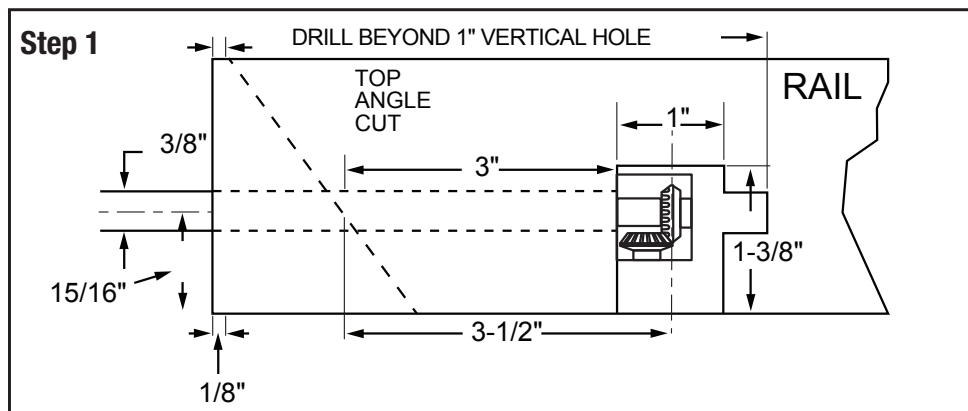


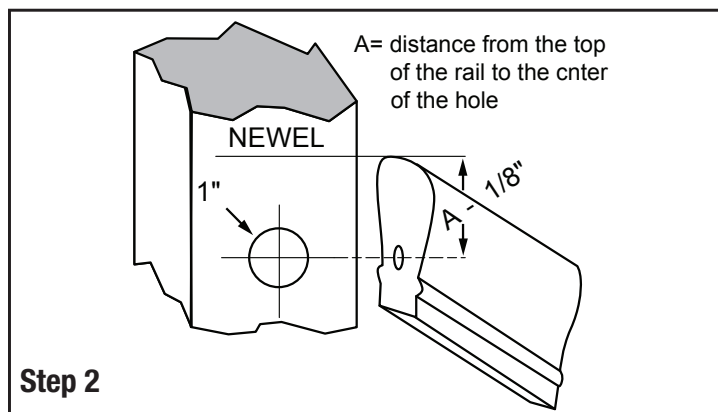


Rake Hand Rail Connection

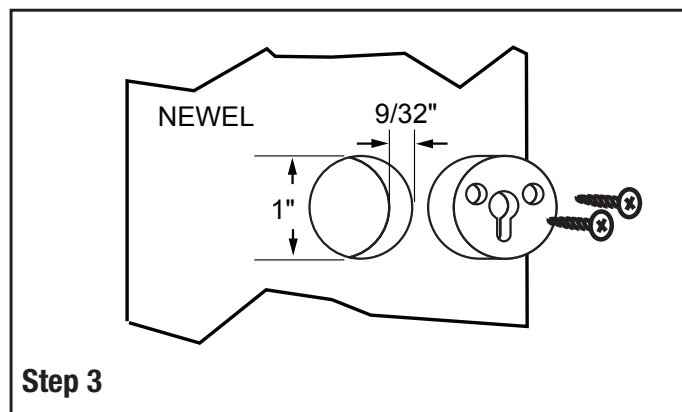
Angled SlipFix Railbolt (A-3001 ASF) Instructions



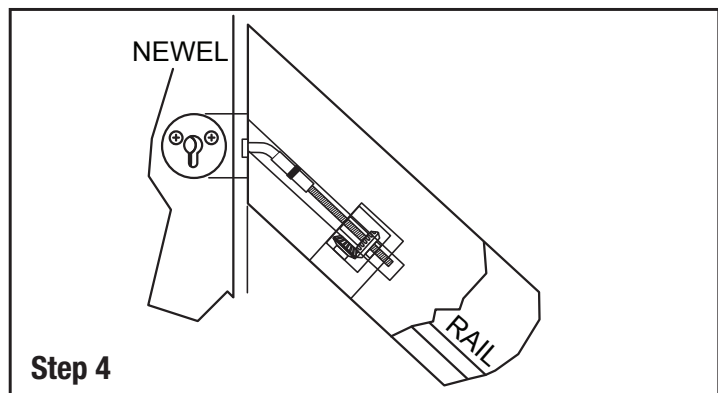
Cut rail 90 degrees square. Then mark proper angle on railing 1/8" in from the end of 90 degree cut. Mark center of rail on 90 degree cut, up 15/16" from bottom of rail. Drill a 1" dia. hole in bottom of rail on centerline 3-1/2" from where the angle and 15/16" dimension intersect hole. The hole should be 1-3/8" deep. Drill a 3/8" dia. hole in end of the rail. Hole should be 4" deep, drilling past the 1" dia. hole. Note: It is very important that the 3/8" hole is drilled before cutting the angle of the rail.



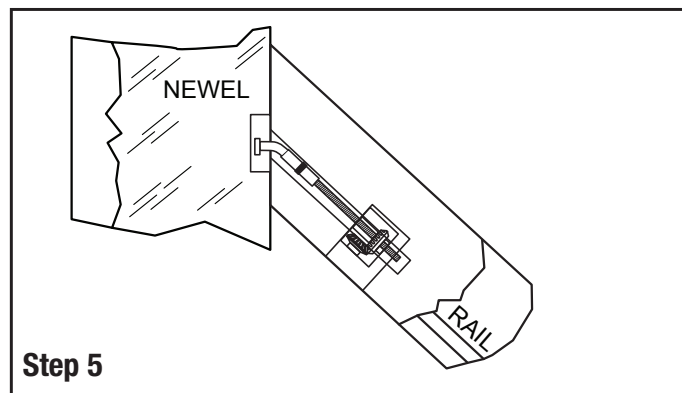
Cut rail at pitch from 1/8" mark. Measure distance from top of rail to center (A) of 3/8" hole on pitch (Note the measure). Now, mark a line on the newel that represents the top of pitch cut which is top of the rail. Then measure down the distance from top of rail to center of 3/8" hole (A), and subtract 1/8". This is the center of the disc.



Drill 1" dia. hole 9/32" deep. Install keyhole disc so that it is flush or slightly under the post. Secure disc with screws. (Tip: Pre-drill holes to accept screws)



Slide rail on bolt and "dry fit" to be sure of proper angle and fit. If another cut is needed, take the least amount off to correct cut. The 3/8" deep hole that was drilled has allowed enough room for you to make this adjustment. Install bolt and gear head. Retract tip as far as you can to angle when sliding into position. You may have to exert a small amount of pressure on newel to help slide tip into position.



When proper fit is complete, glue and insert angled tip and tighten into place with 5mm driver and ratchet or allen wrench. Glue and insert a wooden 1" dia. plug. Sand flush with bottom of rail.