

FREEDOM WON – TRADE IN PROCEDURE



Can I trade in my Lite for a larger model?

A first in the industry brought to you by Freedom Won and SEGEN!

Freedom Won is able to place a very accurate value on used Lite's because of extensive information collected by the BMS as to the service life consumed and remaining.

This means you will obtain a very fair value on a trade in for a larger model.



Process to follow to obtain a trade-in:

1. The customer notifies Segen of his intention to trade in a Lite battery, providing the following information.
 - a. Photos of the battery still on site to allow for a pre-condition inspection
 - b. Battery Serial Number
 - c. Pack Cycle Count
2. Once information is supplied, Freedom Won will provide an estimated value for the trade in
3. Preliminary valuation of the trade-in is provided to Customer and upon acceptance the further steps are followed
4. Customer delivers unit to one of the SEGEN main centres in Johannesburg or Cape Town for onward forwarding to Freedom Won
5. Freedom Won does a final inspection and validates the initial information supplied resulting in approval of the Trade in.

Trade in valuation methodology

- Degradation of 10% post the 2nd year
- First year of degradation is calculated at 20%

The guarantee period begins at the date of the final invoice from SEGEN

TRADE IN VALUE FORMULA

$$\begin{aligned}\text{FW2021-22732 FW Cycles} &= \text{Orion Cycles}/2 \times 0.8 \\ &= (110/2)0,8 = 44\end{aligned}$$

FW2021-116522

$$\text{FW Cycles} = \text{Orion Cycles}/2 \times 0.8 = (189/2)0,8 = 75,6$$



Upgrading Cable

Lite Range

- Use the Printer cable came with the battery
- Orion Jr Tool



E-Tower

- Use the Rs232 interface RJ11 cable
- PBMS Tool



PBMS TOOL

PbmsTools V2.5FN

Realtime Monitoring

Multi Monitoring

Memory Info.

Parameter Setting

System Config.

Export Datas

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Pack Information

Pack Voltage

54.225

V

Pack Current

0.00

A

SOC

4

%

SOH

100

%

RemainCapacity

3930

mAH

FullCapacity

103480

mAH

Battery Cycle

138

Temperature

Tcell 1

17.0

℃

Tcell 2

17.2

℃

Tcell 3

16.7

℃

Tcell 4

17.4

℃

MOS_T

17.4

℃

ENV_T

17.4

℃

Cell Voltage(mV)

MaxVolt

12

3392

MinVolt

3

3383

VoltDiff

9

Vcell 1

3389

Vcell 9

3390

Vcell 2

3391

Vcell 10

3390

Vcell 3

3383

Vcell 11

3390

Vcell 4

3391

Vcell 12

3392

Vcell 5

3383

Vcell 13

3390

Vcell 6

3389

Vcell 14

3389

Vcell 7

3390

Vcell 15

3389

Vcell 8

3391

Vcell 16

3388

Serial Port

Port

COM3

Baud Rate

9600

Auto Display

Close

Pack 1

Pack Qty

1

Try Connect

ADDR

0

Interval(S)

1

System Status

CHARGING-OFF

CHARGING

CHG-LIMIT-OFF

ACin

DISCHARGING-ON

DISCHARGING

HEATER-OFF

Fully

Alarm Status

Cell OV, SOC Low

Protect Status

Cell OVP

Fault Status

None

Switch Control

CHG Circuit

Open

Sound Alarm

Open

CHG Limiter

Close

DSG Circuit

Close

LED Alarm

Close

Shutdown

Off

Password

Change

Clear

VER: P16S100A-15040-5. 01

BMS S/N: 150404122901343Z

PACK S/N: ET2022-009360

COMM: Normal

12:58:13

2023/06/15

Orion Jr TOOL

p

Live Graph & Data Logging | Live Cell Data | Live CANBUS Traffic | Histogram & Events

Live Parameters

Parameter	Value	Unit	Parameter	Value	Unit
Pack State of Health (SOH)	99.0	%	Multi-Purpose Output 3 Active	OFF	
Pack Depth of Discharge (DOD)	4.5	%	Multi-Purpose Output 4 Active	OFF	
Pack State of Charge (SOC)	95.0	%	Multi-Purpose Enable Active	OFF	
Pack Amp-hours	92.1	Ahr	Is Pack Balancing	NO	
Observed State of Charge	94.5	%	CANBUS 1 Errors Present	NO	
Observed Total Capacity	94.0	Ahr	Cell Comm Fault Flags	0.0	
Observed Amphours	89.2	Ahr	Cell Balancing Count	0.0	
Observed Previous Capacity	91.9	Ahr	Charge Float Voltage	55.8	V
Total Pack Cycles	110.0	#			
Pack Resistance	0.008	Ohms			
Pack Open-Circuit Voltage	53.9	V			
Is-Charging Power Status	ON				
Multi-Purpose Input Status	OFF				
Charge-Enable Output Active	OFF				
Discharge-Enable Output Active	ON				
Charger-Safety Output Active	ON				
Errors Present	NO				
Multi-Purpose Output Active	ON				
Multi-Purpose Output 2 Active	OFF				

Selected Parameter Group:

Show Active Commands Export Live Parameters Help

Cells: 16 (16) CAN#: N/A Trouble Codes Detected: 0 Profile Checksum: 9F55

Thank you for your attention.

