



BOSCH

October 02, 2014

Robert Bosch LLC
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Plymouth, MI 48170
www.Bosch.us

Ms. Nancy Lewis
Associate Administrator for Enforcement
Attn: Recall Management Division (NVS-215)
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Via First Class and Certified Mail

Robert Bosch LLC's 49 CFR 573.3(f) Report Related to Ford Motor Company Recall 14V-597

Dear Ms. Lewis

This letter constitutes an information report being filed by Robert Bosch LLC ("Bosch") because Bosch has been informed that Ford Motor Company has determined that a safety related defect exists in certain air bag control modules manufactured by Bosch. Because Bosch sold similar components to more than one manufacturer, Bosch is filing this report in compliance with 49 CFR§573.3(f).

Yours sincerely

Douglas Johnston
Regional Business Unit Leader



1. **Manufacturer's name/address:** Robert Bosch LLC
38000 Hills Tech Drive
Farmington Hills, MI 48331

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2. **Equipment involved in this notification:**

The original equipment involved in this notification are certain Bosch air bag control modules ("ACM") manufactured at Bosch's Juarez, Mexico manufacturing facility between February 2012 and August 2013. The ACMs were sold by Bosch to:

- (a) Ford Motor Company;
- (b) Chrysler Group LLC

Bosch is informed that the potentially affected ACM assemblies were installed into Ford vehicles during the period beginning in early 2012 and ending in 2013. The ACMs sold to Chrysler have different hardware components, but have similar application of conformal coating. Bosch understands the ACMs were installed in Chrysler vehicles during the period from early 2013 and ending in 2013. Paragraph 5 below contains a description of the issue with the ACM that formed the basis of the recall issued by Ford Motor Company ("Ford").

3. **Total number of items of equipment sold**

The table set forth below shows the number of the subject ACMs sold to Ford and Chrysler during the periods identified in section 2 above, listed on a per customer basis. Please note that the vast majority of the ACMs referenced in the table have not exhibited a concern and the data may include products installed in vehicles shipped outside the United States.



Customer	Bosch Part No.	Customer No.	Approximate quantity shipped from February 2012 to August 2013
Ford	0285.010.731	DS7T-14B321-AE	133
	0285.011.595	DS7T-14B321-AF	290,178
	0285.011.597	CJ5T-14B321-AF	463,642
	0285.011.701	DM5T-14B321-EF	46,397
	0285.011.739	DP5T-14B321-AF	33,354
	0285.011.952	DS7T-14B321-BA	51
	0285.012.050	DS7T-14B321-BB	28,734
			Total 862,561
Customer	Bosch Part No.	Customer No.	Approximate quantity shipped from January 2013 to August 2013
Chrysler	0285.011.939	56054067AA	101,882
	0285.011.941	560540068AC	32,767
	0285.011.019	68222877AA	31,636
	0285.012.574	56054076AC	14,586
	0285.010.461	56054076AB	4,752
			Total 185,623

4. Number of items of equipment estimated to contain the defect identified by Ford:

Bosch has been monitoring the warranty returns for the subject ACMs. To date, approximately two percent of the ACMs have exhibited a short (described more fully in paragraph 5 below), but the rate of returns could increase.

5. Description of the defect reported by Ford:

As a part of Bosch’s warranty review and evaluation, it was discovered that uncured conformal coating, due to thickness, was present on portions of certain spray-coated Printed Circuit Boards (“PCBs”). This resulted in an environment where conformal coat solvent interacted with the lead solder, potentially creating lead salts and the opportunity for resistive pin-to-pin shorts in the ACMs. Depending on the location of the short, the ACM may not be able to initiate deployment of the



passive restraints. If this condition occurs, it is detected by the ACM and the ACM sends a communication to illuminate an air bag warning light on the vehicle dashboard.

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6. Chronological summary of principal events leading to this report:

Date	Action
May-June 2013	Bosch conducts with Ford the standard warranty process and receives ACMs from the field. Root cause analysis is conducted.
July-August 2013	Based on root cause analysis and review of manufacturing process a new and revised conformal coating process is implemented.
September 2013- April 2014	Bosch and Ford continue to monitor field performance of the ACMs produced prior to the new and revised conformal coating manufacturing process; warranty returned to normalized levels.
July-August 2014	Bosch and Ford continue to monitor field performance. Deviation from expected warranty levels of the ACMs produced prior to the new and revised conformal coating manufacturing process is identified. Analysis of the deviation performed.
September 2014	Based on the additional field data and further analysis, it was predicted that the percent of the ACMs that may exhibit a short during a vehicle life had increased. Information presented to Ford.
September 26, 2014	Bosch learned that Ford issued a recall.

7. Description of proposed remedy:

Bosch understands Ford intends to replace the affected ACMs. Affected ACMs can be identified via a date code on the assemblies and/or by the internal serial number.