

**IMPORTANT: Please read instructions thoroughly before beginning installation.**

The following instructions are designed to be used for the installation of our Linear Collection metal panel system. The rake panels in this collection are designed for stairways with 7 1/2" rise and 10" run (approx 36.9°), a rake handrail height of 36" and a level handrail height between 36" and 43" (depending on handrail used, curb wall height, amount panels are elevated, etc.) NOTE: Rake and level panel runs cannot exceed 15' without a spacer newel. Before proceeding with the following steps, the balustrade centerline should be marked on the treads and balcony. **Consult your local building code official before purchasing and installing this system.** This system is intended to be used as a guard/fence and is not meant or designed to be stood on or climbed upon or installed in any condition involving motion. Load limits and breaking points may vary depending on installation. An engineer or qualified contractor should be consulted regarding the suitability of this system for particular applications.

## Panel System Component Applications

<b>Spacer Newels</b>	Spacer newels are used to maintain spacing code between panels. Also required for rake and level runs exceeding 15'
<b>Panel Posts</b>	Panel posts are used on open treads and raised level runs to secure the panels
<b>Kneewall Stair Panels</b>	These panels are used on kneewall stairs
<b>Open Tread Stair Panels</b>	These panels are used on open tread stairs
<b>34-1/4" Level Run Panels</b>	These panels are used on a level run curb wall or elevated to meet 39" rail height
<b>34-13/16" Level Run Panels</b>	These panels are used on a level run that is flush mounted to the floor surface to meet 36" rail height
<b>38" Level Run Panels</b>	These panels are used on a level run curb wall or elevated to meet 43" rail height, or flush mounted to meet 39" rail height

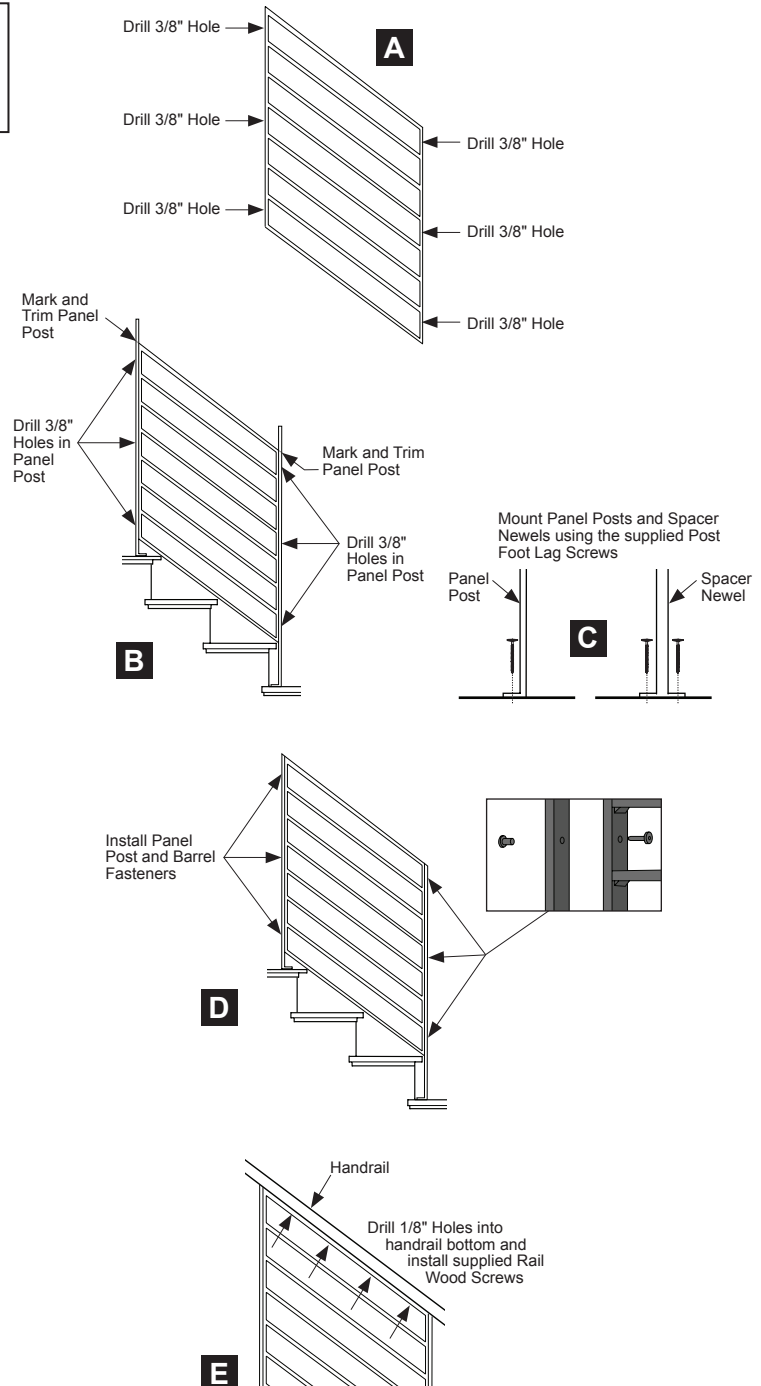
### Tools/Materials list:

Power Drill	5/32" Hex Head or Allen Wrench
Miter Saw	1/8", 3/16", 3/8" Twist Bits
Hack Saw	Tape Measure
Square or Phillips Screw Tip	Safety Glasses

## Open Tread Stair Panel System Installation:

Determine spacing for each rake run and order the necessary panels, spacer newels and panel posts to infill each run to meet building codes.

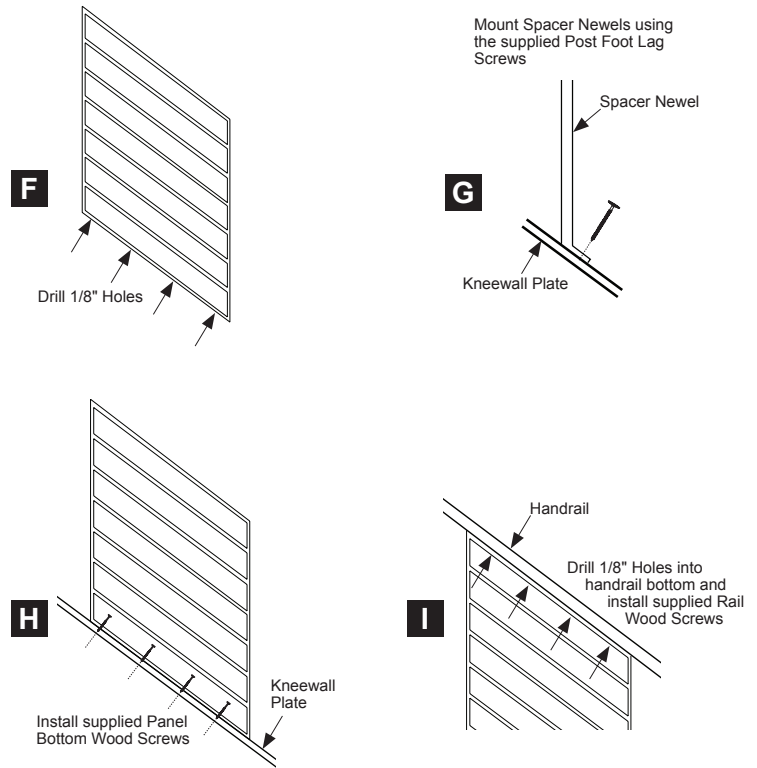
1. Drill three evenly spaced 3/8" holes through each vertical end of each panel (A). These holes will be used to secure the panels to the panel posts.
2. Position and mark the location of each panel post. Temporarily attach each panel post to the respective tread.
3. Temporarily position the panels between the panel posts while resting on the tread nosing. Mark the posts at the appropriate height and angle so they are flush with the tops of the rake panels. Using the holes drilled in the panel ends in Step 1 as a template, transfer these locations to the panel posts (B).
4. Trim and drill 3/8" holes in the panel posts at the marks made in Step 3 (B).
5. Permanently mount the panel posts and spacer newels (if used/required) to the treads using the supplied 2 3/4" Post Foot Lag Screws (C).
6. Secure the panels to the panel posts using 6 Panel Post and Barrel Fasteners (P-POSTBOLT) per panel (D).
7. Trim the handrail to length for each run. Utilize handrail fittings for making turns or changes in elevation (if desired).
8. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If spacer newels are being used, also drill holes for them using the top plate as a template (E).
9. Secure the handrail in place by installing the supplied 1 1/4" Rail Wood Screws through the panels (and spacer newel top brackets if used) into the handrail bottom.



### **Kneewall Stair Panel System Installation:**

Determine spacing for each rake run and order the necessary panels and spacer newels to infill each run to meet building codes.

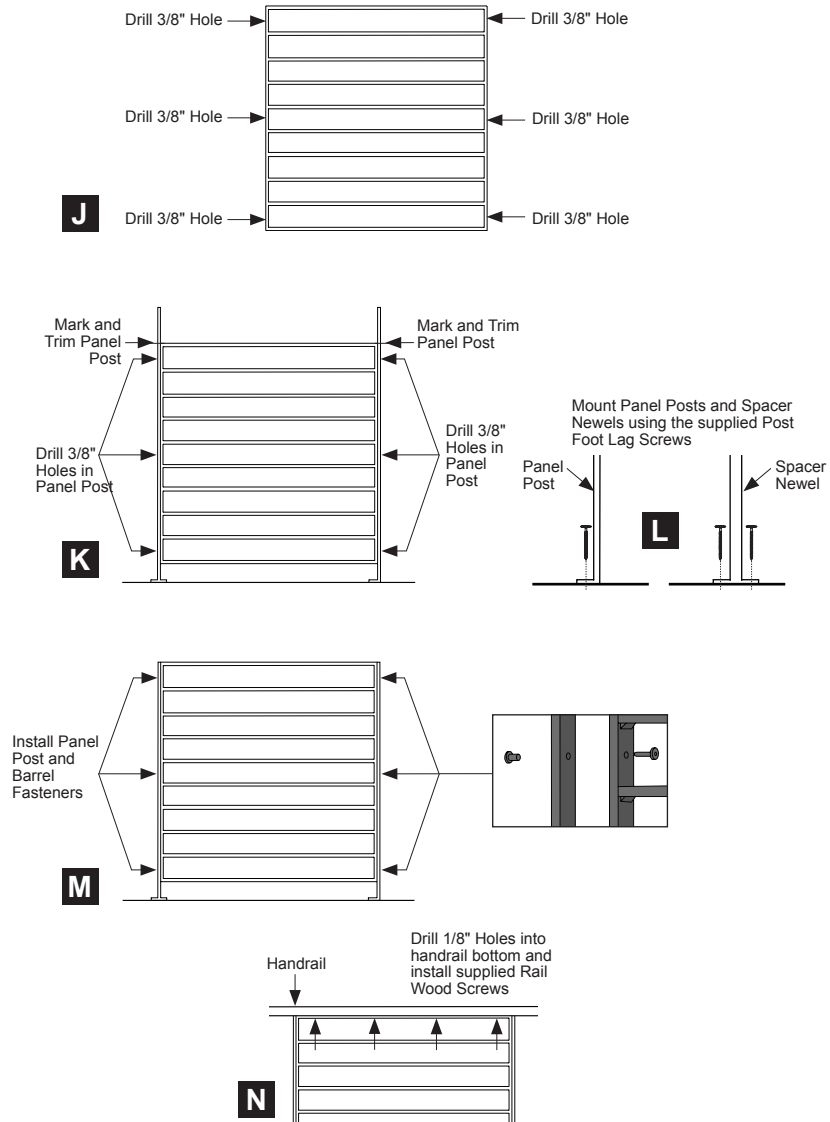
1. Drill 1/8" holes evenly spaced through the bottom of each panel equal to the number of 2 1/2" Panel Bottom Wood Screws (bottom) supplied with the panel (F). We recommend the holes be drilled in a serpentine pattern like the predrilled holes in the top of the panel.
2. Position and mount each spacer newel (if used/required) on the kneewall using the supplied 2 3/4" Post Foot Lag Screws (G).
3. Position the kneewall panels on the kneewall and secure them to the kneewall using the 2 1/2" Panel Bottom Wood Screws (H).
4. Trim the handrail to length for each run. Utilize handrail fittings for making turns or changes in elevation (if desired).
5. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If spacer newels are being used, also drill holes for them using the top plate as a template (I).
6. Secure the handrail in place by installing the supplied 1 1/4" Rail Wood Screws through the panels (and spacer newel top brackets if used) into the handrail bottom (I).



### **Level Run Elevated Panel System Installation:**

Determine spacing for each level run and order the necessary panels, spacer newels and panel posts to infill each run to meet building codes.

1. Drill three 3/8" holes evenly spaced through each vertical end of each panel. These holes will be used to secure the panels to the panel posts (J).
2. Position, mark and temporarily mount each panel post.
3. Temporarily position the panels between the panel posts at the desired elevation above the floor surface. Mark the posts at the appropriate height to make them flush with the tops of the panels. Using the holes drilled in the panel ends in Step 1 as a template, transfer these locations to the panel posts (K).
4. Trim and drill the panel posts at the marks made in Step 3 (K).
5. Permanently mount the panel posts and spacer newels (if used/required) to the floor using the supplied 2 3/4" Post Foot Lag Screws (L).
6. Secure the panels to the panel posts using 6 Panel Post and Barrel Fasteners (P-POSTBOLT) per panel (M).
7. Trim the handrail to length for each run. Utilize handrail fittings for making turns or changes in elevation (if desired).
8. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If spacer newels are being used, also drill holes for them using the top plate as a template (N).
9. Secure the handrail in place by installing the supplied 1 1/4" Rail Wood Screws through the panels (and spacer newel top brackets if used) into the handrail bottom (N).

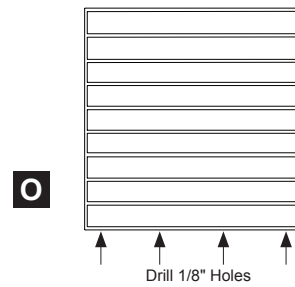


## **Level Run Curb Wall or Flush Mount Panel**

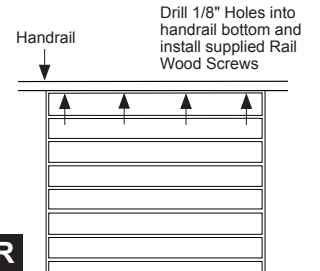
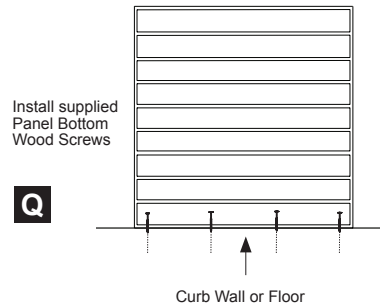
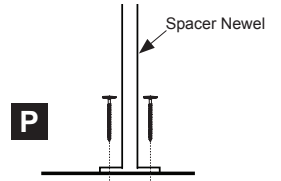
### **System Installation:**

Determine spacing for each level run and order the necessary panels and spacer newels to infill each run to meet building codes.

1. Drill 1/8" holes evenly spaced through the bottom of each panel equal to the number of 2 1/2" Panel Bottom Wood Screws (bottom) supplied with the panel (**O**). We recommend the holes be drilled in a serpentine pattern like the predrilled holes in the top of the panel.
2. Position and mount each spacer newel (if used/required) on the curb wall or floor using the supplied 2 3/4" Post Foot Lag Screws (**P**).
3. Position the level panels on the curb wall or floor and secure them using the 2 1/2" Panel Bottom Wood Screws (**Q**).
4. Trim the handrail to length for each run. Utilize handrail fittings for making turns or changes in elevation (if desired).
5. Position the handrail over the panels and mark and drill 1/8" holes in the bottom of the handrail at the predrilled locations in the panel tops. If spacer newels are being used, also drill holes for them using the top plate as a template (**R**).
6. Secure the handrail in place by installing the supplied 1 1/4" Rail Wood Screws through the panels (and spacer newel top brackets if used) into the handrail bottom (**R**).



Mount Spacer Newels using the supplied Post Foot Lag Screws





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