

07-UP CHRYSLER DODGE JEEP, MITSUBISHI, HYUNDAI, KIA 1.8/2.0/2.4L DOHC & SOHC GEMA WORLD ENGINE M11x1.5 HEAD BOLT THREAD REPAIR

11 M11X1.5 Modified inserts are supplied in this kit. (This application requires 10)

IF USING STUDS, PLEASE CONTACT US PRIOR TO INSTALLING INSERTS.

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.

*** 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 tall spacer provided (1½in. diameter x 2-5/8in. Long), with the recessed end facing upward 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 old bolt may be stretched out of pitch.
- 2. Drill the holes 3³/₄" (95mm) minimum to 3-7/8" (99mm) maximum from the deck surface. To accomplish this, mark the drill by measuring from where the drill cuts the full diameter (<u>not</u> from the tip of the drill). This will be approximately at the transition point of the ¹/₂" shank of the drill. This drill depth is especially critical in the 2 corner holes on the intake side of the engine due to oil passages close to the bottom of these holes.
- 3. Install inserts 1½"(38mm) deep from the deck surface (page 4, figure 4 of Installation guide). To accomplish this, you will need to thread the holes about 3¼"(83mm) deep from the deck surface.

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