

SUBDECAY STARLIGHT FLANGER



USER GUIDE

VERSION 2.00A

Introduction:

Back in 2012 we introduced the Starlight Quantum Flanger. The concept was simplicity. A mostly set and forget, or at the very least, an easy to dial in stompbox without options to slow you down.

While the new Starlight Flanger (V2) shares similar LFO shapes, the design philosophy has changed. We added manual and depth controls. The range of the controls and flanger sweep are much wider. In fact the sweep even gets out of your typical flanger range with the manual knob turned down low. The regeneration can be set to near oscillation (or even tuned to oscillate via an internal trimmer)

With limitations removed you can easily find some... how shall we say it... Less than useful settings. The tonal palette is massively increased, but there is the possibility of user error. It's still intuitive. Most of the "bad" sounds are found by turning the depth and speed up at the same time. You won't find your self barely touching a knob and getting unexpected results. It's still easy to use, but it might take an extra nanosecond to understand the controls.

Specifications:

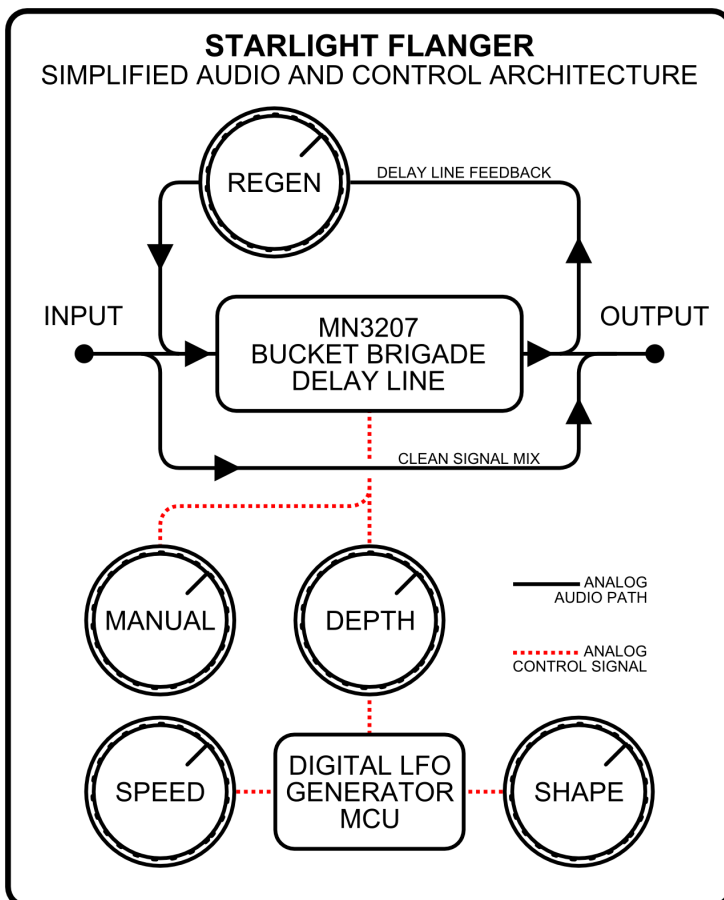
Input impedance: 1M

Output impedance: Less than 5K

Powered by a 9VDC adapter. (see back for more details)

Operation and care:

All the regular stuff here. Don't leave it out in the rain or put it in an oven. If you want to clean it use a towel, don't put it in the washing machine. Send it back to us if it stops working.



Warranty:

Subdecay Studios offers a 3 year limited warranty from the purchase date to the original purchaser. This warranty does not cover polar bear attacks, willful destruction, using your pedal as a hammer, or the neglect of the user. It does not cover the finish, paint or any external superficial damage. Any unauthorized repairs or modifications voids the warranty.

Simplified circuit architecture: The audio path is 100% analog. The speed and shape knobs control digitally generated LFO shapes which are immediately turned in to an analog control voltage. The Manual, Depth and Regen knobs are all part of the analog circuit. Everything has been kept as analog as possible. Your signal is never digitized in any way.

Check the back cover for information on the control matrix.

CONTROLS AND OPERATION

-MANUAL- A flanger is really just a very short (modulated) delay. This knob allows direct control of the delay time. Longer delay times to the left. Shorter to the right.

All analog audio path: Your guitar tone is never digitized. Everything has been kept as analog as possible. A digital micro controller is used to generate the LFO shapes. From there everything including the depth, manual and regen knobs are all part of the analog circuit.

-SPEED- Adjusts the modulation rate. Turn left for slow or right for fast speeds.

OUTPUT

-DC input- Powered by a dedicated Class II regulated power supply with a negative center 2.1mm barrel plug. Current draw under normal operation at 9VDC is less than 25mA. Designed to operate at 9 to 9.6V DC. If using a "daisy chain" power supply all other units on the power supply **MUST** be negative ground.

Powering this pedal above 10VDC may cause permanent damage so just dont do it.

-DEPTH- Controls the modulation level. Turn to the right for a wider sweep. Turn all the way to the left for a fixed flanger effect. At maximum settings with very high speeds with some LFO shapes modulation may sound quite overwhelming.

-REGEN- Controls the intensity of the flanging effect with delay line feedback. Turn to the right for to increase or left to decrease.

-SHAPE- Select from six different LFO wave forms to modulate the flanger effect.

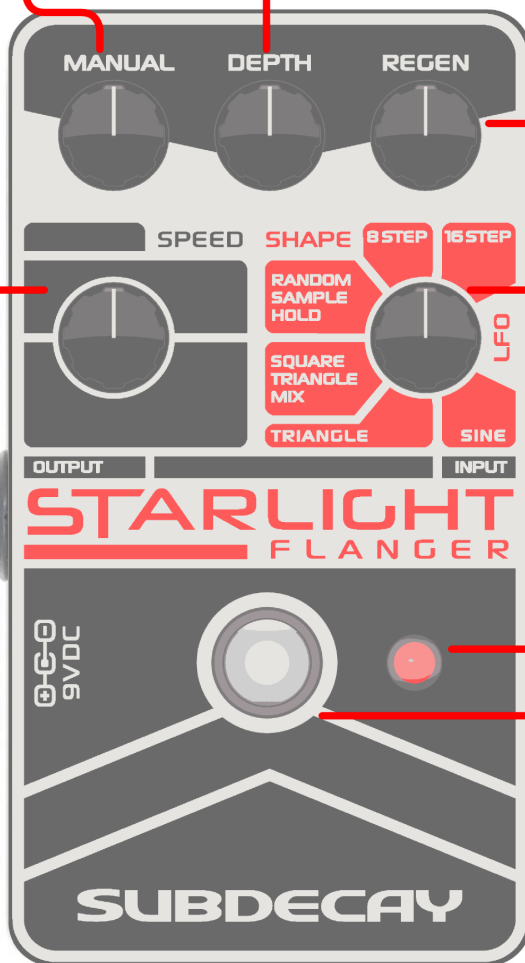
Sine: A classic LFO shape more common in tremolo or vibrato.

Triangle: The classic flanger LFO shape.

Square Triangle Mix: A triangle LFO with an underlying and much faster square wave.

Random Sample/Hold: Stepped modulation for a random arpeggiated sequence effect.

8 & 16 Step: Stepped modulation for an arpeggiated sequence effect based on a triangle wave form.



For a more information on using your Starlight Flanger mkII please visit <http://www.subdecay.com/starlight-flanger>

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INPUT

LED INDICATOR

BYPASS SWITCH

Internal controls:

There are two accessible internal trimmers inside the Starlight Flanger. **Adjust at your own peril.** If you alter trimmer settings we will not re-calibrate them for you. We may provide instructions for you to reset it yourself.

Purple: Regen trimmer. Can usually be set by ear. Turn to the right for more maximum regen. Self oscillation is possible at extreme settings. (The front panel regen knob can still be turned down to avoid oscillation.)

Orange: Delay time offset. **We recommend leaving this one alone.** Adjusts the overall range of the flanger sweep. Turn to the right for longer delay times.