Moog Mother-32 Analog Modular Synthesizer

Product Details

Voltage Controlled Oscillator:

- Single VCO with Simultaneous Sawtooth and Pulse Wave Outputs (+/- 5V)
- 1V/Octave from 8Hz to 8kHz (16kHz Max with LFO/CV)
- Panel Frequency Control (+/-1 Octave)
- Toggle Selector for Waveform Routed to the Mixer
- Pulse Width Control
- Linear FM and 1V/Octave Exponential FM Inputs (+/- 5V)

Noise:

- Output Normalled to Ext Audio Input
- White Noise Output (+/- 5V)

Voltage Controlled Mixer:

- Crossfades Between Selected VCO Waveform and Ext Audio Input (Normalled to White Noise)
- Mix CV Input (+/- 5V)

Voltage Controlled Filter:

- 20Hz to 20kHz Switchable Low Pass/High Pass 4-Pole Transistor Ladder Filter with Voltage Controlled Resonance
- VCF Cutoff Input (+/- 5V)
- VCF Resonance Input (+/- 5V)
- VCF Output (+/- 5V)

Voltage Controlled Amplifier:

- Selectable CV Source: EG or ON (Drone)
- VCA CV Input (0 to +8V in EG Mode and +/- 5V in ON Mode, Summed with Signals from ON/EG Switch)
- Output Volume Control (VCA Out and Line/Headphone Out)
- VCA Output (+/- 5V) and Rear Panel ¼'' Headphone/Audio Output (+/- 1.7V Peak)

Low Frequency Oscillator:

- Square Wave Output (+/- 5V)
- Triangle Wave Output (+/- 5V)
- Selectable Waveshape to VCO and VCF MOD Sections
- Panel Rate Control .1Hz to 350Hz (600Hz Max)
- LFO Rate CV Input (+/- 5V)

Envelope Generator:

- Variable Controls for Attack and Delay
- Sustain ON/OFF for Single-Trigger (ASD) or Multi-Trigger (AD) Behavior
- External Gate Input (0 to +5V; Tolerant of 10V Gates)
- EG Output (0 to +7.5V)

VCO Modulation:

- Selectable Source: EG/VCO MOD or LFO (EG Normalled to VCO MOD In)
- VCO Mod Input (Normalled to EG/VCO MOD Switch Position)
- Variable Modulation Amount Control
- Selectable Modulation Destination: VCO Pitch or PWM (PWM Summed with Pulse Width Panel Control)

VCF Modulation:

- Selectable Source: EG or LFO
- Variable Modulation Amount Control
- Selectable VCF Modulation Polarity (+/-)

Voltage Controlled Mixer/Attenuator:

- Voltage Controlled Crossfade/Mix Circuit for Mixing Two DC Coupled Signals
- Mix 1 Input (Normalled to Ground)
- Mix 2 Input (Normalled to +5V)
- Mix Control CV Input (-5V to +5V)
- Mix Output: Un-inverted Output (-5 to +5V)

Multiple:

- 1 x Input 2 x Output Signal Multiplier
- Mult Input: Buffered Signal
- Mult Outputs: 1 and 2

Keyboard:

- Single Octave 13-Note Keyboard (In Step Edit Mode this is used to Select, Mute and Enable Sequencer Steps)
- Octave Up/Down Buttons Select from 8 Available Octave Settings
- Glide Time Control
- KB CV Output (-5 to +5V)
- Gate Output (0 to +5V)

Sequencer:

- Dual-Mode 32 Step Sequencer with 64 Sequence Locations
- Performance Modes:
  - In KB Mode, the Keyboard is used to play the instrument, enter sequence data and transpose sequences.

- o In Step Mode, the Keyboard functions as the step sequencer interface and is used to enable and mute steps, update note data and select sequence banks.
- Each Sequence Step Includes: Note Value, Gate Length (Tie), Rest On/Off, Accent On/Off, Glide On/Off and Ratchet Count (Up to 4 note-repeats occurring in the duration of a single note)
- Sequencer Panel Controls: Tempo, Swing, Run/Stop, Hold and Reset
- Sequencer Control Inputs: Tempo, Run/Stop (Also for Sync), Rest and Hold
- Sequencer Control Outputs: KB, Gate, Accent Pulse

Patchbay:

- The Patchbay Contains 32 Patch Points (3.5mm)
- Available Inputs: External Audio, Mix CV, VCA CV, VCF Cutoff, VCF Resonance, VCO 1V/Octave, VCO Linear FM, VCO Modulation, LFO Rate, Mix 1, Mix 2, VC Mix Control, Mult, Gate, Tempo, Run/Stop, Reset and Hold
- Available Outputs: VCA, Noise, VCF, VCO Saw, VCO Pulse, LFO Triangle, LFO Square, VC Mix, Mult 1, Mult 2, Assign, EG, KB, Gate

Available Output:

- Multipurpose control output for selecting from 16 available functions: Sequencer Accent, Sequencer Clock, Sequencer Clock/2 Sequencer Clock, Decimated ''Ramp'', Decimated ''Saw'', Decimated ''Triangle'', Stepped Random, STEP 1, MIDI Note On Velocity, MIDI Channel Aftertouch, MIDI Pitch Bend, MIDI CC1 Mod Wheel, MIDI CC2, MIDI CC4, MIDI CC7