



**REPAIRS 97-03 GM LS SERIES GEN III 1st DESIGN 4.8, 5.3, 5.7, 6.0L
ALUMINUM ENGINES WITH 2 DIFFERENT LENGTH INNER
M11X2.0 HEAD BOLT HOLES
FITS:4.8 VORTEC, 5.3 LS4, 5.7 LS1&LS6, 6.0 LS2
(Not for LS9 engines)**

(21 M11X2.0 modified inserts are supplied in this kit along with a 5/8-11 x 6" extension tap)

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, making sure to remove all factory threads.
3. The GEN III 1st design block has two different depth of inner holes and two different inner head bolt lengths which require the inserts to be installed at two different depths. The 2 inner end holes in each bank are the shallower holes. Install inserts 17mm. (.610”) deep from the deck surface to the top of the insert for these holes (see page 4, figure 4 of the Installation Guide). And 70mm (2.775”) deep for the 8 deeper holes in each bank. To accomplish this, you will need to thread the holes about 55 mm (2.170”) for 2 shallower holes and 108mm (4.250”) for the 8 deeper holes. When threading the holes, start with the short 3 flute tap on any hole being repaired, then use the 6 inch extension tap to thread the deep holes to their final depth. The 4 flute Bottom Tap will not be used for this application.

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, M12x1.25, M12x1.5, M12x1.75 and 7/16-14.