



The Right to Repair Electronics

Executive Summary

Currently, digital devices and machines can only be repaired by technicians licensed by the original equipment manufacturer or with parts from exclusive manufacturer networks. Right to repair (R2R) legislation requires that manufacturers provide independent repair providers and users with the required information to repair digital devices in a timely and reasonable manner. Over the last four years, 27 states, including Missouri, have proposed R2R legislation. There are three bills in the Missouri Legislature ([HB 2141](#), [HB 2402](#), and [SB 1086](#)) discussing the right to repair and [The Missouri Right to Repair Digital Electronic Equipment Initiative](#) may appear as a ballot initiative during the November 2022 elections.

Highlights

- Granting access to electronic and medical devices expands consumer options for repair, but some of the methods of access could violate liability laws.
 - State and federal lawmakers have enacted R2R legislation in the domains of electronics, agriculture, medical devices, home products, and the U.S. Military.
 - Federal agencies are expanding the list of products and services that are allowed to be fixed by third-parties, including cars and medical devices.
- Device manufacturers from technology, agriculture, and medical device industries oppose R2R legislation.
- Because existing restrictions make electronics, or their repair, more expensive, it is likely that low-income populations and minorities are affected more by a lack of R2R legislation than the general population.

Limitations

- Research on the effects of R2R legislation on low-income and minority populations is lacking.

Research Background

Right to Repair Movement

Right to repair (R2R) laws generally refer to the right of the consumer to have access to the tools, parts, documentation, and software that are required to fix the products they own, from smartphones to tractors. Proponents state that R2R legislation makes electronics easier and cheaper to repair, and also prolongs the life-cycle of such devices, therefore reducing hazardous electronic waste caused by limited repairability. Warranty and licensing restrictions make

*MOST Policy Initiative, Inc. is a nonprofit organization that provides nonpartisan information to Missouri's decisionmakers. All legislative Science Notes are written only upon request by members of the General Assembly. **This Science Note was published on 11/2021 and updated on 4/11/2022 by Dr. Elena Bickell, Agriculture, Natural Resources and Economic Development Policy Fellow – eleni@mostpolicyinitiative.org.***

electronics repair more costly, and although research is scarce, it is likely that low-income populations and minorities are affected more than the general population by the existing repair restrictions.^{1,2}

Generally, R2R legislation requires the original equipment manufacturer (OEM) to:

- Provide manuals with detailed specifications, schematics, and software updates (all updates should be available to all owners, no subscription or fee required);
- Allow devices to be repaired without voiding the warranty;
- Give small repair shops access to the same kinds of diagnostic tools and original parts that the original manufacturer has.³

Right to Repair Electronics at the Federal Level

U.S. House

[The Fair Repair Act](#) (H.R. 4006) was introduced in the U.S. House in 2021. The bill requires OEMs “to make diagnostic and repair information, parts, and tools available to third-party repairers and owners in a timely manner and on fair and reasonable terms.” It additionally provides the Federal Trade Commission (FTC) and State Attorneys General with enforcement measures. As of April 2022, the bill has not moved beyond introductory remarks.

Federal Trade Commission

Before H.R. 4006 was introduced by the U.S. House this year, the FTC collected and summarized feedback from public hearings and comments and filed a report to Congress in May 2021 examining anti-competitive repair restrictions. The FTC’s [report](#) recommended expanding consumers’ repair options and found no evidence supporting the need for some of the manufacturer restrictions that are currently in place. Examples of these restrictions include: using adhesives that make parts impossible to replace, limiting the availability of spare parts and manuals, and making diagnostic software and tools unavailable. Currently, the FTC’s policy statements on R2R are focusing on pointing out existing regulations and FTC is seeking consumer input for potential violations of warranty, antitrust, and consumer protections laws.

The Magnuson-Moss Warranty Act of 1975

[The Magnuson-Moss Warranty Act](#) is a federal law that governs *consumer product warranties*. The law prohibits manufacturers from telling consumers that a warranty is voided if the product has been altered or tampered with by someone other than the original manufacturer. Although the law requires manufacturers and sellers to provide clear and detailed information about warranty coverage, there is widespread misbelief by consumers and manufacturers that warranties are voided by simply opening a device.⁴

Despite federal warranty laws such as Magnuson-Moss Warranty Act, manufacturers are not prevented from creating warranty agreements that restrict repairs on devices. For example, two U.S. military vehicles, the Medium Tactical Vehicle Replacement truck and Joint Light Tactical

Vehicle, are subject to warranty limitations by their producer, prohibiting troops from fixing the vehicles. As a result, military members may end up with vehicles and equipment that are potentially unworkable in conflict zones or during wartime despite having experience in vehicle repair.³

Copyright and Patent Laws

Intellectual property broadly refers to ideas and concepts that are unique and potentially valuable and give the inventor the rights to exclusively manufacture or license an invention. The three types of intellectual property are copyrights, patents, and trademarks. *Copyright laws* protect original works of authorship, while *patent laws* protect inventions or discoveries. Patent laws give the inventors the exclusive right to sell their invention for 20 years. During this time period, inventors may choose to give other companies a license to manufacture and sell the invention in exchange for a fee.

Every three years, the U.S. Copyright Office updates its recommendations for the Register of Copyright in [Section 1201](#), which makes it unlawful to “circumvent a technological measure that effectively controls access to” a copyrighted work.⁵ In October 2021, the U.S. Copyright Office [announced](#) that it would allow new exemptions to the section on device repair.⁶ The itemized list of exemptions is replaced with broad protections for any consumer devices that rely on software to function, as well as land and sea vehicles and medical devices that are not consumer-focused.

State Level Right to Repair

In 2022, the Missouri General Assembly is looking at three bills regarding R2R, one in electronics ([HB 2141](#)), and two in agriculture ([HB 2402](#) and [SB 1086](#)). Additionally, an [initiative petition](#) on the right to repair electronics has been proposed, so Missourians may be asked to vote on the Right to Repair Digital Electronic Equipment Initiative in November 2022. If the R2R measure appears on the ballot in Missouri and is passed, it would require manufacturers of digital electronic equipment to make available documents, parts, and tools to independent repair providers. (For more information on initiative petitions, find our Science Note [here](#)).

Since 2018 more than 27 states have had R2R legislation introduced with language that does not target one industry specifically, but rather addresses consumer technology and electronic appliances varying from tractors to cell phones. However, there are currently no state laws that require manufacturers of digital electronic equipment to disclose all the necessary information to repair providers or owners of equipment.

References

1. Federal Trade Commission, May 2021, https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-res-trictions/nixing_the_fix_report_final_5521_630pm-508_002.pdf
2. Rosborough, A. D. (2020). *Unscrewing the future: the right to repair and the circumvention of software TPMs in the EU*. J. Intell. Prop. Info. Tech. & Elec. Com. L., 11, 26.

3. Right to Repair Gains Momentum, academicdatascience.org,
<https://academicdatascience.org/newsletter/2021-09-22-desk>
4. Federal Trade Commission, Businessperson's Guide to Federal Warranty Law,
<https://www.ftc.gov/tips-advice/business-center/guidance/businesspersons-guide-federal-warranty-law>
5. U.S. Copyright Office, <https://www.copyright.gov/title17/92chap12.html>
6. U.S. Copyright Office, Section 1201 Rulemaking, October, 2021,
https://cdn.loc.gov/copyright/1201/2021/2021_Section_1201_Registers_Recommendation.pdf