

RC Showcase

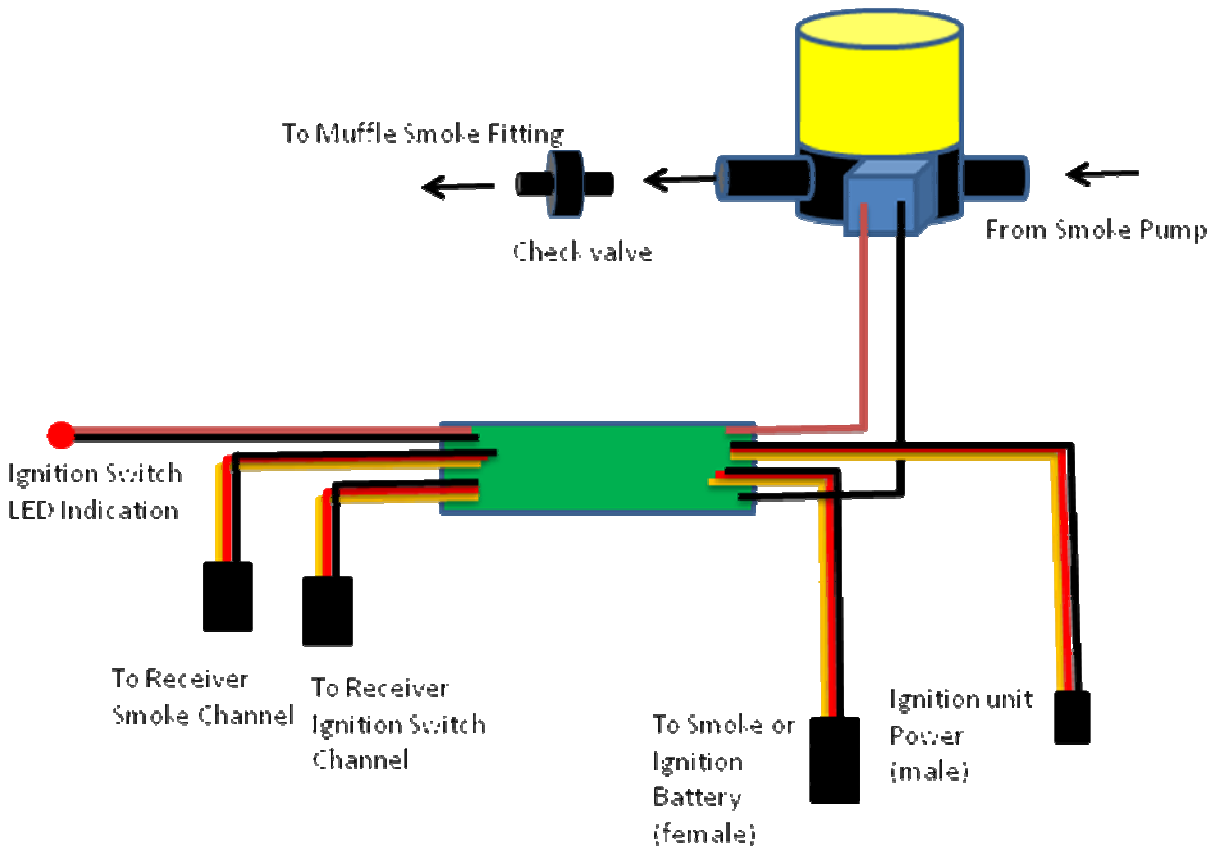
Mega Smoke Pump Plus

The Mega Smoke pump is a smoke pump for all types as sizes of models. The Smoke pump can be turned on and off from the transmitter. Additionally, the rate of flow is adjustable on the transmitter by adjustment of the endpoint of the channel controlling the smoke pump.

One of the key advantages of the RC Showcase Mega Pump that is a new feature in smoke pumps is that the pump control circuit is optically isolated from the pump and pump battery. This allows the user to not have to add a dedicated battery to the model for the smoke pump. The intent is for the user to install the smoke pump to run on the ignition battery. This eliminates the weight of a separate smoke pump battery. There is no chance of ignition noise getting into the receiver since the control circuit is optically controlling the pump.

The Mega Smoke Pump Plus also has the additional features of a voltage regulator and a solid state electronic ignition switch. The Plus version of the smoke pump is intended to be used with batteries of 6.0 to 14.5 volts. It regulates the output voltage to the ignition to 5.0 volts. The intent is to allow the use of 2, 3, or 4 cell lithium batteries (which are lighter weight than nicads) to be used for smoke and ignition systems that require 5.0 Volts. The smoke pump will run on whatever voltage the battery is (not the 5.0V regulated voltage). Smoke volume will increase as higher voltage batteries are used. The Mega Smoke Pump Plus has a second channel input. This second input from the receiver is a solid state ignition on/off switch. This allows turning the ignition on and off from the transmitter. There is a remotely mountable LED that turns on when the ignition is on. The LED is off when the ignition is off. This ignition switch also has a important safety feature. If there is no signal to the ignition switch input the ignition switch stays in the off position. Therefore the ignition switch provides a PCM like fail safe for any type of Radio. If the receiver loses power or signal the ignition switch is turned off and the engine quits.

The following diagram shows how to connect and install the Mega Smoke Pump Plus:



Once everything is connected, determine which direction on the auxiliary switch turns the smoke pump on and off. The end point of the "ON" direction controls the flow rate. The Smoke pump starts just above center on the auxiliary channel. The flow rate continues to increase to about 100-120% endpoint adjustment. Also determine which way on a two position switch turns the ignition on and off by the LED indicator. The LED comes on and off even if a ignition battery is not connected.

Run the engine and adjust for proper smoke volume and verify that the ignition switch kills the engine.