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2021 Chevrolet Camaro Service and Repair Manual

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Symptom Byte	Symptom Byte Description	Symptom Byte Definition
51	—	Currently not used.
52	—	Currently not used.
53	Low Temperature	This sub type is used for failures where the Electronic Control Unit calculates a low temperature condition based upon the duration of certain operating parameters.
54	High Temperature	This sub type is used for failures where the Electronic Control Unit calculates a high temperature condition based upon the duration of certain operating parameters.
55	Too Few Transitions	This sub type is used for failures where the Electronic Control Unit monitors a parameter over time within specified limits and detects fewer than the expected number of transitions.
56	Too Many Transitions	This sub type is used for failures where the Electronic Control Unit monitors a parameter over time within specified limits and detects more than the expected number of transitions.
57	—	Currently not used.
58	Performance	This sub type is used for failures where the Electronic Control Unit does not see the expected change to a parameter or group of parameters in response to a particular event.
59	Protection Time-Out	This sub type is used for failures where the Electronic Control Unit detects a function is active for greater than a specified time period.
5A	Not Plausible	This sub type is used for failures where the Electronic Control Unit compares two or more input parameters for plausibility.
5B	—	Currently not used.
5C	—	Currently not used.
5D	—	Currently not used.

Parameter	System State	Expected Value	Description
Sensor			the control module using the signal from the CMP sensor.
Camshaft Position Variance	—	degrees	This parameter displays the absolute difference between the desired and actual positions of the intake camshaft for bank 1 in terms of degrees of camshaft rotation.
Catalyst Monitor Complete	—	Yes/No	This parameter indicates the status of the Catalyst. The scan tool displays YES when the diagnostic is complete. And NO if the diagnostic has Not ran or a malfunction is detected in the Catalyst.
Catalyst Monitor Complete This Ignition Cycle	—	Yes/No	This parameter indicates the status of the catalyst monitor diagnostic. Catalyst Monitor Test Running indicates YES or NO when the catalyst monitor diagnostic is actively running a test.
Catalyst Monitor Enabled	—	Yes/No	The scan tool displays YES when the Catalyst Monitor is Enabled. If the scan tool displays NO this could indicate a malfunction in the Catalyst Monitor circuit.
Catalyst Monitor Enabled This Ignition Cycle	—	Yes/No	This parameter indicates the status of the catalyst monitor diagnostic. Catalyst Monitor Test Running indicates YES or NO when the catalyst monitor diagnostic is actively running a test.
Catalyst Monitor Not At Idle Test Conditions Met	—	Yes/No	This parameter indicates if the off idle conditions for the catalyst monitor diagnostic have been met.
Catalyst Monitor Test Counter Bank 1 or 2	—	Counts	This parameter contains the number of iterations of the catalyst monitor diagnostic test that have been performed since a code clear for bank 1 or 2.
Catalyst Monitor Test Result Bank 1 or 2	—	No Decision	This parameter indicates the status of the catalyst monitor diagnostic for bank 1 or 2. Multiple tests may run before the diagnostic reports a Passed or Failed result.
Catalyst Monitor Test State	—	Inactive	This parameter indicates the current state of the catalyst monitor test.
Change Engine Oil Indicator Command	—	No	This parameter displays the state of the change engine oil lamp control circuit as commanded by the control module.
Clutch Pedal Starter Inhibit Switch	—	Off	This parameter displays the current state of the clutch pedal starter inhibit switch.

YOUR CURRENT VEHICLE

P16 Instrument Cluster: Scan Tool Information

P16 Instrument Cluster: Scan Tool Information

Instrument Cluster Scan Tool Data Parameters

Parameter	Expected Value	Description
Operating Conditions: Ignition ON		
Battery Voltage	12–14 V	The scan tool displays Volts. This is the current battery voltage signal.
Key in Ignition Status	Active/Inactive	The scan tool displays Active or Inactive. This is the state of the key in ignition switch.
Driver Information Center Switch	Varies	The scan tool displays Volts. This is the current driver information center switch input voltage.
Driver Information Center Switch	Inactive	The scan tool displays either Inactive, Up, Down, or Menu. This is the state of the driver information center switch.
Reset Switch	Active/Inactive	The scan tool displays Active or Inactive. This is the state of the reset switch.
Ambient Air Temperature	15°C	The scan tool displays outside temperature in °C.
Washer Fluid Level Switch	Open	The scan tool displays either Open, Closed, or Not Available.

- **J-36599-A** ***Side Bearing Nut Wrench***
- **J-36615** ***Side Bearing Nut Wrench***

Inspection Procedure

Perform the following before disassembling the axle:

1. Remove the drain plug from the axle.
2. Drain the axle lubricant.
3. Inspect the oil and the case for metal chips.

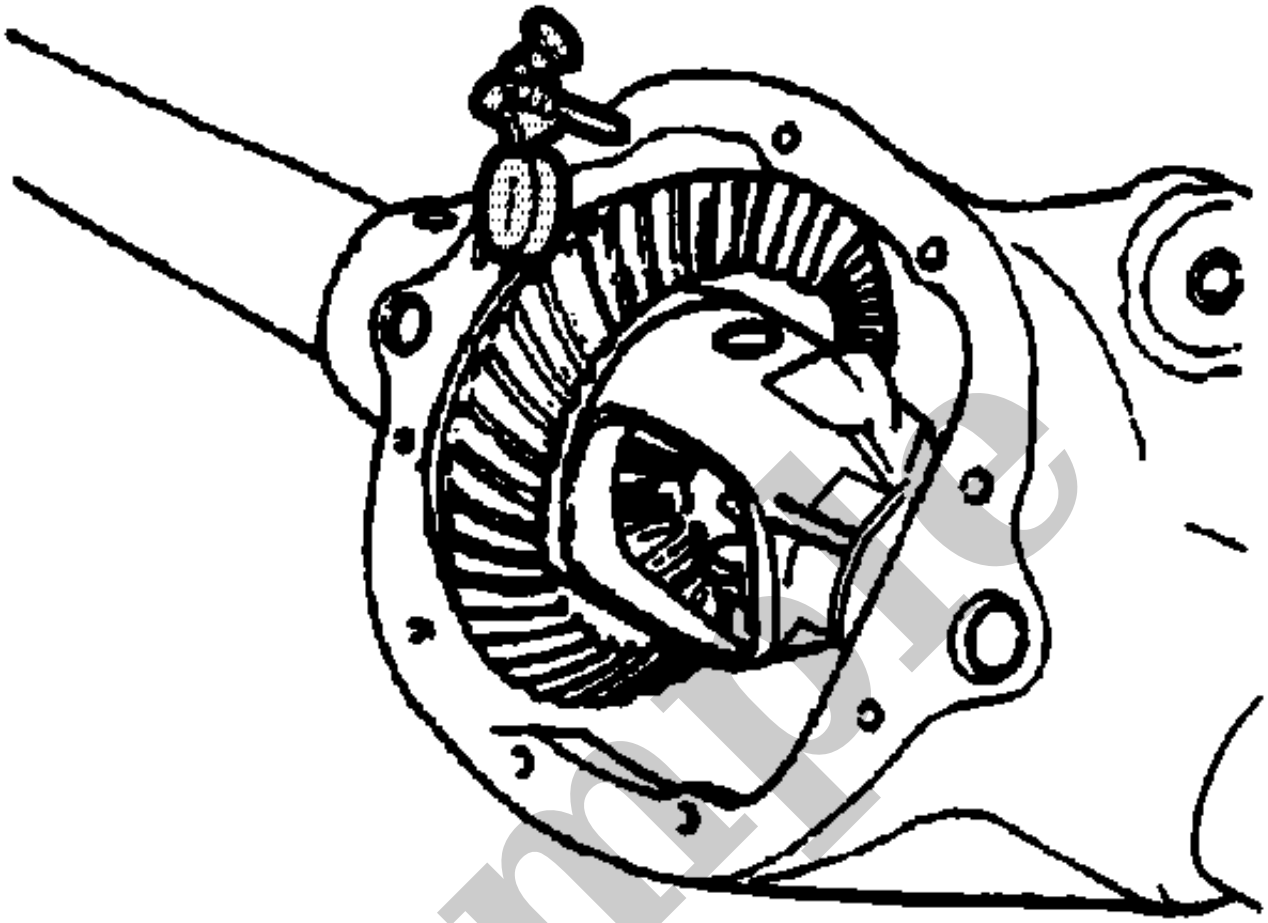
   Determine the source of the metal chips, such as a broken gear or bearing cage.
4. Check the ring gear backlash. Refer to Backlash Inspection and Adjustment.

This information can be used in order to determine the cause of the axle problem. The information will also help when setting up and preloading the differential case.

Determine the cause of the axle problem before disassembly, if possible.

Disassembly Procedure

1. Remove the differential carrier assembly. Refer to Front Axle Replacement.
2. Install the differential carrier assembly in a vise.



2. Install the **J 25025** ***pins*** and the **J 8001** ***indicator*** to the axle housing.

3. **NOTE**

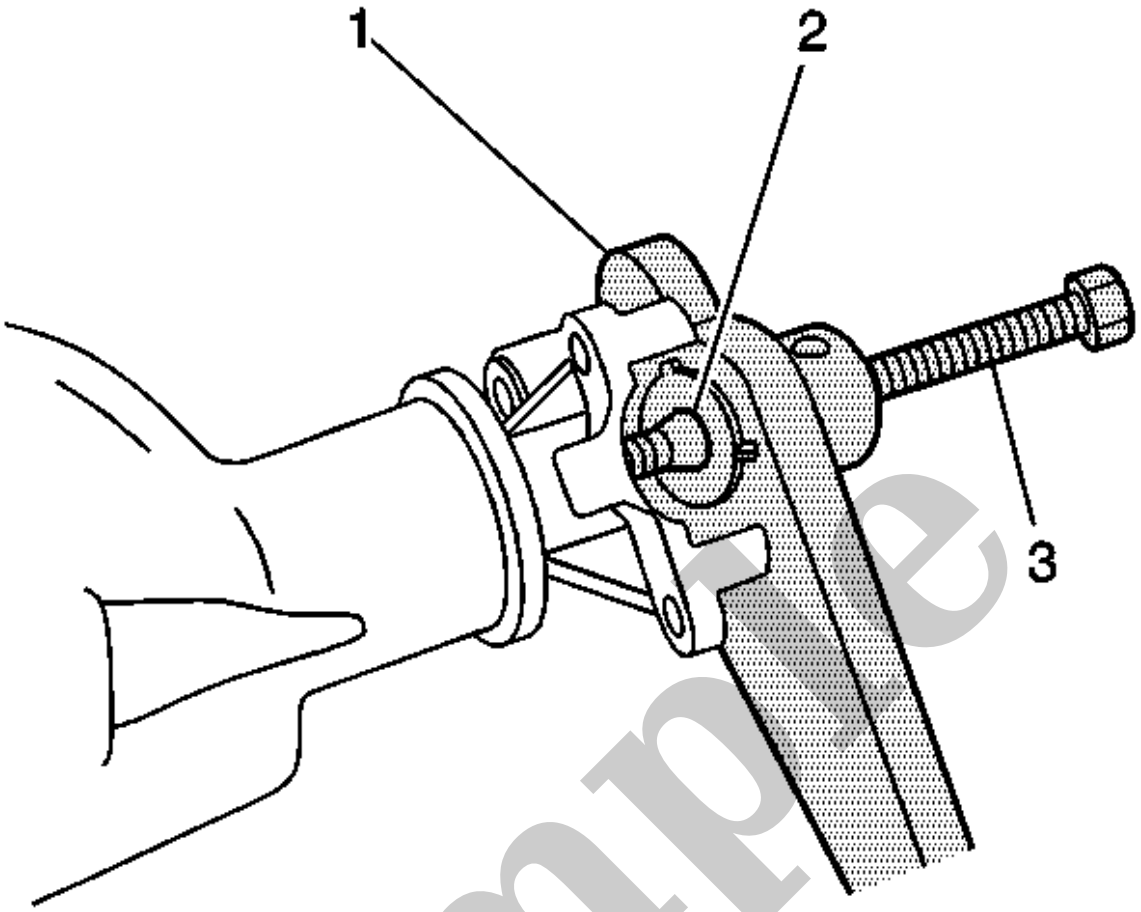
   Note

   Preload the dial of the **J 8001-3** ***indicator*** approximately ¾ of a turn and zero the gauge.

   Set the **J 8001-3** ***indicator*** so that the stem is aligned with the gear rotation and square to the tooth angle.

4. Hold the drive pinion stationary, move the ring gear back and forth.

5. Repeat the measuring procedure at eight points around the ring gear.



8.

NOTE

Note

Remove the pinion yoke by turning the J 8614-3 (3) clockwise.

Using the J-8614-2 (2), J-8614-3 (3) and the **J-8614-01** ***remover*** (1), remove the pinion yoke.

2. Test for infinite resistance between the control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance
3. Test for less than 2 Ω in the control circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the A33 Media Disc Player.

- **If 5 V or greater.**

7. Replace the S140 Media Disc Eject Switch. Connect all harness connectors.
8. Ignition ON, infotainment system ON. Insert a disc in the A33 Media Disc Player.
9. Verify the disc ejects after touching the eject switch.
    - **If the disc does not eject**

      Replace the A33 Media Disc Player.
    - **If the disc ejects**
10. All OK.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Instrument Panel Multifunction Switch Replacement
- Control Module References for media disc player replacement, programming, and setup.

YOUR CURRENT VEHICLE

DTC B1025-B1135

DTC B1025-B1135 (UQA with Front Bucket Seats)

Diagnostic Instructions

- Perform the Diagnostic System Check - Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provide an overview of each diagnostic category.

DTC Descriptors

DTC B1025	Audio Output 1 Circuit
DTC B1035	Audio Output 2 Circuit
DTC B1045	Audio Output 3 Circuit
DTC B1065	Audio Output 5 Circuit
DTC B1075	Audio Output 6 Circuit
DTC B1085	Audio Output 7 Circuit
DTC B1095	Audio Output 8 Circuit

For symptom byte information refer to Symptom Byte List.

Diagnostic Fault Information