



FIELD SERVICE CAMPAIGN – 22104

10 May 2022

SUBJECT:

Antilock Brake System (ABS) Warning Light

MODELS INVOLVED:

IC Bus® RE Series vehicles

DEFECT DESCRIPTION:

Certain IC Bus® RE Series buses may have the Antilock Brake System (ABS) indicator light circuit incorrectly pinned at the relay and may have an outdated BCM calibration that could result in the ABS indicator light illuminating at all times.

ELIGIBILITY:

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with FSC 22104. Also complete any other open campaigns listed on the Service Portal at this time.

TOOLS REQUIRED:

Description	Tool Number
Battery Charger 55 Amp	PSC550CC
EZ-Tech® or EST with Diamond Logic® Builder Software	N/A
Tool, Terminal Release	TXT126870202

Table 1 Tools Information

PARTS REQUIRED:

Part Number	Description	Quantity
476074C1	Nut, Battery Terminal 3/8-inch UNC (One Time Use)	1
1661709C1	Terminal, Cable Female	As needed

Table 2 Parts Information

WORK INSTRUCTIONS

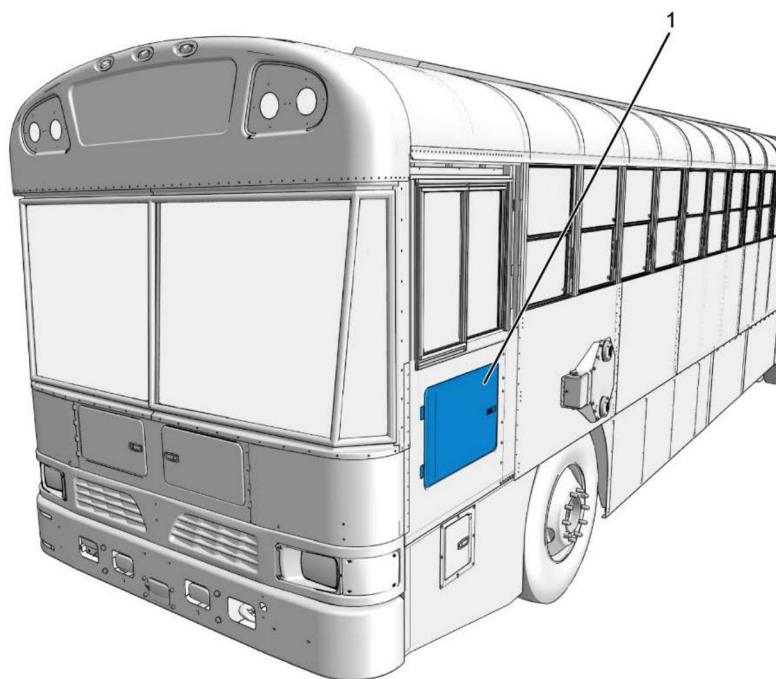
WARNING! To prevent personal injury and / or death, or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in both directions.

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

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

WARNING! To prevent personal injury and / or death, or damage to property, remove the ground cable from the negative terminal of the main vehicle battery before disconnecting any electrical components. Always connect the ground cable last.

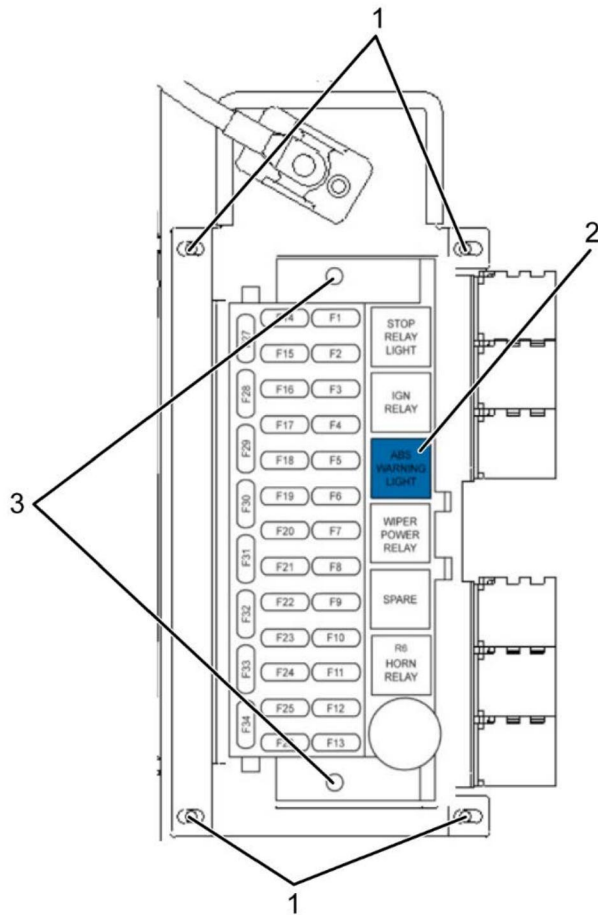
1. Park vehicle on a level surface.
2. Shift transmission into Park or Neutral and set parking brake.
3. Turn ignition to Key OFF position.
4. Install wheel chocks.
5. Disconnect and isolate negative battery cable on main vehicle battery. Discard battery terminal nut.



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Figure 1. Fuse Panel Compartment

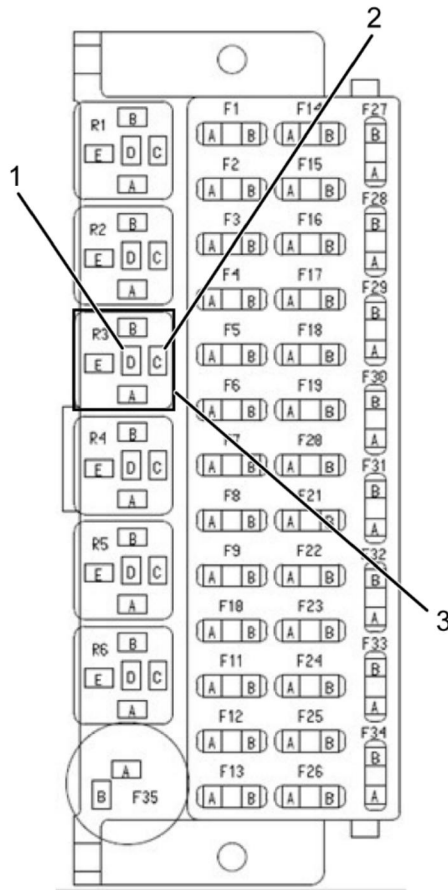
1. Fuse panel access door
6. Open driver-side fuse panel access door (Figure 1, Item 1).



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Figure 2. Chassis Fuse Block (Front View)

1. Fuse block bracket bolt (4)
 2. ABS warning light relay
 3. Fuse block bolt (2)
7. Remove ABS warning light relay (Figure 2, Item 2).
 8. Remove two fuse block bolts (Figure 2, Item 3). Save bolts for reuse
 9. Remove four fuse block bracket bolts (Figure 2, Item 1). Save bolts for reuse.
 10. Remove ABS warning light relay connector terminal lock. Save lock for reuse.

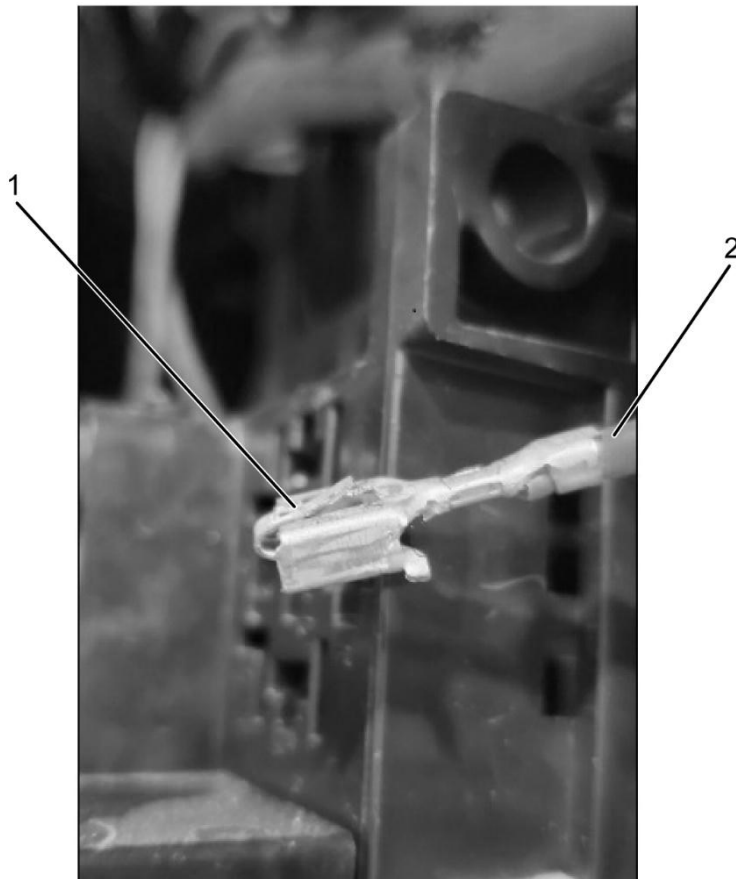


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Figure 3. Fuse Block (Back View)

1. Cavity D
2. Cavity C
3. R3 connector

11. Using TXT126870202 Terminal Release Tool, remove terminal wire AA94-GA from cavity C (Figure 3, Item 2).



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Figure 4. Terminal Wire AA94-GA

1. Terminal tab
 2. Terminal wire AA94-GA
12. Inspect terminal wire (Figure 4, Item 2) for flat or over-extended terminal tab (Figure 4, Item 1).
 - a. If terminal tab is flat or over-extended, adjust tab into correct shape.
 - b. If terminal tab is in correct shape, no action is required.
 13. Populate R3 connector cavity D (Figure 3, Item 1) with terminal wire AA94-GA (Figure 4, Item 2).
 14. Insert terminal lock into R3 connector (Figure 3, Item 3).
 15. Position fuse block into fuse panel. Using torque wrench, tighten four fuse block bracket bolts (Figure 2, Item 1) to 50 lb-in (5.7 N•m).

16. Install fuse block into fuse block bracket. Using torque wrench, tighten two fuse block bolts (Figure 2, Item 3) to 50 lb-in (5.7 N•m).
17. Install ABS warning light relay (Figure 2, Item 2) into fuse block.
18. Close fuse block cover and driver-side fuse panel access door (Figure 1, Item 1).
19. Using a wire brush, electronic contact cleaner, and compressed shop air, clean negative battery terminal components.
20. Apply BLUE dielectric grease to battery terminal stud, negative battery cable ring terminal, and threads of new battery stud nut.
21. Using new battery stud nut, reconnect negative battery cable to negative terminal on main vehicle battery and install new battery terminal nut.
22. Using torque wrench, tighten battery stud nut to 12 - 15 lb-ft (16 - 20 N•m).
23. Connect battery charger / maintainer to vehicle battery.

NOTE: Only use NEXIQ USB-Link or NEXIQ USB-LINK™ 2 interface cables. Other varieties of cable may increase programming time or may be incompatible.

24. Using NEXIQ USB-Link or NEXIQ USB-LINK™ 2 interface cables, connect to vehicle.

NOTE: Delete vehicle VIN from Diamond Logic® Builder (DLB) before proceeding. Deleting vehicle VIN enables DLB to be populated with vehicle most recent BCM data.

25. Turn vehicle ignition to Key ON, Engine OFF. Launch Diamond Logic Builder (DLB) software and choose **SELECT** tab. Select connect icon to stop reading if DLB connected automatically to vehicle. Delete vehicle VIN if it appears in list.
26. Select **Connect** icon to reconnect. DLB will detect vehicle modules.

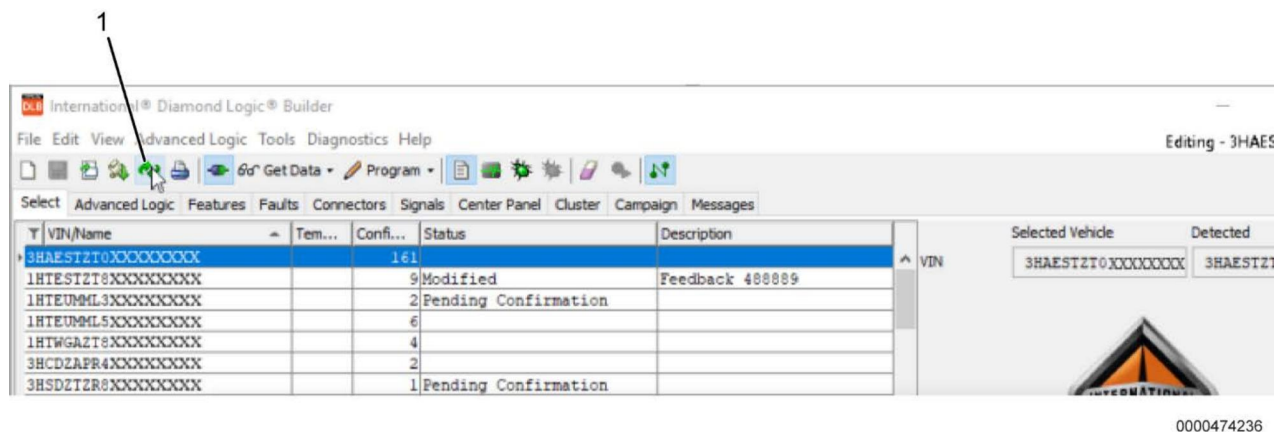


Figure 5. Update All Icon

1. Icon

NOTE: If messages about programming of BCM are displayed before you select **Program** icon, respond to prompts as needed. No prompts requiring a response will be displayed after you have selected **Program** icon.

NOTE: Programming could take as long as an hour. Headlights will turn on and off several times. Ensure that EZ-Tech® battery has sufficient charge to last for entire procedure.

27. Select on **UPDATE ALL** icon (Figure 5, Item 1) in toolbar. DLB will list latest module versions in kernel column.
28. Select **PROGRAM** tab in toolbar to begin updates. DLB will indicate programming status in status bar located at bottom of window.
29. Confirm that ESC module kernel version has been updated to 626 or higher.
30. Turn vehicle ignition to Key OFF.
31. Turn vehicle ignition to Key ON, Engine OFF to ensure all diagnostic trouble codes (DTC) are read.
32. Enter **DIAGNOSTIC** mode and select **FAULTS** tab. Clear any listed DTC. Refer to Diagnosing and Clearing Fault Codes section in Diamond Logic Builder Software (Basic Programming and Diagnostics Only) User Guide for detailed instructions.
33. Repeat Step 32 for additional DTC.
34. Turn ignition to Key OFF position.
35. Disconnect interface connector from diagnostic port.

36. Disconnect battery charger / maintainer from vehicle battery.

37. Remove wheel chocks.

LABOR INFORMATION

Operation number must appear on all claims.

Operation Number	Description	Time
A40-22104-1	Relocate Circuit and Program (ESC - Cab)	0.7 hrs

Table 3 Labor Information

WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Field Service Campaign 22104.

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.

To make sure that this important improvement is made in a timely manner, all claims for 22104 activity must be submitted by 10 May 2023 or within the normal warranty period for the component, if after 10 May 2023.

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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