



Colorado Burglar & Fire Alarm Association  
421 S. Pierce Avenue  
Louisville, CO 80027  
[www.cbfaa.org](http://www.cbfaa.org)  
[cbfaa@cbfaa.org](mailto:cbfaa@cbfaa.org)

February 29, 2024

Colorado Assembly  
ATTN: House Business Affairs & Labor Committee  
200 E Colfax, RM 307  
Denver, CO 80203

RE: HB24-1121 Consumer Right to Repair Digital Electronic Equipment

Dear Chairperson Rep. Judy Amabile and committee members,

The Colorado Burglar & Fire Alarm Association is a non-profit state trade association serving the electronic security, fire/life safety alarm companies in Colorado. Electronic Security and Life Safety companies provide professional installation, servicing and monitoring of intrusion, fire, access control and environmental systems. Our members are your constituents.

We are writing to you regarding Colorado HB 24-1121. The CBFAA is in opposition to this bill as currently written. People rely on the products and services of our member companies to protect their homes, businesses, and lives. If this legislation is to pass as is, you would render these systems vulnerable.

Please consider what will happen if a landlord decides to let their handyman repair the fire alarm system in the apartment complex? The right to repair would lead to cameras and security systems being vulnerable at schools, homes, and businesses. Bad actors could hack into systems using tools and back-end codes. We cannot trust the integrity of those systems when a trained technician is not working on them.

Safety and security are very important for us in Colorado so we ask that you push for exemption language in this bill to say:

"Nothing in this bill applies to security or life safety systems and devices, or to manufacturers of security or life safety systems and devices."

If that language is not added, I ask that you oppose the bill to protect your constituents.

Thank you.

Best Regards,

John Wrzesinski  
President CBFAA



**Testimony of  
Mike Blank  
CTIA**

**In Opposition to  
Colorado HB 1121**

**Before the  
Colorado House Business Affairs and Labor Committee**

**February 27, 2024**

On behalf of CTIA®, the trade association for the wireless communications industry, I submit this testimony in opposition to House Bill 1121, which places mandates on original equipment manufacturers regarding diagnostic and repair information for certain digital electronic equipment. The marketplace already provides a wide range of consumer choice for repair with varying levels of quality, price, and convenience without the mandates imposed by this legislation.

The marketplace continues to evolve, and manufacturers continue to make changes to address consumer demand while offering consumers safe and reliable repair options. For example, manufacturers have relationships with authorized repair providers. These providers – which include small businesses in Colorado – have received the appropriate training from manufacturers and have the qualifications to help ensure that repairs are done properly and safely.

In addition to authorized repair providers, manufacturers may offer walk-in repair options at retail stores as well as mail-in services. Insurance providers may also offer repair options, including authorized third-party remote technicians that will travel to the consumer to perform repairs. Moreover, consumers can currently avail themselves of numerous independent repair alternatives although manufacturers cannot guarantee the quality assurance of independent repair providers.



Additionally, many manufacturers have expanded repair options for consumers, from growing the number of authorized repair providers, to increasing access to tools, parts, and manuals directly to consumers. It is important that with more repair options available to consumers, consumers continue to have access to professional repair providers with demonstrable competence to provide a safe and reliable repair.

To further address the repair marketplace, CTIA launched two programs related to repair, the Wireless Industry Service Excellence (WISE) Technician Certification Program and the WISE Authorized Service Provider (ASP) Certification Program. The WISE technician program educates and tests wireless device repair technicians on industry-recognized standards, certifying those that meet the highest standards for service quality and technical skill. The first certification of its kind, WISE-certified device repair technicians provide consumers with a predictable, high-quality repair experience.<sup>1</sup>

The WISE ASP program creates a network of certified retail locations, helping consumers identify qualified providers that meet the highest standards for service quality and wireless device repair.<sup>2</sup> Both programs were created by CTIA's Reverse Logistics and Service Quality Working Groups, which convene members representing the entire reverse logistics community to address the wireless industry's challenges and develop requirements for industry-recognized standards in repair and refurbishment of wireless devices. CTIA also recently introduced the first ever postsecondary

---

<sup>1</sup> <https://www.ctia.org/news/ctia-launches-technician-certification-program>

<sup>2</sup> <https://www.ctia.org/news/ctia-launches-retail-certification-program-for-wireless-device-repair>



education mobile device repair certification program to provide an academic avenue for credentialing and certifying more device repairers.<sup>3</sup>

Wireless companies, individually, and through industry associations have taken proactive steps to provide consumers with more device repair options, while accounting for the need to maintain device integrity and security and to protect intellectual property rights. These include the expansion of CTIA's WISE program to include over 19,000 certified technicians nationally, continued growth of manufacturers' authorized repair networks, and the availability of access to tools, parts, and manuals directly to consumers.

CTIA is also concerned that this bill would have the unintended consequence of negatively impacting consumers of digital equipment by eliminating the need for repairers to demonstrate to consumers that they have the technical competence to perform safe, secure, and reliable repairs. Manufacturers want to make certain the repair providers they work with understand the numerous components of the electronic products being repaired. Their authorization to perform repairs ensures that the changes made to the devices are compatible with current technology and the networks on which they operate.

Finally, CTIA is concerned that this legislation has the potential to weaken the safety, privacy, and security features of electronic products. The security of user information is of the utmost importance to consumers. The potential weakening of privacy and safety protections will increase risks to consumers. With broad and unchecked access to technical information, security protections

---

<sup>3</sup> CTIA, *MCC to Launch First Mobile Device Repair Certification Program in Postsecondary Education* (Jan. 17, 2023), <https://www.ctia.org/news/mcc-to-launch-first-mobile-device-repair-certification-program-in-postsecondary-education>.



could be easily circumvented. In an era of sophisticated cyberattacks, we should not make it easier to hack devices and networks.

This bill is an unnecessary intervention in the marketplace, and its mandates could cause safety, privacy, and security risks that compromise consumer safety and protection. For these reasons, CTIA respectfully asks that you not move this legislation.



# Paul Roberts

## Founder

Paul F. Roberts  
SecuRepairs.org  
54 Cross Street  
Belmont, MA 02478  
617.817.0198  
paul@securepair.org

---

29 February 2024

The Honorable Members of the House Committee on Business Affairs & Labor  
Colorado General Assembly  
200 E Colfax Avenue  
Denver, CO 80203

Chair Amiable, Vice Chair Ricks and Members of the House Committee on Business Affairs and Labor:

My name is Paul Roberts and I am the founder of [SecuRepairs.org](https://www.securepairs.org). I am writing to you to express my support for House Bill 24-1121 which requires fair access to parts, tools, service information and repair software. I believe this legislation is a common-sense step to cut consumer costs and decrease harmful electronic waste. As a recognized expert in information security, I also wish to assure you that the provisions of this bill will not put Coloradans at greater risk of cyber attack.

### There is no cyber risk in repair

By definition, the information covered by right to repair laws like House Bill 24-1121 is not sensitive or protected, as evidenced by the fact that manufacturers distribute such information widely to hundreds, thousands or tens of thousands of repair professionals working on behalf of their authorized providers. That includes everything from staff working at Apple's Genius Bar or the Geek Squad at Best Buy to minimum wage workers at centralized "authorized repair facilities" -which are often located out of state. This wide and indiscriminate distribution of repair information, tools and parts within authorized repair networks disproves the notion, promoted by manufacturers, that it is highly sensitive or that it is closely protected intellectual property.

### Hacked via repair? Not a thing.

Also: cybersecurity experts have yet to find any evidence that the types of information covered by right to repair laws act as a portal to cyber attacks. The vast majority of attacks on Internet connected devices - from broadband routers to home appliances and automobiles - exploit weak device configurations or vulnerabilities in embedded software produced and managed by the manufacturer. The information covered by right to repair laws like House Bill 24-1121 - schematic diagrams, service manuals, diagnostic software and replacement parts - are not sought after by cyber criminals and do not play a role in the epidemic of cyber attacks and compromises that plagues Colorado families, businesses and governments.

### **An epidemic of hackable stuff**

These security weaknesses are epidemic. [A study of the security of IoT devices by Phosphorus Labs](#), a cybersecurity company, found that 68% of Internet of Things devices contained high-risk or critical software vulnerabilities.

Hacks of connected devices take place without any access to repair materials. Nor is there any evidence that providing access to repair software will open doors to new attacks. As an example: a diagnostic routine that identifies a failed component or reveals the operating temperature of a device doesn't provide access to the kinds of sensitive data that hackers are interested in.

### **A Right to Repair is key to a secure Internet of Things**

As the Internet of Things ages and manufacturers gradually step away from their responsibility to support and maintain deployed products, new laws such as House Bill 24-1121 will foster a market based response: a diverse ecosystem of small, aftermarket service providers that step into the shoes of OEMs: supplying needed software updates and security patches, servicing and repairing deployed devices and so on.

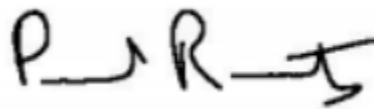
Passage of this law will foster a range of business and employment opportunities for Colorado residents and small businesses, fostering growth, investment and innovation up and down the economic ladder.

### **Repair: Pro-Consumer, Pro-Competition, Pro-Environment**

To sum up: right to repair legislation like Colorado House Bill 24-1121 will greatly improve the quality of life for Colorado's consumers, families, and communities, while fostering the growth of small businesses and reducing e-waste throughout the state. On behalf of our more than 350 members,

I urge this committee to support the passage of this important right to repair legislation and would be happy to make our cybersecurity experts available to brief Committee members on the topic of cyber security and repair.

Sincerely,

A handwritten signature in black ink that reads "P. Roberts". The signature is stylized, with the first name "P." and the last name "Roberts" written in a cursive-like font.

**Paul Roberts, Founder [SecureRepairs.org](http://SecureRepairs.org)**

**PREPARED STATEMENT OF  
THE FEDERAL TRADE COMMISSION**

**on**

**Repair Restrictions**

**Before the**

**COMMITTEE ON BUSINESS AFFAIRS & LABOR**

**COLORADO GENERAL ASSEMBLY**

**Denver, CO**

**February 29, 2024**

Chair Amabile, Vice Chair Ricks, and members of the Committee, I am Christine Todaro, an attorney in the Federal Trade Commission’s (“Commission” or “FTC”) Bureau of Consumer Protection. I appreciate the opportunity to present the FTC’s testimony on manufacturer repair restrictions<sup>1</sup> and am honored to appear before a state legislature that has been at the forefront of expanding repair options for consumers.

When manufacturers impose obstacles to independent repair, they drive up the price that Colorado consumers must pay to fix a device and cause them to purchase a new device before the end of its useful life. Manufacturer repair restrictions also make it more challenging for Colorado’s small repair businesses to compete and cause the state’s landfills to overflow with unnecessary e-waste. The FTC supports HB 24-1121 because it protects Colorado consumers’ access to cost-effective repairs and advances the numerous benefits that flow from increased competition in repair markets.

This testimony is based on the findings in the Nixing the Fix Report (the “Report”)<sup>2</sup> – a report mandated by Congress and issued unanimously by the bipartisan FTC in May 2021 – as well as the Commission’s subsequent work to expand repair options for consumers.

Some of the main types of repair restrictions analyzed in the Report include manufacturers’ efforts to impede owners’ and independent repair providers’ access to spare parts, diagnostic tools, and repair instructions – the types of repair restrictions addressed by HB 24-1121. The Report also discussed a type of repair restriction that HB 24-1121 specifically

---

<sup>1</sup> This written statement presents the views of the Federal Trade Commission. My oral statements and responses to questions are my own and do not necessarily reflect the views of the Commission or of any Commissioner.

<sup>2</sup> *Nixing the Fix: An FTC Report to Congress on Repair Restrictions* (May 6, 2021), [https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing\\_the\\_fix\\_report\\_final\\_5521\\_630pm-508\\_002.pdf](https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing_the_fix_report_final_5521_630pm-508_002.pdf).

addresses – parts pairing – where some manufacturers require owners and independent repair providers to obtain the manufacturer’s approval before replacement parts can be fully integrated into a device.

For example, although Apple has expressed its general support for the right to repair,<sup>3</sup> news reports indicate that Apple nevertheless continues to use parts pairing requirements that undermine the right to repair.<sup>4</sup> These news reports state that Apple engages in parts pairing by requiring owners and independent repair providers to provide a device’s serial or IMEI number when ordering a replacement part and, for some products, also requiring that they telephone Apple to have the parts pairing process completed after the part has been installed.<sup>5</sup>

Manufacturers that engage in parts pairing hinder the ability of independent repair shops to stock and use both after-market parts and parts supplied by the manufacturer. Parts pairing also inhibits competition that would reduce the cost of repairing products, introduces artificial delays into the repair process, and may be a powerful motivation for consumers to replace rather than repair their products.<sup>6</sup> And, as Janet McCabe, Deputy Administrator of the Environmental

---

<sup>3</sup> Andrea Shalal, Stephen Nellis and David Shepardson, *Apple Backs Biden’s Push for Right-to-Repair Law*, Reuters (Oct. 24, 2023), <https://www.reuters.com/technology/apple-make-tools-parts-fix-phones-computers-available-nationwide-white-house-2023-10-24/>.

<sup>4</sup> Tripp Mickle, Ella Koeze and Brian X. Chen, *You Paid \$1,000 for an iPhone, but Apple Still Controls It*, The New York Times (Nov. 12, 2023), <https://www.nytimes.com/2023/11/12/technology/iphone-repair-apple-control.html>.

<sup>5</sup> Chris Welch, *Apple adds iPhone 14 line and M2 MacBooks to its Self Service Repair program*, The Verge (June 20, 2023), <https://www.theverge.com/2023/6/20/23766959/apple-self-service-repair-iphone-14-m2-macbooks>.

<sup>6</sup> For many consumers, including Black and Hispanic consumers, consumers that live in rural areas, and consumers who earn less than \$30,000 a year who, according to PEW Research Center may be smartphone-only internet users, impediments to repair are far more than an inconvenience. *Mobile Fact Sheet*, Pew Research Center (Apr. 7, 2021), <https://www.pewresearch.org/internet/fact-sheet/mobile>. Consumers may decide that they can’t easily live without the device during the repair process and so they instead choose to replace it.

Protection Agency (EPA), recently noted, the right to repair extends the lifecycle of products — reducing waste and helping combat climate change.<sup>7</sup>

Manufacturers often defend their use of repair restrictions – including parts pairing – by claiming that the restrictions are needed to protect consumers and repair workers and prevent cybersecurity risks.<sup>8</sup> The Nixing the Fix report debunked these claims, explaining that there is scant evidence to support manufacturers’ justifications for repair restrictions, including claims about the safety of repairs conducted by independent repair shops and owners and the security of consumers’ data.

Some manufacturers continue to insist that parts pairing is needed to protect owners’ safety and cybersecurity. Not all manufacturers, however, have taken this position.<sup>9</sup>

Thank you for the opportunity to provide the Commission’s views. The FTC remains committed to promoting competition and consumer choice in repair markets and welcomes the opportunity to work with Colorado legislators on this critical issue.

---

<sup>7</sup> The White House, *White House Convening on Right to Repair*, YouTube (Oct. 24, 2023), <https://www.youtube.com/watch?v=Ug3DkX7VRy8&t=831s>.

<sup>8</sup> Emma Roth, *Apple argues against right-to-repair bill that would reduce its control*, The Verge (Feb. 9, 2024), <https://www.theverge.com/2024/2/9/24067957/apple-right-to-repair-oregon-bill-parts-pairing-ban>.

<sup>9</sup> Steven Nickel, *How Google is supporting repair and sensible right to repair legislation*, (Jan. 11, 2024), <https://blog.google/outreach-initiatives/public-policy/how-google-is-supporting-repair-and-sensible-right-to-repair-legislation/>.

The practice of manufacturing products that are intentionally difficult and/or impossible to repair is one of the uglier outcomes of our corporate system, where the bottom line is put ahead of all competing interests. All the while we're destroying our natural environment in too many ways to list. Seen through the lens of this corporate MO, it's understandable. Seen through the lens of basic human logic, it's madness.

Last month I attended Boulder-U-Fix it, a non-profit that pairs nice old (and not so old) engineer-types with people from the community hoping to fix broken stuff. I left with an electric fireplace that heats the main room of our funky old trailer, FIXED, the space heater that heats my daughter's bedroom, FIXED, and a cool antique lamp, FIXED! It was amazing, saved me hundreds and was an act of righteous environmental stewardship.

As a low-income single mom, I see the various ways that I, and people like me, get help, and there is a very special place in my heart for this sort of thing. It wasn't a handout of taxpayer money, it was an organized effort to bring people together and simply, to fix useful stuff that would otherwise become garbage.

And as a passionate environmentalist, this stuff is the real shizzle. Please pass this bill. It's a no-brainer. Do the right thing!

Testimony  
Dustin Brighton, Executive Director  
Repair Done Right Coalition  
Colorado Business Affairs and Labor Committee  
Thursday, February 29, 2024

Madam Chair and members of the committee.

My name is Dusty Brighton, and I represent the Repair Done Right Coalition.

Thank you for allowing me to be here today.

The Repair Done Right coalition is made up of companies, organizations, and people who care about ensuring that innovative products are repaired and maintained in an authorized manner. Many of the referenced companies operate in the great state of Colorado.

These companies assisted in connecting consumers, businesses, and governments through products designed to assist in improving the lives of those who use them. During this pandemic products and services manufactured by these companies and organizations have been essential in ensuring commerce and personal relationships remain intact.

The Repair Done Right Coalition is opposed to HB 24-1121 which would mandate original equipment manufacturers (OEMs) of digital electronic equipment or a part of the equipment sold in Colorado to provide independent repair providers with diagnostic and repair

information, software, tools and parts -- increases safety and cybersecurity risks for consumers and businesses -- while threatening Colorado's innovation economy.

- OEM's currently offer consumers a wide range of safe and secure repair options through their authorized repair networks. This enables manufacturers of consumer electronics, home appliances, HVACR, security equipment, toys, lithium ion batteries, and other connected electronic products to stand behind the quality of their products.
- Most consumer technology products are comprised of complex electronics which require specialized training and sophisticated test instruments to repair safely. Some types of repairs can be extremely detailed, complicated and dangerous to anyone without proper training. It is particularly important that products containing high-energy lithium ion batteries are repaired only by trained professionals who understand and mitigate the hazards associated with installing, removing or replacing these batteries.
- Manufacturers want to ensure that their products are serviced by professionals who understand the intricacies of their products and have spent time procuring the knowledge necessary to safely repair them and return them to consumers without compromising those

standards or undermining the safety and security of their products.

- Consumers, businesses of all sizes, public schools, hospitals, banks and industrial manufacturers all need reasonable assurance that those they trust to repair their connected products will do so safely, securely and correctly. State law should not mandate that all manufacturers must provide a “how to” manual for any product and provide it to anyone who asks.

Our members are committed to working with you to promote digital privacy and security, while resisting unwarranted intervention in the marketplace with mandates that compromise consumer safety and protection. However, HB 24-1121 does not help Colorado citizens. In fact, it could harm them.

Again, thank you for allowing me to speak with you today.