



SI M12 02 10  
Engine Electrical Systems

October 2010  
Technical Service

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This Service Information bulletin supersedes SI M12 02 10 **dated October 2010**.

**NEW** designates changes to this revision

## SUBJECT

**Cooper S with N14 – Diagnosis for Misfire Faults**

## MODEL

R55, R56, and R57 with the N14 engine

## SITUATION

The Service Engine Soon (MIL) lamp is illuminated; customer complains that the engine runs rough (engine cold or warm) with any of the following misfire faults stored in the DME:

- 2771, 2772, 2773, 2775, 2776, 2777, 2779, 277A, 277B, 277D, 277E, 277F – “Combustion misfire, cylinder 1..4”, together with
- 2781, 2782, 2783 – “Combustion misfire, multiple cylinders”

Complaint may be intermittent and difficult to reproduce.

## CAUSE

Multiple causes related to electrical and mechanical engine components.

Also, possible clogging of the injector tips is causing a disturbance of the fuel spaying pattern.

## CORRECTION

The ISTA/D test plan “**B1214\_M\_Misfire detection**” has been significantly improved and modified in version **2.22** (released at the end of September 2010).

Follow and complete the diagnosis test plan “B1214\_M\_Misfire detection” using the latest ISTA version (2.22 or higher).

**NEW** In certain cases, after completion of all basic diagnostic procedures, the test plan may instruct the technician to perform inspection and cleaning of excessive carbon deposits from the cylinder head intake valves and ports. In such instances, submit a PuMA case titled “N14 Intake Valves Carbon Cleaning” for the appropriate cleaning procedure.

## WARRANTY INFORMATION

Refer to the KSD2 to code the repair performed as prescribed by ISTA diagnosis results and the Warranty Policy and Procedures Manual for specific warranty coverage.

Make sure to include the appropriate Diagnostic Code generated by the test module into the warranty claim.

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