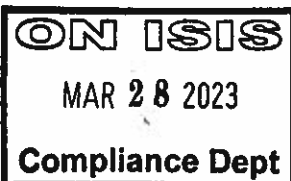


SERVICE PROCEDURE

23503
March, 2023

SUBJECT: SAFETY RECALL

Body Control Module (BCM) Programming in certain 2018 thru 2021 International® HV™ Series trucks built 03/30/2017 thru 12/23/2020, 2019 thru 2022 International® MV™ Series trucks built 10/06/2017 thru 01/08/2021, 2019 thru 2021 International® RH™ Series trucks built 07/21/2018 thru 02/14/2020, and 2022 International® HX® Series trucks built on 11/07/2020 with feature code 13WEH, 13WUA or 13AAZ (Allison Auto Neutral)



CUSTOMER LETTER

Print ready (PDF file) copy of the [Customer Letter](#)

DEFECT DESCRIPTION

The BCM software does not consider the absolute state of the park brake in the auto neutral feature, resulting in the engine ramp-up during PTO operation to overcome the park brake and possibly result in unexpected vehicle movement. A vehicle that unexpectedly moves can increase the risk of a crash or injury.

MODELS INVOLVED

This safety recall involves certain 2018 thru 2021 International® HV™ Series trucks built 03/30/2017 thru 12/23/2020, 2019 thru 2022 International® MV™ Series trucks built 10/06/2017 thru 01/08/2021, 2019 thru 2021 International® RH™ Series trucks built 07/21/2018 thru 02/14/2020, and 2022 International® HX® Series trucks built on 11/07/2020 with feature code 13WEH, 13WUA or 13AAZ (Allison Auto Neutral).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service Portal™ with Safety Recall 23503. Also complete any other open campaigns listed on the Service Portal at this time.

VEHICLE RECALL 23503

TOOLS REQUIRED

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

PARTS INFORMATION

No required parts.

SERVICE PROCEDURE

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 either direction.

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, allow engine / vehicle components to cool before servicing.

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.

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

NOTE: Ensure vehicle batteries are fully and properly charged. If necessary, use a smart charger during programming.

5. Connect battery charger / maintainer to vehicle battery.

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

6. Turn vehicle ignition to Key ON, Engine OFF position.

7. Obtain vehicle health report.

8. Using only NEXIQ USB-Link™ interface cables, connect EZ-Tech® or EST to vehicle.

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

9. Launch Diamond Logic Builder (DLB) software and click **SELECT** tab. Click on connect icon to stop reading if DLB connected automatically to vehicle. Delete vehicle VIN if it appears in list.

10. Click on **CONNECT** icon to reconnect. DLB will detect vehicle modules.

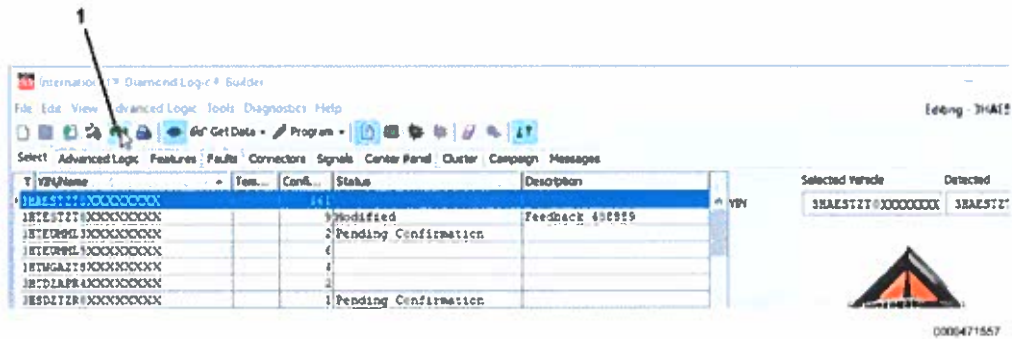


Figure 1. Update All Icon

1. Icon

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

NOTE: Programming may take as long as 1 hour. Headlights will turn on and off several times. Ensure that EZ-Tech® battery has sufficient charge to last for entire procedure.

11. Click on **UPDATE ALL** icon (Figure 1, Item 1) in toolbar. DLB updates latest module versions located in kernel column.

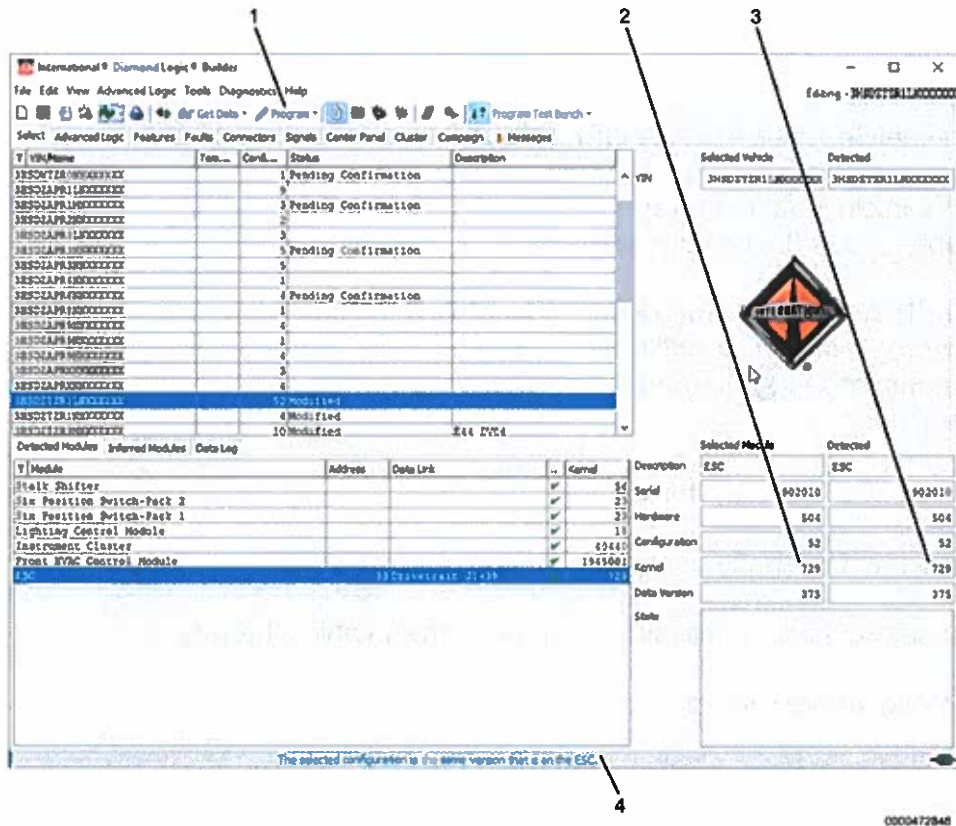


Figure 2. Programming Complete

1. Program button
2. Detected kernel version
3. Selected module kernel version
4. Status bar

NOTE: When update has been completed for selected module, kernel version listed in Selected Module column (Figure 2, Item 3) will match version listed in Detected column (Figure 2, Item 2). Also, status bar (Figure 2, Item 4) will display the following message: "The selected configuration is the same that is on the ESC."

12. Click **PROGRAM** button (Figure 2, Item 1) in toolbar to begin updates. DLB will indicate programming status in status bar (Figure 2, Item 4) located at bottom of window.
13. Confirm Electronic System Controller (ESC) module data version has been updated to 343 or higher.

NOTE: There may be pauses during update. Ensure that programming is complete before turning vehicle ignition to Key OFF position and before disconnecting EZ-Tech®.

14. Turn vehicle ignition to Key OFF position.
15. Turn vehicle ignition to Key ON, Engine OFF position to ensure all diagnostic trouble codes (DTCs) are read.
16. Enter **DIAGNOSTIC** mode and select **FAULTS** tab. Clear any listed DTCs. Refer to Diamond Logic® Builder Software (Basic Programming and Diagnostics Only) Diagnosing and Clearing Fault Codes section for detailed instructions.
17. Turn ignition to Key OFF position.
18. Disconnect interface connector from diagnostic port.
19. Disconnect battery charger / maintainer from vehicle battery.
20. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-23503-1	Recalibrate BCM	0.5 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 23503.

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 ←

000004/P/0

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.

