

# Gotharman's Tiny LO



## Granular Workstation

Update Manual 13.00

-Sample Recording can now be started by starting the Sequencer, and number of bars to record, can be set. [Page 3](#)

-LFO's waveforms curve can now be set from logarithmic to exponential. [Page 4](#)

-Modulation Envelopes can now loop the ADS segment. [Page 7](#)

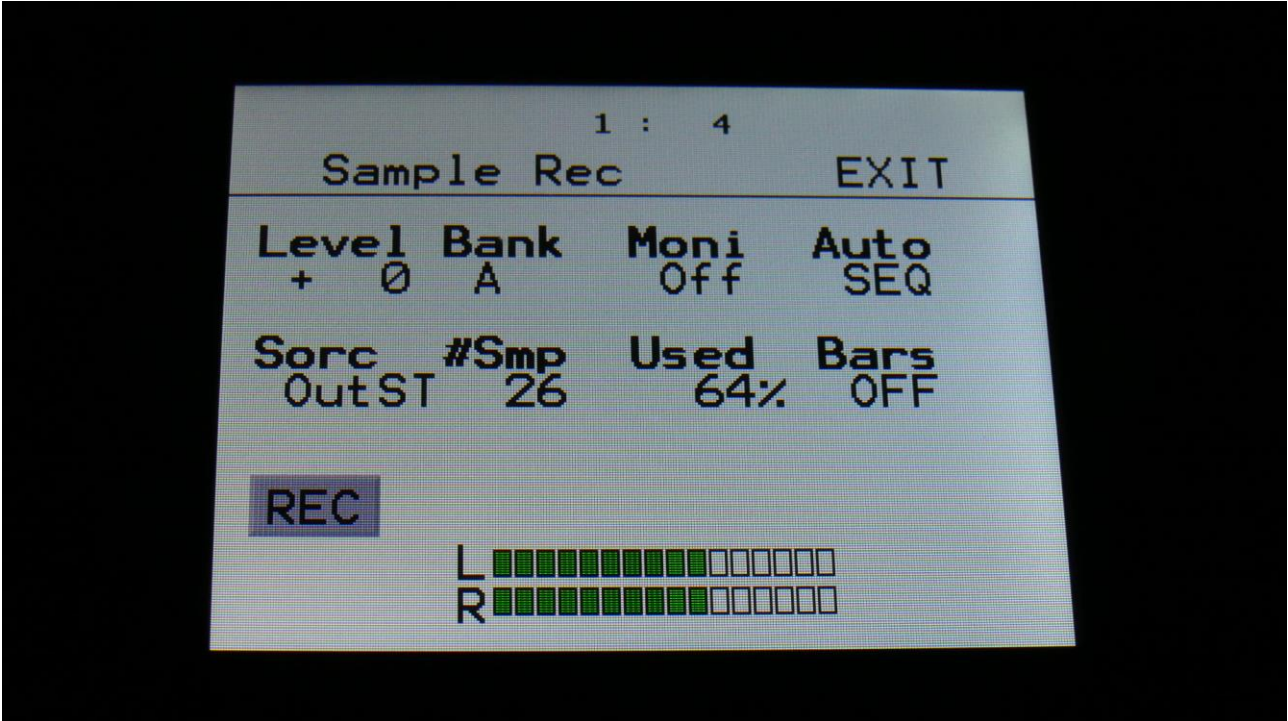
-When the /Mute or /Part buttons are held for a while, just to check the status of the Track Mutes or Part selection, without changing these, the Func and 9-16 functions will no longer be activated.

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-Seq Morph Random Swing function, that was a bug in earlier OS versions, has now been added as a feature 😊 Many users have been craving this 😊 [Page 9](#)

## Sample Recording triggered by Sequencer / Number of bars

It is now possible to make sample recording start, when you are starting the sequencer.



On the Sample Rec page, simply turn the Auto parameter fully up. The value of this will now be "SEQ".

Now, when you touch the REC button, it will say "Waiting For Trigger".

As soon as you start the sequencer playback, the sample recording will start.

### **Setting the number of bars to be recorded**

Setting the Bars parameter to any number between 1 and 16, will make the sample recording stop automatically, when the sequencer has been playing back the selected number of bars, since sample recording was started. Setting this to "OFF", will make the sample recording going on forever, until you stop it manually, or it runs out of sample memory.

This parameter works regardless of the setting of the Auto parameter.

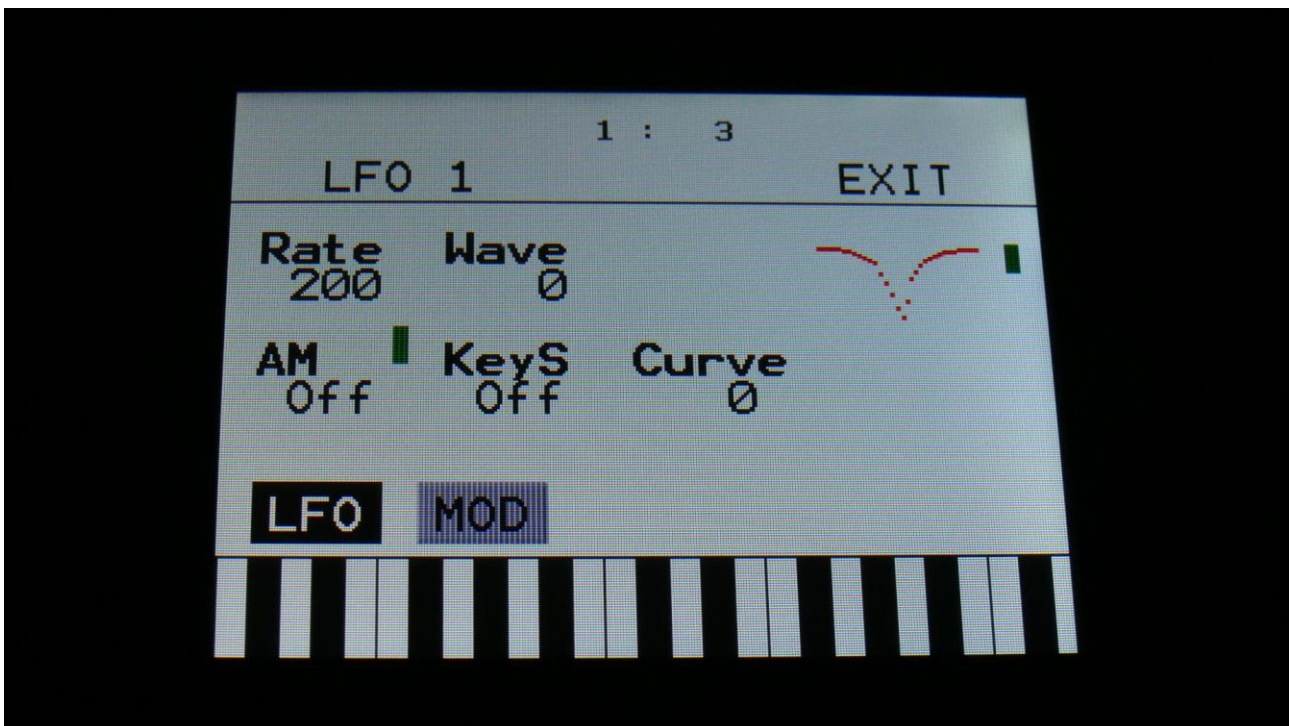
PLEASE NOTICE: The Sequencer MUST be running, in order for this function to work. If the Sequencer is not running, it will work in the same way, as when this parameter is set to "OFF".

## LFO's Curve

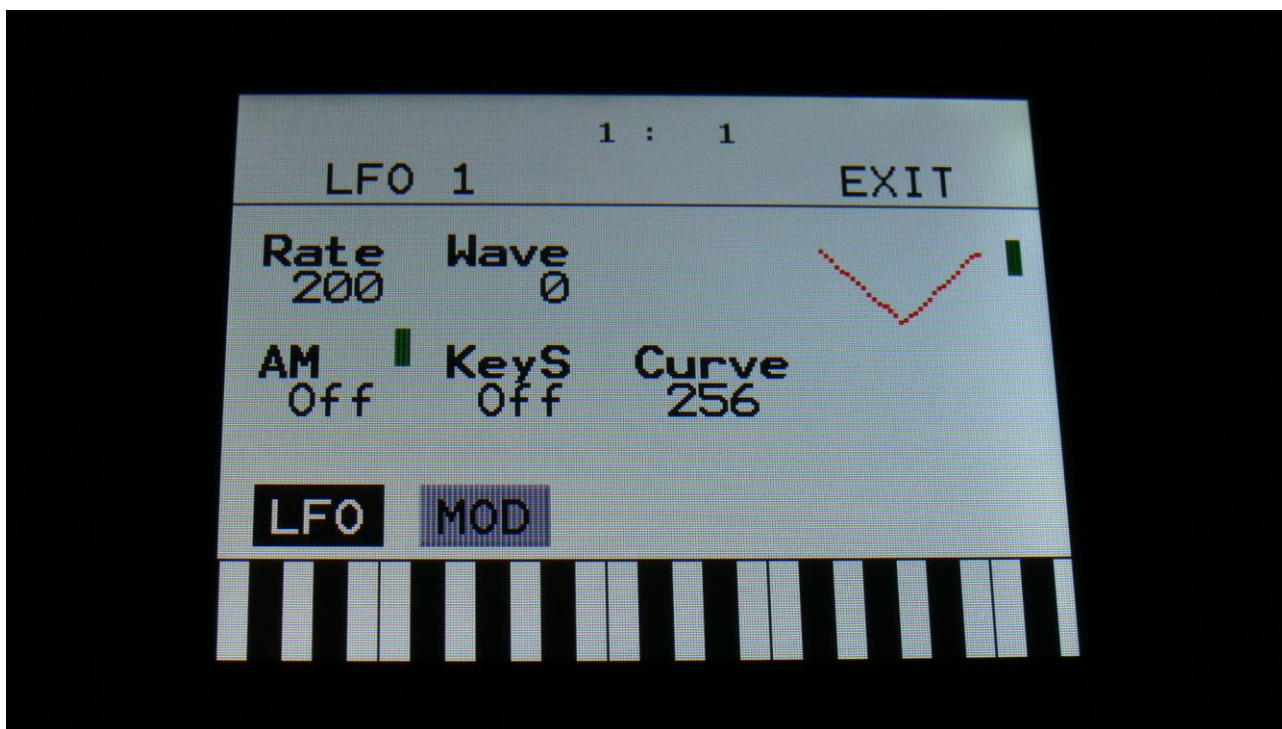
A new parameter has been added to the LFO's: Curve.

This parameter lets you adjust the LFO waveform from logarithmic to linear to exponential. It can be modulated by any modulation source.

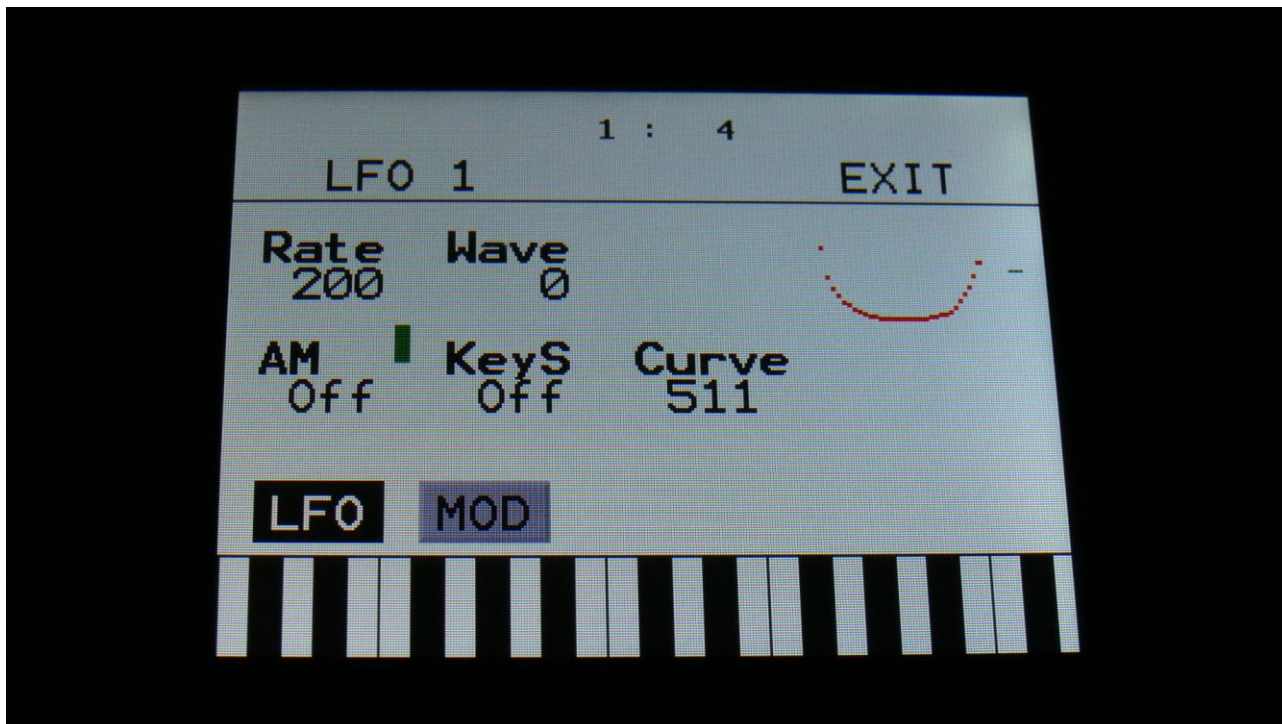
When Wave is set to zero (triangle wave) and Curve is set to zero, the LFO will output a logarithmically shaped triangle wave:



When the Curve parameter is set to 256, the LFO will output a linearly shaped triangle wave, just like it did before the Curve parameter was added:



When the Curve parameter is set to 511, the LFO will output an exponentially shaped triangle wave:

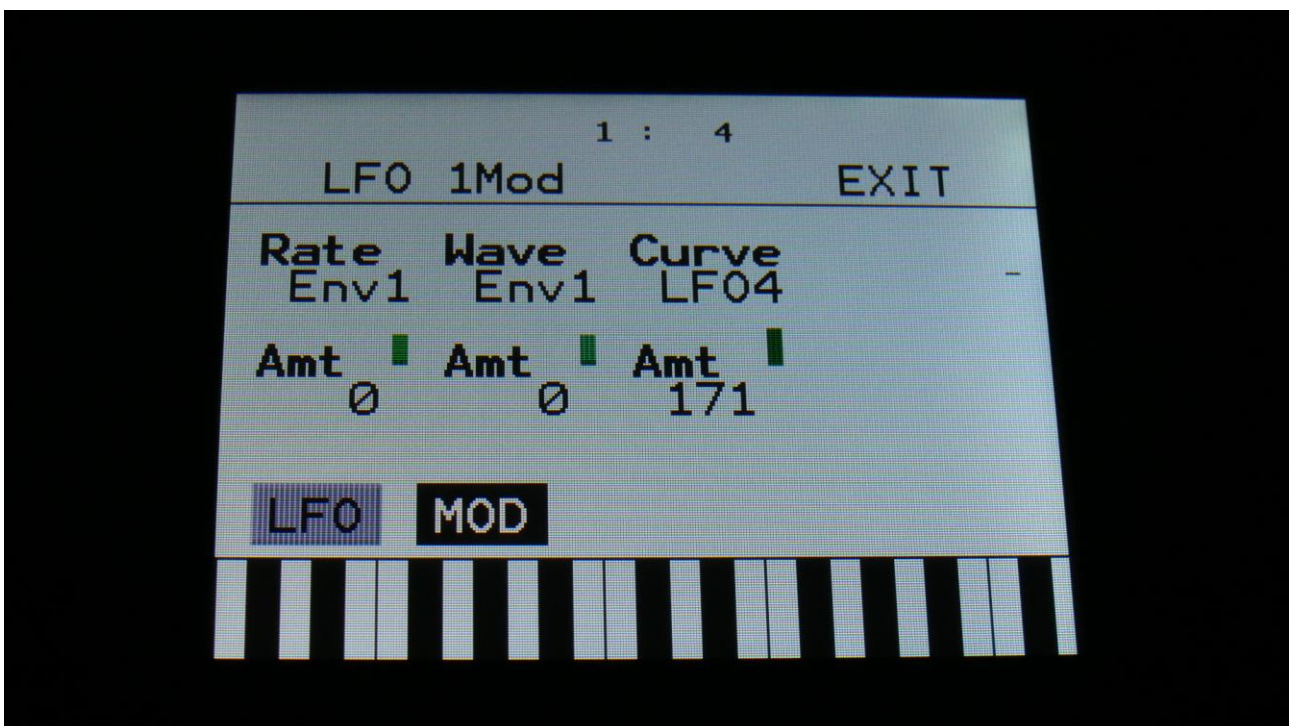


When turning the Curve parameter between the values 0, 256 and 511, the LFO output waveform will smoothly change between logarithmic, linear and exponential.

The Curve parameter will also shape the saw tooth waveform, but will have no effect on the square waveform.

### Curve Modulation

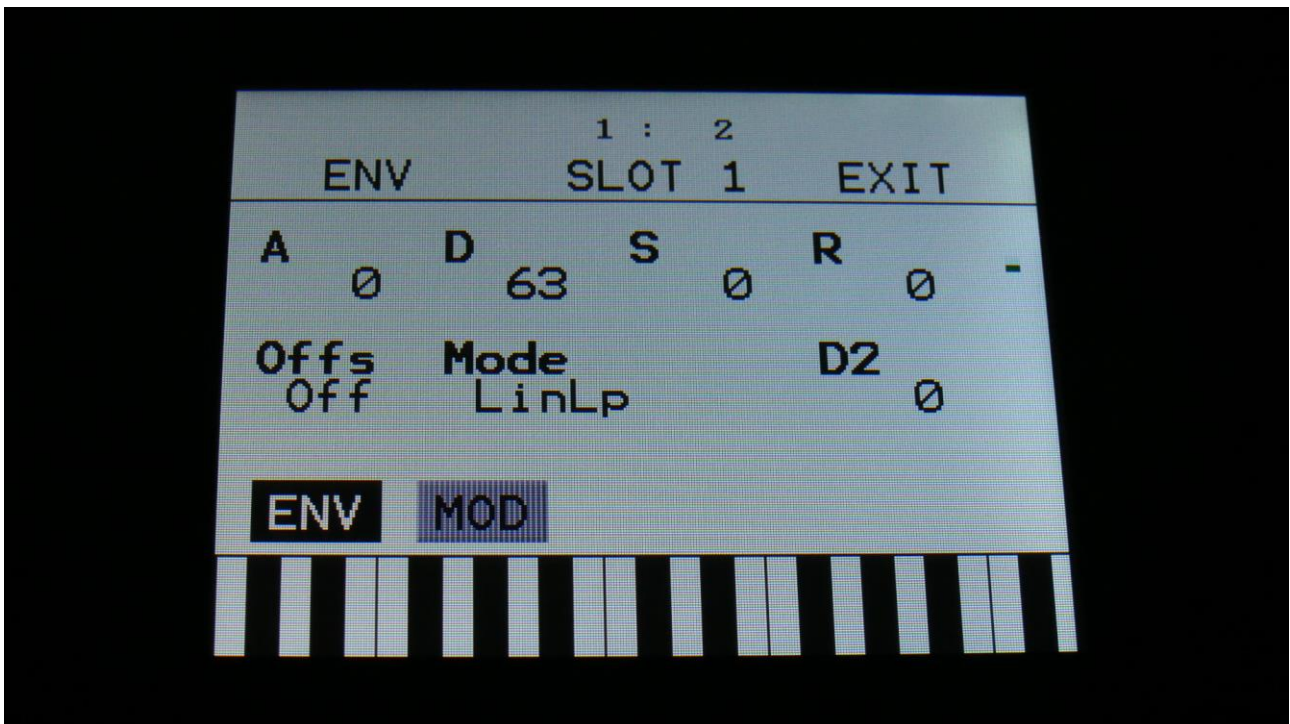
An extra set of parameters have been added, to make modulation of the Curve parameter possible.



## Envelopes Loop

It is now possible to make the attack, decay and sustain segment of the Modulation Envelopes loop, for as long as the part trigger is active. When the part trigger is released, the envelope will continue to the release segment, and fade out.

To put a Modulation Envelope in Loop mode, set the Mode parameter to either LinLp (Linear Loop Envelope) or LogLp (Logarithmic Loop Envelope).



## **Pushbuttons Hold**

In earlier firmware versions, when you were holding down the Func/Mute/Quick Knobs button, just to check the status of the track mutes, the Function buttons would be activated, when you released the Func/Mute button, without muting/unmuting any tracks. Not any more!

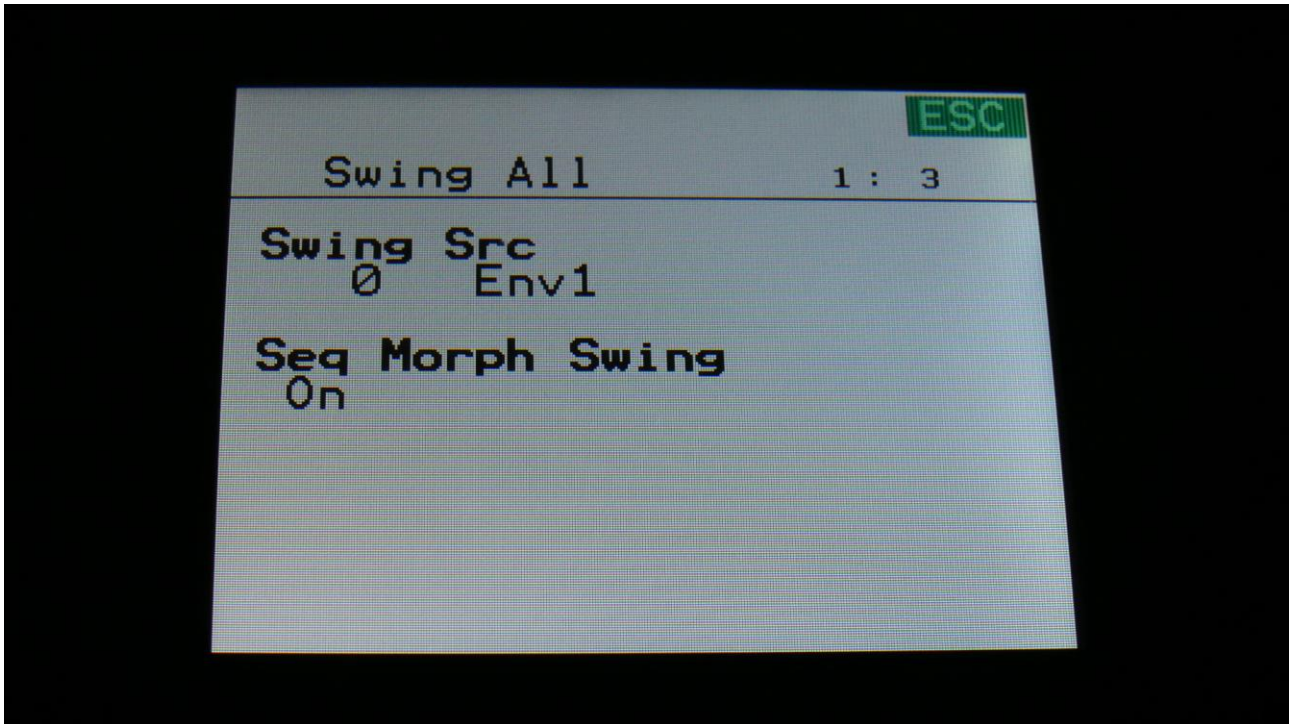
Now, when you push and hold either the Func/Mute/Quick Knobs or the 9-16/Part buttons, and release them again, they will not change state, and their sub functions will not be activated.

In order to activate the sub function Func and 9-16, you will now have to push and immediately release these pushbuttons.



## Seq Morph Random Swing

The Seq Morph random swing bug from earlier firmware versions is back! It can now be switched on and off, using the Seq Morph Swing parameter, that has been added on the Swing All page.



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