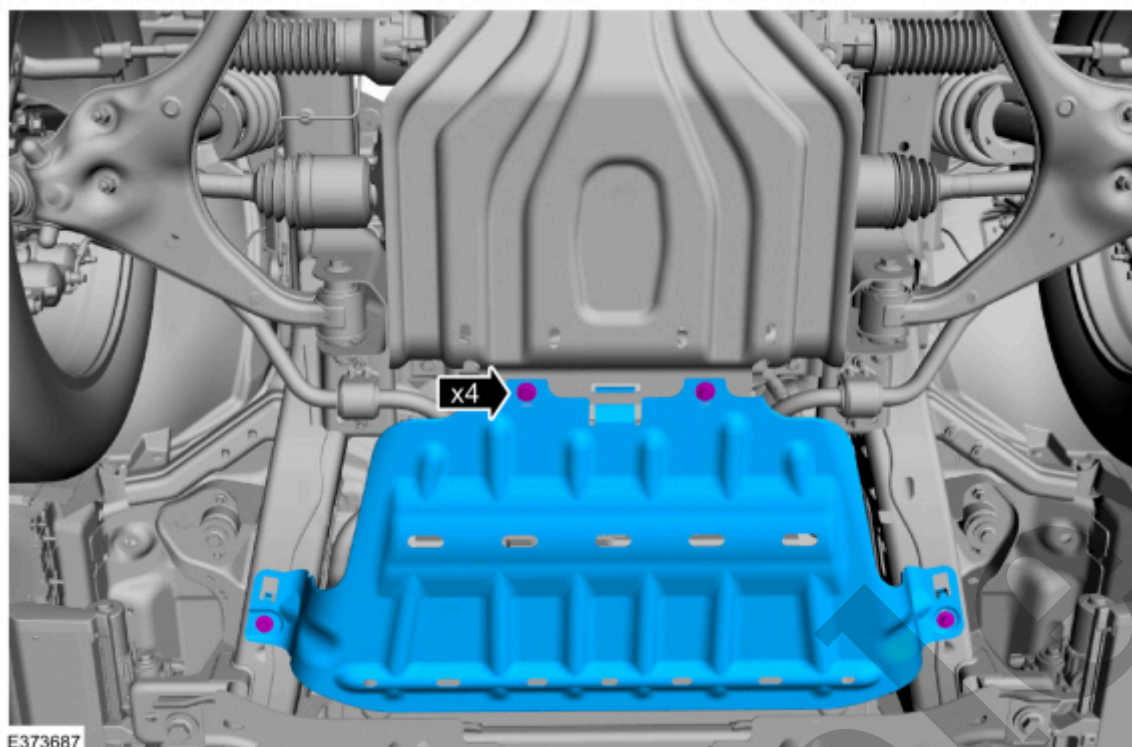


Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

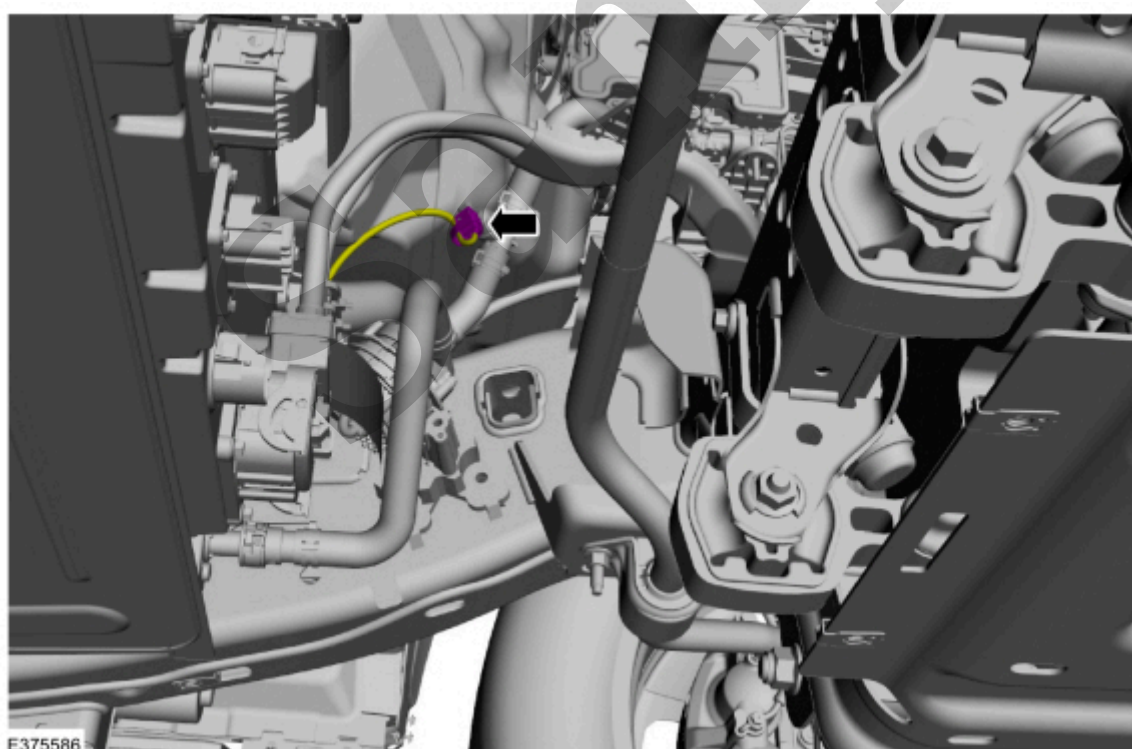
2013 FORD Ka OEM Service and Repair Workshop Manual

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[Click here to learn about symbols, color coding, and icons used in this manual.](#)

3. Disconnect the HVB (High Voltage Battery) coolant temperature sensor electrical connector.



[Click here to learn about symbols, color coding, and icons used in this manual.](#)



High Voltage Battery Coolant Tube Assembly - Electric

414-03A High Voltage Battery, Mounting and Cables	2022 F-150
Removal and Installation	Procedure revision date: 04/22/2022

High Voltage Battery Coolant Tube Assembly - Electric

Removal

WARNING

To prevent the risk of high-voltage shock, always follow precisely all warnings and service instructions including instructions to depower the system. The high-voltage system utilizes high-voltage cables to its components and modules. The high-voltage cables and wiring are identified by orange harness tape or orange wire covering. All high-voltage components are marked with high-voltage warning labels with a high-voltage symbol. Failure to follow these instructions may result in serious personal injury or death.

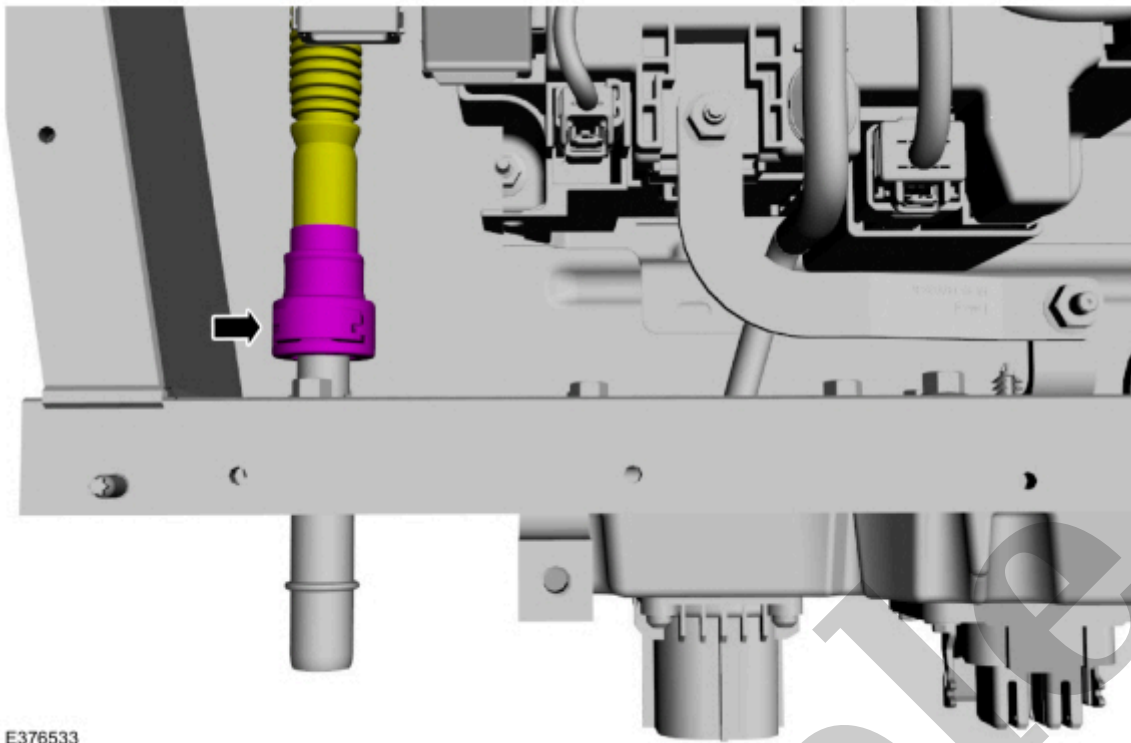
NOTE

Removal steps in this procedure may contain installation details.

NOTE

Right side shown, left side similar.

1. Refer to: [High Voltage System Health and Safety Precautions - Overview](#)(100-00 General Information, Description and Operation).
2. De-energize the high voltage system.

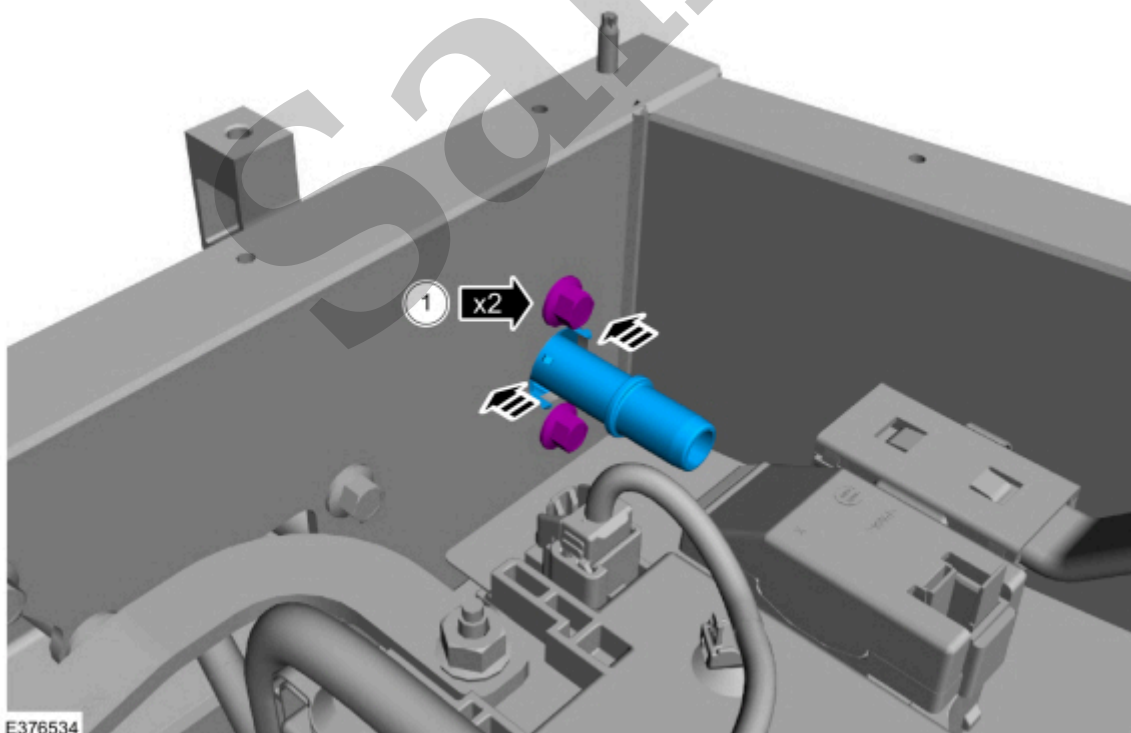


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6. 1. Remove the bolts and the HVB (High Voltage Battery) coolant tube assembly.

Torque : 106 lb.in (12 Nm)



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High Voltage Battery Coolant Tube Assembly - Full Hybrid Electric Vehicle (FHEV)

414-03A High Voltage Battery, Mounting and Cables	2022 F-150
Removal and Installation	Procedure revision date: 05/21/2021

High Voltage Battery Coolant Tube Assembly - Full Hybrid Electric Vehicle (FHEV)

Removal

WARNING

To prevent the risk of high-voltage shock, always follow precisely all warnings and service instructions, including instructions to depower the system. The high-voltage system utilizes approximately 450 volts DC, provided through high-voltage cables to its components and modules. The high-voltage cables and wiring are identified by orange harness tape or orange wire covering. All high-voltage components are marked with high-voltage warning labels with a high-voltage symbol. Failure to follow these instructions may result in serious personal injury or death.

NOTE

Removal steps in this procedure may contain installation details.

1. **WARNING**

Before beginning any service procedure in this section, refer to Safety Warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

Refer to: [High Voltage System Health and Safety Precautions - Overview](#)(100-00 General Information, Description and Operation).



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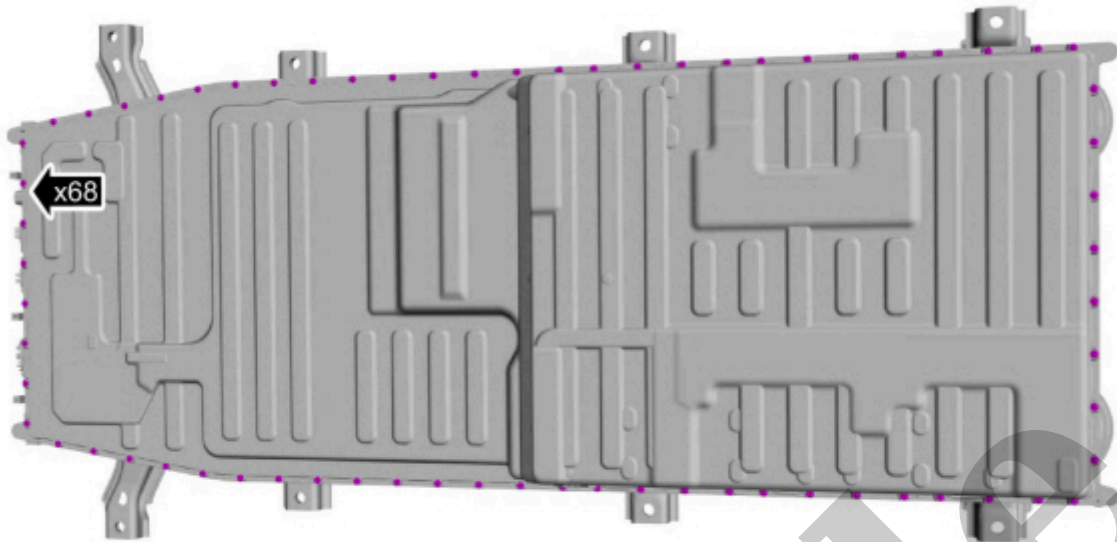
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Installation

1. To install, reverse the removal procedure.
2. Bleed the cooling system.

Refer to: [Engine Cooling System Draining, Vacuum Filling and Bleeding](#)(303-03D Engine Cooling - 3.5L V6 PowerBoost (CN), General Procedures).

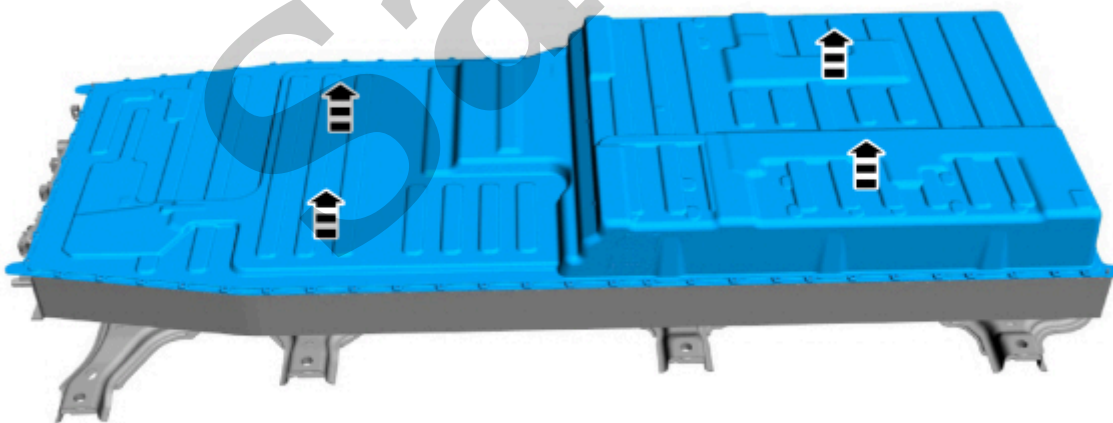
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4. With the aid of an assistant, remove the HVB (High Voltage Battery) cover.



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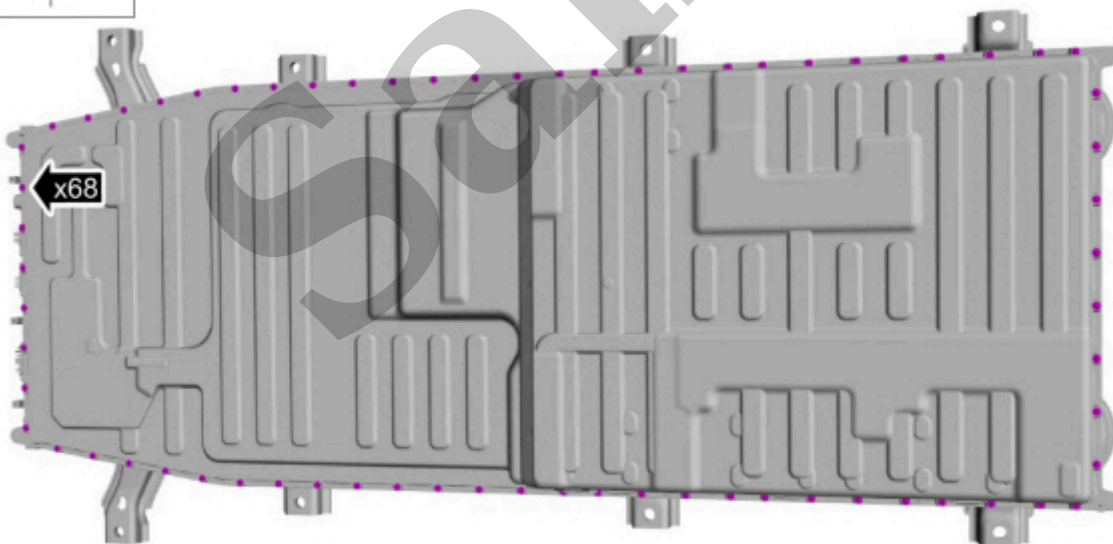
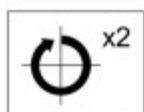
Installation



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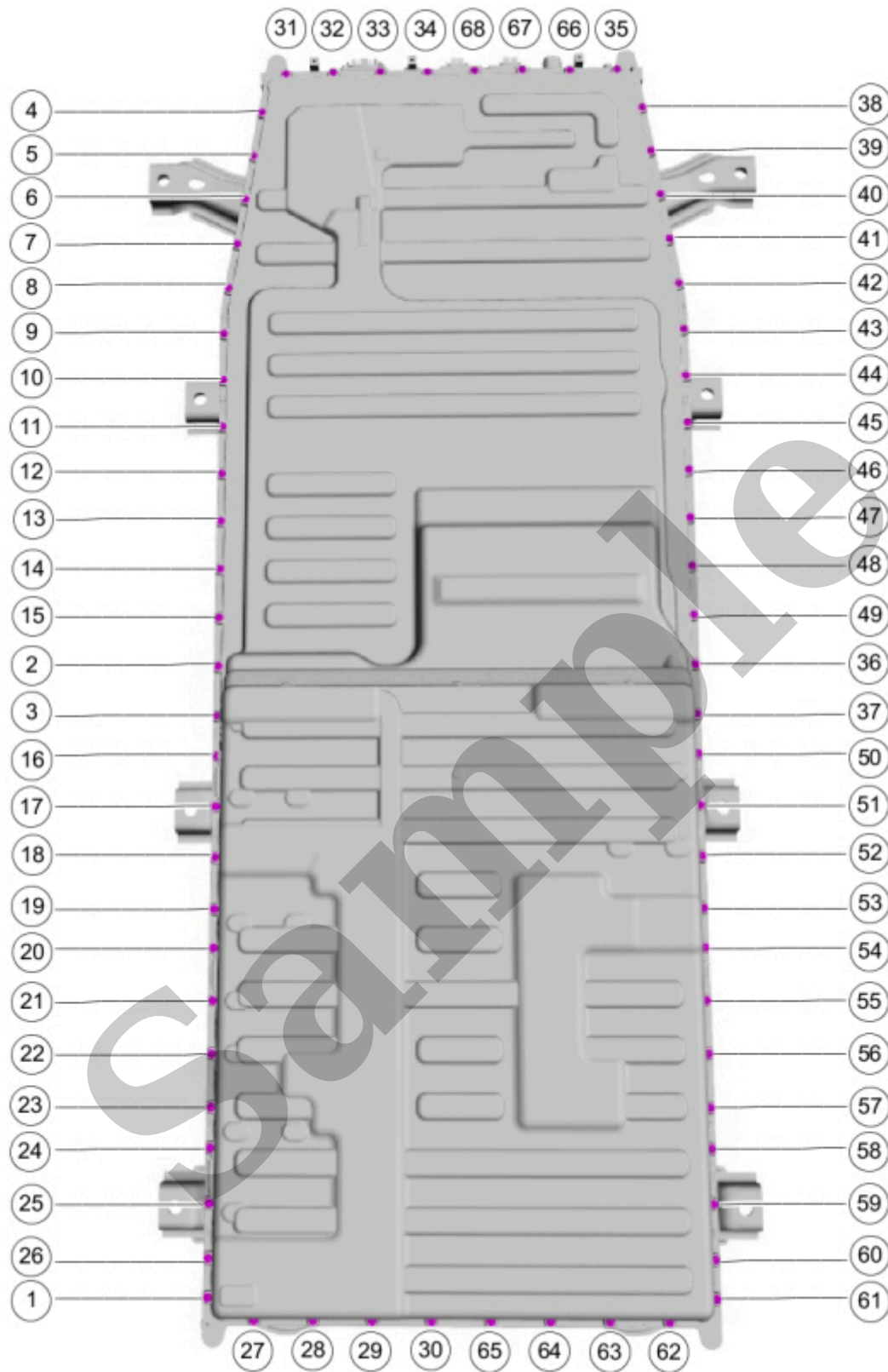
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3. Finger-start the HVB (High Voltage Battery) cover bolts.



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5. Check the HVB (High Voltage Battery) for leaks.



High Voltage Battery Junction Box - Electric

414-03A High Voltage Battery, Mounting and Cables	2022 F-150
Removal and Installation	Procedure revision date: 04/22/2022

High Voltage Battery Junction Box - Electric

Removal

All Batteries

WARNING

To prevent the risk of high-voltage shock, always follow precisely all warnings and service instructions including instructions to depower the system. The high-voltage system utilizes high-voltage cables to its components and modules. The high-voltage cables and wiring are identified by orange harness tape or orange wire covering. All high-voltage components are marked with high-voltage warning labels with a high-voltage symbol. Failure to follow these instructions may result in serious personal injury or death.

NOTE

Removal steps in this procedure may contain installation details.

1. Refer to: [High Voltage System Health and Safety Precautions - Overview](#)(100-00 General Information, Description and Operation).
2. De-energize the high voltage system.

Refer to: [High Voltage System De-energizing - Electric](#)(414-03A High Voltage Battery, Mounting and Cables, General Procedures).
3. Remove the HVB (High Voltage Battery) cover.