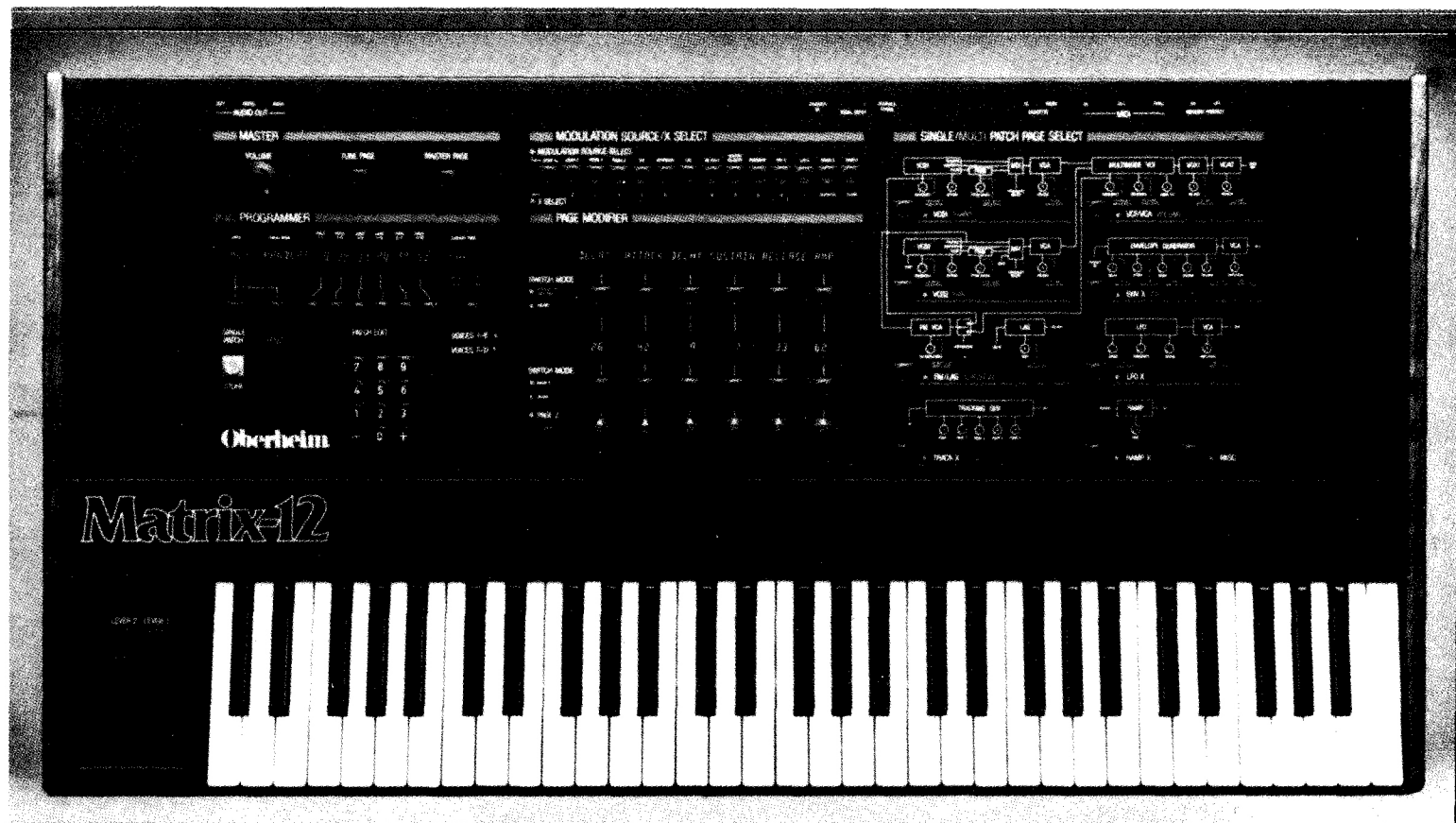


Matrix-12

PROGRAMMABLE MIDI KEYBOARD SYNTHESIZER



This is the ultimate analog synthesizer. Imagine twelve voices, individually programmable with that famous Oberheim sound. Add the most versatile patching system ever developed, controlled by three computers working in parallel. Control this unbelievable capability with a velocity keyboard that can be split into six overlapping sections. Add the most sophisticated MIDI Interface ever developed, and you'll begin to get some idea of the awesome capability of the Oberheim Matrix-12.

Based upon the same revolutionary technology as the Oberheim Xpander synthesizer, the Matrix-12 has been designed to be the ultimate complete professional synthesizer.

Because of its twelve voices and vast programming capabilities, the Matrix-12 can replace several more conventional synthesizers in an electronic music system. And because of the unprecedented sophistication of its keyboard and MIDI Interface, the Matrix-12 is ideally suited

for use as a master controller in multi-instrument environment.

One of the most powerful features of the Matrix-12 is that each of the twelve voices can have a different sound. The machine can be split into six sections called Zones, each playable from the keyboard, from other MIDI devices, or any combination. What this means is that several of the matrix-12's voices with different sounds can be played from several parts of its keyboard, while other voices with other sounds are controlled by a MIDI sequencer, and the remainder of the keyboard controls another synthesizer, ALL AT THE SAME TIME. And all this complexity can be stored in one of the 100 Multi-Patches, and be recalled at the touch of a button.

MASTER KEYBOARD

The Matrix-12's five-octave, long-throw velocity keyboard responds to every subtlety of your touch, yet is light weight for ease of portability. There are selectable

velocity scales to tailor the response of the keyboard to your individual playing style, for the keyboard as well as for external MIDI controllers.

Naturally, the Matrix-12 keyboard responds to after-touch pressure as well as attack and release velocity. But unlike other synthesizers, these signals can be used to control almost any parameter of each voice — Volume, Filter Frequency or Resonance, Envelope times, FM Amount, Vibrato, Detune, LFO Speed, Lag, etc. This versatile modulation capability places real-time control over many parameters of a voice's sound literally at your fingertips.

VOICE ARCHITECTURE

The high performance capabilities of the Matrix-12 are made possible by the use of computers to replace large amounts of electronic circuitry. This results in more reliable operation, and makes the Matrix Modulation™ system possible.

Matrix-12

EACH voice of the Matrix-12 contains:

- ☐ Two Oscillators, each with Sawtooth, Triangle, and variable Pulse waveforms;
- ☐ 15-Mode Filter;
- ☐ Two Output Amplifiers in series with programmable stereo panning;
- ☐ Five Envelope Generators, each with Delay, Attack, Decay, Sustain, Release, and an output amplifier, plus all sorts of programmable triggering modes;
- ☐ Five Low Frequency Oscillators, also with output amplifiers. Each LFO has Triangle, Square, Up and Down Sawtooths, Random, and Noise waveforms, sampling of any modulation source, plus various triggering modes;
- ☐ Four Ramp Generators, each with programmable ramp rate and several triggering modes;
- ☐ Three Tracking Generators that can change the scaling or shape of a modulation source;
- ☐ Lag Processor for Portamento effects between any modulation source and destination;
- ☐ FM VCA, for Dynamic Linear Frequency Modulation of VCO1 or the Filter by VCO2.

MODULATION CAPABILITIES

The Matrix-12's Matrix Modulation™ system is what sets it apart from conventional synthesizers. There are 27 modulation sources within every voice. Each of these modulation sources can be sent to any of the 47 modulation destinations on every voice. A source can go to many destinations at the same time, with independent control of each destination, positive or negative.

FRONT PANEL

Like the Xpander, the Matrix-12 incorporates 120 characters of fluorescent alphanumeric display to show information about a Patch and its parameters. The Matrix-12 divides patch editing controls into sections called Pages, with all of the controls for that section available at once in the Page Modifier section of the front panel. For example, selecting the VCO 1 page causes all the controls and values for VCO 1 to appear on the front panel. The knobs and buttons can then be used

to adjust the settings for VCO 1. When a new page is selected, the settings for VCO 1 are remembered, and the new page can be edited as desired.

MULTI PATCH PROGRAMMING

The Matrix-12's 100 Single Patches store all the parameters, as well as the name of each sound program. In addition, 100 Multi Patches are used to program combinations of Single Patches. Each Multi Patch remembers what sound is on each voice (since each voice can have a different sound) as well as MIDI channel selection, panning, volume, transposition, and detune of each voice.

Multi Patches also remember voice assignments to any of six keyboard sections called ZONES. A Zone can be assigned to the internal keyboard or an external MIDI channel, or both. These six Zones within each Multi Patch can be configured into Split, Double, Triple, Quadruple, etc., voicings, even from an external controller without split capabilities. These Zones can also overlap, so that one section of the keyboard can sound like a bass, another like strings, and a third like flutes; while the sections between can stack bass & strings, and strings & flutes.

Zones can be assigned to direct notes only to the MIDI Output and not play any of the voices within the Matrix-12. Conversely, a Zone can also be set to only receive notes that appear at the MIDI Input, for external control of the Matrix-12's voices. In addition, there are various voice assignment routines and voice robbing options available in each Zone.

The Oberheim Matrix-12: twelve unbelievable voices, combined with an unbelievably controllable keyboard. BELIEVE IT!

Prices and specifications are subject to change without notice



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