



Installation Instructions for KPMI Part No: **30-33850**

HONDA® • CRF450R • 2002-2008 / HONDA® • CRF450X • 2005-2017

HONDA® • TRX450R/ER • 2006-2014

Black Diamond™ Oversize Cylinder Studs

IMPORTANT NOTE / CYLINDER HEAD MODIFICATION REQUIRED: The OEM cylinder studs have a reduced diameter body and upper thread. This thin section stud can be inadequate when pushed to the limit in maximum performance applications.

These KPMI Black Diamond™ studs feature a 12mm diameter for the entire stud, providing maximum clamping force for extreme duty and peace of mind. A simple drilling operation with a 1/2" drill bit is required to modify the cylinder head. See Instruction #3 below.

A) 30-33850 Kit Includes

Quantity	Size Info	Size Info	Description	Remarks
4-Pcs	7.250"	Overall Length	Stud	Oversize Stud
4-Pcs	M12 x 1.25	12-Point	Nut	14mm socket
4-Pcs	0.875" OD	0.480" ID	Washer	-

B) Instructions

1. It is imperative that the threads this stud kit will be installed into, are intact, free of burrs and are properly formed. Preferably use a M12 x 1.25 Roll Tap and re-tap each internal thread. By using a Roll Tap you are reforming the thread vs cutting material away, which produces a stronger thread. In most cases you will not need to clean up the threads if all threads are properly formed, intact and a stud can screw in by hand uninterrupted. In the event threads are worn or badly deformed or missing, proper repair will be necessary beyond re-tapping, before installing this stud kit.
2. If the stud has different length threads on each end, apply motor oil to the **long** threads of each stud (if the threads are equal length, apply oil to either end). Thread the lubricated end by hand into the case. Screw the stud all the way in by hand and leave loose. Repeat this procedure for each stud.
3. Once all studs are installed into the case, the cylinder head must be modified to accommodate the oversize studs. Drill the four stud holes using a 1/2" drill bit. Remove any burrs or debris. Complete the installation of the cylinder head per the OEM instructions. Install the supplied washers and apply motor oil to the exposed stud threads. Thread the nuts on by hand till tight.
4. Using a crisscross torque-sequence for all steps, initially torque to 20-ft/lbs. Set the 2nd torque at 35-ft/lbs. Set the final torque at 50-ft/lbs. Note, this a wet torque recommendation. Do not exceed 50-ft/lbs. for any reason. This is a 12mm stud being threaded into aluminum and the clamping force being achieved with these Heavy Duty KPMI® Black Diamond™ Studs will be an increase of over 1300 lbs. from stock.

Packaged By: _____

Date: _____