

UNIQUE ALUMINUM FENCE

BE SMART...BE *UNIQUE*

RESIDENTIAL FENCE INSTALLATION GUIDE

WARNING: It is intended that this manual be used as a reference guide only. Before any fence or gates are installed you should first contact your local code enforcement officer or building inspector to ensure that your fence complies with all B.O.C.A. and building codes.

Please review this entire guide before beginning any construction on your fence!

A. Design and Planning

1. Decide exactly where you want your fence to be located. Remember that the fence sections are in 6 ft. lengths. For ease of installment try to keep your fence lines in increments devisable by 6 to eliminate cutting panels down. Stake out the perimeter of your fence outline. Use the stakes to create a string line that you can use as a reference when setting your posts (Figure 1). This reference is used to keep all of the posts in a straight line throughout an entire run.



Figure 1

The front edge of your post should be approximately 1/8" from the string. Do not allow anything to rest upon the string line. This will throw the entire run off line (Figure 2)



Figure 2

B. Fence Installation

1. With marking paint, mark the spots where your end, line, and gate posts will be installed. You can form a template for this by assembling two section of fence together and all three posts (Figure 3).



Figure 3

2. Your gate posts should be the first posts that are dug and set. **Refer to the gate design and planning section in this installation guide.** Once your gate posts are set you can start to dig the rest of your post holes. Dig only 3 to 4 holes at one

time. If any of your holes are a bit off, it is easier to correct 1 or 2 holes instead of 9 or 10. A power auger will make the job easier (Figure 4). Use posthole diggers to clean out the hole (Figure 5). For a 48" fence, your hole should be approximately 24 inches deep. For a 54" fence, you will want a minimum depth of 28 inches. **NOTE:** In areas where frost is prevalent be sure to extend the footer below the frost line.



Figure 4



Figure 5

3. Starting at your 1st gate post, insert a section into the post. Make sure the rail is positioned at the top of the hole in the post. Using the self-drilling screws provided, attach the panels to the post (Figure 6.) Repeat this until the 3 or 4 holes that you have contain a post attached to a panel. **NOTE:** Ensure that the fence sections are completely inserted into the post to guarantee proper spacing between the panel and post.



Figure 6

4. Go back to your starting point and level the posts. Make sure the posts are level both left to right, in and out (remember to keep post approximately 1/8" from the string line). To accomplish this, place a level on the side of the post facing you. Get it level (Figure 7). Move the level around the corner of the post to the next side (90 degrees) and get it level on that side (Figure 8). Check level on both sides once more.



Figure 7



Figure 8

5. While keeping post level, add some water to the bottom of the hole (Figure 9) Slowly add a bag of dry concrete mix. Check for level and adjust as necessary. Fill the rest of the hole with dry concrete mix, stopping 3 to 4 inches from the top (see figure 10). Check level. Saturate the hole with water (Figure 11) and stir to mix (Figure 12). Check level.



Figure 9



Figure 10



Figure 11



Figure 12

6. Repeat this process until all of the holes in the line are filled, all of the posts are level and 1/8" from the string line. You can back fill your holes at the end of the project.

7. Take a moment to step back and look at your project. Look at the horizontal rails of the fence sections. Check to see if they appear to be even with each other and form a nice looking line. Place some scrap wood or other sturdy material under the bottom of the fence section to raise a section up a few inches until the top rails look in line with each other (Figure 13).
NOTE: If the ground drops at a sharp angle the rails will follow the flow of the ground and will not appear level with each other (Figure 14).



Figure 13



Figure 14

8. Look down the row of posts. Adjust posts left or right as needed to get all of the posts in alignment (the string line should keep them very close so that only slight adjustments should be necessary).

9. NOTE: When installing a fence section into a corner post you will have to cut the ends of the rails at a 45 degree angle to allow enough room inside of the post for the other section to be inserted.

B. Special Instructions

Cutting Sections -Certain situations or fence designs may bring about the need to cut down a panel to fit between two posts that are set closer together than the width of an entire a section. The following is a set of instructions that will enable you to cut them down correctly.

1. Measure the distance between the two posts where the cut section is required (make sure posts are level before you measure). This will tell you how wide your section has to be. Add $\frac{3}{4}$ " onto the both ends of the section where your notch will be cut. Mark that distance on the horizontal rails of the fence section.

2. Using a portable band saw, hack saw, or jig saw cut through the rails at the marks that you made (figure 15). NOTE: To make

the job easier you may wish to remove some of the pickets to make the cutting easier.



Figure 15

3. Take notice of the notches that are cut into the end of each rail on a section of fence. Once the panel is cut to the correct length you will need to cut these notches into the end of the rail (Figure 16). These notches should be similar in size to the notches pre-cut into the rails.



Figure 16

Gate Design and Planning

1. First determine the area where you want your gates located. When planning your fence layout keep in mind that you will want to place your gates in an area that is reasonably flat and

level. Gates that are placed on an uneven surface may not open or close correctly.

2. When marking where to dig your post holes be sure to notate which holes are gate post holes. These will be the first holes you will want to dig and set. Gate post holes should be 8" to 10" in diameter.
3. In areas of heavy frost, be sure to extend your footer down past the frost line.
4. Remove gate posts from other posts and set aside. A gate post will be an end or blank post with **thicker** walls than all other posts.
5. Once your holes are dug and cleaned out you will want to determine how high your gate posts need to be above the ground. This will be determined by how high you will want to keep the bottom of your fence off of the ground. Since every fence is different there is no exact height to have your posts set above the ground. To determine what is best for you and your fence, take a section of fence and attach it to the gate post. Insert the post into the hole. Raise the fence up off of the ground until you reach the desired distance between the bottom of the fence and the ground. Put a mark on the gate post at the point where it is even with the top of the hole (ensure all of the dirt is pulled away from the hole). When setting the gate post keep this mark even with the top of the hole. This will ensure that your fence will start out at the proper height.
6. Remove the attached section of fence. Place a gatepost into each hole. Level the post to your string line, keeping it approx. 1/8" from the string. Ensure that they are level from left to right as well as from front to back. Measure the distance from inside of post to inside of the opposite post. A 4' gate will measure 47" in length. Your gate opening should measure no less than

48” and no wider than 48.25”. The extra 1” of space created by the opening will allow for the gate hardware to be properly attached. A 5’ gate will measure 59” and the opening should measure 60”.

7. When your posts are level and the spacing between the posts is correct add in your dry concrete mix. Again, check all measurements and ensure the posts are level. Remember to keep your posts 1/8” from the string line.
8. You must ensure that the two gate posts are the same height. The easiest way to accomplish this is to take another post and lay it on top of the two gate posts. Place your level on top of the posts. If the post on top is level than the two gate posts are the same height (figure 17). If needed, make any minor adjustment to the gate posts to get the top post level.



Figure 17

9. Re-check all of your measurements and ensure everything is level before you add water to the concrete. Once the gate posts are set it is time to begin the construction of the rest of your fence.

10. After your fence is constructed and all of the posts are set in concrete you can hang your gate. Do not hang your gate until the concrete has cured (approx. 24 to 48 hours depending on the temperature). To determine the placement of the hinges you will first need to decide if you want your gate to swing in or out. If you want the gate to swing in than the hinges must be placed on the inside of the gate post. If the gate is going to swing out then the hinges must be placed on the outside of the gate posts. Remember, if your fence is required to meet BOCA codes your gate must swing out. Check the regulations in your area to ensure your gates meet the requirements.

11. Attach the hinges to the gate frame first (figure 18). Be sure that the hinges will swing in the direction you want the gate to open before you attach the screws. The hinges should be located approx. 8 inches from the top and bottom of the gate. Be sure that there is enough space between the hinges to evenly distribute the weight of the gate. Place the gate in-between the gate posts. Raise or lower the gate until the desired height is achieved. Mark the spot on the gate post where the hinges will be attached (mark the top and bottom of the hinge). Attach the hinges between these marks.



Figure 18

Be sure to test your gate to ensure it opens and closes without any problems.

12. Once your gate is hung you can determine where to put the latch. This will be determined by several factors, each unique to your fence (style of latch, local codes etc.). The part of the latch that receives the striker will be attached to the gate post. You will want to position this portion of the latch to where it best suits your needs. For example if you are attaching a magnetic self locking latch you may want the latch operating device located even with or above the height of the gate (figure 19). If you are attaching a brass handle latch you may want it at a height that is easily reached with an outstretched arm. Again, the height of the latch can be different depending on your individual requirements.



Figure 19

Once the desired location of the receiving end of the latch is determined, mark the location and attach the latch to the post.

13. With the gate in the closed position, place the striker portion of the latch onto the gate. Ensure that the striker and the receiver match up perfectly. Mark the location of the striker onto the gate. Repeat this again placing the striker between the marks that you made. Again, ensure that the striker and the receiver meet perfectly. Attach the striker to the gate. Test the gate to ensure the gate and latch operate correctly.

Bee Stop™ Installation

1. The Bee Stop is a simple, patented plug designed to be inserted underneath a rail, and slid over against the post to prevent bees and wasps from making nests inside of the posts (figure 20). Once your fence is completely assembled, simply snap the Bee Stop in on the underside of the rail and slide it over until it rests against the post (figure 21). Ensure the Bee Stop is blocking the opening in the post where the rail enters the post. All of the opening in the posts must be blocked in order for the Bee Stop to be effective.



Figure 20



Figure 21