Technical Bulletin

Model 928 S4/ GT/GTS Group 2

Subject:

Diagnosing Ignition **Monitoring System**

Part Identifier 2880

Number 9203

ATTENTION: Service Manager/Service Technician

Models Affected:

928 S4/GT/GTS From 1989 Models →

Concern:

Checking of components after activation of the ignition monitoring system (injection circuit switched off fault codes 1131 of 1231).

Activation may be caused by the following:

 Damaged or defective exhaust gas temperature sensors.



- Poor grounding of the mounting plate for the ignition final stages.
- Poor physical connection of the electrical plugs on the ignition final stages.

Parts Information:

New coil wire with hose covering Part Number 928 602 040 01 (for left side)

New version temperature sensor Part Number 928 606 155 02

Repair Information:

- 1. Check the left side ignition coil wire. Be certain the coil wire is routed freely and not under tension. If damaged, replace with new version (see parts information).
- 2. Check all ignition components and connectors for corrosion. tightness, correct connection and damage. Repair or replace as necessary. If an ignition circuit has malfunctioned, an LED indication will be given by the ignition monitor relay located on the L-H control unit mounting plate (Figure 1).



Figure 1

Ignition circuit I (cyl. 1-7-6-4) Red diode Ignition circuit II (cyl. 3-2-5-8) Green diode

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Repair Information (cont.):

 Before replacing temperature sensors, check the voltage difference of both temperature sensors as per step 4 of this bulletin. Sensors are located in the exhaust ports (Figure 2):

Model '89-'90, cyl. 4 and 8 Model '91 cyl. 3 and 7



Figure 2

The function of the ignition circuits and light diodes located in the ignition monitor relay remains unchanged. It is not possible to determine from the LED display of the ignition monitor relay if one or both temperature sensors are defective or which temperature sensor has failed.

When installing temperature sensors, coat the sensor adapter threads with molykote paste HTP (white) and torque sensors to 10Nm.

 The voltage difference of the temperature sensors must be checked in order to ensure proper operation of the ignition monitor system.

Checking sensor voltage difference:

- Start engine and bring to operating temperature.
- Loosen the mounting bolt for the ignition monitor relay and pivot the relay up to gain access to the plug terminals (Figure 1). Do not disconnect the relay plug.
- Set volt meter to the millivolt range and connect leads between E1 and E2 of ignition monitor relay (Figure 3, white wires). A digital volt meter must be used. Polarity is not important.

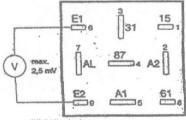


Figure 3

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Repair Information (cont.):

— Measure voltage with the engine idling and again at approximately 2000 RPM. A maximum difference of +2.5 mV or -2.5 mV (depending on polarity) is permitted. If the voltage difference is above 2.5 mV, stop the engine, loosen and rotate one temperature sensor. Retighten sensor and check voltage difference. If the difference is above 2.5 mV, stop the engine and rotate the other sensor. If after rotating the sensors to different positions, the voltage difference is too high (above 2.5 mV) the temperature sensors are defective and must be replaced.

