PHOENIX VINYL
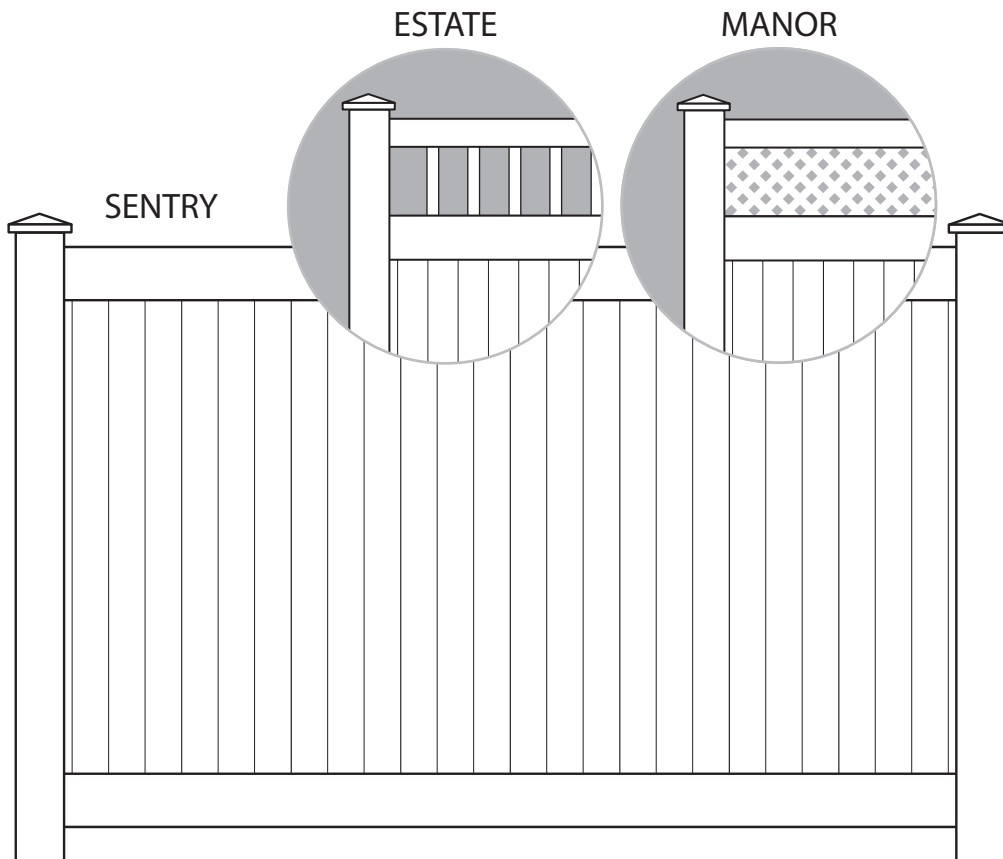## PRODUCTS

PROFESSIONAL SERIES

Privacy Panel and Gate

Standard "Dig & Pour" Installation Instructions

ESTATE

MANOR

SENTRY

Before you start, it's important to check…

That fence footings do not exceed legally established property lines. If uncertain, refer to real estate agent's line plot or consult a professional surveyor.

Local codes for specifications regarding frontage locations, allowable fence heights, etc. A permit may be required.

With local utility companies for locations of underground cables or pipelines.

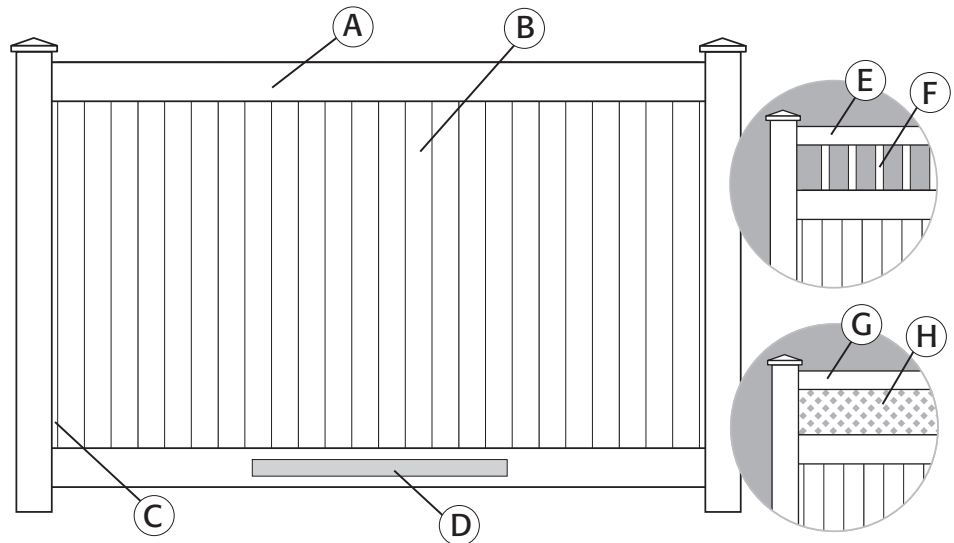## PRIVACY PANEL PARTS LIST

EACH 5' & 6' HIGH PRIVACY PANEL INCLUDES:

A.   1-1/2" X 5-1/2" Routed Rails (2)
B.   7/8" X 11.3" Tongue and Groove Pickets
C.   7/8" PVC U-Channel (2)
D.   Galvanized Steel Insert (1) (for 8' on center post spacing only)
#14 X 1 1/2" Self Drilling Hex Head Screws (6) – Not shown

Estate
E.   2" X 3-1/2" Top Rail
F.   7/8" X 1-1/2" X 12" Accent Pickets

Manor
G.   2" X 3-1/2" Top Rail
H.   12" X 6' or 8' Lattice

① Prepare Fence Layout

NOTE: Standard fence sections and gates are designed for level terrain. Significant slopes in the terrain will require special modifications to posts and panels (see Section 3).

GENERAL INFORMATION:

Read this instruction sheet completely before starting work.

During panel/gate assembly, work on a soft, non-abrasive surface to avoid scratching the PVC.

When cutting PVC components with a power saw, use a fine-toothed blade (plywood blade, finishing blade, etc.).

Laying out the fence is the critical first step toward ensuring a quality installation.

STEP 1

Locate the boundary lines to your property.

STEP 2

Drive stakes into the ground along the property line and stretch a string between each stake.
Be sure to extend the string about 24" beyond the property line *(Fig. 1).*

It is recommended that all posts be set approximately 6" inside of the property line so that concrete footings do not encroach onto the adjoining property.

STEP 3

Mark the location of each terminal post with a stake (corner, end and gate posts are called ***terminal*** posts).

When determining the position of the gate posts, refer to Section 8 – Gate Installation for actual gate opening.
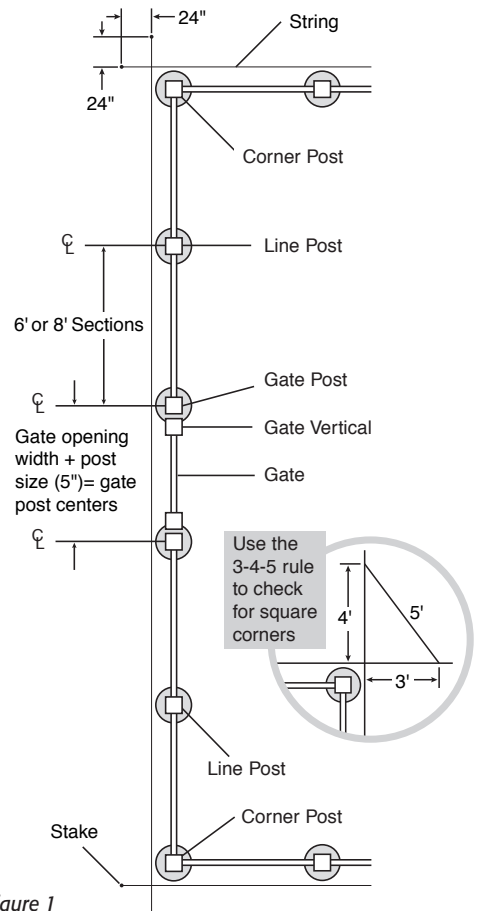

Figure 1

## ② Setting Terminal and Line Posts

Although post depth and hole diameter will be determined by local weather and soil conditions, holes for terminal posts and line posts are typically dug 10" in diameter and 36"- 48" deep (Fig. 2).

Figure 2

STEP 1

Dig all post holes 36"- 48" deep and 10" diameter.
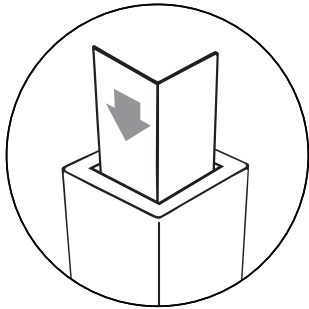
STEP 2

Pour concrete in terminal post holes, fill to 2" below ground level. Set terminal posts in concrete relatively soon dependent on specific concrete conditions.

2"
2"
30"-36"
36"-48"
10" dia.
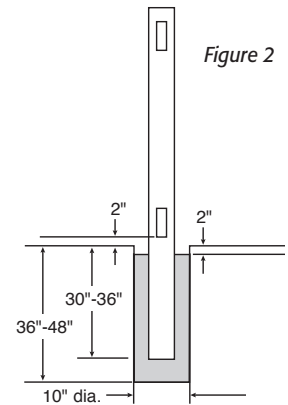
STEP 3

Position the post in the hole. The posts should be centered in the hole and must be square with the fence line so that when the rails are inserted into the posts they will parallel the string line. Check the post on two adjacent sides with a carpenter's level and adjust as necessary to make sure it is plumb. The fence height above grade is determined at this time as well. We recommend 2" be left from the bottom of the bottom rail to the ground.
NOTE: For sloped/variable terrain installations refer to Section 3.

STEP 4

After the terminal post footings have hardened enough for the posts to remain stable, stake and stretch a string line taut across the tops of the posts to mark the desired height of the line posts (Fig. 3).
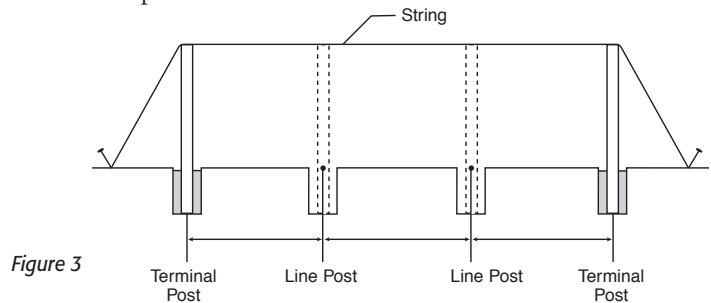
STEP 5

Repeat procedure 3 for all line posts.

Gate hinge posts are to include 5"x 5"x 108"Galvanized L-Channel Reinforcing Insert for added strength. The corner of the L-Channel is to be oriented towards the corner of the post with the future gate hinge. (refer to Section 8 - Gate Installation)

String

Figure 3

Terminal Post   Line Post   Line Post   Terminal Post

③ Sloped/Variable Terrain Installation

For typical installations on flat/even ground, the posts are to be set at an elevation with approximately 2" clearance between the bottom of the bottom rail cut out and the ground (Fig. 2)**. Posts are routed with a standard rail hole (rectangular cut out) which can accommodate an approximate 10% grade change** (Fig. 4)**. For installations with more significant grades, there are two alternate methods of installation. Both will require special shop or field fabrication and therefore should be discussed with fabrication shop prior to order.**

A) RACKED INSTALLATION

"Racked" installation enables fence sections (horizontal rails) to "follow" the sloping terrain and maintain the bottom of the fence relatively close to the ground (Fig. 4). When installing multiple sections, it is advisable to use an end post and field fabricate the opposite side of the post to avoid a jagged fence line. Depending on the severity of the rack, special shop or field fabrication of the posts and pickets may be required which include elongating the holes in the posts to accept rails and shortening the length of pickets. In extreme cases, it may be required to decrease the spacing of post centers.
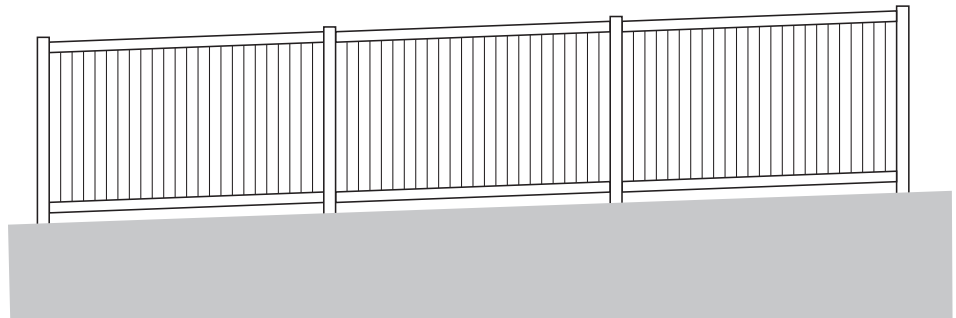

Figure 4

1. Enlarge holes in post to accept rails

- Determine angle or slope
- Place first post in hole and hold plumb
- Place rail next to post (not in routed hole) at correct angle of grade.
- Mark rail where post crosses it on angle
- Remove rail, measure the length of the drawn angle. Add 1/8" to this length to determine proper post hole size
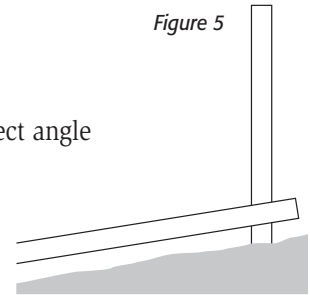- Enlarge post holes

Figure 5

NOTE: Always open bottom of top hole and top of bottom hole to maintain proper fence height.

- Holes may be cut utilizing a template kit and router or spiral saw
- Determine location of holes on opposite side of line post by laying post across side of rail (align with routed hole) and marking exit position of rail on opposite side of post
- Cut holes with template kit and router or spiral saw as previous
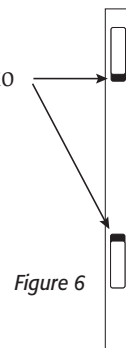
Figure 6

2. Shorten picket length

- For extreme racking situations, picket ends may need to be cut to accommodate rack
- Position top and bottom rails in routed post holes
- Position picket next to rails so it is plumb and aligned with bottom side of bottom rail
- Mark position where top and bottom of picket intersects inside groove of rails; subtract 3/8" and cut picket to length
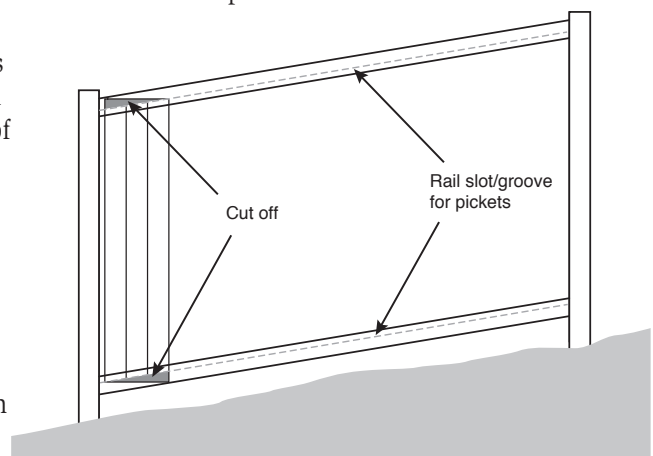
Cut off

Rail slot/groove for pickets

Figure 7

B) STEPPED INSTALLATION

"Stepped" installation enables the fence sections to maintain a horizontal profile (rails) as they step section to section. Note that the clearance under the fence section will increase as the grade drops off (Fig. 8). Posts are to be installed higher relative to the fence section on high side of the post. In order to accomplish this on a line post, the routed rail hole cut outs will have to be "offset" from on side of the post to the other. Alternately, the fabrication shop can provide a post with rail cut outs only on one side (end post) so as the other offset side can be field routed.
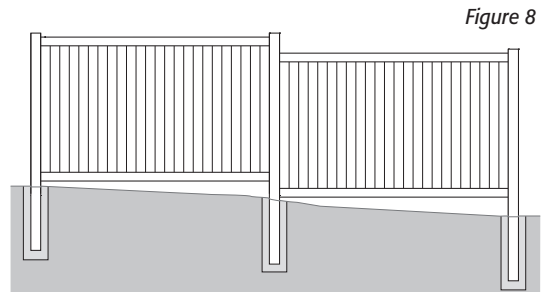
Figure 8

④ Installing Bottom Rails

STEP 1

If post spacing is less than standard 6' or 8' on center, cut a piece from the end of the top and bottom rails to achieve the desired length.

The length of the top and bottom rails should be 1/2" less than the center-to-center measurement of the posts.
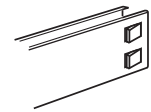

Figure 9

STEP 2 (optional)

Using the notching tool, notch both ends of the bottom rail with one or two notches on each side (Fig. 9). Hold the rail and the tool steady while notching, avoid twisting the tool.
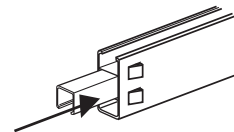

Figure 10

STEP 3 (8' on center post spacing)

Slide the metal reinforcing insert into the bottom rail (Fig. 10).
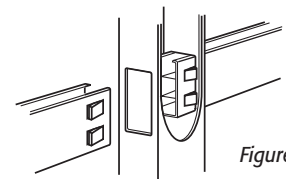

Figure 11

STEP 4

Slide one end of the bottom rail into the bottom hole of terminal post (Fig. 11). Then slide other end of bottom rail into next line post.

STEP 5

Repeat these steps proceeding down the fence line until all bottom rails are inserted.

⑤ Installing Pickets

STEP 1

Center the U-channels on the post, between the bottom rail and the hole for the top rail with the flat side of the channels against the posts (you can insert a top rail to serve as a guide, if necessary).

Secure the channels to the posts using the #14 x 1 1/2" self drilling hex head screws supplied (Fig. 12).
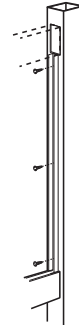
Figure 12

STEP 2 (optional)

Notch all remaining rails or after sections are complete, drill a screw into top rail from inside of the posts.

STEP 3

If post spacing is less than standard 6' or 8' on center, you may need to cut equal amounts off of the grooved side of the picket on one end of the panel and the tongued side of the picket on the opposite end (Fig. 13).

Groove Side   Tongue Side

Cut Line   Cut Line
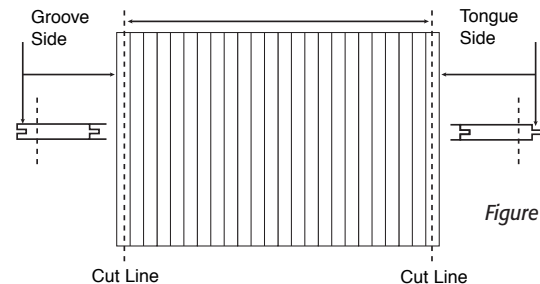
Figure 13

STEP 4

Starting on one end, insert the first picket into the bottom rail and the U-channel. Proceeding down the panel, insert pickets into the bottom rail, interlocking the tongues and grooves as you go. If you have cut the first picket, the cut end should go into the U-channel. (Fig. 14). To ensure a strong, secure fence make sure the pickets are fit tight next to one another.
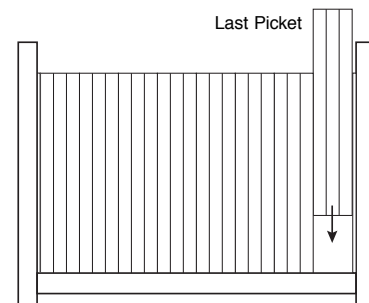
Last Picket

Figure 14

⑥ Installing Top Rail/Accent Top

SENTRY TOP RAIL

STEP 1

Place one end of the top rail into the post and work your way down the panel inserting pickets into the top rail as you go (Fig. 15).
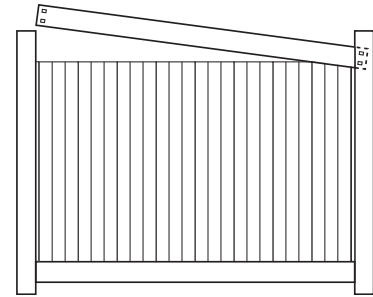
STEP 2

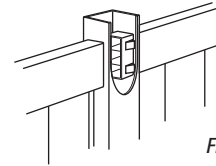Once all of the pickets are installed, slide the loose rail end into the post (Fig. 16).

Repeat these steps until all panels have been assembled.

Figure 15

Figure 16

ESTATE PICKET ACCENT TOP

Install mid rail as per Step 1 & 2 of Sentry Top Rail installation. Note that square holes in mid rail are to face upwards (Fig. 17).
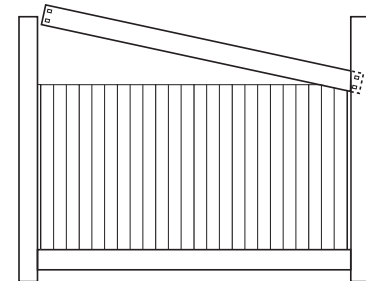
If post spacing is less than standard 6' or 8' on center, you may need to cut some from each end of rail to ensure that the distance from the post to the first picket remains equal on each end (Fig. 18). The length of the top and bottom rails should be 1" less than the center-to-center measurement of the posts.
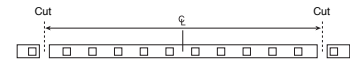
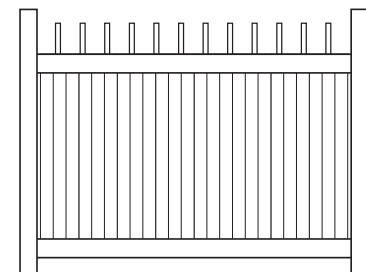Slide 7/8" x 1 1/2" x 12" accent pickets into the routed holes in the top of the mid rail (Fig. 19).

Figure 17

Figure 18

Figure 19

9

Place one end of the 2" x 3 1/2" top rail into the post and work your way down the panel inserting pickets into the top rail as you go (Fig. 20).
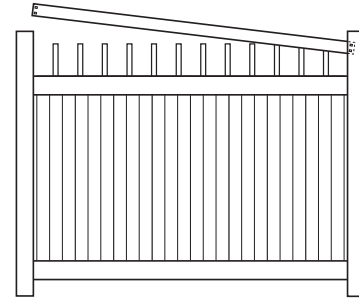
Once all of the pickets are installed, slide the loose rail end into the post (Fig. 21).
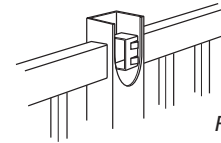
Figure 20

Figure 21

MANOR LATTICE ACCENT TOP

Install mid rail as per Step 1 & 2 of Sentry Top Rail installation. Note that the side with the narrower routed slot is to face upwards (Fig. 22).
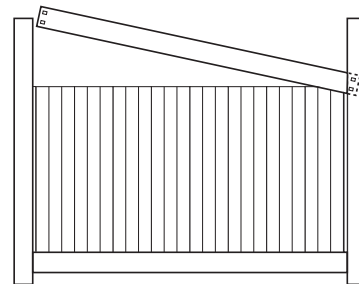
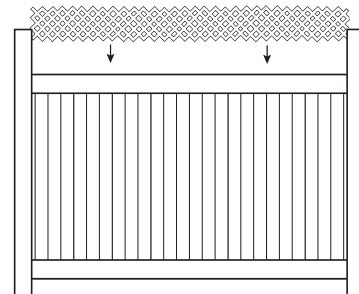Slide 12" x 6' or 8' accent lattice into the routed slot in the top of the mid rail (Fig. 23).

Figure 22

Figure 23

Place one end of the 2" x 3 1/2" top rail into the post and work your way down the panel inserting lattice into the top rail slot as you go (Fig. 24).

Once all of the lattice is installed, slide the loose rail end into the post (Fig. 25).
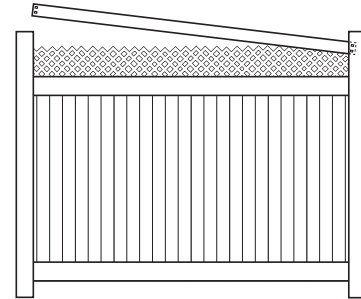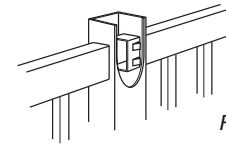

Figure 24

Figure 25

⑦ **Installing Post Caps** (optional)

NOTE: Do not install post caps on gate posts until gate installation is complete.

EXTERNAL CAPS *(slide over the post)*

Apply PVC glue to the inside of the cap and press completely onto the top of the post (Fig. 26). Press firmly to ensure that the cap is on as far as it will go.
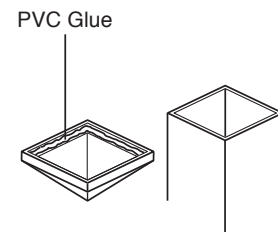
PVC Glue

Figure 26

⑧ Gate Installation

PRIVACY GATE PARTS LIST

Available in 4', 5' and 6' heights.

- Standard walk gate "opening width" is 43"
- Opening width is the inside post to inside post measurement
- Gates are manufactured 1-1/2" narrower than the opening width to provide clearance for latches and hinges.

EACH PRIVACY GATE INCLUDES:

A. Gate Panel

B. Heavy Duty Latch (1)

C. Heavy Duty Hinges (2)

D. Gate Hinge Post with L-Channel Insert (1)

E. Gate Latch Post (1)

3/4"   Opening Width   3/4"

Figure 27

TOP VIEW

Gate Hinge Post →
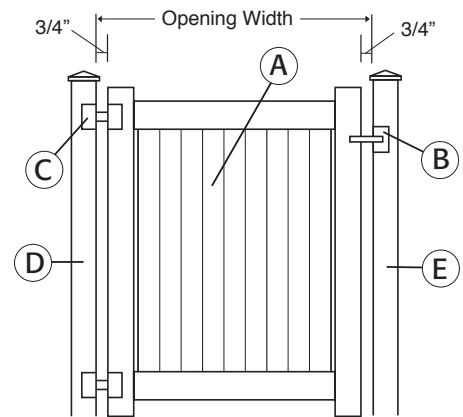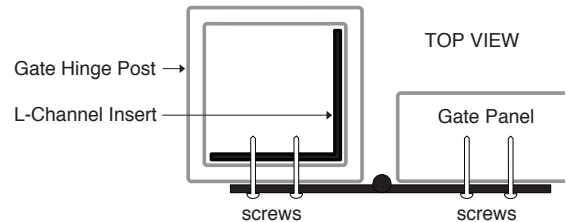
L-Channel Insert →

Gate Panel

screws   screws

HANGING THE GATE

STEP 1

Position the gate in the gate opening and block-up the gate as necessary to line up the horizontal gate rails with those of the fence (Fig. 28). Attach hinges and latch to the gate and posts per the installation instructions packaged with the hardware.

STEP 2

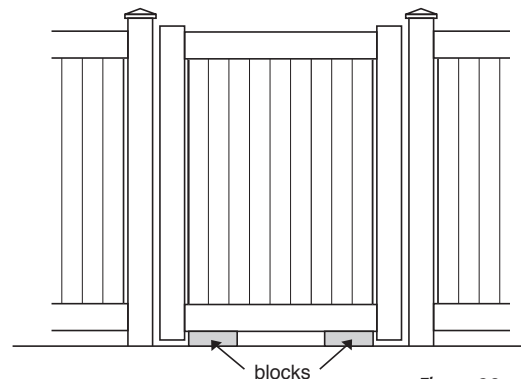Install gate post caps (refer to Section 7 - Installing Post Caps).

blocks

Figure 28