



TRUE BLUE[®]
POWER

A division of Mid-Continent Instrument Co., Inc.

DHC-8

100 / 200 / 300 Series

Certified Lithium-ion Aircraft Battery Upgrade

DHC-8-300



Less Weight. Less Maintenance. **More Power. More Profit.**



TB44 Certified Lithium-ion Aircraft Battery

The TB44 Certified Lithium-ion Aircraft Battery features the most sophisticated lithium-ion chemistry available, providing DHC-8 operators with an unmatched advantage of increased power, reduced weight, extended useful life, 2-year maintenance intervals, lower direct operating cost and higher profit potential.

The intelligent battery system's Nanophosphate[®] lithium-ion cells provide 3x the energy per kilogram and are rated up to 10,000 cycles, per cell. This results in a battery solution that is 56 – 80 pounds (35 – 43%) lighter than NiCad and lead-acid alternatives.

Safety is addressed on multiple levels, including chemistry, cell design, containment and the integration of electronic protections. The TB44 is a 'smart pack' engineered to protect against overcharge, over-discharge, over-current, short circuit, over-temperature and under-temperature.

Ideal for high utilization and rugged environments, the TB44 starts the aircraft's engine quickly and offers superior hot and cold weather performance.

Product Comparison – Two Batteries Per Aircraft

	Battery Technology	Voltage Output	Capacity (1C rate)	Weight	Maintenance	Useful Life
TB44	Lithium-ion	26.4 VDC	46 amp-hour	51.7 pounds	2 years	8 years (average)
	Lead-acid	24 VDC	42 amp-hour	92 pounds	Annual	2 – 4 years
	Nickel-cadmium	24 VDC	44 amp-hour	80 pounds	200 – 400 hours	5 – 10 years

DHC-8 Certified Lithium-ion Aircraft Battery Upgrade

Operational Value

- + Reduces empty weight and increases useful load
56 – 80 pounds less when compared to NiCad and lead-acid
- + Significantly reduced maintenance cost
2-year maintenance intervals
- + Superior high temperature and cold weather performance
-40°C to +70°C (-40°F to +158°F)
- + Reduces DHC-8 fuel and maintenance costs
Up to \$5,000 per year per aircraft when compared to NiCad batteries
- + Total value of all cost savings and benefits
Potential to exceed \$25,000 per year per aircraft when compared to NiCad batteries
- + Reduces carbon dioxide emissions
Up to 3 tons / year / aircraft when compared to NiCad batteries



Installation of (2)
TB44 Certified Lithium-ion
Batteries in DHC-8-200 aircraft

Benefits

- + Significant weight savings
- + 8 years (average) useful life
- + Reduced direct operating costs
 - less fuel
 - less maintenance
 - less ground personnel
 - less infrastructure
- + Reduced turn times
- + Improved flight performance
- + Increased dispatch reliability
- + Increased engine & component life
- + Faster engine starts
- + Increased useful load
 - more cargo
 - more passengers
 - more baggage
 - more fuel
- + Increased customer satisfaction
- + No specialized test equipment required
- + Zero carbon emissions
- + Rapid recharge
- + Built-in, automatic heater
- + Intelligent ARINC communication

