Vehicle-Specific Power Tailgate Lift System



Kia Carnival

2024-2025

Part no. ARKCNV24

Points to Note

- For safety and to ensure proper product use, we recommend professional installation. Do not attempt to disassemble or install the system yourself, as this may result in product damage or personal injury.
- Route each wire harness according to the instructions in this manual, securing them to the vehicle's factory harnesses with cable ties. Ensure the wiring is kept clear of fasteners and screw holes to prevent the harnesses from being crushed or pinched by trim panel clips and screws during reassembly.
- Some wire harness terminals (indicated by the red ellipses below) are left disconnected during manufacturing. Please insert these terminals into their corresponding connectors before routing the harnesses to prevent short circuits. Once routed, connect the remaining harness plugs (indicated by the blue ellipses) to the vehicle's factory plugs.



- Before beginning installation, inspect the vehicle's instrument panel display, verify that all buttons, doors, and windows operate correctly, and check for any pre-existing scratches on the interior or exterior. Report any issues to the customer immediately.

Installation Precautions

- Remove any metal accessories or hard objects from your person during installation to prevent damaging the vehicle's paint, seats, or interior. Carefully store all removed trim components in a safe location to avoid scratches.
- The illustrations in this manual are for reference only. While specific vehicle configurations may vary slightly from the pictures, the general installation methods remain the same.

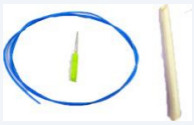
In the Box

1		Strut	Qty 2
2		Tailgate ECU	Qty 1 set
3		Wire harness	Qty 1 set
4		Power latch	Qty 1
5		Tailgate switch	Qty 1

Other Accessories

Screws, brackets

Recommended Tools



Threading tools



Quick release ratchet wrench set



Electric drill and drill bits



Other tools

Notice

This vehicle-specific kit converts the manual tailgate on the vehicle listed in this manual to power operation. Installation requires a good level of technical knowledge. Please read this manual in its entirety before you start.

Use the correct tools during installation to prevent damage to the vehicle or the product. Please note that we cannot be held liable for any issues arising from improper installation.

Before starting the installation, disconnect the negative battery terminal and make sure the ignition is off and the key is removed or kept away from the vehicle.

Installation



1 Remove the indicated driver's side trim panel and door sill panels.



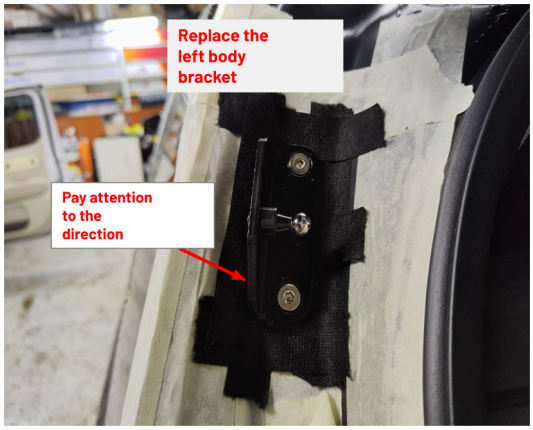
2 Remove the middle right step board.



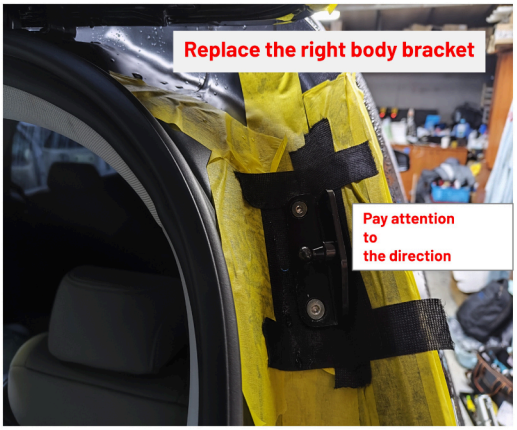
3 Remove the tailgate trim panels.



4 Remove the factory struts. To do this safely, remove and replace one strut at a time.



5 Replace the left body bracket.



6 Replace the right body bracket.



7 Replace the left tailgate bracket.



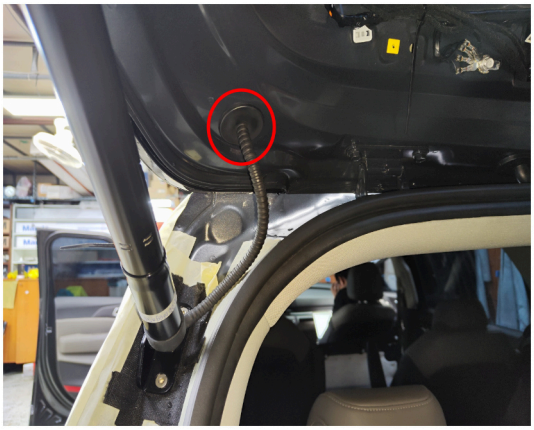
8 Replace the right tailgate bracket.



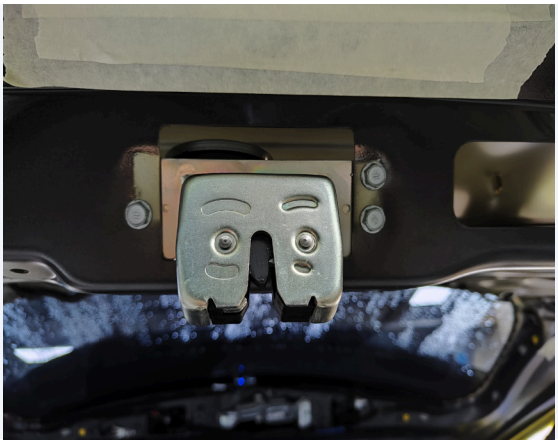
9 Install the electric struts(L for the left side, R for the right side, as indicated by the first letter of the strut code).



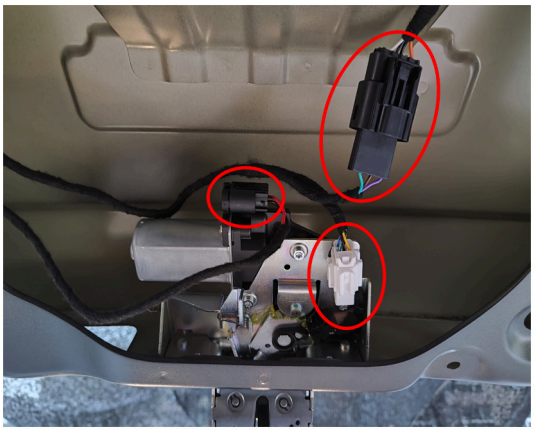
10 Thread the strut wire harnesses through the holes on the tailgate and route the wire harnesses as indicated.



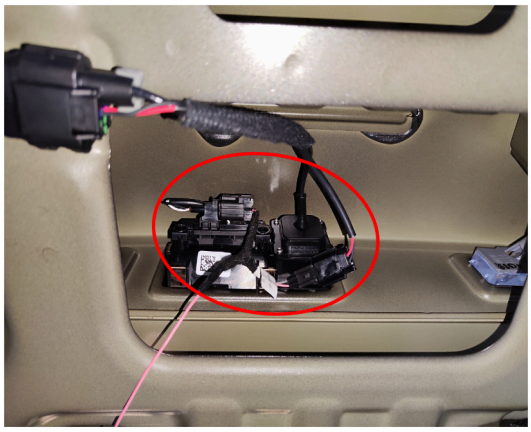
11 Seal the holes on both sides securely.



12 Remove the factory latch and install the power latch.



13 Connect the lock signal harness connector to the power latch.



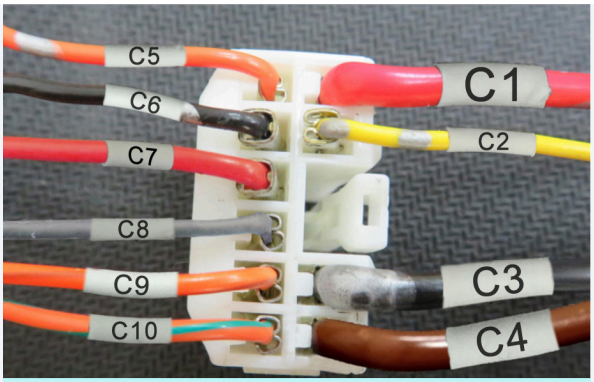
14 Connect the lock signal harness connector to the factory tailgate switch.



15 Route the power harness as indicated.

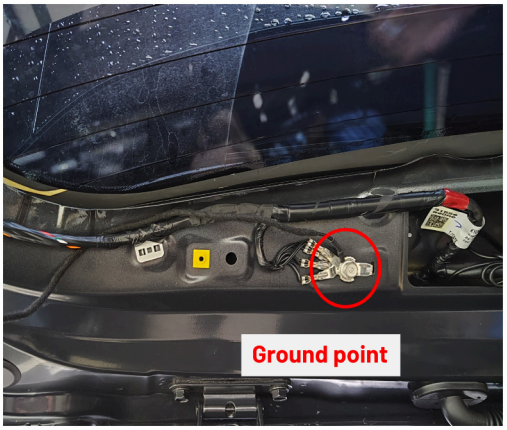


16 Thread the power harness to the tailgate.



Note: For models with fewer than 10 wires, just insert them according to the corresponding label or color.

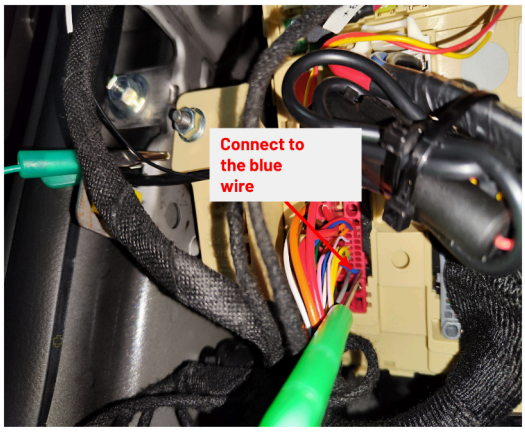
17 Insert the power harness terminals into the connector according to the diagram.



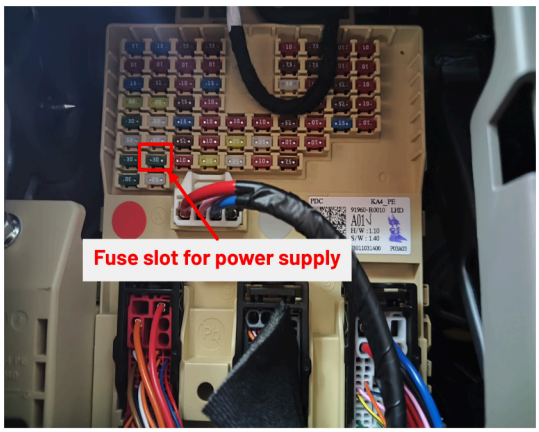
18 Secure the ground wire connector to the factory grounding point on the tailgate, as indicated.



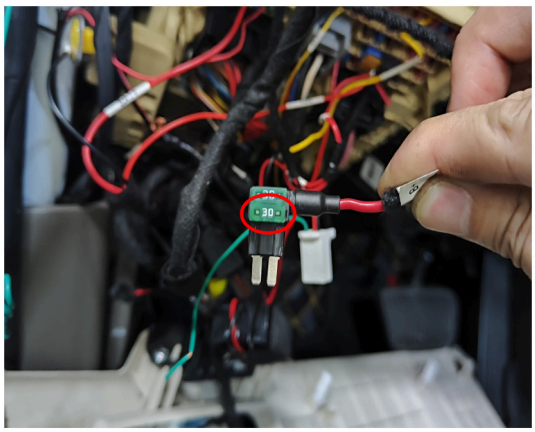
19 Connect the power harness connectors to the indicated connector behind the fuse box.



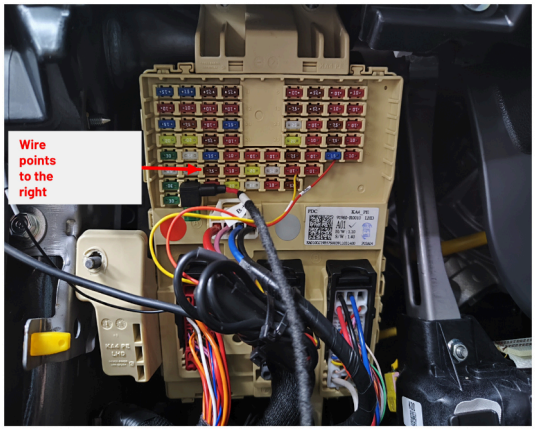
19.1 If you choose not to connect the CAN signal, connect the orange wire of the power harness to the indicated blue wire.



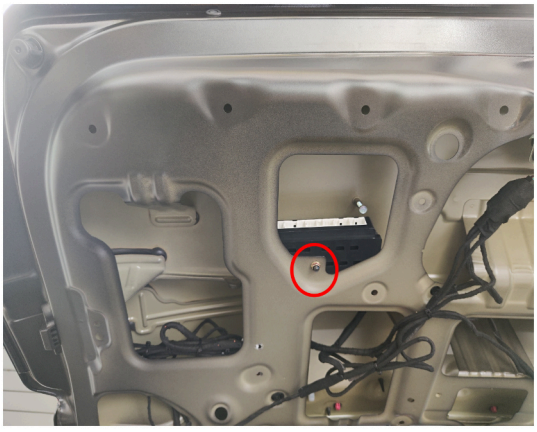
20 The fuse box is located in the driver's footwell area; the power supply fuse slot is indicated above.



21 Move the factory fuse from the fuse box to the indicated location on the fuse tap.



22 Plug the fuse tap into the fuse box, ensuring correct orientation.



23 Secure the tailgate ECU at the indicated location with a nut.



24 Insert the left and right strut wire harnesses①②, lock signal harness③, and power harness④ into the tailgate ECU in sequence.



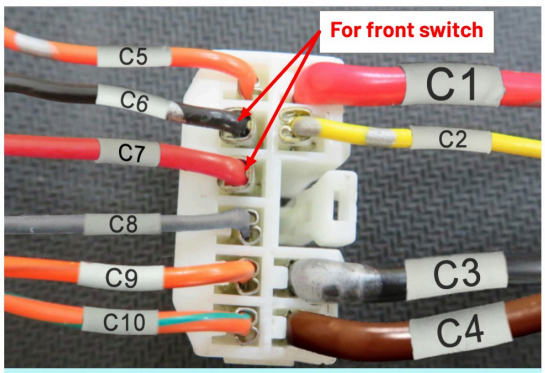
25 Press the new tailgate switch to close the tailgate once; this completes system initialisation. Test each function of the electric tailgate.



26 Install the new tailgate switch and reinstall all trim panels.



(Optional) Drill a 21mm hole with the provided hole saw and fit the front switch.



Note: For models with fewer than 10 wires, just insert them according to the corresponding label or color.

Insert the two terminals of the front switch extension wire into the power harness connector, following the wire labels.

System Initialisation

1. Press the newly installed tailgate switch to close the tailgate automatically.
2. Press the exterior tailgate switch to open it; you will hear a long beep.
3. System initialisation is now complete.

Operating Instructions

1. Opening and Closing the Tailgate:
   - Press and hold the unlock button on the remote key.
   - Press the interior unlock button near the driver 3 times.
   - Press the factory tailgate switch.
   - Press the newly installed tailgate switch to close the tailgate.
   - Press the front switch: hold for 4 seconds to open, or press briefly to close.
2. Pausing the Tailgate:

   During the operation of the tailgate, press the button with any of the above methods, and the tailgate will be paused. Press again, and the tailgate will move in reverse.

Configuring the Tailgate Switch Settings

1. Adjusting Closing Speed (5 Levels)
   1. Press and hold the switch until you hear a single short beep.
   2. Release the button; a short beep confirms the new closing speed is set.
   3. Repeat this process to increase the speed by one level.
2. Adjusting Opening Speed (5 Levels)
   1. Press and hold the switch until you hear two short beeps.
   2. Release the button; two short beeps confirm the new opening speed is set.
   3. Repeat this process to increase the speed by one level.

3 Voice Module Configuration

1. Press and hold the switch until you hear three short beeps.
2. Release the button; three short beeps confirm the voice module has entered configuration mode. (For details, see the voice module operation manual.)

4 Muting the Voice Module

1. Press and hold the switch until you hear the fourth short beep.
2. After releasing the button, you will hear three four beeps indicating that the voice module has been blocked.

5 Setting the Maximum Opening Height

1. Press and hold the switch until you hear the fifth short beep.
2. Release the button; a long beep confirms the height setting is complete.

6 Remote Key Unlock Button Sensitivity(Quick/Slow Press)

1. Press and hold the switch until you hear six short beeps.
2. Release the button; a long beep followed by a short beep confirms the setting for quick and slow unlock button presses has been toggled.

7 Remote Key Activation (Double-Press vs. Triple-Press)

1. Press and hold the switch until you hear seven short beeps.
2. After releasing the button, you will hear a long beep sound and two short beeps indicating that the switch between pressing the unlock button twice/three times has taken effect.

8 Adjusting Braking Force (5 Levels)

1. Press and hold the switch until you hear eight short beeps.
2. After releasing the button, you will hear a long beep sound and three short beeps indicating that the switch between pressing the unlock button twice/three times has taken effect.
3. Repeat this process to increase the setting by one level.

9 Factory Reset

1. Press and hold the switch until you hear nine short beeps.
2. Release the button; a long beep followed by four short beeps confirms the factory settings have been restored.

Buzzer Sound Indicators

One Beep: The tailgate has received an open, close, or pause signal and will respond immediately.

Two Beeps: The tailgate is fully opened or fully closed.

Three Beeps: The tailgate encountered excess resistance; the intelligent anti-pinch safety feature has been activated.

Technical Support

If you need help setting up or using your Aerpro product, now or in the future, call Aerpro Support Australia on 03 8587 8889, Monday to Friday, 9am to 5pm AEST.

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