ESS (EMERGENCY STOP SIGNAL SYSTEM) OPERATES WHILE NOT UNDER OPERATION CONDITIONS [EMERGENCY STOP SIGNAL SYSTEM (ESS)]

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Note
- If there is any vehicle malfunction complaint lodged by a customer, perform FOREWORD [EMERGENCY STOP SIGNAL SYSTEM (ESS)] malfunction diagnosis according to the troubleshooting procedure.

Description
- Hazard warning lights flash while driving
- Hazard warning lights flash even though deceleration is done without decelerating rapidly.

Possible cause
- Start stop unit malfunction
- Front body control module (FBCM) malfunction

Hazard warning light flash malfunction
- Hazard warning switch malfunction (temporary short circuit caused by shock from road surface)
  - — Hazard warning switch malfunction
  - — Short to ground in wiring harness between hazard warning switch terminal C and start stop unit terminal 1G

Sudden deceleration wheel speed is detected
- Grip level of tires is low
  - — Driving on a low-traction surface
  - — Tire wear (hydroplaning)

Diagnostic Procedure
- *When performing an asterisked(*) troubleshooting inspection, first verify the damage and connection status of the connectors and terminals, then perform the inspection while shaking the wiring harness to discover whether poor contact points are the cause of an intermittent malfunction. If there is a malfunction in the connectors or terminals, securely connect, repair, or perform replacement.

Step	Inspection		Action
1*	**DETERMINE IF MALFUNCTION CAUSED BY HAZARD WARNING SWITCH SIGNAL ERROR** • Display the start stop unit PID HAZARD_SW item using the M-MDS. (See PID/DATA MONITOR INSPECTION [START STOP UNIT].) • Verify the PID/data monitor display while operating the hazard warning switch. • Does the PID/data monitor display switch?	Yes	Go to Step 4.
		No	Go to the next step.
2	**INSPECT HAZARD WARNING SWITCH FOR MALFUNCTION** • Remove the hazard warning switch. (See HAZARD WARNING SWITCH REMOVAL/INSTALLATION.) • Inspect the hazard warning switch. (See HAZARD WARNING SWITCH INSPECTION.) • Is the hazard warning switch normal?	Yes	Go to the next step.
		No	Replace the hazard warning switch. (See HAZARD WARNING SWITCH REMOVAL/INSTALLATION.)
3*	**INSPECT FOR SHORT TO GROUND IN WIRING HARNESS BETWEEN HAZARD WARNING SWITCH AND START STOP UNIT** • Inspect for continuity between hazard warning switch connector terminal C and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness between hazard warning switch terminal C and start stop unit terminal 1G.
		No	Replace the start stop unit. (See START STOP UNIT REMOVAL/INSTALLATION.)
4*	**DETERMINE IF MALFUNCTION CAUSE IS FRONT BODY CONTROL MODULE (FBCM)** • Display the front body control module (FBCM) PID HAZARD_SW item using the M-MDS. (See PID/DATA MONITOR INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Verify the PID/data monitor while operating the hazard warning switch. • Does the PID/data monitor display switch?	Yes	Go to the next step.
		No	Replace the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)

Step	Inspection		Action
5	**INSPECT TIRES FOR MALFUNCTION** • Inspect the tires for the following: — Tire air pressure (are all four tires at recommended pressure?) — Tire wear condition (is tire wear uniform on all four tires, or is it different?) — Tire size • Are the tires normal?	Yes	Phenomenon occurring due to effect of road surface can be considered. (Emergency Signal System (ESS) normal) If the malfunction recurs, replace the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)
		No	Adjust the malfunctioning tire or replace the tire.