DISCLAIMER: These instructions are for general removal and installation guidelines only. Always refer to the Original Equipment Manufacture's (OEM) installation instructions and specifications for proper replacement procedures.

ELECTRONIC FAN CLUTCH INSTALLATION PROCEDURE

IMPORTANT: Do <u>NOT</u> replace electro-viscous fan clutch unless a specific issue is identified by proper SI (Service Indicator / Check Engine) diagnosis.

Do <u>NOT</u> replace an electro-viscous fan clutch for fan noise.

Do <u>NOT</u> replace an electro-viscous fan clutch unless a specific condition related to the electro-viscous fan clutch is identified using SI diagnostics. If the electro-viscous fan clutch has a condition that warrants replacement, a DTC (Diagnostic Trouble Code) should be set and/or SI diagnostics should lead to the replacement of the fan clutch.

During start up for the electro-viscous fan clutch, it is normal for it to be engaged and match engine speed for up to 3 minutes. Furthermore, depending on ambient temperature and driving speeds (with lower speeds having a longer disengagement time) resulting in fan noise. The condition is considered normal and will subside within 2 to 3 minutes of clutch operation. Additionally, you may hear an audible "clicking" sound when a vehicle is stationary. This condition is normal and should cease once the fan clutch disengages.

PART# 3200/215156/46024 ELECTRONIC VISCOUS FAN CLUTCH

It is critical to use the correct fan clutch for the specific vehicle application for proper cooling and to avoid damage to the vehicle. Always check for and replace a damaged fan blade, shroud or water pump when replacing a fan clutch.

Warning: The engine must be completely cool when this procedure is performed.

Note: A special fan clutch wrench is recommended (GM#46406 or Equivalent) and hose clamp pliers (J-38185).

Removal Steps:

- 1. Remove the bolts and push pins that attach the intake air baffle to the radiator support, and then remove the baffle.
- 2. Disconnect the transmission cooler lines at the engine bracket and fan shroud.
- 3. Disconnect the electro-viscous clutch electrical connector from the shroud.
- 4. Remove the upper radiator hose from the radiator; be prepared to contain any coolant spillage.
- 5. Remove the fan clutch hub from the water pump by turning it counterclockwise.
- 6. Remove the mounting bolts from the upper fan shroud.
- 7. Unclip the fan shroud from the radiator at the side panels.
- 8. Lift and push the fan shroud inward to clear the filler neck on the radiator.
- 9. The fan blade can now be unbolted from the clutch.

Installation:

- 10. Reverse Steps 1 through 8. Tighten the four bolts that attached the fan blade to the fan clutch and torque 15 to 20 foot pounds (20 to 27 N-m). Tighten the fan hub nut and torque 37 to 46 foot pounds (50 to 62 N-m). Proper Torque is critical to avoid the fan clutch from detaching from the water pump when the engine is turned off.
- 11. Check the coolant level, adding as necessary to bring it to the appropriate level required.

Warning: Failure to correctly torque thread-on fan clutches per OEM specifications can cause them to spin off the water pump and create vehicle damage and, or personal injury. Always refer to OEM specifications for proper torque and installation procedures required for your vehicle application. Remove all tools and debris before engine start up and testing. Always remember to stand at a safe distance from all moving parts.