



To: Suzanne V. Wilson
General Counsel and Associate Register of Copyrights
U.S. Copyright Office
101 Independence Ave. S.E..
Washington, D.C. 20559-6000

28 May 2024

Re: Docket No. 2023-5
Exemptions to Prohibition Against Circumvention of Technological Measures Protecting
Copyrighted Works

1. Please identify and provide any additional examples where the proposed repair-related uses of commercial food preparation equipment are being adversely affected by the prohibition against circumvention.

The below examples are meant to be representative of TPM restrictions affecting repair of commercial food preparation equipment but are by no means comprehensive. We sought to find as many examples as we could within the week-long response timeline for this query; there are undoubtedly more.

Breville and Jura Espresso Machine

A California commercial espresso machine repair outfit said they do not work on Breville and Jura machines, because those companies “really like to keep the repairs in their own little loop.” Indeed, Breville's commercial espresso machine repair manuals¹ have a few error codes that say just "An error that cannot be reset by the user has occurred. Call Breville Customer Support" (Err 1, Err 2, and Err 3). Jura's commercial espresso machine has some error codes described in the manual,² but has a section of unlisted error messages reserved for manufacturers' own service technicians: if “Other ‘Error’ messages are displayed,” then you are supposed to switch the machine off and “Contact customer support in your country.”

Merrychef Ovens

Merrychef ovens have lots of programs; people trade them on flash drives. The password for changing any settings or installing new programs is usually “manager” or “m,” but if that gets changed and the

¹ Breville, The Dual Boiler Instruction Book - BES920, https://assets.breville.com/BES920/BES920_ANZ_IB_O21_FA_WEB.pdf (last visited May 28, 2024)

² Jura, GIGA X8 Professional Instructions for Use, <https://www.jura-parts.com/v/vspfiles/diagrams/Jura%20GIGA%20X8%20Operating%20Manual%20.pdf> (last visited May 28, 2024)

machine gets sold second hand, then users can get locked out.^{3 4} Putting in the serial number may be a workaround in some cases, but one tech we reached pointed out that sometimes older machines have worn-off serial numbers, so this is not necessarily a foolproof solution. Machines that are not in licensed stores, including all machines sold secondhand, likely will no longer receive firmware updates (which are mailed to licensed Merrychef stores on USB sticks, sometimes bricking devices⁵). Seeking firmware updates—or seeking to address the issues corrected in firmware updates—might motivate device owners to circumvent the Merrychef TPM.

Alto-Shaam Commercial Ovens

Service mode on Alto-Shaam commercial ovens is password protected, as evident in manuals for the devices.^{6 7} Repair technicians have complained online that they cannot get the service passwords for Alto-Shaam products.⁸

True Refrigerators

True Refrigerators have hidden routines for temperature control adjustment. Some repair techs have complained online that they cannot access manuals for new True fridges and thus are unable to adjust temperature controls.⁹

2. Please provide your views on whether the Office can extrapolate from the Taylor soft serve ice cream machine to consider an exemption that would cover equipment used in commercial food preparation.

Yes, the Office can extrapolate the feasibility of an exemption from both the Taylor soft serve machine, and the broader state of the market commercial food preparation equipment.

The Office has previously granted exemptions based on uniquely disruptive, single-brand use cases;¹⁰ Taylor soft serve machines produce (both qualitatively and quantitatively) even more significant

³ Gtagamer1, Sheetz Merrychef manager password, Reddit (October 13, 2022) https://www.reddit.com/r/sheetz/comments/y35axd/sheetz_merrychef_manager_password/ (last visited May 28, 2024)

⁴ Tim Munroe, For some reason "Manager" is not working as the password, any other ideas?, Facebook (February 11, 2024) <https://www.facebook.com/groups/920452141825679/posts/1559980447872842/> (last visited May 28, 2024)

⁵ Char017, Merrychef update, Reddit (January 3, 2024) https://www.reddit.com/r/starbucksbaristas/comments/18y2761/merrychef_update/ (last visited May 28, 2024)

⁶ Alto-Shaam, Combitherm Operation, Maintenance, Troubleshooting, Wiring Diagrams <https://www.horeca.com/files/product/ctp-technical-manual-engels.pdf> (last visited May 28, 2024)

⁷ Alto-Shaam, Combitherm Combitech Technical Service Manual http://servicenet.alto-shaam.com/ResourceItems/Combitherm/MN-29247_CT_Elec_Tech_0614.pdf (last visited May 28, 2024)

⁸ Kerrect, HVAC-talk.com (July 18, 2008) <https://hvac-talk.com/vbb/threads/176851-ALTO-SHAAM-service-manuals> (last visited May 28, 2024)

⁹ Shouldnteven, Reddit (May 14, 2023) https://www.reddit.com/r/refrigeration/comments/13hhz7s/how_to_adjust_temperature_of_a_newer_true_freezer/ (last visited May 28, 2024)

¹⁰ See Proposed Class 12: Computer Programs—Repair, U.S. Copyright Office, Section 1201 Rulemaking: Seventh Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention, Recommendation of the Register of Copyrights at 190 (2021).

disruptions than those at issue previously. Taylor machines reach a *total*—not partial—fail state frequently enough to have reached meme status. At the time of writing, there are over 13,000 Taylor machines in service at McDonald’s franchises across the country.¹¹ Of those machines, 14.72%—just over 1,900—are fully inoperable.¹² That represents hundreds of thousands of dollars of economic loss per day; an amount which dwarfs the loss of consumer value represented by disabled Xbox consoles.

The broader market for commercial food preparation equipment provides two additional pieces of context: first, that despite low current adoption, there is reason to believe that software-enabled equipment will become more common in the coming years; and that manufacturer behavior in adjacent markets indicates a high risk of “lockout” problems developing as the market shifts.

The market for commercial kitchen equipment is vibrantly competitive in terms of manufacturers and product differentiation. At present, most of this equipment is “dumb,” as restaurant operators prioritize durability over versatility. Software has, however, found a foothold in devices requiring precision temperature control (ice makers, precision “combi” ovens), or performing complex mix-and-dispense operations (soft serve machines, Coca Cola Freestyle fountains).¹³ However, “smart” commercial equipment continues to grow in popularity—particularly in high end “prosumer” models¹⁴—alongside its consumer counterparts.¹⁵

The problems of TPM lock-in among smart appliances have been thoroughly explored in previous rulemakings. However, manufacturers have not stopped attempting to create downstream repair monopolies. Concerningly, one leading consumer kitchen appliance brand has recently adopted a draconian policy requiring repair techs to not only stop servicing, but to *disassemble and destroy* any device brought to them with aftermarket or third-party components.¹⁶

Regardless, USCO can overcome any infirmity through careful construction of the exemption. For example, the exemption could read:

¹¹ Owen Duff, *There’s New Legal Drama Around McDonald’s Soft Serve Machines*, Eat This, Not That! (Apr. 24, 2021), <https://www.eatthis.com/news-mcdonalds-soft-serve-machines/>.

¹² McBroken, <https://mcbroken.com/> (last visited May 23, 2024).

¹³ Importantly for the fourth factor, the software for these devices is highly tailored, and a repair exemption would not have an appreciable impact on its availability. In the case of Freestyle fountains, its dissemination is curtailed by significant reliance on custom hardware, including proprietary canisters. *Coca Cola freestyle 9100 User Guide* at 8, <https://crewconnect.coca-cola.com/wp-content/uploads/2018/12/2020-CCFS-User-Guide-9100.pdf> (last visited May 28, 2024)

¹⁴ Also known as “pro-style,” these are high-end appliances that represent scaled down versions of commercial kitchen equipment. See, e.g., Josh Garskof, *All About Pro-Style Ranges*, This Old House, <https://www.thisoldhouse.com/kitchens/21018903/all-about-pro-style-ranges> (last visited May 28, 2024). Smart kitchen appliances represented a \$3.9B (and growing) domestic market in 2022. Grand View Research, *supra* n 5; see also Jennifer Pattison Tuohy, *My smart kitchen: the good, the bad, and the future*, The Verge (Mar. 6, 2024), <https://www.theverge.com/24087703/smart-home-kitchen-appliances>

¹⁵ Grand View Research, *Smart Kitchen Appliances Market Size, Share & Trends Analysis Report By Product (Smart Refrigerators, Smart Ovens), By Application (Residential, Commercial), By Region, And Segment Forecasts, 2024 - 2030*, <https://www.grandviewresearch.com/industry-analysis/smart-kitchen-appliances-market> (last visited May 28, 2024).

¹⁶ Jason Koebler, *Samsung Requires Independent Repair Shops to Share Customer Data, Snitch on People Who Use Aftermarket Parts, Leaked Contract Shows*, 404 Media (May 23, 2024), <https://www.404media.co/samsung-requires-independent-repair-shops-to-share-customer-data-snitch-on-people-who-use-aftermarket-parts-leaked-contract-shows/>.

Computer programs that are contained in and control the functioning of a lawfully acquired device that is primarily designed for use in industrial and commercial settings, when circumvention is a necessary step to allow the diagnosis, maintenance, or repair of such a device, is not accomplished for the purpose of gaining access to other copyrighted works, and requires restoring any technological protection measures that were circumvented or disabled.

For purposes of this paragraph:

(i) The “maintenance” of a device is the servicing of the device in order to make it work in accordance with its original specifications and any changes to those specifications authorized for that device; and

(ii) The “repair” of a device is the restoring of the device to the state of working in accordance with its original specifications and any changes to those specifications authorized for that device.

Thank you for your time and attention to this important issue.

Sincerely,

Meredith Rose
Senior Policy Counsel, Public Knowledge
Washington, DC
mrose@publicknowledge.org

Kyle Wiens
CEO, iFixit
San Luis Obispo, CA
kyle@ifixit.com