



moog[®]
SYNTHESIZERS

Distributed by Norlin Music, Inc.
7373 N. Cicero Ave., Lincolnwood, Ill. 60646

The Moog for the road

minimoog

ELECTRONIC SYNTHESIZER





Brutal, caustic, volcanic—Evocative, flirting, caressing—Crisp, powerful, biting—Entrancing, embracing, exhilarating! Extend the stuff your music is made of with the Minimoog. It's a true portable Moog Synthesizer that opens up some amazing new dimensions of expression to the creative musician.

The Minimoog is a well-bred performer. Solidly constructed, yet sensitive and responsive. Conveniently compact, yet it produces a complete range of tone colors. The Minimoog even gives you all of the basic features you'll find on large studio synthesizers. So you can create the same sounds that the large Moog Synthesizers are famous for . . . live on stage!

The Minimoog's left hand controllers give you a whole new freedom of expression. They modulate the pitch and tone texture of each note so you can slide

your sound like a trombone or give it a smooth violin vibrato. The Minimoog's external control jacks give you even more musical versatility. They accept a full range of standard and custom accessories. The smooth, quiet, precision controls are conveniently located for a fast, accurate and flexible performance. And you don't have to plug any patch cords into the Minimoog . . . the control panel does it all for you.

The Minimoog looks and performs so well because it's made with the same uncompromising standards that Moog Synthesizers are world famous for. And now you can finally carry that famous Moog sound cross-country on the roughest road trips and deliver it live on any stage. So get on the right road with the Minimoog. And carry more sound around than you ever thought you could handle.

minimoog...

a whole new freedom of expression

Specifications

SOUND SOURCES

No. of Sound Sources: 5 (3 Oscillators, 1 Noise Source, 1 External Input/Microphone Preamp).

Oscillator Frequency: 0.1 to 20,000 Hz. (cycles/second) in six overlapping ranges.

Short Term Oscillator Stability: $\pm 0.25\%$.

Oscillator Waveform Outputs: Triangular, Sawtooth, Triangular-Sawtooth Mix (Osc. 1 & 2 only), Reverse Sawtooth (Osc. 3 only), 3 widths of Rectangular.

Noise Source Outputs: White or Pink random waveforms.

Preamplifier Input: 10 millivolts minimum; 2 volts maximum.

Preamp Input Impedance: 100K ohms or greater.

FILTER

Filter Characteristic: Wide-range lowpass filter with variable-height resonant peak at cutoff frequency, and 24 dB/octave cutoff slope.

Range of Cutoff Frequency: Continuously variable from 40 Hz. to 20 KHz. (9 octaves).

VOLTAGE-CONTROLLED AMPLIFIERS

Number of Amplifiers: 2 (one controlled only by its Contour Generator; the other controlled by optional external controller).

Dynamic Range of Each Amplifier: 80 dB.

CONTOUR GENERATORS

Number of Contour Generators: 2 (one controlling Filter through an attenuator; the other controlling the first Voltage-Controlled Amplifier).

Range of Attack Time: 10 milliseconds to 10 seconds.

Range of Decay Time: 10 milliseconds to 10 seconds.

Range of Sustain Level: 0 to 100% of contour peak.

Width of Sweep of Filter by its Contour Generator: Continuously variable from 0 to 4 octaves.

AUDIO SIGNAL OUTPUTS

High Level Output: 0.5 volts typical, with 3K ohms nominal output impedance.

Low Level Output: 15 millivolts typical, with 1K ohm output impedance.

Headphone Output: 0.3 volts maximum, into standard 8-ohm stereo headphones.

CONTROLLERS

Keyboard Function: Permanently connected to (a.) control Oscillators 1 & 2, and (b.) trigger Contour Generators. Keyboard may be switched to control Oscillator 3 and Filter.

Description of Keyboard: Standard 44-key $3\frac{1}{2}$ -octave organ keyboard. Only lowest key depressed has effect in controlling Oscillators and Filter. Contour Generators are activated whenever a single key is depressed.

Rate of Keyboard Glide: Continuously variable from 1 millisecond to 1 second/octave.

Pitch Bending Range: 5 semitones minimum.

Modulation Injection Range: 0 to $1\frac{1}{4}$ octaves.

CONTROL & POWER CONNECTIONS

External Pitch Control Input Characteristic: 1 volt change produces 1 octave frequency change, $\pm 2\%$.

External Filter Control Input: 1 volt change produces 1 octave change in cutoff frequency $\pm 5\%$.

External Amplifier Control Input: Linear control voltage/gain relationship. Gain range spanned by 0-4 volts.

External Trigger Input: Switch-closing activates both Contour Generators.

Auxiliary D.C. Power Socket: +10 volts and -10 volts @ 50 milliamps.

DIMENSIONS & WEIGHT

Overall Size (with Front Panel down): $28\frac{1}{4}$ " wide, 16" deep, $5\frac{1}{2}$ " high.

Net Weight: 28 lbs.

Shipping Weight: 45 lbs.

POWER REQUIREMENTS

100-135 volts, 50-60 Hz., 10 watts maximum. Specifications subject to change.

Features

The sound generators include an OSCILLATOR BANK of three nearly identical oscillators, each generating six waveforms, for producing pitched tones, and a RANDOM SIGNAL SOURCE for producing pitchless white and pink sound. A FIVE INPUT MIXER combines the oscillator and random signals, and also provides preamplification for signals from external sources.

There are two modifiers—a wide range lowpass/resonant FILTER which emphasizes some overtones and attenuates others—and an AMPLIFIER which regulates loudness. Each modifier has its own wide-range CONTOUR GENERATOR for shaping loudness and overtone content.

The controllers include a rugged $3\frac{1}{2}$ octave KEYBOARD with its own glide control, a PITCH BENDER WHEEL, and a MODULATION INJECTOR WHEEL with a modulation mix control.

An A-440 ELECTRONIC TUNING FORK and an EARPHONE AMPLIFIER are provided for ease in tuning and for silent practicing.

All circuitry is solid state, mounted on convenient removable printed circuit cards located immediately behind the Front Panel.



The Minimoog's control panel is laid out in a logical pattern that's easy to understand and even more important, easy to play. The controls progress from left to right the same way the sound progresses from the original sound source to the final filtering section. The rotary knobs give you fast, precise control, and they won't collect any static causing dust. You can preset the controls too for instantaneous sound changes while you play.



The accessory panel lets you add four different optional accessories to your Minimoog. Free your hands from the volume, pitch and filter controls with the optional Footpedal. Do it live with the Ribbon Controller for sliding, sweeping, soaring sounds. Or create a third hand for random and repetitive patterns with the Sample & Hold accessory. For the truly innovative drummer there's the Percussion Controller. The harder you hit it, the higher the pitch.



The Minimoog's unique left hand controllers let you really get inside. Grab the Pitch Wheel and bend your notes like a guitarist bends his strings. Roll the Modulation Wheel forward to bring in everything from vibrato to space effects. Flip a switch and rip up the keyboard with glide. Hit decay for sustain in legato passages. Or plug in the optional Footswitch to control glide and decay for the finished touch in performance control.



The control panel adjusts to five positions to provide the correct angle for an individual performer's situation. With the panel folded down the Minimoog is only 5½" high, permitting it to easily fit into a rugged, foam-lined carrying case, an optional accessory.

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