

## Ignition Battery Eliminator

### Overview

The Ignition Battery Eliminator (IBE) is a device that saves weight and cost at the same time by eliminating the need for ignition battery, ignition switch, and transmitter controlled ignition power switch with this one device. The IBE adds the safety and convenience of a transmitter controlled ignition power switch (solid state) and removes the need for an inline mechanical switch for planes that were going to have an ignition battery and switch. The solid state switch that is transmitter controlled provides the additional benefit of being able to shut off the engine regardless of what happens to the throttle linkage and throttle servo (so you can cut off an engine with a failed throttle servo or linkage). The IBE also has tremendous filtering capability to remove EMI and RFI from the ignition system so that noise cannot get into the receiver. The IBE also adds failsafe capability to any radio where if the signal is lost the engine is turned off by turning off ignition power.

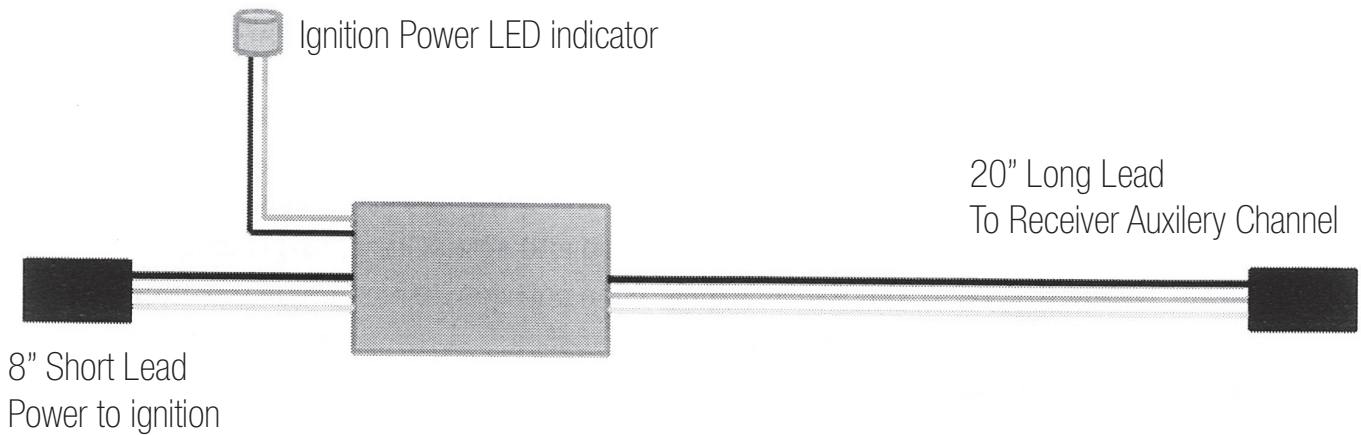
The device uses the receiver and servo battery power to power the ignition thus eliminating the need for a separate ignition battery. The device should be plugged into an auxiliary (Aux) channel on the receiver or power system. The IBE is also a solid state ignition power switch based on the output of the Aux channel. The aux channel should be controlled by a two position switch set to +/- 100% throw. Then when the switch is in one position the ignition (and the LED indicator) is on. In the other position, the ignition (and the LED) is powered off. Many RC pilots today are using dual or larger batteries so these can be made use of by also powering the ignition now without having a separate battery just for the ignition.

The Ignition Battery Eliminator has Diode isolation in addition to huge filtering capabilities. What Diode isolation provides is a small voltage drop (0.4 — 1.0 Volts depending on the current). This has an added benefit of allowing 6.0V ignitions to run on 5-cell NiMh or NiCd or 2 cell Al23 batteries without regulation. The average voltage drop of the IBE of about 0.65 Volts and will protect ignitions from the higher voltages these batteries output. Therefore the IBE is not recommended with 4-cell NiMH or 4-cell NiCd batteries unless your ignition can deliver full performance to voltages as low as 4.0V. This does allow however you to use 5-cell NiMh and NiCd packs as well as 2-Cell Al23 packs on ignitions with a 6.0V maximum voltage limit.

The IBE simply connects to the receiver (or power distribution system) into an Aux channel on a two position switch. When the switch is in the "ON" position the ignition is powered from the receiver and/or servo power source. Huge filters prevent ignition and spark noise from getting back to the flight electronics. The IBE drops the voltage slightly so that higher voltage batteries can be used. With the IBE no ignition battery or switch is required. Plus you get the benefits of transmitter control of ignition power.

## Installation

The installation of the IBE is very straight forward and easy. Simply plug the long 20" lead into an AUX channel of the receiver or power system. Then plug the short (8") lead into the ignition power input. The "bump" in the wire or the printed circuit board with electronics on it should be mounted near the ignition and not near the receiver. The LED can be mounted anywhere that is visible so you know when the ignition is powered on. Please review the diagram below to help determine the proper connections:



Once connections are made the electronics can be glued, velcroed, or taped to the ignition. Test the unit by changing the two position switch and observing the LED going on and off. Always range test models with the engine running to verify correct installation.

## Warranty and Support

For warranty and support please email [billw@nc.rr.com](mailto:billw@nc.rr.com). Units come with a 180-day full repair or replacement warranty. Wike RC Products guarantees and warranties the IBE product only and Wike RC is not responsible for damage or failure of any other components.