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2017 CHEVROLET Tahoe OEM Service and Repair Workshop Manual

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After programming is completed, perform the following to avoid future misdiagnosis:

- 1. Turn the ignition OFF for 10 seconds.
- 2. Open and close the door.
- 3. Connect the scan tool to the data link connector.
- 4. Ignition ON, engine OFF.
- 5. Clear all DTC's from all modules.



Parameter	System State	Expected Value	Definition
Software Module 1 Identifier Alpha Code	-	Varies	The scan tool displays the Software Module 1 Identifier Alpha Code
Software Module 2 Identifier Alpha Code	-	Varies	The scan tool displays the Software Module 2 Identifier Alpha Code
End Model Part Number Alpha Code	-	Varies	The scan tool displays the End Model Part Number Alpha Code
Base Model Part Number Alpha Code	-	Varies	The scan tool displays the Base Model Part Number Alpha Code

Side Object Detection Module Output Controls

Scan Tool Output Control	Description		
Object Detection Alert Indicators	When commanded by the scan tool, the module will provide power to illuminate the side blind zone indicators in appropriate outside rear view mirror. The outside rear view mirror indicator will illuminate.		
Rear Cross Traffic Audible Alert	When commanded by the scan tool, the module will send a signal to the audio system to turn on the rear cross traffic audible alert signal. The audio system will beep.		
Rear Cross Traffic Haptic Alert	When commanded by the scan tool, the module will send a signal to the memory seat module to turn on the rear cross traffic haptic alert. The driver's seat will vibrate.		
Rear Cross Traffic Visual Alert	When commanded by the scan tool, the module will turn on the rear cross traffic alert indicators on infotainment display. The infotainment display will illuminate with the appropriate rear cross traffic alert.		

Parameter	System State	Expected Value	Description
Stop Lamp Signal	_	Not Requested	The scan tool displays Requested/Not Requested. This is the brake pedal position sensor signal from the BCM to the chassis control module.
Trailer Brake Automatic Control State	_	Normal	The scan tool displays Normal/Active/Temporarily Inhibited/Temporarily Limited/Permanently Failed/Communication Failed/Disabled by Calibration. This represents the operational state of the chassis control module.
Trailer Brake Control Duty Cycle	_	0–100%	The scan tool displays a percentage. This is the pulse width modulated output signal from the trailer brake power module to the trailer brakes.
Trailer Brake Control Output Circuit	_	Okay	The scan tool displays Unknown/Short to Battery/Short to Ground/Okay. This represents the state of health of the output circuit from the trailer brake power module to the trailer brakes.
Trailer Brake Control Output Circuit	_	0-20 V	The scan tool displays a voltage. This represents the voltage supplied by the trailer brake power module to the trailer brakes.
Trailer Brake Power Control Module		De- Energized	The scan tool displays Energized/De-Energized. This represents the state of the trailer brake power module.
Trailer Brake Power Control Module Battery Voltage	- 1	Varies	The scan tool displays a voltage. This represents the battery voltage supplied to the trailer brake power module.
Trailer Brake Type	_	Undefined	The scan tool displays Undefined when a trailer is not connected to the vehicle. The scan tool displays Electromagnetic Brakes or Electrohydraulic Brakes when a trailer is connected to the vehicle. The type displayed is based on what is detected by the chassis control module.
Trailer Brake User Gain	_	Varies	The scan tool displays percent of full gain setting. The scan tool displays 0–100%. Each full gain setting represents an increment of

YOUR CURRENT VEHICLE

Front Axle Disassemble

Front Axle Disassemble

Special Tools

- J-22912-B Split-Plate Bearing Puller
- J-2619-01 *Slide Hammer*
- J-29369-1 Bushing and Bearing Remover
- J-34011 Pilot Bearing Remover
- J-36598 Holding Fixture
- J-36614 Inner Pinion Bearing Installer
- J-45765 Pinion Remover
- J-45858 Front Axle Bearing Race Remover/Installer
- J-8614-01 Flange and Pulley Holding Tool

Inspection Procedure

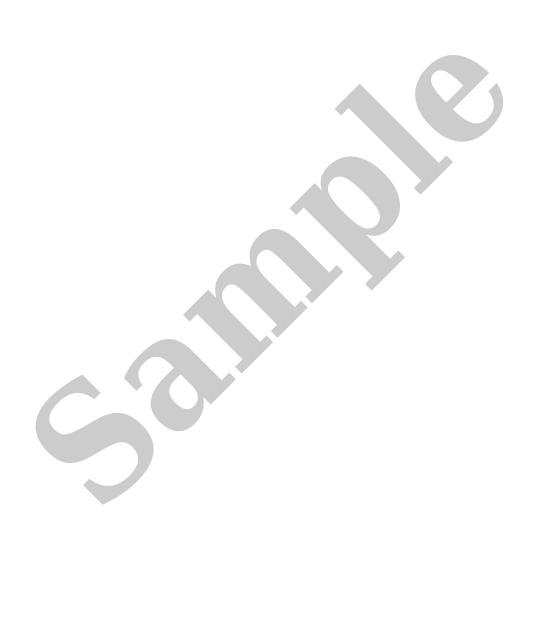
Perform the following before disassembling the axle:

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

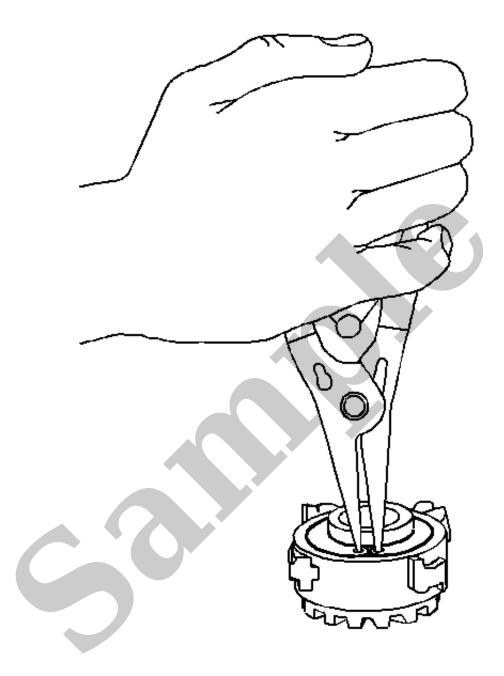
Determine the source of the metal chips, such as a broken gear or bearing cage.

4. Check the ring gear backlash. Refer to Backlash Inspection and Adjustment.

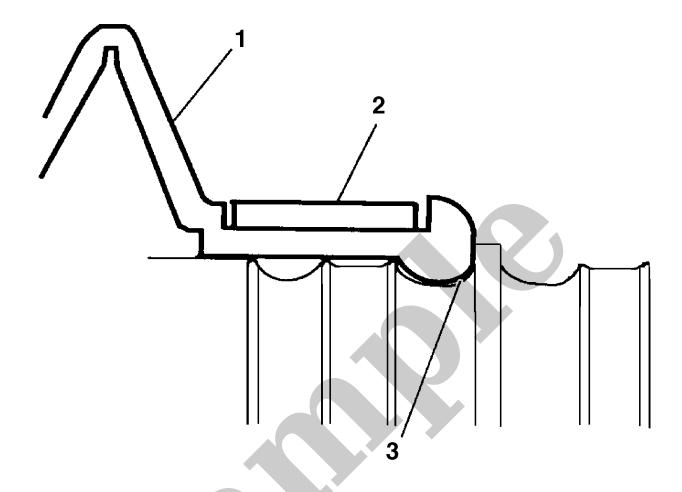




- 3. Install the locking differential clutch disc set (1) on the locking differential side gear (2).
- 4. Compress the locking differential clutch disc set assembly.



5.
Using the appropriate tool, install the external span ring retainer.



12.

Pack the CV joint boot (1) and the CV joint assembly with the grease supplied in the kit. The amount of grease supplied in this kit has been pre-measured for this application.

- 13. Place the new small boot clamp (2) onto the CV joint seal (1).
- 14. Slide the CV joint boot (1) onto the halfshaft bar.
- 15. Position the small end of the CV joint boot (1) into the joint boot groove (3) on the halfshaft bar.

Scan Tool Reference

Control Module References for scan tool information

Special Tools

EL-50334-50 USB Cable and Adapter Kit

Circuit/System Verification

- 1. Ignition ON, A11 Radio ON, mute OFF.
- 2. Verify clear audio is heard from each speaker, adjusting fade and balance controls to test each speaker individually.
 - If audio is inoperative from one or more speakers, or the audio emitted is not clear
 Refer to Circuit/System Testing.
 - o If clear audio is heard from all speakers
- 3. All OK.

Circuit/System Testing

I. NOTE

Note

Some circuits supply audio signals to more than one speaker. It may be necessary to disconnect all speakers on the affected audio circuit when performing circuit tests.

Ignition OFF, disconnect the harness connector at the appropriate P19 Speaker. Ignition ON, radio ON, mute OFF.

- 2. Test for 5–7 V between each audio signal circuit terminal 1 and terminal 2 and ground.
 - o If less than 5 V
 - 1. Ignition OFF, disconnect the X1 harness connector at the A11 Radio.
 - 2. Test for infinite resistance between the signal 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 signal circuit end to end.