

1. **Q. What voltage does the ShockWave 2 sound module need?**

A. 4.5-26 Volts i.e. 2S – 6S LiPo.

2. **Q. How much current does it take?**

A. 2 Amps at 26Volts from its main power supply for the audio power amplifier, 1A at 11.1Volts, 165mA from the receiver battery, (or ESC BEC/UBEC) for its low level circuitry.

3. **Q. What battery capacity should I use?**

A. This depends on what voltage you run it at and how long a run time you want.
E.G. a 6S LiPo rated at 1000mAH will run for about 30-45 minutes.

4. **Q. Do I need an external amplifier?**

A. No. The **ShockWave 2** module has an integrated single channel 40Watt amplifier on-board. You can optionally use an external stereo (2-channel) amplifier to play some sounds from one channel and other sounds from the other.

5. **Q. How loud is it?**

A. **107dB!!** This depends on what voltage you run it at, the efficiency of the loudspeaker installation and how far you are away from it. When running on 25Volts and using two of our 4inch 20Watt 4Ohm speakers in series in the open, with some sounds we measured a whopping 107dB at a distance of 1m from the speakers! This corresponds to the same sound level coming from four jackhammers at 100dB each all going in synchronism!

This also corresponds very closely with the SPL (Sound Pressure Level) we measured from a real Hawker Hurricane airplane engine (96dB at 6m distance).

6. **Q. How many sounds can I have on it?**

A. The **ShockWave 2** module can have two throttle controlled engine sounds that are proportional to two separate throttle sticks and up to sixteen non-engine sounds as weapons fire, pilot chatter, music etc.

The microSD Card used in the ShockWave 2 sound module can store many different airplane, helicopter, tank or boat sounds but only one set is active at any one time. The ShockWave 2 microSD Card comes with our entire collection of Aircraft, or Helicopter, or Boat or Tank pre-configured sound sets. Which sets of sounds you get depends on which sound you ask for at the time of purchase.

You can change the sounds it plays by simply inserting another pre-configured microSD Card or by changing the named file in the SELECT_YOUR_SOUNDSET_HERE.txt file

7. Q. Can I change or load my own sounds myself?

A. Yes, you can change between any of the pre-composed .sfx7 composite sound files by editing the **SELECT_YOUR_SOUNDSET_HERE.txt** file in the root folder of the microSD card. Using the optional SFXPC4 Windows software application, you can also re-configure the .sfx7 composite files, change or add to the sounds and change the many configurable settings to alter the way it operates.

8. Q. What size is the microSD card and how many sounds can it hold?

A. The microSD card is currently 8GB. No particular size is guaranteed as even a 1GB card is many times larger than is needed to support the **ShockWave 2** module. As technology advances it is increasingly more difficult to buy microSD cards in smaller sizes so a larger one may be substituted at our discretion. The composite .sfx7 files may vary in size from 10 – 100MB so many .sfx7 files can be stored.

9. Q. How do I install the software to control the module?

A. You do **NOT** need to use any software in order to setup the module for use in your model. The module is ready to use when you receive it.

Should you want to change the sounds, or any of its many configurable settings, you will need to purchase and install the optional SFXPC4.x.y Windows Software application where x.y may be, for example, 1.3. The installer file is called SFXPC4.x.ySetup.exe. Double click on it and follow the instructions.

10. Q. Can it play MP3 or .WAV files?

A. No, the sounds used by the **ShockWave 2** module are all stored in a composite file with a .sfx7 file extension. This is a Model Sounds Inc. proprietary file format which contains all the raw audio data for all the sounds in that sound set together with special configuration data that relates to the sounds. This ensures the data integrity of all the related sounds and their configuration data.

However, the SFXPC4 program can import .mp3 and .wav files and convert them to the internal format required to compose a .sfx7 file.

11. Q. Can I download sounds from your web site?

A. No, we do not publish our sounds on-line to avoid our competitors using them,

If you want to hear some sound samples, please send us an email and we will email them to you.

When requesting sound clip samples, please send us a polite and courteous email with please, thank you, regards etc. and include your first and last names, how you heard of us and your location. We will ignore any requests that do not do this.

12. Q. Is the ShockWave 2 module easy to use?

A. Yes, simply wire it up according to the very clear and simple wiring diagram on the accompanying printed Quick-Start Guide and start using it right away.

13. Q. Where are the manuals?

- A. The printed Quick Start Guide that comes with the module is just that – a quick start guide. The full manual for the hardware (the **ShockWave 2** module) is in the Manuals-Instructions folder on the microSD card inside the sound module.

The manuals can also be downloaded from our manuals web page at:

http://www.modelsoundsinc.com/manuals_datasheets.php

14. Q. How many radio channels do I need to operate it?

- A. It can operate one engine sound with **NO** additional sounds using the same throttle radio channel that you feed to your ESC. The engine start-up and shut-down sound can be controlled entirely by the position of the throttle stick.

If you want more precise control over the start-up and shutdown sounds, or if you have any non-engine sounds such as gunfire or horns, you will need one additional radio channel to control those sounds (SOUND1 input).

You can optionally use a second throttle input to control a second engine sound and a second SOUND2 input to control the non-engine sounds.

15. Q. What sounds can I have?

- A. We have a huge library of 101 airplane, 37 helicopter, 40 boat, and 11 tank pre-configured sound sets. If we don't have the sound you want, send us an email and we will try to locate it for you.

Our sound clip lists are on our web site at :

http://www.modelsoundsinc.com/soundclips_planes.php

http://www.modelsoundsinc.com/soundclips_helicopters.php

http://www.modelsoundsinc.com/soundclips_tanks.php

http://www.modelsoundsinc.com/soundclips_boats.php

16. Q. How do I order?

- A. You can order directly from our web site at :

http://www.modelsoundsinc.com/catalog_sound_systems.htm

Customers in Canada and the United States can use the Add to Cart buttons directly.

A shipping charge of USD\$20.00 will be added at checkout.

Use the "Add to Cart" buttons to select the items you want to buy, then proceed through the checkout process. At that time you can pay using a PayPal account, if you have one, or any major credit card.

Customers from all other countries are requested to send us an email to contactus@modelsoundsinc.com so we can give you a shipping quote.

17. Q. What is your warranty?

- A. All our products are warranted for a period of 90 days from the date of purchase. This is the date when you place the order and pay the invoice, not the date you first start using it. Please test the module right away on the bench before you install it in your model to make sure you know how to wire it up correctly.

The warranty covers manufacturing defects only and does not cover damage due to user wiring errors or other misuse of the module.

You should also make a PC backup of the module's microSD card as soon as you receive it.

18. Q. I want to pay in my home currency. How does that work?

- A. Although we are a Canadian company, we conduct our customer facing business in USD\$. Your on-line invoice will be in USD\$. When you go through the checkout process if you use a non-USD\$ PayPal account or credit card, the PayPal system will automatically convert the invoiced price in USD\$ to the equivalent in your local currency at its prevailing exchange rate at the time of the transaction.

19. Q. How long does it take for you to ship an order?

- A. Once we have received payment it usually takes us about two business days to process a straightforward order. If we need to search for a special sound, do custom audio work or unusual custom configurations, or there are other special requirements, it will take a few days longer.

20. Q. Is the ShockWave 2 sound module "future-proof"?

- A. Yes. The firmware in the module (the executable code that runs in the processor chip) can be upgraded by the end user. Instructions for doing this are in the UpdatingShockWave2FirmwareUsingMicroSD.pdf file in the root folder of the microSD card.

From time to time we release firmware upgrades to fix either bugs or to add new features. We make the .hex firmware file available for download on our downloads web page at :

<http://www.modelsoundsinc.com/downloads.php>