Results from a 2 month period using the BLS-12/24C. We received the Deka Gel Batteries from an individual that was throwing them away from his converted bus. We got the two Trojan T-105's from a golf cart dealer that was planning on recycling them. Each set-up had a 12 volt charger connected to a timer along with a BLS-12/24C. The timer turns the charger on once a day for 6 hours. The BLS-12/24C slowly discharged the battery for the rest of the day. The two

#### **Definitions:**

Resting Voltage: Voltage reading after letting battery stand with a charge or discharge for 2 hours

**SOC for Resting Voltage**: Is the State of Charge derived from the Resting Voltage, listed as a percentage.

Values are compared to the battery manufacturer's SOC chart.

Vmax: Maximum voltage during load test.
VMin: Minimum voltage during load test.
CCA: The Cold Cranking amps of the battery.

**Impedance:** A measure of the opposition to time-varying electric current in an electric circuit. Similar to

internal resistance.

Specific Gravity (SG): Is a measure of the amount of sulfuric acid in the solution, with 1.1 being water and

1.3 being optimal

Battery 4B Deka Gel Battery

Date	<b>Resting Voltage</b>	SOC % for Resting \	Vmin	CCA	Impedance	
25-Apr	1.168	0.00%				
29-Apr	12.04	25.00%	12.2	10.28	470	
3-May	12.52	70.00%	12.76	11.45	785	
13-May	12.71	80.00%				5.31
20-May	12.52	70.00%	12.82	11.47	864	5.46
27-May	12.81	95.00%	12.84	11.51	877	5
8-Jun	12.81	95.00%	•			4.96

#### Battery 4A Deka Gel Battery

Date	<b>Resting Voltage</b>	SOC % for Resting \	Vmin	CCA	Impedance	
25-Apr	1.266	0.00%				
29-Apr	12.46	55.00%	12.72	11.47	838	
3-May	12.61	70.00%	12.86	11.59	868	
13-May	12.81	95.00%				4.85
20-May	12.64	75.00%	13.03	11.71	904	5.42

27-May	12.7	80.00%	13.03	11.74	920	4.53
8-Jun	12.91	100.00%	<u>.</u>	-	•	4.55
17-Jun	12.98					4.12

## Battery CC1 Deka Gel Battery

Date	Resting Voltage	SOC % for Resting \	Vmin	CCA	Impedance	
25-Apr	2.03	0.00%				
29-Apr	12.46	57.00%	12.72	11.41	775	
3-May	12.64	74.00%	12.87	11.53	807	
13-May	12.81	92.00%	12.77			5.13
20-May	12.59	70.00%	12.99	11.55	804	5.85
27-May	12.71	81.00%	12.98	11.57	801	5.18
8-Jun	12.81	95.00%				5.05
17-Jun	12.91					4.99

### Battery CC2 Deka Gel Battery

Date	Resting Voltage	SOC % for Resting \	Vmax	Vmin	CCA	Impedance
25-Apr	2.57	0.00%				
29-Apr	12.18	37.00%	12.4	10.98	675	
3-May	12.6	71.00%	12.85	11.57	854	
13-May	12.74	83.00%				5.02
20-May	12.45	60.00%	12.81	11.51	877	4.93
27-May	12.47	61.00%	12.8	11.54	901	4.89
8-Jun	12.74	83.00%				4.59
17-Jun	12.72					4.74

# Battery DD2 Deka Gel Battery

Date	Resting Voltage	SOC % for Resting \	Vmin	CCA	Impedance	
25-Apr	4.52	0.00%				

29-Apr	12.22	42.00%	12.42	10.91	597	
3-May	12.68	76.00%	12.89	11.54	768	
13-May	12.84	94.00%				5.12
20-May	12.53	67.00%	12.91	11.59	883	4.73
27-May	12.57	69.00%	12.91	11.61	899	4.8
8-Jun	12.84	93.00%				4.68
17-Jun	12.84					4.64

Battery F1&F2 Trojan T-105's

2 x 6 volt T-105 batteries connected in Series

Date	Resting Voltage	SOC % for Resting \	Vmax	Vmin	CCA	Impedance	SG-F1	SG-F2
25-Apr	12.2	50.00%						
29-Apr	12.4	75.00%	12.64	10.31	294		1.250, 1.250. 1.250	1.250, 1.275, 1.275
3-May	12.41	76.00%	12.76	10.43	324		1.250.1.300,1.250	1.275,1.275,1.275
13-May	12.5	95.00%				4.86		_
20-May	12.45	80.00%	12.6	10.75	392	4.02	1.275,1.300,1.275	1.3, 1.3, 1.3
1-Jun	12.48	92.00%				3.67	1.3, 1.3, 1.3	1.3, 1.3, 1.3
8-Jun	12.59	98.00%				3.79		
17-Jun	12.64	100.00%				3.55		