

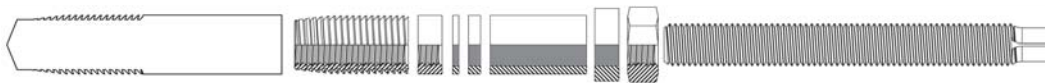
FFT411150DRK

Full-Torque[®]

Permanent Thread Repair

Instructions for installation of FFT4SP006 inserts into aluminum engine blocks (including the Cadillac Northstar)

M11 x 1.5 deep recess thread repair insert kit is for repairing of bolt holes in parts such as the Cadillac Northstar and others with recessed threads. The kit includes an install tool with stackable spacers to set the depth between flush and 2-3/16" below the surface.



1 After screwing the FTTID516 drill bushing into the FTDIP drill plate, insert the FT516AP alignment pin with the point down to center the drill bushing over the damaged bolt hole.



2 If you have at least one good hole left you can use a piece of tubing and some large flat washers as spacers and use a head bolt to anchor the plate to the block surface.



3 If there are no useable threads in any of the holes you will use the 9/16 tap and bolt provided in the kit to thread the top of any bolt hole and bolt the fixture down until the first insert is installed.



4 Measure the depth to the bottom of a hole and...



5 measure the thickness of the drill plate and drill bushing. Add the two measurements together.



6 Add **0.200"** to the total of the two measurements and place a mark on the drill bit. Measure from the outside corner of the cutting lip, not the point.



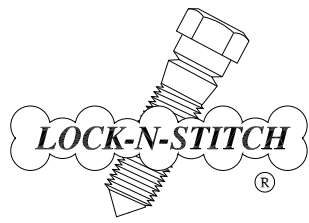
7 Add a few drops of the L852 cutting fluid.



8 Drill into the block until the mark on the drill bit reaches the top of the drill bushing.



9 Remove the drill bushing from the drill plate and install the FTTID609 drill bushing into the plate.



10 Next, measure down to the top of the original threads and...



11 measure the assembled thickness of the drill plate and the second drill bushing. Add both measurements together.



12 Mark the 39/64" drill bit the same way as the first drill bit.



13 Now drill down to the starting point of the original threads. This creates clearance for the tap so you will only thread the bottom of the hole.



14 Blow out the shavings.



15 Install the FTCM4TG tap bushing and apply a liberal amount of the L852 tapping fluid to the tap.



16 Tap the hole down until the tap reaches the desired depth.



17 For extra deep holes, remove the tap alignment bushing and continue tapping to depth.



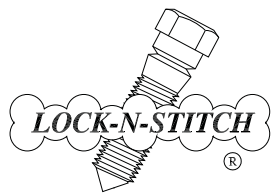
18 Remove the tap and blow out the shavings.



19 The deep reach installation tool comes with a threaded stud, drive nut, surface washer, bottom 1/4" threaded spacer, 1", 1/2", 1/8" and 1/16" thick spacers that can be stacked to allow installation depths adjustable in 1/16" increments ranging from flush to 2 3/16" below the surface.



20 After stacking the desired sizes of spacers including the bottom threaded spacer to equal the right deep recess, Tighten the bottom threaded spacer upward until all spacers are compressed against the surface washer. Next apply a small amount of anti-seize the bottom end of the threads to prevent the thread locker from getting between the insert and the stud.



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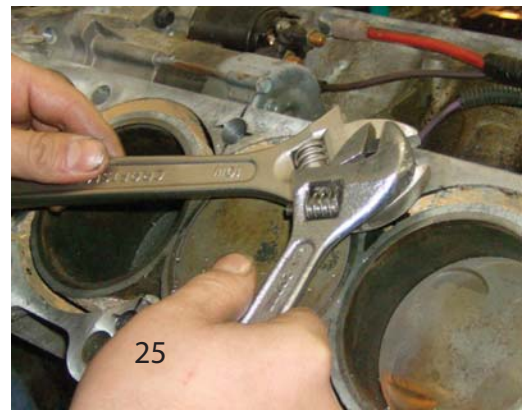
Screw the insert onto the install tool until it tightens against the bottom threaded spacer.



Apply a narrow band of thread locker around the tapered end of the insert.



Screw the insert in by hand and tighten it against the surface with about 25 lbs of torque.



Using two wrenches, hold the stud and loosen the drive nut.



Unscrew the installation tool enough to clear the top of the insert and pull the assembly out of the hole. Make sure the threaded spacer comes out. **Clean all thread locker from the install tool assembly immediately.**



Installation is complete.

If you or your customer will be using new head bolts to install the head the capsulized thread locker must be removed from the threads before using them. Failure to do so could damage the inserts because the thread locker could begin setting up before you get all the bolts torqued tight.