RECALL R22BW: FMVSS 102 Noncompliance, BBCV Starter Interlock with Allison Transmission **BLUE BIRD**

Models Affected: Certain 2023 Model Year Blue Bird Vision Buses Built With New Electrical Architecture (NEA), Cummins Engine, Allison Transmission, Without Shifter Park Position

Issue: On identified buses the engine will start without the transmission shifter in the neutral position.

Corrective Action: The Blue Bird A Zone Multiplex Module must be re-flashed with software, available on the Blue Bird Vantage Unit Dashboard Website.

Multiplex Module (Blue Bird Part # 10059122) Shown Below, As Reference Only

ltem# 10059122



Items Needed:

Item		
Number	Quantity	Description
1	1	AmeFlash Tool Software (Available on Blue Bird Vantage, Ametek Software Website)
2	1	A Zone Multiplex Module Software (Available on Blue Bird Vantage, Unit Dashboard Website)
3	1	Laptop Computer (Windows Operating System)
4	1	RP1210 Communication Adapter Supported by the AmeFlash Tool Software (Dearborn DPA-5 USB Recommended)
5	1	Blue Bird Bench Program Harness #10074768. Optional: Only Required if Programming Multiplex Module on Workbench
6	1	12V Regulated Power Supply. Optional: Only Required if Programming Multiplex Module on Workbench

AmeFlash Tool Software and the A Zone Multiplex Module Software are both available on the Blue Bird Vantage Website (login required) See Page 2 and 3 for Vantage Website illustrations depicting software locations Click here to go to Vantage now: Blue Bird Vantage | Portal

WARNING: Always follow all Federal, State, Local, and Shop safety standards and use proper safety equipment. Thoroughly read and understand all instructions before performing these procedures. Park bus on level surface, apply parking brake, turn off ignition key, and chock wheels.



Instructions for Updating A Zone Multiplex Module Software On the Bus

Download and install the AmeFlash Tool Software on your laptop

On Vantage navigate to the Ametek-Software page, Click the "AmeFlash Tool Software" link shown below to download and install onto your laptop: For instructions on how to install and use the AmeFlash Tool Software, Click the "Ametek Software Update Instructions" link shown below:



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Download and save VEPS "SIMULINK Software file on your laptop to install in the A Zone Multiplex Module

On Vantage navigate to the <u>Vantage-Unit Dashboard</u> and enter the body number of the bus being repaired. From Unit Dashboard of the bus being repaired, Click "Service" tab, "VEPS" tab, A-Zone ".ver" tab, and then "Download" tab. Download and save the VEPS "SIMULINK" software file to install in the A Zone Multiplex Module. (Example shown below):

Unit Details	Produ	uction Order	Ser	vice	Reference	Ser	ervice Campaign/Notices	Warranty				_	
Service Part	ts List	SW Panel I	Data	Refe	rence Diagran	ns	Wiring Schematics	ABS Results	IO Controls	Support Ticket	Troubleshooting Guides	Ţ	VEPS

PROGRAM MUX C-ZONE PROGRAM FILES
F526181.par
F526181.ver
PROGRAM MUX D-ZONE PROGRAM EILES
F526181.par
F526181.ver
PROGRAM MUX A-ZONE PROGRAM FILES
F526181.par
F526181.ver
↓ ↓
"ORIGINAL FILE PULLED" F526181.s19 Download "DATE/TIME OF PROGRAMMING" 20211104_075703
F526181.pdf
F526181.csv
F526181.s19

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Connecting RP1210 Communication Device Cables and Communicating With Ametek Devices Using AmeFlash Tool Software on your laptop

Connect Dearborn DPA-5 or supported RP1210 communication adapter to the laptop using the USB connection and then connect to the J1939 diagnostic port of the bus. Based on engine model the J1939 diagnostic port will be located underneath the steering column (lower left or right) or underneath right-hand switch panel (far right side). With AmeFlash Tool software open, RP1210 communication device cables, or bench programming harnesses connected, turn the bus ignition key ON, (Or 12 Volt Power Supply) and then Click "Find Devices" button (lower left). You will see a "Search Progress" screen appear and then disappear, when finished. At the next screen you may note several Ametek devices listed, (devices listed are based on what devices are connected to the J1939 data link). To load a software file into any Ametek device you must first select that device by clicking the line with the proper source address "SA" and then you will notice more selections appear. For this recall repair you will select the source address "PMM SA: 0x21" (A-Zone Multiplex Module - located on Chassis; inside above transmission cover).





For "PMM" (Multiplex Module) "SIMULINK" or "VEPS" Software Loading:

- a) To load the VEPS "SIMULINK" software into the A Zone "PMM", go to the "SA: 0x21" and highlight that specific line item.
- b) To the right, make sure the "APP" section does NOT have a file mapped, if it does close it by Clicking the "X" in the mapping window.
- c) To the right, you will notice a "SIMULINK" section with the word "SELECT" to the far right of that line.
- d) Click the "SELECT" button and it will let you select a location of the file you downloaded on the Vantage Unit Dashboard (A Zone Module "SIMULINK" files are Body Number Specific).
- e) Once you have the "SIMULINK" file mapped, turn the ignition switch to the "on" position (engine not running) and Click the "FLASH" button to load the "SIMULINK" software. Wait until 100% complete.
- f) Turn the ignition switch to the "off" position for approximately 10 seconds and close the Ametek AmeFlash Tool loader software.

Note:

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When loading PMM "SIMULINK" files on the bus, it is recommended to first unplug the "E8" connector on all other PMM modules, except the PMM module being loaded. This is not requirement but can avoid software loading errors.

Example AmeFlash Tool A-Zone Multiplex Software "SIMULINK" Load Screen Shots:



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Complete Functional Check to Verify Starter Engages "ONLY" When Transmission Shifter is in the Neutral Position:

Confirm Starter engages "ONLY" when the transmission shifter is in the "Neutral" position. Contact your Blue Bird Field Service Representative, if you require assistance.

Instructions for Updating Multiplex Module Software On A Workbench

To update the A Zone Multiplex Module software version on a workbench, connect bench program harness #10074768 to Multiplex Module. Connect black J1939 diagnostic port connector on bench program harness to a Dearborn DPA-5 or supported RP1210 communication adapter. Then connect Dearborn DPA-5 or supported RP1210 communication adapter to the laptop using the USB connection. Last connect bench program harness #10074768 to a 12V power supply. Turn 12V power supply on. Note: All other instruction steps are the same, as listed above for updating the A Zone Multiplex Module software on the bus.

Example Workbench connections shown below:



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