

Engine and Fuel Deposit Control

Preventive Maintenance Service for Gasoline Direct Injected Engines



Add to crankcase

BG MOA[®] keeps engine components clean and deposit free, protects against engine wear, provides greater power and performance, reduces oil consumption and harmful emissions. *Helps keep the ring lands free of carbon.*



Add to fuel tank

BG 44K[®] cleans fuel-robbing deposits in one professional application, restoring the engine's performance, reducing harmful emissions and keeping it running better, longer and more efficiently. *Keeps injectors, valve seats and piston tops clean.*



Gasoline Direct Injection Intake Valve Cleaning

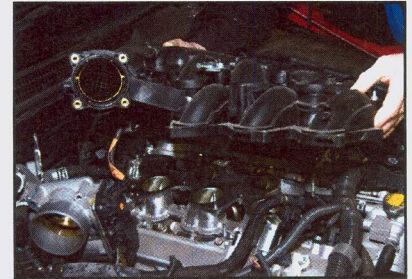
Lexus Procedure

for models 2006 ES/GS300, 2006–newer IS250 (4GR–FSE engine)

1. Bring the vehicle to operating temperature. If the engine temperature drops below 100°F (38°C), the product will not work effectively and the deposits will be difficult to remove.
2. Check for any Diagnostic Trouble Codes. Record and erase codes.
3. Remove upper intake plenum.
4. Remove lower intake manifold.
5. Remove lower intake manifold gaskets.
6. Remove spark plugs and place rags over the spark plug holes to block splash of product spraying when engine is cranked over.
7. Pour approximately 1 oz. of BG Gasoline Direct Injection Cleaner Part 1, Part No. 271, into each intake port. **Be sure valves are in closed position.**
8. **NOTE: Do not overfill or allow product to reach valve guide.**
9. Soak for 30 minutes.
10. Scrub intake valves at 15 minutes and 30 minutes (suggested tools: a small bundle of plastic zip ties, 12" wire brush or wooden valve seat picks). See tool details on next page.
11. Remove dirty solution with Mityvac or similar vacuum tool.
12. Pour approximately 1 oz. of BG Gasoline Direct Injection Cleaner Part 2, Part No. 272, into each intake port. **Be sure valves are in closed position.**
13. **NOTE: Do not overfill or allow product to reach valve guide.**
14. Scrub intake valves (no extended soak time required).
15. Remove dirty solution with Mityvac or similar vacuum tool.
16. Rotate engine until the valves of the other cylinders have closed, then repeat Steps 7–14 on these intake chambers.
17. If valves need further cleaning, repeat Steps 7–15.
18. Crank the engine to remove possible residual in the combustion chamber and to avoid hydro-locking engine.
19. Reassemble intake components.
20. Perform a BG Oil Service with BG MOA® and BG 44K®.
21. Erase any Diagnostic Trouble Codes that were set.
22. Drive the car for 5–10 miles.



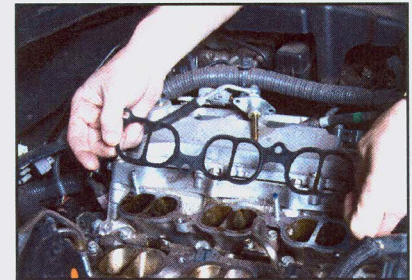
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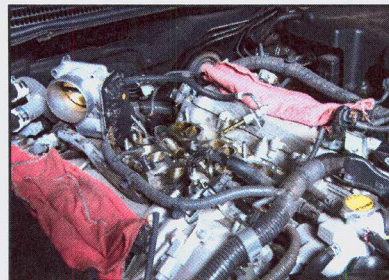
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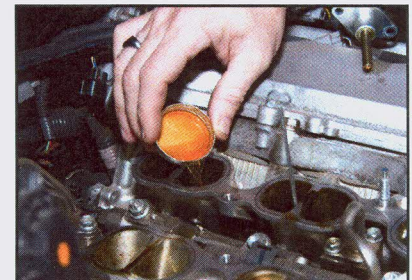
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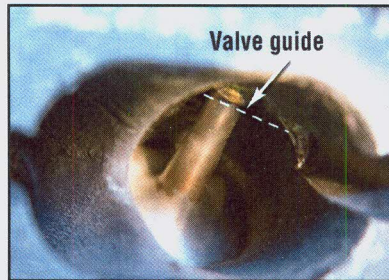
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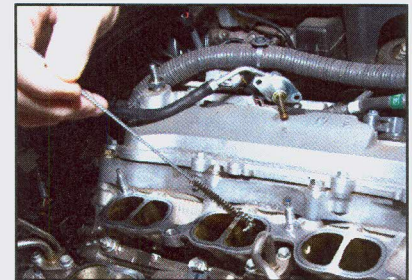
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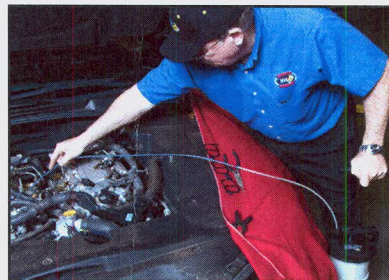
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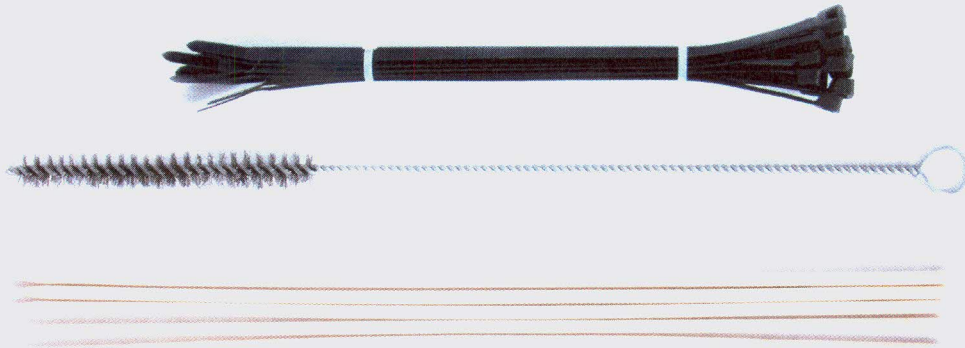


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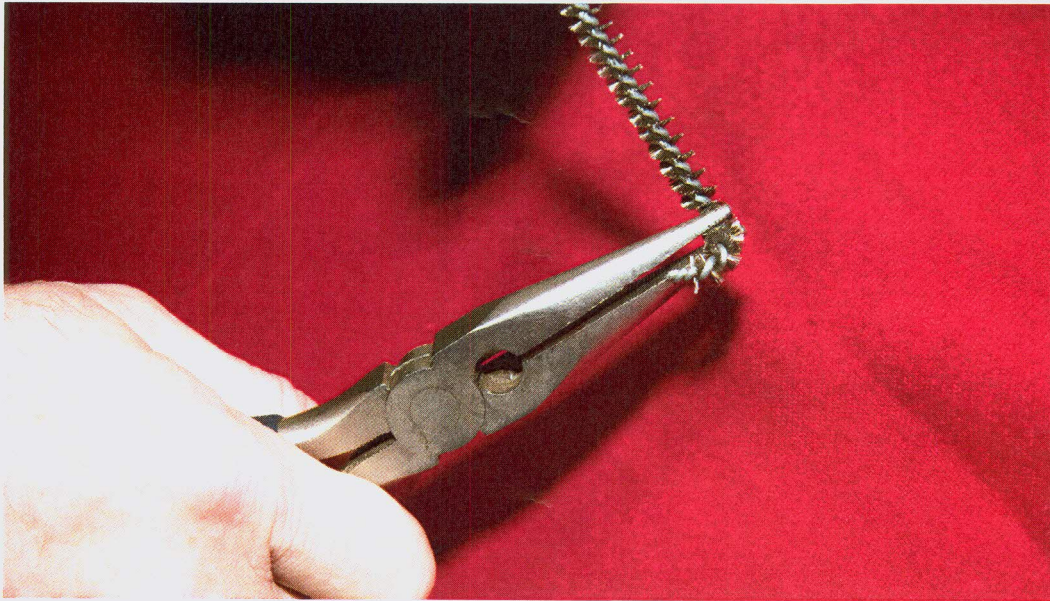


18.

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A small bundle of zip ties, 8 in. x 5mm (18 each), 3/8" wire brush or 12" wooden valve seat picks (5 each). Leave zip ties bundled while using.



Bend wire brush with pliers.



Bent wire brush to reach the back side of the valves.



Gasoline Direct Injection Intake Valve Cleaning

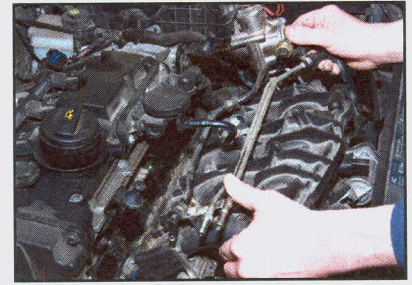
Volkswagen Procedure

for models VW 2.0L FSI

1. Bring the vehicle to operating temperature. If the engine temperature drops below 100°F (38°C), the product will not work effectively and the deposits will be difficult to remove.
2. Check for any Diagnostic Trouble Codes. Record and erase codes.
3. Remove plenum.
4. Remove plates from intake.
5. Remove spark plugs and place rags over the spark plug holes to block splash of product spraying when engine is cranked over.
6. Pour approximately 1 oz. of BG Gasoline Direct Injection Cleaner Part 1, Part No. 271, into each intake port. **Be sure valves are in closed position.**
7. **NOTE: Do not overfill or allow product to reach valve guide.**
8. Soak for 30 minutes.
9. Scrub intake valves at 15 minutes and 30 minutes (suggested tools: a small bundle of plastic zip ties, 12" wire brush or wooden valve seat picks). See tool details on next page.
10. Remove dirty solution with Mityvac or similar vacuum tool.
11. Pour approximately 1 oz. of BG Gasoline Direct Injection Cleaner Part 2, Part No. 272, into each intake port. **Be sure valves are in closed position.**
12. **NOTE: Do not overfill or allow product to reach valve guide.**
13. Scrub intake valves (no extended soak time required).
14. Remove dirty solution with Mityvac or similar vacuum tool.
15. Rotate engine until the valves of the other cylinders have closed, then repeat Steps 6–13 on these intake chambers.
16. If valves need further cleaning, repeat Steps 6–14.
17. Crank the engine to remove possible residual in the combustion chamber and to avoid hydro-locking engine.
18. Reassemble intake components.
19. Perform a BG Oil Service with BG MOA® and BG 44K®.
20. Erase any Diagnostic Trouble Codes that were set.
21. Drive the car for 5–10 miles.



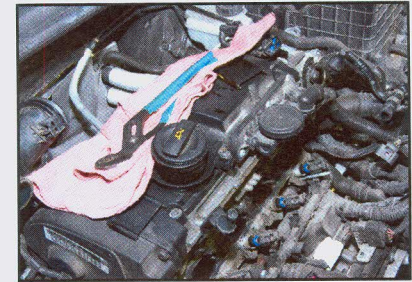
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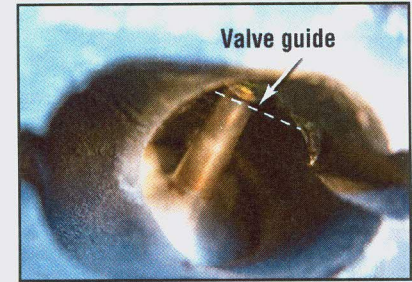
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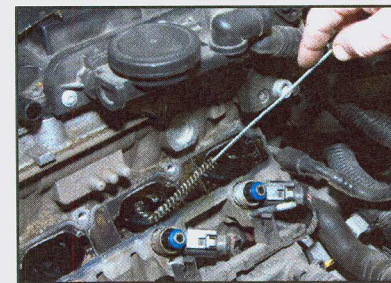
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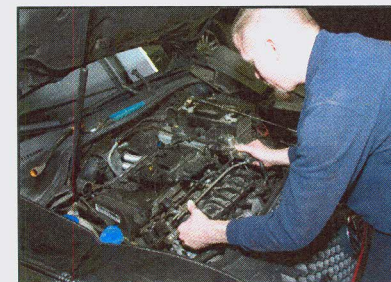
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