

# Lithium to lead-acid battery conversion kit

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## INSTALLATION MANUAL

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# How does our compatibility kit work?

The original vehicle lithium battery management system (BMS) is integrated inside the battery, connected to the body computer through LIN line communication, and transmits the current voltage and current data of the battery in real time.

The lead-acid battery itself does not have a BMS or similar thing. Suppose we want the lead-acid battery to be compatible with the Porsche/Lamborghini/Bentayga onboard computer. In that case, you need to install an additional BMS and overwrite its original lithium battery data.

We integrated the battery voltage monitoring manager into the newly designed negative line. Use this freshly designed line to replace the original car's power line and add an external power supply line to complete the hardware modification.

Then, to use our OBD automatic programmer overwrites the battery configuration data of the original 2024 Cayenne models to achieve compatibility and synchronization, allowing the onboard computer to continue to monitor the battery voltage and current, thereby completely realizing battery replacement.

Our OBD programmer only overwrites the battery data configuration data and does not leave any other parameters unchanged.

Our modified kit includes all the necessary parts mentioned above.

## Parts list

1 x Modified negative lead

1 x Battery monitoring wire

1x Battery vent connection cap

1x OBD Programmer

1 x M6 nuts



Battery vent connection cap



BMS pwer supply wire



Modified negative load



OBD Programmer

# Parts list

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A



B



D



C

**A: 10mm wrench**

Used to tighten or loosen the nuts connecting the battery terminals

**B: 10mm socket wrench**

Used to tighten or loosen nuts on BMS power supply wires

**C: 10mm socket wrench**

Used to tighten or loosen the frame that holds the battery

**D: 13mm wrench**

Used to tighten or loosen the nut that secures the negative lead to the car

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Tools needed  
(not included in the kit)

# Extra tools option (not included in the kit)

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A



B

**A: Any long and thin metal crowbar**

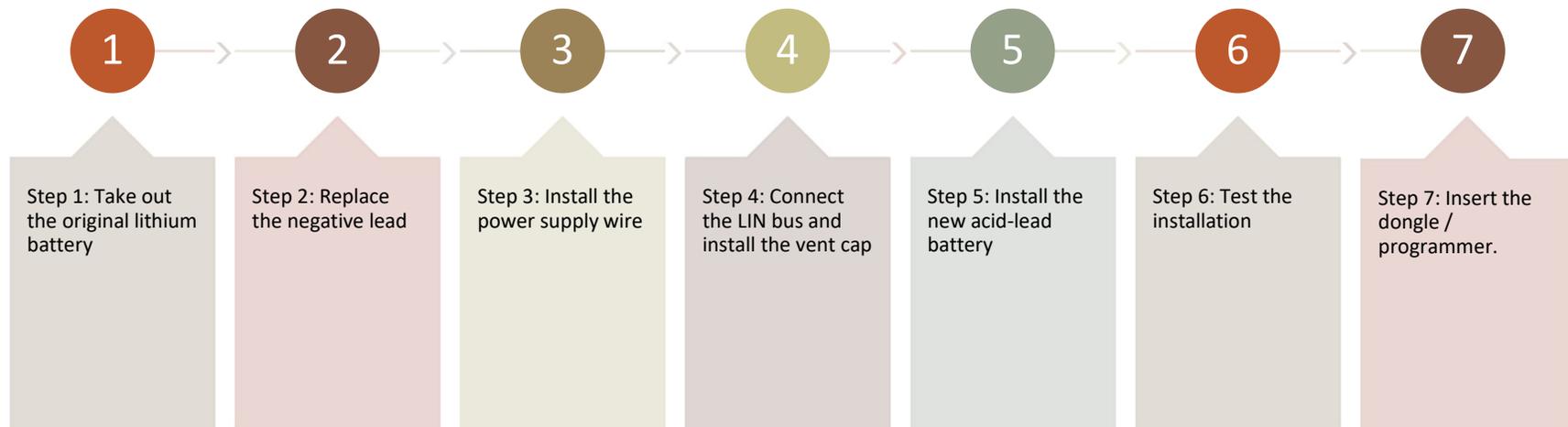
Used to remove the battery compartment cover and elevate the passenger floor, facilitating the removal of the original negative lead.

**B: Pick or hook**

Used to carefully remove the highly delicate purple locking bracket on the LIN bus plug.

# Steps summary

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# Step 1: Take out the original lithium battery

1

1. Remove the frame holding the battery

2

2. Disconnect the leads from the positive and negative terminals of the lithium battery

3

3. Remove the lithium battery from the car

**WARNING:** Always wear insulating gloves during operation. Should you be unfamiliar with the process of battery removal, it is highly recommended to bring the products along with this manual to a reputable auto repair shop for professional service. Please refer to the video version for more detailed instructions: [https://www.youtube.com/watch?v=Knf-RLz\\_mXs](https://www.youtube.com/watch?v=Knf-RLz_mXs)



## Step 2: Replace the negative lead

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- ①: Original car negative wire
  - ②: Our modified car negative wire

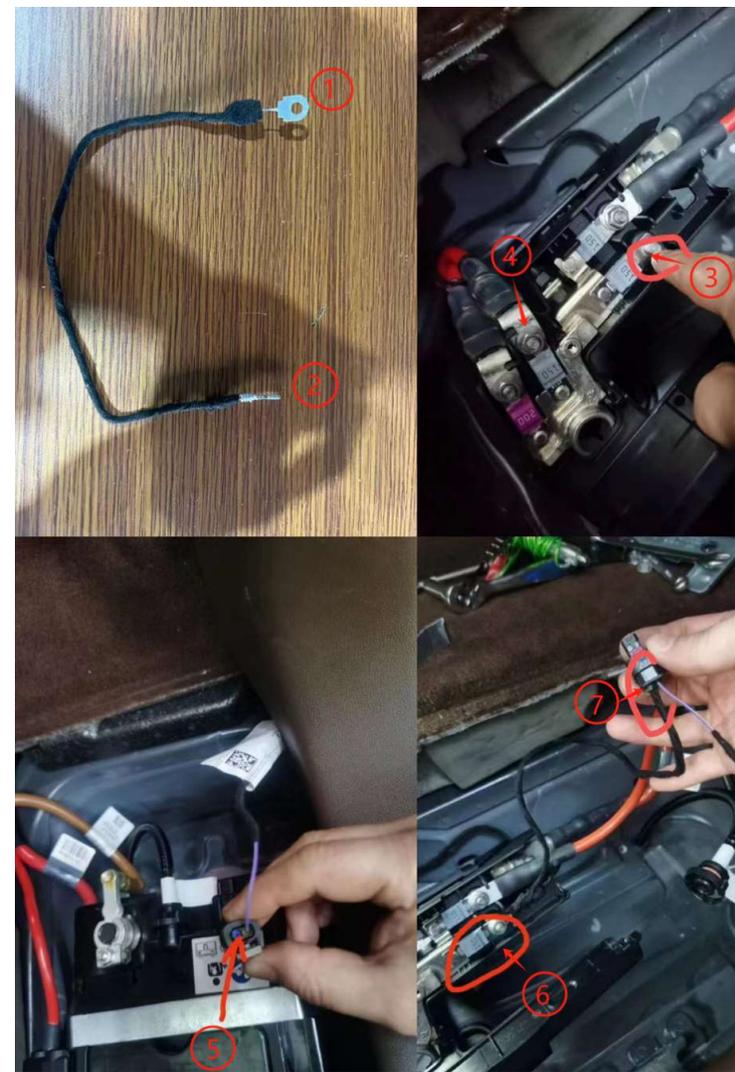


**WARNING:** The negative lead, located beneath the floor, necessitates the use of a 13mm wrench to detach the nut securing it in place. Please refer to the video version for more detailed instructions: [https://www.youtube.com/watch?v=Knf-RLz\\_mXs](https://www.youtube.com/watch?v=Knf-RLz_mXs)

## Step 3: Install the power supply wire

- ①: Connecting with ③ or ④, then use M6 nut to fix it
- ②: Connecting with ⑤
- ③: Recommended to use this port to connect with ①
- ④: Alternative port to connect with ①
- ⑤: Remove the purple locking bracket then connect with ②
- ⑥: Example of completed connection of ① and ③
- ⑦: Example of completed connection of ② and ⑤

**WARNING:** When connecting the power supply wire, exercise caution due to several sensitive components, particularly the fragile purple locking bracket on the LIN bus plug. Please refer to the video version for more detailed instructions:  
[https://www.youtube.com/watch?v=Knf-RLz\\_mXs](https://www.youtube.com/watch?v=Knf-RLz_mXs)





## Step 4: Install the vent cap

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①: Install the white ventilation cover on the ventilation duct of the car

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## Step 5: Install the acid-lead battery

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- ①: Restoration protection hatch cover
- ②: Connect the new negative lead to the new battery
- ③: Connect the vent cap to the new battery

**WARNING:** Please refer to the video version for more detailed instructions:  
[https://www.youtube.com/watch?v=Knf-RLz\\_mXs](https://www.youtube.com/watch?v=Knf-RLz_mXs)



## Step 6: Start the car

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Start the car.

If the car starts successfully and warns that the vehicle's electrical system is faulty, the battery is installed successfully. Otherwise, please repeat steps 1 to 4.

**WARNING:** Please refer to the video version for more detailed instructions:  
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## Step 7: Turn off the vehicle and plug in the OBD programmer.

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Make sure the car's middle screen is powered.

The OBD interface is located under the driver's seat.

Wait about 10 seconds after insert the programmer.

If you hear a "beep", the process is done.

Unplug the OBD programmer. The installation is completed.

**WARNING:** Hearing two consecutive 'beeps' indicates that the OBD programmer usage has reached its maximum limit. Should you suspect that the activation was unsuccessful, please reach out to customer support for assistance. Please refer to the video version for more detailed instructions: [https://www.youtube.com/watch?v=Knf-RLz\\_mXs](https://www.youtube.com/watch?v=Knf-RLz_mXs)