Electrical Test Program - Cruise Control Test

Test step / DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 1.0 54	**Cruise control switch (S40)**	N4/1	Ignition: **ON**		Wiring,
			Switch not activated.	< 1 V	Cruise control switch (S40).
	V Decelerate/set	79 (1.38) —◖ ◄–Ⓥ+► ◗— 51 (1.10)	Position “DECEL.”	11 – 14 V	
	B Accelerate/set	79 (1.38) —◖ ◄–Ⓥ+► ◗— 72 (1.31)	Position “ACCEL.”	11 – 14 V	
	SP Resume	79 (1.38) —◖ ◄–Ⓥ+► ◗— 52 (1.11)	Position “RESUME”	11 – 14 V	
	A Off	79 (1.38) —◖ ◄–Ⓥ+► ◗— 74 (1.33)	Switch not activated	11 – 14 V	
			Position “OFF”	< 1 V	
	Control switch contact	79 (1.38) —◖ ◄–Ⓥ+► ◗— 43 (1.2)	Switch not activated.	< 1 V	
			Control switch contact in position:		
			“DECEL.”, “ACCEL.”, “RESUME”, “OFF”.	11 – 14 V	

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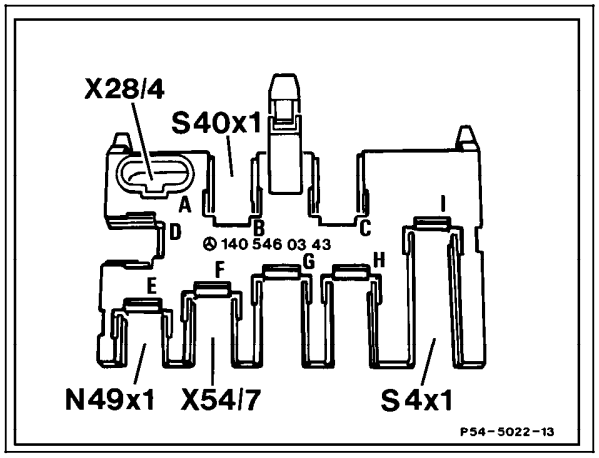
Test step / DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 2.0 5	**Stop lamp switch (S9/1)** Signal (N.C. contact)	N4/1 79 (1.38) — 54 (1.13)	Ignition: **ON** Brake pedal not applied Brake pedal applied	11 – 14 V <1 V	Wiring, Stop lamp switch (S9/1), Base module (N16/1), DM, Chassis and Drivetrain, Vol. 1, section 1.1
⇒ 3.0 5	**Stop lamp switch (S9/1)** Signal (N.O. contact)	N4/1 79 (1.38) — 71 (1.30)	Ignition: **ON** Brake pedal not applied Brake pedal applied	<1 V 11 – 14 V	Wiring, Stop lamp switch (S9/1).
⇒ 4.0 6	**Starter lock-out/backup lamp switch (S16/3)** (Transmission range recognition) Voltage	N4/1 44 (1.3) — 45 (1.4)	Ignition: **ON** Transmission range: P → R → N → D → 3 → 2 →	 1.0 V 0.3 V 4.0 V 3.5 V 2.5 V 1.8 V (± 10 %)	Wiring, Starter lock-out/backup lamp switch (S16/3), ⇒ 4.1, EA/CC/ISC control module (N4/1).

Electrical Test Program - Cruise Control Test

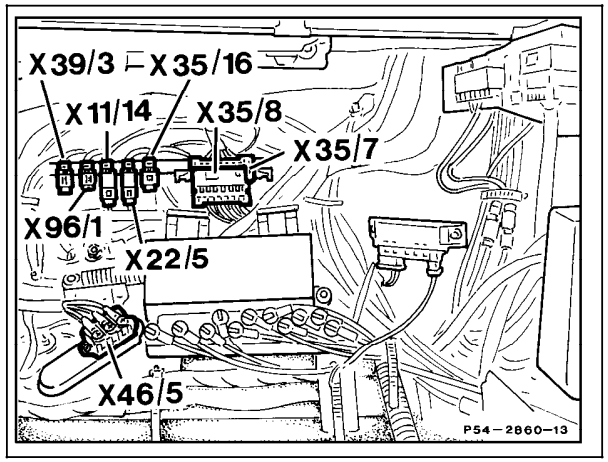
Test step DTC	Scope of test	Test connection	Test condition	Nominal value	Possible cause/remedy
⇒ 4.1	Starter lock-out/backup lamp switch (S16/3) (Transmission range recognition) Resistance	N4/1 44 (1.3) — Ω — 45 (1.4)	Ignition: **OFF** EA/CC/ISC control module (N4/1) unplugged. Transmission range: P → R → N → D → 3 → 2 →	 1400 Ω 294 Ω 28000 Ω 11300 Ω 5900 Ω 3100 Ω (± 10 %)	Wiring, Starter lock-out/backup lamp switch (S16/3).
⇒ 5.0	**Left front axle vehicle speed sensor (L6/1)** Speed signal	N4/1 79 (1.38) — V — 56 (1.15)	Lift front of vehicle. Ignition: **ON** Turn left front wheel by hand	4 – 8 V	Wiring, Left front axle vehicle speed sensor (L6/1), ABS/ASR control module (N30/1) DM, Chassis and Drivetrain, Vol. 1, section 5.2. **Note:** Upon completion of test, erase any DTC's from ABS/ASR control module (N30/1) memory.
⇒ 6.0	**Serial data bus (CAN)**	N4/1x1 "L" — Ω — "H"	Ignition: **OFF** EA/CC/ISC control module (N4/1) unplugged. Measure resistance at connector (see Figure 5).	55 – 65 Ω	Wiring, LH-SFI control module (N3/2 or N3/3), DM, Engine, Vol. 2, section 3.2, Ignition control module (N1/4 or N1/5), DM, Engine, Vol. 2, section 5.3. ABS/ASR control module (N30/1) DM, Chassis and Drivetrain, Vol. 1, section 5.2

Electrical Test Program - Cruise Control Test



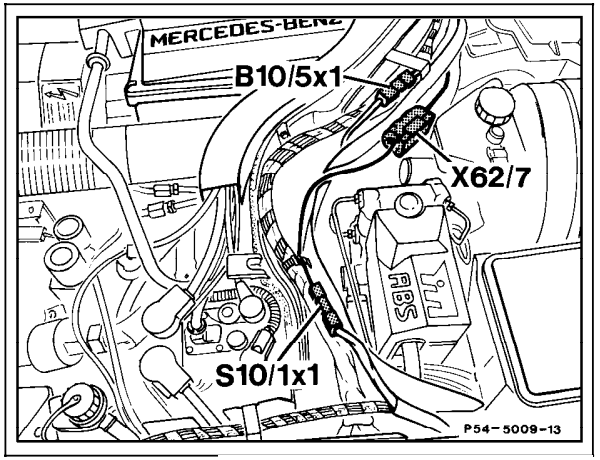
P54-5022-13

Figure 1



P54-2860-13

Figure 2



P54-5009-13

Figure 3

S40x1 Cruise control switch connector

X35/8 Cockpit/module box plug connection, electronic accelerator/cruise control/idle speed control (16-pole)

X62/7 Left front axle wheel speed sensor connector (component compartment)

Electrical Test Program - Cruise Control Test

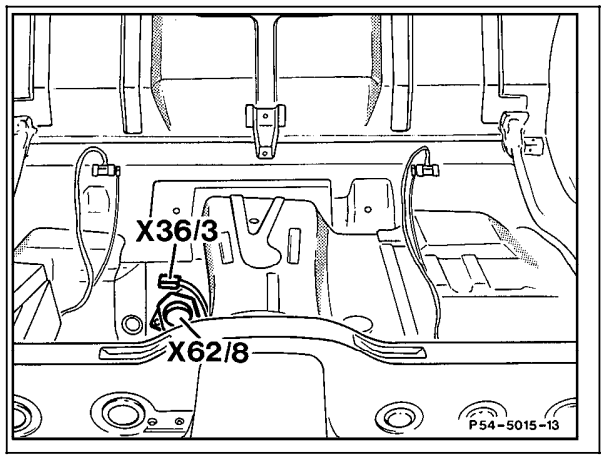


Figure 4 P54-5015-13

X62/8 Rear axle multiple circuit junction connector

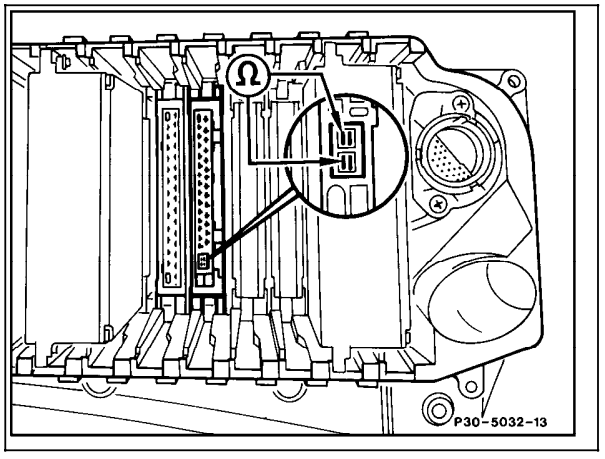


Figure 5 P30-5032-13

N4/1x1 EA/CC/ISC control module connector
Circle = CAN bus