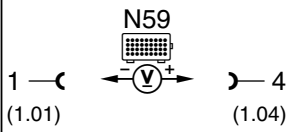
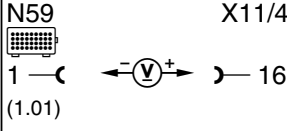
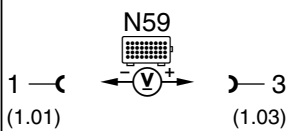
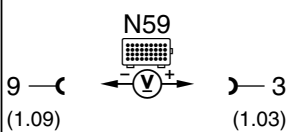
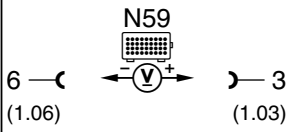
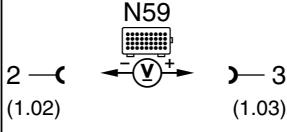
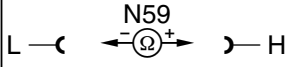


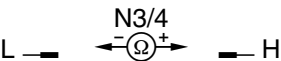
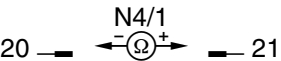
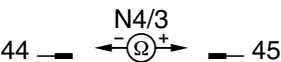
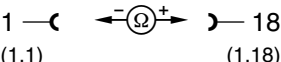
## Electrical Test Program - Test

Test step <b>DTC</b>	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 1.0	<b>Diagnostic module (N59)</b> Voltage supply Circuit 30		Ignition: <b>ON</b>	11 – 14 V	Fuse 9, open circuit, ⇒ 1.1.
⇒ 1.1	Main ground (behind instrument cluster, W1)		Ignition: <b>ON</b>	11 – 14 V	Main ground (W1)
⇒ 2.0	<b>Diagnostic module (N59)</b> Voltage supply Circuit 87E		Ignition: <b>ON</b>	11 – 14 V	Overvoltage protection relay module (K1/2), open circuit.

## Electrical Test Program - Test

Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 3.0	<b>Control of "CHECK ENGINE" malfunction indicator lamp</b>		Ignition: <b>ON</b>	11 – 14 V	N59.
⇒ 4.0	<b>Control of pushbutton (X11/21)</b>		Ignition: <b>ON</b> Press pushbutton (X11/21).	11 – 14 V	Open circuit, Pushbutton (X11/21), N59.
⇒ 5.0	<b>Diagnostic module coding</b>		Ignition: <b>ON</b>	11 – 14 V	Open circuit.
⇒ 6.0    17	<b>CAN data bus</b>		Ignition: <b>OFF</b> Unplug test cable or diagnostic module. Test with ohmmeter directly at the the two wide connections of the diagnostic module connector (see Figure 2).	55 – 65 Ω	Data line, ⇒ 6.1, ⇒ 6.2.

## Electrical Test Program - Test

Test step <b>DTC</b>	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 6.1 17	CAN element in engine control module (N3/4) Resistance		Unplug connector 1 at N3/4 and test directly with an ohmmeter at N3/4 (see Figure 3).	115 – 125 Ω	N3/4.
⇒ 6.2 17	CAN element in EA/CC/ISC (N4/1) or CC control module (N4/3) Resistance	 	Remove N4/1 or N4/3 in the passenger side footwell. Test directly at N4/1 or N4/3 connector 1 pin 20 and 21 (see Figures 4 and 5).	115 – 125 Ω	N4/1 or N4/3.
⇒ 7.0 23	<b>Diagnostic module pressure sensor (B5/2)</b> Voltage		Connect pressure gauge to B5/2 with Y-distributor (see Figure 6) Ignition: <b>ON</b>  Engine: <b>at Idle</b>	> 3.5 V  < 2 V and pressure rises to > 500 mbar	Vacuum line, open circuit, B5/2.

Electrical Test Program - Test

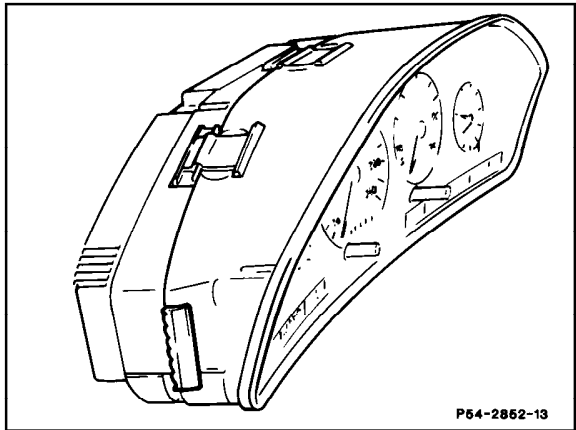


Figure 1

P54-2852-13

W1 Main ground (behind instrument cluster)

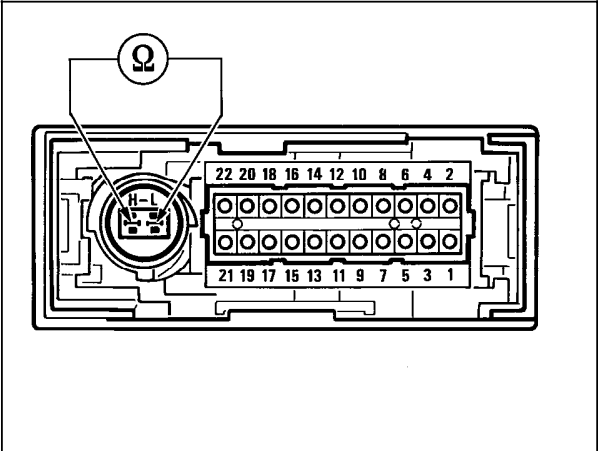


Figure 2

P07-5787-13

N59 Diagnostic module connector

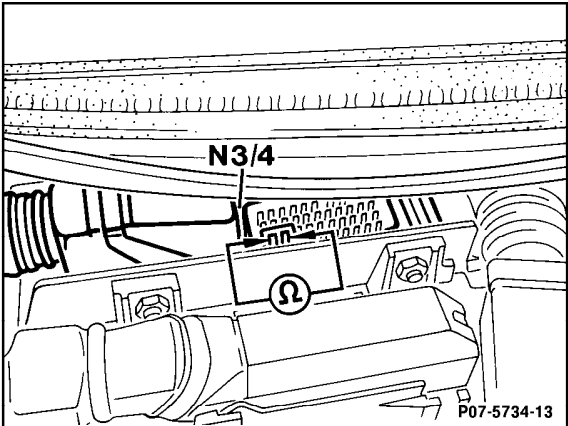


Figure 3

P07-5734-13

N3/4 Engine control module (for HFM-SFI vehicles)

Electrical Test Program - Test

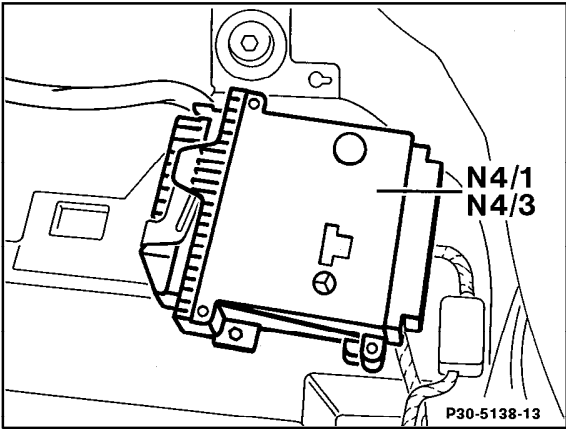


Figure 4 P30-5138-13

N4/1      Electronic accelerator/cruise control/idle speed control module  
or  
N4/3      Cruise control/idle speed control module

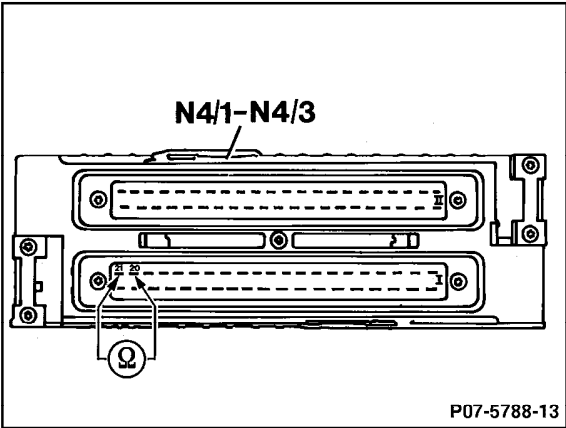


Figure 5 P07-5788-13

N4/1      Electronic accelerator/cruise control/idle speed control module  
or  
N4/3      Cruise control/idle speed control module

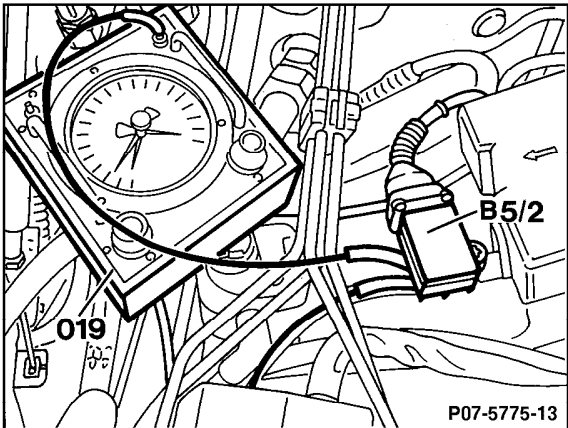


Figure 6 P07-5775-13

B5/2      Diagnostic module pressure sensor  
019      Pressure gauge