

## Methane Detection System Will Not Warn the Operator if the System Loses Power

Author: Patrick Riley

8/12/2022

<b>Title (metadata)</b>	21PBN / 21KWH – LNG/CNG Methane Detection System Will Not Warn Operator if System Loses Power – NHTSA ID: 21V00N, TC: 2021-793
<b>Bulletin No.</b>	21PBN / 21KWH
<b>Description</b>	21PBN / 21KWH – LNG/CNG Methane Detection System Will Not Warn Operator if System Loses Power
<b>Supplier</b>	Peterbilt / Kenworth
<b>Section</b>	Fuel - 44
<b>What's New Abstract</b>	<b>Safety Recall</b> – The methane detection system will not warn the operator if the system loses power. The driver could be unaware of an issue with the methane detection system or excessive methane present, increasing the risk of a fire, crash, or injury.
<b>Revision</b>	
<b>Introduction</b>	On certain LNG and CNG vehicles, the methane detection system may not function as designed. The driver may not be alerted by warning lamp and buzzer if the methane detection system loses power.
<b>Situation</b> (Chassis Affected)	PB-244 (241 US / 3 Canada) Model 536, 567 and 579 chassis model year 2016 through 2022 LNG and CNG vehicles built from 06/01/2015 through 11/30/2021 with a methane detection system.
<b>Resolution</b>	<b>Safety Recall</b>  Service all affected chassis that enter your dealership, even if the customer has no issue with the chassis.  <ol style="list-style-type: none"><li>1. Review the attached chassis list for your dealer code and schedule your customer(s) for service if their chassis is on the list.</li><li>2. If you are not using Service Management to start repair orders, review SIR for "Complete" or "In Process" next to the "21PBN" (KW: 21KWH) campaign code prior to performing this repair.</li><li>3. Follow the procedures below to rework the methane detection wiring.</li></ol>

# Methane Detection System Will Not Warn the Operator if the System Loses Power 21PBN / 21KWH

	4. Contact customer to schedule an appropriate repair date that coincides with parts availability.																												
<b>Federal Law</b>	It is a violation of Federal law for a dealer to sell or lease new vehicles covered by this recall until the defect or noncompliance has been corrected.																												
<b>Warranty</b>	<p><b>PETERBILT WARRANTY STATEMENT</b></p> <p>There is no time or mileage limit for this recall. Peterbilt will pay for parts at dealer net plus applicable mark up and labor:</p> <ul style="list-style-type: none"> <li>• 1.8 hours labor to rework the methane detection wiring. Use Quick Claim Code 21PBN.</li> <li>• There is no time or mileage limit for this recall. Peterbilt will pay for parts at dealer net plus applicable mark up and labor:</li> <li>• File an additional claim for extraordinary circumstances. A quick claim for standard labor must be filed first.</li> <li>• File the claim within 14 days in accordance with Warranty Policy.</li> </ul> <p><b>Take-Off Parts Disposition:</b></p> <table border="1" data-bbox="342 1073 1190 1877"> <thead> <tr> <th colspan="4">PRWS CLAIM CODING</th> </tr> </thead> <tbody> <tr> <td>Campaign Code:</td> <td>21PBN (21KWH)</td> <td>Campaign Type</td> <td>Safety Recall</td> </tr> <tr> <td>Claim Category:</td> <td>Truck</td> <td>Repair Type</td> <td>Proactive</td> </tr> <tr> <td>Customer Concern Code</td> <td>029</td> <td>Causal Code</td> <td>A1</td> </tr> <tr> <td>Corrective Action Code</td> <td>12</td> <td>Responsibility Code:</td> <td>Camp</td> </tr> <tr> <td>Failure Location</td> <td>051-006-014</td> <td>Causal Part</td> <td>18138</td> </tr> <tr> <td>Supplier Code</td> <td>N/A</td> <td>SRT Code</td> <td><b>B21-PBN</b> – 1.8 hours for methane detection rework.</td> </tr> </tbody> </table>	PRWS CLAIM CODING				Campaign Code:	21PBN (21KWH)	Campaign Type	Safety Recall	Claim Category:	Truck	Repair Type	Proactive	Customer Concern Code	029	Causal Code	A1	Corrective Action Code	12	Responsibility Code:	Camp	Failure Location	051-006-014	Causal Part	18138	Supplier Code	N/A	SRT Code	<b>B21-PBN</b> – 1.8 hours for methane detection rework.
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## 21PBN / 21KWH

	<table border="1"> <tr> <td>Display in SIR</td> <td>Always Visible</td> <td>Editable by dealer?</td> <td>Yes</td> </tr> <tr> <td>KW AutoPay</td> <td>No</td> <td>PB AutoPay</td> <td>No</td> </tr> </table>	Display in SIR	Always Visible	Editable by dealer?	Yes	KW AutoPay	No	PB AutoPay	No							
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<b>Parts</b>	<p>Parts are available from PACCAR Parts.</p> <table border="1"> <thead> <tr> <th>Quantity</th> <th>Part Number</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>S92-1250-1000</td> <td>HARNESS - SPARE POWER OPT</td> </tr> <tr> <td>1</td> <td>S92-6694</td> <td>METHANE DETECTION REWORK HARNESS</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Quantity	Part Number	Description	1	S92-1250-1000	HARNESS - SPARE POWER OPT	1	S92-6694	METHANE DETECTION REWORK HARNESS						
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<b>Background</b>																
<b>Procedure</b>	<p><b>Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.</b></p> <p>Locate the appropriate rework procedure in the Links section.</p>															
<b>Links</b>	<p>Model <b>567 / 579</b> Rework Procedure            Model <b>536</b> Rework Procedure            Chassis List            US Customer Letter            Canada Customer Letter – English            Canada Customer Letter – French</p>															
<b>Channels</b>	<p>KWUS <input type="checkbox"/> KWCA <input type="checkbox"/> KWGS <input type="checkbox"/>            PBUS <input checked="" type="checkbox"/> PBCA <input checked="" type="checkbox"/>            Same bulletin published to KW &amp; PB regions? Choose an item.</p>															
<b>Publish On</b>	Click or tap to enter a date.															



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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

SRT	SRT TIME	ACTUAL TIME	TIME STUDY DATE	MODEL
B21-PBN	1.8	1.76	11/23/2021	579

**RE-INSTALL IN REVERSE ORDER**

## METHANE DETECTION REWORK



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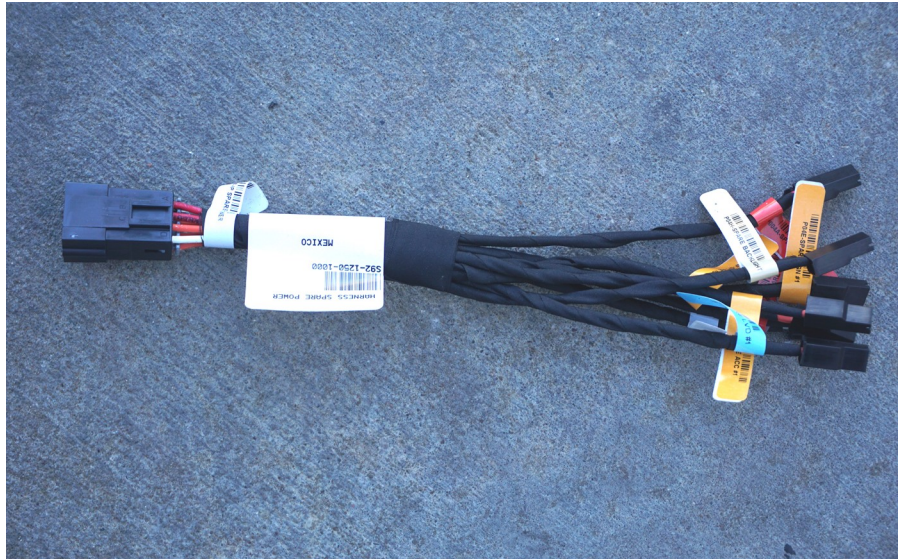
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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

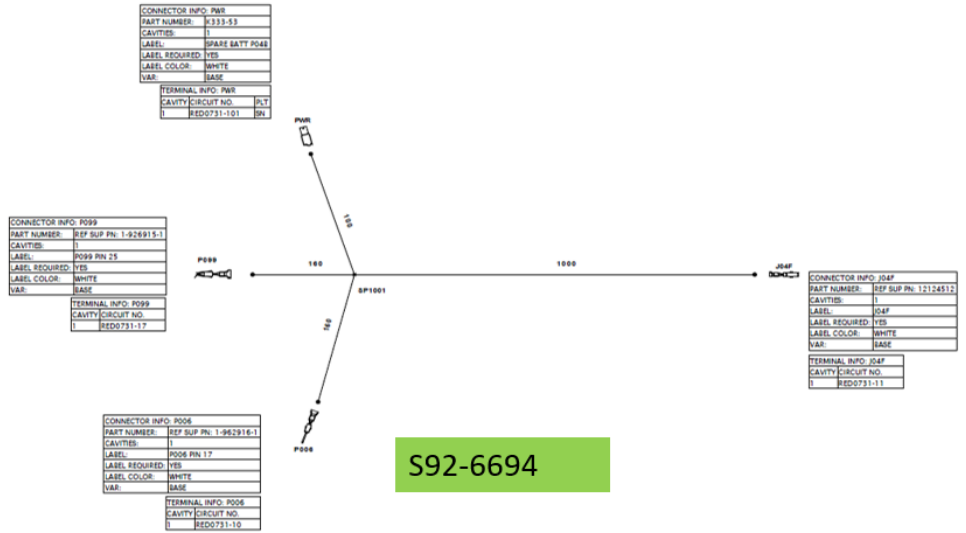
Harness

S92-1250-1000



Methane detection rework harness

S92-6694



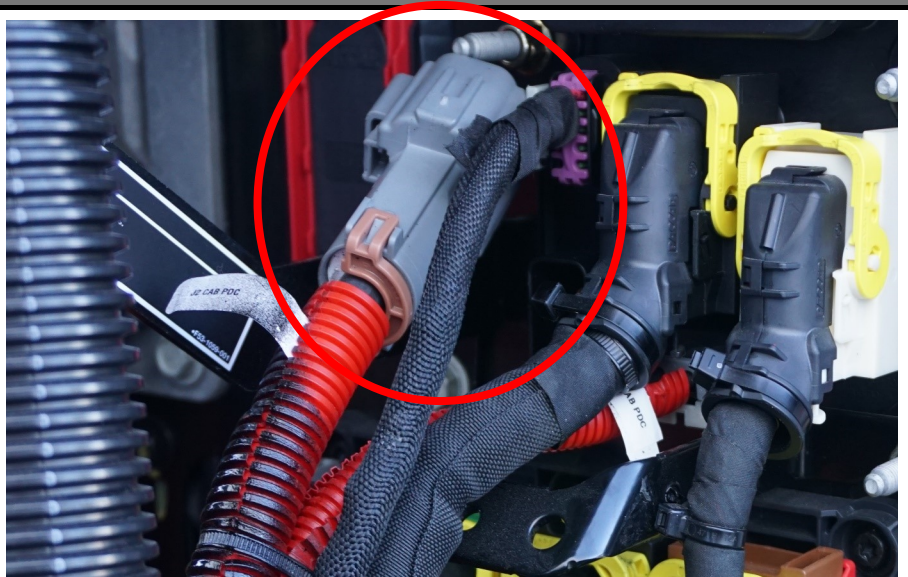


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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

**Step 1:** Disconnect power to cab:



**Step 2:** Remove Lower panels on LH side (5 screws) (2 connectors)



**Step 3:** Remove Fire extinguisher





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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

**Step 4:** Remove LH door sill plate (4 screws)



**Step 5:** Remove LH front handle (3 bolts)



**Step 6:** Remove LH foot rest (2 screws)





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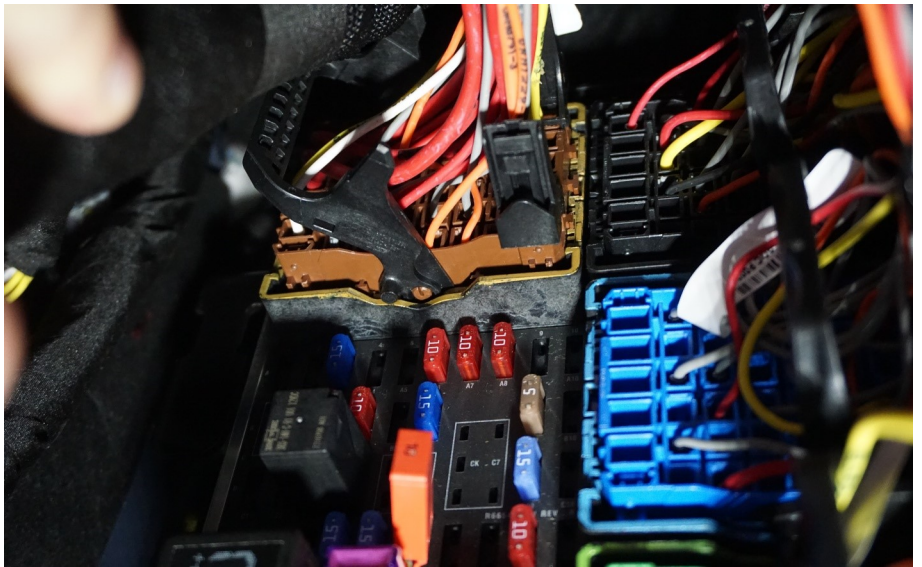
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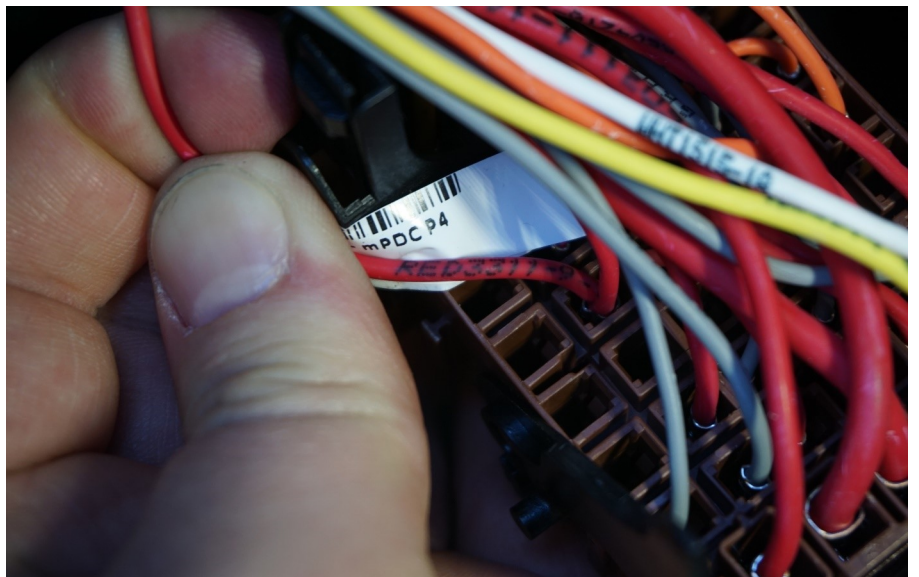
**Step 7:** Remove zip ties securing harness



**Step 8:** Gently pull harness out of the wat and remove P004 connector (brown)



**Step 9:** Locate and cut wire RED 3311-9







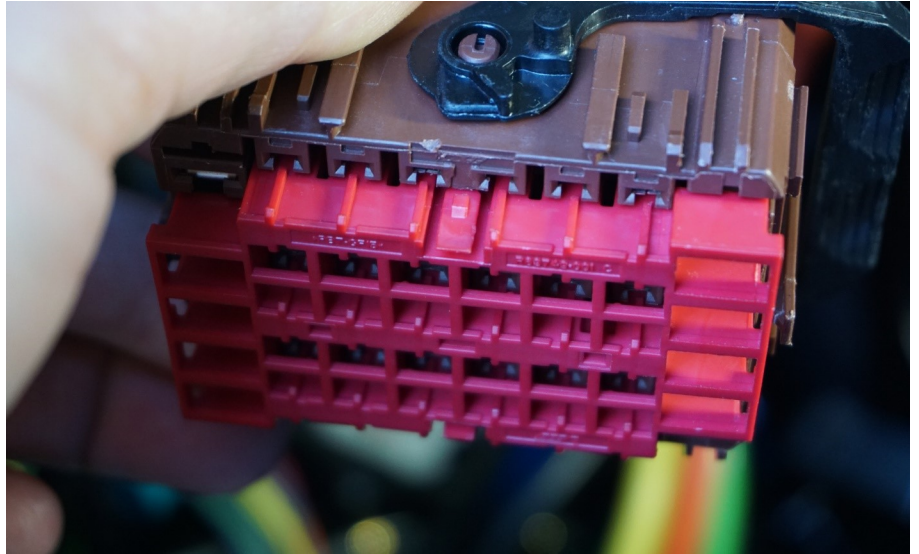
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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

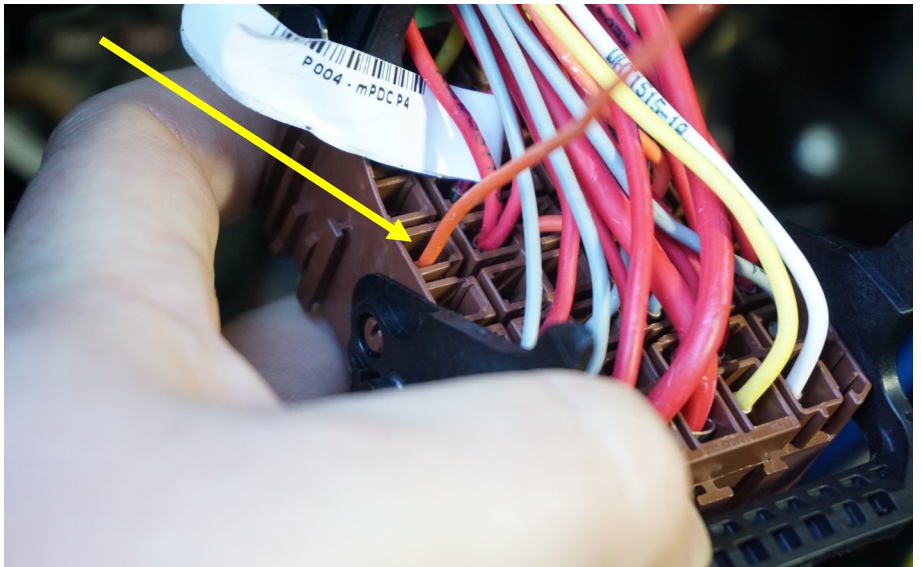
NOTE: The secondary lock must be released in order to add a wire terminal to the connector.

See photo:



**Step 10:** Add terminal to wire red3311-9 and re-locate to position B4

See photo, orange wire:



**Step 11:** Remove 4 firewall pass-through connectors:

NOTE: Must be removed from outside.





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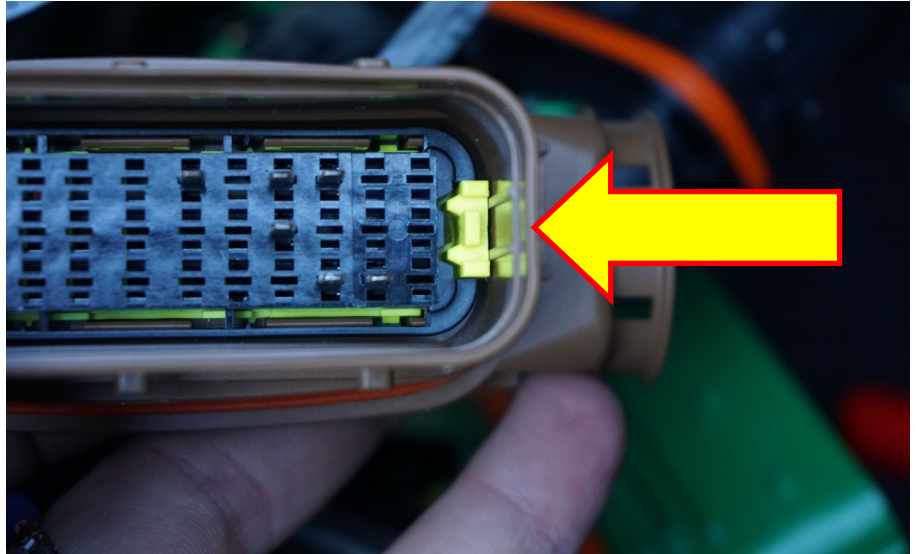
# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

**NOTE:** The secondary lock is released by sliding the yellow tab towards the pins until it clicks.

Be sure to lock the secondary lock after replacing wires.

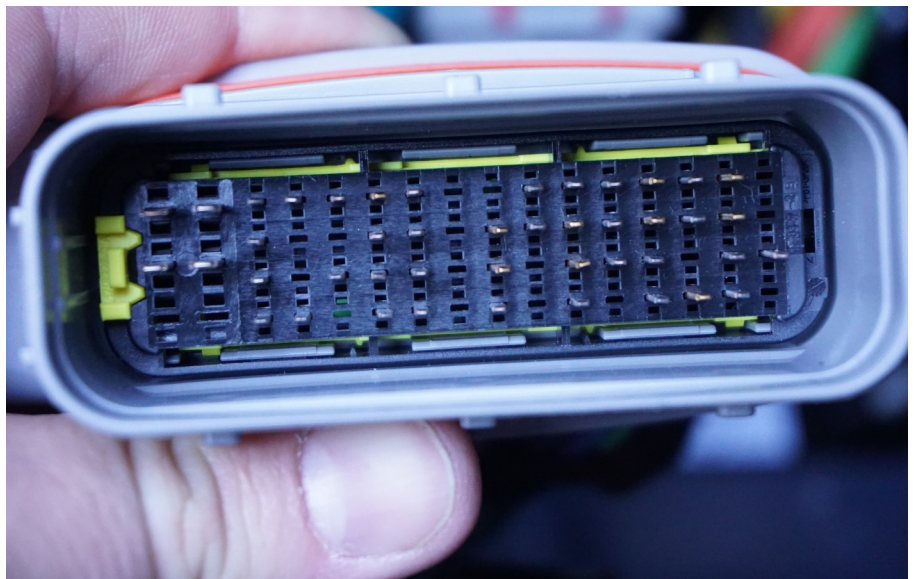
**The disconnected wires must be cut, then insulated with tape or heat shrink tubing**



**Step 12:** Replace pin 25 in connector P099 (brown) with RED0731-17 on the rework harness:



**Step 13:** Replace pin 17 in connector P006 (gray) with RED 0731-10 on the rework harness:



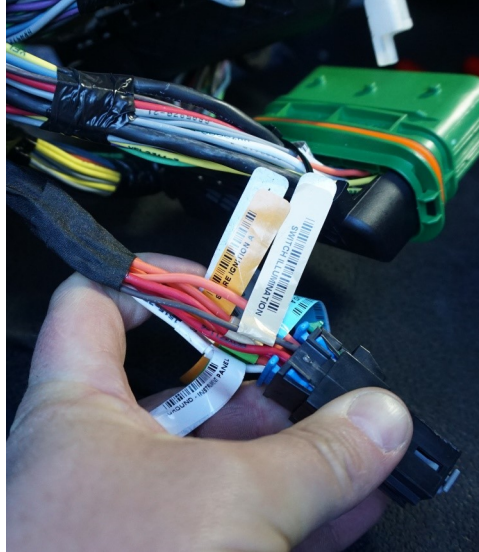


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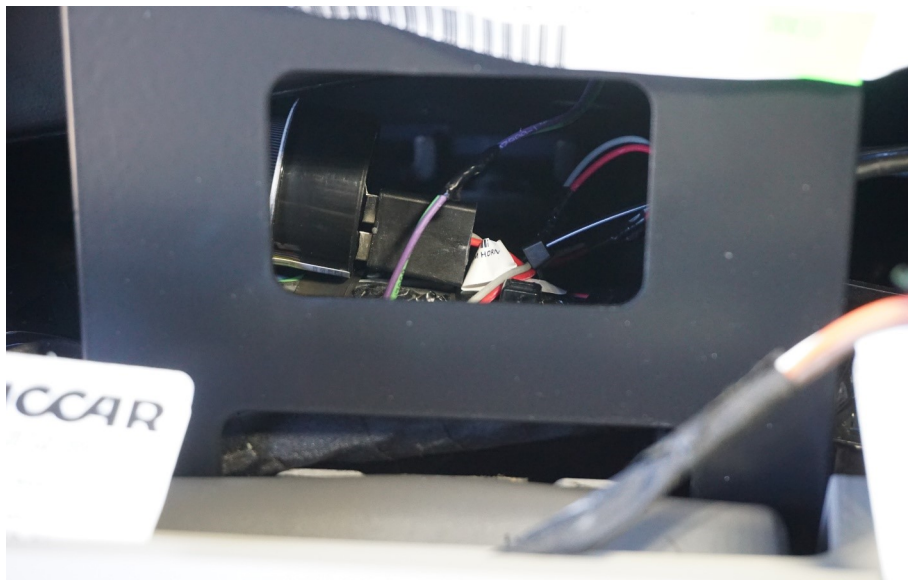
**Step 14:** locate spare power connector (tied back near the firewall pass through connectors) and plug in harness S92-1250-1000



**Step 15:** Plug the rework harness into terminal P04B Spare batt 1



**Step 16:** Remove the C,B panels and dash cluster, then locate the methane detection alarm (located behind the dash cluster)





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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

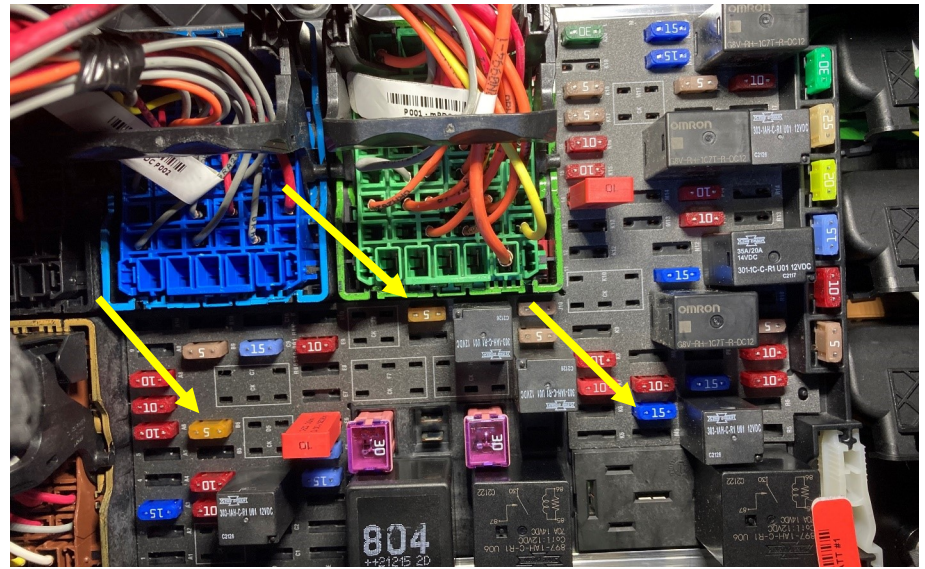
## METHANE DETECTION REWORK

**Step 17:** Re-pin alarm connector power wire with the rework harness, then insulate the unused cable and secure the alarm in its original position.

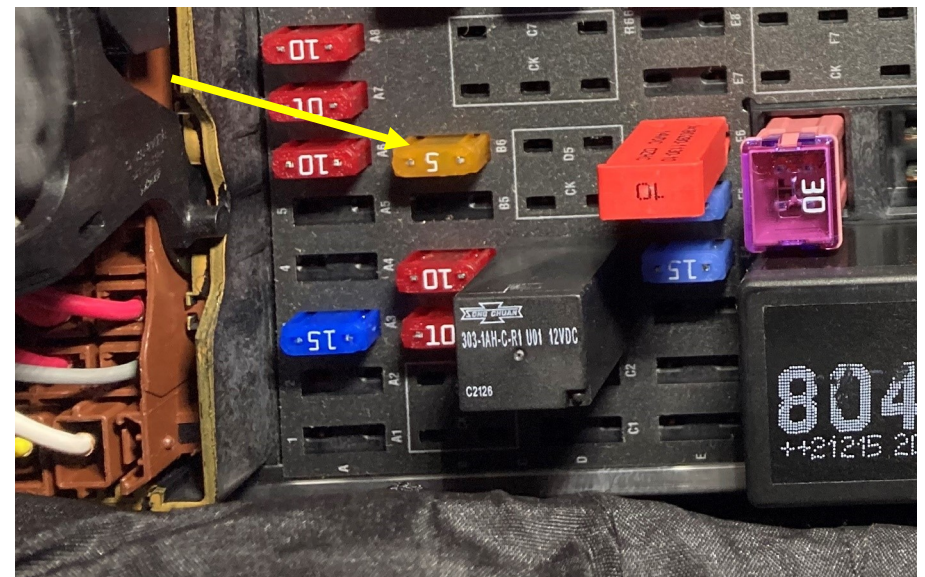


**Step 18:** Move the 15 Amp fuse in location B6 to M6, then insert 5Amp fuses in locations B6 and G10

Note: location G10 may be populated with a 20Amp fuse from the factory, replace it with the 5Amp fuse



**Step 19:** Re-assemble all components, secure all harnesses with zip ties, then re-supply power to the cab.





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# STANDARD REPAIR TIME PROCESS DOCUMENTATION

## METHANE DETECTION REWORK

**Step 20:** Correct the fuse labels on the fuse label :

B6-Methane detect (5A)

M- PACCAR AMT (15A)

G10-Methane Detect (5A)

FUSE ID	AMP	DESCRIPTION	FUSE ID	AMP	DESCRIPTION	FUSE ID	AMP	DESCRIPTION
A3	15A	FLOOD LP1	B9	5A	MSM/SMARTWHEEL	G10	5A	METHANE DETECTION
A6	10A	BODY IGNITION PWR	C9	15A	CB/RADIO POWER	H5	30A	LH DOOR MOD
A7	10A	RP1226 IGN	E4	15A	POWER PORT1	J9	5A	DIAGNOSTIC PWR
A8	10A	RP1226 BATT	E5	15A	POWER PORT2	J10	5A	VECU LVD V SENSE
B3	10A	GAUGE CLUSTER	E6	10A	CAB DOME LAMP	K7	10A	HORN
B4	10A	VECU BATT PWR 2	E9	10A	TELEMATICS (BAT)	K8	10A	CAN MARKER LAMP
B6	5A	METHANE DETECTION SYSTEM5	30A		RH DOOR MOD	K14	10A	SUSP/CHASSIS
						K15	10A	MISC LOW CURR
						K16	10A	PARK LP - CAB
						K17	5A	CECU/VECU IGN PWR
						K18	5A	RH STALK SHIFTER
						K20	30A	TRLR HOTLINE 30
						M6	15A	PACCAR AMT BATT
						M7	10A	SPLICE FEED IGN
						N11	15A	RH MIRROR
						N19	15A	LH MIRROR
						N20	15A	PARK LP - TRLR
						P7	15A	AIR DRYER
						P13	10A	KEY PWR SW
						P14	10A	DIGI DISPLAY PWR 2
						P18	5A	HVAC HEAD ACC
						R7	10A	CB/VHF
						R8	10A	OCOM/LDWS/RMT DIAG
						H9	5A	VECU ACC PWR
						R18	10A	RADIO WAKEUP

	1	2	3	4	5	6	7	8	9	10
A			A3			A6	A7	A8		
B			B3	B4		B6			B9	
C										
D			FLOOD LP1 RELAY						C9	
E				E4	E5	E6			E9	

**Step 21:** Verify functionality by removing the 5Amp fuse in location B6. The methane detection alarm should sound.