



Every month, thousands of perfectly good iPhones are shredded instead of being put into the hands of people who could really use them. Why? Two words: Activation Lock. And Macs are its next victim.

"We receive four to six thousand locked iPhones per month," laments Peter Schindler, founder and owner of The Wireless Alliance, a Colorado-based electronics recycler

and refurbisher. Those iPhones, which could easily be refurbished and put back into circulation, "have to get parted out or scrapped," all because of this anti-theft feature.

With the release of macOS Catalina earlier this fall, any Mac that's equipped with Apple's new T2 security chip now comes with Activation Lock—meaning we're about to see a lot of otherwise usable Macs heading to shredders, too.

Activation Lock was designed to prevent anyone else from using your device if it's ever lost or stolen, and it's built into the "Find My" service on iPhones, iPads, and other Apple devices. When you're getting rid of an old phone, you want to use Apple's Reset feature to wipe the phone clean, which also removes it from Find My iPhone and gets rid of the Activation Lock. But if you forget, and sell your old iPhone to a friend before you properly wipe it, the phone will just keep asking them for your Apple ID before they can set it up as a new phone. In other words, they won't be able to do much with it besides scrap it for parts.

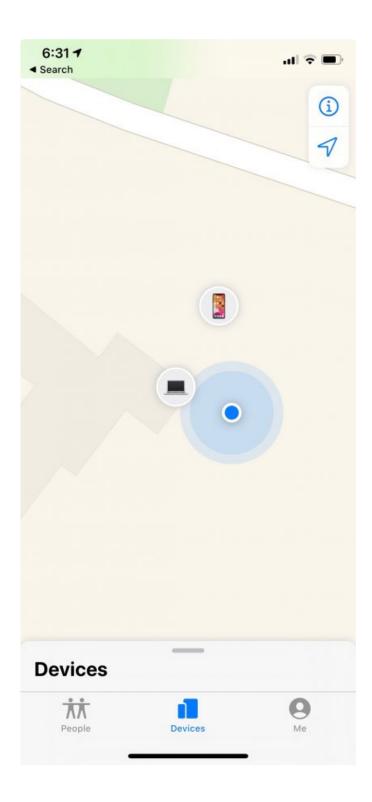
That seems like a nice way to thwart tech thieves, but it also causes unnecessary chaos for recyclers and refurbishers who are wading through piles of locked devices they can't reuse. This reduces the supply of refurbished devices, making them more expensive—oh, and it's an environmental nightmare.

We Don't Need No Education

You might be wondering why thousands of iCloud-locked iPhones end up at refurbishers in the first place. It all comes down to a lack of education, according to Schindler.

"People don't realize that if you don't properly reset your device, that phone is effectively bricked once you send it to me," Schindler explains. "They're just not thinking through the steps, or don't connect the fact that [Find My iPhone] is a

permanent, neverending lock on the phone. They think, 'Oh, well, I turned the phone off, Find My iPhone must be turned off too.' They don't associate it with bricking the phone."



I asked several of my iPhone-wielding friends if they knew about this, most had no idea—they only thought of Find My iPhone as a location-tracking feature.

"They associate it in their mind as just a retrieval tool," Schindler says. "If it's ever lost or stolen, they can look on a map and retrieve their lost or stolen iPhone."

It's easy to chalk this up to personal responsibility, and while it's straightforward to wipe your phone properly (thus disabling Activation Lock), Apple doesn't make it abundantly clear how to do it or that you need to do it in the first place. They describe it at the very bottom on a support web page, but that's pretty much it.

There are a couple of ways you can disable Activation Lock. Simply turning off "Find My" will do the trick—open the settings app, tap on your name at the top, navigate to Find My > Find My iPhone and flip the toggle switch next to "Find My iPhone."

Or, if you want to wipe your device, you can factory reset it by going into the settings and navigating to General > Reset > Erase All Content and Settings. You'll be required to enter your Apple ID password, and it will automatically turn off Find My iPhone before it resets, thus disabling Activation Lock.

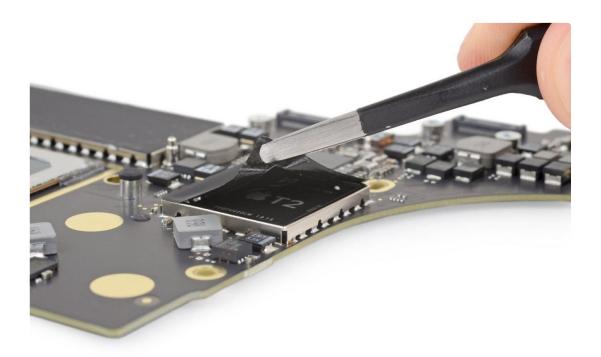
But many people don't do this when they donate their old devices to recyclers and refurbishers. Or, in some cases, they do wipe their phone, but they do it in a way that keeps Activation Lock enabled—for example, if you put your iPhone into Recovery or DFU Mode and restore it through iTunes (which may be required if the screen is broken or the phone won't boot), it'll still be locked to your account.

Mac Attack

Like iPhones, the "Find My" feature has been a staple on Macs for several years, but without the Activation Lock component. Instead, macOS implements an optional firmware password to prevent hardware changes, which would keep unauthorized users from easily wiping a Mac's storage drive.

John Bumstead, a MacBook refurbisher and owner of RDKL, Inc., says this still poses problems, and around 20% of MacBooks he gets are now locked.

But this lock is bypassable, albeit using special tools and methods that Apple might consider violations of the DMCA. Some refurbishers that we spoke with—who wished to remain anonymous—mentioned using these methods to unlock legally-obtained Macs in order to resell them, which is the only option to keep perfectly working Macs out of the shredder.



Apple's new T2 security chip, present in new Macs.

The T2 security chip, however, erases any hope and makes it impossible to do anything on a Mac without the proper Apple ID credentials. Attempting any kind of hardware tinkering on a T2-enabled Mac activates a hardware lock, which can only be undone by connecting the device to Apple-authorized repair software. It's great for device security, but terrible for repair and refurbishment.

While recyclers may not be dealing with as many locked Macs as locked iPhones (especially since Activation Lock on Macs is still very new, and there are specific software criteria that need to be met), it's only a matter of time before thousands

upon thousands of perfectly working Macs are scrapped or shredded, for lack of an unknown password.

"It sounds as if the T2 will truly be locking us out for good," says Bumstead. "So the problem will probably be far worse."

"Initially, [Activation Lock] wasn't that bad of a problem," Schindler notes. "We'd get a locked phone here and there. But now if you look at the chart year over year, it looks like a stock you dream of owning. If you started charting the number of locked Macs, in the future it'll look like mine does for phones."

Apple Could Fix This, If They Cared

This is an unequivocal mess of a situation for refurbishers, and Schindler was rightfully frustrated during our phone call: "It upsets me as a human being when I have to toss six thousand phones a month that could otherwise go into someone's hands who'd actually appreciate and use that device for many more years." His, and others', frustration will only grow as expensive, full-fledged desktops and laptops suffer the same fate.

When asked what could be done, Schindler suggests Apple implement a bypass that would allow certified recyclers and refurbishers to unlock donated devices if they're not reported lost or stolen. And Shindler says 99% of the locked devices his facility receives aren't lost or stolen. "People don't steal a phone to then go run and drop it off at their local recycling center," he quips. And smartphone thefts have plummeted over the last several years, so stolen phones are becoming less of a problem in the first place.

"People don't steal a phone to then go run and drop it off at their local recycling center"

Peter Schindler

In cases when a device *is* lost or stolen, Schindler says he's more than happy to hand it off to law enforcement in order to find the owner, but that's a rare occurrence. And reuniting the owner with their device is an even rarer occurrence. That's a shame, because the intent of the lock is to protect owners from theft. Refurbishers would be happy to return stolen devices if they had the means to contact the original owner, or verify that it was stolen with the police or a mobile carrier.

If Apple doesn't fix the problem, refurbishers may take action. With the help of various organizations, like the EFF, U.S. PIRG, and iFixit, Schindler is considering filing a DMCA exemption request if Apple won't voluntarily come up with a solution. "They're preventing us from re-using what is rightfully our property," he says. "It's not lost or stolen."

But for the time being, education is the best solution we have, and that's an area where Apple could do better. Owners getting rid of their older Apple devices need to make sure they're factory resetting their iPhones, iPads, and Macs. Or at the very least, turning off Find My iPhone/iPad/Mac. Until then, recycling and refurbishing centers like Schindler's will be forced to scrap thousands of perfectly working devices every single month.

Title photo by Helen M Bushe/Flickr.

Apple got rid of reviews, would they care about this? I hope they do!

Sam Yao - 5 days ago Reply

Except the reviews never were removed from the App Store app you need to use to download the apps. And, they reappeared on the App Store web pages. So, it looks like the tech journalists jumped the gun on that one.

Jay Butler - yesterday

If you bought it from a friend, I'm ****sure**** if you took it back to them, they'd clear it for you. if you bought it from a retailer, your invoice should have the serial number on it for a refund If you bought it from someone on the street, Tough noogies

The reason the theft rate is low is because *most* crooks know about activation lock.

I'll lay you odds most of the units at recycling are physically thrashed.

Add your email to the lock screen with an offer of a reward and even long lost ones come back.

Philip Day - 5 days ago

absolutely this. the article is a false narrative

Ivan - 4 days ago

Activation locks happen at the time of configuration - If the device, in this example an iPhone, is DFU'd then the phone wasn't properly wiped and your lock screen message will never get a chance to appear. So you might purchase what you think is a legitimate, valid, functional device and the Apple ID lock is in place. Because someone screwed up along the chain.

I work in IT. It happens. It's unfortunate. But now we require all employees to use their employee email address to set up their employer-owned phones. Why? So when you're fired or you quit and we find a device that was never turned in but has the activation lock we can unlock it before sending it back to our provider.

But it took an act of HR to make that happen.

Now if we could get into the phone of our esteemed employee who died last year unexpectedly we'd all be better off. But, instead, he's the reason for the new policy.

Ryan Coleman - 20 hours ago

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