

Blue Lantern Modules Space Moth v3 2015 Reference PDF

This is the third incarnation of the Space moth vcf. I added a sub harmonic generator, a pinging system, and an onboard wave folder known as 'charm'.

In brief this is what this module can do.

*Filter. 12db Lowpass and Highpass modes.

*FM Percussion Generation.

*Sine Wave generation source.

*Filter line level signals.

The analog filter is using an NJM13700 OTA. The sound is a cross between a korg MS20 and a Roland Sh101. Both were influences when I designed the filter.

Let's make sure you got the right reference manual. Your modules should look like this:



Blue Lantern Modules Space Moth v3 2015 Reference PDF

The audio input, sub harmonic generator, and line level input are being mixed together internally first. Then that mixed signal is going to a gain amp. That gain amp is the 'Audio' Knob. So if you turn down that knob or counter clockwise to 'zero' you will affect all those circuits. This explanation will help with troubleshooting.



1. Cutoff knob: this controls the filter sweep and frequency range. There are two trimmers to the left of the cutoff knob. One adjusts the cutoff range, and the other adjusts 1v/octave setting.
2. Rez knob: the knob is used to add some resonance and squelch to the filter. If this knob is turned fully clockwise you will get self oscillation.
3. Bi-polar FM knob: this knob is found on many blm products and all of them do the simple job of giving you non-inverted, and inverted FM. When set near zero the fm source will be attenuated.
4. Audio Knob: this adjusts the internal gain amp. This affects the level for input jack, sub harmonic generator signal, ping jack, and the line level input signal. It is best to lower this knob when REZ knob is set high. Experiment with the level of the audio knob, don't just always have it fully clockwise.
5. Sub Knob: this is the level of two internal sub harmonic generators. They are mixed internally. This knob is the output level of those two sub harmonic generators mixed.
6. Charm Knob: this adjusts the boost for the wave folder shaper. When the charm knob is turned fully clockwise you will get clipping of the folded wave. This particular version of the Charm Wave Folder is being amplified and pushed harder than the one on the Diode Operator Station

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VCF. You can say that this one is dirty, and the other one is clean. I did this to make the Space Moth v3 VCF an FM percussive generator.

7. Mod Knob: this adjusts the Mod CV jack input. This is a basic attenuator.
8. Ping input jack: this is used to deliver triggers through the audio path instead of the cv path. Why would you do this? Use this to make percussive sounds. Do this to setup the Space Moth for percussion.

*Do not patch any signal into the Audio jack, Sub Harmonic jack, or Line Level ¼" input jack.

*Turn the rez knob into self oscillation. Once you hear the sine wave back off until you are in the area of just before self oscillation. Now patch a trigger source into the Ping jack, like an lfo or sequencer, etc.

*Turn up the 'Audio Knob' to let the trigger into the audio path. This method is called pinging the filter. You should here some percussive sounds coming from the 'out' jack.

*Do more Rez knob adjusting to your liking.

*The Cutoff knob will knob control the pitch of the sounds your getting.

In order to get some cool FM perssion patch from the 'out' jack into the Charm input jack. Now use the Charm output jack as your monitoring source. Adjust the 'Charm' knob to your liking.

Once you setup for cool percussion sounds, you can add more variation by using the FM input, and MOD input.

The LP mode is a more darker sounding kick, the HP mode has more clarity.