

# SOUND MODULE INSTALLATION AND OPERATION

## **CAUTION**

This device is controlled by a very sophisticated software program. Not following all instructions, reversal of polarity, exposure to fluids, attempts to modify or repair the module will void any warranties.

If your unit is not working properly please call us so we can help trouble shoot your module at 626 963 4591.

## **INSTALLATION**

1. The Motor lead is indicated with a small black sleeve, the Auxiliary cable has no sleeve.
2. As with all electronic equipment, install switches at the power sources, including the propulsion battery and receiver battery.
3. With all power turned off, including the transmitter make the connections for the sound module as shown in the diagram.
4. The propulsion battery must be 12 volts. Battery packs with less than 1.5Ah will not work.
5. Connect the module battery cables, through a switch (not included), to the 12 volt battery taking care not to reverse the polarity. Polarity reversal will destroy the module.
6. Any brand name 12 volt, solid state proportional speed control (ESC) will work.
7. Insert the Motor lead from the module into the receiver port that is used for throttle control. (The throttle control signal passes through the sound module before going to the speed control.)
8. Insert the speed control lead plug into the sound module so that the black or brown wire is oriented to the outside edge of the case.
9. Make the propulsion motor connection to the ESC, as usual.
10. Optimum sound levels and fidelity will be achieved by using a mid range speaker securely fastened to the boat interior. The use of a speaker enclosure will substantially enhance the sound. Polarity of the speaker wiring will not affect performance. Bench test the installed module to adjust the volume, idle point and top end RPM.

## **RUNNING THE SOUNDS**

### **To start the motor sound:**

1. On your transmitter, ensure the propulsion joy stick is set at neutral.
2. Switch on the propulsion motor, receiver, and transmitter, as usual. The red power light on the module will illuminate.
3. Push the propulsion joy stick slightly forward to hear the motor cranking sound. Return the joy stick to neutral and the motor sound will idle but the propulsion motor will not rotate.
4. Push the stick up and the speed control will be activated. Your electric motor will now change speed as usual and the motor sound will change accordingly.

### **To shut off the motor sound:**

1. Move the motor control stick on to neutral. The motor sound will run for approximately 20 seconds and then turn off. This does not shut the module off. To restart the sound, simply move the throttle forward as before for initial startup.
2. You may also use the 12 volt switch at anytime to turn off the module completely.

### **Working the Auxiliary Sounds:**

Your module is equipped with 3 auxiliary sound effects. On a 4 channel radio, the vertical movement of the right hand joy stick is typically available to control these sounds, but any proportional channel will work. You can activate the sounds in the following manner:

Move the stick to maximum forward to hear the first sound.

Return the stick to neutral. To reactivate that sound, move the stick as before. This return to neutral movement must be done for all three sounds.

For the second sound, move the stick approximately  $\frac{1}{2}$  to  $\frac{3}{4}$  reverse and then return the stick to neutral.

For the third sound, move the stick to the maximum reverse position.

You will not be able to activate multiple auxiliary sounds without first returning to neutral or center stick.

## **SPECIFICATIONS:**

Dimensions: 3" x 2" x 7/8"

Weight: 3 oz.

Amplifier Wattage: 10 watt

Amplifier Impedance: 8 ohm

Current Draw: 1 amp

Voltage: 12 Volts

## HARBOR MODELS SOUND MODULE

