

BATTERY, MOUNTING AND CABLES - LOW VOLTAGE SYSTEM

12V SYSTEM DISCONNECT [G2278729]

GENERAL PROCEDURES

SPECIAL TOOL[S]



E218978

JLR-415-020

12 Volt Lock-Out Tool



E218803

JLR-415-022

12 Volt auxiliary battery lock-out tool

GENERAL EQUIPMENT

EQUIPMENT NAME
Jaguarapproved diagnostic tool

EQUIPMENT NAME

Insulated padlock

DISCONNECTION

NOTE:

If a new startup battery is installed, the Battery Monitoring System (BMS) must be reset using the Jaguar Land Rover approved diagnostic equipment.

1.



- Make sure that the appropriate sign is displayed on the vehicle windshield. The sign should state that:
- **The vehicle high voltage electrical system is operational.**
- **The vehicle high voltage electrical system is active.**

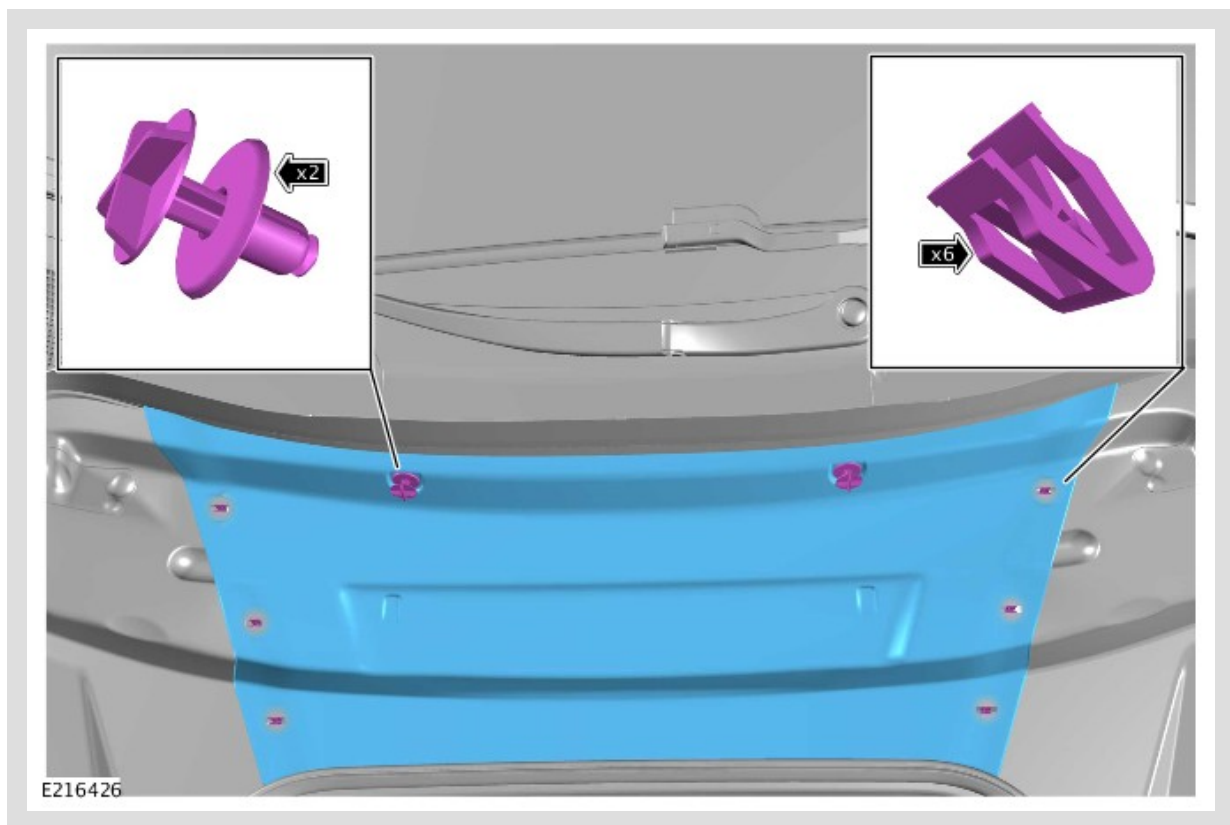
2.

WARNING:

All external 12 volt sources must be disconnected from the vehicle before proceeding.

Make sure that all external 12 volt sources are disconnected from the vehicle. For example; towbar sockets, 12 volt accessory sockets and charging points.

3.



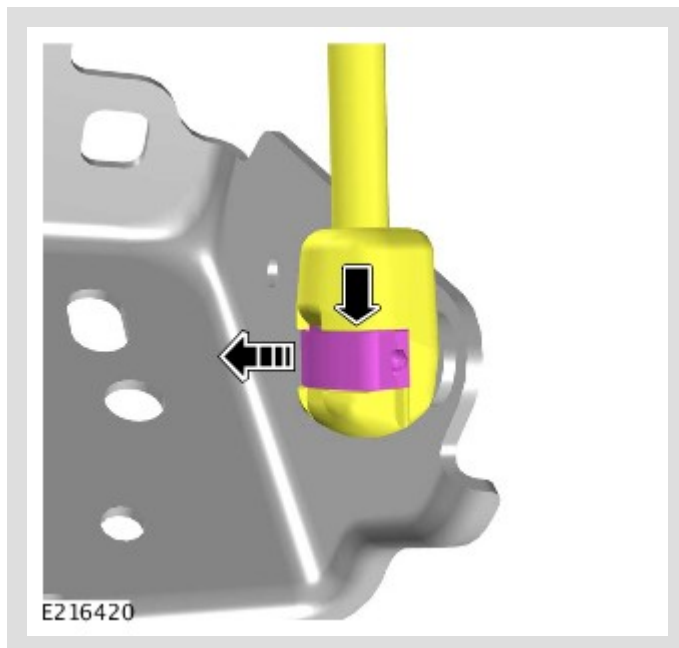
- Remove the 2 clips.
- Release the 6 clips.
- Remove the front compartment center trim panel.

4.



- Release the 5 clips.
- Remove the small trim panel and safety clips.

5.



Release the right hood strut from the body.

6.

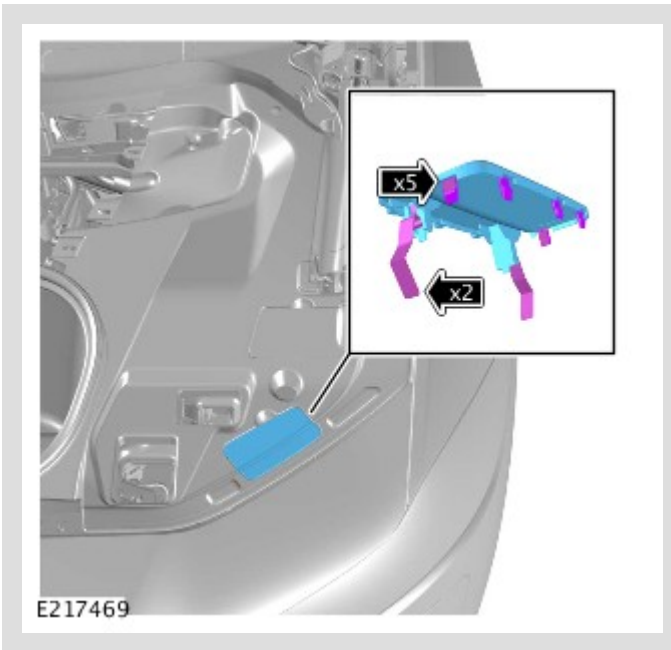


- Release the 4 clips.
- Remove the right trim panel.

7.

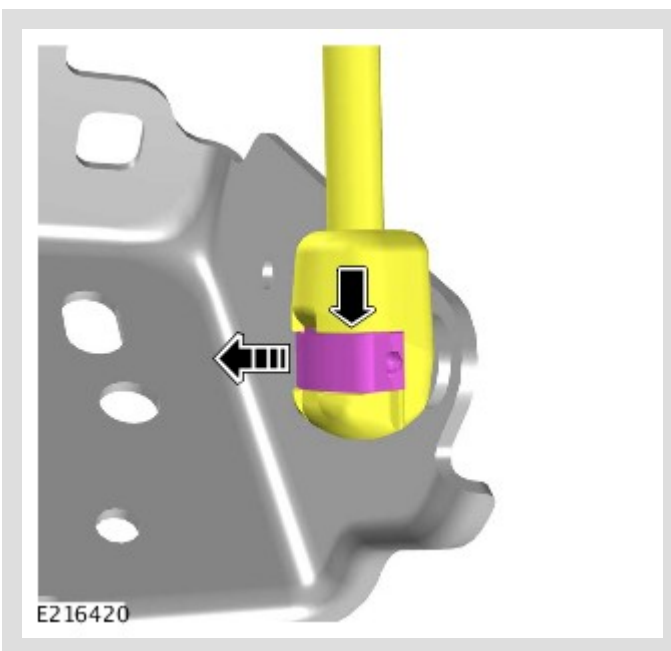
Connect the right hood strut to the body.

8.



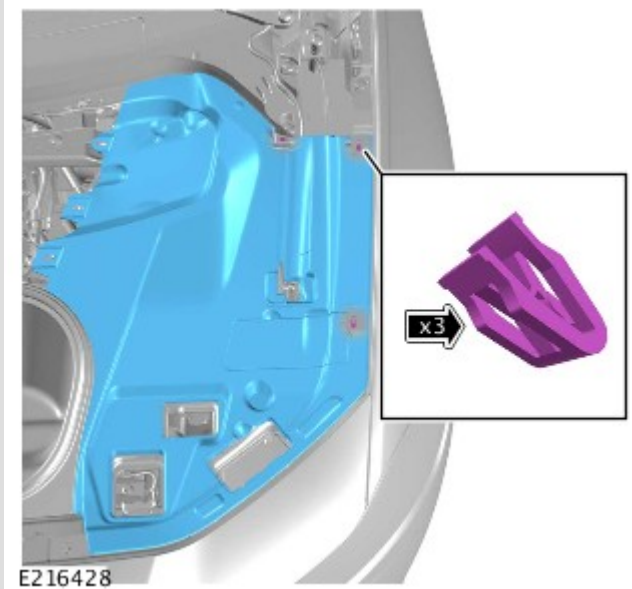
- Release the 5 clips.
- Remove the small trim panel and safety clips.

9.



Release the left hood strut from the body.

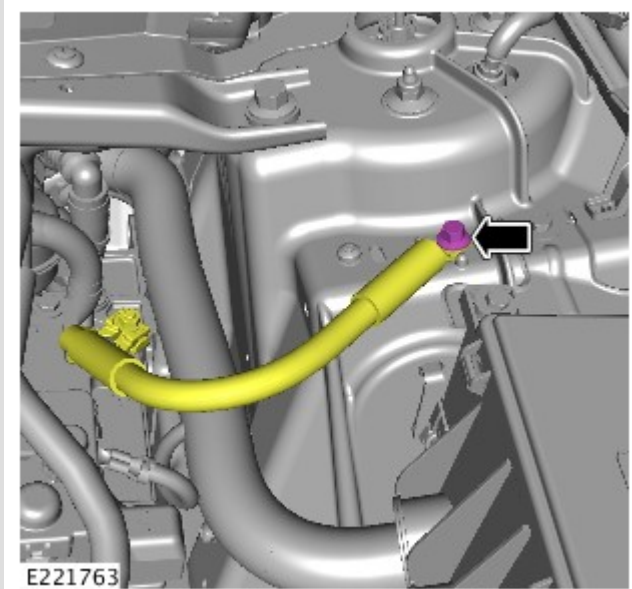
10.



- Release the 3 clips.
- Remove the left trim panel.

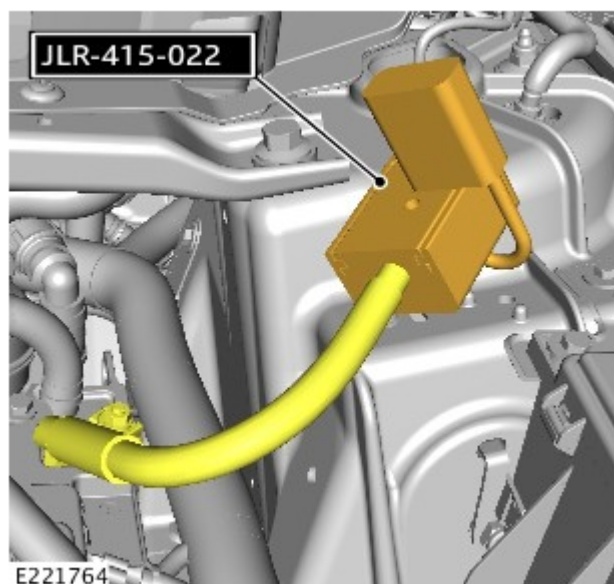
11. Connect the left hood strut to the body.

12.



Release the auxiliary battery negative cable.

13.

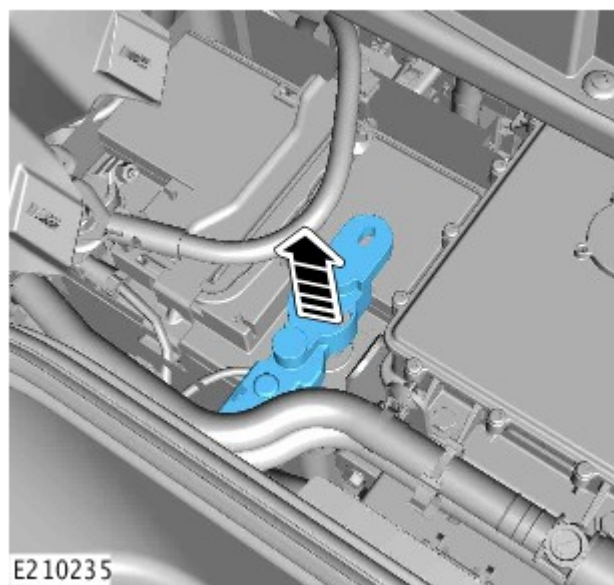


Install the locking tool to the auxiliary battery negative cable.

Special Tool(s): [JLR-415-022](#)

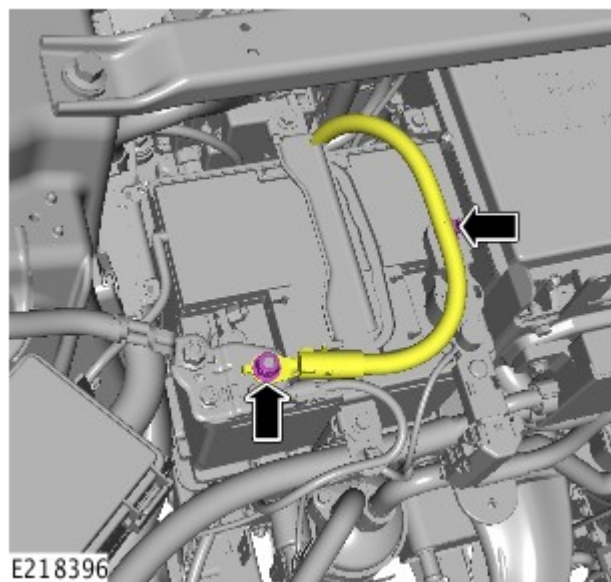
General Equipment: [Insulated padlock](#)

14.



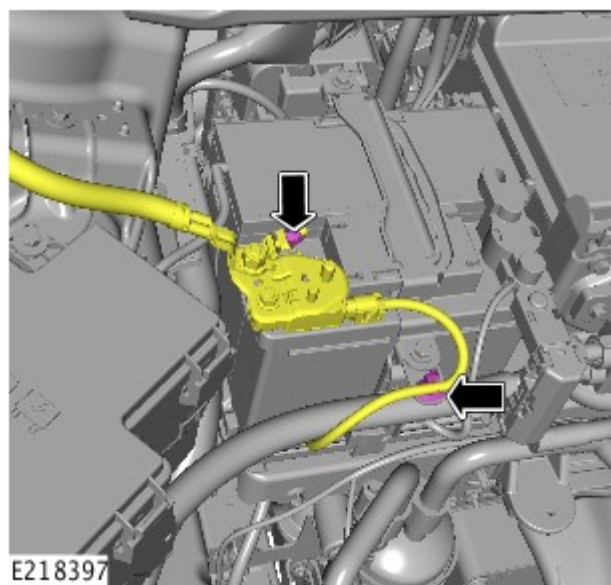
Release the startup battery positive cable protective cover.

15.



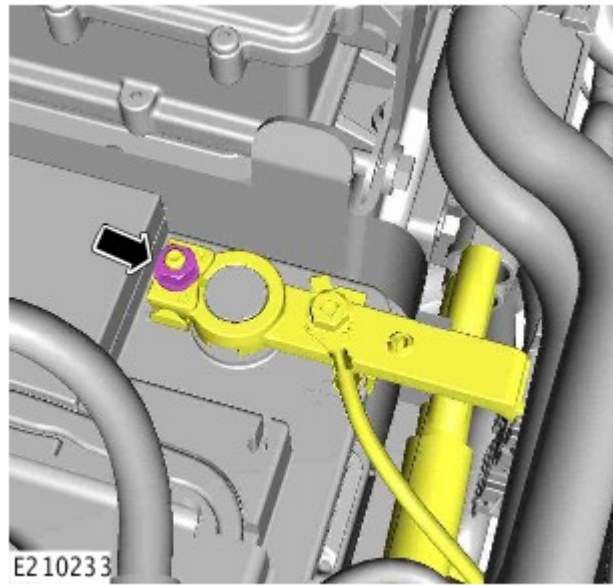
Disconnect the DC to DC converter ground cable.

16.



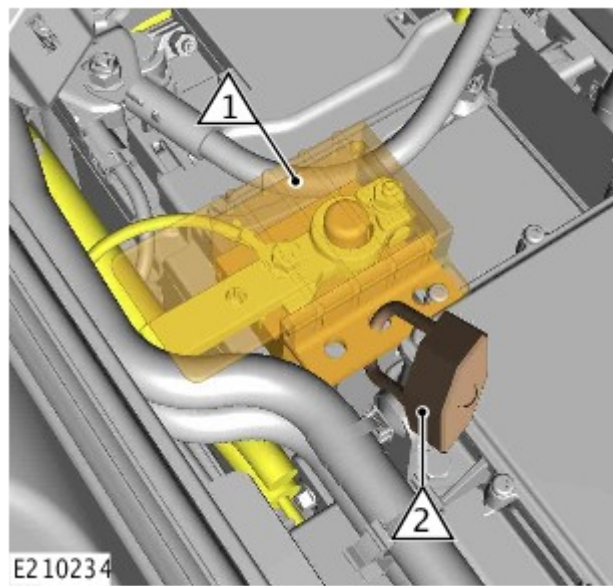
Disconnect the startup battery ground cable.

17.



Disconnect the startup battery positive terminal.

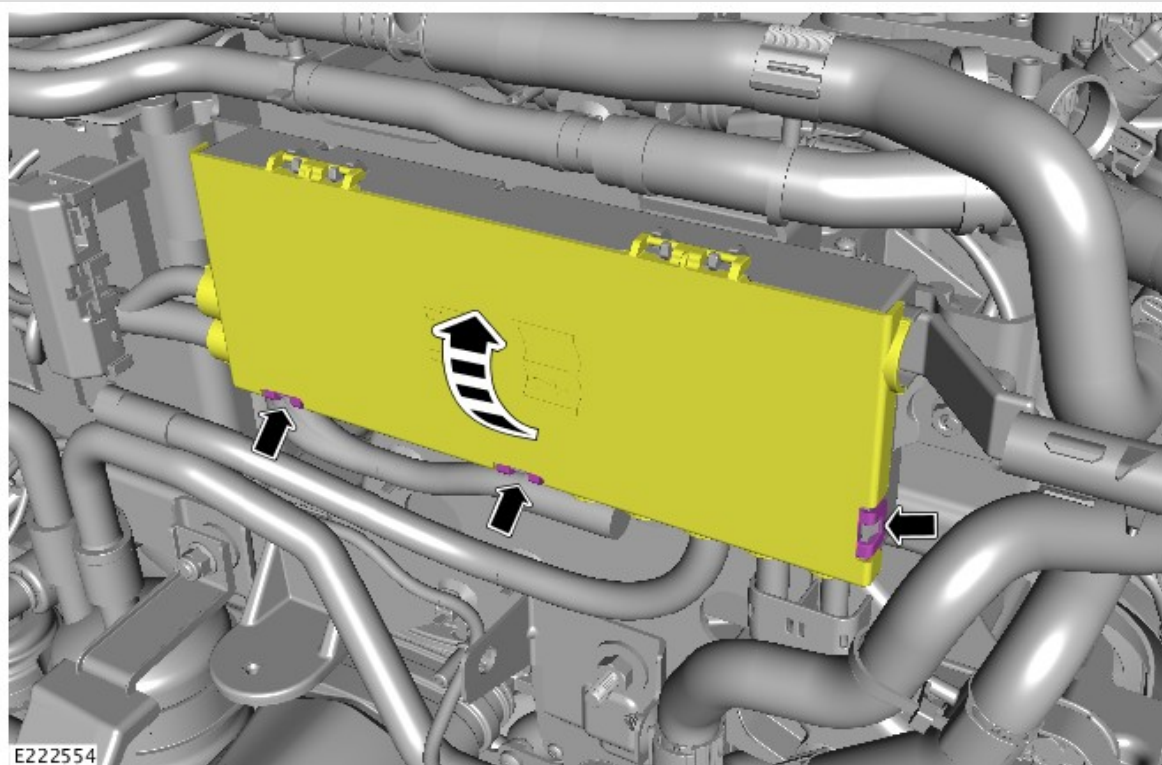
18.



Install the startup battery lock off tool (1) and padlock (2) to the positive cable.

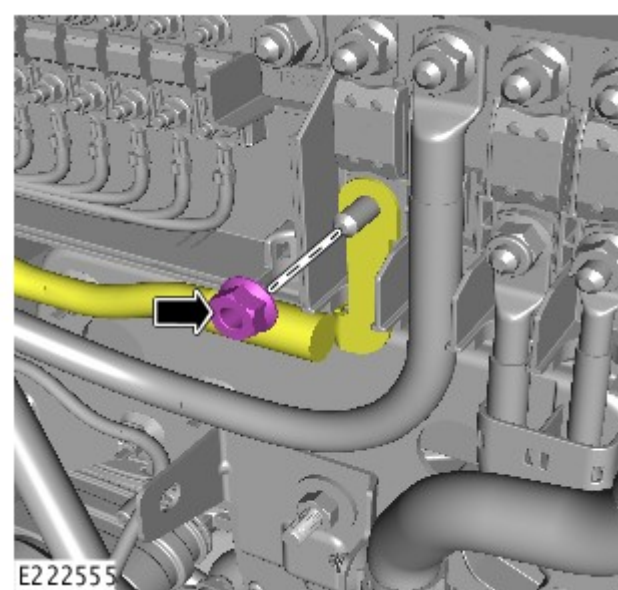
Special Tool(s): [JLR-415-020](#)

19.

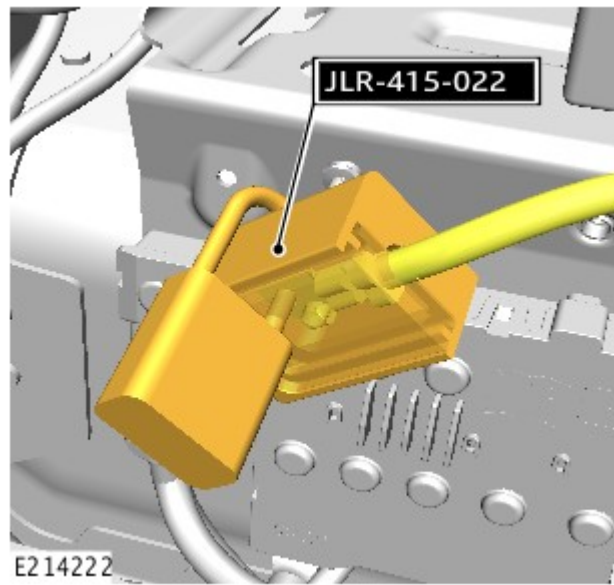


Release and open the 12 volt junction box lid.

20.



Release the DC-DC cable from the 12 volt junction box.



Install the locking tool to the DC-DC cable.

Special Tool(s): [JLR-415-022](#)

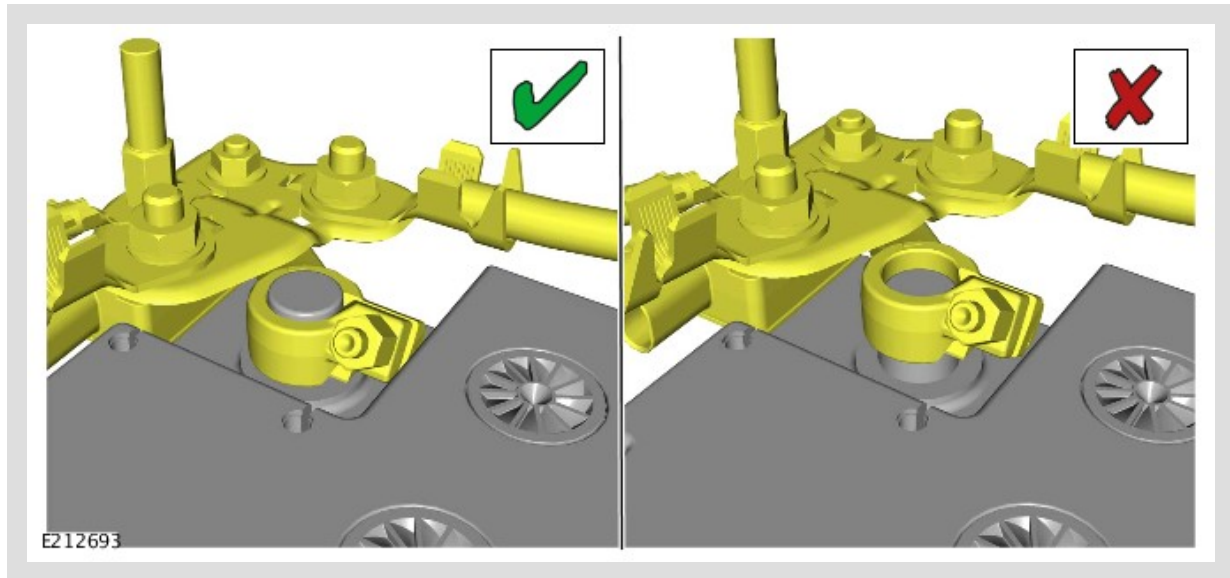
General Equipment: [Insulated padlock](#)

CONNECT

1.

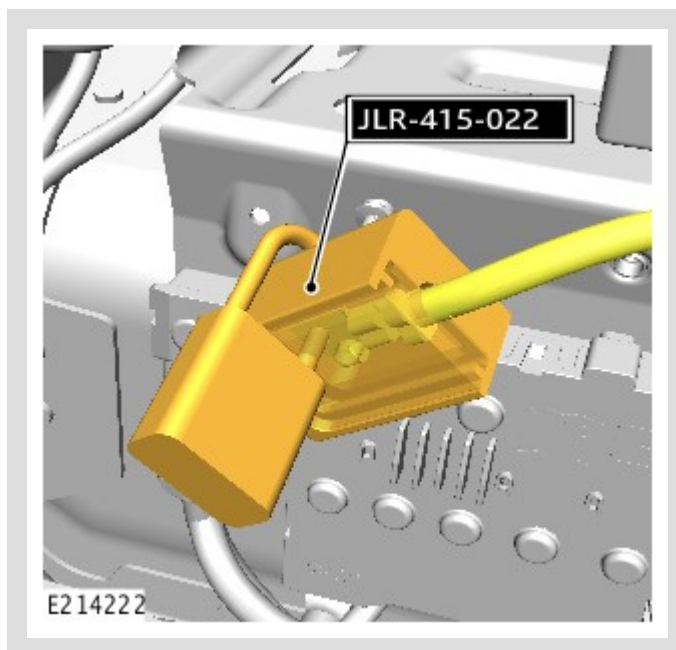
⚠ CAUTION:

Make sure the Battery Monitoring System (BMS) electrical connector is connected to the module, before installing the BMS on to the battery terminal.



- Install the battery cables to the correct position.

2.

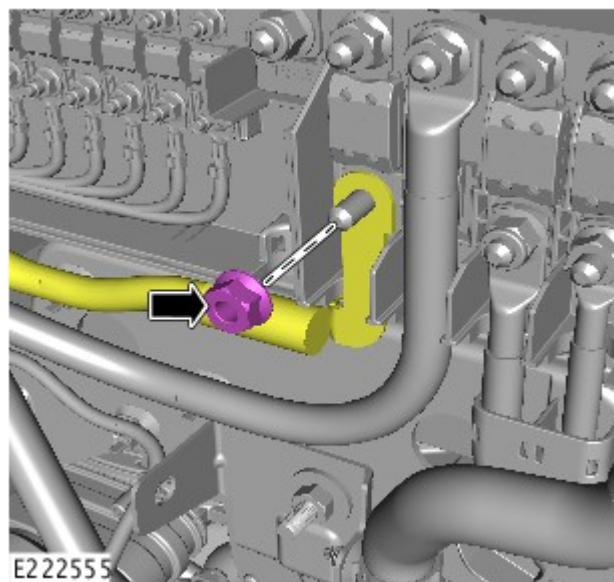


Remove the locking tool from the DC-DC cable.

Special Tool(s): [JLR-415-022](#)

General Equipment: [Insulated padlock](#)

3.



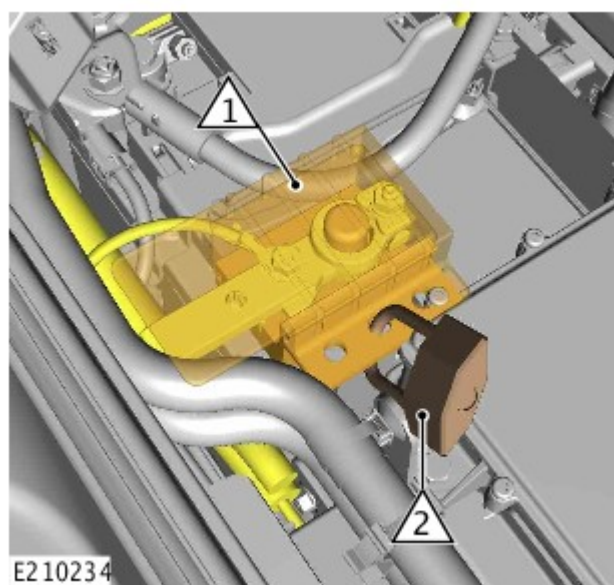
Install the fixing to the DC-DC cable in the 12 volt junction box.

Torque: 12 Nm

4.

Close the 12 volt junction box lid.

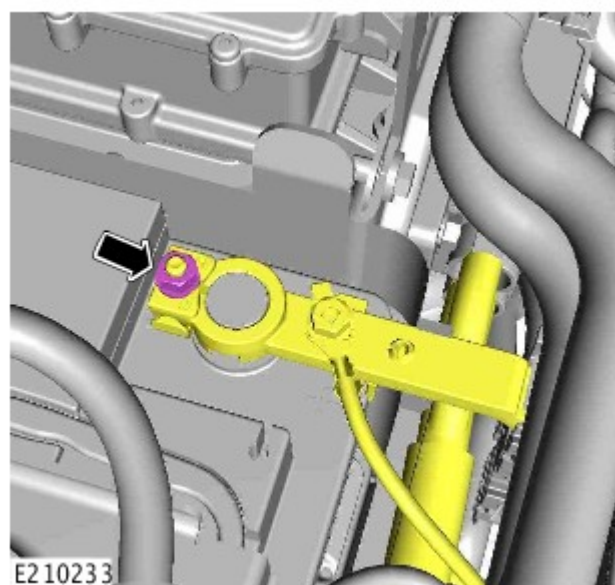
5.



Remove the startup battery lock off tool (1) and padlock (2) from the positive cable.

Special Tool(s): [JLR-415-020](#)

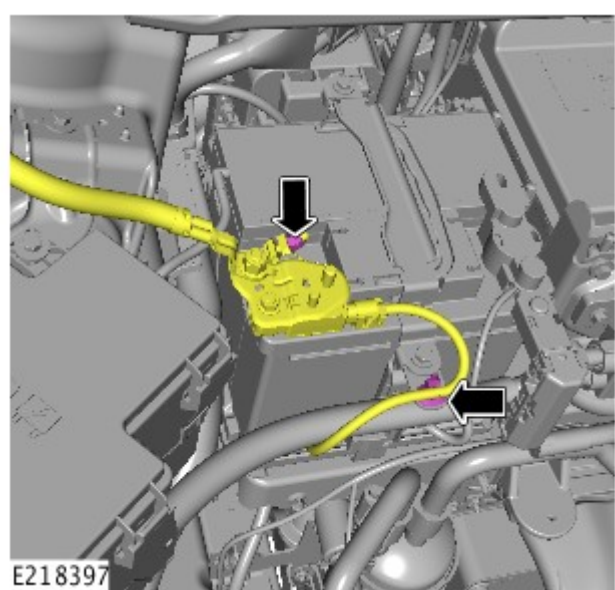
6.



Connect the startup battery positive terminal.

Torque: 6 Nm

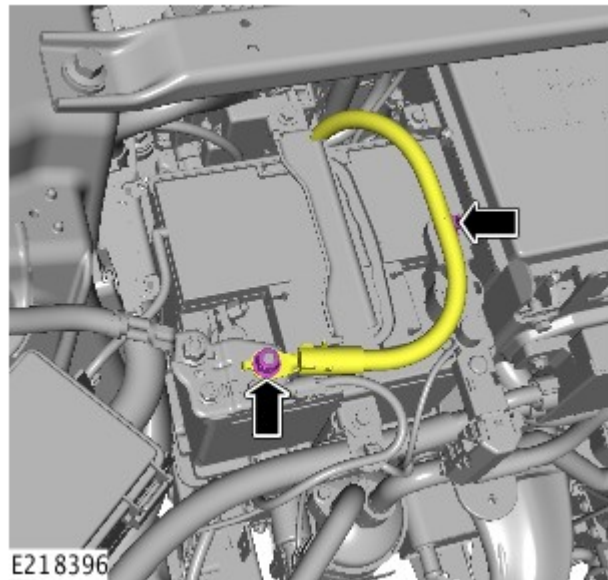
7.



Connect the startup battery ground cable.

Torque: 6 Nm

8.

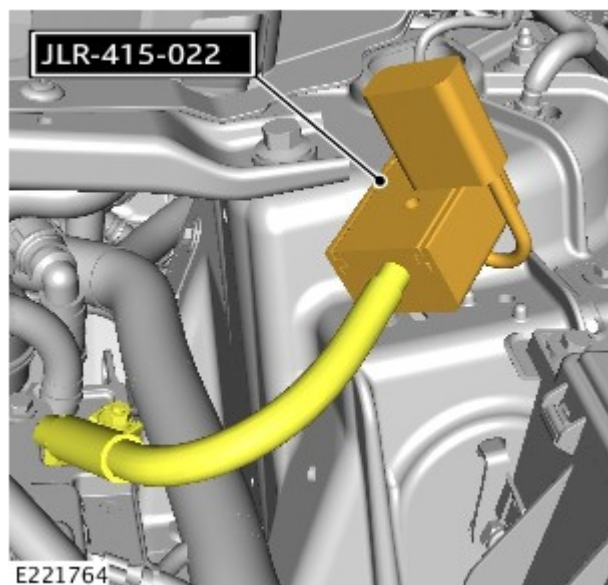


Connect the DC to DC converter ground cable.

Torque: 6 Nm

9. Install the startup battery positive cable protective cover.

10.

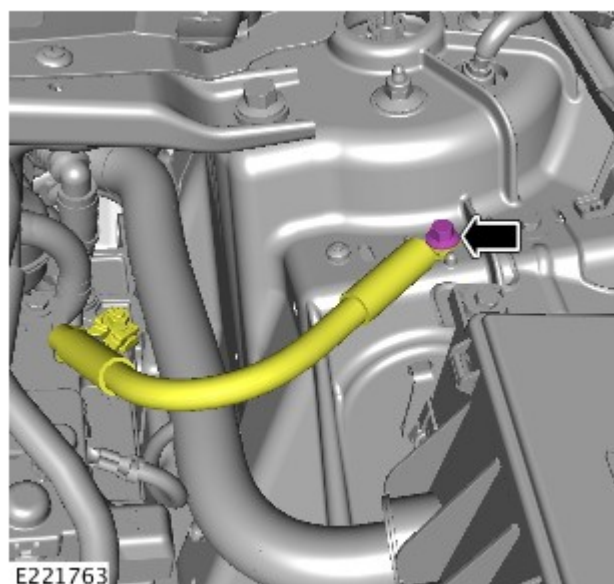


Remove the locking tool from the auxiliary battery negative cable.

Special Tool(s): [JLR-415-022](#)

General Equipment: [Insulated padlock](#)

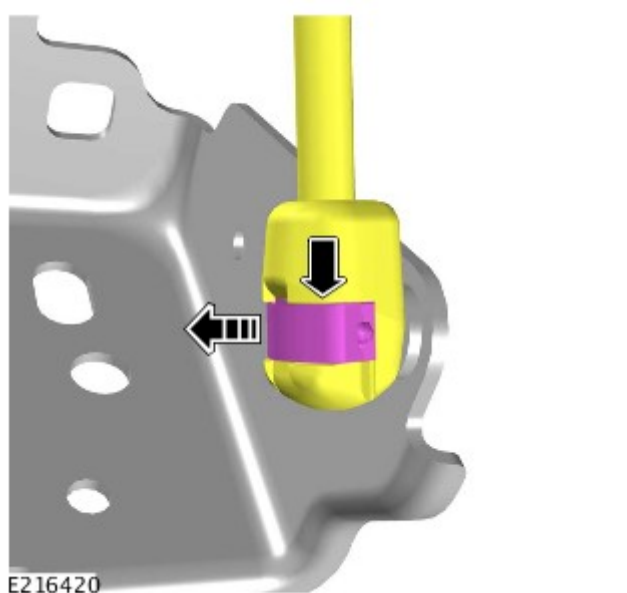
11.



Install the auxiliary battery negative cable and fixing.

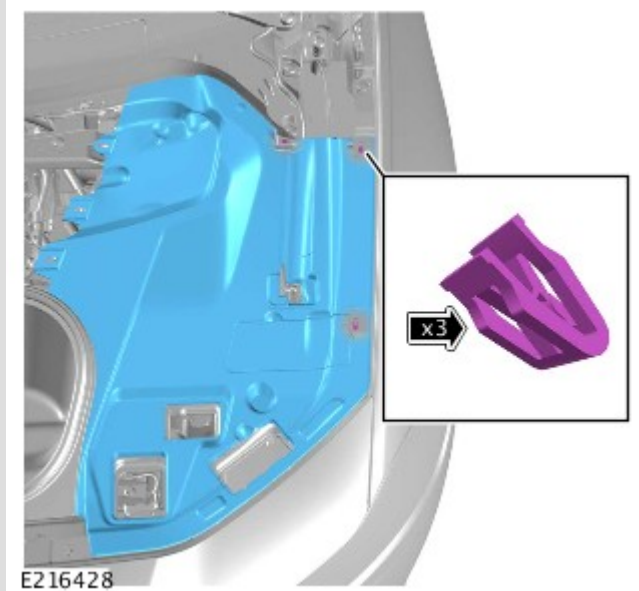
Torque: 8 Nm

12.



Release the left hood strut from the body.

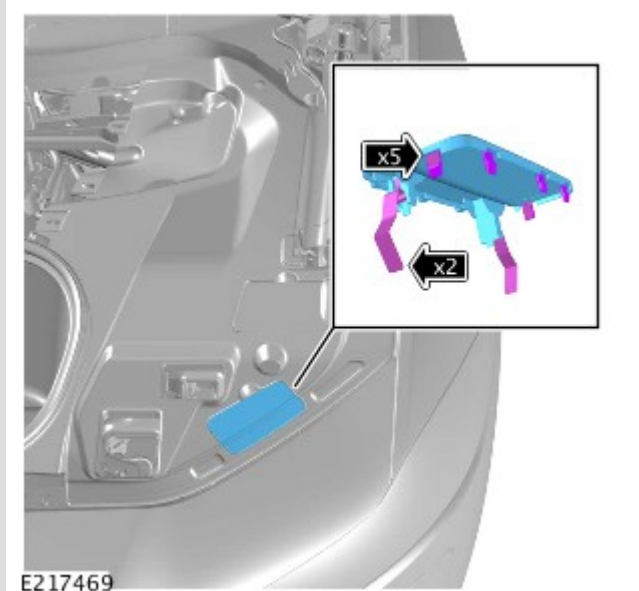
13.



- Install the left trim panel.
- Install the 3 clips.

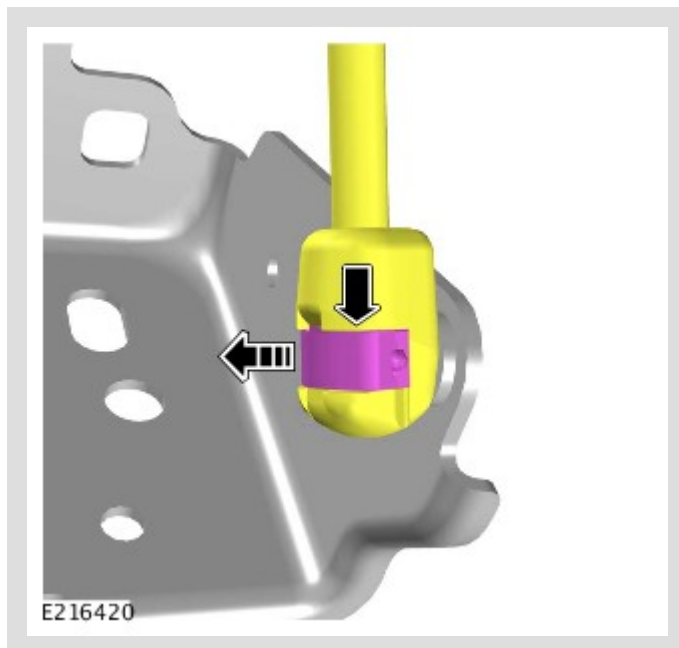
14. Connect the left hood strut to the body.

15.



Install the small trim panel and safety clips.

16.



Release the right hood strut from the body.

17.



- Install the left trim panel.
- Install the 4 clips.

18.

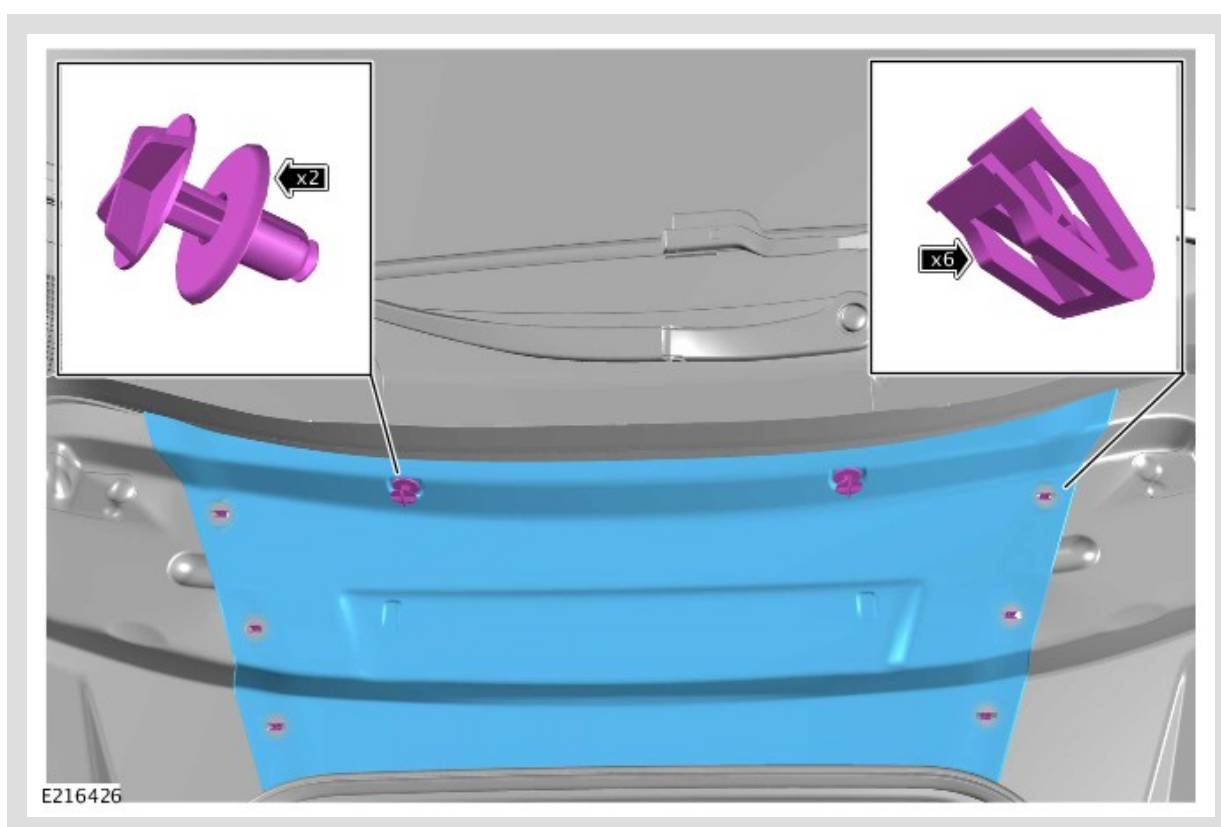
Connect the right hood strut to the body.

19.



Install the small trim panel and safety clips.

20.



- Install the front compartment center trim panel.
- Install the 2 clips.
- Install the 6 clips.

21. Perform the door window motor initialization procedure.

22. Reset the clock to the correct time.

23. Using the Jaguar Land Rover approved diagnostic equipment, read and clear any Diagnostic Trouble Codes (DTCs).

General Equipment: [Jaguarapproved diagnostic tool](#)

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