

Micro Wave Software-Update

Vers. 2.0

waldorf

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Dear MicroWave user / dealer,

Addarding for the MicroWave SERFORMANICE ME

at the end of this manual you find a drawing of the MicroWave's digital boards, with which you can locate the E-PROMs to be changed.

Please regard the following:

- Pull the power cable out of the socket before exchanging the E-PROMs.
- The MicroWave's sounds will not be damaged or changed by changing the E-PROMs. Should you want to save the sonds nevertheless, use a RAM card.
- 3. Unscrew the six screws on the MicroWave's Ild.
- 4. You will find the E-PROMs, that you want to exchange, on the Digital Board. This board is below the card slot on the left side of the MicroWave. Look at the included drawing to see which Digital Board version you have and to then determine which E-PROM goes into which socket.
- Remove the old E-PROMs carefully with a flat screw driver or so.Please take special care not to damage or scratch the Digital Board.
- Insert the new E-PROMs into their socket. Take care that:
- V X.xx L is the Lo E-PROM.
- V X.xx H is the Hi E-PROM.
- The order and the position of the notch must be the same as on the drawing.
- All pins must be sticking securely in the socket.
- Keeping the "Parameter/Value" button pressed, switch on the MicroWave. The new version number and date should show on the display.
- 8. If you do not have any use for the old E-PROMs we would appreciate it if you sent them back to

WALDORF ELECTRONICS, Neustraße 12, 53 498 Waldorf, Germany

Best regards

Waldorf Electronics

Waldorf Electronics disclaims any warranty with regards to damages caused by improper exchanging of the E-PROMs.

Addendum for the MicroWave PERFORMANCE MANUAL MicroWave Software Version 2.0

4.4. Device-Parameter

The MicroWave Software Version 2.0 contains a new Device Parameter.

SYSEX SPEED

fast: This mode corresponds to the old MicroWave Version. SysEx dumps

are sent with maximum speed.

slow: When set to slow SysEx dumps are sent with approximately 1/3 of

the maximum speed. Use this feature if you have troubles communicating with other slow devices or software.

5. Multi Mode

5.1. Multi Init

The order of the Instrument Parameters was changed in the MicroWave Software Version 2.0 for more clarity. Furthermore another Instrument Parameter was added, with which you can control the MicroWave's Voice Selection. This enables you to activate the long-awaited Mono Mode.

Instrument Parameter	Range	Default
Sound Midi Channel Instrument Mode Allocation Mode	(A01C32) (0116) (off/on/solo) (dynamic, mono retrigger, mono low-priority retrigger, mono high- priority retrigger, mono single trigger, mono low-prio.	A01 01 on dynamic
Routing Volume Panning Panning Modulation Transpose Detune Temperment	single trigger, mono high-prio. single trigger) (L+R, Out 14) (0127) (L64M00R63) (off, on, invers) (-24+24) (-64+63) (ln+, ln-, rn1, rn2, TT14, hmt)	L+R 127 M00 on 0 0 In+

Instrument Parameter	Range	Default
Key Limit Low	(C-2G8)	C-2
Key Limit High	(C-2G8)	G8
Velocity Curve	(ln+, ln-, ex+, ex-, xf+,xf-, VT14)	In+
Velocity Limit Low	(1127)	001
Velocity Limit High	(1127)	127
Program Change	(on/off)	on
Pitch Wheel	(on/off)	on
Modulation	(on/off)	on
Aftertouch	(on/off)	on
Poly Pressure	(on/off)	on
Volume Control	(on/off)	on
Panorama Control	(on/off)	on
Sustain Pedal	(on/off)	on

5.7 Multi Program Instrument Parameter

This section only describes the changed or new parameters compared to Version 1.25. See the MicroWave Performance Manual for more information.

INSTRUMENT MODE

The old parameter "Instrument Enable" has been exchanged with "Instrument Mode".

off: Instrument is turned off, i.e. you cannot hear it and it is disregarded by

the Voice Allocation.

on: Instrument is on.

solo: Instrument is on, all instruments whose "Instrument Mode" are not set

to "solo" cannot be heard and will be disregarded by the Voice

Allocation.

ALLOCATION MODE

This is a new Instrument Parameter. It controls the allocation of voices to instruments.

dynamic: This corresponds to the mode used by all previous MicroWave

versions up to V1.25.An instrument in this mode is polyphonic and can hence be played with up to eight voices (if connected

to a further MicroWave in Link Mode, even more).

etrig: In this mode an instrument becomes monophonic. New Note

Ons only activate a voice if this instrument is not active or the

new note is higher than the one currently being played.

sgl-trig:

In this mode an instrument becomes monophonic. The sound's attack is only played if the instrument is not active. i.e. no key is pressed. If a key already was pressed only the new

pitch and velocity values are used.

I-single:

h-single:

In this mode an instrument becomes monophonic. The sound's attack is only played if the instrument is not active, i.e. no key is pressed. If a key already was pressed only the new pitch and velocity values are used, but only if the new note is lower than the one currently being played.

In this mode an instrument becomes monophonic. The sound's attack is only played if the instrument is not active, i.e. no key is pressed. If a key already was pressed only the new pitch and velocity values are used, but only if the new note is higher than the one currently being played.

ROUTING

The functionality of the Routing Parameter has been changed because of the new Voice Allocation Modes.

L+R:

directs the instrument to the stereo jacks.

OUT1...4:

directs the instrument to the Individual Jacks 1 - 4. As they are

not polyphonic the "retrig" Voice Allocation is used

automatically. Practically there is no difference to the previous

MicroWave Software versions

PANNING MODE

This parameter determines how a sound's Panning Modulation Modul works.

off:

No Panning Modulation.

on:

Panning Modulation is active.

The Panning Modulation is active, however with inverse functionality. A sound that would normally be moved left (if

'on' were set) will now be moved right.

6. Tables

The user interface for the MicroWave "Tables/Maps" has been expanded. Besides the Tuning Tables 1 & 2 and the Velocity Tables 1 & 2 the Tuning and Velocity Tables 3 & 4 are now editable directly with the MicroWave, however only when also using a RAM-Cartridge.

The tables are displayed in the following order and can be edited as usual:

User Tuning Table 1 User Tuning Table 2

User Tuning Table 3

User Tuning Table 4

User Velocity Table 1 User Velocity Table 2

User Velocity Table 3

User Velocity Table 4

Sound Program Change Map Multi Program Change Map

7. Save

7.10. Backup to Card

The function "All to Card" has been renamed and is now called "Backup to Card".

Furthermore there is a new function in MicroWave Version 2.0 called *Convert to Card*. First the whole internal memory is saved to the RAM Card after which all programs are modified, so that only data on the card is used.

To use this function efficiently you must make sure that the programs you want to copy do not need any data from the RAM-Card, otherwise the data would be erased.

7.11. Load from Card

The function "Card to Int." has been renamed to "Restore f. Card".

Furthermore there is a new function in MicroWave Version 2.0 called "Convert from Card", the inverse function to "Convert to Card".

First all the memory on the card is copied into the MicroWave's internal memory after which all programs are modified, so that only data in the MicroWave's internal memory is used.

To use this function efficiently you must make sure that the programs you want to copy do not need any data from the MicroWave's internal memory, otherwise the data would be erased.

Addendum for the MicroWave PROGRAMMING MANUAL MicroWave Software Version 2.0

3.2. Waves 1 & 2

The MicroWave Software-Version 2.0 has 32 new Wave Tables, which you can select as usual. Besides that, Wave Tables are now displayed with their name. Following you will find a list of all available Wave-Tables and their names. The Wave Tables are not editable.

R01	Resonant	C45	User 13
R02	Resont 2	C46	User 14
R03	Mallet	C47	User 15
R04	SgrSweep	C48	User 16
R05	Bellish	C49	User 17
R06	PulSweep	C50	User 18
R07	SawSweep	C51	User 19
R08	MelloSaw	C52	User 20
R09	Feedback	C53	User 21
R10	Add Harm	C54	User 22
R11	Reso 3HP	C55	User 23
R12	Wind Syn	C56	User 24
R13	HighHarm	R57	SawSync1
R14	Clipper	R58	SawSync2
R15	OrganSyn	R59	SawSync3
R16	SgareSaw	R60	PulSync1
R17	Formant1	R61	PulSync2
R18	Polated	R62	PulSync3
R19	Transit	R63	SinSync1
R20	Electr.P	R64	SinSync2
R21	Robotic	R65	SinSync3
R22	Strong H	R66	PWMPulse
R23	PercOrgn	R67	PWM Saw
R24	ClipSwep	R68	FuzzWave
R25	ResoHrms	R69	Distortd
R26	2 Echoes	R70	HeavyFuz
R27	Formant2	R71	FuzzSync
R28	FmntVocl	R72	K+St. #1
R29	MW Sync	R73	K+St. #2
R30	MicroPWM	R74	K+St. #3
R31	Glassy	R75	from1to5
R32	SquareHP	R76	19 / 20
133	User 1	R77	WTrip #1
134	User 2	R78	WTrip #2
135	User 3	R79	WTrip #3
136	User 4	R80	WTrip #4
137	User 5	R81	MaleVoic
138	User 6	R82	LowPiano
139	User 7	R83	ResoSwep
140	User 8	R84	XmasBell
141	User 9	R85	FM Piano
142	User 10	R86	FatOrgan
143	User 11	R87	Vibes
44	User 12	R88	Chorus 2
		-6-	

The Wave Tables 133 - C56 are empty and can only be created with the help of special software on a host computer. Besides that, there are now programmable Wave Tables. You can find more details in the System Exclusive Data Format Documentation.

3.3. Volume

The MicroWave Version 2.0 now allows you to modulate the amplitude of the two oscillators as well as the amplitude for the noise individually. Six new parameters were introduced for this.

"Wave 1 Volume" (0...7) adjusts the output level of Wave 1 as before.

"Wave 1 Modulation Source" determines which source modulates the amplitude for Wave 1.

"Wave 1 Modulation Amount" (-7...+7) determines how much the modulation source changes the amplitude for Wave 1.

"Wave 2 Volume" (0...7) adjusts the output level of Wave 2 as before.

"Wave 2 Modulation Source" determines which source modulates the amplitude for Wave 2.

"Wave 2 Modulation Amount" (-7...+7) determines how much the modulation source changes the amplitude for Wave 2.

"Noise Volume" (0...7) adjusts the output level of the noise generator as before.

"Noise Modulation Source" determines which source modulates the amplitude for the noise generator.

"Noise Modulation Amount" (-7...+7) determines how much the modulation source changes the amplitude for the noise generator.

4.4. LFO 1

The MicroWave Software Version 2.0 now offers a further wave shape for LFO 1. Besides sinus, triangle, square and random there is a sample & hold function. This function samples a random wave form periodically, according to the Rate setting.

4.5. LFO 2

The MicroWave Software Version 2.0 now offers a further wave shape for LFO 2. Besides sinus, triangle, square and random there is a sample & hold function. This function samples a random wave form periodically, according to the Rate setting.

Besides that LFO 2 can be used to create a wave form with a different phase than the wave form for LFO 1.

To do this, LFO 2 has a further parameter:

Phase Shift: off LFO 2 modulates independently of LFO 1. (The same as

2..180 LFO 2 creates a wave form, whose phase is shifted by 2..180 degrees compared to LFO 1. In this mode the Rate parameter has no effect. Using the Phase Shift function is only sensible when using symmetrical wave forms, i.e. sinus, triangle and square.

4.6. Glide

The MicroWave Software Version 2.0 contains two new Glide Functions, which both allow "Fingered Portamento", i.e. the portamento only occurs if at least one key is pressed. The first key hit always plays the correct pitch right away.

FGliss Fingered Glissando

FPorta Fingered Portamento

