

**Short Comment of the Auto Care Association  
and the Automotive Parts Remanufacturers Association  
in Neither Support Nor Opposition to  
Proposed Exemption Under 17 U.S.C. 1201**

**(Proposed Exemption 21 Vehicle Software—Diagnosis, Repair, or Modification)**

**Commenter Information**

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**Proposed Class Addressed**

Proposed Class 21: Vehicle Software—Diagnosis, Repair, or Modification.

**Statement of Auto Care Association and  
Automotive Parts Remanufacturers Association**

Auto Care Association (“Auto Care,” formerly known as Automotive Aftermarket Industry Association) is a national trade organization of 3,000 members representing more than 150,000 independent businesses that manufacture, distribute, and sell motor vehicle parts, accessories, tools, equipment, materials, and supplies, and perform vehicle service and repair. This independent aftermarket industry contributes more than 2.2 percent to the U.S. gross domestic product. Following expiration of a new car warranty, over 75 percent of car owners patronize independent repair shops rather than new car dealers.<sup>1</sup>

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<sup>1</sup> Auto Care is a signatory to the January 15, 2014 “Memorandum of Understanding” (“MOU”) providing for access by car owners and independent repair facilities to the same diagnostic and repair information that a manufacturer makes available to a dealer. That MOU has been referenced by previous commenters in this proceeding, and attached as exhibits to the comments of the Auto Alliance and General Motors LLC. As a signatory to the MOU on behalf of the independent auto repair industry, Auto Care believes it has a unique perspective to offer the Register concerning Proposed Class 21: Vehicle Software—Diagnosis, Repair, or Modification. Auto Care supports the MOU but, as discussed in point 3 below, the MOU does not address or resolve all concerns presented in the petition.

The Automotive Parts Remanufacturers Association (“APRA”) is the trade association for companies that collect used motor vehicle parts and restore them to functionality through the process known as “remanufacturing” or “rebuilding,” thus extending the life of the product. Currently, APRA represents over 900 companies that remanufacture motor vehicle parts, and their suppliers. Parts remanufactured by APRA members are used in automobiles, trucks, buses, and off-highway vehicles such as construction and industrial equipment and farm machinery.

Auto Care and APRA ask the Register of Copyrights to consider the following points:

**1. Vehicle software that operates motor vehicles is functionally integrated with and, as a practical matter, inseparable from physical engine parts.** The software in the proposed class is designed for and performs a purely functional purpose. It controls the operation of the vehicle’s hardware components in a manner that is inseparable from the physical components. Mechanical functions historically performed exclusively by parts such as switches, knobs, valves, relays, regulators, and meters, now are controlled and implemented partially in software and hardware. Whereas in the past a repair shop or car owner could fix or improve vehicle performance solely by mechanical adjustments, today they require access to the vehicle’s control software using laptop computers or specialized diagnostic tools. In short, the software functions as vehicle parts, and repair shops access that software only to restore and adjust vehicle functionality – not copyrightable expression.

**2. The technological protection measures applied to vehicle software serve no purpose cognizable under copyright law.** Inasmuch as the software performs purely mechanical purposes rather than expressive purposes, it follows that the technological protection measures applied to restrict access to vehicle software are not intended to protect the copyrightable expression of the software. The comments from the Auto Alliance and General

Motors concede that the TPMs are not intended to preserve any inherent expressive value of the software. Rather, they cite the purposes of the technological protection measures as safety, security, regulatory compliance, fuel conservation, functional integrity, and manufacturer reputation and brand value.<sup>2</sup> Nowhere do the commenters suggest that the purpose of the TPMs is to protect copyrightable expression against infringement of a right protected under Title 17. To the extent those purposes do not implicate copyright, and are governed by other federal and state laws, circumvention is not prohibited by or remedied under Section 1201.

There is an additional purpose to the TPMs that the opponents' comments neglect to mention, and it is likely the purpose *primus inter pares*: to restrain competition for aftermarket sales of parts and services. Overall domestic aftermarket sales of automotive products totaled \$328 billion in 2014. The motor vehicle aftermarket industry, encompassing products and services purchased for light, medium and heavy duty vehicles after the original sale, employs more than four million people in the United States; and more than 5,000 companies in the United States manufacture motor vehicle parts.

Competition from independent repair and car optimization businesses benefits the public as a restraint against manufacturers' ability to monopolize the highly profitable auto care industry. Aftermarket competition limits manufacturers' ability to charge supracompetitive rates for repair and improvement services, and provides incentives for these businesses to innovate new aftermarket features and services not offered by the manufacturers.

The TPM measures manufacturers deploy have pernicious effects on competition. They hinder access by independent repair shops to the software that is necessary to perform car repair

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<sup>2</sup> Association of Equipment Manufacturers Comment ("AEM") at 1-2; Association of Global Automakers, Inc. Comment ("AGA") at 3, 6; Auto Alliance Comment ("Auto Alliance") at 9, 11; Eaton Corp. Comment at 3-4; General Motors LLC Comments at 2-6, 17.

and improvement; they prevent innovative competitors from adding new software functionality that interoperates with the existing software; and they wall off access to non-copyrightable parameters and functions that must be altered in order to improve or optimize vehicle performance. Further, they prevent companies producing diagnostic tools for the independent auto care industry from copying vehicle software for the purpose of reverse engineering the vehicle systems to ensure interoperability with their own tools.

Congress intended Section 1201 as a means to protect expressive copyrighted works and applications in digital format, not as a lever to restrain competition in markets for vehicle parts and services. As the Sixth Circuit observed, “companies ... cannot use the DMCA in conjunction with copyright law to create monopolies of manufactured goods for themselves.” *Lexmark Intern., Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 551-552 (6th Cir. 2004) (Merritt, J., concurring). In this case, there is no suggestion from the opponents’ comments that the TPMs are being applied to protect the expressive content of the copyrighted software. Rather, the TPMs suppress otherwise lawful and beneficial aftermarket competition from independent repair shops and consumers, and maintain and increase manufacturer and dealer market share in the service and repair market.

It could be argued that no exemption is needed or appropriate. The Register previously has held that no exemption would be needed to the extent that necessary reverse engineering activities for the purpose of promoting interoperability already may be protected more broadly by Section 1201(f).<sup>3</sup> Similarly, the Register here could resolve the petition by clarifying that, because the purpose of the TPMs is not to protect a copyrightable interest, Section 1201 is not

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<sup>3</sup> See Recommendation of the Register of Copyrights in RM 2002-4; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, at 172-183 (Oct. 27, 2003).

violated by circumventing technological protection measures that protect software embedded in vehicles for the purpose of repairing, modifying, or augmenting the hardware functions that the software controls.

**3. The MOU does not resolve the full scope of issues raised by the petition.** The ability of independent repair facilities and car owners to augment, adjust, or restore the performance of a vehicle frequently depends on the ability to access vehicle system software. As others such as the Auto Alliance and General Motors have commented, the MOU provides an independent repair facility and car owner with the right to purchase the same diagnostic and repair information systems as the car manufacturer makes available to its dealers. That agreement, though relatively recent, does address several of the concerns implicated by the petition, but not all. The MOU addresses diagnostic and repair information and tools, but not the ability to access the software to improve vehicle performance or to add functionality. Moreover, the costs involved in acquiring these hardware and software tools pursuant to the MOU may be prohibitively expensive for many smaller shops. Until 2018, these costs are exacerbated by the need to acquire specialized proprietary tools from the manufacturer to effectuate the repairs, and such costs may not prove economical for a large repair shop; and may not be affordable for more than one make of automobile. Although the MOU on its face permits individual car owners also to purchase these diagnostic and repair tools, it is improbable that the average car owner with an interest in car repair or customization could afford them. Further, in the absence of competition to develop alternative tools and software, manufacturers will continue to charge supracompetitive prices to sell access to software and repair tools.

**4. The TPMs prevent access to non-copyrightable factual elements, data, and parameters that are not protectable by copyright.** Repairing or optimizing vehicle

performance often involves adjusting parameters in the software. These parameters consist of numerical values derived from analysis and observation of the effect on performance of vehicle parts and systems. *See* Auto Alliance at 8. These numerical values are not themselves protectable by copyright, for several reasons. Such parameters reflect empirical observation as to the functional behavior of particular automobile parts rather than original authorship, and therefore are not eligible for protection as copyrightable elements. Moreover, these elements merit no protection under the short phrases and de minimis doctrines. *See* 37 C.F.R. § 202.1(a); *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 344 (1991); *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510, 1524 n.7 (9<sup>th</sup> Cir. 1992). Even an arbitrary selection of numbers would require only de minimis “creative effort” and could not “evinced enough originality to distinguish authorship.” *Mitel, Inc. v. Iqtel, Inc.*, 124 F.3d 1366, 1373-74 (10<sup>th</sup> Cir.1997). Similarly, vehicle control software will incorporate unprotectable code that can only be expressed in one or a limited number of ways, and so merges with the underlying idea, as well as code that is constrained by external factors, such as the functionality of the hardware, the language in which the code is written, programming standards, and efficiency. *See Computer Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693, 708 (2<sup>d</sup> Cir.1992). Yet, access to these non-copyrightable parameters and code, and to the means of altering or adjusting them so as to improve a vehicle’s operation, can be prevented by a manufacturer locking the system software behind technological protection measures.

**5. Consumers own their cars, including the copy of vehicle operation software embedded in the car’s Electronic Control Unit, and have a right of privacy to control distribution of their personal data over telematics software.** Auto Care and APRA reject any suggestion by the manufacturers and manufacturer associations that consumers do not own every

part of the vehicle they purchase, including the copy of the software that regulates vehicle operation and the information generated by the use of the vehicle (including telematics data). Consumers purchase a fully operational vehicle. To the extent that any parts comprising that vehicle are implemented in a combination of software and hardware, the consumer has obtained rights of ownership over those parts.

The opponents' arguments do not satisfy the three-part test set out in the principal case they rely upon, *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1111 (9<sup>th</sup> Cir. 2010). They provide no evidence that all of the operational software in the vehicle is subject to license; consumers may freely resell their vehicles, with no evidence of any restrictions on the right to transfer the car in its entirety to a subsequent buyer; and there is no evidence of any explicit use restrictions imposed by the manufacturer on the purchaser. To the contrary, typical car owner manuals neither prohibit alteration of the software under license or contract, nor alert the consumer to possible copyright infringement liability and damages. Rather, the manuals only warn that modifications may affect vehicle operability or warranty. Copyright law may limit the use the car owners can make of their copy, but they own it as part and parcel of the vehicle.

Similarly, manufacturers have no right of ownership over data concerning vehicle usage and driving habits of car purchasers. Manufacturers are capable of building capabilities into vehicles that communicate information to the manufacturer or dealer concerning the driver's location, itinerary, speed, and driving habits. Consumers may voluntarily share this data in return for some benefit, such as driving directions, locations of nearby businesses, or roadside assistance. However, that data belongs to the consumer. No copyright interest appears to be implicated by altering the software of a vehicle so as to limit access by a manufacturer or dealer to information that a consumer has not voluntarily determined to share.

**6. The opposition’s fair use analysis is flawed.** A disturbing consequence of the positions taken by the opponents of the exemption would be its implicit presumption that any effort to alter a vehicle’s mechanical performance by repairing or customizing its software “parts” necessarily constitutes copyright infringement. Although the opponents’ position has been fodder for criticism, even ridicule, in the online policy and technology press, for Auto Care and APRA members this is a real concern. The prospect that engaging in vehicle repair outside of the MOU constitutes copyright infringement, or could subject repair and remanufacturing businesses to legal injunctions, statutory damages, or enhanced damages, is untenable. Auto Care and APRA therefore explain, briefly, their view as to why auto repair or remanufacturing involving changes to vehicle software constitutes a fair use.

Under Factor 1, the nature and character of the use at issue here is to repair, restore, or improve the functions of a car owner’s vehicle. The fact that the part being repaired is implemented in or controlled by software is purely incidental to the purpose of fixing a vehicle’s mechanical functions. While the opponents believe this use is not “transformative,” copyright law never required transformation under Factor 1, and the Supreme Court has found fair use from copying of works in their entirety without transformation.<sup>4</sup> Moreover, in many cases the purpose of the use is to get at, and in some cases to alter, software elements that are not protectable by copyright, as noted above.<sup>5</sup> In such cases, Factor 1 implicates no copyright interest at all.

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<sup>4</sup> *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, (1984). See Recommendation of the Register of Copyrights, Section 1201 Rulemaking: Fifth Triennial Proceeding (“2012 Recommendation”) at 72 (Oct. 12, 2012); Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies (“2010 Recommendation”) at 95 (June 11, 2010).

<sup>5</sup> 2012 Recommendation at 73; 2010 Recommendation at 96.

Under Factor 2, the nature of the copyrighted work, it is highly relevant that the work at issue is software embedded in a device that enables or controls the physical operations of motor vehicles. Clearly, expansive infringement claims involving embedded functional software have been, and should be, viewed cautiously and skeptically as a matter of copyright policy, including fair use analysis under Factor 2. The Register previously has concluded that Factor 2 weighs decisively in favor of fair use where the works at issue are such highly functional works that control operation of physical goods.<sup>6</sup> 2012 Recommendations at 73, 2010 Recommendations at 96. And Congress has provided that such software is not included within the Section 109 first sale exemption that applies to software generally, but not to “a computer program which is embodied in a machine or product and which cannot be copied during the ordinary operation or use of the machine or product... .” 17 U.S.C. § 109(b)(1)(B).

Factor 3, concerning the amount of the work to be copied, is at best a wash. Copying of the entirety of a work does not preclude a finding of fair use, as in the *Sony* and *Sega* cases cited above. The question is whether such copying is necessary to the purposes that are fair under Factor 1. Car owners and repair shops generally will need to copy the entirety of the software to locate and analyze the particular elements of code that must be revised so as to repair or optimize vehicle functions—a purpose not protected by copyright.

Finally, the opponents’ comments misconstrue Factor 4, which focuses on the market for the copyrighted work itself, not the market for vehicles generally or for aftermarket services.<sup>7</sup> See *Lexmark v. Static Control*, 387 F.3d at 544-545. Here, there is no separate market for ECU software. To the extent that TPMs make it impossible to use an ECU without matching software,

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<sup>6</sup> 2012 Recommendation at 73 ; 2010 Recommendation at 96.

<sup>7</sup> AGA at 5; Auto Alliance at 9-10; GM at 17-18.

that is a result of anticompetitive marketing strategies by manufacturers, and not an inherent attribute of the copyrighted work. Indeed, the nature of the harm alleged by the opponents—disruption to the market for vehicle repairs or to the “brand value” of the manufacturer and its cars—only reinforces that the TPMs are being applied to prop up a market unrelated to a cognizable copyright interest and, therefore, unrelated to an interest protectable under Section 1201.

In any event, the non-copyright harms feared by the manufacturers are remediable under other statutes and regulations. Vehicular speed limits, inspection requirements, and emission controls all remain subject to regulation by state and federal governments. None of these is a concern of the Copyright Act or the Digital Millennium Copyright Act.

Auto Care and APRA thank the Register and the Copyright Office for considering these points. Please contact Auto Care or APRA if there are any questions or if additional information would assist the Register’s analysis of Proposed Exemption 21.