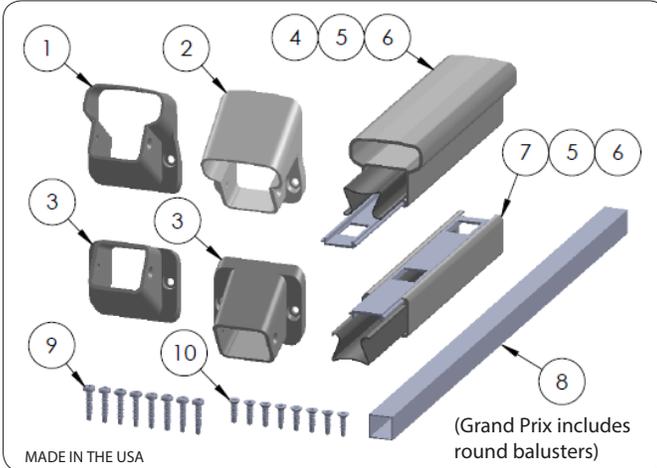


Install Instructions for Lincoln & Grand Prix SpeedStair Rail

36" Height & 42" Height



Component List:

1. Top Bracket, Lower Post - 1
2. Top Bracket, Upper Post - 1
3. Bottom Bracket, Both Posts - 2
4. Top Rail - 1
5. Aluminum Insert - 2
6. Vinyl Insert - 2
7. Bottom Rail - 1
8. Balusters - See Chart at End of Instructions
9. #10 x 1" Self-Drilling Pan Head Screws - 8
10. #10 x 3/4" Self-Drilling Flat Head Screws - 8

Tools Required:

- Drill Bits: 5/32"
T20 Star Drive Hex Bit 4" Long
Drill with Adjustable Clutch
Miter Saw with Metal Cutting Blade
(10" 80-Tooth Carbide Blade Suggested)
6" Level
Rubber Mallet or Wood Block
Tape Measure
Masking or Duct Tape
12" Combination Square
8" File
Speed Square / Straight Edge
Nominal 2x4 (for spacing)
Small Torpedo Level
Quick Clamps (2)
Center Punch - optional
Touch-up Paint - optional
Shop Vac or Blower - optional
Always wear safety goggles

Installer is responsible to ensure proper installation, including adherence to local building codes.

proTIPS

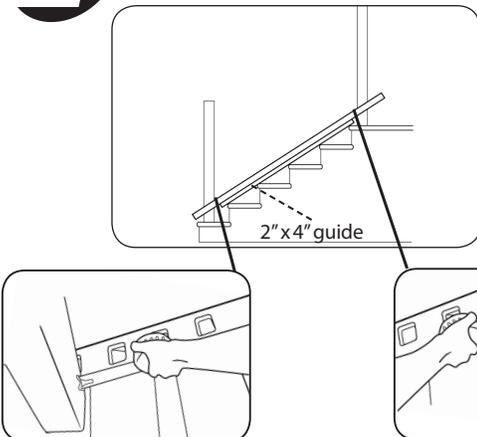
- Read and understand all instructions before starting your installation.
- Plan your railing project completely. A drawing or sketch is recommended.
- Check local building codes.
- Check all cartons for proper components.
- Paint all cut ends to protect from the environment.
- Use two people for best 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.**
- **Do not use impact drill.**

1 Aluminum Post Placement & Installation

- A. Secure top post to deck, level and plumb.
- B. Place bottom post on lowest step or landing.
- C. Place a piece of tape on aluminum inserts to keep from moving.
- D. Place bottom rail against posts, baluster openings up.
- E. Measure **horizontally** from both posts to the edge of the first baluster hole, the distance should be no less than 1 1/4" and no more than 3 7/8" on both ends. If you have less than 1 1/4", slide your rail to the left or right to remove a hole. **Move lower post as needed to achieve 1 1/4" minimum spacing. Do not mount post until 1 1/4" spacing is achieved.** Secure lower post, level and plumb.

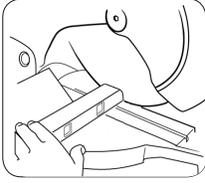
proTIP: For 36" H stairs a 43" or taller post is recommended at middle/bottom post locations. For 42" H stairs, a 49" post is recommended at the middle/bottom locations. This is to ensure that the top rail will land on the post within the stair angle range. Posts can be cut to proper height, if needed.

2 Position Bottom Rail



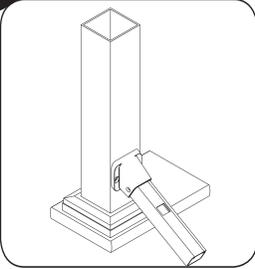
- proTIP:**
- A. Place a 2" x 4" on the steps – this will be your guide for the bottom rail length and marking bottom rail for cut.
 - B. Place the bottom rail on the 2 x 4, baluster openings up.
 - C. Measure the horizontal distance to first full baluster opening on each end. Adjust until distance is equal on both ends.
 - D. Temporarily clamp rail to 2x4.
 - E. Using a square, draw line where the rail intersects the post. Mark bottom of rail at upper post and mark top of rail at lower post.
 - F. Mark side of the rail at the upper post with a "T" inside the mark to denote the top post and mark side of the rail at the bottom post inside the mark with a "B" to denote bottom post.
 - G. Remove clamps, slide rail and 2x4 off to the side and install collars onto posts.

3 Cut Bottom Rail



- Cut bottom rail in center of marks from step 2.
- Vacuum/remove shavings from inside rail prior to installation.

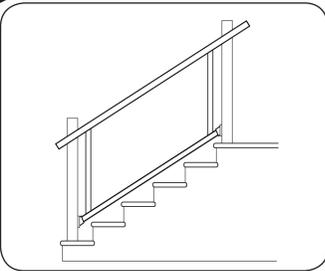
4 Attach Bottom Rail to Post



- Slide brackets on to each end of rail.
- Place bottom rail on 2" x 4" spacer as shown in Step 1 and install bottom rail.
- Attach bracket to post using (2) #10 x 1" pan head screws per bracket.
- Once brackets are attached to posts, use (2) #10 x 3/4" flat head screws per bracket to attach bracket to rail.

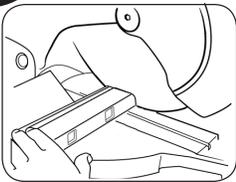
proTIP: Center punch can be used to mark hole locations prior to pre-drilling.

5 Align and Mark Top Rail



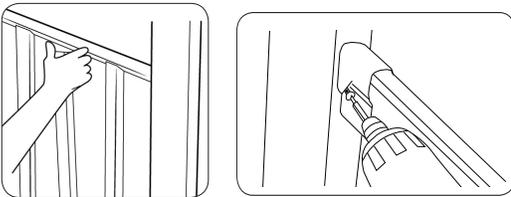
- Insert (2) balusters into openings, one at each end in bottom rail.
- Insert the (2) balusters into top rail and measure the gap between the post and each baluster.
- Ensure the gap dimension is equal at both baluster. Balusters should plumb.
- Using a square, draw line where the rail intersects the post. Mark the upper post on the bottom of the rail and the lower post at the top of the rail.
- Mark side of the rail at the upper post with a "T" inside the mark to denote the top post and side of the rail at the bottom post inside the mark with a "B" to denote bottom post.
- Slide Brackets on to each end of rail.

6 Cut Top Rail



- Cut rail on middle of line from step 5.
- Vacuum/remove shavings from inside rail prior to installation.

7 Attach Top Brackets to Posts



- Angle balusters away from you. Starting on one end, insert balusters into top rail.
- Slide Brackets on to each end of rail.
- Slide rail into position.
- Screw brackets to post using (2) #10 x 1" pan head screws per bracket.
- Once brackets are attached to posts, use (2) #10 x 3/4" flat head screws per bracket to attach bracket to rail.

proTIP: Center punch can be used to mark hole locations prior to pre-drilling.

Aluminum Stair Baluster Chart

Length of Section	Balusters per Stair Section		
	Lincoln 36"	Lincoln 42"	Grand Prix 36"
4' Section	9	-	-
5' Section	11	-	-
6' Section	13	13	13
7' Section	16	-	-
8' Section	18	18	18