minimoog synthesizer

The MOOG for the road

Minimoogs have appeared in practically every concert hall and recording studio in the nation. In fact, this musical virtuoso is so popular, you'll occasionally see some celebrated artist performing with up to four Minimoogs on the same stage.

The Minimoog may be portable and built for the road, but it contains more sounds and styles than a storehouse of instruments. Three oscillators give you three sound signals to play with. Tune them octaves and waveforms apart for a fat solo sound, or to intervals so each key plays a different chord.

Shake the first two sound signals with the third oscillator for vibratos, or sirens, or even *Star Trek* sounds. There's a white/pink noise source for making pitchless sounds like drums, cymbals, locomotives or thunder. The filter section gives you the sparkling brilliance of a harpsichord, or the subdued brilliance of a flute, not to mention any wah wah you want—fast, slow, high, low.

Now, you've got style. The pitch bend wheel stretches the sound, the way a guitarist "bends" his strings. The glide slides it, the way a violinist slides his finger across the neck. Attack, sustain and decay give you any response you want. You want rich harmonic distortion? It's here. A sine wave, pure as the driven snow. Moog's patented filter can do it alone.

That is, *you* can do it when you're behind a Minimoog. It's the one the stars do it with.

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FEATURES

Logical control panel layout with signal progressing from left to right.

Three tone oscillators, each with separate octave clickers, waveform selectors, volume controls, on/off switches, and oscillators 2 and 3 have separate tuning controls. (Oscillator 1 can be tuned with master tune control.)

White/pink noise selector with separate volume control and on/off switch.

External instrument input with separate volume control and on/off switch.

Many functions can be preprogrammed simultaneously for instant sound changes while you play.

Variable glide with on/off switch.

Separate filter and oscillator modulation on/off switches.

Variable modulation intensity wheel (Oscillator 3 tuning control adjusts modulation speed).

Pitch bend wheel with easy to feel notch at center position.

Control panel adjusts to five different playing angles.

A-440 electronic tuning fork.

Earphone amplifier and jack for silent practicing.

MINIMOOG 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 in six overlapping ranges.

SHORT TERM OSCILLATOR STABILITY: ± 0.25%.

OSCILLATOR WAVEFORM OUTPUTS: Triangular, sawtooth, triangular-sawtooth mix (osc. 1 and 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.

ACCESSORY PANEL: Allows four optional Moog accessories.

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. (Decay on/off control.)

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 3½ 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 WHEEL RANGE: 5 semitones minimum.

MODULATION INJECTION WHEEL RANGE: 0 to 1¼ octaves.

CONTROL & POWER CONNECTIONS

FIVE INPUT MIXER: Combines the oscillator and random signals, and also provides preamplification for signals from external sources.

EXTERNAL PITCH CONTROL INPUT CHARACTERISTIC: 1 volt change produces 1 octave frequency change, ±2%.

EXTERNAL FILTER CONTROL INPUT: 1 volt change produces 1 octave change in cutoff frequency ±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): 28¼" wide, 16" deep, 5½" high.

NET WEIGHT: 28 lbs.

SHIPPING WEIGHT: 45 lbs.

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

moog® SYNTHESIZERS

Another Quality Product from Norlin
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