

### Fan will not run

Check your wiring and make sure the polarities are correct.

Check your speed controller and make sure it's running in the forward direction.

Check Battery connection.

Clean fan unit ( Check maintenance )

### Will not make any smoke

Check that you have fluid in the tank and that it's not over filled as this will cool the element and limit the smoke.

Check the connections of your wiring.

If the fan is running and still no smoke contact the supplier.

### The top of the fan is wet with oil

The oil used in this smoke unit mists inside the tank and sometimes the mist can get around the fan unit this is normal and can't be eliminated.

Sometimes a small amount of smoke will escape out of the fan unit and it will leave some residue.

### Do's & Don'ts

**DON'T** overfill the unit with smoke fluid

**DON'T** block the intake or exhaust as this will burn out the elements.

**DON'T** run the unit dry you will burn the elements.

**DON'T** leave fluid in the tank for long periods (Days) as this will damage the motor on the fan.

**DON'T** use water based fluid e.g. disco fog fluid, fog juice

**DO'S** install on a flat surface the unit has a tilt of about 20deg

**DO'S** make sure the unit has air circulation

**DO'S** only use oil based smoke fluid

**DO'S** install a switch

Please don't hesitate to contact us with any question in regards to this unit or setup in your model.

**MODEL BOATS & FITTINGS**

sales@modelboatsandfittings.com

# Smoke Generator

## SG-1 / SG-2

12.0 volt

# Smoke Generator SG-1 / SG-2

## Installation instruction

Thank you for purchasing this smoke generator, before we get started on the installation just a few notes on the operation. This smoke generator is design to use **only** oil based smoke fluid any other fluids will result in damage to the elements. Designed for 12 volts operation **only**, when in operation the unit can get warm to touch between the fan and copper outlet this is normal please allow cooling room around the unit. I can only guide you in the set up of the unit, it is up to the individual for installation into your model. If connecting to your own speed controller you need to make sure that it's rated for the extra power used, it's strongly recommended for this unit to be used outdoors only.

### Kit includes

1 x Smoke unit (SG-1 12 volt, 2.0Amp) (SG-2 12 volt 2.5Amps)

1 x Smoke fluid

### Parts needed to complete setup

1 x plug

1 x Switch (on/off)

½" Copper tubing and any elbows for setup in your model (Local Hardware store)

### Smoke unit set up

You need to connect a plug to the wires leading from the smoke unit, solder the positive wire (RED) to the positive on the plug and solder the negative (Red with black stripe) to the negative on the plug. At this stage you can connect the unit to a 6 volt battery for a short test run (5 seconds) only the fan will start to run, this unit is now ready for operation. If the fan is not running check the wiring for correct polarity.

### To fill smoke generator

SG-1 uses maximum of 25mls

SG-2 uses maximum of 35mls

To fill this unit with smoke fluid, pour the correct amount of smoke fluid into the copper fitting. If not sure how much fluid is in the tank empty with a syringe and refill with the correct amount. Do not over fill as this will limit the smoke and do not leave fluid in the tank for long periods (Days) as it will damage the motor of the fan unit.

### Set up in your model

You are ready to install into your model, there are two ways to set this smoke generator in your model.

- 1/ DIRECT WIRING to your 12 volt power supply (Full speed running)
- 2/ CONNECTING TO YOUR SPEED CONTROLLER (Fan speed is controlled)

### Direct wiring

Connect the positive (RED) wire to the positive (RED) battery terminal and connect the negative (BLACK) wire to the (BLACK) negative battery terminal. I recommend you install a switch to turn the unit on/off

### DO NOT run this unit without smoke fluid you will risk burning out the

element. Once you are happy that the unit is connected correctly with a switch you can fill the unit with smoke fluid supplied.

SG-1 uses maximum of 25mls

SG-2 uses maximum of 35mls

Turn the unit on and in a few seconds you will see smoke coming from the outlet as the unit warms up the smoke will thicken. You are now ready to install this unit into your model. Use ½" copper pipe from your local Hardware shop to direct the smoke to your stack you can use a "T" piece for twin stacks.

### Connecting the unit to your Speed controller

Follow the instructions for (Smoke unit set up) once the wires are installed you can begin connecting the unit to your speed controller. I recommend checking the power rating of your speed controller and make sure it can handle the motor and smoke unit together, best to use plugs to connect the speed controller to the motor and smoke unit. Lets begin connect the positive wires from your motor and smoke unit to the positive motor wire from the speed controller and then connect the negative wires from your motor and smoke unit to the negative wire from the speed controller. I recommend installing a switch on the positive wire on the smoke unit so it can be turned off. Now you are ready to run the unit, fill the unit with smoke fluid and then you can throttle on and in a few seconds you will have smoke! (THE FAN AND SMOKE WILL BE LIMITED IN THE SLOWER SPEEDS). The fan unit will only blow smoke in the forward direction. The Fan will not run in reverse but the element will still be operating and still produce smoke but not under fan force.

(Prolong use in reverse could burnout the element)

### Smoke Fluid

The Smoke Fluid is a common product called "Mineral Oil" or Baby oil which can be purchased at your local Super Market or Drug store

### Adjusting the smoke output

You can adjust the amount of smoke needed for your project by covering the fan with electrical tape e.g. If you cover half the fan the smoke will be thicker. Covering the fan slows the airflow down to allow the oil to burn longer, **do NOT** cover more than ¾ of the fan opening

### Trouble shooting