



## Diagnostic Trouble Code (DTC) P065900 - Actuator Supply Voltage "A" Circuit High - US17+OBD16 Emissions And Newer



DTC P065900 can be set when the ACM voltage momentarily drops below 8V. At this voltage, the ACM can set a 'short circuit high' fault in error. In this case, the code is not indicative of an actual short circuit. However it may indicate that the power to the ACM is compromised. Typical issues triggering the fault are loose battery nuts or discharged batteries causing low voltages during cranking.

This issue is expected to be addressed in a future software update, and this solution will be updated when more information is available.

### Initial Checks

This fault can be caused by a loose or faulty connection on battery power or ground (but not fully disconnected—if fully disconnected, DTCs U116F and U010E would also be present).

- **Check that ALL of the ACM power and ground connections are securely tightened.**

- Ensure battery nuts are tightened to 15 lb-ft (20 Nm).
- Ensure multiple ring terminals on a common stud are fanned out and lying flat against each other.
- Ensure ring terminals and other contact points are clean of corrosion and free from any terminal protectant coating or wax.

- **If there is no evidence of loose battery connections:** Continue to the checks below.

### Other items to check

#### 1. Check the complete battery pack voltage.

1.1. Start the truck.



2. Run the engine at fast idle (1000 RPM) for 1 minute.

**1.3.** Turn the truck off, then return the key to the ON position.

**1.4.** Check voltage with all of the batteries still connected to one another.

- All battery positive terminals are connected together by busbars or cables, and all battery negative terminals are connected together.

**1.5. Make a note of the voltage and evaluate results:**

- For a fully charged system, in good condition, the voltage should be 12.5V, or higher, for standard flooded lead-acid batteries, or 12.7V, or higher, for AGM-type batteries.
- Low battery voltage is indicative of a defective battery, an inadequate charging system, corroded cables, or contaminated connections.

## **2. Check individual battery condition.**

**2.1.** Disconnect the busbars and cables.

**2.2.** Inspect and clean all interconnecting terminals. Ensure there is no corrosion.

**2.3.** Check each battery voltage and perform a load test on each battery individually.

**2.4. Evaluate results:**

- **If one battery's voltage is significantly lower than the others, or lower than the measurement from Step 1.1.5, OR fails a load test:** The battery may be bad or there may be a connection issue such as excessive corrosion on the busbar or terminal, inhibiting proper charging.

**2.5.** Replace any bad batteries or clean any corroded part as needed.

**2.6.** Reconnect the busbars and/or cables.

## **3. Check the battery pack voltage while charging system is active.**



**1.1.** Start the truck.

**3.2.** Run the engine at fast idle (1000 RPM) for 1 minute.

**3.3.** With the engine still running, recheck battery voltage:

- Voltage should rise to 13.5-14.5V rapidly.
- **If the voltage is less than 13V:** Run then engine for an additional minute and recheck, as the batteries may have been deeply discharged.

**3.4. Evaluate results:**

- **If the voltage remains less than 13V:** There is an issue with the alternator or the alternator belt.
- If the alternator belt is in good condition, there is an issue with the alternator.

**If there are no issues found from the checks above or the code continues to log after the steps above are followed, normal diagnostic steps should be followed in Premium Tech Tool.**



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