CEBM026901

Shop Manual

930E-4

DUMP TRUCK

SERIAL NUMBERS **A31164 - A31689, A31698, A31700, A31704 & A31718 - A31724**

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Fault Code A005: Left rear suspension pressure sensor signal is high

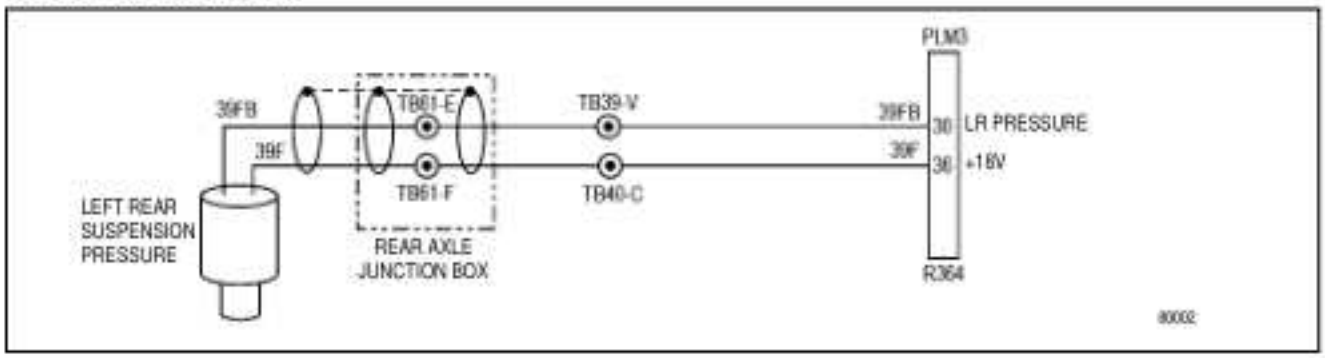
Operator Action	None
Fault Code	A005
Description	Left rear suspension pressure sensor signal is high.
Fault Conditions	Sets if pressure signal is out of range high (sensor current over 22 ma). Resets if reading returns to normal.
Operator Alerting System Response	PLM Display: ------
Resulting Problem(s)	Bad payload computation.
Related Information	

Table

1. This fault is generated by PLM in response to a problem in the sensor circuit. This sensor circuit may have a related fault that can be used to resolve the problem. Refer to the Troubleshooting Instructions for the active parameter fault(s).
2. If there are no active parameter fault codes, then, based on the truck's setup while this fault is active, determine which of the parameters in the Table is not shown in its expected state on the IM Realtime Data Monitor program. Refer to the schematic to identify which item(s) may be causing the parameter(s) to be in the unexpected state. Troubleshoot these items.
3. If this fault is not currently active or if no parameters are currently in the unexpected state and the malfunction is still unresolved, then check each of the parameters in the Table for proper functionality. Troubleshoot all item(s) related to the parameter(s) which are found to be malfunctioning.

Parameter	Expected State and/or Related Fault(s)
Left Rear Pressure Sensor (PLM3 36,30)	Sensor current > 22 ma: failed high Sensor current < 2 ma: failed low Sensor current > 2 ma but less than 22 ma: valid readings Fault(s): A006

Related circuit diagram



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TROUBLESHOOTING GUIDELINES

Refer to the electrical schematic located in Section R for a diagram of the circuits.

SYMPTOM	RECOMMENDED CHECKS
All of the heating elements do not heat.	Check for power going into the main power receptacle. Check for power at the junction box. Check for loose connections at the terminal board.
Some of the heating elements do not heat.	Check for loose connections at the jumper cables in between each terminal board in the junction box.
Some of the heating elements operate outside of the proper temperature range.	Check for loose connections. Replace the thermostat that controls the affected heating elements.
A heating element will not heat up.	Connect a power source directly to the heating element and check. If the element does not heat, replace the element. Check the wiring for an open circuit.

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SYSTEM PERFORMANCE TEST

This test is performed to establish the condition of all components in the system. Observe these conditions during testing:

1. Place a fan in front of the condenser to simulate normal ram air flow and allow the system to stabilize.
2. Install a thermometer into the air conditioning vent closest to the evaporator.
3. Start the engine and operate at 1,000 rpm.
4. Evaluate the readings obtained from the gauges to see if they match the readings for the ambient temperature.
5. Set the air conditioning system at maximum cooling and maximum blower speed operation.
6. Close all windows and doors to the cab.
7. Carefully feel the hoses and components on the high side. All should be warm or hot to the touch. Check the inlet and outlet of receiver-drier for even temperatures. If outlet is cooler than inlet, a restriction is indicated.

⚠WARNING

Use extreme caution when placing hands on high side components and hoses. Under most normal conditions, these items can be extremely hot.

8. Feel the hoses and components on the low side. They should be cool to the touch. Check the connections near the expansion valve. The inlet side should be warm and the outlet side should be cold.
9. After a minimum of 10 minutes has elapsed and the system has stabilized, observe the gauge readings. Compare the readings to the specifications in Table 1.

NOTE: Pressures may be slightly higher in very humid conditions and lower in very dry conditions. Pressures listed in the table are during compressor clutch engagement.

10. Check the cab vents for cool air. Outlet air temperature should be approximately 16 - 22° C (30 - 40° F) below ambient air temperature.
11. If pressures and temperatures are not within the specified ranges, the system is not operating properly. Refer to Preliminary Checks for tips on diagnosing poor system performance.

Table 1: NOMINAL R-134a PRESSURE RANGES

Ambient Air Temperature	High Side Pressure	Low Side Pressure
21° C (70° F)	820 - 1 300 kPa (120 - 190 psi)	70 - 138 kPa (10 - 20 psi)
27° C (80° F)	950 - 1 450 kPa (140 - 210 psi)	70 - 173 kPa (10 - 25 psi)
32° C (90° F)	1 175 - 1 650 kPa (170 - 240 psi)	105 - 210 kPa (15 - 30 psi)
38° C (100° F)	1 300 - 1 850 kPa (190 - 270 psi)	105 - 210 kPa (15 - 30 psi)
43° C (110° F)	1 450 - 2 075 kPa (210 - 300 psi)	105 - 210 kPa (15 - 30 psi)

NOTE: All pressures in this chart are for reference only. Weight is the only absolute means of determining proper refrigerant charge.

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4. Navigate the highlighted bar downward to the row named "Camera Switch" (Figure 33-17) using the minus button. Press the enter button to cause the setting for this row to become highlighted in green color. Use the plus button or the minus button as needed to cycle to option "4C" in the available settings. When "4C" is shown, select this option by pressing the enter button. Now the complete row should be highlighted in yellow and the text "4C" is shown as the selected option.

NOTE: The other options are also shown in Figure 33-17, and they are QUA, 2C, 3C AND OFF.



FIGURE 33-17.

5. Now Navigate the highlighted bar downward to the row named "Frontcam", then press the enter button. This will have a default setting screen similar to Figure 33-18. Set "Enable Frontcam" to OFF.

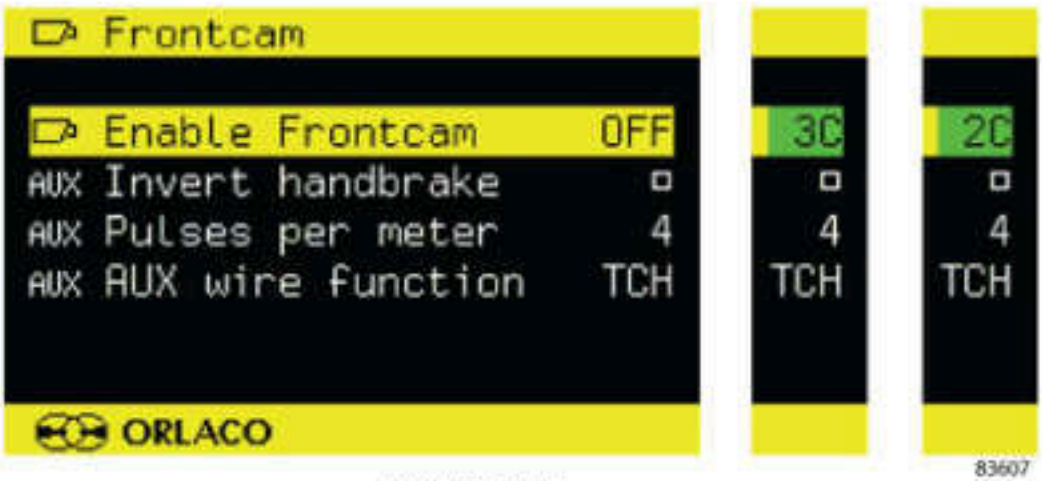
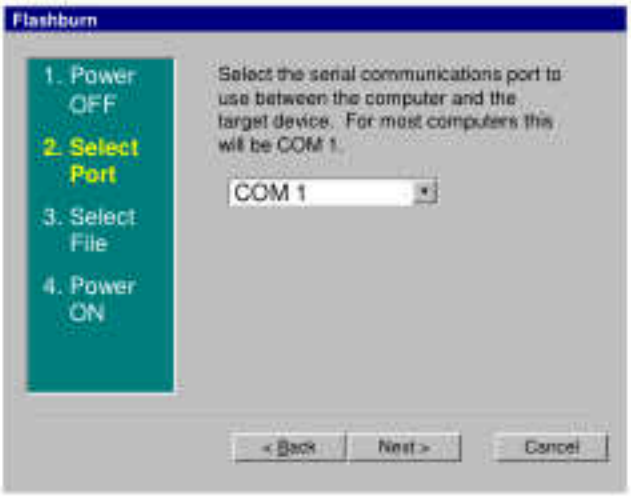


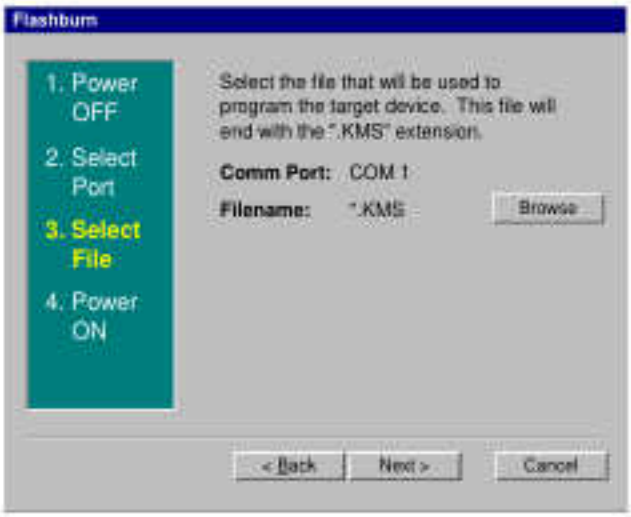
FIGURE 33-18.

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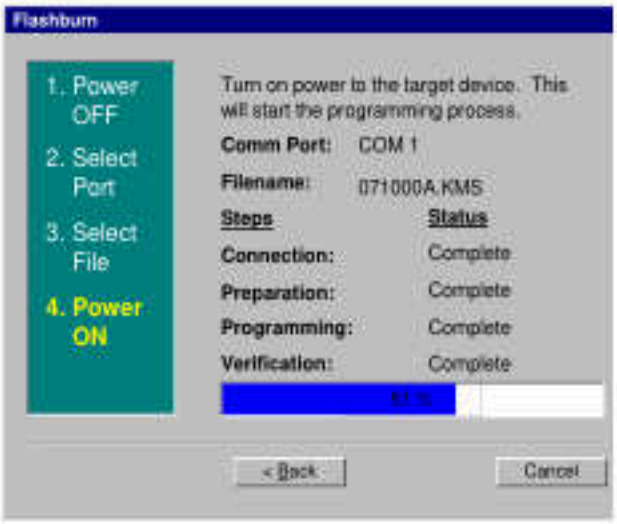
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



5. Press "BROWSE" and select the ".kms" file to program into the payload meter. Press "NEXT".



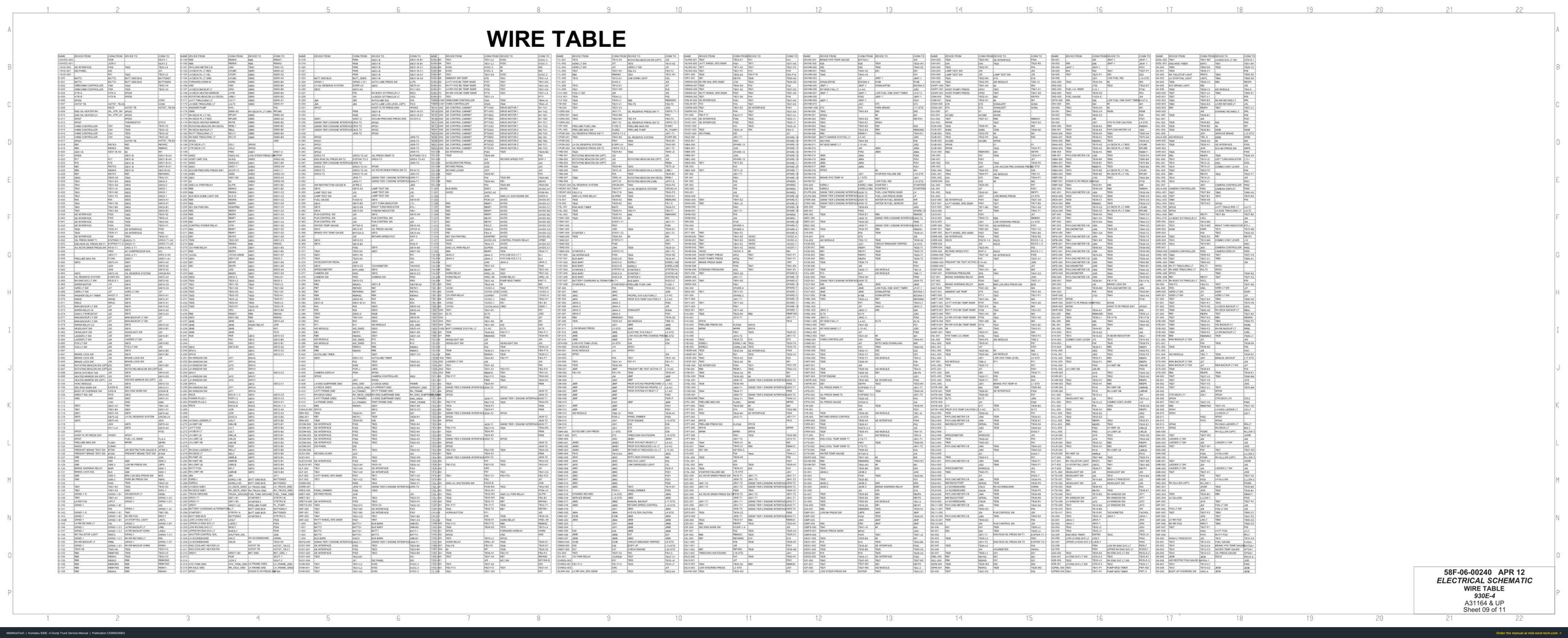
6. When instructed, turn the key switch ON in order to power-up the payload meter. The PC will begin to reprogram the payload meter. This process takes approximately 5 minutes.



7. After successful programming, turn the key witch OFF.
8. Wait 20 seconds and turn the key switch ON.
9. The payload meter will need to be configured as instructed in the manual using the Payload Data Manager software on the laptop computer.

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WIRE TABLE



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ELECTRICAL SCHEMATIC
WIRE TABLE
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Sheet 09 of 11

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