

# SentriGuard Lockbox

## Battery Passivation — Best Practices Guide

### What Is Battery Passivation?

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SentriGuard lockboxes use high-performance lithium batteries engineered for long shelf life. When a lockbox sits unused for an extended period, a protective layer forms inside the battery — a process known as battery passivation.

Passivation is *not* a product defect. It is a natural chemical process inherent to this battery chemistry. The layer reduces self-discharge and preserves the battery during storage, but it can temporarily restrict the battery's ability to deliver full power, causing the lockbox to appear unresponsive.

#### Why are we seeing this now?

Because we source the batteries rather than manufacture them, the real-world timeline on which passivation manifests in the field was not fully known at launch. We are now seeing consistent patterns in deployments, which is what's driving this guidance.

### When Does Passivation Occur?

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Understanding the timeline helps your members recognize what they're dealing with before calling support.

Timeframe	What to Expect
~6 months inactive	Early signs: lights and sounds may appear dimmer or quieter than normal. Lockbox is still functional but showing early battery strain.
~12 months inactive	More significant passivation. Lockbox may not respond immediately or at all upon attempted access. Recovery attempts are typically needed.
After each access	The passivation timeline resets. Any lockbox that has been recently accessed is unlikely to exhibit these symptoms.

## What Members Will Experience

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These symptoms are common and do not indicate a broken or defective lockbox — they are the lockbox communicating that its battery needs to be "woken up":

- The lockbox does not respond immediately when a member tries to access it
- Lights may blink in a cycle but nothing else happens — this is the classic passivation sign
- The lockbox seems like the battery is dead (milder passivation) or completely unresponsive (more significant passivation)
- Sounds are quieter, lights are dimmer, motor feels weak or doesn't engage

### Key distinction:

If the lockbox eventually comes to life after repeated attempts, it was passivated. If it shows no response at all even after the full recovery process, the battery may need replacement.

## Member Recovery Steps

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Direct your members to follow the attached SentiGuard Battery Troubleshooting Guide. Key points to communicate alongside the guide:

### How many times to try:

- Mild passivation (~6 months inactive): approximately **5 attempts** are usually sufficient
- More significant passivation (~12 months inactive): up to **8 attempts** may be needed
- Stop after 5–8 attempts with **no change at all** — if there is zero improvement, move on to the backup battery (Step 5 in the guide)

### Signs of recovery (reassure members these are good signs):

- Sounds getting louder
- Lights getting brighter
- Motor responding more strongly

### Note for members:

The guide says to try "a few times" in Step 2 — remind members that the right number depends on how long the lockbox has been inactive. More attempts are normal and expected for lockboxes that haven't been accessed in close to a year.

## What Shows Up in the Logs

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If your staff or support contacts are investigating a lockbox with suspected passivation, here's what to look for in SentiLock:

### Log indicators:

- Recurring lockbox resets
- Motor stalls
- Repeated firmware update attempts

### What to check:

- When was the lockbox last accessed? A gap of 6–12 months prior to the onset of errors is the clearest indicator of passivation.
- Note: passivation-related symptoms do not appear in the log themselves — the log indicators above are **correlated behaviors**, not direct passivation flags.

#### Log investigation tip:

If you see a cluster of resets, motor stalls, and firmware errors with no recent access history, passivation is the most likely explanation. Check the last access date first before assuming a hardware defect.

## Proactive Monitoring: Lockbox Last Access Report

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The most effective way to get ahead of passivation issues is to proactively identify lockboxes that may be at risk before members encounter problems.

### Recommended practice:

- Pull a **Lockbox Last Access Report** from SentiLock on a regular basis (monthly or quarterly recommended)
- Flag any lockbox that has not been accessed in **6 months or more**
- Reach out proactively to the lockbox owner to alert them and recommend a manual access to reset the passivation timeline
- Lockboxes approaching or past the 12-month mark should be treated as high priority for outreach

#### Why this matters:

A member who encounters a passivated lockbox during a showing is in a frustrating and time-sensitive situation. Proactive outreach based on the Last Access Report allows your members to get ahead of these calls before they happen.

## Battery Replacement Guidance

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If a lockbox does not recover after completing all steps in the troubleshooting guide:

- Battery **less than 2 years old**: contact SentiLock Support to initiate an RMA
- Battery **older than 2 years**: replace the battery
- If the lockbox remains unresponsive even after backup battery engagement and battery replacement: contact SentiLock Support for further assistance and RMA if needed

## Quick Reference Summary

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Topic	Key Guidance
<b>Passivation onset</b>	~6 months inactive (early signs); ~1 year (more significant symptoms)
<b>Timeline reset</b>	After every access — actively-used lockboxes are not at risk
<b>Recovery attempts</b>	~5 for mild; up to ~8 for more significant passivation
<b>Signs of recovery</b>	Louder beeps, brighter lights, stronger motor
<b>Log indicators</b>	Resets, motor stalls, repeated firmware updates + 6–12 month access gap
<b>Proactive tool</b>	Lockbox Last Access Report — flag anything 6+ months without access
<b>Battery replacement</b>	<2 yrs: RMA with SentiLock Support; >2 yrs: replace battery

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Questions? Contact SentiLock Support — we can review lockbox logs and guide your team through next steps.