

30-502 Hints for troubleshooting

Job No. of the job texts and work units and standard texts and flat rates

Complaint:	Cause/Remedy:
Cruise control/Tempomat not functioning.	<ol style="list-style-type: none">1. Check whether connector of harness on cruise control amplifier (N4) is completely pressed on.2. Test cruise control/Tempomat with adapter (30.0101-504)
Cruise control/Tempomat not functioning. During adapter test, LED for speedometer not or continuously lighting up, opposite to data on test card. Model 201.122 (USA) with manual transmission (model year 84 California and model year 85)	<ol style="list-style-type: none">1. Green/black control line from cruise control/Tempomat speedometer connection to control unit of exhaust gas recirculation connection 5 has short to ground.2. Exhaust gas recirculation control unit defective.
The following systems are completely or temporarily not functioning: Cruise control Speed warning (Saudi-Arabia only) Trip computer Model 124 Note The multipoint connector is used only if at least two of the special equipment types named above are installed.	Complete or temporary interruption, install new multipoint connector (X53/5) starting production date 49.85 (identified by green color dot) Production breakpoint: Starting chassis end no A 150123 and F 000 001
Cruise control/Tempomat not functioning following renewal or installation of a control unit part no. 005 545 05 32 up to production date 08/88.	Remove grounding bridge in 14-pole connector for control unit from jack 12 to jack 14. Connect grounding line or grounding lines to jack 12. Jack 14 is no longer engaged.
Cruise control/Tempomat temporarily not functioning.	Poor contacting on cruise control amplifier by widening of sockets. Rebend sockets, pay attention to correct connections of connector.

Cruise control/Tempomat temporarily not functioning. Cannot be switched on, switches off while driving or will be shaking (not just when driving uphill).
Model 124, 201

Speed signal from Hall-effect speed sensor on instrument cluster temporarily interrupted.

Improved Hall-effect speed sensor, part no. 007 542 29 17, starting production date 06/88.

Cruise control/Tempomat switches off while driving, but can be newly stabilized without interrupting drive.

Install modified cruise control amplifier with new part number.

Model 201.02 part no. 003 545 09 32

Model 201.122 part no. 002 545 82 32

Production

breakpoint: Model 201.02 approx. 03/84

Model 201.122 approx. 10/83

Cruise control/Tempomat can be switched on only at a speed which is higher than 50 km/h. Vehicles with cruise control amplifier without reference resistor.

1. Check whether correct cruise control amplifier has been installed (refer to spare parts data).

2. On vehicles with grounding bridge, test bridge in connector for cruise control amplifier from connection 14 to 12 for interruption (refer to wiring diagrams 30/0101-580).

Cruise control/Tempomat can be switched on only after approx. 60 km/h.
Models 124.125/130 up to approx. 07/85

Wrong combination
auxiliary harness/cruise control amplifier

Check whether socket (jack) 14 is included in connector of cruise control amplifier.

Socket (jack) 14 is in place, install cruise control amplifier part no. 003 545 86 32.

Socket (jack) 14 missing, install cruise control amplifier part no. 004 545 24 32.

Cruise control/Tempomat hunting throughout entire speed range by to 5 to 7 km/h.

Cruise control amplifier defective.

Note

The complaint is clearly noticed, when the speed has been increased with pushbutton switch (tipping switch). After releasing switch, the vehicle continues to accelerate by approx. 5 to 7 km/h, the speed will drop again and the speed change will then consecutively show up.

Check harness for short circuit. If in order, renew cruise control actuator and subsequently cruise control amplifier.

Vehicle shaking (not only when driving downhill). This complaint may show up all the time or in given speed ranges only.

Install new sensor starting production date 03.84. The production date is shown on housing.

Model 201 up to approx. 03/84

Production breakpoint: 03/84

Vehicle shaking across entire speed range.

1. Check throttle control for easy operation and wear.
2. Check whether the correct cruise control amplifier or reference resistor has been installed (refer to spare parts data).
3. Check cabling for correct connections in plug connections for cruise control actuator and cruise control amplifier (refer to wiring diagrams 30.0101-580).
4. Check harness connection on speedometer sensor for good contacting and re-shape sockets (jacks), if required.
5. Renew cruise control actuator.



Vehicle shaking on level road up to approx. 65 km/h and when driving downhill.

Harness wrongly connected. Correct cabling as follows:

Model 201.024 with engine 102.961 standard version or 102.962 standard version without air conditioning system

1. Pull connector from microswitch on throttle control.
 2. Separate plug connection on throttle control and connect connector of plug connection to microswitch.
 3. Connect pulled-off connector of microswitch to plug of plug connection.
 4. Perform function test on road.
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Vehicle shaking on level road up to approx. 65 km/h and when driving downhill.	Decel shutoff is not switched off during operation of cruise control/Tempomat. A checkup can be made by pulling connector from microswitch on guide lever for decel shutoff. Shaking will then no longer occur.
Model 124 with engine 102.982 up to approx. 09/88 or with 103.980 up to approx. 09/87	
Model 201 with engine 102.962 (NV-RÜF/CAT), as well as vehicles with air conditioning system (standard) installed by manufacturer.	1. Check plug connection of white lines X26 (jack 11) or X33. If the plug connection X26 (jack 11) or X33 is no longer plugged together, the line ends are at the following points:
Line end of engine harness	Line end of cruise control/Tempomat harness
124 to approx. 08/85 In fuse/relay box laced back approx. 150 mm from connector X26 on harness	Loose in fuse/relay box
124 starting approx. 09/85 In fuse/relay box in connector X26 jack 11	Loose in fuse/relay box
201 (standard) with air conditioning Laced back on harness behind battery	Loose in range of righthand front wall pillar
201 NV-RÜF/CAT In interior at the right, near front wall rubber grommet, laced back on harness	Loose in range of righthand front wall pillar
	2. If item 1 is in order, check white line between connector cruise control amplifier (jack 5) and connector CIS-E control unit (jack 6) for interruption.
	3. If positions 1 and 2 are in order, renew CIS-E control unit.

<p>Vehicle shaking in no-load condition when operating cruise control/Tempomat.</p>	<p>Excessive torsional clearance of differential, higher than the max. permissible 8 mm during power input of 100 Nm.</p>
<p>Vehicles with Torsen differential</p>	<p>Can be attained only with a standard differential.</p>
<p></p>	<p>The Torsen differential is not authorized by DB.</p>
<p>Vehicle shaking under load during operation of cruise control/Tempomat between 2000 and 3000 rpm Model 124.133/193 and 126.125.</p>	<p>Subsequently install damper with throttle, refer to 07.1-250.</p>
<p> model year 1986 and 1987</p>	<p></p>
<p>Vehicle shaking in partial-load condition when operating cruise control/Tempomat Models 124.128/133/193/333/393 and 201.128 up to approx. 09/89</p>	<ol style="list-style-type: none"> 1. Check basic adjustment of regulating linkage. 2. Pull harness off microswitch for boost pressure cutout S27 or S27/7 on throttle control and take vehicle on test drive. If there is no more shaking, be sure to install a relay, refer to 30-576.
<p>Vehicle jerking when ACC switch is actuated,  vehicles only</p>	<p>Install modified speed sensor Production breakpoint: model year 1987, refer to 30-552.</p>
<p>Shaking during deceleration with Tempomat switched on. Models 124 and 201 with engines 102.96/982/985</p>	<p>This shaking can be associated with the switching on and off of the deceleration shut-off. To check this, the connector from the deceleration cut-off microswitch (S27/2) must be detached and the vehicle test driven on the overrun with the Tempomat switched on. If shaking does not occur, a relay can be installed which influences deceleration cut-off, refer to (30-577).</p>

Vehicle runs approx. 10 km/h beyond fixed speed, additionally there may be shaking or shutting-off at higher speeds.

Vehicle as of approx. 01/89 to 11/89

Install new control unit with grey gasket for reference resistor.

Production breakpoint: approx. 11/89

Vehicle shaking when cruise control switch is held in "Decelerate" position.

Vehicles with engine 102.96/98, 103 and 104.

Adjust connecting rod shorter by approx.

2 - 3 mm or 2 - 3 revolutions.

Cruise control actuator rattling in key position two.

1. Check connectors (plug connections) cruise control actuator/harness and cruise control amplifier/harness for good contact and re-shape jacks (sockets), if required.

2. Renew actuator.
