

## NTG5.5: Vehicle positioning inaccurate/ implausible, route guidance not possible

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Topic number	LI82.85-P-064727
Version	1
Design group	82.85 Navigation and Communication system (CNS, ICS, COMAND, FleetBoard)
Date	08-23-2016
Validity	BR213
Reason for change	
Reason for block	

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### Complaint:

The vehicle positioning in the central display may be intermittently inaccurate and may drift away from the road although the vehicle is still on the road.

### Cause:

- 1.) GPS antenna.
- 2.) Software release of COMAND Online control unit A26/17.

### Remedy:

- 1.)
    - a) If one of the following fault codes is logged in the fault memory of the Audio20 control unit A26/17 or the COMAND Online control unit A26/17, the GPS antenna must be replaced:
      - B142E31 "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"
    - b) If none of these fault codes is logged, it is essential to check the GPS antenna using XENTRY Diagnostics:

(NOTE: The function check of the GPS antenna must always be performed under a clear sky so that unobstructed reception of the satellites is guaranteed. The trunk lid or rear-end door must be closed.)

      - Check the position of the vehicle using the actual values of the GPS antenna. Compare these values with the current location data (empirical value, reference vehicle etc.). If there are substantial variations, it can be assumed there may be a GPS antenna malfunction.
      - By means of a position change of the problem vehicle, the function of the GPS antenna can be checked with the aid of the actual values. If the geocoordinates do not change when the vehicle is moved, it can be assumed there may be a GPS antenna malfunction.
- > Replacement of GPS antenna

# XENTRY TIPS

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If the tests described do not reveal any issues with the GPS antenna, then do not replace the GPS antenna and continue with remedy 2.)

2.)

COMAND Online (code 531): Software update of COMAND Online control unit to software release E59.3 or higher. This software release is available as of XENTRY version 07/2016 or later.

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/improbable
Communication/information / Communication / Navigation / Navigation - Function / Error in map display

Control unit/fault code		
Control unit	Fault code	Fault text
A40/3 / A26/17 - Audio or COMAND (Audio) (HU5)	-	-

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
82-7983	REMOVE/INSTALL/REPLACE ANTENNA FOR GLOBAL POSITIONING SYSTEM (GPS) IN LEFT OUTSIDE MIRROR		82858 TB	Only for remedy 1. Only for remedy 1.
54-0650	MAINTAIN ON-BOARD ELECTRICAL SYSTEM VOLTAGE (FOR TESTING AND DIAGNOSIS WORK)		8210S 50	Only for remedy 2. Only for remedy 2.
54-1011	PERFORM QUICK TEST		8210S 50	Only for remedy 2. Only for remedy 2.
82-9905	PERFORM SOFTWARE UPDATE FOR RADIO/COMAND		8210S 50	Only for remedy 2. Only for remedy 2.