

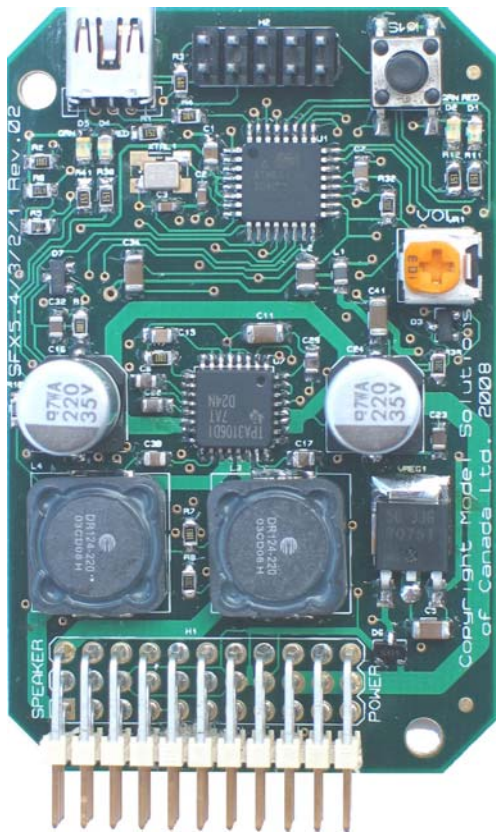
Welcome to the third quarterly newsletter from Model Solutions of Canada Ltd. We hope to keep our valued customers and dealers up to-date on developments in our products and our company.

### *SFX5 Series Sound Modules are taking off*

Our latest SFX5.3 are selling well since they were announced just over a month ago. Model airplane customers are snapping them up fast and our airplane sound clip collection is growing rapidly. If the aircraft, boat or tank sound you want is not in our on-line list, we can often find it for you – just ask.

### *Early SFX5.3 Issues*

As is sometimes the case with new products, some minor issues have been identified by early adopters.



The most significant of these is that if the throttle stick is moved too quickly, the module can lose track of which sounds are playing, will try to play two engine sounds at once, and consequently cannot play any other sound. This issue has been fixed in currently shipping modules.

If your module suffers from the throttle lockup issue, you may return it for reprogramming. Contact us at [info@modulesolutions.ca](mailto:info@modulesolutions.ca) for information on how to do this.

For forwards and reverse throttle setups, such as on model boats and tanks, the steps are twice as close than with a forwards only throttle, and it is initially sometimes tricky to get the engine start-up sound to play by itself without it going into the proportional engine speed state. This cannot be changed since the throttle's primary purpose is to control the motor. If we made the steps wider near neutral, the model could lurch forward or backwards when switching the engine sound on or off.

The movement of the control can be mastered easily with a little practice.

Some customers are concerned about how warm the modules get. If your module is operated on 12Volts or below, they should only get slightly warm, not hot. At 18Volts and above they can get quite hot. This is OK – they are still operating within design limits, but **DO NOT** install the module in a box or other small enclosure which restricts the airflow around it. The modules are designed to work in free air.

Installing any electronics in a box does not protect it against water or moisture ingress unless the box lid and joints and all the wires going into and out of the box are hermetically sealed. In all cases, except the most advanced installations, this would not be the case, so it does not add any value to mount this module in a box.

### ***Volume Control***

The SFX5.3 modules have an on-board volume control. The units are usually shipped with the volume control at the half-way position. This is optimum for a 12Volt supply. If you operate the module on higher voltages, you can ease the volume control clockwise to get more power output. Turn it until the sound is distorted and then turn it back a little.

### ***Dealers***

We have decided to not appoint any dealers for North America for our products at this time. We will review that decision from time to time as and when our production costs fall. All North American customers, please order directly from us. We are currently working with a U.K. Electric Flight specialist hobby company and may appoint them as our U.K. retail agent in the future. We are also working with an Australian dealer.

### ***LEDs Must Have Series Resistors***

Our sound modules have two optional LED/lamp flasher outputs which can be enabled by us prior to shipping. We also sell large high power LEDs suitable for use as gun barrel flashers in larger models. These LEDs, or any other LED, must be used in conjunction with a series resistor to limit their current draw. **NEVER** connect an LED directly to a battery or power supply without a series resistor. To help you understand how to calculate the value and power rating of LED series resistors we have written an article which is posted on our [“Articles” page on our web site](#). We do not supply resistors as their value and power rating vary widely with individual customer’s needs. Your local electronics store should be able to supply them.

### ***Wiring Loudspeakers in Series/Parallel***

Our modules can be used with one of our 4inch 20Watt 8 Ohm speakers on supply voltages up to 18Volts. For voltages above that you will need either 2 of our 4inch 20Watt 4 Ohm speakers in series, or a much larger single 8 Ohm speaker that can handle up to 40 Watts. Some customers are having difficulty wiring loudspeakers in series so we have written another article that explains this, also on our [“Articles” page on our web site](#).

### ***High Voltage Amplifier***

Our high voltage, high power amplifier development program is on hold. We are reviewing the heat generation aspects of the current class AB design and are looking for a suitable class D alternative that generates less heat. It also needs to have a very wide supply voltage range.

### ***Research***

We have started research into an advanced 32 bit microcontroller that is very powerful and fast that would open up many possibilities for very high levels of performance and features in a future generation of sound module. No forecast of availability of such a product is yet available. We are also investigating alternate amplifier output stages for our sound module that would offer a wider supply voltage range.

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## *Manuals*

Our manuals are revised often to add further clarity. The up to date manuals are always available on the [“Manuals” page on our web site.](#)

## *Opting Out of Newsletter*

If you do not wish to receive any future newsletters from us, please send an email with the subject line “Newsletter – unsubscribe” to [newsletter@modelsolutions.ca](mailto:newsletter@modelsolutions.ca). Thank you.

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