

NTG5.5, NTG6: Vehicle positioning inaccurate and/or route guidance not possible

Topic number	LI82.85-P-064727
Version	11
Function group	82.85 - Navigation and Communication systems
Date	9/15/22
Validity	Model series 213 and 238 Model series 257 and 205 from code 809 Model series 177, 247, 167 and 253 from code 800
Reason for change	Remedy change

Complaint

The vehicle positioning in the central display may be intermittently inaccurate and may deviate from the road during route guidance.

Cause

There are several possible root causes:

- Incorrect COMAND / MBUX Multimedia System (A26/17) positioning calibration values
- GPS antenna hardware [model series 213 and 238 up to and including modification year 17/2 (code 808 and 058)]
- Surround View System camera in the side mirror may affect the function of the GPS antenna [vehicles from and including modification year 18/1 (code 809) and Surround View System (code 501)]

Remedy

On COMAND equipped vehicles, perform a factory reset of the COMAND:

- Navigate to the dealer menu (highlight the **Vehicle** icon in the home screen and press down on the COMAND controller knob for ~10 seconds)
- Select **8. System Reset**;
- Select **8.1 Factory Initialization**;

On MBUX equipped vehicles, reset the positioning calibration data of the MBUX:

- Navigate to the dealer menu (long press the **home** and **Radio/Media** buttons on the touchpad for ~10 seconds)
- Select **Navigation**;
- Select **Reset Positioning Calibration Data**;

XENTRY TIPS

After the reset is performed then re-test for the complaint. If the complaint remains then proceed with the next steps.

GPS antenna hardware:

If one of the following DTCs is **"current"** or **"stored"** in the Audio 20/COMAND Online control unit (A26/17) or the telematics services (HERMES) control unit (N112/9), then replace the GPS antenna:

B142E13 **"**The GPS antenna has a malfunction. There is an open circuit.**"**

B142E11 **"**The GPS antenna has a malfunction. There is a short circuit to ground.**"**

B142E31 **"**The GPS antenna has a malfunction. No signal.**"** (only with N112/9, Hermes)

If none of the above DTCs are active or stored, check the GPS antenna actual values using XENTRY Diagnostics. Ensure this is done in open air with the trunk lid or rear hatch closed. Compare these values with the actual location data (Google Earth, known good reference vehicle, etc.). Move the complaint vehicle to a new location (at least 200 feet away) and check the actual values of the GPS antenna again. If the geo-coordinates do not change then replace the GPS antenna.

For vehicles with code 501 (Surround View System):

- Remove the fuse for the 360 degree camera in the mirror where the GPS antenna is installed.
- Perform the above test sequence again.
- If the complaint is remedied by removing the fuse for the 360 camera then the driver's side 360 camera will need to be replaced

Symptoms
Communication/information > Communication > Navigation > Navigation - Function > No satellite reception
Communication/information > Communication > Navigation > Navigation - Function > Driving directions incorrect/navigation system imprecise
Communication/information > Communication > Navigation > Navigation - Function > Route guidance incorrect/im-plausible
Communication/information > Communication > Navigation > Navigation - Function > Error in map display

Control unit/fault code	
Control unit	Fault text
A40/3 / A26/17 - Audio or COMAND (Head unit) (HU5)	B142E11 - The GPS antenna has a malfunction. There is a short circuit to ground.
	B142E13 - The GPS antenna has a malfunction. There is an open circuit.
N112/9 - Control unit for telematics services (HERMES) (HERMES)	B142E31 - The GPS antenna has a malfunction. The signal is not present.
A40/3 / A26/17 - Audio or COMAND (Head unit) (HU5)	B142E11 - The GPS antenna has a malfunction. There is a short circuit to ground.
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Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note