



Service Bulletin

Bulletin No.: 21-NA-077

Date: October, 2022

INFORMATION

Subject: Information on Aero Shutter Related Diagnostic Codes

Brand:	Model:	Model Year:		Date Breakpoint:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Models	2019	2021	SOP	June 30, 2021	All	All
Chevrolet	Silverado 1500 (New Model)	2019	2019	SOP	June 30, 2021		
	Silverado 1500 (New Model - 12th VIN Digit = 7) - 4WD						
	Silverado 1500	2020	2021				
	Silverado 2500HD/3500HD						
	Suburban						
Tahoe	2019						
GMC	Sierra 1500 (New Model)	2019		2019	SOP		
	Sierra 1500	2020	2021				
	Sierra 2500HD/3500HD						
	Yukon Models	2019					

Involved Region or Country	North America, Europe, Middle East, Uzbekistan, Russia, Israel, Palestine, Chile, Columbia, Ecuador, Paraguay, Peru, Uruguay, Japan, S. Korea, Thailand, Philippines, Australia and New Zealand.
Additional Options (RPOs)	
Condition	Some customers may comment on seeing a Check engine lamp illuminated in the DIC.
Cause	The cause of the condition may be a various combination of Aero shutter related diagnostic codes.
Correction	Check Aero shutter operation, electrical integrity, displaced vanes, and for debris that could potentially cause the shutter movement to be blocked, following the Service Information below.

Service Information

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

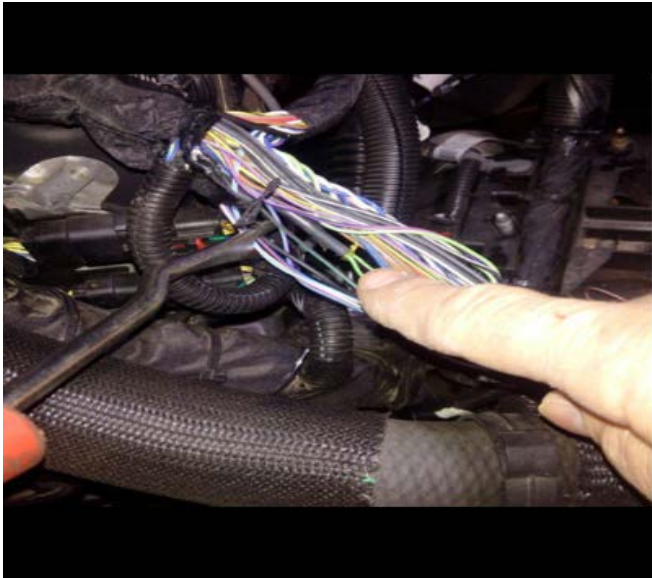
Note: A shutter performance issue will always set DTC P059F/U0284 for upper and P05AE/U0285 for lower. This information may prevent unnecessary part replacement, but shutters should never be replaced if the DTCs are not present.

Silverado/Sierra 1500 (New Model) and Silverado/Sierra 1500

U0284 / U0285

If these codes are paired with any of U0632 / U0633, U01B0 and U1345, please do the following:

1. Check the fuse for the Aero shutters to ensure that it is not loose.
2. Check the continuity on the engine wiring harness to see if there are any high resistances present along the wiring. If any corrosion is found, repair the harness. (And report where the failure occurred with photos).

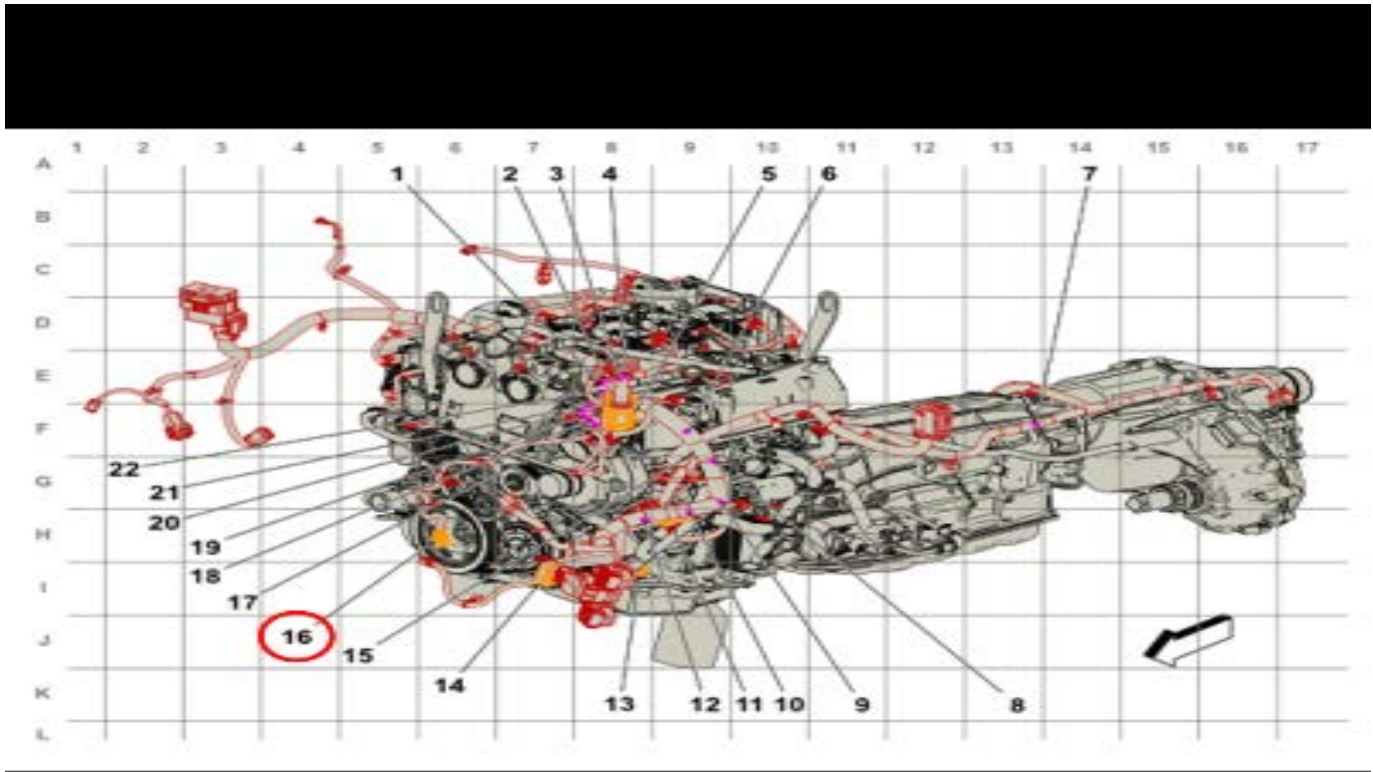


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3. Check the integrity of the **J171 splice**. Moving this splice, even small amounts, can cause intermittent communication issues. If any issues are detected in the splice, repair the splice and report what was repaired.

Note: If the **J171 splice** is found to be an issue, replace the entire splice, do not attempt to repair it. Cut out the splice for part return and submit a photo, **taken prior to cutting the section where the issue has been detected**.

4. Check the engagement of the jumper harness to the shutter actuators. Ensure there is no soft connection.
5. Check the continuity jumper harness for the Aero shutters to see if there are any high resistances present along the wiring. If any corrosion is found, replace the Aero shutter, not the wiring.
6. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, **DO NOT** replace the shutter assembly, if they were not replaced at step **# 5**.



Note: Closely inspect the X132 Engine Harness to Active Grille Air Shutter 1 Actuator Jumper Harness (VTI/WMI) connector (16) for any broken wiring.

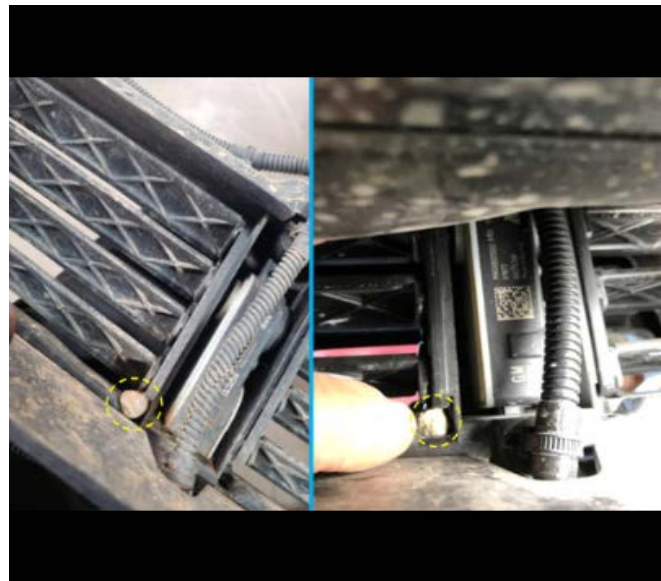
7. Check the X132 connector & VTI/WMI (and X133 connector when applicable & WMI) for corrosion and water intrusion. Additionally, check the other connectors to the Aero shutter.
8. If there are signs of water, but not corrosion, please check the seal condition of the connectors. If they are not damaged, please apply dielectric grease to the connector. If there's corrosion present, proceed to replace the shutter. Take photos and hold the part for return.

P059F / P05AE

Please do the following:

Note: For vehicles equipped with upper and lower shutters, the upper shutter, top passenger side louvre/vane is intentionally missing from the shutter assembly for airflow reasons. DO NOT replace the shutter for this reason.

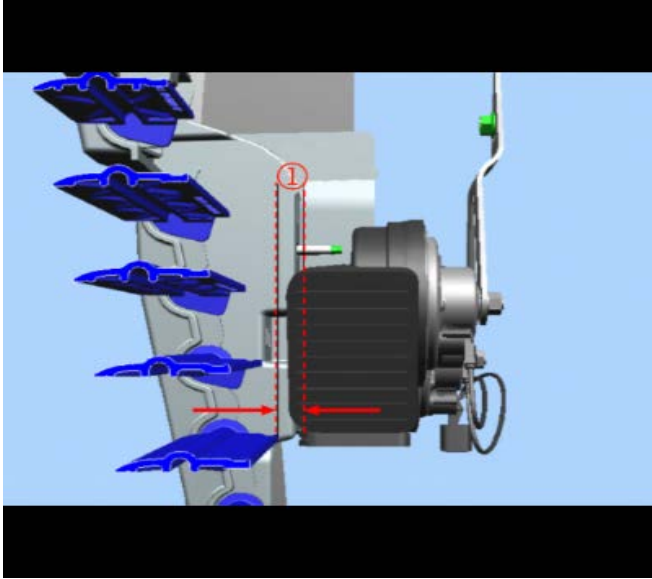
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1. Check for any debris in the upper and lower shutters. If found, please remove the debris.
2. If there is no debris evident, please look for a louvre/vane that is disengaged from the linkage. If the vehicle has a shutter with this condition, please engage the louvre/vane in the shutter assembly. If shutter is operational, DO NOT replace the shutter.

3. Check to see if the upper shutter in open position is binding on the air induction plenum. It is located on the driver's side upper behind the upper shutter. If this condition exists, secure the air induction plenum to structure behind, using a 2-stage push pin.
4. Check to see if the upper shutter is binding on the **HORN or BRACKET**. It is located on the passenger's side upper, behind the upper shutter



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Important: Ensure there is at least 10 mm (0.40 in) clearance (1) between the shutter vane and horn. If there is NOT, bend the horn bracket away from the shutter until the 10 mm (0.40 in) of static clearance is achieved.

5. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, DO NOT replace the shutter assembly.

Silverado/Sierra 2500HD/3500HD

P059F- Upper Shutter

Please do the following:

Note: For MY 2020-2021 vehicles equipped with upper and lower shutters, the upper shutter, top passenger side louvre/vane is intentionally missing from the shutter assembly for airflow reasons. DO NOT replace the shutter for this reason.

1. Before removing the fascia of the vehicle, check for any debris in upper shutter. Also, utilizing a mirror, look behind the lower shutter to determine if there is any debris lodged in the back side.
2. If debris is present, clear the debris from the assembly by hand or compressed air. If unsuccessful, remove the shutter from the vehicle and clear debris, then reinstall the shutter.

3. If there is no debris, please look for a louvre/vane that is disengaged from the linkage. If the vehicle has a shutter with this condition, please engage the louvre/vane in the shutter assembly. DO NOT replace the shutter.
4. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, DO NOT replace the shutter assembly.

P05AE - Lower Shutter

Please do the following:

1. Remove the lower shutter from the vehicle and clear the debris if present from the assembly by hand or compressed air.
2. For 2020-2021 vehicles only, remove the fourth lowest row of louvers by completing the Lower Shutter Louver Modification found in Bulletin #21-NA-071. If the fourth lowest row is already missing, move to step #3.
3. Check to see if there is any debris sitting in the baffle area behind the lower shutter and clear debris if present.
4. If there is no debris, please look for a louvre/vane that is disengaged from the linkage. If the vehicle has a shutter with this condition, please engage the louvre/vane in the shutter assembly. DO NOT replace the shutter.
5. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, DO NOT replace the shutter assembly.
6. **If the lower shutter is ordered for replacement and arrives with all 4 rows of louvers, complete the Lower Shutter Louver Modification found in Bulletin #21-NA-071.**

U0284 / U0285

Please do the following:

1. Check the fuse for the Aero shutter, to ensure it is not loose.
2. Check the engine wiring harness to see if there is any high resistance present along the wiring to the shutters. If any corrosion/damage is found, the repair the harness. Report where the failure occurred with photos or a detailed description.
3. Check the engagement of the jumper harness to the shutter actuators. Ensure no soft connection.
4. Check the continuity in-jumper harness for the Aero shutters, to see if there is any high resistance present along the wiring. If any corrosion is found, replace the Aero shutter, not the wiring.
5. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, DO NOT replace the shutter assembly, if they were not replaced at step # 4

6. Check the X133 connector for corrosion and water intrusion. Additionally, check the other connectors to the Aero shutter.
7. If there are signs of water, but not corrosion, please check the seal condition of the connectors. If they are not damaged, please apply dielectric grease to the connector. If there's corrosion present, proceed to replace the shutter.

SUV's

U0284 / U0285

Please do the following:

1. Check the fuse for the Aero shutters to ensure that it is not loose.
2. Check the continuity on the engine wiring harness to see if there are any high resistances present along the wiring. If any corrosion is found, repair the harness. (And report where the failure occurred with photos).
3. Check the engagement of the jumper harness to the shutter actuators. Ensure there is no soft connection.
4. Check the continuity jumper harness for the Aero shutters to see if there are any high resistances present along the wiring. If any corrosion found, replace the Aero shutter not the wiring.
5. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, **DO NOT** replace the shutter assembly, if they were not replaced at step # 4
6. Check the X133 connector for corrosion and water intrusion. Additionally, check the other connectors to the Aero shutter.
7. If there are signs of water, but not corrosion, please check the seal condition of the connectors. If they are not damaged, please apply dielectric grease to the connector. If there's corrosion present, proceed to replace the shutter.

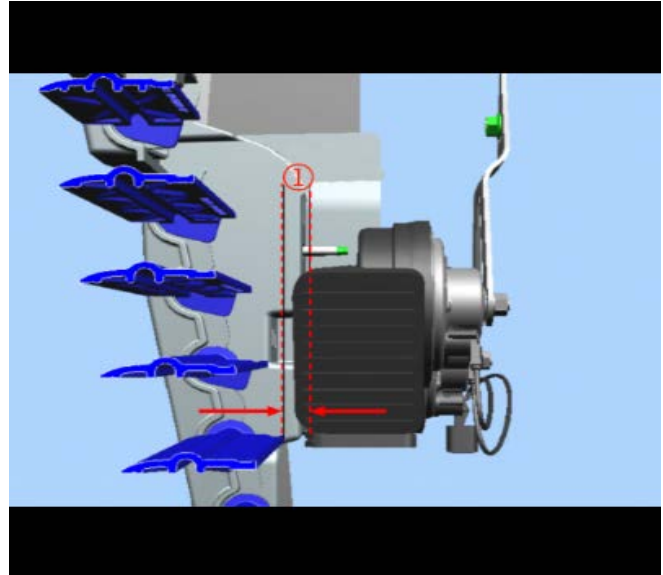
P059F / P05AE

Please do the following:

Note: For vehicles equipped with upper and lower shutters, the upper shutter, top passenger side louvre/vane is intentionally missing from the shutter assembly for airflow reasons. **DO NOT** replace the shutter for this reason.

1. Check for any debris in the upper and lower shutters. If found, please remove the debris.

2. If there is no debris, please look for a louvre/vane that is disengaged from the linkage. If the vehicle has a shutter with this condition, please engage the louvre/vane in the shutter assembly. **DO NOT** replace the shutter.
3. Check to see if the upper shutter is binding on the **HORN or BRACKET**. It is located on the passenger's side upper, behind the upper shutter.



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Important: Ensure there is at least 10 mm (0.40 in) clearance (1) between the shutter vane and horn. If there is NOT, bend the horn bracket away from the shutter until the 10 mm (0.40 in) of static clearance is achieved.

4. Functionally test each shutter assembly to fully open and fully close, **twice**. If the shutters fully open and fully close with no stoppages, **DO NOT** replace the shutter assembly.

Parts Information

Use the VIN and refer to the GM Electronic Parts Catalog (EPC) to determine the proper part to order.

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.

For vehicles repaired under warranty, use the appropriate labor operation for the repair performed.

Labor Operation	Description	Labor Time
1481528*	Check Aero Shutter Operation and Function	0.8 hr
Add	Complete Lower Shutter Louver Modification	0.2 hr

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

Additional Keywords Search

shutter, vane, louver

Version	7
Modified	<p>Released March 26, 2021</p> <p>Revised April 21, 2021 – Updated with Additional Models and Model Years.</p> <p>Revised April 30, 2021 – Added Graphic and Detail to J170 Splice Reference.</p> <p>Revised August 04, 2021 – Added Graphic and Detail to Horn Clearance.</p> <p>Revised February 11, 2022 – Updated 7 Functionally Testing Sentences in the Service Information Steps and Added Keyword Search.</p> <p>Revised June 08, 2022 – Added Important Below Service Information and Updated the Splice and Connector Numbers in the Silverado/Sierra 1500 (New Model) and Silverado/Sierra 1500 Repair Section.</p> <p>Revised September 26, 2022 – Added X132 Location Detail to Step # 7 in the Silverado/Sierra 1500 (New Model) and Silverado/Sierra 1500 section.</p>

