

Models Affected: Certain 2022 & 2023 Model Year Blue Bird Vision Buses equipped with 7.3L Gasoline engine

Issue: In certain vehicles, the transmission shift cable may come in physical contact with the gasoline fuel line at the rear of the engine. This inadvertent contact could abrade the gasoline fuel line and cause potential leaks. Additionally, some units may be missing the heat shield bracket, which is used to secure the shift cable.

Corrective Action: Inspect and if action is needed, re-route & secure the transmission shift cable away from the fuel line, per the below instructions. Replace damaged or missing components, as needed.

WARNING: Always follow all Federal, State, Local and Shop safety standards and use proper safety equipment, and 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.

### **Related Tools:**

Description	Tool Number
Fuel line disconnect tool	Rotunda 310-250 or equivalent
Hand tools	
Side cutters	

### Service Parts:

Item	Description	Part Number	Quantity
1	TIE,CABLE,NYLON,BUTTON HD,14.75L X .22W	00024076	1
2	BRACKET,HEAT SHIELD,HYD BRAKE,FORD CV	10062357	1
3	BRACKET,STEEL,MNT,HYD BRAKE	10068143	1
4	NUT,HEX HD,5/16-18,SER WASHER,YEL ZN DICH	00829390	2
5	WASHER,FLAT,5/16 X 3/4 X 5/64,YEL ZN DICH	10029717	2
6	CAPSCREW,HEX HD,5/16-18X7/8,GR8,YEL ZN DICH	00854414	2
7	FUEL LINE, GAS, SUPPLY, SECTION 1	10070231	1

Labor Operations:

Repair	Description	Labor Hours	Parts Needed
А	Inspection	0.2 Hours (12 minutes)	No Parts
В	Re-routing Shift Cable	0.3 Hours (18 minutes)	Item 1
С	Install Brackets	0.3 Hours (18 minutes)	Items 1 - 6
D	Fuel Line Replacement	0.7 Hours (42 minutes)	Items 1 - 7

### **Instructions:**

Step 1: Inspect the left rear corner of the engine from the top, and the bottom. If there is greater than 3" of clearance between the shift cable and the fuel line, no further action is required. Ref. Figure 1 for an example of insufficient clearance. If <3" of clearance, proceed to step 2.

CAUTION: DO NOT STEP ON THE ENGINE

1



Step 2: If vehicle is equipped with an air system, ensure shift cable is routed on the toe-box side of the air bundle. If not routed properly, shift to neutral & secure the chassis. Remove shift cable from transmission bracket and shift arm.

CAUTION: For vehicles with transmission park position feature; double check parking brake is set & wheels are chocked prior to shifting to neutral and removing shift cable.

- Step 3: Verify the heat shield bracket (Item 2), regardless of brake type is in place. Reference Figure 2. If missing, install per Figure 3.
- Step 4: Verify shift cable is routed properly and secured to the bracket with the HD button cable tie, p/n 00024076 per Figure 3
- Step 5: With transmission in neutral, and shifter in neutral, make needed adjustments to the cable trunnion that allows smooth engagement into the transmission shifter arm. Step 6: Carefully inspect the gasoline fuel line. Any physical damage to the fuel line requires replacement.

Step 7: If fuel line replacement is necessary, follow the below steps-

- A- Remove the fuel system fuse. Fuse FH16(NEA), or fuse FB1-2(non-NEA).
- B- Start the engine and allow it to stall. Attempt to start again until the engine no longer starts.
- C- Disconnect the battery negative terminal.
  - a. NOTE: Even if equipped with a battery disconnect, remove battery negative terminal.
- D- Wearing appropriate PPE, lay an absorbent cloth below the fuel line connection at the fuel rail and slowly disconnect the fuel line using Rotunda 310-250 or equivalent. See Figure 4
  - a. NOTICE: When reusing liquid or vapor tube connectors, make sure to use compressed air to remove any foreign material from the connector retaining clip area before separating from the tube or damage to the tube or connector retaining clip can occur. Apply clean engine oil to the end of the tube before inserting the tube into the connector.
  - b. NOTICE: Fuel injection equipment is manufactured to very precise tolerances and fine clearances. It is essential that absolute cleanliness is observed when working with these components or component damage can occur. Always install plugs to any open orifices or tubes.
- E- Replace fuel line. Discard fuel laden cloth appropriately.
- F- Re-connect negative battery terminal and torque to 44-72 in-lbs.

G- Install the fuel system fuse. The fuel pump should run for ~3 seconds. Check the system for leaks. If none found, start the engine. Verify no leaks are present. Step 8: Connect IDS or RDT and reset fault codes.

Step 9: Open datalogger and monitor TR\_DC%. Verify value reports between 40-46% in Neutral. Make necessary shift cable adjustments if out of specification.



### 7.3L SHIFT CABLE-GASOLINE FUEL LINE INTERFERENCE





Fig 1

Fig 2



### 7.3L SHIFT CABLE-GASOLINE FUEL LINE INTERFERENCE



Fig 3



## 7.3L SHIFT CABLE-GASOLINE FUEL LINE INTERFERENCE



Fig 4