Electrical Test Program – Test

		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**Voltage supply Circuit 30**	N19 12 — V — 1		11-14 V	Wiring, Circuit 31, ⇒ 1.1
1.1		Circuit 30	N19 ⊥ — V — 1		11-14 V	Wiring.
2.0		**Voltage supply Circuit 15**	N19 12 — V — 1	Ignition: **ON**	11-14 V	Wiring.
3.0		**Voltage supply Circuit 15x**	N19 12 — V — 22	Ignition: **ON**	11-14 V	Wiring.
4.0		**In-car temperature sensor (with aspirator blower) (B10/4)** Resistance	N19 3 — Ω — 28	Ignition: **OFF** Disconnect N19 from .	°C ≙ kΩ 10 ≙ 19.0 – 21.0 20 ≙ 11.9 – 13.0 30 ≙ 7.7 – 8.4 45 ≙ 4.2 – 4.6	Wiring, B10/4

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0	B1230	**Evaporator temperature sensor (B10/6)** Resistance	N19 3 — Ω — 24	Ignition: **OFF** Disconnect N19 from .	°C ≙ kΩ 10 ≙ 5.2–5.8 20 ≙ 3.2–3.6 30 ≙ 2.0–2.3 45 ≙ 1.1–1.25	Wiring, B10/6
6.0	B1228	**Left heater core temperature sensor (B10/1)** Resistance	N19 3 — Ω — 26	Ignition: **OFF** Disconnect N19 from .	°C ≙ kΩ 10 ≙ 19.0–21.2 20 ≙ 11.9–13.2 30 ≙ 7.7–8.4 45 ≙ 4.2–4.6	Wiring, B10/1
7.0	B1229	**Right heater core temperature sensor (B10/2)** Resistance	N19 3 — Ω — 25	Ignition: **OFF** Disconnect N19 from .	°C ≙ kΩ 10 ≙ 19.0–21.2 20 ≙ 11.9–13.2 30 ≙ 7.7–8.4 45 ≙ 4.2–4.6	Wiring, B10/1
8.0	B1232	**Refrigerant pressure sensor (B12)** Voltage	N19 12 — V — 27	Ignition: **ON**	bar ≙ V 2 ≙ 0.5–0.75 10 ≙ 1.4–1.8 18 ≙ 2.4–2.8 28 ≙ 3.5–4.0	Wiring, B12, ⇒ 8.1, N19

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.1		Voltage	N19 12 — (V) — 14	Ignition: **ON**	4.75-5.25 V	Wiring, B12, N19
9.0	B1421	**Auxiliary fan (M4) Activation**	N19 12 — (V) — 19	Engine: **At idle** Disconnect connector from refrigerant pressure sensor (B12).	>0.5 V	Wiring, Pulse module (N65), Or AIR control module (N65/1)
10.0		**Diagnostic output**	N19 12 — (V) — 17	Ignition: **ON**	11-14 V	Wiring, N19
11.0	B1419	**A/C compressor (A9) Activation**	N19 12 — (V) — 20	Engine: **At idle** A/C compressor: EC A/C compressor: EC is **not illuminated.**	<1 V 11 – 14 V	Wiring, A9, N19
12.0	B1416	**Coolant circulation pump (M13)** Resistance	M13 2/1 — (Ω) — 2/2	Ignition: **OFF** Disconnect connector from M13	2-4 Ω	Wiring, M13
13.0	B1420	**Idle speed increase** Voltage	N19 5 — (V) — 1	Engine: **At idle** EC is **not illuminated.**	<1 V >2 V	Wiring, N19

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
14.0	B1417	**Left-side water valve (Y21y1)** Voltage supply	N19 9 — (V) — 1	Ignition: **ON** Temperature selector wheels: **Red** range detent **Blue** range detent	After 15 seconds: <1 V 11 – 14 V	Wiring, ⇒ 1.1, N19
14.1		Left duovalve (Y21y1) Resistance	N19 10 — (Ω) — 9	Ignition: **OFF** Disconnect N19 from .	20-35 Ω	Y21
15.0	B1418	**Right-side water valve (Y21y2)** Voltage	N19 1 — (V) — 10	Ignition: **ON** Both temperature selector wheels: **Red** range detent **Blue** range detent	<1 V 11 – 14 V	Wiring, ⇒ 1.1, N19
15.1		Right duovalve (Y21y2) Resistance	N19 10 — (Ω) — 9	Ignition: **OFF** Disconnect N19 from .	20-35 Ω	Y21

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
16.0		**Blower regulator (A32n1)** Voltage	N19 12 — (V) — 7	Ignition: **ON** Blower switch in fan stage: **1** **2** **3** **4** **5**	 1.1 – 1.8 V 2.0 – 2.6 V 2.8 – 3.2 V 3.6 – 4.2 V 5.0 – 6.0 V	Wiring, N19
17.0	B1454	**Fresh/recirculated air flap switchover valve (Y13)** Resistance	N19 16 — (Ω) — 21	Disconnect N19	45-65 Ω	Wiring.
18.0	B1422	**Serial Interface K1**	N19 12 — (V) — 28	Engine: **At Idle**	> 2 V ~	Wiring.
19.0	B1459	**Serial Interface K2**	N19 12 — (V) — 5	Engine: **At Idle**	> 2 V ~	Wiring.

Electrical Test Program – Test

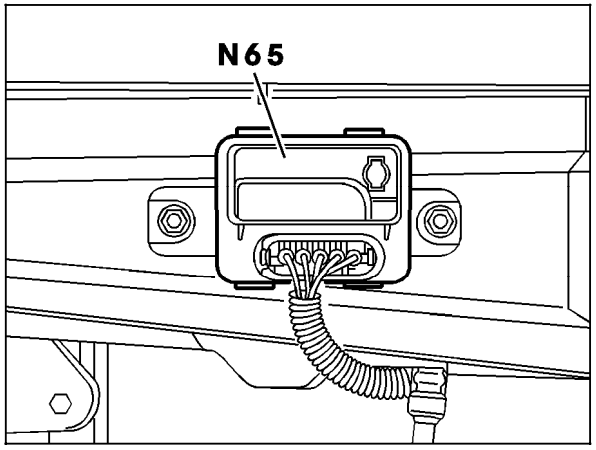

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Figure 1

N65/1 AIR control module