

TABLE OF CONTENTS

English

Introduction.....	3
Installation.....	5
Care & Maintenance/Warranty.....	10

INTRODUCTION

READ INSTRUCTIONS COMPLETELY BEFORE STARTING INSTALLATION

General Guidelines

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. Fortress Building Products and its distributors shall not be held liable for improper or unsafe installations.

Note

- When cutting Fortress railing, it is very important to complete the following at cut points:
- Remove all metal shavings from the cut area.
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime, or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area.
- Be sure to remove any metal shavings from the surface of deck, patio, or balcony to prevent stains on the deck surface.

Required Tools



Goggles



Safety
Gloves



Speed
Square



Level
Tool



Touch-Up
Paint



Pencil



Spring Punch



Drill Bit: 5/16" [8mm]



Drill



File



Rubber Mallet



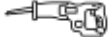
Wrench:
1/2" [13mm]



Ratchet Wrench & Socket:
1/2" [13mm]



Torque
Wrench

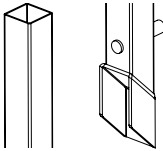


Reciprocating Saw
or Portable Bandsaw



Miter Saw With A Fine
Tooth Carbide Cutting Blade

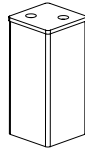
Components



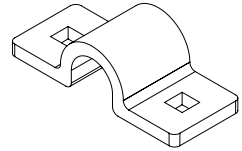
Post

2" x 2" x 52"

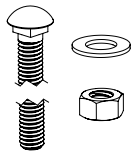
[51mm x 51mm x 1321mm]



Standoff Support



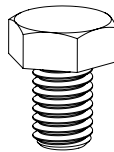
Pivot Rod Mount



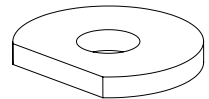
**Carrage Bolt,
Washer & Nut**

Size 1: M8 x 5" [127mm]

Size 2: M8 x 1-3/4" [45mm]



Pivot Rod End Bolt



Flat Washer

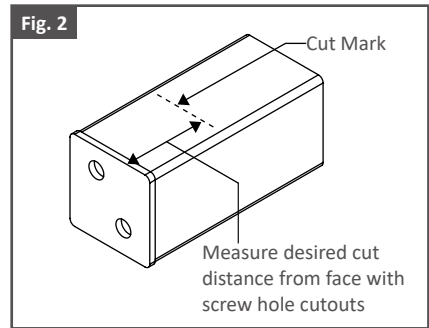
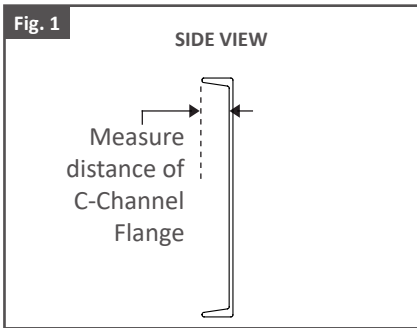
Note:

- The Adjustable Stair Stringer Bracket can be used on stair stringers set at 31° to 38°.

INSTALLATION

Step 1: Cut Standoff Support To Desired Length

1. Measure distance of C-Channel Flange (outside edge to inside C-Channel). As shown in Fig. 1.
2. Mark the measured distance of the C-Channel Flange onto the Standoff Support. Be sure to measure from face with screw hole cutouts. As shown in Fig. 2.
3. Cut the Standoff Support using a saw with a ferrous metal cutting blade.
4. Use a file to smooth cut edges.
5. Remove any metal shavings and dust with a brush or rag.
6. Make sure surfaces to be painted are clean.
7. Apply two coats of Fortress zinc based touch-up paint. Allow to dry before applying second coat.
8. Set cut Standoff Support aside, the cut part will be installed later in step 4.



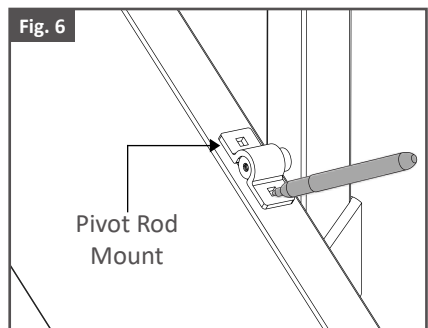
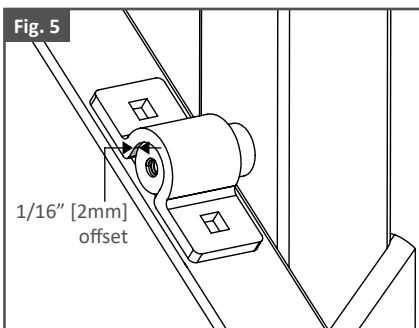
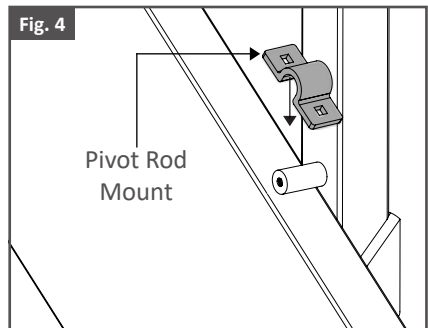
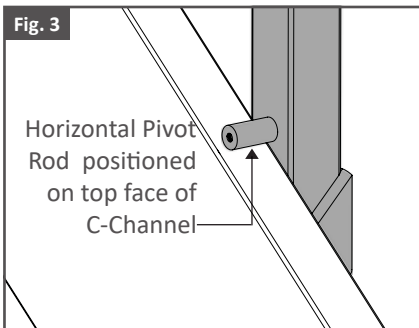
Step 2: Mount The Pivot Rod Mount

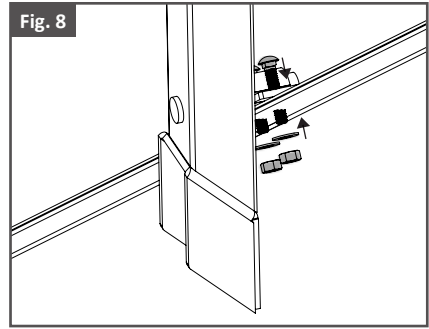
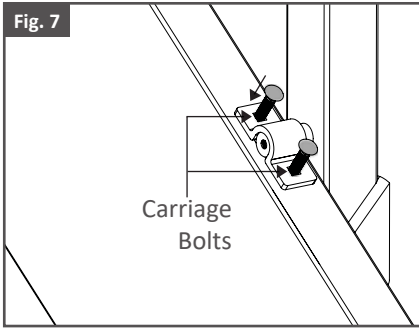
1. Position the Horizontal Pivot Rod that is welded to the Stair Stringer Post in desired position onto the top face of the C-Channel. As shown in Fig. 3.
2. Place the Pivot Rod Mount on top of the Horizontal Pivot Rod. As shown in Fig. 4.
3. Offset the outer face of the Pivot Rod Mount to the outer face of the Horizontal Pivot Rod end by roughly 1/16" [2mm]. As shown in Fig. 5.

4. Using a pencil, mark the Pivot Rod Mount bolt hole locations onto the top face of the C-Channel. As shown in Fig. 6.
5. Remove the Horizontal Pivot Rod and Pivot Rod Mount.
6. Use a Spring Punch to punch the hole marks then drill through the top face of the C-Channel using an 5/16" [8mm] drill bit.
7. Re-position the Horizontal Pivot Rod and Pivot Rod Mount in previous position back onto the top face of the C-Channel.
8. Confirm holes of the Pivot Mount Rod and drilled holes on the C-Channel are in line. Adjust if needed.
9. Using a 1/2" [13mm] Wrench, fasten the Pivot Rod Mount to the top of the C-Channel Flange with two M8 x 1-3/4" [45mm] Carriage Bolts, Washers and Nuts. As shown in Fig. 7 & 8. **DO NOT FULLY TIGHTEN BOLTS IN THIS STEP.**

Tip:

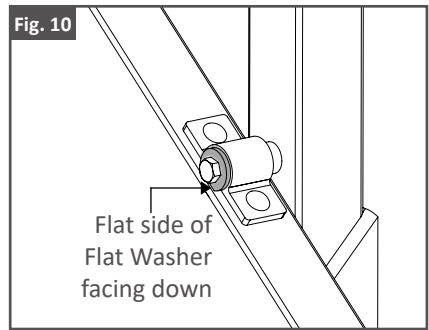
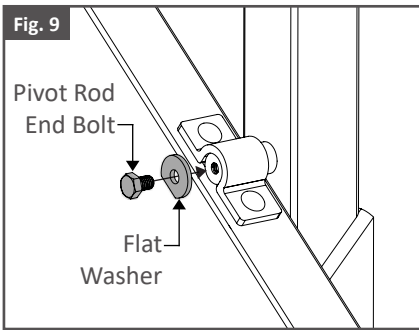
- Be sure the stair stringer side mount is tight/flush to the outer edge of the C-Channel.





Step 3: Mount The Pivot Rod End Bolt & Flat Washer

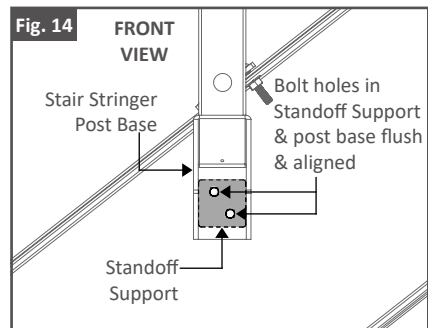
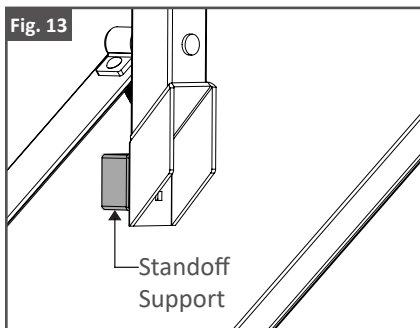
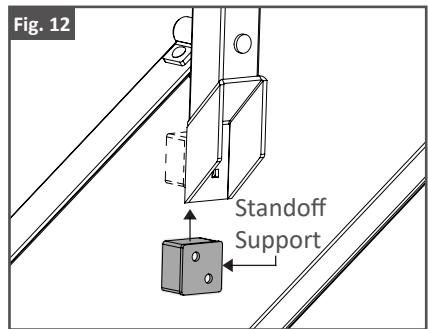
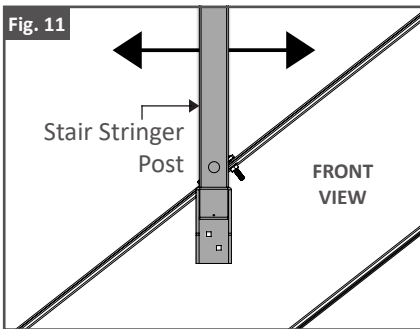
1. Using a 1/2" [13mm] Wrench or Ratchet Wrench and Socket, fasten the Pivot Rod End Bolt and Flat Washer onto the Horizontal Pivot Rod and Pivot Rod Mount. As shown in Fig. 9 & 10. **DO NOT FULLY TIGHTEN THE PIVOT ROD END BOLT IN THIS STEP.**

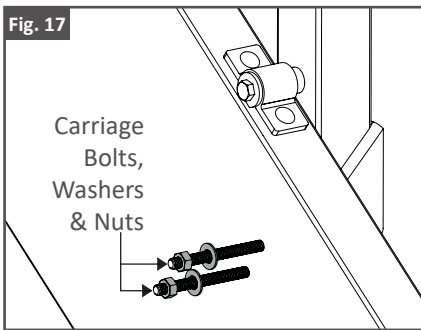
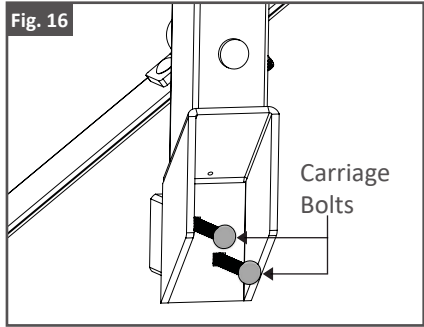
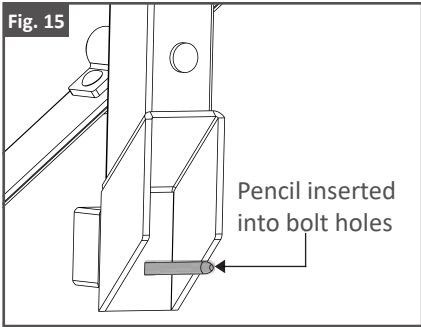


Step 4: Mount The Standoff Support

1. With the Carriage & Pivot Rod End Bolts still loose, adjust the Stair Stringer Post until its plumb. As shown in Fig. 11. Use a level tool to confirm the post is plumb.
2. Once the desired angle is achieved, tighten the Pivot Rod Mount bolts. This will help keep the post in the desired position.
3. Position the previously cut Standoff Support (Step 1) between inside C-Channel face and behind the Stair Stringer Post Base. Be sure bolt holes of Standoff Support and in Stair Stringer Post Base are flush and aligned. As shown in Fig. 12 - 14.

4. Insert a pencil through the Stair Stringer Post Base & Standoff Support bolt holes then mark the desired bolt hole locations onto the inside face of the C-Channel. As shown in Fig. 15. Be sure the post is still plumb.
5. Swing the Standoff Support and Stair Stringer Post Base out of the way after bolt holes are marked onto the C-Channel.
6. Use a Spring Punch to punch the hole marks then drill through the C-Channel using a 5/16" [8mm] drill bit.
7. Re-position the Standoff Support and Stair Stringer Post into the previously desired position.
8. Using a 1/2" [13mm] Wrench, fasten the Standoff Support to the Stair Stringer Post Base and C-Channel with two M8 x 5" [127mm] Carriage Bolts, washers and nuts. As shown in Fig. 16 & 17.
9. Tighten all bolts making sure they are torqued to at least 17 ft/lb [23 N m]. Start with the Pivot Rod End Bolt.
10. Once all the bolts are tightened, the excess bolt end can be trimmed.





CARE & MAINTENANCE

Care And Maintenance Of Fortress Building Products Powder-Coated Products And Surfaces:

- After installation of your Fortress Building Product, clean powder-coated products and surfaces with a solution of warm water and non-abrasive, pH neutral detergent solution. Surfaces should be thoroughly rinsed after cleaning to remove all residues. All surfaces should be cleaned using a soft cloth or sponge. Examples of acceptable cleaners are Simple Green, dish soap and warm water.
- Ensure construction materials such as concrete, plaster, and paint splashes are removed immediately before they have a chance to dry. Failure to remove these materials may cause damage to the powder-coated surfaces.
- The frequency of cleaning depends in part on the standard of appearance and also the requirements to remove deposits that may cause damage to the powder coating after prolonged exposure. Fortress recommends cleaning in three to four monthly intervals all products and powder-coated surfaces. In areas where higher traffic, increased atmospheric substances, or other effects may occur, the time period between cleanings should be increased to monthly intervals.
- **WARNING: DO NOT use strong solvents such as thinners, or solutions containing chlorinated hydrocarbons, esters, or ketones. Abrasive cleaners or cutting compounds should not be used.**

WARRANTY

To obtain and review a copy of the warranty, please go to: <https://Fortressbp.com/warranties>. You can also contact: (844) 909-1999 or write to: Fortress Building Products Warranty, 1720 N 1st St, Garland, TX 75040 to obtain a copy of the warranty.



JOIN THE REVOLUTION.

FortressBP.com | 866.323.4766