Stoneridge

SERVICE INFORMATION LETTER 24_007

Recipients :	All Markets
Release date :	June 5th, 2024
Update Purpose :	First release
Object :	SE5000 Smart 2, Event !0D, Absence of GNSS signal for 3h of driving time

It has come to our attention that clarification of the !0D Event in the SE5000 Smart 2 vehicle unit is requested. The !0D Event is set in the vehicle unit if the GNSS signal is lost for a total of 3 hours of cumulated driving time. This service information letter explains how to handle cases of !0D Event.

Event !0D definition in Annex 1C:

- 2.70 EventFaultType -> Event !0D, Absence of position information from GNSS receiver
- 3.9.10 'Absence of position information from GNSS receiver' event - This event shall be triggered, while not in calibration mode, in case of absence of position information originating from the GNSS receiver (whether internal or external) for more than three hours of accumulated driving time.

It is an **Event**, not a Fault. It tells the fleet that the tachograph must be checked at next inspection. Our workshop manual reads as follow:

!0D	002C80	Absence of position from GNSS	No GNSS position data over 3h cumulated driving time	Check that GNSS signal can be received. Remove any device or shield in proximity of the tachograph able to stop or reduce the correct reception of the GNSS signal.

Root cause of event:

If Event !0D clears at ignition ON after a period of REST, it can be related to an issue in SWID 1214, fixed in SWID 1619. But events continuing after a period of SLEEP of the tachograph, despite a new Ignition ON originate from GNSS signal interferences in the cabin. Please follow next page guidelines to address this.

Conclusions:

A !0D Event does not prove any tampering attempt. However, it will prevent the tachograph auto-registration of *border crossing*. So, trucks must visit their workshop for next page guidelines to be followed.

If this visit cannot be carried out immediately, the driver is warned at each ignition ON with the message "Absence of GNSS position" and must manually enter a *Start Country* to capture each *border crossing* until the workshop visit can take place.

∞ For any additional information, please contact us at workshop.support@stoneridge.com

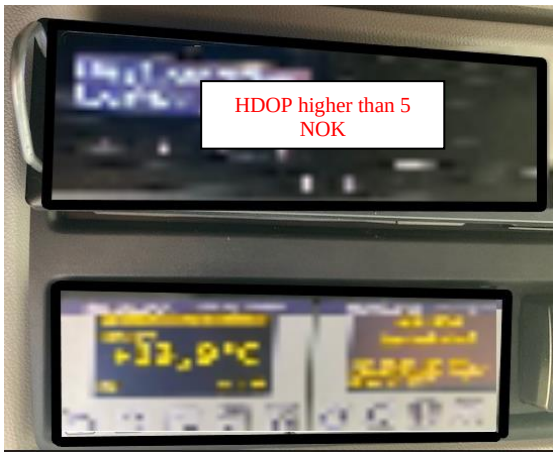
Guidelines for handling !0D Events:

When confronted to repetitive !0D events, workshop technicians must investigate which ECU in the cabin may be interfering with the GNSS signal.

Reports have pointed so far to a variety of interfering units:

- Tolling devices,
- Telematic units,
- WLAN routers in Busses,
- Radios, etc…
- But also ECUs with no active GSM/BT/Wifi transmission, as illustrated in below case:

Good GNSS reception



Poor GNSS reception

Also, if an Active transmitting ECU is identified as the rootcause of the GNSS interferences and cannot be relocated, please ask the manufacturer if an external GSM/Wifi antenna can be used. Install it as far away from the tachograph as possible.

Also, if cables are routed behind the tachograph, they must be pushed back and secured as far off the tachograph as possible, especially coaxial cables.

The internal GNSS Antenna is at the bottom right hand-side of the Tachograph casing. So, optimal installation for the tachograph is in the bottom right-hand side slot of the upper shelf:

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