

HARBOR MODELS 6 VOLT, 7.2 VOLT, AND 12 VOLT EXTRA SMALL SCALE SMOKER (HAR-355)

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

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The Extra Small Scale Smoke Generator is a great way to add that extra touch of realism to your smaller R/C Models. The unit features a brushless sleeve bearing fan for efficient and quiet operation, very low power consumption, extended run time, and a very compact size of 1 1/2" L, 1 1/2" W, and 1 1/2" H without tubing/wiring, and a weight of just over 1 OZ when filled with fluid, suitable for most 24" and under models that offer minimal room for installation. The Low Spill design is ideal for Rock Crawlers that operate at steep angles, as well as Smaller Boats that tend to roll, pitch, or pound. The Extra Small Scale Smoker will put out a fair amount of smoke proportional to their ultra-compact size.

PREPARING FOR OPERATION

- 1) **The unit requires unobstructed 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. They're intended for a NIMH, NiCad, or Sealed Lead Acid Battery with at least 2 AMPS, and a Maximum of 8 AMPS to operate.** Check the Voltage of your battery with a meter prior to installation. Do not exceed the voltage specified on the side of the case. At any time if the voltage could be exceeded, ensure that a 3 AMP Harbor Models Voltage Regulator is fitted.
- 2) The unit has a 1/4" O.D. plastic T-fitting, that is designed to accept standard aquarium tubing. The top of the T-fitting is only to be used to remotely fill the unit. 2 Feet 1/4" silicone aquarium tubing is included that can be cut to into 3 lengths as needed, ensure that there are no kinks, fluid, or debris in any of the lines. The side outputs are designed for dual exhaust. There are also 2 of the 1/4" Plugs included, in the event that no remote fill tube and/or only 1 exhaust output is needed, either the included plug should be used, or piece of tubing can run between the top of the T-fitting and one leg. To make installation easier, the tubing should be soaked in warm water before fitting it, and/or a small amount of Vaseline can be used. If the unit is overfilled, the tubing will clog and will need to be blown out.
- 3) This unit only requires 15 minutes of priming prior to operation, filled through the removable plastic T-fitting. After filling the reservoir as per 4) below, let it sit for 15 minutes. Carefully top off as necessary. Ensure that the included O-Ring is always used. **Do not force the T-Fitting into the case or it may crack the lid. A small amount of Vaseline can be used if it's too tight, but ensure the O-Ring is flush against the case to provide a tight seal. A pair of needle nose pliers can be used to gently pry the T-Fitting up from the case to check the fluid.**
- 4) The reservoir holds a Maximum of 1/4 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 1/8" black line indicates the Maximum capacity of 1/4 OZ. An eye dropper can be used to remove excess fluid. **DO NOT OVERFILL, LET THE FAN GET WET, OR LET THE UNIT RUN DRY!**
- 5) **The black and red primary leads are to be soldered directly to the brushed motor, polarity is irrelevant as the unit is designed to run proportionally in conjunction with the ESC sending power in forward or reverse. (Only one motor is required to be soldered, regardless of a model having dual motors). The unit is not to be hooked directly to a battery.**
- 6) The unit can be mounted with the included Double sided tape, as low as possible in the model to keep the center of gravity down, and to minimize rolling of the unit. **A minimum of 2" of clearance is required to be maintained above, the fan in order to allow proper air flow through the unit, allowing it to stay cool.**

OPERATION:

- 1) The unit will provide a steady stream of smoke once it received power from the ESC, to the motor, and heats up. The unit is not designed for overpowered models than do not run at full throttle. The 6V version will need at least 4V, 7.2V will need 6V, and 12V version will need 8V to produce smoke. It will consume around 1 AMP of power at full speed. case may be slightly warm to the touch, do not continue to operate if the case ever gets hot. This is generally due to inadequate air flow, running dry or excessive voltage.
- 2) The Extra Small Scale Smoke Generator should provide at least 2 hours of run time at full speed, depending on your model. The fluid should be checked prior to every operation and at regular intervals with the dipstick to ensure that it doesn't run dry.

NOTICE:

There is NO warranty on all versions of our Smoke Generators. All Smoke Units are individually assembled by hand, and thoroughly tested for proper operation before they are shipped. If you do experience an issue, Please return all units directly to Scale Smokers at this address:

Scale Smokers, PO Box 3206 Huntington Beach, CA 92605. Include a note with the issue you are having, email address, return address and phone number. You will be contacted with a quote for repairs (Parts and Labor), and return shipping. Contact scalesmokers@gmail.com with any questions.

With proper use, this Extra Small Scale 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.