INSTALLATION MANUAL

42” and 60” REROUTE GALVANIZED



MP-GI-3 *R1*

Illustrations are general and may not match your specific stair design.

CALIFORNIA PROPOSITION 65
RAW WOOD PRODUCT EXPOSURE



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

CALIFORNIA PROPOSITION 65



WARNING: This product can expose you to chemicals including formaldehyde, ethylbenzene, titanium dioxide, cumene, carbon black, silica and wood dust, which are known to the State of California to cause cancer, and toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

IMPORTANT MESSAGE

On behalf of everyone at Global Industrial, we would like to thank you for your purchase of one of our products. This product is designed and manufactured in the USA. This stair comes with an Installation Manual. It is important that you read and fully understand this manual prior to installation. Following the steps exactly as specified in the manual will ease installation and reduce the amount of time necessary to complete the process. Keep this manual even after the installation process has been completed. Understand how to use tools that may be required during the installation process. Observe all safety warnings called out in this manual. Make sure those who may install this product for you understand this manual as well as you do.

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NOTICE !!!

Unauthorized modifications may present extreme safety hazards and could also result in injury or product damage. Global Industrial strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Global Industrial' Engineering Department. Any Global Industrial product that is altered, modified or changed in any manner not specifically authorized after original manufacture – including the addition of "aftermarket" accessories or component parts not specifically approved by Global Industrial – will result in the Global Industrial warranty being voided. Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Global Industrial will be considered the responsibility of the individual(s) or company designing and/or making such changes. Global Industrial will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.

This symbol means:
ATTENTION! BECOME ALERT!

Your safety and the safety of others is involved.
Signal word definitions:
The signal words below are used to identify levels of hazard seriousness. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

⚠ WARNING
WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

⚠ CAUTION
CAUTION indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

⚠ DANGER
DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

CAUTION
CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage

Preparing For Installation

Read the Installation Manual

- If anyone involved in the installation process cannot read English, it is the owner's responsibility to explain the contents of this manual to them.
- If any portion of this manual is unclear, contact the Global Industrial Customer Service Department for clarification.
- It is the owner's responsibility to be familiar with the use of any tools that may be necessary to complete the installation of this product. Read the manual for these specific tools.
- Do not install or allow anyone to install this product if there are any questions about the installation process.
- Never attempt to install this product if any of the components are damaged or have any unauthorized modifications.
- All persons should be trained. The owner is responsible for training the users.
- Wear the appropriate personal protective equipment during installation.
- Wear hearing protection.
- Wear safety glasses.
- Wear a dust mask to avoid breathing dust.
- Never allow children, unskilled or improperly trained people to participate in the installation process.
- Keep the Installation Manual legible and intact.
- Do not attempt to install this product while under the influence of drugs or alcohol.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Site Preparation

- Check the area where the product is to be installed.
- Be sure the area is clear of pets and people, especially young children. Stop the installation process if any enter the area.
- Installation should be done in daylight or in good artificial light.
- Only use components approved by the manufacturer.

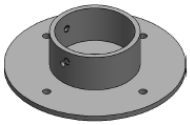
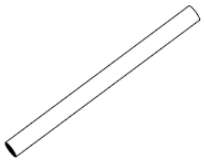
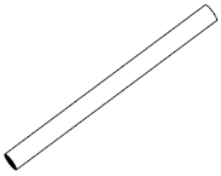
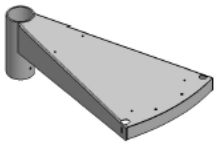
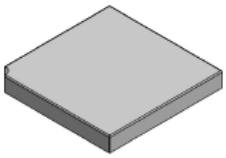
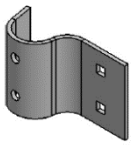
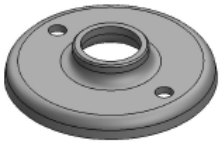
Installation Preparation

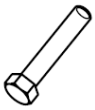
- Do not tamper with any component.
- Use extra care when unloading or moving any component. Some components may be heavy and require multiple people to move them safely.
- Keep all fasteners such as nuts and bolts well secured.
- Verify that all components are in good condition and are not damaged in any way.
- Do not start the assembly process until you read the Installation Manual.
- Do not use the stair until the assembly process is complete.

Suspending the Installation Procession

- If it is necessary to suspend the installation process, it is the owner's responsibility to mark off the area to limit access until the installation is complete.
- Do not allow anyone to use the stair until the assembly process is complete.

Parts & Hardware

			 (for 60" diameter stair only)	
① Base Plate	② Bottom Baluster	③ Main Balusters	④ Center Balusters	⑤ Single Threaded Column
				
⑥ Treaded Coupler	⑦ Dual Threaded Column	⑧ Tread	⑨ Platform	⑩ Vinyl Handrail
				
⑪ Aluminum Handrail	⑫ Top Baluster Bracket	⑬ Aluminum HR End Cap	⑭ Bottom Baluster Bracket	⑮ Platform Rail
				
⑯ Extra Platform Rail (Optional)	⑰ Vinyl HR End Cap			

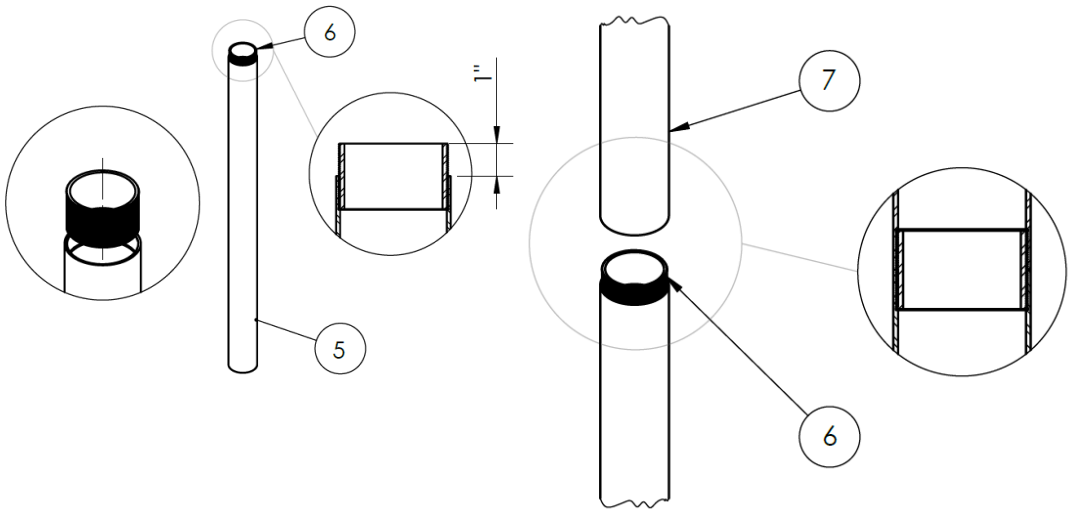
Item		Description	Item		Description
Ⓐ		5/16"-18 x 5/16" Socket Set Screw	Ⓢ		Baluster Slug Screw
Ⓑ		3/8" Flat Washer	Ⓣ		Baluster Slug
Ⓒ		3/8"x3" Lag Screw	Ⓤ		#12x1-1/2" Wood Screw
Ⓓ		1/4" Flat Washer			
Ⓔ		1/4" Lock Washer			
Ⓕ		1/4"-20 Hex Nut			
Ⓖ		1/4"-20 x 1-1/2" Carriage Bolt			
Ⓗ		1/4"-20 x 3/4" Carriage Bolt			
Ⓘ		#10 x 3/4" SQ. Drive D&T			
Ⓙ		Vinyl Handrail Clip			
Ⓚ		Vinyl Handrail Screw			
Ⓡ		#12-1" Baluster Screw			

Galvanized Center Column Assembly

1. Starting with a single threaded column section (5), screw a threaded coupler (6) into the threaded end of the column section until approximately 1/2" of the coupler has been threaded into the column section.
2. Place a bead of silicone rubber around the perimeter of the joint between the two components. Finish screwing the threaded coupler into the column section until approximately 1" of the coupler is exposed.
3. Place another bead of silicone rubber around the perimeter of the coupler approximately 1/2" below the end of the coupler.
4. Screw a double threaded column section (7) onto the exposed half of the threaded coupler from step 1. Tighten until there are no gaps between the column pieces.
5. Clean any excess silicone rubber from the joint.
6. Screw another threaded coupler (6) into the threaded end of the assembly until 1/2" of the coupler has been threaded into the column section.
7. Follow steps 2 and 3 regarding the placement of the silicone rubber onto the threaded joint for all sections of the center column assembly.

NOTE: Additional double threaded column sections (7) may be included depending on the height of the stair being installed. Repeat steps 2 and 3 to join the additional sections.

8. Screw the final single threaded column section (5) onto the assembly. Tighten all of the sections of threaded column and ensure that there are no gaps between the column sections.



⚠ WARNING	The column sections must be fully tightened. Failure to tighten the sections of the column together could make the stair unstable and result in serious injury or death.

Hardware

Parts

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Tools

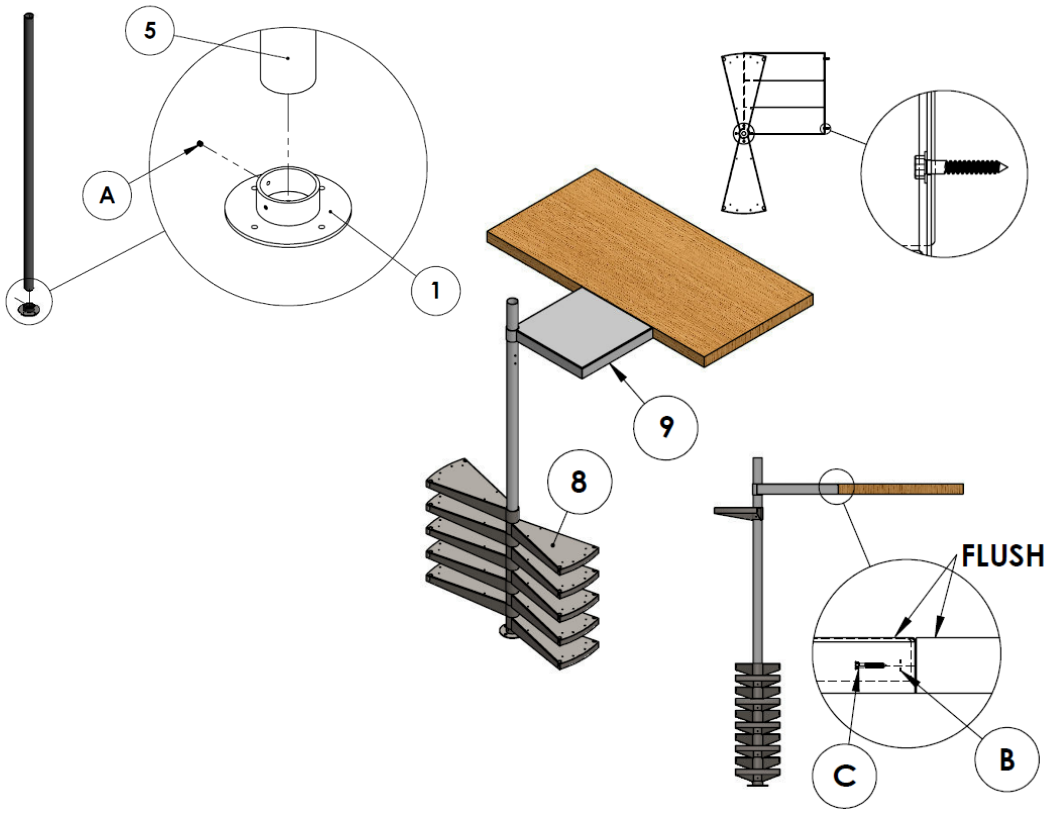
Platform and Base Installation

1. While all treads (8) and platform (9) are on the ground, partially thread set screws (A) into each tread and platform sleeve.
2. Partially thread set screws (A) into the baseplate (1). Insert the center column assembly into the baseplate until is fully seated. Attach the baseplate (1) to the center column assembly with set screws (A).
3. Stand center column assembly up inside the well opening.
4. Slide the treads over the center column assembly.
5. Slide the platform over the center column assembly. Position the platform to where the top surface of the platform is flush with the mounting floor surface.

NOTE: Depending on how the platform is being mounted in your application, 3/8" holes may need to be drilled through the platform edge as needed to install the mounting lag screws. If the platform is being mounted in a corner, make sure that both edges of the platform are secured to the wall.

⚠ WARNING	The platform is heavy. Steps 4 through 6 require a minimum of 3 people. One to keep the column steady and 2 people hoist and hold the platform in place. A fourth person may then drill and fasten the platform.

6. Use 3/8"x3" lag screws (C) and washers (B) to attach the platform to the mounting surface.



Hardware

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Parts

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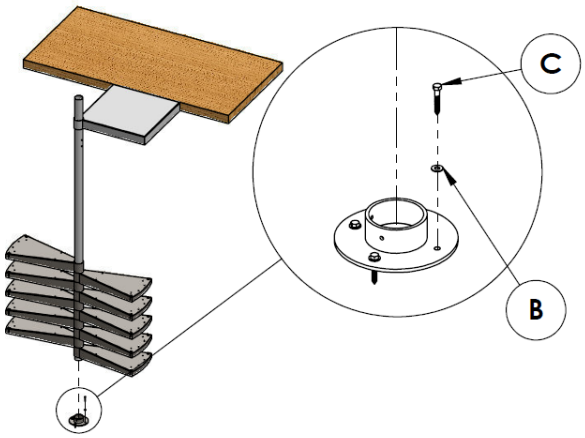
Tools







7. Plumb center column assembly and attach base plate to floor with 3/8"x3" lag bolts (C) and washers (B). Lead anchor shields (not supplied) will be needed if installing into concrete.



⚠ WARNING	The lag screws securing the base plate to the floor and the platform to the wall must be installed and fully tightened before continuing with the installation process. Failure to do so could cause the stair to be unstable and could result in serious injury or death.

Hardware

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Parts

Tools



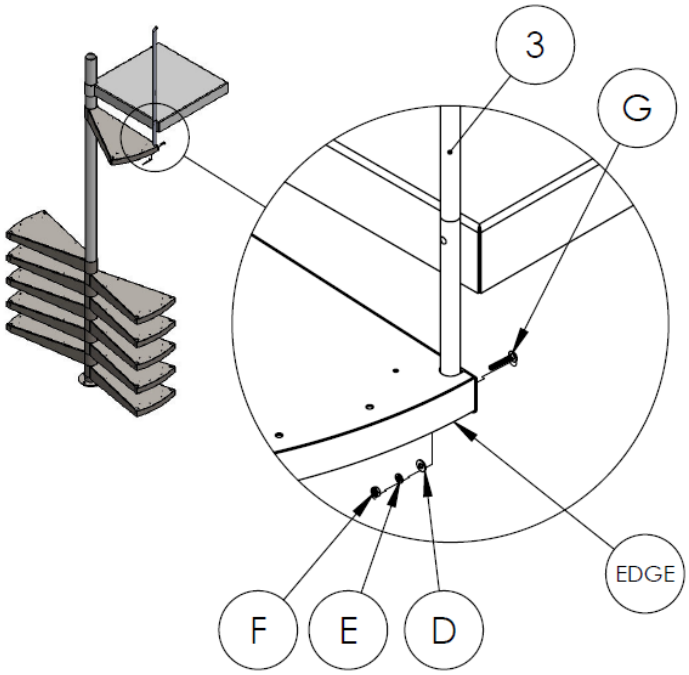




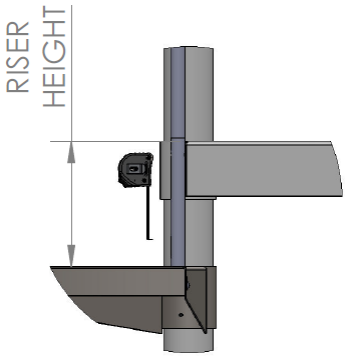
Adjustable Tread and Baluster Installation

1. Start installation with the top tread. Place a main baluster (3) in the hole closest to the platform. Move the baluster up or down until the bottom of the baluster is flush with the bottom edge of the tread.
2. Attach this baluster to the tread using the carriage bolt (G), nut (F), washer (D) and lock washer (E).

NOTE: Main Balusters have two holes drilled near the bottom.



3. Move the top tread to the proper riser height required. If you do not know your riser height, you may determine it by using the simple calculation below:
   a. Add number of treads and platforms = _____
   b. Measure the floor to floor height in inches = _____
   c. Divide 3b by 3a = _____
   d. Riser height is usually between 8 ½" and 9 ½".



Hardware

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Parts

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Tools

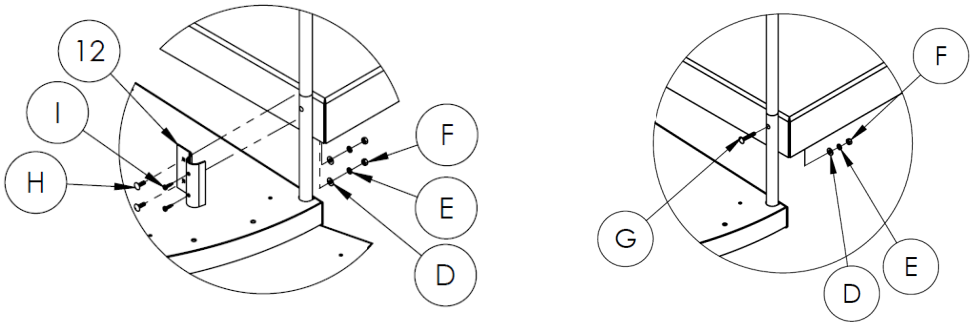




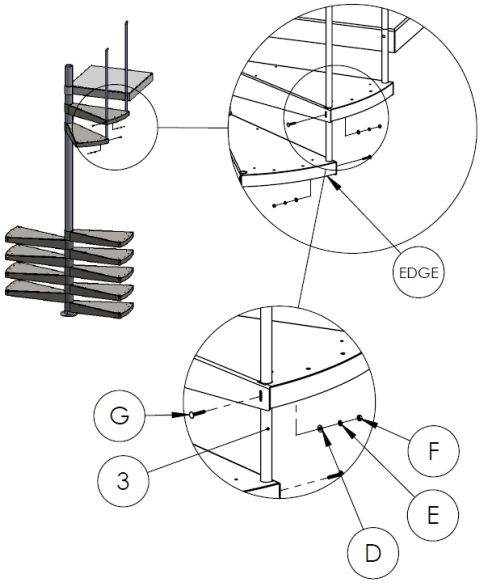




4. For stairs that are 60" in diameter, plumb the main baluster and attach to the face of the platform using the top baluster bracket, carriage bolts (H) and SQ Drive D&T screws (I), nut (F), washer (D), and lock washer (E). For stairs that are 42" in diameter, plumb the main baluster and attach to the face of the platform using carriage bolt (G), nut (F), washer (D) and lock washer (E). A ¼" diameter hole must be drilled in the platform at the location of the pre-drilled hole in the baluster.
5. Check that the tread is level and the baluster is plumb. Tighten the 5/16" set screws in the tread hub to lock the top tread to the center column.



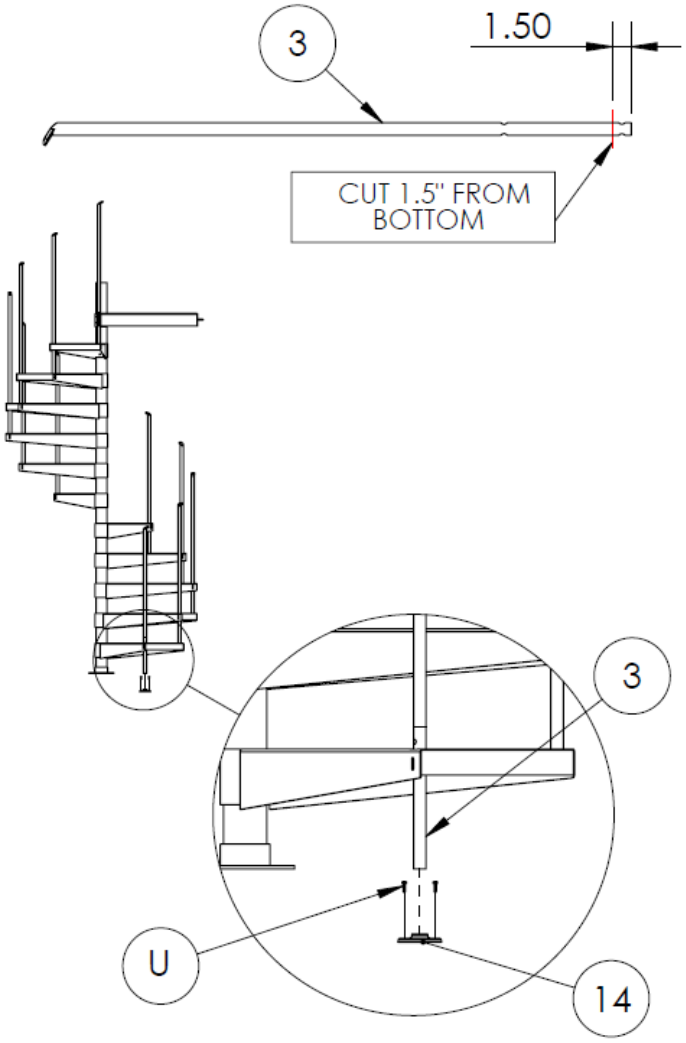
6. Spin the next tread into position beneath the tread above. Place a main baluster through the upper tread and into the lower tread. Move up or down until the bottom of the baluster is flush with the bottom edge of the lower tread.
7. Secure the baluster to the lower tread using carriage bolt (G), nut (F), washer (D) and lock washer (E).
8. Adjust the height of the lower tread to be one riser height below the tread above. Fasten the baluster with carriage bolt (G), nut (F), washer (D) and lock washer (E).
9. Check that the tread is level and the baluster is plumb. Tighten the 5/16" set screws in the tread hub to lock the tread to the center column.
10. Repeat steps 6-9 with the remaining treads.



Bottom Baluster Installation

NOTE: The main baluster connecting the bottom tread to the floor must be cut.

1. Cut approximately 1 ½" off the bottom of the last main baluster.
2. Place the bottom baluster bracket on the ground below the first tread. Guide the baluster through the hole in the first tread and into the hole of the bottom baluster bracket.
3. Adjust the height of the lower tread to be one riser height below the tread above. Fasten the baluster with carriage bolt (G), nut (F), washer (D) and lock washer (E).
4. Check that the tread is level and the baluster is plumb. Tighten the 5/16" set screws in the tread hub to lock the tread to the center column.
5. Ensure that the baluster remained plumb, then fasten the bottom baluster bracket to the floor using wood screws (U). Masonry fasteners (not supplied) will need to be used if installing into concrete.



Hardware

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Parts

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Tools







Aluminum Handrail Forming

Hardware

Parts

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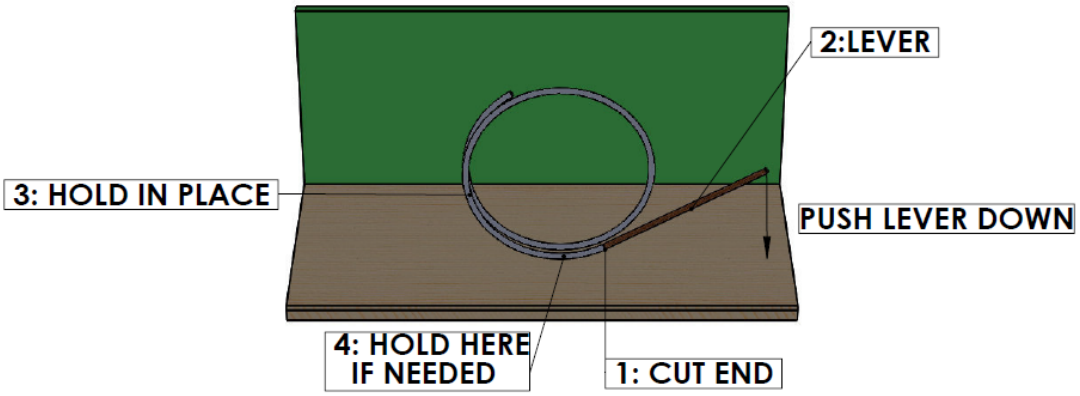
Tools

1. The handrail is shipped in a coil that is typically between 36" and 48" in diameter. The first step to fitting the handrail is increasing this diameter to the proper coil diameter listed below.

Stair Diameter	3'-6"	5'-0"
Coil Diameter	60"	75"

NOTE: The coil diameter should be larger than the stair diameter.

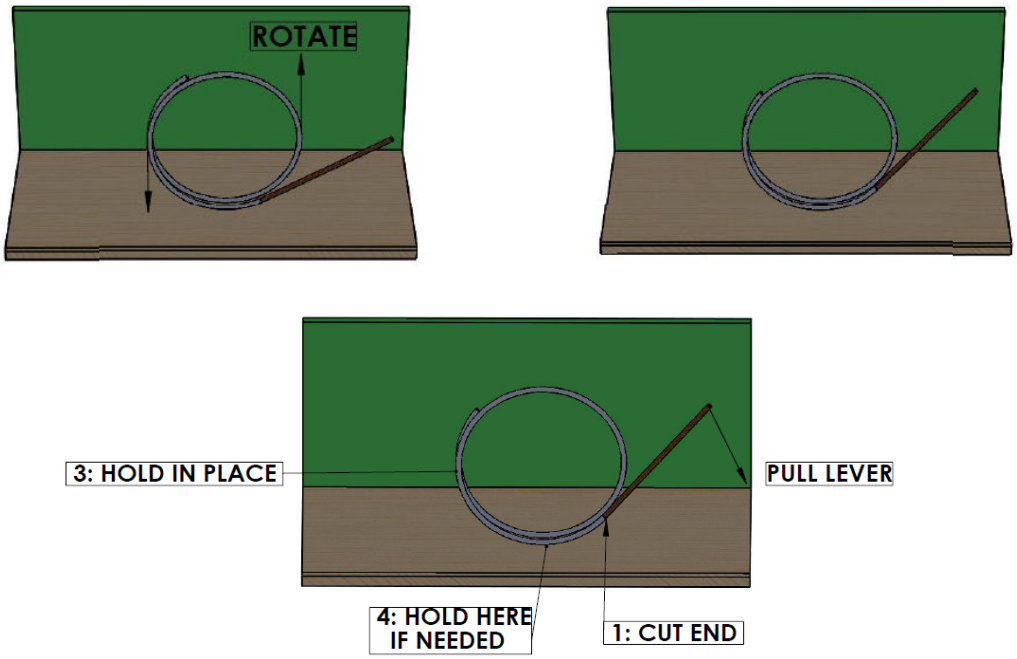
2. On a soft surface such as carpet, position the coil as depicted below. The cut end (1) should be approximately 4"-6" off the ground.
3. Insert a lever (2) into the cut end. A wooden handle (such as a broom handle) makes a suitable lever.
4. Hold the coil in place on the side opposite the cut end. Push the lever down until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping during this process.



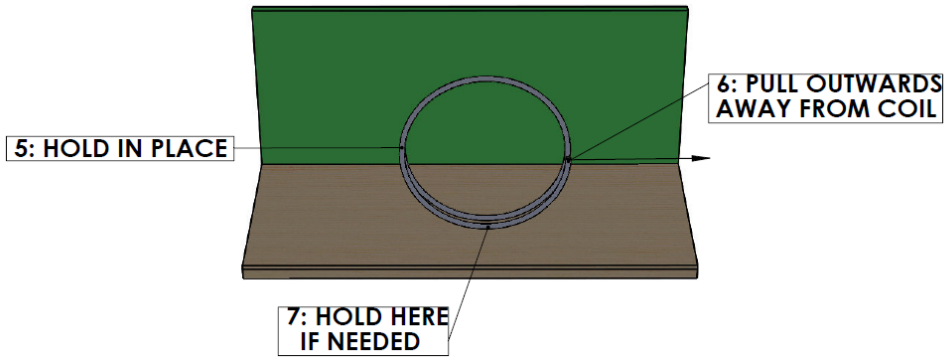
NOTE: This example depicts a right hand up handrail. The lever would be on the left side of a left hand up handrail.

IMPORTANT – The handrail is best formed with a series of many small adjustments. To avoid kinks and/or warped sections, do not sharply bend the handrail.

5. Rotate the handrail counterclockwise (clockwise for left hand up) approximately 20 degrees.
6. Hold the coil in place on the side opposite the cut end. Push the lever down until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping while forming.



7. Repeat steps 5 and 6 until the cut end is vertical. It should now be long enough to form by hand.
8. Hold the coil in place and pull the unsecured side outward and away from the center of the coil until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping while forming.

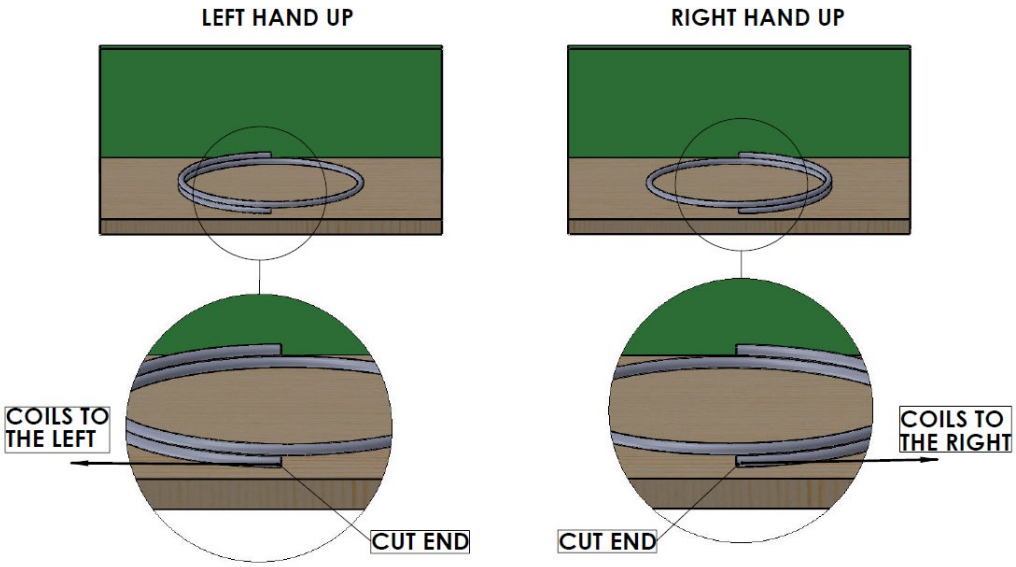


9. Continue rotating the coil and forming until the whole coil has been worked through. Measure the coil diameter to determine if more adjustment is needed. If so, repeat the forming process from the beginning.

IMPORTANT: Do not try to bend the handrail into shape on the first pass through the coil. For best results, make small adjustments and repeat the process as needed.

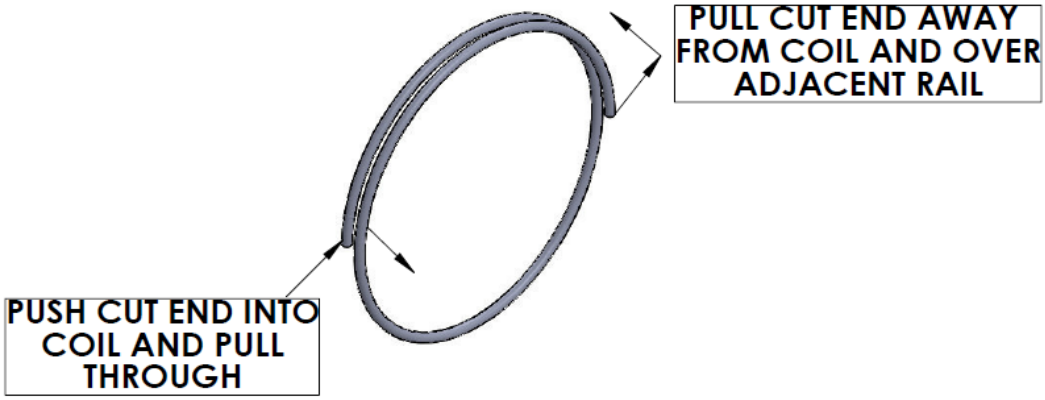
Checking the Handrail Curvature

10. Lay the handrail down and find the cut end that contacts the ground. Use the method below to determine the orientation of the handrail.



NOTE: If the handrail orientation matches the orientation of the stairs being installed, skip to the next step.

11. Stand the handrail up. Push a cut end towards the center of the coil enough to clear the adjacent rail. Pull this cut end through the coil to the other side. The other cut end must be pulled away from the center of the coil and pushed over the adjacent rail.



Hardware

Parts

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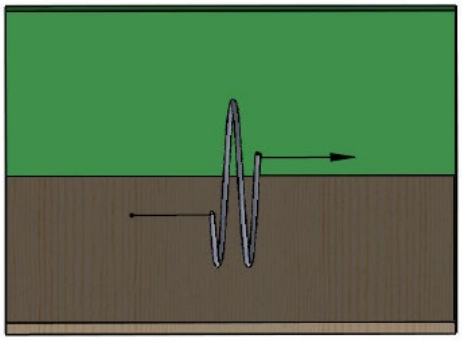
Tools

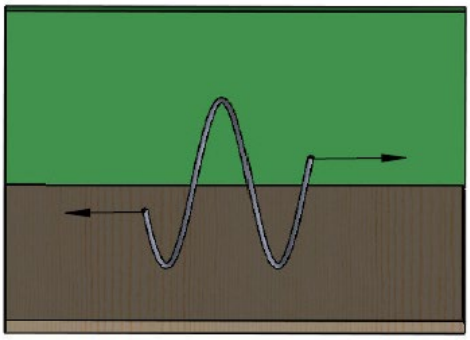
Pulling the Handrail into a Spiral

1. Determine the end to end length needed based on the diameter of the stair being installed.

Stair Diameter	3'-6"	5'-0"
End to End Length	14'	11'

2. With the help of another person, pull the handrail apart to the desired end to end length. Stop periodically to inspect the handrail for any kinks that may be forming.





Hardware

Parts

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Tools

Aluminum Handrail Installation

1. Once the Handrail has been shaped, dry fit the rail to the baluster tips.

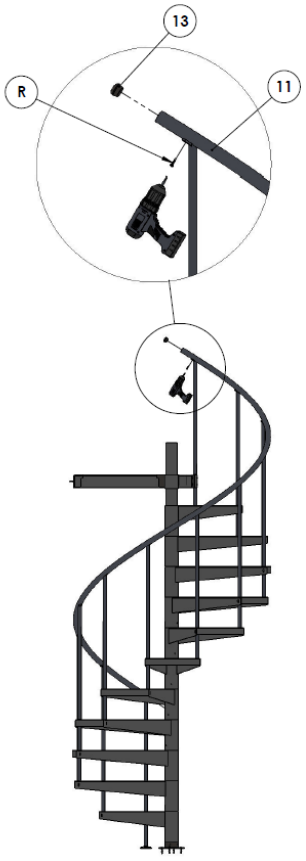
NOTE: The handrail may be slightly kinked on both ends. This is normal and the handrail should be positioned so that these ends can be cut off after installation.

2. Working together with another person, start at the top of the stair and install each screw (R) through the hole in the tip of each main baluster. Push or pull the handrail as needed to match it up with the baluster tip.

NOTE: To assist in installation, it may be beneficial to use zip ties to hold the handrail onto the baluster tips during the installation process.

NOTE: If the handrail does not sit flush on the baluster tips, the baluster tips can be bent up or down as needed with an adjustable wrench to better match the angle of the handrail. Place a rag between the wrench and the baluster tip to prevent damage to the finish of the baluster tip.

3. Once the handrail has been attached to all of the main balusters, cut the railing 3" above the top baluster and 3" below the bottom baluster. If your local building code requires a longer length, cut the handrail to meet the code.
4. Use the supplied two-part epoxy to bond the endcaps (13) to the handrail.



Hardware

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Parts

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Tools



Vinyl Handrail Installation

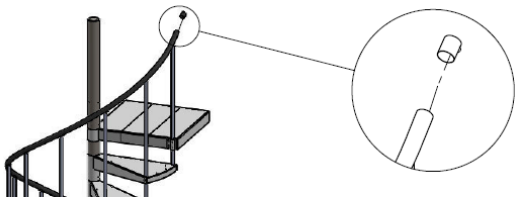
1. The vinyl handrail (10) is shipped in a flat coil however it may easily be shaped easily by hand.
2. Dry fit the handrail to the balusters.
3. Ensure that the handrail overhang is roughly equal at the top and bottom balusters.

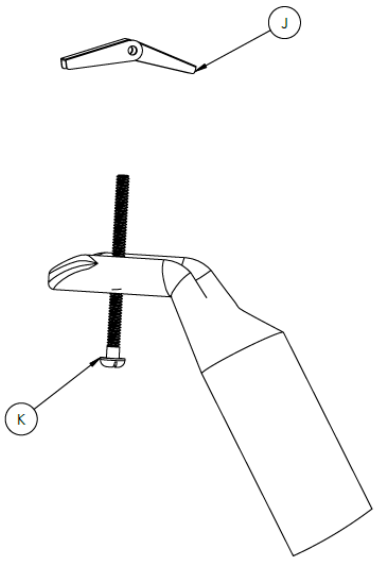
NOTE: To assist in installation, it may be beneficial to use zip ties to hold the handrail onto a few of the baluster tips during the installation process.

4. Mark the location of the holes of the baluster tips onto the vinyl handrail.
5. Drill a 3/8" hole in the handrail at the locations marked in step 4. Do not drill out the hole in the baluster tip.
6. Insert screw (K) upward through the baluster tip hole and thread on a vinyl handrail clip (J). Squeeze the clip so the wings of the clip collapse and then insert it into the 3/8" hole drilled into the handrail in step 5.

NOTE: If the handrail does not sit flush on the baluster tips, the baluster tips can be bent up or down as needed with an adjustable wrench to better match the angle of the handrail. Place a rag between the wrench and the baluster tip to prevent damage to the finish of the baluster tip.

7. Once the handrail has been attached to all of the main balusters, cut the railing 3" above the top baluster and 3" below the bottom baluster. If local building code requires a longer length, cut the handrail to meet the code.
8. Slip the vinyl railing caps (17) onto the end of the handrail to complete installation.





Hardware

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Parts

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Tools

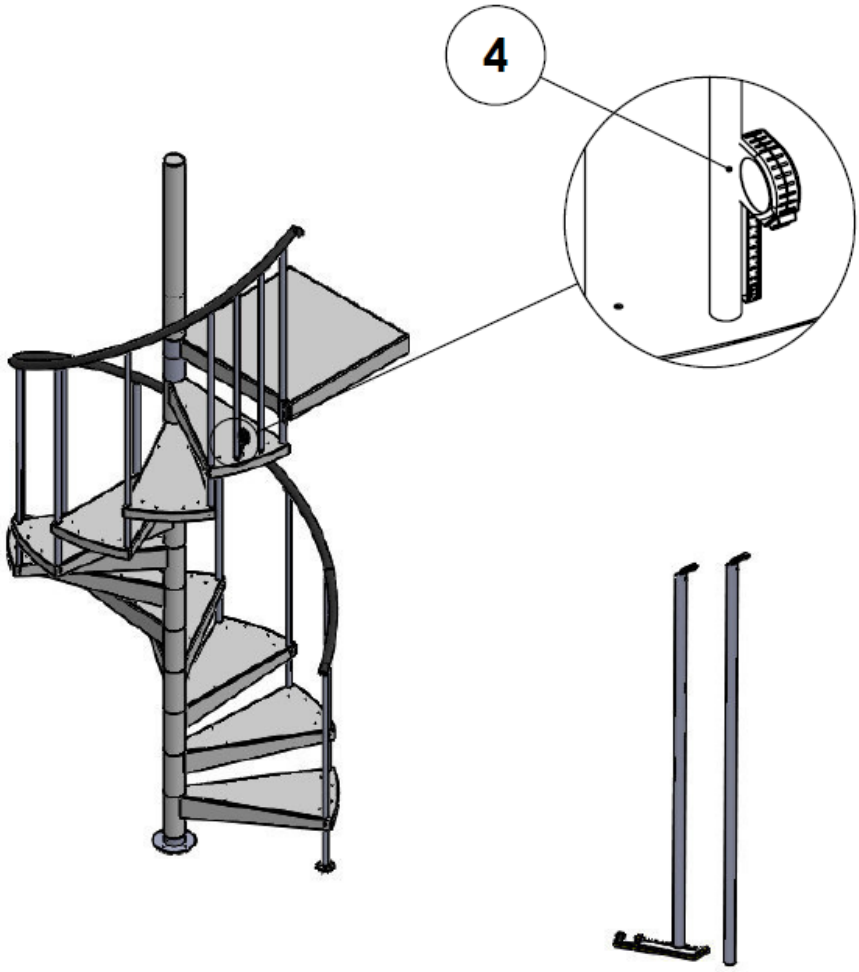


Center Baluster Installation

1. Measure each center baluster (4) from tip (at the handrail) to the top of the corresponding tread.

NOTE: Do not cut all the balusters the same length. Measure each baluster position individually.

2. Using a saw, cut each baluster to the correct length.



Hardware

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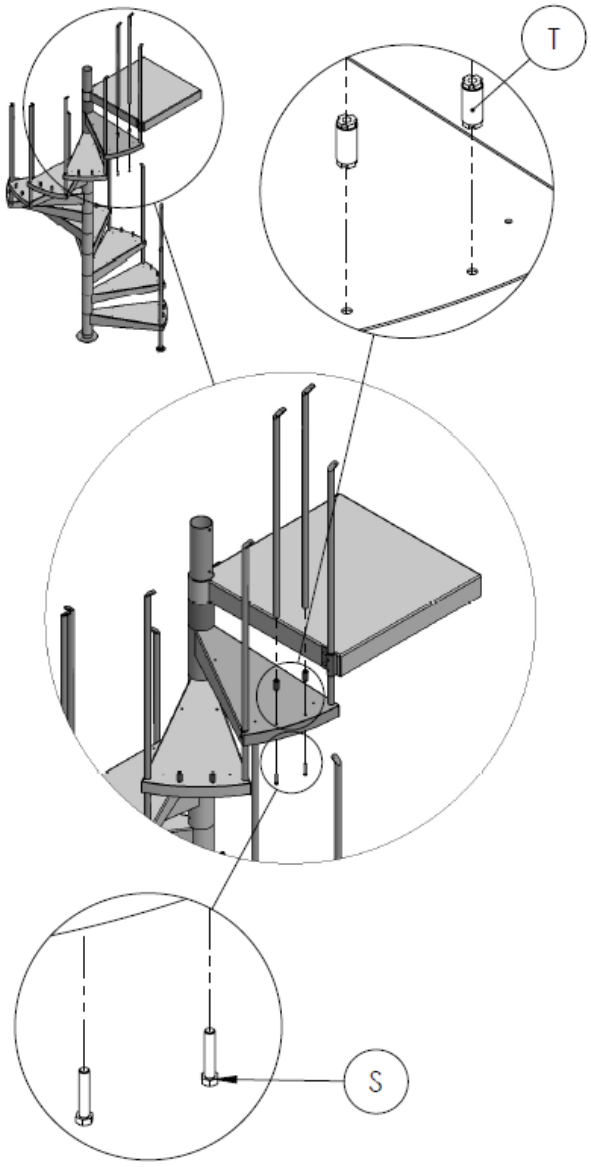
Parts

④

Tools



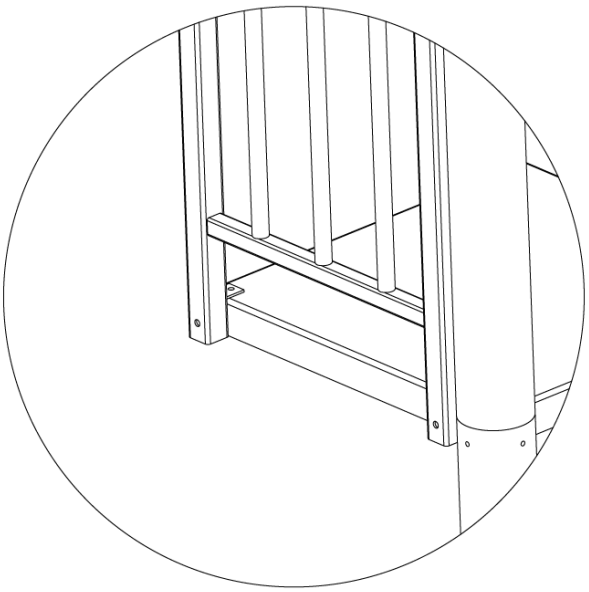
3. Insert bolt (S) through the tread and into baluster slug (T). Do not fully tighten the bolt.
4. Slide the baluster onto the baluster slug. Tighten the baluster slug screw to lock the baluster in place.



5. Follow the same process that you used to attach the main balusters to the handrail to attach the center balusters to the handrail.
6. Repeat steps 1-5 for each center baluster.

Platform Rail Installation

1. Place the platform rail onto the platform in the correct location. The platform rail will be approximately ¼" away from the column and ¼" away from the end of the platform.
2. Using the holes on the bottom of the platform rail as a template, mark the location of the holes on the top and side surface of the platform.
3. Drill a ¼" diameter hole in each location.
4. Using bolt (G), nut (F), washer (D) and split washer (E), secure the platform rail to the side of the platform.
5. Using bolt (H), nut (F), washer (D) and split washer (E), secure the platform rail to the top of the platform.



6. If your stair has an extra platform rail, follow steps 1-5 to install the extra platform.

NOTE: The platform rail will be approximately 2" shorter than the extra platform rail. Be sure to install the platform rail first and then the extra platform rail.

⚠ WARNING	The platform rail(s) must be installed on the platform of the stair. Failure to install the platform rail(s) could result in serious injury or death.

Hardware

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Parts

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Tools



