

2005.0 DISCOVERY 3, 414-01

BATTERY, MOUNTING AND CABLES

BATTERY (G300821)

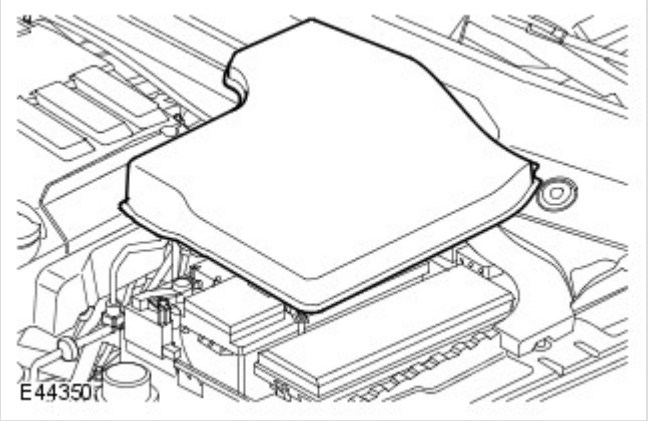
REMOVAL AND INSTALLATION

86.15.01	BATTERY (S) - EACH - RENEW	ALL DERIVATIVES	0.2	USED WITHINS	
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REMOVAL

1. Secure the hood in the service position.
Release the support struts.

2.



The technical drawing shows a perspective view of the battery cover assembly. A large, rectangular battery cover is mounted on a base. Various mechanical components, including bolts, nuts, and wiring, are visible around the base of the cover. The drawing is a line art illustration typical of automotive manuals.

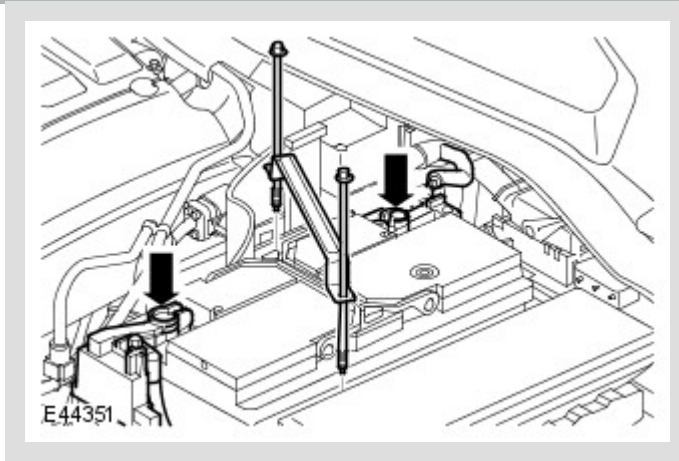
Remove the battery cover.

3. Disconnect the battery ground cable.
For additional information, refer to: [Specifications](#) (414-00

Battery and Charging System - General Information, Specifications).

4. Disconnect the battery positive cable.

5.



Remove 2 bolts securing the battery clamp and remove the clamp.

6. Remove the battery.

INSTALLATION

1.



NOTE:

Apply petroleum jelly to the battery terminals.

To install, reverse the removal procedure.

Tighten the battery clamp bolts to 5 Nm (4 lb.ft).

Tighten the battery terminals to 5 Nm (4 lb.ft).

BATTERY AND CHARGING SYSTEM - GENERAL INFORMATION

SPECIFICATIONS

Battery

ITEM	SPECIFICATIONS
All Gasoline (Petrol) Models before 14MY:	
Type	Maintenance free lead-calcium
Capacity	690 amps - 75 amp/hour
Reserve capacity	150 minutes @ 25 amps
All Gasoline (Petrol) Models 14MY onwards:	
Type	Maintenance free lead-calcium
Capacity	825 amps - 90 amp/hour
Reserve capacity	190 minutes @ 25 amps
Diesel Models:	
Type	Maintenance free lead-calcium
Capacity	825 amps - 90 amp/hour
Reserve capacity	190 minutes @ 25 amps

Battery Disconnect/Connect

⚠ CAUTION:

The vehicle status and battery condition must be established before attempting battery disconnect/connect. Reference must be then made to the following table to establish the relevant procedure to be followed.

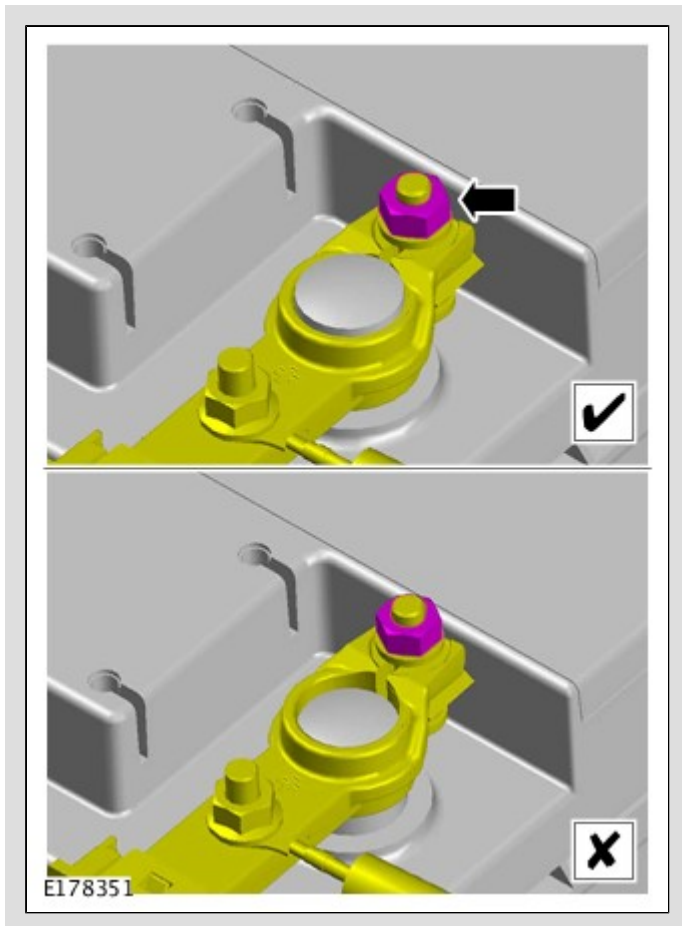
⚠ NOTE:

If a new battery is installed, the battery monitoring system (BMS) must be reset using Land Rover approved diagnostic equipment.

Vehicle status	Battery charged	Battery discharged
	Procedure	Procedure
Engine running	1	
Vehicle powered down, locked and alarmed	2	3
Vehicle unlocked	4	5

BATTERY TERMINAL

Make sure the clamping lug on the BMS is below the top of the negative terminal post as shown.



Procedure 1

Disconnect battery	Connect battery
1. If possible, apply parking brake or alternatively, chock wheels	1. Ensure that all electrical loads are switched OFF

2. Switch off ignition	2. Connect battery leads - GROUND lead last
3. Wait 2 minutes for engine management system to 'power down'	3. Switch on ignition
4. Open the hood	4. Operate parking brake switch several times until parking brake warning lamp is extinguished
5. Disconnect battery - GROUND lead first	

Procedure 2

Disconnect battery	Connect battery
1. Unlock the vehicle and disarm the alarm using the 'plip' button	1. Ensure that all electrical loads are switched OFF
2. Enter the vehicle, turn the ignition key to position II, apply the parking brake or chock the wheels and then turn the ignition key to position 0. Remove the key to 'power down' the ICE system	2. Connect battery leads - GROUND lead last
3. Wait 2 minutes for engine management system to 'power down'	3. Switch on ignition
4. Open the hood	4. Operate parking brake switch several times until parking brake warning lamp is extinguished
5. Disconnect battery - GROUND lead first	



NOTE:

1. Disconnect battery - The door unlock process initialises the ICE system.

Procedure 3

Disconnect battery	Connect battery
1. Unlock the vehicle from the left hand front door	1. Ensure that all

using the key	electrical loads are switched OFF
2. Enter the vehicle, turn the ignition key to position II, apply the parking brake or chock the wheels and then turn the ignition key to position 0. Remove the key to 'power down' the ICE system	2. Connect battery leads - GROUND lead last
3. Wait 2 minutes for engine management system to 'power down'	3. Switch on ignition
4. Open the hood	4. Operate parking brake switch several times until parking brake warning lamp is extinguished
5. Disconnect battery - GROUND lead first	

NOTES:

- **1. - Disconnect battery** - The door unlock process initialises the ICE system
- **1. Connect battery** - If there is insufficient capacity in the battery to disarm the alarm, the alarm may sound on reconnection of the battery - Step 3 will disarm the alarm

Procedure 4

Disconnect battery	Connect battery
1. Enter the vehicle, turn the ignition key to position II, apply the parking brake or chock the wheels and then turn the ignition key to position 0. Remove the key to 'power down' the ICE system	1. Ensure that all electrical loads are switched OFF
2. Wait 2 minutes for engine management system to 'power down'	2. Connect battery leads - GROUND lead last
3. Open the hood	3. Switch on ignition
4. Disconnect battery - GROUND lead first	4. Operate parking brake switch several times until parking brake warning lamp is extinguished

Procedure 5

Disconnect battery	Connect battery
1. Enter the vehicle, turn the ignition key to position II, apply the parking brake or chock the wheels and then turn the ignition key to position 0. Remove the key to 'power down' the ICE system	1. Ensure that all electrical loads are switched OFF
2. Wait 2 minutes for engine management system to 'power down'	2. Connect battery leads - GROUND lead last
3. Open the hood	3. Switch on ignition
4. Disconnect battery - GROUND lead first	4. Operate parking brake switch several times until parking brake warning lamp is extinguished

NOTE:

1. Disconnect battery - If the remote control module (RCM) is not functioning, it will be necessary to manually unlock the vehicle using the key.

Vehicle Jump (Emergency) Starting - Using Another Vehicle

CARRY OUT THE FOLLOWING OPERATIONS IN THE SEQUENCE GIVEN
1. Connect one end of the BLACK (-) booster cable to the GROUND (-) battery terminal of the DONOR vehicle
2. Connect the other end of the BLACK (-) booster cable to a good earth point e. g. unpainted metal surface or engine mounting at least 0.5 m (20.0 in) from the battery or fuel lines on the DISABLED vehicle
3. Connect one end of the RED (+) booster cable to the positive (+) battery terminal of the DONOR vehicle
4. Connect the other end of the RED (+) booster cable to the positive (+) battery terminal of the DISABLED vehicle
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

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| 7. Allow engines of both vehicles to idle for a few minutes then switch off the engine of the DONOR vehicle |
| 8. Disconnect the RED (+) booster cable from the battery of the PREVIOUSLY DISABLED vehicle |
| 9. Disconnect the RED (+) booster cable from the battery of the DONOR vehicle |
| 10. Disconnect the BLACK (-) booster cable from the earth point of the PREVIOUSLY DISABLED vehicle |
| 11. Disconnect the BLACK (-) booster cable from the battery of the DONOR vehicle |



WARNINGS:

- During normal use, batteries emit explosive hydrogen gas sufficient to cause severe explosions and capable of causing serious injury - keep sparks and naked lights away from the engine compartment.
- DO NOT attempt to start the disabled vehicle if it is suspected that the electrolyte in the battery is frozen (before 14MY only).
- Suitable eye protection must be worn when working in the vicinity of the battery.
- Take care when working near rotating parts of the engine.
- Prior to attempting to start the disabled vehicle, ensure that the parking brake is applied or suitably chock the wheels. Ensure that 'P' - PARK - Automatic Gearbox or NEUTRAL - Manual Gearbox is selected.

⚠ CAUTIONS:

- Ensure that all electrical loads are switched OFF prior to connecting booster cables and disconnect booster cables prior to using any electrical equipment.
- Ensure that the battery of the DONOR vehicle is of 12 volt capacity and that all electrical loads on the disabled vehicle are switched OFF prior to connecting booster cables.
- Ensure that there is no physical contact between the donor and disabled vehicles other than the booster cables.

Vehicle Jump (Emergency) Starting - Using a Slave Battery/Starting Aid

CARRY OUT THE FOLLOWING OPERATIONS IN THE SEQUENCE GIVEN	
1.	Connect the end of the BLACK (-) booster cable to the ground (-) battery terminal of the vehicle
2.	Connect the end of the RED (+) booster cable to the positive (+) battery terminal of the vehicle
3.	Start the engine of the vehicle and allow it to idle
4.	Disconnect the RED (+) booster cable from the battery terminal of the vehicle
5.	Disconnect the BLACK (-) booster cable from the battery terminal of the vehicle



WARNINGS:

- During normal use, batteries emit explosive hydrogen gas sufficient to cause severe explosions and capable of causing serious injury - keep sparks and naked lights away from the engine compartment.
- DO NOT attempt to start the disabled vehicle if it is suspected that the electrolyte in the battery is frozen (before 14MY only).
- Suitable eye protection must be worn when working in the vicinity of the battery.
- Take care when working near rotating parts of the engine.
- Prior to attempting to start the disabled vehicle, ensure that the parking brake is applied or suitably chock the wheels. Ensure that 'P' - PARK - Automatic Gearbox or NEUTRAL - Manual Gearbox is selected.



CAUTIONS:

- Ensure that all electrical loads are switched OFF prior to connecting booster cables and disconnect booster cables prior to using any electrical equipment.
- Ensure that the slave battery/starting aid are of 12 volt capacity and that all electrical loads on the disabled vehicle are switched OFF prior to connecting booster cables.