

AP3 Battery Details

Battery Model

18505 Li-SOCI2 Lithium 3.6V



Nominal Capacity: 4000mAh

Nominal Voltage: 3.6V

Dimension: 18.7 mm x 50.5 mm (Diameter x Height)

- ER18505M is an acceptable alternative, as this battery has higher current capabilities (but is usually only 3200mAh in size)



Specifications & Ordering Info

AP3 requires the “Cap” model to make better contact with the battery terminal. Please make sure to order the batteries with the cap model and not the T-top model



“Cap” model

“T-top” model



Manufacturers

- EEMB *
- Sunmoon *
- Ramway *
- Fanso *
- PKCell *
- Ultralife
- Eve
- Omnicell
- Unicell
- Minamoto

* Tested Battery



Where to Buy?

- Canada: Amazon, Walmart, PKCell
- USA: Amazon, Walmart, Mouser, Atbatt
- Brazil: Groupoltech
- Poland: JM-EMS
- Global: AliExpress, Alibaba
- South Africa: Ultralife
- China: Ramway, Sunmoon, EEMB

<https://www.eemb.com/model/er18505.html>

Battery lifetime is dependent on multiple factors.
See datasheet for more information or contact info@sera4.com

Validation

Follow these steps to verify the AP3 doesn't have problems other than the battery:

1. Connect an external power source (laptop, adaptor, charger) with a micro-USB cable.
2. Use the Teleporte APP to request Unlock; confirm the shackle pops.
3. Use the Teleporte APP to confirm that the device reports the open state.
4. Push the shackle down and confirm that the Teleporte APP reports the closed state.
5. Repeat steps 2-4 for at least 3 successful open/close cycles.

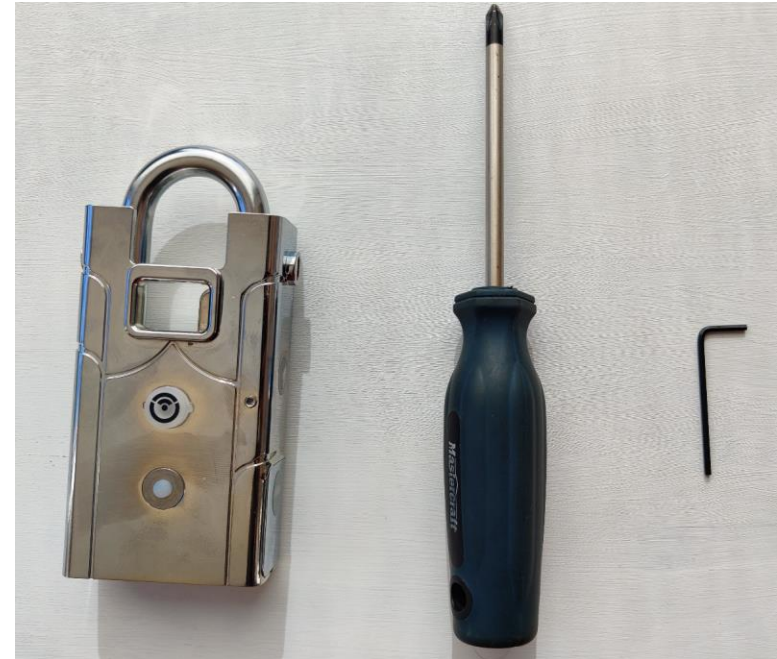
If the AP3 does not work as expected with the external USB power, replacing the battery will not solve the issues you are experiencing as they are likely caused by other factors.



Requirements

Changing the battery of the AP3 requires the following:

1. Mobile device with the Teleporte APP installed.
2. Teleporte user account with an assigned key to open the padlock.
3. Phillips #2 Screwdriver with a min. 3"/75mm shank length.
4. 2mm Allen key.

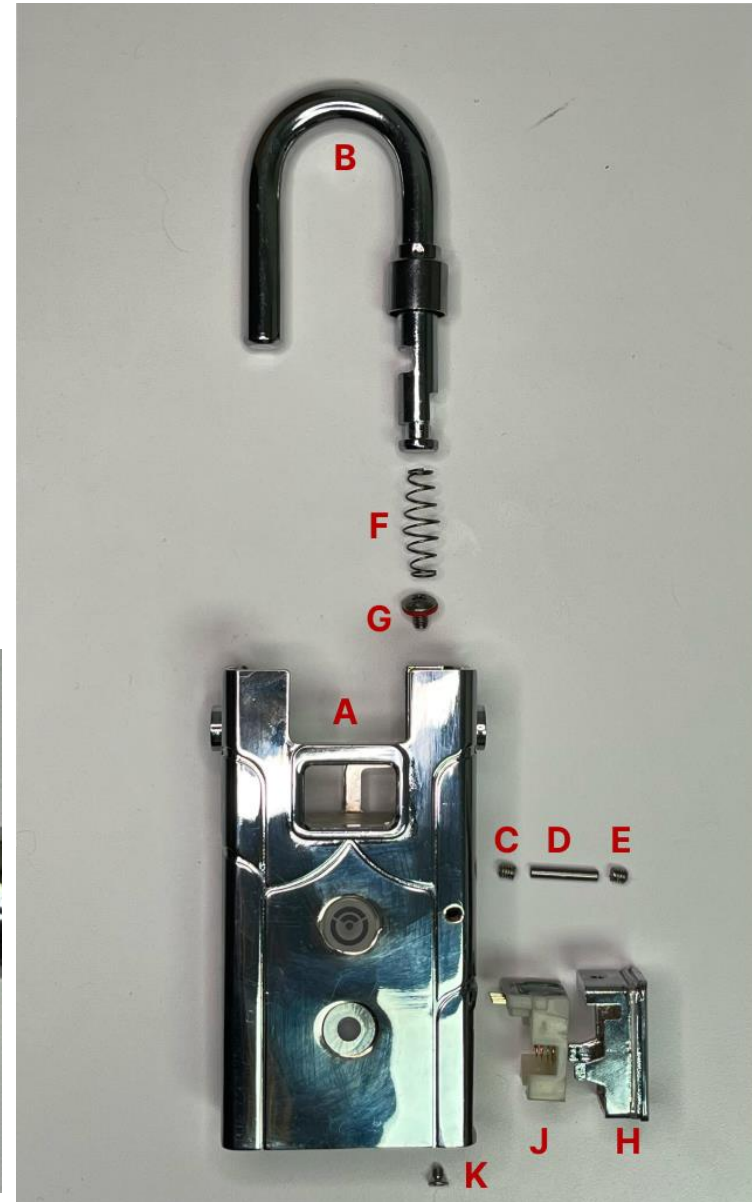


AP3 – Parts Guide

Parts Names

- A – Lock Body
- B – Shackle
 - Rain Hat (with Rain Hat O-ring), Locking Bar cutout, Retaining pin cutout, Retaining Pin Stop
- C – Front Shackle Retaining Pin Set Screw
- D – Shackle Retaining Pin
- E – Rear Shackle Retaining Pin Set Screw
- F – Shackle Spring
- G – Top Battery Door Screw with Rubber Washer
- H – Battery Door
- J - Battery Negative Terminal Assembly
- K – Bottom Battery Door Screw
- L – Shackle Hole

Visual Guide



AP3 Top View



AP3 – Battery Change

1. Connect USB power

Connect an external power source (laptop, adaptor, charger) with a micro-USB cable.

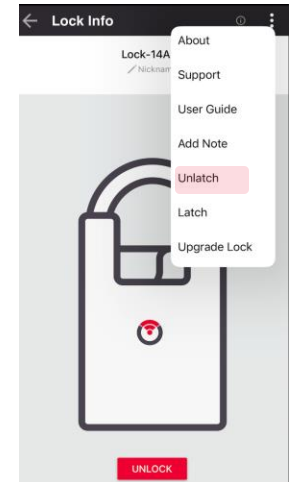


2. Unlatch from Teleporte APP

1. Use the Teleporte APP to detect and select the AP3.
2. Select the "Unlatch" option from the main menu.

Test if the "Unlatch" was successful. Try to close the AP3 by pushing the shackle down and releasing the shackle. The shackle should pop up again and the AP3 should stay open.

If your AP3 is not unlatching properly, stop the process here and contact us (support@sera4.com).



3. Remove Front Shackle Retaining Pin Set Screw

Use the Allen key to remove the Front Shackle Retaining Pin Set Screw on the front side of the AP3.

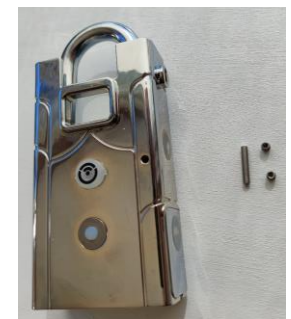


4. Remove Shackle Retaining Pin

While holding the shackle down, flip the AP3 so that the Shackle Retaining Pin can fall out through the Front Shackle Retaining Pin Set Screw hole. If needed, shake the AP3 to allow the Shackle Retaining Pin to fall out.

If the Shackle Retaining Pin doesn't come out after a couple of shakes; remove the Rear Shackle Retaining Pin Set screw and use the Allen key to push the Shackle Retaining Pin out the front hole.

Once the Shackle Retaining Pin has been removed, the shackle will be pushed out of the AP3 by the Shackle Spring

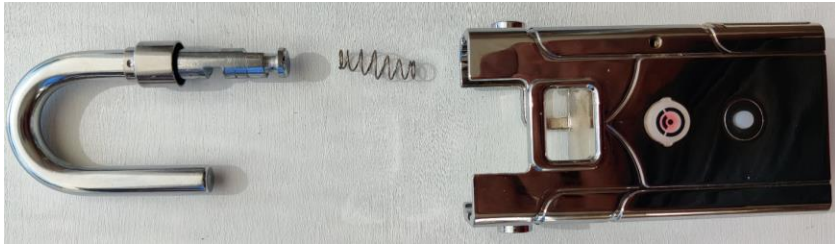


AP3 – Battery Change

5. Remove Shackle and Shackle Spring

With the Shackle Retaining Pin removed, the shackle should pop out of the body. Turning the Lock Body upside down will allow the Shackle Spring to fall out of the Lock Body.

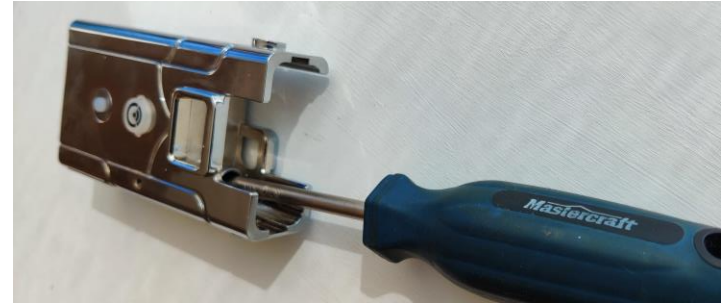
It is now a good time to disconnect the USB Power source.



6. Remove the Top Battery Door Screw

Use the screwdriver to unscrew the Top Battery Door Screw by reaching into the Shackle Hole.

Once the screw has been fully unscrewed, the AP3 can be turned upside down again to allow the screw to fall out.



7. Remove the Bottom Battery Door Screw

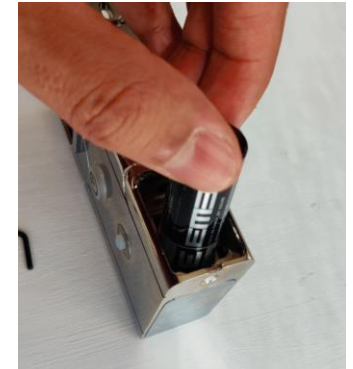
Use the screwdriver to unscrew the Bottom Battery Door Screw.



8. Remove the Battery Door and the battery

With the Top Battery Door Screw and the Bottom Battery Door Screw removed, the Battery Door should pop out.

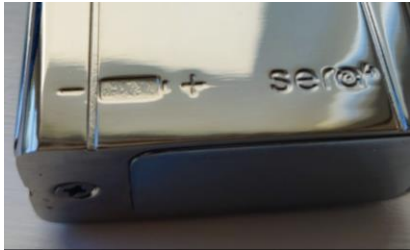
Use a small flat-head screwdriver to pry the Battery Door out if it does not come out on its own.



AP3 – Battery Change

9. Replace battery

Insert the new battery following the polarity indicated on the back side of the AP3.



10. Install the Battery Door and Bottom Battery Door Screw

Start the re-assembly process by installing the Battery Door and the Bottom Battery Door Screw.



11. Verify if battery is working

Ensure that the new battery is functional by pressing the AP3 button and verifying that the LED is on.



12. Verify the Locking Bar

Before finishing the re-assembly process, verify that the Locking Bar is in the retracted position.

Looking down the Shackle Hole, you should not be able to see the Locking Bar. If the Locking Bar is visible, use the Teleporte APP to connect to the AP3 and request "Unlatch" again.

If your AP3 is not unlatching properly, stop the process here and contact us (support@sera4.com).



13. Install the Top Battery Door Screw

Make sure the red rubber washer is on the screw before installing the screw.

Holding the screwdriver vertically, place the screw on top of the screwdriver, and then slide the Lock Body over the vertical screwdriver.

Hand-tighten the Top Battery Door Screw.



14. Install Rear Shackle Retaining Pin Set Screw

1. Follow this step if you needed to remove the Rear Shackle Retaining Pin Set Screw on Step 4.
2. Install the Rear Shackle Retaining Pin Set Screw. Screw the set screw in so that 1 or 2 threads from the hole are visible. Do not fully screw the set screw into the hole.



15. Install Shackle Spring, Shackle and Shackle Retaining Pin

1. Insert the Shackle Spring into the Shackle Hole.
2. Insert the Shackle into the Shackle Hole and push it all the way down.
3. While holding the shackle down, insert the Shackle Retaining Pin.
4. Let go of the shackle and confirm it pops up to the open position. Push down the shackle and let it pop again to confirm nothing is obstructing the Shackle.



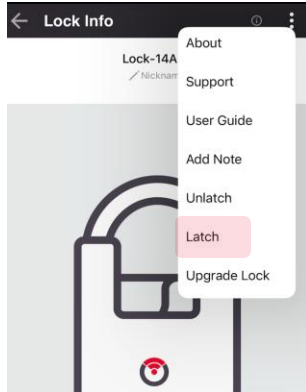
16. Install the Front Shackle Retaining Pin Set Screw

1. Install the Front Shackle Retaining Pin Set screw. Screw the set screw in so that 1 or 2 threads from the hole are visible. Do not fully screw the set screw into hole.
2. Push down the shackle again and let it pop to confirm nothing is obstructing the shackle.



17. Latch padlock

1. Use the Teleporte APP to connect to the AP3 and request "Latch".
2. Push the shackle down.
3. Confirm the shackle is locked now and does not pop up.



18. Validate AP3 Lock Functionality

1. Use the Teleporte mobile application to request Unlock; confirm the shackle pops.
2. Use the Teleporte mobile application to confirm that the device reports the open state.
3. Push the shackle down and confirm that the Teleporte APP reports the closed state.
4. Repeat steps 2-4 for at least 5 successful open/close cycles.

Contact us (support@sera4.com) if the AP3 does not function well.

Important

Waterproofing Procedure

1. Stickers overtop of screws and the USB port should be replaced with a new water-resistant sticker.
2. A small amount of silicone should be applied to the Front and Rear Set Screws after proper function of the Battery and AP3 has been confirmed.

Battery Passivation

In rare occasions, the AP3 padlock can report low battery shortly after replacing the battery. This is usually the result of the lithium battery being stored for an extended period and is normal. Sera4 recommends running the Manual LED Maintenance routine to recover the battery.

Hold the button on the AP3 for 30 seconds to start the Manual LED Maintenance routine. The routine will turn on the LED in a whiteish colour (it may appear slightly blue, green, or red but not the normal blue, green, or red colour). The routine will take 24 hours to complete. It will automatically pause if the AP3 padlock is interacted with but will also resume automatically.

Please retest the AP3 (open and close 5x times) after the routine has completed 24 hours.

Do not run the Manual LED Maintenance routine if the AP3 is working well after replacing the battery as the routine does impact the lifetime of the battery.