



Service Bulletin

Bulletin No.: 20-NA-198

Date: December, 2020

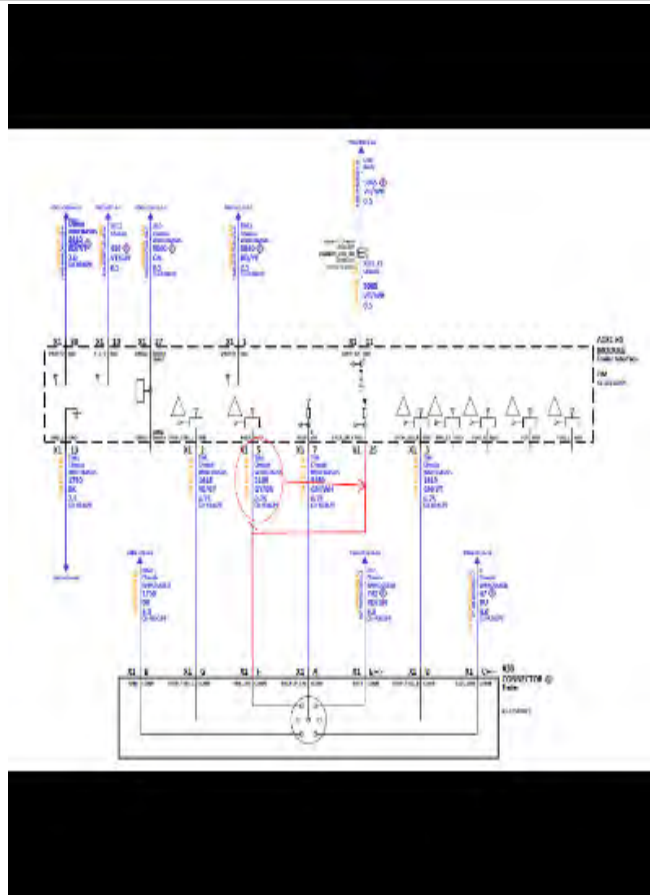
TECHNICAL

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

Brand:	Model:	Model Year:		Date Breakpoint:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado 1500 (New Model)	2019	2019			All	All
	Silverado 1500	2020	2020				
	Silverado 2500HD/3500HD						
GMC	Sierra 1500 (New Model)	2019	2019			All	All
	Sierra 1500	2020	2020				
	Sierra 2500HD/3500HD						

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, Phiippines, 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	<p>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.</p> <p>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.</p> <p>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).</p>

Correction



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For 2019 models ONLY, Follow the steps in the Service Procedure below, and move circuit 2109 on the Trailer Lamp Control Module from X1 cavity 5 to X1 cavity 25, and load new software from SPS into the Trailer Lamp Control Module.

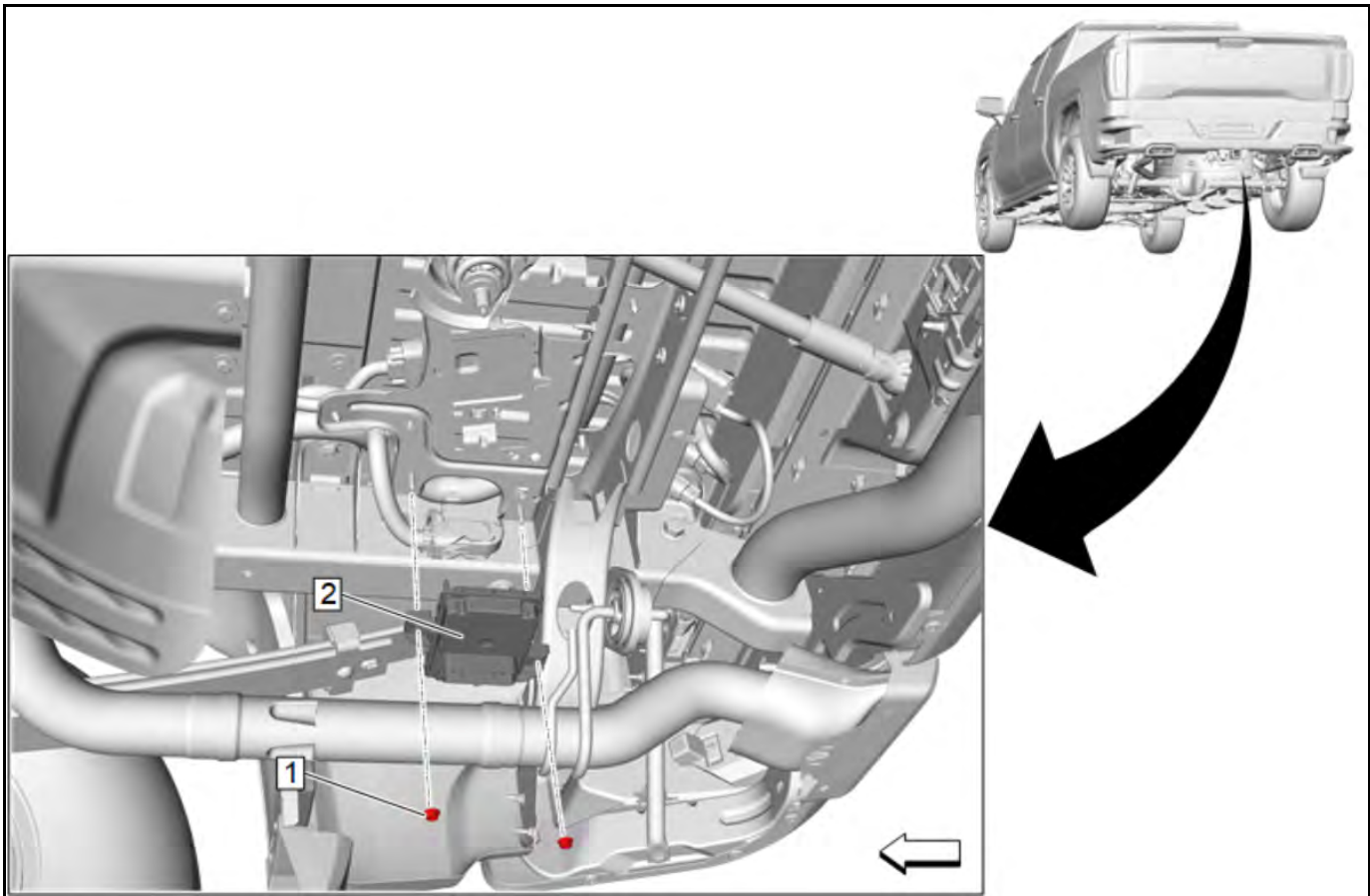
For 2020 models ONLY, no wiring changes are required. Only the software update from SPS to change the monitoring of the trailer lamps from once every 10 seconds to once every 42 minutes, will have to be completed.

Service Procedure

Important:

- **For 2019 models ONLY**, the complete Service Procedure must be completed.
- **For 2020 models ONLY**, jump ahead to step #15 and complete the software update, and reprogramming, only.

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



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



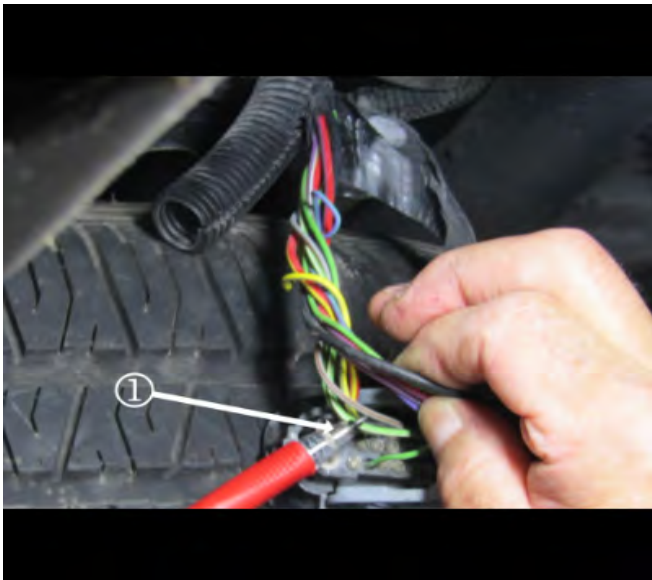
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4. Cut off the tie strap retaining the wiring harness and remove the cover from the connector.

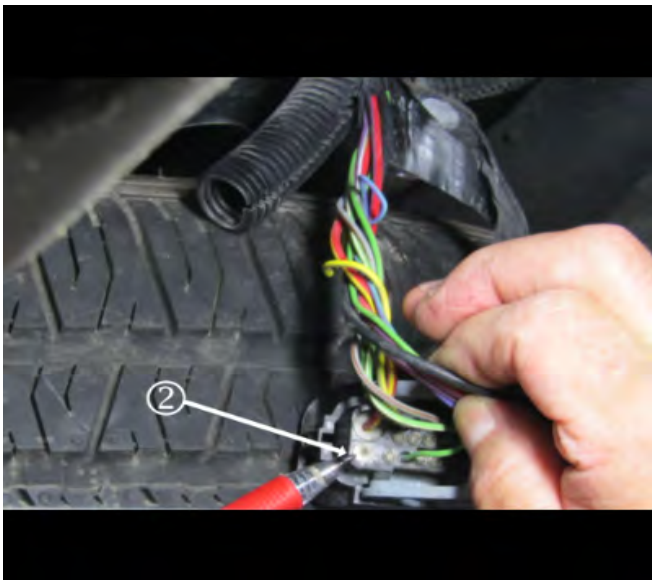
5. Pull the wiring harness out of protective sleeve, and trim back previous tape to access the wiring.



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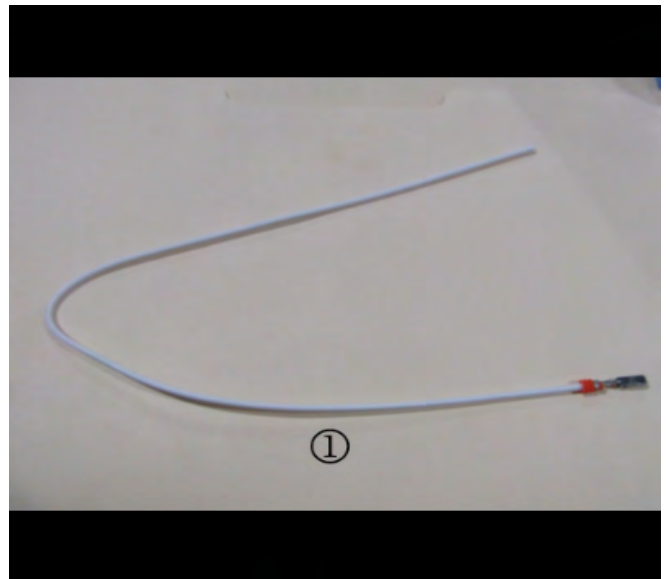
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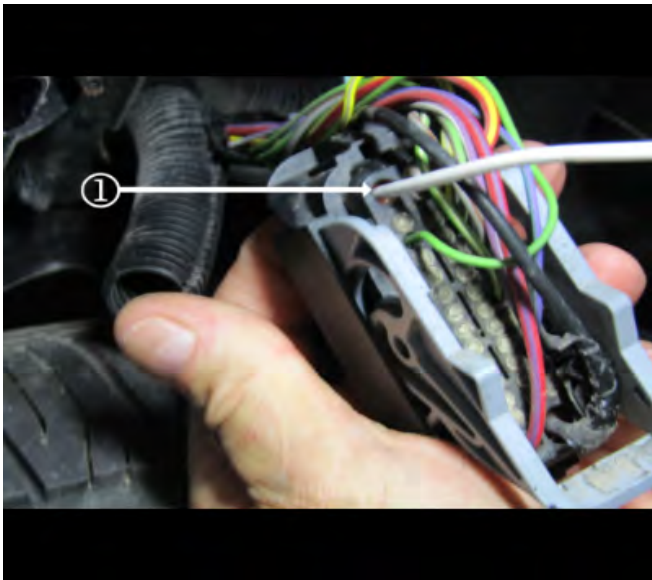
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6. Locate the Gray/Brown wire, at pointer (1), connected to cavity 5, and cut the wire approximately 7.62 cm (3.0 in) from the connector body. The wire will be re-located to cavity 25 (2).

7. Release the 4 tabs on the Terminal Position Assurance (TPA) and pull slightly upward to partially release it from the connector housing.



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8. Remove the seal from connector cavity 25 and install the new terminated lead (1) into this cavity. Ensure the terminal locks into place by pulling back gently on the wire.



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9. Gently press down on the TPA until all 4 tabs re-engage with the connector and are fully seated.



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10. Crimp a salmon Duraseal splice sleeve onto the striped end of the wire stub in cavity 5 of the connector. Attach the harness side of the grey brown wire to the end of the terminated lead that was just installed into cavity 25, using another salmon duraseal splice sleeve.



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11. Use the Ultra torch to shrink the splice sleeve around the wire and also seal the open end. Use the Ultra torch to shrink the splice sleeve around the grey/brown and white terminated lead wires. Refer to the Weatherpack™ Wiring Repair section of *Wire to Wire Repair*. in SI.



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12. 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.

13. Reinstall the connector cover and reconnect the connector. Replace the tie strap that was removed previously.
14. Remove the support and lower the vehicle.
15. After installation, contact TCSC to obtain the correct software update and 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 (TERMINATED LEAD)	13575368	1
	SPLICE,WIRE (SALMON)	19300089	2

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*	Load New Software from SPS, K68 Trailer Lighting Control Module Reprogramming	0.3 hr.
Add	Move Circuit 2109 on the Trailer Lamp Control Module (2019 Models Only)	0.7 hr

*This is a unique Labor Operation for Bulletin use only.

Version	3
Modified	Released September 28, 2020 Revised October 23, 2020 – Revised Text in Several Procedure Steps to Better Clarify Repair, Added Graphic, Updated Parts Information Revised December 04, 2020 – Added 2020 Model Year and Updated Labor Operation with Add,

