

2013 PACCAR MX-13

Diagnostic Service Manual

EPA2013

(U1575 to U1821)

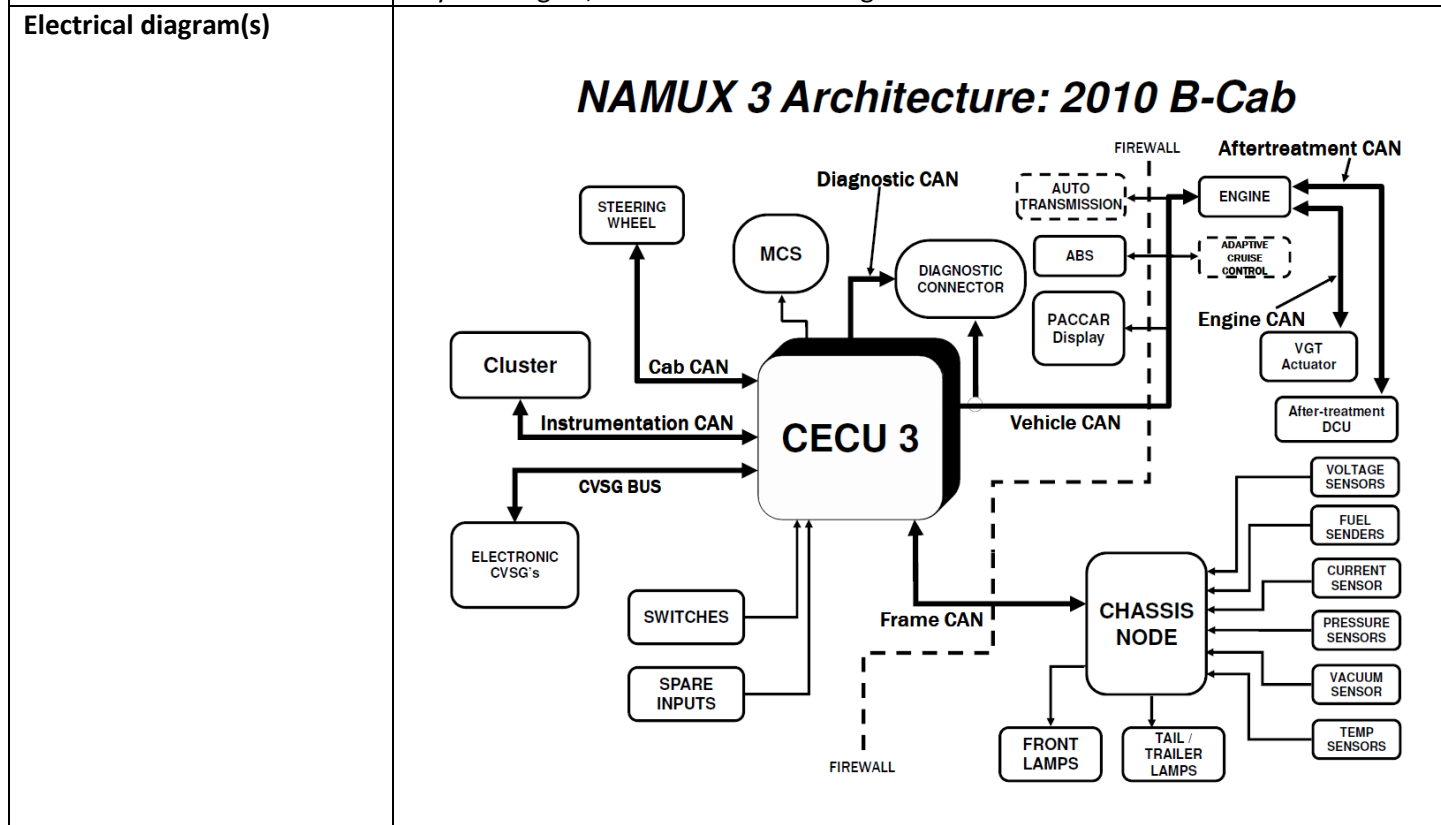


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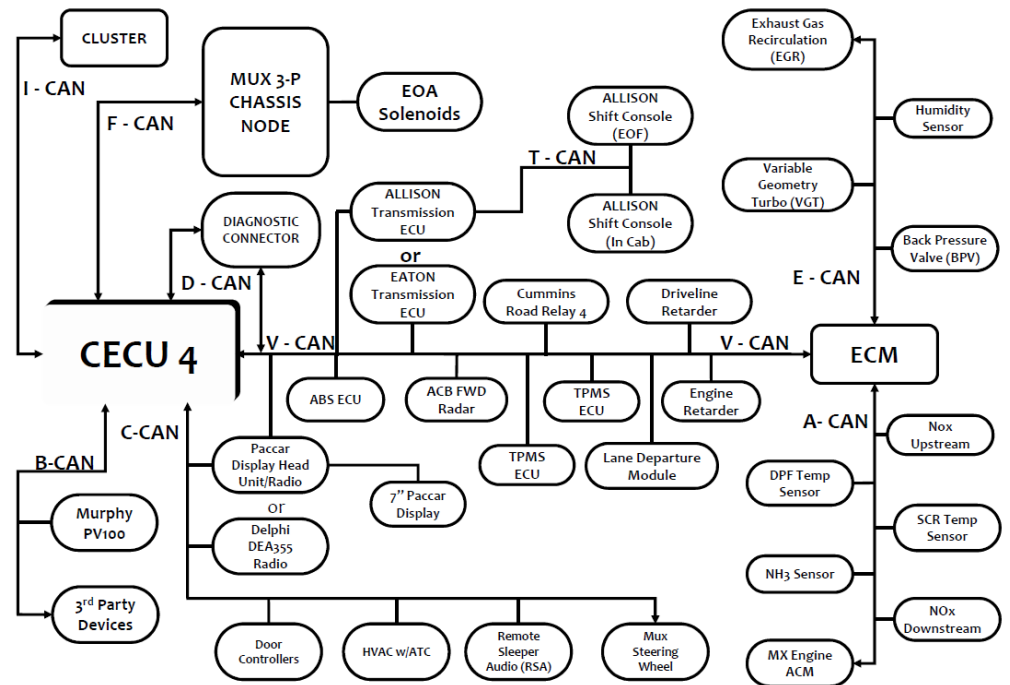
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U1575

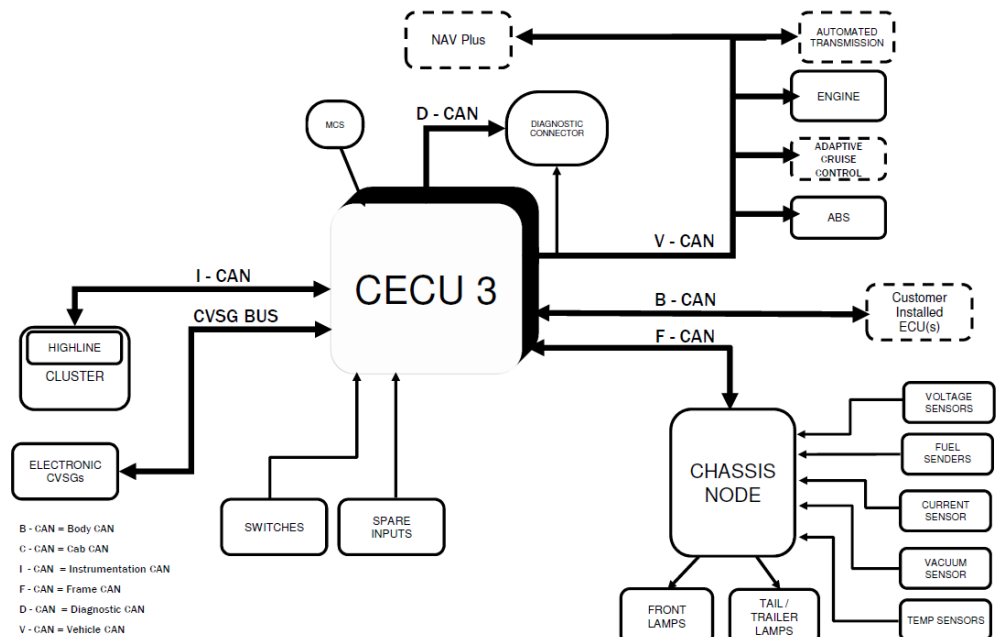
Code number	U1575
Fault code description	EGR valve module effort – Data erratic, intermittent, or incorrect
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) receives a CAN message from the EGR valve module (L095) that contains an out-of-range value for the actuator effort.
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.



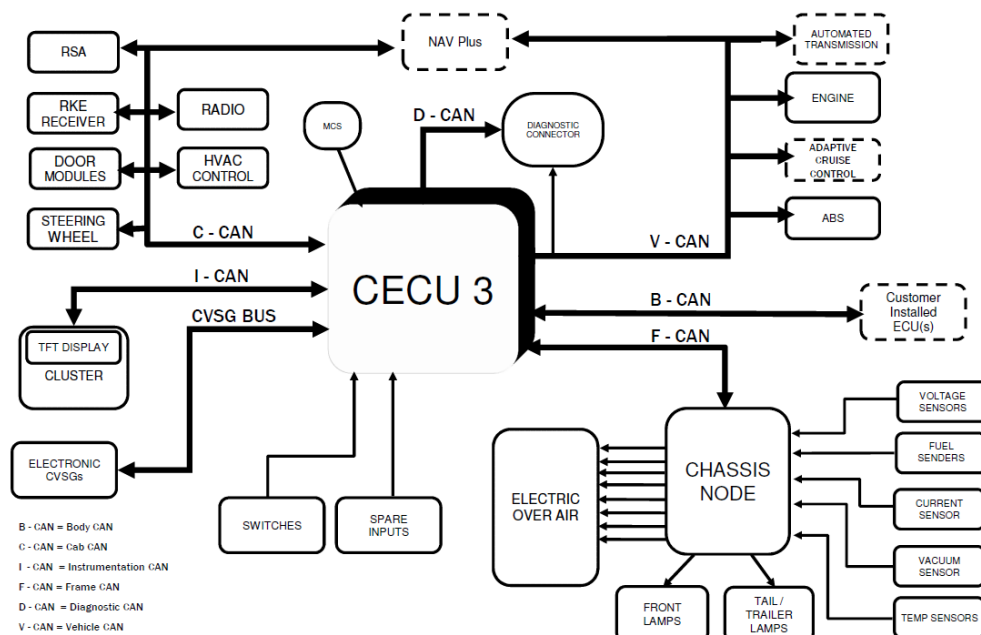
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



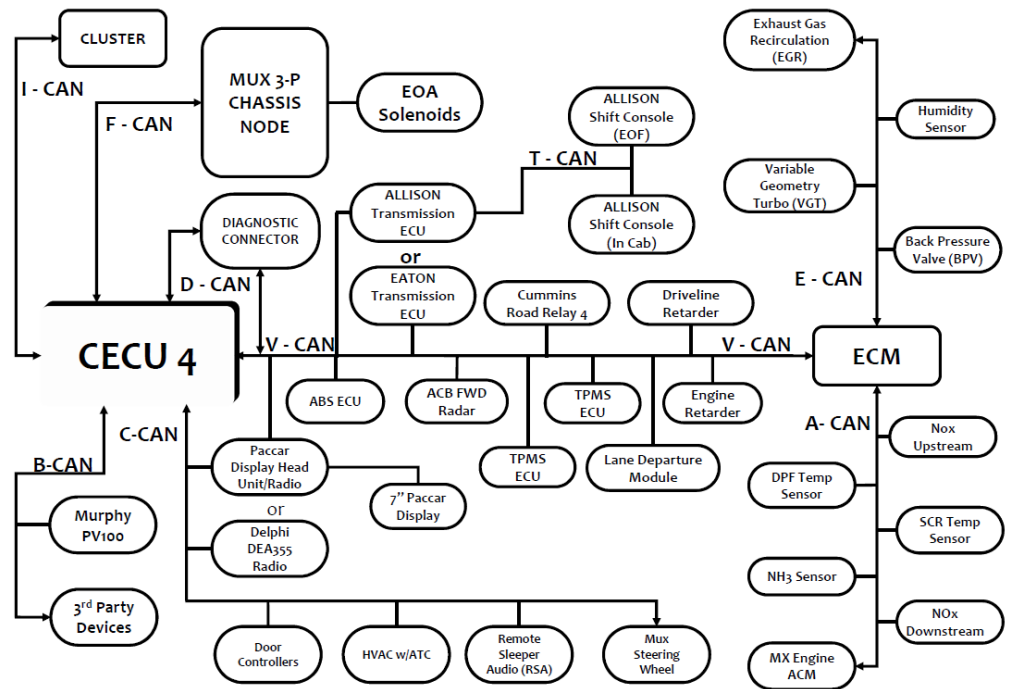
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">E-CAN communicationFaulty EGR valve module								
Additional information	<ul style="list-style-type: none">The EGR valve actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.The effort to move the actuator shaft is measured.								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1575a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins)</td></tr></table>			Step 1	Step ID 1575a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins)		
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Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins)									

	<p>damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 1575b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4			Step 2	Step ID 1575b	SRT
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	<table><tr><td>Step 3</td><td>Step ID 1575c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault			Step 3	Step ID 1575c	SRT
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<table><tr><td>Step 4</td><td>Step ID 1575d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 1575d	SRT	
Step 4	Step ID 1575d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

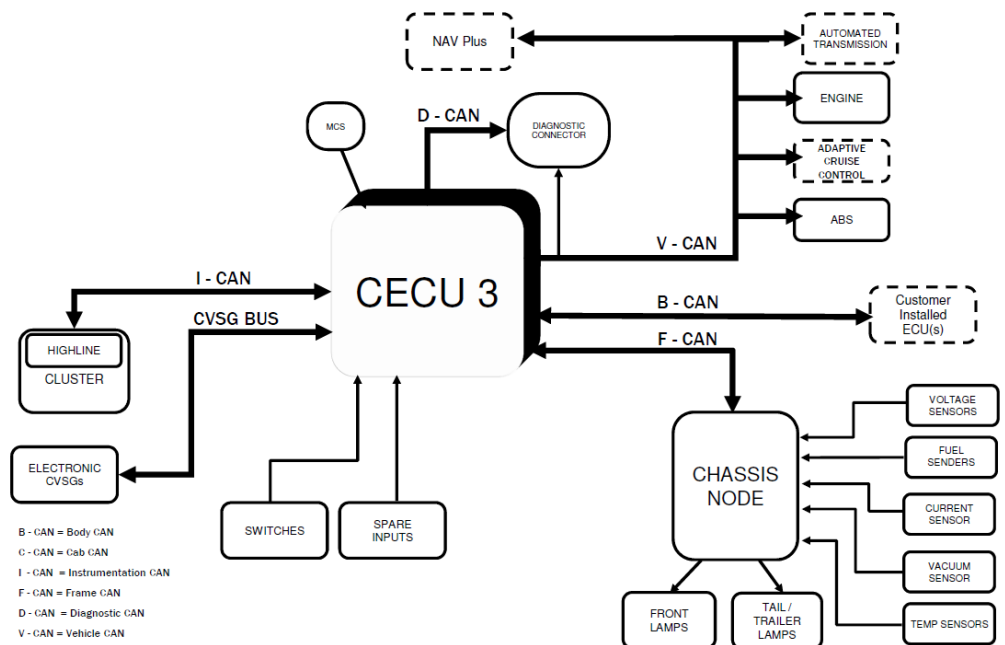
U1577

Code number	U1577
Fault code description	BPV actuator– CAN Communication error – Message rate too low
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) lost communication with the BPV actuator (L020).
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which is connected to several other components via CAN buses and other interfaces. The connections are as follows:</p> <ul style="list-style-type: none"> CECU 3 is connected to STEERING WHEEL via Cab CAN. CECU 3 is connected to MCS via Diagnostic CAN. CECU 3 is connected to DIAGNOSTIC CONNECTOR via Diagnostic CAN. CECU 3 is connected to Cluster via Instrumentation CAN. CECU 3 is connected to ELECTRONIC CVSG's via CVSG BUS. CECU 3 is connected to SWITCHES and SPARE INPUTS via Vehicle CAN. CECU 3 is connected to CHASSIS NODE via Frame CAN. CECU 3 is connected to ABS and PACCAR Display via Vehicle CAN. CECU 3 is connected to ENGINE via Engine CAN. CECU 3 is connected to VGT Actuator via Engine CAN. CECU 3 is connected to After-treatment DCU via After-treatment CAN. CHASSIS NODE is connected to FRONT LAMPS and TAIL / TRAILER LAMPS. CHASSIS NODE is connected to VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine from the After-treatment CAN.</p>

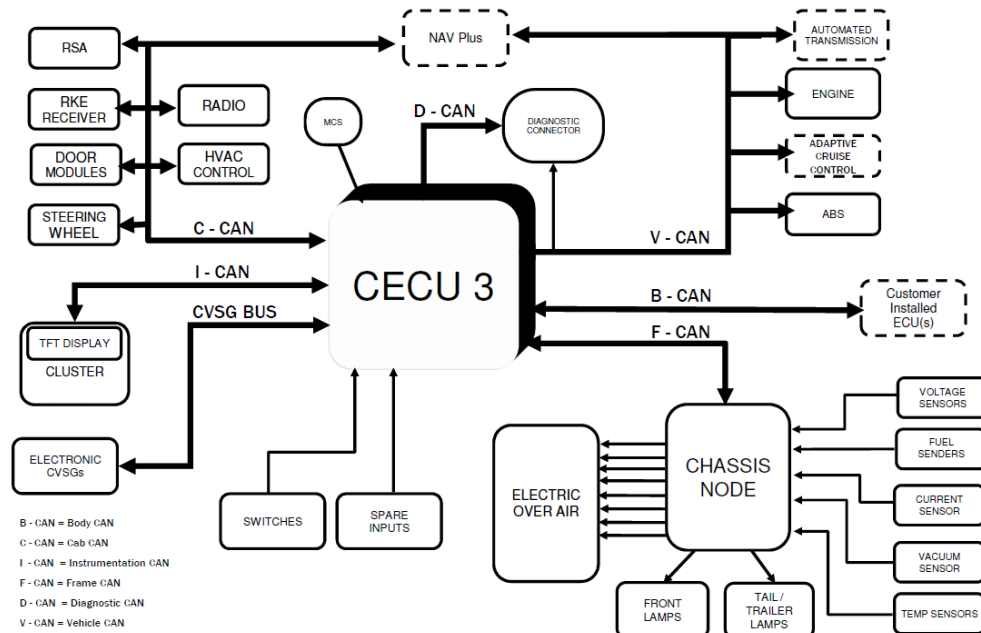
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture

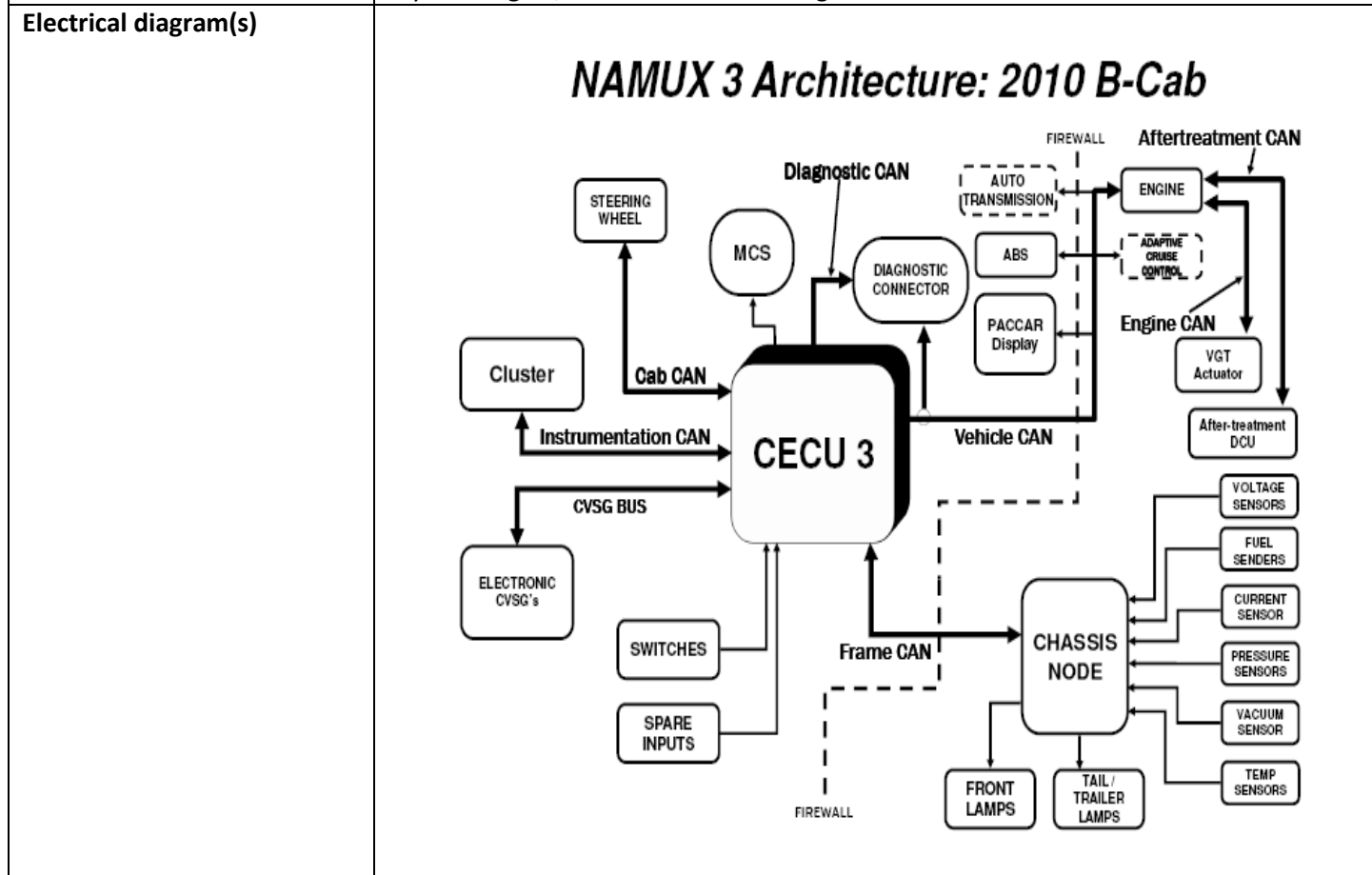


Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> • BPV actuator power supply • E-CAN communication • Faulty BPV actuator 							
Additional information	The BPV actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.							
Diagnostic Step-by-Step	<p> Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> <p> <ul style="list-style-type: none"> • Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. • For specific electrical component information and pinout locations, always refer to the technical data. • It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. • Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <thead> <tr> <th>Step 1</th><th>Step ID 1577a</th><th>SRT</th></tr> </thead> <tbody> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </tbody> </table>		Step 1	Step ID 1577a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
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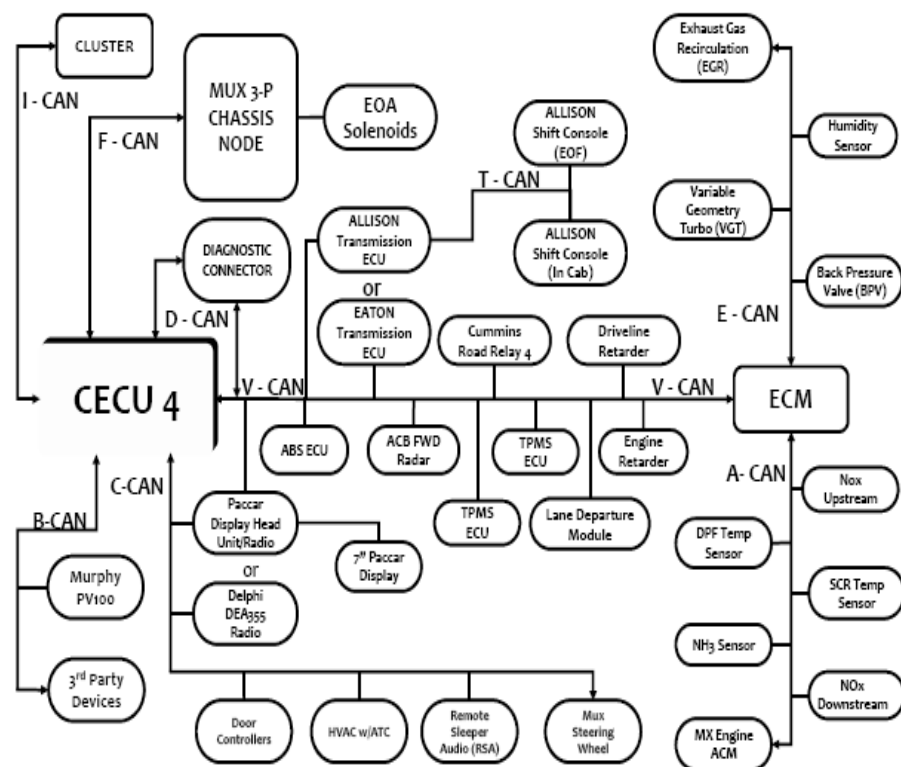
	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1577b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 1577c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault		
	Step 4	Step ID 1577d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p>		
	<p>Back to Choose Code Back to Index</p>		

U1578

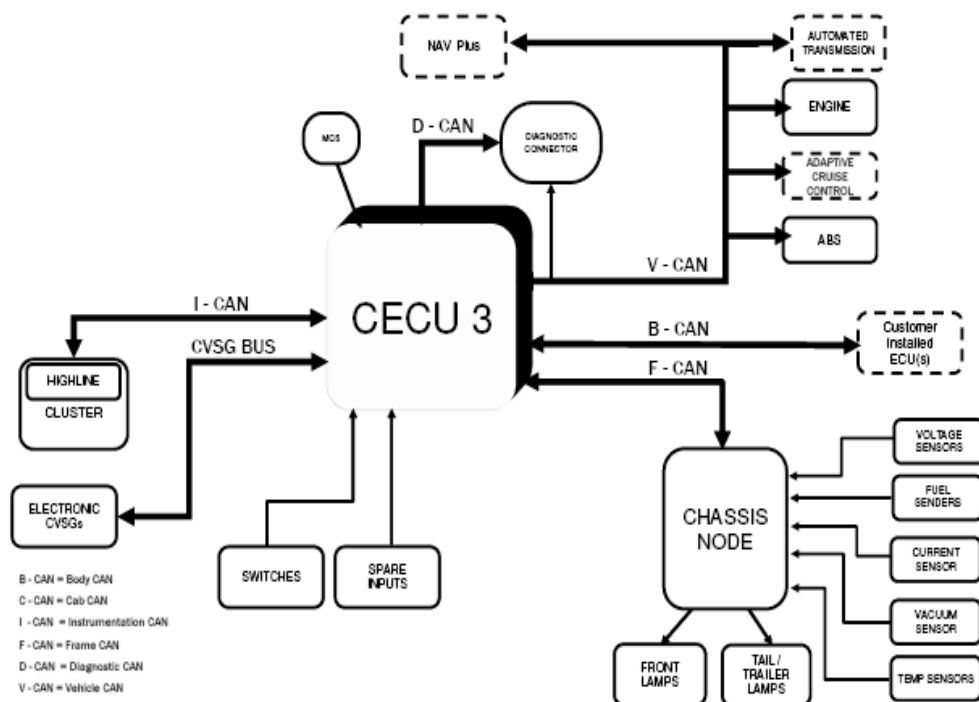
Code number	U1578
Fault code description	BPV actuator effort – Data erratic , intermittent or incorrect
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) receives a CAN message from the BPV actuator (L020) that contains an out-of-range value for the actuator effort.
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.



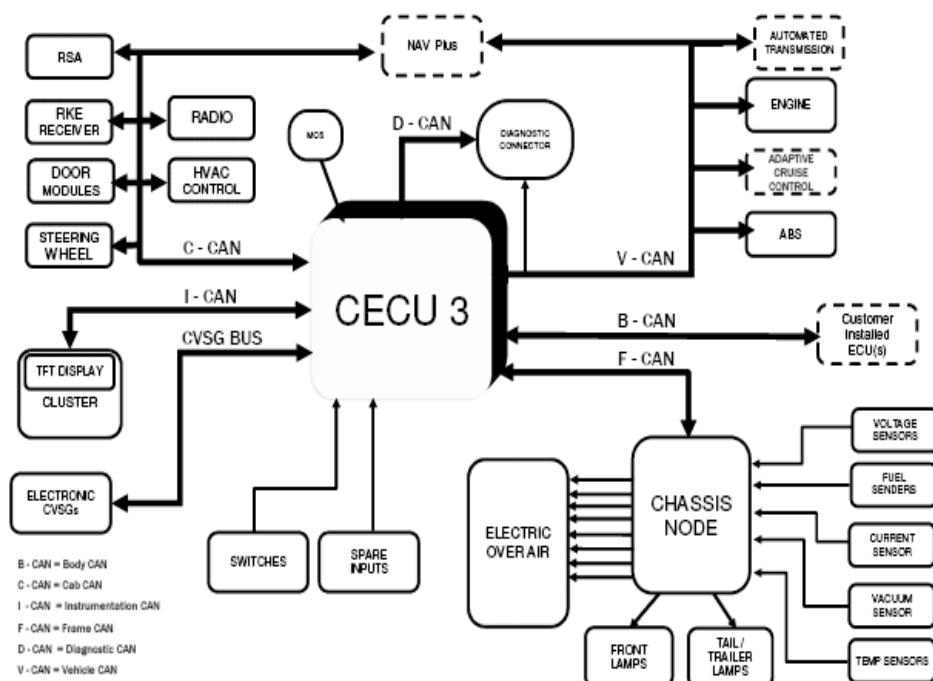
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



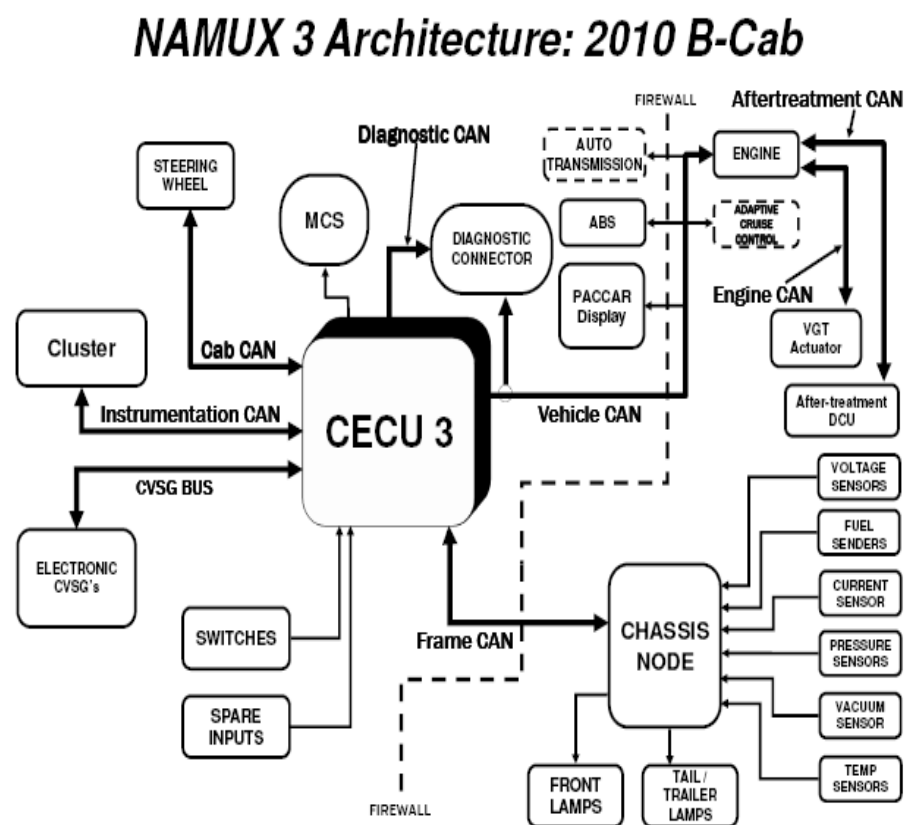
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">E-CAN communicationFaulty BPV actuator								
Additional information	<ul style="list-style-type: none">The BPV actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.The effort to move the actuator shaft is measured.								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1578a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins)</td></tr></table>			Step 1	Step ID 1578a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins)		
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	<p>damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1578b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 1578c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault		
	Step 4	Step ID 1578d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

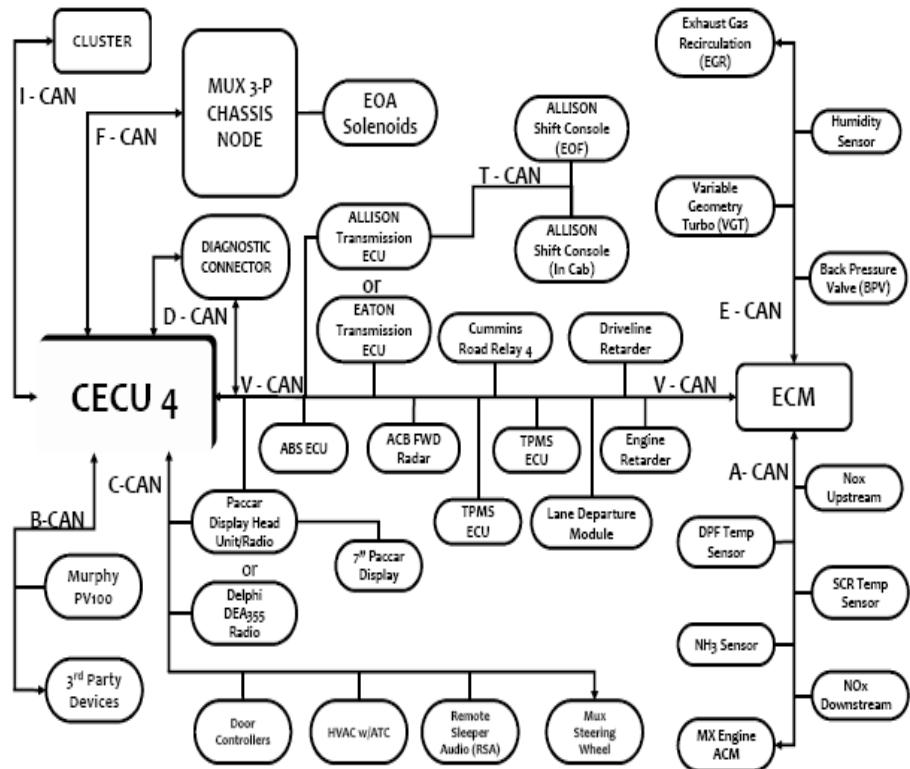
U1579

Code number	U1579
Fault code description	BPV actuator position – Data erratic , intermittent or incorrect
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) receives a CAN message from the BPV actuator (L020) that contains an out-of-range value for the actuator shaft position.
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.

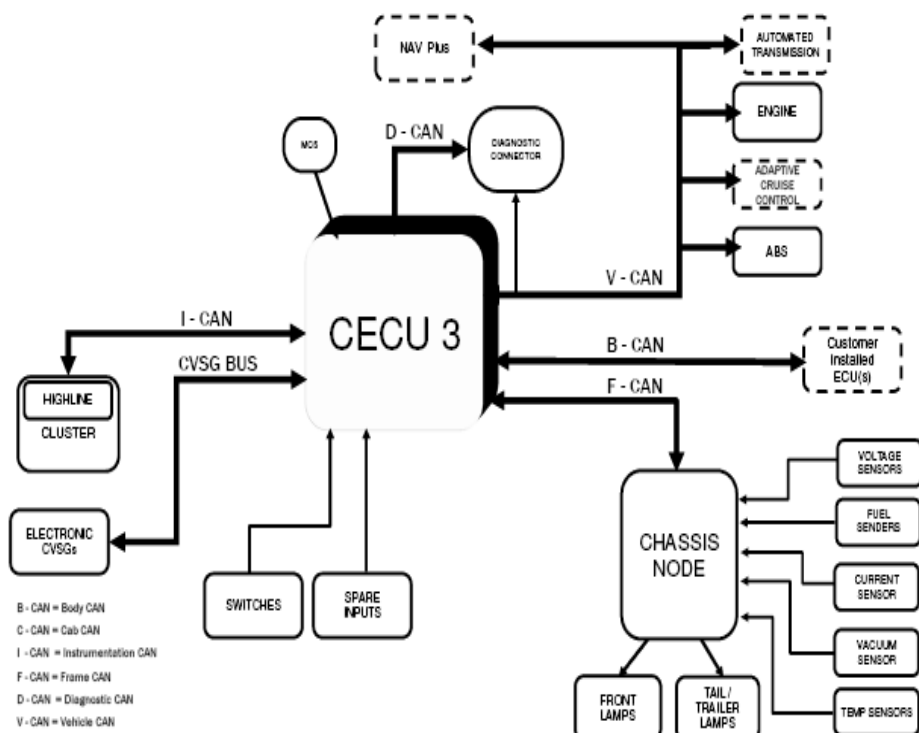
Electrical diagram(s)



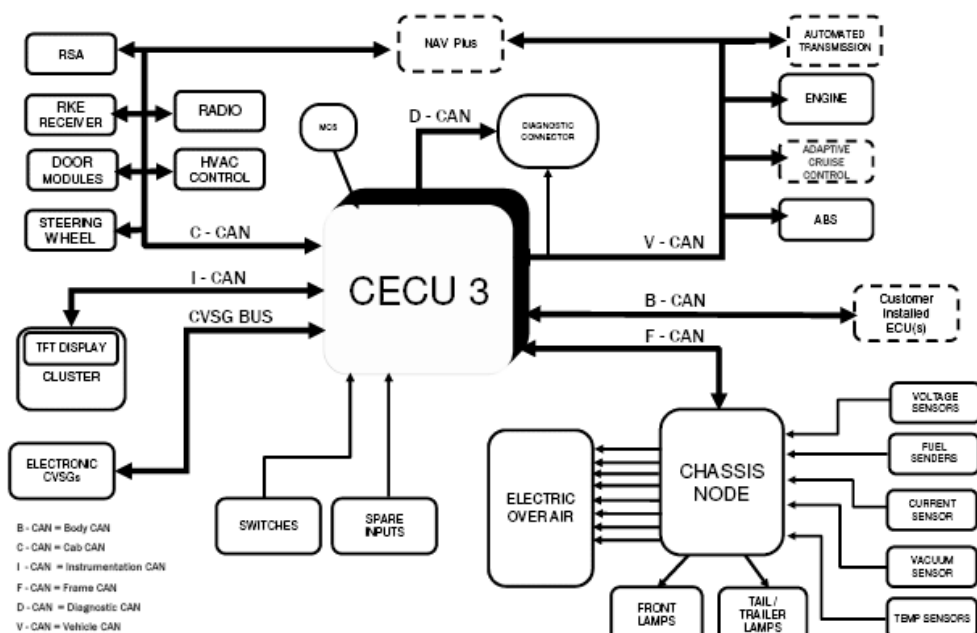
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture





NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

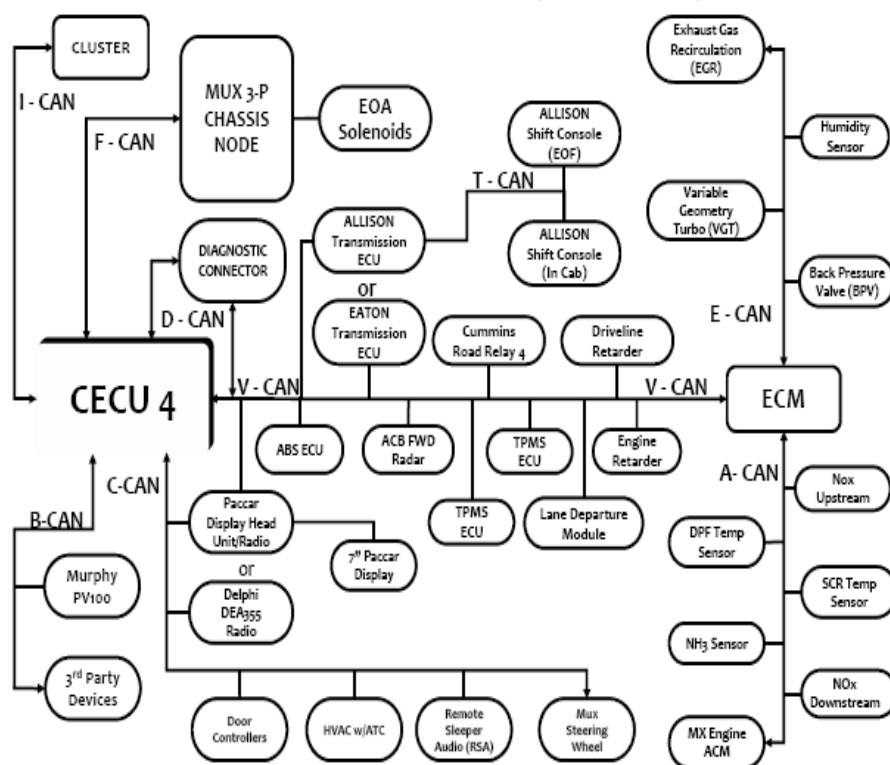
Possible causes	<ul style="list-style-type: none"> • E-CAN communication • Faulty BPV actuator 																			
Additional information	<ul style="list-style-type: none"> • The BPV actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics. • The position of the actuator shaft, and therefore the position of the EGR valve, is monitored. 																			
Diagnostic Step-by-Step	<div>  <p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> </div> <div>  <ul style="list-style-type: none"> • Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. • For specific electrical component information and pinout locations, always refer to the technical data. • It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. • Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </div> <table border="1"> <tr> <td>Step 1</td><td>Step ID 1579a</td><td>SRT</td></tr> <tr> <td colspan="3"> <p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 </td></tr> </table> <table border="1"> <tr> <td>Step 2</td><td>Step ID 1579b</td><td>SRT</td></tr> <tr> <td colspan="3"> <p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 </td></tr> </table> <table border="1"> <tr> <td>Step 3</td><td>Step ID 1579c</td><td>SRT</td></tr> <tr> <td colspan="3"> <p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> </td></tr> </table>		Step 1	Step ID 1579a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 			Step 2	Step ID 1579b	SRT	<p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 			Step 3	Step ID 1579c	SRT	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p>		
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	<ul style="list-style-type: none"> Is DTC fault active: Proceed to step 4 Is DTC fault inactive: Issue resolved. Clear inactive fault 		
	Step 4	Step ID 1579d	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	Back to Choose Code Back to Index		

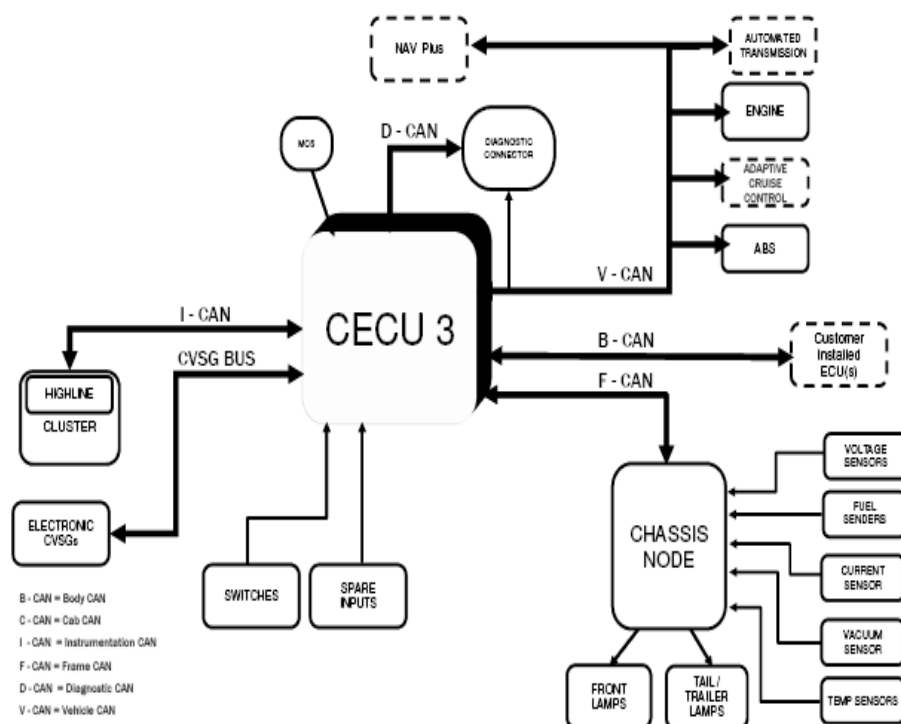
U157A

Code number	U157A
Fault code description	BPV actuator state – Data erratic , intermittent or incorrect
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component
Location of component(s)	This code relates to a communication issue and not to a specific component
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) receives a CAN message from the BPV actuator (L020) that contains an out-of-range value for the actuator operating state.
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.
Electrical diagram(s)	<p style="text-align: center;">NAMUX 3 Architecture: 2010 B-Cab</p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Diesel Exhaust Fluid Control Unit): Connected via Aftertreatment CAN. Chassis Node: Connected via Frame CAN. It manages various sensors including Voltage, Fuel, Current, Pressure, Vacuum, and Temperature sensors, as well as Front and Tail/Trailer Lamps. CVSG BUS (Control Valve Solenoid Group): Connected to the CECU 3. SWITCHES and SPARE INPUTS: Connected to the CECU 3. <p>The diagram also shows a FIREWALL separating the CECU 3 from the Chassis Node and the Engine/Aftertreatment CAN network.</p>

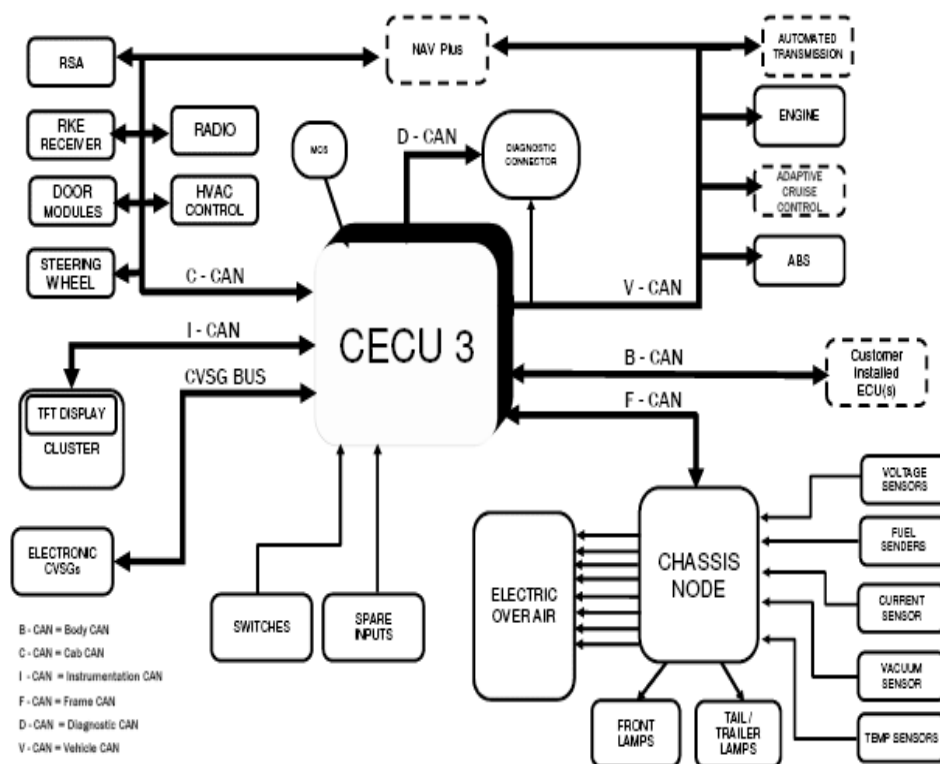
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



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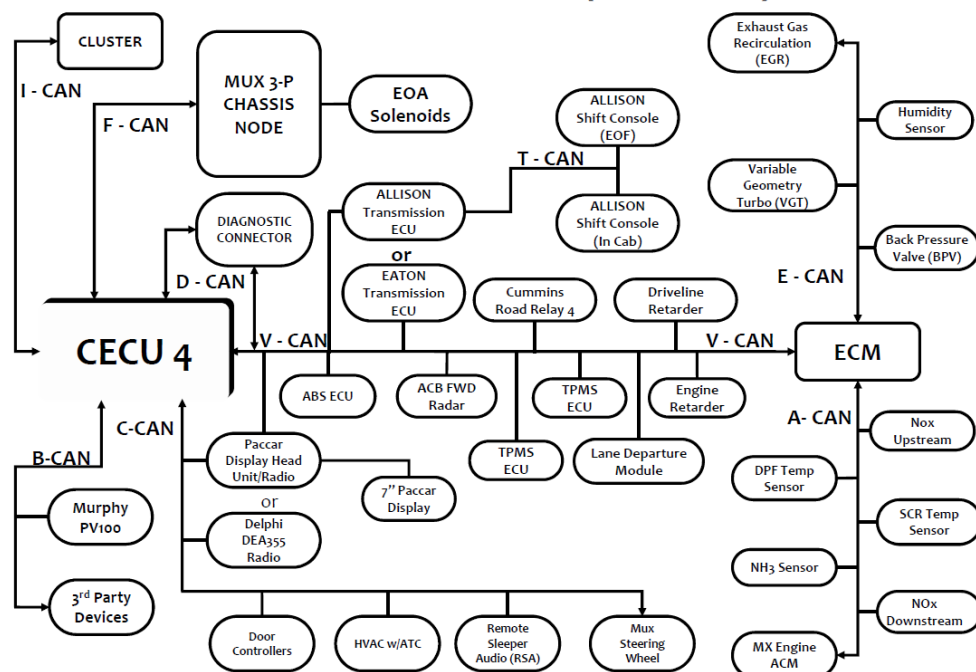
Technical data	This code relates to a communication issue and not to a specific component.	
Possible causes	<ul style="list-style-type: none"> E-CAN communication Faulty BPV actuator 	
Additional information	The BPV actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.	
Diagnostic Step-by-Step	<p>⚠ Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> <p>ℹ</p> <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. 	
	Step 1	Step ID 157A-a SRT

	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 		
	Step 2	Step ID 157A-b	SRT
	<p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 		
	Step 3	Step ID 157A-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault 		
	Step 4	Step ID 157A-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>		

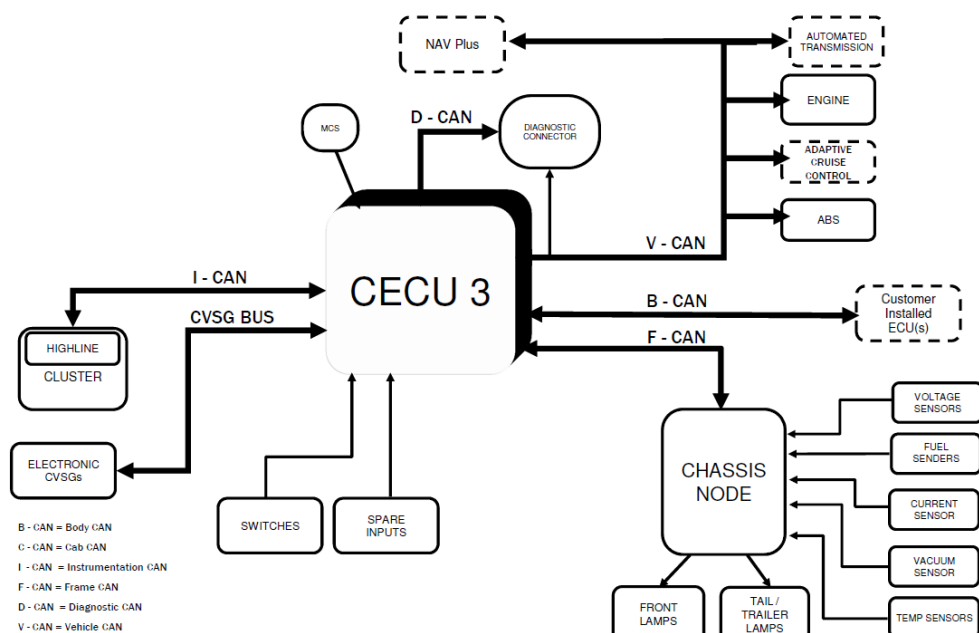
U157B

Code number	U157B
Fault code description	BPV actuator temperature - Data erratic, intermittent, or incorrect.
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) receives a CAN message from the BPV actuator (L020) that contains an out-of-range value for the actuator temperature
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off for at least 15 seconds, keyed on again, and the fault is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic CAN: Connected to the Diagnostic Connector. Cluster: Connected via Instrumentation CAN. CVSG BUS: Connected to the CVSG BUS. ELECTRONIC CVSG's: Connected to the CVSG BUS. SWITCHES and SPARE INPUTS: Connected to the CECU 3. Vehicle CAN: Connected to the CECU 3. CHASSIS NODE: Connected to the CECU 3 via Frame CAN. Engine: Connected via Engine CAN. VGT Actuator: Connected to the Engine CAN. After-treatment DCU: Connected to the Engine CAN. CHASSIS NODE: Connected to the CECU 3 via Frame CAN. It includes: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine. The Aftertreatment CAN is also shown connecting the Engine to the After-treatment DCU.</p>

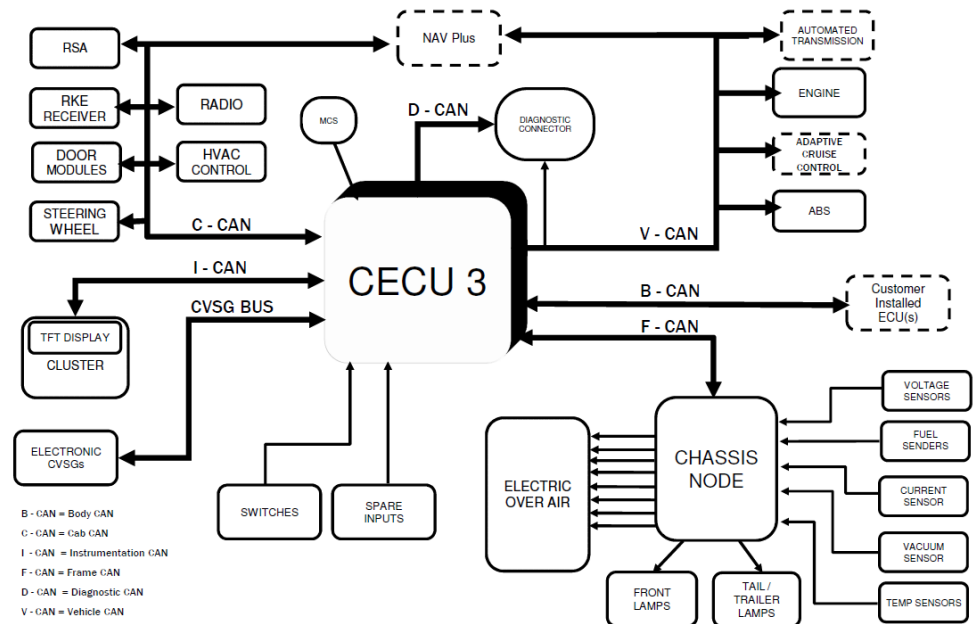
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- E-CAN communication
- Faulty BPV actuator

Additional information

- The BPV actuator is a smart actuator that communicates with the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.
- The temperature is measured on the (printed circuit board) of the actuator.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 157B-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?		

	<ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 157B-b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 157B-b	SRT
Step 2	Step ID 157B-b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 157C-c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness .• Reconnect the connector• ON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive : Issue resolved. Clear inactive fault	Step 3	Step ID 157C-c	SRT
Step 3	Step ID 157C-c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 157D-d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 157D-d	SRT
Step 4	Step ID 157D-d	SRT		
Verification Drive Cycle	To validate the repair: <ul style="list-style-type: none">• With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.• With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

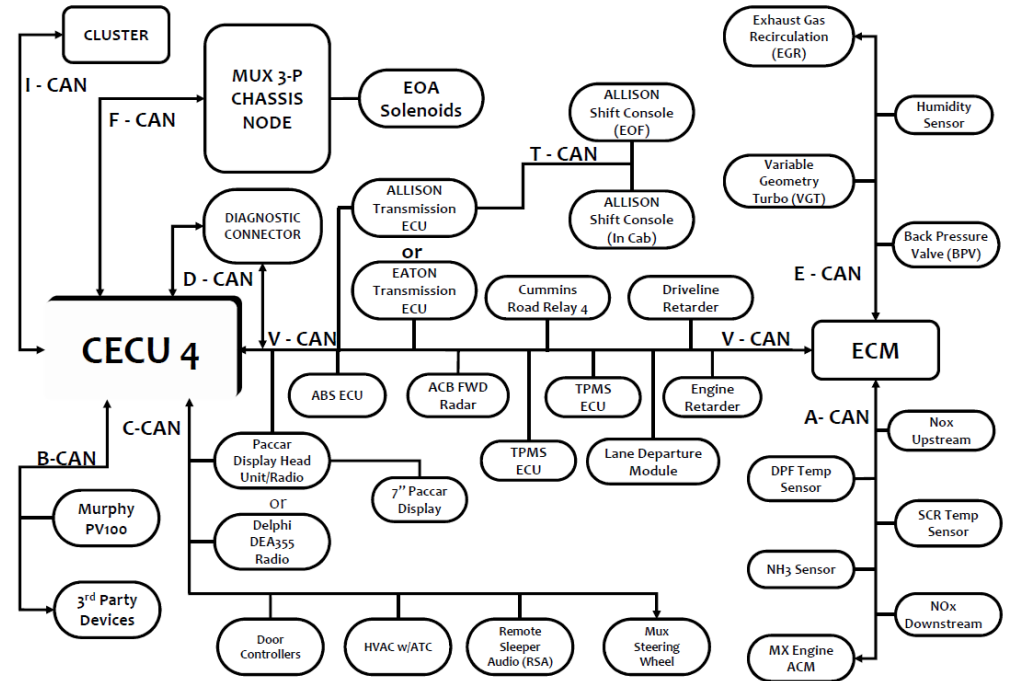
U1703

Code number	U1703
Fault code description	Remote pedal – Voltage too low or short circuit to ground
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Not available/required for this code
Location of component(s)	Not available/required for this code
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle of gas pedal sensor 1 is less than 3 percent.
Reset condition of fault code	This fault code will change to inactive immediately after the diagnostic runs and passes
Electrical diagram(s)	Not available/required for this code
Technical data	Not available/required for this code
Possible causes	Not available/required for this code
Additional information	Not available/required for this code
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	Not available/required for this code
	Back to Choose Code Back to Index

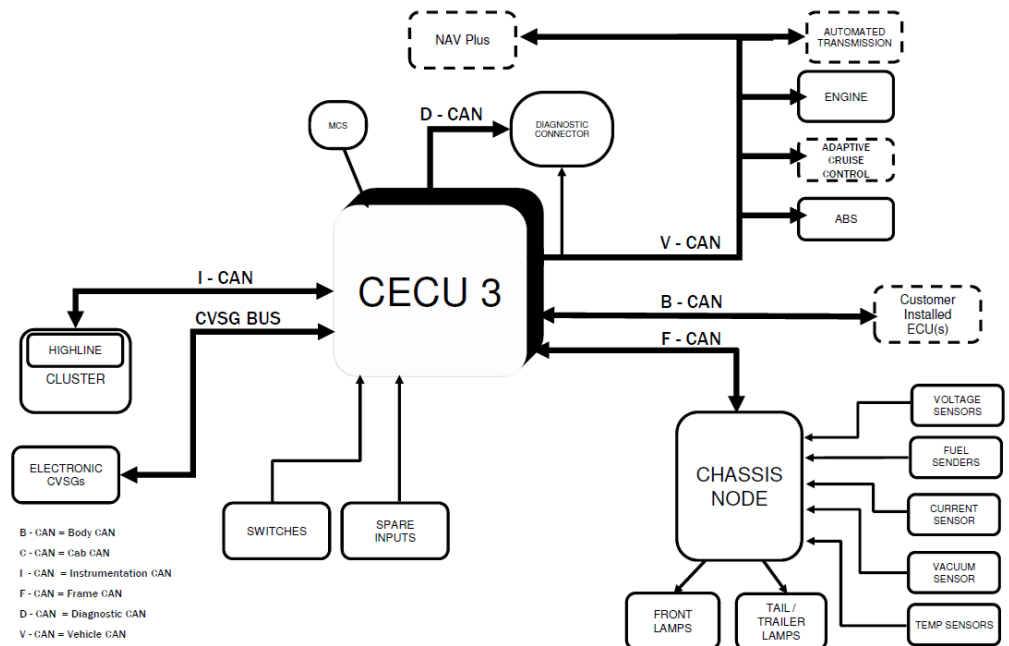
U1711

Code number	U1711
Fault code description	CAN communication - Message (AT1IMG) rate too low from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	CAN command message AT1IMG is missing for more than 1.5 sec.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems via CAN buses and other interfaces:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Monitoring Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects CECU 3 to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: These are connected to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-Lock Braking System), PACCAR Display, and the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator (Variable Geometry Turbine Actuator). After-treatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: This node is connected to the CECU 3 via the Vehicle CAN and the Frame CAN. It manages the FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors: The CHASSIS NODE is connected to a variety of sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Firewalls: Dashed lines labeled "FIREWALL" separate the Diagnostic CAN from the Vehicle CAN, and the Vehicle CAN from the Engine CAN.

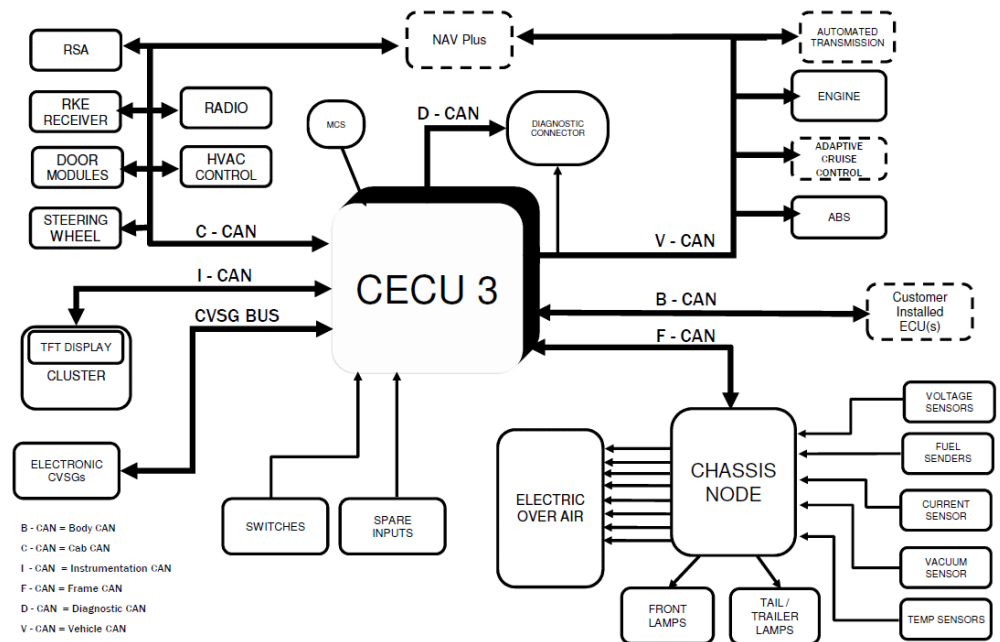
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

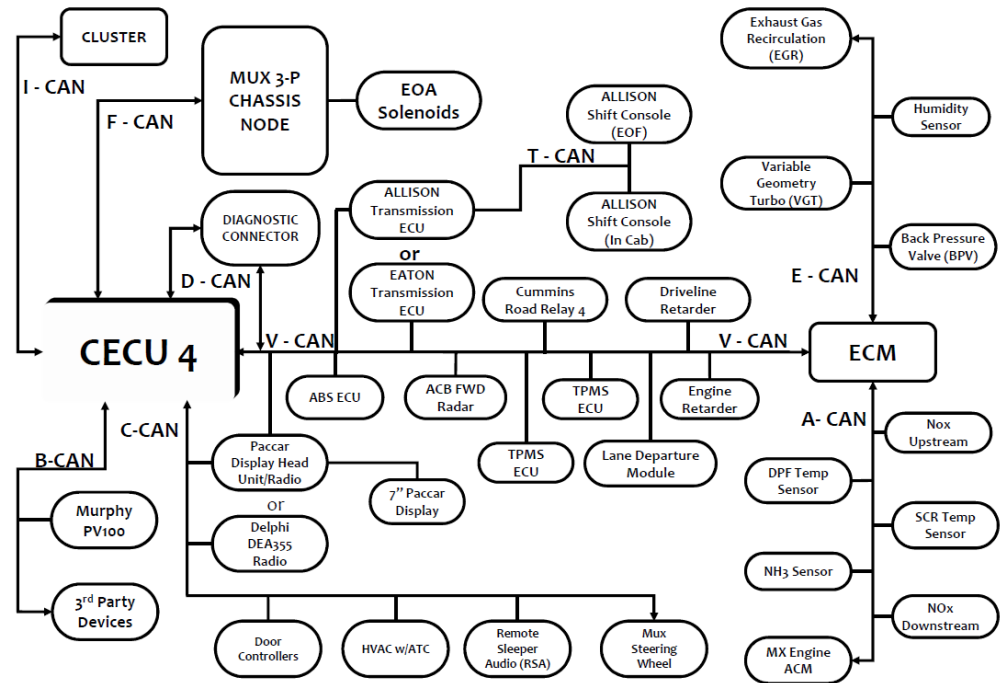
Step 1	Step ID 1711a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p>		

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1711b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1711b	SRT
	Step 2	Step ID 1711b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1711c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1711c	SRT
	Step 3	Step ID 1711c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1711d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 1711d	SRT	
Step 4	Step ID 1711d	SRT		
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

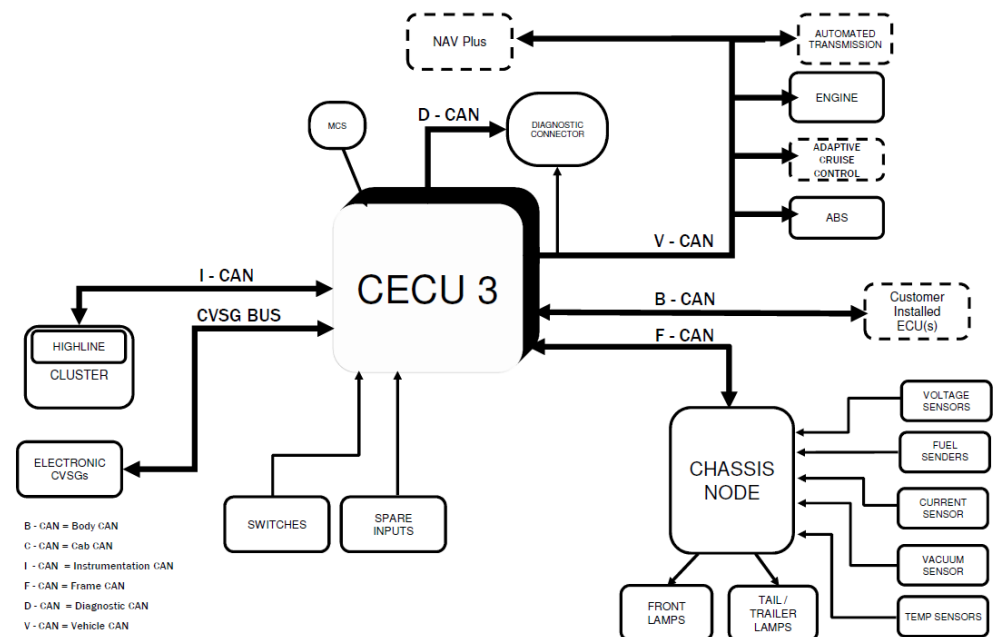
U1716

Code number	U1716
Fault code description	CAN communication - Message (AT1OG2) rate too low from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	CAN command message AT1OG2 is missing for more than 1.5 seconds.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and the Diagnostic Connector. Diagnostic Connector: Connected to CECU 3 and the Diagnostic CAN. ABS (Anti-lock Braking System): Connected to CECU 3 via Vehicle CAN. PACCAR Display: Connected to CECU 3 via Vehicle CAN. Engine: Connected to CECU 3 via Engine CAN. Aftertreatment CAN: Connected to the Engine and the After-treatment DCU. VGT Actuator (Variable Geometry Turbine): Connected to the Engine and the After-treatment DCU. After-treatment DCU (Differential Control Unit): Connected to the Engine, VGT Actuator, and Aftertreatment CAN. CHASSIS NODE: Connected to CECU 3 via Frame CAN. It manages various sensors and actuators: <ul style="list-style-type: none"> VOLTAGE SENSORS, FUEL SENDER, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. FRONT LAMPS and TAIL / TRAILER LAMPS. Cluster: Connected to CECU 3 via Instrumentation CAN. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected to CECU 3 via CVSG BUS. SWITCHES and SPARE INPUTS: Connected to CECU 3. <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the Frame CAN.</p>

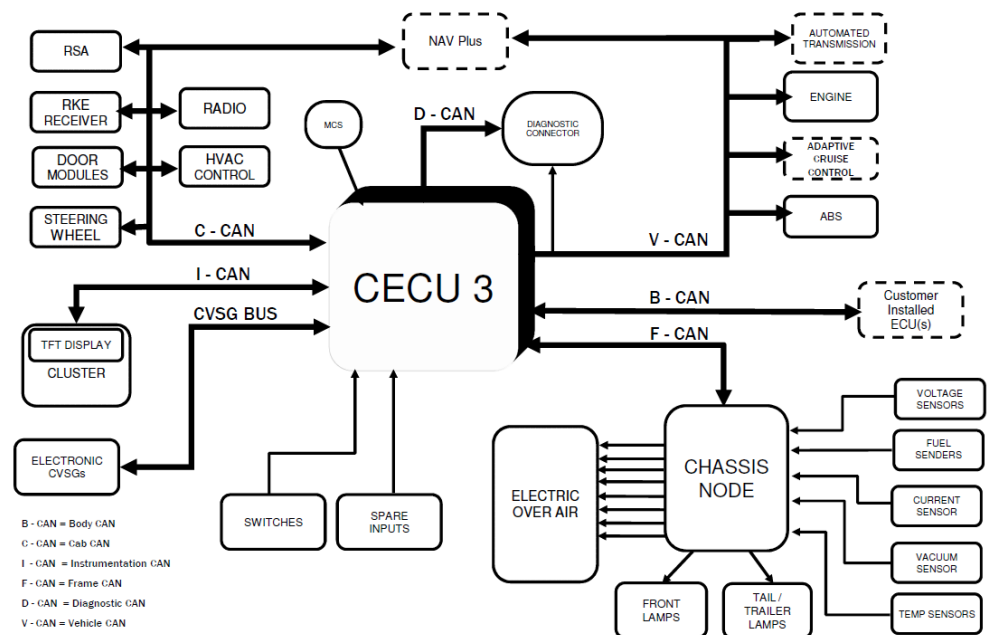
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

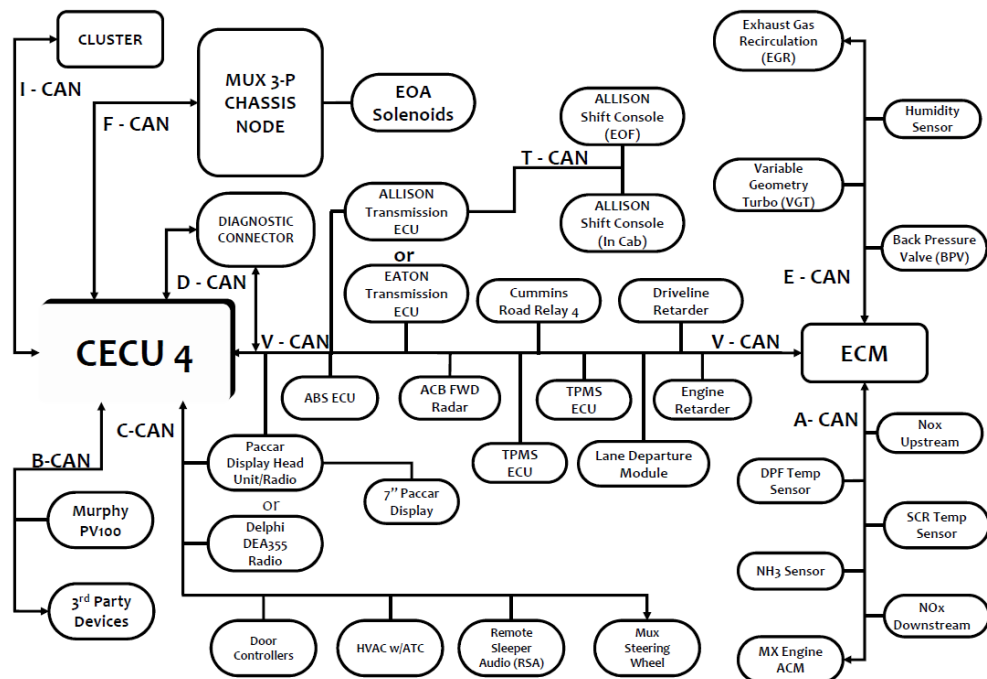
Step 1	Step ID 1716a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p>		

	<ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1716b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4	Step 2	Step ID 1716b	SRT
	Step 2	Step ID 1716b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1716c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1716c	SRT
	Step 3	Step ID 1716c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1716d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 1716d	SRT	
Step 4	Step ID 1716d	SRT		
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

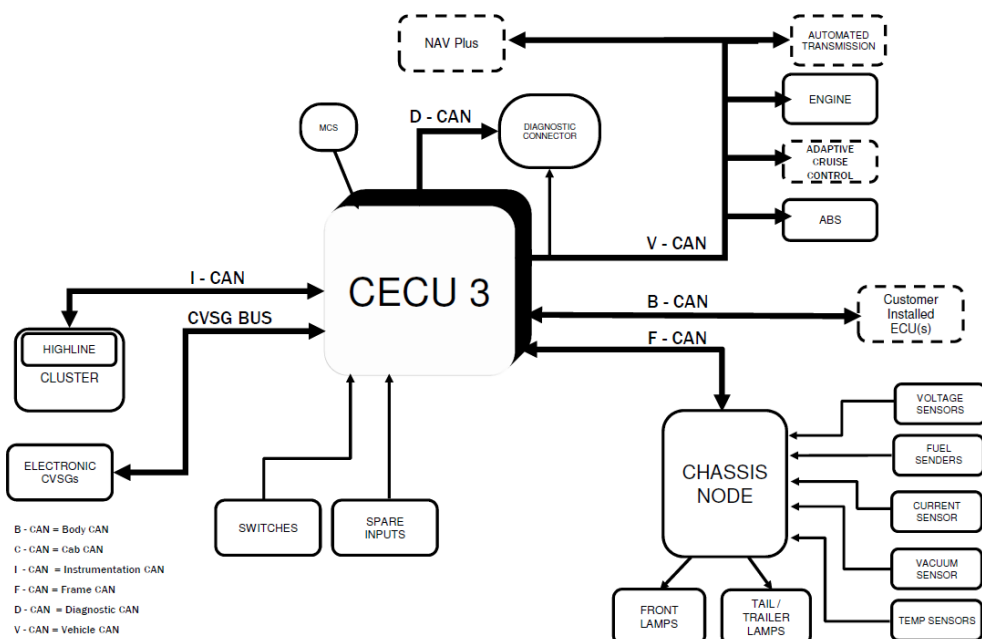
U1721

Code number	U1721
Fault code description	CAN communication - Message (vep1) rate too low from emission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Message Control System): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Diesel Exhaust Fluid Control Unit): Connected via Aftertreatment CAN. CHASSIS NODE: Connected via Frame CAN. It includes: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS SWITCHES and SPARE INPUTS: Connected to CECU 3. CVSG BUS (Cabin Ventilation System Control Bus): Connected to CECU 3. ELECTRONIC CVSG's (Electronic Cabin Ventilation Systems): Connected to CECU 3. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Aftertreatment CAN networks.</p>

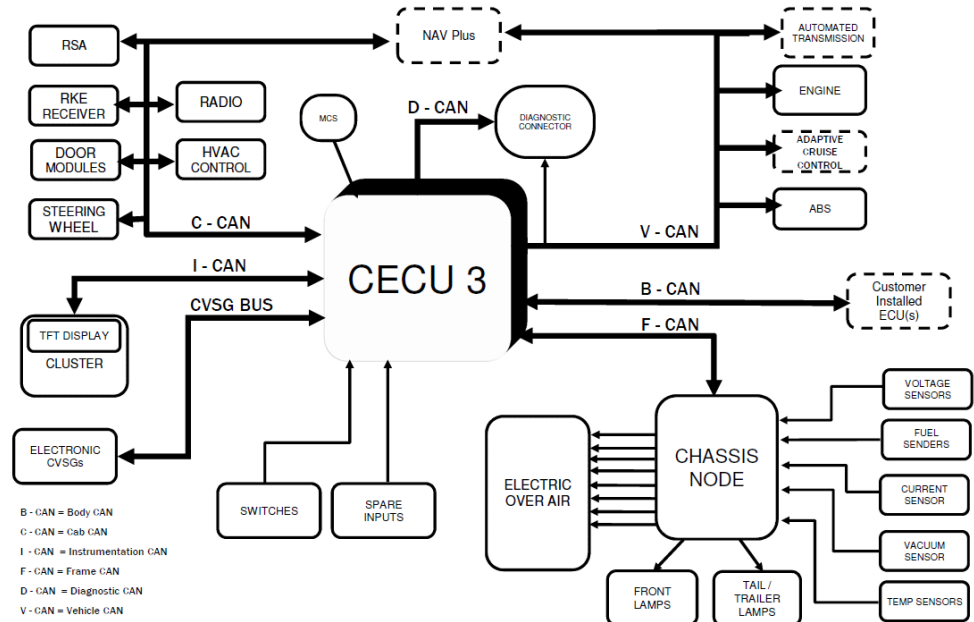
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



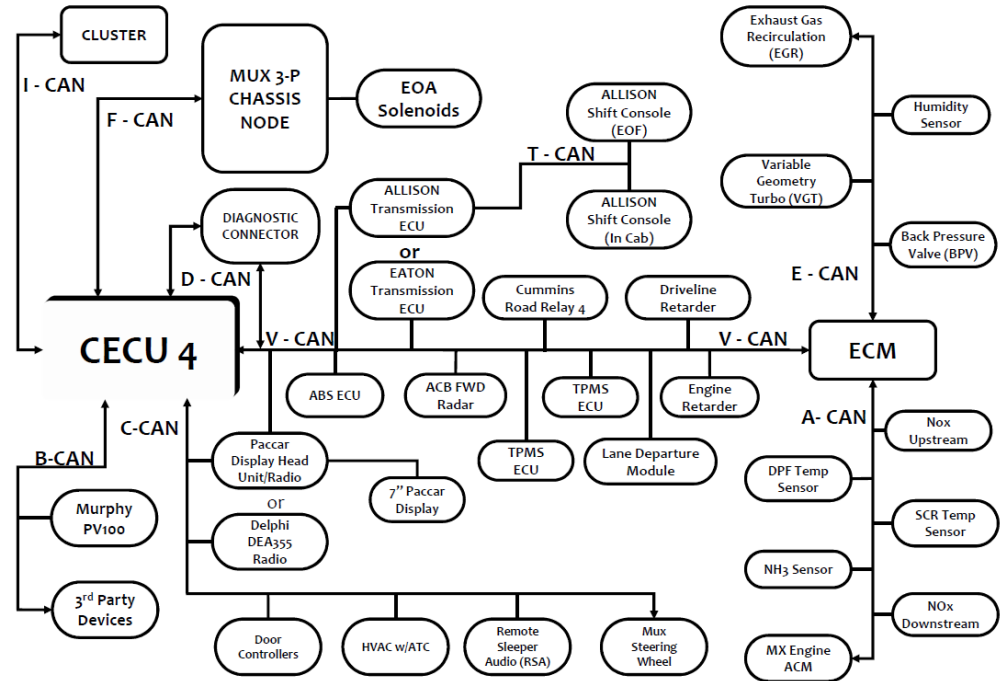
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">• Breakdown in communication in the CAN network• Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1721a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1721a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1721a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1721b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1721b	SRT
	Step 2	Step ID 1721b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1721c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.	Step 3	Step ID 1721c	SRT
	Step 3	Step ID 1721c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1721d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1721d	SRT	
Step 4	Step ID 1721d	SRT		
<p>Verification Drive Cycle</p>	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<p>Back to Choose Code</p> <p>Back to Index</p>			

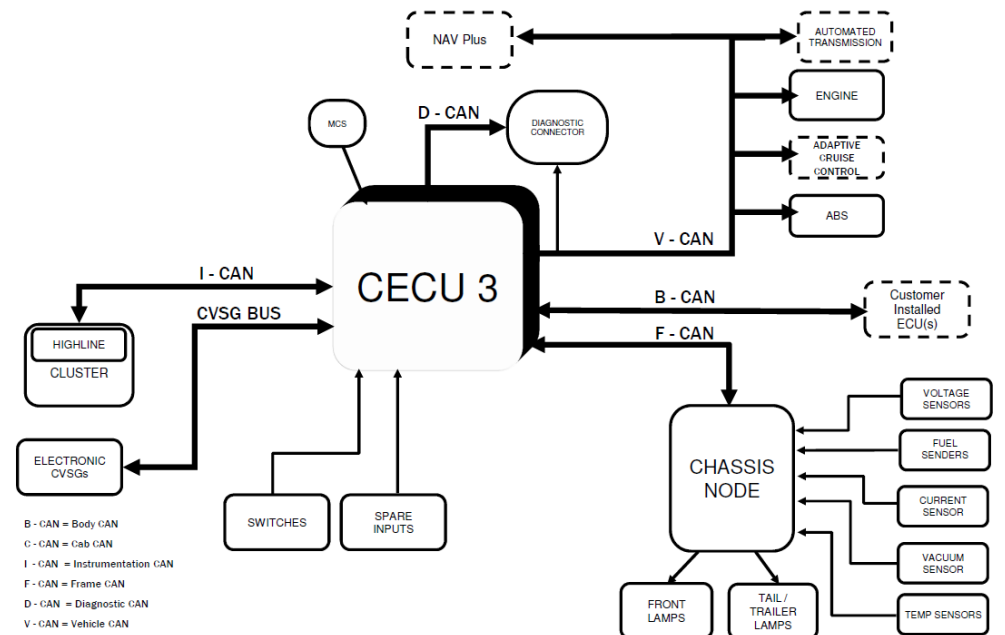
U1726

Code number	U1726
Fault code description	CAN communication - Message (AT1GP) rate too high from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	CAN command message AT1GP is missing for more than 1.5 seconds.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs to CECU 3: <ul style="list-style-type: none"> STEERING WHEEL (via Cab CAN) MCS (Master Control Switch) DIAGNOSTIC CONNECTOR (via Diagnostic CAN) Cluster (via Instrumentation CAN) ELECTRONIC CVSG's (via CVSG BUS) SWITCHES SPARE INPUTS Networks and Connections: <ul style="list-style-type: none"> Vehicle CAN: Connects CECU 3 to ABS, PACCAR Display, and the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. After-treatment CAN: Connects the ENGINE to the After-treatment DCU. Frame CAN: Connects CECU 3 to the CHASSIS NODE. CHASSIS NODE: <ul style="list-style-type: none"> Controls FRONT LAMPS and TAIL / TRAILER LAMPS. Monitors various sensors: VOLTAGE SENSORS, FUEL SENSORS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other Components: <ul style="list-style-type: none"> AUTO TRANSMISSION (connected to Vehicle CAN) ADAPTIVE CRUISE CONTROL (connected to Engine CAN) <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Frame CAN.</p>

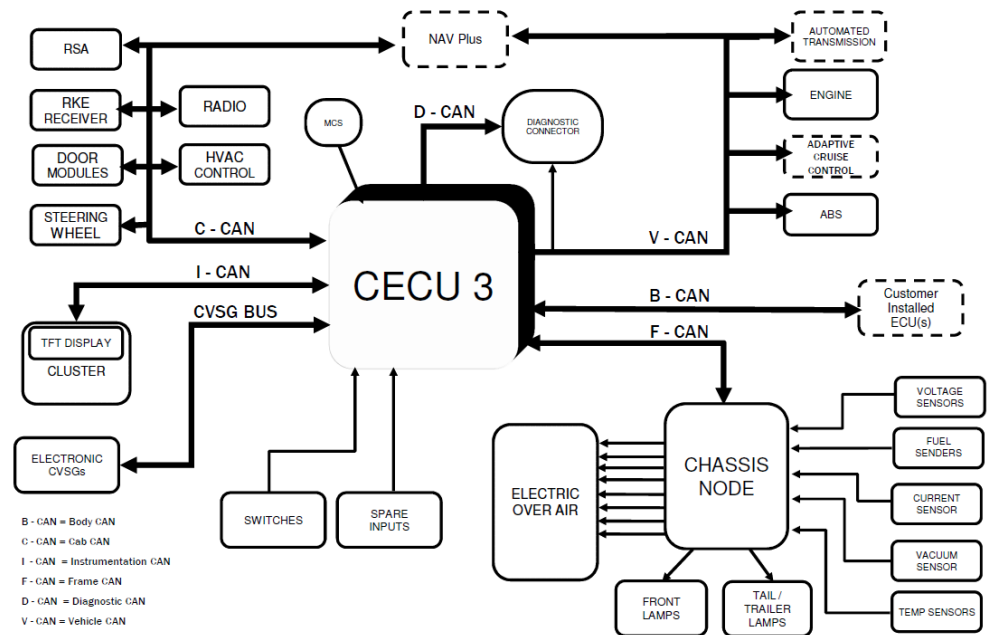
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 113Da

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

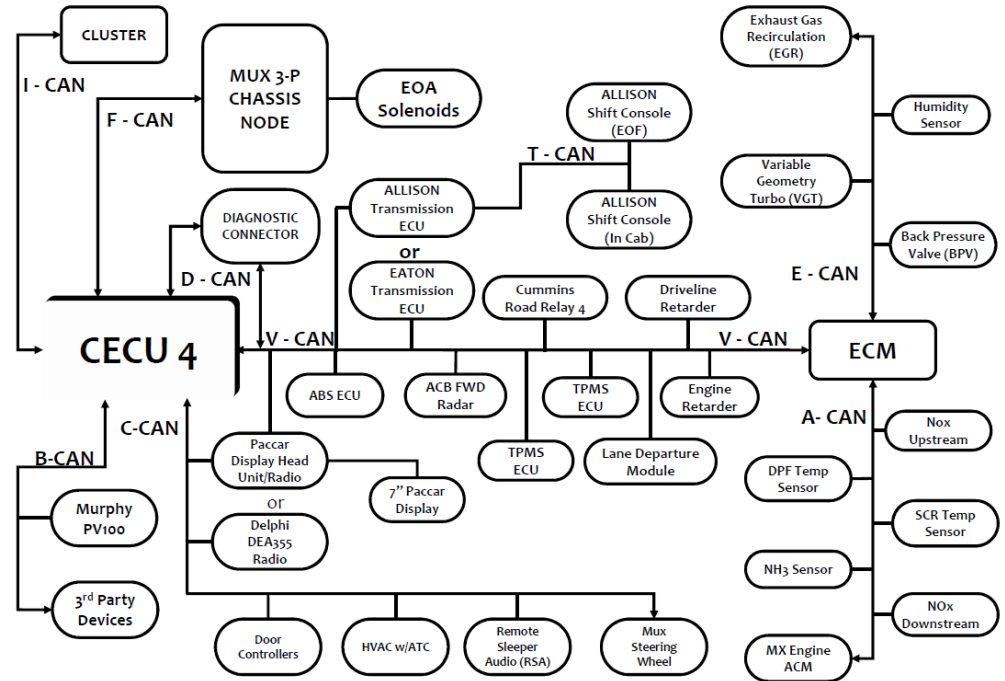
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 113Db</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 2	Step ID 113Db	SRT
	Step 2	Step ID 113Db	SRT			
	<table><tr><td>Step 3</td><td>Step ID 113Dc</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness .• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive : Issue resolved. Clear inactive fault			Step 3	Step ID 113Dc	SRT
	Step 3	Step ID 113Dc	SRT			
<table><tr><td>Step 4</td><td>Step ID 113Dd</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 113Dd	SRT	
Step 4	Step ID 113Dd	SRT				
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

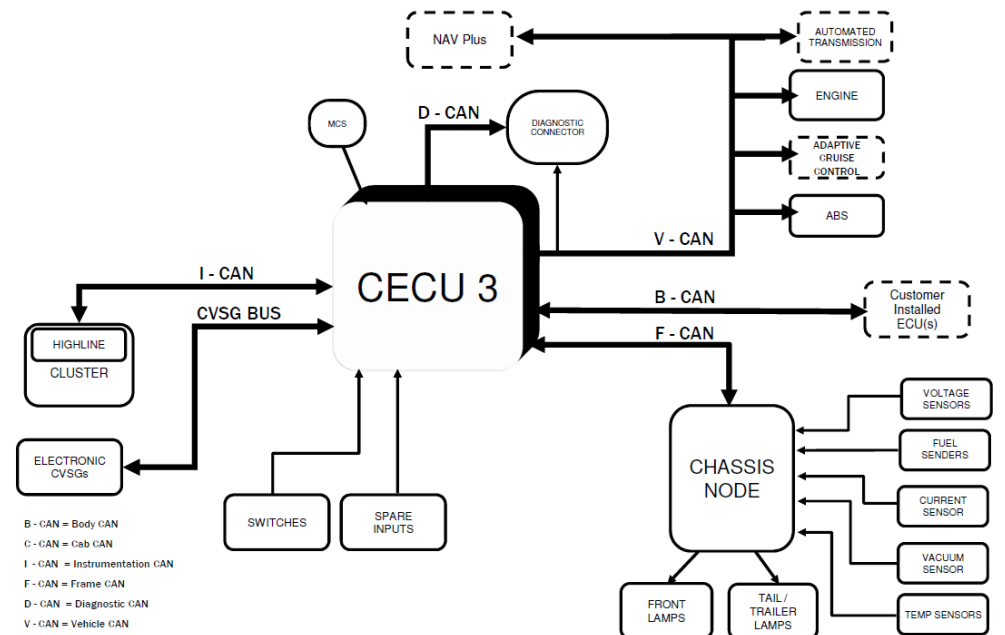
U1728

Code number	U1728
Fault code description	CAN communication – Message (AT1OG1) rate too low from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a Diagnostic Connector. Cluster: Connected via Instrumentation CAN. CVSG BUS: Connected to CECU 3 and Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to CECU 3. Vehicle CAN: Connected to CECU 3 and the CHASSIS NODE. CHASSIS NODE: Connected to CECU 3 and various sensors: VOLTAGE SENSORS, FUEL SENDER, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. It also controls FRONT LAMPS and TAIL / TRAILER LAMPS. Engine CAN: Connected to CECU 3 and the ENGINE. ENGINE: Connected to CECU 3 and the VGT Actuator. After-treatment DCU: Connected to the ENGINE and the After-treatment CAN. After-treatment CAN: Connected to the ENGINE and the After-treatment DCU. ADAPTIVE CRUISE CONTROL: Connected to the ENGINE and the VGT Actuator. ABSORB (Automatic Braking System): Connected to the ENGINE and the VGT Actuator. PACCAR Display: Connected to the CHASSIS NODE. DIAGNOSTIC CONNECTOR: Connected to the Diagnostic CAN. FIREFALL: A dashed line indicating a communication barrier between the CECU 3 and the CHASSIS NODE.

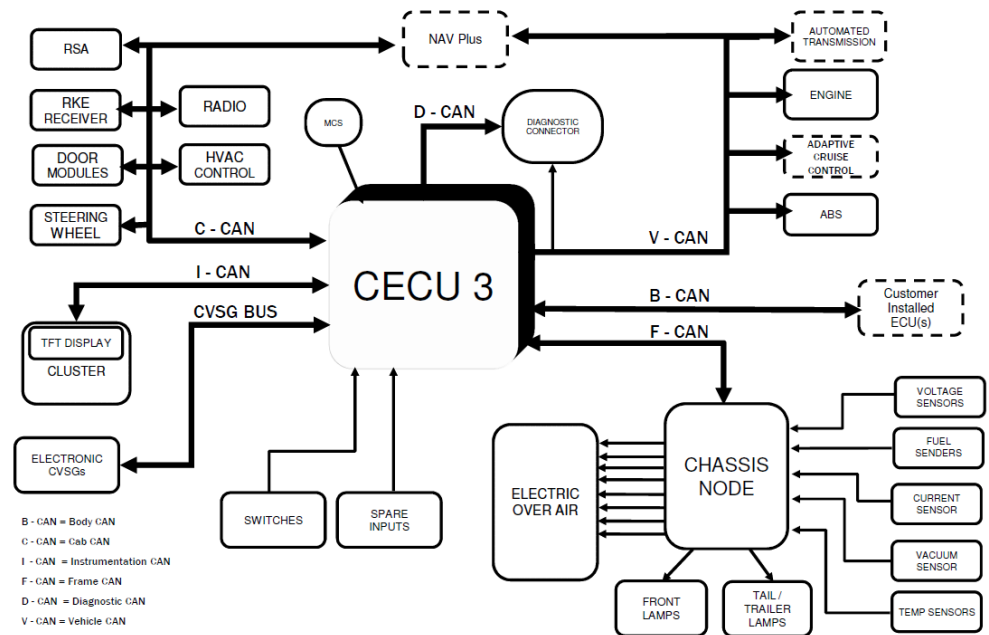
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

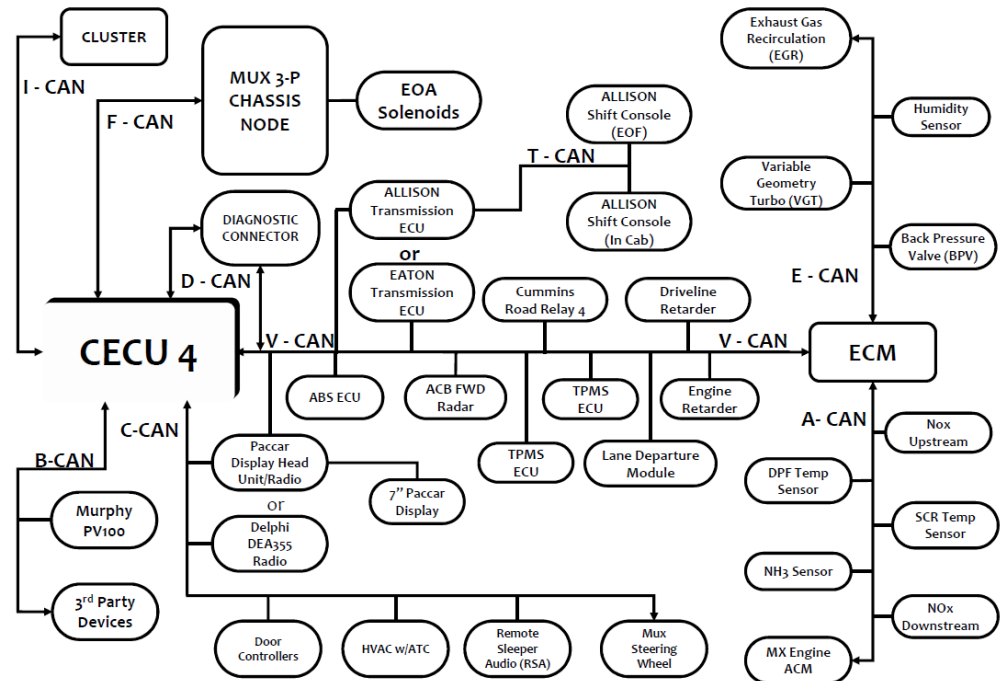
Step 1	Step ID 1728a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1728b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 1728c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 1728d	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

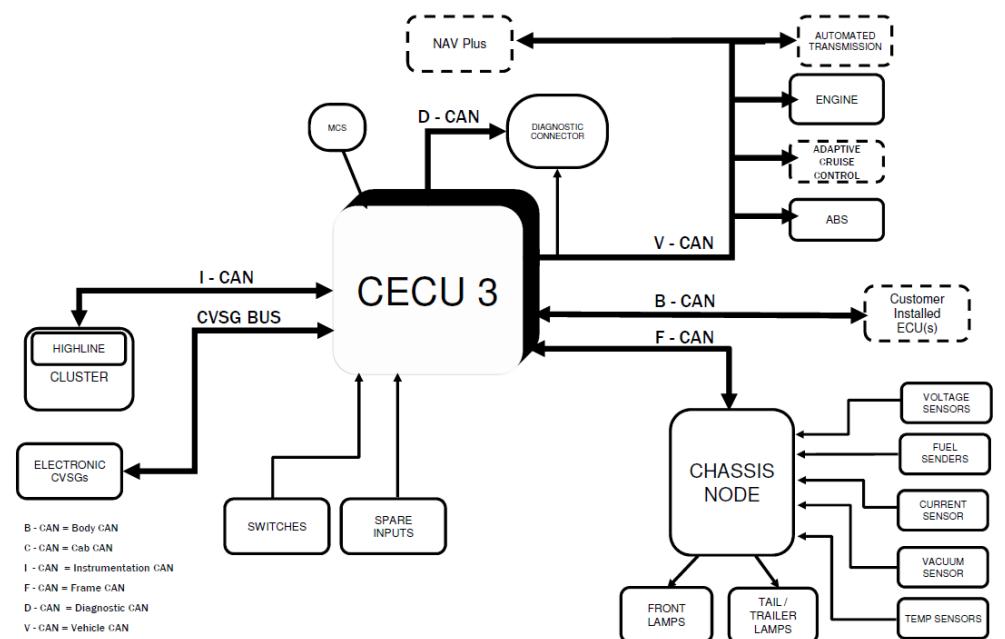
U1730

Code number	U1730
Fault code description	CAN communication – Message (AT1OG1) out of range – SCR outlet NOx from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and Aftertreatment CAN. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Aftertreatment CAN: Connects CECU 3 to the ENGINE and After-treatment DCU. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other components: ABS, PACCAR Display, AUTO TRANSMISSION, ADAPTIVE CRUISE CONTROL, and After-treatment DCU are also shown. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Aftertreatment CAN.</p>

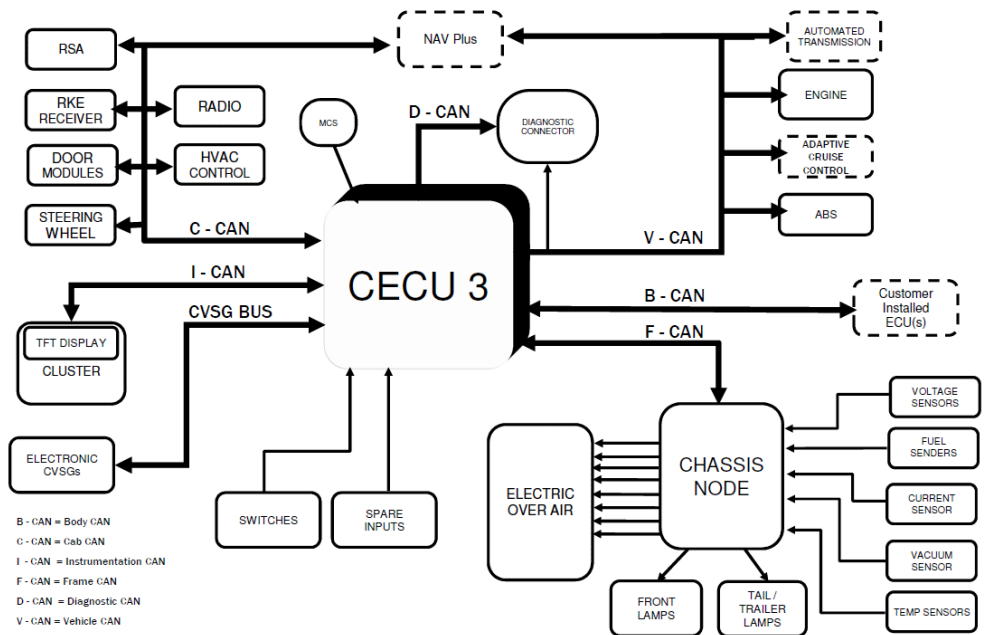
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.





- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 1730a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2						
	<table><tr><td>Step 2</td><td>Step ID 1730b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4</td></tr></table>	Step 2	Step ID 1730b	SRT	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
Step 2	Step ID 1730b	SRT					
<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4							
	<table><tr><td>Step 3</td><td>Step ID 1730c</td><td>SRT</td></tr><tr><td colspan="3"><p>Repair or replace component</p><ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key<p>Use DAVIE to re-check for the presence of active faults:</p><ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.</td></tr></table>	Step 3	Step ID 1730c	SRT	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
Step 3	Step ID 1730c	SRT					
<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.							
	<table><tr><td>Step 4</td><td>Step ID 1730d</td><td>SRT</td></tr><tr><td colspan="3"><p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p></td></tr></table>	Step 4	Step ID 1730d	SRT	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Step 4	Step ID 1730d	SRT					
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>							
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>						
	<div>Back to Choose Code</div> <div>Back to Index</div>						

U177B



Code number	U177B
Fault code description	Dual PWM accelerator pedal 1 - Voltage too high or short circuit to supply on ECU D420 pin B41
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle of gas pedal sensor 1 is greater than 55 percent.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet
Technical data	Refer to the truck model documentation in DealerNet
Possible causes	<ul style="list-style-type: none"> Faulty accelerator pedal or wiring. Faulty connector.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1</p>

	<div>C Sensor 2</div> <div>D Diagnostic range limit</div> <div>E Auto calibration limit</div> <div>F Rotation angle accelerator pedal (°)</div> <div>G Span</div> <div>H Kick down hysteresis</div> <div>I 100% pedal value at kick down</div>															
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 177B-a</td><td>SRT</td></tr><tr><td colspan="3"><div>Visual Inspection</div><div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div><div>Was there evidence of any of the above?</div><div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div><div>Use DAVIE to re-check for the presence of active faults.</div><div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div></td></tr></table> <table><tr><td>Step 2</td><td>Step ID 177B-b</td><td>SRT</td></tr><tr><td colspan="3"><div>Electrical Checks</div><div>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</div><div><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</div></td></tr></table> <table><tr><td>Step 3</td><td>Step ID 177B-c</td><td>SRT</td></tr></table>	Step 1	Step ID 177B-a	SRT	<div>Visual Inspection</div> <div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div> <div>Was there evidence of any of the above?</div> <div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div> <div>Use DAVIE to re-check for the presence of active faults.</div> <div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div>			Step 2	Step ID 177B-b	SRT	<div>Electrical Checks</div> <div>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</div> <div><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</div>			Step 3	Step ID 177B-c	SRT
Step 1	Step ID 177B-a	SRT														
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Step 3	Step ID 177B-c	SRT														

	<p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p> <ul style="list-style-type: none"> • If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure. • If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure. 		
	Step 4	Step ID 177B-d	SRT
	With key OFF, replace the Dual PWM Accelerator Pedal sensor and proceed to the verification procedure.		
	Step 5	Step ID 177B-e	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	<p>To validate the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p>		
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>		

U177C



Code number	U177C
Fault code description	Dual PWM accelerator pedal 1 - Voltage too low or short circuit to ground on ECU D420 pin B41
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle of gas pedal sensor 1 is less than 3 percent.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet
Technical data	Refer to the truck model documentation in DealerNet
Possible causes	<ul style="list-style-type: none"> Faulty accelerator pedal or wiring. Faulty connector.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1</p>

	<div>C Sensor 2</div> <div>D Diagnostic range limit</div> <div>E Auto calibration limit</div> <div>F Rotation angle accelerator pedal (°)</div> <div>G Span</div> <div>H Kick down hysteresis</div> <div>I 100% pedal value at kick down</div>															
Diagnostic Step-by-Step	<div><div></div><div>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 177C-a</td><td>SRT</td></tr><tr><td colspan="3"><div>Visual Inspection</div><div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div><div>Was there evidence of any of the above?</div><div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div><div>Use DAVIE to re-check for the presence of active faults.</div><div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div></td></tr></table> <table><tr><td>Step 2</td><td>Step ID 177C-b</td><td>SRT</td></tr><tr><td colspan="3"><div>Electrical Checks</div><div>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</div><div><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</div></td></tr></table> <table><tr><td>Step 3</td><td>Step ID 177C-c</td><td>SRT</td></tr></table>	Step 1	Step ID 177C-a	SRT	<div>Visual Inspection</div> <div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div> <div>Was there evidence of any of the above?</div> <div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div> <div>Use DAVIE to re-check for the presence of active faults.</div> <div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div>			Step 2	Step ID 177C-b	SRT	<div>Electrical Checks</div> <div>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</div> <div><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</div>			Step 3	Step ID 177C-c	SRT
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Step 3	Step ID 177C-c	SRT														

	<p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p> <ul style="list-style-type: none"> • If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure. • If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure. 		
	Step 4	Step ID 177C-d	SRT
	With key OFF, replace the Dual PWM Accelerator Pedal sensor and proceed to the verification procedure.		
	Step 5	Step ID 177C-e	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	<p>To validate the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p>		
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>		

U177F

Code number	U177F
Fault code description	Dual PWM accelerator pedal 1 - Frequency too high on ECU D420 pin B41
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in Dealer Net
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the frequency of gas pedal sensor 1 is greater than 220 Hz.
Reset condition of fault code	This DTC changes to inactive when the fault is no longer detected. To validate the repair, monitor the accelerator pedal sensors with DAVIE.
Electrical diagram(s)	Refer to the truck model documentation in Dealer Net
Technical data	Refer to the truck model documentation in Dealer Net
Possible causes	Faulty accelerator pedal or wiring
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2</p>

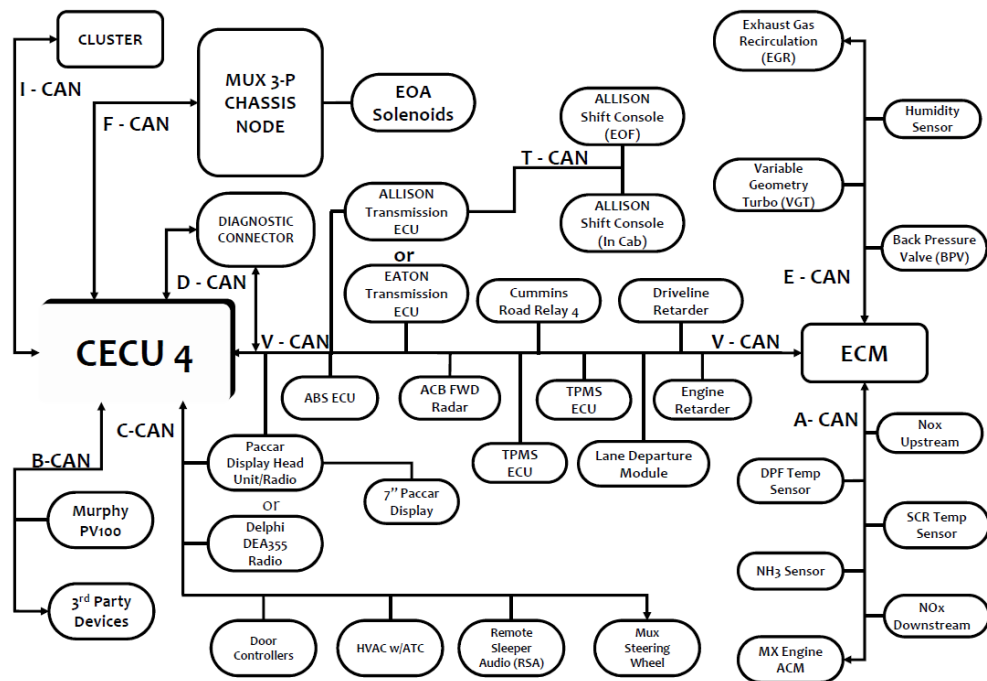
	D Diagnostic range limit E Auto calibration limit F Rotation angle accelerator pedal (°) G Span H Kick down hysteresis I 100% pedal value at kick down															
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 177F-a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</td></tr></table> <table><tr><td>Step 2</td><td>Step ID 177F-b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4</td></tr></table> <table><tr><td>Step 3</td><td>Step ID 177F-c</td><td>SRT</td></tr></table>	Step 1	Step ID 177F-a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			Step 2	Step ID 177F-b	SRT	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4			Step 3	Step ID 177F-c	SRT
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Step 3	Step ID 177F-c	SRT														

	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 							
	<table border="1"> <tr> <td data-bbox="488 638 834 680">Step 4</td><td data-bbox="834 638 1170 680">Step ID 177F-d</td><td data-bbox="1170 638 1485 680">SRT</td></tr> <tr> <td colspan="3" data-bbox="488 680 1485 743">For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</td></tr> </table>	Step 4	Step ID 177F-d	SRT	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.			
Step 4	Step ID 177F-d	SRT						
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Verification Drive Cycle	<p>To validate the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p>							
		Back to Choose Code Back to Index						

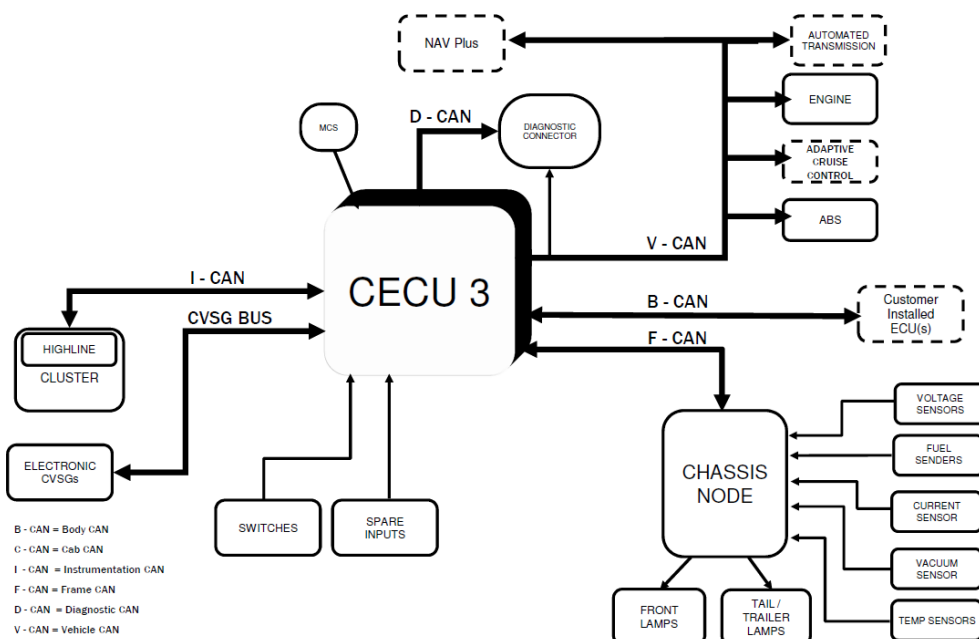
U1780

Code number	U1780
Fault code description	CAN communication - Message (TSC1_YYE) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Diesel Exhaust Fluid Control Unit): Connected via Aftertreatment CAN. CHASSIS NODE: Connected via Frame CAN. It includes: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS SWITCHES and SPARE INPUTS: Connected to CECU 3. CVSG BUS (Cabin Ventilation System Control Bus): Connected to CECU 3. ELECTRONIC CVSG's (Cabin Ventilation System Control Units): Connected to CECU 3. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN network.</p>

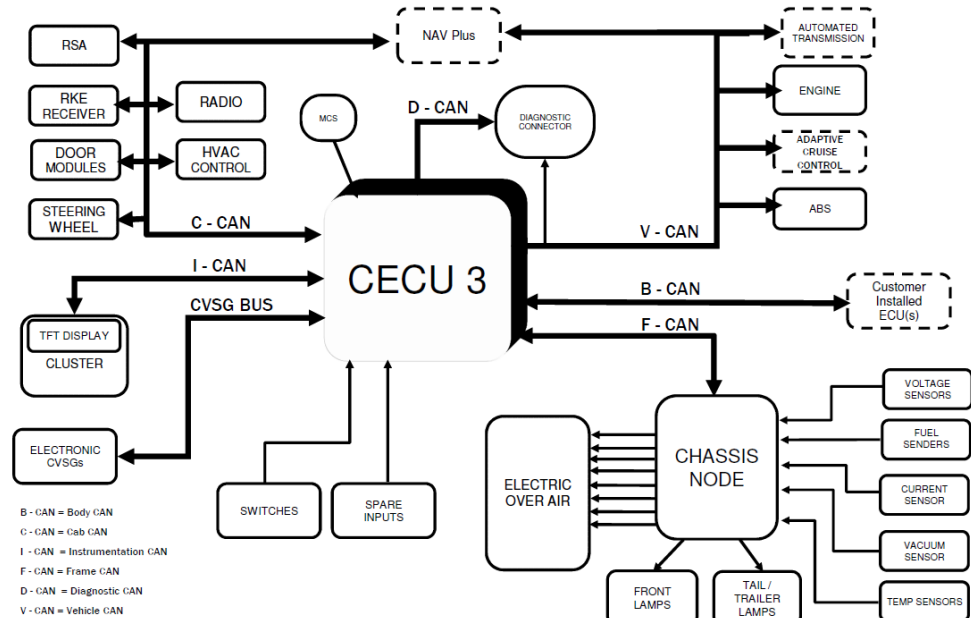
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture

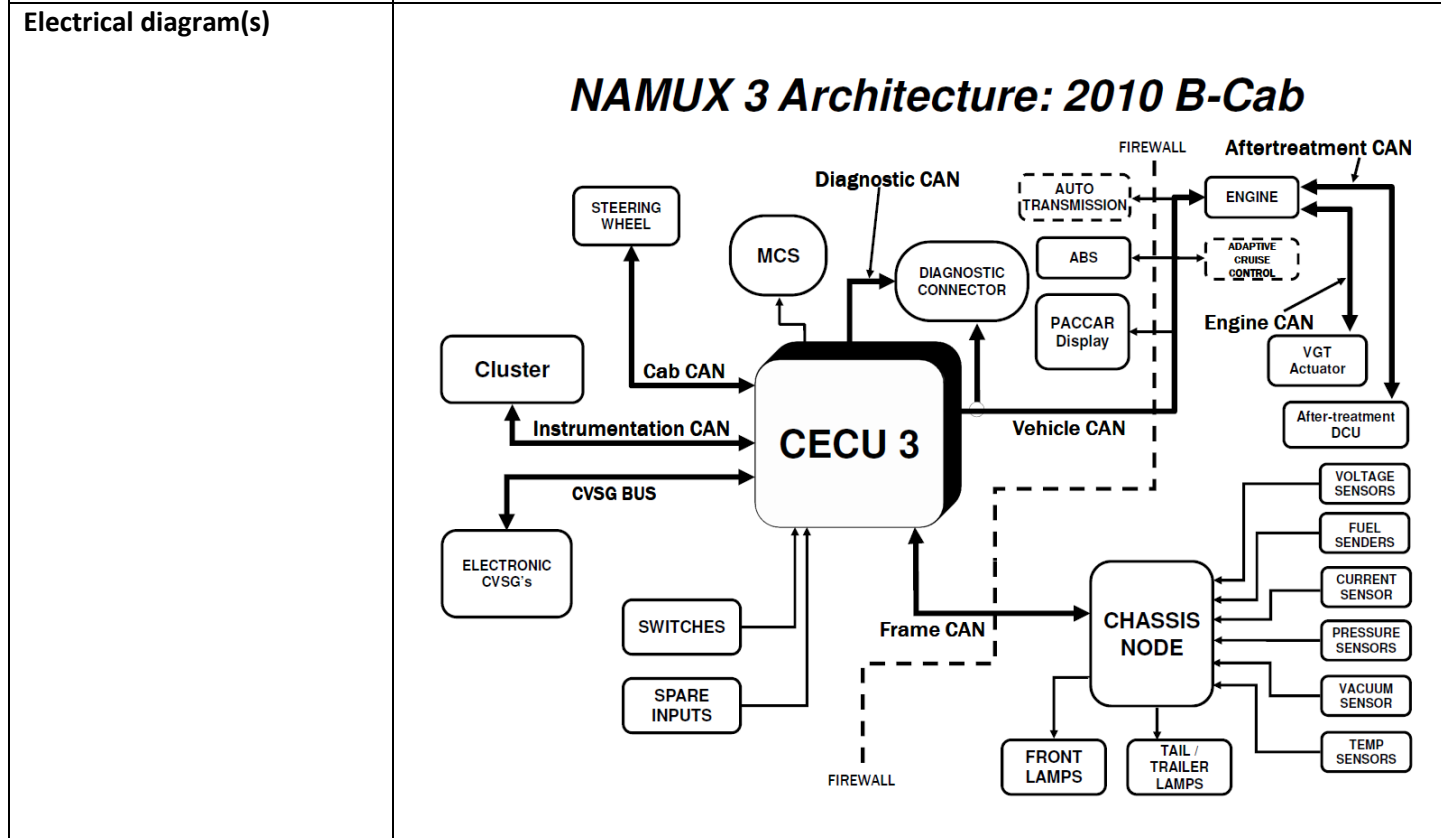


Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1780a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1780a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1780a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

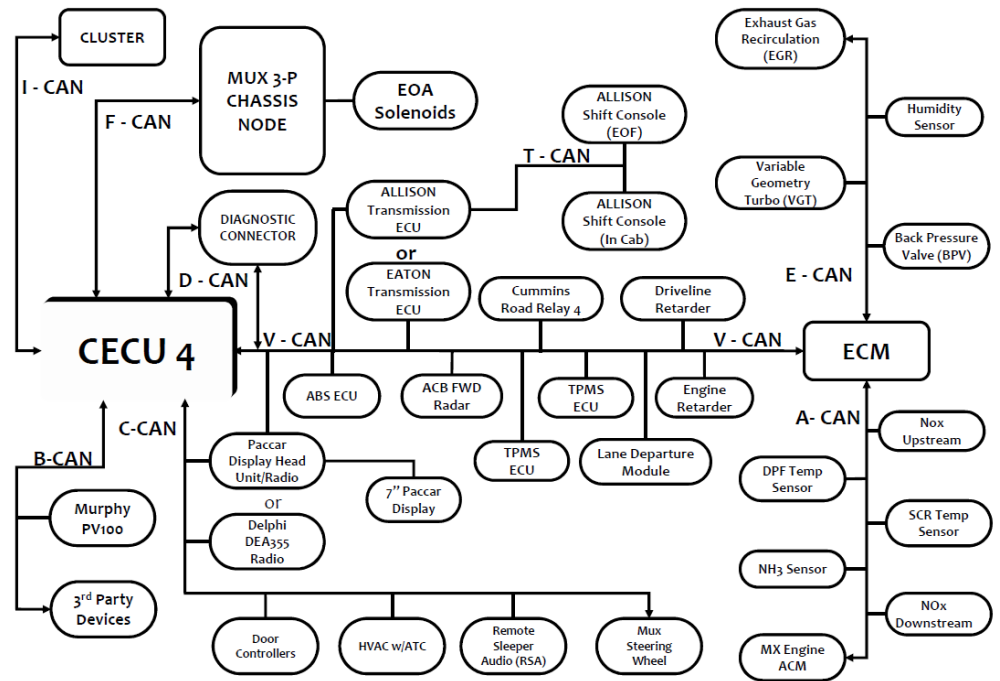
	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1780b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 1780c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.		
Step 4	Step ID 1780d	SRT	
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To validate the repair:</p> <ul style="list-style-type: none">With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

U1781

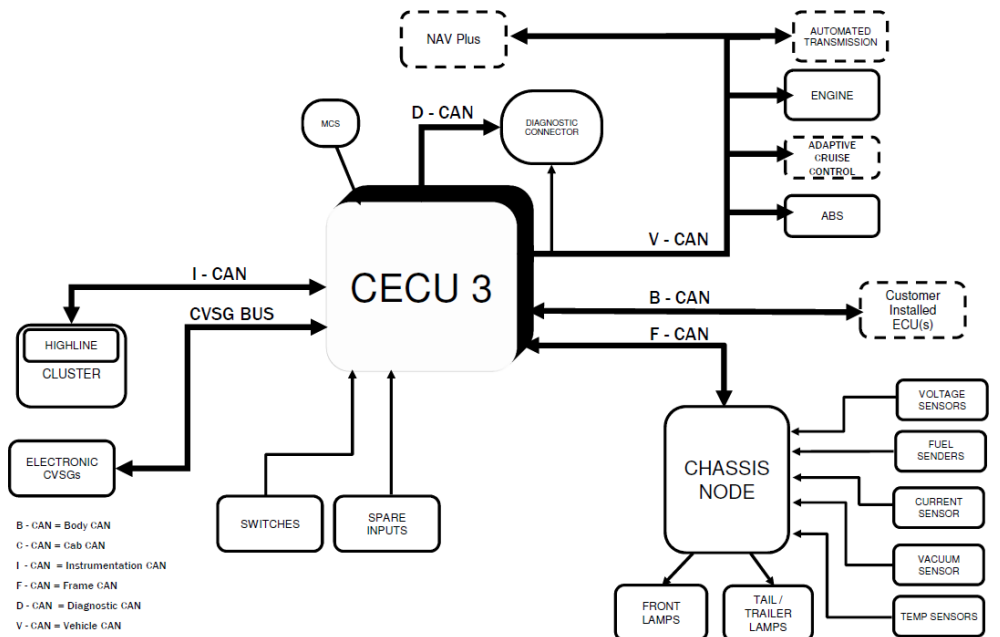
Code number	U1781
Fault code description	CAN communication - Message (TSC_PE) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.



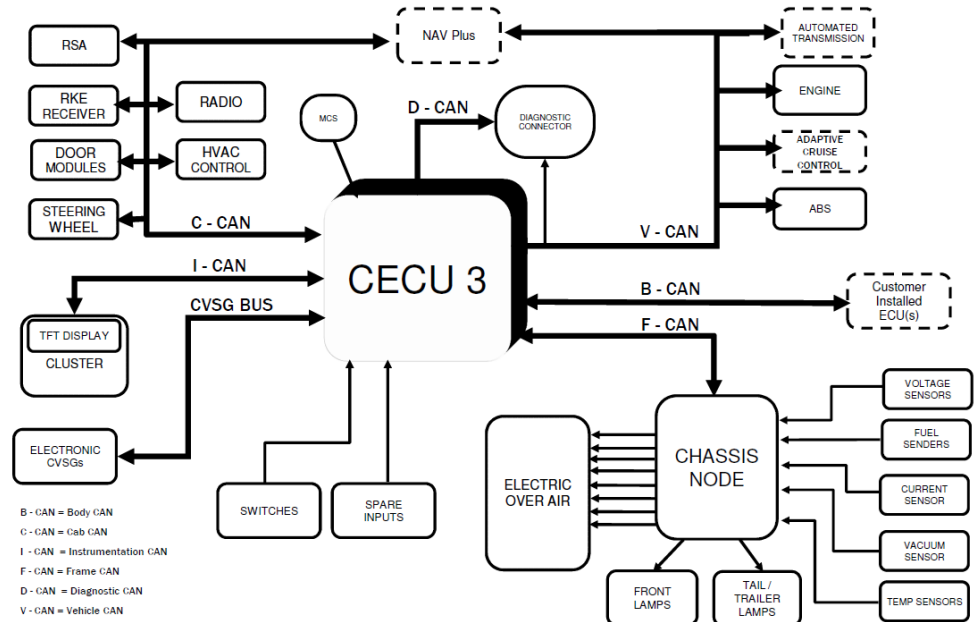
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



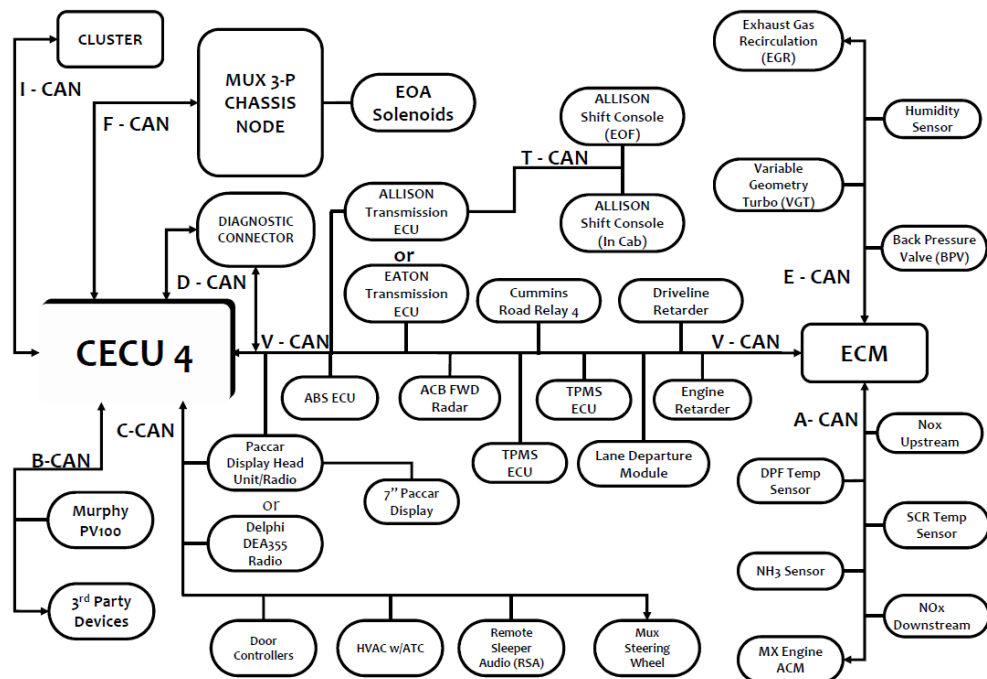
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1781a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1781a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1781a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1781b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1781b	SRT
	Step 2	Step ID 1781b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1781c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.	Step 3	Step ID 1781c	SRT
	Step 3	Step ID 1781c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1781d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1781d	SRT	
Step 4	Step ID 1781d	SRT		
<p>Verification Drive Cycle</p>	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

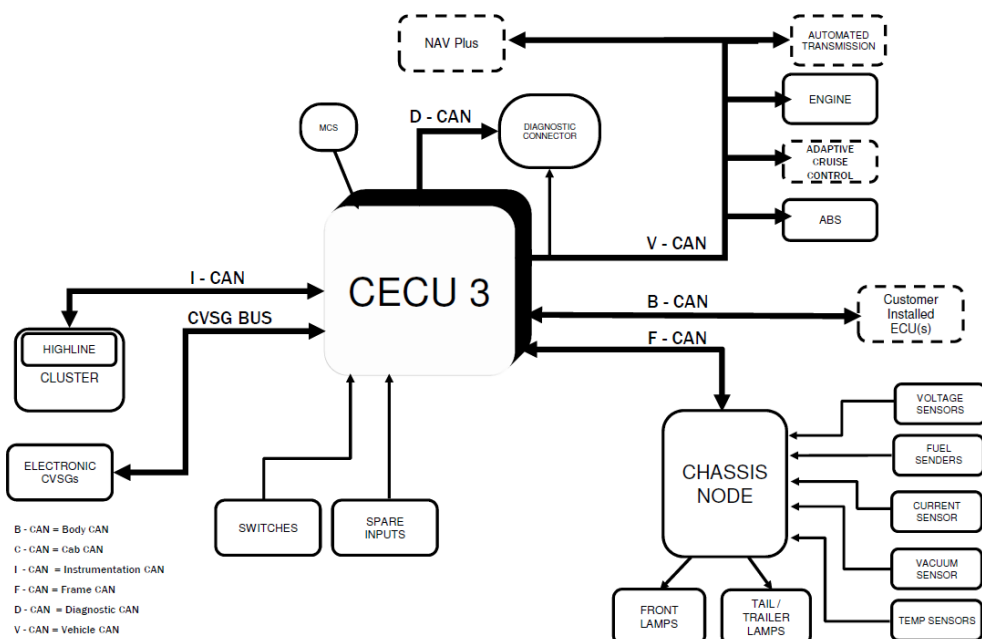
U1782

Code number	U1782
Fault code description	Fan drive - CAN communication error - message rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) no longer receives CAN messages from the fan drive.
Reset condition of fault code	This DTC will change to inactive immediately after the diagnostic runs and passes.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Engine Control Unit). It is connected to several components via CAN buses and other interfaces:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector, ABS, and PACCAR Display. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. Cab CAN: Connects CECU 3 to the STEERING WHEEL and Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's. SWITCHES and SPARE INPUTS: Connect directly to CECU 3. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, and various sensors (VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, TEMP SENSORS). Engine and After-treatment: The ENGINE is connected to the VGT Actuator and the After-treatment DCU. Other Components: MCS (Maintenance Control System) is connected to CECU 3. A FIREWALL separates the Diagnostic CAN from the Vehicle CAN.

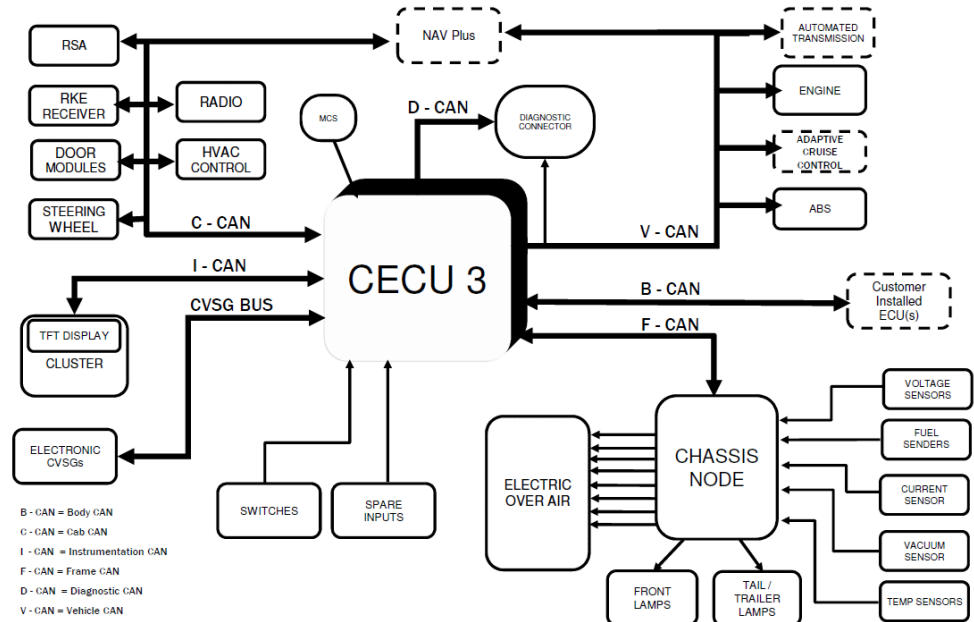
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NAMUX 3 Architecture



NAMUX 4 Architecture



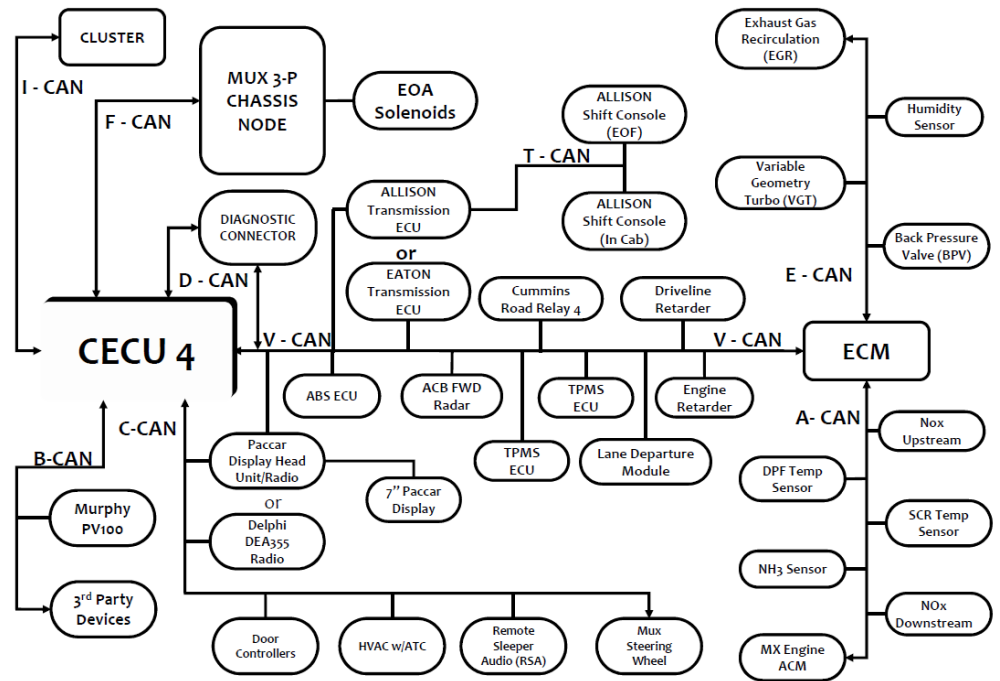
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	No or intermittent CAN communication on the E-CAN								
Additional information	The fan drive communicates via the E-CAN.								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1782a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.</td></tr></table>			Step 1	Step ID 1782a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.		
Step 1	Step ID 1782a	SRT							
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.									

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults.• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2 <table><tr><td>Step 2</td><td>Step ID 1782b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4 <table><tr><td>Step 3</td><td>Step ID 1782c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness .• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive : Issue resolved. Clear inactive fault. <table><tr><td>Step 4</td><td>Step ID 1782d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 2	Step ID 1782b	SRT	Step 3	Step ID 1782c	SRT	Step 4	Step ID 1782d	SRT
Step 2	Step ID 1782b	SRT								
Step 3	Step ID 1782c	SRT								
Step 4	Step ID 1782d	SRT								
Verification Drive Cycle	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>									
	<div>Back to Choose Code</div> <div>Back to Index</div>									

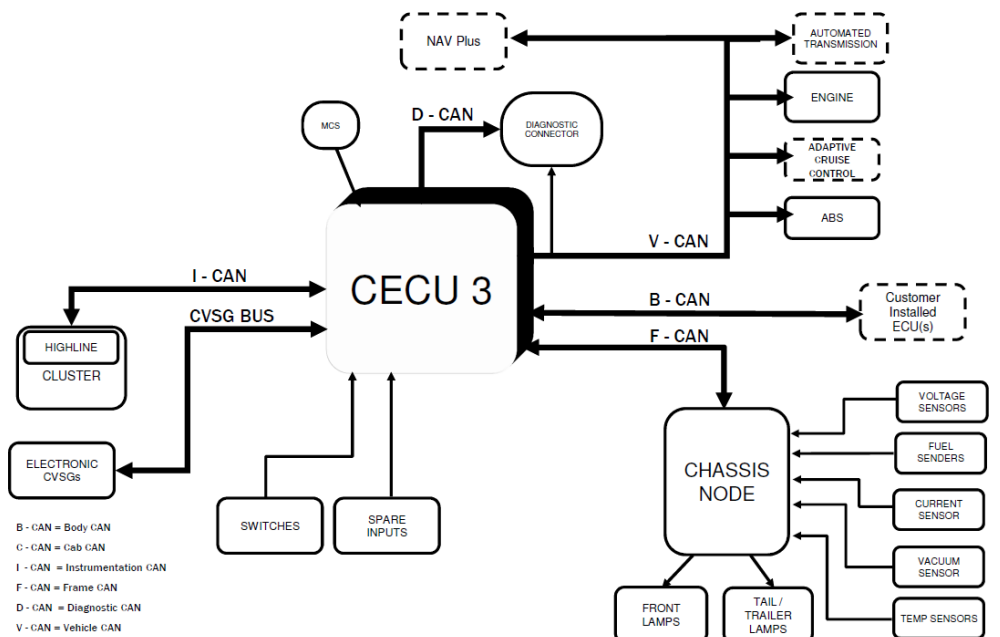
U1784

Code number	U1784
Fault code description	Fan speed - Data erratic, intermittent or incorrect
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC will change to inactive immediately after the diagnostic runs and passes.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS: Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS: Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator: Connected via Engine CAN. After-treatment DCU: Connected via Aftertreatment CAN. CHASSIS NODE: Connected via Frame CAN. This node manages various sensors and actuators: <ul style="list-style-type: none"> VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. FRONT LAMPS and TAIL / TRAILER LAMPS. SWITCHES and SPARE INPUTS: Connected directly to the CECU 3. CVSG BUS: Connected to the CECU 3 and the ELECTRONIC CVSG's. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN network.</p>

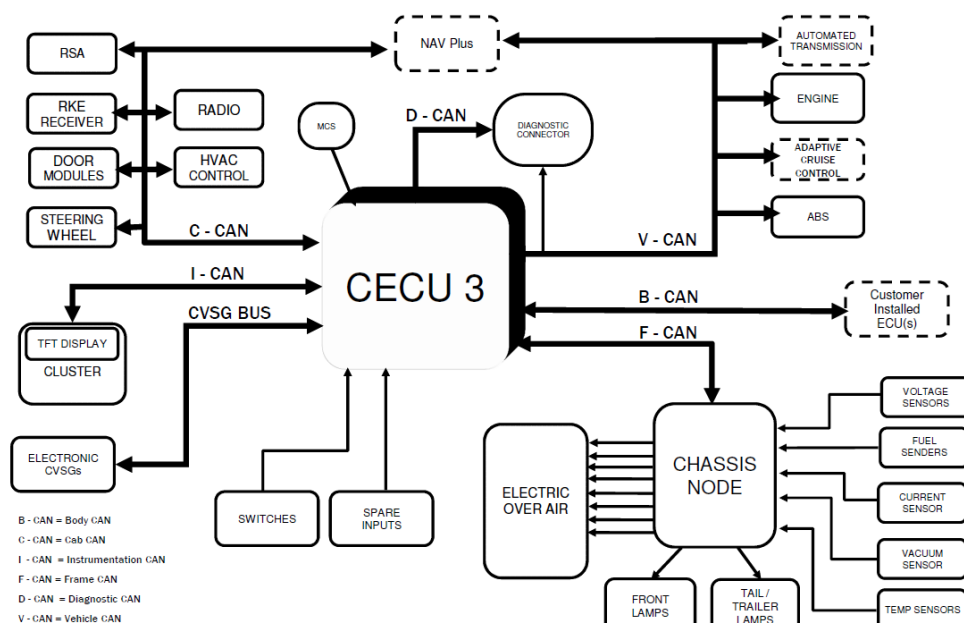
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NAMUX 3 Architecture



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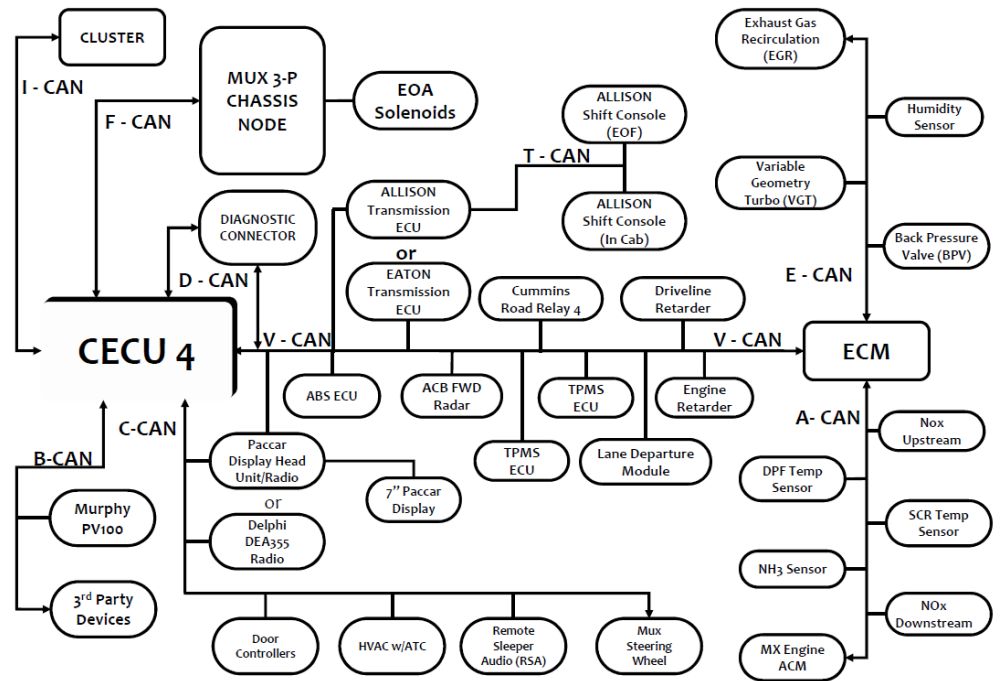
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	The fan drive communicates via the E-CAN.								
Diagnostic Step-by-Step	<div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div> <div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div> <table><tr><td>Step 1</td><td>Step ID 1784a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1784a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1784a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1784b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1784b	SRT
	Step 2	Step ID 1784b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1784c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness .• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive : Issue resolved. Clear inactive fault.	Step 3	Step ID 1784c	SRT
	Step 3	Step ID 1784c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1784d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1784d	SRT	
Step 4	Step ID 1784d	SRT		
<p>Verification Drive Cycle</p>	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

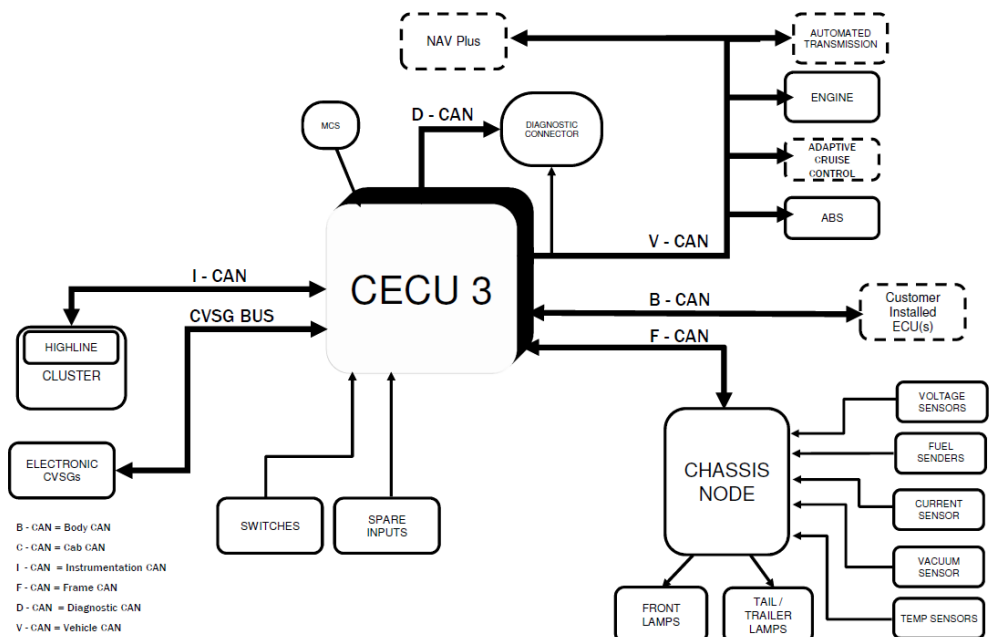
U1785

Code number	U1785
Fault code description	CAN communication - Message (PROPB_EST) rate too low from retarder
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control System): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Aftertreatment CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps and Tail / Trailer Lamps: Connected via Frame CAN. Sensors: Connected via Frame CAN, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. SWITCHES and SPARE INPUTS: Connected to CECU 3. CVSG BUS (Cable Vehicle Signal Generator Bus): Connected to CECU 3. ELECTRONIC CVSG's (Electronic Cable Vehicle Signal Generators): Connected to CECU 3. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine CAN network.</p>

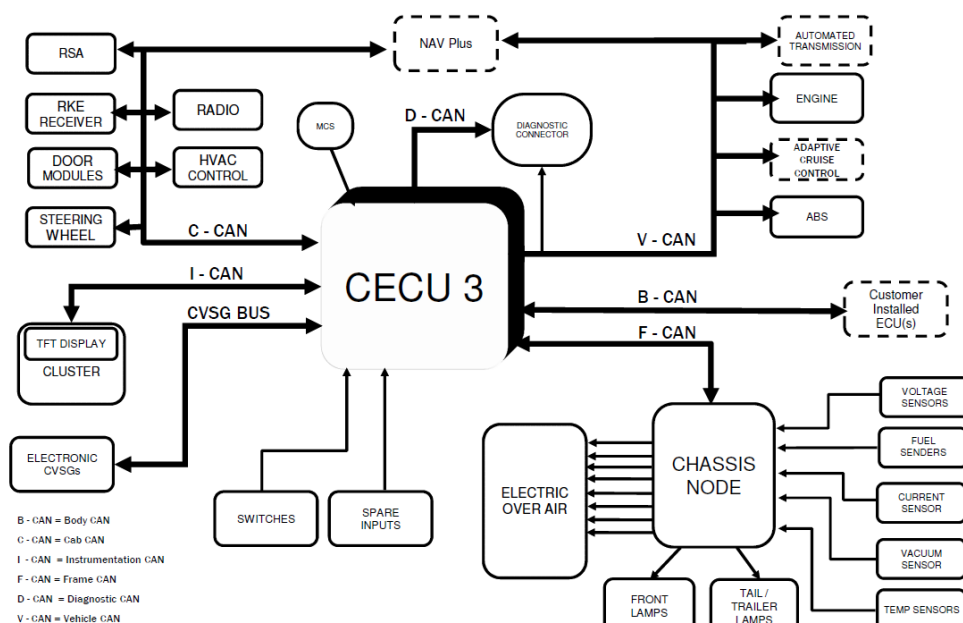
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NAMUX 3 Architecture



NAMUX 4 Architecture



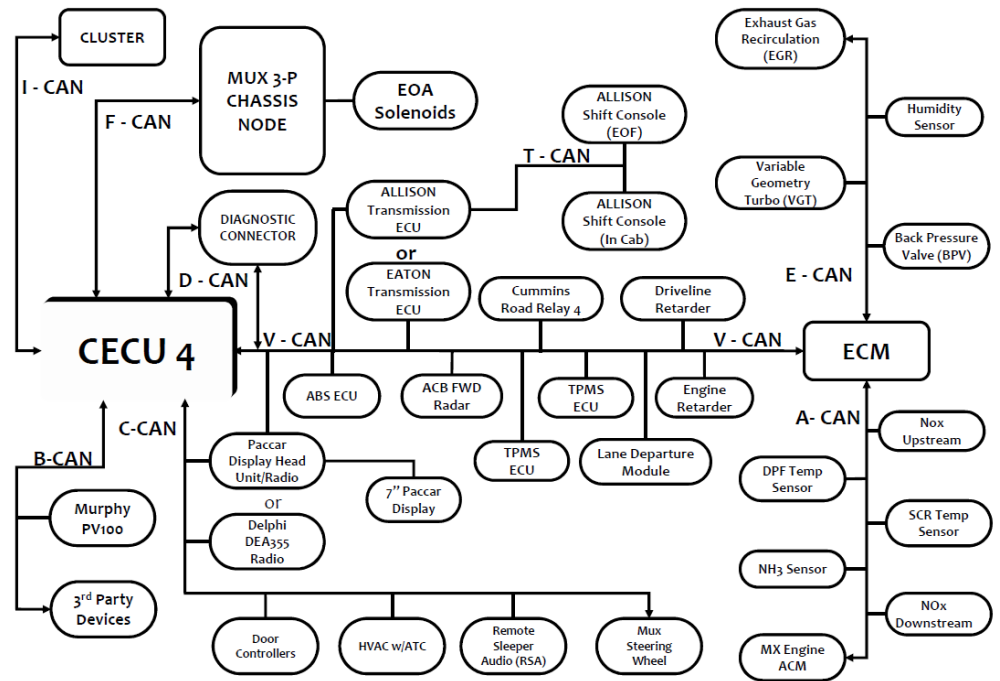
Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> Breakdown in communication in the CAN network Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring 							
Additional information	No additional information available							
Diagnostic Step-by-Step	<p> Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> <p> <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <tr> <td>Step 1</td><td>Step ID 1785a</td><td>SRT</td></tr> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </table>		Step 1	Step ID 1785a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1785a	SRT						
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.								

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1785b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

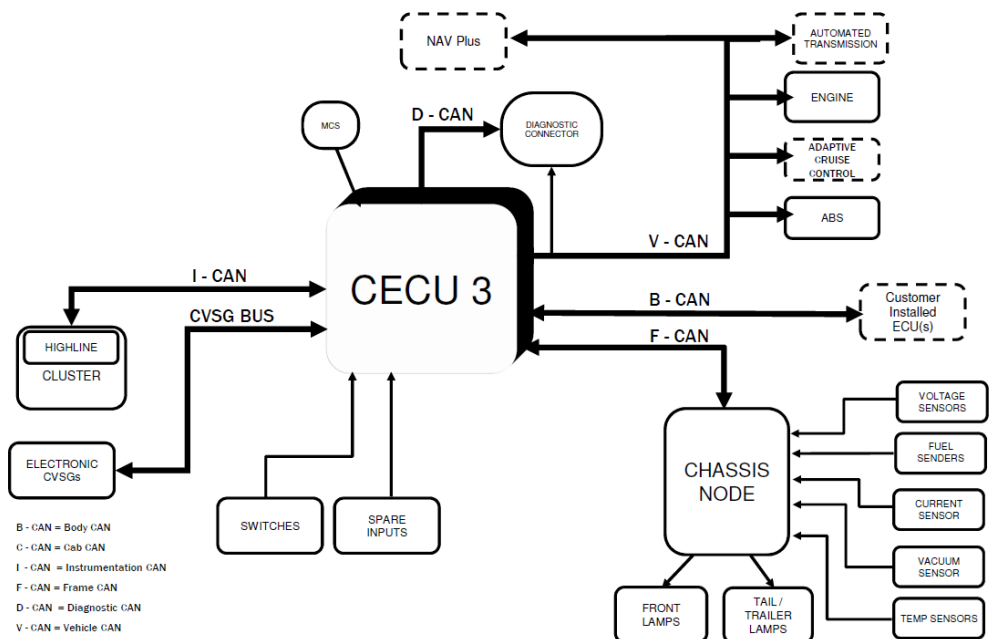
U1787

Code number	U1787
Fault code description	CAN communication - Message (PROPB_EST) out of range - coolant liquid temperature from retarder
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Master Control System) and the Diagnostic Connector. Cab CAN: Connects CECU 3 to the Cluster, Steering Wheel, and Instrumentation CAN. Instrumentation CAN: Connects CECU 3 to the Cluster and the CVSG BUS. CVSG BUS: Connects CECU 3 to the Electronic CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: These are connected directly to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. CHASSIS NODE: This node manages various chassis-related components: <ul style="list-style-type: none"> FRONT LAMPS and TAIL / TRAILER LAMPS: Connected to the CHASSIS NODE. Sensors: Includes VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS, all connected to the CHASSIS NODE. Engine and Aftertreatment CAN: These networks connect the CECU 3 to the ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, and After-treatment DCU (Differential Control Unit). Firewalls: Indicated by dashed lines, separating the Diagnostic CAN from the Vehicle CAN, and the Vehicle CAN from the Engine/Aftertreatment CAN.

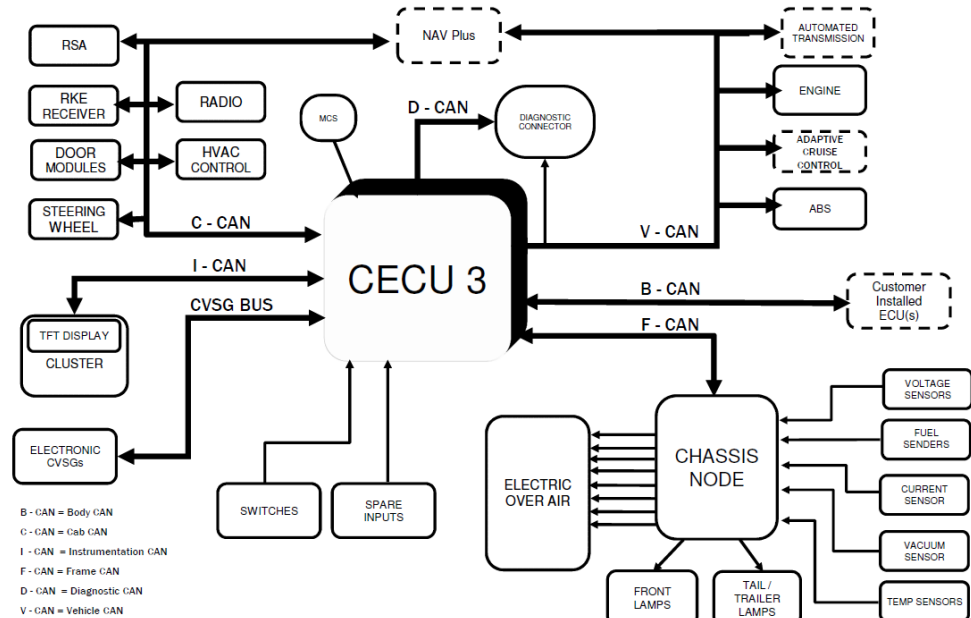
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



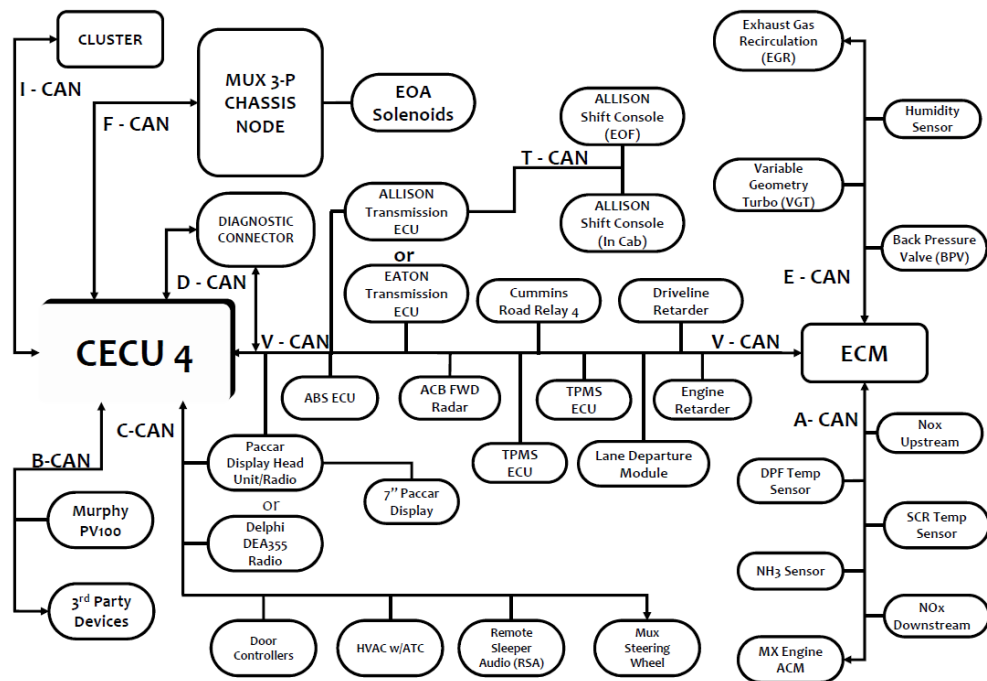
Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> Breakdown in communication in the CAN network Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring 							
Additional information	No additional information available							
Diagnostic Step-by-Step	<p> Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> <p> <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <tr> <td>Step 1</td><td>Step ID 1787a</td><td>SRT</td></tr> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </table>		Step 1	Step ID 1787a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1787a	SRT						
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.								

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1787b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1787b	SRT
	Step 2	Step ID 1787b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1787c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1787c	SRT
	Step 3	Step ID 1787c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1787d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1787d	SRT	
Step 4	Step ID 1787d	SRT		
<p>Verification Drive Cycle</p>	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<p>Back to Choose Code</p> <p>Back to Index</p>			

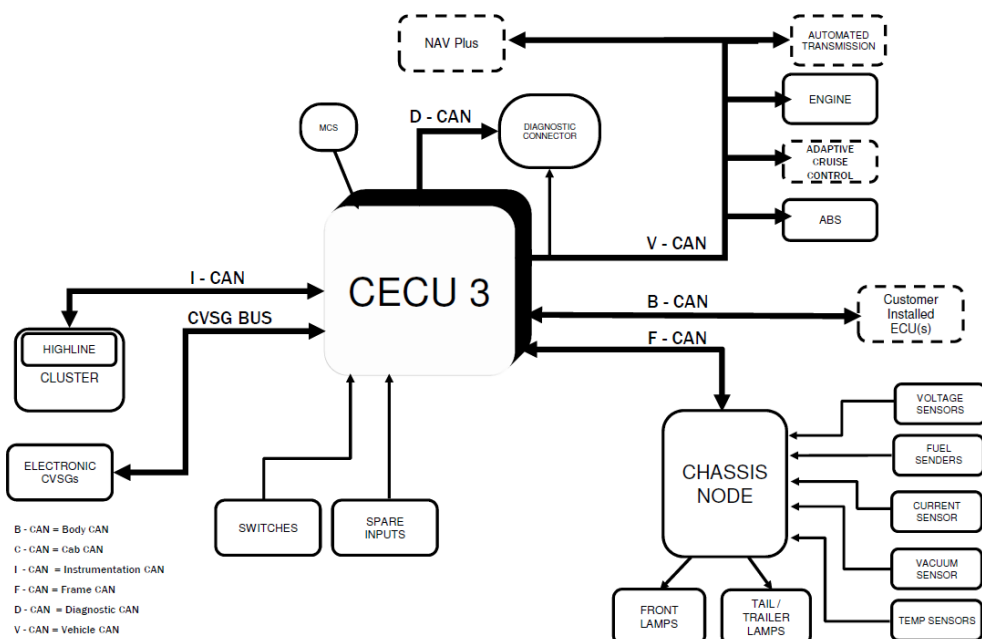
U1789

Code number	U1789
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - starter interrupt from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. VGT Actuator: Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Engine CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps: Connected via Frame CAN. Tail / Trailer Lamps: Connected via Frame CAN. CVSG BUS (Control Valve Solenoid Group Bus): Connected via Instrumentation CAN. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected via Instrumentation CAN. SWITCHES and SPARE INPUTS: Connected via Diagnostic CAN. VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS: Connected via Frame CAN. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN network.</p>

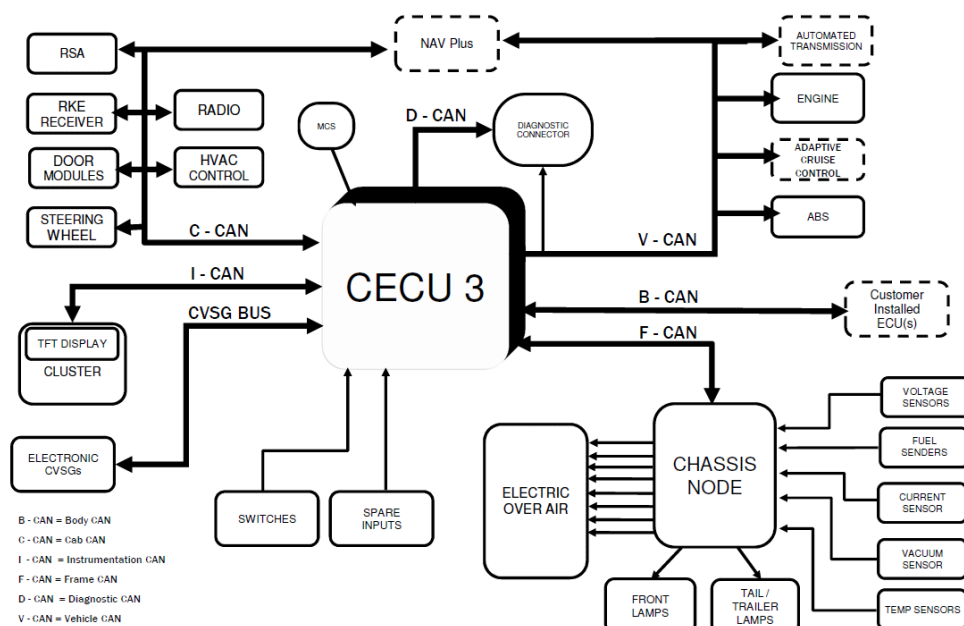
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



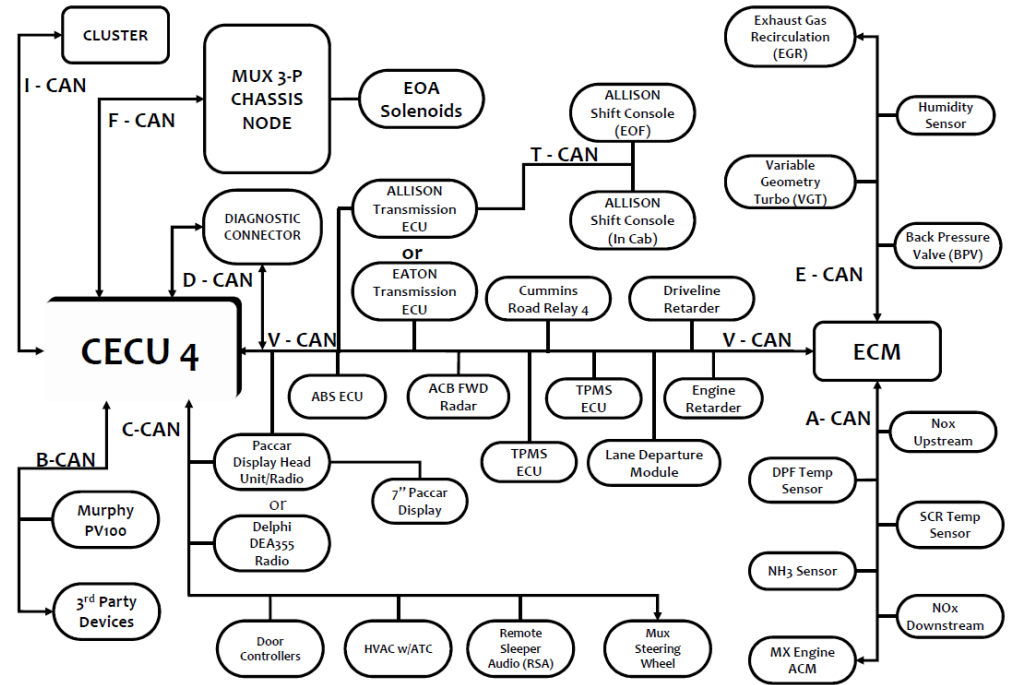
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1789a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1789a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1789a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1789b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

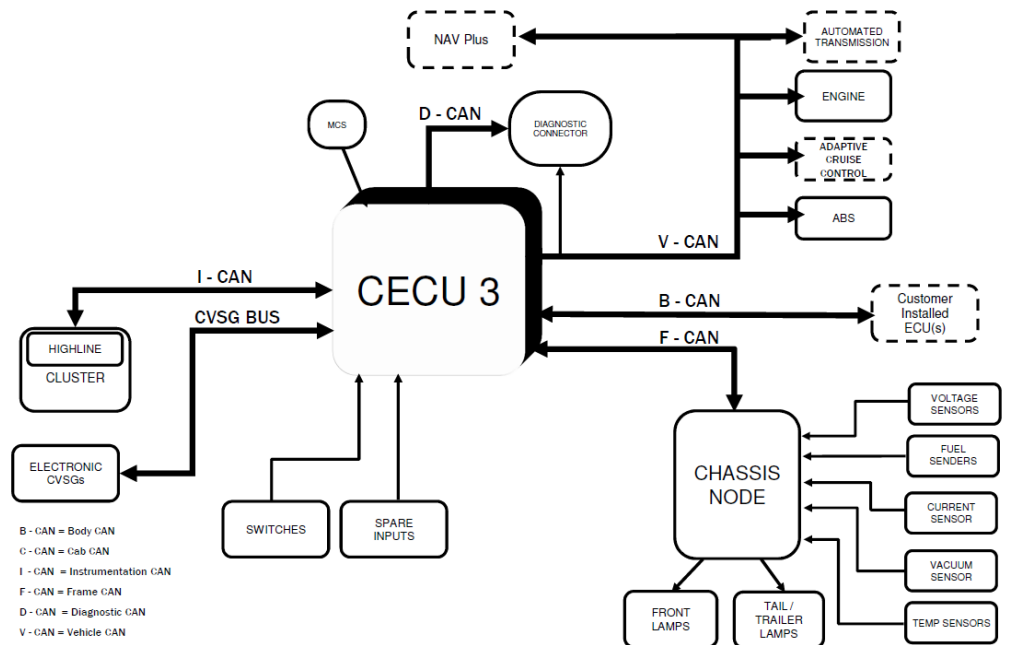
U178A

Code number	U178A
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - ESC enable from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several components and systems:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Buses: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS, PACCAR Display, AUTO TRANSMISSION, and Adaptive Cruise Control. Engine and Aftertreatment: ENGINE, VGT Actuator, After-treatment DCU, and Aftertreatment CAN. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Lights: FRONT LAMPS and TAIL / TRAILER LAMPS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Aftertreatment CAN.</p>

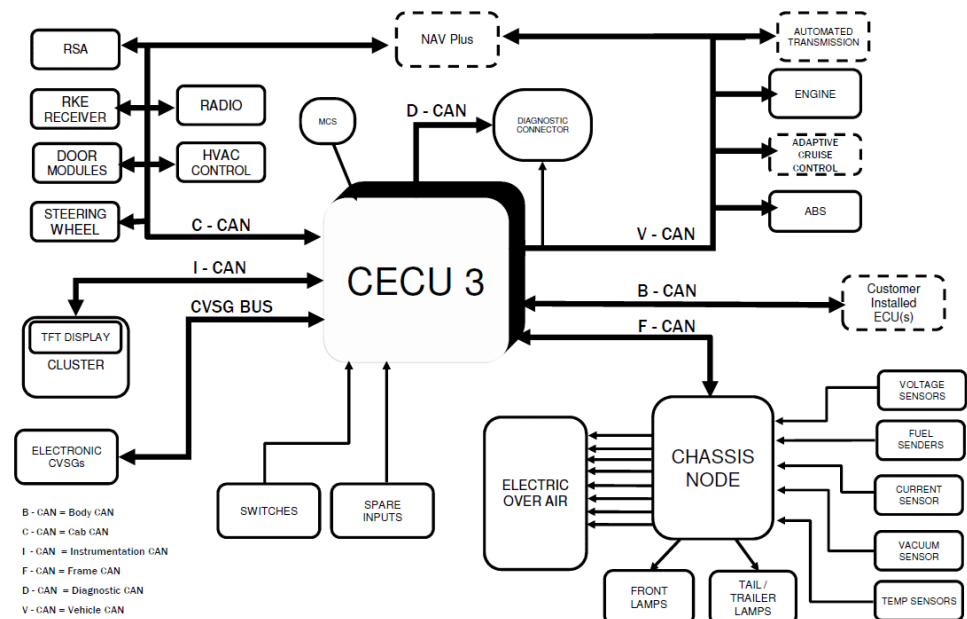
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

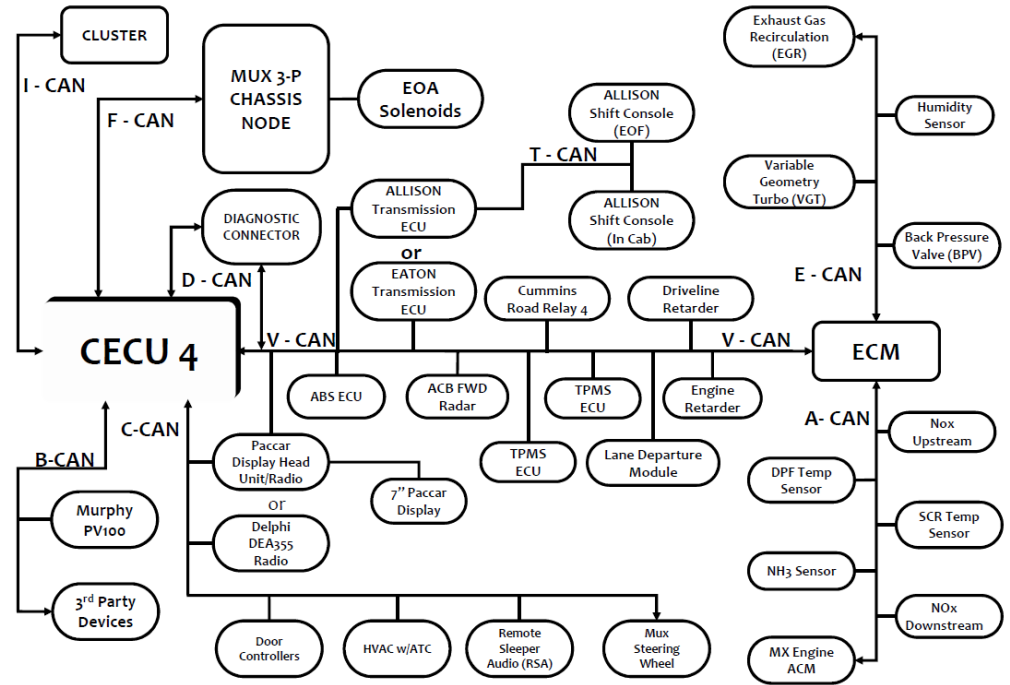
Step 1	Step ID 178A-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 178A-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 178A-c	SRT
<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.			
	Step 4	Step ID 178A-d	SRT
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

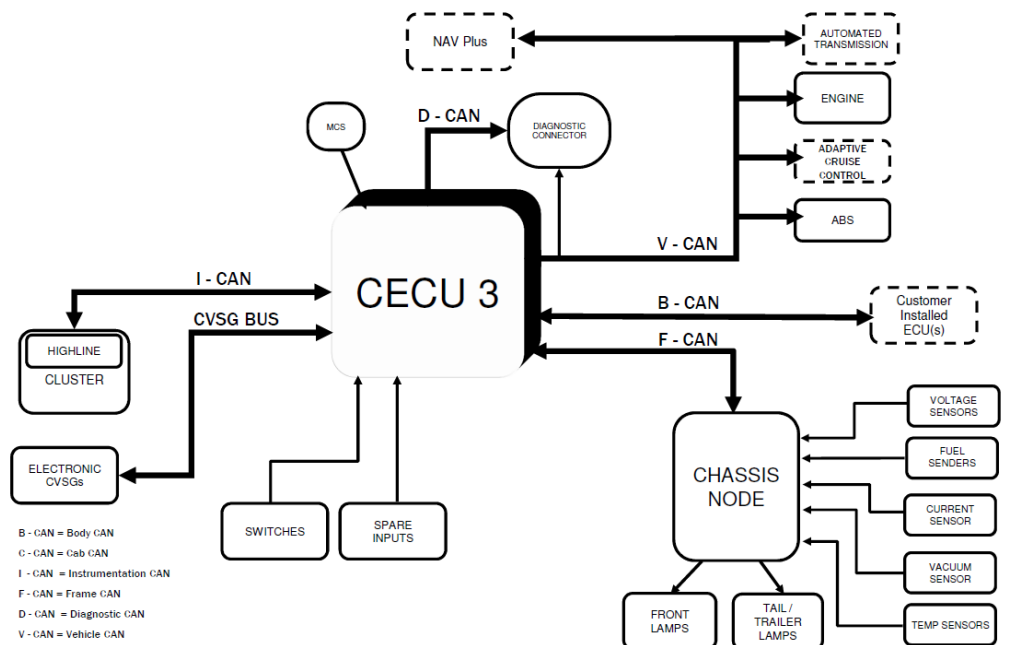
U178B

Code number	U178B
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - ESC set minus from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Master Control Switch), SWITCHES, SPARE INPUTS, and ELECTRONIC CVSG's (Control Valve Solenoid Groups) are connected to CECU 3. Networks: CECU 3 is connected to Cab CAN, Instrumentation CAN, CVSG BUS, Diagnostic CAN, Vehicle CAN, and Frame CAN. Vehicle Systems: CECU 3 is connected to ABS (Anti-lock Braking System), PACCAR Display, ENGINE, VGT Actuator (Variable Geometry Turbine Actuator), and After-treatment DCU (Differential Control Unit). Chassis Node: CECU 3 is connected to the CHASSIS NODE, which in turn controls FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors: The CHASSIS NODE is connected to a variety of sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other Components: The diagram also shows an AUTO TRANSMISSION, ADAPTIVE CRUISE CONTROL, and an After-treatment CAN network. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Frame CAN.</p>

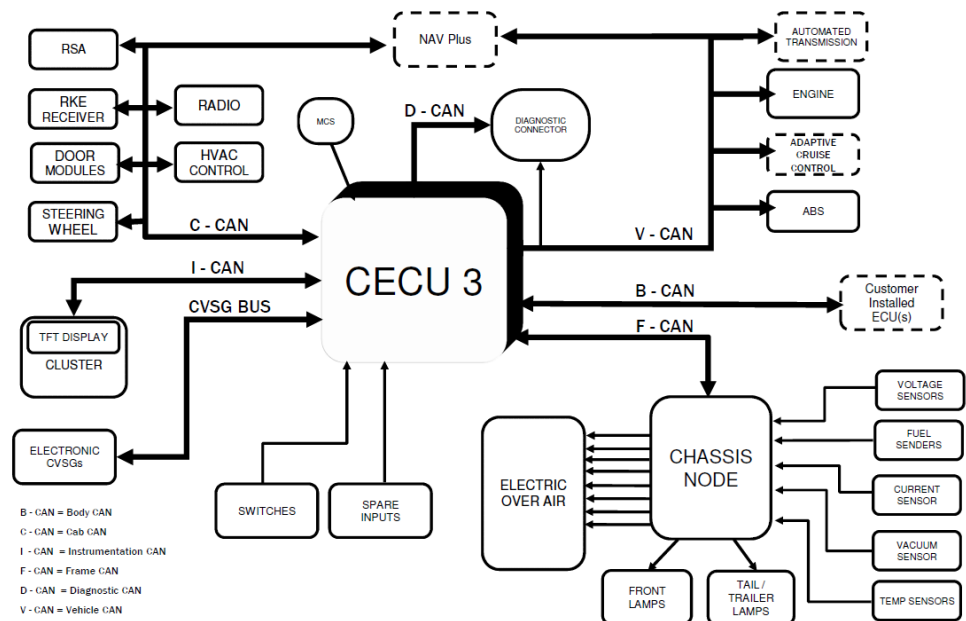
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

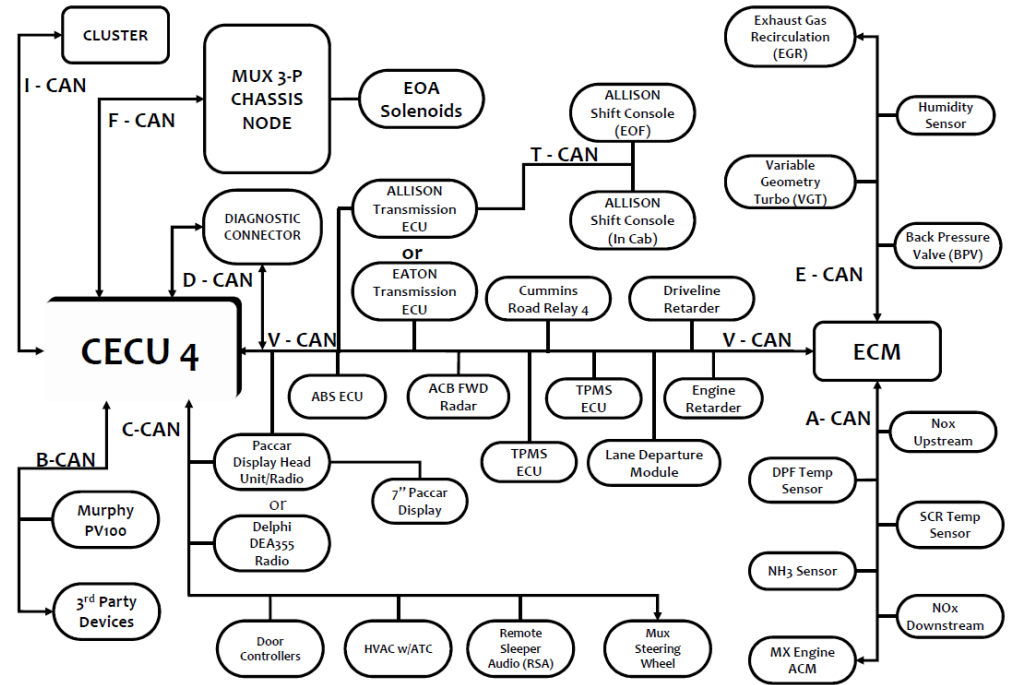
Step 1	Step ID 178B-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 178B-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 178B-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 178B-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p>Back to Choose Code</p> <p>Back to Index</p>		

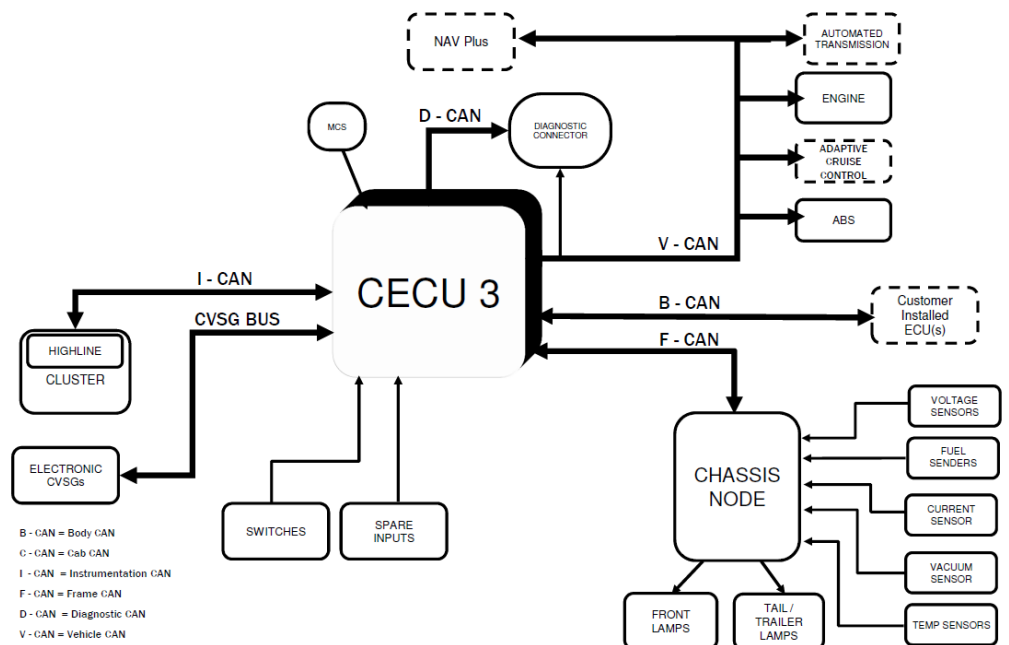
U178C

Code number	U178C
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - ESC set plus from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS, Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Networks: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS, PACCAR Display, and CHASSIS NODE (which includes FRONT LAMPS and TAIL / TRAILER LAMPS). Engine and Aftertreatment: ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, and After-treatment DCU, all connected via the Aftertreatment CAN. Sensors: A variety of sensors including VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS are connected to the CHASSIS NODE. Firewalls: Dashed lines labeled "FIREWALL" indicate communication barriers between the CECU 3 and the CHASSIS NODE, and between the CHASSIS NODE and the Aftertreatment CAN network.

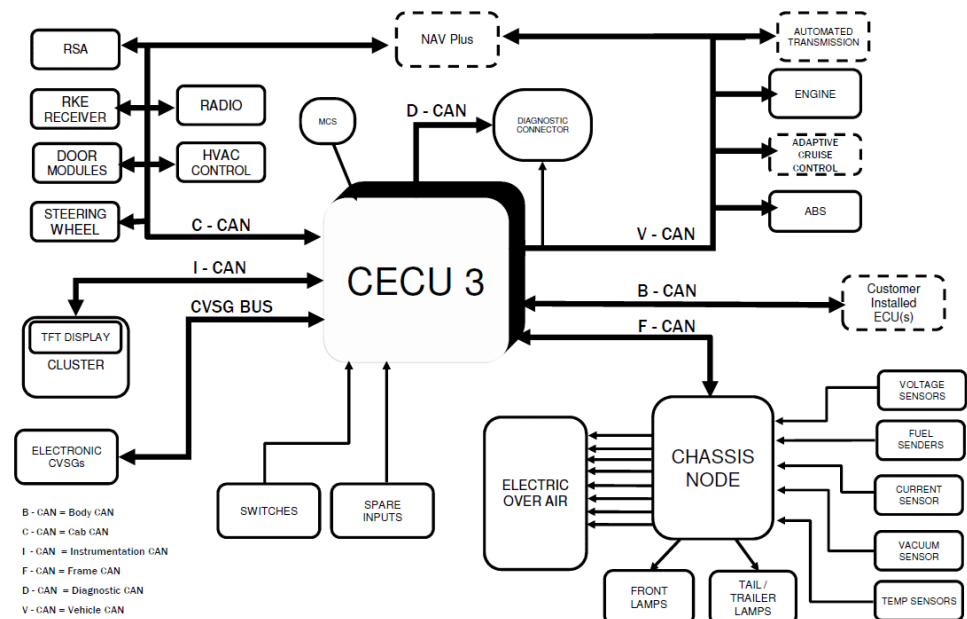
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

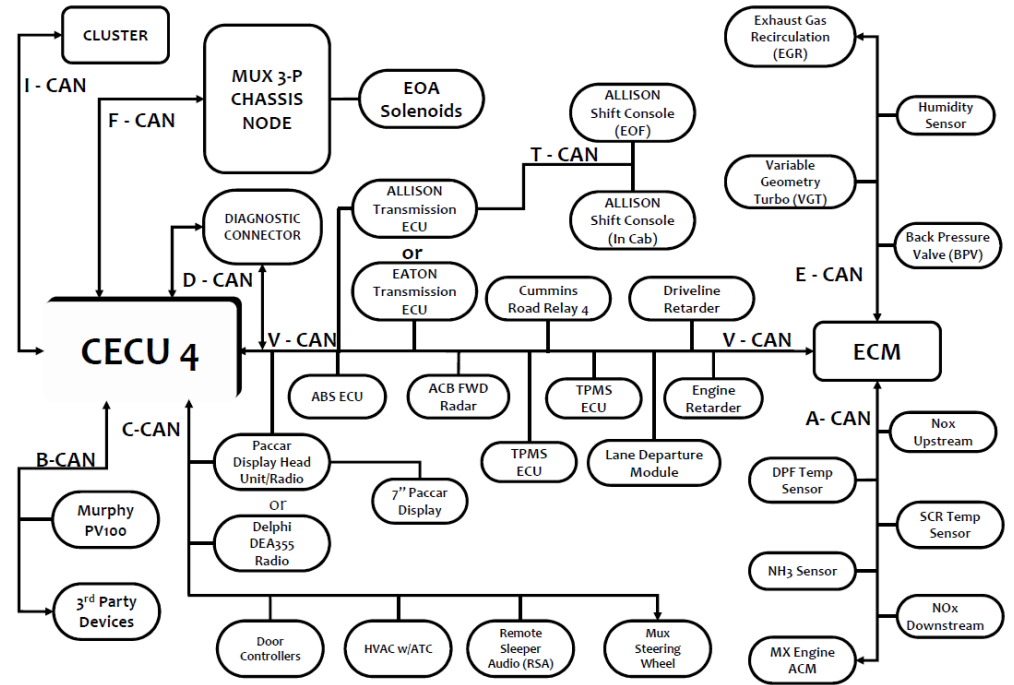
Step 1	Step ID 178C-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above? <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults.• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 178C-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 178C-b	SRT
Step 2	Step ID 178C-b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 178C-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 178C-c	SRT
Step 3	Step ID 178C-c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 178C-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 178C-d	SRT
Step 4	Step ID 178C-d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

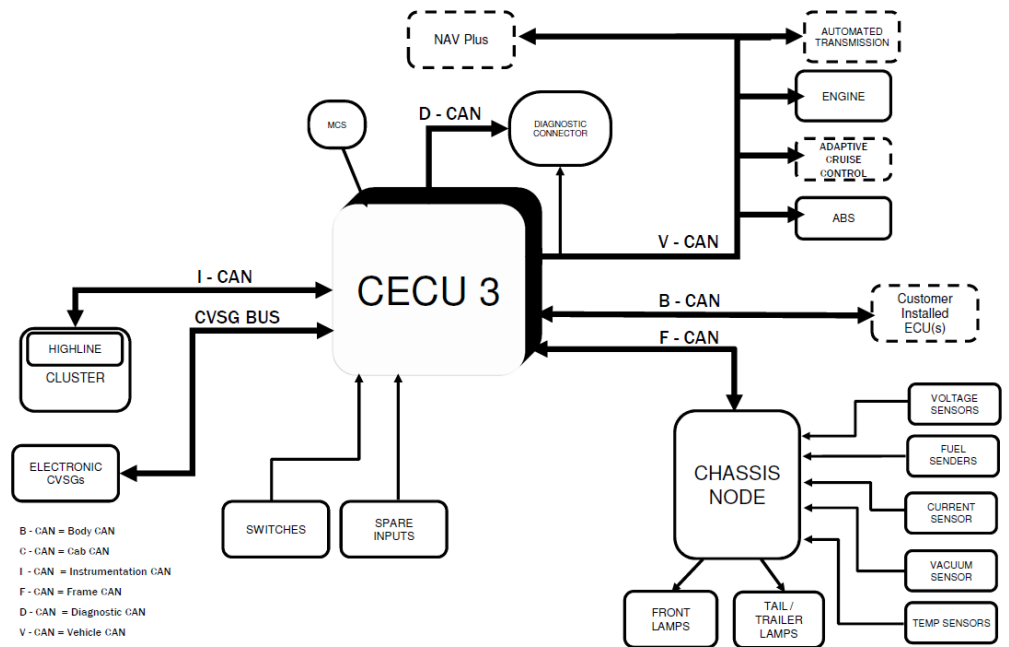
U178D

Code number	U178D
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range – ESC variable from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several components and systems:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Buses: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS, PACCAR Display, AUTO TRANSMISSION, and Adaptive Cruise Control. Engine and Aftertreatment: ENGINE, VGT Actuator, After-treatment DCU, and Aftertreatment CAN. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Lights: FRONT LAMPS and TAIL / TRAILER LAMPS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE, which manages the FRONT LAMPS and TAIL / TRAILER LAMPS.</p>

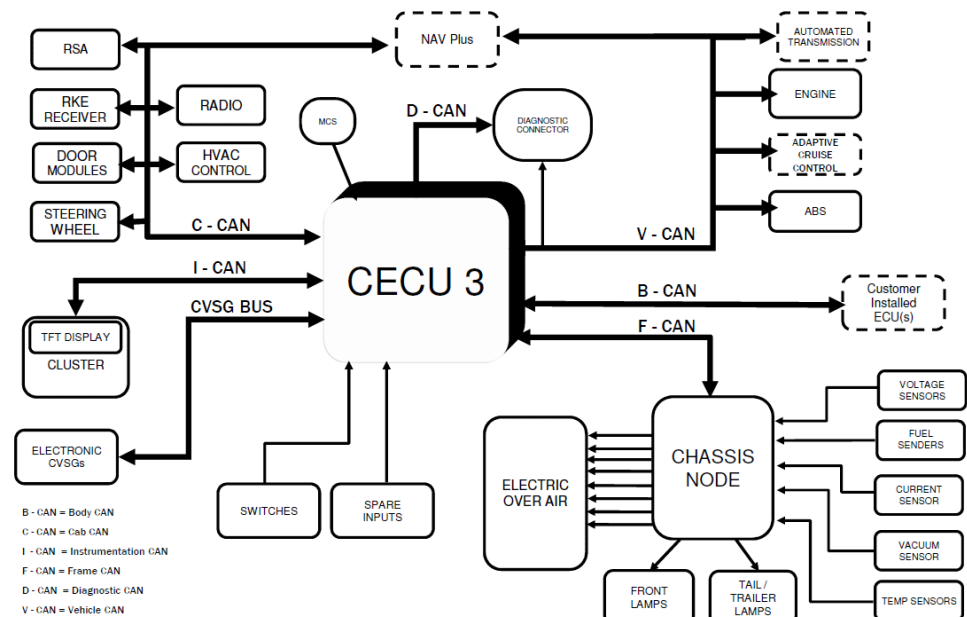
NAMUX 4 Architecture (Phase 1): T680



NAMUX₃ Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

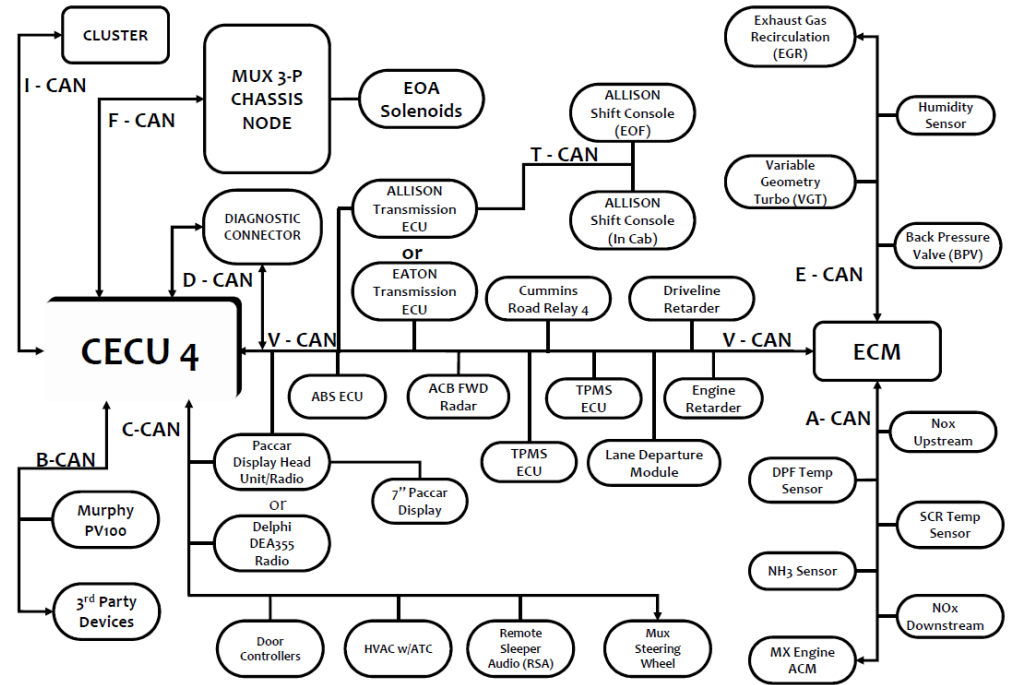
Step 1	Step ID 178D-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults.• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 178D-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 178D-b	SRT
	Step 2	Step ID 178D-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 178D-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 178D-c	SRT
Step 3	Step ID 178D-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 178D-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 178D-d	SRT	
Step 4	Step ID 178D-d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 With the brakes set, start the engine and allow it to run at idle for 2 minutes seconds for the system to initialize and run diagnostics			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

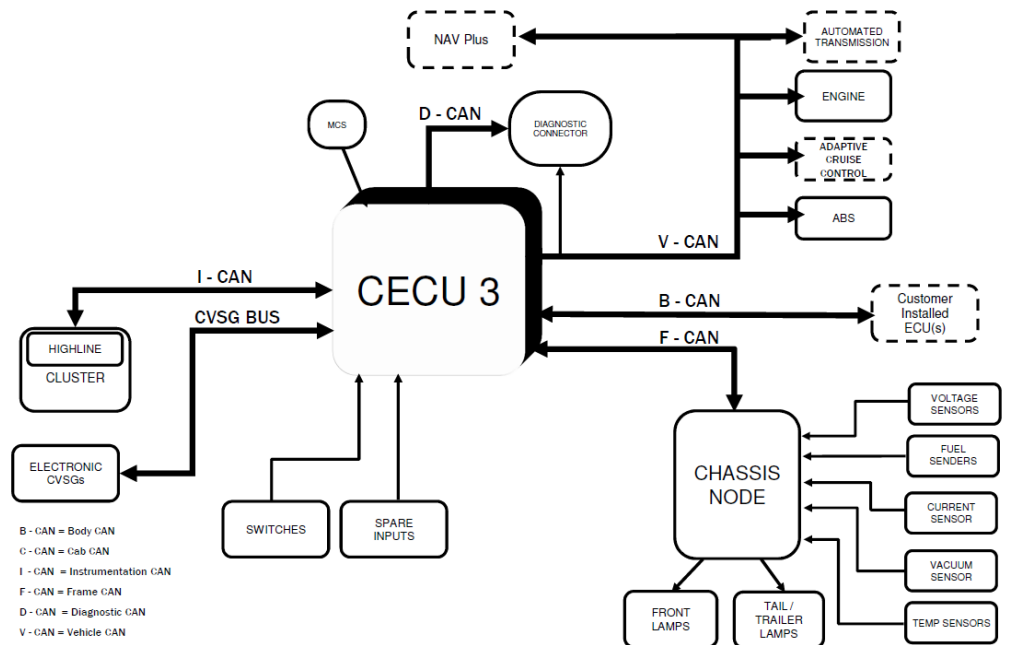
U178E

Code number	U178E
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - Application speed limiter switch 1 from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and systems:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Buses: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS, PACCAR Display, AUTO TRANSMISSION, and Adaptive Cruise Control. Engine and Aftertreatment: ENGINE, VGT Actuator, After-treatment DCU, and Aftertreatment CAN. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Lights: FRONT LAMPS and TAIL / TRAILER LAMPS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Aftertreatment CAN.</p>

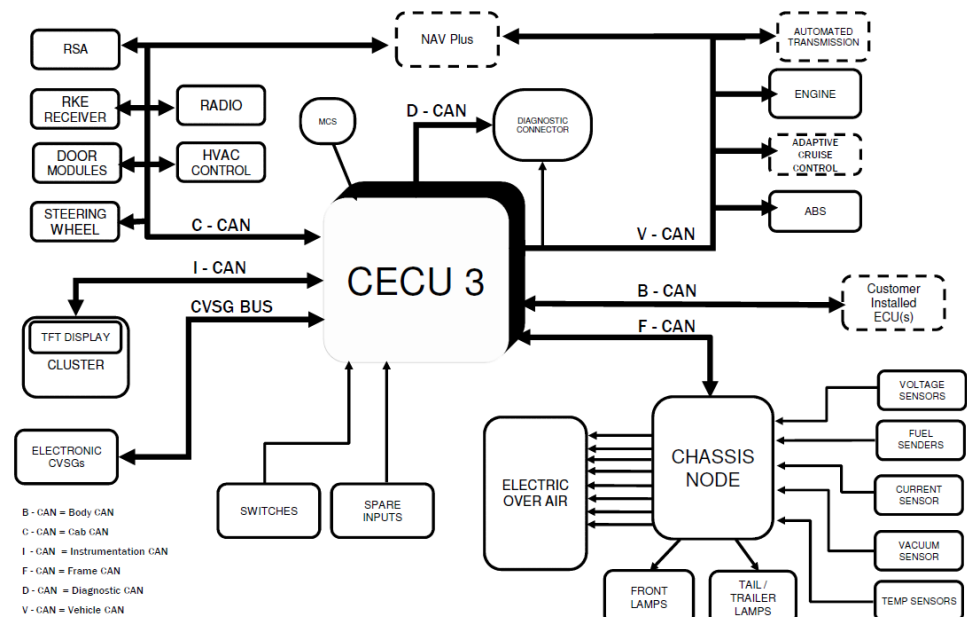
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

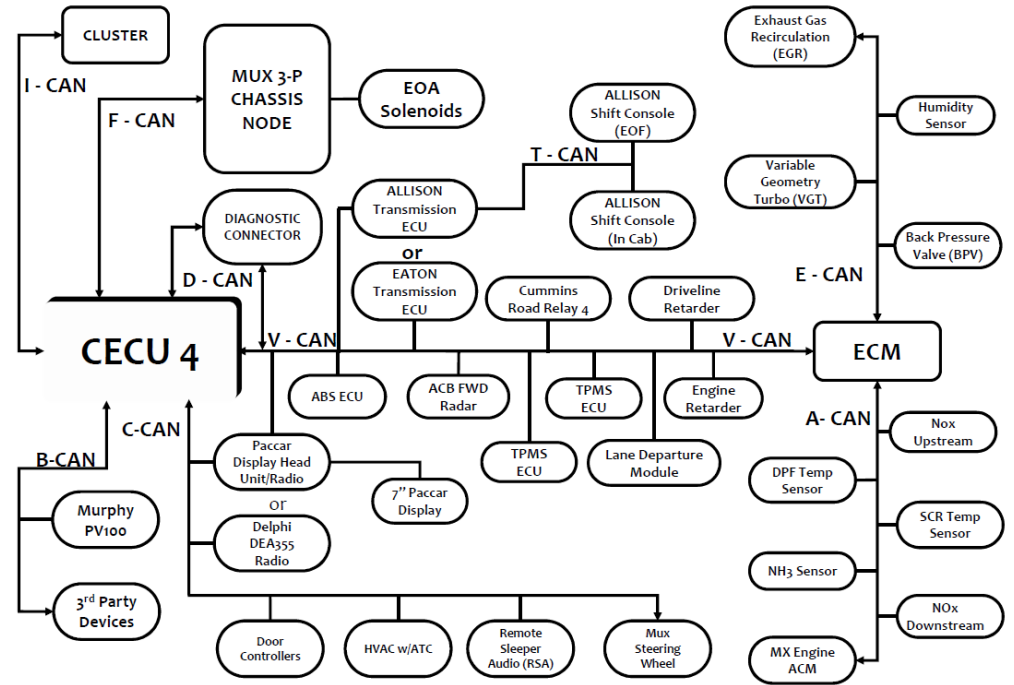
Step 1	Step ID 178E-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above? <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults.• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 178E-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 178E-b	SRT
	Step 2	Step ID 178E-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 178E-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 178E-c	SRT
Step 3	Step ID 178E-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 178E-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 178E-d	SRT	
Step 4	Step ID 178E-d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

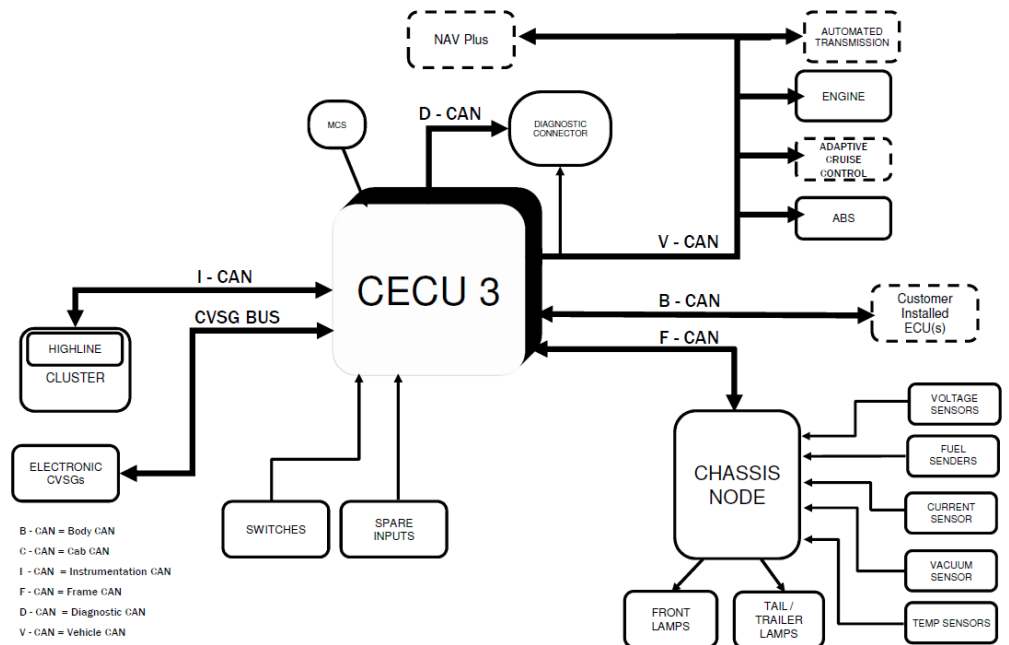
U178F

Code number	U178F
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - ESC n2 from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Microcontroller System), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Networks: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS (Anti-lock Braking System), PACCAR Display, and CHASSIS NODE. Aftertreatment System: Aftertreatment CAN, ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, and After-treatment DCU. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Lights: FRONT LAMPS and TAIL / TRAILER LAMPS. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.</p>

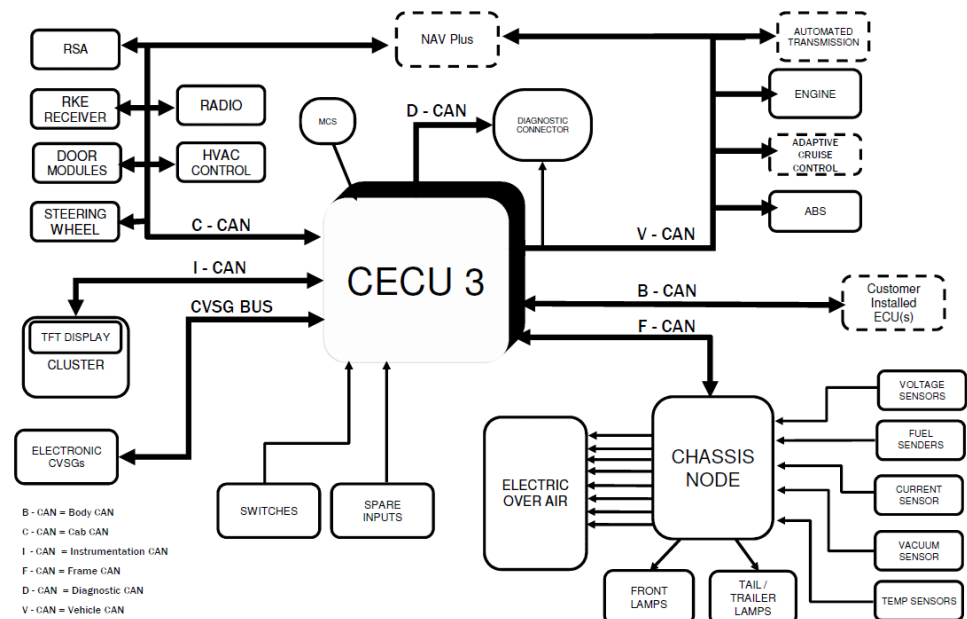
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.


Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step

 Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

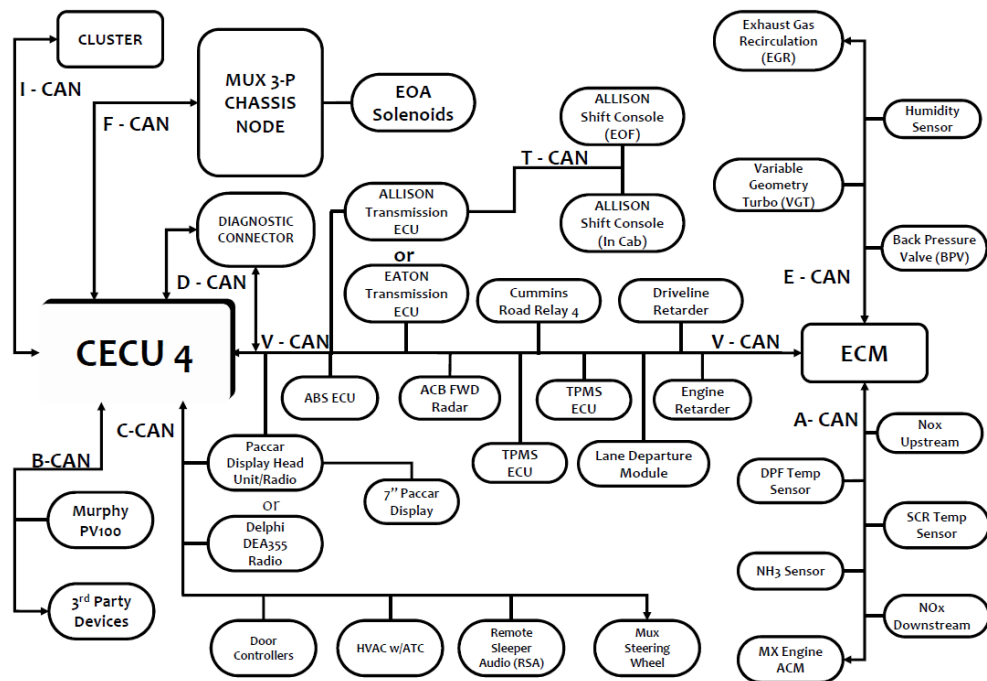
Step 1	Step ID 178F-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above? <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 178F-b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 178F-b	SRT
	Step 2	Step ID 178F-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 178F-c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 178F-c	SRT
Step 3	Step ID 178F-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 178F-d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 178F-d	SRT	
Step 4	Step ID 178F-d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

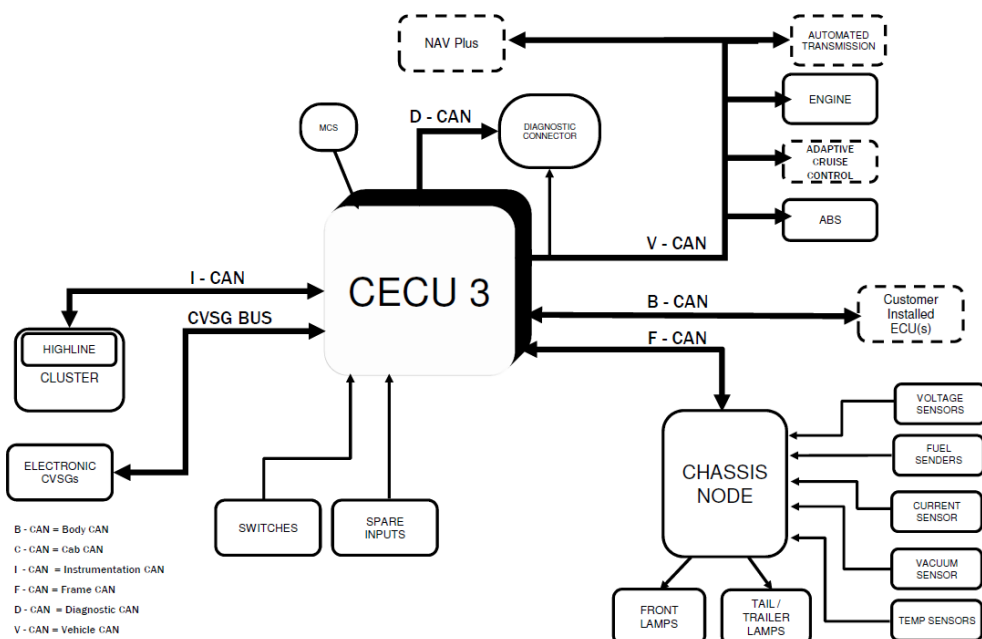
U1790

Code number	U1790
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - ESC n3 from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. Chassis Node: Connected via Frame CAN. This node manages various sensors and actuators: <ul style="list-style-type: none"> VGT Actuator (Variable Geometry Turbine): Connected to the Engine CAN. After-treatment DCU (Data Control Unit): Connected to the Aftertreatment CAN. Sensors: Includes Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors, all connected to the Chassis Node. Lights: Front Lamps and Tail / Trailer Lamps are connected to the Chassis Node. Other Components: Includes SWITCHES, SPARE INPUTS, and ELECTRONIC CVSG's (Connected via CVSG BUS). <p>The diagram also shows a FIREWALL separating the CECU 3 from the Chassis Node and the Engine/Aftertreatment CAN network.</p>

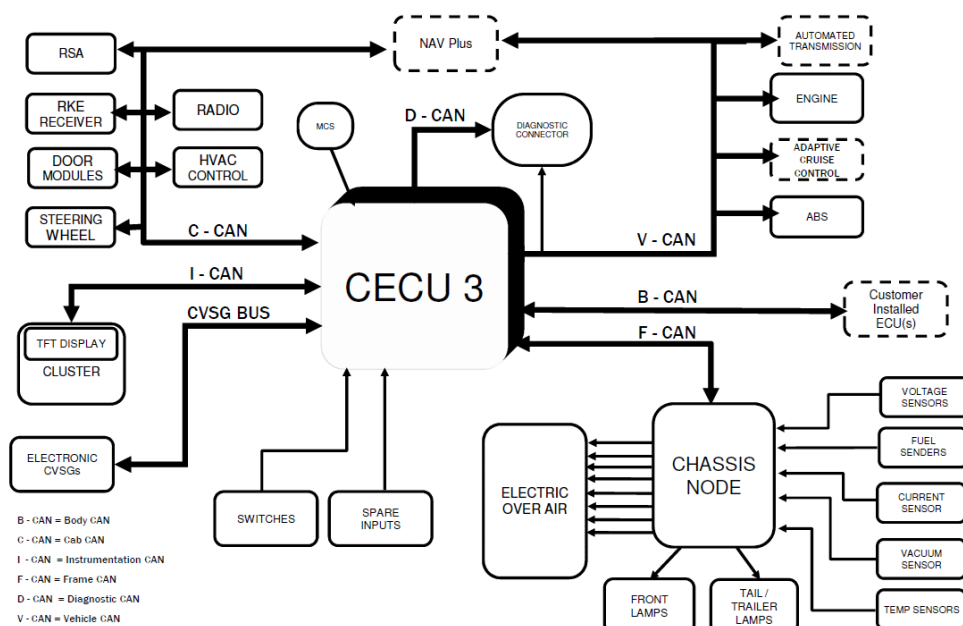
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



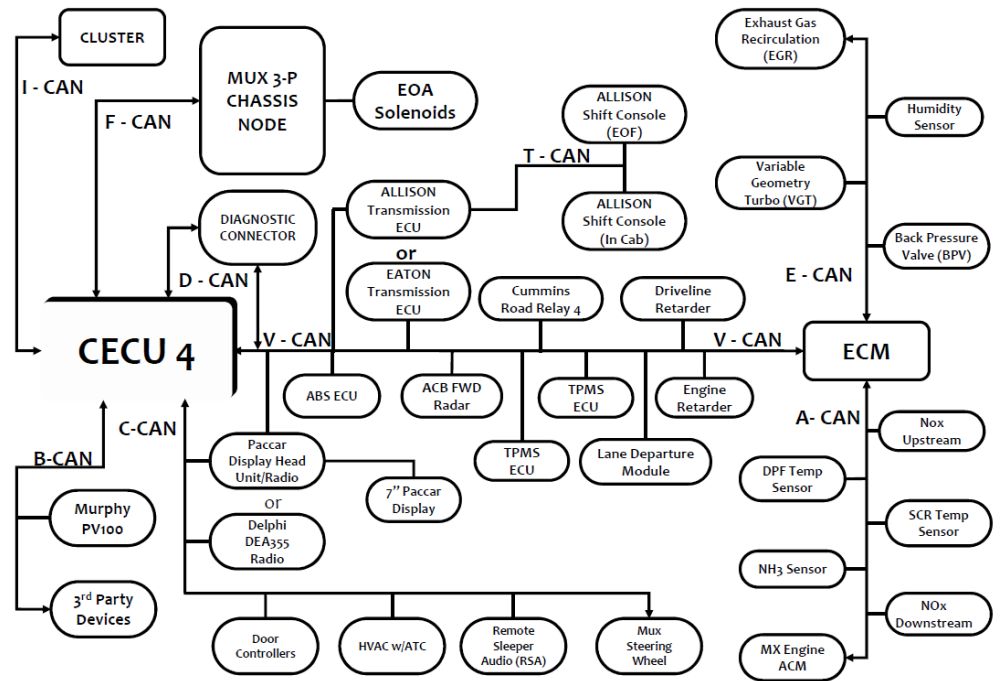
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">• Check transmission ECU for faults• Breakdown in communication in the CAN network• Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pin out locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1790a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU.Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1790a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU.Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1790a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU.Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 1790b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4			Step 2	Step ID 1790b	SRT
	Step 2	Step ID 1790b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 1790c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 1790c	SRT
Step 3	Step ID 1790c	SRT				
<table><tr><td>Step 4</td><td>Step ID 1790d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 1790d	SRT	
Step 4	Step ID 1790d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

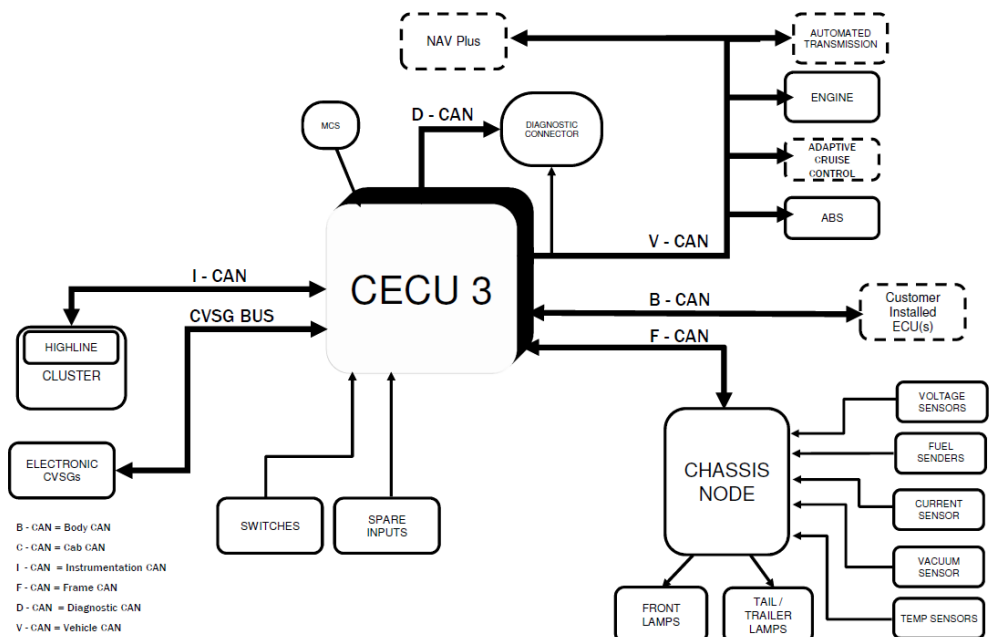
U1791

Code number	U1791
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - Application speed limiter switch 2 from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. VGT Actuator: Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Engine CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps: Connected via Frame CAN. Tail / Trailer Lamps: Connected via Frame CAN. CVSG BUS (Control Valve Solenoid Group Bus): Connected via CVSG BUS. ELECTRONIC CVSG's: Connected via CVSG BUS. SWITCHES: Connected via Cab CAN. SPARE INPUTS: Connected via Cab CAN. <p>The diagram also shows various sensors connected to the CHASSIS NODE, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. A Firewall is indicated between the CECU 3 and the CHASSIS NODE.</p>

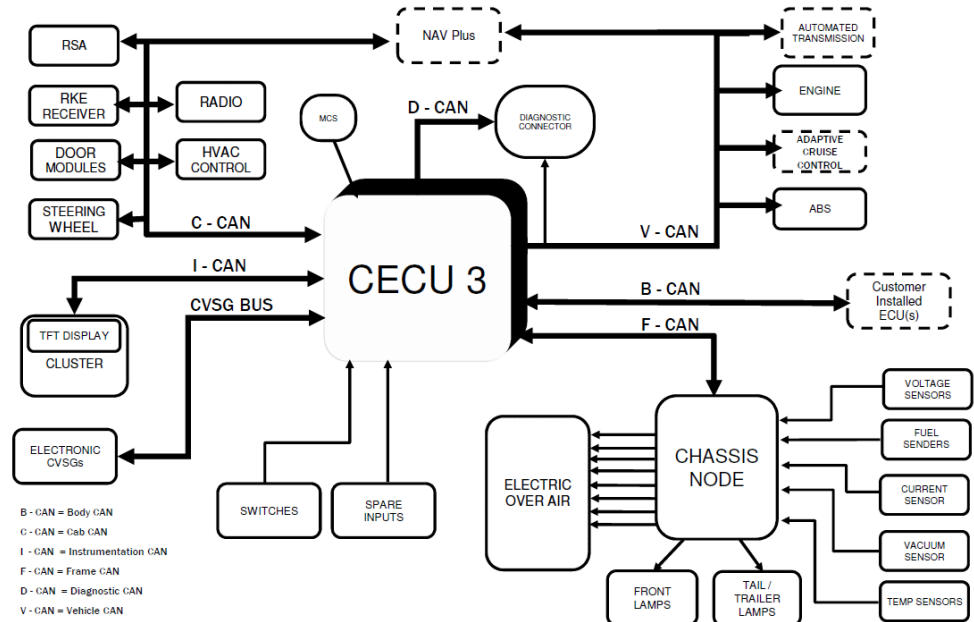
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

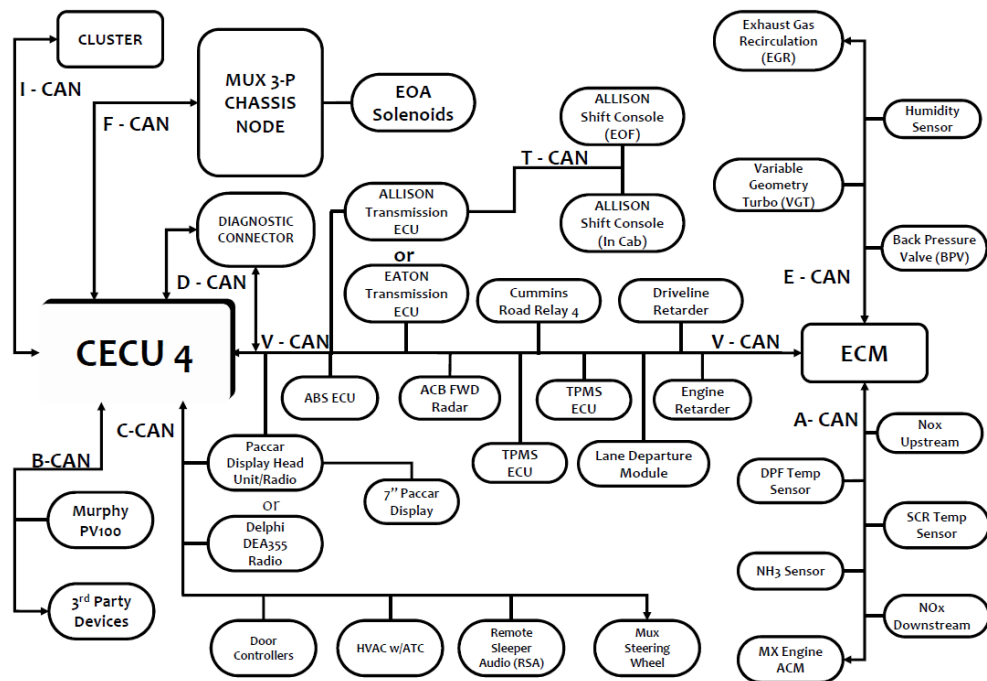
Step 1	Step ID 1791a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<div>Was there evidence of any of the above?<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements.Use DAVIE to re-check for the presence of active faults.<ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2</div>					
	<div><table><tr><td>Step 2</td><td>Step ID 1791b</td><td>SRT</td></tr></table><div>Data check<ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific componentIs test pass?<ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4</div></div>			Step 2	Step ID 1791b	SRT
	Step 2	Step ID 1791b	SRT			
	<div><table><tr><td>Step 3</td><td>Step ID 1791c</td><td>SRT</td></tr></table><div>Repair or replace component<ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition keyUse DAVIE to re-check for the presence of active faults:<ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.</div></div>			Step 3	Step ID 1791c	SRT
Step 3	Step ID 1791c	SRT				
<div><table><tr><td>Step 4</td><td>Step ID 1791d</td><td>SRT</td></tr></table><div>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</div></div>			Step 4	Step ID 1791d	SRT	
Step 4	Step ID 1791d	SRT				
Verification Drive Cycle	<div>To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics With the brakes set, start the engine and allow it to run at idle for 2 minutes.</div>					
	<div><div>Back to Choose Code</div><div>Back to Index</div></div>					

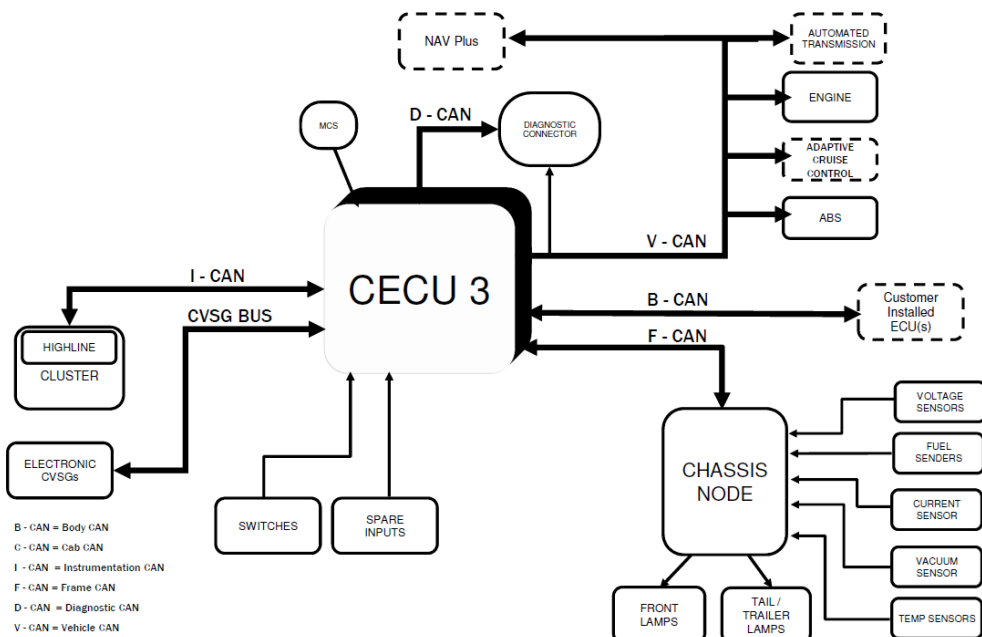
U1792

Code number	U1792
Fault code description	CAN communication - Message (PROBA_BBM_to_Eng) out of range - Throttle integration switch from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Engine CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps and Tail / Trailer Lamps: Connected via Frame CAN. CVSG BUS (Control Valve Solenoid Group Bus): Connected via Instrumentation CAN. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected via Instrumentation CAN. SWITCHES and SPARE INPUTS: Connected via Cab CAN. Vehicle CAN: A central network connecting the CECU 3 to the ABS, PACCAR Display, and CHASSIS NODE. Engine CAN: A central network connecting the CECU 3 to the Engine, VGT Actuator, and After-treatment DCU. Frame CAN: A central network connecting the CECU 3 to the CHASSIS NODE and the Front/Tail Lamps. Firewall: Indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Engine CAN. Sensors: Various sensors are connected to the CHASSIS NODE, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors.

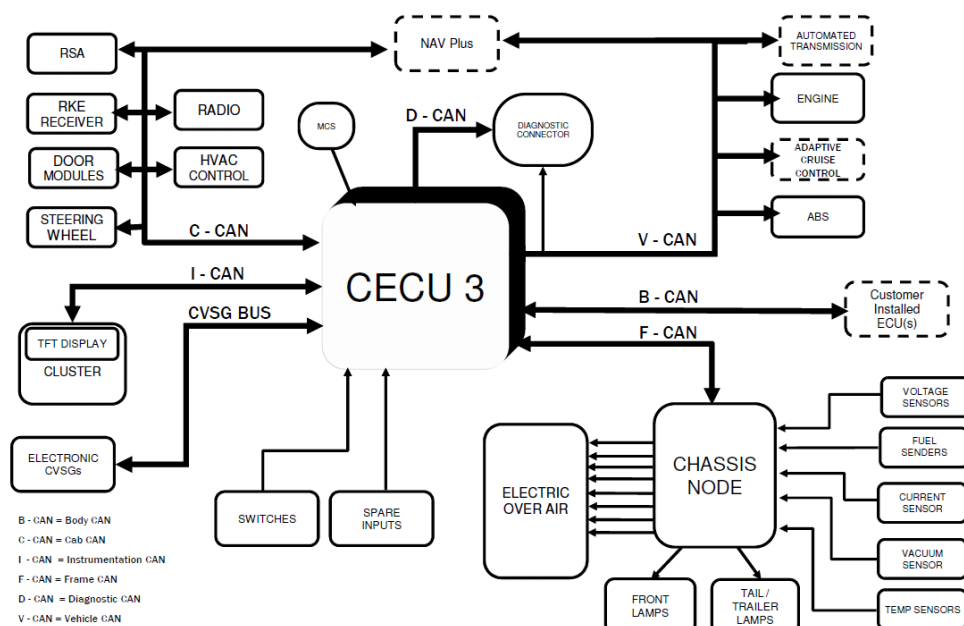
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



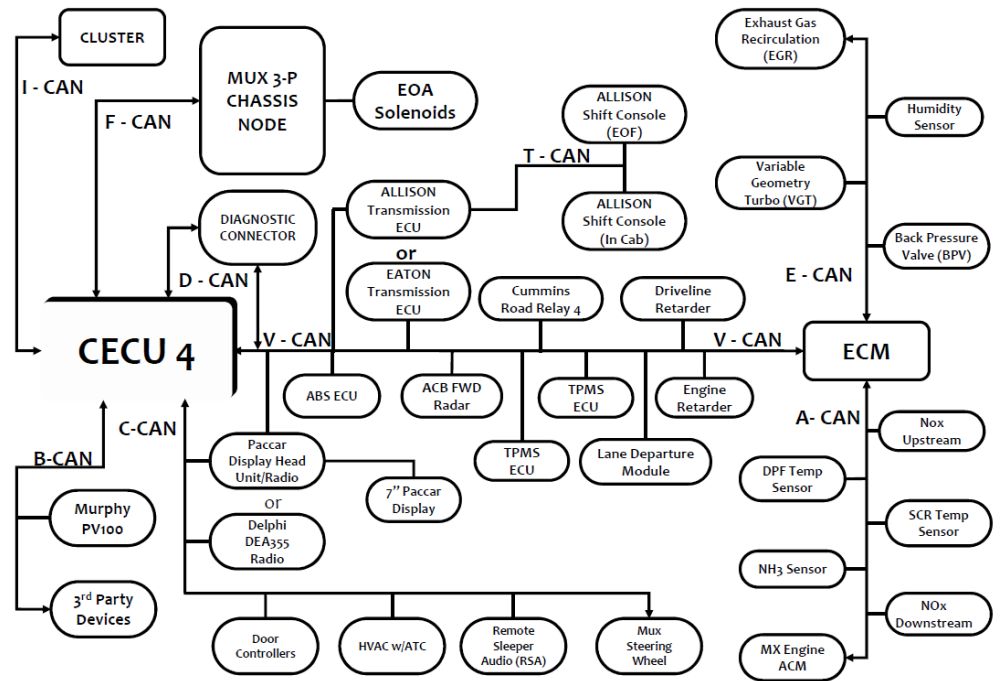
Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> Breakdown in communication in the CAN network Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring 							
Additional information	No additional information available							
Diagnostic Step-by-Step	<p> Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p> <p> <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <thead> <tr> <th>Step 1</th><th>Step ID 1792a</th><th>SRT</th></tr> </thead> <tbody> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </tbody> </table>		Step 1	Step ID 1792a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1792a	SRT						
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.								

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1792b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1792b	SRT
	Step 2	Step ID 1792b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1792c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness .• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1792c	SRT
Step 3	Step ID 1792c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1792d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1792d	SRT	
Step 4	Step ID 1792d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

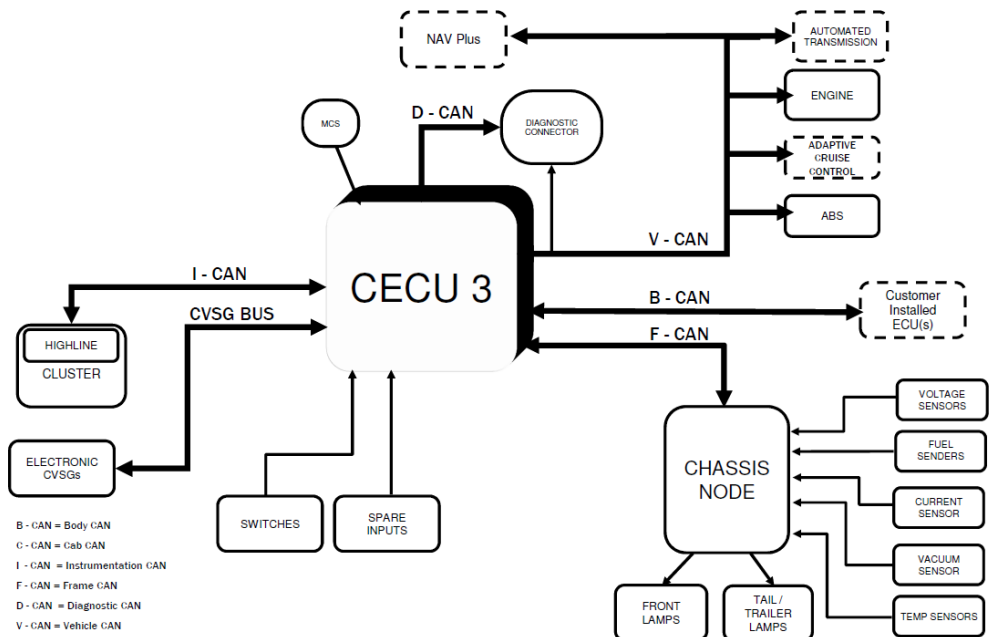
U1793

Code number	U1793
Fault code description	CAN communication - Message (PROPB_AST) out of range - clutch percentage torque from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Left Side Connections: <ul style="list-style-type: none"> STEERING WHEEL (via Cab CAN) Cluster (via Instrumentation CAN) ELECTRONIC CVSG's (via CVSG BUS) SWITCHES and SPARE INPUTS (via Frame CAN) Top Connections: <ul style="list-style-type: none"> MCS (Motor Control System) DIAGNOSTIC CAN (via DIAGNOSTIC CONNECTOR) Vehicle CAN (via ABS and PACCAR Display) Right Side Connections: <ul style="list-style-type: none"> Engine (via Engine CAN) Aftertreatment CAN (via VGT Actuator and After-treatment DCU) CHASSIS NODE (via Frame CAN) Bottom Connections: <ul style="list-style-type: none"> FRONT LAMPS and TAIL / TRAILER LAMPS (via Frame CAN) VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS (via CHASSIS NODE) <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.</p>

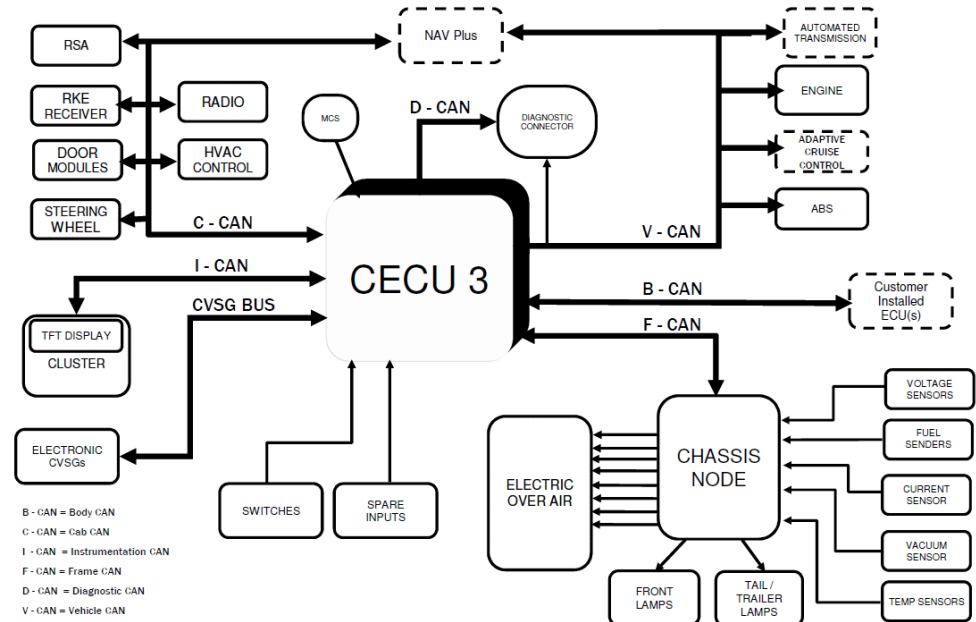
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 1793a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

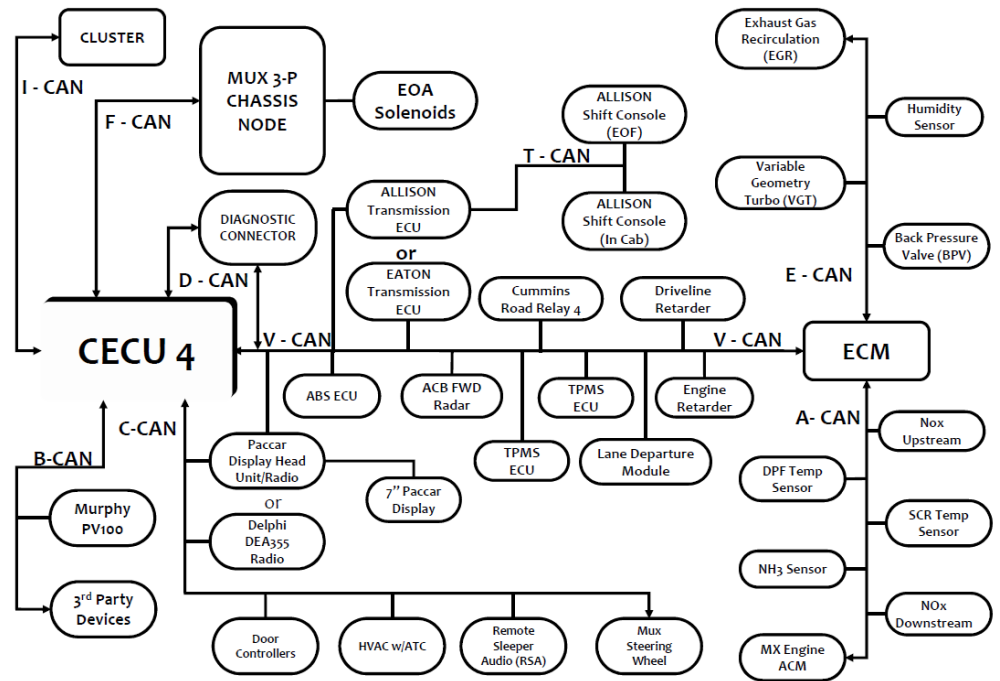
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1793b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 1793c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 1793d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

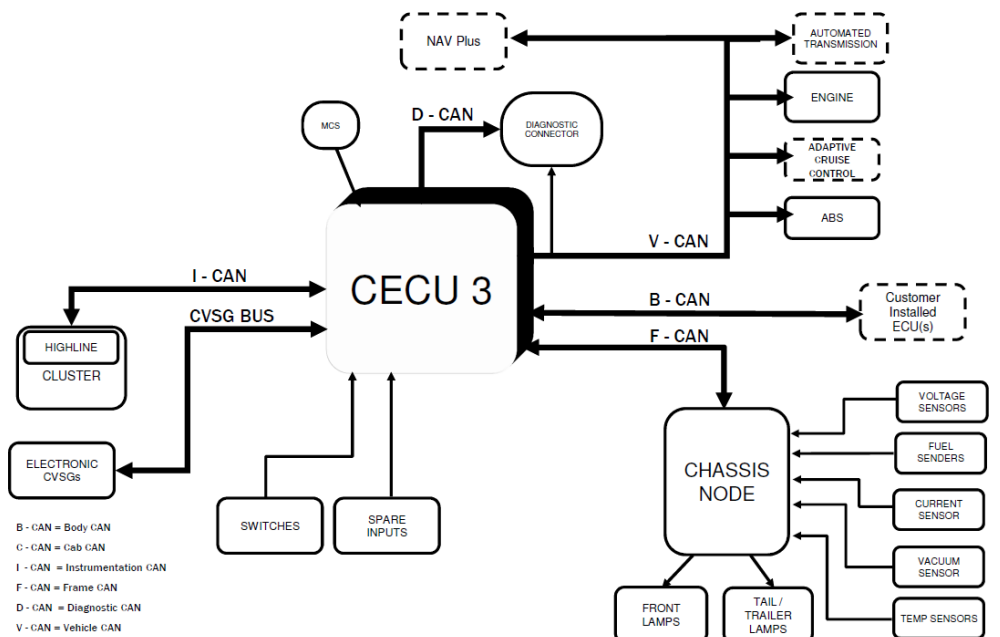
U1798

Code number	U1798
Fault code description	CAN communication - Message (EBC1) out of range - Engine retarder selection from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Engine CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps and Tail / Trailer Lamps: Connected via Frame CAN. Sensors: Connected via Frame CAN, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. SWITCHES and SPARE INPUTS: Connected via Frame CAN. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected via CVSG BUS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN network.</p>

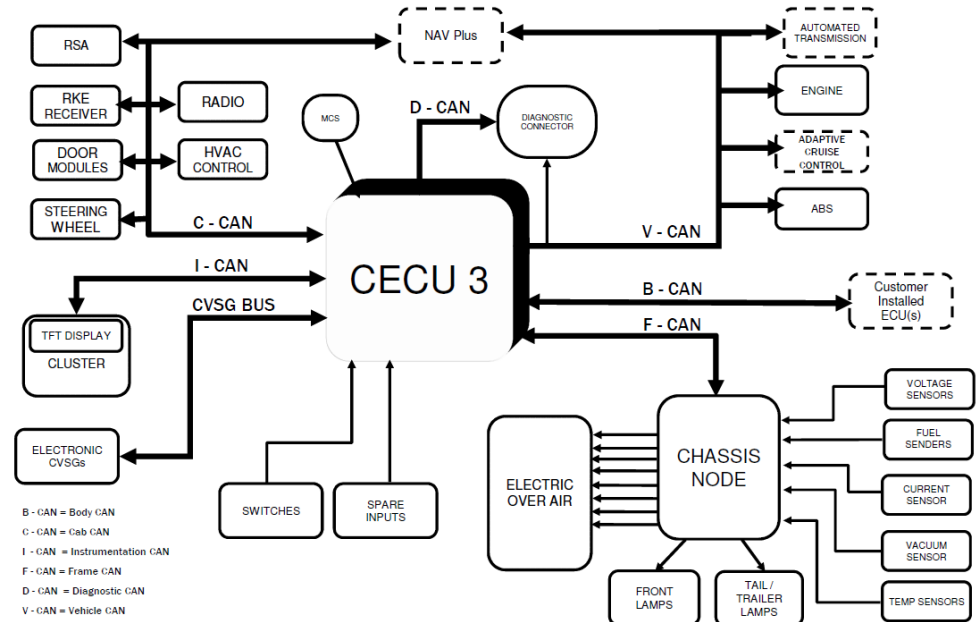
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



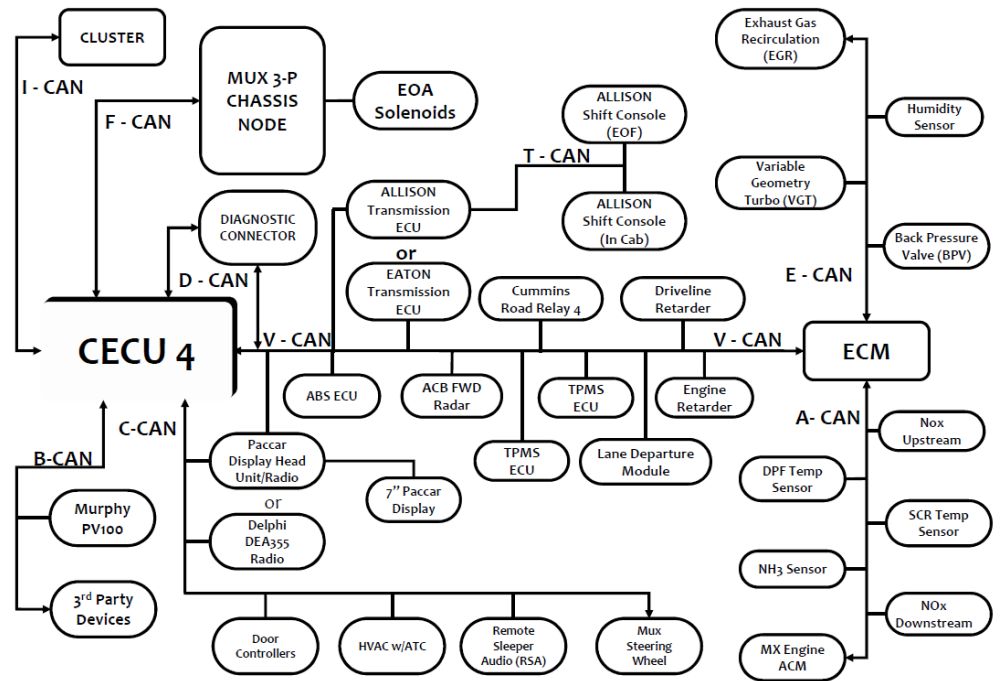
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">• Breakdown in communication in the CAN network• Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1798a</td><td>SRT</td></tr><tr><td colspan="3">Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</td></tr></table>			Step 1	Step ID 1798a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 1798a	SRT							
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1798b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 1798c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 1798d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

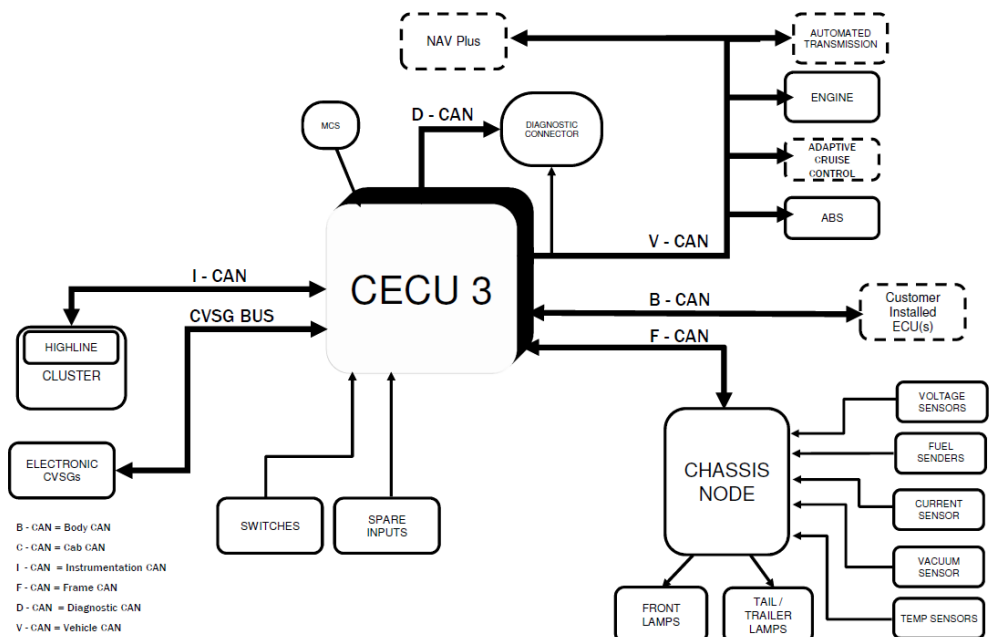
U1799

Code number	U1799
Fault code description	CAN communication - Message (TSC1_YYE) data fault
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Message Control System). Cab CAN: Connects CECU 3 to the Cluster, Steering Wheel, and Instrumentation CAN. Instrumentation CAN: Connects CECU 3 to the Cluster and CVSG BUS. CVSG BUS: Connects CECU 3 to the Electronic CVSG's (Control Valve Solenoid Groups). Vehicle CAN: Connects CECU 3 to the ABS, PACCAR Display, and Diagnostic Connector. Engine CAN: Connects CECU 3 to the Engine, VGT Actuator, and After-treatment DCU. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: Connects CECU 3 to the Front Lamps, Tail / Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). SWITCHES and SPARE INPUTS: Connect directly to CECU 3. FIREWALL: Indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.

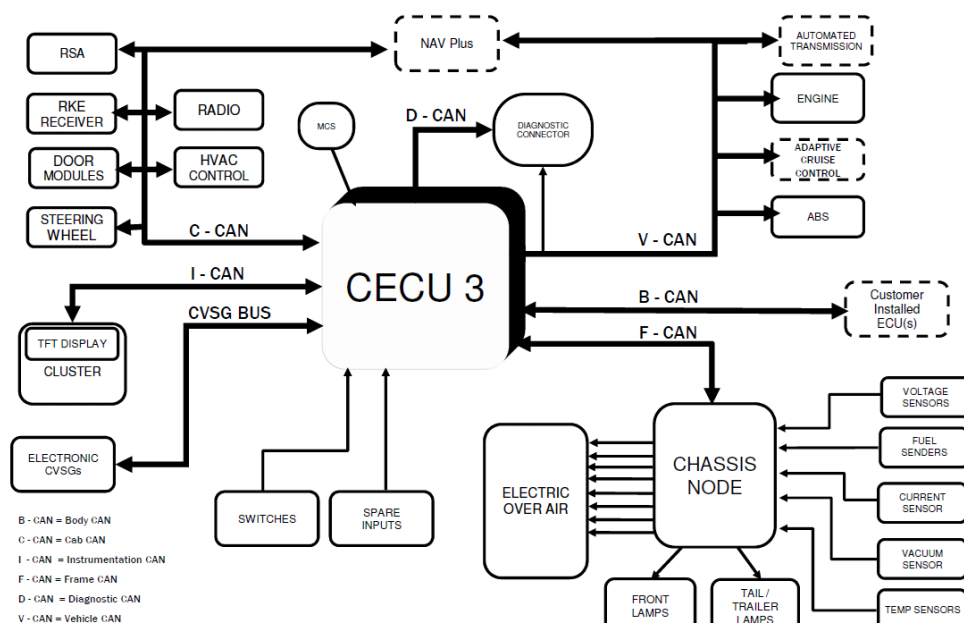
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



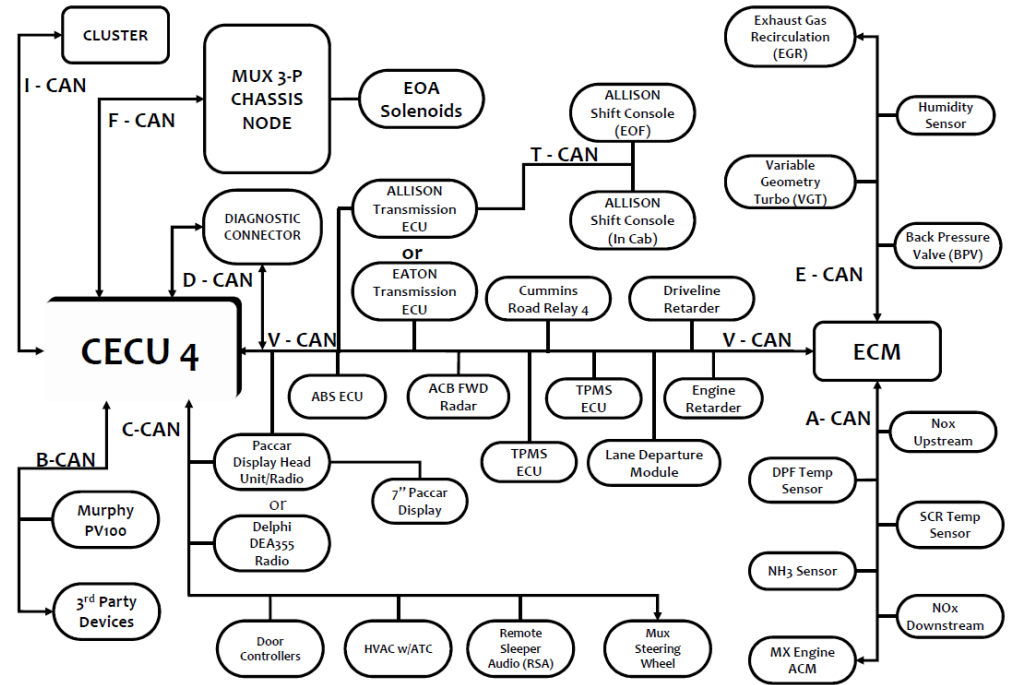
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 1799a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU.</p><p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p></td></tr></table>			Step 1	Step ID 1799a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		
Step 1	Step ID 1799a	SRT							
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 1799b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4			Step 2	Step ID 1799b	SRT
	Step 2	Step ID 1799b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 1799c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 1799c	SRT
Step 3	Step ID 1799c	SRT				
<table><tr><td>Step 4</td><td>Step ID 1799d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 1799d	SRT	
Step 4	Step ID 1799d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

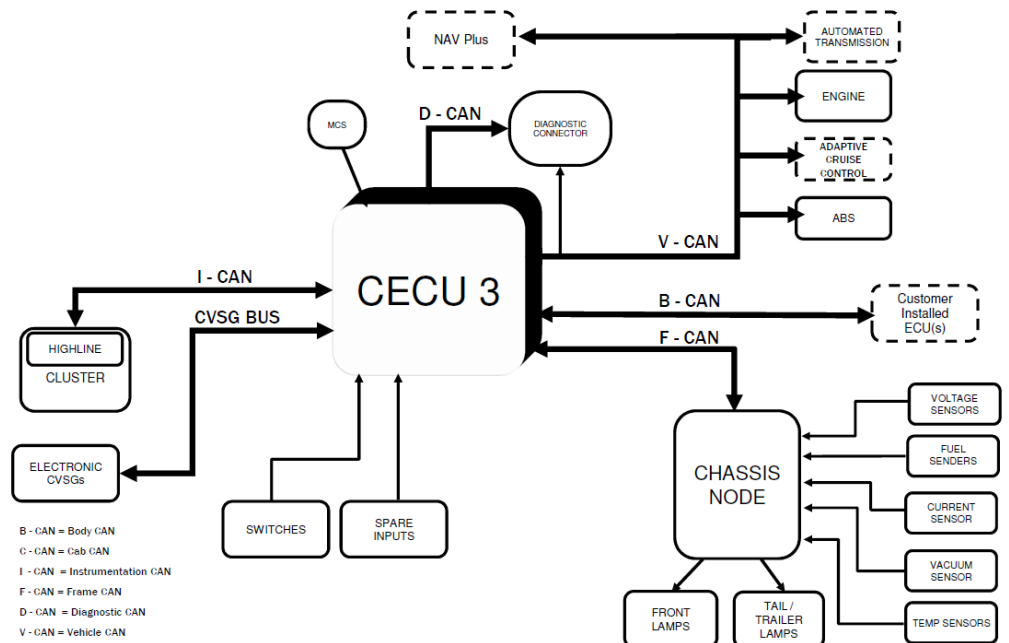
U179A

Code number	U179A
Fault code description	CAN communication - Message (TSC1_SE) data fault from Body Builder Module
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to various vehicle systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected to CECU 3 via Cab CAN. MCS (Master Control Switch): Connected to CECU 3 via Diagnostic CAN. Cluster: Connected to CECU 3 via Instrumentation CAN. CVSG BUS (Circuit Voltage Sensing Grid): Connected to CECU 3 via CVSG BUS. ELECTRONIC CVSG's: Connected to CECU 3 via CVSG BUS. SWITCHES and SPARE INPUTS: Connected to CECU 3 via Diagnostic CAN. DIAGNOSTIC CONNECTOR: Connected to CECU 3 via Diagnostic CAN. Vehicle CAN: Connected to CECU 3 via Vehicle CAN. CHASSIS NODE: Connected to CECU 3 via Frame CAN. The CHASSIS NODE is further connected to: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS Aftertreatment CAN: Connected to CECU 3 via Aftertreatment CAN. The Aftertreatment CAN is further connected to: <ul style="list-style-type: none"> ENGINE ADAPTIVE CRUISE CONTROL VGT Actuator After-treatment DCU <p>Firewalls are indicated between the CECU 3 and the CHASSIS NODE, and between the CECU 3 and the Aftertreatment CAN.</p>

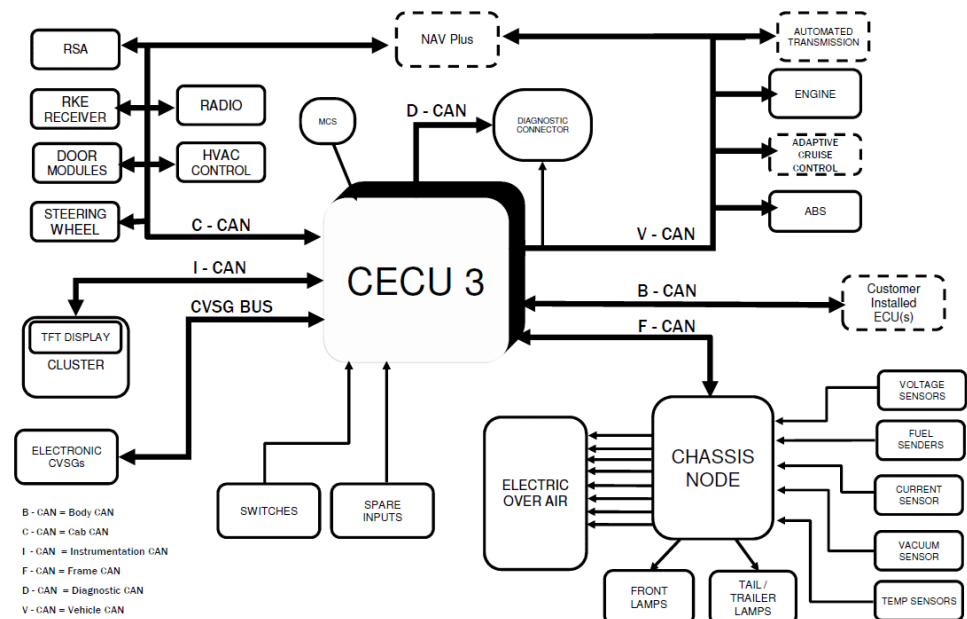
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

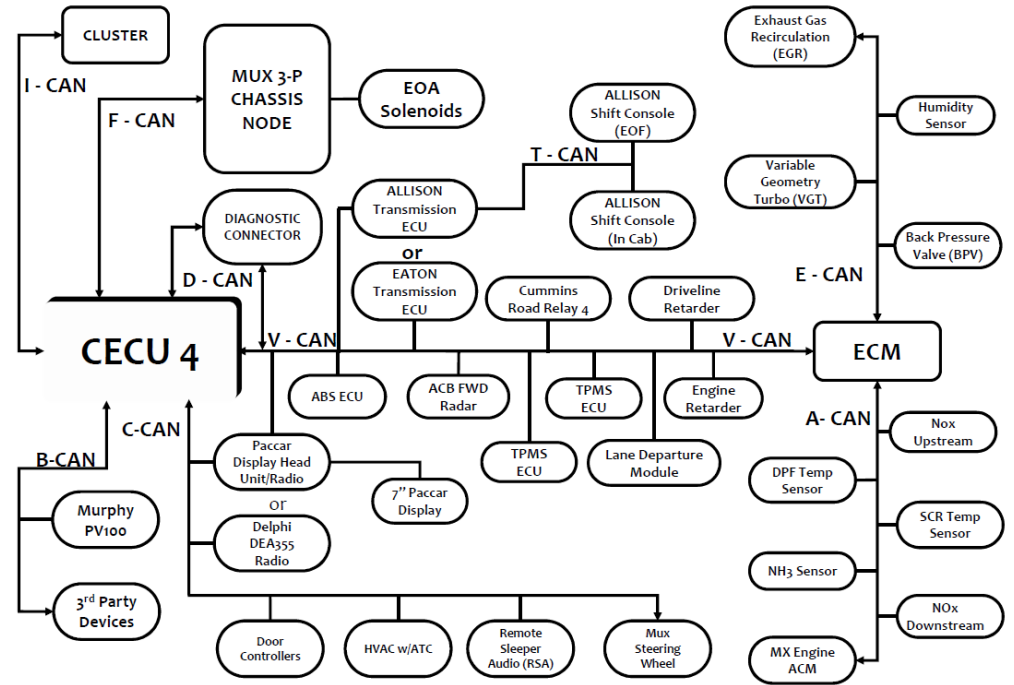
Step 1	Step ID 179A-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179A-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 179A-c	SRT
<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.			
	Step 4	Step ID 179A-d	SRT
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To validate the repair:</p> <ul style="list-style-type: none">With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

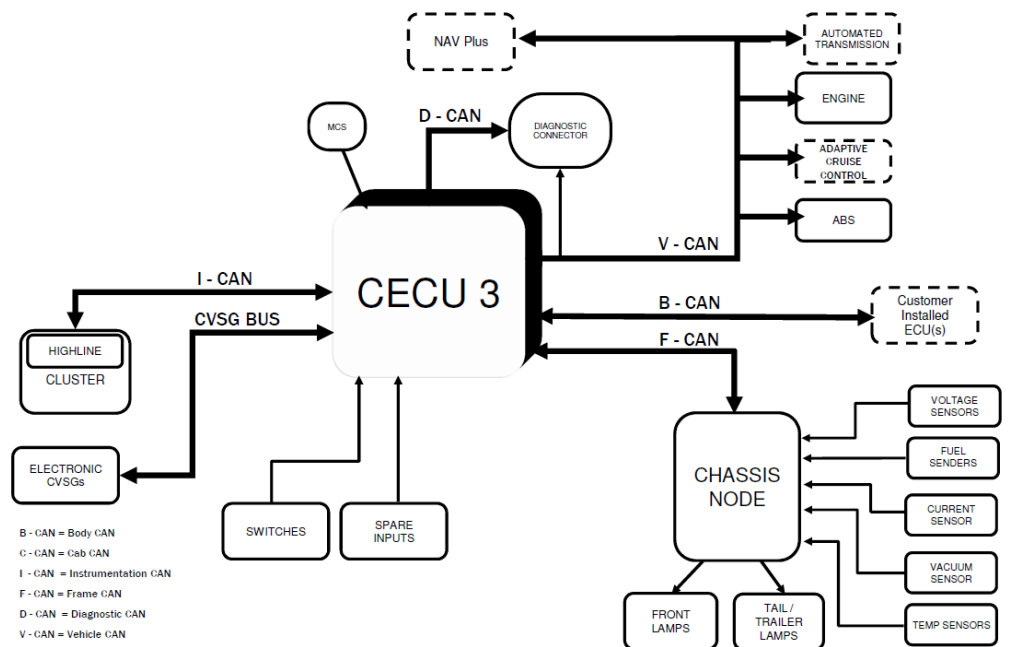
U179B

Code number	U179B
Fault code description	CAN communication - Message (TSC1_TE) data fault from transmission
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a Diagnostic Connector. Vehicle CAN: Connected to CECU 3 and various vehicle systems. Engine CAN: Connected to CECU 3 and the Engine. Chassis Node: Connected to CECU 3 via Frame CAN and Vehicle CAN. Aftertreatment CAN: Connected to CECU 3 and the Engine. CVSG BUS: Connected to CECU 3 and Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to CECU 3. Engine: Connected to CECU 3 via Engine CAN and Aftertreatment CAN. It also controls the VGT Actuator and After-treatment DCU. Chassis Node: Controls Front Lamps and Tail/Trailer Lamps. It also manages various sensors: Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. Other components: ABS, PACCAR Display, and Auto Transmission are connected to the Vehicle CAN network. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Chassis Node.</p>

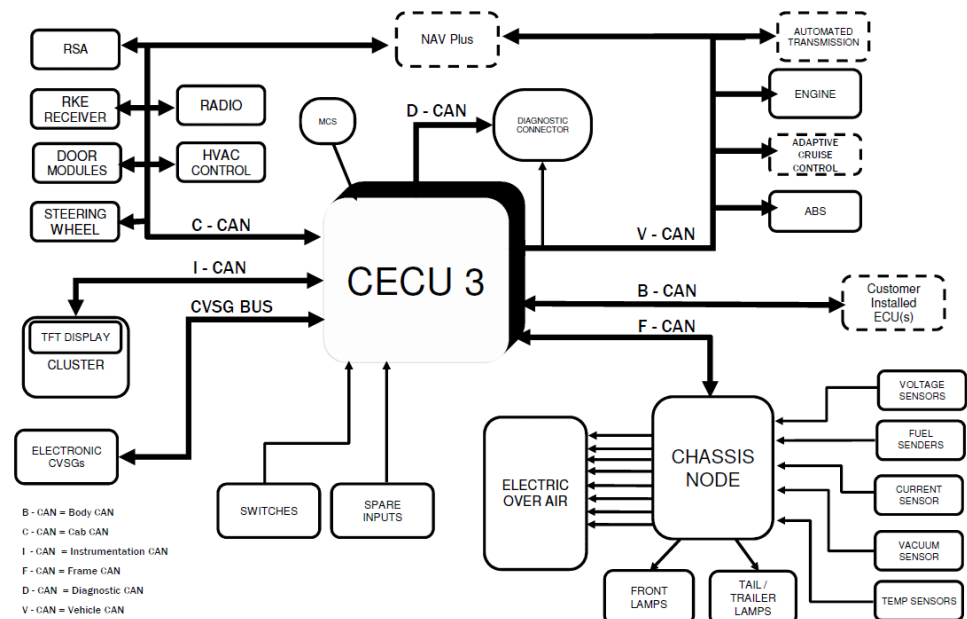
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

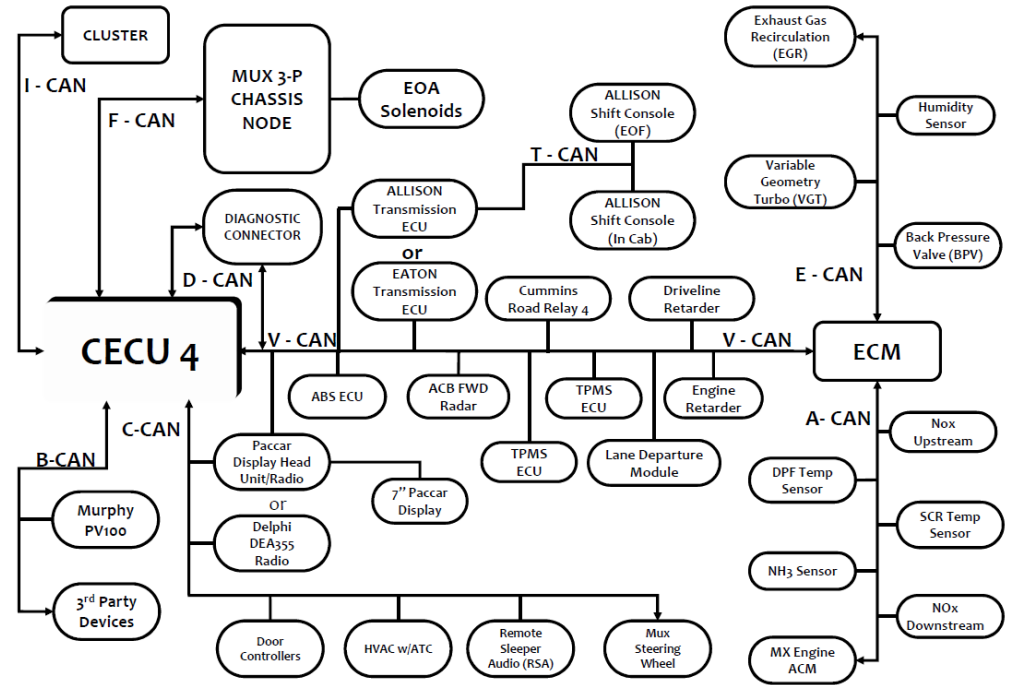
Step 1	Step ID 179B-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179B-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 179B-c	SRT
<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness .Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.			
	Step 4	Step ID 179B-d	SRT
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To validate the repair:</p> <ul style="list-style-type: none">With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

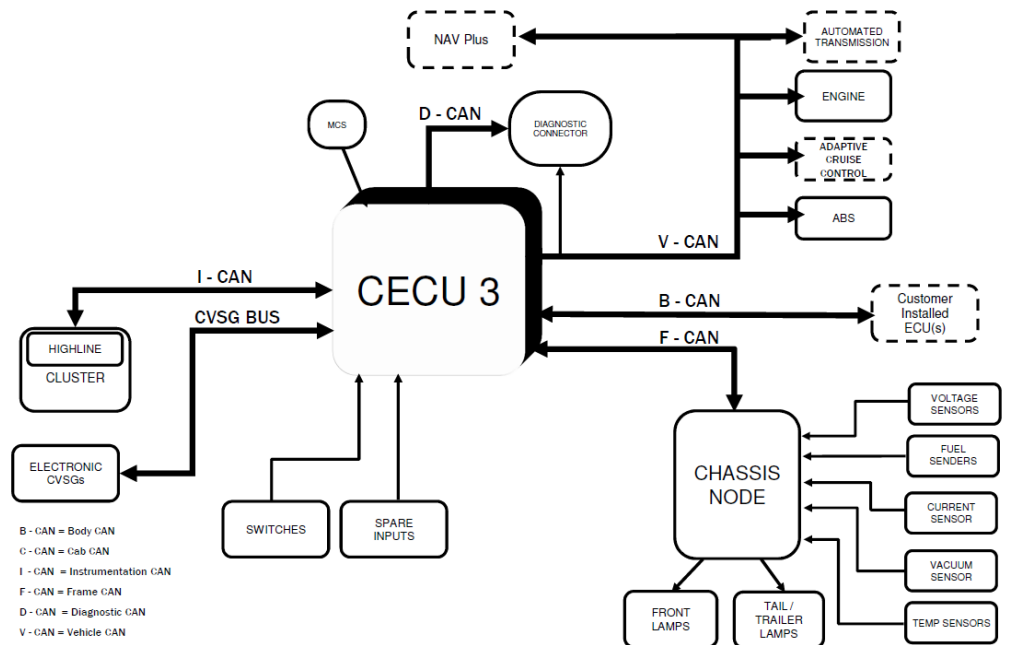
U179C

Code number	U179C
Fault code description	CAN communication - Message (TSC1_VE from vehicle controller) data fault
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to various components via different CAN buses and physical connections. On the left, the CECU 3 connects to the Steering Wheel, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. On the top, it connects to the Diagnostic CAN and DIAGNOSTIC CONNECTOR. On the right, it connects to the Vehicle CAN, which is separated from the other systems by a FIREWALL. The Vehicle CAN connects to the CHASSIS NODE, which in turn connects to the FRONT LAMPS and TAIL / TRAILER LAMPS. The CHASSIS NODE also connects to several sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Additionally, the CECU 3 connects to the Aftertreatment CAN, which connects to the ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, and After-treatment DCU. The ENGINE is also connected to the ABS and PACCAR Display via the Vehicle CAN. The CECU 3 also connects to the CVSG BUS, which connects to the ELECTRONIC CVSG's.</p>

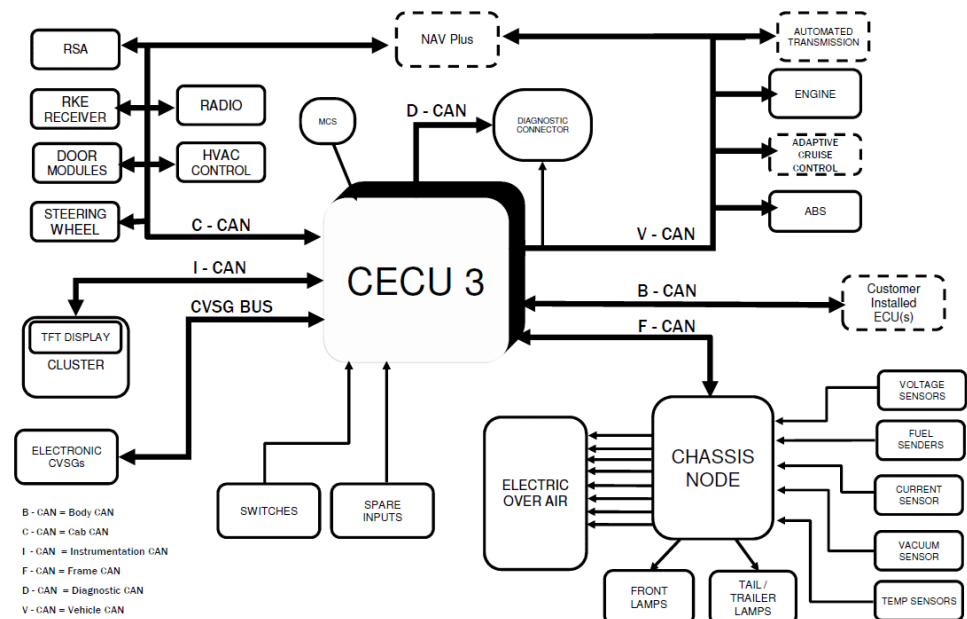
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

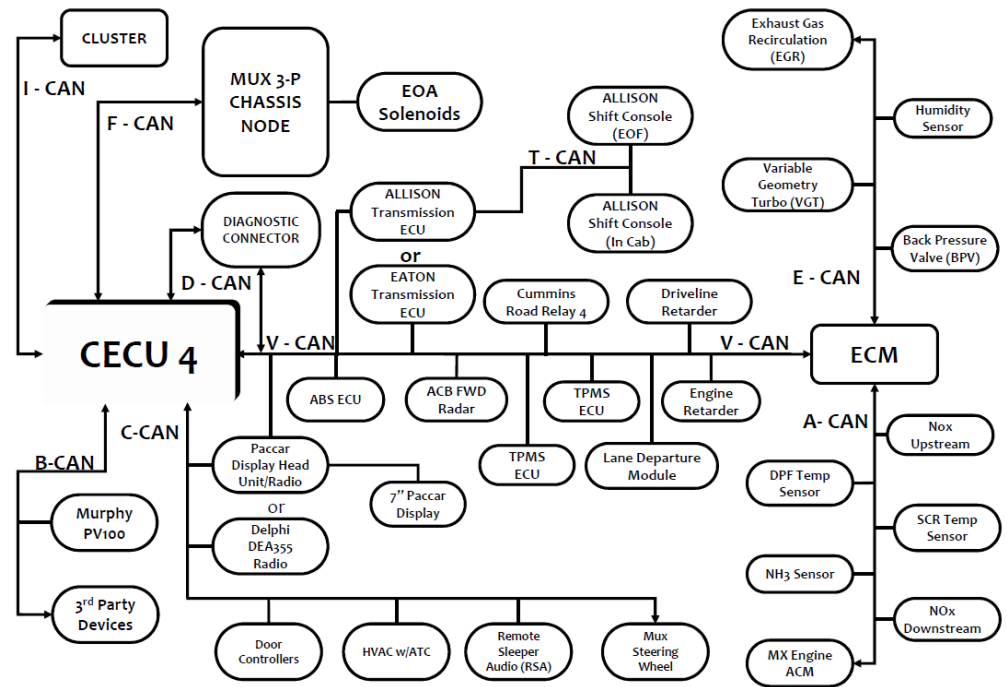
Step 1	Step ID 179C-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179C-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
</			

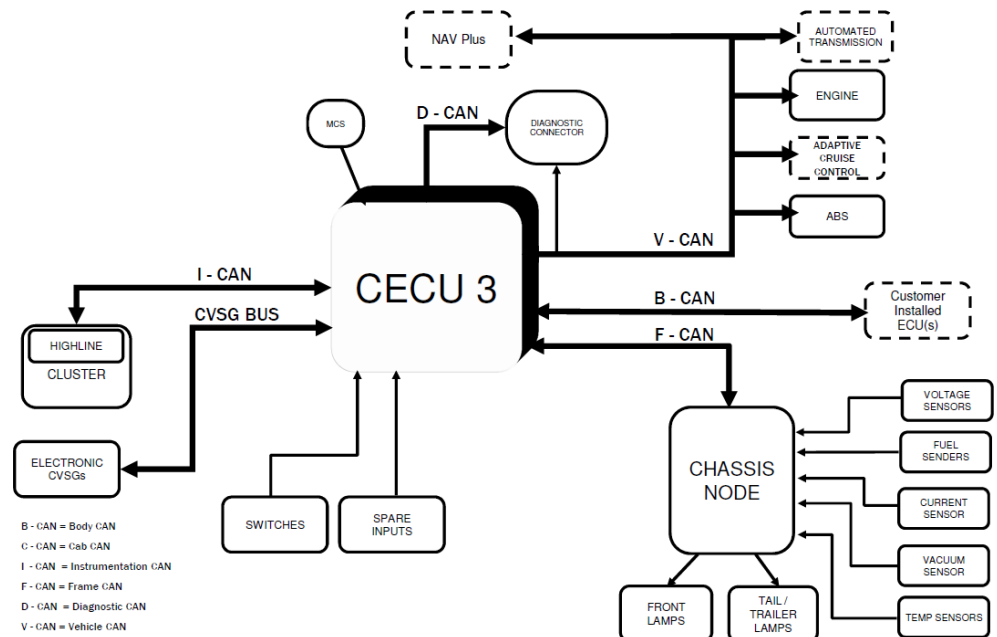
U179D

Code number	U179D
Fault code description	CAN Communication – Message (TSC1_XXE) data fault
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster, Steering Wheel, and Instrumentation CAN. CVSG BUS: Connects CECU 3 to Electronic CVSG's (Control Valve Solenoid Groups). Vehicle CAN: Connects CECU 3 to the ABS, PACCAR Display, and Diagnostic Connector. Engine CAN: Connects CECU 3 to the Engine, Adaptive Cruise Control, and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. Frame CAN: Connects CECU 3 to the CHASSIS NODE. CHASSIS NODE: Connects to Front Lamps, Tail / Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). SWITCHES and SPARE INPUTS: Connect directly to CECU 3. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Engine CAN.</p>

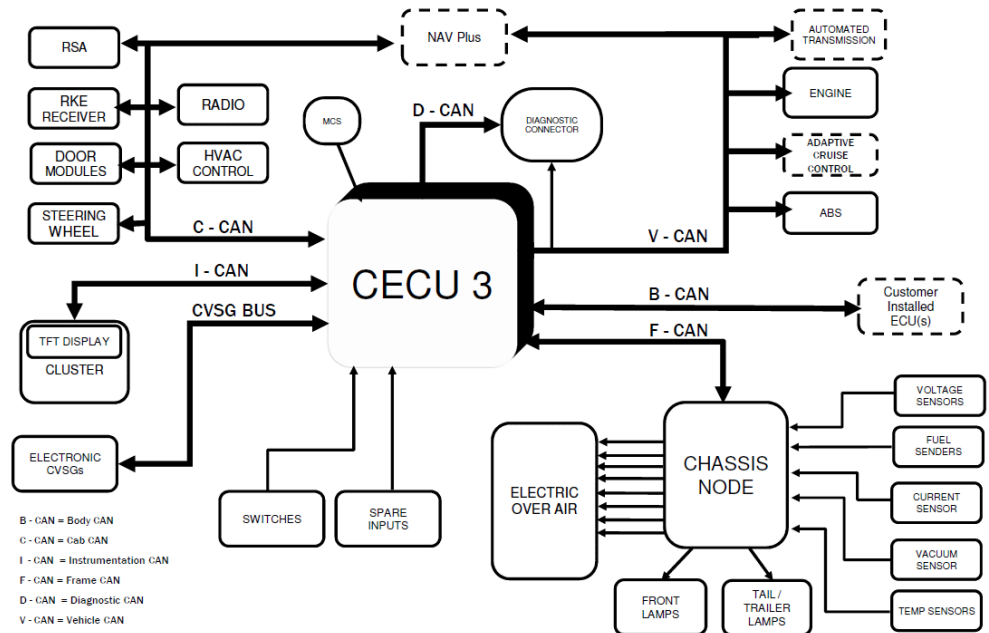
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network.
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

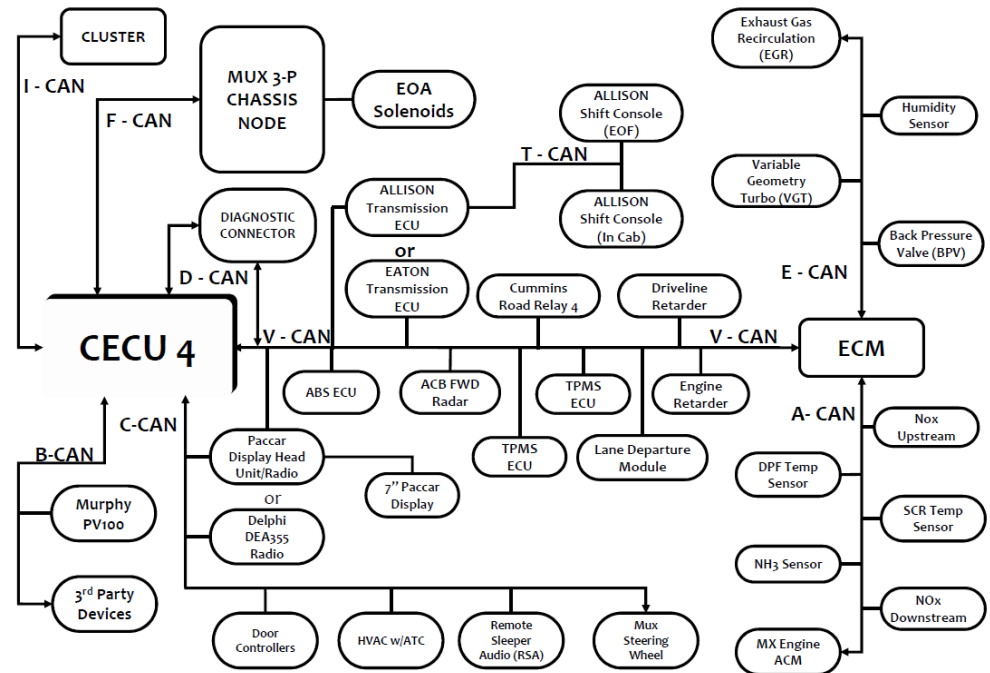
Step 1	Step ID 179D-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179D-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 179D-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
Step 4	Step ID 179D-d	SRT	
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

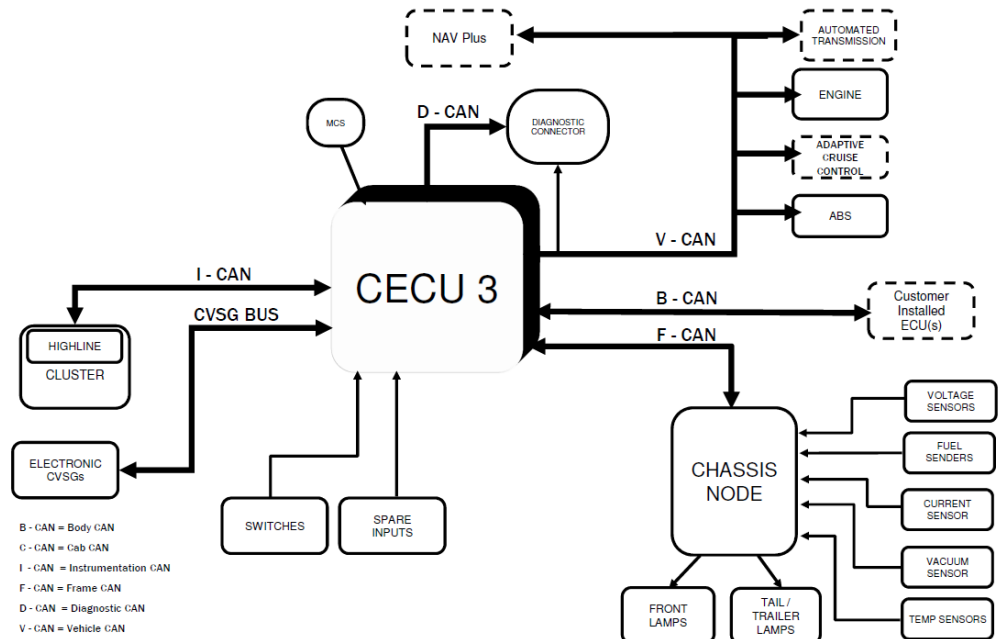
U179E

Code number	U179E
Fault code description	CAN Communication – Message (TSC1_XXE) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and After-treatment DCU. Aftertreatment CAN: Connects CECU 3 to the ENGINE and After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: The ENGINE is connected to ABS, PACCAR Display, ADAPTIVE CRUISE CONTROL, and VGT Actuator. Firewalls: Dashed lines labeled FIREWALL separate the Diagnostic CAN, Vehicle CAN, and Aftertreatment CAN networks.

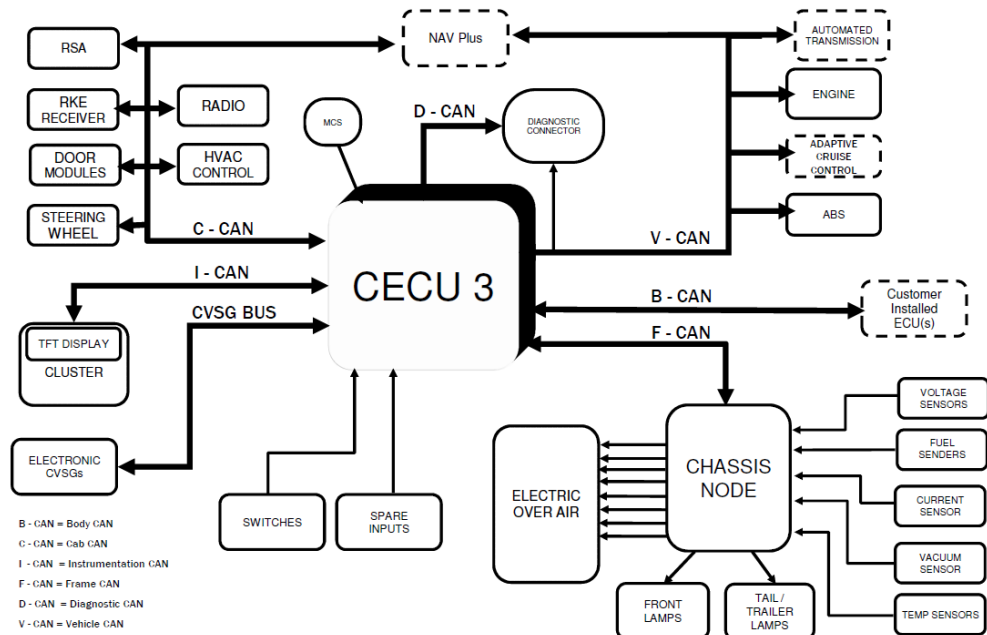
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

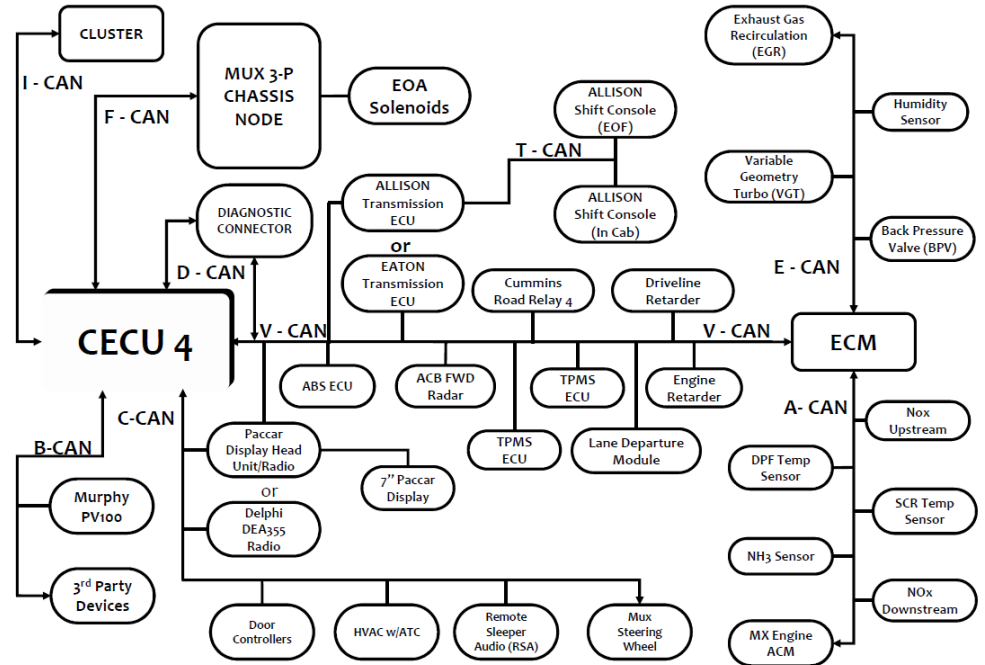
Step 1	Step ID 179E-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179E-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 179E-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 179E-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To validate the repair:</p> <ul style="list-style-type: none">With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

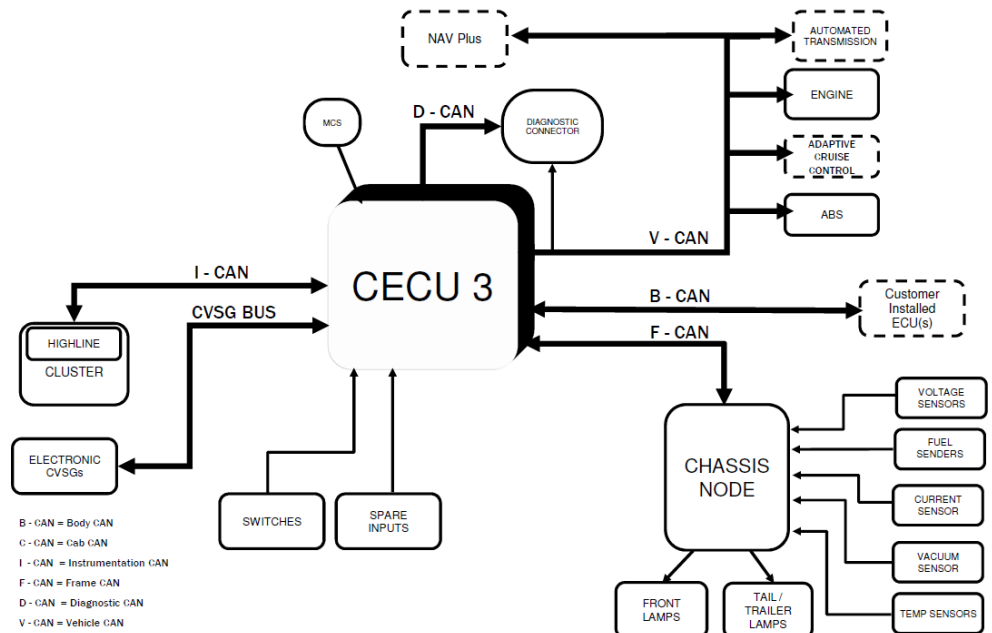
U179F

Code number	U179F
Fault code description	CAN Communication – Message (TSC1_HCE) rate too low from emission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Motor Control System): Connected via Diagnostic CAN. Diagnostic CAN: Connected to the Diagnostic Connector. Vehicle CAN: Connected to the ABS, PACCAR Display, and Chassis Node. Engine CAN: Connected to the Engine and VGT Actuator. Aftertreatment CAN: Connected to the After-treatment DCU. Chassis Node: Connected to the Front Lamps, Tail / Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). CVSG BUS: Connected to the Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to the CECU 3. <p>The diagram also shows a Firewall separating the Engine/Aftertreatment CAN from the Vehicle CAN, and another Firewall separating the Vehicle CAN from the Chassis Node.</p>

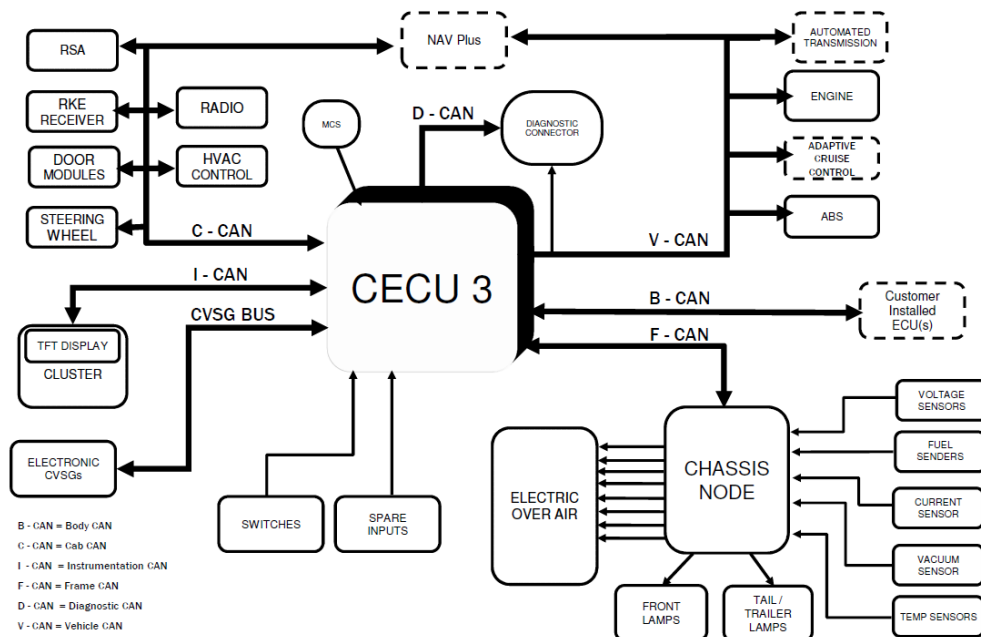
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 179F-a

SRT

Visual Inspection



OFF the ignition key, disconnect the connector from component and ECU.

Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 179F-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

U17A0



Code number	U17A0
Fault code description	Dual PWM accelerator pedal 1 - Frequency too low on ECU D420 pin B41
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet.
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the frequency of gas pedal sensor 1 is less than 180 Hz.
Reset condition of fault code	This DTC changes to inactive when the fault is no longer detected. To validate the repair, monitor the accelerator pedal sensors with DAVIE.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet
Technical data	Refer to the truck model documentation in DealerNet
Possible causes	Faulty accelerator pedal or wiring.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A 100% to 0% scale on the left y-axis. A 0% to 80% scale on the right y-axis. A 0 to 22.8 scale on the bottom x-axis. A vertical dashed line at 19.2 and a vertical solid line at 22.8. A horizontal dashed line at 80% and a horizontal solid line at 20%. A diagonal line labeled B (Sensor 1) starts at 100% and ends at 20%. A diagonal line labeled C (Sensor 2) starts at 0% and ends at 80%. A vertical orange shaded area labeled H is between 19.2 and 22.8 degrees. A vertical blue double-headed arrow labeled G is between 20% and 80%. A horizontal blue double-headed arrow labeled F is between 0 and 22.8 degrees. A horizontal blue double-headed arrow labeled I is between 19.2 and 22.8 degrees. A vertical red bar on the left has segments labeled A (green), D (yellow), E (yellow), and E (yellow). A vertical red bar on the right has segments labeled E (yellow), D (yellow), and D (yellow).</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2 D Diagnostic range limit E Auto calibration limit F Rotation angle accelerator pedal (°)</p>

	<div>G Span</div> <div>H Kick down hysteresis</div> <div>I 100% pedal value at kick down</div>															
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 17A0a</td><td>SRT</td></tr><tr><td colspan="3"><div>Visual Inspection</div><div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div><div>Was there evidence of any of the above?</div><div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div><div>Use DAVIE to re-check for the presence of active faults.</div><div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div></td></tr></table> <table><tr><td>Step 2</td><td>Step ID 17A0b</td><td>SRT</td></tr><tr><td colspan="3"><div>Data check</div><div><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component</div><div>Is test pass?</div><div><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4</div></td></tr></table> <table><tr><td>Step 3</td><td>Step ID 17A0c</td><td>SRT</td></tr></table>	Step 1	Step ID 17A0a	SRT	<div>Visual Inspection</div> <div>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</div> <div>Was there evidence of any of the above?</div> <div><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.</div> <div>Use DAVIE to re-check for the presence of active faults.</div> <div><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</div>			Step 2	Step ID 17A0b	SRT	<div>Data check</div> <div><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component</div> <div>Is test pass?</div> <div><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4</div>			Step 3	Step ID 17A0c	SRT
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Step 3	Step ID 17A0c	SRT														

	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 				
Verification Drive Cycle	<table border="1" data-bbox="492 483 1490 525"> <tr> <td data-bbox="492 483 834 525">Step 4</td><td data-bbox="834 483 1170 525">Step ID 17A0d</td><td data-bbox="1170 483 1490 525">SRT</td></tr> </table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p> <p>To validate the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p>	Step 4	Step ID 17A0d	SRT	
Step 4	Step ID 17A0d	SRT			
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>				

U17A1



Code number	U17A1
Fault code description	Dual PWM accelerator pedal 2 - Voltage too high or short circuit to supply on ECU D420 pin B45
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle value of gas pedal sensor 2 is greater than 100 percent.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet
Technical data	Refer to the truck model documentation in DealerNet
Possible causes	<ul style="list-style-type: none"> Faulty accelerator pedal or wiring. Faulty connector.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2 D Diagnostic range limit E Auto calibration limit</p>

	F Rotation angle accelerator pedal (°) G Span H Kick down hysteresis I 100% pedal value at kick down																		
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 17A1a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</td></tr></table> <table><tr><td>Step 2</td><td>Step ID 17A1b</td><td>SRT</td></tr><tr><td colspan="3"><p>Electrical Checks</p><p>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</p><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</td></tr></table> <table><tr><td>Step 3</td><td>Step ID 17A1c</td><td>SRT</td></tr><tr><td colspan="3"><p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p><ul style="list-style-type: none">• If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure.• If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure.</td></tr></table>	Step 1	Step ID 17A1a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			Step 2	Step ID 17A1b	SRT	<p>Electrical Checks</p> <p>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</p> <ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.			Step 3	Step ID 17A1c	SRT	<p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p> <ul style="list-style-type: none">• If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure.• If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure.		
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	Step 4	Step ID 17A1d	SRT
	With key OFF, replace the Dual PWM Accelerator Pedal sensor and proceed to the verification procedure.		
	Step 5	Step ID 17A1e	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	To validate the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.		
	Back to Choose Code Back to Index		

U17A2



Code number	U17A2
Fault code description	Dual PWM accelerator pedal 2 - Voltage too low or short circuit to ground on ECU D420 pin B45
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet.
Location of component(s)	Refer to the truck model documentation in DealerNet.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle of gas pedal sensor 2 falls less than 10 percent.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet.
Technical data	Refer to the truck model documentation in DealerNet.
Possible causes	<ul style="list-style-type: none"> Faulty accelerator pedal or wiring. Faulty connector.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2 D Diagnostic range limit E Auto calibration limit</p>

	F Rotation angle accelerator pedal (°) G Span H Kick down hysteresis I 100% pedal value at kick down																		
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 17A2a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</td></tr></table> <table><tr><td>Step 2</td><td>Step ID 17A2b</td><td>SRT</td></tr><tr><td colspan="3"><p>Electrical Checks</p><p>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</p><ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.</td></tr></table> <table><tr><td>Step 3</td><td>Step ID 17A2c</td><td>SRT</td></tr><tr><td colspan="3"><p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p><ul style="list-style-type: none">• If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure.• If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure.</td></tr></table>	Step 1	Step ID 17A2a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			Step 2	Step ID 17A2b	SRT	<p>Electrical Checks</p> <p>With key OFF, disconnect the power supply harness from Dual PWM Accelerator Pedal sensor. With key ON, read the voltage on the harness.</p> <ul style="list-style-type: none">• If the voltage is acceptable – Proceed to step 4.• If the voltage is not acceptable – Proceed to step 3.			Step 3	Step ID 17A2c	SRT	<p>With the key OFF, disconnect the harness from the ECU. Measure the voltage for the Dual PWM Accelerator Pedal sensor wiring at the ECU.</p> <ul style="list-style-type: none">• If the voltage is acceptable – Replace the engine harness and proceed to the verification procedure.• If the voltage is not acceptable – Call the Engine Support Center regarding possible ECU failure.		
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	Step 4	Step ID 17A2d	SRT
	With key OFF, replace the Dual PWM Accelerator Pedal sensor and proceed to the verification procedure.		
	Step 5	Step ID 17A2e	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	To validate the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.		
	Back to Choose Code Back to Index		

U17A5



Code number	U17A5
Fault code description	Dual PWM accelerator pedal 2 - Frequency too high on ECU D420 pin B45
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	This The PCI ECU (D420) detects that the frequency of gas pedal sensor 2 is greater than 220 Hz.
Reset condition of fault code	This DTC changes to inactive when the fault is no longer detected. To validate the repair, monitor the accelerator pedal sensors with DAVIE.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet
Technical data	Refer to the truck model documentation in DealerNet
Possible causes	Faulty accelerator pedal or wiring
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle</p> <p>B Sensor 1</p> <p>C Sensor 2</p> <p>D Diagnostic range limit</p> <p>E Auto calibration limit</p>

	F Rotation angle accelerator pedal (°) G Span H Kick down hysteresis I 100% pedal value at kick down															
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 17A5a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</td></tr></table> <table><tr><td>Step 2</td><td>Step ID 17A5b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4</td></tr></table> <table><tr><td>Step 3</td><td>Step ID 17A5c</td><td>SRT</td></tr></table>	Step 1	Step ID 17A5a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			Step 2	Step ID 17A5b	SRT	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 3	Step ID 17A5c	SRT
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	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 							
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Step 4	Step ID 17A5d	SRT						
For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.								
Verification Drive Cycle	<p>To validate the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p>							
		Back to Choose Code Back to Index						

U17A6



Code number	U17A6
Fault code description	Dual PWM accelerator pedal 2 - Frequency too low on ECU D420 pin B45
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Comprehensive
Description of component(s)	Refer to the truck model documentation in DealerNet.
Location of component(s)	Refer to the truck model documentation in DealerNet.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the frequency of gas pedal sensor 2 is less than 180 Hz.
Reset condition of fault code	This DTC changes to inactive when the fault is no longer detected. To validate the repair, monitor the accelerator pedal sensors with DAVIE.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet.
Technical data	Refer to the truck model documentation in DealerNet.
Possible causes	Faulty accelerator pedal or wiring
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2 D Diagnostic range limit E Auto calibration limit F Rotation angle accelerator pedal (°)</p>

	<div>G Span</div> <div>H Kick down hysteresis</div> <div>I 100% pedal value at kick down</div>															
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><div><ul style="list-style-type: none">• Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.• For specific electrical component information and pinout locations, always refer to the technical data.• It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.• Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <div><table><tr><td>Step 1</td><td>Step ID 17A6a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2</td></tr></table></div> <div><table><tr><td>Step 2</td><td>Step ID 17A6b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4</td></tr></table></div> <div><table><tr><td>Step 3</td><td>Step ID 17A6c</td><td>SRT</td></tr></table></div>	Step 1	Step ID 17A6a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			Step 2	Step ID 17A6b	SRT	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 3	Step ID 17A6c	SRT
Step 1	Step ID 17A6a	SRT														
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2																
Step 2	Step ID 17A6b	SRT														
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Step 3	Step ID 17A6c	SRT														

	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 							
Verification Drive Cycle	<table border="1" data-bbox="492 468 1487 617"> <tr> <td data-bbox="492 468 834 506">Step 4</td><td data-bbox="834 468 1170 506">Step ID 17A6d</td><td data-bbox="1170 468 1487 506">SRT</td></tr> <tr> <td colspan="3" data-bbox="492 506 1487 617">For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</td></tr> </table> <p>To validate the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p>	Step 4	Step ID 17A6d	SRT	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.			
Step 4	Step ID 17A6d	SRT						
For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.								
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>							


U17A8

Code number	U17A8
Fault code description	Dual PWM accelerator pedal - Failure
Fault code information	1 trip MIL + 1 trip red fault lamp 3 drive cycle recovery Readiness group – None Freeze frame type - Generic
Description of component(s)	Refer to the truck model documentation in DealerNet
Location of component(s)	Refer to the truck model documentation in DealerNet
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that DTCs are active on both gas pedal sensors.
Reset condition of fault code	This DTC changes to inactive when the fault is no longer detected. To validate the repair, monitor the accelerator pedal sensors with DAVIE.
Electrical diagram(s)	Refer to the truck model documentation in DealerNet.
Technical data	Refer to the truck model documentation in DealerNet.
Possible causes	Faulty accelerator pedal or wiring.
Additional information	<p>The accelerator pedal position is determined by two sensors (1 and 2) inside the accelerator pedal. The sensor outputs are PWM signals at a fixed frequency of 180 to 220 Hz. Sensor signals 1 and 2 are reversed compared with each other, meaning that, when pressing the accelerator more, sensor 1 shows a decreasing PWM signal and sensor 2 shows an increasing PWM signal. The PCI ECU monitors both sensors separately and together.</p> <p>A 100% D E A E D 0%</p> <p>B C</p> <p>80% G 20%</p> <p>0 19.2 22.8 F H I</p> <p>A PWM Output - % duty cycle B Sensor 1 C Sensor 2 D Diagnostic range limit E Auto calibration limit F Rotation angle accelerator pedal (°) G Span H Kick down hysteresis</p>


Diagnostic Step-by-Step	I 100% pedal value at kick down		
	 <p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p>  <ul style="list-style-type: none"> • Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. • For specific electrical component information and pinout locations, always refer to the technical data. • It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. • Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. 		
	Step 1	Step ID 17A8a	SRT
	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 		
	Step 2	Step ID 17A8b	SRT
	<p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 		
	Step 3	Step ID 17A8c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault 		
	Step 4	Step ID 17A8d	SRT
For further assistance in diagnosing this issue or for confirmation prior to the			

	replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	
Verification Drive Cycle	To validate the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.	
	Back to Choose Code Back to Index	


U17B0

Code number	U17B0
Fault code description	Water in fuel drain control - Short circuit to supply on ECU D420 pin A40
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	<div>  <div> For further assistance: Contact the PACCAR Engine Support Call Center 1-800-477-0251 </div> </div> <p>Please contact the Engine Support Center</p>
Location of component(s)	
Diagnostic condition	
Set condition of fault code	
Reset condition of fault code	
Electrical diagram(s)	
Technical data	
Possible causes	
Additional information	
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	N/A
	Back to Choose Code Back to Index


U17B1

Code number	U17B1
Fault code description	Water in fuel drain control - Short circuit to ground on ECU D420 pin A40
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	<div>  <p>For further assistance: Contact the PACCAR Engine Support Call Center 1-800-477-0251</p> </div> <p>Please contact the Engine Support Center</p>
Location of component(s)	
Diagnostic condition	
Set condition of fault code	
Reset condition of fault code	
Electrical diagram(s)	
Technical data	
Possible causes	
Additional information	
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	N/A
	Back to Choose Code Back to Index


U17B3

Code number	U17B3
Fault code description	Water in fuel drain control - Short circuit to supply on ECU D420 pin A37
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	<div>  <div> For further assistance: Contact the PACCAR Engine Support Call Center 1-800-477-0251 </div> </div> <p>Please contact the Engine Support Center</p>
Location of component(s)	
Diagnostic condition	
Set condition of fault code	
Reset condition of fault code	
Electrical diagram(s)	
Technical data	
Possible causes	
Additional information	
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	N/A
	Back to Choose Code Back to Index

U17B4

Code number	U17B4
Fault code description	Water in fuel drain control - Short circuit to ground on ECU D420 pin A37
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	<div>  <div> For further assistance: Contact the PACCAR Engine Support Call Center 1-800-477-0251 </div> </div> <p>Please contact the Engine Support Center</p>
Location of component(s)	
Diagnostic condition	
Set condition of fault code	
Reset condition of fault code	
Electrical diagram(s)	
Technical data	
Possible causes	
Additional information	
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	N/A
	Back to Choose Code Back to Index

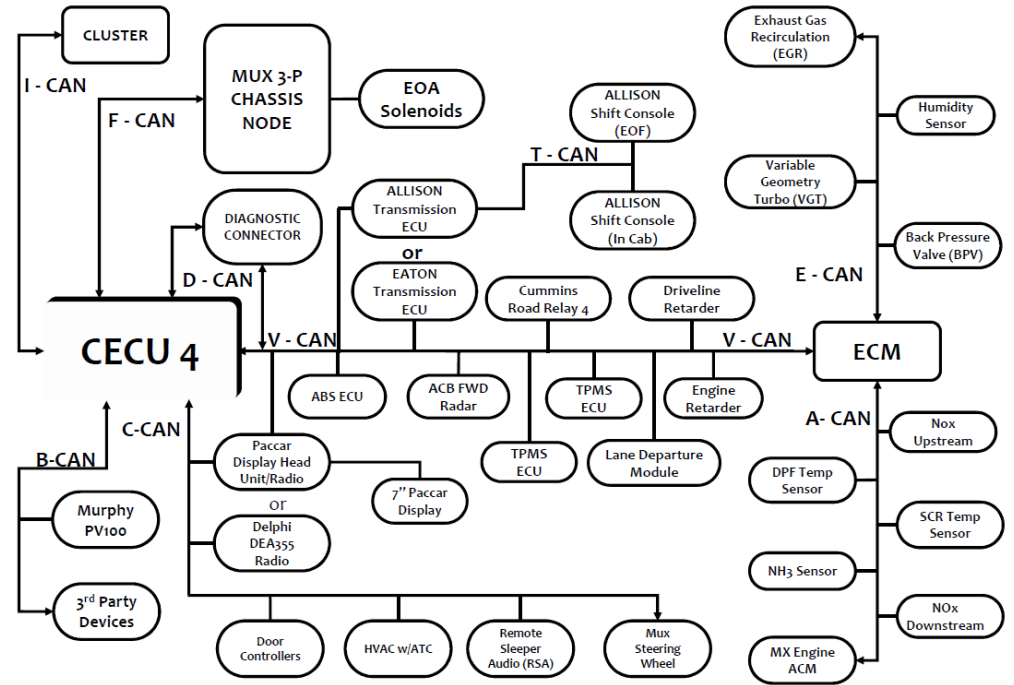
U17B5

Code number	U17B5
Fault code description	Water in fuel drain control – Current too low or open circuit on ECU D420 pin A37
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	<div>  <div> For further assistance: Contact the PACCAR Engine Support Call Center 1-800-477-0251 </div> </div> <p>Please contact the Engine Support Center</p>
Location of component(s)	
Diagnostic condition	
Set condition of fault code	
Reset condition of fault code	
Electrical diagram(s)	
Technical data	
Possible causes	
Additional information	
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	N/A
	Back to Choose Code Back to Index

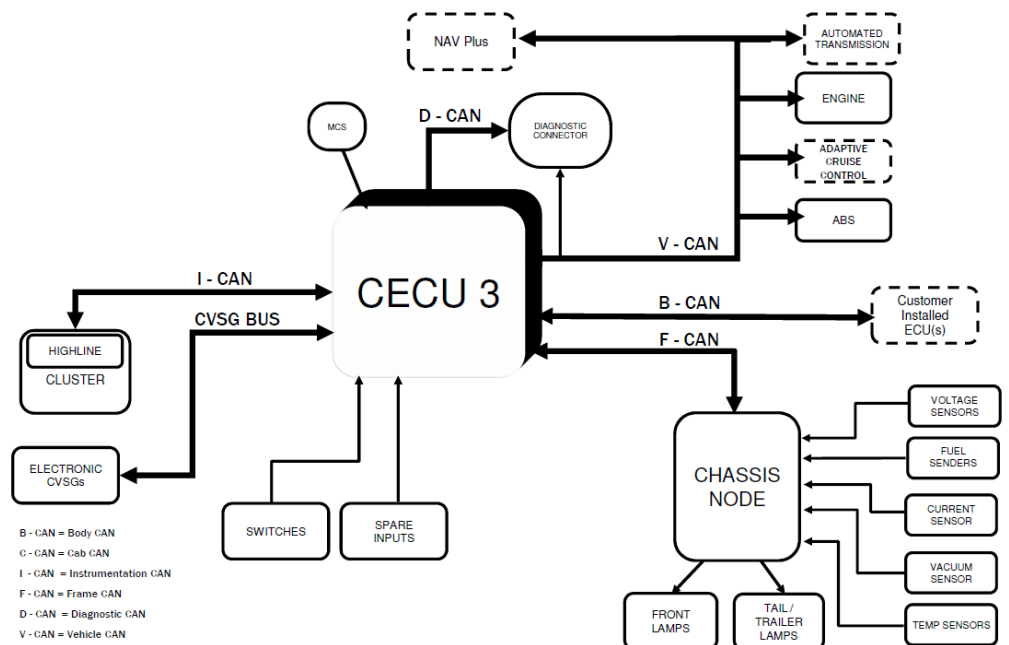
U17B6

Code number	U17B6
Fault code description	CAN communication - Message (TSC1_AE) data fault from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Master Control System). Cab CAN: Connects CECU 3 to the Cluster and Steering Wheel. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to Electronic CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: Direct inputs to CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and Diagnostic Connector. Engine CAN: Connects CECU 3 to the Engine, Adaptive Cruise Control, and VGT Actuator (Variable Geometry Turbine Actuator). Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: A separate unit connected to CECU 3 via Frame CAN, which manages various sensors and actuators: <ul style="list-style-type: none"> Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Actuators/Outputs: FRONT LAMPS and TAIL / TRAILER LAMPS. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Engine CAN networks.</p>

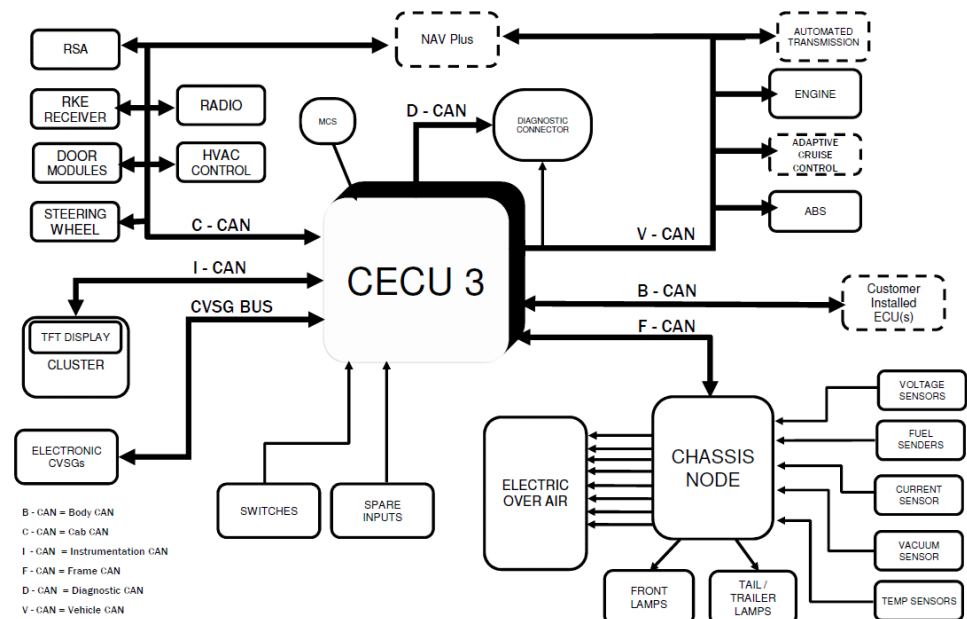
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 17B6a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

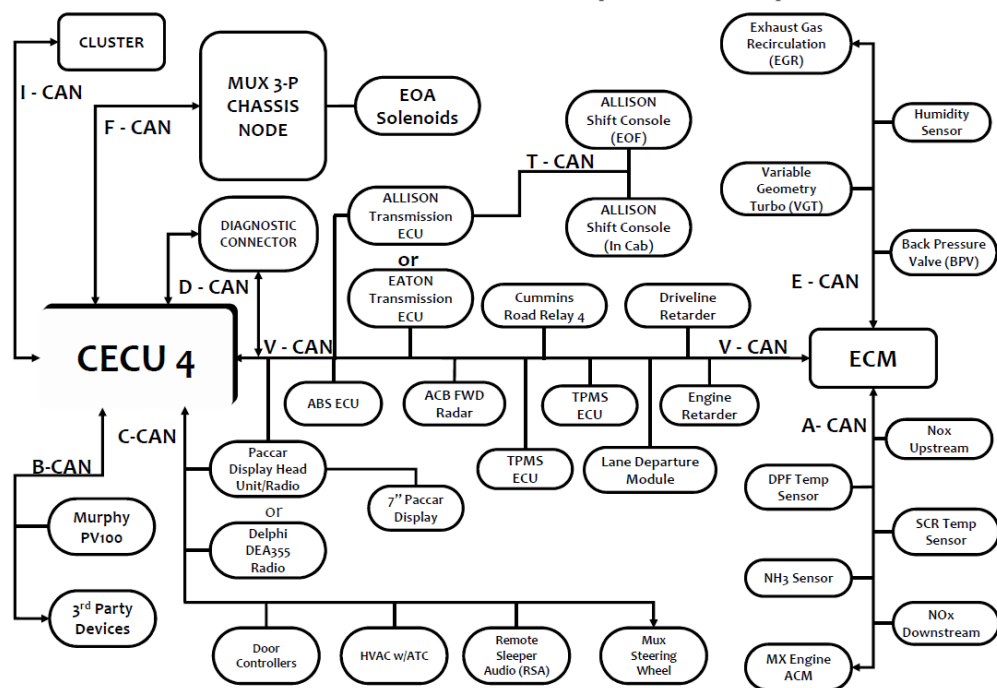
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17B6b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 17B6b	SRT
Step 2	Step ID 17B6b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 17B6c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17B6c	SRT
Step 3	Step ID 17B6c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 17B6d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 17B6d	SRT
Step 4	Step ID 17B6d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

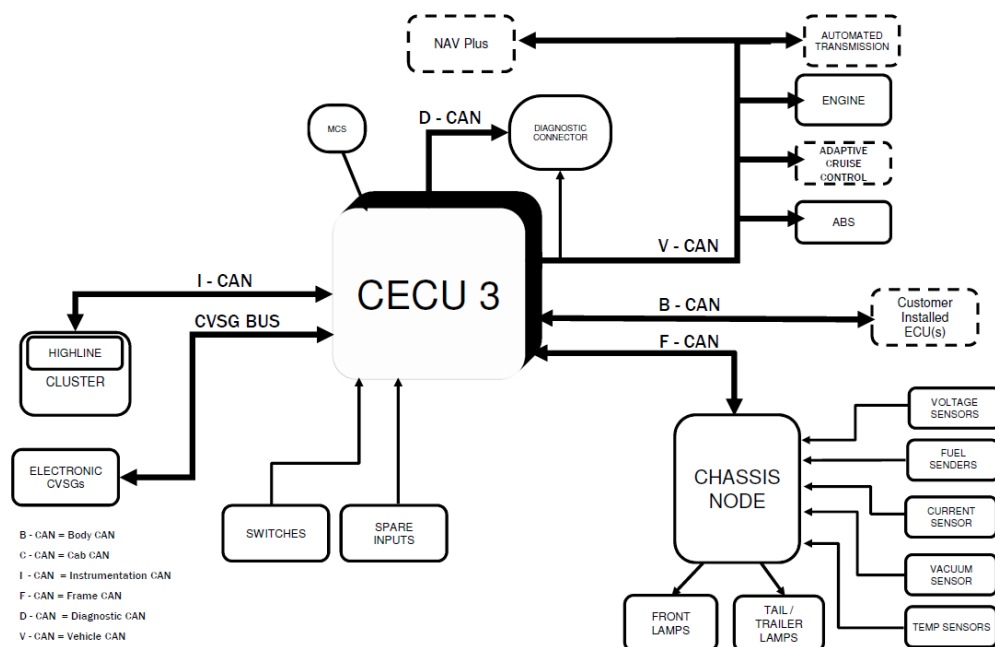
U17B7

Code number	U17B7
Fault code description	CAN communication - Message (TSC1_BE) data fault
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Engine Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Maintenance Control System). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valves/Gears). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: Includes ENGINE, ADAPTIVE CRUISE CONTROL, ABS, PACCAR Display, and AUTO TRANSMISSION. <p>FIREWALL lines are shown separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN networks.</p>

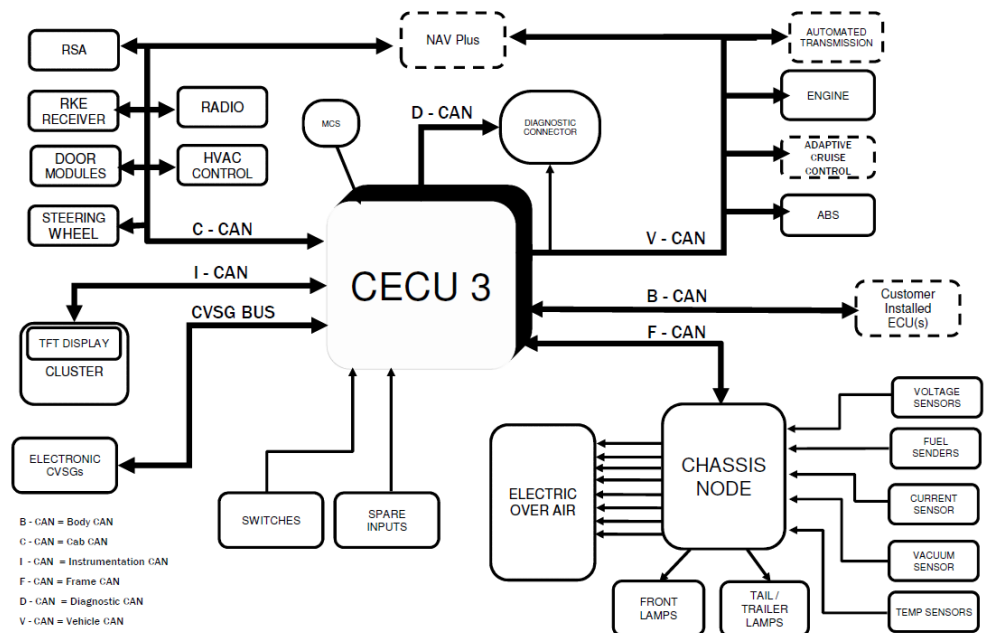
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Check transmission ECU for faults
- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 17B7a

SRT

Visual Inspection

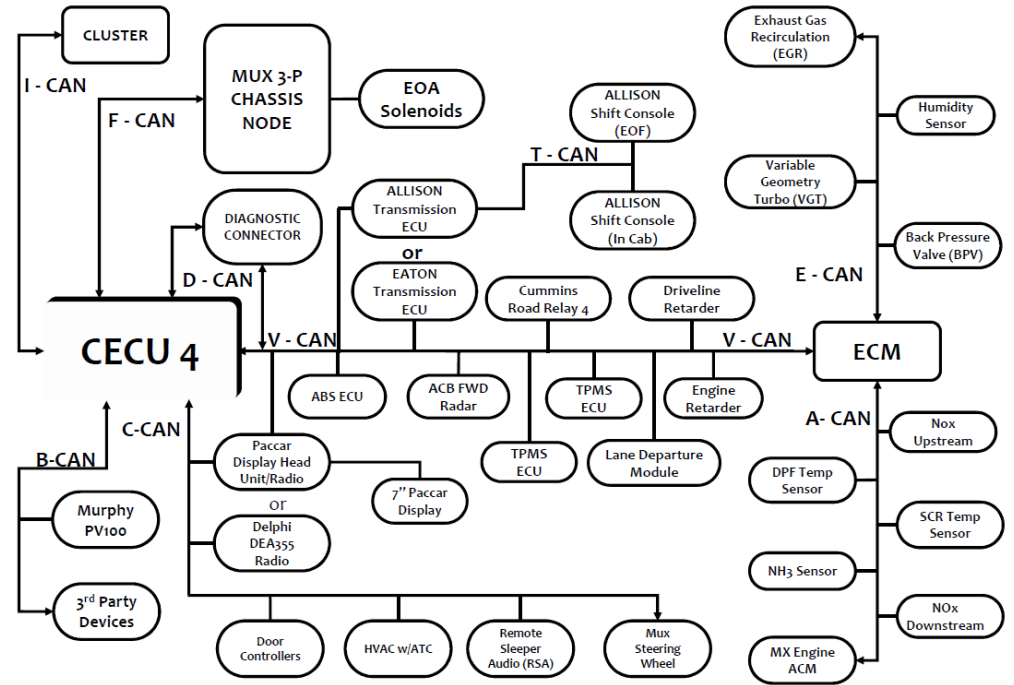
OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to

	<p>wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17B7b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 17B7b	SRT
	Step 2	Step ID 17B7b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17B7c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17B7c	SRT
Step 3	Step ID 17B7c	SRT		
<table><tr><td>Step 4</td><td>Step ID 17B7d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 17B7d	SRT	
Step 4	Step ID 17B7d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

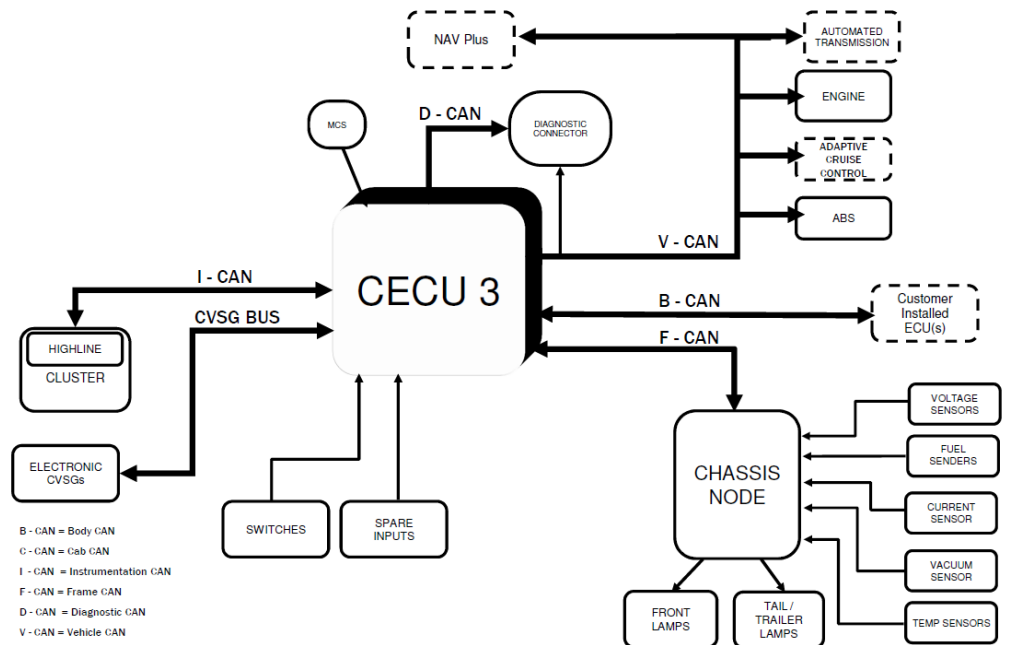
U17B8

Code number	U17B8
Fault code description	CAN communication - Message (TSC1_HCE) data fault from emission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Engine Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Maintenance Control System). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: Includes ENGINE, ADAPTIVE CRUISE CONTROL, ABS, PACCAR Display, and AUTO TRANSMISSION. <p>FIREWALL lines are shown separating the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment CAN networks.</p>

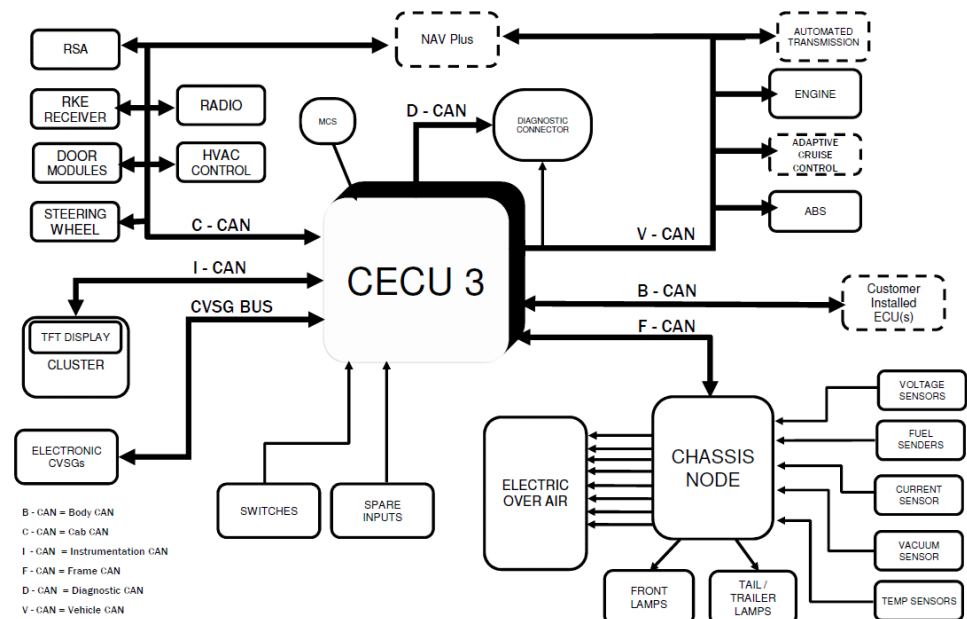
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Check transmission ECU for faults
- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 17B8a

SRT

Visual Inspection

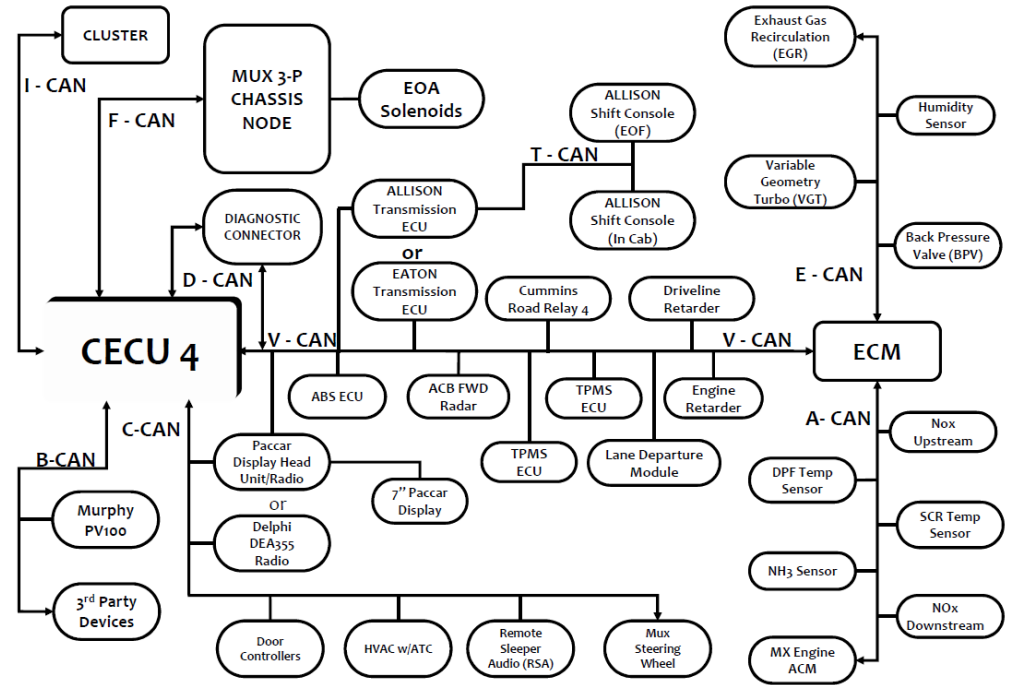
OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?

	<ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17B8b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 17B8b	SRT
Step 2	Step ID 17B8b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 17B8c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17B8c	SRT
Step 3	Step ID 17B8c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 17B8d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 17B8d	SRT
Step 4	Step ID 17B8d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

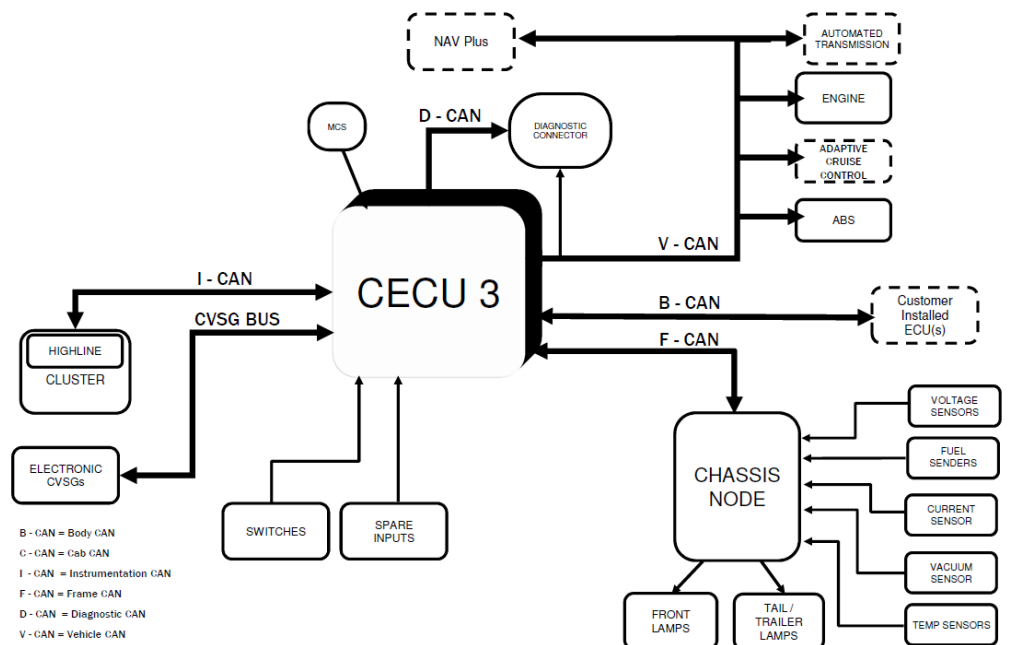
U17B9

Code number	U17B9
Fault code description	CAN communication - Message (TSC1_PE) data fault
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and Engine CAN. Engine CAN: Connects CECU 3 to the ENGINE, ADAPTIVE CRUISE CONTROL, and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: Connects CECU 3 to FRONT LAMPS, TAIL / TRAILER LAMPS, and various sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Firewall: Dashed lines indicate firewalls between the Diagnostic CAN, Vehicle CAN, and Aftertreatment CAN networks.

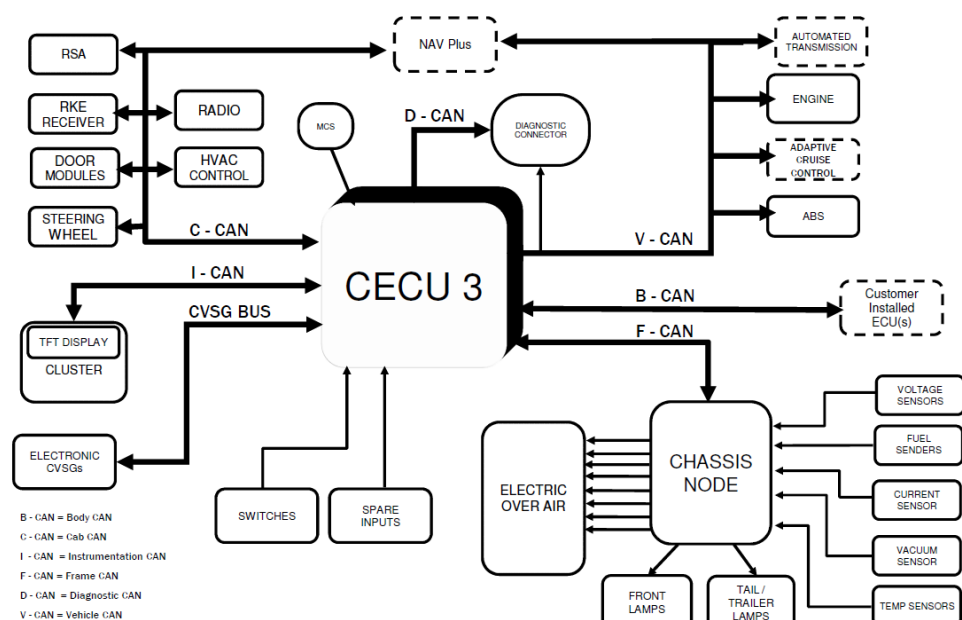
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Check transmission ECU for faults
- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 17B9a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?		

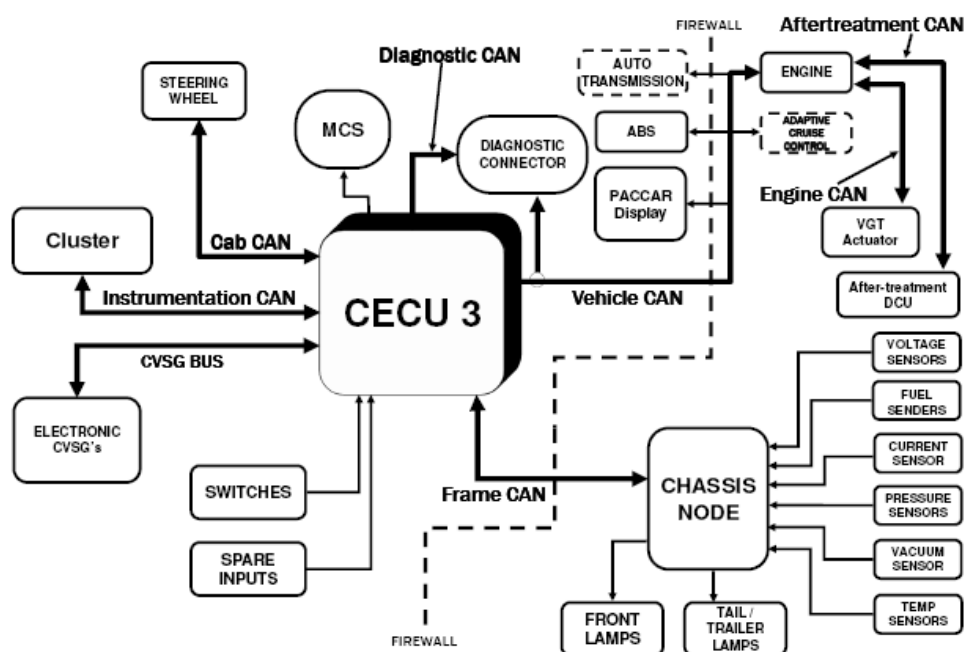
	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17B9b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17B9b	SRT
	Step 2	Step ID 17B9b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17B9c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17B9c	SRT
	Step 3	Step ID 17B9c	SRT	
<table><tr><td>Step 4</td><td>Step ID 17B9d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 17B9d	SRT	
Step 4	Step ID 17B9d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics With the brakes set, start the engine and allow it to run at idle for 2 minutes			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

U17BA

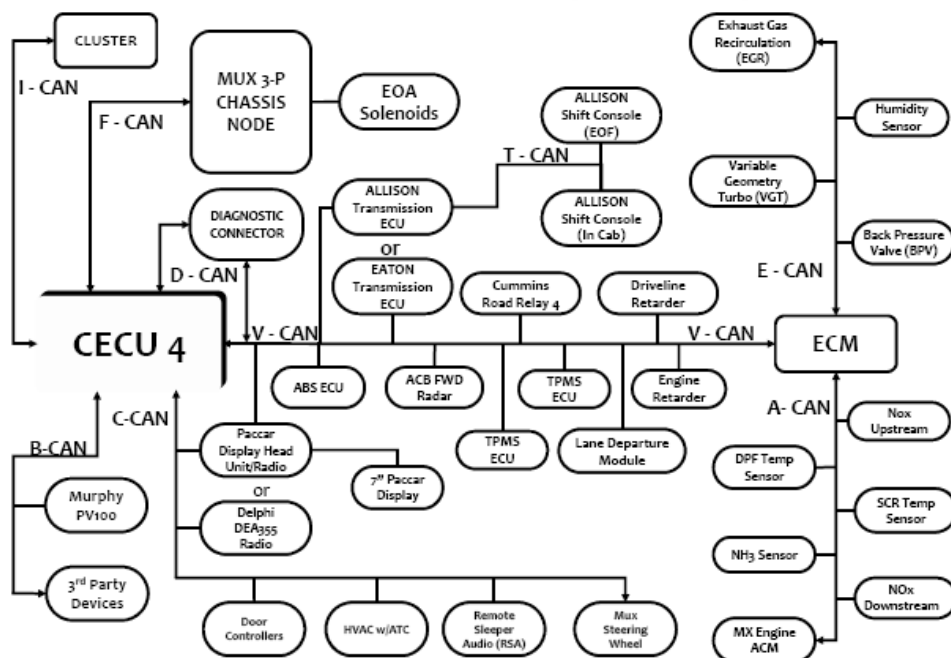
Code number	U17BA
Fault code description	VTG turbo charger actuator temperature – Data erratic , intermittent or incorrect at ignition on.
Fault code information	2 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs: <ul style="list-style-type: none"> • ignition has been keyed off continuously for at least 8 hours. • difference between the coolant temperature and ambient temperature is less than 15°C [59°F] • ambient temperature is more than -20°C [-4°F]
Set condition of fault code	The PCI ECU (D420) detects that the VTG turbocharger actuator temperature differs by more than 3°C [37°F] from the averages of other temperature sensor readings of the engine for more than 5 seconds (after the ignition has been keyed off for at least 8 hours).
Reset condition of fault code	The 8-hour ignition off diagnostics consists of three separate steps: <ul style="list-style-type: none"> • The vehicle ignition may NOT be keyed on or the engine started for 8 to 10 consecutive hours (ideal situation would be overnight). • Once the 8 to 10 consecutive hours have been reached, key on the ignition (NO engine start) and wait for 10 seconds to allow the system to power up and the diagnostics to run. • Start the engine and let it idle for 2 minutes. This DTC changes to inactive when the fault is no longer detected.

Electrical diagram(s)

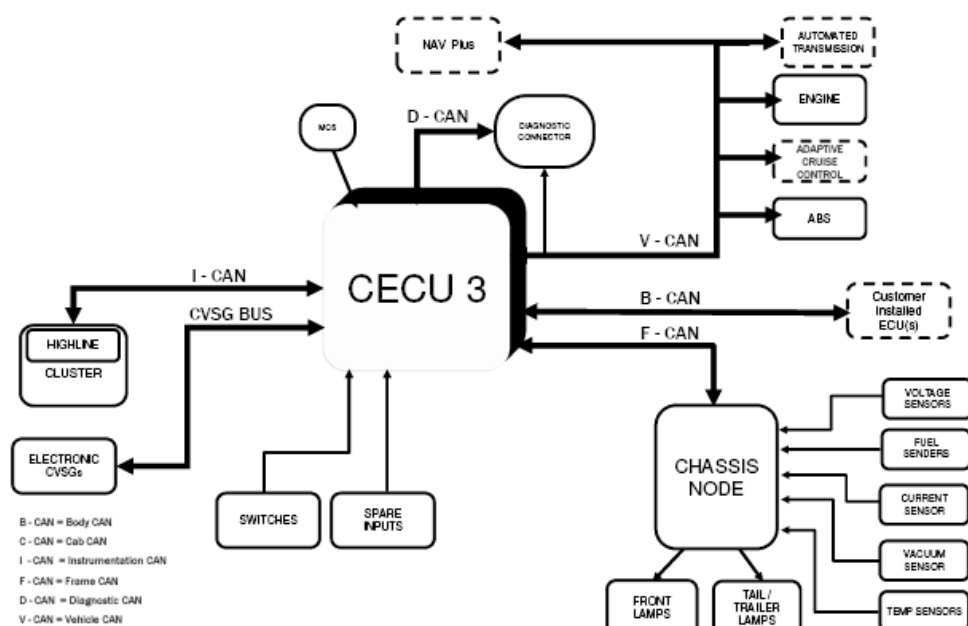
NAMUX 3 Architecture: 2010 B-Cab



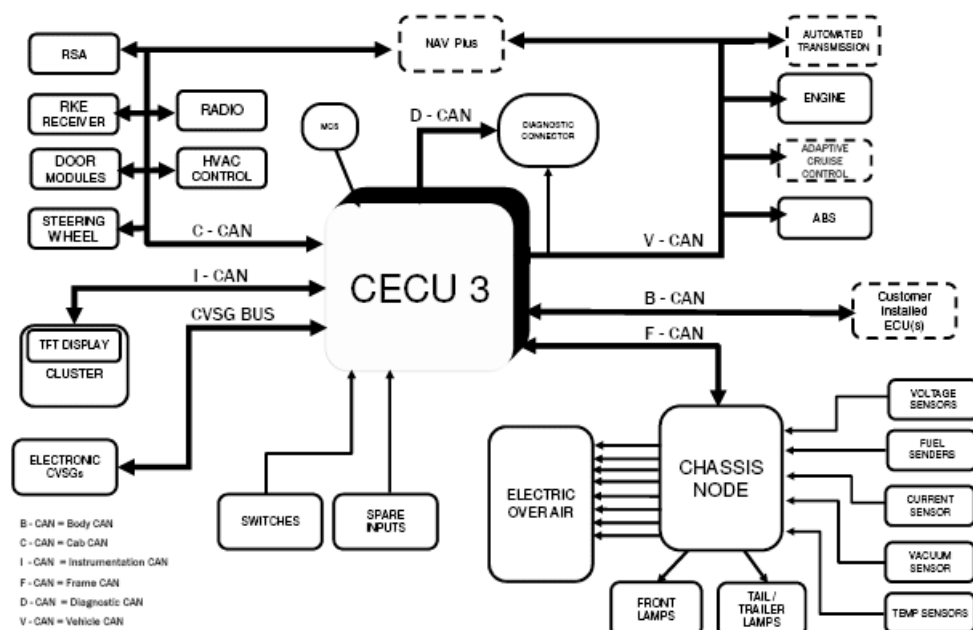
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data	This code relates to a communication issue and not to a specific component.
Possible causes	Faulty VTG turbocharger actuator
Additional information	<ul style="list-style-type: none"> The VTG turbocharger actuator (L037) is a smart actuator that communicates with

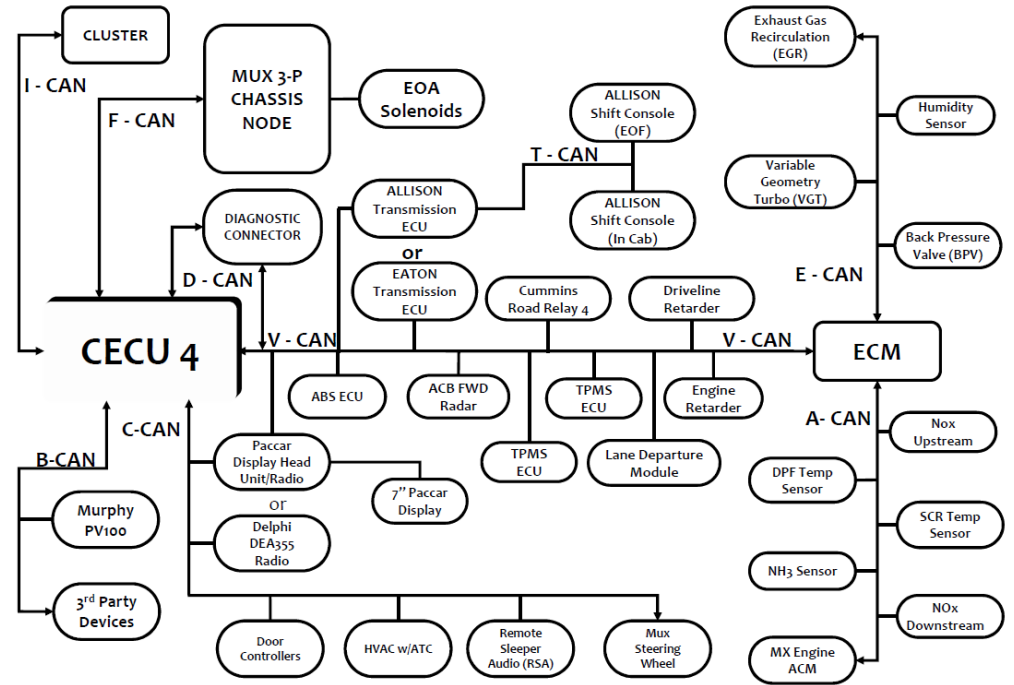
	<p>the PCI ECU via E-CAN. The actuator ECU is controlled by the PCI ECU but has its own diagnostics.</p> <ul style="list-style-type: none">For this diagnostic, the VTG turbocharger actuator temperature is compared with the averages of other temperature sensor readings of the engine after the ignition has been keyed off for at least 8 hours.																		
Diagnostic Step-by-Step	<div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div><div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div></div> <table><tr><td>Step 1</td><td>Step ID 17BA-a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p><p>Was there evidence of any of the above?</p><ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements.<p>Use DAVIE to re-check for the presence of active faults.</p><ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2</td></tr></table> <table><tr><td>Step 2</td><td>Step ID 17BA-b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4</td></tr></table> <table><tr><td>Step 3</td><td>Step ID 17BA-c</td><td>SRT</td></tr><tr><td colspan="3"><p>Repair or replace component</p><ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key<p>Use DAVIE to re-check for the presence of active faults:</p><ul style="list-style-type: none">Is DTC fault active: Proceed to step 4</td></tr></table>	Step 1	Step ID 17BA-a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			Step 2	Step ID 17BA-b	SRT	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4			Step 3	Step ID 17BA-c	SRT	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4		
Step 1	Step ID 17BA-a	SRT																	
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2																			
Step 2	Step ID 17BA-b	SRT																	
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Step 3	Step ID 17BA-c	SRT																	
<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4																			

	<ul style="list-style-type: none"> Is DTC fault inactive: Issue resolved. Clear inactive fault 		
	Step 4	Step ID 17BA-d	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.		
	Back to Choose Code Back to Index		

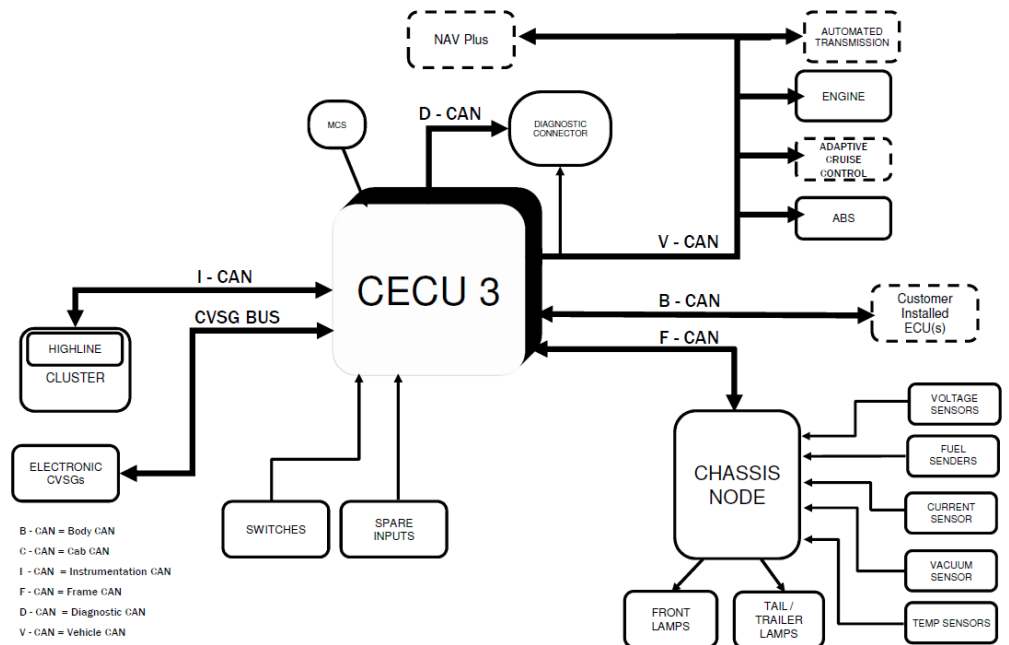
U17C4

Code number	U17C4
Fault code description	CAN communication - Message (TSC1 ACXR) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Engine Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Maintenance Control System). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: Includes ENGINE, ADAPTIVE CRUISE CONTROL, ABS, PACCAR Display, and AUTO TRANSMISSION. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Frame CAN networks.</p>

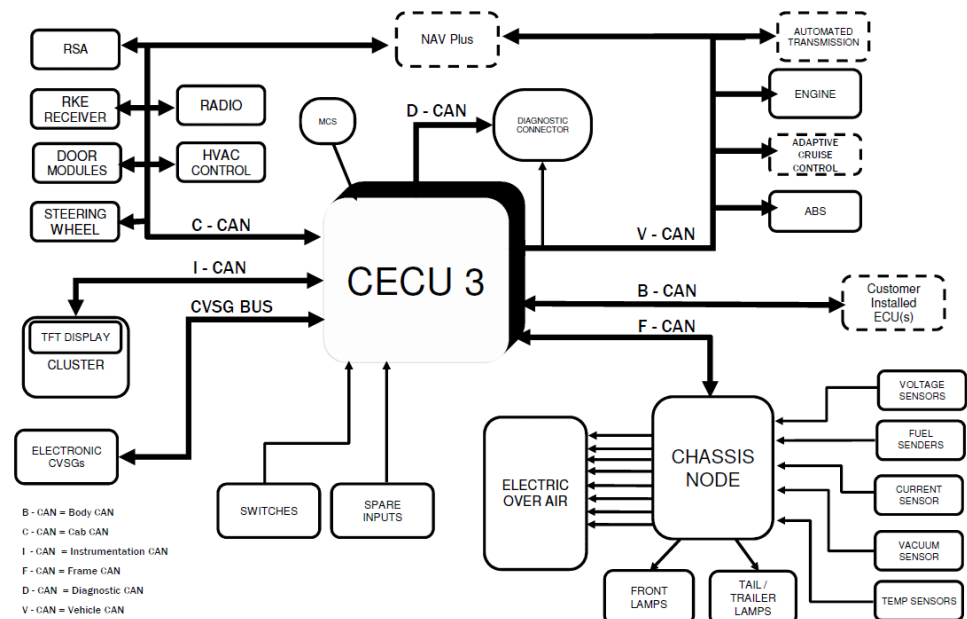
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

Check the after treatment for total fuel used

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

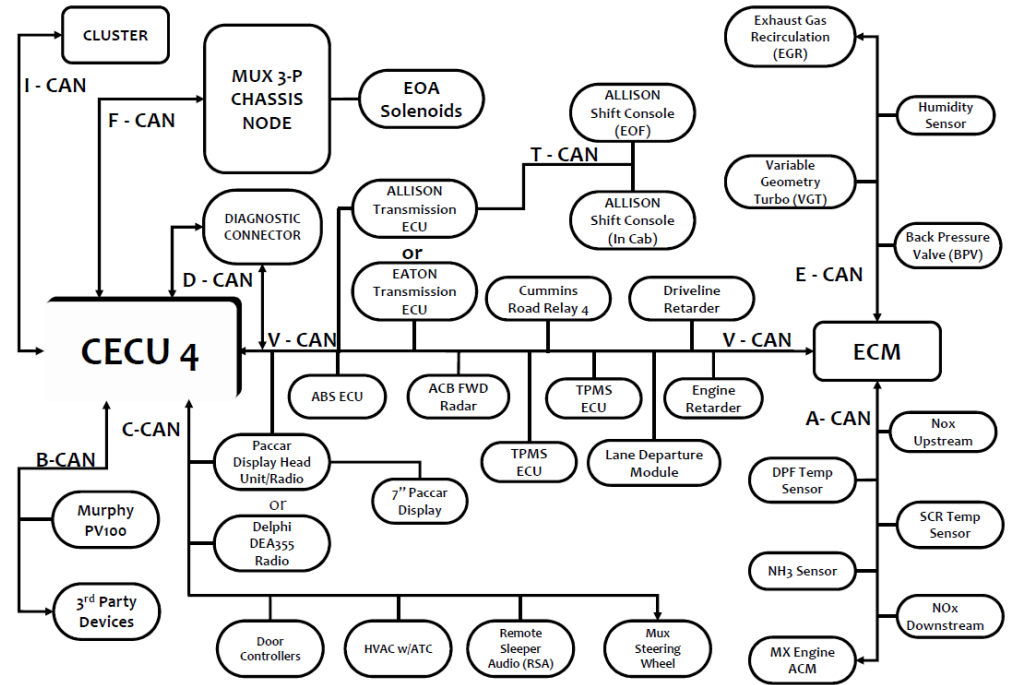
Step 1	Step ID 17C4a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none"> • Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 		
	Step 2	Step ID 17C4b	SRT
	<p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 		
	Step 3	Step ID 17C4c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness . • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 		
	Step 4	Step ID 17C4d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>		
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>		

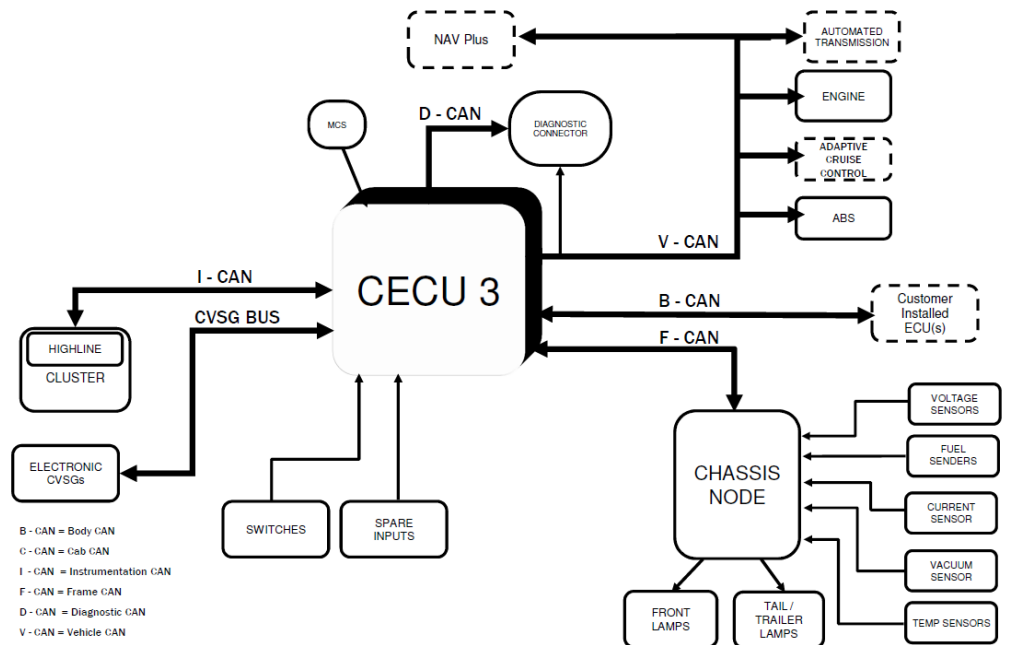
U17C5

Code number	U17C5
Fault code description	CAN communication - Message (TSC1_AXR) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which is connected to various systems via different CAN buses and sensors. The connections are as follows:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS. Cab CAN: Connects CECU 3 to the Steering Wheel and Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the Electronic CVSG's. Vehicle CAN: Connects CECU 3 to the ABS, PACCAR Display, and Diagnostic Connector. Engine CAN: Connects CECU 3 to the Engine, VGT Actuator, and After-treatment DCU. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. Frame CAN: Connects CECU 3 to the Chassis Node. Chassis Node: Connects to Front Lamps, Tail / Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). Other components: SWITCHES, SPARE INPUTS, and AUTO TRANSMISSION are also shown. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Frame CAN networks.</p>

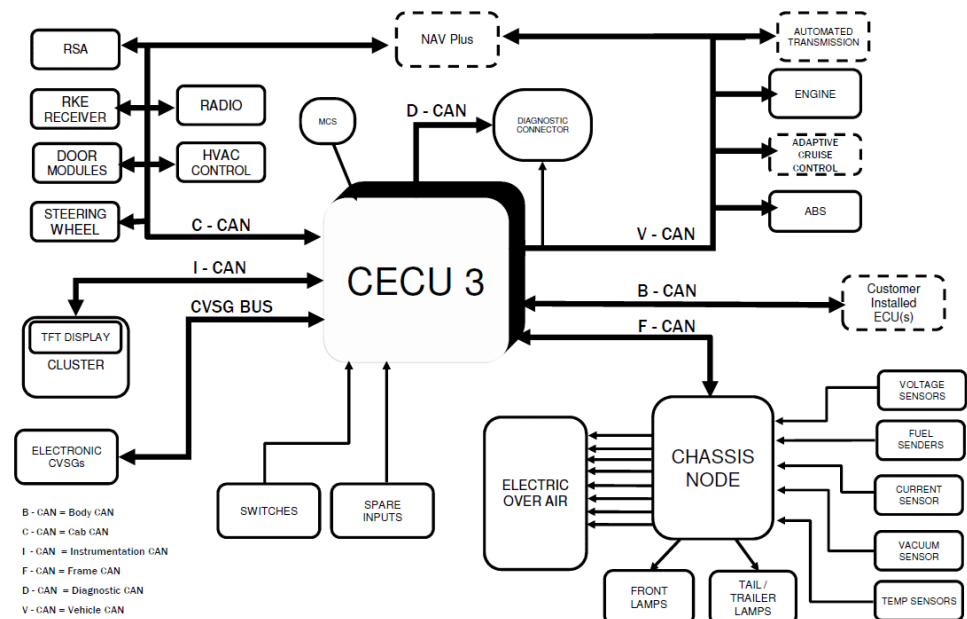
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

Check the after treatment for total fuel used

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

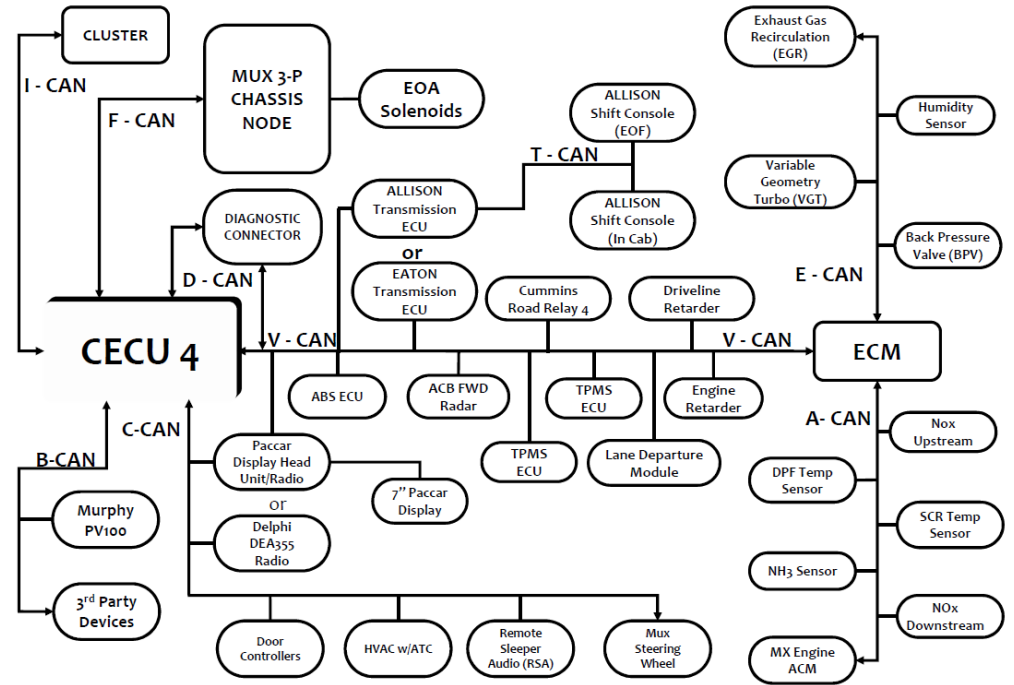
Step 1	Step ID 17C5a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. 		

	Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 		
	Step 2	Step ID 17C5b	SRT
	Data check <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component Is test pass? <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step4 		
	Step 3	Step ID 17C5c	SRT
	Repair or replace component <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault. 		
	Step 4	Step ID 17C5d	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes		
	Back to Choose Code Back to Index		

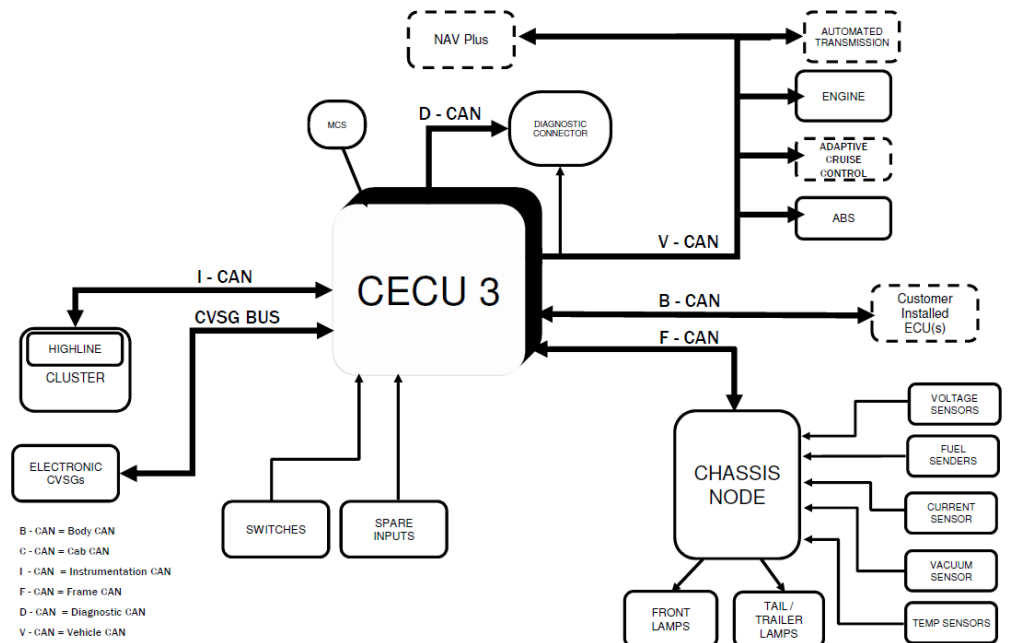
U17C6

Code number	U17C6
Fault code description	CAN communication - Message (TSC1_DXR) rate too low from retarder
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and Aftertreatment CAN. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Aftertreatment CAN: Connects CECU 3 to the ENGINE and After-treatment DCU. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: The ENGINE is connected to ABS, PACCAR Display, ADAPTIVE CRUISE CONTROL, and VGT Actuator. Other Components: AUTO TRANSMISSION and DIAGNOSTIC CONNECTOR are also shown. <p>FIREWALL lines are indicated between the CECU 3 and the CHASSIS NODE, and between the CECU 3 and the Aftertreatment CAN/Engine CAN.</p>

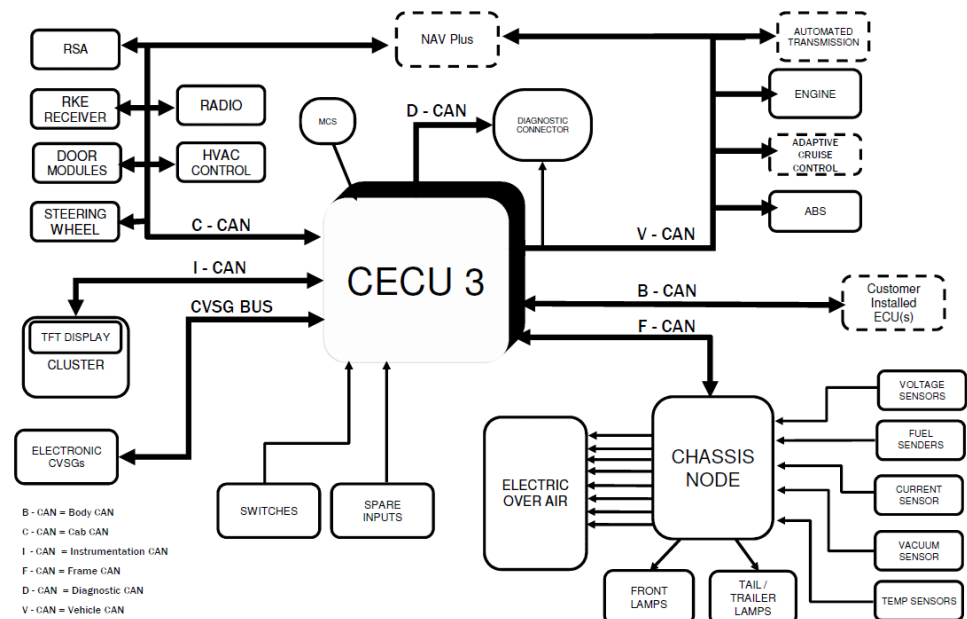
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

Check the after treatment for total fuel used

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

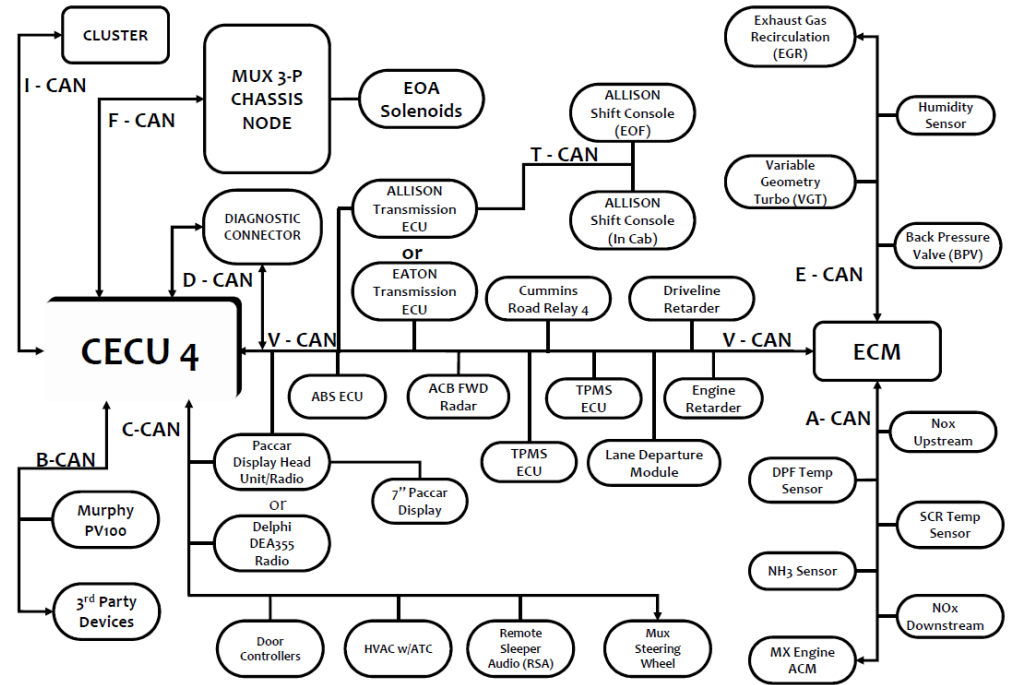
Step 1	Step ID 17C6a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above? <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. 		

	Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17C6b	SRT
	Data check <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 17C6c	SRT
	Repair or replace component <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 17C6d	SRT
	For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

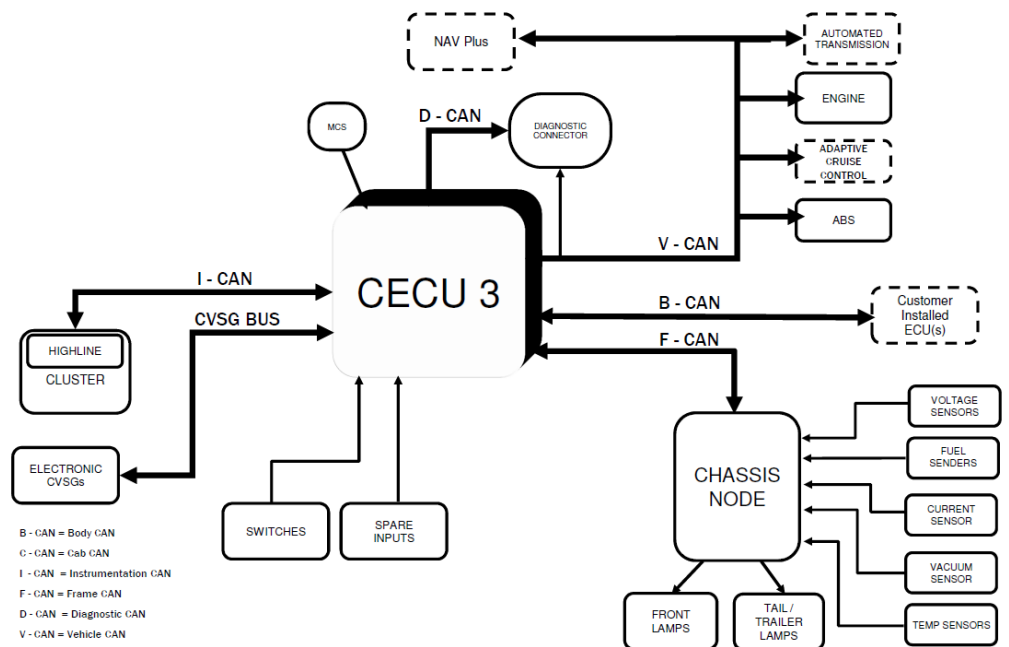
U17C7

Code number	U17C7
Fault code description	CAN communication - Message (TSCI_TXR) rate too low from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to various vehicle systems and components via different CAN buses and interfaces. The connections include:</p> <ul style="list-style-type: none"> Steering Wheel and MCS (Master Control Switch) connected to the CECU 3. Cluster connected to the CECU 3 via the Cab CAN. Instrumentation CAN and CVSG BUS connected to the CECU 3. ELECTRONIC CVSG's connected to the CECU 3. SWITCHES and SPARE INPUTS connected to the CECU 3. Diagnostic CAN and DIAGNOSTIC CONNECTOR connected to the CECU 3. Vehicle CAN connected to the CECU 3. ABS (Anti-lock Braking System) and PACCAR Display connected to the CECU 3. Engine CAN connected to the CECU 3. Engine and Adaptive Cruise Control connected to the CECU 3. VGT Actuator connected to the CECU 3. After-treatment DCU (Diesel Exhaust Fluid Control Unit) connected to the CECU 3. CHASSIS NODE connected to the CECU 3. FRONT LAMPS and TAIL / TRAILER LAMPS connected to the CHASSIS NODE. VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS connected to the CHASSIS NODE. FIREWALL is shown as a dashed line separating the CECU 3 from the CHASSIS NODE.

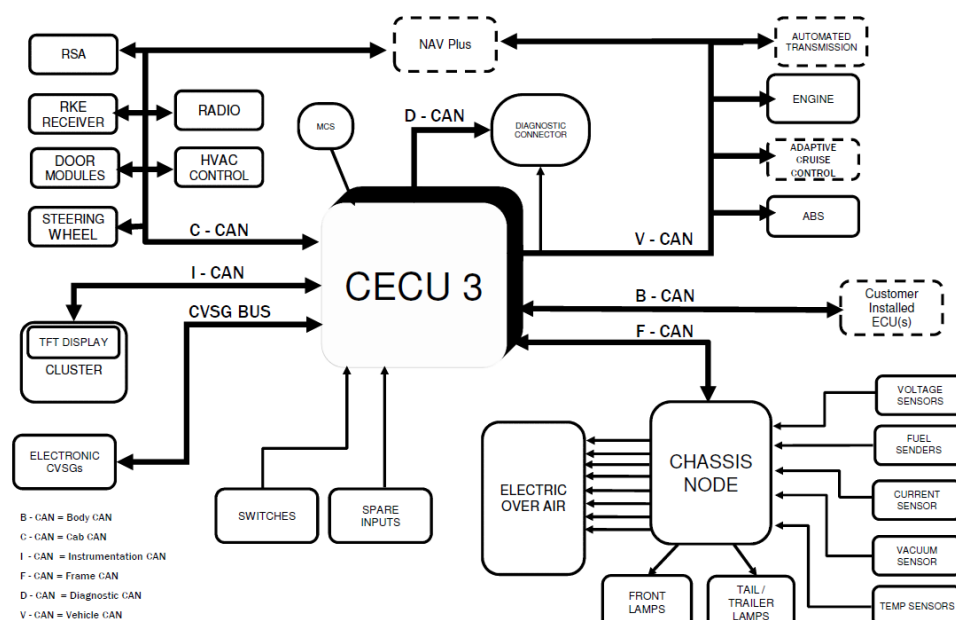
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

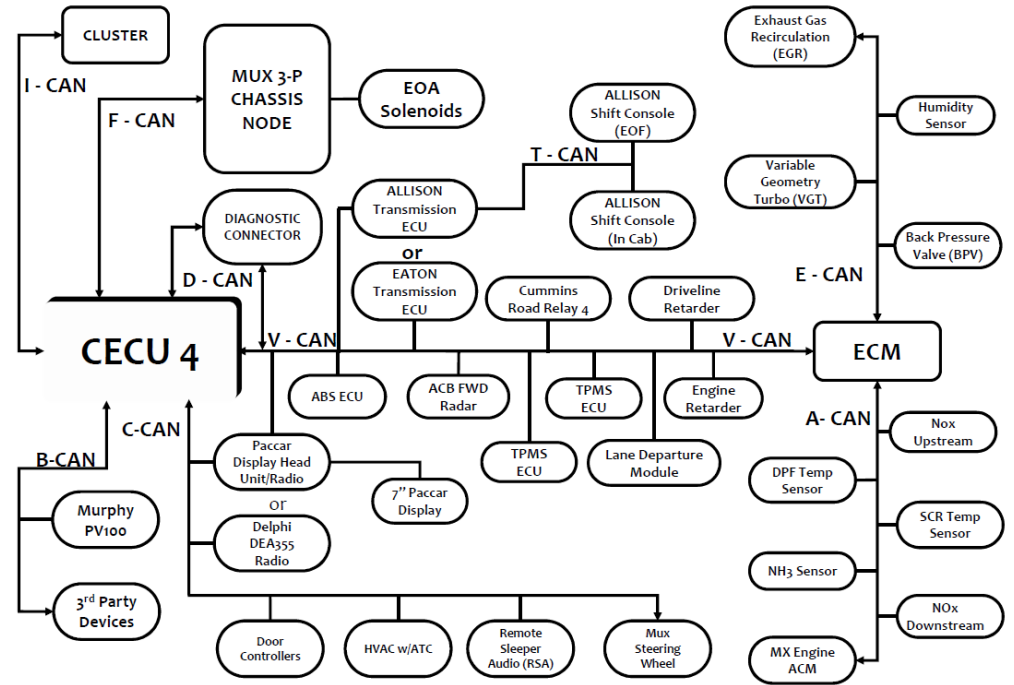
Step 1	Step ID 17C7a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?		

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17C7b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17C7b	SRT
	Step 2	Step ID 17C7b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17C7c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17C7c	SRT
	Step 3	Step ID 17C7c	SRT	
<table><tr><td>Step 4</td><td>Step ID 17C7d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 17C7d	SRT	
Step 4	Step ID 17C7d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

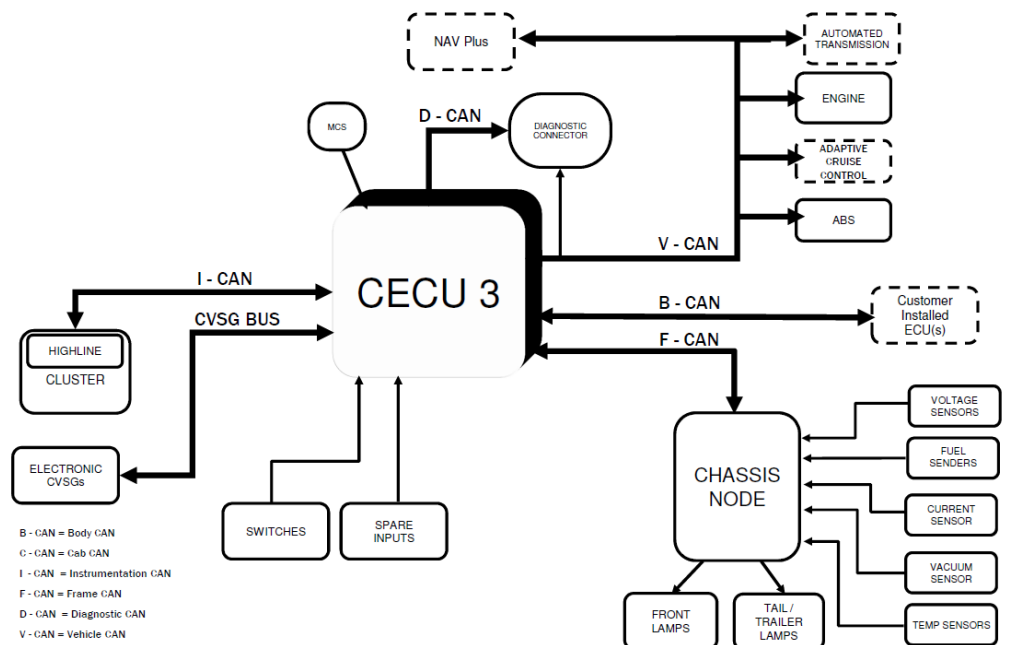
U17C8

Code number	U17C8
Fault code description	CAN communication - Message (TSC1_VXR) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Maintenance Control System). Cab CAN: Connects CECU 3 to the Cluster, Steering Wheel, and Instrumentation CAN. Instrumentation CAN: Connects CECU 3 to the Cluster and CVSG BUS. CVSG BUS: Connects CECU 3 to the Electronic CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: Connect directly to CECU 3. Vehicle CAN: Connects CECU 3 to the Diagnostic Connector, ABS, PACCAR Display, and CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE, VGT Actuator, and After-treatment DCU. Aftertreatment CAN: Connects CECU 3 to the ENGINE and After-treatment DCU. CHASSIS NODE: Connects CECU 3 to the Frame CAN, Front Lamps, Tail/Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). Frame CAN: Connects CECU 3 to the CHASSIS NODE. Firewall: Separates the Diagnostic CAN from the Vehicle CAN and the Engine CAN from the Aftertreatment CAN.

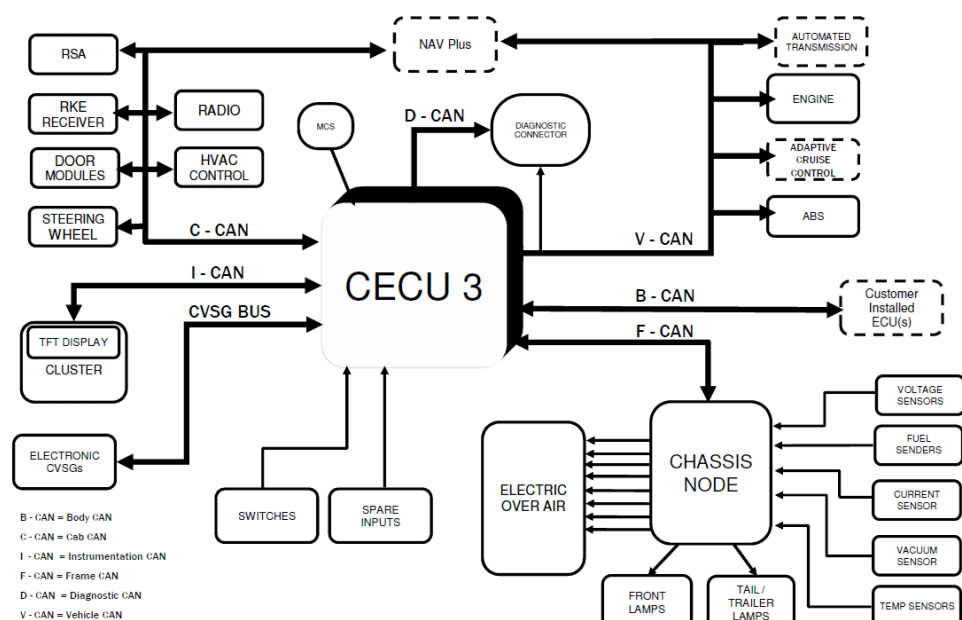
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 17C8a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

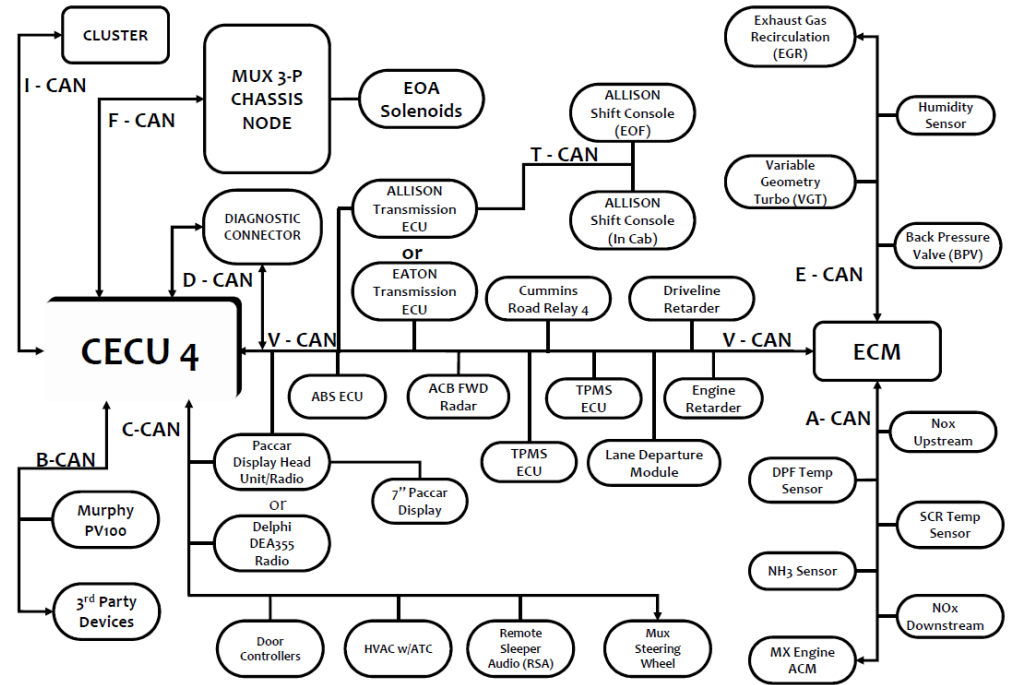
Was there evidence of any of the above?

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17C8b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17C8b	SRT
	Step 2	Step ID 17C8b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17C8c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17C8c	SRT
Step 3	Step ID 17C8c	SRT		
<table><tr><td>Step 4</td><td>Step ID 17C8d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 17C8d	SRT	
Step 4	Step ID 17C8d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

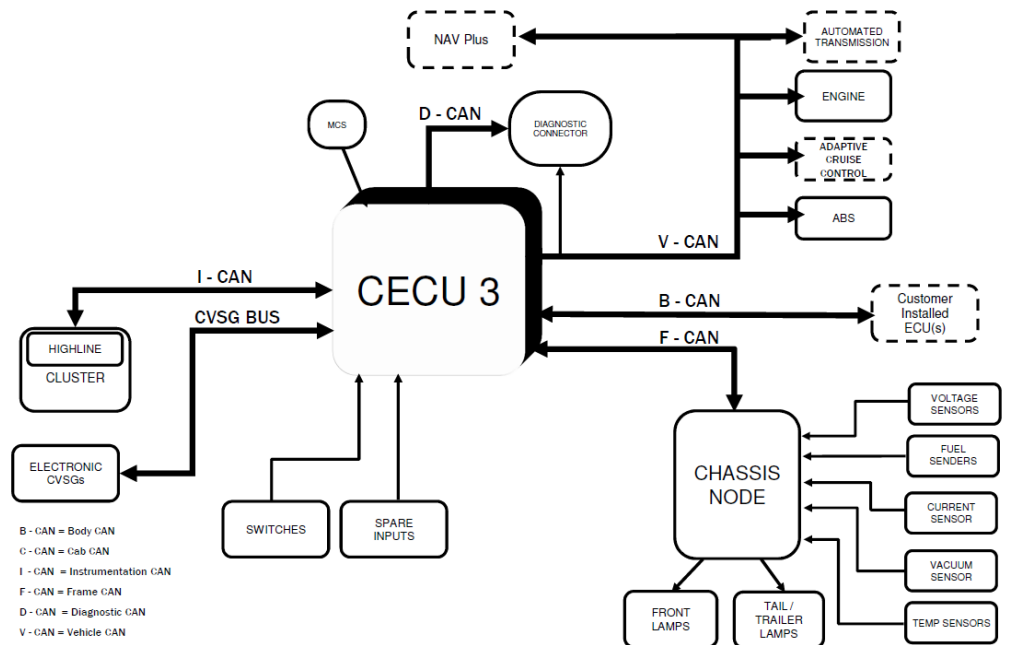
U17C9

Code number	U17C9
Fault code description	CAN communication - Message (TSC1_SXR) rate too low
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and Engine CAN. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine CAN: Also connects to ABS, PACCAR Display, and ADAPTIVE CRUISE CONTROL. Aftertreatment CAN: Also connects to ADAPTIVE CRUISE CONTROL. Firewall: Indicated by dashed lines separating the Vehicle CAN from the Engine CAN and Aftertreatment CAN.

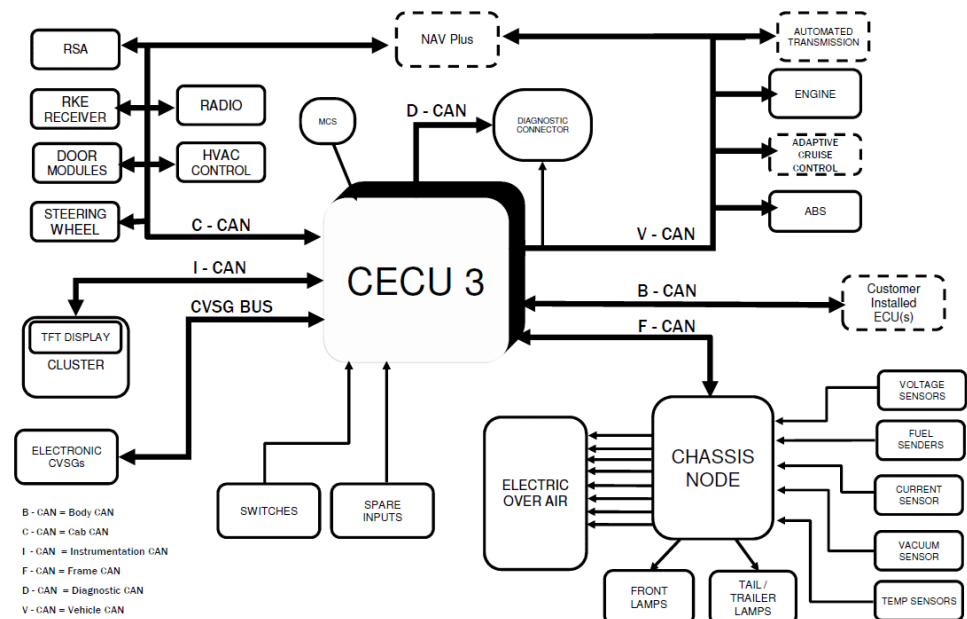
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

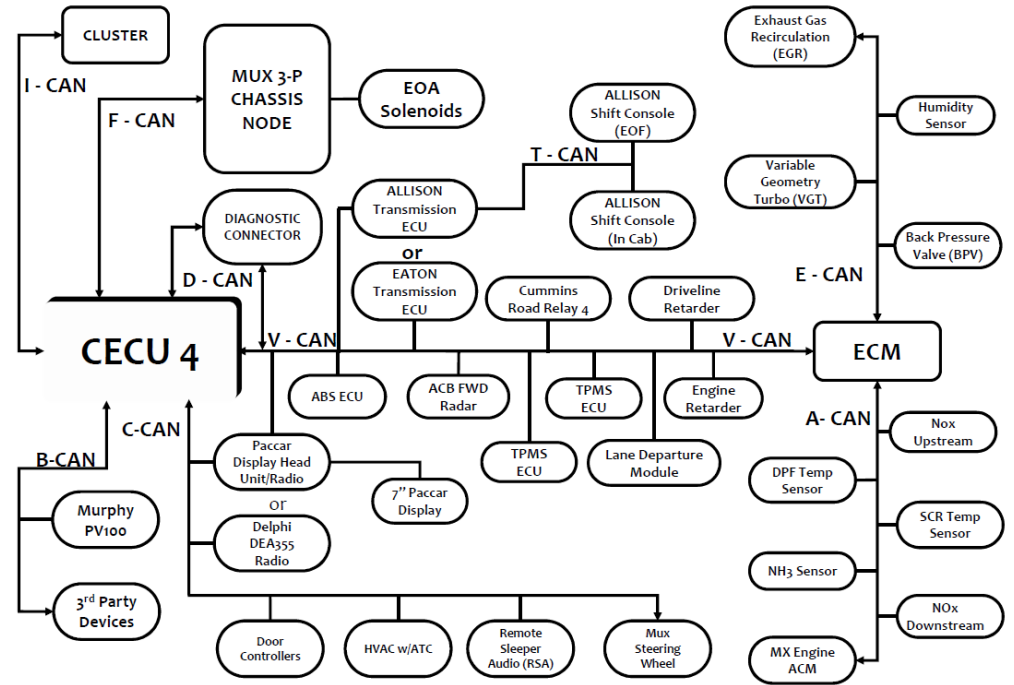
Step 1	Step ID 17C9a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?		

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17C9b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17C9b	SRT
	Step 2	Step ID 17C9b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17C9c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17C9c	SRT
Step 3	Step ID 17C9c	SRT		
<table><tr><td>Step 4</td><td>Step ID 17C9d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 17C9d	SRT	
Step 4	Step ID 17C9d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

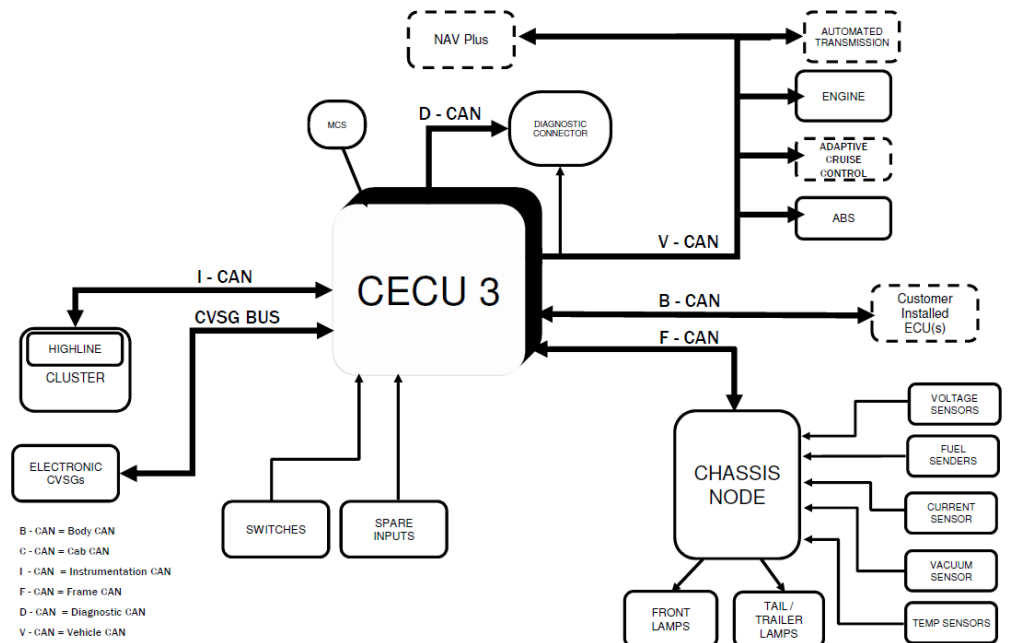
U17CA

Code number	U17CA
Fault code description	CAN communication - Message (TSC1_AXCR) message checksum
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a DIAGNOSTIC CONNECTOR. Vehicle CAN: Connected to CECU 3 and various vehicle systems. Engine CAN: Connected to CECU 3 and the ENGINE. Chassis Node: Connected to CECU 3 via Frame CAN and Vehicle CAN. Aftertreatment CAN: Connected to CECU 3 and the ENGINE. CVSG BUS: Connected to CECU 3 and ELECTRONIC CVSG's. SWITCHES and SPARE INPUTS: Connected to CECU 3. CHASSIS NODE: Connected to CECU 3 and various sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. FRONT LAMPS and TAIL / TRAILER LAMPS: Connected to the CHASSIS NODE. After-treatment DCU: Connected to the CHASSIS NODE. Engine CAN also connects to VGT Actuator and ADAPTIVE CRUISE CONTROL. Vehicle CAN connects to ABS, PACCAR Display, and AUTO TRANSMISSION. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Engine CAN/Aftertreatment CAN.</p>

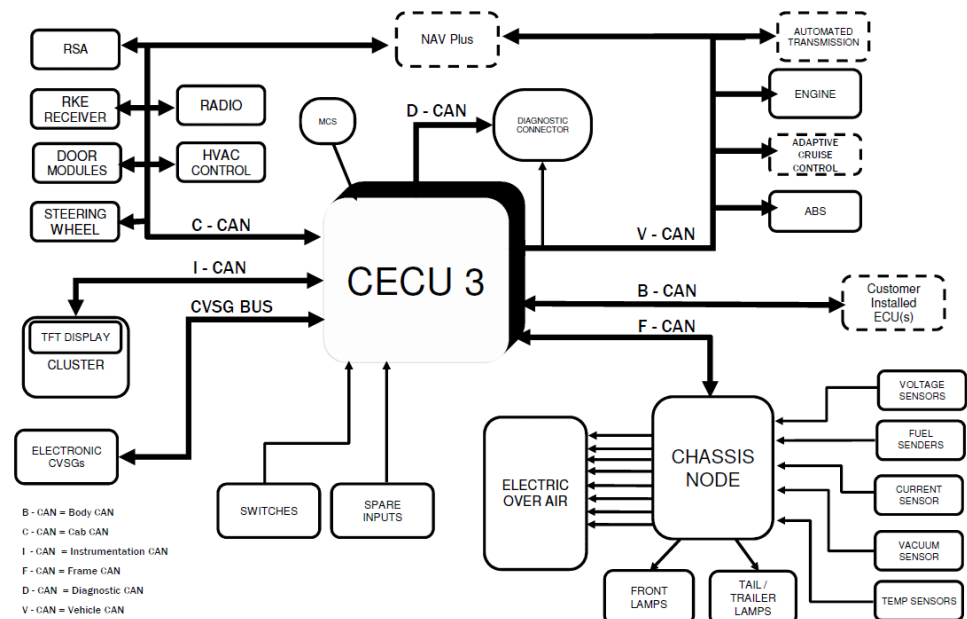
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

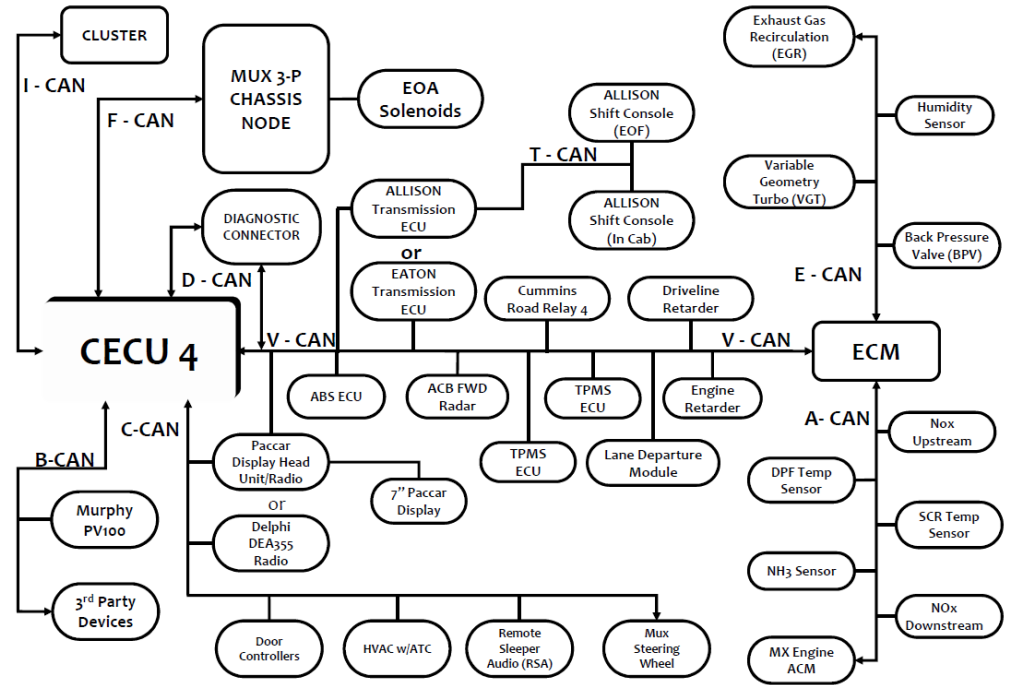
Step 1	Step ID 17CA-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 17CA-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4			Step 2	Step ID 17CA-b	SRT
	Step 2	Step ID 17CA-b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 17CA-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 17CA-c	SRT
	Step 3	Step ID 17CA-c	SRT			
<table><tr><td>Step 4</td><td>Step ID 17CA-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 17CA-d	SRT	
Step 4	Step ID 17CA-d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

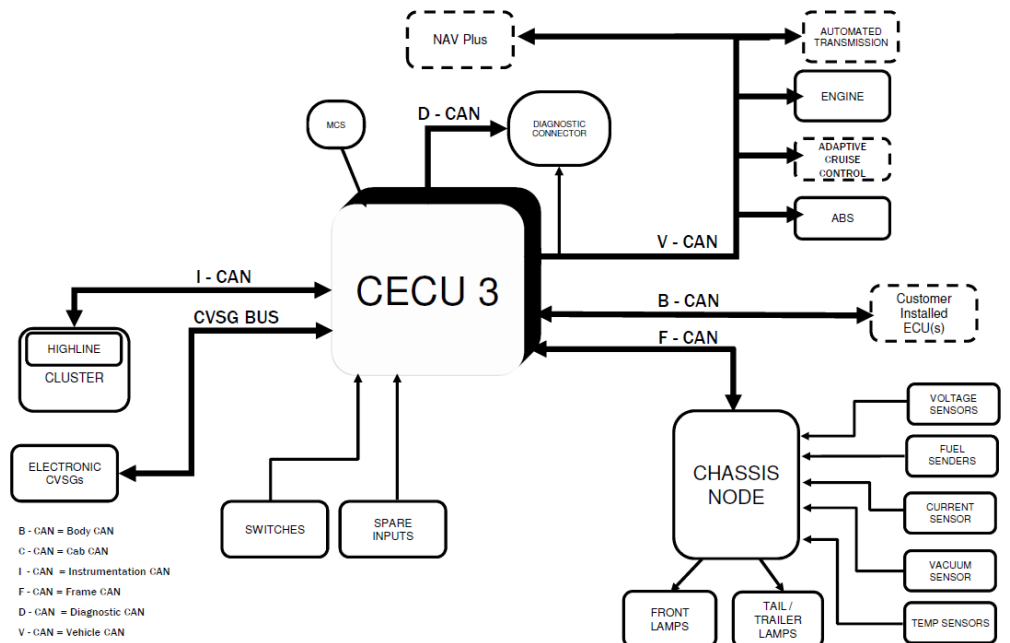
U17CB

Code number	U17CB
Fault code description	CAN communication - Message (TSC1_AXR) message count from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR, ABS (Anti-lock Braking System), and PACCAR Display. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Aftertreatment CAN: Connects CECU 3 to the ENGINE and After-treatment DCU (Differential Control Unit). Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator (Variable Geometry Turbine Actuator). CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Frame CAN.</p>

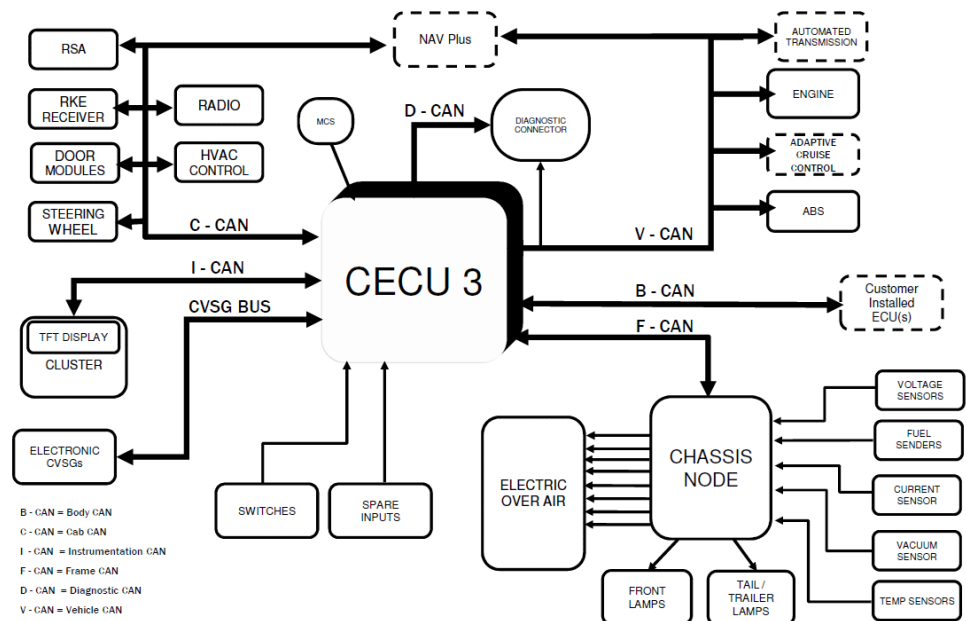
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

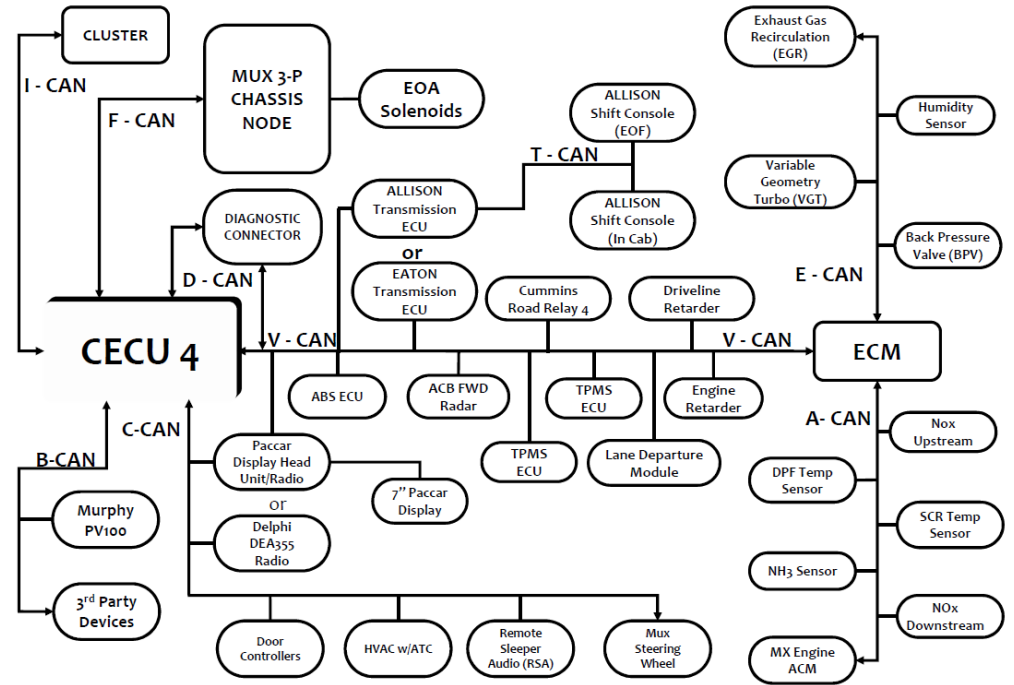
Step 1	Step ID 17CB-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. Was there evidence of any of the above?		

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17CB-b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17CB-b	SRT
	Step 2	Step ID 17CB-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17CB-c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17CB-c	SRT
Step 3	Step ID 17CB-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 17CB-d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 17CB-d	SRT	
Step 4	Step ID 17CB-d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	Back to Choose Code Back to Index			

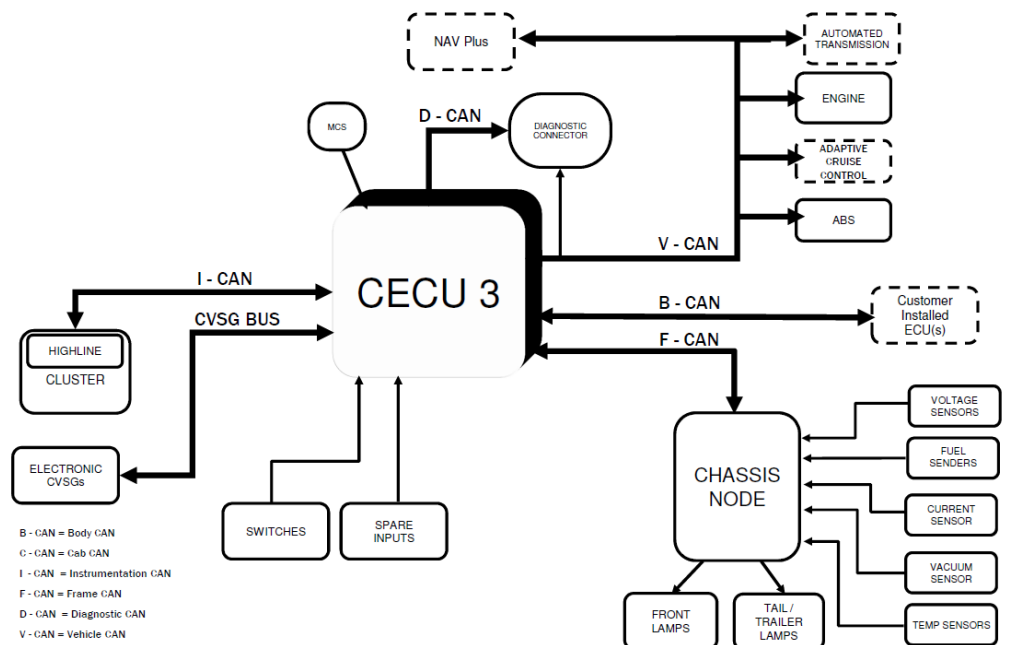
U17CC

Code number	U17CC
Fault code description	CAN communication - Message (TSC1_DXR) message count from retarder
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Message Control System). Cab CAN: Connects CECU 3 to the Cluster and Steering Wheel. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to Electronic CVSG's (Control Valve Solenoid Groups). Vehicle CAN: Connects CECU 3 to the ABS, PACCAR Display, and Diagnostic Connector. Engine CAN: Connects CECU 3 to the Engine, Adaptive Cruise Control, and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. Chassis Node: Connects CECU 3 to the Chassis Node, which includes Front Lamps, Tail/Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). Frame CAN: Connects CECU 3 to the Chassis Node. SWITCHES and SPARE INPUTS: Connect directly to CECU 3. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Engine CAN networks.</p>

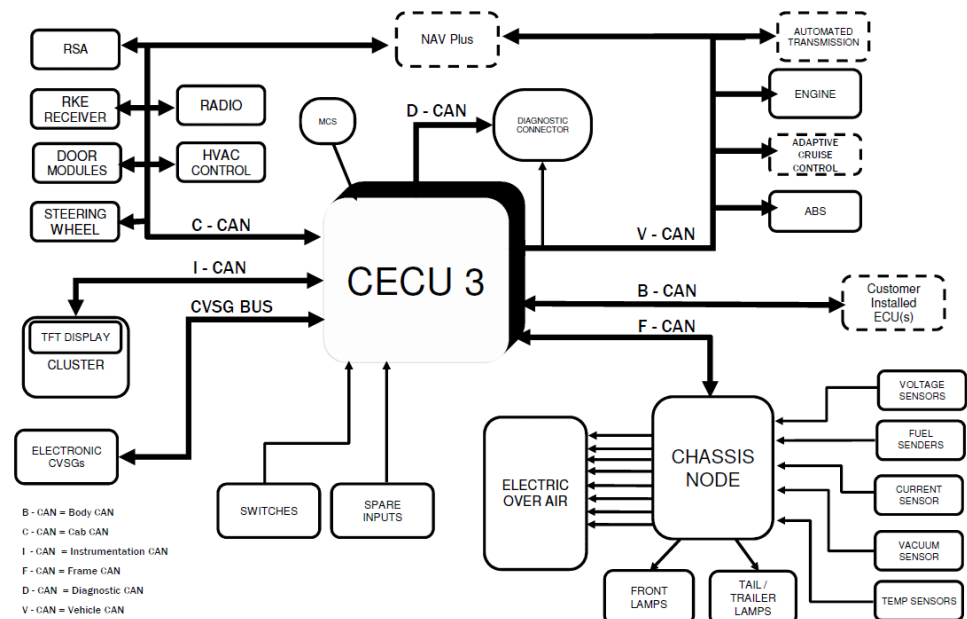
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

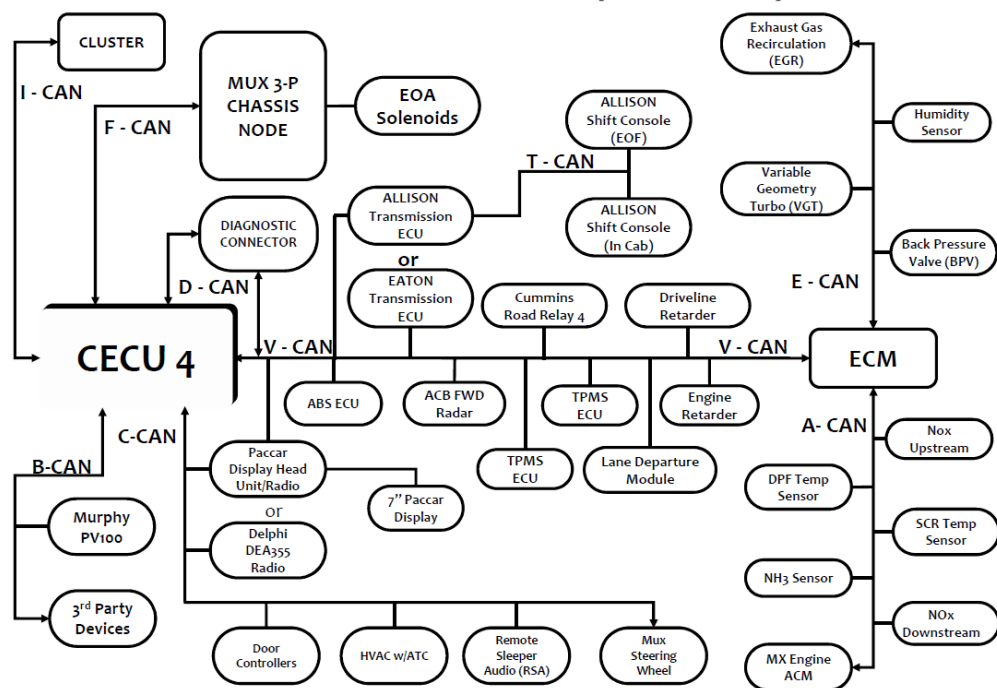
Step 1	Step ID 17CC-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17CC-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4		
	Step 3	Step ID 17CC-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
Step 4	Step ID 17CC-d	SRT	
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

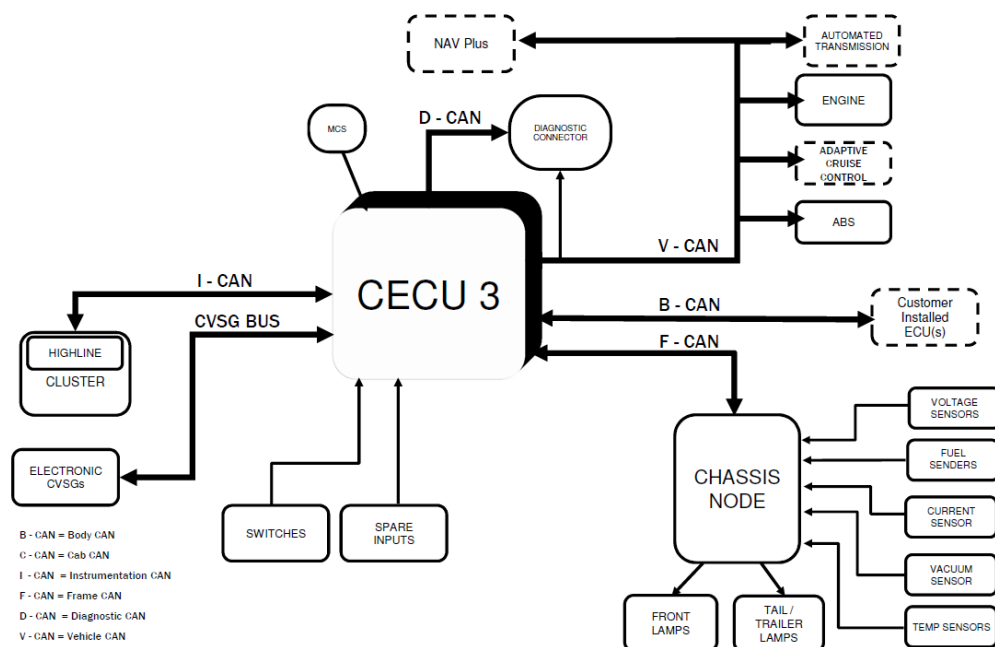
U17CD

Code number	U17CD
Fault code description	CAN communication - Message (TSC_TXR) message count from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to various components via different CAN buses and physical connections. On the left, the CECU 3 is connected to the Steering Wheel, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. On the right, it connects to the Diagnostic CAN, DIAGNOSTIC CONNECTOR, ABS, PACCAR Display, Vehicle CAN, and a FIREWALL. The Vehicle CAN bus connects to the AUTO TRANSMISSION, Engine CAN, ENGINE, Adaptive Cruise Control, VGT Actuator, and After-treatment DCU. The CHASSIS NODE is connected to the CECU 3 via the Frame CAN bus and provides inputs for FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS.</p>

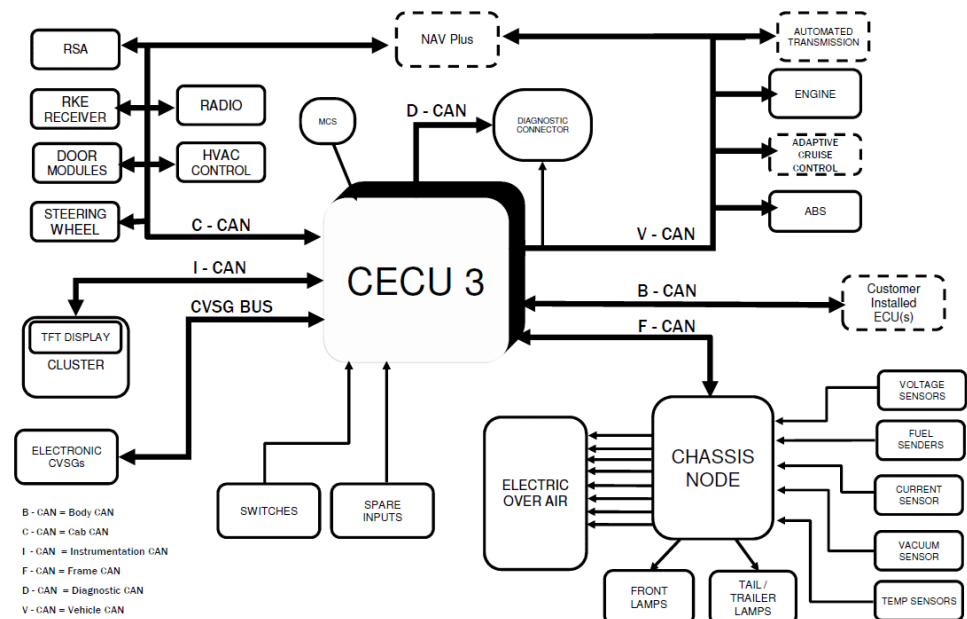
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

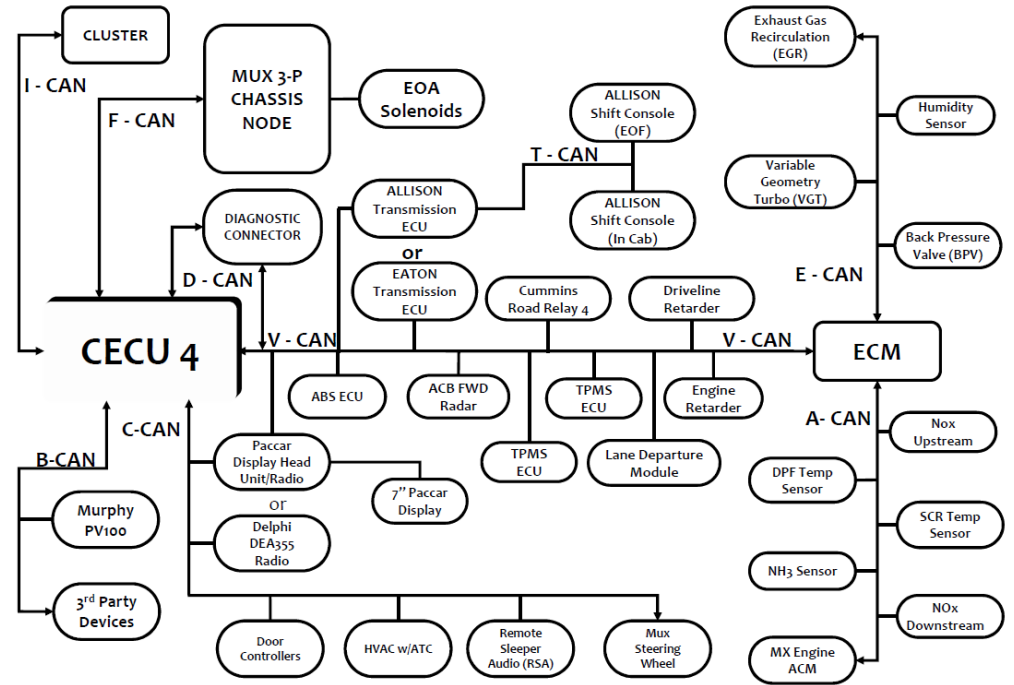
Step 1	Step ID 17CD-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17CD-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step 4		
	Step 3	Step ID 17CD-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 17CD-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p>Back to Choose Code</p> <p>Back to Index</p>		

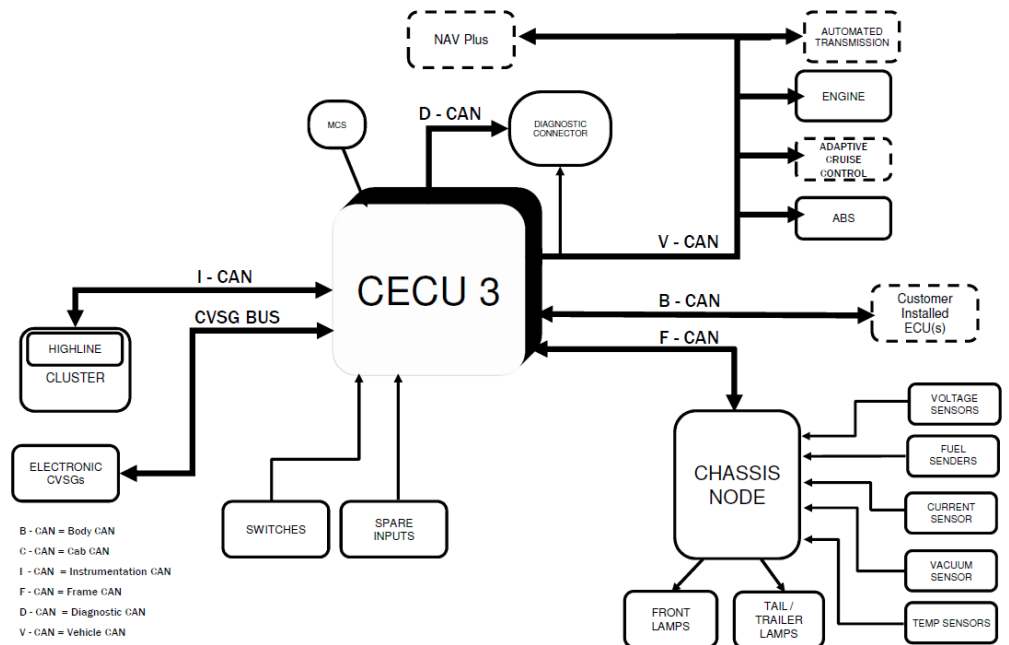
U17CE

Code number	U17CE
Fault code description	CAN communication - Message (TSC1_VXR) message count
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several key components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control System): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System) and PACCAR Display: Connected via Vehicle CAN. Engine CAN: Connected to the ENGINE and VGT Actuator. Aftertreatment CAN: Connected to the After-treatment DCU. Chassis Node: Connected via Frame CAN. This node manages FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors: The Chassis Node also interfaces with a variety of sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other Connections: CECU 3 is also linked to SWITCHES, SPARE INPUTS, and ELECTRONIC CVSG's (via CVSG BUS). <p>Firewalls are indicated between the Vehicle CAN and Engine CAN, and between the Vehicle CAN and Frame CAN.</p>

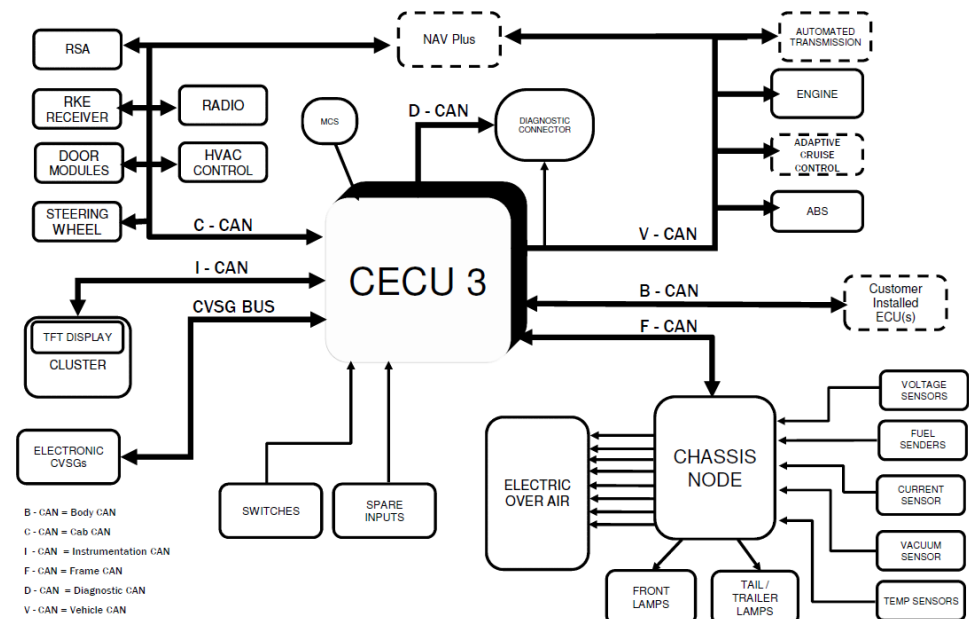
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



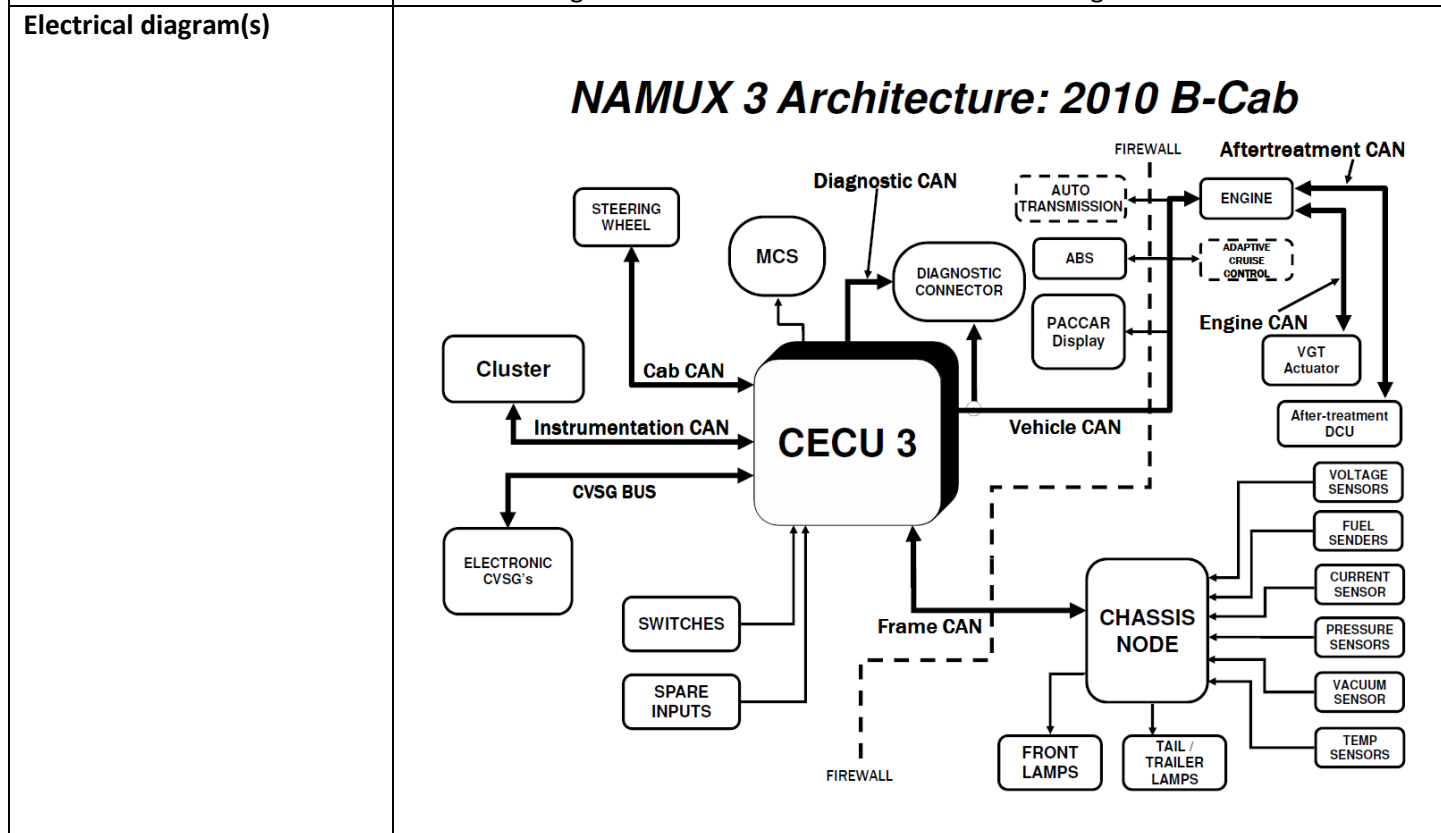
- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 17CE-a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

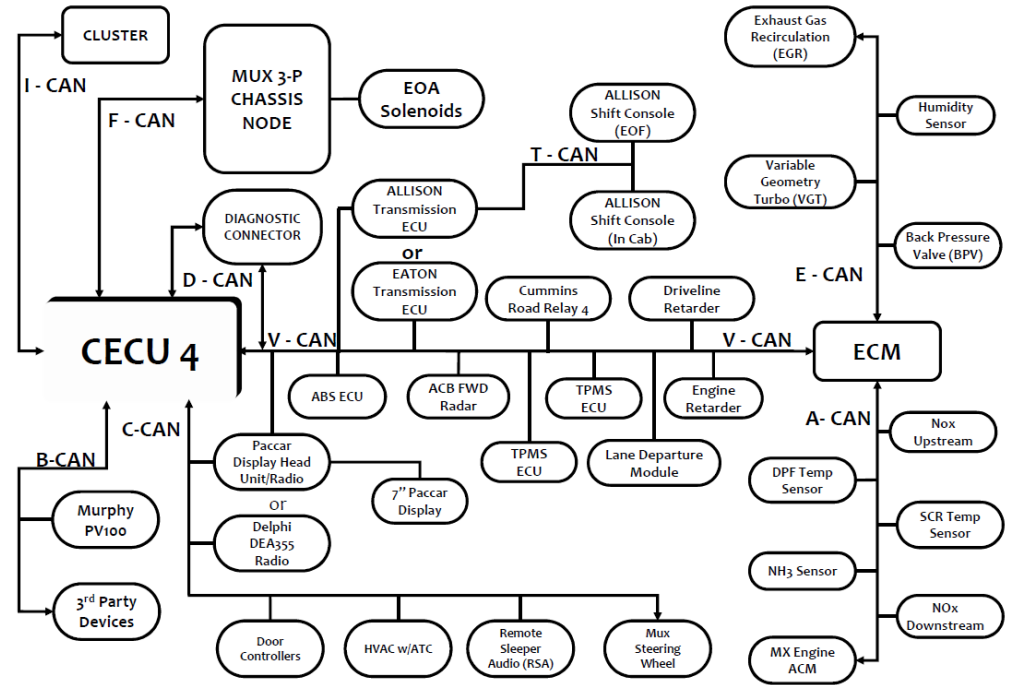
	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17CE-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step 4		
	Step 3	Step ID 17CE-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive : Issue resolved. Clear inactive fault.		
Step 4	Step ID 17CE-d	SRT	
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p>Back to Choose Code</p> <p>Back to Index</p>		

U17CF

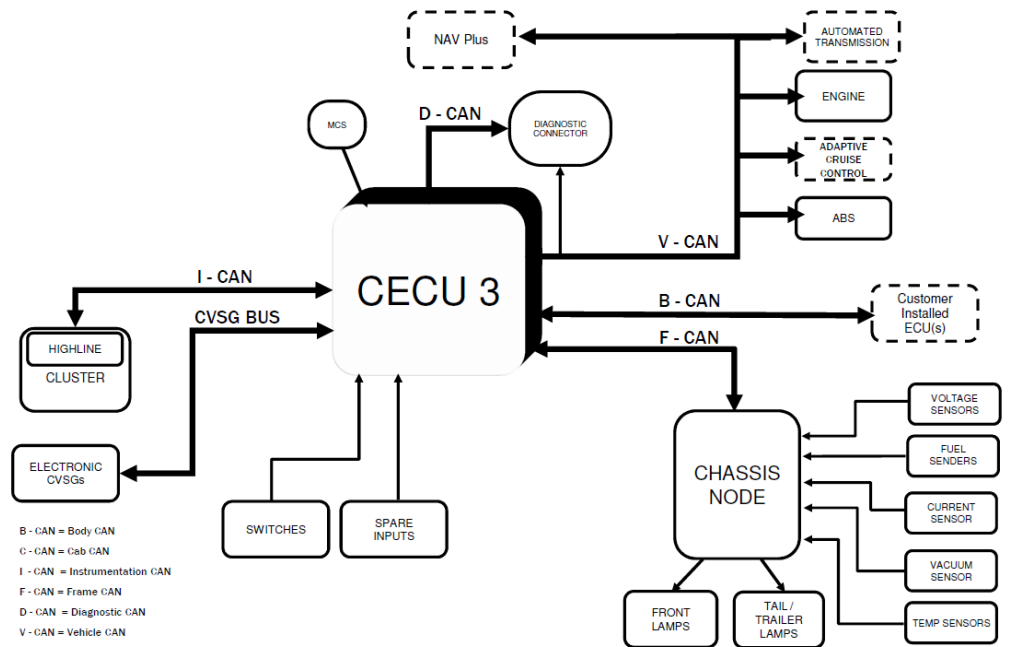
Code number	U17CF
Fault code description	CAN communication - Message (TSC1_SXR) message count
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.



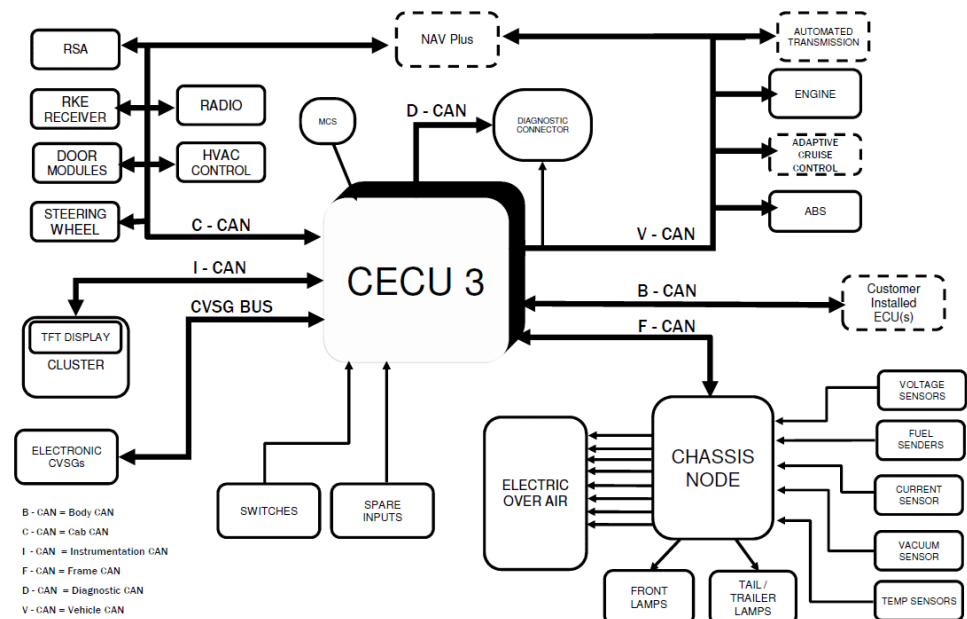
NAMUX 4 Architecture (Phase 1): T680



NAMUX₃ Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Open circuit, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

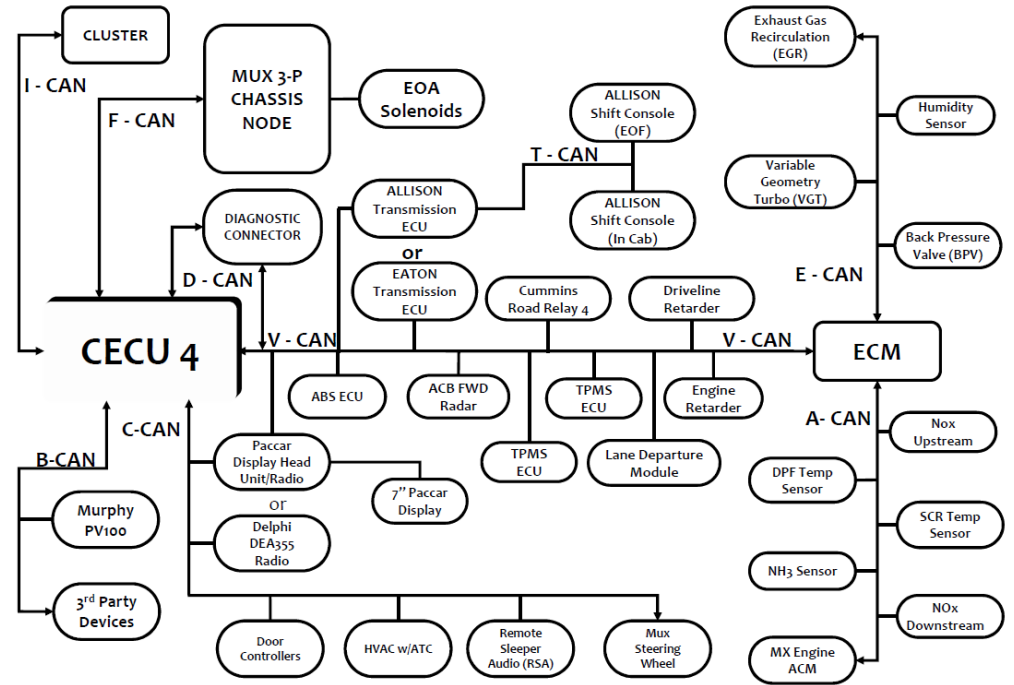
Step 1	Step ID 17CF-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17CF-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step 4		
	Step 3	Step ID 17CF-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
Step 4	Step ID 17CF-d	SRT	
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

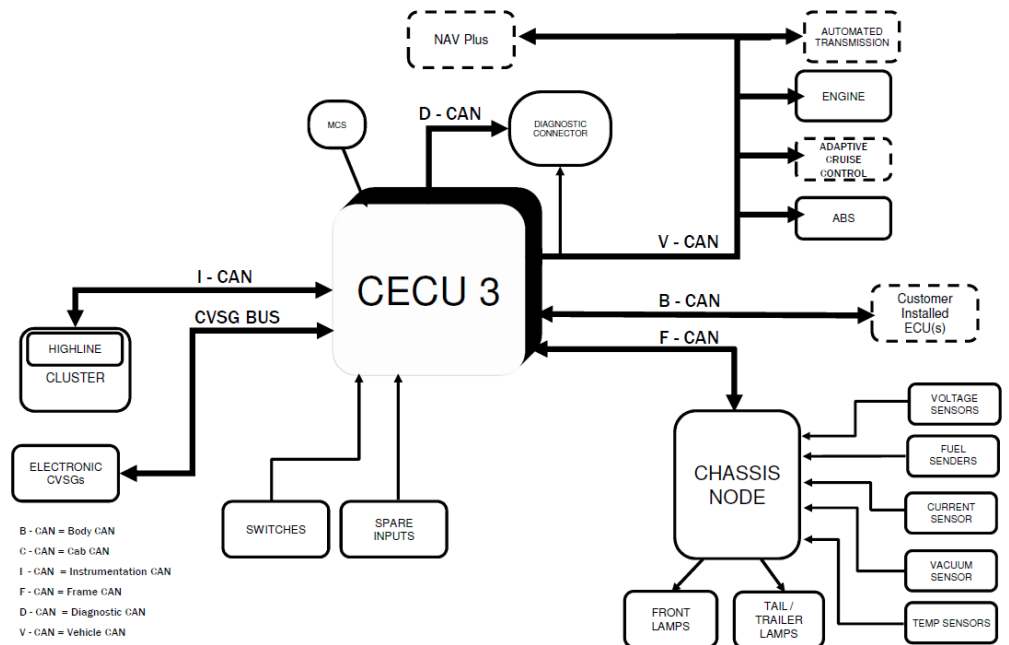
U17D0

Code number	U17D0
Fault code description	CAN communication - Message (TSC1_AXCR) message checksum
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: Includes ENGINE, ADAPTIVE CRUISE CONTROL, ABS, PACCAR Display, and AUTO TRANSMISSION. <p>FIREWALL lines indicate communication barriers between the CECU 3 and the CHASSIS NODE, and between the CHASSIS NODE and the Engine/Aftertreatment CAN networks.</p>

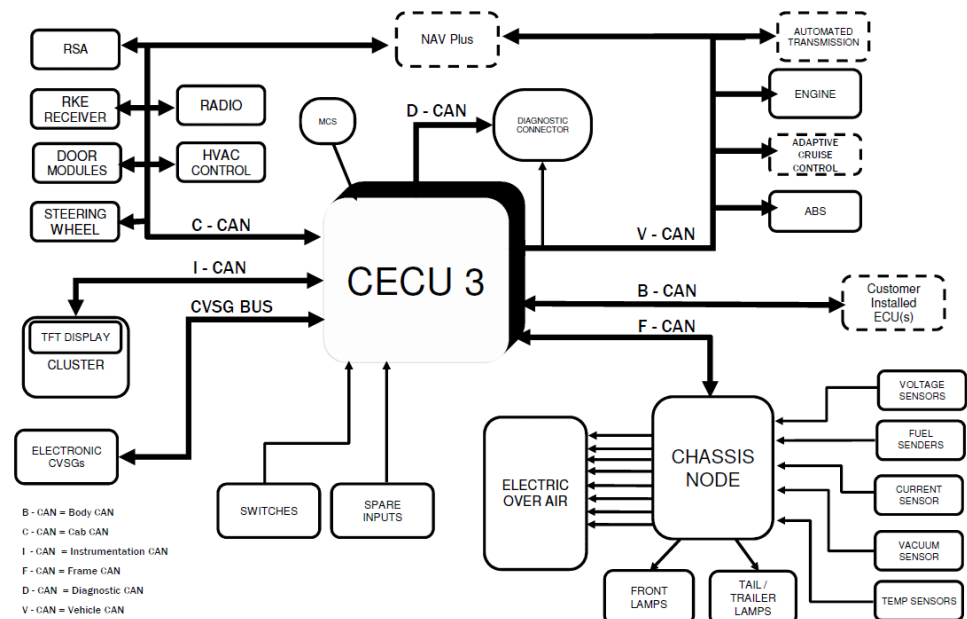
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

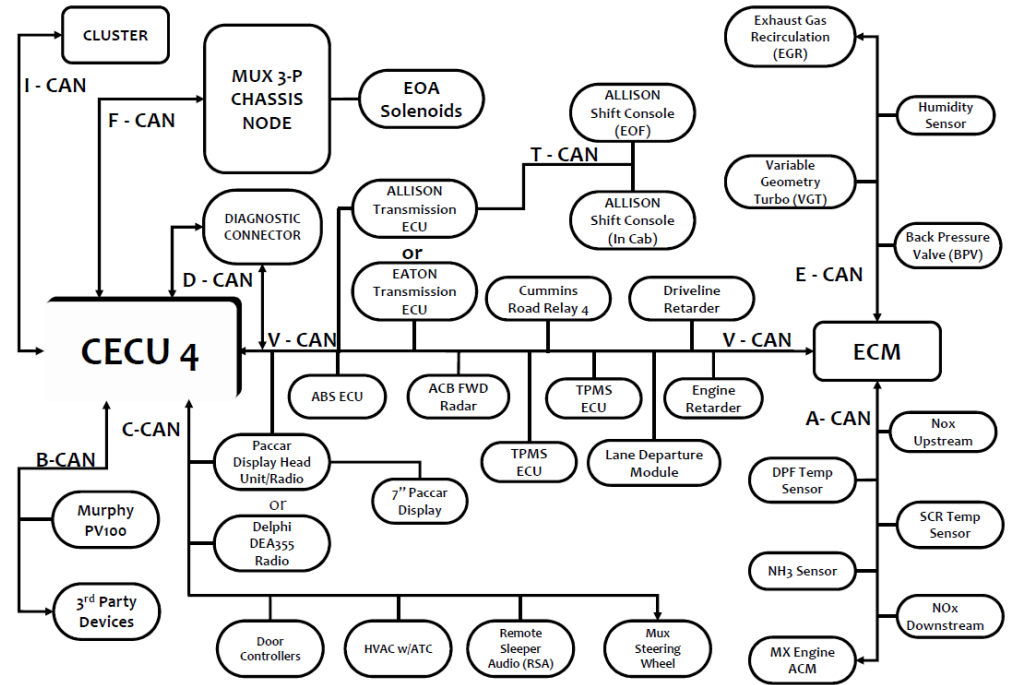
Step 1	Step ID 17D0a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17D0b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17D0b	SRT
	Step 2	Step ID 17D0b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17D0c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17D0c	SRT
	Step 3	Step ID 17D0c	SRT	
<table><tr><td>Step 4</td><td>Step ID 17D0d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 17D0d	SRT	
Step 4	Step ID 17D0d	SRT		
<p>Verification Drive Cycle</p>	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

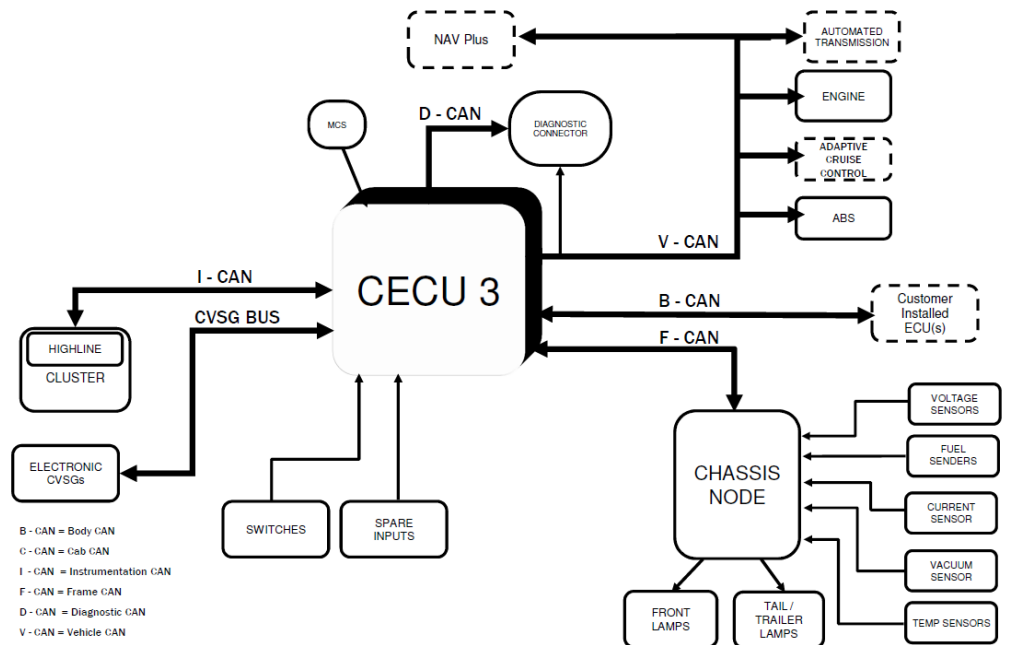
U17D1

Code number	U17D1
Fault code description	CAN communication - Message (TSC1_AXR) message checksum from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a Diagnostic Connector. Cluster: Connected via Instrumentation CAN. CVSG BUS: Connected to CECU 3 and Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to CECU 3. Vehicle CAN: Connected to CECU 3 and various components including ABS, PACCAR Display, and Auto Transmission. Engine CAN: Connected to CECU 3 and the Engine. Chassis Node: Connected via Frame CAN to CECU 3 and various sensors including Voltage, Fuel, Current, Pressure, Vacuum, and Temperature sensors. Front Lamps and Tail / Trailer Lamps: Connected to the Chassis Node. Aftertreatment CAN: Connected to the Engine and After-treatment DCU. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Chassis Node.</p>

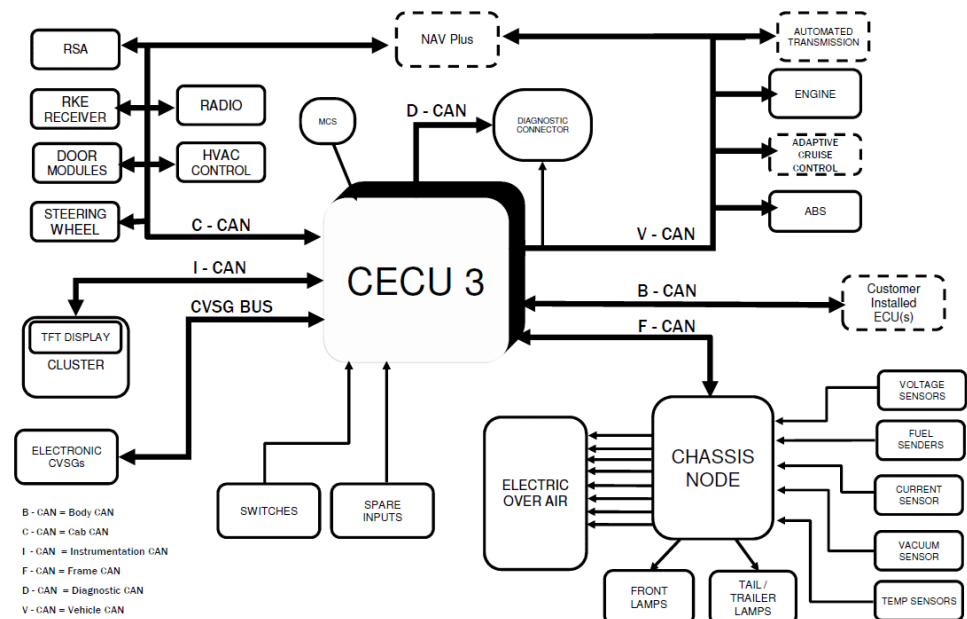
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

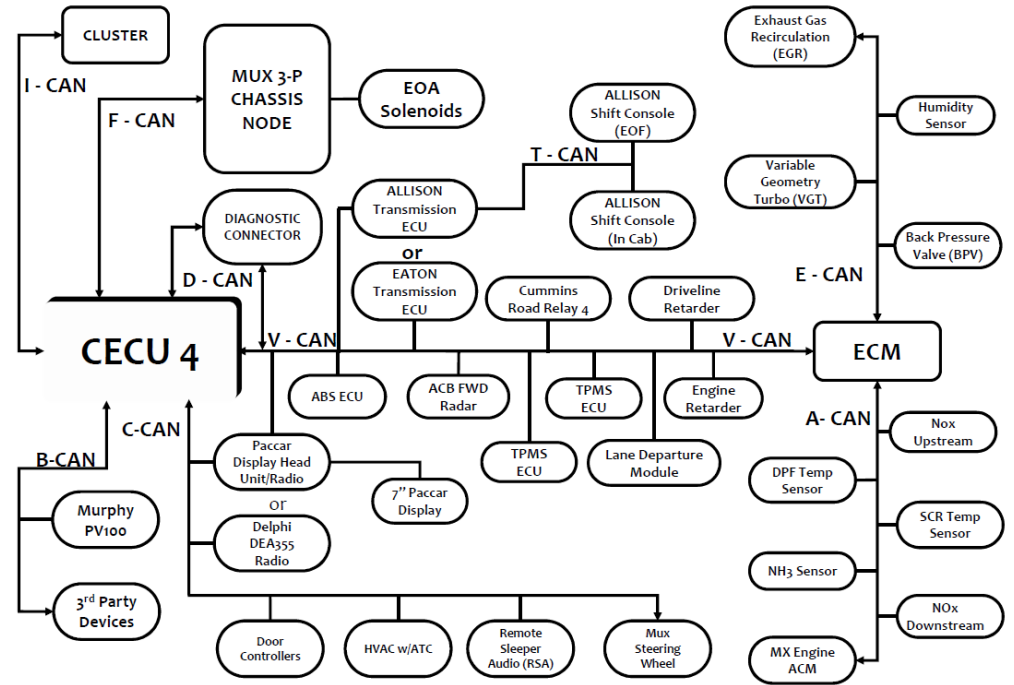
Step 1	Step ID 17D1a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 17D1b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 2	Step ID 17D1b	SRT
	Step 2	Step ID 17D1b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 17D1c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 17D1c	SRT
	Step 3	Step ID 17D1c	SRT			
<table><tr><td>Step 4</td><td>Step ID 17D1d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 17D1d	SRT	
Step 4	Step ID 17D1d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

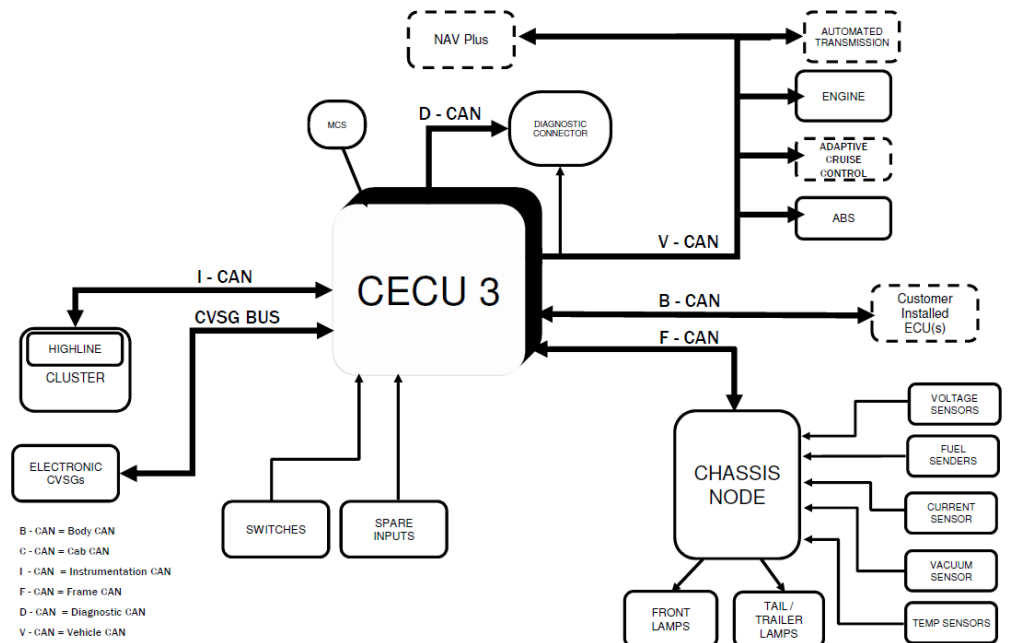
U17D2

Code number	U17D2
Fault code description	CAN communication - Message (TSC1_DXR) message checksum from retarder
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Engine Control Unit). It is connected to several other components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR and MCS (Maintenance Free Battery). Cab CAN: Connects CECU 3 to the Cluster and STEERING WHEEL. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to ELECTRONIC CVSG's (Electronic Control Valves). SWITCHES and SPARE INPUTS are connected to CECU 3. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE and DIAGNOSTIC CONNECTOR. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine Components: Includes ENGINE, ADAPTIVE CRUISE CONTROL, ABS, PACCAR Display, and AUTO TRANSMISSION. <p>Firewalls are indicated between the Diagnostic CAN, Vehicle CAN, and Frame CAN networks.</p>

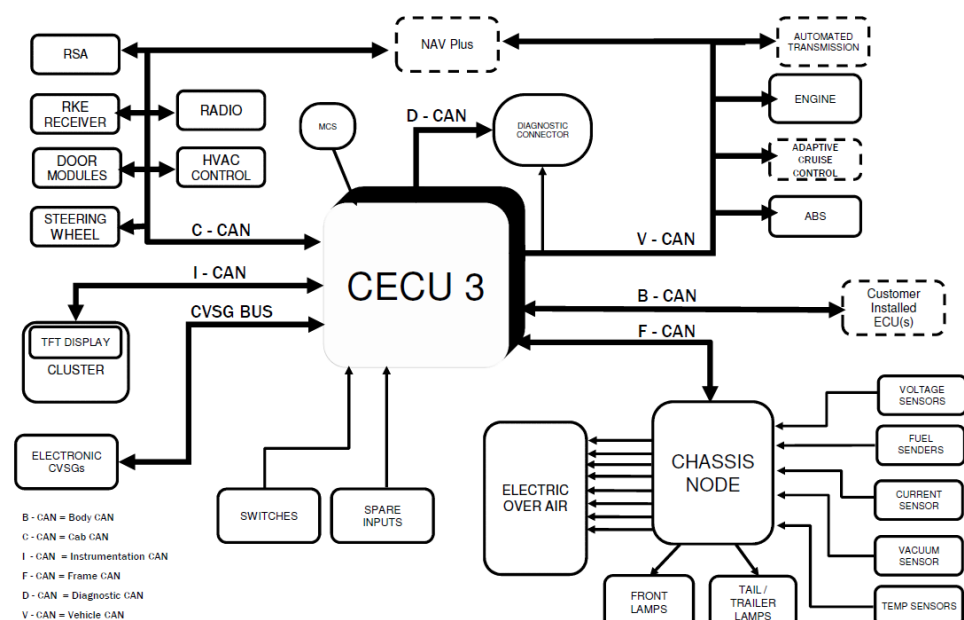
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

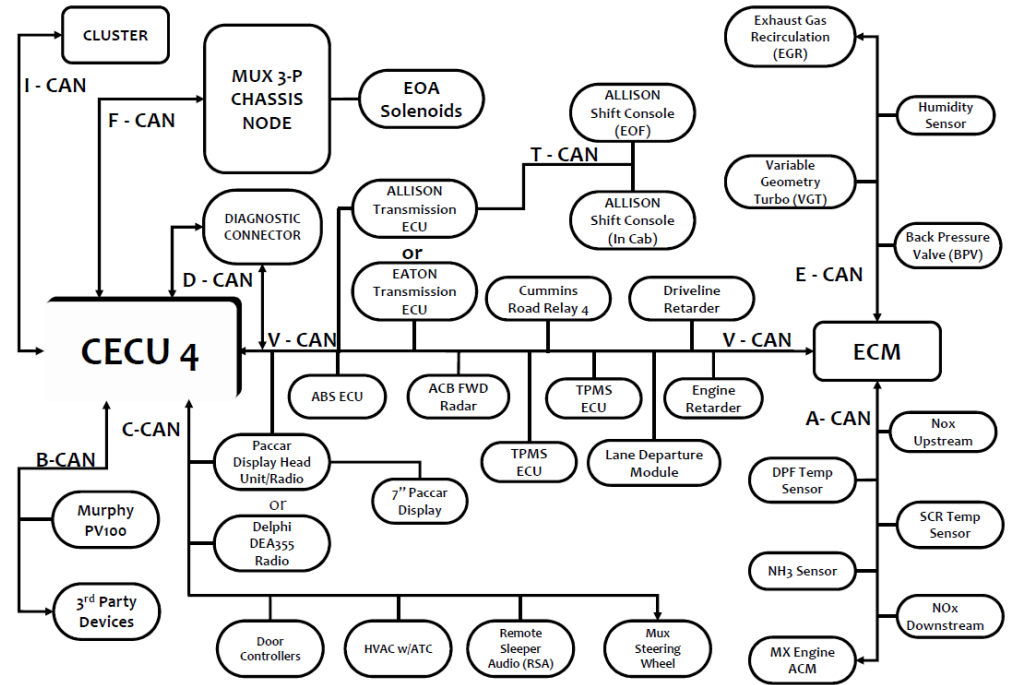
Step 1	Step ID 17D2a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 17D2b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 2	Step ID 17D2b	SRT
	Step 2	Step ID 17D2b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 17D2c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 17D2c	SRT
	Step 3	Step ID 17D2c	SRT			
<table><tr><td>Step 4</td><td>Step ID 17D2d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 17D2d	SRT	
Step 4	Step ID 17D2d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

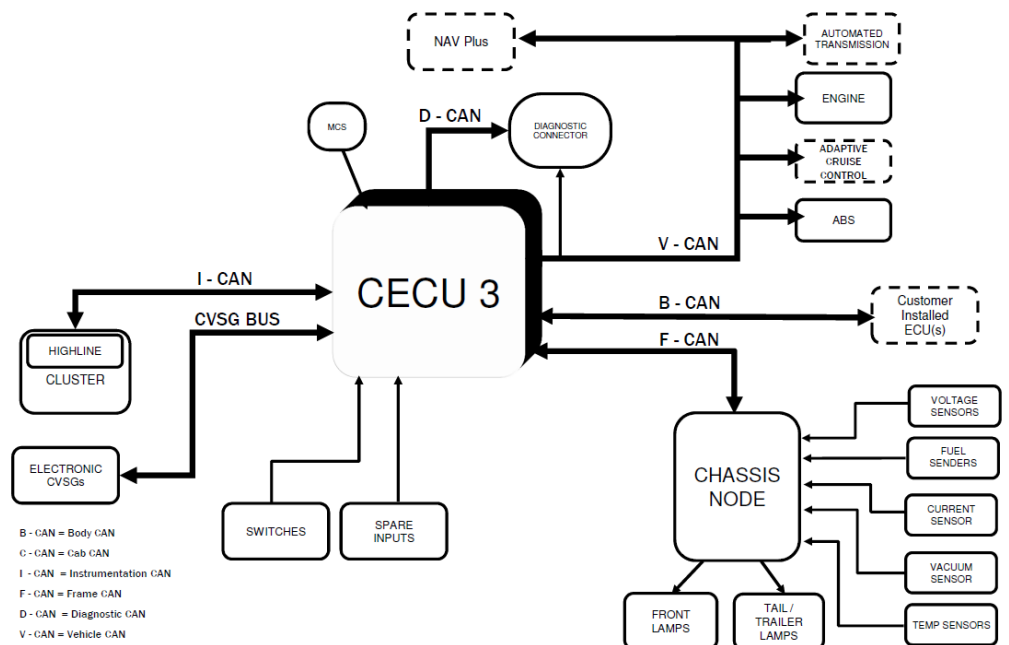
U17D3

Code number	U17D3
Fault code description	CAN communication - Message (TSC_TXR) message checksum from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Cluster: Connected via Instrumentation CAN. STEERING WHEEL: Connected via Cab CAN. MCS (Motor Control System): Connected to the CECU 3. Diagnostic CAN: Connected to the CECU 3 and the DIAGNOSTIC CONNECTOR. Vehicle CAN: Connected to the CECU 3 and the CHASSIS NODE. Engine CAN: Connected to the CECU 3 and the ENGINE. Chassis Node: Connected to the CECU 3 and the CHASSIS NODE, which in turn connects to various sensors and actuators. Engine: Connected to the CECU 3 and the ENGINE CAN. Aftertreatment CAN: Connected to the ENGINE and the After-treatment DCU. Sensors and Actuators: <ul style="list-style-type: none"> VGT Actuator After-treatment DCU VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS FRONT LAMPS TAIL / TRAILER LAMPS SWITCHES SPARE INPUTS ELECTRONIC CVSG's CVSG BUS <p>The diagram also shows a FIREWALL separating the Diagnostic CAN from the Vehicle CAN, and another FIREWALL separating the Engine CAN from the Aftertreatment CAN.</p>

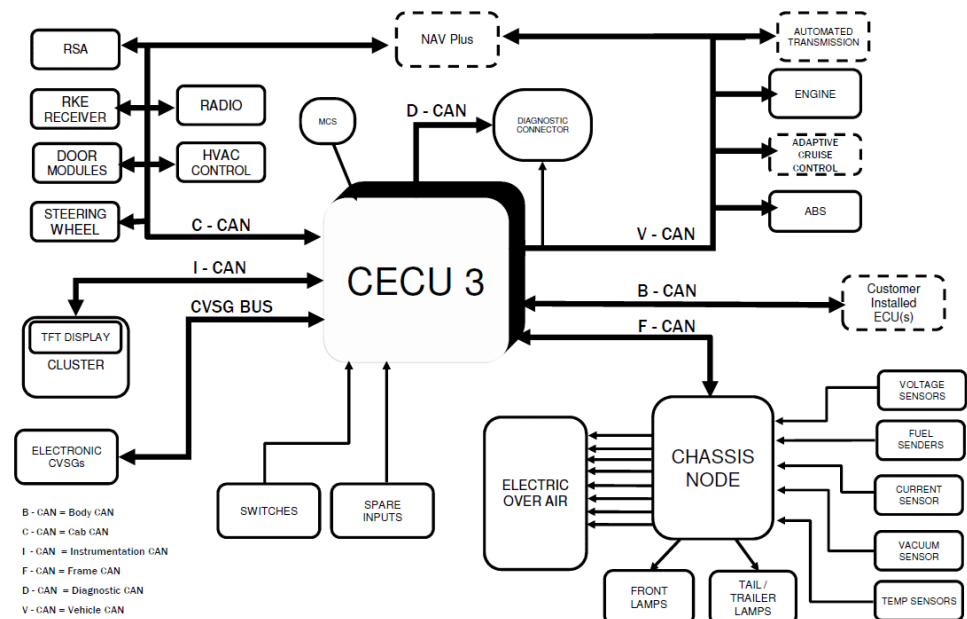
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

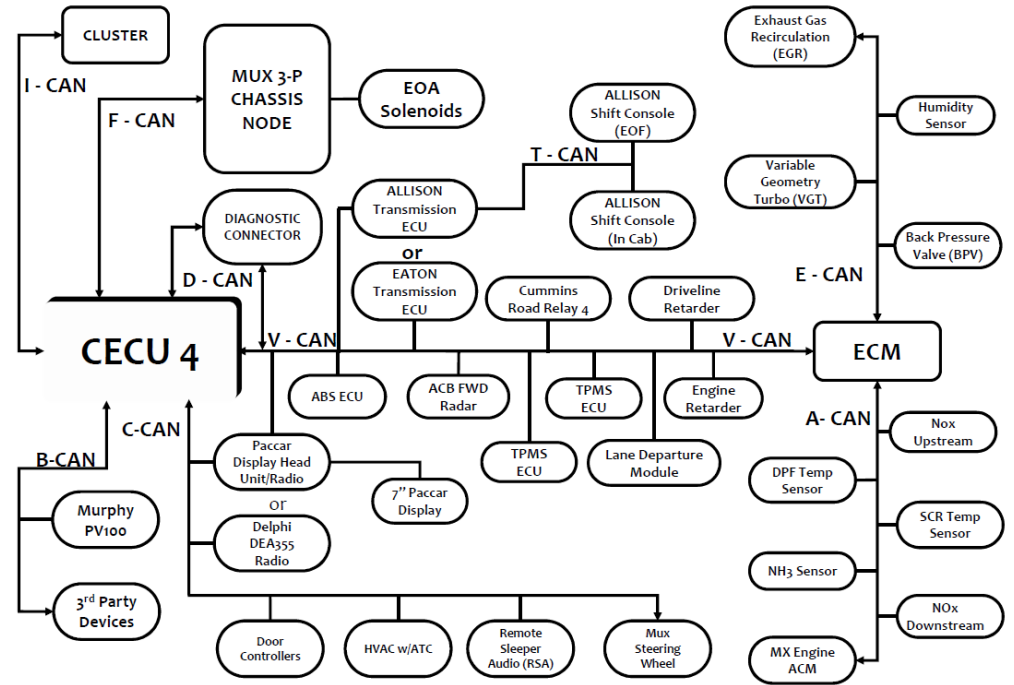
Step 1	Step ID 17D3a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 17D3b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 17D3b	SRT
	Step 2	Step ID 17D3b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 17D3c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 17D3c	SRT
	Step 3	Step ID 17D3c	SRT	
<table><tr><td>Step 4</td><td>Step ID 17D3d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 17D3d	SRT	
Step 4	Step ID 17D3d	SRT		
<p>Verification Drive Cycle</p>	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<p>Back to Choose Code</p> <p>Back to Index</p>			

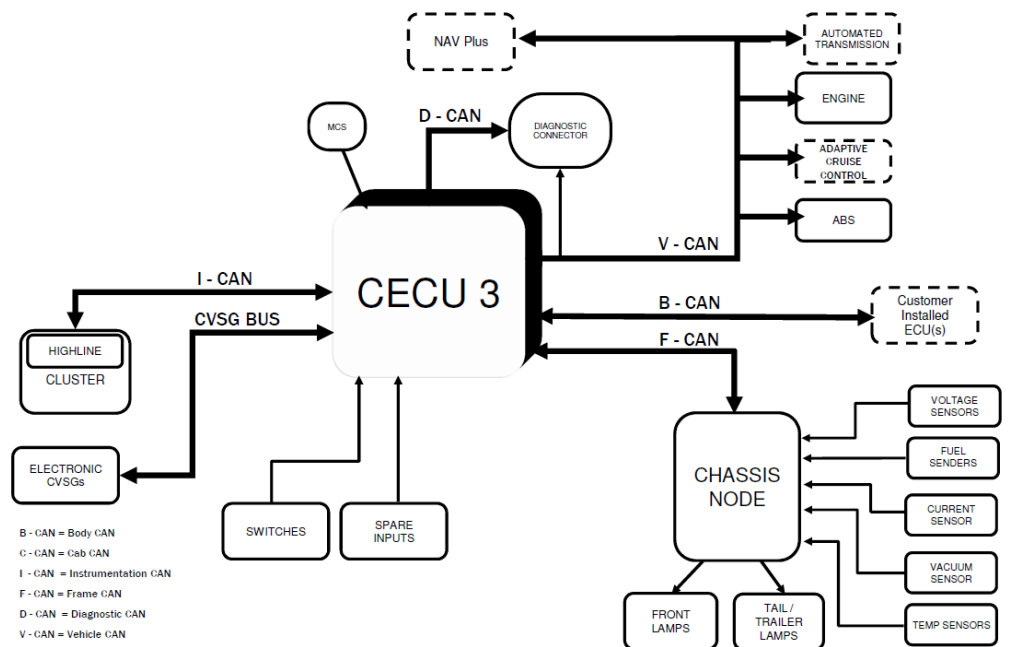
U17D4

Code number	U17D4
Fault code description	CAN communication - Message (TSC1_VXR) message checksum
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the Diagnostic Connector and MCS (Master Control Switch). Cab CAN: Connects CECU 3 to the Cluster and Steering Wheel. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to Electronic CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: Direct inputs to CECU 3. Vehicle CAN: Connects CECU 3 to the Chassis Node and various vehicle systems including ABS, PACCAR Display, and Adaptive Cruise Control. Engine CAN: Connects CECU 3 to the Engine and VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including Front Lamps, Tail/Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). Firewall: Indicated by dashed lines separating the CECU 3 from the Chassis Node and the Engine/Aftertreatment systems.

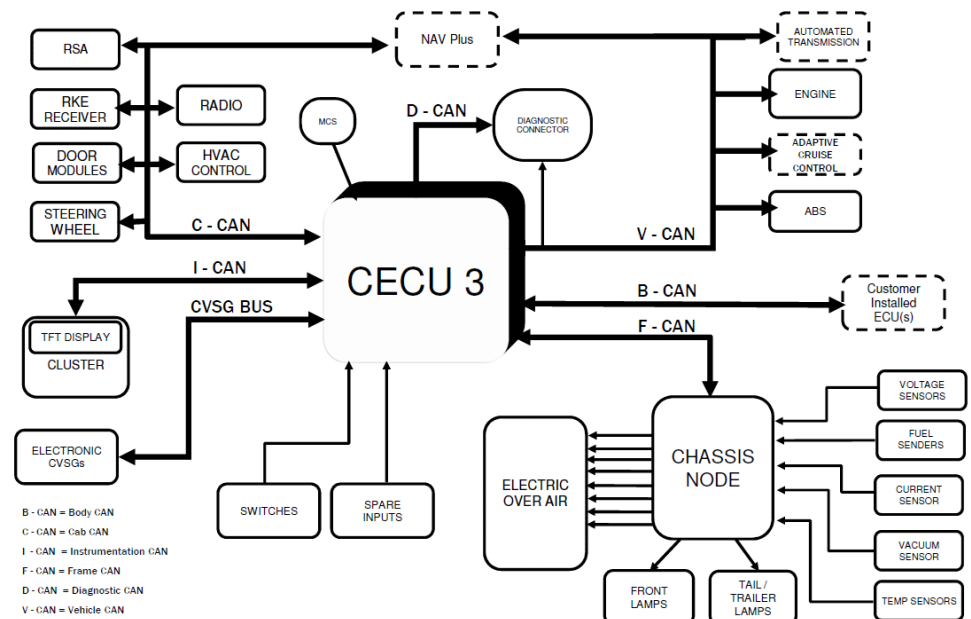
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

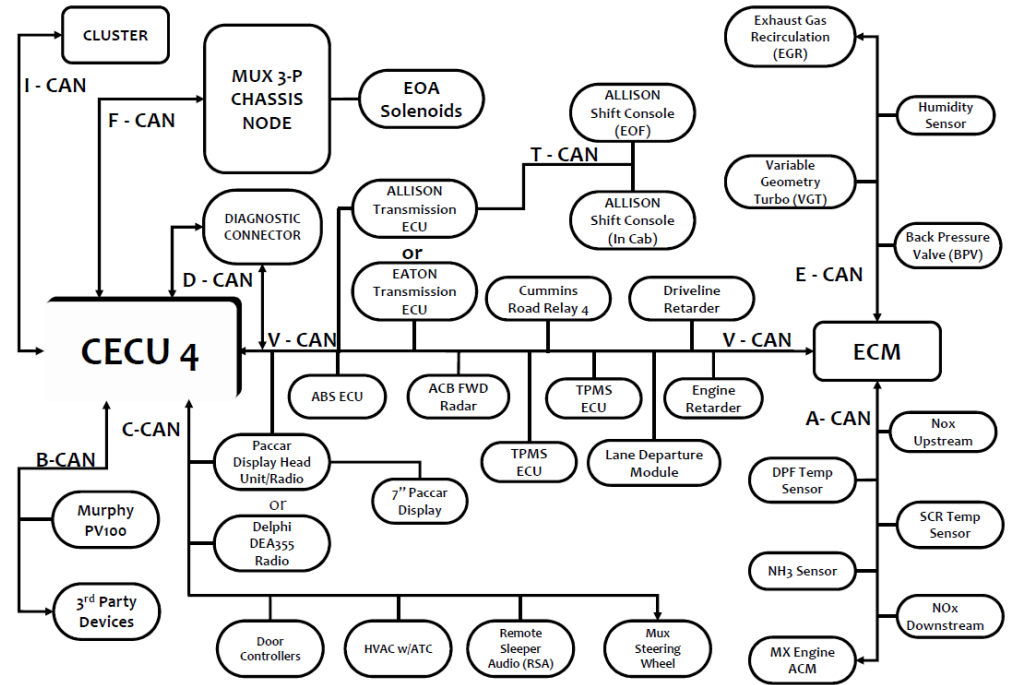
Step 1	Step ID 17D4a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 17D4b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4			Step 2	Step ID 17D4b	SRT
	Step 2	Step ID 17D4b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 17D4c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 17D4c	SRT
	Step 3	Step ID 17D4c	SRT			
<table><tr><td>Step 4</td><td>Step ID 17D4d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 17D4d	SRT	
Step 4	Step ID 17D4d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

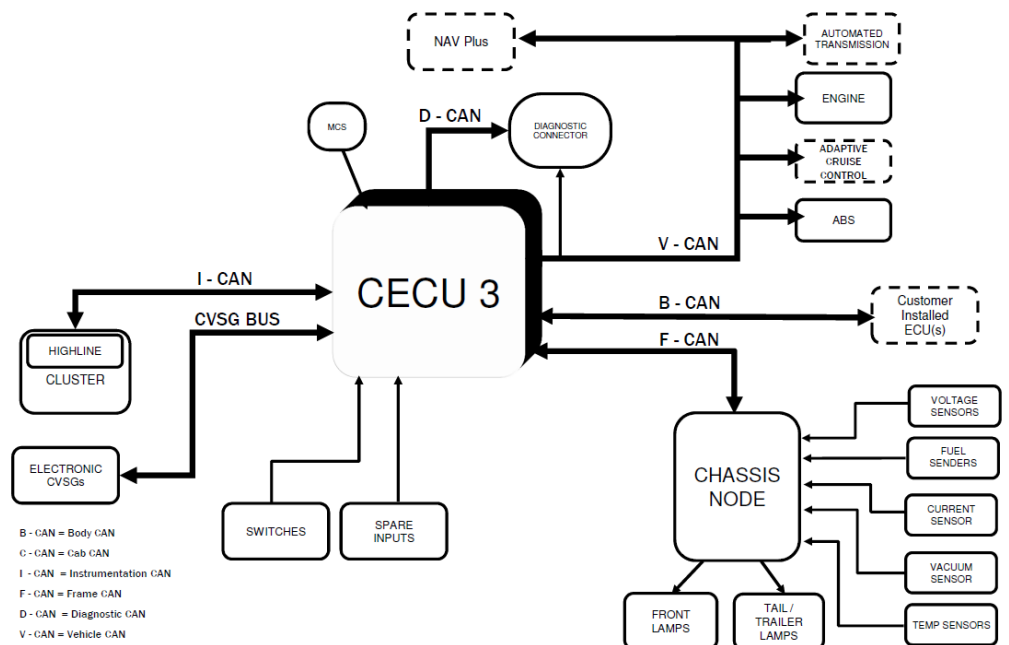
U17D5

Code number	U17D5
Fault code description	CAN communication - Message (TSC1_SXR) message checksum
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several key components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a DIAGNOSTIC CONNECTOR. Vehicle CAN: Connected to CECU 3 and various vehicle systems including ABS, PACCAR Display, and Engine CAN. Engine CAN: Connected to CECU 3 and the ENGINE, which also interfaces with ADAPTIVE CRUISE CONTROL and VGT Actuator. Chassis Node: Connected to CECU 3 via Frame CAN. It manages FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors and Actuators: The Chassis Node also manages a variety of sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. After-treatment: Connected to the ENGINE and After-treatment DCU via Aftertreatment CAN. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Chassis Node.</p>

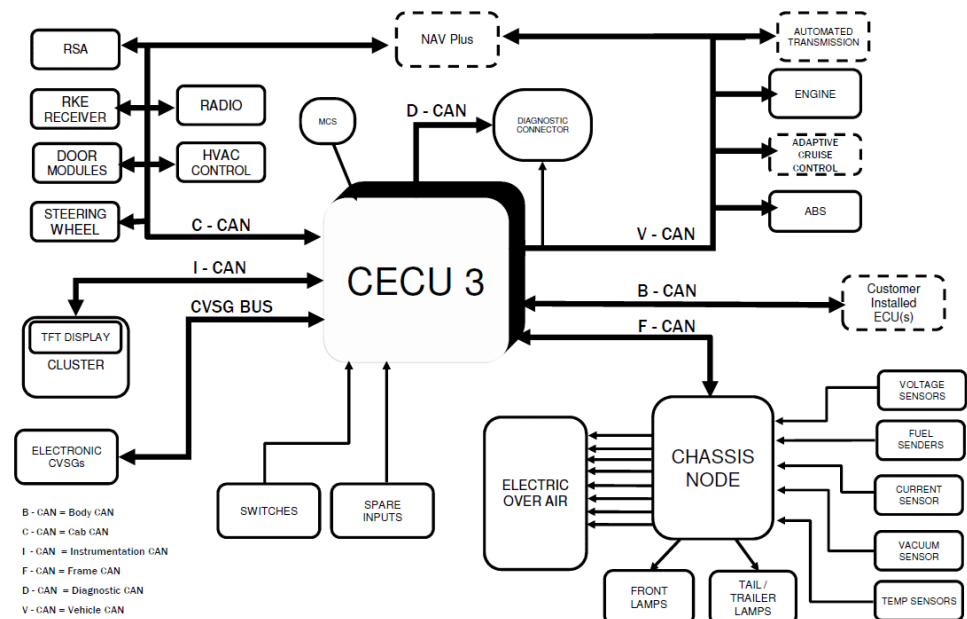
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 17D5a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 17D5b	SRT
	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
	Step 3	Step ID 17D5c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 17D5d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

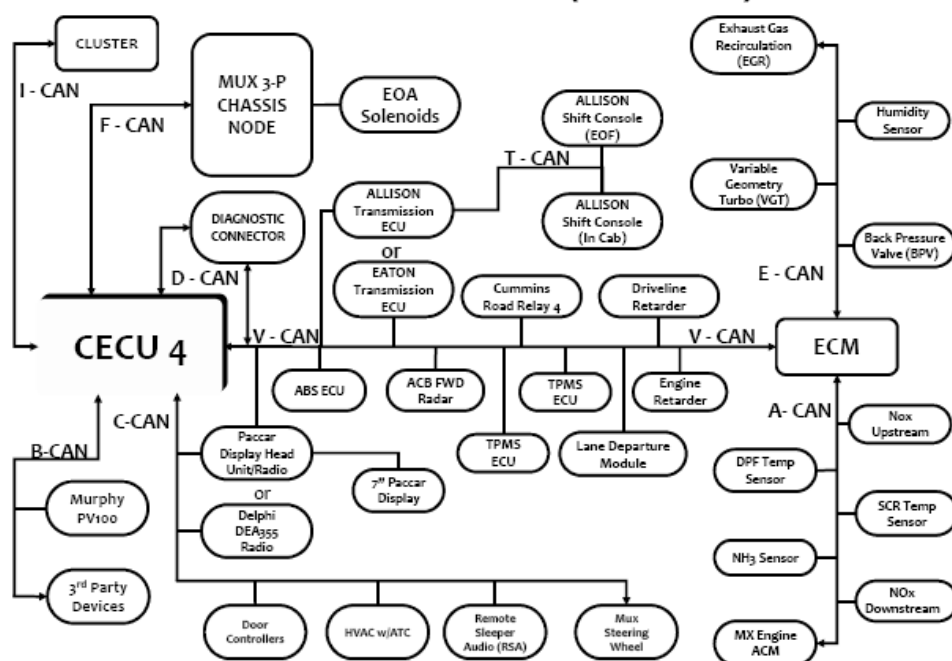
U17E4

Code number	U17E4
Fault code description	Remote pedal – Voltage too high or short circuit to supply
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	Not available/required for this code
Location of component(s)	Not available/required for this code
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The PCI ECU (D420) detects that the duty-cycle of gas pedal sensor 1 is greater than 55 percent.
Reset condition of fault code	This fault code will change to inactive immediately after the diagnostic runs and passes
Electrical diagram(s)	Not available/required for this code
Technical data	Not available/required for this code
Possible causes	Not available/required for this code
Additional information	Not available/required for this code
Diagnostic Step-by-Step	Please refer to chassis wiring information.
Verification Drive Cycle	Not available/required for this code
	Back to Choose Code Back to Index

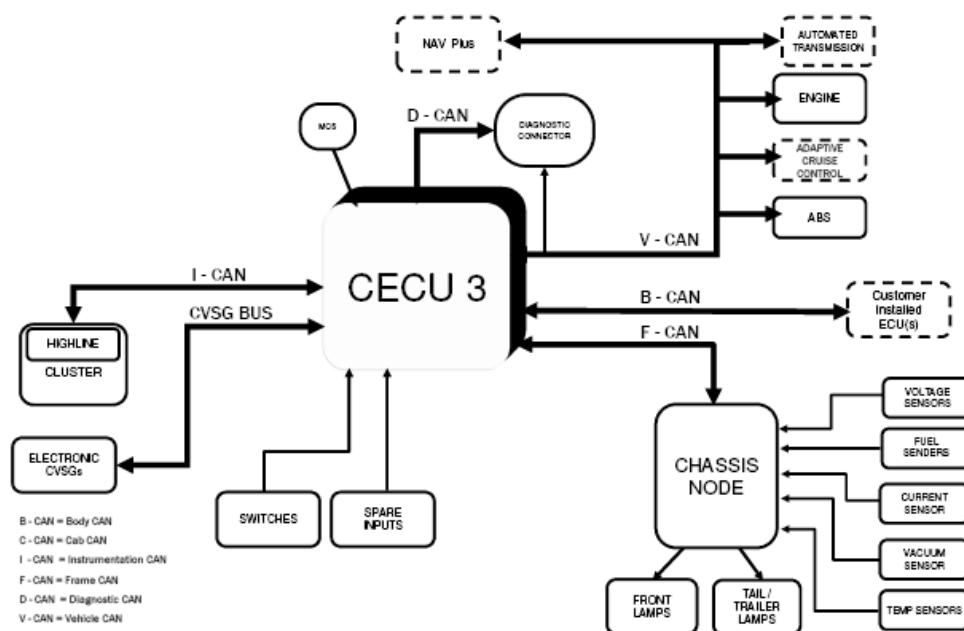
U1802

Code number	U1802
Fault code description	VTG turbocharger actuator power supply – Data valid but too high
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Boost
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	The VTG turbocharger actuator (L037) detects that the actuator power supply is more than 18.8 volts for more than 40 seconds
Reset condition of fault code	This DTC changes to inactive after the ignition is keyed off, keyed on again, and the fault is no longer detected.
Electrical diagram(s)	<p>NAMUX 3 Architecture: 2010 B-Cab</p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems:</p> <ul style="list-style-type: none"> Cluster: Connected via Instrumentation CAN. STEERING WHEEL: Connected via Cab CAN. MCS (Motor Control System): Connected via Diagnostic CAN. DIAGNOSTIC CONNECTOR: Connected via Diagnostic CAN. Vehicle CAN: Connected via Vehicle CAN. CHASSIS NODE: Connected via Frame CAN. This node manages various sensors and actuators: <ul style="list-style-type: none"> Sensors: VOLTAGE SENSORS, FUEL SENSORS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Actuators: FRONT LAMPS and TAIL/TRAILER LAMPS. Engine CAN: Connected via Engine CAN. This network includes: <ul style="list-style-type: none"> Engine: Connected via Aftertreatment CAN. ADAPTIVE CRUISE CONTROL: Connected via Engine CAN. VGT Actuator: Connected via Engine CAN. After-treatment DCU: Connected via Engine CAN. Other Components: The CECU 3 also interfaces with SWITCHES, SPARE INPUTS, and ELECTRONIC CVSG's (connected via CVSG BUS). <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Chassis Node.</p>

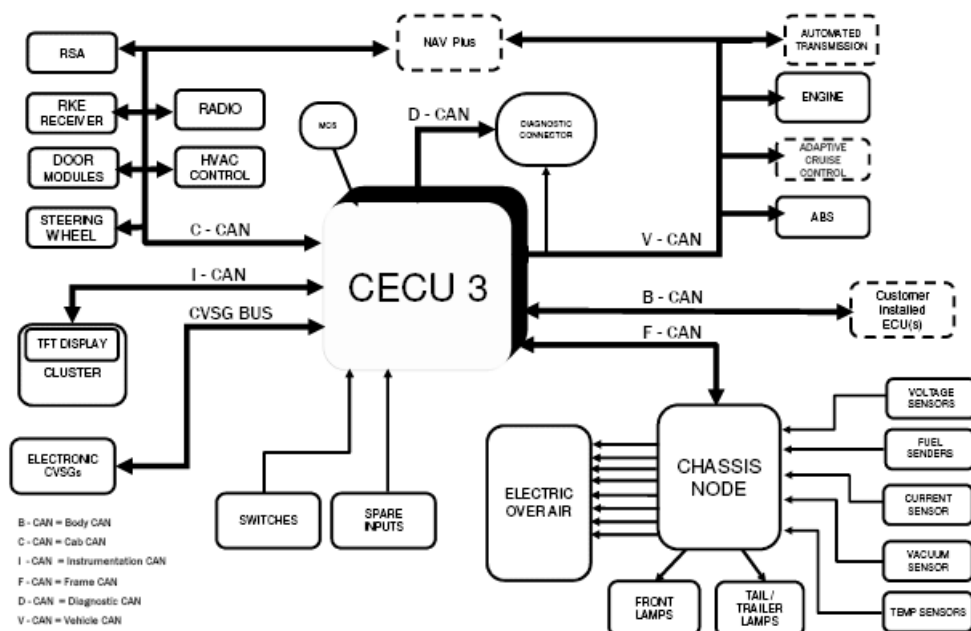
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

Malfunction in vehicle power supply system (alternator).

Additional information

The power supply of the actuator is continuously monitored.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

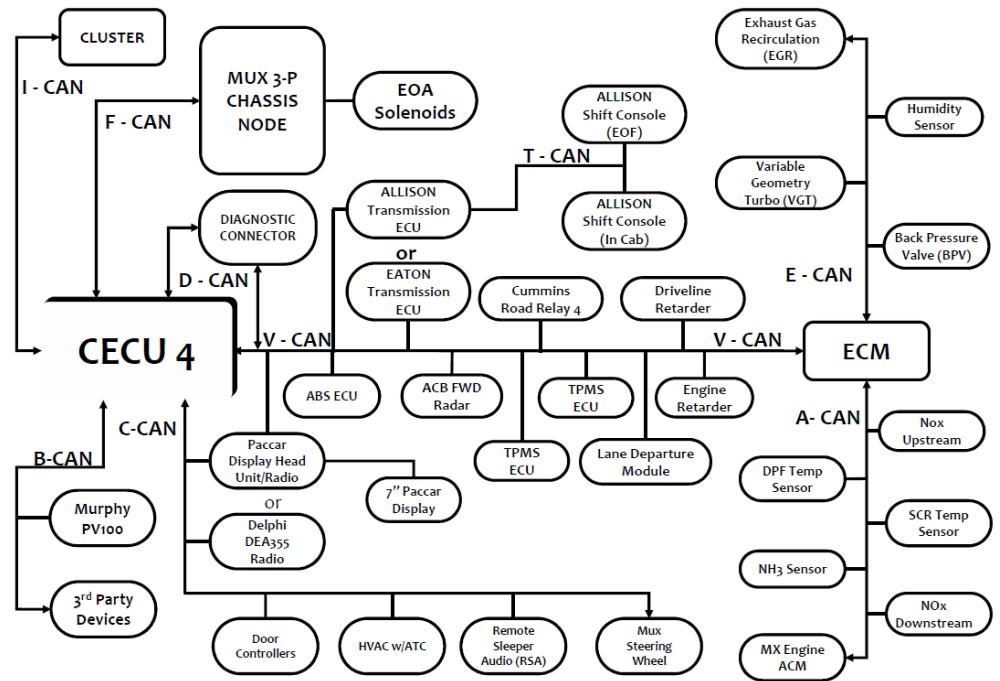
Step 1	Step ID 1802a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. 		

	<ul style="list-style-type: none">• Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults.• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1802b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4	Step 2	Step ID 1802b	SRT
	Step 2	Step ID 1802b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1802c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1802c	SRT
Step 3	Step ID 1802c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1802d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1802d	SRT	
Step 4	Step ID 1802d	SRT		
Verification Drive Cycle	To validate the repair, with the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

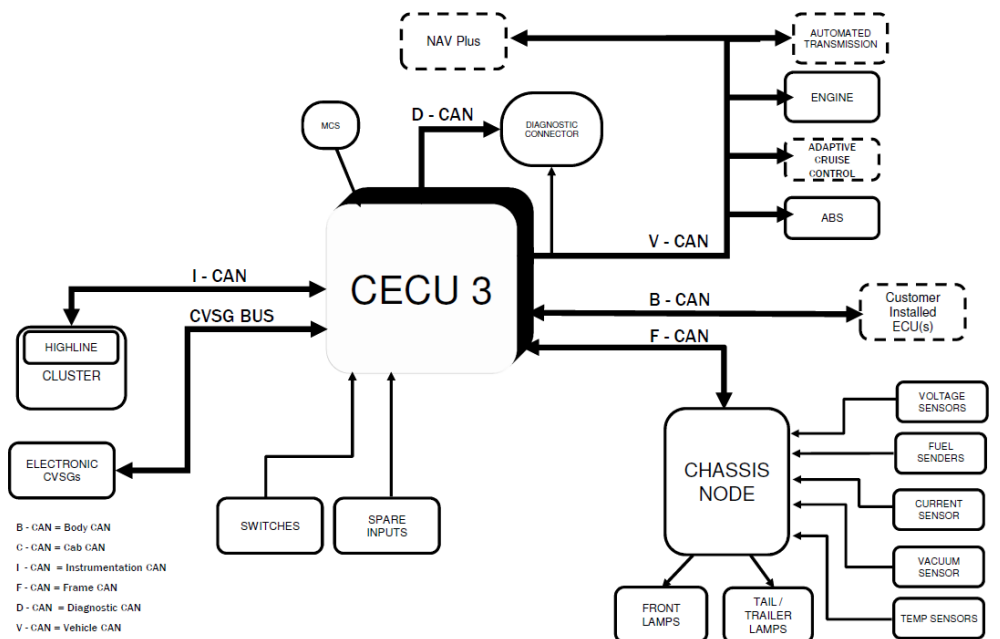
U1803

Code number	U1803
Fault code description	CAN communication - Message (ACC1) out of range - forward collision warning from emergency brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected via Engine CAN. VGT Actuator: Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Engine CAN. CHASSIS NODE: Connected via Frame CAN. Front Lamps: Connected via Frame CAN. Tail / Trailer Lamps: Connected via Frame CAN. CVSG BUS (Control Valve Solenoid Group Bus): Connected via Instrumentation CAN. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected via Instrumentation CAN. SWITCHES and SPARE INPUTS: Connected via Diagnostic CAN. Sensors: Various sensors are connected to the CHASSIS NODE, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. <p>The diagram also shows a FIREWALL separating the Engine/Aftertreatment CAN from the rest of the vehicle network.</p>

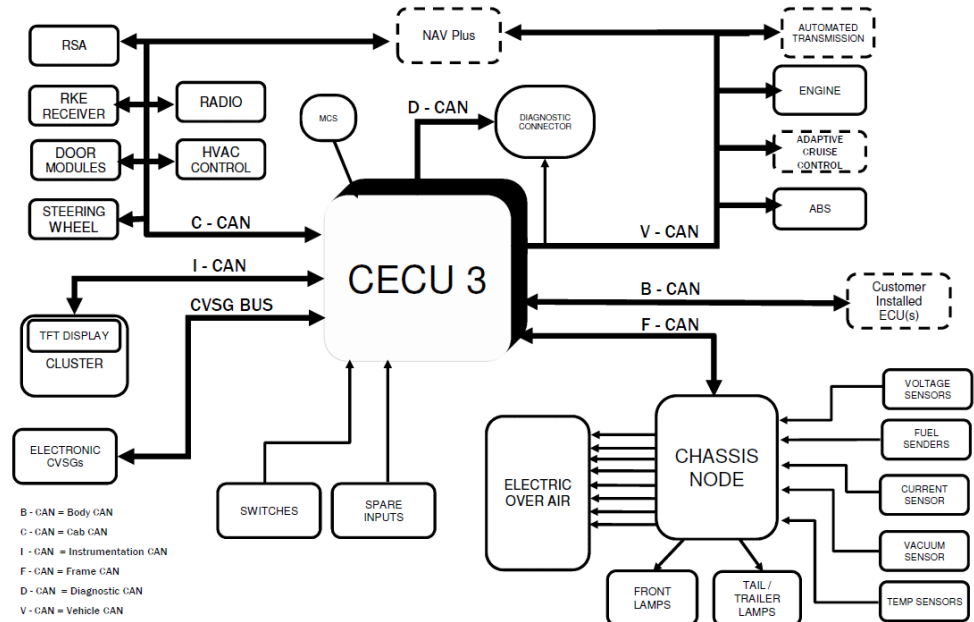
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

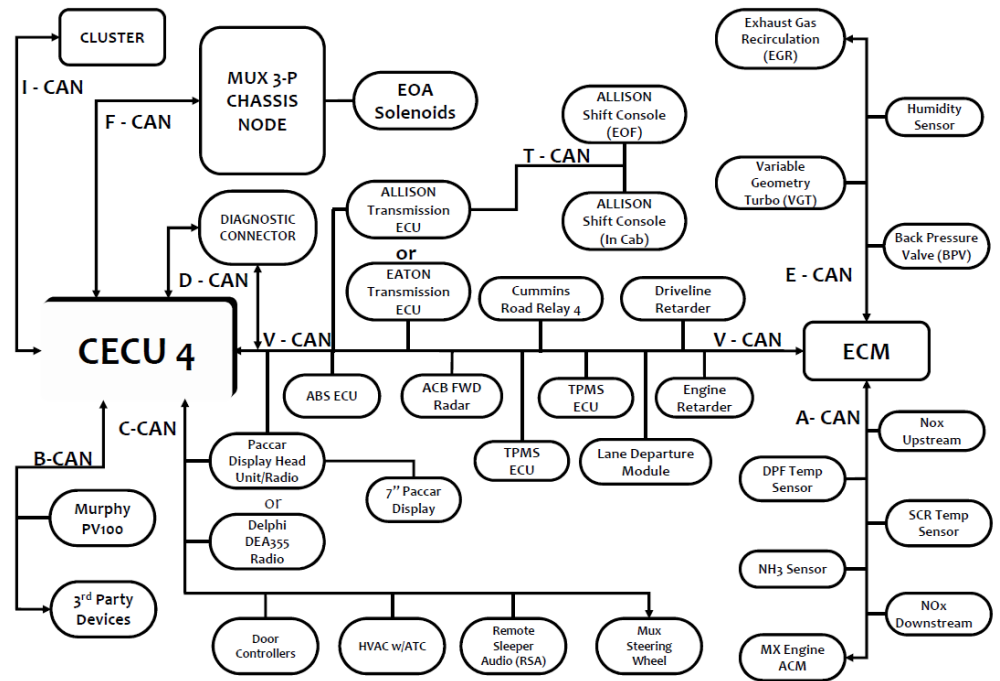
Step 1	Step ID 1803a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1803b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1803b	SRT
	Step 2	Step ID 1803b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1803c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1803c	SRT
Step 3	Step ID 1803c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1803d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1803d	SRT	
Step 4	Step ID 1803d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

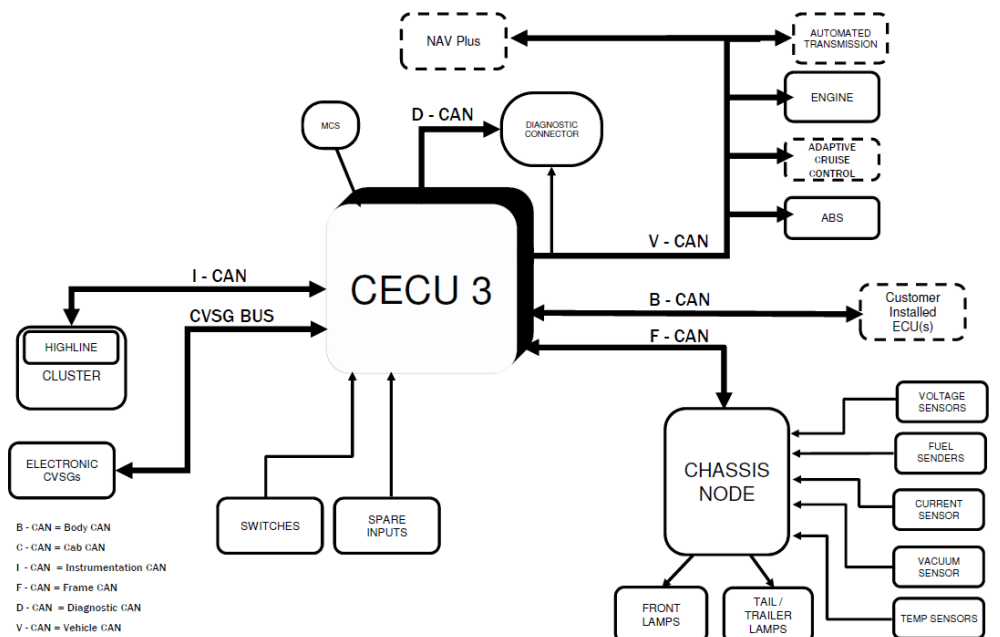
U1805

Code number	U1805
Fault code description	CAN communication - Message (ACC2) rate too low from vehicle controller
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Cab CAN. Diagnostic CAN: Connected to the Diagnostic Connector. Vehicle CAN: Connected to the Diagnostic Connector. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. VGT Actuator (Variable Geometry Turbine): Connected via Engine CAN. After-treatment DCU (Differential Control Unit): Connected via Aftertreatment CAN. CHASSIS NODE: Connected via Frame CAN. It manages various sensors and actuators: <ul style="list-style-type: none"> VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. FRONT LAMPS and TAIL / TRAILER LAMPS. SWITCHES and SPARE INPUTS: Connected to the CECU 3. CVSG BUS (Cable Vehicle Signal Generator): Connected to the CECU 3. ELECTRONIC CVSG's (Electronic Cable Vehicle Signal Generators): Connected to the CVSG BUS. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.</p>

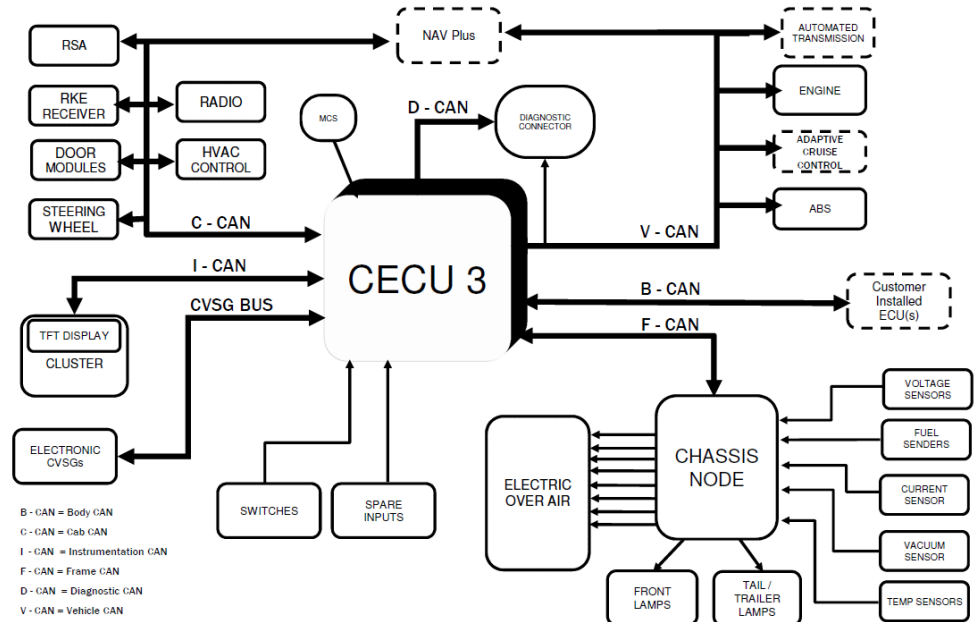
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

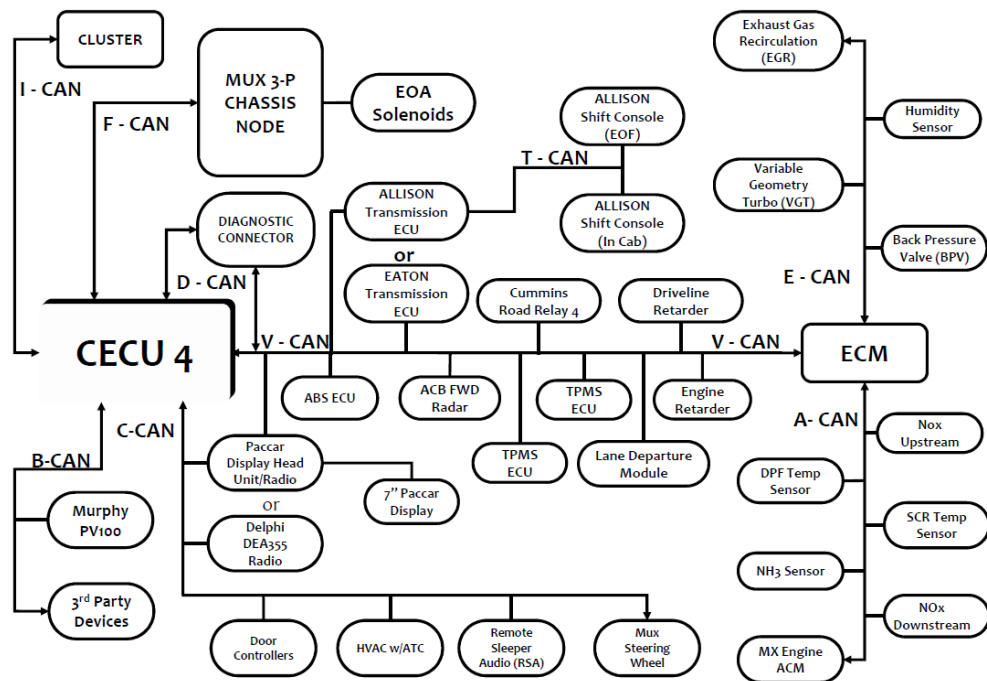
Step 1	Step ID 1805a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1805b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1805b	SRT
	Step 2	Step ID 1805b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1805c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1805c	SRT
Step 3	Step ID 1805c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1805d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1805d	SRT	
Step 4	Step ID 1805d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

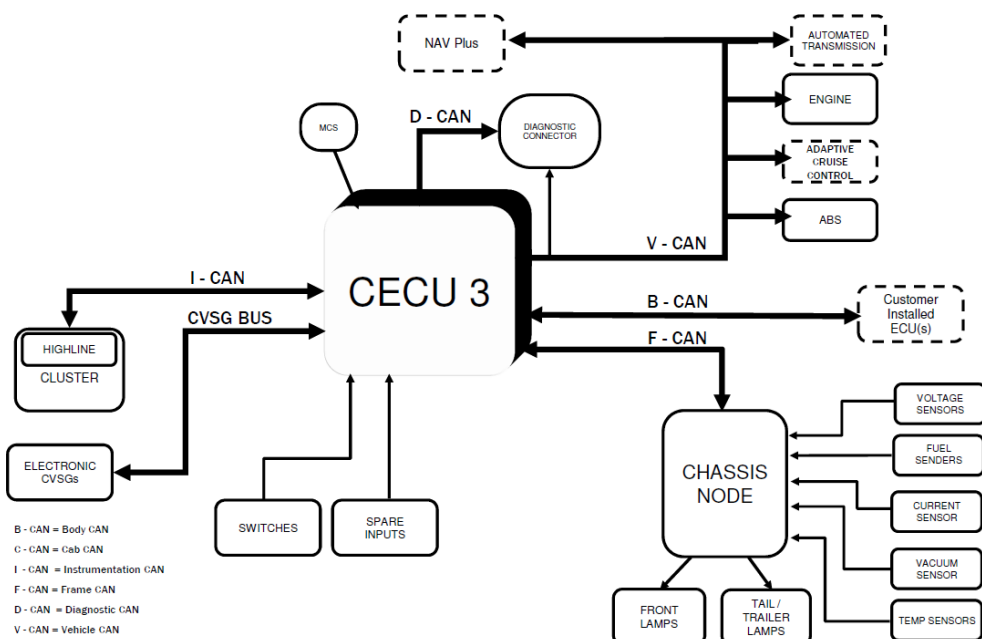
U1806

Code number	U1806
Fault code description	CAN communication – Message (ACM_to_Eng) out of range – Soot level from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several other components via various CAN buses and other communication lines:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Monitoring Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects CECU 3 to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, and various sensors (VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, TEMP SENSORS). Other components: SWITCHES, SPARE INPUTS, and the AUTO (TRANSMISSION) are also shown. <p>The diagram also indicates the presence of FIREWALLS separating different communication domains.</p>

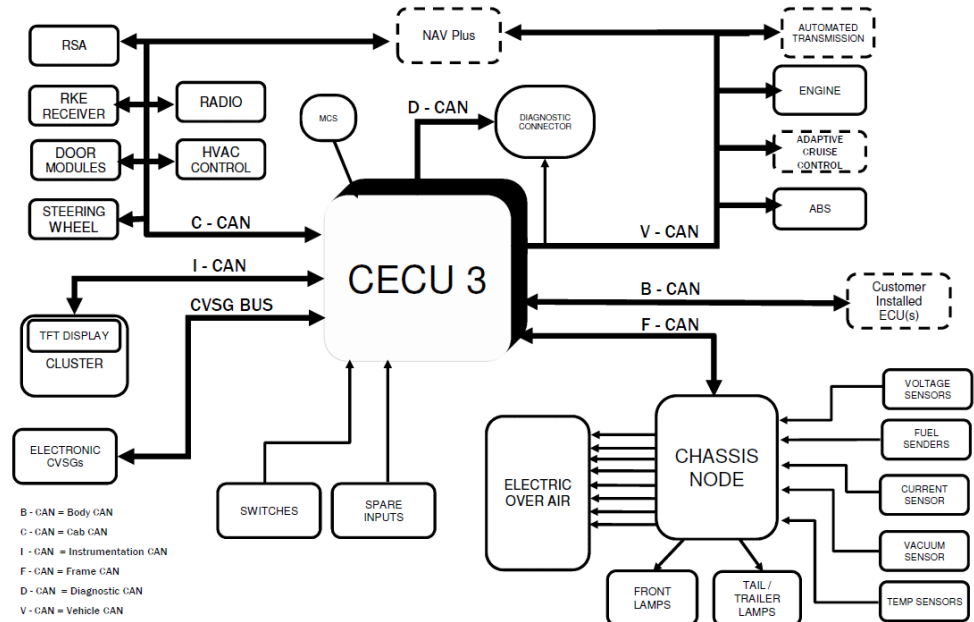
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 1806a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

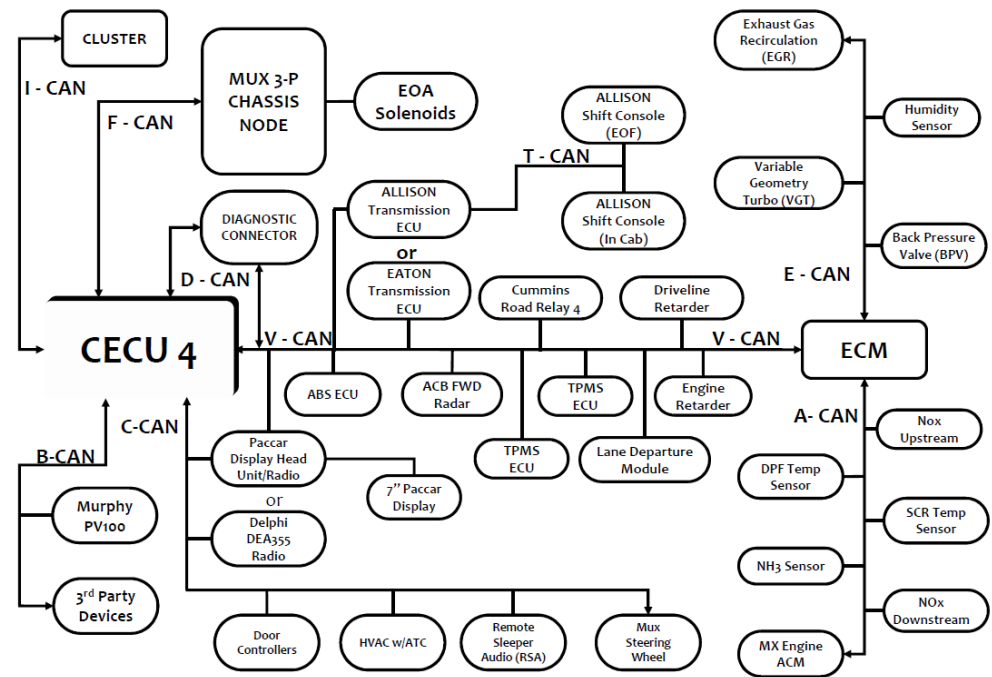
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2						
	<table><tr><td>Step 2</td><td>Step ID 1806b</td><td>SRT</td></tr><tr><td colspan="3"><p>Data check</p><ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component<p>Is test pass?</p><ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4</td></tr></table>	Step 2	Step ID 1806b	SRT	<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4		
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<p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4							
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	<table><tr><td>Step 4</td><td>Step ID 1806d</td><td>SRT</td></tr><tr><td colspan="3"><p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p></td></tr></table>	Step 4	Step ID 1806d	SRT	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Step 4	Step ID 1806d	SRT					
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>							
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>						
	<div>Back to Choose Code</div> <div>Back to Index</div>						

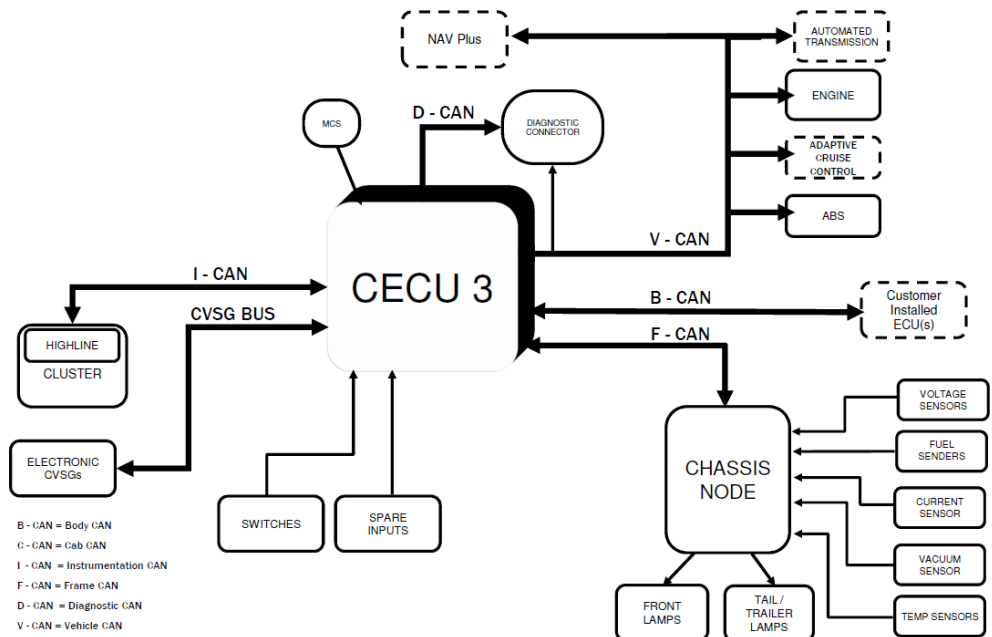
U180B

Code number	U180B
Fault code description	CAN communication - Message (CCVS_VIC) out of range - cruise control pause switch from vehicle controller
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems:</p> <ul style="list-style-type: none"> Cluster: Connected via Instrumentation CAN and CVSG BUS. STEERING WHEEL: Connected via Cab CAN. MCS (Message Control System): Connected via Diagnostic CAN. DIAGNOSTIC CONNECTOR: Connected via Diagnostic CAN. Vehicle CAN: A central bus connecting the CECU 3 to the ABS, PACCAR Display, and the Chassis Node. Engine: Connected via Engine CAN, which also links to the Aftertreatment CAN and the VGT Actuator. Chassis Node: Connected via Frame CAN and Vehicle CAN. It manages various sensors and actuators: <ul style="list-style-type: none"> Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Actuators: FRONT LAMPS and TAIL / TRAILER LAMPS. Other Components: SWITCHES and SPARE INPUTS are connected to the CECU 3. The system also includes an After-treatment DCU and an ADAPTIVE CRUISE CONTROL module. <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the Engine CAN/Aftertreatment CAN.</p>

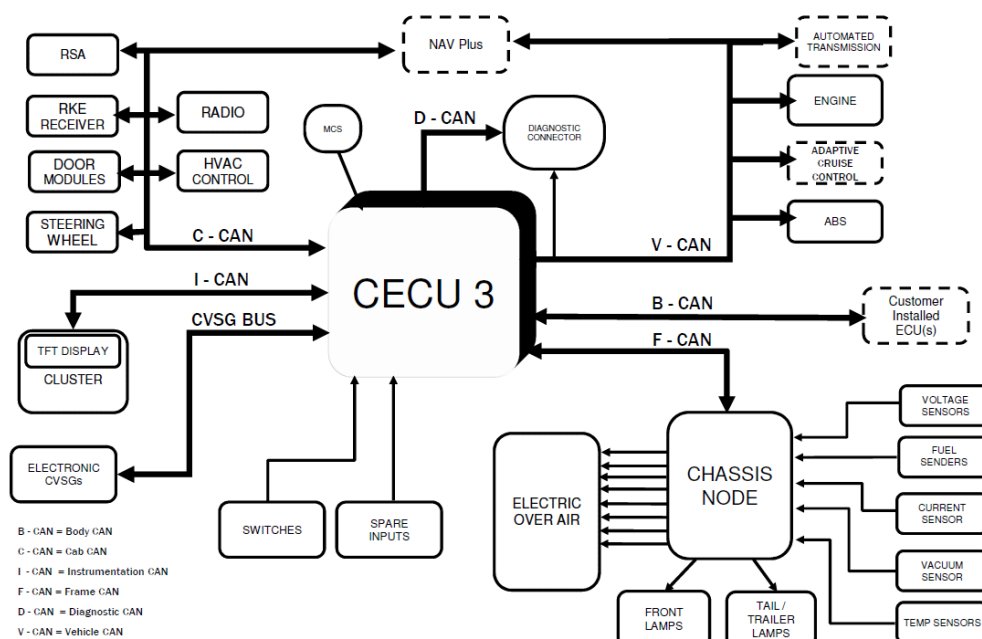
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network.
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 180B-a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

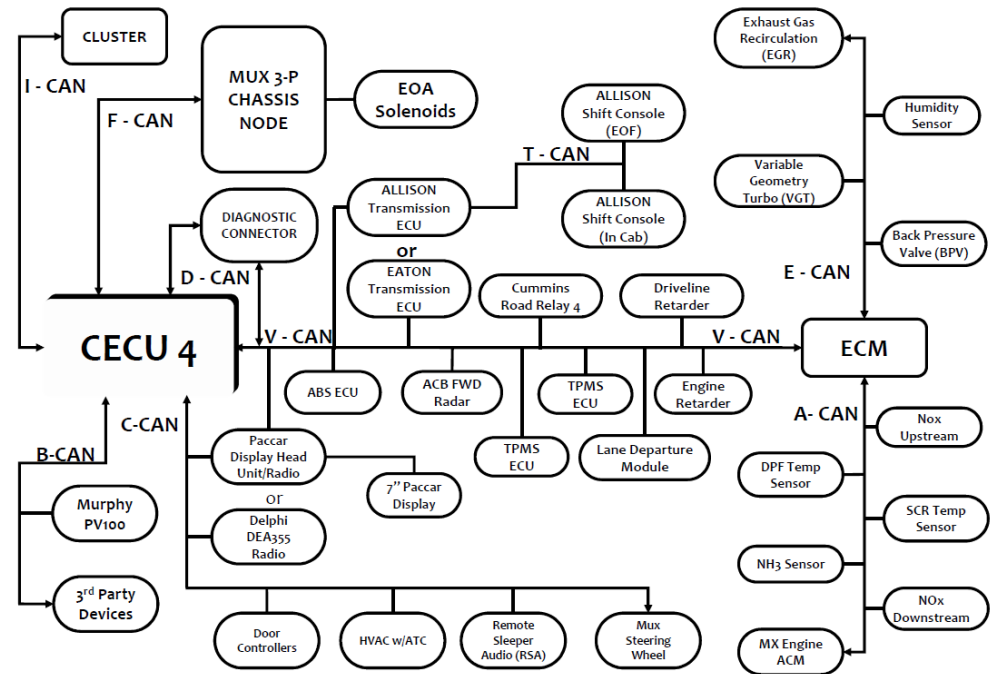
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic

	<p>procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 180B-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 180B-b	SRT
	Step 2	Step ID 180B-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 180B-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 180B-c	SRT
	Step 3	Step ID 180B-c	SRT	
<table><tr><td>Step 4</td><td>Step ID 180B-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 180B-d	SRT	
Step 4	Step ID 180B-d	SRT		
<p>Verification Drive Cycle</p>	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<p>Back to Choose Code</p> <p>Back to Index</p>			

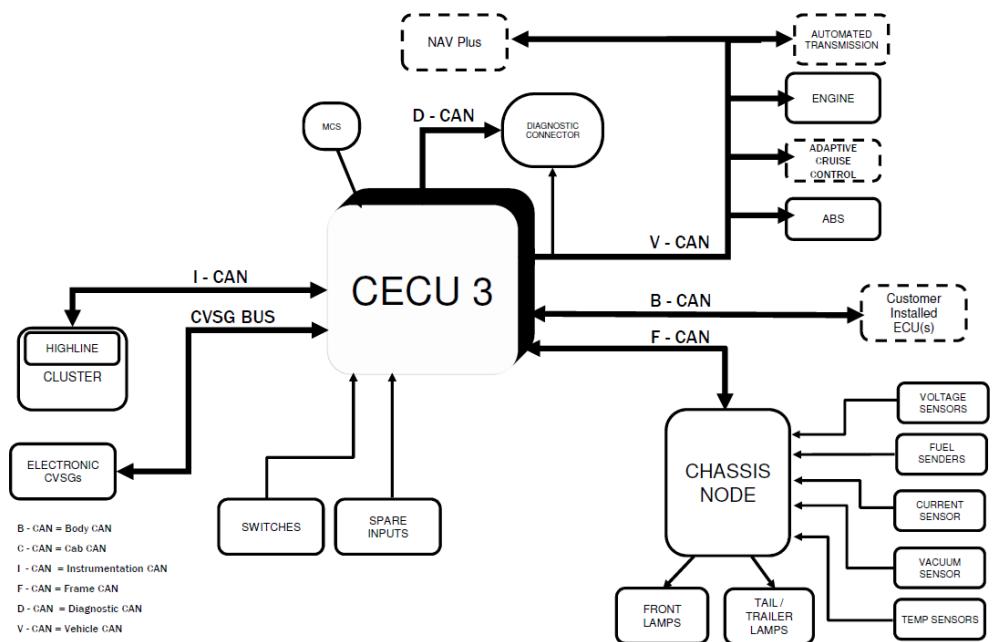
U180C

Code number	U180C
Fault code description	CAN communication - Message (CVW) out of range - gross combination vehicle weight from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3, which acts as the primary communication hub. It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via the Cab CAN. MCS: Connected to the Diagnostic CAN. Diagnostic CAN: A central communication line connecting the CECU 3 to the Diagnostic Connector, ABS, and PACCAR Display. Vehicle CAN: Connects the CECU 3 to the Engine, VGT Actuator, and After-treatment DCU. Engine CAN: Connects the CECU 3 to the Engine and VGT Actuator. After-treatment CAN: Connects the CECU 3 to the After-treatment DCU. CHASSIS NODE: Connects the CECU 3 to the Front Lamps, Tail / Trailer Lamps, and various sensors (Voltage, Fuel, Current, Pressure, Vacuum, Temp). Cluster: Connected to the CECU 3 via the Instrumentation CAN. CVSG BUS: Connects the CECU 3 to the Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to the CECU 3. Frame CAN: Connects the CECU 3 to the CHASSIS NODE. <p>The diagram also shows a Firewall separating the CECU 3 from the CHASSIS NODE and the Engine CAN. The CHASSIS NODE is connected to the Front Lamps and Tail / Trailer Lamps. The Engine CAN is connected to the Engine, VGT Actuator, and After-treatment DCU. The After-treatment DCU is connected to the CHASSIS NODE.</p>

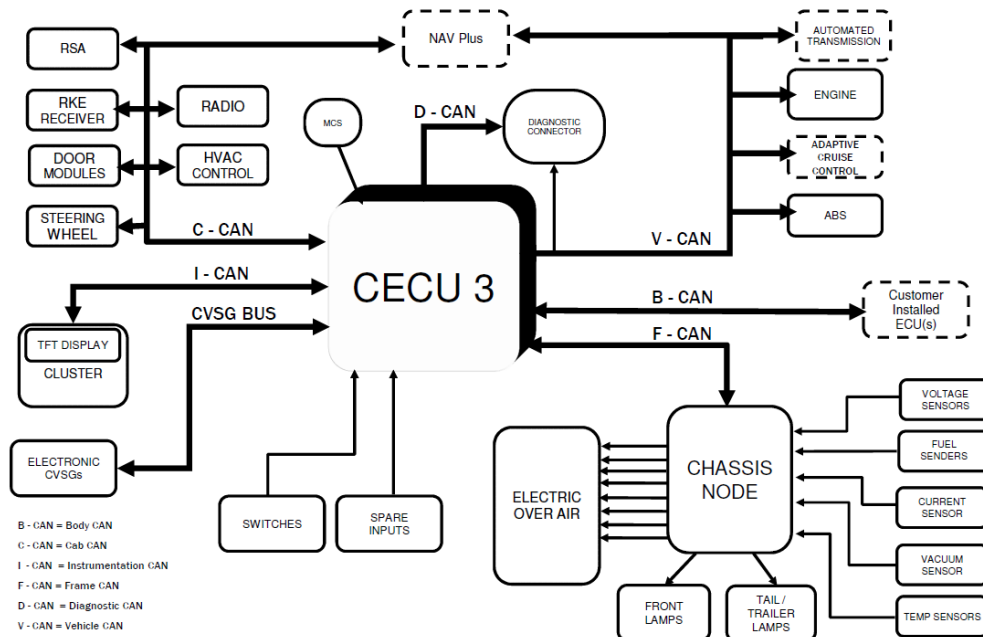
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



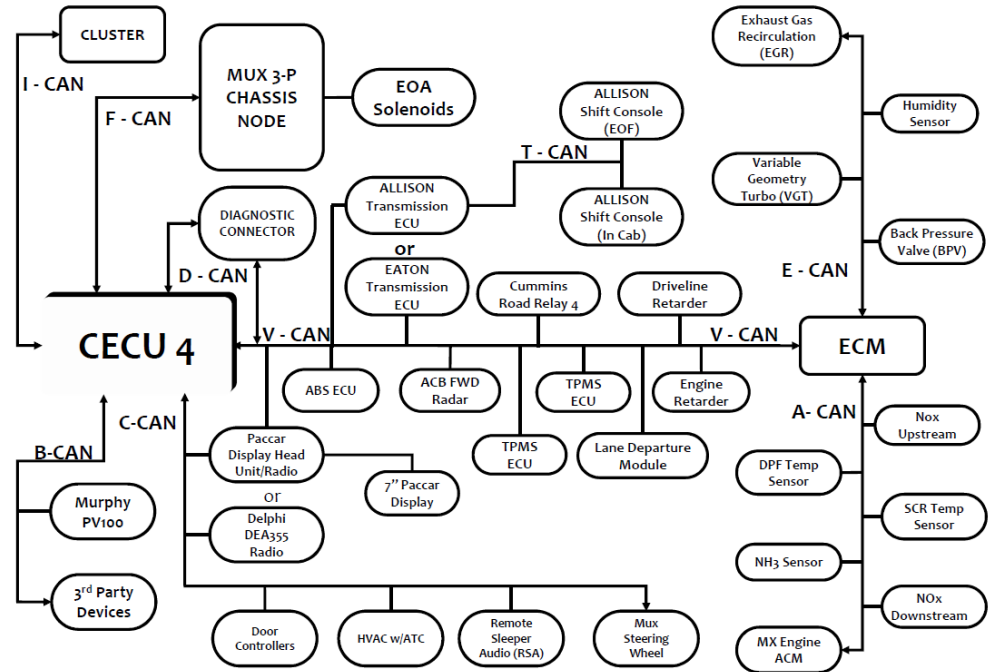
Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> Breakdown in communication in the CAN network Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring 							
Additional information	No additional information available							
Diagnostic Step-by-Step	<p>  Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components. </p> <p>  <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <thead> <tr> <th>Step 1</th><th>Step ID 180C-a</th><th>SRT</th></tr> </thead> <tbody> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </tbody> </table>		Step 1	Step ID 180C-a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 180C-a	SRT						
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.								

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.f this related fault is still active, Proceed to step 2		
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	Step 4	Step ID 180C-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p>Back to Choose Code</p> <p>Back to Index</p>		

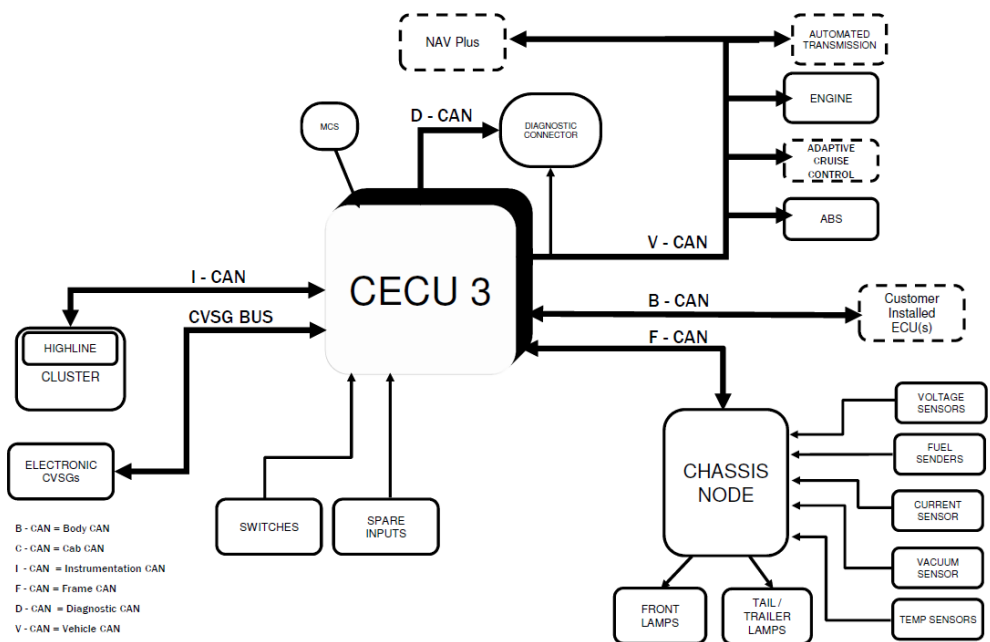
U180E

Code number	U180E
Fault code description	CAN communication - Message (CVW) rate too low from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected via Diagnostic CAN. Diagnostic CAN: Connected to the Diagnostic Connector. Vehicle CAN: Connected to the Diagnostic Connector. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine CAN: Connected to the Engine and VGT Actuator. Aftertreatment CAN: Connected to the Engine and After-treatment DCU. Chassis Node: Connected via Frame CAN. It includes Front Lamps and Tail / Trailer Lamps. Sensors: Connected to the Chassis Node, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. CVSG BUS: Connected to the CECU 3 and Electronic CVSG's. SWITCHES and SPARE INPUTS: Connected to the CECU 3. <p>The diagram also shows a Firewall separating the Engine/Aftertreatment CAN from the Vehicle CAN, and another Firewall separating the Vehicle CAN from the Chassis Node.</p>

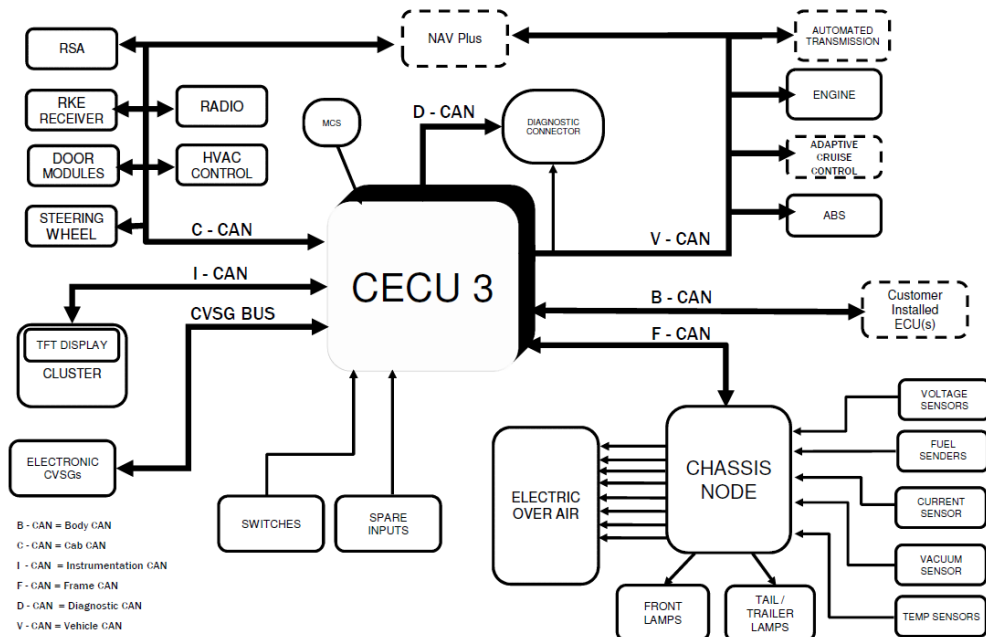
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



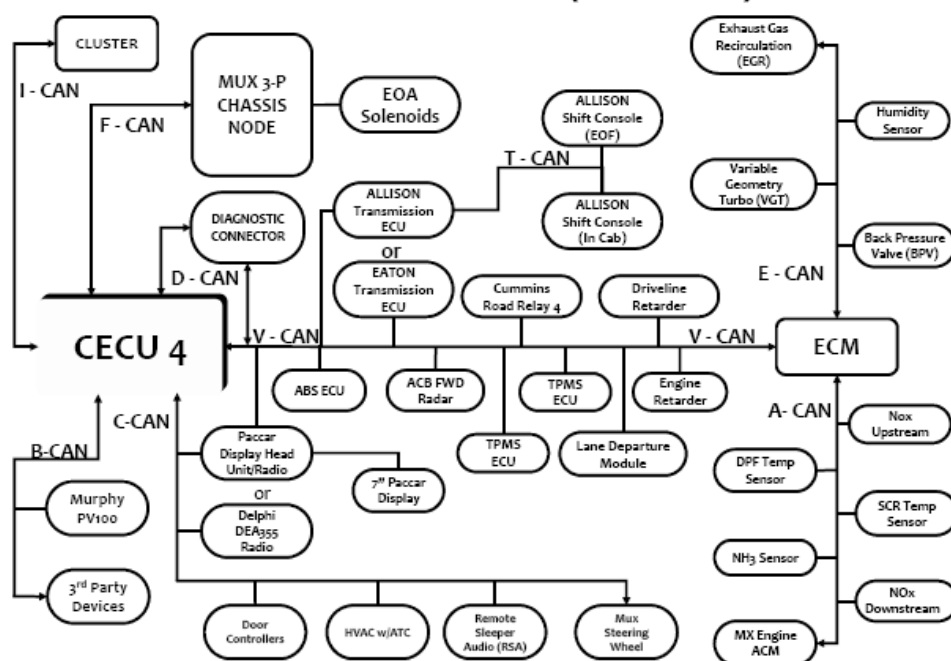
Technical data	This code relates to a communication issue and not to a specific component.							
Possible causes	<ul style="list-style-type: none"> Breakdown in communication in the CAN network Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring 							
Additional information	No additional information available							
Diagnostic Step-by-Step	<p>  Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components. </p> <p>  <ul style="list-style-type: none"> Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors. For specific electrical component information and pinout locations, always refer to the technical data. It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors. Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section. </p> <table border="1"> <thead> <tr> <th>Step 1</th><th>Step ID 180E-a</th><th>SRT</th></tr> </thead> <tbody> <tr> <td colspan="3"> Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure. </td></tr> </tbody> </table>		Step 1	Step ID 180E-a	SRT	Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		
Step 1	Step ID 180E-a	SRT						
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.								

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 180E-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 180E-b	SRT
	Step 2	Step ID 180E-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 180E-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 180E-c	SRT
Step 3	Step ID 180E-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 180E-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 180E-d	SRT	
Step 4	Step ID 180E-d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

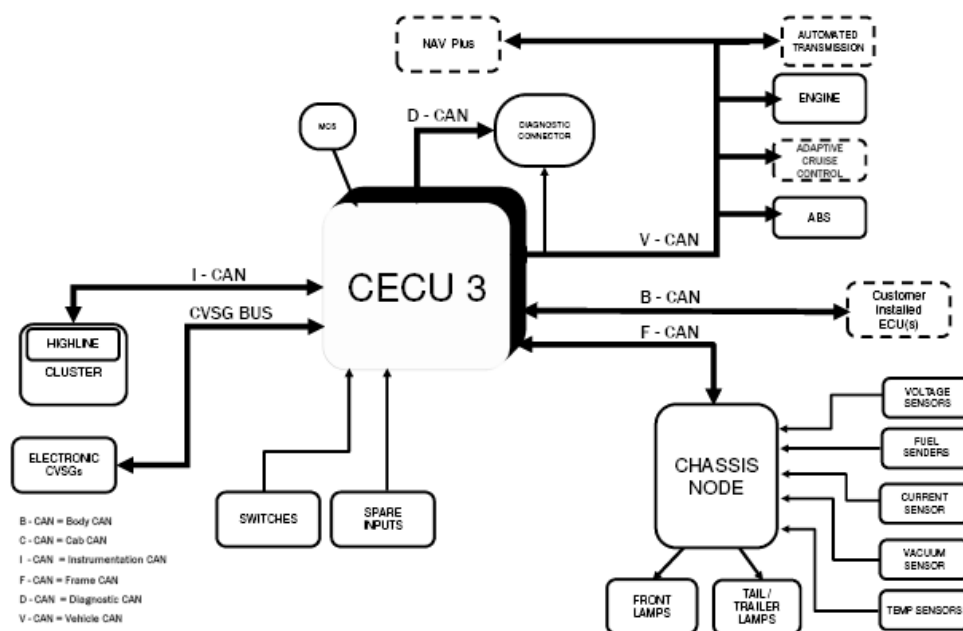
U1810

Code number	U1810
Fault code description	CAN communication - Message (EAS_EI_AECD) rate too low from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	CAN command message EAS_EI_AECD is missing for more than 3 seconds.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a Diagnostic Connector. Vehicle CAN: Connected to CECU 3 and the Diagnostic Connector. ABS (Anti-lock Braking System): Connected to Vehicle CAN. PACCAR Display: Connected to Vehicle CAN. Engine: Connected to Aftertreatment CAN and Engine CAN. Aftertreatment CAN: Connected to Engine and After-treatment DCU. Engine CAN: Connected to Engine and VGT Actuator. VGT Actuator: Connected to Engine CAN. After-treatment DCU: Connected to Aftertreatment CAN. CHASSIS NODE: Connected to Frame CAN and various sensors. Frame CAN: Connected to CECU 3 and CHASSIS NODE. Sensors: Connected to CHASSIS NODE include VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other components: ELECTRONIC CVSG's, SWITCHES, SPARE INPUTS, and FRONT LAMPS are also connected to the system. <p>Firewalls are indicated between the Diagnostic CAN/Vehicle CAN and the Aftertreatment CAN/Engine CAN, and between the Vehicle CAN/Frame CAN and the CHASSIS NODE.</p>

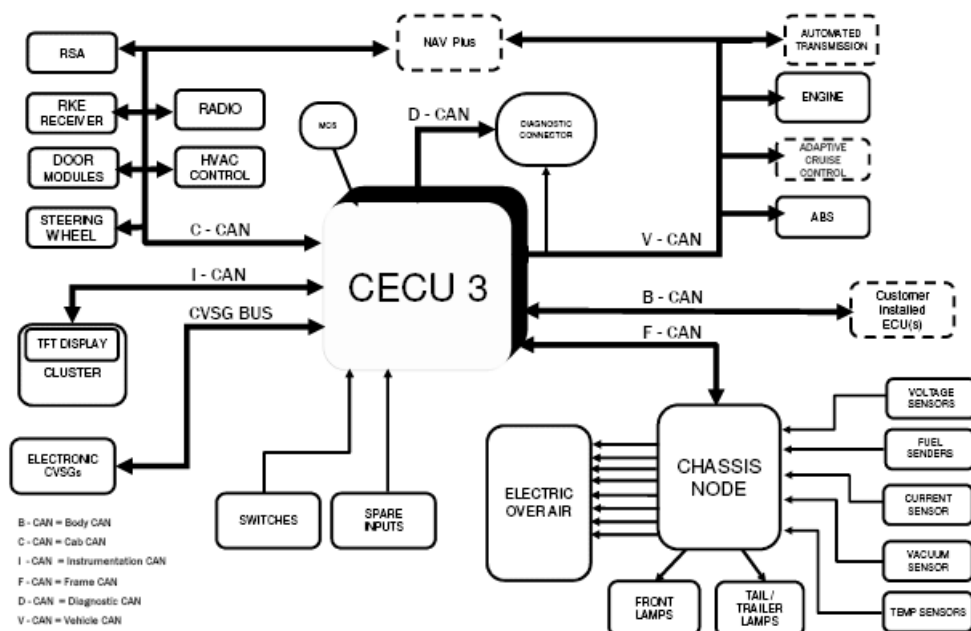
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

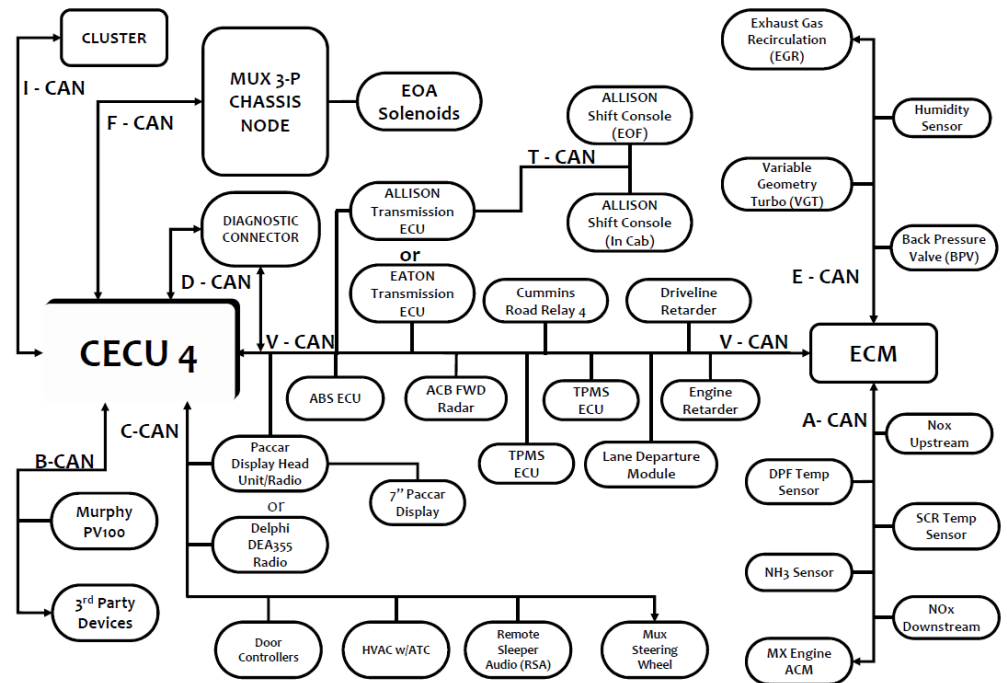
Step 1	Step ID 1810a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none"> • No: Proceed to step 2. • Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none"> • If this related fault is no longer active, then this issue has been resolved. • If this related fault is still active, Proceed to step 2 		
	Step 2	Step ID 1810b	SRT
	<p>Data check</p> <ul style="list-style-type: none"> • Lookup the technical data of the specific system • Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none"> • No: Proceed to step 3 • Yes : Proceed to step 4 		
	Step 3	Step ID 1810c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none"> • Repair or replace the component, also check for electrical connection and wiring harness. • Reconnect the connector • ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none"> • Is DTC fault active: Proceed to step 4 • Is DTC fault inactive: Issue resolved. Clear inactive fault 		
	Step 4	Step ID 1810d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<p style="text-align: right;"> Back to Choose Code Back to Index </p>		

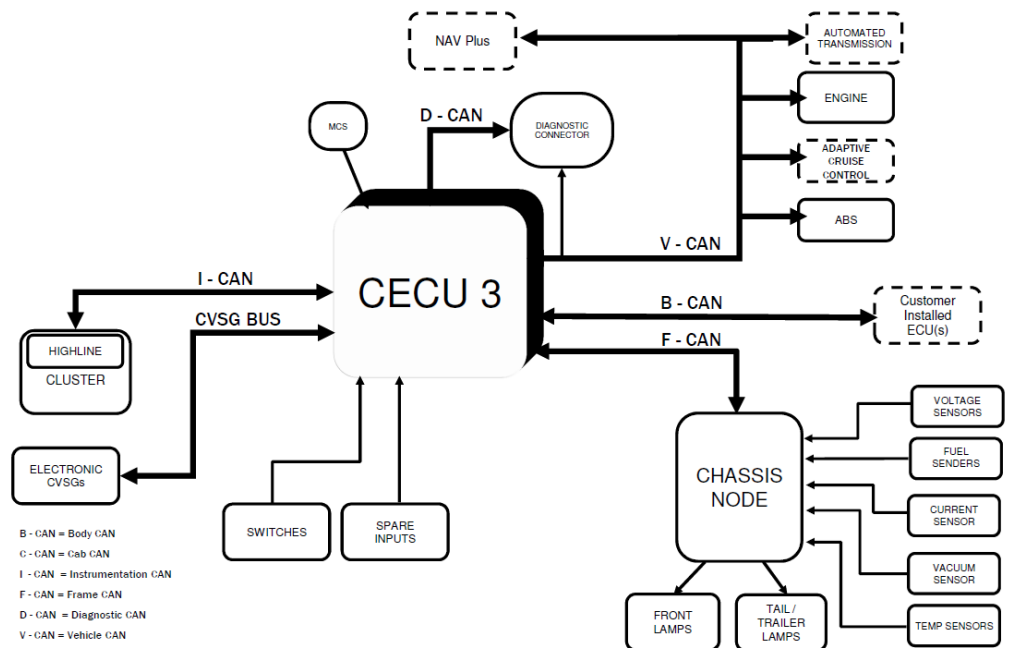
U1812

Code number	U1812
Fault code description	CAN communication - Message (EAS_SYS_INFO) rate too low from emission system
Fault code information	1 trip MIL 3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	CAN command message EAS_SYS_INFO is missing for more than 0.6 seconds.
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Master Control System): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System) and PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment CAN: Connected to the Engine and VGT Actuator. VGT Actuator (Variable Geometry Turbine Actuator): Connected to the Engine and After-treatment DCU. After-treatment DCU (Differential Control Unit): Connected to the VGT Actuator. CHASSIS NODE: Connected via Frame CAN. It manages various sensors: <ul style="list-style-type: none"> VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS FRONT LAMPS and TAIL / TRAILER LAMPS: Connected to the CHASSIS NODE. SWITCHES and SPARE INPUTS: Connected to the CECU 3. ELECTRONIC CVSG's (Electronic Control Valve Solenoid Groups): Connected via CVSG BUS. <p>The diagram also shows a FIREWALL separating the Diagnostic CAN from the Vehicle CAN, and another FIREWALL separating the Vehicle CAN from the Engine CAN.</p>

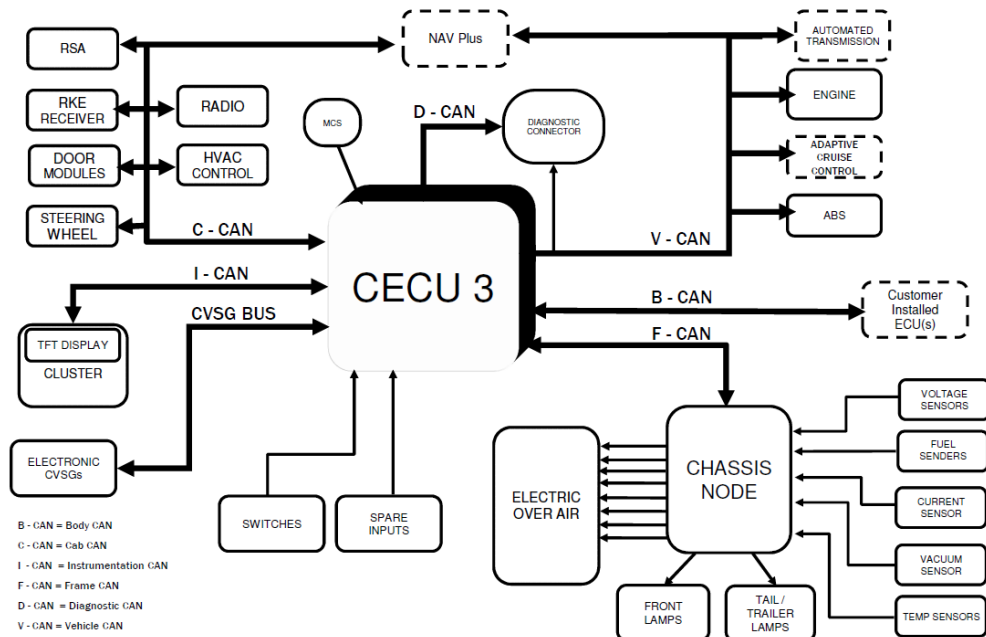
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network.
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available.

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 1812a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

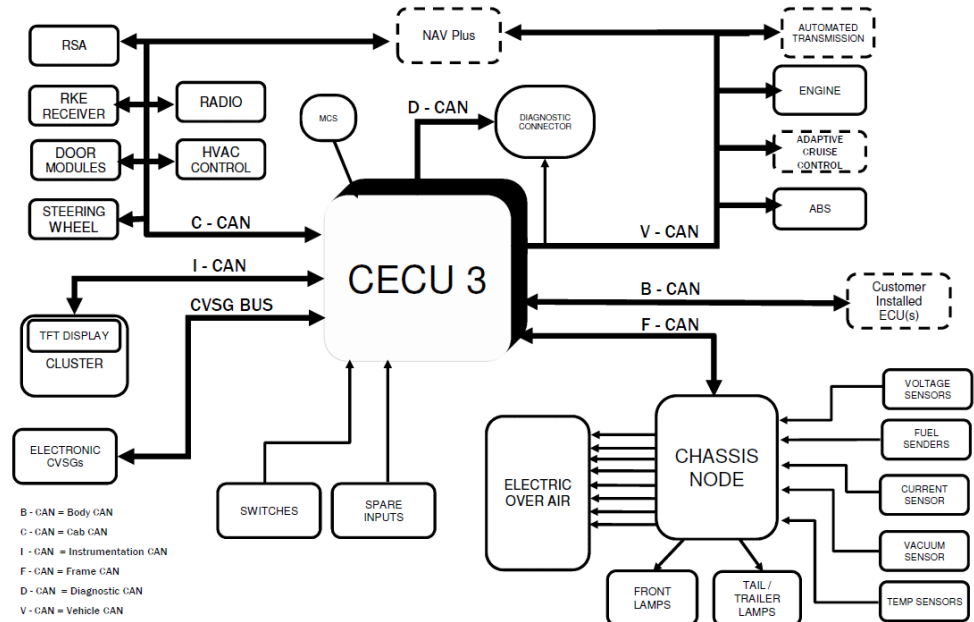
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1812b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step 4		
	Step 3	Step ID 1812c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault		
	Step 4	Step ID 1812d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

U1813

Code number	U1813
Fault code description	CAN communication - Message (EBC1 EBS) out of range - ASR engine control active from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Master Control System) and the Diagnostic Connector. Cab CAN: Connects CECU 3 to the Cluster, Steering Wheel, and Instrumentation CAN. CVSG BUS: Connects CECU 3 to the Electronic CVSG's (Control Valve Solenoid Group). SWITCHES and SPARE INPUTS: These are connected to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: This node is connected to the CECU 3 and manages various chassis functions, including: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Engine CAN.</p>

NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

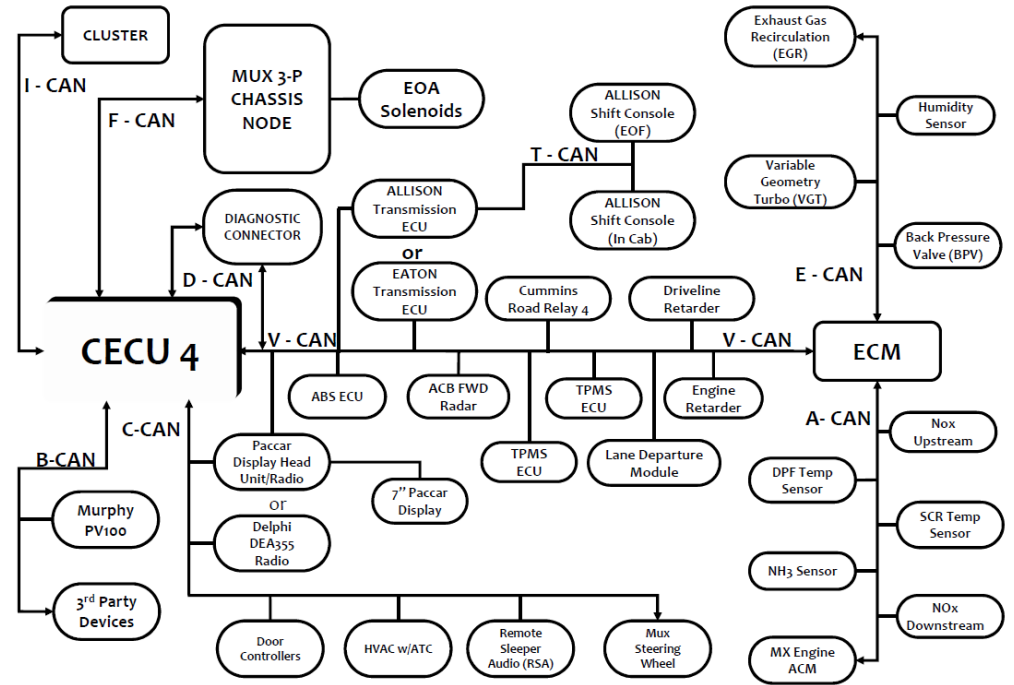
Step 1	Step ID 1813a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.f this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1813b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1813b	SRT
	Step 2	Step ID 1813b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1813c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault	Step 3	Step ID 1813c	SRT
Step 3	Step ID 1813c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1813d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1813d	SRT	
Step 4	Step ID 1813d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

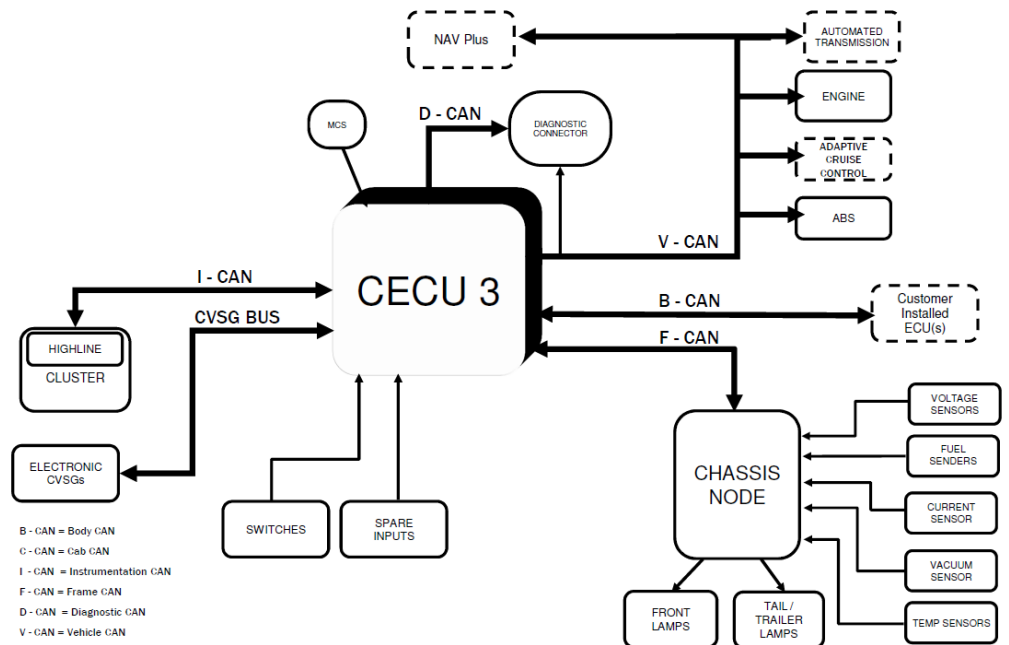
U1814

Code number	U1814
Fault code description	CAN Communication – Message (EBC1_CECU) out of range – ASR brake control active from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Master Control Switch), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Networks: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS (Anti-lock Braking System), PACCAR Display, AUTO TRANSMISSION, Engine CAN, VGT Actuator (Variable Geometry Turbine Actuator), and After-treatment DCU (Differential Control Unit). Chassis Node: Connected to FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Chassis Node.</p>

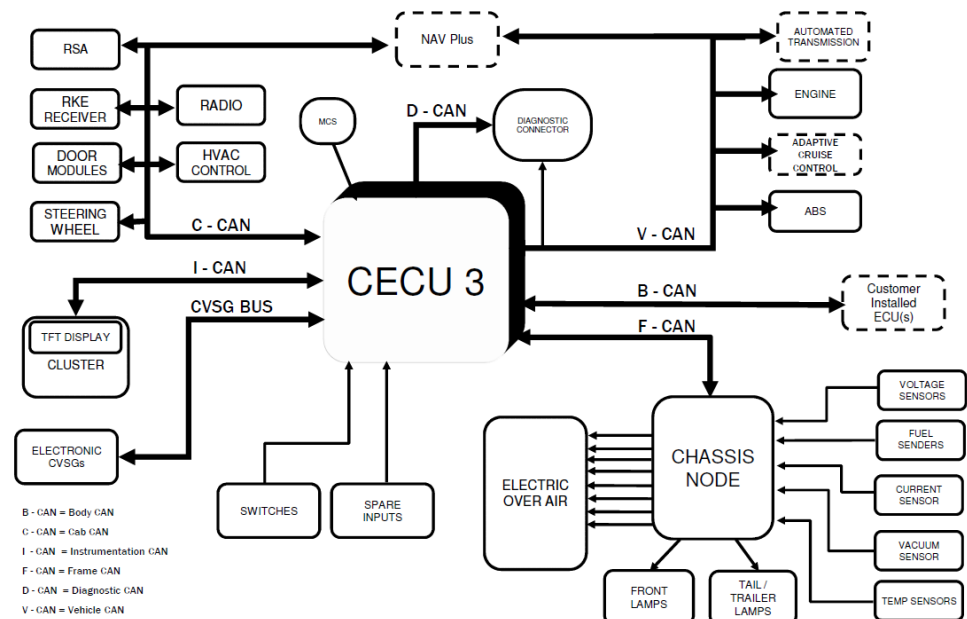
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

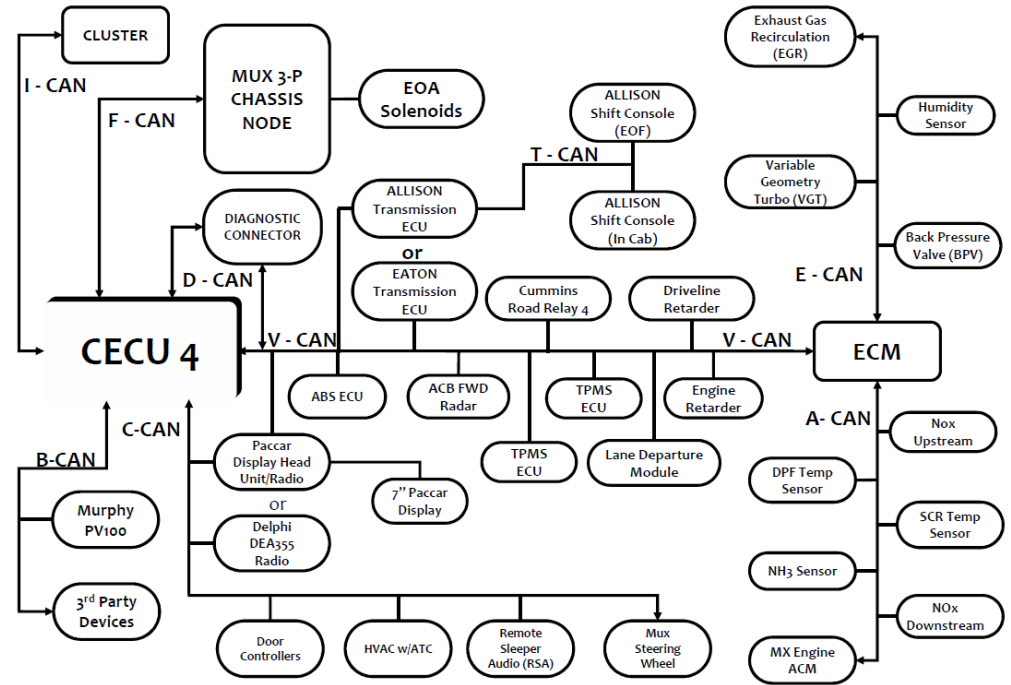
Step 1	Step ID 1814a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1814b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 1814c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 1814d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

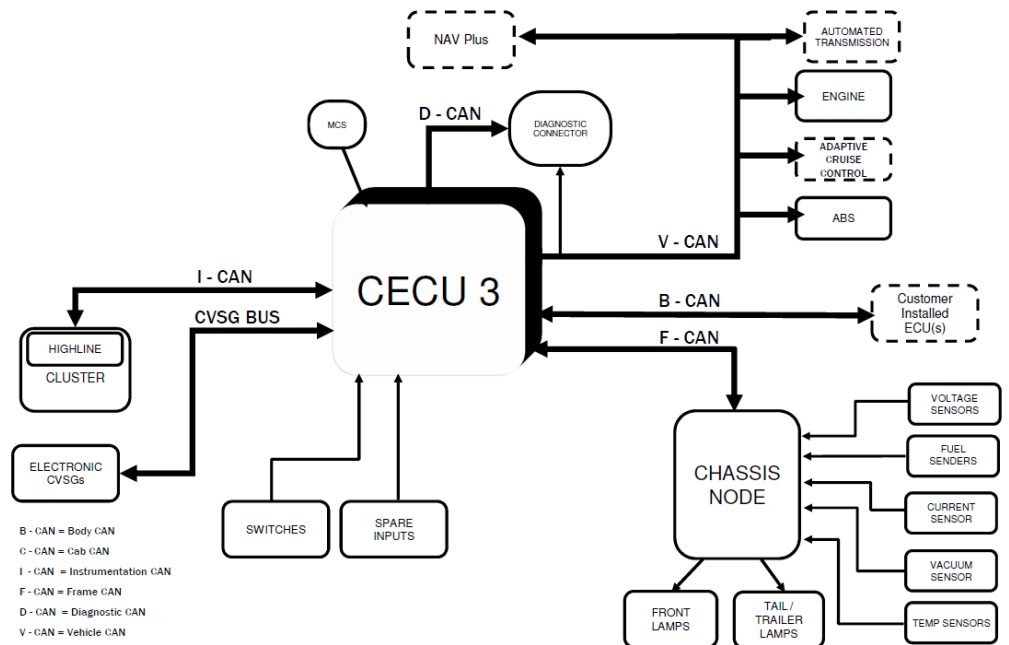
U1815

Code number	U1815
Fault code description	CAN communication - Message (EBC2) out of range - Relative speed; front axle, left wheel from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Microcontroller System), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Networks: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS (Anti-lock Braking System), PACCAR Display, CHASSIS NODE, FRONT LAMPS, and TAIL / TRAILER LAMPS. Engine and Aftertreatment: ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, After-treatment DCU, and Aftertreatment CAN. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.</p>

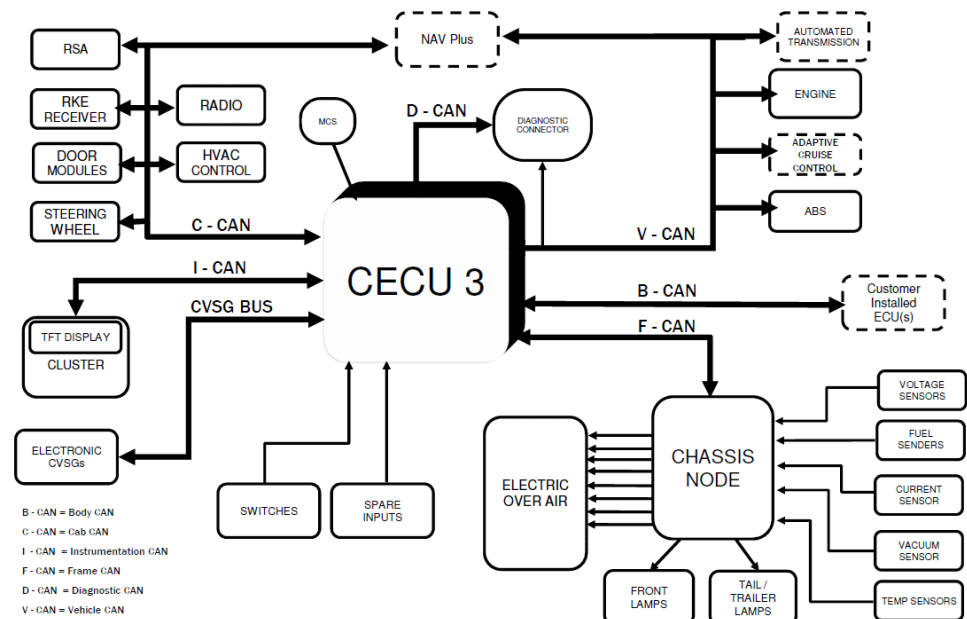
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

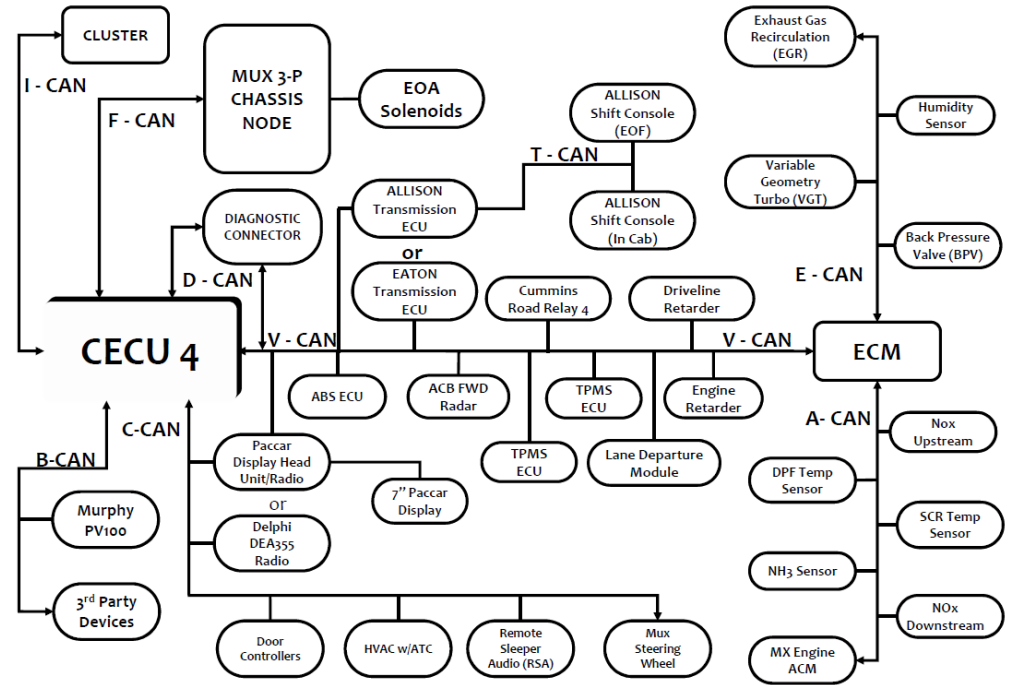
Step 1	Step ID 1815a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1815b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1815b	SRT
	Step 2	Step ID 1815b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1815c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1815c	SRT
	Step 3	Step ID 1815c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1815d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1815d	SRT	
Step 4	Step ID 1815d	SRT		
<p>Verification Drive Cycle</p>	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

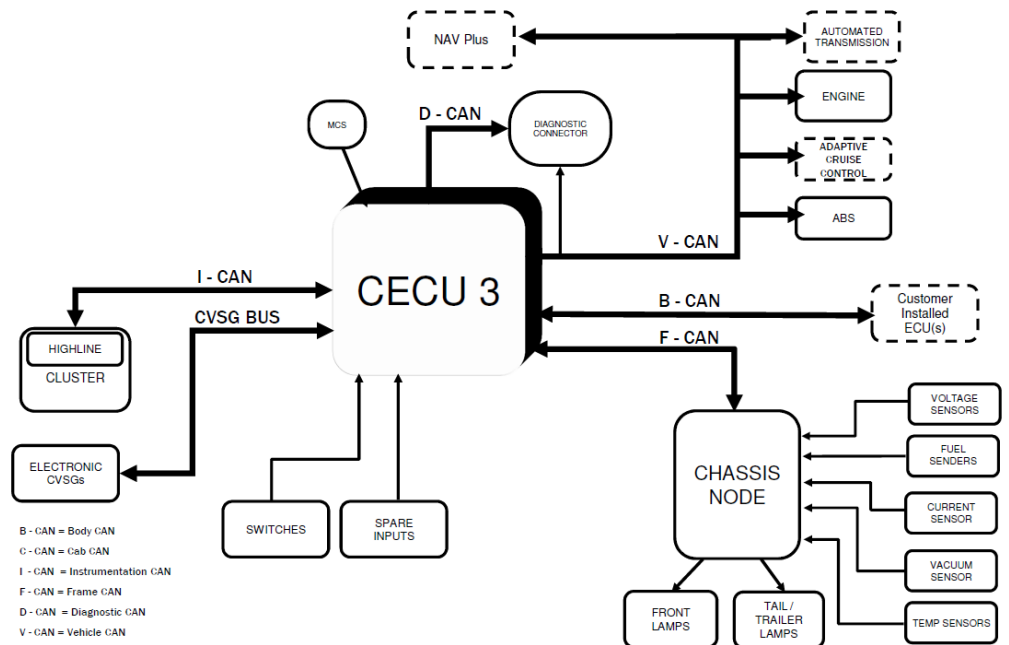
U1816

Code number	U1816
Fault code description	CAN communication - Message (EBC2) out of range - Relative speed; front axle, right wheel from brake system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Master Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects CECU 3 to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: These are connected to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: This node is connected to the CECU 3 and manages various sensors and actuators: <ul style="list-style-type: none"> Front Lamps and Tail / Trailer Lamps: Connected to the CHASSIS NODE. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS are all connected to the CHASSIS NODE. Engine and Aftertreatment: The ENGINE is connected to the VGT Actuator and the After-treatment DCU. The After-treatment DCU is also connected to the CHASSIS NODE. Other Components: The AUTO TRANSMISSION, ADAPTIVE CRUISE CONTROL, and PACCAR Display are also shown in the diagram. <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the Engine CAN.</p>

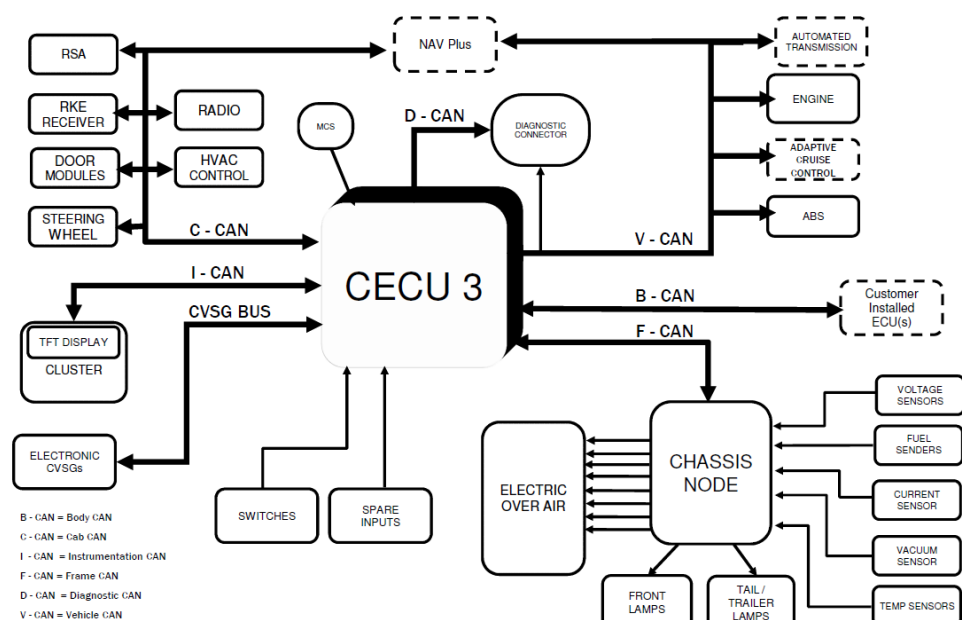
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Check transmission ECU for faults
- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 1816a

SRT

Visual Inspection

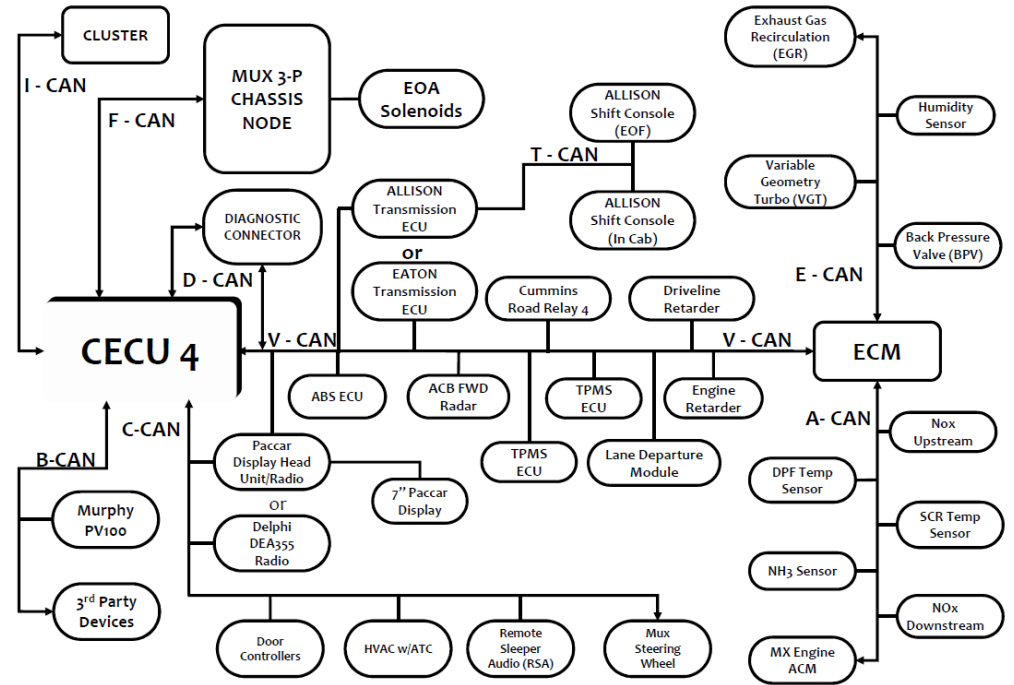
OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1816b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1816b	SRT
	Step 2	Step ID 1816b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1816c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1816c	SRT
	Step 3	Step ID 1816c	SRT	
<table><tr><td>Step 4</td><td>Step ID 1816d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1816d	SRT	
Step 4	Step ID 1816d	SRT		
<p>Verification Drive Cycle</p>				
	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p> <p>Back to Choose Code</p> <p>Back to Index</p>			

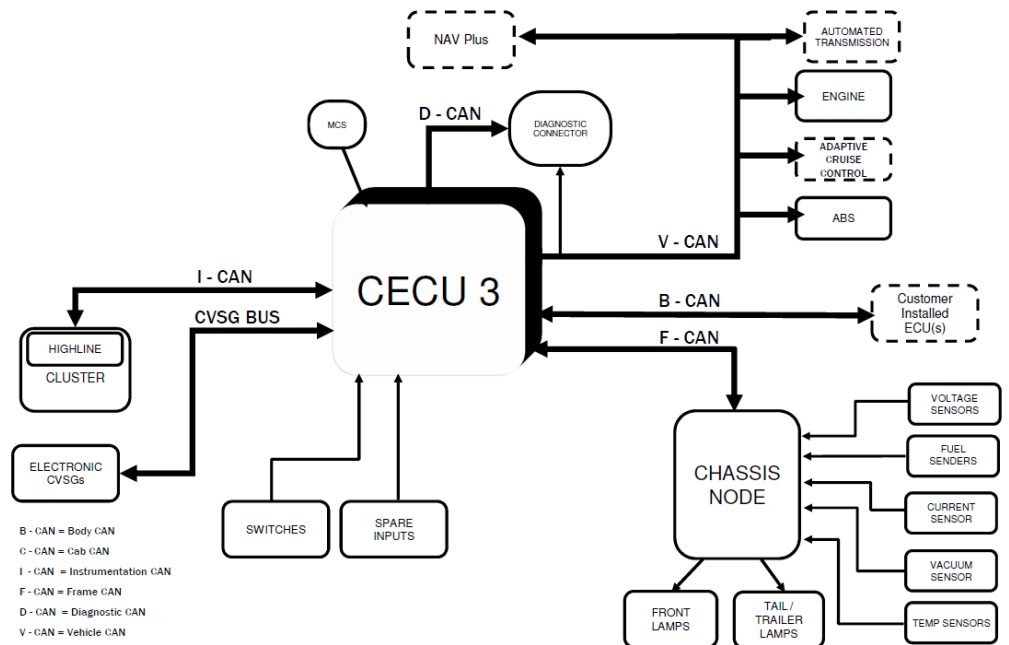
U1817

Code number	U1817
Fault code description	CAN communication - Message (ETC1) not available - Transmission shift in process from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, MCS (Microcontroller System), Cluster, Instrumentation CAN, CVSG BUS, ELECTRONIC CVSG's, SWITCHES, and SPARE INPUTS. Communication Buses: Cab CAN, Diagnostic CAN, Diagnostic CONNECTOR, Vehicle CAN, and Frame CAN. Vehicle Systems: ABS (Anti-lock Braking System), PACCAR Display, CHASSIS NODE, FRONT LAMPS, and TAIL / TRAILER LAMPS. Engine and Aftertreatment: ENGINE, ADAPTIVE CRUISE CONTROL, VGT Actuator, After-treatment DCU, and Aftertreatment CAN. Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the Aftertreatment CAN system.</p>

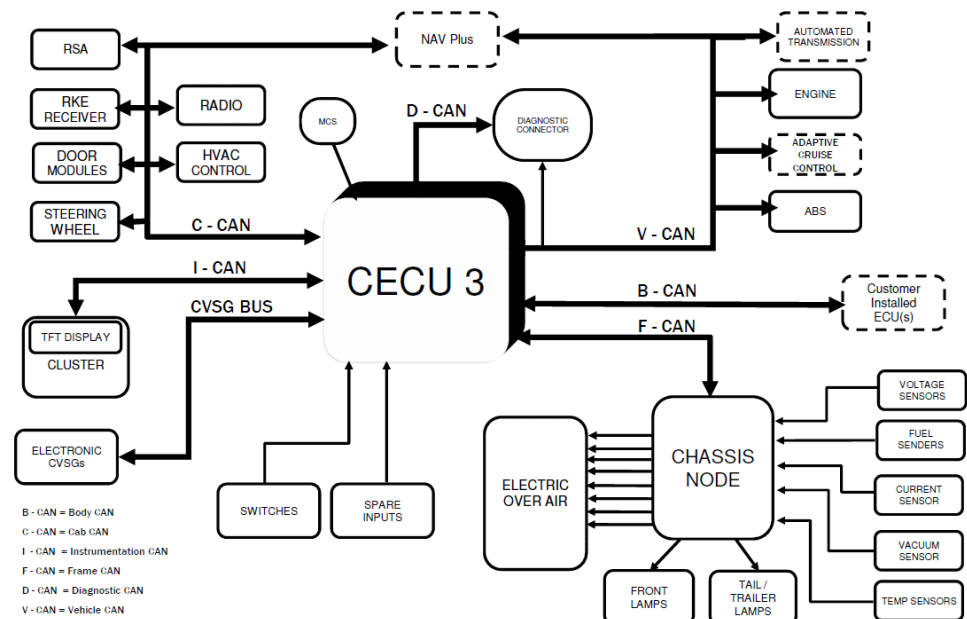
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

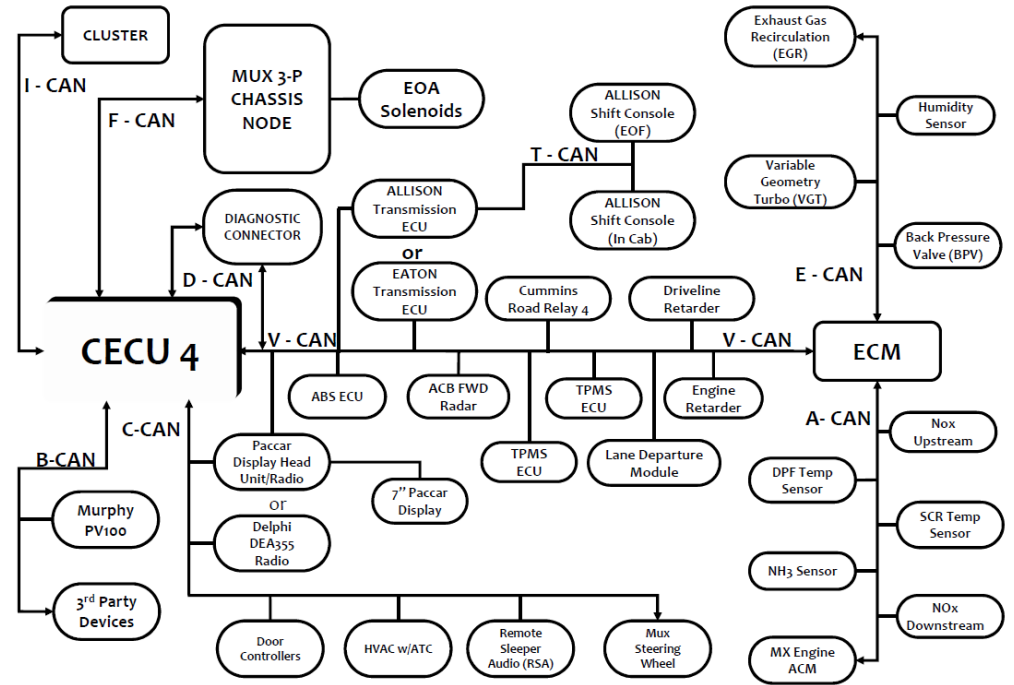
Step 1	Step ID 1817a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1817b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 1817c	SRT
<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.			
	Step 4	Step ID 1817d	SRT
<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

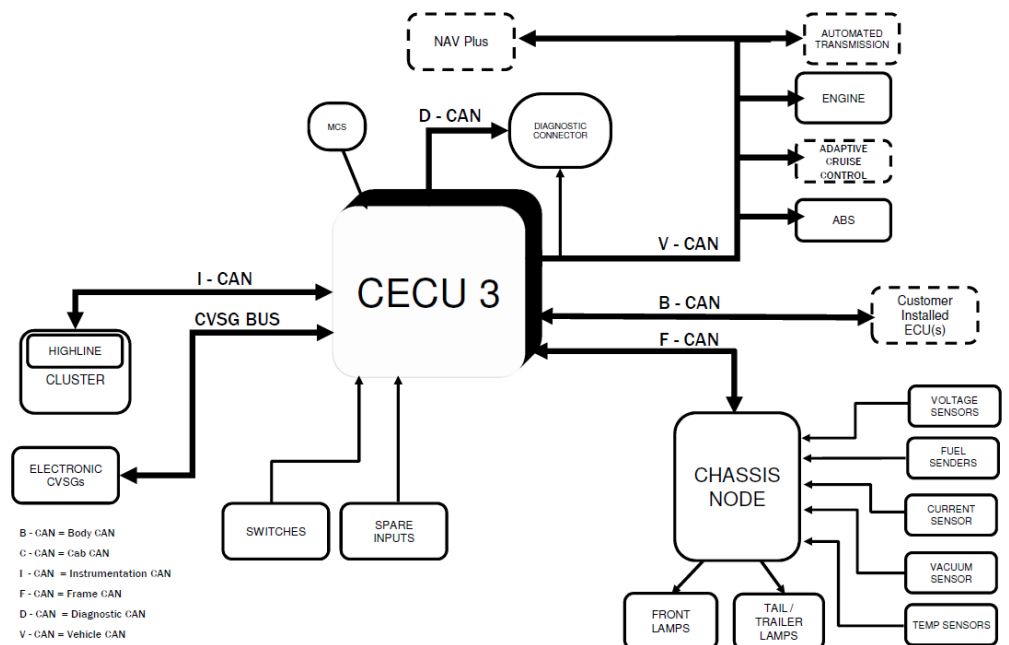
U1818

Code number	U1818
Fault code description	CAN communication - Message (ETC1) out of range - Transmission shift in process from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Maintenance Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects CECU 3 to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: These are connected directly to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: This node is connected to the CECU 3 and manages various chassis-related components: <ul style="list-style-type: none"> FRONT LAMPS and TAIL / TRAILER LAMPS. VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Other components: The diagram also shows the AUTO TRANSMISSION, ADAPTIVE CRUISE CONTROL, and VGT Actuator. <p>Firewalls are indicated between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Engine CAN.</p>

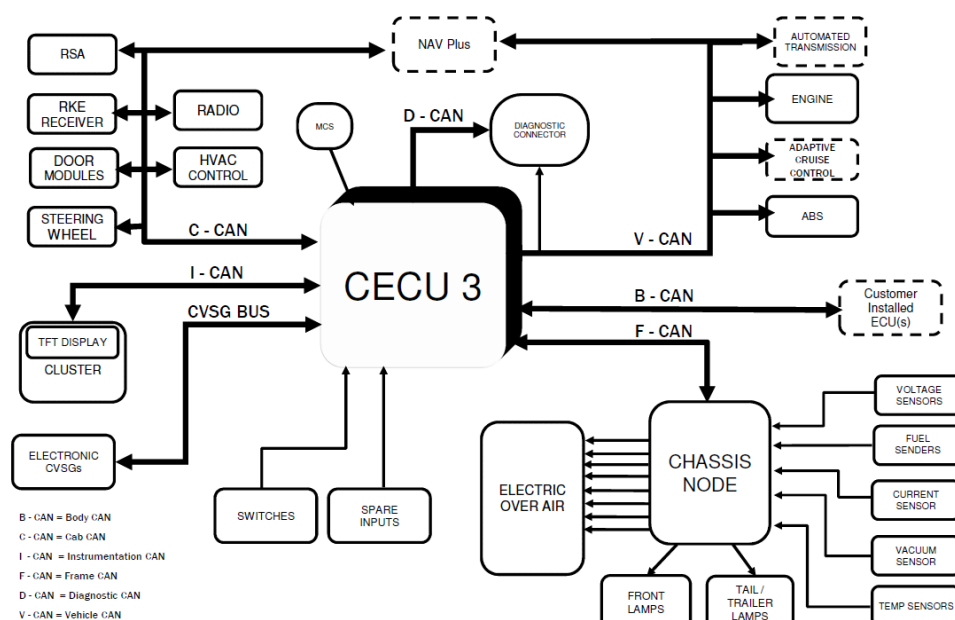
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.


Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step

 Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

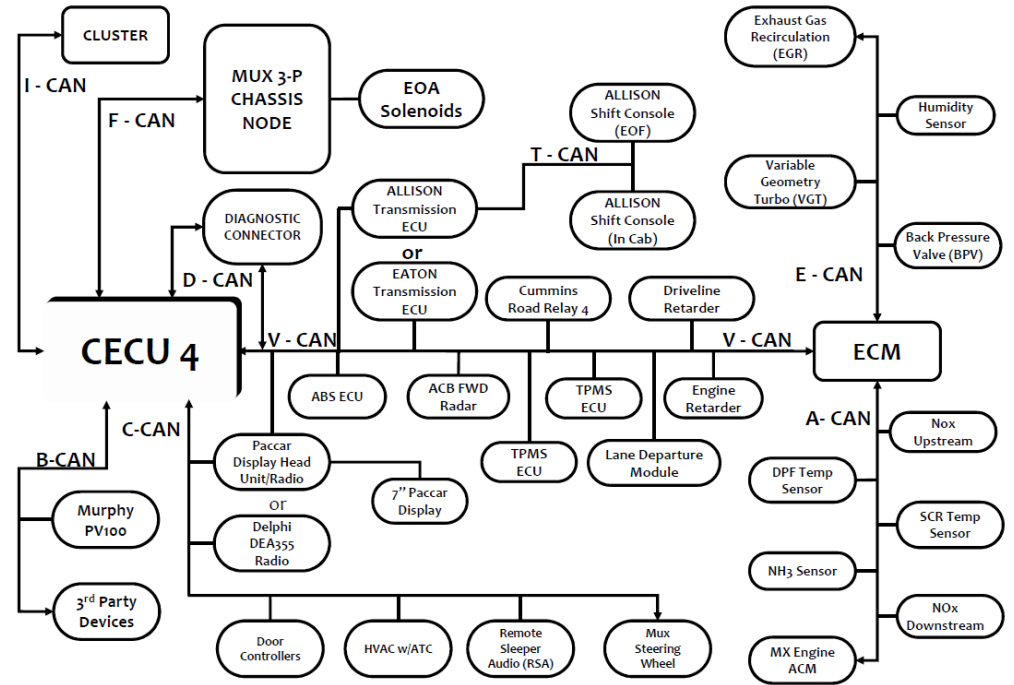
Step 1	Step ID 1818a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1818b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 1818b	SRT
	Step 2	Step ID 1818b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1818c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1818c	SRT
Step 3	Step ID 1818c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1818d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1818d	SRT	
Step 4	Step ID 1818d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

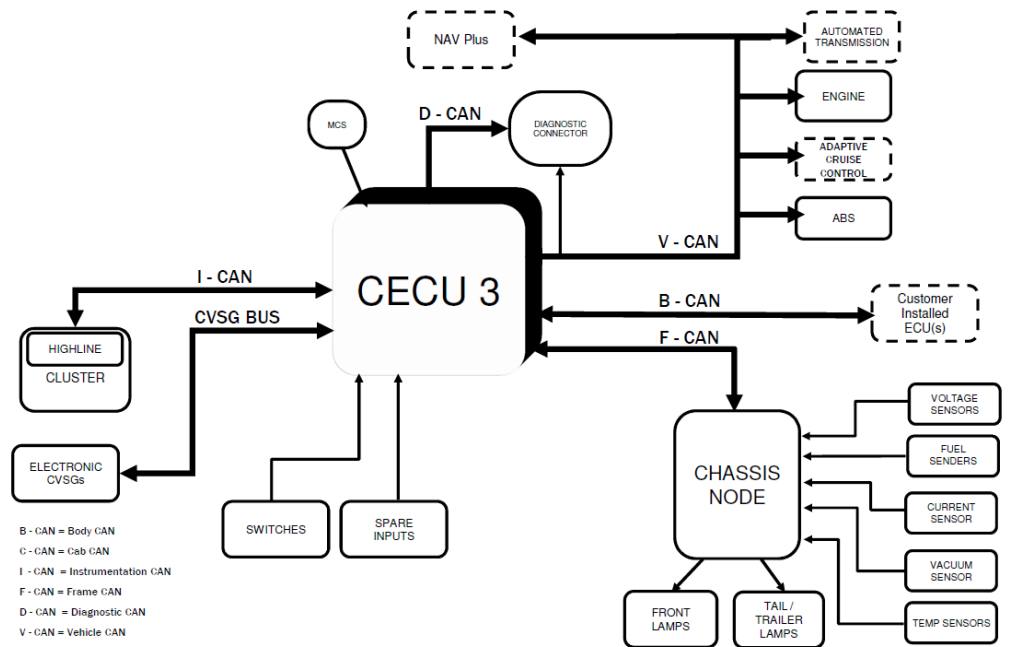
U1819

Code number	U1819
Fault code description	CAN communication - Message (ETC1) not available - Engine momentary over speed enable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to various vehicle systems and components:</p> <ul style="list-style-type: none"> Inputs/Outputs to CECU 3: <ul style="list-style-type: none"> STEERING WHEEL MCS (Master Control Switch) Cluster Instrumentation CAN CVSG BUS ELECTRONIC CVSG's SWITCHES SPARE INPUTS Communication Buses: <ul style="list-style-type: none"> Cab CAN: Connects CECU 3 to the Cluster. Diagnostic CAN: Connects CECU 3 to the DIAGNOSTIC CONNECTOR. Vehicle CAN: Connects CECU 3 to the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. Other Components: <ul style="list-style-type: none"> CHASSIS NODE: Controls FRONT LAMPS and TAIL / TRAILER LAMPS. It also interfaces with various sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Engine and Aftertreatment: The ENGINE is connected to the VGT Actuator and the After-treatment DCU. It also interfaces with ADAPTIVE CRUISE CONTROL. ABS and PACCAR Display: These are connected to the Vehicle CAN bus. Firewall: A dashed line labeled FIREWALL separates the CECU 3 from the CHASSIS NODE and the Engine/Aftertreatment system.

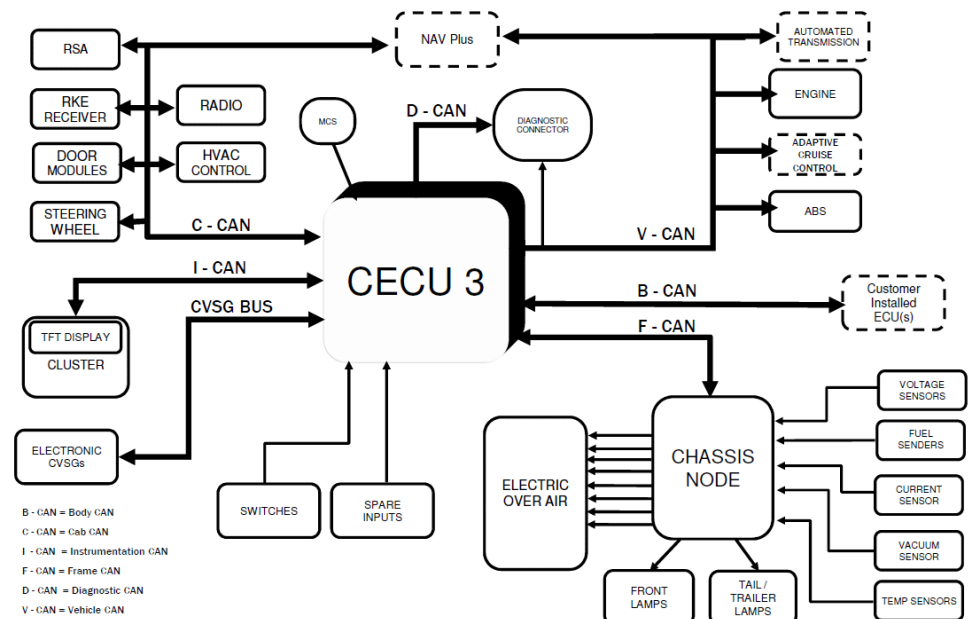
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

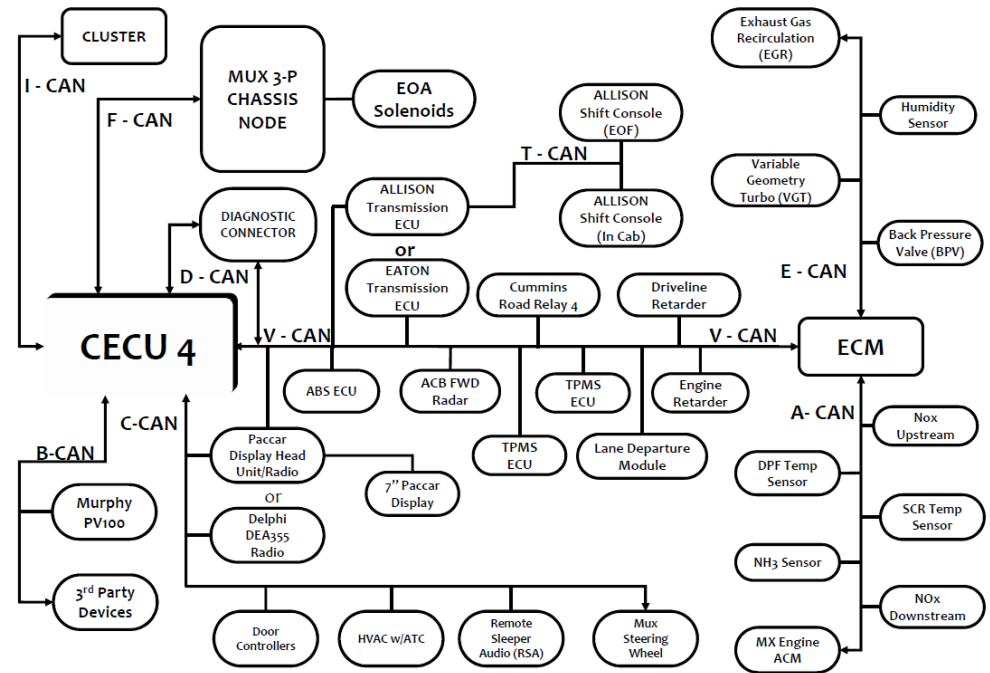
Step 1	Step ID 1819a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 1819b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

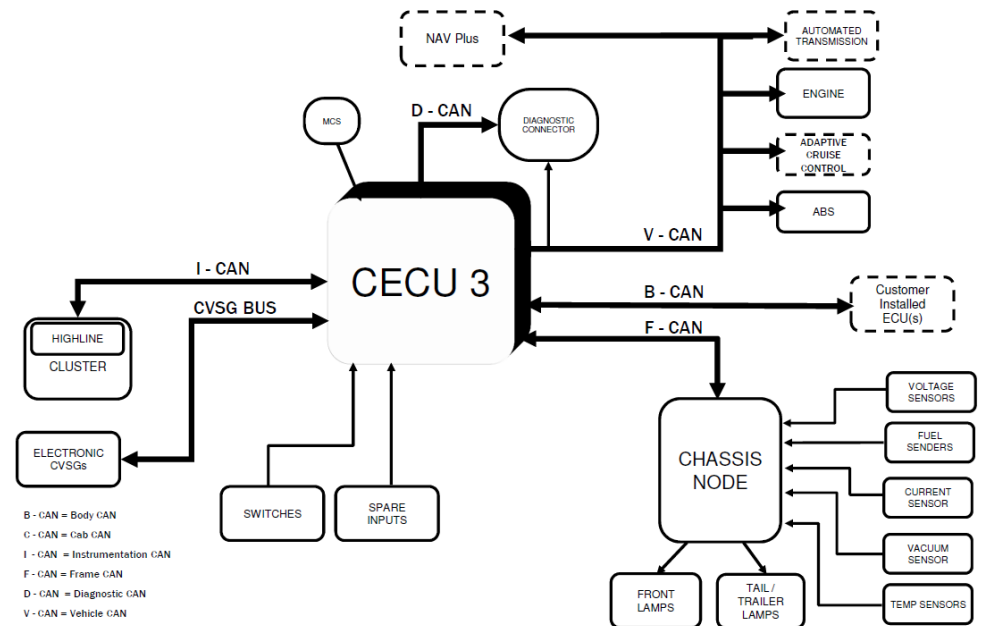
U181A

Code number	U181A
Fault code description	CAN communication - Message (ETC1) out of range - Engine momentary over speed enable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p>NAMUX 3 Architecture: 2010 B-Cab</p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several systems and components:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects to the MCS (Maintenance Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects to the Cluster. CVSG BUS: Connects to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: Direct inputs to the CECU 3. Vehicle CAN: Connects to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects to the CHASSIS NODE. Engine CAN: Connects to the ENGINE, VGT Actuator, and After-treatment DCU. Aftertreatment CAN: Connects to the ENGINE and After-treatment DCU. CHASSIS NODE: A central hub for chassis-related components, including FRONT LAMPS, TAIL / TRAILER LAMPS, and various sensors (VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, TEMP SENSORS). Other components: AUTO TRANSMISSION, ADAPTIVE CRUISE CONTROL, and FIREWALLs are also shown in the network.

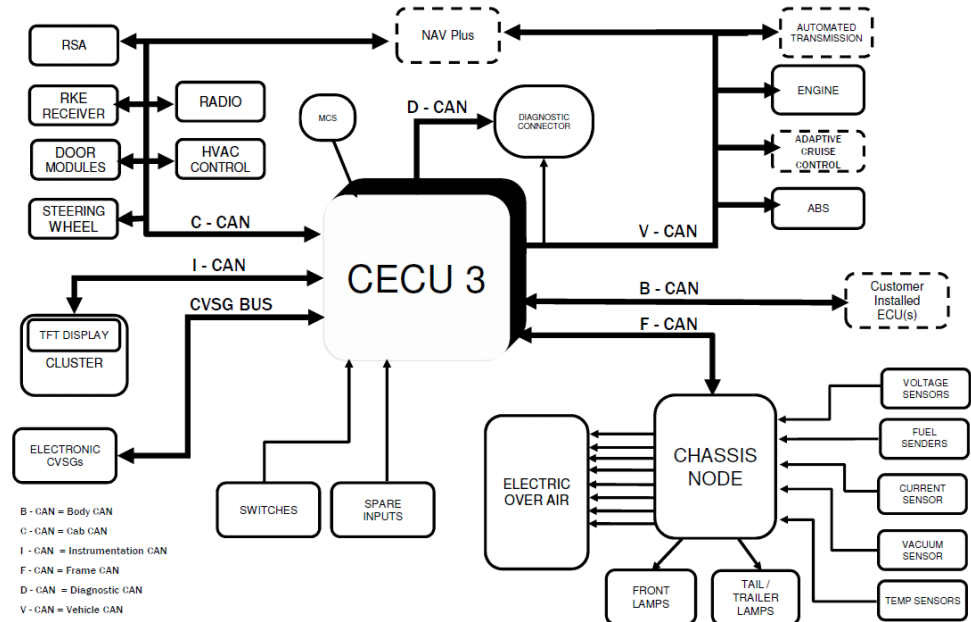
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 181A-a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

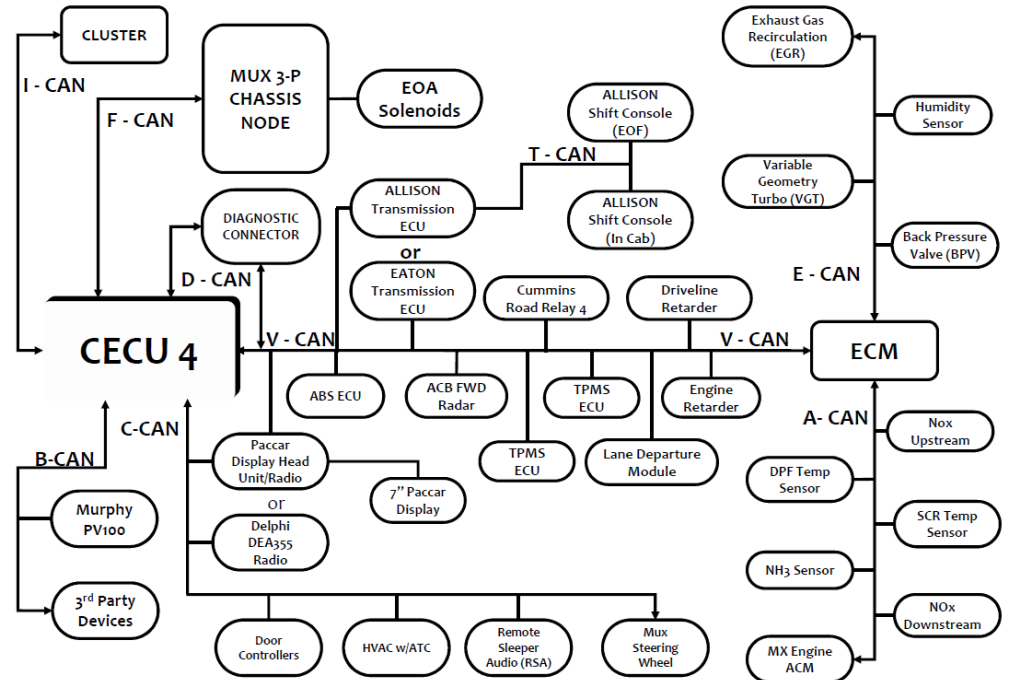
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 181A-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

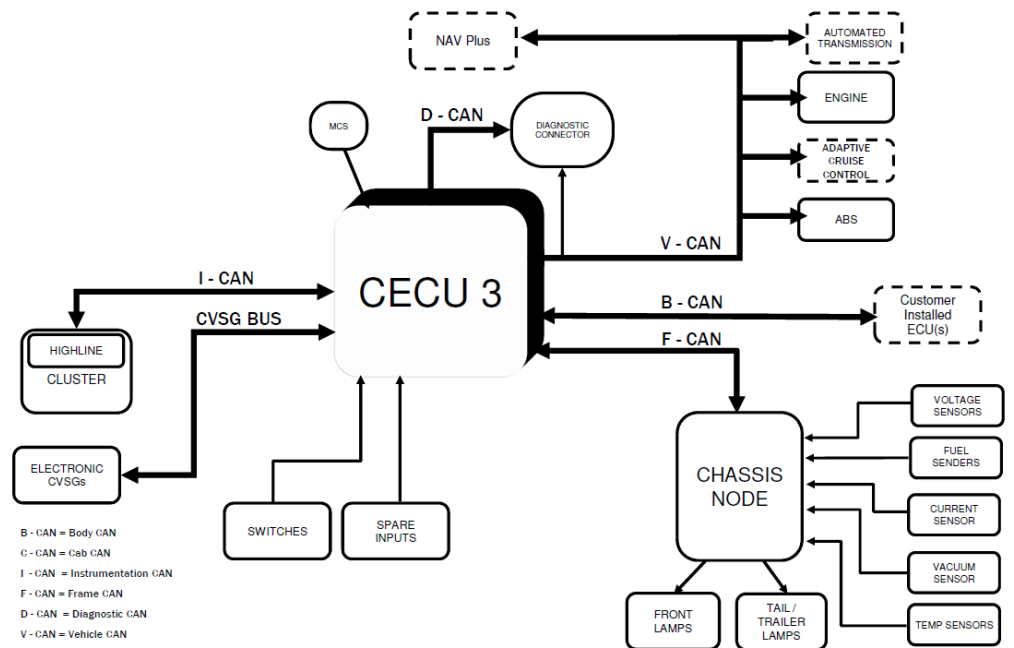
U181B

Code number	U181B
Fault code description	CAN communication - Message (ETC1) not available - Progressive shift disable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Inputs/Outputs: STEERING WHEEL, Cluster, MCS (Manual Control Switch), SWITCHES, and SPARE INPUTS are connected to CECU 3. Networks: CECU 3 is connected to Cab CAN, Instrumentation CAN, CVSG BUS, Diagnostic CAN, Vehicle CAN, and Frame CAN. Vehicle Systems: CECU 3 controls the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Engine and Aftertreatment: CECU 3 is connected to the Engine via the Engine CAN and to the Aftertreatment CAN. It also controls the VGT Actuator (Variable Geometry Turbine) and the After-treatment DCU (Differential Control Unit). Sensors: The CHASSIS NODE is connected to various sensors: VOLTAGE SENSORS, FUEL SENSORS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Lights: The CHASSIS NODE controls the FRONT LAMPS and TAIL / TRAILER LAMPS. Firewalls: There are FIREWALLs between the Diagnostic CAN and Vehicle CAN, and between the Vehicle CAN and Frame CAN.

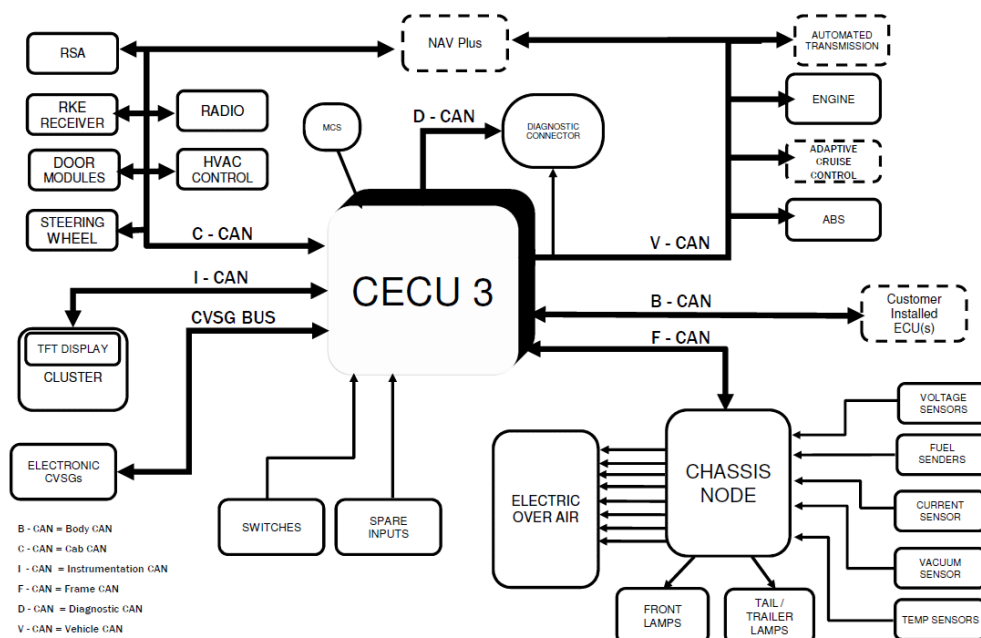
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

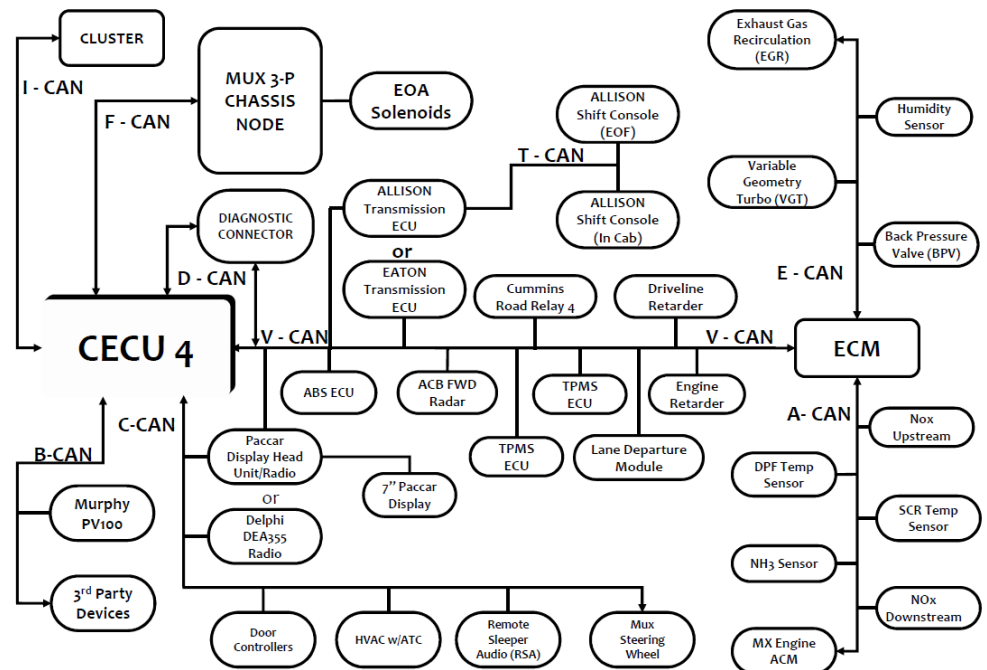
Step 1	Step ID 181B-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p>		

	<ul style="list-style-type: none">No: Proceed to step 2.Yes: Make the appropriate repairs or component replacements. Use DAVIE to re-check for the presence of active faults. <ul style="list-style-type: none">If this related fault is no longer active, then this issue has been resolved.If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 181B-b</td><td>SRT</td></tr></table> Data check <ul style="list-style-type: none">Lookup the technical data of the specific systemPerform the checking data test of the specific component Is test pass? <ul style="list-style-type: none">No: Proceed to step 3Yes : Proceed to step4	Step 2	Step ID 181B-b	SRT
	Step 2	Step ID 181B-b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 181B-c</td><td>SRT</td></tr></table> Repair or replace component <ul style="list-style-type: none">Repair or replace the component, also check for electrical connection and wiring harness.Reconnect the connectorON the ignition key Use DAVIE to re-check for the presence of active faults: <ul style="list-style-type: none">Is DTC fault active: Proceed to step 4Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 181B-c	SRT
Step 3	Step ID 181B-c	SRT		
<table><tr><td>Step 4</td><td>Step ID 181B-d</td><td>SRT</td></tr></table> For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.	Step 4	Step ID 181B-d	SRT	
Step 4	Step ID 181B-d	SRT		
Verification Drive Cycle	To verify the repair: With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics. With the brakes set, start the engine and allow it to run at idle for 2 minutes.			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

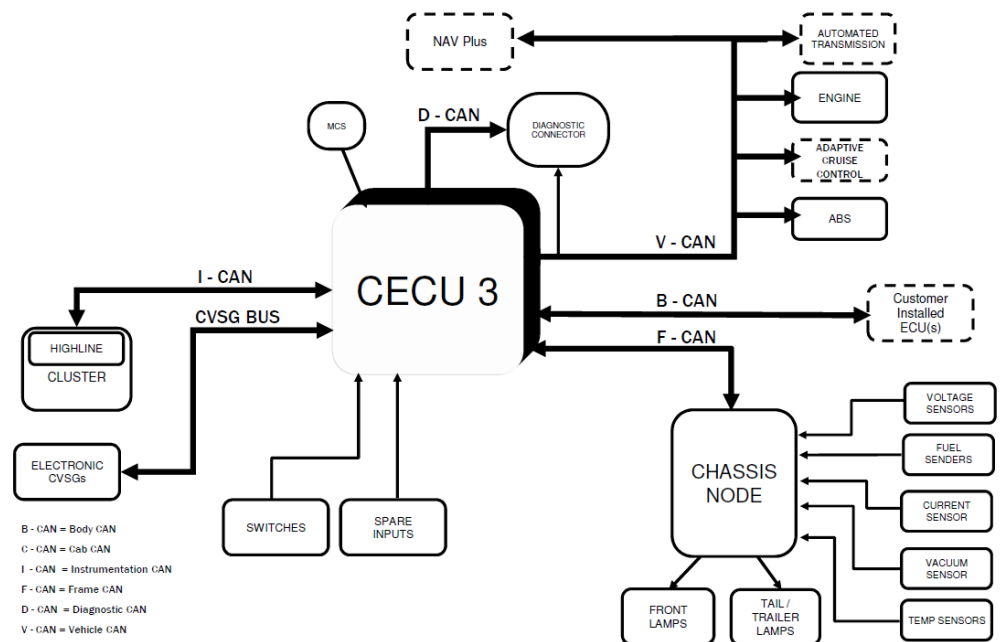
U181C

Code number	U181C
Fault code description	CAN communication - Message (ETC1) out of range - Progressive shift disable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. At the center is the CECU 3 (Central Electronic Control Unit). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Left Side Connections: <ul style="list-style-type: none"> STEERING WHEEL (via Cab CAN) Cluster (via Instrumentation CAN) ELECTRONIC CVSG's (via CVSG BUS) SWITCHES and SPARE INPUTS (via Frame CAN) Top Connections: <ul style="list-style-type: none"> MCS (Motor Control System) DIAGNOSTIC CONNECTOR (via Diagnostic CAN) Vehicle CAN network Right Side Connections: <ul style="list-style-type: none"> Engine (via Engine CAN) VGT Actuator (via Engine CAN) After-treatment DCU (via Aftertreatment CAN) CHASSIS NODE (via Frame CAN) Bottom Connections: <ul style="list-style-type: none"> FRONT LAMPS and TAIL / TRAILER LAMPS (via Frame CAN) Sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS (all connected to the CHASSIS NODE) <p>The diagram also shows a FIREWALL separating the Diagnostic CAN from the Vehicle CAN and Engine CAN networks.</p>

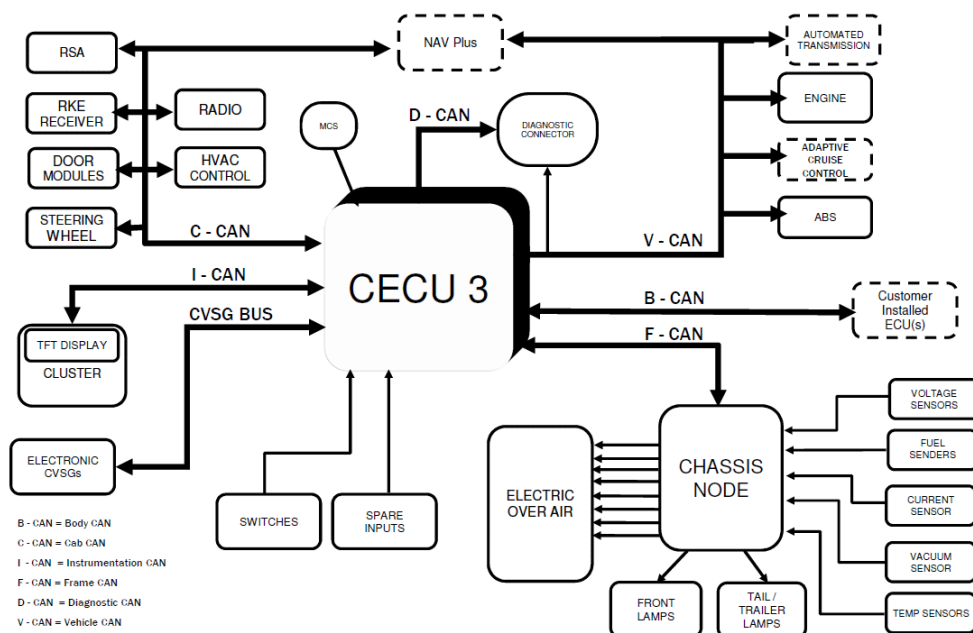
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network.
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

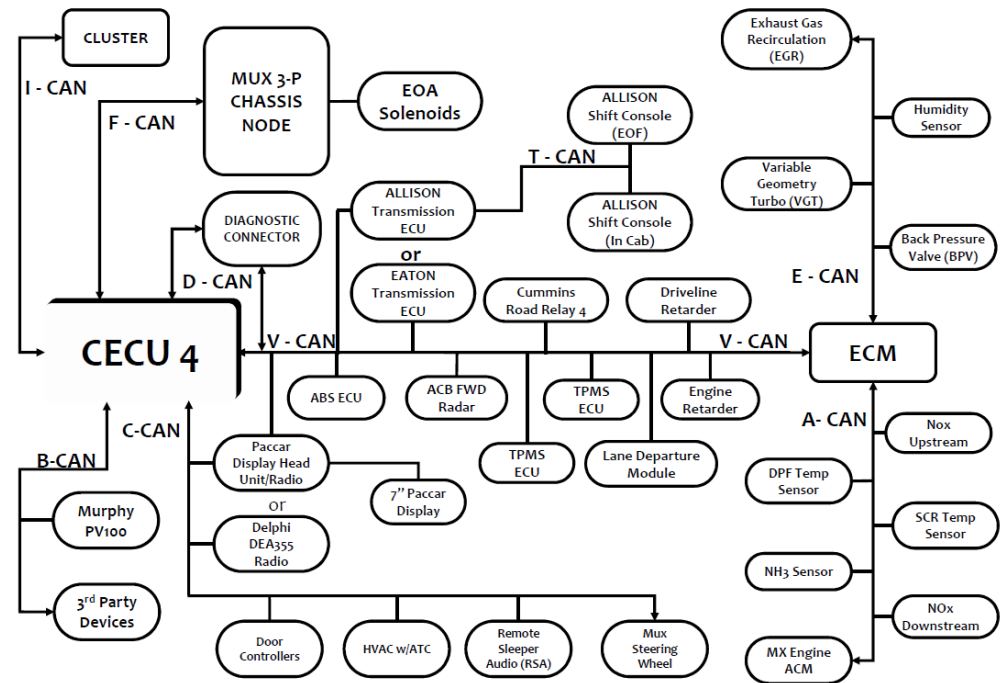
Step 1	Step ID 181C-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 181C-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		
	Step 3	Step ID 181C-c	SRT
	<p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.		
	Step 4	Step ID 181C-d	SRT
	<p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>		
	<div>Back to Choose Code</div> <div>Back to Index</div>		

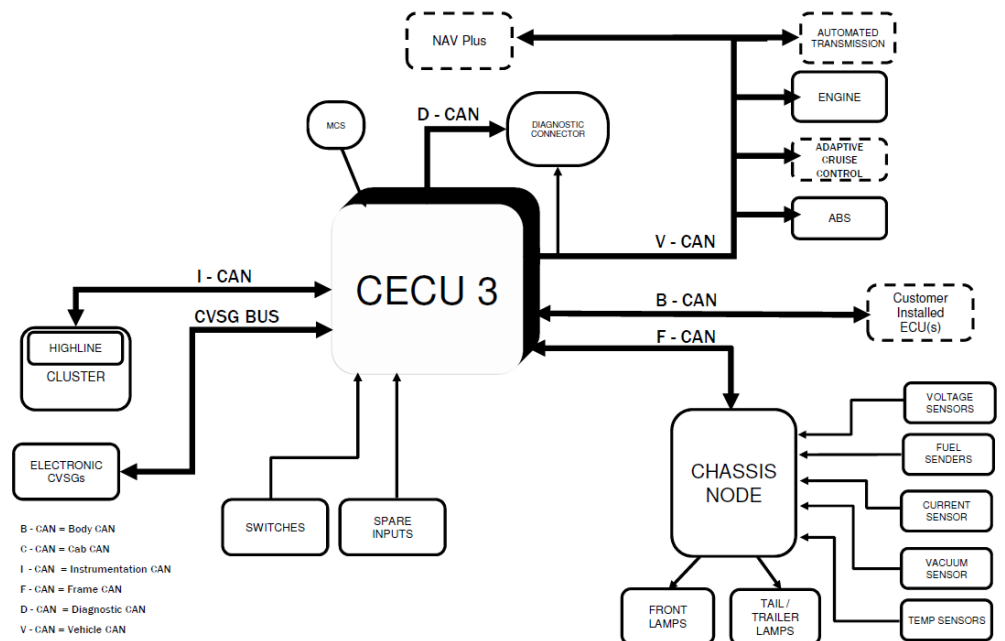
U181D

Code number	U181D
Fault code description	CAN communication - Message (ETC7) not available - Transmission engine crank enable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Master Control System) and the DIAGNOSTIC CONNECTOR. Cab CAN: Connects CECU 3 to the STEERING WHEEL and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the ELECTRONIC CVSG's (Control Valve Solenoid Groups). SWITCHES and SPARE INPUTS: These are connected to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Frame CAN: Connects CECU 3 to the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU (Differential Control Unit). CHASSIS NODE: This node is connected to the CECU 3 and manages various chassis functions, including FRONT LAMPS and TAIL / TRAILER LAMPS. Sensors: The CHASSIS NODE is connected to a series of sensors: VOLTAGE SENSORS, FUEL SENDERS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. Firewalls: There are two FIREWALLs indicated: one between the Diagnostic CAN and the Vehicle CAN, and another between the Vehicle CAN and the Engine CAN.

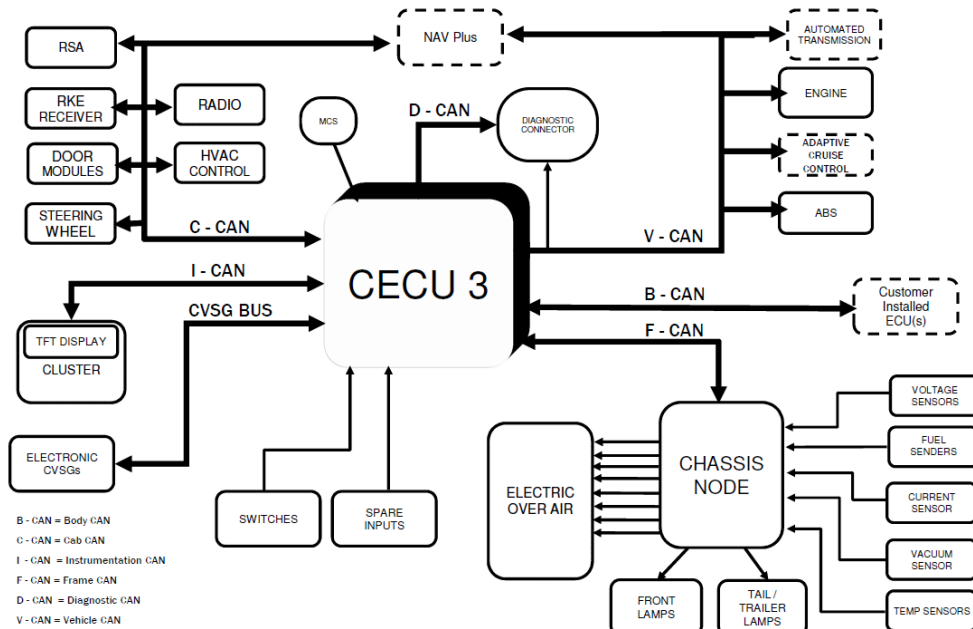
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

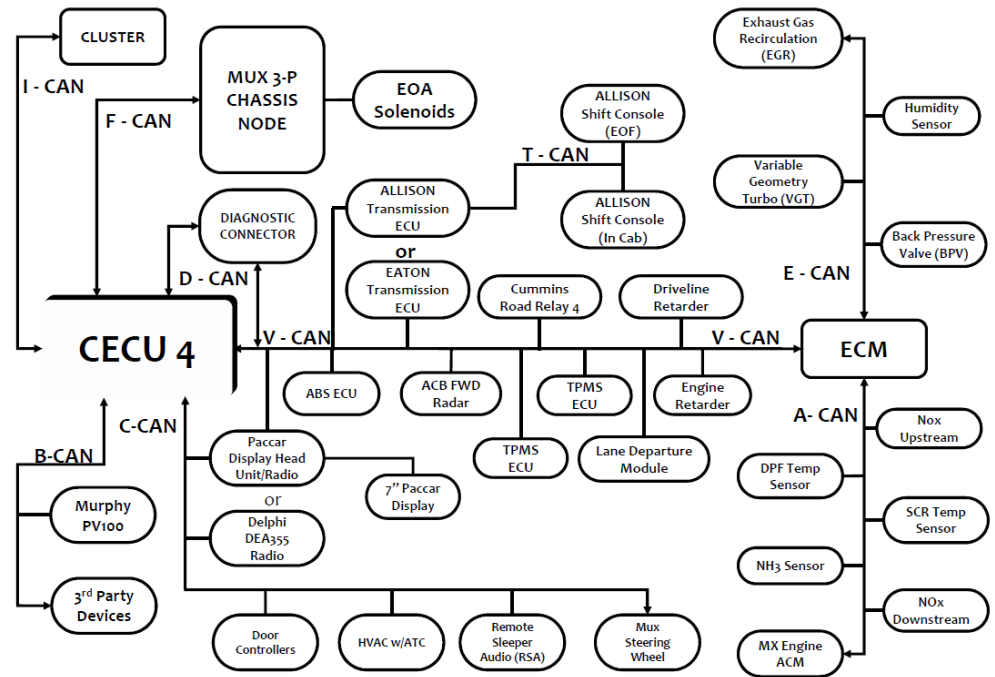
Step 1	Step ID 181D-a	SRT
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2		
	Step 2	Step ID 181D-b	SRT
	<p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4		

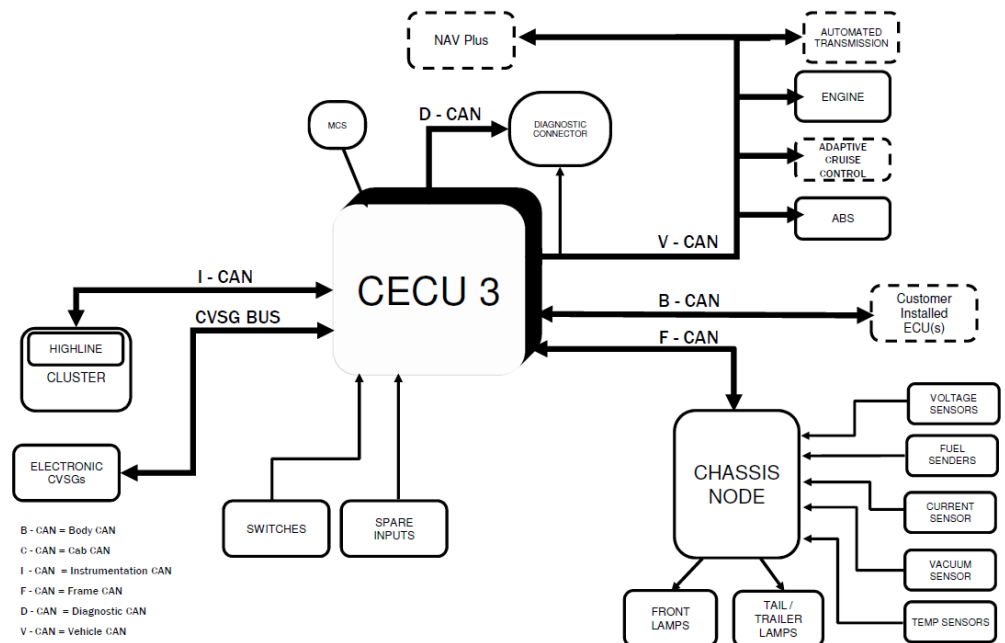
U181E

Code number	U181E
Fault code description	CAN communication - Message (ETC7) out of range - Transmission engine crank enable from transmission system
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Master Control Switch): Connected to CECU 3. Cluster: Connected via Instrumentation CAN. CVSG BUS: Connected to CECU 3. ELECTRONIC CVSG's: Connected to CECU 3. SWITCHES and SPARE INPUTS: Connected to CECU 3. Diagnostic CAN: Connected to CECU 3. DIAGNOSTIC CONNECTOR: Connected to Diagnostic CAN. Vehicle CAN: Connected to CECU 3. CHASSIS NODE: Connected to Vehicle CAN. It manages FRONT LAMPS and TAIL / TRAILER LAMPS. Aftertreatment CAN: Connected to CECU 3. ENGINE: Connected to Aftertreatment CAN. It includes ADAPTIVE CRUISE CONTROL and VGT Actuator. After-treatment DCU: Connected to ENGINE. Sensors: Various sensors are connected to the CHASSIS NODE, including VOLTAGE SENSORS, FUEL SENSORS, CURRENT SENSOR, PRESSURE SENSORS, VACUUM SENSOR, and TEMP SENSORS. <p>The diagram also shows a FIREWALL separating the CECU 3 from the CHASSIS NODE and the ENGINE. The CHASSIS NODE is connected to the ENGINE via the Vehicle CAN and Aftertreatment CAN.</p>

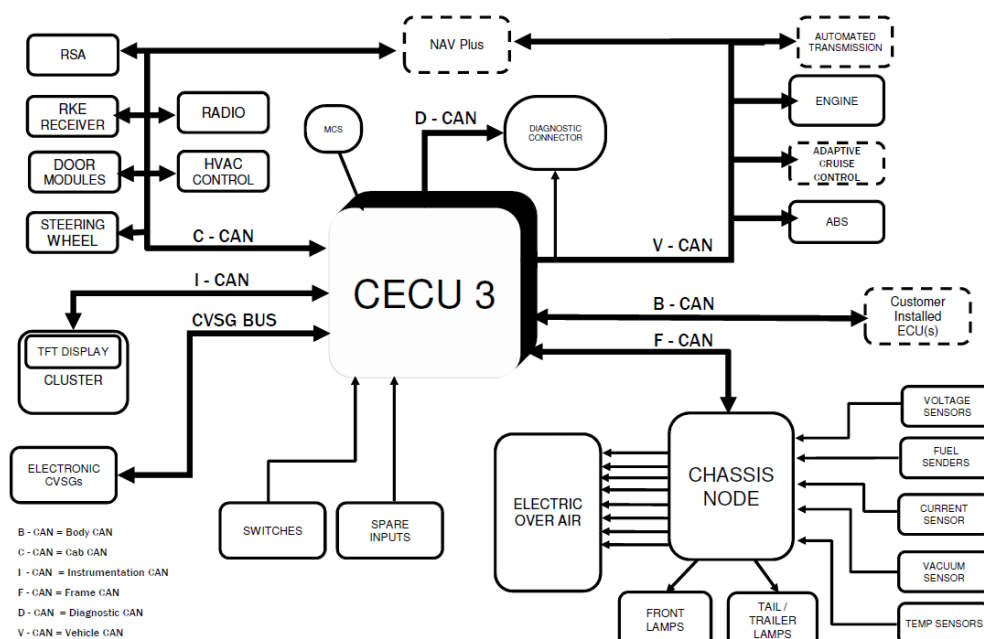
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring.

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1

Step ID 181E-a

SRT

Visual Inspection

OFF the ignition key, disconnect the connector from component and ECU.

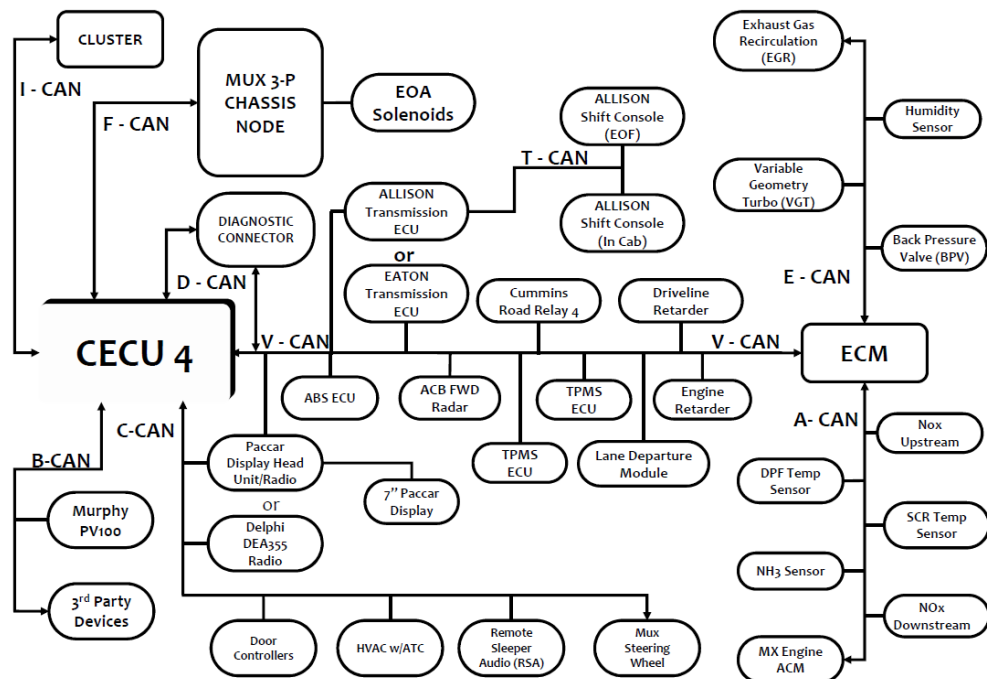
Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2					
	<table><tr><td>Step 2</td><td>Step ID 181E-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4			Step 2	Step ID 181E-b	SRT
	Step 2	Step ID 181E-b	SRT			
	<table><tr><td>Step 3</td><td>Step ID 181E-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.			Step 3	Step ID 181E-c	SRT
	Step 3	Step ID 181E-c	SRT			
<table><tr><td>Step 4</td><td>Step ID 181E-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>			Step 4	Step ID 181E-d	SRT	
Step 4	Step ID 181E-d	SRT				
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>					
	<div>Back to Choose Code</div> <div>Back to Index</div>					

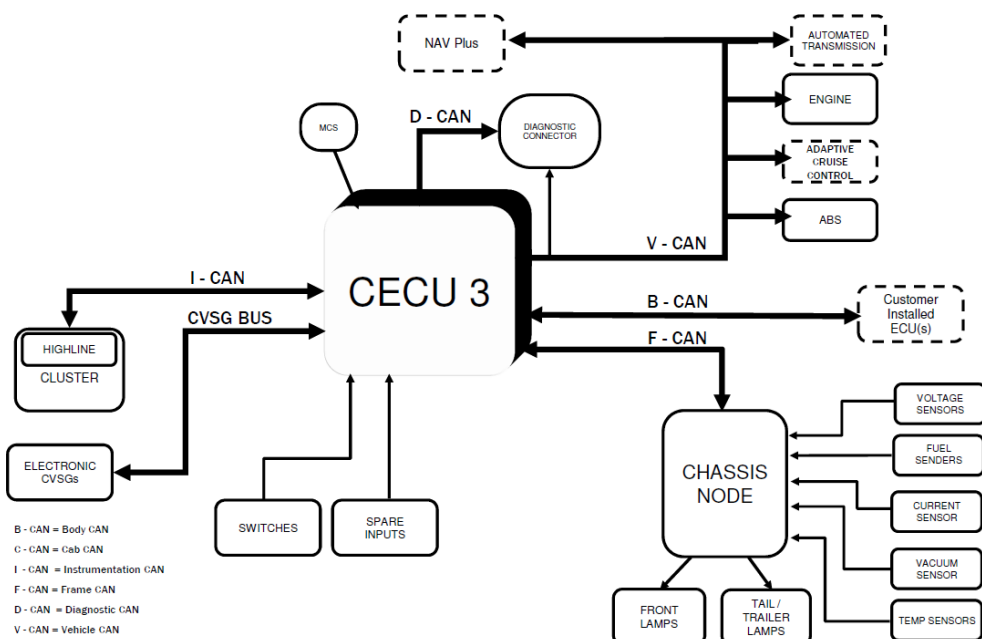
U181F

Code number	U181F
Fault code description	CAN Communication – Message (PROPB_SW) out of range – Cruise control set plus switch from steering wheel switches
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several components and networks:</p> <ul style="list-style-type: none"> Diagnostic CAN: Connects CECU 3 to the MCS (Master Control Switch) and the Diagnostic Connector. Cab CAN: Connects CECU 3 to the Steering Wheel and the Cluster. Instrumentation CAN: Connects CECU 3 to the Cluster. CVSG BUS: Connects CECU 3 to the Electronic CVSG's (Cruise Vehicle Speed Governor's). SWITCHES and SPARE INPUTS: These are connected to the CECU 3. Vehicle CAN: Connects CECU 3 to the ABS (Anti-lock Braking System), PACCAR Display, and the CHASSIS NODE. Engine CAN: Connects CECU 3 to the ENGINE and the VGT Actuator. Aftertreatment CAN: Connects CECU 3 to the After-treatment DCU. CHASSIS NODE: This node is connected to the CECU 3 and manages various chassis functions, including: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENSORS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the Engine CAN.</p>

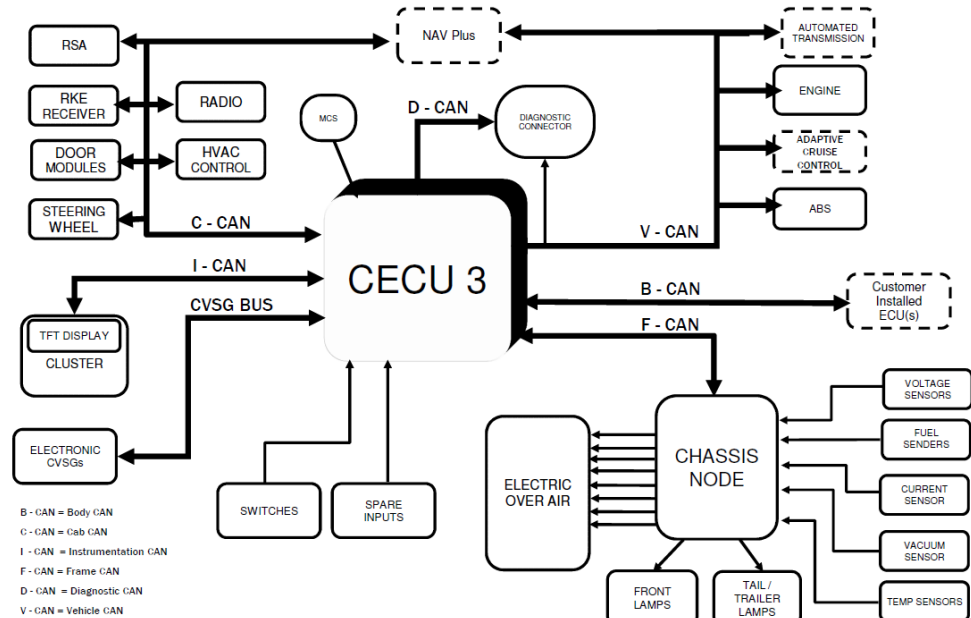
NAMUX 4 Architecture (Phase 1): T680





NAMUX 3 Architecture



NAMUX 4 Architecture



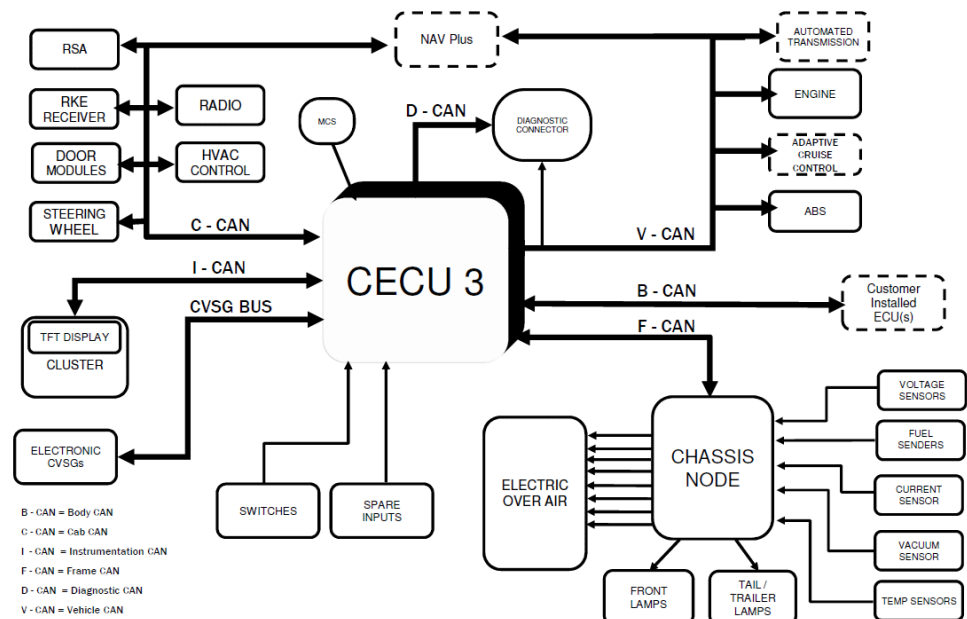
Technical data	This code relates to a communication issue and not to a specific component.								
Possible causes	<ul style="list-style-type: none">Breakdown in communication in the CAN networkInterruption, short circuit to ground, or short circuit to supply in the CAN network wiring								
Additional information	No additional information available								
Diagnostic Step-by-Step	<div><div></div><div><p>Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.</p></div></div> <div><div></div><ul style="list-style-type: none">Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.For specific electrical component information and pinout locations, always refer to the technical data.It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.</div> <table><tr><td>Step 1</td><td>Step ID 181F-a</td><td>SRT</td></tr><tr><td colspan="3"><p>Visual Inspection</p><p>OFF the ignition key, disconnect the connector from component and ECU.</p><p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p></td></tr></table>			Step 1	Step ID 181F-a	SRT	<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>		
Step 1	Step ID 181F-a	SRT							
<p>Visual Inspection</p> <p>OFF the ignition key, disconnect the connector from component and ECU.</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.</p>									

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 181F-b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 181F-b	SRT
Step 2	Step ID 181F-b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 181F-c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 181F-c	SRT
Step 3	Step ID 181F-c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 181F-d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 181F-d	SRT
Step 4	Step ID 181F-d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

U1820

Code number	U1820
Fault code description	CAN Communication – Message (PROPB_SW) out of range – Cruise control resume min switch from steering wheel switches
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. MCS (Message Control Switch): Connected to CECU 3. Diagnostic CAN: Connected to CECU 3 and a Diagnostic Connector. Cluster: Connected to CECU 3 via Instrumentation CAN. ELECTRONIC CVSG's: Connected to CECU 3 via CVSG BUS. SWITCHES and SPARE INPUTS: Connected to CECU 3. Vehicle CAN: Connected to CECU 3 and the CHASSIS NODE. CHASSIS NODE: Connected to CECU 3 and various sensors/actuators including: <ul style="list-style-type: none"> FRONT LAMPS TAIL / TRAILER LAMPS VOLTAGE SENSORS FUEL SENDERS CURRENT SENSOR PRESSURE SENSORS VACUUM SENSOR TEMP SENSORS Engine and After-treatment: Connected via Engine CAN and After-treatment CAN. Components include: <ul style="list-style-type: none"> ENGINE ADAPTIVE CRUISE CONTROL VGT Actuator After-treatment DCU Other Components: ABS, PACCAR Display, and AUTO TRANSMISSION are also shown connected to the system. <p>Firewalls are indicated between the Diagnostic CAN and the Vehicle CAN, and between the Vehicle CAN and the CHASSIS NODE.</p>

NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

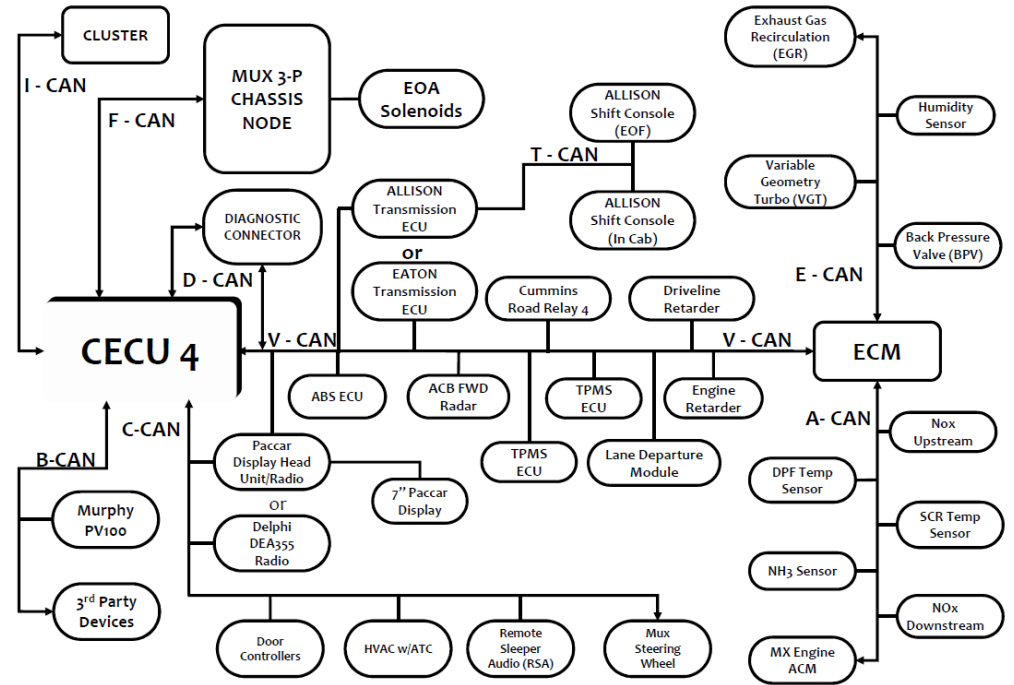
Step 1	Step ID 1820a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic		

	<p>procedure.</p> <p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1820b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1820b	SRT
	Step 2	Step ID 1820b	SRT	
	<table><tr><td>Step 3</td><td>Step ID 1820c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1820c	SRT
Step 3	Step ID 1820c	SRT		
<table><tr><td>Step 4</td><td>Step ID 1820d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1820d	SRT	
Step 4	Step ID 1820d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			

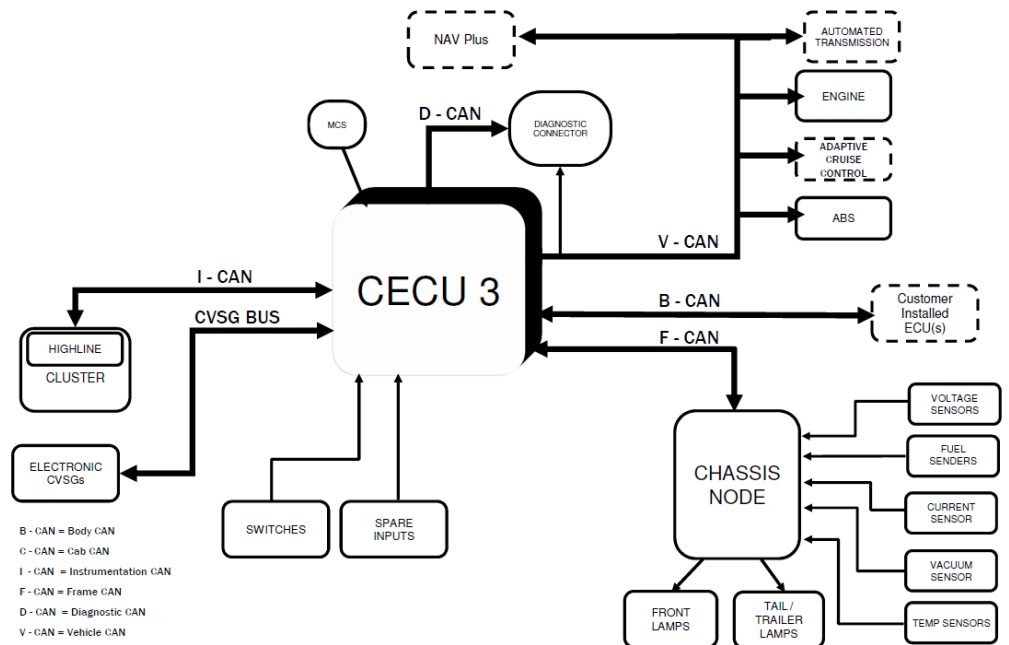
U1821

Code number	U1821
Fault code description	CAN Communication – Message (PROPB_SW) out of range – Speed functions off switch from steering wheel switches
Fault code information	3 drive cycle recovery Readiness group – None Freeze frame type – Generic
Description of component(s)	This code relates to a communication issue and not to a specific component.
Location of component(s)	This code relates to a communication issue and not to a specific component.
Diagnostic condition	This diagnostic runs continuously when the ignition is on.
Set condition of fault code	
Reset condition of fault code	This DTC changes to inactive as soon as the error is no longer detected.
Electrical diagram(s)	<p style="text-align: center;"><i>NAMUX 3 Architecture: 2010 B-Cab</i></p> <p>The diagram illustrates the NAMUX 3 Architecture for a 2010 B-Cab. The central component is the CECU 3 (Central Electronic Control Unit 3). It is connected to several key systems and components:</p> <ul style="list-style-type: none"> Steering Wheel: Connected via Cab CAN. Cluster: Connected via Instrumentation CAN. MCS (Motor Control System): Connected via Diagnostic CAN. Diagnostic Connector: Connected via Diagnostic CAN. ABS (Anti-lock Braking System): Connected via Vehicle CAN. PACCAR Display: Connected via Vehicle CAN. Engine: Connected via Engine CAN. Aftertreatment: Connected via Aftertreatment CAN. Chassis Node: Connected via Frame CAN. CVSG BUS: Connected to the CECU 3. Electronic CVSG's: Connected to the CVSG BUS. Switches and Spare Inputs: Connected to the CECU 3. Front Lamps and Tail/Trailer Lamps: Connected to the Chassis Node. Sensors: Various sensors are connected to the Chassis Node, including Voltage Sensors, Fuel Senders, Current Sensor, Pressure Sensors, Vacuum Sensor, and Temp Sensors. <p>The diagram also shows a Firewall separating the CECU 3 from the Chassis Node and the Engine/Aftertreatment CAN network.</p>

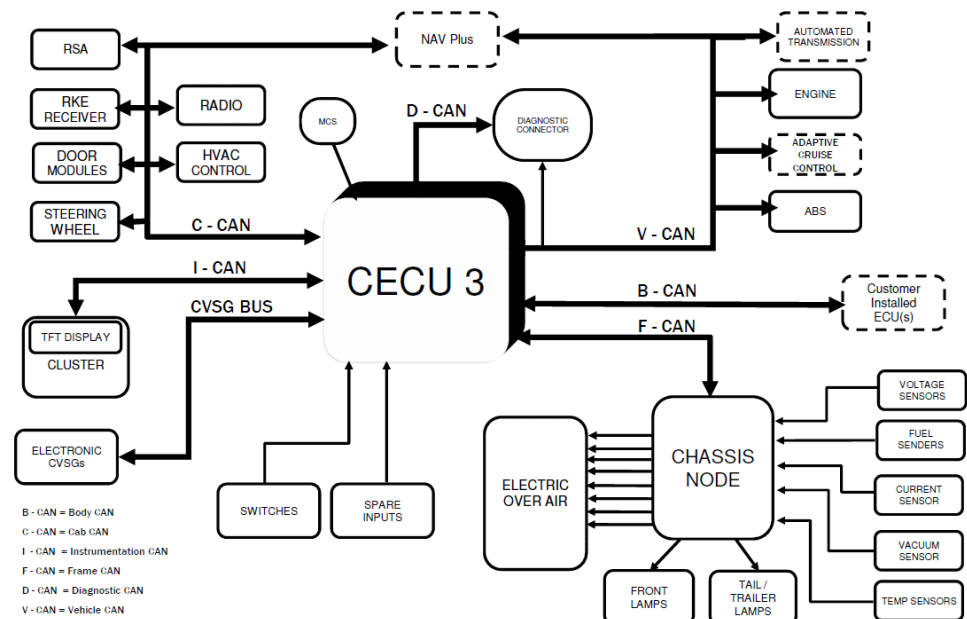
NAMUX 4 Architecture (Phase 1): T680



NAMUX 3 Architecture



NAMUX 4 Architecture



Technical data

This code relates to a communication issue and not to a specific component.

Possible causes

- Breakdown in communication in the CAN network
- Interruption, short circuit to ground, or short circuit to supply in the CAN network wiring

Additional information

No additional information available

Diagnostic Step-by-Step



Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components, such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components in order to reduce the likelihood of damage to electrical components.



- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pinout locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step 1	Step ID 1821a	SRT
Visual Inspection OFF the ignition key, disconnect the connector from component and ECU. Visually inspect all applicable connectors (bent, broken, corroded or loose pins) damage to wire harness, sign of exhaust leaks during each step of the diagnostic procedure.		

	<p>Was there evidence of any of the above?</p> <ul style="list-style-type: none">• No: Proceed to step 2.• Yes: Make the appropriate repairs or component replacements. <p>Use DAVIE to re-check for the presence of active faults.</p> <ul style="list-style-type: none">• If this related fault is no longer active, then this issue has been resolved.• If this related fault is still active, Proceed to step 2			
	<table><tr><td>Step 2</td><td>Step ID 1821b</td><td>SRT</td></tr></table> <p>Data check</p> <ul style="list-style-type: none">• Lookup the technical data of the specific system• Perform the checking data test of the specific component <p>Is test pass?</p> <ul style="list-style-type: none">• No: Proceed to step 3• Yes : Proceed to step4	Step 2	Step ID 1821b	SRT
Step 2	Step ID 1821b	SRT		
	<table><tr><td>Step 3</td><td>Step ID 1821c</td><td>SRT</td></tr></table> <p>Repair or replace component</p> <ul style="list-style-type: none">• Repair or replace the component, also check for electrical connection and wiring harness.• Reconnect the connector• ON the ignition key <p>Use DAVIE to re-check for the presence of active faults:</p> <ul style="list-style-type: none">• Is DTC fault active: Proceed to step 4• Is DTC fault inactive: Issue resolved. Clear inactive fault.	Step 3	Step ID 1821c	SRT
Step 3	Step ID 1821c	SRT		
	<table><tr><td>Step 4</td><td>Step ID 1821d</td><td>SRT</td></tr></table> <p>For further assistance in diagnosing this issue or for confirmation prior to the replacement of suspect components, contact the Engine Support Call Center at 1-800-477-0251.</p>	Step 4	Step ID 1821d	SRT
Step 4	Step ID 1821d	SRT		
Verification Drive Cycle	<p>To verify the repair:</p> <p>With the brakes set, turn the key to the ON position with the engine off, and allow 10 seconds for the system to initialize and run diagnostics.</p> <p>With the brakes set, start the engine and allow it to run at idle for 2 minutes.</p>			
	<div>Back to Choose Code</div> <div>Back to Index</div>			