

The Most Complete Keyboard Instrument Available Today



The Prophet-10 is a true synthesizer, with 10 complete voices; each with 2 voltage controlled oscillators, a noise source, a voltage controlled 24 db/octave lowpass filter, and two 4 stage envelope generators. And, not only is it completely programmable, but there are two different programs which can be used at any one time. One is the **UPPER** program—with five voices usually tied to the upper 5 octave keyboard, and the other is the **LOWER** program—with the other five voices, usually tied to the lower 5 octave keyboard. There are 32 programs for each, a total of 64 programs available. These come pre-programmed for immediate use, but they can all be modified or replaced as necessary.

The individual list of features is extensive—the following is a description of each function which will explain most of the instrument's capabilities:

PROGRAM SECTION

ALL controls inside the **PROGRAM** section are remembered as part of each program.

POLY-MOD SECTION

The controls in this section allow a mixture of the filter envelope and the output of oscillator B to be used to affect oscillator A frequency, oscillator A pulse width and filter cutoff frequency individually for each voice.

SOURCE AMOUNT Knobs determine the relative mixture of filter envelope and oscillator B output taken as modulation source.

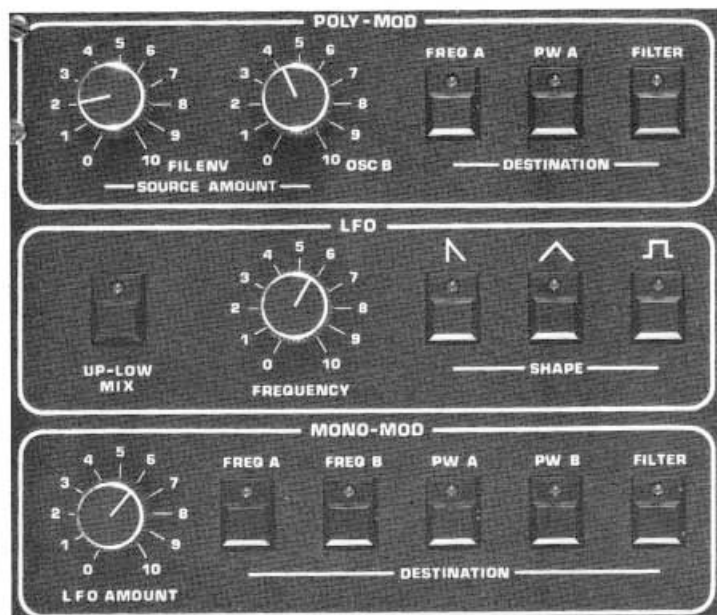
DESTINATION Buttons. When on, the modulation source mixture is routed as a control source to the indicated destination.

LFO SECTION

The controls in this section determine the frequency and output waveform of the **PROPHET's** low frequency oscillator which is then routed as a modulation source via the **MONO-MOD** section.

FREQUENCY Knob varies LFO frequency over a range of .01 to 20 Hertz.

SHAPE Buttons. When on, the corresponding waveshape is mixed into the LFO output at full level.

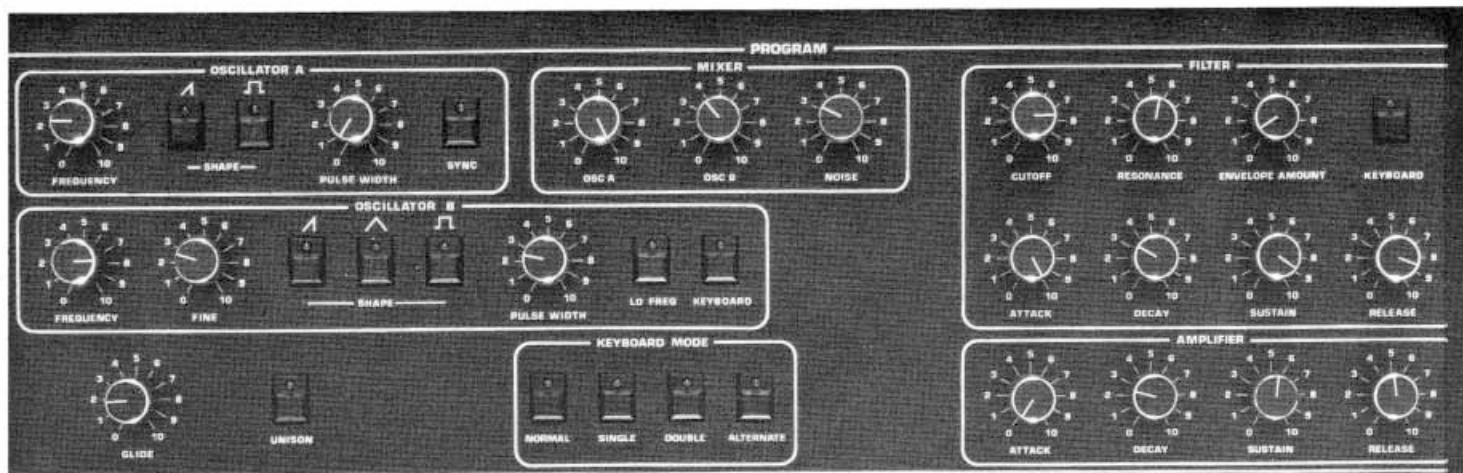


MONO-MOD SECTION

The controls in this section determine the amount and destination of monophonic modulation.

LFO AMOUNT Knob determines the amount of LFO modulation to be programmed.

DESTINATION Buttons. When on, the corresponding destination is modulated in an amount determined by either the MOD wheel, MOD pedal (see PEDAL section), or the programmed LFO AMOUNT.



OSCILLATOR SECTIONS

The controls in these sections determine the relative oscillator frequencies and the output waveforms sent to the **MIXER** and **POLY-MOD** sections for each of the **PROPHET's** voices.

FREQUENCY Knob. Frequency varying in semi-tones over a 4 octave range.

FINE Knob (B only). Frequency varying continuously over a range of approximately one whole-tone.

LOW FREQUENCY Button (B only). When lit, oscillator B functions in low frequency range (approximately .4 to 10 Hz).

KEYBOARD Button (B only). When off, oscillator B frequency is not affected by the keyboard.

SHAPE Buttons. When lit, the corresponding waveform is mixed at full level into oscillator output.

PULSE WIDTH Knob determines pulse wave duty cycle (0% to 100%).

SYNC Button (A only). When lit, oscillator A frequency follows oscillator B frequency in "hard synchronization."

MIXER SECTION

The **OSC A**, **OSC B** and **NOISE** control settings determine the amount of each signal which will be input to the low pass filter.

FILTER SECTION

CUTOFF Knob determines the cutoff frequency for the **PROPHET's** 24 db/octave low pass filter.

RESONANCE Knob determines the amount of resonance of the filter. When fully clockwise the filter will oscillate in a sine wave.

ENVELOPE AMOUNT Knob determines that the filter cutoff frequency is affected by the ADSR envelope in the filter section.

ATTACK Knob varies attack time from 1 millisecond to more than 30 seconds.

DECAY Knob varies decay time from 1 millisecond to more than 30 seconds.

SUSTAIN Knob varies sustain level from 0 to full level.

RELEASE Knob varies release time from 1 millisecond to more than 30 seconds.

AMPLIFIER SECTION

The **ATTACK**, **DECAY**, **SUSTAIN** and **RELEASE Knobs** in this section determine the envelope applied to the amplifier in the same manner as the similarly named controls in the **FILTER** section.

GLIDE Knob. This control is effective only when the **PROPHET** is in **UNISON** mode (**UNISON** button lit). In **UNISON** mode this knob determines the amount (rate) of glide (portamento) between notes.

UNISON Button. When lit, all the **PROPHET's** voices play in unison (monophonic), following the same keyboard note.

KEYBOARD MODES

NORMAL Mode. The **UPPER** five voices play on the upper keyboard with the upper program, and the lower 5 voices play on the lower keyboard with the lower program.

SINGLE Mode. All ten voices play the same program (upper or lower—whichever is selected). The notes can be played on either keyboard in any combination.

DOUBLE Mode. Hitting a key (on either keyboard) will simultaneously play one voice with the upper program and one voice with the lower program. In this mode only 5 keys can be played at one time.

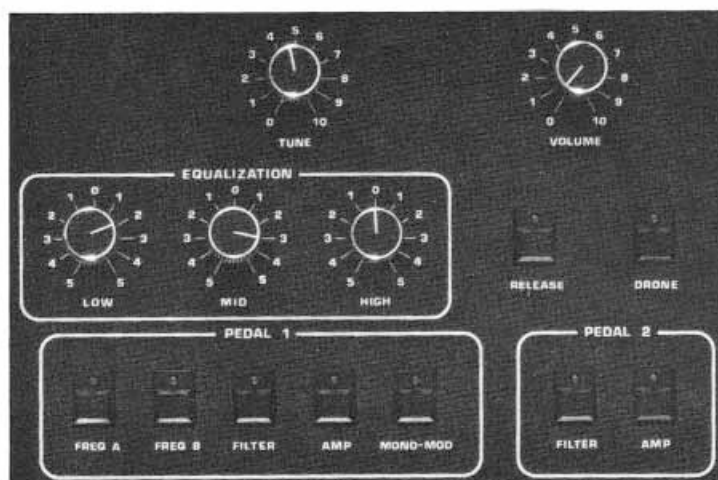
ALTERNATE Mode. Every new key hit will alternate between the upper and lower programs.

TUNE Knob is used to provide programmed detuning of the upper 5 voices and the lower 5 voices with a range of approximately one semi-tone.

VOLUME Knob is used as a programmed volume control to match the volume levels between different programs, and between upper and lower programs.

RELEASE Button. When off, the release time of the amplifier envelope is minimum regardless of the release control setting.

DRONE Button. When on, the amplifiers on all five voices will stay on for continuous sound without holding down keys.



EQUALIZATION SECTION

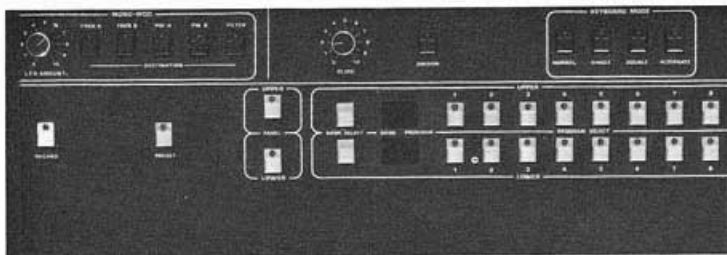
LOW Knob provides cut/boost facilities for lower frequency signals.

MID Knob provides cut/boost facilities for middle frequency signals.

HIGH Knob provides cut/boost facilities for high frequency signals.

PEDAL SECTION

The switches in this section select the destination for the two control voltage pedal jacks on the back panel. **PEDAL 1** can control any combination of oscillator A frequency, oscillator B frequency, filter cutoff frequency, volume level, or amount of **MONO-MOD** modulation. **PEDAL 2** can control either the filter or amplifier.



NON-PROGRAM FUNCTIONS

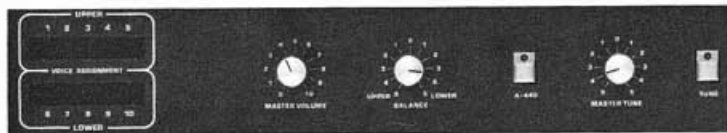
RECORD Button is used to record a sound currently set up on the front panel into memory for instant recall.

PRESET Button determines if the current sound comes from the front panel controls (when light is off) or from the programmed memory (light on).

UPPER/LOWER Button determines if the **UPPER** or **LOWER** program is currently displayed on the front panel PROGRAM section controls.

BANK SELECT Buttons. Repeatedly pressing this button cycles either the upper or lower programs through their 4 memory banks. The banks currently selected are indicated in the left half of the digital displays.

PROGRAM SELECT Buttons. Pressing any of these buttons causes the corresponding numbered program within the currently selected bank to be selected. The upper and lower programs are independent of each other, but easy to select simultaneously because of their closeness to each other.



VOICE ASSIGNMENT Lights display which voices are currently being played. These are a valuable aid to understanding the keyboard modes and the keyboard assignment logic.

MASTER VOLUME Knob determines the overall output level of both upper and lower voices.

BALANCE Knob determines the relative volume of the upper and lower voices.

A-440 Button routes a crystal referenced A-440Hz signal to the output, accurate to less than .1 Hz.

MASTER TUNE Knob simultaneously varies the frequency of all oscillators to enable tuning with other instruments.

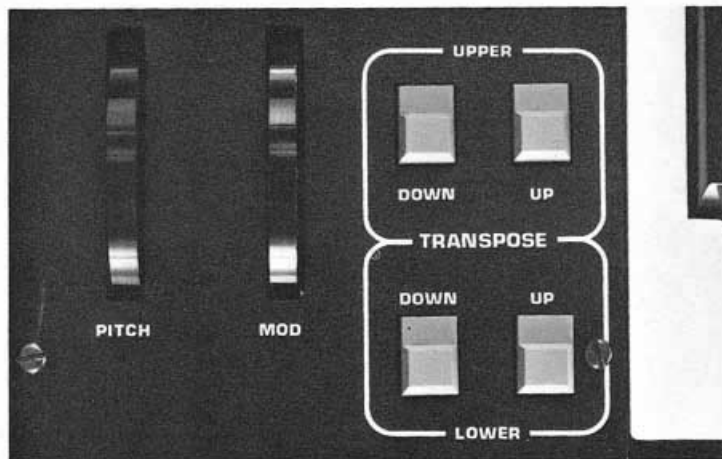
TUNE Button. When hit, the computer will automatically tune and scale all 20 oscillators.

POLYPHONIC SEQUENCER OPTION

The Prophet-10 has an optional polyphonic sequencer which can be installed either when ordered, or at a later date in the field. It fits completely within the main unit, so that no clumsy connections need to be made. Some of the features of the sequencer are:

- Very easy to use; just play normally and record exactly what you play.
- Extensive editing and overdubbing facilities.
- Exact timing can be programmed, and an external clock can be used. This enables very complex "non-playable" sequences to be constructed.
- Utilize the full Prophet-10 potential by changing programs automatically in the sequence and by using all keyboard modes.
- Transpose facilities for instant pitch changes.
- Footswitch start/stop capability (footswitch included).
- **Built-in** micro cassette for both sequence and program storage—again, no cables or extra external units to bother with.

The sequencer must be heard to be fully appreciated. For further information on the sequencer, refer to the separate brochure.

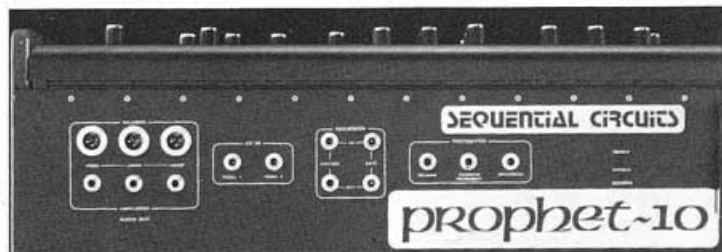


LEFT HAND CONTROLS

PITCH WHEEL bends the oscillator either up or down by approximately a fifth.

MOD WHEEL can be selectively enable **MONO-MOD LFO** modulation.

TRANSPOSE Switches enable instant octave transposing of either upper or lower programs, either up or down, within a four octave range.



BACK PANEL FUNCTIONS

AUDIO OUT Jacks provide both balanced and unbalanced audio output signals for both upper and lower programs separately and for a mix (monophonic) output.

CV IN Jacks are inputs for the two pedal control voltages, whose destinations are programmed on the front panel.

SEQUENCER INTERFACE allows the **PROPHET** to be interfaced with the Sequential Circuits' Model 800 Digital Sequencer, as well as other synthesizers and synthesizer accessories.

GATE and VOLTAGE OUT Jacks follow the last note played on the keyboard, and the GATE and VOLTAGE IN Jacks control voice 5 on the upper program (which is automatically disconnected from the keyboard).

RELEASE FOOTSWITCH Jack. When used with the included footswitch, allows the performer to turn the ADSR release on and off (acting like a piano sustain pedal).

PROGRAM INCREMENT FOOTSWITCH Jack will increment both upper and lower programs by one when hit once. This allows changing programs while keeping both hands on the keyboards.

SEQUENCER FOOTSWITCH is used for start and stop functions on the optional polyphonic sequencer.

ENABLE/DISABLE Switch locks to prevent accidental erasure of programs by disabling the RECORD switch on the front panel.

Removable power cord fixture also contains the main AC fuse, facilities for selecting between 100, 120, 220, and 240 Volts AC line levels, and an AC filter.

All Prophet-10's come (at no extra cost), with a high quality flight case, two voltage pedals, and two footswitches. When delivered, the Prophet-10 is ready to play.

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