Synth Controller manual addendum for editions 'Microwave' & 'Microwave2'

Please keep in mind the Waldorf Microwave has much more to offer than the Synth Controller is giving you direct access to. Please dig in the Microwave's manual for more.

The Microwave itself does not need the Synth Controllers default midichannel into account for parameter edits. The Synth Controllers midichannel is only used by the CC-to-SysEx-translator. **For learning the midichannel on the 'Microwave' edition hold all 3 buttons for 2 seconds.** This button combination is not printed on the faceplate (which is a shame).

In case you miss the small Midicontroller-Number besides the parameter 'Wavetable' ... changing the **wavetable** takes a looong time until the synth is capable playing notes in time again. In addition it is very annoying, having changed the wavetable unintended, particularly if you can not remember which wavetable was set before the change. Therefore we intentionally left out changing wavetables by Midi Control change message.

Letter Dial Mode

The 'Microwave' edition offers changing the patchname via sysEx. You can enter this mode by holding the 2 upper buttons for about 2 seconds. The corresponding lights will flash to indicate the mode your Synth Controller is currently in.

In Letter Dial Mode you can use the pots to easily change the patch name. Depending on the lettercount of the patchname there might be some pots left over doing nothing. This not only saves you time, it is also funny and inspiring finding crazy names while cranking the pots around.

The span of available letters normally corresponds to the ASCII character standard. That means there are nearly 100 different characters to choose from, some synthesizers from japan even offer additional hiragana or kanji characters. To enhance precision for hitting the desired letter we clamped the span of a pot dial to the first 64 letters omiting the small characters at the end of the ASCII table. So keep in mind: if you want to use small letters in your patchname you have to use your synths interface for fine tuning the patchname. You can leave the Letter Dial Mode by pressing any of the 3 single buttons.

Issue using **Letter Dial Mode**: The Waldorf Microwave does not update it's display after receiving the SysEx message for changing a patchname letter. We therefore hecked out a workaround by remotely telling the microwave the message 'press O.K.

button' after each letterchange. This leads to the side effect that the display cursor skips one digit on each letter change. This is not a bug, it's a feature to keep you awake while editing and won't do any harm to your beloved Microwave. Caution: the O.K.-button is also used for more serious tasks like e.g. to confirm patch saving. So when using the Letter Dial Mode for name editing, it is advisable to have the microwave set into it's appropriate patchnaming page.

Bipolar modulations

Each parameter on the frontpanel containing the term 'Amt' (for 'Amount) is bipolar which means, it can go positive or negative, center position is neutral. This also applies to VCF Keytrack and VCF/VCA Velocity. We would have felt unpleasant to destroy our cute faceplate design by printing 8 times a small '0' on the frontpanel.

Multi Edit mode

The Waldorf Microwave itself offers a multimode where you have several instruments playing different sounds on different or similar Midichannels at the same time. This led us to the idea of a simple but interesting **Multi Edit Mode**. It is not a full editor but a funny and powerful multi instrument performance mode.

You enter Synth Controller's Multi Edit Mode by holding the upper and lower buttons for about 2 seconds. You can leave Synth Controller's Multi Edit Mode by pressing any single button. Please don't expect the Microwave to jump in it's multi mode when selecting the Multi Edit Mode on the Synth Controller. The Microwave's multi mode and the Synth Controller's 'Multi Edit Mode' are intended to be used together but they have be engaged separately on both devices.

After entering this mode, the Synth Controller can adjust
- Midi Control change for controller number 7 (Level)
- Midi Control change for controller number 1 (Modwheel)
- Midi Control change for controller number 2 (Breath)
- Midi Control change for controller number 3 (Microwave 1) resp. Foot Controller für Microwave 2 & QFeld

for the Midichannels 1 to 4 simultaneously.

The fun with the Synth Controller's multi mode starts after preparing your patch(es) to make heavy use of the Midicontroller numbers 1 to 3 (resp. Foot) inside the Microwave's modulationmatrix. We intentionally have chosen Midi Control Change messages and not the fixed multi instruments parameters like 'Paning' or 'Transpose'. The latter would have demanded using large SysEx-messages instead of the smaller Midi Control change messages. Another benefit of using Midicontroller Numbers is, they can be freely patched in the Microwaves modulation matrix and make this mode

therefore far more flexible. 'Modwheel' and 'Breath' are fixed modulation sources in the Microwave, to use Midicontroller Number 3 (resp. Foot), simply assign it to 'Controller W'. <u>Keep in mind: the Microwave multi mode offers separate settings for the Controllers W, X, Y and Z and overrides the setting inside the patch.</u>

An example:
- *initialize a patch*
- *set Modwheel (=Midicontroller 1) as Source for Cutoff Modifier 2*
- *set Breath (=Midicontroller 2) as Source for Resonance Modifier*
- *set 'Controller W' as Modifier for Detune OSynth Controller 1*
- *set SAW as Wave1*
- *save it and make an new multi program with 4 times this patch, assigning the 4 instruments the Midichannels 1-4*
- *set 'Controller W' to 3 (resp. Foot) inside Microwave's multi mode settings*
- *let your sequencer fire the Microwave with notes on Midichannels 1-4 to let the 4 instruments all play the same pattern or melody*

Now the 4 pots on the left of the Synth Controller set the levels for each instrument, the 4 pots in the top row alter cutoff, the middle row tweaks resonance and the bottom row individually detunes the oscillator. For each instrument individually! What you will hear is just - DELICOUS.

You think *'That whole multi mode thing sounds complicated'* ?
There is even more!

The Waldorf Microwave does not take the Midichannel into account for SysEx editing, it uses 'Instrument numbers'. Now the Synth Controller's 4 pots to the left, responsible for the level in Synth Controller's multi mode have an additional important feature: they change the Synth Controller's internal target instrument number, to which the edit-messages in the normal edit-mode (=not the Multi Edit Mode) should be sent to. This allows you to switch between Synth Controller's multi mode (upper and lower button lit) and normal mode (only one button lit) and use all of the Synth Controller's parameters on any of the microwave's first 4 instruments. Thanks to the 8 edit buffers of the Microwave, your changes will be held.

F.A.Q.

My Microwave does not react to knob fiddling on the Synth Controller

Please check if the Device ID of you Microwave is set to 0.

My Microwave does not respond to CC-changes i send into the Synth Controller

Most probably the midichannel saves in the Synth Controller does not correspond to the Microwaves midichannel. Although turning knobs on the Synth Controller will work (the Microwave does not take midichannel into account when being edited over SysEx), the Synth Controller's CC-to-SysEx-Translator needs the suitable Midichannel to react on CC-messages. As describes above, let the Synth Controller in Microwave editon learn the midichannel by holding all 3 buttons for 2 seconds. As they start flashing you can send a note on the desired midichannel into the Synth Controller.