

I N S T A L L A T I O N   I N S T R U C T I O N S

## ATLANTIS RAIL MARINER



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# Atlantis Rail Mariner Installation Guide

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The “Atlantis Rail Mariner” system combines customer supplied posts with stainless steel railing and vertical baluster infill. The following guide will take you step-by-step through the process of installing your “Atlantis Rail Mariner” system. Along the way, we’ll offer you tips and tricks to help you get your railing installed today so you can enjoy it tomorrow.

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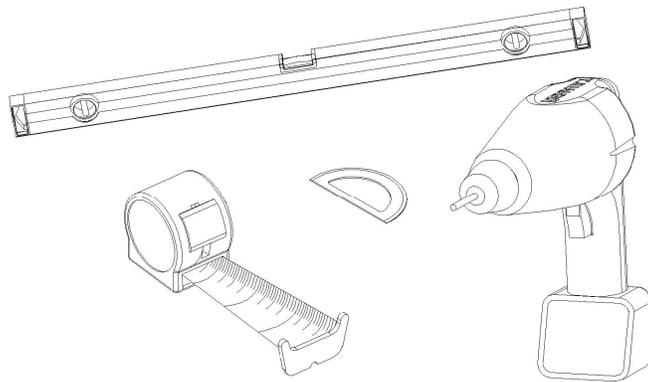
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# Building your Atlantis Rail

## Step 1 – Necessary Tools

Before you begin, you will need the following tools to install your railing.

- Power Drill
- 1/8" Drill Bit
- Chalk Line (Optional)
- 25' Tape measure
- Square
- Level



## Step 2 – Laying out your Railing System

### Reading and understanding your assembly drawing

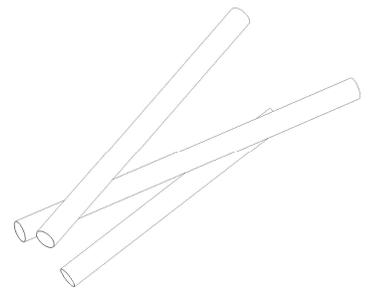
Your assembly drawing is laid out numerically from the left of your drawing beginning with rail section one. For Mariner systems, each rail section will have two rails, an upper and lower hand rail. These are labeled UH and LH accordingly. Your railing system will be packaged in the same numeric fashion that it is labeled on your assembly drawing. This is so you can lay your boxes out on your deck according to which rail goes to which section.

**NOTE:** WHEN READING YOUR ASSEMBLY DRAWING REMEMBER THAT THE TOP RAIL IN THE PROJECTION IS ALWAYS FACING THE PLAN VIEW

### Locate and check the parts of your rail system

When your rail system arrives on site, take the time to make sure that all the parts you were supposed to receive are present and undamaged. Report any inconsistencies with your Atlantis Rail sales representative as soon as you are aware of the issue.

Lay out your rails between the appropriate posts. Open the boxes of fittings and lay the appropriate fittings out along with the rails. When all the parts are laid out and accounted for, you are ready to begin.



## Step 3 – Installing the Rails

**NOTE:** IF INSTALLING THE MICROSTAR L.E.D. LIGHTING, PLEASE SKIP AHEAD TO THE MICROSTAR SECTION BEFORE PROCEEDING

### Find the center of the lower rail

Begin with the straight sections, saving the stairs for last. Use a square and a tape measure to mark the center of the first post. Measure 4" from the deck surface and mark a line on the post at this height. The intersection of these lines is the center point for your lower rail.

Using the straight side mount fitting (S0975-0000) center the hole on the mark made in the previous step. Carefully mark the center of the three screw holes. Remove the side mount fitting and pre-drill using an 1/8" drill bit.

**\*WARNING\*** BE SURE TO **ALWAYS** WEAR YOUR SAFETY GLASSES WHEN OPERATING POWER TOOLS

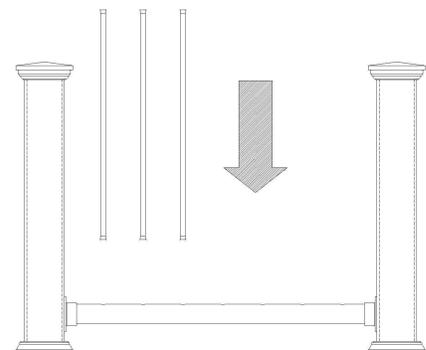
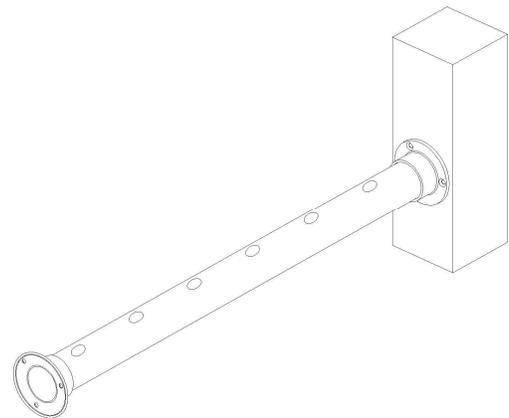
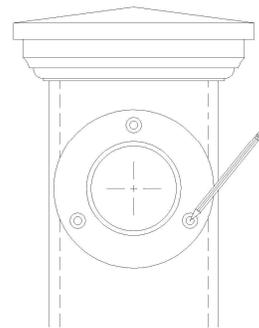
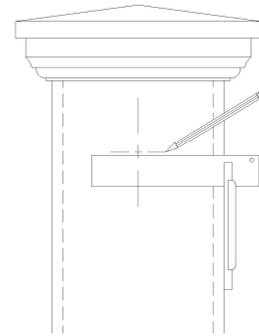
### Install lower rail

Loosen set screws and slide a side mount fitting on either end of the appropriate rail with the flange facing outward. Set rotation of rail so that baluster holes are pointing upward. Slide side mount fitting to post and install using three (3) #10 x 1-1/2" screws (supplied). Slide the other side mount fitting to the other post and lay flush against. With one side mount installed, slide the other fitting against the opposite post. Slide it up or down until level. When level, mark and pre-drill holes as before. Install side mount in place and recheck for level. Continue around the deck installing all straight lower rails before continuing.

**NOTE:** IF YOU HAVE STAIR SECTIONS IT IS IMPORTANT TO KEEP THE STAIR BALUSTERS SEPARATED FROM STOCK BALUSTERS AS THEY ARE DIFFERENT LENGTH AND WILL AFFECT THE OVERALL HEIGHT OF YOUR RAILING SYSTEM

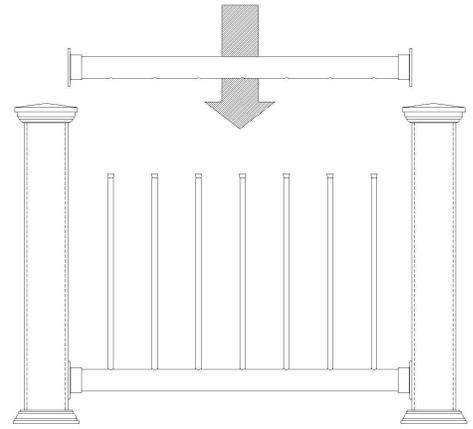
### Install upper rail and infill

Begin by placing a rubber stopper in either end of each of your stock length balusters. Next place a baluster in each hole of one section of lower rail. Slide the lower rail back and forth between fittings until balusters are centered between posts. When centered, tighten down set screws to prevent rails from rotating or sliding in either direction.



## Install top rail

With the balusters in place, bring the top rail down and place the holes of the top rail onto the balusters. Push the top rail down onto the balusters to compress the rubber stoppers and hold the balusters in tight to the rail. This will help control any rattling that may otherwise occur. With the rail snug onto the balusters. Slide the side mount fittings to the posts and carefully mark the centers of the three fastening holes. Remove the rail and pre drill these holes using a 1/8" drill bit. Place the rail back onto the balusters and fasten each side mount using three (3) # 10 x 1-1/2" screws (supplied).



### HELPFUL HINT

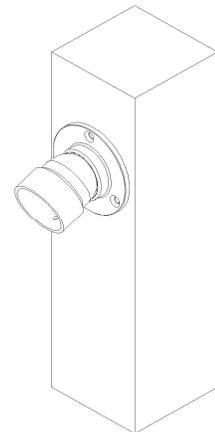
If you find that even with the rubber stoppers in place the balusters are rattling, a small bead of silicone sealer should help to silence the balusters.

## Step 4 – Stair Rails

### Installing the lower rail

As before, begin with a square and a tape measure to find the center of your post face. Your assembly drawing will tell you the height to the center of the adjustable flange. Using the same technique as before, measure from the surface of the deck up to the appropriate height. Mock up the base of the adjustable flange and mark the center of the screw holes in the same fashion as the straight side mount. Repeat on the opposite post.

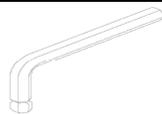
Apply a small amount of Lido brand adhesive (supplied) to the threads of the set screw inside. Tighten down screw as far as you can while still maintaining the adjustability of the angle.



*Adjustable Side Mount S0976-0000*

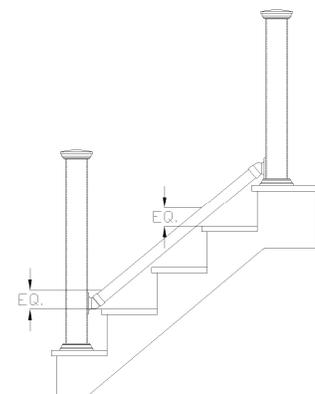
### ADDITIONAL TOOLS

A 5/16" ball socket Allen wrench is capable of tightening the set screw at even its most extreme angle



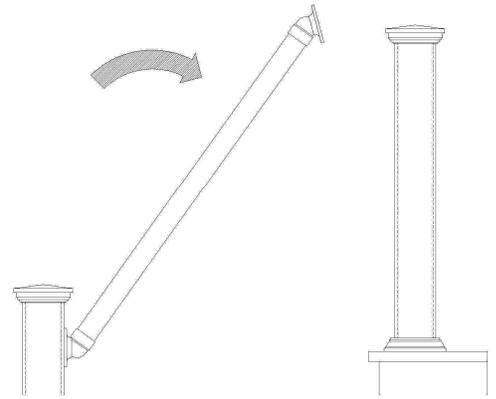
### Dry fit stair rail sections

Before bonding the rail to the fitting it is important to be sure that the length of tubing is correct for the rail section. With a partner, place an adjustable fitting (S0976-0000) on either end of the appropriate tube. Slide assembly in between two posts and adjust accordingly. Measure from the leading edge of the tread up to the bottom of the lower rail. This should be consistent tread to tread. With the rail mocked up in place, mark and drill screw holes using a 1/8" drill bit.



## Assemble the rails

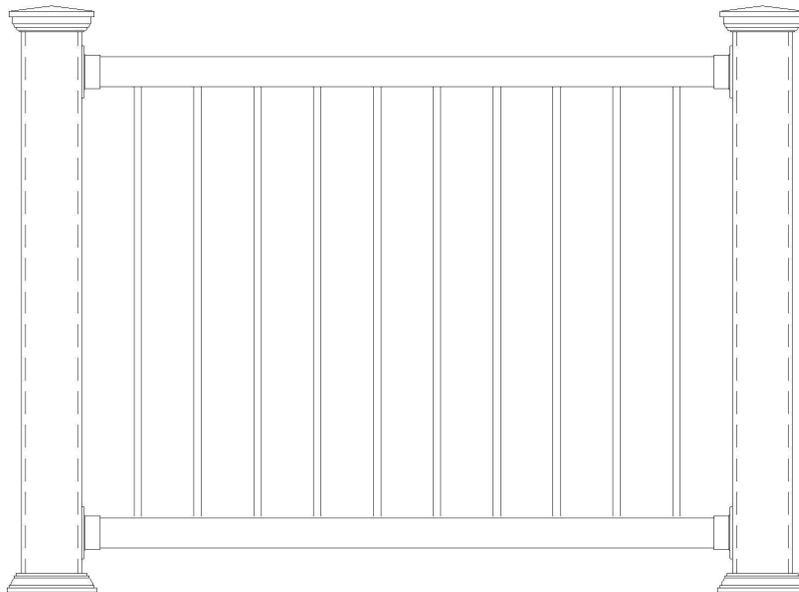
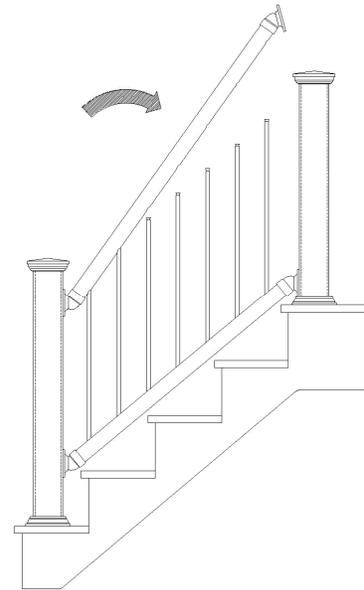
Begin with the adjustable angle on the bottom post. Install the flange separate from the rail. You can move the fitting out of the way to screw in the top screw. Fasten fitting with three (3) #10 x 1-1/2" screws (supplied). When secure, apply a small bead of Lido brand adhesive to the flange and place the rail on. Glue the other adjustable flange in the same fashion to the opposite end of the rail. Rotate railing down and line the top holes up with the pre-drilled holes from the previous step. Fasten this fitting with three (3) #10 x 1-1/2" screws (supplied). Be sure slots for balusters are facing upward.



## Install top rail and balusters

Make sure you have the correct length balusters for your stairs. Begin by placing a rubber stopper in each end of the balusters. Next, mock up the upper rail to be sure it is the same length. Place the balusters into the slots on the lower rail to begin. Then place the upper rail down onto the balusters. Put pressure on the top rail to compress the rubber stoppers. This will help to hold the balusters tight and keep them from rattling within the rails. With the rail snug, mark the center holes of the adjustable side mount fittings. Remove the rail and pre drill the three holes using a 1/8" drill bit.

Place the top rail back on the balusters and install the adjustable side mount fittings using three (3) #10 x 1-1/2" screws (supplied).



# Product Specifications

The "MARINER" system uses either pre-existing or new railing posts. Recommended posts are standard 4" x 4" wood. Other materials may be used at your own discretion. Post should be capable of receiving the mounting screws and holding under downward forces applied over general use.

## Components

Posts covers are available in white vinyl sleeves and top and bottom caps.

Post Height: posts should be 39" for a 36" system and 45" for a 42" system.

Railing: 2" O.D. x .06 wall 316 s/s tubing. Available finishes; satin brushed & mirror polished

Infill (Balusters): Balusters are spaced at 4" O.C.

Balusters are not structurally significant in this system. Mid posts are still recommended at no greater than 60" apart.



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	Material	Fin.	Dimensions	Notes
<b>Post</b>	--	--	3.5" x 3.5" manufacturer recommendation	Posts may vary, customer supplied
<b>vinyl</b>	PVC	White	1/8" Thick 4"x4" outside, 3.75"x3.75" inside x 48" height	PVC optional. Skirts and Caps sold separately
<b>Rail</b>	316 s/s	B/P	2" O.D., .06 Wall thickness	Custom and stock lengths available
<b>Balusters</b>	304 s/s	--	1/2" O.D. cut tubing	Custom and stock lengths available
<b>Fittings</b>	316 cast s/s	B/P	3.5" Round Base, 2" Inside Diameter	3 # 10 x 1-1/2", set screw to prevent rotation

## Microstar™ LED Lighting

Microstar™ is a complete line of small, super bright white LED lights. These systems are available in both 12 volt and 24 volt and each draws only 0.02 amps. Each Microstar™ has an expected bulb life cycle of 50,000 hours or 12 years of 10 hours per day usage. They provide sufficient levels of light to illuminate railing features without hot spots or dark shadows.



## Installing Microstar™ LED Lighting

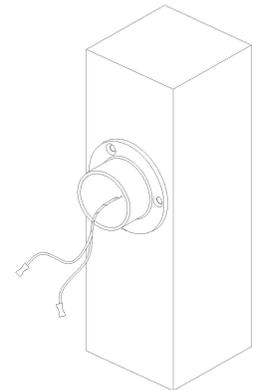
### Step 1 – Install the Transformer

Mount the Microstar™ transformer (supplied) near a 110v power outlet but leave transformer unplugged until it is needed. Select the end post closest to the outlet in order to connect to the transformer. You will need to run the low voltage wire down this post so plan accordingly. If you are using the white vinyl sleeves with your rail system, you can run the wire down inside the sleeve to keep it hidden and protected. If you are not using vinyl sleeves, other arrangements will need to be made to conceal the wire.



### Step 2 – Drill through holes for wire

Locate center of fittings as instructed in “Step 3 – Installing the rails.” At the centers, drill a hole with a 1/4” drill bit 2/3 of the way through the post from both ends. It is important that these holes meet in the center of the post so care should be taken in locating the centers. Thread supplied jumpers through post and fittings.



### Step 3 – Connect rails with jumpers

Beginning with the end post closest to the transformer, connect rails sequentially with the jumpers. As you go, be sure to check each rail section for proper functionality and make any necessary wiring adjustments before installing the rails.

**NOTE:** Atlantis Rail checks each light in our shop to be sure that they are functioning according to manufacturer’s specifications. It is a good idea however to check the lights on site to be sure that wiring didn’t come loose in transit.

Install rails as they are connected according to instructions located in this installation guide. When all rails are connected and installed, connect the string of lights into the transformer. Plug the transformer into the wall and set the timer.

