

Diagnosis - Diagnostic Trouble Code (DTC) Memory

Preparation for recalling diagnostic trouble code (DTC) memory

1. Connect impulse counter scan tool and adaptor for impulse counter scan tool to diagnostic connector (X11/4) according to connection diagram (see section 0).

Note:

Connect impulse counter scan tool as follows:

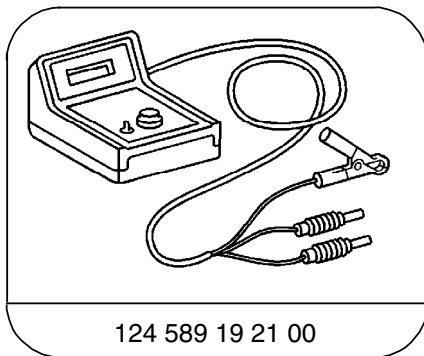
red wire to socket 3,
black wire to socket 1 and
yellow wire to:

Diagnostic module	socket 19
Base module	socket 8

Left LH-SFI control module	socket 5
Right LH-SFI control module	socket 4
Left ignition control module	socket 18
Right ignition control module	socket 17
EA/CC/ISC control module	socket 7

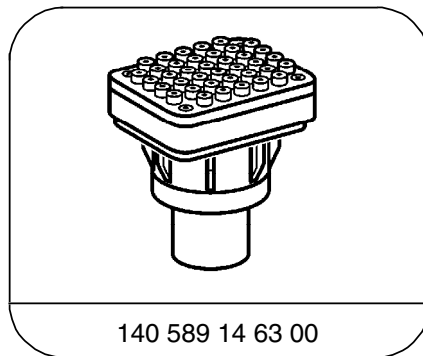
2. Recall control modules' DTC memory and clear stored codes (see section 0).

Special Tools



124 589 19 21 00

Pulse counter



140 589 14 63 00

Adapter

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Diagnostic Trouble Code (DTC)	Possible Cause	Remedy/Test Step ¹⁾
1	No malfunction in systems monitored	–
2	Right heated O2S (G3/4) inoperative	DM, Engines, Vol. 2, section 3.2.
3	Right LH-SFI control module (N3/3), lambda control inoperative	DM, Engines, Vol. 2, section 3.2.
4	Air injection at right cylinder bank inoperative	DM, Engines, Vol. 2, section 3.2.
5	Right LH-SFI control module (N3/3), EGR inoperative	DM, Engines, Vol. 2, section 3.2.
6	Idle speed control inoperative	DM, Engines, Vol. 3, section 6.2.
7	Ignition system for right cylinder bank defective	DM, Engines, Vol. 2, section 5.3.
8	Right ECT sensor (B11/10), open/short circuit	DM, Engines, Vol. 2, section 3.2.
9	Right IAT sensor (B17/6), open/short circuit	DM, Engines, Vol. 2, section 3.2.
10	Voltage at right hot wire MAF sensor (B2/4) too high/low	DM, Engines, Vol. 2, section 3.2.
11	Right LH-SFI control module (N3/3), TN-signal (rpm) defective	DM, Engines, Vol. 2, section 3.2.
12	O2s heater of right heated O2s (G3/2), open/short circuit	DM, Engines, Vol. 2, section 3.2.
13	Right ignition control module (N1/5), CMP sensor signal defective.	DM, Engines, Vol. 2, section 3.2.
14	Intake manifold pressure at start (in right ignition control module - N1/5) too low/high	Vacuum supply to N1/5, DM, Engines, Vol. 2, section 5.2.

¹⁾ Observe Preparation for Test, see 22.

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Diagnostic Trouble Code (DTC)	Possible Cause	Remedy/Test Step ¹⁾
15	WOT information defective	DM, Engines, Vol. 3, section 6.2.
16	CTP information defective	DM, Engines, Vol. 3, section 6.2.
17	Data exchange malfunction between right LH-SFI control module (N3/3), right DI control module (N1/5) and EA/CC/ISC control module (N4/1)	23 ⇒ 6.0.
18	Right adjustable camshaft timing solenoid (Y49/2), open/short circuit	DM, Engines, Vol. 2, section 3.2.
19	Right fuel injectors (Y64) open/short circuit or self-adaptation in right LH-SFI control module (N3/3) at limit	Test LH-SFI and reset right LH-SFI control module adaptation to mean value, see DM, Engines, Vol. 2, section 3.2.
20	Speed signal missing	DM, Engines, Vol. 3, section 6.2.
21	Right purge control valve (Y58/3), open/short circuit	DM, Engines, Vol. 2, section 3.2.
22	Right CMP sensor (L5/3) signal defective	DM, Engines, Vol. 2, section 5.3.
23	Intake manifold pressure (in right ignition control module - N1/5) with engine running too low/high	Vacuum supply to N1/5, DM, Engines, Vol. 2, section 5.3.
24	Starter ring gear segments and/or right CKP sensor (L5/5) defective	DM, Engines, Vol. 2, section 5.3.
25	Knock sensors (A30) or right ignition control module (N1/5) defective	DM, Engines, Vol. 2, section 5.3.
26	Upshift delay switchover valve (Y3/3) , open/short circuit	DM, Engines, Vol. 2, section 3.2.
27	Right ECT sensor (B11/10) deviation between sensor circuit 1 and sensor circuit 2	DM, Engines, Vol. 2, section 3.2.
28	Right ECT sensor (B11/10) (coolant temperature change monitor)	DM, Engines, Vol. 2, section 3.2.

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Diagnostic Trouble Code (DTC)	Possible Cause	Remedy/Test Step ¹⁾
34	Left heated O2S (G3/3) inoperative	DM, Engines, Vol. 2, section 3.2.
35	Left LH-SFI control module (N3/2), lambda control inoperative	DM, Engines, Vol. 2, section 3.2.
36	Air injection at left cylinder bank inoperative	DM, Engines, Vol. 2, section 3.2.
37	Left LH-SFI control module (N3/2), EGR inoperative	DM, Engines, Vol. 2, section 3.2.
38	Not used	-
39	Ignition system for left cylinder bank defective	DM, Engines, Vol. 2, section 5.3.
40	Left ECT sensor (B11/9), open/short circuit	DM, Engines, Vol. 2, section 3.2.
41	Left IAT sensor (B17/5), open/short circuit	DM, Engines, Vol. 2, section 3.2.
42	Voltage at left hot wire MAF sensor (B2/3) too high/low	DM, Engines, Vol. 2, section 3.2.
43	Left LH-SFI control module (N3/2), TN-signal (rpm) defective	DM, Engines, Vol. 2, section 3.2.
44	O2S heater of left heated O2S (G3/3), open/short circuit	DM, Engines, Vol. 2, section 3.2.
45	CMP sensor signal of left ignition control module (N1/4) defective.	DM, Engines, Vol. 2, section 3.2.
46	Intake manifold pressure at start (in left ignition control module - N1/4) too low/high	Vacuum supply to N1/4, DM, Engines, Vol. 2, section 5.3.

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Diagnostic Trouble Code (DTC)	Possible Cause	Remedy/Test Step ¹⁾
47	Not used	–
48	Not used	–
49	Data exchange malfunction between left LH-SFI control module (N3/2) and left DI control module (N1/4)	23 ⇒ 6.0.
50	Left adjustable camshaft timing solenoid (Y49/1), open/short circuit	DM, Engines, Vol. 2, section 3.2.
51	Left fuel injectors (Y63) open/short circuit or emission control system adaptation in left LH-SFI control module (N3/2) at limit	Test LH-SFI and reset left LH-SFI control module adaptation to mean value, see DM, Engines, Vol. 2, section 3.2.
52	Not used	–
53	Left purge control valve (Y58/2), open/short circuit	DM, Engines, Vol. 2, section 3.2.
54	Left CMP sensor (L5/2) signal defective	DM, Engines, Vol. 2, section 5.3.
55	Intake manifold pressure (in left ignition control module - N1/4) with engine running too low/high	Vacuum supply to N1/4, DM, Engines, Vol. 2, section 5.3.
56	Starter ring gear segments and/or left CKP sensor (L5/4) defective	DM, Engines, Vol. 2, section 5.3.
57	Knock sensors (A29) or left ignition control module (N1/4) defective	DM, Engines, Vol. 2, section 5.3.
58	Not used	–
59	Left ECT sensor (B11/9) deviation between sensor circuit 1 and sensor circuit 2	DM, Engines, Vol. 2, section 3.2.
60	Left ECT sensor (B11/9) (coolant temperature change monitor)	DM, Engines, Vol. 2, section 3.2.

¹⁾ Observe Preparation for Test, see 22.