



International® S13 Integrated (2024)

Overview: *Engine Warning System*

INTERNATIONAL MOTORS, LLC*

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IN ILLINOIS, MISSOURI, NEW JERSEY, OHIO, AND UTAH**

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General Overview: Engine Warning System

Note; The S13 engine does not have any programmable parameters available to customize the EWS indications.

The Engine Warning (EWS) feature is designed to protect the engine from damage by monitoring critical engine data such as vehicle speed, engine speed, coolant temperature, coolant level, oil pressure, oil level and oil temperature. This feature will alert the operator, using a combination of visual and audible warnings, when critical engine conditions have been exceeded.

The warnings that are displayed on the base cluster and the premium cluster will be different.

Please refer to the appropriate operation and maintenance manuals.

The engine will also gradually derate as a function of high coolant temperature or high oil temperature

This document will address the unique engine warning and protection system functionality for the S13 Integrated engine.

Description and Operation

Operation

NOTE: Refer to the vehicle operation and maintenance manual, the premium cluster operation and maintenance manual, as well as the S13 engine operation and maintenance manual, for additional information on operation and indications.

The EWS feature uses Amber engine warning indicators, and a Red engine stop indicators, as well as other indicators, located in the gauge cluster, to identify that critical engine conditions have been exceeded. An audible beep is provided as an additional EWS operator warning.

Engine Warning

The engine warning Indicators and the cluster alarm turn ON when a condition exists that may result in vehicle damage and could affect safe vehicle operation.

The EWS uses two levels of protection. The second level corresponds to the highest severity. It is essential that the operators be trained to recognize and understand the warnings associated with the EWPS feature.

Oil Pressure 1st Level (Amber Engine Warning)

The Amber Warning Indicators will turn on at the oil pressures shown in the chart below:

Engine Speed	Pressure
400 RPM	13 PSI
900 RPM	19 PSI
1600 RPM	23 PSI

2400 RPM	42 PSI
2500 RPM	43.5 PSI

Oil Pressure 2nd Level (Red Engine Stop)

The Red Stop Warning Indicators will turn on at the oil pressures shown in the chart below:

Engine Speed	Pressure
500 RPM	10 PSI
1600 RPM	21 PSI
2400 RPM	36.2 PSI

The vehicle should be safely pulled over and parked as soon as possible.

The S13 does not have a feature to shut down the engine.

Programmable Parameters

The S13 engine does not have any programmable parameters available to customize the EWS indications or levels.

Frequently Asked Questions

Definitions/Acronyms

The following terms are referenced in this document:

Acronym	Definition
AWL	Amber Warning Lamp
DTC	Diagnostic Trouble Code
ECT	Engine Coolant Temperature
EWS	Engine Warning System
RSL	Red Stop Lamp