

Access to OBD information

Japan's concept

- Disclosure should be limited only to the information for the developments of diagnostic tools and testing equipment because the information of component ~~and reprogramming~~ lead to an unfair modification.

[update]

The description of reprograming shall be deleted because Article 6 was deleted in EPPR-08-13e.

Access to OBD information

Article 4.1 [Amendment proposal 1]

Reason :

Clarify the object of “OBD system specified in gtr” .

Amendment :

Change the description shown as below

Applications for [certification] / [approval] or its amendments shall be accompanied by the relevant information concerning the ~~vehicle OBD system~~ **OBD system specified in gtr**. This information shall enable manufacturers of replacement or retrofit components to make the parts they manufacture compatible with the vehicle OBD system, with a view to fault-free operation assuring the vehicle user against malfunctions. Similarly, such relevant information shall enable the manufacturers of diagnostic tools and test equipment to make tools and equipment that provide for the effective and accurate diagnosis of vehicle control systems.

Article 4.1 [Amendment proposal 2]

Reason :

1. There is a possibility that the provision of the information on the development of OBD components may lead unfair modification and it cause environment and/or safety deterioration.
2. As a typical example, the information disclosure of an intake-air-temperature sensor enables conversion of the sensor output value and it can cause environmental deterioration by the inadequate air-fuel mixture.
3. Since the sort of information to be disclosed cannot be limited, we would propose to restrict information receiver to manufacturers of the generic diagnostic tool or testing equipment.

Article 4.1 [Amendment proposal 2]

Amendment:

Delete texts shown below

Applications for [certification] / [approval] or its amendment shall be accompanied by the relevant information concerning the vehicle OBD system. This information ~~shall enable manufacturers of replacement or retrofit components to make the parts they manufacture compatible with the vehicle OBD system, with a view to faultfree operation assuring the vehicle user against malfunctions. Similarly, such relevant information~~ shall enable the manufacturers of diagnostic tools and test equipment to make tools and equipment that provide for the effective and accurate diagnosis of vehicle control systems.

Access to OBD information

Article 4.2 [Amendment proposal]

Reason :

Same reason as Article 4.1, there is a possibility of causing environmental and /or safety deterioration by unfair modification as a result of OBD information disclosure to the component manufacturer.

We would propose restriction of the information receiver to only manufacturers of the generic diagnostic tool or testing equipment.

Amendment :

Delete the text “interested components,”

Upon request, the vehicle manufacturer shall make the relevant information on the OBD system available to any ~~interested components~~, diagnostic tools or test equipment manufacturer on a non-discriminatory basis:

Access to OBD information

Article 4.2.3 [Amendment proposal 1]

Reason:

Same reason as Article 4.1. and delete unnecessary information for manufacturers of diagnostic tool or testing equipment.

Amendment:

Delete texts shown below

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) associated with individual emission-related powertrain components ~~and individual non-emission-related components,~~ where monitoring of the component is used to determine MI activation.

Access to OBD information

Article 4.2.3 [Amendment proposal 2]

Reason:

The following are OBDII requirements

\$05: Request oxygen sensor monitoring test results

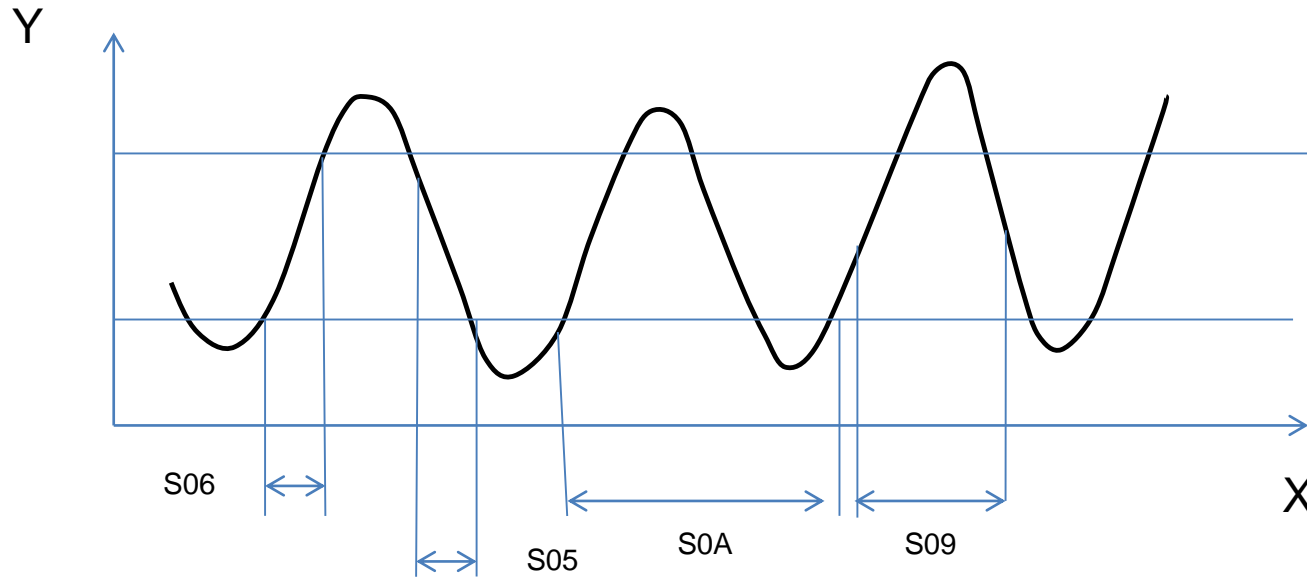
\$06: Request on-board monitoring test results for specific monitored (e.g. catalyst system)

Amendment:

Delete texts below

~~“In particular, a comprehensive explanation for the data in service \$ 05 Test ID \$ 21 to FF and the data in service \$ 06 shall be provided. 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 in service \$ 06 Test ID \$ 00 to FF, for each OBD monitor ID supported, shall be provided.”~~

Article 4.2.3 [Amendment proposal 2]



Example for where each data is monitored
Judge the deterioration by monitoring the signal variation

Article 4.2.4 [Amendment proposal]

Reason:

Disclosure of the information on secondary parameters makes clear the components structure relating with a control system, and it may lead an unfair modification to the control system. Also it is unnecessary information for developments of diagnostic tools or testing equipment.

Amendment:

Delete the column of “Secondary parameters”

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	3 rd cycle	Engine speed, engine load, A/F mode, catalyst temperature	Two Type I cycles	Type I

Information on Secondary Parameters

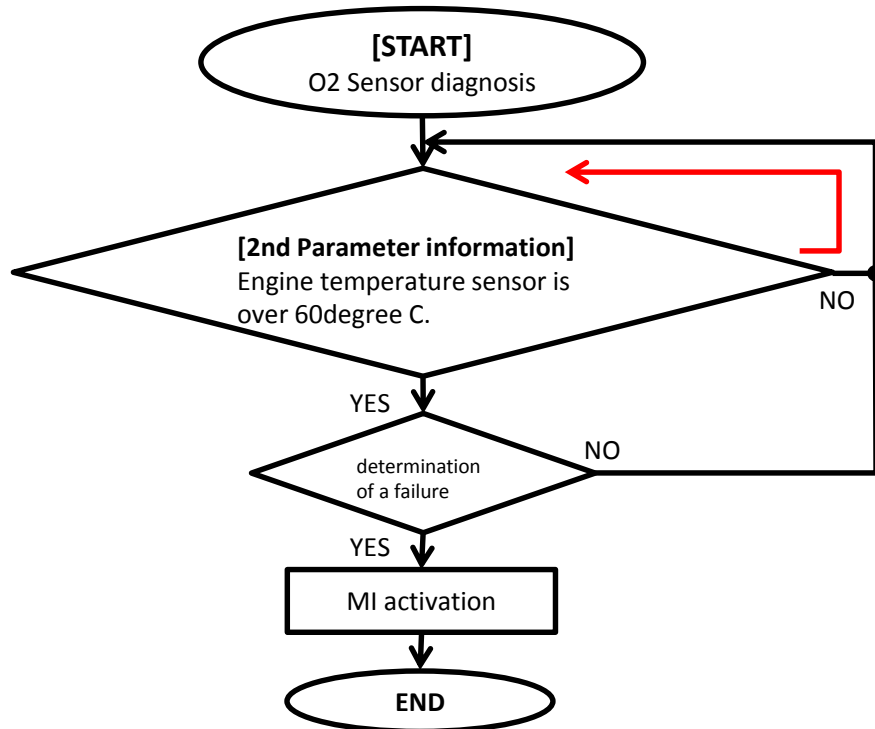
Information on Secondary Parameters is essential to achieve diagnostic function test.

Disclosure of the information on secondary parameters may give a chance to modify the control system unfairly, and then it may lead environment deterioration.

«Concrete Example»

If oxygen sensor fail is detected, emission gas purification system is suspended. And then it lead environment deterioration.

Therefore MI activation is achieved by diagnosis flow chart as below.



One modification)

The oxygen sensor is removed when the muffler is exchanged to aftermarket one.

Normally MI lamp is lit.

But if the sensor of engine temperature is modified not to reach 60 degree C when the temperature is over 60 degree C actually, there is no room for determination of oxygen sensor failure (looping the red directing arrow). Finally MI lamp is not lit.

This is a typical case of modification due to disclosure of the information on secondary parameters.

Access to OBD information

Article 4.2.5 [Propose amendment 1]

Reason:

Same reason as Article 4.1. and delete unnecessary information for manufactures of diagnostic tool or testing equipment.

Amendment:

Delete the text “interested components,”

If an [approval] [authority] [Administrative Department] receives a request from any ~~interested components~~, diagnostic tools or test equipment manufacturer for information on the OBD system of a vehicle that has been type-approved to a previous version of Regulation,

- (a) the authority shall, within 30 days, ask the manufacturer of the vehicle in question to make available the information required in points 3.1. and 3.2.;
- (b) the manufacturer shall submit this information to the [approval] authority within two months of the request;
- (c) the authority shall transmit this information to the other Contracting Parties' [certification] / [approval] authorities and the [certification] / [approval] authority which granted the original [certification] / [approval] shall attach this information to the vehicle [certification] / [approval] information.

Article 4.2.5 [Amendment proposal 2]

Reason:

Clarify the object of “OBD system specified in gtr” .

Amendment:

Change the description “of a vehicle” to “specified in gtr”

If an approval authority receives a request from any interested components, diagnostic tools or test equipment manufacturer for information on the OBD system ~~of a vehicle~~ specified in the gtr that has been type-approved to a previous version of Regulation,

- (a) the authority shall, within 30 days, ask the manufacturer of the vehicle in question to make available the information required in point 4.2.12.2.7.6. of Annex 1. The requirement of the second section of point 4.2.12.2.7.6. is not applicable;
- (b) the manufacturer shall submit this information to the approval authority within two months of the request;
- (c) the authority shall transmit this information to the other Member States’ approval authorities and the approval authority which granted the original type approval shall attach this information to the vehicle type-approval information.

Access to OBD information

Article 4.2.6 [Deletion proposal]

Reason:

Unnecessary information to manufacture diagnostic tools or testing equipment.

Amendment:

Delete the whole paragraph

~~Information can be requested only for replacement or service components that are subject to [type-approval] / [certification] or for components that form part of a system subject to [type-approval] / [certification].~~

Article 4.2.7 [Amendment proposal]

Reason:

Unnecessary information for development of diagnostic tools or testing equipment.

Amendment:

Delete the text “replacement or retrofit parts or”

The request for information shall identify the exact specification of the vehicle model for which the information is required. It shall confirm that the information is required for the development of ~~replacement or retrofit parts or~~ components or diagnostic tools or test equipment.