

R19ZV Vision Trans Shifter Cable & Brake Line Routing

Models Affected: Certain 2013-2020 Vision's with Ford 6.8L Engines

Issue: On certain Blue Bird Vision buses equipped with the Ford 6.8L V10 engines, the hydraulic brake lines or transmission shifter cable may not be routed properly. In certain cases, the brake lines may be routed in close proximity to the exhaust manifold of the engine which could expose the lines to excessive heat and premature failure which could result in hydraulic brake fluid leaking onto the manifold. On other units the transmission shifter cable could contact the gasoline fuel supply line to the engine which may result in a fuel leak.

Corrective Action: Install a heat shield to insulate the brake lines from excessive heat, control routing of the brake lines, and secure the transmission shifter cable away from the fuel line.

WARNING: Always follow all Federal, State, and 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 of ignition key, and chock wheels. Allow unit to cool before working near exhaust system.

Item Number	Part Number	Description	Quantity
1	00829390	NUT, HEX HD, 5/16-18, SER WASHER, YEL ZN DICH	2
2	10062357	BRACKET, HEAT SHIELD, HYD BRAKE, FORD CV	1
3	00854414	CAPSCREW, HEX HD, 5/16-18X7/8, GR8, YEL ZN DICH	2
4	10029717	WASHER FLAT 5/16X3/4X5/64, YEL ZN DICH	2
5	00024076	TIE, CABLE, NYLON, BUTTON, HD, 14.75X22W	1
6	00029998	TIE, CABLE, 120LB	1
7	01317247	BRACKET, ATCH, BRAKE LINE TO FRAME (Air Brake Only)	1
8	00803239	CAPSCREW, HEX HD, ¹ / ₂ -13X11/2, GR8, YEL ZN DICH (Air Brake Only)	1
9	00850800	NUT, HEX HD, ¹ / ₂ -13, LOCKING, GRD8, CAD WAX (Air Brake Only)	1
10	00850776	WASHER, FLAT, 17/32X1 1/16X3/32, HDN, BLKZN(Air Brake Only)	2
11	00870477	CAPSCREW, HEX HD, ¼-20X1,GRD8, YEL ZN DICH(Air Brake Only)	1
12	00030876	2 WAY SADDLE MOUNT S2HM25(Air Brake Only)	1
13	01247709	WASHER, FLAT, .2656 IDX .625 OC, YEL ZN DICH(Air Brake Only)	1
14	01039262	NUT, HEX HD, ¹ / ₄ -20, LOCK, ZINC(Air Brake Only)	1

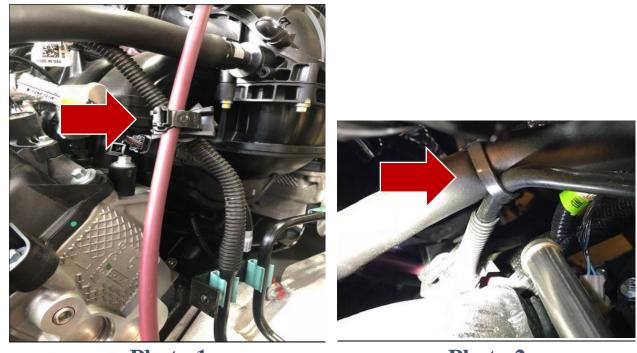


Photo 1

Inspection for Both Hydraulic & Air Brake Units:

Check the transmission shifter cable and insure it is NOT mounted to the top rear of the engine (Photo 1). Also inspect the fuel line to insure the PCV hose is not attached to the fuel line (Photo 2). If so, cut the mounting cable ties and remove ties and mounting saddle. Inspect the fuel line for any chaffing at shifter cable mounting point and replace fuel line if necessary.

Hydraulic Brake Instructions:

- 1. Locate rubber hydraulic brake lines inside the LH frame rail on left side of engine.
- 2. Inspect the lines for any defects, such as cracks, deformities, melted areas, and replace if necessary. Note: Refer to service manual for fill and bleed procedures.
- 3. Check the transmission shifter cable and insure it is <u>NOT</u> mounted to the top rear of engine (Photo 1). If so, cut the mounting cable tie and remove mounting saddle. Inspect fuel line for any chaffing at shifter cable mounting point and replace fuel line if necessary (Photo 1)

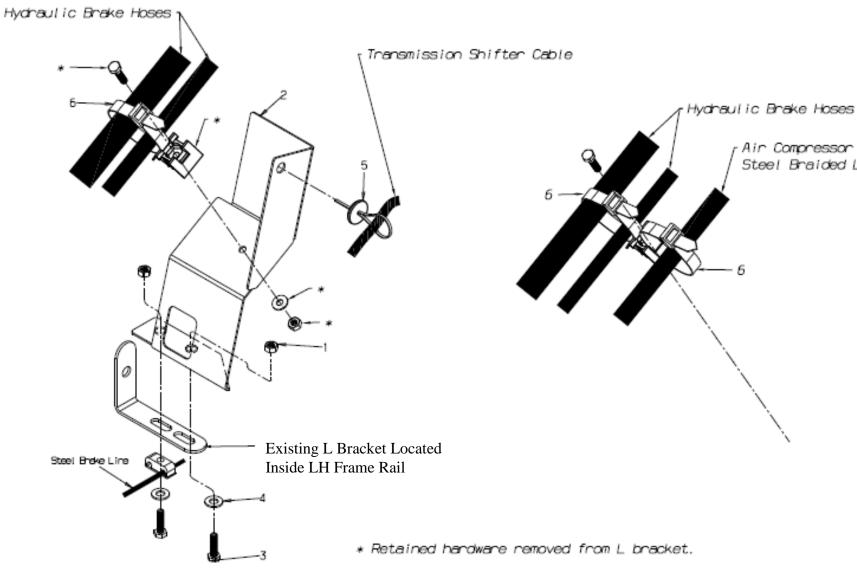
4. Locate the existing steel brake line L bracket mounted to the inside of the LH frame rail. Remove and retain the hydraulic brake line clamp, two-way saddle and fasteners from the top of the L bracket (Figure 1). 5. Install heat shield bracket (Item 2) to the top of the L bracket with fasteners (Items 1, 3, 4) and remount the metal brake line clamp under the existing L bracket (Figure 1).

Photo 2



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- 6. Install the previously removed two-way saddle containing the rubber hydraulic brake line to the heat shield using the existing fasteners as shown (Figure 1).
- 7. On units with an air compressor, secure the air compressor steel braided line to the heat shield saddle with an additional tie cable (Item 6) separate of hydraulic brake lines as shown (Figure 1).
- 8. Secure the transmission shifter cable to the side of the heat shield with button head zip tie (Item 5) as shown (Figure 1).
- 9. Once completed be sure to inspect heat shield and shifter cable for any chaffing conditions.





Air Compressor Steel Braided Line





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Air Brake With Gasoline Powertrain Instructions:

- 1. Locate and remove lower rearward Huck fastener from driver's side outrigger bracket. Indicated with small red arrow (Figure 2).
- 2. Install L bracket (Item 7) with fasteners (Items 8, 9, 10) on the inside of frame rail in the location of the removed Huck fastener. Torque to 56-58ft lbs.
- 3. Install heat shield bracket (Item 2) to the top of the L bracket with fasteners (Items 1, 3, 4) as shown (Figure 3).
- 4. Install Saddle (Item 12) to the heat shield with fasteners (Items 11, 13, 14) as shown. Secure the air compressor steel braided line to the heat shield saddle using Zip Tie (Item 6) as shown (Figure 3).
- 5. Secure the transmission shifter cable to the side of the heat shield with button head zip tie (Item 5) as shown in (Figure 3).
- 6. Once completed be sure to inspect heat shield and shifter cable for any chaffing conditions.

