

Jouley Preconditioning

In severe climates prior to the bus route, the Jouley Electric Bus interior and High Voltage batteries may be very warm or cold depending on the season. To maximize start of route performance and total mileage in a Jouley Electric Bus, precondition the vehicle prior to starting the route.

Performance Condition -

If the bus (Key Off) has completed charging, the High Voltage batteries will eventually cool or warm to match to ambient temperature of their environment. Operating the Jouley Electric Bus with High Voltage Battery temperatures lower than 65°F (18.3°C) and higher than 95°F (35.0°C) will limit their discharge and charge (output / input) rates. This will affect the performance of the vehicle (through powertrain de-rate) until HV batt. operating temperature is achieved.

Recommendation -

Thomas Built Buses recommends drivers review the High Voltage Batteries temperatures before starting their route. If temperatures are outside the normal operating range (65°F - 95°F), activate the High Voltage system 10 minutes before bus departure time. The Battery Thermal Management System (BTMS) will heat or cool the batteries prior to the route.

Note – Preconditioning while not actively charging will use power from the High Voltage batteries which will decrease total mileage.

To precondition a Thomas Built Electric Bus, please follow the steps below.

1. Enter the bus and turn the ignition key to the “On” position.
2. Verify the State of Charge (SOC) of bus as needed on route.
3. Verify the High Voltage Battery temperature.
4. To warm or cool the HV batteries (to achieve Normal-operating temperature), turn the ignition key to the “Start” position and release.

The BTMS will automatically start a HV battery heater if the HV batts are below temp., or run the BTMS A/C system to cool them if above.

5. (optional) Reconnect the bus to the charger and initiate charging to maintain SOC while preconditioning.
6. (optional) Run passenger cabin heaters or AC for driver / rider comfort while connected to a charger to maintain SOC while preconditioning the passenger cabin.
7. Once the HV Battery temperature is within normal operating range, the bus route can begin without a loss of performance.

Summary: Precondition the bus prior to the route to improve comfort and performance. While preconditioning, connect the bus back up to the charger and start a charge cycle. The bus’s heaters or A/C systems can use power from the charger to gain operating temperature and comfort for the passengers. This helps to conserve the charge in the HV batteries for driving mileage.