



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

# ODI RESUME

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

Manufacturer: Land Rover  
Products: 2004 Land Rover Discovery Series II and 2002-2005 Freelander  
Population: 42,739 (Estimated)

Problem Description: Alleged failure of the stop lamp switch.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	2	8	9
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	4,298	4,298

\*Description Of Other: Warranty claims paid by Land Rover to replace stop lamp switches on certain 2004 Discovery vehicles.

Action: An Engineering Analysis has been opened.

Engineer: Kyle M. Bowker KMB  
Div. Chief: Jeffrey L. Quandt  
Office Dir.: Kathleen C. DeMeter

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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. ODI sent a letter to the manufacturer on June 24, 2005 requesting information about these and other Land Rover vehicles.

Analysis of manufacturer data shows a high failure frequency for stop lamp switches on Discovery vehicles manufactured from approximately December 2, 2003 through May 13, 2004. All 8,763 Discovery vehicles built during this period were equipped with a self-adjusting stop lamp switch supplied by 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 and lack of definition in the slider teeth. Consequently, the slider is unable to restrain improper movement of the plunger during normal brake pedal operation. This causes the switch to fall out of adjustment, thus significantly reducing the effort required to energize the switch and illuminate the stop lamps. The most common symptom described by complainants and documented in warranty claim records is stop lamps that remain constantly illuminated.

Documents provided by the manufacturer indicate that certain MY 2002 through 2005 Land Rover Freelander vehicles use a substantially similar stop lamp switch that also suffers from a high failure frequency. An Engineering Analysis has been opened to further study the frequency, scope and safety consequences of the alleged defect.

KMB  
10/14/05