

# LIGHTSPEED IGNITION

## LIGHT SPEED ENGINEERING PLASMA IGNITION SYSTEM

Light Speed Engineering, LLC (LSE) is a pioneer in the design and production of ignition systems for experimental aircraft. 22 years of research and development have been invested in producing the PLASMA CDI (Capacitive Discharge Ignition) system product line. LSE's PLASMA CD systems are the ideal replacement for yesterday's magneto technology. You can replace one mag with a PLASMA CDI or, for maximum performance, replace both magnetos with these state of the art systems. The Plasma CDI is a solid-state, high performance ignition system intended for today's home built aircraft. Light Speed Engineering currently offers two Capacitive Discharge Ignition Systems: the PLASMA II PLUS and the PLASMA III. Standard Plasma CDI kits include: direct crank sensor assembly, high tension leads, harness, spark plugs, spark plug adapters, and ignition coils with mounting bracket. One or two systems can be used.

### PLASMA II PLUS CDI



The Plasma II is Light Speed Engineering's basic electronic ignition system for aircraft. It is a lightweight, high-energy capacitor discharge system containing all of the essential Plasma CDI features. Its smaller size and lighter weight sets it apart from any other ignition source.

Like all LSE ignition systems it features automatic ignition advance

based on engine load and RPM, auto retard for starting and a standard pulse tachometer output. The Plasma II was designed to provide a high tech ignition source at the cost of magnetos.

### PLASMA III CDI

Light Speed Engineering has introduced a new ignition system to its line of products. The new Plasma III Capacitor Discharge System is the latest high performance ignition for all 4-cyl and 6-cyl aircraft engines. Its long duration spark and optimized timing curve makes more horsepower and improves fuel efficiency- at all altitudes. Other benefits include quick starts, reduced maintenance, light weight, lower EGT's and up to 20% more range. As with all LSE ignitions, RPM and manifold pressure inputs are used for our proprietary timing curves. The Plasma III is also capable of displaying the current timing advance, manifold pressure and rpm on an optional lightweight LCD display. The Plasma III can easily replace one or both magnetos, making your engine run better under all conditions.

## PLASMA CAPACITIVE DISCHARGE IGNITION SYSTEMS

All Plasma CDI systems include: high tension leads, harness, spark plugs, spark plug adapters, ignition coils with mounting bracket, and Hall Effect Sensor module OR Direct Crank Sensor assembly.		
Description	Part No.	Price
Plasma II Plus: 4 Cylinder Direct Crank Sensor	08-06294	<b>\$1,328.00</b>
Plasma II Plus: 4 Cylinder Hall Effect Module	08-06295	<b>\$1,460.00</b>
Plasma II Plus: 4 Cylinder with Mini DC Sensor	08-12135	<b>\$1,250.00</b>
Plasma III: 4 Cylinder Direct Crank Sensor	08-00675	<b>\$1,363.00</b>
Plasma III: 4 Cylinder Hall Effect Module	08-00676	<b>\$1,675.00</b>
Plasma III: 6 Cylinder Direct Crank Sensor	08-00677	<b>\$1,450.00</b>
Plasma III: 4 Cylinder with Mini DC Sensor	08-12136	<b>\$1,460.00</b>
Plasma III: 6 Cylinder with Mini DC Sensor	08-12137	<b>\$1,610.00</b>
Dual Plasma CDI Systems		
Dual Plasma II Plus: 4 Cylinder Direct Crank Sensor	08-06296	<b>\$2,487.00</b>
Dual Plasma II Plus: 4 Cylinder Hall Effect Module	08-06297	<b>\$2,865.00</b>
Dual Plasma II Plus: 4 Cylinder with Mini DC Sensor	08-12138	<b>\$2,450.00</b>
Dual Plasma III: 4 Cylinder Direct Crank Sensor	08-06298	<b>\$2,895.00</b>
Dual Plasma III: 4 Cylinder Hall Effect Module	08-06299	<b>\$3,235.00</b>
Dual Plasma III: 6 Cylinder Direct Crank Sensor	08-06300	<b>\$2,895.00</b>
Dual Plasma III: 4 Cylinder with Mini DC Sensor	08-12139	<b>\$2,865.00</b>
Dual Plasma III: 6 Cylinder with Mini DC Sensor	08-12140	<b>\$3,135.00</b>
Options		
On all Turbo and Super-Charged ignition systems add \$124.95	08-06301	<b>\$124.95</b>
On all Franklin and Continental engine ignition systems add \$194.99	08-06302	<b>\$194.99</b>



## S.5 SPARK PLUG ADAPTER FOR 14MM SPARK PLUGS RECOMMENDED BY KLAUS SAVIER OF LSE

Auto plug adapters allow for an easy conversion of 18mm (standard engine plug thread) to 14mm (common auto plug thread). Both short reach and long reach adapters are available. The Spark Plug Adapter allows you to use: High performance 14mm automotive plugs, that offer an almost unlimited variety of heat ranges, & electrode styles, designed specifically to take advantage of electronic ignitions - see ignition manufacturer documentation for recommendations (note: not all plugs are equally suited). Shorter plugs with 90° silicon boots provides greater clearance for sleeker cowls and less drag.

Some kits include 4 adapter gaskets.

Set of 4 without gaskets - Short Reach .....P/N 08-06753 .....**\$85.00**  
Set of 4 with gaskets - Short Reach .....P/N 08-06753-1 .....**\$63.75**  
Set of 4 without gaskets - Long Reach .....P/N 08-07608 .....**\$85.00**

## LSE DUAL OUTPUT IGNITION COIL



Ignition coils are typically mounted on the top center of the engine. They can also be mounted on the motor mount tubes using Adel clamps or on the firewall to a piece of angle aluminum. Ignition coils should be

mounted so that spark plug lead length will be kept to a minimum for maximum spark energy and minimum noise. It is important that each coil connects to opposing cylinders, i.e. one coil fires cylinders 1 and 2 and the other coil fires 3 and 4.

Ignition Coil .....P/N 08-14012 .....**\$97.75**  
Mounting Bracket .....P/N 08-14013 .....**\$14.75**

## LSE ALUMINUM BRONZE REACH SPARK PLUG ADAPTERS



Light Speed Engineering's standard issue spark plugs are pictured to the left. Single ground electrode with a short body make these a durable option for most applications.

W27EMR-C: Used on standard and high compression engines. The standard reach (1/2") spark plug adaptor is also pictured here (08-14009). This adaptor is used when converting aircraft engines using 1/2" reach aircraft spark plugs to 14mm plugs. Light Speed Engineering's spark plug adaptors are made of high strength aluminum bronze. \*These plugs and adaptors are included with ignition kit purchase for those with 1/2" reach.

1/2" Reach Spark Plug Adapter .....P/N 08-14009 .....**\$18.65**  
3/4" Reach Spark Plug Adapter .....P/N 08-14010 .....**\$23.75**  
HHP Long Reach Spark Plug Adapter .....P/N 08-14011 .....**\$23.75**

## L2E LIGHT SPEED TO EFIS ADAPTER



The L2e allows you to display the parameters of your Light Speed ignition module directly on your EFIS during flight. Your EFIS can record these parameters for download and diagnosis.

P/N 10-06222 ..... **\$95.50**

## WIRE TERMINAL CLIP



For 7 MM unshielded harnesses.

P/N 07-03500 ..... **\$0.45**

## HIGH TENSION CABLE



Unshielded 7MM ignition cable consists of tinned conductor, rubber insulation, reinforced glass braid and Hypalon

jacket that resists sun, weather, heat, chemicals and oxidation by ozone. Temperature range -65° to 250°F. P/N 07-03700 .....**\$1.25 Ft.**

## ENGINE Baffle IGNITION WIRE SEALS



P/N 526



M2376

Seal Type	Part No.	Each
5mm Wire Seal One-Wire	526	<b>\$6.50</b>
5mm Wire Seal Three-Wire	376	<b>\$6.50</b>
5mm Wire Seal Slick 3-Wire	M2376	<b>\$26.50</b>
5mm Wire Seal Slick 2-Wire	M2375	<b>\$23.99</b>
5mm Wire clamp Slick 2-Wire	M2755	<b>\$4.85</b>