

MODULAR SYNTHESIZER LAB

— MSL —

THE MODULAR SYNTHESIZER LAB (MSL) IS A UNIQUE CONCEPT IN SYNTHESIZER DESIGN. IT WAS DEVELOPED SPECIFICALLY FOR THE EDUCATIONAL MARKET.

- The sequential approach to learning is built into the modular concept. Students master the functions of one module before progressing to the next module.
- The modular approach can be used effectively on all levels - from ELEMENTARY GRADES TO COLLEGE. The first four modules (Speaker/Amplifier, Voltage Controlled Oscillator, Voltage Controlled Filter, and Envelope Generator) are ideal for teaching about the nature and properties of sound, *i.e.* pitch, timbre, envelope, volume and location. In addition, they can be used to create a wide variety of musical and non-musical sound effects that range from environmental sounds to eerie electronic sounds.
- The BASIC SET (see photo below) consists of five modules which will enable students to learn the functions and capabilities of synthesizer components.
- Additional modules (see reverse side) can be purchased separately to expand the capabilities of the BASIC SET. The MSL can grow as fast and as large as your budget allows.
- The MSL is the only battery-operated system that is Voltage Controlled. This feature makes it possible to convert raw sounds into musical sounds by controlling various parameters of sound precisely and simultaneously.



THE BASIC SET

1. **SPEAKER/AMPLIFIER (S/A)** - The S/A can operate on batteries or on electrical current. The pre-amp makes it possible to produce interesting sounds by routing signals such as a microphone or a guitar through other modules.
2. **VOLTAGE CONTROLLED OSCILLATOR (VCO)** - This is the primary sound producer of the MSL. The VCO has a range of several octaves and is capable of producing sawtooth, square, and variable pulse waveforms.
3. **VOLTAGE CONTROLLED FILTER (VCF)** - The VCF is the primary modifier of the MSL. It can produce a wide variety of timbres and it can also act as a VCO by producing a sine wave.
4. **ENVELOPE GENERATOR (EG)** - The EG is a controller. It can be used to control pitch, timbre, and/or volume.
5. **KEYBOARD (KYBD)** - The three-octave keyboard is used primarily to control the pitch of the VCO and to control the EG. The keyboard can be adjusted for high-note or low-note priority.