Countries:	CANADA, UNITED STATES	**Document ID:**	IK0800684
Availability:	ISIS, Bus ISIS, FleetISIS, Body Builder, NotSIR	**Revision:**	2
Major System:	Electrical	**Created:**	6/26/2025
Current Language:	English	**Last Modified:**	2/12/2026
Other Languages:	NONE	**Author:**	Sean McGannon
Viewed:	1096		

Title: Erratic BCM and RPM Behavior with Kernel 747-752

Applies To: All MV, HV, HX with RPM modules

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

02/10/2026 - Updated note about kernel 756 now that 757 is released.
01/29/2026 - Added note for issue with kernel 756
06/27/2025 - Initial Article Release

DESCRIPTION

This document is to inform dealers, customers, and body builders/TEMs of a known BCM software issue with kernels 747 through 752. Units built after November of 2024 as well as older units that were updated with DLB between 11/5/2024 and 6/26/2025 with Remote Power Modules (RPM) modules, can experience loss of RPM functionality as well as other electrical system concerns. Kernel 753 was released to DLB on 6/26/2025 to address these concerns.

Note: Kernel 756 can also have this issue. It was released to service DLB 1/15/26 but was never used in vehicle production. Kernel 757 addresses this and was released on 2/4/26.

SYMPTOM(s)

Diagnostic Trouble Code(s) & Dashboard Indicator Light(s):

SPN	FMI	Fault Description
520469	14	RPM 1 Channel 1 Analog Input Data Unavailable
520471	14	RPM 1 Channel 2 Analog Input Data Unavailable
520473	14	RPM 1 Channel 3 Analog Input Data Unavailable
520475	14	RPM 1 Channel 4 Analog Input Data Unavailable
520477	14	RPM 1 Channel 5 Analog Input Data Unavailable
520479	14	RPM 1 Channel 6 Analog Input Data Unavailable
520481	14	RPM 2 Channel 1 Analog Input Data Unavailable
520483	14	RPM 2 Channel 2 Analog Input Data Unavailable
520485	14	RPM 2 Channel 3 Analog Input Data Unavailable
520487	14	RPM 2 Channel 4 Analog Input Data Unavailable
520489	14	RPM 2 Channel 5 Analog Input Data Unavailable
520491	14	RPM 2 Channel 6 Analog Input Data Unavailable

520493	14	RPM 3 Channel 1 Analog Input Data Unavailable
520495	14	RPM 3 Channel 2 Analog Input Data Unavailable
520497	14	RPM 3 Channel 3 Analog Input Data Unavailable
520499	14	RPM 3 Channel 4 Analog Input Data Unavailable
520501	14	RPM 3 Channel 5 Analog Input Data Unavailable
520503	14	RPM 3 Channel 6 Analog Input Data Unavailable
520505	14	RPM 4 Channel 1 Analog Input Data Unavailable
520507	14	RPM 4 Channel 2 Analog Input Data Unavailable
520509	14	RPM 4 Channel 3 Analog Input Data Unavailable
520511	14	RPM 4 Channel 4 Analog Input Data Unavailable
520513	14	RPM 4 Channel 5 Analog Input Data Unavailable
520515	14	RPM 4 Channel 6 Analog Input Data Unavailable
520517	14	RPM 5 Channel 1 Analog Input Data Unavailable
520519	14	RPM 5 Channel 2 Analog Input Data Unavailable
520521	14	RPM 5 Channel 3 Analog Input Data Unavailable
520523	14	RPM 5 Channel 4 Analog Input Data Unavailable
520525	14	RPM 5 Channel 5 Analog Input Data Unavailable
520527	14	RPM 5 Channel 6 Analog Input Data Unavailable
520529	14	RPM 6 Channel 1 Analog Input Data Unavailable
520531	14	RPM 6 Channel 2 Analog Input Data Unavailable
520533	14	RPM 6 Channel 3 Analog Input Data Unavailable
520535	14	RPM 6 Channel 4 Analog Input Data Unavailable
520537	14	RPM 6 Channel 5 Analog Input Data Unavailable
520539	14	RPM 6 Channel 6 Analog Input Data Unavailable
520541	14	RPM 7 Channel 1 Analog Input Data Unavailable
520543	14	RPM 7 Channel 2 Analog Input Data Unavailable
520545	14	RPM 7 Channel 3 Analog Input Data Unavailable
520547	14	RPM 7 Channel 4 Analog Input Data Unavailable
520549	14	RPM 7 Channel 5 Analog Input Data Unavailable
520551	14	RPM 7 Channel 6 Analog Input Data Unavailable

Customer Observations or Concerns:

- All inputs and outputs through RPM modules do not function
- Switches or indicator lights tied to RPM inputs or outputs can fast flash red
- Dome/panel/marker lights flashing
- Windshield wipers turning on without command
- Warning lights in the cluster after adjusting the rear HVAC settings
- Rear HVAC fan and temp display showing erratically in the cluster
- Relays clicking/cycling in the cab and sleeper PDM

SPECIAL TOOLS / SOFTWARE

Tool Description	Tool Number	Comments	Instructions
Diamond Logic® Builder		EZ-Tech Software	

REPAIR STEP(s)

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

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

1. Connect to the vehicle with DLB software with the ignition key on.

NOTE: DLB will automatically download the latest kernel when launching. It is recommended to restart DLB with an internet connection before starting programming.

2. With the correct VIN selected, hit the update all button (Figure 1, Item 1).

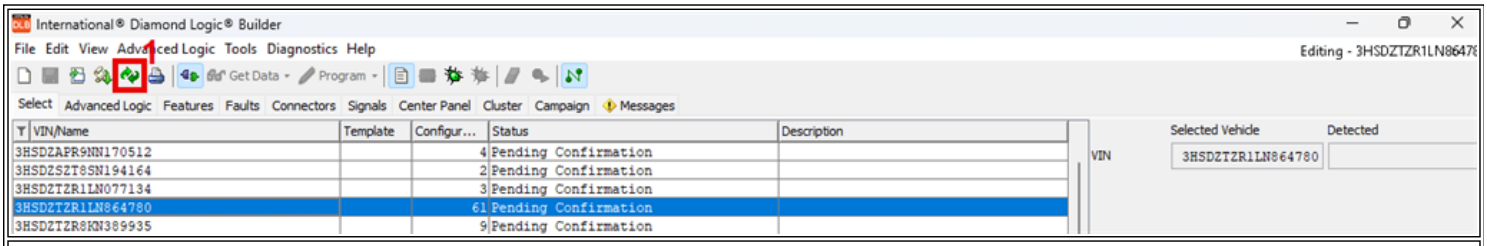

Figure 1: DLB Select Tab

Item 1: Update All Button

3. Verify the selected kernel shows as 753 or later (Figure 2, Item 1), then hit the program button (Figure 2, Item 2).

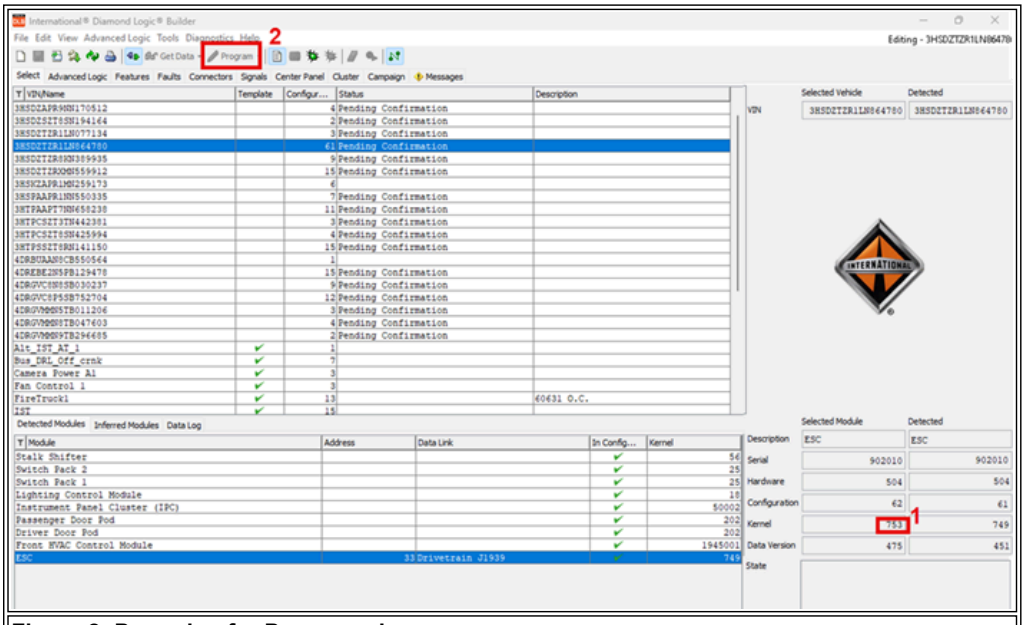

Figure 2: Preparing for Programming

Item 1: Selected Kernel Version
Item 2: Program Button

4. After programming is complete, verify the detected BCM version matches the selected and shows kernel 753 or later (Figure 3, Item 1).

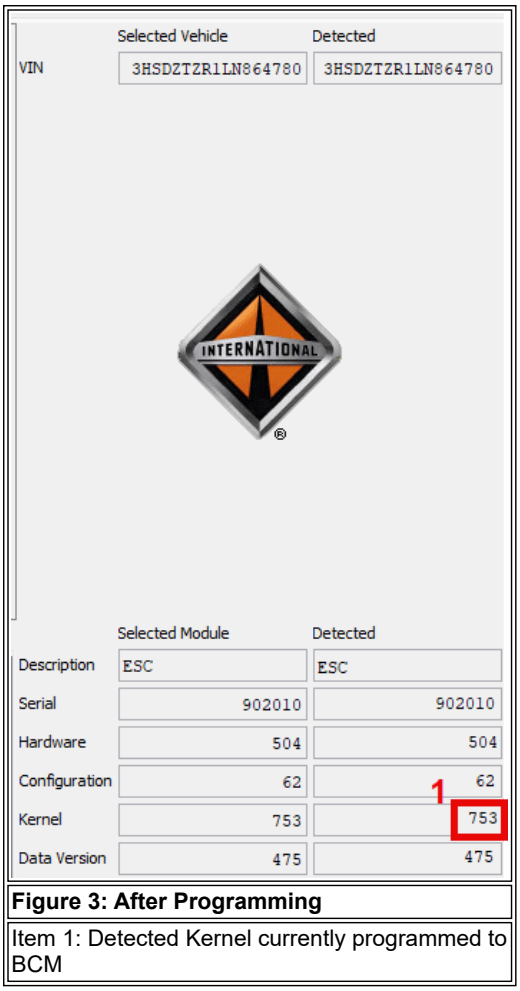

Figure 3: After Programming

Item 1: Detected Kernel currently programmed to BCM

5. Verify the function of the truck and return to service.

WARRANTY INFORMATION

Warranty Claim Coding:

Refer to the Warranty Coding Manual for Group and Noun Codes.

Standard Repair Time(s):

Refer to the SRT Manual for Repair Times

OTHER RESOURCES

Master Service Information Site

Hide Details

Feedback Information

Viewed: 1095
Helpful: 4
Not Helpful: 0

No Feedback Found