Subject: Diagnostic Tip - Service Trailer Brake Message With DTC C1115 C1116 C1117 Or C1118

Models: 2014 Chevrolet Silverado 1500
        2015 Chevrolet Silverado
        2014 GMC Sierra 1500
        2015 GMC Sierra

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern
Some owners may comment of an intermittent Service Trailer Brake message on the DIC. When scanning the truck for DTC’s, a C1115, C1116, C1117 and/or C1118 will be set in the Chassis Control Module.

GDS can be used to view the following Trailer Brake Control Switch parameters in the Chassis Control Module:
– Manual Trailer Brake Apply Request Signal 1
– Manual Trailer Brake Apply Request Signal 2
– Trailer Brake User Gain Switch

Below are the normal working ranges for the Trailer Brake Control Switch parameters:
– Manual Apply Slide Lever Fully Applied
  Manual Trailer Brake Apply Request Signal 1 89% (+/- 5%)
  Manual Trailer Brake Apply Request Signal 2 11% (+/- 5%)
– Manual Apply Slide Lever Fully Released
  Manual Trailer Brake Apply Request Signal 1 11% (+/- 5%)
  Manual Trailer Brake Apply Request Signal 2 89% (+/- 5%)
– User Gain Switch
  Switch at rest = 89% (+/- 5%)
  " + " switch pressed = 37% (+/- 5%)
  " - " switch pressed = 23% (+/- 5%)

Recommendation/Instructions
In most cases, the Chassis Control Module is NOT the root cause of the DTC’s and there is either a concern with the wiring to the trailer brake control switch or the switch itself.

The wiring between the Chassis Control Module and trailer brake control switch passes through in-line connector X185 or X138 (varies with vehicle build; refer to SI), as well as the X1 and X5 connectors of the X61A Junction Block-I/P.

Please inspect the wiring from the Chassis Control Module to the trailer brake control switch, paying close attention to these connectors for any backed out, loose, poor tension, etc. terminal/connector issues.

If no issues are found, the mostly like issue is with the trailer brake control switch.

Tip: The trailer brake control switch parameters can be monitored with the scan tool while wiggling the circuits/harness between the Chassis Control Module and switch looking for the values to change.

Warranty Information
Please refer to latest version of bulletin 10-00-89-005 for warranty information on wire/connector repairs.

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.