SERVICE INFORMATION LETTER 23_009B

Recipients :	Stoneridge Network
Release date :	October 09th, 2023
Update Purpose :	Added legal impact of GNSS fix on initial calibration
Object :	GNSS time adjustment, Smart 2 specificities

The new Smart 2 legislation imposes significant changes on the way tachographs must handle the time received from GNSS.

GNSS Time, Smart 2

The GNSS signal can now be authenticated, as shown with the Padlock pictogram on the Latitude/Longitude display of the SE5000 INFO menu.

When the signal is authenticated, it can be used by the tachograph to reset its internal clock.

This must happen randomly every 3 to 7 days.

However, the time adjustment cannot be larger than 1 second per day.

Moreover, any time drift larger than this, +/- 3 seconds, will trigger a time conflict event 0B, saved in the tachograph memory and printed on the Fault & Event printout. A warning will also pop-up on the display.

∞ For any additional information, please contact us at workshop.support@stoneridge.com, +33 5 59 50 69 51

Part 1a - Time To First Fix - TTFF

When installing a brand new SE5000 Smart 2 with SWID 1214, the time to first fix for the GNSS will require a longer time, with an average of 20 minutes. This is for the GNSS chip to download necessary files and make a first 3D fix. Subsequent fixes will be acquired with 1 minute from ignition ON.

Using a GNSS repeater in the workshop will minimize this TTFF.

To check whether the GNSS fix is available, navigate to the GNSS screen pictured above:

- From main menu press OK
- Press the Up arrow once to reach the INFO Menu, press OK
- Press the Down arrow 5 times to reach the Latitude/Longitude display
    - An active fix will show the time ticking every 1 second

Part 1b – Run GNSS Test to verify Fix BEFORE calibrating tachograph

The consequence of above long time to first fix is that VU may be activated and calibrated before the GNSS position is acquired. This may have legal repercussions: if there is no GNSS fix since at least 2 minutes, any calibration block created will lack the indication of the country of calibration. This can be spotted easily since the timestamp of this missing country letter will show as 01/01/1970.

Part 2a - Workshop Tool Recommendations on UTC time

Before adjusting the Tachograph clock with your workshop tool, make sure the workshop tool clock is set to UTC time within an accuracy of 1 second, Ref TSG201.

Part 2b - Handling of 0B events for Smart 2

If the workshop tool used to set the tachograph UTC time was a few seconds different from the exact UTC time, we expect the tachograph to trigger 0B events of 00 to 01 minutes every 5 days in average. This may grow in time or disappear, depending on the tachograph internal clock drift, and the initial workshop tool UTC time error.

The corresponding tachograph display messages can be acknowledged by the driver and no action is required.

In the unlikely event where the tachograph clock would drift 4 minutes from the actual UTC time, the driver should go to their usual workshop to ask for a time adjustment.

Legislation calls for a new calibration if the clock drifts more than 5 minutes from UTC time. This should never occur on a Smart 2 tachograph.

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