Remote diagnosis no. 5: no start, no gear change

Vehicle	Mercedes-Benz R-Class (W251), 7G-TRONIC automatic transmission
VIN	WDC·583
Date	10 November 2026, 16:52–17:57 UTC (seven remote sessions)
Location	France (remote, through the Gateway PRO dongle)
Complaint	The engine does not start and the transmission does not change gear
Method	Technician-led remote diagnosis with a dealer-level diagnostic tool. Identification and fault memory of every control unit that answered, fault environment data of the transmission codes, clearing of the transmission fault memory and a transmission control unit reset to check whether the fault returns, and engine control unit test functions. No coding or programming was done.

Summary

Cause of the no-start and no-gear complaint: the Intelligent Servo Module (ISM) on the automatic transmission does not communicate with the vehicle.
The ISM did not answer the diagnostic tool at any point during the seven sessions. The transmission control unit confirms it from the car's own side. It stores **U0103, lost communication with the gear shift module, as currently present**, and the code came back straight away after every clear and after a control unit reset (cleared 17:20, back at 17:22; present again at 17:47). The ISM moves the transmission into P, R, N or D and reports the selected range. Without it the transmission cannot engage a gear or confirm Park / Neutral, so the engine start is blocked. This matches the complaint.

Recommended checks

1. **ISM power supply and ground** at the ISM connector on the transmission: fuse, supply voltage with the ignition on, and the ground connection under load.
2. **ISM CAN wiring:** CAN high / CAN low at the ISM connector (voltage with the ignition on, about 60 Ω between them with the battery disconnected), continuity back to the vehicle network, and the connector itself (transmission oil or water ingress, corrosion, pushed-back pins).
3. **If supply, ground and CAN are good at the ISM connector:** the ISM itself has failed. Repair or replace it. After fitting, it must be initialised with dealer-level software before the transmission will select gears.
4. **After the repair:** clear the fault memory of all control units. Check that the engine starts in P and in N and that P, R, N and D all engage, then road test. P2806 and P1709 in the transmission are expected to clear with the ISM fault; recheck them.
5. Other stored codes (below) are not linked to the complaint by this diagnosis. Check them with the dealer tool once the car is running.

Faults found

Control unit	Code	Status	Description
Transmission	U0103	active	Lost communication with the gear shift module (ISM). Returned after every clear and after a control unit reset.
Transmission	P2806	active	Transmission range (selector position) signal B, range / performance (generic meaning). Present at the first and the last reading.
Transmission	P1709	active	Code only. Stored at the first reading, present at 17:22.
Engine	P2210	active	Code only.
Engine	P2133	stored	Code only.
Unit A 164 545 33 16	B1065	active	Code only.
Unit A 164 545 38 16	B1062	stored	Code only.
Unit A 251 870 87 89	B210A	stored	Code only.
Unit A 251 870 87 89	B210D	stored	Code only.
Unit A 251 870 87 89	U130A	stored	Code only (communication).
Control unit holding the VIN	B100887	active	Code only (a CAN message is missing).
Control unit holding the VIN	B100116	stored	Code only.
Control unit holding the VIN	B100516	stored	Code only.

Active = failing now / this drive cycle. Stored = recorded earlier, not failing at the moment of reading. "Code only": the code was read but its manufacturer text is not part of this report. Units without a name are identified by their Mercedes-Benz part number.

Control units

Did not answer	no communication Intelligent Servo Module (ISM), transmission
Answered, faults above	Engine control unit · transmission control unit · A 164 545 33 16 · A 164 545 38 16 · A 251 870 87 89 · the control unit holding the VIN
Answered, no faults	A 164 545 81 16 · A 251 820 64 89 · A 164 820 57 85 · A 164 540 36 62

Session timeline (UTC)

Time	What was done and found
16:52–17:01	VIN read. Identification and fault memory of all answering units. Transmission: U0103 and P2806 active, P1709 stored. The ISM did not answer. Transmission clear and test function attempted; not accepted by the control unit.
17:01–17:10	Repeat scans. The engine and transmission control units answered only intermittently in this period; the ISM did not answer.
17:11–17:35	Engine identification, fault memory and engine test functions. Transmission fault memory cleared (17:20) and control unit reset. Re-read at 17:22: U0103 back at once, P1709 present.
17:47–17:57	Transmission fault memory and fault environment data read: U0103 and P2806 active again. Fault memory cleared at 17:48. Session ended.

Scope and limits

The diagnosis was carried out by the technician with a dealer-level tool through the Gateway PRO dongle. This report was built from the recorded diagnostic traffic of those sessions. Fault environment (freeze frame) data of the transmission codes was read but is not decoded in this report. Code meanings marked "generic" are the standard industry definitions; "code only" texts are available in the dealer tool. Only the control units the tool addressed are listed; others may be fitted.