Diagnosis – Reading Actual Values (via A/C Pushbutton Control Module [N22])

1. The display window will show in sequence the current data from the A/C pushbutton control module (N22).
2. The temperature control is maintained during the duration of the test.

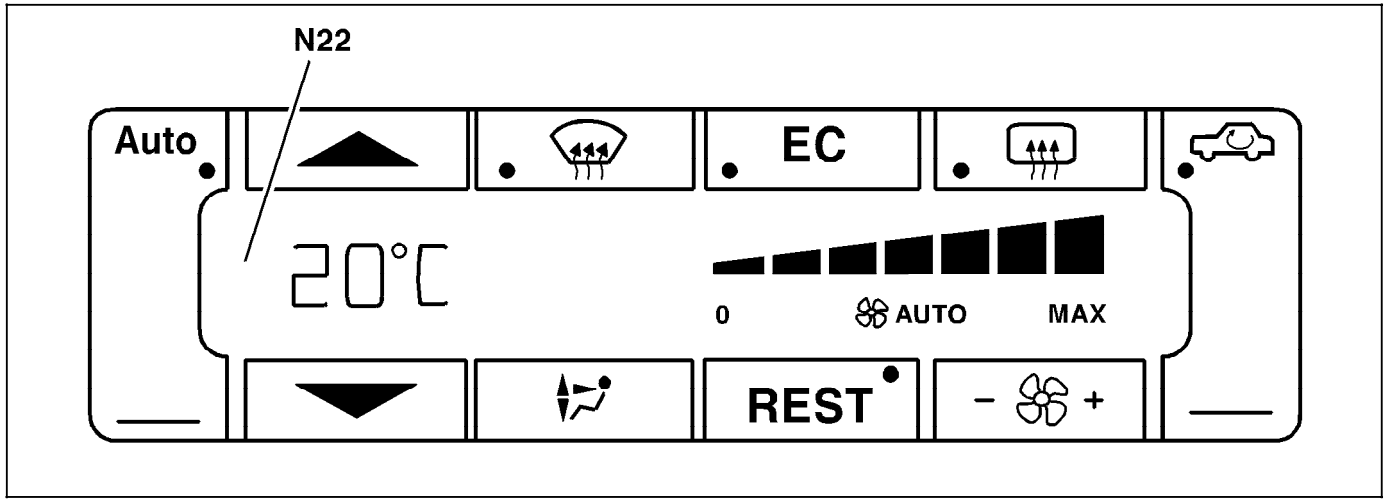

Figure 1

P83.40-2028-04

Diagnosis – Reading Actual Values (via A/C Pushbutton Control Module [N22])

Preparation for Test

1. Ignition: **ON**
2. Set temperature selection to 72 °F.
3. Press REST for more than 6 seconds.
4. The left side of the display window will alternately display the number "01" and the in-car temperature (e.g. 72 °F)
5. By pressing 36 + the next highest test step is displayed (see table).
6. Press REST to end test program.

Note:

The display will, or "OP E" if there is an open circuit, "CL 0" if there is a short circuit.

Diagnosis – Reading Actual Values (via A/C Pushbutton Control Module [N22])

Display code in N22 window		Possible cause	Test step/Remedy [1]
01	01	In-car temperature sensor (B10/4)	23 ⇒ 4.0
02	02	Outside temperature indicator temperature sensor (B14)	23 ⇒ 10.0
03	03	Left heater core temperature sensor (B10/2)	23 ⇒ 7.0
05	05	Evaporator temperature sensor (B10/6)	23 ⇒ 5.0
06	05	ECT sensor (DFI, IFI) (B11/4)	23 ⇒ 10.0
07	07	Refrigerant pressure in bar, e.g. 06 °4 corresponds to 6.4 bar (B12)	23 ⇒ 8.0
08	08	Refrigerant temperature sensor (B12/1), e.g, 73 °4 corresponds to 73.4 °F	23 ⇒ 6.0
09	- [2]	Not used	-
10	13	Blower control voltage, e.g. 08 °0 (min) - 60 °0 (max) corresponds to 0.8 - 6.0 volts	23 ⇒ 20.0
20	- [2]	Control current for auxliary fan e.g. 7 corresponds to 7 mA	23 ⇒ 16.0
21	12	Engine speed, e.g. 00 . . 99 (x 100) corresponds to 9900 rpm	23 ⇒ 10.0
22	11	Vehicle speed 155 (km/h)	23 ⇒ 10.0
23	14	Terminal 58d e.g. 99 corresponds to 99 % battery voltage	-
24	-	Battery voltage e.g. 12.5 = 12.5V	23 ⇒ 1.0
40	[3]	Software status e.g. 02	-

[1] Observe Preparation for Test.

[2] Activate menu

[3] Control module identification

Diagnosis – Reading Actual Values (via A/C Pushbutton Control Module [N22])

Display code in N22 window		Possible cause	Test step/Remedy [1]
41	[3]	Hardware status e.g. 08	-
42	[2]	Version code 1. number code e.g. 03	-
43	[2]	Version code 2. number code e.g. b – C = benzin (gasoline)	-
50	-	not used	-
51	-	not used	-
52	-	Nominal value (temperature selection)	-
54	15	A/C compressor emergency shut off e.g. OFF	23 ⇒ 23.0
60	[2]	Roof e.g. OPE = open, CLO = closed	23 ⇒ 13.0
61	[2]	Left air outlet, potentiometer voltage e.g. 2.9 V	23 ⇒ 27.0
62	[2]	Vacuum actuator 46, feedback potentiometer voltage e.g. 0.9 V	23 ⇒ 24.0
63	[2]	Center air outlet, potentiometer voltage e.g. 2.9 V	23 ⇒ 28.0
64	[2]	Vacuum actuator 47, feedback potentiometer voltage e.g. 0.9 V	23 ⇒ 25.0
65	[2]	Right air outlet, potentiometer voltage e.g. 2.9 V	23 ⇒ 29.0
66	[2]	Vacuum actuator 48, feedback potentiometer voltage e.g. 0.9 V	23 ⇒ 26.0

1) Observe Preparation for Test.
2) Activate menu.
3) Control module identification.
4) Version coding menu.