

HARBOR MODELS 6 VOLT AND 12 VOLT SMALL SCALE SMOKERS (HAR-350-6 AND HAR350-12)

SCALE SMOKERS ARE PROUDLY DESIGNED, ENGINEERED, TESTED, AND ASSEMBLED IN THE USA!

Visit www.facebook.com/smallandlargescalesmokers for Videos, Wiring Diagrams, and additional information.

The 6V and 12V Small-Scale Smoke Generators are a great way to add that extra touch of realism to your smaller scale Models. The unit features a brushless sleeve bearing fan for efficient and quiet operation, low power consumption, extended run time, and a compact size of 2 1/8" L (2 7/8" L with mounting tabs) 1 1/2" W and 1 1/2" H with a weight of just under 1.4 OZ when filled with fluid.

PREPARING FOR OPERATION:

- 1) **The unit requires air flow from the front (direction of travel) of the model, or directly above the Smoke Unit Fan, equal to a minimum of 2 square inches through louvers, mesh, or vents. It is designed for a 12V NIMH, NiCad, or Sealed Lead Acid Battery with at least 2 AMPS, and Maximum of 8 AMPS. The 6 Volt version is intended for a Maximum of 6 Volts.** The Harbor Models Power Distribution Box is recommended for dropping the voltage if needed. Do not use a 7.2V or higher Battery, or the unit will fry and the Warranty will be Voided.
- 2) The unit has a 13/32" O.D. brass fitting that is designed for a 3/8" O.D. K&S Brass tube. **DO NOT FORCE THE TUBE INTO THE FITTING.** Clear 3/8" I.D. plastic tubing can also be placed over the fitting to connect up to the stack.
- 3) This unit only requires 15 minutes of priming prior to operation, filled through the brass fitting. After filling the reservoir with 1/2 OZ of fluid, let it sit for 15 minutes. Carefully top off as necessary before every operation. The unit should be checked and primed as necessary before every use.
- 4) The reservoir holds a Maximum of 1/2 oz of Smoke Fluid that is included with the unit. Small and Large Scale Smoker Fluid is recommended for the best results. Do not use anything other than smoke fluid, doing so will void the Warranty. Use the included dipstick to check your level, the top of the 1/2" black line indicates the Maximum capacity of 1/2 oz. An eye dropper can be used to remove excess fluid, or can be tilted so it pours out the brass fitting. **DO NOT LET THE FAN GET WET, OR LET THE UNIT RUN DRY.**
- 5) The 2 thinner wires operate the fan. Polarity must be correct. Red is Positive, Black is Negative **THESE LEADS ARE TO BE HOOKED DIRECTLY TO THE BATTERY, terminal strip, or Harbor Models Power Distribution Box so that it receives a constant 6V or 12V, depending on the Unit, while the model is operating.**
- 6) The 2 larger diameter wires should be soldered to the motor tabs for best results. The amount of smoke will be proportional with the amount of power going from the ESC to the motor. The leads can also be hooked directly to the battery for the same amount of smoke regardless of engine speed. An inline toggle manual or relay switch should be installed.
- 7) The unit should be mounted with Stainless Steel screws as low as practical to the keel to keep the center of gravity down, and to minimize rolling of the unit. A minimum of 2" of clearance should be maintained above the fan in order to allow proper air flow through the unit. Velcro or double sided can be used when screws are not possible.

OPERATION:

- 1) The unit consumes just over 1 AMP of power at full speed. The Harbor Models Compact Smoke Generator should provide approximately 4 hours of run time at full speed, depending on your model. This time will be extended under normal operation when maximum turns are not used. The fluid should be checked at regular intervals to ensure that it doesn't run dry.

WARRANTY:

Limited 1 Year Warranty valid from the date of purchase. All Smoke Units are individually assembled by hand, and tested for proper operation before they are shipped. **Please return all units directly to Scale Smokers with Payment via Paypal, or a check for \$25.00, and a note with the issue, email address, return address and phone number. Photos of the installation and related components may be required for Warranty Claims.** Units that have been tampered with, have any indication of negligence or not following instructions, evidence of excessive voltage, bypassing a required voltage regulator, not having adequate air flow, units that have been run dry, or evidence of anything other than smoke fluid being used will not be covered by this Limited Warranty, and a new unit will need to be purchased. Contact scalesmokers@gmail.com with any questions.

NOTICE:

With proper use, this Harbor Models Smoke Generator should provide safe and reliable operation. The manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property of other loss whether direct, indirect, incidental, consequential, or otherwise based on a claim that the product failed to function. However, if the manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this Limited Warranty or otherwise, regardless of cause or origin, the manufacturer's maximum liability shall not in any case exceed the Purchase Price of the product, which shall be fixed as liquidated damages, and not as a penalty, and shall be the complete and exclusive remedy against the manufacturer.