

# **HIGH TORQUE SBC BBC CHEVY 3HP STAGGERED BOLT STARTER PART # 215 - KIT ESPECIALLY DESIGNED FOR SBC ENGINES WITH HEADER CLEARANCE ISSUES.**



## **GEAR REDUCTION STARTER. STUD MOUNT KIT IS INCLUDED WITH THIS STARTER.**

**This starter will allow clearance for most headers, especially the long tube style. No other style starter comes close to providing the amount of clearance this unit does. If your headers are near the side of an oem style starter, then this is the style starter you will need. The cranking power is far superior to the oe style starter.**

**Many of the 400 sbc engines on the market must use a starter of this type, as they do not have the straight accross bolt holes in the block that would allow for the use of the other common type starters on the market.**

**Over the years we have encountered inferior models of this type of starter that had a higher than normal failure rate. This is not the case with this model. The price was certainly more but the quality of this unit is outstanding. If you have looked at our other items for sale you will notice that our pricing is the best around. Considering that this starter is of exceptional quality. We find it to be a far better value than any of the similar looking models on the market. Also consider the value of the mounting stud that is included with this starter.**

**BRAND NEW IN THE BOX! WE DO NOT SELL REMAN, OR  
REFURBISHED PARTS**

**WILL WORK FOR CHEVY V-8'S USING A 168 TOOTH FLYWHEEL AND A  
STAGGERED BOLT PATTERN ON THE BLOCK.**

**4:1 GEAR RATIO**

**COMPACT DESIGN**

**WILL CRANK ENGINES UP TO 15:1 COMPRESSION WITH EASE**



**GM STARTER STUD/BOLT KIT**  
**PC2106 INCLUDED WITH STARTER**



**The shims included with the stud kit are not for use with this starter. You should not need any shims but in case you do, a few thin washers will suffice. The studs will work on all GM starters.**

**Important note from our company president, Skip White**

This is a must for all GM starters. The conventional style starter bolts do not cover the full distance of the threaded portion in the block, nor does the knurled section of the bolt cover the full distance of the piloted hole in all GM blocks. The reason for this is that these distances vary from block to block, and the use of shims causes an even greater loss of bolt length going into the block. The problem with using regular starter bolts is that most high performance starters create far more stress on the bolts than is acceptable. This was not much of a problem with the low compression engines and the low powered starters that GM designed in the 70's and 80's. Those building engines with higher compression, and with the increased cranking output of most of the starters of today should positively use studs when mounting the starter. You may wonder just what happens with a high powered starter on an engine with higher than stock compression. Let me explain; the starter bolts flex when cranking as the engine comes up to the compression stroke, not to mention the runout that most flexplates have, and this allows the starter to wobble. You may remember that GM used a bracket on the back of some starters to secure them better, but as engines became milder in compression over the years, they done away with this valuable item. Put your hand on a starter while it's cranking and you will feel this slight movement. It is this movement of the starter while cranking that destroys your flexplate/flywheel, and starter prematurely. If you have failed to shim your starter properly if needed, this furthers the movement in the starter. This also decreases the cranking speed. You will notice that your able to install the studs the full distance of the threaded portion of the block, and the non threaded portion in the block is also completely filled with the knurled section of the bolt. A portion of the knurled section will also remain in the starter mounting pad. Besides the benefits of the above, a stud provides superior clamping force, with no stress on the threads in the block. These studs do have the same fine threads on the top side as seen on cylinder head studs. The bolts used on most after market starters cover only about 1/4 of an inch of the threads, and the knurled section of the bolt covers only about 50-75% of the pilot hole in the block. This is somewhat intentional as these distances vary from block to block, and if the bolts were designed for maximum coverage of these areas, then there is a great risk of bottoming out the bolt in the block. The bolts are designed with a safety margine in there specs to prevent bottoming out. If the starter bolt thread length is to long the risk of breaking or cracking the starter pad on the engine block is great, and if the knurled section is showing to far past the mounting block on the starter, then the risk of not being able to tighten down the starter exists. Due to these variances, all starter bolts are left slightly shorter than what is optimal for doing there job in these areas. The starter stud is a dream come true for mounting the starter in a secure way never before possible with bolts, and the use of shims does not affect any portion of the stud that's going into the block. We left enough of the fine thread on the top side of the stud to allow the use of several shims.

When installing the studs, screw them into the block as far as possible, and you will have filled all of the piloted hole in the block with the knurled section of the bolt, and you will have ran all of the threads showing on the bolt, (1/2 inch or more) into the threaded portion of the block. If you have a seven qt. oil pan on the engine, and install the studs into the block, you will be unable to install the starter as the kickouts on the pan will be in the way, but this is a simple fix, just slip the inside stud into the starter pad first, and then run it into the block. We ran into this issue on our test engine, and figured this out quickly.

This simple kit is a must on any starter, and we had our supplier make them to our desired specs. When installed you will cover the full distance of both the piloted section in the block, and the full distance of the threaded portion in the block without creating any possible harm to the block. ARP offers a similar if not identical kit, only at a much higher price. We have also noticed that there are a few aftermarket starters on the market, that don't even have the knurled section on the bolt, or it's not even in the correct postion on the shaft of the bolt, and the threads are far from covering even 1/4 of an inch of the threaded portion in the block. Remember that the threads in the engine block start about one third of an inch from the top of the surface of the block. Incorrect bolts are sure to destroy your flexplate/flywheel and starter quickly, and at best the correct bolts may get by if the engine and starter are of a stock nature. Most aftermarket bolts