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## FLOW CONTROL VALVE DIAGNOSTIC

The following process is performed with the ignition key in the on position and engine off



1. Navigate to (Screen 2) on the control panel. This screen indicates the activity of the volume / flow control valve # EM98273.



2. The volume control switch is used for this test.





- 3. Put your hand on the flow control valve and activate the volume control switch in both directions, when activating these functions you should feel the flow control valve vibrate if operating properly.
- 4. When you activate the volume control switch in both directions you should see the screen indicate the change in direction as well.

If you don't feel vibration, it is possible that the flow control valve or the eccentric system may have a fault. Verify the electrical system connectors for this control valve are properly crimped and secured.

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## VOLUME CONTROL VALVE TEST



- **5.** If you don't feel vibration in the flow control valve, find and cut the two wires that come from the electronic control and to the flow control valve. This is to isolate these circuits in case there is a short in the flow control valve that may affect the following test.
- **6.** These wires are 12V *DC* and are (bidirectional). Using a test meter, measure between the two wires and verify 12V *DC* is present when the volume control switch is activated. The (polarity) should change in relation to the volume control operation increasing or decreasing the volume.
- 7. If voltage is present and the polarity changes as indicated it is possible the problem is within the flow control valve. The electric motor has either failed or is mechanically stuck.
- 8. If voltage is present but the polarity does not change, it is possible the problem is within the electronic control. Check for faulty wiring or a bad connection in the system.

## MANUAL VOLUME CONTROL ADJUSTMENT



- 1. Cut the volume control valve power cord.
- **2.** Mark the outer volume control valve housing and nut to relocate the valve back to its normal position if needed.
- Loosen the flow control valve retainer screw (orange circle) in order to free the housing. Adjust the volume by rotating the housing in either direction for desired setting.
- **4.** Retighten retainer screw after making desired volume adjustment.
- **5.** This manual adjustment procedure can be used till the defective flow control valve is replaced.

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