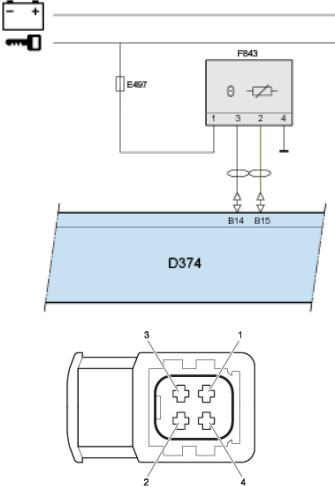




P3917

<p>Code number</p>	<p>P3917</p>
<p>Fault code description</p>	<p>NOx sensor after catalyst - Heater element error</p>
<p>Fault code information</p>	<p>1 trip MIL 3 drive cycle recovery Readiness group - None Freeze frame type -Comprehensive</p>
<p>Description of component(s)</p>	<div data-bbox="747 441 1218 735" data-label="Image"> </div> <p>DESCRIPTIONS COMPONENTS, NOX SENSOR AFTER CATALYST (F843)</p> <ul style="list-style-type: none"> • Dosing fuel into the exhaust pipe before the oxidation catalyst, during active regeneration; • Ceramic sensor element, heater element and an electronic control unit; • The NOx sensor is connected to the A-CAN. <p>Effect of the output signal on the system:</p> <ul style="list-style-type: none"> • Measures the amount of NOx after the catalyst in order to determine if the NOx level is within the limits.
<p>Location of component(s)</p>	<div data-bbox="584 1155 1412 1638" data-label="Image"> </div>
<p>Diagnostic condition</p>	<ul style="list-style-type: none"> • This diagnostic runs after the NOx sensor after catalyst (F843) reaches the dew point. The dew point is reached 5 seconds after the temperature after the SCR is higher than 150°C [302°F].
<p>Set condition of fault code</p>	<ul style="list-style-type: none"> • The DTC is set when the sensor is not powered correctly or if there is a

	<p>problem with the power supply for 10 consecutive seconds.</p>																											
<p>Reset condition of fault code</p>	<ul style="list-style-type: none"> • Run a stationary regeneration with DAVIE to raise temperatures and reach dew point of the NOx sensor after catalyst (F843). • Monitor the NOx sensor after catalyst (F843) operation until NOx indicates a stable value. 																											
<p>Electrical diagram(s)</p>	<div style="text-align: center;">  <p>Wiring harness connector F843 front view</p> </div> <p>D374 EAS-3 ECU E497 Fuse after treatment CAN F943 NOx sensor after catalytic convertor</p>																											
<p>Technical data</p>	<table border="1"> <thead> <tr> <th>D374</th> <th>F843</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>B14</td> <td>3</td> <td>A-CAN High</td> </tr> <tr> <td>B15</td> <td>2</td> <td>A-CAN Low</td> </tr> <tr> <td></td> <td>1</td> <td>Power supply</td> </tr> <tr> <td></td> <td>4</td> <td>Earth</td> </tr> </tbody> </table> <p>Component & wiring check, NOx sensor after catalyst (F843)</p> <p>Preparation</p> <ul style="list-style-type: none"> • Disconnect connector F843. • Ignition switched on. • Measure on connector F843 <table border="1"> <thead> <tr> <th>Pin (+ probe)</th> <th>Pin (- probe)</th> <th>Value</th> <th>Addition information</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>1</td> <td>Ubat</td> <td>at 20°C</td> </tr> <tr> <td>1</td> <td>Battery negative pole</td> <td>>0.5v</td> <td>Switch all consumer on</td> </tr> </tbody> </table> <p>Component & wiring check, A-CAN</p>	D374	F843	Function	B14	3	A-CAN High	B15	2	A-CAN Low		1	Power supply		4	Earth	Pin (+ probe)	Pin (- probe)	Value	Addition information	4	1	Ubat	at 20°C	1	Battery negative pole	>0.5v	Switch all consumer on
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<p>Possible causes</p>	<ul style="list-style-type: none"> • Open power supply circuit of the NOx sensor after catalyst (F843). • Internal malfunction of the NOx sensor after catalyst (F843). • Check if the sensor is powered correctly • Check the wiring harness for short circuits 									
<p>Additional information</p>	<ul style="list-style-type: none"> • The NOx sensor after catalyst (F843) is not operational • DEF injection is based on pre-programmed values. 									
<p>Diagnostic Step-by-Step</p>	<div style="border: 1px solid red; padding: 5px; display: inline-block; margin-bottom: 10px;">  </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 style="border: 1px solid black; padding: 5px; display: inline-block; margin-bottom: 10px;">  </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 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. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Step 1</td> <td style="width: 33%;">Step ID 3917a</td> <td style="width: 33%;">SRT</td> </tr> <tr> <td colspan="3"> <p>Visual Inspection</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) and harnesses for corrosion, damage, and rubbing during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <p>No: Continue to the next step 2 in the troubleshooting process.</p> <p>Yes: Clean, adjust, repair, or replace affected components for any issues identified.</p> <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, continue to the next step 2 in the troubleshooting process. </td> </tr> <tr> <td>Step 2</td> <td>Step ID 3917b</td> <td>SRT</td> </tr> </table>	Step 1	Step ID 3917a	SRT	<p>Visual Inspection</p> <p>Visually inspect all applicable connectors (bent, broken, corroded or loose pins) and harnesses for corrosion, damage, and rubbing during each step of the diagnostic procedure.</p> <p>Was there evidence of any of the above?</p> <p>No: Continue to the next step 2 in the troubleshooting process.</p> <p>Yes: Clean, adjust, repair, or replace affected components for any issues identified.</p> <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, continue to the next step 2 in the troubleshooting process. 			Step 2	Step ID 3917b	SRT
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	<ol style="list-style-type: none"> 1. Turn the key switch ON. 2. Use DAVIE to check for fault codes. <p>Is fault code P3921, P3873, or P3816 active?</p> <ul style="list-style-type: none"> • Yes – Proceed with the appropriate fault code • No – Proceed to step 3 			
	<table border="1"> <tr> <td data-bbox="488 470 805 506">Step 3</td> <td data-bbox="805 470 1122 506">Step ID 3917c</td> <td data-bbox="1122 470 1511 506">SRT</td> </tr> </table> <ol style="list-style-type: none"> 1. Turn the key switch ON. 2. Use DAVIE to check for line heating fault codes. <p>Is fault code P3917 active?</p> <ul style="list-style-type: none"> • Yes – An internal error has been detected in the NOx sensor. Replace the NOx sensor. Proceed to step 4 • No – Proceed to step 4 	Step 3	Step ID 3917c	SRT
Step 3	Step ID 3917c	SRT		
	<table border="1"> <tr> <td data-bbox="488 884 805 919">Step 4</td> <td data-bbox="805 884 1122 919">Step ID 3917d</td> <td data-bbox="1122 884 1511 919">SRT</td> </tr> </table> <ol style="list-style-type: none"> 1. Connect all components. 2. Operate the system within 'reset condition of the fault code' found in the fault code information. 3. Use DAVIE to verify if the fault codes are inactive. <p>Is fault code P3917 inactive?</p> <ul style="list-style-type: none"> • Yes – Proceed to step 5 • No – Return to the troubleshooting steps Proceed to step 1 <p>If all the steps have been completed and rechecked, contact the Engine Support Center for further instructions.</p>	Step 4	Step ID 3917d	SRT
Step 4	Step ID 3917d	SRT		
	<table border="1"> <tr> <td data-bbox="488 1451 805 1486">Step 5</td> <td data-bbox="805 1451 1122 1486">Step ID 3917e</td> <td data-bbox="1122 1451 1511 1486">SRT</td> </tr> </table> <ol style="list-style-type: none"> 1. Connect all components. 2. Turn the key switch ON. 3. Use DAVIE to clear the inactive fault codes. <p>Have all the fault codes been cleared?</p> <ul style="list-style-type: none"> • Yes – Repair complete • No – Troubleshoot any remaining active fault codes 	Step 5	Step ID 3917e	SRT
Step 5	Step ID 3917e	SRT		
<p>Verification Drive Cycle</p>	<p>Perform the same procedure outlined for the Steady State cycle. Using DAVIE, select the following Monitor values to record:</p>			

	<ul style="list-style-type: none"> • Exhaust Temperature Before SCR • Exhaust Temperature After SCR • Pump Module <p>Once the SCR temperatures have reached a minimum of 536°F (280°C), continue the remainder of this cycle with the high idle. The monitored Pump Module value will indicate when dosing starts. Allow dosing to occur for a minimum of 15 minutes. Check the recorded values after the driving has been completed to verify temperatures and dosing.</p>
	<p style="text-align: right;">Back to Choose Code</p> <p style="text-align: right;">Back to Index</p>