

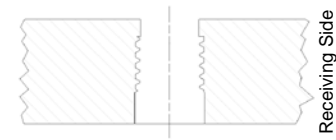
Your Elijah Tooling, Inc. Invert-A-Bolt™ (IVB) precision locator incorporates the unique "upside-down" characteristic of holding as well as providing very precise locating capabilities. This precision locator serves as the equivalent of a "round pin" locator and should be considered the "hard" location in your application. This product can also be used for non-hard locations by enlarging the receiving bore diameter.

**OPERATING INSTRUCTIONS**

Usage of your IVB fastener requires simple preparation of the "holding" side for the housing threads and preparation of the "receiving" side for the stud threads. For Flush Mount:

**1 Prepare the "receiving" side:**

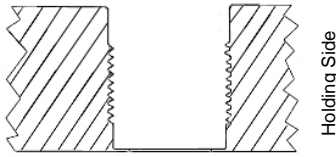
1. Tap drill 11.1mm (.437") diameter thru.
2. Bore .4993" +.0005/-0.0000 to .34" depth.
3. Tap 1/2"-13 UNC-2B to .60" depth.



Receiving Side

**2 Prepare the "holding" side:**

1. Drill a 31/32" diameter thru hole (optional).
2. C'Bore 1.17"/1.178" x .010 diameter to 1.471" depth.
3. Bore 1.250" +.001 /-.000 diameter to .400" depth.
4. Tap 1 1/4"-12 UNF- 2B LH to 1.25" depth.



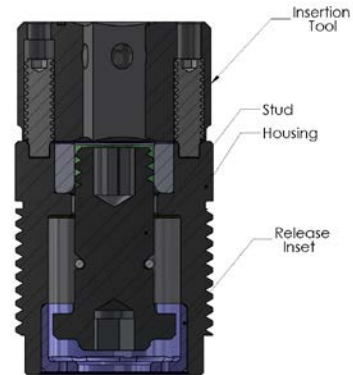
Holding Side

Prep the "holding" side and the "receiving" side as described in installation instructions. Using P/N AA03-004-004 insertion tool, Screw the IVB precision locator into the 1 1/4"- 12 threaded hole until shoulder of IVB precision locator "bottoms" in the hole or until face of locator is flush with "holding" side. Torque to 35-40 ft.lbs using PRO-1 pneumatic torque limiting driver.



To use: Place the "receiving" side 1/2" diameter prepped hole directly above the IVB precision locator. Reach through the 1/2" diameter hole with your hex head wrench until contacting the hex head broach in the IVB stud. Start turning counter-clockwise 1/4 of a turn and the stud will pop up into the receiving side hole, first engaging the 1/2"-13 tapped hole and then on to the .4993" diameter bore. Continue to turn the hex wrench and tighten until the stud is fully engaged (about .58" into the "receiving" side). Use a feeler gauge to insure that the "receiving" side material is pulled down properly.

Cross section of IVB Precision Locator with Insertion Tool



**LIMITED WARRANTY**

We warrant that within 90 days from the date of shipment, if the product manufactured by us and sold by us (or an authorized distributor) is in the possession of the original buyer, we will replace or repair, at our option, free of charge, any part or parts which upon examination are found to be defective in workmanship or material, and not due to normal wear, provided that, upon our request, the product or parts thereof are returned to our location, with accompanying documentation that the product has been installed, used and maintained in accordance with instructions and has not been subject to abuse. We shall not be liable or responsible for any expense or liability for repairs, additions, or modifications made upon the product without our written consent.

This warranty is in lieu of all other express or implied warranties (including without limitation any warranty of merchantability or fitness for a particular purpose.) In no event shall we be liable for any indirect, special, or consequential damages (including, but not limited to, lost profits or other damages from loss of production) caused by defective material, or by unsatisfactory performance of the product, or by any other breach of contract by us.

The Elijah Tooling, Inc. Warranty shall apply in all cases to all products manufactured by us and sold by us. Elijah Tooling, Inc. reserves the right to modify or change the design of products shown in this specification/instruction sheet, without notice. Such modifications or changes may include, but are not limited to, changes in finish, materials, specifications, etc., from descriptions and illustrations of products listed herein.

**Proviso:** The IVB Precision Locator is not certified to any specification. If loading is a concern, you should perform your own load analysis prior to usage in an application. The IVB Precision Locator should be used in only two positions – fully engaged and fully dis-engaged. The tolerances attained by usage of the IVB precision locator are directly related to the preparation of the "holding" & "receiving" sides. Correct preparation per the installation instructions is essential to proper operation of this product.

Precision Locator P/N: PL03-500-021  
 1/2"-13 dia. Stud x 1.25-12 dia left hand Housing  
 .28 locating engagement, 1/4" hex



Note: The "holding" side is prepped with a "slip fit" condition, so, although the IVB precision locator should screw easily into the hole, the fit should be very tight.