



RESONANT FILTERBANK

Thank you for purchasing the Erica Synths **Resonant Filterbank!**

This is a performance and studio production-friendly FX unit - an analog stereo filterbank. It has a set of ten bandpass filters with hands-on control over each bands' boost or cut and complex control configurations that can turn it into an unconventional multimode filter with an envelope follower and an instrument on its own when played with various resonance settings or even an experimental sound generator for no-input mixer-like setups. You can use it with synthesizers, drum machines, modular setups and thanks to an analogue GAIN STAGE that boosts incoming signals up to +24dB, with guitars and pretty much any other instrument. This is a tool that can let you discover entirely new sounds from the instruments you thought you knew inside-out. User snapshots (presets), MIDI control over all parameters and a sleek aluminium case to match our lineup of compact desktop units will make the Resonant Filterbank an integral part of many studio and live performance setups.

FEATURES

Analog 10-band stereo filterbank
Filter frequencies: 29 Hz, 61 Hz, 115 Hz, 218 Hz, 411 Hz, 777 Hz, 1.5 kHz, 2.8 kHz, 5.2 kHz, 11 kHz
Filter slope: 17 db/decade
High quality film capacitors in the bandpass filters
Manual and MIDI CC controlled bands' boost and cut
Configurable resonance feedback loops
Manual and MIDI CC controlled resonance
MIDI clock synchronization of events
Multimode filter mode
Spectral analyzer mode
Dynamic spectral compressor mode
20 independent LFOs
20 independent envelope followers
User snapshot (preset) memory with 128 slots
Discrete and morphing snapshot change
6.3mm balanced stereo inputs and outputs
Configurable footswitch input
DIN 5 MIDI IN and MIDI OUT

WHAT'S INCLUDED

Resonant Filterbank
Universal 12VDC wall wart adapter
User manual

Make your unit scream! The RESONANCE knob adjusts the intensity of the feedback, and feedback loops are configurable. With the resonance knob past 3PM, the filters start to self-oscillate and you can mimic no-input mixing. The RESONANCE control acts as an attenuverter, meaning that at 12:00 there is no feedback on the filters. Turning the knob clockwise increases the resonance, turning it counter-clockwise sends the inverted signal into the feedback loop. See resonance configuration settings below.

Adjust the input gain of the Resonant Filterbank. It ranges from 0 dB to a +24 dB boost for guitar-level signal inputs, it can also overdrive the incoming signal nicely.

The OLED display gives visual feedback on operation modes, general state and provides access to the configuration settings.

The SHIFT button is for selecting secondary functions, as well as initiating the RESONANCE configuration.

The DATA encoder is for navigation in the menus and settings adjustment.

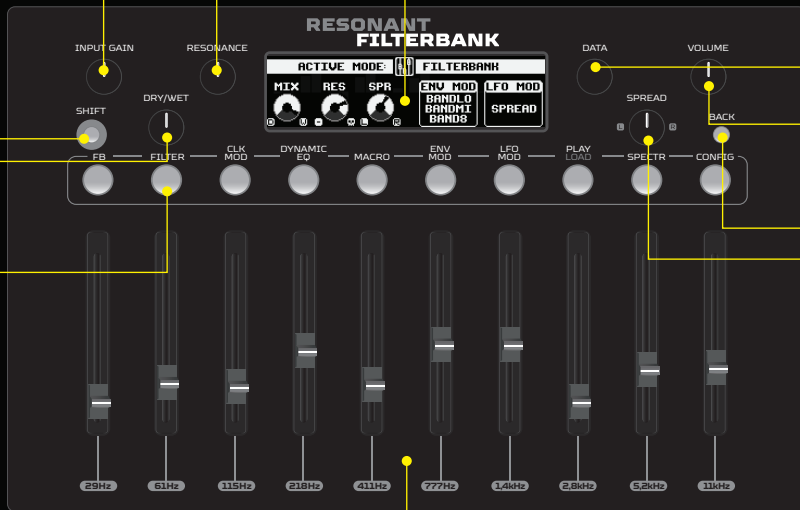
Adjust the mix between the input signal and processed signal.

Adjust the output volume of the unit.

These are the MAIN FUNCTION buttons. Push them to select the operation mode of the unit. Once a specific mode is selected, these buttons have secondary, mode-specific functions.

Each push of the BACK button brings the menu one step up.

The SPREAD control adds a stereo spread effect based on which mode is active.



These are the filterbank sliders. They boost or dampen specific frequencies of filters in the main FB mode. The sliders are center-detent, making it easy to dial in flat filter response. They have alternative control functions in the various modes.

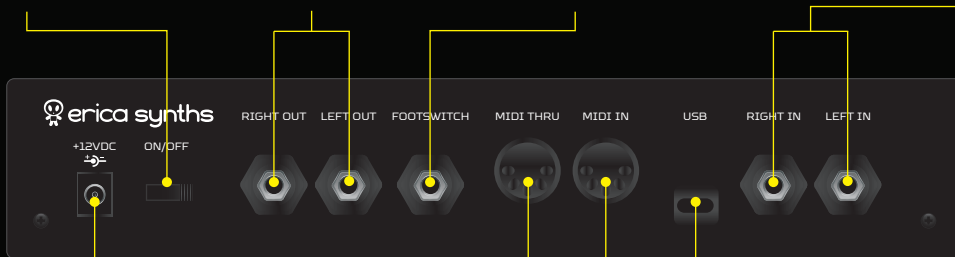
CONNECTIONS

Flip the SWITCH to turn the Resonant Filterbank on.

These are the balanced OUTPUTS of the unit.

The configurable FOOTSWITCH allows you to bypass, or navigate through patches. Use a simple TS type non-latching footswitch.

These are balanced INPUTS of the Resonant Filterbank. If the input signal is mono, use the LEFT input. The unit has adjustable input gain and it can be used even with guitar level signals.



Connect the external POWER SUPPLY here! Use only the PSU that came with the unit, otherwise you risk damaging it permanently.

The MIDI THRU output is configurable – it can be set to MIDI OUT mode that sends MIDI CC messages to a DAW or other gear as you tweak parameters on the Resonant Filterbank, MIDI THRU mode or can be turned off.

The full size DIN5 MIDI IN receives MIDI CC messages for controlling all of the instrument parameters, except for Input Gain and Volume. You can configure MIDI implementation in the MIDI settings of the unit.

Use a USB type-C cable (not included) to connect the Resonant Filterbank to your computer for firmware updates as well as preset upload or backup.

USER INTERFACE

The **FUNCTION** buttons on the Resonant Filterbank are used to initiate modes on the instrument. When in the main menu, push any button to initiate the relevant function. Note that the main functions can be selected from the main screen only – you need to push the **BACK** button until the main menu appears before engaging any other **MODE**. The resonant Filterbank always has one active mode enabled. This mode is what determines how the device functions.



ACTIVE MODES

The device starts up in FB (filterbank) mode which is the most basic of all the active modes. The top of the main menu screen shows which active mode is currently selected, also the respective button LED is lit.

THERE ARE 4 DIFFERENT ACTIVE MODES:

FB (filterbank) - control gains of the 10 band-pass filters.

FILTER - the device emulates fully variable filters. Control the filter type, cutoff, width and slope.

CLK MOD (clocked modulation) - use a clock signal to update band values in sequence similar to sample & hold or create oscillating stereo effects.

DYNAMIC EQ (dynamic equalizer) - enhance your audio and control resonance with spectral compression.

In the active modes you can use the sliders and buttons above to control the screen parameters (each screen explained later). Additionally, you can use the encoder to fine-tune parameters without the need to move the sliders. Rotate to pick a parameter or change the value and click to select or deselect. Moving the slider will overwrite the encoder set value.

MODULATIONS

The device offers 2 ways of modulating parameters – LFO and an envelope follower. Modulations can be applied to all active mode parameters as well as universal parameters – resonance, mix, and stereo spread. LFO and envelope modulations on the same parameter do not overwrite each other – they are summed.

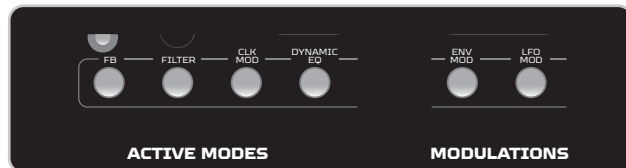
THE REST OF THE BUTTONS

MACRO - configurable way of controlling the device for custom use-cases.

LOAD/PLAY - recall saved snapshots or play sequences of snapshots with morphing.

SPECTR – spectral analysis visualization with a Lissajous representation.

CONFIG – configure your device settings.



FILTERBANK MODE

Push the FB button to initiate the basic mode of the device – the audio passes through the analog resonant filterbank and you can adjust the boost or cut of each bandpass filter by moving the sliders. By default, both left and right channels are adjusted simultaneously and the state of each filter band is indicated on the OLED display, where each bar represents a filter band split into two bars – each for the left and right stereo channel boost or cut. By default, these are linked.

You can add an offset to one of the stereo channels by rotating the SPREAD knob. If you want to access the left or right channel individually, navigate to the configuration settings and select the FB CH-SELECT option as described on page 18 of this user manual.

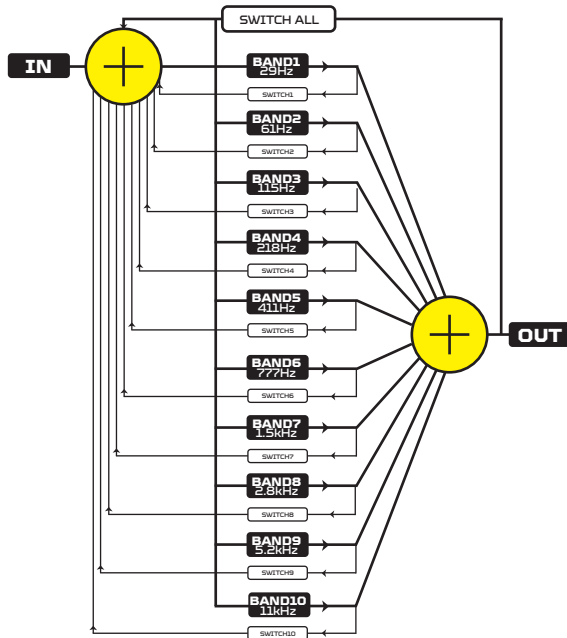


Play with the RESONANCE knob settings and see how it affects the resulting sound. The bands can self-oscillate when boosted.

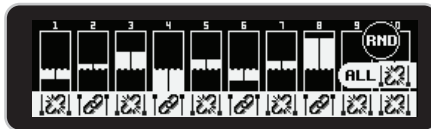
In the Filterbank mode, the function buttons now perform modulation when pressed. It will temporarily oscillate the respective band as a sine wave at the internal clock frequency (see LFO menu) at 10% of the band maximum gain.

Hold the SHIFT button and push the ENCODER (RND) to randomize all band gains.

FILTERBANK MODE



On the Resonant Filterbank, extensive resonance configuration options are available. As the instrument has 2 sets of 10 analog bandpass filters, you can select which filters are involved in the feedback loop. This results in unique sounds that are not possible to achieve with regular filterbanks or filters. The resonance configuration applies to all active modes. Once in one of the active modes, push and hold the SHIFT button and the feedback loop visualization will appear. In the example below, the Filterbank mode is activated and the resonance is routed to the 2nd, 4th, 6th and 8th filter.



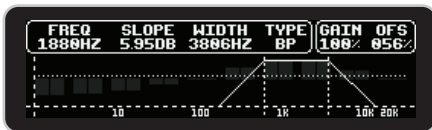
Now, push the function buttons to engage or disengage the feedback loops for each band-pass filter. Push the BACK button to engage the MAIN feedback loop – one that combines the output of all bands and feeds it back into the input. The individual channel feedback loops can be used in parallel with the main one for even more extreme «dual resonance» effects.

Moreover, the feedback loops can be configured for each stereo channel individually – small «sliders» next to feedback loop visualizations indicate the feedback status for each stereo channel. In the CLASSIC SPREAD mode, the feedback loops are engaged or disengaged for both stereo channels simultaneously. In the FB CH-SELECT mode, you can access feedback loops for each stereo channel individually: if the SPREAD control is set to 12 o'clock, feedback loops are engaged or disengaged for both channels simultaneously, if the SPREAD control is set to the L position (7 o'clock) feedback loops for the left channel only are affected, if the SPREAD control is set to the R position (5 o'clock) feedback loops for the right channel only are affected.

Now, with the resonance knob turned past 3PM, you can move the relevant slider up and hear a specific filter going into self-oscillation and because the filters are tuned to different center frequencies, they will self-oscillate in different frequencies, mimicking a no-input mixing setup.

FILTER MODE

The **FILTER MODE** gives you a unique use for the filterbank – it changes the boost or cut of the analogue bandpass filters to emulate the behavior of resonant lowpass, highpass, bandpass or notch (band reject) filters. Please note that filter response will be different from what you might expect with dedicated multimode filters, because the “filter” is essentially composed of a series of bandpass filters. To access the filter mode, navigate to the menu page and push the **FILTER** button.



Function buttons that are lit indicate controls.

THE CONTROLS ARE LISTED ON THE SCREEN IN ORDER:

SLIDER 1 – filter cutoff frequency

SLIDER 2 – filter slope

SLIDER 3 – filter width

SLIDER 4 – slider type (low-pass, high-pass, band-pass, band-reject)

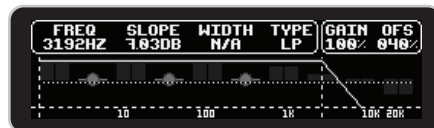
SLIDER 9 – filter gain (band gain cut amount)

SLIDER 10 – gain offset (pass band gain level)

Move the relevant slider to alter the parameter. The example

above shows a bandpass filter with an 1880 Hz cutoff frequency, a 5.59 dB/Oct filter slope and 3806 Hz pass-band width, 100% gain and 56% offset. Use the encoder to fine-tune parameters as described before.

When **SPREAD** is in the 12 o'clock position, the filter is applied to both the left and right channels, however, moving the **SPREAD** above or below 12 o'clock creates a stereo twin of the same filter parameters except frequency. Now the slider-set frequency applies to the left channel and the spread-set frequency applies offset to the right channel. Move **SPREAD** back to 12 o'clock to return to standard operation.



The function buttons in the filter mode fix the respective analog bandpass filters to the default gain setting, so tweaking the filter parameters does not affect the locked bands. Push the button above the relevant slider to lock and unlock the band. The example above shows a case where the 61 Hz, 218 Hz and 777 Hz filters are locked. You can also access feedback loop configuration by holding **SHIFT**, the same as in **FB** active mode.

CLOCKED MODULATION MODE

In this mode a modulation LFO and internal or external clock are controlling the boost and cut of the analog bandpass filters. The LFO and clock work in conjunction, effectively performing a sample & hold function, where each new state of the modulation LFO is passed to the gain of the analog bandpass filters at the rate determined by the internal or external (MIDI) clock.



Function buttons that are lit indicate controls.

THE CONTROLS ARE LISTED ON THE SCREEN IN ORDER:

SLIDER 1 – modulation gain

SLIDER 2 – modulation waveshape (sine, square, triangle, sawtooth, random)

SLIDER 3 – modulation source frequency

SLIDER 7 – band progression direction (forward, backward, ping-pong, random)

SLIDER 8 - band progression BPM of internal clock or external clock scale

SLIDER 9 - band gain midpoint

SLIDER 10 - modulation value inversion for right channel (ON/OFF)

The BPM determines how fast the modulation advances to the next filter band. If the BPM is set to 60, the modulation will advance to the next band every second, if it is set to 120, modulation will advance every 0,5 seconds. If the External MIDI clock is selected, the incoming clock BPM is indicated on the bottom-left corner of the display. The internal clock can be set to an extreme 10 000 BPM in order to apply modulation to all filter bands simultaneously. If the right channel is set to INVERT mode, you will get a distinct spectral panning effect.

You can select bands to lock by using the function buttons – locked bands stay at the specified offset level and are not affected by the modulation.

The SPREAD control delays the LFO effect on the left or right channel, thus expanding the sound in the stereo field and the delay amount is indicated by the sample count at the bottom of the display.

Push and hold the SHIFT button and rotate the ENCODER to select the CLOCK SOURCE.

Push and hold the SHIFT button and push the ENCODER to reset the progression to the first band.

DYNAMIC EQUALIZER MODE

In the **DYNAMIC EQUALIZER** mode, band gains are automatically adjusted based on the input or output audio waveform. The equalizer performs spectral analysis on the audio signal and cuts band gains based on the spectral content.



Function buttons that are lit indicate controls.

THE CONTROLS ARE LISTED ON THE SCREEN IN ORDER:

SLIDER 1 – threshold

SLIDER 2 – controller decay time

SLIDER 3 – controller attack time

SLIDER 7 – delay [controller delayed response interval]

SLIDER 8 – equalizer input filtering frequency

SLIDER 9 – equalizer control source signal

SLIDER 10 – band gain with no equalizer cut

The threshold sets the upper limit above which frequencies will start to get cut. The higher the volume of a specific frequency, the more it will be cut – there is an attack/decay controller for the cut control. Lowering the DCY or ATK value

will slow down the respective direction. By applying a delay, the calculated cut profile will be delayed by the specified duration instead of being applied instantly. Use the filter to apply a band-pass filter to the input signal to only use a part of the input signal for control over which frequencies get cut. With the filter set to OFF, all of the source signal is used. The source determines which audio is used to control the equalizer – if an output is used as an audio source, you are basically initiating a feedback loop where resonance settings and envelope follower settings are taken into account. Experiment!

You can select bands to lock by using the function buttons – locked bands stay at the specified offset level and are not affected by the equalizer.

The SPREAD control gradually delays the envelope follower on the left or right channel thus expanding the sound into the stereo field. The delay amount is indicated on the bottom of the display.

MACRO VIEW

MACRO view is used to configure sliders for simultaneous access of features from different pages and for using the Resonant Filterbank as a performance instrument. Once you come up with an amazing patch, for example, the Filterbank low bands modulated by an LFO and you want to adjust the cut and boost of some bands, while simultaneously changing the LFO frequency and waveform, you can design a custom control panel in the MACRO page.



To assign sliders, push one of the function buttons or rotate the ENCODER to navigate through the main function buttons and push it to confirm. Let's say you want to assign a function to the first slider - as soon the first button is pushed, an assignment pop-up will appear.



Now, rotate the ENCODER and press it to access the configuration options.

THE SHOWN OPTIONS ARE:

UNLINK – control of the slider disengaged.

MODE – active mode specific controls (e.g. band gains

in FB mode or filter cutoff in FILTER mode).

LFO – low frequency oscillator modulation controls.

ENV – envelope modulation controls.

MODE selection includes controls from the active mode. If FB mode is active, the options for controls are the bands, just like on the FB screen. Additionally, there are unique controls like the BAND LOW, BAND MID, BAND HIGH, and BAND ALL for grouped controls on a single slider. Similarly, picking DYN EQ as the active mode will present you with the dynamic equalizer parameters to be mapped onto the sliders.



To assign an LFO control, use the encoder to scroll through the options. You will see available destinations followed by the specific parameter.

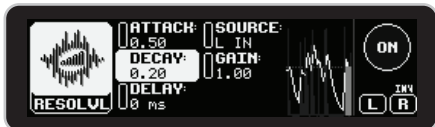
Similarly, ENV controls are presented in the same way.

Once you select a parameter by pressing the ENCODER, the control selection popup will close and the selected parameter will be assigned to the respective slider.

Once all controls are assigned, you can save the the MACRO page as a snapshot and instantly recall it. Refer to the **SAVING AND RECALLING SNAPSHOTS** section of this user manual.

ENVELOPE FOLLOWER MENU

The Resonant Filterbank has independent envelope followers that track one of four signal sources and can be assigned to any control parameter.



Rotate the ENCODER to navigate through the available settings and push the encoder to adjust the selected one.

THE SETTINGS ARE:

MODULATION DESTINATION – depending on the selected mode, destinations will vary. You can assign one envelope follower per destination

ATTACK – set the attack time of the envelope follower

DECAY – set the decay time of the envelope follower

DELAY – set the delay time, before the envelope follower attack begins

SOURCE – select the envelope follower input signal.

GAIN – adjust the gain of the output signal, in other words – envelope follower gain

Push and hold the SHIFT button and push the ENCODER to turn the envelope follower ON and OFF. The status of the envelope follower is indicated in the top right corner of the screen. Browse through destinations and see what effect each envelope follower has.

By default, the envelope follower is assigned to both STEREO CHANNELS, but you can modify the setting. The stereo channel destinations are indicated in the bottom-right corner of the screen. Push function buttons 9 and 10 to modify the effect of the envelope follower on the left and right channels respectively. This will cycle through the options - ON, INV (inverted), and OFF.

LFO MENU

The Resonant Filterbank has LFOs [low frequency oscillators or modulation oscillators], that can be assigned to any control parameter.



Rotate the ENCODER to navigate through the available settings and push the encoder to adjust the selected one.

THE SETTINGS ARE:

MODULATION DESTINATION – depending on the selected mode destinations will vary. You can assign one LFO per destination.

WAVE – select the waveshape of the LFO.

GAIN – adjust the output amplitude of the LFO signal.

SOURCE – select the LFO frequency source. It can be FREE running, SYNCed to the internal master clock or synced to the MIDI clock.

FREQ/SCALE – set the LFO frequency in the free running mode or synchronization ratio if the LFO is synchronized to the internal master clock or MIDI clock.

PHASE – adjust the phase of the LFO. The phase is adjusted in 15 degree increments.

When the selected parameter is SYNCed to the internal clock, push and hold the SHIFT button and rotate the ENCODER to set the INTERNAL MASTER CLOCK frequency.

Push and hold the SHIFT button and push the ENCODER to turn the LFO ON and OFF. The status of the LFO is indicated in the top right corner of the screen. This lets you inspect the effect of each LFO on the resulting audio signal. Browse through destinations and see what effect each LFO has.

By default, the envelope follower is assigned to both STEREO CHANNELS, but you can modify the setting. The stereo channel destinations are indicated in the bottom-right corner of the screen. Push function buttons 9 and 10 to modify the effect of the envelope follower on the left and right channels respectively. This will cycle through the options - ON, INV [inverted], and OFF.

SAVING SNAPSHOTS

Once happy with the sound design you can **SAVE** the device state (selected **MODE** and **SLIDER** positions, **DRY/WET**, **RESONANCE** and **SPREAD** positions, feedback settings, modulation settings) as a **SNAPSHOT**. To do so, push and hold the **DATA** encoder for 2" and the **SAVE** menu will appear.

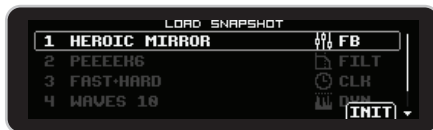
Three main function pushbuttons in the bottom row will be lit, indicating **DISCARD**, **RANDOM** and **SAVE** functions. In order to **NAME** the **SNAPSHOT**, rotate the **DATA** encoder to navigate through the symbols and push to confirm selection. Push **SAVE** (the rightmost pushbutton) to write the snapshot to memory. Push the **DISCARD** (or **BACK** button) to cancel the save. Push the **RANDOM** pushbutton to generate a random name for the snapshot.

You can save up to 128 snapshots in total.



LOAD MENU

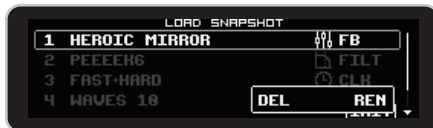
All saved snapshots can be **RECALLED** (LOADED) instantly. In order to **LOAD** a snapshot, when in the main menu, push the **PLAY/LOAD** function button. The snapshot list will appear. The snapshot name and snapshot type (active mode) will be listed – you can identify whether it is a filterbank (FB) filter (FILT), clocked modulation (CLK) or dynamic EQ (DYN) snapshot. Rotate the **ENCODER** to browse through snapshots and push it to load a snapshot. A checkmark will appear indicating that the snapshot is loaded.



If you want to load the snapshot and simultaneously advance to the relevant **MODE** for hands-on manipulation of controls, press and hold the **SHIFT** button and press the **ENCODER**. The snapshot will open in the relevant mode screen.

In the **LOAD** screen you will also find the **INITIALIZE (INIT)** option. Pushing the respective function button will reset all modulations and feedback settings, basically mimicking powering the unit on – no snapshot selected, no modulation applied to the sound.

In the **LOAD** menu you can also **DELETE** and **RENAME** the



snapshots. Press and hold the **SHIFT** button and **DEL** and **REN** options will appear along with illuminated function buttons (**ENV MOD** and **LFO MOD**). Push the **ENV MOD (DEL)** button to **DELETE** the selected snapshot. The confirmation popup (**NO/YES**) will appear and you can confirm or reject deletion by pressing the respective illuminated button.

The same procedure applies if you want to **RENAME** the snapshot – just select the **REN** option instead.

PLAY MENU

The **PLAY MENU** allows you to **SEQUENTIALLY PLAY** multiple snapshots saved in **POOLS**, where snapshots can be changed via either the footswitch, internal clock, MIDI clock or a MIDI CC message. Push and hold the **SHIFT** button and push the **PLAY/LOAD** function button. The **PLAY** screen will now show the pools and number of **SNAPSHOTS** in each **POOL** as well as an option to make **NEW** ones.



Let's make a new **POOL**! To do so, push the function button under the **NEW** tab. Name the **POOL** as described in the **SAVING SNAPSHOTS** section above. Once you **SAVE** the pool, the Resonant Filterbank will return to the list of saved pools. Now, rotate the **ENCODER** to navigate through the list to locate the newly created pool and push the **ENCODER** to activate it - a list of saved snapshots will appear. Now, rotate the **ENCODER** to browse through the snapshots and push the encoder to define the playback sequence. With each push of the encoder the selected snapshot will get a unique sequence number. You can deselect snapshots by clicking on them again and the numbering will be reorganized automatically. After you have created the pool you can edit the contents again by pressing and holding **SHIFT** and pressing the **ENCODER**. Once you have created a few pools, rotate the **ENCODER** to browse and click to select one. The **PLAY** menu will open.

The **PLAY** menu provides hands-on control over the playback of snapshots within **POOLS**. On top of the screen you see the **POOL NAME**, below it, the currently playing **SNAPSHOT** is indicated. There are several control options in this menu, indicated by the illuminated function buttons below the tabs on the bottom of the screen.



THE BUTTON FUNCTIONS ARE AS FOLLOWS:

BUTTON 4 [DYNAMIC EQ] - playback start/stop

BUTTON 5 [MACRO] - playback reset (return sequence to snapshot number 1)

BUTTON 6 [ENV MOD] - progress snapshot sequence

BUTTON 7 [LFO MOD] - progress snapshot sequence /w morphing

ADDITIONALLY, SLIDERS BELOW THESE BUTTONS HAVE FUNCTIONS AS WELL:

SLIDER 4 - playback direction

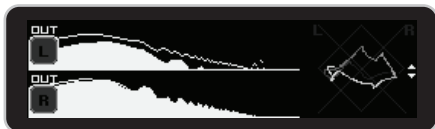
SLIDER 5 - internal clock BPM or external [MIDI] clock scale

SLIDER 7 - morph time

When playback is active, a small reel-to-reel recorder icon will appear in the middle of the display. You can use MIDI program changes to jump to the respective snapshot in the pool sequence. Push and hold the **SHIFT** button and rotate the **ENCODER** to select the **CLOCK SOURCE**. The available options are Internal Clock and MIDI Clock. Additionally, push and hold **SHIFT** and push the **ENCODER** to jump to the pools list.

SPECTRAL ANALYZER

The **SPECTRAL ANALYZER** gives visual feedback of the spectral content of the audio signals. When in the main menu, push the **SPECTR** function button and the spectral analyzer window will appear – two audio channels and a Lissajous curve, where the spectral contents of both displayed channels are laid out on the X and Y axis.



Rotate the **ENCODER** to navigate through audio sources.

THE DISPLAY COMBINATIONS ARE:

LEFT OUT & RIGHT OUT

LEFT IN & RIGHT IN

LEFT IN & LEFT OUT

RIGHT IN & RIGHT OUT

Moving the sliders will apply changes to the active mode parameters as if the active mode screen is open. Experiment with different audio, configurations and resonance and watch the Lissajous curve go crazy!

Push and hold the **SHIFT** button and the **BAR DELAY** option will appear. Push the encoder to turn on/off frequency peaks or rotate the encoder to adjust how slow or fast the peaks drop..

CONFIGURATION MENU



In the CONFIGURATION MENU you can alter master settings of the device – system settings, display settings, MIDI settings, the resonance potentiometer response curve and the footswitch behaviour. Push the CONFIG function button and rotate the ENCODER to browse through the sub-menus, then push the ENCODER to select the relevant sub-menu.



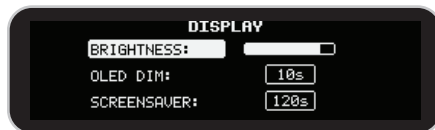
CONFIGURE THE STEREO SPREAD FUNCTION.

The CLASSIC setting is the one most described in the manual above – in this setting, the SPREAD control slightly offsets or delays settings of the Left and Right stereo channels. The FB CH-SELECT setting gives you individual access to each stereo channel for detailed manual spectral control of the audio in the stereo field when in the filterbank mode. If FB CH-SELECT is selected, counter-clockwise adjustment of the SPREAD knob allows access to the LEFT channel only, in the 12 o'clock setting you control both left and right channels simultaneously, while clockwise adjustment gives you access to the Right channel only. Other active modes besides the FB keep the classic SPREAD behaviour.

CHECK THE FIRMWARE VERSION.

BACKUP snapshots to your computer. To perform a snapshot backup, push and hold the PLAY/LOAD button for 3" and connect your computer to the USB port of the Resonant Filterbank. It will appear as an external drive and you simply have to copy the content of the SNAPSHOTS folder to your computer. In same way you can RESTORE previously backed-up snapshots – drag and drop them from your computer to the SNAPSHOTS folder of the Resonant Filterbank.

Perform FACTORY RESET. To do so, push and hold the CONFIG button for 3" and then confirm the factory reset.



When in the DISPLAY settings menu, rotate the ENCODER to browse through the options and push the encoder to enter the sub-menu. Rotate the ENCODER to adjust settings in the sub-menu and push it to confirm selection. In this menu you can:

Adjust the screen brightness.

Set the screen dimming time [the screen will automatically dim to a less bright setting and will return to the original setting as soon you adjust anything on the device].

Set the SCREENSAVER appearance time. We recommend activating the screensaver in order to prolong the lifespan of the OLED display.



IN THE MIDI CONFIGURATION MENU, you can specify MIDI channels for controlling the Resonant Filterbank parameters via MIDI CC messages. You can control all parameters of the interface, except for INPUT GAIN and VOLUME. Once in the MIDI configuration menu, rotate the ENCODER to browse through the MIDI configuration options and push it to enter the sub-menu. Rotate the encoder to adjust settings in the sub-menu and push it to confirm selection.

SELECT THE MIDI CHANNEL (1 – 16) for controlling all parameters on the instrument simultaneously for both stereo channels – MIDI IN CH.

SELECT THE MIDI CHANNEL (1-16) for controlling all parameters for the Left channel individually – MIDI IN L CH.

SELECT THE MIDI CHANNEL (1-16) for controlling all parameters for the Right channel individually – MIDI IN R CH.

SELECT THE MIDI OUT CHANNEL (1-16) for sending MIDI CC messages from the Resonant Filterbank to your DAW. This is useful if you want to record automations while recording live sessions with the instrument. You can also configure the MIDI OUT port to work as MIDI THRU instead.

If you select the same MIDI channel for for MIDI IN and, for example, MIDI IN L CH, the unit will indicate the CONFLICT message.

The MIDI clock is not dependent on the MIDI channel selection – it is a system-wide message.

Refer to the MIDI IMPLEMENTATION chart on the page 20 of this user manual for detailed MIDI settings.



IN THE RESO CONFIGURATION MENU you can select the response curve of the resonance potentiometer. Simply rotate the ENCODER and select the desired curve. The available options are: balanced, only highs, only lows, linear, logarithmic and exponential.



IN THE FOOTSWITCH CONFIGURATION MENU you can configure the footswitch action. There are two operation modes of the footswitch – SHORT PRESS and HOLD, each mode can be assigned to one of the actions from the drop-down menu. Some actions are not available for the hold mode and if an action is assigned to one of the modes, it is automatically disabled for another.

MIDI IMPLEMENTATION

STEREO & MONO		
ACTIVE MODE DEPENDANT	70	MODE 1
	71	MODE 2
	72	MODE 3
	73	MODE 4
	74	MODE 5
	75	MODE 6
	76	MODE 7
	77	MODE 8
	78	MODE 9
	79	MODE 10
	80	UNIQUE 1
	81	UNIQUE 2
	82	UNIQUE 3
	83	UNIQUE 4

STEREO			
UNIVERSAL	84	RESONANCE LVL	
	85	FEEDBACK CH 1	
	86	FEEDBACK CH 2	
	87	FEEDBACK CH 3	
	88	FEEDBACK CH 4	
	89	FEEDBACK CH 5	
	90	FEEDBACK CH 6	
	91	FEEDBACK CH 7	
	92	FEEDBACK CH 8	
	93	FEEDBACK CH 9	
	94	FEEDBACK CH 10	
	95	FEEDBACK CH ALL	
	MONO		
	96	MIX	
97	SPREAD		

	FILTERBANK	FILTER	CLOCKED MODULATION	DYNAMIC EQUALIZER
MODE 1	BAND 1 GAIN	FILTER CUTOFF	MODULATION GAIN	THRESHOLD
MODE 2	BAND 2 GAIN	FILTER SLOPE	MODULATION WAVESHAPE	CONTROL DECAY
MODE 3	BAND 3 GAIN	FILTER WIDTH	MODULATION FREQUENCY	CONTROL ATTACK
MODE 4	BAND 4 GAIN	FILTER TYPE	STEP DIRECTION	ENVELOPE DELAY
MODE 5	BAND 5 GAIN	FILTER GAIN	STEP BPM/SCALE	INPUT FILTER CENTER FREQ.
MODE 6	BAND 6 GAIN	BAND OFFSET	BAND OFFSET	AUDIO SOURCE
MODE 7	BAND 7 GAIN		RIGHT CHANNEL INVERTED	BAND OFFSET
MODE 8	BAND 8 GAIN			
MODE 9	BAND 9 GAIN			
MODE 10	BAND 10 GAIN			
UNIQUE 1	BAND LOW GAIN			
UNIQUE 2	BAND MID GAIN			
UNIQUE 3	BAND HIGH GAIN			
UNIQUE 4	BAND ALL GAIN			

THE FACTORY PRESETS BY ERALEDO BERNOCCHI

ALICE 2

Ambient/drone modulator. Subtle movement and slow spectral evolution. Best on: drones, pads, atmospheres

ALICE 3

Ambient/drone modulator with increased depth and motion complexity. Best on: evolving textures, cinematic beds

BASS STUV

Bass feedback enhancer. Resonant, aggressive tone—great into reverb chains. Best on: bass, drones

BEAT DIRTUS

Drum degrader. Adds grit, saturation, and transient destruction. Best on: drum loops

BEAUTIFUL DISASTER

Tempo-synced modulation. Controlled chaos with musical timing. Best on: complex rhythmic material

BONK

Percussive modulator/destructor. Emphasizes transients and reshapes groove. Best on: drums, percussive elements

DISTORTUS

Full-spectrum distortion unit. Scales from saturation to total signal breakdown. Best on: anything that needs attitude

DISTORTUS 2

Advanced distortion engine. Expanded modulation for dynamic destruction. Best on: complex sources, sound design

DREAM PAD

Pad widener/washer. Smooth diffusion and harmonic softening. Best on: keys, pads

DYN PUMP

Dynamic EQ pump. Envelope-controlled spectral movement. Best on: beats, sidechain-style effects

ETERNAL

High-energy spectral modulator. Aggressive, evolving harmonic motion. Best on: leads, FX

ETERNAL WHIP

Resonant stereo panner. Distortion with dynamic spatial movement. Best on: leads, FX

FEED LUSH

Free-running modulation processor. Organic movement without tempo sync. Best on: pads, reverbs, delays

FLOATER

Resonant texture generator. Unstable, drifting tonal movement. Best on: drones, experimental layers

HARD TONGUE

Sharp, tempo-synced modulator. Focused, cutting rhythmic motion. Best on: percussive synths

HYBRID

Parallel processor. Blend dry and processed signals dynamically. Best on: anything—great for control

KICK AUGMENTER

Low-end enhancer. Frequency doubling and envelope shaping for kicks. Best on: kicks

LO FI CAN

Lo-fi distortion processor. Modulated grit for pads and vocals. Best on: vocals, textures

LOW END CYCLE

Sub-frequency modulator. Pulsing resonance in low spectrum. Best on: sub bass, kicks

MEDITATION JOE

Ambient expander. Delay-fed diffusion for deep spatial textures. Best on: pads, FX tails

MID HIGH PAN

Mid/high stereo modulator. Tempo-synced panning movement. Best on: percussion, grooves

PAN FILTER

Band-limited stereo widener. Moving mid/high frequency field. Best on: basslines, beats

SHAPER

Spectral sculpting tool. Boost/cut frequency regions dynamically. Best on: mixes, buses

SPECTRAL MOVER

Phase-based stereo modulator. Shifts mid/high content across L/R. Best on: synths, FX

TECH ELASTIC

Multi-band modulator. Saturation via input gain + reactive resonance. Best on: full grooves

TECH MOVER

Rhythmic modulation tool. Designed for driving tech grooves. Best on: techno, house beats

TECH MVMNT

Band-focused modulator. Targets upper bands (6–8) for motion detail. Best on: hi-hats, tops

TOP GAIN

Gain-stage distortion. Hard clipping and signal overload. Best on: drums, bass, inserts

UP DOWN MOVEMENT

Vertical spectral modulator. Moves energy across frequency bands. Best on: beats, loops

WASH

Signal diffuser. Blends and smooths into ambient texture. Best on: buses, pads, full mixes

WICKED CIBA

Resonant stereo modulator. High-intensity panning with sharp peaks. Best on: experimental stereo FX

WOOFER SMASHER

Low-frequency resonator. Self-oscillating sub generator at high resonance. Best on: sub design, experimental bass

WARNING

The Resonant Filterbank is a highly unstable and powerful sound processor.

At high RES settings, it can self-oscillate, generate extreme frequencies, and produce sudden spikes in volume. Most presets are driven by two critical controls: INPUT GAIN and RES.

These parameters define how hard the signal hits the filterbank and how aggressively it resonates. Pushing them can quickly move from subtle processing to complete sonic chaos.

Most presets are MIDI synced.

Their modulation is locked to tempo, meaning results will vary depending on your DAW BPM and incoming MIDI clock.

Start low. Increase gradually. Always monitor your levels. When in doubt, turn it down.

Safety instructions

Please follow the instructions for the use of the Erica Synths Resonant Filterbank below, because only this will guarantee the proper operation of the module and ensure the warranty from Erica Synths.



Use the Resonant Filterbank exclusively with the power supply unit (PSU) supplied with the system. Powering it with other PSU units may cause permanent damage to the device.



Water is lethal for most electric devices unless they have been rendered waterproof. The Resonant Filterbank module is NOT intended for use in a humid or wet environment. No liquids or other conducting substances should be allowed into the module. Should this happen, the module should be disconnected from mains power immediately, dried, examined and cleaned by a qualified technician.



Do not expose the instrument to temperatures above +50° C or below -20° C. If you have transported the instrument in extremely low temperatures, leave it at room temperature for an hour before plugging it in.



Transport the instrument carefully. Never let it drop or fall over. The Warranty does not apply to instruments with visual damage.

Disposal



Resonant Filterbank must be shipped in the original packaging only. Any instrument shipped to us for return, exchange and/or warranty repair must be in its original packaging. All other deliveries will be rejected and returned to you. Ensure that you keep the original packaging and technical documentation.

This device complies with EU guidelines and is manufactured and confront RoHS without the use of lead, mercury, cadmium or chrome. Nevertheless, this device is special waste and disposal in household waste is not recommended.

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Copying, distribution or any commercial use in any way is prohibited and needs the written permission of Erica Synths.

The specifications are subject to change without notice. If you have any questions, feel free to contact us via SUPPORT section on www.ericasynths.lv

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**You will find the Erica Synths terms of warranty at
www.ericasynthsv.com**

**Items for return, exchange and/or warranty repair should be sent
us according to the guidelines on SUPPORT section on
www.ericasynthsv.com**

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