

DS-M Eurorack Drum Synth Quick Start Guide

SENS

When using a trigger input the 'SENS' control sets the amount of velocity or voltage needed to trigger the VCA's envelope. CW turns also increase the initial volume level.

When using your DS-M with an external VCA, turn CW to set initial volume level. The Trigger LED will become brighter as pot is turned CW, indicating greater volume. The rear trimmer adjusts the VCA envelope's 'attack'

MIX

Mix in your desired amount of noise from the on-board noise circuit. CW turns mix more noise into the circuit and determines your noise/oscillator ratio. Full CW will remove the oscillator from audio output.

COLOR

The 3-position 'Color Switch' changes the timbre or the 'color' of the noise. Snares, cymbals, and other percussion can be simulated by choosing the desired noise color.

TRIG

The Trigger input is VCA-like: the output level increases when higher voltage triggers and gates are used. The LED indicates when the synth is triggered and beomes brighter with more voltage.

CV

The DS-M has a large frequency range that can be accessed through Control Voltage. When calibrated by a rear trimmer, the DS-M can track 1 volt per octave for four octaves (C0-C4). The DS-M is very useful as a 1v/o mono synth up to C4 without any extra modules needed! Just connect your gate and CV output from your MIDI>CV converter or QuNexus controller and you are ready to go!

LFO RATE

Set the frequency rate of the on-board Low Frequency Oscillator. Turn full CW for extreme ring-modulation sounds, bells and other metallic auxiliary percussion sounds.

LFO AMT

Controls the on-board Low Frequency Oscillator that modulates the main oscillator.

SWEEP

The Sweep control sets the initial frequency the oscillator will start at when the synth is triggered. CW turns increase the initial frequency. This emulates the natural envelope of a drum hit.

VCO

Triangle Core Voltage Controlled Oscillator
At 1v/o for four octaves from C0-C4.
Full range is between ~4 Hz - 2.6 kHz.
CW turns increase frequency.

DECAY

The Decay sets the time that it takes for the initial output level to decay (or release) to zero after the trigger input receives a gate or trigger.



OUT

3.5mm output jack at modular levels

Product Features

10 Pin Keyed Euroack Power-8HP-
Module Depth: 1.75" (44mm)

Current Draw

+12: 20mA
-12: 10mA
+5: does not use

DS-M 1v/o Tuning Guide

NOTE: The DSM is track-able at 1v/octave for four octaves between C0 and C4. Once the DS-M has been calibrated to track 1V/Octave, you can't turn the VCO up and retain the 1V/Octave tracking.

1. Turn all control pots fully CCW to the minimum position.
2. Using a small screwdriver, turn the set screw on trim pot R43 fully clockwise up to 25 turns. A slight clicking every turn indicates the end of the pot travel.
3. Now turn the set screw on trim pot R43 CCW 15 turns.
4. Patch in a 1V/octave CV source into the CV jack on the DS-M.
5. Leave the "Trig" jack empty and turn the sense pot fully clockwise (LED will be bright). Leave all other pots in the full CCW position.
6. Select the Lowest 'C' note on your 1v/octave source (should be zero volts).

7. Turn the VCO knob CW until the frequency is ~16.35 Hz (C0). This should only be a slight amount.
8. Now select the next 'C' (C1), one octave up from C0.
9. Adjust the set screw on trim pot R43 until the frequency read by this note is 32.7 Hz (C1).
10. Select the next 'C' 3 octaves higher. Since the lowest is C0, this would be C4. Adjust the set screw on the trim pot R43 until the frequency is ~261.63 Hz.
11. Go back and recheck your notes throughout the range, and ensure they are close to the right frequencies. You should be no more than 3 Hz off. If you are, it is best to restart the tuning process.