

Part 573 Safety Recall Report

18V-946

Manufacturer Name : Arcimoto Inc
Submission Date : OCT 30, 2019
NHTSA Recall No. : 18V-946
Manufacturer Recall No. : 7F7-A3Z5C-12

**Manufacturer Information :**

Manufacturer Name : Arcimoto Inc
Address : 2034 W. 2nd Ave
 Eugene OR 97402
Company phone : 5958232

Population :

Number of potentially involved : 23
Estimated percentage with defect : 70 %

Vehicle Information :

Vehicle 1 : 2017-2018 Arcimoto FUV
Vehicle Type : MOTORCYCLES
Body Style : OTHER
Power Train : HYBRID ELECTRIC

Descriptive Information : The recall population was determined based on records showing material used during production and tools used during production. Recalled products use steel rivets and a standard pneumatic riveting gun, whereas non recalled products use nickel copper rivets and a pneumatic riveting tool customized for the busbar parts being riveted.

Production Dates : NOV 01, 2017 - DEC 21, 2018

VIN Range 1 : Begin : 7F7ATR317HEB00000	End : 7F7ATR319HEB00001	<input type="checkbox"/> Not sequential
VIN Range 2 : Begin : 7F7ATR311JEB00001	End : 7F7ATR319JEB00005	<input type="checkbox"/> Not sequential
VIN Range 3 : Begin : 7F7ATR312JEB00007	End : 7F7ATR317JEB00018	<input type="checkbox"/> Not sequential
VIN Range 4 : Begin : 7F7ATR315JEB00020	End : 7F7ATR310JEB00023	<input type="checkbox"/> Not sequential

Description of Defect :

Description of the Defect : When driving over very rough surfaces, the Battery Management System may incorrectly identify a thermal runaway situation and force a battery shutdown.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A sudden loss of battery power may leave the operator without traction in the middle of a highway.

Description of the Cause : There are three effects that in combination produce this defect. An incorrectly sized riveting gun did not apply the correct tensile load to the rivet linking the battery poles and cell taps to the busbars. As a result, starting impedance is higher than designed. In addition, differences in expansion coefficients between rivets and busbars results in gradually increasing impedances due to

Identification of Any Warning that can Occur :

thermal cycling. Finally, shocks from driving over very rough surfaces would eventually stress the riveted link to where its impedance would temporarily exceed levels normally only seen in battery runaway scenarios.

There is no warning preceding this defect.

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

Three reports of sudden loss of traction power were received on 9/23/2018 for VIN 7F7ATR316JEB00009, on 9/24/2018 for VIN 7F7ATR312JEB00010 and on 11/12 for VIN 7F7ATR314JEB00011. The first two issues were analyzed. The FMEA report was issued on 10/08/2018 to the Review Board, who escalated this to the PCM group. The PCM Group met on 10/16/2018 and decided to escalate this as a recall candidate, indicating that battery modules (PN 002128) with serial numbers 1-66 were affected. Senior Management met and approved the recall on 11/6/2018.

Description of Remedy :

Description of Remedy Program : The defect will be remedied by replacing the subject vehicle with a fully compliant vehicle, including numerous design improvements to the batteries and powertrain. This will be done free of charge to purchasers and owners. To the best of our knowledge, no owners have incurred any costs as a result of this defect.

How Remedy Component Differs from Recalled Component : The replacement vehicles have a new battery module (PN 003103), that replaces the old battery (PN 002128) and has copper nickel rather than steel rivets for voltage taps and stainless steel bolts rather than steel rivets for battery poles.

Identify How/When Recall Condition was Corrected in Production : The recall condition was corrected in battery production at battery serial number 000067. All battery modules from serial number 000067 forward have been made with copper nickel rivets, stainless steel bolts for the battery poles and using customized riveting tools.

Recall Schedule :

Description of Recall Schedule : Arcimoto has retrieved all vehicles subject to this recall. All vehicles are currently under Arcimoto control and will not be returned to their owners or used on public roads until all recalls have been completed by Arcimoto.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

* NR - Not Reported