

For The Performer...



A UNIQUE CREATIVE INSTRUMENT!

Brutal, caustic, volcanic — Evocative, flirting, caressing — Crisp, powerful, biting — Entrancing, embracing, exhilarating! Extend the stuff your music is made of with the MINIMOOG, a true Moog synthesizer which opens exciting new dimensions of expression to the creative professional.

The MINIMOOG is a well-bred performer. Precisely constructed, yet sensitive and responsive. Conveniently compact, yet it produces a wide range of tone colors. It lets you create many of the sound qualities made famous by the large Moog synthesizers.

The MINIMOOG contains all basic synthesizer functions, yet accepts a full range of standard and custom accessories. Controls are precisely calibrated, smooth working, and conveniently located for flexibility of operation and fast, accurate setting of tone colors. All synthesizer functions are interconnected by quiet,

logically located switches for rapid, patchcordless programming. Left hand controllers extend traditional keyboard techniques to permit expressive bending and modulating of texture as well as pitch.

The MINIMOOG looks and feels good and is built with uncompromising quality expected in an instrument bearing the Moog name. Plug-in-board circuitry permits fast and easy servicing, if necessary—even on location—minimizing down time. External control jacks increase the MINIMOOG's versatility for use with a wide range of accessories.

The MINIMOOG meets the exacting demands of creative professionals in all areas of musical application—from the traditional to the avant garde. With it the whole range of contemporary music can be created right on the job.



MINIMOOG ACCESSORY PANEL

The versatility of the Minimoog is greatly expanded by use of readily available optional accessories such as a foot switch, foot pedal and X-Y controller. In addition, standard jacks provide for plugging in a microphone, tape recorder or other external sound sources.



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 available as an optional accessory.



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 conveniently removable printed circuit cards located immediately behind the Front Panel.

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: $\pm 1\%$.

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% 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" wide, 16" deep, 5" high.

NET WEIGHT: 28 lbs.

SHIPPING WEIGHT: 45 lbs.

POWER REQUIREMENTS

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

IN *The* STRUMENT of the PROS...



minimoog

ELECTRONIC MUSIC SYNTHESIZER



moog
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