

Tools and preparation

CAN tools (i.e CANalyzer) to ready to log on the battery to vehicle CAN bus data

Pre-condition:

Check B2V_ST2>>B2V_ST2_SOH, If it is $\leq 80\%$ or you feel the vehicle E-mileage is significantly(75% of original mileage under similar conditions) shorter than original, then proceed to Procedures below

Procedure:

1. Drive the vehicle to low SOC that max cell voltage $< 3.26V$ @ less than 5A current, and then key off the vehicle and the battery and rest the vehicle for 1 hour.
2. Plug in the CAN tools, key on and make sure vehicle and battery CAN communication is OK, and start the CAN log and note down the start SOC and B2V_ElecEnergy>>B2V_TotChgEnergy(1) and B2V_ElecEnergy>>B2V_TotDischgEnergy(1).
3. Start charging the battery using no more than $1/3C$ of current (i.e. a 210KWh system no more than 70KW charging power). Charge all the way to battery full charge and rest for 1 hour.
4. Stop CAN log or note down the stop SOC and B2V_ElecEnergy>>B2V_TotChgEnergy(2) and B2V_ElecEnergy>>B2V_TotDischgEnergy(2).
5. Make sure the B2V_TotDischgEnergy(2) - B2V_TotDischgEnergy(1) is zero (or no more than 0.1Kwh)

Procedure:

6. **Estimated Current Battery Capacity** = $(B2V_TotChgEnergy(2) - B2V_TotChgEnergy(1)) / (\text{stop SOC} - \text{start SOC})$.
7. If **Estimated Current Battery Capacity/Name Plate Battery Capacity*100%** is less than 75%, please repeat the procedure from step 1 through step 7. And if both results are less than 75%, please contact CSI (CATL NA service center)