

Environmental Protection Agency

§ 86.1808-01

control information label: “THIS VEHICLE HAS A LIMITED EXEMPTION AS AN EMERGENCY VEHICLE.”

[64 FR 23925, May 4, 1999, as amended at 65 FR 6853, Feb. 10, 2000; 65 FR 59969, Oct. 6, 2000; 70 FR 72928, Dec. 8, 2005; 77 FR 34146, June 8, 2012]

§ 86.1808-01 Maintenance instructions.

(a) The manufacturer shall furnish or cause to be furnished to the purchaser of each new motor vehicle subject to the standards prescribed in this subpart, as applicable, written instructions for the proper maintenance and use of the vehicle, by the purchaser consistent with the provisions of § 86.1834-01, which establishes what scheduled maintenance the Administrator approves as being reasonable and necessary.

(1) The maintenance instructions required by this section shall be in clear, and to the extent practicable, nontechnical language.

(2) The maintenance instructions required by this section shall contain a general description of the documentation which the manufacturer will require from the ultimate purchaser or any subsequent purchaser as evidence of compliance with the instructions.

(b) Instructions provided to purchasers under paragraph (a) of this section shall specify the performance of all scheduled maintenance performed by the manufacturer on certification durability vehicles and, in cases where the manufacturer performs less maintenance on certification durability data vehicles than the allowed limit, may specify the performance of any scheduled maintenance allowed under § 86.1834-01.

(c) Scheduled emission-related maintenance in addition to that performed under § 86.1834-01 may only be recommended to offset the effects of abnormal in-use operating conditions, except as provided in paragraph (d) of this section. The manufacturer shall be required to demonstrate, subject to the approval of the Administrator, that such maintenance is reasonable and technologically necessary to assure the proper functioning of the emission control system. Such additional recommended maintenance shall be clearly differentiated, in a form approved by

the Administrator, from that approved under § 86.1834-01.

(d) Inspections of emission-related parts or systems with instructions to replace, repair, clean, or adjust the parts or systems if necessary, are not considered to be items of scheduled maintenance which insure the proper functioning of the emission control system. Such inspections, and any recommended maintenance beyond that approved by the Administrator as reasonable and necessary under paragraphs (a), (b), and (c) of this section, may be included in the written instructions furnished to vehicle owners under paragraph (a) of this section, provided that such instructions clearly state, in a form approved by the Administrator, that the owner need not perform such inspections or recommended maintenance in order to maintain the emission warranty or manufacturer recall liability.

(e) If the vehicle has been granted an alternative useful life period under the provisions of § 86.1805-01(c), the manufacturer may choose to include in such instructions an explanation of the distinction between the alternative useful life specified on the label, and the emissions defect and emissions performance warranty period. The explanation must clearly state that the useful life period specified on the label represents the average period of use up to retirement or rebuild for the test group represented by the engine used in the vehicle. An explanation of how the actual useful lives of engines used in various applications are expected to differ from the average useful life may be included. The explanation(s) shall be in clear, non-technical language that is understandable to the ultimate purchaser.

(f) Emission control diagnostic service information:

(1) Manufacturers are subject to the provisions of this paragraph (f) beginning in the 2001 model year for manufacturers of light-duty vehicles and light-duty trucks, and beginning in the 2005 model year for manufacturers of heavy-duty vehicles and heavy-duty engines weighing 14,000 pounds gross vehicle weight (GVW) and less that are subject to the OBD requirements of this part.

(2) *General requirements.* (i) Manufacturers shall furnish or cause to be furnished to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, or the Administrator upon request, any and all information needed to make use of the on-board diagnostic system and such other information, including instructions for making emission-related diagnoses and repairs, including but not limited to service manuals, technical service bulletins, recall service information, bi-directional control information, and training information, unless such information is protected by section 208(c) of the Act as a trade secret. No such information may be withheld under section 208(c) of the Act if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines.

(ii) *Definitions.* The following definitions apply for this paragraph (f):

(A) Aftermarket service provider means any individual or business engaged in the diagnosis, service, and repair of a motor vehicle or engine, who is not directly affiliated with a manufacturer or manufacturer-franchised dealership.

(B) Bi-directional control means the capability of a diagnostic tool to send messages on the data bus that temporarily overrides the module's control over a sensor or actuator and gives control to the diagnostic tool operator. Bi-directional controls do not create permanent changes to engine or component calibrations.

(C) Data stream information means information (i.e., messages and parameters) originated within the vehicle by a module or intelligent sensors (i.e., a sensor that contains and is controlled by its own module) and transmitted between a network of modules and/or intelligent sensors connected in parallel with either one or more communication wires. The information is broadcast over the communication wires for use by the OBD system to gather information on emissions-related components or systems and from other vehicle modules that may impact emissions, including but not limited to sys-

tems such as chassis or transmission. For the purposes of this section, data stream information does not include engine calibration related information, or any data stream information from systems or modules that do not impact emissions.

(D) Emissions-related information means any information related to the diagnosis, service, and repair of emissions-related components. Emissions-related information includes, but is not limited to, information regarding any system, component or part of a vehicle that controls emissions and any system, component and/or part associated with the powertrain system, including, but not limited to:

(1) The engine, the fuel system and ignition system;

(2) Information for any system, component or part that is likely to impact emissions, such as transmission systems, and any other information specified by the Administrator to be relevant to the diagnosis and repair of an emissions-related problem; and

(3) Any other information specified by the Administrator to be relevant for the diagnosis and repair of an emissions-related failure found through the inspection and maintenance program after such finding has been communicated to the affected manufacturer(s).

(E) Emissions-related training information means any information related to training or instruction for the purpose of the diagnosis, service, and repair of emissions-related components.

(F) Enhanced service and repair information means information which is specific for an original equipment manufacturer's brand of tools and equipment. This includes computer or anti-theft system initialization information necessary for the completion of any emissions-related repair on motor vehicles that employ integral vehicle security systems.

(G) Equipment and tool company means a registered automotive equipment or software company either public or private that is engaged in, or plans to engage in, the manufacture of automotive scan tool reprogramming equipment or software.

(H) Generic service and repair information means information which is not

specific for an original equipment manufacturer's brand of tools and equipment.

(I) Indirect information means any information that is not specifically contained in the service literature, but is contained in items such as tools or equipment provided to franchised dealers (or others). This includes computer or anti-theft system initialization information necessary for the completion of any emissions-related repair on motor vehicles that employ integral vehicle security systems.

(J) Intermediary means any individual or entity, other than an original equipment manufacturer, which provides service or equipment to aftermarket service providers.

(K) Manufacturer-franchised dealership means any service provider with which a manufacturer has a direct business relationship.

(L) Third-party information provider means any individual or entity, other than an original equipment manufacturer, who consolidates manufacturer service information and makes this information available to aftermarket service providers.

(M) Third-party training provider means any individual or entity, other than an original equipment manufacturer who develops and/or delivers instructional and educational material for automotive training courses.

(3) *Information dissemination.* By December 24, 2003, each manufacturer shall provide or cause to be provided to the persons specified in paragraph (f)(2)(i) of this section and to any other interested parties a manufacturer-specific World Wide Web site containing the information specified in paragraph (f)(2)(i) of this section for 2001 and later model year vehicles which have been offered for sale; this requirement does not apply to indirect information, including the information specified in paragraphs (f)(12) through (f)(16) of this section. Upon request and approval of the Administrator, manufacturers who can demonstrate significant hardship in complying with this provision within four months after the effective date may request an additional six months lead time to meet this requirement. Each manufacturer Web site shall:

(i) Provide access in full-text to all of the information specified in paragraph (f)(5) of this section.

(ii) Be updated at the same time as manufacturer-franchised dealership World Wide Web sites;

(iii) Provide users with a description of the minimum computer hardware and software needed by the user to access that manufacturer's information (e.g., computer processor speed and operating system software). This description shall appear when users first log-on to the home page of the manufacturer's Web site.

(iv) Provide Short-Term (24 to 72 hours), Mid-Term (30-day period), and Long-Term (365-day period) Web site subscription options to any person specified in paragraph (f)(2)(i) of this section whereby the user will be able to access the site, search for the information, and purchase, view and print the information at a fair and reasonable cost as specified in paragraph (f)(7) of this section for each of the options. In addition, for each of the subscription options, manufacturers are required to make their entire site accessible for the respective period of time and price. In other words, a manufacturer may not limit any or all of the subscription options to just one make or one model.

(v) Allow the user to search the manufacturer Web site by various topics including but not limited to model, model year, key words or phrases, etc., while allowing ready identification of the latest vehicle calibration. Manufacturers who do not use model year to classify their vehicles in their service information may use an alternate vehicle delineation such as body series. Any manufacturer utilizing this flexibility shall create a cross-reference to the corresponding model year and provide this cross-reference on the manufacturer Web site home page.

(vi) Provide accessibility using common, readily available software and shall not require the use of software, hardware, viewers, or browsers that are not readily available to the general public. Manufacturers shall also provide hyperlinks to any plug-ins, viewers or browsers (e.g. Adobe Acrobat or Netscape) needed to access the manufacturer Web site.

(vii) Allow simple hyper-linking to the manufacturer Web site from government Web sites and automotive-related Web sites.

(viii) Allow access to the manufacturer Web sites with no limits on the modem speed by which aftermarket service providers or other interested parties can connect to the manufacturer Web site.

(ix) Possess sufficient server capacity to allow ready access by all users and have sufficient capacity to assure that all users may obtain needed information without undue delay.

(x) Correct or delete broken Web links on a weekly basis.

(xi) Allow for Web site navigation that does not require a user to return to the manufacturer home page or a search engine in order to access a different portion of the site.

(xii) Allow all users to print out any and all of the materials required to be made available on the manufacturers Web site, including the ability to print it at the users location.

(4) *Small volume provisions for information dissemination.* (i) Manufacturers with annual sales of less than 5,000 vehicles shall have until June 28, 2004 to launch their individual Web sites as required by paragraph (f)(3) of this section.

(ii) Manufacturers with annual sales of less than 1,000 vehicles may, in lieu of meeting the requirement of paragraph (f)(3) of this section, request the Administrator to approve an alternative method by which the required emissions-related information can be obtained by the persons specified in paragraph (f)(2)(i) of this section.

(5) *Required information.* All information relevant to the diagnosis and completion of emissions-related repairs shall be posted on manufacturer Web sites. This excludes indirect information specified in paragraphs (f)(6) and (f)(12) through (f)(16) of this section. To the extent that this information does not already exist in some form for their manufacturer-franchised dealerships, manufacturers are required to develop and make available the information required by this section to both their manufacturer-franchised dealerships and the aftermarket. The re-

quired information includes, but is not limited to:

(i) Manuals, including subsystem and component manuals developed by a manufacturer's third party supplier that are made available to manufacturer-franchised dealerships, technical service bulletins (TSBs), recall service information, diagrams, charts, and training materials. Manuals and other such service information from third party suppliers are not required to be made available in full-text on manufacturer Web sites as described in paragraph (f)(3) of this section. Rather, manufacturers must make available on the manufacturer Web site as required by paragraph (f)(3) of this section an index of the relevant information and instructions on how to order such third party information. In the alternative, a manufacturer can create a link from its Web site to the Web site(s) of the third party supplier.

(ii) OBD system information which includes, but is not limited to, the following:

(A) A general description of the operation of each monitor, including a description of the parameter that is being monitored;

(B) A listing of all typical OBD diagnostic trouble codes associated with each monitor;

(C) A description of the typical enabling conditions (either generic or monitor-specific) for each monitor (if equipped) to execute during vehicle operation, including, but not limited to, minimum and maximum intake air and engine coolant temperature, vehicle speed range, and time after engine startup. In addition, manufacturers shall list all monitor-specific OBD drive cycle information for all major OBD monitors as equipped including, but not limited to, catalyst, catalyst heater, oxygen sensor, oxygen sensor heater, evaporative system, exhaust gas re-circulation (EGR), secondary air, and air conditioning system. Additionally, for diesel vehicles under 14,000 pounds GVWR which also perform misfire, fuel system and comprehensive component monitoring under specific driving conditions (i.e., non-continuous

monitoring; as opposed to spark ignition engines that monitor these systems under all conditions or continuous monitoring), the manufacturer shall make available monitor-specific drive cycles. Any manufacturer who develops generic drive cycles, either in addition to, or instead of, monitor-specific drive cycles shall also make these available in full-text on manufacturer Web sites;

(D) A listing of each monitor sequence, execution frequency and typical duration;

(E) A listing of typical malfunction thresholds for each monitor;

(F) For OBD parameters for specific vehicles that deviate from the typical parameters, the OBD description shall indicate the deviation and provide a separate listing of the typical values for those vehicles;

(G) Identification and scaling information necessary to interpret and understand data available to a generic scan tool through "mode 6", pursuant to Society of Automotive Engineers SAE J1979, "EE Diagnostic Test Modes"(Incorporated by reference, see § 86.1).

(H) Algorithms, look-up tables, or any values associated with look-up tables are not required to be made available.

(iii) Any information regarding any system, component, or part of a vehicle monitored by the OBD system that could in a failure mode cause the OBD system to illuminate the malfunction indicator light (MIL);

(iv) Any information on other systems that can effect the emission system within a multiplexed system (including how information is sent between emission-related system modules and other modules on a multiplexed bus);

(v) Manufacturer-specific emissions-related diagnostic trouble codes (DTCs) and any related service bulletins, trouble shooting guides, and/or repair procedures associated with these manufacturer-specific DTCs; and

(vi) Information regarding how to obtain the information needed to perform reinitialization of any vehicle computer or anti-theft system following an emissions-related repair.

(6) *Anti-theft system initialization information.* Computer or anti-theft system initialization information and/or related tools necessary for the proper installation of on-board computers or necessary for the completion of any emissions-related repair on motor vehicles that employ integral vehicle security systems or the repair or replacement of any other emission-related part shall be made available at a fair and reasonable cost to the persons specified in paragraph (f)(2)(i) of this section.

(i) Except as provided under paragraph (f)(6)(ii) of this section, manufacturers must make this information available to persons specified in paragraph (f)(2)(i) of this section, such that such persons will not need any special tools or manufacturer-specific scan tools to perform the initialization. Manufacturers may make such information available through, for example, generic aftermarket tools, a pass-through device, or inexpensive manufacturer specific cables.

(ii) A manufacturer may request Administrator approval for an alternative means to re-initialize vehicles for some or all model year vehicles through the 2007 model year by 1 month following the effective date of the final rule. The Administrator shall approve the request only after the following conditions have been met:

(A) The manufacturer must demonstrate that the availability of such information to aftermarket service providers would significantly increase the risk of vehicle theft.

(B) The manufacturer must make available a reasonable alternative means to install or repair computers, or to otherwise repair or replace an emission-related part.

(C) Any alternative means proposed by a manufacturer cannot require aftermarket technicians to use a manufacturer-franchised dealership to obtain information or special tools to re-initialize the anti-theft system. All information must come directly from the manufacturer or a single manufacturer-specified designee.

(D) Any alternative means proposed by and manufacturer must be available to aftermarket technicians at a fair and reasonable price.

(E) Any alternative must be available to aftermarket technicians within twenty-four hours of the initial request.

(F) Any alternative must not require the purchase of a special tool or tools, including manufacturer-specific tools, to complete this repair. Alternatives may include lease of such tools, but only for appropriately minimal cost.

(G) In lieu of leasing their manufacturer-specific tool to meet this requirement, a manufacturer may also release the necessary information to equipment and tool manufacturers for incorporation into aftermarket scan tools. Any manufacturer choosing this option must release the information to equipment and tool manufacturers within 60 days of Administrator approval. Manufacturers may also comply with this requirement using SAE J2534 for some or all model years through model year 2007.

(7) *Cost of required information.* (i) All information required to be made available by this section, shall be made available at a fair and reasonable price. In determining whether a price is fair and reasonable, consideration may be given to relevant factors, including, but not limited to, the following:

(A) The net cost to the manufacturer-franchised dealerships for similar information obtained from manufacturers, less any discounts, rebates, or other incentive programs.

(B) The cost to the manufacturer for preparing and distributing the information, excluding any research and development costs incurred in designing and implementing, upgrading or altering the onboard computer and its software or any other vehicle part or component. Amortized capital costs for the preparation and distribution of the information may be included.

(C) The price charged by other manufacturers for similar information.

(D) The price charged by manufacturers for similar information prior to the launch of manufacturer Web sites.

(E) The ability of aftermarket technicians or shops to afford the information.

(F) The means by which the information is distributed.

(G) The extent to which the information is used, which includes the number

of users, and frequency, duration, and volume of use.

(H) Inflation.

(ii) By August 26, 2003, each manufacturer shall submit to the Administrator a request for approval of their pricing structure for their Web sites and amounts to be charged for the information required to be made available under paragraphs (f)(3) and (f)(5) of this section. Subsequent to the approval of the manufacturer Web site pricing structure, each manufacturer shall notify the Administrator upon the increase in price of any one or all of the subscription options of 20 percent or more above the previously approved price, taking inflation into account.

(A) The manufacturer shall submit a request to the Administrator that sets forth a detailed description of the pricing structure and amounts, and support for the position that the pricing structure and amounts are fair and reasonable by addressing, at a minimum, each of the factors specified in paragraph (f)(7)(i) of this section.

(B) The Administrator will act upon on the request within 180 days following receipt of a complete request or following receipt of any additional information requested by the Administrator.

(C) The Administrator may decide not to approve, or to withdraw approval for a manufacturer's pricing structure and amounts based on a conclusion that this pricing structure and/or amounts are not, or are no longer, fair and reasonable, by sending written notice to the manufacturer explaining the basis for this decision.

(D) In the case of a decision by the Administrator not to approve or to withdraw approval, the manufacturer shall within three months following notice of this decision, obtain Administrator approval for a revised pricing structure and amounts by following the approval process described in this paragraph (f)(7)(ii).

(8) *Unavailable information.* Any information which is not provided at a fair and reasonable price shall be considered unavailable, in violation of these regulations and section 202(m)(5) of the Clean Air Act.

(9) *Third-party information providers.* By December 24, 2003, manufacturers shall, for model year 2004 and later vehicles and engines, make available to third-party information providers as defined in paragraph (f)(2)(ii) of this section with whom they engage in licensing or business arrangements;

(i) The required emissions-related information as specified in paragraph (f)(5) of this section either:

(A) Directly in electronic format such as diskette or CD-ROM using non-proprietary software, in English; or

(B) Indirectly via a Web site other than that required by paragraph (f)(3) of this section;

(ii) For any manufacturer who utilizes an automated process in their manufacturer-specific scan tool for diagnostic fault trees, the data schema, detail specifications, including category types/codes and vehicle codes, and data format/content structure of the diagnostic trouble trees.

(iii) Manufacturers can satisfy the requirement of paragraph (f)(9)(ii) of this section by making available diagnostic trouble trees on their manufacturer Web sites in full-text.

(iv) Manufacturers are not responsible for the accuracy of the information distributed by third parties. However, where manufacturers charge information intermediaries for information, whether through licensing agreements or other arrangements, manufacturers are responsible for inaccuracies contained in the information they provide to third-party information providers.

(10) *Required emissions-related training information.* By December 24, 2003, for emissions-related training information, manufacturers shall:

(i) Video tape or otherwise duplicate and make available for sale on manufacturer Web sites within 30 days after transmission any emissions-related training courses provided to manufacturer-franchised dealerships via the Internet or satellite transmission;

(ii) Provide on the manufacturer Web site an index of all emissions-related training information available for purchase by aftermarket service providers for 1994 and newer vehicles. For model years subsequent to 2003, the required information must be made available

for purchase within 3 months of model introduction and then must be made available at the same time it is made available to manufacturer-franchised dealerships, whichever is earlier. The index shall describe the title of the course or instructional session, the cost of the video tape or duplicate, and information on how to order the item(s) from the manufacturer Web site. All of the items available must be shipped within 24 hours of the order being placed and are to be made available at a fair and reasonable price as described in section (f)(7) of this section. Manufacturers unable to meet the 24 hour shipping requirement under circumstances where orders exceed supply and additional time is needed by the distributor to reproduce the item being ordered, may exceed the 24 hour shipping requirement, but in no instance can take longer than 14 days to ship the item.

(iii) Provide access to third-party training providers as defined in paragraph (f)(2)(ii) of this section all emission-related training courses transmitted via satellite or Internet offered to their manufacturer-franchised dealerships. Manufacturers may not charge unreasonable up-front fees to third-party training providers for this access, but may require a royalty, percentage, or other arranged fee based on per-use enrollment/subscription basis. Manufacturers may take reasonable steps to protect any copyrighted information and are not required to provide this information to parties that do not agree to such steps.

(11) *Timeliness and maintenance of information dissemination.* (i) General requirements. Subsequent to the initial launch of the manufacturer's Web site, manufacturers must make the information required under paragraph (f)(5) of this section available on their Web site within six months of model introduction, or at the same time it is made available to manufacturer-franchised dealerships, whichever is earlier. After this six-month period, the information must be available and updated on the manufacturer Web site at the same time that the updated information is made available to manufacturer-franchised dealerships, except as otherwise specified in this section.

(ii) *Archived information.* Manufacturers must maintain the required information on their Web sites in full-text as defined in paragraph (f)(5) of this section for a minimum of 15 years after model introduction. Subsequent to this fifteen year period, manufacturers may archive the information in the manufacturer's format of choice and provide an index of the archived information on the manufacturer Web site and how it can be obtained by interested parties. Manufacturers shall index their available information with a title that adequately describes the contents of the document to which it refers. Manufacturers may allow for the ordering of information directly from their Web site, or from a Web site hyperlinked to the manufacturer Web site. In the alternative, manufacturers shall list a phone number and address where aftermarket service providers can call or write to obtain the desired information. Manufacturers must also provide the price of each item listed, as well as the price of items ordered on a subscription basis. To the extent that any additional information is added or changed for these model years, manufacturers shall update the index as appropriate. Manufacturers will be responsible for ensuring that all information, including information that is distributed through information distributors, is provided within one regular business day of receiving the order. Items that are less than 20 pages (e.g. technical service bulletins) shall be faxed, if requested, to the requestor and distributors are required to deliver the information overnight if requested and paid for by the ordering party. Archived information must be made available on demand and at a fair and reasonable price.

(12) *Reprogramming information.* (i) Manufacturers shall make available to the persons specified in paragraph (f)(2)(i) of this section all emissions-related recalibration or reprogramming events (including driveability reprogramming events that may affect emissions) in the format of its choice at the same time they are made available to manufacturer-franchised dealerships. This requirement takes effect on September 25, 2003, and within 3

months of model introduction for all new model years.

(ii) Manufacturers shall provide persons specified in paragraph (f)(2)(i) of this section with an efficient and cost-effective method for identifying whether the calibrations on vehicles are the latest to be issued. This requirement takes effect on September 25, 2003, and within 3 months of model introduction for all new model years.

(iii) For all 2004 and later OBD vehicles equipped with reprogramming capability, manufacturers shall comply with SAE J2534 (Incorporated by reference, see § 86.1). Any manufacturer who cannot comply with SAE J2534 in model year 2004 may request one year additional lead time from the Administrator.

(iv) For model years 2004 and later, manufacturers shall make available to aftermarket service providers the necessary manufacturer-specific software applications and calibrations needed to initiate pass-through reprogramming. This software shall be able to run on a standard personal computer that utilizes standard operating systems as specified in SAE J2534 (Incorporated by reference, see § 86.1).

(v) For model years prior to 2004, manufacturers may use SAE J2534 as described above, provided they make available to the aftermarket any additional required hardware (i.e., cables). Manufacturers may not require the purchase or use of a manufacturer-specific scan tool to receive or use this additional hardware. Manufacturers must also make available the necessary manufacturer-specific software applications and calibrations needed to initiate pass-through reprogramming. Manufacturers must also make available to equipment and tool companies any information needed to develop aftermarket equivalents of the manufacturer-specific hardware.

(vi) Manufacturers may take any reasonable business precautions necessary to protect proprietary business information and are not required to provide this information to any party that does not agree to these reasonable business precautions. The requirement to make hardware available and to release the information to equipment and tool companies takes effect on September

25, 2003, and within 3 months of model introduction for all new model years.

(vii) Manufacturers who cannot comply with paragraphs (f)(12)(v) and (f)(12)(vi) of this section shall make available to equipment and tool companies by September 25, 2003 the following information necessary for reprogramming the ECU:

(A) The physical hardware requirements for reprogramming events or tools (e.g. system voltage requirements, cable terminals/pins, connections such as RS232 or USB, wires, etc.).

(B) ECU data communication (e.g. serial data protocols, transmission speed or baud rate, bit timing requirements, etc.).

(C) Information on the application physical interface (API) or layers (descriptions for procedures such as connection, initialization, performing and verifying programming/download, and termination).

(D) Vehicle application information or any other related service information such as special pins and voltages for reprogramming events or additional vehicle connectors that require enablement and specifications for the enablement.

(E) Information that describes what interfaces or combinations of interfaces are used to deliver calibrations from database media (e.g. PC using CDROM to the reprogramming device e.g. scan tool or black box).

(viii) A manufacturer can propose an alternative to the requirements of paragraph (f)(12)(vii) of this section for how aftermarket service providers can reprogram an ECU. The Administrator will approve this alternative if the manufacturer demonstrates all of the following:

(A) That it cannot comply with paragraph (f)(12)(v) of this section for the vehicles subject to the alternative plan;

(B) That a very small percentage of its vehicles in model years prior to 2004 cannot be reprogrammed with the provisions described in paragraph (f)(12)(v) of this section, or that releasing the information to tool companies would likely not result in this information being incorporated into aftermarket tools; and

(C) That aftermarket service providers will be able to reprogram promptly at a reasonable cost.

(ix) In meeting the requirements of paragraphs (f)(12)(v) through (f)(12)(vii) of this section, manufacturers may take any reasonable business precautions necessary to protect proprietary business information and are not required to provide this information to any party that does not agree to these reasonable business precautions.

(13) *Generic and enhanced information for scan tools.* By September 25, 2003, manufacturers shall make available to equipment and tool companies all generic and enhanced service information including bi-directional control and data stream information as defined in paragraph (f)(2)(ii) of this section. This requirement applies for 2001 and later model year vehicles.

(i) The information required by this paragraph (f)(13) of this section shall be provided electronically using common document formats to equipment and tool companies with whom they have appropriate licensing, contractual, and/or confidentiality arrangements. To the extent that a central repository for this information (e.g. the TEK-NET library developed by the Equipment and Tool Institute) is used to warehouse this information, the Administrator shall have free unrestricted access. In addition, information required by paragraph (f)(13) of this section shall be made available to equipment and tool companies who are not otherwise members of any central repository and shall have access if the non-members have arranged for the appropriate licensing, contractual and/or confidentiality arrangements with the manufacturer and/or a central repository.

(ii) In addition to the generic and enhanced information defined in paragraph (f)(2)(ii) of this section, manufacturers shall also make available the following information necessary for developing generic diagnostic scan tools:

(A) The physical hardware requirements for data communication (e.g. system voltage requirements, cable terminals/pins, connections such as RS232 or USB, wires, etc.)

(B) ECU data communication (e.g. serial data protocols, transmission speed

or baud rate, bit timing requirements, etc.),

(C) Information on the application physical interface (API) or layers. (i.e., processing algorithms or software design descriptions for procedures such as connection, initialization, and termination),

(D) Vehicle application information or any other related service information such as special pins and voltages or additional vehicle connectors that require enablement and specifications for the enablement.

(iii) Any manufacturer who utilizes an automated process in its manufacturer-specific scan tool for diagnostic fault trees shall make available to equipment and tool companies the data schema, detail specifications, including category types/codes and vehicle codes, and data format/content structure of the diagnostic trouble trees.

(iv) Manufacturers can satisfy the requirement of this paragraph (f)(13)(iii) by making available diagnostic trouble trees on their manufacturer Web sites in full-text.

(14) *Availability of manufacturer-specific scan tools.* Manufacturers shall make available for sale to the persons specified in paragraph (f)(2)(i) of this section their own manufacturer-specific diagnostic tools at a fair and reasonable cost. These tools shall also be made available in a timely fashion either through the manufacturer Web site or through a manufacturer-designated intermediary. Manufacturers who develop different versions of one or more of their diagnostic tools that are used in whole or in part for emission-related diagnosis and repair shall insure that all emission-related diagnosis and repair information is available for sale to the aftermarket at a fair and reasonable cost. Manufacturers shall provide technical support to aftermarket service providers for the tools described in this section, either themselves or through a third party of its choice. Factors for determining fair and reasonable cost include, but are not limited to:

(i) The net cost to the manufacturer's franchised dealerships for similar tools obtained from manufacturers, less any discounts, rebates, or other incentive programs;

(ii) The cost to the manufacturer for preparing and distributing the tools, excluding any research and development costs;

(iii) The price charged by other manufacturers of similar sizes for similar tools;

(iv) The capabilities and functionality of the manufacturer tool;

(v) The means by which the tools are distributed;

(vi) Inflation;

(vii) The ability of aftermarket technicians and shops to afford the tools.

(15) *Changing content of manufacturer-specific scan tools.* Manufacturers who opt to remove non-emissions related content from their manufacturer-specific scan tools and sell them to the persons specified in paragraph (f)(2)(i) of this section shall adjust the cost of the tool accordingly lower to reflect the decreased value of the scan tool. All emissions-related content that remains in the manufacturer-specific tool shall be identical to the information that is contained in the complete version of the manufacturer specific tool. Any manufacturer who wishes to implement this option must request approval from the Administrator prior to the introduction of the tool into commerce.

(16) *Special tools.* (i) Manufacturers who have developed special tools to extinguish the malfunction indicator light (MIL) for Model Years 2001 through 2003 shall make available the necessary information to equipment and tool companies to design a comparable generic tool. This information shall be made available to equipment and tool companies no later than September 23, 2003.

(ii) Manufacturers are prohibited from requiring special tools to extinguish the malfunction indicator light (MIL) beginning with Model Year 2004.

(17) *Reference materials.* Manufacturers shall conform with the following Society of Automotive Engineers (SAE) standards.

(i) For Web-based delivery of service information, manufacturers shall comply with SAE Recommended Practice J1930 (Revised, May 1998), "Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms" (Incorporated by reference, see

§86.1). This recommended practice standardizes various terms, abbreviations, and acronyms associated with on-board diagnostics. Manufacturers shall comply with SAE J1930 (Incorporated by reference, see §86.1) beginning with Model Year 2004.

(ii) For identification and scaling information necessary to interpret and understand data available to a generic scan tool through “mode 6”, manufacturers shall comply with SAE Recommended Practice J1979 (Revised, September, 1997), “EE Diagnostic Test Modes” (Incorporated by reference, see §86.1). This recommended practice describes the implementation of the diagnostic test modes for emissions-related test data. Manufacturers shall comply with SAE J1979 beginning with Model Year 2004.

(iii) For allowing ECU and equipment and tool manufacturers to satisfy the needs of multiple end users with minimum modification to a basic ECU design, manufacturers shall comply with SAE Recommended Practice J2284-3 (May, 2001), “High Speed CAN (HSC) for Vehicle Applications at 500 KBPS” (Incorporated by reference, see §86.1). SAE J2284-3 establishes standard ECU physical layer, data link layer, and media design criteria. Manufacturers may comply with SAE J2284-3 beginning with model year 2003 and shall comply with SAE J2284-3 beginning with model year 2008.

(iv) For pass-through reprogramming capabilities, manufacturers shall comply with SAE Recommended Practice J2534 (February, 2002), “Recommended Practice for Pass-Thru Vehicle Programming” (Incorporated by reference, see §86.1). This recommended practice provides technical specifications and information that manufacturers must supply to equipment and tool companies to develop aftermarket pass-through reprogramming tools. Manufacturers shall comply with SAE J2534 beginning with model year 2004.

(18) *Reporting requirements.* Manufacturers shall provide to the Administrator reports on an annual basis within 30 days of the end of the calendar year and upon request of the Administrator, that describe the performance of their individual Web sites. These annual reports shall be submitted to the

Administrator electronically utilizing non-proprietary software in the format as agreed to by the Administrator and the manufacturers. Manufacturers may request Administrator approval to report on parameters other than those described below if the manufacturer can demonstrate that those alternate parameters will provide sufficient and similar information for the Administrator to effectively evaluate the manufacturer Web site. These annual reports shall include, at a minimum, monthly measurements of the following parameters:

(i) Total successful requests (measured in number of files including graphic interchange formats (GIFs) and joint photographic expert group (JPEG) images, i.e. electronic images such as wiring or other diagrams or pictures). This is defined as the total successful request counts of all the files which have been requested, including pages, graphics, etc.

(ii) Total failed requests (measured in number of files). This is defined as the total failed request counts of all the files which were requested but failed because they could not be found or were read-protected. This includes pages, graphics, etc.

(iii) Average data transferred per day (measured by bytes). This is defined as average amount of data transferred per day from one place to another.

(iv) Daily Summary (measured in number of files/pages by day of week). This is defined as the total number of requests each day of the week, over the time period given at the beginning of the report.

(v) Daily report (measured in number of files/pages by the day of the month). This is defined as how many requests there were in each day of a specific month.

(vi) Browser Summary (measured in number of files/pages by browser type, i.e., Netscape, Internet Explorer). This is defined as the versions of a browser by vendor.

(vii) Any other information deemed necessary by the Administrator to determine the adequacy of a manufacturer Web site.

(19) *Prohibited Acts, Liability and Remedies.* (i) It is a prohibited act for any person to fail to promptly provide or

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cause a failure to promptly provide information as required by this paragraph (f), or to otherwise fail to comply or cause a failure to comply with any provision of this paragraph (f).

(ii) Any person who fails or causes the failure to comply with any provision of this paragraph (f) is liable for a violation of that provision. A corporation is presumed liable for any violations of this subpart that are committed by any of its subsidiaries, affiliates or parents that are substantially owned by it or substantially under its control.

(iii) Any person who violates a provision of this paragraph (f) shall be subject to a civil penalty of not more than \$32,500 per day for each violation. This maximum penalty is shown for calendar year 2004. Maximum penalty limits for later years may be set higher based on the Consumer Price Index, as specified in 40 CFR part 19. In addition, such person shall be liable for all other remedies set forth in Title II of the Clean Air Act, remedies pertaining to provisions of Title II of the Clean Air Act, or other applicable provisions of law.

[64 FR 23925, May 4, 1999, as amended at 68 FR 38455, June 27, 2003; 70 FR 40442, July 13, 2005]

§ 86.1808-07 Maintenance instructions.

Section 86.1808-07 includes text that specifies requirements that differ from those specified in § 86.1808-01. Where a paragraph in § 86.1808-01 is identical and applicable to § 86.1808-07, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1808-01.”.

(a)–(e) [Reserved]. For guidance see § 86.1808-1.

(f) [Reserved]. For guidance see § 86.1808-1. For incorporation by reference see §§ 86.1 and 86.1808-1.

(g) For each new diesel-fueled Tier 2 vehicle (certified using a test fuel with 15 ppm sulfur or less), the manufacturer shall furnish or cause to be furnished to the purchaser a statement that “This vehicle must be operated only with ultra low sulfur diesel fuel (that is, diesel fuel meeting EPA speci-

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fications for highway diesel fuel, including a 15 ppm sulfur cap).”.

[66 FR 5190, Jan. 18, 2001, as amended at 68 FR 38461, June 27, 2003; 70 FR 40443, July 13, 2005]

§ 86.1809-01 Prohibition of defeat devices.

(a) No new light-duty vehicle, light-duty truck, or complete heavy-duty vehicle shall be equipped with a defeat device.

(b) The Administrator may test or require testing on any vehicle at a designated location, using driving cycles and conditions which may reasonably be expected to be encountered in normal operation and use, for the purposes of investigating a potential defeat device.

(c) For cold temperature CO emission control, the Administrator will use a guideline to determine the appropriateness of the CO emission control at ambient temperatures between 25 deg. F (–4 deg. C) and 68 deg. F (20 deg. C). The guideline for CO emission congruity across the intermediate temperature range is the linear interpolation between the CO standard applicable at 25 deg. F (–4 deg. C) and the CO standard applicable at 68 deg. F (20 deg. C). For vehicles that exceed this CO emissions guideline upon intermediate temperature cold testing:

(1) If the CO emission level is greater than the 20 deg. F (–7 deg. C) emission standard, the vehicle will automatically be considered to be equipped with a defeat device without further investigation.

(2) If the CO emission level does not exceed the 20 deg. F emission standard, the Administrator may investigate the vehicle design for the presence of a defeat device under paragraph (d) of this section.

(d) For vehicle designs designated by the Administrator to be investigated for possible defeat devices:

(1) The manufacturer must show to the satisfaction of the Administrator that the vehicle design does not incorporate strategies that unnecessarily reduce emission control effectiveness exhibited during the Federal or Supplemental Federal emissions test procedures (FTP or SFTP) when the vehicle is operated under conditions which