

# Vehicle battery

## BATTERY WARNING SYMBOLS



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



Make sure 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



**If battery electrolyte comes into contact with your eyes, skin, or clothes you should remove the affected clothing and flush the skin/eyes with copious amounts of water. Seek medical assistance immediately.**



**If swallowed, battery electrolyte can be fatal, seek medical assistance immediately.**



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



**The cell plugs and 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.**



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



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



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



**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.**



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

Your vehicle is fitted with a low maintenance battery, which is located under the floor of the luggage compartment.

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

## BATTERY MONITORING SYSTEM (BMS)

The Intelligent Power System Management (IPSM) continuously monitors the condition of the main vehicle battery. If excessive battery discharge occurs, the system will begin to shut down non-essential electrical systems in order to protect the battery.

If the IPSM calculates that battery condition is not within set parameters, there are 2 levels of action which can be taken. Both levels have an accompanying message on the Touch screen, and in the case of the low battery warning, in the Message centre.

- **Energy Management:** Will be displayed on the Touch screen if the engine is not running, and system features are causing excessive battery discharge. After 3 minutes the IPSM will begin shutting down vehicle systems. Normal system operation will resume when the engine is started.
- **Low Battery - Please Start Engine:** Will be displayed on the Touch screen and Message centre if the engine is not running. After 3 minutes the IPSM will begin shutting down vehicle systems. Normal system operation will resume when the engine is started.



Only start the engine if it is safe to do so.

**Note:** If the message **Low Battery - Please Start Engine** is displayed, drive the vehicle for at least 30 minutes in temperatures above 0°C (32°F) or at least 60 minutes if temperatures are below 0°C (32°F). This will allow the battery to recover to an acceptable level. If normal system operation is not resumed when the engine is switched back off, the battery may not have been sufficiently charged. If safe to do so, re-start the engine. If problems still exist, contact your Dealer/Authorised Repairer.

## CONNECTING JUMP LEADS



Always wear appropriate eye protection when working with batteries.



Do not disconnect the discharged battery.



Do not connect a jump lead to the negative (-) terminal of the battery. Always connect to the recommended earthing point.



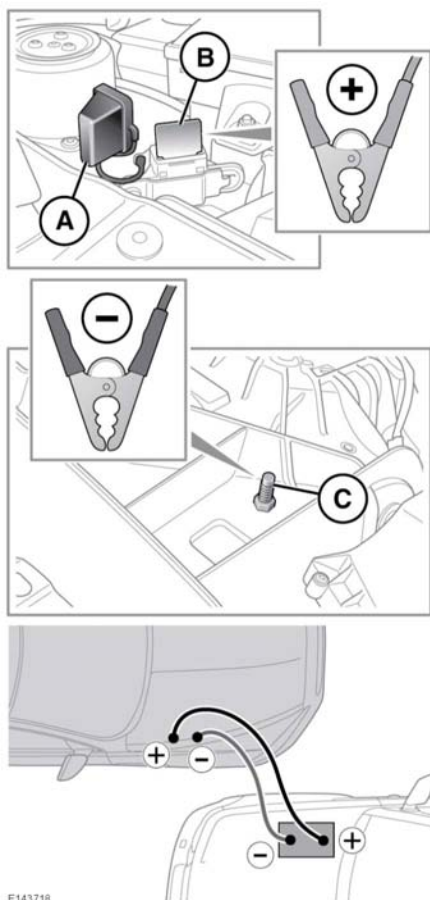
Make sure the bodywork of the donor and disabled vehicles do not touch.



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.

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

# Vehicle battery



With the bonnet open and the engine cover removed (see 158, UNDER BONNET COVERS - REMOVAL:

1. Connect the positive jump lead (Red) to the positive terminal on the donor vehicle's battery.
2. Remove the positive terminal cover (A) and connect the other end of the positive jump lead to the positive terminal (B).

3. Connect the negative jump lead (Black) to the recommended jump starting earth point of the donor vehicle.
4. Connect the other end of the negative jump lead to the negative post (C).
- ⚠ 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.  
*If repeated attempts to start the disabled vehicle are needed, allow the donor vehicle to idle for a few minutes between attempts.*
7. Allow both vehicles to idle for 2 minutes.
8. Switch off the donor vehicle.

## DISCONNECTING JUMP LEADS



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.

**Note:** Do not switch on any electrical equipment until after the cables have been disconnected.

The engine should be running on the previously disabled vehicle and the engine switched off on the donor vehicle. Disconnect the jump leads in the exact reverse order of that used for connection.

## CONNECTING A STARTING AID



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 (in the engine compartment) of the disabled vehicle.
2. Connect the negative (Black) cable to the negative terminal (in the engine compartment) 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.

## CHARGING THE VEHICLE BATTERY



The battery must be disconnected and removed from the vehicle before charging.



Battery disconnection, removal and replacement, should only be carried out by qualified personnel. Consult your Dealer/Authorised Repairer.

## REPLACING THE VEHICLE BATTERY



Battery disconnection, removal and replacement, should only be carried out by qualified personnel. Consult your Dealer/ Authorised Repairer.



Used batteries must be disposed of correctly, as they contain a number of harmful substances. Seek advice from your Dealer/Authorised Repairer and/or your local authority.