

User Guide



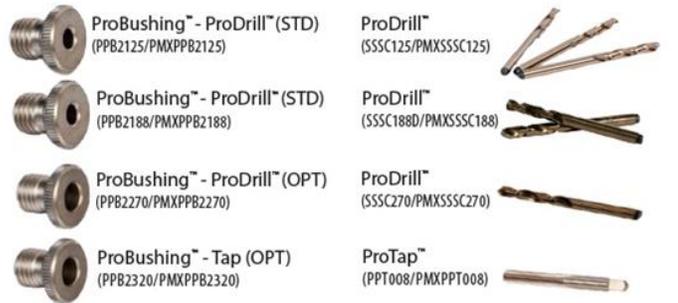
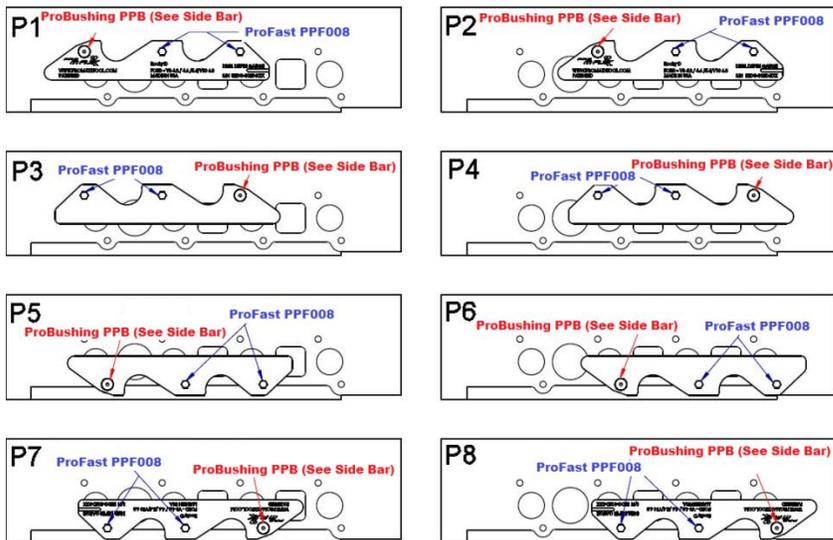
ProMAXX engineered performance tools are proudly made in the United States of America by American craftsman using American materials.

ROCKY & ROCKY II

LIMITED LIFETIME WARRANTY

The ProMAXX® ProPlate™ included in this repair kit is a high-quality precision 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 line of engineered performance tools and machine tooling, visit www.ProMAXXtool.com.

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Optional Extractor-less Repairs

PPB2125 with ProDrill™ SSSC125 PPB2188 with ProDrill™ SSSC188 PPB2270 with ProDrill™ SSSC270 PPB2320 with ProTap™ PPT008



Ford Gas & Diesel Application

Thank you for your purchase of the new ProMAXX® 200 Series Rocky/Rocky II Exhaust Manifold Repair Kit! We engineered them for fast and easy removal and replacement of broken exhaust manifold mounting studs for the Ford Modular 2 and 3 valve, V8 gas 4.6L, 5.4L, & 6.8L engines, (Rocky 200) and Rocky II, for gas and also for the Ford 6.0L/6.4L/INT'L Diesel 365 and MaxForce7@ engines. Mount the ProPlate™ to the cylinder head in any one of the positions shown above using the included ProFast™ PPF008500 precision stainless steel fasteners. Insert the PPB2125 ProBushing™ and corresponding ProDrill™ (see above) machine grade tooling bit into an air-powered drill and use the drill depth gauge machined into the ProPlate™ to set the proper depth of the bit. Open the cap on the ProLube™ PPL001 drilling and tapping cutting fluid and insert the mounted SSSC125 tooling bit 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, place one drop on the end of the ProDrill™ and ProCutter™ when necessary. AVOID PENETRATING OIL/SPRAY OR OTHER LUBRICANTS. Insert the mounted ProDrill™ into the included ProBushing™ PPB2125 mounted in the ProPlate™ first by slowly and manually turning the chuck until the ProDrill™ slips into the bushing and contacts the surface of the damaged stud. This will ensure the cutting edge is not damaged. While applying light pressure, activate your drill both on and off in approximately one second intervals for five to ten seconds. This initial process is critical in that it creates a "seat" for the bit to rest and ensures that the bit will stay on stud center and not follow the angular surface of the damaged stud. This also allows the cutting edge to completely engage for optimum cutting capability. Drill continuously running your drill at the proper RPM (see below), slowly applying more pressure in ten second intervals and while the bit is turning, extract the bit while maintaining it in the bushing to "clean" cutting debris from this operation. Repeat this step for approximately every ten seconds progressively exerting more pressure until the drill chuck is approximately ¼" from contacting the bushing mounted in the ProPlate™. Once the machining operation is complete, remove the ProPlate™ and replace the SSSC125 ProDrill™ with the optional ProCutter™ PPC007A if electing to extract the damaged remnant. Add one drop of ProLube™ PPL001 to the end of the cutter blade and insert the projecting pin of the arbor into the hole created from the ProDrill™. While applying moderate pressure, toggle your drill on and off for five to ten seconds. This operation will remove the burr and corrosion that often restrict removal of the damaged stud thereby increasing your immediate success of extracting the damaged remnant. Utilize the optional splined ProTractor™ PPT125 by placing a mark approximately ¼" from the end of the extractor. Tap the ProTractor™ in to the depth of the line. Place the included slip-nut over the ProTractor™ and slide it up against the cylinder head. While holding the opposite end of the ProTractor™ and using a high-quality calibrated torque wrench, slowly and carefully apply torque, first in the clockwise direction, and then in the counter-clockwise direction to loosen the damaged stud. **DO NOT EXCEED 80 IN-LBS OF TORQUE.** Repeat this motion several times slowly increasing applied torque and being careful **NOT TO EXCEED** safe torque limitations stated above. If the damaged stud fails to release, **STOP** and remove the ProTractor™. In more challenging cases, ProMAXX® offers and recommends (highly recommended for Ford 6.8L V-10) using the optional ProDrill™ SSSC188 and the corresponding ProBushing™ PPB2188 (STD in Rocky II) followed by the ProTractor™ PPT188. In extreme cases, utilize the optional ProMAXX® ProDrill™ SSSC270 and PPB2270 ProBushing™ tooling to follow the SSSC188. This step will leave only the threads of the broken stud remaining. Simply blow the debris clean and follow with PPB2320 ProBushing™ and PPT008 ProTap™ precision machine tooling to clean the restore the threads to factory specifications. In the unlikely event an extractor fails, contact technical support at 724-941-0941 for recommendations and procedures. **For Ford/INTL diesel applications,** ProMAXX® recommends an extractor-less repair using the steps above omitting any attempts to extract the damaged stud. Simply use sequential ProDrill™ and ProBushing™ sizes finishing with ProMAXX® ProTap™ PPT008 as shown in the photo above to complete the repair.

NOTE: ProMAXX® does not recommend tapered left-handed screw extractors as they have the potential to deform the remnant in the cylinder head increasing complexity to extract. In addition, these extractors cannot be turned clockwise to unlock the damaged remnant. Tooling cutting speeds (Under load): MIN: SSSC125/SSSC030 @350 RPM, SSSC188@200, SSSC270@150. MAX: SSSC125 @900 RPM, SSSC188@300, SSSC270@250. OPTIMUM: SSSC125/SSSC030 @600 RPM, SSSC188@250, SSSC266@200. **NOTE:** Some air ratchets may not generate at a sufficient RPM under load to be effective. SEE ProMAXX® ProRatchet #PPR5260 at www.ProMAXXtool.com for optimum efficiency. Use the optional ProPin™ where only one tapped hole is available. Simply mount the ProPlate™ with one ProFast™ fastener in any open hole and use the ProPin™ over the broken remnant.

PROMAXX MACHINE GRADE TOOLING IS SPECIALLY ENGINEERED TO CLOSE TOLERANCES OF (+) .000" AND (-) .001" AND GROUND STRAIGHT TO ENSURE ACCURATE AND REPEATABLE RESULTS IN USING YOUR NEW DEVICE. SPECIFY PROMAXX® GENUINE REPLACEMENT PARTS AND TOOLING FOR OPTIMUM PERFORMANCE AND EXTENDED WARRANTY COVERAGE.

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