Auxiliary Battery System

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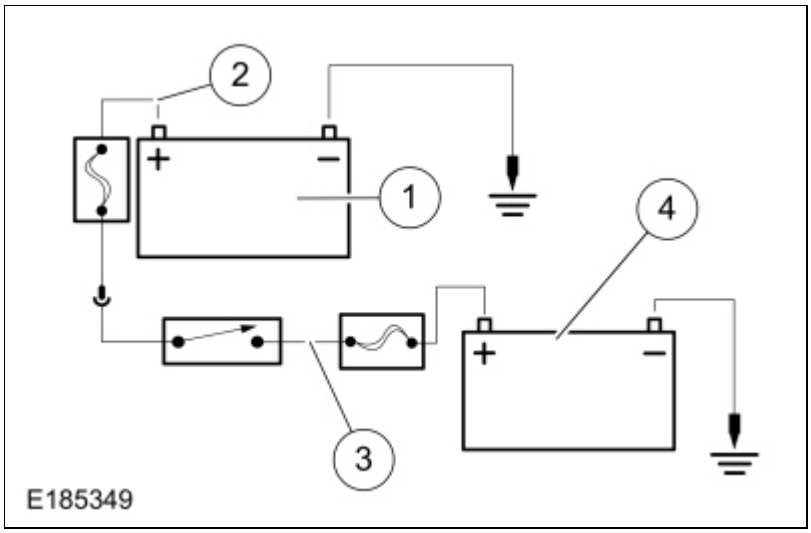
WARNING: The Battery Monitor System (BMS) fitted to Ranger models cannot be used in junction with an auxiliary battery system, as a direct connection to the battery terminals (such as in a voltage sensitive relay based auxiliary battery charging system) will prevent correct operation of the BMS.

WARNING: Vehicles fitted with non-sealed type auxiliary batteries (non-maintenance free), must e regular checks made to determine that the electrolyte levels are correctly maintained.

WARNING: Batteries used in the auxiliary battery system must be suitable for off road ursions.

NOTE: *If a battery is disconnected, there is no requirement to reprogram the vehicle; the vehicle retains its 'normal' power management setting and remembers exactly what its previous configuration was (although the central locking latches may cycle if one of these was opened manually in the intervening period). With the radio, all of the settings are retained, but the key code needs to be entered to restore functionality. The clock will need resetting. The power windows will need to be re calibrated.*



The auxiliary battery system consists of the following components:

1. Primary Battery
2. Auxiliary Battery Cable
3. Auxiliary Battery Wiring Harness (with integrated battery isolator and fuse box)
4. Auxiliary Battery

Auxiliary Battery Cable

The auxiliary battery cable provides electrical power from the primary battery/generator to the auxiliary battery wiring harness.

Auxiliary Battery Wiring Harness

NOTE: *The auxiliary battery wiring harness contains the wiring harness, isolator, fuse box, mounting assembly, input cables, output cables, battery connections and associated components. The assembly must not be disassembled and is serviced as a complete unit if replacement is required.*

The auxiliary battery wiring harness incorporates the battery isolator, 125A MIDI fuse, fuse block, auxiliary battery connection terminals, output connections for auxiliary loads and a mounting assembly. The wiring harness facilitates both input charge to the auxiliary battery and output charge to the auxiliary loads.

Auxiliary Battery

The auxiliary battery is a 12-volt direct current (DC) 80 ampere-hour, 800CCA, DIN H7 size, 140 RC, absorption glass matt (AGM) deep cycle unit. The battery is connected to the vehicle using negative grounding. The auxiliary battery provides electrical power supply for accessory loads when the engine is not running.

Auxiliary Battery Mount

NOTICE: Cab chassis vehicles must not be driven with the auxiliary battery still mounted on the auxiliary battery carrier. This method of mounting the auxiliary battery is only suitable for delivery of the vehicle from the plant.

The auxiliary battery is mounted at the rear of the vehicle in the following model specific locations:

- Cab chassis vehicles have the auxiliary battery mounted on a temporary auxiliary battery carrier located across the chassis rails at the rear of the vehicle.
- Style side box vehicles have the auxiliary battery mounted in a dedicated steel framed battery box in the rear right corner of the load tray.

Normal Operation

- When the engine is running, the generator supplies electrical power to both the primary and the auxiliary battery. Electrical power to the auxiliary battery is supplied through the auxiliary battery cable and is then regulated through the isolator located within the auxiliary battery wiring harness.
- When the engine is not running and the generator is no longer supplying electrical power to the batteries, the battery isolator in the auxiliary battery wiring harness is opened, protecting the primary battery from being depleted and allowing the auxiliary battery to provide output power to accessory loads.
- Once the engine is running and the primary battery measures 13.2V, the battery isolator will close the circuit, allowing the auxiliary battery to be charged. By not reconnecting the auxiliary battery until the primary battery is charged, the alternator is protected from excessive current draw.