



**NUMBER:** 08-054-05

**GROUP:** Electrical

**DATE:** October 11, 2005

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**SUBJECT:**

Ambient Temperature Reads Higher Than Actual

**OVERVIEW:**

This bulletin involves moving the ambient temperature sensor to a new location.

**MODELS:**

2006 (XK) Commander

**NOTE: This bulletin applies to vehicles built prior to September 27, 2005 (MDH 0927XX).**

**SYMPTOM/CONDITION:**

The customer may experience a condition where the displayed ambient temperature may read more than 2.8° C (5° F) higher than the actual ambient outside temperature. This condition will occur **while driving**. This condition should not be confused with increased ambient temperature readings that will occur normally while sitting at idle or immediately after a hot soak start.

This condition will be most noticeable on vehicles equipped with either a 3.7L or a 4.7L engine. Vehicles equipped with a 5.7L engine may experience less of a temperature difference.

This condition may be caused by the original location of the ambient air temperature sensor. The sensor may be too close to the radiator and other heat exchangers.

**DIAGNOSIS:**

If the customer experiences the above condition **while driving the vehicle**, then perform the Repair Procedure.

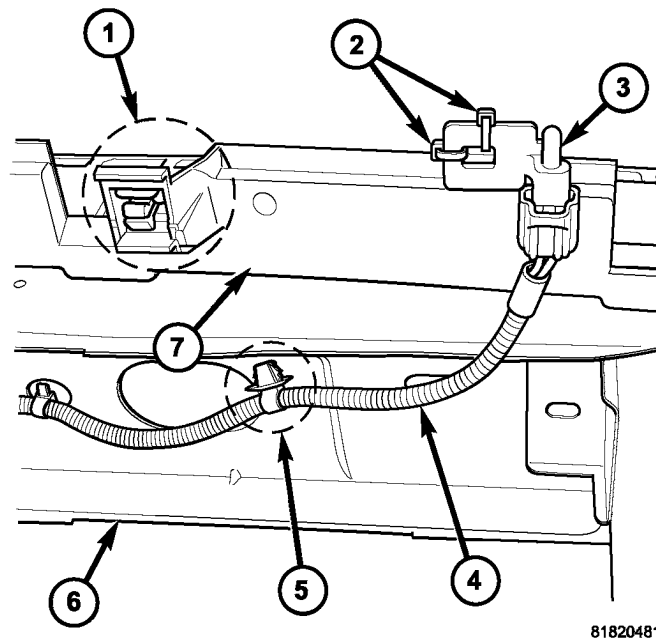
**PARTS REQUIRED:**

Qty.	Part No.	Description
2	NPN	Plastic Tie Straps

**REPAIR PROCEDURE:**

1. Disconnect and isolate the negative battery cable from the battery.
2. Carefully remove the reusable plastic push pins used to secure the front grill to the vehicle.

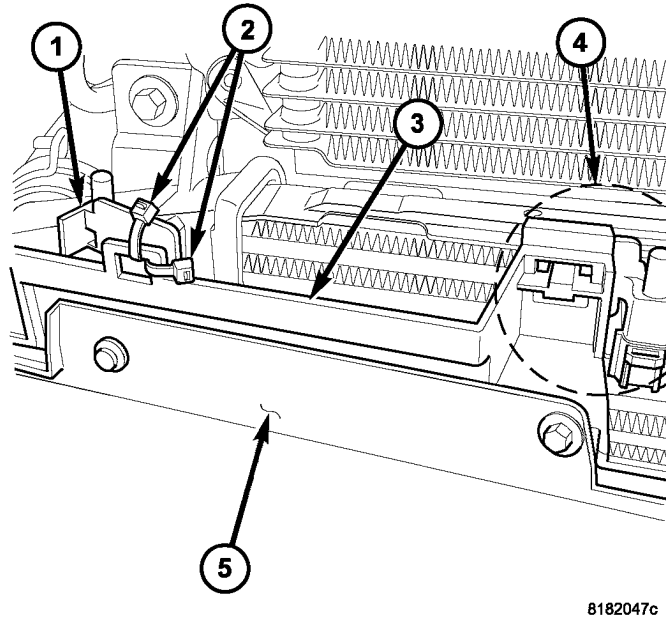
3. Remove the front grill from the vehicle (Fig. 1).



**Fig. 1 AMBIENT TEMP SENSOR HARNESS**

- 1 - Original (Old) Location Of Ambient Air Temperature Sensor
- 2 - Two Plastic Tie Straps Required To Hold Sensor In Correct Position
- 3 - Ambient Air Temperature Sensor - New Location
- 4 - Ambient Air Temperature Sensor Harness
- 5 - Harness Clip - Detach (Unclip) From Front Crossmember
- 6 - Front Metal Crossmember
- 7 - Front Fascia Support Panel

4. Detach (unclip) the ambient temperature sensor from the front fascia support. The ambient temperature sensor will be relocated outboard (towards the right side) from its original location by approximately 5 inches.
5. Detach the ambient temperature sensor harness plastic retainers (clip) that is closest to the ambient temperature sensor. The retainer attaches the ambient temperature sensor harness to the front bumper cross-member. The retainer must be detached to allow relocation of the ambient temperature sensor (Fig. 2).
6. Secure the ambient temperature sensor to its new location on the front fascia support. Attach the sensor to the fascia support using two plastic tie straps. The plastic tie straps must be located 90° from each other (one strap positioned horizontally, and the other strap positioned vertically). Verify that the tie straps are snug to the sensor and fascia support panel.



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**Fig. 2 AMBIENT TEMPERATURE SENSOR**

- 1 - Ambient Temperature Sensor - New Location
- 2 - Plastic Tie Straps - Two Required. One Strap Horizontal And One Strap Vertical
- 3 - Front Fascia Support Panel
- 4 - Typical - Old Location - Detach (Unclip) Air Sensor From This Location
- 5 - Front Fascia

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- 7. Take note of the front grill locating tabs. Install the front grill to the vehicle. Verify that the grill locating tabs are properly engaged. Secure the front grill with the plastic push pins.
  - 8. Verify that the tip/probe of the ambient temperature sensor is visible from the front of the vehicle when the grill is in place. The sensor probe must be in the air stream that passes through the grill.
  - 9. Connect the negative battery cable to the battery. Set the clock to the correct time.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Amount
08-14-27-90	Sensor, Ambient Temperature - Relocate	0.2 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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