



GDI System Service Job Aid

Before performing any fuel system service, make sure you've read and understand the technical instruction manual and all bulletins provided by CAT Products, Inc.

Obey all safety requirements; pay particular attention to personal protective wear, such as safety goggles and gloves. Perform all services outside or use a suitable exhaust extraction system.

Make sure the fuel tank is at least $\frac{1}{8}$ full and the check engine light is off. Bring engine to operating temperature. Never set the DIDC can on a hot surface!



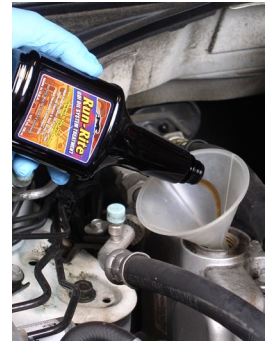
STEP 1: Fuel System Treatment (P/N 1077)

Add a bottle of Run-Rite GDI Fuel System Cleaner to the fuel tank. Then replace the gas cap and tighten it securely.

STEP 2: GDI Oil/Emission System Treatment (P/N 3525)

With the engine off, add a bottle of Run-Rite GDI Oil System Treatment to the crankcase. Then replace the oil fill cap and tighten it securely.

IMPORTANT If you're planning on changing the engine oil, do that before you add the oil treatment.



STEP 3: Direct Injection Deposit Cleaner (DIDC; P/N 1347)

Run-Rite's DIDC is designed to loosen and remove deposits from the throttle body, intake manifold and valves, and the combustion chamber. It involves running a cleaning solution through the air inlet.

Make sure you insert the cleaning nozzle in the inlet *after* the mass airflow (MAF) sensor, and *avoid* spraying the cleaning solution directly on any drive-by-wire actuators.



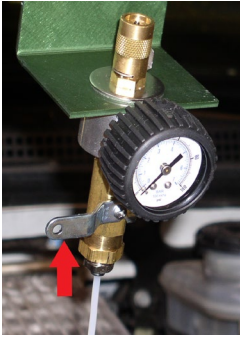
1. Disconnect the air inlet boot past the mass airflow sensor, as close to the throttle body as possible.

2. Slip the cleaning nozzle into the air inlet, and slide the air inlet boot back over the nozzle to hold it in place.

3. Thread the quick connect adapter onto the DIDC can.

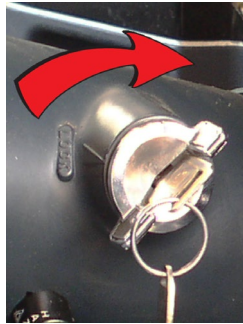


GDI System Service Job Aid (cont.)



4. Make sure you have the service valve completely closed before connecting the DIDC can to the service tool.

5. Press the lock lever in until it clicks open; this will avoid damaging the seal on the service tool.

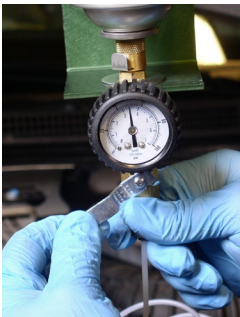


6. Connect the can and adapter to the service tool; you should hear it click as it locks into place. Then hang the tool in a convenient location from the hood.

CAUTION Never let service hose touch hot surfaces.

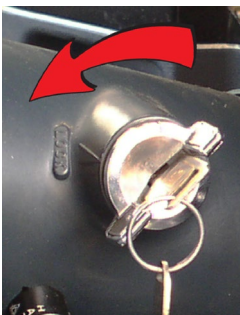
7. Start the engine and use the throttle depressor to raise the idle to between 1800–2000 RPM.

CAUTION Refer to CAT Bulletin 0027 for details on servicing vehicles with ZF transmissions.



8. Open the service valve a little at a time, until you can hear it begin to affect the engine RPM; reduce flow rate if the engine runs rough or you see smoke from the tailpipe. Let the cleaner continue to flow until all of the detergent runs through the engine; it should take between 10 and 15 minutes.

If the engine stalls, shut the valve off immediately. Then restart the engine and begin step 8 again.



9. Shut the engine off and remove the service tool from the vehicle.

10. Reattach the inlet air boot properly; then start the engine and let it run at 1600–2000 RPM for a minute, then let it drop back to idle.

That's all there is to it; the injectors and air inlet are clean and should perform better almost immediately.

CAUTION

Let the customer know he might see a little smoke or smell a slight burning odor for a few miles right after the service.

And, to get the most out of your service, consider combining it with a crankcase cleaning for the Ultimate GDI service.

