B&K Precision 8500 series DC Loads

BATTERY APPLICATION

11/4/2008
MODES OF OPERATION

- CC (Constant Current)
- CV (Constant Voltage)
- CW (Constant Power)
- CR (Constant Resistance)
Battery Testing: CC mode
Sample Battery Discharge

**Step 1**: Set current to draw constantly
**Step 2**: Set when to end (time, voltage, capacity)
**Step 3**: Run test
What the modes do

- **CC mode**
  - Battery discharge characteristics
  - Battery life
- **CV mode**
  - Battery capability to produce max. current
- **CW mode**
  - Tests under constant power
  - Changing voltage and current characteristics
- **CR mode**
  - Battery internal resistance characteristics
  - Voltage & current linearly changing
Applications

- Battery testing
  - (consumer, Li-ion, Ni-MH, Lead Acid, rechargeable, etc..)
- Battery chargers
  - Charging behaviors, trickle characteristics
- Solar cells
  - Test their power capabilities and stability
- Fuel cells
  - Hydrogen vehicles
  - Laptop and cell phone power
  - Extensive time discharge
- UPS
  - Backup power, power regenerators
- Super capacitors
  - Electrical Vehicles
  - Cycle efficiencies
- Power supplies
  - Testing power supplies
  - Computer power supplies
  - Power adapters / wall-warts
- Smaller/quick applications
  - Voltmeter
  - Circuit fuse