Intellijel KORGASMATRON II
Illustrated supplement



by Demonam

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LP2 / 2-pole low-pass filter

set filter cutoff frequency

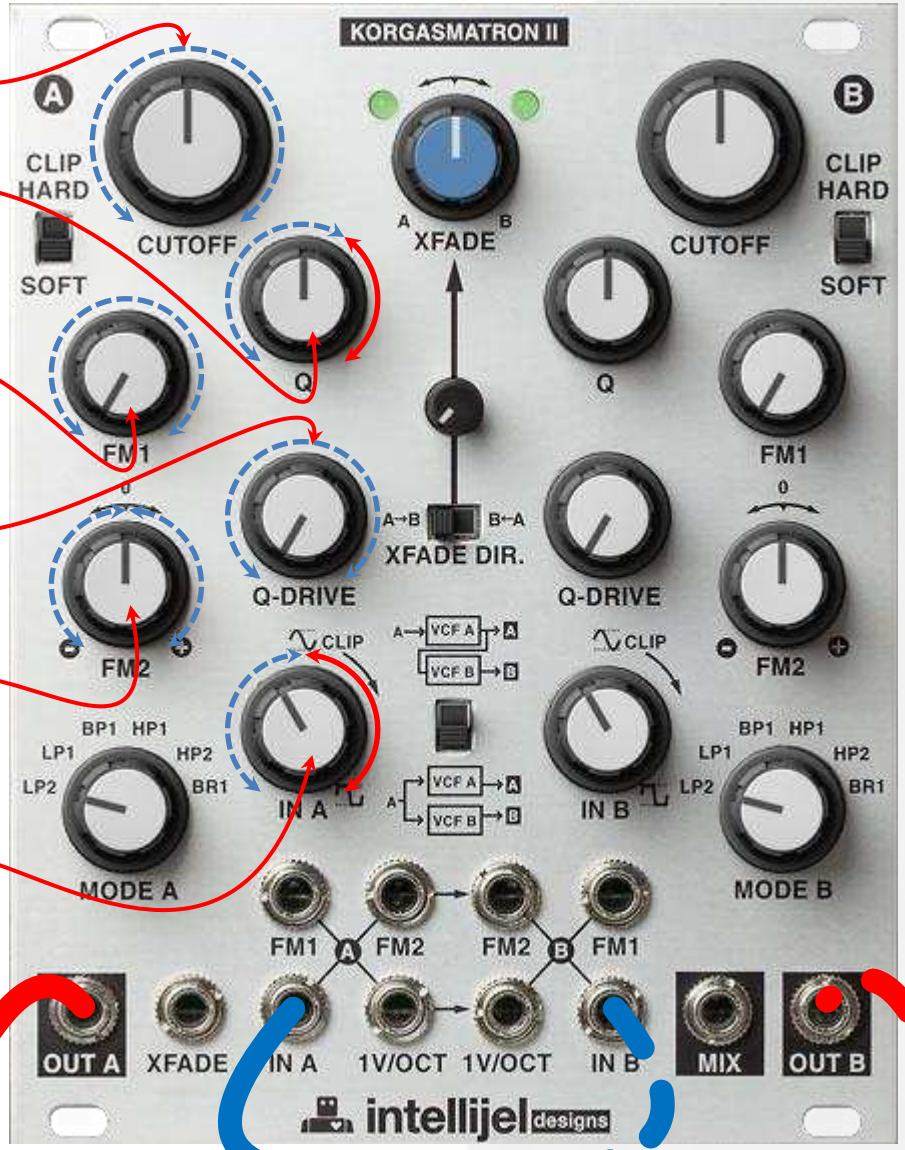
set resonance **self-oscillate** past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input

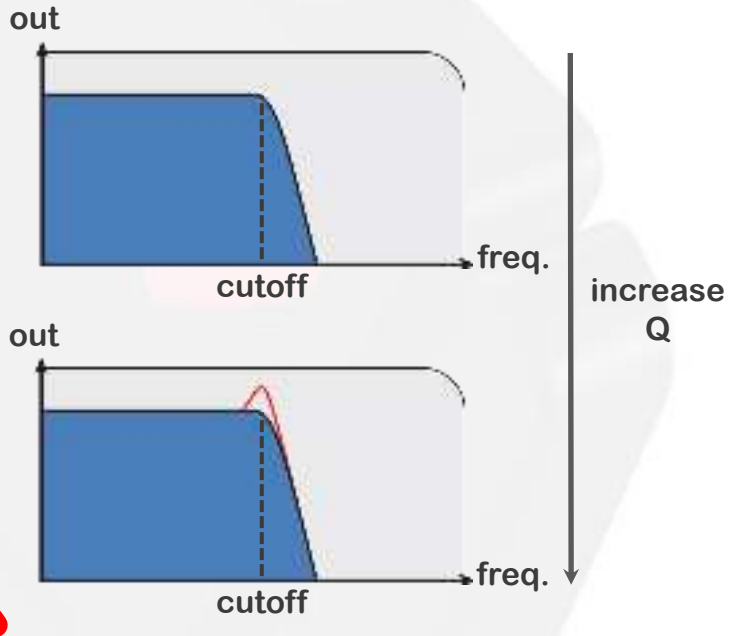


Input attenuator **IN A** (and/or B) controls the level into the filter A (and/or B).

For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!



filter A out

signal(s) to be filtered

filter B out

LP1 / 1-pole low-pass filter

set filter cutoff frequency

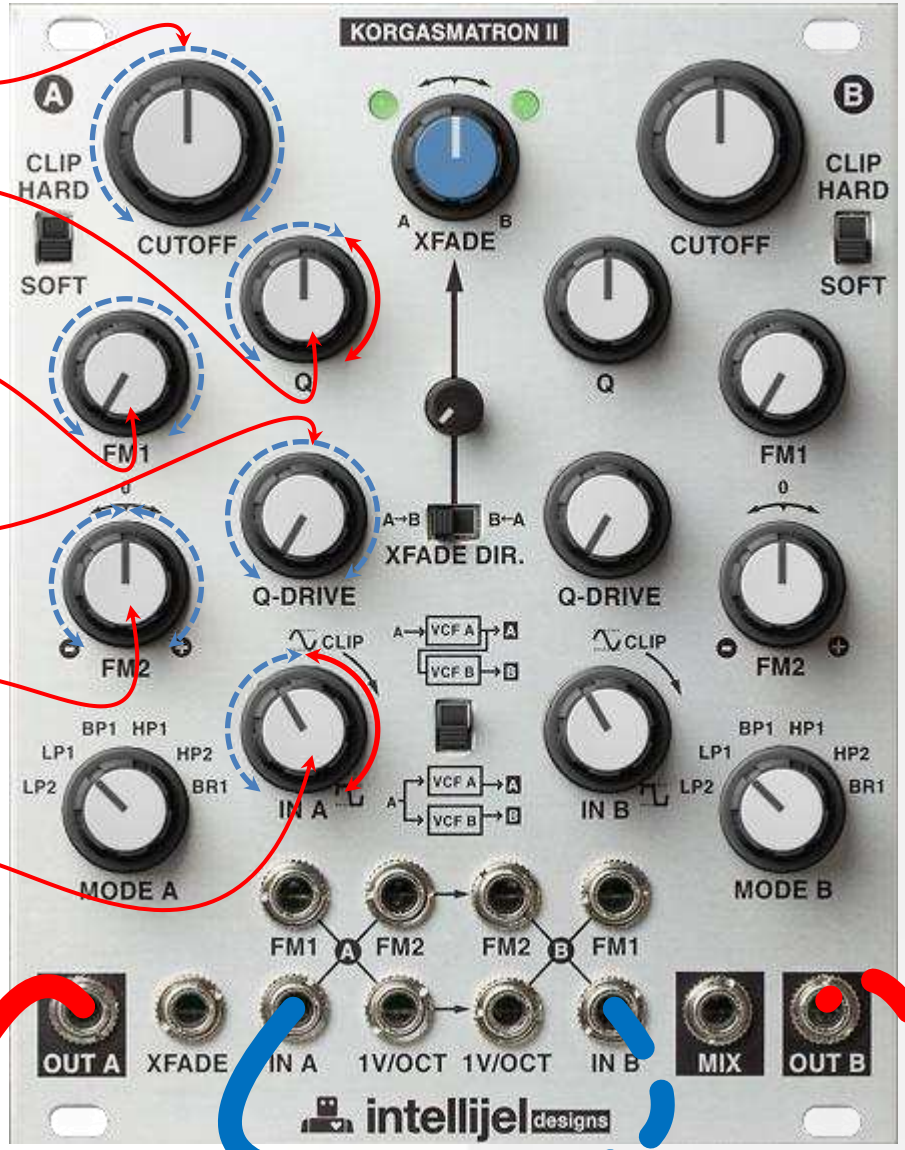
set resonance **self-oscillate** past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input



filter A out

signal(s) to be filtered

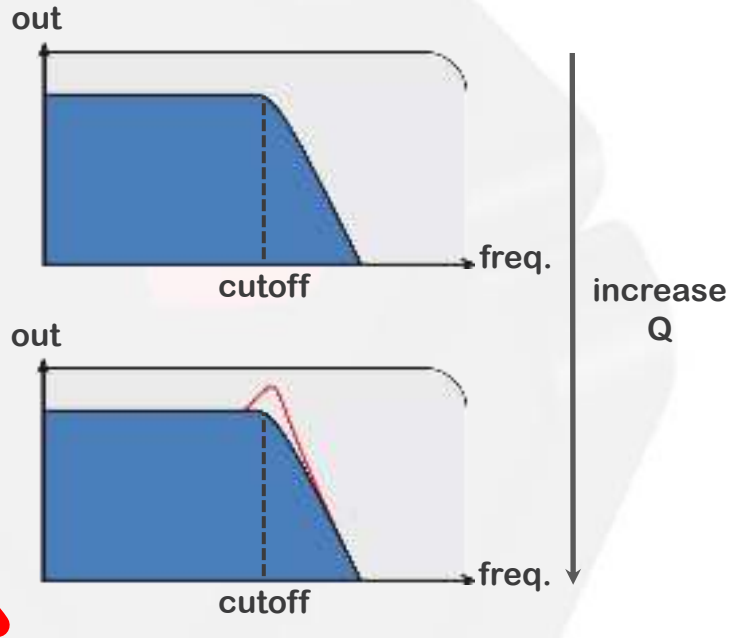
filter B out

Input attenuator **IN A** (and/or B) controls the level into the filter A (and/or B).

For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!



BP1 / 1-pole band-pass filter

set filter cutoff frequency

set resonance
self-oscillate
past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input

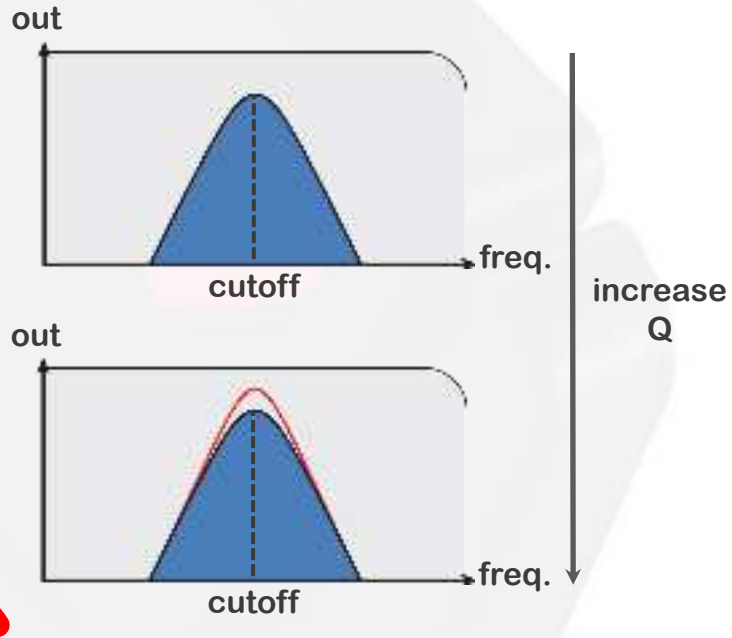


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For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!



filter A out

filter B out

signal(s) to be filtered

HP1 / 1-pole high-pass filter

set filter cutoff frequency

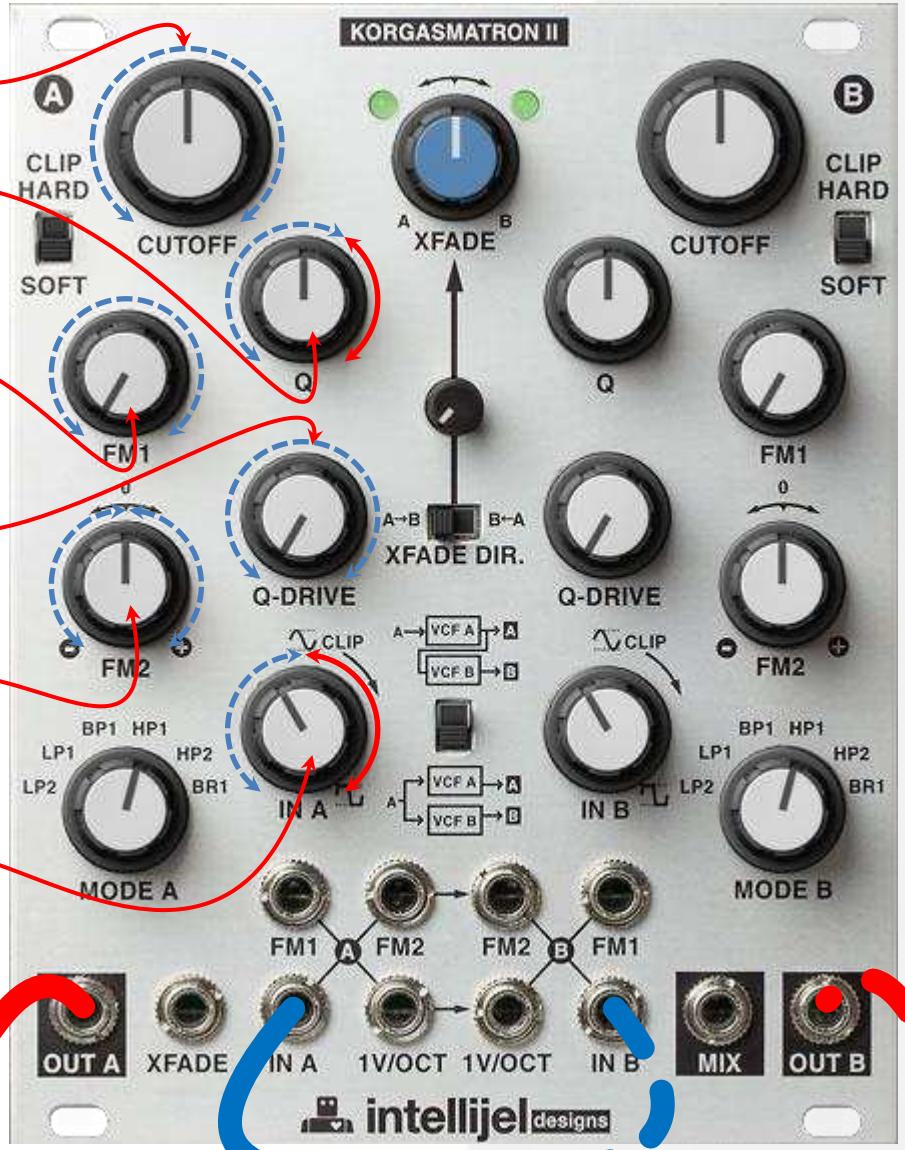
set resonance self-oscillate past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input

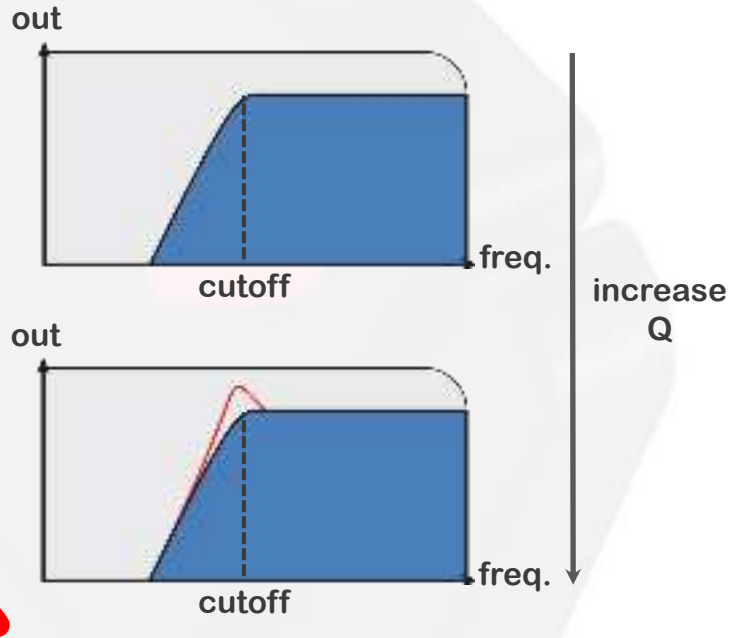


Input attenuator **IN A** (and/or B) controls the level into the filter A (and/or B).

For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!



filter A out

filter B out

signal(s) to be filtered

HP2 / 2-pole high-pass filter

set filter cutoff frequency

set resonance
self-oscillate
past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input

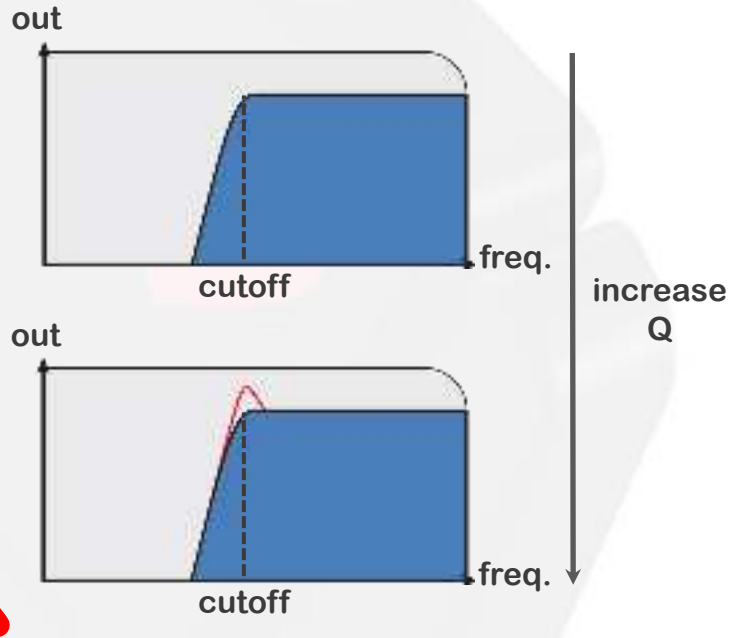


Input attenuator **IN A** (and/or B) controls the level into the filter A (and/or B).

For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!



filter A out

filter B out

signal(s) to be filtered

BR1 / 1-pole band-reject filter

set filter cutoff frequency

set resonance **self-oscillate** past 1 o'clock

unipolar attenuator for FM1 input

set level of resonance

bipolar attenuator for FM2 input

gain unipolar attenuator for signal A input

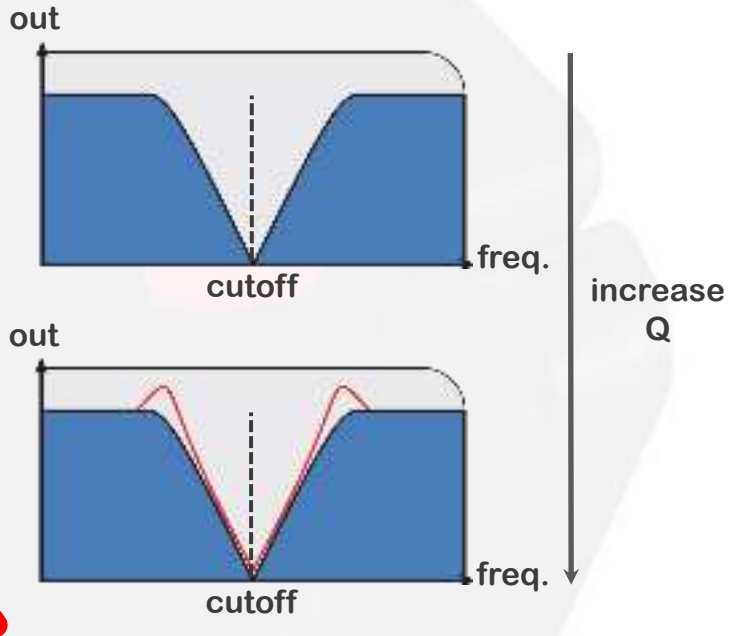


Input attenuator **IN A** (and/or B) controls the level into the filter A (and/or B).

For classic tone keep this below 12 o'clock.

Higher gain will suppress the resonance of the filter and change its tone.

The combination of **IN A** level, **Q** and **Q** Drive knobs can alter the tone of the filter dramatically from sweet to scathing - experiment!

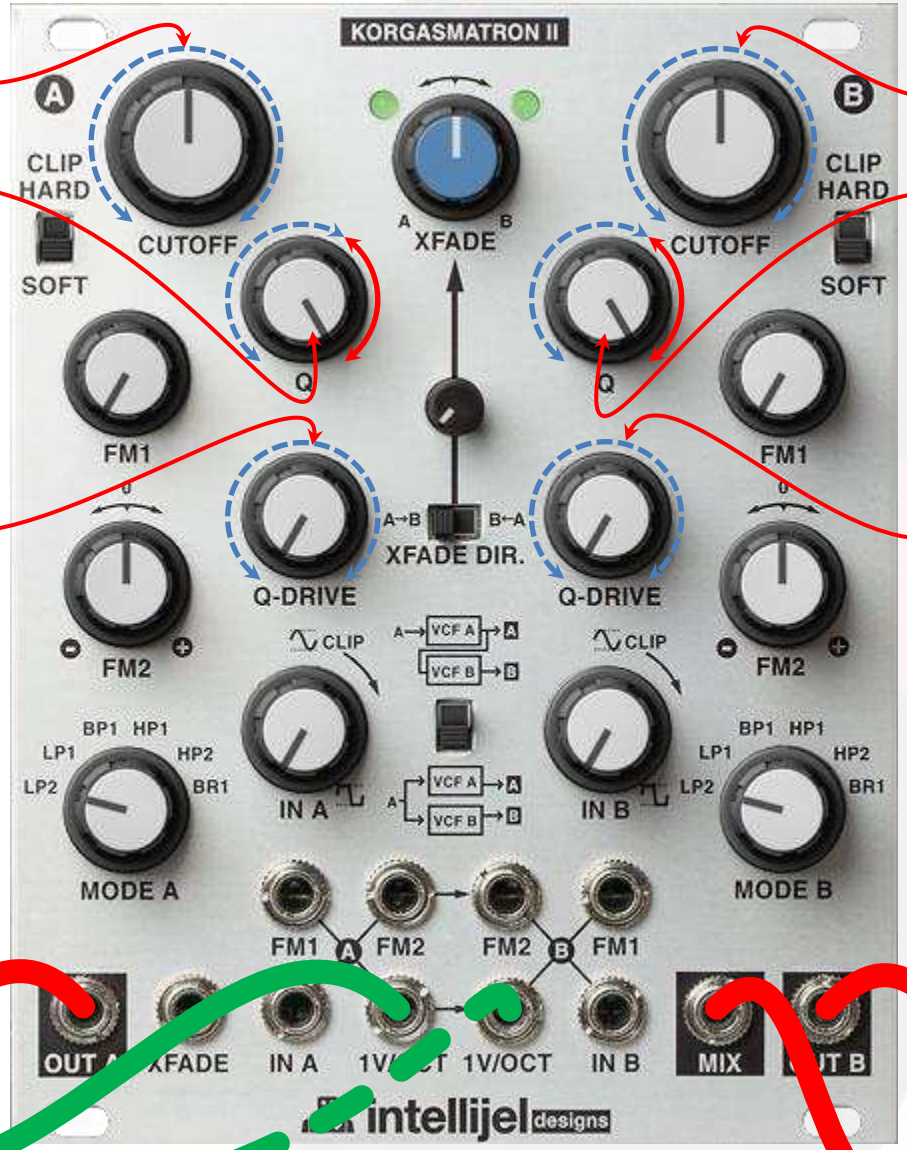


filter A out

filter B out

signal(s) to be filtered

Dual 1V/Oct sine oscillator



filter A coarse frequency set

make filter A self-oscillate

filter A kind of fine frequency set

filter B coarse frequency set

make filter B self-oscillate

filter B kind of fine frequency set

filter A sine out

filter B sine out

1V/Oct quantized CV

sine A and B mix out in PARALLEL configuration

Normalled inputs



FM 2 CV

1V/Oct quantized CV

signal to be filtered

FILTER A :

IN A : Signal input to filter A. Patch a audio signal here to be filtered. The knob IN A attenuates this signal. This is normalled to the IN B input of filter B.

FM2 A : CV input to VCF A filter cutoff, attenuated with inversion by FM2 A knob. Normalled to VCF B FM2.

1V/Oct A : CV input for filter frequency calibrated for 1V/oct standard. This is normalled to the 1V/Oct CV input of filter B.

FILTER B :

IN B : Signal input to filter B. Patch a audio signal here to be filtered. The knob IN B attenuates this signal. This is switching jack, inserting a plug here will break the normal from IN A.

FM2 B : CV input to VCF B filter cutoff, attenuated with inversion by FM2 B knob. This is a switching jack, inserting a plug here will break the normal from FM2 A.

1V/Oct B : CV input for filter frequency calibrated for 1V/oct standard. This is switching jack, inserting a plug here will break the normal from 1V/Oct A.

Advice : If you are using the Korgasmatron II in SERIAL configuration inserting a plug into IN B jack will break the internal routing from filter A which may cause confusion.

SERIAL configuration



Advice : If you are using the Korgasmatron II in SERIAL configuration inserting a plug into IN B jack will break the internal routing from filter A which may cause confusion.

XFADE position

attenuator for XFADE input

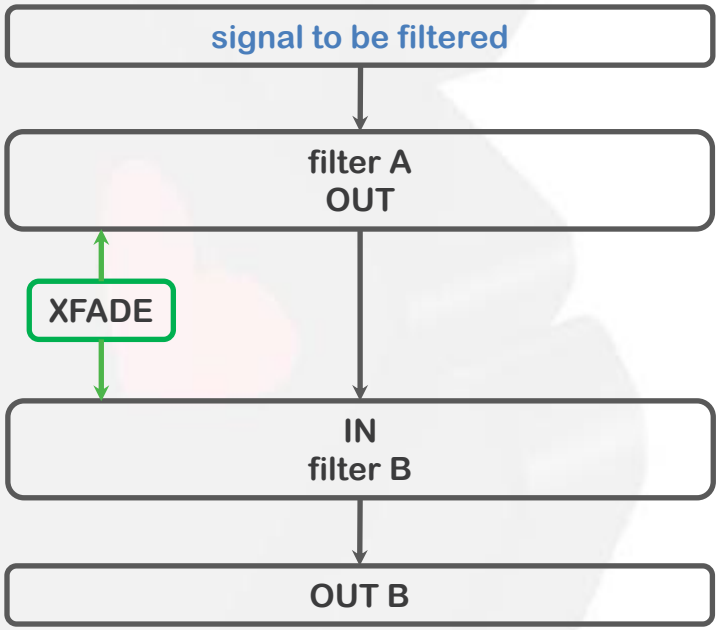
XFADE signal input

filter A out

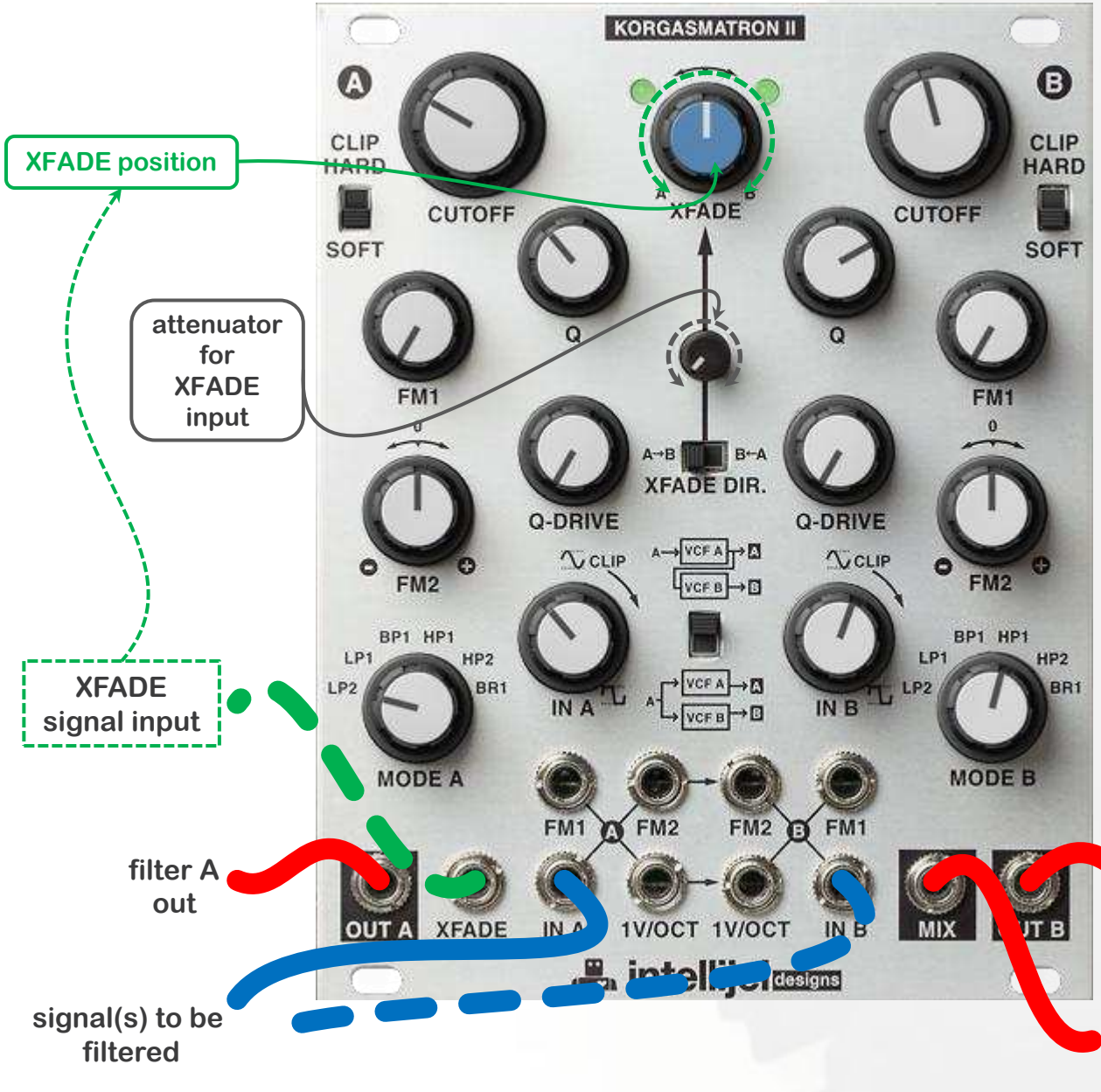
signal to be filtered

SERIAL A>B out

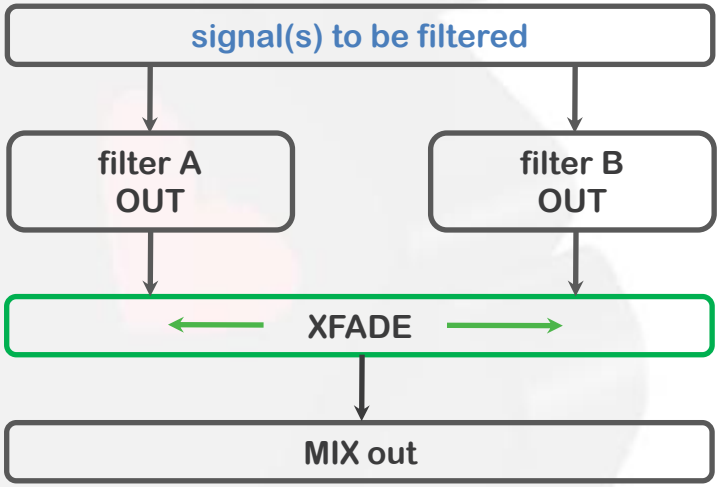
XFADE SERIAL A>B MIX out



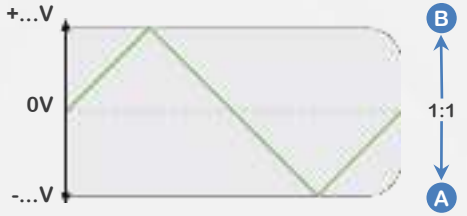
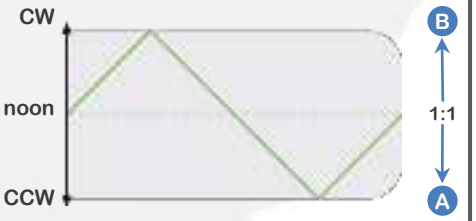
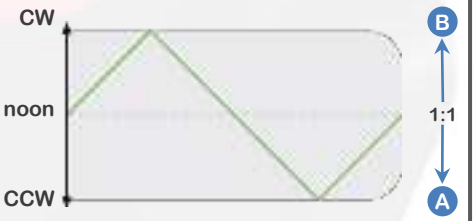
PARALLEL configuration



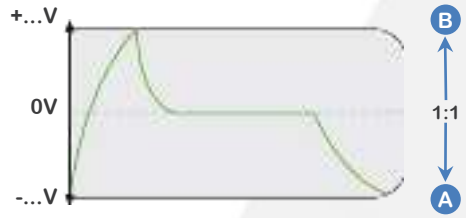
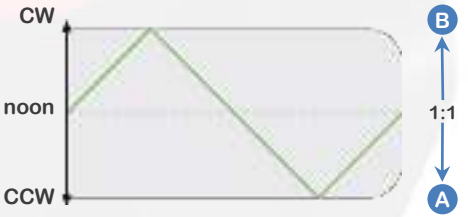
Use **MIX** output if the Korgasmatron II is in PARALLEL configuration and you want to mix the filters together to one output.



XFADE response - 01

	UNIPOLAR signal input [0V/+...V] ADSR illustration	BIPOLAR signal input [-...V/+...V] triangle LFO illustration	MANUAL set (no input) [CCW/CW] knob illustration
			
			
			
			

XFADE response - 02

	UNIPOLAR signal input [0V/+...V] ADSR illustration	BIPOLAR signal input [-...V/+...V] triangle LFO illustration	MANUAL set (no input) [CCW/CW] knob illustration
			
			
			
			

State-variable stereo filter



Set the Korgasmatron in PARALLEL configuration.

Use same LP-BP-HP-BR's switch position for A & B filters to set type of stereo filter.

2-pole low-pass stereo filter for this illustration.

set stereo filter type **same position as filter B**

set stereo filter type **same position as filter B**

filter A LEFT out

filter B RIGHT out

LEFT signal IN

RIGHT signal IN

State-variable stereo filter - VC pan patch



Requires 2 bipolar VCAs.

Set gain of VCA to +1 and VCA 2 to -1.

In this patch, a positive offset patched at VCA 1 CV in & VCA 2 CV in down the amplitude of RIGHT out, while up amplitude of LEFT out.
A negative offset patched at VCA 1 CV in & VCA 2 CV in up the amplitude of RIGHT out, while down amplitude of LEFT out.

Use same LP-BP-HP-BR's switch position for A & B filters to set type of stereo filter.

Low-pass stereo filter for this illustration.

set stereo filter type **same position as filter B**

set stereo filter type **same position as filter B**

same CV signal

LEFT signal IN

RIGHT signal IN

filter A out

filter B out

bipolar VCA 1 in / gain +1

bipolar VCA 2 in / gain -1

LEFT out

RIGHT out

CV in

CV in

1-pole BAND-PASS filter patch

CUTOFF/BANDWIDTH set with A low-pass always > B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

band-pass filter out

Monitoring band-pass filter at **OUT B** in **SERIAL** configuration.

band-pass CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-pass BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

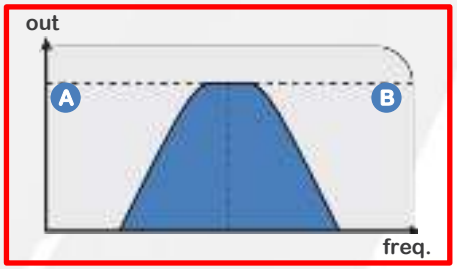
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

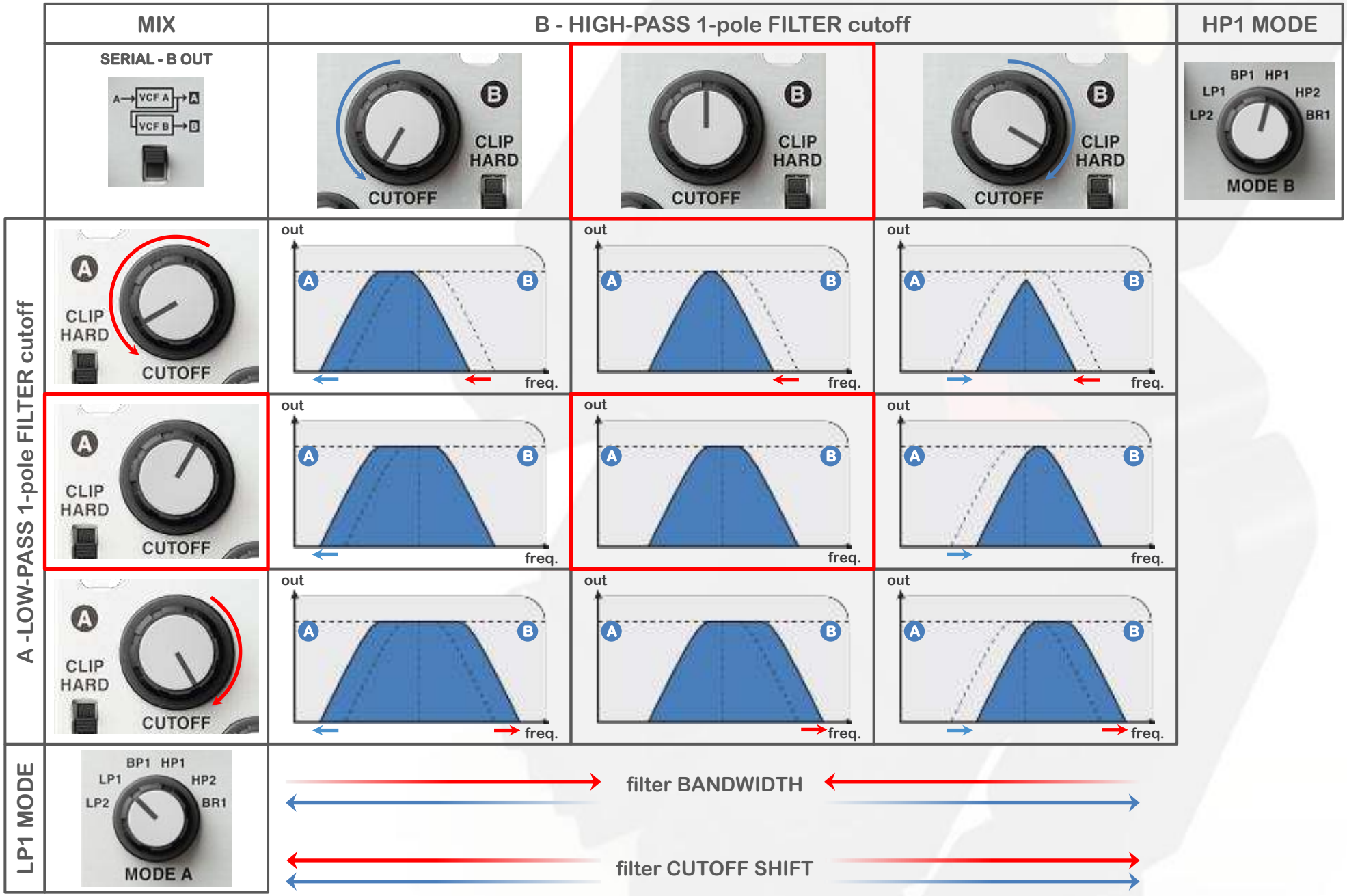
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See band-pass filter chart for details on OUT B filter curves.



1-pole BAND-PASS filter curves



2-pole BAND-PASS filter patch

CUTOFF/BANDWIDTH set with A low-pass always > B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

band-pass filter out

Monitoring band-pass filter at **OUT B** in **SERIAL** configuration.

band-pass CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-pass BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

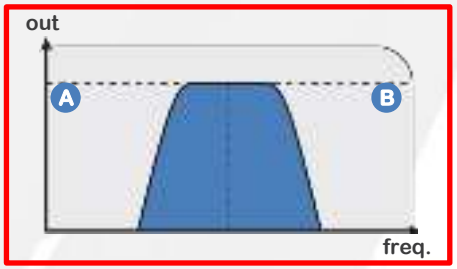
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

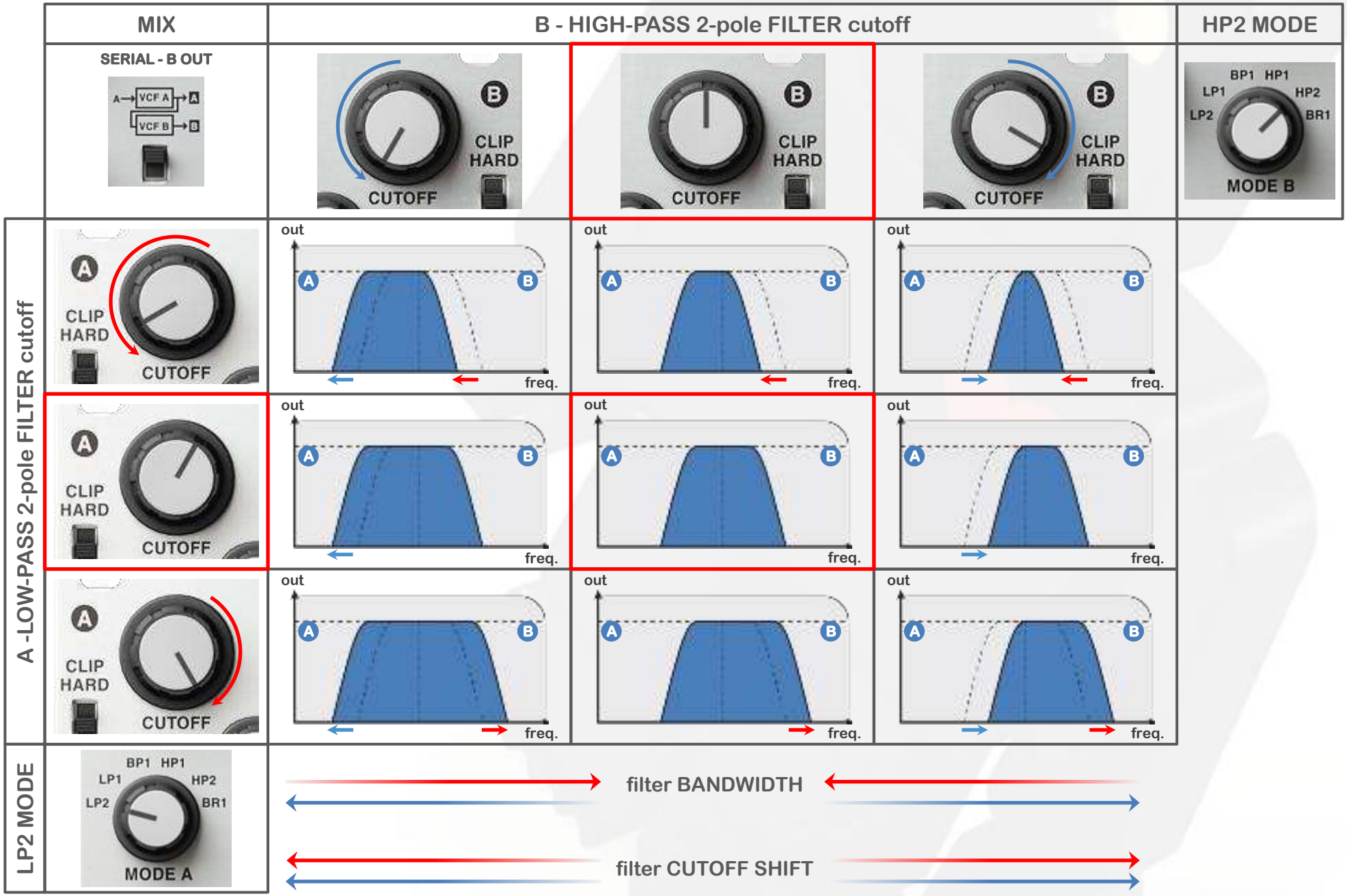
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See band-pass filter chart for details on OUT B filter curves.



2-pole BAND-PASS filter curves



1-pole BAND-REJECT filter patch

CUTOFF/BANDWIDTH set with A low-pass always < B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

band-reject filter out

Monitoring band-reject filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

band-reject CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-reject BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

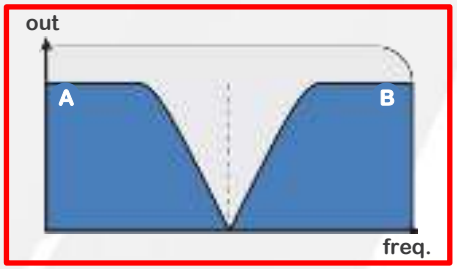
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

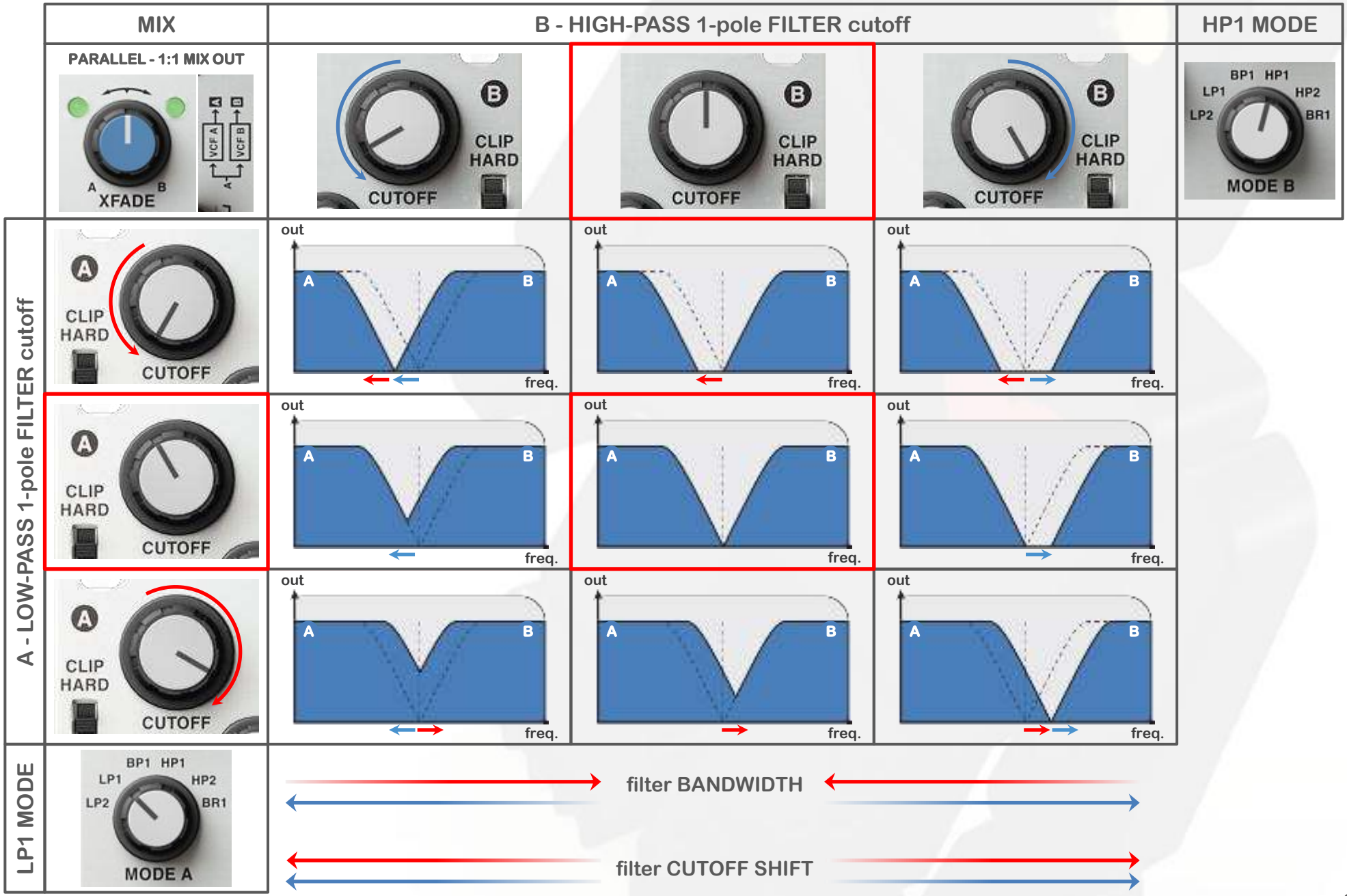
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See band-reject filter chart for details on MIX out filter curves.



1-pole BAND-REJECT filter curves



2-POLE band-reject filter patch

CUTOFF/BANDWIDTH set with A low-pass always < B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

band-reject filter out

Monitoring band-reject filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

band-reject CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-reject BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

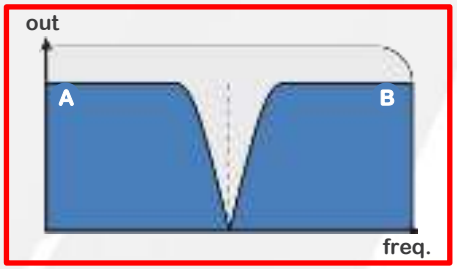
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See band-reject filter chart for details on MIX out filter curves.



2-pole BAND-REJECT filter curves

MIX	B - HIGH-PASS 2-pole FILTER cutoff			HP2 MODE
PARALLEL - 1:1 MIX OUT	CLIP HARD / CUTOFF	CLIP HARD / CUTOFF	CLIP HARD / CUTOFF	BP1 HP1 LP1 HP2 LP2 BR1 MODE B
XFADE A B				
A - LOW-PASS 2-pole FILTER cutoff				
CLIP HARD / CUTOFF	out A B freq.	out A B freq.	out A B freq.	
CLIP HARD / CUTOFF	out A B freq.	out A B freq.	out A B freq.	
CLIP HARD / CUTOFF	out A B freq.	out A B freq.	out A B freq.	
LP2 MODE				
BP1 HP1 LP1 HP2 LP2 BR1 MODE A	filter BANDWIDTH			
	filter CUTOFF SHIFT			

Asymmetrical BAND-PASS filter patch

CUTOFF/BANDWIDTH set with A low-pass always > B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

asymmetrical band-pass filter out

Monitoring band-pass filter at **OUT B** in **SERIAL** configuration.

band-pass CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-pass BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always > B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

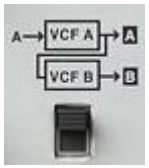
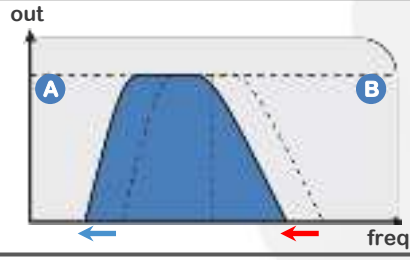
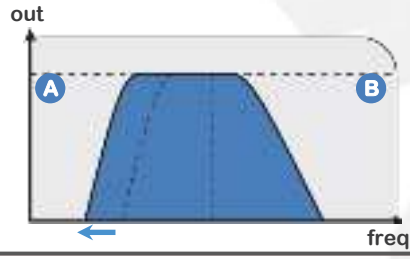
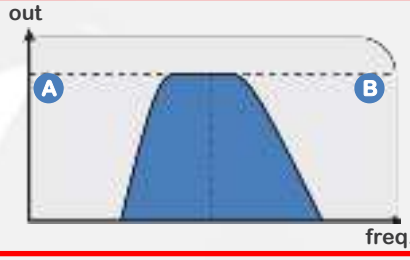
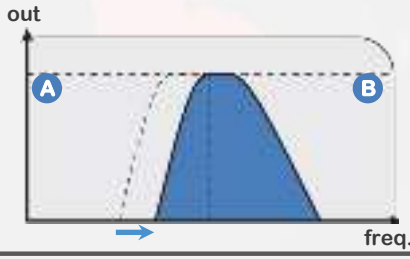
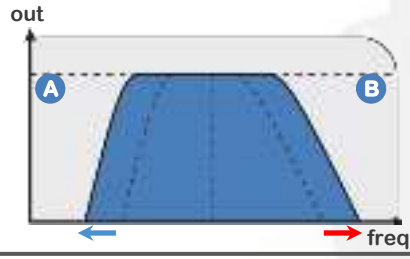
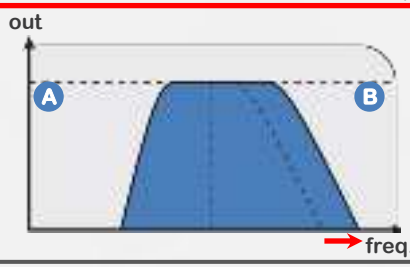
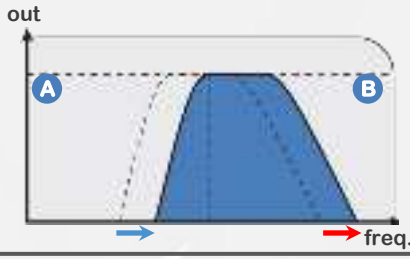
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See asymmetrical band-pass filter chart for details on OUT B filter curves.



Asymmetrical BAND-PASS filter curves

MIX	B - HIGH-PASS 2-pole FILTER cutoff			HP2 MODE
SERIAL - B OUT 				
				
				
				

A -LOW-PASS 1-pole FILTER cutoff

LP1 MODE



filter BANDWIDTH

filter CUTOFF SHIFT

Asymmetrical BAND-REJECT filter patch

CUTOFF/BANDWIDTH set with A low-pass always < B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

asymmetrical band-reject filter out

Monitoring band-reject filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

band-reject CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

band-reject BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always < B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

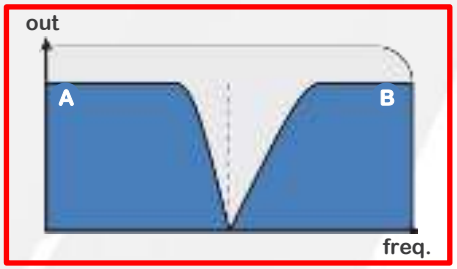
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

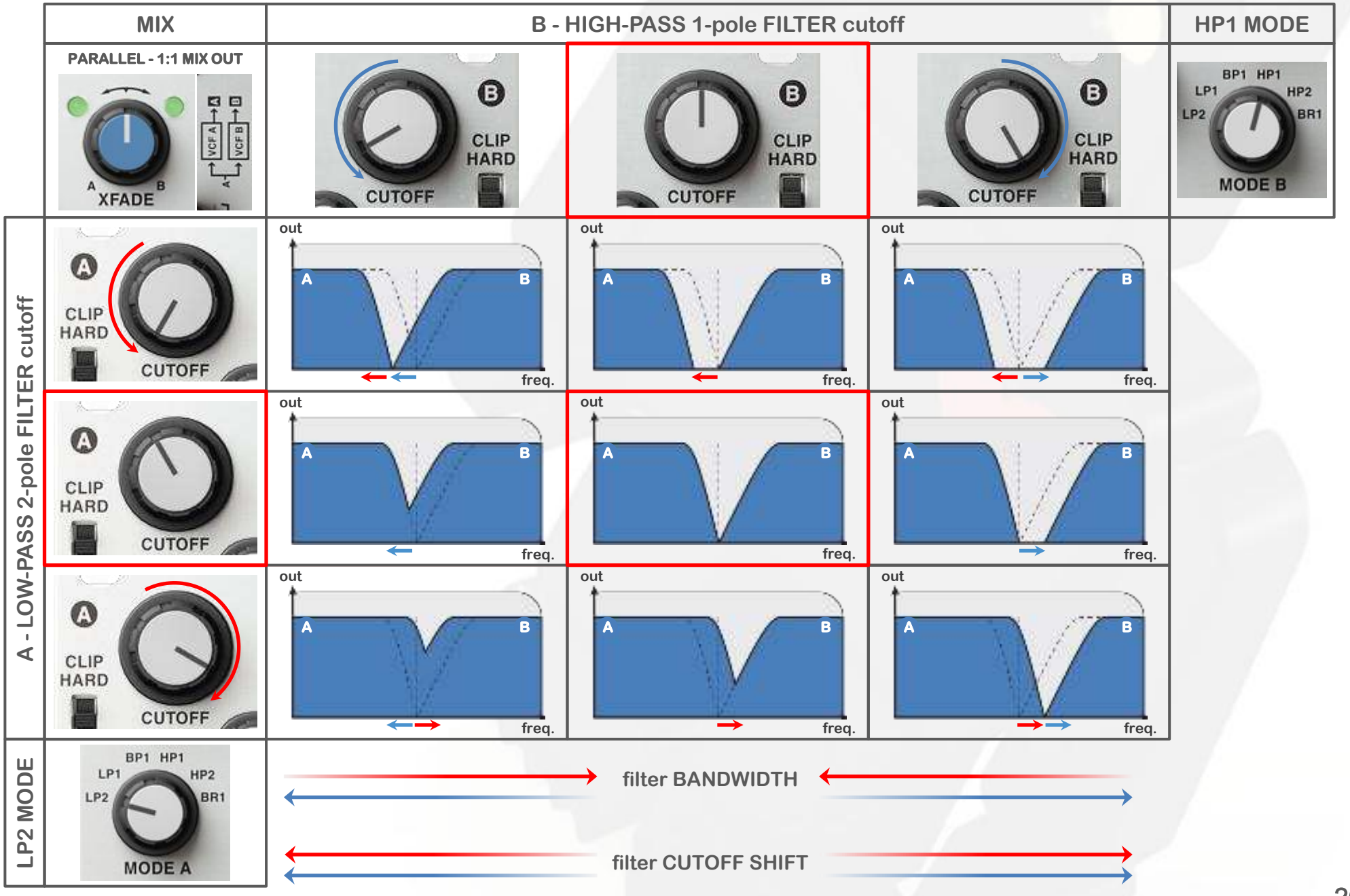
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See asymmetrical band-reject filter chart for details on MIX out filter curves.



Asymmetrical BAND-REJECT filter curves



Dual BAND-PASS filter patch

CUTOFF/BANDWIDTH set with A band-pass always ≠ B band-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

dual band-pass out

Monitoring dual band-pass filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

dual band-pass CUTOFF shift :
Manually set A & B cutoff, with **A band-pass cutoff always ≠ B band-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

dual band-pass BANDWIDTH set :
Manually set A & B cutoff, with **A band-pass cutoff always ≠ B band-pass cutoff**. Keep different relative knobs positions for banwidth set.

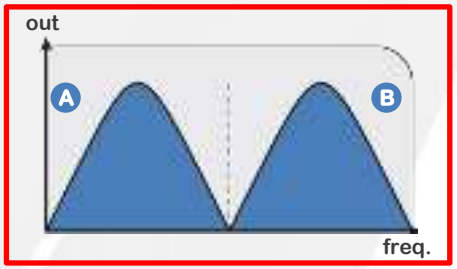
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

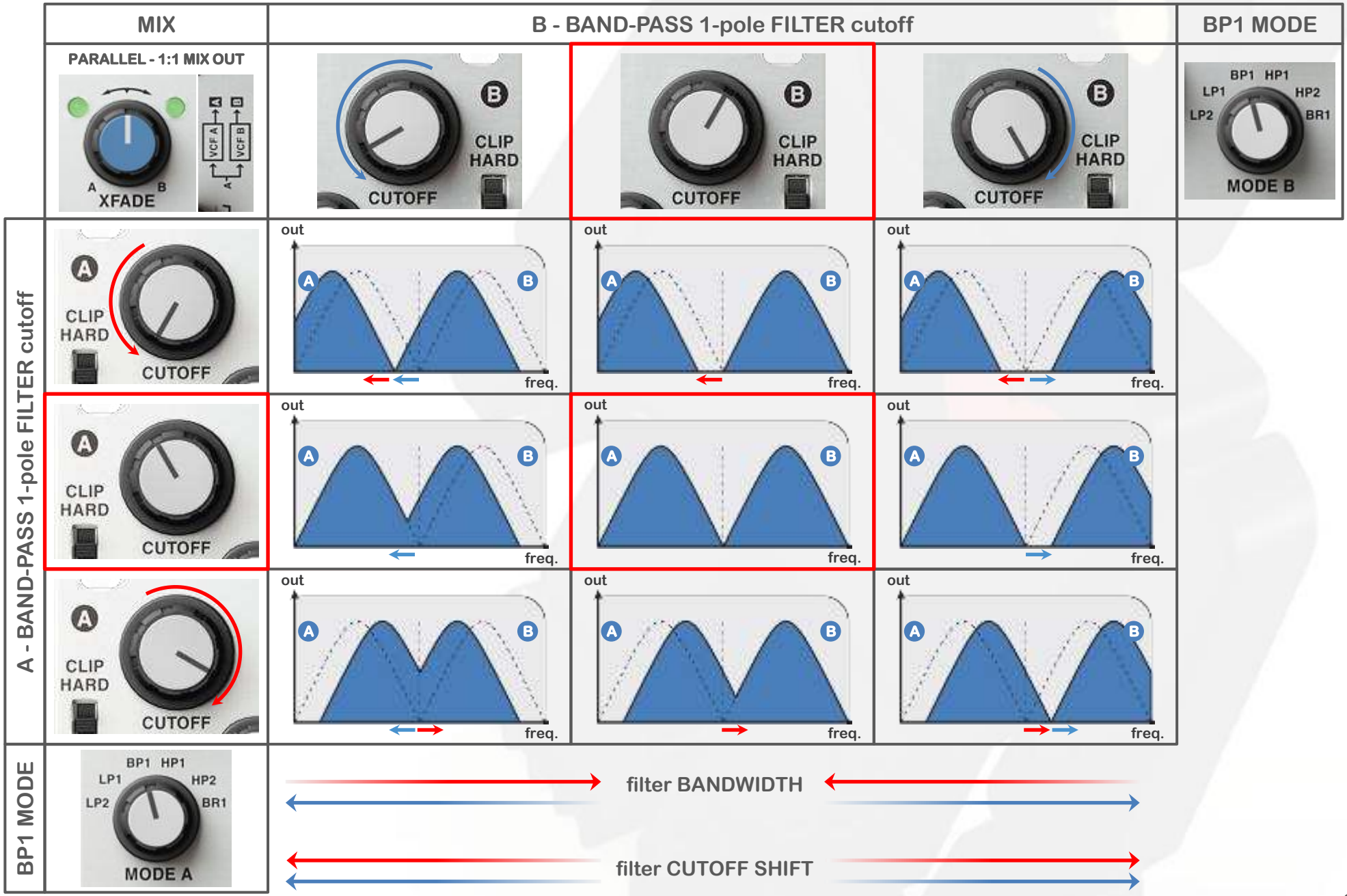
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See dual band-pass filter chart for details on MIX out filter curves.



Dual BAND-PASS filter curves



Dual BAND-REJECT filter patch

CUTOFF/BANDWIDTH set with A band-reject always ≠ B band-reject

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

dual band-reject out

Monitoring band-pass filter at **OUT B** in **SERIAL** configuration.

dual band-reject CUTOFF shift :
Manually set A & B cutoff, with **A band-reject cutoff always ≠ B band-reject cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

dual band-reject BANDWIDTH set :
Manually set A & B cutoff, with **A band-reject cutoff always ≠ B band-reject cutoff**. Keep different relative knobs positions for banwidth set.

OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

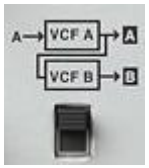
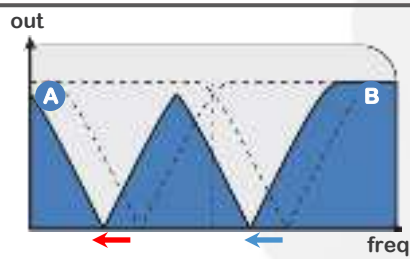
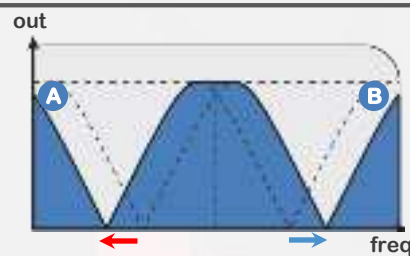
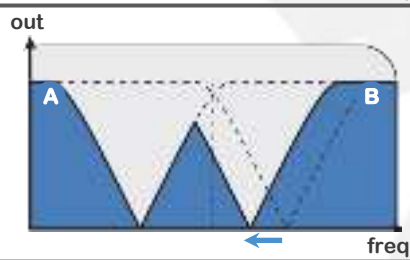
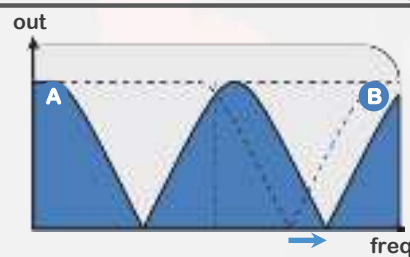
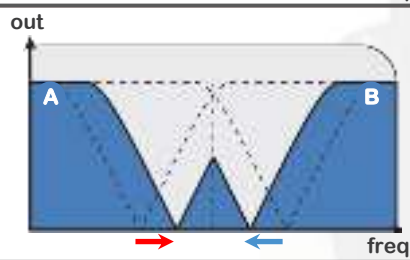
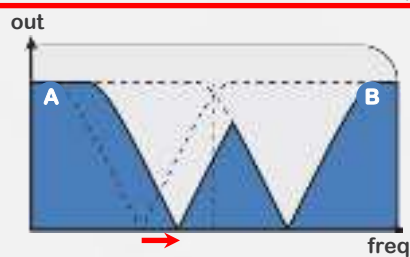
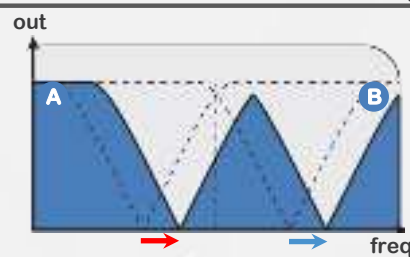
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See dual band-reject filter chart for details on OUT B filter curves.



Dual BAND-REJECT filter curves

MIX	B - BAND-REJECT 1-pole FILTER cutoff			BR1 MODE
SERIAL - B OUT 				
A - BAND-REJECT 1-pole FILTER cutoff				
				
				
				
BR1 MODE 	filter BANDWIDTH  filter CUTOFF SHIFT 			

(BP1 + LP1) filter patch

CUTOFF/BANDWIDTH set with A low-pass always < B band-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BP1 + LP1) out

Monitoring (BP1 + LP1) filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

(BP1 + LP1) CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always < B band-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BP1 + LP1) BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always < B band-pass cutoff**. Keep different relative knobs positions for bandwidth set.

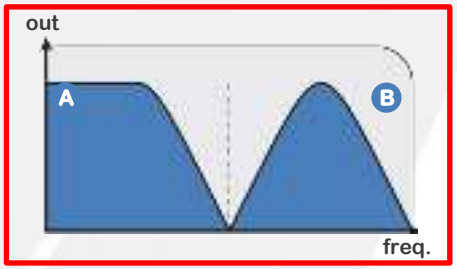
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

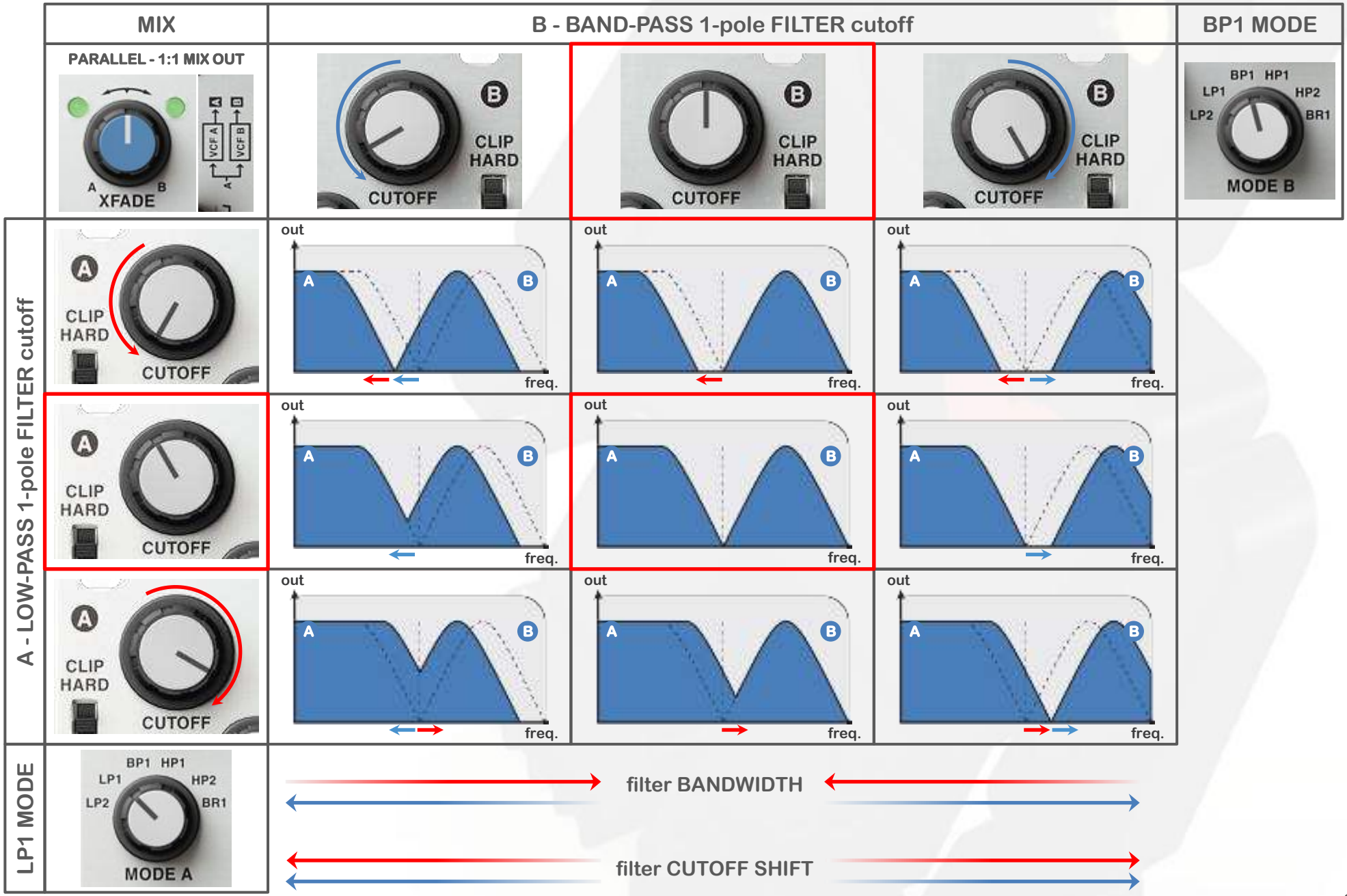
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BP1 + LP1) filter chart for details on MIX out filter curves.



(BP1 + LP1) filter curves



(BP1 + LP2) filter patch

CUTOFF/BANDWIDTH set with A low-pass always < B band-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BP1 + LP2) out

Monitoring (BP1 + LP2) filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

(BP1 + LP2) CUTOFF shift :
Manually set A & B cutoff, with **A low-pass cutoff always < B band-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BP1 + LP2) BANDWIDTH set :
Manually set A & B cutoff, with **A low-pass cutoff always < B band-pass cutoff**. Keep different relative knobs positions for bandwidth set.

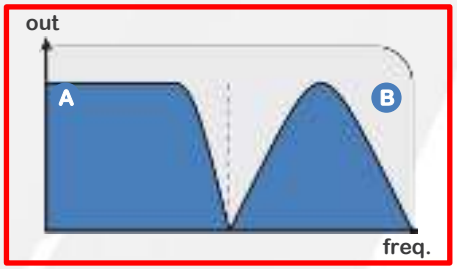
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

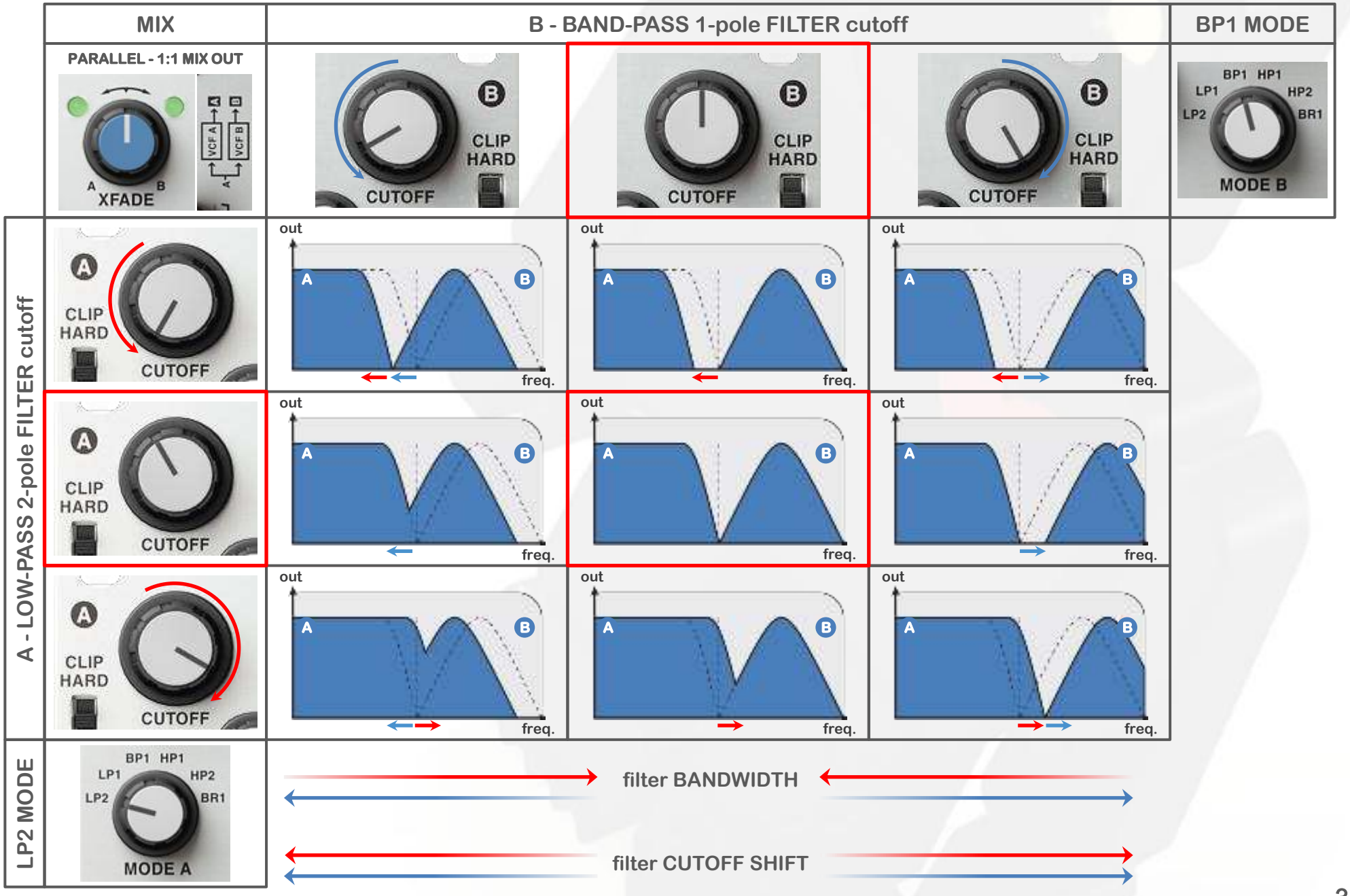
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BP1 + LP2) filter chart for details on MIX out filter curves.



(BP1 + LP2) filter curves



(BP1 + HP1) filter patch

CUTOFF/BANDWIDTH set with A band-pass always < B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BP1 + HP1) out

Monitoring (BP1 + HP1) filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

(BP1 + HP1) CUTOFF shift :
Manually set A & B cutoff, with **A band-pass cutoff always < B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BP1 + HP1) BANDWIDTH set :
Manually set A & B cutoff, with **A band-pass cutoff always < B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

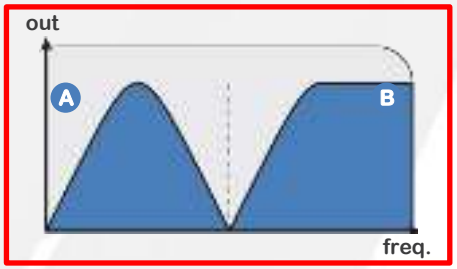
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

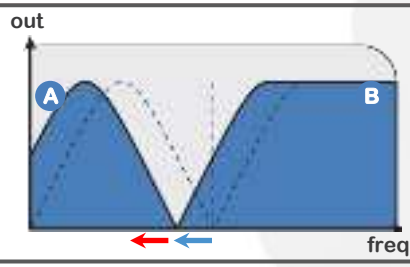
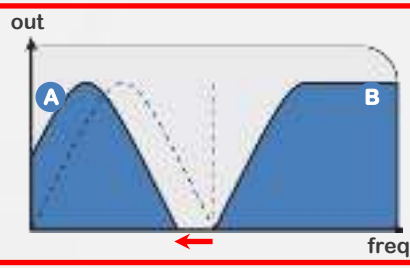
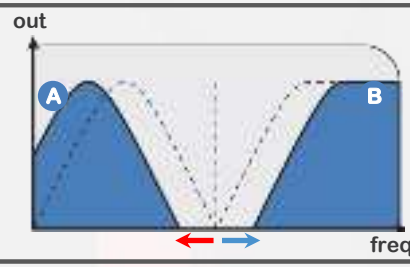
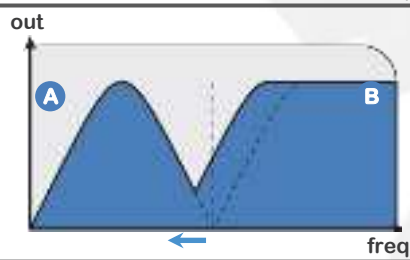
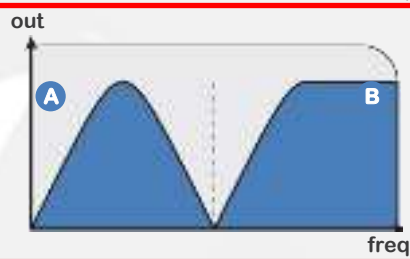
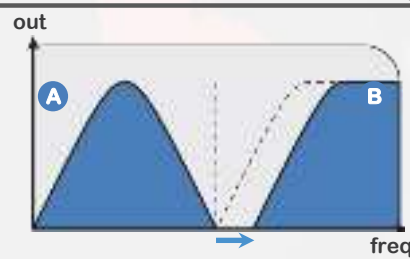
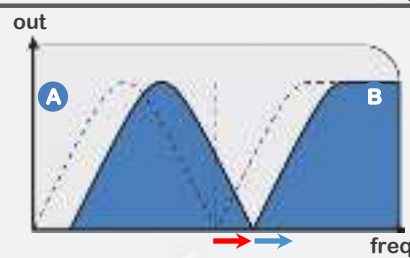
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BP1 + HP1) filter chart for details on MIX out filter curves.



(BP1 + HP1) filter curves

MIX	B - HIGH-PASS 1-pole FILTER cutoff			HP1 MODE
PARALLEL - 1:1 MIX OUT				
				
				
				
				

A - BAND-PASS 1-pole FILTER cutoff

BP1 MODE



filter BANDWIDTH

filter CUTOFF SHIFT

(BP1 + HP2) filter patch

CUTOFF/BANDWIDTH set with A band-pass always < B high-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BP1 + HP1) out

Monitoring (BP1 + HP2) filter at **MIX** in **PARALLEL** configuration with 1:1 **XFADE**.

(BP1 + HP2) CUTOFF shift :
Manually set A & B cutoff, with **A band-pass cutoff always < B high-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BP1 + HP2) BANDWIDTH set :
Manually set A & B cutoff, with **A band-pass cutoff always < B high-pass cutoff**. Keep different relative knobs positions for bandwidth set.

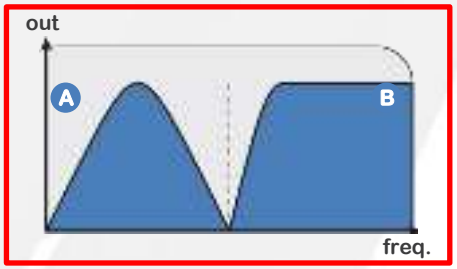
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

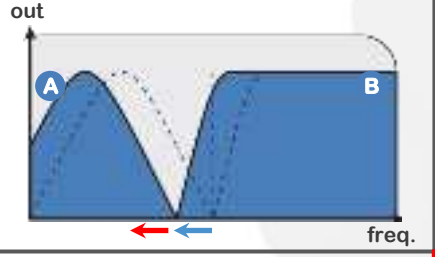
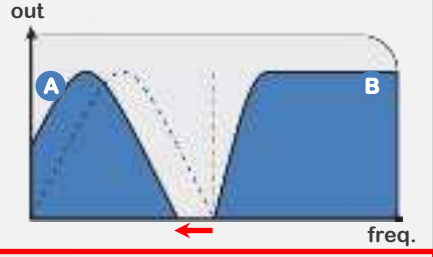
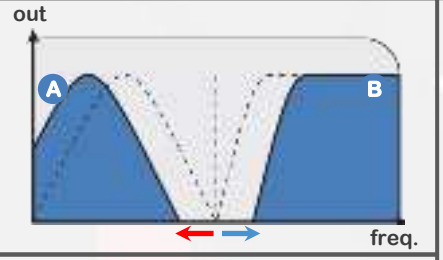
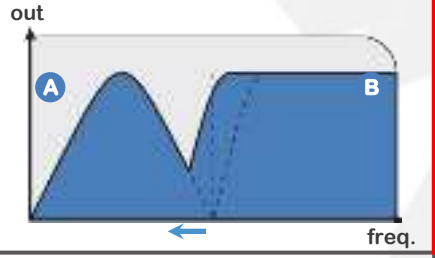
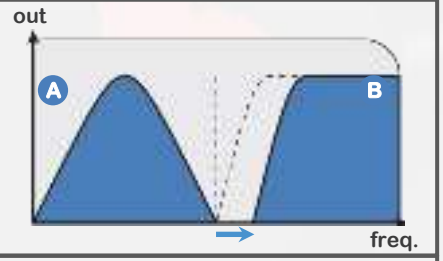
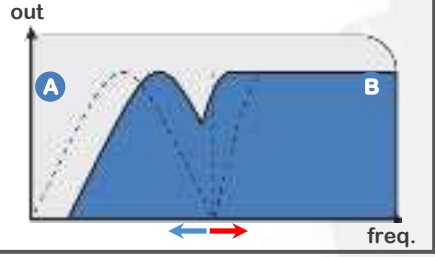
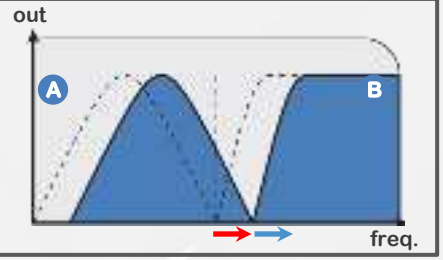
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BP1 + HP2) filter chart for details on MIX out filter curves.



(BP1 + HP2) filter curves

MIX	B - HIGH-PASS 1-pole FILTER cutoff			HP2 MODE
PARALLEL - 1:1 MIX OUT				
				
				
				
				

A - BAND-PASS 1-pole FILTER cutoff

BP1 MODE



filter BANDWIDTH

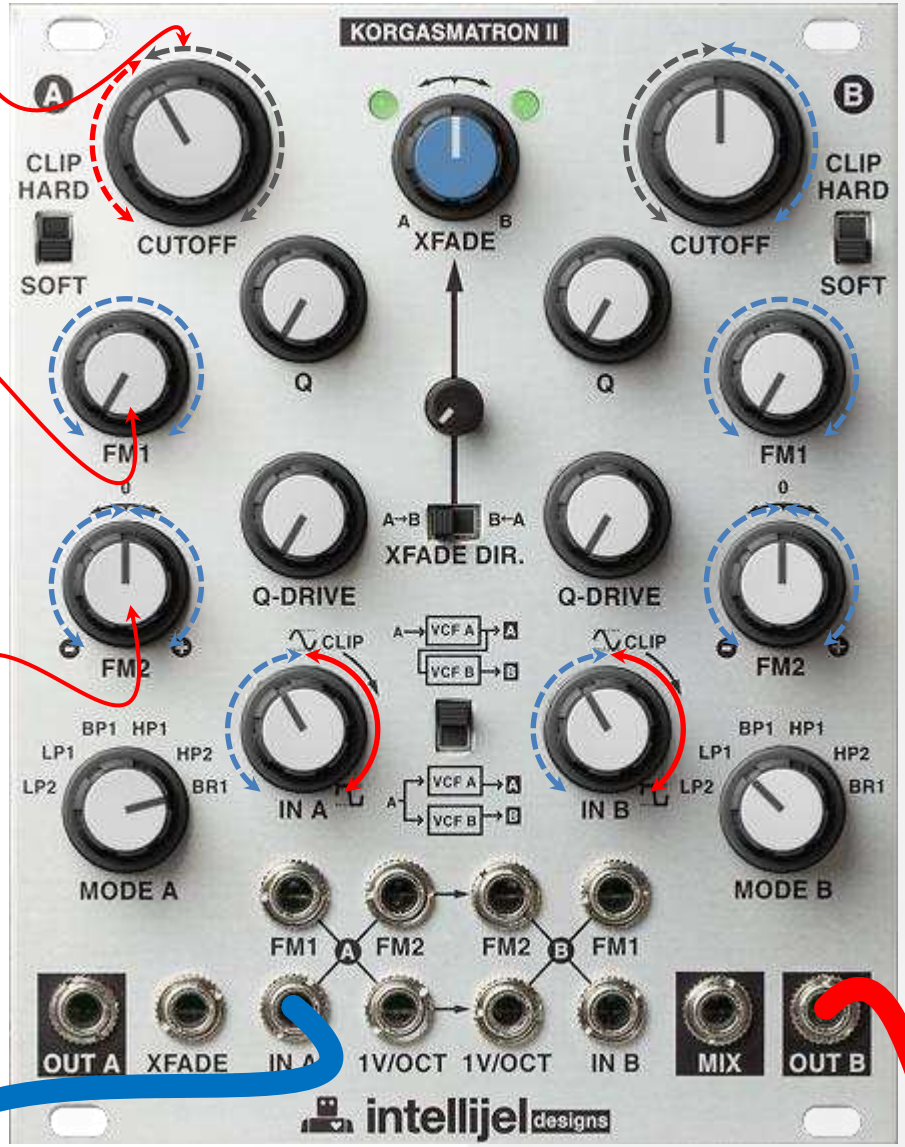
filter CUTOFF SHIFT

(BR1 + LP1) filter patch

CUTOFF/BANDWIDTH set with A band-reject always < B low-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BR1 + LP1) out

Monitoring (BR1 + LP1) filter at **OUT B** in **SERIAL** configuration.

(BR1 + LP1) CUTOFF shift :
Manually set A & B cutoff, with **A band-reject cutoff always < B low-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BR1 + LP1) BANDWIDTH set :
Manually set A & B cutoff, with **A band-reject cutoff always < B low-pass cutoff**. Keep different relative knobs positions for bandwidth set.

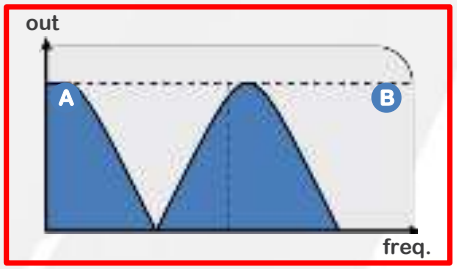
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

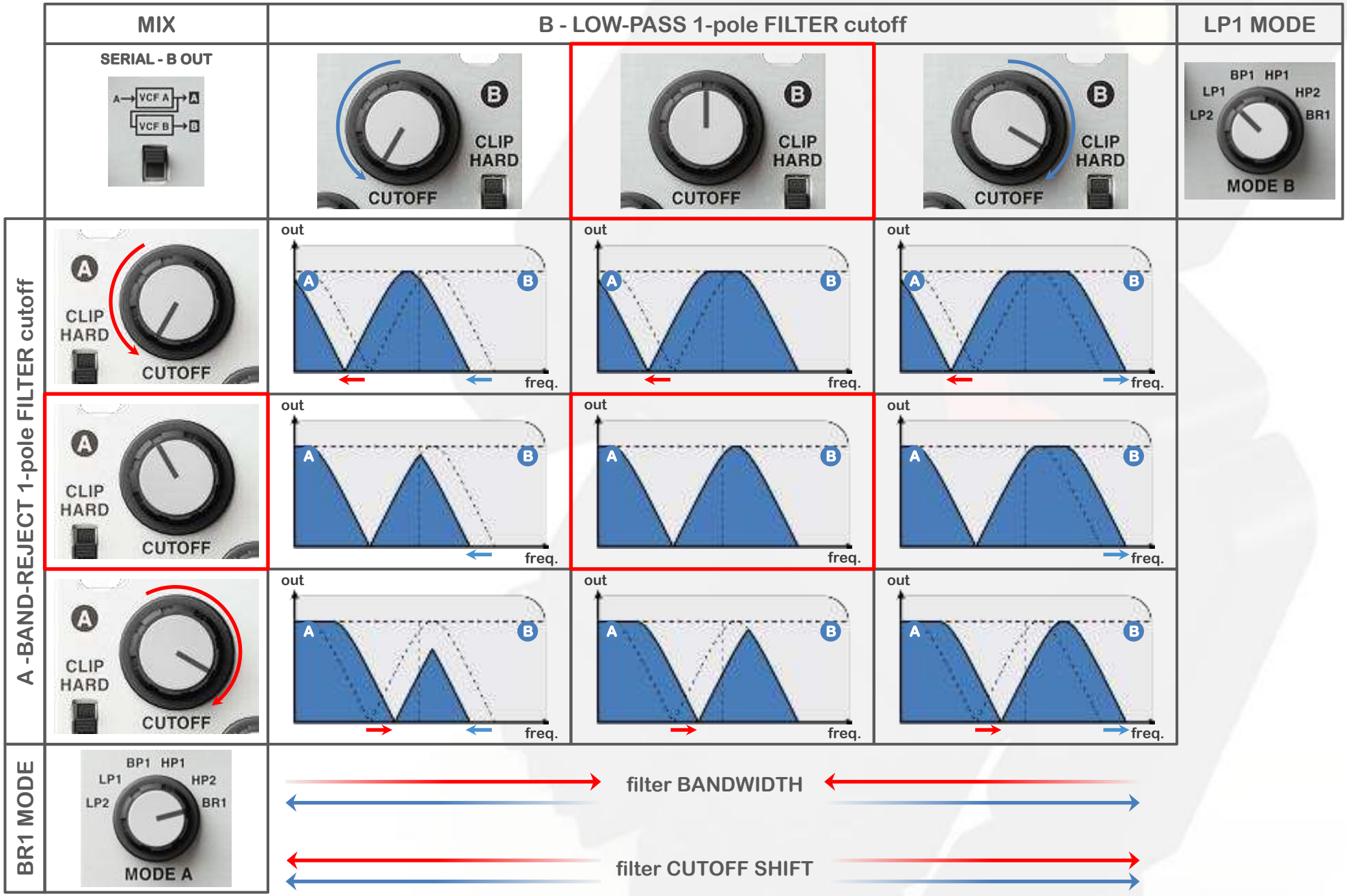
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BR1 + LP1) filter chart for details on OUT B filter curves.



(BR1 + LP1) filter curves

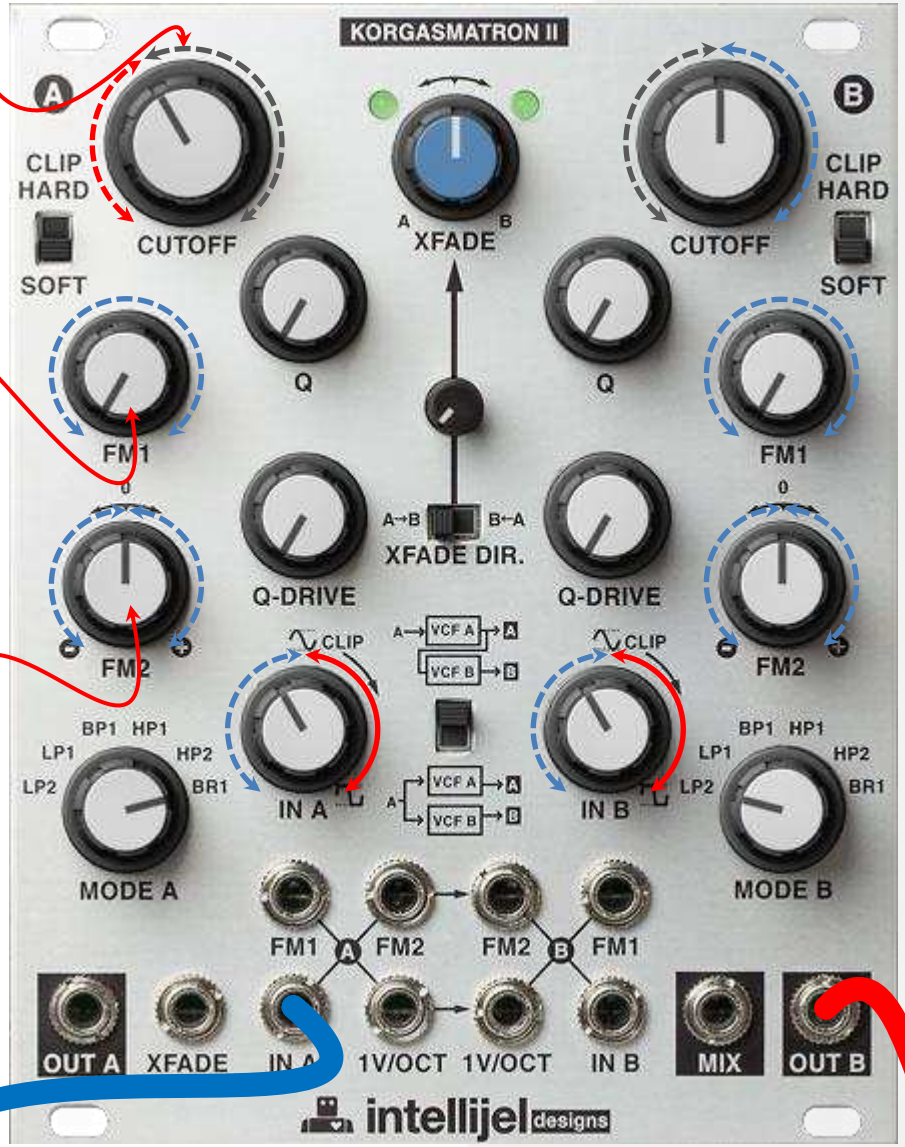


(BR1 + LP2) filter patch

CUTOFF/BANDWIDTH set with A band-reject always < B low-pass

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BR1 + LP2) out

Monitoring (BR1 + LP2) filter at **OUT B** in **SERIAL** configuration.

(BR1 + LP2) CUTOFF shift :
Manually set A & B cutoff, with **A band-reject cutoff always < B low-pass cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BR1 + LP2) BANDWIDTH set :
Manually set A & B cutoff, with **A band-reject cutoff always < B low-pass cutoff**. Keep different relative knobs positions for bandwidth set.

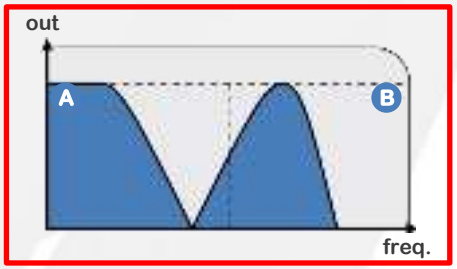
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

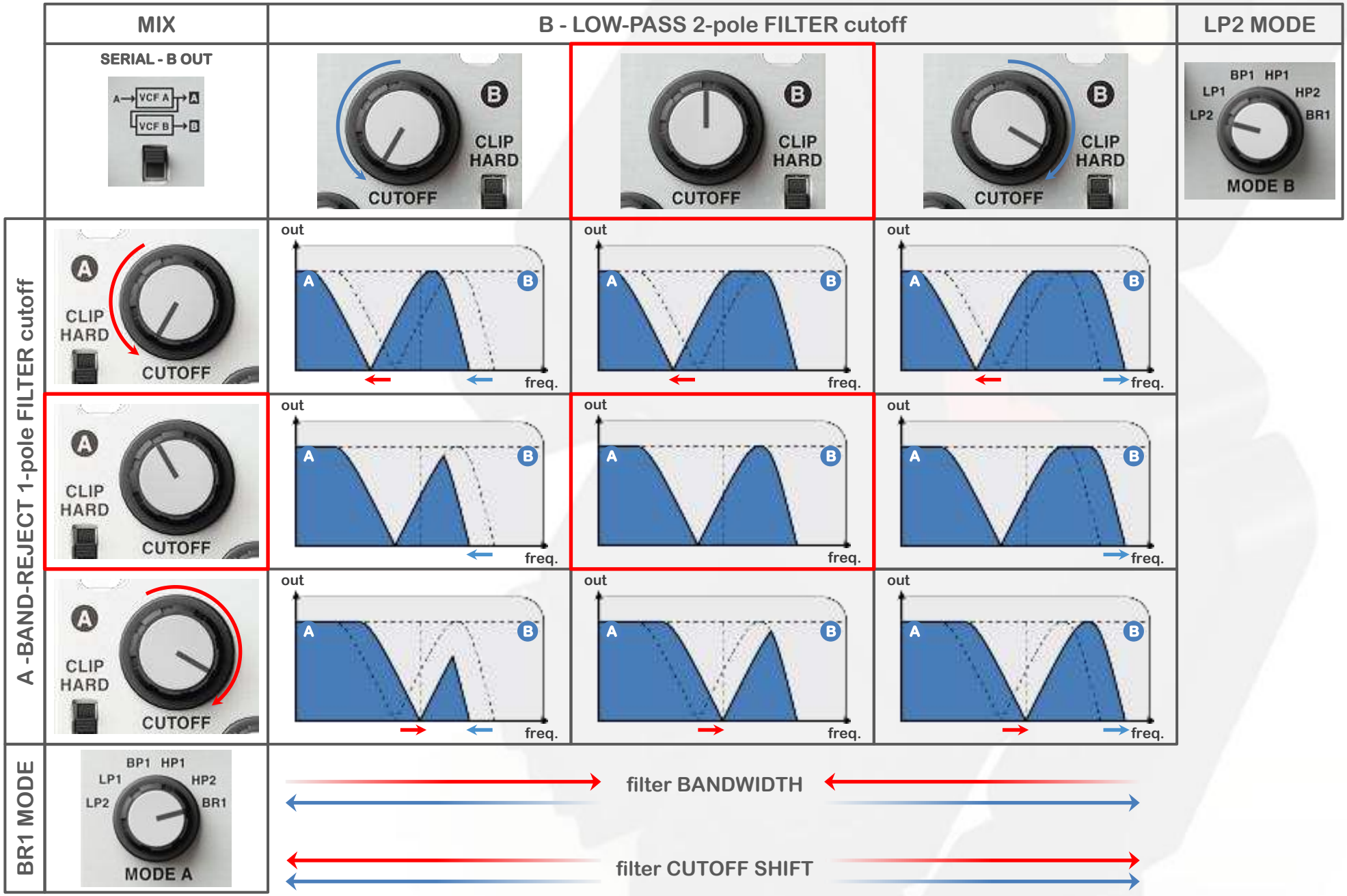
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BR1 + LP2) filter chart for details on OUT B filter curves.



(BR1 + LP2) filter curves



(BR1 + HP1) filter patch

CUTOFF/BANDWIDTH set with **A high-pass always < B band-reject**

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BR1 + HP1) out

Monitoring (BR1 + HP1) filter at **OUT B** in **SERIAL** configuration.

(BR1 + HP1) CUTOFF shift :
Manually set A & B cutoff, with **A high-pass cutoff always < B band-reject cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BR1 + HP1) BANDWIDTH set :
Manually set A & B cutoff, with **A high-pass cutoff always < B band-reject cutoff**. Keep different relative knobs positions for bandwidth set.

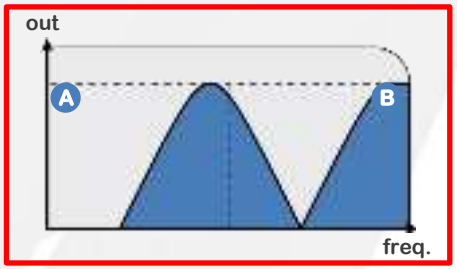
OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

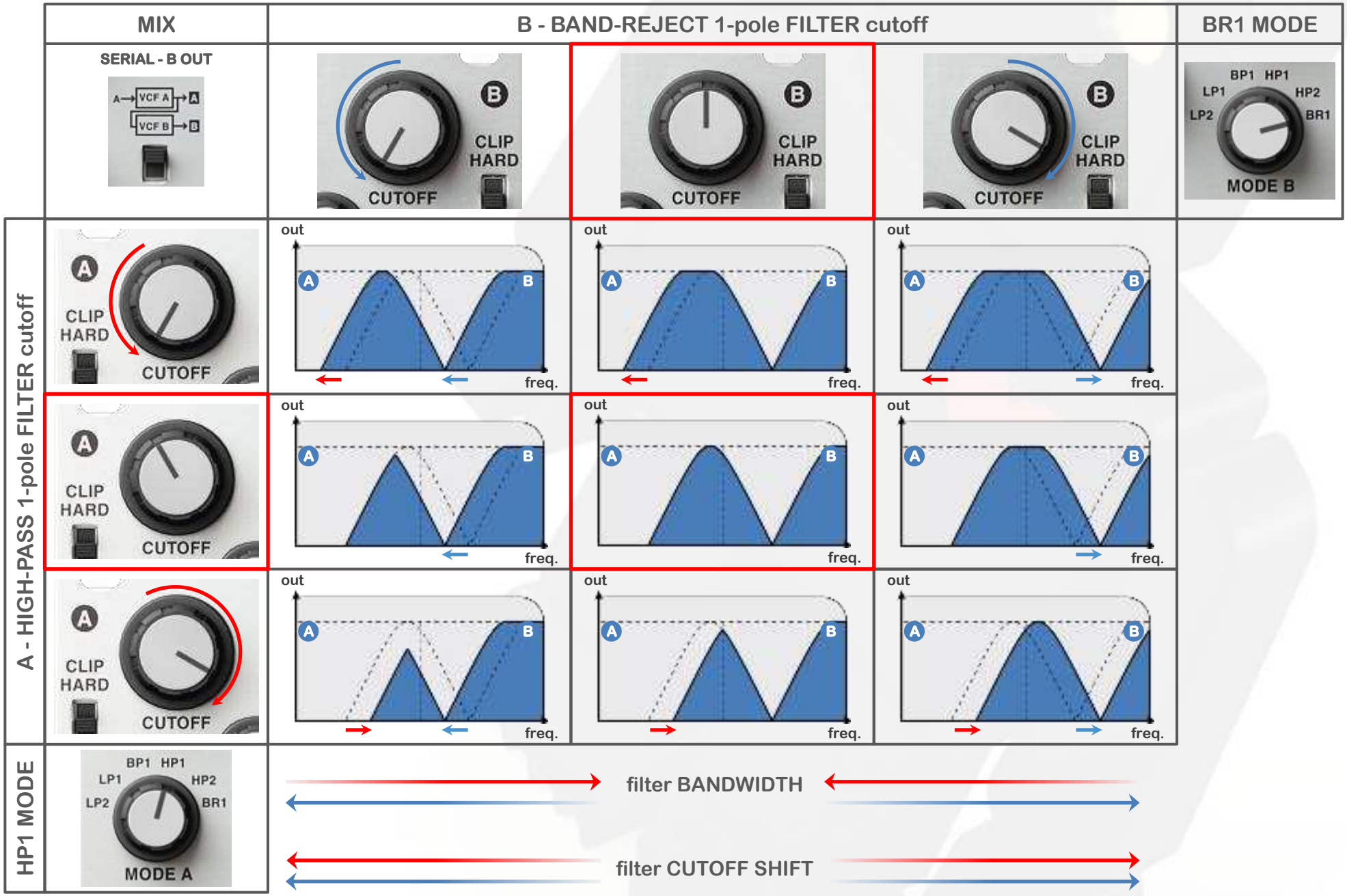
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

See (BR1 + HP1) filter chart for details on OUT B filter curves.



(BR1 + HP1) filter curves



(BR1 + HP2) filter patch

CUTOFF/BANDWIDTH set with **A high-pass always < B band-reject**

CV CUTOFF/BANDWIDTH

CV CUTOFF/BANDWIDTH



signal to be filtered

(BR1 + HP1) out

Monitoring (BR1 + HP2) filter at **OUT B** in **SERIAL** configuration.

(BR1 + HP2) CUTOFF shift :
Manually set A & B cutoff, with **A high-pass cutoff always < B band-reject cutoff**. Keep same relative knobs position for cutoff shift.

OR/AND

Input same CV signal in A & B FM 1 with same attenuation levels.

OR/AND

Use FM 2 normalled input and set FM 2 B as FM 2 A.

(BR1 + HP2) BANDWIDTH set :
Manually set A & B cutoff, with **A high-pass cutoff always < B band-reject cutoff**. Keep different relative knobs positions for bandwidth set.

OR/AND

Input different CV signals in A & B FM 1 with different attenuation level.

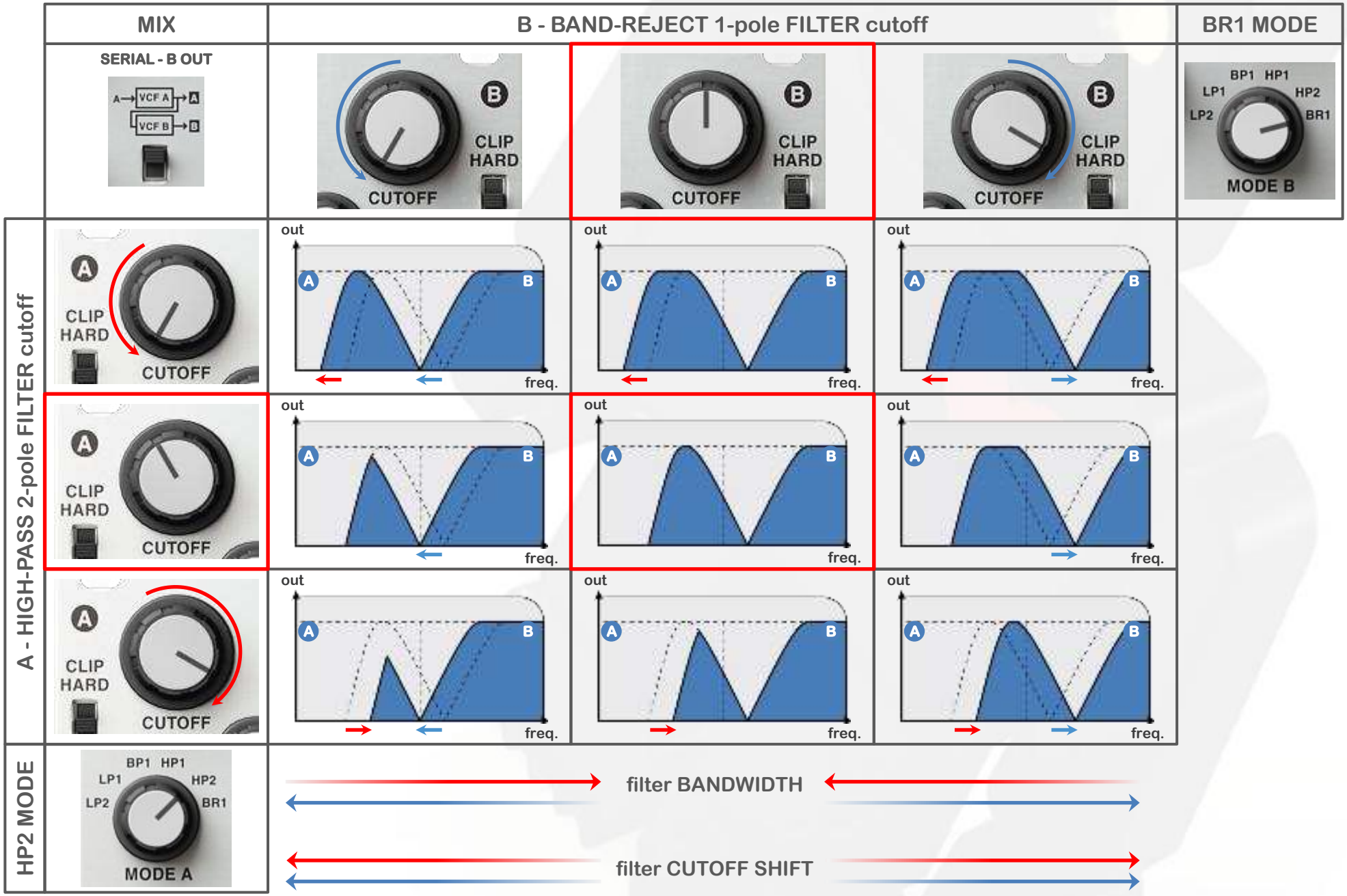
OR/AND

Use FM 2 normalled input and set FM 2 B as inverted of FM 2 A.

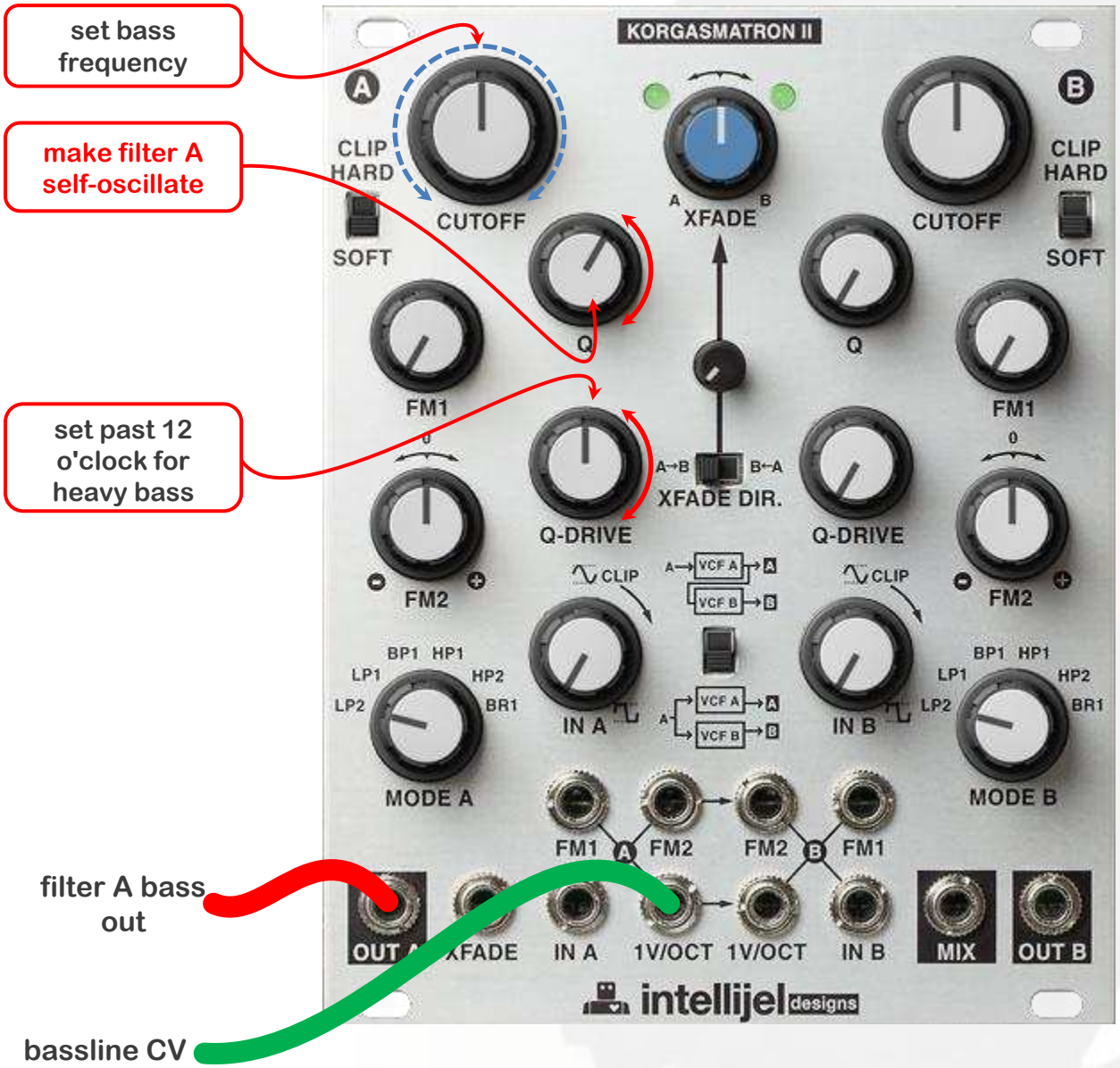
See (BR1 + HP2) filter chart for details on OUT B filter curves.



(BR1 + HP2) filter curves



Heavy dub bass



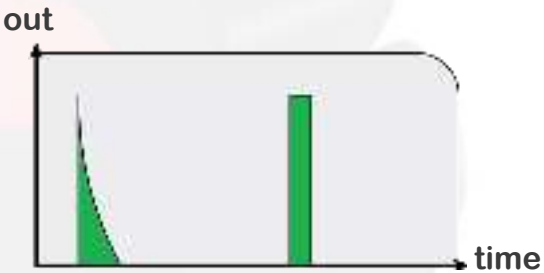
Ping !

set ping frequency

set just under filter A self-oscillation

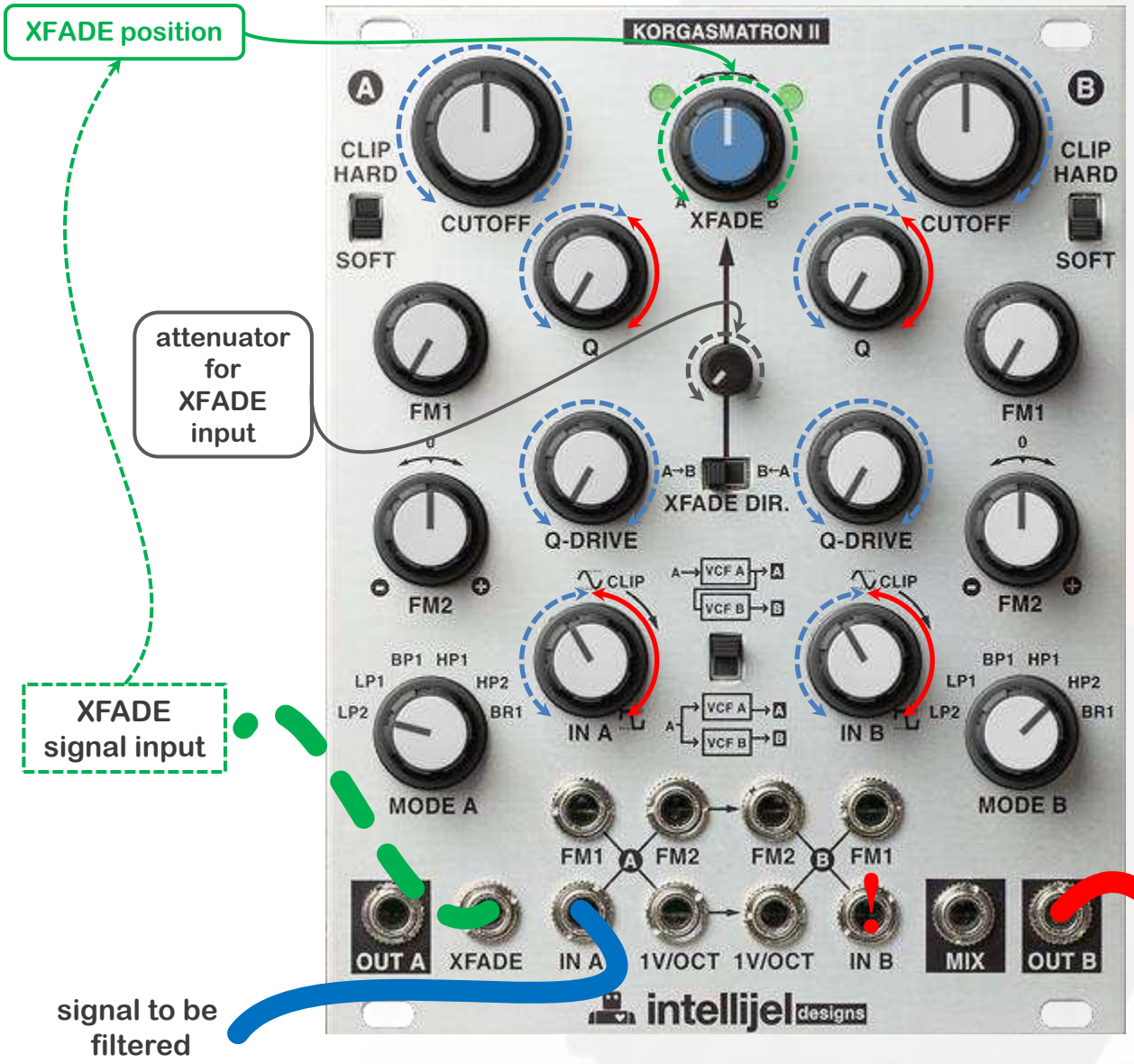


filter A ping out



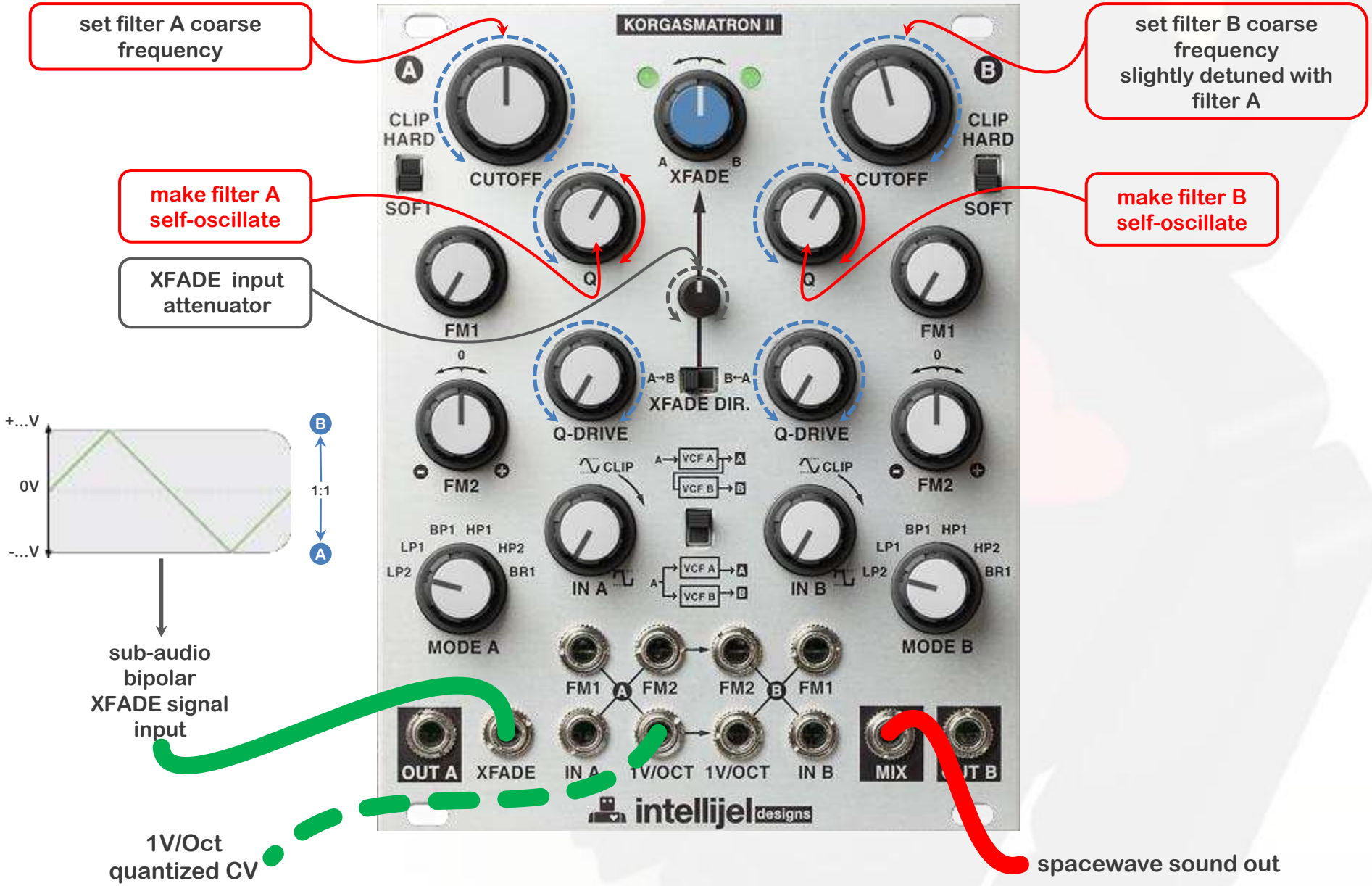
short A/D or trigger in A

Weird filter



Advice : If you are using the Korgasmatron II in SERIAL configuration inserting a plug into IN B jack will break the internal routing from filter A which may cause confusion.

Spacewave sound



Feedback loop

make filter A self-oscillate



Monitoring **MIX** output in **SERIAL** configuration.

feedback loop out

Cross-FM

Monitoring **MIX** output in **PARALLEL** configuration.

make filter A self-oscillate

make filter B self-oscillate



cross-FM out

Feedback cross-FM



make filter A self-oscillate

make filter B self-oscillate

Monitoring **MIX** output in **SERIAL** configuration.

feedback cross-FM out

Drone zone 1

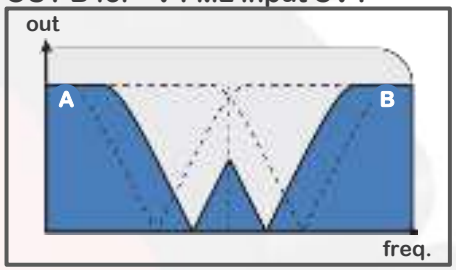


Monitoring **OUT B** or **MIX** output in **SERIAL** configuration.

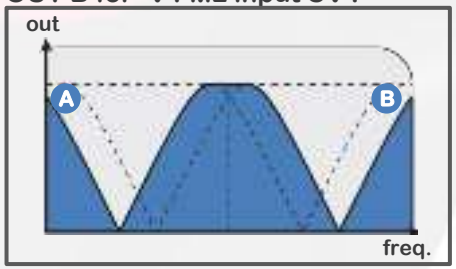
Set filter B FM2 opposite to filter A FM2.

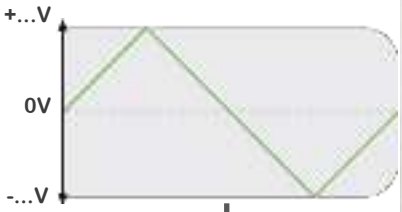
Experiment with different cutoff, Q and Q-DRIVE values for both filters.

OUT B for +V FM2 input CV :



OUT B for -V FM2 input CV :





slow bipolar FM2 signal input

drone zone out

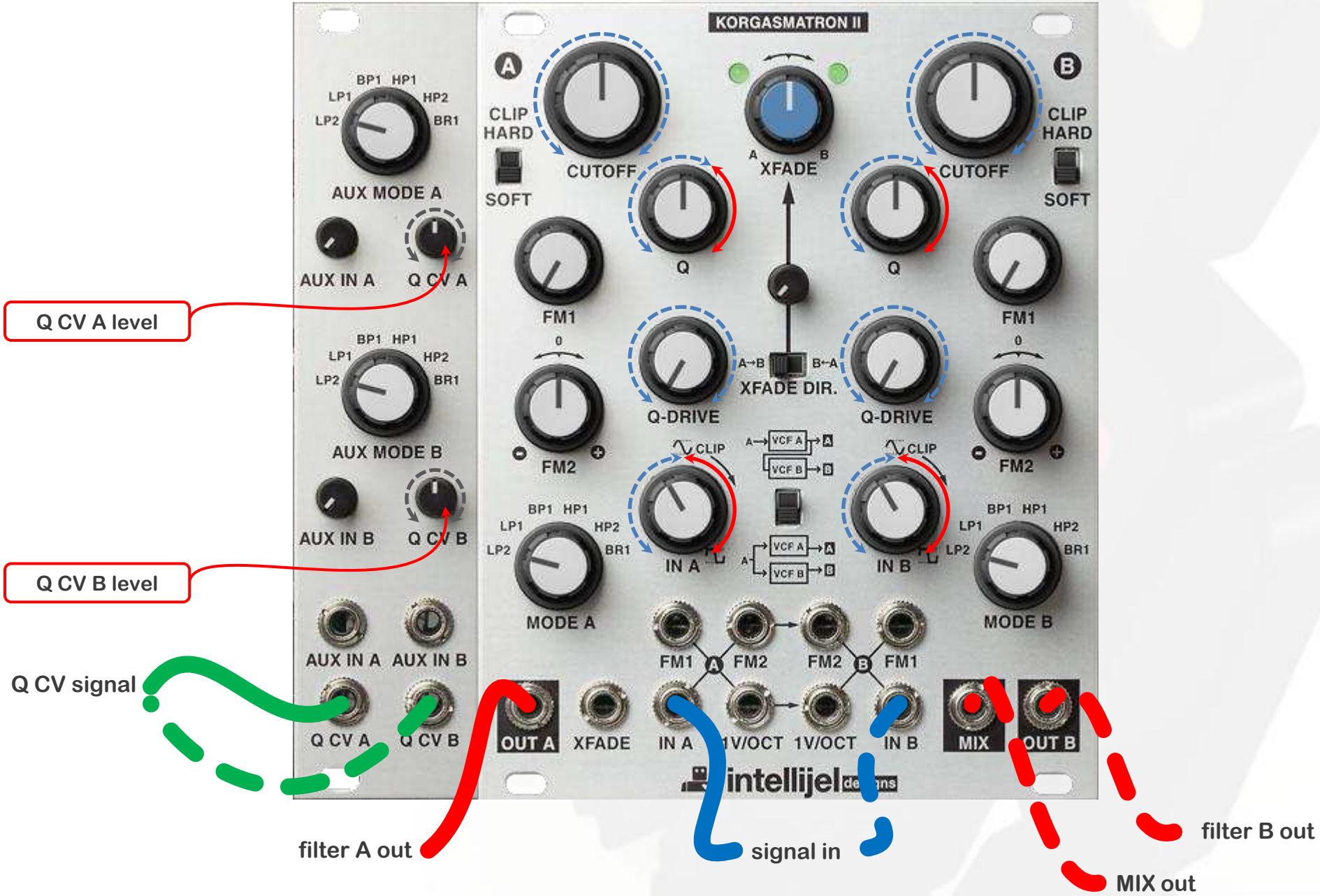
triangle in

serial MIX out

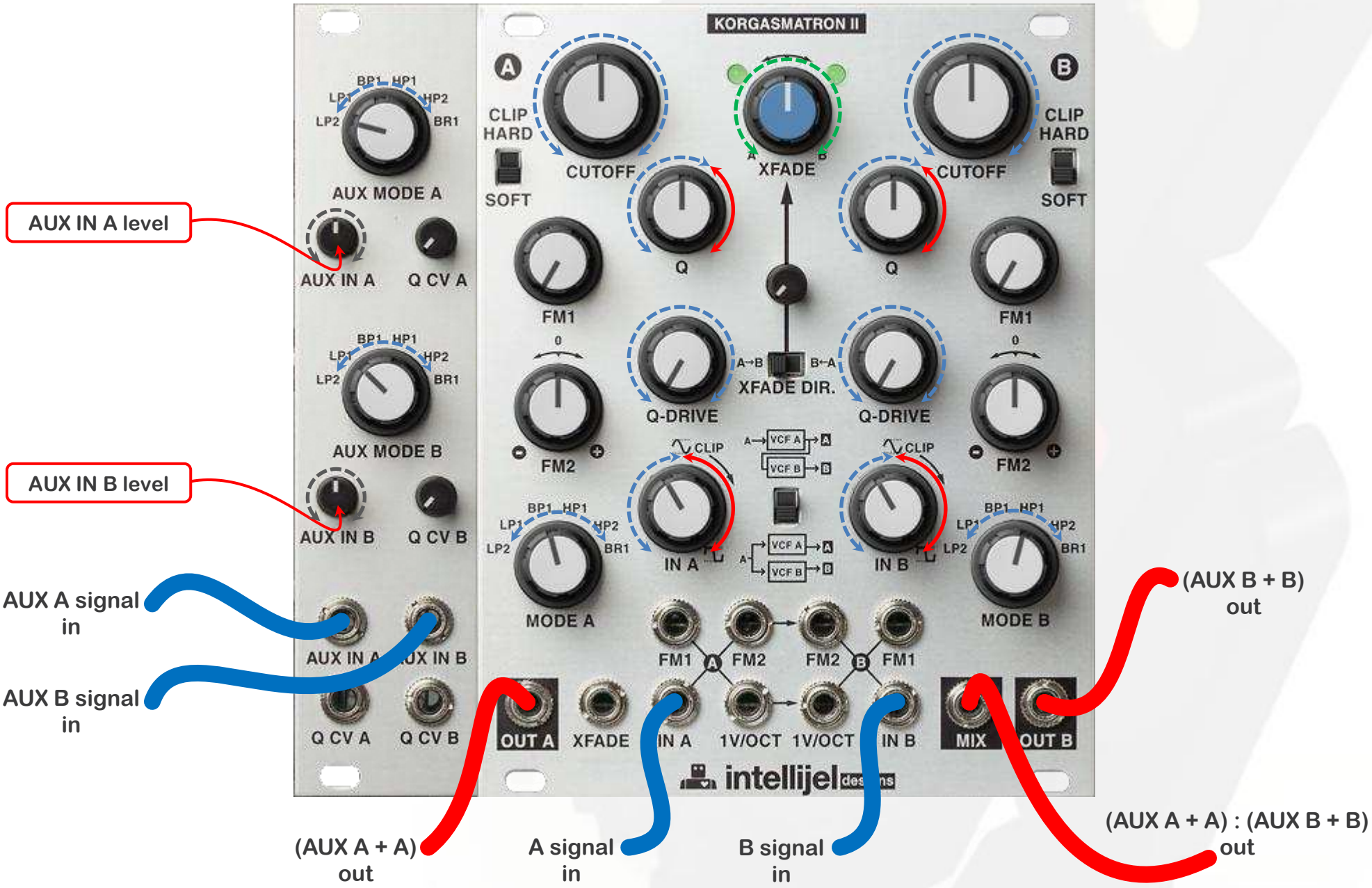
Expander - Overview



Expander - VC Q filtering



Expander - Quad filter



Expander - Quad filter feedback loop

Monitoring **MIX** output in **SERIAL** configuration.



AUX IN A level

AUX IN B level

make filter A self-oscillate

feedback loop out

Expander - Cross-Q modulation



Monitoring **MIX** output in **PARALLEL** configuration.

Q CV A level

Q CV B level

make filters A & B self-oscillate

cross-Q out

Expander - Feedback cross-Q modulation



Monitoring **MIX** output in **SERIAL** configuration.

Q CV A level

Q CV B level

make filters A & B self-oscillate

feedback cross-Q out

Expander - Drone zone 2



AUX IN A level

AUX IN B level

triangle in

slow bipolar FM2 signal input

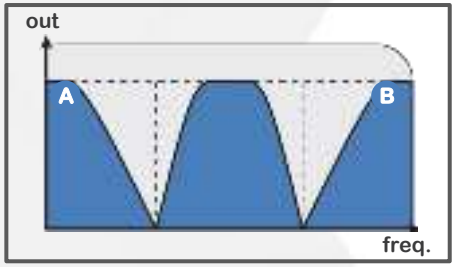
serial MIX out

drone zone out

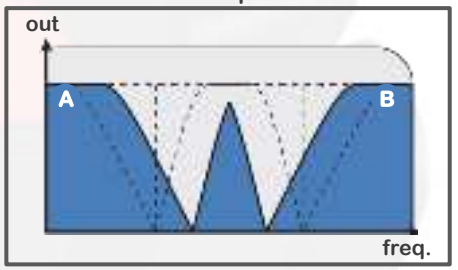
Monitoring **OUT B** or **MIX** output in **SERIAL** configuration.

Set filter B FM2 opposite to filter A FM2.
Experiment with different cutoff, Q and Q-DRIVE values for both filters.

B OUT :



B OUT for +V FM2 input CV :



B OUT for -V FM2 input CV :

