



FUEL INJECTORS IN NEW AND REBUILT ENGINES

TECHNICAL BULLETIN

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New injectors should be fitted to new or rebuilt engines without exception.

When new injectors are not available, original injectors must be tested and rebuilt. If an engine has lost a cylinder or cylinders previously, injectors should be tagged per cylinder and extra attention should be taken with those injectors.

If injectors were not replaced or serviced and you are suffering any or all of these symptoms, injectors may be faulty.

Symptoms:

- ▶ Poor fuel economy
- ▶ Sooty tail pipes (especially uneven side to side)
- ▶ Smoking
- ▶ Oil consumption ≥ 1 qt in 600 miles
- ▶ Fuel contamination in oil measured with fuel dilution $>0.5\%$ as found by used oil analysis
- ▶ Fouled plugs (registering misfires)
- ▶ Vacuum leak(s)
- ▶ Low manometer reading
- ▶ Out of range fuel trim values

Corrective action:

- 1** If your car has a serviceable fuel filter, replace filter.
- 2** Replace oil fill and fuel fill cap. Check oil fill, AOS tubes for brittle plastic and/or cracks. Replace AOS with genuine Porsche if manometer readings are not in proper range as well as oil fill and AOS tube. Smoke check engine for potential sources for vacuum leaks.
- 3** Seafoam / Lubromoly Jectron – one can with tank at $\frac{1}{2}$ or lower. Run until low fuel light comes on. Follow up with another can of seafoam/Jectron and full tank Shell V-Power 91 octane (or higher), change spark plugs and oil. Use break-in oil (either Driven or Brad Penn) and run 1000 miles. Drive the car like you stole it (engine braking, etc.). **No track use!**
- 4** Check fuel trim numbers and manometer reading to see if they have improved – if not in range by 500 miles, install new injectors and restart procedure at step 1.
- 5** Change oil to conventional (Driven HR or Brad Penn) and run for 5000 miles. Re-verify fuel trim numbers and manometer reading every 500 miles.

At this point, oil consumption should be reduced and plugs should no longer foul. If symptoms are not improved, further diagnostics including leakdown and compression test may be required to determine if permanent engine damage may have occurred which may require new piston rings, piston replacement, or cylinder refinishing.

Notes: