

Why the altitude of 2440 m in §4.5.1 of Annex 1 to EPPR-30-03?

OBD2CG-14-01 =
EPPR-30-03

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32th EPPR IWG Meeting

Bases for EURO 5

- UN Reg. 83:
 - 3.2.1.2. A manufacturer may disable the OBD system at ambient engine starting temperatures below 266K (-7°C) or at elevations over **2,500 metres** above sea level provided the manufacturer submits data and/or an engineering evaluation which adequately demonstrate that monitoring would be unreliable when such conditions exist. [...]
- This is the altitude threshold above which manufacturers in Europe may inhibit the diagnostics. If the diagnostic function is not any longer enabled, the IUPR denominator should not any longer be increased.

Reg. (EU) 44/2014

- Annex XII: Requirements applying to functional on-board diagnostics (OBD)
 - 3.2.1.2. A manufacturer may disable the OBD system at ambient engine starting temperatures below 266.2 K ($-7\text{ }^{\circ}\text{C}$) or at elevations over **2 500 metres** above sea level, provided it submits data and/or an engineering evaluation which adequately demonstrate that monitoring would be unreliable in such conditions. [...]

California Code of Regulations: 13 CCR § 1968.2

Malfunction and Diagnostic System Requirements - 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines.

- (A) The denominator, when incremented, shall be incremented by an integer of one. The denominator may not be incremented more than once per driving cycle.*
- (B) Except as provided for in sections (d)(4.3.2)(H), (J), and (K), the denominator for each monitor shall be incremented within ten seconds if and only if the following criteria are satisfied on a single driving cycle:
 - (i) Cumulative time since engine start is greater than or equal to 600 seconds while at an elevation of less than **8,000 feet** above sea level and at an ambient temperature of greater than or equal to 20 degrees Fahrenheit or -6.7 degrees Celsius;**

8000 feet = 2438.4 m ~ 2440 m

Reg.(EU) 2018/295

- Annex I (amending Reg. (EU) 44/2014)
- point 4.5. and 4.5.1. is replaced by the following:
- `4.5. General Denominator
- 4.5.1. The general denominator is a counter measuring the number of times a vehicle has been operated. It shall be incremented within 10 seconds, if the following criteria are satisfied on a single driving cycle:
 - (a) Cumulative time since engine start is greater than or equal to 600 seconds at an elevation of less than **2 440 m** above sea level or an ambient pressure of more than 75,7 kPa and an ambient temperature of 266,2 K (– 7 °C) or more; [...]

Harmonization with OBD II of California not very different to original 2500 m



Thanks

Any questions?

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