

# Subdecay Studios, Inc. Starlight – Quantum Series Flanger v1.00a

Your Starlight Quantum was handcrafted in Newberg, Oregon with high quality components. Thank you for purchasing The Subdecay Starlight Quantum.

## Introduction:

The Starlight Quantum is an all analog Flanger effect with digital control. While it offers several different modulation shape options, the simple controls make it easy to use and dial in.

## Controls:

**Toggle switch:** Turns the effect on or off.

**Shape:** Modulate the filter with 5 different LFO shapes or select MANual for a fixed/static flanger effect.

**Speed:** When the Shape is set to an LFO the speed knob controls the LFO rate. When the shape knob is set to MANual the speed knob sets the flanger frequency.

**Regen:** Feeds some of the flanger signal back to the input. As this control is turned up the effect will become more prominent.

## Setting tips:

-At faster speeds high regen settings can be overwhelming.

-The triangle shape is typical of classic flangers, especially at slower speeds.

-At higher speeds most classic flanger LFOs will reduce the LFO amplitude and round the top and bottom of corners of the Triangle until it becomes closer to a sine wave. The Starlight does reduce amplitude at higher speeds, but there is little filtering or "rounding." For faster speeds the sine shape may sound more graceful.

-On the TRiangle/SQuaRe, RaNDom and STEP-TRiangle settings the Regen control will make the steps sound more prominent. We recommend setting the Regen knob about half way up or higher.

-For a chorus or vibrato effect use the SINE or TRI shape and turn the regen control all the way down.

-A flanger is more noticeable with more harmonic content at the input.

Running and overdrive or fuzz in front of the Starlight will add harmonic content and make for a more pronounced effect.

## Power:

The Starlight Quantum is powered by a dedicated Class II regulated 9 to 18 volt DC power supply with a negative center 2.1mm type plug. (not included)  
Current draw under normal operations is less than 40mA.

If using a "daisy chain" power supply all other units on the power supply must be negative ground.

## Specifications:

Input impedance: 1Mohms

Output impedance: ~1.5Kohms

## Operations and care:

Keep away from extreme heat, cold and moisture. Use only a dry towel to clean. No user serviceable parts. Contact Subdecay Studios, Inc. for repair.

## Warranty:

Subdecay Studios offers a 3 year limited warranty from the purchase date to the original purchaser. This warranty does not cover misuse or neglect of the user. It also does not cover the finish, paint, or any exterior or superficial damage. Any unauthorized repairs will void warranty. Subdecay Studios, Inc. assumes NO LIABILITY for this product.

## Trimmers:

Unless you have several years of trimpot ninja school training, **we recommend leaving them alone**, but we know some of you will ignore this advice. There are three trimpots that are accessible by removing the back cover. The trimpots are adjustable with a micro philips screwdriver through holes on the back of the circuit board.

**CV:** This adjusts the control voltage that modulates the flanger. Turn it down to low and clock noise will bleed through with the effect. This will result in some really crazy, albeit probably not very useful sounds. Turn it up too high and the effect will start to disappear. There is a narrow band of useful changes you can make if you want it to go a little higher or lower.

**FDBK:** This trim is in series with the Regen control. It is there, because tolerances on analog electronics aren't perfect. This trimpot is set for maximum feedback without oscillation. If you change this setting you can easily set it back by turning the regen knob all the way up and adjusting the trimpot until the effect stops ringing.

**Bias:** There is really no reason to adjust this. It biases the BBD delay line in to it's operational range. Changing this setting may result in no effect at all, or some really harsh nasty clipping. Not the good kind of harsh nasty clipping. Leave this one alone... Really, stop looking at it. Put down the screwdriver.

# SUBDECAY

## STARLIGHT

### QUANTUM SERIES FLANGER



## USER GUIDE

V 1.00A

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This document was believed to be accurate at the time it was created. Specifications are subject to change without notice.

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