



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

Investigation: EA05-016  
 Prompted By: PE05-034  
 Date Opened: 10/14/2005      Date Closed: 02/22/2007  
 Principal Investigator: Kyle Bowker  
 Subject: Brake Light Switch Failure

Manufacturer: Land Rover  
 Products: 2004 Land Rover Discovery Series II and 2002-2005 Freelander  
 Population: 42,010

Problem Description: Alleged failure of the stop lamp switch.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	3	75	77
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	21,935	21,935

\*Description Of Other: Warranty claims paid by Land Rover to replace stop lamp switches on the subject vehicles.

Action: This Engineering Analysis has been closed. The manufacturer will conduct a safety recall (07V-041).

Engineer: Kyle M. Bowker KMB

Date: 02/22/2007

Div. Chief: Jeffrey L. Quandt

Date: 02/22/2007

Office Dir.: Kathleen C. DeMeter

Date: 02/22/2007

Summary: On June 16, 2005, the Office of Defects Investigation (ODI) opened a Preliminary Evaluation (PE05-034) to investigate alleged stop lamp (brake) switch failures in certain model year (MY) 2004 Land Rover Discovery Series II vehicles. On October 14, 2005, the investigation was upgraded to an Engineering Analysis and the scope expanded to include certain MY 2002 through 2005 Freelander vehicles that use a substantially similar self-adjusting stop lamp switch furnished by the same supplier, Methode Electronics Malta, Ltd. (Methode).

In September 2003, Methode moved the production of an internal switch component, known as the slider mechanism, from a validated plastic injection-molding tool ("Cavity 1") to another tool ("Cavity 2") that had not been used before to produce parts for Land Rover. Sliders from Cavity 2 may be characterized by poor fill, lack of definition in the slider teeth and dimensional instability. Consequently, the slider may be unable to restrain improper movement of the plunger during normal brake pedal operation. This may cause the switch to fall out of adjustment, thus significantly reducing the effort required to energize the switch and illuminate the stop lamps. "Cavity 2" switches were installed in approximately 8,763 Discovery subject vehicles built from December 2003 through May 2004 and approximately 3,915 Freelander subject vehicles built from October 2003 through May 2004. Additionally, stop lamp switches in certain MY 2002 through 2005 Freelander subject vehicles may slip out of adjustment as a result of switch damage due to an incorrect setting procedure during vehicle manufacture or as a result of switch mounting bracket flex.

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KMB  
2/22/07

Summary continued:

Analysis of all available data indicates the predominant failure mode is constant stop lamp illumination. Other reported consequences of stop lamp switch maladjustment include inoperative automatic transmission gear selector/brake pedal shift interlock, inoperative speed (cruise) control, and telltale illumination as described in technical service bulletin (TSB) No. LT206-001 dated October 28, 2004 issued by the manufacturer to Land Rover dealers in the United Kingdom (UK).

To date, ODI is aware of 77 non-duplicative complaints that allege stop lamp switch failure on the subject vehicles (10 complaints on MY 2004 Discovery, 45 on MY 2002 Freelander, 19 on MY 2003 Freelander, and 3 on MY 2004 Freelander vehicles). Additionally, 4,595 Discovery and 13,370 Freelander subject vehicles have experienced one or more warranty claims to replace the stop lamp switch. Of the 5,170 warranty claims paid to replace stop lamp switches on Discovery subject vehicles, approximately 31% occurred before the vehicle was sold new and approximately 88% occurred within the first 12 months of vehicle service. The warranty trend on Discovery subject vehicles is in decline with 3,545 claims paid in calendar year (CY) 2004, 1,303 claims paid in CY 2005, and 322 claims paid in CY 2006 through September 28, 2006 (which is when ODI last received updated warranty claims data from Land Rover), and it appears that the alleged defect on Discovery subject vehicles has been remedied through warranty repairs. However, ODI analysis of the manufacturer's warranty and complaint records indicates the failure trend on certain Freelander subject vehicles is ongoing.

By letter dated February 2, 2007, Land Rover has notified ODI that it will conduct a safety recall (NHTSA Recall No. 07V-041) to replace defective stop lamp switches in approximately 33,247 MY 2002 through 2005 Freelander vehicles built at the Solihull, UK assembly plant from September 5, 2001 through May 19, 2005. Although ODI has concerns regarding the manufacturer's resolution of Discovery stop lamp switch failures through warranty repairs, the action taken by Land Rover is sufficient to resolve the issues raised by this investigation. Accordingly, this investigation is closed.