

2016.0 RANGE ROVER (LG), 100-00

# GENERAL INFORMATION

DESCRIPTION AND OPERATION

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## TRANSMISSION CONTROL MODULE (TCM)

### CAUTION:

Diagnosis by substitution from a donor vehicle is **NOT** acceptable. Substitution of control modules does not guarantee confirmation of a fault, and may also cause additional faults in the vehicle being tested and/or the donor vehicle.

## NOTES:

- If a control module or a component is suspect and the vehicle remains under manufacturer warranty, refer to the Warranty Policy and Procedures manual, or determine if any prior approval programme is in operation, prior to the installation of a new module/component.
- Generic scan tools may not read the codes listed, or may read only 5-digit codes. Match the 5 digits from the scan tool to the first 5 digits of the 7-digit code listed to identify the fault (the last 2 digits give extra information read by the manufacturer-approved diagnostic system).
- When performing voltage or resistance tests, always use a digital multimeter accurate to three decimal places, and with an up-to-date calibration certificate. When testing resistance always take the resistance of the digital multimeter leads into account.
- Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.
- Inspect connectors for signs of water ingress, and pins for damage and/or corrosion.
- If DTCs are recorded and, after performing the pinpoint tests, a fault is not present, an intermittent concern may be the cause. Always check for loose connections and corroded terminals.
- Check DDW for open campaigns. Refer to the corresponding bulletins and SSMs which may be valid for the specific customer complaint and carry out the recommendations as required.
- If a failure condition is reported indicating the need to renew the transmission assembly on a vehicle that remains under manufacturer warranty, an authorisation request must first go through the warranty prior approval programme before any work is begun.

The table below lists all Diagnostic Trouble Codes (DTCs) that could be logged in the Transmission Control Module (TCM). For additional diagnosis and testing information, refer to the relevant Diagnosis and Testing section in the workshop manual.

For additional information, refer to: [Diagnostics](#) (307-01A Automatic Transmission/Transaxle - Vehicles With: 8HP45 8-Speed Automatic Transmission AWD, Diagnosis and Testing) /

[Diagnostics](#) (307-01A Automatic Transmission/Transaxle - Vehicles With: 8HP45 8-Speed Automatic Transmission AWD, Diagnosis and Testing).

DTC	DESCRIPTION	POSSIBLE CAUSES	ACTION
B108E-02	Display - General signal failure	<ul style="list-style-type: none"> <li>▪ Gear display signal failure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, clear the DTCs. Road test the vehicle and check that the displayed gear matches the engaged gear. If the fault persists, install a new transmission control module</li> </ul>
C1A88-64	High Pressure Switching Valve #1 - Signal plausibility failure	<ul style="list-style-type: none"> <li>▪ Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0219-86	Engine Overspeed Condition - Signal invalid	<ul style="list-style-type: none"> <li>▪ Invalid data received from the engine control module</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
P0560-21	System Voltage - Signal amplitude < minimum	<ul style="list-style-type: none"> <li>▪ Battery/charging system fault</li> <li>▪ Transmission control module power or ground circuit open circuit, high resistance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Refer to the relevant section of the workshop manual and test the battery and charging system</li> <li>▪ Using the manufacturer approved diagnostic system, check datalogger signal - Main ECU Supply Voltage (0xDD02). Refer to</li> </ul>

			the electrical circuit diagrams and check the transmission control module power and ground circuits for open circuit, high resistance
P0562-1C	System Voltage Low - Circuit voltage out of range	<ul style="list-style-type: none"> <li>▪ Battery/charging system fault</li> <li>▪ Transmission control module power or ground circuit open circuit, high resistance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Refer to the relevant section of the workshop manual and test the battery and charging system</li> <li>▪ Using the manufacturer approved diagnostic system, check datalogger signal - Main ECU Supply Voltage (0xDD02). Refer to the electrical circuit diagrams and check the transmission control module power and ground circuits for open circuit, high resistance</li> </ul>
P0562-21	System Voltage Low - Signal amplitude < minimum	<ul style="list-style-type: none"> <li>▪ Battery/charging system fault</li> <li>▪ Transmission control module power or ground circuit open circuit, high resistance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Refer to the relevant section of the workshop manual and test the battery and charging system</li> <li>▪ Using the manufacturer approved diagnostic system, check datalogger signal - Main ECU Supply Voltage (0xDD02). Refer to the electrical circuit diagrams and check the transmission control module power and ground circuits for open circuit, high resistance</li> </ul>
P0563-22	System Voltage High - Signal amplitude > maximum	<ul style="list-style-type: none"> <li>▪ Battery/charging system fault</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, check datalogger signal - Main ECU Supply Voltage (0xDD02). Refer to the relevant section of the workshop manual and test the battery and charging system</li> </ul>

P0601-41	Internal Control Module Memory Checksum Error - General checksum failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0606-04	Control Module Processor - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0606-11	Control Module Processor - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0606-62	Control Module Processor - Signal compare failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0606-64	Control Module Processor - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-04	TCM Processor - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-06	TCM Processor - Algorithm based failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P0613-11	TCM Processor - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-12	TCM Processor - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-13	TCM Processor - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-15	TCM Processor - Circuit short to battery or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0613-18	TCM Processor - Circuit current below threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P061B-64	Internal Control Module Torque Calculation Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P062F-04	Internal Control Module EEPROM Error - System	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and</li> </ul>

	internal failures		retest. If the fault persists, install a new transmission control module
P0641-64	Sensor Reference Voltage A Circuit/Open - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0642-21	Sensor Reference Voltage A Circuit Low - Signal amplitude < minimum	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0643-22	Sensor Reference Voltage A Circuit High - Signal amplitude > maximum	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0657-13	Actuator Supply Voltage A Circuit / Open - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0657-64	Actuator Supply Voltage A Circuit / Open - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0658-11	Actuator Supply Voltage A Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P0659-12	Actuator Supply Voltage A Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0666-64	Control Module Internal Temperature Sensor "A" Circuit - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0667-01	PCM / ECM / TCM Internal Temperature Sensor A Range/Performance - General electrical failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0668-21	PCM / ECM / TCM Internal	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	



Temperature  
Sensor A Circuit  
Low - Signal  
amplitude <  
minimum

**NOTE:**

Consider  
environmental  
conditions before  
condemning the  
transmission control  
module

- Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module

P0669-  
22

PCM / ECM / TCM  
Internal  
Temperature  
Sensor A Circuit  
High - Signal  
amplitude >  
maximum

- Transmission control module failure

**NOTE:**

Consider  
environmental  
conditions before  
condemning the  
transmission control  
module

- Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module

P06AC-  
01

PCM / ECM / TCM  
Internal  
Temperature  
Sensor B  
Range/Performance  
- General electrical  
failure

- Transmission control module failure

**NOTE:**

Consider  
environmental  
conditions before  
condemning the  
transmission control  
module

			<ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P06AC-64	PCM / ECM / TCM Internal Temperature Sensor B Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P06AD-22	PCM / ECM / TCM Internal Temperature Sensor B Circuit Low - Signal amplitude > maximum	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P06AE-21	PCM / ECM / TCM Internal Temperature Sensor B Circuit High - Signal amplitude < minimum	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0700-02	Transmission Control System (MIL Request) - General signal failure	<ul style="list-style-type: none"> <li>Transmission system fault</li> </ul>	<ul style="list-style-type: none"> <li>Investigate other DTCs first. Clear the DTCs and road test the vehicle. Re-read DTCs</li> </ul>
P0700-83	Transmission Control System (MIL Request) - Value of signal protection calculation incorrect	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0702-98	Transmission Control System Electrical - Component or system over temperature	<ul style="list-style-type: none"> <li>Insufficient transmission cooling</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Check the automatic transmission cooling system</li> </ul>
P0710-04	Transmission Fluid Temperature Sensor A Circuit - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0710-	Transmission Fluid	<ul style="list-style-type: none"> <li>Transmission control</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer</li> </ul>

13	Temperature Sensor A Circuit - Circuit open	module failure	approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module
P0710-27	Transmission Fluid Temperature Sensor A Circuit - Signal rate of change above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0710-64	Transmission Fluid Temperature Sensor A Circuit - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0712-11	Transmission Fluid Temperature Sensor A Circuit	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	

	Low - Circuit short to ground		<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0713-12	Transmission Fluid Temperature Sensor A Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>Consider environmental conditions before condemning the transmission control module</p> </div> <ul style="list-style-type: none"> <li>Allow the transmission control module to cool. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0715-12	Turbine/Input Shaft Speed Sensor A Circuit - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0715-64	Turbine/Input Shaft Speed Sensor A	<ul style="list-style-type: none"> <li>Turbine sensor signal plausibility failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic</li> </ul>

	Circuit - Signal plausibility failure		system, clear the DTCs and retest. Check datalogger signals - Turbine Speed (0x1E72) - Transmission Output Shaft Speed (0x1E68) - for plausibility. If the fault persists, install a new transmission control module
P0716-14	Turbine/Input Shaft Speed Sensor A Circuit Range/Performance - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0716-27	Turbine/Input Shaft Speed Sensor A Circuit Range/Performance - Signal rate of change above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0720-12	Output Shaft Speed Sensor Circuit - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0720-14	Output Shaft Speed Sensor Circuit - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0721-02	Output Shaft Speed Sensor Circuit Range/Performance - General signal failure	<ul style="list-style-type: none"> <li>Output shaft speed sensor general signal failure</li> </ul>	<ul style="list-style-type: none"> <li>Check the transmission control module connector and the power/ground circuits to the transmission control module. Using the manufacturer approved diagnostic system, complete a CAN network integrity test. Clear the DTCs and retest. If the problem persists, renew the</li> </ul>

			transmission control module as required
P0721-27	Output Shaft Speed Sensor Circuit Range/Performance - Signal rate of change above threshold	<ul style="list-style-type: none"> <li>Signal rate of change above threshold</li> </ul>	<p><b>NOTE:</b></p> <div> <p>This DTC may be set by an anti-lock braking system fault allowing the brakes to lock during braking</p> </div> <ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the anti-lock brake system control module for related DTCs and refer to the relevant DTC index. Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0721-62	Output Shaft Speed Sensor Circuit Range/Performance - Signal compare failure	<ul style="list-style-type: none"> <li>Output shaft speed sensor circuit signal compare failure</li> </ul>	<p><b>NOTES:</b></p> <div> <ul style="list-style-type: none"> <li>This DTC is not used in vehicles from 15MY onward</li> <li>If this DTC is flagged, this may indicate that the vehicle has been fitted with an incorrect front and/or rear differential. Refer to the service instructions in Sections 205-02 &amp; 205-03 before continuing with the diagnostic steps outlined below</li> </ul> </div>

			<ul style="list-style-type: none"> <li>Check the transmission control module connector and the power/ground circuits to the transmission control module. Using the manufacturer approved diagnostic system, complete a CAN network integrity test. Clear the DTCs and retest. If the problem persists, renew the transmission control module as required</li> </ul>
P0721-64	Output Shaft Speed Sensor Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<p><b>NOTE:</b></p> <div> <p>If this DTC is flagged, this may indicate that the vehicle has been fitted with an incorrect front and/or rear differential. Refer to the service instructions in Sections 205-02 &amp; 205-03 before continuing with the diagnostic steps outlined below</p> </div> <ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new transmission control module</li> </ul>
P0725-81	Engine Speed Input Circuit - Invalid serial data received	<ul style="list-style-type: none"> <li>Missing/invalid data from the engine control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
P0729-07	Gear 6 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid</li> </ul>



			level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P0730-00	Incorrect Gear Ratio - No sub type information	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0731-07	Gear 1 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0732-07	Gear 2 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0733-07	Gear 3 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved</li> </ul>

			diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P0734-07	Gear 4 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0735-07	Gear 5 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0736-07	Reverse Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0736-64	Reverse Incorrect Ratio - Signal plausibility failure	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<p><b>NOTE:</b></p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>This DTC is not used in vehicles from 15MY onward</p> </div>

			<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0741-07	Torque Converter Clutch Solenoid Circuit Performance/Stuck Off - Mechanical failures	<ul style="list-style-type: none"> <li>Torque converter or automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new torque converter. Clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0745-11	Pressure Control Solenoid A - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0745-12	Pressure Control Solenoid A - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0745-13	Pressure Control Solenoid A - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0745-	Pressure Control	<ul style="list-style-type: none"> <li>Transmission control</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer</li> </ul>

14	Solenoid A - Circuit short to ground or open	module failure	approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module
P0745-64	Pressure Control Solenoid A - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0745-93	Pressure Control Solenoid A - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0745-94	Pressure Control Solenoid A - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0748-11	Pressure Control Solenoid A Electrical - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0748-12	Pressure Control Solenoid A Electrical - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0748-13	Pressure Control Solenoid A Electrical - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P076F-07	Gear 7 Ratio Incorrect - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P077E-02	Transmission Fluid Temperature Measurement System - Multiple Sensor Correlation - General signal failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0780-62	Shift Malfunction - Signal compare failure	<ul style="list-style-type: none"> <li>Signal compare failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0780-93	Shift Malfunction - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0780-94	Shift Malfunction - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0795-04	Pressure Control Solenoid C - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P07AD-07	Transmission Friction Element "F" Stuck On - Mechanical failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P07D9-07	Gear 8 Incorrect Ratio - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07DC-07	Incorrect Shift from Gear 1 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07DD-07	Incorrect Shift from Gear 2 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07DE-07	Incorrect Shift from Gear 3 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the</li> </ul>

			DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P07DF-07	Incorrect Shift from Gear 4 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07E0-07	Incorrect Shift from Gear 5 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07E1-07	Incorrect Shift from Gear 6 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P07E2-07	Incorrect Shift from Gear 7 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the</li> </ul>

			vehicle. If the fault persists, install a new automatic transmission
P07E3-07	Incorrect Shift from Gear 8 - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0801-94	Reverse Inhibit Control Circuit - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0810-04	Clutch Position Control Error - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. Ensure the displayed gear matches the engaged gear. If the fault persists, install a new transmission control module</li> </ul>
P084F-11	Park/neutral Switch Output Circuit - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P084F-12	Park/neutral Switch Output Circuit - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P084F-	Park/neutral Switch	<ul style="list-style-type: none"> <li>Transmission control</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer</li> </ul>



13	Output Circuit - Circuit open	module failure	approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module
P084F-14	Park/neutral Switch Output Circuit - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P084F-29	Park/neutral Switch Output Circuit - Signal invalid	<ul style="list-style-type: none"> <li>Park/neutral switch output circuit signal invalid</li> </ul>	<ul style="list-style-type: none"> <li>Check for correct output signal at transmission control module pin 1 to transmission plug (check in all positions). If the signal appears normal, then check wiring and connectors to the module. If no signal present, renew the transmission control module as required</li> </ul>
P0850-02	Park/neutral Switch Input Circuit - General signal failure	<ul style="list-style-type: none"> <li>Park/neutral switch output circuit failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. Test the parklock mechanism by engaging and disengaging the parking lock several times. If fault persists, renew parklock components as necessary. If the fault persists, install a new transmission control module</li> </ul>
P0850-29	Park/neutral Switch Input Circuit - Signal invalid	<ul style="list-style-type: none"> <li>Starter inhibit signal invalid</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. Test the parklock mechanism by engaging and disengaging the parking lock several times. If fault persists, renew parklock components as necessary. If the fault persists, install a</li> </ul>

			new transmission control module
P0851-01	Park/neutral Switch Input Circuit Low - General electrical failure	<ul style="list-style-type: none"> <li>Switch input circuit general signal failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. Test the parklock mechanism by engaging and disengaging the parking lock several times. If fault persists, renew parklock components as necessary. If the fault persists, install a new transmission control module</li> </ul>
P0852-01	Park/neutral Switch Input Circuit High - General electrical failure	<ul style="list-style-type: none"> <li>Switch input circuit general signal failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. Test the parklock mechanism by engaging and disengaging the parking lock several times. If fault persists, renew parklock components as necessary. If the fault persists, install a new transmission control module</li> </ul>
P0942-07	Hydraulic Pressure Unit - Mechanical failures	<p><b>NOTE:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>This DTC is only active with vehicles fitted with stop/start functionality</p> </div> <ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P0942-62	Hydraulic Pressure Unit - Signal compare failure		<ul style="list-style-type: none"> <li>Perform ECO-start and monitor engine speed and engine/transmission start stop and position signals.</li> </ul>

		<p><b>NOTE:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>This DTC is only active with vehicles fitted with stop/start functionality</p> </div> <ul style="list-style-type: none"> <li>Hydraulic pressure unit signal compare failure</li> </ul>	<p>Clear the DTCs and retest. If the problem persists, renew the transmission control module as required</p>
P0965-64	Pressure Control Solenoid B Control Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0965-93	Pressure Control Solenoid B Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0965-94	Pressure Control Solenoid B Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0966-11	Pressure Control Solenoid B Control Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0966-12	Pressure Control Solenoid B Control Circuit Low - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P0966-14	Pressure Control Solenoid B Control Circuit Low - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0972-13	Shift Solenoid A Control Circuit Range/Performance - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0972-64	Shift Solenoid A Control Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0972-93	Shift Solenoid A Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0972-94	Shift Solenoid A Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0973-11	Shift Solenoid A Control Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0973-18	Shift Solenoid A Control Circuit Low - Circuit current below threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists,</li> </ul>

			install a new transmission control module
P0974-12	Shift Solenoid A Control Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0974-19	Shift Solenoid A Control Circuit High - Circuit current above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0975-13	Shift Solenoid B Control Circuit Range/Performance - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0975-64	Shift Solenoid B Control Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0975-93	Shift Solenoid B Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0975-94	Shift Solenoid B Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0976-	Shift Solenoid B	<ul style="list-style-type: none"> <li>Transmission control</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer</li> </ul>

11	Control Circuit Low - Circuit short to ground	module failure	approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module
P0976-18	Shift Solenoid B Control Circuit Low - Circuit current below threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0977-12	Shift Solenoid B Control Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0977-19	Shift Solenoid B Control Circuit High - Circuit current above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0978-21	Shift Solenoid C Control Circuit Range/Performance - Signal amplitude < minimum	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0978-64	Shift Solenoid C Control Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0978-93	Shift Solenoid C Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P0978-94	Shift Solenoid C Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0979-11	Shift Solenoid C Control Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0979-14	Shift Solenoid C Control Circuit Low - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0980-12	Shift Solenoid C Control Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0980-19	Shift Solenoid C Control Circuit High - Circuit current above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0981-64	Shift Solenoid D Control Circuit Range/Performance - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0981-93	Shift Solenoid D Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists,</li> </ul>

			install a new transmission control module
P0981-94	Shift Solenoid D Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0982-11	Shift Solenoid D Control Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0982-14	Shift Solenoid D Control Circuit Low - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0982-18	Shift Solenoid D Control Circuit Low - Circuit current below threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0983-12	Shift Solenoid D Control Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0983-19	Shift Solenoid D Control Circuit High - Circuit current above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0984-	Shift Solenoid E	<ul style="list-style-type: none"> <li>Transmission control</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer</li> </ul>



64	Control Circuit Range/Performance - Signal plausibility failure	module failure	approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module
P0984-93	Shift Solenoid E Control Circuit Range/Performance - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0984-94	Shift Solenoid E Control Circuit Range/Performance - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0985-11	Shift Solenoid E Control Circuit Low - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0985-14	Shift Solenoid E Control Circuit Low - Circuit short to ground or open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0985-18	Shift Solenoid E Control Circuit Low - Circuit current below threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P0986-12	Shift Solenoid E Control Circuit High - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P0986-19	Shift Solenoid E Control Circuit High - Circuit current above threshold	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P164C-62	Internal Control Module Start-Stop Performance - Signal compare failure	<p><b>NOTE:</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>This DTC is only active with vehicles fitted with stop/start functionality</p> </div> <ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Perform ECO-start and monitor engine speed and engine/transmission start stop and position signals. Clear the DTCs and retest. If the problem persists, renew the transmission control module as required</li> </ul>
P1706-94	High Vehicle Speed Observed in Park - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P1707-72	Transfer Case Neutral or Park/Neutral Indication Circuit - Actuator stuck open	<ul style="list-style-type: none"> <li>Actuator stuck open</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that emergency park release has not been pulled and is not sticking</li> <li>Clear the DTCs and test drive the vehicle, engaging and disengaging the parking lock several times. If the problem persists, renew the transmission control module as required</li> </ul>
P1707-74	Transfer Case Neutral or Park/Neutral Indication Circuit - Actuator slipping	<ul style="list-style-type: none"> <li>Emergency park release has been operated / is sticking</li> <li>Parking lock mechanical failure</li> </ul>	<ul style="list-style-type: none"> <li>Test the operation of the emergency park release</li> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P1707-77	Transfer Case Neutral or Park/Neutral Indication Circuit - Commanded position not reachable	<ul style="list-style-type: none"> <li>Commanded position not reachable</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that emergency park release has not been pulled and is not sticking</li> <li>Clear the DTCs and test drive the vehicle, engaging and disengaging the parking lock several times. If the problem persists, renew the transmission control module as required</li> </ul>
P1707-94	Transfer Case Neutral or Park/Neutral Indication Circuit - Unexpected operation	<ul style="list-style-type: none"> <li>Emergency park release has been operated / is sticking</li> <li>Parking lock mechanical failure</li> </ul>	<ul style="list-style-type: none"> <li>Test the operation of the emergency park release</li> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P177A-07	Transmission Friction Element A or B - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P177B-07	Transmission Friction Element A or C - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P177C-07	Transmission Friction Element A or D - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid</li> </ul>

			level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P177D-07	Transmission Friction Element A or E - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P177E-07	Transmission Friction Element B or C - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P177F-07	Transmission Friction Element B or D - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P178A-07	Transmission Friction Element B or E - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved</li> </ul>

			diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P178B-07	Transmission Friction Element C or D - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P178C-07	Transmission Friction Element C or E - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P178D-07	Transmission Friction Element D or E - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P215B-62	Vehicle Speed / Output Shaft Speed Correlation - Signal compare failure	<ul style="list-style-type: none"> <li>Incorrect final drive ratio fitment</li> <li>Incorrect ABS software</li> </ul>	<ul style="list-style-type: none"> <li>Check for the correct final drive ratio fitment and rectify as required</li> <li>Using the manufacturer approved diagnostic system, check the anti-lock brake system control</li> </ul>

			module for related DTCs and refer to the relevant DTC index. Using the manufacturer approved diagnostic system, reconfigure the anti-lock brake system control module with the latest level software
P258F-02	Torque Management Request Output Signal - General signal failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2638-67	Torque Management Feedback Signal A Range/Performance - Signal incorrect after event	<ul style="list-style-type: none"> <li>Torque intervention from engine control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
P2700-07	Transmission Friction Element A Apply Time Range/Performance - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P2701-07	Transmission Friction Element B Apply Time Range/Performance - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P2702-	Transmission	<ul style="list-style-type: none"> <li>Automatic</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant</li> </ul>

07	Friction Element C Apply Time Range/Performance - Mechanical failures	transmission failure	section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission
P2703-07	Transmission Friction Element D Apply Time Range/Performance - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P2704-07	Transmission Friction Element E Apply Time Range/Performance - Mechanical failures	<ul style="list-style-type: none"> <li>Automatic transmission failure</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the relevant section of the workshop manual and check the automatic transmission fluid level and quality. Using the manufacturer approved diagnostic system, clear the DTCs and road test the vehicle. If the fault persists, install a new automatic transmission</li> </ul>
P2711-94	Unexpected Mechanical Gear Disengagement - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2713-04	Pressure Control Solenoid D - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>

P2722-04	Pressure Control Solenoid E - System internal failures	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2757-93	Torque Converter Clutch Pressure Control Solenoid Control Circuit Perf or Stuck Off - No operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2757-94	Torque Converter Clutch Pressure Control Solenoid Control Circuit Perf or Stuck Off - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2759-11	Torque Converter Clutch Pressure Control Solenoid Electrical - Circuit short to ground	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2759-12	Torque Converter Clutch Pressure Control Solenoid Electrical - Circuit short to battery	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2761-13	Torque Converter Clutch Pressure Control Solenoid Control Circuit / Open - Circuit open	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
P2762-64	Torque Converter Clutch Pressure Control Solenoid Control Circuit Range/Perf - Signal plausibility failure	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>



P2784-02	Input/Turbine Speed Sensor A/B Correlation - General signal failure	<ul style="list-style-type: none"> <li>▪ Sensor general signal failure, multiple input speed signal faults</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> <li>▪ Using the manufacturer approved diagnostic system, check the anti-lock brake system control module for related DTCs and refer to the relevant DTC index</li> </ul>
P2787-4B	Clutch Temperature Too High - Over temperature	<ul style="list-style-type: none"> <li>▪ Clutch over temperature</li> </ul>	<ul style="list-style-type: none"> <li>▪ Allow the transmission to cool, clear the DTCs and retest. Check transmission oil level and check for excessive gear changes during normal driving. Check paddle switch for intermittent operation and renew as required</li> </ul>
P2787-98	Clutch Temperature Too High - Component or system over temperature	<ul style="list-style-type: none"> <li>▪ Component or system over temperature</li> </ul>	<ul style="list-style-type: none"> <li>▪ Allow the transmission to cool, clear the DTCs and retest. Check transmission oil level and check for excessive gear changes during normal driving. Check paddle switch for intermittent operation</li> <li>▪ Check the transmission oil level and quality, refer to the relevant section of the workshop manual. Clear the DTCs and test drive the vehicle using all gears in drive and reverse. Clear the DTCs and retest. If the problem persists, or if any other gear ratio related DTCs are logged, renew the transmission</li> </ul>
P2793-92	Gear Shift Direction Circuit - Performance or	<ul style="list-style-type: none"> <li>▪ Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, clear the DTCs and</li> </ul>

	incorrect operation		retest. If the fault persists, install a new transmission control module
P2793-94	Gear Shift Direction Circuit - Unexpected operation	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and retest. If the fault persists, install a new transmission control module</li> </ul>
U0001-81	High Speed CAN Communication Bus - Invalid serial data received	<ul style="list-style-type: none"> <li>Invalid data received from another control module via the high speed CAN bus (powertrain)</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the snapshot data to determine the invalid data source control module. Check the relevant control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0001-82	High Speed CAN Communication Bus - Alive/sequence counter incorrect / not updated	<ul style="list-style-type: none"> <li>Invalid data received from another control module via the high speed CAN bus (powertrain)</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the snapshot data to determine the invalid data source control module. Check the relevant control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0001-83	High Speed CAN Communication Bus - Value of signal protection calculation incorrect	<ul style="list-style-type: none"> <li>Invalid data received from another control module via the high speed CAN bus (powertrain)</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the snapshot data to determine the invalid data source control module. Check the relevant control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0001-86	High Speed CAN Communication Bus - Signal invalid	<ul style="list-style-type: none"> <li>Invalid data received from another control module via the high speed CAN bus (powertrain)</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the snapshot data to determine the invalid data source control module. Check the relevant control module for related</li> </ul>

			DTCs and refer to the relevant DTC index
U0001-87	High Speed CAN Communication Bus - Missing message	<ul style="list-style-type: none"> <li>Missing message from another control module via the high speed CAN bus (powertrain)</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the snapshot data to determine the missing message source control module. Check the relevant control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0073-00	Control Module Communication Bus "A" Off - No sub type information	<ul style="list-style-type: none"> <li>High speed CAN bus (powertrain) circuit short circuit to ground, short circuit to power, open circuit, high resistance</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, perform a CAN network integrity test. Refer to the electrical circuit diagrams and check the high speed CAN bus (powertrain) circuit for short circuit to ground, short circuit to power, open circuit, high resistance</li> </ul>
U0121-87	Lost Communication With Anti-Lock Brake System (ABS) Control Module - Missing message	<ul style="list-style-type: none"> <li>Missing message from the anti-lock brake system control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the anti-lock brake system control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0300-57	Internal Control Module Software Incompatibility - Invalid/incomplete software component	<ul style="list-style-type: none"> <li>Car configuration file mismatch with vehicle specification</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check and update the car configuration file as necessary</li> </ul>
U0401-81	Invalid Data Received from ECM/PCM A - Invalid serial data received	<ul style="list-style-type: none"> <li>Missing/invalid data from the engine control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0401-82	Invalid Data Received from	<ul style="list-style-type: none"> <li>Missing/invalid data from the engine</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic</li> </ul>

	ECM/PCM A - Alive/sequence counter incorrect/not updated	control module	system, check the engine control module for related DTCs and refer to the relevant DTC index
U0401-83	Invalid Data Received from ECM/PCM A - General checksum failure	<ul style="list-style-type: none"> <li>Missing/invalid data from the engine control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0401-87	Invalid Data Received from ECM/PCM A - Missing message	<ul style="list-style-type: none"> <li>Missing/invalid data from the engine control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0415-82	Invalid Data Received From Anti-Lock Brake System (ABS) Control Module - Alive/sequence counter incorrect / not updated	<ul style="list-style-type: none"> <li>Missing/invalid data from the anti-lock brake system control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the anti-lock brake system control module for related DTCs and refer to the relevant DTC index</li> </ul>
U0415-83	Invalid Data Received From Anti-Lock Brake System (ABS) Control Module - General checksum failure	<ul style="list-style-type: none"> <li>Missing/invalid data from the anti-lock brake system control module</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, check the anti-lock brake system control module for related DTCs and refer to the relevant DTC index</li> </ul>
U2101-56	Control Module Configuration Incompatible - Invalid/incomplete configuration	<ul style="list-style-type: none"> <li>Transmission control module is not configured correctly</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, re-configure the transmission control module with the latest level software. Check and update the car configuration file as necessary. Clear the DTCs and retest</li> </ul>
U3000-56	Control Module - Invalid/incomplete configuration	<ul style="list-style-type: none"> <li>Transmission control module failure</li> </ul>	<ul style="list-style-type: none"> <li>Using the manufacturer approved diagnostic system, clear the DTCs and</li> </ul>

			retest. If the fault persists, install a new transmission control module
U3000-9A	Control Module - Component or system operating conditions	<ul style="list-style-type: none"> <li>▪ Engine control module fault</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, check the engine control module for related DTCs and refer to the relevant DTC index</li> </ul>
U3001-94	Control Module Improper Shutdown - Unexpected operation	<ul style="list-style-type: none"> <li>▪ Transmission control module power or ground circuit open circuit, high resistance</li> <li>▪ Battery/charging system fault</li> </ul>	<ul style="list-style-type: none"> <li>▪ Using the manufacturer approved diagnostic system, check datalogger signal - Main ECU Supply Voltage (0xDD02). Refer to the electrical circuit diagrams and check the transmission control module power and ground circuits for open circuit, high resistance</li> <li>▪ Refer to the relevant section of the workshop manual and test the battery and charging system</li> </ul>