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May 26, 2006

Mr. Richard Boyd, Chief
Medium and Heavy Truck Division
Office of Defects Investigations
National Highway Traffic Safety Administration
400 Seventh Street
Washington DC 20590

PE06-014
NVS-214ajm

Dear Mr. Boyd,

You will find below Blue Bird's response to NHTSA's inquiry regarding low air buzzer failures on 2005 and 2006 model year Blue Bird "Vision" model school buses.

1. Provide a table that list by model year, model, build date and manufacturing location, the total number of subject vehicles that Blue Bird has manufactured for sale or lease in the United States. Provide the table in Excel, or compatible format, entitled, "Response to No. 1, POPULATION." Also provide the same information on any other models that utilize the subject system.

Blue Bird's Response:

See attached Excel spreadsheet titled Response to No. 1 Population.

2. Identify all vehicles to which Blue Bird has performed any field repairs/retrofit procedure by repair date, make and model, date of sale, owner/fleet name, address, telephone number, contact representative, and reason for offering the retrofit. Provide a table in Excel, or compatible format, entitled, Response No. 2, Fleet Retrofit."

Blue Bird's Response:

Blue Bird has not performed any fleet field repairs or offered any fleet retrofits for this issue. All low air buzzer failures have been handled under our normal warranty and policy procedures.

BLUE BIRD CORPORATION
402 Blue Bird Blvd. PO Box 937 • Fort Valley, Georgia 31030
(478) 825-2021

3. State the total number of each, by calendar year and month and provide copies of the following, received by Blue Bird, or of which Blue Bird is otherwise aware, separated by fleets/owner, which relate to, or may relate to the alleged defect in the subject vehicles:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field Reports, including dealer field reports;
 - c. Reports involving "having to stop in the middle of a school route run," stalling, crash, injury, or fatality, based on claims against a manufacturer involving a death or injury, notices received by a manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
 - d. Property damage claims
 - e. Third-party arbitration proceedings where Blue Bird is or was a party to the arbitration; and,
 - f. Lawsuits, both pending and closed, in which Blue Bird/purchaser is or was a defendant or codefendant.

Blue Bird Response:

- a. through f. None

4. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of this response to request No.3, provide the following information:
 - a. Blue Bird's file number or other identifier used.
 - b. The category of the item, as identified in Request No.3 (i.e. consumer complaints, field report, etc.
 - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - d. Vehicle's VIN and body or serial number
 - e. Vehicles, make, model and model year
 - f. Vehicle's mileage at time of the incident;
 - g. Incident date;
 - h. Report or claim date
 - i. Whether property damage is alleged
 - j. Number of alleged injuries, if any;
 - k. Number of alleged fatalities, if any,
 - l. Concern stated by customer
 - m. Comment and final resolution (identify by part number what component was replaced, if any) by dealer/technician relating to claim and/or repair; and
 - n. Blue Bird's assessment of the claim.

Provide this information in Excel, or compatible format, entitled "Response to No. 4 Claim Data."

Blue Bird's Response:

a through n. None

5. State, by make, model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Blue Bird to date that relate to, or may relate to, the alleged defect in the subject vehicles; warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign. Separately, provide a copy of each claim.

Also, separately for each claim, state the following information:

- a. Blue Bird's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealers or facility's name, telephone number, city and state or ZIP; code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer;
- k. Comment and resolution (identify what component was replaced including part number), if any, by dealer/technician relating to claim and/or repair, and
- l. Blue Bird's assessment of the claim, including reasons for granting claim; and
- m. Category, good will, warranty, etc.

Also, provide this information in Excel, or compatible format, entitled "Response to No. 5 CLAIM PAID DATA."

Produce copies of all documents related to each item within the scope of Request no. 5. Organize the documents separately by category (i.e. consumer complaints, field reports, etc.) and describe the method Blue Bird used for organizing the documents. *Any duplicate failures should be counted separately.*

Blue Bird's response:

Total Claims Paid:

2005 Model Year Blue Bird "Vision"	88
2006 Model Year Blue Bird "Vision"	46

- a. See Excel spreadsheet titled Response to No. 5, Column a.
- b. See Excel spreadsheet titled Response to No. 5 b. (Blue Bird does not maintain a contact person in our database)
- c. See Excel spreadsheet titled Response to No. 5 b.
- d. See Excel spreadsheet titled Response to No. 5, Column l.
- e. See Excel spreadsheet titled Response to No. 5, Column i.
- f. See Excel spreadsheet titled Response to No. 5, Column b. for each claim and Separate Excel spreadsheet titled Response to 5 f. Repairing Dealers
- g. The following Blue Bird component codes were pertinent to this inquiry:
See Excel spreadsheet titled Response to No. 5, Column f.
45-100-115 Speedometer
45-100-136 Low Air Sender
45-100-160 Low Air Buzzer
45-200-158 Indicator Low Pressure
- h. The following Blue Bird problem codes were pertinent to this inquiry:
See Excel spreadsheet titled Response to No. 5, Column g.
01 Inoperative
22 Cracked-caused by stress
48 Registered incorrect
65 Intermittent operation
72 Electrical: Grounded
- i. Replacement part number for the speedometer is 0072981
- j. See Excel spreadsheet titled Response to No. 5
- k. See attached Warranty Detail report.
- l. See attached Warranty Detail report.
- m. See Excel spreadsheet titled Response to No. 5, column p.
W = Warranty
P = Policy

6. For each claim denied in question number 3 and 5, provide the following information:
- a. Blue Bird's claim number and reason for the claim being denied;
 - b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
 - c. VIN, body or serial number;
 - d. Concern stated by customer;
 - e. How was the bus repaired and date of repair;
 - f. Vehicle mileage at time of repair;
 - g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
 - h. Labor operation number;
 - i. Problem code;
 - j. Replacement part number(s) and description(s); and
 - k. Comment, if any, by dealer/technician relating to claim/repair.

Provide this information in Excel, or compatible format, entitled "Response to No. 6 CLAIM DENIED DATA."

Blue Bird's Response:

See Excel spreadsheet titled Response to No. 6 and separate warranty claims

7. Describe in detail the search criteria used by Blue Bird to identify claims identified in response to Request No. 3 and 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operation codes, labor operation descriptions, problem codes, and problem code description applicable to the alleged defect in the subject vehicles.

Blue Bird's Response:

The warranty search criteria used to respond to this inquiry consisted of the following:

Model: Blue Bird Vision (BBCV)

Model Years: 2005, 2006

Component codes: 45-100-115 Speedometer
45-100-136 Low Air Sender
45-100-160 Low Air Buzzer
45-200-158 Indicator Low Pressure

Failure Numbers: 01 Inoperative
 22 Cracked-caused by stress
 48 Registered incorrect
 65 Intermittent Operation
 72 Electrical: Grounded

8. Starting from the first claim, (or the time Blue Bird first became aware of this issue to present) provide a detailed chronology of all events regarding the subject defect. Include all information including knowledge of the first failure/claim, internal meetings, meetings with speedometer manufacturer, or other manufacturers, and fleet owners. Provide in detail and describe how Blue Bird first became aware of the alleged defect and state the date on which Blue Bird first became aware of the possibility of the alleged defect.

Blue Bird's Response:

Blue Bird received the first warranty claim for a defective buzzer on the speedometer assembly on a 2005 model year Blue Bird "Vision" bus on April 05, 2004, claim number F04-560046.

During the later part of calendar year 2004 and the early part of 2005 Blue Bird began to receive complaints by telephone from a few distributors regarding failure of the low air buzzer. This was seen as a quality issue. A subsequent review of the production process found that the dash assemblies were installed on the chassis line and connected to the power supply. Since there was no air pressure in the brake system the buzzers were operating continuously during the chassis assembly process.

On May 23, 2005 a warranty study was conducted. The study found 106 speaker (buzzer) failures. There were 18 speaker (buzzer) failures on the 2005 and 2006 model year All American model bus and 88 speaker (buzzer) failures on the 2005 and 2006 model year Vision model bus. See attached search results under tab for Response to No. 8.

On May 24, 2005 Blue Bird met with representatives of ACTIA, the speedometer assembly manufacturer, at our facility in Fort Valley, Georgia and presented concerns regarding the quality of the low air buzzer due to the quantity of failures during the assembly process. Blue Bird also presented ACTIA with the results of the warranty search for failed low air buzzers on delivered units. Aaron Carpenter with ACTIA acknowledged that he had received a call from Blue Bird Customer Service regarding the low air buzzer failures. During this meeting ACTIA agreed to do a root cause analysis on the buzzer failure.

On July 18, 2005 Blue Bird sent an email to ACTIA with an attached report of all speedometer and tachometer failures. Copy of email and email attachment is enclosed. Blue Bird also emailed ACTIA a list that included the body numbers, distributor name, customer name and chassis number for 98 of the units with failed buzzers. A copy of the email is provided under tab for Response to No. 8.

On September 06, 2005 Sammy Strode, Quality Manager for Blue Bird, received and email from Pete Runge, Quality Assurance Manager for ACTIA providing an update of ACTIA's efforts to resolve the buzzer failure issue. A copy of the email is provided under tab for Response to No. 8.

On September 13, 2005 Larry Sheffield Senior Service Engineer sent an email to Aaron Carpenter of ACTIA regarding the status of the speaker failures. A copy of the email is provided under tab for Response to No. 8.

On September 14, 2005 Russell Parks with ACTIA replied to Larry's email. A copy of the email is provided under tab for Response to No. 8.

On September 21, 2005 Blue Bird established a weekly conference call with ACTIA. A copy of the email is provided under tab for Response to No. 8.

On September 23, 2005 Blue Bird and ACTIA communicated via conference call regarding the buzzer failure issue. During this conference call ACTIA proposed changing the buzzer to a lower driver, studying the temperature, duty cycle and different operating parameters. ACTIA also said they would continue to work with their supplier to find a resolution to the problem.

On September 28, 2005 Blue and ACTIA communicated via conference call regarding the buzzer failure issue. A copy of the email confirming conference call is provided under tab for Response to No. 8.

On October 07, 2005 Blue Bird and ACTIA communicated via conference call regarding the buzzer failure issue. Aaron Carpenter with ACTIA provided notes of the conference call to Blue Bird by email. A copy of the email is provided under tab for Response to No. 8.

On October 14, 2005 Blue Bird and ACTIA communicated via conference call regarding the buzzer failure issue. Once again Aaron Carpenter provided Blue Bird with notes from the conference call. A copy of the email is provided under tab for Response to No. 8.

On October 24, 2005 Blue Bird and ACTIA communicated via conference call regarding the buzzer failure issue. ACTIA proposed changing the sound pressure level since the most vibration occurred at the present 2.9 kHz level. The level was changed to 2.8 kHz on April 11, 2006. The ACTIA also proposed a "time out" option. The buzzer would timeout after 15 seconds if the engine was not operating (no J1939 communication). No documentation is available for this conference call.

On October 26, 2005 Blue Bird and ACTIA continued communication via conference call regarding the buzzer issue. No documentation is available for this conference call.

On November 15, 2006, Blue Bird and ACTIA continued communication via conference call regarding the buzzer issue. No documentation is available for this conference call.

December 01, 2005 Plans were made for a representative of ACTIA (Russell Parks) to visit Blue Bird on December 5, 2005 to discuss status of buzzer issue.

December 05, 2006 Russell Parks with ACTIA met with Blue Bird at our Facility in Fort Valley, Georgia to review changes and progress of the improvements in the buzzer. Warranty claims have begun to drop significantly. Blue Bird and ACTIA will continue to monitor the situation.

9. State the new warranty coverage offered by Blue Bird regarding the speedometer head assembly of the subject buses. Describe any extended warranty coverage option(s) related to the alleged defect that Blue Bird offered for the subject vehicles related to the alleged defect. Also, provide a copy of the schematic related to the subject component and provide an exemplar of the subject speedometer assembly.

Blue Bird's Response:

Blue Bird has not offered new warranty coverage related to the alleged defect.

Two schematics from ACTIA are enclosed. Revision A is the original schematic. Revision B shows changes based on information gained in the document from Star Micronics. See tab titled Response to No. 9.

A sample speedometer assembly is being shipped to NHTSA via UPS.

10. Produce copies of all service bulletins, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject buses, that Blue Bird has issued to any manufacturer, dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also state the date in which these documents were issued, to whom, and the date they were submitted to NHTSA in accordance with applicable regulations, such as CFR 579.5. Also include the latest draft copy of any communication that Blue Bird is planning to issue. Separately, identify and describe what precipitated each document.

Blue Bird's Response:

Blue Bird has not issued any service bulletins, or other documents related to the alleged defect. A copy of our standard warranty certificate for the Blue Bird All American and Vision model buses is attached.

Also enclosed is a copy of the Blue Bird "Vision" Operator's Manual for 2005 and 2006 model years. On page 17 of the Operator's Manual a warning is provided to the operator to "be sure to become familiar with the gauge locations and functions before transporting passengers". The definition of "Warning" is provided on page 6 of the operator's manuals.

11. Describe all assessments, analyses, test, test results, studies, surveys, simulations, investigations, inquiries, and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject buses that have been conducted, are being conducted, planned, or are being planned by, or for, and including any actions conducted by component manufacturer. For such action, provide the following information:
 - a. action title or identifier;
 - b. the actual or planned start date;
 - c. the actual or expected end date;
 - d. brief summary of the subject and objective action;
 - e. engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
 - f. a brief summary of the findings and/or conclusions resulting from the action.

Blue Bird's Response:

See enclosed information from ACTIA and Star Micronics Co., LTD

12. For each action identified, provide copies of all documents related to action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action date.

Blue Bird's Response:

See Response to No. 11.

13. Describe all modifications or changes made by Blue Bird, or on behalf of Blue Bird in the design, material composition, manufacture, quality control, supply, or installation of the subject speedometer/alert buzzer installed in the subject buses, from the start of the model year of the subject vehicles to present date, which relate to, or may relate to, the alleged defect in the subject buses. For each such modification or change provide the following information:

- a. the date or approximate date on which the modification or change was incorporated into the buses;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The Part numbers (service and engineering) of the original component;
- e. The part number (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so when;
- g. When the modified component was made available as a service component; and,
- h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Blue Bird is aware of which may be incorporated into vehicle production within the next 120 days.

Blue Bird's Response:

- a. ACTIA implemented a burn in time on buzzers beginning on September 02, 2005.
ACTIA modified the program on April 11, 2006 to turn the buzzer off in 15 seconds if the engine is not running.
- b. See Response to No. 8
- c. See Response to No. 8
- d. The part number for the original BBCV speedometer is 0072981.
- e. No change was made in the part number of the speedometer with new buzzer drive and burn in time. Part number is still 0072981.

- f. After September 25, 2005, any speedometer with a failed buzzer during production and any speedometer that failed on delivered units were replaced with the modified speedometer
- g. The speedometer with the modified buzzer was available as a service component after September 25, 2005.
- h. The speedometer with the modified buzzer is completely interchangeable with the original speedometer.

No further changes are anticipated at this time.

14. Describe the differences between the original speedometer assembly used on the subject buses and the replacement speedometer assembly.

Blue Bird's Response:

The replacement speedometers assembly has a "time out" feature which turns the buzzer off after 15 seconds if the engine is not operating. The buzzer on the replacement speedometer assemblies have also been subjected to a "burn in" process to eliminate infancy failures.

15. Furnish Blue Bird's assessment of the alleged defect in the subject vehicle including:

- a. The causal or contributing factor(s);
- b. The failure mechanism(s);
- c. The failure modes(s);
- d. The risk to motor vehicle safety that it poses; and
- e. What warnings, if any, the operator would have that the warning buzzer is no longer functional during an alleged defect was occurring or subject component was malfunctioning.

Blue Bird's Response:

- a.. through e.

Blue Bird's manufacturing process which allowed the buzzer to operate continuously during assembly of the chassis may have contributed to a shorten life cycle of the low air pressure buzzer. According to ACTIA, the failure occurred as a result of a broken coil wire of the SAA-30 Speaker (buzzer). The breakage occurred where adhesive was applied to hold the wire to the diaphragm. To correct this condition ACTIA implemented a new driver for the buzzer. ACTIA also implemented a software change which shuts the buzzer off after 15 seconds if the engine is not operating and implemented a "burn in" as part of their production process to eliminate infancy failures.

Blue Bird's low air warning system provides a low air warning light that is "within the driver's forward field of view" as required by FMVSS 571.121 S5.1.5 *Warning Signal* and is therefore compliant.

Blue Bird also provides a low air "buzzer" as an additional warning feature.

In addition, the ACTIA dash includes a system test feature which cycles each time the ignition is turned on. This system test feature activates the gauges, light and buzzer to alert the driver if any of these components are not operational. A copy of page 8 of ACTIA's Functional Specification describing the initial start up system test feature is attached. This information is also included in both the Blue Bird 2005 and 2006 model year "Vision" Service Manuals.

Since the low air warning system on the Blue Bird "Vision" is compliant with FMVSS 571.121 S5.1.5 and Blue Bird provides an additional warning feature (a buzzer) and the ACTIA dash has a system test feature that activates each time the ignition key is turned on to determine operational level of warning components, Blue Bird does not believe the failure of the buzzer constitutes an unreasonable risk to motor vehicle safety.

16. Furnish a copy of all documents not specifically requested herein, which Blue Bird believes are relevant to, or which were used in formulating its assessment of, the alleged defect.

Blue Bird's Response:
No further documents are available.

17. Identify what action Blue Bird intends to take on this issue.

Blue Bird's Response:

Blue Bird will continue to monitor buzzer failures and will continue to work with ACTIA to improve the overall quality and reliability of the buzzer.

Sincerely,



Bill Coleman
Corporate Recall Administrator
Blue Bird Corporation