

Procedure for Maintaining SOC Calibration in the SKYWELL EC11:

Objective: Ensure the accurate calibration of the State of Charge (SOC) for optimal performance and battery life of the Skywell EC11 electric van.

Frequency: Perform the following steps a minimum of 3 times per week.

Tools Required:

- Skywell EC11
- AC charger (preferably slow AC charger)
- Access to an electrical outlet

Procedure:

- 1. Daily Usage:**
 - Utilize the Skywell EC11 as per operational requirements.
- 2. Evening Preparation:**
 - Before the end of the operational day, ensure the vehicle is parked in a secure location with access to an electrical outlet.
- 3. Charging Preparation:**
 - Connect the AC charger to the Skywell EC11.
 - Ensure the AC charger is properly connected to a functioning electrical outlet.
- 4. Charging Initiation:**
 - Initiate the charging process by following the manufacturer's instructions for the AC charger.
 - Set the charging mode to reach 100% State of Charge (SOC).
- 5. Overnight Charging:**
 - Allow the vehicle to charge overnight. The slow AC charger may take a few hours to reach 100% SOC, hence overnight charging ensures completion without interruption.
- 6. Morning Inspection:**
 - Upon arrival in the morning, inspect the vehicle to ensure the charging process has been completed successfully.
 - Verify that the SOC indicator displays 100%.
- 7. Repeat Process:**
 - Repeat steps 1-6 consistently, ensuring that the vehicle is recharged to 100% SOC a minimum of 3 times per week.

Notes:

- The manufacturer has designed the EC11 to be fully charged to 100% on a regular basis.
- Recharging the vehicle to 100% SOC using an AC charger is the preferred method to ensure the batteries are "top balanced".
- It is crucial to maintain uniform charge levels across battery cells for enhanced overall battery performance and longevity.
- An imbalance may be noticeable if the vehicle charge status remains at 99% state-of-charge (SOC) while recharging for an extended period. It is important to ensure that the vehicle reaches 100% SOC.
- Overnight charging is recommended to avoid disruption to the vehicle's operational schedule.

By following this procedure, the Skywell EC11 can maintain accurate SOC calibration, ensuring optimal performance and longevity of the high-voltage batteries.