



January 28, 2020

Representative Roy Takumi, Chair
Representative Linda Ichiyama, Vice Chair
Members of the House Committee on Consumer Protection and Commerce

RE: Testimony in OPPOSITION to HB 1884, Relating to the Model State Right-to-Repair Law

Dear Chair Takumi, Vice Chair Ichiyama, and members of the House Committee on Consumer Protection and Commerce:

On behalf of the Entertainment Software Association (ESA) and its members¹, we thank you for the opportunity to submit written testimony in opposition to HB 1884, legislation that would create a “right to repair” mandate. The ESA is the U.S. trade association representing the publishers of computer and video games for play on consoles, personal computers, mobile devices, and the Internet.

The video game industry is a key economic sector that creates jobs, develops innovative technology, and keeps the United States competitive in the global marketplace. Last year, consumers in the United States spent more than \$43 billion on games, hardware, and game-related services, and video game consoles are at the heart of this ecosystem.

We recognize that “right to repair” is an important public policy issue and appreciate the opportunity to provide the video game industry’s perspective. Our member companies share the desire for customers to get their broken game consoles repaired quickly and at a modest cost. Software sales are what drives our industry, but no one buys games for a broken console. Our member companies have a compelling financial incentive to help their customers get their consoles repaired as quickly and affordably as possible.

It is for that reason that all three major video game console makers—Microsoft, Nintendo, and Sony—are committed to providing consumers with repairs that are quick, reliable, and safe, and they offer a variety of options if a console needs to be repaired. Additionally, they all offer repair services beyond the warranty period to ensure that their consoles remain in good working order because their respective success depends on providing a reliable, versatile, and engaging platform on which to play video games and enjoy digital content.

¹ ESA’s members: 505 Games; Activision Blizzard, Inc.; Bandai Namco Entertainment Inc.; Bethesda Softworks, Bungie; Capcom USA, Inc.; CI Games; Deep Silver; Disney Interactive Studios, Inc.; Electronic Arts; Epic Games, Inc.; Focus Home Interactive; Gearbox Publishing; GungHo Online Entertainment American, Inc.; Intellivision Entertainment; Kalyпсо; Konami Digital Entertainment; Legends of Learning; Magic Leap; Marvelous USA, Inc.; Microsoft Corporation; Natsume Inc.; NCSoft; Nexon America, Inc.; Nintendo of America Inc.; NVIDIA; Paracosma; Phosphor Studios; Rebellion; Riot Games; Sega of America; SixFoot; Sony Computer Entertainment of America; Square Enix, Inc.; Take-Two Interactive Software, Inc.; Tencent, Inc.; THQ Nordic; Ubisoft Entertainment, Inc.; Warner Bros. Interactive Entertainment Inc.; and Wizards of the Coast.

Large-scale, high-profile video games—what we in the industry call “Triple A” titles—take hundreds of artists, programmers, engineers, and other creative talent to bring to market. A new, original title can take two or more years to produce and cost as much as a Hollywood blockbuster.

These highly popular video games are prime targets for illegal copying and distribution. To preserve the incentive to create, the video game industry uses digital locks (“technological protection measures”) to protect those games. These locks involve a two-part system of protected software and an authentication mechanism on the game console. The game console checks the game to ensure that it is a legitimate copy. If it is not, then the console will not play that game, unless the console has been unlawfully modified with its security features disabled. Central to this system is the console “firmware”, the “nerve center” of the machine, and once third parties have access to an unencrypted version of the firmware, and can modify it, the security features become vulnerable to potential tampering. All in all, a video game console’s digital rights management systems are an effective deterrent against the use and play of illegally copied games.

ESA’s concern with “right to repair” is not with displacing industry revenue from repair services, as repairs are not a source of revenue for the game industry. Instead, ESA’s concern rests with permitting third parties, over which we have no control, from modifying the hardware and firmware in a way that could compromise the security features that are vital to providing a secure media environment for the playback of copyrighted games of various game publishers. We recognize that the vast majority of repair shops would not use the provided tools and documentation for any illegal purposes (e.g., removal of security features). However, at the rate at which knowledge is spread via social media and other online communication channels, it would only take a few bad actors to have a rapid and severely detrimental impact on the industry.

In October 2018, the Librarian of Congress, upon the recommendation of the Register of the U.S. Copyright Office, published a rule permitting consumers to repair motor vehicles and home appliances under a new, expanded, exemption to the Digital Millennium Copyright Act (DMCA), a law related to copyright that protects digital locks from circumvention. However, the Librarian and the Register specifically excluded video game consoles from the newest repair exemption. The Librarian of Congress’ decision accords with another critical provision of the DMCA that is relevant to this proceeding: Section 1201(a)(2), which makes it illegal to traffic in devices designed to circumvent TPMs. This provision limits the extent to which any state actor may permit repair services to circumvent TPMs because no regulation can create a right to repair in a way that would purport to allow for the distribution of circumvention devices used to perform such repairs—a point the Copyright Office itself recognized.

The viability and success of the video game console business is dependent upon trustworthy and secure delivery platform. The industry’s ability to protect copyrighted works and those of developers and game creators provides a tangible benefit to consumers as high quality content can continue to be offered at a reasonable price. ESA believes that “right to repair” legislation – or any actions that weaken copyrighted protections – open the floodgates of mass infringement and threatens the economic input that the video game industry provides to our nation.

The ESA would gladly provide the Committee with any additional information they believe would be helpful in making an informed decision on this important matter.

Thank you for the opportunity to testify on this matter that is important to our members

Sincerely,



Kathryn P. Gunter
Director, State Government Affairs
Entertainment Software Association

Testimony in opposition to HB 1884

“Requires original equipment manufacturers of digital electronic equipment to make documentation, parts, and tools available to independent repair providers and owners”

Consumer Protection & Commerce (CPC) Committee

January 30, 2020, 2:30 p.m.

- Chairman Takumi and Members of the CPC Committee - Thank you for the opportunity to present to you today on HB 1884 – Regarding Digital and Electronic Equipment Repair.
- My name is Andrew Lindstrom, and I represent American Machinery, an agriculture and construction dealership with five locations in Hawaii. We employ 60 people in the state.
- American Machinery opposes the passage of HB 1884 for the following reasons:
 1. Our dealership strives to bring our customers value in all we do. To do so, we spend significant capital each and every year to ensure our technicians have the latest safety and technology training.
 2. While John Deere equipment has become more sophisticated, **Deere supports the customer’s right to repair** and has built advanced diagnostic capabilities into equipment that are available to the owner, dealers, or others. And for those customers who require even greater diagnostic capabilities, John Deere provides subscription access to “Customer Service Advisor” – a specialized diagnostic tool similar to the tools we use to support our customers.
 3. Customers should be able to expect the same level of information across manufacturing brands. It is an appropriate solution that makes so-called "Right to Repair" legislation unnecessary. That is why manufacturers of tractors, combines and construction equipment such as John Deere have made an industry commitment to make available by model year 2021, the

tools customers need to navigate onboard technology. In the near future, end users will have access to on-board diagnostics tools via in-cab display or wireless interface, electronic diagnostic service tools and training on how to use both. Manufacturers and dealers will also make available manuals, product guides, and product service information.

4. However, to the extent the owner has the right to lawfully repair his or her equipment, John Deere **recommends against unauthorized modification of the embedded software code**. Providing access to the source code would not only undermine manufacturers' innovation and intellectual property rights, it would risk data privacy and allow unauthorized and illegal tampering of safety and emissions requirements for the equipment. Modifications also create unknown liability issues for the individuals modifying the code, dealers who subsequently trade-in modified equipment for resale, as well as subsequent owners of modified equipment.
5. Modified software on heavy-duty equipment can create an unsafe environment for those operating the equipment.
6. I would also like to highlight the fact that an off-road sector coalition has been established because of this very serious issue. To our knowledge, it is the largest off-road coalition for any state issue, which signifies the seriousness of the issue. Coalition members represent such sectors as:
 - a. Marine manufactures & dealers
 - b. Snowmobiles
 - c. Portable generators
 - d. Power tools
 - e. Remanufactured products
 - f. Off-highway recreational vehicles
 - g. Equipment lenders
 - h. Off-road motorcycle industry, and even

- i. Major customers organizations such as the National Association of Landscape Professionals
 - j. The reason these organizations oppose this legislation is because of the very significant public safety and environmental concerns I have raised in my comments. I believe that your Committee has also received a letter of opposition to HB 1884 from the Coalition.
-
- In closing, Right to Repair is a complicated, yet important, issue. We believe the best solutions can be achieved when all parties talk together and allow the marketplace to shape the most appropriate solutions. The best solutions are not likely to come via legislative mandates. For these reasons, we oppose HB 1884.
 - Thank you for your consideration of our opposition against HB 1884
 - Questions

Hawaii HB1884: RELATING TO THE MODEL STATE RIGHT-TO-REPAIR LAW

Position:

CNH Industrial (CNHI), manufacturers of Case construction equipment, Case IH and New Holland brands of farm equipment joins Allied Machinery Corp., Hawaii dealers of construction and farm equipment, to oppose Hawaii HB 1884 which seeks to make diagnostic and repair information, including repair technical updates and embedded software updates and corrections, available to any independent repair provider in the State.

Background:

Digital Equipment Repair legislation was born out of the consumer electronics industry where consumers typically don't face potential costly risks associated with repair of consumer electronic products;

CNHI and Allied Machinery Co. respects the long-standing tradition of equipment owners repairing their equipment and choosing their service providers. We work closely to insure consumers in Hawaii have access to highly trained, well equipped technical and repair personnel, who are supported by significant investment in repair parts, facilities and systems.

HB 1884 is a consumer electronics bill that captures farm and construction equipment within. The issue of "Fair Repair" touches a number of critical topics ranging from environmental regulation, consumer safety, consumer training, dealer and manufacturer liability, to ultimate accountability that the customer's machine is operating in the manner and capability it was designed to. HB 1884 addresses none of these critical topics.

HB 1884 fails to anticipate execution and future technology of heavy-duty equipment:

- The "how and when" and realities of implementing diagnostics capability to consumers in an efficient and cost effective manner;
- The fast advancing technology impacting heavy-duty equipment:
 - remote – dealer direct to machine – diagnostics;
 - "smart tractors" that provide sensing and control to-and-from trailing implements;
 - autonomous tractors soon to be realized in the marketplace;

HB 1884 Over-reaches the intent of the bill:



- It is an over-reach to mandate the “release of diagnostic repair tools incorporating the same diagnostic, repair and remote communications capability that such manufacturer makes available to the “repair or engineering personnel employed by such manufacturer”. Engineering personnel possess programming capabilities that allow for testing program code. This presents a clear opportunity for infringement of U.S. copyright law as well as dangerous machine manipulation.
- Access to information that would allow changes to a machine’s data-management systems must be carefully controlled to ensure machine functionality, safety, and emissions compliance, and to preserve product warranties.
- HB 1884 implies that manufacturers would be required to sell parts directly to consumers. This requirement infringes on existing contractual relationships with dealers.

Industry is best equipped to solve the issue:

- Over the last 12-months of research on the topic of “right-to-repair” we have been told by farmers, Farm Bureau representatives, state legislators, construction contractors and third party repair operations that:
 - Owners want to diagnose an equipment issue;
 - Owners want access to service manuals and;
 - Owners want to self-determine how to implement service for their equipment;
- The farm equipment industry has a long history of solving issues without legislative interference. The ultimate diagnostic solution must be efficient for farm producers and construction contractors e.g.:
 - Sensible standardization – where very little exists now;
 - Cost effective;
 - Scalable and executable in terms of access and ease of use;
 - Training and documentation;
 - Liability, licensing and warranty;
 - Third party re-seller commercial arrangements;
 - Third-party software commercial arrangements;
- Industry is best served to satisfy this need and recently announced an industry wide commitment to provide electronic diagnostics to machine owners starting with model year 2021.



We very much appreciate your consideration and we welcome the opportunity to create a solution that meets the needs of Hawaii farmers and construction contractors..


Please feel free to call upon us if we may provide input.

Sincerely,

George Whitaker

George Whitaker
State Government Affairs
CNH Industrial America LLC
Racine, WI 53404
Office: 262-636-6004
Email: george.whitaker@cnhind.com

Jeff Freyerisen

Jeff Freyerisen
Allied Machinery Corp.
94-168 Leole Street
Waipahu, HI 98797
Office: (808) 671-0541 

CNH Industrial America (CNHI)

CNHI is a global manufacturer of Case IH and New Holland brands of agricultural equipment, and, Case and New Holland brands of construction equipment. Our brands are sold and serviced by dealers in all 50 states and over 160 countries around the globe.

Allied Machiner Co:

Allied Machinery Co. was established in 1979 and has business location on the islands of Oahu, Hilo, Maui and Kauai



**Testimony of
Lisa McCabe
CTIA
Opposition to Hawaii House Bill 1884
Before the House Committee on Consumer Protection & Commerce**

January 29, 2020

Chair Takumi, Vice Chair Ichiyama and members of the Committee, on behalf of CTIA, the trade association for the wireless communications industry, thank you for the opportunity to submit this testimony in opposition to HB 1884. CTIA's members include wireless service providers, infrastructure providers, suppliers and manufacturers.

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 state legislation.

This legislation would harm the marketplace by weakening the relationship that manufacturers have with authorized repair facilities and provides no protection or quality assurance for consumers.

For example, manufacturers have relationships with authorized repair providers. These providers – which include local small businesses – have received the appropriate training from manufacturers and have the qualifications to help ensure that repairs are done properly and safely.

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.

Manufacturers also prize consumer brand loyalty and have gone to extraordinary lengths to establish that the devices they produce are of the highest quality. Authorized repair ensures those products maintain that high quality and guarantees that repairs meet the manufacturer's standards.

In addition to authorized repair providers, manufacturers may offer walk-in repair options at retail 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.

To further address the repair marketplace, CTIA recently 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.¹

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.²

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 is also concerned that this legislation would have a number of unintended consequences for the security and operation of electronic devices. Legislation mandating the sharing of important and proprietary information regarding how electronic products operate, specific schematic diagrams and service code descriptions could weaken cybersecurity on devices and potentially harm the security of devices and the networks themselves.

Cyber criminals could more easily circumvent security protections, harming not only product owners but also everyone who shares their network. In an era of sophisticated cyberattacks, we should not make it easier for cyber criminals to hack security protections.

In addition, even if an independent repair provider is provided the technical information mandated under this bill, without specific training on reassembling a device, the provider could unintentionally cause antenna performance problems, stress on the device's frame, heat buildup or degradation of water tightness.

For these reasons, CTIA respectfully asks that you not move this legislation.

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

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

January 29, 2020

Representative Roy M. Takumi
Chair, Consumer Protection and Commerce
Via Electronic Mail – reptakumi@Capitol.hawaii.gov

Dear Chairman Takumi :

Hawthorne Cat / Pacific Machinery Co. the Caterpillar Inc. dealer serving Hawaii for over 50 years, appreciates the opportunity to comment on HB 1884 which would allow for unfettered access to the software that governs safety, security and emissions technology on the products we sell.

Hawthorne Cat serves hundreds of customers in Hawaii spanning a wide variety of construction, agricultural, mining and power generation applications. We currently employ 125 at 6 locations in Hawaii.

Modern engines, vehicles, and equipment all contain microprocessors. As drafted, HB 1884's broad requirements would apply to virtually all off-highway engines, construction and farm equipment, locomotives, marine vessels, and stationary generators manufactured by Caterpillar and sold by Hawthorne Cat in Hawaii.

While not questioning the good intent of this proposal, we have several concerns including:

- Large and complex machinery, such as nonroad construction and farm equipment, should not be considered digital electronic equipment subject to HB 1884. "Right to Repair" initiatives like this legislation are rooted in concerns about access to service information for mass-produced consumer electronics. Unlike purchases of those types of products, nonroad and stationary equipment purchases are negotiated, business-to-business transactions. As such, we do not believe that HB 1884 is actually intended - much less suited - to cover such capital goods.
- Nonroad vehicles are manufactured with a complex and diverse supply chain, in which different companies often manufacture the engines, chassis, transmissions, bodies, and other assemblies that comprise the entire vehicle. Nonroad vehicle manufacturers do not control, or necessarily even have access to, service information for those major components. As a result, nonroad vehicle manufacturers cannot provide fully integrated service and repair information, as contemplated by HB 1884.
- The correct use of diagnostic tools and repair information requires highly trained and skilled personnel. Diagnosticians and mechanics must have proper training to maintain and repair sophisticated machinery, like construction and farm equipment. HB 1884 would permit untrained and unqualified individuals to

service such products, which would undermine equipment integrity, create significant potential safety concerns, and risk adverse impact on federally mandated emission control systems.

- Providing additional parties, such as independent service repair providers and equipment owners, access to electronic diagnostic and service information and tools would create new and unnecessary cybersecurity risks. More parties would be able to access those materials, including through network systems that may be less secure than those of manufacturers and authorized repair providers. More widespread and potentially less secure access would increase opportunities for hackers to improperly obtain - or even tamper with - such information.
- State-specific legislation in this area is unnecessarily complicated and burdensome. HB 1884 would force manufacturers to develop unique systems applicable only to products sold or leased in Hawaii. That result would be extraordinarily impractical and inefficient. Because manufacturers would have no way of identifying products that might require service in Hawaii, they would have to include service information on all products - the vast majority of which would never be needed in Hawaii.

For all of the above reasons, we join others in our industry in opposing HB 1884. While we oppose HB 1884, we believe that, at a minimum, the Bill should not apply to off-highway and stationary engines and equipment.

If you have any questions, please do not hesitate to contact Jim Halloran - Western Region Manager for Caterpillar Inc. - at 916-580-5467 or email at Halloran_James_P@cat.com.

Sincerely,


Ross Farmer
Corporate Machinery Sales Manager
Hawthorne Cat



Jan. 29, 2020

Memorandum of Support for Right to Repair / Fair Repair Legislation HB 1884.

On behalf of U.S. PIRG and our members in Hawaii, we are writing to express our support for Right to Repair legislation to require fair access to parts, tools, service information and repair software. We believe this legislation is a common-sense step to cut consumer costs and decrease waste.

Manufacturers are using their power in the marketplace to make things harder to repair, and as a result we generate way too much waste. Electronic waste is the fastest growing waste stream on the planet and our ability to process waste is not keeping up. "Right to Repair" laws are an important tool to slow the creation of waste by bringing more competition to the repair marketplace and allowing consumers to keep their stuff in use and out of the trash. Here are some of the additional reasons we support Right to Repair:

- **More choices for consumers.** Many people don't live close to an outlet for the original manufacturer -- whether that's the Apple store to replace a battery or the John Deere Dealership to fix a tractor. Consumers should have more repair choices, which are currently stifled by big corporate manufacturers.
- **Less waste.** According to our joint report "[Recharge Repair](#)," Americans dispose of some 141 million cell phones each year. Many of those devices could be used again, but simple repairs can become impossible without the proper tools and information.
- **Greater availability of affordable used devices.** Many people can't afford the latest gadgets. If we extended the life of tablets, laptops and other electronics, it would allow more consumers more access to these important technologies.
- **STEM education.** How can we train the next generation of engineers if we block people from having basic information about how the technology in our lives works? Repair teaches people about technology, and inspires and empowers a new generation of entrepreneurs and inventors.
- **More opportunities for small business.** More access to repair parts, tools and information means more opportunities for local small businesses to grow or new businesses to start. Employees would gain valuable STEM skills as well.

We urge you to make sure that your state passes Digital Fair Repair this session.

Sincerely,

Nathan Proctor, National Right to Repair Campaign Director, U.S. PIRG



TESTIMONY REGARDING HB 1884

**being heard by the House Committee on Consumer Protection & Commerce
on Thursday, January 30, 2020 at 2:30 PM in Room 329**

Aloha Chair Takumi, Vice Chair Ichiyama and Members of the Committee:

Thank you for the opportunity to provide testimony regarding HB 1884 which would require digital equipment manufacturers to make documentation, parts, and tools available to independent repair providers and owners to support their ability to make repairs to this equipment. Because of the specific nature of the equipment that Tesla manufactures and installs, we are strongly opposed to this bill given the serious safety issues implicated. We enumerate our concerns below.

Tesla's mission is to accelerate the world's transition to sustainable energy through the deployment of electric vehicles and sustainable energy products, like storage and solar energy systems. Based on the definitions in this bill, Tesla's current understanding is that while Tesla vehicles would be exempt from the bill's requirements, our energy products, which appear to meet the definition of "digital electronic equipment" would be subject to this measure's provisions.

Given the nature of the products Tesla manufactures and installs, all of which involve high voltage systems that interact with the utility distribution or transmission system, Tesla is very concerned that this bill will create significant safety issues if untrained customers and third parties are allowed, and, pursuant this bill, effectively encouraged, to provide repair services.

Tesla takes the issue of safety extremely seriously. This is reflected in the design of our energy systems which, among other things, is intended to limit the ability of customers to access internal components given the risks involved when working with high voltage systems. It is also reflected in the extensive training we provide to our own employees and certified channel partners, non-Tesla installers that are authorized by Tesla to market and install Tesla systems. Simply providing "documentation" as this bill would require, is insufficient to ensure that customers and independent repair providers are performing any maintenance or repairs correctly. The training Tesla provides to our employees and certified installers is essential to ensure that any repairs are done with minimal risk to the customer, the individual performing any repair or installation work, as well as to the structures on which this equipment is deployed.

It is also critically important that any repairs do not undermine the operational and safety requirements necessary under the interconnection agreement which governs the interaction of this equipment with the electric grid. This is a critical point. Unlike typical consumer electronics, like laptops or cellphones, battery energy storage systems and solar photovoltaic systems, like those deployed by Tesla, can have an impact on the reliability and safety of the electric grid. Said another way, their operation has implications that extend beyond the customer premise and can impact the electrical system more broadly. Therefore, battery storage and solar providers must go through an interconnection process



with utilities to ensure the safe interconnection and operation of this equipment at customers' homes and businesses.

Tesla is deeply committed to ensuring that customers that choose to deploy a Tesla product get the most out of their solutions regardless of whether the system was directly purchased from and installed by Tesla, or whether it was purchased and installed via a certified channel partner. To that end, we do provide all necessary materials including, parts, documentation, etc. to support the ability of certified channel partners to service systems they have deployed. Additionally, all our systems are subject to a robust warranty that guarantees the operation of the equipment for ten or more years.

For all the forgoing reasons, Tesla opposes HB 1884. At a minimum, we ask that an exemption be provided to high voltage equipment generally given the significant safety issues involved.

Thank you for the opportunity to submit this testimony.



MITA[®]
MEDICAL IMAGING
& TECHNOLOGY ALLIANCE
A DIVISION OF **NEMA**[®]

1300 North 17th Street • Suite 900
Arlington, Virginia 22209
Tel: 703.841.3200
Fax: 703.841.3392
www.medicalimaging.org

January 30, 2020

The Honorable Roy M. Takumi
Hawaii State Capitol, Room 320
415 South Beretania Street
Honolulu, HI 96813

Re: Opposition to H.B. 1884

Dear Chairman Takumi and House Consumer Protection Committee Members:

As the leading trade association representing the manufacturers of medical imaging equipment and radiopharmaceuticals, the Medical Imaging & Technology Alliance (MITA) opposes H.B. 1884 in its current form and requests a clear exemption for medical devices.

Original equipment manufacturers (OEMs) and their authorized repair providers are regulated by the Food and Drug Administration (FDA) and must adhere to set quality, safety, and regulatory standards, including 21 CFR 820, when performing maintenance and repair. Independent repair providers are not held to the same standards as OEM and authorized repair providers to perform the same maintenance and repair activities. If enacted in its current form, H.B. 1884 would require OEMs of medical devices to provide unregulated repair providers and owners of digital electronic products with diagnostic and repair information. This legislation would affect a wide range of sophisticated, medically essential equipment under the classification and oversight of the FDA, including but not limited to magnetic resonance imaging, ultrasound, computed tomography, x-ray, and PET systems.

Medical Device Servicing

Servicing a medical device is a complex and often difficult activity that poses a range of serious risks to patients and operators if performed improperly. For this reason, satisfactory quality and regulatory performance of servicing activities is dependent on more than possession of proper materials. Suitable training, adherence to a quality system, and compliance with regulatory requirements set by the FDA are essential to proper device servicing.

Not only do manufacturers invest significant resources into the manufacture and design of medical devices, they also invest heavily in development of servicing tools, training and protocols. These proprietary resources are not necessary for the successful servicing of devices. In many cases, one manufacturer may service another manufacturer's device, doing so based on their own know-how and reverse engineering efforts. Many non-OEM servicers also already make this kind of investment in their own proprietary servicing tools, training and protocols. All

independent servicing organizations need to accept the responsibility to ensure the return of the device to safe and effective operation and can do so by adopting appropriate quality systems and developing their own servicing protocols, tools, and training.

Medical imaging device servicing requires the highest level of technical and procedural training. This training needs to be regularly updated to reflect knowledge of the latest products, including software and hardware, and a deep understanding of and adherence to current best practices. Operating within a quality system ensures that devices consistently meet applicable requirements and specifications.

FDA Regulation

Currently, only OEMs are held to high regulatory requirements by the FDA, including 21 CFR 820. Non-OEM entities are not held to the same consistent quality, safety, and regulatory requirements as are OEMs. In the last year, the FDA has engaged with a variety of stakeholders on medical device servicing through the creation of Collaborative Communities with OEMS and servicers. In December 2018, the FDA published a white paper on medical device servicing and remanufacturing and collected input from medical device servicing stakeholders via a comment period and a public workshop. An FDA guidance on remanufacturing of medical devices is expected in early 2020.

Congress and the FDA has also recently reviewed and shown concern on medical device servicing and the lack of equivalent regulation among OEM and non-OEM repair providers. Given the ongoing consideration at the federal level, MITA believes that a patchwork of state laws would directly conflict with the critical need for consistency in medical device servicing

Exemption Language

MITA recommends that if H.B. 1884 advances, an amended version of the legislation include suggested language in Section 5 that exempts medical devices:

- “Nothing in this chapter applies to manufacturers or distributors of a medical device as defined in the federal Food, Drug, and Cosmetic act (21 U.S.C. Sec. 301 et seq.) or a digital electronic product or embedded software manufactured for use in a medical setting including diagnostic, monitoring, or control equipment or any product or service that they offer.”

Conclusion

The MITA position is that all entities engaged in servicing medical devices should be held to consistent minimum quality, safety, and regulatory requirements. Independent service organizations requesting access to repair materials are no exception. It is unfortunate that these discrepancies currently exist and that operators and patients are not guaranteed an equivalent level of quality, safety, and regulation regardless of who services a medical device. For these reasons, we believe that medical devices should be exempted from H.B. 1884.

If you have any questions, please contact Holly Grosholz at 703-841-3228 or by email at holly.grosholz@medicalimaging.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick Hope". The signature is fluid and cursive, with a long horizontal stroke at the end.

Patrick Hope
Executive Director, MITA

cc: Members of the House Consumer Protection Committee

Representative Linda Ichiyama
Representative Henry J.C. Aquino
Representative Della Au Belatti
Representative Rida Cabanilla Arakawa
Representative Romy M. Cachola
Representative Sharon E. Har
Representative Sam Satoru Kong
Representative John M. Mizuno
Representative Richard H.K. Onishi
Representative Lauren Matsumoto



January 4, 2020

Memorandum of Support for Right to Repair / Fair Repair Legislation

AscdiNatd has been the leading trade association for buyers, sellers of IT and Telecom equipment in the business to business market since 1970. Our members support the multi-billion-dollar worldwide marketplace for servers, storage, peripherals, printers and communications technology. Nearly all cloud hosts and corporate data centers have bought or sold equipment through our members.

Independent repair is essential to supporting values of used products. When repair is readily available, technology equipment carries long-term value and can remain in use for decades, long beyond the last date of support from any manufacturer. Without independent repair, costly investments in technology lose all value the moment the manufacturer stops providing support. Very solid and useful equipment is then recycled or ends up in landfills rather than remaining in productive use.

Over the past decade, many of the largest brands in the world have become worthless in the secondary market due entirely to limitations on repair and firmware access by some manufacturers. As a result of these anti-competitive policies, AscdiNatd became one of the founding members of the Digital Right to Repair Coalition in 2013.

We urge you to pass Right to Repair legislation at the earliest opportunity,

Joseph Marion
President

jmarion@ascdi.com

Telephone 1.561.266.9016

January 29, 2020

Representative Roy Takumi
Chair, House Committee on Consumer Protection and Commerce
Hawaii State Capitol, Room 329
415 South Beretania St.
Honolulu, HI 96813

Re: CTA Comments on HB 1884 – Oppose

Dear Chair Takumi, Vice Chair Ichiyama, and Members of the House Committee on Consumer Protection and Commerce:

On behalf of the Consumer Technology Association (CTA), thank you for the opportunity to provide comments outlining our opposition to HB 1884. This bill would require manufacturers of electronic equipment to provide third parties with diagnostic and repair information, software, tools and parts.

CTA is the trade association representing the U.S. consumer technology industry. Eighty percent of CTA's more than 2,200 members companies are small businesses and startups; others are among the world's best-known manufacturing and retail brands. Our member companies have long been recognized for their commitment and leadership in innovation and sustainability.

While CTA is concerned with HB 1884 on several fronts, many of which are outlined in the industry coalition letter sent to this Committee, our comments here focus on the recycling and sustainability rationale for this legislation as articulated by some bill proponents. Some argue that this legislation will reduce landfilling of electronic waste in Hawaii. However, this argument is undercut by two important facts.

First, Hawaii already has a robust product stewardship program – paid for by manufacturers of electronic devices - which supports the collection of electronic devices throughout the state. Note also that according to the U.S. EPA¹, electronics are now the fastest-declining part of the municipal solid waste stream. The most recent EPA data shows that e-waste generation has declined 8% annually.

Second, mobile devices continue to have value even at end of life and consumers frequently trade them in. According to CTA's biennial survey on how consumers handle their devices,

¹ <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/durable-goods-product-specific-data>

only 2% of consumers report throwing their old mobile device in the trash while more than 10 times as many reported either trading in their old mobile device, selling it, giving it away, or recycling it.

Given the existing e-waste program in Hawaii and the fact that very few consumers actually throw their mobile devices in the trash, HB 1884 would not measurably decrease landfilling.

Making sure devices are kept out of the trash is an important priority for manufacturers, so repair and reuse are important elements of manufacturers' networks. Repair and reuse are even included as aspects of governmental green procurement standards. These existing programs and policies promote repair without the safety, security, or business concerns raised by HB 1884.

More than fifteen states in recent years have examined repair legislation like HB 1884. All of them, including Vermont which did an extensive study process through last year, declined to pass any repair legislation. For the reasons above and other reasons articulated at last week's hearing we urge opposition to HB 1884.

Thank you again for the opportunity to outline our concerns with this legislation. If you have any questions, please do not hesitate to contact me at walcorn@cta.tech.

Sincerely,

A handwritten signature in black ink, appearing to read "Walter Alcorn", with a long horizontal flourish extending to the right.

Walter Alcorn
Vice President, Environmental Affairs and Industry Sustainability
Consumer Technology Association

HB-1884

Submitted on: 1/29/2020 1:00:57 PM

Testimony for CPC on 1/30/2020 2:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
James Crum	Geeks for Good and Tinyville Farm	Support	No

Comments:

TESTIMONY

COMMITTEE ON CONSUMER PROTECTION & COMMERCE

January 30, 2020 at 2:30pm

Hawaii State House, Room 329

Thank you Chair Takumi, Vice Chair Ichiyama and members of the Committee on Consumer Protection & Commerce for holding this hearing on HB 1884.

My name is Jim Crum and I am the founder and owner of Geeks for Good in Paauilo, Hawaii as well as founder and owner of Tinyville Farm in Laupahoehoe, Hawaii, both on the Island of Hawaii.

I am writing to support Right to Repair, HB1884, because it is critical to businesses like mine and consumers in rural and remote places like Hawaii, especially the Hamakua Coast on the Big island. We need to be empowered to repair items that we own that are essential to our way of life.

I founded Geeks for Good® in 2006 on the mainland to focus on providing low cost and high quality tech support and maintenance for small businesses and nonprofits, and to empower customers to perform their own repairs. In 2010 I moved to Hawaii and brought this business with me to Paauilo, Hawaii. However, I have been providing computer support as an employee in businesses and for hundreds of customers in companies I've owned since the late 1980s. In that time, my companies and I have fixed thousands of servers, PCs, printers, switches, routers, phones and other hardware. My customers have included many small businesses, with a strong focus on nonprofits, schools and health services.

I have often had trouble getting quality tech support, documentation, and specialized parts from hardware manufacturers over the years. Recently, I have seen a real move toward a model of manufacturers pushing replacement rather than repair, with some keeping a very tight reign on special tools or parts that are only available from the manufacturer directly at what seems to me to be an inflated price. As a result, it's getting harder and harder for me to fix machines and empower my customers to repair

theirs because of what the manufacturers have started to do -- block access to parts, tools, certain updates, and sometimes needed diagnostics and schematics. HB1884 addresses this problem.

Some manufacturers have also made it impossible for me to perform legitimate repairs because of certification requirements that mandate a physical address and not a P.O. Box. Quite often I am not able to provide this in the rural communities I serve. Therefore I have had customers that are forced to replace instead of repair their computer hardware because the only authorized repair option of going back to the manufacturer's facilities (none of which exist on the Big Island) was prohibitively expensive and time consuming.

In one example, a customer was not comfortable with getting a reasonably priced repair from a technician that was not authorized by Apple, so due to the constraints I mentioned earlier, the technician was not eligible to become authorized regardless of his ability to fix Apple devices. So not only did this cost them thousands of wasted dollars, it then presented us with the need to dispose of this hardware responsibly. In my experience, this is easier said than done, especially as our transfer stations take less and less in general, and specifically from people that want to dispose of these potentially hazardous material responsibly. On one occasion, we paid a company on island to dispose of a truckload of unrepairable technology. Within a few days, we learned that some of this equipment had been just dumped in a vacant lot. That meant that we had to talk to some angry neighbors, apologize, clean up, and then pay another company to dispose of it again. The saddest part is that there is so much technology on island that is thrown away when it could have been used again if we had access to what we needed to repair it.

This also affects me in another realm, as I recently became a farmer. I have found that some manufacturers of the equipment I rely upon will not provide me with the diagnostics or other tools that I need to fix my equipment myself when it fails. That means I may have to wait for the dealership to come to my farm and fix my equipment, which could often take days. This is not a viable option for a rural farmer like me who deals with unpredictable climates and has to hit critical planting and harvesting windows. As a farmer, I am now forced to look for equipment that I am allowed to repair myself, although it may be more expensive and less reliable or sometimes "not available to ship to Hawaii."

Passing this bill would help my company and others like it in Hawaii, help businesses and consumers cut costs and do their own repairs if they are so inclined, and help us keep equipment from becoming electronic waste. As I've seen in my move to Hawaii from the mainland, and even in a move from Oahu to the Big Island, this issue has become even more critical in rural and remote locations. My customers and I are tired of being forced to replace rather than repair, especially as Repair is a critical fourth R to be added to Reduce, Reuse, Recycle. So that we may be sustainable as a community, a state, a country, and a planet, I hope you will stand up for Repair by advancing HB 1884. I'd be happy to answer any questions you might have.

Mahalo,

Jim Crum
Owner and Founder, Geeks for Good
Owner and Founder, Tinyville Farm

(808) 339-1488 (mobile)

Please note that I also sent in a memo of support dated January 22, 2020



January 29, 2020

Chairperson Roy Takumi

Vice-Chairperson Lydia Ichiyama

Members, House Committee on Consumer Protection and Commerce

Re: Electronics Manufacturers Opposition to House Bill 1884

Dear Chairperson Takumi, Vice-Chairperson Lydia Ichiyama and Members of the House Committee on Consumer Protection and Commerce:

On behalf of the hundreds of manufacturers and businesses our organizations represent, we respectfully oppose House Bill 1884 (HB 1844) legislation which would mandate original equipment manufacturers (OEMs) of digital electronic equipment or a part of the equipment sold in Hawaii to provide independent repair providers with diagnostic and repair information, software, tools and parts.

Our organizations represent a broad spectrum of manufacturers of consumer electronics, home appliances, HVACR, security equipment, toys, lithium ion batteries, and other connected electronic products as well as companies that rely on the secure operation of these devices. All of these companies stand behind the quality of their products. Our members develop products and services for a wide range of commercial, government, and consumer users. Their customers depend on these products to operate safely, securely, and accurately, whether they are being used to support banking and commercial transactions, transmit and store sensitive personal data,

support industrial operations, medical applications, or securely offer and deliver entertainment and other services. As businesses, government agencies, and consumers continue to increase their reliance on connected devices to help deliver efficiency, convenience and services, it is important to remain vigilant and focused on mitigating the risks associated with the safe and secure operation of those products.

There are plenty of repair options for Hawaiian citizens and visitors. Go to any mall or shopping center in the state and you will find ample opportunities for consumers to have screens repaired and other minor fixes. In addition, several companies have built robust online businesses that enable consumers to access replacement parts and manuals.

HB 1884 mandates that OEMs treat any independent repair provider in much the same way as authorized network providers, but without any contractual protections, requirements, or restrictions, and in doing so, places consumers and their data at risk, undermines the business of Hawaii companies that are part of OEM-authorized networks, and stifles innovation by putting hard-earned intellectual property in the hands of hundreds, if not thousands, of new entities.

More than 20 state legislatures have already reviewed similar legislation and deemed them unworthy of passage as they have determined that legislating repair rules for manufacturers created more issues for consumers than answers.

For these reasons, we urge the House Committee on Consumer Protection and Commerce against moving forward with this legislation.

HB 1884 harms consumer security

One of our chief concerns with this legislation is its potential to weaken the privacy and security features of various electronic products. The security of user information on these products is of the utmost importance to consumers that rely on them. Industrial equipment, home appliances, smartphones, computers, services, consumer electronics, and other connected devices are at risk of hacking, and weakening of the privacy and security protections of those products will increase risks to consumers. With access to technical information, criminals can more easily circumvent security protections, harming not only the product owner but also everyone who shares their network. In an era of sophisticated cyberattacks, we should not make it easier for criminals to hack security provisions.

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.

The current legislation requires OEMs to provide any owner or independent repairer with “any special documentation, tools, and parts needed to reset the lock or function when disabled in the course of diagnosis, maintenance, or repair of the equipment.

Ultimately, a connected system of tens of billions of products presents massive opportunities while posing unprecedented risks. The health of our collective privacy and our economy are intertwined with how we approach the security of this integrated system. HB 1884 does not take into the account the new paradigm of a connected world.

HB 1884 harms consumer safety

Manufacturers offer authorized repair networks to provide consumers with assurance that their products are serviced by properly trained and vetted repair professionals that have the necessary skills to safely and reliably repair electronic 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. Authorized repair networks not only include training requirements, but also but also have the technical skills and test instruments to verify that repair parts meet all necessary performance and safety specifications. Consumers can be protected by warranties or other means of recourse. The legislation provides no such protections for consumers, repair shops or manufacturers.

When an electronic product breaks, consumers have a variety of professional repair options, including using an OEM’s authorized repair network, which often include local repair service providers as well as mail-in, and even in-house repair options for some categories of products. Consumers may also choose to use one of many independent repair providers; although they do so without the quality assurance provided by using a manufacturer’s authorized network provider. The point is that the free market economy

provides a wide range of consumer choice for repair with varying levels of quality, price and convenience without mandates imposed by the legislation.

Manufacturers' authorized networks of repair facilities guarantee that repairs meet OEM performance and safety standards. If an OEM's brand and warranty are to stand behind repair work and assume product liability, it is only reasonable that the repair facility demonstrates competency and reliability. Without the training and other quality assurance requirements of authorized service providers and manufacturers would not be able to stand behind their work, warranties, technical support, ongoing training, and business support.

HB 1884 mandates the disclosure of protected proprietary information

Manufacturers make significant investments in the development of products and services, and the protection of intellectual property is a legitimate and important aspect of sustaining the health of the vibrant and innovative technology industry. However, HB 1884 puts at risk the intellectual property that manufacturers have developed.

Consumer electronics' on-board software (i.e., firmware) are key to the functioning and operation of the hardware it is embedded in, and helps protect against unauthorized access to other software and applications. That software is subject to copyright under federal law, and Section 1201 of the Digital Millennium Copyright Act, a related federal law, ensures that bad actors cannot tamper with the digital rights management that copyright owners use to protect this software. The problem is that making repairs to hardware components may require the circumvention of digital rights management and leave the software in an unprotected state – harming the copyright owners of the software.

Firmware controls many other product functions, and opening it up for repair purposes exposes other more sensitive functions, such as security features, to potential tampering. Given the scope of products covered and what must be provided under the legislation – including diagnostics, tools, parts, and updates to software – it is highly likely some of the information would be proprietary. Providing unauthorized repair facilities and individuals with access to proprietary information without the contractual safeguards currently in place between OEMs and authorized service providers places OEMs, suppliers, distributors and repair networks at risk.

Conclusion

Thank you for considering our perspective on this complicated issue. Our members bear a significant responsibility to the businesses, governments, and individual consumers that depend on us to protect the safety and security of their electronic products, as well as the sensitive data that they contain.

There is nothing in HB 1884 that makes independent repair shops accountable for the safe and secure repair of the products that they fix. In fact, it hurts consumers because it prohibits manufacturers from holding their authorized repairers accountable for training and expertise.

We are committed to working with you to promote digital privacy and security, while resisting unwarranted intervention in the marketplace with one-sized-fits-all mandates that hurt consumers. For those reasons, we oppose HB 1884.

Sincerely,

Air Conditioning, Heating and Refrigeration Institute (AHRI)

Association of Home Appliance Manufacturers (AHAM)

Computing Technology Industry Association (CompTIA)

Consumer Technology Association (CTA)

CTIA – The Wireless Association

Entertainment Software Association (ESA)

Information Technology Industry Council (ITI)

Internet Coalition

National Electronic Manufacturers Association

NetChoice

PRBA – The Rechargeable Battery Association

Security Industry Association (SIA)

State Privacy and Security Coalition, Inc.

TechNet

Telecommunications Industry Association (TIA)

The Toy Association

Hawaii Technology Industry Association (WTIA)

Association of Hawaii Business (AWB)

CC: Members, House Committee on Consumer Protection and Commerce

HB-1884

Submitted on: 1/29/2020 2:06:53 PM

Testimony for CPC on 1/30/2020 2:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jerry Shi	Individual	Support	Yes

Comments:

Aloha, my name is Jerry Shi. I work as a contractor for the Department of Defense. I want to thank you all very much for giving me this opportunity to talk about this bill. First of all I would like to go over how devices were service fifty year ago in contrast to now. So, let's say an appliance like a radio reciver that needed to be repaired fifty years ago and you wanted to fix it you could open it up and it would have documentation inside that shows how it was all put together or a a minimum a diagram of parts, now we don't have that. If you wanted to buy a part to fix that thing you paid one or two thousand dollars for you would need to call up the company and even if they didn't have the part still in stock they would direct you to somebody who has it. Let's fast foward to 2018 so with that laptop you have right infront of you, something goes wrong with it I can buy a chip online for five dollars and replace it and you're back in business, your data is all there all your software is there and you're good to go. What happening now is Apple has done something and many other companeis are starting to do is they change that chip so I can't just use the chip from last year, now if I contact Apple they won't sell me the chip, if i become a Apple authorized service provider they still wont sell it to me, if i go to the manufacture of the chip they will say we are not allowed to sell that to anybody but Apple. Now you go to Apple they said it'll cost \$1500 to fix that board but they can replace it with another one for \$1300 but all your data is gone. While I could have spent \$200 or less for a chip and still retain all your data.

I appreciate you all for taking you time to hear my testimony. There is much more information but with a word limit of 2000 is extreamly limiting.

HB-1884

Submitted on: 1/29/2020 2:18:05 PM

Testimony for CPC on 1/30/2020 2:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
MJ Nale	Individual	Support	Yes

Comments:

Thank you Chair Takumi, Vice Chair Ichiyama and the members of the Committee for holding this hearing on HB 1884.

My name is Michae Nale and I am with Android Hawaii and Phonlab.

I am here to support Right to Repair HB 1884, because large corporations like are Apple currently monopolizing repair. I am one of the few repair shops in Hawaii and support an entire island. But increasingly, it's getting harder and harder for me to fix machines, because of what the manufacturers have started to do -- block access to parts, firmware updates, diagnostics and schematics -- which this bill would address. Without Right to Repair, my business could be crippled, and consumers would be exposed to unfair prices and poor service.

My story in repair starts after a 13 year career in the Military, when I was struggling to find work. At the time I was working as a rental car agent -- not the best job but I was a new Dad and I needed something. This also was around the time that the iPhone was released, and I was captivated by the new technology. When I lost my rental car job, I decided that I wanted to work with smartphones.

Back then, the only way to learn how to fix phones was by looking through forums online. I remember staying up late at night to study for a repair and then waking up the next day, pushing my daughter in her stroller to meet a customer at Starbucks, where I would make the repair I had learned the night before. I don't mean to brag, but I am probably the only tech on the islands that can fix your phone and feed a baby the bottle at the same time.

It's thanks to this that I've been able to build up my business and provide my daughter with the kind of life she deserves. This industry is what made it all possible, and I knew I wanted to give back to it.

So in 2015 I wanted to create an affordable school for smartphone technicians. We train stay at home moms and dads, and people who have had a rough past and hope for a bright

future to
create their own thriving businesses. I am proud to say I have trained 5000 plus techs
worldwide.

Independent repair has allowed me to build a life for me and my daughter here in
Hawaii, and it
has helped thousands of my students do the same all around the world. This dream
fades if we
cannot get the parts, tools and schematics we need to fix our customers' devices. That's
why I
hope you can stand up for repair by advancing this bill.

Respectfully,

Michael Nale



AdvaMed
Advanced Medical Technology Association

January 29, 2019

The Honorable Roy Takumi
Hawaii State Capitol, Room 320
Honolulu, HI 96813

Dear Chairman Takumi:

The Advanced Medical Technology Association (AdvaMed), the national association of medical technology providers, is concerned about **HB 1884**, right to repair legislation that could jeopardize patient safety and quality of care.

Medical technology is regulated by the FDA and servicing of these devices is highly sensitive as it relates to patient safety and device system security. Medical technology manufacturers maintain their own devices or provide repair information to third-party servicers they contract with for device servicing. We therefore urge you to expressly exempt medical technology in **HB 1884** by including the following language:

Nothing in this section applies to manufacturers or distributors of a medical device as defined in the federal food, drug, and cosmetic act (21 U.S.C. Sec. 301 et seq.) or a digital electronic product or software found in a medical setting including diagnostic, monitoring, or control equipment or any product or service that they offer.

Federal Oversight of Medical Devices

FDA's Quality Systems Regulations (QSR) CFR 21, Section 820, define requirements addressing repair and maintenance of medical devices. QSR requirements govern methods used for the design, manufacture, packaging, labeling, storage, installation, and servicing of medical devices. The requirements are intended to ensure that devices are designed, manufactured and serviced according to established specifications and that quality is built into the product.

Under the QSR, devices manufacturers are responsible for establishing instructions for servicing of their devices, and are required to analyze service reports and report them to the FDA. Third-party servicing entities, not contracted with by device manufacturers, are not subject to these same provisions.

Beyond FDA's oversight, both the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission have requirements on device servicing. CMS has issued guidance to hospitals requiring strict adherence to manufacturers' maintenance specifications for some types of equipment, including new technologies, imaging machines, radiological equipment, and medical



AdvaMed

Advanced Medical Technology Association

lasers. For some equipment, other federal laws, or regulations promulgated by another agency, may establish maintenance requirements even more stringent than the manufacturers' specifications. In addition, the Joint Commission, which accredits more than 20,000 healthcare organizations, has issued elements of performance (EPs), which align its equipment maintenance requirements with the CMS guidance.

Patient Risk

There have been cases where failure to appropriately repair medical devices, or not use approved replacement parts, has put patients at risk. In one example, a serious adverse event occurred after an infusion pump was repaired with a non-approved part, which resulted in an overdose of medication that harmed the patient. In addition, utilizing used X-ray tubes in imaging procedures, such as computerized tomography (CT) and in interventional cardiology may no longer meet manufacturer specifications or may not meet FDA approval requirements. Finally, for devices that rely on computer software, cybersecurity issues could pose a threat from third-party non-credentialed service providers especially where untrained staff or volunteers could obtain access to confidential business information that could lead to cybersecurity vulnerabilities.

Conclusion

Federal regulations and accrediting bodies impose requirements on the servicing of medical technology. Unintended consequences for medical technology in state right-to-repair legislation could conflict and interfere with the federal requirements, cause confusion for manufacturers and healthcare facilities and threaten patient safety.

For these reasons, we urge you to expressly exempt medical devices from **HB 1884** and we look forward to working with you.

Thank you for considering our concerns. Please contact me if you have any questions.

Sincerely,

Fielding Greaves

Director, State Government & Regional Affairs

January 20, 2019

Subject: Right to Repair / Fair Repair Legislation

To whom it may concern:

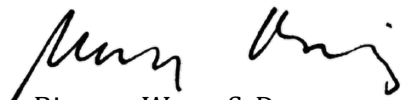
Sodexo, through its Clinical Technology Management (“CTM”) division, manages and provides maintenance services for medical equipment to hundreds of hospitals and clinics around the nation. This equipment is used for the diagnosis, therapy and rehabilitation of thousands of patients every day. As a service provider independent of equipment manufacturers, we are able to provide objective and efficient services that ensure patient safety and equipment reliability, while saving significant amounts of time and money for healthcare providers.

We have a strict set of controls that help our client hospitals meet all applicable laws, regulations, codes and accreditation standards issued by federal and state agencies, such as the Centers for Medicare & Medicaid Services (CMS), the Food and Drug Administration (FDA) and state health departments. In fact, FDA recently reported to Congress that it concluded after reviewing all available evidence “... the objective evidence indicates that many OEMs and third party entities provide high quality, safe, and effective servicing of medical devices” and “[t]he continued availability of third party entities to service and repair medical devices is critical to the functioning of the U.S. healthcare system.”¹

For us to continue providing our valuable services to healthcare providers, it is essential that we have access to the necessary information and materials (i.e., manuals, diagnostic software, tools and parts), which some manufacturers decline to provide. In order to ensure safe and cost-effective care for patients, we urge you to support and pass the Right to Repair legislation inclusive of medical equipment in your state.

Thank you for your attention to this matter. I remain at your disposal in case you have any questions or concerns.

Very truly yours,



Binseng Wang, ScD
Vice President, Program Management
Sodexo CTM
Telephone: 615-844-8848

¹ FDA Report on the Quality, Safety, and Effectiveness of Servicing of Medical Device, May 2018. Available at <https://www.fda.gov/RegulatoryInformation/LawsEnforcedbyFDA/SignificantAmendments-to-the-FDCA/Act/FDARA/ucm598050.htm>.



Paul Roberts

Founder

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

January 1, 2020

LATE

To Whom it may concern,

My name is [Paul Roberts](#). I am the founder of [SecuRepairs.org](#), and the Editor in Chief of [The Security Ledger](#), a publication covering the cyber-security industry.

I am writing to you today to voice my support for digital right to repair legislation that has been proposed in your state and to offer my group as a resource and a voice of reason as you seek to sort out competing claims about the cyber security risks of proposed digital right to repair laws.

About SecuRepairs

My organization, SecuRepairs ([securepairs.org](#)) is a not for profit group of more than 150 of the country's top information security experts. Our members include leading executives, academics, security researchers and information security professionals. Among them:

- [Bruce Schneier](#), the author of more than a dozen books on cyber security including his latest, "[Click Here to Kill Everybody](#)." Bruce is a fellow at the [Berkman Klein Center for Internet & Society](#) at Harvard University and a Lecturer in Public Policy at the [Harvard Kennedy School](#).
- [Gary McGraw](#), a noted security expert, serial entrepreneur and author of [seminal books](#) such as *Securing Software* and *Exploiting Software*.
- [Katie Moussouris](#), the CEO of Luta Security. Katie was a leading cybersecurity expert at Microsoft and helped create the US Department of Defense's first bug bounty programs.
- More than [150 other security experts](#).

I welcome the opportunity to have our cyber security experts brief you and your staff on the cyber security risks posed by connected "Internet of Things" devices and how digital right to repair laws will make our homes, businesses and communities more- not less secure.

Sincerely,

Paul Roberts, Founder SecuRepairs.org



LATE

January 4, 2020

To Whom it may concern:

Subject: Memorandum of Support for Right to Repair / Fair Repair Legislation

The Reverse Logistics Association (RLA) represents the interests of organizations engaged in the to the reverse flow of products and materials for the purpose of returns, repair, remanufacture, and/or recycling. Our members support retailers and wholesalers of all forms of products from consumer goods to industrial supplies. Any consumer that has returned a product under warranty or for a refund has been supported by our members.

As internet shopping increases – the volume of returns has increased as well. Retailers rely upon the return logistics industry to recover value from returns. While new clothing may be returned to stock without delay – electronics require far more review once removed from their packaging.

Returned electronics require costly extra handling, testing and repair before being resold. Limitations on repair instantly devalue returned equipment - often to the point where brand new equipment is sent to recyclers. Recyclers could recover value for resale as spare parts from new, but non-functional products, but require more information to make parts harvesting practical. “Right to Repair” legislation will help the return logistics process be more successful. Costs of handling will be offset by parts values and prices to consumers will drop.

We urge immediate passage of Right to Repair / Fair Repair legislation.

Best regards,

Tony

Tony Sciarrotta

Executive Director

The Reverse Logistics Association

2300 Lakeview Parkway, Suite 700,

Alpharetta, GA. 30009 USA

tony@rla.org • www.rla.org



Letter of Support

January 4, 2020

Memorandum of Support for Right to Repair / Fair Repair Legislation

My name is Rohi Sukhia and I founded Tradeloop in 1997 to make it practical for wholesale buyers and sellers of used technology equipment to safely buy, sell, repair and recycle high-technology equipment.

We support roughly 40,000 businesses ranging in scale from GoodWill Industries to individual dealers in all 50 states and abroad. Thousand of tons of electronics are bought and sold on our platform each year.

Our business would not exist if there were not demand for high quality fully functional used equipment. High-tech equipment can be kept in use for decades with sufficient access to repair and many of our members specialize in support of very old, but not obsolete devices. Many thousands of data centers are running key applications on equipment for which there is no modern alternative.

The ability of our members to correctly and efficiently repair equipment prior to resale and reuse has been in steady decline for the past decade. Broken equipment is very difficult to resell and carries only a fraction of the value of a fully functional machine. We believe that Right to Repair legislation will directly impact all of our trading partners and favorably increase the volume of used equipment that remains in use and reduce the volume of discards that must be recycled.

We urge immediate passage of Right to Repair at the earliest opportunity.

Best Regards,

A handwritten signature in black ink, appearing to read "Rohi Sukhia".

Rohi Sukhia

TRIDENT

January 7, 2020

LATE

Memorandum of Support for Right to Repair / Fair Repair Legislation:

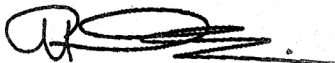
My name is Scott C. Swain and I am the Executive Director for Trident Computer Resources, Inc. Our company provides maintenance services for enterprise level computers and storage devices worldwide with headquarters in Eatontown, New Jersey and twelve offices throughout the USA. In order to perform our work, we need to be able to OEM certified spare parts and repair manuals which are increasingly difficult to access and restricted by the OEM.

Right to Repair legislation would make our work more accessible, and user friendly thereby improving our ability to support our customers. Our clients, who own their hardware, should have the ability to select whomever they choose to maintain the systems to best support their needs.

We urge you to pass enabling legislation as soon as possible in 2020.

Sincerely,

TRIDENT COMPUTER RESOURCES, INC.



Scott C. Swain
Executive Director

LATE

8 January 2020

Memorandum of Support for “Right to Repair” and “Fair Repair Legislation”

The Institute for Local Self Reliance (ILSR) was founded in 1974 as a champion of self-reliance; a strategy that underscores the need for humanly scaled economies and the widest possible distribution of ownership. ILSR works around the nation to help companies, cities and counties provide access to repairable products recovered from the waste stream.

Our work focuses in particular on recovering value from the industrial, commercial and household solid waste. The most valuable part of these waste streams is reusable and repairable items in terms of creating and sustaining small businesses; good jobs reduce pollution, energy and use of raw materials. We project there cannot be a sustainable local economy without the support and expansion of the repair and reuse of discards. This sector already supports one million workers with further growth readily available.

For these reasons, ILSR supports the “Right to Repair and “Fair Repair” legislation which initiatives allow consumers and businesses to repair the things they purchase as an essential ingredient for a sustainable economy. Without the option of repair, businesses, industry and individuals are being forced to discard their investments in equipment and purchase replacements at increasingly frequent intervals, thereby increasing waste at every level of production and distribution.

We urge passage of enabling competition for repair at the earliest opportunity.

Sincerely,

Neil Seldman, PhD
Director
Waste to Wealth Initiative

Washington D.C. Office
1710 Connecticut Avenue, NW 4th Floor
Washington, D.C. 20009
Tel: 202-898-1610
www.ilsr.org

Memorandum of Support for Right to Repair / Fair Repair Legislation

January 4, 2020

The Repair Association represents the combined interests of individuals and businesses making their living repairing, refurbishing, reselling, and recycling electronic equipment. Our over 400 supporting members collectively represent roughly 15 million US consumers. The industry of repair contributes roughly 6% of GDP - and employs roughly 3 million nationally.

Over the past twenty years, manufacturers have made the legal business of repair difficult or impossible through a variety of tactics. We estimate that 90% of products on the market today with a digital electronic component are un-repairable by design or policy.

The impact on consumers, business, agriculture, education, industry, medicine and the environment is profound. Without choice of repair other than from the manufacturer, including the option of self-repair, every individual and every organization are being forced to discard products and buy new on terms and conditions they no longer control. The result is that our homes, schools and businesses are filled with electronics we can't fix—and our repair options are dwindling. Meanwhile, we have a shrinking number of technicians who can keep our electronics going. This bill will help turn this tide.

The downside for opponents is the renewed presence of competition. Competition drives fair pricing, creates incentives for excellence in service and availability, and stimulates innovations throughout the marketplace. There aren't any markets made better by monopolies, including the market for repair.

Our association and our members are excited to help support all legislative efforts.

Sincerely,

Gay Gordon-Byrne

Gay Gordon-Byrne, Executive Director
The Repair Association <https://repair.org>
ggbyrne@repair.org
518-251-2837 (office)
201-747-4022 (mobile)

LATE

January 4, 2020

Letter of Support for Right to Repair / Fair Repair Legislation

XS International, Inc. has been in business for (30) years servicing the Lifecycle of IT Requirements for over (40) Federal Agencies, (12) of the Top (15) Federal Prime Contractors and over (100) of Fortune 500 Companies. We support some of the most mission critical equipment used in the US Missile Defense Program, the US MAD (Mutually Assured Destruction) Program as well as the computers used to fly Global Hawk Drones. Much of this equipment is no longer in production and the OEM no longer provides any support options.

Right-to-Repair / Fair Repair is critical to XSi to service legacy systems including those necessary to defend the United States of America. We are continually thwarted by OEMs that refuse to provide schematics, repair diagnostics, tools or access to firmware even when they have discontinued equipment. Right to Repair is essential to our ability to offer repair and maintenance services for post-warranty equipment at US facilities around the globe.

Please feel free to contact me at 678-537-4108 or tbone@xsnet.com.

Sincerely,



Todd



Todd Bone

President & Founder

+1-678-537-4108

tbone@xsnet.com

tbone@xsnet.com

<https://www.linkedin.com/in/toddbone>

Xsnet.com



1005 Alderman Drive, Suite 212, Alpharetta, GA 30005 USA

GSA Schedule # GS-35F-0751M || Contract Dates 03 Sept. 2017 to 02 Sept. 2022

Cage Code: 0T5L0 || DUNS # 62-220-6068



Non-profit and social enterprise electronics recyclers, such as the members of Impact Recyclers, exist to keep toxic materials out of landfills and to provide a social good by creating jobs for people with significant barriers to employment.

The scale of our impact is directly related to our ability to repair non-working electronics. Having the option to purchase parts, manuals, and software updates increases our ability to sell refurbished items.

In doing so, we:

- provide valuable skills training to people in need of work;
- extend the life of devices that are too often discarded improperly;
- and are able to offer low-cost technology to local small businesses, schools, and non-profits.

We stand with The Repair Association in your effort to advocate for a competitive repair market and look forward to continuing our support of repair-friendly legislation, regulations, and standards.



LATE

Newall Watch Materials

104 Wabash Street Pittsburgh, PA 15220-5400 (412) 539-0400 Phone
(412) 539-0404 Fax info@newallwatch.com email

January 4, 2020

Re: Memorandum of Support for Right to Repair / Fair Repair Legislation

My name is Tom McRoy and I've been working in the watch repair industry for over 45 years. My employer has been in business for over 100 years. Over the last 20 years, significant new challenges have appeared that have never been experienced previously and have all but devastated the business of watch repair in the US.

Most market-leading watch companies, nearly all based in Switzerland, have restricted or eliminated the supply of parts to the independent watch repair trade for the purpose of funneling all consumer repairs to themselves. Watch owners in any location are now forced to use only the services offered by the OEM without any competitive local options. Lack of competition is costly for consumers and crushing to local (US) businesses. Options to become "Authorized" are punishingly costly without any guarantees of long-term access to parts and tools at any price.

The key problem is access to parts and repair information, which Right to Repair would address. While independent technicians can find original (genuine OEM) or suitable after-market parts without factory cooperation, the time spent searching for parts is uncompensated. This often results in less time at the workbench which is how people make a living in the watch repair industry.

These limited repair options impact traditional retail jewelry stores as well. There is little profit in selling watches due to the factories insistence that all repairs must go through them. Retailers are hesitant to sell an item that would require a factory return for repair, rather than faster/more economical service for which they built their reputations for service and support. The option of local repair is hurting retailers as well as highly skilled repair businesses. Under current conditions, the future of an independent repair person appears to be bleak.

I urge you to pass legislation that removes the stranglehold that OEMS currently enjoy on all parts, digital as well as mechanical.

Sincerely,
Tom McRoy



LATE

November 21, 2019

The Honorable Members of the Hawaii Legislature
Hawaii State Capitol
415 South Beretania St.
Honolulu, HI 96813

Re: National Support for Right to Repair Legislation

I write today on behalf of the Electronic Frontier Foundation, a San Francisco-based, non-profit organization that works to protect civil liberties in the digital age. EFF represents more than 30,000 active donors and members, across the country—including in Hawaii.

EFF is dedicated to digital liberty, with a long history of fighting to protect online privacy, innovation and consumer rights—and has worked for years to give people control over their own devices. We support right to repair legislation that would require manufacturers of digital electronic equipment to make documentation, parts, and tools available to independent repair providers.

Right now, big companies do not want independent repairers to have access to these materials. Instead, these corporations want to have total control. The end result: users are disempowered, and trained to go hat-in-hand to the Apple Store for routine tasks like changing a battery, misled into believing they could not do it themselves. Meanwhile, independent repair shops are driven out of business. Electronic waste piles up as users discard their devices rather than fixing them or donating them for re-use.

Establishing a right to repair in Hawaii would make it easier for people to fix their broken devices or take them to a trusted, local repair shop, rather than having to throw them away and buy new ones. That's good for Hawaii's environmental concerns, Hawaii's businesses, and for all Hawaiians.

Thank you for your attention and consideration, and for your work on this critically important issue. We are eager to continue the conversation as you continue to develop this bill. Please reach out any time to Hayley Tsukayama, EFF's legislative activist, at hayleyt@eff.org or 415-436-9333 x161.

Sincerely,

A handwritten signature in black ink, appearing to read 'Hayley Tsukayama', with a long horizontal flourish extending to the right.

Hayley Tsukayama
Legislative Activist
Electronic Frontier Foundation
(415) 436-9333 x 161



LATE

January 4, 2020

Letter of Support for Right to Repair / Fair Repair Legislation

The Service Industry Association is the leading trade association representing businesses engaged in the support, maintenance and repair of high-technology equipment for business, industry and government. Our over 400 members collectively employ roughly 300,000 service professionals in North America, Europe and Asia/Pacific.

Nearly every data center or cloud hosting facility in the western world makes use of independent repair services provided by our members either directly or as agents of other repair providers including OEMs. The same OEMs that hire our members to do their skilled work then actively promote that hiring independents will create danger and risk -- when in fact they could not support their own repair contracts without us. We are their arms and legs but are blocked from competition.

Right to Repair or Fair Repair legislation will restore the option of competition to equipment owners of all kinds - from the individual consumer to the largest cloud hosts. Our members will have to provide excellent service in order to compete in a free market and we welcome the opportunity. We believe that competition makes all businesses sharper, more attentive to their customers, and drives innovation at every level. We urge you to pass this essential legislation on behalf of equipment owners everywhere.

Sincerely,

Claudia

A handwritten signature in black ink that reads "Claudia J. Betzner". The signature is written in a cursive style.

Executive Director
2164 Historic Decatur Road, Villa Nineteen
San Diego, CA 92106 USA