

# Vehicle battery

2. Remove the Smart key 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 Smart key in the normal way to disarm the security system. The windows may need recalibrating to operate correctly.

## CHARGING THE VEHICLE BATTERY



**Make sure 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.**



**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.**



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.



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



**Only fit a battery of the correct type and rating. Fitting an incorrect battery may result in a fire, or damage to the electrical system. If you are in any doubt when fitting a battery, seek qualified assistance.**



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.

## BATTERY MONITORING SYSTEM

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 in the Message centre if the engine is not running. After 3 minutes, the IPSM will begin shutting down the vehicle's 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, restart the engine. If problems still exist, contact your Dealer/Authorised Repairer.