

# **Tech Tip** T-TT-0709-22

December 19, 2022

**EV Battery Charging Performance** 

USA

Engine/Hybrid System

Applicability

Hybrid/Battery Control System

23MY bZ4X

#### **APPLICABLE VEHICLES**

2023 bZ4X

#### CONDITION

- Some customers may be concerned that EV (Electric Vehicle) Battery charging performance does not meet their expectation.
- To extend the life of the EV Battery, some limitations may occur during EV battery charging
- This communication is a reference to the factors that can lead to charging limitations, as explained
  in the Owner's Manual (Electric Vehicle System Section 2.2)

#### **RECOMMENDATIONS**

### In the following situations, charging time may increase:

- In very hot or very cold temperatures.
- •When the traction battery becomes hot, such as immediately after high-load driving.
- ●The vehicle is consuming a lot of electricity, for example, when the headlights are on, etc.
- When using "My Room Mode"
- There is a power outage during charging.
- There is an interruption in the electrical supply.
- There is a drop in the voltage of external power source.
- The charge in the 12-volt battery is low, for example due to the vehicle being left unused for a long period of time.
- •When the upper limit of charging current is changed in the charging current setting of the vehicle
- When the battery heater operates.
- ■When the plug generates heat due to a loose outlet connection, etc.
- When adjusting the power supply with the charger.
- ●When frequently and repeatedly using DC charging (for example, more than 2 full charge sessions within a 24 hour period).
- •When selecting "DC charging power" setting other than "MAX".
- When the temperature of charging-related parts is high.

#### **During DC charging:**

- As the battery approaches full charge, the charging speed will decrease and it will take longer to complete charging, especially over 80% State of Charge (SOC).
- It is recommended to avoid frequent DC charging to prevent a decline in the traction battery capacity.

Expires on 12/



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# **RECOMMENDATIONS**

- The actual charging time may differ from that displayed on the DC charger during charging.
- ●The time to complete charging may change, or charging may stop before reaching the upper limit of the charge capacity, due to the remaining charge of the traction battery, the outside temperature, the specifications of the charger (stand), etc.
- There may be occasions the radio system cannot be heard due to noise occurrence during DC charging

## **LINK REFERENCES**

1. Toyota 2023 bZ4X Owner's Manual (OM42C01U)