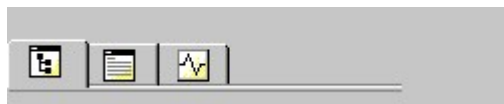
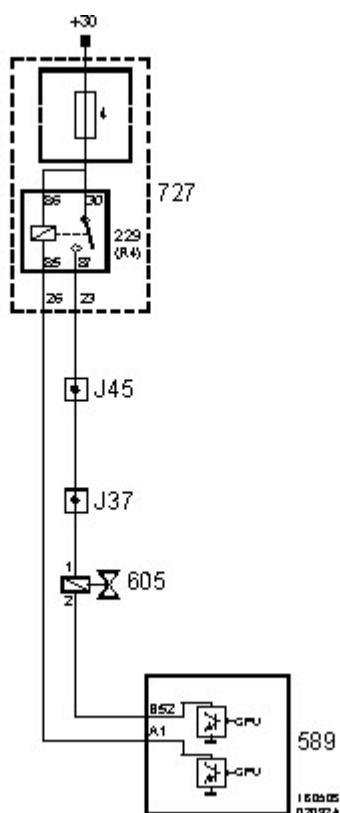


P0033 00**Important**

Read the introductory instructions below and then click on the tab to start the fault diagnosis procedure.

**System Bypass, charge air control, malfunction****Fault symptom**

Fault indicator lamp (for further information see WIS Fault diagnosis, general)

Limp home

On-board diagnosis**Type of diagnosis:**

Continuous

Enable criteria:

Battery voltage must be between 11 - 16 V.

NONE of the following DTCs must be detected:

P0685, P0686, P0687

Engine running.

Engine speed less than 3500 rpm.

Output to solenoid valve is inactive.

The boost pressure should be more than the atmospheric pressure + 35kPa.

Intake pressure should be less than or equal to 35 kPa.

When the conditions are fulfilled, the values for boost pressure and air mass are stored for evaluation.

Fault criteria:

When the average values for boost pressure and air mass exceed 1.3 kPa and 2.4 g/s, respectively.

Dependent:

None

System reaction to a fault:

Torque limited to max. 170Nm.

Boost pressure adaption is blocked and reset.

Boost pressure control is blocked.

The system continues to function with a calculated air mass instead of the value from the mass air flow sensor.

OK report:

When the average value for boost pressure and air mass is below 0.6 kPa and 1.3 g/s, respectively.

Fault handling:

Type III

(See section Fault handling III, "Other emission-related components and functions" for more information.)

Checking the wiring harness

Move the wiring harness at several spots and in several directions to reveal intermittent breaks and short-circuits. Check switches, connectors and crimp connections for oxidation, retracted pins and pin clamping force.

Diagnostic help

Diagnosis regards:

The vacuum section of the system and the function of the valve.

- Tip!

The by-pass function is checked when the accelerator pedal is rapidly released during moderate acceleration.

Functions in the diagnostic tool related to the fault:

Test value:

- Tachometer
- Absolute pressure sensor, charge air
- Manifold absolute pressure sensor
- Air Mass
- Atmospheric Pressure
- Charge Air Bypass Valve

Activation:

- Charge Air Bypass Valve

(See also description of readings/activations in diagnostic tool)