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Before the United States Copyright Office
Public Hearings on Section 1201(a) Rulemaking

Statement of
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Alliance of Automobile Manufacturers

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My name is Steve Douglas, and I am Senior Director of Environmental Affairs for the Alliance of Automobile Manufacturers. This testimony is also being presented on behalf of the Association for Global Automakers, and is endorsed by the National Automobile Dealers Association. Attached to my testimony are supporting letters from the NADA, representing over 16,000 franchised automobile and truck dealers who sell and service millions of vehicles each year, and the Automotive Service Association, the largest national independent automotive repair association in the United States. So in essence I am here on behalf of the companies that make, sell and repair cars in America.

The proponents state that an exemption is needed for three activities related to vehicles – diagnosis, repair, and modification. In my limited time, I will explain why, for the first two activities – diagnosis and repair – there is no need to circumvent access controls on Electronic Control Units (ECUs). Then, I will address why tampering with ECUs to “modify” vehicle performance undermines national regulatory goals for clean air, fuel efficiency, and auto safety, and why the Copyright Office should care about that.

Before addressing these two issues, I’d like to distinguish vehicle software from the software system on your smart phone. There are 20-30 different ECUs on your vehicle, each running different versions of software optimized for your vehicle’s safety and pollution control systems to ensure compliance with Federal regulatory requirements.

Many drivers buy used cars. However, since software modification by a previous owner could be impossible to detect, a subsequent owner might find warning lights disabled, sensors deactivated, and engine parameters changed, without ever knowing until a problem occurs. The ONLY way you, as an owner, can have confidence that the vehicle’s safety and air pollution control systems will operate as designed is because of the TPMs the proponents seek to bypass.

1. Diagnosis/repair

The arguments put forward by the proponents of this exemption are unfounded. State and federal regulations, combined with the Right to Repair MOU and the 2002 “Dorgan letter,” guarantee all independent repair shops and individual consumers access to all the information and tools needed to diagnose and repair Model Year 1996 or newer cars. This information and these tools are already accessible online, through a thriving and competitive aftermarket. Every

piece of information and every tool used to diagnose and repair vehicles at franchised dealers is available to every consumer and every independent repair shop in America. This has been the case for the past 12 years. Moreover, all of these regulations and agreements require automakers to provide the information and tools at a “fair and reasonable price.” No one in the last 12 years has disputed this fact, in any of the various avenues for review provided, including U.S. EPA, the California Air Resources Board, and joint manufacturer-aftermarket organizations.

There is absolutely no need to hack through technological protection measures and copy ECU software to diagnose and repair vehicles.

2. Modification

The regulations and agreements discussed above do not apply to information needed to “modify” engine and vehicle software. We strongly support a competitive marketplace in the tools and information people need so their cars continue to perform as designed, in compliance with all regulatory requirements. But helping people take their cars out of compliance with those requirements is something we certainly do not want to encourage. That, in essence, is what proponents of exemption #21 are calling for, in asserting a right to hack into vehicle software for purposes of “modification.” In the design and operation of ECUs in today’s automobiles, manufacturers must achieve a delicate balance among many competing regulatory demands, notably emissions (air pollution); fuel economy; and of course, vehicle safety. If the calibrations are out of balance, the car may be taken out of compliance. This is so likely to occur with many of the modifications that the proponents want to make that you could almost say that noncompliance is their goal, or at least an inevitable side effect.

Let me give a few examples. Suppose a vehicle owner thinks, “I’ve heard airbags can be unsafe and I always wear my seatbelt, so I never want my airbag to deploy in a collision.” He “modifies” the software so that the passenger airbag is never armed and so that warning lights are disabled—a modification that makes the vehicle non-compliant with safety regulations and makes the vehicle less safe in nearly all circumstances. A few years later, he sells the vehicle, and a few years after that, the second owner sells it to a third. The subsequent vehicle owners may have no idea that the car’s airbag will never deploy.

For decades, California has set the *de facto* national standard for emissions control. Because of the very high pollution associated with “performance chips” – exactly the modifications proponents want to make – California mandated that manufacturers use TPMs, including encryption, to discourage such tampering with the software that controls emissions systems. California only dropped this mandate once it was persuaded that automakers would continue to include encryption and other measures to prevent software modification. Granting this exemption would unravel that system, since these are the very TPMs the proponents want to circumvent.

The proponents also suggest that tinkerers could modify engine software to achieve greater fuel economy. Automotive engineers are well aware of ways to increase fuel economy through engine software changes. But these changes typically increase vehicle air pollution beyond acceptable levels.

Vehicle manufacturers use software to meet or exceed safety regulations that help drivers control their vehicles to prevent accidents, as well as to reduce the potential for injuries when accidents do occur. One of the most important recent advancements in vehicle safety, electronic stability control (ESC), is entirely dependent on software to function. An owner who changes ESC software settings to “improve” the vehicle’s handling characteristics for off-roading or other reasons is risking the lives of other road users.

I know that the Copyright Office is reluctant to base its decision on “non-copyright factors,” and that it has refused to do so in the past in other contexts. But I implore that you please consider that this situation is different, both in degree and in kind. The auto industry is far more comprehensively regulated, on both federal and state levels, and across many more dimensions of the performance of our product, than, say, the business of manufacturing smartphones. These regulations are enforced, to advance broad public health and safety goals; compliance affects the air we breathe, our national energy independence, and even the physical safety and security of our families. Thus, the consequences of encouraging third parties to take our products out of compliance are far more significant for our companies, and extend to product liability and forensic investigations. In sum, permitting this exemption could put lives at risk. As the Office assesses the “real world impacts” of its decisions, it should consider the unintended

consequences of putting a government stamp of approval on activities that could seriously undermine those national goals.

Thank you, and I would be glad to answer any questions.