

Subject:

MIL ILLUMINATION WITH DTC P0300 TO P0306

Bulletin No: 01-027/02

Last Issued: 11/15/2002

APPLICABLE MODEL(S)/VINS

All 1995 - 2002 Millenia models with 2.5L V6 (KL)

DESCRIPTION

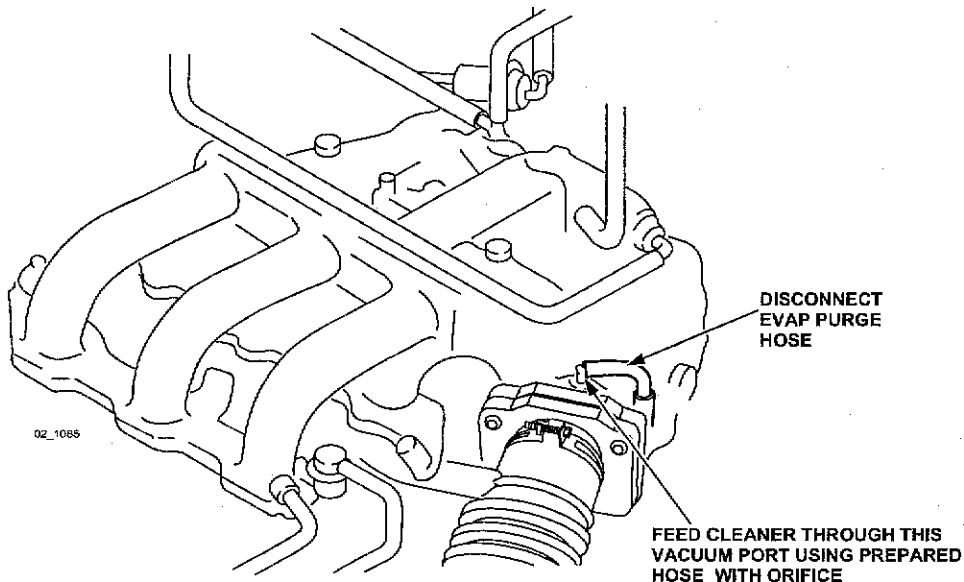
After a cold start, MIL comes on with DTC P0300 to P0306 stored in the memory. In most cases, this concern may be caused by misfire occurring in one cylinder during idle. The use of premium fuel (high-octane fuel) may be allowing carbon deposits to accumulate on the exhaust valve seat, causing momentary insufficient compression.

To correct this concern, remove carbon deposits using a suitable top engine cleaner.

NOTE: After removing the carbon deposits, be sure to advise the customer to use lower-octane fuel (87 or 89 octane) to help prevent future recurrences.

REPAIR PROCEDURE

1. Warm up the engine until it reaches the normal operating temperature, then turn the ignition off.
2. Locate the canister purge vacuum port into the intake manifold to feed the cleaner into the engine. This allows the cleaner to distribute evenly.



CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership.

CAUTION:

- Be sure to feed the "Top Engine Cleaner" into the engine through the correct vacuum port.
- Do NOT use a PCV hose. If too much cleaner enters the engine, the engine may be damaged.
- Do NOT use the vehicle vacuum hose. You have to prepare a new hose and fit an orifice (E5B6 13 986) into it to limit the suction rate.
- With an orifice fitted into a new hose, about 7.5 fluid ounces will be fed into the engine, taking at least 1.5 minutes or longer. If the cleaner is fed at a faster rate than 7.5 fluid ounces per 1.5 minutes, excess liquid entering the cylinders may cause hydrolock, resulting in engine damage.

3. Fit the other end of hose into the container of "Top Engine Cleaner".

4. Choke off the hose with locking pliers (vise grips), then start the engine.

NOTE: Large amounts of exhaust smoke will be emitted in the next step. Be sure to connect the exhaust evacuation hose to the tailpipe and ensure there is adequate ventilation.

5. While cycling the engine speed between 1500 and 3000 rpm:

- a. Remove the locking pliers from the hose with the orifice. The intake manifold vacuum will now draw the cleaner from the container.
- b. Monitor the feed rate. Only 7.5 fluid ounces (half can) should be fed, taking at least 1.5 minutes or longer.
- c. When almost 7.5 fluid ounces has been fed into the engine, reduce engine speed and allow the engine to stall. If the engine does not stall, turn the ignition off.

6. With the engine off, wait at least an hour (not more than 24 hours). This allows the cleaner to soak into the carbon deposits, increasing its effectiveness.

7. Repeat Step 1-5, using the remaining portion (approximately 7.5 fluid ounces) of the cleaner.

NOTE: Do not allow the engine to stall this time.

8. Remove the hose with the orifice and reconnect the canister purge vacuum hose to the intake manifold.

9. Test drive the vehicle 3 miles or longer to completely remove the remaining liquid and carbon deposits from the engine.

10. Perform engine oil and engine oil filter replacement service.

NOTE: With new engine oil and filter in the engine, start the engine, then raise the engine rpm several times to circulate the new oil throughout the engine.

11. Verify repair.

NOTE: Be sure to advise customer to use lower-octane fuel (87 or 89 octane). Periodic use of a well-known gas treatment (such as Chevron Techron) can be recommended to help prevent future recurrences.

PART(S) INFORMATION

Part Number	Description	Qty.	Notes
E5B6-13-986	Orifice	1	This is a multiple use item. Do not claim under warranty.

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WARRANTY INFORMATION

Note: This information applies to verified customer complaints on vehicles covered under normal warranty. Refer to the SRT microfiche for warranty term information.

Warranty Type	A
Symptom Code	6X
Damage Code	93
Part Number Main Cause	KL01-12-121A
Quantity	0
Operation Number / Labor Hours:	XX376XRX / 0.7 Hrs