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DEFECTS INVESTIGATION
RECALL MGMT DIV.



30 June, 2008

08V-296
(14 pages)

George Person
Head - Recall Management Division
US DOT – National Highway Traffic Safety Administration
Office of Defects Investigation (NVS-215)
1200 New Jersey Ave. SE,
Washington, DC 20590

Subject: Safety Recall – Programmable Logic Control - Control Modules.

Dear Mr. Person:

This letter is written to inform you that New Flyer Industries has declared recall on specific components supplied to us for installation in our Heavy Duty Transit Buses.

The defect has been described to us by Parker Hannifin Corporation, the manufacture of the control modules, who have also indicated that they will be declaring a recall on the effected product.

Defects discovered both during quality assurance testing at Parker Hannifin Corporation and during production at New Flyer Industries determined that there is a manufacturing fault in the printed circuit boards supplied to Parker Hannifin from a third party supplier.

Failure of the printed circuit boards may include non-function, intermittent function or continuous and/or unintentional function of PLC controlled subsystems. Failure of these systems to function in an anticipated fashion could result in a crash, injury or death.

The corrective action involves the removal and replacement of the suspect control modules. Suspect modules have been identified as being manufactured within a serial number range of 023862 to 027773.

The recall population was based on New Flyer production data. All main components of major systems and subsystems installed by New Flyer are recorded during production.

Headquarters/
Winnipeg Facility
711 Kernaghan Ave.
Winnipeg, Manitoba
R2C 3T4 Canada
Ph: (204) 224-1251

Customer
Services
25 DeBaets St.
Winnipeg, Manitoba
R2J 4G5 Canada
Ph: (204) 982-8400

New Product
Development
Unit 7, 45 Beghin Ave.
Winnipeg, Manitoba
R2J 4B9 Canada
Ph: (204) 982-8413

Crookston
Facility
214 5th Ave. SW
Crookston, Minnesota
56716 USA
Ph: (218) 281-5752

St. Cloud
Facility
6200 Glenn Carlson Dr.
St. Cloud, Minnesota
56301 USA
Ph: (320) 203-0576

www.newflyer.com

New Flyer has already contacted customers with a pre-recall bulletin (see attached), and has initiated the removal and replacement of the suspect components at all our customers facilities. It is anticipated that the corrective actions will be completed by 5 July 2008.

New Flyer is filing the appropriate 573 defect report (see attached) and will manage all quarterly reporting for this recall. If you have any further questions please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kerry Legg', with a stylized flourish at the end.

Kerry Legg
Safety & Compliance Manager
Customer Services Head Office

cc: H. Peper, C. Murray, A. Farrant, D. Bean, S. Halbesma, T. Sutherland

Attachments: 573 Defect Report;
Pre-Recall Notification; and
Sample Letter to Customer.

Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report¹

On June 25, 2008, New Flyer Industries Canada ULC decided that a defect which relates to motor vehicle safety exits 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: 30 June, 2008

Furnish the manufacturer's identification code for this recall (if applicable): R08-022

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.

New Flyer Industries Canada ULC
25 DeBates St.,
Winnipeg, MB Canada
R2J 4G5

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

Mr. Kerry Legg
Safety & Compliance Manager
Telephone Number: (204) 934-4876
Fax No.: (204) 224-0248

Name and Title of Person who prepared this report.

Same as above



Signed:

¹Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. Jon White at (202) 366-5227 or by FAX at (202) 366-7882.

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:

Make: New Flyer **Model Years Involved:** 2008 **Model:** C40LF

Production Dates: Beginning: April 2008 **Ending:** June 2008

VIN Range: Beginning: 033113 **Ending:** 033114

VIN Range: Beginning: 033116 **Ending:** 033119

VIN Range: Beginning: 033410 **Ending:** 033414

VIN Range: Beginning: 033444 **Ending:** 033450

VIN Range: Beginning: 033466 **Ending:** 033484

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Compressed Natural Gas 40 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** C40LFR

Production Dates: Beginning: April 2008 **Ending:** June 2008

VIN Range: 033367

VIN Range: Beginning: 033369 **Ending:** 033372

VIN Range: Beginning: 033374 **Ending:** 033409

VIN Range: Beginning: 033682 **Ending:** 033685

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Compressed Natural Gas 40 Foot Low Floor Restyled

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** D35LF

Production Dates: June 2008

VIN Range: 033861

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel 35 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** D40LF

Production Dates: **Beginning:** April 2008 **Ending:** June 2008

VIN Range: **Beginning:** 032943 **Ending:** 032944

VIN Range: **Beginning:** 032946 **Ending:** 033010

VIN Range: **Beginning:** 033857 **Ending:** 033858

VIN Range: **Beginning:** 033772 **Ending:** 033777

VIN Range: **Beginning:** 033912 **Ending:** 033913

VIN Range: **Beginning:** 033918 **Ending:** 033921

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel 40 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** D41LF

Production Dates: **Beginning:** April 2008 **Ending:** June 2008

VIN Range: **Beginning:** 033181 **Ending:** 033195

VIN Range: **Beginning:** 033197 **Ending:** 033286

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel 41 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** D61LFR

Production Dates: April 2008

VIN Range: 032870

VIN Range: 032872

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel 61 Foot Low Floor Restyled

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** DE41LF

Production Dates: June 2008

VIN Range: 033814

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel Electric 41 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** DE61LF

Production Dates: **Beginning:** May 2008 **Ending:** June 2008

VIN Range: **Beginning:** 032930 **Ending:** 032937

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel Electric 61 Foot Low Floor

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** E40LFR

Production Dates: **Beginning:** April 2008 **Ending:** June 2008

VIN Range: 032816

VIN Range: **Beginning:** 032823 **Ending:** 032831

VIN Range: **Beginning:** 033603 **Ending:** 033612

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Electric 40 Foot Low Floor Restyled

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** GE40LFR

Production Dates: June 2008

VIN Range: 033688

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Gas Electric 40 Foot Low Floor Restyled

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

Make: New Flyer **Model Years Involved:** 2008 **Model:** DE41LFR

Production Dates: June 2008

VIN Range: **Beginning:** 033707 **Ending:** 033708

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Diesel Electric 41 Foot Low Floor Restyled

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

Recalled vehicle has a Vansco 1210 PLC Control Modules within the serial number range 023862 to 027773.

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.

98%

II. Identify the Recall Population

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

<u>Model</u>	<u>Year</u>	<u>Number of Vehicles Potentially Involved</u>
C40LF	2008	37
C40LFR	2008	61
D35LF	2008	1
D40LF	2008	81
D41LF	2008	105
D61LFR	2008	2
DE41LF	2008	1
DE61LF	2008	8
E40LFR	2008	20
GE40LFR	2008	1
DE41LFR	2008	2

Total Number Potentially Affected by the Recall: 319

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: < 5 %

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:

All serial numbers of major system and subsystem components are recorded during New Flyer production. Recalled Models include all buses from production orders which had the Parker Hannifin (Vansco) PLC control modules installed within the serial numbers with the range 023862 to 027773.

Parker Hannifin determined due to failure found that this range of serial numbers (plus 300 units to either side) would contain the defect components. Refer to component recall submission by Parker Hannifin Corporation (recall code TBD).

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.

Parker Hannifin reported that a defect in the manufacturing process of the printed circuit boards has resulted in the module failures. Refer to component recall submission by Parker Hannifin Corporation (recall code TBD).

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

Failure modes may include non-function, intermittent function or continuous and/or unintentional function of PLC controlled subsystems. Refer to component recall submission by Parker Hannifin Corporation (recall code TBD).

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

Failure or unintentional operation of interlock brakes, door systems, headlamps, turn signal lamps, driver's indication and warning systems. Unintentional or non-function of these vehicle sub-systems could result in a crash, injury or death.

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

None.

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

Parker Hannifin Corporation
Electronic Controls Division (Vansco)
1305 Clarence Ave.
Winnipeg, MB R3T1T4

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

Alan Forbes, P.Eng.
Quality Engineer

IV. Provide the Chronology in Determining the Defect/Noncompliance

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle 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.

On 22 June 2008, New Flyer was contact by Parker Hannifin Corporation who indicated that there was a problem with a batch of control modules they had supplied to New Flyer to install in our production vehicles. Discussions with Parker Hannifin in the days that followed determined that is was a Safety Defect requiring immediate recall action. Buses with the components within the effected range were determined, and the two companies initiated immediate manufacture, shipment and replacement of the components on customer vehicles. A pre-Recall letter was issued to our customers asking them to remove the vehicle from the road until the recall action could be performed.

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.

All modules in the effected range of serial numbers (023862 to 027773) will be identified and replaced at no cost.

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

Refer to component recall submission by Parker Hannifin Corporation (recall code TBD).

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.

Defect was limited to a specific time period, all buses manufactured prior to, during and after the specified period are to be inspected.

VI. Identify the Recall Schedule

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.

Recall action is on-going. It is anticipated that sufficient supplies to complete the recall in the United States will be at the customer sites no later than 2 July 2008. A pre-Recall notification was issued electronically to all customers effected requesting they remove the vehicle from the road. This was followed-up by direct contact from the Regional Product Support Managers to coordinate the maintenance action to replace the components.

VII. Furnish Recall Communications

9. 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.*

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

See Attachments: Pre Recall Notification Letter - template.doc
 Customer Recall Notification Letter – Sample.doc



June 26, 2008

[Click **here** and type Name]
[Click **here** and type Company]
[Click **here** and type Address]
[Click **here** and type City, St/Prov]

Subject: Pre Recall Notification PLC System Component

Dear [Click **here** and type recipient's name]:

New Flyer has been notified by Parker-Vansco, New Flyer's supplier of PLC components, that a certain batch of VMM1210 programmable logic control modules has been impacted by a manufacturing defect. These affected modules exist in a limited number of New Flyer buses that have been shipped to customers within the last two months. You are receiving this notice because our records indicate that you are the owner of an affected vehicle. Please note however, that not all buses delivered to customers within this two-month period are impacted. Attached to this letter is a list of your buses that contain affected modules.

Vansco has advised that there is a possibility that this manufacturing defect could produce erratic behavior of certain of the input/output signals to and from the affected module. This erratic behavior could potentially impact certain functions controlled by the VMM1210 modules such as the headlights, brake lights, throttle control, control of the articulated joint, etc.

Although the failure rate of the affected modules has been relatively small, New Flyer recommends that, effective immediately, all buses containing affected modules be removed from revenue service and not operated until these modules have been replaced.

Of the 2,940 affected modules in the impacted batch of modules manufactured by Vansco, only 30 modules have failed and such failures have only occurred either within the Vansco factory or within the New Flyer factory. Three buses have experienced transmission shift problems in the field, and these occurrences are being investigated to determine if they were caused by an affected module.

All buses currently at New Flyer's factories that contained the affected modules have had such modules replaced. The focus of this notification is therefore only on buses containing affected modules that are currently in the field or in transit to New Flyer's customers.

New Flyer and Vansco are working closely with one another to immediately begin a replacement campaign of the affected modules. We anticipate that all modules that are part of this identified batch that are on customers' buses will be replaced within the next two weeks. Representatives from the New Flyer Service Organization have or will be in contact with you to determine the optimum resource planning for your affected buses, and will try their utmost to minimize the impact of this campaign on your operations.

**Headquarters/
Winnipeg Facility**
711 Kernaghan Ave.
Winnipeg, Manitoba
R2C 3T4 Canada
Ph: (204) 224-1251

**Customer
Services**
25 DeBaets St.
Winnipeg, Manitoba
R2J 4G5 Canada
Ph: (204) 982-8400

**New Product
Development**
Unit 7, 45 Beghin Ave.
Winnipeg, Manitoba
R2J 4B9 Canada
Ph: (204) 982-8413

**Crookston
Facility**
214 5th Ave. SW
Crookston, Minnesota
56716 USA
Ph: (218) 281-5752

**St. Cloud
Facility**
6200 Glenn Carlson Dr.
St. Cloud, Minnesota
56301 USA
Ph: (320) 203-0576

www.newflyer.com

Please note that formal recall notifications will be submitted to NHTSA and Transport Canada. New Flyer will notify you of any further developments regarding this issue should such developments impact your affected buses. We are very appreciative of your understanding and patience in this matter and regret any inconvenience that this may have caused you. Should you have any questions or comments, please contact the undersigned at (204) 982-8409, or contact Mr. Kerry Legg, our Manager of Safety and Compliance, at (204) 934-4876.

Yours truly,
NEW FLYER INDUSTRIES CANADA ULC
NEW FLYER OF AMERICA INC.

By: Hans Peper
Executive Vice President, Customer Service

Enclosure: Listing of effected vehicles.

cc: <RPSM>, Cliff Murray, Don Bean, Scott Halbesma, Todd Sutherland, Kerry Legg

SR	DESCRIPTION	FLEET_NO	VIN



Date
Addressee
Address1
Address2
Address3

**Subject: 08V-XXX – Vansco 1210 PLC Control Modules
Component Replacement – Defective Control Modules.**

Dear **Addressee**,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. New Flyer Industries has decided that a defect which relates to motor vehicle safety exists in certain transit buses manufactured by New Flyer, that are equipped with Parker Hannifin (Vansco) 1210 Control Modules. This safety recall was initiated based on information provided by Parker Hannifin Corporation, Electronic Controls Division.

The effected air dryers were built and shipped from Parker Hannifin to New Flyer during the time period from April 2008 to June 2008.

Failure modes may include non-function, intermittent function or continuous and/or unintentional function of PLC controlled subsystems. Failure of the module to properly control the vehicle sub-systems could result in vehicle crash, injury or death.

Customers are requested to remove the specifically identified vehicles (see attached listing) from revenue service until the retrofit can be conducted by New Flyer personnel to replace these suspect modules. Retrofit action to address this issue is expected to be completed in early July of 2008.

For information on coordinating efforts to complete this recall in a timely manner, please contact your Regional Product Support Manager, **RPSM** or New Flyer Customer Services at (204) 934-4874.

If you are a leaser of vehicles which are affected, it is required that any vehicle leaser receiving this recall notice must forward a copy of this notice to the lessee within ten days. If you no longer own this vehicle, or it has been removed from operation permanently, please inform the undersigned.

This recall is to be performed without cost to you. This recall is being managed by New Flyer and all labor associated with this corrective action is to be filed as a Warranty Claim to the New Flyer Warranty Department referencing the recall code.

**Headquarters/
Winnipeg Facility**

711 Kernaghan Ave.
Winnipeg, Manitoba
R3C 3T4 Canada

Ph: (204) 224-1251
Fx: (204) 224-0551
e-mail: bussales@newflyer.com

**Customer
Services**

25 DeBaets St.
Winnipeg, Manitoba
R2J 4G5 Canada

Ph: (204) 982-8400

**New Jersey Service
Support Center**

808 Garfield Ave.
Jersey City, New Jersey
07305-4423 USA

Ph: (201) 369-1200
Fx: (201) 369-0345

**New Product
Development**

Unit 7, 45 Beghin Ave.
Winnipeg, Manitoba
R2J 4B9 Canada

Ph: (204) 982-8413
Fx: (204) 654-4941

**Crookston
Facility**

214 5th Ave. SW
Crookston, Minnesota
56716 USA

Ph: (218) 281-5752
Fx: (218) 281-5672

**St. Cloud
Facility**

6200 Glenn Carlson Dr.
St. Cloud, Minnesota
56301 USA

Ph: (320) 203-0576
Fx: (320) 203-0584

If you had this corrective action performed before you received this letter, you may be eligible to receive reimbursement for the cost of obtaining a pre-notification remedy of the problem associated with this recall.

We regret any inconvenience which this action may cause you. However, we are concerned about your safety and the safety of your passengers. If New Flyer is unable to correct this defect within a reasonable time, you may submit a written complaint to the:

Administrator,
National Highway Traffic Safety Administration,
400 Seventh Street, SW,
Washington, DC, 20590,
Or call 1-888-327-4236 (TTY: 1-800-424-9153);
or go to
<http://www.safercar.gov>.

Thank you for your attention to this important matter.

Sincerely,

Kerry Legg
Safety & Compliance Manager
Customer Services Head Office

cc: **RPSM**, Hans Peper, Cliff Murray, Don Bean, Scott Halbesma, Todd Sutherland

SR	Description	Fleet No.	VIN