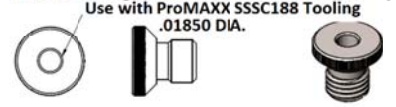


ProBushing - SMALL PPB125II (STD.)



ProBushing - MED PPB188II (OPT.)



ProBushing - LARGE PPB266II (OPT.)



Congratulations on your purchase of a ProMAXX® engineered performance device! Our tools are manufactured to the highest standards of precision and quality right here in the United States of America. We are extremely proud of our products and as such we provide a limited lifetime warranty and technical support to assist you in obtaining the most benefit from them. The ProMAXX® ProPlate™ included in this kit was designed to assist in the removal of broken exhaust manifold mounting bolts in the GM GEN III 5.3L, 5.7L, 6.0L, and 6.2L V8 engines commonly found in the Silverado®, Sierra® pickups, Yukon®, Escalade®, Suburban®, Tahoe® SUVs, and cab and chassis configurations. Used properly, the device can significantly reduce repair times and risk associated with removal and subsequent replacement of exhaust manifold mounting studs.

Before use, it is recommended that the cylinder be cleaned of any debris. Once cleaned, attach the ProMAXX® ProPlate™ to the cylinder head in any one of the two positions shown above using the ProFast™ PPF011 precision stainless steel fasteners by first inserting (1) ProFast™ PPF011 fastener in the mounting hole (rear) above the drill depth gauge, then the remaining fastener (front) in the opposite end. Snug the rear one first while jiggling the ProPlate™ to allow the fastener to properly register it on the cylinder head. Snug the front and then tighten the rear one completely and repeat for the front. In some driver's side applications, loosening or removing the engine mount will allow additional clearance by slightly lowering the engine. Consult the GM ENGINE REMOVAL manual for instructions. Insert the PPB125 ProBushing™ into any tapped bushing mounting hole that is aligned over the damaged bolt. Insert a ProDrill™ SSSC125 precision-machined tooling bit into a regulated air-powered drill and use the drill depth gauge machined into the ProPlate™ to set the proper depth of the bit. Place one drop of ProLube™ drill/tapping fluid on the bit and ProBushing™. Insert the mounted ProDrill™ into the ProBushing™ first by slowly and manually turning your drill chuck until the ProDrill™ slips into the bushing and contacts the surface of the damaged stud. While applying light pressure, activate your drill both on and off in one second intervals for approximately five to ten seconds. This initial step creates a "seat" for the bit to rest and ensures that the bit will stay on the stud center and not follow the angular surface of the damaged stud. This reduces tooling bit breakage and drilling off center of the damaged remnant. Retract the bit and clean the debris from the bit with a shop towel. This removes case hardened pieces and extends the life and cutting action of the tooling bit. Insert the ProDrill™ tooling bit into the ProPlate™ once again manually as described previously above. Continue running your drill building pressure for five to ten second intervals and while the bit is turning, slowly extract the bit maintaining it in the bushing to allow the bit to "clean" cutting debris from this operation. Repeat this step for approximately every ten seconds progressively exerting more pressure until the ProChuck™ rests on the bushing mounted in the ProPlate™. Once the machining operation is complete, remove the ProPlate™ and replace the ProDrill™ with the optional ProCutter™. Add two drops of ProLube™ cutting oil to the ProCutter™ blade and pin projecting from the ProCutter™ into the hole created from the ProDrill™. Apply moderate pressure, once again, toggling your drill on and off for five to ten one second intervals. This operation will remove the burr and corrosion that often restricts removal of the damaged stud increasing your immediate success of extracting the damaged remnant. Insert the larger SSSC188 ProDrill™ using the drill depth gauge to set proper depth. Repeat the previous drilling instructions above. Using the optional PPT188 ProTractor™, place a mark with a permanent marker approximately ¼" from the end of the extractor. Tap the ProTractor™ in to the depth of the line. Place the included slip-nut over PPT188 ProTractor™ and slide it up against the cylinder head. **USE A GOOD QUALITY AND CALIBRATED TORQUE WRENCH AND DO NOT EXCEED 180 IN-LBS OF TORQUE OR FAILURE MAY RESULT.** Slowly apply torque - first in the clockwise direction, and then in the counter-clockwise direction. Repeat this motion slowly increasing applied torque being careful not to exceed safe torque limitations stated above. If the damaged stud fails to release, **STOP** and remove the extractor. In these cases, ProMAXX® offers and recommends using a larger PPB266II ProBushing™ and corresponding SSSC266 machine tooling bit to complete the repair process. This operation leaves only the threaded portion of the stud. Simply blow the debris free and follow with the optional ProChaser™ precision thread chaser. In the unlikely event an extractor fails, contact technical support at www.ProMAXXtool.com, or dial 412-347-4041 for recommendations and procedures.

In extreme cases, applying heat via cutting torch tip installed in an acetylene and oxygen cutting torch in a circular pattern approximately 1/2" radius about the diameter of the tapped hole housing the broken stud may soften the locktite® used when the engine is assembled. Apply heat for a minimum of four (4) minutes and insert PPT188 ProTractor™ and repeat instructions above. Tooling cutting speeds (Under load): MIN: SSSC125/SSSC030 @300 RPM, SSSC188@200, SSSC266@150. MAX: SSSC125 @900 RPM, SSSC188@300, SSSC266@250. OPTIMUM: SSSC125/SSSC030 @500 RPM, SSSC188@250, SSSC266@200. **NOTE:** Some air ratchets may not generate sufficient RPM under load to be effective. SEE ProMAXX® ProRatchet #PPR5250

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

User Guide



**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 machine-tool designed and manufactured 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 more information about ProMAXX® and our complete line of precision machine tools and tooling, visit www.ProMAXXtool.com.