FORD:
2003-2005 Expedition

LINCOLN:
2003-2005 Navigator

This article supersedes TSB 05-9-4 to update the part information and Service Procedure.

ISSUE
Some 2003-2005 Expedition/Navigator vehicles built before 12/06/2004 with memory seats may exhibit the driver’s power seat binding in the full rearward position and becoming inoperative in forward and reverse. This may be due to the horizontal seat motor and memory seat position sensor (potentiometer) on vehicles built before 10/16/2003, or due to the potentiometer (only) on vehicles built between 10/16/2003 and 12/05/2004.

ACTION
If the vehicle was built before 10/16/2003, inspect the horizontal motor bracket under the seat. If the bracket has bends on either side of the seat motor, install a horizontal seat motor kit. If the vehicle already has a straight bracket, or if the vehicle was built between 10/16/2003 and 12/05/2004, install a seat potentiometer kit only. Refer to the following Service Procedure.

SERVICE PROCEDURE
NOTE
WHEN INSTALLING A MOTOR KIT, THE SEAT TRACK FRONT COVER MUST ALSO BE REPLACED. THE ORIGINAL SEAT TRACK FRONT COVER WILL NOT FIT ON THE NEWER MOTOR ASSEMBLY BEING INSTALLED.

NOTE
FOR 2003 NAVIGATOR VEHICLES EQUIPPED WITH A BLACK INTERIOR, ORDER THE DOVE GRAY SEAT TRACK FRONT COVER AND PAINT TO MATCH (BLACK INK).

REMOVAL - SEAT MOTOR ASSEMBLY OR POTENTIOMETER
1. Position the driver seat all the way up.

Figure 1 - Article 05-18-14

(2) If the horizontal seat motor bracket is straight (Figure 2) only a potentiometer kit will need to be installed. Proceed to Step 4.
4. Depower the supplemental restraint system (SRS). For additional information, refer to Workshop Manual Section 501-20B (SRS Depowering and Repowering).

5. Remove the driver seat. For additional information, refer to Workshop Manual Section 501-10 (Front Seat - 40 Percent).

6. Loosen the four (4) bolts under the seat track (Figure 3).

7. Disconnect the driver seat module (DSM) 24-pin electrical connector.

**CAUTION**

DO NOT APPLY POWER TO THE DSM IN THE FOLLOWING STEPS, OR DAMAGE WILL OCCUR.

8. Using a remote power supply, position the seat track off the rear stop to full forward position using the following steps:
   
   a. Apply battery voltage to the DSM wiring harness connector at location 1 (Figure 4).
   
   b. Briefly apply battery ground to the DSM wiring harness connector at location 2 (Figure 4).

9. Using the remote power supply again, position the seat track between mid travel and 2” (50 mm) from the rear stop using the following steps:

   a. Apply battery voltage to the DSM wiring harness connector at location 2 (Figure 4).
   
   b. Briefly apply battery ground to the DSM wiring harness connector at location 1 (Figure 4).

10. Disconnect the remote power supply.

11. Tighten the four (4) bolts under the seat track (Figure 5).

12. Reconnect the DSM electrical connector.

13. Disconnect the horizontal seat motor and seat position sensor electrical connectors.
14. Separate the horizontal seat motor assembly from the seat track studs using the following steps:

   a. Cut the two (2) horizontal motor drive cable tie straps at the inboard and outboard seat tracks.

   b. Remove the two (2) nuts.

   c. Using a suitable tool, pry up on the side of the horizontal motor bracket near the mounting stud and separate the bracket from the stud.

   d. Separate the horizontal motor bracket from the stud on the other side.

15. Lift up on the horizontal motor and bracket assembly, remove the drive cable from each seat track, and remove the horizontal motor and bracket assembly. If installing a motor kit, proceed to Step 2 of “INSTALLATION”. If installing a potentiometer kit, proceed to Step 16.

16. Make note of the seat position sensor alignment to the motor for installation, then remove the horizontal motor inboard cable and seat position sensor. To remove the seat position sensor from the motor, pull straight out to disengage the locking tab. Proceed to Step 1 of “INSTALLATION”.

**INSTALLATION**

**NOTE**

ONE END OF THE INBOARD DRIVE CABLE WILL HAVE A LONGER SQUARE DRIVE THAN THE OTHER END. THIS IS DUE TO THE LONGER SQUARE DRIVE HAVING TO PASS THROUGH THE SEAT POSITION SENSOR AND MOTOR.

**CAUTION**

WHEN INSTALLING A NEW SEAT POSITION SENSOR, DO NOT BEND THE OUTBOARD DRIVE CABLE, AS IT WILL HAVE TO BE REUSED. BENDING THE OUTBOARD DRIVE CABLE CAN CAUSE NOISE ISSUES.

1. Install the seat position sensor using the following steps:

   a. Align the seat position sensor to the horizontal motor as noted during removal and push in on the sensor to install.

b. Install the inboard cable with the longer square drive end going into the sensor and motor. Turn the cable and push in to engage to motor.

2. Verify the cables are engaged into the motor by confirming there is resistance when turning the cable.

3. Feed the inboard and outboard drive cables into the seat tracks. By rotating the horizontal motor and bracket assembly, the cables can be engaged into the inboard and outboard seat tracks (Figure 6).

4. Align the horizontal motor bracket to the seat tracks and slide down on the studs.

5. Install the nuts (Figure 7).

6. Connect the motor and seat position sensor electrical connectors (Figure 8).
b. Move seat forward approximately 1” (25 mm) from full rear.

c. Remove key from ignition.

d. Observe seat behavior. Seat should move backwards approximately 1/2” to 3/4” (12 to 19 mm) and stop.

e. Activate seat switch rearward, seat should still have 1/4” to 1/2” (6 to 12 mm) of travel to full rear.

f. If no movement observed in Step d, move seat slightly further forward and repeat Steps c through e. If there is still no movement observed in Step d, replace the DSM per procedures in Workshop Manual Section 419-10.

CAUTION
DOUBLE CHECK THAT ALL CONNECTORS TO DSM, MOTOR, AND POTENTIOMETER ARE PROPERLY CONNECTED BEFORE ATTACHING MAIN BODY HARNESS. IF THE POWER SEAT IS OPERATED WHILE THE POTENTIOMETER IS DISCONNECTED, LOSS OF SOFT STOP FUNCTION IS LIKELY AND WILL RESULT IN THE NEED TO REPLACE THE DSM. SYMPTOMS OF A DISCONNECTED POTENTIOMETER IS FORWARD/REARWARD SEAT MOVEMENT FOR ONLY ONE (1) SECOND BEFORE AN AUTOMATIC STOP.

7. Using a heat gun, shrink tube the inboard and outboard cable ends to the seat track and install a tie strap at each seat track.

8. Install the seat track front cover.

9. Install the driver seat. For additional information, refer to Workshop Manual Section 501-10 (Front Seat - 40 Percent).

10. Repower the supplemental restraint system. For additional information, refer to Workshop Manual Section 501-20B (SRS Depowering and Repowering).

11. To set the soft stop position, function the seat forward to at least mid-travel and then rearward all the way to the rearmost position. Allow the seat to hit the rear stops and continue holding the switch until the seat module clicks off (approximately 1 second after hitting the rear stops). This will set the soft stop position.

12. Verify soft stop function is working properly with the following steps:

   a. Access vehicle message center and check that EZ-Exit/Entry is “ON”.

---


<table>
<thead>
<tr>
<th>OPERATION</th>
<th>DESCRIPTION</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>051814B</td>
<td>2003 Navigator: Replace Horizontal Seat Motor Kit Or Potentiometer Includes Time To Paint And Install Seat Track Front Cover (Do Not Use With 14718A, 14547A)</td>
<td>1.3 Hrs.</td>
</tr>
</tbody>
</table>

DEALER CODING

<table>
<thead>
<tr>
<th>BASIC PART NO.</th>
<th>OASIS CODES:</th>
<th>CONDITION</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14547</td>
<td>101000</td>
<td></td>
<td>41</td>
</tr>
</tbody>
</table>

---