THE JELLYFISH – USER MANUAL

PLANKTON ELECTRONICS

WARRANTY

Plankton Electronics warrants this product to be free of any defect in the manufacturing or materials for a period of one year from the date of purchase. This warranty does not cover any damage or malfunction caused by incorrect use – such as, but not limited to, power cables connected backwards, excessive voltage levels, or exposure to extreme temperature or moisture levels.

The warranty covers replacement or repair, as decided by Plankton Electronics. Please, contact our customer service for a return authorization before sending the module (support@planktonelectronics.com). The cost of sending a module back for servicing is paid for by the customer.

Plankton Electronics implies and accepts no responsibility for harm to person or apparatus caused through operation of this product.

As an open-source product, we encourage to mod and hack it, but we will not provide any assistance on how to do it. Any malfunction caused by a mod will not be covered by this warranty.

INSTALLATION

⚠️ **Electrical hazard** Always turn the euroack case power supply off and unplug the power cord before plug or un-plug the eurorack cable to the bus board. Never touch the electrical terminals!
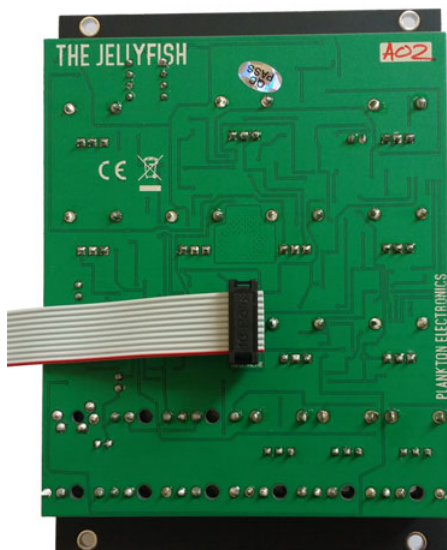
The Jellyfish is designed for Eurorack synthesizer systems and it takes 18HP of space. It requires a -12V / +12V supply (2×5 connector), consuming 60mA from the +12V rail and 30mA from the -12V rail. The red stripe of the ribbon cable must be oriented on the same side as the "RED HERE" marking on the printed circuit board.
Always use eurorack compatible power supplies.

ABBREVIATIONS

CW: Clockwise

CCW: Counterclockwise

Pot: potentiometer

OVERVIEW

The Jellyfish is a modular delay based on PT2399 digital delay IC. It can provide until 1.23 seconds of delay time and it has a plenty of useful functions that turn this machine to something more than a simple delay.

OPERATION NOTE: when turning on the eruorack case power supply be sure that the "TIME" or the "FINE" potentiometers are not in it's lower position. If both are at the 0 point the delay will not work. In case you find that situation turn off the power supply, turn the "TIME" knob a little bit CW and turn on the power supply again. This is because the delay IC is pushed to its limits on The Jellyfish module.

THE MIXER
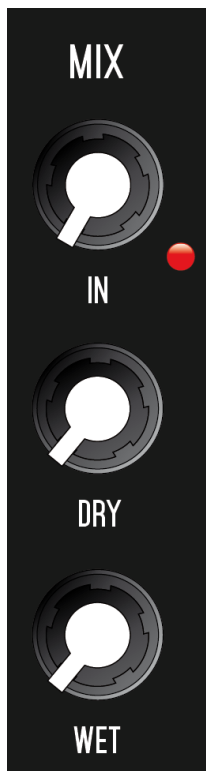
This sections permits to control the input and output signals. It's formed by:

IN pot: attenuates the input signal to an optimal level of operation. The red led blinks when the signal is high enough that distort the delay input. You can use this distortion as an effect to modify your sounds on the delayed signal.

DRY pot: mix control for the dry signal. This is the "clean" signal that comes inside the module. You can turn it off to listen only the delayed signal or mix it with the delayed sound.

WET pot: mix control for the delayed signal. At its maximum position it's higher than the dry signal. You can add a bit of the delayed signal to to dry one to create some far delayed sounds or turn it completely on to listen the power of the jellyfish.

THE DELAY

The core of the module. It's formed by:

TIME pot: it controls the delay time. As the times goes high the sound of the delayed signal becomes more dirty. Don't expect a cristal clear sound here!

FINE pot: the same of the TIME pot but with a 5% of the range of the last one. Useful to set fine adjustments of the delay time.

FILTER pot: a low pass filter to attenuate the high frequencies of the delayed signal. Use it to create different range of sounds. From a clear sound to a "oldish" style delay sound.

FEEDBACK pot: It send the out of the delay back to its input. It determines the amount of repetitions of the delayed sound. Set it fully CCW to listen only one repetition and turn it CW to get more. At a certain point the repetitions will become endless, this point will depend on the FILTER and LO-FI settings.

LO-Fi button. It activates the LO-Fi function. There is a led showing that but you will notice it anyway. Try this configuration: IN pot: max, DRY: min, WET: max, TIME: max, FEEDBACK: min, LO-FI activated.
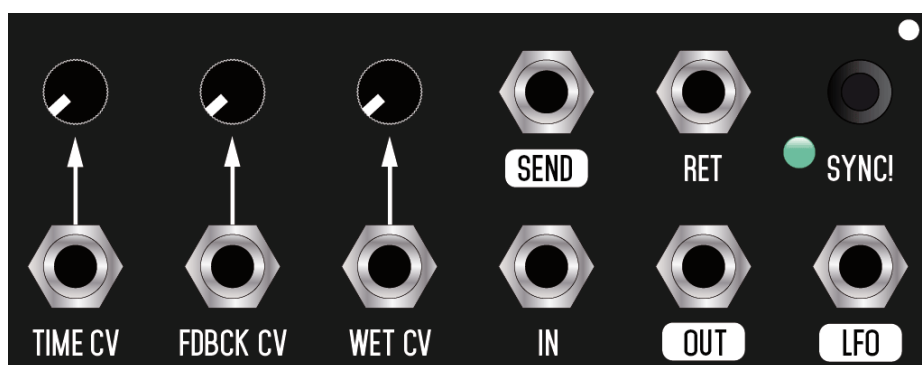
THE LFO
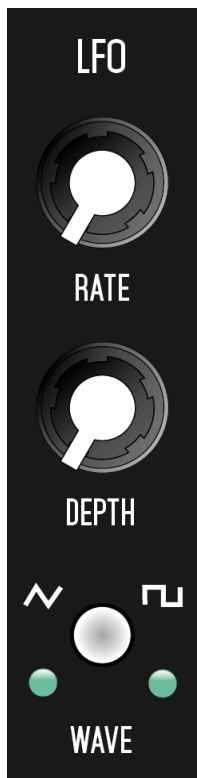
A low frequency wave that modulates the delay time. It works for create movement to the delayed sound. It may turn the delay in to something pretty different to the original sound. It has also an individual output to use the LFO on the modulation inputs or on other modules.

RATE pot: sets the frequency of LFO. It goes faster when turning it CCW.

DEPTH pot: It sets the amount of modulation to the delay time. Use it at low values to create some movement on sustained sounds or turn it CW to listen the effect on the repetitions on shorter sounds.

WAVE button: It selects between a triangle and a square waves. The leds indicates which wave is selected and the rate of the LFO.

INS AND OUTS

TIME CV in: input any signal here to modulate the delay time with something else than the LFO. Try different types of waves, envelopes, S/H outputs, etc. The possibilities are endless. The signal is mixed with the LFO modulation if activated. The small pot sets the amount of modulation.

FDBCK CV in: like the TIME CV in but controlling the feedback of the delay.

WET CV in: like the TIME CV in but controlling the wet signal of the mixer.

IN: the input to the mixer and the delay. Send your sounds here to be processed.

OUT: The output from the mixer.

SEND & RETURN: this couple of I/O are a very useful tool to process the delayed signal. This section placed after the delay and before the mixer and feedback paths. You can connect anything here, a distortion, a band pass filter, a phaser, a flanger, a reverb, another delay, etc... you can also connect the SEND and return paths of another Jellyfish and create complex delays with it. Note that when the connection is made the switched jack breaks the standard connection to the mixer and the feedback. You will not listen anything until you plug something on the RETURN input.

LFO: the output of the LFO. The DEPTH pot don't actuates here.

SYNC!: syncronize the delay time externally. Input a square wave or a pulse here and delay will be synced to it. Try with LFOs or with modulated clock generators to create weird sounds. The Arrhytmia module is a good way to create different and unpredictable sounds. Note that when a jack is plugged here the TIME and fine potentiometers will stop working. The modulation inputs will still have an effect on the delayed sound.

Happy knob tweaking!

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