

Status: Point in time view as at 27/07/2017.

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 582/2011. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details)

[^{F1}ANNEX XVII

ACCESS TO VEHICLE OBD AND VEHICLE REPAIR AND MAINTENANCE INFORMATION

Textual Amendments

F1 Inserted by Commission Regulation (EU) No 64/2012 of 23 January 2012 amending Regulation (EU) No 582/2011 implementing and amending Regulation (EC) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles (Euro VI) (Text with EEA relevance).

1. INTRODUCTION

1.1. This Annex lays down technical requirements for the accessibility of vehicle OBD and vehicle repair and maintenance information.

2. REQUIREMENTS

2.1. Vehicle OBD and vehicle repair and maintenance information available through websites shall follow the common standard referred to in Article 6(1) of Regulation (EC) No 595/2009. Until this standard is adopted, manufacturers shall provide vehicle OBD and vehicle repair and maintenance information in a standardised manner which is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

Those requiring the right to duplicate or republish the information shall negotiate directly with the manufacturer concerned. Information for training material shall also be available, but may be presented through other media than websites.

Information on all parts of the vehicle, with which the vehicle, as identified by the vehicle identification number (VIN) and any additional criteria such as wheelbase, engine output, trim level or options, is equipped by the vehicle manufacturer and which can be replaced by spare parts offered by the vehicle manufacturer to its authorised repairers or dealers or third parties by means of reference to original equipment (OE) parts number, shall be made available in a database which is easily accessible to independent operators.

This database shall comprise the VIN, OE parts numbers, OE naming of the parts, validity attributes (valid-from and valid-to dates), fitting attributes and, where applicable, structuring characteristics.

The information on the database shall be regularly updated. The updates shall include in particular all modifications to individual vehicles after their production if this information is available to authorised dealers.

2.2. Access to vehicle security features used by authorised dealers and repair shops shall be made available to independent operators under protection of security technology in accordance with the following requirements:

- (a) data shall be exchanged ensuring confidentiality, integrity and protection against replay;
- (b) the standard [https//ssl-tls](https://ssl-tls) (RFC4346) shall be used;
- (c) security certificates in accordance with ISO 20828 shall be used for mutual authentication of independent operators and manufacturers;

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- (d) the independent operator's private key shall be protected by secure hardware.

The Forum on Access to Vehicle Information referred to in Article 2h shall specify the parameters for fulfilling these requirements in accordance with the state of the art. The independent operator shall be approved and authorised for this purpose on the basis of documents demonstrating that he pursues a legitimate business activity and has not been convicted of any criminal activity.

- 2.3. Reprogramming of control units shall be conducted in accordance with either ISO 22900-2 or SAE J2534 or TMC RP1210B using non-proprietary hardware. Ethernet, serial cable or local area network (LAN) interface and alternative media like compact disc (CD), digital versatile disc (DVD) or solid state memory device for infotainment systems (e.g. navigation systems, telephone) may also be used, but on the condition that no proprietary communication software (e.g. drivers or plug-ins) and hardware is required. For the validation of the compatibility of the manufacturer-specific application and the vehicle communication interfaces (VCI) complying to ISO 22900-2 or SAE J2534 or TMC RP1210B, the manufacturer shall offer either a validation of independently developed VCIs or the information, and loan of any special hardware, required for a VCI manufacturer to conduct such validation himself. The conditions of Article 2f(1) shall apply to fees for such validation or information and hardware.
- 2.4. The requirements of section 2.3 shall not apply in the case of reprogramming of speed limitation devices and recording equipment.
- 2.5. All emission-related DTCs shall be consistent with Annex X.
- 2.6. For access to any vehicle OBD and vehicle repair and maintenance information other than that relating to secure areas of the vehicle, registration requirements for use of the manufacturer's website by an independent operator shall require only such information as is necessary to confirm how payment for the information is to be made. For information concerning access to secure areas of the vehicle, the independent operator shall present a certificate in accordance with ISO 20828 to identify himself and the organisation to which he belongs and the manufacturer shall respond with his own certificate in accordance with ISO 20828 to confirm to the independent operator that he is accessing a legitimate site of the intended manufacturer. Both parties shall keep a log of any such transactions indicating the vehicles and changes made to them under this provision.
- 2.7. Manufacturers shall indicate in their repair information websites the type-approval number by model.
- 2.8. If requested by the manufacturer, for vehicles of category M₁, M₂, N₁ and N₂ with a maximum permissible mass not exceeding 7,5 tonnes and M₃ Class I, Class II and Class A and Class B, as defined in Annex I to Directive 2001/85/EC, with a permissible mass not exceeding 7,5 tonnes, compliance with the requirements of Appendix 5 to Annex I and Annex XIV to Regulation (EC) No 692/2008 shall be considered equivalent to the compliance with this Annex.
- 2.9. The approval authority shall inform the Commission of the circumstances of each type-approval granted under Section 2.8.

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Appendix 1

Manufacturer's Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information

(Manufacturer): ...

(Address of the manufacturer): ...

Certifies that

it provides access to vehicle OBD and vehicle repair and maintenance information in compliance with the provisions of:

- Article 6 of Regulation (EC) No 595/2009 and Article 2a of Regulation (EU) No 582/2011,
- Article 4(6) of Regulation (EU) No 582/2011,
- Annex I, Appendix 4, Section 16 of Regulation (EU) No 582/2011,
- Annex X, Section 2.1 of Regulation (EU) No 582/2011,
- Annex XVII of Regulation (EU) No 582/2011,

with respect to the types of vehicle, engine, pollution control device listed in attachment to this Certificate.

The following derogations are applied: Customer adaptations⁽¹⁾ — Small volume⁽¹⁾ — Carry-over systems⁽¹⁾.

The principal website address through which the relevant information may be accessed and which is hereby certified to be in compliance with the above provisions are listed in an attachment to this Certificate along with the contact details of the responsible manufacturer's representative whose signature is below.

Where applicable: The manufacturer hereby also certifies that it has complied with the obligation provided for in Article 3(1a) of Regulation (EU) No 582/2011 to provide the relevant information for previous approvals of these vehicle types no later than six months after the date of type-approval.

Done at ...[Place]

On ...[Date]

[Signature] [Position]

Annexes:

- Website addresses,
- Contact details.

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ANNEX I

to Manufacturer's Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information

Website addresses referred to by this Certificate:

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ANNEX II

to Manufacturer's Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information

Contact details of the manufacturer's representative referred to by this Certificate:

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Appendix 2

Vehicle OBD information

1. The information required in this Appendix shall be provided by the vehicle manufacturer for the purposes of enabling the manufacture of OBD-compatible replacement or service parts and diagnostic tools and test equipment.
2. Upon request, the following information shall be made available to any interested component, diagnostic tools or test equipment manufacturer, on a non-discriminatory basis:
 - A description of the type and number of the preconditioning cycles used for the original type-approval of the vehicle.
 - A description of the type of the OBD demonstration cycle used for the original type-approval of the vehicle for the component monitored by the OBD system.
 - A comprehensive document describing all sensed components with the strategy for fault detection and MI activation (fixed number of driving cycles or statistical method), including a list of relevant secondary sensed parameters for each component monitored by the OBD system and a list of all OBD output codes and format used (with an explanation of each code and format) associated with individual emission-related power-train components and individual non-emission related components, where monitoring of the component is used to determine MI activation. In particular, in the case of vehicle types that use a communication link in accordance with ISO 15765-4 ‘Road vehicles — Diagnostics on controller area network (CAN) — Part 4: Requirements for emissions-related systems’, a comprehensive explanation for the data given in service \$ 05 Test ID \$ 21 to FF and the data given in service \$ 06, and a comprehensive explanation for the data given in service \$ 06 Test ID \$ 00 to FF, for each OBD monitor ID supported, shall be provided.

In case other communication protocols standards are used, equivalent comprehensive explanation shall be provided.

This information may be provided in the form of a table, as follows:

Component	Fault code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	Preconditioning	Demonstration test
Catalyst	P0420	Oxygen sensor 1 and 2 signals	Difference between sensor 1 and sensor 2 signals	3rd cycle	Engine speed, engine load, A/F mode, catalyst temperature	Two Type 1 cycles	Type 1

3. Information required for the manufacture of diagnostic tools

In order to facilitate the provision of generic diagnostic tools for multi-make repairers, vehicle manufacturers shall make available the information referred to in points 3.1, 3.2 and 3.3 through their repair information websites. That information shall include all diagnostic tool functions and all the links to repair information and troubleshooting instructions. The access to the information may be subject to the payment of a reasonable fee.

3.1. Communication protocol information

The following information shall be required indexed against vehicle make, model and variant, or other workable definition such as VIN or vehicle and systems identification:

- (a) Any additional protocol information system necessary to enable complete diagnostics in addition to the standards prescribed in Point 4.7.3 of Annex 9B to UN/ECE Regulation No 49, including any additional hardware or software protocol

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information, parameter identification, transfer functions, 'keep alive' requirements, or error conditions.

- (b) Details of how to obtain and interpret all fault codes which are not in accordance with the standards prescribed in Point 4.7.3 of Annex 9B to UN/ECE Regulation No 49.
- (c) A list of all available live data parameters, including scaling and access information.
- (d) A list of all available functional tests, including device activation or control and the means to implement them.
- (e) Details of how to obtain all component and status information, time stamps, pending DTC and freeze frames.
- (f) Resetting adaptive learning parameters, variant coding and replacement component setup, and customer preferences.
- (g) ECU identification and variant coding.
- (h) Details of how to reset service lights.
- (i) Location of diagnostic connector and connector details.
- (j) Engine code identification.

3.2. *Test and diagnosis of OBD monitored components*

The following information shall be required:

- (a) A description of tests to confirm its functionality, at the component or in the harness.
- (b) Test procedure including test parameters and component information.
- (c) Connection details including minimum and maximum input and output and driving and loading values.
- (d) Values expected under certain driving conditions including idling.
- (e) Electrical values for the component in its static and dynamic states.
- (f) Failure mode values for each of the above scenarios.
- (g) Failure mode diagnostic sequences including fault trees and guided diagnostics elimination.

3.3. *Data required to perform the repair*

The following information shall be required:

- (a) ECU and component initialisation (in the event of replacements being fitted).
- (b) Initialisation of new or replacement ECU's where relevant using pass-through (re-) programming techniques.

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Appendix 3

LIST OF CARRY-OVER SYSTEMS COVERED BY ARTICLE 2E

1.	Climate systems	(a) Temperature control systems; (b) Engine-independent heater; (c) Engine-independent air-conditioning.
2.	Systems for buses and coaches	(a) Door control systems; (b) Turntable control systems; (c) Interior light control.]

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(1) [^{F1}Delete where not applicable.]

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