Pony.ai

Law Enforcement Interaction Plan

October 2022

Introduction

This document is intended to be used by trained first responders and assumes a professional-level background in safely responding to emergencies, including those involving damaged vehicles. This document also provides supplemental information related to interacting with Pony.ai autonomous vehicles.

In this guide, Pony.ai autonomous vehicles are based on the Hyundai Kona EV. All information provided in the base of Hyundai Kona Electric Emergency Response Guide is applicable to the Pony.ai autonomous vehicles. The Hyundai Kona Electric Emergency Response Guide is also provided in the glove compartment in front of the co-driver seat.

For additional information, please contact your primary Pony.ai point of contact.

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Pony.ai Contact Information

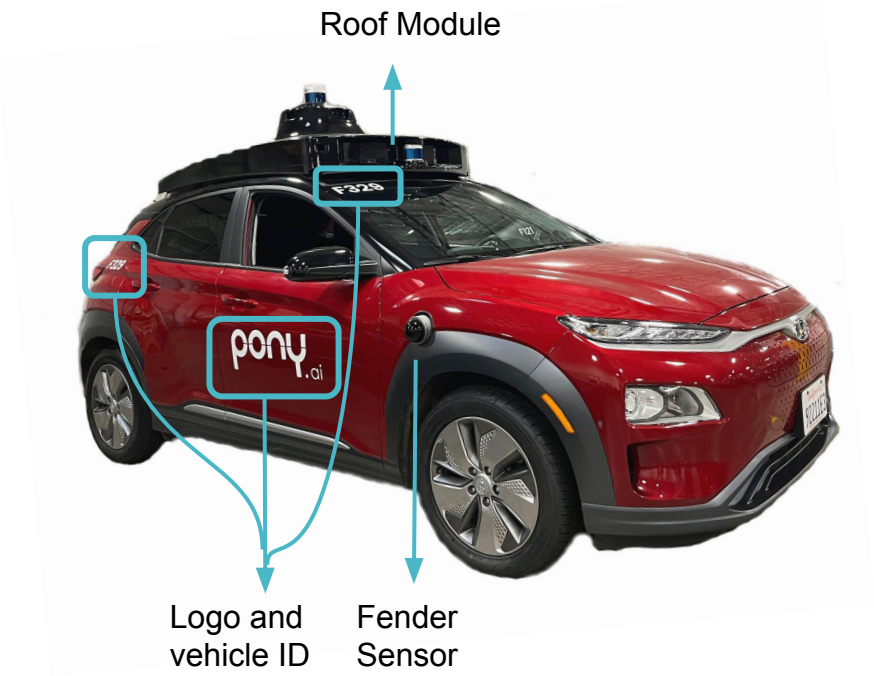
Pony.ai can be reached using the phone number shown below during our autonomous operation hours for any questions and concerns, as well as on demand help during a law enforcement interaction. In such a case, please provide our specialists with the location, license plate information, and vehicle number.

For other requests, please contact us using the email address provided below.

Contact	
Telephone	(510) 906-8868
Email	contacts@pony.ai

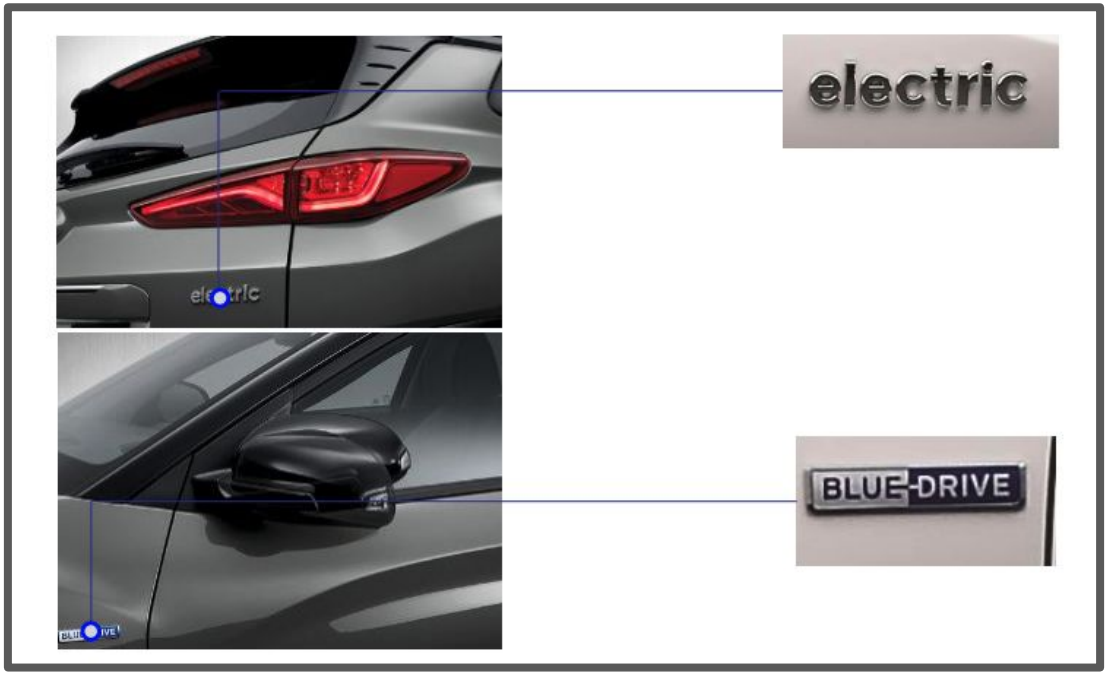
Identify Pony.ai Autonomous Vehicles

One can simply identify Pony.ai's Hyundai Kona EVs by the white color of Pony.ai logo on the doors, the white color of vehicle ID number on each side of the vehicle, the roof module, and the fender sensors.



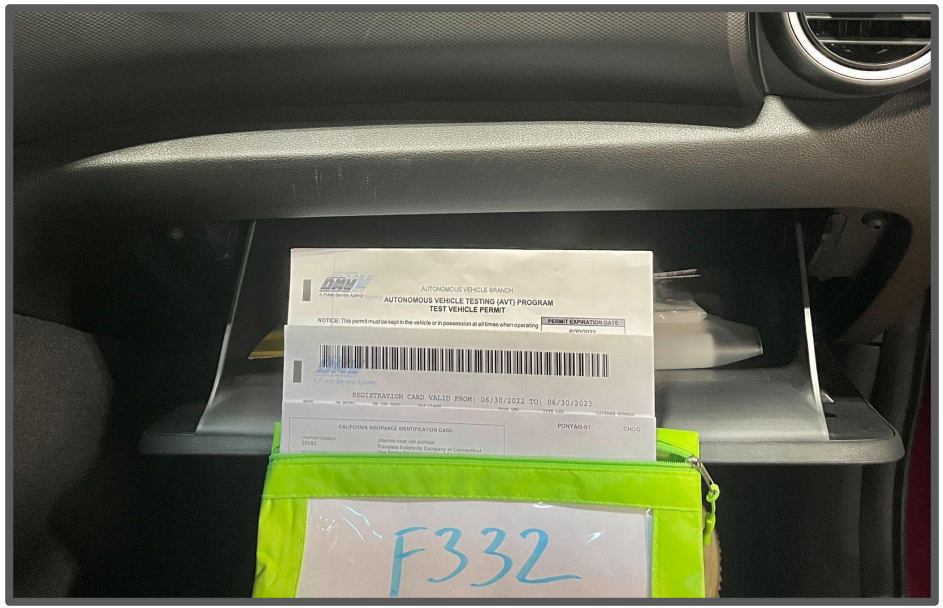
Identify Pony.ai Autonomous Vehicles

The Hyundai Kona EV can be easily identified by the ‘electric’ and the ‘KONA’ badge located on the trunk lid and the ‘BLUE-DRIVE’ badge on the left side of the vehicle. Badging can become hidden after a crash due to damage to the vehicle. Always be sure to utilize additional methods of identification before determining there is no badge present.



Location of In-vehicle Documents

A physical copy of the owner information, autonomous vehicle permit, vehicle registration, proof of insurance, and Pony.ai Incident Response Procedure is stored inside the glove compartment of each Pony.ai autonomous vehicle.



Operational Design Domain

During road testing, Pony.ai autonomous vehicles are operated with safety operators seated in the driver's seat. Below is the list of environmental conditions approved for operations.

Time of day:	Daytime and Nighttime, no restrictions
Roadway types:	City streets and highways, including but not limited to residential, parking lot, multi-lane, single lane, one-way, turn-only lanes, various intersections, u-turns, 4-way/2-way stop, roundabout, merge lanes, crosswalk, railroad crossing, tunnels and school zones.
Speed range:	Up to 55 mph.
Weather:	Sunny, cloudy, light to heavy rains, fog, and smog. (We currently don't operate in snow or hail.)

Response to Incidents

Pony.ai has established an Incident Response Procedure for our fleet response team to take immediate actions in the event of an incident involving a Pony.ai autonomous vehicle. The scope of this procedure is to (1) ensure the safety of all parties, (2) coordinate with law enforcement and emergency response services as necessary, and (3) preserve all relevant information.

During the operation of our autonomous vehicles, Pony.ai's fleet management team is monitoring vehicle operations status both on-site and, if applicable, remotely from Pony.ai's Fremont, CA Headquarters.

- A safety operator is in the Pony.ai autonomous vehicle and is capable of taking immediate actions according to the procedures.
- A Remote Assistant Administrator is capable of remotely monitoring and providing support to our autonomous vehicles by Pony.ai Fleet Control Center.
- An Incident On-call Commander can be contacted at all times by safety operators and Remote Assistant Administrator to define the severity of an incident and to take immediate actions according to our procedures.
- A Field Response Team is on-call and can be dispatched to provide on-scene support to safety drivers, law enforcement, and first responders.

Identify the Autonomous Driving Mode

To identify if the vehicle is in autonomous driving mode, approach to the driver or passenger seat and check the status showing on the front monitor:

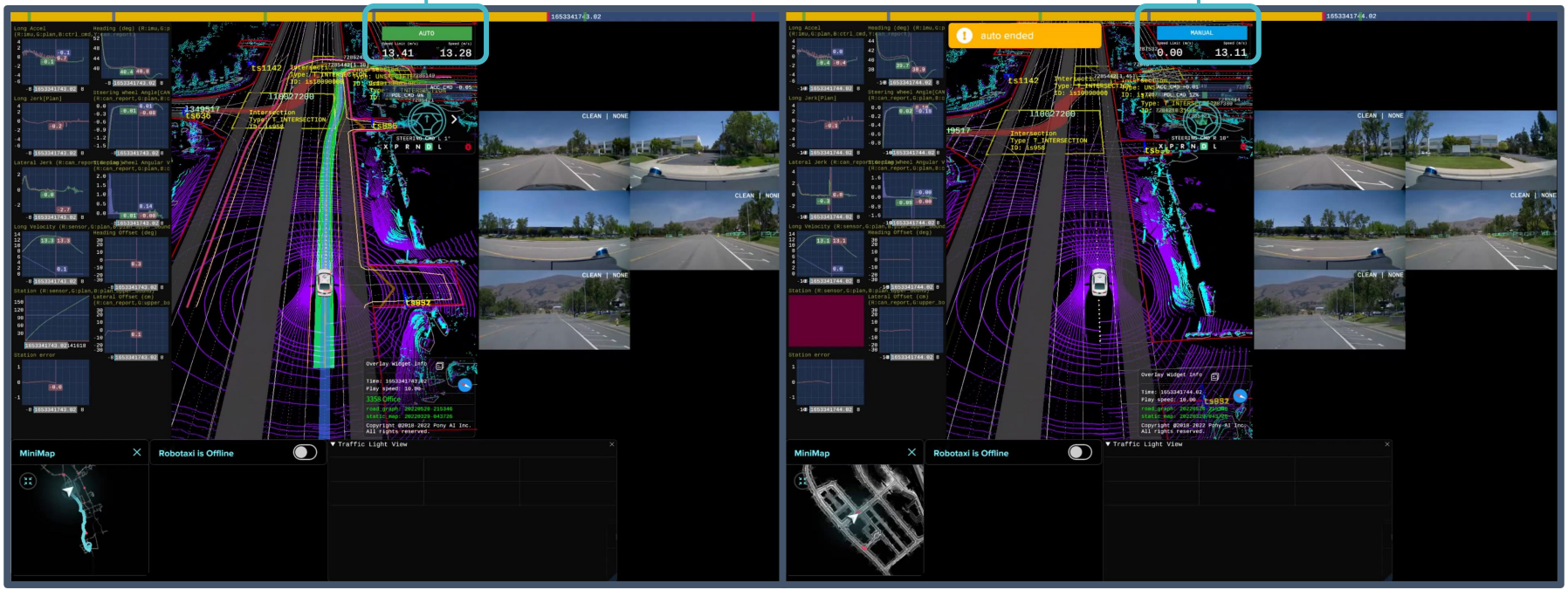
- If the GREEN bar with AUTO displayed on the screen, it indicates the vehicle is in autonomous driving mode.
- If the BLUE bar with MANUAL displayed on the screen, it indicates the vehicle is in manual driving mode.

Front monitor

Identify the Autonomous Driving Mode

Vehicle in Auto Mode

Vehicle in Manual Mode



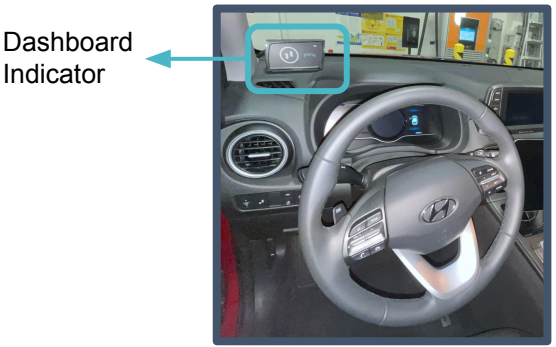
Identify the Autonomous Driving Mode

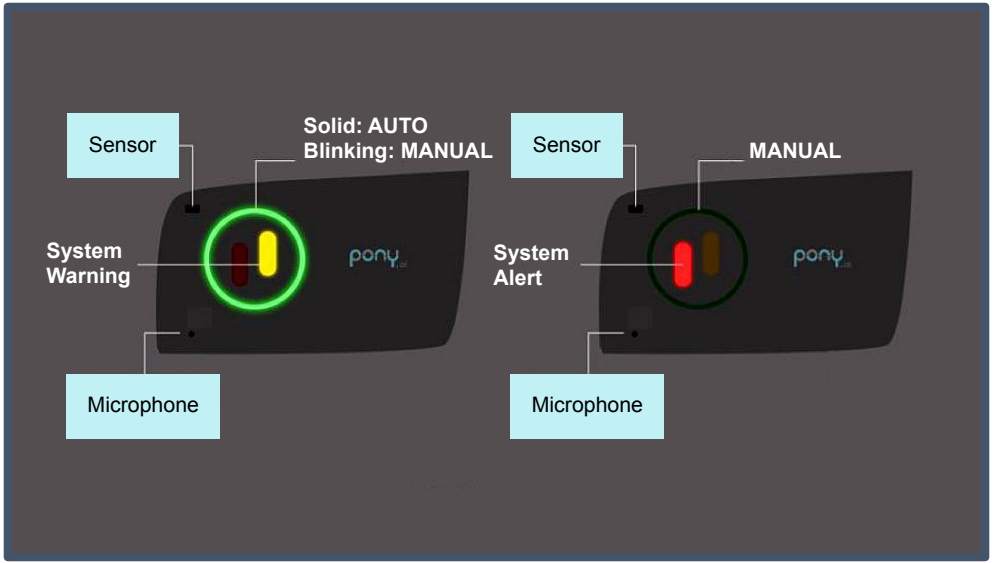
As an alternative, one can identify if the vehicle is in autonomous mode by using Pony.ai Dashboard Indicator

- If the ring light is on **solid** GREEN, it indicates the vehicle is in autonomous driving mode.
- If the ring light is on **blinking** GREEN or is off, it indicates the vehicle is in manual driving mode.

Note:

- ***Blinking** YELLOW light indicates system warning. Pony.ai's safety driver will take actions to troubleshoot then re-enter autonomous driving mode.*
- ***Blinking** RED light indicates system alert, and actions of disabling autonomous mode are required.*





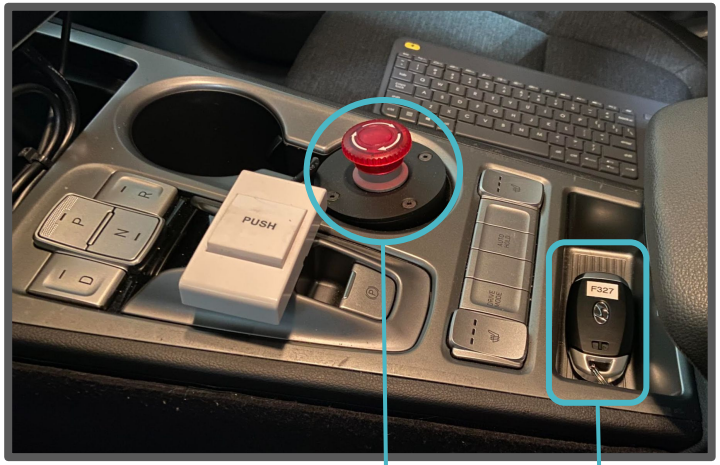
Disabling Autonomous Driving Mode

One can disable Pony.ai's autonomous driving mode by completing any of the following:

- Pushing down on the accelerator pedal
- Pushing down on brake pedal
- Manually steering the steering wheel
- Pushing the emergency red button nearby the central cup holder (highly recommended)

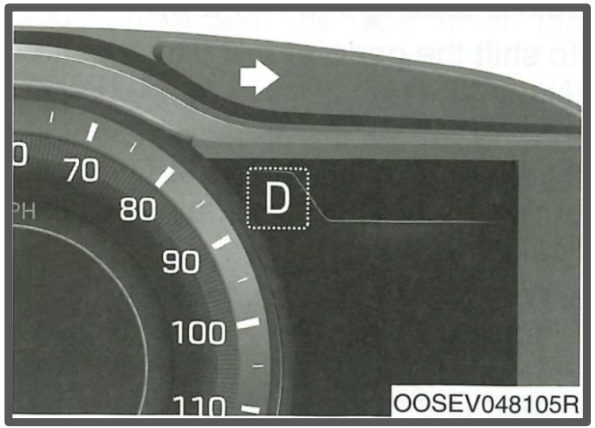
Note:

- *The key of the vehicle is always stored in the small compartment of center console during operation*
- *Please contact Pony.ai's On-call Commander (on page 4) if you have any questions during the disabling process*



Electric Shift Control and Parking Brake Operation

- The indicator in the instrument cluster displays the gear position when the POWER button is in the ON position



- Select the desired gear by pressing one of the buttons on the gear shift selector (always depress the brake pedal while shifting to another gear)

Turning Off the Vehicle

To turn of the vehicle:

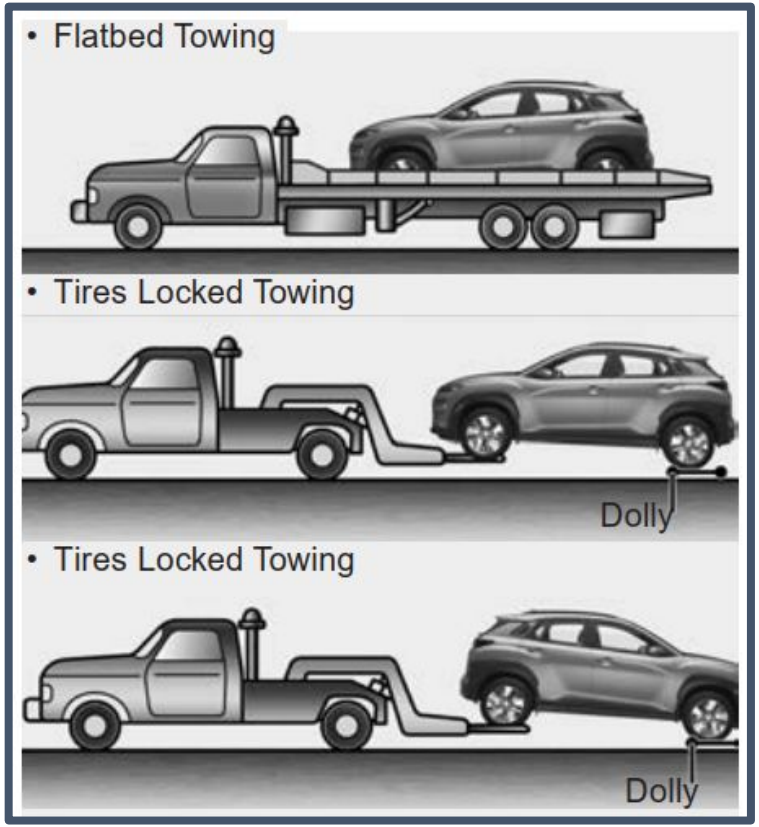
1. Depress the brake pedal fully
2. Shift to “P” (Park)
3. Apply the parking brake
4. Press the POWER button to turn the vehicle off
5. Make sure the "  " indicator light on the instrument cluster is turned off

Tow the Vehicle

If towing is required, lift all four wheels off the ground and tow the vehicle. If you must tow the vehicle using only two wheels, lift the front wheels off the ground and tow the vehicle.

If necessary to roll the vehicle onto a flatbed tow truck, perform the following:

1. Depress the brake pedal and release the parking brake.
2. While depressing the brake pedal shift to the N (Neutral) position and press the POWER button to turn the vehicle off.
3. Wait 3 minutes or more before opening the driver door and the vehicle will remain in ACC mode and in Neutral.
4. If the driver door is opened within the 3 minute period, the vehicle will automatically shift to P (Park), the vehicle will turn OFF and the front wheels will be remained locked.

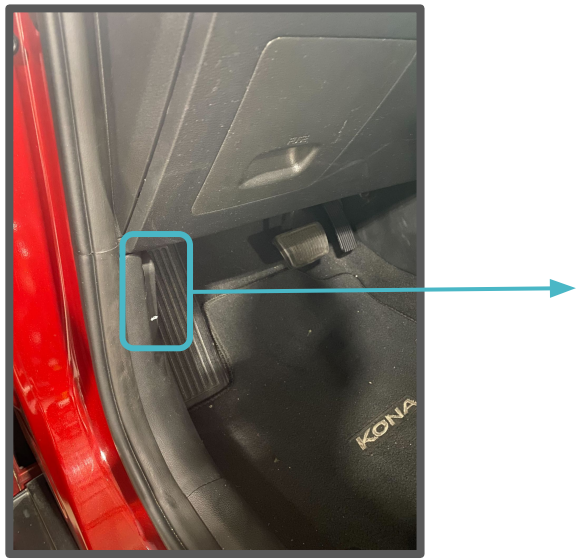


Tow the Vehicle

- Do not tow using the sling-type equipment. Use wheel lift or flatbed equipment.
- Do not tow the vehicle with the front wheels on the ground (forward or backward), as this may cause damage to the vehicle.

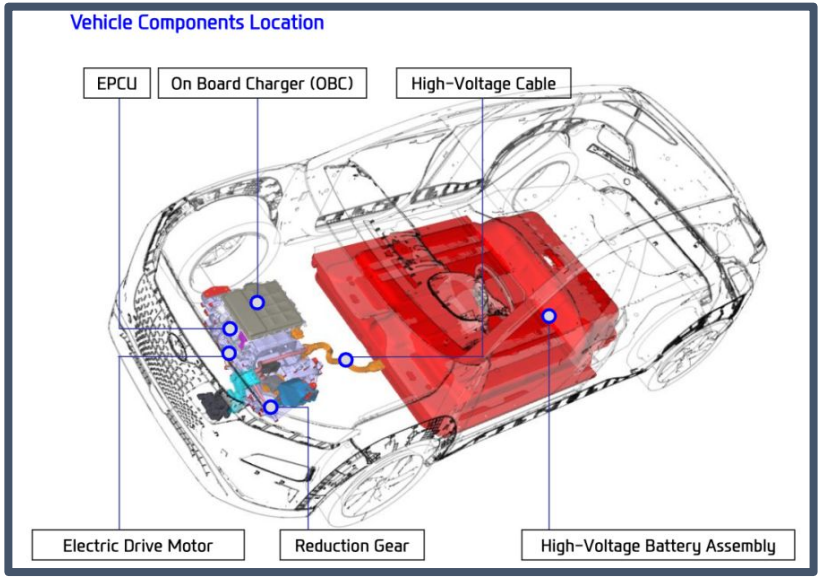
Opening the Trunk and Hood

- Press the button next to the liftgate handle and pull the handle to open the trunk
- Pull the hood release lever to unlatch the hood



Vehicle Systems Overview

- A high voltage (HV) battery pack along the bottom of the vehicle.
- An electrical power inverter (under the hood) provides power to the drive unit.
- A DC/DC converter (under the hood) provide the HV to 12V power conversion for the low voltage 12V electrical power system.
- An onboard charger (under the hood) system that serves the HV charging function for the HV battery pack.
- A HV junction box (under the hood) controls and manages the HV power to the DC/DC converter and the on board charger converter.



Disconnecting Base Vehicle 12V Battery

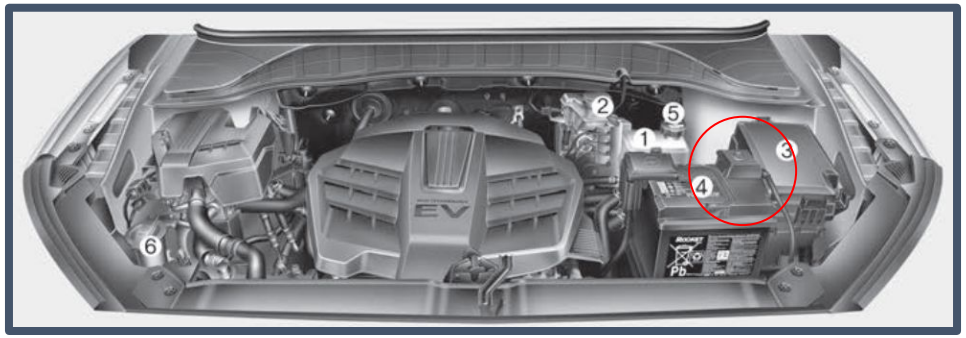
1. Before disconnecting the 12V power, move the smart key at least 7 feet away from the vehicle to prevent accidental restart.

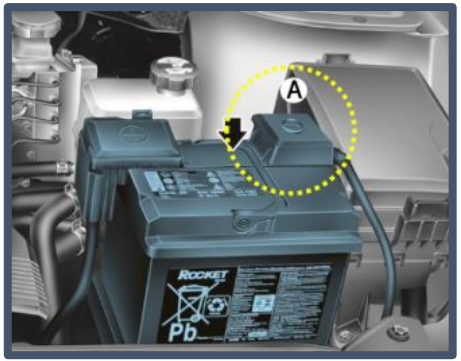
2. Before disconnecting the 12V power, open the hood, the trunk, and all doors by smart key or buttons close to each door and liftgate.

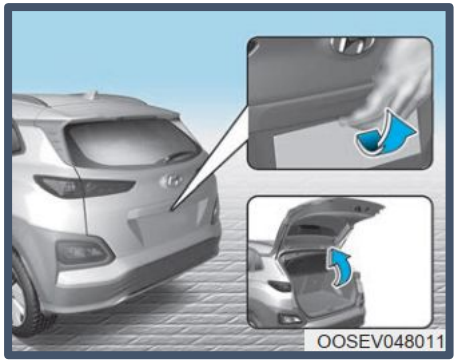
3. The 12V battery is to the right of the compartment as shown in the figure.

4. Disconnect or cut the 12V negative power cable which connect to the negative stud.

5. Protect the ends from arcing against metal chassis.

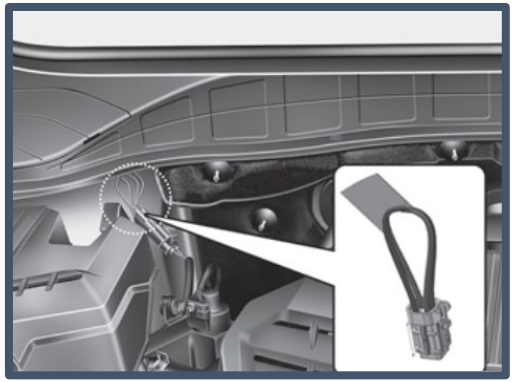


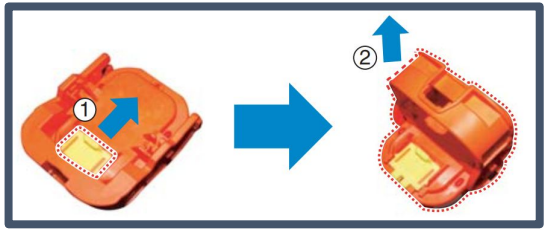




Disconnecting HV Battery

1. Disconnect or cut the HVIL connection wire under the hood.
2. Lift the rear seat cushion, this will reveal the HV service plug.
3. Lift clear the metal cover.
4. Remove the ORANGE color female service plug.





Electric Vehicle Safety Precautions - Submersion

- If the vehicle is flooded with water, immediately turn OFF the vehicle and evacuate to a safe place. Contact 911 or an authorized HYUNDAI dealer.
- Some emergency responses can involve a submerged vehicle. A Kona electric vehicle that is submerged does not have high voltage component on the vehicle's body or framework, it is safe to touch the vehicle's body or framework if there is no severe damage to the vehicle, whether it is in the water or on land.
- In the event the vehicle is submerged or partially submerged, remove the vehicle from the water before attempting to disable the vehicle. Drain the water from the vehicle. Use one of the methods described in previous section to disable the LV and HV on the vehicle.
- If severe damage causes high voltage components to become exposed, responders should take appropriate precautions and wear appropriate insulated personal protective equipment.
- Do not attempt to remove the HV service plug while in the water. Failure to follow may result in serious injury or death by electrocution.

Electric Vehicle Safety Precautions - High Voltage

- When a vehicle accident occurs, move the vehicle to a safe place, turn OFF the vehicle and disconnect the auxiliary battery (12 V) terminal to prevent high voltage electricity from flowing.
- If any electrical wires are exposed from inside or outside the vehicle, do not touch the wires. Also, do not touch the high voltage electrical wire (orange), connector, and all electrical components and devices. This may cause electric shock and lead to injuries.
- When a vehicle accident occurs and the high voltage battery is damaged, harmful gas and electrolytes may leak. Be careful not to touch the leaked liquid. If you suspect leakage of any fluid or harmful gases, open the windows and evacuate to a safe place. If any leaked fluid comes in contact with your eyes or skin, immediately clean the affected area thoroughly with tap water or saline solution and have doctors inspect it as soon as possible.

Electric Vehicle Safety Precautions - Fire

- If a small scale fire occurs, use a fire extinguisher (ABC, BC) that is meant for electrical fires. If it is impossible to extinguish the fire in the early stage, remain a safe distance from the vehicle and immediately call 911. Also, advise them that an electric vehicle is involved.
- If the fire spreads to the high voltage battery, a large amount of water is needed to put out the fire. Using small amount of water or fire extinguishers not meant for electrical fires could cause serious injury or death from electrical shock.
- If you cannot put out the fire immediately, the high voltage battery may explode. Evacuate to a safe place and do not let other people approach the site. Contact the fire department and notify them of an electric vehicle fire.

Thank You

For additional information, please contact your Pony.ai primary point of contact.

Thank you for your partnership.