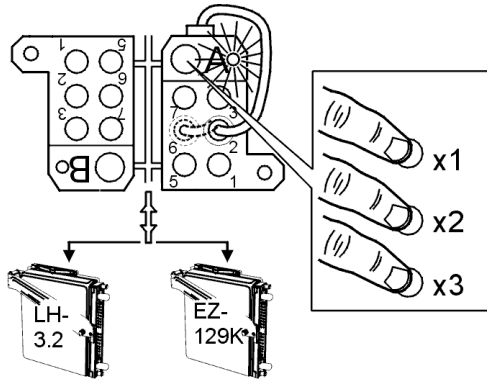


Volvo Diagnostics, 129K DI Functions



Each of the control modules incorporates Volvo Diagnostics, which continuously monitor the input and output signals. In the event of a fault which affects the exhaust emission levels, the ICM will activate the MIL (Check engine lamp) on the combined instrument. Fault tracing may be carried out either with the ST or by means of the three test modes, which can be accessed through socket 2 (MFI) or 6 (DI) on DLC A.

Diagnostic test modes

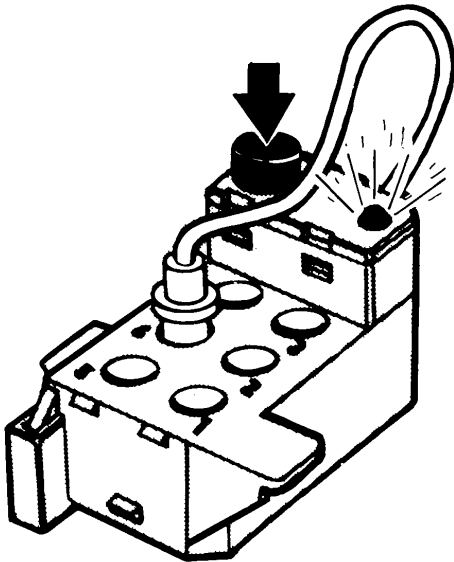
- 1, Displays DTCs (if any)
- 2, Acknowledges component operation
- 3, Operates components in a given, predetermined sequence

Volvo Diagnostics, DI

The DI system diagnostics are accessed through socket 6 on DLC A when the ignition is switched on.

Diagnostic test mode (DTM) 1

DTM is activated by a brief operation of the test button. The MFI module responds by displaying a DTC as per [DTC table](#)



Erasing DTCs

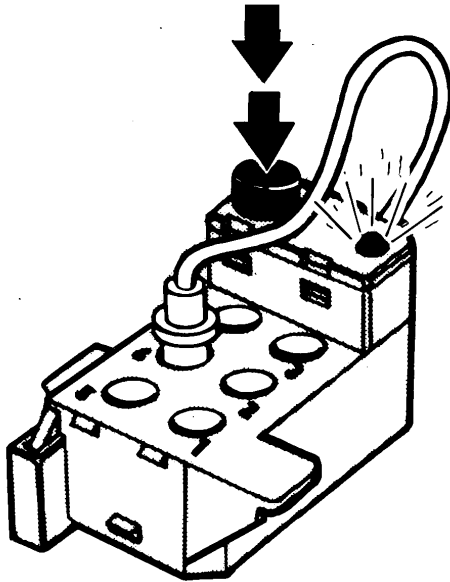
The DTCs may be erased only when all have been displayed at least once and the first DTC has been repeated.

Press the test button for at least 5 seconds.

The LED will light 3 seconds after the button has been released. Press the button again for at least 5 seconds.

DTM 2

DTM mode 2 is activated by two brief operations of the test button on the DLC, causing the LED to flash rapidly. The ICM will



deliver an acknowledgment code on detecting a change in the signals from:

- RPM sensor, as flywheel/carrier plate rotates (1-4-1)
- CMP sensor, as camshaft rotates (3-4-2)
- Speedometer, as front wheels rotate (3-4-3)
- MFI module, when TP potentiometer is activated by throttle operation (3-4-4)

DTM 3

When DTM mode 3 is activated the ICM responds by operating the following components, in the order listed:

Chassis Nos. -30699:

- Engine cooling fan, at half speed, for 15 seconds
- Engine cooling fan, at full speed, for 15 seconds (fan runs at half speed on cars without A/C)
- 15-second pause
- V-VIS solenoid valve, for 5 seconds
- 5-second pause
- Rev counter in combined instrument, for 5 seconds, by generating engine speed signals equivalent to approx. 1500 rpm
- 5-second pause

The sequence is repeated three times.

Chassis Nos. 30700-:

- V-VIS solenoid valve, for 5 seconds
- 5-second pause
- Engine cooling fan, at half speed, for 3 seconds, followed by full speed operation for 3 seconds (fan runs at half speed for 6 seconds in cars without A/C)
- 5-second pause
- EGR controller, for 5 seconds (certain models only; 5-second pause in cars without EGR)
- 5-second pause
- Rev counter in combined instrument, for 5 seconds, by generating engine speed signals equivalent to approx. 1500 rpm

The sequence is repeated three times.