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Document ID# 1285381 2003 Chevrolet Chevy Suburban - 4WD

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Scan Tool Data Definitions

2-Wheel Steer Mode Lamp

Scan tool displays ON/OFF. The state of the mode indicator as commanded by the rear wheel steering control module.

4-Wheel Steer Mode Lamp

Scan tool displays ON/OFF. The state of the mode indicator as commanded by the rear wheel steering control module.

4-Wheel Steer-Tow Mode Lamp

Scan tool displays ON/OFF. The state of the mode indicators commanded by the rear wheel steering control module.

8-Digit GM Part Number

The scan tool displays the GM part number of the rear wheel steering control module.

Actual Rear Steering Angle

The scan tool displays the actual angle of the rear wheels. With a range of 0° to 12° .

Battery Voltage

The scan tool displays 0-16.0 volts. The scan tool displays the battery system voltage as monitored by the rear wheel steering control module.

Command 2-Wheel Steer

The scan tool displays ON/OFF. The scan tool displays ON when commanded by the scan tool while causing the 2-Wheel Steer LED to be illuminated. The scan tool displays OFF when commanded by the scan tool while causing the 2-Wheel Steer LED to be turned OFF.

Command 4-Wheel Steer

The scan tool displays ON/OFF. The scan tool displays ON when commanded by the scan tool while causing the 4-Wheel Steer LED to be illuminated. The scan tool displays OFF when commanded by the scan tool while causing the 4-Wheel Steer LED to be turned OFF.

Command 4-Wheel Steer-Tow

The scan tool displays ON/OFF. The scan tool displays ON when commanded by the scan tool while causing the 4-Wheel Steer and trailing LED to be illuminated. The scan tool displays OFF when commanded by the scan tool while causing the 4-Wheel Steer and trailering LED to be turned OFF.

Commanded Rear Steer Left

The scan tool displays ON/OFF. The scan tool causes the rear wheels to turn to the left during an ON command and return to normal operation during the OFF command.

Commanded Rear Steer Right

The scan tool displays ON/OFF. The scan tool causes the rear wheels to turn to the right during an ON command and return to normal operation during the OFF command.

Digital SWPS Phase A-Steering Wheel Position Sensor

The scan tool displays High/Low. Phase A signal of the Steering Wheel Position Sensor should change states as the steering wheel is rotated left or right. Each transition from high to low represents one degree.

Digital SWPS Phase B-Steering Wheel Position Sensor

The scan tool displays High/Low. Phase B signal of the Steering Wheel Position Sensor should change states as the steering wheel is rotated left or right. Each transition from high to low represents one degree.

Hall Sensor Reference

The scan tool displays 12 V. The hall sensor reference is the supply voltage of the hall sensor.

Ignition 3

The scan tool displays 0-16 volts. Ignition 3 is hot in run mode only.

Ignition Cycles Since Last Fault

The scan tool displays 0-100. The number of ignition cycles since the last fault occurred.

Lateral Accelerometer Sensor Signal

The scan tool displays 0-5 volts. The lateral accelerometer signal from the lateral sensor measures vehicle rotation about an axis through the center of mass of the vehicle 2.5-volt at rest. The vehicle has 0 g lateral acceleration when the lateral accelerometer sensor signal is approximately 2.5 V.

Motor Current

The scan tool displays 0-85-amps Max, A typical range of 20-50-amps. Motor current is the range of the current in the rear steering motor during normal operation.

Motor Relay Commanded State

The scan tool displays ON/OFF. When system is in RUN then the relay will be ON, if system is shut down for any reason the relay will be OFF.

Motor Relay Feedback State

The scan tool displays ON/OFF. The actual state of relay.

Rear Wheel Centering 1

The scan tool displays 2.5 volts. The parameter, represented as a voltage, that monitors the rear wheel position 1 signal . When the rear wheel sensor is centered, the scan tool displays 2.5 volts.

Rear Wheel Centering 2

The scan tool displays 2.5 volts. The parameter, represented as a voltage, that monitors the rear wheel position 2 signal . When the rear wheel sensor is centered, the scan tool displays 2.5 volts.

Rear Steer Mode Actual

The scan tool displays: 2WS, 4WS, 4WS Tow. The actual state of the rear wheel steering system.

Rear Steer Mode Request

The scan tool displays: 2WS, 4WS, 4WS Tow. The requested state of the rear wheel steering system.

Rear Wheel Position 1

The scan tool displays 0.25-4.75 volts. This parameter monitors the first of two rear wheel sensor signals for out of specified operation range.

Rear Wheel Position 2

The scan tool displays 0.25-4.75 volts. This parameter monitors the second of two rear wheel sensor signals for out of specified operation range.

Rear Steer Select Switch

The scan tool displays ON/OFF. The rear wheel steering selection switch allows the driver to change steering modes.

Requested Rear Steering Angle

The scan tool displays 0-12 degrees. This is the command coming from the rear wheel steering module.

Sensor Supply Voltage

http://127.0.0.1:9001/servlets/BlobShtml?ShtmlFile=1285381&evc=sm&pubid=304&cellId... 5/8/2013

The scan tool displays approx 5.00 volts. The sensor supply voltage is the supply voltage of the rear wheel position and combined lateral accelerometer/yaw rate sensors.

Steering Wheel Angle

The scan tool displays -609 to +609 degrees. The steering wheel angle parameter indicates the direction of rotation of the steering wheel.

Steering Wheel Angle (TBC)

This parameter is displayed in degrees from -225 to +225. This angle represents the analog signal communicated to the rear wheel steering control module from the BCM via class 2 communication.

Steering Wheel Sensor Signal

This parameter is displayed in BCM Data. The scan tool displays from 0.25-4.75 volts. The signal is a linear signal that measures its minimum voltage when the steering wheel is turned approximately one full turn from center to the left. Maximum voltage is reached approximately one full turn from center to the right. The scan tool displays approximately 2.5 volts with the steering wheel centered.

SWPS Marker Pulse

The scan tool displays HIGH/LOW. The marker pulse is used to center the rear wheels during the learn alignment procedure.

Vehicle Speed

The scan tool displays 0 to 159 mph. The rear wheel steering control module receives vehicle speed information, 0-255 kmh (0-159 mph) from the PCM vehicle speed signal circuit. The PCM calculates the vehicle speed from VSS signal.

Yaw Rate Sensor Input

The scan tool displays 0-5 volts. The yaw rate sensor input is a voltage measurement of rotation on a vertical axis. When the yaw rate sensor input data parameter is approximately 2.5 volts the vehicle's roll rate equals 0 degrees/second.

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