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# DURALITE POWER BOX™

## Power Management & Distribution Solution

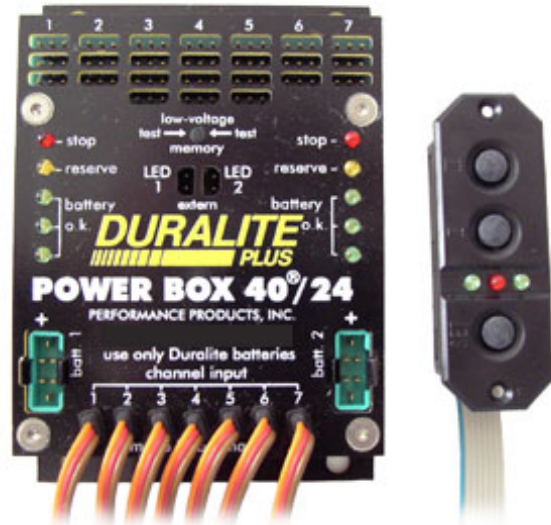
This revolutionary power management system is designed specifically for the *Duralite Plus™* Lithium-ion batteries. It has seven input channels providing control of up to 24 separate servos. An operational amplifier circuit amplifies these servo's signals for all seven channels. This amplification eliminates the problem with long servo leads that we so frequently find in our large aircraft. The amplifiers offer the added advantage of blocking any interference signals that may be induced by the use of long servo leads.

In the large multi servo models that we presently fly demand for large current flow is commonplace. The Duralite Power Box™ can handle the demand with two batteries attached directly to the unit. The current does not flow through the receiver there by allowing the receiver to operate at a steady safe uninterrupted voltage. The added benefit of this separation is that a servo could short out or jams with no effect to the other servo's or the receiver.

## LED Gives Visual Confirmation

Two remote extremely bright LED's, one for each battery, are supplied with each unit. They provide the pilot a visual indication of low voltage on the outside of the aircraft.

The panel also has a series of LED's that match the discharge curve of the Duralite Plus Lithium-ion and Lithium Polymer batteries. Three levels of green lights indicate battery power left and an orange light indicates caution, nearing end of useful power available. The red light indicates stop fly and charge. Also provided is a button on the panel that when pushed indicates the lowest voltage experienced during the previous flight.



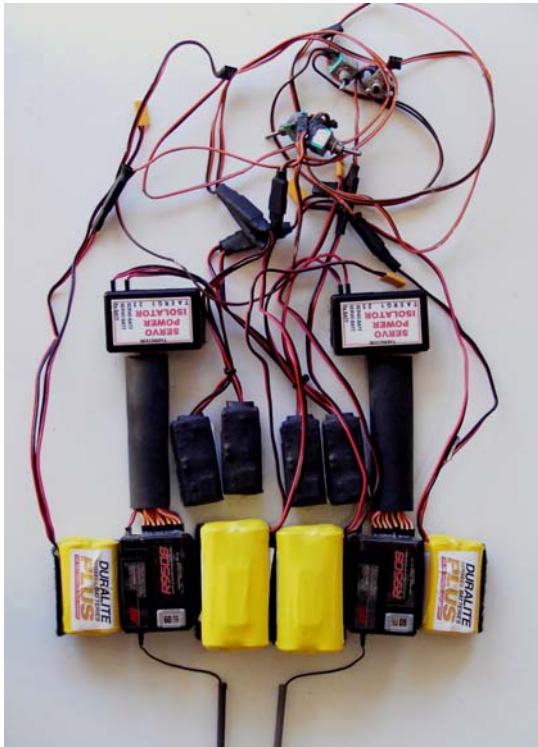
The Duralite Power Box™ also offers seven isolated receiver leads that have ferrite rings attached. These rings serve the purpose of providing an earth de-coupling between the receiver and the panel.

Included with every Duralite Power Box™ is a fail-safe switch that offers a unique safety feature. The switch has an arming button that you are required to press in order to turn the system on or off. The buttons are flush and it is not possible to accidentally bump the switch on or off while handling the plane. Also note that the switch can be used to turn each battery on separately.

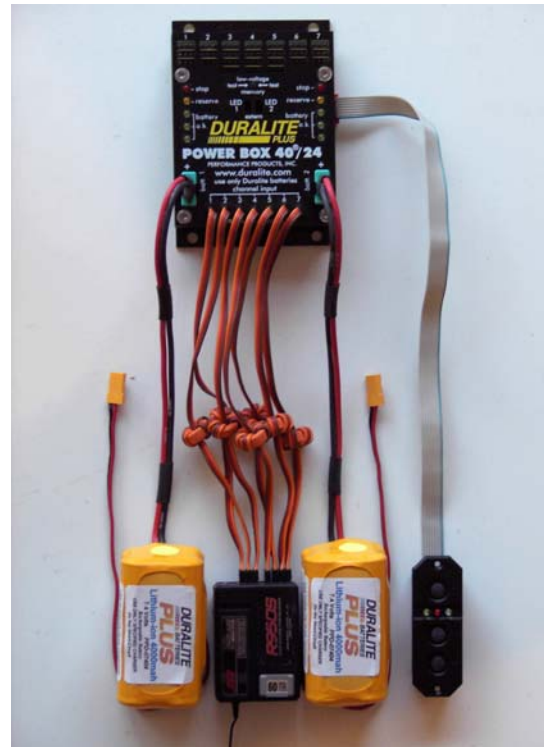
The Duralite Power Box™ is a giant step forward in the overall control and safety of our large airplanes. It helps organize the internal wiring systems while eliminating Y-harnesses and many connections.

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## 40% Aerobatics Installation BEFORE Duralite Plus Power Box™



## AFTER Duralite Plus Power Box™



### Instructions for Use

The Duralite Plus Power Box™ is a positive step forward in the management of our model aircraft power system. It is designed to be used with Lithium-Ion and Lithium Polymer batteries. For best results only use *Duralite Plus™* batteries with "Charge Safe Circuitry" built into each pack.

The Duralite Plus Power Box™ is designed to work with two Duralite Plus Lithium-ion batteries. Select battery packs based on aircraft size and your style of flying. Always charge batteries prior to use and check after each flight.

Plug the charged batteries into the Power Box taking care to note how the Multiplex connector fits into the panel. The + red wire should be next to the LED display.

The switch plugs into the right hand side of the power panel. Take care to insure that the plug on the switch is mated correctly to the port on the side of the box. Failure to do this will damage the power box.

The switch has three flush mounted buttons. The single button, labeled set, is used to arm the switch. The other two buttons turn each battery on or off individually. Press the arming button. When the light glows red continue to hold down. Next press the other two buttons either individually or together until the battery lights turn green. The Duralite Plus Power Box™ is now on.

If you unplug the Duralite Plus Power Box™ switch while the unit is on the Power Box will remain on. This safety feature is to insure that even in the unlikely event that the switch became detached or failed the Power Box will remain on.

There are a series of lights on each side of the power box. These lights indicate the battery charge condition on that side. The three green lights indicate safe power level in each pack. The yellow light indicates caution voltage and red light indicates stop fly voltage.

There are two remote LED's that can be mounted on either side of the fuselage or in the cockpit. They will glow red when the batteries have reached 7 volts and will flash red when the batteries reach 6.9 volts.

The Power Box leads with the ferrite rings plug into seven of the receiver channels allowing you to operate up to 24 servos. The Duralite Plus Power Box™ provides a plug-in position for each servo extension to providing direct power and signal from the receiver. Available receiver channels not being used by the Power Box can operate servos such as throttle, smoke, or retracts.

Please insure that you mount the Power Box in a manor to insure minimum vibration to the panel.

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