July 12, 2006

CLOSING SUMMARY PE06 - 014

This investigation was opened after ODI was contacted by a fleet that alleged numerous air brake warning buzzer failures on their buses. The buzzer alerts the driver if the air supply in the service brake reservoir should drop below 60 psi. Low air pressure below 45 psi will result in aapplication of the spring brakes, which ultimately can result in a disabled bus. ODI has received no complaints of spring brake application, and all fleet claims were found during maintenance.

Based on Blue Bird's response/data, Blue Bird's manufacturing process allowed the buzzer to operate continuously during assembly of the chassis and feels that this may have contributed to a shorten life cycle of the low air pressure buzzer. According to Aactia (the supplier), 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, and not required by FMVSS 571.

Blue Bird also contends that 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. This information is 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.

Nevertheless, blue bird has agreed to send out Non-Safety Owner Notifications to each fleet/owner outlining the proper daily check procedures and to familiarize the operators with the onboard system. A copy of this owner notification is attached.

based on the review of blue bird's response and further field evaluation, a safety defect has not been identified at this time and further use of the agency's resources are not warranted. The action taken by blue bird resolves all issues raised by this investigation.

The agency reserves the right to take further action if warranted by the circumstances.

BLUE BIRD

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OFFICE OF
DEFECTS INVESTIGATION

SERVICE UPDATE
S0605

DATE: **JUNE 28, 2006**

SUBJECT: **INOPERATIVE SERVICE BRAKE LOW AIR PRESSURE WARNING BUZZER**

MODELS AFFECTED: **2005-06 MODEL YEAR "VISION" BUSES**

It has come to Blue Bird's attention that some fleets have experienced an inoperative low pressure warning audible alarm. The audible alarm should sound anytime that the vehicle's air pressure drops below 60 psi. The low air pressure warning light and air pressure gauge continue to function properly.

Contained in this service update are instructions for the daily procedure that drivers should be aware of concerning these two warning systems. In the event that either system is deemed to not be working properly during the daily check, please contact your maintenance personnel for repairs.

Low Air Warning Systems Daily Check Procedures

The dash utilized on the 2005-06 model year Blue Bird "Vision" model conventional bus has a self test feature in the "start-up" mode which is activated each time the ignition is turned on. Operators must acquaint themselves with the self test feature and advise their service and maintenance personnel if the low air buzzer, light or gauge does not function properly. A description of the "start-up" mode with self-test feature is provided on page 2.

Start-Up Mode

The dash enters start-up mode when the ignition is on. The ignition binary input is used to sense if the key switch is on or off.

Gauges

Gauge pointers will drive to zero position. The pointers will then drive up scale, pausing at ½ scale, before completing the sweep to full scale. The pointers will then return to zero position before moving to the commanded position.

LCD

During the up scale sweep of the pointers, the LCD will turn all its segments on for one second, off for one second and then display the opening message. The opening message is the Bluebird logo followed by the software ID, complete with revision level.

Warning Lights

Starting at the up scale pointer sweep, all warning lights will turn on for 5 seconds and then go out. Active warning lights will turn on when the gauges go to their commanded position.

Communication

The master gauge will determine which data buses are connected and which devices are present. Error messages will display if a data bus is missing or a device that had been previously found is now missing.

Audible Alarm

The audible alarm will sound its three different tones for one second each during the up scale swing of the pointers.

Blue Bird provides these dash features to help ensure you and your passengers' safety. However, it is the operators' responsibility to familiarize themselves with the operation of the dash warning features and the self test feature of the dash and to report any failure of the low air buzzer, light or gauges to the appropriate service/maintenance personnel.

Questions regarding Service Update S0605 should be directed to your Blue Bird Distributor.