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2000 CHEVROLET Suburban OEM Service and Repair Workshop Manual

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The human machine interface control module uses the cellular telephone microphone for voice recognition and cellular features. The human machine interface control module provides a bias voltage to each microphone (+) and (-) signal circuits for operation of the microphone.

Conditions for Running the DTC

The human machine interface control module performs a self diagnostic of the microphone circuits once after initial power up.

Conditions for Setting the DTC

B1277 02

The human machine interface control module detects an short to ground in the cellular phone microphone high signal circuit.

B1277 04

The following conditions will set this DTC:

- The human machine interface control module detects an open/high resistance in the cellular phone microphone high signal circuit.
- The human machine interface control module detects an open/high resistance in the microphone low signal circuit.

Action Taken When the DTC Sets

The voice recognition system malfunctions or is inoperative.

Conditions for Clearing the DTC

- A current DTC clears when the self diagnostic passes on the next ignition cycle.
- A history DTC clears when the ignition cycle counter reaches the reset threshold without a repeat of the malfunction.

Reference Information

Schematic Reference

Radio/Navigation System Schematics

Connector End View Reference

        - If less than 1 V, replace the K74 Human Machine Interface Control Module.
    - **If between 9–11 V**

3. Test for less than 1 V between the signal circuit terminal A and ground.
    - **If greater than 1 V**

    1. Ignition OFF, X1 harness connector at the K74 Human Machine Interface Control Module. Ignition On/Vehicle in Service Mode.
    2. Test for less than 1 V between the signal circuit and ground.
        - If 1 V or greater, repair the short to voltage in the circuit.
        - If less than 1 V, replace the K74 Human Machine Interface Control Module.

    - **If less than 1 V**

4. Ignition OFF, disconnect the X1 harness connector at the K74 Human Machine Interface Control Module.
5. Test for infinite resistance between the B24 Cellular Phone Microphone signal circuit terminal A and ground.
    - **If less than infinite resistance**

      Repair the short to ground in the circuit
    - **If infinite resistance**
6. Test for less than 2 Ω in the signal circuit end to end.
    - **If 2 Ω or greater**

      Repair the open/high resistance in the circuit
    - **If less than 2 Ω**
7. Replace the B24 Cellular Phone Microphone.
8. Ignition On/Vehicle in Service Mode.
9. Verify the DTC does NOT set.
    - **If the DTC sets**

      Replace the K74 Human Machine Interface Control Module
    - **If the DTC does not set**
10. All OK.

Repair Instructions

DTC B127E

DTC B127E (with UVJ)

Diagnostic Instructions

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

DTC Descriptor

DTC B127E 00	Front Video Display Output Signal

Circuit/System Description

The infotainment display and controls are a separate component from the radio, combined into an assembly. The assembly is supplied battery voltage and ground from the vehicle harness. The human machine interface control module communicates digital video data for on-screen display through a dedicated cable containing the LVDS data circuits.

Control information, touch communications and dimming level for the display are communicated via a LIN serial data circuit to the human machine interface control module.

If the human machine interface control module detects the display is not responding to the output on the LVDS circuits, the human machine interface control module sets the DTC.

Diagnostic Aids

When a DVD is playing on the front radio display DTC B127E will set as a false current code. Please ign[illegible] B127E unless the code stays current after ejecting the DVD.

- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

Special Tools

- EL-50334–2 Type A female to Mini B male USB Cable
- EL-50334–14 Infotainment Test Cable

Circuit/System Testing

1. Vehicle OFF/Ignition OFF.
2. Verify the LVDS interface cable is properly connected at the P17 Info Display Module and the K74 Human Machine Interface Control Module connections and there is no damage to the cable or connections.
3. Ignition ON/Vehicle in Service Mode, infotainment system ON.
4. Verify the P17 Info Display Module does not display an image.
    - **If the P17 Info Display Module displays an image.**

      All OK.
    - **If the P17 Info Display Module does not display an image.**
5. Vehicle OFF/Ignition OFF.
6. Disconnect the LVDS interface cable from the P17 Info Display Module.
7. Connect the EL-50334-2 Type A female to Mini B male USB Cable to the P17 Info Display Module. Connect the EL-50334-14 Infotainment Test Cable to the adapter.
8. Disconnect the LVDS interface cable from the K74 Human Machine Interface Control Module. Connect the EL-50334–14 Infotainment Test cable to the K74 Human Machine Interface Module.
9. Ignition ON/Vehicle in Service Mode, infotainment system ON.
10. Verify the P17 Info Display Module displays an image.
    - **If the P17 Info Display Module does not display an image**

      1. Replace the P17 Info Display Module. Connect all harness connectors.
      2. Ignition ON/Vehicle in Service Mode, infotainment system ON.