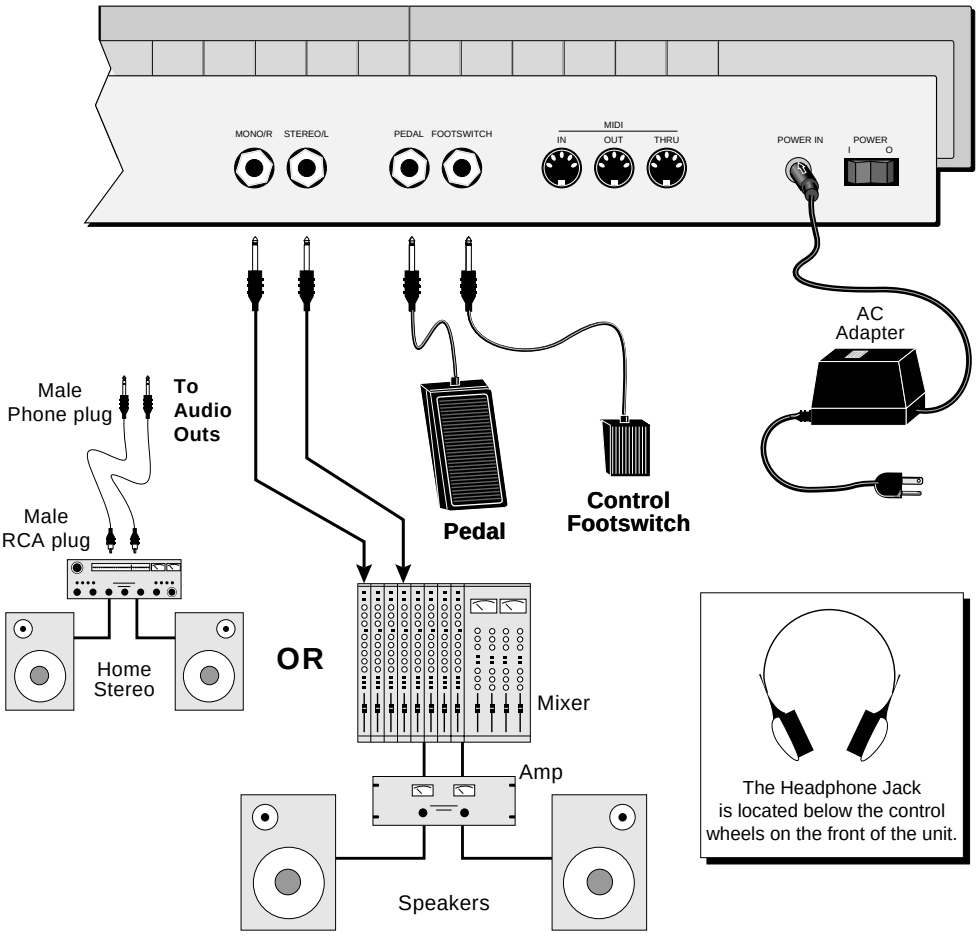
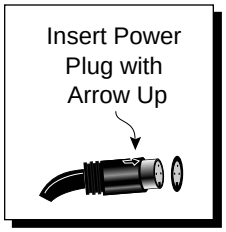
CONNECTION INSTRUCTIONS

Setup #1 BASIC SETUP





▼ *Make sure that your AC Adaptor is of the correct voltage for your part of the world!*

USA ..... 110 Volts
U.K. ..... 240 Volts
Europe ..... 220 Volts
Japan 100-110 Volts
Mexico ..... 110 Volts
S. America 110 Volts

Outputs - Use a high quality amplification and speaker system such as a keyboard amplifier or home stereo system. A stereo setup is highly desirable because of the added realism of stereophonic sound. Plug stereo headphones into the headphone output jack on the front of the unit below the pitch and modulation wheels. The Right Main output jack serves as a mono output when the left jack is not plugged in.

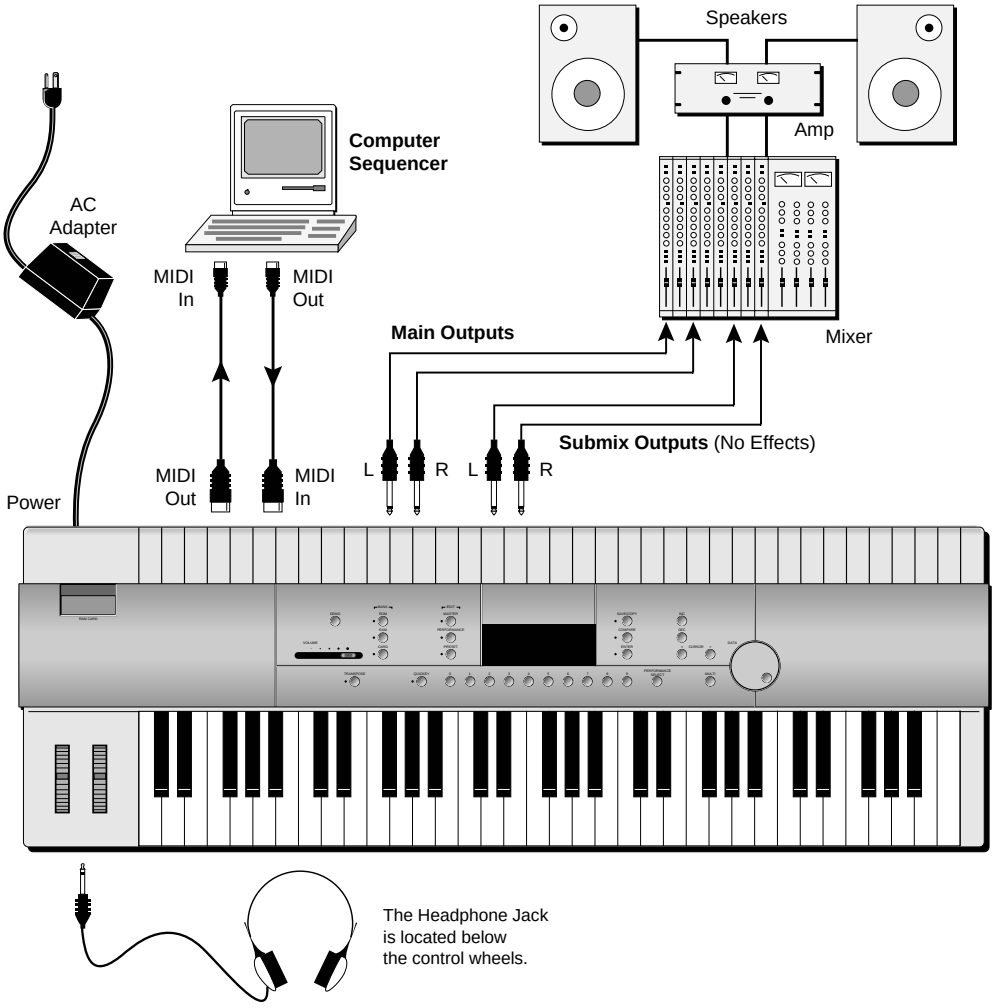
Footswitch - Connect either a momentary-open or momentary-closed type of footswitch to the footswitch input jack. Proteus automatically senses the type upon power-up. The footswitch can control various functions (such as sustain) as programmed in each preset.

Pedal- Connect a resistance type control pedal to the Pedal input jack. The pedal can control various functions (such as volume) as programmed in the preset.

■ *The Control Footswitch and Pedal are available from your E-mu Dealer.*

■ *See page 38 for the footpedal wiring diagram.*

Setup #2 SEQUENCING SETUP



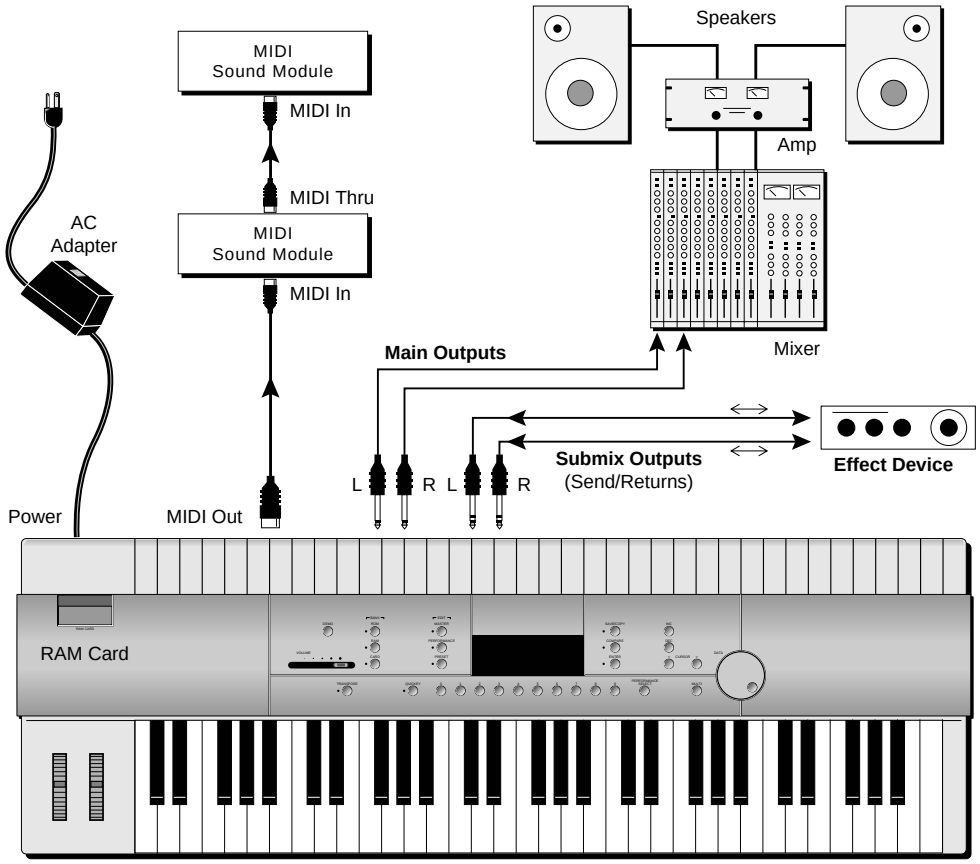
MIDI In - MIDI messages from the MIDI sequencer as well as the keyboard control Proteus. Connect the MIDI In of Proteus to the MIDI Out connector of your MIDI Sequencer.

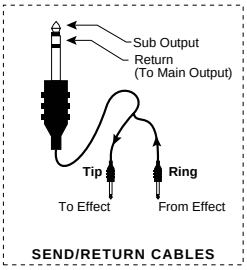
MIDI Out - The MIDI Out jack sends MIDI data to the sequencer.

Settings - Computer sequencer is set to Echo Thru (incoming MIDI data is sent back out) and Proteus is set to Local Control Off (keyboard is disconnected from the internal sounds).

Outputs - Always connect Proteus in stereo (if possible) to a high-quality audio system. The Submix outputs can be used to separately process certain presets or instruments using outboard effects devices.

Setup #3 - MASTER KEYBOARD





This diagram shows the construction of the Send/Return cables.

Proteus can serve as a *Master* keyboard controlling other MIDI gear as well as its internal voices. The keyboard can be split in up to four locations each of which can be transmitted on a separate MIDI channel.

■ *See the Performance Edit section for detailed information on the split keyboard.*

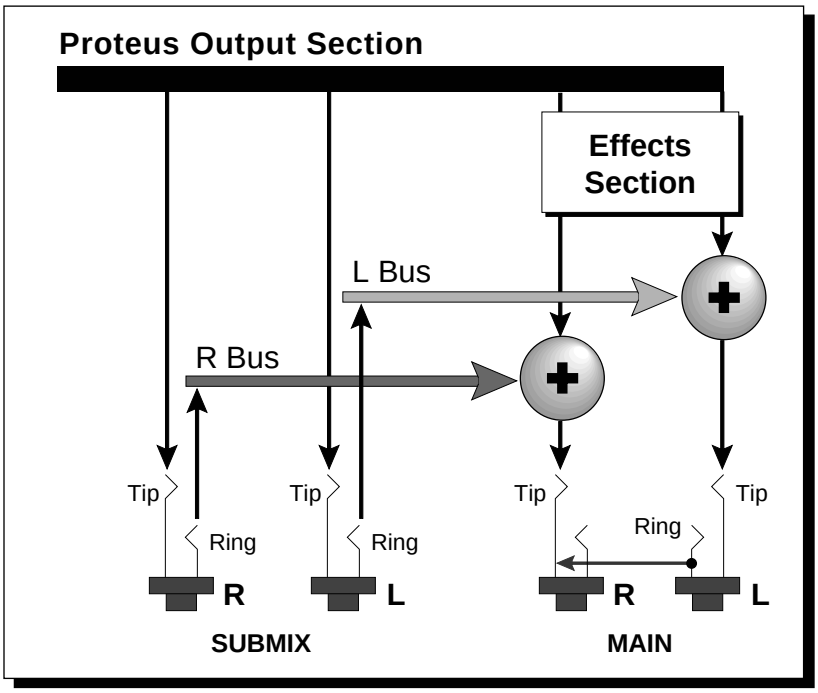
MIDI Out - The MIDI Out jack transmits MIDI data which originates in the Proteus such as (keyboard data, control wheel data, pedal data, footswitch data, and other MIDI data which may be programmed in the Performance section) to additional MIDI devices. See the *Basic Setup* diagram. Connect the MIDI Out of Proteus to the MIDI In connector of a MIDI device such as a sound module, another keyboard, or a MIDI controlled effects unit.

Outputs -Use a high quality amplification and speaker system such as a keyboard mixer and amplifier. The Right Main output jack serves as a mono output when the left jack is not plugged in. Each of the Submix Outputs are stereo jacks. The tip of each jack (accessed when a standard

phone plug is inserted) connects to the left or right output. If a stereo plug is inserted, the Ring of the stereo plug serves a signal Return which sums into the Main outputs.

Therefore, the Submix jacks can serve as effects sends and returns in order to externally process selected instruments and then return them to the main mix.

The diagram shows the Submix jacks being used as send/returns in order to further process selected Proteus instruments without using the effect buss on the mixing board. In a pinch, the effect returns could be also be used to sum additional instruments into the main outputs of Proteus.



The Submix jacks can be used as effect returns to the Main Outputs.

POWER UP!

The power switch is located on the left rear panel of the unit. Proteus should be turned on first and your amplification system should be turned on last. When power is applied, the liquid crystal display will light, indicating that the Proteus is operating.

the PROTEUS SOUND

The Proteus, unlike many synthesizers, utilizes digital recordings of real instruments for the basis of its sound. This is similar to a tape recorder except that in the Proteus, the sounds are permanently recorded on digital memory chips.

To perform this modern miracle, sounds and instrument waveforms are first sampled into the Emulator III, our top of the line, 16 bit stereo digital sampler. After the sounds and waveforms have been truncated, looped and processed, they are masked into the Proteus ROM (Read Only Memory) chips.

Conceptually, the sampling process is very simple, as shown in the Basic Sampling System diagram. As a sound wave strikes the diaphragm of a microphone, a corresponding voltage is generated. To sample the sound, the voltage level is repeatedly measured at a very high rate and the voltage measurements are stored in memory. To play the sound back, the numbers are read back out of memory, converted back into voltages, then amplified and fed to a speaker which converts the voltage back into sound waves. Of course, playing back 32 channels at different pitches tends to complicate matters, but this is basically how it works. In Proteus, we have left out the Analog/Digital converter stage since the sounds are already sampled for you.