



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

## ODI RESUME

Investigation: RQ 03-008  
 Prompted By: IE-03-053  
 Date Opened: 10/23/2003 Date Closed: 03/05/2004  
 Principal Investigator: Cheryl Tuosto  
 Subject: Brake Light Switch Failure

Manufacturer: Ford Motor Company  
 Products: MY 2000-2003 Ford Taurus and Mercury Sable  
 Population: 938,789 (Estimated)

**Problem Description:** Alleged failure of the brake lamp switch or associated wiring, which may cause the brake lamps to stay on or a loss of brake lamp function, which can increase the risk of a crash.

### FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	93	265	357
Crashes/Fires:	2	3	5
Injury Incidents:	0	1	1
# Injuries:	0	1	1
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	115,354	0

\*Description of Other: \*2000-2002 MY warranty claims serviced outside of Recall 01V-078.

Action: This recall query has been closed. Recall 04V-106.

Engineer: Cheryl Tuosto CAT

Date: 03/05/2004

Div. Chief: Jeffrey L. Quandt

Date: 03/05/2004

Office Dir.: Kathleen C. DeMeter

Date: 03/05/2004

**Summary:** Ford conducted a recall in March, 2001 to correct a defect affecting the brake light switch in MY 2000 through early-2001 Taurus and Sable vehicles equipped with power adjustable pedals (Recall 01V-078). RQ03-008 was opened to investigate complaints concerning the remedy and scope of 01V-078. ODI's analysis identified concerns with post-repair failures in recalled vehicles, failures in MY 2001-02 vehicles with adjustable pedals that were not included in Recall 01V-078, and failures in MY 2000 vehicles with fixed pedals. (Note: The manufacturer failure data in this resume includes all crashes and injuries, but the complaint information is limited to MY 2001-02 vehicles that were not included in the scope of Recall 01V-078.)

On March 1, 2004, Ford notified NHTSA of a safety defect in MY 2000 through early-2003 Taurus and Sable vehicles equipped with adjustable pedals and MY 2000 subject vehicles equipped with fixed pedals (Recall 04V-106). The notification identified three factors contributing to brake light circuit failures: (1) Continuing grease contamination issues that prompted 01V-078; (2) Misalignment of the booster rod pin and the brake light switch; and (3) Wire assembly fatigue. The first two conditions were limited to vehicles with adjustable pedals and the latter condition affected vehicles with fixed pedals. Ford will instruct owners to bring their vehicles to a dealer to have the brake light switch and associated wiring replaced with a re-designed brake light switch and wiring assembly.

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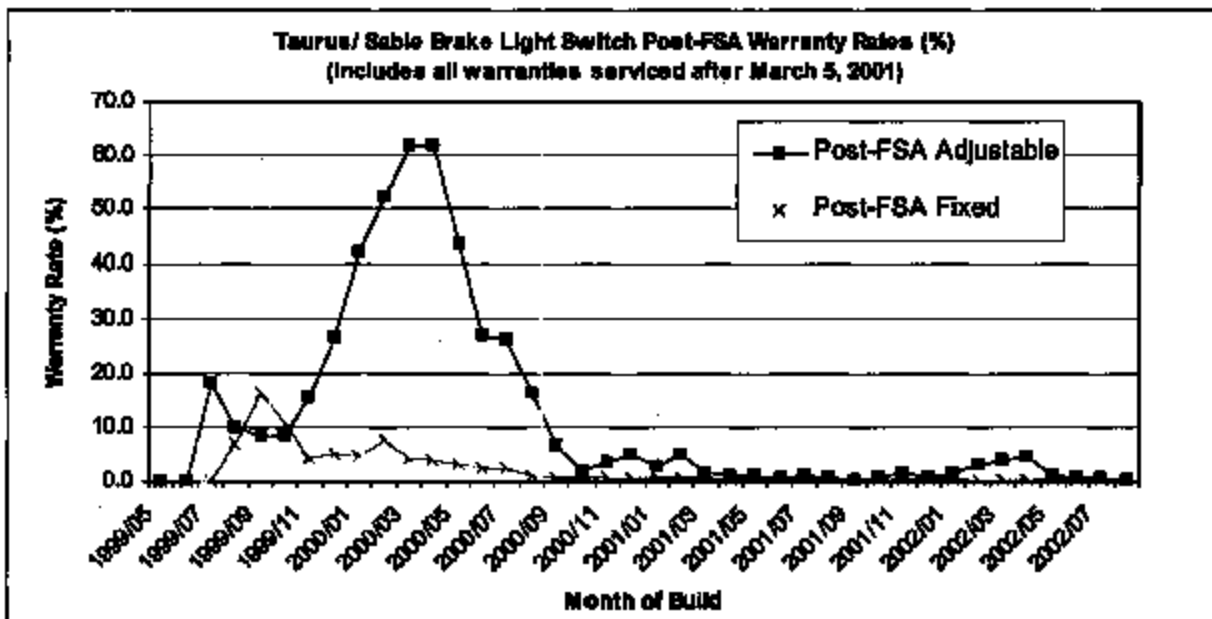
**RQ03-008 CLOSING REPORT**

**BACKGROUND:** On March 2, 2001, Ford recalled 157,000 units of 2000-2001 model year (MY) vehicles with adjustable brake pedals to correct a defect in the stop lamp switch (Ford Field Service Action (FSA) 01S08/ NHTSA Recall No. 01V-078). The recall stated that grease from the adjustable pedal assembly could enter the stop lamp switch and contaminate the contacts leading to carbon build-up, and potentially a short circuit. A short circuit could lead to either the brake lamps staying on, or to a loss of brake lamp function, increasing the risk of a vehicle crash.

On October 23, 2003, the Office of Defects Investigation (ODI) opened this Recall Query (RQ) based on 61 complaints of alleged brake lamp switch/ circuit failure in 2000-2001 MY Ford Taurus and Mercury Sable vehicles, as well as, the materials presented in IE03-053. At least 37 of these complaints were remedied as part of Recall 01V-078 and at least eleven (11) were not included in the recall. All of the complaints received by ODI involved vehicles produced at Ford's Atlanta and Chicago Assembly Plants.

On March 1, 2004, Ford submitted a Defect Information Report to NHTSA detailing a recall (ODI # 04V-106) regarding a potential safety related defect in some 2000-2003 MY Ford Taurus and Mercury Sable vehicles equipped with adjustable brake pedals manufactured through February 27, 2003 at their Atlanta Assembly Plant and through March 31, 2003 at their Chicago Assembly Plant and all 2000 MY Ford Taurus and Mercury Sable vehicles equipped with fixed brake pedals. This report indicated that the misalignment of the booster rod pin and the stop lamp switch in vehicles with adjustable brake pedals and fatiguing of the wire assembly in vehicles with fixed brake pedals could result in the same stop lamp malfunction as those covered in Recall 01V-078. (See attached report: Defect Information Report for Ford Recall No. 04S12.)

**ODI'S ANALYSIS:** As shown in Figure 1 below, the Post-Recall warranty rates, those calculated from warranty claims serviced after Recall 01V-078 was implemented (March 5, 2001), for 2000 MY vehicles with adjustable and fixed brake pedals were high.



The analysis also showed that the warranty rates for 2001 and 2002 MY vehicles with adjustable pedals were higher than expected.

**FORD'S ANALYSIS:** Ford's analysis also indicated that Recall 01V-078 may not have corrected the issue identified in the recall. Ford's analysis showed that the misalignment of the booster rod pin and the stop lamp switch in vehicles with adjustable brake pedals and the fatiguing of the wiring assembly in 2000 MY vehicles with fixed brake pedals may also result in brake light failure. Further investigation showed that the remedies for the fatiguing of the wire assembly and the misalignment of the booster pin were not incorporated into production until August 2000 and February 2003, respectively.

**REMEDY MEASURES:** The following measures were taken to remedy the problem and prevent future occurrences from happening:

- Ford modified their manufacturing process in August 2000 to reduce the fatiguing of the wire assembly in vehicles equipped with fixed brake pedals.
- Ford modified their manufacturing process in February 2003 to improve the alignment of the booster rod pin and stop lamp switch in vehicles equipped with adjustable brake pedals.
- Ford submitted a Defect Information Report to NHTSA on March 1, 2004 detailing their intent to conduct a safety recall (ODI # 04V-106) to have the stop lamp switch and associated wiring removed and replaced with a newly designed stop lamp switch and wiring assembly, including tie wraps, on the affected vehicle population (938,789 vehicles).

**SUMMARY/CONCLUSION:** In light of these findings and Ford's safety recall action (ODI # 04V-106), this investigation is closed.

# Ford Motor Company

James P. Vondale, Director  
Automotive Safety Office  
Environmental & Safety Engineering

04V-106 ① of ③

March 1, 2004

Kenneth N. Weinstein  
Associate Administrator for Safety Assurance  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, DC 20590

Dear Mr. Weinstein:

Subject: Ford Recall No. 04S12 – Certain 2000-2003 Model Year Ford Taurus and Mercury Sable Vehicles Equipped with Adjustable Pedal Assemblies and All 2000 Model Year Ford Taurus and Mercury Sable Vehicles Equipped with Fixed Pedal Assemblies

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## Summary

- Ford Action – Ford is conducting a voluntary safety recall involving certain 2000-2003 model year Ford Taurus and Mercury Sable vehicles equipped with adjustable pedal assemblies built through February 27, 2003 at Atlanta Assembly Plant and through March 31, 2003 at Chicago Assembly Plant and all 2000 model year Ford Taurus and Mercury Sable vehicles equipped with fixed pedal assemblies to replace stop lamp switch and associated wiring assembly.
- Number of Vehicles Involved – Approximately 938,789 Ford Taurus and Mercury Sable vehicles in the United States and Federal Territories.
- Affect on Vehicle Operation – A malfunctioning stop lamp switch and/or associated wiring may render stop lamps inoperable or cause them to stay on all the time. If the switch and/or associated wiring fail in open position, the brake lights will not actuate and the driver will not be able to shift the vehicle out of park. If the switch fails in the closed position, the brake lights will remain on, which will not allow the speed control to be activated or may cause the battery to discharge.
- Service Procedure – Ford has notified dealers not to demonstrate or deliver the affected vehicles until the service procedure has been performed. Owners will be instructed to take their vehicles to a Ford or Lincoln-Mercury dealer to have the stop lamp switch and associated wiring removed and replaced with a newly designed stop lamp switch and wiring assembly.

Attached is the detailed information required by the applicable portions of 49 CFR Part 573 – Defect and Non-Compliance Information Report.

Sincerely,



James P. Vondale



**49 CFR Part 573 – DEFECT INFORMATION REPORT**

**04S12 – CERTAIN 2000-2003 MODEL YEAR FORD TAURUS and MERCURY SABLE VEHICLES  
EQUIPPED with ADJUSTABLE PEDAL ASSEMBLIES and ALL 2000 MODEL YEAR FORD  
TAURUS and MERCURY SABLE VEHICLES EQUIPPED with FIXED PEDAL ASSEMBLIES**

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Defect and Noncompliance Reports, Ford Motor Company (Ford) submits the following information concerning a safety recall action that it is initiating voluntarily.

**573.6 (c) (2) – Potentially Affected Vehicles**

The vehicles potentially affected are certain 2000-2003 model year Ford Taurus and Mercury Sable vehicles equipped with adjustable pedal assemblies built from May 3, 1999 through February 27, 2003 at Atlanta Assembly Plant and from June 2, 1999 through March 31, 2003 at Chicago Assembly Plant. Also affected are all 2000 model year Ford Taurus and Mercury Sable vehicles equipped with fixed pedal assemblies (built from May 3, 1999 through August 4, 2000 at Atlanta Assembly Plant and from June 2, 1999 through August 18, 2000 at Chicago Assembly Plant).

Because these vehicles are not produced in VIN order, information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-800-392-3673) or by contacting a local Ford dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

**573.6 (c) (3) – Estimated Population of Vehicles Potentially Affected**

Approximately 938,789 Ford Taurus and Mercury Sable vehicles in the United States and Federal Territories.

**573.6 (c) (4) – Estimated Percentage of Affected Vehicles with the Defect Condition**

Unknown.

**573.6 (c) (5) – Description of Defect**

A malfunctioning stop lamp switch and/or associated wiring may render stop lamps inoperable or cause them to stay on all the time. If the switch and/or associated wiring fall in open position, the brake lights will not actuate and the driver will not be able to shift the vehicle out of park. If the switch and/or associated wiring fall in the closed position, the brake lights will remain on, which will not allow the speed control to be activated or may cause the battery to discharge.

**573.6 (c) (6) – Chronology of Events**

On October 28, 2003 the agency opened a Recall Query investigation (RQ03-008) based on reports alleging stop lamp malfunction primarily in vehicles previously serviced under field service action (FSA) 01S08 announced by Ford in March 2001. As a result of Ford's investigation prior to, during and subsequent to the RQ response, Ford determined that the FSA service procedure may not have corrected the issue identified in the FSA. Additionally, analysis on 2000 model year vehicles not included in the FSA population identified reports of wiring related issues which may result in the same failure mode as the stop lamp malfunction. Ford's December 12, 2003 response to the agency's RQ information request also included reports of stop lamp malfunction

573.6 (c) (8) – Chronology of Events (continued)

on 2001-2002 model year vehicles equipped with adjustable pedals that represent rates significantly higher than expected. Ford believes that along with contamination of the stop lamp switch from grease, that led to the FSA 01S08, fatiguing of the wire assembly in model year 2000 vehicles with fixed pedals and misalignment of booster rod pin in vehicles with adjustable pedals may have contributed to the malfunction of the stop lamps. Ford incorporated changes to the wire assembly in August 2000 that addressed the wire concern in vehicles equipped with fixed pedals and incorporated changes to improve the alignment of the booster rod pin and stop lamp switch in vehicles equipped with adjustable pedals in February 2003. Ford's service kit for this field action includes a redesigned stop lamp switch along with wire harness extension and accessories including tie-wraps to address the concerns identified above.

573.6 (c) (8) – Service Program

Ford has notified dealers not to demonstrate or deliver the affected vehicles until the service procedure has been performed. Owners will be instructed to take their vehicles to a Ford or Lincoln-Mercury dealer to have the stop lamp switch and associated wire assembly removed and replaced with a newly designed stop lamp switch and wire assembly.

There will be no charge to owners for this service. Mailing of owner notification letters will begin on April 5, 2004 and be completed on May 3, 2004. Ford's general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall was provided to the agency on February 28, 2003.

573.6 (c) (9) – Press statement and Dealer/Owner Letters

Ford does not at this time plan to release a statement to the media concerning the subject matter of this action. A copy of the Notification letters to dealers and owners from Ford will be forwarded to the agency when available.

573.6 (c) (11) – Recall Number

Ford has assigned recall number 04S12 to this action.

573.13 (c) (2) – Ending Date for Reimbursement Eligibility

The ending date for reimbursement eligibility for cost of remedies paid for by vehicle owners per Ford's general reimbursement plan is May 13, 2004.