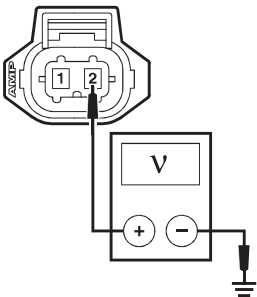
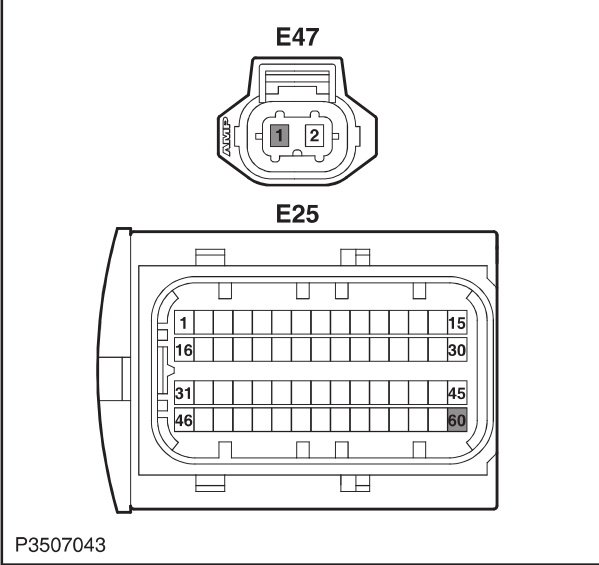
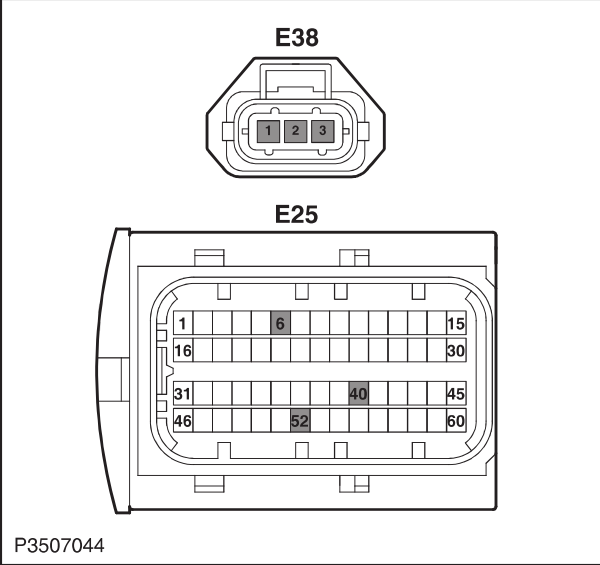


## Diagnosis Procedure for High Pressure Fuel Pump Fault

Test Conditions	Details/Results/Actions
1. Inspect DTC	<p>A. Connect diagnostic tool and turn ignition switch to "ON" position.</p> <p>B. Diagnose the engine system.</p> <p>Is there any DTC?</p> <p><b>Yes</b></p> <p>Solve the DTC.</p> <p><b>No</b></p> <p>Go to step 2.</p>
2. Inspect fuse	<p>A. Turn the ignition switch to "LOCK" position.</p> <p>B. Inspect engine fuse EF14 in engine compartment fuse box C46.</p> <p><b>Rated capacity: 15 A</b></p> <p>Is fuse normal?</p> <p><b>Yes</b></p> <p>Go to step 3.</p> <p><b>No</b></p> <p>Replace with a fuse of rated capacity.</p>
<p>3. Inspect power supply circuit of fuel injection pump solenoid valve</p> <div data-bbox="162 1323 760 1711" style="border: 1px solid black; padding: 5px;">  <p>P3507042</p> </div>	<p>A. Turn the ignition switch to "LOCK" position.</p> <p>B. Disconnect the fuel injection pump wiring harness connector E47.</p> <p>C. Turn the ignition switch to "ON" position.</p> <p>D. Measure voltage between terminal 2 of fuel injection pump wiring harness connector E47 and reliable ground.</p> <p><b>Standard voltage: 11 ~ 14 V</b></p> <p>Is voltage normal?</p> <p><b>Yes</b></p> <p>Go to step 4.</p> <p><b>No</b></p> <p>Repair open circuit between terminal 2 of fuel injection pump wiring harness connector E47 and terminal 108 of engine compartment fuse box EF14.</p>

Test Conditions	Details/Results/Actions
4. Inspect ground circuit of fuel injection pump solenoid valve	
 <p>P3507043</p>	<p>A. Turn the ignition switch to "LOCK" position.</p> <p>B. Disconnect the fuel injection pump wiring harness connector E47.</p> <p>C. Disconnect ECU wiring harness connector E25.</p> <p>D. Measure resistance between terminal 1 of fuel injection pump wiring harness connector E47 and terminal 60 of ECU wiring harness connector E25.</p> <p><b>Standard resistance: Less than 5 Ω</b></p> <p>E. Measure resistance between terminal 1 of fuel injection pump wiring harness connector E47 and reliable ground.</p> <p><b>Standard resistance: 10 MΩ or more</b></p> <p>Is resistance normal?</p> <p><b>Yes</b></p> <p>Go to step 5.</p> <p><b>No</b></p> <p>Inspect and repair faulty circuit between terminal 1 of fuel injection pump wiring harness connector E47 and terminal 60 of ECU wiring harness connector E25.</p>

Test Conditions	Details/Results/Actions
5. Inspect fuel rail pressure sensor circuit	
<div style="text-align: center;">  <p>P3507044</p> </div>	<p>A. Turn the ignition switch to "LOCK" position.</p> <p>B. Disconnect the fuel rail pressure sensor wiring harness connector E38.</p> <p>C. Disconnect ECU wiring harness connector E25.</p> <p>D. Measure resistance between terminals 1, 2, 3 of fuel rail pressure sensor wiring harness connector E38 and terminals 40, 52, 6 of ECU wiring harness connector E25.</p> <p><b>Standard resistance: Less than 5 Ω</b></p> <p>E. Measure resistance between terminals 1, 2, 3 of fuel rail pressure sensor wiring harness connector E38 and reliable ground.</p> <p><b>Standard resistance: 10 MΩ or more</b></p> <p>F. Turn the ignition switch to "ON" position.</p> <p>G. Measure voltage between terminals 1, 2, 3 of fuel rail pressure sensor wiring harness connector E38 and reliable ground.</p> <p><b>Standard voltage: 0 V</b></p> <p>Is it normal?</p> <p><b>Yes</b></p> <p>Go to step 6.</p> <p><b>No</b></p> <p>Repair circuits between terminals 1, 2, 3 of fuel rail pressure sensor wiring harness connector E38 and terminals 40, 52, 6 of ECU wiring harness connector E25.</p>

Test Conditions	Details/Results/Actions
6. Inspect fuel rail pressure sensor	
	<p>A. Install new fuel rail pressure sensor to faulty vehicle.</p> <p>B. Start the vehicle, inspect if system is normal. Is system normal?</p> <p><b>Yes</b></p> <p>The system is normal.</p> <p><b>No</b></p> <p>Go to step 7.</p>
7. Inspect fuel injection pump	
	<p>A. Install new fuel injection pump to faulty vehicle.</p> <p><b>Refer to: Fuel Injection Pump (3.5.7 Fuel System, Removal and Installation)</b></p> <p>B. Start the vehicle, inspect if system is normal. Is system normal?</p> <p><b>Yes</b></p> <p>Replace the fuel injection pump.</p> <p><b>Refer to: Fuel Injection Pump (3.5.7 Fuel System, Removal and Installation)</b></p> <p><b>No</b></p> <p>Replace the ECU.</p> <p><b>Refer to: Engine Control Unit (3.5.13 Electronic Control System, Removal and Installation)</b></p>