



SkateStoppers is a trademark of Intelliccept

HR Series Rail Installation

09/03

The following are step-by-step instructions for the installation of SkateStoppers HR Series rail parts. This patent pending product incorporates Intelliccept's Smart Pin design, so no tapping is required. You will note that the drilled holes on the hand rail are actually larger than the screw diameter. The part is held in place by the location of the fasteners at opposing angles and the use of adhesive.

For best results and easiest application, we recommend that you use the following tools and supplies:

- 1) SkateStoppers HR Series Product and tamper resistant fasteners
- 2) SkateStoppers Adhesive
- 3) Adhesive Applicator and Mixing Nozzles
- 4) Electric drill and #7 drill bit (or 7/32")
- 5) Steel Nail Set
- 6) Mineral Spirits and Rags
- 7) Isopropyl Alcohol
- 8) No Skating Signs
- 9) Protective Gloves and Safety Glasses

WARNING: The American with Disabilities Act forbids the installation of any raised obstacle on handrails that are designed to provide access for persons with disabilities. If you are experiencing skate abuse on such handrails, we recommend that you consult with local ADA representatives.

Step One - Product Layout

SkateStoppers HR Series rail pieces are designed with a low profile to complement existing architecture. It is important to place the product at equidistant increments and symmetrical to the applied surface so that the goal of deterring abuse can be achieved without creating an eyesore.



The rail on which the product is to be applied should be measured. Make a mark on the working surface approximately 12" from both ends- these will serve as your end pieces. Next, measure the distance between the end pieces and divide that distance into equal increments (approximately 24-36"). Mark the working surface at the appropriate placement positions. Depending on the magnitude of the abuse at your site, you may choose to increase or decrease the recommended distance. For chronically abused properties, consider decreasing the space between parts. Examine the rail from a distance. If the parts are laid symmetrical and the spacing is deemed adequate, proceed to the next step. Otherwise, repeat this process until a satisfactory layout is achieved.

Step Two - Mark First Hole

Center the piece on the top of the rail at each mark. Hold the part flush to the hand rail. Using a punch set, mark the rail through the hole in the part. MARK ONLY ONE HOLE AT THIS TIME. Repeat this marking process until all of the first holes have been marked.



Step Three Drill First Hole

Once the first holes have been marked, you are ready to begin drilling. Using an electric drill motor and a #7 or 7/32" drill bit, drill the marked hole on the rail. Repeat this step for all of the parts. NOTE: THE HOLE THAT YOU ARE DRILLING IS INTENTIONALLY DRILLED LARGER THAN THE SCREW.

Step Four - Mark and Drill Second Hole

Insert a fastener through the part, and set the part on the rail (the fastener should fit through the hole on the rail and the part should be snug). DO NOT APPLY ADHESIVE AT THIS TIME. With the part in place, mark the second hole with the nail set. Remove the part and drill the second hole.

NOTE: Location of the second hole is critical to fit of the fastener through the rail. Be sure that the bit does not wander during drilling (for best results, use a #21 or 5/32" bit to drill to drill a pilot hole). Test that the fastener will fit through the part and in the rail (If the second fastener does not fit, you will need to open the hole larger.) Repeat this process until all of the second holes are drilled.



Step Five - Prepare Surface

Superior bonding is achieved by preparing the surface properly -roughing the surface. We recommend using a hand grinder to roughen and/or remove paint from hand rails where the parts will be applied. If a grinder is not available, emery paper can be used. Once the surface has been roughened, wipe with a clean rag and Isopropyl Alcohol.

Step Six - Apply Adhesive

The adhesives that we offer have characteristics that make application faster and easier than other products. The non sag properties allow the material to be used on vertical surfaces without runs. As a standard, 50ML adhesive is supplied with small kits and 400ML adhesive is supplied with large kits.

ADH50ML and ADH400ML - These impact resistant epoxies have a work life of 10 minutes. Material can set in the mixing nozzle for approximately 6 minutes before it will start to harden. This material sets in approximately 12 minutes (depending on temperature) and full cure is achieved in 4 hours. When using this material, lay out all parts and anchors adjacent to their respective mounting locations prior to commencing with application of adhesive. Apply adhesive to one piece at a time and anchor the piece immediately. Trimming of excess material (Step 7) should be completed within one hour of application. Delaying trimming for any time longer than 1 hour may result in great difficulty with cutting through the adhesive.

DURING USE, ADHESIVE SHOULD BE STORED AT TEMPERATURE RANGE BETWEEN 60 DEGREES AND 80 DEGREES FAHRENHEIT.

DO NOT STORE ADHESIVE PACKAGES IN THE SUN. HEATED MATERIAL WILL ACCELERATE SET AND CURE TIMES, MAKING APPLICATION MORE DIFFICULT.

Follow the instructions for installing the adhesive and mixing nozzle into the applicator gun. The first 1/2" of material from the nozzle may not be properly mixed and should be discarded (Discard material until the color is uniform gray).

When you are ready, place the end of the nozzle in the part and squeeze the applicator trigger. Apply adhesive in a spiral, starting at the perimeter and working your way to the center.

Note: If adhesive does not extrude from the sides when the part is installed under Step 6, you have not used enough.

Storage: If there is adhesive remaining in the tube and you are finished, leave the mixing nozzle on. The mixing nozzle will act as a cap until the next time the adhesive is used. .

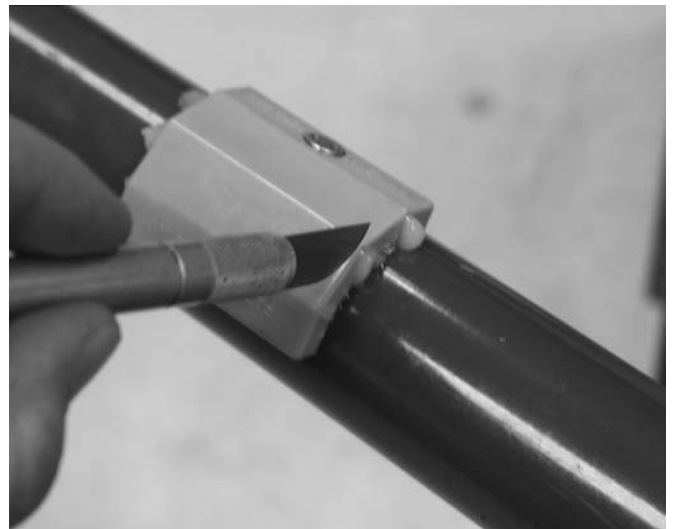
Step Seven - Apply the Part

Screw one tamper resistant through the part. Position the part on the rail and hand tighten the screw (do not over tighten the screw). Insert and tighten the second fastener. Repeat this process until all pieces are secured.



Step Eight- Trim Adhesive

The best time to perform the trimming is when the adhesive is soft but not tacky. You should be able to cut through it, leaving a clean edge. Refer to Step 6 for cure times.



Step Nine - No Skating Signs

If you haven't already done so, post "No Skating" signs on your property. If you are installing SkateStoppers in pedestrian traffic areas, your signs should include language warning pedestrians that SkateStoppers are installed. For specific recommendations on the language that your sign should contain, seek the advice of your Risk Management Department or legal counsel.