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EASY SERVICE AND TAMPER PROOF D COVER DESIGN

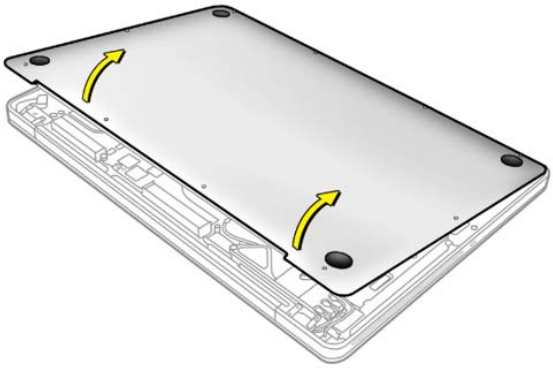
HP INC

Easy service and tamper proof D cover design

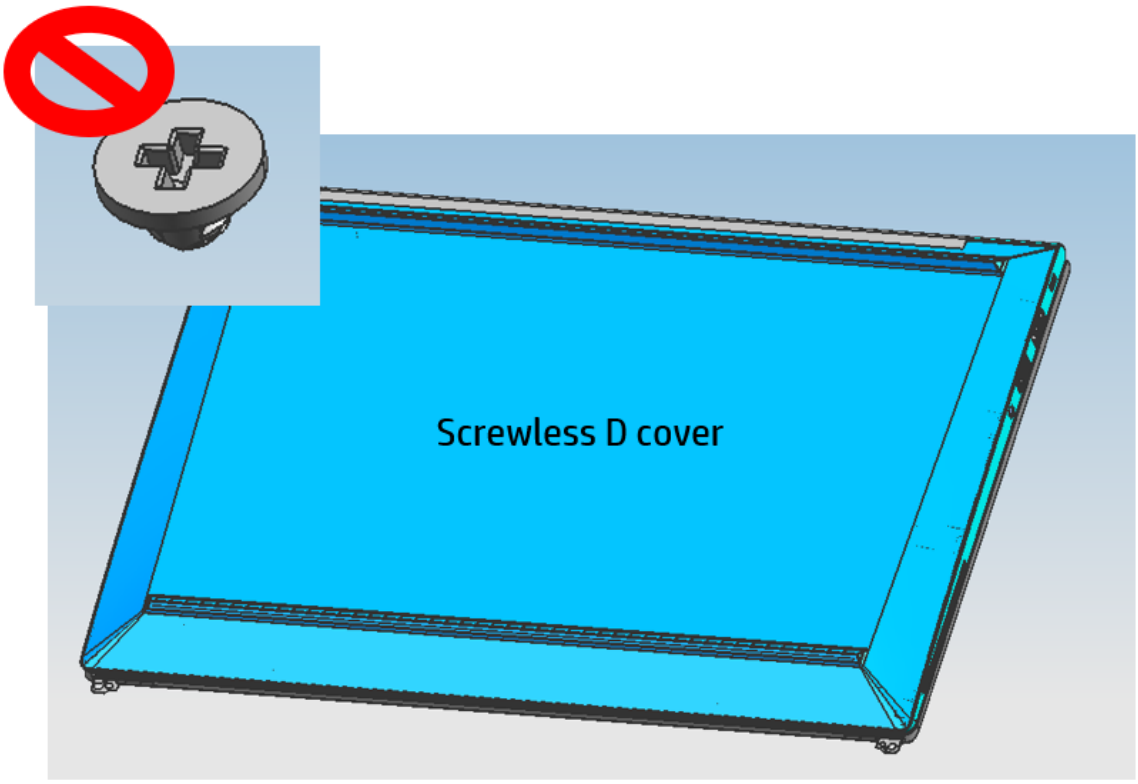
This disclosure is to provide a solution for these benefits below

- tamper proof D cover to prevent system components be stolen or hacked
- Make D cover assembling/disassembling process much easier (save service cost)

As security becomes more and more important, we provide easy serviceable device may induce customers encounter storage or device be stolen or hacked easily. (e.g. D cover easy to open, modular device can be removed/replaced…)

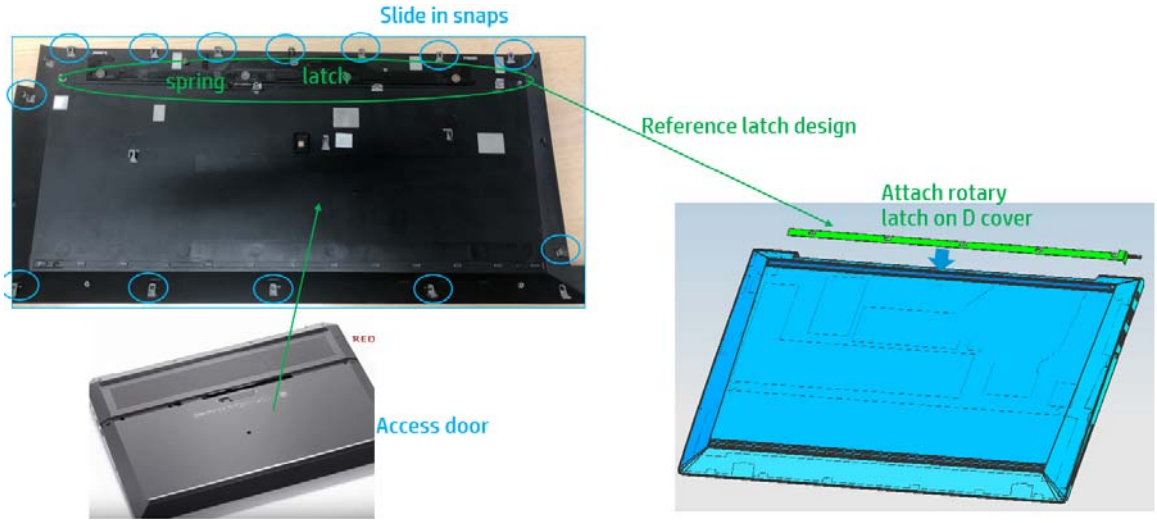


Hence, this invention is to cancel screw on D cover. D cover is screwless, therefore, there is no way to open D cover by screw driver.

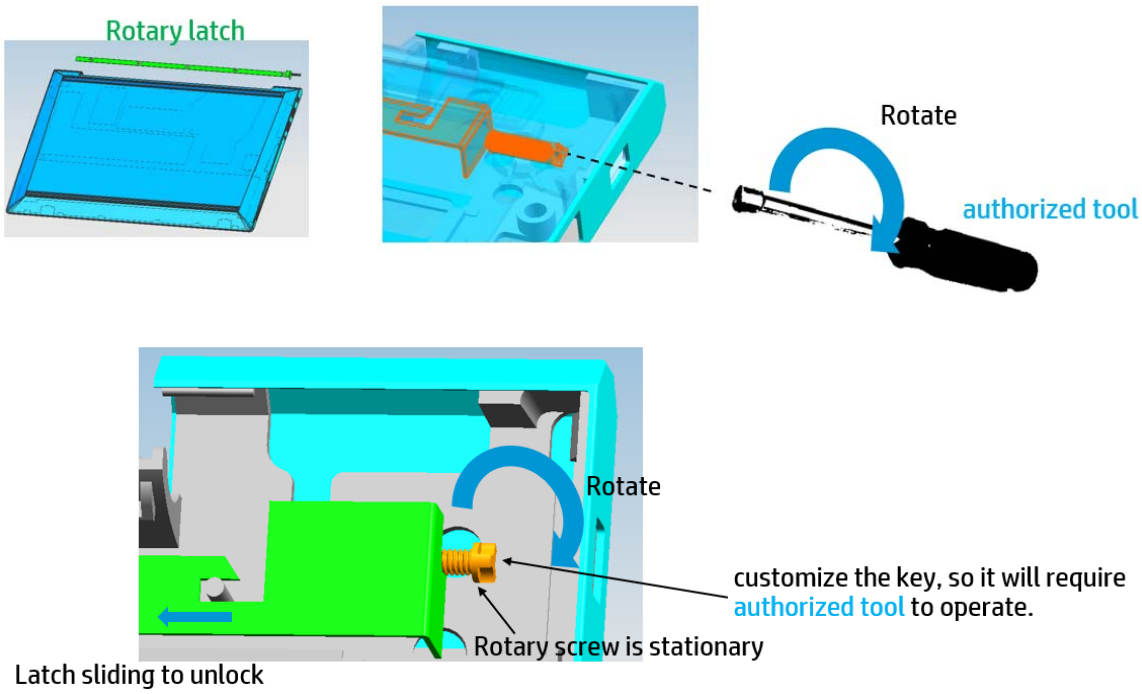


And then design a rotary & latch attached on D cover.

- Latch and slide in snaps geometry are common design
- Rotary latch mechanism is customized to slide the latch to unlock position.

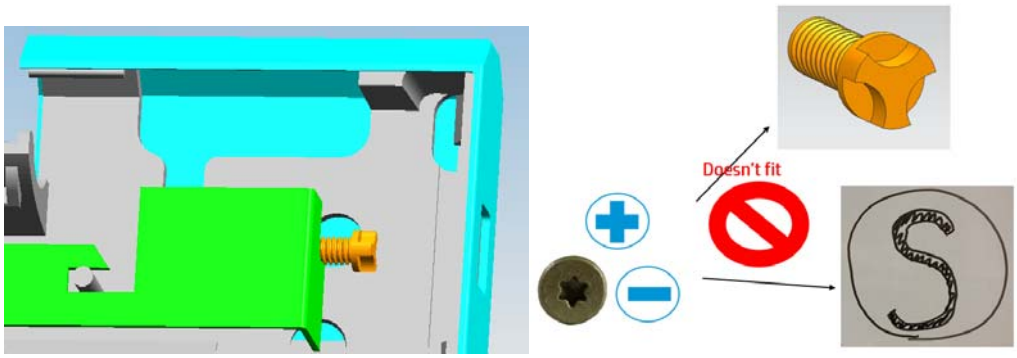


In laptop design, leverage Kensington lock opening can save C deck side band space. This idea doesn't induce side band space burden.



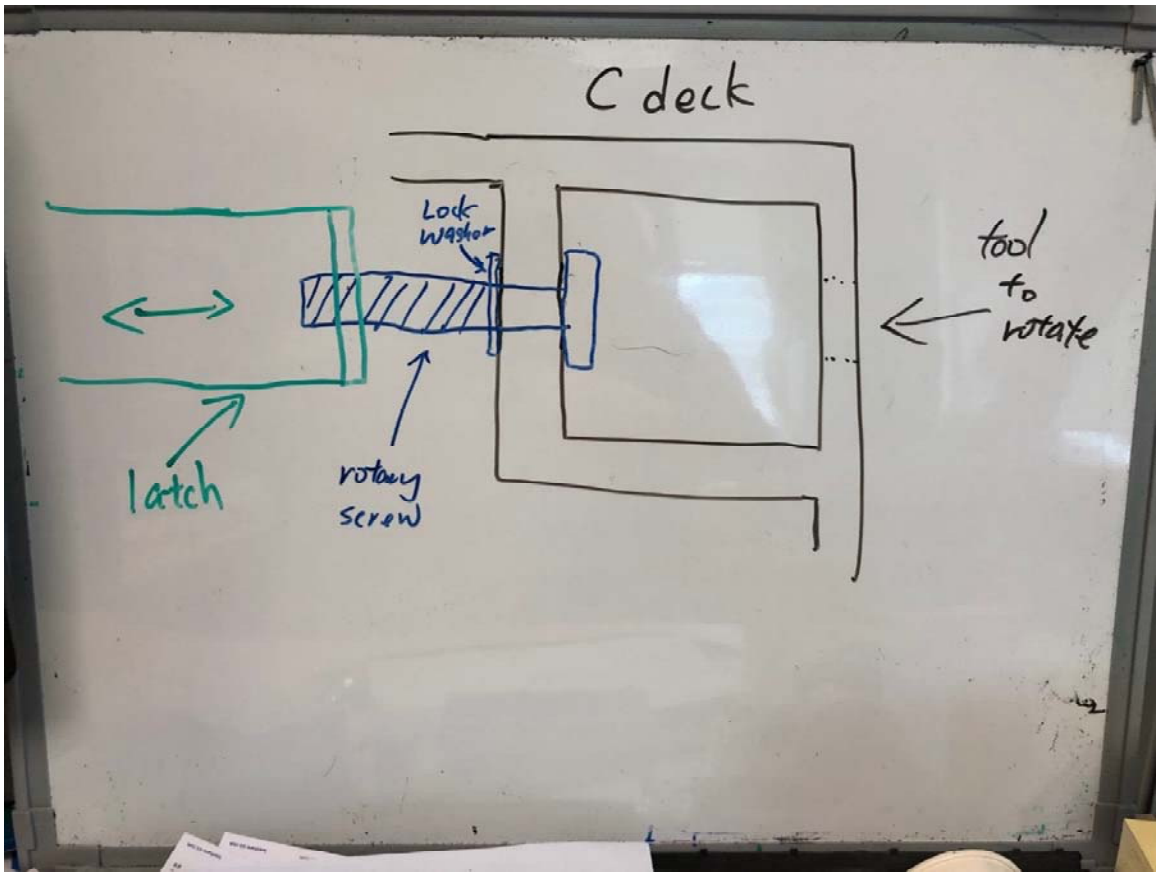
The geometry of authorized screw bit needs to be customized with below rules.

1. Customized geometry on screw head is protruded. (tool side is cavity)
2. The geometry CANNOT be operated by common screw driver bit (Philips, flat, torx…etc)
3. Take below image as example

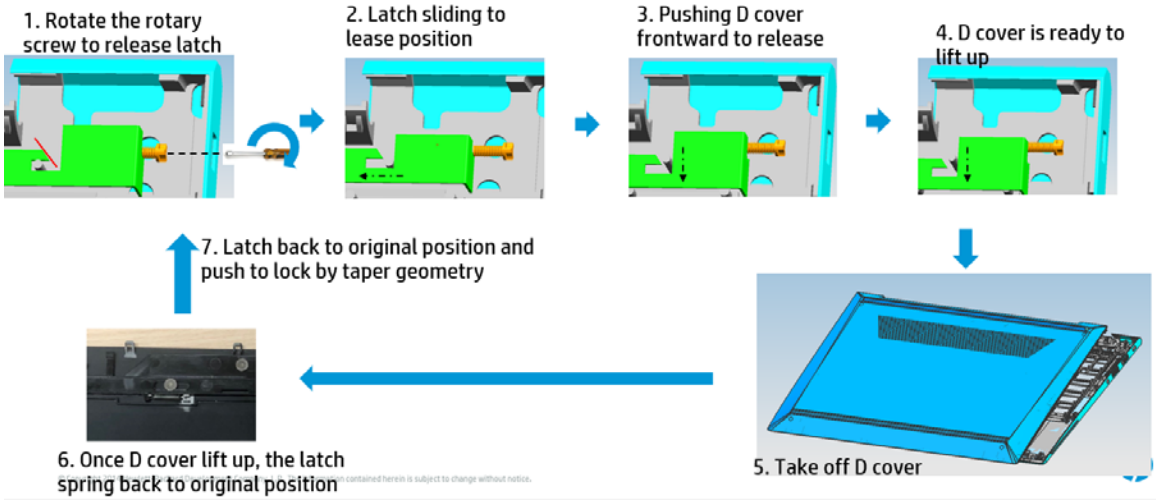


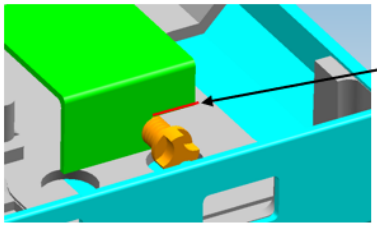
The conceptual design of rotary screw attached on C deck and how it works are as below.

1. Use authorized tool to rotate the rotary screw, then the latch to slide to unlock.
2. Utilize a lock washer to attach rotary screw on C deck internal structure.



The whole operation steps are shown as below.





This edge is fully against to rotary screw, so latch can keep in position when pushing D cover frontward.

With this customized rotary latch mechanism and authorized tool, user doesn't have to worry device be opened without authorization.

Service team can still easily open D cover with one step. Compare to 6~8pcs D cover screws, it saves service time (cost).

We can provide this feature as configurable. So normal D cover with screws and rotary latch D cover can be compatible and configurable in platform. Customer can choose their preference case by case.

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