



2012-2023 KIA/HYUNDAI 1.6L/1.8L/2.0L GDI G4G_ & G4N_ ENGINES WITH M10x1.5 HEAD BOLT THREADS

FITS:

HYUNDAI

Elantra, Sonata, Tuscon, Kona, Accent, Veloster

KIA

Forte, Soul, Optima, Rio

11 M10x1.5 Modified inserts are supplied in this kit (Requires 10 for this application)

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 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 new 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. Drill the holes the entire length of the original hole depths, making sure to remove all factory threads (aprox. 4” or 100mm). Failure to do so may cause the head bolts to stub on the old threads as they will protrude through the bottom of the insert, causing the head bolt to tighten prematurely before reaching their final depth.
3. The inserts are to be installed 1½” (38mm) deep from the deck surface (see page 4, figure 4 of the Installation Guide). To accomplish this, you will need to thread the holes about 3¼” (83mm) deep from the deck surface.

This kit is universal for many other engines as well since the outside thread is standard on all inserts. 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.