Name	Units	PID	OBD2 Mode	Length (Bytes)	Scaling	Maximum Value	Minimum Value	Notes
NOTE: Scaling factor implies multiplication (EG: a scaling factor of 0.1 is applied by multiplying the result by 0.1).								
Relays Status		0xF004	0x22	2	None	65,535.00	0.00	
Max Cells Supported Count		0xF006	0x22	1	None	255.00	0.00	
Populated Cell Count		0xF007	0x22	1	None	255.00	0.00	
Pack Charge Current Limit	Amps	0xF00A	0x22	2	None	65,535.00	0.00	
Pack Discharge Current Limit	Amps	0xF00B	0x22	2	None	65,535.00	0.00	
Signed Pack Current	Amps	0xF00C	0x22	2	0.1	32,767.00	-32,767.00	
Unsigned Pack Current	Amps	0xF015	0x22	2	0.1	65,535.00	0.00	**NOTE: To get actual amperage, subtract 32767 from the value.**
Pack Voltage	Volts	0xF00D	0x22	2	0.1	65,535.00	0.00	
Pack Open Voltage	Volts	0xF00E	0x22	2	0.1	65,535.00	0.00	
Pack State of Charge	%	0xF00F	0x22	1	0.5	100.00	0.00	
Pack Amphours	Amphours	0xF010	0x22	2	0.1	65,535.00	0.00	
Pack Resistance	mOhm	0xF011	0x22	2	0.01	65,535.00	0.00	
Pack Depth of Discharge	%	0xF012	0x22	1	0.5	100.00	0.00	
Pack Health	%	0xF013	0x22	1	None	100.00	0.00	
Pack Summed Voltage	Volts	0xF014	0x22	2	0.01	65,535.00	0.00	
Total Pack Cycles	#	0xF018	0x22	2	None	65,535.00	0.00	
Highest Pack Temperature	Celsius	0xF028	0x22	1	None	80.00	-40.00	
Lowest Pack Temperature	Celsius	0xF029	0x22	1	None	80.00	-40.00	
Avg. Pack Temperature	Celsius	0xF02A	0x22	1	None	80.00	-40.00	
Heatsink Temperature Sensor	Celsius	0xF02D	0x22	1	None	80.00	-40.00	
Fan Speed	#	0xF02B	0x22	1	None	6.00	0.00	
Requested Fan Speed	#	0xF02C	0x22	1	None	6.00	0.00	
Low Cell Voltage	Volts	0xF032	0x22	2	0.0001	5.00	0.00	
Low Cell Voltage ID (Cell Num)	#	0xF03E	0x22	2	None	180.00	0.00	
High Cell Voltage	Volts	0xF033	0x22	2	0.0001	5.00	0.00	
High Cell Voltage ID (Cell Num)	#	0xF03D	0x22	2	None	180.00	0.00	
Avg. Cell Voltage	Volts	0xF034	0x22	2	0.0001	5.00	0.00	
Low Opencell Voltage	Volts	0xF035	0x22	2	0.0001	5.00	0.00	
Low Opencell Voltage ID (Cell Num)	#	0xF040	0x22	2	None	180.00	0.00	
High Opencell Voltage	Volts	0xF036	0x22	2	0.0001	5.00	0.00	
High Opencell Voltage ID (Cell Num)	#	0xF03F	0x22	2	None	180.00	0.00	
Avg. Opencell Voltage	Volts	0xF037	0x22	2	0.0001	5.00	0.00	
Low Cell Resistance	mOhm	0xF038	0x22	2	0.01	655.35	0.00	
Low Cell Resistance ID (Cell Num)	#	0xF042	0x22	2	None	180.00	0.00	
High Cell Resistance	mOhm	0xF039	0x22	2	0.01	655.35	0.00	
High Cell Resistance ID (Cell Num)	#	0xF041	0x22	2	None	180.00	0.00	
Avg. Cell Resistance	mOhm	0xF03A	0x22	2	0.01	655.35	0.00	
Input Power Supply Voltage	Volts	0xF046	0x22	2	0.1	35.00	0.00	
Fan Voltage	Volts	0xF049	0x22	2	0.01	15.00	0.00	
Cell Voltages (Cells 1-12)	Volts	0xF100	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 13-24)	Volts	0xF101	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 25-36)	Volts	0xF102	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 37-48)	Volts	0xF103	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 49-60)	Volts	0xF104	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 61-72)	Volts	0xF105	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 73-84)	Volts	0xF106	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 85-96)	Volts	0xF107	0x22	24	0.0001	5.00	0.00	**NOTE: Each message includes 12 voltages (each are 2 bytes long)**
Cell Voltages (Cells 97-108)	Volts	0xF108	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 109-120)	Volts	0xF109	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 121-132)	Volts	0xF10A	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 133-144)	Volts	0xF10B	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 145-156)	Volts	0xF10C	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 157-168)	Volts	0xF10D	0x22	24	0.0001	5.00	0.00	
Cell Voltages (Cells 169-180)	Volts	0xF10E	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 1-12)	Volts	0xF300	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 13-24)	Volts	0xF301	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 25-36)	Volts	0xF302	0x22	24	0.0001	5.00	0.00	

Name	Units	PID	OBD2 Mode	Length (Bytes)	Scaling	Maximum Value	Minimum Value	Notes
Opencell Voltages (Cells 37-48)	Volts	0xF303	0x22	24	0.0001	5.00	0.00	**NOTE: Each message includes 12 voltages (each are 2 bytes long)**
Opencell Voltages (Cells 49-60)	Volts	0xF304	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 61-72)	Volts	0xF305	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 73-84)	Volts	0xF306	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 85-96)	Volts	0xF307	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 97-108)	Volts	0xF308	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 109-120)	Volts	0xF309	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 121-132)	Volts	0xF30A	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 133-144)	Volts	0xF30B	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 145-156)	Volts	0xF30C	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 157-168)	Volts	0xF30D	0x22	24	0.0001	5.00	0.00	
Opencell Voltages (Cells 169-180)	Volts	0xF23E	0x22	24	0.0001	5.00	0.00	
Internal Resistances (Cells 1-12)	mOhms	0xF200	0x22	24	0.01	327.67	0.00	**NOTE: Bit 16 (the MSB) indicates whether the cell is actively balancing (1 = balancing, 0 = not balancing).**
Internal Resistances (Cells 13-24)	mOhms	0xF201	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 25-36)	mOhms	0xF202	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 37-48)	mOhms	0xF203	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 49-60)	mOhms	0xF204	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 61-72)	mOhms	0xF205	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 73-84)	mOhms	0xF206	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 85-96)	mOhms	0xF207	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 97-108)	mOhms	0xF208	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 109-120)	mOhms	0xF209	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 121-132)	mOhms	0xF20A	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 133-144)	mOhms	0xF20B	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 145-156)	mOhms	0xF20C	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 157-168)	mOhms	0xF20D	0x22	24	0.01	327.67	0.00	
Internal Resistances (Cells 169-180)	mOhms	0xF20E	0x22	24	0.01	327.67	0.00	
Last Updated:	8/27/2018							