

Part 573 Safety Recall Report

19V-730

Manufacturer Name : E-One Incorporated**Submission Date :** OCT 14, 2019**NHTSA Recall No. :** 19V-730**Manufacturer Recall No. :** NR**Manufacturer Information :****Population :**

Manufacturer Name : E-One Incorporated

Number of potentially involved : 1,603

Address : 1601 S.W. 37TH AVENUE

Estimated percentage with defect : 100 %

Ocala FL 34474

Company phone : (904) 237-1122

Vehicle Information :

Vehicle 1 : 2013-2019 E-ONE CHSH, Cyclone 2, Cyclone 3, Quest 2, Typhoon

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : Vehicles equipped with a Cummins ISL, L9, ISX12, X12, ISX15, or X15 engine equipped with a starter lock-out relay that does not have a diode in the starter solenoid circuit to improve the longevity of the lock-out relay.

QTY: 1 – CHSH vehicles are affected

QTY: 462 – Cyclone 2 vehicles are affected

QTY: 7 – Cyclone 3 vehicles are affected

QTY: 48 – Quest 2 vehicles are affected

QTY: 1085 – Typhoon vehicles are affected

Production Dates : JUN 01, 2013 -SEP 20, 2019

VIN Range 1 : Begin : 3HAWCTAR5JL426105 End : 4ENLAHA8XJ2001496

☐ Not sequential**Description of Defect :**

Description of the Defect : The affected vehicles are equipped with a starter lock-out relay which accumulates damage over time caused by high voltage transients emanating from the starter solenoid during startup. High stop/start duty cycles could cause failure of the relay over time. A failed starter lock-out relay will cause a no-start condition of the engine. Failure of the starter lock-out relay does not pose a risk of unexpected engine shut-down during normal engine operations, neither does it pose a risk to normal safe on-road or on-scene operation of the vehicle while the engine is running.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A failed starter lock-out relay will cause a no-start condition of the engine.

Description of the Cause : The affected vehicles are equipped with a starter lock-out relay which accumulates damage over time caused by high voltage transients emanating from the starter solenoid during startup. High stop/start duty cycles could cause failure of the relay over time.

Identification of Any Warning that can Occur : "Hard" starting, or the vehicle may require multiple attempts to start.

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR
NR

Country : NR

Chronology :

Sept 2017 - E-ONE Electrical engineer traveled to Boston, MA then visited Aurora, IL to investigate reports of intermittent no-start conditions on E-ONE trucks. Nov to Dec 2017- Investigation into root cause, including discussions with our engine vendor to understand change history of parts in question, and investigations on other vehicles in our fleet to identify the population that might be affected. Root cause was identified as damage caused to the starter lock-out relay by a high transient voltage during start-up. The resolution was developed. Jan 2, 2018: A decision was made to recall the affected population. A recall was issued, 18V-019.

In August 2019, E-ONE received reports that trucks that had been reworked under NHTSA Recall 18V-019 were beginning to have the same condition as previously stated. Electrical Engineering began testing to determine the root cause. When the cause was determined, Engineering worked with a supplier to develop a solid state relay and a sample relay underwent extensive testing. On 9 OCT 2019, it was determined to do a new Recall to address this.

Description of Remedy :

Description of Remedy Program : E-ONE recommends installation of a diode in the starter solenoid circuit to improve the longevity of the lock-out relay. Additionally, E-ONE recommends replacement of the existing starter lock-out relay with a solid state relay. Vehicles subject to this recall are to be inspected and repaired by an E-ONE certified dealer or technician. E-ONE will compensate the dealer or owner for installing a relay/diode kit (E-ONE part # 1081125), provided free of charge if it has not already been replaced during normal maintenance. Installation of each relay/diode kit should take approximately 1 hour.

How Remedy Component Differs from Recalled Component : The relay/diode kit contains a diode in series with the relay. The diode is absent from the current assembly.

Identify How/When Recall Condition was Corrected in Production : Vehicles in production beginning Aug. 2017 had diodes included to their assemblies.

Recall Schedule :

Description of Recall Schedule : 1) Email dealers a copy of the recall approximately 1 month before customers.
2) Mail customers the recall

Planned Dealer Notification Date : NOV 04, 2019 - NOV 18, 2019

Planned Owner Notification Date : DEC 02, 2019 - DEC 16, 2019

* NR - Not Reported