

User Guide



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**ProMAXX engineered performance tools are
proudly made in the United States of America by
American craftsman using American materials.**

LIMITED LIFETIME WARRANTY

The ProMAXX® ProPlate™ included in this repair kit is a quality precision tool designed and manufactured by ProMAXX® in the USA and is backed by a LIMITED LIFETIME warranty. ProMAXX® warrants this product to the original purchaser for its useful life against deficiencies in material and workmanship. This LIMITED LIFETIME WARRANTY does not cover normal wear and tear, and if it is used incorrectly, abused, altered or repaired. Deficient products will be replaced or repaired. For replacement parts, or for information about ProMAXX® and our line of precision machine tools and tooling, visit www.ProMAXXtool.com.

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Thank you for your investment into the ProMAXX® NICO™ Injector Hold Down bolt repair kit for the Ford 6.7L diesel engine! The device was engineered to speed the repair of the broken injector hold down bolt by completely and entirely machining the factory OEM fastener out and restoring the tapped holes in the cylinder head without removal. Used properly and following instructions, the device will provide years of reliable service and cost effective repairs for you and your operation.

Remove all fuel lines, and fuel injectors with the optional ProMAXX® PowerPull™ fuel injector PowerLift™ and/or PowerHammer™ kit. ProMAXX® has engineered a faster solution for easy and hassle free injector removal (see enclosed brochure). Remove the valve cover and only the corresponding valve train necessary to gain access to the broken injector hold down bolt. Protect all open cylinder head cavities from cutting debris with a shop towel(s) or removable packing cellophane or similar tape. Remove any remaining portion of the fastener that protrudes above the surface of the cylinder head so that the fastener is flush, flat, and even with the surface of the cylinder head. Clean any remaining debris prior to mounting the NICO ProPlate™ Assembly. Once cleaned, insert the ProPlate™ nylon flange side down, (ProMAXX® logo up for drivers side, ProMAXX® logo down for passenger side) into the injector passage of the cylinder head carefully slipping the NICO™ assembly between the two exhaust valves as shown below.



Using a 9/16" boxed wrench or deep socket and hand operated ratchet (do not use an electric or air powered ratchet or damage to the NICO™ expandable flange will result) and tighten the chrome hex nut PHX375 until the ProPlate™ stops moving. Once stable, turn one-quarter to one-half additional turn securing the ProPlate™ to the head – DO NOT OVERTIGHTEN. Set the stainless steel ProPin™ in the small mounting hole and insert ProBushing™ PPB125 into the NICO™ assembly so that the notch in the bushing clears the ProPin™ and seats into the ProPlate™. Check the depth of an open injector hold down bolt hole and mark your tooling bit accordingly to eliminate damage to the cylinder head. Once set, select the ProDrill™ SPJC125 included in the kit (or optional ProMAXX® Platinum PLT125) machine tooling bit and insert it into a 3/8" capacity air or electric drill. Be sure to regulate drilling speed to approximately 250 RPM, not exceeding 300 RPM or damage to the tooling bit may result. Open the cap on the ProLube™ PPL001 machinist cutting oil and insert the small tooling bit in through the cap and retract. The bottle is designed to deliver the precise amount of oil necessary for the operation. For larger tooling and subsequent machining, use just one drop placed on the end of the ProDrill™ and ProBushing™ when necessary. **AVOID PENETRATING OIL/SPRAY OR OTHER LUBRICANTS.** Turn your drill chuck manually by hand and insert the SPJC125 machine tooling into the bushing until it rests on top of the damaged bolt. Before drilling continuously, toggle your drill on and off five to six one-second intervals applying light pressure on the drill. This process will allow the cutting edge to engage in the cutting surface prolonging bit life. Once complete, begin drilling continuously until your drill chuck rests on the ProBushing™. Remove and replace the SPJC125 machine tooling bit with the SPJC188 bit, the PPB125 ProBushing™ with the PPB188 ProBushing™, and repeat the process above. Repeat the steps once again utilizing the PPB266 ProBushing™ and SPJC266 ProDrill™ tooling. Once drilling is complete, clear all debris once again with a vacuum air attachment to ensure the surface is clean of all debris. Lastly, insert the final PPB320 ProBushing™ and using a 3/8" drive tap holder or tap handle attached to the ProTap™ PPT008 precision machine tooling tap included. Add three drops of ProMAXX® ProLube™ to the tap; insert the ProTap™ PPT008 into the bushing slowly turning the tap by hand until the tap stops. Carefully turn the tap clockwise, then counterclockwise, 1/4 turn at a time repeating this process until the tap stops cutting. To prolong tap life, remove and clean debris from tap, hole, and bushing periodically. Once complete, remove the ProPlate™ from the exhaust manifold by loosening the chrome hex nut until it spins freely. Remove the ProPlate™ from the manifold. It may be necessary to lightly tap the end of the ProArbor™ to unlock it from the cylinder head. Be sure to use a plastic faced hammer that will not damage the arbor.

NOTE: The fasteners used in the hold down bolt can become hardened via hot and cold duty cycles making machining more difficult. The precision machine tooling included in your ProKit is engineered as a complete solution. They are machined turned right here in the USA to the correct and proper diameter maintaining the exact tolerances necessary for a successful and cost effective repair. ProMAXX™ tooling may be sharpened to maintain optimum performance. Maintain a cutting angle of 140 degrees primary and 57 degree secondary. ProMAXX® does offer a sharpening service to return your machine tooling to optimum performance. Visit our website at www.ProMAXXtool.com for details or for replacement tooling.

SAFETY PROCEDURE: ALWAYS USE APPROPRIATE SAFETY EQUIPMENT INCLUDING OSHA APPROVED SAFETY GLASSES/GOGGLE AND PROTECTIVE GLOVES WHILE USING THIS DEVICE AND PERFORMING THIS OPERATION.