SupplyNet | DESIGN ENGINEERING MANUFACTURING

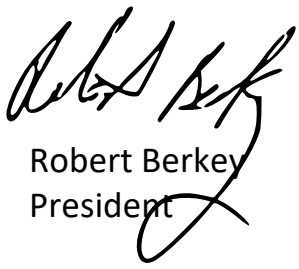
SN-D2400 CERTIFICATION

The SN-D2400 Discharger interfaces with the SMBus protocol onboard the battery per the BB-2590/U-HC Specification. During operation, the Discharger polls the internal batteries for "RelativeStateOfCharge". Per the SBS Specification, this "Returns the predicted remaining battery capacity expressed as a percentage of FullChargeCapacity (%)." The Discharger's control loop is programmed to stop discharging one of the internal batteries if it is equal to or less than 30% as reported by the battery itself. It will then continue to discharge the other internal battery until the same condition is true. This method has the inherent benefit of rebalancing the batteries to the same level of 30%.

This document is being used to certify that the technology used is read the SMBus battery guarantees that the SN-D2400 is able to determine with exact precision, when the battery is at exactly 30% of capacity.

The table on the second page shows the data available to query.

Sincerely,



Robert Berkey
President

Slave Functions	Code	Access	Data
ManufacturerAccess	0x00	r/w	word
RemainingCapacityAlarm*	0x01	r/w	mAh or 10mWh
RemainingTimeAlarm*	0x02	r/w	minutes
BatteryMode	0x03	r/w	bit flags
AtRate	0x04	r/w	mA or 10mW
AtRateTimeToFull	0x05	r	minutes
AtRateTimeToEmpty*	0x06	r	minutes
AtRateOK*	0x07	r	Boolean
Temperature	0x08	r	0.1°K
Voltage	0x09	r	mV
Current	0x0a	r	mA
AverageCurrent	0x0b	r	mA
MaxError	0x0c	r	percent
RelativeStateOfCharge	0x0d	r	percent
AbsoluteStateOfCharge	0x0e	r	percent
RemainingCapacity	0x0f	r	mAh or 10mWh
FullChargeCapacity	0x10	r	mAh or 10mWh
RunTimeToEmpty*	0x11	r	minutes
AverageTimeToEmpty*	0x12	r	minutes
AverageTimeToFull	0x13	r	minutes
ChargingCurrent	0x14	r	mA
ChargingVoltage	0x15	r	mV
BatteryStatus*	0x16	r	bit flags
CycleCount	0x17	r	count
DesignCapacity	0x18	r	mAh or 10mWh
DesignVoltage	0x19	r	mV
SpecificationInfo	0x1a	r	unsigned int
ManufactureDate	0x1b	r	unsigned int
SerialNumber	0x1c	r	number
reserved	0x1d - 0x1f		
ManufacturerName	0x20	r	string
DeviceName	0x21	r	string
DeviceChemistry	0x22	r	string
ManufacturerData	0x23	r	data
reserved	0x25-0x2e		
OptionalMfgFunction5	0x2f	r/w	data
reserved	0x30-0x3b		
OptionalMfgFunction4	0x3c	r/w	word
OptionalMfgFunction3-1	0x3d-0x3f	r/w	word