Component Procedures: Driver / Vehicle Information Display Switch

Table of Contents

Component Procedures: Driver / Vehicle Information Display Switch

Driver Information Center Switch Malfunction (Article 11017)

Diagnostic Instructions

- Perform the Diagnostic System Check - Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

Circuit/System Description

The driver information center switch is a multiplexed switch. Battery power is provided to the driver information center switch via the instrument panel cluster . The driver information center switch signal circuit is pulled up to battery voltage in the instrument panel cluster. The instrument cluster also provides the driver information center switch with a low reference. The switch input to the instrument cluster is pulled low when a switch is activated. The driver information center switch is a momentary contact switch that connects a series of resistors in a resistor ladder format. The instrument cluster monitors the driver information center switch signal circuit to determine the driver information center switch inputs. Each switch state – Menu, UP, DOWN – corresponds to a certain resistance value. The instrument cluster determines the switch pressed by the voltage drop across the resistors.

Reference Information

Schematic Reference

Instrument Cluster Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Driver Information Center (DIC) Description and Operation

Electrical Information Reference

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

- Ignition ON.
- Verify the driver information center set, up and down function changes when pressing the set, up or down switch .
- If the driver information center does not change Refer to Set, Up and Down Switch Malfunction
- If the driver information center changes
- Verify the driver information center menu function changes when pressing the menu switch.
- If the driver information center does not change Refer to Menu Switch Malfunction
- All OK.

Circuit/System Testing

Menu Switch Malfunction

- Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the S78 Turn Signal/ Multifunction Switch. It may take up to 2 minutes for all vehicle systems to power down.
- Test for 4.8–5.2 V between the signal circuit terminal 5 and ground.
- If less than 4.8 V
- Ignition OFF, disconnect the harness connector at the P16 instrument cluster.
- Test for infinite resistance between the signal circuit and ground.
- If less than infinite resistance, repair the short to ground on the circuit.
- If infinite resistance
- Test for less than 2 Ω in the signal circuit end to end.
- If 2 Ω or greater, repair the open/high resistance in the circuit.
- If less than 2 Ω, replace the P16 instrument cluster.
- If greater than 5.2 V
- Ignition OFF, disconnect the harness connector at the P16 instrument cluster, ignition ON.
- Test for less than 1 V between the signal circuit and ground.
- If 1 V or greater, repair the short to voltage on the circuit.
- If less than 1 V, replace the P16 instrument cluster.
- If between 4.8–5.2 V
- Test for less than 10 Ω between the ground circuit terminal 3 and ground.

- If 10 Ω or greater Repair the open/high resistance in the circuit
- If less than 10 Ω
- Test or replace the S78 Turn Signal/ Multifunction Switch.

Set, Up and Down Switch Malfunction

- Test for less than 10 Ω between the low reference circuit terminal 6 and ground.
- If 10 Ω or greater
- Test for less than 2 Ω in the low reference circuit end to end.
- Test for 11.8–12.2 V between the signal circuit terminal 12 and ground.
- If less than 11.8 V
- If greater than 12.2 V
- If between 11.8–12.2 V

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Turn Signal Multifunction Switch Replacement
- Control Module References for the instrument cluster replacement, programming and setup