

# **BEFORE YOU BEGIN:**

- Verify location of underground utilities before you dig!
- Locate property lines.
- Review local and regional building codes, regulations and zoning laws which may affect your fence.
- · Obtain all necessary permits as required by local building codes

# TOOLS REQUIRED:

Tape Measure Stakes String Line Spray Paint Post Hole Digger & Shovel Wheel Barrow Level Drill with 3/16" Nut Driver 9/16" End Wrench 9/16" Socket Miter Saw Metal Cut-Off Saw

The Santa Fe and Mesa Fence's versatile, modular design allows for a multitude of configurations suitable for flat, sloping and uneven terrain.

# **Step Configuration**



# Variable Height Configuration

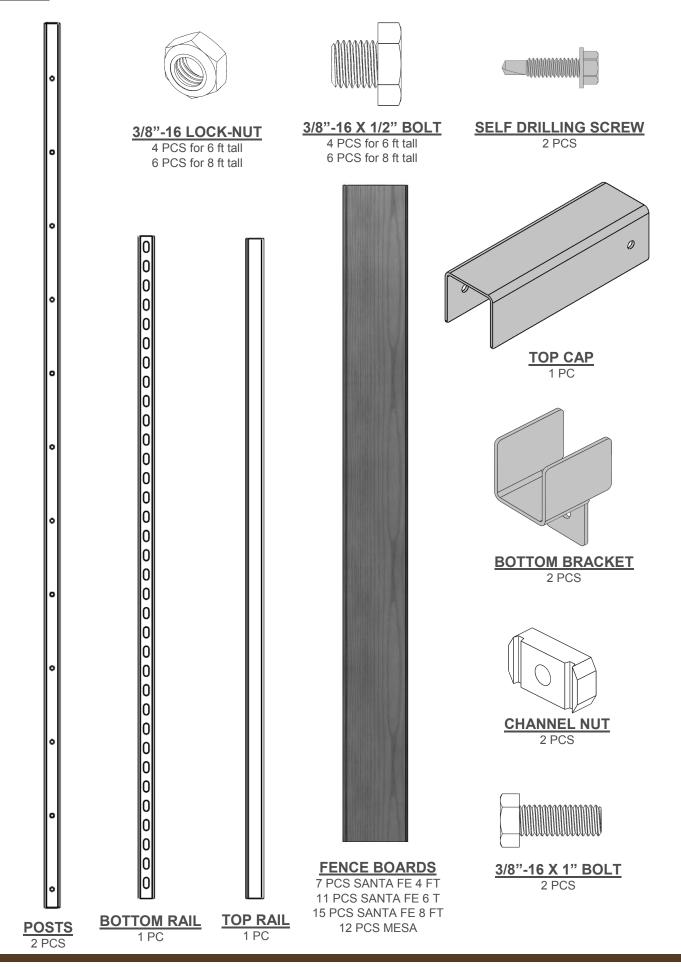


**Slope Configuration** 



PARTS LIST

Every Santa Fe and Mesa fence kit comes standard with the following components.



### **INSTALLATION DOS AND DON'TS**



Before installation always store fencing materials on a flat surface in a dry location. **Don't** allow packaged materials to be rained on, snowed on or exposed to water.

Don't use hammer or other tools to install composites fence boards.





Don't allow bottom rails, brackets or fence board to set directly on ground.

**Don't** plug the holes in the bottom rail or do anything that would prevent moisture from draining out of these rails.

**Don't** install fence in a location where it is submersed in water.

**Do** allow for proper air flow under your installed fence.

**Don't** expose fence and composite fence boards to open flames or place in close proximity with heat sources.





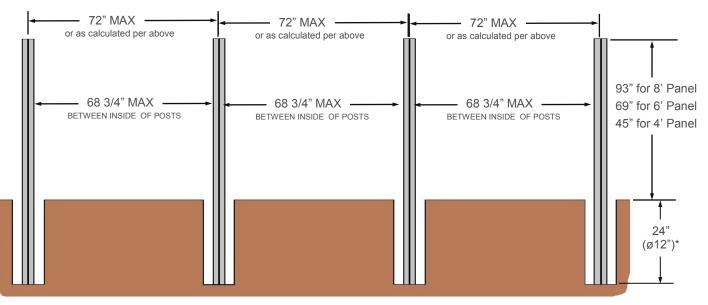
Do always install fence with the recommended gaps defined in the installation instructions.

*It is recommended when installing on a hot day, greater than 90° F, the smaller recommended gap should be used. When installing on a cold day, less than 90° F, the larger recommended gap should be used.* 

#### LAY OUT FENCE LOCATON

- 1. Using stakes and string line mark location of fence according to design. When installing next to property boundary make sure to position as to not encroach onto adjacent property.
- 2. Mark location of gates, corners and remaining fence posts. Posts should be located no wider than 72" (6 feet) from center of post to center of post.

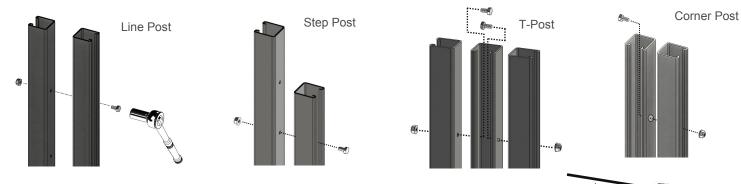
When laying out post locations you may end up with a non-uniform section at the end. To prevent this and create a uniform fence, we recommend spacing all sections at equal lengths. To do this, measure the total length of the line of fence you are working on in feet. Divide this measurement by 6 feet and round that number up to the next whole integer. This number is the number of equal sized sections. Now divide your total length of the line of fence by the equal section number just calculated. The result will be the distance of your post spacing.



\* Installer should consult with local building standards for proper footing size.

### POST INSTALLATION

- 1. Dig post holes in locations determined earlier. The recommend hole size is shown in figure above; however, installer should consult with local and region building codes for proper post footer design.
- 2. Each six-foot panel requires a post at each end. The posts with an adjacent panel <u>must be bolted together before the posts</u> are set in concrete. Mate each adjacent post to each other, making certain to adjust for step, corner, tee and variable height configurations. Corner posts must be bolted at right angles to each other. T– Posts, where three sections of fence come together, require three posts, with the center post bolted at right angles to the outside posts. For both the corner and t-posts you will have to drill matching holes into the face without any holes. Do this by aligning the post with holes on the face of the other post you wish to drill. Using a ø7/16" drill bit and the post with holes as a pattern, drill through the face of the post. Fasten each pair of posts together using the provided 1/2" long bolts and nuts, using four (4) bolts, equally spaced along the length of the posts for the 4 foot and 6 foot high fences and six (6) bolts, equally spaced for the 8 foot high fences.



93" for 8' Panel

69" for 6' Panel

45" for 4' Panel

- 3. Verify proper hole depth is achieved by placing post in hole and make sure the post extends the proper distance above the ground level. It may be necessary to add or remove dirt from the hole to obtain the proper height.
- 4. Once proper hole depth is achieved, place post in hole and align open channel of post in the direction of fence. Fill the hole with concrete to approximately 2" below grade level to flush with ground surface. Before concrete sets, be sure to plumb, level, and align the post.
- 5. Allow the concrete to properly cure in accordance with the manufacturer's instructions before proceeding to the next step.

## **BOTTOM BRACKET**

- Using the 3/8"-16 X 1" hex bolt and channel nut attach bottom bracket to the vertical channel as shown. Position the bottom bracket so that the cup is 2" above the ground.
- 2. **<u>Firmly</u>** tighten bottom bracket in place.

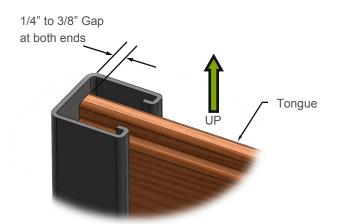
## **BOTTOM RAIL**

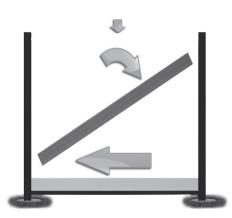
- Measure distance between the 2 opposing vertical mounted steel channel posts at the bottom where the bottom bracket is positioned.
- Cut Bottom Rail steel channel to the measured distance minus 1/8".
  <u>\* Note the Bottom Rail is the one with slots cut in it \*</u>
- Install Bottom Rail into bottom brackets with the open part of the Cchannel facing upwards

## FENCE BOARD INSTALLATION

#### Santa Fe

 Fence boards come pre-cut to the maximum post spacing size. However, if your installation requires post spacing shorter than 72" (six feet) or your fence board/post gap fails to meet the minimum gap distance you will need to cut the fence boards to the correct length. Measure the distance between the insides of the C-channel of the two post you are installing the section of the fence boards into. Cut the fence boards to 1/2" to 3/4" shorter than the distance you just measured in order to maintain a 1/4" to 3/8" gap between each end of the fence board and in the inside of each post.



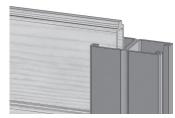


2. Install **Santa Fe Boards** with the tongue of the fence board facing up and the groove in the fence board facing down. Hold the fence board at an angle and insert one end into the channel of a post. Then rotate the other end of the fence board down until it slides into the channel of the other post. Push the first fence board down until it comes to rest in the Bottom Channel.

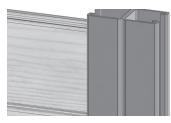
3. Install the remaining fence boards, pressing each groove onto the previous board's tongue.

DO NOT USE A HAMMER TO FORCE THE FENCE BOARDS INTO POSITION. AS IT MAY DAMAGE THE COMPOSITE FENCE BOARDS!

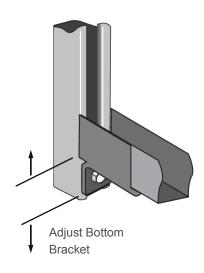
4. On <u>Santa Fe Fences</u>, the last board may extend above the top of the post, or be too far below the top of the post. If this happens, simply adjust the Bottom Rail Brackets to achieve the correct alignment.

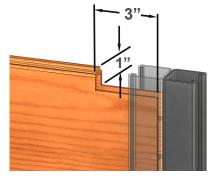


**TOO HIGH** 



**TOO LOW** 

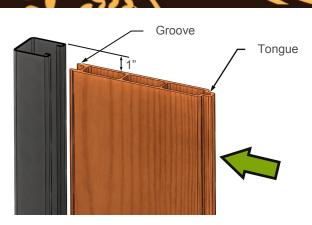


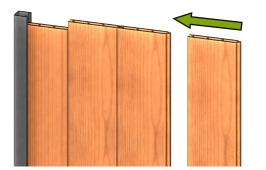


5. With the top board on the **Santa Fe Fence**, you will need to cut a relief notch in the fence boards as shown in both corners. Do this by removing the top board. Cut the relief notch as shown then reinstall. *This is so the top picket is free to naturally expand and contract within the channels and is not bond by the screws used to attach the Top Cap.* 

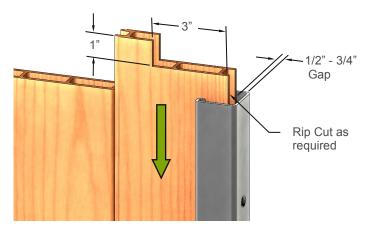
#### Mesa

- 1. The first Mesa Fence board needs to have a relief cut made to allow for expansion and contraction. To do this, cut only the first board 1" shorter then the distance from the Bottom Rail to the top of the post.
- 2. Install the first Mesa Fence boards with the groove of the first board inside the post channel and the tongue facing outwards. Press the board into the channel firmly until it stops.





- 3. Install the remaining fence boards, pressing the groove onto the previous' boards tongue firmly and down into the Bottom Rail channel. In most cases the fence boards for the Mesa fence will be too long and need to be cut to the proper length so that the top of the fence board is flush with the top of the vertical posts as shown.
- The last board may need to be rip cut to properly fit and obtain 4. a 1/2" to 3/4" gap between the edge of the picket and the inside wall of the vertical post.
- 5. With the last fence board you will also need to cut a relief for expansion and contraction as shown. Depending on your post spacing you may need to extend the relief cut into the board prior.
- Finish by sliding last fence board down into position. 6.





#### TOP RAIL AND TOP CAP INSTALLATION

Complete construction of the fence panel by installing the Top Rail and Top Cap by first sliding Top Rail onto top of fence boards. If distance between posts is different then the Top Rail may need to be cut by measuring the distance between inside of vertical posts and cutting the Top Rail this distance minus 1/8". Then install the Top Cap over the top of the posts and Top Rails. Position the Top Cap by centering on post so that the cap extends onto the Top Rails equally on both sides of the post. Fasten the Top Cap with self-drilling screws drilled into the Top Rails.



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