



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 15-028
Date Opened: 08/10/2015
Investigator: Evan Frings
Approver: Stephen Ridella
Subject: Loss of headlights
Date Closed: 01/08/2016
Reviewer: Scott Yon

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company
Products: MY 2003-2005 Ford Crown Victoria and Mercury Grand Marquis
Population: 517,945
Problem Description: Failure of the front lighting control module resulting in loss of headlights while driving.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	636	4,173	4660**
Crashes/Fires:	4	11	15
Injury Incidents:	0	1	1
Number of Injuries:	0	1	1
Fatality Incidents:	0	0	0
Other*:	0	49,843	49,843

*Description of Other: Warranty claims for headlight failures.

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close this investigation, see NHTSA 15V-861

Summary:

The Office of Defects Investigation (ODI) opened an investigation concerning the loss of headlights in model year (MY) 2003-2005 Ford Crown Victoria and Mercury Grand Marquis vehicles. The subject vehicles share the same architecture and major components. ODI has received 636 unique reports (for all submission dates) related to the alleged defect, with owners describing a loss of both low and/or high beam headlights occurring while driving. ODI identified 4 Vehicle Owner Questionnaire (VOQ) reports alleging minor crash or loss of control incidents due to headlight failures. Drivers alleged running off of the road due to a lack of headlights and one driver reportedly struck a deer. No injuries were indicated in the VOQ crashes.

In response to ODI's Information Request (IR) letter, Ford Motor Company (Ford) responded with 4173 unique reports related to the alleged problem. There were a total of 11 crashes reported within that group as well as one injury that occurred when the vehicle struck an unseen object on the side of the road when the headlights failed. Ford also submitted 49,843 warranty claims related to headlight failures. Most reports indicate that the headlights failed without warning leaving the driver with no forward lighting, however some noted the headlights flickered or dimmed prior to turning off. Consumers also noted they were able to hold the "flash to pass" lever on the steering column mounted stalk to activate the high beams however this is only effective as long as the lever is physically actuated.

On December 21st, 2015 Ford notified ODI that it would conduct a safety recall (15V-861) to remedy headlight failures on (MY) 2003-2005 Ford Crown Victoria and Mercury Grand Marquis vehicles. According to Ford, the headlights of the vehicle are controlled by the Lighting Control Module (LCM) located in the engine compartment of the vehicle. The LCM uses an internal relay, mounted to a circuit board, to control power to the headlights. The headlight relay is

soldered to the circuit board at six different terminals. The original equipment LCMs were manufactured in a manner that resulted in the solder joints fatiguing and/or cracking as a result of repeated thermal cycling and/or vibration, a defect condition. The condition could be exacerbated by manufacturing quality issues such as an insufficient amount of solder, effecting the continuity between the circuit board and the relay terminal, and resulting in loss of headlights while driving. Other lighting functions are unaffected by this condition. The LCM manufacturing processes were revised to address the defect condition and Ford has been conducting a warranty extension program to cover defective LCMs since late 2013. Under the recall Ford will replace any remaining defective LCMs in recalled vehicles with remedy LCMs once they become available. See NHTSA recall 15V-861 for further details on the safety recall.

The recall action initiated by Ford addresses the safety risks of concern to ODI. Accordingly, the investigation is closed.

The ODI reports cited above can be reviewed at SaferCar.gov under the identification (ODI) numbers found in the attached list.

10807935, 10788034, 10787875, 10786763, 10785525, 10782970, 10780491, 10780086, 10779135, 10778595, 10778367, 10764711, 10760231, 10759634, 10759446, 10759070, 10758506, 10749654, 10747791, 10747504, 10746260, 10745860, 10733691, 10733633, 10730150, 10727027, 10726672, 10726011, 10725884, 10725006, 10717785, 10716995, 10716791, 10713144, 10713009, 10712715, 10711774, 10706275, 10705675, 10705550, 10704190, 10704021, 10703982, 10702584, 10694800, 10694559, 10689954, 10682383, 10680520, 10679156, 10678229, 10676479, 10676258, 10669926, 10669617, 10669590, 10668700, 10668208, 10668141, 10667471, 10667183, 10666959, 10662477, 10661944, 10655422, 10655134, 10652992, 10652553, 10651835, 10650172, 10650050, 10648694, 10648665, 10643269, 10641354, 10638884, 10638733, 10633704, 10633360, 10633325, 10632899, 10631817, 10631811, 10630077, 10629359, 10628224, 10627609, 10626003, 10622629, 10619353, 10618637, 10617282, 10616542, 10616116, 10615864, 10615303, 10614923, 10614800, 10614445, 10610395, 10608870, 10608761, 10608676, 10605784, 10604294, 10598188, 10596489, 10595568, 10595237, 10588775, 10588735, 10588498, 10587991, 10586198, 10585313, 10584651, 10583948, 10583929, 10583841, 10583651, 10583520, 10579485, 10579169, 10579009, 10578913, 10578639, 10578575, 10578572, 10578354, 10577605, 10577385, 10576436, 10576418, 10576105, 10575814, 10575146, 10574837, 10574082, 10573172, 10572698, 10568822, 10566739, 10566716, 10566087, 10565588, 10565363, 10565145, 10563989, 10563912, 10562792, 10562434, 10562388, 10562378, 10562251, 10561914, 10561058, 10557314, 10557209, 10556814, 10556275, 10555984, 10555732, 10554845, 10553944, 10553936, 10553538, 10553363, 10553025, 10552693, 10552654, 10550829, 10549393, 10548723, 10548570, 10548206, 10547678, 10547625, 10546641, 10545611, 10545326, 10545112, 10544521, 10544230, 10544169, 10543822, 10543186, 10542963, 10542871, 10542240, 10542218, 10541831, 10541827, 10538542, 10538500, 10538439, 10537854, 10537433, 10536283, 10535464, 10535152, 10533663, 10533415, 10533313, 10533103, 10532836, 10531760, 10524204, 10524029, 10524025, 10523509, 10523343, 10522694, 10521498, 10521456, 10519349, 10514931, 10514883, 10514671, 10514546, 10514346, 10513132, 10511072, 10510813, 10510770, 10510611, 10508382, 10508102, 10508028, 10505983, 10505663, 10505156, 10504962, 10504355, 10503973, 10503420, 10502786, 10502514, 10502321, 10502313, 10501391, 10500093, 10499617, 10497948, 10497831, 10497718, 10497694, 10497622, 10496279, 10496203, 10496160, 10496128, 10495329, 10495003, 10494928, 10494728, 10494649, 10494573, 10493142, 10488811, 10488649, 10488076, 10487960, 10487635, 10487619, 10487450, 10487413, 10487164, 10485997, 10485967, 10485663, 10485433, 10485057, 10484954, 10484611, 10483208, 10482775, 10482735, 10482611, 10480186, 10480184, 10478803, 10475890, 10475738, 10475641, 10475506, 10475483, 10475358, 10474478, 10474397, 10474031, 10474020, 10473757, 10473582, 10472629, 10472517, 10472491, 10472380, 10472362, 10471922, 10471662, 10471298, 10470484, 10469477, 10468805, 10468132, 10467760, 10467045, 10465827, 10465624, 10464461, 10462544, 10462540, 10462536, 10462070, 10462063, 10462026, 10461477, 10460385, 10460035, 10459906, 10459673, 10458519, 10457388, 10456623, 10456487, 10456133, 10455908, 10455806, 10455471, 10454642, 10454383, 10454346, 10454034, 10453765, 10453548, 10453142, 10452844, 10452626, 10452351, 10452111, 10451687, 10451594, 10450580, 10450487, 10449921, 10448210, 10447665, 10447526, 10446568, 10446372, 10446034, 10445832, 10445758, 10445649, 10445433, 10445215, 10445038, 10444849, 10443030, 10442499, 10441851, 10441501, 10441421, 10440693, 10440397, 10440384, 10440079, 10439974, 10439739, 10438872, 10438829, 10438605, 10438581, 10437981, 10437849, 10436914, 10436325, 10436254,

10434777, 10434318, 10433916, 10433796, 10433667, 10433483, 10433129, 10430653, 10430471, 10430232, 10429991, 10429561, 10429174, 10428286, 10427926, 10427602, 10427578, 10427176, 10426604, 10425738, 10425299, 10425014, 10424632, 10424529, 10423858, 10423210, 10422961, 10421322, 10420715, 10419940, 10419649, 10418967, 10417859, 10415320, 10414926, 10413908, 10413577, 10412990, 10410950, 10409055, 10407560, 10407538, 10407360, 10405995, 10405704, 10405643, 10405274, 10405106, 10404368, 10404269, 10403311, 10402910, 10402517, 10401971, 10400686, 10399222, 10398199, 10398167, 10398082, 10398040, 10397482, 10397407, 10397365, 10397243, 10397205, 10395968, 10395206, 10394315, 10393935, 10393104, 10392247, 10390292, 10390094, 10389838, 10387788, 10386474, 10386379, 10383852, 10383274, 10381720, 10381032, 10380187, 10379819, 10379793, 10379751, 10379671, 10378740, 10377952, 10374308, 10373713, 10373463, 10373165, 10372251, 10371268, 10371098, 10371071, 10371051, 10370339, 10369734, 10369122, 10368325, 10368015, 10366799, 10366057, 10365566, 10365534, 10365319, 10365269, 10365102, 10363922, 10363788, 10363775, 10362762, 10362661, 10361763, 10361606, 10361132, 10360140, 10359995, 10359179, 10357426, 10357359, 10356894, 10356578, 10356295, 10356212, 10355998, 10355126, 10354650, 10354352, 10353784, 10353742, 10353419, 10352852, 10350248, 10350085, 10349568, 10349540, 10346418, 10346113, 10345724, 10345102, 10344602, 10344514, 10343311, 10342995, 10341127, 10340989, 10340284, 10340234, 10339963, 10339320, 10336163, 10335422, 10335006, 10334145, 10330324, 10328901, 10328627, 10327696, 10326437, 10326305, 10326224, 10326082, 10325245, 10324106, 10323756, 10322840, 10322326, 10321783, 10321709, 10321408, 10319650, 10318950, 10316999, 10316878, 10315958, 10314555, 10312805, 10310759, 10308028, 10304945, 10302206, 10302155, 10301914, 10301883, 10299840, 10298518, 10297959, 10297889, 10297726, 10297589, 10296368, 10295446, 10295128, 10295010, 10294807, 10294185, 10294086, 10292483, 10292009, 10291607, 10291421, 10290896, 10288784, 10288658, 10284773, 10283787, 10280879, 10280300, 10280259, 10278402, 10277436, 10276415, 10276243, 10276102, 10275698, 10274444, 10273742, 10273564, 10273536, 10273289, 10272551, 10268965, 10268727, 10267502, 10266621, 10266557, 10266408, 10266196, 10265624, 10265512, 10264038, 10263663, 10262873, 10262194, 10262191, 10262184, 10261505, 10261098, 10260899, 10260311, 10258394, 10257580, 10256410, 10252071, 10248684, 10241788, 10232108, 10231229, 10230417, 10220773, 10217413, 10206505, 10206376, 10185829, 10150231, 10148971