

## **Service Bulletin**

# TECHNICAL

#### Subject: Trailer Running Lights Shut Off Due to Excessive Load on the Running Lamp Circuit

Brand:	Model:	Mode	Model Year: VIN:		N:	Engine:	Transmission:
Dranu.	woder.	from	to	from	to		
Chevrolet	Silverado 1500 (New Model)	2010	2010			A.II.	A !!
GMC	Sierra 1500 (New Model)	2019	2019			All	All

Involved Region or Country	North America, Middle East, Argentina (Mercosur), Brazil (Mercosur), Bolivia (West), Chile (West), Colombia (West), Ecuador (West), Paraguay (West), Peru (West), Uruguay (West), GM Korea Company, Singapore, Philippines, Egypt, Other Africa, South Africa.		
Additional Options (RPOs)	Equipped with INDICATOR-TRAILER INFORMATION (U1D)		
Condition	Some customers may comment that the running lamps may illuminate for a second or two, and then go out when operating a trailer running lamp circuit with more than 7-8 amps of current draw. On vehicles with LED lighting, the owner may have concerns with a flash of the lighting about once every 10 seconds.		
Cause	The cause of the condition may be that trailers with incandescent running lamps may have in-rush current that exceeds the trailer lighting module limits for current flow. And that monitoring voltage may illuminate LED lights even when trailer theft deterrent is not enabled.		
Additional Information	2019 Model Year vehicles, equipped with U1D, use the K68 Trailer Lighting Control Module to control all trailer lighting through pulse width modulated (PWM) voltage. The Trailer Lamp Control Module has a current handling capability on the running lamp circuit of about 9 amps. On a trailer with a large number of incandescent lights, in-rush current can exceed 20 amps before it settles back to around 8-9 amps. During this inrush or "marriage" current period, the Trailer Lamp Control Module sees the current as an "overload" and goes into protection mode. This was changed for MY 20 to allow 16 amps of continuous current flow by routing the current through an internal relay in the Trailer Lamp Control Module. 2019 Trucks can be modified to operate in the same way. If we use 2020 design software and re-pin the running lamps to pin 25 using the internal relay to operate the running lamps. This requires a terminated lead to be inserted into cavity 25 on the chassis harness X1 connector. Wiring connected to pin 5 on the X1 will be cut and reconnected to Pin 25. Terminal in cavity 5 will remain, be blunt cut, and sealed with a closed end duraseal splice to prevent water entering through pin 5. Software will have to be managed by TCSC. A record must exist of what trucks have been flashed and that the bulletin has been completed. Software will not work with the production configuration of wiring. This also changes the trailer connection detection flashing of LED lighting from every 10 seconds to every 42 minutes. (Connection detection will still be enabled if trailer theft deterrent is enabled).		



### Service Procedure

- 1. Raise and support the vehicle. Refer to *Lifting and Jacking the Vehicle* in SI.
- 2. Lower and reposition the spare tire, if necessary.



3. Locate the Trailer Lamp Control Module (2) and disconnect the chassis harness X1 electrical connector.



4. Cut off the tie strap retaining the wiring harness and remove the cover from the connector.



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5. Pull the wiring harness out of protective sleeve, and trim back previous tape to access the wiring.





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7. Release the 4 tabs on the connector body and pull slightly upward to partially release it from the connector housing.



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 Locate the Gray/Brown wire, at pointer (1), connected to cavity 5, and cut the wire approximately 7.62 cm (3.0 in) from the connector body. The wire will be re-located to cavity 25 (2).



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8. Push the terminated lead (1) from the new white wire splice into cavity 25.

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9. Cap the previously cut Gray/Brown wire and seal with a closed end duraseal splice. Take the open end of the white wire, add a duraseal and connect to open cut end of the Gray/Brown wire.



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10. Heat shrink, referencing *Wire to Wire Repair.* in SI.



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- 11. Using Woven Polyester (PET) Electrical/ Anti-Abrasive Tape, or equivalent, re-tape the harness where the previous tape was removed and reposition the harness back inside the sleeve.
- 12. Reinstall the connector cover and reconnect the connector. Replace the tie strap that was removed previously.
- 13. Remove the support and lower the vehicle.
- 14. After installation, reprogram the Trailer Lamp Control Module. Refer to, *K68 Trailer Lighting Control Module: Programming and Setup,* in SI.

#### **Parts Information**

Causal Part	Description	Part Number	Qty
N/A	WIRE,SPLICE	13575368	1

### Warranty Information

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			
5480858*	5480858* Move Circuit 2109 on the Trailer Lamp Control Module, and Load New Software from SPS				
*This is a unique Labor Operation for Bulletin use only.					
Version	1				
Modified Released September 28, 2020					

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, <u>DO NOT</u> assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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