Diagnosis – Diagnostic Trouble Code Memory

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- The A/C pushbutton control module (N22) has DTC memory and data output. The diagnostic trouble codes and data are displayed via the display window. The stored DTC's will remain in memory even with the vehicle battery disconnected.
- The DTC memory differentiates between current and intermittent faults.
- All DTC's can also be read with the Hand-Held Tester (HHT).
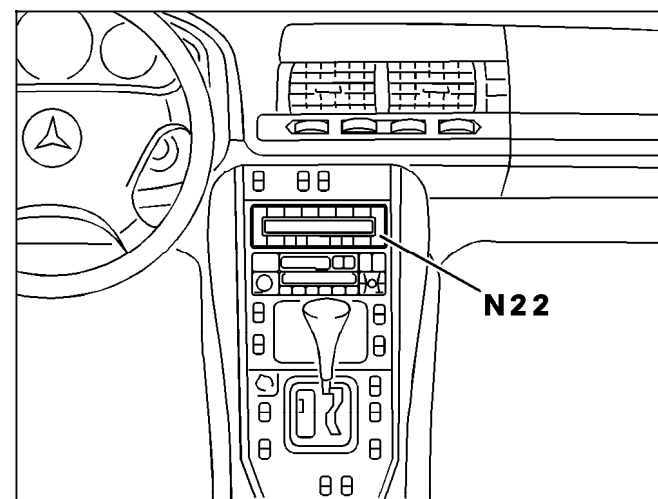- Connect HHT as indicted in section 0.

Figure 1   P83.40-0304-01

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Preparation for Test

1.   Ignition: **ON**

2.   Left display "HI", right display "LO".

3.   Within 20 secs., press **REST** and **EC** simultaneously for > 5 secs.

4.   The LED in 🚗 flashes and the display window reads OFF.

5.   Press right **AUTO** > 1 sec. If there are no DTC's: E is displayed in the left side of the display window and FF is displayed in the right side. If DTC's are stored in memory: EbL is displayed in the left side of the display window and the DTC (e.g. 4Ib) is displayed in the right side (record each DTC as it is displayed).

6.   Each malfunction (short circuit, open circuit, etc.) has a specific DTC (the DTC is displayed in the right side of the display window, EbL is displayed in the left side).
By pressing **AUTO** the next DTC is displayed (see table).

7.   To Erase: (all DTC's must first be read out) press right and left **AUTO** > 2 secs., d will be displayed in the left side of the display window and FF in the right side.

       To cancel erase: press right **AUTO**, the current faults will appear again (compare to DTC readout recorded earlier).

       Delete DTC's as often as necesarry until E is displayed in the left side of the display window and FF is displayed in the right side.

8.   Set temperature selector to normal setting.

9.   Ignition **OFF** to end test.

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Display code in N22 window	📟	Possible cause	Test step/Remedy [1]
FF	-	No malfunction in system	–
026	B1026	CAN communication with rear A/C	Wiring
226	B1226	In-car temperature sensor (B10/4)	23⟹ 4.0
227	B1227	Outside temperature indicator temperature sensor (B14)	23⟹ 10.0
228	B1228	Left heater core temperature sensor (B10/2)	23⟹ 7.0
229	B1229	Right heater core temperature sensor (B10/3)	23⟹ 8.0
230	B1230	Evaporator temperature sensor (B10/6)	23⟹ 5.0
231	B1231	ECT sensor (DFI, IFI) (B11/4)	23⟹ 9.0
232	B1232	Refrigerant pressure sensor (B12)	23⟹ 11.0
233	B1233	Refrigerant temperature sensor (B12/1)	23⟹ 6.0
234	B1234	Sun sensor (B32)	23⟹ 12.0
235	B1235	Emissions sensor (B31)	23⟹ 14.0
241	B1241	Refrigerant fill	23⟹ 6.0, 11.0
416	B1416	Coolant circulation pump (A31m1)	23⟹ 17.0

[1]   Observe Preparation for Test.

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Display code in N22 window		🖬	Possible cause	Test step/Remedy [1]
Ebl	417	B1417	Left-side water valve (Y21y1)	23 ⟹ 18.0
Ebl	418	B1418	Right-side water valve (Y21y2)	23 ⟹ 18.0
Ebl	419	B1419	Electromagnetic clutch (A9k1)	23 ⟹ 21.0
Ebl	420	B1420	Idle speed increase	-
Ebl	421	B1421	AIR control module (N65/1)	23 ⟹ 15.0
Ebl	422	B1422	Serial interface (K1) to instrument cluster (A1)	23 ⟹ 30.0
Ebl	423	B1423	Switchover valve block (Y11)	23 ⟹ 20.0
Ebl	424	B1424	Activated charcoal filter actuator(A32m2) open	23 ⟹ 22.0
Ebl	425	B1425	Activated charcoal filter actuator (A32m2) closed	23 ⟹ 22.0
Ebl	432	B1432	Auxiliary heater-NON-USA (continue to next test step)	-
Ebl	459	B1459	Serial interface (K2) to instrument cluster (A1)	23 ⟹ 31.0
Ebl	460	B1460	LED - Center air outlet "Warm"	23 ⟹ 24.0
Ebl	461	B1461	LED - Center air outlet "Cold"	24 ⟹ 25.0
Ebl	462	B1462	Wide open throttle (WOT) position (diesel engines)	-

[1]   Observe Preparation for Test, see   22.