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June 11, 2018

BY E-MAIL

Regan A. Smith General Counsel United States Copyright Office Library of Congress 101 Independence Avenue SE Washington, DC 20559-6000 resm@loc.gov

Re: Docket No. 2017-10, Class 7

Dear Ms. Smith:

We write on behalf of our client, Harman International ("Harman"), in response to the Copyright Office's post-hearing letter dated May 21, 2018 (the "Letter") for class 7 (computer programs—repair). In the Letter, the Copyright Office requested written responses to two specific issues: (a) whether the scope of the Class 7 exemption could be defined to cover all software-enabled devices except for "device[s] that [are] primarily...media playback device[s] of audiovisual works and sound recordings"; and (b) Harman's views on regulatory language that would exempt circumvention for the purpose of diagnosis and repair of software-enabled devices, but would be limited to circumvention of access controls protecting computer programs and no other category of copyrightable works.

For the reasons discussed below, Harman opposes an exemption that covers all softwareenabled devices except for devices that are primarily media playback devices of audiovisual works and sound recordings, and Harman also opposes an exemption that would permit circumvention of access controls protecting computer programs and no other category of copyrightable works. Harman believes both these approaches are unworkable, and do not take into account the complex nature of infotainment systems. Modern-day, advanced infotainment systems like Harman's state-of-the-art systems do not lend themselves to easy isolation or definition as "primarily" a media playback device; further, it would be impossible to allow circumvention purely for controls protecting computer programs and "no other category" of copyrightable works. Moreover, even if it were possible to allow circumvention purely for controls protecting computer programs, Harman's state-of-the-art computer programs are protected by U.S. copyright law, and are the result of much ingenuity, creativity, and innovation on the part of Harman's thousands of engineers. Such creativity and innovation of copyrighted software is at the heart of what the Copyright Act is meant to protect, and Harman sees no reason to distinguish between computer programs *per se* and other categories of copyrighted works.

a. The 2015 Exemption Excluding Computer Programs Chiefly Designed to Operate Vehicle Entertainment and Telematics Systems Should Still Apply

Harman does not support regulatory language that would exempt circumvention for the purpose of diagnosis and repair of software-enabled devices, except for devices that are primarily media playback devices for audiovisual works and sound recordings. Excluding only devices that are "primarily" media playback devices for audiovisual works and sound recordings is unduly narrow, and may exclude all of Harman's infotainment systems which control access to copyrighted works, including audiovisual works and sound recordings. Unlike the cars of yesterday, with its built-in CD or DVD players that allow users to playback their own music or movies, Harman's infotainment systems seamlessly merge a number of innovative features into one system, such as virtual personal assistance, subscription services (such as streaming music services), and augmented reality into a single infotainment system.

1. The EFF's Proposed Exemption Discourages Innovation and Creativity in Car Infotainment Systems, and Would Permit Access to Valuable Copyrighted Content

As an initial matter, it is unclear if an infotainment system that provides access to subscription services would even constitute a media playback device, as subscription services like Spotify are "access," not "ownership" services, meaning there are no *files* that are being stored on the system for playback. Rather, the music is *streamed live*, not played "back". The same holds for other subscription services like Hulu or Netflix, which are streaming services. The user does not insert a DVD into the system for "playback", rather, content that is not owned by the user is streamed *live* to the user.

Secondly, because Harman's infotainment systems offer many other state-of-the-art functions that go beyond music and audiovisual works, Harman's infotainment systems would not qualify as "primarily" a media playback device for audiovisual works and sound recordings. For example, innovative functions of Harman's infotainment system, such as augmented reality or virtual personal assistance, would also not qualify as audiovisual or sound recordings. Neither would Harman's innovative "moodscape" feature, which provides a series of moving images on the car's roof. These moving images are pictorial/graphic works that are entitled to copyright protection, yet would not be covered under the proposed carve-out for media playback devices for sound recordings and audiovisual works. Harman also offers a Music Motivator feature, which synchronizes with calendars, identifies GPS routes, and analyzes available biometric feedback to build and deliver an audio experience based on a passenger's schedule, energy level, and location. Once again, this feature would not constitute a media playback device, because it is far more advanced. Therefore, ironically, the more extra, unique, innovative, and creative functions Harman's infotainment system offers a user-features that enhance, but are not integral to, the driving experience, the more likely it will be that a user can rely on the proposed exemption to circumvent Harman's infotainment system. Such circumvention poses grave intellectual property, safety, and security risks, as outlined in Harman's long form comment. As an initial matter, access to Harman's infotainment system will give the circumventer access to

everything in the system, including audiovisual works and sound recordings that reside in streaming services that the user has not paid for. Secondly, circumventing that system could result in grave safety concerns, such as changing the settings so that a driver can engage with augmented reality while the car is in motion, thus putting himself and other drivers on the road in grave danger.

The EFF's proposed language for an exemption that covers all software-enabled devices except for devices that are primarily media playback devices for audiovisual works and sound recordings therefore relies on an outdated notion of vehicle entertainment, conjuring up images of the traditional CD and DVD drive that is simply miles behind the new innovative in-car entertainment systems that are being designed and built today. Such innovation, which relies on valuable and creative copyrighted software (as described in more detail below) lies at the heart of U.S. copyright law protection.

2. The EFF's Proposed Exemption Does Not Accommodate a Legitimate Need for Diagnosis and Repair

Harman's infotainment systems offer drivers an unparalleled luxury entertainment system. However, the EFF has failed to explain how or why circumvention for diagnosis and repair of this system would be required for operating chief vehicle functionality. There is no legitimate need for diagnosis and repair of infotainment systems, which are focused on *enhancing* the driving experience—but do not reach the basic functional aspects of a basic automobile—for the reasons discussed in Harman's long form comment.

3. Accordingly, the Existing Carveout for Entertainment and Telematics Systems Should Remain in Place

Harman submits that the exemption language from the last triennial rulemaking should continue to apply. Namely, an exemption should apply to "computer programs that are contained in and control the functioning of a motorized land vehicle such as a personal automobile, commercial motor vehicle or mechanized agricultural vehicle, *except for computer programs primarily designed for the control of telematics or entertainment systems for such vehicle*" (emphasis added). Changing this language to only "primarily" media playback devices would completely exclude almost any modern entertainment system. Moreover, the EFF has articulated no compelling reason for a change to the current exemption language. Knowing full well that the basic DVD and CD player, which are the only devices that constitute "playback" devices, are increasingly being phased out of in-car entertainment systems, the EFF's proposed language will make almost every single entertainment system in the modern connected car available for circumvention.

b. It Is Impossible to Delineate Access Controls Protecting Computer Programs From Other Categories of Copyrightable Works, Nor Is There Any Precedent for Doing So in the Copyright Act

For the same reasons discussed above, Harman does not support regulatory language that would exempt circumvention for the purpose of diagnosis and repair of software-enabled devices, but limited to circumvention of access controls protecting computer programs and no other category of copyrighted works.

First, as discussed above, Harman's TPMs protect access to the entirety of its infotainment system, which seamlessly integrates "other categories" of copyrighted works, such as music and film, with computer programs. In other words, circumvention of one is circumvention of all—there is simply no reliable way in which someone would be limited to circumventing just the "computer program" portion of the infotainment system without also, potentially, having access to "other categories" of copyrighted work. For example, circumvention of TPMs for Harman's Music Motivator feature would mean giving the user access to computer software—such as the algorithms that analyzes a user's biometric data and calendar information—*as well as*, potentially, the other copyrighted content, such as the actual music, that Music Motivator syncs to.

This artificial delineation between "computer programs" and "other categories" of copyrighted works becomes even more difficult when looking at other innovative Harman features like the "moodscape" feature. Undoubtedly, underlying the "moodscape" feature is a computer program that generates beautiful landscape imagery for a car's roof. *However*, the imagery generated by the computer program is art—or, a pictorial/graphic/sculptural work. These difficult issues of classifying just what constitutes a "computer program" versus "other categories" of copyrighted works evince the very untenability of the distinction the Joint Creators propose.

And, finally, even if it were somehow possible to create these distinctions for seamlessly integrated infotainment systems like Harman's, there is no legal basis for distinguishing between computer programs and "other categories" of copyrighted works *per se*. Non-functional portions of a computer program could be just as creative as another category of copyrighted work such as music or film—such determinations cannot be made on a blanket basis. *See Computer Associates Intern., Inc. v. Altai, Inc.,* 982 F.2d 693, 706 (discussing the protectable creative expression of a computer program left after a court filters out the functional components). To create a *per se* distinction between computer programs and "other categories" of copyrighted works would directly contravene the well-established fact that Congress "unambiguously extended copyright protection to computer programs." *Sega Enters. Ltd. v. Accolade, Inc.,* 977 F.2d 1510, 1519 (9th Cir. 1992), just like any other category of copyrighted work. The Copyright Act does not provide that computer programs are somehow less protectable than other categories of copyrighted works, and the case law has not borne out this fact, either (for example, courts have routinely acknowledged that another category of copyrighted work, architectural works, are also subject to

the same abstraction/filtration/comparison test as computer programs, to filter out the functional components).

Accordingly, Harman does not support adoption of regulatory language that would exempt circumvention for the purpose of diagnosis and repair of software-enabled devices, but would limit circumvention to access controls protecting computer programs. Rather, Harman continues to believe that the current exemption language from the last triennial rulemaking should continue to apply. Namely, an exemption should apply to "computer programs that are contained in and control the functioning of a motorized land vehicle such as a personal automobile, commercial motor vehicle or mechanized agricultural vehicle, *except for computer programs primarily designed for the control of telematics or entertainment systems for such vehicle*" (emphasis added).

Best regards,

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A. John P. Mancini

cc: Anna B. Chauvet, Assistant General Counsel, United States Copyright Office