



Preliminary Information

PIT4595J Service Trailer Brake Message With DTC C1114 And/Or C1112

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Avalanche	2009 - 2013	All	All	All	All
Chevrolet	Silverado	2007 - 2013	All	All	All	All
Chevrolet	Silverado 2500/3500	2014	All	All	All	All
Chevrolet	Suburban	2009 - 2014	All	All	All	All
Chevrolet	Tahoe	2009 - 2014	All	All	All	All
GMC	Sierra	2007 - 2013	All	All	All	All
GMC	Sierra 2500/3500	2014	All	All	All	All
GMC	Yukon Models	2009 - 2014	All	All	All	All

With RPO JL1

Supersession Statement

This PI was superseded to update model years and Warranty sections. Please discard PIT4595H.

Condition / Concern

Some owners may comment of a Service Trailer Brake System message displayed on the DIC. When checking for DTC's, C1112 or C1114 may be set in the Trailer Brake Control Module (TBCM). This concern may occur with or without a trailer connected to the vehicle.

GM is receiving a number of returned Trailer Brake Control Modules (TBCM) and Trailer Brake Relays that are completely functional. The TBCM monitors the voltage of the electric brake wire (dark blue circuit 47) that runs from the trailer brake relay to the 7-pin trailer connector in the bumper. If the voltage on this wire is shorted lower or higher than the designed output voltage of the relay the TBCM will set a DTC.

Recommendations / Instructions

A. Applies to 2007-2008 Silverado and Sierra Models

Updated TBCM calibrations have been released in TIS2WEB to improve TBCM diagnostics for a high resistant short to voltage concern. The Tech 2 can be used to monitor the "TBCM Relay Feedback Signal" parameter located under Chassis/Trailer Brake Control Module/Data Display to help determine if there is a short to voltage. The normal voltage reading is between 3.2-4.1 volts.

If the voltage is higher, the updated calibration will help. Reprogram the TBCM with the latest cals in TIS2WEB.

If the voltage is lower, then the updated calibration should still be installed, however additional diagnostics may be needed to correct the concern. Please follow the below information and appropriate SI diagnostics for additional help.

B. Applies to All Models Listed Please investigate all wiring between the trailer brake relay and the 7-pin trailer connector (including any 5th wheel jumpers/connectors) for damaged wiring/connectors (nicks, cuts, corrosion, pin damage, etc.) and poor quality or non-sealed splices. Even a small amount of water intrusion can wick its way to both the trailer brake relay and the 7-pin trailer connector in the bumper, potentially causing intermittent DTCs.

- If a Current DTC is present, please follow the trailer brake service procedures found in SI for the specific DTC.
- If only history DTCs are present, follow the diagnostic procedure found in this PI to help with the identification of an intermittent short condition.

IMMEDIATE DIAGNOSIS

1. Check for blown fuses related to the trailer brake system.
2. Disconnect trailer harness (if trailer is with vehicle).
3. Examine vehicle for unsealed splices or damage in vehicle trailer wiring (including 5th wheel wiring harnesses).
4. Examine G401 ground for proper grounding. Clean as required.
5. With the ignition on, use Tech 2 to monitor TBCM Relay Feedback Signal. Monitor signal for 10-15 seconds. Determine the minimum voltage value that occurs. (This voltage varies once per second and always settles down to the minimum.)
6. The minimum voltage should be between 3.2-4.1 V.

-If the voltage is higher or lower - go to Short Investigation section (see below) -If Service Trailer Brake Code set - go to Short Investigation section (see below)
7. Repeat step 5 with brake applied for 10 seconds
8. The minimum voltage should be between 3.2-4.1 V. -If the voltage is higher or lower - go to Short Investigation section (see below) -If Service Trailer Brake Code set - go to Short Investigation section (see below)
9. Repeat step 5 with vehicle in reverse and with brake applied for 10 seconds.
10. The minimum voltage should be between 3.2-4.1 V.

-If the voltage is higher or lower - go to Short Investigation section (see below)

-If Service Trailer Brake Code set - go to Short Investigation section (see below)
11. If damage to wiring harness or splices found in step 3, spray with water and repeat steps 5 - 10.
12. If no issues found in previous steps, follow service procedure for C1112/C1114.

EVALUTION FOR SHORTS

Evaluate wiring for shorts between trailer brake (electric brake) wire (blue) and any/all of the following trailer wires: Right Turn/Brake, Left Turn/Brake, Running Lights, Back Up, Battery, and Ground. Please note that even heat shrunk splices are not necessarily water tight.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
2810255	Trailer Brake Control Module Reprogramming with SPS	Use Published Time

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

