Document ID# 853565
2003 Chevrolet Chevy Suburban - 4WD

DTC C0000

Circuit Description

The rear wheel steering control module receives a vehicle speed signal input from the powertrain control module (PCM) via the vehicle speed signal circuit and also receives vehicle speed data over the serial data class 2 circuit. Once vehicle speed has been detected, the rear wheel steering control module compares the two inputs for accuracy. The module calculates the vehicle speed from the PCM with a resolution of 0.80 km/h (0.5 mph) from 0-209 km/h (0-130 mph). The discrete VSS signal must be present for rear wheel steer operation. The class 2 information is only used for comparison calculations.

Conditions for Running the DTC

- The engine must be running.
- The vehicle speed must be greater than 15 km/h (9 mph).

Conditions for Setting the DTC

- The vehicle speed discrete line and the vehicle speed class 2 line information vary by more than 15 km/h (9.0 mph).
- The Class 2 vehicle speed is greater than 33 km/h (20 mph) and the calculated speed input is less than 5 km/h (3 mph) continuous for 10 seconds.

Action Taken When the DTC Sets

- The Service 4 Wheel Steer indicator in IPC will be displayed.
- The code is displayed on the scan tool as DTC C0000.
- The output to the motor is ramped down slowly and held.
- The rear wheels will return to the centered position.

Conditions for Clearing the MIL/DTC

- The rear wheel steering control module detects a vehicle speed signal from the PCM of greater than 32 km/h (20 mph).
- A history DTC will clear after not seeing the malfunction for 100 consecutive ignition cycles.
- The module receives a clear code command from the scan tool.
- Malfunction conditions are not currently present.

Diagnostic Aids

- Most of the occurrences of this DTC are caused by a short or an open vehicle speed sensor signal circuit to the rear wheel steering control module. Review rear wheel steering system operation or, with the customer, verify the condition under which the DTC set.
- Inspect for poor connections at the harness connector of the rear wheel steering control module . Refer to Testing for Intermittent and Poor Connections , and to Connector Repairs in Wiring

Systems.

- Observe the rear wheel steering mode select switch. If all of the mode indicator LEDs are illuminated the rear wheel steering control module has lost its memory settings and the scan tool must be used to re-calibrate the rear wheel steering alignment data in the rear wheel steering control module. Refer to Measuring Wheel Alignment .

Test Description

The numbers below refer to the step numbers on the diagnostic table.

3. Tests whether the condition is module, system, or condition related.
4. Tests whether the condition has been corrected or identified as specified in the supporting text.
5. Test for an open or short in the vehicle speed signal circuit of the rear wheel steering control module.

Step	Action	Yes	No
Schematic Reference: Rear Wheel Steering Schematics *Connector End View Reference:* *Rear Wheel Steering Connector End Views*			
1	Did you perform the Diagnostic System Check-Rear Wheel Steering?	Go to Step 2	Go to Diagnostic System Check - Rear Wheel Steering
2	1. Install a scan tool. 2. Turn ON the ignition, with the engine OFF. 3. With a scan tool, monitor the DTC Information for DTC C0000 in the rear wheel steering control module. Does the scan tool indicate that DTC C0000 is current?	Go to Step 3	Go to Step 4
3	With a scan tool, monitor the DTC Information for DTC P0608 in the IPC . Does the scan tool indicate that DTC P0608 is current?	You must repair this DTC first . Go to DTC P0608	Go to Diagnostic Aids
4	1. Use the scan tool in order to clear the DTCs. **Important** Do not cycle the ignition. 2. Operate the vehicle within normal operating conditions. Does the DTC reset?	Go to Step 5	System OK
	Test the vehicle speed signal circuit of the rear wheel steering control module for a short to ground, short to voltage or an open between PCM and the rear wheel steering control		

5	module. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	Go to Step 8	Go to Step 6
6	Inspect for poor connections at the rear wheel steering control module harness connector. Refer to Testing for Intermittent and Poor Connections and Connector Repairs Did you find and correct the condition?	Go to Step 8	Go to Step 7
7	**Important** Perform the Learn Alignment procedure. Replace the rear wheel steering module. Refer to Rear Wheel Steering Control Module Replacement . Did you complete the replacement?	Go to Step 8	--
8	1. Use the scan tool in order to clear the DTCs. 2. Operate the vehicle within normal operating conditions. Does the DTC reset?	Go to Step 2	System OK