

TECHNICAL INFORMATION



No: 70/02/99/NAS
 Ref: TIB – D380
 Issue: 1
 Date: 12/17/99

ABS Warning Lamp Illumination

AFFECTED VEHICLE RANGE:

DISCOVERY Series II (LT) **XA200412 – XA228367**
XA900000 – XA907211

SITUATION:

ABS WARNING ILLUMINATION

Detection protocols within the ABS self diagnostic system may lead to the illumination of the ABS warning lamp when no real problems have occurred.

RESOLUTION:

INVESTIGATE LAMP ILLUMINATION

Using TestBook, determine if the SLABS unit has stored a fault. Follow the procedures outlined in this TIB, determine the probable cause of the warning lamp illumination and take appropriate action.

PARTS INFORMATION:

YWB101300K.....ABS Relay **Qty 1 (Part of Recall D380)**
SRB101201ABS Modulator **Qty 1**
SRD100462SLABS ECU **Qty 1**

WARRANTY CLAIMS:

- 70.90.89/26Time 0.3 hrs.**
 Perform preliminary electrical and mechanical checks
- 70.65.01Time 1.2 hrs.**
 Replace and calibrate SLABS ECU (Includes allowance for calibration)
- 70.65.49Time 1.10 hrs.**
 Replace ABS modulator unit

FAULT CODE: Z

Normal warranty policy and procedures apply

TIB 70/02/99/NAS	CIRCULATE: TO	Service Mgr X	Warranty X	Workshop X	Body Shop X	Parts X
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REPAIR PROCEDURE

VERIFICATION OF FAULT

1. Refer to WSM section, Brakes/Operation/Diagnostics, connect TestBook and determine stored faults.
2. If fault 01.3 "Pump not running when activated" or 01.4 "Pump failure" is detected, perform the following:
 - Inspect ABS pump relay to verify that relay part number YWB101300 is installed.
 - If relay YWB101300 is not present, perform Recall D380 relay replacement.
3. If fault code 01.5 "Pump failure (pump running when not activated)" is determined perform the following:
 - Inspect ABS pump relay to verify that relay part number YWB101300 is installed.
 - If relay YWB101300 is not present, perform Recall D380 relay replacement.



NOTE: The "Pump failure (pump running when not activated)" fault can be detected by a sustained noise similar to that when ABS or Hill Decent Control is in operation. Pump damage may result if this condition persists for greater than ½ hour.

- If relay YWB101300 is not present and the "pump running when not activated" condition, indicated by a sustained noise, has exceeded 1/2 hour, replace the ABS modulator with a new unit (SRB101201).
4. If fault 11.3 "Modular shuttle valve switch dynamic failure" is detected, perform the following:
 - Verify that master cylinder operates properly.
 - Verify that the ABS modulator has a proper ground connection.
 - Verify that the ABS ECU has a proper ground connection.
 - Check the function of modulator shuttle valve switches.
 5. If no functional or ground faults are found, determine SLABS ECU "channel" and "safety mask" numbers using TestBook.
 6. If these numbers are either "2" or "3," remove vehicle ECU and install new ECU (SRD100462).
 7. If fault codes 04.4 to 04.7, 06.4 to 06.7 or 08.4 to 8.7 indicating "sensor output too low," "sensor electrical failure," or "sensor electrical connection intermittent" perform the following:
 - Verify correct ABS wheel speed sensor output.
 - Determine the ABS wheel sensor electrical resistance.
 - Inspect ABS wheel sensor cable routing.
 - Inspect ABS wheel sensor connectors and verify cable integrity.
 8. If no functional or cable faults are found, determine SLABS ECU "channel" and "safety mask" numbers using TestBook.
 9. If these numbers are either "2" or "3," remove vehicle ECU and install new ECU (SRD100462).
 10. If any faults other than those listed above are discovered, perform TestBook procedure to correct.



CALIBRATE NEW ECU, IF INSTALLED



NOTE: Follow all TestBook instructions exactly, *EXCEPT* for “Enter Original ECU Number.”

1. Using TestBook, select “SLABS Diagnostic.”
2. Following the on-screen instructions, select “Vehicle Maintenance.”
3. Select “SLABS ECU Replace.”
4. Enter complete vehicle identification number.
5. Enter information regarding rear suspension configuration.
6. Return to “Vehicle Maintenance.”
7. Select “Health Check.”



NOTE: When the ‘WHEEL ASSIGNMENT’ screen is reached, it will be necessary to raise each road wheel individually, so that the wheel can be rotated. During this operation it is essential that the other three road wheels be restrained to prevent movement via the differential.

8. Follow steps to test and cancel warning lights.
9. Close TestBook to the “Welcome Screen.”
10. If vehicle is equipped with SLS, select “SLS Calibration,” and follow all on-screen TestBook instructions.