

## TOYOTA/CHEVROLET/ PONTIAC 1.8L 1ZZ FE ENGINE

## M10x1.5 HEAD BOLT THREAD REPAIR

11 M10X1.5 modified inserts are supplied in this kit (requires 10)

- 1998 2002 CHEVROLET PRIZM 1.8L 110CI DOHC L4 16V, VIN CODE "8"
- 2003 2008 PONTIAC VIBE 1.8L DOHC L4 16V, VIN CODE "8"
- 2000 2005 TOYOTA CELICA GT 1.8L DOHC L4 16V, ENG.CODE "1ZZFE"
- 1998 2008 TOYOTA COROLLA 1.8L DOHC L4 16V, ENG.CODE "1ZZFE"
- 2003 2008 TOYOTA MATRIX 1.8L DOHC L4 16V, ENG.CODE "1ZZFE"
- 2000 2005 TOYOTA MR2 SPYDER 1.8L DOHC L4 16V, ENG.CODE "1ZZFE"

**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.

## \*\*NOTE: IF USING ARP® STUDS, THE STUD CALLED OUT FOR THE 1ZZFE WILL BE TOO LONG WTH THIS REPAIR. FOR THE CORRECT LENGTH STUD, USE ARP® P/N AM6.100-2B.\*\*

## \*\*\*DO NOT RE-USE OLD HEAD BOLTS \*\*\*

The threads on the old head bolts are often stretched out of pitch from torquing, causing them to tighten prematurely in the new 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 a head bolt made for the engine being repaired. If it is necessary to mount the jig to a hole that has just been repaired, make sure to use a <u>new</u> head bolt, otherwise an old head bolt may tighten up prematurely in the new insert since the threads of the bolt may be stretched out of pitch.
- 2. When drilling the holes, make sure to remove <u>all</u> factory threads. To do so, you will need to drill approximately 4in. (101 mm) deep. Failure to remove all original threads may cause the head bolts to stub on the old threads as they protrude through the bottom of the insert, causing the head bolt to tighten prematurely before reaching their final depth.
- 3. Install inserts 1¼in. (32mm) deep from the deck surface (gasket surface-see page 4, figure 4). To accomplish this, you will need to thread the holes about 3in. (76mm) deep.
- 4. Due to the inserts being installed shallower than the factory threads, back off 4ft lbs on the first pass to give the proper stretch on the head bolts to prevent over torquing. If using *ARP*<sup>®</sup> studs, follow *ARP*<sup>®</sup> 's torque specs.

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, M11x1.25, M11x1.5, M11x2.0, M12x1.25, M12X1.5, M12x1.75 and 7/16-14.