

# Aluminum Fence Installation Instructions

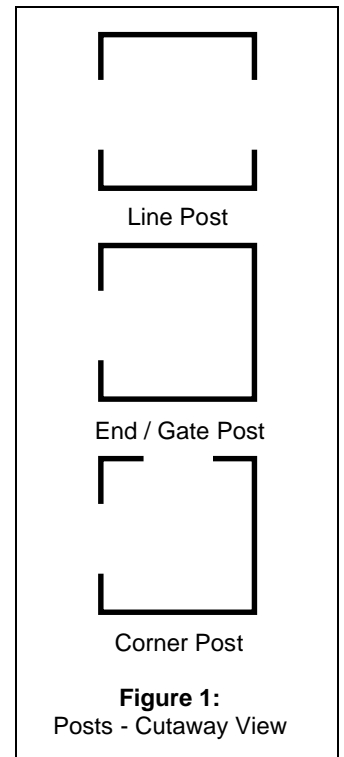
Please read these instructions thoroughly before attempting to install your aluminum fence. While installation of our fence is relatively easy, this instruction sheet should eliminate any guess work. If you have any questions or problems installing the fence, please call us weekdays at 1-800-878-7829 so we may help you.

**Materials Needed:**

- Stakes
- String
- Measuring Tape
- Rubber Mallet
- Post Hole Digger
- Level
- Concrete Mix
- Hacksaw
- Hex-Head Driver

**Before You Begin Installing Your Fence:**

- Establish your fence line by staking out the area to be enclosed and attaching a guide string to the stakes. Make sure the fence is set back from the property line as required by local codes.
- Separate and identify your posts. There are three types of posts: Line, End/Gate, and Corner posts. The horizontal rails of the fence sections fit into the holes punched in the posts. Line posts have holes punched on opposite sides. Corner posts have adjacent sides punched. End posts have holes on only one side. (See Figure 1.) A Gate post is the same as an End post but the post walls are twice as heavy to support the weight and latching of a gate.
- Drive the standard post caps onto the posts using a rubber mallet before setting the posts in concrete. This will prevent the posts from being knocked out of alignment after the concrete has been poured. Ball caps may be put on after the fence is installed.
- Gates and sections should be installed so that the bottom of the fence is about 2" – 3" above ground level. This will allow the grass under the fence to be easily trimmed.
- All screws in the fence sections and the posts should be installed on the same side (normally the inside) of the enclosed area for a neater appearance when you are done.
- When you need less than a full section to complete a line of fence, cut it to size using a hacksaw. Notch the cut ends of the horizontal rails so they will fit inside the post. Use a factory notch as a guide.
- Mix the concrete for the posts holes on the dry side to allow the posts to set faster and to give additional support when installing the fence sections. Use the chart on the right to determine the minimum post depth for your fence.



Fence Height	Post Depth
36", 48", 60"	18"
57"	20"
54", 72"	24"
96"	36"

**Caution: The concrete footings must extend below the frost line in areas where freezing of the ground can cause the posts to "heave". The posts themselves do not have to go below the frost line, however, for proper installation.**

## Fence Installation:

1. Install a pair of gate posts first. (If you don't have any gates, then start with an end or corner post.) Dig the post holes and set the posts into them. Fill the holes with concrete and tamp down around each post so the concrete is about 2" below ground level. The gate will be attached after the concrete has set. The opening between the posts should equal the size of the gate that was ordered. (i.e.: a 48" gate fits into a 48" wide opening.)

**Caution: The proper operation of the gate depends upon the correct installation of the gate posts. Make certain that they are plumb.**

2. Repeat this procedure for all other gate posts that are not in the same straight line of fence. Gates that are in the same line will be installed when the fence reaches their location.

3. After the gate posts are set, the first line of fence is installed. Dig up to 8 holes for the line posts along the fence line. If you reach an end or corner of the fence line, then dig the post hole where it's needed. Use the chart on the right to determine the proper center to center measurement of the holes based upon the type of fence you are installing.

Fence Type	Post Size	Post Spacing (on center)
Residential	2" sq.	72½"
Ovation & Regency	2" sq.	72"
Industrial	2½" sq.	71½"

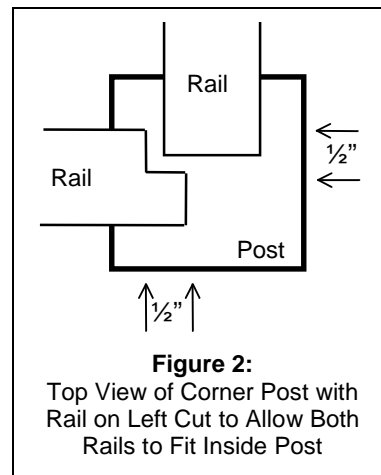
4. To install the fence, slide the horizontal rails of a section into the punched holes of the post installed in Step 1 as far as the notched end of the rails will allow. Place a line post into the next post hole, and slide the line post onto the horizontal rails of the section as far as possible. Pour concrete around the line post. Check that the post is plumb and aligned with the guide string. Tamp it down to hold the post in position. Leave the concrete about 2" below ground level.

**Note:** Corner posts require the horizontal rails of one section to be specially cut to allow both sections to fit into the post. A ½" x ½" piece must be removed from the end of the rails. (See Figure 2.)

**Caution: Make sure that the posts are parallel to the pickets in the sections! Otherwise, the installation will appear very sloppy.**

5. When you have 6 – 8 sections installed, align the fence by sighting along the top horizontal rails. When correctly aligned, the rails will appear to be one continuous line. Also, the posts will appear to be one when viewed from the end of the fence line. Continue in this manner until all fence sections are installed.
6. After the concrete has set, fasten the rails to the posts using the self-drilling screws.

**Caution: Do not overtighten the self-drilling screws - you can break them! If you use a powered hex-head driver, adjust the clutch to prevent the screws from marring the finish or denting the post.**



7. Fill in the top of the post holes with dirt and grass so the fence will look like it's been there for years. Your fence installation is now complete!

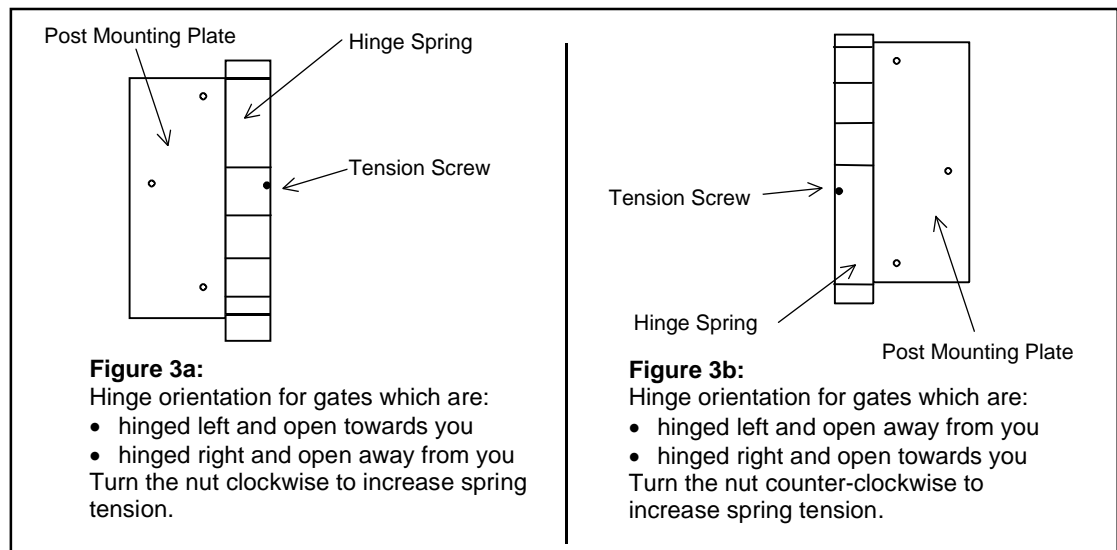
## Gate Installation:

Once the concrete has set around the gate posts, you may then install the gates. Proper installation will result in approximately a ¼" space between the gate and each of the gate posts.

1. Before fastening the hinges, decide how the gate will be mounted and how it will open. If the gate will be hinged on the left and open towards you, mount the hinges so that the hinge springs are on top. The springs must also be on top if the gate will be hinged right and open away from you. If you want the gate to open the other way, then the hinge springs must be on the bottom. (See Figures 3a and 3b.)
2. Attach each hinge to the gate post using three of the self-drilling screws provided. The post mounting plate attaches to the post on the inside of the gate opening. Next, fasten the gate to each hinge using four more screws. Mount one hinge near the top rail of the gate and the other near the bottom rail to distribute the weight of the gate evenly. Make sure the hinges line up with each other to prevent them from binding. The gate should now swing freely.

**Caution: If the hinges are not in line with each other, the gate will not close by itself!**

**Note:** If you are hanging a gate on a surface other than a post, such as a column, then use the spacer that is provided with the hinge to fill in the 1/8" gap behind the post mounting plate. This is not required if the hinge is attached to a post. Fasten the hinge to the surface using the proper lag bolts (not provided). It may be necessary to enlarge the holes in the plates larger to accept these bolts.



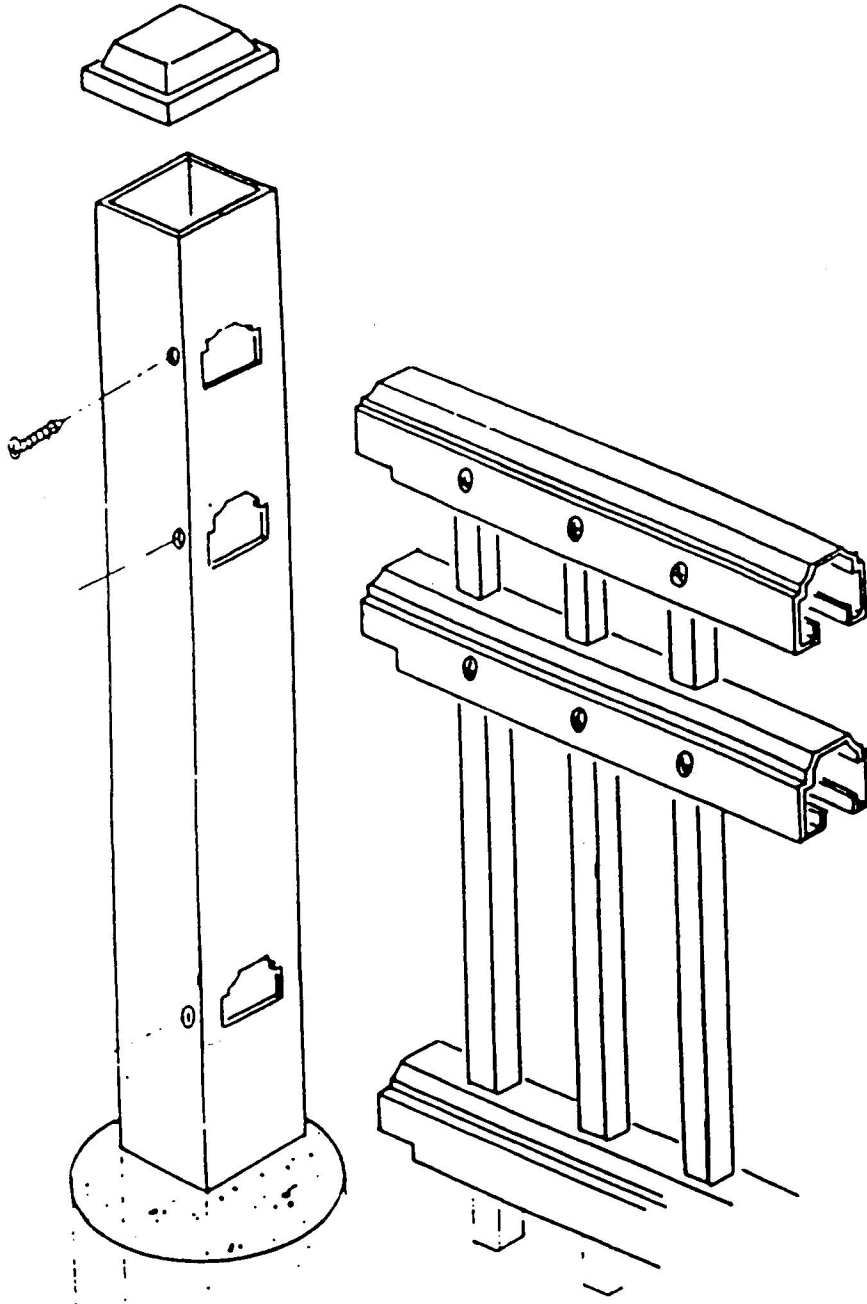
6. Mount the latch according to its specific instructions.
7. With the hinges and latch now mounted, you may have to adjust the spring tension in the hinges to allow the gate to close and latch by itself. The hinge tension set at our factory allows most gates to work properly. To change the tension, use a wrench or pliers to hold the nut on the hinge rod while you remove the tension screw from the hinge. Move the nut about ¼ turn to increase or decrease the tension. (See Figures 3a & 3b for the correct direction to turn the nut.) Replace the tension screw into the pre-drilled hole in the center of the hinge. Repeat this procedure for the other hinge. Adjust the tension until the gate closes and latches correctly.

**Caution: There must be equal tension on both hinge springs for proper operation of the gate.**

**Note:** If the gate will be used with an operator or as part of a double drive gate, then remove the tension screw from the hinge, release all of the tension, and replace the screw. The tension screw must be attached to the hinge rod, even if there is no tension needed on the hinge.

7. For double drive gates, the drop rods are installed last. Fasten one of the two "guides" to the face of one side of the gate frame near the bottom of the latch side. Place the other guide about halfway up the gate side in line with the first one. Insert the drop rod through the two guides and adjust them for smooth operation. Finally, mount the small "hook" to hold the rod in the up position. Make sure the drop rod clears the ground when the gate opens. Repeat this procedure for the other gate.
8. Enjoy your gate!

## INSTALLATION INSTRUCTIONS



- 1 Establish fence line and install string along fence line.
- 2 Start at end or corner, marking and drilling foundation holes  
6' - 0 3/4" center to center for residential or 5' - 11 1/2" center to center for industrial with 2 1/2" square post or 6' center to center for industrial with 3" square posts.
- 3 Install end or corner post in hole. Plumb post and pour concrete around the post. Leave concrete at least 2 inches below grade.
- 4 Install horizontal rails of section in pre-punched holes. Fasten with screws, provided.
- 5 Install post on the other end of the section and pour concrete around post.
- 6 Continue on the end of the line. Check posts for height and alignment every 60 feet.