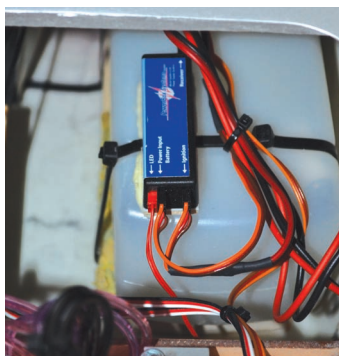


SPARKSWITCH

Colin Straus takes a look at this useful high-performance ignition 'kill switch' from PowerBox as a simple safety addition for any petrol engine installation



SparkSwitch set contents include the main electronic switch/regulator, leads, LED and manual. The switch/regulator is extremely compact and light, the sockets for the various leads are clearly marked



Installation of such a small unit is simplicity itself, in this case being servo taped to a small mounting plate, which is cable-tied to the fuel tank

I have used many PowerBox products in a variety of my models over the years, and have always been delighted with their effectiveness, reliability and general quality. Best known for their twin battery and twin receiver systems, PowerBox have recently released their new SparkSwitch, which has been developed specifically for use with petrol engines.

A REMOTE SWITCH

A very neat and compact unit weighing only 22 grams, the SparkSwitch is both a voltage regulator and electronic switch for modern electronic ignition systems. It connects between the ignition battery pack and the ignition system itself and is controlled remotely from the transmitter. Functionally it offers the following; voltage regulation to 5.9 volts supply to the ignition unit, transmitter controlled switching from a spare channel, automatic switch off when the onboard radio is switched off – no more flat ignition batteries due to forgetting to switch the ignition off, automatic switch off of the ignition in the event of a fail-safe situation, extremely bright LED indication of ignition being live. Interestingly, the winner of the 2011 World Jet Masters, Vitaly Robertus, used a SparkSwitch in his Yak-130 to operate all of the onboard lights, this allowing the use of a very small and light LiPo battery pack, which the unit regulated down to 5.9 volts, thus being ideal for the bulbs, which could not take more than 6.0 volts without failing.

INSTALLATION

The sample unit was installed into a large P-51D Mustang model, which was fitted with a DA85 engine, the installation itself being very simple due to the minimal size and weight of the SparkSwitch. Connections to the ignition battery, ignition unit and receiver are all made via the supplied JR type leads, whilst the fourth connection to the unit is the remote LED, all these leads simply plugging in to the SparkSwitch, no soldering being required. Having seen just how bright the ignition 'ON' LED is, it was decided to fit the LED into the cockpit dashboard, as the light can be clearly seen in this position during start-up, but it is not evident in flight. A 5-cell (6.0 V) NiMH

battery pack was used in the P-51, but alternatively 2-cell LiPo or LiFe packs can also be used, as can NiCad cells where still available. Note that a spare receiver channel is required to operate the SparkSwitch, normally this would be controlled by a separate switch on the transmitter.

SAFETY IN OPERATION

Two switch modes are available, either using a standard switch, where moving the switch once will switch the unit on or off, or alternatively using a spring loaded switch, where the switch has to be pulled against the spring and then allowed back to the original sprung position to switch on or off. Whichever switch mode is selected the SparkSwitch will switch itself off automatically if the onboard radio is turned off, even if the SparkSwitch has been left in the switched on state. This is a significant benefit, as it ensures that the ignition will not be live after the radio has been switched

off, ensuring that the engine cannot accidentally start should the propeller be inadvertently flicked by a casual bystander. It also eliminates the situation where the ignition battery has been flattened by leaving the ignition switched on. One further safety benefit is the ability to set the fail-safe to switch the ignition off in the event of a signal loss, and of course if the throttle should jam open, the engine can be stopped whilst in flight by switching the ignition off.

IN USE

Operation in the P-51 was simplicity itself, with the LED indicator clearly showing that the ignition was switched on, and perfectly reliable operation in flight. The PowerBox SparkSwitch is a real benefit to those of us flying petrol engine models, and is a fit and forget item no model of this type should be without – highly recommended! **RCMW**

SPECIFICATION

INFORMATION

NAME:	SparkSwitch
MANUFACTURER:	PowerBox Systems
DISTRIBUTOR:	Motors & Rotors
INPUT VOLTAGE:	From 4.0 to 9.0 volts
OUTPUT VOLTAGE:	5.9 volt regulated
MAX CONTINUOUS CURRENT:	2.0 Amps
PEAK CURRENT:	4.5 Amps
CURRENT DRAIN AT RECEIVER:	2 mA
PRICE UK:	£41.98

CONTACTS

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WWW.POWERBOX-SYSTEMS.COM
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01923 270405