

# INSTALLATION MANUAL

## Spiral Stair



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



# Thank You!

Thank you for selecting this Aluminum Stair product. Designed, engineered and manufactured in the USA, this staircase was built by our skilled artisans, using high-grade American-made materials and proven welding and woodworking processes to build you an exceptional product. It is important that you read and fully understand this Installation Manual. 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 and 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. Enjoy your new staircase!

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## NOTICE !!!

Unauthorized modifications may present extreme safety hazards and could also result in injury or product damage. Trex Spiral Stairs (the manufacturer) strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by the manufacturer's Engineering Department. Any 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 the manufacturer – will result in the 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 the manufacturer will be considered the responsibility of the individual(s) or company designing and/or making such changes. Trex Spiral Stairs 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 give with these signal words and/or the symbol shown above.



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



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



**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.



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

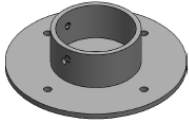


**CALIFORNIA PROPOSITION 65 – RAW WOOD PRODUCT EXPOSURE**  
**WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood](http://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](http://www.P65Warnings.ca.gov)

# PARTS LIST



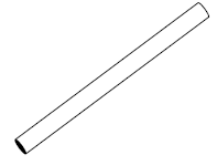
**1**  
Base Plate



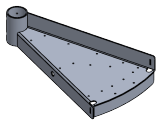
**2**  
Main Balusters  
(Square or Round)



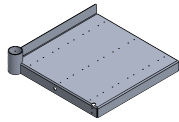
**3**  
Center Balusters  
(Square or Round)



**4**  
Center Column



**5**  
Tread



**6**  
Platform



**7**  
Filler Hub



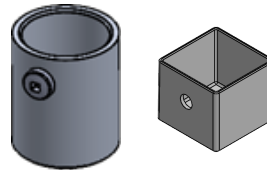
**8**  
Column Extension



**9**  
Aluminum  
Handrail



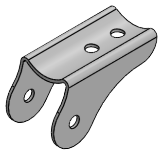
**10**  
Aluminum HR End  
Cap



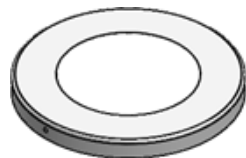
**11**  
Baluster Cup  
(Square or Round)



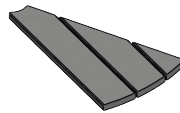
**12**  
Platform Rail



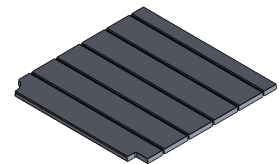
**13**  
Baluster Whistle



**14**  
Baseplate Cover  
(Optional)



**15**  
Tread Cover



**16**  
Platform Cover



# HARDWARE LIST



**A**

5/16" -18 x 5/16"  
Socket Set Screw



**B**

3/8" Flat  
Washer



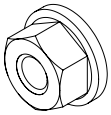
**C**

3/8"x3" Lag  
Screw



**D**

1/4" Flat Washer



**E**

Serrated Flange  
Nut



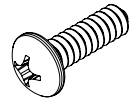
**F**

3/4" Trilobular  
Screw



**G**

1/4"-20 x 1-1/2" Carriage  
Bolt



**H**

1/4"-20 x 3/4" Carriage  
Bolt



**J**

#10-16 x 3/4" Self  
Drilling Screw



**K**

1/4"-20 x 1"  
Carriage Bolt



**R**

#12-1" Baluster Screw



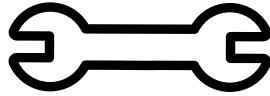
**S**

#12x1-1/2" Wood  
Screw

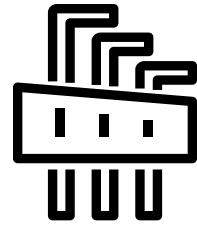
# TOOLS



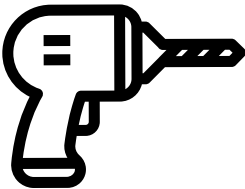
**7/16" Wrench**



**9/16" Wrench**



**5/16" Allen Wrench**



**Drill**



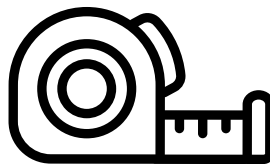
**7/32" HSS Drill Bit**



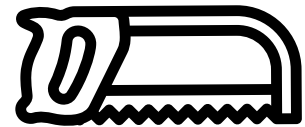
**9/32" HSS Drill Bit**



**Level**



**Measuring Tape**



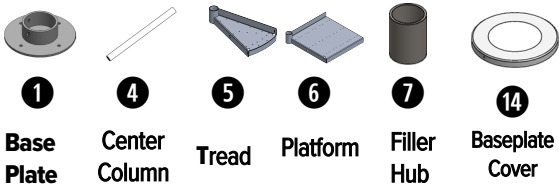
**Hacksaw**



**Zip Ties**

# PLATFORM AND BASE INSTALLATION

## Parts



Best to use three people

## Hardware



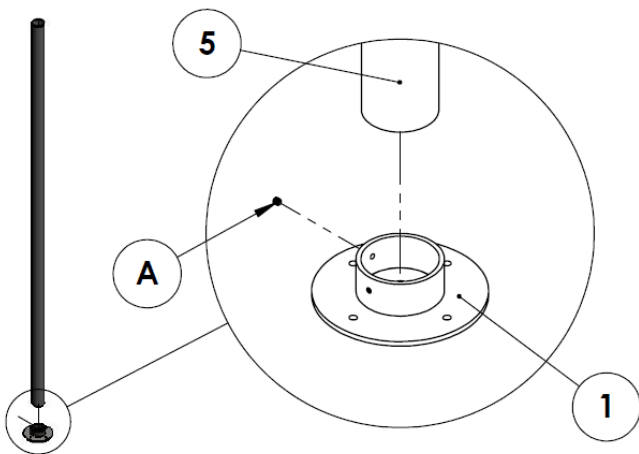
## Tools

1. While all treads **5** and the platform **6** are on the ground, partially thread set screws **A** into each tread and the platform sleeve.
2. Attach the base plate **1** to the center column with set screws
3. Stand center column **4** assembly up inside the well opening.

4. If a baseplate cover is selected slide it over the column now
5. Locate the thread with the short hub and slide it over center column, followed by the remaining treads.
6. Slide filler hub **7** over center column last. This will span the gap between the top tread and platform.
7. Slide the platform over the center column. Position platform to where the top surface of the platform is flush with mounting floor surface.

**⚠ WARNING: The platform is heavy. Steps 6 and 7 require a minimum of 3 people. One to keep the column steady and 2 people to hoist and hold the platform in place. A fourth person may then drill and fasten the platform.**

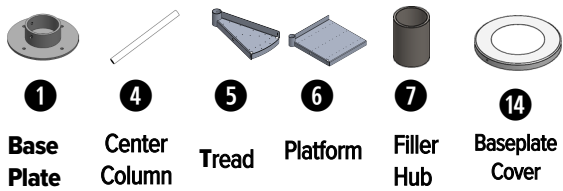
*NOTE: Holes must be drilled through platform edge as needed to install the mounting lags. If corner mount, ensure both edges are bolted.*



# PLATFORM AND BASE INSTALLATION

(CONTINUED)

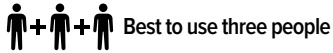
## Parts



## Hardware



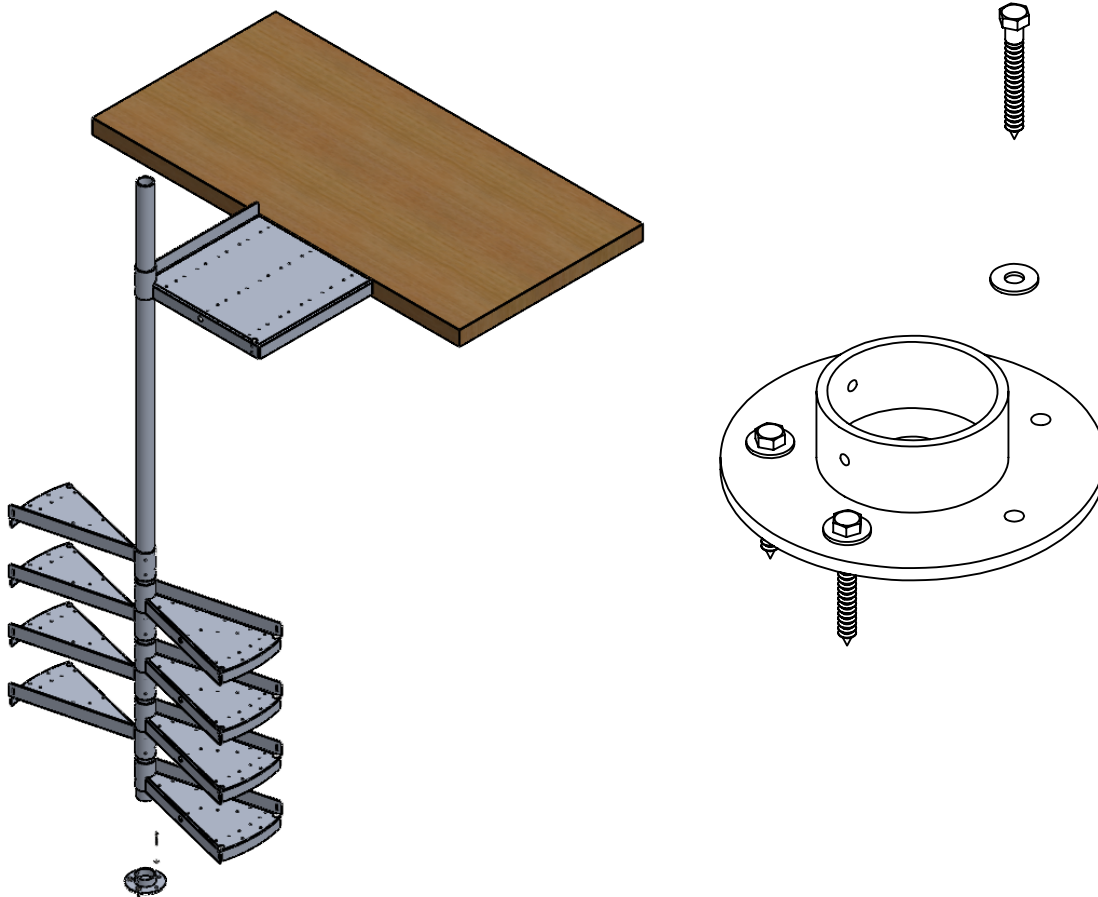
## Tools



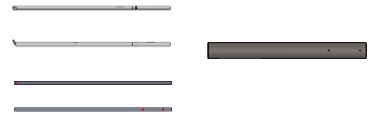

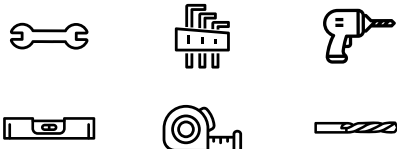
8. Use 3/8" x 3" Lag Screws **C** and washers **B** to attach platform to mounting surface.

9. Plumb center column assembly and attach base plate to floor with 3/8" x 3" lag bolts and washers. Masonry fasteners will be needed if installing on 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.



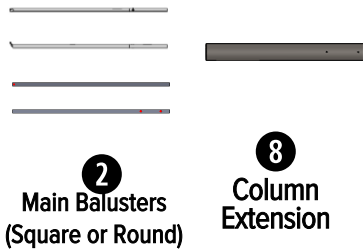
# CONTINUOUS TREAD, EXTENSION, AND BALUSTER INSTALLATION

Parts	Hardware	Tools
 <p data-bbox="66 443 250 548">2 Main Balusters (Square or Round)</p> <p data-bbox="285 422 396 527">8 Column Extension</p>		

1. Slide the center column extension **8** down over the center column. Insert and tighten the set screws.
2. Start Installation with the top platform. Place a main baluster **2** into the top tread hold closest to the platform.  
*NOTE: Main balusters have two holes drilled near the bottom.*
3. Move the baluster up or down until the bottom hole is roughly in the middle of the slot in the tread. Attach this baluster to the tread using a serrated flange nut.
4. Plumb the top baluster and attach this baluster to the platform using a serrated flange nut **E**.
5. Check that the tread is level and the baluster plumb, Tighten the 5/16" set screws to lock the first tread in place.

# CONTINUOUS TREAD, EXTENSION, AND BALUSTER INSTALLATION (CONTINUED)

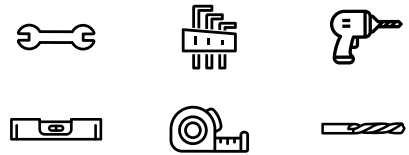
## Parts



## Hardware

E

## Tools



6. Spin the next tread into position beneath the tread above. Place a main baluster through the upper tread and into the lower. Move up or down until the bottom of the baluster is positioned approximately flush with the bottom edge of the tread.
7. Secure the baluster to both treads with a serrated flange nut .
8. Tighten set screws in tread sleeves.
9. Repeat steps 6 - 8 with remaining treads.
10. The main baluster that fastens to the floor must be cut to size prior to installation. Refer to the main baluster above to determine the measurement.
11. Place a baluster cup on the ground below the first tread. Guide the bottom baluster through the hole in the tread into the baluster cup.
12. Plumb the bottom baluster to locate the baluster cup properly. Slide up the baluster to expose the baluster cup hole.
13. Fasten the baluster cup to floor with #12-11 x 1" wood screw. Masonry fasteners will be needed if installing on concrete. Insert baluster and secure to bottom tread.



# ALUMINUM HANDRAIL FORMING

## Parts



9

Aluminum Handrail

## Hardware

## Tools



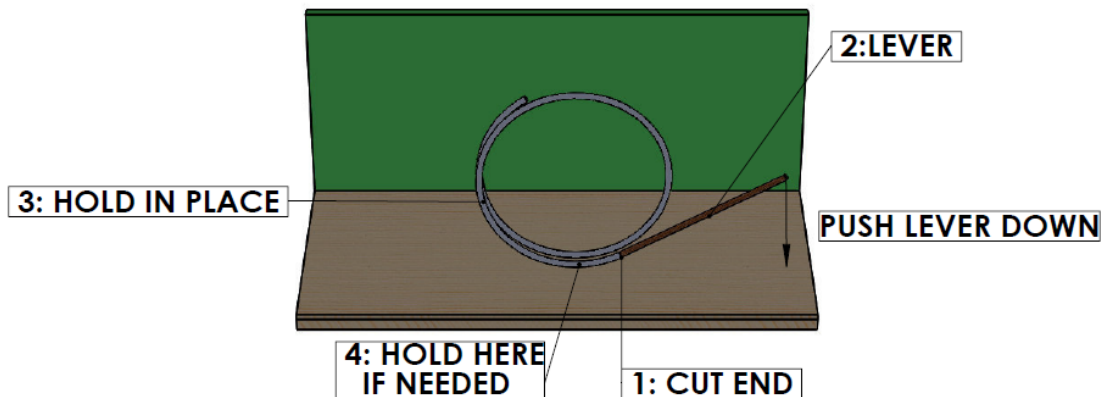
Best to use two people

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. For example: If installing a 5'-0" diameter stair, the handrail coil should be increased to 75".

Stair Diameter	5'-0"	5'-6"	6'-0"
Coil Diameter	75"	80"	85"

*NOTE: The coil diameter should be larger than the stair diameter. The handrail diameter will shrink in later steps when being pulled apart into a spiral. The larger coil diameter will account for this shrinking.*

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 baluster included with the stairs or a wooden handle (such as a broom handle) both make suitable levers.
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.

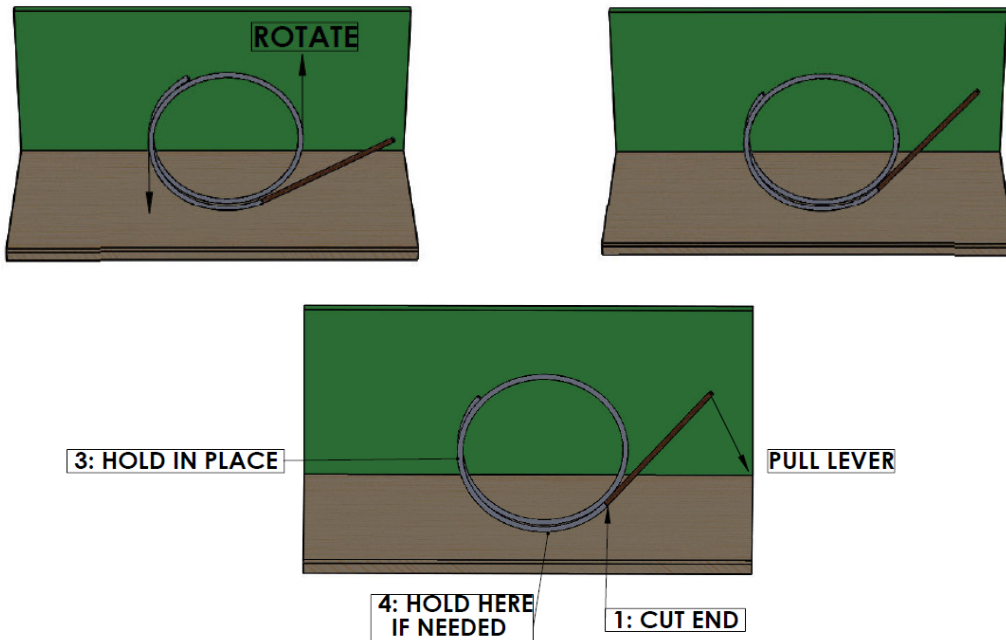


*NOTE: This example depicts a right hand up handrail. The lever would be on the left side of a left hand up handrail.*

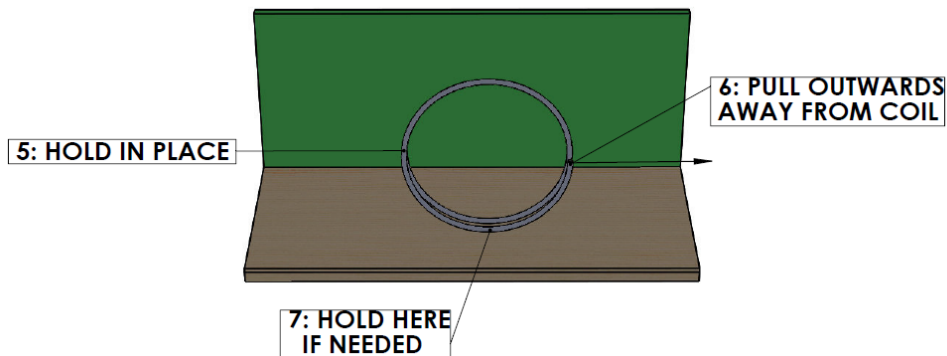
**IMPORTANT! The handrail is best formed with many small adjustments and regular measurements. To avoid kinks and/or warped sections, do not sharply bend the handrail.**

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 bending.

# ALUMINUM HANDRAIL FORMING (CONTINUED)



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. The handrail is best formed with many small adjustments and regular measurements. Repeat the process as needed.**

# CHECKING THE HANDRAIL CURVATURE

## Parts



9

Aluminum Handrail

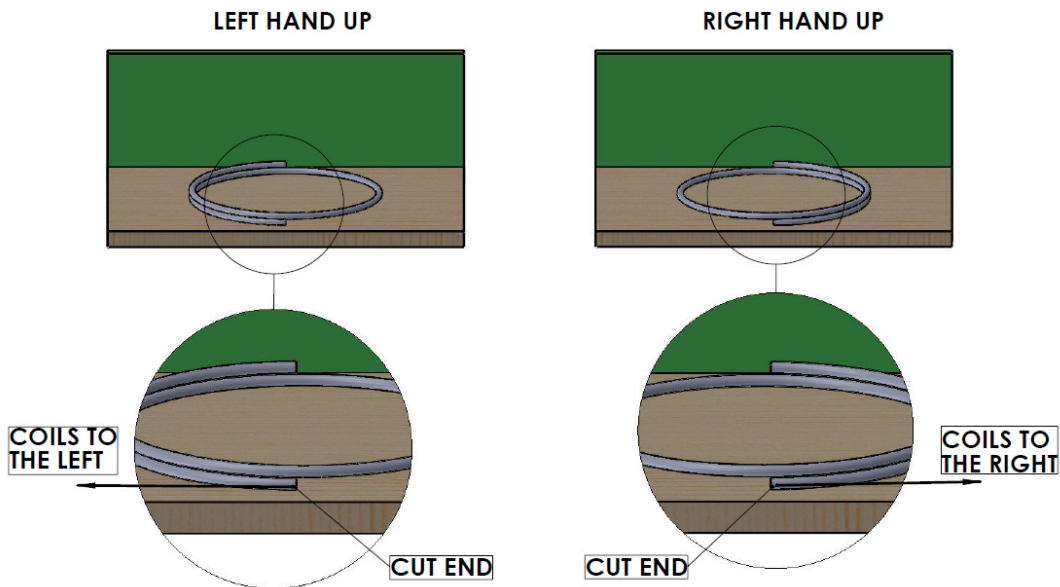
## Hardware

## Tools



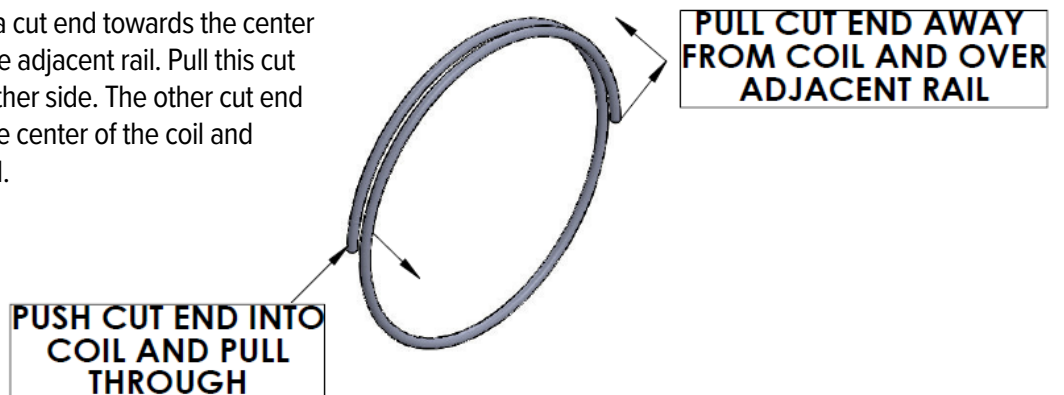
Best to use two people

1. 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.*

2. 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.



# PULLING THE HANDRAIL INTO A SPIRAL

## Parts



9

Aluminum Handrail



Best to use two people

## Hardware

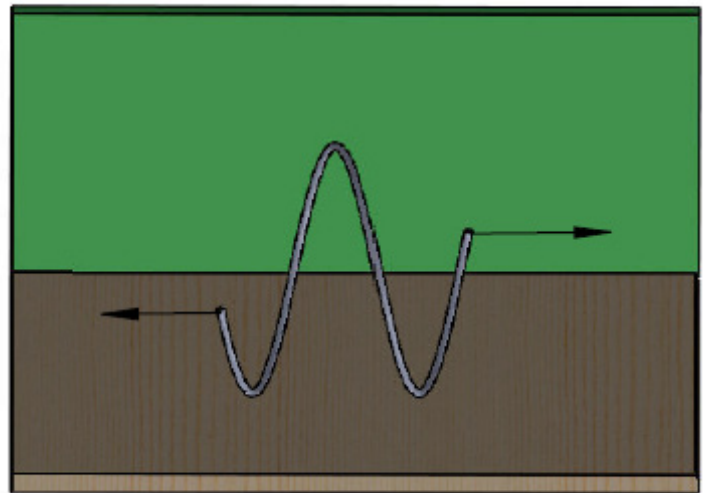
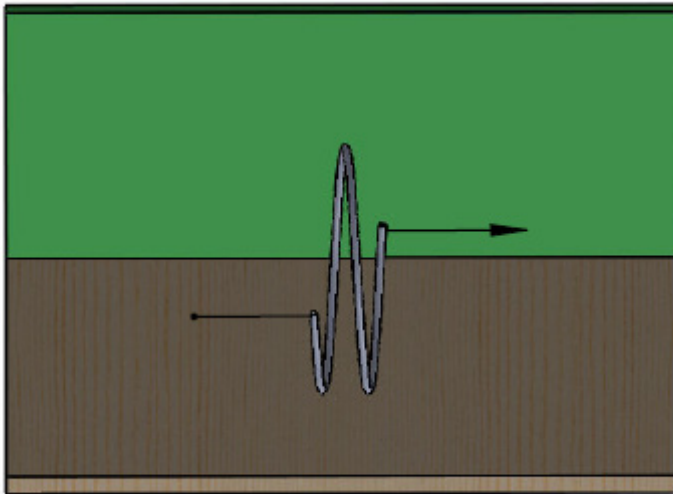
## Tools



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

Stair Diameter	5'-0"	5'-6"	6'-0"
End to End Length	11'	11'	10'

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



# ALUMINUM HANDRAIL INSTALLATION

## Parts



9

Aluminum Handrail



10

Aluminum HR End Cap

## Hardware



## Tools



zip ties  
(optional/not supplied)

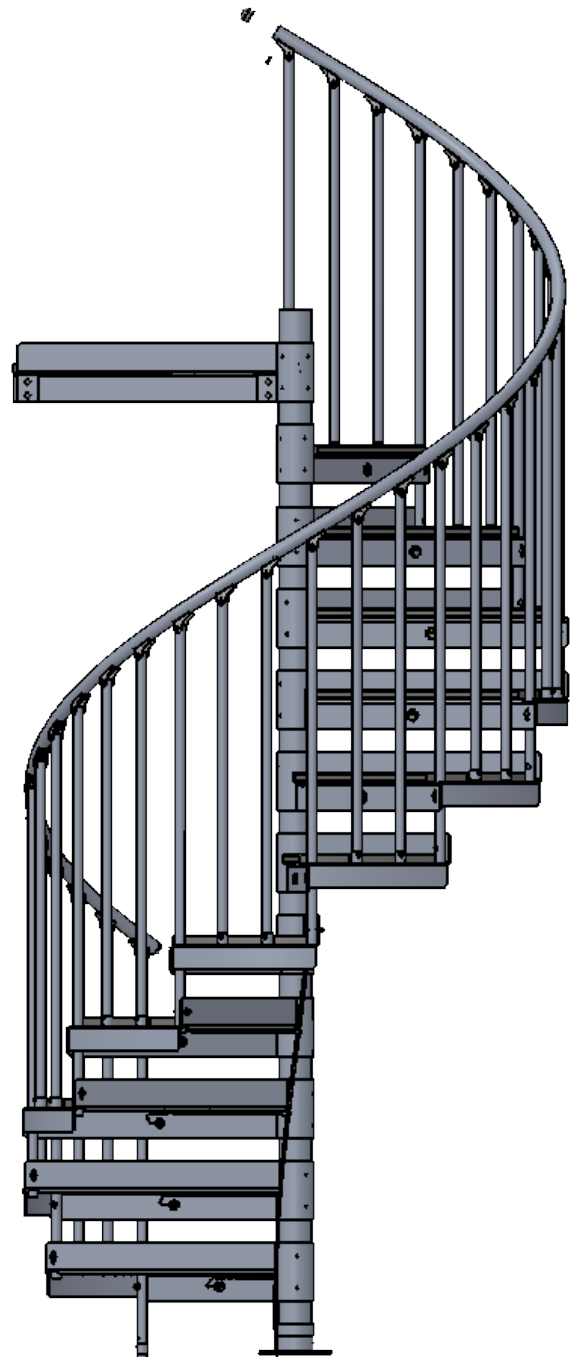
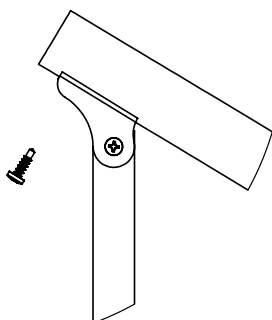
1. Once the handrail **9** has been shaped, dry fit the rail to the baluster tips.

*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.*

*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.*

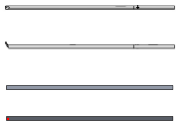
*NOTE: If the handrail does not sit flush on the baluster tips, the baluster tips can be bent up or down as needed with an adjustable wrench to better match the angle of the handrail. Place a rag between the wrench and the baluster tip to prevent damage to the finish of the baluster tip.*

2. Working together with another person, start at the top of the stair and drill each #12-1" 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.
3. Once the handrail has been attached to all the main balusters, cut the railing 3" above the top baluster and 3" below the bottom baluster, unless your building code calls for a longer length. Be sure to cut the handrail square.
4. Use the supplied two-part epoxy to bond the endcaps to the handrail.



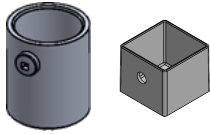
# CENTER BALUSTER INSTALLATION

## Parts



3

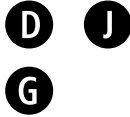
Center Balusters  
(Square or Round)



11

Baluster Cup  
(Square or Round)

## Hardware



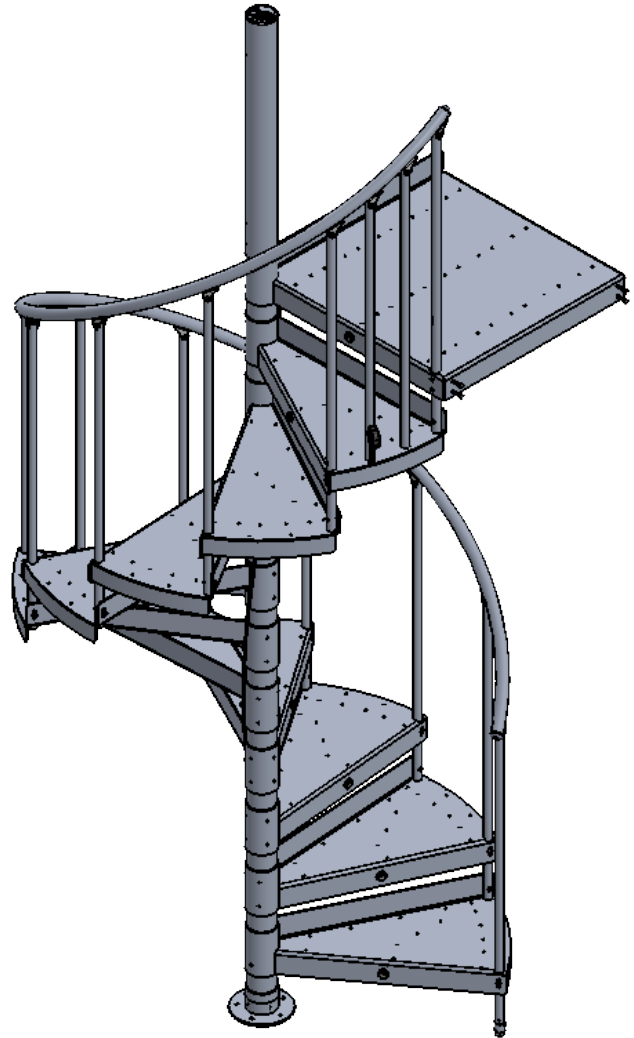
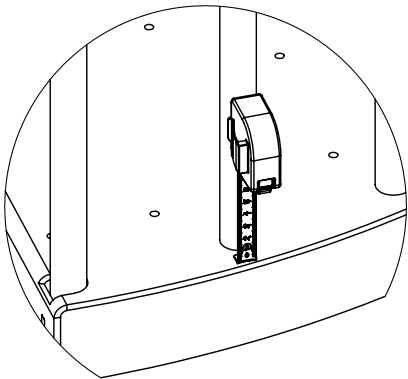
## Tools



1. Measure each center baluster **3** from tip (at the handrail) to the top of the corresponding tread. Subtract 1/8" from this measurement to account for the baluster cup.

*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.





# CENTER BALUSTER INSTALLATION

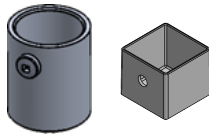
(CONTINUED)

## Parts



3

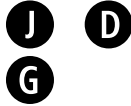
Center Balusters  
(Square or Round)



11

Baluster Cup  
(Square or Round)

## Hardware



## Tools

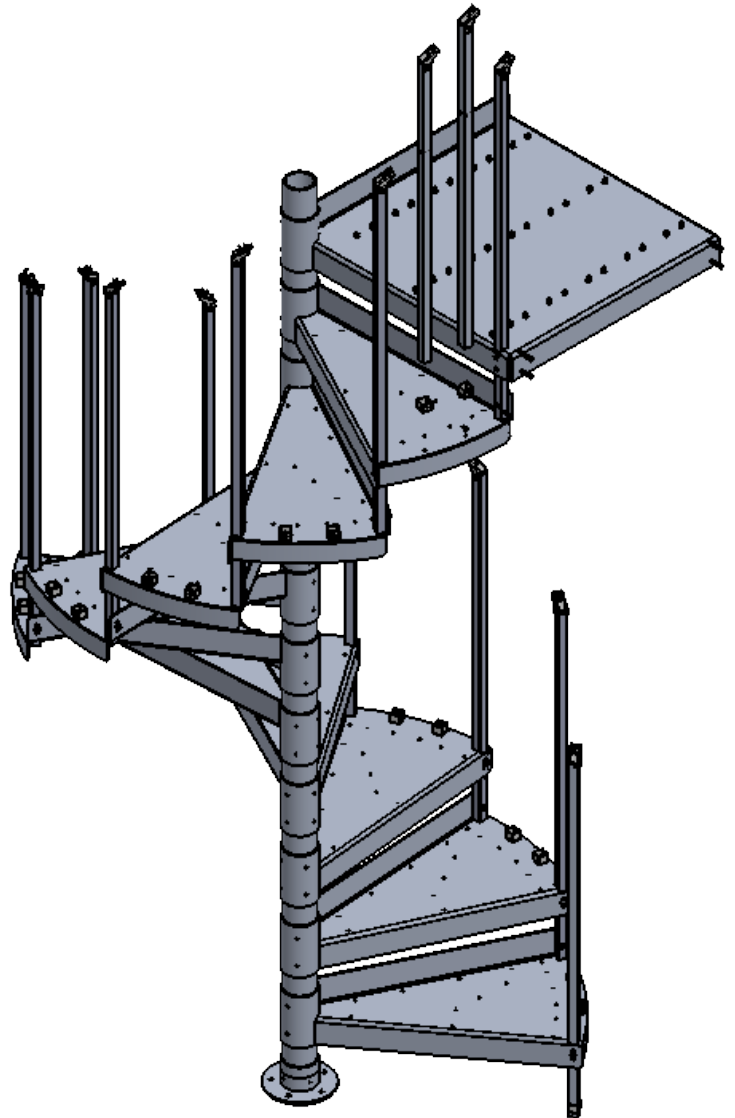
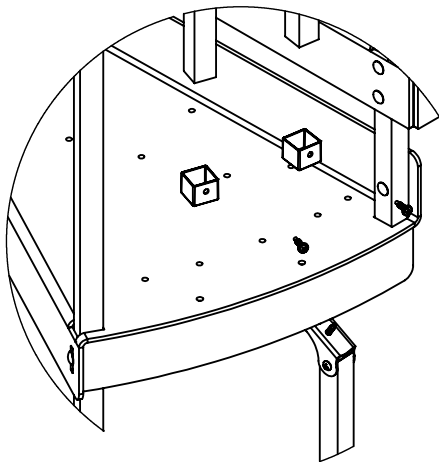


3. Secure baluster cup **11** and baluster to bare tread with #10-16 x 3/4" screw **J**, 1/4"-20 x 1 carriage bolt **G**, 1/4" flat washer **D**.

4. To fasten baluster tip to handrail use:

- A. A #10 x 1" screw if installing an aluminum handrail
- B. A #7 x 1-1/2" fillister screw if installing a vinyl handrail.

5. Repeat for each center baluster.



# PLATFORM RAIL INSTALLATION

## Parts



12

Platform Rail

## Hardware

E

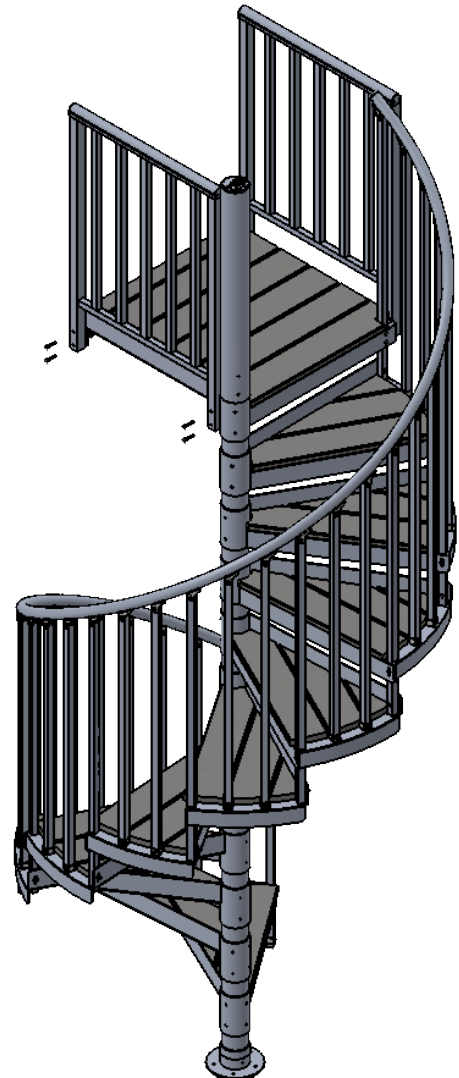
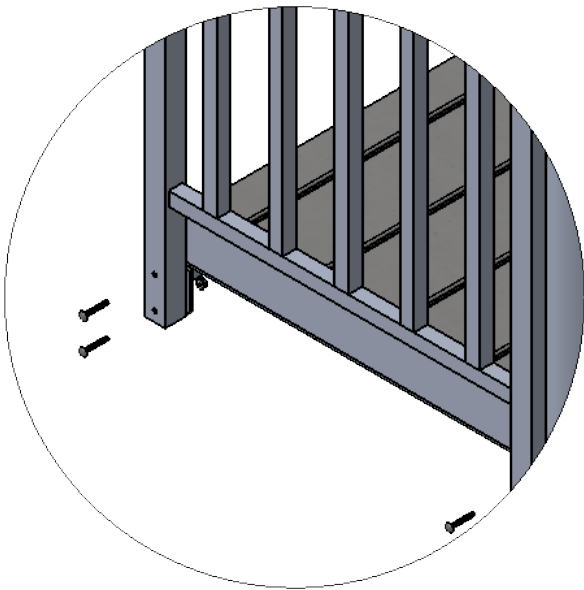
## Tools



Instructional video available at [www.youtube.com/paragon](http://www.youtube.com/paragon)

1. Position the platform railing 14 as needed and use c-clamps to hold railing in position.
2. Drill holes in the platform by using the pre-drilled holes on the platform railing as a guide.
3. Secure with serrated flange nut E.
4. Repeat process for second platform railing if applicable.

**⚠ 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.**



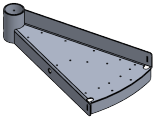
**TREX PLATFORM COVERS AND TREX TREAD COVERS**

(IF APPLICABLE)

**REFERENCE FOLDER  
BEFORE PROCEEDING**

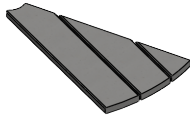
# WOOD TREAD COVER INSTALLATION

## Parts



5

Tread



15

Tread Cover

## Hardware

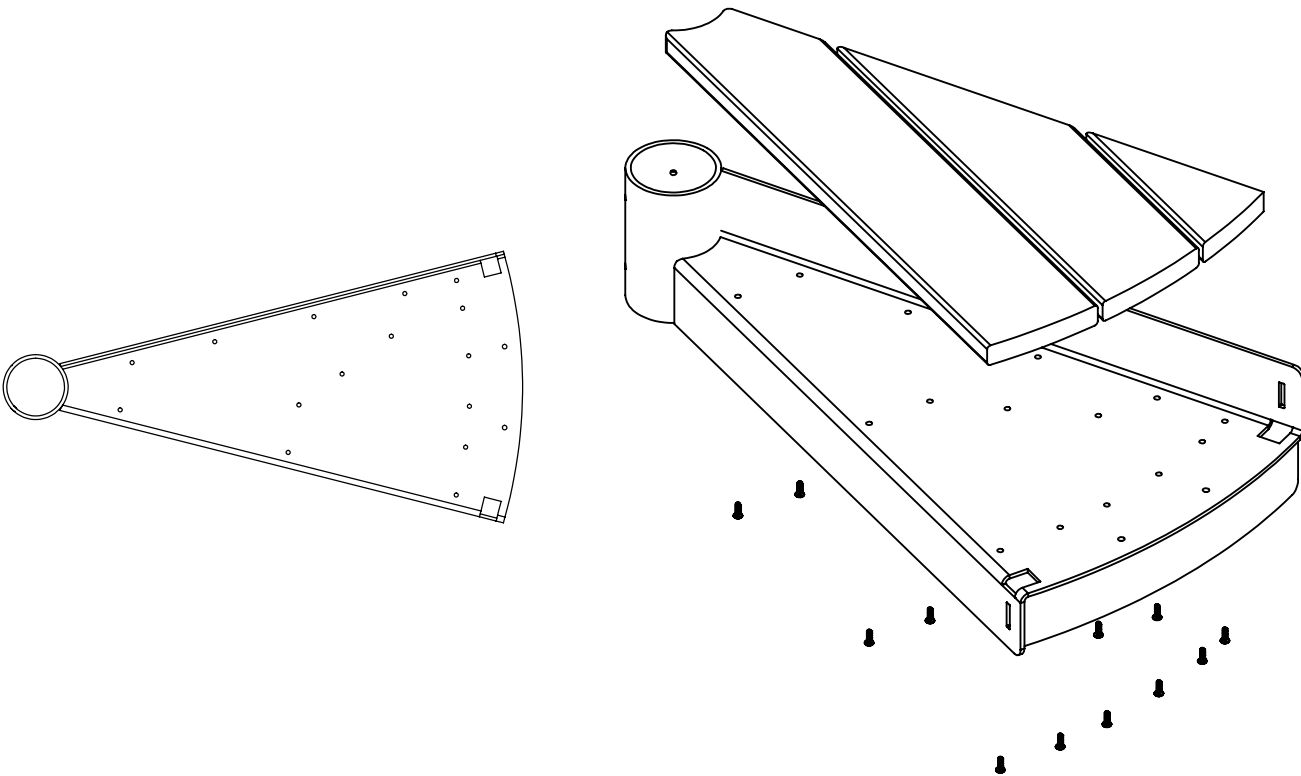
F

## Tools



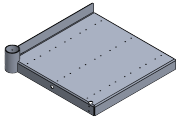
1. Align front board with pre drilled holes in the treads.
2. Screw in board.

3. Use 1/4" spacer to align second board.
4. Screw in second board.
5. Repeat steps 3 - 4 for 3rd and 4th board.

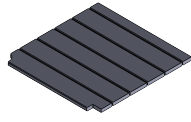


# TREX PLATFORM COVER INSTALLATION

## Parts



**6**  
Platform



**16**  
Platform Cover

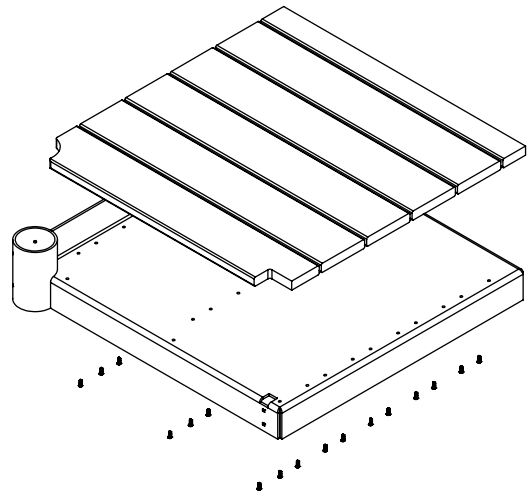
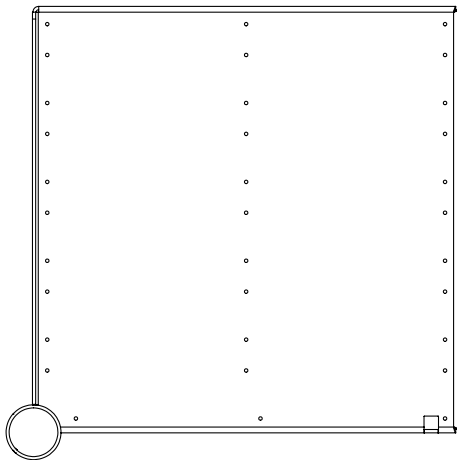
## Hardware

**F**

## Tools



1. Locate the wood platform cover on top of the platform.
2. Install the pan head wood screws through the pre-drilled holes and into the wood platform cover.



# **REST PLATFORM RAILING INSTALLATION**

(IF APPLICABLE)

**REFERENCE FOLDER  
BEFORE PROCEEDING**



# REST PLATFORM RAIL INSTALLATION

## Parts

## Hardware

## Tools



1. Install top and bottom flight handrails temporarily with plenty of length on the ends.
2. Hold fitting in place to mark where to cut handrail on bottom flight.
3. Cut handrail and dry fit fitting.
4. Hold fitting for upper flight in place and use level with lower handrail fitting.
5. Mark and cut upper handrail.
6. Dry fit Fitting in upper handrail.

7. Use cut off piece for handrails for the level platform rail piece.
8. Hold small piece next to the installed fittings and mark location for cutting.
9. Cut and dry fit all fittings and handrail pieces.
10. Cut top and bottom of handrails for dome end caps.
11. Install all fittings with epoxy.
12. Go back and screw in second handrail screw and tighten whistle screws.

**END**

**Thank you for purchasing this product. Please refer to the product folder provided if you have any questions or concerns.**