

Issue 11

SEPTEMBER 2010

MSC Newsletter

MODEL SOLUTIONS OF CANADA LTD.

R/C MODELS LIKE YOU'VE NEVER HEARD THEM BEFORE!!

106DB FROM SFX6!!

We have recently purchased a professional grade SPL (Sound Pressure Level) meter and measured the sound output of our SFX6 sound module. When powered at 26 volts and driving two 102mm (4") 20 Watt 40hm speakers in series, a SPL of 106dB at 1m (39") was measured. This is four times louder than the 100dB from a jackhammer at 1m. This is **VERY** loud !!



1/5.8 Scale Pilatus Porter Jump Plane by Ted Callahan from Magnolia, Texas, United States
Click on the picture to see and hear a video of this plane.

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Turbo-Prop Jump Plane

We have recently acquired some turbo-prop engine sounds with full engine start and spin-up to taxi speed, powering up to full speed and complete spin down and shutdown sequences.

We have a deHavilland Twin Otter and the Pilatus Porter Jump Plane.

These are proving to be very popular and they add an uncanny sense of realism to the models.

We never cease to be amazed at the ingenuity of some of our customers and the details to which they go to add realism to their models.

One recent example is Ted Callahan, from Magnolia in Texas, United States.

Ted has built a 2.72m (107") wingspan Pilatus Porter jump plane. His model is 1/5.8 scale, has working remote controlled jump doors and a remote controlled R/C sky diver!! It is equipped with a SFX6 sound module with genuine [Pratt & Whitney Canada PT6A-27](#) turboprop engine sounds.

Ted has a build thread in RC groups which may be followed [here](#).

Ted's build thread makes fascinating reading to see how he achieved the end result of this amazing R/C Model.

Hurricane Merlin

We recently had the privilege to record a rare engine run-up of the last surviving airworthy Mk IV Hurricane WWII fighter plane in the world.

The Hurricane is owned by [Vintage Wings Of Canada](#) located at Gatineau Executive Airport, Gatineau, Quebec, Canada.

The "Hurry" was fitted with a 1620HP Rolls Royce Mk 24 Merlin engine. We were able to capture the complete 10 minute sequence, including the pre-oiler pump, cranking, starting, revving up to 1500rpm - about half full power, power down and shutdown. At 6m (20ft) from the engine the SPL was 96db.

This high quality recording is a valuable addition to our sound library.

Thank you to Vintage Wings of Canada for this great opportunity.



SFX6 SOUND MODULE "THROTTLE RANGES" FEATURE

We have been working for some time on a new advanced "Throttle Ranges" feature. This will allow specific ranges of throttle stick position to be associated with particular sounds. This will be of particular interest to model tank and model helicopter customers.

This is a particularly difficult feature to implement, but the GUI software for the PC is almost complete. We are now working on the firmware that runs in the SFX6 sound module.

HIGH VOLTAGE AMPLIFIER

We have recently received a new batch of bare PCBs for our High Voltage (10 – 56 Volts) amplifier and will be building new prototypes over the next few weeks.

Target power output from this amplifier is 125Watts into 8 Ohms at a 50Volt supply. Size is 102mm x 61mm x 31mm (4.00" x 2.4" x 1.2"), and weight is 100grams (3.5oz).

The amplifier incorporates its own heatsink so does not require the modeler to provide this as our competitor's amplifiers do. The choice of a heatsink for a high power amplifier is critical and the integral heatsink allows the modeler to not have to worry about this.

This amplifier will address the needs of large and giant scale airplane modellers who operate their models on 8S - 12S LiPo batteries.

MSC CONTINUES TO LEAD THE WORLD IN R/C SOUND SYSTEM TECHNOLOGY

By continually researching the latest technologies for R/C sound systems we ensure we remain the leader in this field

WHAT'S 12S MEAN?

The "S" simply means in series, so a 12S LiPo (Lithium Polymer) battery has 12 cells at 3.7Volts nominal each giving a total voltage of 44.4Volts.

LOW VOLTAGE SOLUTION

We are working with another manufacturer who is planning on producing a low voltage amplifier that will address the needs of 6Volt and 7.2Volt models. We plan to offer this for sale once they become available. We'll keep you posted as soon as we have more details.

WE'RE MOVING!!

During the first week of October, 2010 we will be moving to a new location in the city of Ottawa, Ontario, Canada. During this period of packing, moving and settling in, we may not be able to respond to enquiries within our usual few hours.

We ask all our customers and potential customers to please bear with us during this busy time – we will respond as soon as we possibly can.



10 ½ ft. long Lockheed Constellation,
Ed King, Lexington, Kentucky,
United States

CUSTOMER PHOTOS

Each issue of our newsletter will feature one or two photos of customer's models. Please feel free to send us your photos and videos. We will post links to good quality videos on our video gallery web page at : www.modelsolutions.ca/videogallery.htm

MSC ARTICLES

We have published several technical articles on electrical subjects of interest to R/C modellers. They are all available on our Articles page at : www.modelsolutions.ca/articles.htm

These articles have also been included in the Articles folder on the CD-ROM accompanying the SFX6 sound module for the last few months.





KITCHENER MODEL BOAT SHOW

We were showing at the "Model Boat Expo" in Kitchener, Ontario, Canada on the July 3/4, 2010 long weekend. This show was organized by the "Great Lakes Model Boat Association" (GLMBA). Much interest was shown by modelers from around the Great Lakes Area on both sides of the Canada/U.S.A. border.

FUTURE SOUND MODULES

We are developing a new range of sound modules that will share many features with the current SFX6. All will be very high performance.

We are contemplating producing the sound module separate from the power amplifier. This would allow the same sound module to be used with a variety of amplifiers covering different voltage ranges.

This has the advantage of greater flexibility for the consumer, but means there would be two modules to purchase and wire up, meaning slightly more complexity and slightly higher overall cost.

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Future Sound Modules ...

We are seeking feedback from anyone who is interested to send us their thoughts on a separate sound module and power amp. versus an integrated sound module with a limited voltage range (i.e. 10-26Volts). Please email your thoughts to us.

PHOTO/VIDEO GALLERIES

Our Photo and Video galleries containing photos and/or videos of some of our customer's models continue to grow by leaps and bounds.

Tip: When shooting videos, be very aware of where the wind is coming from. Many videos are completely spoiled by wind noise picked up by the microphone.

Our Photo Page is at :
www.modelsolutions.ca/photogallery.htm

Our Video Page is at :
www.modelsolutions.ca/videogallery.htm

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OUR EMAIL ADDRESS

Our generic email address is contactus@modelsolutions.ca . This exact address does not appear anywhere on our web site to reduce spam attacks. Instead it is shown as [contactus "at" modelsolutions.ca](mailto:contactus@modelsolutions.ca)

CUSTOMER TESTIMONIALS

We welcome testimonials from any customer who has purchased any of our SFX6 modules and are pleased with the product, and/or our service.

Please email them to :
contactus@modelsolutions.ca.

Thank you.

OPTING OUT OF NEWSLETTER

If you do not wish to receive any future e-newsletters from us, please send an email with the subject line "Unsubscribe" to newsletter@modelsolutions.ca.

