

October 2023
SF675 A-C
REVISED 11/14/2023

Subject: Western Star Snow Plow Light Harness

Models Affected: Specific model years 2022-2024 Western Star 47X and 49X vehicles, manufactured April 21, 2021, through October 18, 2023.

General Information

REVISION: Table 3, Step 22 (page 61) has been updated, along with the Notes throughout the substeps of Step 22.

Daimler Truck North America LLC (DTNA), on behalf of its wholly owned subsidiary, Western Star Truck Sales, Inc., is initiating Field Service Campaign SF675 to modify the vehicles mentioned above.

For certain vehicles, equipped with snow plows, the headlamps are inadvertently allowed to be active when the plow lights are active, resulting in the possibility of the headlamps reflecting off the rear of the plow, back towards the driver.

A new snow plow light harness and switch will be installed, and the lighting parameters will be updated to deactivate headlamps when the snow plow lights are activated.

There are approximately 914 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.

Please contact Warranty Campaigns for consideration of additional charges prior to performing the repair.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR261).

Replacement Parts

Replacement parts are now available and can be obtained by ordering the part numbers listed below from your facing Parts Distribution Center (PDC).

If our records show your dealership has ordered any vehicle(s) involved in campaign number SF675, a list of the customers and vehicle identification numbers will be available on the DTNA Portal via OWL. Please refer to this list when ordering parts for this campaign.

Table 1 - Replacement Parts for SF675

Campaign Number	Part Number	Part Description	Qty.
SF675 A-C	A66-07494-040	SW-MSF,HWD,PLOW LIGHT	1 ea
	TSU CT44FRT033	PLOW LIGHT DASH HARN (Fig. 1)	1 ea
	TSU CT44FRT034	PLOW INTERFACE GND CHAS HARN (Fig. 2)	1 ea
	TSU CT44FRT035	PLOW INTERFACE GND HOOD HARN (Fig. 3)	1 ea
	PAC 12110847 L	TERM,BLD,FEM,280 M/P	1 ea
	PAC 15324984 B	CABLE SE	1 ea
	23-12537-010	FUSE-MINI BLADE,10A,RED	1 ea (Use Dealer Stock)
	WAR261	BLANK COMPLETION STICKER	1 ea

Table 1

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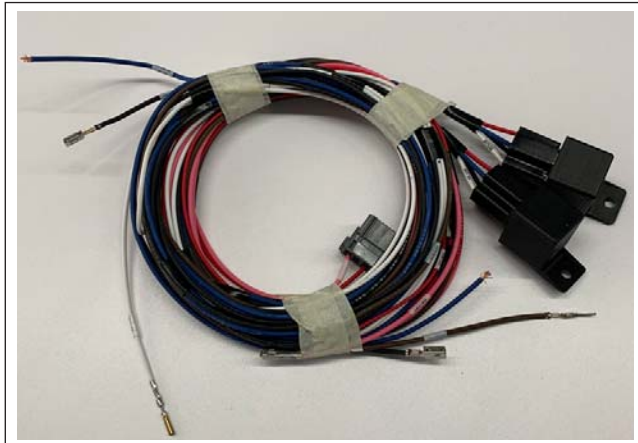


Fig. 1, Inside Cab Dash Harness (TSU CT44FRT033)



Fig. 2, Underhood Plow Harness (TSU CT44FRT034)



Fig. 3, Chassis Ground Harness (TSU CT44FRT035)

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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 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
SF675 A-C	Install Light Harness & Switch, Update Lighting Parameters	5.5	996-F169A	12-Repair Recall/Campaign

Table 2

IMPORTANT: When the campaign has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the gray completion sticker provided in the field service kit (Form WAR261). 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 field service kit is not required or there is no completion sticker in the kit, write the campaign 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 **Field Service Campaign**.
- In the Campaign field, enter the campaign number and appropriate condition code (**SF675-A, SF675-B, etc.**)
- In the Primary Failed Part field, enter **25-SF675-000**.
- In the Parts section, enter the appropriate part numbers as shown in the Replacement Parts Table.
- In the Labor section, 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**.
- This Field Service Campaign will **terminate on October 31, 2024**. Dealers will be notified of any changes to the termination date via an Important Campaign Information Letter (ICI) posted on the DTNA Portal.

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

All claims must be submitted within 30 days of the repair and within 30 days of the termination date of the campaign. U.S. and Canadian Dealers: All excess inventory to be returned to the PDC following the conclusion of the campaign must be returned in resaleable condition to the Memphis PDC within 90 days from the termination date. Please submit a PAR to request return to the Memphis PDC. (Canadian dealers should return the kits to their facing PDC.) Export Distributors: Excess inventory is not returnable.

For questions, U.S. and Canadian dealers, contact the Warranty Campaigns Department using the Warranty Support Center (WSC) app located on the DTNA Portal. Export distributors submit a WSC inquiry or contact your International Service Manager.

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Copy of Notice to Owners

Subject: Western Star Snow Plow Light Harness

Daimler Truck North America LLC (DTNA), on behalf of its wholly owned subsidiary, Western Star Truck Sales, Inc., is initiating Field Service Campaign SF675 to modify specific model years 2022-2024 Western Star 47X and 49X vehicles, manufactured April 21, 2021, through October 18, 2023.

For certain vehicles, equipped with snow plows, the headlamps are inadvertently allowed to be active when the plow lights are active, resulting in the possibility of the headlamps reflecting off the rear of the plow, back towards the driver.

A new snow plow light harness and switch will be installed, and the lighting parameters will be updated to deactivate headlamps when the snow plow lights are activated.

Please contact an authorized DTNA dealer to arrange to have the campaign performed and to ensure that parts are available at the dealership. The campaign will take approximately five and one half hours and will be performed **free of charge**. To locate an authorized dealer, search online at northamerica.daimlertruck.com/contact-us. Scroll down to "Locate a Dealer," and select the appropriate brand.

This Field Service Campaign will **terminate on October 31, 2024**. Please make sure the campaign is completed prior to this date. Work completed after this date will be done at the customer's expense.

As stated in the terms of your express limited warranty, DTNA will not pay for any damage caused by failure to properly maintain your vehicle. DTNA considers the work necessary under this campaign to be proper maintenance and will, therefore, not pay for any damage to your vehicle caused by your failure to have the repairs that are the subject of this campaign performed in a reasonable time.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7 a.m. to 4 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@DaimlerTruck.com, or the Customer Assistance Center at (800) 385-4357, if you have any questions or need additional information.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Work Instructions

Subject: Western Star Snow Plow Light Harness

Models Affected: Specific model years 2022-2024 Western Star 47X and 49X vehicles, manufactured April 21, 2021, through October 18, 2023.

Snow Plow Light Harness

REVISION: Table 3, Step 22 (page 61) has been updated, along with the Notes throughout the substeps of Step 22.

The instructions that follow involve installation of wiring harnesses in the dash and the engine compartment/hood. To aid in visualizing the repair, the schematics are shown below.

Figure 4 shows the schematic illustrating the snow plow light/headlight modification inside and outside the cab.

Figure 5 shows the schematic illustrating the side marker light ground modification under the hood.

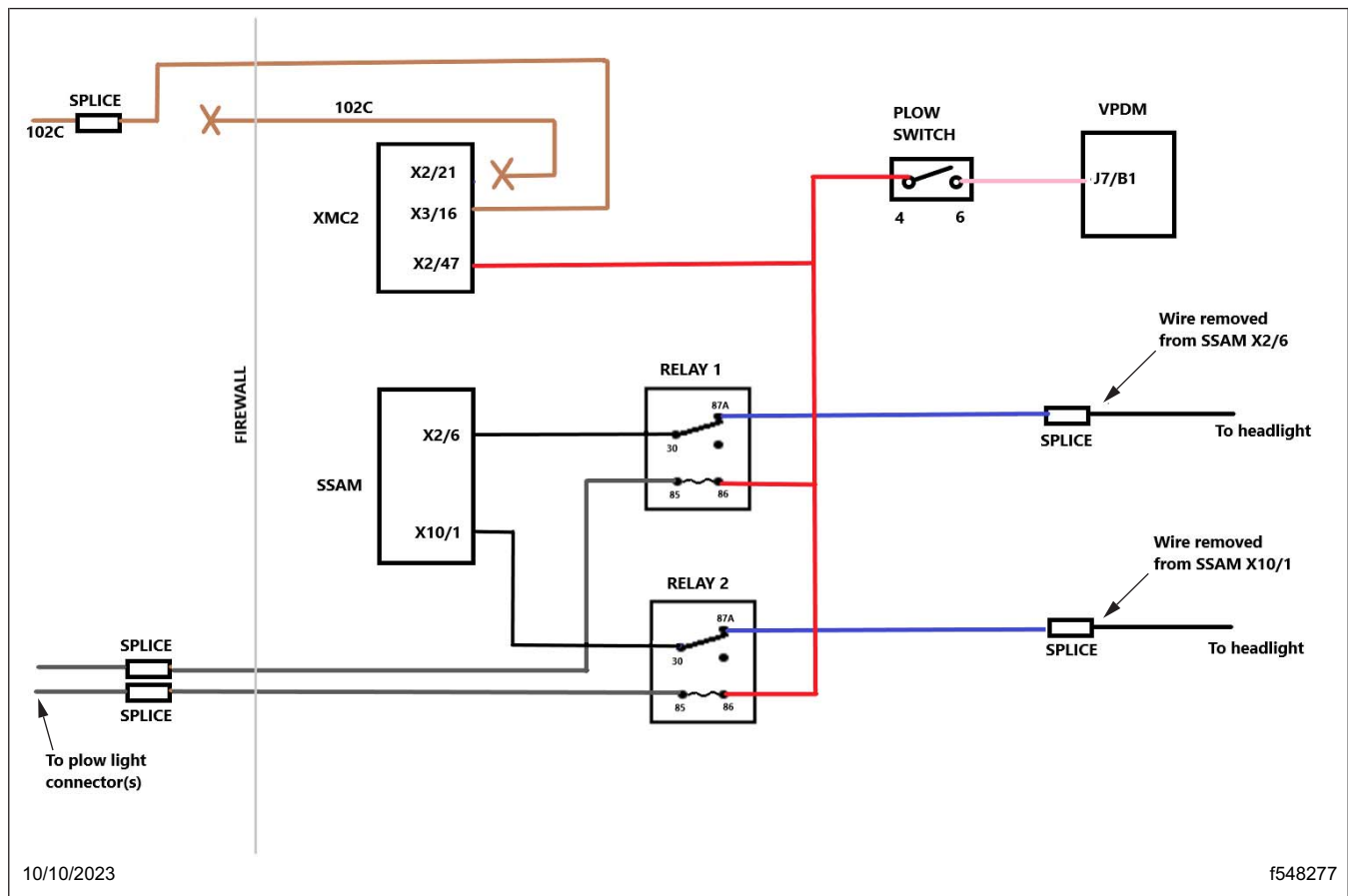
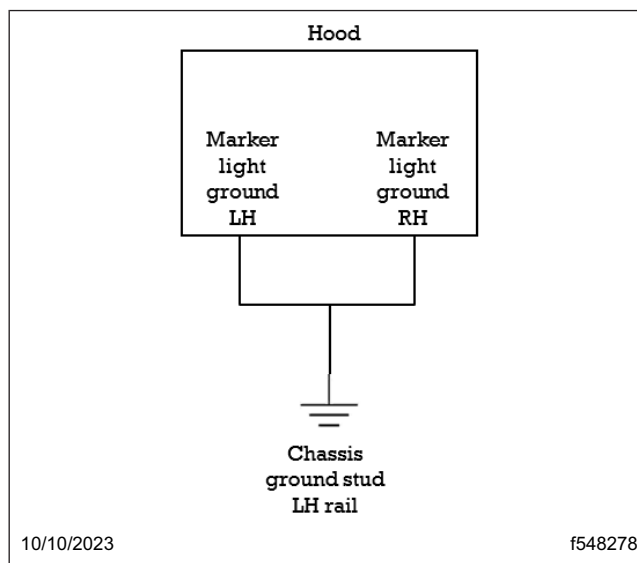


Fig. 4, Schematic - Snow Plow Light/Headlight Modification Inside and Outside of the Cab

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**Fig. 5, Schematic - Side Marker Light Ground
Modification Under the Hood**

1. Check the base label (Form WAR259) for a completion sticker for SF675 (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 a completion sticker is not present, proceed to the next step.
2. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
3. Disconnect the battery cables.
4. Follow the substeps to remove the lower dash covers. For more information, see **Section 60.06, Subject 100** of the *47X & 49X Workshop Manual*.

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- 4.1 Remove the three screws that attach the throttle cover to the dash. Pull the clip loose from the lower center dash cover. Remove the throttle cover. See [Fig. 6](#).

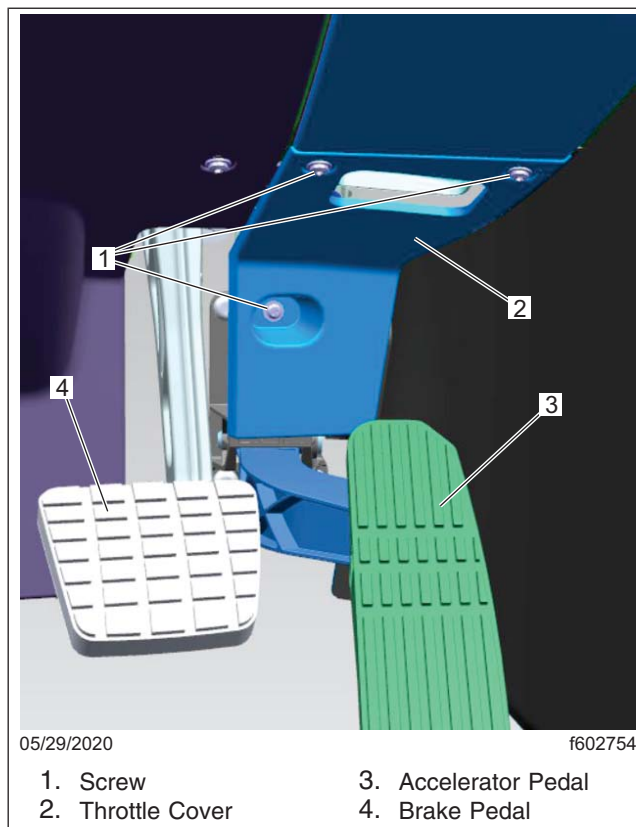


Fig. 6, Throttle Cover

- 4.2 Remove the two screws and flange nut from the left-hand side lower dash cover, then remove the cover. See [Fig. 7](#).

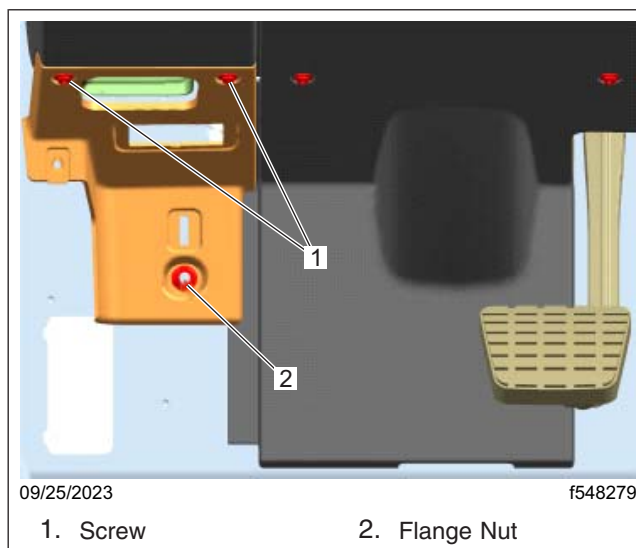


Fig. 7, Left-Hand Side Lower Dash Cover

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- 4.3 Remove the two screws from the steering column bolster panel, then remove the panel. See [Fig. 8](#).

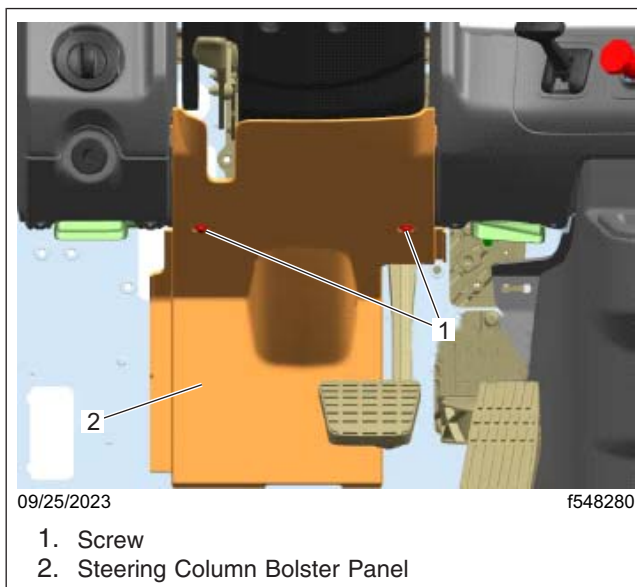


Fig. 8, Steering Column Bolster Panel

- 4.4 Pull the handhold at the lower left corner of the electrical bay cover, then pull the remaining clips loose from the dash. Remove the electrical bay cover. See [Fig. 9](#).

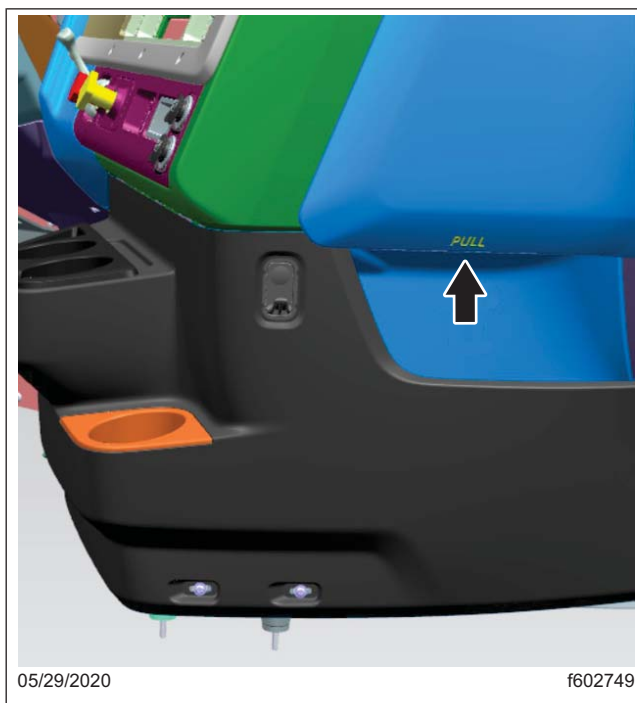


Fig. 9, Electrical Bay Cover Handhold

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- 4.5 Remove the seven screws that attach the right-hand lower dash cover to the dash and the electrical bay housing. Pull the clips loose. Remove the cover. See [Fig. 10](#).

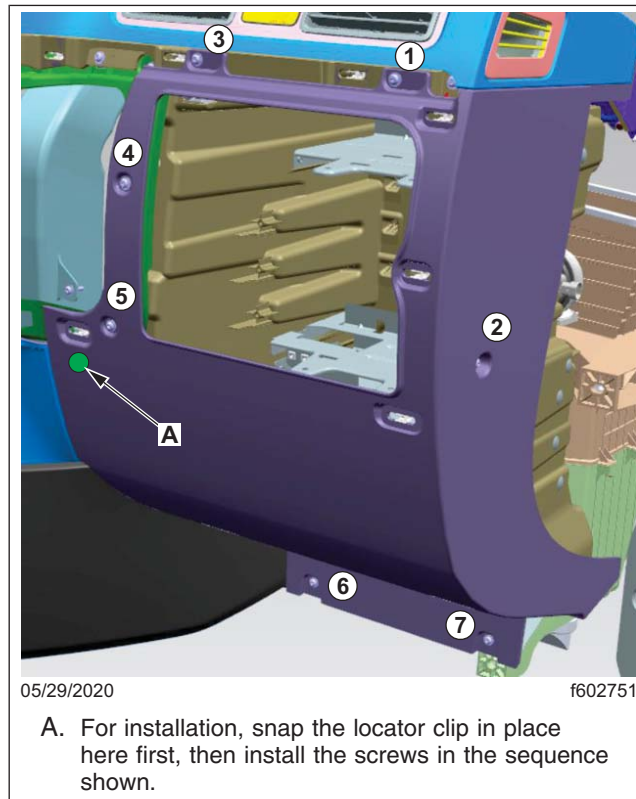


Fig. 10, Right-Hand Lower Dash Cover Removal

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- 4.6 Remove the four screws from the center dash cover, then pull the clip loose from the dash and the right-hand front wall bracket. Remove the center dash cover. See [Fig. 11](#).



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A. For installation, snap the locator clip in place here first, then install the screws in the sequence shown.

Fig. 11, Center Dash Cover Removal

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5. Remove the VPDM (Vehicle Power Distribution Module) mounting bolts, lift the VPDM from its mounting hooks, and lay it down on the floor to gain access to the electrical bay. See [Fig. 12](#) and [Fig. 13](#). For more information, see **Section 54.05, Subject 100** of the *47X & 49X Workshop Manual*.



Fig. 12, VPDM Lowered to the Floor

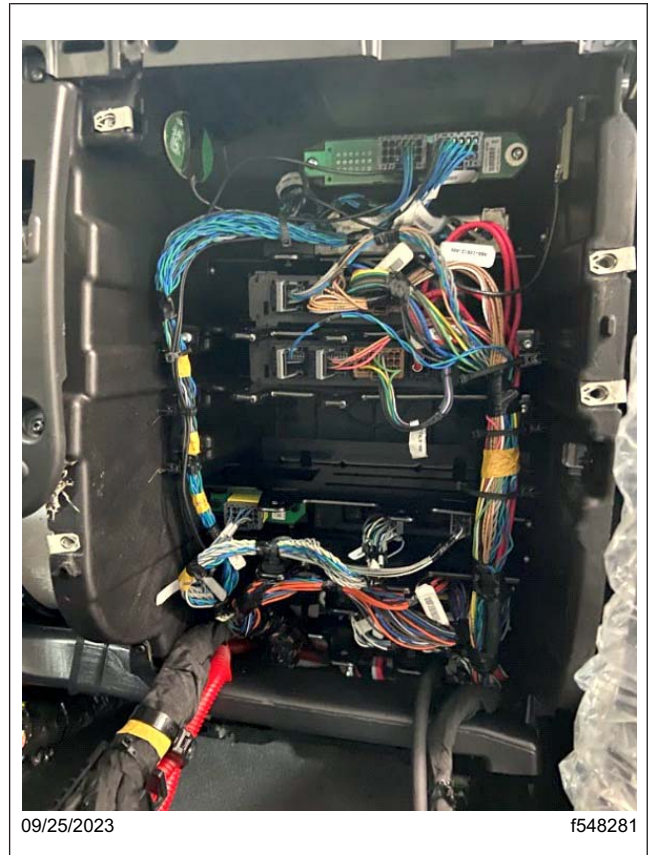


Fig. 13, Electrical Bay with the VPDM Lowered to the Floor

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6. Remove the three mounting bolts from the SSAM (Single Signal Activation Module) mounting bracket, and lower the SSAM to the floor. See [Fig. 14](#).



Fig. 14, SSAM Lowered to the Floor

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7. Find the end of the harness (TSU CT44FRT033) with the two blue and two black wires. Attach the first taped grouping of wires to the harness heading into the SSAM with a zip tie, as shown in [Fig. 15](#).

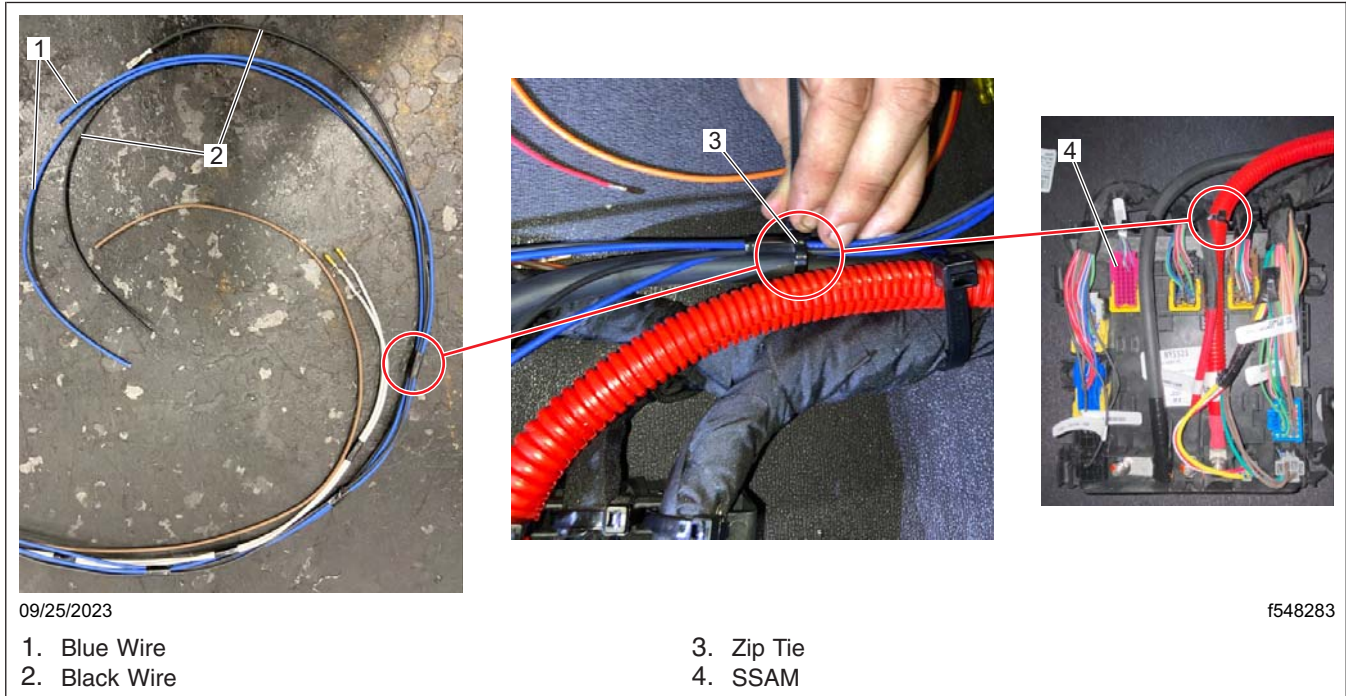


Fig. 15, Routing the Harness to the SSAM

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8. Route the longer blue and black wires to the SSAM X10 connector. Route the shorter blue and black wires to the SSAM X2 connector. **Figure 16** shows the location of the SSAM X10 and X2 connectors.

NOTE: It is critical that the two longer wires that originate at relay 2 get terminated at the SSAM X10 connector and the shorter wires that originate at relay 1 get terminated at the SSAM X2 connector.

9. Remove the wire from pin 1 of the SSAM X10 connector and replace it with the longer black wire. Splice the wire removed from pin 1 of the SSAM X10 connector to the longer blue wire.

- 9.1 Remove the X10 connector from the SSAM. See **Fig. 16**.

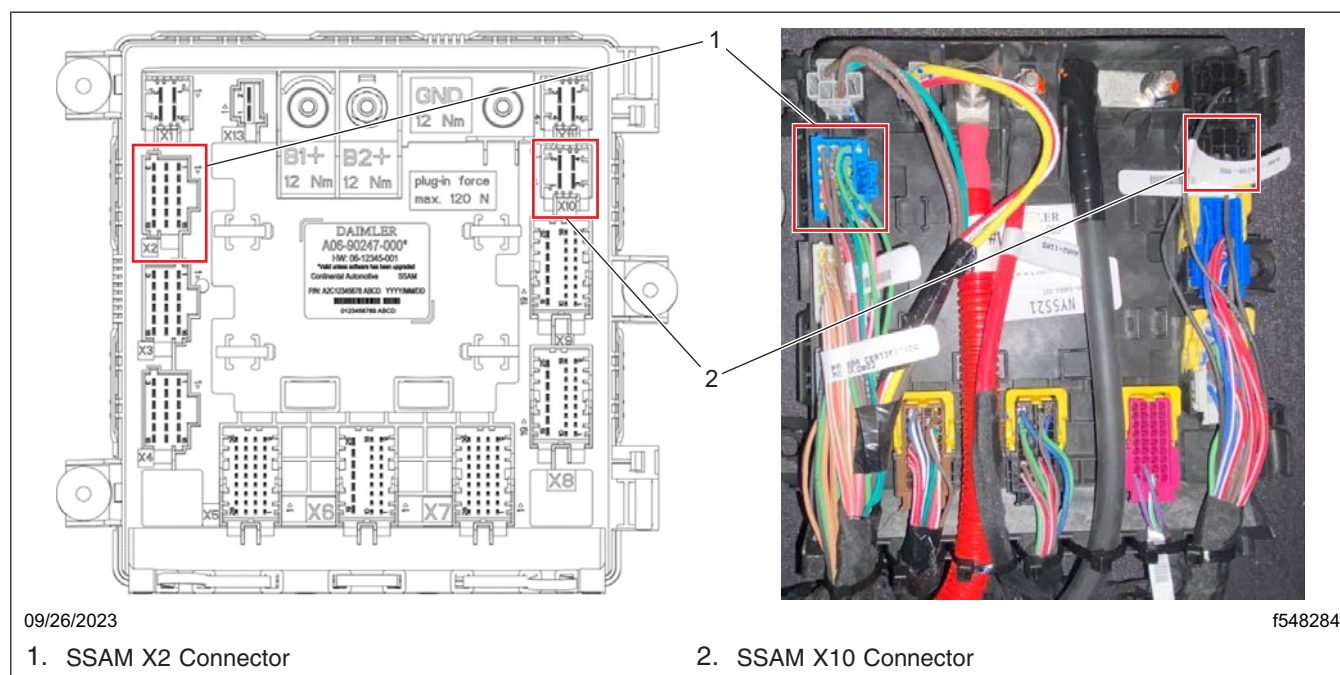


Fig. 16, Location of the SSAM X10 and X2 Connectors

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9.2 Locate pin 1 of the X10 connector. See [Fig. 17](#)

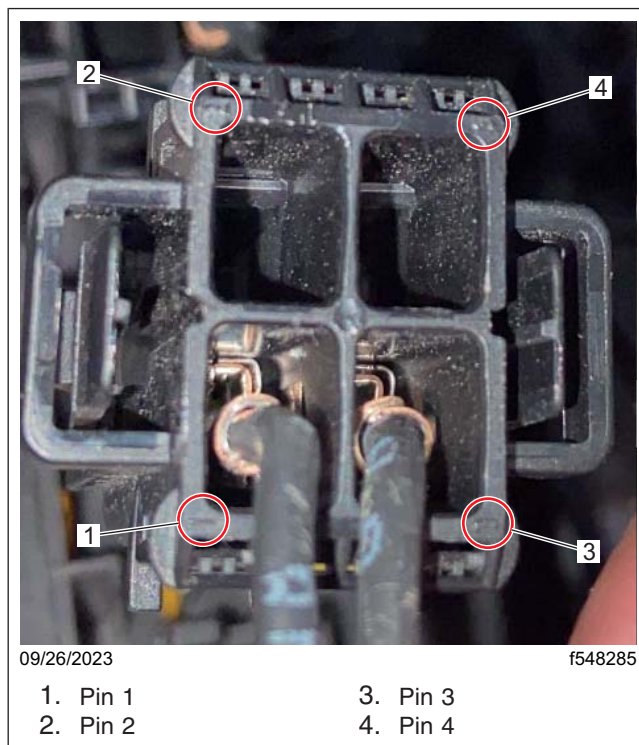


Fig. 17, SSAM X10 Connector Pin Locations

9.3 Gently pry the locking tab with a small flat screwdriver in the location, shown in [Fig. 18](#), to unlock the side of the connector that coincides with pin 1. [Figure 19](#) shows the tab in the unlocked position.

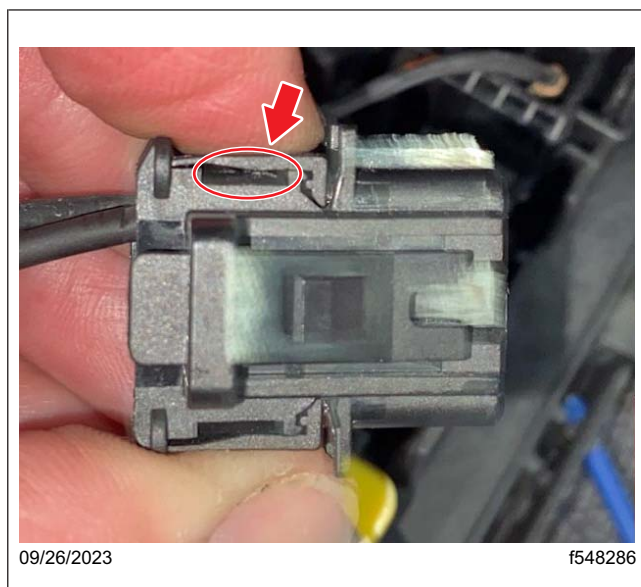


Fig. 18, SSAM X10 Connector Locking Tab

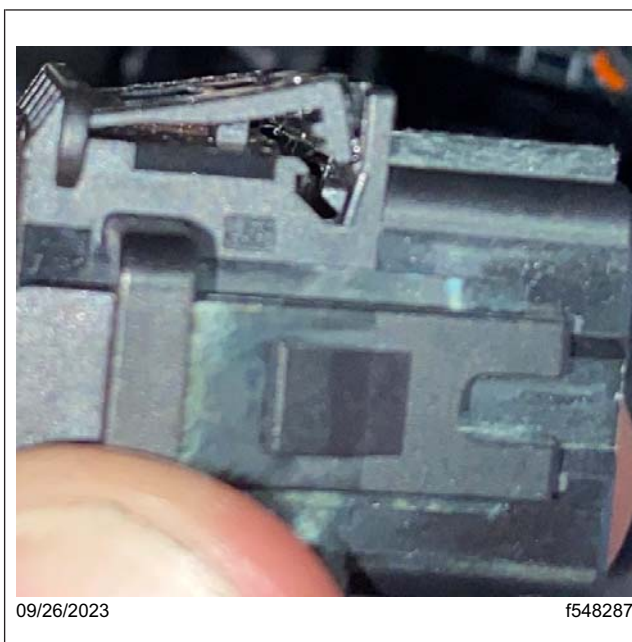


Fig. 19, SSAM X10 Connector Locking Tab in the Unlocked Position

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- 9.4 Use a two-prong pin removal tool to remove the wire from cavity 1 of the SSAM X10 connector.
See Fig. 20.

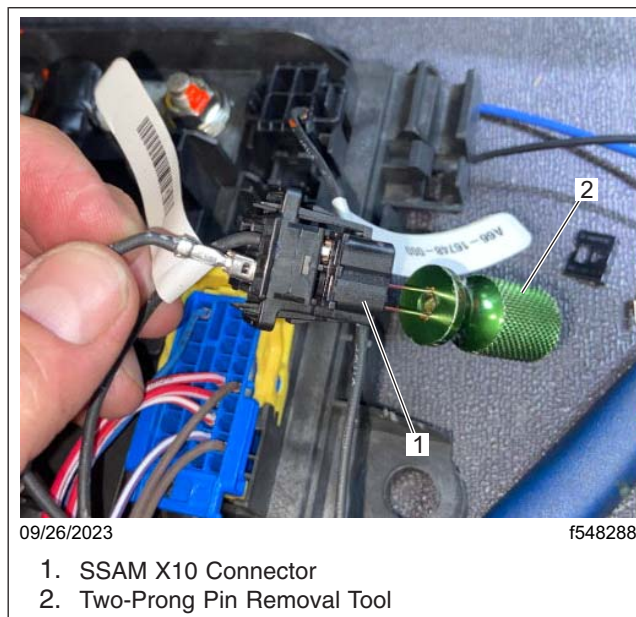


Fig. 20, Removing the Wire Using Two-Prong Pin Removal Tool

- 9.5 Insert the longer black wire that was routed to the X10 connector in step 8 into cavity 1 of the X10 connector. See **Fig. 21**.

NOTE: The longer black wire should already have a terminal attached. If not, crimp the terminal (23-13209-302) on to that wire prior to inserting it into cavity 1 of the SSAM X10 connector.

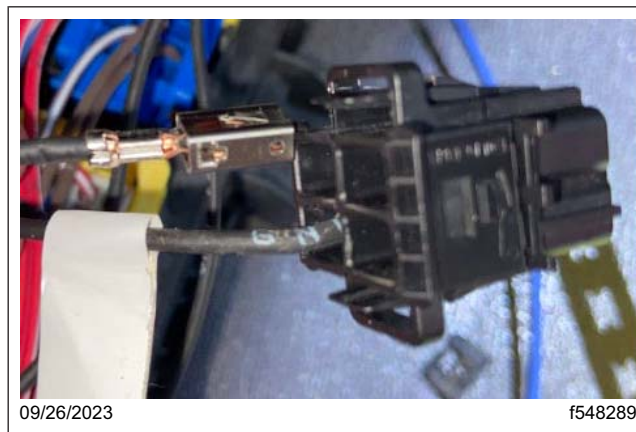


Fig. 21, Inserting the Longer Black Wire into Cavity 1 of the X10 Connector

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- 9.6 Lock the X10 connector. See [Fig. 22](#).

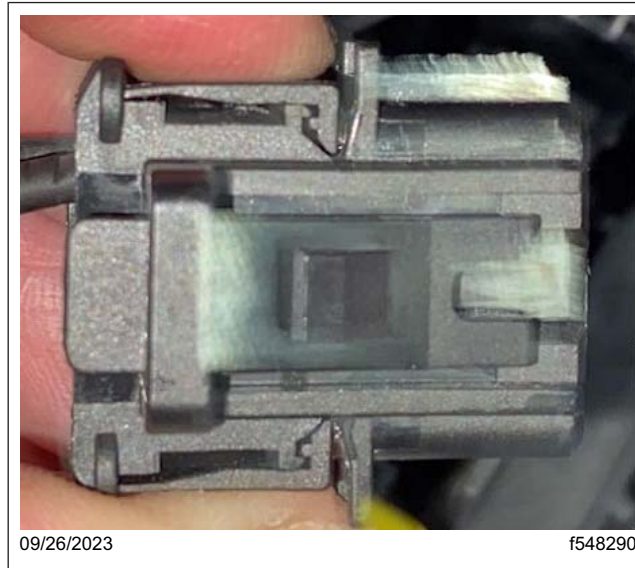


Fig. 22, SSAM X10 Connector Locked

- 9.7 On the wire that was removed from cavity 1 of the SSAM X10 connector in substep 9.4, cut the terminal off and strip the wire. See [Fig. 23](#).



Fig. 23, Cutting off the Terminal

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- 9.8 Splice the wire removed from cavity 1 of the SSAM X10 connector to the longer blue wire that was routed to the X10 connector in step 8. See [Fig. 24](#).

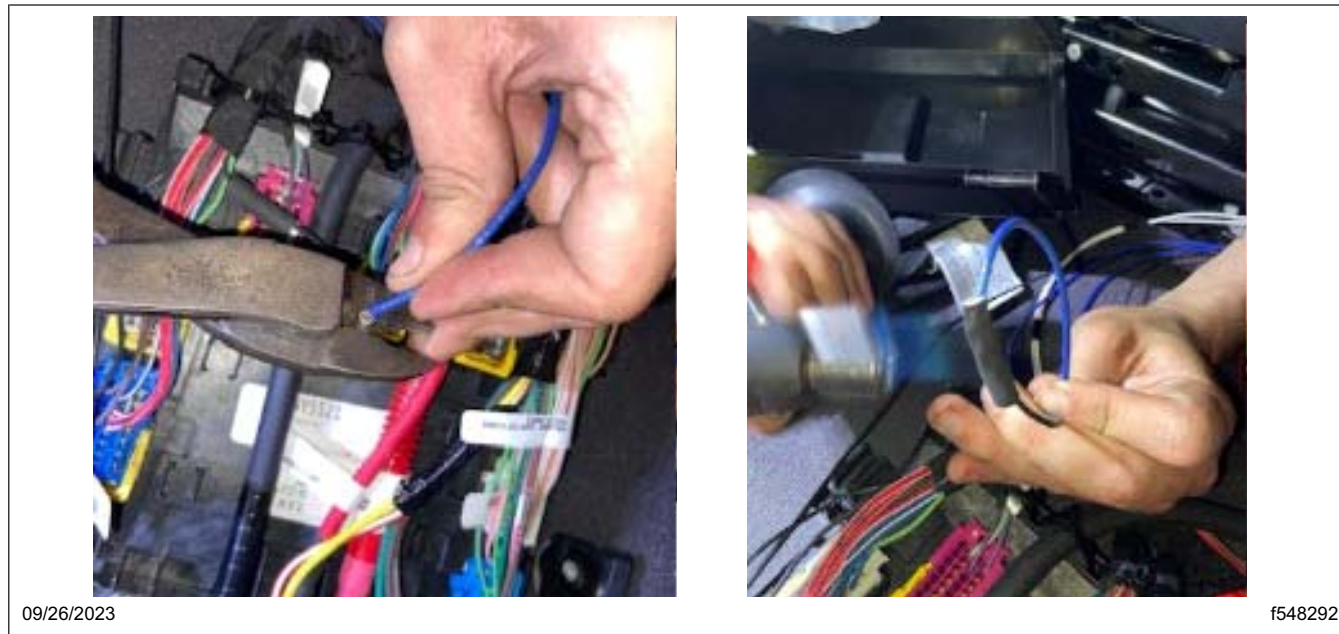


Fig. 24, Splicing the Wire

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.

- 9.9 Plug the X10 connector back in the SSAM. See [Fig. 25](#).



Fig. 25, X10 Connector Plugged into the SSAM

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10. Remove the wire from pin 6 of the SSAM X2 connector, and replace it with the shorter black wire. Splice the wire removed from pin 6 of the SSAM X2 connector to the shorter blue wire.
- 10.1 Remove the X2 connector from the SSAM. See [Fig. 16](#).
- 10.2 Gently pry up on the yellow locking tab of the X2 connector as shown in [Fig. 26](#). Note that the lock does not come all the way out.

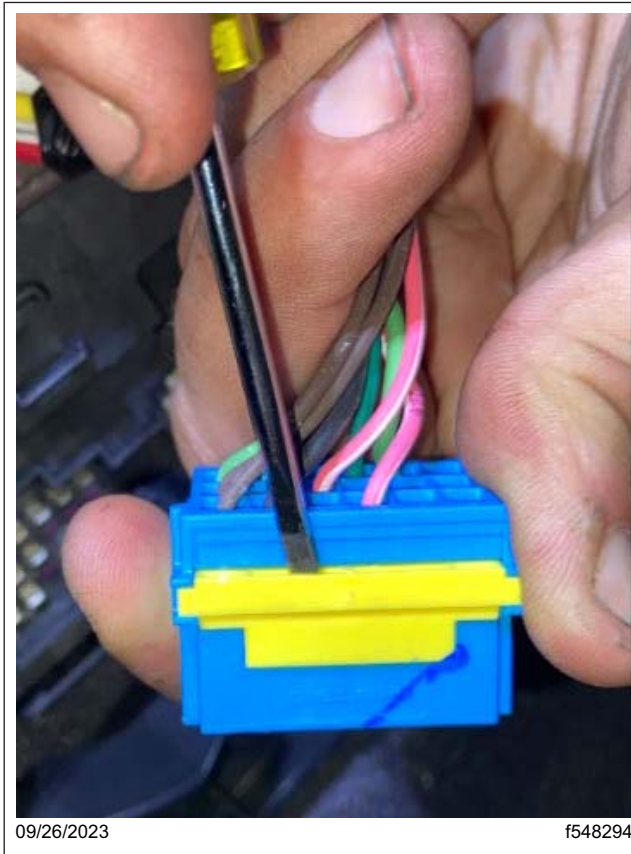


Fig. 26, Releasing the Lock on the SSAM X2 Connector

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- 10.3 Use a two-prong pin removal tool to remove the wire from cavity 6 of the SSAM X2 connector.
See Fig. 27 and Fig. 28.

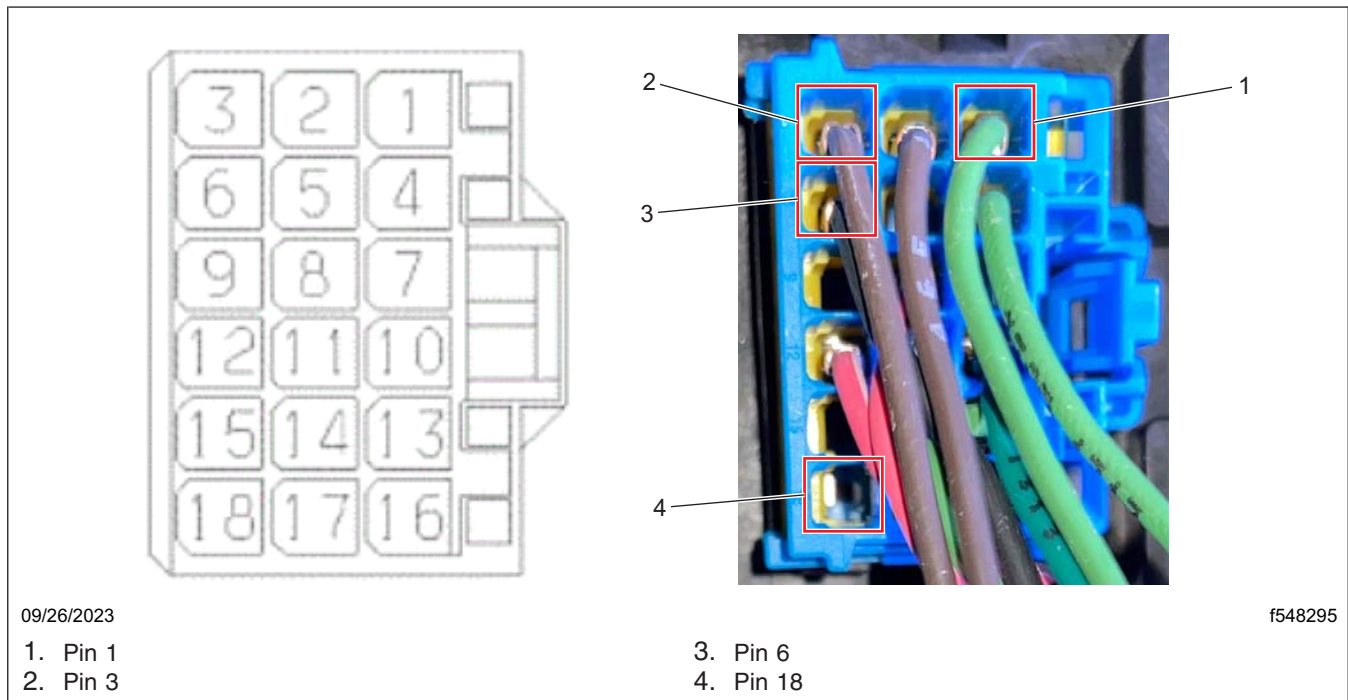


Fig. 27, SSAM X2 Connector Pin Locations

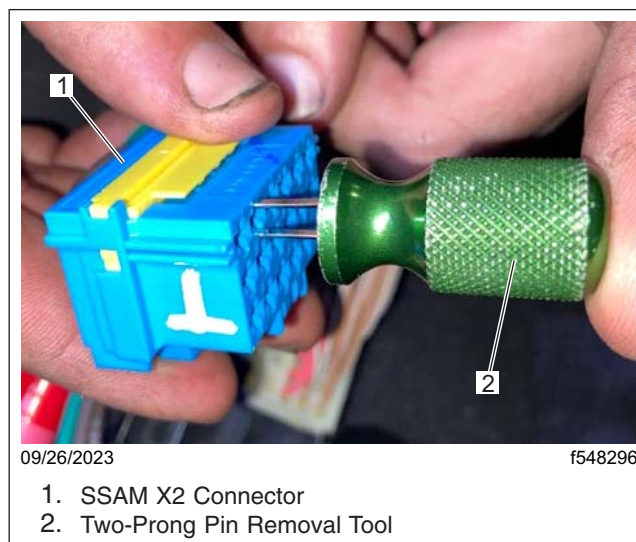


Fig. 28, Removing the Wire Using Two-Prong Pin Removal Tool

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- 10.4 Insert the shorter black wire, previously routed to the SSAM X2 connector in step 8, into cavity 6 of the SSAM X2 connector. See [Fig. 29](#).

NOTE: The shorter black wire should already have a terminal attached. If not, crimp the terminal (23-13209-730) on to that wire prior to inserting it into cavity 6 of the SSAM X2 connector.

- 10.5 Squeeze the yellow locking tab back into the connector to lock it. See [Fig. 30](#).

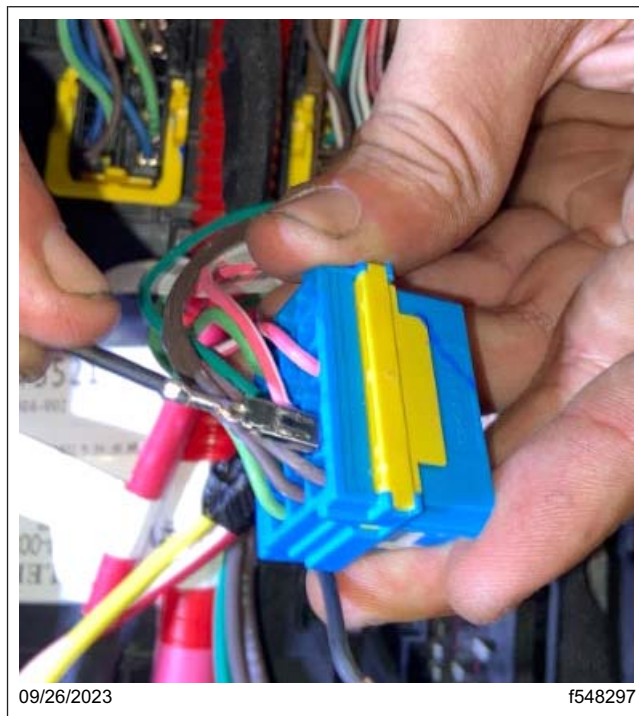


Fig. 29, Inserting the Shorter Black Wire into Cavity 6 of the X2 Connector

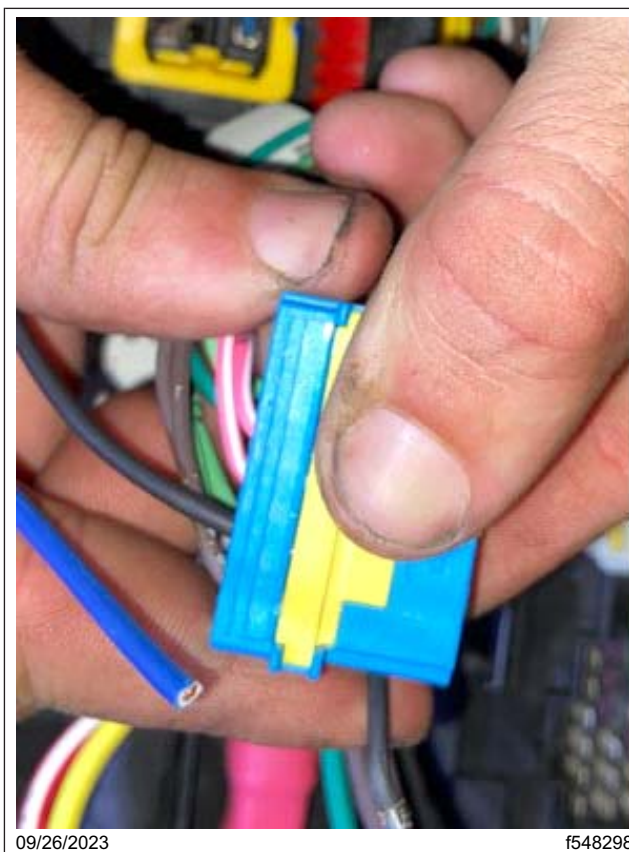


Fig. 30, Engaging the Lock on the SSAM X2 Connector

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- 10.6 Plug the X2 connector back into the SSAM. See [Fig. 31](#).



Fig. 31, X2 Connector Plugged into the SSAM

- 10.7 On the wire that was removed from cavity 6 of the SSAM X2 connector in substep 10.3, cut the terminal off and strip the wire. See [Fig. 32](#).



Fig. 32, Wire Removed from Cavity 6 of the SSAM X2 Connector and the Shorter Blue Wire, to be Spliced Together

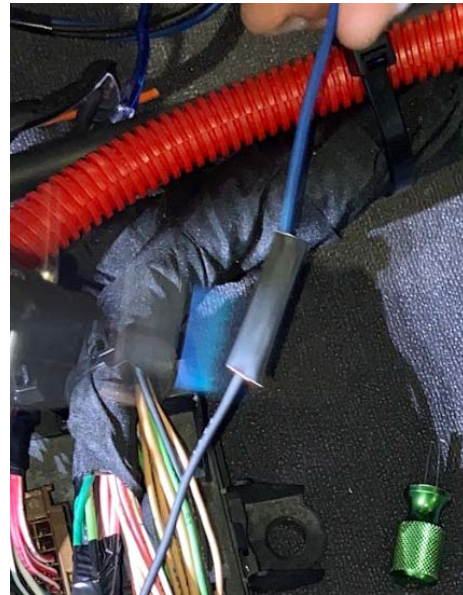
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- 10.8 Splice the wire removed from cavity 6 of the SSAM X2 connector to the shorter blue wire that was routed to the X2 connector in step 8. See [Fig. 33](#).

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.



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Fig. 33, Splicing the Wire

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11. Follow Daimler routing and clipping standards to secure the wires routed to the SSAM, as shown in [Fig. 34](#). Install the SSAM on its bracket.

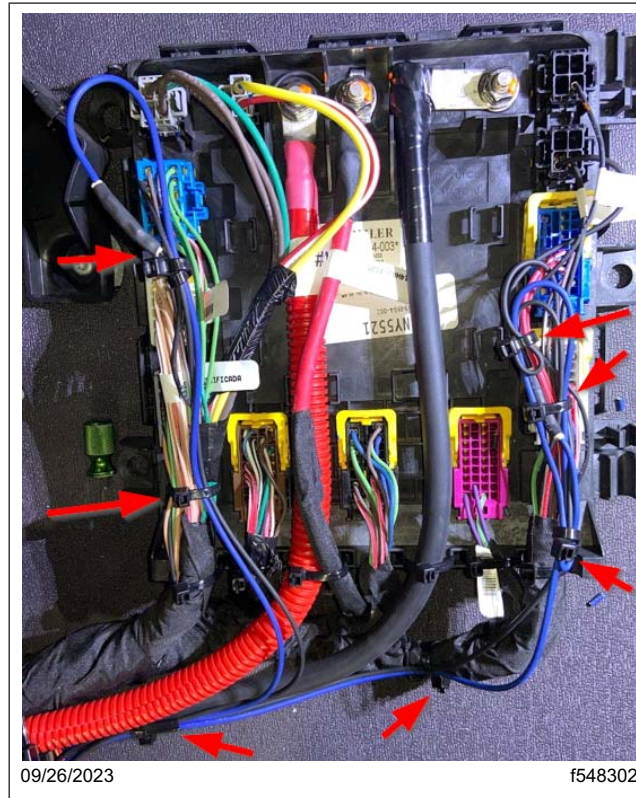


Fig. 34, Securing the Wires Routed to the SSAM

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12. Follow the substeps to route the harness from the SSAM to the VPDM.
 - 12.1 Route the relays and harness behind the SSAM mount, towards the main wiring harness.
[See Fig. 35.](#)

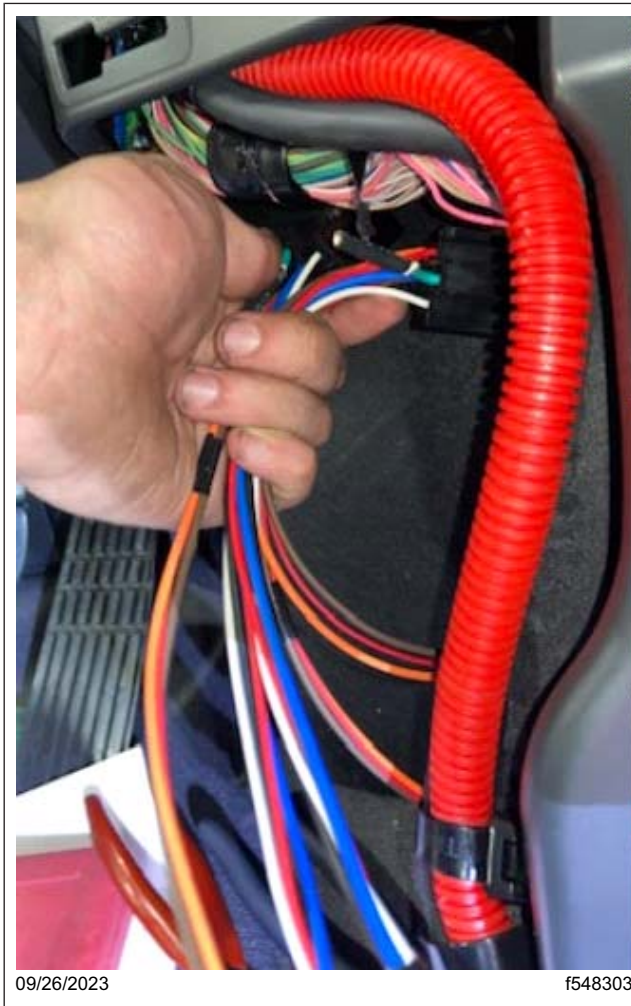


Fig. 35, Routing the Harness Behind the SSAM Mount

- 12.2 Follow the main harness with the relays and the orange (or pink), red, and brown wires from the harness towards the passenger side.

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12.3 Leave the relays on the passenger side of the lower-center dash cover for later tie off and continue routing the orange (or pink), red, and brown wires towards the VPDM. See [Fig. 36](#).

12.4 Remove the auxiliary dash B-panel. See [Fig. 37](#).

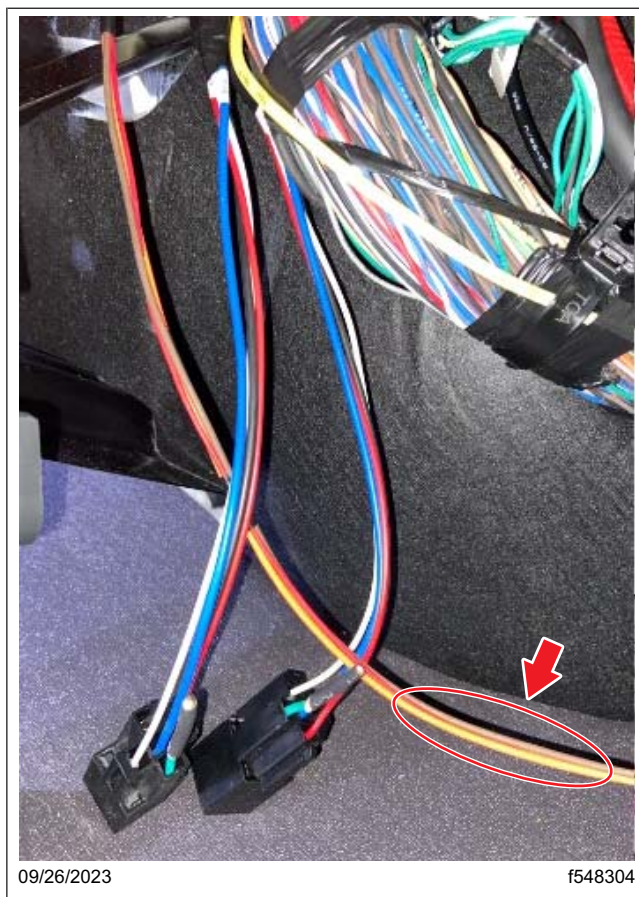


Fig. 36, Routing the Wires

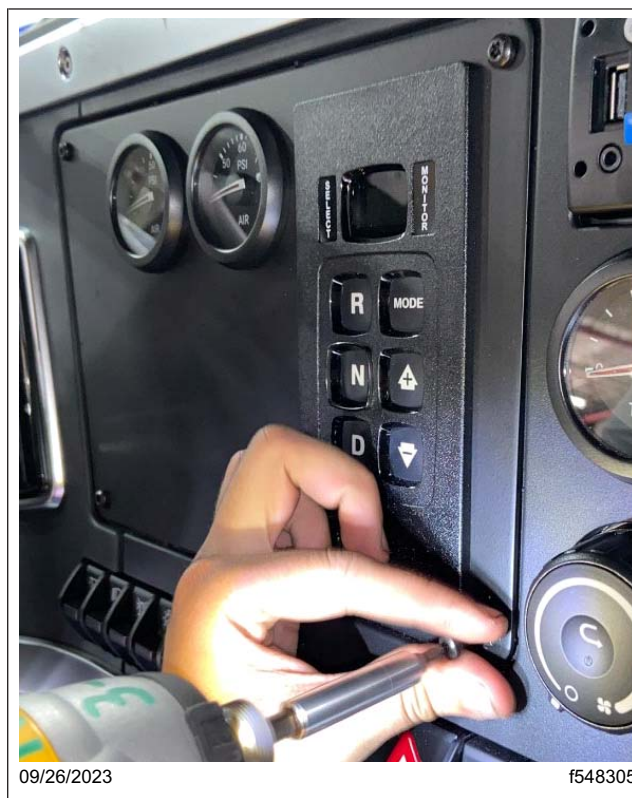


Fig. 37, Auxiliary Dash B-Panel Removal

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- 12.5 Temporarily route the remaining wires from the harness through the auxiliary dash panel opening. There should be two white wires, one brown wire, and two wires with a connector at the end.
[See Fig. 38.](#)

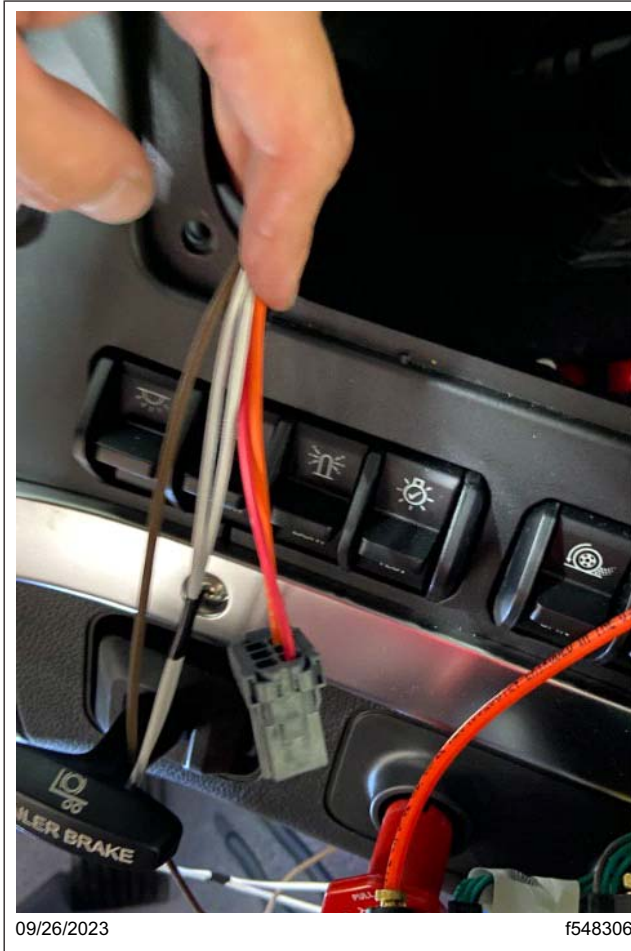


Fig. 38, Routing the Remaining Wires Through the Auxiliary Dash Panel Opening

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- 12.6 On the passenger side, continue routing the three wires—orange (or pink), red, and brown—towards the VPDM. See [Fig. 39](#).

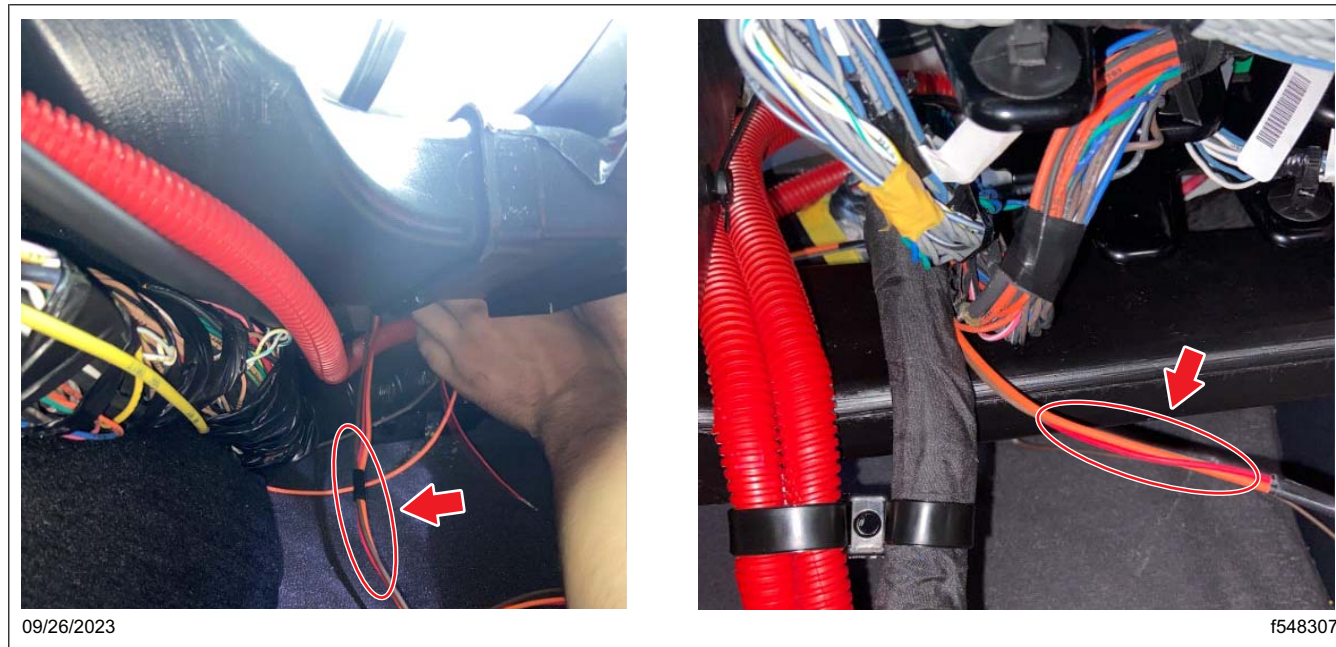


Fig. 39, Routing the Wires Towards the VPDM

- 12.7 Split the red and the brown wires off towards the XMC2. Route the orange (or pink) wire to the VPDM. See [Fig. 40](#).

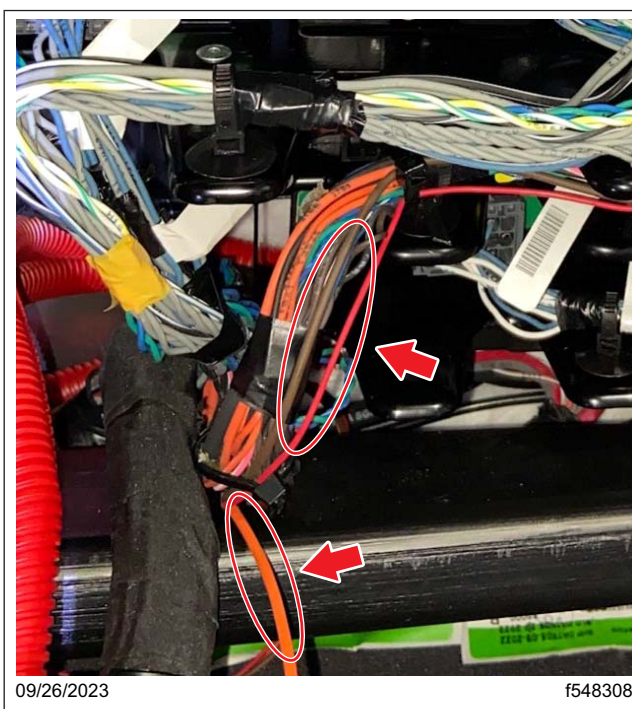


Fig. 40, Routing the Red, Brown, and Orange (or pink) Wires

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13. Follow the substeps to install the wiring connections at the XMC2.

13.1 Identify which of the XMCs is XMC2. See [Fig. 41](#).

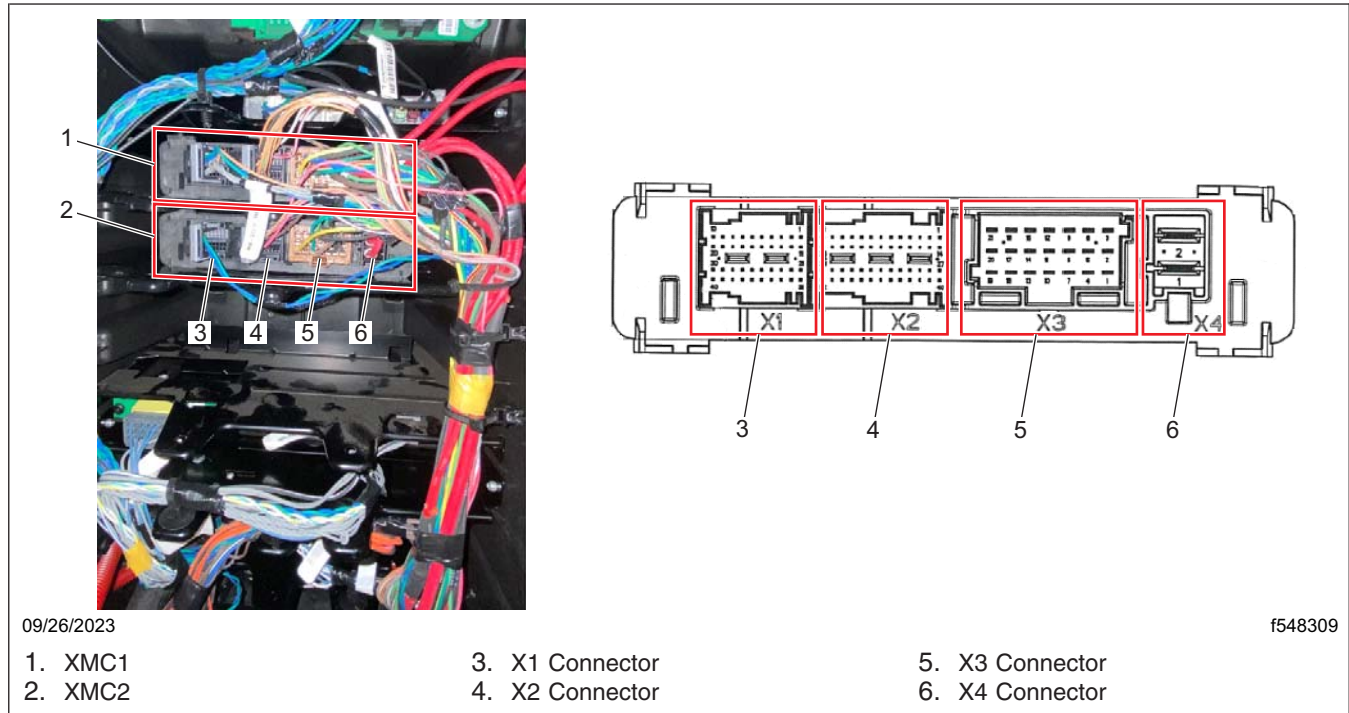


Fig. 41, XMC Location and Connector Identification

NOTE: Although the XMCs are not labeled, the normal configuration is XMC1 on top and XMC2 directly below it. However, sometimes they can be switched around. In order to identify, disconnect one of the XMCs and use DiagnosticLink to see which XMC still connects. It will be necessary to temporarily reconnect the batteries and then disconnect them again when done verifying which XMC is XMC2 using DiagnosticLink.

13.2 Use a small flat screwdriver to gently push the lock in so the latch can rotate, and disconnect the X1 connector from XMC2. Rotate the latch all the way to the left-hand side and gently pull the X1 connector out. See [Fig. 42](#) and [Fig. 43](#).



Fig. 42, XMC2 X1 Connector Latched

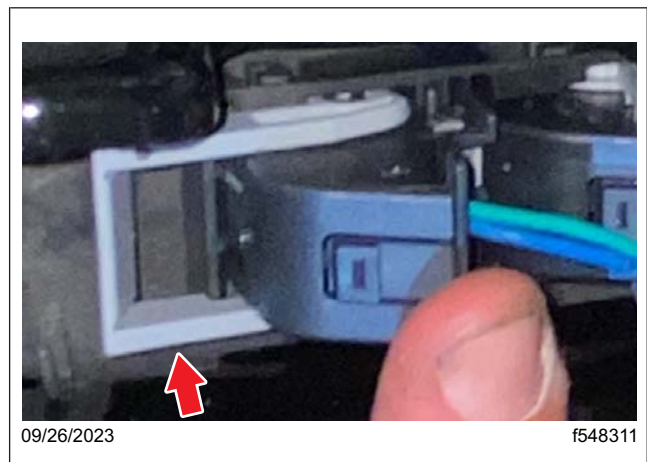


Fig. 43, XMC2 X1 Connector Fully Unlatched

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NOTE: In order to access the X2 connector, X1 connector has to be removed.

- 13.3 Disconnect the X2 connector from XMC2 using the same procedure used to remove the X1 connector. See [Fig. 44](#) and [Fig. 45](#).



Fig. 44, XMC2 X1 Connector Latched

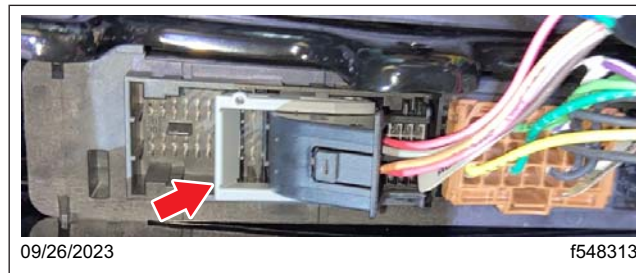


Fig. 45, XMC2 X2 Connector Fully Unlatched

- 13.4 Remove the X3 connector from XMC2 by squeezing the locking tab upwards while pulling the connector from the XMC. See [Fig. 41](#) and [Fig. 46](#).



Fig. 46, XMC2 X3 Connector Removal

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- 13.5 Use a small flat screwdriver to gently pry up the top of the X3 connector, and unlock the connector, as shown in [Fig. 47](#).

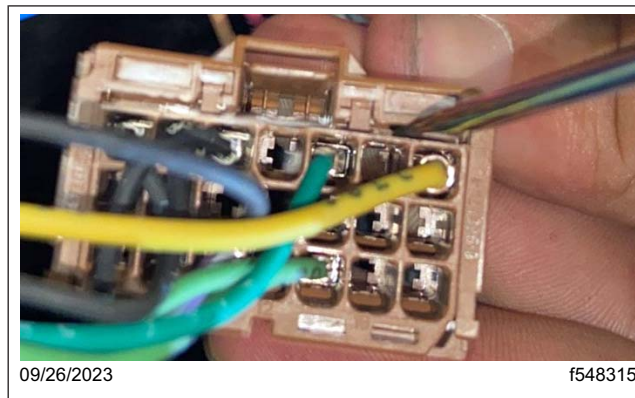


Fig. 47, Unlocking the XMC2 X3 Connector

- 13.6 Insert the brown wire from the harness into the cavity 16 of X3 connector. See [Fig. 48](#).

NOTE: If connecting to the correct XMC (XMC2), then cavity 16 of connector X3 will be empty.

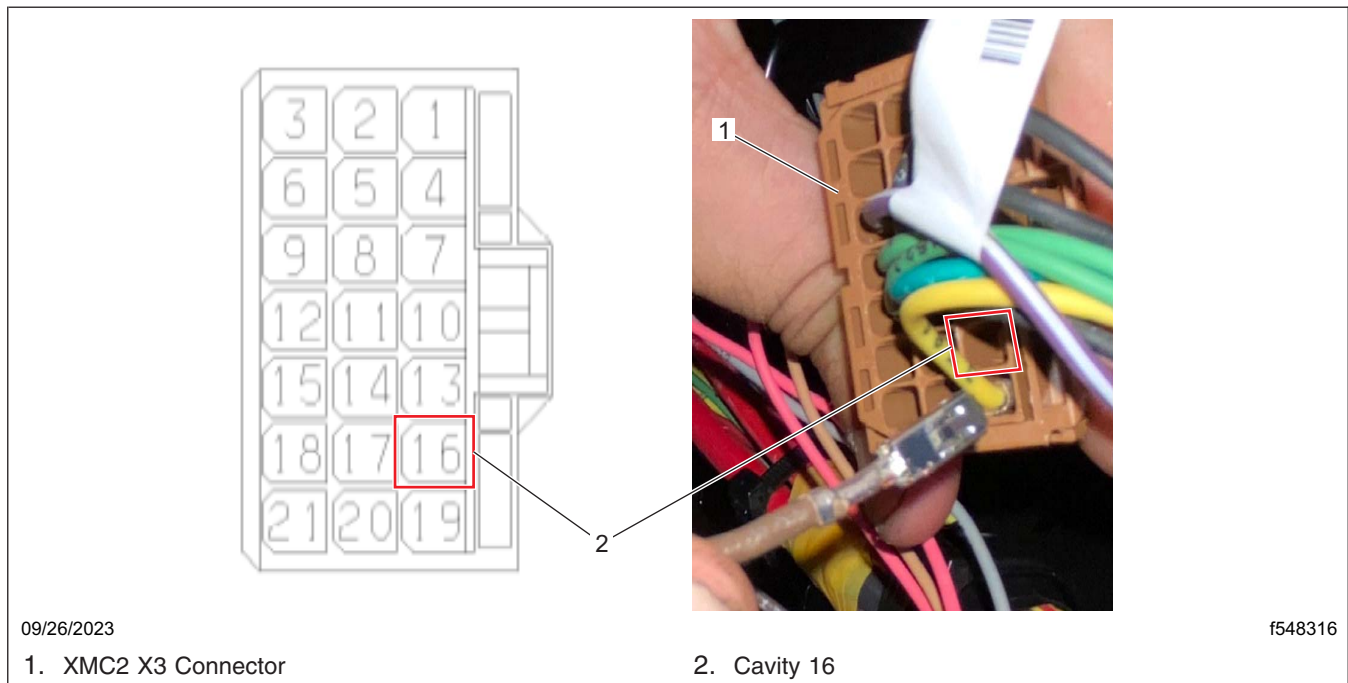


Fig. 48, Inserting the Brown Wire into Cavity 16

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- 13.7 Squeeze the top and bottom of the XMC2 X3 connector to lock it. Reconnect the X3 connector to XMC2. See [Fig. 49](#).

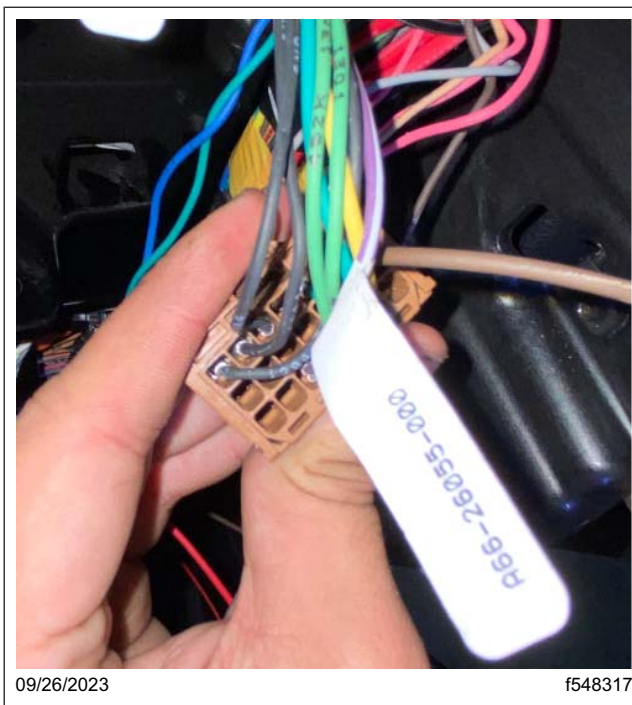


Fig. 49, Engaging the Lock on the XMC2 X3 Connector

- 13.8 Orient the XMC2 X2 connector as shown in [Fig. 50](#). The modular X2 connector has two terminal banks, one gray (pins 1–26) and one black (pins 27–52). Note the locking tab location for the gray terminal bank (pins 1–26). The gray terminal bank has to be removed for the steps that follow.

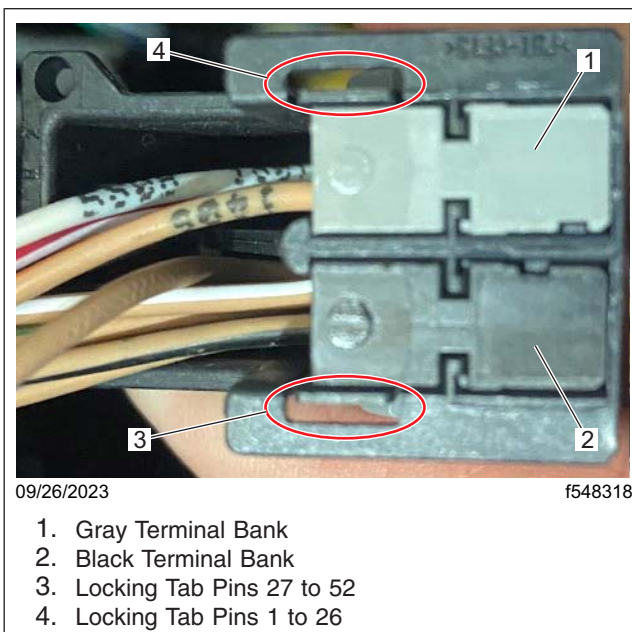


Fig. 50, XMC2 X2 Connector Terminal Bank and Locking Tab Location

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- 13.9 Insert a small flat screwdriver in between the locking tab for the gray terminal bank and gently pry up on the gray terminal bank until it clears the locking tab. See [Fig. 51](#) and [Fig. 52](#).

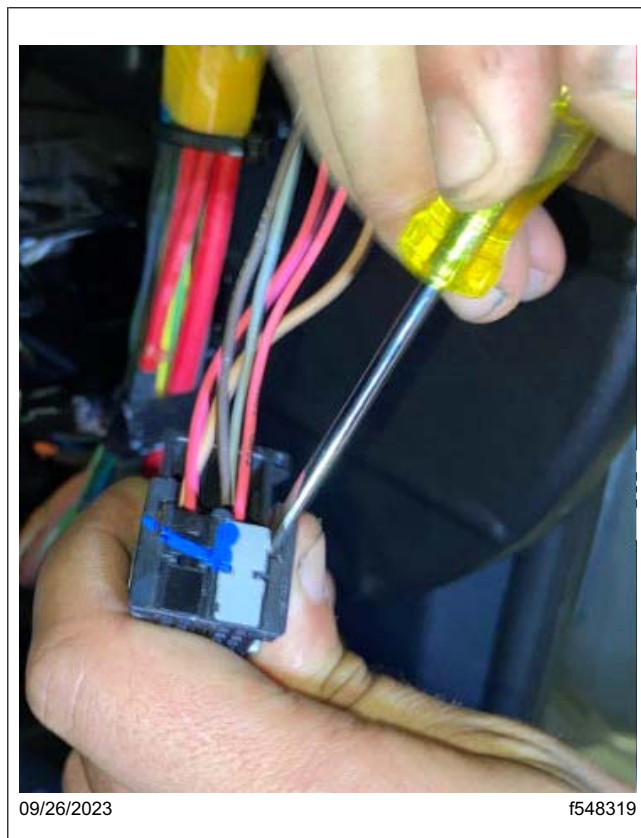


Fig. 51, Releasing the Gray Terminal Bank

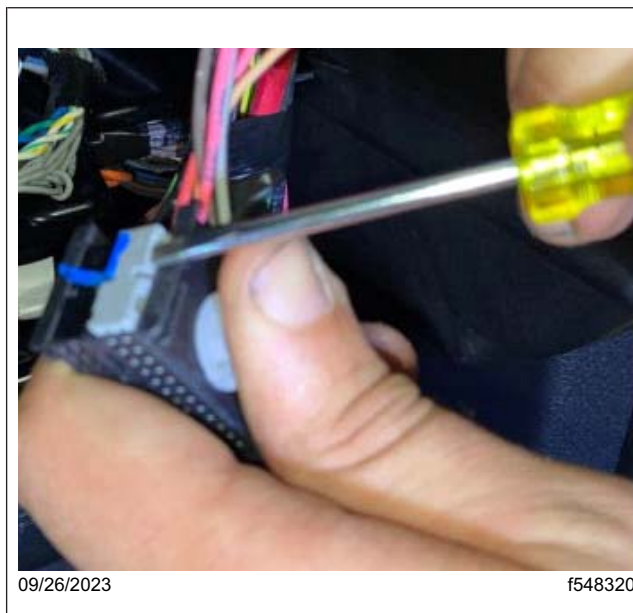


Fig. 52, Prying Up the Gray Terminal Bank

- 13.10 Once the gray terminal bank has cleared the locking tab, use the screwdriver on the opposite end and push the rest of the way out of the X2 connector. See [Fig. 53](#).

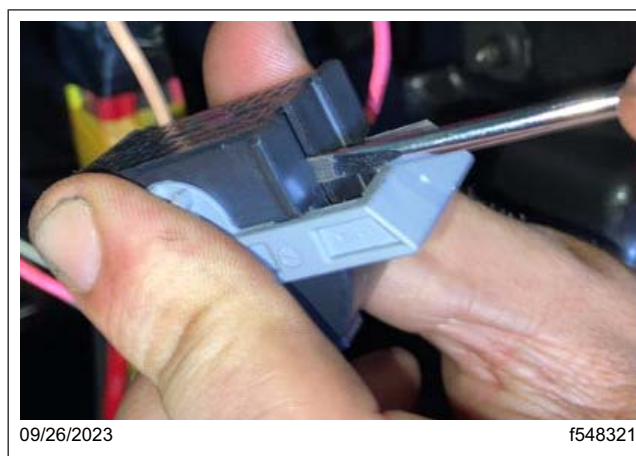


Fig. 53, Pushing Out the Gray Terminal Bank

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- 13.11 Locate the brown wire in cavity 21 of the gray terminal bank. Remove this brown wire by gently pushing down on the locking tab with a terminal pin tool and pulling the wire out of the gray terminal bank. See [Fig. 54](#) and [Fig. 55](#).

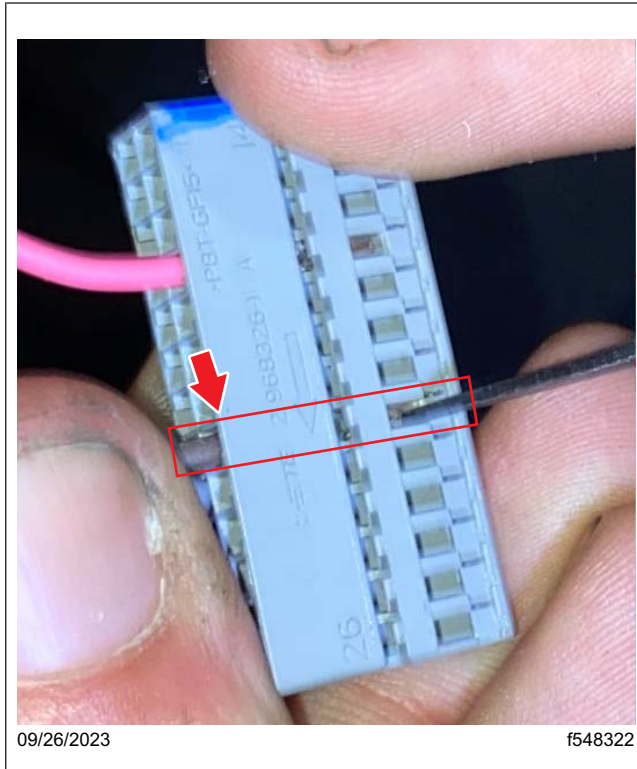


Fig. 54, Releasing the Locking Tab for the Brown Wire in Cavity 21

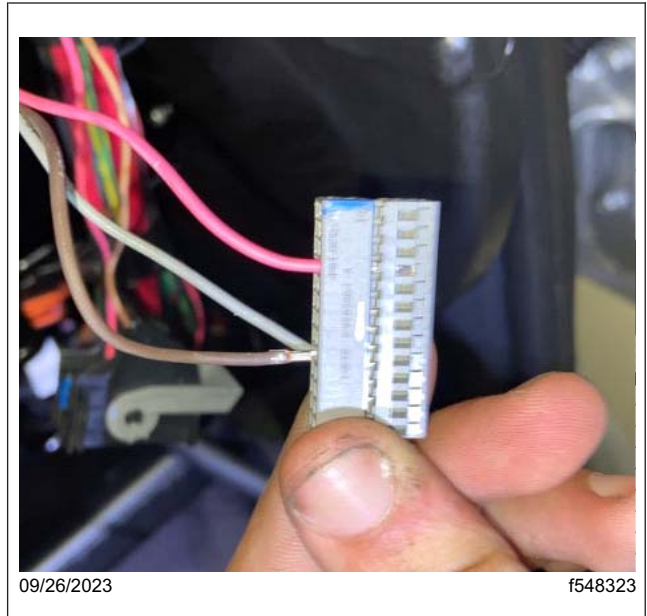


Fig. 55, Removing the Brown Wire from Cavity 21

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13.12 Insert the gray terminal bank back into the XMC2 X2 connector, as shown in [Fig. 56](#).

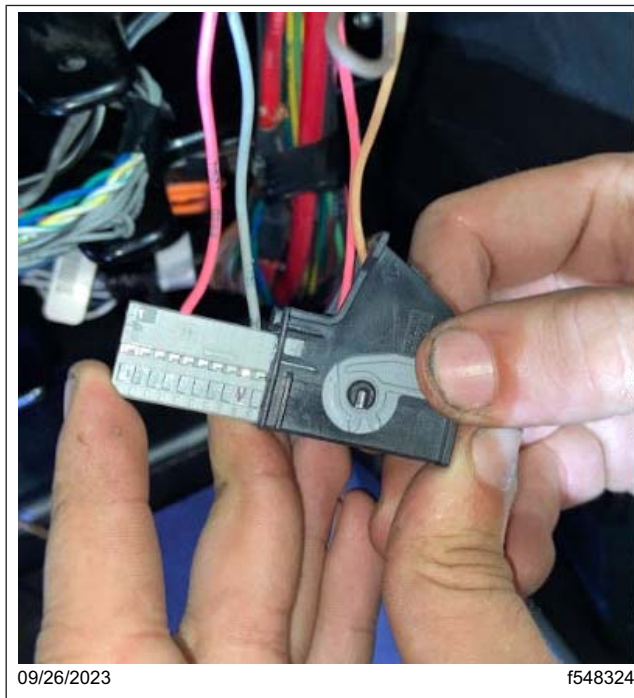


Fig. 56, Inserting the Gray Terminal Bank into the XMC2 X2 Connector

13.13 Fold and tape the brown wire removed in substep 13.11, as shown in [Fig. 57](#) and [Fig. 58](#). This brown wire will no longer be used.



Fig. 57, Folding the Brown Wire



Fig. 58, Taping Up the Brown Wire

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13.14 Remove the black terminal bank (pins 27–52) from the XMC2 X2 connector by following the same procedures outlined in substep 13.9. See [Fig. 59](#) and [Fig. 60](#).

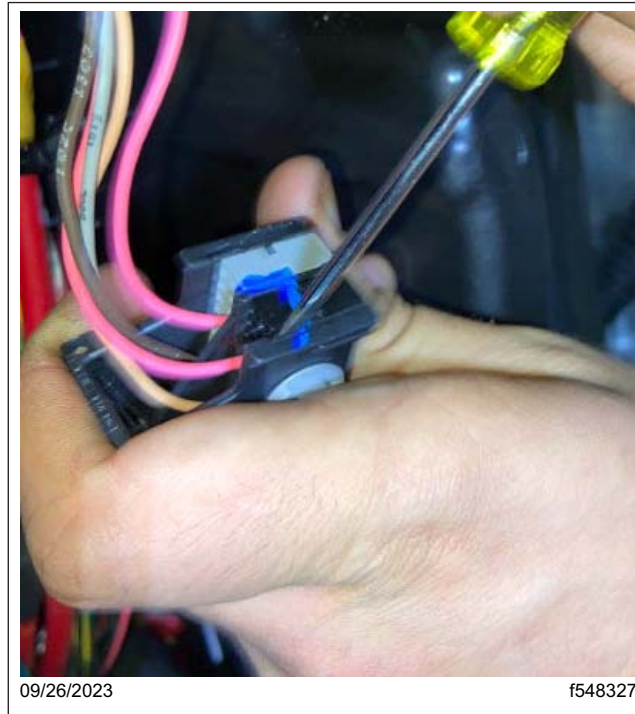


Fig. 59, Releasing the Black Terminal Bank

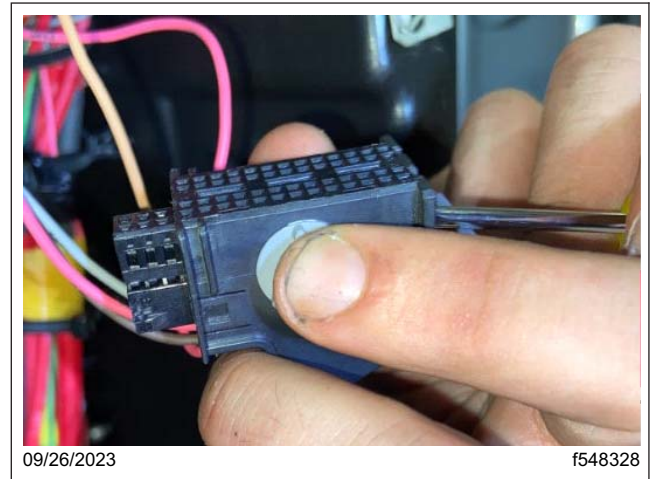


Fig. 60, Pushing Out the Black Terminal Bank

13.15 Insert the red wire from the harness into cavity 47 of the black terminal bank. See [Fig. 61](#).

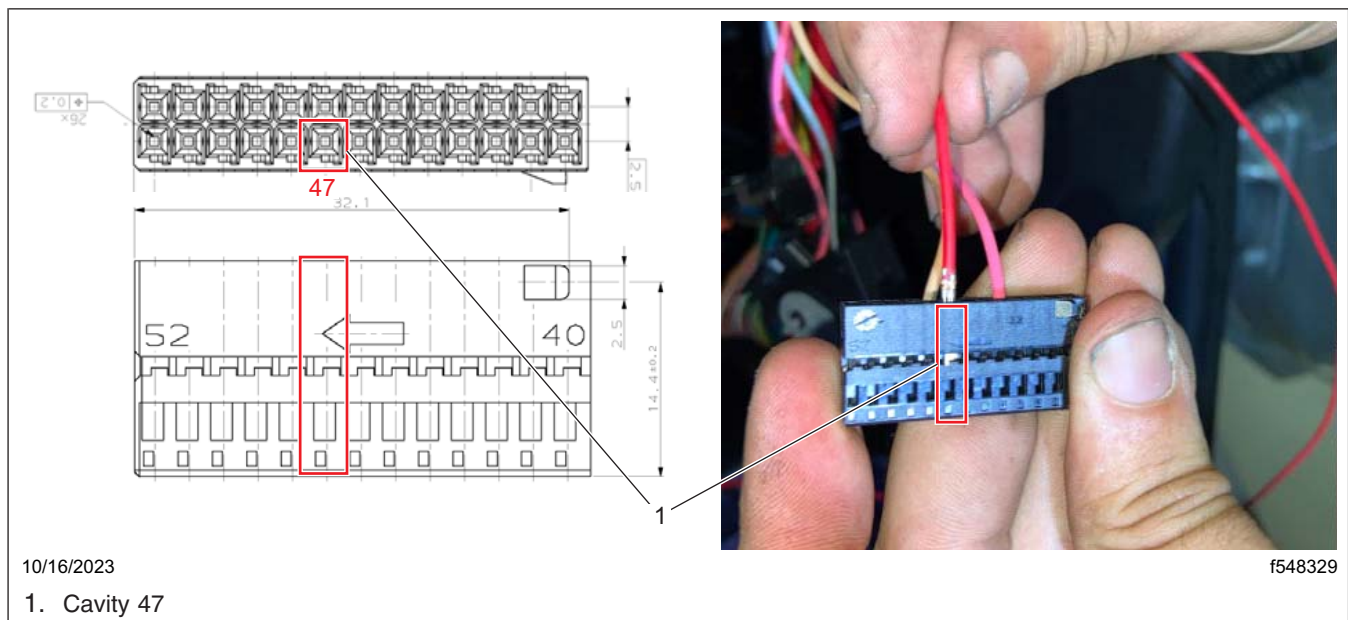


Fig. 61, Inserting the Red Wire into Cavity 47

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- 13.16 Insert the black terminal bank back into the XMC2 X2 connector, as shown in [Fig. 62](#) .
- 13.17 Connect the X2 and X1 connectors to the XMC2.
- 13.18 Secure the red wire routed to XMC2, and the brown wire removed from XMC2 using zip ties as needed. Follow Daimler routing and clipping standards. See [Fig. 63](#).

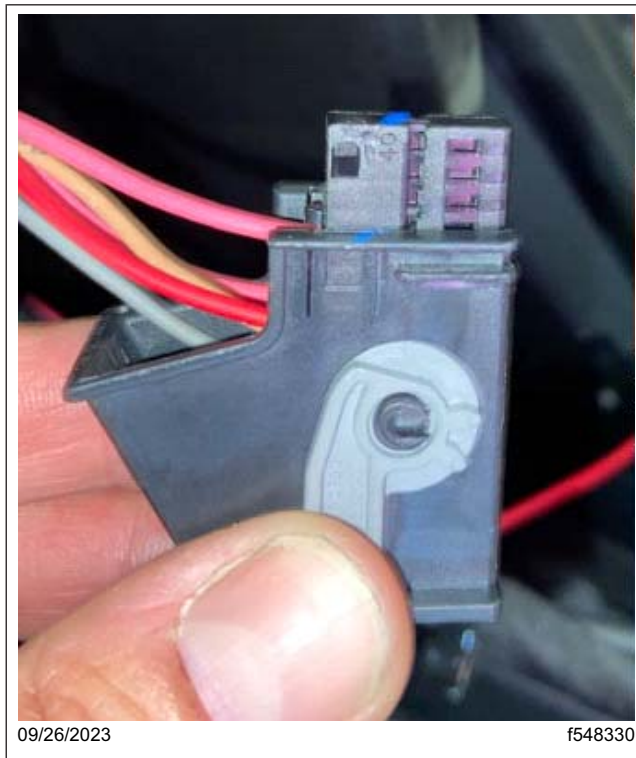


Fig. 62, Inserting the Black Terminal Bank into the XMC2 X2 Connector

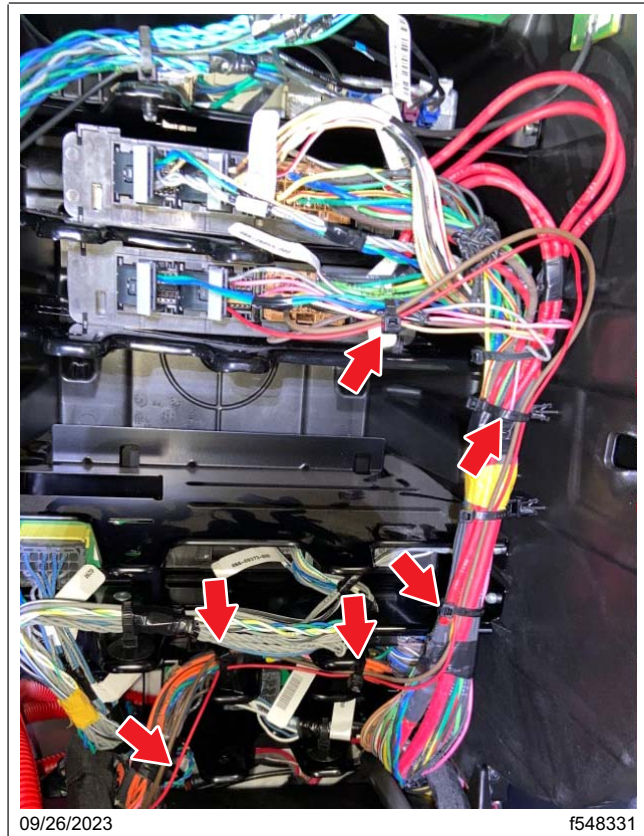


Fig. 63, Securing the Wiring Routed to the XMC2

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14. Follow the substeps to install the wiring connections at the VPDM.
 - 14.1 Secure the orange (or pink) wire routed to the VPDM in substep 12.7 to the main harness with zip ties as needed. See [Fig. 64](#).
 - 14.2 Remove the J7 connector from the VPDM. See [Fig. 65](#).
 - 14.3 Remove the lock from the lower portion of the VPDM J7 connector, as shown in [Fig. 66](#).

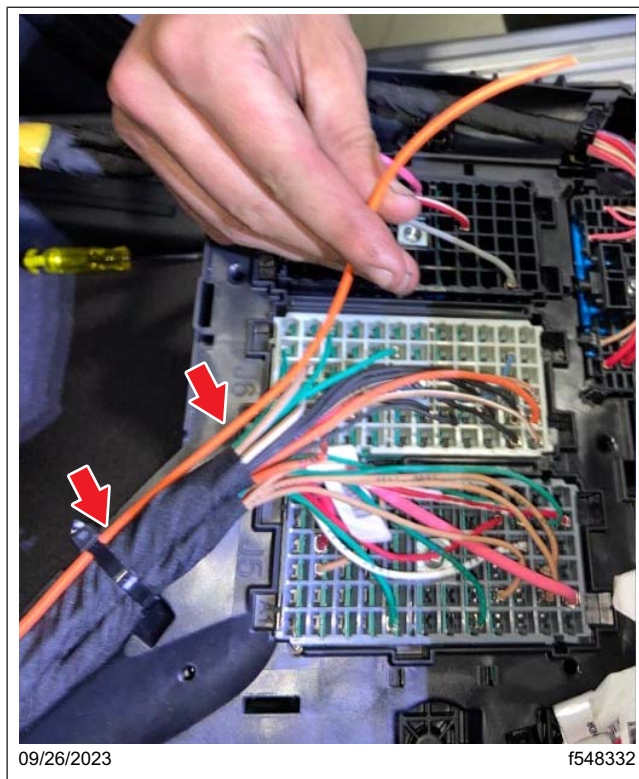


Fig. 64, Securing the Orange (or pink) Wire Routed to the VPDM

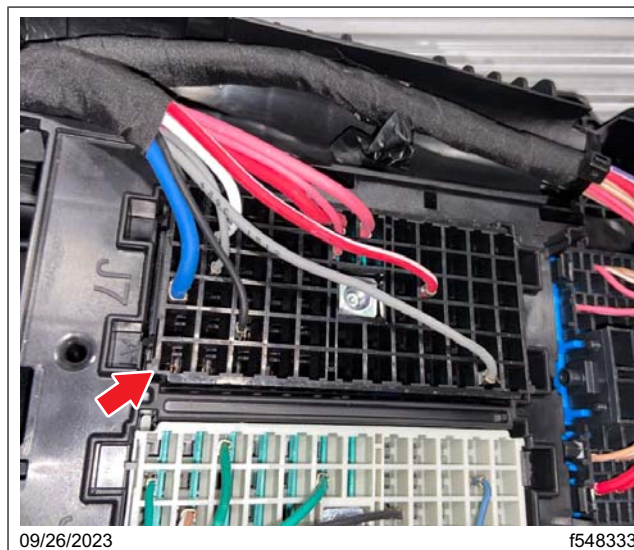


Fig. 65, VPDM J7 Connector

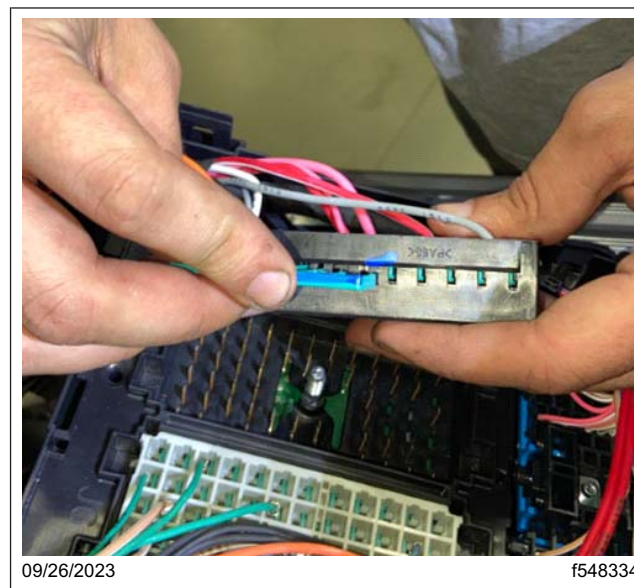


Fig. 66, Removing the Lock from the VPDM J7 Connector

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14.4 Insert the orange (or pink) wire into cavity B1 of the VPDM J7 connector. See [Fig. 67](#).

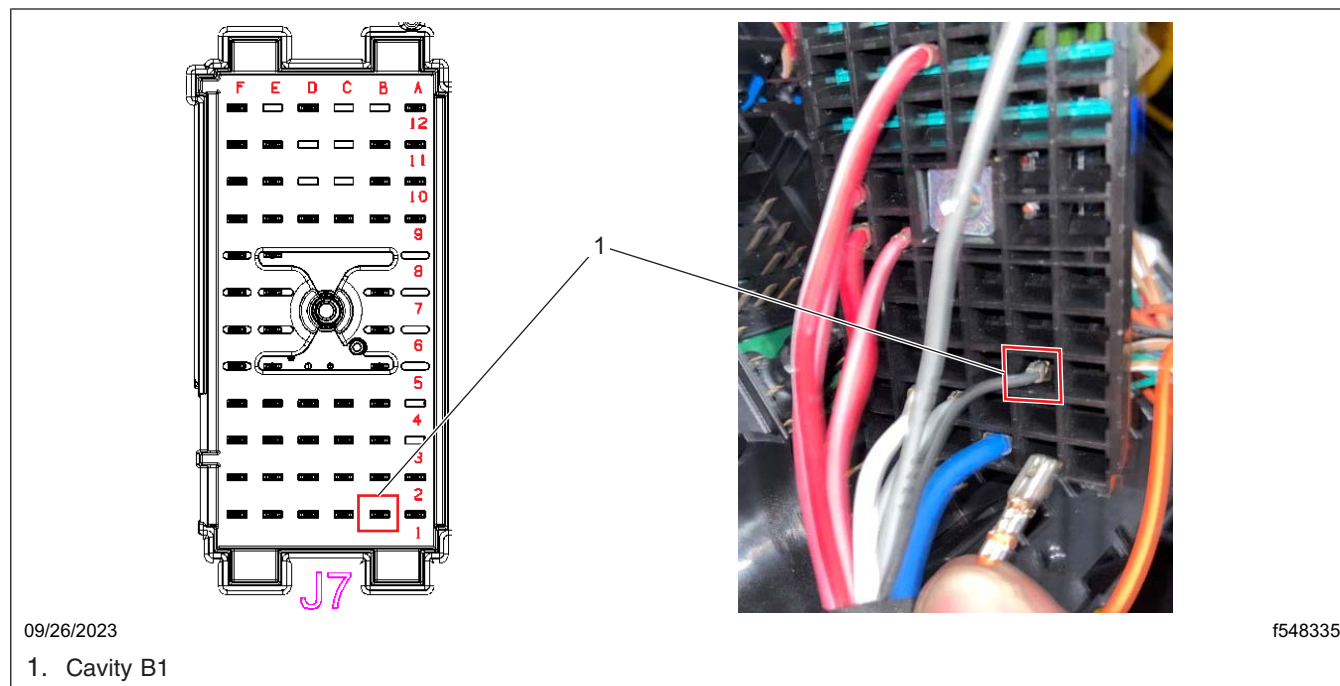


Fig. 67, Inserting the Orange (or pink) Wire into Cavity B1 of the VPDM J7 Connector

14.5 Install the lock on the J7 connector removed in substep 14.3.

14.6 Connect the J7 connector to the VPDM.

14.7 Install the VPDM back on its bracket in the E-Vault. For more information, see **Section 54.05, Subject 100** of the *47X & 49X Workshop Manual*.

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- 14.8 Install the 10A fuse (23-12537-010) in the VPDM fuse position F75. See [Fig. 68](#).

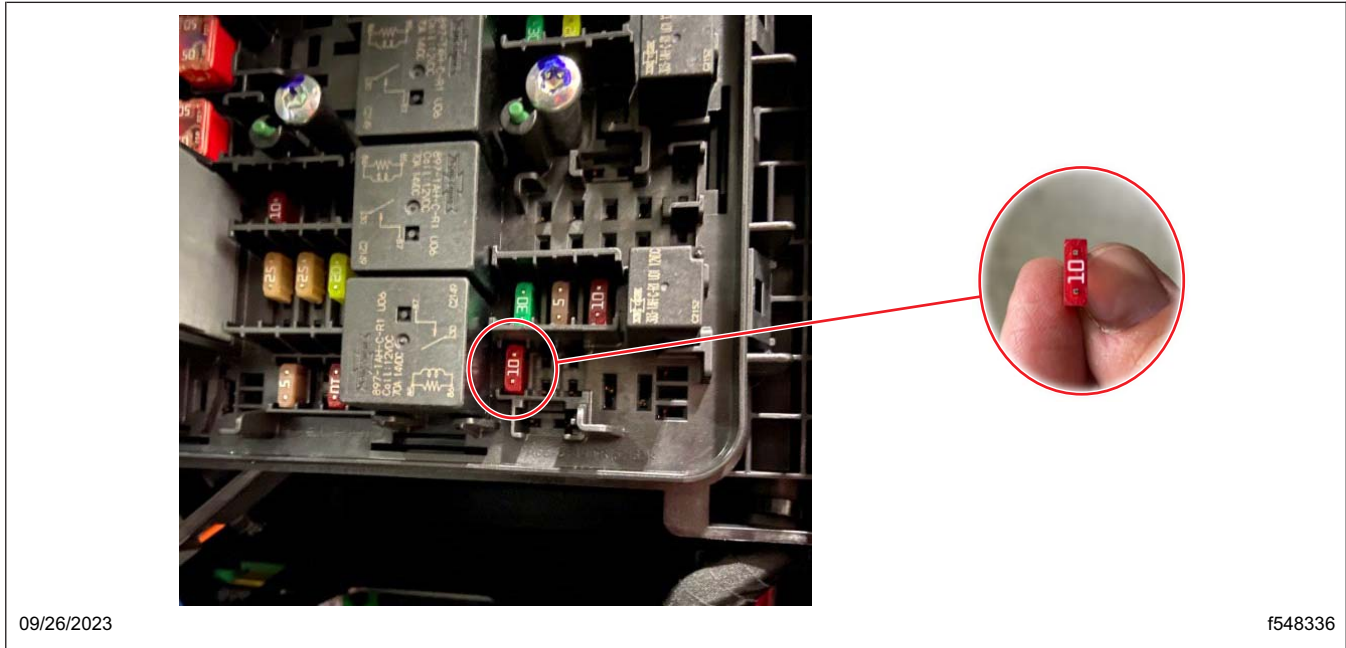


Fig. 68, Installing the 10A Fuse in the VPDM Fuse Position F75

15. Secure the relays and any excess wiring heading to the VPDM and XMC2 to the main harness with zip ties as needed. Follow Daimler routing and clipping standards. See [Fig. 69](#).



Fig. 69, Securing the Relays and Excess Wiring to the Main Harness Using Zip Ties

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16. Follow the substeps to install the plow light switch.

16.1 Remove the MSF secondary module containing the plow light switch from the dash, but leave the wiring connected to the module.

NOTE: For instructions to remove and install the MSF secondary module and MSF switch, see **Section 54.18, Subject 110** of the *47X & 49X Workshop Manual*.

16.2 Remove the existing plow light switch from the MSF secondary module and discard it. See **Fig. 70**.

NOTE: Actual switch location may vary from the location shown in **Fig. 70**.



Fig. 70, Plow Light Switch in MSF Secondary Module

16.3 Install the new plow light switch (A66-07494-040) in the same position as the switch removed in the previous substep.

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16.4 Locate the connector on the new harness that was temporarily fed through the auxiliary dash panel opening in substep 12.5. Now, route this connector through the opening of the MSF secondary module that contains the plow light switch. See [Fig. 71](#).

16.5 Plug the connector into the back of the plow light switch in the MSF secondary module. See [Fig. 72](#).

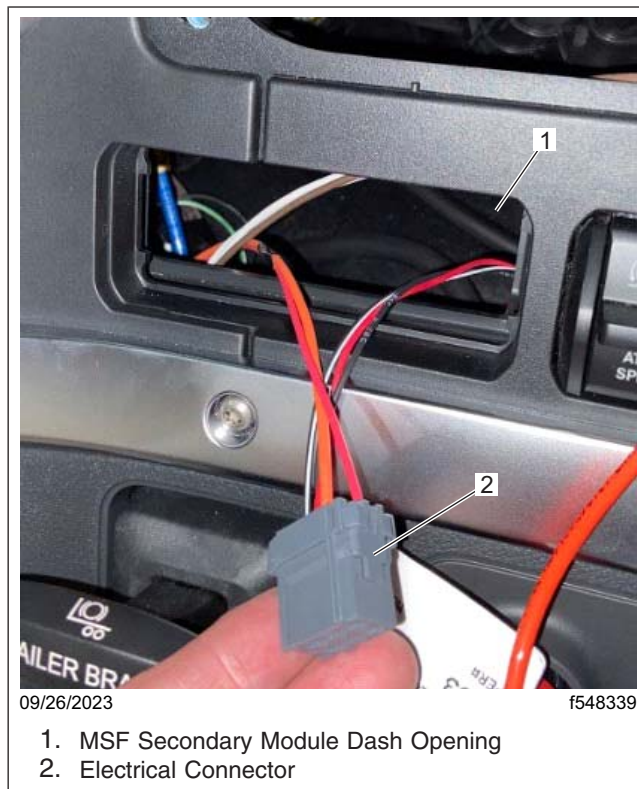


Fig. 71, Connector from the New Harness Routed Through the MSF Secondary Module Dash Opening



Fig. 72, Connector Plugged into the Back of the Plow Light Switch

16.6 Install the MSF secondary module, containing the plow light switch, on the dash panel. See [Fig. 70, page 41](#).

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17. Route the remaining wires through the firewall pass-through grommet on the driver's side.
 - 17.1 Locate the remaining three wires (two white wires, one brown wire) that were temporarily routed through the auxiliary dash panel opening in substep 12.5.
 - 17.2 Route the three remaining wires from the auxiliary dash panel opening to the driver-side firewall pass-through grommet. Secure the wiring to the main harness with zip ties as needed.
 - 17.3 Pass the three wires through the driver-side pass-through grommet from inside the cab to the engine compartment. **Figure 73** shows the pass-through grommet from the engine compartment side with the wires pulled through.

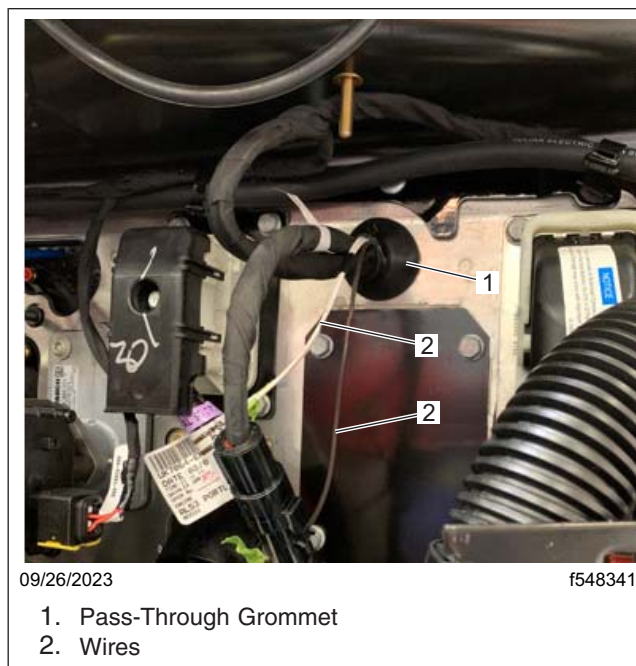


Fig. 73, Pass-Through Grommet with the Three Wires Pulled Through

NOTE: It may be helpful to first pass a large zip tie through the grommet from the engine side, and tape the three wires to the zip tie, then pass the three wires through the grommet by pulling on the zip tie from the engine compartment side.

NOTE: The three wires that are passed through the grommet have terminals on the ends. These terminals will not be used and can be cut off. **Do not** cut off the labels 'BH50' and 'BH38' near the terminals. These labels are needed to correctly splice these wires to harness (TSU CT44FRT034) in a later step.

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18. Make the 102C splice.
 - 18.1 Unplug the 104-way bulkhead connector located on the driver's side of the firewall in the engine compartment. See [Fig. 74](#).
 - 18.2 Peel back the fabric tape near the 104-way connector enough to expose several inches of the wiring bundle. See [Fig. 75](#).



Fig. 74, 104-Way Bulkhead Connector Location

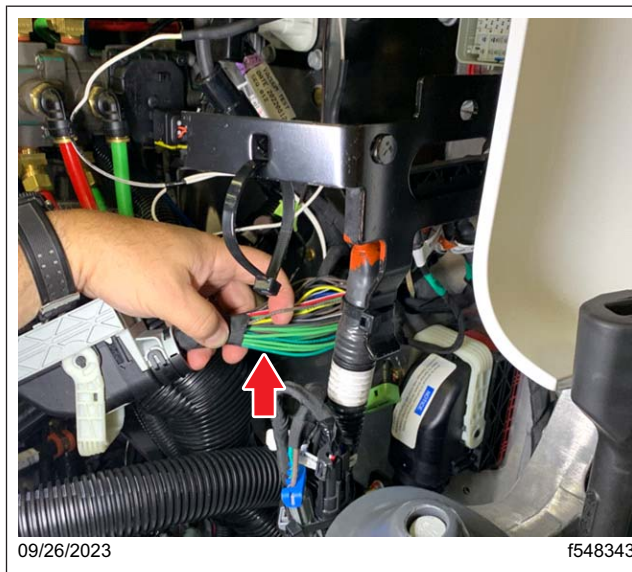


Fig. 75, Exposing the Wiring Bundle Near the 104-Way Connector

- 18.3 Locate the circuit 102C in the bundle of wiring leading to the 104-way connector.
- 18.4 Cut the wire 102C. Tape up the end that leads to the 104-way connector.
- 18.5 Splice the other end of 102C (the end leading away from the 104-way connector) to the brown wire that was passed through the firewall grommet.

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.

- 18.6 Wrap the wiring bundle exposed near the 104-way connector with fabric tape.

19. Install the wiring to the plow light connectors.
 - 19.1 On the two white wires that were passed through the firewall grommet in substep 17.3, cut the terminals off (if not already done). Be careful **not** to cut the labels 'BH50' and 'BH38' on the two wires.
 - 19.2 Splice these two white wires to the two-wire wires on the harness (TSU CT44FRT034). Be sure to match labels 'BH50' and 'BH38.'

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.

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- 19.3 Wrap any remaining exposed wiring that was passed through the firewall grommet with fabric tape.
- 19.4 Route the harness (TSU CT44FRT034) towards the front of the vehicle to the existing plow light connector(s) along the existing harness in the path shown in the [Fig. 76](#), [Fig. 77](#), [Fig. 78](#), [Fig. 79](#), and [Fig. 80](#). Secure the harness with zip ties as needed.

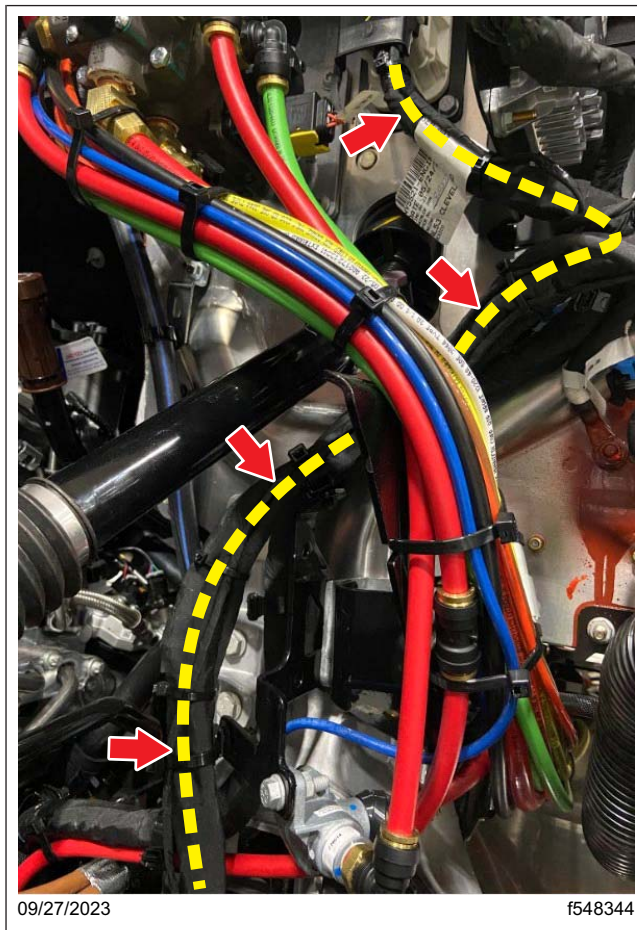


Fig. 76, Harness Path from the Firewall Towards the Left-Hand Frame Rail

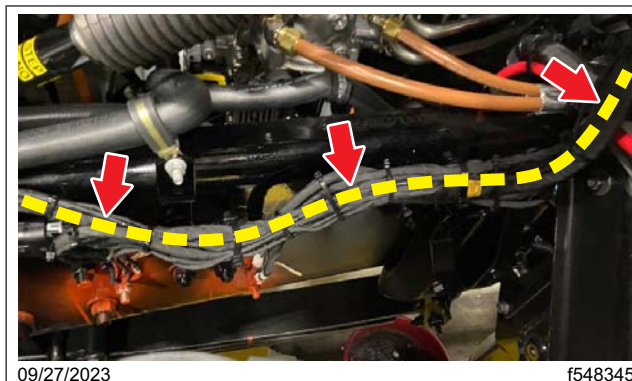


Fig. 77, Harness Path Along the Left-Hand Frame Rail

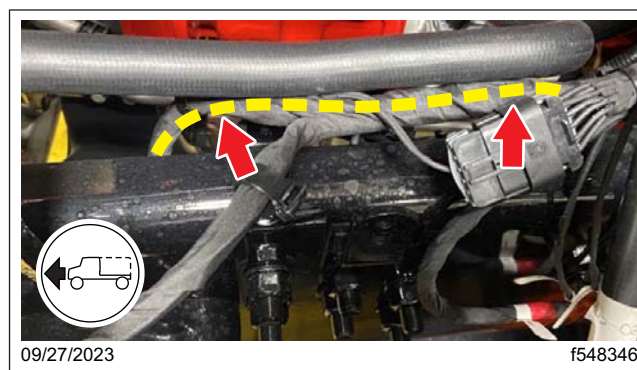


Fig. 78, Harness Path Over the top of the Left-Hand Frame Rail Down in Between the Frame Rail and Radiator

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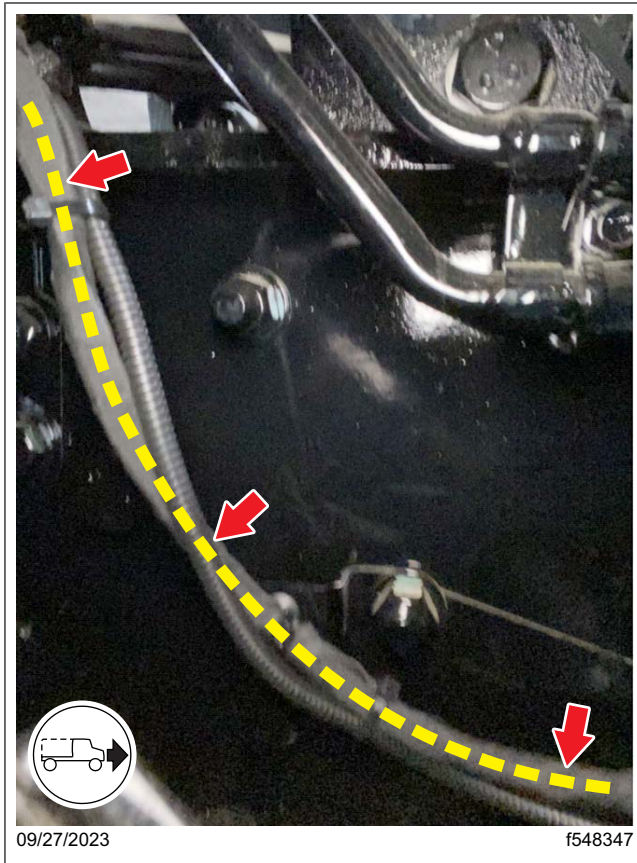


Fig. 79, Harness Path



Fig. 80, Harness Path to the Plow Connectors (single connector configuration shown)

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- 19.5 At this point, one of the two types of plow light interface connectors are encountered, either a single-connector interface, or a dual-connector interface. See [Fig. 81](#) and [Fig. 82](#).



Fig. 81, Single Connector Plow Light Interface



Fig. 82, Dual Connector Plow Light Interface (one connector shown)

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NOTE: For dual connector interface, skip the substep 19.6, and go to substep 19.7.

19.6 For single plow light connector interface:

- Remove the cover and lock from the single plow light interface connector.
See [Fig. 83](#) and [Fig. 84](#)



Fig. 83, Single Plow Light Interface Connector with the Cover Removed

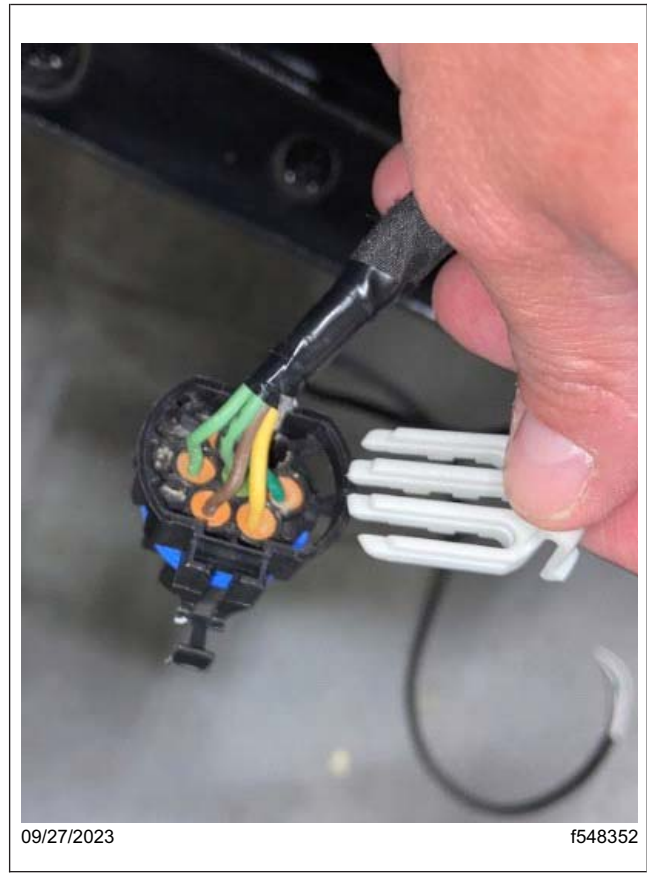


Fig. 84, Single Plow Light Interface Connector with the Lock Removed

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- Locate the empty cavity and remove the rubber plug. See [Fig. 85](#)
- Cut a length of white 16-gauge wire approximately 24 inches long. On one end of this short wire, install a terminal (PAC 12110847 L) and seal (PAC 15324984 B). See [Fig. 86](#).

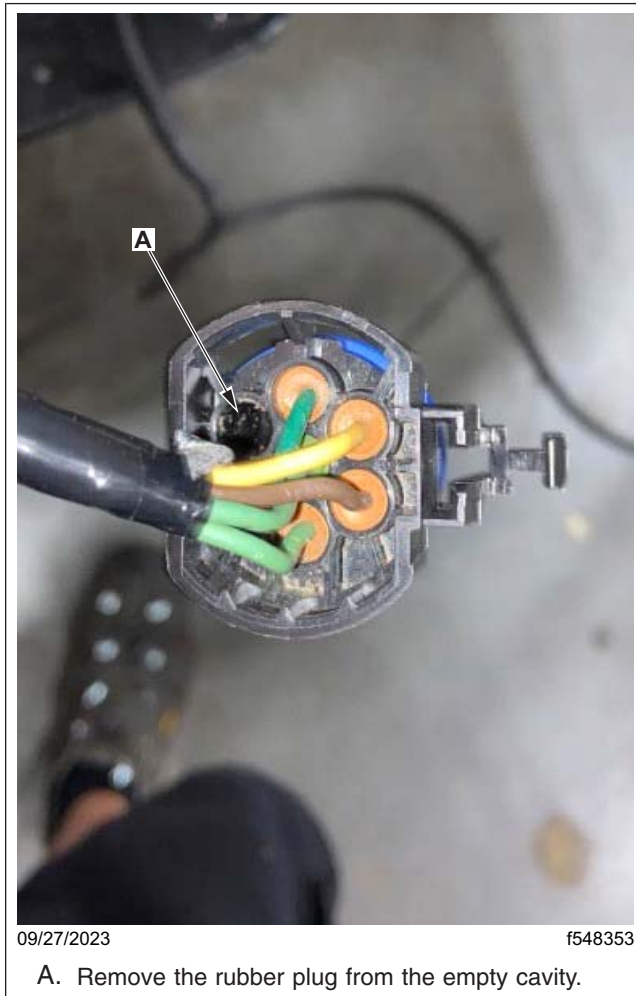


Fig. 85, Single Plow Light Interface Connector with the Plug Removed from the Empty Cavity

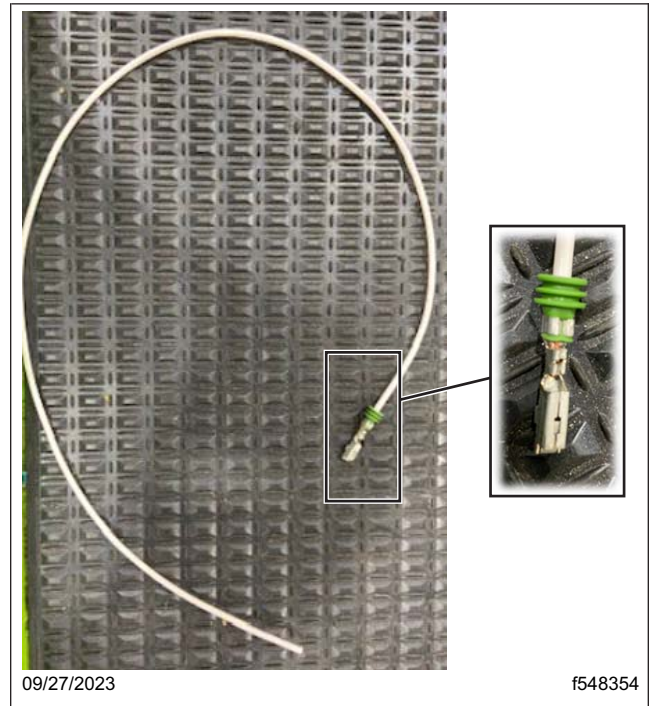


Fig. 86, 24-inch Length of 16 Gauge Wire with the Terminal and Seal Crimped on One End

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- Insert the wire into the open cavity of the single plow light interface connector, and install the connector lock. See [Fig. 87](#) and [Fig. 88](#).



Fig. 87, Inserting the Wire into the Open Cavity of the Single Plow Light Connector

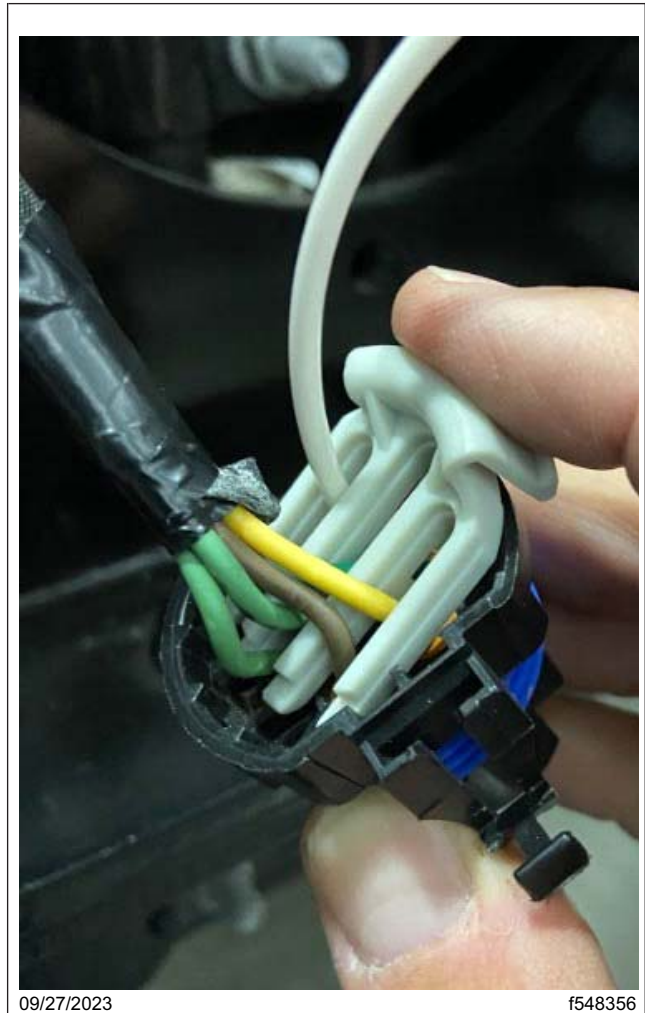


Fig. 88, Installing the Lock on the Single Plow Light Connector

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- Splice the two white wires that were routed from the firewall pass-through grommet to the short wire that was connected to the plow connector in the previous step.
See **Fig. 89** and **Fig. 90**

NOTE: Trim the two white wires routed from the firewall pass-through grommet to length as needed. This includes discarding the terminals that were on the end of these two wires.

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.



Fig. 89, Wires Trimmed to Length as Needed Prior to Splicing



Fig. 90, Completed Splice

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- Wrap any exposed wiring from the plow light connector to the taped portion of the two white wires routed from the firewall pass-through grommet with fabric tape. See [Fig. 91](#) and [Fig. 92](#).



Fig. 91, Wrapping the Exposed Wiring with Fabric Tape



Fig. 92, Exposed Wiring Wrapped with Fabric Tape

- Secure the harness with zip ties as needed.

NOTE: Leave the connector cover off for testing in a later step.

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19.7 For dual plow light connector interface:

- Remove the covers from the two plow light interface connectors.
- Remove tape from the from the rubber boot on each of the two connectors. Pull the boot back away from each of the two connectors to expose the wiring at each connector. See [Fig. 93](#).

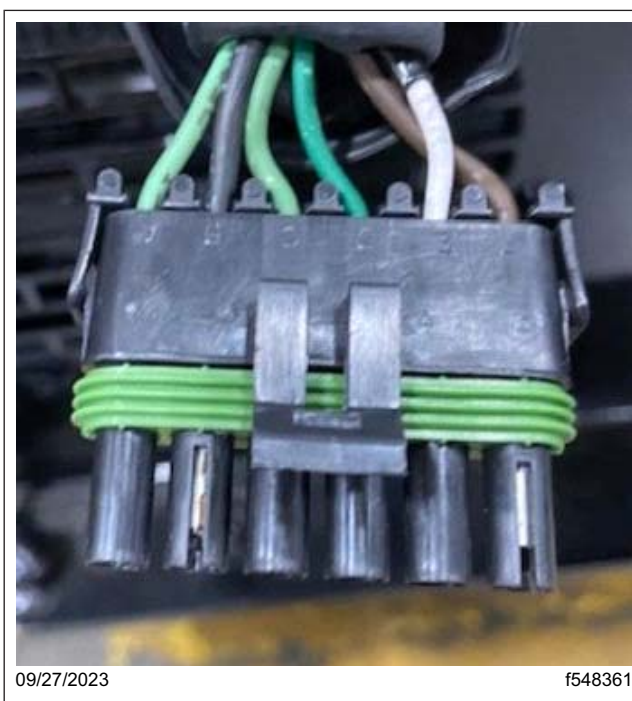


Fig. 93, Dual Plow Light Connector with the Rubber Boot Pulled Back to Expose the Wiring and the Cover Removed (one connector shown)

- Remove the lock from each of the two connectors.
- Remove the plug from the empty cavity in each of the two connectors.
- Route the two white wires that were routed from the firewall pass-through grommet to each of the two plow light connectors. Be sure the wire marked 'left' goes to the driver-side connector and the wire marked 'right' goes to the passenger-side connector.
- Insert the wire marked 'left' into the empty cavity of the driver-side plow light connector.
- Insert the wire marked 'right' into the empty cavity of the passenger-side plow light connector.
- Install the rubber boot on each plow light connector, and apply tape as needed.
- Wrap any exposed wiring that was routed to the plow light connectors with fabric tape as needed.
- Secure the wiring with zip ties as needed.

NOTE: Leave the connector covers off for testing in a later step.

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20. Install the marker light ground wiring.

20.1 Remove the nut from the ground stud on the driver-side frame rail, near the front axle. See [Fig. 94](#) .

20.2 Install the ring terminal from the harness (TSU CT44FRT035) on the ground stud, and install the nut. See [Fig. 95](#).

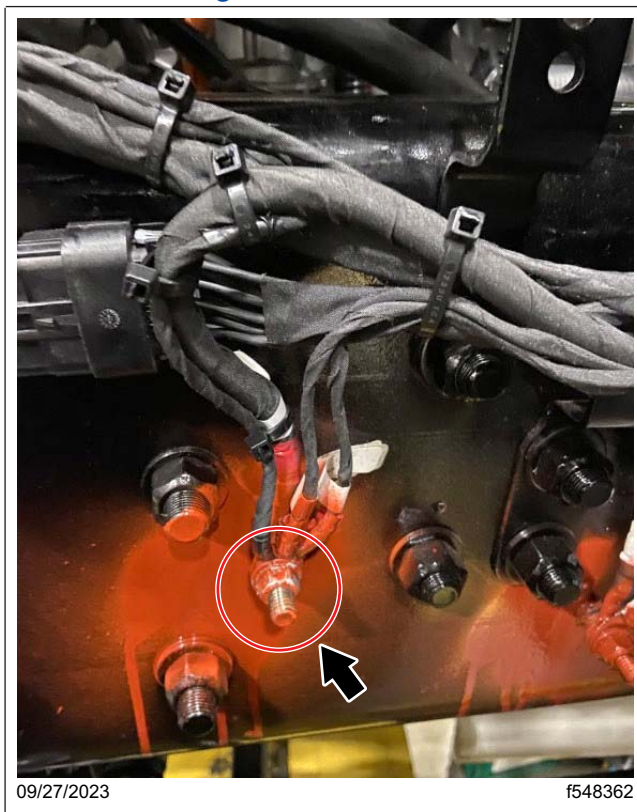


Fig. 94, Ground Stud Location

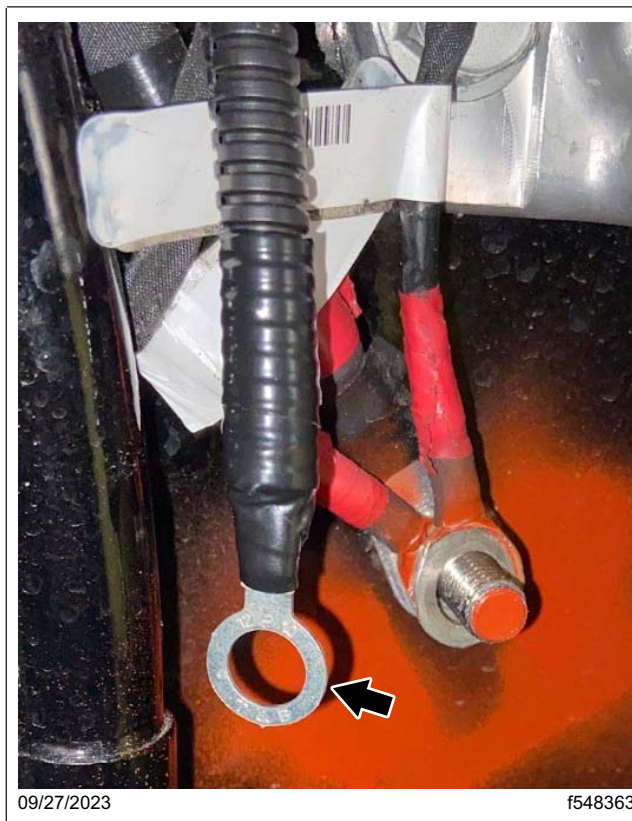


Fig. 95, Ground Stud with the Nut Removed

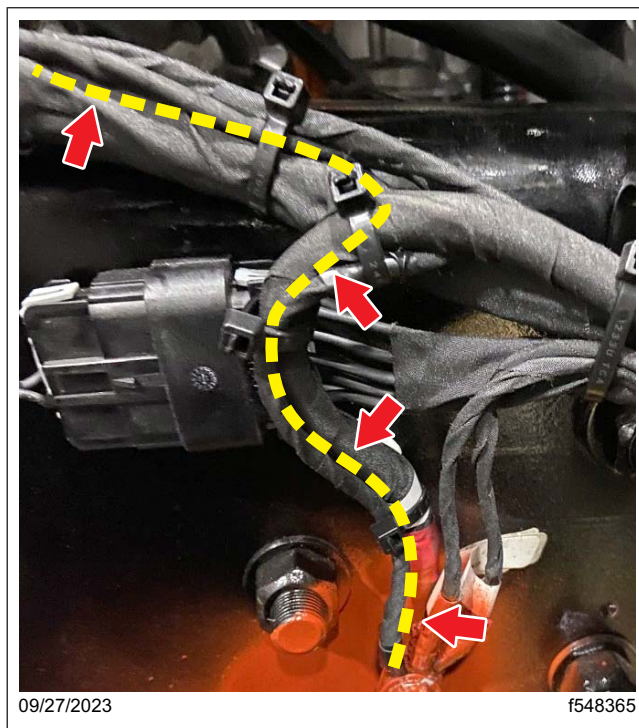
20.3 Coat the ground stud and nut with red insulating epoxy. See [Fig. 96](#).



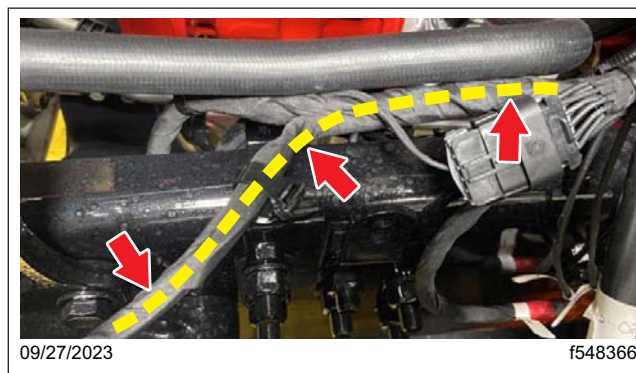
Fig. 96, Ground Stud Coated with Red insulating Epoxy

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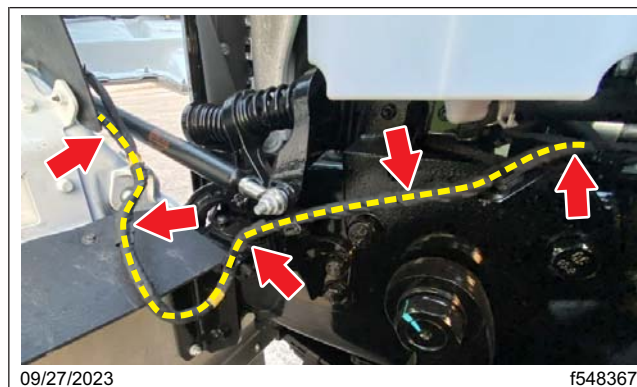
- 20.4 Route the harness from the ground stud to the hood along existing harness in the path shown in [Fig. 97](#), [Fig. 98](#), and [Fig. 99](#). Secure the harness with zip ties as needed.



**Fig. 97, Routing of the Harness (TSU CT44FRT035)
Beginning at the Ground Stud**



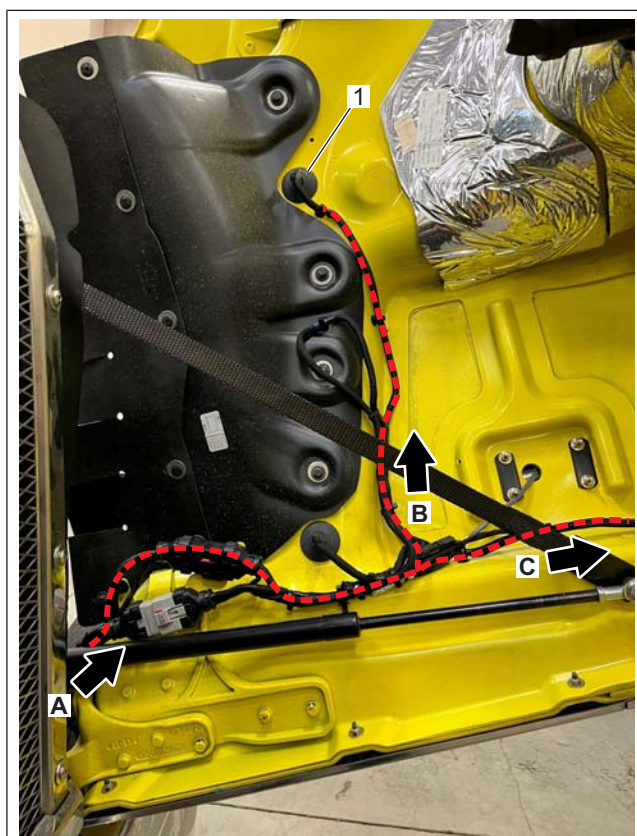
**Fig. 98, Routing of the Harness (TSU CT44FRT035)
Along the Frame Rail Towards the Hood**



**Fig. 99, Routing of the Harness (TSU CT44FRT035)
Along the Existing Hood Harness Towards the Hood**

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- 20.5 Continue routing the harness along the headlight harness on the inside of the hood, as shown in [Fig. 100](#). Secure the harness with zip ties as needed.
- 20.6 From the split to the driver-side marker, continue routing the harness along the top of the hood, towards the passenger-side marker, as shown in [Fig. 101](#), [Fig. 102](#), and [Fig. 103](#). Secure with zip ties as needed.

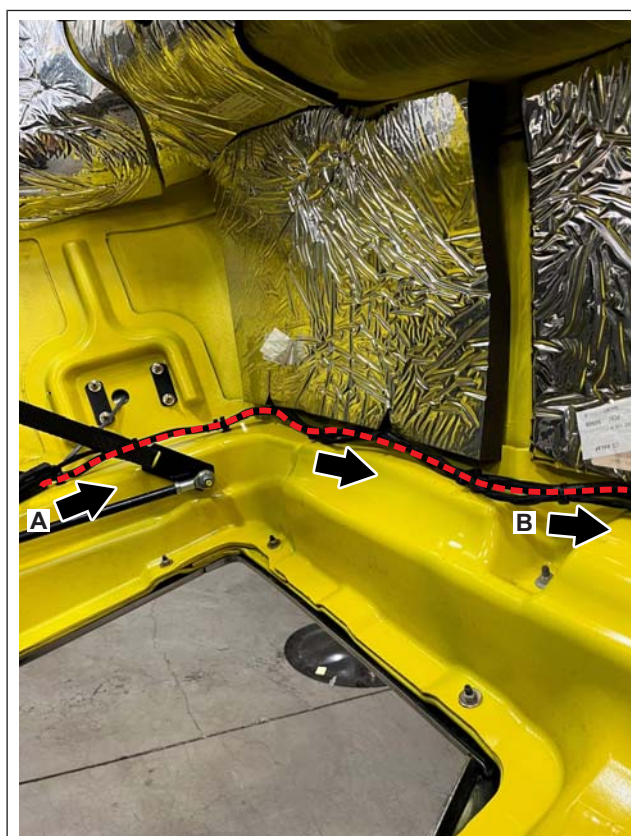


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- A. From the ground stud.
- B. To driver-side marker light.
- C. To passenger-side marker light.
- 1. Driver-Side Marker Light

Fig. 100, Routing of the Harness (TSU CT44FRT035) Along the Driver's Side of the Hood



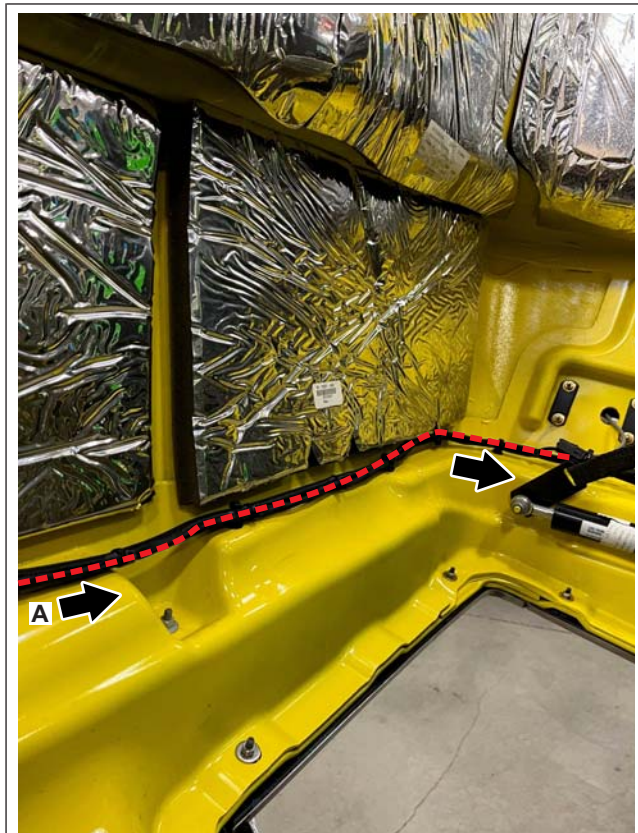
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- A. From split to driver-side marker light.
- B. To passenger-side marker light.

Fig. 101, Routing of the Harness (TSU CT44FRT035) from the Split to the Driver-Side Marker Along the Top of the Hood to Passenger-Side Marker

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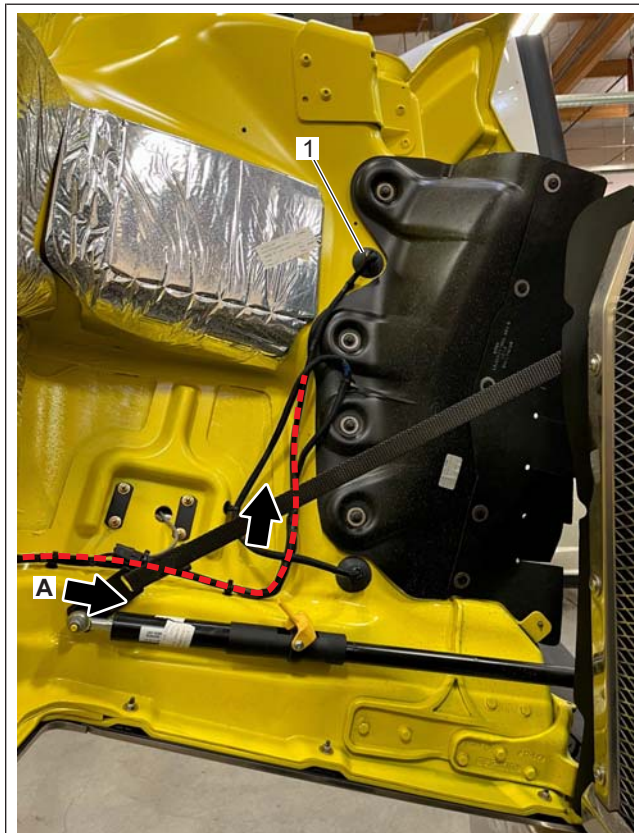


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A. To passenger-side marker light.

Fig. 102, Routing of the Harness (TSU CT44FRT035) Along the Top of the Hood to the Passenger-Side Marker



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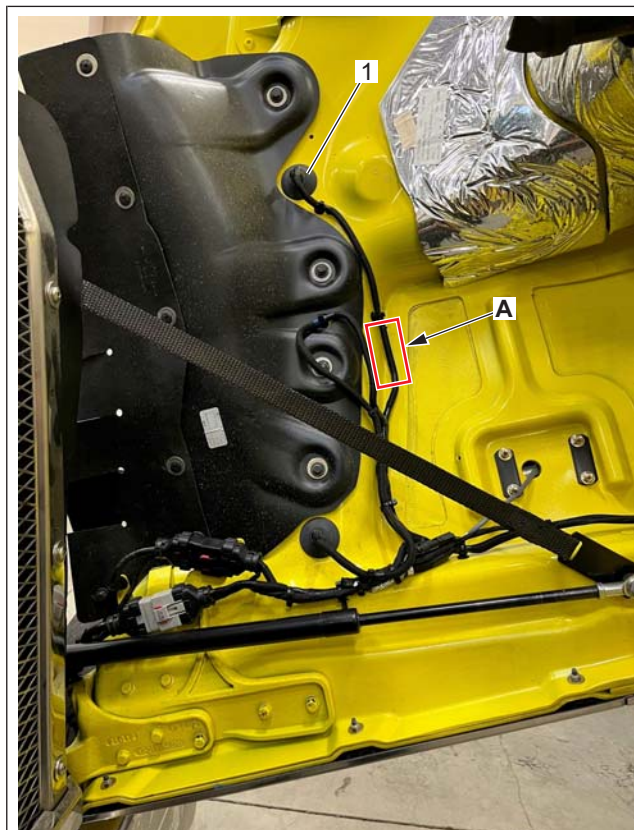
A. To driver-side marker light.

1. Passenger-Side Marker Light

Fig. 103, Routing of the Harness (TSU CT44FRT035) to the Passenger-Side Marker

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- 20.7 In the existing marker light harness on the driver's side, in the approximate location shown in **Fig. 104**, cut the fabric tape to expose a section of the wiring. See **Fig. 105**.



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A. Cut the fabric tape to expose a section of the wiring at this location.

1. Driver-Side Marker Light

Fig. 104, Location to Expose the Wiring in the Existing Marker Light Harness (driver's side)



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Two black wires shown. Some configurations may only have one black wire.

Fig. 105, Section of the Wiring Exposed in the Existing Marker Light Harness (driver's side)

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20.8 Cut the black wire(s) that were exposed, as shown in [Fig. 106](#).

NOTE: Depending on the marker light configuration, there may be only one black wire. Two black wires are shown in this installation.

20.9 The black wire(s) that were cut leading away from the driver-side marker light will no longer be used and need to be dead headed. Heat shrink the ends as shown in [Fig. 107](#).



Fig. 106, Black Wire(s) Leading to the Driver-Side Marker Cut

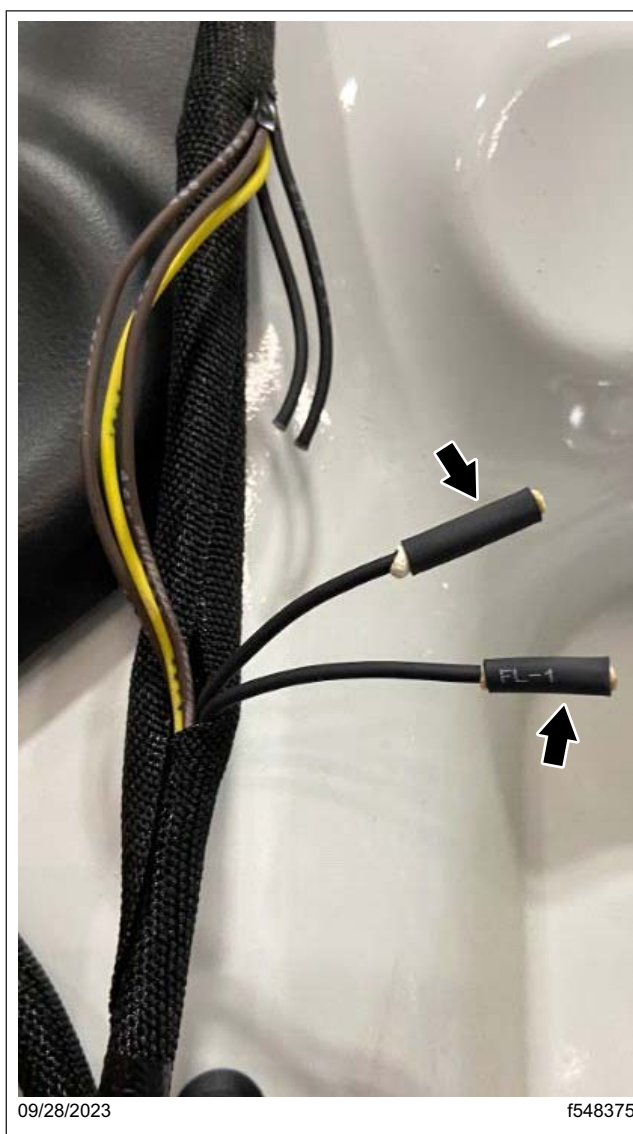


Fig. 107, Dead Head the Black Wire(s) that Lead Away from the Marker Light with Heat Shrink

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20.10 Splice the cut black wire(s) that lead to the driver-side marker light to the black wire from harness (TSU CT44FRT035) that was routed to this location. See [Fig. 108](#)

NOTE: For wire splices, use one of the methods outlined in **Section 54.00, Subjects 100 and 110** of the *47X & 49X Workshop Manual*.

20.11 Wrap the splice, the dead-headed wires, and any exposed wiring with fabric tape. Secure the harness and any excess wiring with zip ties as needed. See [Fig. 109](#).



Fig. 108, Splicing the Black Wire(s) from the Marker Light to the Black Wire from the Harness (TSU CT44FRT035)



Fig. 109, Securing the Harness Near the Marker with Zip Ties

20.12 To complete the splice connection near the passenger-side marker light, follow the same procedures as outlined in substeps 20.7 through 20.11.

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21. Connect the battery cables.
22. Follow the substeps to set the parameters in the XMC2 and SSAM. See [Table 3](#).

XMC2 and SSAM Parameter Settings				
Module	Parameter Description	Parameter Part Number		
		Population A	Population B	Population C
XMC2	PSFC_DFnc0003_mode = AH (fragment under the 'FSC Input Config' Domain)	031 447 70 46 ZGS 001		
	FSC Logic Block 26_30	030 447 29 46 ZGS 002		
	FSC Output pin block 1_12	029 447 90 46 ZGS 002	030 447 30 46 ZGS 003	No change
	FSC Output pin block 13_18	029 447 92 46 ZGS 002	030 447 53 46 ZGS 002	No change
SSAM	ELC HW Config	033 447 60 58 ZGS 003		
	Switch 465 (fragment under the 'MSC MSF Vehicle Config' Domain)	039 457 69 58 ZGS 001		
	Switch 069 (fragment under the 'MSC MSF Vehicle Config' Domain)	016 443 67 58 ZGS 001		

Table 3, XMC2 and SSAM Parameter Settings

- 22.1 Connect the vehicle to DiagnosticLink®.
- 22.2 Turn the ignition key to the 'Run' position.
- 22.3 Open DiagnosticLink.

IMPORTANT: Make sure that DiagnosticLink is updated to the latest version (8.17 SP1 at the time of publication or newer) before programming the vehicle.

- 22.4 Go to the 'Program Device' tab, and make sure that the vehicle identification number (VIN) is correct. Select 'Download data from server.' [Fig. 110](#).

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A. Go to the 'Program Device' tab.

B. Verify the VIN.

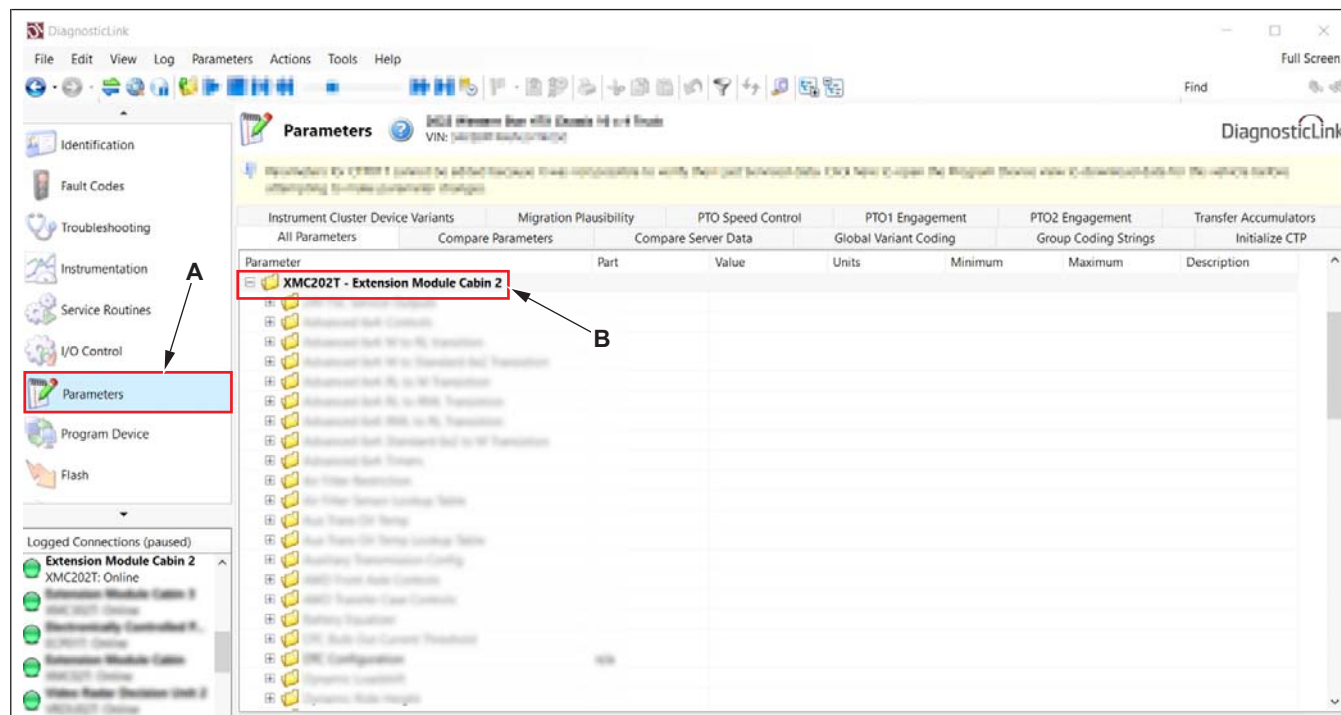
C. Select 'Download data from server.'

Fig. 110, Downloading Data from the Server

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22.5 After the server data download is complete, go to the 'Parameters' tab.

22.6 Select and expand the 'XMC202T – Extension Module Cabin 2' folder. See [Fig. 111](#).



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A. Go to the 'Parameters' tab.
B. Select and expand the 'XMC202T – Extension Module Cabin 2' folder.

Fig. 111, Selecting the 'XMC202T – Extension Module Cabin 2' Folder

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- 22.7 Select and expand the 'FSC Input Config' sub-folder, and select the 'PFSC_DFnc0003_mode' parameter. Set the parameter value to 'A0314477046-001 PFSC_DFnc0003_mode = AH.' See [Fig. 112](#).

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A. Select and expand the 'FSC Input Config' folder.
B. Select the 'PFSC_DFnc0003_mode' parameter.
C. Set the parameter value to 'A0314477046-001 PFSC_DFnc0003_mode = AH.'

Fig. 112, Setting the 'PFSC_DFnc0003_Mode' Parameter Value

NOTE: For populations A and B, continue with substeps 22.8 through 22.10. For population C, go to sub-step 22.11.

- 22.8 Select the 'FSC Logic Block 26_30' sub-folder, and set the parameter value to 'A0304472946-002 FSC Logic Block 26_30 Snow Plow Marker Lights.' See [Fig. 113](#).

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A. Select the 'FSC Logic Block 26_30' sub-folder.
B. Set the parameter value to 'A0304472946-002 FSC Logic Block 26_30 Snow Plow Marker Lights.'

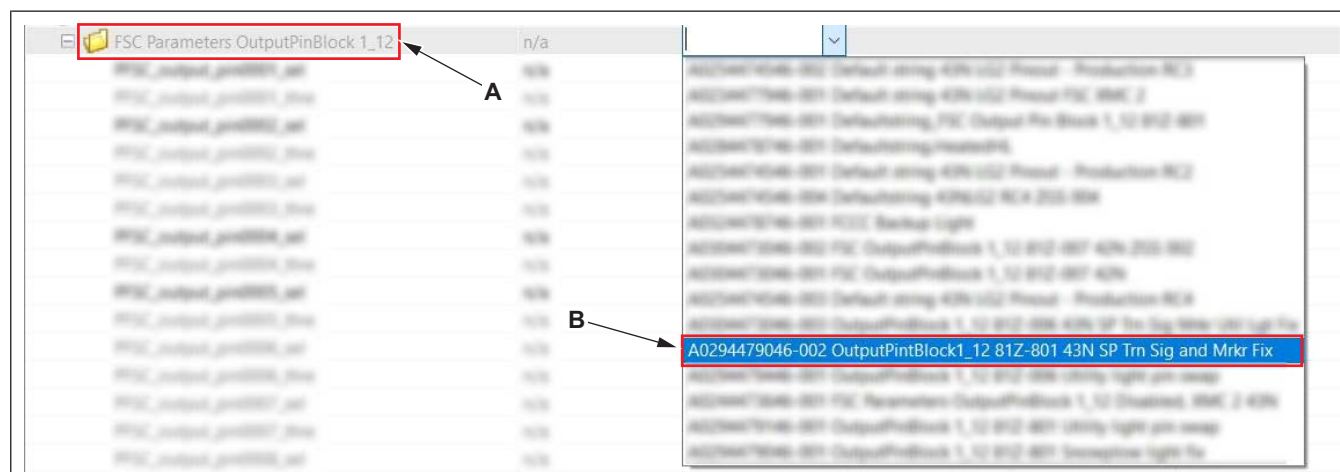
Fig. 113, Setting the 'FSC Logic 26_30' Parameter Value

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22.9 Select the 'FSC Parameters OutputPinBlock 1_12' sub-folder, and set the parameter value as follows:

Population A → 'A0294479046-002 outputPinBlock1_12 81Z-801 43N SP Trn Sig and Mrkr Fix.'
See Fig. 114.

Population B → 'A0304473046-003 OutputPinBlock 1_12 81Z-006 43N SP Trn Sig Mrkr Util Lgt Fix.'
See Fig. 115.

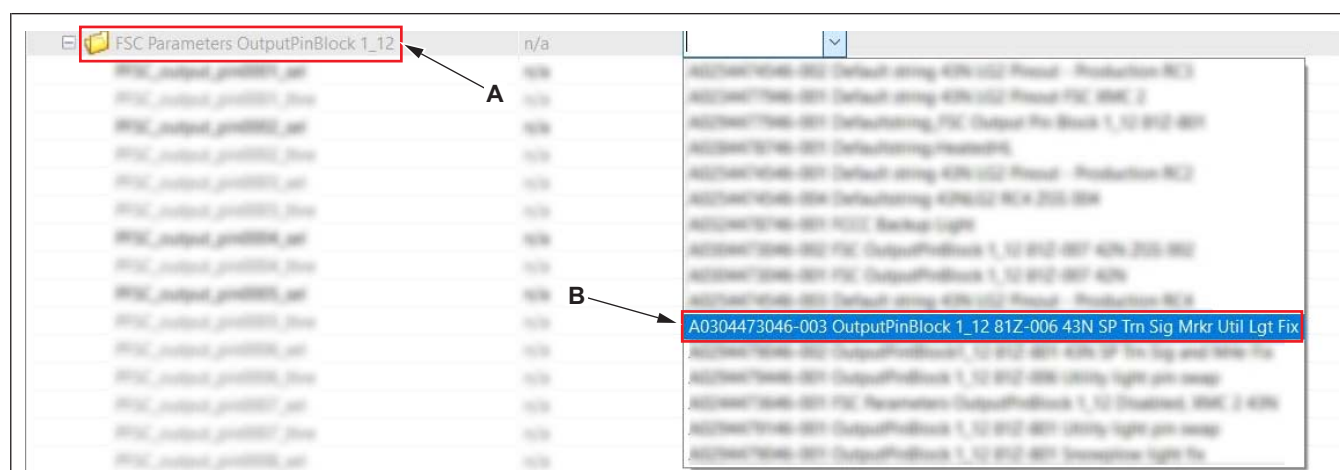


The screenshot shows a file explorer view of the 'FSC Parameters OutputPinBlock 1_12' sub-folder. A red box highlights the folder name. An arrow labeled 'A' points to the folder. Another arrow labeled 'B' points to a parameter value 'A0294479046-002 OutputPintBlock1_12 81Z-801 43N SP Trn Sig and Mrkr Fix' which is highlighted in blue in the list.

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A. Select the 'FSC Parameters OutputPinBlock 1_12' sub-folder.
B. Set the parameter value to 'A0294479046-002 outputPinBlock1_12 81Z-801 43N SP Trn Sig and Mrkr Fix.'

Fig. 114, Setting the 'FSC Parameters OutputPinBlock 1_12' Parameter Value (Population A)



The screenshot shows a file explorer view of the 'FSC Parameters OutputPinBlock 1_12' sub-folder. A red box highlights the folder name. An arrow labeled 'A' points to the folder. Another arrow labeled 'B' points to a parameter value 'A0304473046-003 OutputPinBlock 1_12 81Z-006 43N SP Trn Sig Mrkr Util Lgt Fix' which is highlighted in blue in the list.

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A. Select the 'FSC Parameters OutputPinBlock 1_12' sub-folder.
B. Set the parameter value to 'A0304473046-003 OutputPinBlock 1_12 81Z-006 43N SP Trn Sig Mrkr Util Lgt Fix.'

Fig. 115, Setting the 'FSC Parameters OutputPinBlock 1_12' Parameter Value (Population B)

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22.10 Select the 'FSC Parameters OutputPinBlock 13_18' sub-folder, and set the parameter value as follows:

Population A → 'A0294479246-002 OutputPinBlock 13_18 81Z-801 43N SP Trn Sig and Mrkr Fix.'
See [Fig. 116](#).

Population B → 'A0304475346-002 OutputPinBlock 13_18 81Z-006 43N SP Trn Sig Mrkr Util Lgt Fix.'
See [Fig. 117](#).

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A. Select the 'FSC Parameters OutputPinBlock 13_18' sub-folder.
B. Set the parameter value to 'A0294479246-002 OutputPinBlock 13_18 81Z-801 43N SP Trn Sig and Mrkr Fix.'

Fig. 116, Setting the 'FSC Parameters OutputPinBlock 13_18' Parameter Value (Population A)

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A. Select the 'FSC Parameters OutputPinBlock 13_18' sub-folder.
B. Set the parameter value to 'A0304475346-002 OutputPinBlock 13_18 81Z-006 43N SP Trn Sig Mrkr Util Lgt Fix.'

Fig. 117, Setting the 'FSC Parameters OutputPinBlock 13_18' Parameter Value (Population B)

[illegible]

Fig. 118, Selecting the 'SSAM02T - Single SAM' Folder

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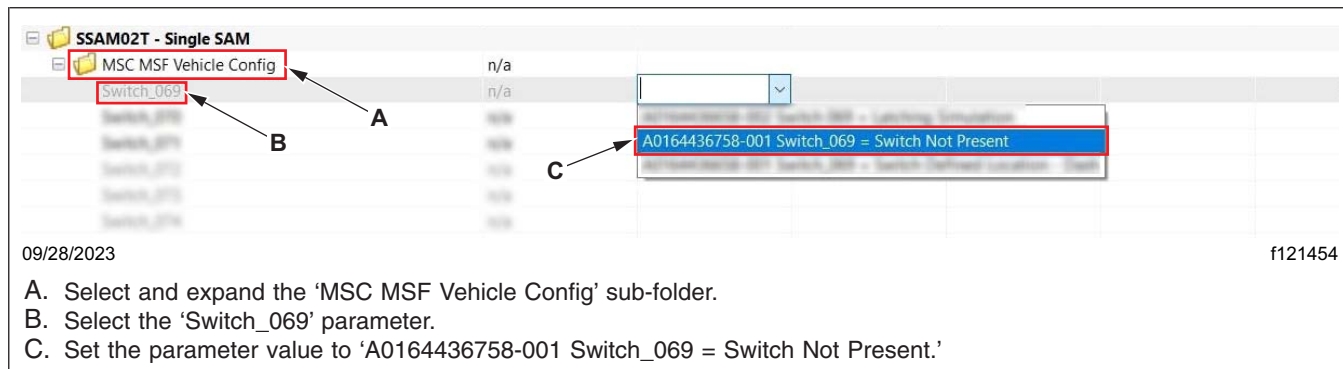
A. Select the 'ELC – HW Config' sub-folder.

B. Set the parameter value to 'A0334476058-003 ELC HW Config – LED 003.'

Fig. 119, Setting the 'ELC - HW Config' Parameter Value

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22.13 Select and expand the 'MSC MSF Vehicle Config' sub-folder, then select the 'Switch_069' parameter, and set the parameter value to 'A0164436758-001 Switch_069 = Switch Not Present.' See [Fig. 120](#).

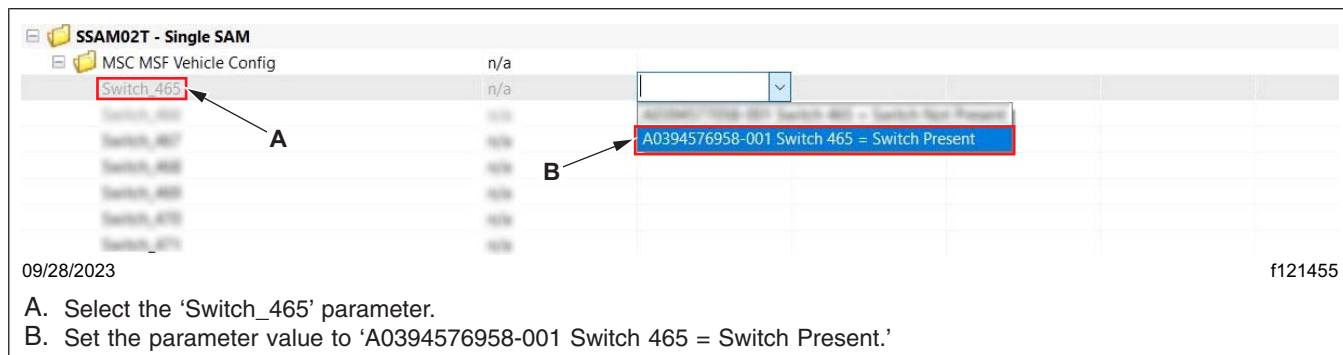


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A. Select and expand the 'MSC MSF Vehicle Config' sub-folder.
B. Select the 'Switch_069' parameter.
C. Set the parameter value to 'A0164436758-001 Switch_069 = Switch Not Present.'

Fig. 120, Setting the 'Switch_069' Parameter Value

22.14 Select the 'Switch_465' parameter. Set the parameter value to 'A0394576958-001 Switch 465 = Switch Present.' See [Fig. 121](#).



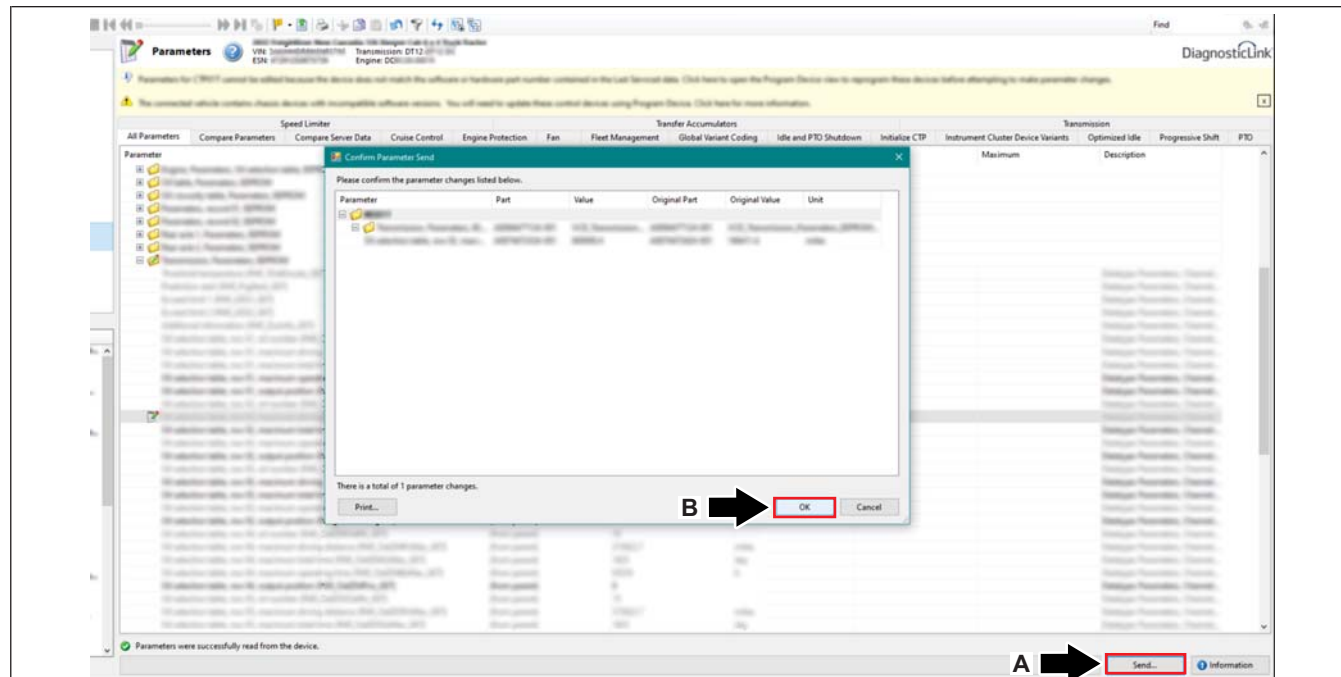
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A. Select the 'Switch_465' parameter.
B. Set the parameter value to 'A0394576958-001 Switch 465 = Switch Present.'

Fig. 121, Setting the 'Switch_465' Parameter Value

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22.15 Select the 'Send' button to write the parameter changes to the vehicle. A window will open asking to confirm the parameter changes. Select 'OK.' See [Fig. 122](#).



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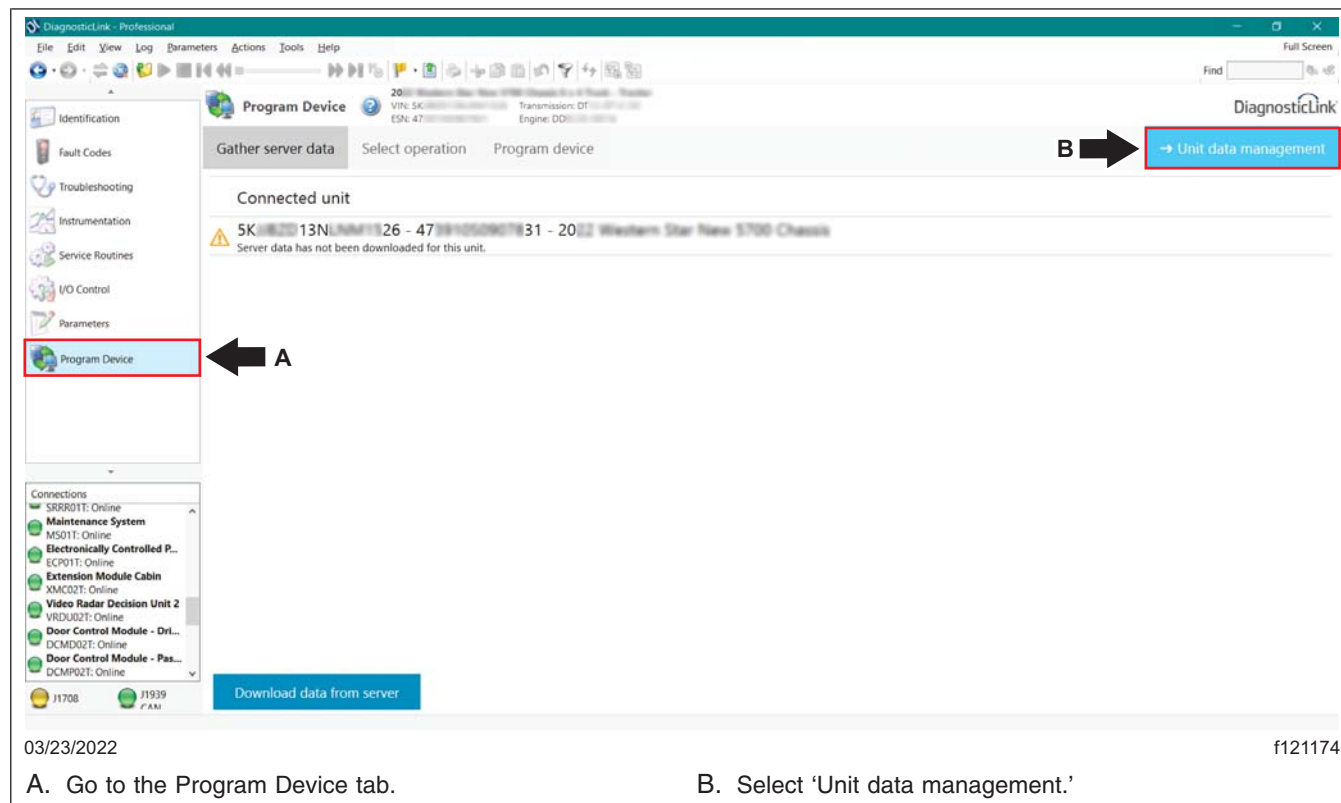
A. Select the 'Send' button.

B. Select 'OK' to confirm the parameter changes.

Fig. 122, Writing the Parameter Changes to the Vehicle

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22.16 Once the parameter change is complete, go to the 'Program Device' tab. Select 'Unit data management' in the upper-right corner. See [Fig. 123](#).



The screenshot displays the DiagnosticLink Professional software interface. The 'Program Device' tab is selected in the left-hand navigation pane, indicated by a red box and an arrow labeled 'A'. The main window shows the 'Program Device' tab with sub-tabs: 'Gather server data', 'Select operation', and 'Program device'. The 'Program device' sub-tab is active, showing a 'Connected unit' section with a warning icon and the text 'Server data has not been downloaded for this unit.' In the top right corner of the main window, there is a button labeled '→ Unit data management', which is highlighted with a red box and an arrow labeled 'B'. The bottom of the interface shows a list of connections and a 'Download data from server' button.

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A. Go to the Program Device tab. B. Select 'Unit data management.'

Fig. 123, Selecting Unit Data Management

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- 22.17 The information corresponding to the VIN should appear under the 'Unit data for upload.'
Select 'Connect to server' to upload the new parameters. See [Fig. 124](#)

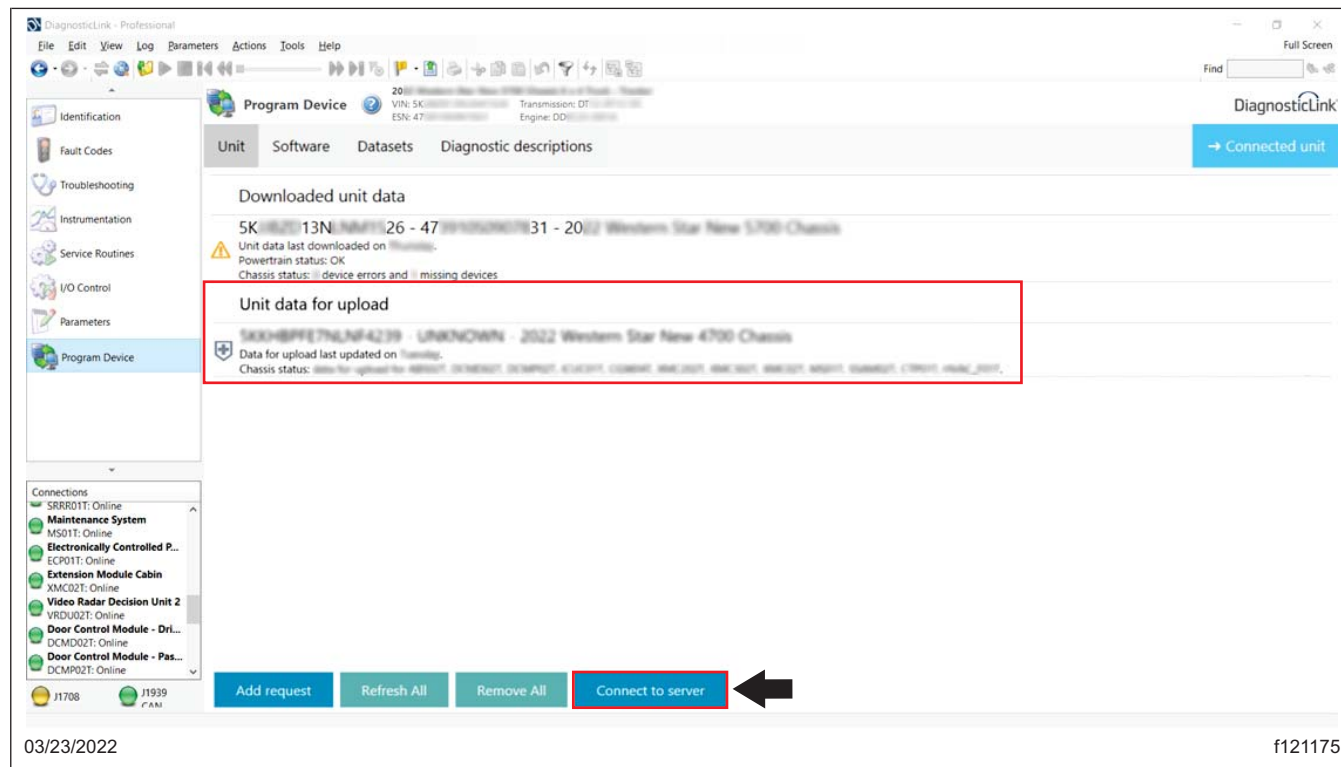


Fig. 124, Uploading the New Parameters

- 22.18 Once the parameter updates are uploaded to the server, disconnect the vehicle from DiagnosticLink.
22.19 Turn the ignition key to the OFF position.

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23. Follow the substeps to verify the plow light switch function.

23.1 Install test jumper(s) in the plow light interface connector(s) as follows:

- **For single connector plow light interface** → Install a jumper wire between the white wire (added to the connector earlier) and the black wire. See [Fig. 125](#).

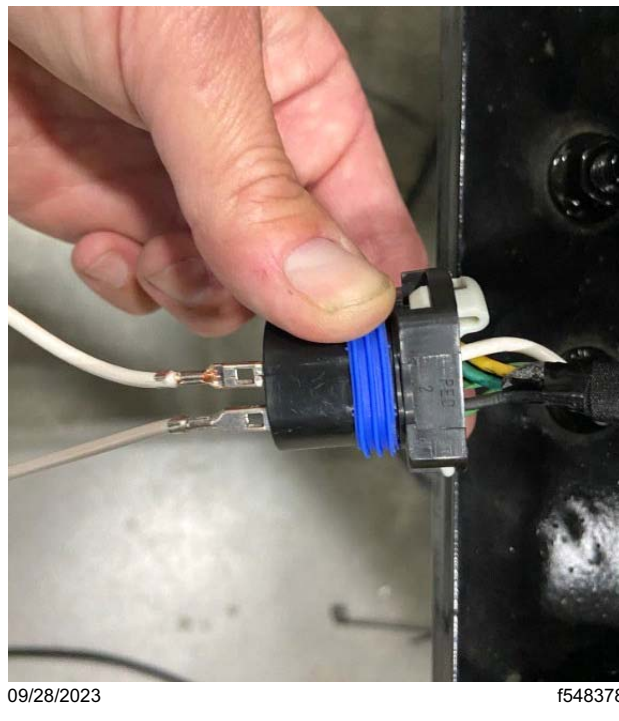
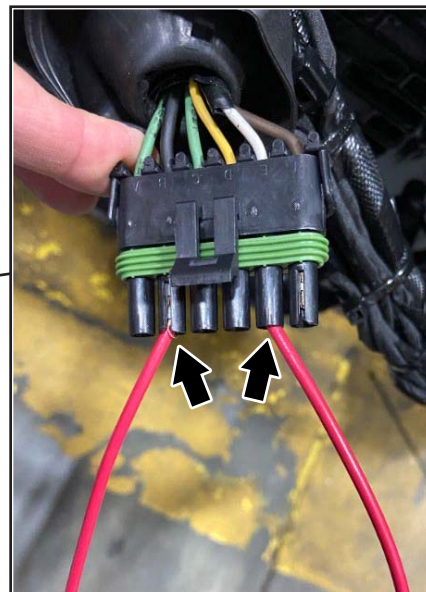
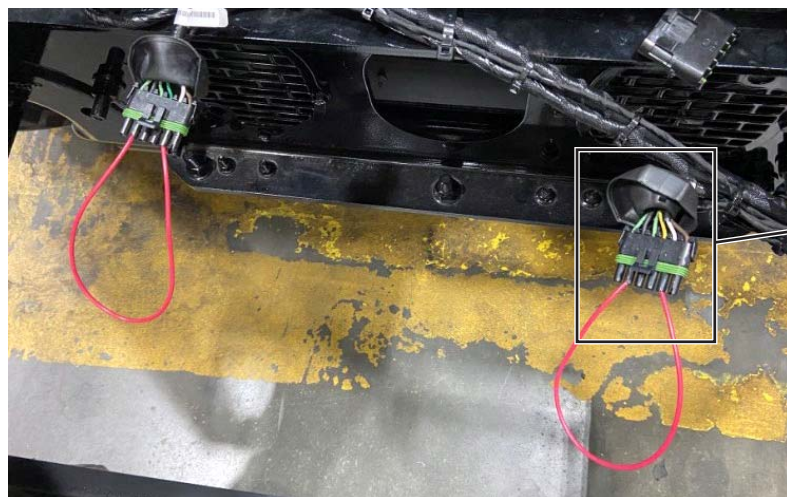


Fig. 125, Testing the Jumper Wire Installed in the Single Connector Plow Light Interface

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- **For dual connector plow light interface** → On each of the two plow connectors, install a jumper wire between the white wire (added to the connector earlier) and the black wire.
[See Fig. 126.](#)



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Fig. 126, Testing the Jumper Wire Installed in the Dual Connector Plow Light Interface (one connector shown)

- 23.2 Turn the ignition key to the 'Run' position, then turn the headlight switch to the ON position. Verify that the headlights and all markers are on. See [Fig. 127.](#)



Fig. 127, Verifying that the Headlights and the Markers Turn on Prior to Turning on the Plow Light Switch

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23.3 Turn the plow light switch to the ON position, and verify the following:

- Headlights should be off, marker lights in the headlight assembly should be off, and all other marker lights should be on. See [Fig. 128](#).

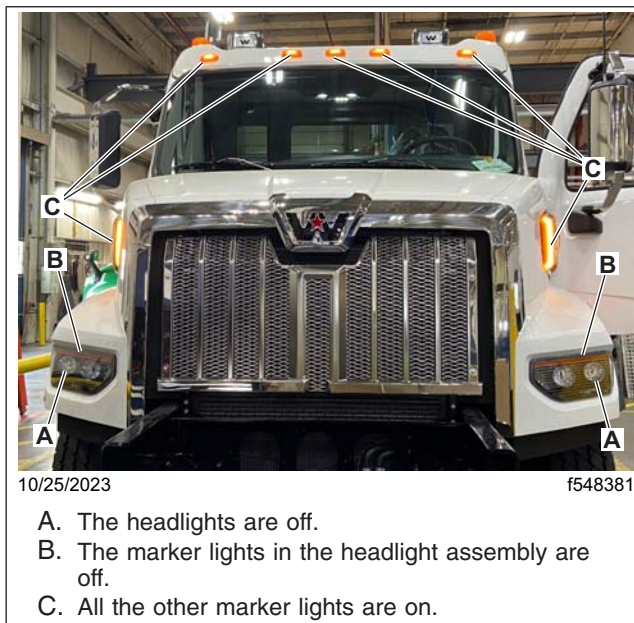


Fig. 128, Verifying that the Headlights and the Marker Lights in the Headlight Assembly Turn Off

- There should be a battery voltage (~12.5V) at the low beam output pin on the plow light connector(s):
– **For single connector plow light interface** → Battery voltage on pin C (green wire). See [Fig. 129](#).

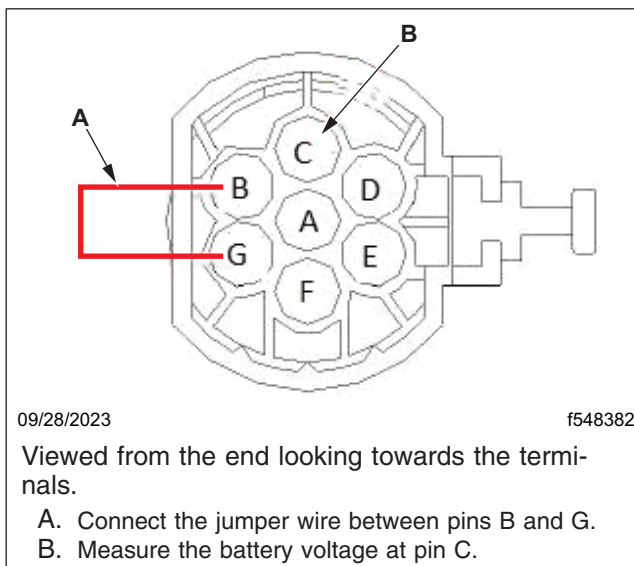
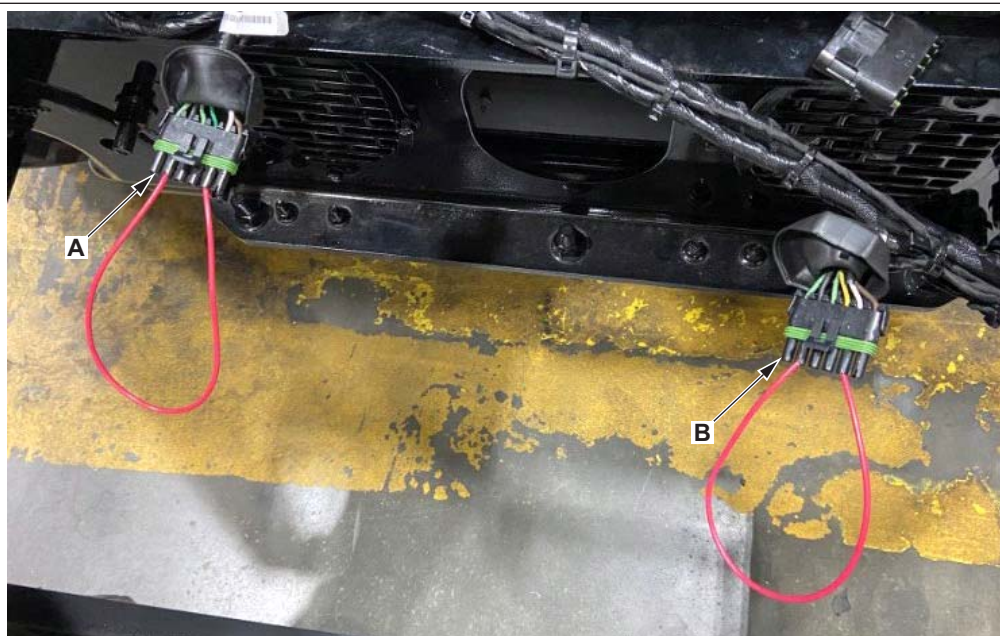


Fig. 129, Single Connector Plow Light Interface Test Jumper and Voltage Check Pin Locations

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– For dual connector plow light interface → Battery voltage on pin A (green wire) on both connectors. See [Fig. 130](#).



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A. Measure the battery voltage at pin A of the passenger-side plow light connector.

B. Measure the battery voltage at pin A of the driver-side plow light connector.

Fig. 130, Dual Connector Plow Light Interface Test Jumper and Voltage Check Pin Locations

- If the headlights and markers lights function correctly, and if there is voltage at the low beam output pin(s) at the plow light connector(s), then go to the next step.
- If the headlights and marker lights in the headlight assembly do not turn off, and all other marker lights remain on when the plow switch is turned on, check the installation of the wiring harnesses and re-check the function.
- If voltage is not present at the low beam output pin(s), verify that the parameters were set correctly, and check the wiring installation, especially the connection at the XMC2, then re-check the function.

24. Install the dash panels.

25. Clean a spot on the base label (Form WAR259), and attach a campaign completion sticker for SF675 (Form WAR261), indicating this work has been completed.