



JEEP MP3024 TRANSFER CASE SHIFT MOTOR DOES NOT RANGE

COMPLAINT #1: A 2014 Jeep Grand Cherokee with the 3.6 Liter Engine and an MP3024 transfer case has a complaint of the transfer case shift motor does not range to other drive positions. The transfer case shift motor would just click but would not turn. Whenever the DriveTrain Control Module (DTCM) was scanned, the codes were different each time.

The technician chose to check the shift motor circuits. When the five (5) Volt Supply Circuit was checked, which can be found in the electrical diagram in figure 1, it did not have five volts on it. There was also no voltage being delivered to the shift motor control circuits.

The DriveTrain Control Module C1 and C2 connector terminal identification can be seen in figures 2 and 3.

The Transfer Case Motor C1 and C2 connector terminal identification can be seen in figures 4 and 5.

COMPLAINT #2: A 2016 Jeep Grand Cherokee has a complaint of the transfer case making a growling noise and felt like it was in two gears at the same time with no diagnostic trouble codes set.

CAUSE #1: Since the DriveTrain Control Module is responsible for supplying a five volt supply as well as battery voltage to the shift motor directional circuits, the DTCM was condemned as the cause of the complaint.

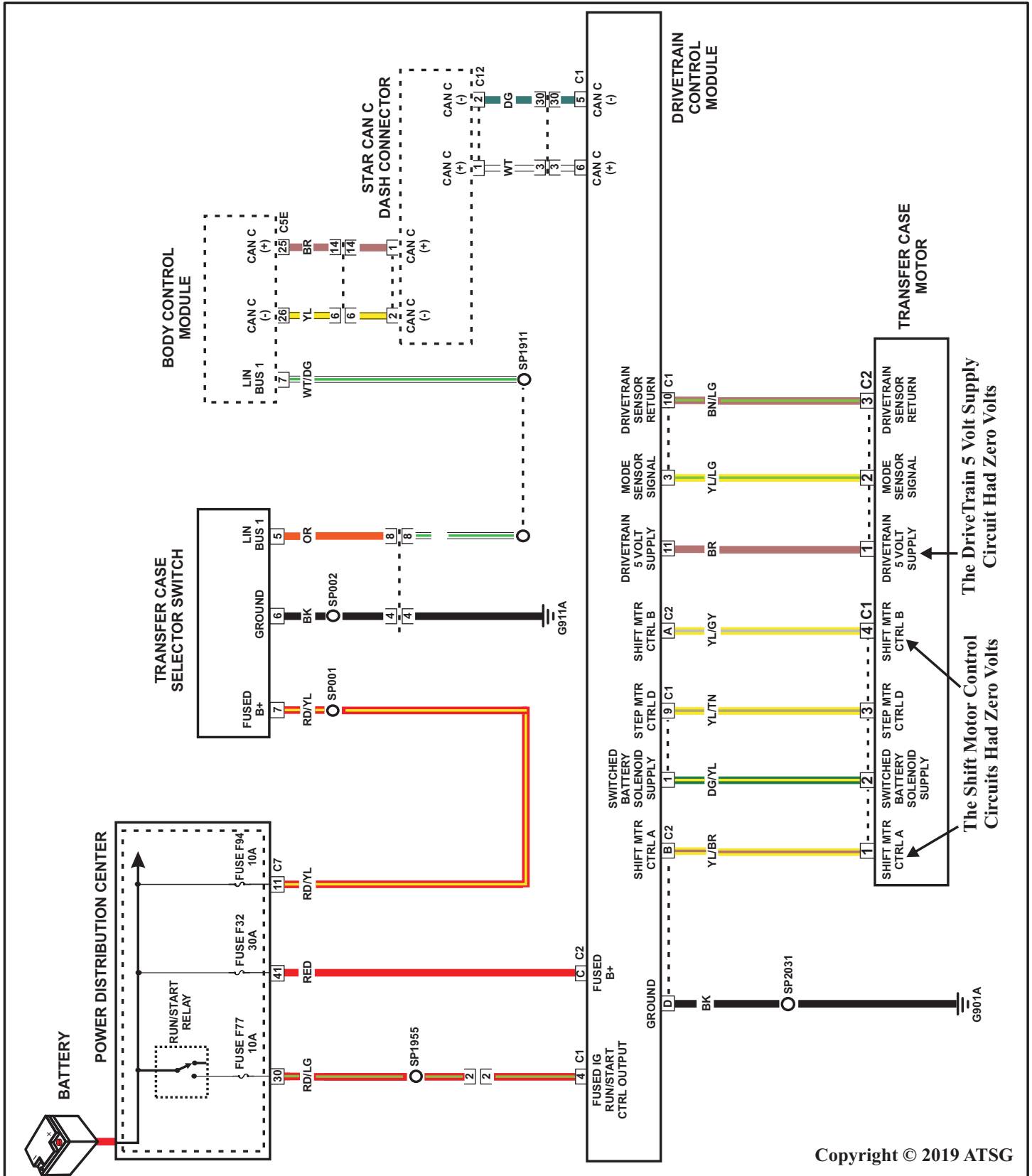
CAUSE #2: The drivetrain Control Module was faulty.

CORRECTION: Replace the DriveTrain Control Module which is located under the drivers seat as shown in figure 6.

A special thanks to Rick at Performance Transmission for the information and photo that made this bulletin possible.

A very special thank you to Tom & Steve at Keys Jeep Adventures, Key West, FL.

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Figure 1

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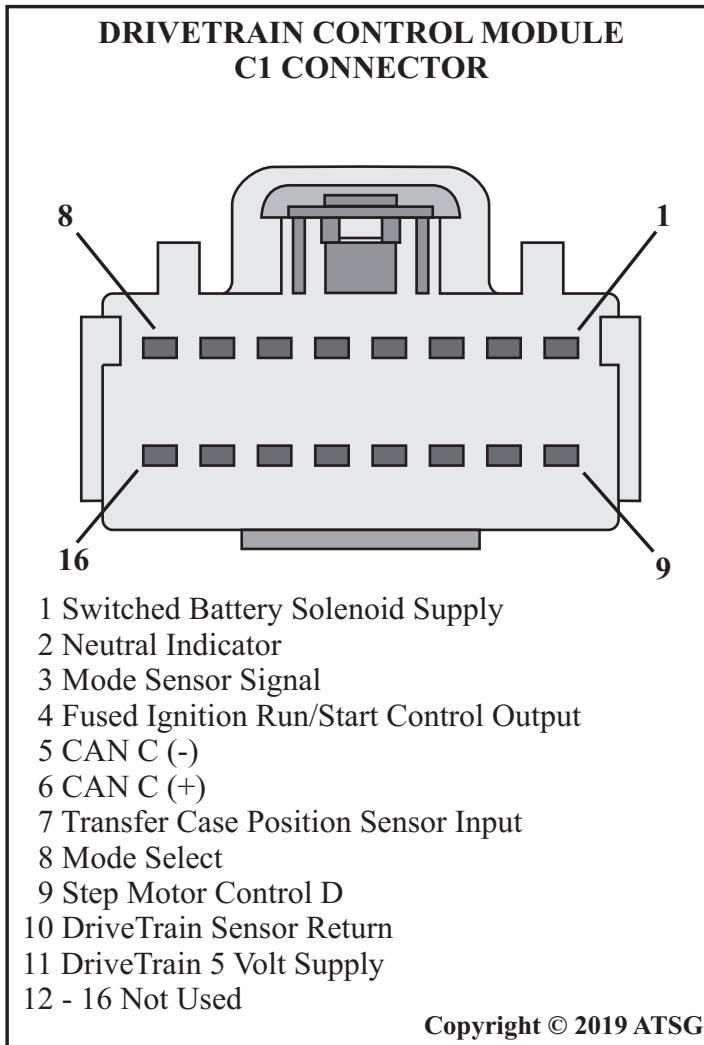


Figure 2

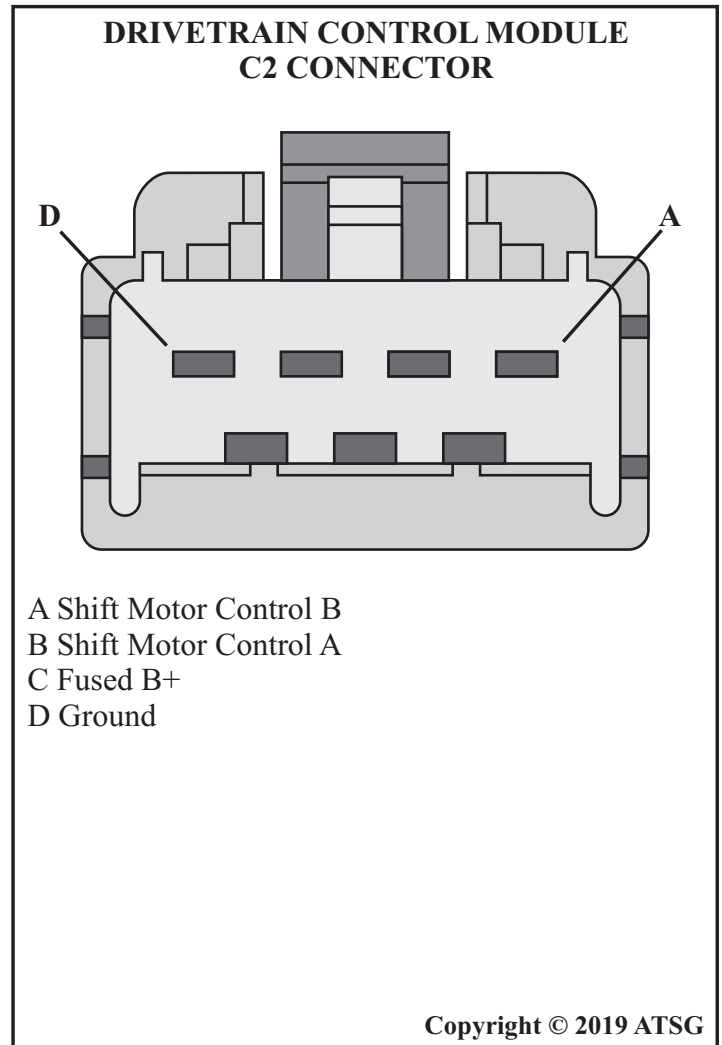
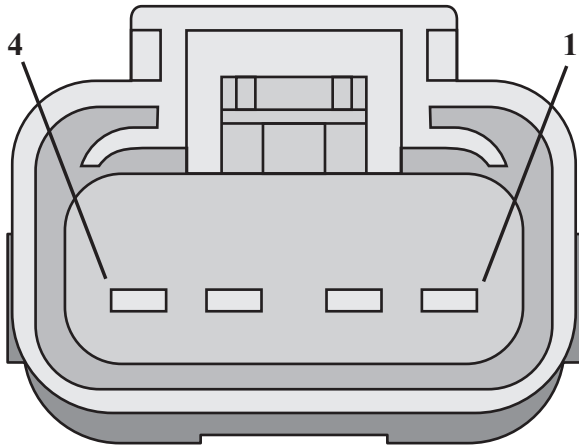


Figure 3

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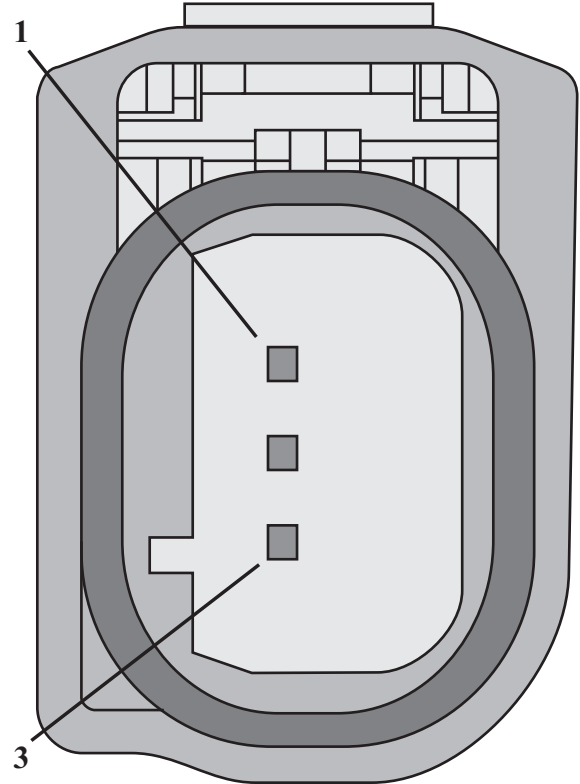
**TRANSFER CASE MOTOR
C1 CONNECTOR**



- 1 Shift Motor Control A
 - 2 Switched Battery Solenoid Supply
 - 3 Step Motor Control D
 - 4 A Shift Motor Control B
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Figure 4

**TRANSFER CASE MOTOR
C2 CONNECTOR**



- 1 DriveTrain 5 Volt Supply
 - 2 Mode Sensor Signal
 - 3 DriveTrain Sensor Return
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Figure 5



Figure 6