

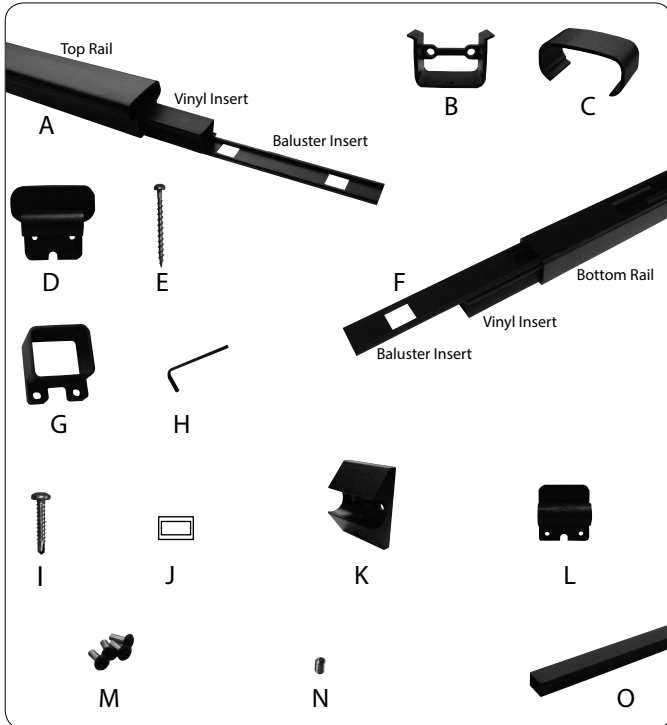
# Instructions for Lincoln Aluminum Adjustable Stair Rail

36" Height



COLOR GUARD  
RAILING SYSTEMS

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## Component List:

- A) Top Rail Assembly with Vinyl & Baluster Insert - 1
- B) Top Bracket - 2
- C) Top Cover - 2
- D) Top Adjustable Stair Bracket - 2
- E) #10 x 2" Self-Drilling Screws - 2
- F) Bottom Rail Assembly with Vinyl & Baluster Insert - 1
- G) Bottom Rail Bracket- 2
- H) 1/8" Short Arm Hex Key 1
- I) #10 x 1" Self-Drilling Screws - 8
- J) Adhesive Tape - 1
- K) Adjustable Stair Bracket Base - 4
- L) Adjustable Bottom Stair Bracket
- M) #10-32 x 7/16" Machine Screws - 8
- N) 1/4-20 x 3/8" Set Screws - 4
- O) Balusters - 10 - 4' section      13 - 5' section  
15 - 6' section      18 - 7' section  
20 - 8' section

## Tools Required:

- Drill Bits: 5/32" & 7/32"
- #2 square drive hex bit 4" long
- Drill with Adjustable Clutch
- Miter Saw with Metal Cutting Blade
- Level
- Rubber Mallet or Wood Block
- Tape Measure
- Masking or Duct Tape
- 12" Combination Square
- 8" File
- Straight Edge
- Center Punch - optional
- Touch-up Paint - optional
- Silicone Adhesive - optional
- Shop Vac or Blower - optional
- Always wear safety goggles*

Installer is responsible for quality workmanship and meeting all building codes.

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ezTIPS

- Read and understand all instructions before starting your installation.
- Plan your railing project completely. A drawing or sketch is recommended.
- Check local building codes.
- Check all cartons for proper components.
- Paint all cut ends to protect from the environment.
- Use two people for best results.
- Wear personal protective equipment, such as safety glasses, gloves, etc.
- Pre-drilling of all holes is recommended.
- Do not over-tighten screws. **Set clutch on drill to lowest workable setting.**



## Aluminum Post Placement & Installation

1. Secure top post to deck, level and plumb. **It is the responsibility of the installer to ensure proper installation, including adherence to all local codes.**
2. Place bottom post on lowest step or landing.
3. Place a piece of tape on baluster insert to keep from moving.
4. Place bottom rail against posts, baluster openings up.
5. Measure **horizontally** from both posts to the edge of the first baluster hole, the distance should be no less than 3" on both ends. If you have less than 3", slide your rail to the left or right to remove a hole. **Move lower post as needed to achieve 3" minimum spacing. Do not mount post until 3" spacing is achieved.** Secure lower post, level and plumb.



# Adjustable Stair Rail Installation

1. With both post collars removed, set bottom rail (F) on stairs and against posts with the baluster openings facing up. Place carpenter square against post and on top of rail. Mark a horizontal line on face of both posts. **Install both post collars.**
2. For 36" High Stair Rails:
  - a. Upper post, measure up 31-1/4" from horizontal line (Step 1) and make a new horizontal line.
  - b. Lower post, measure up 32" from horizontal line (Step 1) and make a new horizontal line. Then measure down 31-1/4" and make a new horizontal line.Erase the original line.
3. Set carpenter square to 7/8". Measure 7/8" from the outside of each post and make a vertical mark that intersects with both horizontal lines on each side of both posts (top and bottom), eight marks total. Your marks should be spaced 1-1/8" apart, centered on the post.
4. Pre-drill 5/32" diameter holes on each intersection. A center punch on each mark is recommended. **Holes must be level.**
- 4a. If stair risers are in the way where you can not drill into the lower post; lift collar, remove 3 post bolts and rotate post 90°. Lower collar. Drill and install adjustable stair bracket base (K) (see step 5). Lift collar, rotate post back and re-install post bolts. Check for plumb.
5. First install set screws (N) into each stair bracket base (K). Then, install (4) adjustable stair bracket bases (K), 2 on each post. NOTE: if stair bracket base is less than 2" above post collar, install base with set screw facing up. Install remaining bases with set screw facing down.
6. Install (2) bottom adjustable stair brackets (L) into lower bases (K) with the tapped holes down. Rotate brackets so they are perpendicular to stair tread angle. Use a straight edge for best results. Tighten set screws.
7. **At this point, it is recommended that two people complete the installation.** Set the bottom rail (F) in front of posts with baluster openings facing up, and level with top edge of bottom adjustable stair bracket (L). Measure horizontally from both posts to the edge of the first baluster hole, **the distance should be no less than 3" on both ends.** If you have less than 3", slide your rail to the left or right to remove a holes. This will allow for balusters to be centered and allow enough room for brackets. In some cases, a longer rail section may be needed to achieve centered baluster spacing. Mark your rail to the inside edge of both bottom stair brackets. Also mark your rail so you know which end is the top. Measure from each mark to the first baluster opening. **A minimum of 1-3/8" is needed for the brackets.** Double check your marks before you cut. Cut your bottom rail. Check that your rail fits between the brackets.
8. File any sharp edges and remove all metal shavings. Then, paint all exposed edges with a latex paint for metal. Allow painted edges to dry before installation.
- Note: Color Guard touch-up paint is available for purchase.
9. Install (2) top adjustable stair brackets (D) into upper bases with the tapped holes down. Rotate brackets so they are perpendicular to the stair tread angle. Use a straight edge for best results. Lightly tighten set screws.
10. Set the top rail in front of the posts with baluster openings facing down, and level with top edge of stair bracket. Center the top rail the same as the bottom rail. Put a piece of tape over the baluster stair rail insert to keep it from moving. Mark your rail to the inside edge of the top stair bracket. Measure in 3/8" from each mark. The top rail needs to be 3/4" shorter than the bottom rail. Also, mark your rail so you know which end is the top. Double check your marks before you cut. Cut your top rail.
11. File any sharp edges and remove all metal shavings. Then, paint all exposed edges with a latex paint for metal. Allow painted edges to dry before installation.
- Note: Color Guard touch-up paint is available for purchase.
12. Remove both top stair adjustable brackets (D) from the base. Leave the bases attached to the post. Assemble both top brackets (B) to the top stair brackets (D) using (2) #10-32 x 7/16" machine screws. Slide top covers onto the top rail. Place the top rail onto a clean surface such as the railing carton, with the baluster opening up. Set one top stair bracket assembly on one end of the rail Drill a 7/32" hole through the stair rail insert, no more than 1/4" deep. Install (1) #10 x 2" self-drilling screw into the center wall of the rail.
13. Slide or tap top cover (C) into place. Use a wood block to prevent scratches or dents. **DO NOT USE A HAMMER.** Use the tape (J) provided, if needed, to secure top cover if it is loose. Repeat for the other bracket assembly.
14. Place bottom rail onto a clean surface and install balusters. Install top rail onto balusters, keeping your "top" marks aligned.
15. Install railing assembly into top bases. Tap stair inserts flush with bottom rail. Tighten set screws.
16. Install bottom brackets (G) on to the bottom rail (F) with the screw bosses facing down and out. Attach bottom brackets with (2) #10-32 x 7/16" machine screws.
16. Install post caps. Use silicone if caps or collars are loose.