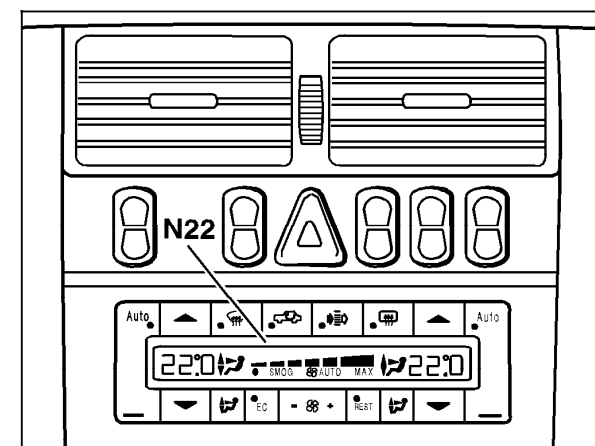


Diagnosis – Reading Actual Values (via A/C Pushbutton Control Module [N22])



1. The display window or the HHT will show in sequence the actual temperature readings, refrigerant pressure, blower control voltage and software status of the A/C pushbutton control module (N22).
2. The temperature control is maintained during the duration of the test.



P83.30-0289-01

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

Preparation for Test

1. Review 11, 12, 13, 14, 15, 20, 21, 22, 31, 32, 41, 42
2. Ignition: **ON**
3. Press **AUTO**.
4. Set both temperature selectors to 72 °F.
5. Press **REST** for > 5 secs.
6. The left display will alternately show the number "1" and the in-car temperature (e.g. 72 °F)
7. By pressing **AUTO** the next highest test step is displayed (see table).
8. Press **REST** to end test program.



The display will show "E" (Error) if there is a short or open circuit, negative sensor values will be shown in the left display (e.g. "-").

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

Display code in N22 window 	Possible cause	Test step/Remedy ¹⁾
1 01	In-car temperature sensor (B10/4)	23 ⇒ 4.0
2 02	Outside temperature indicator temperature sensor (B14)	23 ⇒ 21.0
3 03	Heater core temperature sensor left (B10/1)	23 ⇒ 7.0
4 04	Heater core temperature sensor right (B10/1)	23 ⇒ 8.0
5 05	Evaporator temperature sensor (B10/6)	23 ⇒ 5.0
6 06	ECT sensor (DFI, IFI) (B11/4)	23 ⇒ 21.0
7 07	Refrigerant pressure in bar, e.g. 4 corresponds to 4 bar	23 ⇒ 9.0
8 08	Refrigerant temperature sensor (B12/1), e.g. 73 corresponds to 73 °F	23 ⇒ 6.0
9 -	Not used	-
10 13	Blower control voltage, e.g. 0.8 (min) - 6.0 (max) corresponds to .8 - 6 V	23 ⇒ 17.0
11 10	Emissions sensor (B31) e.g. 3.1 corresponds to 3.1 V	23 ⇒ 12.0
12 09	Sun sensor (B32) e.g. 4.2 corresponds to 4.2 V	23 ⇒ 10.0
20 -	Control current for auxiliary fan e.g. 7 corresponds to 7 mA	23 ⇒ 13.0
21 12	Engine speed, e.g. 99 (x 100) corresponds to 9900 rpm	23 ⇒ 21.0

¹⁾ Observe Preparation for Test, see 22.

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

Display code in N22 window 	Possible cause	Test step/Remedy ¹⁾
22 11	Vehicle speed 155 (km/h)	23 ⇒ 21.0
23 14	Terminal 58d e.g. 99.0 corresponds to 99 % battery voltage	-
24 -	Battery voltage e.g. 12.8 = 12.8 V	-
40 12	Software status e.g. 31	-
41 12	Hardware status e.g. 08	-

¹⁾ Observe Preparation for Test, see 22.