

Subject:

**ALTHOUGH BATTERY STATE OF CHARGE (SOC) IS FULL,
MAXIMUM DRIVING DISTANCE DISPLAY SHOWS 1 MILE (1 KM),
OR VEHICLE CANNOT DRIVE USING EV MODE**

Service Alert No.: SA-083/23

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BULLETIN NOTES**APPLICABLE MODEL(S)/VINS**

2024 CX-90

DESCRIPTION

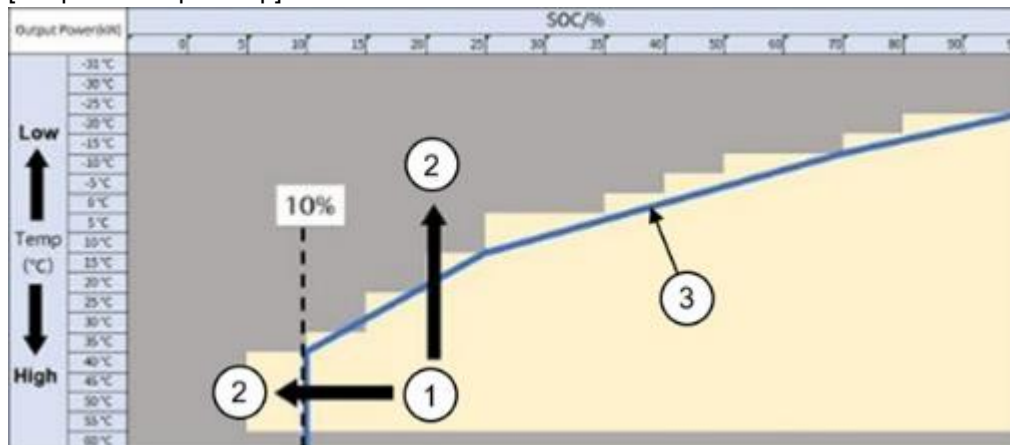
This Service Alert provides information for the following symptoms.

- Although Battery State of Charge (SOC) is full, Maximum Driving Distance Display shows 1 mile (1 km).
- Although Battery SOC is full, the vehicle cannot drive using EV mode (using electric motor power only) and will use HEV mode (using both electric power and a gas engine).

This is caused by low ambient temperature and low battery temperature. EV mode is suspended until the battery warms up to protect it from degradation and the gas engine will power the vehicle. This is normal operation. If the battery pack is able to warm up, EV mode will start and the display will change to show the correct Maximum Driving Distance Display for EV mode.

In a low temperature environment, the engine output characteristics decrease significantly due to the characteristics of Lithium-ion Battery (LiB). Therefore, even though the State of Charge (SOC) remains enough, when the motor output is lower than the threshold of the battery output (55 kW), the drive mode is switched from EV mode (1) to HEV mode (2), and the maximum driving distance display shows "1 mile" or "1 km" (4) as the minimum driving distance. This is the EV mode range only and the vehicle will drive a distance on the gas engine depending on the amount of fuel in the vehicle.

[LiB power output map]

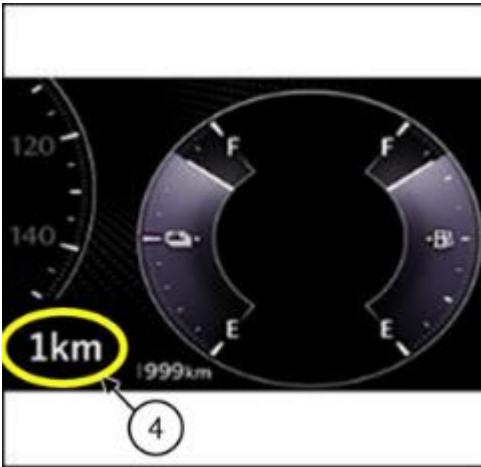


- (1) EV mode
- (2) HEV mode

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(3) Transition line from EV mode (1) to HEV mode (2).

- When the motor output drops to the equivalent of 55kW.
- When SOC reaches 10%.



(4) Maximum driving distance displayed in the instrument cluster

NOTE: Minimum distance of the maximum driving distance is "1 mile" or "1 km", not "0 mile" or "0 km" according to the C BCM specification.

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