

Subject: TRIONIC Flashing Lamp Fault Codes

Application: 1993 9000 Models

CATEGORY		Engine	
SECTION	2	PAGE	21
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Service Manual section 2:7 Saab TRIONIC Engine Management System for model year 1993 cars contains a complete description of the system diagnosis and fault-tracing procedures using a SAT. This bulletin describes an additional method of fault diagnosis by means of fault codes generated as flashes of the Malfunction Indicator lamp (CHECK ENGINE lamp), Figure 1. This method only indicates certain emission-related faults in the system without the use of an ISAT.

Cars Affected:

1993 9000 models with B234 Turbo and TRIONIC engine management system.

Action:

Fault diagnosis can be carried out as soon as the ignition switch is turned to the drive position.

To obtain a fault code reading, Figure 1:

1. Turn the ignition switch to the Drive position without starting the engine.

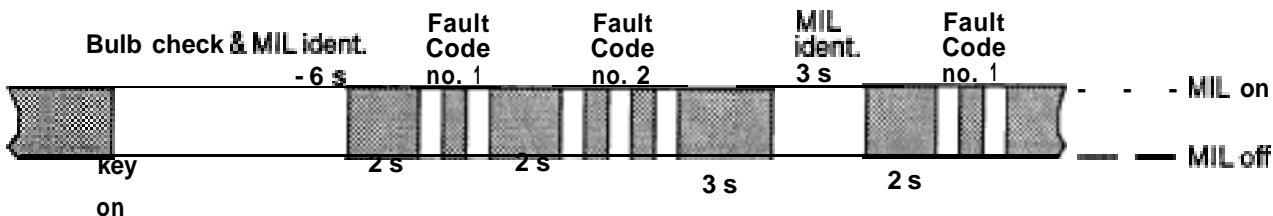


Figure 1. Flashing Light Fault Codes

2. In about six seconds the Malfunction Indicator Lamp (CHECK ENGINE lamp) will go out for about 2 seconds. It will then begin flashing the first fault code.
3. The codes consist of a number of flashes, each having a duration of 0.4 seconds. The Malfunction Indicator Lamp (CHECK ENGINE lamp) will go out for two seconds between each new series of flashing codes (if there is more than one fault).
4. After the last series of codes the lamp will go out for 3 seconds then it lights up again for another three seconds, following which the flashing codes will be repeated. The fault codes will be repeated in this way as many times as desired.

5. The flashing lamp codes will be repeated until the fault code memory is cleared. To clear the fault code memory, unplug the TRIONIC control module connector for at least five minutes.

Refer to Table 1 for a complete list of all the flashing fault codes.

NOTE

The page references in the table refer to Service Manual 2:7 "Saab TRIONIC Engine Management System" M 1993.

TABLE 1. Flashing Fault Codes

Numbers of Flashes	Faulty Function/Component	Corresponding ISAT Codes	See Page
2- - - -	Manifold absolute pressure sensor	P0105, P0106, P0107, PO108	82
3- - - -	Intake air temperature sensor	P0110, P0112, PO113	85
4- - - -	Coolant temperature sensor	P0115, P0117, PO118	89
5- - - -	Throttle position sensor	P0120, P0121, P0122, PO123	92
6- - - -	Oxygen sensor	P0130	95
7- - - -	Fuel-air mixture	P0170, P0171, PO172	94
8- - - -	EVAP valve (ELCD)	P0443, P1443, P1444, P1445	100

Warranty Information:

Diagnostic time allowance for the above is 0.3 hours. Please use labor operation no. 12226, and change description on page 2-31 (9000 Failure Code/Flat Rate Manual) to "LH/TRIONIC Injection System - ISAT/Flashing Light Diagnostic Time". Under "Time Includes:" add "Flashing light reading(s) must be included in claim text."