

## ***Synth Controller manual addendum for edition '1016R'***

Some parameters seem to cause heavy work inside of the Matrix-synths. We intentionally programmed this edition to send problematic parameters in larger time intervals to prevent the matrix to hang up.

The edition '1016R' is aimed on Oberheim Matrix 1000 / 6 / 6R. Matrix 1000 and 6 are a bit different concerning the parameters they expect. That's why this edition further distinguishes between 1000 and 6/6R. Please set the suitable mode for your synth to prevent unwanted behaviour. The 'sub-mode' (1000 or 6) is stored together with the default midichannel in the Synth Controller's memory when learning the midichannel.

You set the Synth Controller in midi channel learn mode by holding the upper two buttons for 2 seconds

- Send a midi **Note** into the controller to program **Matrix 1000-mode**. The note should be sent on the desired midichannel you wish to use for controller and synth.
- Send a **Pitchbend** into the controller to program **Matrix 6-Mode**. As above, the pitchbend should use the desired midichannel.

The Matrix6-submode differs to the Matrix100-submode by the following: negative modulations for several parameters are NOT sent. And pressing one of the 3 buttons sends a short SysEx-command causing the Matrix 6/6R to jump into its Quick Edit mode.

### *Notes for Matrix 1000 users*

The edition's name '1016R' refers to the operating system the webuser 'gligli' published in 2015 with the version number '1.16' for the Matrix 1000. The 'original' OS for the Matrix ended at version '1.13'. You can upgrade your Matrix 1000 by changing the EEPROM chip containing the OS.

Without going into details the OS 1.16 mainly brings 3 improvements:

- the Matrix 1000 now responds to 'Sustain ENV 1', which formerly was simply ignored when trying to change it via SysEx
- the clumsy behaviour when changing several parameters was improved
- There is a new parameter called 'Global Detune' spreading the tune of the 6 voices which sounds cool in unison mode. It listens to CC #94

These 3 improvements were considered in this 1016R edition. Of course it works also well with an 'old' Matrix using OS V1.13. The parameters 'Unison Detune' and 'Sustain ENV 1' won't respond though.

## Init-Patch (only Matrix 1000)

**Holding the upper and the lower button sends a special initialized patch into the Matrix-1000's edit buffer.** This function is only available when the 1016R edition is in Matrix-1000 mode. In Matrix6 mode the 'send init patch'-function is disabled, the Matrix 6 itself has it's own Init Patch function.

There will be nothing overwritten in your synth, all saving of your work is up to you. The patch is designed to work best with the Synth Controller's parameter offering. After sending the init patch to the Matrix, you can alter cutoff and resonance by ordinary Midicontrollers 1 and 2 without the enoying jittering.

The most relevant settings of this patch:

- All fixed modulations set to 0
- DCO1 Pulse 50%
- DCO2 Pulse 50%
- Balance 100% DCO1
- Velocity on VCA2 Envelope
- Cutoff 50%
- 40% Env1 amount on VCF
- Matrix modulation slot 1: Ctr1 (Modwheel) -> Cutoff
- Matrix modulation slot 2: Ctr 2 (Breath) -> Resonance
- Matrix modulation slot 3: Pressure -> DCO1 tune (use with sync!)
- Matrix modulation slot 4: Pedal (Ctr4) -> DCO1 PW

## *Notes for Matrix 6 / 6R*

The Matrix 6 does not react to the parameter 'Unison Detune'. Due to a firmware bug the modulation depth for the following parameters can only be set in the positive half over Midi-SysEx:

- OSC DETUNE
- DCO1 LFO1 AMT
- DCO2 LFO2 PWM AMT
- ENV1 VCF AMT
- ENV3 VCF FM AMT

Therefore these parameters are unipolar when using the 1016R-edition in Matrix6 Mode (0 to +63 instead of -63 to +63). Remember you can always set the parameter value using the number pad on the Matrix-6's frontpanel.

For reacting to parameter changes over Midi the Matrix-6 must be in "Quick Edit"-Mode (Patch Edit / Quick). To make things easier, the Synth Controller causes the Matrix-6 to jump into that mode automatically when you press any of it's 3 buttons. So remember: after switching on the Controllers and the Matrix-6, you have to press either one of the 3 Synth Controller buttons or manually enable the Matrix-6's Quick Edit mode before the Matrix will react to any knob fiddling.

## *F.A.Q.*

### **My Matrix-6 does not respond when dialing knobs of the Synth Controller**

*For the Matrix-6 to respond to changes it must be in Quick Edit mode). Press one of the 3 buttons on the controller and it should jump into that mode. If it does not, you probably use the Synth Controller in Matrix1000-submode instead the Matrix6-submode. Please check learning the submode explained above.*

### **Some parameters of my Matrix-6 jump to strange values when dialing knobs**

*You probably use the Synth Controller in Matrix1000-submode instead the Matrix6-submode. Please check learning the submode explained above.*