



## 2009-13 GM GEN IV LS9 M12X1.75 HEAD BOLT THREAD REPAIR.

*(21 M12X1.75 inserts are supplied in this kit)*

Designed to be used with factory OEM head bolts or ARP® head bolts P/N 230-3701

**Note: If using custom STUDS, please contact us prior to installing the inserts since the insert depth may be different than specified in these instructions. The insert depth specified, is for maximum thread engagement when using OEM or ARP® BOLTS since they both have a longer thread length than most studs.**

**IMPORTANT!** Please read the “UNIVERSAL INSTALLATION GUIDE” provided in the kit in their entirety before proceeding. Details specific to repairing this engine regarding drilling & tapping depths along with insert installation depths are provided below.

**\*\*\* OEM FACTORY HEAD BOLTS OR STUDS SUCH AS ARP® ARE RECOMMENDED. DO NOT RE-USE OLD BOLTS \*\*\***

*The threads on the old head bolts are often stretched out of pitch from torquing, causing them to bind in the new inserts. On occasion, after market head bolts were found to be not tempered correctly and or the threads were not formed correctly, causing them to bind in the inserts.*

1. When mounting the drill/tap jig, follow the instructions on pages 3&4 using the short spacer provided (1½in. diameter x 1¼in. Long), along with one of the head bolts made for the engine being repaired.
2. Drill the holes the entire length of the original hole depths (aprox. 2¾” or 70mm), making sure to remove all factory threads .
3. **IF USING HEAD BOLTS**, the inserts are to be installed 18mm (.700”) deep from the deck surface to the top of the insert (see page 4, figure 4 of the Installation Guide). To accomplish this, you will need to thread the holes about 57mm (2.250”) deep.

**IF USING HEAD STUDS**, the inserts are to be installed 27mm (1.062”) deep from the deck surface to the top of the insert (see page 4, figure 4 of the Installation Guide). To accomplish this, you will need to thread the holes about 65mm (2.560”) deep.

**NOTE:** Always make sure the inserts will screw in to the correct depth before adding Thread Lock. Otherwise, if they don't install deep enough and they are already coated with Thread Lock, there is a very good chance the thread lock will set up before you are able to remove them.

*Note: This kit is universal for many other engines as well since the outside thread size of the insert does not change. Inserts are also available with internal threads of M10x1.25, M10x1.5, M11x1.25, M11x1.5, M11x2.0, M12x1.25, M12x1.5, M12x1.75 and 7/16-14.*