

TECHNICAL INFORMATION



BCU Sleep-mode Troubleshooting and Upgrade

No: 86/01/01/NAS
Ref:
Issue: 1
Date: 02/16/01

AFFECTED VEHICLE RANGE:

Discovery Series II (LT)

YA260032 to 1A703319

SITUATION:

KEYS FAIL TO UNLOCK VEHICLE AFTER SITTING OVERNIGHT.

Vehicle Remote Handsets (plips) occasionally stop working. The problem occurs after a vehicle has been standing overnight, or for an extended period.

A vehicle parked in a radio-signal-rich environment with RF noise at or around the same frequency as remote plips – 315MHz – such as garage door openers, house alarms, gates in gated communities, or radio transmitters may exhibit the symptoms. Not all vehicles exhibit this condition. Low ambient temperatures can make the condition worse.

Vehicles exposed to 315MHz signals will have the body control unit (BCU) wake up and decide whether the signal is a valid plip “lock” or “unlock” command for the vehicle. If the BCU does not see a valid plip code, the control unit will go back to sleep again. If RF interference wakes the vehicle BCU repeatedly over an 8 hour period, the BCU will shut down the RF module to protect the vehicle’s battery. It will no longer listen for any RF signals until the key is turned in the driver’s door lock.

RESOLUTION:

VERIFY COMPLAINT AND INSTALL NEW BCU

An affected vehicle can be unlocked with the mechanical key in the driver's door. This will reset the BCU and all functions will return to normal.

A new BCU introduced into production at VIN 1A703319 stops the BCU from going to sleep after just eight hours and increases the timer to 96 hours. A vehicle sitting in a high RF environment for extended periods will still go to sleep after 96 hours, but short term problems are eliminated by the extended time allowance.

PARTS INFORMATION:



NOTE: Until further notice, Prior Authorization for replacement of the BCU is required. Only special orders placed with the Land Rover HelpLine will be processed. Call 1-800 562 5824 YWC000310.....Body Control ECU (BCU)

WARRANTY CLAIMS:


86.55.75Time 0.50 hrs.
Install new BCU

FAULT CODE: A


Normal warranty policy and procedures apply

TIB	CIRCULATE:	Service Mgr	Warranty	Workshop	Body Shop	Parts
86/01/01/NAS	TO	X	X	X	X	X

REPAIR PROCEDURE


 **NOTE:** The BCU should ONLY be replaced when ALL of the following conditions have been met:

- Vehicle is within the VIN range YA260032 to 1A703319
- 1999 vehicles with 48K replacement BCU (YWC000010) OR replacement RF receiver (YWY100450L) fitted.
- Vehicle plips occasionally stop working after sitting overnight, or for an extended period.
- When mechanical key is used to unlock the driver's door, plips start functioning correctly again.


 **CAUTION:** When replacing a BCU, **ALWAYS** do a fresh installation. This will ensure that the correct software is loaded. **NEVER** copy data from the original BCU.

DISCOVERY SERIES II BCU INSTALLATION PROCESS

1. Contact LRNA HelpLine for plip bar codes.
2. Verify vehicle is unlocked, and alarm is disarmed.
3. Disconnect vehicle battery.

 **NOTE:** BCU is located behind the glove box on the passenger side of a Discovery Series II.

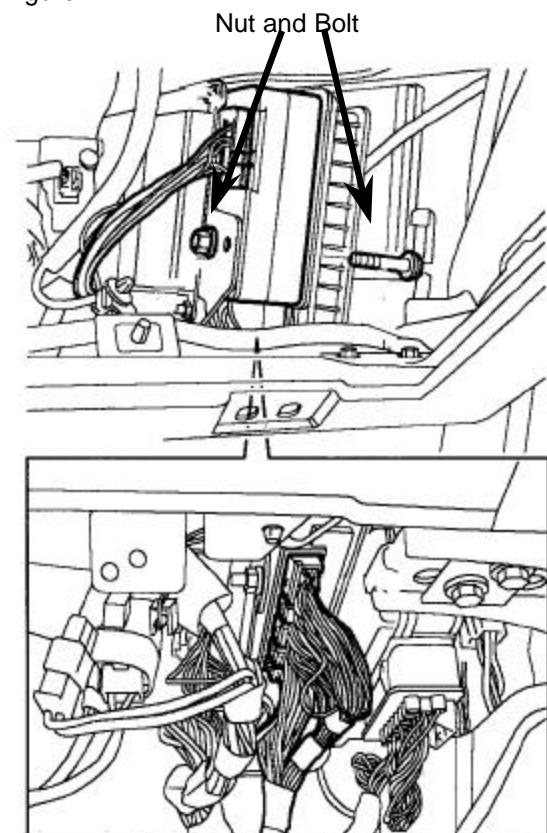
4. Remove trim clips (fir trees) and remove lower trim panel above passenger footwell.
5. Disconnect four connectors on BCU accessible through the trim panel.
6. Open the glovebox and swing down completely.
7. Disconnect power connector on BCU.
8. Remove nut and bolt (10mm) securing BCU into bracket assembly. (Figure 1)
9. Remove BCU.
10. Reinstall new BCU.
11. Reconnect vehicle battery.

 **CAUTION:** Use only TestBook disk DRG011 or higher. No gold disks may be used for this purpose.

PROGRAM BCU USING TESTBOOK

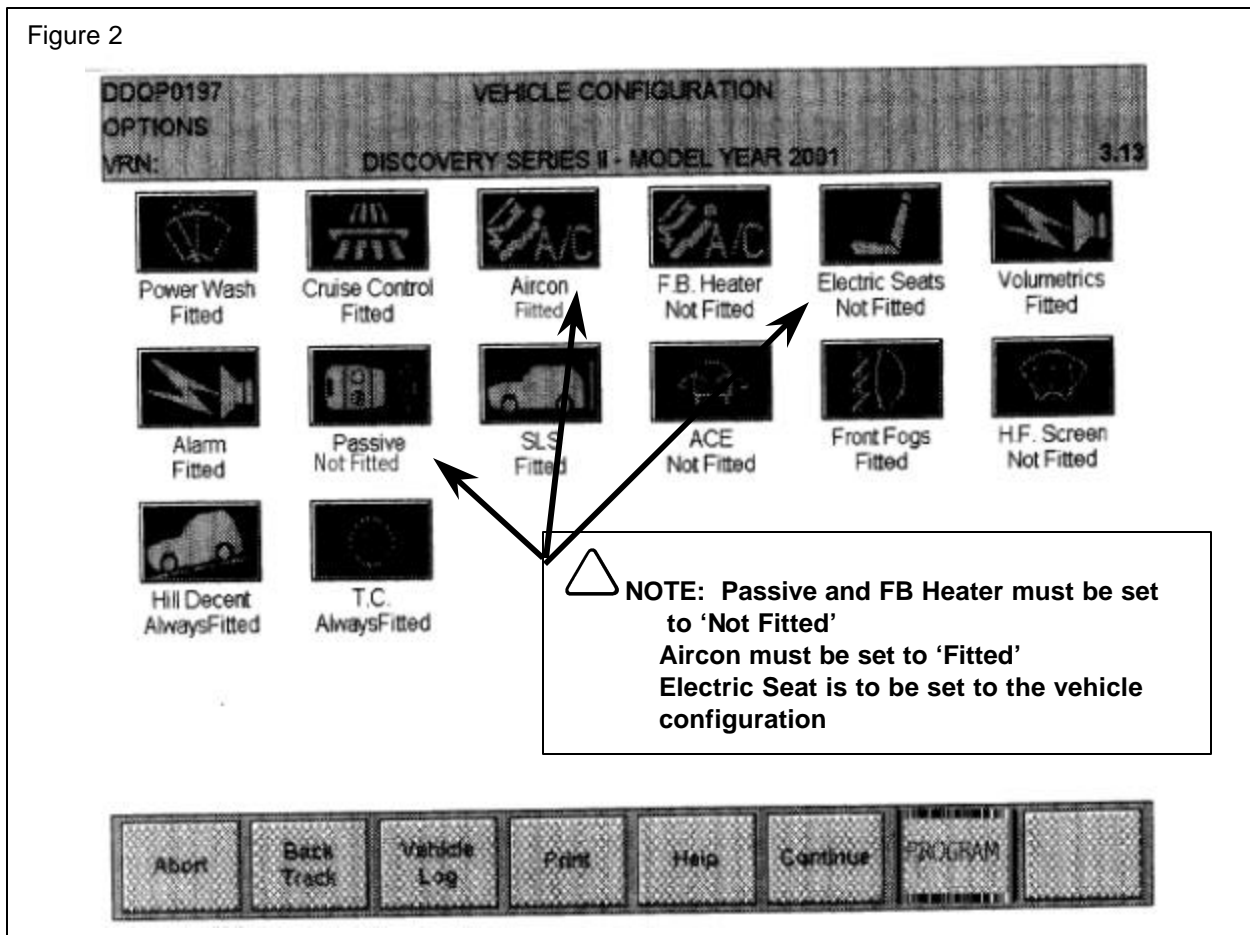
1. Connect TestBook to vehicle.
2. Turn on ignition key to position II (Ignition).
3. Follow instructions on the TestBook screen.
4. Select "Diagnostic System."
5. Enter VIN and Model.
6. Select "Vehicle Configuration."
7. TestBook will display the message "The BCU is not programmed."
8. Press "Continue." TestBook will now begin the programming process.

Figure 1



NOTE: TestBook will display a page of buttons for each selectable vehicle option on the Vehicle Configuration Page. Figure 2 shows the displayed selectable buttons.

Figure 2



9. Press each button as necessary to turn options on and off.
10. Verify that "Passive Immobilization" and "F.B. Heater" are toggled to the "NOT FITTED" status.

CAUTION: Look at the buttons very carefully before pressing "Program." *Some features are not configurable after this point, for example passive immobilization.*

11. When the configuration is correct press "Program".
12. Select the USA or Canadian market, as appropriate from selection offered by TestBook.
13. Verify vehicle is not set into transit mode.
14. Reprogram clips using barcodes supplied by the Land Rover HelpLine.
15. Within the "Dealer Configuration" screen, select any dealer configurable items within the "Class" and "Non-Class" Screens. For example, "Single Point Entry," "SuperLock," or in Canada "Daytime Running Lights".
16. Select "Perform Mobilization Learn" to resynchronize the rolling immobilization code between the Engine Management System and the BCU.
17. Ensure that vehicle is not in transit mode, check that odometer is updated correctly and that all options are configured correctly.