

Parameter Development for Batteries

- Universal parameters for batteries that allow computer modeling with vehicle responses to give the customer Deliverable Energy (DE) and State of Health (SOH)
- Parameters that do not give direct information about battery design.
- Parameters that allow for modeling the “Condition” response about a batteries DE based on passed history
- Information that can be used for both Modeling and Monitoring
- Parameters that allow for vehicle recognition of a new battery replacing an old battery (accuracy would drop in DE and SOH calculations)

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- Tests that allow for these parameters to be easily determined.
- Parameters also allow for predictive life projections based on drive cycle and application.
- Parameters that are not patented and can be used by all.
- The only exclusive component of the parameters is their method of use for the design of the computer programs that calculate DE and SOH
- Inputs to a model will be temperature, voltage, time and current.



Scope

- Parameters that define a battery's electrical performance (DE and Charge Acceptance).
- Parameters that define the Aging effects on a battery's performance.
- Parameters that define the "Condition" effects on a battery's performance
- Parameters for a lead acid battery