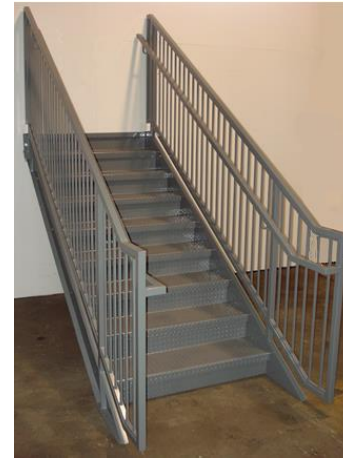
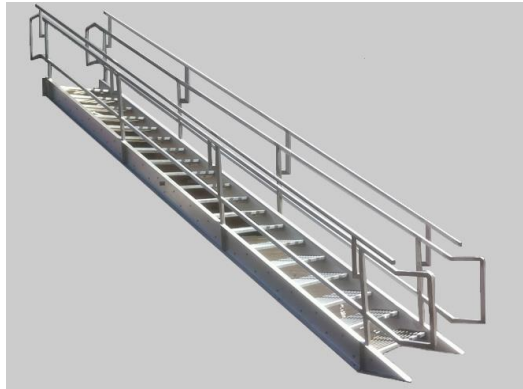


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# STAIR ASSEMBLY MANUAL FOR ALL TYPES



Rev: 2/15/18

COVER

AI1000-1

## INSTRUCTIONS APPLY TO ALL STAIR TYPES

Stair Stringer  
3/4" Mounting Holes

5/8" Bolts



If stair was supplied with an extension platform or landing, the top mounting hardware is supplied using (4) 5/8"-11 x 2 bolts, lock washers, and hex nuts.

Tread Hardware Use:  
3/8" - 16 x 1-1/2 HHCS  
3/8" Flat Washer  
3/8" Lock Washer  
3/8" - 16 Hex Nut

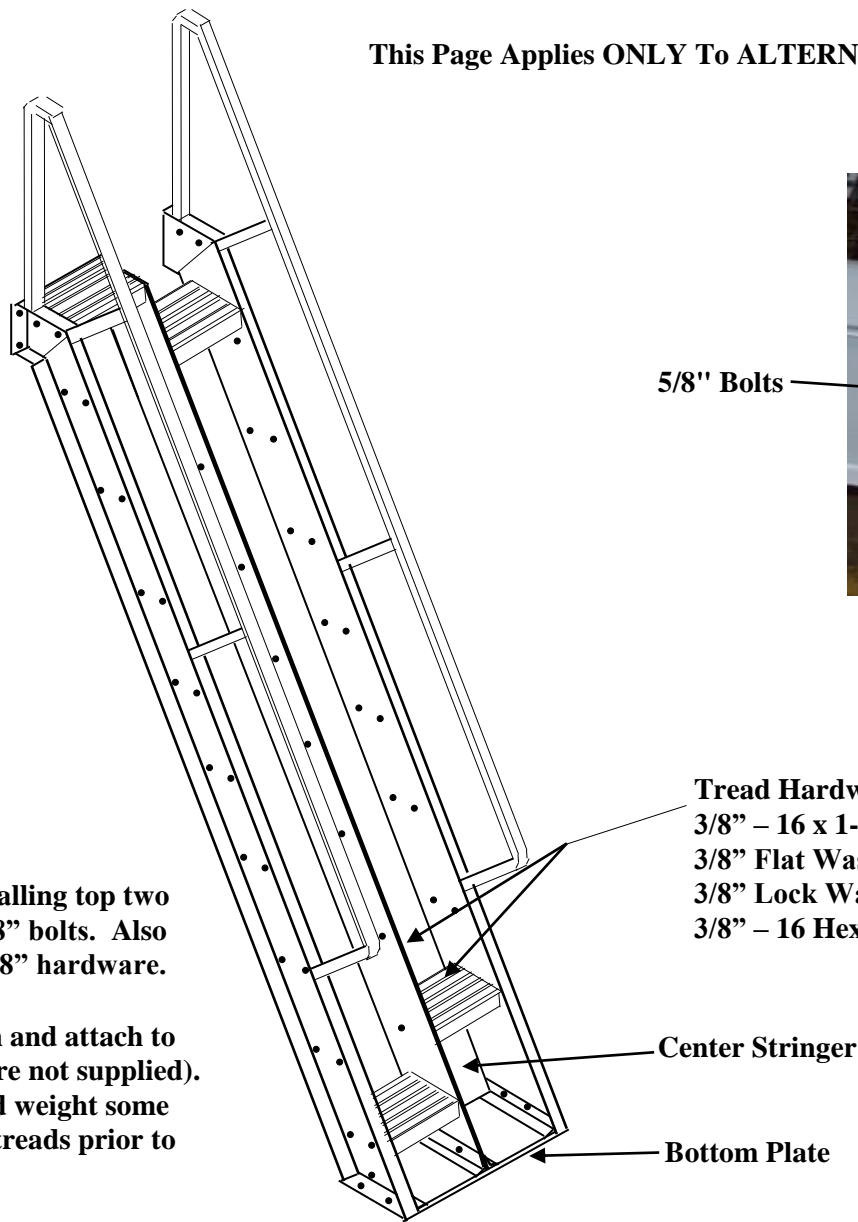
1. Assemble stair stringers by installing top and bottom treads using 3/8" bolts. **NOTE: IF STAIR IS AN ALTERNATING TREAD DESIGN SKIP TO NEXT PAGE AI1000-2A**
2. Lift stair assembly into position and attach to top mounting location (hardware not supplied). **Note: Based on stair height and weight some individuals prefer to install all treads prior to placement.**



Top and Bottom Tread Assembly

**This Page Applies ONLY To ALTERNATING TREAD STAIRS**

Stair Stringer  
3/4" Mounting Holes



1. Assemble stair stringers by installing top two and bottom two treads using 3/8" bolts. Also attach the bottom plate using 3/8" hardware.
2. Lift stair assembly into position and attach to top mounting location (hardware not supplied). Note: Based on stair height and weight some individuals prefer to install all treads prior to placement.



5/8" Bolts

If stair was supplied with an extension platform or landing, the top mounting hardware is supplied using (4) 5/8"-11 x 2 bolts, lock washers, and hex nuts.

Tread Hardware Use:  
3/8" - 16 x 1-1/2 HHCS  
3/8" Flat Washer  
3/8" Lock Washer  
3/8" - 16 Hex Nut

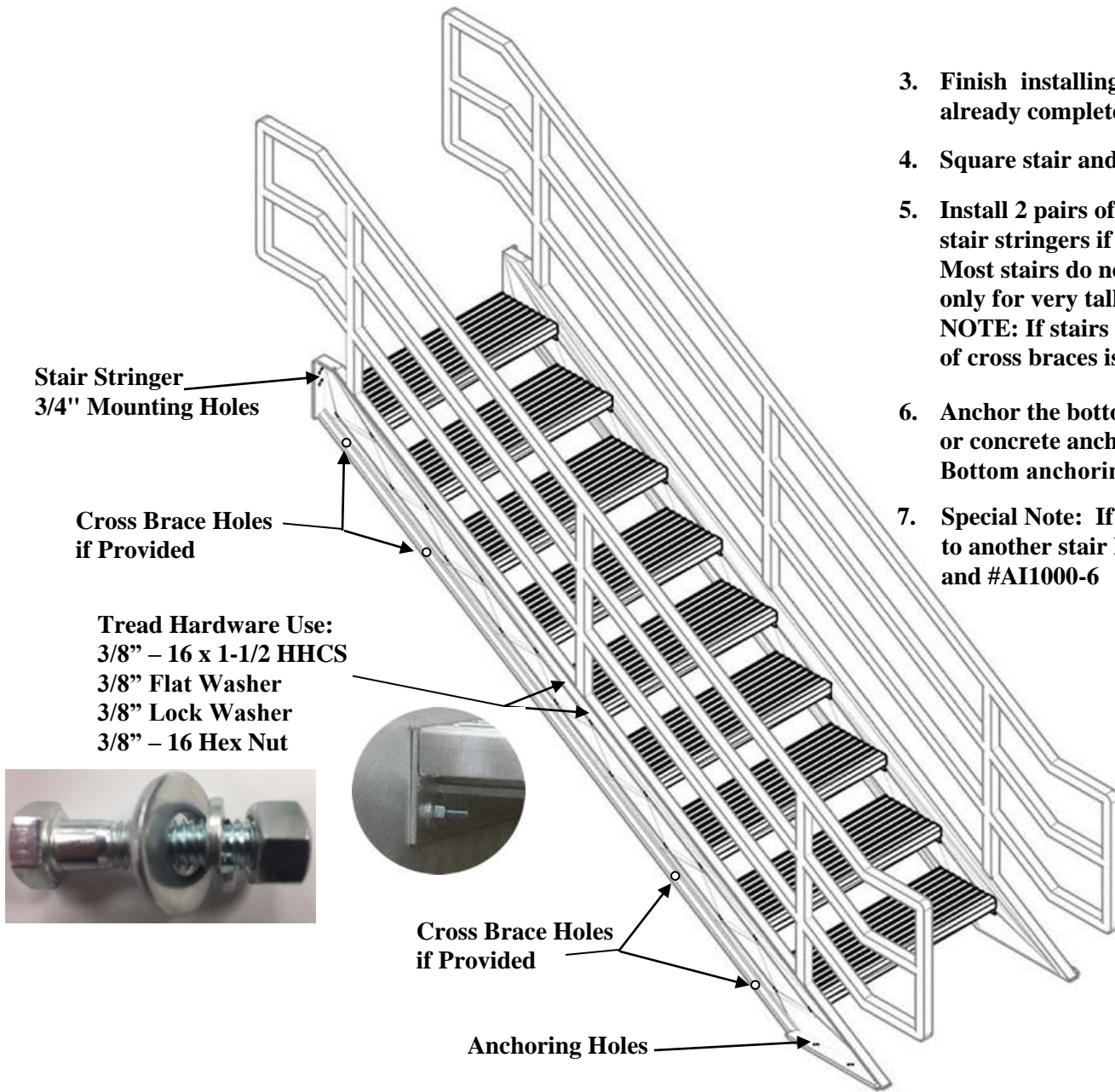
Center Stringer

Bottom Plate



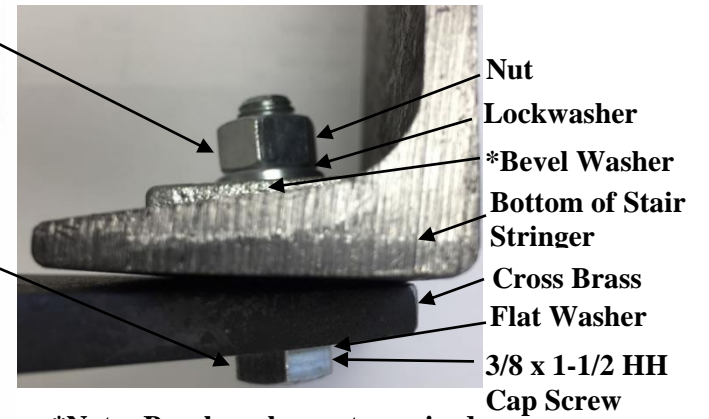
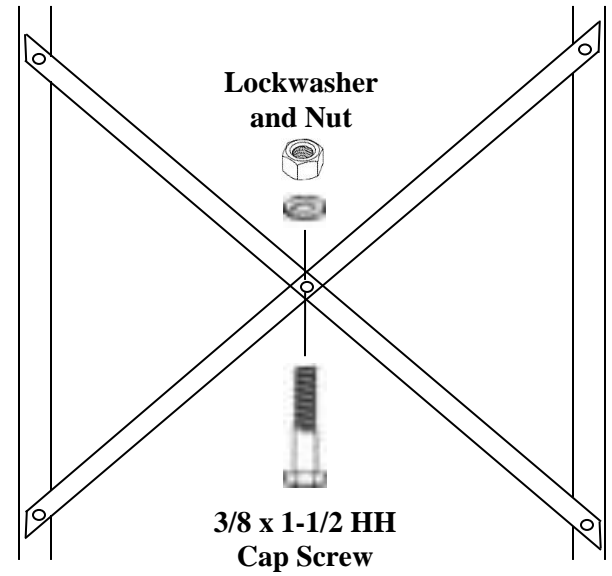
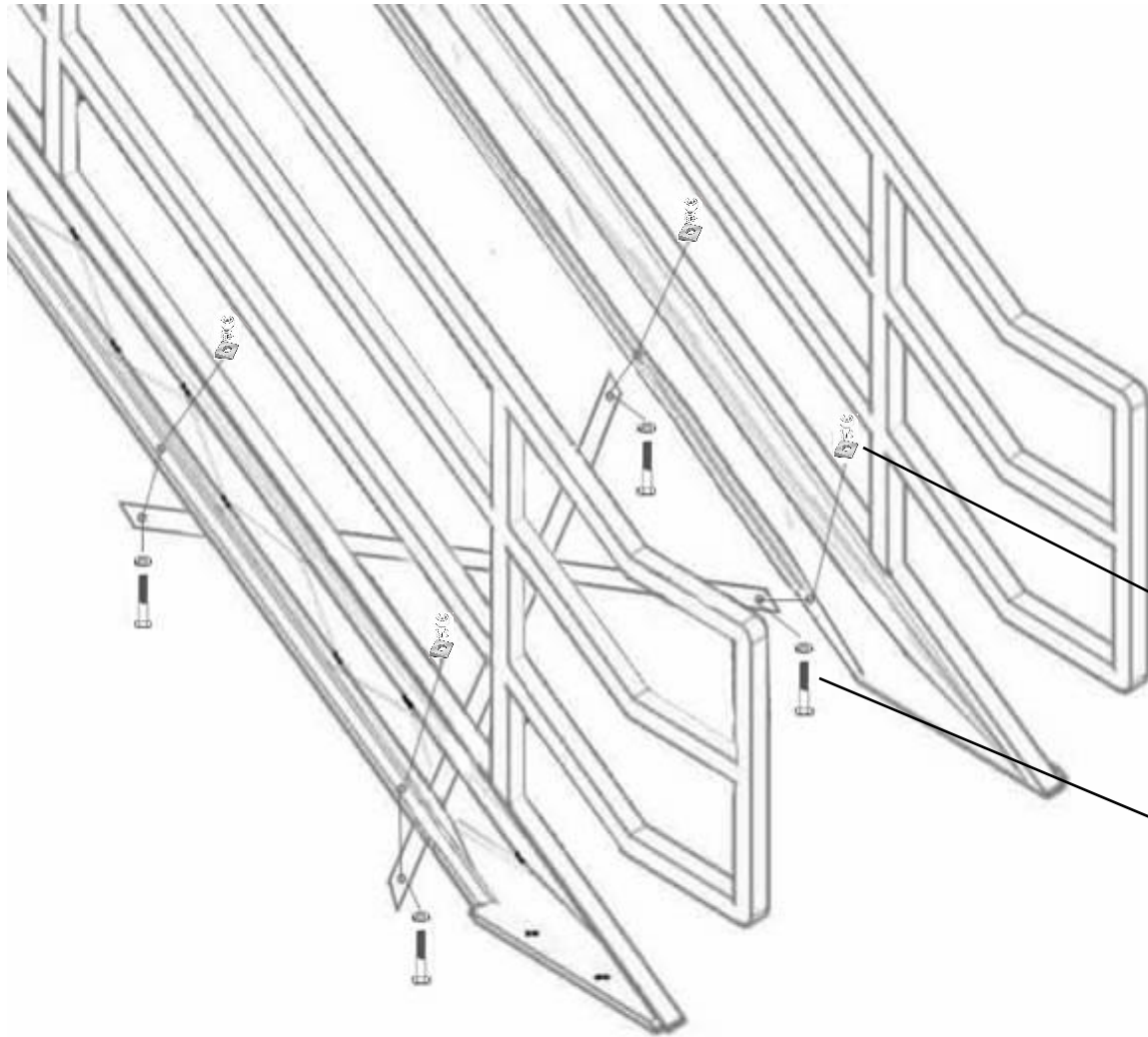
**Top and Bottom Tread Assembly**





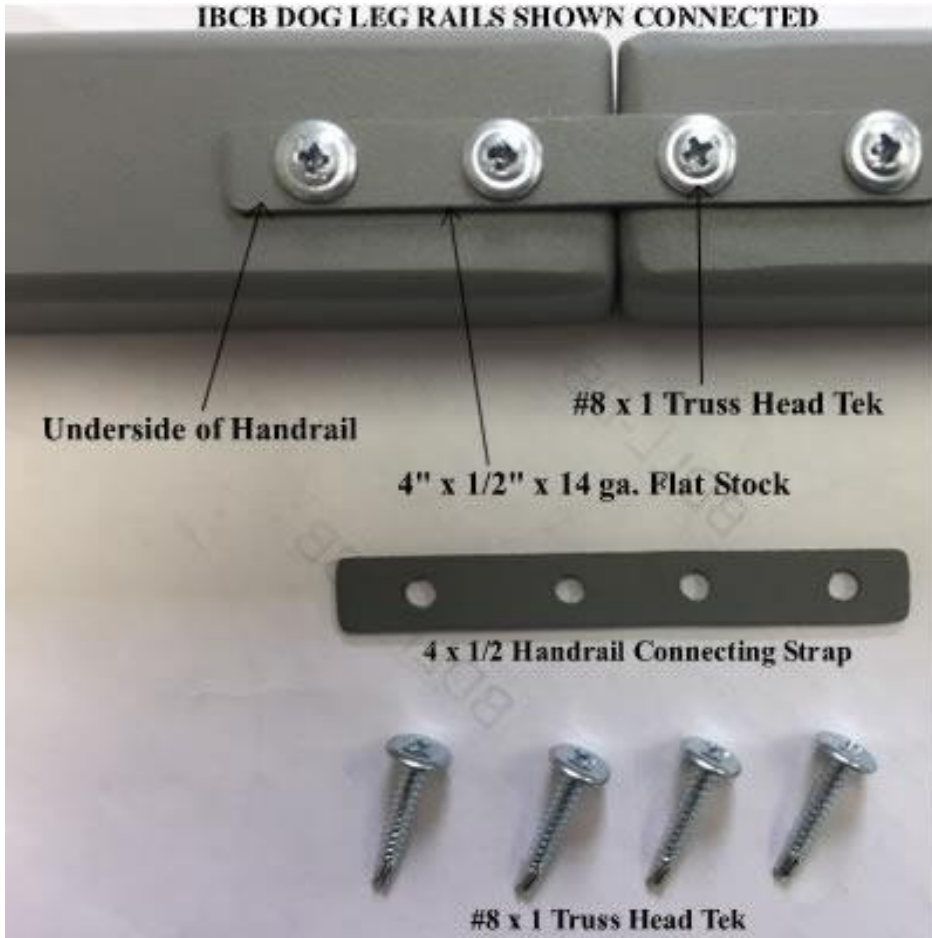
3. Finish installing all remaining treads if not already completed.
4. Square stair and tighten all tread hardware.
5. Install 2 pairs of cross braces on underside of stair stringers if provided (see sheet AI1000-4). Most stairs do not require them and are used only for very tall or wide designs.  
NOTE: If stairs are part of a crossover, one pair of cross braces is provided for heights over 36".
6. Anchor the bottom of the stair using lag screws or concrete anchors (hardware not supplied). Bottom anchoring holes are 9/16".
7. Special Note: If your stair handrail connects to another stair handrail see sheets #AI1000-5 and #AI1000-6

Remaining Tread Assembly



**\*Note: Bevel washer not required on aluminum stairs.**

**Cross Brace Assembly**



**Bottom View of ICB Dog Leg**



**Angled Strap TK100**



**90° Angle Strap TK104**

For many stair tower installations, it is sometimes necessary to connect stair handrails using a “dog leg” design. The figure on left shows the connection method used for single handrail connections.

Clamp and align the connecting handrail pieces so that they provide a smooth and continuous transition from one rail to the next.

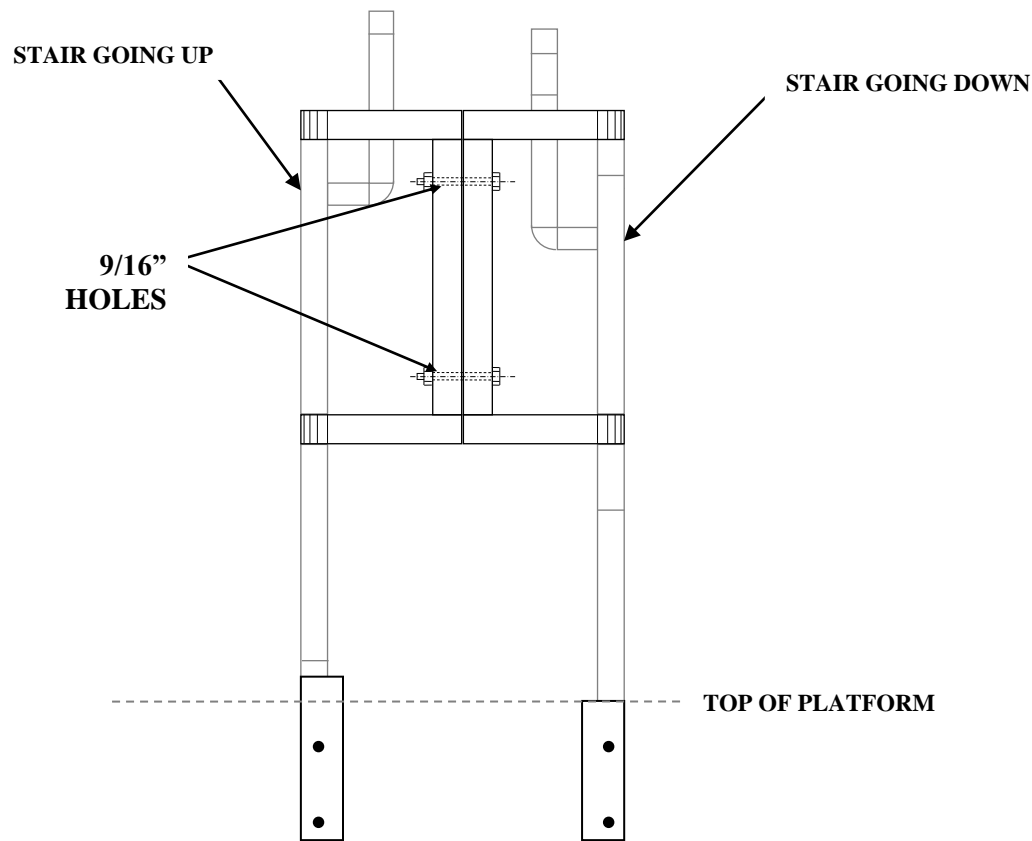
Join the underside of the butting handrails using a 4" x 1/2" flat strap (#T103) and #8 x 1 modified truss head tek screws. (#TK101) See Photo on the left. If the handrail sections are inclined or at 90° to one another use a 4" x 1/2" angled strap (#TK100) or a right angle strap (#TK104) to connect the rails. See photos above. Note: Connecting straps are always attached to underside center of handrail sections.

For right angle handrail connections use a 2" x 1/2" flat strap (#TK102) see photo below.



**Angle Strap TK102 on underside of rails**

**For stairs made for IBC industrial conformance (outboard guard type IIOS)**



**Clamp and align the connecting handrail pieces so they provide a smooth and continuous transition from one stair to the next.**

**Attach the two sections of handrail together using:**

- 1/2" – 13 x 4 1/2" Hex Head Cap Screws
- 1/2" Loc Washer
- 1/2" – 13 Hex Nut