

THE HEADLIGHT AUTO LEVELING SYSTEM DOES NOT OPERATE IN RESPONSE TO VEHICLE POSTURE [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)]

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Note

- If there is any vehicle malfunction complaint lodged by a customer, perform FOREWORD [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)] malfunction diagnosis according to the troubleshooting procedure.

Description

- The headlight auto-leveling system does operate in response to the number of occupants, cargo load in trunk, and the fuel level.
- One side of the headlight leveling actuator does not operate.

Possible malfunction

- Short or open circuit in the wiring harness between headlight leveling actuator and AFS control module
- Headlight leveling actuator malfunction
- AFS control module malfunction
- Poor installation of the auto leveling sensor
- Auto leveling sensor malfunction

Diagnostic Procedure

Step	Inspection	Action
1	DETERMINE IF MALFUNCTIONING LOCATION IS AUTO-LEVELING SENSOR <ul style="list-style-type: none">Verify the malfunction symptom.Do both sides of the headlight auto leveling system not operate?	Yes
		No
2	LEVELING OPERATION SIGNAL INSPECTION <ul style="list-style-type: none">Verify the headlight leveling actuator operation using the M-MDS. (See HEADLIGHT LEVELING ACTUATOR OPERATION CHECK MODE [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)].)Is the headlight leveling actuator normal?	Yes
		No
3	LEVELING OPERATION SIGNAL CIRCUIT INSPECTION <ul style="list-style-type: none">Inspect wiring harness between AFS control module on the side of the auto leveling system which does operate and the headlight leveling actuator. RH<ul style="list-style-type: none">AFS control module terminal O and headlight leveling actuator terminal FLH<ul style="list-style-type: none">AFS control module terminal O and headlight leveling actuator terminal FIs there any open or short circuit in the wiring harness?	Yes
		No
4	HEADLIGHT LEVELING INSPECTION <ul style="list-style-type: none">Replace the front combination light on the side of the auto-leveling system that is not operating. (See FRONT COMBINATION LIGHT REMOVAL/INSTALLATION.)Does the auto-leveling system operate correctly?	Yes
		No

Step	Inspection	Action	
5	INSPECT WIRING HARNESS BETWEEN HEADLIGHT LEVELING ACTUATOR AND AFS CONTROL MODULE <ul style="list-style-type: none"> Inspect the wiring harness between the following terminals. <ul style="list-style-type: none"> — AFS control module terminal P and headlight leveling actuator (LH/RH) terminal I — AFS control module terminal O and headlight leveling actuator (LH/RH) terminal F — AFS control module terminal M and headlight leveling actuator (LH/RH) terminal L Is there any open or short circuit in the wiring harness? 	Yes	Repair or replace for an open or short circuit to the wiring harness.
		No	Go to the next step.
6	VERIFY AUTO-LEVELING SENSOR INSTALLATION <ul style="list-style-type: none"> Verify the auto-leveling sensor installation condition? Is a bracket bent, is there damage, or is a link disconnected? 	Yes	Repair or replace the malfunctioning location.
		No	Go to the next step.
7	AUTO LEVELING SENSOR INSPECTION <ul style="list-style-type: none"> Inspect the auto leveling sensor. (See AUTO LEVELING SENSOR INSPECTION.) Is the auto leveling sensor normal? 	Yes	Replace the AFS control module. (See ADAPTIVE FRONT LIGHTING SYSTEM (AFS) CONTROL MODULE REMOVAL/ INSTALLATION.)
		No	Replace the auto leveling sensor. (See AUTO LEVELING SENSOR REMOVAL/ INSTALLATION.)