

Section 7 : EEprom Setpoints and Configuration Variables

A. List of EEprom Setpoints and Configuration Variable

1. The EEprom is used to store setpoints and configuration for the HESC. The EEprom is non-volatile and will not lose its contents on power loss and has an endurance for a minimum of 100,000 cycles of writes or erases
2. Variables or setpoints are stored with their least significant byte stored in the lower memory location, and the most significant byte in the high location.

Table 8, HESC Setpoints and Configuration Variables

EEprom start address				Variable Size	Variable/Setpoint Name	Units	Range	Description
Charge Cycle								
1	2	3	4					
0x00	0x20	0x40	0x60	Word	ChTerm	Bit flags	N/A	Charge termination enable flags
0x02	0x22	0x42	0x62	Word	Future1			
0x04	0x24	0x44	0x64	Word	Future2			
0x06	0x26	0x46	0x66	Word	BattVmaxDef	mV	0 to 65535	Maximum battery charging voltage 15500 (15.5V)
0x08	0x28	0x48	0x68	Word	BattVmaxTimeDef	Min	0 to 65535	Maximum time since peak battery voltage detected 32
0x0A	0x2A	0x4A	0x6A	Word	BattVdeltaDef	mV	0 to 65535	Charge termination negative delta V 150
0x0C	0x2C	0x4C	0x6C	Word	TimeMaxDef	Min	0 to 65535	Maximum time for charge cycle 100
0x0E	0x2E	0x4E	0x6E	Word	BattIminDef	mA	0 to 65535	Minimum charge current allowed 0
0x10	0x30	0x50	0x70	Word	BattImaxDef	mA	0 to 65535	Maximum charge current allowed 0
0x12	0x32	0x52	0x72	Word	TimeTermEnDef	Min	0 to 65535	Minimum time before charge termination allowed 5
0x14	0x34	0x54	0x74	Word	BattTempCompDef	mV/degK	0 to 65535	Temperature compensation applied to BattVDef 18
0x16	0x36	0x56	0x76	Word	BattVDef	mV	0 to 65535	Charging voltage set point 15500 (15.5V)
0x18	0x38	0x58	0x78	Word	BattIDef	mA	0 to 65535	Charging current set point 2000 (2A)
0x1A	0x3A	0x5A	0x7A	Word	BattTempRateDef	0.1K/Min	0 to 6553.5	Maximum rate of battery temperature increase allowed 0.5
0x1C	0x3C	0x5C	0x7C	Word	BattTrickleDef	mA	0 to 65535	Trickle charge current if below min temp or voltage 0
0x1E	0x3E	0x5E	0x7E	Word	BattTrickleTimeDef	Sec	0 to 65535	Maximum time allowed in Trickle charge mode 0
0x80				Word	ChFlags	Bit flags	N/A	Charger/power supply enable flags
0x82				Word	BattLowVoltageDef	mV	0 to 65535	Minimum battery operating voltage 7500 (7.5V)
0x84				Word	BattLowCapacityDef	10mW	0 to 65535	Minimum battery capacity allowed 0
0x86				Word	MainPwrMaxDef	10mW	0 to 65535	Maximum input power allowed 25000 (250W)
0x88				Byte	MaxBusTime	Timer Ticks	0 to 255	Maximum time before communications timeout 0
0x89				Byte	CHCycleMax	Cycle	1 to 4	Defines how many charge cycles to use 1
0x8A				Word	BattTempMinDef	0.1K *	0 to 6553.5	Minimum battery charging temperature 233.2 (-40C)
0x8C				Word	BattTempMaxDef	0.1K *	0 to 6553.5	Maximum battery charging temperature 333.2 (+60C)
0x8E				Word	BattVminDef	mV	0 to 65535	Minimum battery charging voltage * 8000
0x90				Byte	ChTempSelect	Bit flags	0 to 16	I2C device to use for battery temp, if zero use Th 0
0x91				Byte	ChAmbientSelDef	Bit flags	0 to 16	I2C device to use for ambient temp, if zero use Th 0
0x92				Word	I2CpollTimeDef	Sec	0 to 65535	Rate at which I2C devices are polled 2
0x94				Word	I2CtsICenDef	Bit flags	N/A	Enables polling for selected I2C device
0x96				Word	Future	Bit flags	N/A	
0x9A								
0x9C								
0x9E								

EEprom
CYCLE N
SETPOINTS