

2014 Jeep Cherokee Latitude

UNIFORM INSPECTION & COMMUNICATION STANDARDS 2010 - 2011 Routine Inspection Reference Guide

WHEEL & TIRE - UICS

TIRE PRESSURE MONITORING SYSTEM

NOTE: A Tire Pressure Monitoring System (TPMS) is designed to detect and alert the driver should the air pressure level in one or more of the vehicle's tires, up to all four tires, fall below the manufacturer's recommended inflation pressure or another pre-set level.

NOTE: NHTSA does not consider installation of an aftermarket or replacement tire or rim that is not compatible with the TPMS to be a "make inoperative" situation under 49 U.S.C. 30122, provided that the entity does not disable the TPMS malfunction indicator.

TIRE PRESSURE SENSORS

Condition	Code	Procedure
Attaching hardware broken	A	Require repair or replacement of hardware
Attaching hardware missing	C	Require replacement of hardware
Attaching hardware not functioning	A	Require repair or replacement of hardware
Inoperative	A	Require repair or replacement
NOTE: Inoperative includes intermittent failure.		
Loose	B	Require repair or replacement
Missing (Non-OE Wheel and/or Tire Applications)	2	Suggest replacement if appropriate sensor is available
Missing (OE Wheel and Tire Applications)	C	Replacement Required
Not Responding		Further inspection required
NOTE: If sensor does not Wake Up, follow manufacturers recommended diagnostic procedure to determine cause		

TIRES

NOTE: These guidelines do not apply to split rims. Some vehicle manufacturers restrict replacement of tires to specific brands, types, or sizes. High pressure temporary compact spare tires should not be used with any other rims or wheels, nor should standard tires, snow tires, wheel covers, or trim rings be used with high pressure compact spare rims or wheels. Attempting to mount a tire of one diameter on a wheel of a different diameter or flange type may result in serious injury or death. Only specially trained persons should de-mount or mount tires. Explosions of tire and wheel assembly can result from improper

UNIFORM INSPECTION & COMMUNICATION STANDARDS 2010 - 2011

Steering & Suspension Systems

STEERING & SUSPENSION SYSTEMS

These materials are confidential and are not to be disclosed to, or utilized by, any individual or entity other than participants of the Motorist Assurance Program (MAP).

The Automotive Maintenance and Repair Association (AMRA) and MAP do not warrant these materials or guarantee their accuracy, and AMRA and MAP assume no liability for errors.

MAP STANDARDS OF SERVICE

MAP developed standards of service for shops to follow in working with customers. Written from the point of view of customers, and for the use of maintenance and repair shops, the standards expand on the ideas and promises established in MAP's Pledge to Customer

I. Our recommendations are based upon the following definitions.

System Failure - Parts/system indicated are out of manufacturers' specifications, have failed or are unable to perform their normal function as intended or designed by the manufacturers. Service/replacement is required.

Preventive/Scheduled Maintenance - Parts/system are scheduled for service/ replacement per industry standards or are near the end of their useful life and repair/ replacement is recommended in advance of parts/system failure. Service/replacement is suggested.

Improved System Performance - Parts/ system indicated are recommended for repair/ replacement to enhance/improve the vehicle's ability to perform as intended or designed by the manufacturer, or as requested by the customer. Service/replacement is suggested.

II. Training/Criteria Our personnel have acquired auto repair expertise through formal education or work experience. Where appropriate, personnel are moving toward certification (e.g. vehicle manufacturer, ASE, etc.) for the services performed. Continuing education will be supported by all MAP participants.

III. Appropriate Company Approved Inspection

We will perform an appropriate inspection based on MAP Uniform Inspection & Communication Standards.

IV. Written Estimates

Written estimates based on our inspection, in compliance with state and local regulations, will include parts (dollar amount), labor (dollar amount), and the total estimate.

V. Work Authorization

2014 Jeep Cherokee Latitude

2014 ACCESSORIES AND EQUIPMENT Amplifier (AMP) - Electrical Diagnostics - Base - Cherokee

Possible Causes

CENTER I/P PANEL SPEAKER (+) CIRCUIT SHORTED TO THE CENTER I/P PANEL SPEAKER (-) CIRCUIT
CENTER I/P PANEL SPEAKER
AMPLIFIER

DIAGNOSTIC TEST

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B143C-2B-CHANNEL 10 AUDIO SPEAKER OUTPUT - CIRCUIT SHORTED TOGETHER?

Yes

- Go To 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the wiring diagrams as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

2. CHECK THE OPERATION OF THE CENTER I/P PANEL SPEAKER

1. Turn the ignition off.
2. Disconnect the Center I/P Speaker.
3. Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker below 1.0 Ohm?

Yes

- Replace the Center I/P Speaker in accordance with the Service Information. Refer to **SPEAKER, REMOVAL** .
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

No

2014 Jeep Cherokee Latitude

2014 ACCESSORIES AND EQUIPMENT Audio (Radio) - Electrical Diagnostics - Cherokee

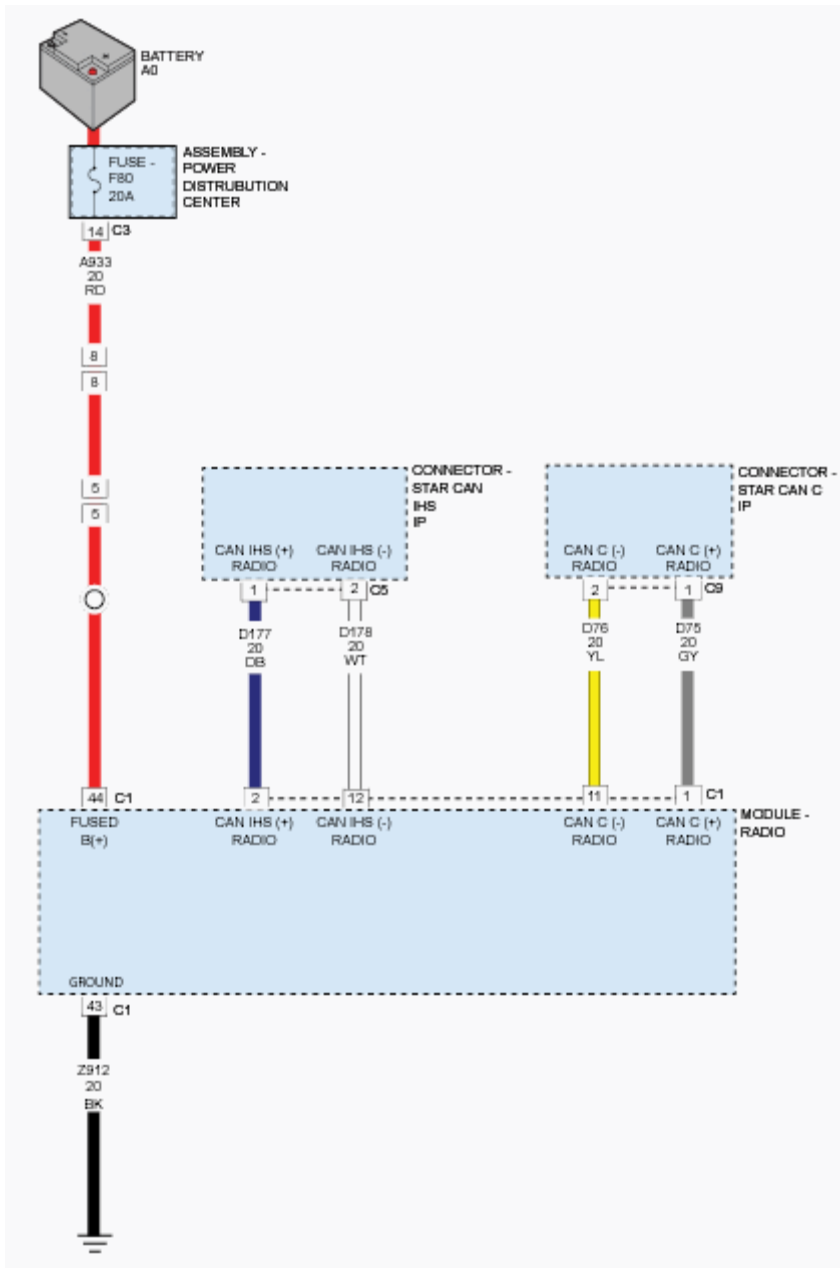


Fig. 42: Identifying Radio Module Circuit Diagram
Courtesy of CHRYSLER GROUP, LLC

WHEN MONITORED

With the ignition on.

SET CONDITION

If the module detects that the battery voltage is greater 16.5 volts for greater than 5 seconds.

POSSIBLE CAUSES

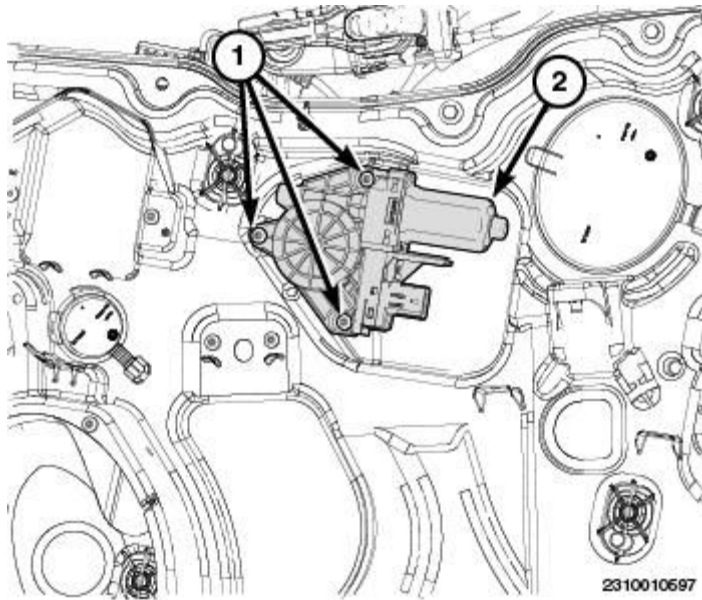


Fig. 54: Identifying Window Motor & Fasteners
Courtesy of CHRYSLER GROUP, LLC

4. Disconnect the window motor (2) wiring connector.
5. Remove the three window motor (2) fasteners.
6. Remove the window motor (2) from the carrier plate.

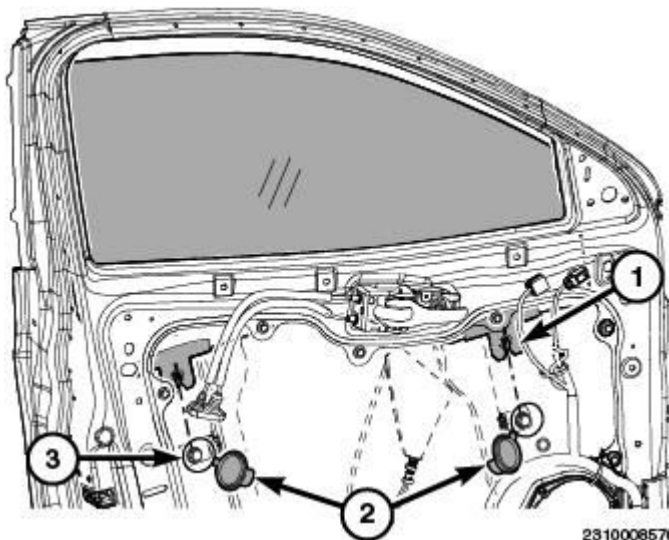


Fig. 55: Identifying Access Plugs & Glass Fasteners
Courtesy of CHRYSLER GROUP, LLC

7. Open the access plugs (2) to expose the glass fasteners (3).
8. Lower the glass by hand until the glass fasteners (3) line up in the access holes.
9. Remove the glass fasteners (1).

2014 Jeep Cherokee Latitude

2014 ACCESSORIES AND EQUIPMENT Body Control Module (BCM) - Electrical Diagnostics - Cherokee

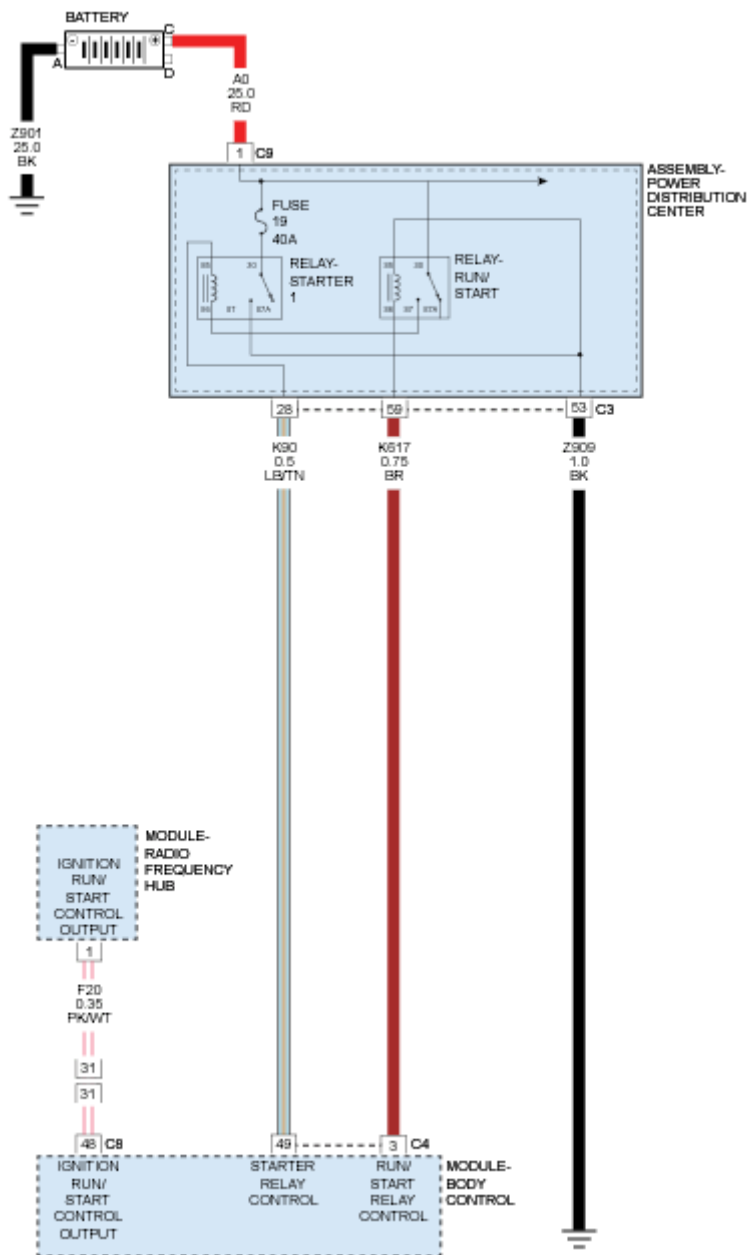


Fig. 6: Ignition Run/Start Input Circuit Diagram
Courtesy of CHRYSLER GROUP, LLC

WHEN MONITORED

With the ignition on.

SET CONDITION

This DTC will set if the Body Control Module (BCM) detects a short to ground on the Run/Start Relay Control circuit.

2014 Jeep Cherokee Latitude

2014 ACCESSORIES AND EQUIPMENT Communication - Non-DTC Based Diagnostics - Cherokee

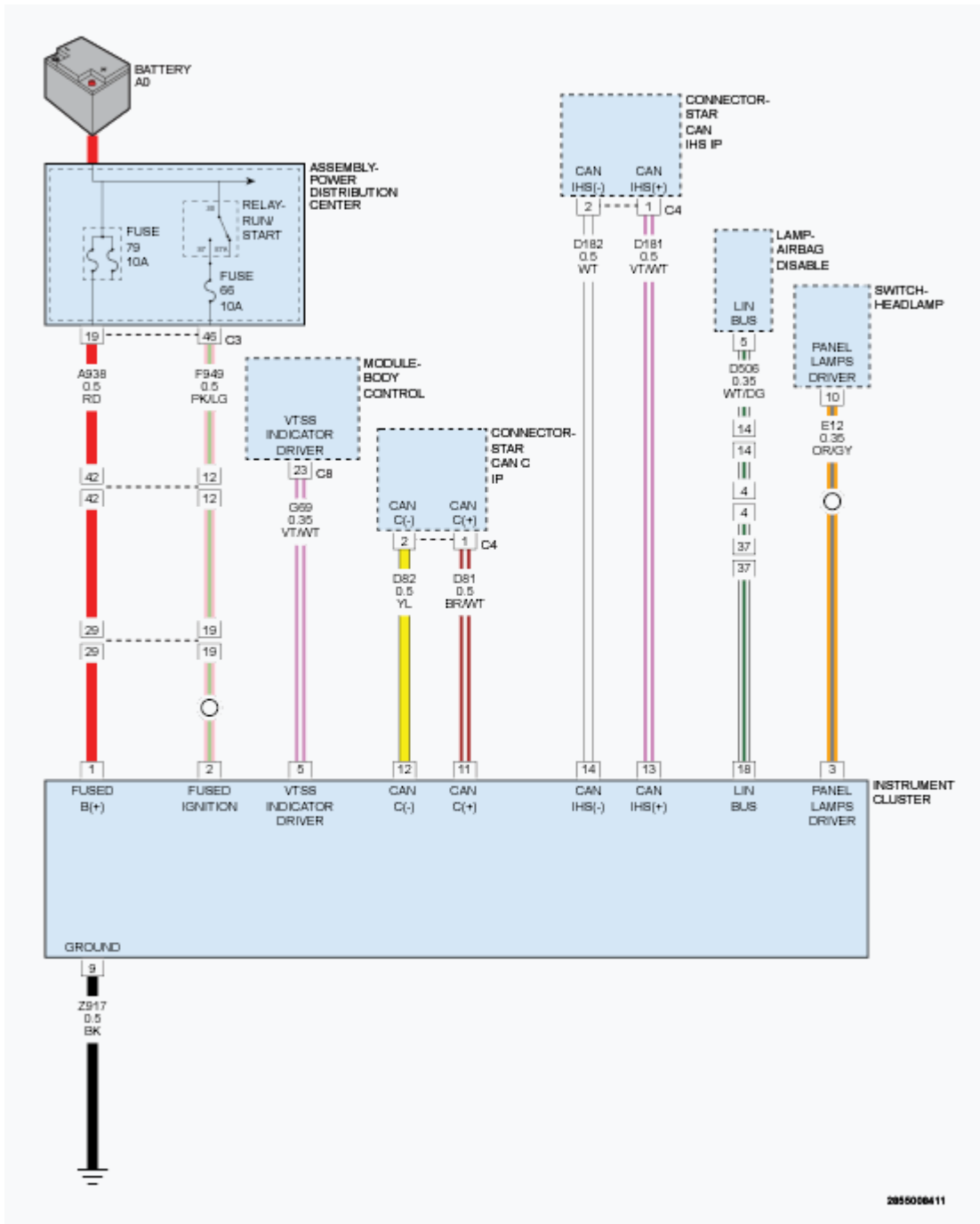


Fig. 19: Instrument Cluster CAN C, Fused B+, Fused Ignition & Ground Circuit Diagram
 Courtesy of CHRYSLER GROUP, LLC

POSSIBLE CAUSES

Possible Causes
FUSED B(+) CIRCUIT OPEN OR SHORTED
GROUND CIRCUIT OPEN

2014 Jeep Cherokee Latitude

2014 ACCESSORIES AND EQUIPMENT Radio Frequency (RF Hub) Module - Electrical Diagnostics - Cherokee

No

- Replace the Radio Frequency Hub (RF Hub) Module in accordance with the Service Information. Refer to **MODULE, RADIO FREQUENCY (RF HUB), REMOVAL** .
- Perform the RADIO FREQUENCY HUB VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

B285F-11-BLIND SPOT WARNING LIGHT CONTROL - CIRCUIT SHORT TO GROUND

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

When the Driver Door Module (DDM) turns the Blind Spot Indicator on.

SET CONDITION

When the Driver Door Module (DDM) detects a short to ground on the Blind Spot Indicator circuit, this code will set.

POSSIBLE CAUSES

Possible Causes
MIRROR ASSEMBLY
DOOR MODULE

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, erase all DTCs.
3. Cycle the ignition from on to off three times.
4. Turn the ignition on.
5. Wait one minute.
6. With the scan tool, read the active DTCs.

Does the scan tool display: B285F-11-BLIND SPOT WARNING LIGHT CONTROL - CIRCUIT SHORT TO GROUND as Active?

Yes

- Go To 2

No

15. Install the thrust bearing on the B-clutch hub.

CLUTCH, C

ADJUSTMENTS

C-CLUTCH MEASUREMENT

After the C-clutch is cleaned and assembled the end play must be measured to verify that the correct select reaction plate (3) has been installed.

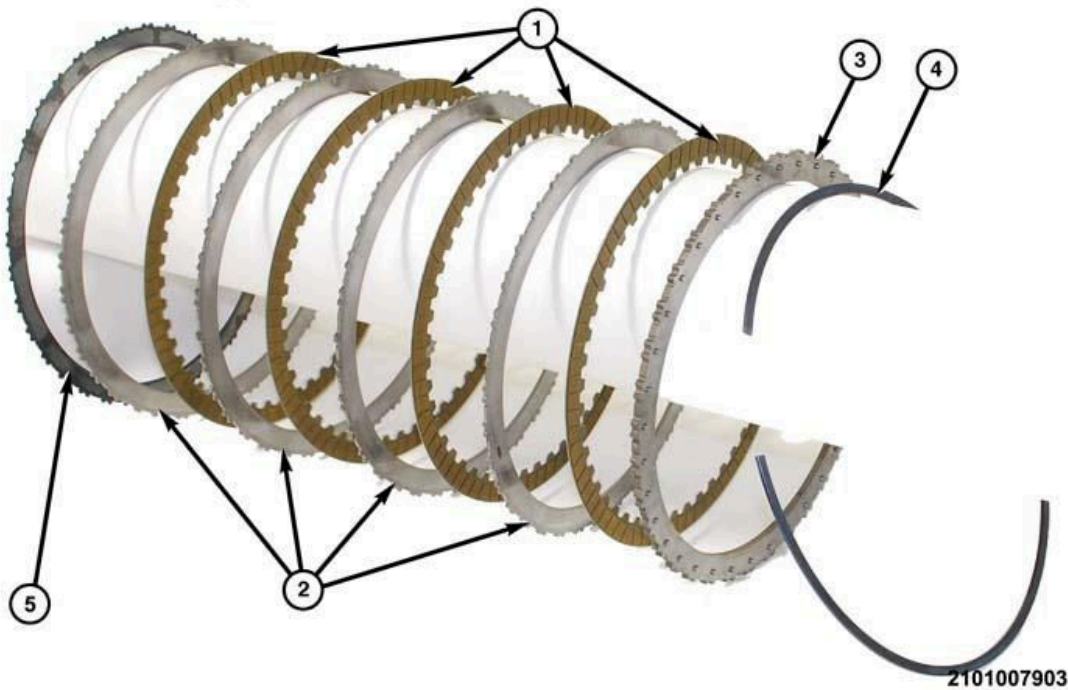


Fig. 433: Exploded View Of C-Clutch Wave Plate, Steel Plates, & Friction Discs
Courtesy of CHRYSLER GROUP, LLC

1. Position the transaxle housing on a suitable arbor press.

2014 Jeep Cherokee Latitude

2014 AUTOMATIC TRANSMISSION Transmission Control Module (TCM) - Electrical Diagnostics, 948TE - Cherokee

3. Ignition ON, Engine not running.
4. Using a 12-volt test light connected to ground, check the TCM power input circuits at the TCM C1 harness connector.

NOTE: **The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.**

Does the test light illuminate brightly?

Yes

- Go To 8

No

- Repair the TCM power input circuits for an open or high resistance.
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

8. CHECK THE TCM GROUND CIRCUITS

1. Ignition ON, Engine not running.
2. Using a 12-volt test light connected to B(+), check the ground circuits at the TCM C1 harness connector.

NOTE: **The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.**

Does the test light illuminate brightly?

Yes

NOTE: **If this Electronic Control Unit (ECU) is being replaced with a new unit, a diagnostic scan tool MUST be used to align the PROXI configuration data into the new ECU. Follow the routine outlined in the diagnostic scan tool for PROXI Configuration Alignment under Body Control Module (BCM) Miscellaneous Functions menu.**

- Using the schematics as a guide, check the Transmission Control Module (TCM) terminals and connectors for corrosion, damage or pushed out terminals. Pay particular attention to the power and ground circuits. If no problems are found, replace the TCM and perform programming and PROXI Configuration Alignment procedures. Refer to **MODULE, TRANSMISSION CONTROL, REMOVAL** .
 - Perform the TRANSMISSION VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .
-

2014 Jeep Cherokee Latitude

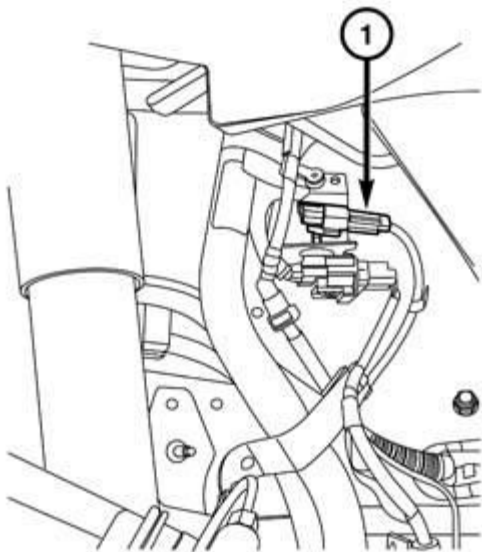
2014 BRAKES Antilock Brake System (ABS) - Service Information - Cherokee

The rear wheel speed sensor head is secured to the knuckle assembly by a bolt (1). The encoder is integral to the hub and bearing assembly. The encoder is serviced as part of the rear hub and bearing.

The WSS air gaps are not adjustable.

REMOVAL

REMOVAL



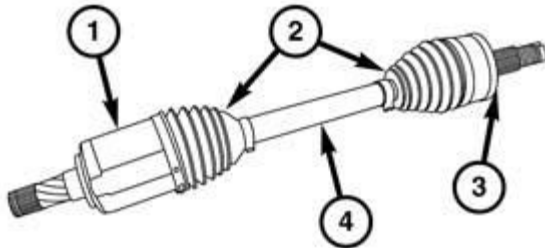
1715005822

Fig. 8: Wheel Speed Sensor Cable Connector

Courtesy of CHRYSLER GROUP, LLC

NOTE: Before proceeding, refer to **CAUTION** and **WARNING** .

1. Raise and support the vehicle Refer to **HOISTING, STANDARD PROCEDURE** .
2. Disconnect the wheel speed sensor cable connector (1) at the body wiring harness connector.



030369459

Fig. 1: C/V Joint, Tripod Joint, Halfshaft & Inner/Outer Boots
 Courtesy of CHRYSLER GROUP, LLC

The general appearance of the Halfshafts should be clean and oil free around the CV (3) and tripod (1) boots (2). Grease on or around the boots is a sign of leakage and the boots or halfshaft should be replaced.

NOISE OR VIBRATION IN TURNS

Vibration associated with the CV joints in the halfshafts occur in the 3rd and 8th order. Use a vibration analyzer to determine the frequency of the vibration.

SYMPTOM	POSSIBLE CAUSE	REPAIR
Clicking noise while turning.	Lack of lube in CV joint boots.	Replace halfshaft
Chuckling or snap noise while turning.	Loose wheel or hub nut.	Tighten wheel or hub nut. Replace damaged components.
Loud knocking noise centering on inner CV tripod joints.	Damaged Differential side/pinion gears.	Remove halfshaft and rotate side gears by hand. Replaced damaged transaxle components.

Noise may also be caused by another component of the vehicle coming in contact with the half shaft, brake or wheel assemblies.

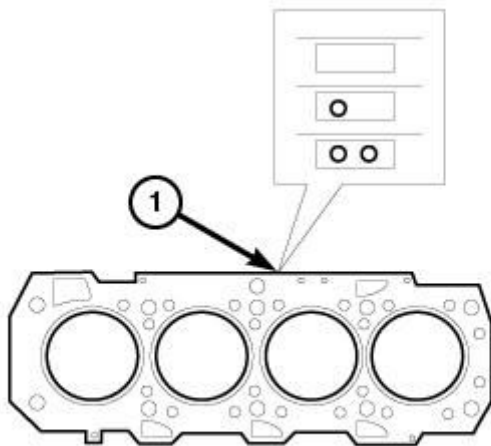
CLUNKING NOISE DURING ACCELERATION

SYMPTOM	POSSIBLE CAUSE	REPAIR
		1. Replace hub nut and

2014 Jeep Cherokee Latitude

2014 ENGINE 2.0L Diesel - Service Information - Cherokee

0.110 - 0.203 mm	0.035 - 0.039 in.	No Hole
0.231 - 0.330 mm	0.040 - 0.043 in.	One Hole
0.331 - 0.425 mm	0.044 - 0.047 in.	Two Hole



3479040

Fig. 141: Head Gasket Identification
Courtesy of CHRYSLER GROUP, LLC

4. Look up piston protrusion measurement in the table to find the correct head gasket. The head gasket is marked round holes (1).

COVER, ENGINE, FRONT

REMOVAL

REMOVAL

1. Disconnect the negative battery cable.

NOTE: The crankshaft sprocket bolt is a left handed thread.

2. Remove the crankshaft sprocket. Refer to **BELT AND SPROCKETS, TIMING, REMOVAL**.

7. Run the engine until it reaches normal operating temperature.
8. Verify that the engine has acceptable oil pressure. Refer to **ENGINE SPECIFICATIONS**.

DIAGNOSIS AND TESTING - REAR SEAL AREA LEAKS

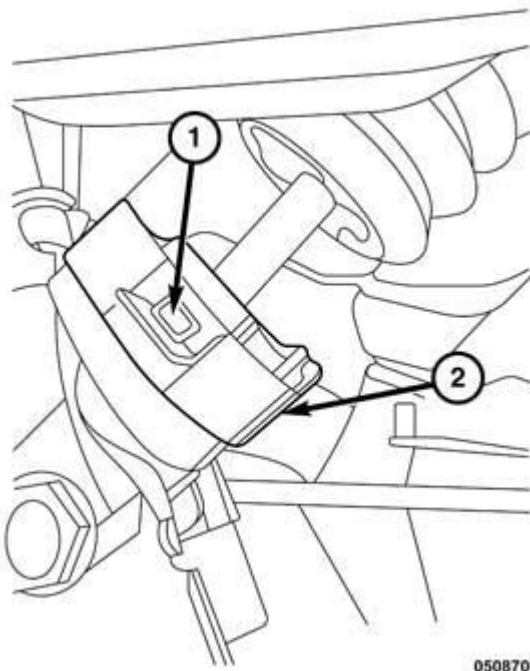


Fig. 432: Torque Converter Housing Dust Cover & Rubber Plugs
Courtesy of CHRYSLER GROUP, LLC

Since it is sometimes difficult to determine the source of an oil leak in the rear seal area of the engine, a more involved inspection is necessary. The following steps should be followed to help pinpoint the source of the leak.

If the leakage occurs at the crankshaft rear oil seal area:

1. Disconnect and isolate the negative battery cable.
2. Raise and support the vehicle. Refer to **HOISTING, STANDARD PROCEDURE**.
3. Remove the torque converter dust shield (1).
4. Remove two rubber plugs (2) covering the rear oil seal retainer flange bolts.
5. Inspect the flexplate and rear of the block for evidence of oil. Use a black light to check for the oil leak:
 - a. Circular spray pattern generally indicates seal leakage or crankshaft damage.
 - b. Where leakage tends to run straight down, possible causes are a porous block, rear oil seal retainer, oil galley pipe plug and rear seal retainer to oil pan mating surfaces.
6. If no leaks are detected, use the Air Leak Detection Method as outlined in Engine Oil Leak. Refer to **LUBRICATION, DIAGNOSIS AND TESTING**.

CAUTION: Do not subject the engine assembly to more than 20.6 kPa (3 PSI) of

2014 Jeep Cherokee Latitude

2014 ENGINE PERFORMANCE Emissions Control - Cherokee

PLGM	Power Liftgate Module
PMU	Power Module Unit
RBSS	Right Blind Spot Sensor
RFHM	Radio Frequency Hub Module
RRM	Radio Receiver Module
RVCM	Rear Camera
SBEC	Single Board Engine Controller
SCM	Steering Control Module
S/C	Speed Control
SDAR	Satellite Digital Audio receiver
SKIM	Sentry Key Immobilizer Module
SKREEM	Sentry Key Remote Entry Module
SOL	Solenoid
SRV	Short Runner Valve
SWS	Steering Wheel Switch
TCM	Transmission Control Module
TCC	Torque Converter Clutch
TIP	Throttle Inlet Pressure
TIPM	Totally Integrated Power Module
TP	Throttle Position
TPMS	Tire Pressure Monitor System
TRS	Transmission Range Sensor
TSBM	Terrain Switch Bank Module
UAM	Ultrasonic & Anti-Tilt Module
UGDO	Universal Garage Door Opener
VSM	Voltage Stability Module
VSM2	Voltage Stability Module 2
VSS	Vehicle Speed Sensor/Signal
WCPM	Wireless Charging Pad Module
WCU	Wiper
WWSM	Windshield Wiper Smart Motor
WIN	Wireless Ignition Node

OPERATION

OPERATION

The following procedure has been established to assist technicians in the field with enabling and running OBD II Monitors. The order listed in the following procedure is intended to allow the technician to effectively complete each monitor and to set the CARB Readiness Status in the least time possible.

NOTE: Once the monitor run process has begun, do not turn off the ignition. By