

## CALIFORNIA PROPOSITION 65 WARNING

### **⚠️ 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.

## BATTERY CARE

### **⚠️ DANGER**

If swallowed, battery fluid can be fatal. Seek medical assistance immediately.

### **⚠️ WARNING**

Do not allow battery fluid to contact your skin or eyes. It is both toxic and corrosive which can result in severe injuries. If battery fluid comes into contact with your eyes, skin or clothes, you should remove the affected clothing and flush the skin/ eyes with plenty of water. Seek medical assistance immediately.

### **⚠️ WARNING**

Do not connect any 12 volt equipment directly to the battery terminals. Doing so may cause a spark, which can result in an explosion.

### **⚠️ WARNING**

The cell plugs and vent pipe must be in place at all times when the battery is connected to the vehicle. Ensure 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.

### **⚠️ WARNING**

Do not expose the battery to a naked flame or spark as the battery produces explosive, flammable gas.

### **⚠️ WARNING**

Never jump start, boost charge, or try to start a vehicle with a frozen battery. Doing so can result in an explosion.

### **⚠️ WARNING**

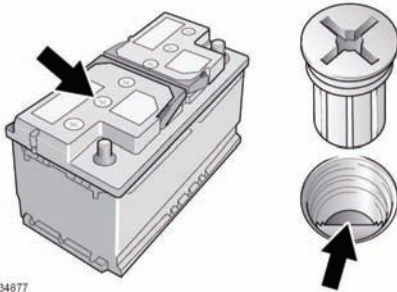
Remove all metal jewellery before working on or near the battery, and never allow metal objects or vehicle components to come into contact with the battery terminals.

## **NOTICE**

Do not allow battery fluid to come into contact with fabrics or painted surfaces. If battery fluid comes into contact with any surface, the surface should be washed down immediately with plenty of clean water.

Your vehicle is fitted with a low maintenance battery which is located under the hood.

In hot climates more frequent checks of the battery fluid level and condition are required. If necessary, the battery cells can be topped up using distilled water.



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Unscrew the six cell plugs and store carefully. Check that the surface of the battery fluid is level with the plastic level indicator. If necessary, top up with distilled water, but never overfill. Refit the six cell plugs.

## **CONNECTING BOOSTER CABLES**

### **⚠ WARNING**

Always wear appropriate eye protection when working with batteries.

### **⚠ WARNING**

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

### **⚠ WARNING**

Do not disconnect the discharged battery.

### **⚠ WARNING**

Ensure the bodywork of the donor and disabled vehicles do not touch.

### **⚠ WARNING**

To avoid serious injury use extreme caution when removing the booster cables 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 slave battery or starting aid is a 12 volt device.

**Note:** Before connecting booster cables ensure that the battery connections on the disabled vehicle are correct, and that all electrical equipment has been switched off.

1. Connect one end of the positive (Red) booster cable to the positive terminal on the donor vehicle's battery.
2. Connect the other end of the positive booster cable to the positive terminal on the disabled vehicle's battery.
3. Connect one end of the negative (Black) booster cable to the negative terminal on the donor vehicle's battery.
4. Connect the other end of the negative booster cable to a suitable earth point on the disabled vehicle. The earth point should be at least 20 inches (0.5 meters) away from the battery, and as far as possible from any fuel or brake pipes.

**Note:** Check that all cables are clear of any moving components, and that all four 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 cables have been disconnected.*
7. Allow both vehicles to idle for a few minutes.
8. Switch off the donor vehicle.
9. Disconnect the negative (Black) booster cable from the previously disabled vehicle.
10. Disconnect the negative (Black) booster cable from the battery of the donor vehicle.
11. Disconnect the positive (Red) booster cable from the previously disabled vehicle.
12. Disconnect the positive (Red) booster cable from the donor vehicle.

### CONNECTING A STARTING AID

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

1. Connect the positive (Red) booster cable to the positive battery terminal of the disabled vehicle.
2. Connect the negative (Black) booster cable to the ground (-) terminal of the battery.
3. Start the engine and allow it to idle.
4. Disconnect the negative (Black) booster cable from the battery terminal of the vehicle.
5. Disconnect the positive (Red) booster cable from the battery terminal of the vehicle.

### REMOVING THE VEHICLE BATTERY

#### **⚠ WARNING**

Switch the ignition off before disconnecting battery terminals.

#### **⚠ 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.

#### **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.

1. Ensure that all electrical circuits are switched off, all windows are closed, and the alarm is disarmed.
2. Remove the remote control from the vehicle and wait two minutes to allow the systems to power down fully.
3. Undo the negative clamp, and lift the cable and clamp clear of the battery terminal.
4. Undo the positive clamp, and lift the cable and clamp clear of the battery terminal.
5. Undo the battery clamp and lift the battery clear of the vehicle.

## EFFECTS OF DISCONNECTING

Disconnecting the battery can affect a number of vehicle systems, especially if there is insufficient battery power prior to disconnection. For example, the alarm may trigger depending on its state when the battery was disconnected. If the alarm does sound, use the remote control in the normal way to disarm the security system. The windows may need recalibrating to operate correctly.

## CHARGING THE VEHICLE BATTERY

### **⚠WARNING**

Ensure that the correct type and rating of charger 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.*

1. Disconnect the battery and remove it from the vehicle.
2. Connect the battery charger in accordance with the charger 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 gases 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 ensure that no metal objects, or vehicle components, come into contact with the battery terminals.

### **NOTICE**

*Ensure 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 one at a time to fit the battery cable clamps.

## Vehicle battery

Refitting is an exact reversal of the removal procedure. 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.