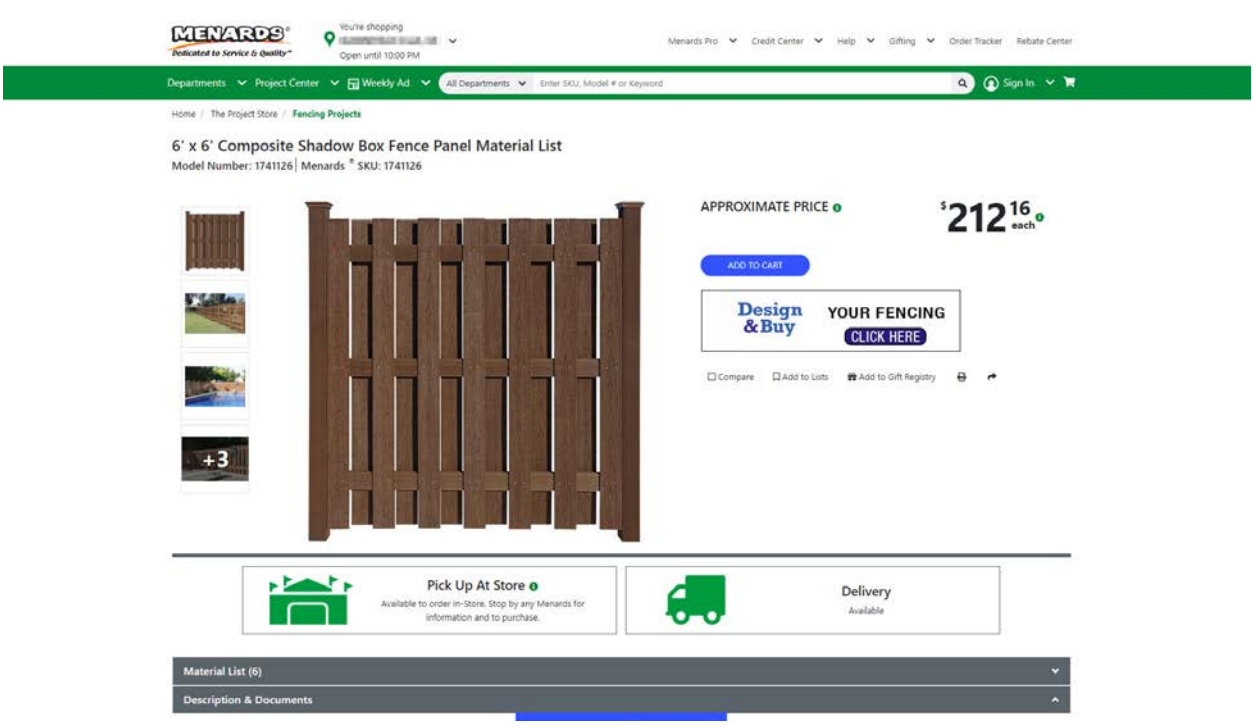
ULTRADECK FENCING

A real homeowner's experience in using UltraDeck composite fencing from Menards

This document supports the UltraDeck video to be found at
https://youtu.be/uL2EX8Qe5DE
This is an adjunct to the video only and not all pages are self-explanatory.



For Basket Weave Style Fence

Step 1) Bracket Installation
• Center and attach the top brackets, 6-1/2" down from the top of the post sleeve to the bottom of the bracket. You can use a string level between brackets to check that they are level.
• The open end of the bracket needs to face towards the side of the fence that will have 7 pickets *(see Fig. 3).*

Step 2) 2 X 4 Sleeve Assembly
• Cut all 2 X 4's and 2 X 4 sleeves to 67-3/4" (For 72" O.C. post spacing).
• Slide the 2 X 4 sleeves over the 2 X 4 boards until the ends are flush, these will be your picket backer rails.

Step 3) Preassembling Fence Panel
• On a flat surface position the 2 backer rails parallel to each other spaced 64" apart or 72" to the outer edges.
• Starting approximately 1/8" in from each side, evenly place all the pickets across the backer rails.
• Line up each picket so that it is at a 90 degree angle to each backer rail and is flush with the top and bottom surface of the upper and lower backer rails.
• Starting from the left side and using 1-5/8" screws attach every other picket to the backer rails - 2 screws into each backer rail.
• Remove the pickets you didn't attach to the backer rails, these will be used later in the assembly.
• Lay the 3rd backer rail down on the ground, next to your panel, and attach a bracket to the outer edge of each end. Position the brackets so that the top, or open end of the bracket, will be facing the direction of the top of the fence.

Note: Due to the weight we recommend that someone assist you with this next step.

• Flip the panel over so that the pickets are now facing down and lay the panel on top of the 3rd backer rail so that the middle backer rail is evenly spaced between the upper and lower backer rails.
• Attach the pickets to the middle backer rail using a 1-5/8" screw in the middle of each picket.
• Check that the spacing between the pickets remains consistent with the spacing on the upper and lower backer rails
• Weave the remaining pickets over the upper backer rail, between the attached pickets, under the middle backer rail and back to the top of the bottom backer rail.
• Attach the remaining pickets to each of the upper and lower backer rails using 2 qty., 1-5/8" screws at each backer rail.

Step 4) Attaching Remaining Brackets
• Attach the remaining 2 brackets to the bottom backer rail. The brackets need to be installed in the same direction as the middle brackets.
• Once again flip the panel over and attach the last 6 installed pickets to the middle backer rail using a 1-5/8" screw in the middle of each picket.

Note: Due to the weight we recommend that someone assist you with this next steps.

Step 5) Installing Panels Between the Posts
• Lift the panel into position between 2 posts and slide into the upper brackets that were previously installed. Fasten the upper brackets to the top backer rail.

Step 6) Level Panel and Complete Attachment
• Using a level check for vertical plumb alignment of the panel and then fasten the remaining brackets to the sides of the post sleeves.
• Repeat steps 1 through 6 for all remaining fence panels.

Care & Maintenance

As needed a gentle brush or mild detergent and a garden hose may be used to keep your fence looking great for years to come.

Use caution when trimming with a string trimmer to avoid contact with the fence panels and posts. Keeping the bottom edge of the fence 1" or more above the ground makes it easier to trim grass around the base of the fence.

Low-Maintenance Composite Fencing by UltraDeck®

AVAILABLE AT MENARDS®

MADE IN THE USA

Low-Maintenance Composite Fencing by UltraDeck®

PRODUCT INSTALLATION GUIDE

- Composite Fencing by UltraDeck® is created using state-of-the-art equipment to specially blend plastic and wood fibers
- Resists splintering, cracking, rotting and insects
- No special tools required; easy as working with wood
- Low maintenance. Spend more time enjoying your fence rather than maintaining it!
- UltraDeck® is a top selling manufacturer of composite wood materials
- Our environmentally friendly products are made with recycled materials. Due to the presence of recycled materials in UltraDeck®, some color and texture variations may occur

Tools Needed

Building a fence is a rewarding project you can do with few tools. As with any project, be sure and use all necessary protection, i.e. eyewear, safety boots. Here is a list of items you will need to complete your fence.

Post hole digger
Shovel
Drill/Power screw driver
Hammer
Level and String level
String line
Tape Measure
Table or circular saw

Additional Material:
Bag of Gravel
Instant post cement
Container to mix cement

NOTE:
To speed up and aid in assembly, go to www.midwestmanufacturing.com for instructions to construct a helpful fence panel jig.

www.midwestmanufacturing.com

Deciding On a Fence Style

There are hundreds of variations in fencing styles. The fence you choose depends on its purpose. The fences described in these instructions are easy to build and are more attractive than an ordinary fence. With a little shrubbery or plants, such fences provide very attractive barriers along property lines.

Regardless of the fence type, be sure you know exactly where your property line is located. If you are uncertain about the location of the line, have your property surveyed or work out an agreement with your neighbor. Prior to construction, check with your local regulatory agency for special code requirements in your area.

Decide which styles you prefer, or use a little imagination and create your own fencing design. Being able to purchase components separately allows more flexibility in your design.

All styles are designed and pictured with space between each picket and above the ground. The space between pickets allows for expansion and contraction of pickets with changes in temperature. Space above ground prevents movement of pickets with ground shift and allows for lawn/grounds maintenance around fence. Any changes made to design should have approximately 1/8” gap between pickets and 3” space above ground, spacing may be larger if desired.

Fencing Components

13-piece picket pack provides 6' high coverage for 6' OC vertical posts
172-7000

2x4x67-3/4" composite sleeves
172-7020

4x4x78" or 102" composite sleeves
172-7030, 172-7035

Mounting bracket sets
172-7050

Post Cap
172-7050

- 2x6x96" composite sleeves
  172-7034
- Individual dog-eared pickets
  3' 172-7034, 4' 172-7008, 5' 172-7009, 6' 172-7010, 8' 172-7011
- 1-5/8" screws Hickory Brown
  230-0025

Solid or Privacy Style

Allows for complete privacy. Used to surround swimming pools, define property lines or cover an unattractive area.

You’ll need the following components for each section of this style of fence:

Fence Component	Qty per section
13-piece picket pack	1 pack
2x4x67-3/4" composite sleeves	3
4x4x78" composite sleeves	1 (+ 1 at fence end)
Mounting bracket sets	3 (sold as pairs)
Post Cap	1 (per 4 X 4 sleeve)
• 1-5/8" screws	78
• AC2 treated 2x4x6'	3
•AC2 treated 4x4x10' post	1 (+1 at fence end)

Scalloped Style

Also allows for complete privacy – ideal for defining boundaries while adding an extra decorative appeal.

You’ll need the following components for each section of this style of fence:

Fence Component	Qty per section
13-piece picket pack	1 pack
2x4x67-3/4" composite sleeves	3
4x4x78" composite sleeves	1 (+ 1 at fence end)
Mounting bracket sets	3 (sold as pairs)
Post Cap	1 (per 4 X 4 sleeve)
• 1-5/8" screws	78
• AC2 treated 2x4x6'	3
•AC2 treated 4x4x10' post	1 (+1 at fence end)

Shadow Box Style

The ideal “good neighbor" fence features the same look on both sides of the fence. This style has the look of a privacy panel but allows more air circulation.

You’ll need the following components for each section of this style of fence:

Fence Component	Qty per section
13-piece picket pack	1 pack
2x4x67-3/4" composite sleeves	3
4x4x78" composite sleeves	1 (+ 1 at fence end)
Mounting bracket sets	3 (sold as pairs)
Post Cap	1 (per 4 X 4 sleeve)
• 1-5/8 " screws	78
• AC2 treated 2x4x6'	3
•AC2 treated 4x4x10' post	1 (+1 at fence end)

Basket Weave Style

Is also a “good neighbor" style fence and is often used on sloping terrain because it allows you to raise or lower each post and panel without disrupting the look.

You’ll need the following components for each section of this style of fence:

Fence Component	Qty per section
13-piece picket pack	1 pack
2x4x67-3/4" composite sleeves	3
4x4x78" composite sleeves	1 (+ 1 at fence end)
Mounting bracket sets	3 (sold as pairs)
Post Cap	1 (per 4 X 4 sleeve)
• 1-5/8" screws	78
• AC2 treated 2x4x6'	3
•AC2 treated 4x4x10' post	1 (+1 at fence end)

Layout & Setting of Posts

Prior to construction, check with your local regulatory agency for special code requirements in your area.
Before digging postholes, contact Diggers Hotline or your local utility companies to mark any underground cables and pipelines.

Step 1) Stake Out Fence Line

• Determine location of your fence and drive stakes into the ground beyond the corners and the ends of the fence. So you do not disturb the stakes when digging, locate them out an additional 6" beyond where the post is to be set *(See Fig. 1).*
• Stretch twine or heavy string between stakes and pull tight to mark layout of the fence line.

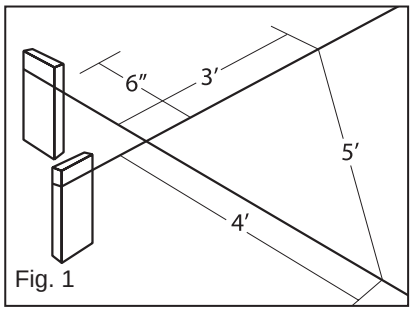


Fig. 1

Step 2) Setting Posts

• Measure and dig post holes 72" from location of post center to post center.
• The required depth may vary based on the local frost line; you should check the requirements for your area. As a general rule approximately 1/3 of the total length of the post should be buried in the ground (Example: For a 10' post 3-1/2' will be in the ground and 6-1/2' above).
Note: to accommodate the post sleeve 6'-6" of post needs to be above the ground.
• The post hole should be dug 6" deeper than needed and back filled with 6" of gravel to drain water away from the bottom of the post.

Step 3) Checking Fit of Post Sleeve

• Check fit of post sleeves over the 4 X 4 posts before setting in the ground.
Note: Ultradeck post sleeves are designed to fit snug over dimensional 4 X 4 posts. If the 4 X 4 post you are using are outside of standards, trimming of edges may be required.

Step 4) Setting the Posts

• Install the end and corner posts first. Brace the posts using 2 X 4's nailed to both the post and a stake pounded into the ground *(see Fig. 2).*
• Be sure the posts are in an exact upright position. You can check the alignment of each post with a regular level taking a reading on two adjacent sides.
• Tie a string between the posts along the fence line. This will establish a reference to ensure all the post will be in line.
• Set the remaining posts in a similar manner.

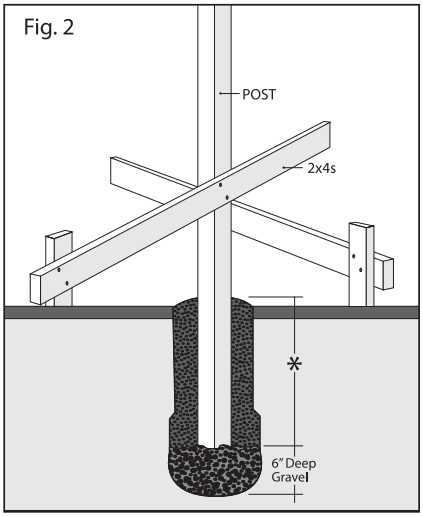


Fig. 2

Step 5) Filling the Post Holes

• *Option 1)* Pack the post in with the dirt removed from the hole, adding a little at a time around the post and tamping it down as you go along.
• *Option 2)* Or fill the post hole with Instant post cement stopping just below grade. Follow manufactures instructions on the cement bag.
• Once again use a level to check for vertical plumb alignment and the spacing between the posts. This should be 72" on center of each post or 68-1/2" between posts.
• Using the line stretched between end posts, ensure the front edge of each post is parallel with the fence line.

Step 6) Post Sleeve Assembly

• If using cement make sure it has fully cured before removing bracing.
• Slide a composite sleeve over each fence post. Due to the height of the post we recommend using a step ladder and having someone assist you with this step.

Step 7) Installing Post Cap

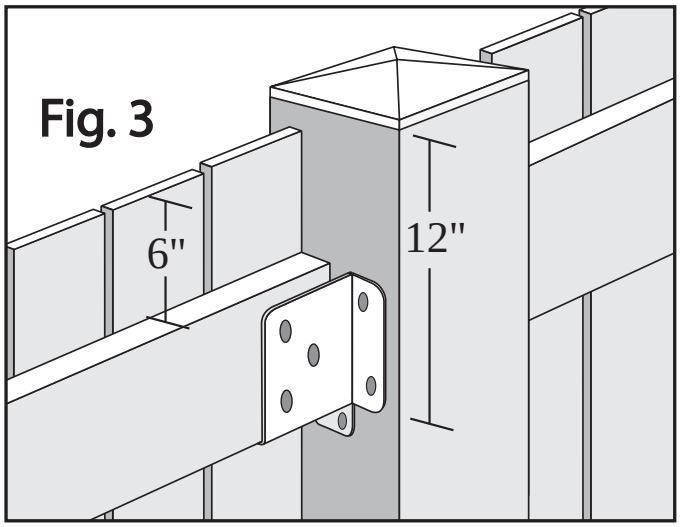
• Align post cap with the top of the post sleeve and slide onto the post sleeve. If desired use a silicon adhesive caulk to secure post cap to the sleeve.

Installing Fence Panels

For Privacy Style Fence

Step 1) Bracket Installation

• Center and attach the top brackets, 12" down from the top of the post sleeve to the bottom of the bracket. You can use a string level between brackets to check that they are level.
• The open end of the bracket needs to face towards the side of the fence that will have pickets. *(see Fig. 3)*



Step 2) 2 x 4 Sleeve Assembly

• Cut all 2 x 4's and 2 x 4 sleeves to 67-3/4" (For 72" O.C. post spacing).
• Slide the 2 x 4 sleeves over the 2 x 4 boards until the ends are flush, these will be your picket backer rails.

Step 3) Preassembling Fence Panel

• On a flat surface position the 3 backer rails parallel to each other spaced 23" apart.
• Starting approximately 1/8" in from each side, evenly place all the pickets across the backer rails.
• Line up each picket so that it is at 90 degree angle to each backer rail and is 6" above the top surface of the upper backer rail.
• Using 1-5/8" screws attach pickets to the backer rail, 2 screws into each backer rail (6 screws per picket).

NOTE: Due to the weight we recommend that someone assist you with these next steps.

Step 4) Attaching Remaining Brackets

• Flip the panel over so that the pickets are now facing down.
• Attach the remaining 4 brackets to the ends of the middle and bottom backer rails.

Step 5) Installing Panels Between the Posts

• Lift the panel into position between 2 posts and slide into the upper brackets that were previously installed. Fasten the upper brackets to the top backer rail.

Step 6) Level Panel and Complete Attachment

• Using a level check for vertical plumb alignment of panel and then fasten the remaining brackets to the sides of the post sleeves.
• Repeat steps 1 through 6 for all remaining fence panels.

For Scalloped Style Fence

Step 1) Bracket Installation

• Center and attach the top brackets, 12" down from the top of the post sleeve to the bottom of the bracket. You can use a string level between brackets to check that they are level.
• The open end of the bracket needs to face towards the side of the fence that will have pickets *(see Fig. 3).*

Step 2) 2 X 4 Sleeve Assembly

• Cut all 2 X 4's and 2 X 4 sleeves to 67-3/4" (For 72" O.C. post spacing).
• Slide the 2 X 4 sleeves over the 2 X 4 boards until the ends are flush, these will be your picket backer rails.

Step 3) Preassembling Fence Panel

• To create the scalloped top effect, you will need to cut the pickets to the following lengths: 2 qty. - 72", 2 qty. - 71-1/4", 2 qty. - 70-1/2", 2 qty. 69-3/4", 2 qty. - 69", 2 qty. - 68-1/4", and 1 qty. - 67-1/2".
• On a flat surface position the 3 backer rails parallel to each other spaced 23" apart.
• Starting approximately 1/8" in from each side, evenly place all the pickets across the backer rails, positioning the longest pickets on the outside and arranging the rest of the pickets in descending size toward the center.
• Line up each picket so that it is at 90 degree angle to each backer rail and the 2 outer pickets are 6" above the top surface of the upper backer rail.
• Working towards the middle of the panel, each picket should be 3/4" lower than the previous picket, and all pickets should be even along the bottom of the panel.
• Using 1-5/8" screws attach pickets to the backer rail, 2 screws into each backer rail (6 screws per picket).

NOTE: Due to the weight we recommend that someone assist you with these next steps.

Step 4) Attaching Remaining Brackets

• Flip the panel over so that the pickets are now facing down.
• Attach the remaining 4 brackets to the ends of the middle and bottom backer rails.

Step 5) Installing Panels Between the Posts

• Lift the panel into position between 2 posts and slide into the upper brackets that were previously installed. Fasten the upper brackets to the top backer rail.

Step 6) Level Panel and Complete Attachment

• Using a level check for vertical plumb alignment of panel and then fasten the remaining brackets to the sides of the post sleeves.
• Repeat steps 1 through 6 for all remaining fence panels.

For Shadow Box Style Fence

Step 1) Bracket Installation

• Center and attach the top brackets, 12" down from the top of the post sleeve to the bottom of the bracket. You can use a string level between brackets to check that they are level.
• The open end of the bracket needs to face towards the side of the fence that will have 7 pickets *(see Fig. 3).*

Step 2) 2 X 4 Sleeve Assembly

• Cut all 2 X 4's and 2 X 4 sleeves to 67-3/4" (For 72" O.C. post spacing).
• Slide the 2 X 4 sleeves over the 2 X 4 boards until the ends are flush, these will be your picket backer rails.

Step 3) Preassembling Fence Panel

• On a flat surface position the 3 backer rails parallel to each other spaced 23" apart.
• Starting approximately 1/8" in from each side, evenly place all the pickets across the backer rails.
• Line up each picket so that it is at 90 degree angle to each backer rail and is 6" above the top surface of the upper backer rail.
• Starting from the left side and using 1-5/8" screws, attach every other picket to the backer rails - 2 screws into each backer rail (6 screws per picket).
• Remove the pickets you didn't attach to the backer rails - these will be used on the opposite side after you flip the panel over.

Note: Due to the weight we recommend that someone assist you with this next step.

• Flip the panel over so that the pickets are now facing down.
• On the back face of the backer rails evenly place the remaining pickets so they cover the openings that you created between the pickets on the opposite side.
• Line up each picket so that it is at a 90 degree angle to each backer rail and is 6" above the top surface of the upper backer rail.
• Starting from the left side, and using 1-5/8" screws, attach the remaining pickets to the backer rails - 2 screws into each backer rail (6 screws per picket).

Step 4) Attaching Remaining Brackets

• Attach the remaining 4 brackets to the ends of the middle and bottom backer rails.

NOTE: Due to the weight we recommend that someone assist you with these next steps.

Step 5) Installing Panels Between the Posts

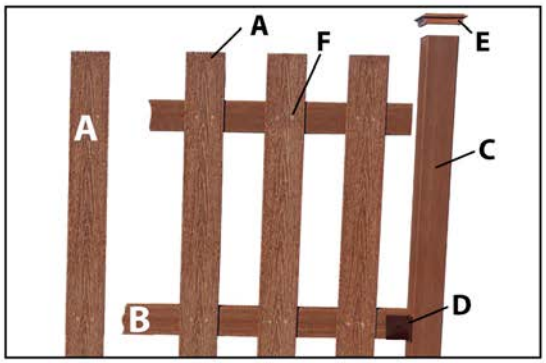
• Lift the panel into position between 2 posts and slide into the upper brackets that were previously installed. Fasten the upper brackets to the top backer rail.

Step 6) Level Panel and Complete Attachment

• Using a level check for vertical plumb alignment of panel and then fasten the remaining brackets to the sides of the post sleeves.
• Repeat steps 1 through 6 for all remaining fence panels.

Fencing Components

Posts, rails and pickets like most other fences



A 13-piece picket pack provides 6' high coverage for 6' OC vertical posts
172-7000

B 2x4x67-3/4" composite sleeves
172-7020

C 4x4x78" or 102" composite sleeves
172-7030, 172-7035

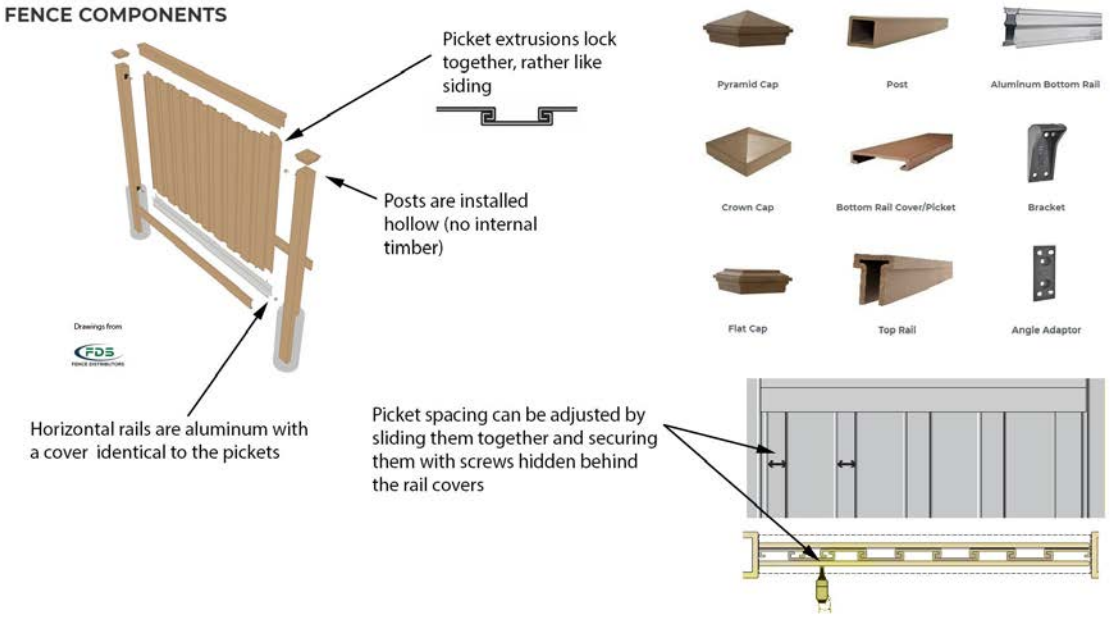
D Mounting bracket sets
172-7050

E Post Cap
172-7050

F 1-5/8" screws Hickory Brown
230-0025

Also needed. AC2 treated wood
2" x 4" (actual 1½" x 3½') horizontal (backer) rails for fitting inside item B
4" x 4" (actual 3½" x 3½") vertical posts for fitting inside item C

Trex Seclusions Composite Fencing



RUSTIC™

UltraDeck® Rustic™ provides the look of real wood without the upkeep. Rustic™ contains special UV additives and consistent color the whole way through the board, providing a level of fade resistance that ensures your decking will take on a more natural color after exposure to the sun. Unlike wood, Rustic™ delivers superior durability against splintering, cracking, rotting and insects.

REALISTIC WOOD EXPERIENCE

UltraDeck® Rustic™ looks like vintage and reclaimed wood without the splintering, splitting, or protruding screws.

MATURES OVER TIME

Elements of nature cause some color fading to a more natural, rustic color, within 30-60 days of exposure to weather. The fading process completes in about a year.

BUILD WITH CONFIDENCE

UltraDeck® Rustic™ boards are backed by the UltraDeck® 10-year limited warranty.

DETAILS

SLIP RESISTANCE	●●●●○
STAIN RESISTANCE	●●●○○
SCRATCH RESISTANCE	●●●○○

FADE RESISTANT — FULL FADING

Trex Fades Too

COLOR WHEN NEW — COLOR AFTER WEATHERING

COLOR WHEN NEW — COLOR AFTER WEATHERING

Color and Texture Comparison between Trex and UltraDeck

Trex Woodland Brown

UltraDeck Hickory

Trex Saddle

Pictures taken in daylight of actual product samples all cropped from the same exposure

Environmental Considerations

UltraDeck. While the majority of raw materials that are compounded in the extruding of UltraDeck® products are recycled, the technology and process requirements that ensure outstanding performance and beauty are much more advanced than traditional milling equipment.

Composite fencing will not splinter, warp, or fade the way wood does. It dramatically reduces the wasteful cycle of repair and replacement. Composite fencing is manufactured with recycled wood materials that would otherwise go into landfills.
In addition, composite fencing is able to be made from recycled byproducts produced in our manufacturing facility. Composite fencing does not require painting, staining, or sealing.

Trex. Always Green. We make Trex® eco-friendly composite decks from an innovative blend of 95% reclaimed wood and plastic film—that's almost the whole thing. On top of that, our company uses some of the most earth-friendly manufacturing processes in the country, reclaiming factory waste and eliminating the use of harmful chemicals. Trex offers consumers a truly environmentally responsible choice. Being green is in our DNA. We've been this way nearly 30 years, well before green was a buzzword. Because in the end, all of us want to look out on our decks and know that we've done our part.

DECIDING ON A FENCE STYLE

Solid, Scalloped, Shadow Box or Basket Weave

Solid or Privacy Style

Good for privacy

Flat look can be boring

Less attractive from back

Picket spacing not easy to adjust with fence width

Scalloped Style

Good for privacy although less high in middle

Flat look but less boring than solid fence

Less attractive from back

Picket spacing not easy to adjust with fence width

A lot of work, with chance of mistakes when cutting pickets

Basket Weave Style

Good for privacy

Less boring than solid fence

Nearly as attractive from back as front apart from brackets showing

Picket spacing not easy to adjust with fence width

A lot of work

Note flexibility of pickets

Shadow Box Style

Not great for privacy

Less boring than solid fence

Nearly as attractive from back as front apart from brackets showing

Picket is easy to adjust with fence width

Trex Seclusions

Good for privacy from all angles

More interesting that flat fence

Equally attractive or unattractive from both sides

Picket spacing very easy to adjust with fence width

PRIVACY FENCE CONSIDERATIONS

Pluses and minuses of this type of fence

UltraDeck Measurements Don't Add Up

All styles are designed and pictured with space between each picket and above the ground. The space between pickets allows for expansion and contraction of pickets with changes in temperature. Space above ground prevents movement of pickets with ground shift and allows for lawn/grounds maintenance around fence. Any changes made to design should have approximately 1/8" gap between pickets and 3" space above ground, spacing may be larger if desired.

For the 72" wide fence proposed, 13 pickets are used.

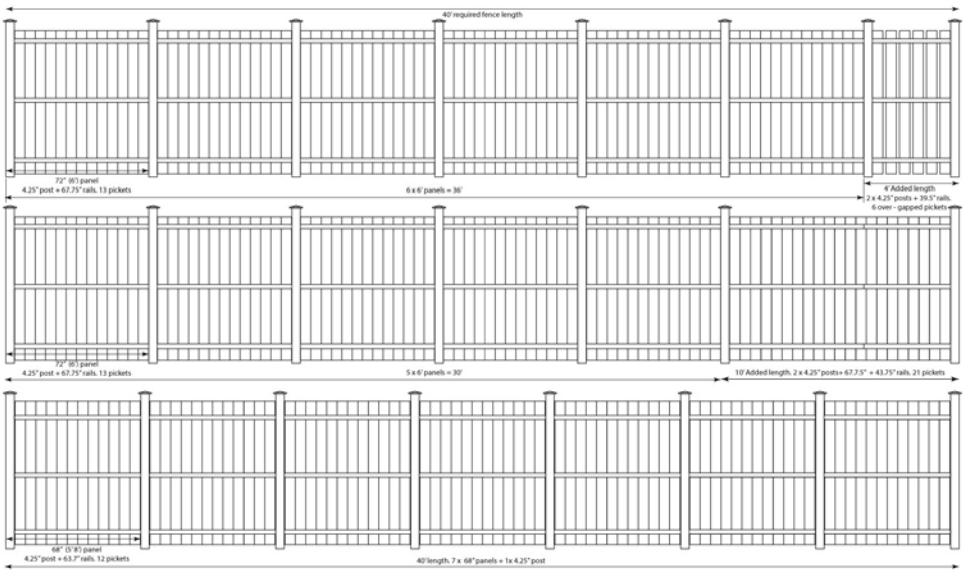
The 72" measurement is made up of a single 4.25" (4¼") post and a 67.75" (67¾") rail

Pickets are nominally 5.125" ($5^1/_8$") wide
13 pickets are 66.625" wide altogether
12 x 0.125 ($^1/_8$") gaps between 13 pickets
+ 2 x 0.125" at each end.
Total pickets + gaps = 68.375" ($68^3/_8$") wide

This is longer than the 67.75" (67¾") rail to which the pickets attach by 0.625" ($^5/_8$")

Actual measurement of picket width shows them to be wider than 5.125" wide, typically closer to 5.18"

Privacy Fence Panel Width
40′ Fence Example

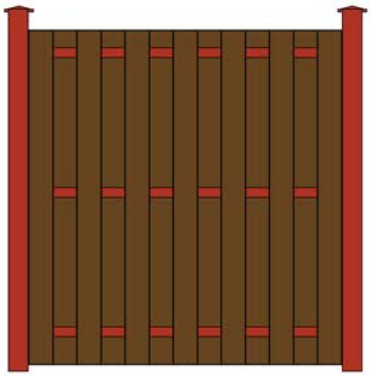


SHADOW BOX FENCE CONSIDERATIONS

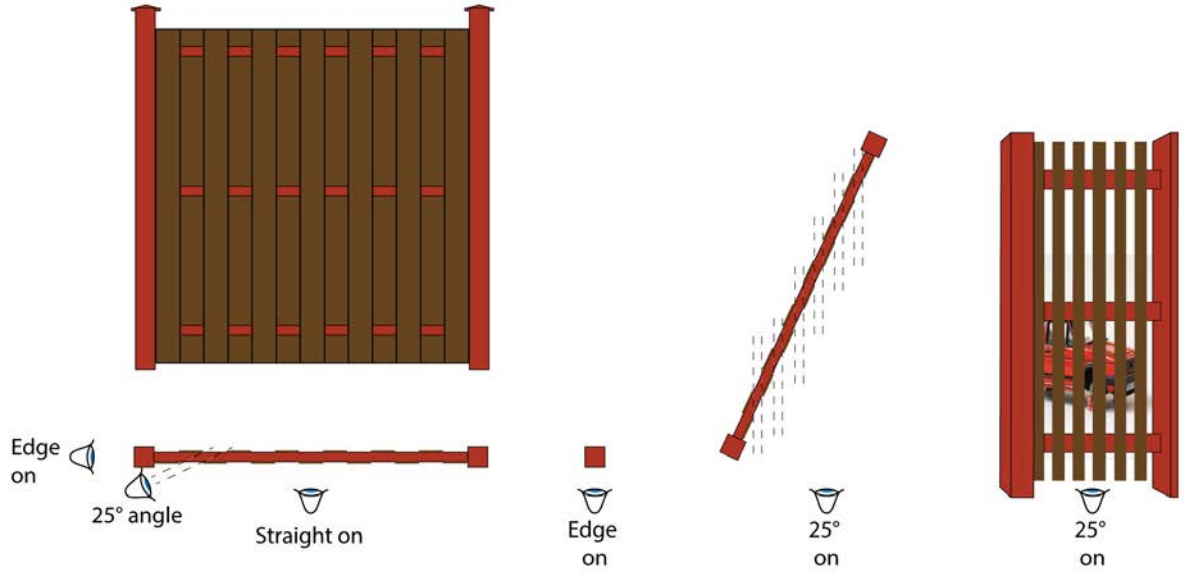
Pluses and minuses of this type of fence

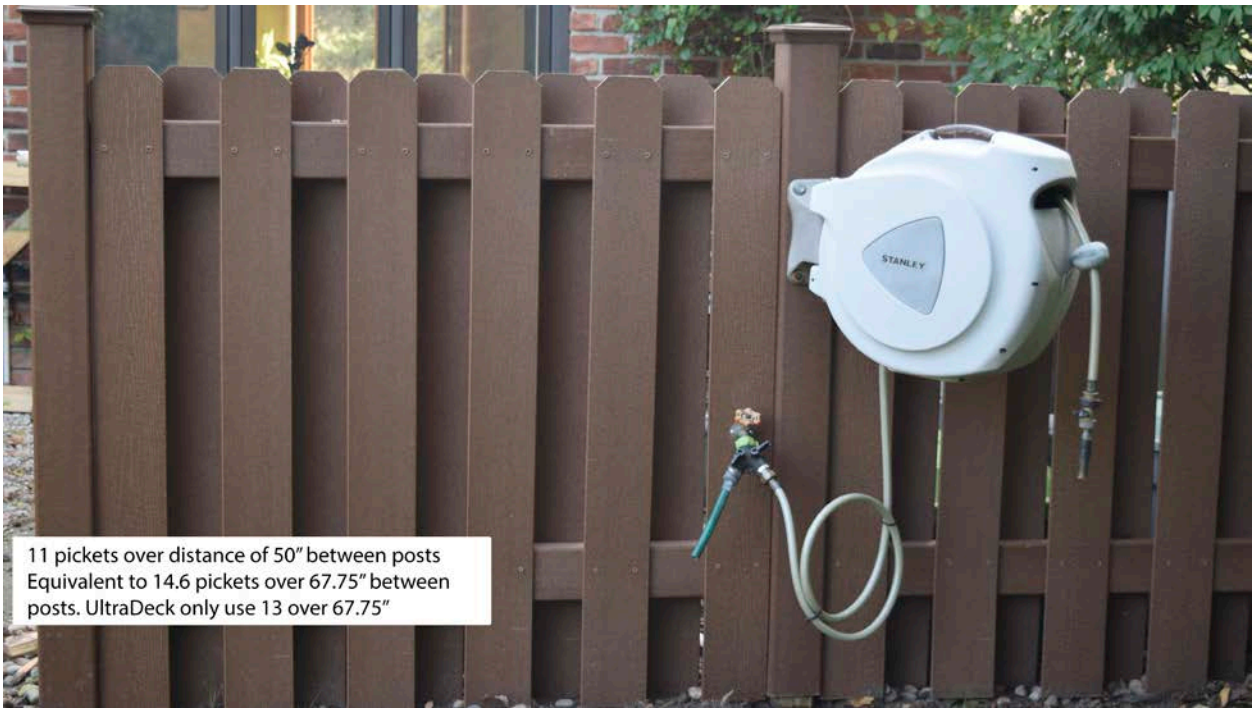
Shadow Box Fence Transparency

Shadow Box Fence Transparency



Shadow Box Fence Transparency

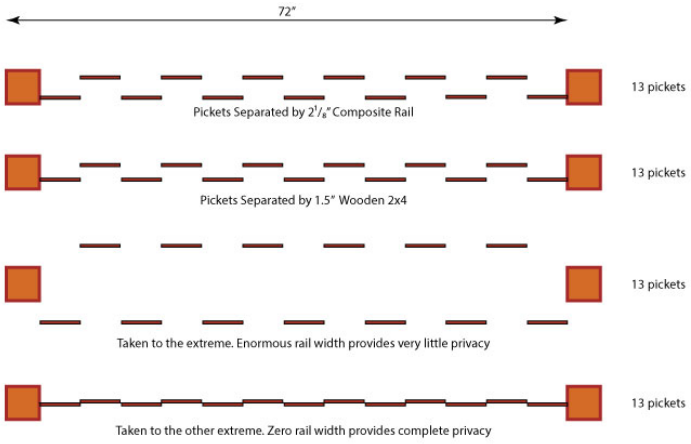




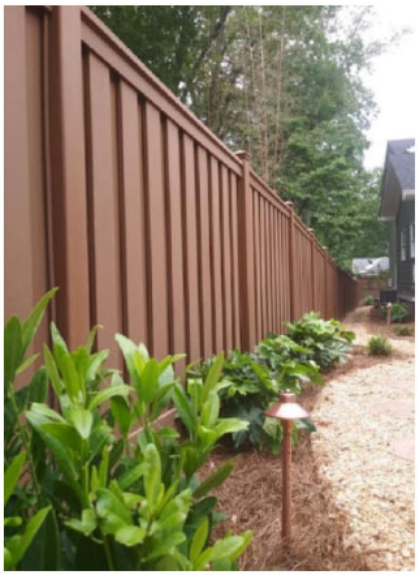

11 pickets over distance of 50" between posts
Equivalent to 14.6 pickets over 67.75" between
posts. UltraDeck only use 13 over 67.75"


13 pickets over distance of 50" between posts
Equivalent to 17.2 pickets over 67.75" between
posts. UltraDeck only use 13 over 67.75"

Fence Transparency Affected by Rail Width

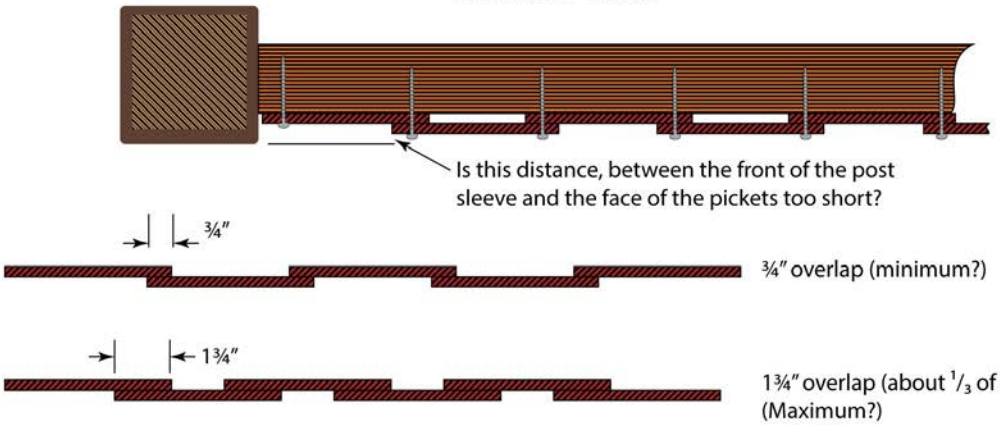


Trex Solutions Privacy



Trex Solutions has front and rear pickets locked together, with no space between them, providing full privacy from all angles.

Overlaid Pickets

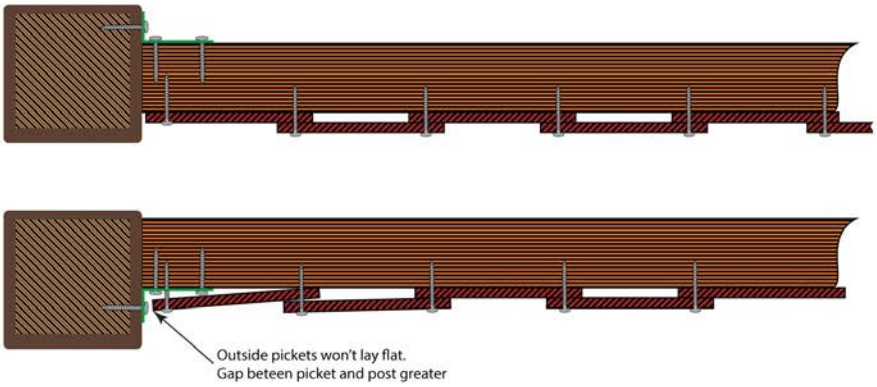


Number of pickets to cover different fence panel widths at minimum and maximum overlaps

Number of pickets	3	5	7	9	11	13	15	17	19	21
With ¾" ovelap (inches covered)	13.9	22.6	31.4	40.1	48.9	57.6	66.4	75.1	83.9	92.6
With 1¾" overlap (inches covered)	11.9	18.6	25.4	32.1	38.9	45.6	52.4	59.1	659	72.6

Overlaid Pickets

Moving the brackets to the front
in order that the picket face is better
centered on the post



FENCE ASSEMBLY

Following the UltraDeck Instuctions
For Post Installation

Ideal Post Placement Can be Inhibited by Obstructions

Closeness to walls and structures

- Foundations extending further than walls
- Post holes difficult to bore or dig by walls

Underground pipes and cables

- Have Miss Dig (call 877) check first

Large rocks

Trees and tree roots

- Post holes difficult to bore or dig close to tree trunks and large roots
- Trees may later undermine the integrety of posts and fence

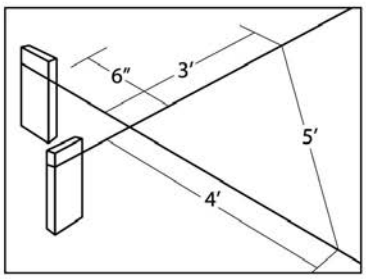
Step 1

Layout & Setting of Posts

Prior to construction, check with your local regulatory agency for special code requirements in your area.
Before digging postholes, contact Diggers Hotline or your local utility companies to mark any underground cables and pipelines.

Step 1) Stake Out Fence Line

• Determine location of your fence and drive stakes into the ground beyond the corners and the ends of the fence. So you do not disturb the stakes when digging, locate them out an additional 6" beyond where the post is to be set *(See Fig. 1).*
• Stretch twine or heavy string between stakes and pull tight to mark layout of the fence line.



Pretty standard stuff

All that was said about the privacy of the fence, and the difficulty in ripping pickets to narrow them, all relates to whether you have the capabilty to set posts accurately apart.

It's too easy to find that despite your best efforts, a post gets set a little right or left of the inteneded postion. A fence gap too short or too long by just 1" can mean the next one is, respectively, too long or too short by the same amount.

Step 2

Layout & Setting of Posts

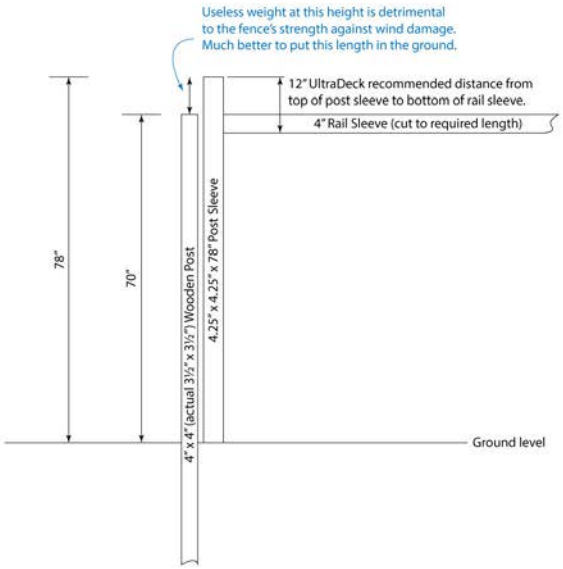
Step 2) Setting Posts

- Measure and dig post holes 72" from location of post center to post center.
- The required depth may vary based on the local frost line; you should check the requirements for your area. As a general rule approximately 1/3 of the total length of the post should be buried in the ground (Example: For a 10' post 3-1/2' will be in the ground and 6-1/2' above). *Note: to accommodate the post sleeve 6'-6" of post needs to be above the ground.*
- The post hole should be dug 6" deeper than needed and back filled with 6" of gravel to drain water away from the bottom of the post.

Assumes 72" post spacing.

¼ to ⅓ is recommended elsewhere depending on fence height, wind loading and soil type as well as for the reasons given left.

Why the internal post should be the same height as the sleeve isn't clear. See next diagram.



UltraDeck recommend that posts be 78" above ground, the same height as the sleeve length.

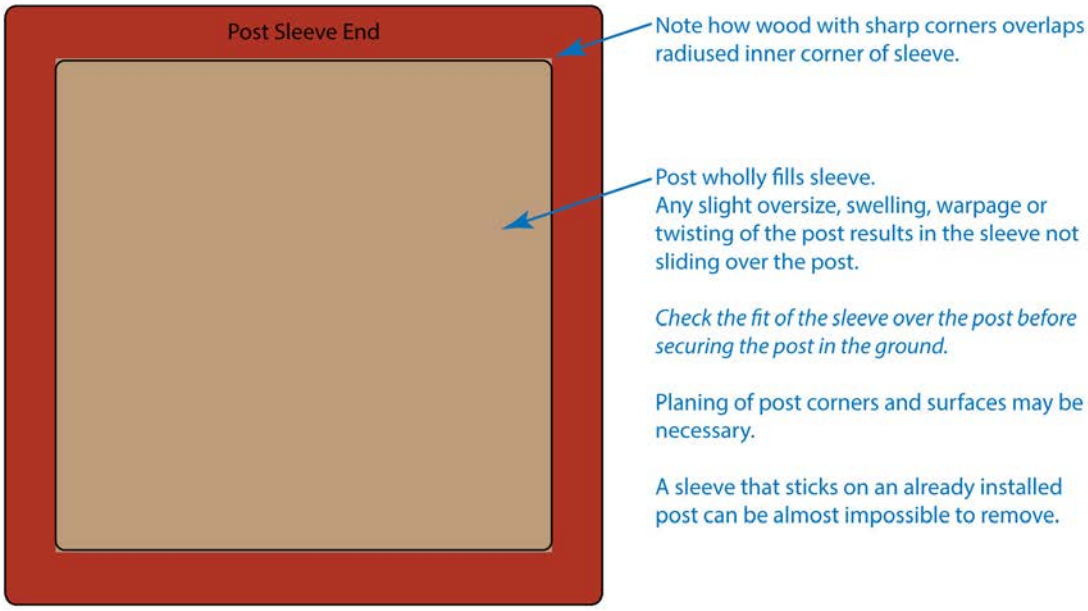
Why?

Step 3) Checking Fit of Post Sleeve

• Check fit of post sleeves over the 4 X 4 posts before setting in the ground.

Note: Ultradeck post sleeves are designed to fit snug over dimensional 4 X 4 posts. If the 4 X 4 post you are using are outside of standards, trimming of edges may be required.

This is very important! See following pictures and drawings



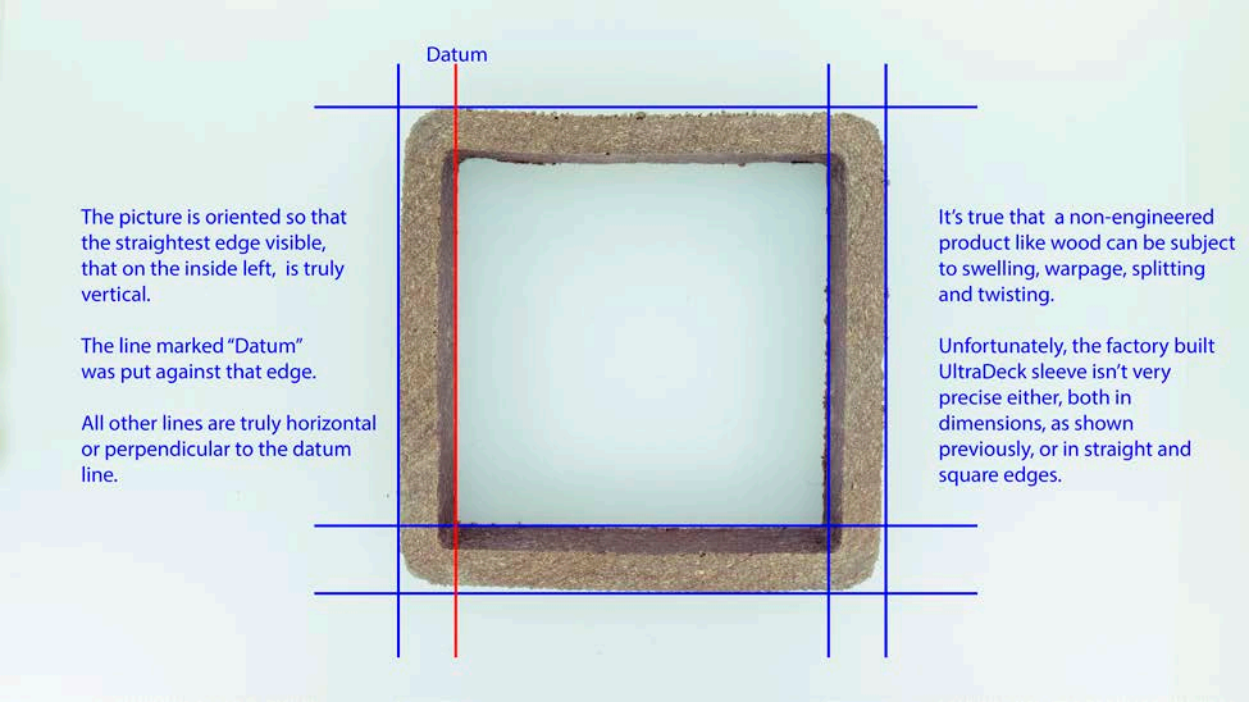
UltraDeck Additional Advice on Sleeve to Post Fit
Based on On-Line Chat Session

These posts are designed to be a tight fit over wood posts and can be very tight if wood posts are wet from fresh treatment or if warpage/variation is present.

Advice that I would provide to you to help. Trimming the corners of the posts, that is commonly where the posts get hung up on the sleeve.
This can be done with a circular saw set at a 45 degree angle or recipricating saw.

The post sleeves can be warmed in the sun for a couple hours and then slid on the posts. It can get more difficult this time of year with the cool temperatures (contraction).

Another tip is to get the sleeves in full sun on blacktop this will warm them up and cause them to be more elastic/flexible. Dish soap may help too as a lubicant.



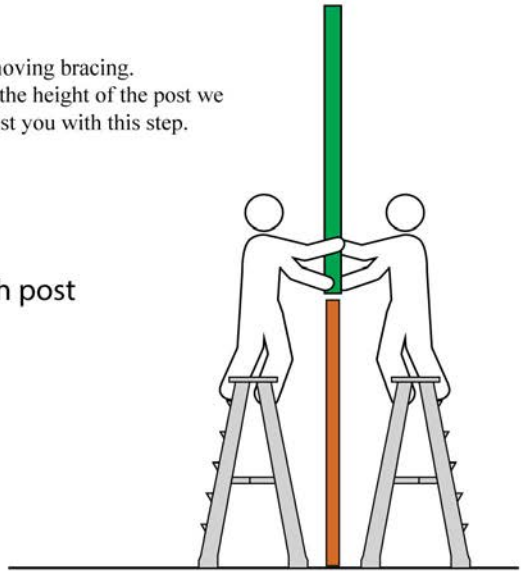

FOR GROUND CONTACT/GENERAL USE - See back for use information
2x4-8 #2 PRIME SYP-CLR
WeatherShield
Lifetime Limited Warranty for as long as you own it
90489 43949
SEE BACK FOR IMPORTANT INFORMATION
FOR GROUND CONTACT/GENERAL USE - See back for use information
pro'wood
90489 12471


inch/mm
3.545
OFF ON ZERO

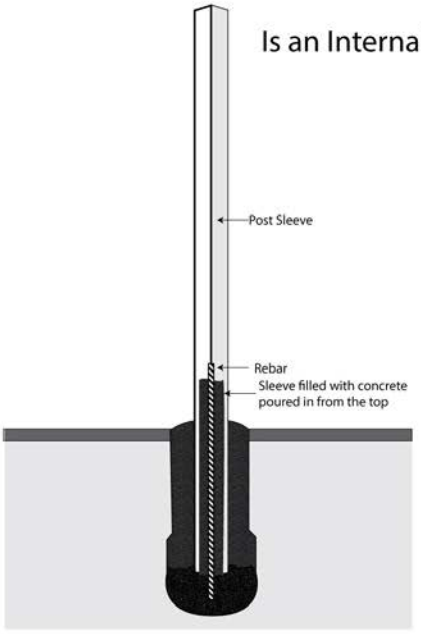
Step 6) Post Sleeve Assembly

- If using cement make sure it has fully cured before removing bracing.
- Slide a composite sleeve over each fence post. Due to the height of the post we recommend using a step ladder and having someone assist you with this step.

Threading a 6' 6", 16lb sleeve onto a 6' high post is not an easy job, even for 2 men.



Is an Internal Wooden Post Really Necessary?



Trex and some plastic fences sold at Lowes and Home Depot don't have an internal wooden post, which has proven difficult to use with the UltraDeck post sleeve.

For my future UltraDeck fence installation I shall probably do something like that shown to the left.

The most stressed part of the post, where it meets the ground, is reinforced with inexpensive ½" rebar over which the sleeve is threaded. Fast setting concrete and water can then be poured in from the top.

Rail Mounting to a Hollow Post

Home Depot
Veranda vinyl fence
rail mounting brackets

Trex Seclusions
rail mounting
brackets

Lowes Freedom
vinyl fence
slotted post

FENCE ASSEMBLY

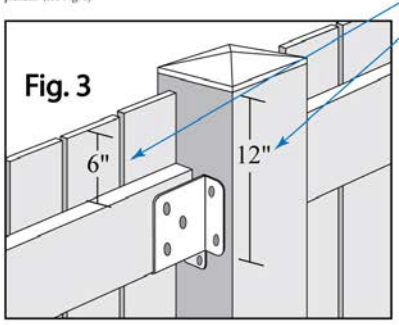
Following the UltraDeck Instuctions
(or not!)
For Rail and Picket Installation

Installing Fence Panels

Step 1) Bracket Installation

• Center and attach the top brackets, 12" down from the top of the post sleeve to the bottom of the bracket. You can use a string level between brackets to check that they are level.

• The open end of the bracket needs to face towards the side of the fence that will have pickets. *(see Fig. 3)*



There is nothing sacred about either of these dimensions.
You can lower the rail if you wish, which means that you do not need the internal fence post to be so high from the ground, possibly allowing you to put more of it in the ground.

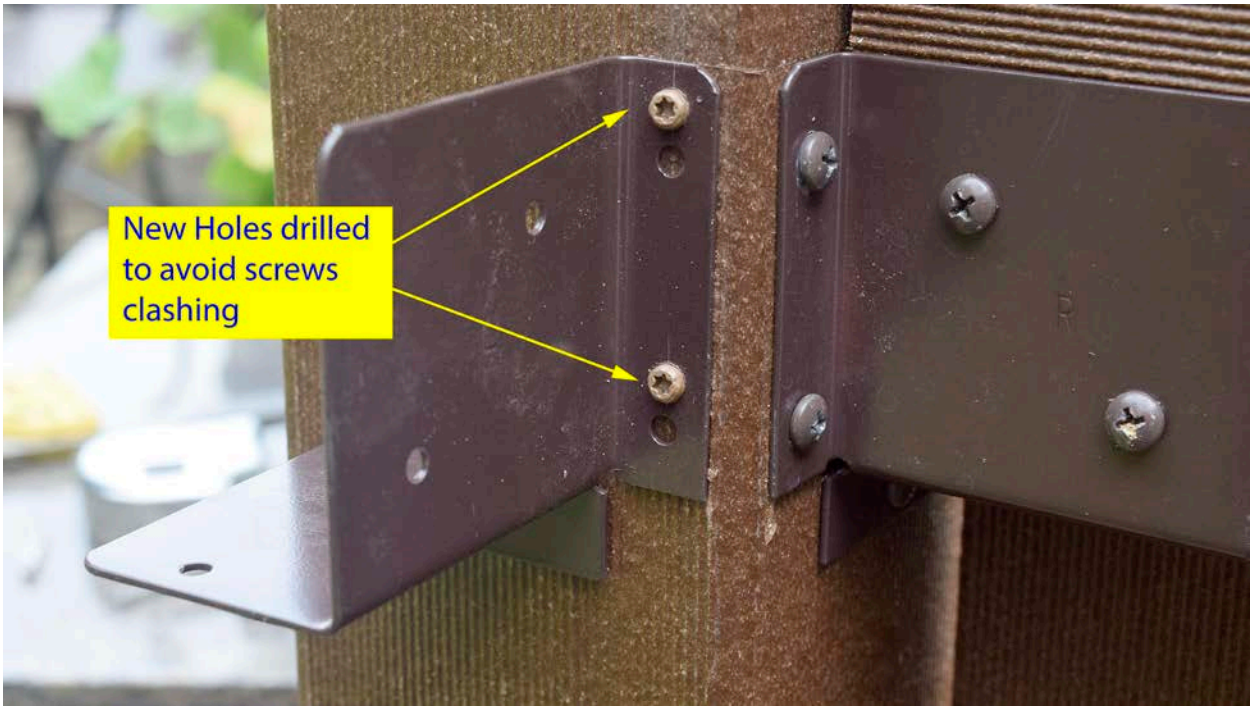
Be sure you are satisfied that the fence will withstand anticipated wind pressure in its location and in your climate.

These brackets require 7 screws. You can decide if you need all of them in all locations. The supplied screws are #10, 1½",
with a mushroom cross (Phillips) head. Even though I used a new, high quality bit in my power screwdriver these screws ramped out annoyingly and badly.
When I do the rest of my fence I'll buy star (Torx) or square (Robertson) screws of the same size and color to use

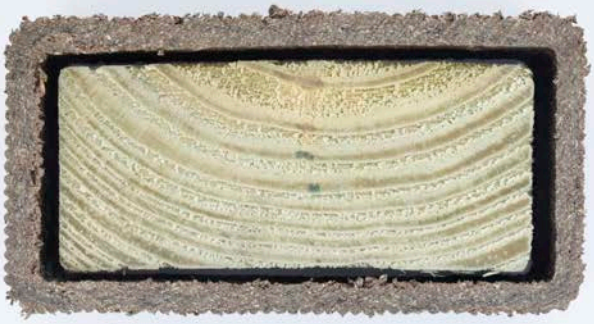
Step 2) 2 x 4 Sleeve Assembly

• Cut all 2 x 4's and 2 x 4 sleeves to 67-3/4" (For 72" O.C. post spacing). picket backer rails.

• Slide the 2 x 4 sleeves over the 2 x 4 boards until the ends are flush, these will be your picket backer rails.



Unlike fence posts, rail 2 x 4 (actual 1½" x 3½") timber fits rasily into its sleeves



Installing Fence Panels

Step 3) Preassembling Fence Panel

- On a flat surface position the 3 backer rails parallel to each other spaced 23" apart.
- Starting approximately 1/8" in from each side, evenly place all the pickets across the backer rails.
- Line up each picket so that it is at 90 degree angle to each backer rail and is 6" above the top surface of the upper backer rail.
- Using 1-5/8" screws attach pickets to the backer rail, 2 screws into each backer rail (6 screws per picket).

Nothing is sacred about this 23" distance either. Again so long as you are satisfied that your fence assembly will be strong enough in your conditions you can do what you like.

If your fence height requires more than 2 horizontal rails, it probably makes sense from an appearance point of view to make them equidistant.

NOTE: Due to the weight we recommend that someone assist you with these next steps.

Step 4) Attaching Remaining Brackets

- Flip the panel over so that the pickets are now facing down.
- Attach the remaining 4 brackets to the ends of the middle and bottom backer rails.

Step 5) Installing Panels Between the Posts

- Lift the panel into position between 2 posts and slide into the upper brackets that were previously installed. Fasten the upper brackets to the top backer rail.

Step 6) Level Panel and Complete Attachment

- Using a level check for vertical plumb alignment of panel and then fasten the remaining brackets to the sides of the post sleeves.
- Repeat steps 1 through 6 for all remaining fence panels.

I did not assemble my fence on a flat surface. There wasn't one conveniently close enough and that I thought flat enough for accurate assembly. UltraDeck do suggest a jig made on ½" x 8' x 4' plywood, which helps only in keeping the rails parallel to one another, but I can't carry that size of sheet in my vehicle. Also my dimensions will vary from section to section and it doesn't fully work with the shutter box fence style I chose.

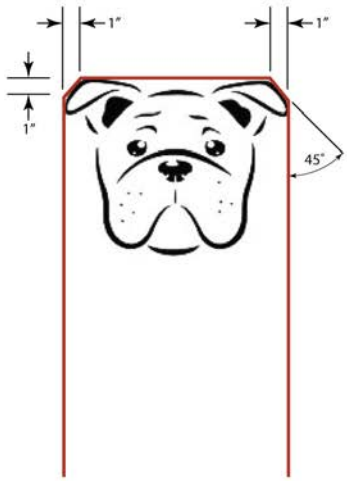
Further, the recommendation that "someone assist" is probably essential because a 6' x 6' standard UltraDeck fence panel with 13 pickets weighs over 140 pounds.

When marking composite pickets and rails for cutting I found that a long bladed retractable knife made far clearer lines than a pencil and was more forgiving and more accurate than a permanent marker pen.

An Alternative Way of Assembling Each Fence Panel

To avoid the problem of lifting a very heavy preassembled panel onto the brackets I installed my rails first and added the pickets to them afterwards.

The rail at the top is a level horizontal guide that I attached with brackets and tiny screws on which I aligned the top of each picket. Once the screws were removed, the holes were barely visible



Dog-Eared Pickets

Dog-eared pickets help to make the fence look more interesting with little effect on privacy.

If you cannot buy them for any reason you can cut your own with a chop-saw. Like most other dog-eared pickets around 5" wide, they are cut 1" from the picket corner at an angle of 45°.

Picket Choice May Depend on Availability

6' Dog Ear Composite Fence Picket

* This product is not available at this store.
To see current price, please **Check Another Store for Availability**, find a store showing inventory, and select Make My Store.

When other stores were checked the nearest with product was 242 miles away.

No price and no option was provided for ordering for delivery or ship-to-store

8' Dog Ear Composite Fence Picket

$12.99 each

Qty: 1 ADD TO CART

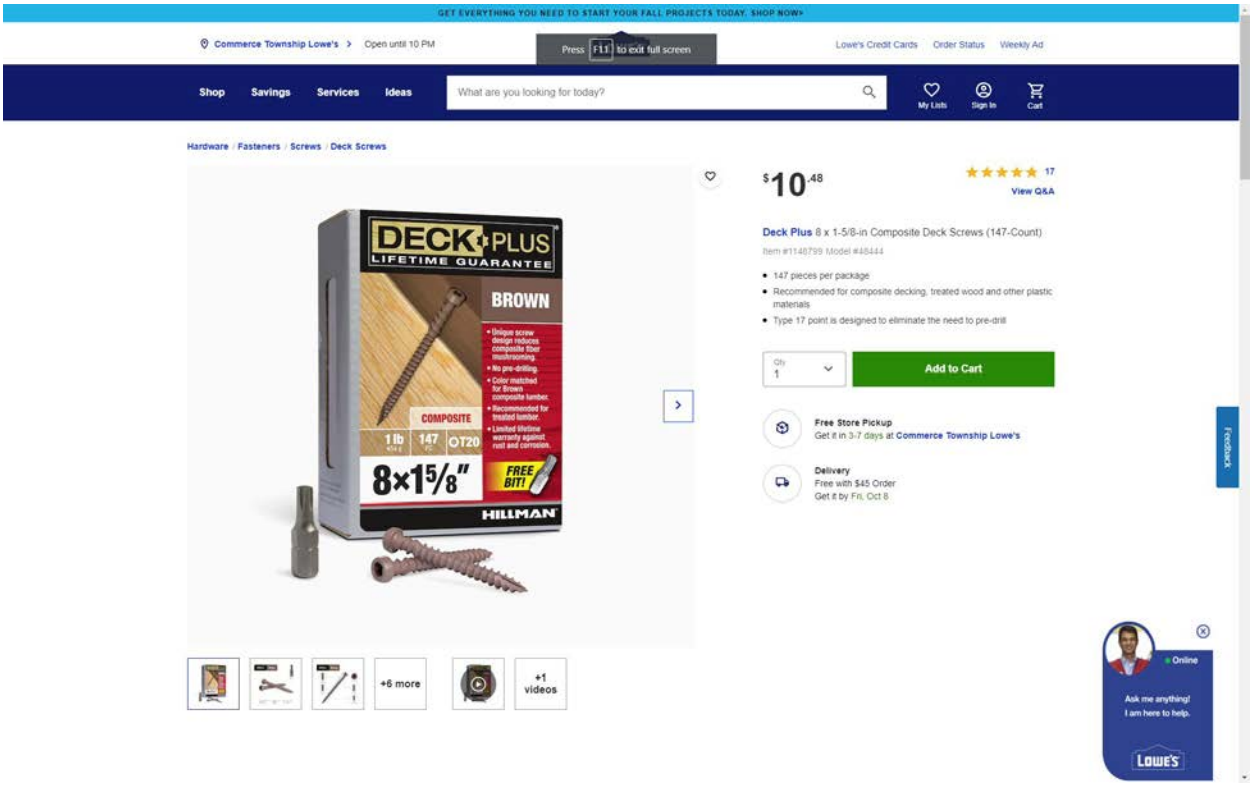
6' Composite Fence Picket

$10.49 each

Qty: 1 ADD TO CART

Note! UltraDeck picket lengths appear to be minimum dimensions. All mine were longer than the given length, by as little as ¼" and by as much as 3". To get all pickets in a panel the same length, be prepared to have to cut them.


Jig End
Template Picket
Jig Side
Jig Side
Tape IDs
Template


GET EVERYTHING YOU NEED TO START YOUR FALL PROJECTS TODAY. SHOP NOW>
Commerce Township Lowe's
Open until 10 PM
Press F11 to exit full screen
Lowe's Credit Cards
Order Status
Weekly Ad
Shop
Savings
Services
Ideas
What are you looking for today?
My Lists
Sign In
Cart
Hardware / Fasteners / Screws / Deck Screws
DECK PLUS
LIFETIME GUARANTEE
BROWN
COMPOSITE
1 lb
147
QT20
8×1⅝"
FREE BIT!
HILLMAN
+6 more
+1 videos
$10.48
17
View Q&A
Deck Plus 8 x 1-5/8-in Composite Deck Screws (147-Count)
Item #1148799 Model #48444
147 pieces per package
Recommended for composite decking, treated wood and other plastic materials
Type 17 point is designed to eliminate the need to pre-drill
Qty
1
Add to Cart
Free Store Pickup
Get it in 3-7 days at Commerce Township Lowe's
Delivery
Free with $45 Order
Get it by Fri, Oct 8
Feedback
Online
Ask me anything!
I am here to help.
LOWE'S

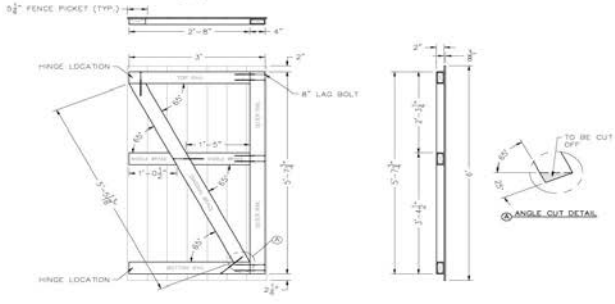
GATE ASSEMBLY

Following the UltraDeck Instuctions
(or not!)
for making a gate

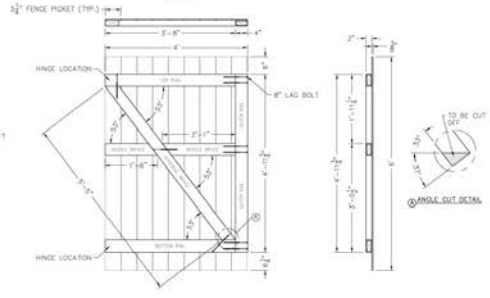
UltraDeck Gate Designs

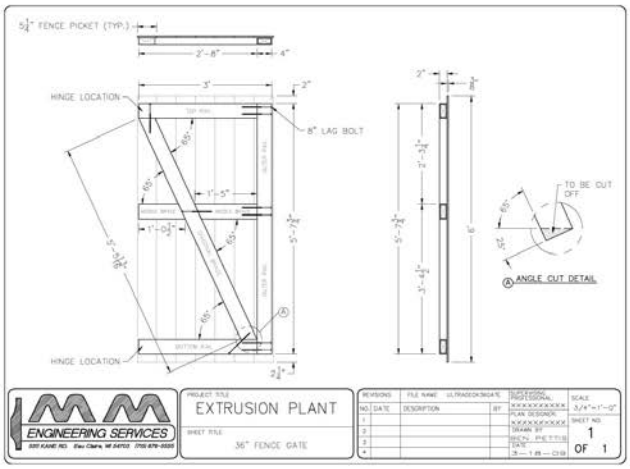
UltraDeck's website downloads page offers 2 gate designs that differ only in width

36″



48″

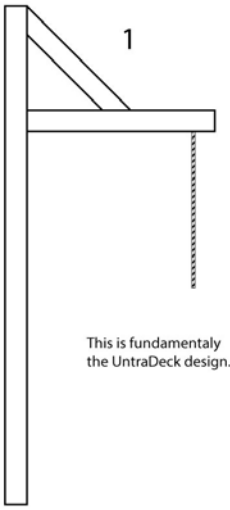




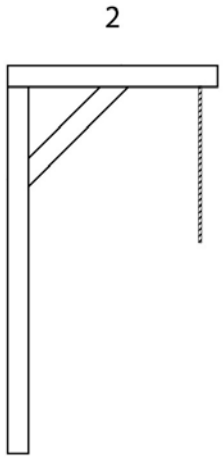
Analyzing the PDF file reveals the name of the design came from MM Engineering Services of Eau Claire, WI of which UltraDeck is a part.

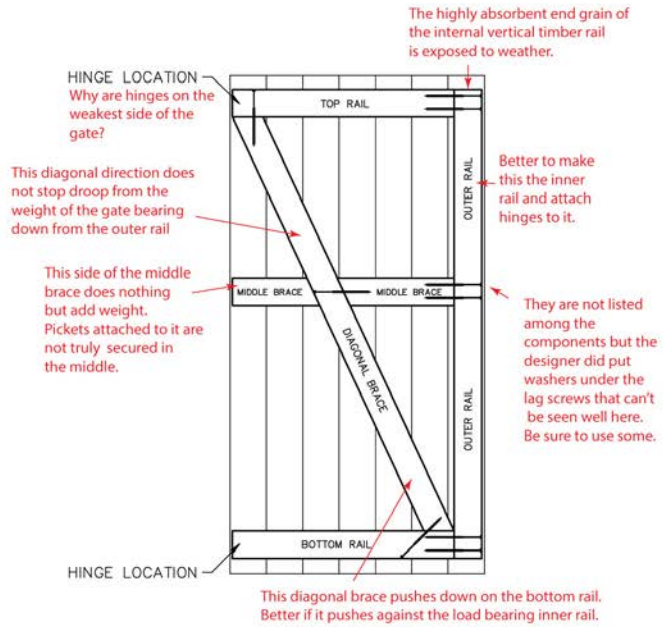
In my view UltraDeck should pretend that they have nothing to do with MM because this is a very bad design and I trust the person credited with having made the drawing, in 2009, Ben Pettis, has either been fired or retired.

If you were given the rather gruesome job of building a gallows, which would you make?

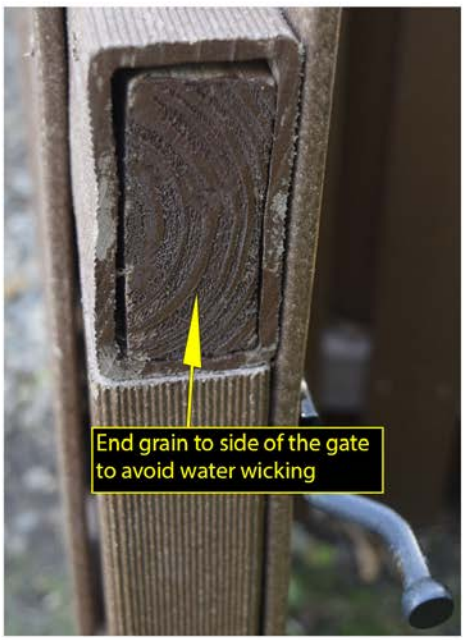


This is fundamentaly the UntraDeck design.





Major Differences from UltraDeck Design



How To Build a Composite Fencing Gate

Low-Maintenance Composite Fencing by UltraDeck

Tools Required

Drill • Saw • Hammer
Carpenter's Square • Level

Materials List

(1) 72" Composite Picket pack
(4) 2X4X6? 3/4" Sleeves
(2 Packs) 8" Timber Lag Screw
(51) 1 5/8" Brown Composite screw
(1 Pack) 8" Tee Hinge (black)
(1) Gate Latch (black)
(4) AC2 treated 2X4X6'

Step 1
Prep a rations
Determine swing direction of the gate (Left or Right hand opening). Choose the width of the gate (36" or 48"). The opening for the gate needs to be 2" wider than the gate you choose.

Step 2
2 X 4 Sleeve Assembly
Reference the drawing for the gate width you are building and cut the following pieces to the specified lengths and angles. Note: Treated 2X4's will be cut to the same dimensions as each 2X4 sleeve. Cut 1- 2 X 4 sleeve for the outer vertical edge of the gate. Cut 1- 2 X 4 sleeves for the diagonal brace with the proper angle at each end. Cut 2- 2X4 sleeves for the top and bottom rails. Cut the 2-piece horizontal middle brace to the proper length with the proper angle on one end. Slide the 2 X 4 sleeves over the 2 X 4 boards until the ends are flush.

Step 3
Assembling the Gate
On a flat surface position the top and bottom rails parallel to each other. Depending on the swing of your gate attach the outer vertical rail to the right or left ends of the top and bottom rails using the 8" lag screws (2 lags into each board). Pre-drill a pilot hole for each lag. To recess the head of the lag bolt use a drill bit the same diameter as the head of the lag bolt and drill only through the outer thickness of the sleeve at each pilot hole. Attach all lags in this manner. Position the diagonal brace as seen in the diagram and attach to the top and bottom rails using 1- 8" lag bolt into each end. Note that the bottom lag must be put in at an angle to miss the other lags. Line up the longer middle horizontal brace between the outer rail and diagonal brace as seen in the diagram and attach to the outer rail with 2- 8" lags, then 1-8" lag through the diagonal brace. Place the shorter middle horizontal brace in line with the longer horizontal brace; this piece will be secured to the gate when the pickets are attached to it.

Gap Either Side of Gate

When considering the opening for the gate, the gap either side of the gate has to be taken into consideration.

The selected hinges may determine the gap necessary on that side. ¼" to ½" seems adequate.

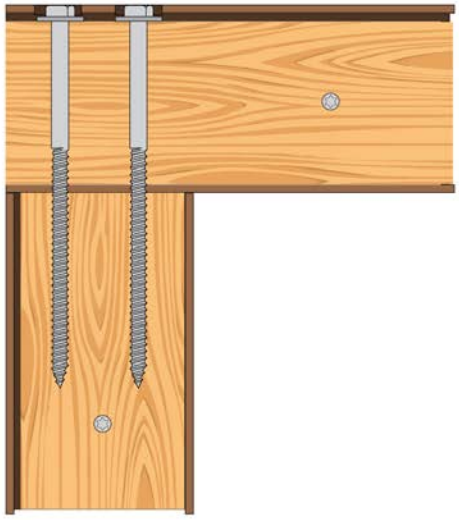
The latch side needs a little extra space for swing out so perhaps ½" to ¾" works here.

The UltraDeck recommendation of having the opening 2" wider than the gate seems excessive. Is that because they expect a gate made using their design to droop over time?

8" lag screws with 1" washers pass through 1" hole in rail sleeve

Small screws prevent inner rail moving inside outer sleeve during assembly and hold inner rail tightly against the faces to which other rails and pickets attach

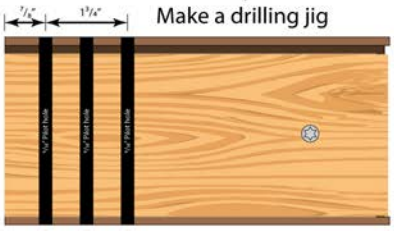
Edge View



Side View

Gate Assembly

Step 1
Make a drilling jig

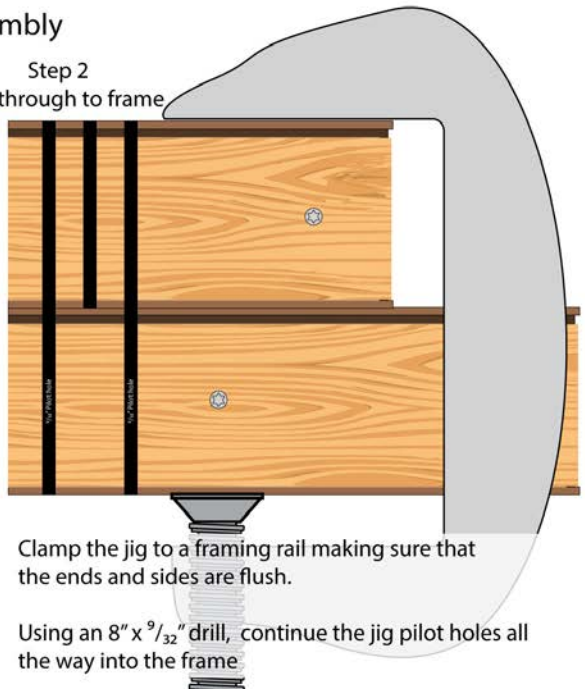


Take an off-cut of sleeve/rail assembly secured together and with a clean and flush end.

On a drill press, drill one $^{9}/_{32}$" pilot hole $^{7}/_{8}$" from the end and another $1^{3}/_{4}$" from it.

This forms a jig for starting straight holes for the lag screws in the frame.

Step 2
Drill through to frame



Clamp the jig to a framing rail making sure that the ends and sides are flush.

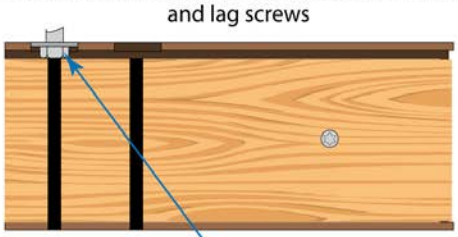
Using an 8" x $^{9}/_{32}$" drill, continue the jig pilot holes all the way into the frame

Gate Assembly

Step 3
Clamp the framing pieces together and drill the pilot hole through into the second piece

I used clamps ends available from Harbor Freight that attatch to gas pipe to make long clamps. Gas pipe sections can be joined in order to make the required length.

Step 4
Make 1" holes in the sleeve to accept the washers and lag screws

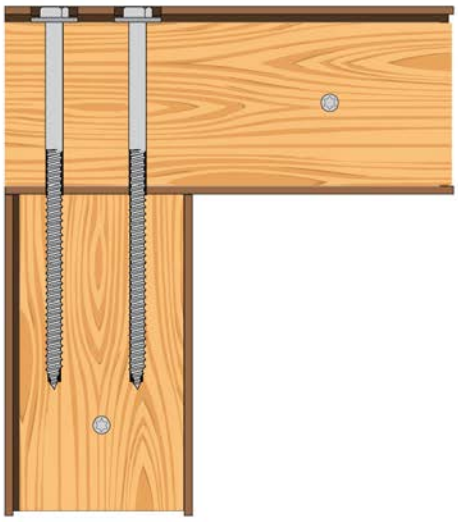


Check that the lag screw head and washer will fully recess into the sleeve. If not continue drilling the 1" hole into the rail lumber

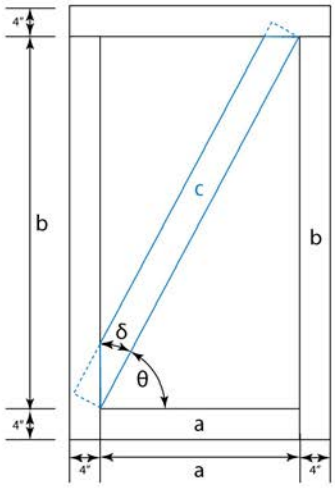
Gate Assembly

Step 5
Open up the top section pilot holes with a $^{3}/_{8}$" drill to make clearance holes for the lag screws

Step 6
Using a $^{9}/_{16}$" socket wrench, clamp the pieces together with the lag screws and washers



Calculating the length of the diagonal brace and the angle of the cuts



$c^2 = (a^2 + b^2)$ (length 'c' = the square root of 'a' squared + 'b' squared)

Example: a = 4' and b = 6'
$c^2 = (4x4 + 6x6) = 16+26 = 52'$
$c = \sqrt{52} = 7.2' = 7'\ 2½"$

$\theta = \tan^{-1} b \div a = \tan^{-1} 6 \div 4 \approx 56°$
$\delta = 90° - \theta = 90° - 53° = 37°$

If this math is too distant a memory, go to
https://keisan.casio.com/exec/system/1223014436
(also see the link in the notes below) where you can just plug in the numbers and it will provide the diagonal length and the angles.

Gate Hinge Choice

I'm not able to recommend any particular hinge.

I used the hinges from my old gate which are self closing types like those shown here. The self-closing force was adjustable when the hinges were new but the adjustment screws seized with rust after about 3 years. Fortunatley they still work okay on my new and much heavier gate.

Barn door hinges may look okay but have to be placed in-line with the rails, which are already full of screws, so care mist be taken that screws don't interfere with one another.

Some hinges list the maximum loading
Composite gates weigh a lot so make sure the hinges are adequatley sized and there are sufficient to take the load

Calculated Gate Weights

Gate details:	Width ft	Length ft	Pickets #	Weight ib
	3	4	7	63
	3	6	7	96
	4	6	9	118
	4	8	9	148

THANKS FOR WATCHING