



EXECUTIVE SECRETARIAT
RECEIVED-NHTSA
February 20th, 2018
2018 FEB 21 P 2:47

Administrator,
National Highway Traffic Safety Administration,
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590.

Re: Petition for Exemption from Notification and Remedy Provisions of the Motor Vehicle Safety Act for FMVSS No. 126 Inconsequential Noncompliance.

Dear Administrator:

Mobility Ventures LLC (“Mobility”), a wholly owned subsidiary of AM General LLC, is a Delaware limited liability company headquartered at 105 North Niles Avenue, South Bend, Indiana 46617. On February 14, 2018, Mobility notified the National Highway Traffic Safety Administration (“NHTSA”) pursuant to 49 C.F.R. Part 573 that a noncompliance with FMVSS No. 126, Electronic Stability Control Systems exists in approximately 977 Model Year 2015 to 2016 MV-1 vehicles. Involved vehicles were produced between December 22, 2014 and August 24, 2015. NHTSA acknowledged receipt of the Part 573 on February 16th, 2018 and has an assigned NHTSA ID #18V111.

Mobility Ventures LLC hereby petitions for an exemption to the notification and remedy requirements of the Motor Vehicle Safety Act, 49 U.S.C. §§ 30118(d) and 30120(h), because the noncompliance is inconsequential as it relates to motor vehicle safety under 49 C.F.R. Part 556.

Background and Summary of the Noncompliance.

The MV-1 is the first production-made purpose-built wheelchair accessible vehicle constructed from the ground up for people with disabilities. The vehicle is designed to accommodate a wheelchair bound occupant, as well as seated passengers. The Vehicle Production Group (“VPG”) originally designed the MV-1 and AM General LLC had a contract to assemble the MV-1 for VPG. VPG sold MV-1 vehicles during the 2011 and 2012 model years. In 2013, VPG ceased production of the MV-1 and eventually wound down and ceased operations. Mobility Ventures LLC took ownership and assumed production of the MV-1 in 2013. Mobility resumed production of the MV-1 for model year 2014.

The original Controller Area Network (CAN) for the VPG model-year 2011 – 2012 vehicles and model-year 2014, were equipped with the Ford Modular 4.6 liter V8 Powertrain employing CAN Protocol DBC 7.4 which used 6 ignition states. Starting with model year 2015 the MV-1’s powertrain was changed to the newer Ford 3.7-liter Ti-VCT V6. This powertrain uses the Ford Volcano CAN Protocol which has 11 ignition states. Following this change in CAN Protocol, the Electronic Brake Control Module (EBCM) was incorrectly programmed to recognize only one of the two possible Power Modes – “IGNITIONON_2”. The EBCM should have been programmed to recognize either “IGNITIONON_2” or “RUNNING_2”. The EBCM Supplier BWI Group is responsible for all programming related the EBCM and its integration into the Volcano CAN Protocol.

As a result of the incorrect EBCM programming, under certain starting conditions the diagnostic algorithm does not present to the Operator that an ESC fault exists. For example, when the steering angle sensor is

Mobility Ventures LLC

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www.mv-1.us



disconnected while performing the procedures for "ESC Malfunction Detection" set forth in FMVSS 126-S7.10 and the vehicle's key is placed in the "ignition on" state for 3 seconds and then started, the appropriate diagnostic trouble code is triggered as required, but the "Traction Control Off" warning lamp illuminates rather than the "ESC malfunction indicator." If the vehicle is immediately started without pausing the key in the "ignition on" state, the required diagnostic trouble code is not set. However, upon driving, a general ESC fault code will set, The Operator is alerted to the presence of a fault through illumination of the Traction Control Off warning lamp.

The Noncompliance is Inconsequential and Poses No Risk to Vehicle Safety.

Mobility submits that this nonconformity is inconsequential to vehicle safety. Mobility believes that this is a *de minimis* noncompliance with FMVSS No. 126 S4.3.3 because the Traction Control Off warning lamp will illuminate when a fault is detected, either immediately if the Operator pauses the key in the "ignition on" state before starting the vehicle, or upon driving if the vehicle is started without pausing in the "ignition on" state. While the correct telltale warning lamp does not illuminate, Operators are still alerted to the possibility of a malfunction with the ESC system by the illumination of the Traction Control Off warning lamp.

Notwithstanding the lack of a safety risk, Mobility and BWI (the EBCM Supplier) are developing a plug-and-play re-flashing tool that will permit uploading of revised software into the current EBCM installed in the vehicle. This revised software correctly tracks the ignition sequences required by FMVSS 126, and fully corrects the observed noncompliance. Re-flashing is the preferred repair-solution. Currently the only available way to update the EBCM's software is to remove and replace the entire electrical and hydraulic unit with one that has had its software updated. Mobility is preparing to implement this re-flashing solution as required.

Mobility has notified its dealers to stop sale of any affected MV-1 vehicles that may be in their dealer inventory (new, used or demonstrator) until the EBCM software is updated. While Mobility does not believe that this technical noncompliance poses a safety risk, Mobility Ventures authorized dealers will perform EBCM unit replacement or re-flashing (when available) free-of-charge when vehicle owners present to Dealers for service.

Mobility is not aware of any issues with the performance of the Electronic Stability Control (ESC) system. As of February 2018, Mobility has not received any warranty claims, field reports, or information about injuries or crashes related to the performance of the ESC.

Conclusion.

For the reasons stated above, Mobility submits that it has met its burden of demonstrating that the noncompliance is inconsequential to motor vehicle safety, and requests that NHTSA exempt Mobility from the notification and remedy provisions under the Act. If you have any questions, or if there is anything else we can provide, please to not hesitate to contact either Jeffrey Dowell or Michael Kunz as shown below.

Sincerely,

Jeffrey Dowell, Senior Chief Engineer, (734) 716-5088 jeff.dowell@amgeneral.com

Michael Kunz, Government Affairs Manager, (734) 564-5116 michael.kunz@amgeneral.com

Mobility Ventures LLC



Mobility Ventures LLC

Vehicle Report

NHTSA ID: 18V111 Transaction ID: 18-0022634-20248-10 (Original Report)

Required fields indicated with *

Manufacturer: Mobility Ventures LLC	
105 N. Niles Ave. South Bend IN 46617	<u>Jeffrey Dowell</u> Senior Chief Engineer 7347165088,

This is a Noncompliance Report. Filing a petition pursuant to [49 CFR 556](#)

Vehicle Information		
Mobility Ventures MV-1 2015 - 2016		
* Model Yr. Start: 2015	* Model Yr. End: 2016	Type:
* Make: Mobility Ventures		Body Style:
* Model: MV-1		Powertrain: GAS
Production Dates Begin: 12/22/2014 End: 08/24/2015		Descriptive Information: Recall Population limited to those vehicles with V-6 engine/powertrain. Prior Model Years were built with V-8 engine that used a different CAN specification for powertrain control that complies with the requirements of FMVSS 126.
VIN Range(s): Begin: End:		

Number potentially involved: 977 **Estimated percentage of involved with defect:** 100%

Defect / Noncompliance Description	
For this Defect/Noncompliance:	
<p>* Describe the defect or noncompliance: Mobility Ventures has decided that model year 2015–2016 Mobility Ventures MV-1 vehicles exhibit a noncompliance with Federal Motor Safety Standard (FMVSS) No. 126, “Electronic Stability Control Systems.” Under certain limited conditions, the telltale warning lamps may not indicate an ESC issue. Mobility has not received any field complaints, warranty claims, or any evidence of failures of the underlying equipment or ESC system. Under certain starting conditions the diagnostic algorithm does not present to the operator that an ESC fault exists. For example, when the steering angle sensor is disconnected to perform the procedures for “ESC Malfunction Detection” set forth in S7.10 and the vehicle’s key is placed in the “ignition on” state for 3 seconds and then started, the appropriate diagnostic trouble code is triggered as required, but the “Traction Control Off” warning lamp illuminates, rather than the “ESC malfunction indicator.” If the vehicle is immediately started without pausing the key in the “ignition on” state, the required diagnostic trouble code is not set. However, upon driving the vehicle, a general fault code will set, alerting the operator to the existence of the fault through the illumination of the Traction Control Off warning lamp. Given the technical nature of this limited software anomaly,</p>	<p>* Describe the safety risk: N/A - Petition for Inconsequential Noncompliance</p> <p>Identify any warning which can precede or occur: Illumination of “Traction Control Off” telltale light even if the “Traction Control Off” button has not been selected by the operator</p>

Mobility has decided to file a petition for inconsequential noncompliance for the affected vehicles.

If a noncompliance, provide the applicable FMVSS:

126 - Electronic stability control systems

If applicable, provide any further FMVSS affected:

Describe the cause:

The original CAN for the model-year 2011–2014 vehicles, equipped with the Ford Modular 4.6 liter V8 Powertrain, was programmed with 6 ignition states. For the model-year 2015–2016 vehicles, the powertrain was updated to a newer Ford 3.7-liter Ti-VCT V6, which utilizes a Ford Volcano CAN programmed with 11 ignition states. Following that change, the Electronic Brake Control Module ("EBCM") supplier incorrectly mapped the EBCM memory chip to recognize only one of two potential power mode states encountered during operation.

This Recall affects all vehicles.

If applicable, identify the manufacturer of the defective or noncompliant component. If the manufacturer of the component is unknown, provide the information for the company that supplied the subject component.

Component manufacturer is unknown, information is for our supplier

Company Information

Company Name: BWI Group
Country: United States
Address 1: 3100 Research Blvd
Address 2: #240
City: Kettering
State: OHIO
Zip/Postal Code: 45420

Company Contact Information

First Name: Mark
Last Name: Miesel
Position: Warranty Engineer
Email: mark.d.meisel@bwigroup.com
Phone: 8103545469

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.:

- October 2016: The EBCM supplier, BWI, alerted Mobility Ventures to possibility of a noncompliance with the ESC malfunction telltale lamp under certain test procedures.
- December 2016: Mobility Ventures took steps to verify the condition reported by BWI in a test vehicle.
- February–June 2017: Mobility Ventures took additional steps with BWI to ascertain the nature of the issue and the efficacy of the programming solution created by BWI.
- June–July 2017: Mobility Ventures continued discussions with BWI concerning the implementation of programming solution and method of delivery. A software flashing tool was deemed to be more reliable and effective than completely replacing the entire module.
- October 2017: BWI provided Mobility with prototype reflash tool capable of reprogramming ECMB to correctly respond to test conditions.
- November 2017: Mobility Ventures Engineering took steps to verify the effectiveness and feasibility of the reflash tool developed by BWI.
- February 7, 2018: Mobility Ventures, having determined that a technical noncompliance exists, decided to seek a finding that the noncompliance is inconsequential from the Agency.
- As of February 2018, Mobility Ventures has not received any warranty claims, field reports, injuries or crashes related to this issue, nor is Mobility aware of any issues with the performance of the underlying ESC system.

Identify the Remedy

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement.

Mobility Ventures will be filing by February 20, 2018 a Petition for Inconsequential Noncompliance for the affected vehicles. Notwithstanding that petition, Mobility is prepared to implement a solution in the form of a plug-and-play reflashing tool, which is currently being developed. While this Petition is pending and until development of the reflashing tool is completed, Mobility is instructing and preparing its dealers to replace the subject module in its entirety upon a vehicle being presented with a complaint. The replacement module contains updated software that eliminates the subject noncompliance. Once the reflashing tool's development is complete, Mobility will instruct its authorized retailers to reflash each vehicle's ECBM upon presentment for routine service. The majority of the subject vehicles are in fleet use by single-source purchasers. Thus, reflashing the ECBM during the normal course of service will capture the majority of affected vehicles. Because no such complaints have been lodged to date, no reimbursement program is planned.

Describe what distinguishes the remedy component from the recalled component.

N/A

Identify and describe how and when the recall condition was corrected in production.

Not applicable. Mobility Ventures stopped manufacturing the MV-1 in the 2016 Model Year.

Identify the Recall Schedule

Describe the recall schedule for notifications.:

Petition for Inconsequentiality will be submitted to NHTSA by February 20, 2018. If the Petition is denied, a Recall Schedule will be developed at that time.

Planned Dealer Notification Begin Date:

Planned Dealer Notification End Date:

Planned Owner Notification Begin Date:

Planned Owner Notification End Date:

Manufacturer's identification code for this recall (if applicable):

Please be reminded that owner notification letters must be mailed no more than 60 days from submission of this report.

Manufacturer Comments to NHTSA Staff

Petition for Inconsequentiality will be submitted to NHTSA by February 20, 2018. It will be uploaded into this repository for this Notification. Additionally, a Letter is being prepared to send to MV-1 Dealers advising them of their responsibilities regarding, new, used and demonstrator vehicles that they may have on-hand in their Dealer Inventory. This Letter will be sent to Dealers no later than close-of-business Thursday February 15th 2018. This Letter will be uploaded for NHTSA's reference after it has been sent to Dealers,

Document Upload

There are 2 documents associated with this report.

1200 New Jersey Avenue, SE, West Building Washington DC 20590 USA 1.888.327.4236 TTY 1.800.424.9153

This application works best in IE9 and above and recent versions of Firefox, Chrome and Safari

Part 573 Safety Recall Report

18V-111

Manufacturer Name : Mobility Ventures LLC

Submission Date : FEB 14, 2018

NHTSA Recall No. : 18V-111

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Mobility Ventures LLC

Address : 105 N. Niles Ave.

South Bend IN 46617

Company phone : 877 681-3678

Population :

Number of potentially involved : 977

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2015-2016 Mobility Ventures MV-1

Vehicle Type :

Body Style :

Power Train : GAS

Descriptive Information : Recall Population limited to those vehicles with V-6 engine/powertrain. Prior Model Years were built with V-8 engine that used a different CAN specification for powertrain control that complies with the requirements of FMVSS 126.

Production Dates : DEC 22, 2014 - AUG 24, 2015

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Noncompliance :

Description of the Noncompliance : Mobility Ventures has decided that model year 2015–2016 Mobility Ventures MV-1 vehicles exhibit a noncompliance with Federal Motor Safety Standard (FMVSS) No. 126, “Electronic Stability Control Systems.” Under certain limited conditions, the telltale warning lamps may not indicate an ESC issue. Mobility has not received any field complaints, warranty claims, or any evidence of failures of the underlying equipment or ESC system.

Under certain starting conditions the diagnostic algorithm does not present to the operator that an ESC fault exists. For example, when the steering angle sensor is disconnected to perform the procedures for “ESC Malfunction Detection” set forth in S7.10 and the vehicle’s key is placed in the “ignition on” state for 3 seconds and then started, the appropriate diagnostic trouble code is triggered as required, but the “Traction Control Off” warning lamp illuminates, rather than the “ESC malfunction indicator.” If the vehicle is immediately started without pausing the key in the “ignition on” state, the required diagnostic trouble code is not set. However, upon driving the vehicle, a general fault code will set, alerting the operator to the existence of the fault through the illumination of the Traction Control Off warning lamp.

Given the technical nature of this limited software anomaly, Mobility has decided to file a petition for inconsequential noncompliance for the affected vehicles.

FMVSS 1 : 126 - Electronic stability control systems

FMVSS 2 : NR

Description of the Safety Risk : N/A - Petition for Inconsequential Noncompliance

Description of the Cause : The original CAN for the model-year 2011–2014 vehicles, equipped with the Ford Modular 4.6 liter V8 Powertrain, was programed with 6 ignition states. For the model-year 2015–2016 vehicles, the powertrain was updated to a newer Ford 3.7-liter Ti-VCT V6, which utilizes a Ford Volcano CAN programmed with 11 ignition states. Following that change, the Electronic Brake Control Module (“EBCM”) supplier incorrectly mapped the EBCM memory chip to recognize only one of two potential power mode states encountered during operation.

Identification of Any Warning that can Occur : Illumination of “Traction Control Off” telltale light even if the “Traction Control Off” button has not been selected by the operator

Supplier Identification :

Component Manufacturer

Name : BWI Group

Address : 3100 Research Blvd

#240 Kettering OHIO 45420

Country : United States

Chronology :

- October 2016: The EBCM supplier, BWI, alerted Mobility Ventures to possibility of a noncompliance with the ESC malfunction telltale lamp under certain test procedures.
- December 2016: Mobility Ventures took steps to verify the condition reported by BWI in a test vehicle.
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Description of Remedy :

Description of Remedy Program : Mobility Ventures will be filing by February 20, 2018 a Petition for Inconsequential Noncompliance for the affected vehicles. Notwithstanding that petition, Mobility is prepared to implement a solution in the form of a plug-and-play reflashing tool, which is currently being developed. While this Petition is pending and until development of the reflashing tool is completed, Mobility is instructing and preparing its dealers to replace the subject module in its entirety upon a vehicle being presented with a complaint. The replacement module contains updated software that eliminates the subject noncompliance. Once the reflashing tool's development is complete, Mobility will instruct its authorized retailers to reflash each vehicle's ECBM upon presentment for routine service. The majority of the subject vehicles are in fleet use by single-source purchasers. Thus, reflashing the ECBM during the normal course of service will capture the majority of affected vehicles. Because no such complaints have been lodged to date, no reimbursement program is planned.

How Remedy Component Differs from Recalled Component : N/A

Identify How/When Recall Condition was Corrected in Production : Not applicable. Mobility Ventures stopped manufacturing the MV-1 in the 2016 Model Year.

Recall Schedule :

Description of Recall Schedule : Petition for Inconsequentiality will be submitted to NHTSA by February 20, 2018. If the Petition is denied, a Recall Schedule will be developed at that time.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

* NR - Not Reported