



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

ODI RESUME

Investigation: EA09-019
Prompted By: PE09-036
Date Opened: 12/18/2009
Principal Investigator: Ali Motamedamin
Subject: Rear Lamp Illumination

Manufacturer: BMW of North America, LLC, Bayerische Motoren Werke
Products: 2002-2005 BMW 3 Series Sedans (E46)
Population: 231,717

Problem Description: Rear lamps are not illuminating due to malfunctioning electrical connection in the ground circuit.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	25	910	935
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	30615	0

Description of Other: Vehicles (unique) repaired under warranty for replacement of the outboard light assembly connector.

Action: An Engineering Analysis (EA) is opened.

Engineer: Ali Motamedamin *AM*

Date: 12/18/2009

Div. Chief: D. Scott Yon *JSY*

Date: 12/18/2009

Office Dir.: Kathleen C. DeMeter

Date: 12/18/2009

Summary:

The outboard rear light assembly consists of a turn signal lamp, a tail lamp and a brake lamp. Failure of the light assembly ground circuit results in loss of all three lamps. BMW submitted complaint and warranty information showing a significant number of rear lamp assembly failures due to an open ground connection at the eight pin connector of the light assembly. This results in the loss of the rear turn signal. Overheating of the ground circuit electrical pin, possibly due to increased resistance and or high current flow, is indicated in some failures.

Additionally BMW issued a Technical Service Bulletin (TSB) SIB-630306 in February 2007 to address the condition by adding supplementary ground wiring to the tail lamp assembly. The additional ground wire added by the procedure reduces the current flow at the eight pin connector.

ODI is opening this EA to further investigate the issue.