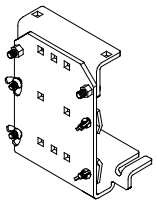
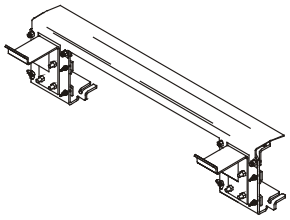
Assembly Instructions

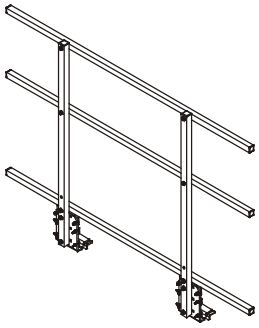
STRATA® Event Staging and Tent Flooring Accessories



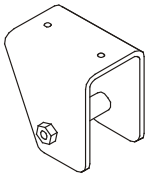
Rail Plate Assembly



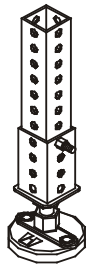
Stairway Attachment with Two Rail Plate Assemblies



Guardrail Assembly with Two Rail Plate Assemblies



Beam Link Assembly



Articulating Leveling Foot

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Visit the STRATA Event Staging and Tent Floor System web page at wengercorp.com for more information.

Note: Please read and understand these instructions before proceeding.
Note: If you need additional information, contact Wenger Corporation using the information below.

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Wenger Corporation, 555 Park Drive, P.O. Box 448, Owatonna, Minnesota 55060-0448

Questions? Call.....USA: (800) 4WENGER (493-6437) • Worldwide: +1-507-455-4100 • wengercorp.com

Important User Information

General

Printed and bound in the United States of America.

The information in this manual is subject to change without notice and does not represent a commitment on the part of Wenger Corporation. Wenger Corporation does not assume any responsibility for any errors that may appear in these instructions.

In no event will Wenger Corporation be liable for technical or editorial omissions made herein, nor for direct, indirect, special, incidental, or consequential damages resulting from the use or defect of these instructions. The manufacturer reserves the right to change this product at any time.

The information in this document is not intended to cover all possible conditions and situations that might occur. The end user must exercise caution and common sense when assembling or installing Wenger Corporation products. If any questions or problems arise, call the Wenger Corporation at (800) 4WENGER (493-6437) or +1-507-455-4100 worldwide.

Manufacturer

The STRATA® Event Staging and Tent Floor Accessories are manufactured by:

Wenger Corporation
555 Park Drive
Owatonna, MN 55060
(800) 4WENGER (493-6437) • +1 (507) 455-4100
wengercorp.com

STRATA Event Staging And Tent Floor Intended Use

The Wenger Corporation STRATA Event Staging And Tent Floor is intended to be used inside and outside during fair weather conditions with the following limitations.

- These accessories are not intended to be exposed for extended periods of wet and humid conditions or to severe outdoor weather conditions.
- These accessories are intended to be used in a way that complies with the recommended load limits defined in these instructions, complies with the statements of intended use in these instructions, and complies with all warnings and cautions defined in these instructions.
- The STRATA articulating leveling foot is intended to support a maximum load limit of 8000 lbs (3636 kg) for each foot.
- The STRATA articulating leveling foot, when used on finished floor surfaces, is intended to have a pad between the floor surface and the bottom surface of the foot.
- The STRATA Event Staging is intended to use cross bracing when the stage height is greater than 48" (1219 mm).

STRATA Event Staging And Tent Floor Accessories Intended Use

- These accessories are intended to be used only with STRATA Event Staging And Tent Floor components.
- These accessories are intended to be installed and used as described in these instructions and in the STRATA Event Staging And Tent Floor Owner's Manual.
- STRATA Event Staging And Tent Floor Indoor Carts are intended to used on indoor surfaces only and as described in these instructions and in the STRATA Event Staging And Tent Floor Owner's Manual.

Installation

- The accessory installation and use must comply with local regulations and codes.
- All personnel (including all temporary workers) installing or maintaining the accessories must read and understand these instructions and any other related installation instructions.

Important User Information (continued)

Guardrail Specifications

⚠WARNING

The rail plate assembly can be used by the end user to construct guardrails by attaching end user supplied uprights and rails. The design must comply with the International Building Code specifications and local codes and regulations contained in this document. See "End User Guardrails".

⚠WARNING

In no event will Wenger Corporation be liable for direct, indirect, special, incidental, or consequential damages resulting from the end user design and construction of guardrails from materials other than STRATA accessories attached to STRATA components. The operator must observe local regulations and exercise caution and common sense when constructing their own guardrails.

Any end user guardrail design must comply with the following International Building Codes:

The International Building Code, section 1607.7.1 states:

Handrail assemblies and guards shall be designed to resist a load of 50 pounds per linear foot (0.73 kN/m) applied in any direction at the top and to transfer this load through the support structure.

The International Building Code, section 1607.7.1.1 states:

Handrail assemblies and guards shall be able to resist a single concentrated load of 200 pounds (0.89 kN), applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements of the building. This load need not be assumed to act concurrently with loads specified in the preceding paragraph [section 1607.7 above].

The International Building Code, section 1607.7.1.2 states:

Intermediate rails (all those except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied load of 50 lbs (0.22 kN) on an area not to exceed 1 square foot (305 mm^2) including openings and space between rails. Reactions due to this loading are not required to be superimposed with those of either preceding paragraph.

The International Building Code, section 1607.7.1.2 states:

When a handrail and guards are designed in accordance with the provisions for allowable stress design (working stress design) exclusively for the loads specified in Section 1607.7.1, the allowable stress for the members and their attachments are permitted to be increased by one-third.

Warranty

Warranty information is available at wengercorp.com.

Safety Precautions

Throughout this document you may find cautions and warnings which are defined as follows:

- WARNING: Failure to follow the instruction could result in serious injury or damage to property.
- CAUTION: Failure to follow the instruction could result in minor injury or damage to property.

Read and understand all of these safety instructions before any assembly, installation or use.

⚠WARNING

Make sure anyone assembling, installing or using these products has read and understands these instructions.

⚠WARNING

Failure to comply with Warnings and Cautions in this document or on the equipment can result in damage to property or serious injury.

⚠WARNING

To help avoid damage and injury, two people are required for some assembly steps.

Required Tools

The only tools required for assembly of STRATA system accessories, except for a ramp assembly and articulating leveling foot accessory, are 9/16" open-end wrenches.

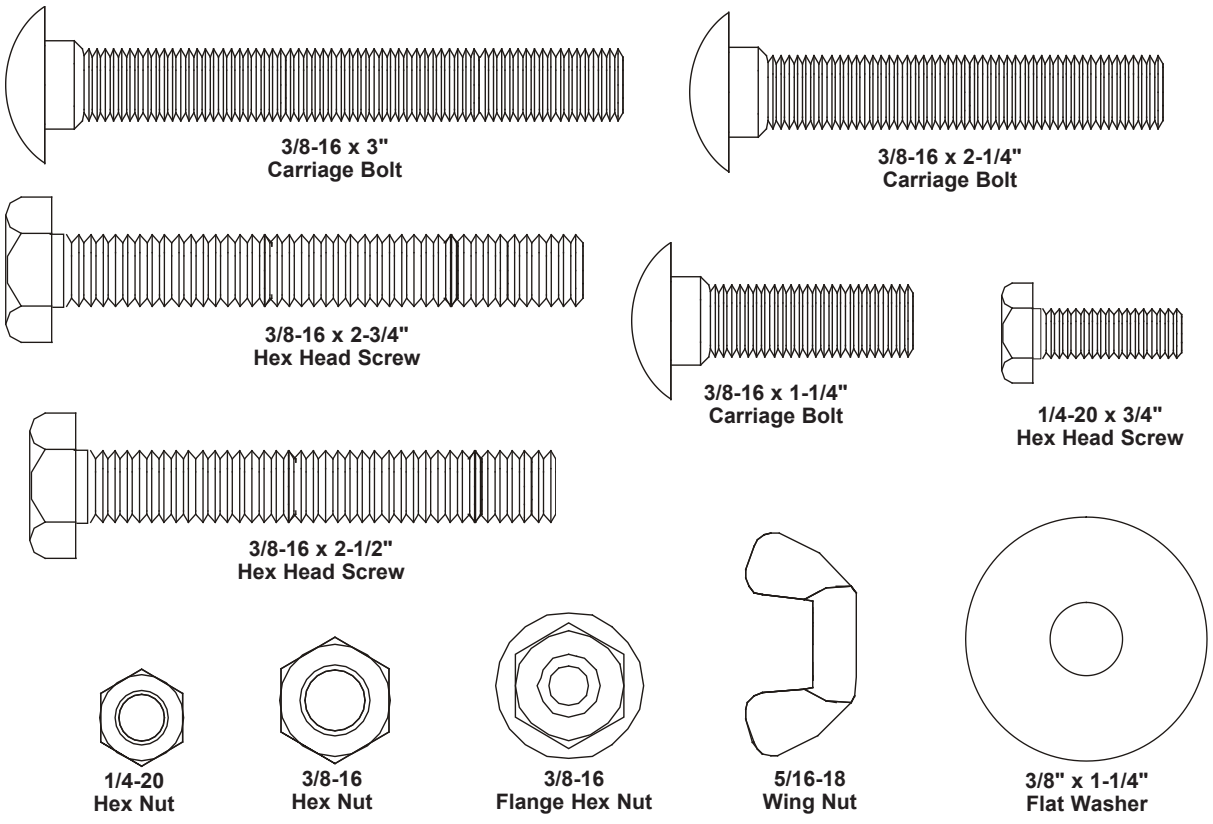
To assemble a ramp assembly with beam links and beam caps, a cordless drill, a phillips bit, a 7/16" hex nut driver bit, a 9/32" drill bit and a 1/4" drill bit are required.

The articulating leveling foot accessory requires a 1-1/8" open end wrench.

- 9/16" Open-end wrench
- 7/16" Open-end wrench
- 1-1/8" Open-end wrench
- 1/4, 7/16" Drill bit
- Phillips bit
- Cordless drill
- 7/16" Hex nut driver bit

Supplied Hardware

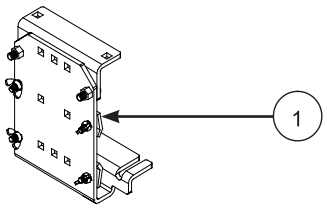
To order replacement parts, refer to the STRATA Event Staging and Tent Floor Owner's Manual for part numbers. Any hardware remaining when an the installation is complete should be discarded.



Parts List

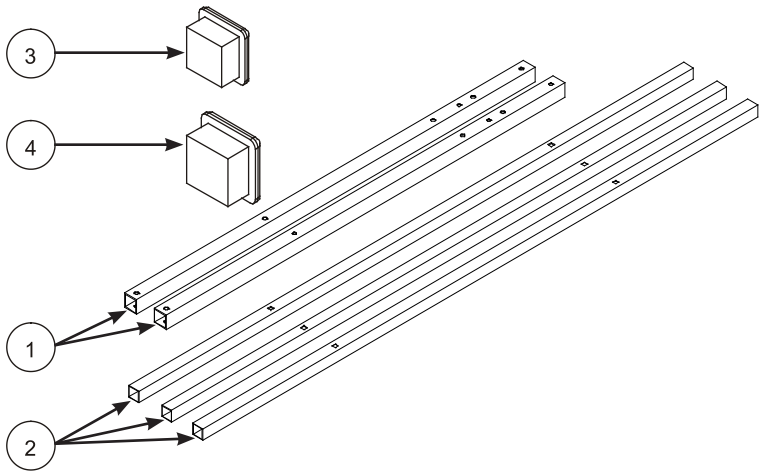
Rail Plate Kit Parts

Item	Qty	Description
1	2	Rail Plate Assembly
2	8	3/8-16 Hex Nut**
3	8	3/8-16 x 3" Carriage Bolt**
**Refer to *"Supplied Hardware"*		



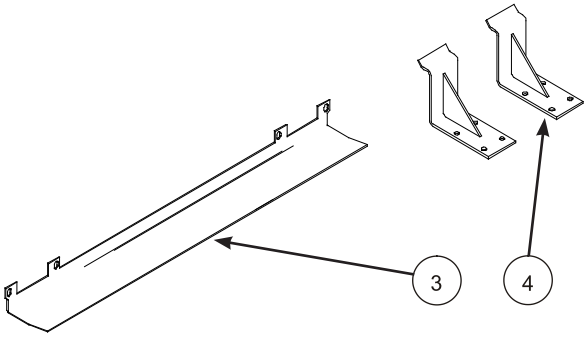
Guardrail Kit Parts

Item	Qty	Description
1	2	STRATA Guardrail Upright
2	3	STRATA Rail (48, 72, or 96")
3	6	1-1/4" Square Plug*
4	2	1-1/2" Square Plug**
5	4	3/8-16 x 2-1/4" Carriage Bolt***
6	6	3/8-16 x 3" Carriage Bolt***
7	10	3/8-16 Flanged Hex Nut,***
* Pre-assembled to the STRATA Rails		
**Pre-assembled to the STRATA Guardrail Uprights		
***Refer to *"Supplied Hardware"*		



Stairway Attachment Kit Parts

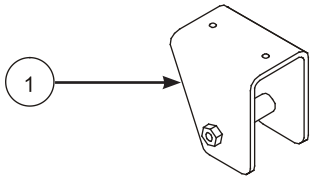
Item	Qty	Description
1	8	3/8-16 x 3" Carriage Bolt**
2	8	3/8-16 Hex Nut**
3	1	STRATA Step Plate
4	2	STRATA Stairway Attachment Plate
**Refer to *"Supplied Hardware"*		



Parts List (continued)

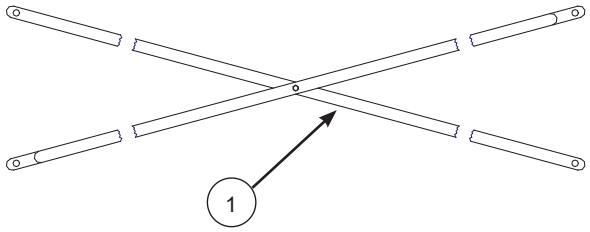
Beam Link Kit Parts

Item	Qty	Description
1	2	Beam Link Assembly
2	4	1/4-20 x 3/4" Cap Screw**
3	4	1/4-20 Nylok Hex Nut**
**Refer to *"Supplied Hardware"*		



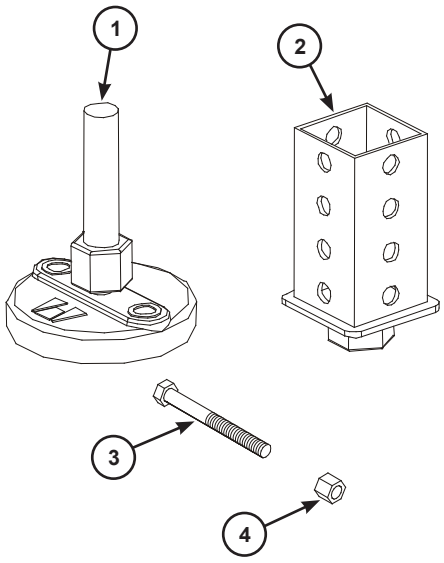
Cross Bracing Kit Parts

Item	Qty	Description
1	2	Cross Brace Assembly***
2	8	3/8-16 x 2-3/4 Hex Head Screw**
3	8	3/8-16 Locknut**
4	8	3/8" x 1-1/4 Flat Washer"
**Refer to *"Supplied Hardware"*		
***3' Cross Brace or 4' Cross Brace		



Articulating Leveling Foot Kit Parts

Item	**Qty**	**Description**
1	1	Articulating Leveling Foot
2	1	Leveling Foot Tube
3	1	3/8-16 x 2-1/2" Hex Head Screw
4	1	Locknut, 3/8-16

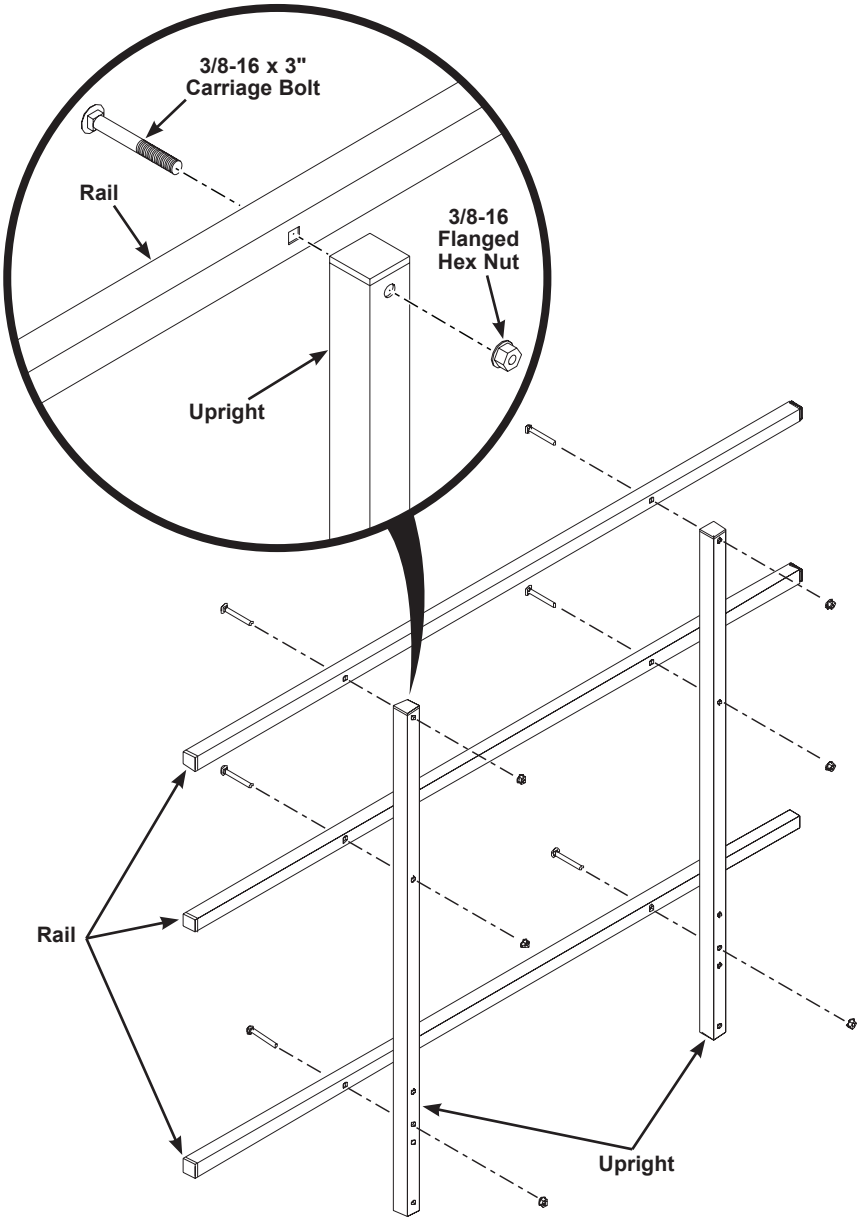


Guardrail Assembly

Assemble the Rails and Uprights

Guardrail assemblies are available in three sizes: 4', 6' and 8' lengths.
The assembly is the same for all sizes.

1. Remove the three rails, two uprights, and the hardware pack from the shipping carton.
2. Inventory the hardware pack and make that all of the fasteners are present.
3. Using a 9/16" open-end wrench, attach the two uprights to the three rails with six 3/8-16 x 3" carriage bolts and six 3/8-16 flanged hex nuts as shown below.
   a. Insert the carriage bolt through the rail square clearance hole and then through the upright.
   b. Attach the flange nut with the flange against the upright.

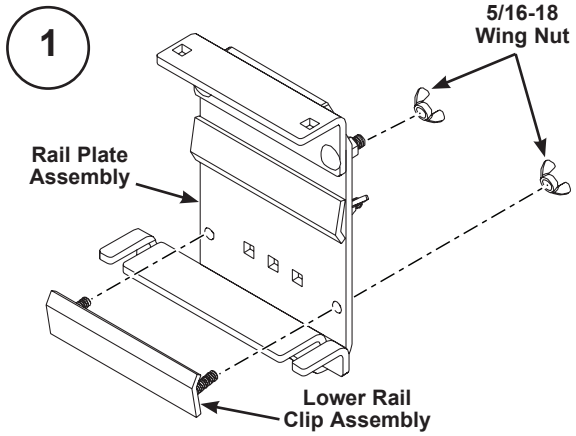


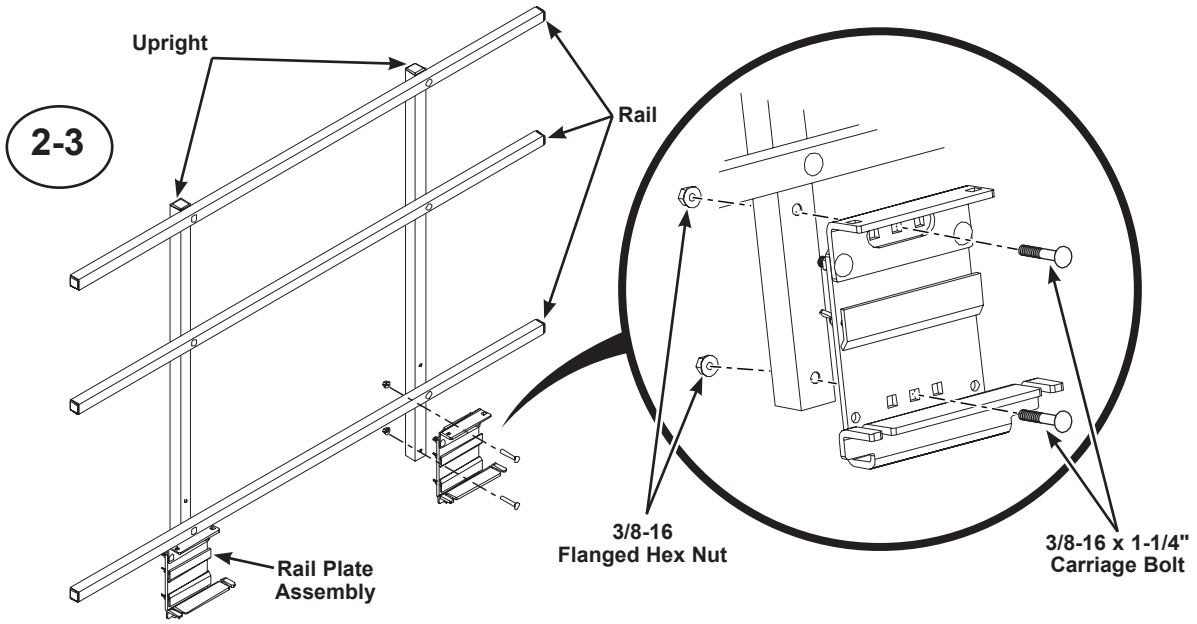
Guardrail Assembly (continued)

Assemble the Guardrail Assembly and Rail Plate

Attach two rail plate assemblies to the guardrail assembly as follows.

1. Remove the lower rail clip assembly from both rail plate assemblies.
   a. Unscrew the two 5/16-18 wing nuts that attach the lower rail clip assembly to the rail plate and set them aside.
   b. Remove the lower clip assembly and set it aside.
2. Attach one of the two rail plate assemblies to one upright of the guardrail assembly as follows.
   a. Insert two 3/8-16 x 1-1/4" carriage bolts through the rail plate assembly and upright as shown below.
   b. Using a 9/16" open-end wrench, fasten two 3/8-16 flanged hex nuts to the carriage bolts.

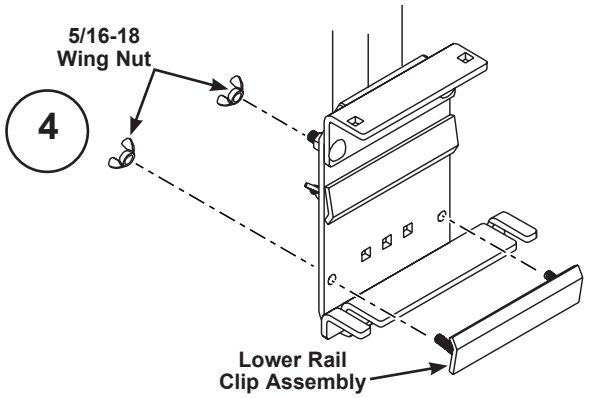




3. Attach the other rail plate assembly to the other upright as done in steps 2a and 2b.
4. Re-attach the two lower rail clip assemblies with the wing nuts set aside in steps 1a and 1b.

⚠CAUTION

Because parts are large and awkward, two or more people are required for assembly.



Guardrail Assembly (continued)

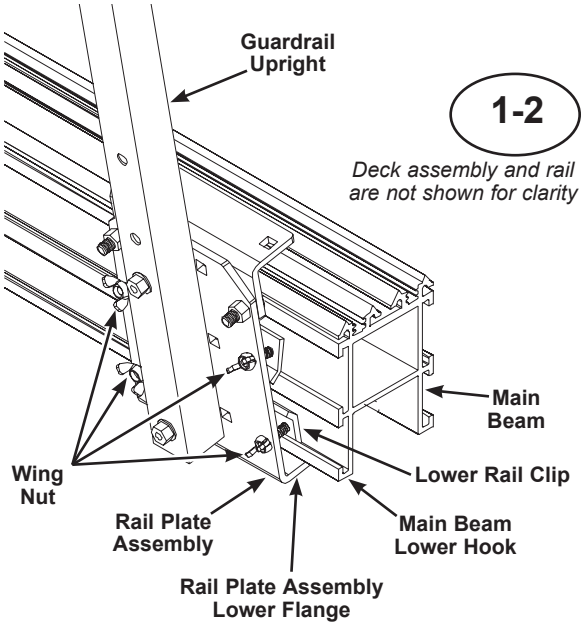
Attach the Guardrail to a Leveled Deck Main Beam

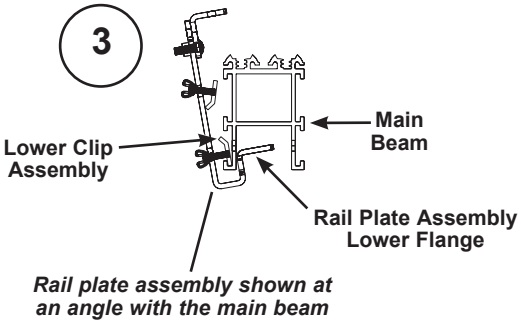
Attach the guardrail and rail plate assembly to a leveled deck main beam as follows.

⚠CAUTION

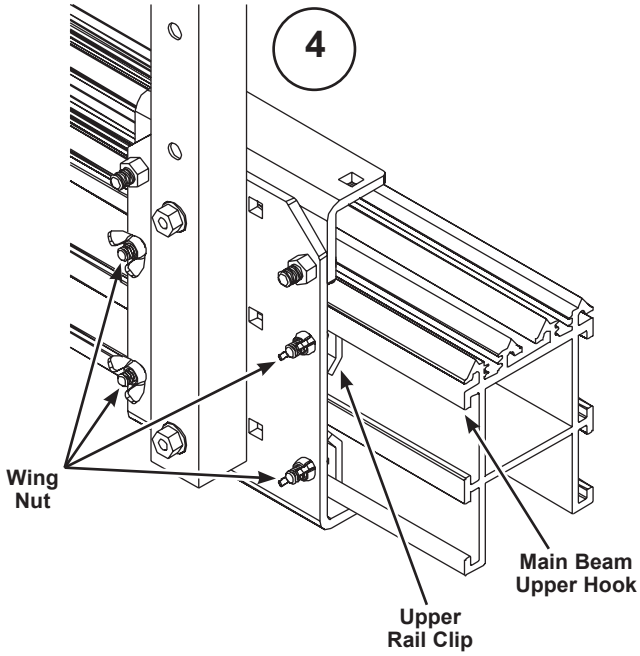
The guardrail assembly is large, awkward and difficult for one person to handle and attach to a leveled deck. Two people should always work together when attaching the guardrail assembly to a leveled deck.

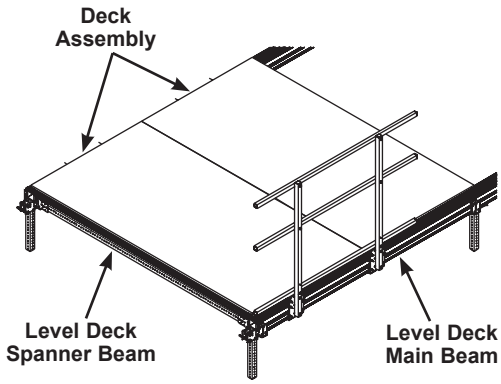
1. Loosen the four wing nuts that fasten the two rail clip assemblies to each rail plate assembly.
2. With two people working together, place each rail plate assembly lower flange under the main beam. With the guardrail assembly at a slight angle to the main beam as shown in illustration 1-2 at the right.
3. Attach each rail plate assembly by engaging the lower clip assembly with the main beam lower hook as shown in the illustration 3 at the right.
4. Keeping the lower clip assembly engaged to the main beam lower hook, tilt the guardrail assembly to a vertical position as shown in illustration 4 below and place the upper rail clip behind the main beam upper hook. Tighten the four wing nuts on each rail plate assembly.





Rail plate assembly shown at an angle with the main beam





6' (1829 mm) guardrail assembly shown attached to a leveled deck main beam

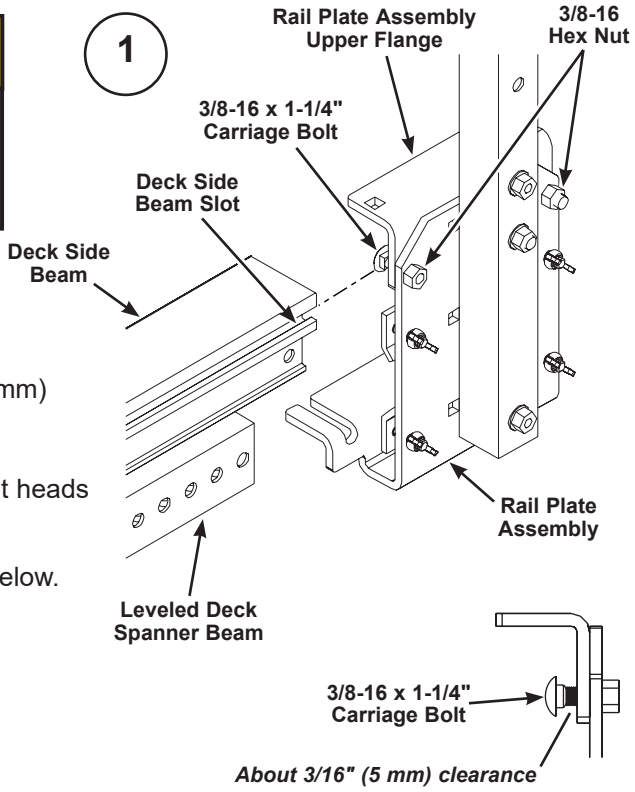
Guardrail Assembly (continued)

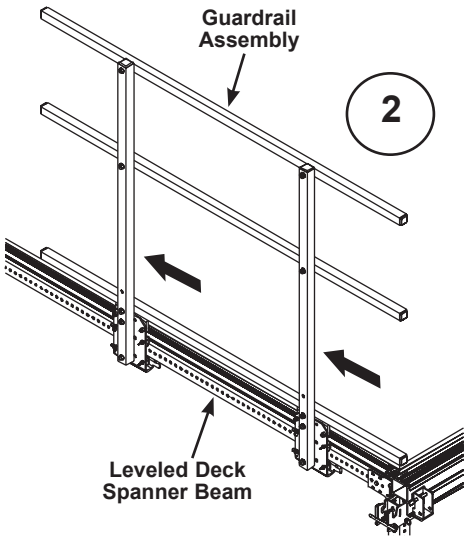
Attach the Guardrail to a Leveled Deck Spanner Beam

⚠CAUTION

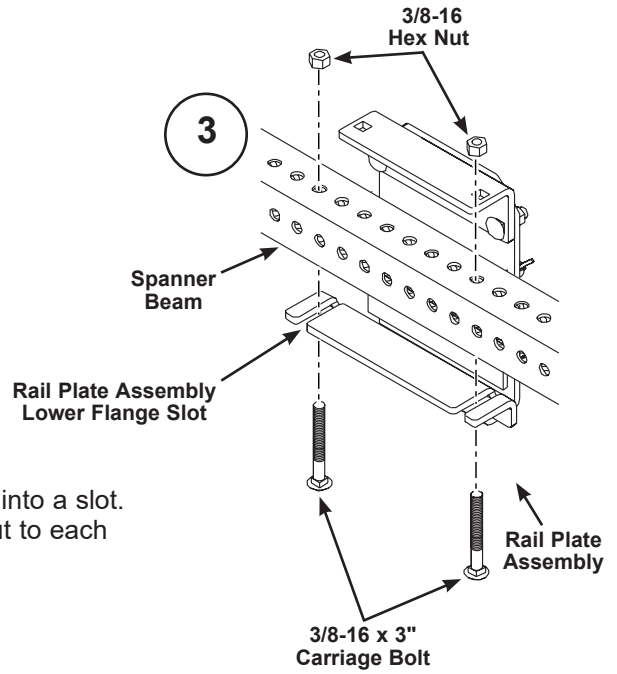
The guardrail assembly is large, awkward, and difficult for one person to handle and attach to a leveled deck. Two people should always work together when attaching the guardrail assembly to a leveled deck.

1. Attach the guardrail and rail plate assemblies to a leveled deck spanner beam as follows.
   a. Loosen the two 3/8-16 hex nuts (that fasten the upper flange to the rail plate), so that each carriage bolt head has about 3/16" (5 mm) clearance from the rail plate assembly upper flange as shown in illustration 1 at the right.
2. With two people working together, align the carriage bolt heads to the deck side beam slot and slide the bolt heads (four bolt heads, two on each rail plate assembly) into the deck side beam slot as shown in illustration 2 below. Position the guardrail assembly in the desired position, aligning slots in the lower flange with clearance holes in the spanner beam.





3. Insert two 3/8-16 x 3" carriage bolts upward through the two rail plate assembly lower flange slots and clearance holes in the spanner beam as shown in illustration 3 at the right.
   Make sure that the square neck of each carriage bolt fits into a slot. Using the 9/16" open-end wrench, attach a 3/8-16 hex nut to each carriage bolt and tighten.



Deck and parts of the guardrail and rail plate assembly are not shown for clarity

Guardrail Assembly (continued)

End User Guardrails

⚠WARNING

The rail plate assembly can be used by the end user to construct guardrails by attaching end user supplied uprights and rails. The design must comply with the International Building Code specifications and local codes and regulations contained in this document.

⚠WARNING

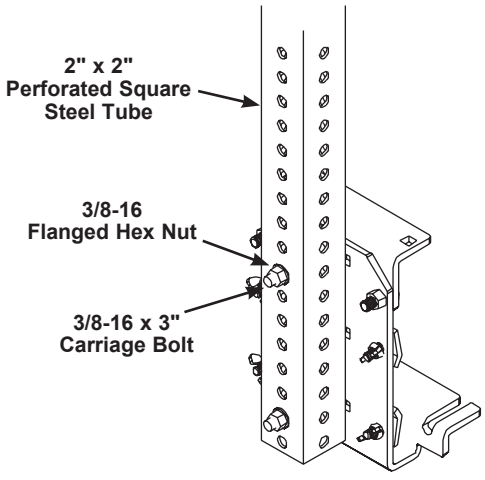
In no event will Wenger Corporation be liable for direct, indirect, special, incidental, or consequential damages resulting from the end user design and construction of guardrails from materials other than STRATA accessories attached to STRATA components. The operator must observe local regulations and exercise caution and common sense when constructing their own guardrails.

If end users design, construct, and attach guardrails to a leveled deck using the rail plate assemblies, the guardrails must:

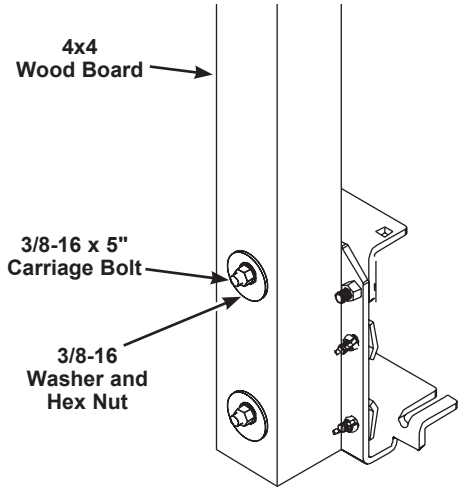
- Comply with all of the warnings in these instructions.
- Comply with the important end user information.

Examples of guardrail uprights that can be constructed by an end user are shown below. The choice of materials and specific design is solely the responsibility of the end user. The suggested minimum size of materials for an upright are:

- Steel square tube no smaller than 1-1/4" (32 mm) square with at least a 16 gauge (.0598") wall thickness.
- Wood boards no smaller than 2x2 in size.
- Minimum fastener size used for attachment to a rail plate assembly is a 3/8-16 carriage bolt.
- Wood boards must use a 3/8" flat washer between the board and hex nut attached to the carriage bolt.
- Always use at least two sets of fasteners to attach each upright to each rail plate assembly.
- Always make sure that the fasteners are tight.



Example using steel tube



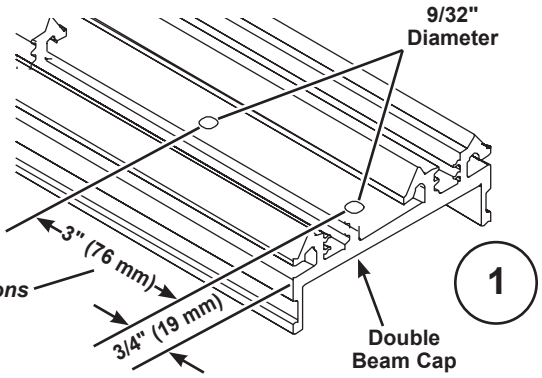
Example using a 4x4 wood board

Beam Link Assembly

Ramp Assembly

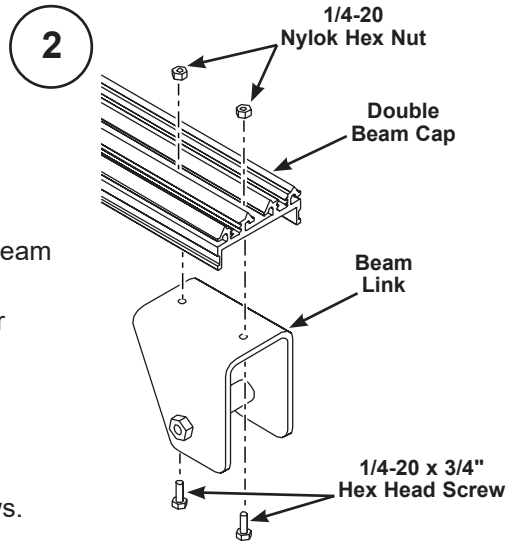
An inclined ramp can be constructed by connecting a pair of double beam caps and a pair of beam links to the leveled deck as follows.

1. Using a cordless drill and a 9/32" drill bit, drill two 9/32" holes in each double beam cap as shown at the right.
   Use the beam link as a template.
   Mark the hole locations – do not attempt to drill through the beam link clearance holes.



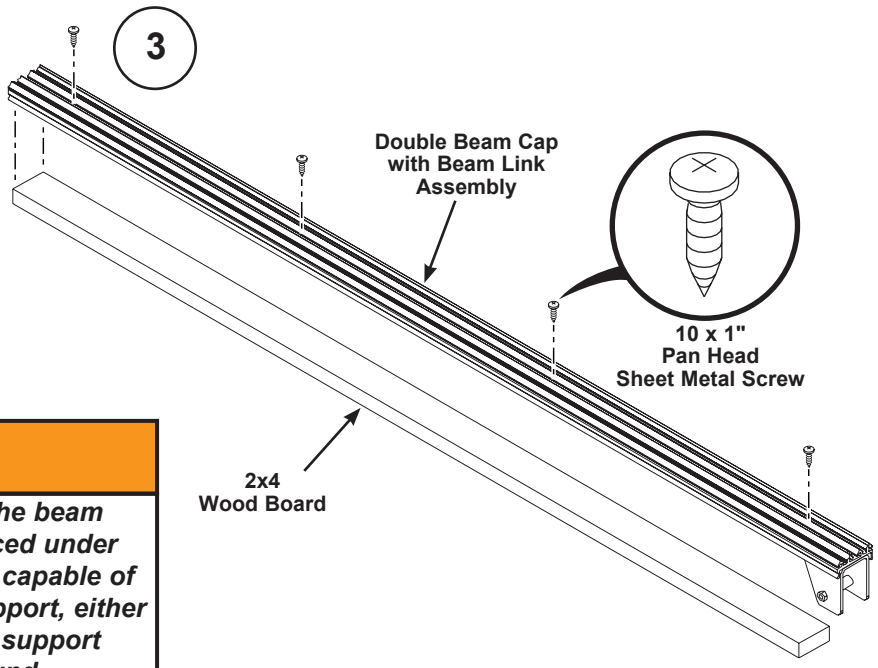
Use the beam link as a template to mark the hole locations on the bottom side of the double beam cap

2. Attach a beam link to each double beam cap:
   a. Align the two 9/32" clearance holes in the beam link to the two 9/32" holes drilled in the double beam cap in step 1.
   b. Insert two 1/4-20 x 3/4" hex head screws through the two holes in the beam link and through the double beam cap as shown in illustration 2 at the right.
   c. Using a pair of 7/16" hex nut drivers, fasten two 1/4-20 nylok hex nuts to the two hex head screws.
3. Attach a 2x4 wood board (or 4x4 wood board) to the double cap beam as follows. The end user must supply the four screws listed below.
   a. Using a cordless drill and a 1/4" drill bit, drill four 1/4" diameter clearance holes into the center slot of the double beam cap as shown below.
   b. Fit a 2x4 wood board into the double beam cap channel as shown below.
   c. Using a cordless drill and a phillips bit, fasten the wood board to the beam cap with four 10 x 1" pan head sheet metal screws.



NOTICE

The board must be fastened to the beam cap every 2' to 3' (610 mm to 914 mm).



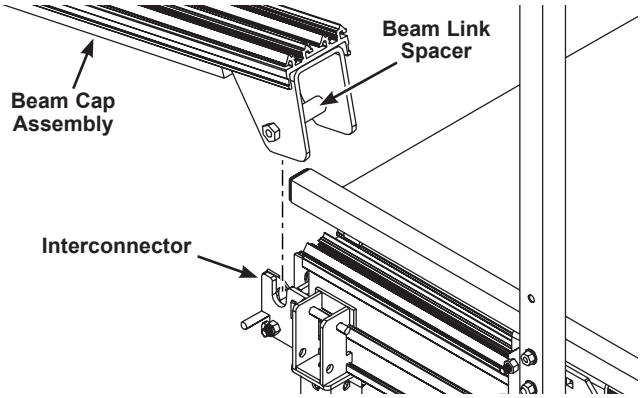
⚠WARNING

If a wood board is not attached to the beam cap, suitable supports must be placed under the beam cap. The beam cap is not capable of supporting heavy loads without support, either a 2x4 or 4x4 board or some type of support between the beam cap and the ground.

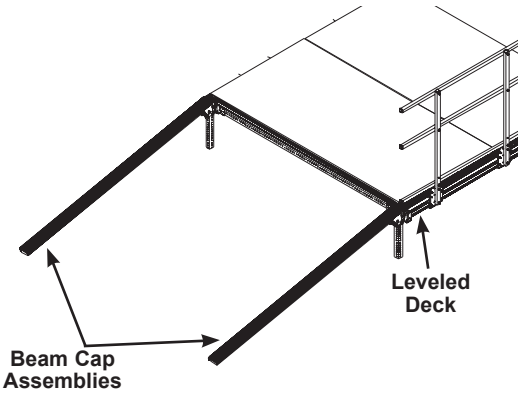
Beam Link Assembly (continued)

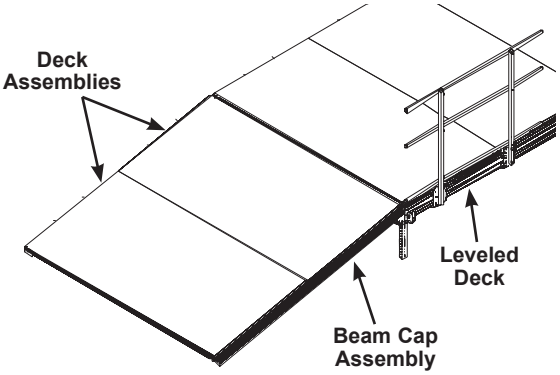
Ramp Assembly (continued)

4. Attach a beam cap assembly to the leveled deck by inserting the beam link spacer into the interconnector as shown at the right.



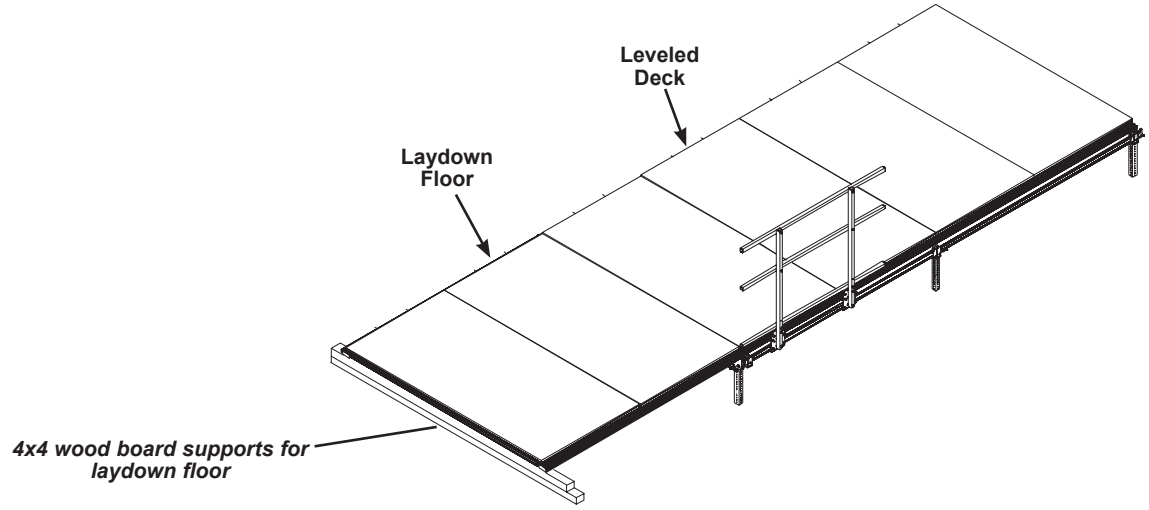
5. Complete the ramp by attaching the other beam cap assembly to the leveled deck and then placing deck assemblies onto the beam caps. Refer to the STRATA Event Staging And Tent Floor Owner's Manual and the STRATA System Deck Kit Assembly Instructions for more information.





Connecting a Laydown Floor to a Leveled Deck

A laydown floor can be connected to a leveled deck by attaching beam link assemblies to the laydown floor beam caps in the same way as done in steps 1, 2, 3 and 4 in the preceding "Ramp Assembly" section.
Refer to the STRATA Event Staging And Tent Floor Owner's Manual and the STRATA System Deck Kit Assembly Instructions for more information.

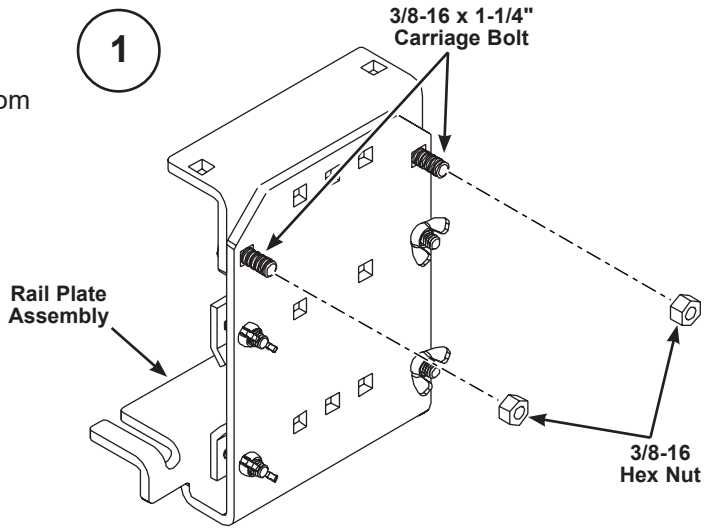


Stairway Attachment

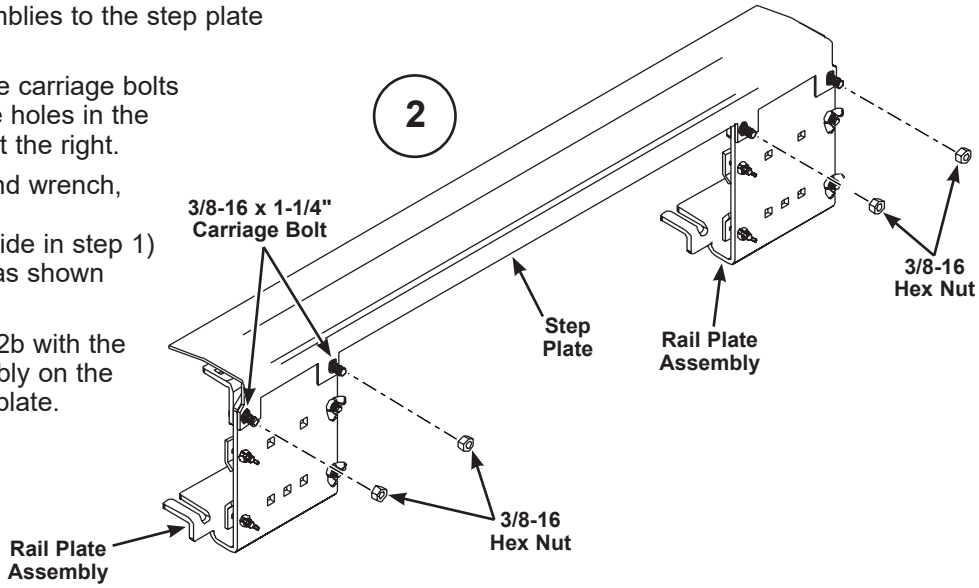
Assemble Stairway Attachment

To assemble and attach a stairway attachment to a leveled deck, do as follows.

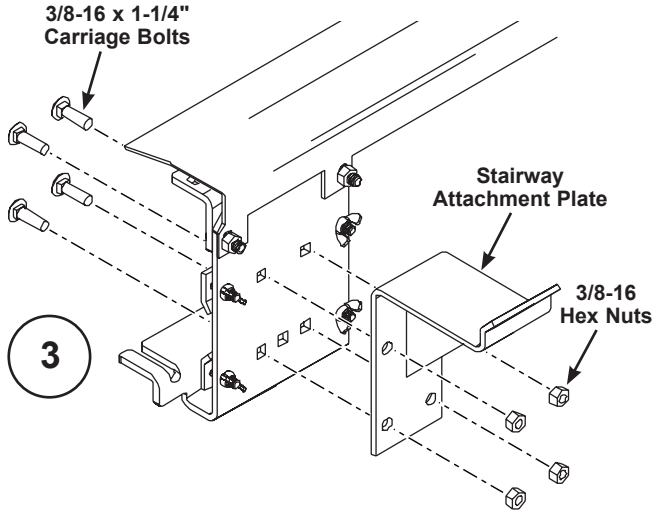
1. Remove the two 3/8-16 hex nuts (finger tight) from the two 3/8-16x1-1/4" carriage bolts on the two rail plate assemblies as shown at the right. Set the four hex nuts aside.



2. Attach the rail plate assemblies to the step plate as follows.
   a. Insert the two rail plate carriage bolts through two clearance holes in the step plate as shown at the right.
   b. Using a 9/16" open-end wrench, attach and tighten a 3/8-16 hex nut (set aside in step 1) to each carriage bolt as shown at the right.
   c. Repeat steps 2a and 2b with the other rail plate assembly on the other end of the step plate.



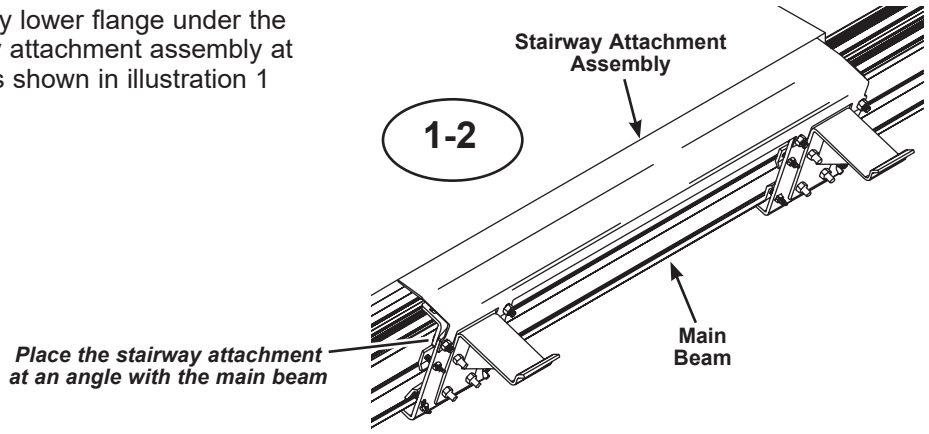
3. Attach two stairway attachment plates to the two rail plate assemblies as follows.
   a. Insert four 3/8-16 x 1-1/4" carriage bolts through the four square holes in the rail plate as shown at the right.
   b. Fit the stairway attachment plate clearance holes onto the four carriage bolts and attach and tighten four 3/8-16 hex nuts to each carriage bolt. Tighten with a 9/16" open-end wrench.
   c. Attach the other stairway attachment plate to the step plate as done in steps 3a and 3b.



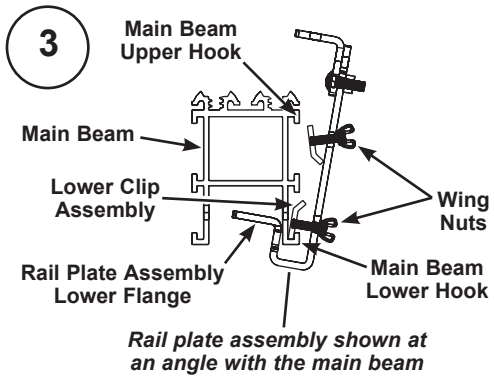
Stairway Attachment (continued)

Attach Stairway Attachment to a Main Beam

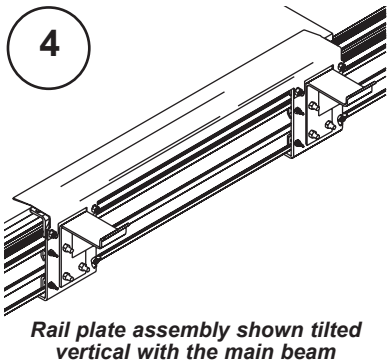
1. Loosen the four wing nuts that fasten the two rail clip assemblies to each rail plate assembly.
2. Place each rail plate assembly lower flange under the main beam. With the stairway attachment assembly at an angle to the main beam as shown in illustration 1 at the right.



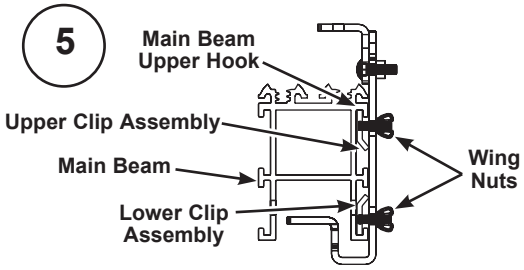
3. Attach each rail plate assembly by engaging the lower clip assembly with the main beam lower hook as shown in the illustration 3 at the right.



4. Keep the lower clip assembly engaged to the main beam lower hook and tilt the stairway attachment to a vertical position as shown in illustration 4 at the right.



5. Place the upper rail clip behind the main beam upper hook and tighten the four wing nuts on each rail plate assembly as shown in illustration 5 at the right.

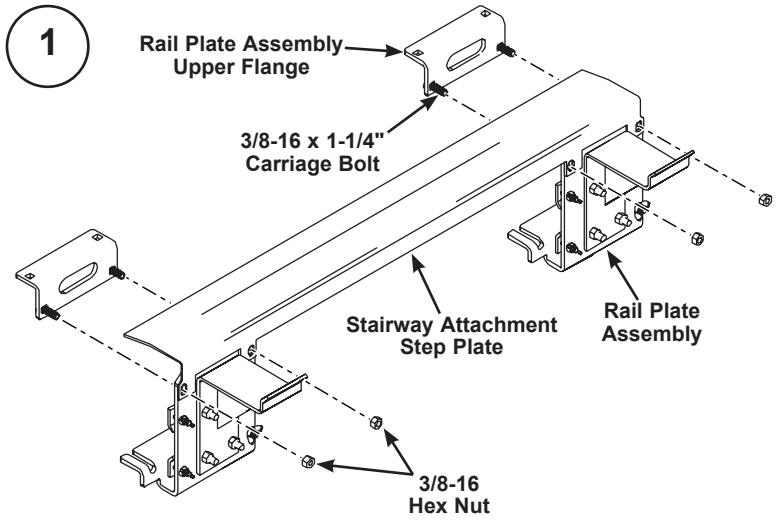


Stairway Attachment (continued)

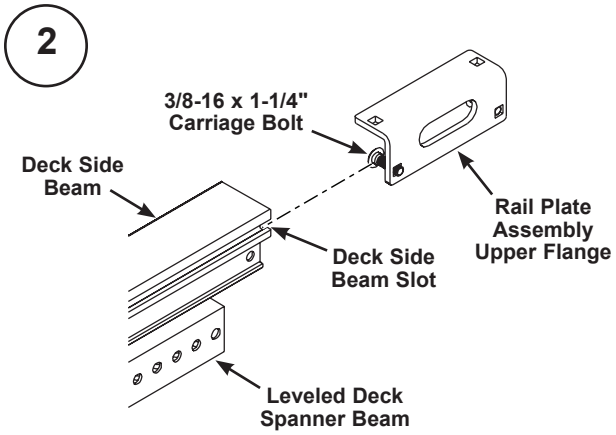
Attach Stairway Attachment to a Spanner Beam

Attach the stairway attachment and rail plate assemblies to a leveled deck spanner beam as follows.

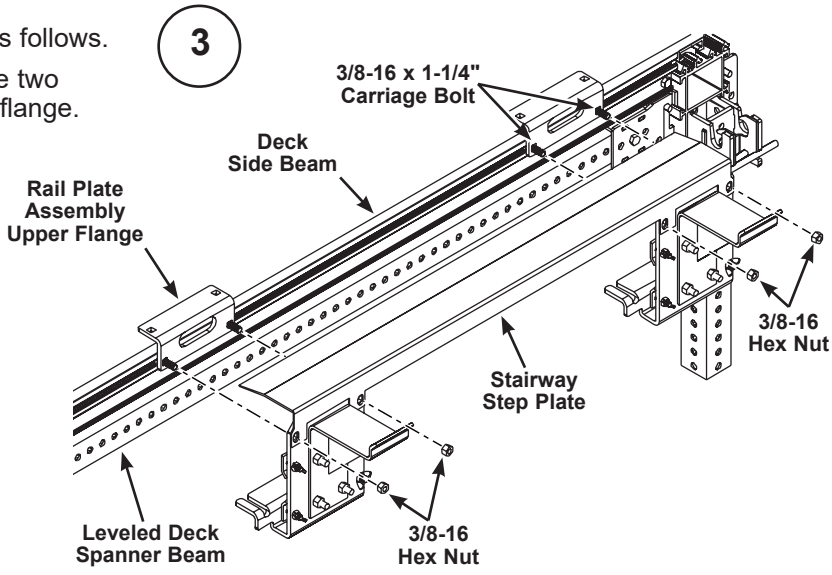
1. Remove the two rail plate assembly upper flanges as follows.
   a. Remove the two 3/8-16 hex nuts from each carriage bolt that fastens each rail plate assembly upper flange to the rail plate assemblies as shown in illustration 1 at the right.
   b. Set the four hex nuts aside.
   c. Remove the rail plate assembly upper flanges and carriage bolts from the rail plate assemblies.



2. Align the carriage bolt heads to the deck side beam slot and slide the bolt heads (four bolt heads, two on each rail plate assembly upper flanges) into the deck side beam slot as shown in illustration 2 at the right.



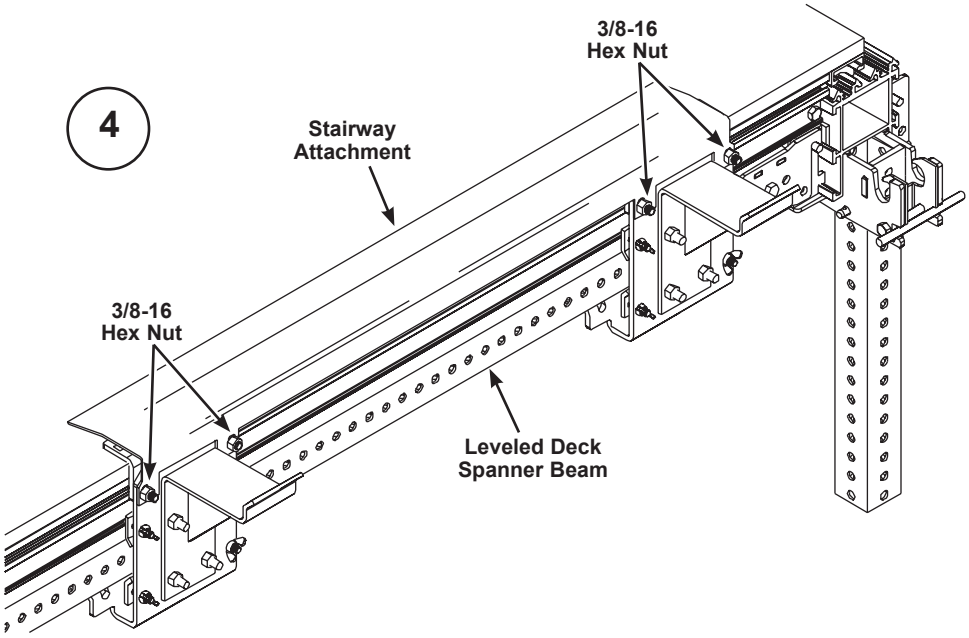
3. Reassemble the stairway attachment as follows.
   a. Place a rail plate assembly onto the two carriage bolts supporting an upper flange.
   b. Repeat step 3a with the other rail plate assembly.
   c. Align the two rail plate assemblies to the clearance holes in the step plate and place the step plate onto the four carriage bolts.
   d. Attach the four hex nuts set aside in step 1b to the carriage bolts (finger tight).



Stairway Attachment (continued)

Attach The Stairway Attachment to a Leveled Deck Spanner Beam (continued)

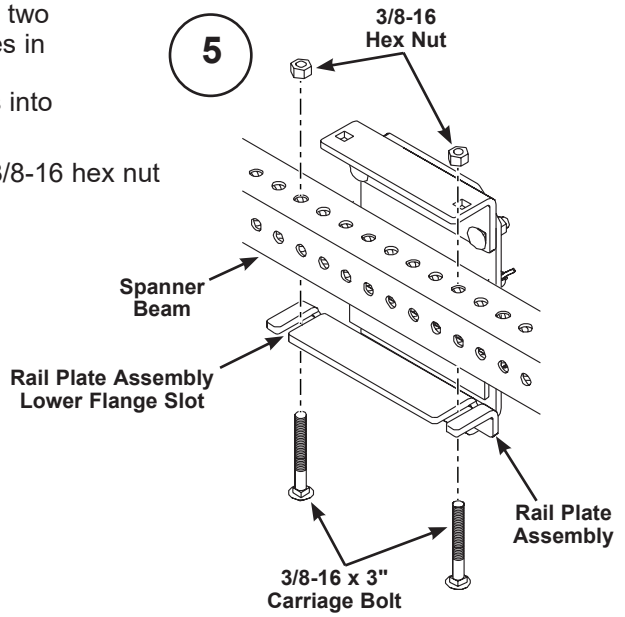
4. Position the stairway attachment and attach and tighten the four hex nuts with a 9/16" open-end wrench.



5. Attach each rail plate assembly lower flange to the spanner beam as follows.

a. Insert two 3/8-16 x 3" carriage bolts, upward through the two rail plate assembly lower flange slots and clearance holes in the spanner beam as shown in illustration 5 at the right. Make sure that the square neck of each carriage bolt fits into a lower flange slot.

b. Using the 9/16" open-end wrench, attach and tighten a 3/8-16 hex nut to each carriage bolt.



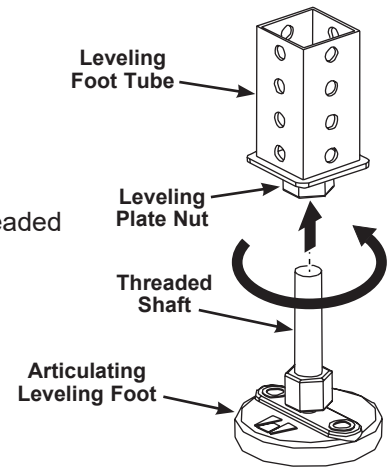
Articulating Leveling Foot

NOTICE

When using the articulating leveling foot on finished floor surfaces, always place a pad between the floor surface and the foot to prevent scratching the floor surface.

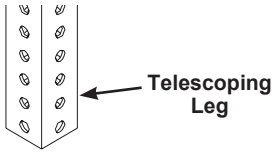
⚠WARNING

Never exceed a maximum load limit of 8000 lbs (35.6 kN) for each articulating leveling foot.

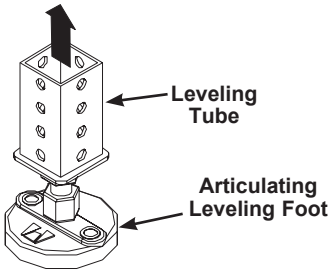


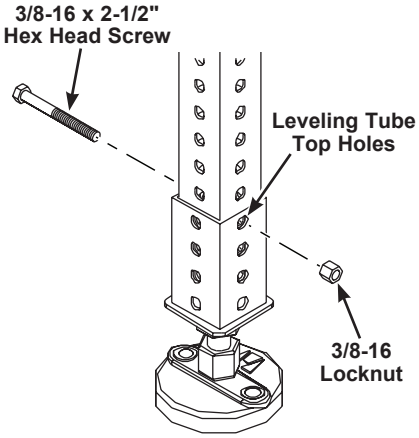
Install the articulating leveling foot as follows.

1. Screw an articulating leveling foot into the leveling plate nut so that the threaded shaft is about half-way into the leveling plate nut.
   Use a 1-1/8" open end wrench if necessary.



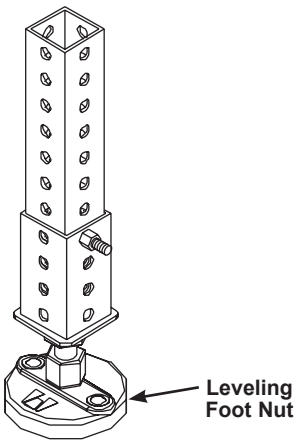
2. Slide the leveling tube onto a telescoping leg as far as possible, aligning the perforated holes.





3. Insert a hex head screw, 3/8-16 x 2-1/2", through at pair of the holes at the top of the leveling tube and fasten a locknut, 3/8-16, to the hex head screw with a pair of 9/16" combination wrenches.

4. Use a 1-1/8" open end wrench and adjust the height.
   a. Turning the leveling foot nut clockwise extends the foot (lifts the floor).
   b. Turning the leveling foot nut counterclockwise retracts the foot (lowers the floor).



Cross Bracing

Cross bracing is available in two sizes — 3' (914 mm) and 4' (1219 mm).

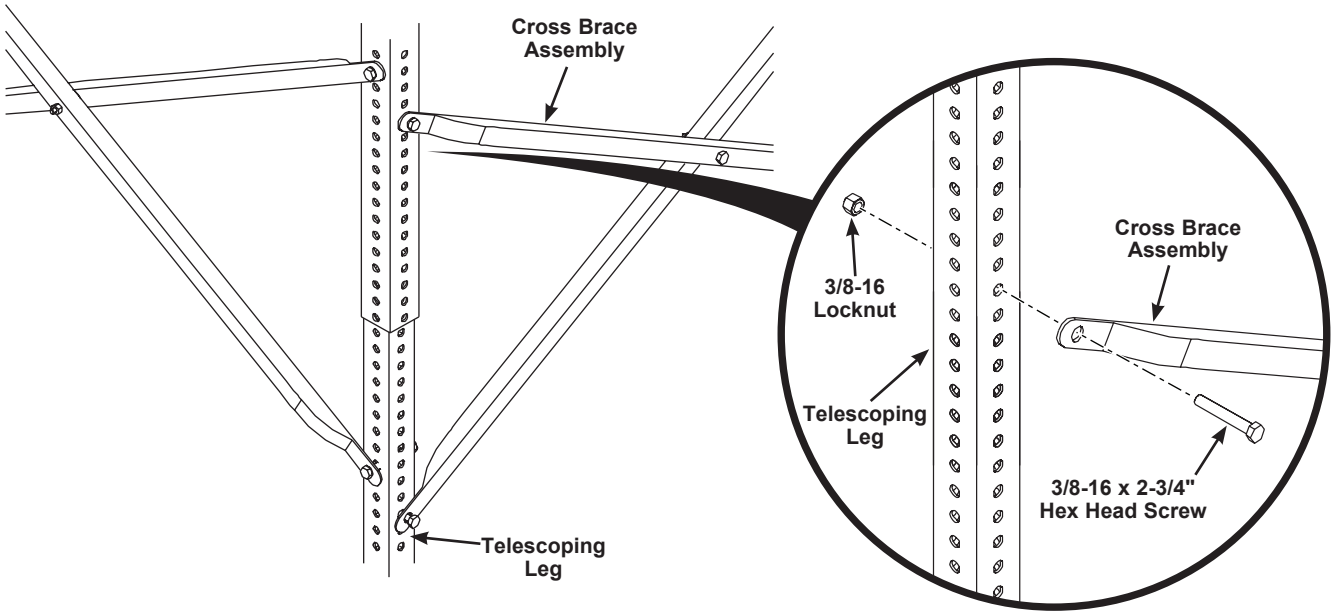
NOTICE

Cross brace assemblies are always installed in pairs. One assembly must be assembled parallel with a main beam and one assembly must be parallel with a spacer beam.
For specific information regarding the location of cross bracing and the cross bracing size 3' (914 mm) or 4' (1219 mm) contact Wenger Corporation.

⚠WARNING

Cross bracing is required for all stages 48" (1219 mm) or higher.

1. Using a pair of 9/16" combination wrenches, attach a cross brace assembly to a pair of telescoping legs with four 3/8-16 lock nuts and four 3/8-16x2-3/4" hex head screws, as shown below.
2. Attach other cross brace assemblies in the same as step 1.
3. Make sure that all fasteners attaching the cross brace assemblies to telescoping legs are tight.



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