

Part 573 Safety Recall Report

20V-352

Manufacturer Name : Motor Coach Industries**Submission Date :** JUN 12, 2020**NHTSA Recall No. :** 20V-352**Manufacturer Recall No. :** SB 479**Manufacturer Information :**

Manufacturer Name : Motor Coach Industries

Address : 200 East Oakton Street

Des Plaines IL 60018

Company phone : 1-800-241-2947

Population :

Number of potentially involved : 918

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2018-2020 MCI D4000

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : SEP 30, 2017 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2018-2020 MCI D4505

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : SEP 30, 2017 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 3 : 2018-2020 MCI D4500

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : SEP 30, 2017 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 4 : 2018-2020 MCI D4005

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : SEP 30, 2017 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 5 : 2018-2020 M D45CRTLE

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : MAR 21, 2019 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 6 : 2018-2020 MCI J4500

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recall involves certain MCI D series and J4500 model vehicles that were manufactured with electric cooling fans (E-fan) for the radiator and charge air cooler, Borg Warner 55SI model dual alternator configuration (with a sense stud and wire), and Parker Vansco Multiplexing Module (VMM) Multiplex system. A build-up of debris, corrosion, and/or water flow in affected vehicles could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown. The recall population was determined to be all D series and J4500 model coaches built before March 30, 2020, with Efans, Borg Warner 55SI dual alternator configuration (with a sense stud and wire), and Parker VMM Multiplexing. The vehicles not included in the recall are designed and programmed differently such that the risk of a loss of engine power due to an overvoltage situation is not present.

Production Dates : AUG 30, 2018 - MAR 27, 2020

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Defect :

Description of the Defect : A build-up of debris, corrosion, and/or water flow could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A loss of engine power and vehicle shutdown may result in a crash and cause personal injury.

Description of the Cause : A build-up of debris, corrosion, and/or water flow could cause a high resistance path to ground for the sense stud on the back of the alternator, which in turn could cause the alternator to operate in an open field mode. It is then possible for the transient voltage to exceed the overvoltage threshold limit of the multiplex module as it is currently programmed, which could result in loss of engine power and vehicle shutdown.

Identification of Any Warning that can Occur : A "NOT GEN" telltale may illuminate.

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

In or about July 2018, New Jersey Transit reported that some of the vehicles in its fleet had experienced overcharging conditions. After investigating the reports, in July 2018 MCI decided to issue a Field Change Program Bulletin (MCI FCP 465) to modify the sense wire connection installed on the pair of Borg Warner 55SI alternators.

In addition, MCI issued a Service Information Bulletin SI 3113 on maintenance requirements of the 55SI alternators. In January 2019, MCI received a field report from a Canadian customer (Ontario Northland) of an alternator overcharge resulting in three incidents of coach shutdown involving D4505 model vehicles. The Field Change Program FCP 465 was completed on the units and the units returned to service. At the time, MCI was unable to determine why the overcharge resulted in a shutdown. In April 2019, MCI installed a test application code on 5 coaches in Ontario Northland's fleet. No shutdown incidents occurred on the coaches with the test application code.

In January 2020, MCI received a field report of a J4500 that experienced a shutdown due to alternator overcharge at another Canadian operator.

After further investigation and testing, MCI decided to make a programming change to increase the overvoltage threshold on the Parker VMM multiplex modules. MCI implemented the programming change in production on March 30, 2020.

After further discussion, MCI decided to conduct a recall to reprogram all affected vehicles in the field.

Description of Remedy :

Description of Remedy Program : At no cost to vehicle owners, MCI will install a new application code in the Parker VMM multiplex modules increasing the overvoltage threshold limit.

How Remedy Component Differs from Recalled Component : The new application code will prevent a shutdown of the coach due to an alternator overcharge condition.

Identify How/When Recall Condition was Corrected in Production : MCI implemented the new application code on vehicles in production as of March 30, 2020.

Recall Schedule :

Description of Recall Schedule : MCI will mail customer notification letters and service bulletins within seven (7) days after NHTSA approval.

Planned Dealer Notification Date : JUL 10, 2020 - JUL 10, 2020

Planned Owner Notification Date : JUL 10, 2020 - JUL 10, 2020

* NR - Not Reported