

SERVICE PROCEDURE

**18506
June, 2018**

SUBJECT: SAFETY RECALL
Brake Air Line Routing on certain IC Bus® CE Series school bus models built 25 December 2018 thru 01 February 2018 with feature code 04091 (dual air brake system) and 04AZS (Antilock Brake System [ABS] with 4 channel Electronic Stability Protection [ESP])

DEFECT DESCRIPTION

The roll stability valve air supply line may be incorrectly routed. This condition does not affect normal brake operation. However, during a stability control oversteer event and with slippery road conditions, the parking brakes may be modulated unintentionally. Modulation of the parking brake during a stability control oversteer event could lead to loss of control or a vehicle crash.

MODELS INVOLVED

This Safety Recall involves certain IC Bus® CE Series school bus models built 25 December 2018 thru 01 February 2018 with feature code 04091 (dual air brake system) and 04AZS (Antilock Brake System [ABS] with 4 channel Electronic Stability Protection [ESP]).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with Safety Recall 18506. Also complete any other open campaigns listed on the Service Portal at this time.

PARTS INFORMATION

Part Number	Part Description	Quantity
2017511C2	FITTING, ELBOW QUICK CONNECT 90 DEGREE 1/4 NPT X 3/8"	1
2015727C1	FITTING, "T" QUICK CONNECT FLEX TUBE 3/8" F X 3/8" F X 3/8"	1
20990R1	FITTING, PLUG 3/8" NPT	1
2643441R2	HOSE, FLEX AIR NYLON, (3/8 OD-ORANGE)	1
1687803C1	EXTENSION, CLIP	1
4039319C1	GUIDE, HOSE AND CABLE, 2-WAY	1
25222R1 or Source Locally	BOLT 1/4" X 3/4"	1
25519R1 or Source Locally	NUT, HEXAGON TYPE 8 1/4" UNC	1
120380 or Source Locally	WASHER, LOCK, 1/4" REG STEEL / ZNC 1/4"	1
289862C1 or Source Locally	STRAP, CABLE LOCK	2
306132C1 or Source Locally	STRAP, CABLE LOCK	1

SERVICE PROCEDURE

WARNING! To prevent property damage, personal injury, and / or death, park vehicle on hard flat surface, turn the engine off, set the parking brake and install wheel chocks to prevent the vehicle from moving in either direction.

WARNING! To prevent property damage, personal injury, and / or death, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

WARNING! To prevent property damage, personal injury, and / or death, allow engine / vehicle components to cool before servicing.

WARNING! To prevent property damage, personal injury, and / or death, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases.

1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Turn ignition to Key OFF position.
4. Install wheel chocks.

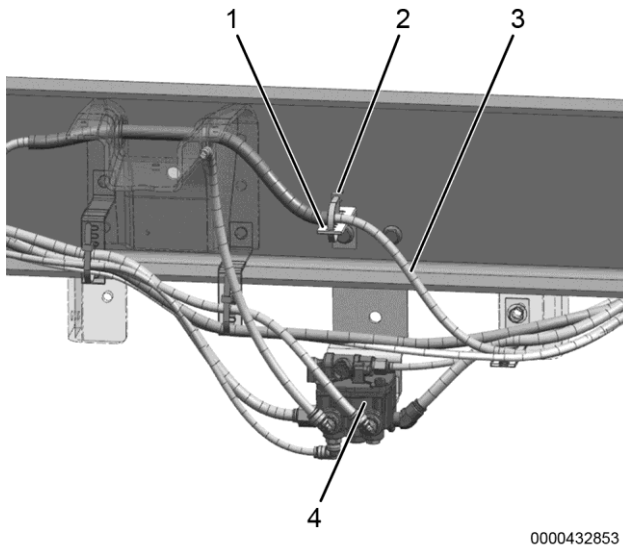


Figure 1. ATR-6 Brake Valve

1. Ladder extension
 2. Cable tie strap
 3. Airline
 4. ATR-6 brake valve
5. Locate Antilock Traction Relay (ATR-6) brake valve (Figure 1, Item 4) mounted on driver-side frame rail.
 6. Remove cable tie strap (Figure 1, Item 2) securing airline (Figure 1, Item 3) located just above ATR-6 brake valve (Figure 1, Item 4).
 7. Remove ladder extension (Figure 1, Item 1) and save fasteners for reuse.

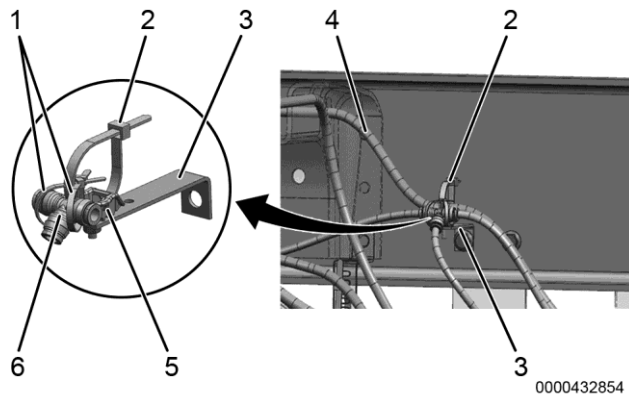


Figure 2. Cable Strap Configuration

1. Thin cable tie strap
2. Wide cable tie strap
3. Extension clip
4. Airline along frame
5. 2-way hose and cable guide
6. T-fitting

8. Install new extension clip (Figure 2, Item 3) to frame rail using previously removed fasteners and tighten.

NOTE: Do not tighten tie straps at this time.

9. Place two thin cable tie straps (Figure 2, Item 1) around each end of T-fitting (Figure 2, Item 6).
10. Insert wide cable tie strap (Figure 2, Item 2) through 2-way hose and cable guide (Figure 2, Item 5), extension clip (Figure 2, Item 3), T-fitting cable tie straps, and around airline along frame rail (Figure 2, Item 4).
11. Tighten all cable tie straps, cut and discard strap ends.

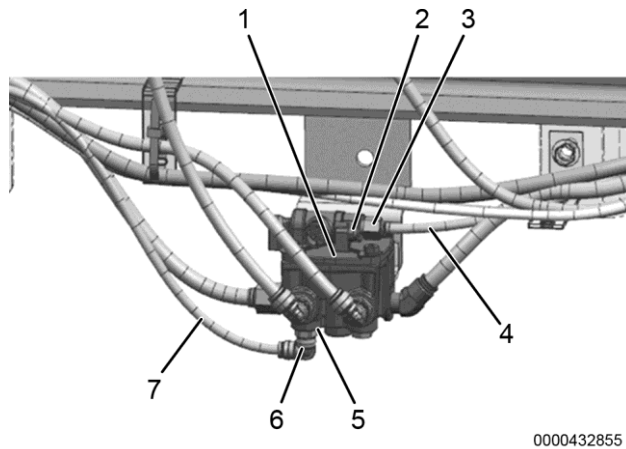


Figure 3. ATR-6 Valve Line and Fitting Removal

1. ATR-6 brake valve
 2. Control port
 3. 3/8-inch fitting
 4. ORANGE 3/8-inch airline
 5. Steer axle delivery port
 6. 3/8-inch elbow
 7. ORANGE 3/8-inch airline
12. Disconnect ORANGE 3/8-inch airline (Figure 3, Item 7) from 3/8-inch elbow (Figure 3, Item 6) of ATR-6 steer axle delivery port (Figure 3, Item 5).
13. Remove and discard 3/8-inch airline elbow (Figure 3, Item 6) from ATR-6 steer axle delivery port (Figure 3, Item 5).
14. Disconnect ORANGE 3/8-inch airline (Figure 3, Item 4) from 3/8-inch fitting (Figure 3, Item 3) of ATR-6 control port (Figure 3, Item 2).
15. Remove and discard 3/8-inch fitting (Figure 3, Item 3) from ATR-6 control port (Figure 3, Item 2)

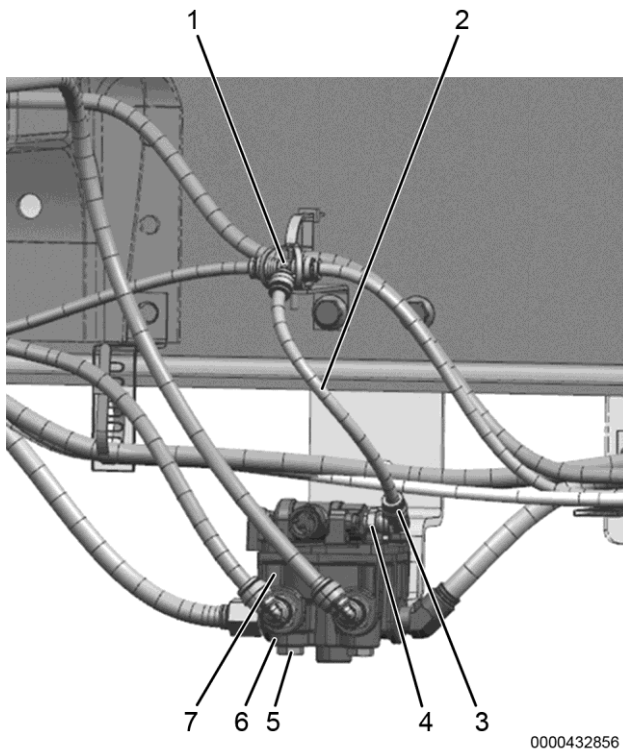


Figure 4. ATR-6 Valve Port Connections

1. T-fitting
2. 12.6-inch length 3/8-inch ORANGE airline
3. 90-degree elbow
4. Control port
5. 3/8-inch plug
6. Steer axle delivery port
7. ATR-6 brake valve

Note: Always assemble Dryseal American Standard Taper Pipe Thread fittings into internal thread until hand tight and then an additional 1 1/2 to 2 revolutions. Do not back off (loosen) fitting.

16. Install 3/8-inch plug (Figure 4, Item 5) into ATR-6 steer axle delivery port (Figure 4, Item 6) until hand tight.

17. Tighten plug 1 1/2 to 2 full revolutions.

Note: Always assemble Dryseal American Standard Taper Pipe Thread fittings into internal thread until hand tight and then an additional 1-1/2 to 2 revolutions. Do not back off (loosen) fitting.

18. Install 90-degree elbow (Figure 4, Item 3) to ATR-6 control port (Figure 4, Item 4) until hand tight.

19. Tighten fitting 1 1/2 to 2 full revolutions.

20. Install one end of 12.6-inch (320 mm) length 3/8-inch ORANGE airline (Figure 4, Item 2) into 90-degree elbow (Figure 4, Item 3) on ATR-6 control port (Figure 4, Item 4).
21. Install remaining end of 12.6-inch (320 mm) length 3/8-inch ORANGE airline (Figure 4, Item 2) into 3/8-inch T-fitting (Figure 4, Item 1).

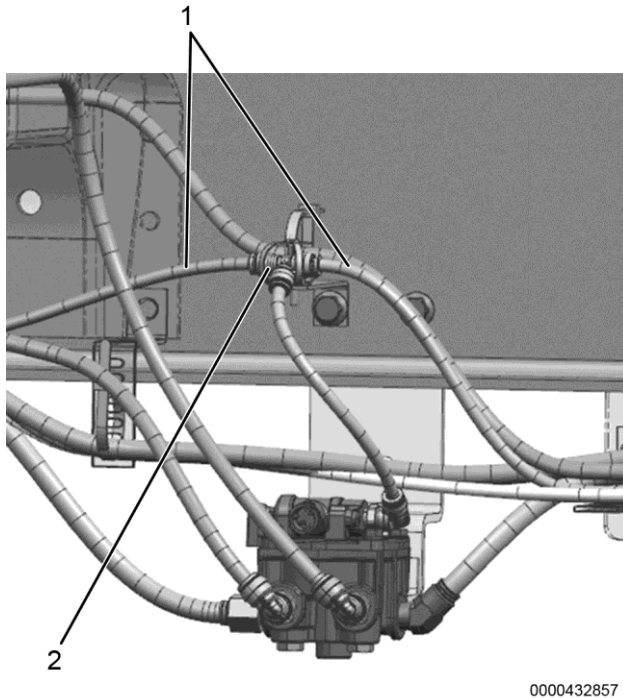


Figure 5. T-Fitting Airlines

1. 3/8-inch ORANGE airline
 2. T-fitting
22. Install two 3/8-inch ORANGE airlines (Figure 5, Item 1) previously removed in Steps 12 and 14 into each end of 3/8-inch T-fitting (Figure 5, Item 2).
 23. Verify there are no air leaks when brake pedal is depressed.
 24. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-18506-1	Correct Airline Routing to ATR-6 Valve	0.8 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with this campaign must be marked with a CTS-1075 Campaign Identification Label.

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.

DO NOT REMOVE
INTERNATIONAL
Campaign No.
VIN
Eng.#
COMPLETED
Service Location Code #
DO NOT REMOVE

ADMINISTRATIVE / DEALER RESPONSIBILITIES

WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Safety Recall 18506.

Section 7 of the Warranty Policy and Procedures Manual contains further information related to the submission and processing of AFC / Recall claims.

As with all claim submissions, items acquired locally must be submitted in the "Other Charges" tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

GROUP	NOUN	C	WARR.	TP	PAD

GROUP — Enter number ←

NOUN — Leave blank ←

C (CAUSE) — Enter either 1, 2, 3. (See below)

- 1. Inspected (No repair required).
- 2. Inspected and repaired.
- 3. Defective part from parts stock.

WARRANTY — (Warranty Code) Enter 40. ←

TYPE PART — Enter P for type part causing failure. ←

PAD — Enter 100 ←

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UNITED STATES AND POSSESSIONS

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately repaired within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within 60 days after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to replacement with an identical or reasonable equivalent vehicle at no charge, or to a refund of the purchase price less a reasonable allowance for depreciation.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

CANADA

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

EXPORT

Export Distributors should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your distributor location.

Export Distributors are to submit warranty claims in the usual manner making reference to this recall number.

Export Distributors are expected to provide full cooperation and follow-up with respect to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

NAVISTAR, INC.