Vehicle battery

BATTERY WARNING SYMBOLS

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

Ensure that when working near, or handling the battery, suitable eye protection is worn. This will reduce the risk of eye damage caused by acid splashes.

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

Be aware that the battery may emit explosive gasses.

The battery contains acid which is extremely corrosive, and toxic.

BATTERY CARE

WARNINGS

Do not allow the battery electrolyte (fluid) to come into contact with your skin or eyes. It is both corrosive and toxic, and the resulting injuries can be severe. If any electrolyte does come into contact with your skin or eyes, immediately rinse the affected area with clean, cold water. Immediate medical advice will be required.

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

WARNINGS

If battery electrolyte comes into contact with your eyes, flush with copious amounts of clean cold water. Seek medical assistance immediately, and continue to flush with water.

If swallowed, battery electrolyte can be fatal. If electrolyte is swallowed, 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. 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.

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

Never jump start (boost) or charge, 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. Metal objects can cause sparks and/or short circuits, resulting in an explosion.

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 expose the battery electrolyte (fluid) to come into contact with your skin or eyes. It is both corrosive and toxic, and the resulting injuries can be severe. If any electrolyte does come into contact with your skin or eyes, immediately rinse the affected area with clean, cold water. Immediate medical advice will be required.

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

**Battery Monitoring System (BMS)**

Your vehicle is equipped with a Battery Monitoring System (BMS) which manages the battery charging system and, if excessive battery discharge is occurring when the engine isn’t running, shuts down non-essential electrical systems to protect battery power.

In the event that too many electrical systems are operational when the engine is not running, and the battery charge is insufficient, the audio and entertainment systems (if active) and climate control system will be switched off. This will be confirmed by a low battery warning message displayed on the touch-screen. If this occurs, switch on and run the engine for at least five minutes, preferably with all auxiliary electrical systems switched off (e.g. lights, wipers, climate control, seat heaters etc.).

*Note:* The audio system can be operated during this five minute period when the engine is running.

If the engine is switched off before the five minute period ends and the audio system is switched on, the warning message will re-appear on the touch-screen and the audio, entertainment and climate control systems will switch off again. For this reason, it is important that the engine is left running for the full five minute period.

**Charging faults**

If there is a fault in the battery charging system, **CHARGING FAULT** is displayed with red backlighting in the message centre. If this occurs, switch off all non-essential electrical systems and seek qualified assistance at the earliest opportunity.
Vehicle battery

USING BOOSTER CABLES

WARNINGS

Always wear appropriate eye protection when working with batteries.

During normal use, batteries emit explosive hydrogen gas - ensure sparks and naked lights are kept away from the luggage compartment.

Do not attempt to start the vehicle if the electrolyte in the battery is suspected of being frozen.

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.

Do not disconnect the discharged battery.

Do not connect positive (+) terminals to negative (-) terminals and ensure booster cables are kept away from any moving parts in the engine compartment.

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

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 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 booster cable to the earth point of the donor vehicle that is recommended for jump starting by the manufacturer.

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 0.5 metres (20 inches) away from the battery and as far as possible from any fuel or brake pipes.
   • 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.

7. Allow both vehicles to idle for two minutes.

8. Switch off the donor vehicle.

Disconnected the cables

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.

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 booster cables in the exact reverse order of that used for connection.
Vehicle battery

CHARGING THE VEHICLE BATTERY

**WARNING**

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

- 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.

**CAUTIONS**

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

- If the battery has been removed from the vehicle to be charged, the Battery Monitoring System will automatically recalibrate. During this time, Low Battery warning messages may appear.

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

CHANGING THE VEHICLE BATTERY

**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.

- Do not tilt the battery more than 45\(^\circ\), as it may cause damage and may cause the electrolyte to leak out.

**CAUTIONS**

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

- If the vehicle battery is replaced by a new battery, the vehicle electrical system must be reset to the new battery by qualified personnel. Failure to reset the electrical system, may result in Low Battery warning messages. Consult your Dealer/Authorised Repairer.

- Only a replacement battery of the same type and specification as the original should be fitted. Other batteries may vary in size or have different terminal positions, which could cause a fire hazard when connected to the vehicle’s electrical system.

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

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

**Battery disposal**

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