DESCRIPTION
The ECM detects the signal from the No. 1 transfer indicator switch (Transfer L4 position switch). This DTC indicates that the No. 1 transfer indicator switch remains ON.

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>DTC Detection Conditions</th>
<th>Trouble Areas</th>
</tr>
</thead>
</table>
| P2772   | No. 1 transfer indicator switch remains ON while vehicle running under following conditions for 1.8 seconds or more. (1-trip detection logic) | • Short in No. 1 transfer indicator switch (Transfer L4 position switch) circuit  
• No. 1 transfer indicator switch  
• ECM |

(a) Output shaft speed: between 1,000 rpm and 3,000 rpm
(b) Transfer high and low shift lever position: H

MONITOR DESCRIPTION
The ECM monitors the No. 1 transfer indicator switch to determine whether the transfer-case L4 gear is engaged. If the transfer-case L4 gears remain engaged under the following conditions, the ECM determines that there is a malfunction of the No. 1 transfer indicator switch:

• No. 1 transfer indicator switch indicates that the L4 transfer-case gears are engaged.
• Transfer high and low shift lever is in the "H" position.
• Transfer-case output shaft rpm is between 1,000 and 3,000 rpm.
• The specified time period has elapsed.

If all of the above conditions are met, the ECM determines that there is a malfunction of the No. 1 transfer indicator switch, illuminates the MIL and stores the DTC.

MONITOR STRATEGY

**Related DTCs**
P2772 : Transfer L4 position switch/ON malfunction

**Required sensors/Components**
No. 1 transfer indicator switch (Transfer L4 position switch)

**Frequency of operation**
Continuous

**Duration**
ON malfunction (A)  
1.8 seconds  
ON malfunction (B)  
0.5 seconds

**MIL operation**
Immediate

**Sequence of operation**
None

TYPICAL ENABLING CONDITIONS
The following conditions are common to ON malfunctions (A) and (B).

<table>
<thead>
<tr>
<th>The monitor will run whenever the following DTCs are not present.</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output speed sensor (SP2) circuit</td>
<td>No circuit malfunction</td>
</tr>
<tr>
<td>Vehicle speed sensor &quot;A&quot; circuit</td>
<td>No circuit malfunction</td>
</tr>
<tr>
<td>Transmission neutral position switch</td>
<td>OFF</td>
</tr>
</tbody>
</table>

**ON malfunction (A)**
Output speed (Transfer output speed) 1,000 to 3,000 rpm

**ON malfunction (B)**
Output speed (Transfer output speed) 143 rpm or more
TYPICAL MALFUNCTION THRESHOLDS
Both of the following conditions are met: ON malfunctions (A) and (B)

**ON malfunction (A)**
- No. 1 transfer indicator switch
- ON

**ON malfunction (B)**
- Actual transfer gear ratio
- Transfer input speed/Transfer output speed: 0.9 to 1.1

**WIRING DIAGRAM**

![Wiring Diagram](image-url)
1 INSPECT NO. 1 TRANSFER INDICATOR SWITCH (TRANSFER L4 POSITION SWITCH)

(a) Remove the No. 1 transfer indicator switch.
(b) Measure the resistance when pushing the ball at the tip of the switch.

**Standard resistance**

<table>
<thead>
<tr>
<th>Switch Ball</th>
<th>Tester Connection</th>
<th>Specified Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push</td>
<td>1 - 2</td>
<td>Below 1 Ω</td>
</tr>
<tr>
<td>Free</td>
<td>1 - 2</td>
<td>10 kΩ or higher</td>
</tr>
</tbody>
</table>

**OK**

2 CHECK HARNESS AND CONNECTOR (ECM - NO. 1 TRANSFER INDICATOR SWITCH - BODY GROUND)

(a) Install the No. 1 transfer indicator switch.
(b) Disconnect the ECM connector.
(c) Measure the resistance when the transfer high and low shift lever is in any position other than the L position.

**Standard resistance**

<table>
<thead>
<tr>
<th>Shift Position</th>
<th>Tester Connection</th>
<th>Specified Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Except L position</td>
<td>B3-13 (L4) - Body ground</td>
<td>10 kΩ or higher</td>
</tr>
</tbody>
</table>

**NG**

**REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

**REPLACE ECM**