



[Calvan Tools 39300](#) - The 3-V Ford Triton Insert Kit designed to repair the spark plug threads in cylinder heads that use M16 x 1.5mm spark plugs. Equivalent to the Snap On / Blue Point FRT12 and uses the same FRT1-INS insert. Application 2004-2008 3-Valve Ford 4.6 or 5.4 with M16x1.5 spark plugs. *Not for 08 & newer with M12x1.25

Recommended Tools / Items for this repair include:

1. 39300 3-V Ford Triton Insert Kit.
2. 389-4000 Leak Tester.
3. JB Weld pn 8297.
4. Air Ratchet, good quality.
5. Video inspection camera.
6. Spark plug socket 9/16" like the OT6900 and common 3/8" extensions.
7. Shop rags.
8. Air compressor and blower.
9. Safety Glasses.

Before beginning ensure valves are closed. Insert guide into the spark plug well. Coat Core drill (reamer) with bearing grease and insert into guide. (Make sure E-clip is securely positioned on Core drill. This is a critical step in this procedure to ensure proper positioning of the new insert. Otherwise the seat may be damaged. See Illustration 1.)

Using a good quality air ratchet, carefully and slowly drill until E-clip touches top of guide. Slowly remove Core drill. Many of the shavings will be removed once the Core drill is removed.

CAUTION: ALWAYS WEAR SAFETY GLASSES WHEN BLOWING OUT THE CYLINDER. Use an air blower with compressed air to blow out any remaining shavings. A shop vac may also be used. Use an inspection camera to make sure the cylinder is clear of all debris and/or broken plugs.

Remove E-clip from Tap (See Illustration 2). Coat Tap with bearing grease and insert Tap through bottom of guide until tap threads are completely inside guide. Replace E-clip (See Illustration 3). **Warning:** Failure to replace E-clip can result in cylinder damage! Insert Guide/Tap assembly into spark plug chamber. Using an air ratchet wrench, carefully and slowly tap until E-clip touches top of guide. Most, if not all, shavings will be removed once the tap is removed. Remove Guide/Tap.

CAUTION: WEAR SAFETY GLASSES. Again using an air blower, carefully blow all debris out of the cylinder.

Use the inspection camera to verify all debris is removed from the cylinder. Screw insert onto the installation tool. Use JB Weld on the outside threads of the insert. Do not use a quick setting product.

Using a manual ratchet and extension, screw insert into new spark plug threads. Tighten insert until snug. With a quick left turn of the ratchet, break the Insert Plug free from the insert. Use caution that you do not also turn the insert. You may also allow bonding agent to cure prior to removing the installation tool removal. The insert is now a permanent part of the head. Using the appropriate spark plug socket, screw spark plug into new insert and torque to manufacturers specifications. Allow bonding agent to fully cure before running engine. Reconnect coil and boot. The job is now complete.

