



October, 1965

ULTRA - SHORT FORM CATALOG

of
ELECTRONIC MUSIC COMPOSITION INSTRUMENTS

All instruments listed below are either standard designs and are currently in use in electronic music studios, or have passed the production prototype stage and will be available shortly. In general, each instrument is designed to perform a single generating or modifying function. Standard control voltage and signal voltage levels assure compatibility among the instruments, and with standard "professional" audio equipment. Unless otherwise noted, an external battery or line operated regulated power supply, and a suitable mounting enclosure, are required for each instrument. All instruments are fully transistorized, and designed to operate continuously with little or no maintenance.

Detailed specifications and application information for all instruments are available upon request.

901 VOLTAGE-CONTROLLED OSCILLATOR: Provides sine, triangular, pulse, and sawtooth waveforms simultaneously over the frequency range 0.1-15,000 cycles per second. Precise, continuous frequency variation over frequency ranges of 100:1 and greater are accomplished by the variation of externally-applied control voltages.

\$195.00

901-A OSCILLATOR CONTROLLER: Used to control the frequencies of two or more 901-B oscillators (see below) so that the ratio between the frequencies of the controlled oscillators remains constant.

\$ 85.00

901-B OSCILLATOR: Provides sine, triangular, pulse, and sawtooth waveforms of fixed level simultaneously over the frequency range 0.1-15,000 cycles per second. Two or more of these can be ganged, and their frequencies controlled from a single 901-A controller. Complex spectra and note mixtures can be produced, and can be shifted over wide frequency ranges.

\$125.00



901-C OUTPUT STAGE: In conjunction with a 901-B oscillator, this instrument produces two outputs of equal magnitude but opposite sign, of any of the 901-B waveforms. The output is variable, and is used as a control voltage.

\$ 45.00

901-D VARIABLE WAVEFORM OUTPUT STAGES; In conjunction with a 901-B oscillator, this instrument produces two outputs of equal magnitude but opposite sign. All of the 901-B waveforms are available and may be mixed in any proportion. In addition, variable clipping is provided to shape the triangular wave. Outputs are used as control voltages.

\$ 75.00

902 VOLTAGE-CONTROLLED AMPLIFIER: A universal "variable-gain black box" with balanced, direct-coupled inputs and outputs. In conjunction with control voltage generators such as the 901, 911, 912, or 955, this instrument will perform virtually any amplitude-varying function.

\$150.00

902-A BAND PASS FILTER ADAPTOR: Converts a 902 VCA into a voltage-controlled bandpass filter with a three octave range.

\$100.00

903-WHITE SOUND SOURCE: Generates white noise over a 1-20,000 cps bandwidth.

\$ 60.00

904-VOLTAGE CONTROLLED LOW-PASS HIGH-PASS FILTER: Provides voltage controlled filtering over a seven-octave frequency range. High pass, low pass, and resonant modes are available. The high pass and low pass modes may be combined for broad band-pass or band-reject functions.

\$475.00

904-A LOW PASS FILTER: The low pass section of the 904.

\$250.00

904-B HIGH PASS FILTER: The high pass section of the 904.

\$230.00

904-C FILTER COUPLER: The coupling section of the 904.

\$ 50.00

905 REVERBERATION UNIT: Provides mechanical-acoustical reverberation through a spring-type reverberation unit. Provision is made for mixing the reverberated with the unreverberated signal.

\$ 85.00

906 IMPULSE GENERATOR: Generates a wide variety of transient waveforms for use as signal or control voltages.

\$220.00

907 FIXED FILTER BANK: Contains ten fixed-frequency filter sections: one low pass, eight half-octave band pass, and one high pass. Signal levels from each section are individually controllable.

\$280.00

910 POWER SUPPLY: Provides -6 and + 12 volts regulated D.C. at 2 amperes.

\$180.00

911 ENVELOPE CONTROL VOLTAGE GENERATOR: Generates the control voltage contours required for producing envelopes in conjunction with a voltage-controlled amplifier. Attack time, sfortzando decay time, and final decay time are all independently variable over a 10 millisecond-10 second range.

\$110.00

912 ENVELOPE CONTROL VOLTAGE FOLLOWER: In conjunction with a voltage-controlled amplifier, this instrument produces an envelope which is the replica of the envelope of an applied "command" signal. Replication of the command envelope is accurate over a 60 db dynamic range.

\$100.00

913 TRIGGERED ENVELOPE GENERATOR: Initiates two independent envelope control voltages at the onset of a "command" signal, when the signal to be processed passes through zero.

\$150.00

920 POWER SUPPLY: Supplies -6, +12 and +24 volts regulated at 3 amperes, and 10 volts unregulated D.C. at 5 amperes. This supply is used to power large, complex systems involving programming as well as generating and processing.

\$350.00

950 KEYBOARD CONTROLLER: A five octave keyboard produces pitch and envelope control voltages, and permits the real time "playing" of a wide variety of electronically generated sounds.

\$330.00

955 LINEAR CONTROLLER: Permits the continuous and convenient variation of a control voltage by direct manual manipulation.

\$75.00

982 TWO-CHANNEL MIXER: Two input channels and two output channels are provided. Any portion of either input can be routed to either or both outputs. Low frequency and high frequency equalization are provided for both channels.

\$85.00

984 FOUR-CHANNEL MIXER: Four input and four output channels are provided. Any portion of any of the inputs can be routed to any output. Low and high frequency equalization are provided for all channels.

\$175.00

"1500 SERIES" TAPE RECORDERS: This line of equipment provides the features which have been found to be most useful in electronic music composition, at prices well below standard "professional audio" recorders. The Viking 230 solenoid-controlled tape deck is used in conjunction with specially-designed solid state electronic circuitry. A wide variety of head configurations are available. For example, the MODEL 1500 records and plays back four channels independently and simultaneously on 1/4" tape, and is priced at \$1500.00.

1900 POWER OSCILLATOR-AMPLIFIER: Supplies variable frequency power for driving tape recorder capstan motors. Converts any tape recorder with a synchronous capstan motor to variable speed operation. Output rating is 150 volt amperes. Frequency range of internal oscillator is 40-150 cycles per second. Any external oscillator may also be used as the frequency source.

\$275.00



ADDITIONAL PRODUCTS AND SERVICES

SPECIAL INSTRUMENTS: We will be pleased to quote on the design and construction of special instruments for the production of sound and music. Our twelve years' experience in electronic musical instrument design includes the design and construction of a system of instruments for John Cage's "Variations V", and the design and construction of a polyphonic keyboard performance instrument for the New York Research Group.

SYSTEMS DESIGN: Complete electronic music composition studios have been designed and installed for independent composers and institutions. We will be glad to submit proposals without charge.

DEMONSTRATION AND EXPERIMENTAL STUDIOS: A complete composition studio, including recording and monitoring equipment, is maintained in Trumansburg, New York. This studio is open to those who are interested in establishing or enlarging studio facilities and wish to try Moog instruments under typical studio conditions. The studio is also available for rent for extended periods of time. The rental fee is \$100.00 per week.

