



COLD START. HOT START. ANY START.

# SlickSTART™

## THE CHAMPION ADVANTAGE

- DELIVERS UP TO 340% MORE SPARK ENERGY TO YOUR PLUGS.
- OVERCOMES POOR ENGINE PRIMING.
- REDUCES COSTLY ELECTRICAL STRESS TO YOUR BATTERY AND STARTER.
- REQUIRES NO MAINTENANCE.
- INEXPENSIVE AND EASY TO INSTALL
- APPROVED FOR SLICK (SS1001) AND BENDIX (SS1002) MAGNETOS.



Improve your engine starting — hot or cold. SlickSTART™ unleashes a firestorm of ignition energy to get your engine started and get you off the ground. SlickSTART is so effective, even sub-optimal fuel mixtures and seriously fouled plugs won't stop the capacitive discharge output from providing the ignition boost your engine needs for reliable starts every time.

For more information please contact: [slicksupport@champaero.com](mailto:slicksupport@champaero.com)

**SPARK ✦ IGNITE ✦ EXCITE**

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## Compare the total starting performance of SlickSTART™ with conventional ignition systems.

- **Achieving Maximum Electrical Power**

SlickSTART delivers up to 340% more energy per spark sequence.

*Delivered Spark Energy (thousandth of a joule - mJ) is a measure of the amount of electrical power released during each sparking sequence, with heat as the critical component. Very rich or very lean mixtures need hot, high energy sparks for combustion to occur.*

- **Igniting Sub-optimal Fuel/Air Mixtures**

SlickSTART increases peak output voltage between 31% and 100%.

*Peak Output Voltage (thousands of volts - kV) is the maximum voltage capacity of the system and is an important factor in firing through fuel and oil wetted plugs. Smooth engine operation typically requires less than 10kV, but much higher voltage is needed for reliable engine starting*

- **Extending Spark Duration**

SlickSTART increases the normal number of sparks per ignition by up to 9 times for impulse coupled magnetos and up to 14 times for retard breaker magnetos.

*Effective Sparks Per Sequence (sps) is the number of sparks produced each time the piston passes top dead center. Longer spark duration allows more time for a combustible mixture to pass near the plug tip when a spark event occurs. Impulse coupled magnetos produce 1 spark; vibrators produce about 12sps, but at a lower voltage. SlickSTART's long spark duration at very high output voltage overcomes the most unforgiving starting conditions*

- **Firing Fouled Plugs**

SlickSTART delivers up to 364% more peak voltage to fire fouled plugs.

*Peak Fouled Plug Voltage (thousands of volts - kV) is an extremely important measurement of the maximum voltage that can be generated across carbon fouled spark plugs, and is a function of total voltage output and voltage rise time. Below 4kV, the engine may not start consistently which explains better engine starting performance with impulse coupled mags (4.8kV) than with starting vibrator systems (2.2kV). Imagine the starting performance of SlickSTART's incredible 10.2kV!*

- **Creating High Spark Energy**

SlickSTART increases the normal rise rate of output voltage by up to 300%.

*Output Voltage Rise Rate (millions of volts per second - MV/s) measures the rate of which the voltage potential across the plug gap increases. Fast voltage rise times generate the high peak voltage output needed to fire fouled plugs because there is less time for the spark energy to leak through conductive deposits on the plug firing tip.*

