Subject: Diagnostic Tip - Memory Seat / Power Seat Operational Characteristics

Models: 2014 Chevrolet Corvette

This PI was superseded to update information. Please discard PIC5960A.

The power seat, Memory recall (if equipped) and Easy Exit recall (if equipped) operations may seem erratic or seem to operate only intermittently. Often times, this is likely normal operation and requires no repairs. Gaining a better understanding and familiarization of this all-new system's operational characteristics will help achieve the desired operation of the seat's features.

Some common comments are:

- The seat won't recall when entering the vehicle (this may or may not be intermittent).
- The seat only moves when holding the 1/2/Exit Memory buttons down (this may or may not be intermittent).
- The seat stops moving when releasing the 1/2/Exit Memory buttons (this may or may not be intermittent).
- Sometimes the seat moves completely to the stored position by pressing and releasing the 1/2/Exit Memory buttons, other times I have to hold the button down until it stops moving.
- The seat barely moves, then stops, when I press the 1/2/Exit Memory buttons; if I release the button and press it again, the seat does the same thing (this may or may not be intermittent).

Becoming familiar with the following areas of Power Seat/Memory Seat will aid in assisting customers with power seat and memory seat functionality.

**Limit Switches**

This all-new system utilizes two switches that were not used on prior models.

1. The Bulkhead Limit Switch
This switch is used in both seating positions, is located on the left and right body harness conduit, and acts to prevent damage to the body harness and seatback covers when the seat/seatback are moved in a rearward direction. When this switch reads "Active" in GDS2 the seat movements from both the Power Seat Switch and 1/2/Exit Memory buttons are limited to only allow movements that will bring the seat/seatback forward, away from the switch. This switch is "Active" when pressure is detected against the rear bulkhead/carpet area directly behind the seats. It will read "Inactive" when pressure is removed from this area.

2. The Seatback Unlock Switch

This switch is used in both seat positions and is located inside the seatback assembly at the recliner mechanism. It acts to prevent the seat from moving further rearward to ensure that the seatback can return to the normal upright position. When this switch reads "Active" in GDS2 the seat movements from both the Power Seat Switch and 1/2/Exit Memory buttons are limited to only allow movements that will bring the seat/seatback forward. This switch is "Active" when the seatback is manually folded forward. It will read "Inactive" when the seatback is in the normal, driving position.

Note: Both of these switches are viewable in the GDS2 scan tool for both seats. If you experience a concern, you should first monitor these switch values for being "Active." When either of these switches are "Active" they will repetitively toggle between Active and Inactive until the switch is physically moved out of the "Active" state. This is normal operation as the module tests the signal circuit. The most common reason for the Bulkhead Limit switch being "Active" is if the Easy Exit setting is stored in a position that applies pressure to the rear bulkhead, or in cases where an object has fallen, or is being stored, behind the seatback and applies sufficient pressure to activate the switch.

Supervised / Unsupervised Movements (if equipped)

This all-new system utilizes two modes that were not used on prior models.
1. **Unsupervised Movement**

Unsupervised movement occurs when the operator has pressed and released, within 1/2 second, the 1/2/Exit Memory buttons; allowing the seat to move to the previously stored position on its own.

**Note:** Pressing any Power Seat or 1/2/Exit Memory buttons again during unsupervised movement will stop the seat movement. Press and release, within 1/2 second, the desired 1/2/Exit Memory button again to resume the recall to the stored position.

There are several criteria that must be met before the vehicle will allow unsupervised movement to occur. These criteria differ based on Transmission type.

1.1 **Automatic Trans** – The vehicle is running, the transmission is in Park, the Seatback Unlock Switch AND Bulkhead Limit Switch are both Inactive.

1.2 **Manual Trans** – The vehicle is running, vehicle is running, the Park Brake is applied, the Seatback Unlock Switch AND Bulkhead Limit Switch are both Inactive.

**Important:** Regardless of transmission type, the Memory Recall button MUST be pressed and released in less than 1/2 second. If the button is pressed longer than 1/2 second the control module changes the request for movement to a supervised movement, meaning the seat will stop moving when the button is released. At this point you may either continue holding the button until the stored position is obtained or release the button, then press and release it within 1/2 second to activate unsupervised movement.

2. **Supervised Movement**

Supervised movement occurs when the operator is actively pressing and holding the 1/2/Exit Memory buttons; allowing the seat to move only while the operator is supervising of the movement.

**Note:** Releasing the memory seat button during this operation will stop the seat movement, press and hold the switch again to resume movement to the desired position. Only the Supervised memory recall operation can occur when the vehicle ignition is not in the Run Position. If the Bulkhead Limit Switch or Seatback Unlock Switch are Active you will either get no operation or supervised operation (depending on which switch is Active and the requested direction of seat travel).

Seatback Unlock Switch are Active you will either get no operation or supervised operation (depending on which switch is Active and the requested direction of seat travel).

**Auto Memory Recall (if equipped)**

This all-new system allows the user to Enable or Disable the Auto Memory Recall operation of the seat.

Auto memory recall is when the seat moves to a previously stored position either when opening the Left Door or when the Ignition is turned on. In order for Auto Recall to function, you must first have the feature turned On in the Personalization menu of the Radio.

**Note:** Remote Start will not activate the Auto Memory Recall feature. Only pressing the ignition switch to enter Run/Start or Accessory will activate the Auto Memory Recall.

The operation of Auto Memory Recall will differ based on Transmission type.

1. **Automatic Trans:**

   1.1 **At Driver Door Open** – When the Vehicle ignition is off, after the customer has pressed the Unlock fob button, they have 4 minutes to open the driver door. This will allow the seat to recall to the desired position as long as the Bulkhead Limit Switch or Seatback Unlock Switch are Inactive. If the driver door is already open, then pressing the Unlock fob button will cause the seat to recall to the desired position as long as the Bulkhead Limit Switch or Seatback Unlock Switch are Inactive.

   1.2 **At Ignition On** – When the ignition button is pressed the seats will recall to the desired position without a memory recall button press as long as the Bulkhead Limit Switch or Seatback Unlock Switch are Inactive.

2. **Manual Trans:**

   2.1 The only available selection that was originally released is On or Off. If On is selected - When the Vehicle ignition is off, after the customer has pressed the Unlock fob button, they have 4 minutes to open the driver door. This will allow the seat to recall to the desired position as long as the Bulkhead Limit Switch or Seatback Unlock Switch are Inactive. If the driver door is already open, then pressing the Unlock fob button will cause the seat to recall to the desired position as long as the Bulkhead Limit Switch or Seatback Unlock Switch are Inactive.

   **Note:** Note: Please reference the latest version of PI1245 if the customer requests the Auto Memory Recall to operate at ignition on for a manual transmission equipped vehicle. The Memory Seat Module (MSM) will have to be reflashed with the calibration listed in SPS. The auto recall feature will have to be turned on through the Vehicle personalization menu in the Setting menu.

**Easy Exit (if equipped)**

This all-new system allows the user to Enable or Disable the Easy Exit Automatic Recall operation of the Driver's seat.

This feature recalls the stored EXIT button position when exiting the vehicle. In order for Easy Exit to automatically recall the EXIT button position, you must first have the feature turned On in the Personalization menu of the Radio.

1. **Easy exit recall automatically activates when one of the following occurs:**

   **Note:** Similar to the Auto Memory Recall, the operation of Easy Exit recall will differ based on Transmission type. Reference the Supervised/Unsupervised section above.
1. The vehicle is turned off and the driver door is opened within a short time.
2. The vehicle is turned off with the driver door open.

2. Easy exit recall manually activates when you press the EXIT button

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