted into posts. Measurement will ensure the necessary 1/2" spacing between rails within the post.
- 5B. Position second post next to string, but not touching.
- 5C. Insert 3 rails to 1 3/4" mark into mortise holes.
- 5D. Verify 68" of rails between posts and 72" from post center to post center, verify post is plumb.
- 5E. Secure top rail resting in mortise hole. Position and secure middle and bottom rails 1/4" from bottom of hole (use a 1/4" shim as guide and remove after rail is secured to the post).
- 5F. Secure all rails by drilling pilot holes through backside of posts and into rails. Secure, using a single color matched #8 x 2 1/2" composite deck screw, into ends of each rail.
- 5G. Verify post is 72" above ground.
- 5H. Fill hole with concrete and secure post with temporary bracing if necessary.

Note: Make adjustments for odd widths by cutting backer rail to required width ensuring the 1 3/4" criteria on each rail end to fit into mortise openings.

Step 6: Site-Built Picket Installation

Install pickets using staples. Approved fasteners are:

- 1/4" x 1 1/2" galvanized staples, applied parallel with the grain, not across or against it.
- 1/4" x 1 1/2" stainless steel staples, also applied parallel with the grain, not across or against it.



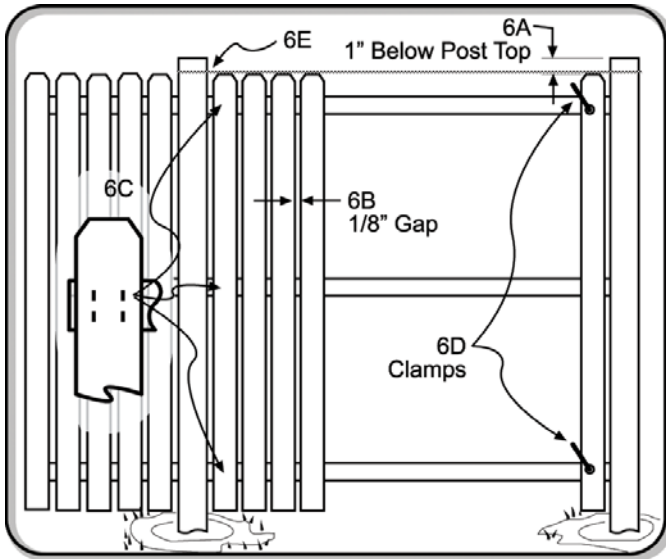
⇒ *Privacy*: Pickets are fastened to the same side of the rail with the rail on the inside of the fenced area. Each picket is fastened with a 1/8" gap. Gap allows for wind passage relief and minimal thermal or moisture expansion. Tip: Any item measuring 1/8", such as a strip of 1/8" hardboard, can serve as a template for picket spacing.



⇒ *Shadow Box Method of Installation*: This style requires a norm of 17 dog-ear pickets (9 on one side and 8 on the other). Pickets are fastened on alternating sides of the backer rails. Fasten the two end pickets 1/8" from post on same side, then install 7 remaining pickets at equal spacing for a total of 9 base pickets on one side. Center the remaining 8 picket on the other side of the backer rail over the spaces created from the 9 picket side.



⇒ *Board on Board Method of Installation*: This style requires a norm of 17 dog-ear pickets (9 base and 8 overlap) and 2" staples for front row only. Pickets are fastened to the same side of the backer rail with the backer rail located on the inside of the fenced area. Fasten the two end pickets 1/8" from post, then install 7 remaining pickets at equal spacing for a total of 9 pickets on the back row. Center the front row of 8 pickets over the spaces created by the back. Back row pickets must be fastened in a manner that does not interfere with overlapping pickets (Step 6C). Fasten front pickets through back, four 2" staples each.



6A: Install picket tops 1" below post top. Pickets installed 1" below the top of post line ensures pickets are 2" above ground line. Pickets will buckle if installed incorrectly and are within contact of the ground.

6B. Staple initial picket with 1/8" gap from post. Use level to ensure picket installed at true vertical.

6C. Use 12 staples per picket, 4 into each backer rail applied in a box pattern with the grain.

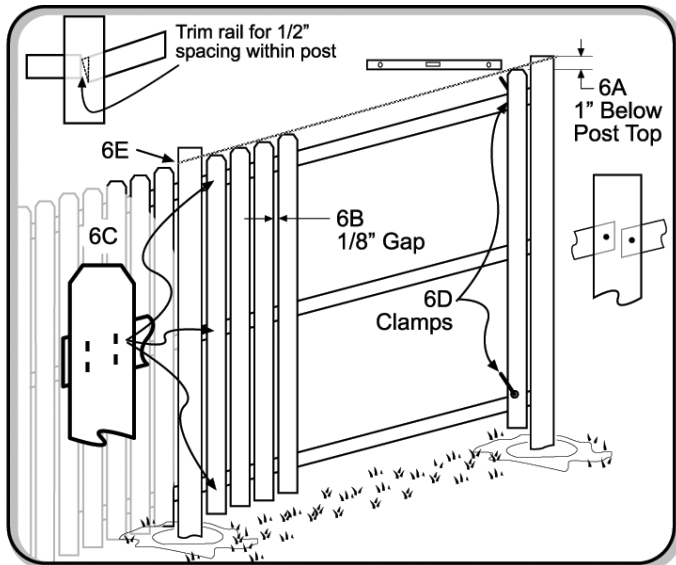
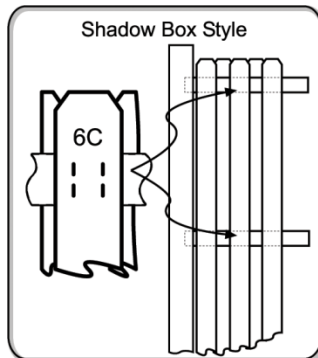
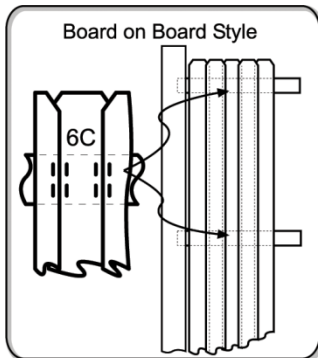
6D. Clamp final picket 1/8" away from unsecured opposite post, 1" below post top.

6E. Use a string line between posts to ensure level installation.

6F. Return to initial picket and install subsequent pickets from secured post towards unsecured post.

6G. Once all pickets in 68" run are installed, remove clamp from final picket.

Final picket may be trimmed, or cut, to fit the required spacing. Complete installation using above indicated instructions.



Sloped Ground Installation:

(site-built only)

Post mortise holes can accommodate up to 16 degrees of slope without any hole adjustment. Depending on the slope, the 68" between the posts may shrink slightly. The backer rails may need to be trimmed to accommodate the slope and/or the final picket cut to fit required spacing. Use the top corner of the initial or final picket (whichever is higher) as a guide point to follow the contour of the ground.

Repeat above indicated steps until installation is complete.

Pre-Built Panel Installation: (complete Steps 1 - 4 before proceeding to this step)

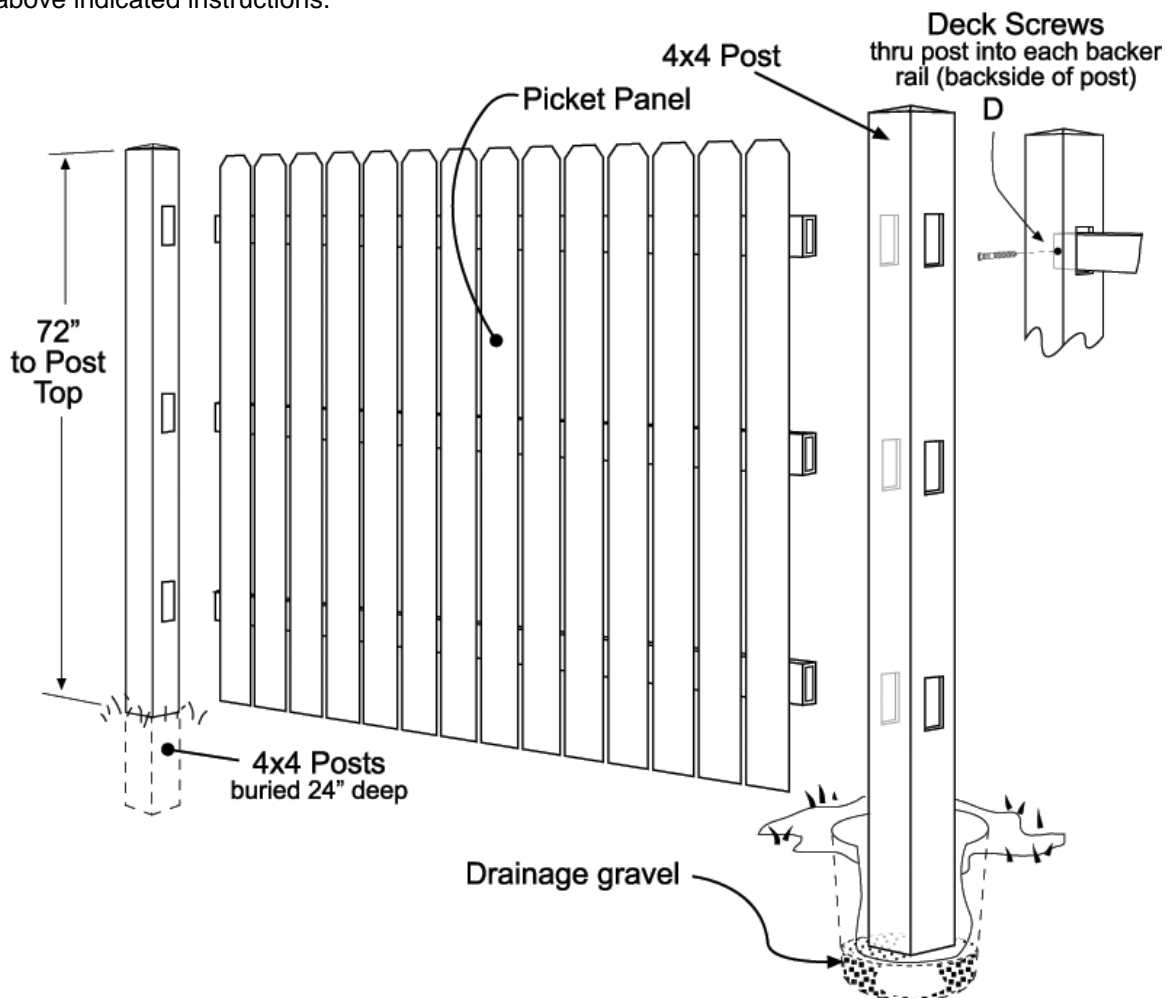
Pre-Built Panels are designed for level ground use only and should never be installed in sloped areas; panels do not rack. In the instance of sloped ground, purchase individual pickets, backer rails and posts, and follow Site-Built installation instructions. Panels are available in only in limited markets and feature a dog-ear picket style.

Quick-Set Concrete Mix recommended for installation.

This Composite Fencing is a Mortised Post system. The panels are installed in a pattern, thus installation is as follows: Post > Panel > Post > Panel > Post > Panel > etc.

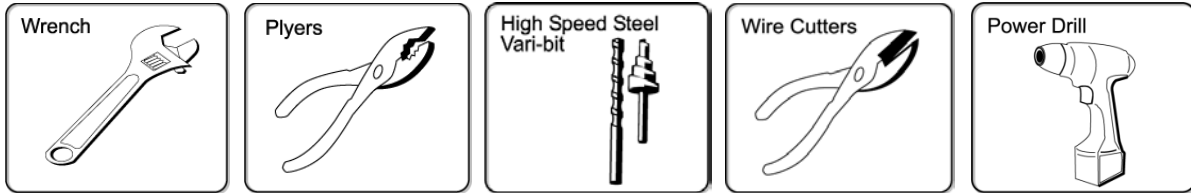
- A. Ensure initial post is set in concrete. Allow to fully cure per manufacturer instructions.
- B. Position second post; do not set in concrete at this time.
- C. Insert Pre-Built Panel into set post, then unset post.
- D. Ensure unset post is plumb. Drill pilot holes through the backside of the set post and into the rail. Secure the rail, using single color matched #8 x 2 1/2" composite deck screw, into ends of each rail. Secure the rail, using single color matched #8 x 2 1/2" composite deck screw, into ends of each rail.
- E. *Make certain post is 72" above ground level.* Pour concrete. Allow to fully cure before continuing panel installation.

Make adjustments for odd widths by gently prying off necessary pickets, exposing backer rail. Cut backer rails to required width ensuring additional 1 3/4" on either side to fit into mortis openings. Install using above indicated instructions.

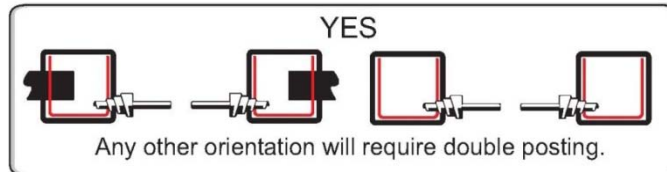


Gate Installation:

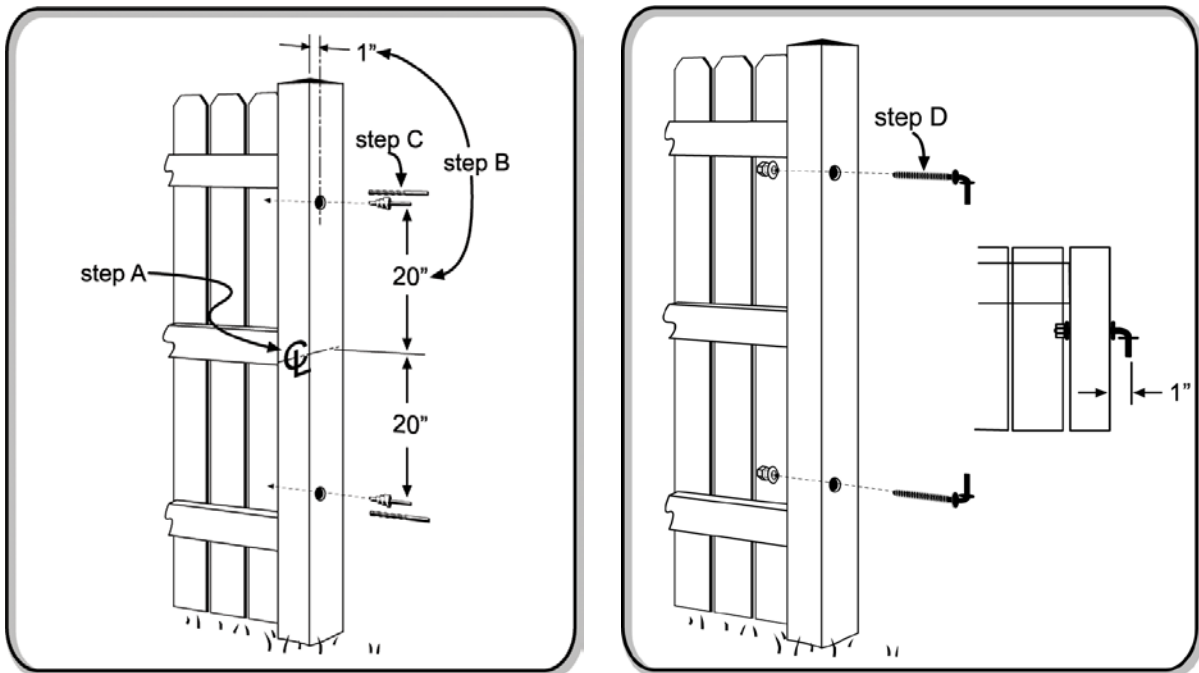
Additional tools needed for Gate Installation:



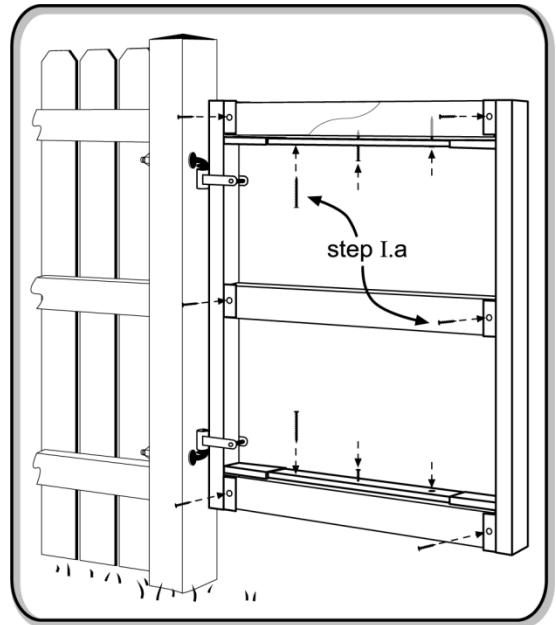
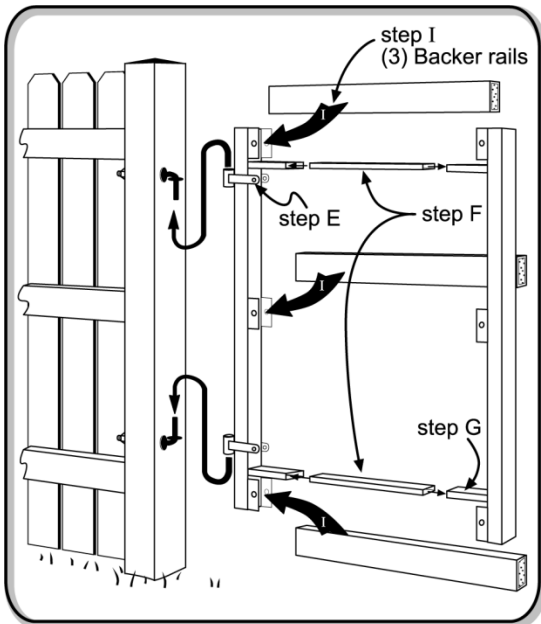
When installing a gate post, orientation of the steel insert is critical. It may be necessary to remove the insert and position it correctly for your application. Note: Hinge pins must go through two walls of the steel insert.



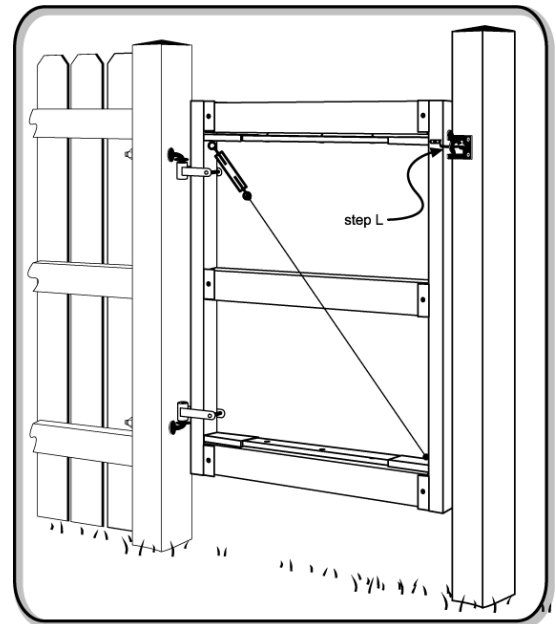
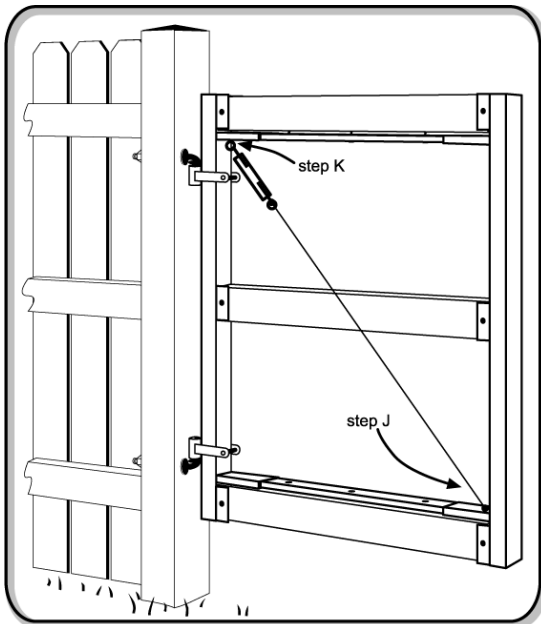
The Adjustable Gate Frame is designed to swing in. Locate hinges on back edge of gate post for proper latch installation, approximately 1" offset towards back edge of post from centerline.



- A. Locate the center point between the top and bottom rails.
- B. Measure up and down approximately 20" and make a mark 1" from the back edge of the post.
- C. Using a 5/8" high speed steel or vari-bit, drill a pilot hole for the hinge pins. Hole must penetrate both sides of post for hinge pin.
- D. Insert hinge pin through leaving approximately 1" to outside of hinge pin. Install bottom hinge facing upward and top hinge facing downwards to prevent gate from being lifted off its hinges. Install washer and nut; do not over-tighten.

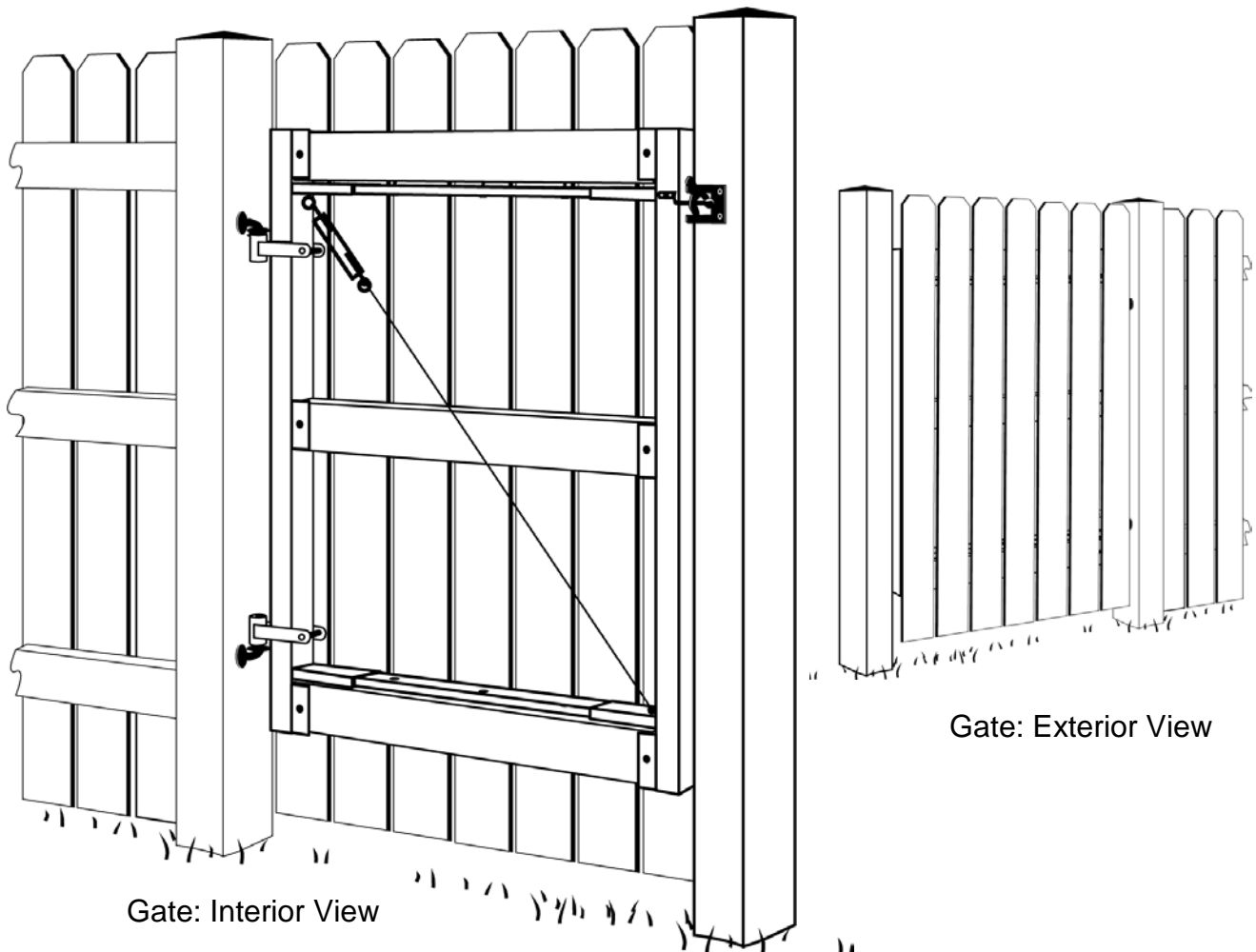


- E. Hang the hinge side of the Adjustable Gate Frame on the post using the frame hinges provided.
- F. Insert the two 1" Spreader bars into the slip members on the frame (be sure that the holes in the spreader bar are facing up and down).
- G. Slide the latch side of frame onto the spreader bars.
- H. Swing the gate to the closed position and adjust the frame to approximately 1" between the frame and post.
- I. Measure, cut and install the 3 backer rails into the frame
 - a. Secure backer rails to spreader bars and gate frame using supplied screws in locations indicated.



- J. Install the "S" Hook for the truss cable kit into the hole at the bottom of the gate on the latch side.
- K. Install the truss cable kit by hooking the turnbuckle into the hole at the top of the gate on the hinge side. Use the clamp provided to secure the cable, cut off excess. Adjust turnbuckle to mild tension. Ensure truss cable is on opposite side from picket installation.
- L. Install the Latch Bar to gate frame, then the Latch Keeper to the post.

- M. Install Stop using the carriage bolt and nylock nut provided.
- N. Install fence pickets with 4" of above ground clearance, using galvanized staples as indicated on Picket Installation Section on Fence Installation Instructions Set. Note:
 - a. Installing the initial gate picket with an overhang will minimize the visual gap between post and frame.
 - b. Make sure to install the initial and end gate picket using supplied self tapping screws through the gate frame.
- O. Adjusting the turnbuckle on the truss cable to fine tune the latch to desired fit.



Driveway Gates:

Driveway gates are generally 8' or 10' openings for double swing gates. These can be extremely heavy and should never be hung off a "lone soldier post" (a single post unconnected with the rest of the fence). If the location of the driveway gate is at the end of a run, construct a "short return" connected to each hanging post to create extra strength ("L" or "T" shaped).

Center support wheels may be required in instances where driveway gate is wider than 9' total (more than 4 ½' wide swing, each side). The drive gates should be supported by a center swivel wheel under each side to alleviate the weight (see: www.hardwaresource.com – click on cane bolts, gate wheels, gate closures, Heavy Duty Gate Wheel - SKU#215350). Center support wheels are optional on gates with less than 4 ½' wide swings.