EMU PEAK/SHELF MORPH.

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2 PEAK - This is master filter volume and altering this value modifies the peak filters volume as a whole.

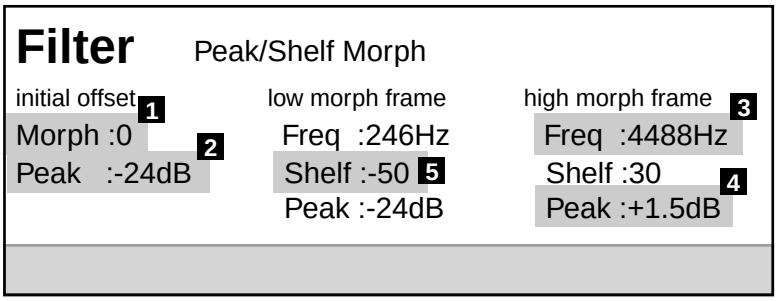
3 FREQ - There is not a fixed definition of how this value affects the filter. Setting this value has a different influence based on what the 'SHELF' is set too.

1 MORPH - This represents the starting position of cutoff(filFreq) value 0 within the two filter frames.

Left frame = 0
Right frame = 255

Setting of either of these values will provide the most drastic filter.

Set one patch to 0 value, duplicate and set the other to 255 with the same CC modulations. You have now inverted your filter and layered it with the original.



4 PEAK - Adjust this value within the two frames to set the relative volumes between them for the filter sweep.

5 SHELF - This defines the filter tone for the two morphing frames. The figure represents the range of the filter, -64 is low pass; 0 is a mid shelf and +63 is a high pass filter.

The values between these defined boundaries blend the aspects of these filter types.

Examples:
-32 would be a mix between a low pass and a mid shelf.
-45 would be the same, but have the emphasis on the low pass tone.
-20 would have more emphasis on the mid shelf tone.

These following examples are approximations to illustrate this example:
+32 = 50% mid shelf and 50% highpass.
+45 = 25% mid shelf and 75% highpass
-64 = 100% low pass
-45 = 75% low pass and 25% mid shelf

EXAMPLE SETTINGS

The settings in the Emu screen shown above are from a reece stab used in a Drum N Bass track. The 'SHELF' is set to -50 in the 1st frame to keep a low tone to the open of the filter. It has been set up from -64 to avoid pops and nasty distortions when saturating the filter for big CC# sweeps.

The 'SHELF' of 30 in the 2nd frame with a 'PEAK' of 1.5dB mean that when a CC controller is rotated to a higher value, a sudden belching sound slightly highpassed and slightly mid shelved will modulate out of the existing low passed tone.

This filter was most prominant in the pre 2000 DnB era with artsist such as Optical, Grooverider and Dillinja exploiting its sound...

How does 'FREQ' interact with the 'SHELF' value?

For a low pass filter, 'FREQ' defines the low pass rolloff, for mid shelf it defines the band, and for high pass it defines the highpass boundary. It acts as a controller for the filter type.

Uses of 'FREQ' and 'SHELF'

To low pass a sub, set 'FREQ' to 63hz, and 'SHELF' to -63. To highpass a lead or some percussion, set 'FREQ' to an upper range; 6000hz+ and 'SHELF' to +63. To cut mid from a lead that is taking too much wieght from the snare, set 'FREQ' to a range between 1000-4000hz and 'SHELF' to 0.

General Tips and Hints

Cord Setup

To best modulate the filter, It is good to use the MidiA-MidiL controllers. Check what CC values these are set to in Master > Midi > Cntrls2 and assign these to your midi controller.

Set cords like this:

MidiA FilFreq +100%
MidiB 'FilRes +100%

Usage

With Peak/Shelf selected as a filter the FilFreq will sweep the 'MORPH' value between the two frames. So if you have a Morph = 0, FilFreq = 0 will represent the left frame, and FilFreq = 127 will represent the right frame. Moving between these CC values creates the Z-Plane affect of morphing the two selected filter frames into a smooth transition.

Saturate the Filter

Set 'FilRes to a higher CC value to add harmonics to the filter. Making this 127 will provide the most drastic filter as it acts like a Q on the overall sweep.