



Preliminary Information

PIT5311E Check Trailer Wiring Message and/or Service Trailer Brake with DTC C1114 (Check Trailer Ground and/or 7-way Connector)

Product Investigation Review Required

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Silverado 1500	2014	All	All	All	All
Chevrolet	Silverado	2015 - 2018	All	All	All	All
Chevrolet	Silverado LD	2019	All	All	All	All
Chevrolet	Silverado 2500/3500	2019	All	All	All	All
Chevrolet	Suburban	2015 - 2019	All	All	All	All
Chevrolet	Tahoe	2015 - 2019	All	All	All	All
GMC	Sierra	2014	All	All	All	All
GMC	Sierra	2015 - 2018	All	All	All	All
GMC	Sierra Limited	2019	All	All	All	All
GMC	Sierra 2500/3500	2019	All	All	All	All
GMC	Yukon Models	2015 - 2019	All	All	All	All

Supersession Statement

This PI was superseded to add the 2019 Model Years. Please discard PIT5311D.

Condition / Concern

Some customers may experience an intermittent "Check Trailer Wiring" message and/or a "Service Trailer Brake" message with DTC C1114 on vehicles equipped with ITBC (Integrated Trailer Brake Controller) RPO JL1. Below are two possible causes for these concerns.

Note: The below two possible causes can also affect a truck equipped with an aftermarket trailer brake controller.

1. These concerns may be displayed each time the trailer's running lamps, turn signal lamps, or brake lamps are turned on, especially if the trailer is equipped with a large number of lamps. This condition is most likely caused by insufficient trailer grounding and the trailer ground wiring will need to be repaired and/or upgraded.

2. These concerns could be caused by a poor connection at the 7-way trailer connector. It could be either the truck and/or trailer side of the connector.

Trailer Side Connector (Plug) - There are several manufacturers of 7-way (trailer side) connectors and many do not comply with the SAE standard specifications. Some 7-way (trailer side) connector plugs may not properly engage the truck's 7-way connector socket and cause open circuits. Since the Trailer Brake Control Module is always monitoring the vehicle and trailer circuits/components, a poor connection at the 7-way connector can cause a "Check Trailer Wiring" message on the DIC. Also, they may cause deformation and excessive wear of the terminals on the truck's 7-way connector socket. Over time, this will lead to poor terminal tension between the 7-way (trailer side) connector plug and the truck's 7-way connector socket.

Truck Side Connector (Socket) - Engineering has released an updated truck side connector that incorporates a stronger door/cover spring, which helps hold the trailer side connector (plug) seated into the connector.

Recommendations / Instructions

1. Inspect and clean the ground wire (normally white wire) connection on the trailer side of the 7-pin connector.

- **Make sure that the wires inside the trailer side connector are clean and securely fastened.**
- **If an electrical junction box exists on the trailer, make sure the wires inside the junction box are clean and securely fastened.**
- **Once this procedure is complete, check to see if the condition has been corrected. If the condition still exists, perform the following procedure:**

1.1 Remove the original trailer ground wire (normally white wire) from the trailer side of the 7-pin trailer connector.

1.2 Install a ring terminal (PN 12103512 located in Delphi Tray 18 or equivalent) to this wire and fasten the ring terminal to the metal or aluminum chassis of the trailer using an M6x1x20 self-taping phosphate zinc coated screw (PN 11609540 or equivalent).

- Pre-drill trailer chassis location with a 3/16" hole.

- **Make sure the trailer chassis location is clean of paint or coating material prior to installation.**

- **Galvanic corrosion between dissimilar trailer and screw metals may require that this ground location be periodically cleaned.**

1.3 Obtain a sufficient length of minimum 10 gauge (5.0 mm) white wire and fasten with ring (PN 12103512 or equivalent) terminal to the trailer chassis at the same location as the original ground wire.

1.4 Install and fasten the other end of the new ground wire into the trailer side of the 7-pin trailer connector

1.5 Install conduit on the original and new trailer ground wires and secure the conduit to the existing trailer harness.

2. 7-Way Trailer Connector

Trailer Side Connector (Plug) - Engineering has recommended the use of Pollak Heavy Duty 7-Way (Trailer Side) Connector Plugs. Pollak is the OEM manufacturer of the truck's 7-way connector socket; and by using a Pollak Heavy Duty 7-Way (Trailer Side) Connector Plug, this will ensure proper fit when the two connectors are mated. Pollak's website is: www.pollakaftermarket.com/. Once at the home page select "Connectors" then "Heavy Duty 7-Way Plugs and Accessories" and then "RV Connectors Heavy Duty & Adaptors" (example 12-706, 12-702).

Note: If the truck's 7-way connector socket terminals are deformed or have excessive wear, it will be necessary to replace the truck side connector, see info below, along with the trailer's 7-way connector plug to a Pollak HD.

Truck Side Connector (Socket) - If the truck's 7-way trailer connector socket terminals are deformed, have excessive wear, door/cover not holding trailer connector plug securely, etc. it will be necessary to replace the truck side trailer connector socket with updated GM part number 23404450.

Parts Information

Part Number	Description	Qty
23404450	Truck 7-way Trailer Connector Socket	1

Warranty Information

For trailer related issues:

No warranty labor operation is provided for concerns related to the trailer.

For Truck 7-Way Connector Replacement use:

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
2460100	Wiring Harness Connector Replacement - Trailer Brake	Use Published Labor Operation Time



GENERAL MOTORS

© 2019 General Motors. All Rights Reserved.