



# Service Bulletin

## PRELIMINARY INFORMATION

**Subject:** Diagnostic Tip - Duramax Diesel Airflow Leak Equivalency Ratio Or Induction System Leak Indication And P0101

**Models:** 2007-2016 Chevrolet Express, Kodiak, Silverado  
2007-2016 GMC Savana, Sierra, Topkick  
Equipped with the 6.6L Duramax Diesel Engine RPO code LGH, LML, and LMM

*This PI was superseded to update Recommendation/Instructions and Model Years. Please discard PIP4932C.*

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

### Condition/Concern

A dealer may have encountered a customer concern of a SES light on and DTC P0101 has been found. During diagnosis of P0101 the dealer technician will be directed to monitor the Airflow Leak Equivalency Ratio (ALER for 2007 - 2013) or Induction System Leak Indication (ISLI for 2014 - 2016).

This ratio will help decide where to start looking for an air intake leak.

### Recommendation/Instructions

Complete the current SI diagnostics for any symptoms or DTCs found. If during diagnosis the tech has found that the ALER/ISLI is above or below the specification the tech will have to carefully check for leaks in the air intake. Below is a description of where to look depending on the actual ALER/ISLI reading

**Note:** There can be no modifications to air intake, exhaust, ECM calibrations, or MAF sensor to utilize these diagnostics.

**Note:** The EGR valve position must be at 0% or commanded to 0% for the ALER/ISLI to be used to determine a potential location of a leak. If the EGR position is not at 0%, using the ALER/ISLI is not valid

**Note:** The specification for ALER/ISLI is different depending on the engine in the vehicle. Please make sure the correct specification is being used from the description below.

If the ALER reading (with EGR position at 0%) is less than 0.86:1 for a 2007-2010 LMM engine:

Inspect for anything which could result in an unexpected rise in measured airflow. This would include leaks in the boosted side of the Turbo (not including the EGR valve) or a shifted/skewed MAF sensor. In rare cases, an aftermarket low restriction exhaust system could also cause low readings.

If the ALER reading (with EGR position at 0%) is greater than 1.20:1 for 2007-2010 LMM engine:

Inspect for anything which could result in an unexpected drop in measured airflow. This would include leaks in the unboosted side of the Turbo (between the MAF sensor and turbo), a shifted/skewed MAF sensor, damaged Turbo, exhaust leaks between the exhaust ports and the turbo, or a leaky EGR valve when closed.

If the ALER/ISLI reading (with EGR position at 0%) is less than 0.90:1 for a 2010-2016 LGH or LML engine:

Inspect for anything which could result in an unexpected drop in measured airflow. This would include leaks in the unboosted side of the Turbo (between the MAF sensor and turbo), a shifted/skewed MAF sensor, damaged Turbo, exhaust leaks between the exhaust ports and the turbo, or a leaky EGR valve when closed

If the ALER/ISLI reading (with EGR position at 0%) is greater than 1.10:1 for a 2010-2016 LGH or LML engine:

Inspect for anything which could result in an unexpected rise in measured airflow. This would include leaks in the boosted side of the Turbo (not including the EGR valve) or a shifted/skewed MAF sensor. In rare cases, an after-market low restriction exhaust system could also cause high readings.

Use the current SI procedure for Charge Air Cooler Diagnosis (Induction System Smoke Test), Charge Air Cooler Diagnosis (Full System Air Leak Test), or Charge Air Cooler Diagnosis (Charge Air Cooler Air Leak Test) as needed.

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.

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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, DO NOT 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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