

Safety Defect and Noncompliance Report Guide for Vehicles  
**AMENDED PART 573 Defect and Noncompliance Report**

On July 28, 2010 Motor Coach Industries, Inc. decided that a defect which relates to motor vehicle safety exists in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 **Defect and Noncompliance Reports**.

Date this report was prepared: **August 18, 2010**

Furnish the manufacturer's identification code for this recall (if applicable):

**MCI Service Bulletin 348**

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

**Motor Coach Industries, Inc.  
1700 E. Golf Road  
Suite 300  
Schaumburg, IL 60173**

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

**Jim Macdonald, Executive Director - Engineering**

Telephone Number: (204) 287-4949      Fax No.: (204) 478-2877

Name and Title of Person who prepared this report.

**Timothy J. Nalepka  
Senior Vice President, General Counsel & Secretary**

Signed: \_\_\_\_\_



**I. Identify the Vehicle Models Involved in the Recall**

**2. Identify the Vehicles Involved in the Recall, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide:**

The MCI E and J series models equipped with side window assemblies manufactured by SE-GI Products Inc. ("SE-GI"), as listed below.

<b>Make(s):</b>	MCI		
<b>Model Years and Models Involved:</b>	1.	2001-2004	E4500
	2.	2002-2006	E4500C
	3.	2001-2005	J4500
	4.	2006	J4500C

**Descriptive information which characterizes /distinguishes the recalled vehicles from those model vehicles not included in the recall:**

The recalled vehicles have side window assemblies supplied by SE-GI. These windows can be distinguished by a "SE-GI" marking on the bottom corner of the window glass.

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.

The recall population is approximately 29% of the total E and J coach population produced during the model years referenced above.

## II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

<u>Model</u>	<u>Model Yr</u>	<u>Number of Potential Vehicles Involved</u>
<u>E4500</u>	<u>2001</u>	<u>55</u>
<u>E4500</u>	<u>2002</u>	<u>59</u>
<u>E4500</u>	<u>2003</u>	<u>89</u>
<u>E4500</u>	<u>2004</u>	<u>39</u>
<u>E4500C</u>	<u>2002</u>	<u>6</u>
<u>E4500C</u>	<u>2003</u>	<u>3</u>
<u>E4500C</u>	<u>2004</u>	<u>5</u>
<u>E4500C</u>	<u>2005</u>	<u>10</u>
<u>E4500C</u>	<u>2006</u>	<u>5</u>
<u>J4500</u>	<u>2001</u>	<u>55</u>
<u>J4500</u>	<u>2002</u>	<u>155</u>
<u>J4500</u>	<u>2003</u>	<u>305</u>
<u>J4500</u>	<u>2004</u>	<u>265</u>
<u>J4500</u>	<u>2005</u>	<u>20</u>
<u>J4500C</u>	<u>2006</u>	<u>16</u>
		<u>1087</u>

Total Number Potentially Affected by the Recall: 1087

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance:

MCI estimates that approximately 15% of the vehicles in the recall population likely contain the defect.

Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

The recall population was selected by determining all MCI coach models manufactured with the SE-GI windows up to the end of 2006, when SE-GI implemented process improvements in manufacturing its window assemblies.

### **III. Describe the Defect or Noncompliance**

**5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.**

MCI coaches equipped with SE-GI passenger windows are designed to appear frameless, which is achieved by adhesively bonding a window glass assembly to an aluminum frame. The window glass assembly almost completely covers the frame when viewed from the outside of the coach. The window glass assembly is made of an interior laminated safety glass pane and an exterior tempered glass pane. The panes are separated by a seal around their perimeter, which creates a sealed air gap between them. The aluminum window frame is mounted to the coach frame either by mechanical fastening, or by both mechanical fastening and polyurethane adhesive.

On some MCI coaches with SE-GI windows, the adhesive bond between the window glass assembly and the aluminum window frame may degrade. If the adhesive bond degrades (also commonly called debonding), the window glass may detach from the coach.

**Describe the cause(s) of the defect or noncompliance condition.**

Examination of window assemblies in which debonding has occurred indicates that the debonding was probably caused by failure of the paint coating on the surface of the aluminum window frame to properly adhere to the surface of the aluminum. The exact nature of the failure is not entirely understood. The supplier, SE-GI Products Inc., has informed MCI that the cause of the failure may be insufficient paint curing and/or possible chemical reaction between the paint and the adhesive. If the adhesive bond degrades, the window glass may debond from the frame and may detach from the coach.

**Describe the consequence(s) of the defect or noncompliance condition.**

If a SE-GI window glass becomes partially or completely debonded from its frame, the window glass may detach and fall from the coach, and potential injury to persons and/or damage to other vehicles or property could occur.

**Identify any warning which can (a) precede or (b) occur.**

Debonding of the window glass from the aluminum frame may be detected by pushing on the glass from the inside of the coach outward at points around the perimeter of the sash, and visually examining whether the window glass separates from the window frame. If the windows are not inspected in this way, a debonded window may detach from the coach without warning.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.

SE-GI Products Inc.  
1900 2<sup>nd</sup> Street  
Norco, CA 92860

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

Manuel Espinosa, President

#### IV. Provide the Chronology in Determining the Defect/Noncompliance

*If the recall is for a defect, complete item 6, otherwise item 7.*

6. With respect to a defect, furnish a chronological summary (including dates) of all the principal events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

In March 2009, MCI received a report from a customer who advised that one of the sidewall windows had detached from his coach while in transit. MCI subsequently requested a root cause and corrective action analysis from the supplier (SE-GI). In July 2009, MCI received another customer report of a window that had detached from the coach.

MCI developed an inspection test to determine whether windows were debonded or debonding. The procedure involved applying a 50-lb. load at discrete positions on the window and inspecting for debonded areas. During July and August of 2009, MCI conducted field inspections of a number of customer motor coaches and found that debonding was evident on the top and side edges of the windows on approximately 15% of the windows inspected.

In response to MCI's request for a root cause and corrective action analysis, SE-GI informed MCI in May 2009 that the cause of the debonding might be insufficient paint curing and/or possible chemical reaction between the paint and the adhesive. Despite repeated requests by MCI, SE-GI did not provide and has not provided a permanent corrective action to the debonding problem with its window assemblies.

MCI began the development of a retrofit kit to secure windows that had become debonded. MCI developed and tested several versions of the retrofit kit from September 2009 through June 2010. The retrofit repairs consisted of removing the old inner seal and bonding the inner window laminated glass directly to the coach frame. MCI completed its final design work and testing in July 2010.

The final inspection, testing, and repair procedures are detailed in MCI Service Bulletin 348.

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

N/A

#### V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

MCI will provide, at no cost to customers, the parts and labor to inspect, test, and repair as necessary the SE-GI window assemblies on all affected MCI coaches. MCI will (1) with respect to window assemblies showing evidence of debonding, remove any remaining adhesive and re-bond the window assembly to the coach frame, and (2) with respect to all affected coaches, install an external retention clip as shown in MCI Service Bulletin 348.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

The repairs described in the preceding response should prevent further window debonding.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

SE-GI advised MCI that SE-GI had implemented process improvements in the manufacture of its window assemblies at the end of 2006. Since that time, MCI has manufactured 27 E and J model conversion coaches that have used SE-GI windows. These vehicles are not included in the recall population as the SE-GI window assemblies used in those coaches were made by SE-GI after it had implemented its process improvements. All other E and J model coaches not included in the recall population have window assemblies manufactured by a different supplier.

#### VI. Identify the Recall Schedule

9. Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please identify any foreseeable problems with implementing the recall.

MCI anticipates sending notifications to customers within one week after receiving approval by NHTSA of MCI's draft customer notification.

## **VII. Furnish Recall Communications**

10. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.*

Please see the attached proposed customer notification letter and Service Bulletin 348.

**Note** that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.