"SUPER SMOKE PROGRAMMABLE PUMP"
INSTRUCTIONS

The New "Super Smoke" Programmable Pump kit contains, one super smoke programmable pump, one "T" Fitting for installation on a twin cylinder engine (if needed), one reverse flow check valve, and smoke fluid tubing.
You will need to supply a smoke fluid tank, a smoke pump battery and an engine with a muffler capable of getting smoke fluid into the hot exhaust system.

The "Super Smoke" Programmable Pump is quick and easy to install. It is a unit 3 1/2" long by 1 1/4" and 1 1/4" high weighing only 3 oz's and has mounting flanges. The unit is self contained with the motor, pump and electronics internally installed. The electronics consists of a preprogrammed micro - processor and high current controller to drive the motor. Three wires exit the side of the smoke pump, one is a servo type cable with a plug for for connection into the receivers output. The red and black wires are for the pumps battery power. The single red wire wire is the plus battery connection, the single black wire is the negative battery connection. It's the owners choice to install a switch in this power circuit. Caution, do not reverse the power input power or damage to the electronic pack - age may result. To help select your smoke pump battery, the pump will draw less than 1000 ma. and considering that your smoke writing time is not as long as your flight time a large battery is not required.

The system requires a battery supply of 4.8V, 6V or 7.4V. It may be powered by a Ni-Cad, NiMh or Li-po battery. Minimum performance is obtained with a 4.8 Volt battery, great all around performance with a 6 Volt battery and outstanding performance with a 7.4 Volt Li-Po battery which is lighter in weight and smaller in size. The choice is yours !
If a Li-Po type of battery is used the instructions from the battery manufacturer must be strictly fol - lowed regarding charging and low voltage control limits of the battery.

The "Super Smoke" Programmable pumps microprocessor is programmable and proportional under the control of your transmitter. The fluid output of the pump can be "proportional" or "full on or off", it can be operated independently or merged with another transmitter function like the throttle. It should be noted that when the radio system is first turned on the smoke controller must be moved to mini - mum for about five seconds before the pump can be operated. Once this five second period has been completed the pump can be operated without delay. This is a safety feature with the design.

The rate of smoke fluid flow to the muffler is controlled by the transmitter signal. A reverse flow or one way check valve is supplied. (Check the direction flow by simply blowing through valve, one direction it will flow air, the other will seal and stop the flow of air.) This is installed on the line in the proper direction to allow flow between the pumps "out" connection and the muffler. We suggest a location close to the muffler, but not where it can get overheated.

We are not offering an opinion on what smoke oil to use as this is a subject that has been covered in many magazines and the choice is great. We do strongly suggest a filter be installed on the line that supplies smoke fluid to the models tank. This will insure a clean supply of smoke fluid to your models system and protect it.

The Installation was simple, make your transmitter command adjustments.....

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Go write your name in the blue sky !