

Synth Controller manual Addendum **Edition 'Ultra Fun' for EMU Ultra Proteus / Morpheus**

According to a customer's feedback, the Morpheus does not change it's wave but sets it to '001 None' when moving the wave knob on the controller. All other parameters seem to work.

The Ultra Proteus got a lot of parameters, this edition only covers a part of them. The Controller will not provide access to the complex function generator nor the complete modulation matrix. But it offers direct control over many parameters you will need quite often like the amp envelope and balancing the two available instruments in volume, pan, tuning, doubling. And of course you get realtime access to the filter section.

If you are unsure about a parameter value and it's effect: get it on the EMU 's display. The changes on the Controller are reflected in realtime. This comes in handy especially for exploring the vast amount of filtermodes. Unfortunately the EMU does not jump to the parameter page automatically.

For technical reasons some knobs do not cover the whole range of values. Some values are bipolar: the left half of the available turning-range is increasingly negative, right half positive, 12 o'clock position is null. Such parameters have a centerline in the appropriate color to indicate their bipolar character and position of null.

PRImary and SECondary instrument

The white parameters in the upper right corner for setting the Volume of the primary and secondary instrument are active in all 3 color layers. After powerup the colored parameters always edit the primary instrument. If you want to change the values for the secondary just keep the lower 2 buttons pressed for 2 seconds. The LEDs will shortly flash to indicate the swapping. Now all of the instrument-related knobs change the secondary. Pressing the upper 2 buttons heads back to the primary again.

Red Layer – filter

The filter of the Ultra Proteus/Morpheus with it's 288 filtertypes and such mysterious parameters like Morph or Transform2 promise a lot of interesting sounds. The red layer contains the most important parameters for direct experimentation. '1-32' select 32 different filter types. The dial right beside labeled '32x8' is the course setting to select 8 groups, each containing 32 filter types. With these 2 dials you can access all 280 filter types. Right below you will find LEVEL, MORPH, TRACK and TRANSFORM2. The latter does not have impact on all filtertypes. It's worth having a look into the excellent manual of the EMU where all the filtertypes and their character are listed individually.

Red layer – Wave, Start, Loop

There are 470 waveforms to choose from. Trying to select them by midi parameter changes unfortunately does not select them one after the other – on some values completely different waveforms are selected. Therefore the WAVE knob should be considered more like a source of inspiration. To allow access to most of the available waveforms this knob offers a SHIFT-function. Keep the red button pressed while turning it to switch between 4 banks. After releasing the knob addresses waves 0-127 in each of these 4 banks. Most of the waves are where one would expect them to be. But e.g. Instrument 44 resides in bank 4 whereas wave #373 is found in bank 1.

A raw direction:

- Bank 1: instruments 1-120 with some exceptions
- Bank 2: first half guitars, basses and pads, second half drums
- Bank 3: first third drums, the rest synthetic waveforms
- Bank 4: synthetic waveforms

SND START does what you can expect: change the sound start value from 0-127

LOOP START and SIZE are bipolar, middle position is zero. To the right it's going increasingly positive, to the left negative. The zero range was increased by software to make it easier nulling it out.

START and SIZE are changing the coarse values before the comma. By holding the red button you can adjust the FINE value after the comma. But caution: for (still) unknown reason the EMU sometimes also alters the coarse value drastically when changing the fine one over midi. It's advised to get the parameter page on display for checking the result – and fine adjust on the EMU itself.

There is another SHIFT parameter on the ATTACK knob of the AMP ENV. It sets the alternative AMP Envelope ON or OFF. As long as the AMP ENV is set OFF (which is the default in most presets) you will not hear any difference changing ADSR or DELAY values.

You might ask, what about this '(H)' after the D(ecay) of the AMP ENV? It's the last SHIFT parameter in the red layer and allows setting the HOLD parameter for the AMP ENV: Hold the red button to adjust it, let the button loose and the knob changes DECAy again. Simple.

Green layer

Crossfade on the Ultra Protheus is a complex topic, e.g. it only has effect after it was defined as a NOTE ON target in the modulations. The knobs for BALANCE and AMOUNT allow the fine adjustment of the X-FADE center and amount after some settings made on the EMU itself. Both parameters have impact on PRI and SEC at the same time. It makes no difference if you edit the primary or the secondary instrument.

For the AUX envelope it's the same as for the AMP ENV: it must be defined as a modulation source (targeting pitch, filter or sth. else) to hear any impact on changes. Similar to the AMP ENV the AUX ENV DECAy also holds the shift- parameter HOLD. This time you need to keep the green button pressed for changing HOLD as we are in the green layer.

Blue layer

All parameters in this layer are independent of the selection between PRI or SEC as they have impact on both instruments at the same time. Besides the LFO RATES and AMOUNTS you got modulation depths for the first and second NOTE ON and REALTIME modulation slots.

There are 4 knobs labeled CC#1 to CC#4. They do not send parameter changes but Control Change messages for the CC-numbers 1 (aka 'Modwheel') to 4. The EMU's MASTER MENU allows to assign CC numbers to the internal Controllers A, B, C and D. By setting them to 1-4 the Synth Controller offers direct changes for the 4 modulations sources 'CtrlA' to 'CtrlD' in the NOTE ON as well as REALTIME CTRL slots.