

August 2023
FL978A
NHTSA #23V-453
Transport Canada #2023-390

Subject: eCascadia Braking System

Models Affected: Specific model years 2023-2024 Freightliner eCascadia vehicles manufactured February 23, 2022, through June 22, 2023.

General Information

Daimler Truck North America LLC (DTNA), on behalf of its Freightliner Trucks Division, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

On the affected vehicles, the service brake system may incorrectly calculate the vehicle mass, which can impair the electronic stability control system's (ESC) performance. This may lead to a delayed response from the ESC or insufficient braking force when the ESC is activated, increasing the risk of a crash.

A Daimler Truck North America authorized service facility will update the Anti-lock Braking System (ABS) controller with correct parameters.

There are approximately 350 vehicles involved in this campaign.

Additional Repairs

Dealers must complete all outstanding recall and field service campaigns prior to the sale or delivery of a vehicle. A dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260).

Replacement Parts

No replacement parts are required.

If our records show your dealership has ordered any vehicle(s) involved in campaign number FL978, a list of the customers and vehicle identification numbers will be available on the DTNA Portal. Please refer to this list when ordering parts for this recall.

Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 1 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
FL978A	ABS ECU parameter update	0.6	996-R210A	12-Repair Recall/Campaign

Table 1

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IMPORTANT: When the recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate condition code (e.g. **FL978-A**).
- In the Primary Failed Part Number field, enter **25-FL978-000**.
- No replacement parts.
- In the Labor field, first enter the appropriate SRT from the Labor Allowance table. Administrative time will be included automatically as SRT 939-6010A for 0.3 hours.
- The VMRS Component Code is **F99-999-005** and the Cause Code is **A1 - Campaign**.
- **U.S. and Canada -- Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Recall Pre-Approval request for a decision.
 - Include the approved amount on your claim in the Other Charges section.
 - Attach the documentation to the pre-approval request.
 - If approved, submit a based-on claim for the pre-approval.
 - Reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

U.S. and Canadian dealers, if you need additional information, contact the Warranty Campaigns Department using the WSC (Warranty Support Center) app on the DTNA Portal. Export distributors, submit a WSC ticket or contact your International Service Manager.

U.S. and Canadian Dealers: To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number. Export Distributors: Excess inventory is not returnable.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless

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all outstanding recalls are performed. Any lessor is required to send a copy of the recall notification to the lessee within 10 days. Any subsequent stage manufacturer is required to forward this notice to its distributors and retail outlets within five working days.

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Copy of Notice to Canadian Owners

Subject: eCascadia Braking System

This notice is sent to you in accordance with the requirements of the Motor Vehicle Safety Act.

This is to inform you that your vehicle may be non-compliant with the requirements of the Motor Vehicle Safety Regulations and that the non-compliance could affect the safety of a person.

Daimler Truck North America LLC (DTNA), on behalf of its Freightliner Trucks Division, has decided that certain model year 2024 Freightliner eCascadia electric vehicles manufactured January 13, 2023, through May 17, 2023, fail to conform to the Canada Motor Vehicle Safety Standard No. 136, "Electronic stability control systems for heavy vehicles."

On the affected vehicles, the service brake system may incorrectly calculate the vehicle mass, which can impair the electronic stability control system's (ESC) performance. This may lead to a delayed response from the ESC or insufficient braking force when the ESC is activated, increasing the risk of a crash.

A Daimler Truck North America authorized service facility will update the ABS controller with correct parameters. The repair will take approximately one hour and will be performed free of charge.

Please contact an authorized Daimler Truck North America dealer to arrange to have the Recall performed and to ensure that parts are available at the dealership. To locate an authorized dealer, search online at <https://northamerica.daimlertruck.com/contact-us>. Scroll down to "Locate a Dealer" and select the appropriate brand. You may also confirm your vehicle's involvement in this recall at the following URL: <https://dtna-dlrinfo.prd.freightliner.com:48518/VinLookup/vin-module/getVinLookupPage>.

You may be liable for any progressive damage that results from your failure to complete the recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the recall notification, please return the notification to the Warranty Campaigns Department in the postage-paid envelope with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

If you have questions about this recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address dtna.warranty.campaigns@daimlertruck.com. If you have a safety concern relating to this Recall, you may wish to contact Transport Canada – Motor Vehicle Safety at, 80 rue Noel, Gatineau, Quebec J8Z 0A1 or phone (800) 333-0510.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Copy of Notice to U.S. Owners

Subject: eCascadia Braking System

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Daimler Truck North America LLC (DTNA), on behalf of its Freightliner Trucks Division, has decided that certain model year 2023-2024 Freightliner eCascadia electric vehicles manufactured February 23, 2022, through June 22, 2023 fail to conform to the Federal Motor Vehicle Safety Standard No. 136, "Electronic stability control systems for heavy vehicles."

On the affected vehicles, the service brake system may incorrectly calculate the vehicle mass, which can impair the electronic stability control system's (ESC) performance. This may lead to a delayed response from the ESC or insufficient braking force when the ESC is activated, increasing the risk of a crash.

A Daimler Truck North America authorized service facility will update the ABS controller with correct parameters. The repair will take approximately one hour and will be performed free of charge.

Please contact an authorized Daimler Truck North America dealer to arrange to have the Recall performed. To locate an authorized dealer, search online at <https://northamerica.daimlertruck.com/contact-us>. Scroll down to "Locate a Dealer" and select the appropriate brand. You may also confirm your vehicle's involvement in this recall at the following URL: <https://dtna-dlrinfo.prd.freightliner.com:48518/VinLookup/vin-module/getVinLookupPage>.

You may be liable for any progressive damage that results from your failure to complete the recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the recall notification, please return the notification to the Warranty Campaigns Department in the postage-paid envelope with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimlertruck.com. For other concerns, you may contact the Customer Assistance Center at (800) 385-4357. If your manufacturer, distributor, or dealer fails to remedy the defect or noncompliance without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or go to <http://www.nhtsa.gov>.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Daimler Truck North America LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show:

- The name and address of the person who paid for the repair
- The Vehicle Identification Number (VIN) of the vehicle that was repaired
- What problem occurred, what repair was done, when the repair was done
- Who repaired the vehicle
- The total cost of the repair expense that is being claimed
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt)

Reimbursement will be made by check from your Daimler Truck North America LLC dealer.

Please speak with your Daimler Truck North America LLC authorized dealer concerning this matter.

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Work Instructions

Subject: eCascadia Braking System

Models Affected: Specific model years 2023-2024 Freightliner eCascadia vehicles manufactured February 23, 2022, through June 22, 2023.

Anti-lock Braking System (ABS) Electronic Control Unit (ECU) Parameter Update

1. Check the base label (Form WAR259) for a completion sticker for FL978 (Form WAR261) indicating this work has been done. The base label is usually located on the passenger-side door, about 12 inches (30 cm) below the door latch. If a completion sticker is present, no work is needed. If there is no completion sticker, proceed to the next step.
2. Park the vehicle on a level surface. Turn the keyswitch to the OFF position, place the vehicle in neutral, and set the park brake. Chock the tires.
3. Locate the ABS ECU part number using DiagnosticLink® as follows.
 - 3.1 Connect the vehicle to DiagnosticLink.
 - 3.2 Turn the ignition key to the 'Run' position.
 - 3.3 Open DiagnosticLink.

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3.4 Go to the 'Identification' tab, then select the 'Common' tab. Expand the 'ABS02T - Antilock Braking System' information tab. Under the ABS information, find the 'Hardware Part Number.' See [Fig. 1](#).

The screenshot shows the DiagnosticLink interface for a 2023 Western Star 49X Chassis 6 x 4 Truck. The 'Identification' tab is selected, and the 'Common' sub-tab is active. The 'ABS02T - Antilock Braking System' information is expanded, showing the following details:

Section	Item	Value
Device Configuration	Software Mode	Running in Application
	Device Information	
Device Information	Software Version	20.11.0
	Diagnostic Version	10
	ECU Serial Number	31-32-32-33-31-34-33-31-33-33
	Hardware Part Number	A400 864 83 70 ZGS 001
Software Part Number	Software Part Number	A001 448 19 14 ZGS 002
	Diagnostic Variant	
Diagnostic Variant	Diagnostic Variant Part Number	A00000116-001
Vehicle Identification	VIN	5KKHBWDV3PPUK7064

Annotations in the image: A points to the 'Identification' tab, B points to the 'Common' sub-tab, C points to the 'ABS02T - Antilock Braking System' information tab, and D points to the 'Hardware Part Number' field.

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A. Go to the 'Identification' tab.
B. Select 'Common.'
C. Expand the 'ABS02T - Antilock Braking System' information tab.
D. Make a note of the ABS 'Hardware Part Number.'

Fig. 1, Using DiagnosticLink to determine the ABS Part Number

3.5 Write down the ABS 'Hardware Part Number' as it will be needed later in this procedure. See the note below.

NOTE: The portion of the part number that will be needed is between 'A' and 'ZGS.' For example, if the Hardware Part Number noted in DiagnosticLink is **A400 867 17 90 ZGS 001**, the portion that will be needed later is **400 867 17 90**.

3.6 Close DiagnosticLink.

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IMPORTANT: To perform the ECU programming, a configuration file must be downloaded from the WABCO website. Go to <https://wabco.snapon.com>, and sign-in if your account exists. If you do not have an account, create a new account. If you have purchased TOOLBOX™ software, then you already have an account. Use that account information to log in.

IMPORTANT: It is recommended to connect a battery charger to the vehicle to avoid potential programming issues due to low voltage.

4. Sign-in to <https://wabco.snapon.com>, then select 'Aftermarket Programming Configuration Files' at the top of the screen. See Fig. 2 and Fig. 3.

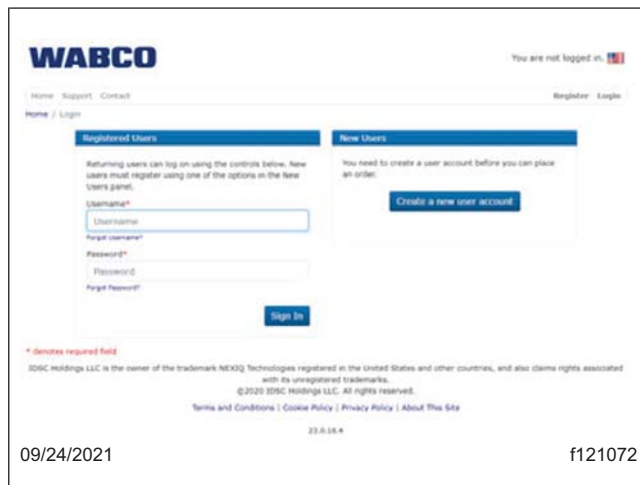


Fig. 2, Wabco Sign-In Page



Fig. 3, Selecting Aftermarket Programming Configuration Files

IMPORTANT: The vehicle identification number (VIN) must include all 17 characters. The ABS ECU part number obtained earlier must be entered with no spaces into the 'ECU Part Number Being Replaced' and 'New ECU Part Number' sections.

5. Enter the VIN and the ABS ECU part number, then select 'Find Configuration.' See Fig. 4.

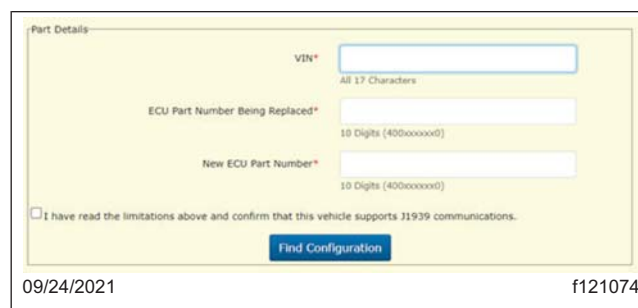


Fig. 4, Finding ABS ECU Configuration

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NOTE: WABCO aftermarket programming configuration files are free of cost. The user will not be billed any amount.

- The configuration file details for the VIN and ABS ECU part number combination will be displayed. Verify the VIN and part number, then select 'Add to shopping cart.' See **Fig. 5**

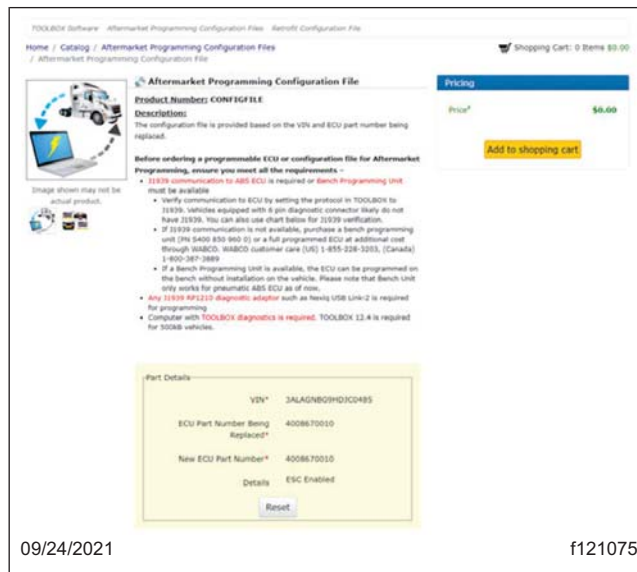


Fig. 5, Adding Configuration Files to Shopping Cart

- Once the configuration file has been added to the shopping cart, select 'Go To Shopping Cart' or 'Checkout' in the window that appears. See **Fig. 6**

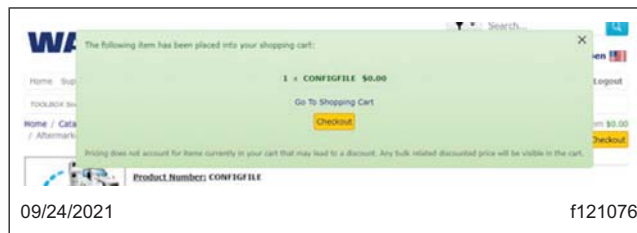


Fig. 6, Selecting Checkout

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- In the 'Contact Details' window, contact information will be automatically displayed, as per the sign-in user data. If required, edit any information. Once the correct contact details are entered, select 'Bill to this address.' See [Fig. 7](#).

The screenshot shows the 'Contact Details' window with the following elements:

- Navigation tabs: Contact Details, Select Shipping Method, Method of Payment, Place Order.
- Section: Select Contact Details for this Order.
- Text: Please use the fields below to identify the contact details for this order.
- Fields: Attention (with dropdown arrow), Your Phone Number, Your Email Address.
- Checkboxes: Email order confirmation? (checked), Email status updates? (checked), Email invoice? (checked).
- Section: Address 1.
- Address 1 content: 1220 Pacific Dr, Auburn Hills, Michigan, 48326, UNITED STATES.
- Buttons: Bill to this address (highlighted in yellow), Add Address.
- Footer: 09/24/2021 on the left, f121077 on the right.

Fig. 7, Selecting Bill to this Address

- In the 'Order Details' screen, verify all the details, then check the box to accept the terms and conditions of the download. Select 'Place Order.' See [Fig. 8](#).

The screenshot shows the 'Place Order' window with the following elements:

- Section: Order Details.
- Table:

Product Name	Quantity	Unit Price	Subtotal
2Benchmark Programming Configuration File CONF595L SALADIN@DELOACHES 400847025 -> 400847015	1	\$0.00	\$0.00
			Subtotal: \$0.00
Tax			\$0.00
Estimated VAT/sales tax			\$0.00
			Total Amount: \$0.00

- Text: If you have a promotion code, you may enter it here to apply the promotion to your cart.
- Form: Input field with Apply button.
- Section: Ship to.
- Address: ZF WABCO, 1220 Pacific Dr, Auburn Hills, Michigan, 48326, UNITED STATES.
- Section: Payment details.
- Text: No Charge.
- Text: I have read, understood and agree to the Terms and Conditions of Purchase. (Click here to view Terms and Conditions)
- Text: Pressing the Place Order button below will cause the order information detailed above to be submitted into the order system. You will be unable to change it once this happens. Please review the order carefully before placing the order.
- Buttons: Cancel, Place Order (highlighted in yellow).
- Footer: 09/24/2021 on the left, f121078 on the right.

Fig. 8, Selecting Place Order

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- Once the order is processed, a link to download the configuration file will be displayed. Select the hyperlink to download the configuration file. See **Fig. 9**.

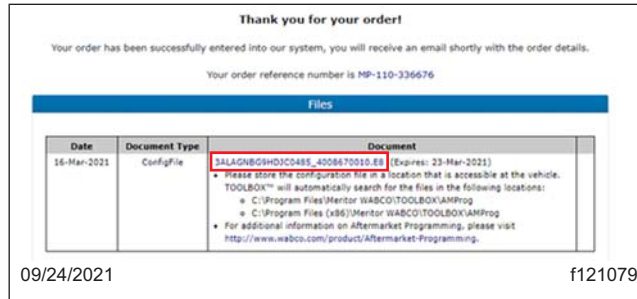


Fig. 9, Link to the Configuration File

IMPORTANT: Save the configuration file to a location that can be accessed when the laptop is connected to the vehicle. The aftermarket programming application will allow the file selection from any location in the computer.

- A message window will appear recommending the file storage location. Select 'OK' to continue. See **Fig. 10**.

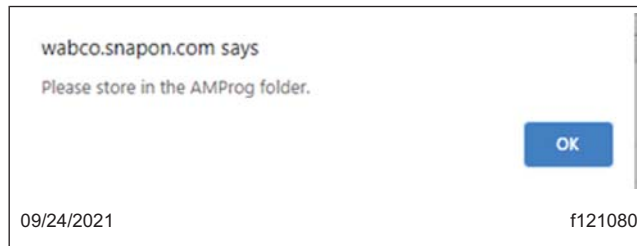


Fig. 10, Storage Location Recommendation

- Connect a Nexiq RP1210 adaptor to the vehicle's Deutsch 9-pin connector.
- Open WABCO TOOLBOX™ (version 13.7 or higher at the time of publication). In the main menu, select 'Aftermarket Programming.' See **Fig. 11**.



Fig. 11, Selecting Aftermarket Programming

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14. A message will be displayed indicating that the ECU parameters will be changed after the programming. Select 'Yes' to continue. See [Fig. 12](#).

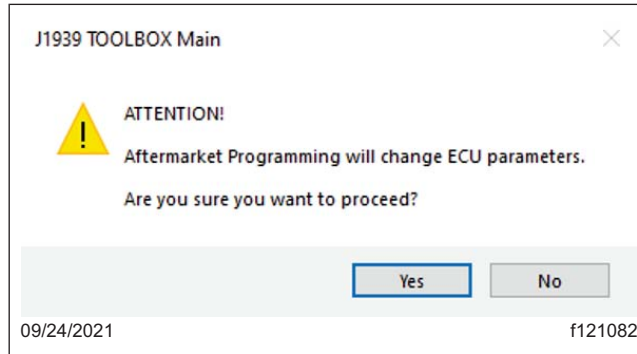


Fig. 12, Selecting Yes to Proceed to the ECU Programming

15. A window will now appear asking the user to select the configuration file. Select 'OK' to proceed. See [Fig. 13](#).



Fig. 13, Selecting OK to Proceed to Browsing

16. Use the file selection box to locate and select the configuration file that was downloaded. Confirm the part number and VIN of the vehicle. Select the file, then select 'Open.' See [Fig. 14](#).

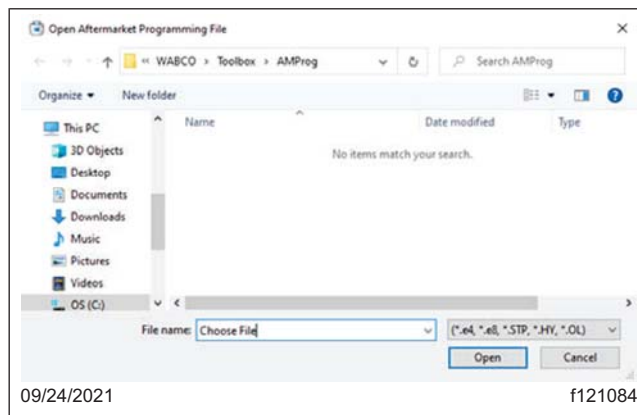


Fig. 14, Locating and Selecting the Configuration File

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17. After the file is selected, the 'Aftermarket Programming' window will appear. The programming will start, and the process status will be displayed in the status box. Upon successful programming, a green 'PASS' indicator will appear at the bottom of the window. See [Fig. 15](#). If the programming process fails for any reason, a red 'FAIL' indicator will appear at the bottom of the window. An error code will be displayed with instructions. Record the error code, and contact the WABCO Customer Care Center 855-228-3203.



Fig. 15, Green Pass Indicator

18. Close the 'Aftermarket Programming' window. Close 'TOOLBOX.'
19. Verify the ABS ECU parameter update as follows:
 - 19.1 Open DiagnosticLink.

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19.2 Go to the 'Parameters' tab, then select the 'All Parameters' tab. Expand the 'ABS02T – Antilock Braking System' parameter folder. Under the 'ABS02T – Antilock Braking System' folder, find and expand the 'Feature Application' folder. See Fig. 16.

The screenshot shows the DiagnosticLink software interface. The 'Parameters' tab is active, and the 'All Parameters' sub-tab is selected. The 'ABS02T - Antilock Braking System' folder is expanded, and the 'Feature Application' sub-folder is also expanded. The table below shows the parameters under this folder.

Parameter	Part	Value	Units	Minimum	Maximum	Description
Mass Scaling Factor		1.05		0.00	1.00	Parameter defines...
Switch Use Overall Transmission from CAN		enabled				Parameter for total...

Annotations in the image:

- A: Points to the 'Parameters' item in the left sidebar.
- B: Points to the 'All Parameters' tab in the top navigation bar.
- C: Points to the 'ABS02T - Antilock Braking System' folder in the parameter tree.
- D: Points to the 'Feature Application' folder in the parameter tree.

At the bottom of the screenshot, the date '08/21/2023' and the ID 'f121424' are visible.

Fig. 16, Verifying the Parameter Update

- Go to the 'Parameters' tab.
- Select 'All Parameters.'
- Expand the 'ABS02T - Antilock Braking System' information tab.
- Expand the 'Feature Application' folder.

