

### RADIANT POWER CORP. COMPONENT MAINTENANCE MANUAL PART NUMBER BPS7

Sample Storage/Change Options for Batteries Returning to Service on Passenger Aircraft							
123 Days maximum	31 Days maximum	6 hours minimum	20 minutes				
Charge on Bench @ 350 mA for 16 hours; store in refrigerator	Charge on Bench @ 350 mA for 16 hours; store at room temperature	Charge on Aircraft	Fast Charge on Bench @ 5 A				

#### 6. Battery Charging Procedure

The purpose of this section to provide new users with typical procedures for bench charging. Established users should use their approved procedures.

A. Use a power supply with a minimum voltage of 12 volts and an adjustable current limit. Hook up the power supply, meters, etc., as shown on the drawing below.

## DO NOT HOOK UP THE BATTERY PACK YET!



Battery Charging Figure 103

B. Adjust the output voltage to 10 volts for every battery pack that is in series, and turn the current limit all the way down. Now hook up the battery pack. Adjust the current limit on the power supply to 350 milliamps +/-20 milliamps. Leave the batteries charging for 15-20 hours (16 hours nominal). After the 16 hours of charge disconnect the battery from the charger. Measure the battery pack voltage with a meter and ensure that the battery has fully charged to a normal value of 7.5 to 8.8 volts.



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Number of	1	2	3	4	5
battery packs					
Voltage	10 volts	20 volts	30 volts	40 volts	50 volts
Current	350 milliamps				

### 7. <u>Battery Discharging Procedure</u>

The purpose of this section is to provide new users with typical procedures for bench discharging. Established users should use their approved procedures.

A. Battery Discharge Hookup:



# YOU MUST MONITOR THE BATTERY VOLTAGE CONTINUOUSLY!

Battery Discharge Hook-up Figure 104

- B. Turn on the discharge switch and allow the battery to discharge until it reaches a voltage of 4.8-5.6 volts. Do not allow the voltage to go any lower. This discharge time can take anywhere from a few minutes to 35 minutes, depending on the battery's state of charge. The voltage normally holds very steady for most of the discharge curve, followed by a steep decrease in voltage at the very end of the discharge. Pay attention!
- C. Once the battery cutoff voltage is reached then turn the switch off, and allow the battery pack to cool for 30 minutes before charging.

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