

---

*Status: Point in time view as at 31/12/2020.*

**Changes to legislation:** *There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (Text with EEA relevance)

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## ANNEX X

### ACCESS TO VEHICLE OBD INFORMATION AND VEHICLE REPAIR AND MAINTENANCE INFORMATION

#### 1. Introduction

This Annex lays down technical requirements for the access to vehicle OBD information and vehicle repair and maintenance information.

2. Access to vehicle OBD information and vehicle repair and maintenance information
  - 2.1. A manufacturer shall put in place the necessary arrangements and procedures, in accordance with Article 61, to ensure that vehicle OBD information and vehicle repair and maintenance information is accessible through websites using a standardised format in a readily accessible and prompt manner, and in a manner which is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.
  - 2.2. An approval authority shall only grant type-approval after receiving from the manufacturer a certificate on access to vehicle OBD information and vehicle repair and maintenance information.
  - 2.3. The certificate on access to vehicle OBD information and vehicle repair and maintenance information shall serve as the proof of compliance with Article 64.
  - 2.4. The certificate on access to vehicle OBD information and vehicle repair and maintenance information shall be drawn up in accordance with the model set out in Appendix 1.
  - 2.5. The vehicle OBD information and vehicle repair and maintenance information shall include the following:
    - 2.5.1. an unequivocal identification of the vehicle, system, component or separate technical unit for which the manufacturer is responsible;
    - 2.5.2. service handbooks, including service and maintenance records;
    - 2.5.3. technical manuals;
    - 2.5.4. component and diagnosis information (such as minimum and maximum theoretical values for measurements);
    - 2.5.5. wiring diagrams;
    - 2.5.6. diagnostic trouble codes, including manufacturer specific codes;
    - 2.5.7. the software calibration identification number applicable to a type of vehicle;
    - 2.5.8. information provided concerning, and delivered by means of, proprietary tools and equipment;
    - 2.5.9. data record information and two-directional monitoring and test data;
    - 2.5.10. standard work units or time periods for repair and maintenance tasks if they are made available to authorised dealers and repairers of the manufacturer either directly or through a third party;

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

- 2.5.11. in case of multi-stage type-approval, the information required under point 3, and all other information necessary to comply with the requirements set out in Article 61.
- 2.6. The manufacturer shall make available to interested parties the following information:
  - 2.6.1. relevant information to enable the development of replacement components that are critical to the correct functioning of the OBD system;
  - 2.6.2. information to enable the development of generic diagnostic tools.
- 2.7. For the purposes of point 2.6.1., the development of replacement components shall not be restricted by any of the following:
  - 2.7.1. the unavailability of pertinent information;
  - 2.7.2. the technical requirements relating to malfunction indication strategies if the OBD thresholds are exceeded or if the OBD system is unable to fulfil the basic OBD monitoring requirements of this Regulation;
  - 2.7.3. specific modifications to the handling of OBD information to deal independently with vehicle operation on petrol or on gas;
  - 2.7.4. the type-approval of gas-fuelled vehicles that contain a limited number of minor deficiencies.
- 2.8. For the purposes of point 2.6.2, where manufacturers use diagnostic and test tools in accordance with ISO 22900 – Modular vehicle communication interface (MVCI) – and ISO 22901 – Open diagnostic data exchange (ODX) in their franchised networks –, the ODX files shall be accessible to independent operators via the website of the manufacturer.
- 2.9. For the purpose of vehicle OBD, diagnostics, repair and maintenance, the direct vehicle data stream shall be made available through the serial data port on the standardised data link connector specified in paragraph 6.5.1.4 of Appendix 1 of Annex 11 to UN Regulation No 83 and paragraph 4.7.3 of Annex 9B to UN Regulation No 49.

When the vehicle is in motion, the data shall only be made available for read-only functions.

- 3. Multi-stage type-approval
  - 3.1. In the case of a multi-stage type-approval, the final manufacturer shall be responsible for providing access to vehicle OBD information and vehicle repair and maintenance information regarding its own manufacturing stage(s) and the link to the previous stage(s).
  - 3.2. In addition, the final manufacturer shall on its website provide independent operators with the following information:
    - 3.2.1. the website address of the manufacturer(s) responsible for the previous stage(s);
    - 3.2.2. the name and address of all the manufacturers responsible for the previous stage(s);
    - 3.2.3. the type-approval number(s) of the previous stage(s);
    - 3.2.4. the engine number.
  - 3.3. Each manufacturer responsible for a particular stage or stages of type-approval shall be responsible for providing through his website access to vehicle OBD and vehicle

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

repair and maintenance information regarding the stage(s) of type-approval for which he is responsible and the link to the previous stage(s).

- 3.4. The manufacturer responsible for a particular stage or stages of type-approval shall provide the following information to the manufacturer responsible for the next stage:
  - 3.4.1. the certificate of conformity relating to the stage(s) for which he is responsible;
  - 3.4.2. the certificate on access to vehicle OBD information and vehicle repair and maintenance information, including its annexes;
  - 3.4.3. the type-approval number corresponding to the stage(s) for which he is responsible;
  - 3.4.4. the documents referred to in points 3.4.1, 3.4.2 and 3.4.3 as provided by the manufacturer(s) involved in the previous stage(s).
- 3.5. Each manufacturer shall authorise the manufacturer responsible for the next stage to pass the documents to the manufacturers responsible for any subsequent stages and the final stage.
- 3.6. In addition, on a contractual basis, the manufacturer responsible for a particular stage or stages of type-approval shall:
  - 3.6.1. provide the manufacturer responsible for the next stage with access to vehicle OBD information and vehicle repair and maintenance information and interface information corresponding to the particular stage(s) for which he is responsible;
  - 3.6.2. provide, at the request of a manufacturer responsible for a subsequent stage of type-approval, with access to vehicle OBD information and vehicle repair and maintenance information and interface information corresponding to the particular stage(s) for which he is responsible.
- 3.7. A manufacturer, including a final manufacturer, may only charge fees in accordance with Article 63 concerning the particular stage(s) for which he is responsible.

A manufacturer, including a final manufacturer, shall not charge fees for providing information relating to the website address or contact details of any other manufacturer.

#### 4. Customer adaptations

- 4.1. By derogation from point 2, if the number of systems, components or separate technical units subject to a specific customer adaptation is lower than 250 units produced worldwide, repair and maintenance information for the customer adaptation shall be provided in a readily accessible and prompt manner, and in a manner which is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

For the servicing and reprogramming of the electronic control units relating to the customer adaptation, the manufacturer shall make the respective proprietary specialist diagnostic tool or test equipment available to independent operators as provided to authorised repairers.

The customer adaptations shall be listed on the manufacturer's repair and maintenance information website and mentioned in the certificate on access to vehicle OBD information and vehicle repair and maintenance information at the time of type-approval.

- 4.2. Manufacturers shall make the proprietary specialist diagnostic tool or test equipment to service the customer-adapted systems, components or technical units available to independent operators via sale and rent.

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

- 4.3. The manufacturer shall mention in the certificate on access to vehicle OBD information and vehicle repair and maintenance information, at the time of type-approval, the customer adaptations for which the obligation under point 2 to provide access to vehicle OBD information and vehicle repair and maintenance information in a standardised format is derogated from and any electronic control unit related to them.

Those customer adaptations and any electronic control unit related to them shall also be listed on the manufacturer's repair and maintenance information website.

## 5. Small volume manufacturers

- 5.1. By derogation from point 2, manufacturers whose worldwide annual production of a type of vehicle, system, component or separate technical unit subject to this Regulation is for vehicles of category M<sub>1</sub> and N<sub>1</sub> less than 1 000 vehicles or for vehicles of category M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub> and O less than 250 units, shall provide access to vehicle repair and maintenance information in a readily accessible and prompt manner, and in a manner that is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

- 5.2. The vehicle, system, component and separate technical unit subject to point 5.1 shall be listed on the manufacturer's repair and maintenance information website.

- 5.3. The approval authority shall inform the Commission of each type-approval granted to small volume manufacturers.

## 6. Requirements

- 6.1. Vehicle OBD information and vehicle repair and maintenance information available through websites shall follow the relevant common standard referred to in Article 61.

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 VIN and any additional criteria such as wheelbase, engine output, trim level or options, is equipped by the vehicle manufacturer and that 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 the form of machine readable and electronically processable datasets, in a database that 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 updated regularly. If this information is available to authorised dealers, the updates shall include in particular all modifications to individual vehicles after their production.

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

- 6.2.1. data shall be exchanged ensuring confidentiality, integrity and protection against replay;

- 6.2.2. the standard https//ssl-tls (RFC4346) shall be used;

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

- 6.2.3. security certificates in accordance with international standard ISO 20828 shall be used for mutual authentication of independent operators and manufacturers;
- 6.2.4. the independent operator's private key shall be protected by secure hardware.
- 6.3. The Forum on Access to Vehicle Information referred to in Article 66 shall specify the parameters for fulfilling the requirements referred to in point 6.2 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 relevant criminal activity.
- 6.4. Reprogramming of control units shall be conducted in accordance with either international standard ISO 22900-2 or SAE J2534 or TMC RP1210B using non-proprietary hardware.

For the validation of the compatibility of the manufacturer-specific application and the vehicle communication interfaces (VCI) complying to international standard 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 63(1) shall apply to fees for such validation or information and hardware.

- 6.5. The requirements of point 6.4. shall not apply in the case of reprogramming of speed limitation devices and recording equipment.
- 6.6. All emission-related DTCs shall be consistent with Annex XI to Regulation (EC) No 692/2008 and Annex X to Regulation (EU) No 582/2011.
- 6.7. For access to any vehicle OBD information 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 international standard ISO 20828 to identify himself and the organisation to which he belongs and the manufacturer shall respond with his own certificate in accordance with international standard 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.
- 6.8. Manufacturers shall indicate in their repair information websites the type-approval number by model.
- 6.9. If the vehicle OBD information and vehicle repair and maintenance information that is available on a manufacturer's website does not contain specific relevant information to permit the proper design and manufacture of alternative fuels retrofit systems, any interested alternative fuels retrofit system manufacturer shall be able to obtain the information required by contacting the manufacturer directly with such a request. Contact details for that purpose shall be clearly indicated on the manufacturer's website and the information shall be provided within 30 days. It shall only be necessary to provide such information for alternative fuels retrofit systems that are subject to UN Regulation No 115 or for alternative fuels retrofit components that form part of systems subject to UN Regulation No 115. In addition, it shall only be

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

necessary to provide such information in response to a request that clearly specifies the exact specification of the vehicle model for which the information is required and that specifically confirms that the information is required for the development of alternative fuels retrofit systems or components subject to UN Regulation No 115.

7. Requirements for type-approval

- 7.1. In order to receive a type-approval, the manufacturer shall submit the filled in certificate, the template of which is provided in Appendix 1.
- 7.2. Where the vehicle OBD information and vehicle repair and maintenance information is not available, or does not conform to the requirements of this Annex, the manufacturer shall provide that information within six months of the date of the type-approval.
- 7.3. The obligation to provide information within the period referred to in point 7.2. shall apply only if, following the type-approval, the vehicle is placed on the market.

Where the vehicle is placed on the market more than six months after the type-approval has been granted the information shall be provided on the date on which the vehicle is placed on the market.

- 7.4. On the basis of a completed certificate on access to vehicle OBD information and vehicle repair and maintenance information, the approval authority may presume that the manufacturer has put in place satisfactory arrangements and procedures with regard to access to vehicle OBD information and vehicle repair and maintenance information, provided that no complaint has been made and that the manufacturer provides that certificate within the period referred to in point 7.2.

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## Appendix 1

### Manufacturer's certificate on access to vehicle OBD information and vehicle repair and maintenance information

(Manufacturer): ...

(Address of the manufacturer): ...

Certifies that

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

Article 61 of Regulation (EU) 2018/858 of the European Parliament and of the Council <sup>(1)</sup> and Annex X to that Regulation with respect to the types of vehicle, system, component or separate technical unit listed in an attachment to this certificate.

The following derogations are applied: Customer adaptations (\*) — Small volume (\*) —.

The principal website addresses through which the relevant information, which is hereby certified to be in compliance with those provisions, may be accessed, are listed in an attachment to this certificate along with the contact details of the responsible manufacturer's representative who has signed this certificate.

Where applicable: The manufacturer hereby also certifies that he has complied with the obligation of Article 62 of Regulation (EU) 2018/858 to provide the relevant information concerning previous approvals of these types of vehicle no later than six months after the date of type-approval.

Done at ... [Place]

On ... [Date]

[Signature] [Position]

Annexes:

- Annex A: Website addresses;
- Annex B: Contact details;
- Annex C: Types of vehicle, system, component or separate technical unit.

Explanatory note:

(\*) Delete where not applicable.

---

<sup>(1)</sup> Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1).



---

*Status: Point in time view as at 31/12/2020.*

**Changes to legislation:** *There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## ANNEX A

### **WEBSITE ADDRESSES REFERRED TO IN THIS CERTIFICATE:**

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## ANNEX B

### **CONTACT DETAILS OF THE MANUFACTURER'S REPRESENTATIVE REFERRED TO IN THIS CERTIFICATE:**

---

*Status: Point in time view as at 31/12/2020.*

**Changes to legislation:** *There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## ANNEX C

### **TYPES OF VEHICLE, SYSTEM, COMPONENT OR SEPARATE TECHNICAL UNIT:**

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

## Appendix 2

### Vehicle OBD information

1. The vehicle manufacturer shall provide the information required in this Appendix 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, on a non-discriminatory basis, to any interested manufacturer of components, diagnostic tools or test equipment:
  - 2.1. a description of the type and number of the preconditioning cycles used for the original type-approval of the vehicle;
  - 2.2. 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;
  - 2.3. 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 types of vehicles 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, with the following column and row headings:

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 manufacturing 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

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

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

- 3.1.1. any additional protocol information system necessary to enable complete diagnostics in addition to the standards prescribed in paragraph 4.7.3 of Annex 9B to UN Regulation No 49 and in paragraph 6.5.1.4 of Annex 11 to UN Regulation No 83, including any additional hardware or software protocol information, parameter identification, transfer functions, 'keep alive' requirements, or error conditions;
- 3.1.2. details of how to obtain and interpret all the fault codes that do not comply with the standards prescribed in paragraph 4.7.3 of Annex 9B to UN Regulation No 49 and in paragraph 6.5.1.4 of Annex 11 to UN Regulation No 83;
- 3.1.3. a list of all available live data parameters, including scaling and access information;
- 3.1.4. a list of all available functional tests, including device activation or control and the means to implement them;
- 3.1.5. details of how to obtain all component and status information, time stamps, pending DTC and freeze frames;
- 3.1.6. resetting adaptive learning parameters, variant coding and replacement component setup, and customer preferences;
- 3.1.7. Electronic control unit (ECU) identification and variant coding;
- 3.1.8. details of how to reset service lights;
- 3.1.9. location of diagnostic connector and connector details;
- 3.1.10. engine code identification.
- 3.2. Test and diagnosis of OBD monitored components

The following information shall be required:

- 3.2.1. a description of tests to confirm the functionality, at the component or in the harness;
- 3.2.2. information concerning the test procedure, including test parameters and component information;
- 3.2.3. connection details, including minimum and maximum input and output and driving and loading values;
- 3.2.4. values to be expected under certain driving conditions, including idling;
- 3.2.5. electrical values for the component in its static and dynamic states;
- 3.2.6. failure mode values for each of the scenarios;
- 3.2.7. 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:

- 3.3.1. ECU and component initialisation (in the event of replacements being fitted);

---

*Status: Point in time view as at 31/12/2020.*

*Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X. (See end of Document for details)*

---

- 3.3.2. initialisation of new or replacement ECU's where relevant using pass-through (re-) programming techniques.

**Status:**

Point in time view as at 31/12/2020.

**Changes to legislation:**

There are currently no known outstanding effects for the Regulation (EU) 2018/858 of the European Parliament and of the Council, ANNEX X.