CALIFORNIA PROPOSITION 65 SECOND WARNING STATEMENT

Second Warning Statement

⚠WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

BATTERY WARNING SYMBOLS



Do not allow naked flames or other sources of ignition near the battery, as the battery may emit explosive gases.



Ensure that when working near or handling the battery, suitable eye protection is worn, to protect the eyes from acid splashes.



To prevent risk of injury, do not allow children near the battery.



Be aware that the battery may emit explosive gases.



The battery contains acid which is extremely corrosive and toxic.



Consult the handbook for information, before handling the battery.

CONNECTING JUMP LEADS

⚠WARNING

Do not connect the jump leads to any battery terminal on your vehicle. Doing so may cause a spark, which can result in an explosion. It may also result in damage to the charging system.

⚠WARNING

Always wear appropriate eye protection when working with batteries.

⚠WARNING

Make sure both batteries are of the 12 volt type and that the jump leads have insulated clamps and are approved for use with 12 volt batteries.

⚠WARNING

Do not disconnect the discharged battery.

⚠WARNING

Make sure that the bodywork of the donor and disabled vehicles do not touch.

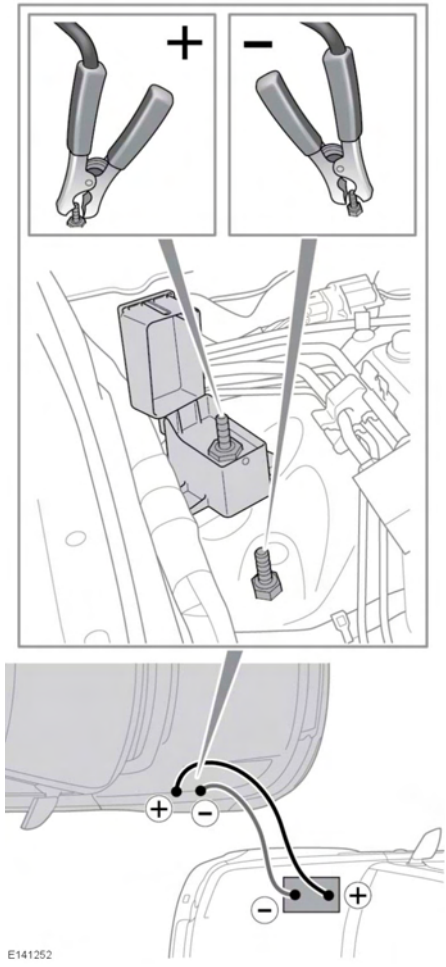
⚠WARNING

To avoid serious injury use extreme caution when removing the jump leads as the engine will be running on the previously disabled vehicle. This means that you may be working close to components which are moving at high speed, carry high voltage, or may be hot.

NOTICE

Make sure that the battery or starting aid is a 12 volt device.

Note: *Before connecting jump leads, make sure that the battery connections on the vehicle are correct and that all electrical equipment has been switched off.*



1. Connect 1 end of the positive (Red) jump lead to the positive terminal on the donor vehicle.
2. Connect the other end of the positive (Red) jump lead to the positive terminal on the disabled vehicle.
3. Connect 1 end of the negative (Black) jump lead to the negative terminal on the donor vehicle.
4. Connect the other end of the negative (Black) jump lead to the earth/ground terminal on the disabled vehicle.

   Note: *Check that all cables are clear of any moving components, and that all 4 connections are secure.*
5. Start the engine of the donor vehicle, and allow it to idle for a few minutes.
6. Start the engine of the disabled vehicle.

   Note: *Do not switch on any electrical equipment until after the jump leads have been disconnected.*
7. Allow both vehicles to idle for a few minutes.
8. Switch off the donor vehicle.
9. Disconnect the negative (Black) jump lead from the previously disabled vehicle.
10. Disconnect the negative (Black) jump lead from the battery of the donor vehicle.
11. Disconnect the positive (Red) jump lead from the previously disabled vehicle.
12. Disconnect the positive (Red) jump lead from the donor vehicle.

CONNECTING A STARTING AID

⚠WARNING

Do not connect the starting aid to any battery terminal on your vehicle. Doing so may cause a spark, which can result in an explosion. It may also result in damage to the charging system.

To start the vehicle using a starting aid or a slave battery, follow the instructions in the sequence given.

1. Connect the positive (Red) cable to the positive terminal of the disabled vehicle.
2. Connect the negative (Black) cable to the negative terminal of the disabled vehicle.
3. Connect/switch on the starting aid.

4. Start the engine and allow it to idle.
5. Disconnect/switch off the starting aid.
6. Disconnect the negative (Black) cable from the negative terminal of the vehicle.
7. Disconnect the positive (Red) cable from the positive terminal of the vehicle.

REMOVING THE VEHICLE BATTERY

⚠WARNING

Switch the ignition off before disconnecting battery terminals.

⚠WARNING

Remove all metal jewellery before working on, or near, the battery, and never allow metal objects or vehicle components to come into contact with the battery terminals. Metal objects can cause sparks, and/or short circuits, resulting in an explosion.

⚠WARNING

Do not allow the battery posts or terminals to come into contact with your skin. They contain lead, and lead compounds which are toxic. Always wash your hands thoroughly after handling the battery.

⚠WARNING

Always disconnect the negative terminal first and reconnect last.

⚠WARNING

Use caution when lifting the battery out of, or into, the vehicle. It is heavy, and may cause injury when lifting, or if dropped.

⚠WARNING

Do not tip the battery when lifting or moving as tilting the battery more than 45 degrees may damage the battery, and may cause the battery fluid to leak out. Battery fluid is highly corrosive, and toxic.

⚠WARNING

The vent pipe must be in place at all times when the battery is connected to the vehicle. Make sure that the vent pipe is clear of obstructions and not kinked. Failure to do so may cause a pressure build up in the battery, resulting in an explosion.

NOTICE

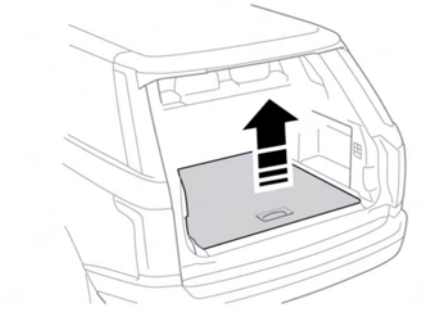
Do not rest the battery on any part of the vehicle as it may cause damage due to its weight.

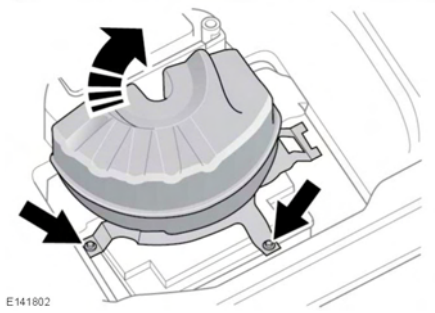
NOTICE

Do not run the engine with the battery disconnected. Doing so may damage the charging system.

Note: *Make sure that all electrical circuits are switched off, all windows are closed, and the alarm is disarmed.*

Note: *Remove the Smart Key from the vehicle and wait 2 minutes to allow the systems to power down fully*





1. Remove the loadspace floor panel.
2. Remove the spare wheel. See **242, REMOVING THE SPARE WHEEL**.
3. Remove the 2 bolts. Lift the left hand side of the compressor mounting plate and raise to the vertical position.
4. Remove the insulation panel.
5. Undo the negative clamp nut. Lift the cable and clamp clear of the battery terminal.
6. Undo the positive clamp nut. Lift the cable and clamp clear of the battery terminal.
7. Pull the breather pipe to release.
8. Lift out the battery using the handles.

EFFECTS OF DISCONNECTING

Disconnecting the battery can affect a number of vehicle systems, especially if there is insufficient battery power before disconnection. For example, the alarm may trigger depending on it's state when the battery was disconnected. If the alarm does sound, use the Smart Key in the normal way to disarm the security system. The windows may need resetting to operate correctly.

CHARGING THE VEHICLE BATTERY

⚠WARNING

Ensure that the correct type and rating of charger is used. Using an unsuitable charger may damage the battery, and could cause the battery to explode.

⚠WARNING

Always charge the battery in a well-ventilated area away from any naked flames, sparks or other ignition sources. During charging the battery can produce a highly explosive and flammable gas.

NOTICE

The battery must be disconnected and removed from the vehicle before charging. Failure to do so could result in damage to the vehicle's electrical system.

NOTICE

Always follow the instructions supplied with the battery charger. Failure to do so may result in damage to the battery.

Note: *Your vehicle is fitted with a maintenance-free battery. You cannot check or top up the electrolyte level.*

1. Remove the battery. See **230, REMOVING THE VEHICLE BATTERY**
2. Connect the battery charger in accordance with the manufacturer's instructions.

3. Once the charge is complete, switch off the power to the charger.
4. Disconnect the charger cables from the battery.
5. Allow the battery to stand for an hour before connecting to the vehicle. This will allow any explosive gasses to dissipate, and reduce the risk of explosion.

REPLACING THE VEHICLE BATTERY

⚠WARNING

Only install a battery of the same type and rating. Installing an incorrect battery may result in a fire and injury, or damage to the electrical system. If you are in any doubt when installing a battery, seek qualified assistance.

⚠WARNING

When refitting the battery make sure that no metal objects, or vehicle components, come into contact with the battery terminals.

NOTICE

Make sure that when fitting a battery to the vehicle, the terminals and battery clamps are clean, and lightly coated with petroleum jelly. This will ensure good electrical connections are made, and help to prevent corrosion.

NOTICE

Always follow the battery manufacturers instructions. Failure to do so may result in damage to the vehicle and/or the electrical system.

NOTICE

If the battery leads are connected to the wrong terminals, the electrical system may be damaged.

A new battery should be supplied with plastic terminal covers. Leave the covers in place when fitting the battery, and remove them 1 at a time to fit the battery cable clamps.

Refitting is an exact reversal of the removal procedure. See **230, REMOVING THE VEHICLE BATTERY**

If you are in any doubt about fitting a battery, seek qualified assistance beforehand.



Used batteries must be disposed of correctly as they contain a number of harmful substances. Seek advice on disposal from your Land Rover Retailer/Authorized Repairer and/or your local authority.

BATTERY MONITORING SYSTEM

If excessive battery discharge occurs, the Intelligent Power System Management (IPSM) will begin to shut down non-essential electrical systems to protect battery power.

If the message, **Energy Management** is displayed on the touchscreen while the engine is switched off, after 3 minutes IPSM will begin a shut down operation. Normal system function will resume when the engine is started.

If the message, **Low Battery - Please Start Engine** is displayed on the touchscreen and in the Message center while the engine is switched off, after 3 minutes IPSM will begin a shut down operation. The Message center will continue to display the message until either the vehicle is completely turned off or the engine is started. Normal system function will resume when the engine is started.

Note: *If the message* **Low Battery - Please Start Engine** *is displayed, drive the vehicle for at least 30 minutes in temperatures above 32°F (0°C) or at least 60 minutes if temperatures are below 32°F (0°C). This will allow the battery to recover to an acceptable level.*