

## Communications Network

### Principles of Operation

The vehicle has four module communication networks. Only three of these networks are connected to the diagnostic connector. The standard corporate protocol (SCP) and controller area network (CAN), which are an unshielded twisted pair cable: data bus plus and data bus minus and the International Standard Organization (ISO) 9141 communication network, which is a single wire network. The domestic data bus (D2B), which is a fibre optic ring network can only be accessed through the SCP network. The SCP, CAN and ISO networks can be connected to The Jaguar approved diagnostic system by one connector called the diagnostic connector. This makes troubleshooting these systems easier by allowing one smart tester to be able to diagnose and control any module on the three networks from one connector. Diagnosis of the D2B network is through the in car entertainment (ICE) head. The diagnostic connector is located on the right hand side, under the instrument panel.

The ISO 9141 communications network does not permit inter-module communications. When The Jaguar approved diagnostic system communicates to modules on the ISO 9141 communication network, the diagnostic system must ask for all information; the modules initiate communications.

The SCP communication network remains operational even with severing of one of the bus wires. Communications will also continue if one of the bus wires is shorted to ground or battery positive voltage (B+), or if some, but not all, termination resistors are lost.

Unlike the SCP communication network, the ISO 9141 communication network will not function if the wire is shorted to ground or battery positive voltage (B+). Also, if one of the modules on the ISO 9141 network loses power or shorts internally, communication to that module will fail.

The anti-lock brake control module is connected to the CAN communication network. The module comes in two forms. The first type is the standard equipped anti-lock brake system (ABS) with traction control. It controls the brake pressure to the four wheels to keep the vehicle under control while braking. The second type of ABS is optional and is called dynamic stability control (DSC). This module adds yaw and steering wheel angle sensors to the package to help in sensing a loss of vehicle control. For additional information, <<206-09A>>

The in car entertainment (ICE) head is connected to the SCP communication network and also to the D2B network. The D2B communicates with the compact disc and the cellular phone transceiver. For additional information on the compact disc, refer to <<415-00>>. For additional information on the cellular phone, refer to <<419-08>>.

The dual automatic temperature control (DATC) module is connected to the CAN communication network. The DATC module controls automatic climate functions that maintain the vehicle at a constant temperature setting. For additional information, refer to <<412-00>>.

The instrument cluster (also known as a instrument cluster module ICM) is connected to the CAN and SCP communication networks. The instrument cluster displays information received on the SCP including speedometer, odometer, fuel, and message center warnings. The instrument cluster displays information received on the CAN including ABS, air conditioning, transmission and engine condition. The instrument cluster also controls the passive anti-theft system (PATS). For additional information; refer to <<413-00>> for instrument cluster operation and <<419-01>> for PATS.

The generic electronic module (GEM) is connected to the SCP communication network. The GEM controls both interior and exterior lighting, active anti-theft functions and warning chimes. For additional information on interior lamps, refer to <<417-02>>. For additional information on exterior lighting, refer to <<417-01>>. For additional information on active anti-theft, refer to <<419-01>>. For additional information on warning chimes, refer to <<413-09>>.

The engine control module (ECM) is connected to both the CAN and ISO 9141 communication networks. The ECM controls the engine performance, electronic ignition, emission controls, speed control, and on board diagnostics. For additional information; refer to <<303-14>>.

The 'phone module is connected to the D2B communication network, and incorporates the VEMS, or Vehicle Emergency Messaging System. The module allows a user to request emergency assistance (police, ambulance, fire, recovery) or directions to a desired location at the touch of a button. Also, if any of the vehicle's airbags are deployed while the VEMS system is powered ON, the system automatically issues a call for emergency assistance. For additional information, refer to <<419-05>>.

The airbag restraints module is connected to the ISO 9141 communication network. The airbag control module controls the deployment of the air bags based on sensor input. For additional information; refer to <<501-20B>>.

The voice activated control module (VACM) is connected to the D2B communication network. This allows the user to select functions by giving a voice command. The VACM sends the command information by D2B to the correct

module or audio unit.

The navigation computer (NC) is connected to the D2B communication network, and performs its diagnostics via the SCP network. The NC receives inputs from the GPS antenna and various other sensors. For additional information, refer to <<419-07>>.

## Inspection and Verification

- 1 . Verify the customer concern by operating the system.
- 2 . Visually inspect for obvious signs of mechanical, electrical or optical damage.

## Visual Inspection Chart

<b>Electrical</b>
<ul style="list-style-type: none"> <li>● Fuses</li> <li>● Wiring harness</li> <li>● Loose or corroded connections</li> <li>● Anti-lock brake control module with or without traction control or Dynamic Stability Control (DSC)</li> <li>● In car entertainment (ICE) module (optional)</li> <li>● Dual automatic temperature control (DATC) module</li> <li>● Instrument cluster (IC)</li> <li>● Generic electronic module (GEM)</li> <li>● ECM</li> <li>● 'Phone module</li> <li>● Airbag restraints module (RCM)</li> <li>● Voice activated control module (VACM)</li> <li>● Navigation computer (NC)</li> <li>● Correct engagement of electrical connectors</li> </ul>

<b>Optical</b>
<ul style="list-style-type: none"> <li>● Routing of fibre optic harnesses</li> <li>● Correct engagement of optical connectors</li> <li>● Correct placement of optical connectors. (Ring order)</li> <li>● Damage to fibre. (chafing, abrasion, kinking, cuts, etc)</li> <li>● Correct assembly of optical connectors. (Backout, etc)</li> </ul>

1 . If the concern remains after the inspection, connect the Jaguar approved diagnostic system to the data link connector (DLC) located beneath the instrument panel and select the vehicle to be tested from diagnostic system menu. If the diagnostic tester does not communicate with the vehicle:

➤ check that the program card is properly installed.

check that the program card is properly installed.

➤ check that the correct version of the program card is installed.

check that the correct version of the program card is installed.

➤ check the connections to the vehicle.

check the connections to the vehicle.

➤ check the ignition switch position.

check the ignition switch position.

➤ check the vehicle battery condition.

check the vehicle battery condition.

2 . If the concern is not visually evident, verify the symptom and refer to the Symptom Chart.

## Symptom Chart

### NOTE:

Network DTCs may be set by an error, or communications failure in the network. Individual DTCs are in the table, alongside their respective modules, but may also be set by a combination of factors affecting the network, which would result in multiple DTCs being set for one error, or, as in the case of an open circuit, no DTC being set.

DTC; P1637. P1799. The module Does Not Respond to the Jaguar approved diagnostic system — anti-lock brake

control module or DSC.

**Possible Source(s):**

- Wire or connection in the control area network (CAN).
- anti-lock brake control module or DSC.

**Action(s) to take:**

- GO to Pinpoint Test A.

DTC; P1699. The module Does Not Respond to the Jaguar approved diagnostic system — Dual Automatic Temperature Control (DATC) Module.

**Possible Source(s):**

- Wire or connection in the CAN network.
- DATC.

**Action(s) to take:**

- GO to Pinpoint Test B.

DTC; P1638, The module Does Not Respond to the Jaguar approved diagnostic system — instrument cluster (IC).

**Possible Source(s):**

- Wire or connection in the SCP network.
- Wire or connection in the CAN network.
- IC.

**Action(s) to take:**

- GO to Pinpoint Test C.

DTC; P1643, P1797, P1642, The module Does Not Respond to the Jaguar approved diagnostic system — ECM.

**Possible Source(s):**

- Wire or connection in the CAN network.
- ECM.

**Action(s) to take:**

- GO to Pinpoint Test D.

The module Does Not Respond to the Jaguar approved diagnostic system — transmission control module (TCM).

**Possible Source(s):**

- Wire or connection in CAN network.
- TCM.

**Action(s) to take:**

- GO to Pinpoint Test E.

P1603. TCM EEPROM failure.

**Possible Source(s):**

- Battery discharged. TCM has lost it's adaptive values.
- Water ingress into TCM or connections.
- TCM failure.

**Action(s) to take:**

- GO to Pinpoint Test F.

The module Does Not Respond to the Jaguar approved diagnostic system — in car entertainment (ICE) head.

**Possible Source(s):**

- Wire or connection in the SCP network.
- ICE head.

**Action(s) to take:**

- GO to Pinpoint Test G.

The module Does Not Respond to the Jaguar approved diagnostic system — general electronics module (GEM).

**Possible Source(s):**

- Wire or connection in the SCP network.
- GEM.

**Action(s) to take:**

- GO to Pinpoint Test H.

The module Does Not Respond to the Jaguar approved diagnostic system — navigation computer (NC).

**Possible Source(s):**

- Wire or connection in SCP network.
- NC.

**Action(s) to take:**

- GO to Pinpoint Test I.

The module Does Not Respond to the Jaguar approved diagnostic system— restraints control module.

**Possible Source(s):**

- Wire or connection in the ISO 9141 network.
- RCM

**Action(s) to take:**

- GO to Pinpoint Test J.

The module Does Not Respond to the Jaguar approved diagnostic system— headlamp levelling module. (HID).

**Possible Source(s):**

- Wire or connection in the ISO 9141 network.
- HID module.

**Action(s) to take:**

- GO to Pinpoint Test K.

The module Does Not Respond to the Jaguar approved diagnostic system— roof console module.

**Possible Source(s):**

- Wire or connection in the ISO 9141 network.
- roof console module.

**Action(s) to take:**

- GO to Pinpoint Test L.

The module Does Not Respond to the Jaguar approved diagnostic system— reverse park aid module.

**Possible Source(s):**

- Wire or connection in the ISO 9141 network.
- reverse park aid module.

**Action(s) to take:**

- GO to Pinpoint Test M.

The module Does Not Respond to the Jaguar approved diagnostic system— ECM.

**Possible Source(s):**

- Wire or connection in the ISO 9141 network.
- ECM.

**Action(s) to take:**

- GO to Pinpoint Test N.

U2003. The module Does Not Respond to the Jaguar approved diagnostic system — voice activated control module (VACM).

**Possible Source(s):**

- Wire or connection in SCP network.
- VACM.

**Action(s) to take:**

- GO to Pinpoint Test O.

U2008. The module Does Not Respond to the Jaguar approved diagnostic system — 'phone module.

**Possible Source(s):**

- Wire or connection in the SCP network.
- Wire or connection in the D2B network.
- 'phone module.

**Action(s) to take:**

- GO to Pinpoint Test P.

P1573, P1609, P1777. Sympathetic DTCs from modules in CAN network.

**Possible Source(s):**

- DTCs set as a result of DTCs from other modules in CAN network.

**Action(s) to take:**

- GO to Pinpoint Test Q.

U2003, The module Does Not Respond - compact disc changer. (CDDJ).

**Possible Source(s):**

- Fibre optic or connection in the D2B network.
- CDDJ.

**Action(s) to take:**

- GO to Pinpoint Test R.

U2008, The module Does Not Respond - 'phone module.

**Possible Source(s):**

- Fibre optic or connection in the D2B network.
- 'phone module.

**Action(s) to take:**

- GO to Pinpoint Test S.

U2019, The module Does Not Respond - voice activated control module. (VACM).

**Possible Source(s):**

- Fibre optic or connection in the D2B network.
- VACM

**Action(s) to take:**

- GO to Pinpoint Test T.

U2613, The module Does Not Respond - navigation control module. (NC).

**Possible Source(s):**

- Fibre optic or connection in the D2B network.
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**Action(s) to take:**

- GO to Pinpoint Test U.

U2602. Break in the optical harness from the ICE head unit. (Transmitter).

**Possible Source(s):**

- Fibre optic or connection in the D2B network.

**Action(s) to take:**

- GO to Pinpoint Test V.

U2603. Break in the optical harness to the ICE head unit. (Receiver)

**Possible Source(s):**

- Fibre optic or connection in the D2B network.

**Action(s) to take:**

- GO to Pinpoint Test W.

One or more D2B modules not responding. "Wake-up" signal fault.

**Possible Source(s):**

- Faulty "wake-up" signal circuit.

**Action(s) to take:**

- GO to Pinpoint Test X.

One or more D2B modules not responding. Permanent supply fault.

**Possible Source(s):**

- Faulty permanent supply circuit.

**Action(s) to take:**

- GO to Pinpoint Test Y.

One or more D2B modules not responding. Accessory switched supply fault.

**Possible Source(s):**

- Faulty accessory switched supply circuit.

**Action(s) to take:**

- GO to Pinpoint Test Z.

One or more D2B modules not responding. Ignition switched supply fault.

**Possible Source(s):**

- Faulty ignition switched supply circuit.

**Action(s) to take:**

- GO to Pinpoint Test AA.

## Pinpoint Tests



**CAUTION:** Be careful when probing the fuse junction panel, power distribution box or any connectors. Damage will result to the connector receptacle if the probe or terminal being used is too large.



**CAUTION:** Electronic modules are sensitive to static electrical charges. If exposed to these charges, damage may result.

**NOTE:**

If DTCs are recorded and the symptom is not present when performing the pinpoint tests, an intermittent concern may be the cause. Always check for loose connections and corroded terminals.

**NOTE:**

Before beginning any diagnosis of the D2B system, Codes B1342, U2602, or U2603 must be rectified. No D2B function is possible with these failures.

## **PINPOINT TEST G92651p1 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — ANTI-LOCK BRAKE CONTROL MODULE**

### **G92651t1 : P1637; P1799. CHECK ANTI-LOCK BRAKE CONTROL MODULE (ABS) OR DYNAMIC STABILITY CONTROL (DSC) MODULE FOR DAMAGE**

1. Disconnect the ABS module electrical connector, JB45 or the DSC module electrical connector, JB185. 2. INSPECT the ABS module or the DSC module.

- **Does the ABS module or the DSC module indicate any signs of damage?**

-> **Yes**

INSTALL a new ABS module or DSC module. <<206-09>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t2](#).

### **G92651t2 : CHECK CAN + FOR SHORT CIRCUIT TO GROUND**

1. Reconnect the ABS electrical connector, JB45 or the DSC module electrical connector, JB185. 2. Turn the ignition switch to the OFF position. 3. Disconnect the battery negative terminal. 4. Measure the resistance between the diagnostic connector, IP022, pin 6, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t3](#).

### **G92651t3 : CHECK CAN + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector, IP022, pin 6, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t4](#).

### **G92651t4 : CHECK CAN - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector, IP022, pin 14 (G) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t5](#).

### **G92651t5 : CHECK CAN - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Measure the resistance between the diagnostic connector, IP022, pin 14 (G) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t50](#).

### **G92651t50 : CHECK FOR SHORT CIRCUIT BETWEEN CAN + AND CAN -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector, IP022 pins 6 (Y) and 14 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - and CAN + circuits. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t51](#).

### **G92651t51 : CHECK FOR OPEN CIRCUIT ON CAN + BETWEEN DIAGNOSTIC CONNECTOR AND THE ABS MODULE OR DSC MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ABS module electrical connector, JB45, or DSC module electrical connector, JB185. 4. Measure the resistance between the diagnostic connector, IP022, pin 6 (Y) and JB45, pin 24 (Y) or JB185, pin 24 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t52](#).

-> **No**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t54 : CHECK FOR OPEN CIRCUIT ON CAN - BETWEEN DIAGNOSTIC CONNECTOR AND THE ABS MODULE OR DSC MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector, IP022, pin 14 (G) and JB45, pin 40 (G) or JB185, pin 40 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t52](#).

-> **No**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t52 : CHECK FOR CORRECT BUS TERMINATION**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the ABS module electrical connector, JB45, or DSC module electrical connector, JB185. 4. Measure the resistance between the diagnostic connector, IP022, pins 6 (Y) and 14 (G).

- **Is the resistance between 50 and 70 Ohms?**

-> **Yes**

INSTALL a new ABS module, or DSC module. <<206-09>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t53](#).

### **G92651t53 : CHECK CONTINUITY OF THE CAN + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16, and the IC connector, IP10. 4. Measure the resistance between EN16, pin 124 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t55](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 124 and IP10, pin 17. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t55 : CHECK CONTINUITY OF THE CAN - CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between EN16, pin 123 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t56](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 123 and IP10, pin 18. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t56 : CHECK FOR LOSS OF TERMINATION WITHIN THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 123 and 124 of the ECM.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t57](#).

-> **No**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation. Before replacing a ECM, contact Dealer technical support.

## **G92651t57 : CHECK FOR LOSS OF TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 17 and 18 of the instrument cluster.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs. Repeat tests from A1.

-> **No**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p3 : P1699: THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — DUAL AUTOMATIC TEMPERATURE CONTROL (DATC) MODULE**

### **G92651t11 : CHECK DATC MODULE FOR DAMAGE**

1. Disconnect the DATC module electrical connector, IP101. 2. INSPECT the DATC module for damage.

- **Does the DATC module indicate any signs of damage?**

-> **Yes**

INSTALL a new DATC module. <<412-00>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t12](#).

### **G92651t12 : CHECK CAN + FOR SHORT CIRCUIT TO GROUND**

1. Reconnect the DATC module electrical connector, IP101 2. Turn the ignition switch to the OFF position. 3. Disconnect the battery negative terminal. 4. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t13](#).

## **G92651t13 : CHECK CAN + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t14](#).

## **G92651t14 : CHECK CAN - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t15](#).

## **G92651t15 : CHECK CAN - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t58](#).

## **G92651t58 : CHECK FOR SHORT CIRCUIT BETWEEN CAN + AND CAN -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pins 6 (Y) and 14 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - and CAN + circuits. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t59](#).

## **G92651t59 : CHECK FOR OPEN CIRCUIT ON CAN + BETWEEN DIAGNOSTIC CONNECTOR AND THE DATC MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the DATC module electrical connector, IP101. 4. Measure the resistance between IP022 pin 6 (Y) and IP101, pin 22 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t60](#).

-> **No**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t60 : CHECK FOR OPEN CIRCUIT ON CAN - BETWEEN DIAGNOSTIC CONNECTOR AND THE DATC MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between IP022 pin 14 (G) and IP101, pin 23 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t61](#).

-> **No**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t61 : CHECK FOR CORRECT BUS TERMINATION**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the DATC module electrical connector, IP101. 4. Measure the resistance between the diagnostic connector IP022, pins 6 (Y) and 14 (G).

- **Is the resistance between 50 and 70 Ohms?**

-> **Yes**

INSTALL a new DATC module. <<412-00>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t62](#).

### **G92651t62 : CHECK CONTINUITY OF THE CAN + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16, and the IC connector, IP10. 4. Measure the resistance between EN16, pin 124 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t63](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 124 and IP10, pin 17. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t63 : CHECK CONTINUITY OF THE CAN - CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between EN16, pin 123 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t64](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 123 and IP10, pin 18. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t64 : CHECK FOR LOSS OF TERMINATION WITHIN THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 123 and 124 of the ECM.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t65](#).

-> **No**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

## **G92651t65 : CHECK FOR LOSS OF TERMINATION WITHIN THE instrument cluster**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 17 and 18 of the instrument cluster.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p4 : P1638: THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — INSTRUMENT CLUSTER**

### **G92651t66 : CHECK INSTRUMENT CLUSTER FOR DAMAGE**

1. Disconnect the instrument cluster. 2. INSPECT the instrument cluster for damage.

- **Does the instrument cluster indicate any signs of damage?**

-> **Yes**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t67](#).

### **G92651t67 : CHECK CAN + FOR SHORT CIRCUIT TO GROUND**

1. Reconnect the instrument cluster electrical connector, IP10. 2. Turn the ignition switch to the OFF position. 3. Disconnect the battery negative terminal. 4. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t68](#).

## **G92651t68 : CHECK CAN + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and pin 16 BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t69](#).

## **G92651t69 : CHECK CAN - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t70](#).

## **G92651t70 : CHECK CAN - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and pin 16 BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t71](#).

## **G92651t71 : CHECK FOR SHORT CIRCUIT BETWEEN CAN + AND CAN -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pins 6 (Y) and 14 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - and CAN + circuits. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t72](#).

### **G92651t72 : CHECK FOR OPEN CIRCUIT ON CAN + BETWEEN DIAGNOSTIC CONNECTOR AND THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the instrument cluster electrical connector, IP10. 4. Measure the resistance between IP22 pin 6 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t73](#).

-> **No**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t73 : CHECK FOR OPEN CIRCUIT ON CAN - BETWEEN DIAGNOSTIC CONNECTOR AND THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between IP022 pin 14 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t74](#).

-> **No**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t74 : CHECK FOR CORRECT BUS TERMINATION**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the instrument cluster electrical connector, IP10. 4. Measure the resistance between the diagnostic connector IP022, pins 6 (Y) and 14 (G).

- **Is the resistance between 50 and 70 Ohms?**

-> **Yes**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t75](#).

### **G92651t75 : CHECK CONTINUITY OF THE CAN + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16, and the IP connector, IP10. 4. Measure the resistance between EN16, pin 124 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t76](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 124 and IP10, pin 17. For additional information, refer to wiring

diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t76 : CHECK CONTINUITY OF THE CAN - CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between EN16, pin 123 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t77](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 123 and IP10, pin 18. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t77 : CHECK FOR LOSS OF TERMINATION WITHIN THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 123 and 124 of the ECM.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t78](#).

-> **No**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

### **G92651t78 : CHECK FOR LOSS OF TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 17 and 18 of the instrument cluster.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

### **PINPOINT TEST G92651p6 : P1642; P1643; P1797: THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — ECM**

#### **G92651t79 : CHECK ECM FOR DAMAGE**

1. Disconnect the ECM. 2. INSPECT the ECM.

- **Does the ECM indicate any signs of damage?**

-> **Yes**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t80](#).

## **G92651t80 : CHECK CAN + FOR SHORT CIRCUIT TO GROUND**

1. Reconnect the ECM electrical connector EN16. 2. Turn the ignition switch to the OFF position. 3. Disconnect the battery negative terminal. 4. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t81](#).

## **G92651t81 : CHECK CAN + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t82](#).

## **G92651t82 : CHECK CAN - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t83](#).

## **G92651t83 : CHECK CAN - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Measure the resistance between the diagnostic connector IP022 pin 14 (G) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t84](#).

## **G92651t84 : CHECK FOR SHORT CIRCUIT BETWEEN CAN + AND CAN -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance

between the diagnostic connector IP022 pins 6 (Y) and 14 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - and CAN + circuits. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t85](#).

### **G92651t85 : CHECK FOR OPEN CIRCUIT ON CAN + BETWEEN DIAGNOSTIC CONNECTOR AND THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16. 4. Measure the resistance between IP022 pin 6 (Y) and EN16, pin 124 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t86](#).

-> **No**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t86 : CHECK FOR OPEN CIRCUIT ON CAN - BETWEEN DIAGNOSTIC CONNECTOR AND THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between IP022 pin 14 (G) and EN16, pin 123 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t87](#).

-> **No**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t87 : CHECK FOR CORRECT BUS TERMINATION**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the ECM electrical connector, EN16. 4. Measure the resistance between the diagnostic connector IP022, pins 6 (Y) and 14 (G).

- **Is the resistance between 50 and 70 Ohms?**

-> **Yes**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation. Before replacing a ECM, contact Dealer technical support.

-> **No**

GO to Pinpoint Test [G92651t88](#).

### **G92651t88 : CHECK CONTINUITY OF THE CAN + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16, and the IP connector, IP10. 4. Measure the resistance between EN16, pin 124 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t89](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 124 and IP10, pin 17. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t89 : CHECK CONTINUITY OF THE CAN - CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between EN16, pin 123 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t90](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 123 and IP10, pin 18. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t90 : CHECK FOR LOSS OF TERMINATION WITHIN THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 123 and 124 of the ECM.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t91](#).

-> **No**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation. Before replacing a ECM, contact Dealer technical support.

## **G92651t91 : CHECK FOR LOSS OF TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 17 and 18 of the instrument cluster.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p13 : P1637: THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — TRANSMISSION CONTROL MODULE (TCM)**

### **G92651t92 : CHECK TCM FOR DAMAGE**

1. Disconnect the TCM. 2. INSPECT the TCM

- **Does the TCM indicate any signs of damage?**

-> **Yes**

INSTALL a new TCM. <<307-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t93](#).

## **G92651t93 : CHECK CAN + FOR SHORT CIRCUIT TO GROUND**

1. Reconnect the TCM electrical connector JB131. 2. Turn the ignition switch to the OFF position. 3. Disconnect the battery negative terminal. 4. Measure the resistance between the diagnostic connector IP022 pin 6, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t94](#).

## **G92651t94 : CHECK CAN + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the voltage between the diagnostic connector IP022, pin 6, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t95](#).

## **G92651t95 : CHECK CAN - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022, pin 14 (G) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t96](#).

## **G92651t96 : CHECK CAN - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022, pin 14 (G) and pin 16, BATTERY.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for

normal operation.

-> **No**

GO to Pinpoint Test [G92651t97](#).

### **G92651t97 : CHECK FOR SHORT CIRCUIT BETWEEN CAN + AND CAN -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022, pins 6 (Y) and 14 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the CAN - and CAN + circuits. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t98](#).

### **G92651t98 : CHECK FOR OPEN CIRCUIT ON CAN + BETWEEN DIAGNOSTIC CONNECTOR AND THE TCM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the TCM electrical connector, JB131. 4. Measure the resistance between IP022, pin 6 (Y) and JB131, pin 33 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t99](#).

-> **No**

REPAIR the CAN + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t99 : CHECK FOR OPEN CIRCUIT ON CAN - BETWEEN DIAGNOSTIC CONNECTOR AND THE TCM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between IP022, pin 14 (G) and JB131, pin 12 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t100](#).

-> **No**

REPAIR the CAN - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t100 : CHECK FOR CORRECT BUS TERMINATION**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the TCM electrical connector, JB131. 4. Measure the resistance between the diagnostic connector IP022, pins 6 (Y) and 14 (G).

- **Is the resistance between 50 and 70 Ohms?**

-> **Yes**

INSTALL a new TCM. <<307-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t101](#).

## **G92651t101 : CHECK CONTINUITY OF THE CAN + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16, and the IP connector, IP10. 4. Measure the resistance between EN16 pin 124 (Y) and IP10, pin 17 (Y).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t102](#).

-> **No**

REPAIR the CAN + circuit between EN16, pin 124 and IP10, pin 17. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t102 : CHECK CONTINUITY OF THE CAN - CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between EN16, pin 123 (G) and IP10, pin 18 (G).

- **Is the resistance less than 5 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t103](#).

-> **No**

REPAIR the CAN - circuit between EN16, pin 123 and IP10, pin 18. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t103 : CHECK FOR LOSS OF TERMINATION WITHIN THE ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 123 and 124 of the ECM.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t104](#).

-> **No**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

## **G92651t104 : CHECK FOR LOSS OF TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between pins 17 and 18 of the instrument cluster.

- **Is the resistance between 110 and 140 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new instrument cluster. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## PINPOINT TEST G92651p11 : P1603. TCM EEPROM FAILURE

### G92651t46 : DTC SET BY 3 POSSIBLE FACTORS

1. Check battery voltage.

- **Has the battery been discharged to a voltage where the engine would not crank?**

-> **Yes**

Charge and test battery. INSTALL a new battery, if required. <<414-01>> CARRY out a drive-cycle. The transmission may lose it's adaptive values and will need to re-learn these values. These values will depend on the owner's driving style, and can only be learnt by normal use

-> **No**

GO to Pinpoint Test [G92651t47](#).

### G92651t47 : DTC SET BY 3 POSSIBLE FACTORS

1. Check the TCM for signs of water ingress.

- **Does the TCM show any indication of water ingress?**

-> **Yes**

INSTALL a new TCM. <<307-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t48](#).

### G92651t48 : DTC SET BY 3 POSSIBLE FACTORS

1. Check if the battery has been disconnected with the ignition switched on.

- **Has the battery been disconnected with the ignition switched on?**

-> **Yes**

Carry out a drive-cycle. For additional information, refer to the DTC section of JTIS. The transmission may lose it's adaptive values and will need to re-learn these values. These values will depend on the owner's driving style, and can only be learnt by normal use

-> **No**

INSTALL a new TCM. <<307-01>> CLEAR the DTC. TEST the system for normal operation.

## PINPOINT TEST G92651p2 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — IN CAR ENTERTAINMENT (ICE) HEAD

### G92651t6 : CHECK ICE FOR DAMAGE

1. Disconnect the ICE head electrical connector IP065. 2. INSPECT the ICE head for damage.

- **Does the ICE head indicate any signs of damage?**

-> **Yes**

INSTALL a new ICE head. <<415-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t7](#).

## **G92651t7 : CHECK THE SCP + FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t8](#).

## **G92651t8 : CHECK THE SCP + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and pin 16 , BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t9](#).

## **G92651t9 : CHECK THE SCP - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t10](#).

## **G92651t10 : CHECK THE SCP - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 16, BATTERY (OY).

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t16](#).

## **G92651t16 : CHECK FOR SHORT CIRCUIT BETWEEN SCP + AND SCP -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 2, (Y).

- **Is the resistance less than 5 ohms?**

**-> Yes**

REPAIR the SCP + and/or SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

GO to Pinpoint Test [G92651t17](#).

### **G92651t17 : CHECK FOR OPEN CIRCUIT ON SCP + BETWEEN THE DIAGNOSTIC CONNECTOR AND THE ICE HEAD UNIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ICE electrical connector, IP065. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and IP065, pin 9 (Y).

- **Is the resistance less than 5 ohms?**

**-> Yes**

GO to Pinpoint Test [G92651t18](#).

**-> No**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t18 : CHECK FOR OPEN CIRCUIT ON SCP - BETWEEN THE DIAGNOSTIC CONNECTOR AND THE ICE HEAD UNIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ICE electrical connector, IP065. 4. Measure the resistance between the diagnostic connector IP022, pin 10 (U) and IP065, pin 10 (U).

- **Is the resistance less than 5 ohms?**

**-> Yes**

GO to Pinpoint Test [G92651t19](#).

**-> No**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t19 : CHECK FOR CORRECT BUS TERMINATION ON SCP +**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the ICE electrical connector, IP065. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and GROUND.

- **Is the resistance 150 to 210 Ohms?**

**-> Yes**

INSTALL a new ICE head unit. <<415-01>> CLEAR the DTC. TEST the system for normal operation.

**-> No**

GO to Pinpoint Test [G92651t20](#).

### **G92651t20 : CHECK THE CONTINUITY OF THE GENERIC ELECTRONIC MODULE (GEM) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connector, IP005. 4. Measure the resistance between IP022, pin 2 (Y) and IP005, pin 19 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t21](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t21 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE GEM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connectors, IP005, and IP006. 4. Measure the resistance between IP005, pin 19, and IP006, pin 1 of the GEM.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t22](#).

-> **No**

INSTALL a new GEM. <<419-10>>

### **G92651t22 : CHECK CONTINUITY OF THE INSTRUMENT CLUSTER (IC) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP022, pin 2 (Y) and IP10, pin 22 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t23](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t23 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP10, pin 22 (Y) and IP011, pin 8 of the IC.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new IC. <<413-01>>CLEAR the DTC. TEST the system for normal operation.

### **PINPOINT TEST G92651p5 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — GENERIC ELECTRONIC MODULE (GEM)**

#### **G92651t27 : CHECK GEM FOR DAMAGE**

1. Disconnect the GEM electrical connector IP005. 2. INSPECT the GEM for damage.

- **Does the GEM indicate any signs of damage?**

-> **Yes**

INSTALL a new GEM. <<419-10>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t28](#).

## **G92651t28 : CHECK THE SCP + FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t29](#).

## **G92651t29 : CHECK THE SCP + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t30](#).

## **G92651t30 : CHECK THE SCP - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t31](#).

## **G92651t31 : CHECK THE SCP - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 16, BATTERY (OY).

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t32](#).

### **G92651t32 : CHECK FOR SHORT CIRCUIT BETWEEN SCP + AND SCP -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 2, (Y)

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP + and/or SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t33](#).

### **G92651t33 : CHECK FOR OPEN CIRCUIT ON SCP + BETWEEN THE DIAGNOSTIC CONNECTOR AND THE GEM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connector, IP005. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and IP005, pin 19 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t34](#).

-> **No**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t34 : CHECK FOR OPEN CIRCUIT ON SCP - BETWEEN THE DIAGNOSTIC CONNECTOR AND THE GEM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connector, IP005. 4. Measure the resistance between the diagnostic connector IP022, pin 10 (U) and IP005, pin 18 (U).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t35](#).

-> **No**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t35 : CHECK FOR CORRECT BUS TERMINATION ON SCP +**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the GEM electrical connector, IP005. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and GROUND.

- **Is the resistance 150 to 210 Ohms?**

-> **Yes**

INSTALL a new GEM. <<419-10>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t36](#).

### **G92651t36 : CHECK THE CONTINUITY OF THE GENERIC ELECTRONIC MODULE (GEM) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connector, IP005. 4. Measure the resistance between IP022, pin 2 (Y) and IP005, pin 19 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t105](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t105 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE GEM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connectors, IP005, and IP006. 4. Measure the resistance between IP005, pin 19, and IP006, pin 1 of the GEM.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t106](#).

-> **No**

INSTALL a new GEM. <<419-10>> CLEAR the DTC. TEST the system for normal operation.

### **G92651t106 : CHECK CONTINUITY OF THE INSTRUMENT CLUSTER (IC) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP022, pin 2 (Y) and IP10, pin 22 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t107](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t107 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE INSTRUMENT CLUSTER**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP10, pin 22 (Y) and IP011, pin 8 of the IC.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new IC. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p10 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTICS TESTER — NAVIGATION COMPUTER (NC)**

### **G92651t41 : CHECK THE NAVIGATION COMPUTER (NC) FOR DAMAGE**

1. Disconnect the NC electrical connector, NA007. 2. INSPECT the NC for damage.

- **Does the NC indicate signs of damage?**

-> **Yes**

INSTALL a new NC. <<419-07>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t108](#).

### **G92651t108 : CHECK THE SCP + FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and GROUND.

- **Is the resistance less than 5 Ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t109](#).

### **G92651t109 : CHECK THE SCP + FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 2, (Y) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t110](#).

### **G92651t110 : CHECK THE SCP - FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t111](#).

## **G92651t111 : CHECK THE SCP - FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 16, (OY).

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t112](#).

## **G92651t112 : CHECK FOR SHORT CIRCUIT BETWEEN SCP + AND SCP -**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between the diagnostic connector IP022 pin 10, (U) and pin 2, (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the SCP + and/or SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t113](#).

## **G92651t113 : CHECK FOR OPEN CIRCUIT ON SCP + BETWEEN THE DIAGNOSTIC CONNECTOR AND THE NAVIGATION COMPUTER (NC)**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the NC electrical connector, NA007. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and NA007, pin 4 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t114](#).

-> **No**

REPAIR the SCP + circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t114 : CHECK FOR OPEN CIRCUIT ON SCP - BETWEEN THE DIAGNOSTIC CONNECTOR AND THE NAVIGATION COMPUTER (NC)**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the NC electrical connector, NA007. 4. Measure the resistance between the diagnostic connector IP022, pin 10 (U) and NA007, pin 14 (U).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t115](#).

-> **No**

REPAIR the SCP - circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for

normal operation.

### **G92651t115 : CHECK FOR CORRECT BUS TERMINATION ON SCP +**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Reconnect the NC electrical connector, NA007. 4. Measure the resistance between the diagnostic connector IP022, pin 2 (Y) and GROUND.

- **Is the resistance 150 to 210 Ohms?**

-> **Yes**

INSTALL a new NC. <<419-07>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t116](#).

### **G92651t116 : CHECK THE CONTINUITY OF THE GENERIC ELECTRONIC MODULE (GEM) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connector, IP005. 4. Measure the resistance between IP022, pin 2 (Y) and IP005, pin 19 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t117](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t117 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE GEM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the GEM electrical connectors, IP005, and IP006. 4. Measure the resistance between IP005, pin 19, and IP006, pin 1 of the GEM.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t118](#).

-> **No**

INSTALL a new GEM. <<419-10>> CLEAR the DTC. TEST the system for normal operation.

### **G92651t118 : CHECK CONTINUITY OF THE INSTRUMENT CLUSTER (IC) SCP + CIRCUIT**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP022, pin 2 (Y) and IP10, pin 22 (Y).

- **Is the resistance less than 5 ohms?**

-> **Yes**

GO to Pinpoint Test [G92651t119](#).

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t119 : CHECK FOR LOSS OF SCP + TERMINATION WITHIN THE INSTRUMENT CLUSTER (IC)**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the IC electrical connector, IP10. 4. Measure the resistance between IP010, pin 22 (Y) and IP011, pin 8 of the IC.

- **Is the resistance 320 to 400 Ohms?**

-> **Yes**

Possible intermittent fault. Recheck DTCs.

-> **No**

INSTALL a new IC. <<413-01>> CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p8 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — RESTRAINTS CONTROL MODULE (RCM)**

### **G92651t38 : CHECK RESTRAINTS CONTROL MODULE FOR DAMAGE**

1. INSPECT the RCM for damage.

- **Does the RCM indicate signs of damage?**

-> **Yes**

INSTALL a new RCM. <<501-20B>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t39](#).

### **G92651t39 : CHECK K-LINE FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t120](#).

### **G92651t120 : CHECK K-LINE FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t24](#).

### **G92651t24 : CHECK FOR OPEN CIRCUIT ON K-LINE BETWEEN DIAGNOSTIC**

## CONNECTOR AND RESTRAINTS CONTROL MODULE (RCM)

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the RCM electrical connector, IP74. 4. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and IP74, pin 11 (W).

- **Is the resistance less than 5 ohms?**

-> **Yes**

INSTALL a new RCM. <<501-20B>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## PINPOINT TEST G92651p14 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — HEADLAMP LEVELLING MODULE (HID)

### G92651t121 : CHECK HEADLAMP LEVELLING MODULE FOR DAMAGE

1. INSPECT the HID module for damage.

- **Does the HID module indicate signs of damage?**

-> **Yes**

INSTALL a new HID module. <<417-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t122](#).

### G92651t122 : CHECK K-LINE FOR SHORT CIRCUIT TO GROUND

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t123](#).

### G92651t123 : CHECK K-LINE FOR SHORT CIRCUIT TO BATTERY

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t124](#).

## **G92651t124 : CHECK FOR OPEN CIRCUIT ON K-LINE BETWEEN DIAGNOSTIC CONNECTOR AND HID MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the HID module electrical connector, IP130. 4. Measure the resistance between diagnostic connector IP22 pin 7 (K-line) and IP130, pin 5 (W).

- **Is the resistance less than 5 ohms?**

-> **Yes**

INSTALL a new HID module. <<417-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p15 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER —ROOF CONSOLE**

### **G92651t125 : CHECK ROOF CONSOLE MODULE FOR DAMAGE**

1. INSPECT the roof console module for damage.

- **Does the roof console module indicate signs of damage?**

-> **Yes**

INSTALL a new roof console module. <<417-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t126](#).

### **G92651t126 : CHECK K-LINE FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t127](#).

### **G92651t127 : CHECK K-LINE FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t128](#).

## **G92651t128 : CHECK FOR OPEN CIRCUIT ON K-LINE BETWEEN DIAGNOSTIC CONNECTOR AND ROOF CONSOLE MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the roof console module electrical connector, (RC022, high-line, RC033, low-line) 4. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and RC022, pin 8 high-line, RC033, pin 3 low-line.

- **Is the resistance less than 5 ohms?**

**-> Yes**

INSTALL a new roof console module. <<501-12>> CLEAR the DTC. TEST the system for normal operation.

**-> No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p16 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER —REVERSE PARK AID**

### **G92651t129 : CHECK REVERSE PARK AID MODULE FOR DAMAGE**

1. INSPECT the reverse park aid module for damage.

- **Does the reverse park aid module indicate signs of damage?**

**-> Yes**

INSTALL a new reverse park aid module. <<413-13>> CLEAR the DTC. TEST the system for normal operation.

**-> No**

GO to Pinpoint Test [G92651t130](#).

### **G92651t130 : CHECK K-LINE FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and GROUND.

- **Is the resistance less than 5 ohms?**

**-> Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

GO to Pinpoint Test [G92651t131](#).

### **G92651t131 : CHECK K-LINE FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

**-> Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

**-> No**

GO to Pinpoint Test [G92651t132](#).

## **G92651t132 : CHECK FOR OPEN CIRCUIT ON K-LINE BETWEEN DIAGNOSTIC CONNECTOR AND REVERSE PARK AID MODULE**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the reverse park aid module electrical connector, RB007. 4. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and RB007, pin 5

- **Is the resistance less than 5 ohms?**

-> **Yes**

INSTALL a new reverse park aid module. <<413-13>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p17 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — ECM**

### **G92651t133 : CHECK ECM FOR DAMAGE**

1. INSPECT the ECM for damage.

- **Does the ECM indicate signs of damage?**

-> **Yes**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t134](#).

### **G92651t134 : CHECK K-LINE FOR SHORT CIRCUIT TO GROUND**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and GROUND.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t135](#).

### **G92651t135 : CHECK K-LINE FOR SHORT CIRCUIT TO BATTERY**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and pin 16, BATTERY.

- **Is the resistance less than 5 ohms?**

-> **Yes**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t136](#).

## **G92651t136 : CHECK FOR OPEN CIRCUIT ON K-LINE BETWEEN DIAGNOSTIC CONNECTOR AND ECM**

1. Turn the ignition switch to the OFF position. 2. Disconnect the battery negative terminal. 3. Disconnect the ECM electrical connector, EN16. 4. Measure the resistance between diagnostic connector IP022, pin 7 (K-line) and EN16, pin 105.

- **Is the resistance less than 5 ohms?**

-> **Yes**

INSTALL a new ECM. <<303-14>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

REPAIR the circuit. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p9 : THE MODULE DOES NOT RESPOND TO THE JAGUAR APPROVED DIAGNOSTIC TESTER — VOICE ACTIVATED CONTROL MODULE (VACM)**

### **G92651t40 : CHECK THE VOICE ACTIVATED CONTROL MODULE (VACM) FOR DAMAGE**

1. INSPECT the VACM for damage.

- **Does the VACM indicate any signs of damage?**

-> **Yes**

INSTALL a new VACM. <<419-08>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t137](#).

### **G92651t137 : CHECK THAT THE TESTER IS COMMUNICATING WITH THE ICE HEAD UNIT**

1. Turn the ignition switch to the ON position. 2. Attempt to connect to the ICE head unit using the Jaguar approved diagnostic system. (Where available)

- **Can the tester connect to the ICE head unit?**

-> **Yes**

GO to Pinpoint Test [G92651t38](#).

-> **No**

Carry out the SCP test for the ICE head unit. (Pinpoint test G in this section).

### **G92651t138 : CHECK THAT THE VACM IS COMMUNICATING WITH THE ICE HEAD UNIT**

1. Turn the ignition switch to the ON position. 2. Press the PTT button.

- **Are the voice listening beeps heard?**

-> **Yes**

GO to Pinpoint Test [G92651t139](#).

-> **No**

Carry out the D2B diagnostic test procedure. (Pinpoint test R in this section).

## **G92651t139 : CHECK THAT THE VACM IS RESPONDING TO DIAGNOSTIC COMMANDS**

1. INSTALL a new VACM. 2. Turn the ignition switch to the ON position. 3. Attempt to communicate with the VACM.

- **Can the tester communicate with the VACM?**

-> **Yes**

CLEAR the DTC. TEST the system for normal operation with the substitute VACM

-> **No**

INSTALL a new ICE head unit. <<415-01>> Refit the original VACM. CLEAR the DTC. TEST the system for normal operation

## **PINPOINT TEST G92651p7 : THE MODULE DOES NOT RESPOND TO the Jaguar approved diagnostic system —'PHONE MODULE**

### **G92651t140 : CHECK THE 'PHONE MODULE FOR DAMAGE**

1. INSPECT the 'phone module for damage.

- **Does the 'phone module indicate any signs of damage?**

-> **Yes**

INSTALL a new 'phone module. <<419-08>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

GO to Pinpoint Test [G92651t1141](#).

### **G92651t1141 : CHECK THAT THE TESTER IS COMMUNICATING WITH THE ICE HEAD UNIT**

1. Turn the ignition switch to the ON position. 2. Attempt to connect to the ICE head unit using the Jaguar approved diagnostic system (where available).

- **Can the tester connect to the ICE head unit?**

-> **Yes**

GO to Pinpoint Test [G92651t1142](#).

-> **No**

Carry out the SCP test for the ICE head unit. (Pinpoint test G in this section).

### **G92651t1142 : CHECK THAT THE 'PHONE MODULE IS COMMUNICATING WITH THE ICE HEAD UNIT**

1. Turn the ignition switch to the ON position. 2. Press the 'phone hard key.

- **High-line vehicles - Is the 'phone screen displayed? Low-line vehicles - Is the 'phone icon displayed?**

-> **Yes**

GO to Pinpoint Test [G92651t1143](#).

-> **No**

Carry out the D2B diagnostic test procedure. (Pinpoint test S in this section).

### **G92651t143 : CHECK THAT THE 'PHONE MODULE IS RESPONDING TO**

## DIAGNOSTIC COMMANDS

1. INSTALL a new 'phone module. <<419-08>> 2. Turn the ignition switch to the ON position. 3. Attempt to communicate with the 'phone module.

- **Can the tester communicate with the 'phone module?**

-> **Yes**

CLEAR the DTC. TEST the system for normal operation with the substitute 'phone module.

-> **No**

INSTALL a new ICE head unit. <<415-01>> Refit the original 'phone module. CLEAR the DTC. TEST the system for normal operation

## PINPOINT TEST G92651p12 : P1573, P1777, P1696, P1609. SYMPATHETIC CODES FROM MODULES IN CAN NETWORK

### G92651t49 : REFER TO MODULE SETTING ORIGINAL DTC.

1. Should any of these DTCs be set, refer to the module in the CAN network which originally set the DTC. This can be determined from the DTC itself, eg P1573 is set by throttle angle error, P1777, by torque reduction error. DTCs can be cleared in the usual manner.

- **Are any of these DTCs set?**

-> **Yes**

Refer to the module or sensor concerned.

-> **No**

Recheck DTCs.

## PINPOINT TEST G92651p18 : U2003: COMPACT DISC CHANGER NOT RESPONDING

### G92651t145 : CHECK CD CHANGER MODULE, USING OPTICAL BUS TESTER

1. Connect the Optical Bus Tester to the fibre optic lead connector, CD002. 2. Set the Optical Bus Tester to BY-PASS. 3. CLEAR the DTC. 4. Turn the ignition switch to the ACC position. 5. Wait for 10 seconds. 6. Check for "not responding" DTCs.

- **Is U2003 set?**

-> **Yes**

GO to Pinpoint Test [G92651t189](#).

-> **No**

GO to Pinpoint Test [G92651t171](#).

### G92651t171 : CHECK FOR DTC U2602 OR U2603

1. Check DTCs.

- **Are codes U2602 or U2603 logged?**

-> **Yes**

GO to Pinpoint Test [G92651t156](#).

-> **No**

Recheck DTCs. No break in optical harness.

## **PINPOINT TEST G92651p23 : U2008: 'PHONE MODULE NOT RESPONDING**

### **G92651t151 : CHECK 'PHONE MODULE, USING OPTICAL BUS TESTER**

1. Connect the Optical Bus Tester to the fibre optic lead connector, CD003. 2. Set the Optical Bus Tester to BY-PASS. 3. CLEAR the DTC. 4. Turn the ignition switch to the ACC position. 5. Wait for 10 seconds. 6. Check for "not responding" DTCs.

- **Is U2008 set?**

-> **Yes**

GO to Pinpoint Test [G92651t161](#).

-> **No**

GO to Pinpoint Test [G92651t173](#).

### **G92651t173 : CHECK FOR DTC U2602 OR U2603**

1. Check DTCs.

- **Are codes U2602 or U2603 logged?**

-> **Yes**

GO to Pinpoint Test [G92651t26](#).

-> **No**

Recheck DTCs. No break in optical harness.

## **PINPOINT TEST G92651p24 : U2019: VOICE CONTROL MODULE NOT RESPONDING**

### **G92651t178 : CHECK VOICE CONTROL MODULE, USING OPTICAL BUS TESTER**

1. Connect the Optical Bus Tester to the fibre optic lead connector, CD004. 2. Set the Optical Bus Tester to BY-PASS. 3. CLEAR the DTC. 4. Turn the ignition switch to the ACC position. 5. Wait for 10 seconds. 6. Check for "not responding" DTCs.

- **Is U2019 set?**

-> **Yes**

GO to Pinpoint Test [G92651t160](#).

-> **No**

GO to Pinpoint Test [G92651t180](#).

### **G92651t180 : CHECK FOR DTC U2602 OR U2603**

1. Check DTCs.

- **Are codes U2602 or U2603 logged?**

-> **Yes**

GO to Pinpoint Test [G92651t156](#).

-> **No**

Recheck DTCs. No break in optical harness.

## **PINPOINT TEST G92651p26 : U2613: NAVIGATION CONTROL MODULE NOT RESPONDING**

### **G92651t165 : CHECK NAVIGATION CONTROL MODULE, USING OPTICAL BUS TESTER**

1. Connect the Optical Bus Tester to the fibre optic lead connector, CD005. 2. Set the Optical Bus Tester to BY-PASS. 3. CLEAR the DTC. 4. Turn the ignition switch to the ACC position. 5. Wait for 10 seconds. 6. Check for DTCs.

- **Is U2613 set?**

-> **Yes**

GO to Pinpoint Test [G92651t162](#).

-> **No**

GO to Pinpoint Test [G92651t181](#).

### **G92651t181 : CHECK FOR DTC U2602 OR U2603**

1. Check DTCs.

- **Are codes U2602 or U2603 logged?**

-> **Yes**

GO to Pinpoint Test [G92651t25](#).

-> **No**

Recheck DTCs. No break in optical harness.

## **PINPOINT TEST G92651p19 : U2602: BREAK IN OPTICAL HARNESS FROM ICE HEAD UNIT. (TRANSMITTER)**

### **G92651t156 : CHECK FIBRE OPTIC LEAD BETWEEN LUGGAGE COMPARTMENT JOINT AND CD CHANGER**

1. Disconnect fibre optic connector, CD002. 2. Disconnect fibre optic connector, CD006. 3. Connect the Optical Bus Tester to the fibre optic lead connector, CD006. 4. Set the Optical Bus Tester to TX. 5. Set the Optical Bus Tester to ON. 6. Check for light pulses at the receiver pin of disconnected D2B connector, CD002.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t152](#).

-> **No**

INSTALL a new telematic harness between CD003 and CD002. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

### **G92651t152 : CHECK CABIN FIBRE OPTIC HARNESS**

1. Disconnect the fibre optic connector, CD001. 2. Disconnect the fibre optic connector, CD006. 3. Connect the Optical Bus Tester to CD001 using adaptor lead. 4. Set the Optical Bus Tester to TX. 5. Set the Optical Bus Tester to ON. 6. Check for light pulses at the receiver pin of disconnected D2B connector, CD006.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t153](#).

-> **No**

INSTALL a new cabin optical harness between CD006 and CD001. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

## **G92651t153 : CHECK FIBRE OPTIC LEAD BETWEEN "A" POST AND ICE HEAD UNIT**

1. Connect the Optical Bus Tester to ID001 using the adaptor lead. 2. Set the Optical Bus Tester to TX. 3. Set the Optical Bus Tester to ON. 4. Check for light pulses at the receiver pin of disconnected D2B connector, CD001.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t154](#).

-> **No**

INSTALL a new instrument optical harness between CD001 and ID001. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation. GO to Pinpoint Test [G92651t154](#).

## **G92651t154 : CHECK THE ICE HEAD UNIT**

1. Turn the ignition switch to the ACC position. 2. Wait for 10 seconds. 3. Check for light pulses at the transmitter pin of disconnected D2B connector, ID001. (Rear of ICE head unit).

- **Are light pulses visible?**

-> **Yes**

Recheck DTCs. No fault found in D2B system.

-> **No**

INSTALL a new ICE head unit, <<415-01>> CLEAR the DTC. TEST the system for normal operation.

## **G92651t26 : CHECK THE FIBRE OPTIC LEAD FROM THE CD CHANGER TO THE 'PHONE MODULE**

1. Disconnect optical connector CD002. 2. Disconnect optical connector CD003. 3. Connect the Optical Bus Tester to CD002. 4. Check for light pulses at the transmitter pin of disconnected D2B connector, CD003.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t177](#).

-> **No**

INSTALL a new telematic harness between CD003 and CD002. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

## **G92651t177 : CHECK THE FIBRE OPTIC LEAD FROM THE 'PHONE MODULE TO THE VOICE MODULE**

1. Disconnect optical connector CD004. 2. Disconnect optical connector CD003. 3. Connect the Optical Bus Tester to CD003. 4. Check for light pulses at the transmitter pin of disconnected D2B connector, CD004.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t182](#).

-> **No**

INSTALL a new telematic harness between CD003 and CD004. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

### **G92651t182 : CHECK THE FIBRE OPTIC LEAD FROM THE VOICE MODULE TO THE NAVIGATION COMPUTER**

1. Disconnect optical connector CD004. 2. Disconnect optical connector CD005. 3. Connect the Optical Bus Tester to CD004. 4. Check for light pulses at the transmitter pin of disconnected D2B connector, CD005.

- **Are light pulses visible?**

-> **Yes**

Recheck DTCs. No fault found in D2B system.

-> **No**

INSTALL a new telematic harness between CD005 and CD004. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

### **PINPOINT TEST G92651p21 : U2603: BREAK IN OPTICAL HARNESS TO ICE HEAD UNIT. (RECEIVER)**

### **G92651t25 : CHECK FIBRE OPTIC LEAD BETWEEN LUGGAGE COMPARTMENT JOINT AND NAVIGATION COMPUTER**

1. Disconnect the fibre optic connector, CD005. 2. Disconnect the fibre optic connector, CD006. 3. Connect the Optical Bus Tester to CD005. 4. Set the Optical Bus Tester to TX. 5. Set the Optical Bus Tester to ON. 6. Check for light pulses at the receiver pin of disconnected D2B connector, CD006.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t186](#).

-> **No**

INSTALL a new telematic harness between CD006 and CD005. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

### **G92651t186 : CHECK CABIN FIBRE OPTIC HARNESS**

1. Disconnect the fibre optic connector, CD001. 2. Disconnect the fibre optic connector, CD006. 3. Connect the Optical Bus Tester to CD006 using adaptor lead. 4. Set the Optical Bus Tester to TX. 5. Set the Optical Bus Tester to ON. 6. Check for light pulses at the receiver pin of disconnected D2B connector, CD001.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t187](#).

-> **No**

INSTALL a new cabin optical harness between CD006 and CD001. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

### **G92651t187 : CHECK FIBRE OPTIC LEAD BETWEEN "A" POST AND ICE HEAD UNIT**

1. Connect the Optical Bus Tester to ID001. 2. Set the Optical Bus Tester to TX. 3. Set the Optical Bus Tester to ON.

4. Check for light pulses at the receiver pin of disconnected D2B connector, ID001.

- **Are light pulses visible?**

-> **Yes**

GO to Pinpoint Test [G92651t188](#).

-> **No**

INSTALL a new instrument optical harness between CD001 and ID001. For additional information, refer to the electrical guide. CLEAR the DTC. TEST the system for normal operation.

## **G92651t188 : CHECK THE ICE HEAD UNIT**

1. Connect the optical short link between the receiver and transmitter of the ICE head unit. 2. Turn the ignition switch to the ACC position. 3. Wait for 10 seconds. 4. Check for DTC.

- **Is U2603 logged?**

-> **Yes**

INSTALL a new ICE head unit, <<415-01>> CLEAR the DTC. TEST the system for normal operation.

-> **No**

Recheck DTCs. No fault found in D2B system.

## **PINPOINT TEST G92651p28 : ONE OR MORE D2B MODULES NOT RESPONDING. "WAKE-UP" SIGNAL FAULT**

### **G92651t189 : CHECK THE "WAKE-UP" SIGNAL TO THE CD CHANGER**

1. Disconnect the CD changer electrical connector, CA301. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between CA301, pin 3 (O) and ground, using an oscilloscope. (See note above).

- **Does the oscilloscope show a "wake-up" signal as described?**

-> **Yes**

GO to Pinpoint Test [G92651t166](#).

-> **No**

Repair the circuit between CA301, pin 3 and ICE head unit electrical connector, IP65, pin 19. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t160 : CHECK THE "WAKE-UP" SIGNAL TO THE VOICE ACTIVATED CONTROL MODULE**

1. Disconnect the Voice activated control module electrical connector, PH2. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between PH2, pin 14 (O) and ground, using an oscilloscope. (See note above).

- **Does the oscilloscope show a "wake-up" signal as described?**

-> **Yes**

GO to Pinpoint Test [G92651t167](#).

-> **No**

Repair the circuit between PH2, pin 14 and ICE head unit electrical connector, IP65, pin 19. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t161 : CHECK THE "WAKE-UP" SIGNAL TO THE 'PHONE MODULE**

1. Disconnect the 'Phone module electrical connector, PH1. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between PH1, pin 23 (O) and ground, using an oscilloscope. (See note above).

- Does the oscilloscope show a "wake-up" signal as described?

-> Yes

GO to Pinpoint Test [G92651t168](#).

-> No

Repair the circuit between PH1, pin 23 and ICE head unit electrical connector, IP65, pin 19. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t162 : CHECK THE "WAKE-UP" SIGNAL TO THE NAVIGATION COMPUTER**

1. Disconnect the Navigation computer electrical connector, NA7. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between NA7, pin 3 (O) and ground, using an oscilloscope. (See note above).

- Does the oscilloscope show a "wake-up" signal as described?

-> Yes

GO to Pinpoint Test [G92651t169](#).

-> No

Repair the circuit between NA7, pin 3 and ICE head unit electrical connector, IP65, pin 19. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p25 : ONE OR MORE D2B MODULES NOT RESPONDING. PERMANENT SUPPLY FAULT**

### **G92651t166 : CHECK THE PERMANENT SUPPLY TO THE CD CHANGER**

1. Disconnect the CD changer electrical connector, CA301. 2. Measure the voltage between CA301, pin 2 (OY) and ground.

- Is the voltage greater than 10 volts?

-> Yes

Check the module for ground. INSTALL a new CD Changer. <<415-01>> CLEAR the DTC. TEST the system for normal operation.

-> No

Repair the circuit between the CD changer electrical connector, CA301, pin 2, and fuse 72 of the Central junction fuse box. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t167 : CHECK THE PERMANENT SUPPLY TO THE VOICE ACTIVATED CONTROL MODULE**

1. Disconnect the voice activated control module electrical connector, PH2. 2. Measure the voltage between PH2, pin 22 (NR) and ground.

- Is the voltage greater than 10 volts?

-> Yes

GO to Pinpoint Test [G92651t146](#).

-> No

Repair the circuit between the voice activated control module electrical connector, PH2, pin 22, and fuse 71 of the Central junction fuse box. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

### **G92651t168 : CHECK THE PERMANENT SUPPLY TO THE 'PHONE MODULE**

1. Disconnect the 'phone module electrical connector, PH1. 2. Measure the voltage between PH1, pins 12 and 13 (NR) and ground.

- **Is the voltage greater than 10 volts?**

-> **Yes**

GO to Pinpoint Test [G92651t147](#).

-> **No**

Repair the circuit between the 'phone module electrical connector, PH1, pins 12 and 13 and fuse 71 of the central junction fuse box. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **G92651t169 : CHECK THE PERMANENT SUPPLY TO THE NAVIGATION COMPUTER**

1. Disconnect the Navigation computer electrical connector, NA7. 2. Measure the voltage between NA7, pin 1 (OY) and ground.

- **Is the voltage greater than 10 volts?**

-> **Yes**

GO to Pinpoint Test [G92651t172](#).

-> **No**

Repair the circuit between the navigation computer electrical connector, NA7, pin 1 and fuse 72 of the central junction fuse box. For additional information, refer to wiring diagrams. CLEAR the DTC. TEST the system for normal operation.

## **PINPOINT TEST G92651p22 : ONE OR MORE D2B MODULES NOT RESPONDING. ACCESSORY SWITCHED SUPPLY FAULT**

### **G92651t146 : CHECK THE ACCESSORY SWITCHED SUPPLY TO THE VOICE ACTIVATED CONTROL MODULE**

1. Disconnect the voice activated control module electrical connector, PH2. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between PH2, pin 8 (YG) and ground.

- **Is the voltage greater than 10 volts?**

-> **Yes**

GO to Pinpoint Test [G92651t190](#).

-> **No**

Repair the circuit between the voice activated control module electrical connector, PH2, pin 8 and the ignition switch. CLEAR the DTC. TEST the system for normal operation. This circuit includes the central junction fuse box, fuse 69

### **G92651t147 : CHECK THE ACCESSORY SWITCHED SUPPLY TO THE 'PHONE MODULE**

1. Disconnect the 'phone module electrical connector, PH1. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between PH1, pin 14 (YG) and ground.

- **Is the voltage greater than 10 volts?**

-> **Yes**

GO to Pinpoint Test [G92651t191](#).

-> **No**

Repair the circuit between the 'phone module electrical connector, PH1, pin 14 and the ignition switch. CLEAR the DTC. TEST the system for normal operation. This circuit includes the central junction fuse box, fuse 69

## **G92651t172 : CHECK THE ACCESSORY SWITCHED SUPPLY TO THE NAVIGATION COMPUTER**

1. Disconnect the navigation computer electrical connector. 2. Turn the ignition switch to the ACC position. 3. Measure the voltage between NA7, pin 11 (YG) and ground.

- **Is the voltage greater than 10 volts?**

### **-> Yes**

Check the module for ground. INSTALL a new navigation computer. <<419-07>> CLEAR the DTC. TEST the system for normal operation.

### **-> No**

Repair the circuit between the navigation computer electrical connector, NA7, pin 11 and the ignition switch. CLEAR the DTC. TEST the system for normal operation. This circuit includes the central junction fuse box, fuse 69

## **PINPOINT TEST G92651p29 : ONE OR MORE D2B MODULES NOT RESPONDING. IGNITION SWITCHED SUPPLY FAULT**

### **G92651t190 : CHECK THE IGNITION SWITCHED SUPPLY TO THE VOICE ACTIVATED CONTROL MODULE**

1. Disconnect the voice activated control module electrical connector, PH2. 2. Turn the ignition switch to the ON position. 3. Measure the voltage between PH2, pin 6 (WR) and ground.

- **Is the voltage greater than 10 volts?**

### **-> Yes**

Check the module for ground. INSTALL a new voice activated control module. <<419-10>> CLEAR the DTC. TEST the system for normal operation.

### **-> No**

Repair the circuit between the voice activated control module electrical connector, PH2, pin 6 and the central junction fuse box, fuse 67. CLEAR the DTC. TEST the system for normal operation.

### **G92651t191 : CHECK THE IGNITION SWITCHED SUPPLY TO THE 'PHONE MODULE**

1. Disconnect the 'phone module electrical connector, PH1. 2. Turn the ignition switch to the ON position. 3. Measure the voltage between PH1, pin 29 (Y) and ground.

- **Is the voltage greater than 10 volts?**

### **-> Yes**

Check the module for ground. INSTALL a new 'phone module. <<419-08>> CLEAR the DTC. TEST the system for normal operation.

### **-> No**

Repair the circuit between the 'phone module electrical connector, PH1, pin 29 and the central junction fuse box, fuse 78. CLEAR the DTC. TEST the system for normal operation.