

# Technical Service Bulletin

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**GROUP:** Engine

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***SUBJECT:***

Multi-Layer Steel (MLS) Head Gasket Installation Procedures

***MODELS:***

**\*\*1995 – 1999 (FJ) Avenger/Sebring/Talon\*\***  
1995 – 2000 (JA) Cirrus/Stratus/Breeze  
1996 – 2000 (JX) Sebring Convertible  
1995 – 2000 (PL) Neon  
1997 – 2000 (GS) Chrysler Voyager (International Market)

**NOTE: THIS INFORMATION APPLIES TO MODELS WITH A 2.0L SOHC/DOHC (NATURALLY ASPIRATED) OR 2.4L ENGINE.**

***DISCUSSION:***

Multi-Layer Steel (MLS) head gaskets have been developed and released for use on the above models. The MLS gasket was released for production, as a running change, in the 1999 model year for all models except FJ.

This new gasket provides superior sealing characteristics, but will require extra care in their installation where a composite gasket was previously in place. The following steps outline the proper installation of this MLS gasket.

**CAUTION: ALUMINUM ENGINE COMPONENTS ARE SUSCEPTIBLE TO METAL TRANSFER AND SURFACE DAMAGE WHEN OLD GASKET MATERIAL IS REMOVED FROM THEM. USE EXTREME CARE WHEN CLEANING GASKET MATERIAL FROM ALUMINUM COMPONENTS. THE MLS GASKET CANNOT PROPERLY SEAL IF GOUGING OF SURFACES, METAL TRANSFER, OR COMPOSITE GASKET MATERIAL IS LEFT ON THE HEAD OR BLOCK SURFACES.**

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**PARTS REQUIRED:**

- 1 \*\*5014127AC\*\* Package, Head Gasket **1995 – 2000 2.0L SOHC**  
(Includes Head Gasket & Instruction Sheet)
- 1 \*\*5014131AC\*\* Package, Head Gasket **1995 – 1999 2.0L DOHC**  
(Includes Head Gasket & Instruction Sheet)
- 1 \*\*5014173AC\*\* Package, Head Gasket **2.4L Engine**
- 1 \*\*5014132AB\*\* Package, Upper Gasket **1995 2.0L SOHC**  
(Includes following seals/gaskets: cam sensor, cam front, head, valve cover, spark plug tube, EGR – cover/tube/flange, intake manifold, throttle body & instruction sheet)
- 1 \*\*5014133AC\*\* Package, Upper Gasket **1996 – 2000 2.0L SOHC**  
(Includes following seals/gaskets: cam sensor, cam front, head, valve cover, spark plug tube, EGR – cover/tube/flange, intake manifold, throttle body & instruction sheet)
- 1 \*\*5014134AB\*\* Package, Upper Gasket **1995 – 1999 2.0L DOHC (NOT FJ)**  
(Includes following seals/gaskets: cam sensor, cam front, head, valve cover, spark plug tube, EGR – cover/flange, intake manifold, exhaust manifold & instruction sheet)
- \*\*1 5014135AC Package, Upper Gasket **1995 – 1999 2.0L DOHC (FJ)\*\***  
(includes following seals/gaskets: cam sensor, cam front, head, valve cover, spark plug tube, EGR, intake manifold, exhaust manifold, thermostat, water outlet & instruction sheet)
- 1 5014136AA Package, Upper Gasket **2.4L**  
(Includes following seals/gaskets: cam front, head, valve cover, spark plug tube, EGR – cover/flange, intake manifold, exhaust manifold & instruction sheet)
- 1 04318035 Sealant, Aerosol Gasket
- AR NPN Solvent

**EQUIPMENT REQUIRED:**

- 1 NPN Plastic/Wooden Scraper
- AR(1) 07528 2" 3M Roloc Bristle Disc White (For Aluminum Surfaces)
- AR(1) 07525 2" 3M Roloc Bristle Disc Yellow (For Aluminum/Cast Iron/Steel Surfaces)
- 1 05539 2" 3M Roloc Bristle Disc Arbor
- 1 NPN Drill Motor

**REPAIR PROCEDURE:**

This bulletin outlines the proper procedures for preparing head/block surfaces for MLS gasket installation.

1. Following service manual procedures, remove the head.
2. Remove as much of the loose composite gasket material with a plastic or wooden scraper.

**NOTE: PRIOR TO ADDITIONAL CLEANING, INSPECT THE COOLING PASSAGES OF THE HEAD. REPLACEMENT MAY BE NECESSARY IF EXCESSIVE PITTING OR EROSION HAS TAKEN PLACE THAT WILL COMPROMISE THE SEALING SURFACES AROUND THE COOLING PASSAGES.**

3. Cover coolant and oil passages to the best of your ability and apply solvent or a commercially available gasket cleaner to the head/block surfaces. Allow the solvent to soften the remaining composite gasket material.

4. Using a plastic or wooden scraper, scrape the composite gasket residue from the surfaces. If necessary, apply additional solvent or gasket remover to ease removal.
5. If additional cleaning is needed, use a drill motor and 3M Roloc bristle disc p/n 07528 (white) to carefully remove the remaining gasket material from the head and block surfaces.

**NOTE: IF DIFFICULT TO REMOVE RESIDUE IS LEFT, THE YELLOW ROLOC BRISTLE DISK 3M P/N 07525 CAN BE USED. USE EXTREME CARE WHEN POWER CLEANING ALUMINUM SURFACES TO PREVENT METAL TRANSFER.**

6. Inspect the sealing surfaces for any remaining composite gasket residue. Carefully remove any remaining material.
7. The head and block must be checked for flatness. Follow service manual procedures/specifications where applicable.
8. Spray both sides of the MLS gasket with a coat of MOPAR spray gasket sealant p/n 04318035.
9. Re-assemble the engine as outlined in the appropriate service manual. Pay particular attention to head bolt torque and torquing procedures. All head bolts should be oiled prior to assembly.

**NOTE: THE 2.0L DOHC TORQUE AND TORQUEING PROCEDURE HAS CHANGED WITH THE INSTALLATION OF A MLS GASKET. USE THE FOLLOWING PROCEDURES FOR THE 2.0L DOHC ONLY.**

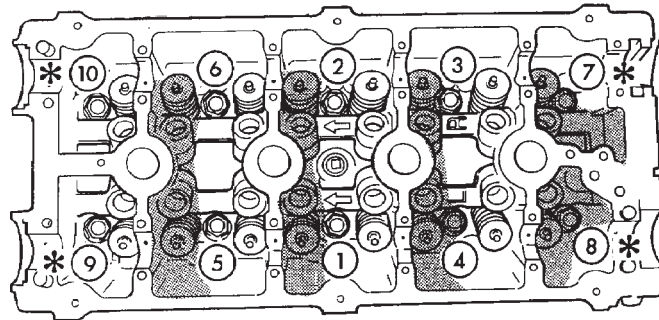
### **2.0L DOHC TORQUE PROCEDURE WITH MLS GASKET INSTALLATION**

**NOTE: THE 4 SHORT BOLTS ARE PLACED IN THE CORNERS.**

- A. Torque all center bolts to 34 Nm (25 Ft Lbs), Torque the 4 corner bolts to 27 Nm (20 Ft Lbs) see Fig 1 for torque sequence.
- B. Torque all center bolts to 68 Nm (50 Ft Lbs), Torque the 4 corner bolts to 47 Nm (35 Ft Lbs) see Fig 1 for torque sequence.
- C. Re-torque all center bolts to 68 Nm (50 Ft Lbs), Re-torque the 4 corner bolts to 47 Nm (35 Ft Lbs) see Fig 1 for torque sequence.
- D. Tighten all bolts in the specified sequence (Fig 1) an additional 90° (1/4 turn).

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1-	LOCATION OF 110mm (4.330 in.) BOLTS
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**FIGURE 1**

10. Make sure the cam sensor seal is replaced on all engine applications.

**NOTE: A NEW CAM SENSOR SEAL MUST BE INSTALLED DURING THE HEAD GASKET REPLACEMENT PROCEDURE. OIL SEEPAGE FROM THIS SEAL CAN BE MISINTERPRETED AS A HEAD GASKET LEAK.**

11. Replace the engine oil and filter after performing these procedures.

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