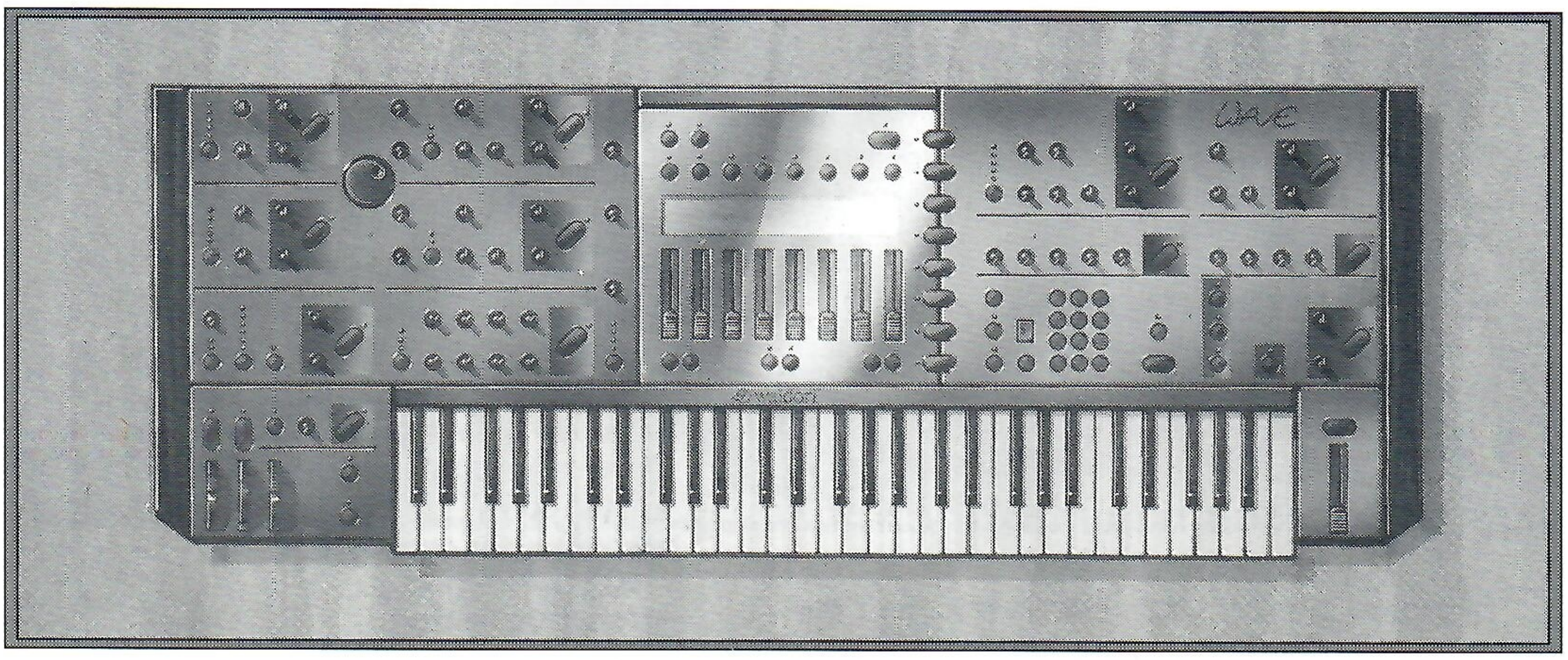
waldorf

The WAVE

Preliminary information

The WAVE

Advanced Modular Wavetable Synthesizer with the most intuitive user-interface available today



The **WAVE** by Waldorf represents the logical refinement of Wavetable-synthesis, with the utmost consideration for a clear, concise and intuitive user-interface. In addition, the **WAVE** has been conceived to be completely modular in its hardware as to cater for various needs the best possible way. Options for soft- and hardware extensions allow for an even greater flexibility, putting the **WAVE**, as its predecessor, the MicroWave, into the best position to become a classic.

COMPREHENSIVE SYNTHESIS

The **WAVE** refines the Dynamic Spectral Wavetable synthesis by Waldorf. Right at the unit ***User-Wavetables*** can be created and edited, putting the potential to realise an undreamed of host of innovative sounds at everyone's disposal. A truely unique function to extract single spectra or spectral groups from sampled sounds, including their timbral evolution over time, will stand out in the creation of new sound-colours.

The modulation-capabilities have been improved enormously as well: for example, MIDI-clock, playspeed, keyboard-status, and more can now also be utilized as modulation sources; modifiers can be turned inside-out by new, special modules such as ***Control Delay, Control Mixer, Control Shaper*** or ***Control Comparator;*** additional modulation inputs allow for even greater expressive capabilities than before.

Finally, there is a new, assignable four-stage Time/Level envelope, new LFO-Waveforms and -parameters, advanced voice-allocation algorithms, plus a whole lot of other beneficial improvements.

CLEAR HIERARCHY

For simplicity, the **WAVE** always is in multi-timbral mode, thus offering up to eight Sounds simultaniously in each ***Performance***, which can be used in split- or layer- combinations as well as for sequencer-use or combinations thereof.
Each Sound is defined by its own virtual ***Instrument***, which determines key- and velocity-zones as well as MIDI-channel, volume, panorama, detune, transposition, plus the level of two independent auxiliary sends for controlling effect- pathes.

Comprehensive makro-functions simplify the task of arranging complex split- and layer-arrangements. A total of 128 Performances and 128 Sounds are internally available; an optional memory expansion board increases this number by a factor of three.

EXPRESSIVE MASTERKEYBOARD FUNCTIONS

The 61- (or on demand 76-) key keyboard is ideally suited as a MIDI masterkeyboard. Each Performance of the **WAVE** holds up to eight additional key-zones for controlling external equipment; thanks to two independent MIDI-Outs up to 32 different MIDI- modules can be addressed, not only by channel, but also by name.

Extensive performance-controllers guarantee extreme and manyfold expessiveness: besides pitch- and modulation-wheels there exists a programmable ***Freewheel***, two ***Playbuttons***, and a ***sustain***- as well as two definable ***foot-pedals***, all assignable seperatly to each zone, and even with individual scaling for the pitch- and modu-

lation-wheels. To round things of, the eight faders are available as additional realtime performance-controllers for both the internal Instruments or external MIDI gear.

PC-COMPATIBLE DISK DRIVE

All data, Sounds and Performances of the **WAVE** can be saved on the built-in HD floppy disk drive. All dataformats can be stored and recalled separately, and naturally sys-ex data of other MIDI equipment can also be archived. As a reference, date and time will be stored along thanks to the built-in battery-backed realtime clock.

As the icing on the cake Sounds and Performances can be archived on disk by means of their own respective databases, which, of course, offer subgroups as well as several search-functions.

The disk format is MS-DOS compatible and thus can be read or written to on most standard computer systems.

INTUITIVE USER-INTERFACE

The most important feature of a synthesizer today is not only its sonic variety, but its user-interface as well. Only functions that can be accessed quickly and efficiently will stand up to the day- to-day workload of the professional musician.

Therfore, Waldorf did not allow for any compromise in designing the user-interface of the **WAVE**. Almost all sound-parameters can be accessed by their respective single-purpose knob, button or dial. On top of that, the largest display implemented in a musical instrument to date shows all information of the status of each sound-module. With related faders and buttons each depicted display-parameter can be manipulated immediately as well.

Additionally, a range of unique edit-modes offer even more refined edit-operations:

- ***Multi-Edit:*** several Sounds of different Instruments can be edited at the same time in relation to each other. If, for example, the release time of the filter shall be changed for all Sounds of an eight-part Performance, a single twist of a knob does the job.
- ***Group-Edit:*** a single parameter of all Sounds/Instruments can be edited in parallel using the eight faders. Thus the finetuning of the Instrument volumes, for instance, becomes child's play.
- ***Quick-Edit:*** several related parameters of a single sound will be edited relative to each other to attain a large change of timbre. Additionally, makro-functions for envelope- and modulation-settings can be exerted. This way, a Sound can be perfectly finetuned or changed dramatically all within seconds.

To never loose one's head, the WAVE puts extensive copy-, initialisation- and compare-functions at your disposal. Also, each Sound comes with its own edit-buffer, never leaving you crying over a lost original or edited version of your preciously crafted textures. And to top it off, you even may audition sounds from disk, try Quick-Edit makros or send MIDI sys-ex dumps to the WAVE - still none of your Sounds, be they originals or edited versions, will get lost.

FUTURE EXPANDABILITY

By consequently employing a modern computer architecture, the **WAVE** can be expanded in software as well as by hardware curcuit-boards. You can, for example, increase the number of voices from 16 up to 48 by simply plugging-in two Expansion-Voice-Boards - and, of course, each voice still comprises two Wave-generators. Furthermore, two option-slots are available to hold upcomming hardware-modules that will make the **WAVE** even more universal and colourful. Any way you look at it, the WAVE is armed for future expansions and extensions, putting it on the cutting edge of technology.

THE FEATURES

8 Modebuttons:

- Performance
- Xtrument Edit
- Global Edit
- Option A
- Instrument Edit
- Wave Edit
- Quick Edit
- Option B
- Permanent Sound-Edit mode

Number of voices:

- 16, 32 or 48 up to 8-part permanent multitimbral mode 3 Stereo-Outputs 2 Aux-Outputs Volume Controller Power-switch
- 61-key Keyboard (optional 76 keys) Channel Aftertouch

Performance controllers:

- Pitchbend-wheel
- Modulation-wheel
- Free-Wheel (freely definable bipolar modulation-wheel)
- 2 Play-buttons
- 2 Transposition-buttons
- Sustain pedal
- 2 freeely definable foot-pedals
- 8 Performance-faders

Sound-modules (per voice):

- 2 Oscilators
- 2 Wavetable-generators
- Noisegenerator
- Mixer
- Multimode-Filter
- Amplifier
- Panorama
- 2 Aux-Sends
- 2 LFOs (6 Shapes each)
- ADSR Amplifier envelope
- DADSR Filter envelope
- 8 Time/Level-pairs
- Wave envelope
- 4 Time/Level-pairs
- Free-envelope
- Control-Mixer
- Control-Shaper
- Control-Delay
- Control-Sample&Hold
- Control Comparator

User-Interface:

- 1 Display, 480x64 Pixel
- 8 Display-buttons
- 8 Display-faders
- Mute button
- Solo button
- Group-Edit button
- OK/Cancel buttons
- Page buttons
- +/- buttons
- 12-key Numeric keypad (program-selection)
- 4 Storage buttons (store, recall/init, compare, copy)
- Disk-access button
- 27 Sound-Edit buttons
- 53 Sound-Edit knobs
- 9 Sound-Edit increment-dials