

SYSTEM APPLICATION:						
	Floor Scrubber					
	Aerial Work Platform					
	Material Handling					
	Electric Vehicle/Golf Car					
	Recreational Vehicle					

Maintenance-free **VRLA Battery Block**

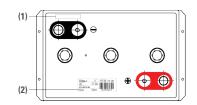
Warranty Form

Date:

Customer Name								
Customer Address								
Phone Number		Email						
Distributor/Dealer			Date of Purchase	MM/DD/YY				
Company Address								
Phone Number		Email						
Battery Model			Installation Date	MM/DD/YY				
System Voltage			Original Runtime	HH:MM				
Any additions/			Current Runtime	HH:MM				
adjustments since battery install date			Did the batteries originally come with the equipment?	YES/NO				
EQUIPMENT/APPLICATION INFORMATION:			CHARGER INFORMATION:					
Make			Make					
Model			Model					
Equipment Serial Number			Output	Volts	Amps	-		
	С		Charge Profile Setting					
AMRIENT TEMPERATIIRE	· (°C or °F)·							

Battery No.	Production Code ₍₁₎		Serial Number ₍₂₎		Open-Circuit Voltage ₍₃₎	Test Voltage ₍₄₎
1						
2						
3						
4						
5						
6						
7						
8						
Failure Mode	Low Run Time	Low OCV	Fail to Re-charge	Dry Out/	Acid Leakage Bu	Iging
	Other:					

- (1) Production Code is an alphanumerical code embossed on the battery cover
- (2) Serial Number starts with "S" and follows by a 7-digit number
- (3) Open Circuit Voltage readings should be taken at least 3 hours after the batteries are fully charged. Negative lead removed.
- (4) Provide Load Voltage readings when performing Battery Load Tests (see pg.2). Provide OCV (Open Circuit Voltage) or CCV (Closed Circuit Voltage) readings if operating equipment until shut-off.



Details to your system information and user profile is mandatory to properly troubleshoot and ensure appropriate system set up. For assistance in completing non-battery related sections, please contact your system install/service technician and/or equipment manufacturer.



Battery Troubleshooting VPC→Volts per Cell ullet Sp. Gr. ightarrow Specific Gravity STEP 1 Replace Check for damages, cracks, loose terminal posts, Visual Inspection Usable? oxidized connectors, check charge algorithm etc. Proceed to Step 2 STEP 2 Proceed to Step 3 One battery is 0.040Vpc lower Stabilized Open Circuit than others Open Circuit Voltage (OCV) is less than Vpc? 0.12V (6V battery) Voltage Test 6.30V (6V battery) 0.24V (12V battery) 12.60V (12V battery) Or Charge the battery Battery is less than 2.1Vpc and stand to stabilize. 6.30V (6V battery) if required perform Replace 12.60V (12V battery) balance charge. STEP 3 Select a test based on the tools or equipment at your disposal: Replace Discharge Test (using a discharger) Field Test (operate equipment until it shuts off) \mathbf{A} Load Test (ie. Carbon Pile load tester) For additional information, contact service@discoverbattery.com Recovery Voltage is less Voltage is greater than 2.1 Vpc? Connect Load Tester Discharge for 15s Determine battery than or equal to the LoadTest with Voltmeter to the at 3 times the 20hr Load Test Voltage temperature battery capacity rate Chart Return to Service Record minutes (runtime) when Battery most likely failed discharge is complete. Correct and should be replaced. runtime minutes for battery Discharge Connect temperature Batteries deliver more test with and start Mc = Mr [1 - 0.009 (T-27)]than 60% of rated runtime discharger discharger Mc is the corrected minutes Mr is the minutes recorded Return to Service T is the temperature at the end of the discharge in °C. LOAD TEST VOLTAGE CHART Minimum Acceptable Voltage at 15 Field Temperature Operate the vehicle/ Record voltages before, test with equipment until and after operation. operated 8V Record machine runtime. battery is discharged equipment 48.9 120 10.10 6.73 5.05 1.68 110 10.00 43.3 6.67 5.00 1.67 Machine runtime is 37.8 100 9.90 6.60 4.95 1.65 significantly less than of its original runtime. 9.80 4.90 26.7 80 9.70 6.47 4.85 1.62 21.1 70 9.60 6.40 4.80 1.60 15.6 60 9.50 6.33 4.75 1.58

Battery most likely failed

and should be replaced.

6.27

6 20

6.07

5.93

5.80

5.67

4 65

4.55

4.35

155

1.52

1.48

1.45

142

9.40

9.30

9.10

8.90

8.70

8 50

40

30

20

10

0

44

-1.1

-6.7

-12.2

-178

Battery performance is

considered acceptable.