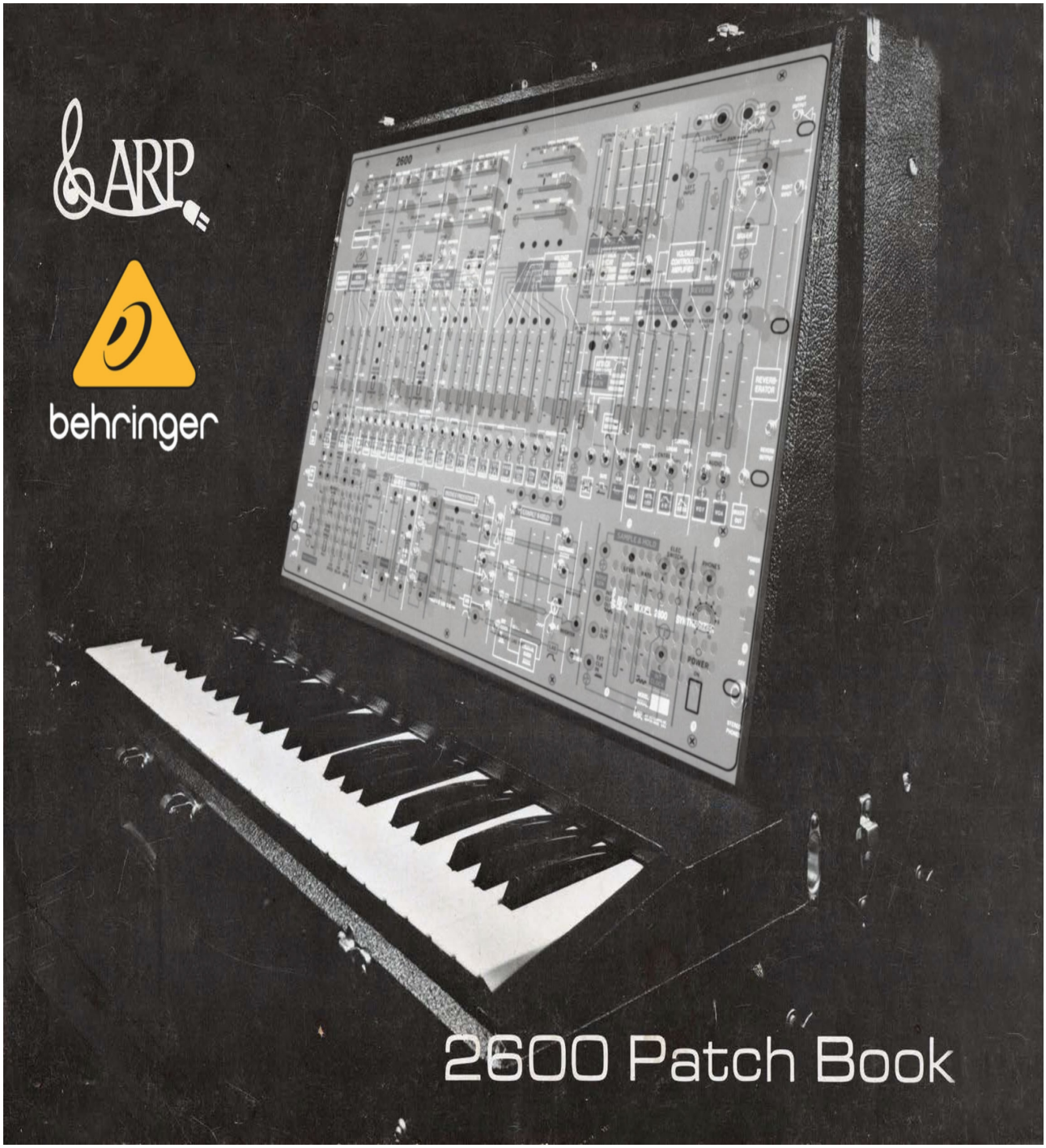
ARP
behringer
2600 Patch Book

Notes and Info

This patch book was compiled from the original ARP 2600 and is as close to that as possible with the following exceptions.

On patch number 64 it has the Initial Filter Frequency at just over 1KHz as opposed to the original minimum setting - John Paul Riesenman couldn't get a sound unless it was at the position it is in as shown on the patch sheet.
Patches 43 and 45 were wrong in the original patch book, Ext Clock In should have been in the S/H out which they now are.
The following patches have also been modified due to errors in the original.
Patch 85, the patch cord has been moved from the left mixer output to the VCA output.
Patch 87, The VCF (not the VCA) should be adjusted into the Mixer.
Patch 96, the patch cord should be moved from the Mixer Out to the VCA Input to the mixer and the slider raised,
the latter is an assumption the Behringer 2600 will work as the Korg 2600 did.
Thanks to John Paul Riesenman for these fixes and also for the 'I'n's and Out's' sheet.

One thing I've noticed a lot of are new users complaining about not getting sound or a constant drone so the very first patch sheet is a quick and easy shut the drone up and get a keyed sound sheet.

Thanks to ARP for the original synth, Behringer for kickin' it and making a classic synth at an affordable price, about the only think I see as wrong from Behringer is a way too basic owners manual, they should have spent some time putting together a proper users manual, although the same can be said for all their stuff e.g. the System 55 - not everyone is a modular genius so the more pointers there are in a book that comes with a synth the better.

NOTE: In this patch book, the switches such as KYBD ON or SYNC or the AR switch etc are not where they should or shouldn't be, the original manual was confusing (blurry/wrong) at best so assume something is wrong with a switch IF you don't get a sound or the sound is way off, in this one they're all just shown the same (confused :-)).
Also the original patch book indicates the fact that all machines are different so the sliders may need tweaking. With that said, if you have a dedicated tuner then 'use' it - if not use a DAW to tune what the patch asks for to tune it.

Splat, Sproing and Boing on people
Carl Bratcher aka Taff

The ARP 2600 Patch Book

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Welcome

Welcome to the ARP 2600 Patch Book. These instrumental timbres, sound effects, natural sounds and rhythms are the result of over three years of experimentation by many people, both amateur and professional, who are deeply involved with electronic music synthesis. A large number of these patches have already been used in commercial recording; you might already have heard them on the radio, TV, movie soundtracks and record albums. We'd like to share them with you.

You'll progress more rapidly and derive more satisfaction from this book if you take these thoughts into account:

* A patch chart is only a *guide*, not a precise configuration of sliders. Be flexible - the patch charts are.

* Every individual synthesizer has its own slight idiosyncracies. Slider positions on your 2600 might vary slightly from the norm set by the patch charts, so if you don't get exactly the sound you want, make minor corrections in control settings. Follow your ear.

* And every set of eardrums also has its idiosyncracies. If you like your flutes mellower, your monsters creepier, or your drums kickier, experiment a little.

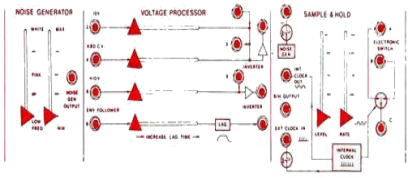
* To get full enjoyment from synthesizing these sounds, blow them through a good speaker system. The speakers on the front of the 2600 are there for reference; you should be playing through an amp and speaker system with a full-range response.

* We don't have to tell you that it's fun to experiment with your own ideas; that's expected of electronic musicians. Many of these patches can be set up simultaneously: try the String Sweetener with the Auto-pan, for example. You will undoubtedly come up with some great patches of your own and will want to write them down. Blank 2600 Patch Pads are available from the factory at $1.00 each.

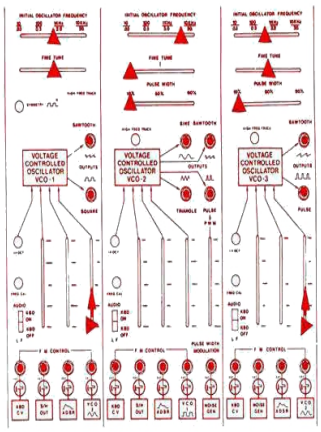
ARP would like to thank these people for getting it together in this 2600 Patch Book: Dave Fredericks, Roger Dumas, David Friend, Bruce McLendon, Phil Dodds, Alan R. Pearlman, Tom Piggott, Mike Brigida, Rick Parent, Bernie Klocko, Dan Hakala, John Shykun, Bill Wentz, Edgar Winter, Margaret Shepherd, and a couple of anonymous folks who sent in some dynamite patches.

Heed These Hints:

1. Be certain that all sliders and switches not indicated on the patches are in the *left* or *down* positions.



2. *Arrows* indicate the positions to which sliders should be moved *after tuning* or *during performance.*



3. Shut the speakers off while you're setting the patch up. It's easy to get distracted by unripe sounds.

4. Pay special attention to the information located in the corners on most of the patches. There you will discover how many patchcords and dummy plugs are needed, how the portamento and tuning knobs are to be used, and where to play on the keyboard.

5. Set aside the number of patchcords you'll need for the patch before you plug anything in. Otherwise, the patch may be missing a patchcord and you won't notice it right away.

6. *Phrasing* is most important on the instrumental patches. If you can play the keyboard with the idea that you are pausing to take breaths on a flute or trumpet, or bowing back and forth on a violin, you'll have more success synthesizing those instruments.

7. VCO Pitch Tuning: The keyboard diagrams over each patch indicate the pitch tunings for the VCOs and occasionally the VCF. For instance, this diagram means "Play Key C3 & tune VCO 3 to middle C." (Of course, if you don't have a tuning source such as a piano or a pitchpipe, you can tune the oscillators approximately.)

8. Several patches will ask you to precisely tune two or three oscillators to unison or octave intervals. Tune one oscillator to the frequency range indicated on the patch chart and compare the other oscillators to it individually. When two oscillators are close to a harmonic interval, (in this case, a unison, octave, fifth or a fourth), you will hear 'beats.' Beats sound like a combination of tremelo and phaseshifting: the frequencies of the two oscillators are so close that they tend to cancel each other out periodically. This can more easily be heard if you run the oscillators through the Ring Mod.

   Play a note and fine-tune the oscillator you are comparing to the basic pitch until the beats slow down to less than one every three seconds. This is easiest at unison, harder at an octave, and requires practice for perfect fourths and fifths. The best way to check for a precise tuning is to play higher notes than the one used for tuning. The beats will be faster at higher frequencies.

Interval Tuning Example: Patch No. 35, Marimba Chords & Lead

1. Raise VCO 3 ∿ into VCF. Play Key C1 and tune VCO 3 to a low, recognizable pitch.

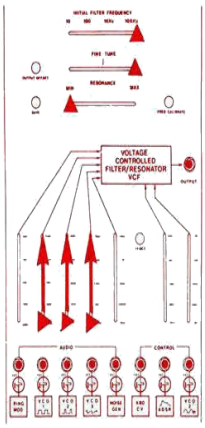
2. Play Key G3, still listening to VCO 3. This is the pitch to which you will tune VCO 2.

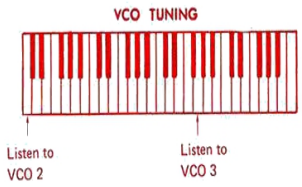
3. Close VCO 3 ∿ at the VCF and raise VCO 2 ⎍. Play C1 and tune VCO 2 to the pitch you heard at step 2.

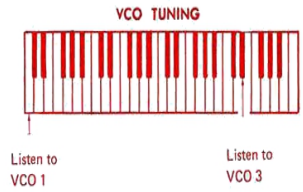
4. To check for proper tuning, go back and forth: Play G3---listen to VCO 3. Play C1---listen to VCO 2.

5. Try this procedure in tuning VCO 1 at three octaves and a minor third above VCO 3 (Key Eflat4).

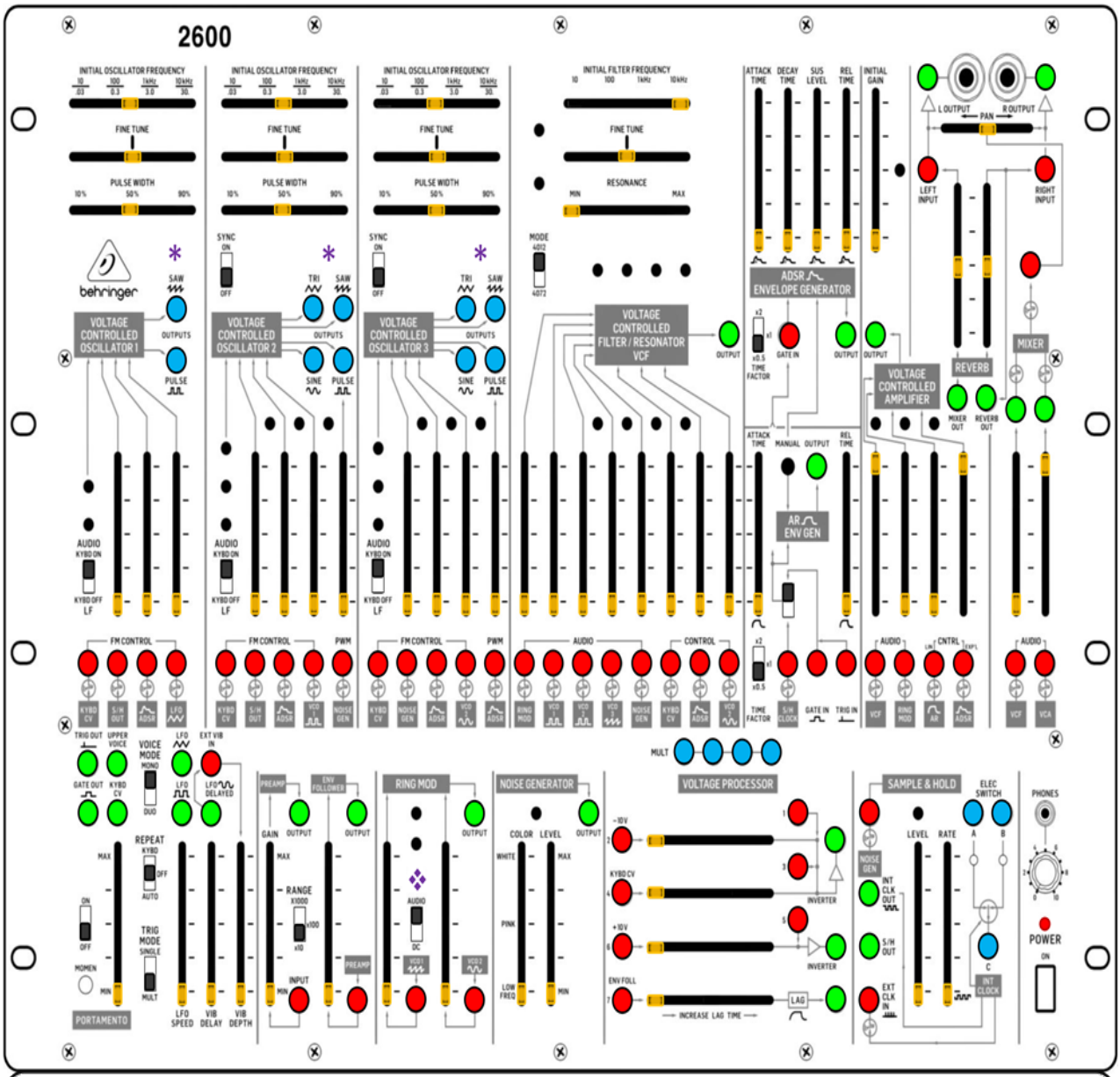
6. Raise all three VCOs into VCF and play the bottom octave.





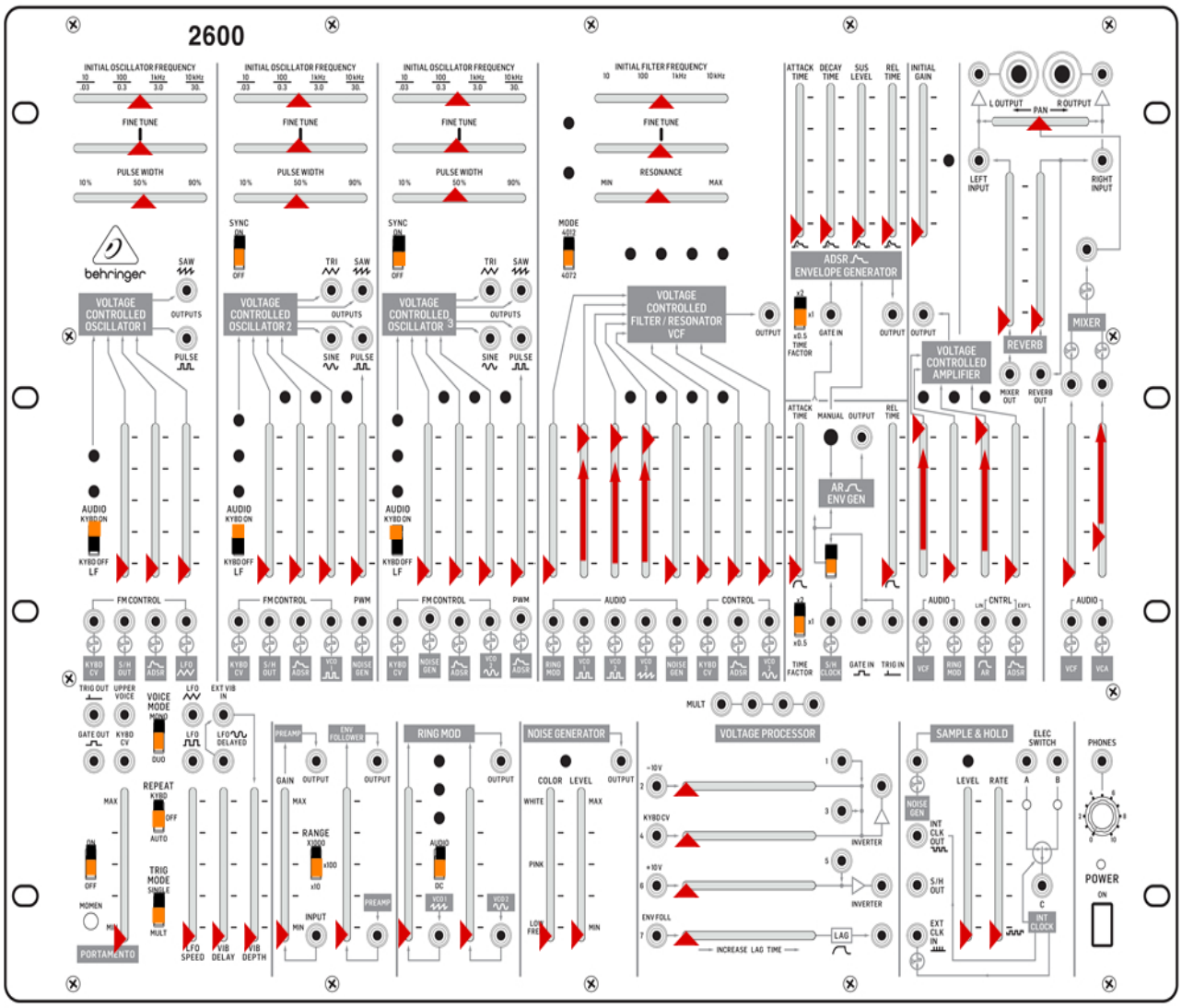


Don't be discouraged if the sound you want doesn't automatically appear like a candy bar out of a vending machine. Chances are good that you've forgotten to switch on the S/H Gate, the Oscillator Frequency Switches, or the power. Another possibility might be that one of the patchcords isn't plugged in fully. With practice, you'll be able to troubleshoot any problem encountered with any patch. They all work when set up properly.



Patch Point Inputs, Outputs, Both

Behringer 2600

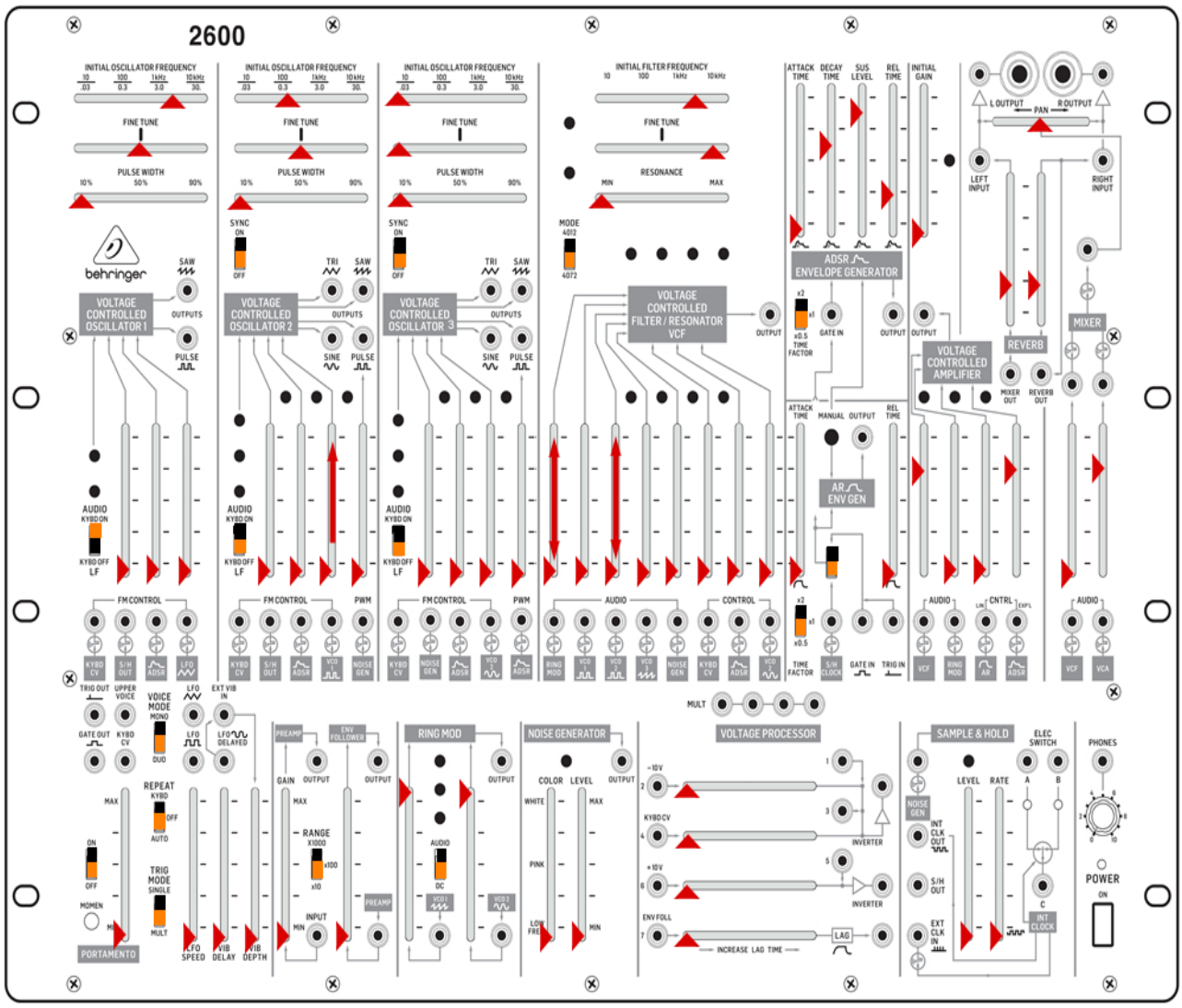


Stop The Drone!

1. Keyboard switches to on
2. VCA slider to desired volume
3. VCF and AR sliders of the VCA to desired volume
4. Adjust VCO1, VCO2, VCO3 sliders in the VCF to desired position
5. Adjust VCO1, VCO2, VCO3 and Filter Frequency as shown.

NOTE: If you are using headphones on full volume, be careful with the Filter Frequency as pushing it too far to the right well freak you out!

Behringer 2600



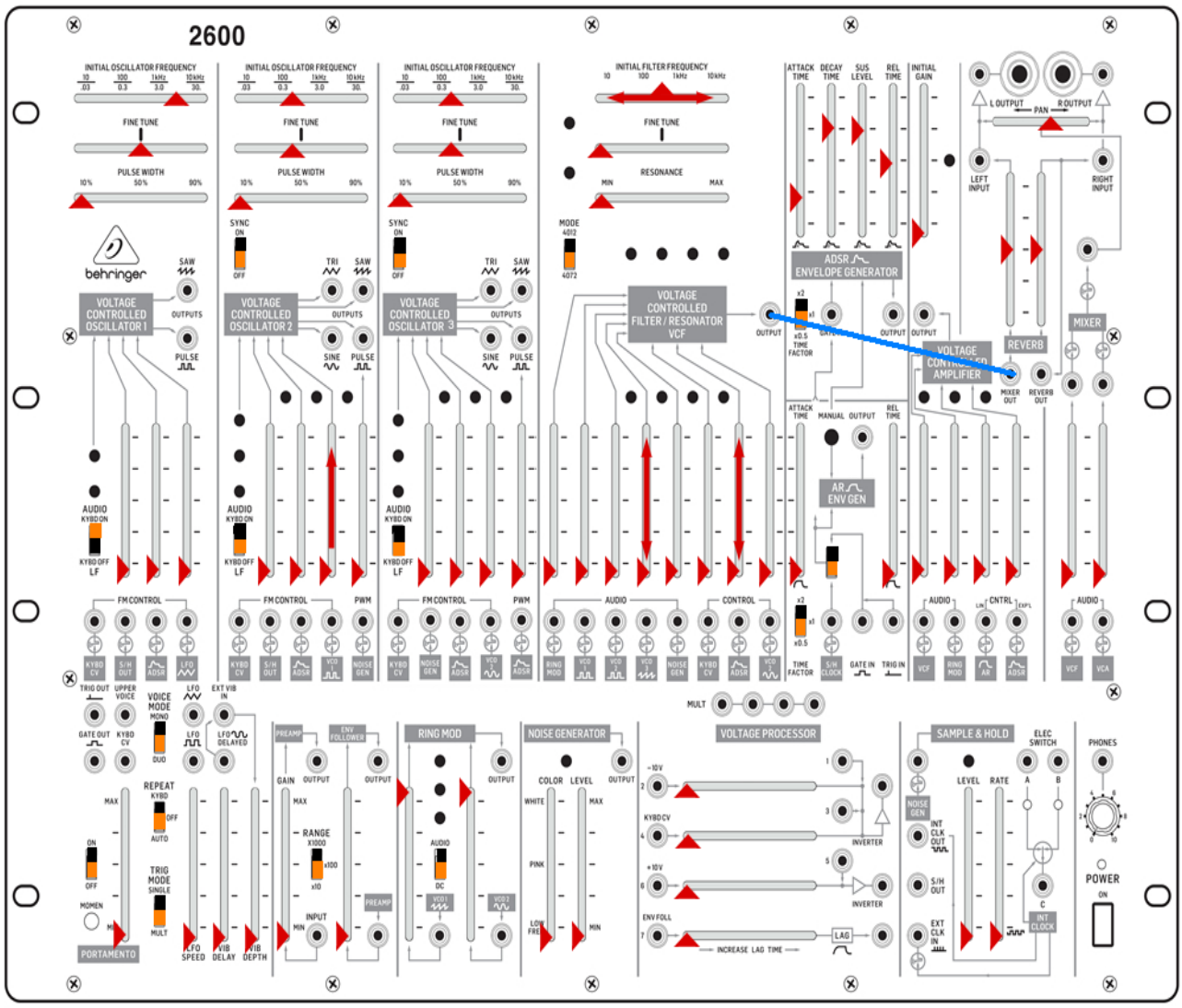
MARIMBA ROLL

1. Raise VCO 2 ↑ into VCF and tune to middle C.
2. Close VCO 2 at VCF ↓ and raise Ring Mod slider into VCF.
3. Adjust VCO 1 frequency ⟷ for speed of roll.
4. Raise VCO 1 ⎍ ↑ into VCO 2, tune for octave roll.

VCO TUNING

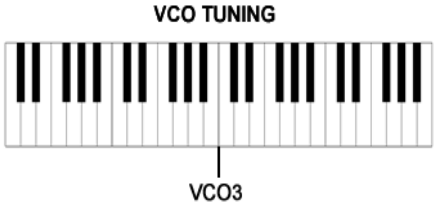
VCO2 octave roll

Behringer 2600



Trumpet and French Horn

1. Open VCF and Tune to VCO 3 to Middle C
2. Close VCF and adjust ADSR slider ↕ in to VCF for Trumpet or French Horn



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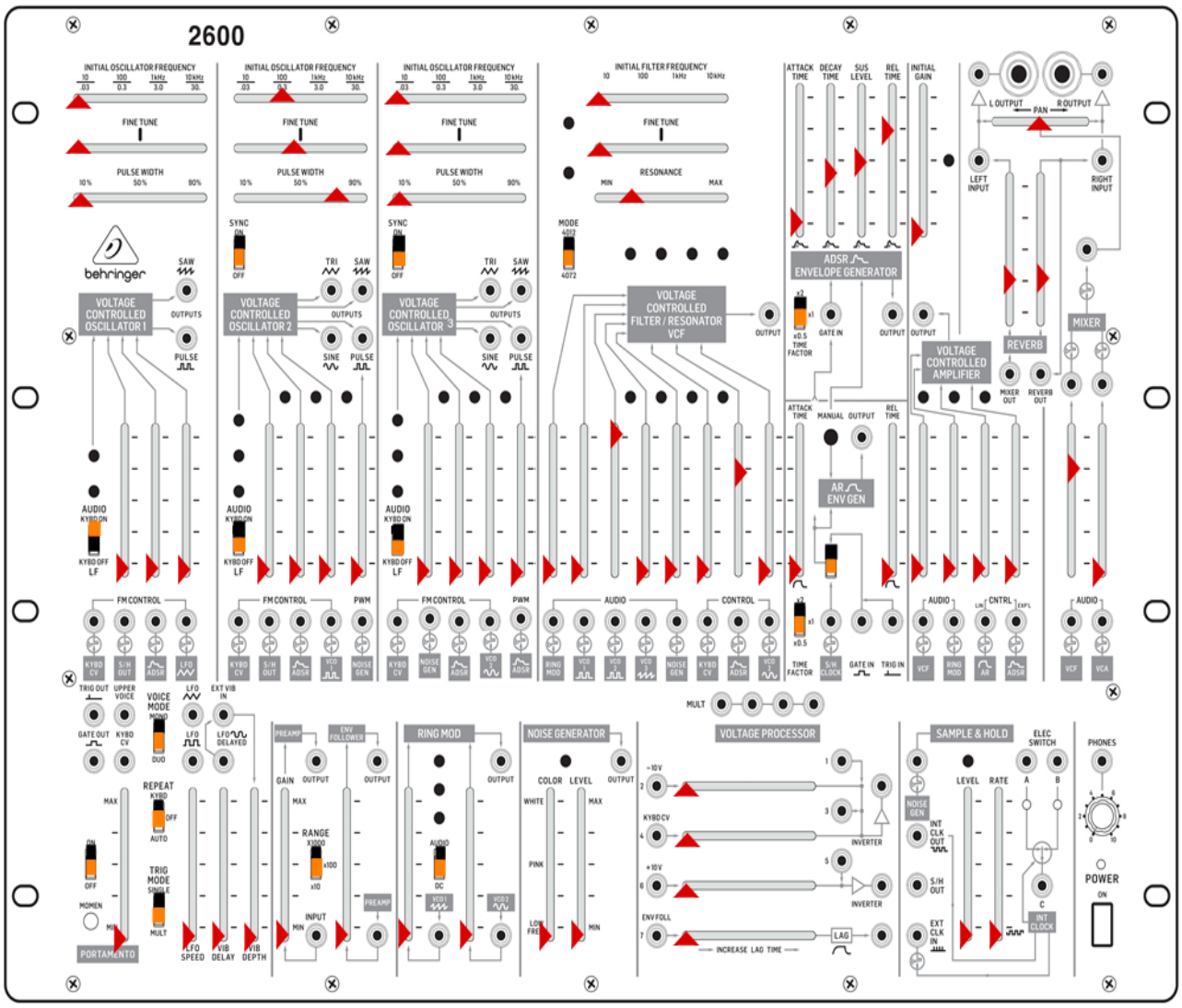
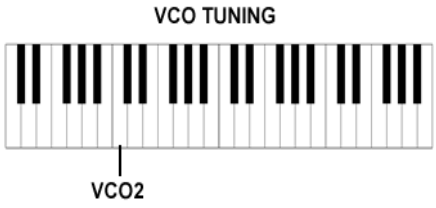
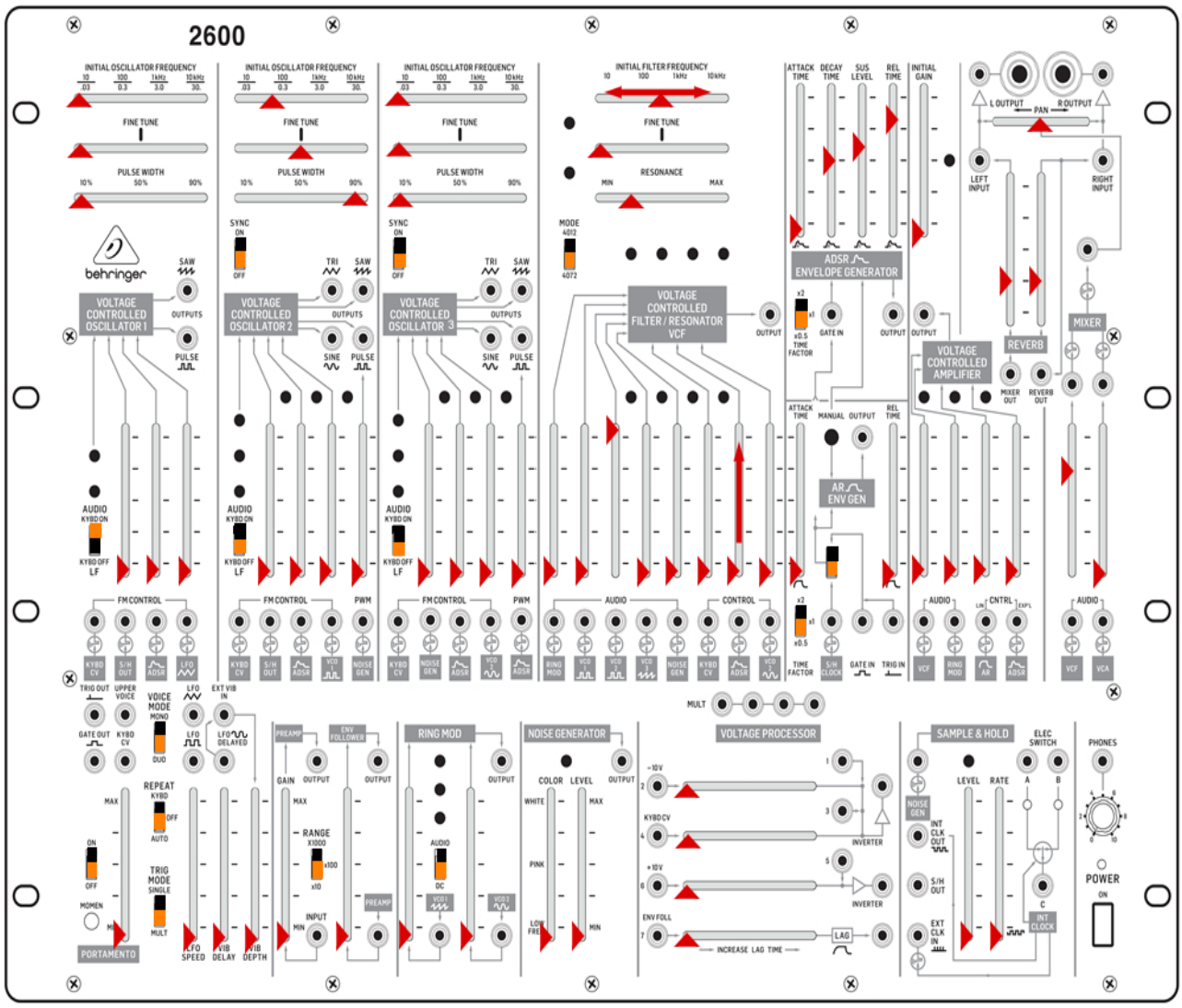


Trucker Bass

1. Keyboard Range bottom 2 octaves



Behringer 2600



Octabass

1. Open VCF ⟶ and tune VCO2 to one octave below middle C
2. Close VCF ⟵ and raise ADSR ↑ in to VCF for brightness

Keyboard range - bottom 2 octaves

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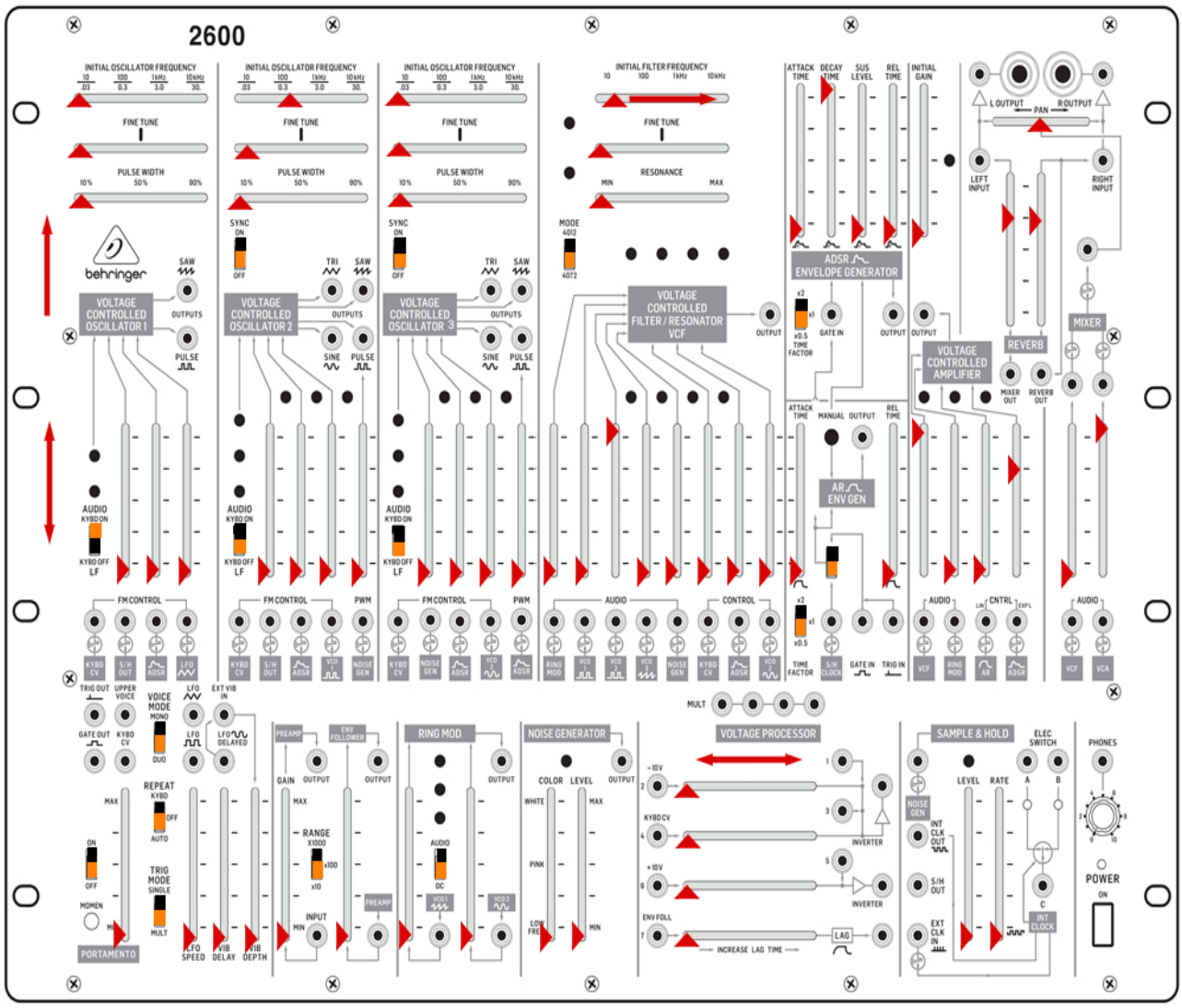


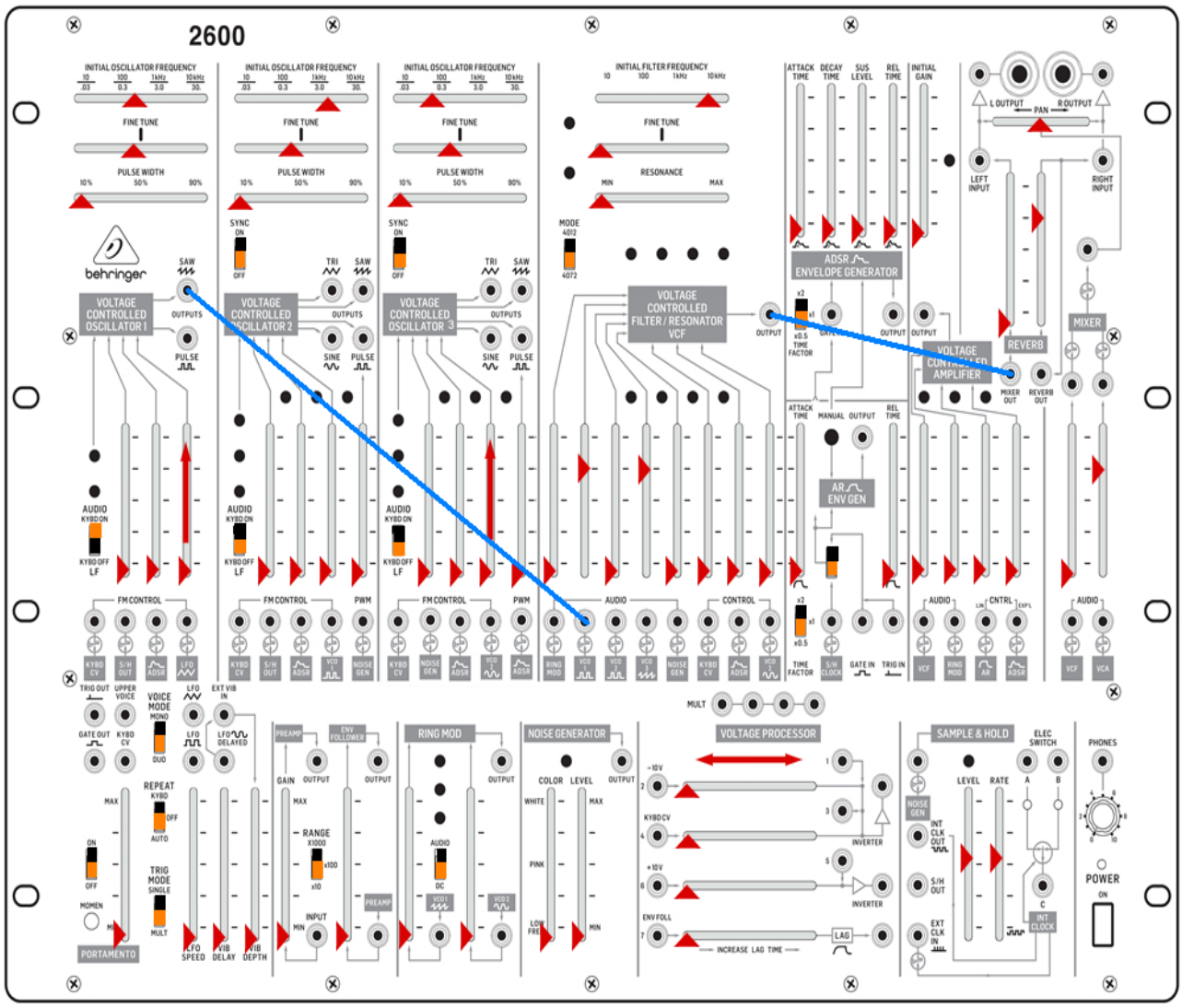
Wonder Clavinet

1. Adjust VCF ⟶ for brightness
2. Tune VCO2 to middle C

VCO TUNING

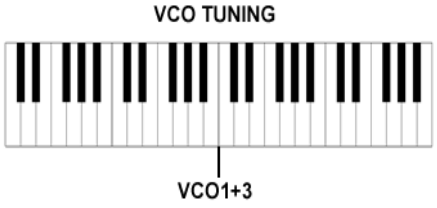
VCO2

Behringer 2600



String Sweetener

1. Tune VCO3 to middle C
2. Tune VCO1 off several beats off VCO3
3. Raise VCO2 | in to VCO1+3 for vibrato
4. Adjust VCO2 frequency for vibrato speed



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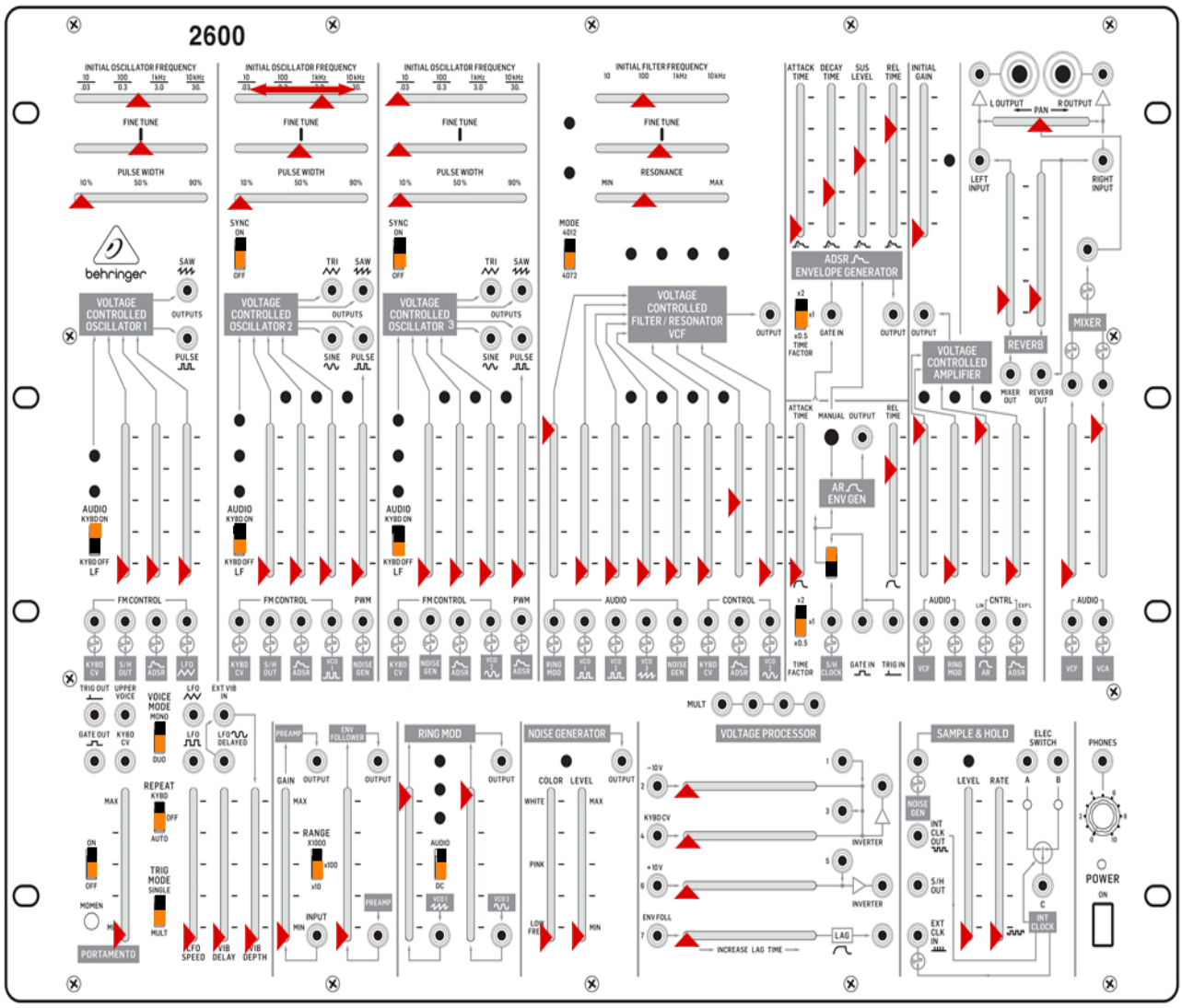
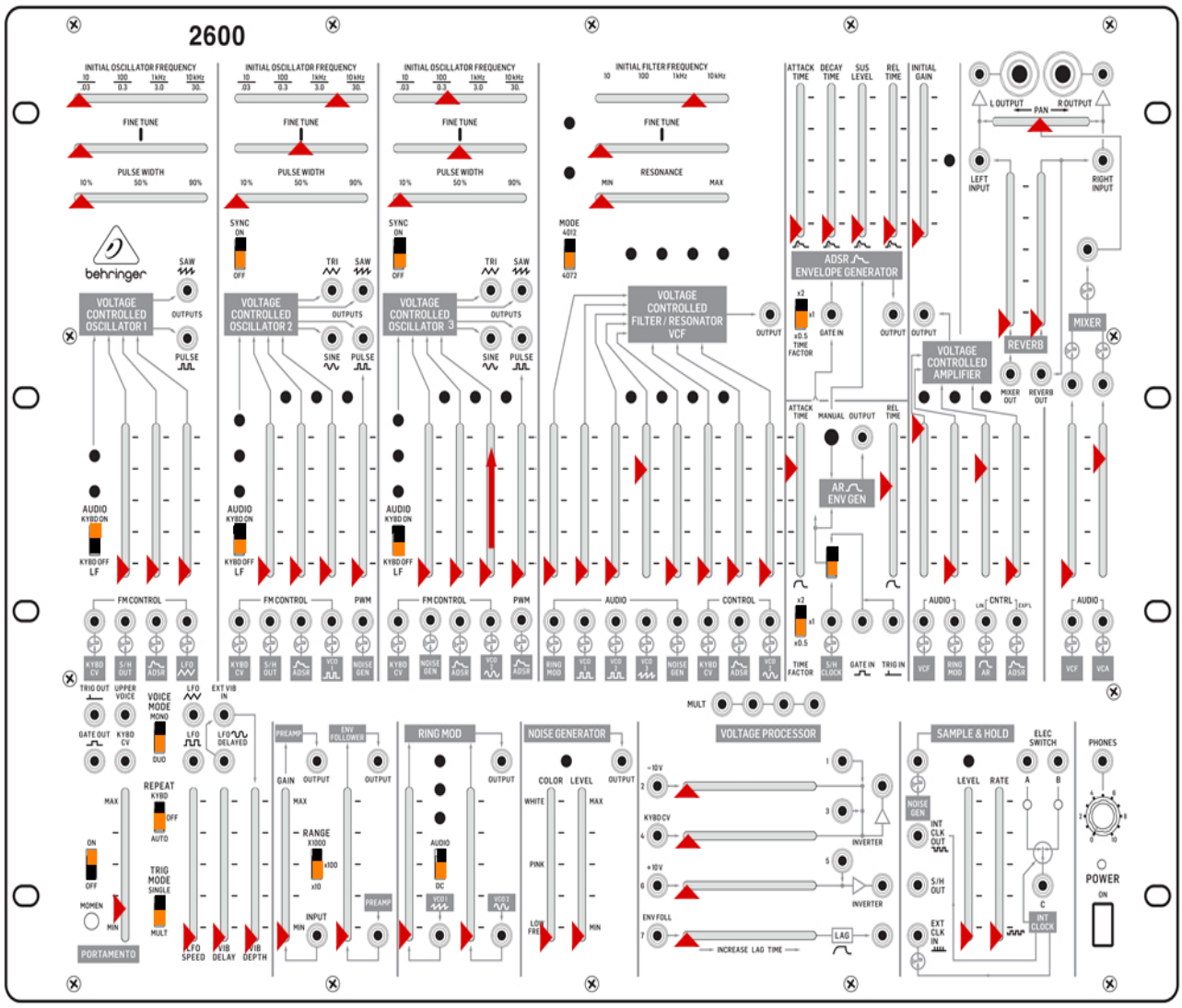


Tubular Chimes

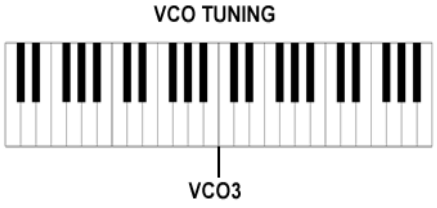
Adjust VCO2 frequency for different bell effects

Behringer 2600



Violin

1. Tune VCO3 to middle C
2. Raise VCO2 ↑ in to VCO3 for vibrato
3. Adjust VCO2 frequency for vibrato speed
4. Slight portamento.



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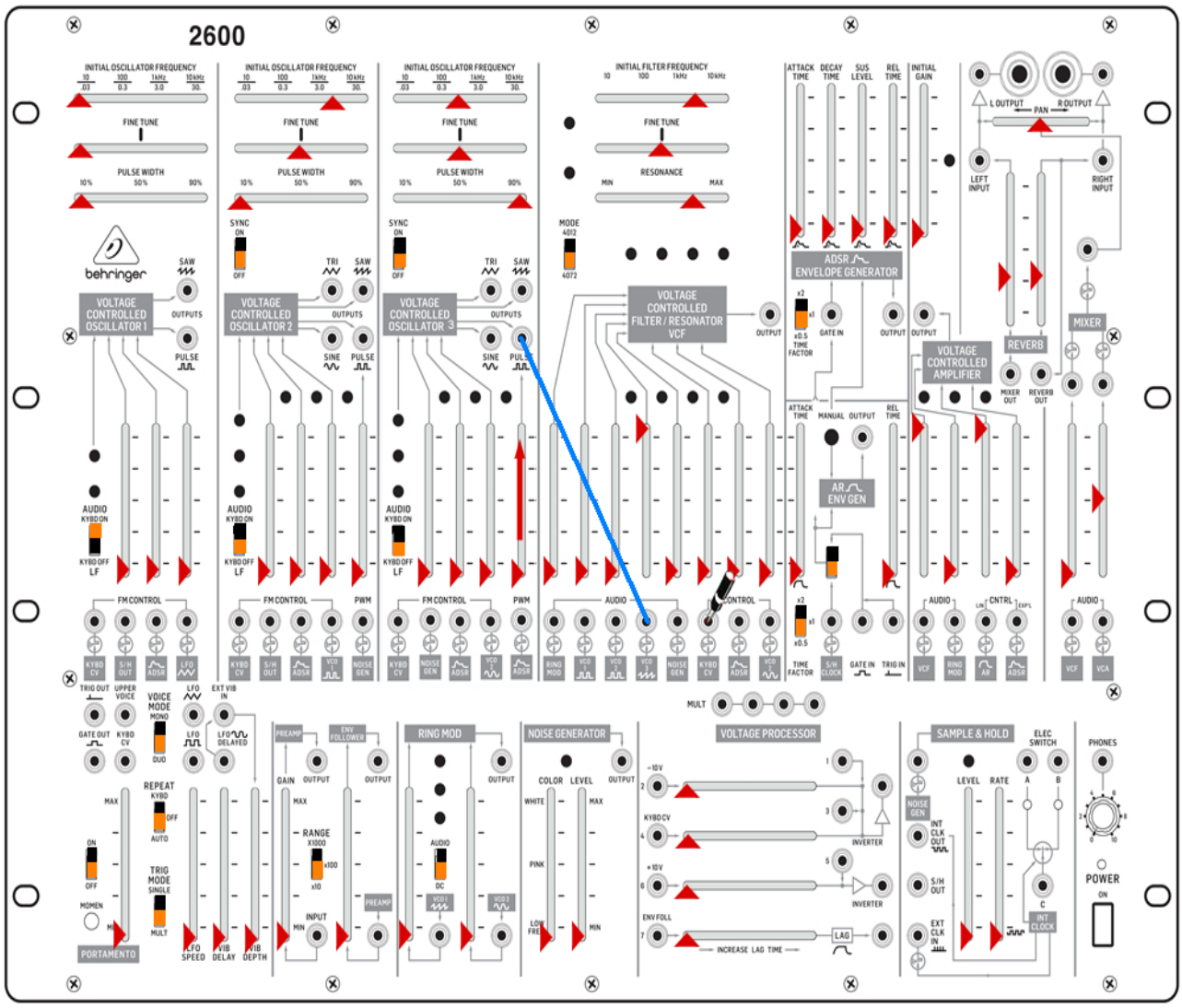
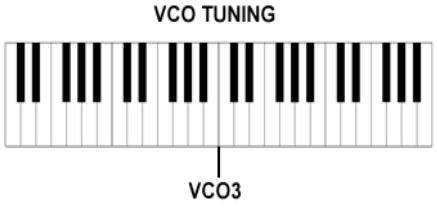


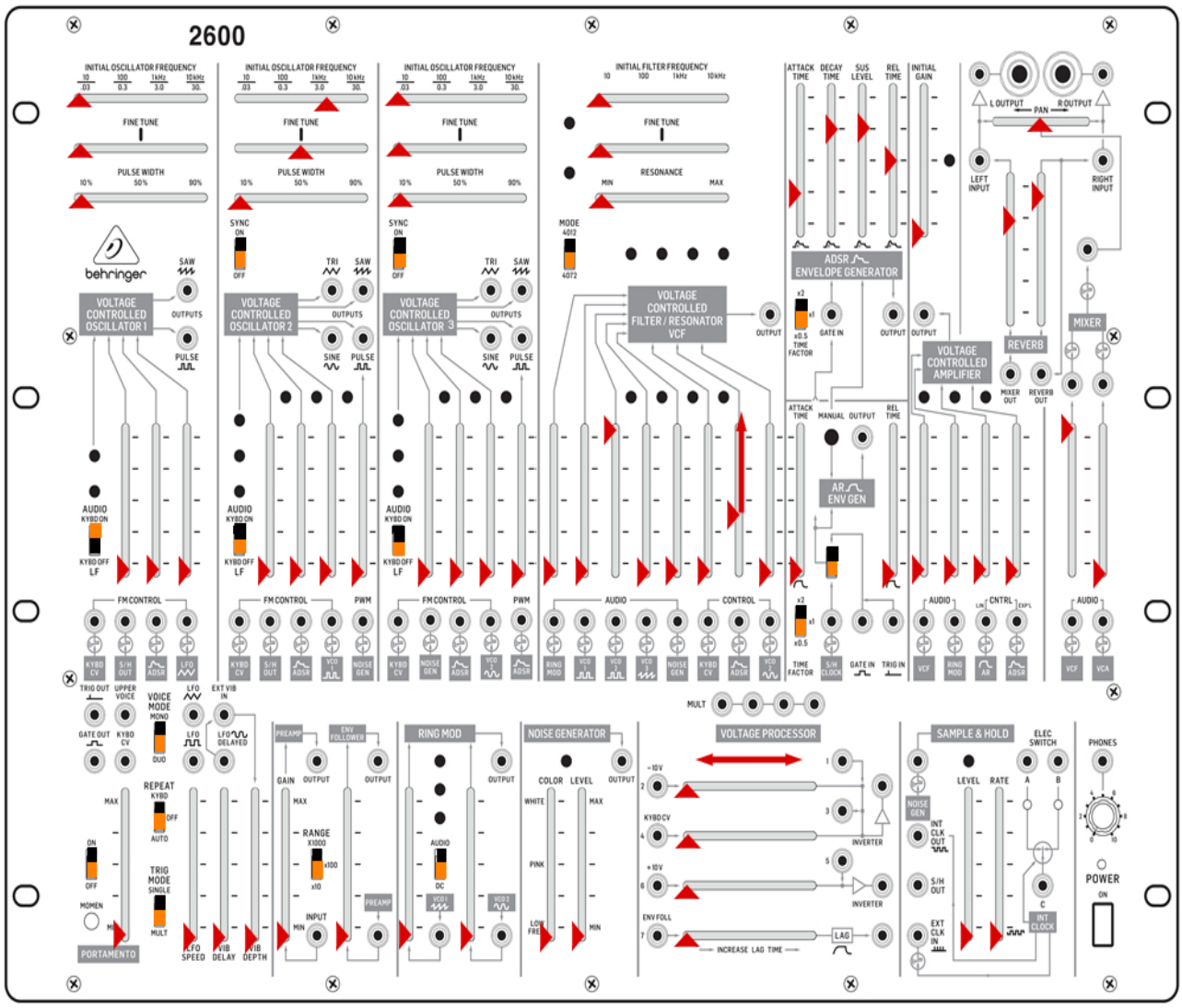
English Horn/Oboe

1. Tune VCO3 to middle C.
2. Raise VCO2 ↑ in to VCO3 for vibrato.
3. Adjust VCO2 frequency for vibrato.



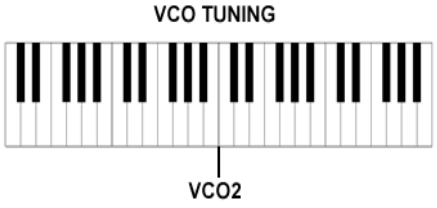
Dummy plug.

Behringer 2600



Fanfare Trumpet

1. Tune VCO2 to middle C.
2. Raise ADSR in to VCF control for brightness.



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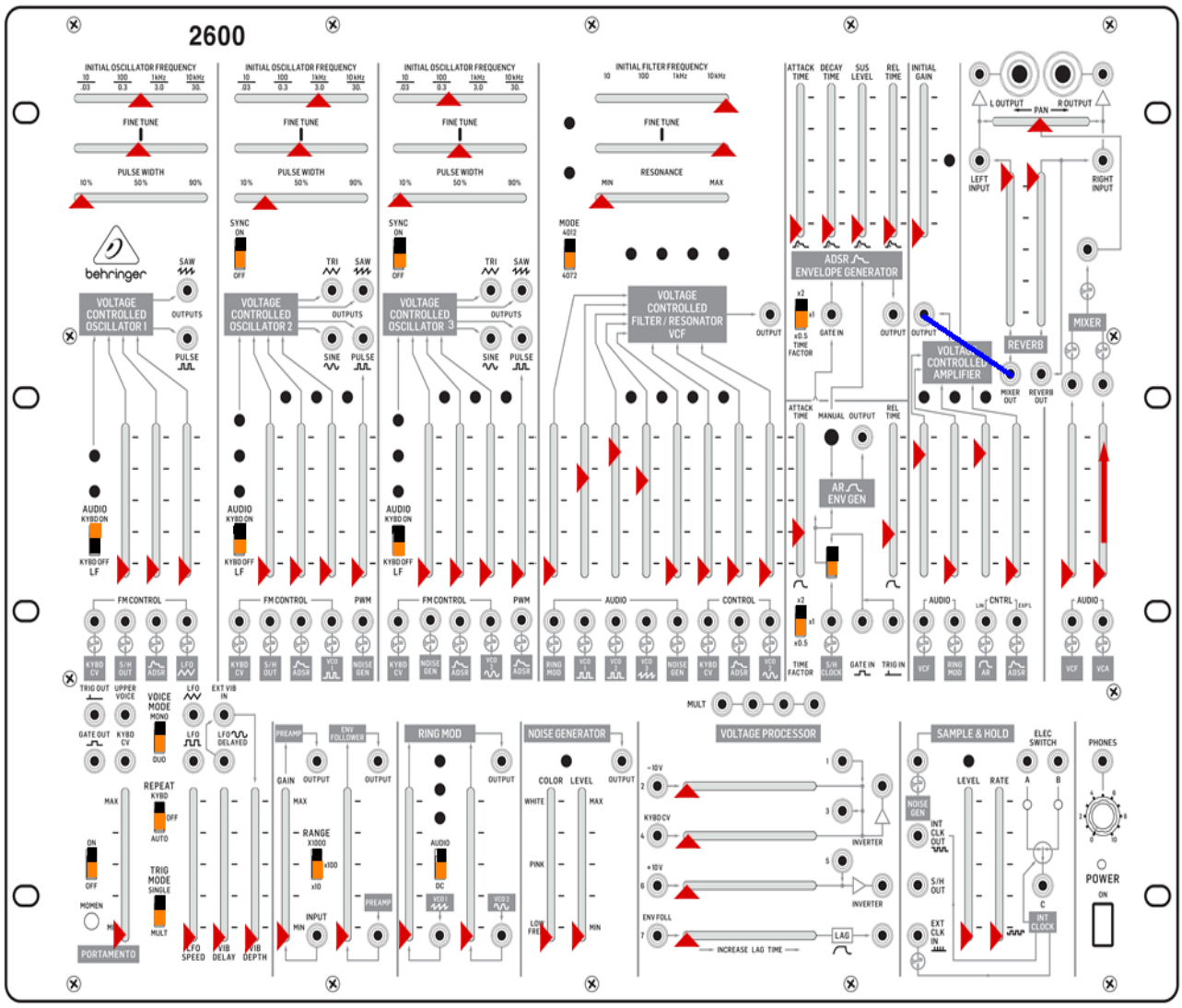
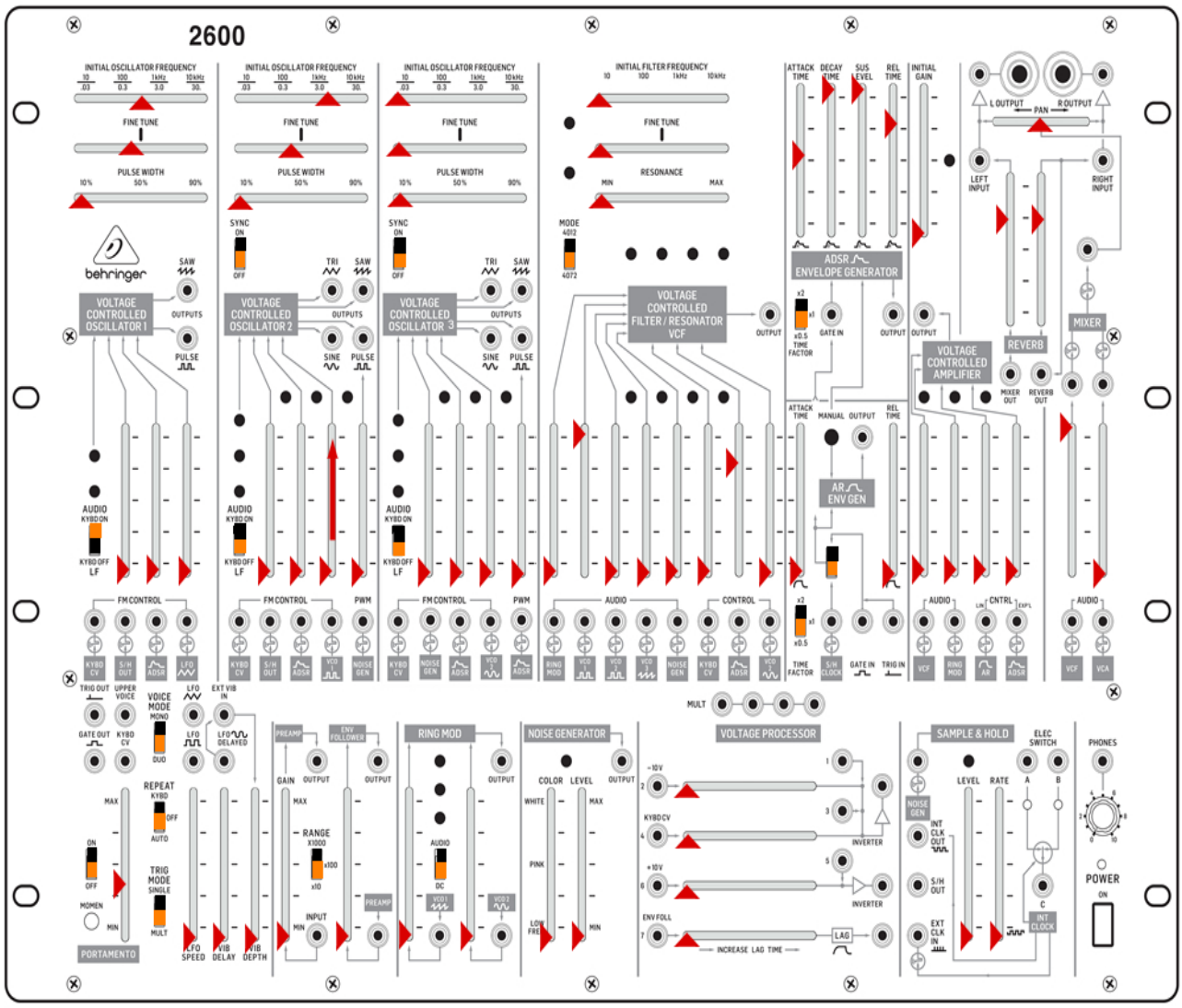


Monster Organ

1. Tune VCO1 to 1 octave above middle C
   Tune VCO2 to 2 octaves above middle C
   Tune VCO3 to 1 octave below middle C
2. Raise VCA | in to mixer for brilliance

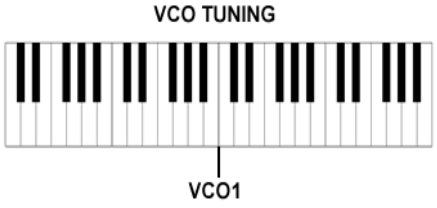
VCO TUNING

Behringer 2600



Thereminovox

1. Tune VCO1 to middle C
2. Raise VCO2 ↑ in to VCO1 and adjust VCO2 frequency for vibrato speed



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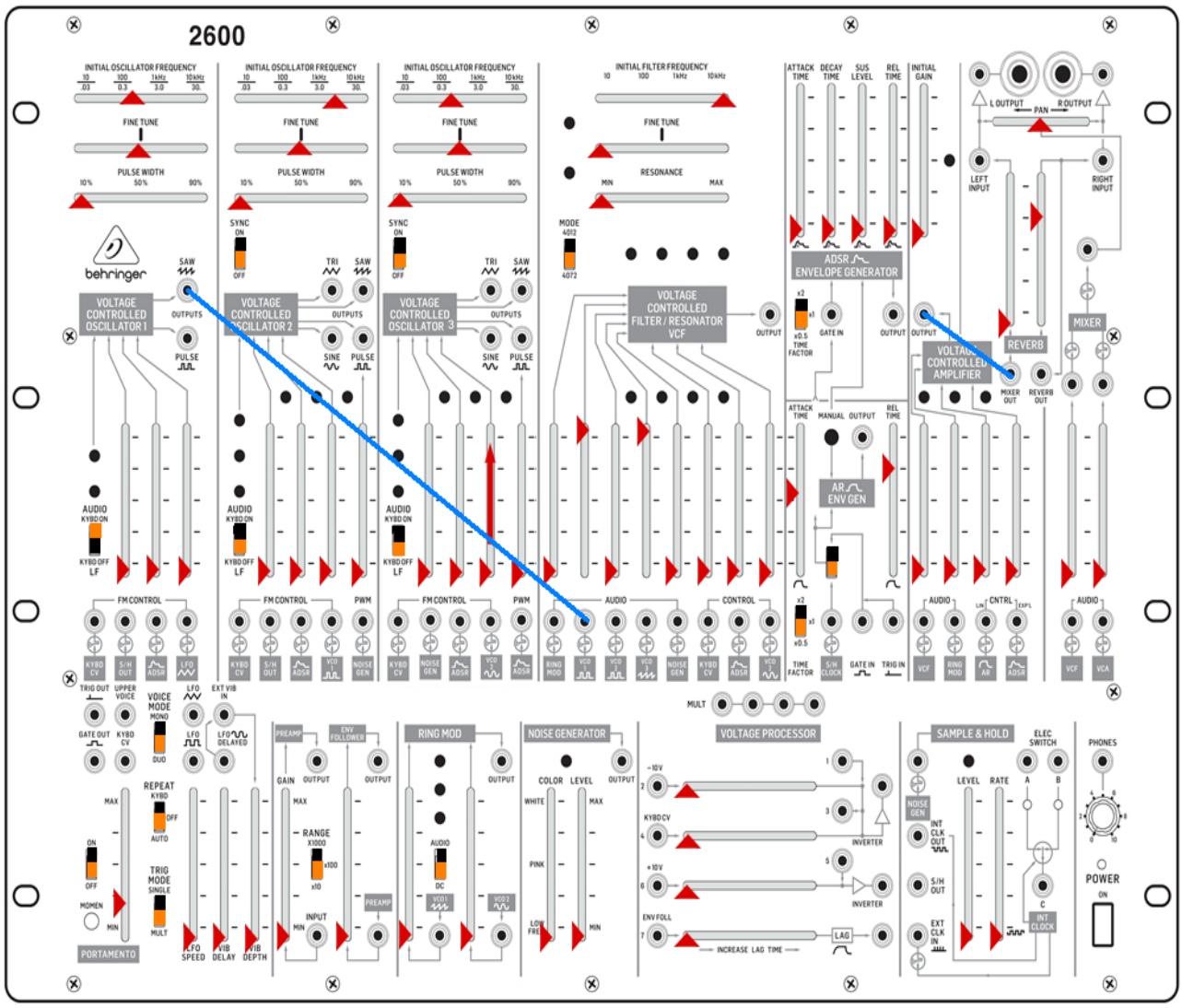
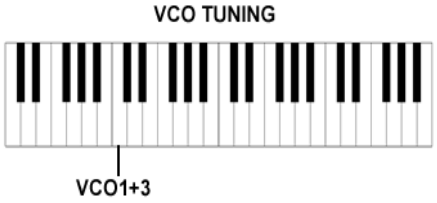


Cello Section

1. Tune VCO1+3 one octave below middle C
2. Listening to each oscillator individually, raise VCO2 ↑ in to each for vibrato, and adjust VCO2 frequency for speed.
3. Slight portamento



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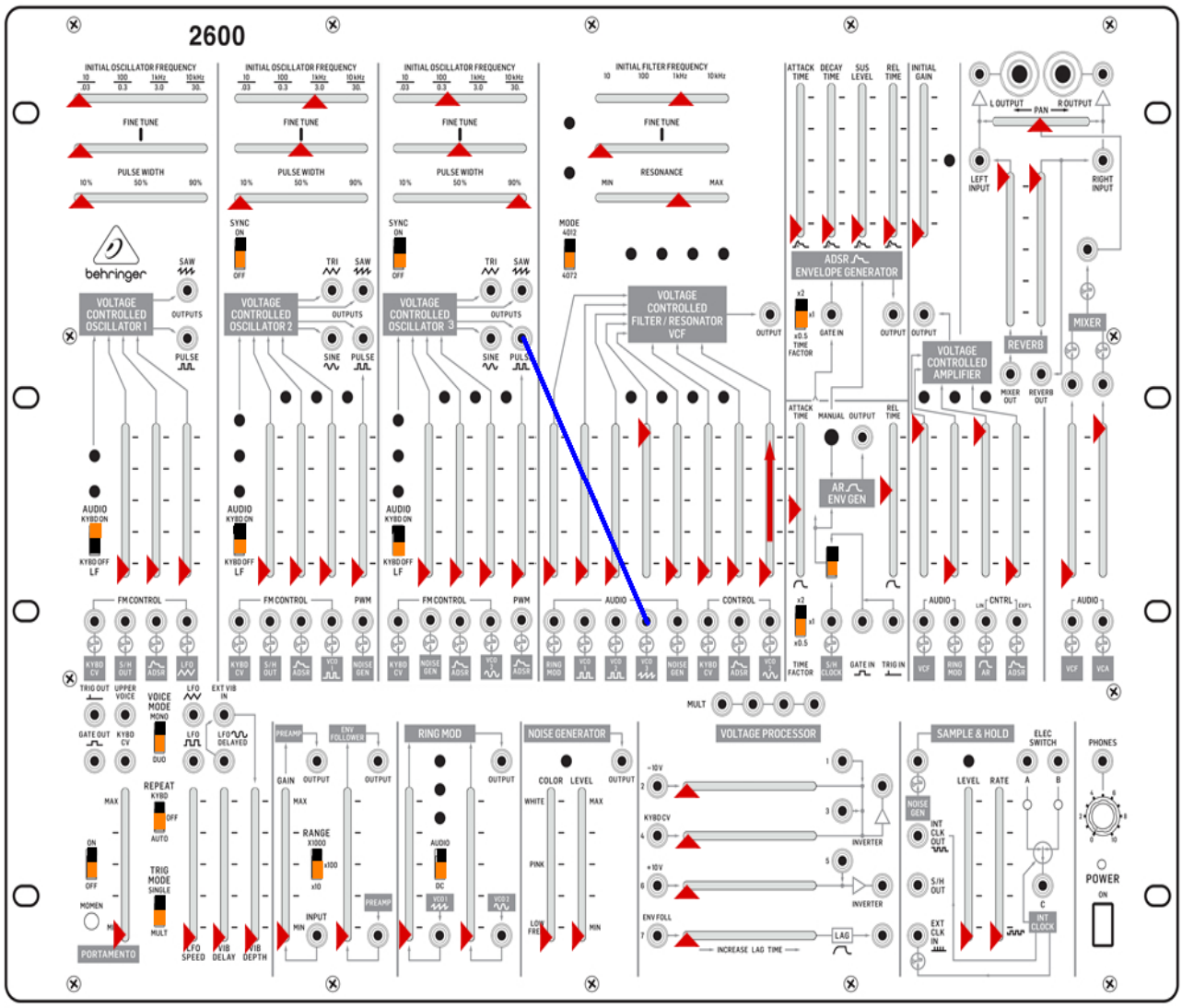
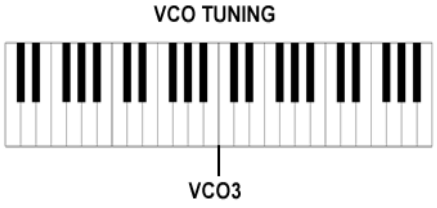
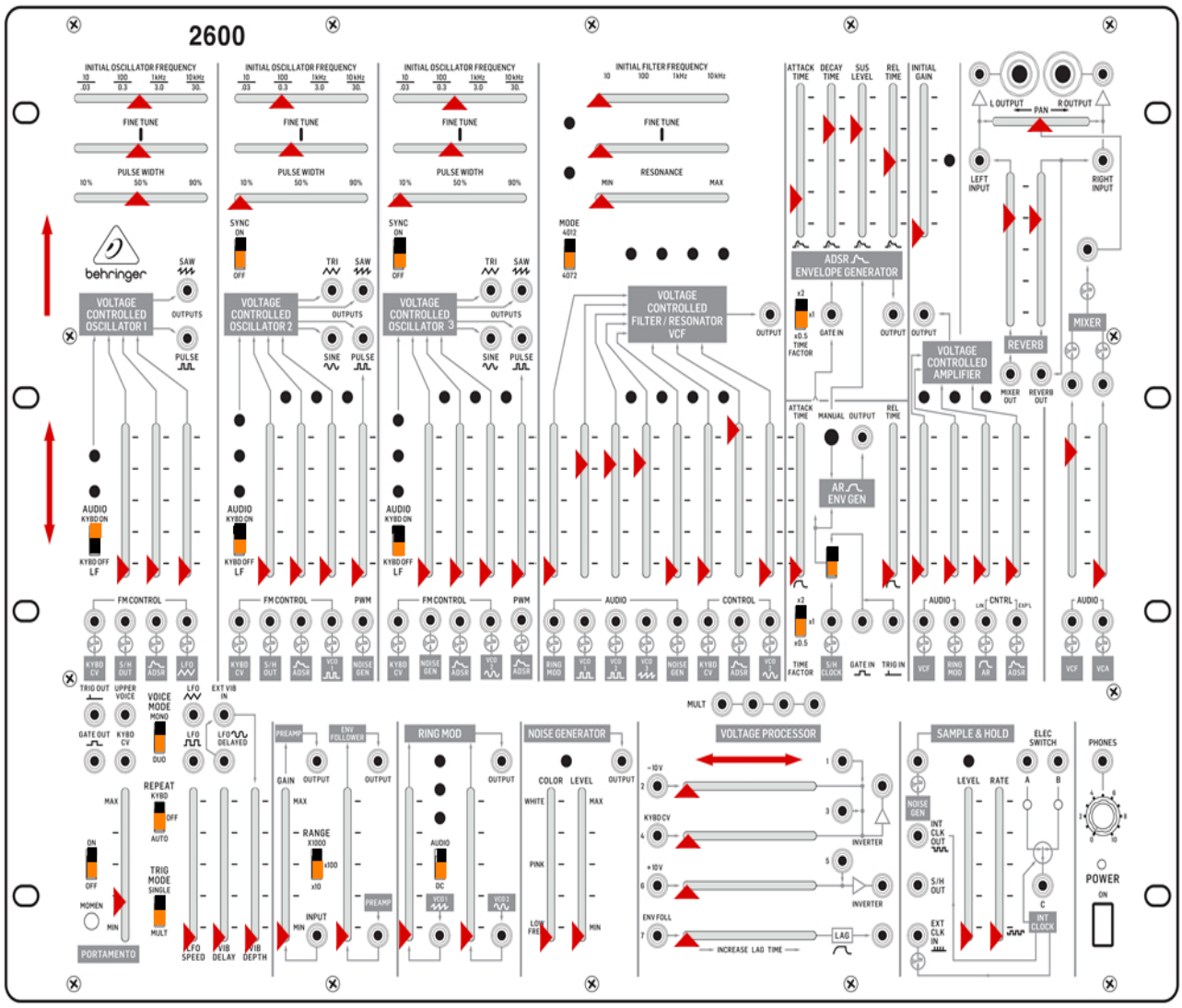


Cowboy Harmonica

1. Tune VCO3 to middle C
2. Raise VCO2 ↑ in to VCF and adjust VCO2 frequency for tremolo speed

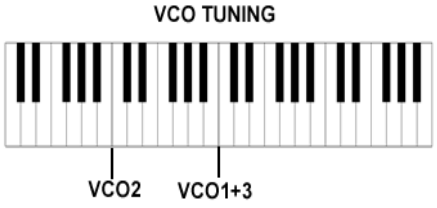


Behringer 2600

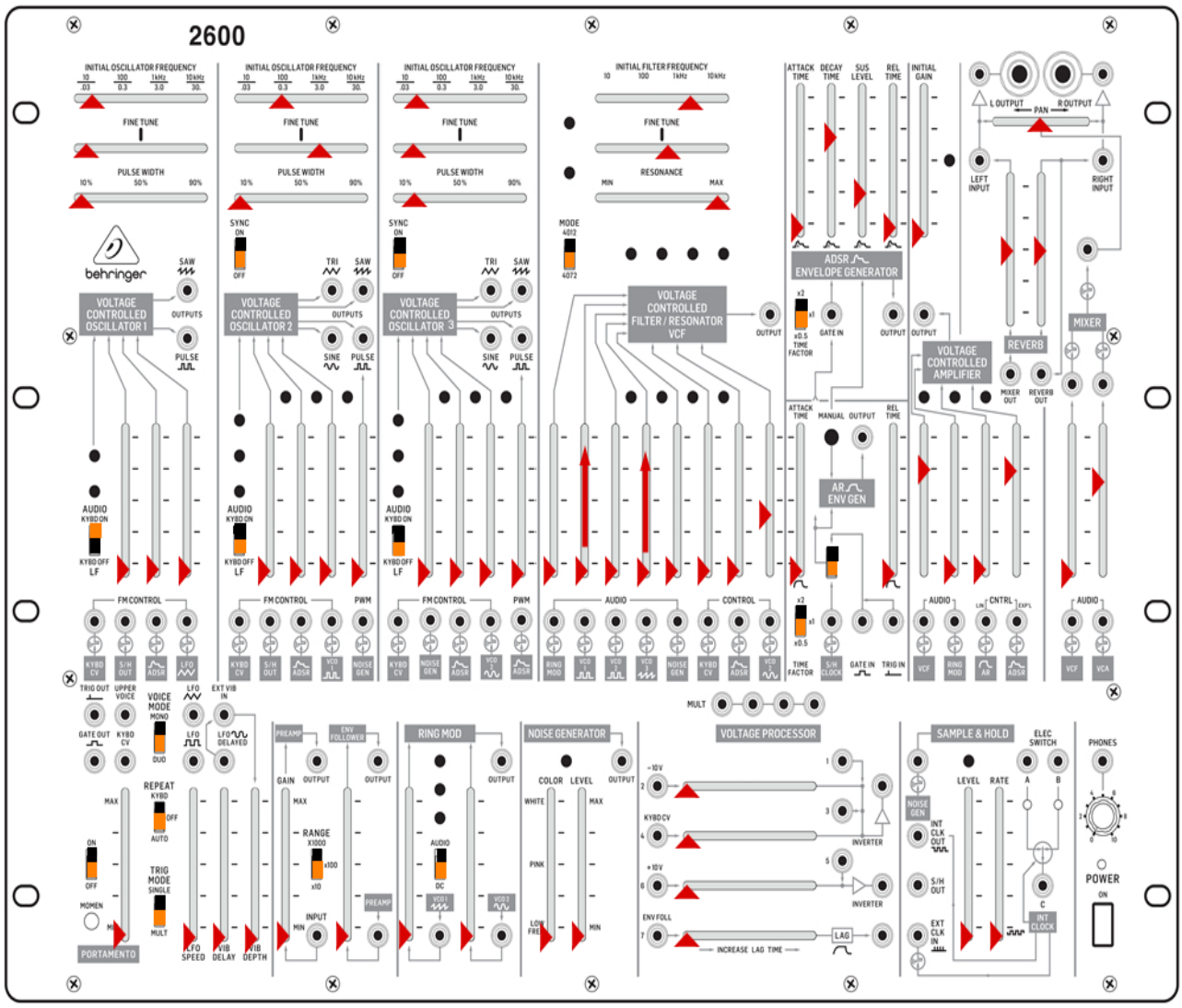


Classic Arp 2600 Patch

1. Tune VCO1+3 to middle C
   Tune VCO2 to 1 octave below middle C
2. Slight portamento

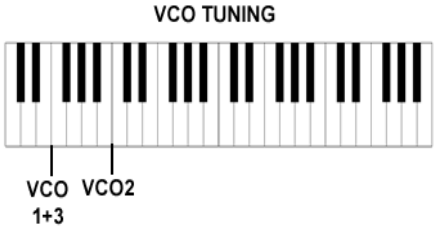


Behringer 2600



Electric Mouth Harp

1. Raise VCO1 or VCO3 in to VCF
   Tune to 1 octave below VCO2



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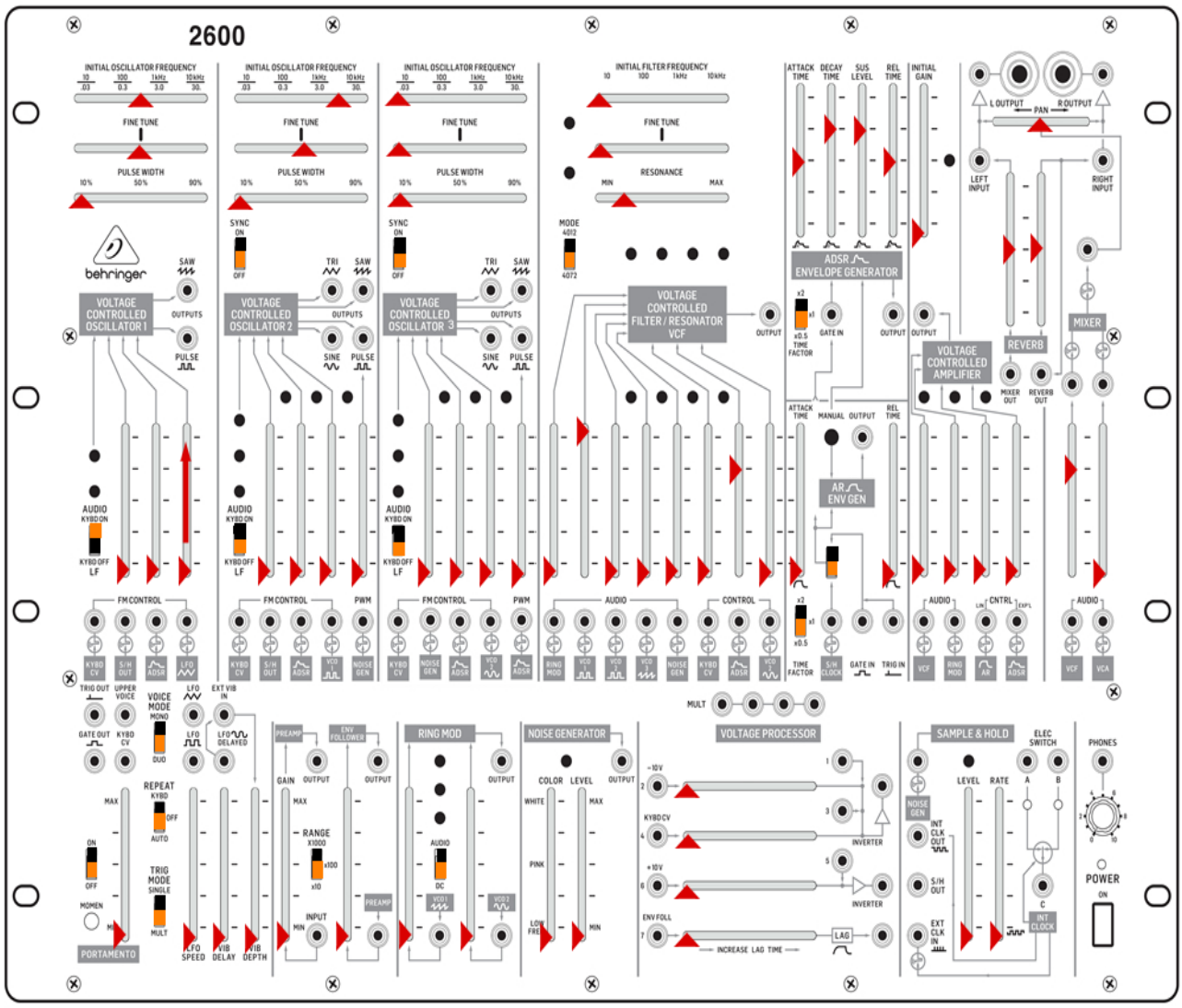
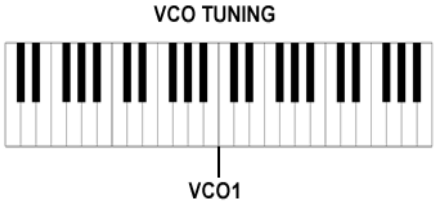


Licorice Schtück

1. Tune VCO1 to middle C
2. Raise VCO2 in to VCO1 for vibrato
3. Adjust VCO2 frequency for vibrato speed



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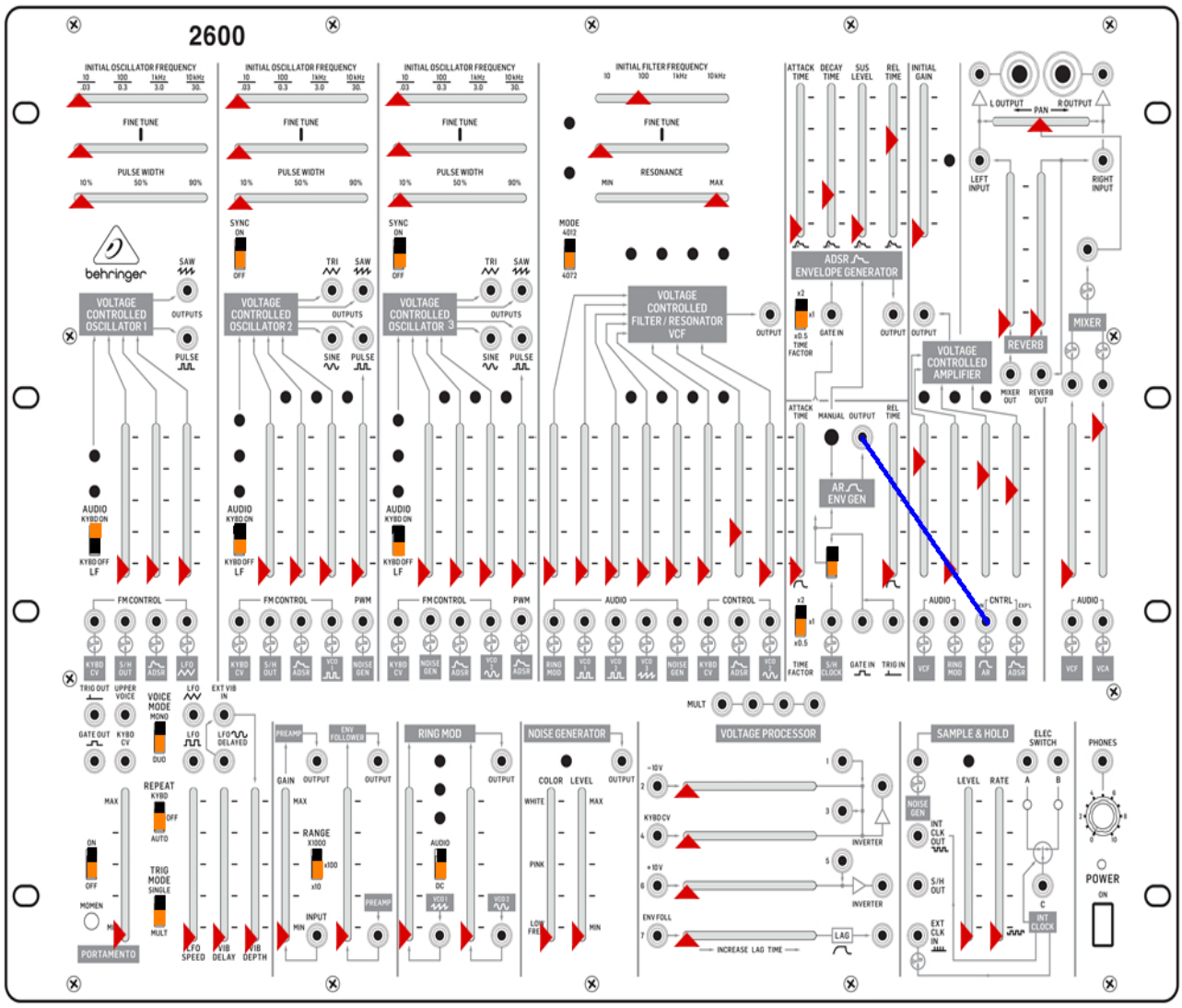
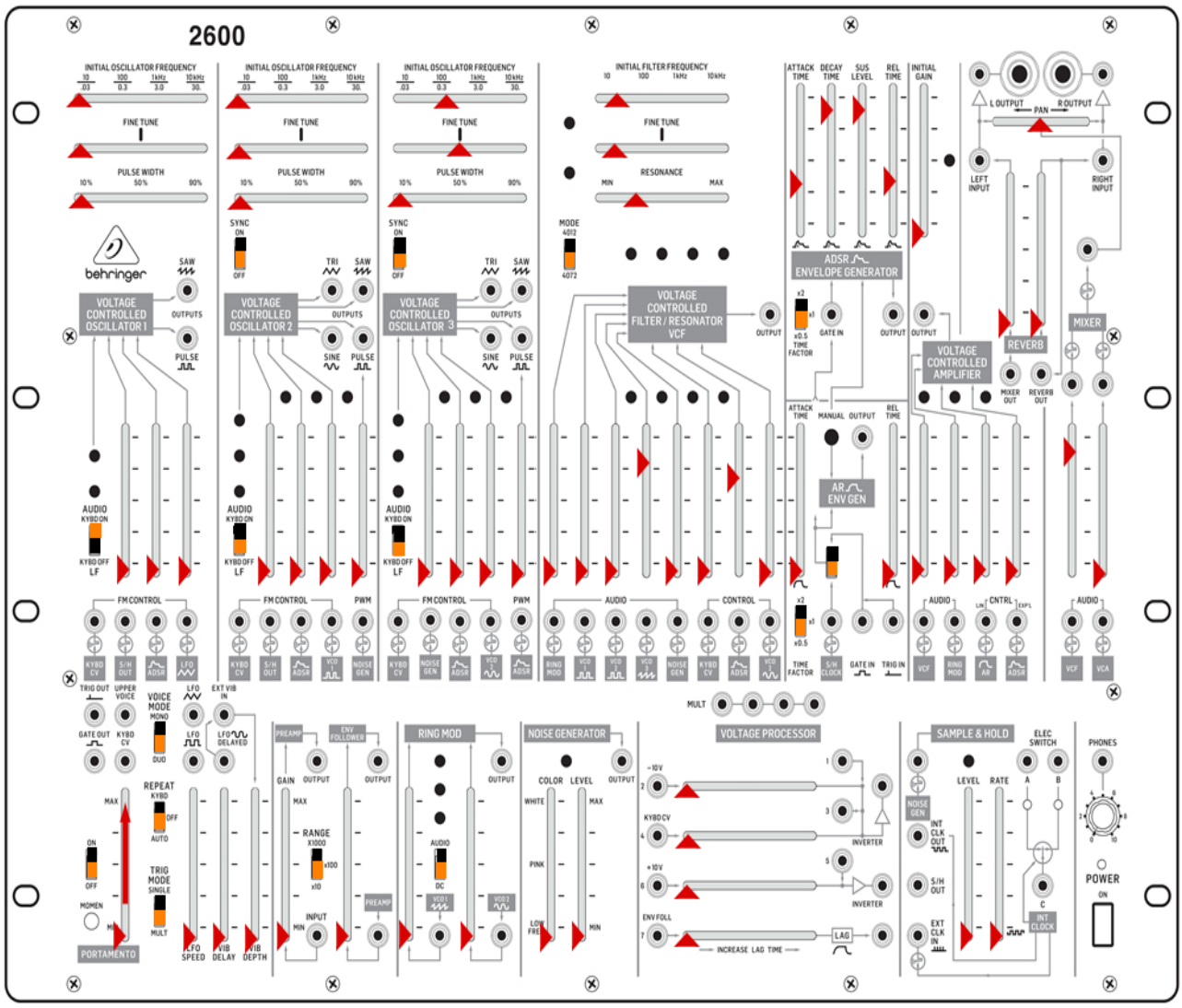


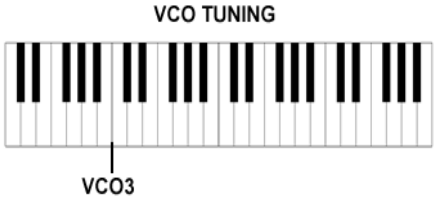
Big Bass Drum

Behringer 2600

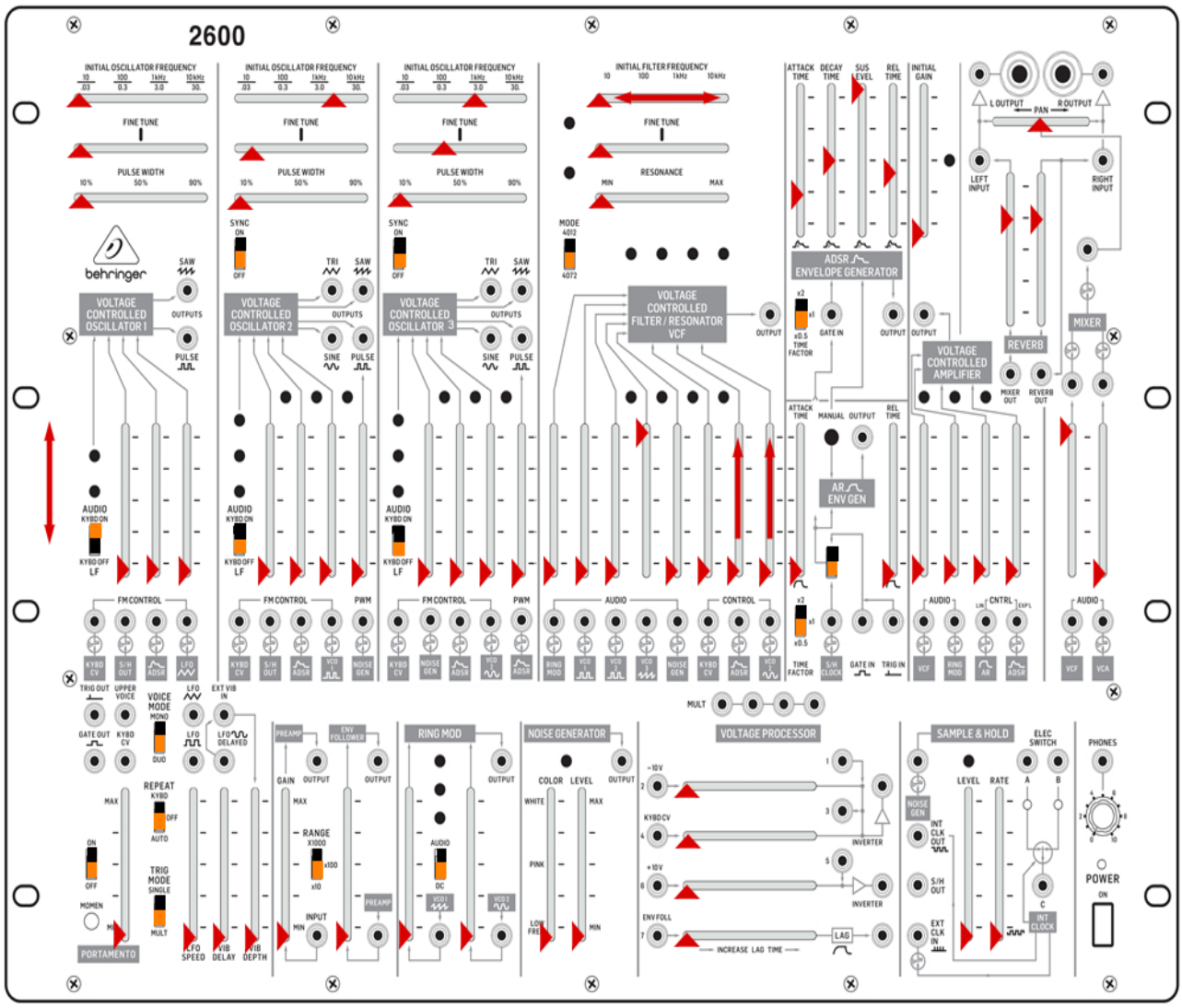


Trombone/Tuba

1. Tune VCO3 to one octave below middle C
2. Switch portamento on for trombone slides



Behringer 2600



Flute

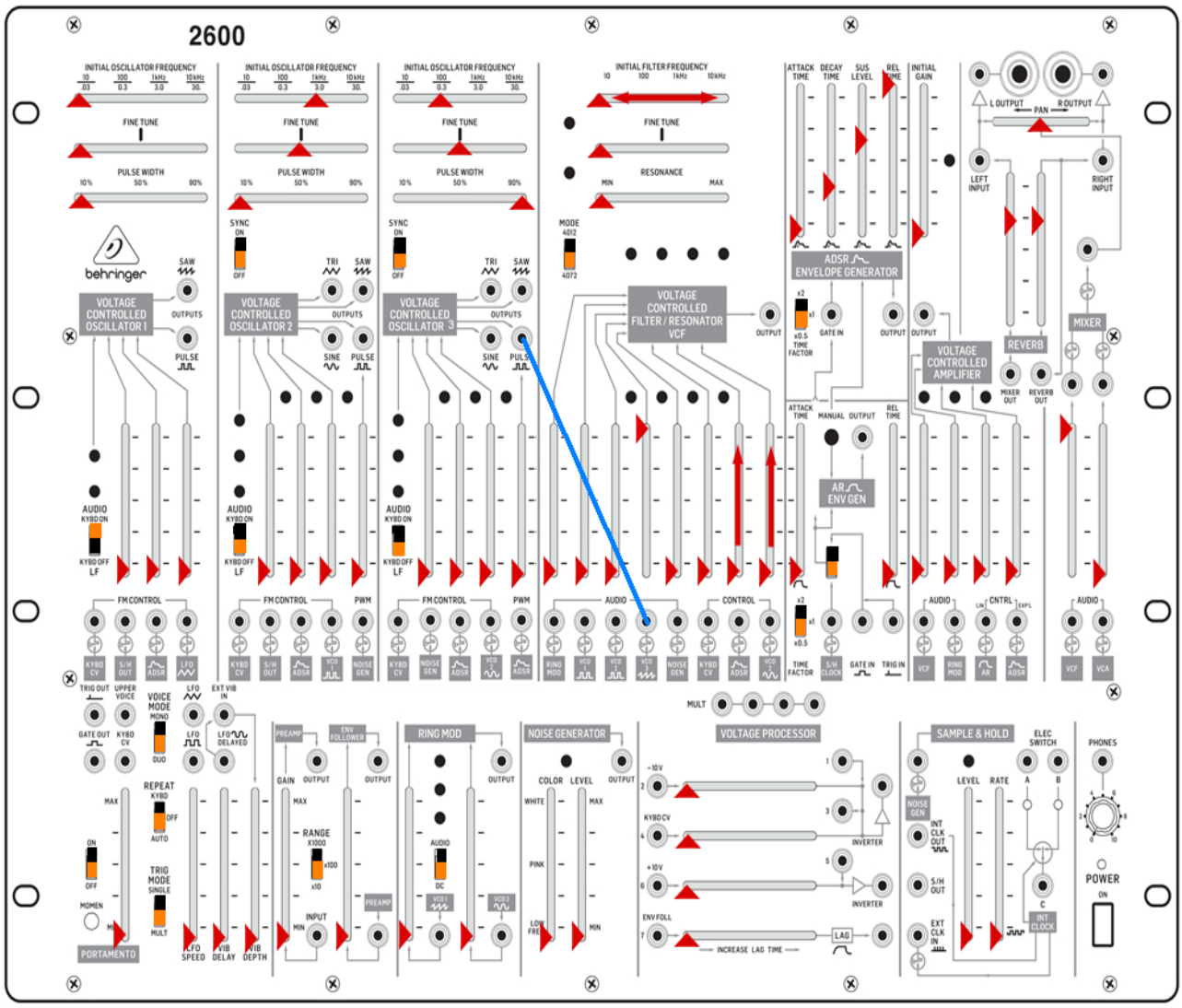
1. Open VCF and tune VCO3 to one ooctave above middle C
2. Close VCF and raise ADSR in to VCF for brightness
3. Raise VCO2 in to VCF for tremelo
4. Adjust VCO2 frequency for tremolo speed

VCO TUNING

VCO3

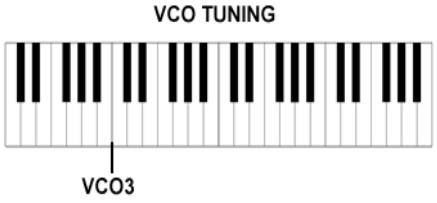
NOTE: The original ARP 2600 patch sheet indicates the use of a patch lead but doesn't show it.

Behringer 2600



Okie Guitar

1. Open VCF and tune VCO3 to one octave below middle C
2. Close VCF and raise ADSR and VCO2 in to VCF
3. Adjust VCO2 frequency for tremelo speed



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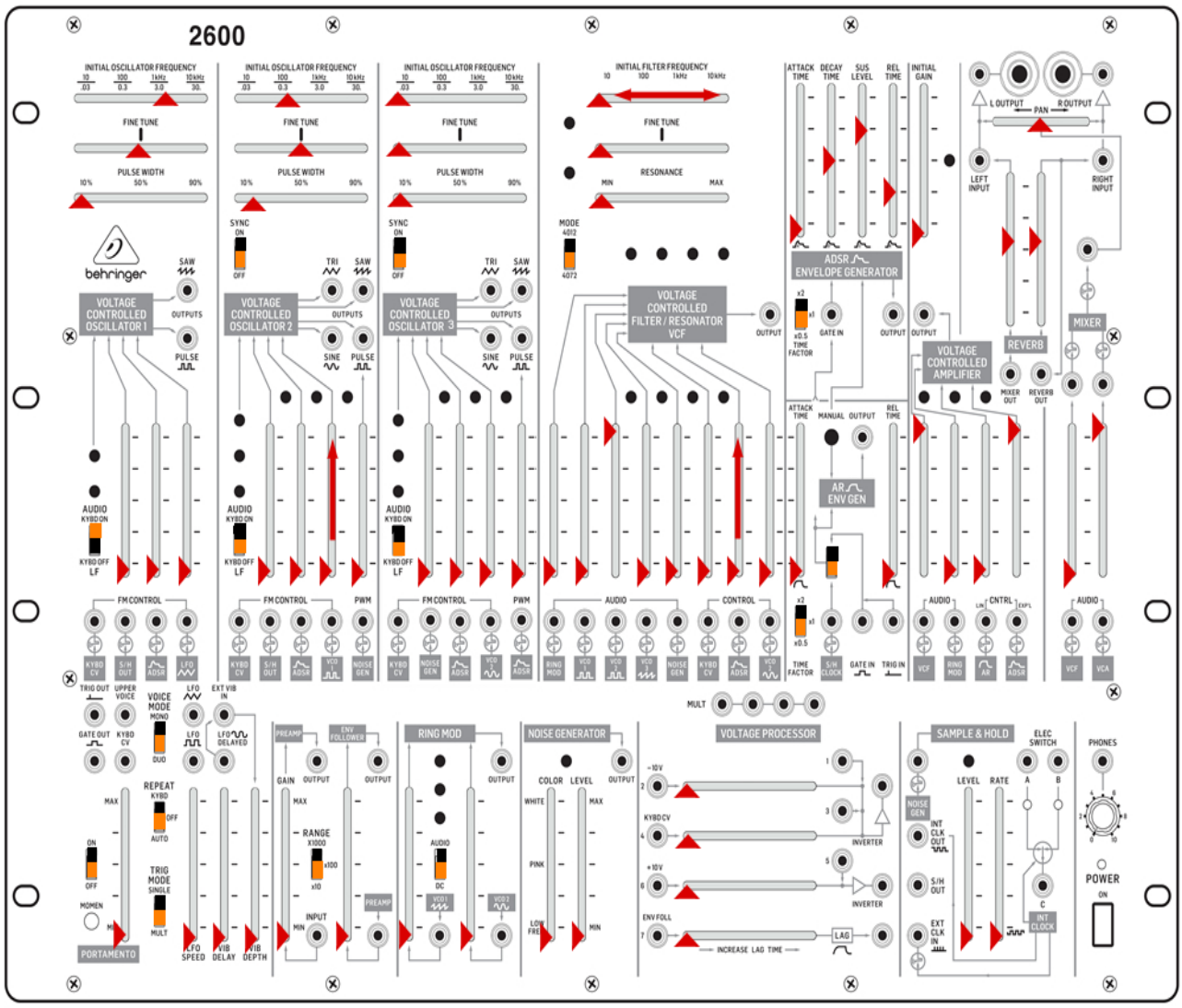
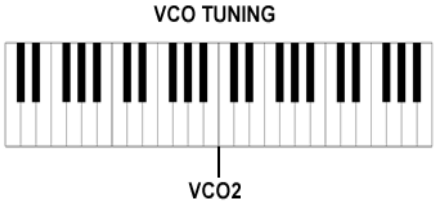
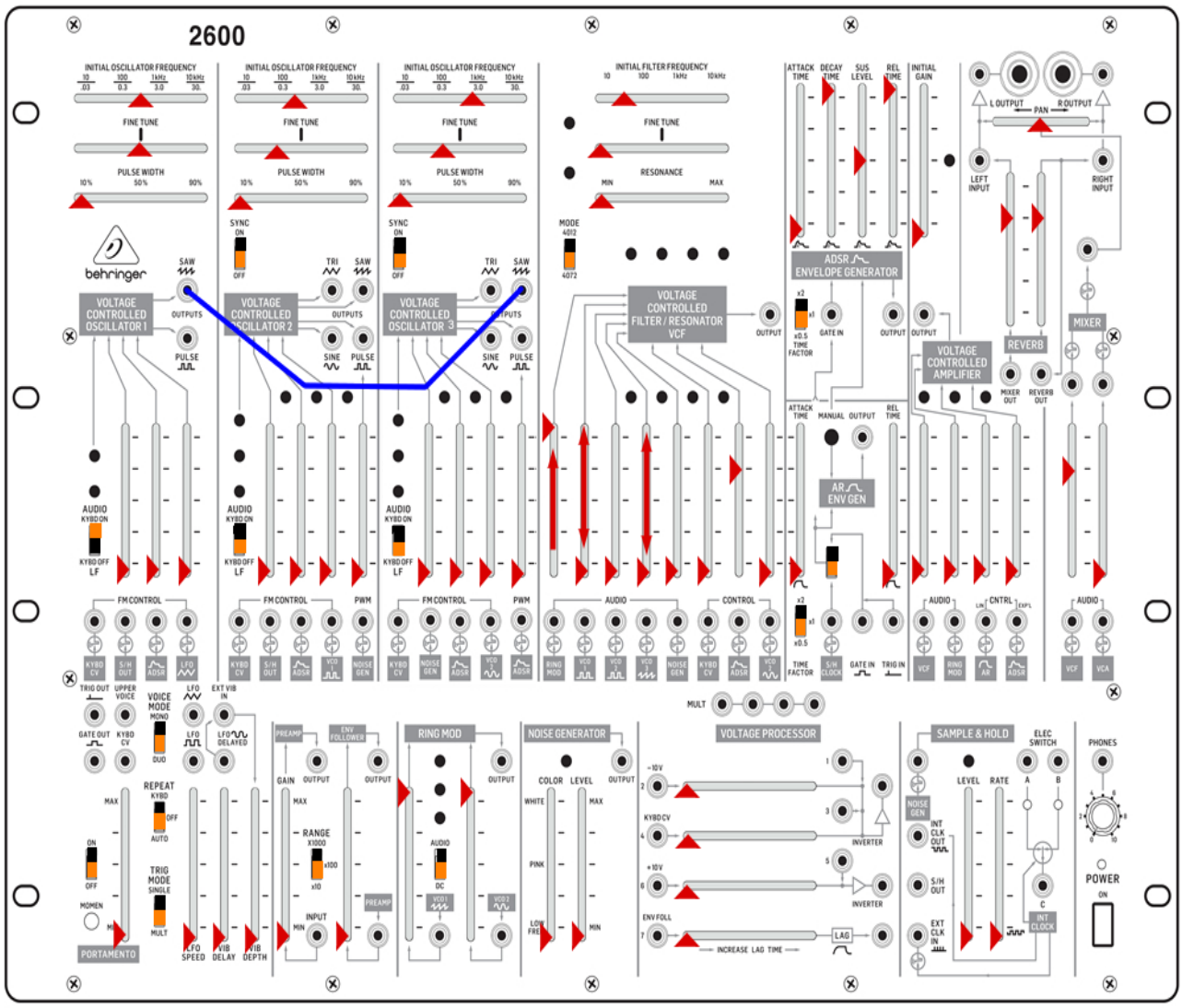


Jazz Guitar

1. Open VCF and tune VCO2 to middle C
2. Close VCF and raise ADSR in to VCF
3. Raise VCO1 in to VCO2 and adjust VCO1 frequency for trill speed
4. Bring VCO1 in and out of VCO2 during performance for trills



Behringer 2600



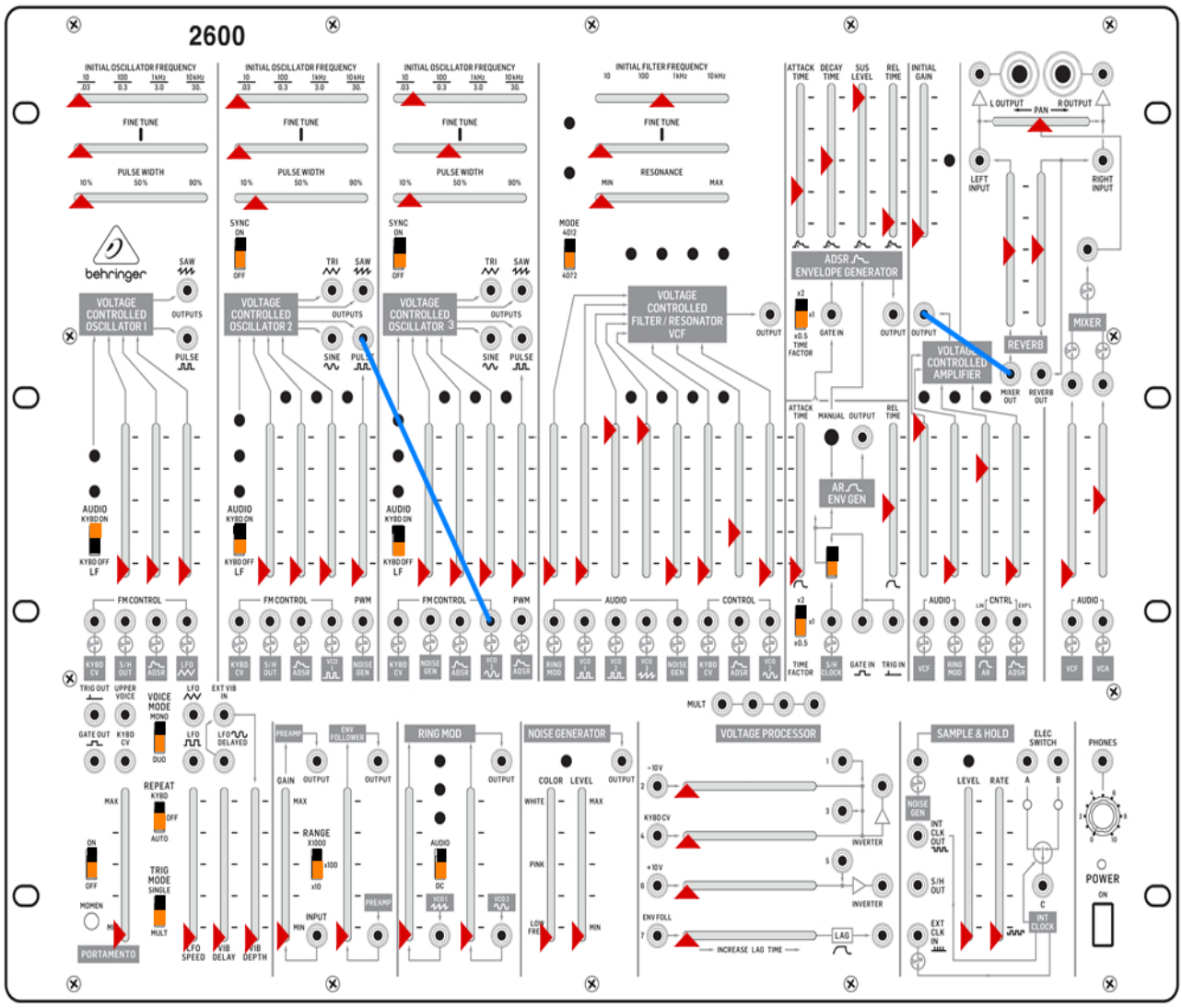
Ceremonial Gong

1. Tune VCO1 and VCO3 to middle C
2. Raise VCO1 and VCO3 in to VCF
3. Detune VCO3 by a few beats
4. Close VCO1 and VCO3 and raise Ring Mod in to VCF
5. Adjust VCO2 frequency for different effects

VCO TUNING

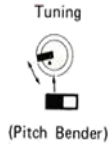
VCO1+3

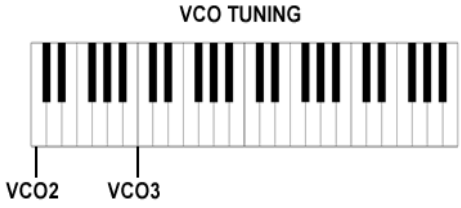
Behringer 2600



Heavy Metal Fuzz Lead

1. Play key C3 and tune VCO3 to an octave above VCO2, which is tuned as shown
2. Raise VCO2 fully in to VCO3
3. Raise ADSR in to VCO3 until a solid tone without beats is heard





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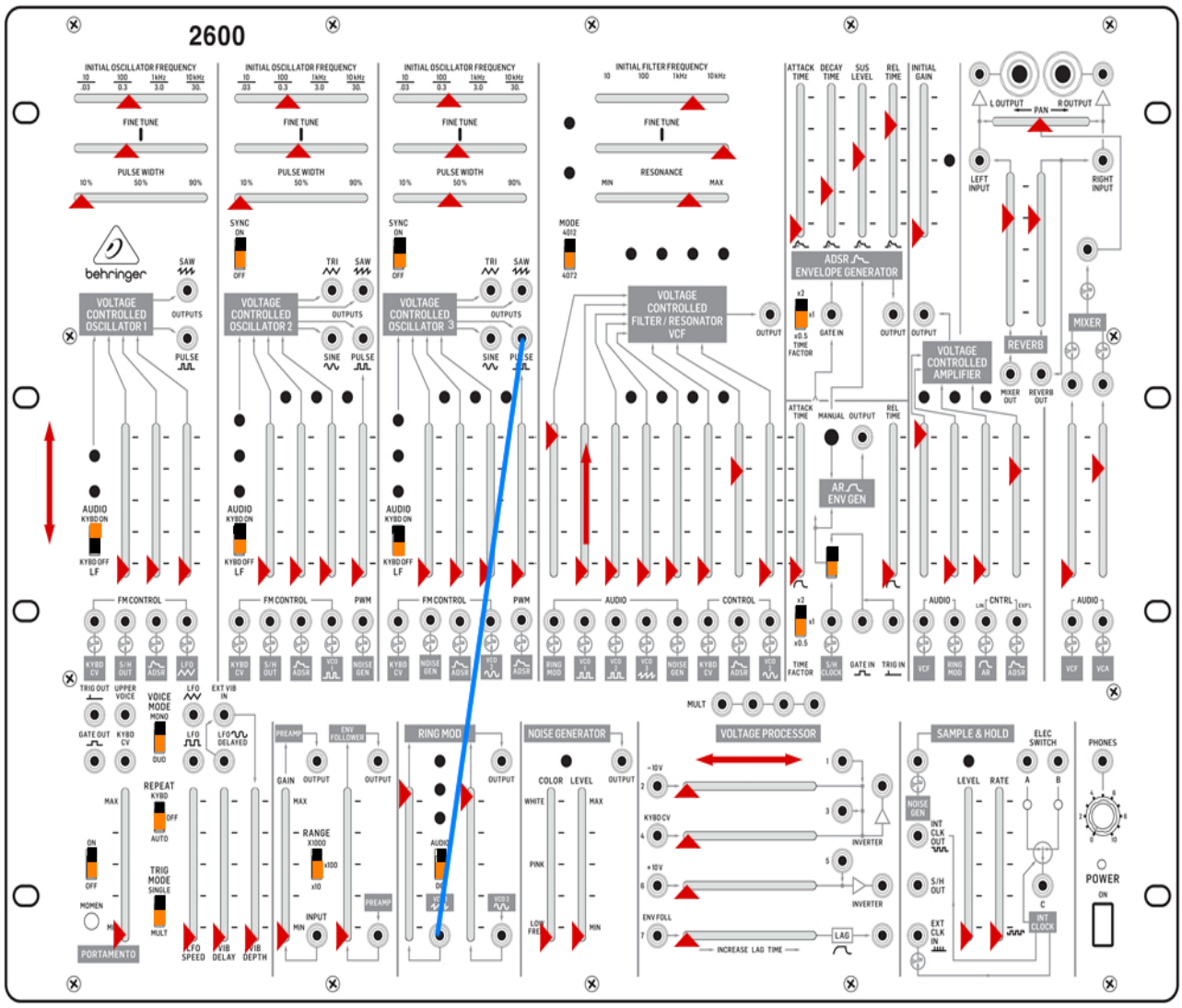
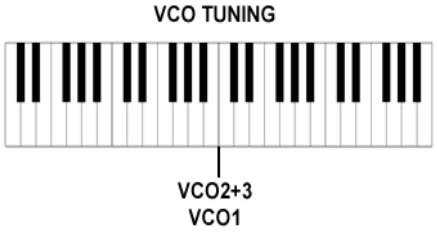


65c Piano

1. Tune VCO2 and VCO3 to middle C
2. Raise VCO1 in to VCF and tune a few beats off



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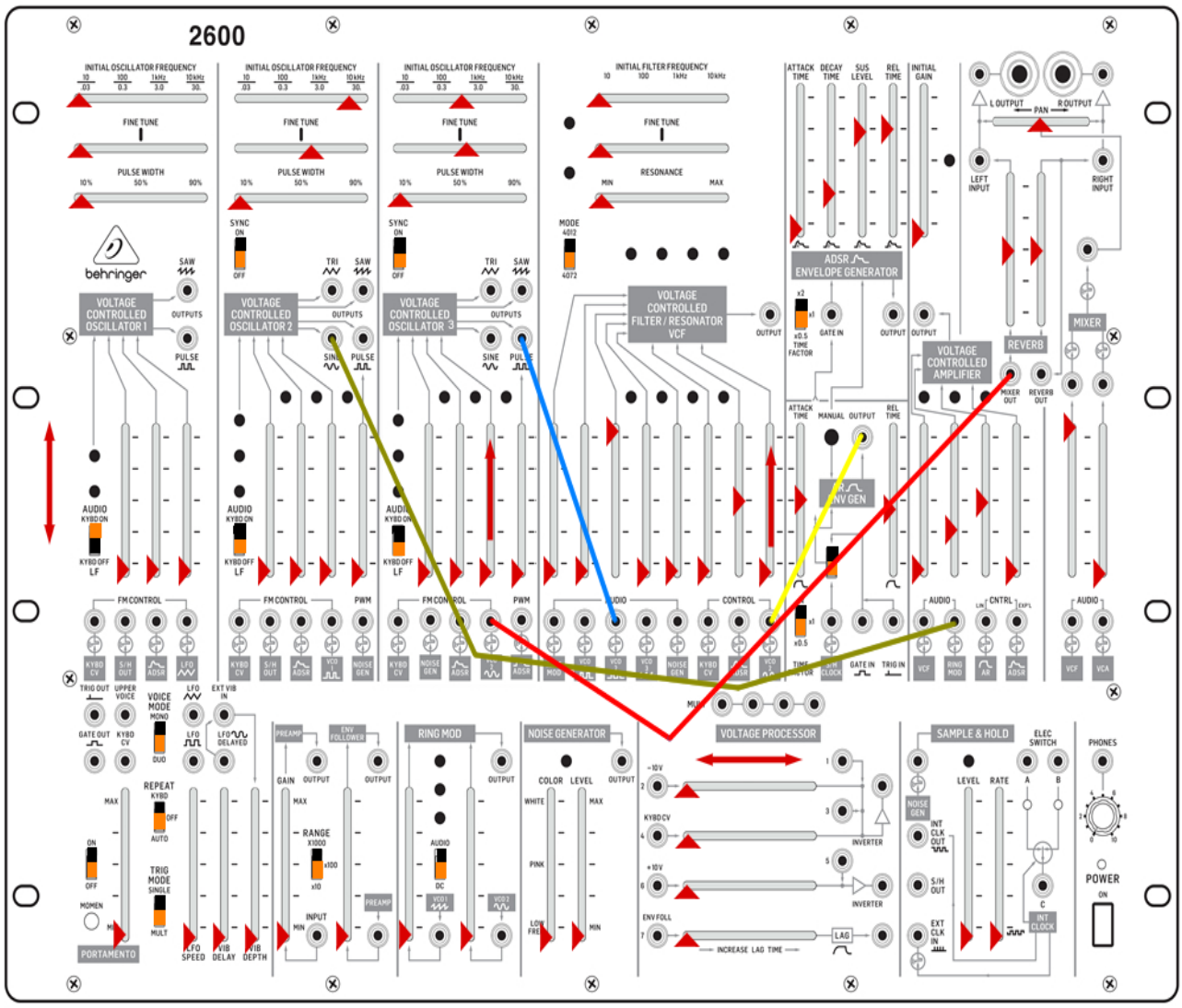
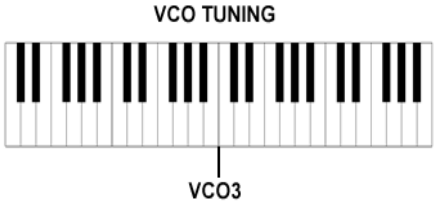


Doc Trumpet

1. Tune VCO3 to middle C
2. Raise in to VCO3 and adjust VCO2 frequency for vibrato speed
3. Raise in to VCF for delayed brilliance



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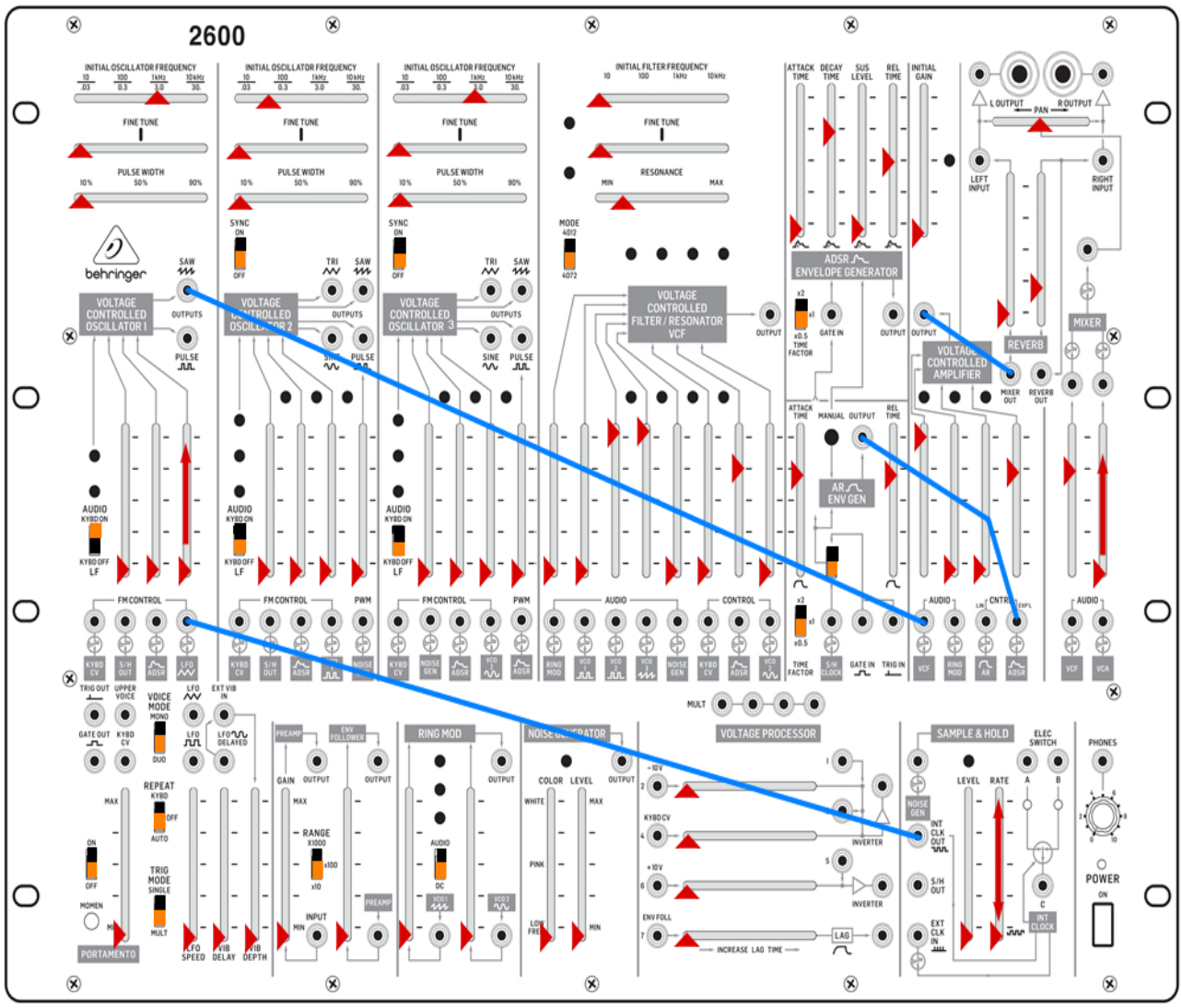
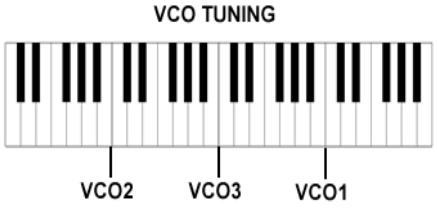


Stereo Bass and Delayed Violin

1. Tune VCO3 to middle C
   Tune VCO2 to an octave below middle C
   Tune VCO1 to an octave above middle C
2. Raise in to VCO1 and adjust S/H rate for vibrato speed
3. Raise VCA in to mixer for violin presence



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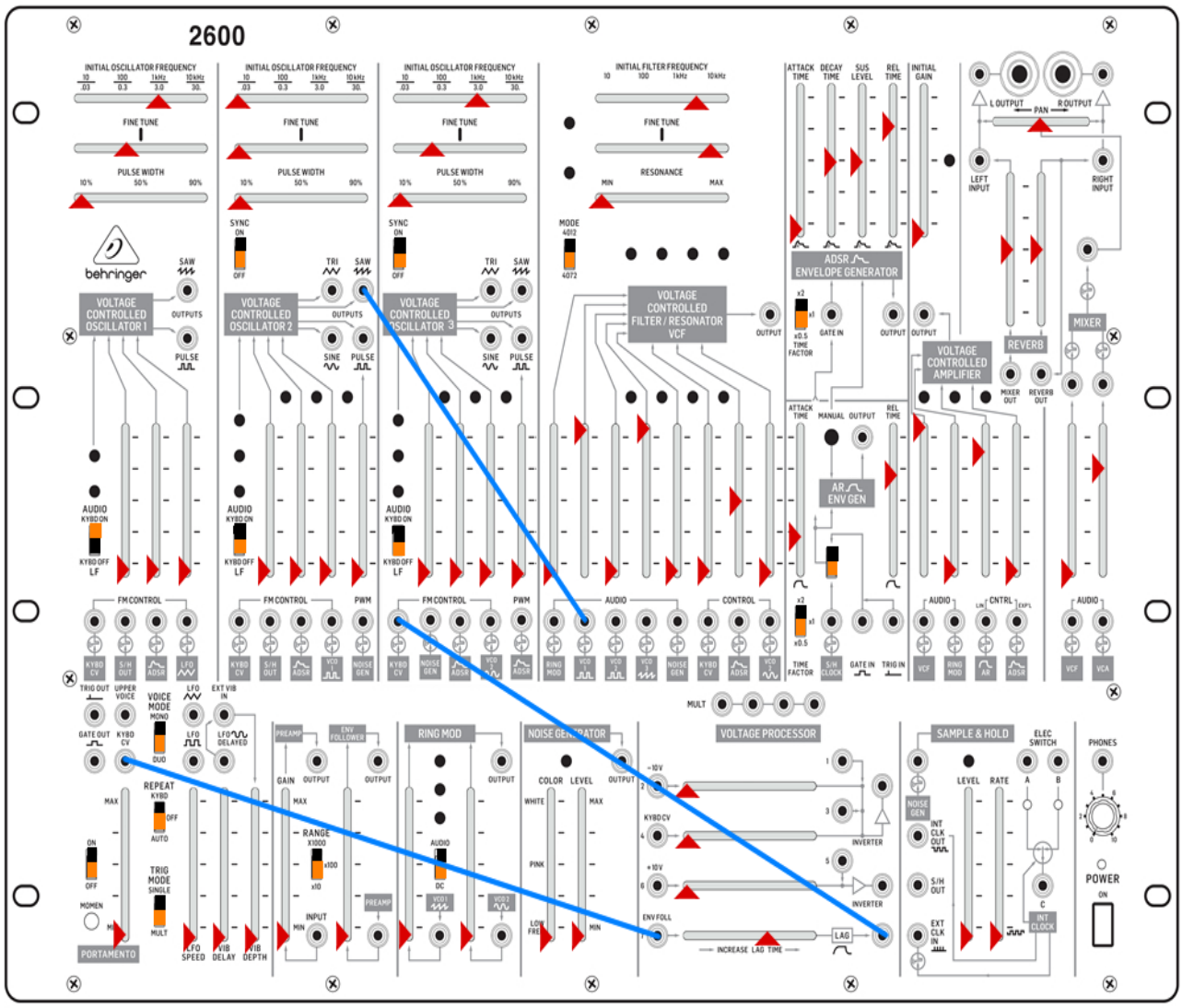


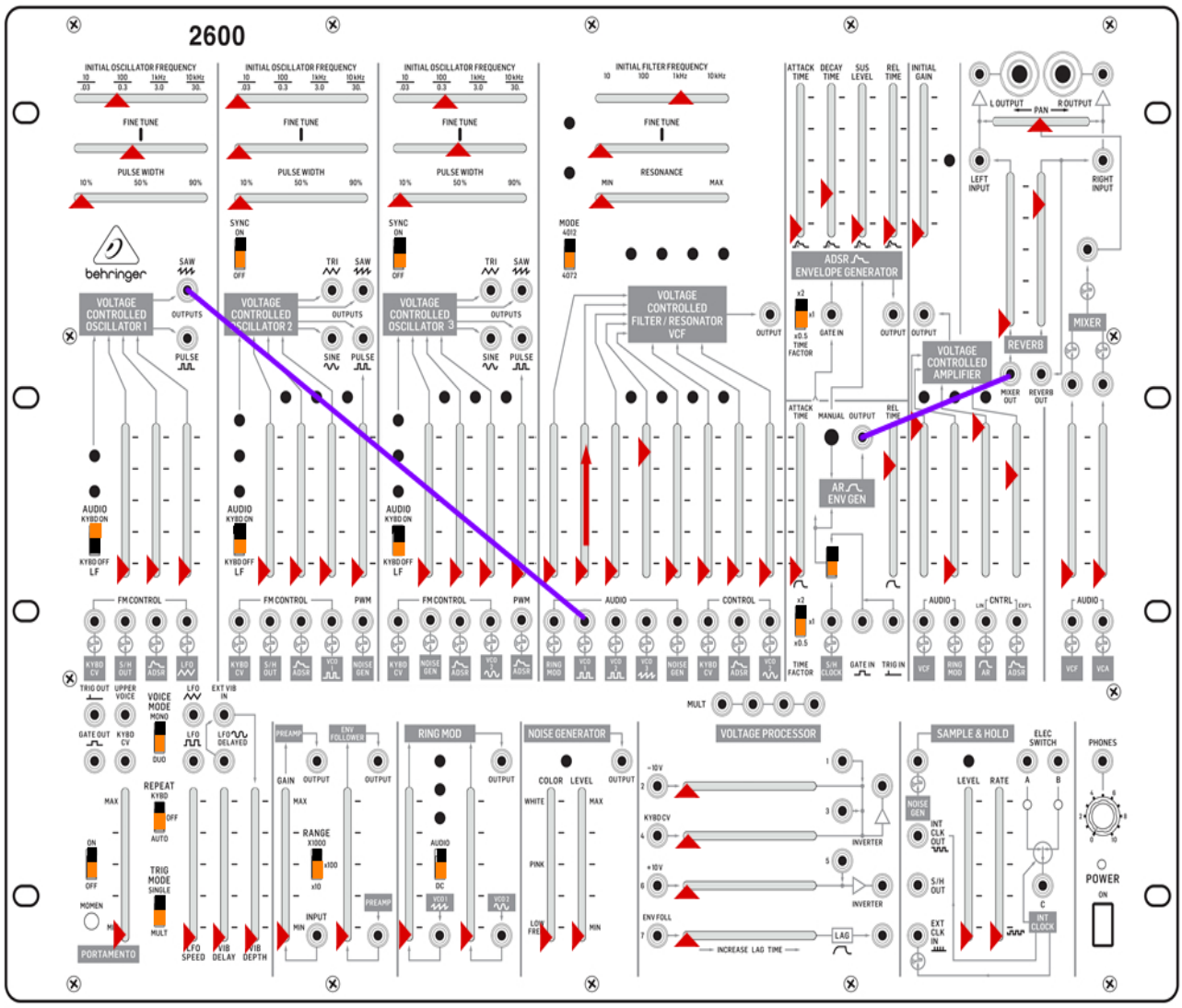
Oriental String Duo

1. Tune VCO1 and VCO3 to an octave above middle C
2. Adjust Lag for desired keyboard delay

VCO TUNING

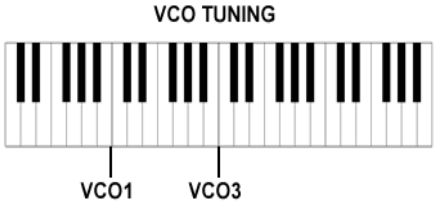
VCO1+3

Behringer 2600



Pianoforte

1. Tune VCO3 to middle C
   Tune VCO1 to an octave below middle C
2. Raise VCO1 in to VCF for depth
3. Adjust VCF frequency for brightness



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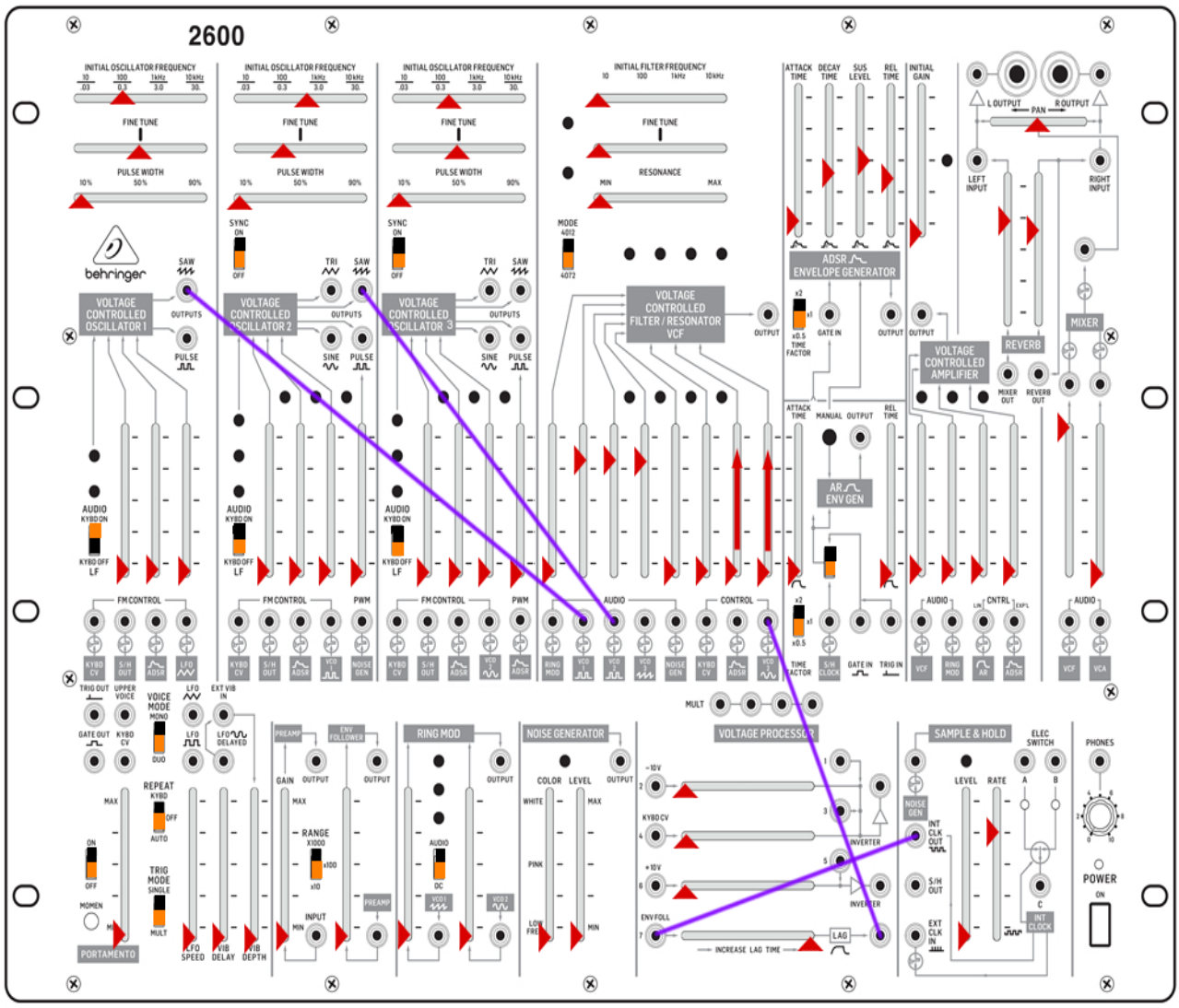
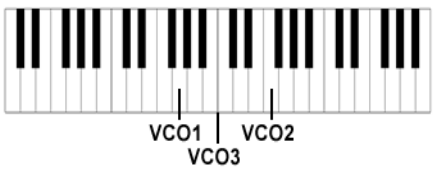


Big Band Brass

1. Tune VCO3 to middle C
   Tune VCO2 to a fourth above middle C (to F)
   Tune VCO1 to a fourth below middle C (to G)
2. Raise ADSR in to VCF for brightness
3. Raise in to VCF and adjust S/H rate for tremelo speed

VCO TUNING



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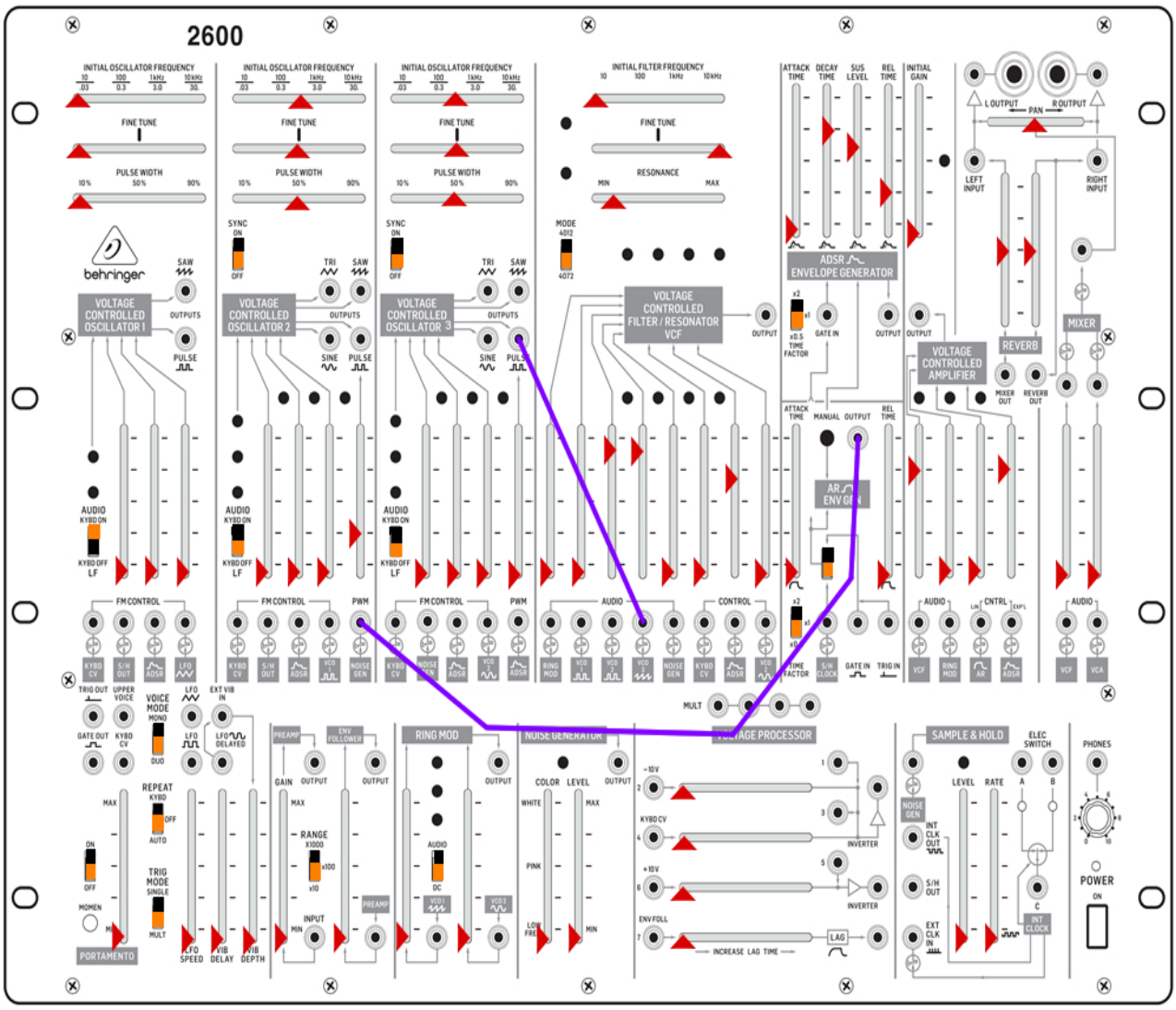
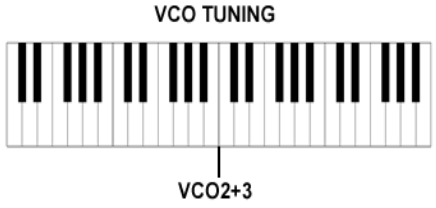


Electronic Piano

1. Tune VCO2 and VCO3 to middle C
   Pulse widths must be 50%



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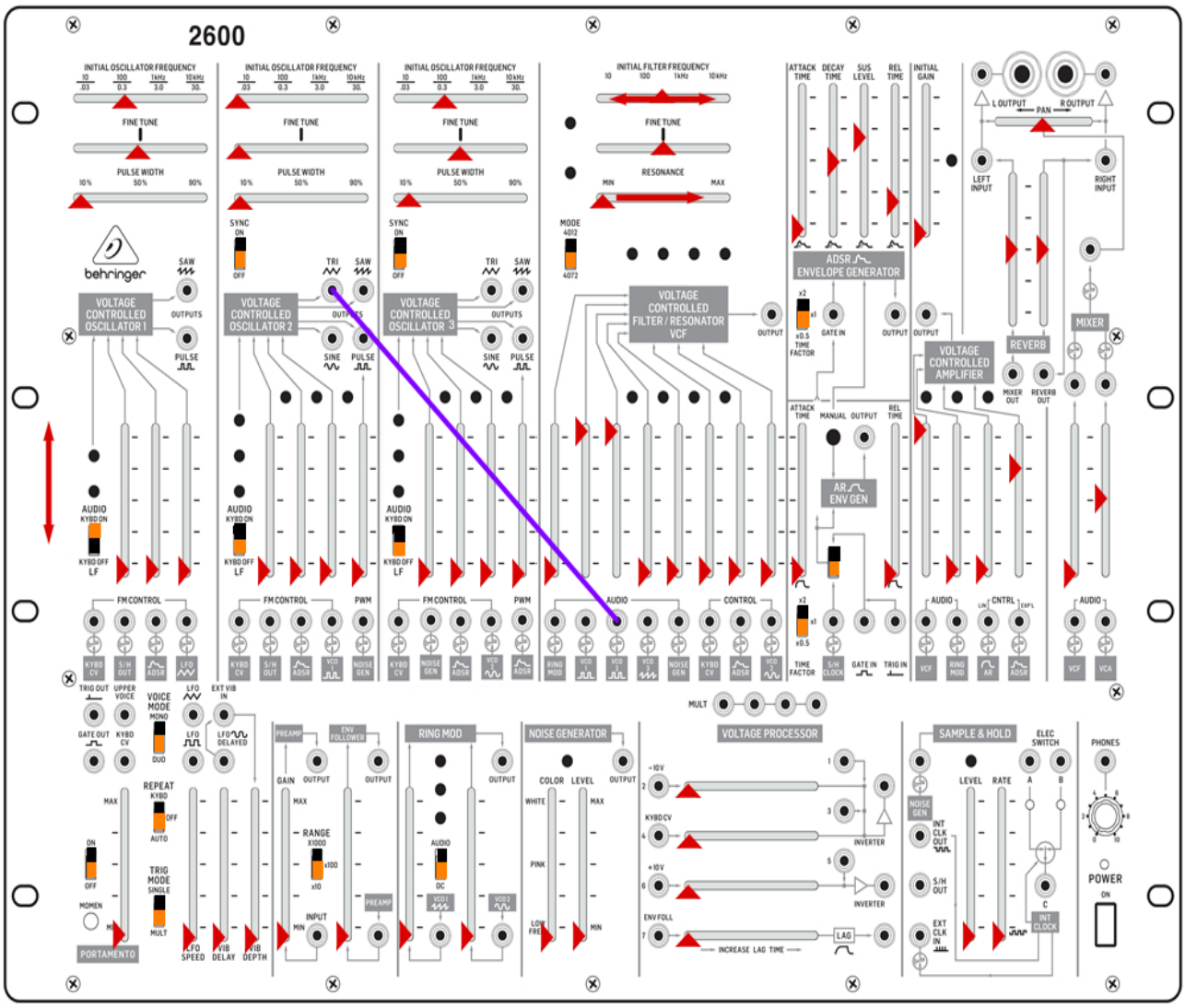
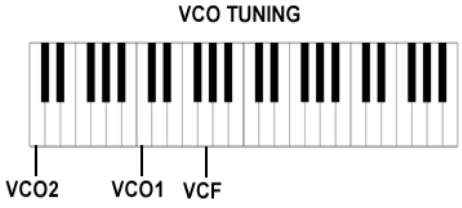


Zombie Organ

1. Open VCF and tune VCO1 to 1 octave below middle C, tune VCO2 to two octaves below middle C
2. Open resonance and tune VCF to a fifth above VCO1



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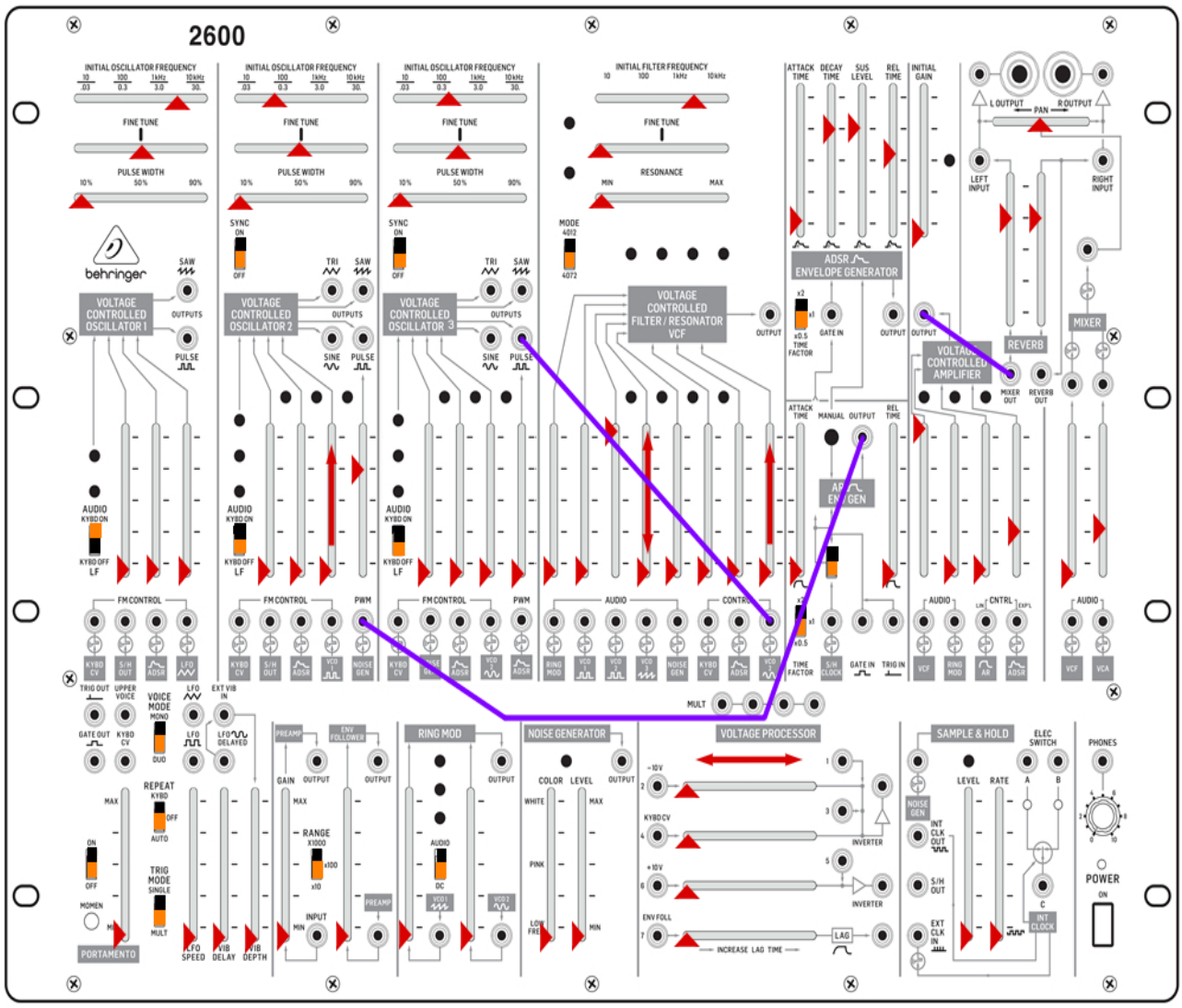
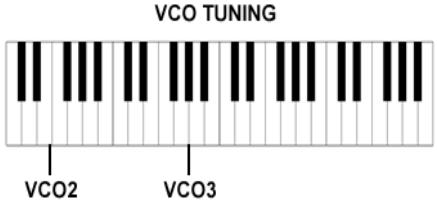


Glitter Guitar

1. Tune VCO2 as shown
2. Raise VCO3 in to VCF tune VCO3 to an octave and a major 3rd above VCO2
3. Close VCO3 at VCF and raise in to VCF control as shown
4. Raise VCO1 in to VCO2 and adjust VCO1 frequency for vibrato control
5. Bring VCO1 in and out of VCO2 for vibrato during performance



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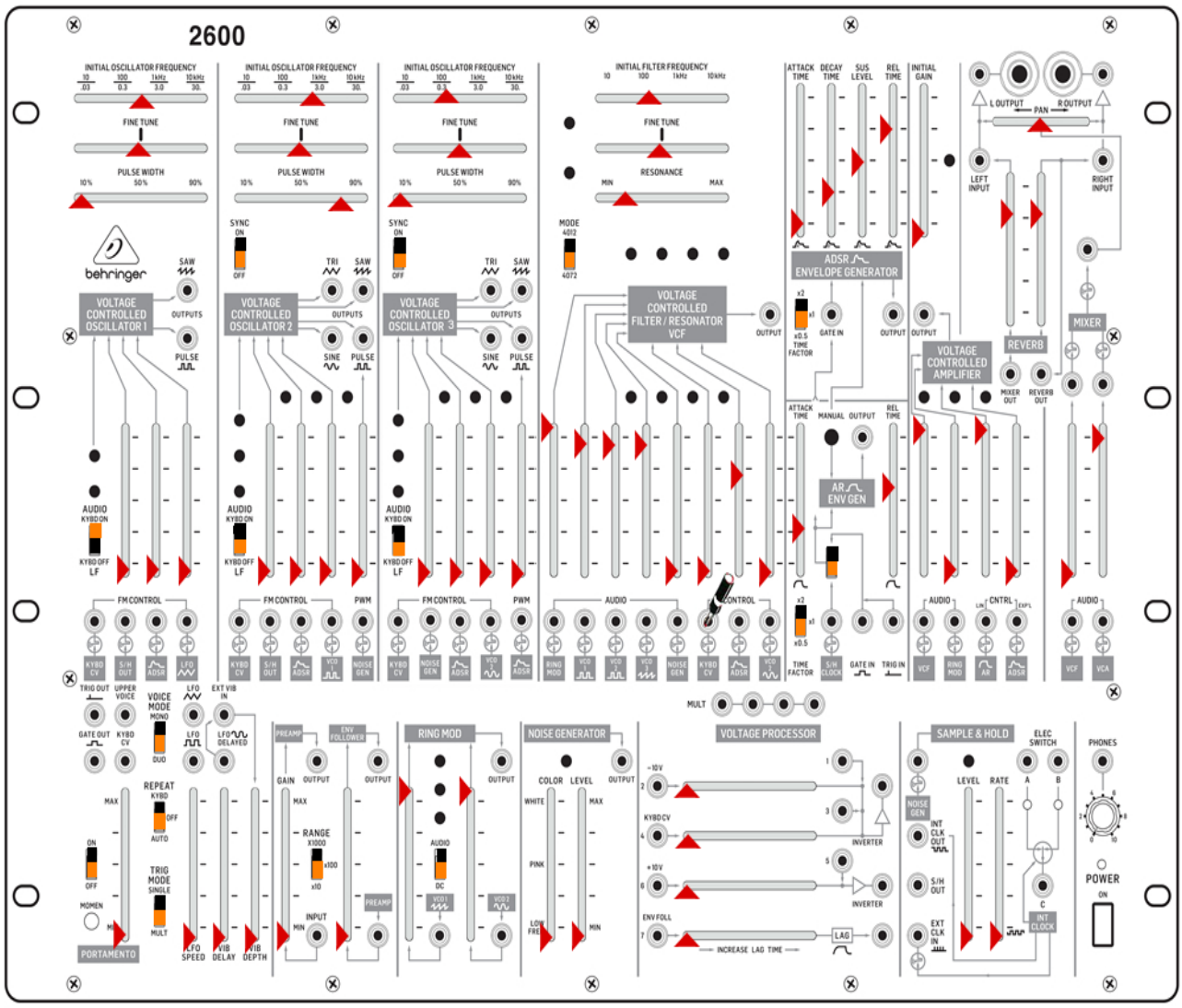
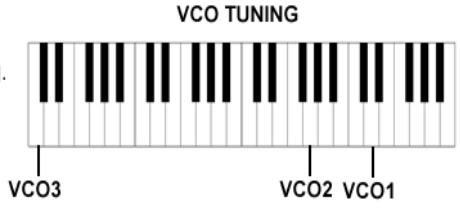


Marimba Chords and Lead

Follow tuning instructions detailedin the introduction, lead lines are to be playedon the top keys and minor chords can heard on the bottom keys

Dummy plug.



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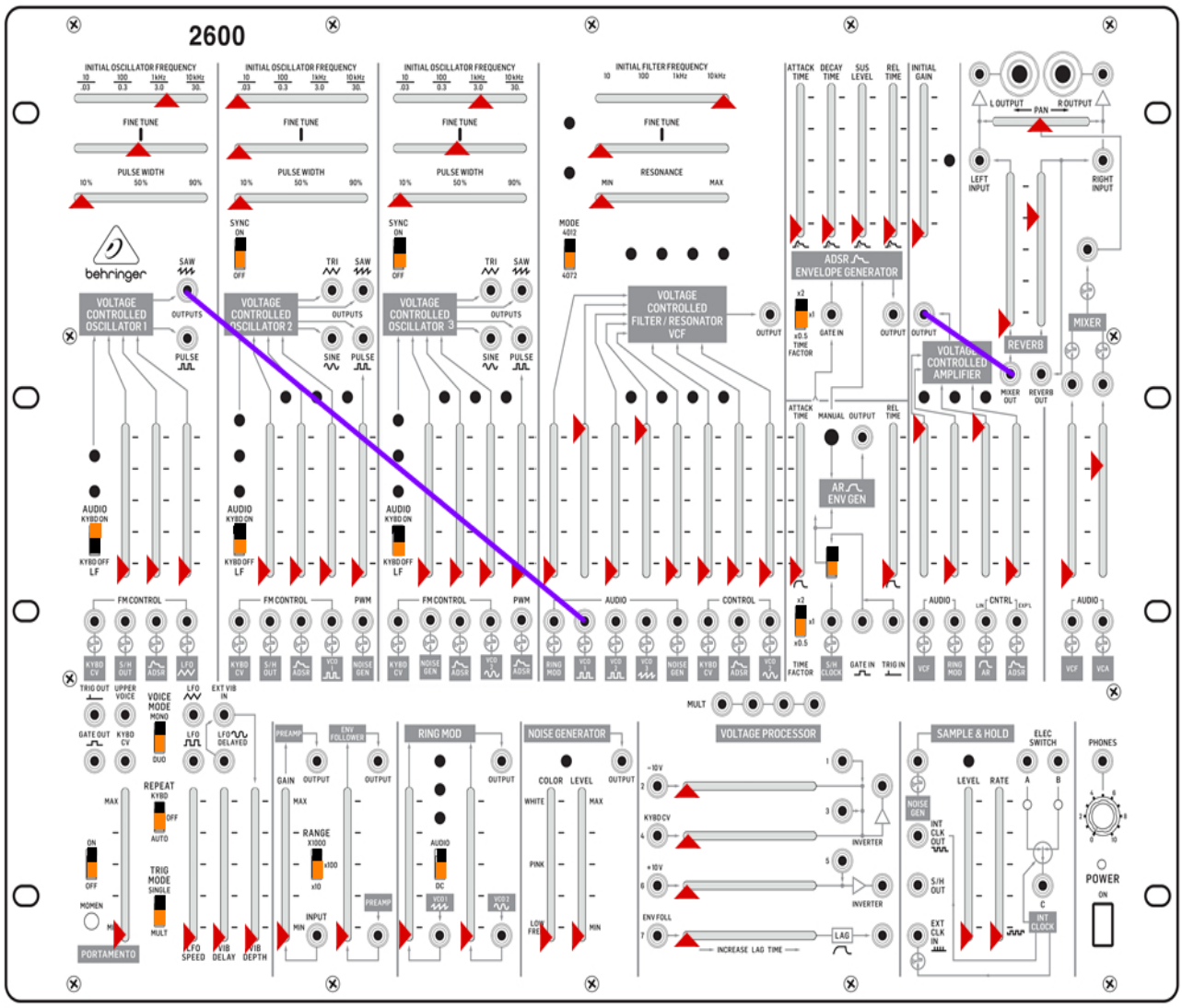
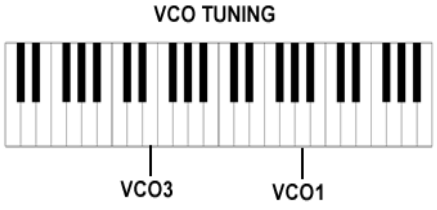


Hand Bells

1. Tune VCO3 as shown
2. Tune VCO1 to 1 octave and a fourth above VCO3
3. Play in short rapid burst



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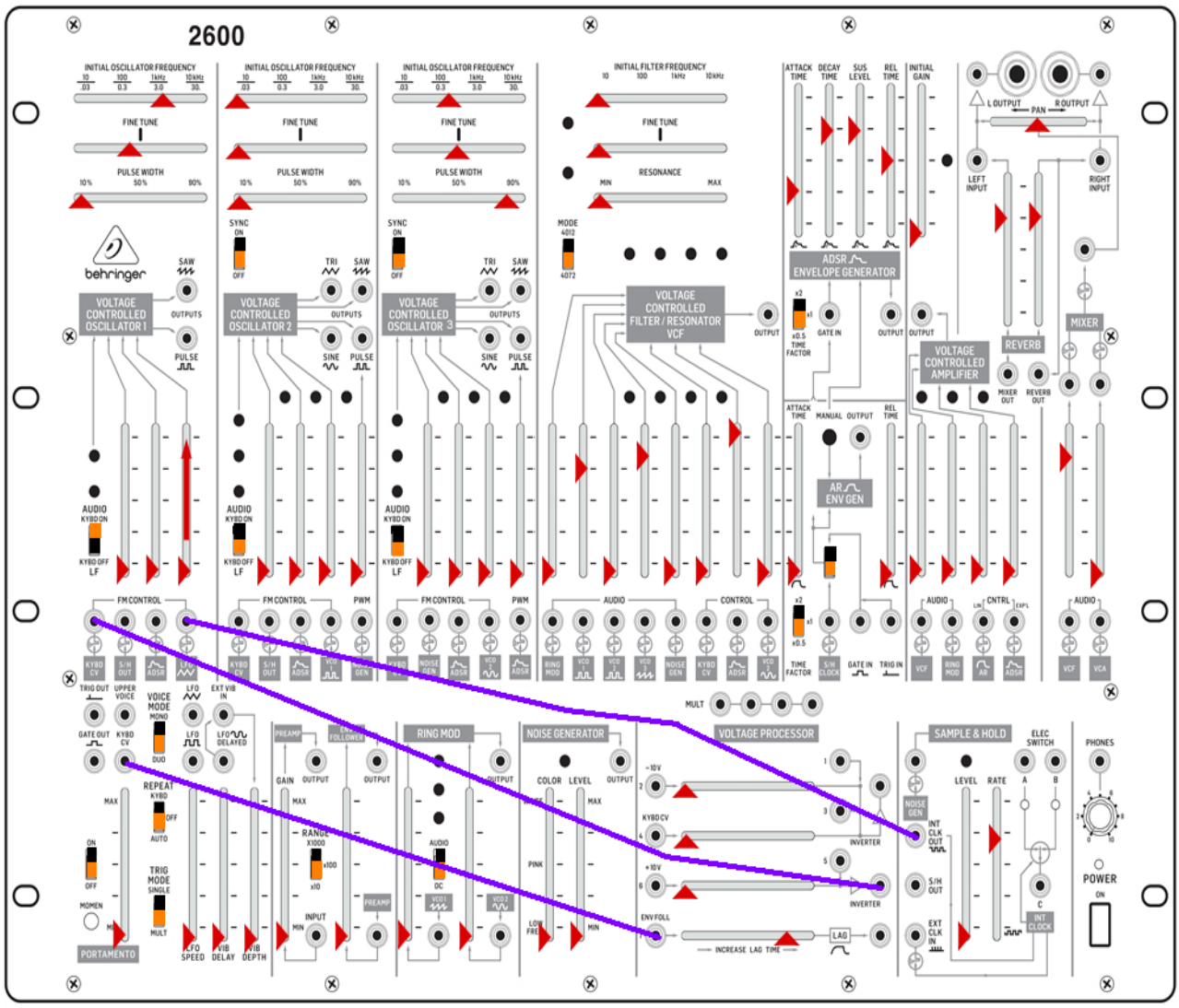
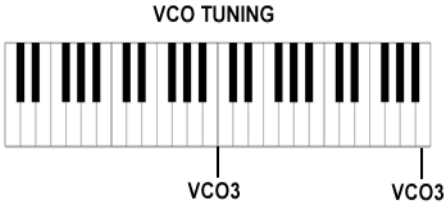


Pennywhistle and Trumpet

1. Tune VCO3 to middle C
   VCO1 to 2 octaves above middle C
2. Raise in to VCO1 and adjust S/H for vibrato speed
3. NOTE: Whistle will have vibrato and glide; Trumpet is straight



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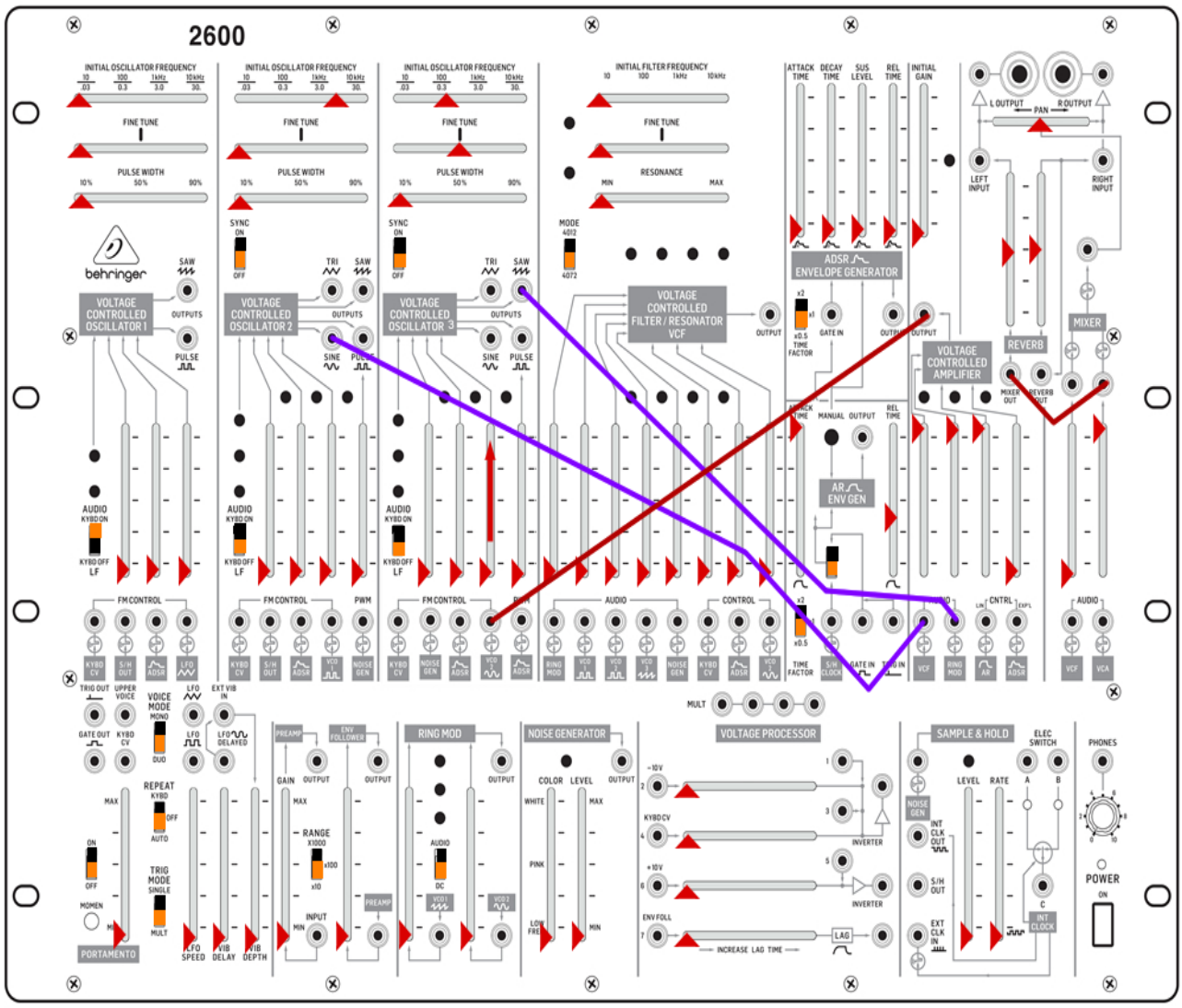
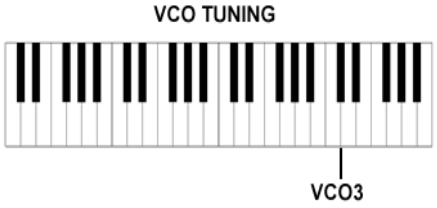


Violin with Delayed Vibrato

1. Tune VCO3 to an octave above middle C
2. Raise VCO2 in to VCO3 and adjust VCO2 frequency for vibrato speed

NOTE: Play legato for vibrato, staccato for no vibrato



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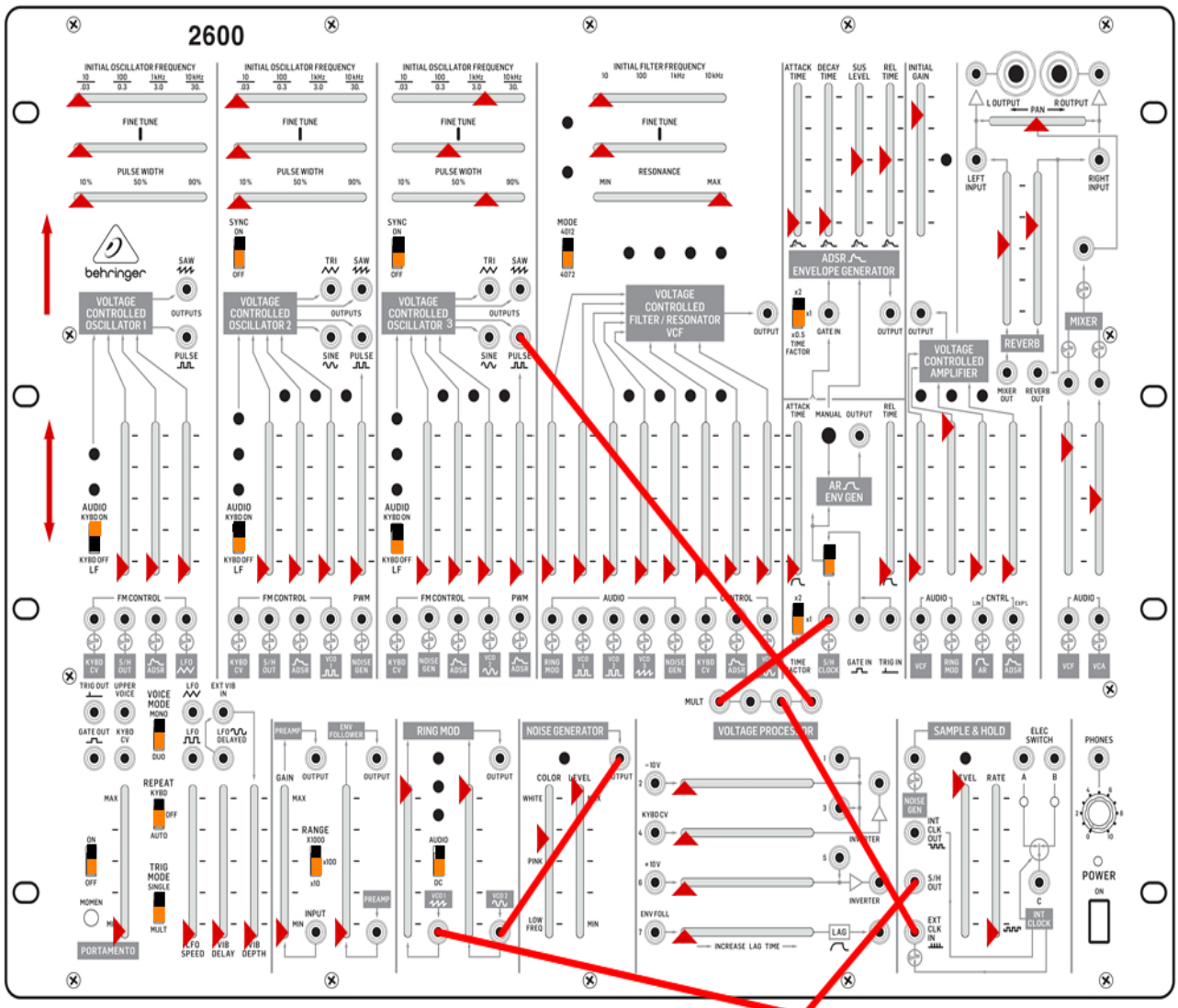
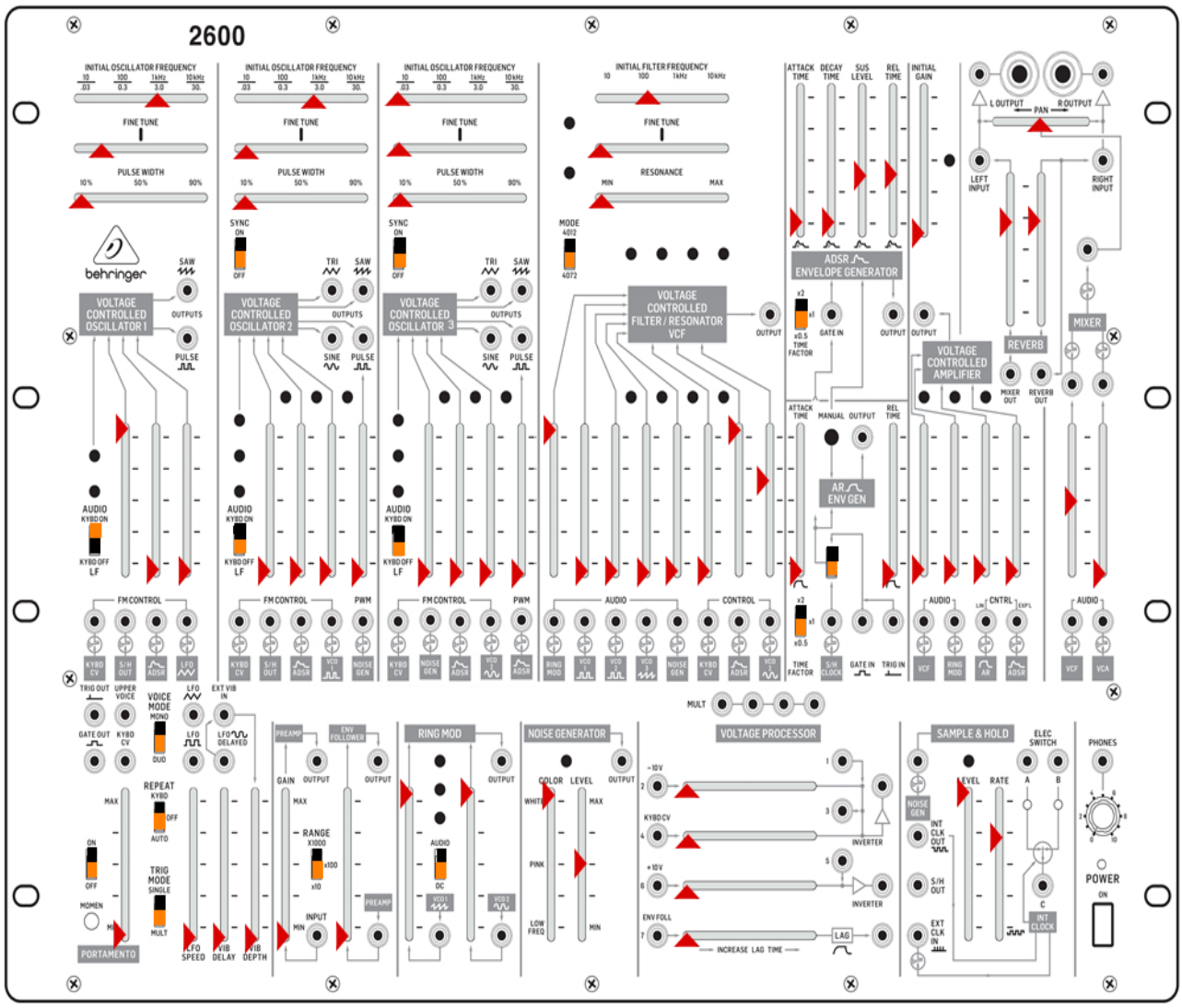


Swing Traps: High Hat and Bass Drum

Adjust: VCO3 frquency for tempo
ADSR in to VCF for Bass Drum timbre

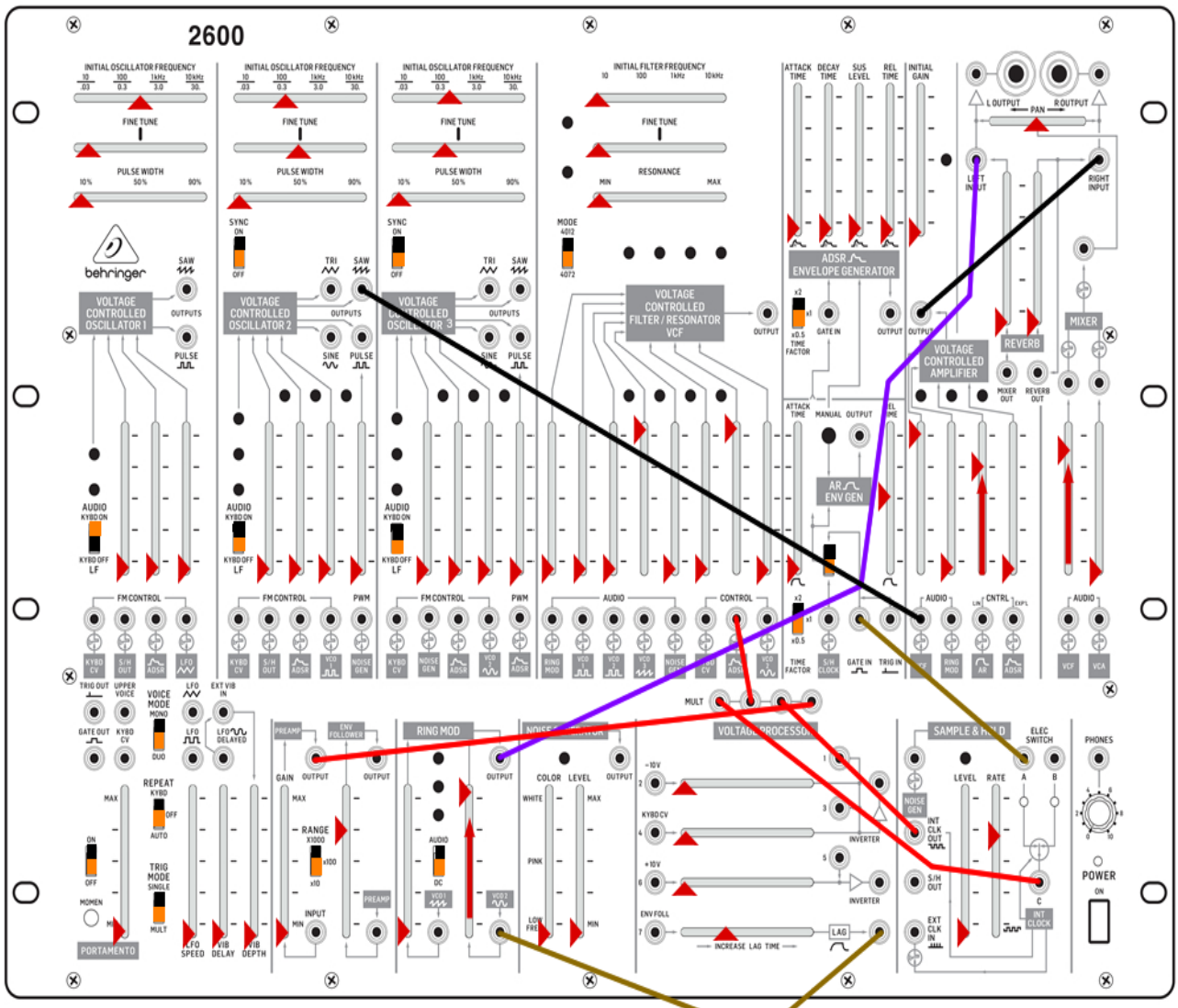
Behringer 2600



Metallic Thunks

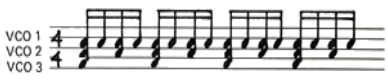
Tune VCO1 and VCO2 for different timbres

Behringer 2600



Triple Timings

1. Tune VCO's 1, 2, and 3 and desired
2. Three separate volume controls, raise at Ring Mod, AR at VCA and VCF at Mixer



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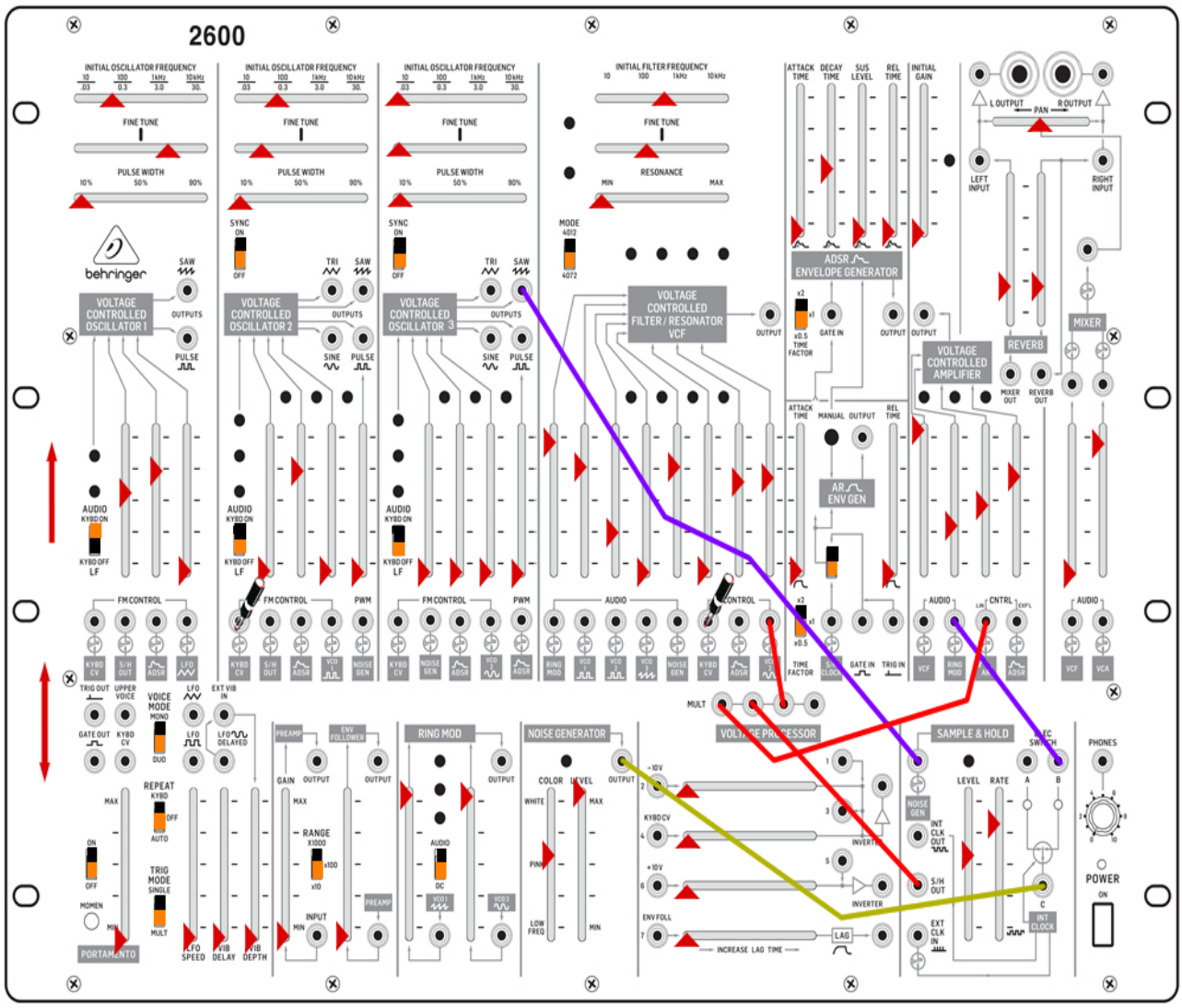
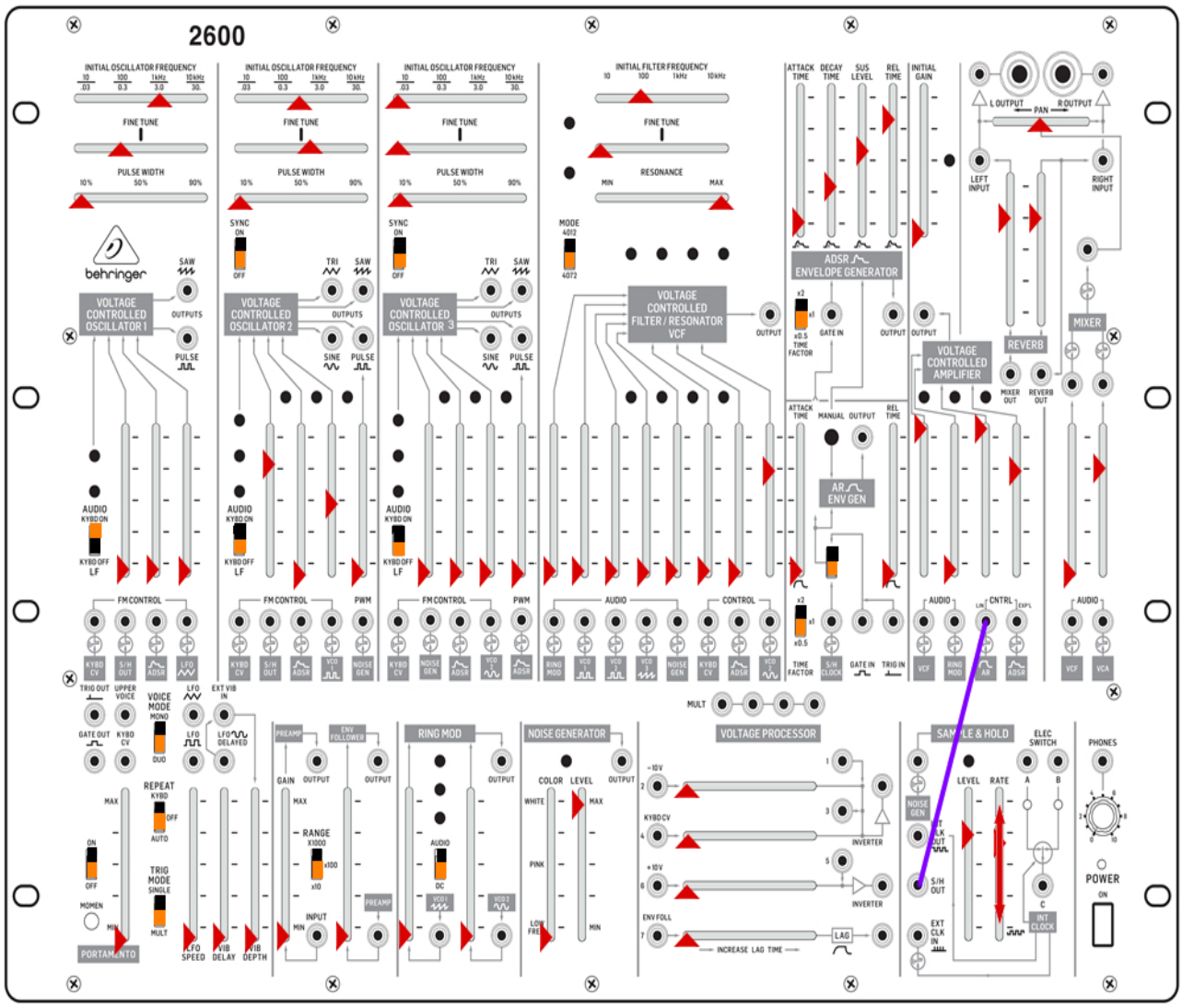


Tom and Hi-Hat Duet

Adjust S/H rate for tempo

Dummy plug.

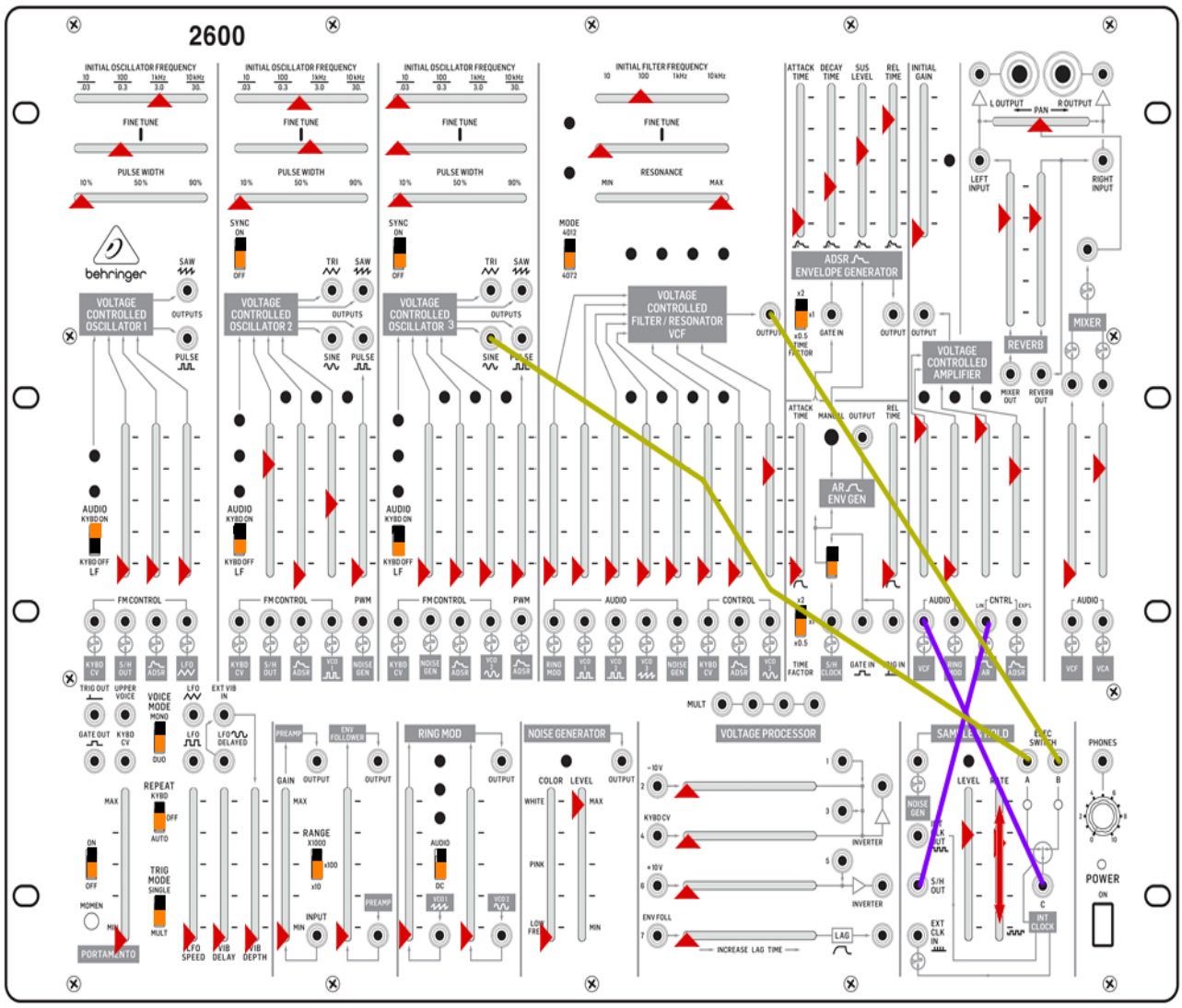
Behringer 2600



Steel Drum Corps

1. Adjust S/H rate for tempo
2. Play up and down the keyboard for different metallic effects

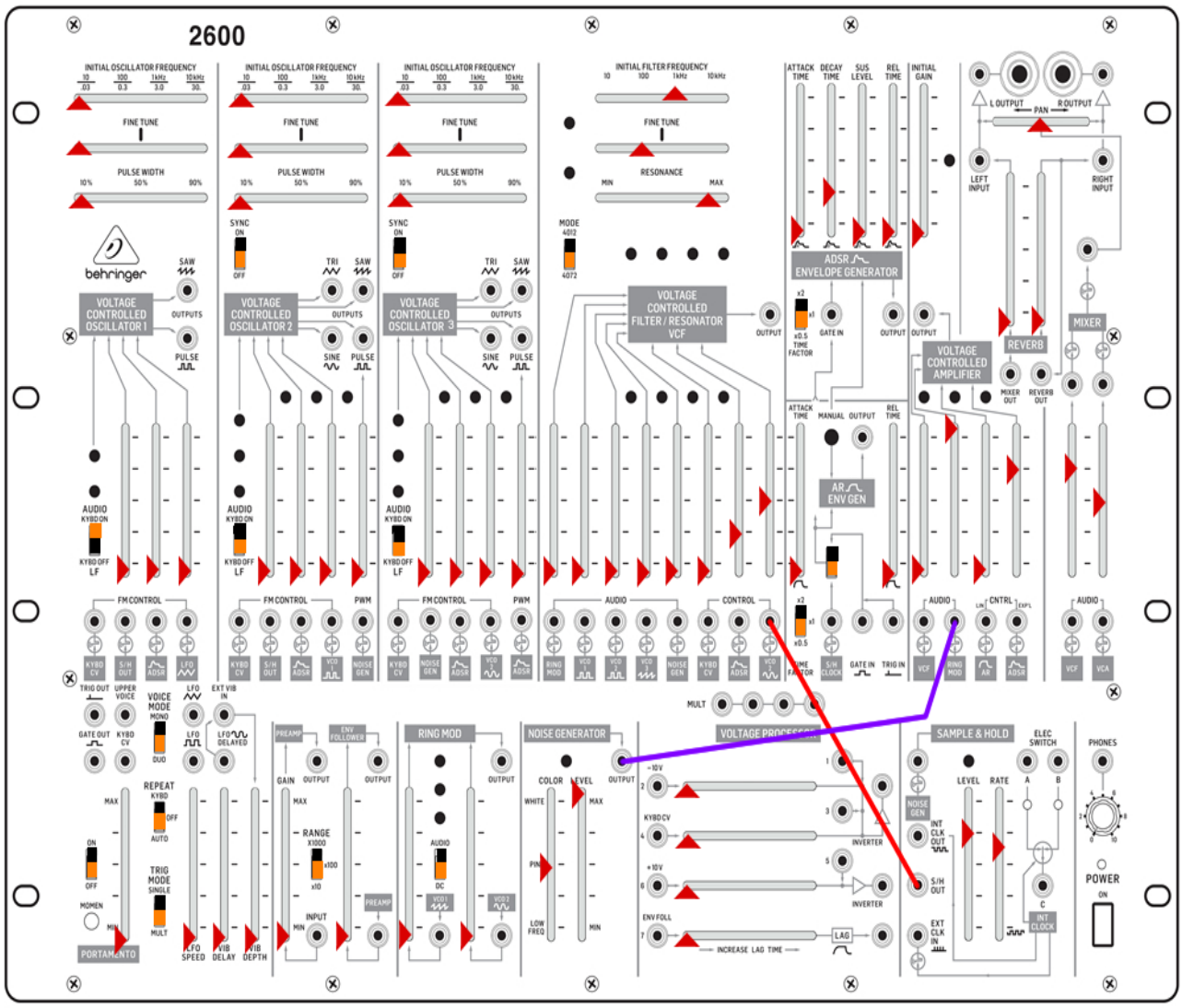
Behringer 2600



Advanced Steel Drum Corps

1. Adjust S/H rate for tempo
2. Play up and down the keyboard for different metallic effects

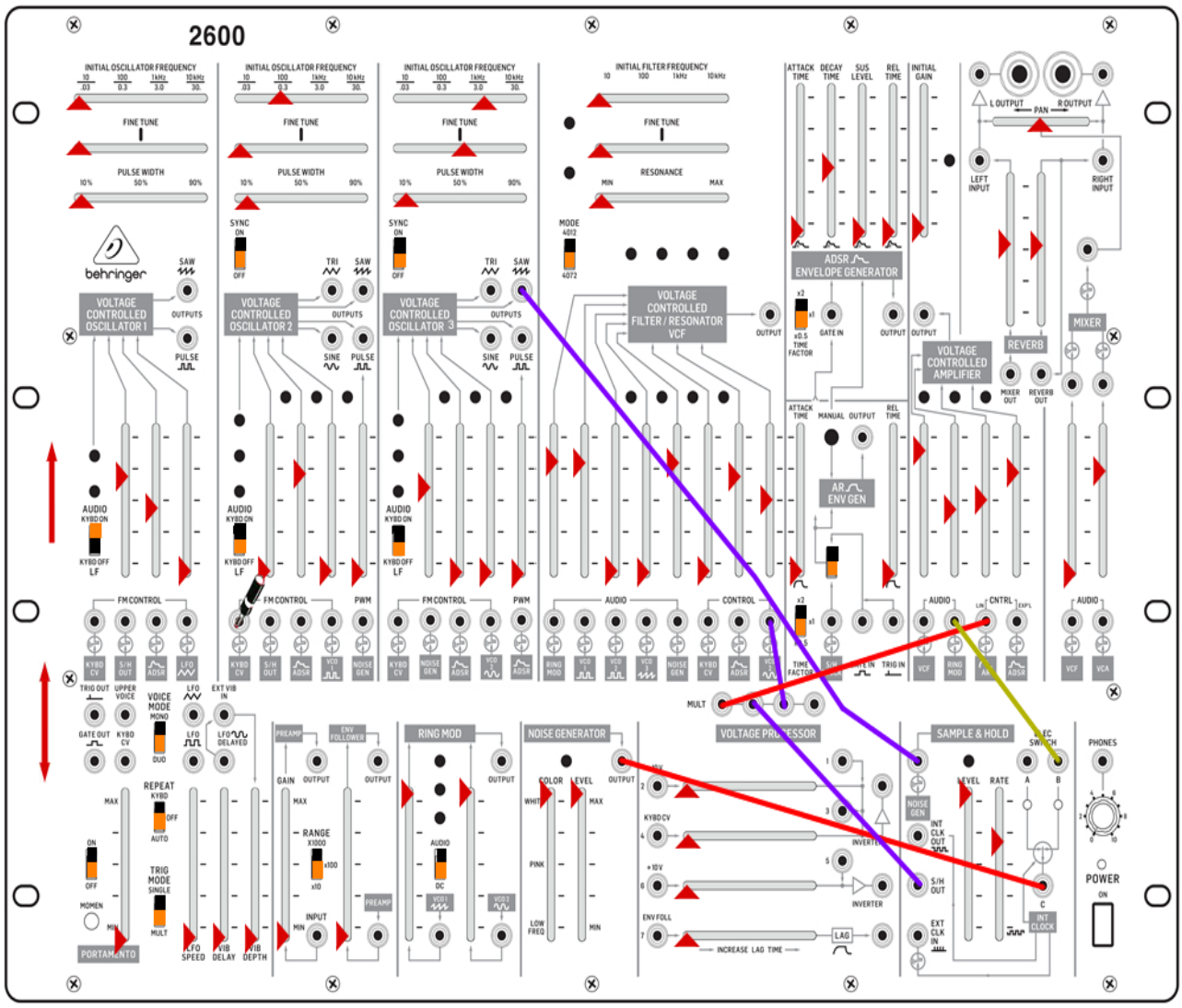
Behringer 2600



Random ARP Drum Solo

Adjsut S/H Rate for tempo

Behringer 2600

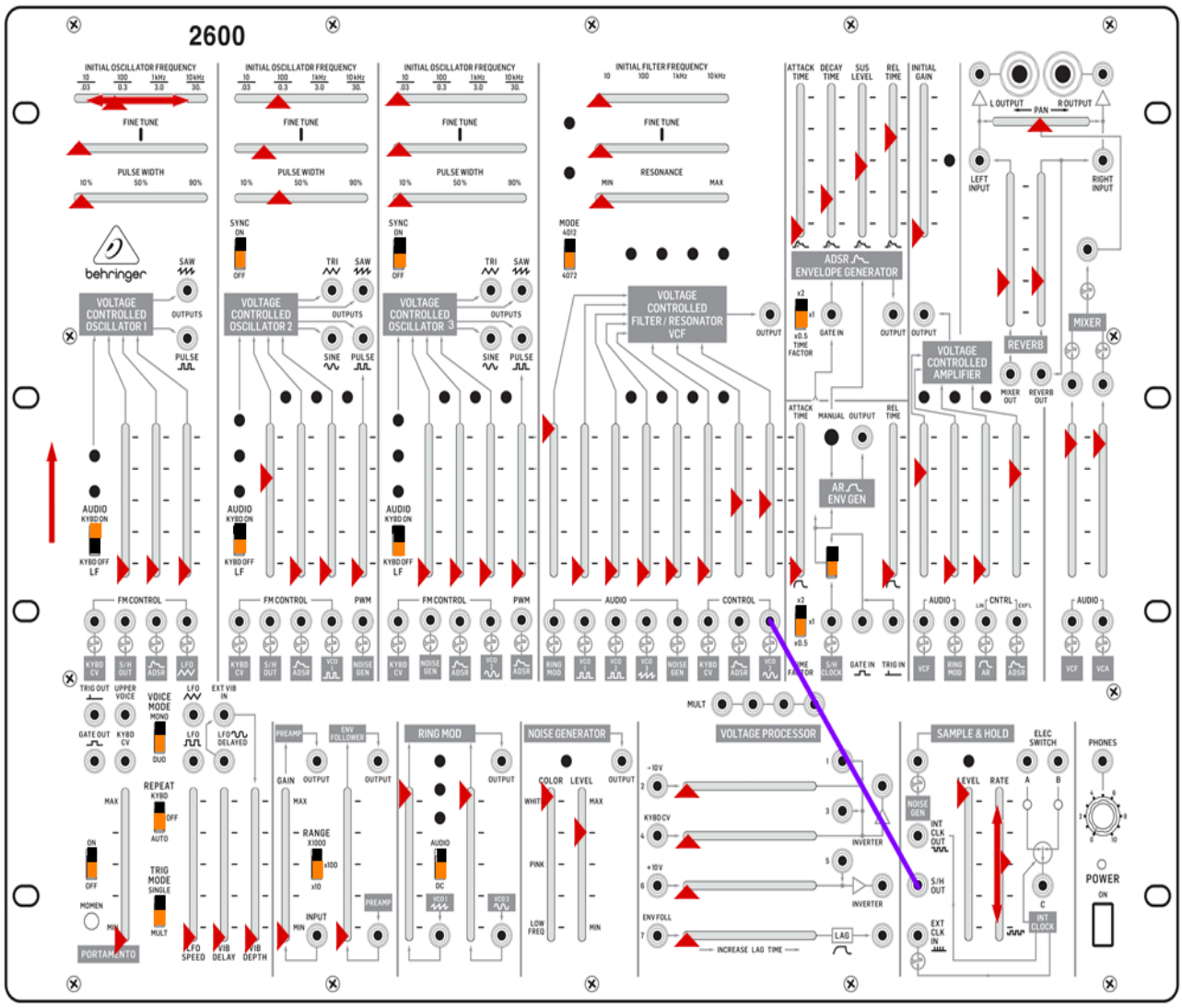


Back Beat: Bass Drum, Hi-Hat and Tom

1. Hit Key C1 for proper range
2. Adjust VCO3 fruquency for different patterns
3. Adjsut S/H rate for tempo

Dummy plug.

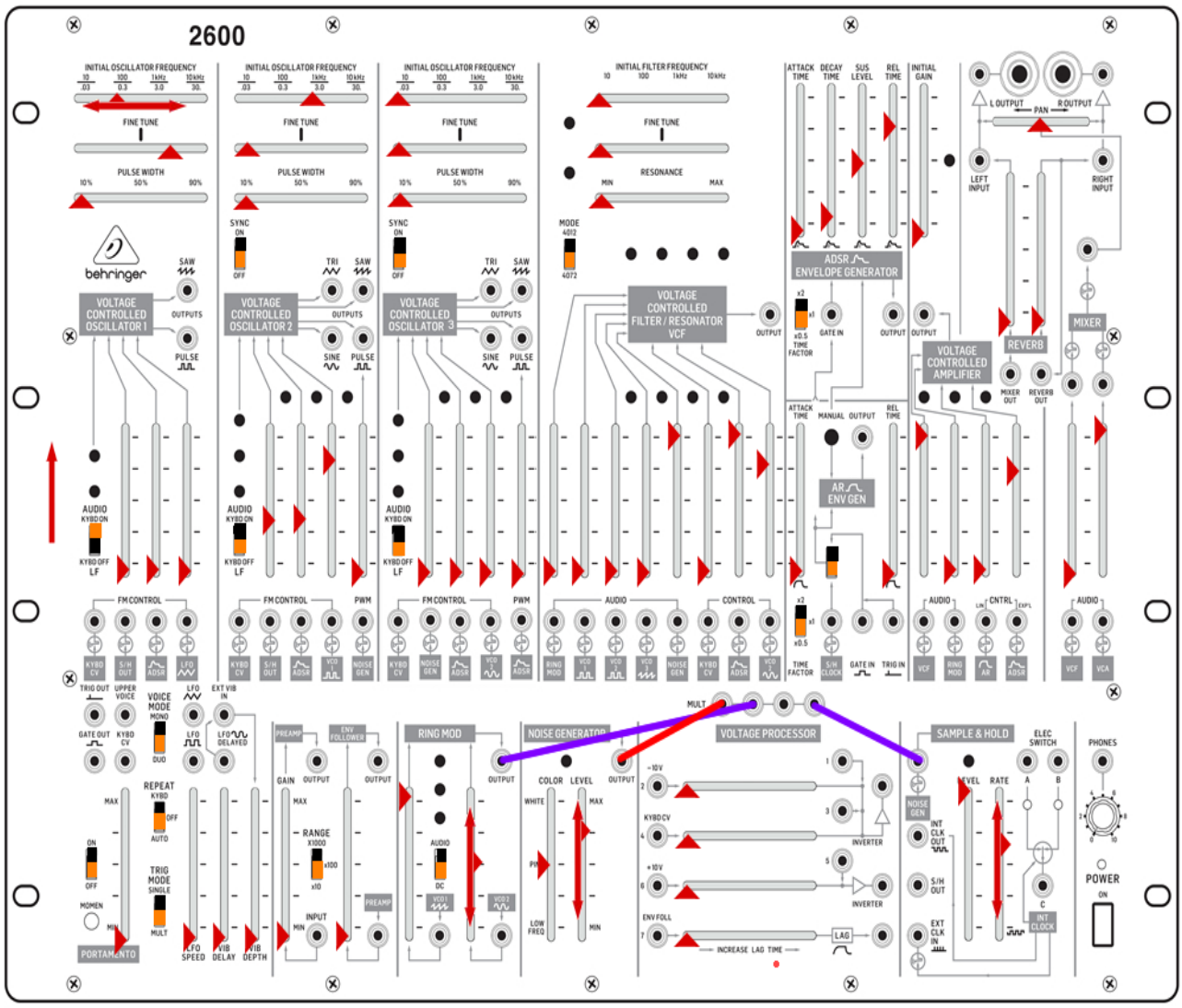
Behringer 2600



Cookin' Conga

1. Adjust VCO1 frequency for pitch, S/H rate for tempo
2. PLAY KEY C2

Behringer 2600

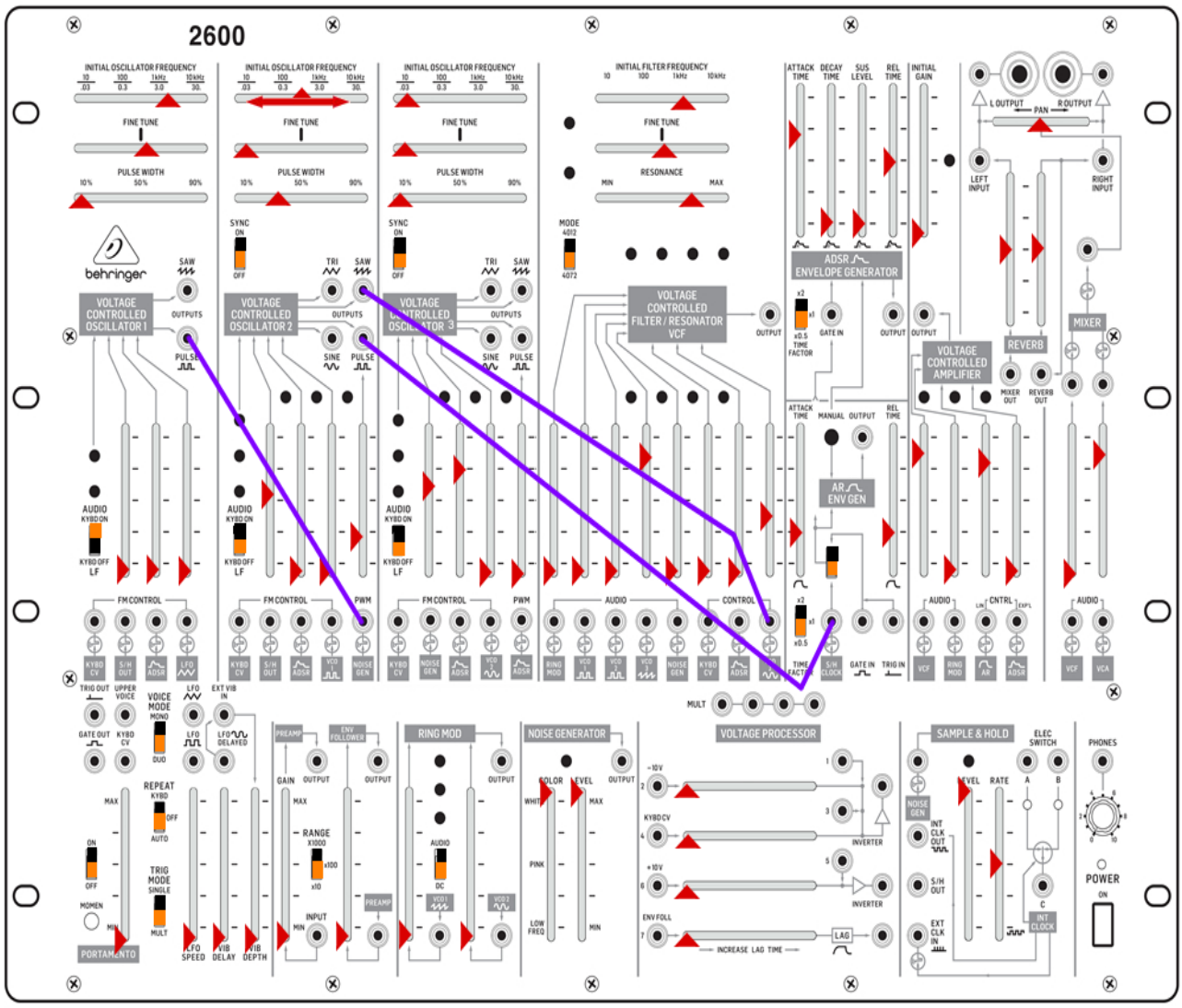


Conga and Snare Duet

1. Adjust VCO1 frequency for solo length
2. Adjust VCO2 at Ring Mod for Conga volume
3. Adjust Noise Max/Min slider for snare volume
4. Adjust S/H rate for tempo

PLAY KEY C1

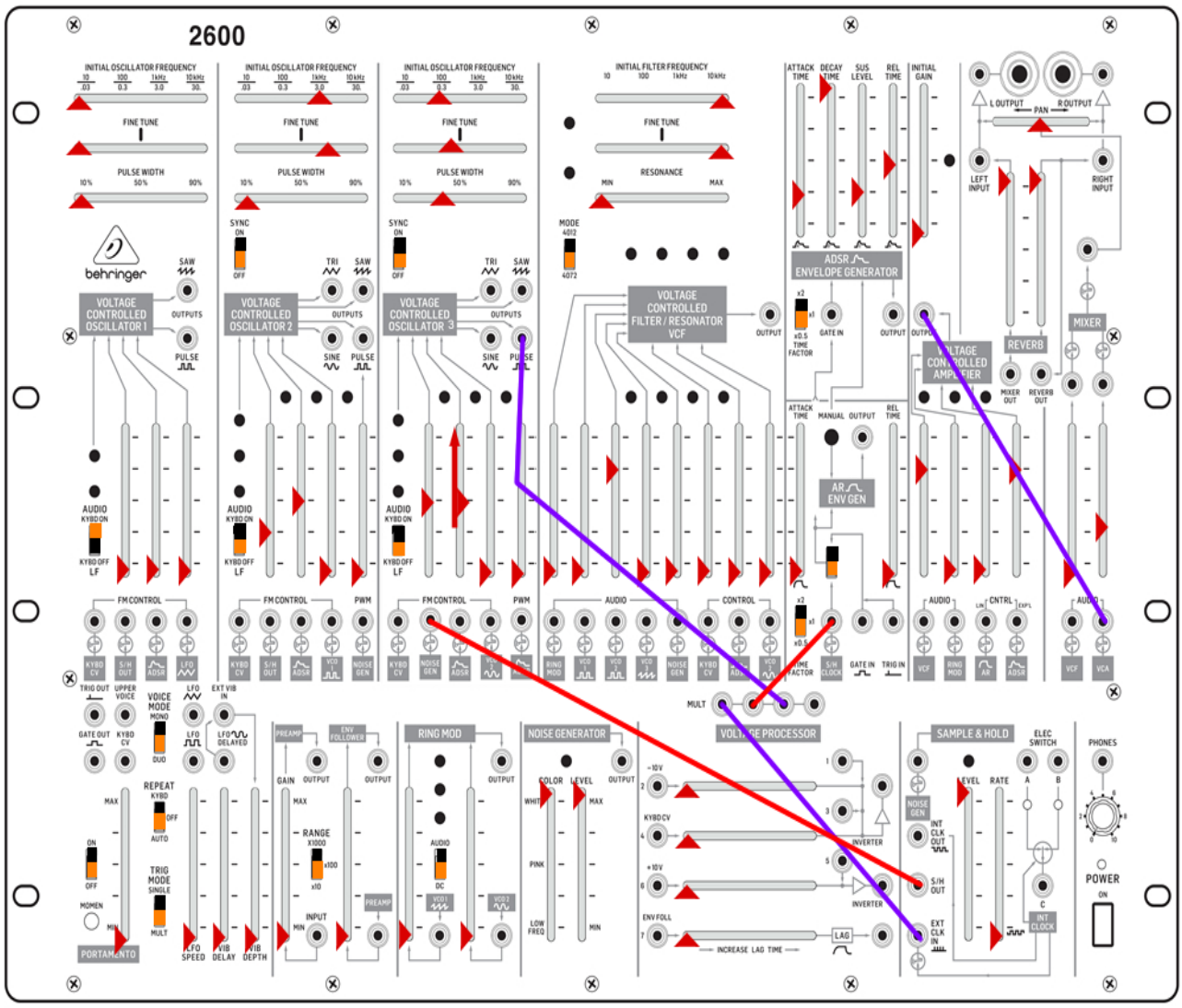
Behringer 2600



Frog Bog

Adjust VCO2 frquency for different croak speeds

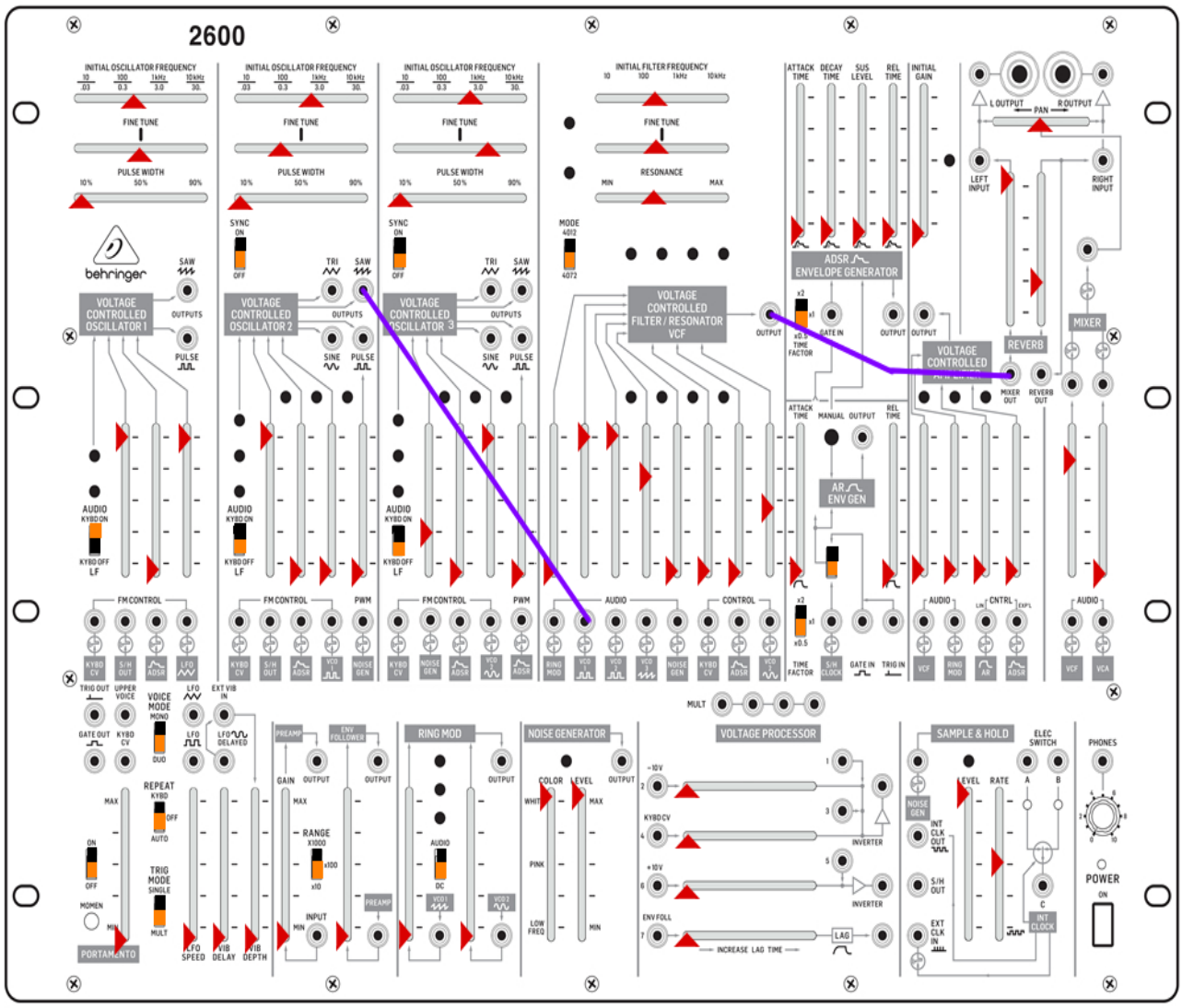
Behringer 2600



Johnathan Synthesized Seagull

Note: VCO3 pulse width determins final decay time.
Raising ADSR in to VCO3 induces a state of confusion
in seagulls. Use any note on keyboard for 'tuning' of birds.

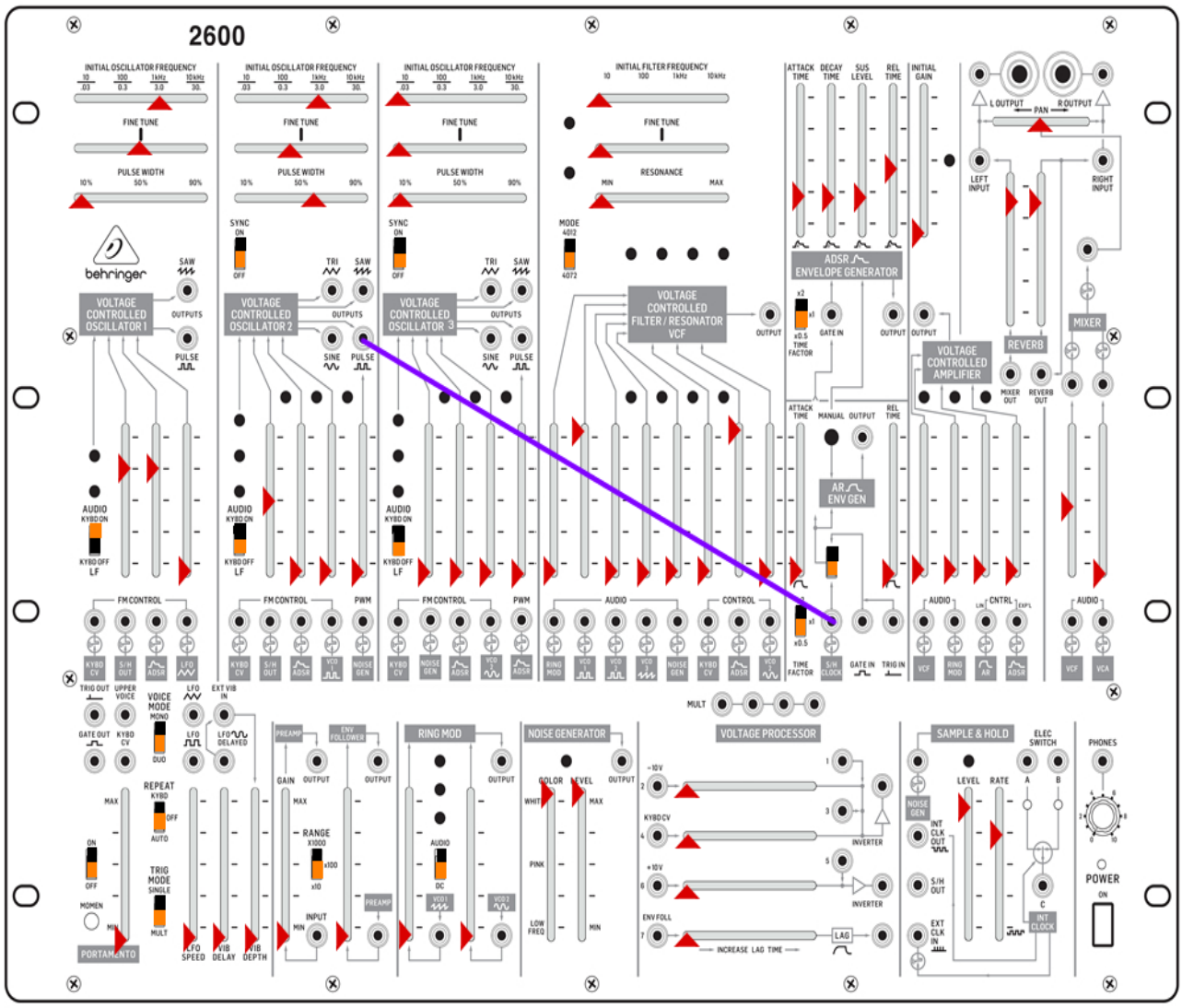
Behringer 2600



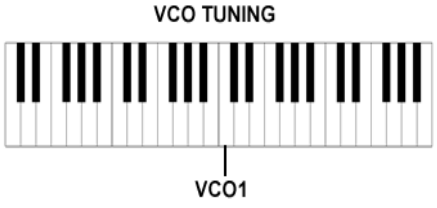
Primeval Forest

Change the pitch of the patch by moving up and down the keyboard,
fiddle with the filter settings

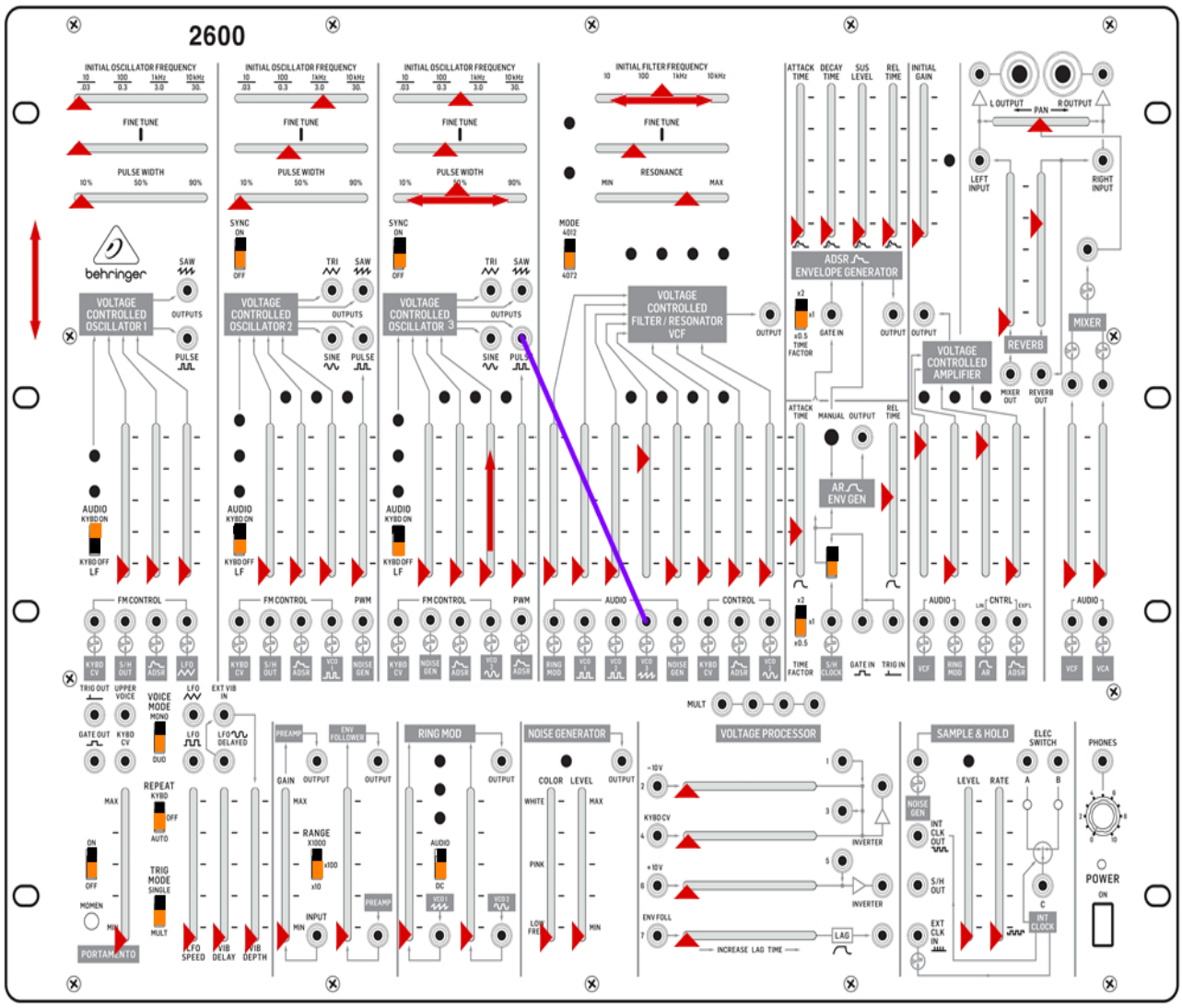
Behringer 2600



Arboretum



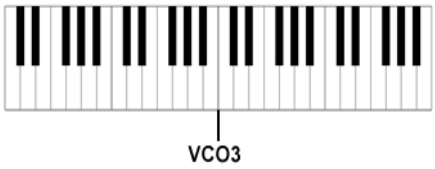
Behringer 2600



Soprano

1. Tune VCO3 to middle C
2. Raise VCO2 in to VCO 3 and adjust VCO2 frequency for tremelo speeds
3. Adjust VCO3 pulse width and VCF frquency for desired timbre

VCO TUNING TOP TWO OCTAVES



VCO3

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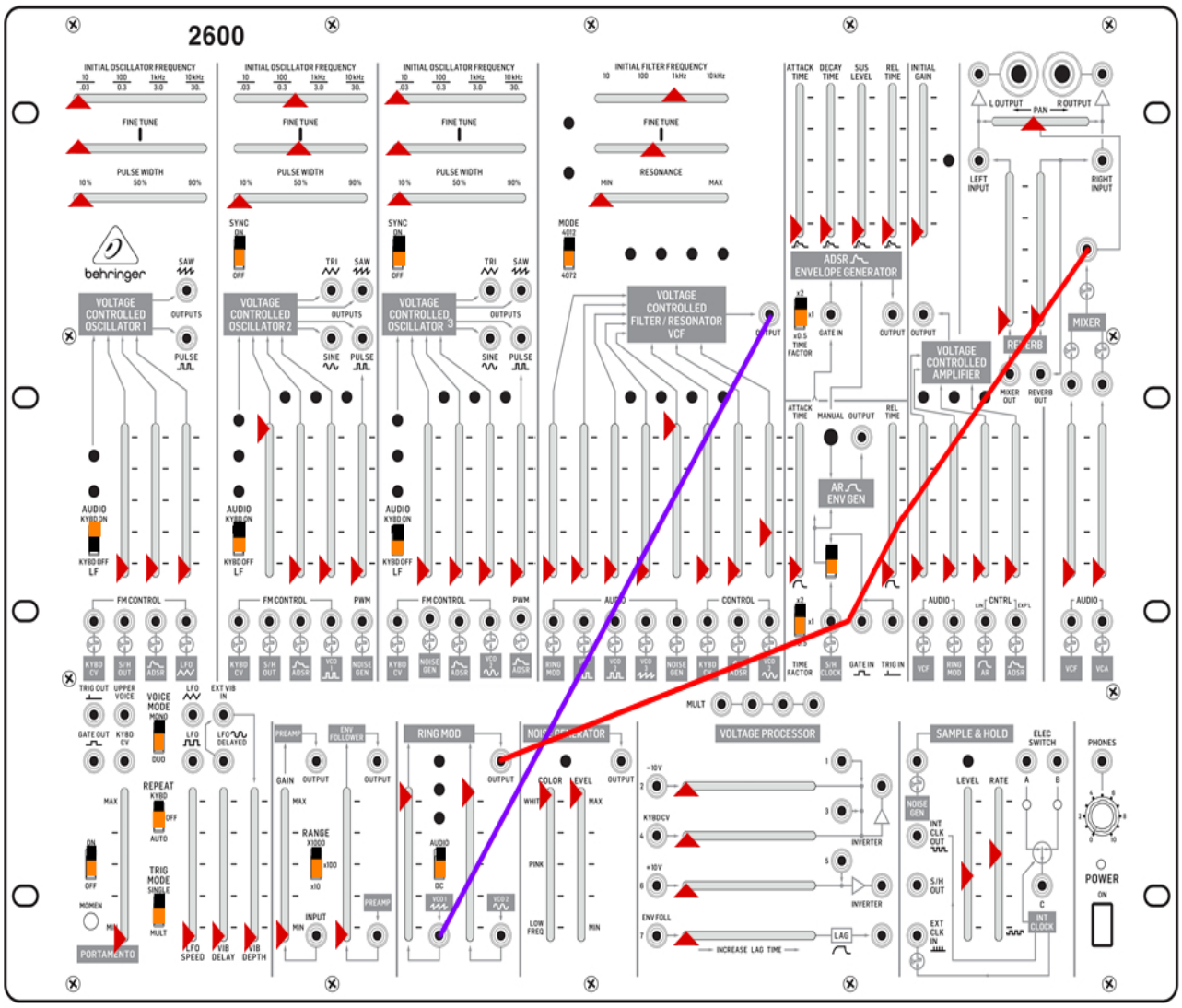
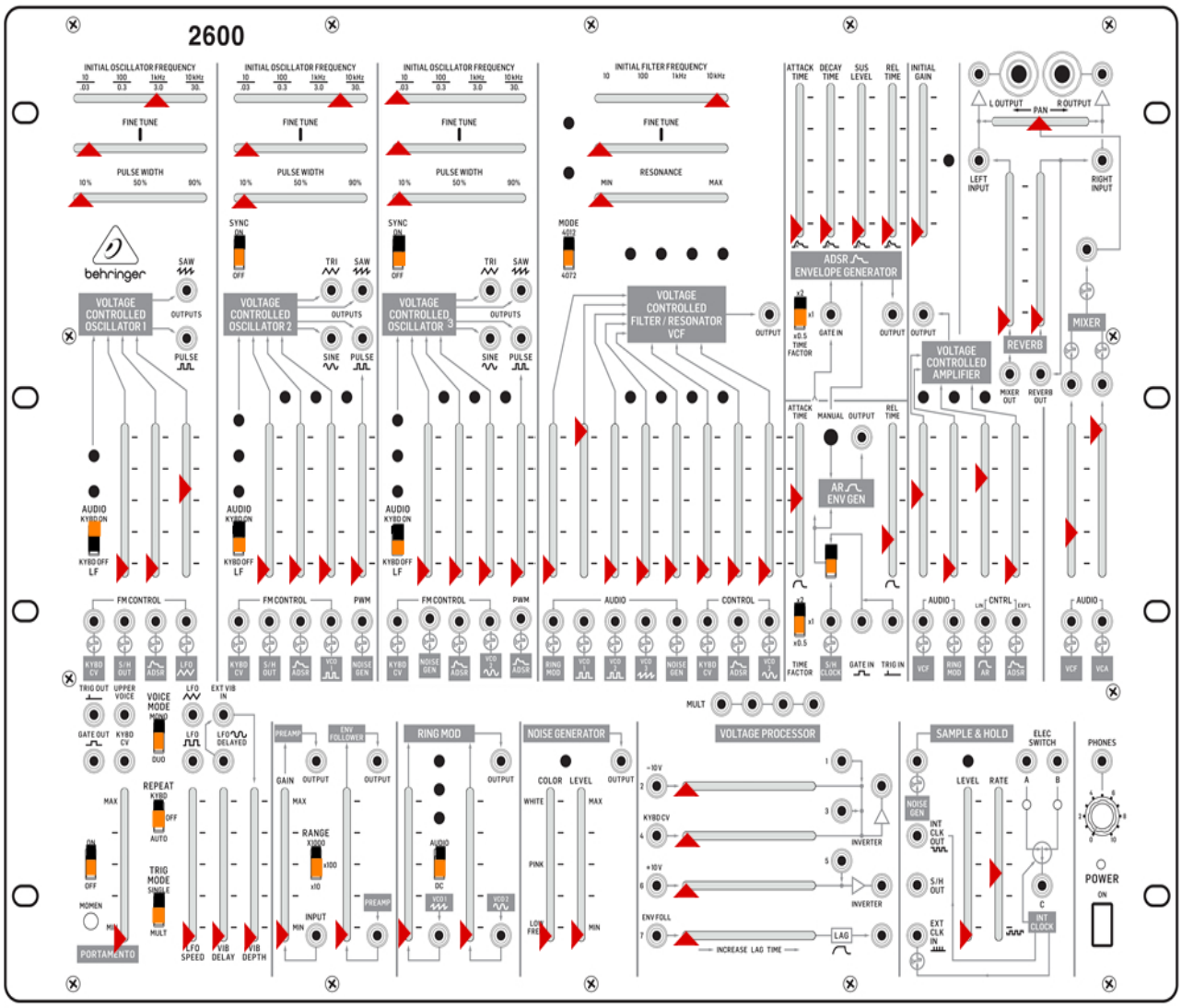


Sporadic Heavy Breathing

Behringer 2600

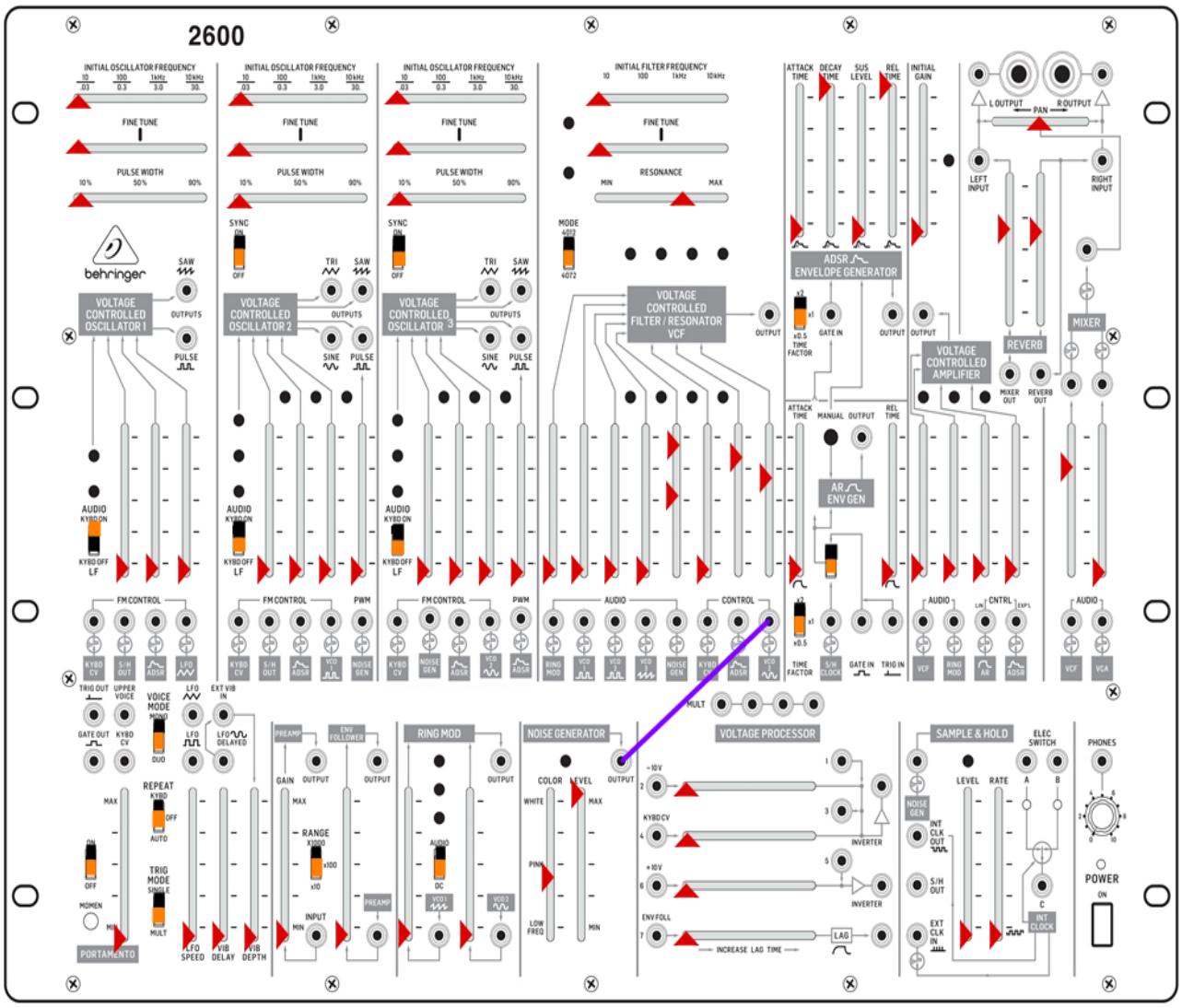


Cricket Colony

PLAY KEY C5

NOTE: On the original ARP sheet, the speaker volume is down to 3/4's The Behringer doesn't have inbuilt speakers so these have been left out.

Behringer 2600

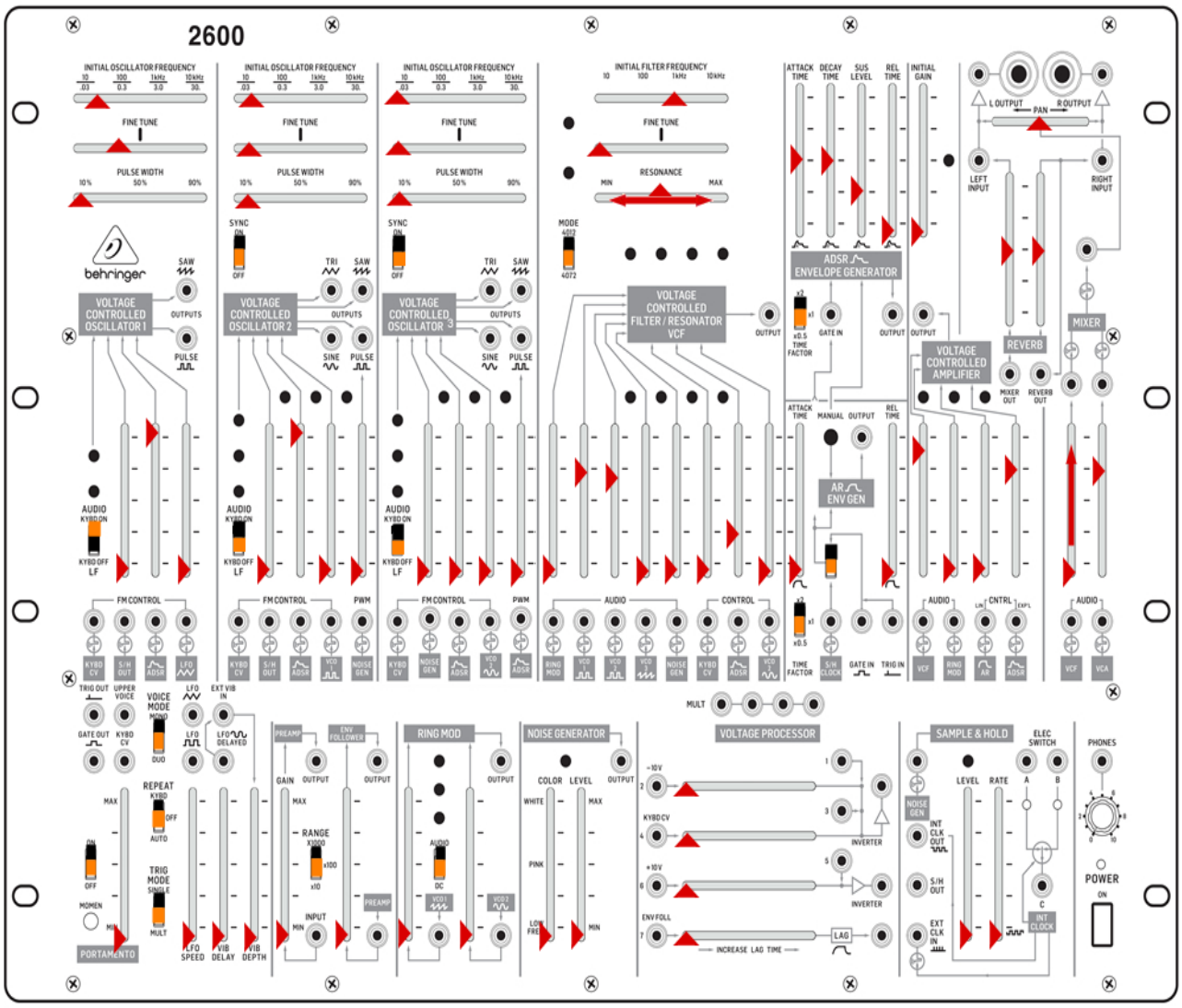


Clapping Thunder

PLAY KEY C5

NOTE: On the original ARP sheet they have two arrows on the VCF noise gen, whether that was a mistake or intentional I have no idea as the sheet doesn't have user instructions so I'll leave it to you.

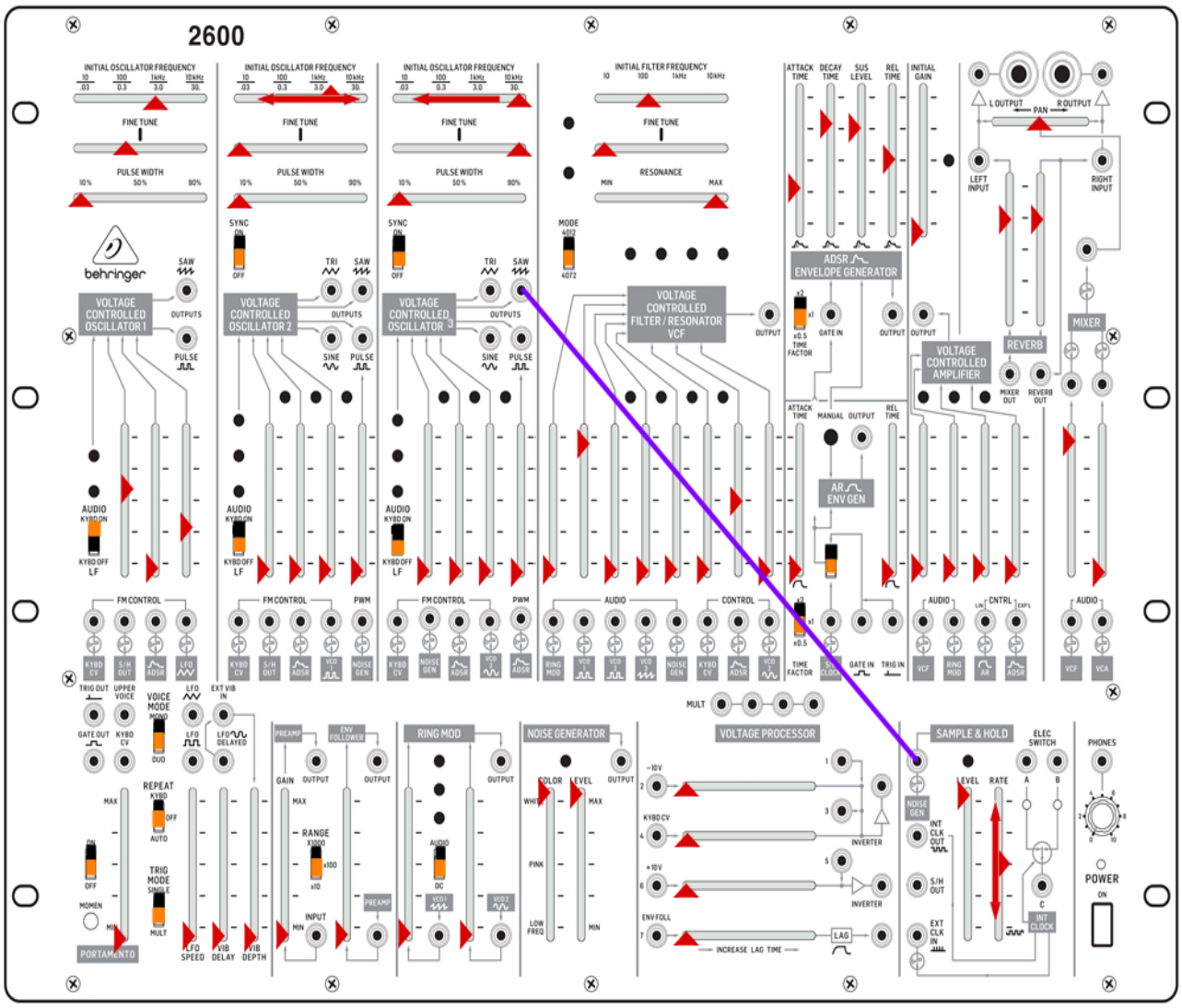
Behringer 2600



Small Barking Mutt

1. Best barks can be heard around key C2
2. Raise VCF in to mixer for growl

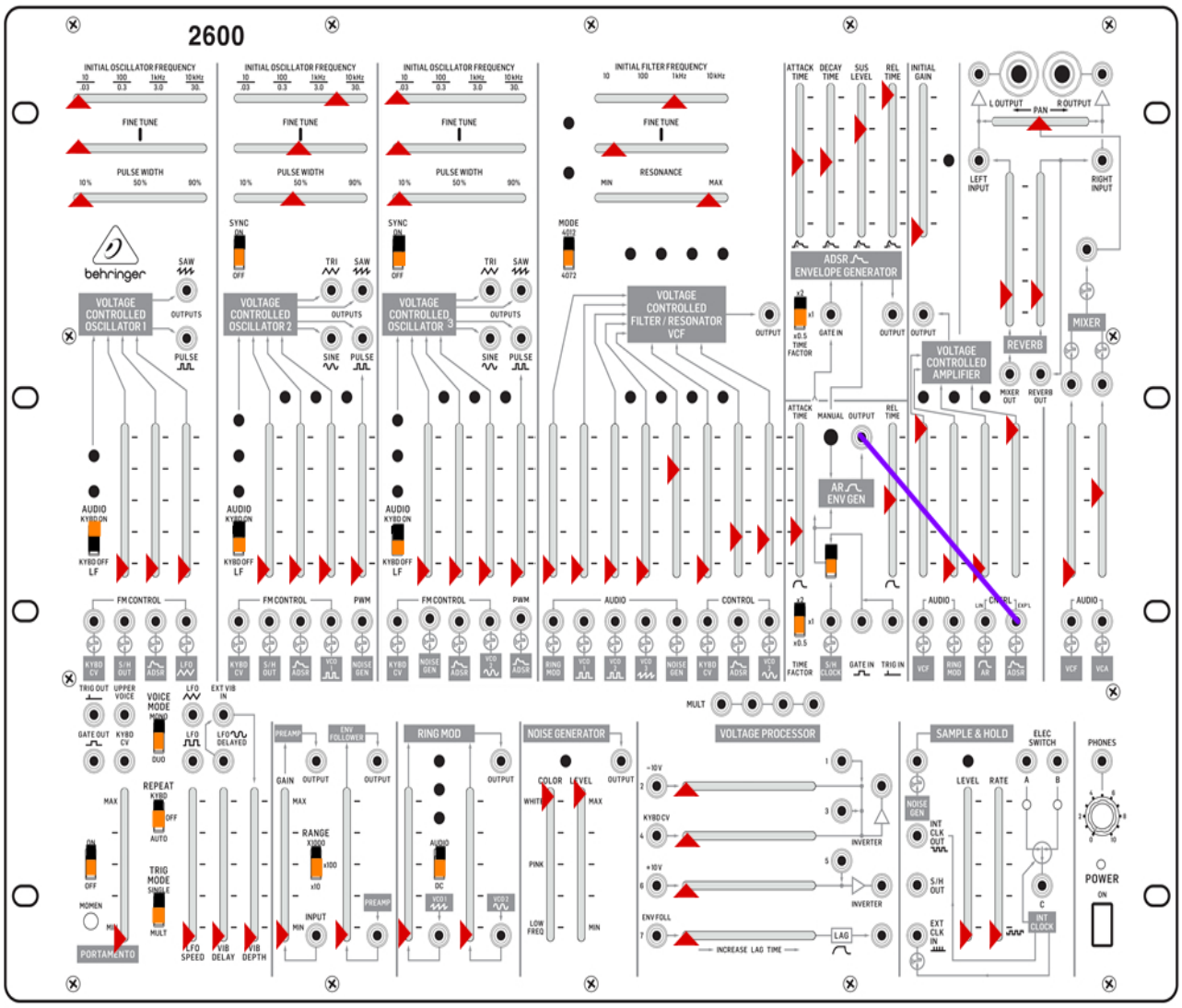
Behringer 2600



Random Whistler

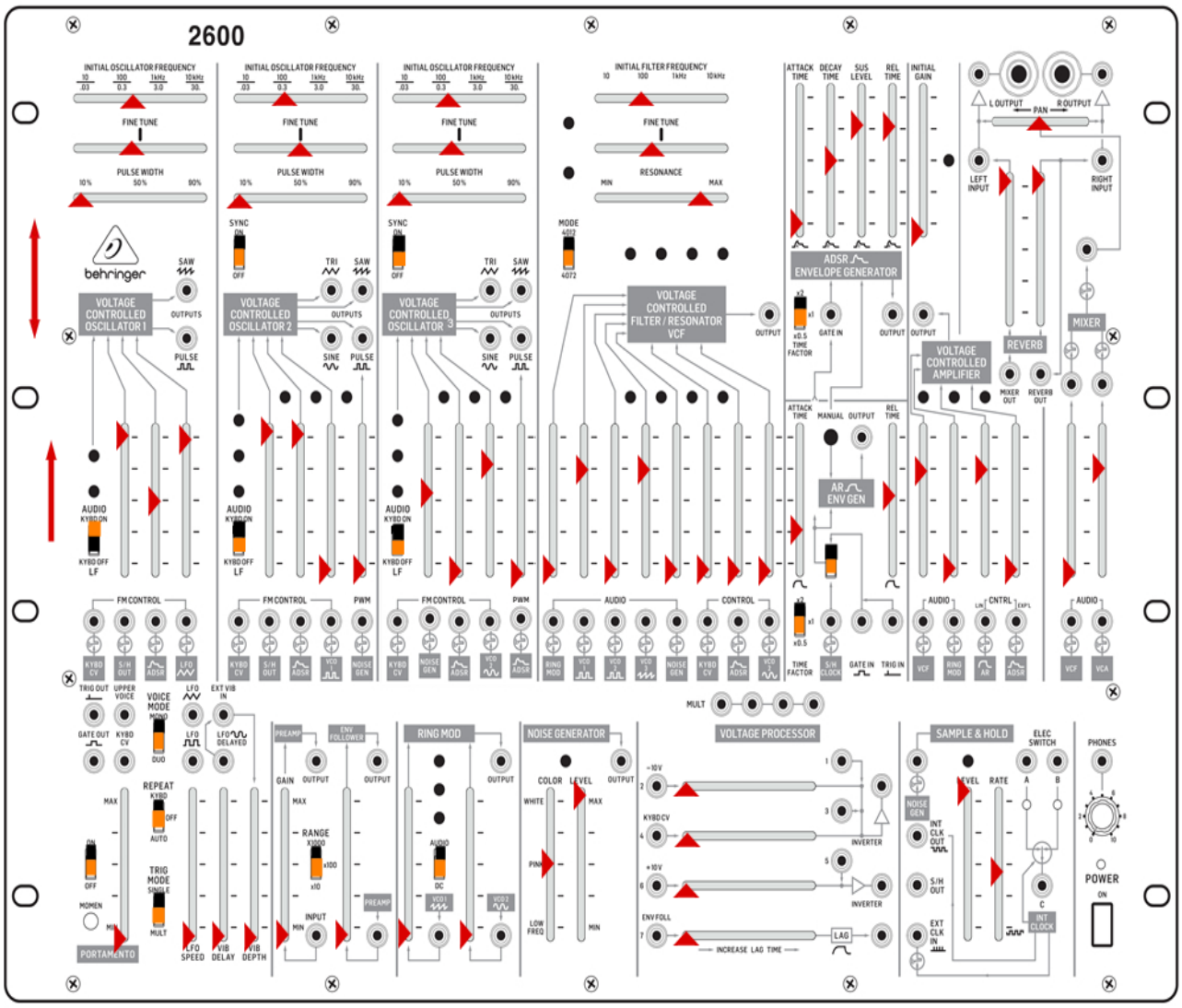
Adjust VCO3 frequency for patterns
Adjust VCO2 frequency for vibrato speed
Adjust S/H rate for whistle speed
PLAY KEY C2

Behringer 2600



Mother Whistler

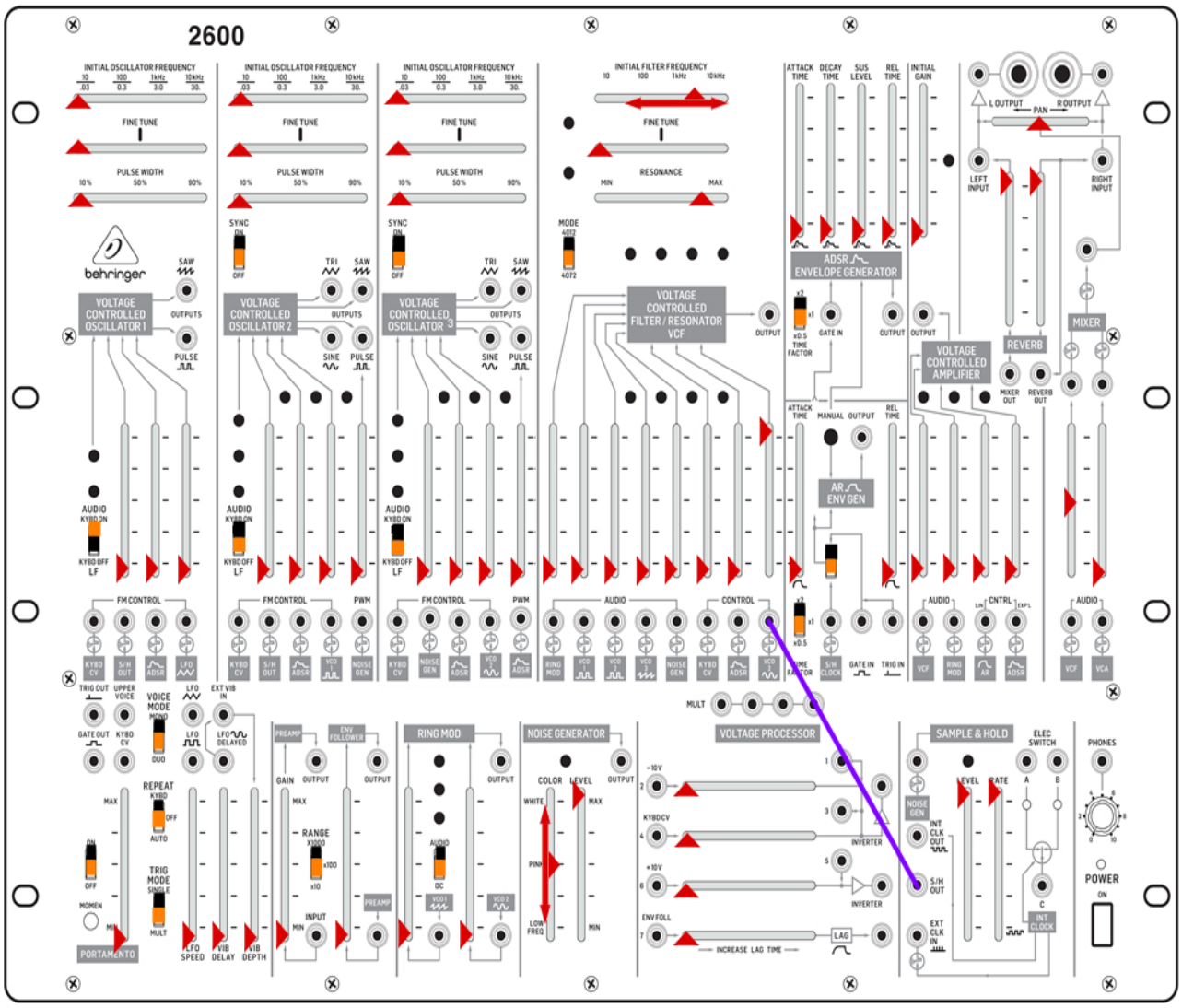
Behringer 2600



ARP Jungle

Playing different keys will produce different timbres

Behringer 2600

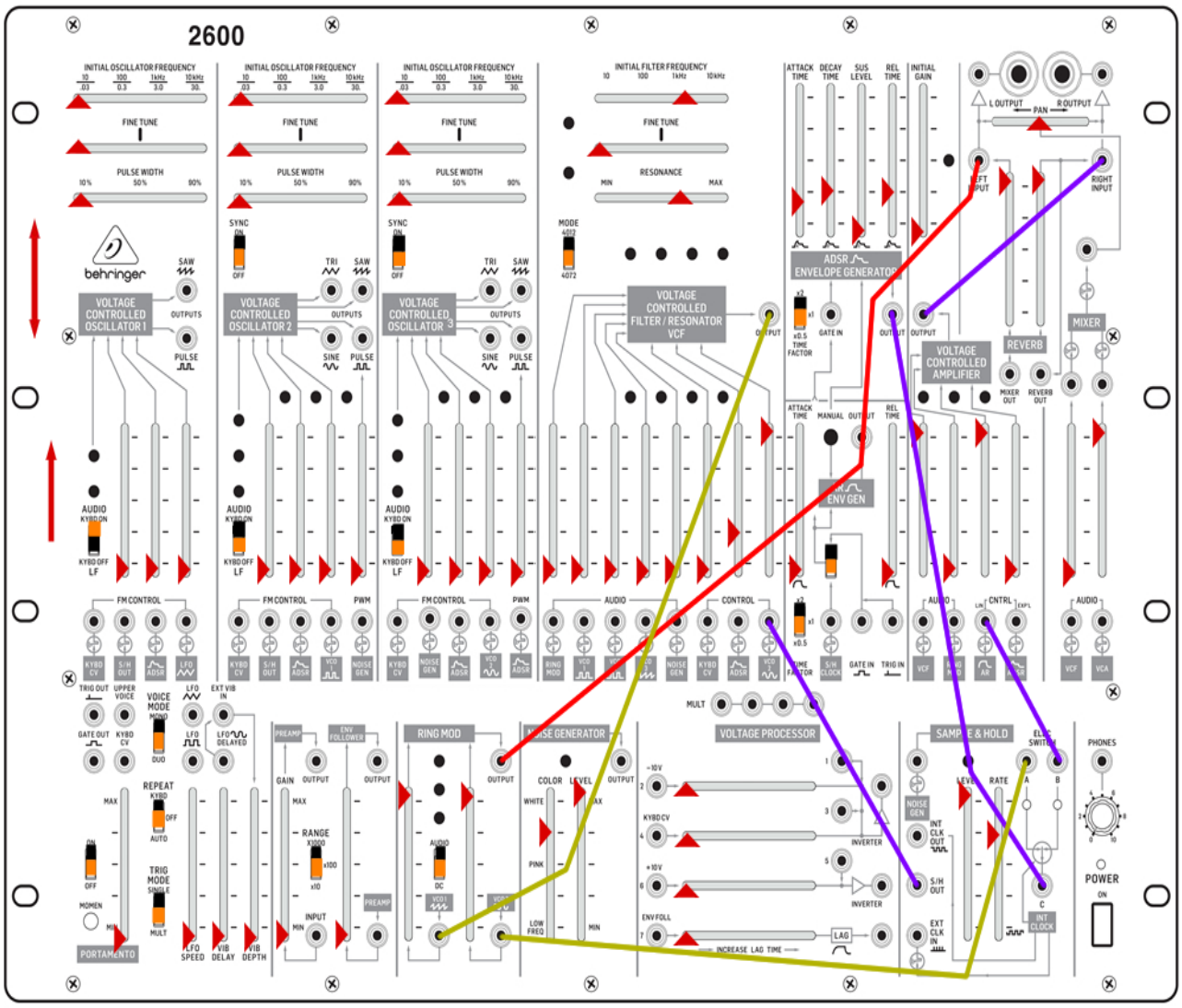


Water Drops

Adjust VCF frequency and Noise Colour for desired effect

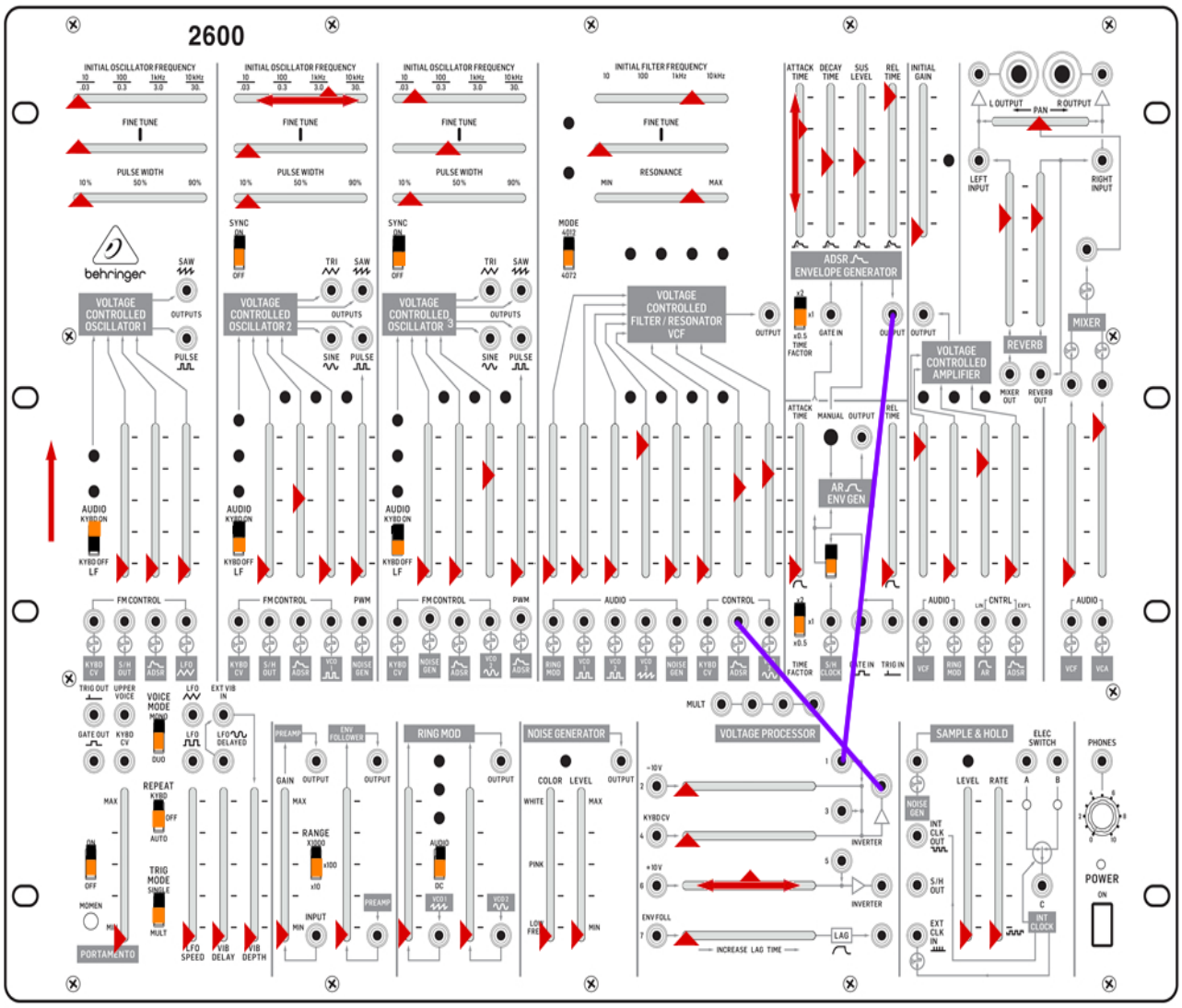
NOTE: on the original ARP sheet the noise gen is greyed out.

Behringer 2600



Stereo Chickadee Conversation

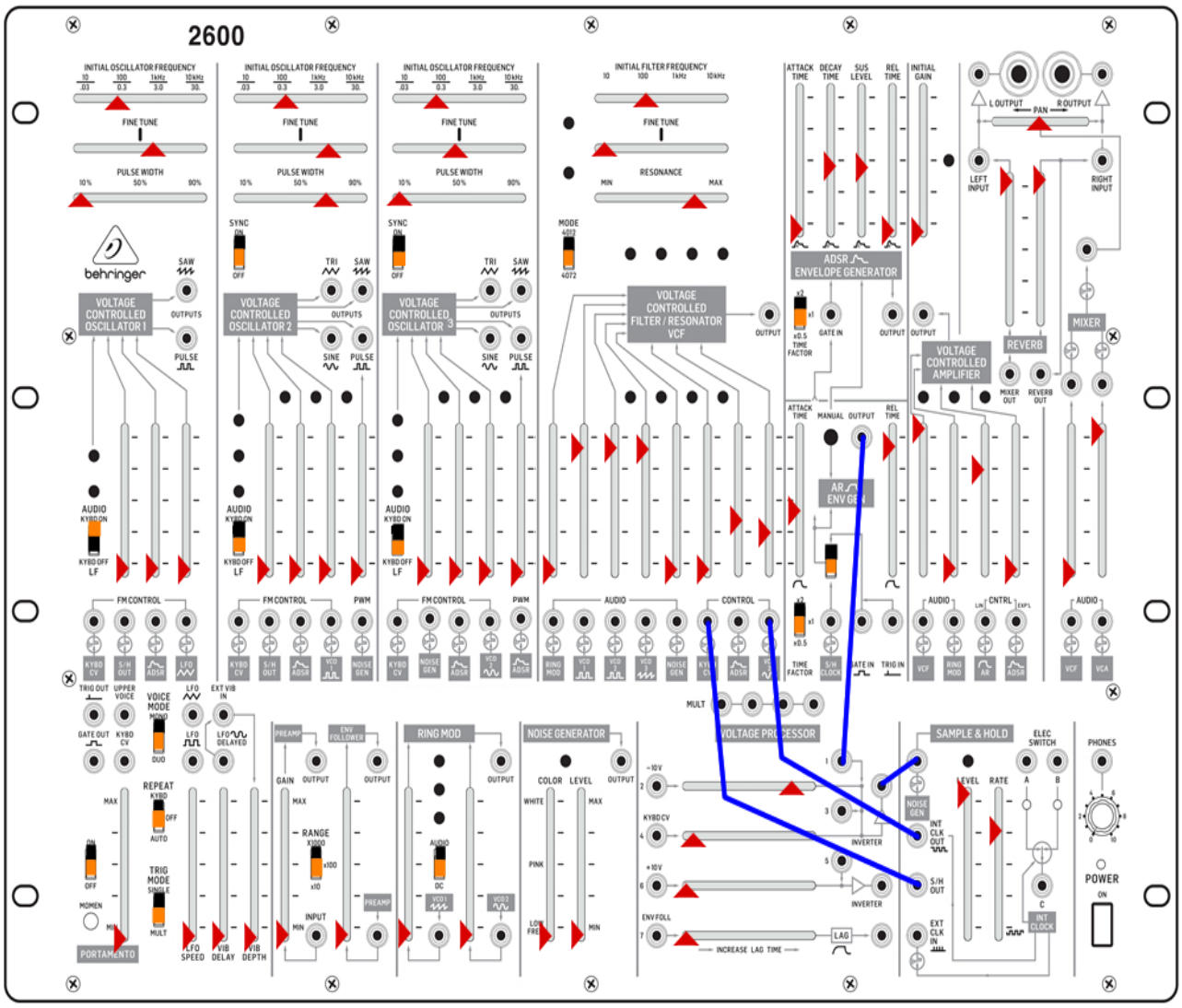
Behringer 2600



Oh Yeah

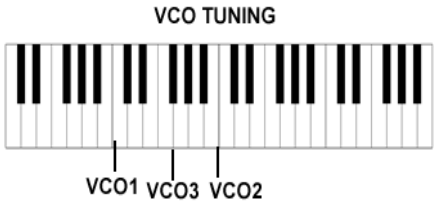
Adjust ADSR in to VCF
Adjust VCO2 in to VCF for ‘voice-like’ texture
Adjust VCO2 frequency for different vowels
Adjust resonance
Adjust attack time on ADSR

Behringer 2600

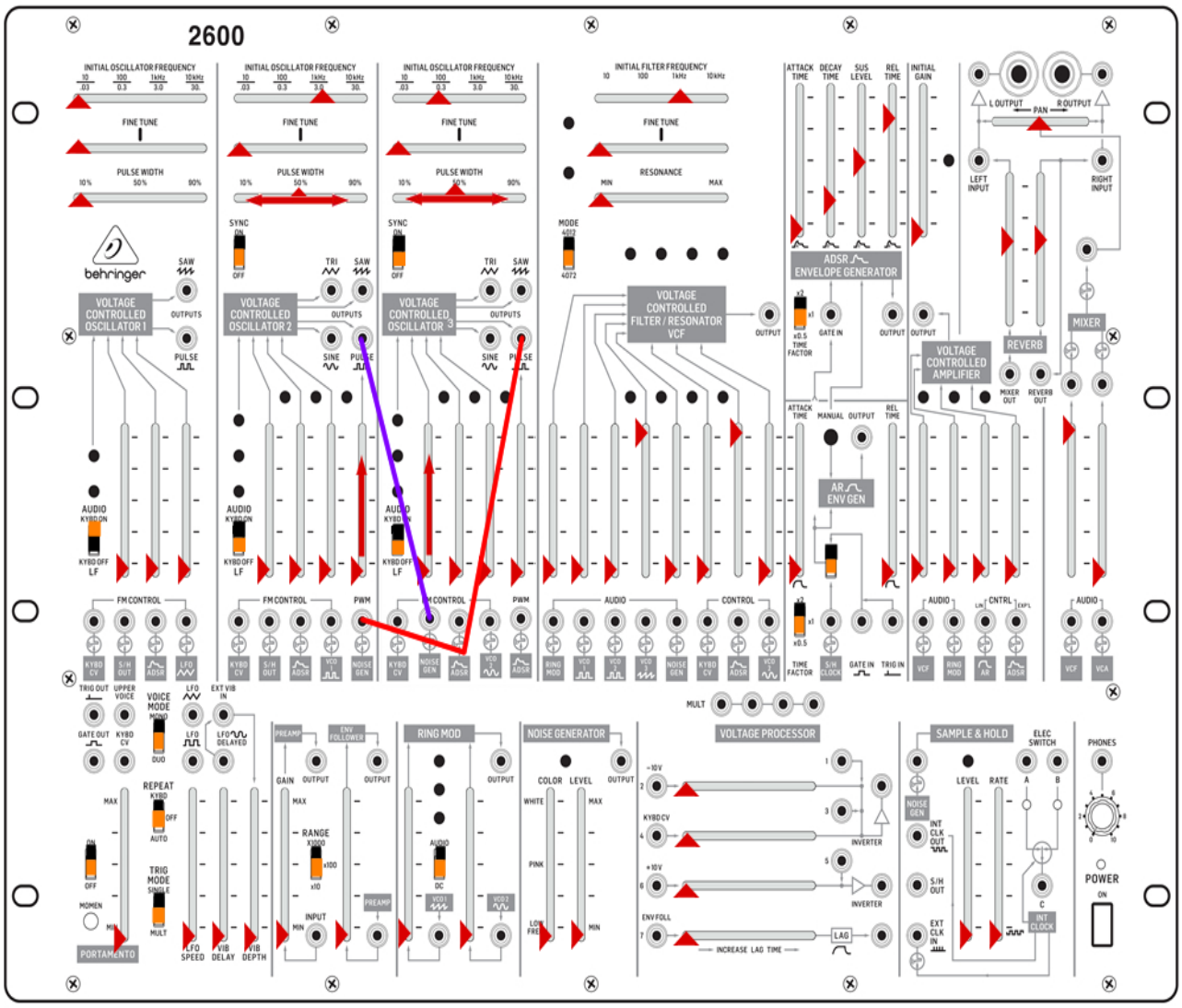


Inverted ADSR Harmonic Arpeggio

Tune VCO1 to one octave below middle C
Tune VCO2 to middle C
Tune VCO3 to a fourth below middle C

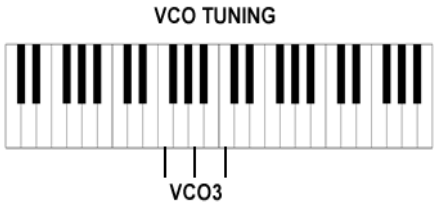


Behringer 2600

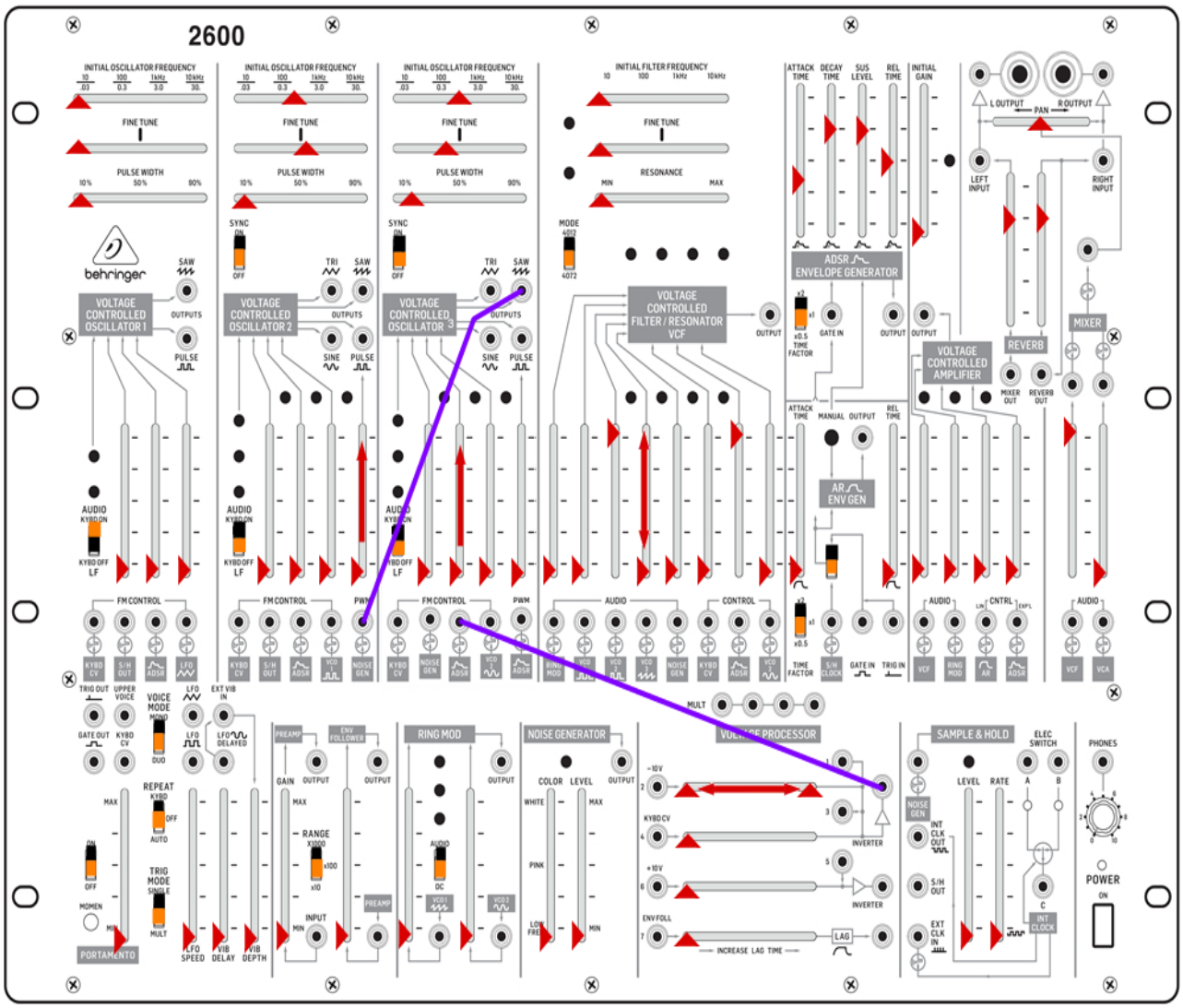


Three Note Tunable Sequence

1. Raise in to VCO3 tuning interval to a fifth
2. Raise in to VCO2 for appearance of middle pitch
3. Adjust VCO2 pulse width for desired rhythm
4. Tune middle note to a major third above bottom pitch with VCO3 pulse width slider



Behringer 2600



Three Note Chord From Two VCOs

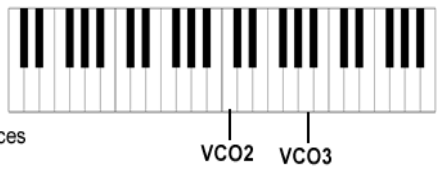
Tonic Chord (I)

1. Tune VCO2 to middle C
2. Raise VCO3 in to VCF and tune to a minor 6th above VCO2 (C-A)
3. Close VCO3 and raise Pulse Width Mod Slider fully in t VCO2

Subdominant Chord (IV)

4. Move inverter slider fully right
5. Raise in to VCO3 until a new chord is heard
6. Moving inverter back and forth produces either (I) or (IV) chord

VCO TUNING



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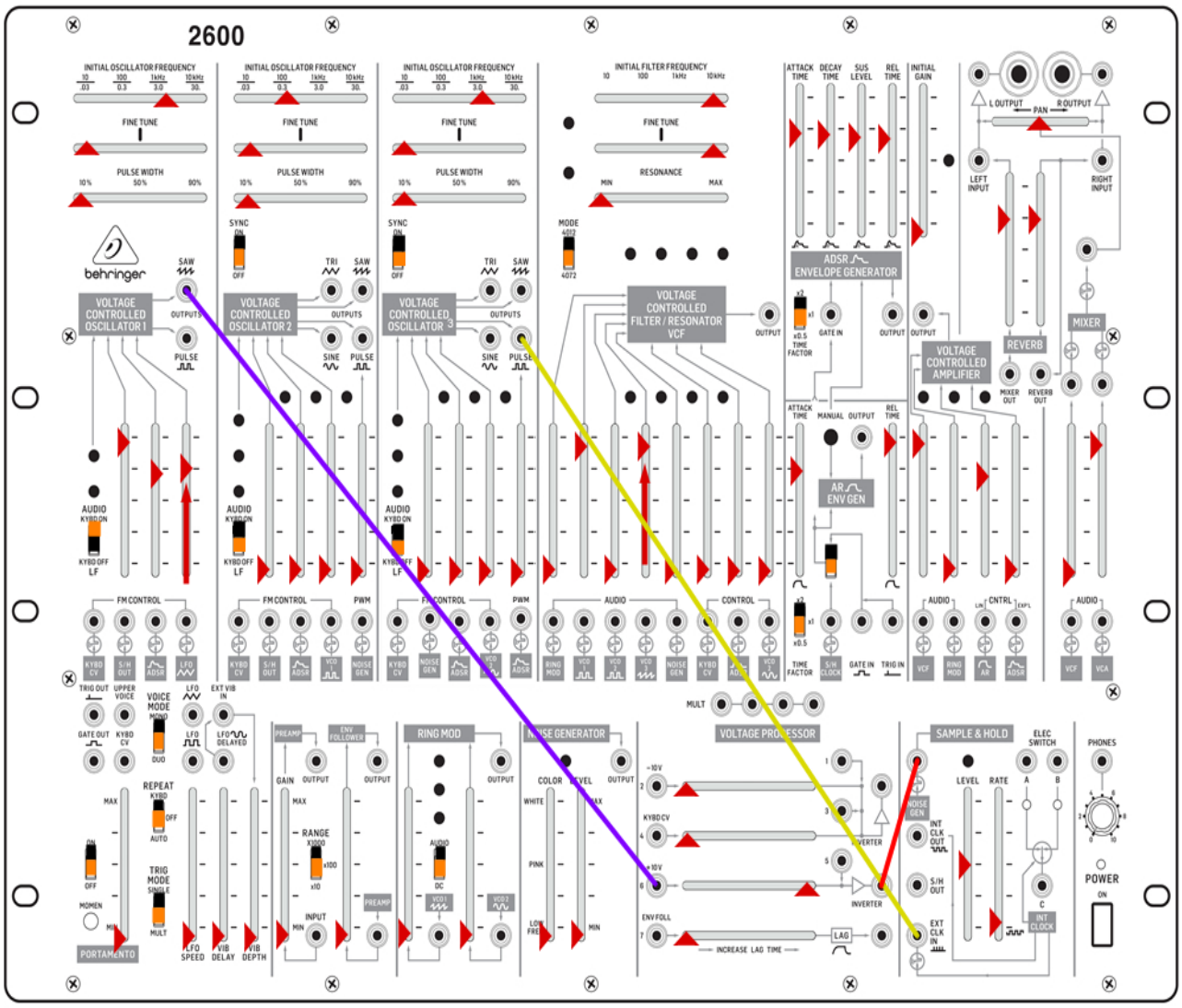
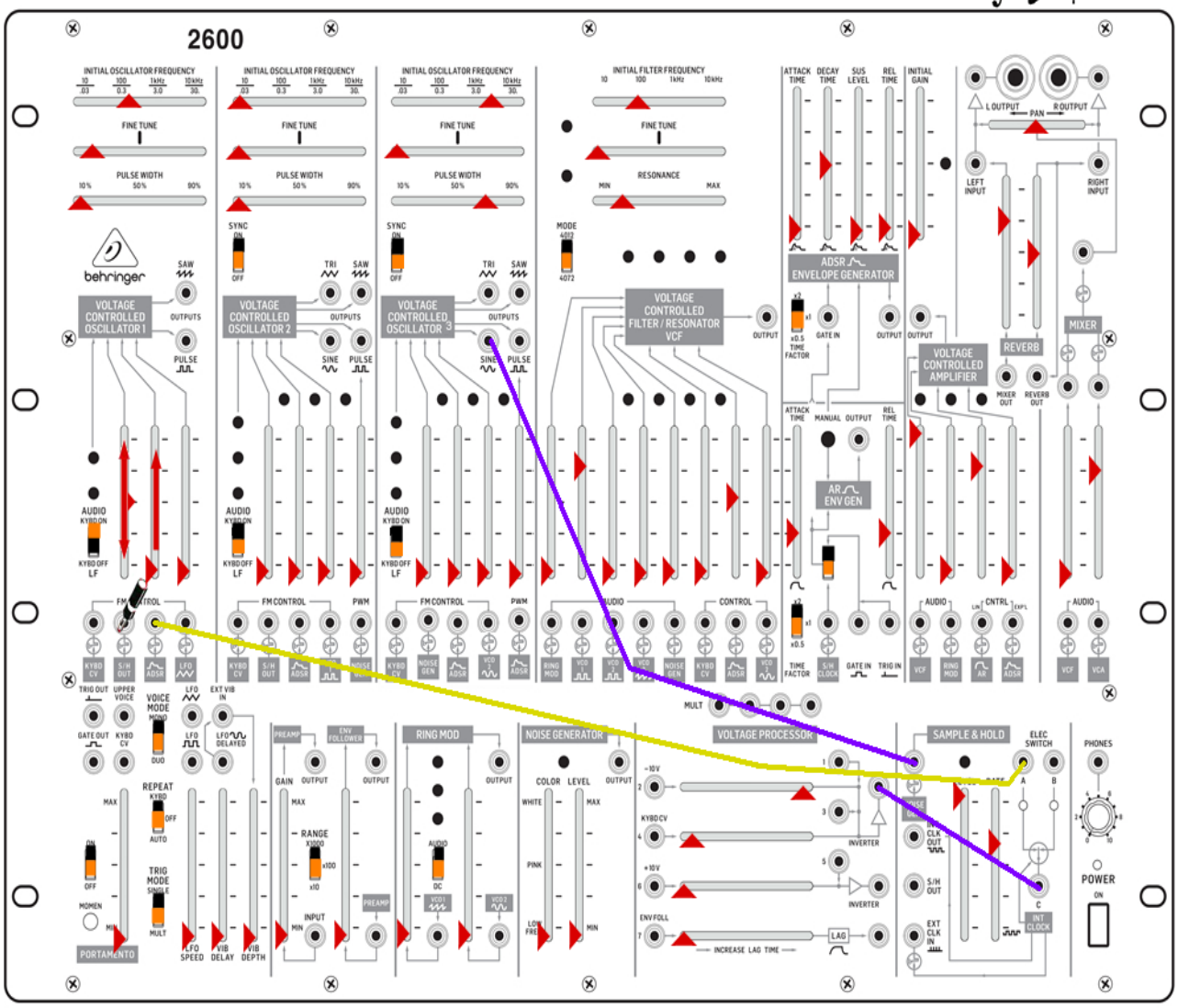


Inharmonic Sequencing

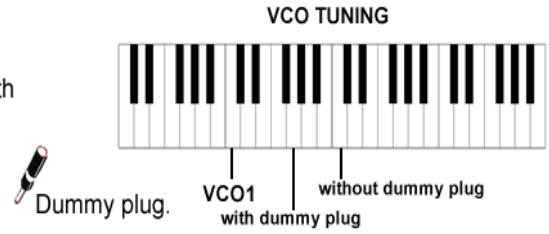
Be certain that the frequency of VCO3 is above that of VCO1
NOTE: Original has written ‘Optional For Effect’ below VCO1

Behringer 2600

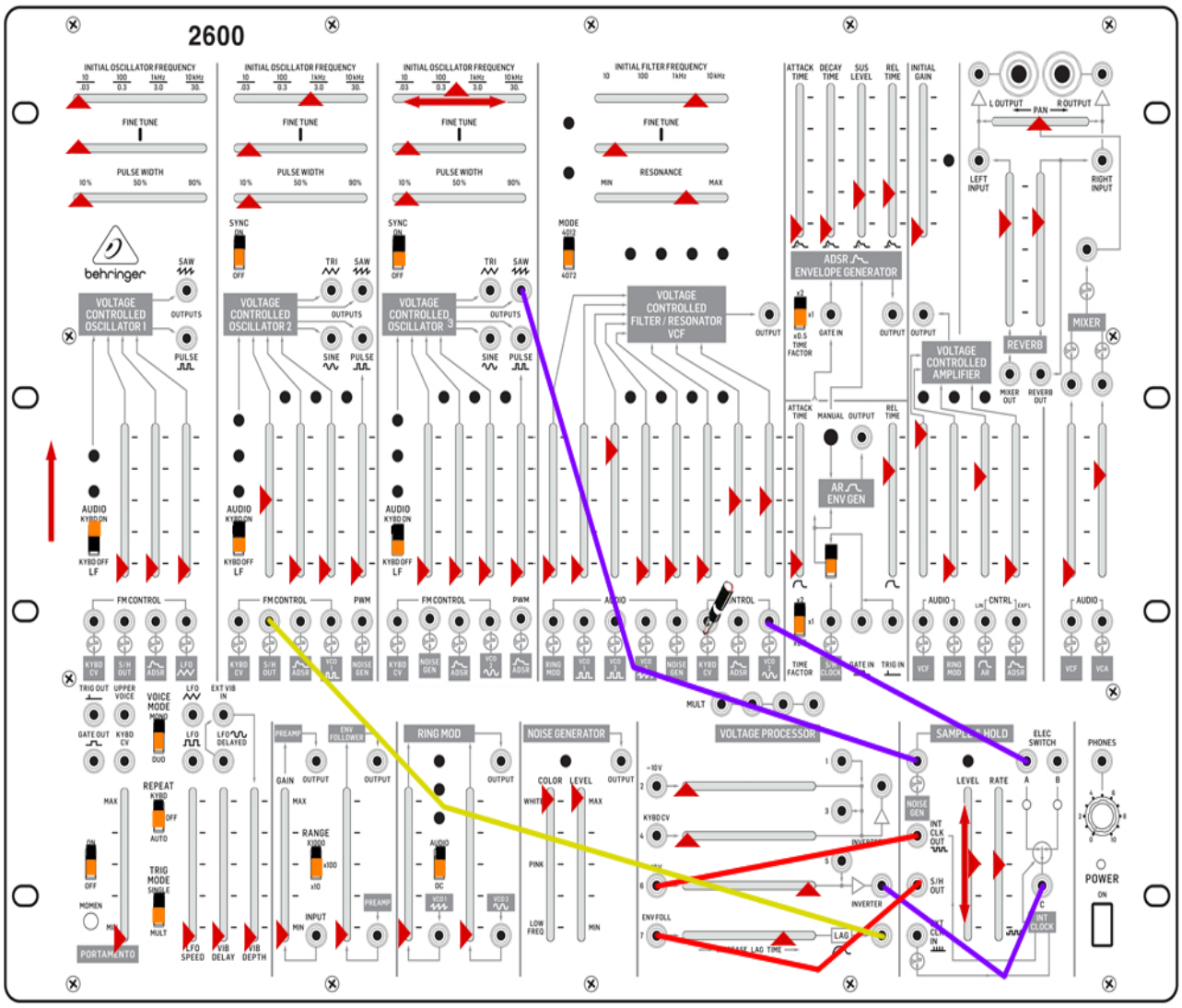


Random Select: Four Note Arpeggio

1. Tune S/H in to VCO1 to an octave interval
2. Insert Dummy Plug in to S/H jack and raise ADSR tuning to a fifth
3. Remove dummy plug



Behringer 2600

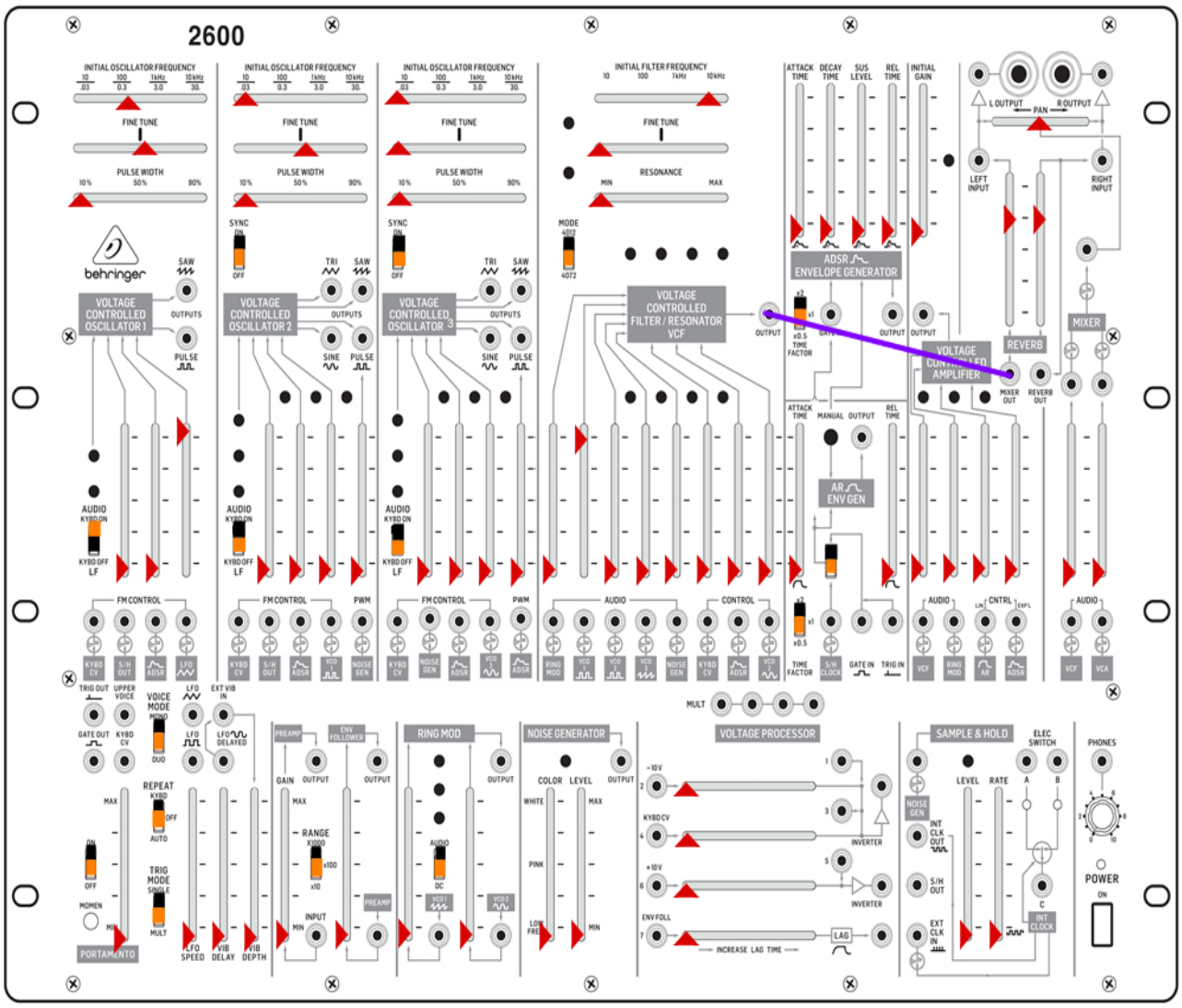


Gliding Intervals

1. Tune VCO3 for desired pattern
2. Tune S/H level for desired interval

Dummy plug.

Behringer 2600

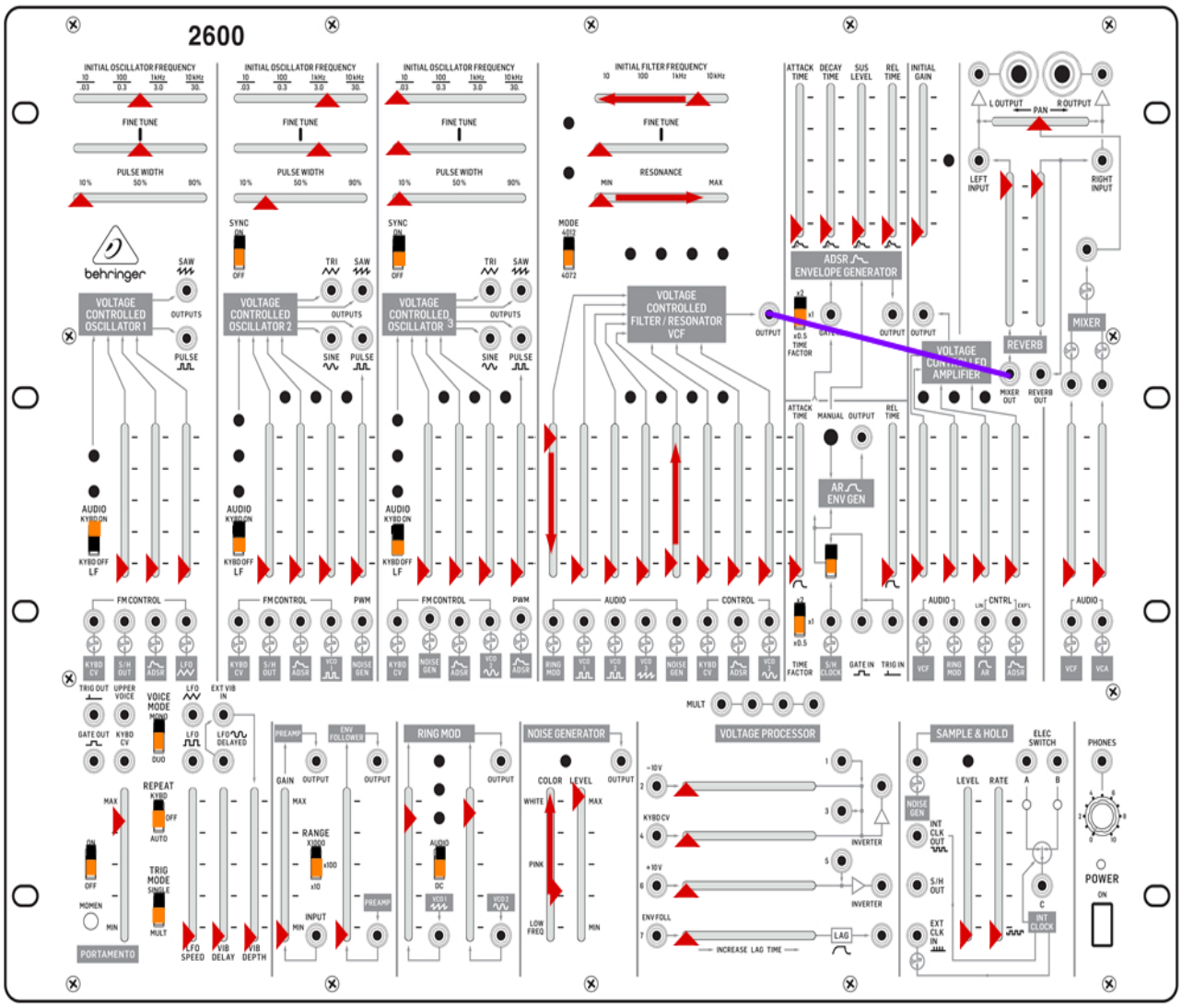


Firetruck Siren with Horn Blast

Switch VCO2 keyboard switch on and off for horn blast

PLAY KEY G3

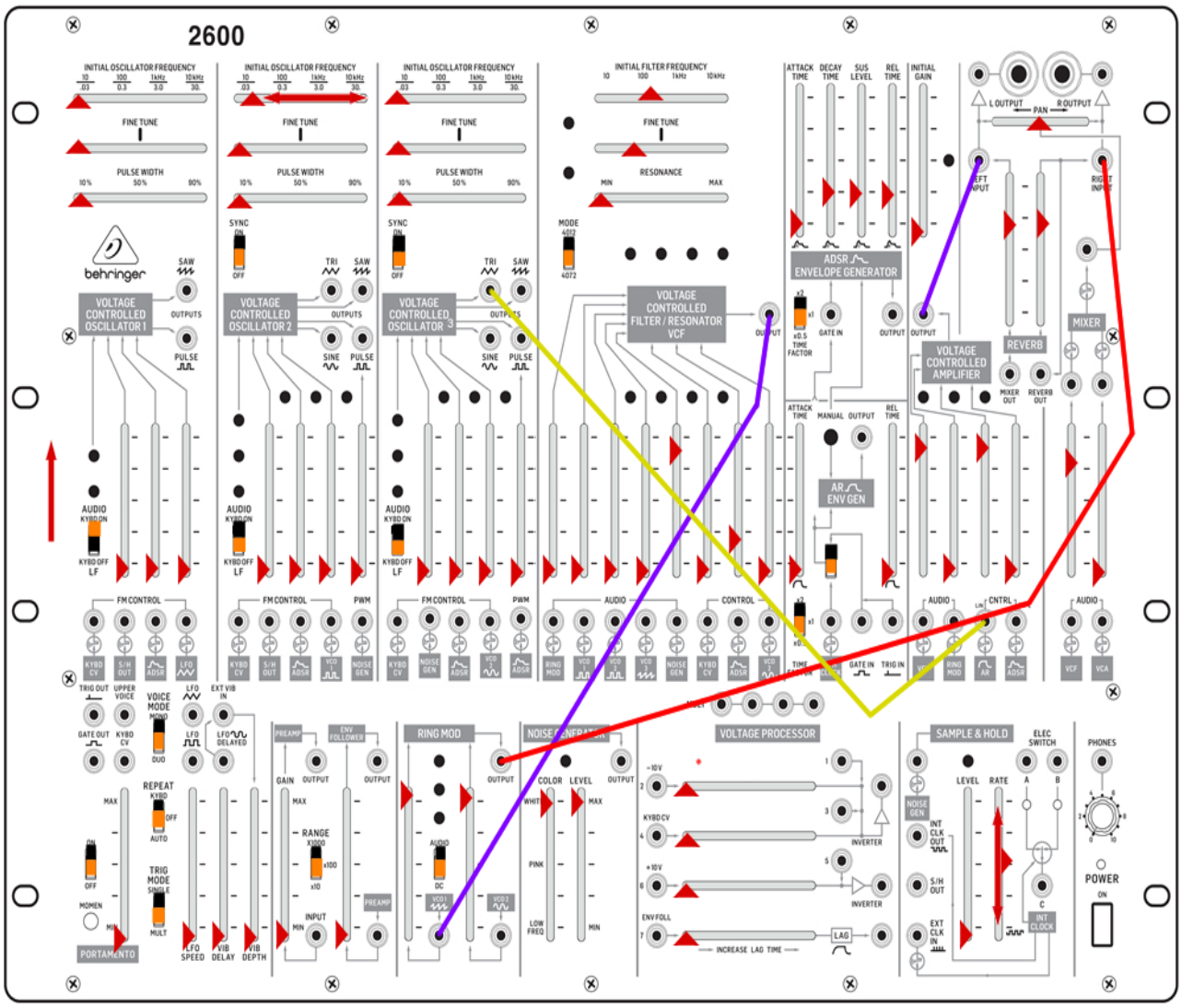
Behringer 2600



727 Starting Up, Taxiing and Taking Off

1. Play key C1 glide to C5
2. Raise Noise in to VCF
3. Lower Ring Mod at VCF as shown
4. Raise Noise colour from Pink to White
5. Simultaneously, move VCF frequency to left and resonance to right

Behringer 2600

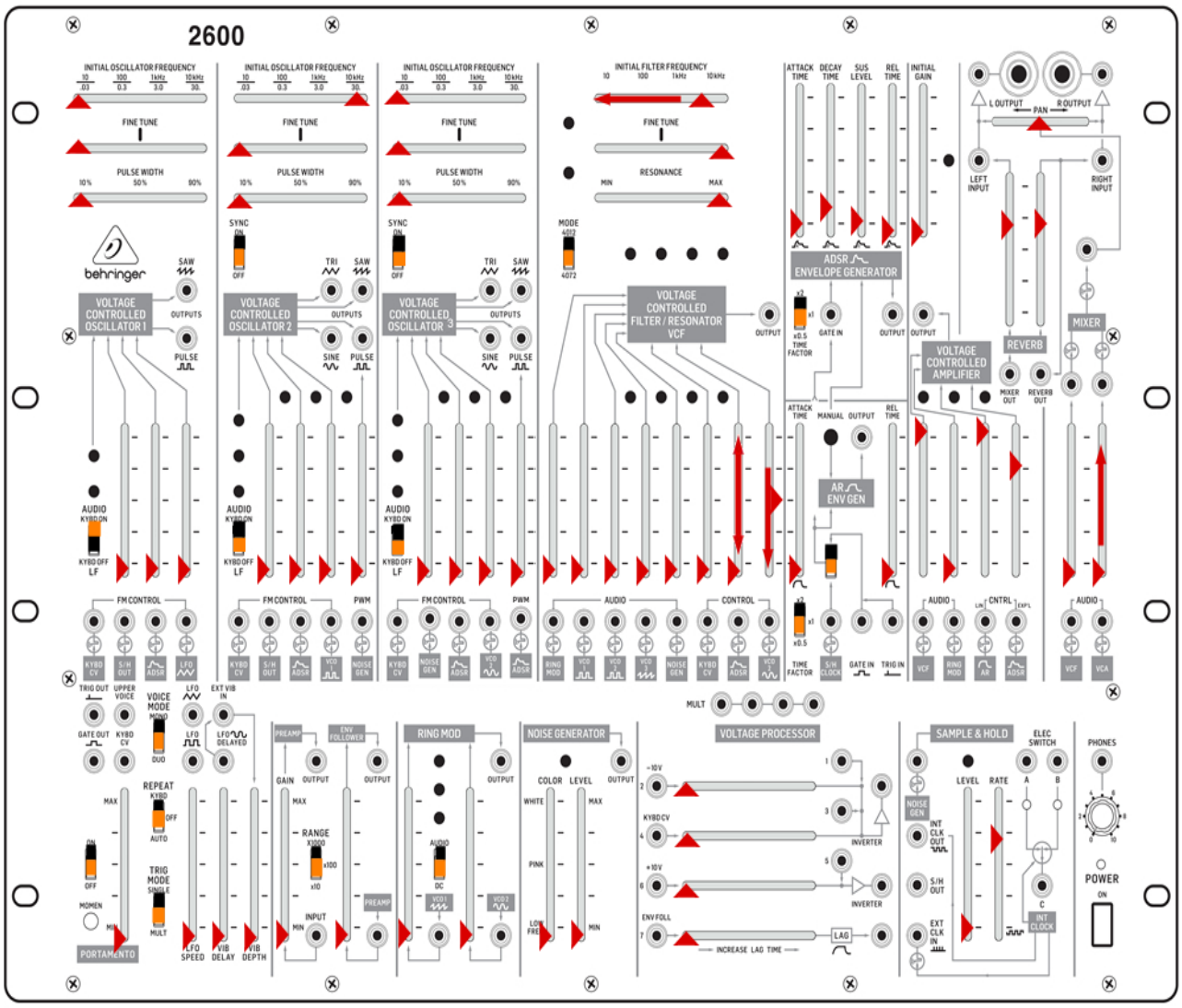


Panning Freight Train

1. Adjust VCO2 frequency for pan speed
2. Adjust S/H Rate for train ‘chugga’ speed

Play Key C4

Behringer 2600



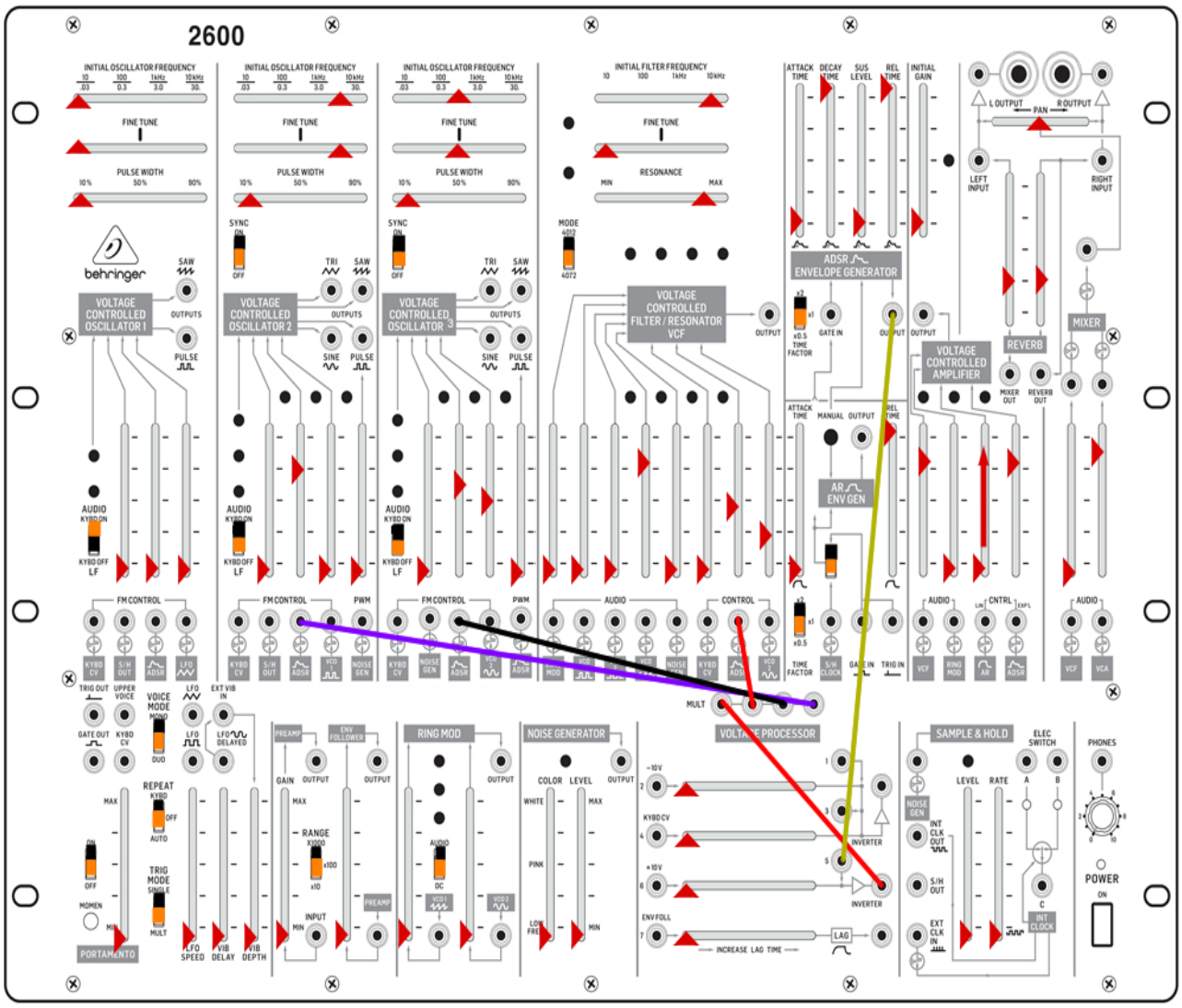
Edgar Winter's "Frankenstein"

Sequence

1. Raise VCA in to Mixer
2. Move VCF frequency from 10k to 100 slowly
3. Lower VCO2 at VCF and jerk ADSR slider in to VCF up and down in time to the drum solo

VCO TUNING

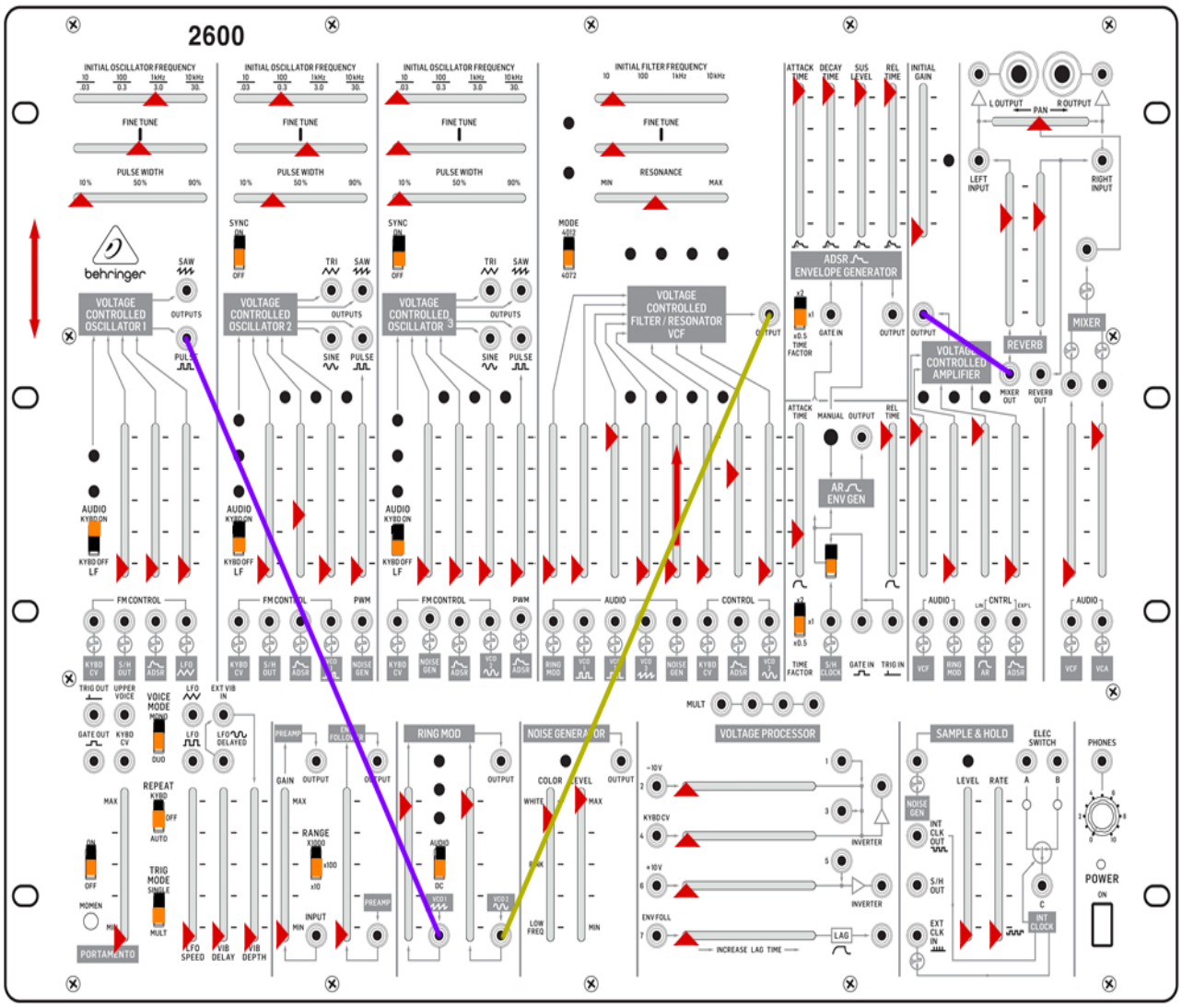
Behringer 2600



Boing!

Raise AR in to VCA for longer boing

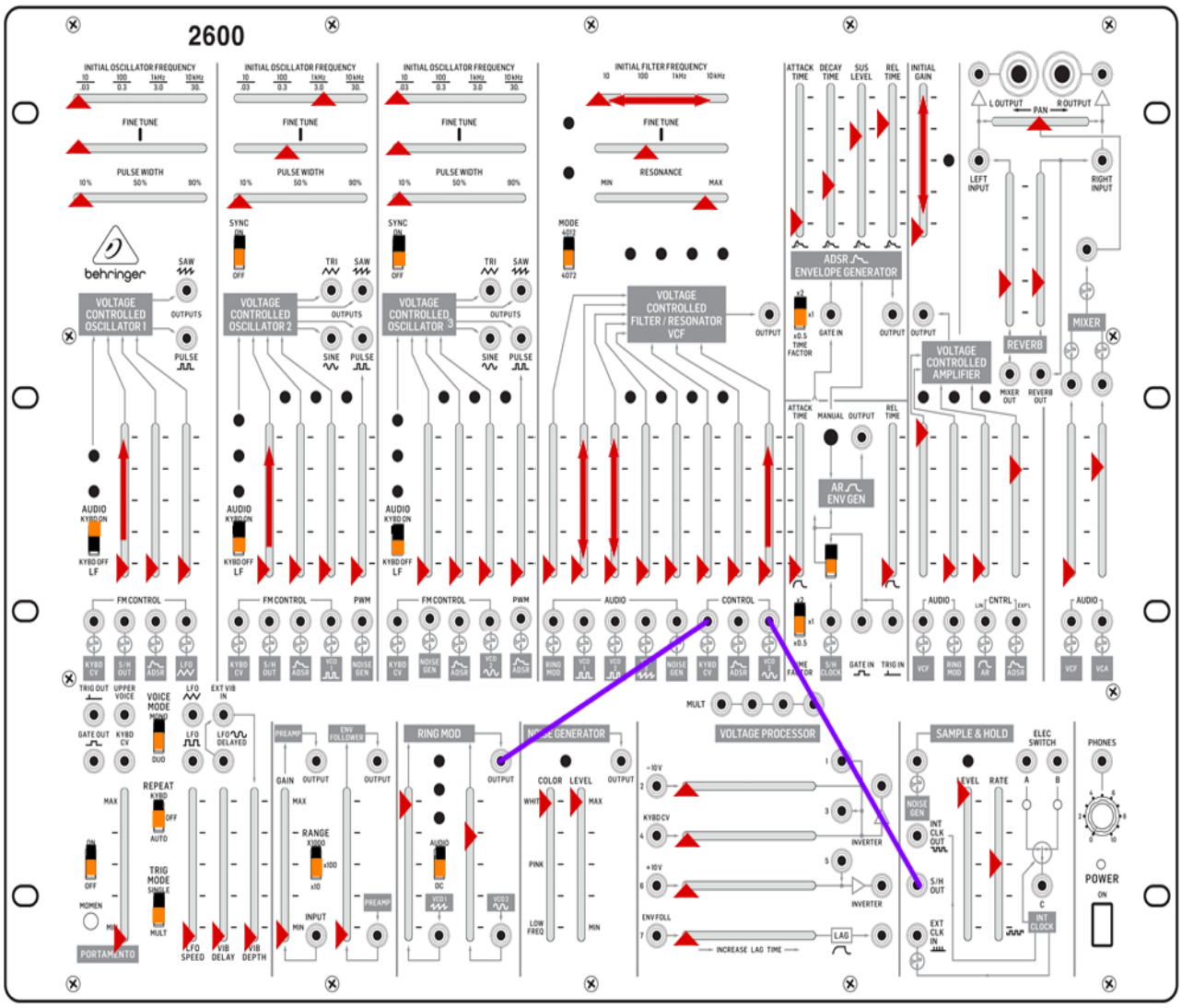
Behringer 2600



Wampus Monster

Raise Noise in to VCF for special effects
Play Key Eflat3

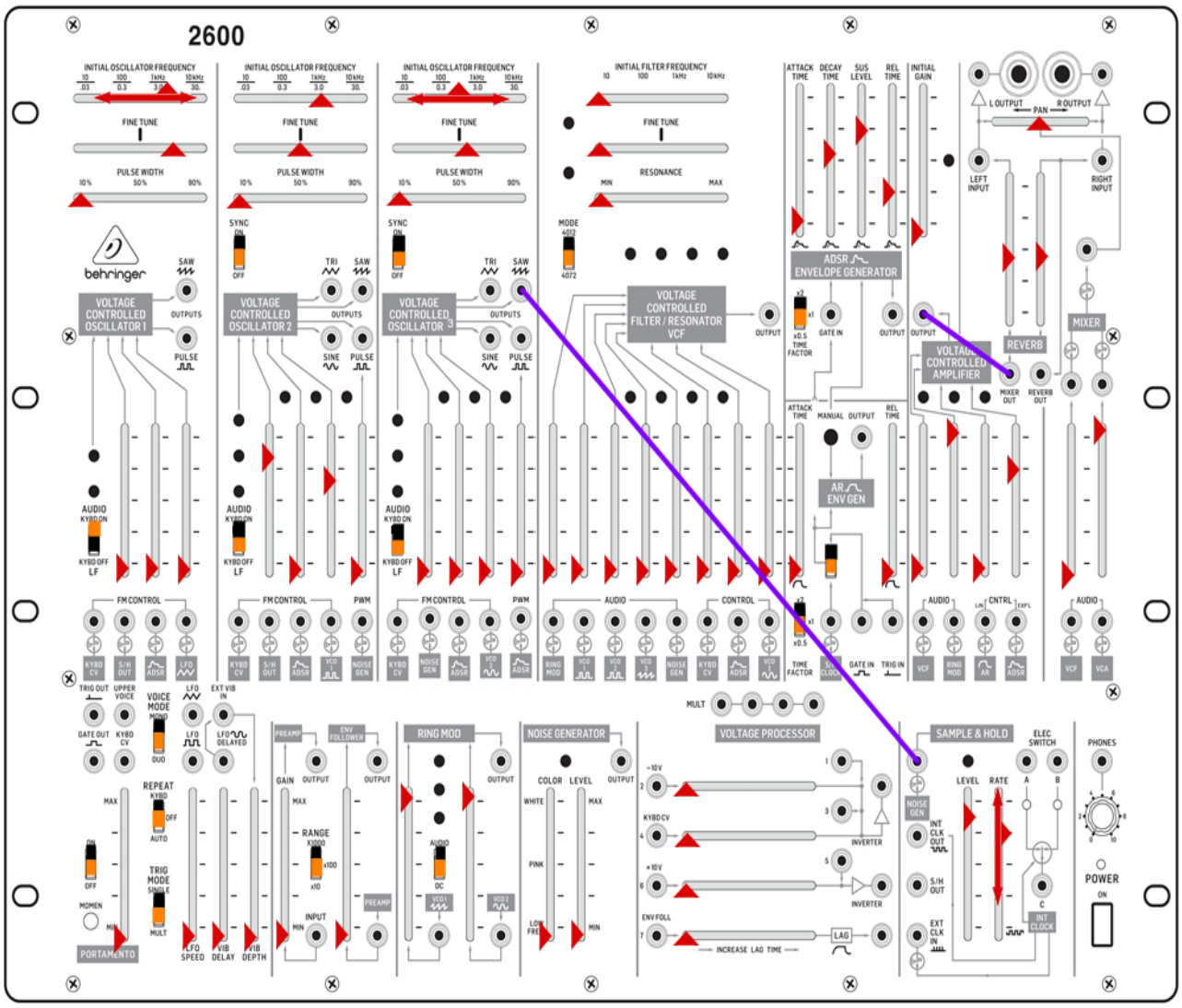
Behringer 2600



Assorted Splats and Sproings

1. Open VCF and VCA
2. Raise VCO1 and 2 in to VCF and tune to unison
3. Close VCF and VCA, close VCO1 and 2 at VCF
4. Raise S/H in to VCO1 and 2 fully, control slider at VCF as shown
5. Switch to S/H Gate

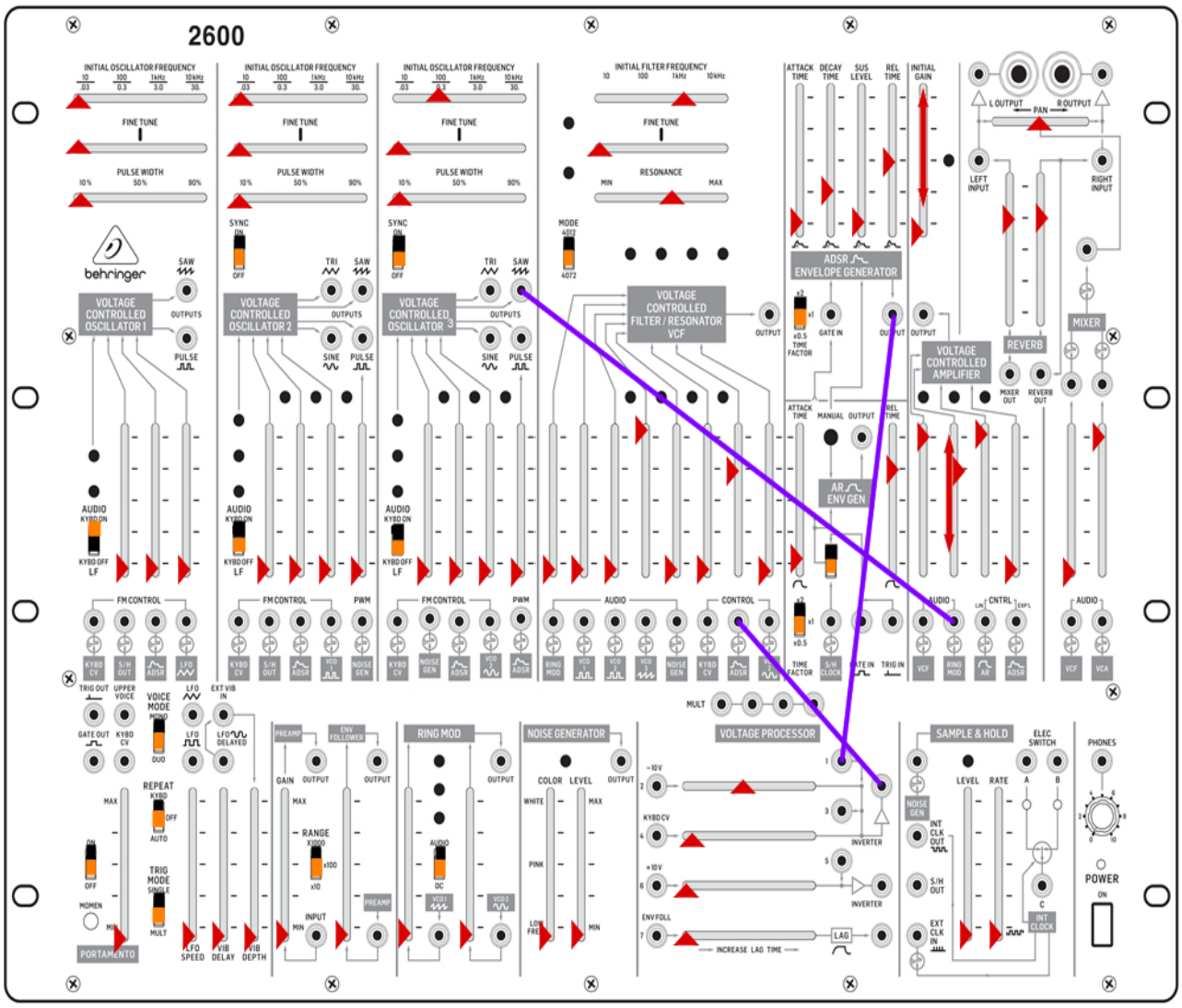
Behringer 2600



Prancing Raindrops

Adjust VCO1 frequency for speed of pattern
Adjust VCO3 frequency for different of patterns
S/H Rate for speed of drops

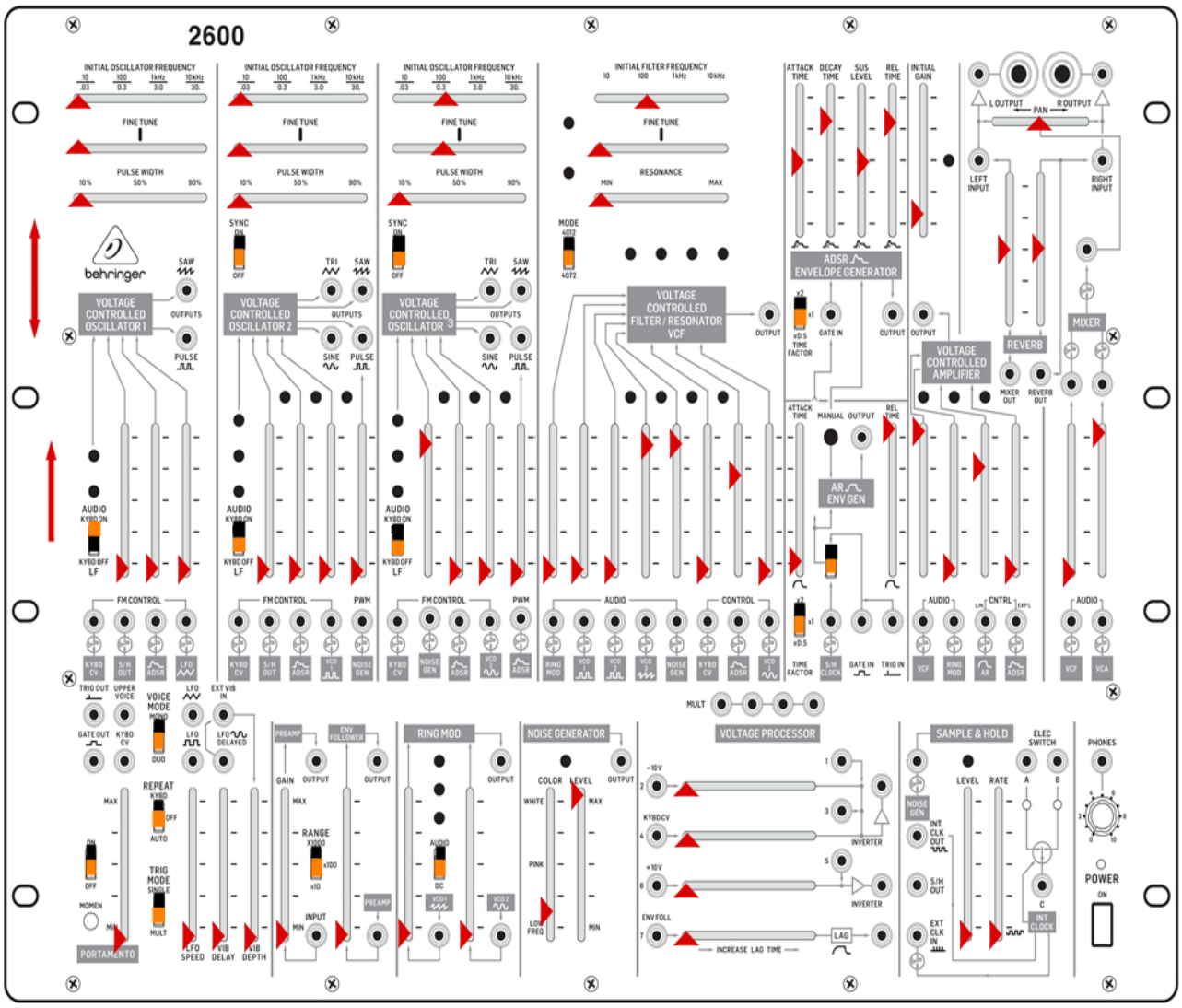
Behringer 2600



“Pwee” or Synthesized High Pass Filter

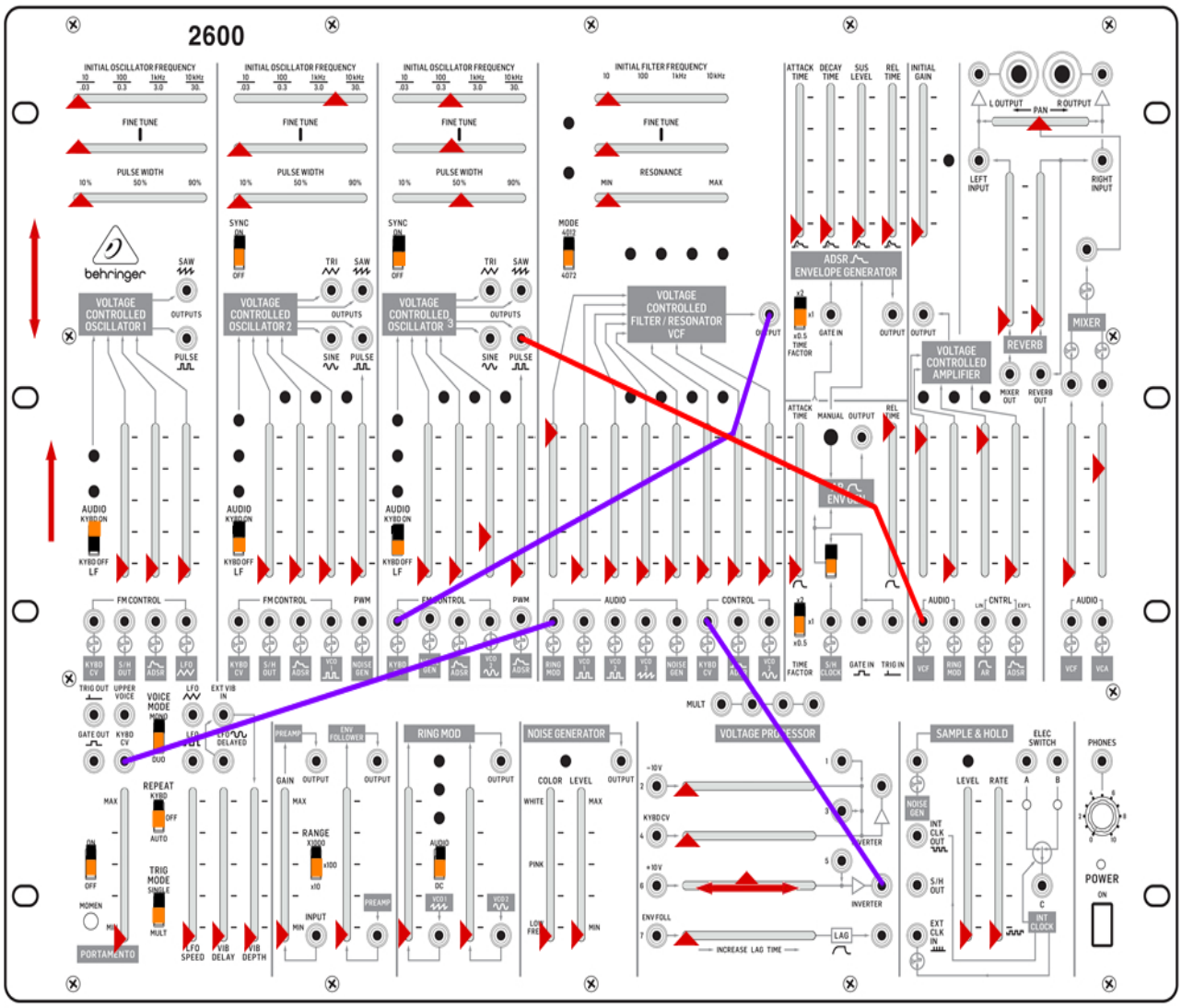
1. Open VCA
2. Adjust VCO3 gain in to VCA for minimum volume
3. Close VCA

Behringer 2600



Explosion

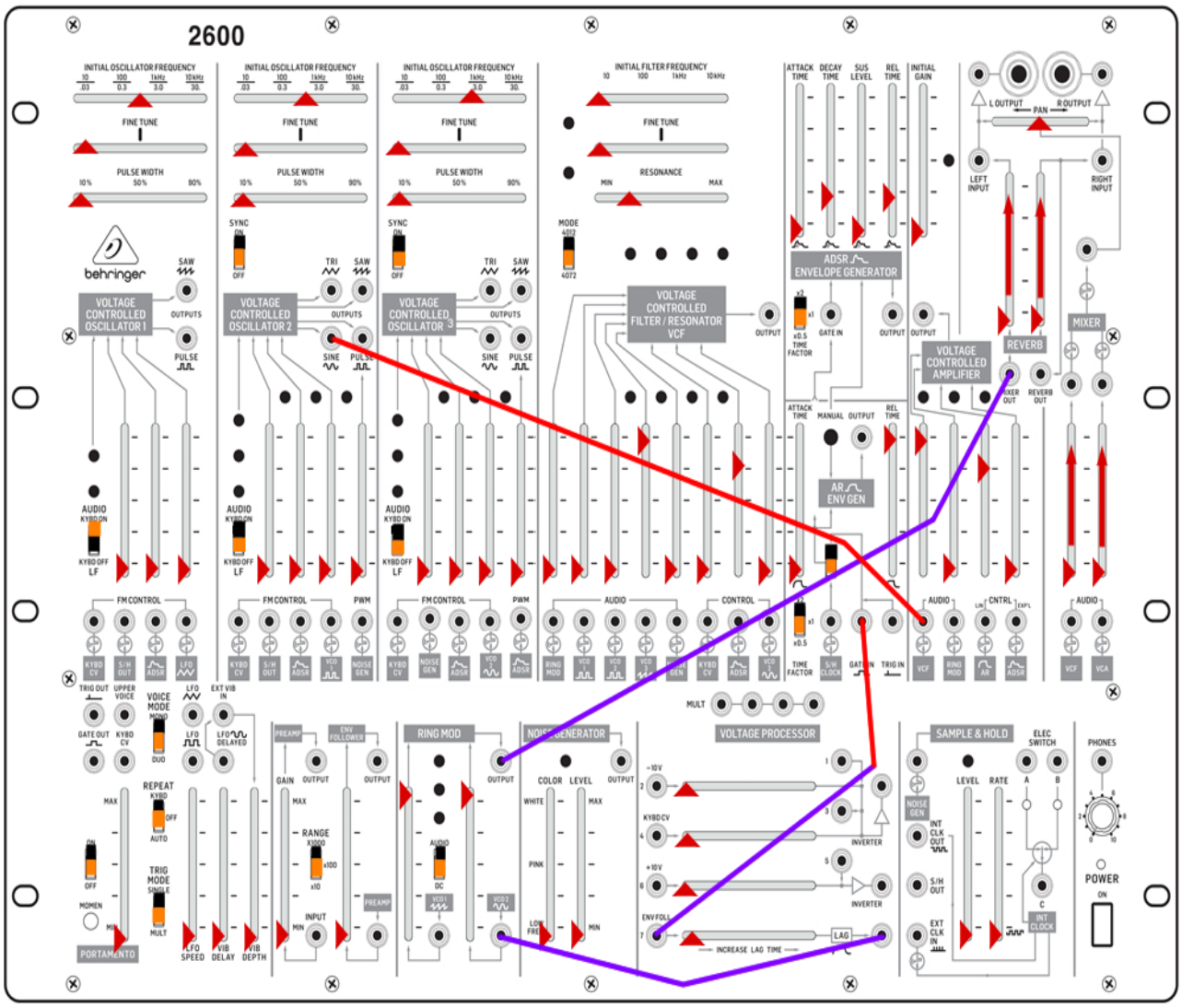
Behringer 2600



Ultraglide with Release Memory

Adjust Inverter for glide time

Behringer 2600

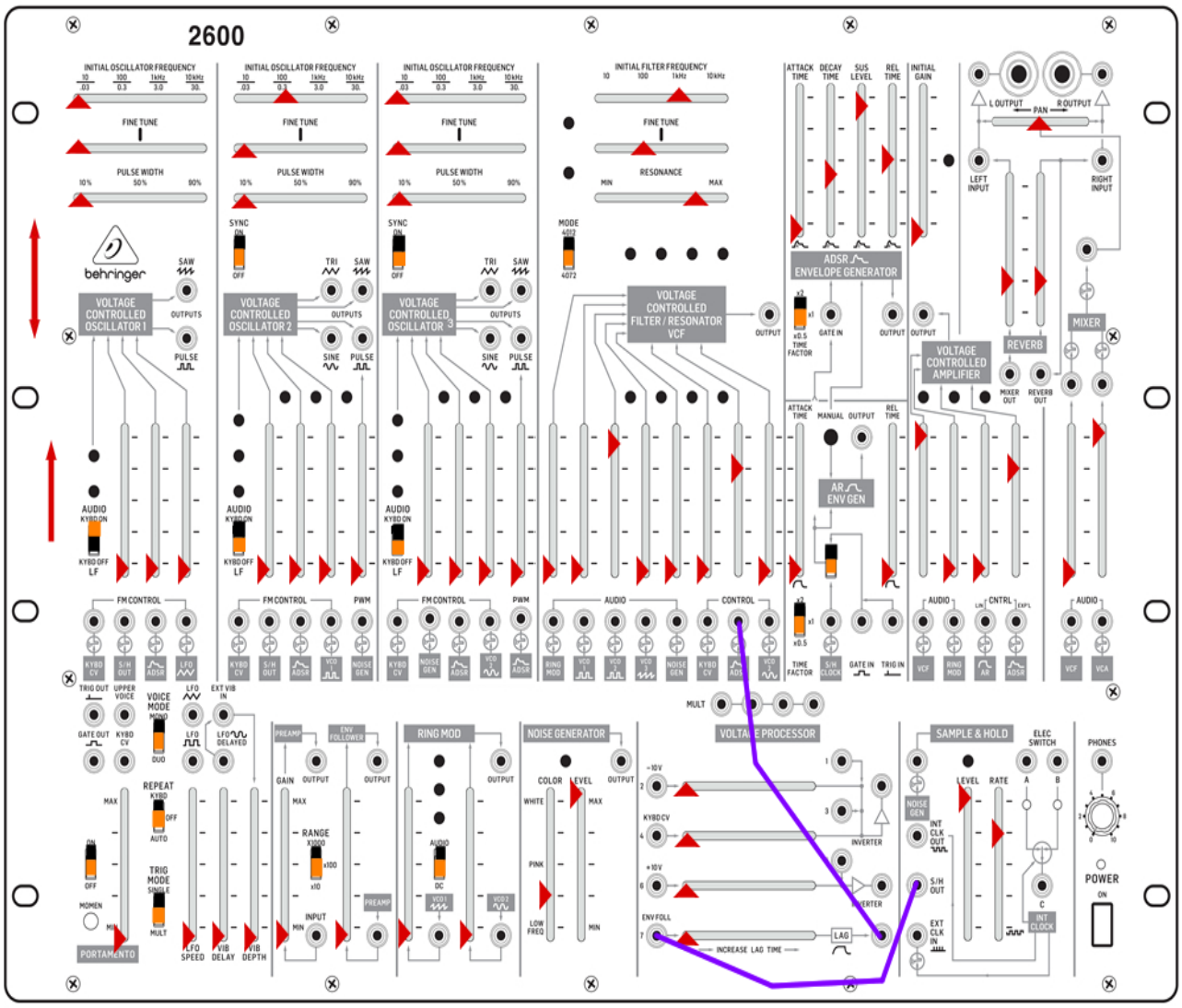


Trio: Three Separate Envelopes and Timbres

Tune Oscillators as desired

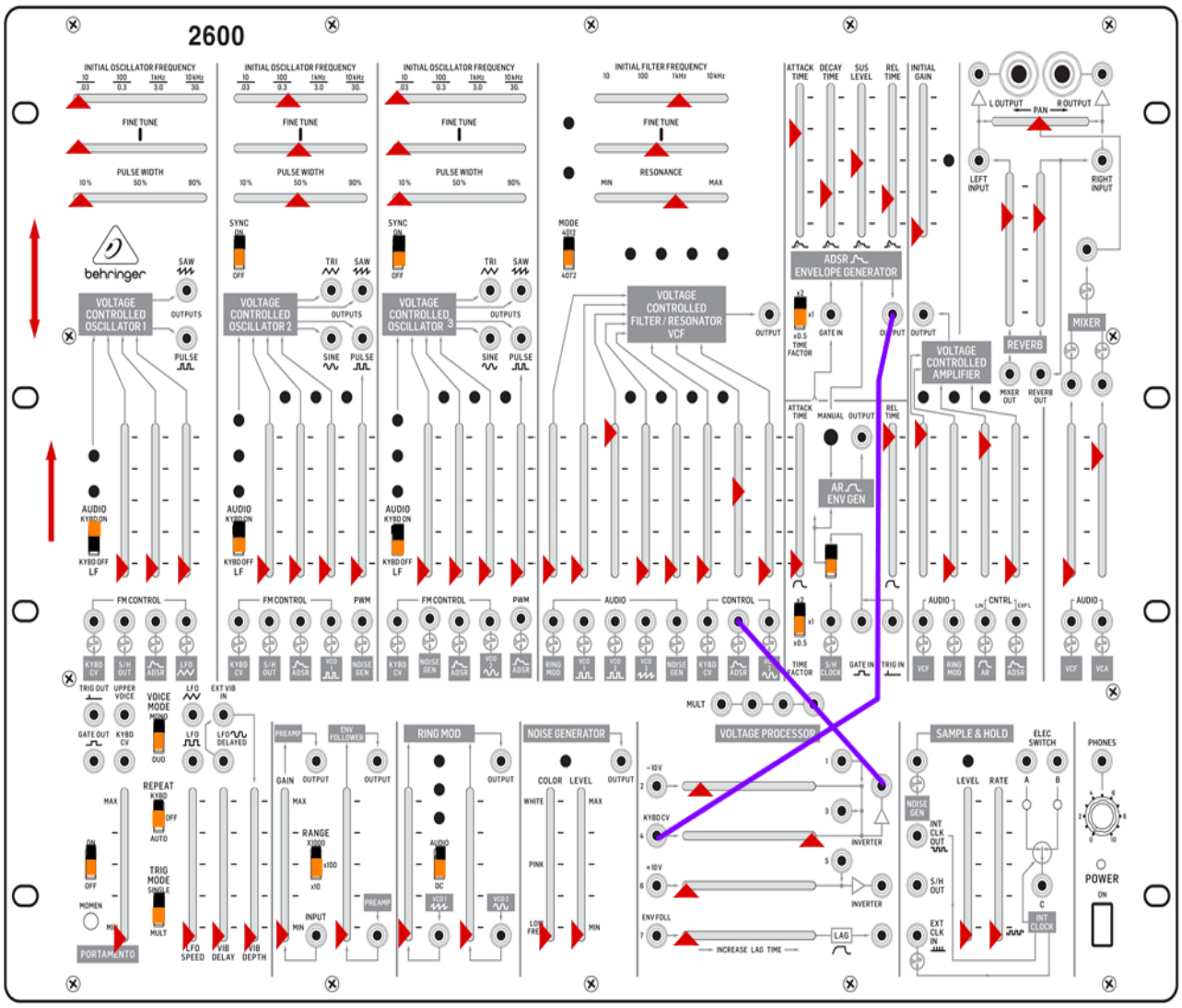
Balance volume at arrows

Behringer 2600



Lagged S/H to Filter

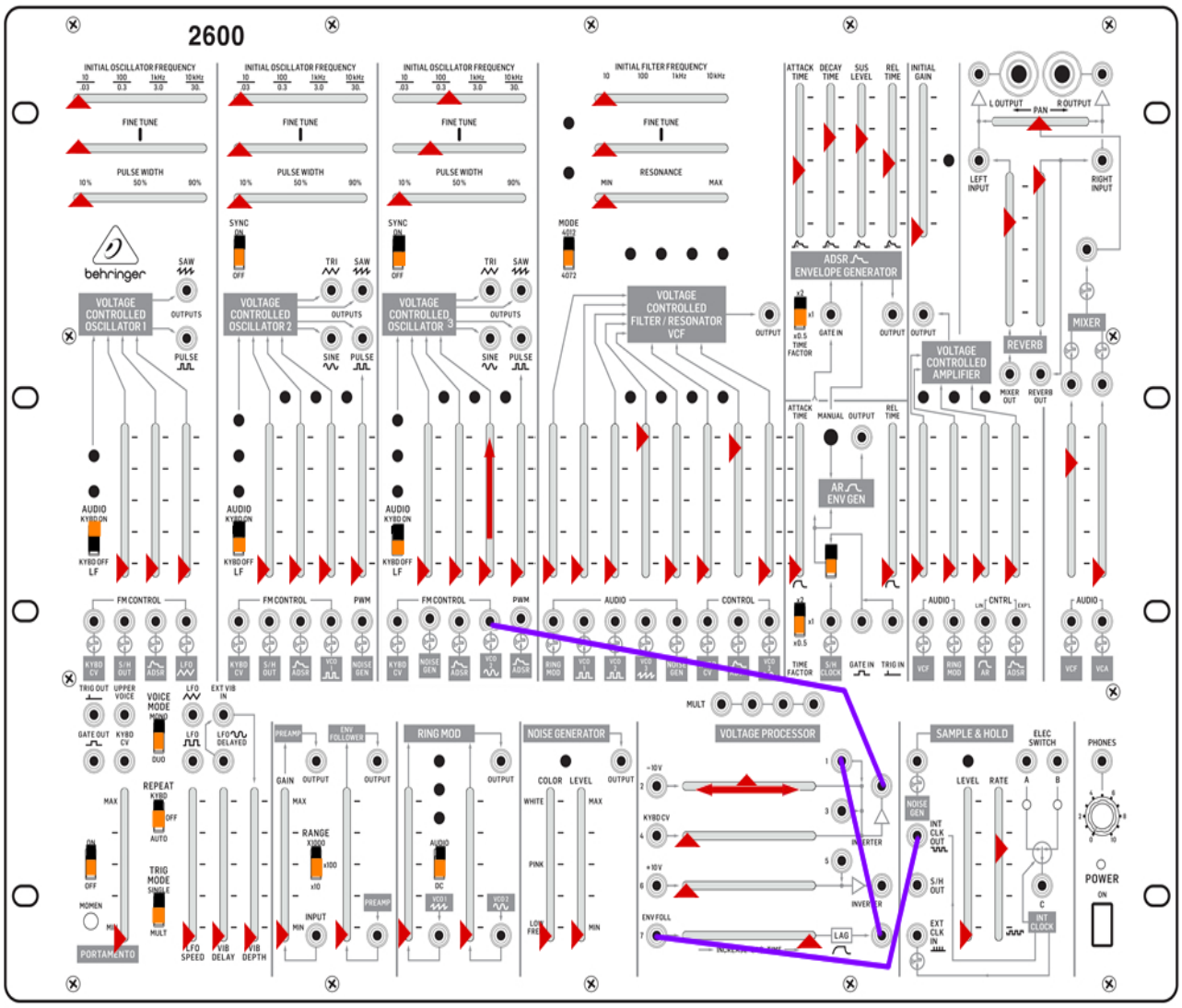
Behringer 2600



“Owwa” or Inverted ADSR to VCF

Adjust VCF Frequency for desired “Owwa”

Behringer 2600

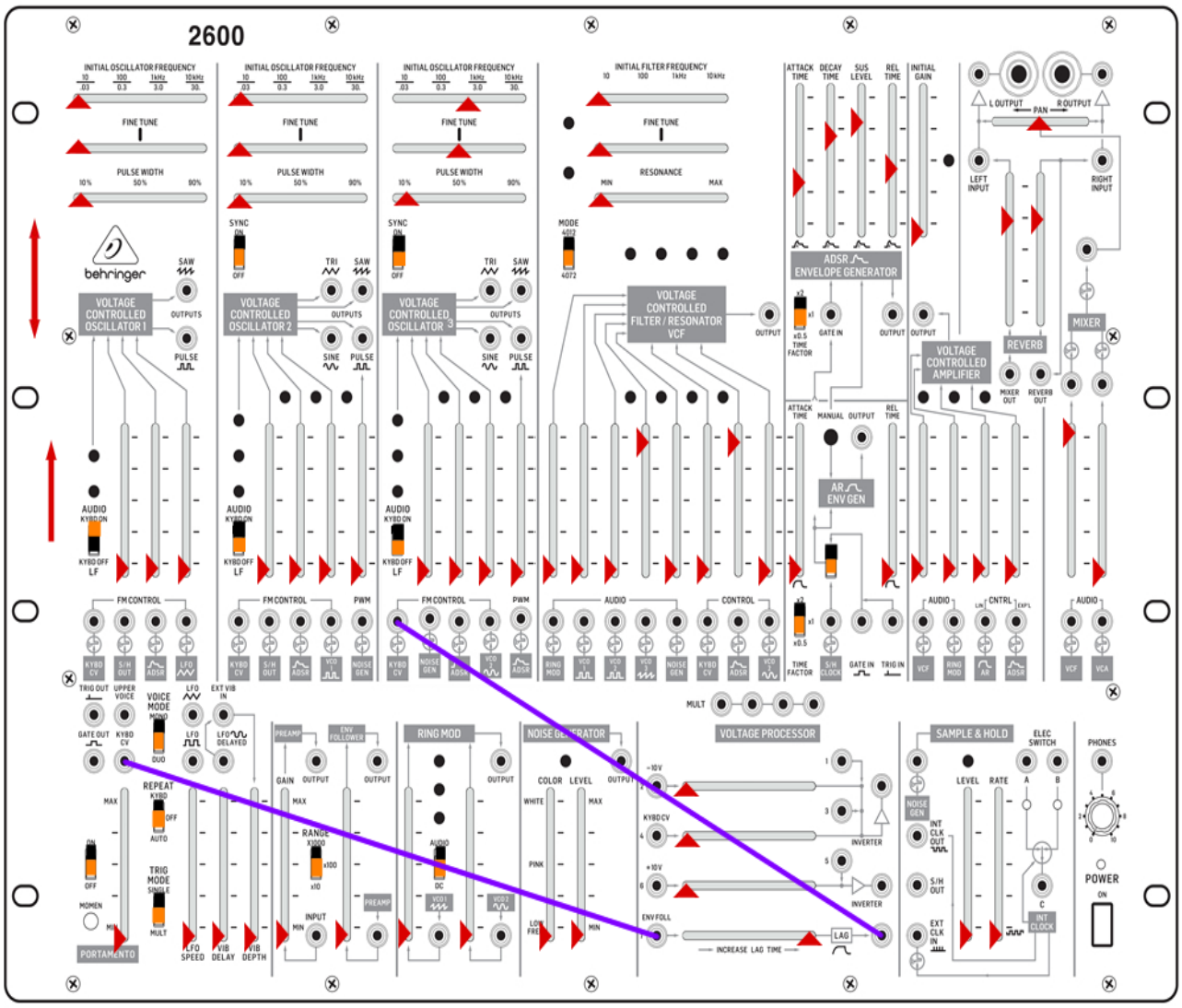


Basic Vibrato from Internal Oscillator

Adjust Inverter in to VCO3 for fine tuning and vibrato depth

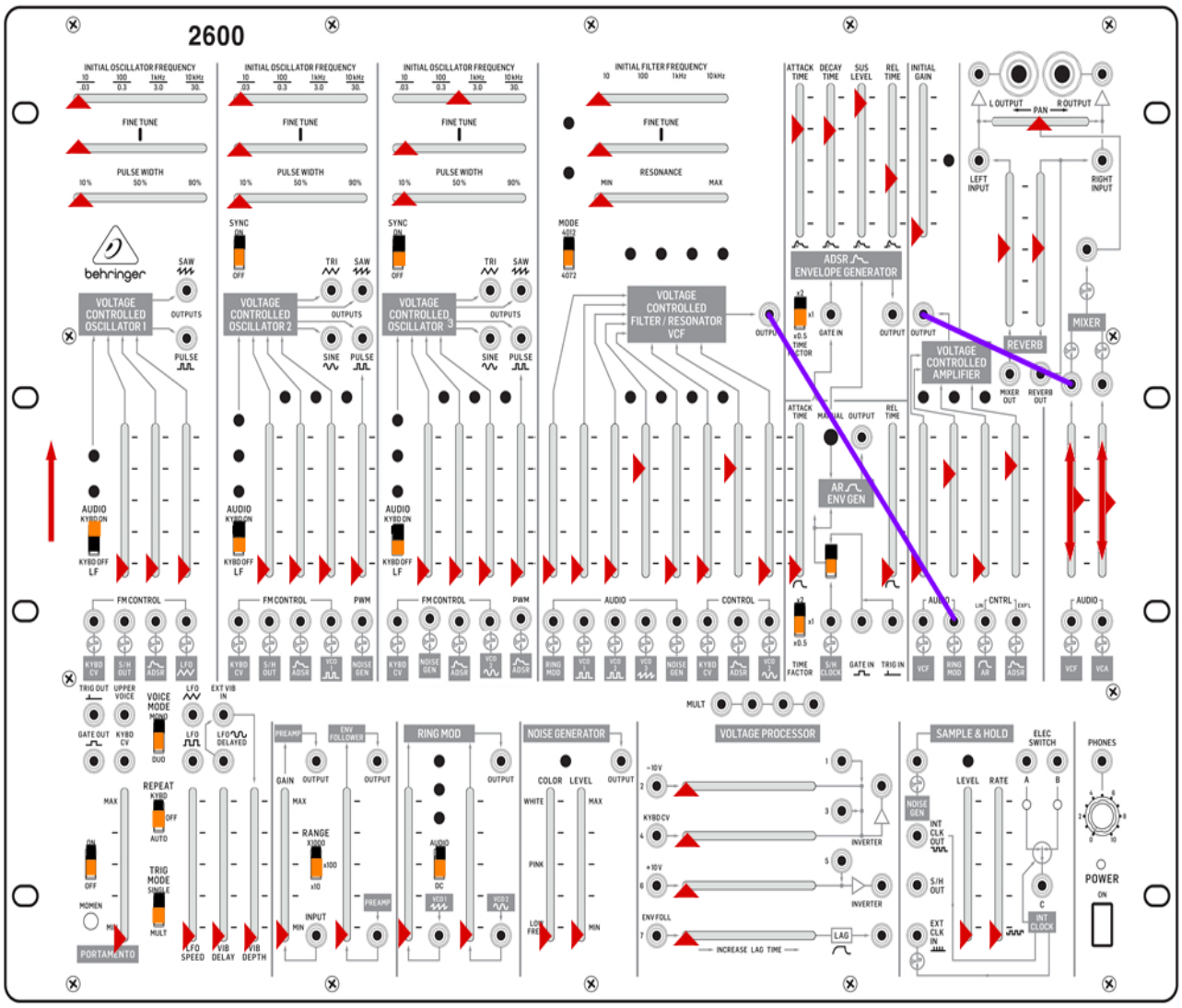
S/H Rate for vibrato speed

Behringer 2600



Lagged Keyboard Voltage

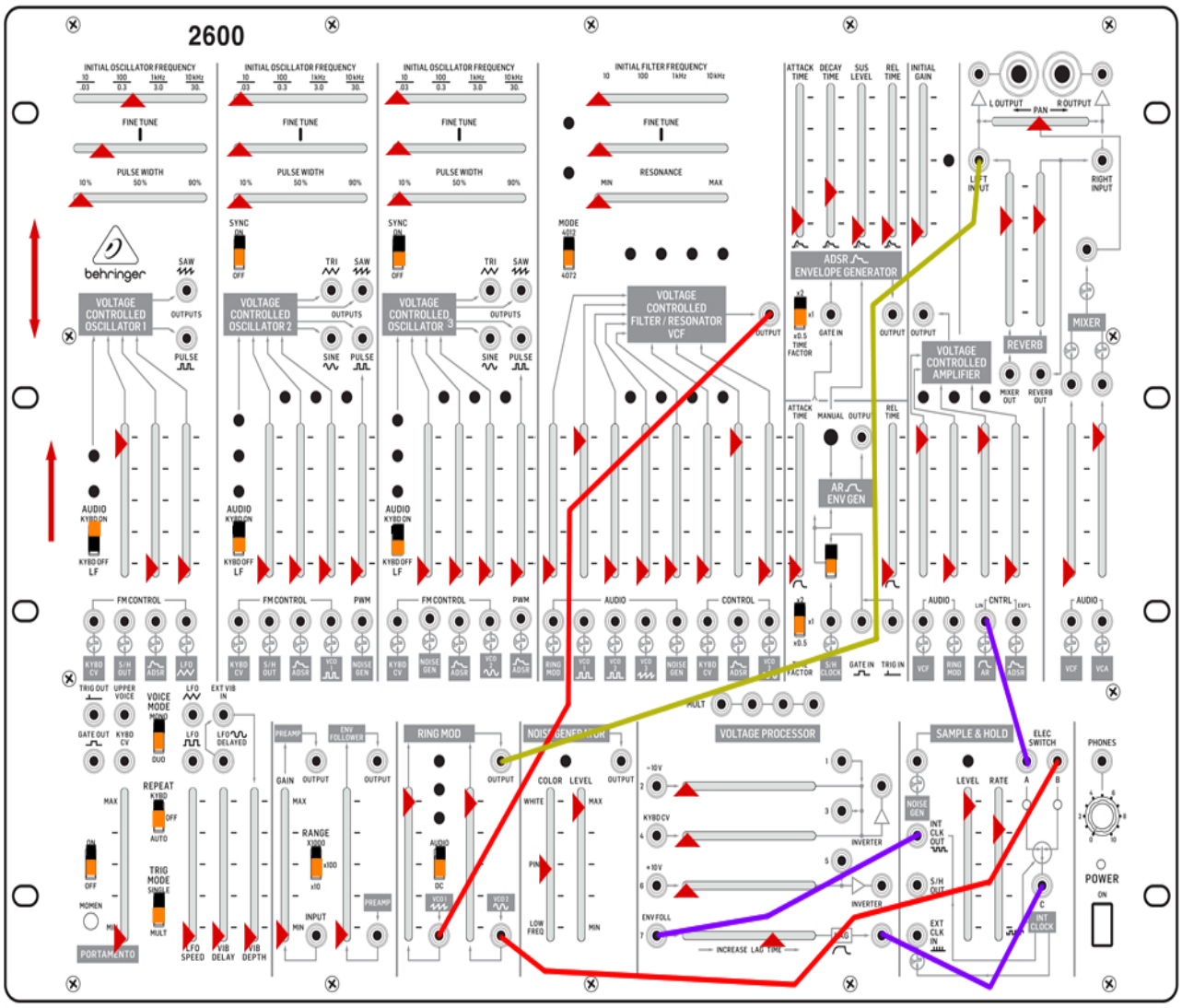
Behringer 2600



ADSR Pan

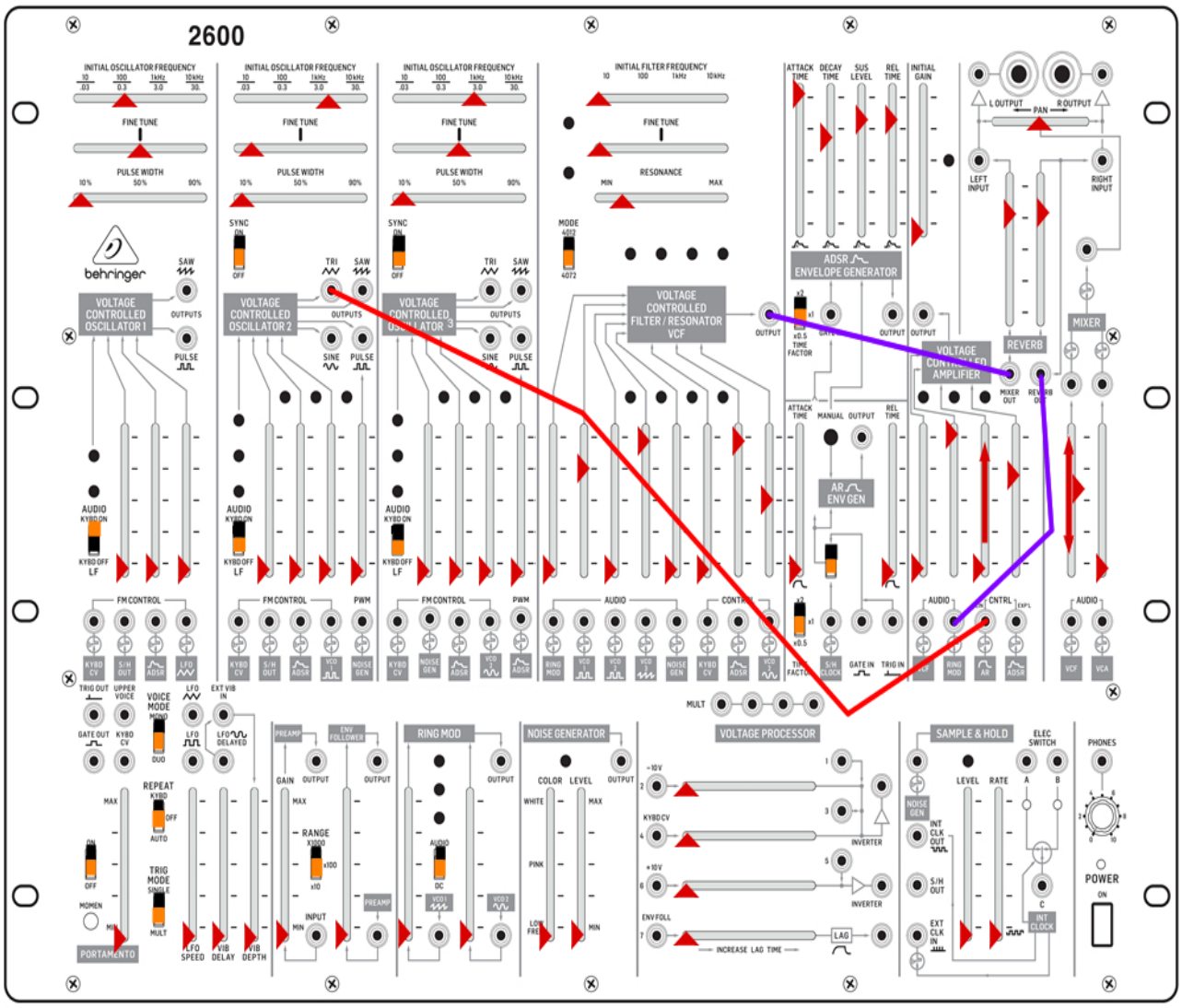
1. Hold down any key
2. Adjust VCF and VCA Mixer sliders for minimum volume in left speaker
3. Adjust ADSR sliders for speed and position of pan

Behringer 2600



Auto Pan on S/H

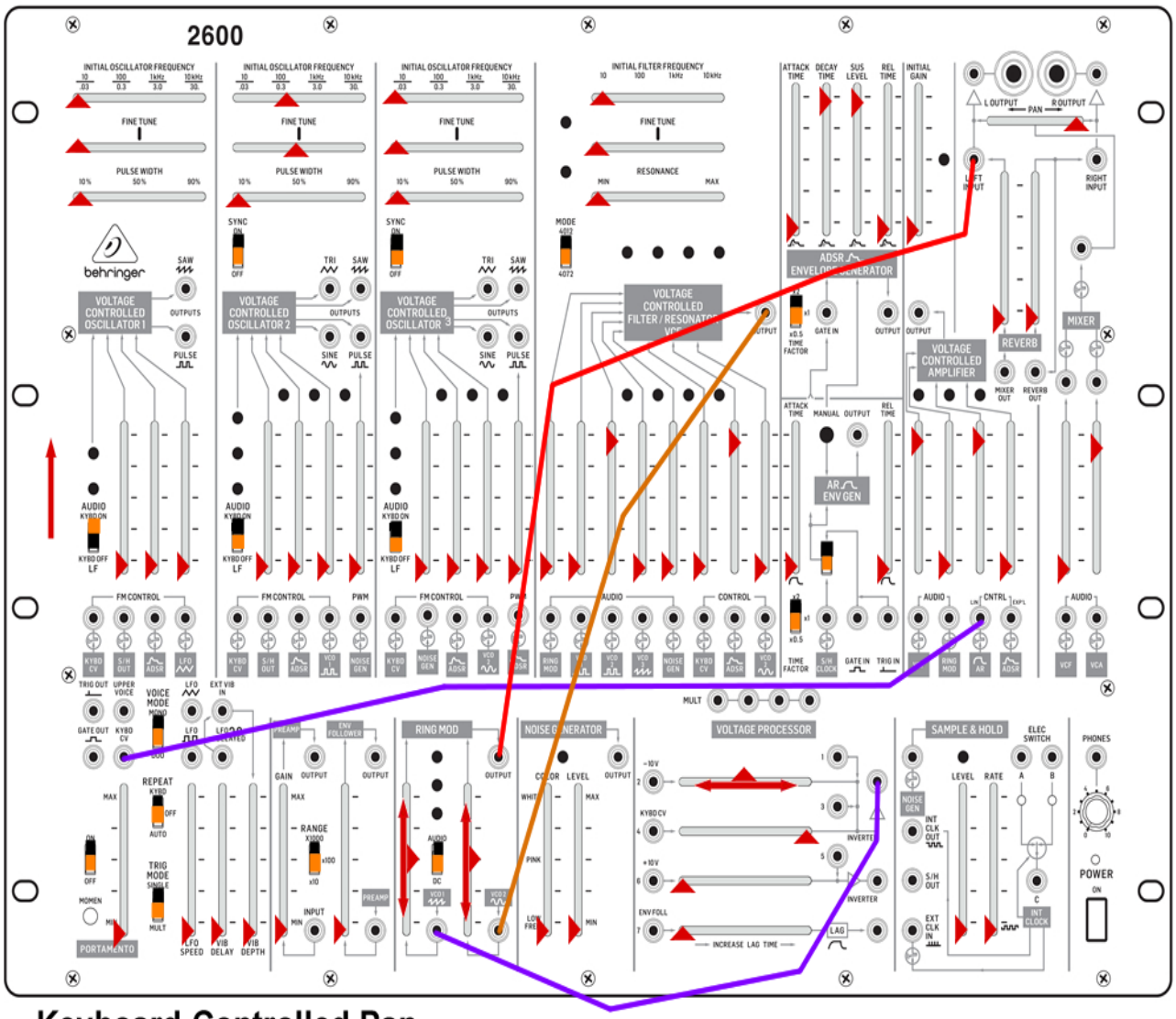
Behringer 2600



Auto Pan With Reverb

1. Tune VCO 1 and 3 as desired
2. Close right speaker
3. Press any key and adjust VCA in to Mixer for minimum volume in left speaker
4. Open right speaker and adjust linear control in to VCA
5. Adjust VCO2 frequency for pan speed

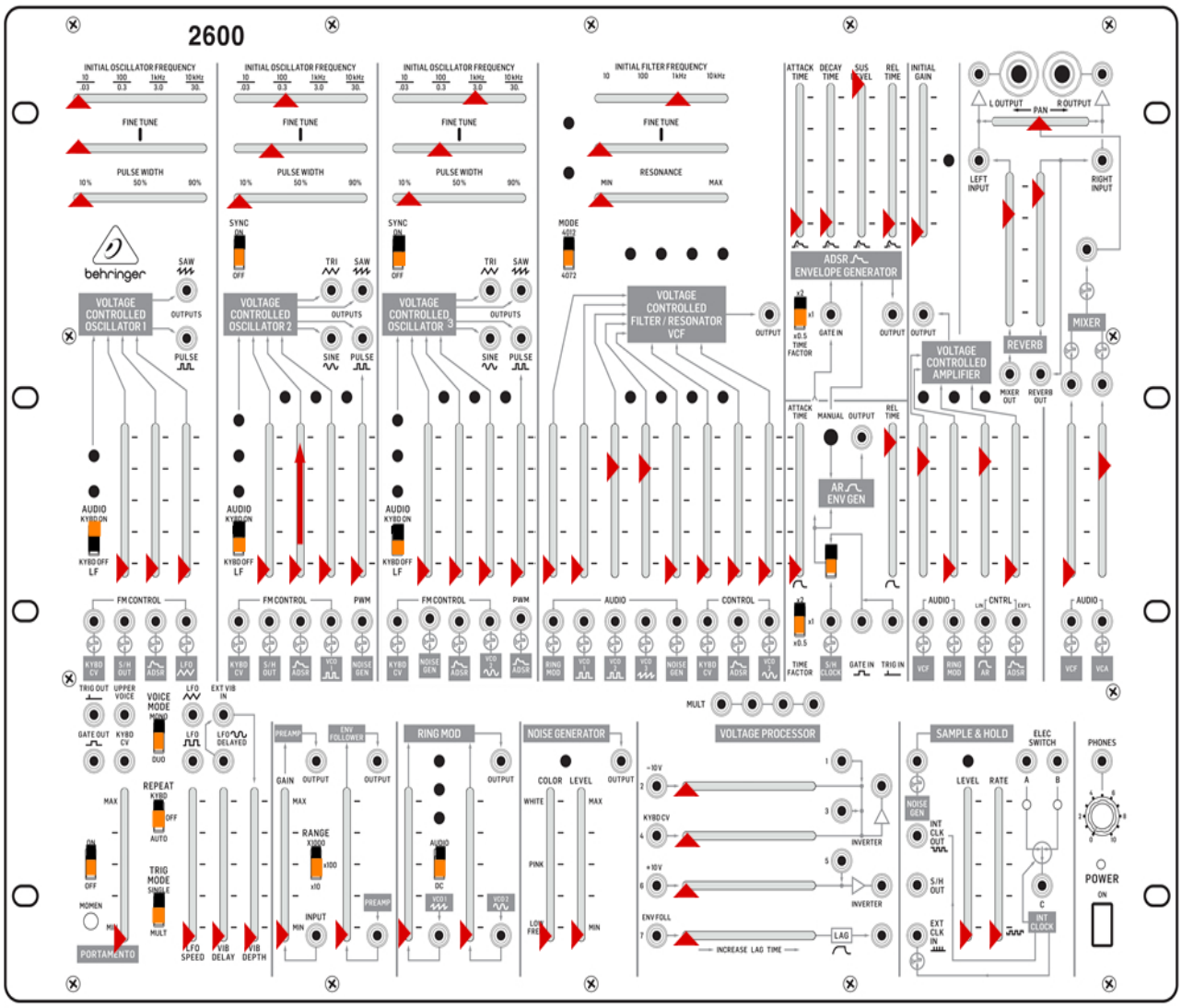
Behringer 2600



Keyboard-Controlled Pan

1. Close right speaker
2. Press key C5, and adjust Inverter slider to get minimum volume in left speaker
3. Open right speaker
4. Adjust input sliders on Ring Mod for balance while depressing key C3

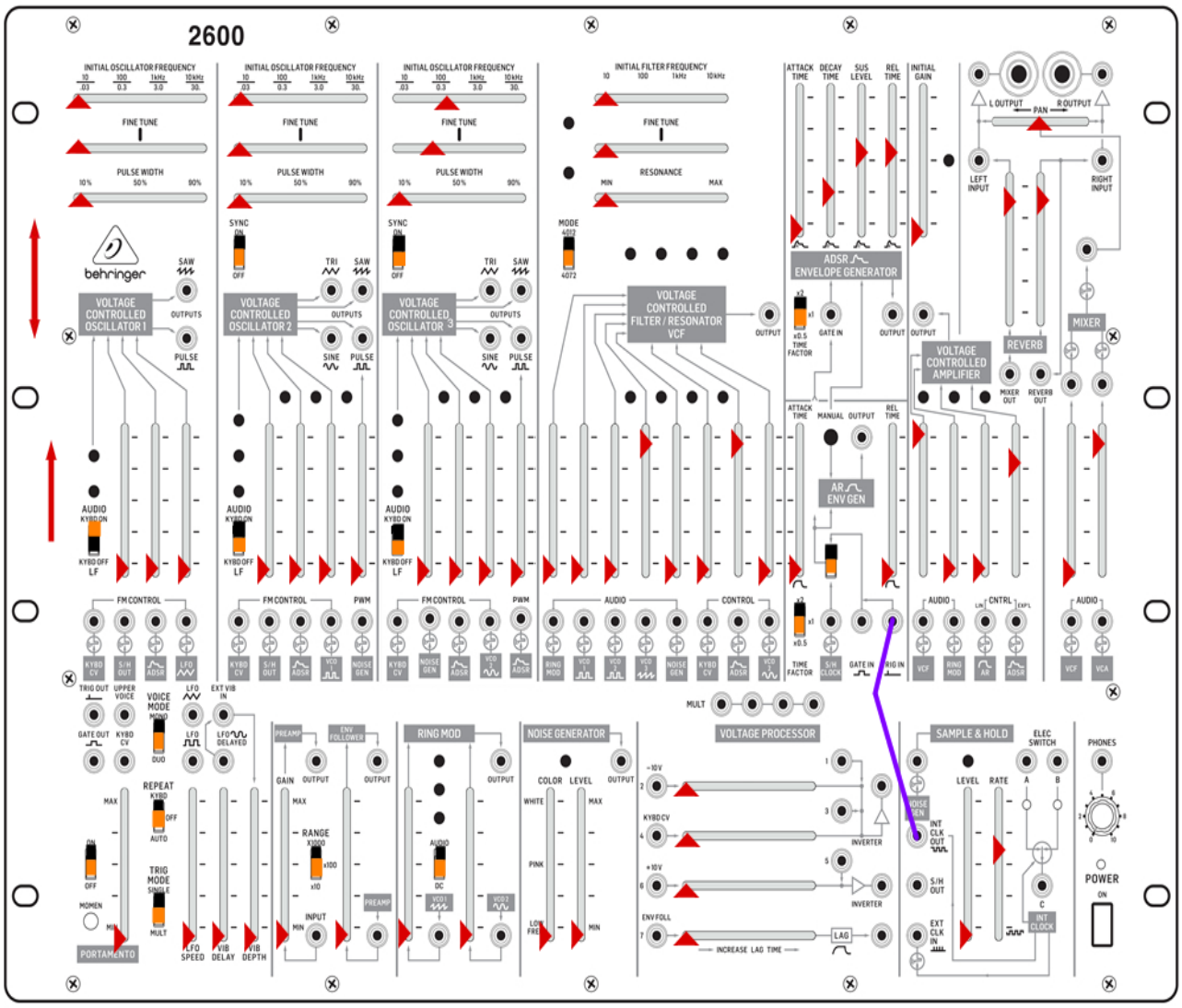
Behringer 2600



Release Follow

1. Tune VCO2 and 3 to desired interval
2. Raise ADSR in to VCO2
3. Play staccato

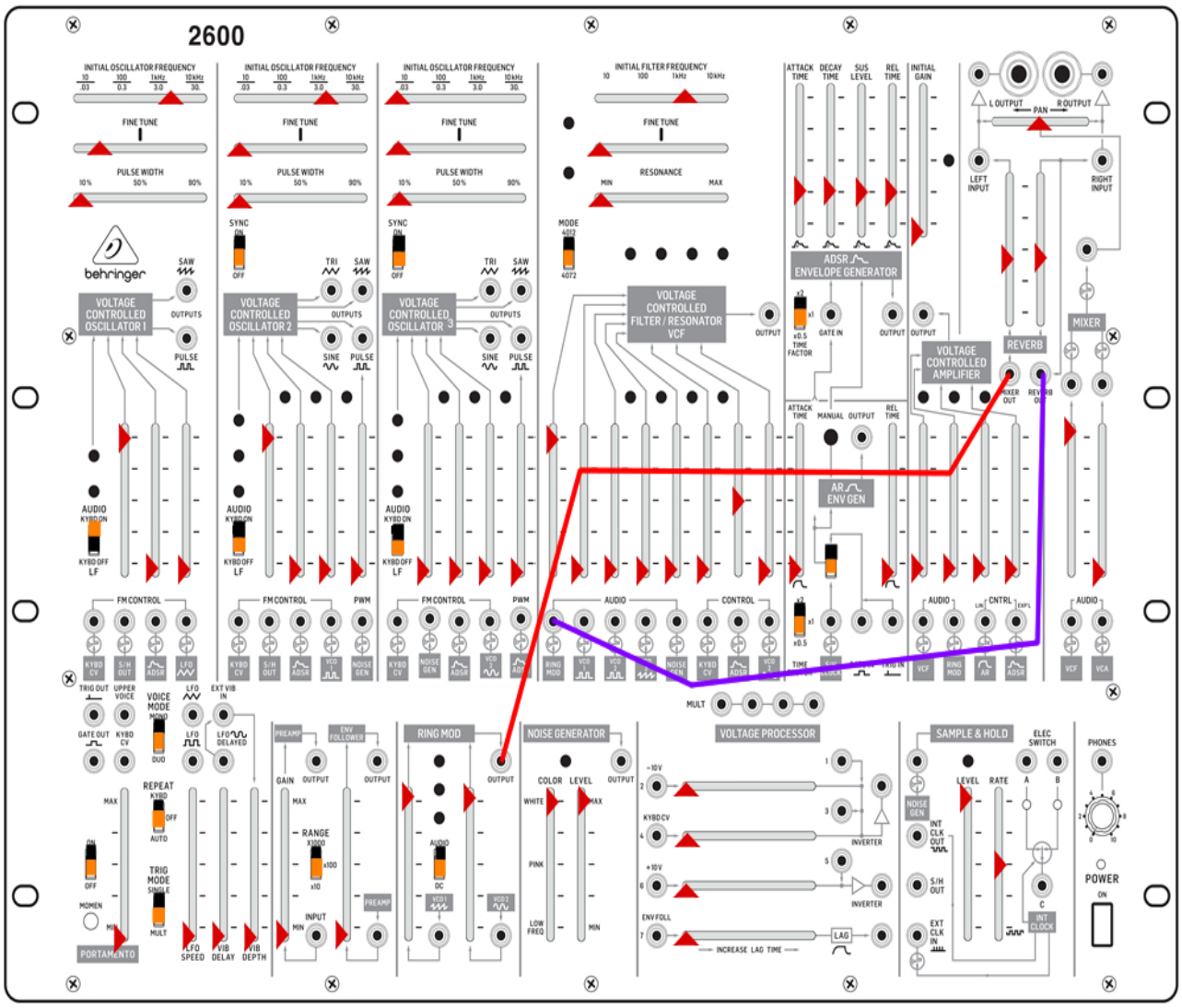
Behringer 2600



Touch Repeat

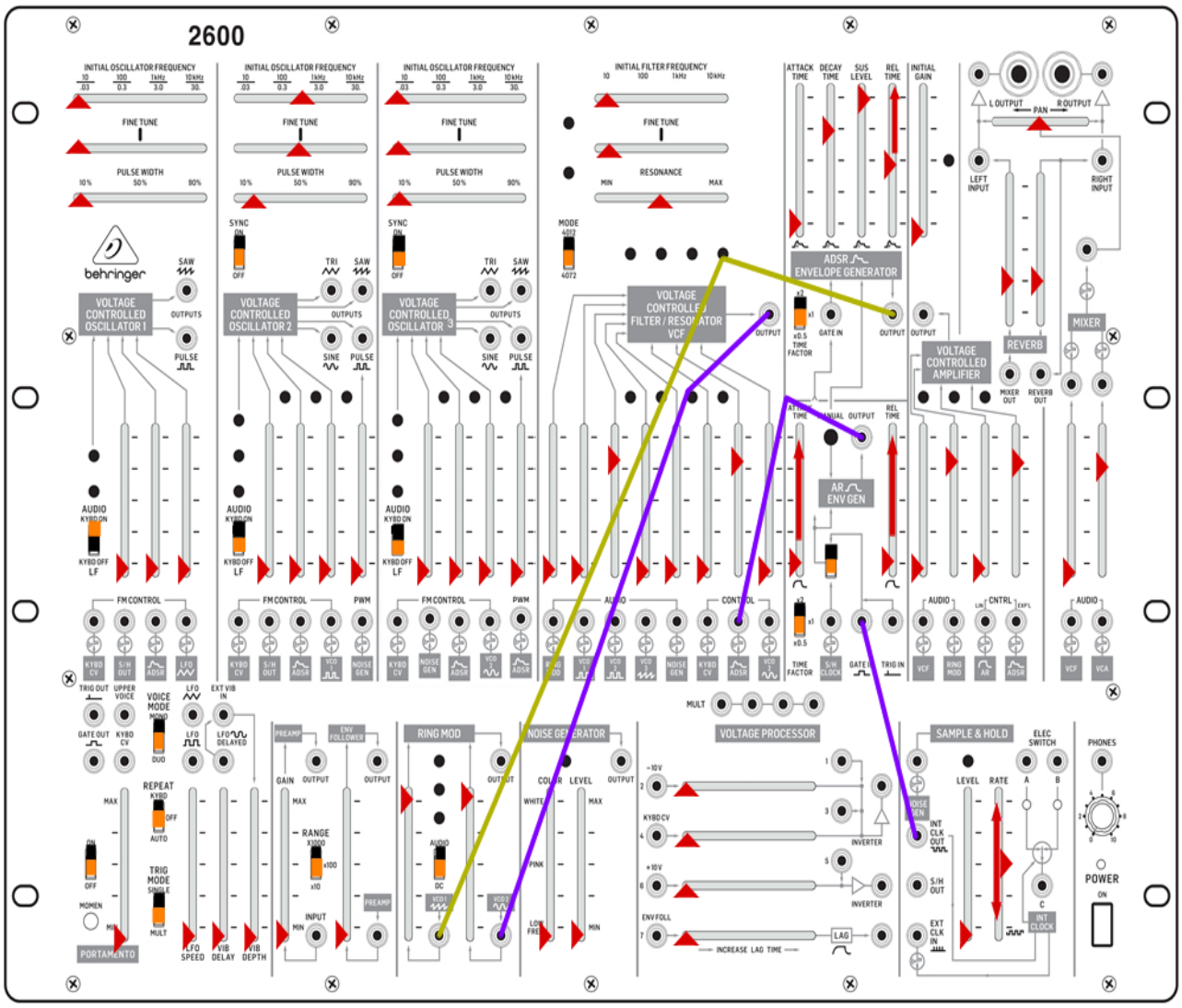
Adjust S/H Rate for repeat speed

Behringer 2600



S/H Echo

Behringer 2600



Echoperplex

Note: ADSR release determines number of repeats,
Echo is used on single notes only - AR is repeating envelope on fade out.
AR can be altered for repeated WOW effect, adjust S/H Rate for repeat rate.

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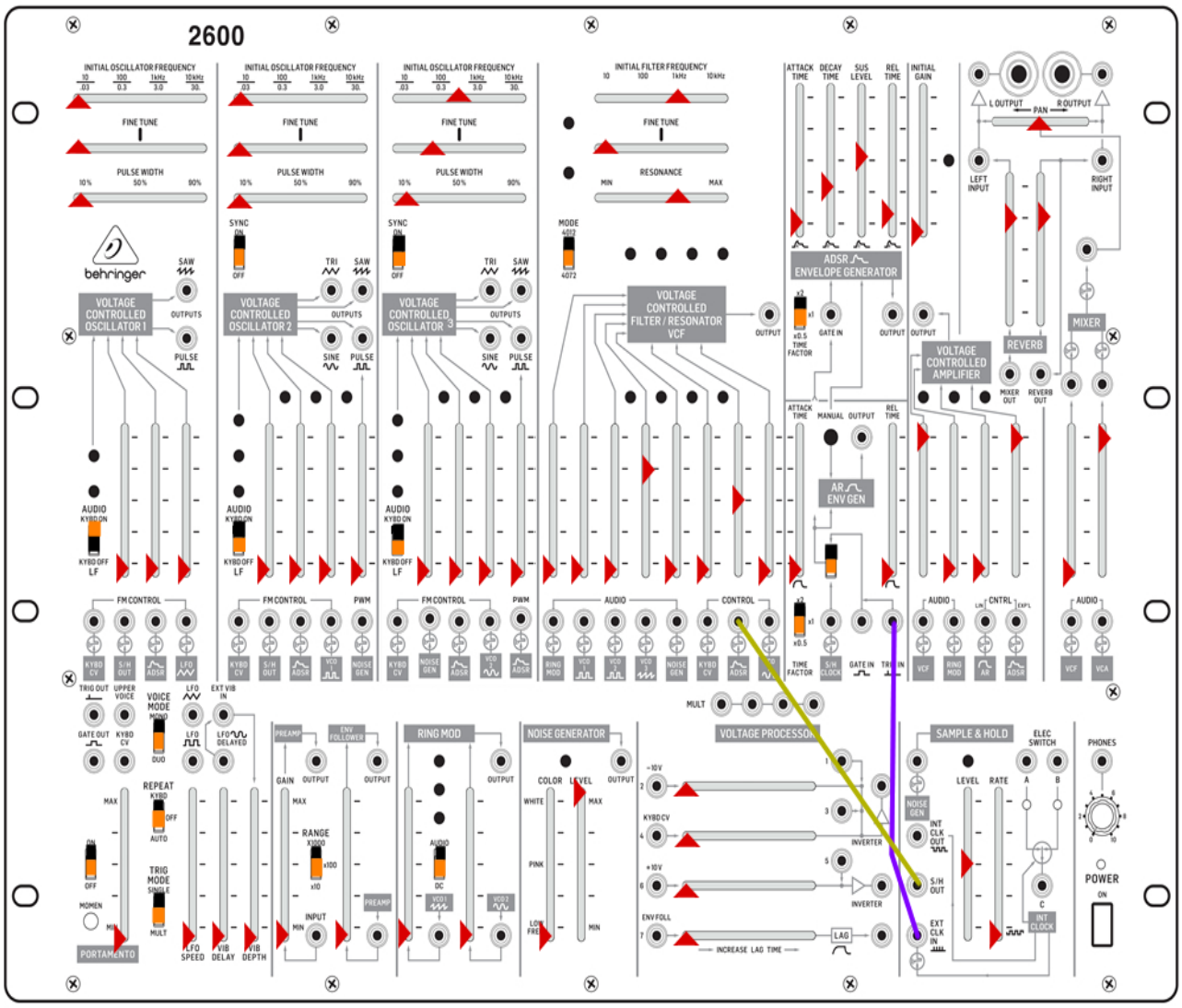
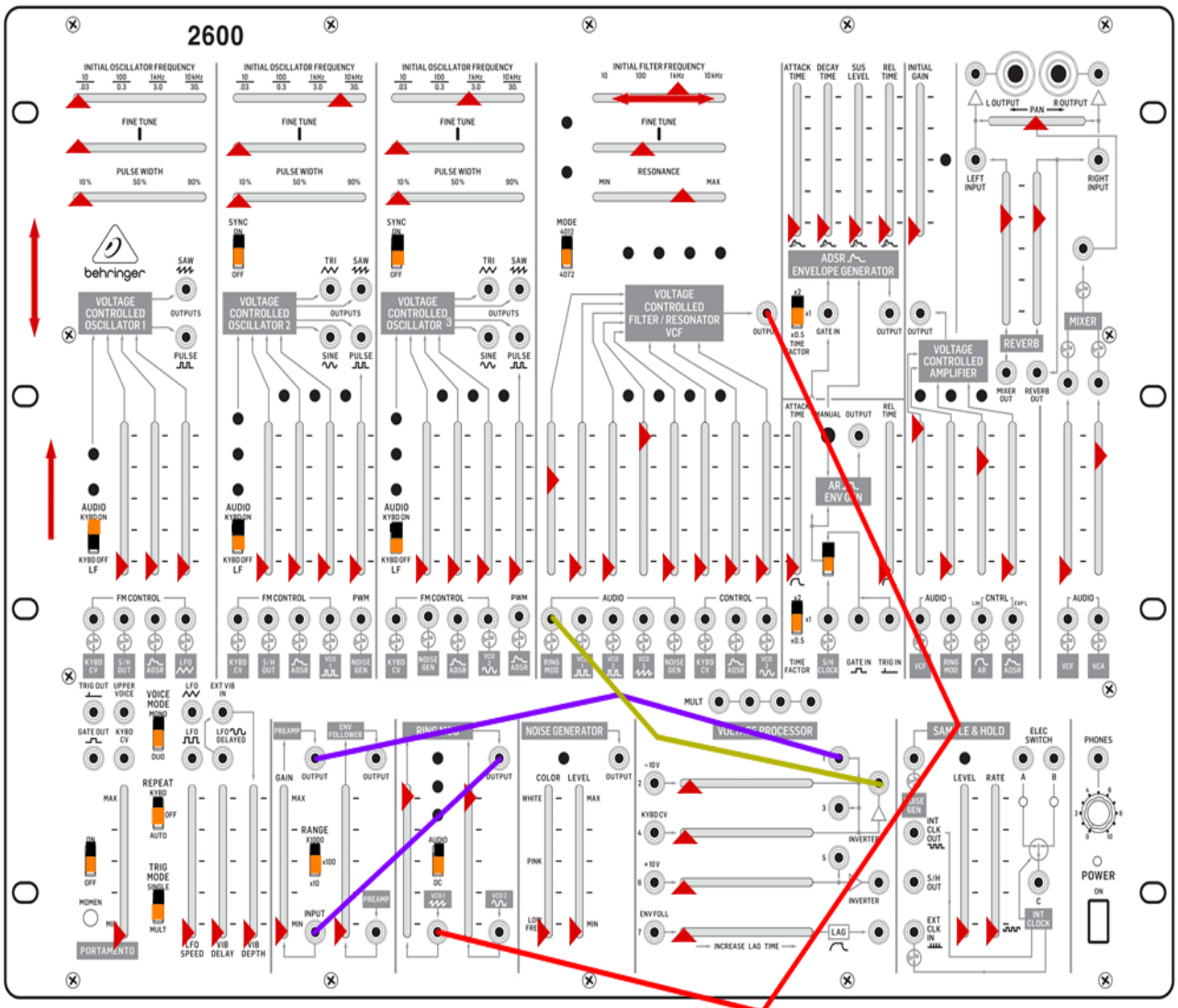


Random Filter Sample Keyboard Triggered

Behringer 2600



Voltage Controlled Resonance

Note: This patch will give you a basic pitch and a harmonic which fades in and out.

Different harmonics may be selected by altering the VCF frequency

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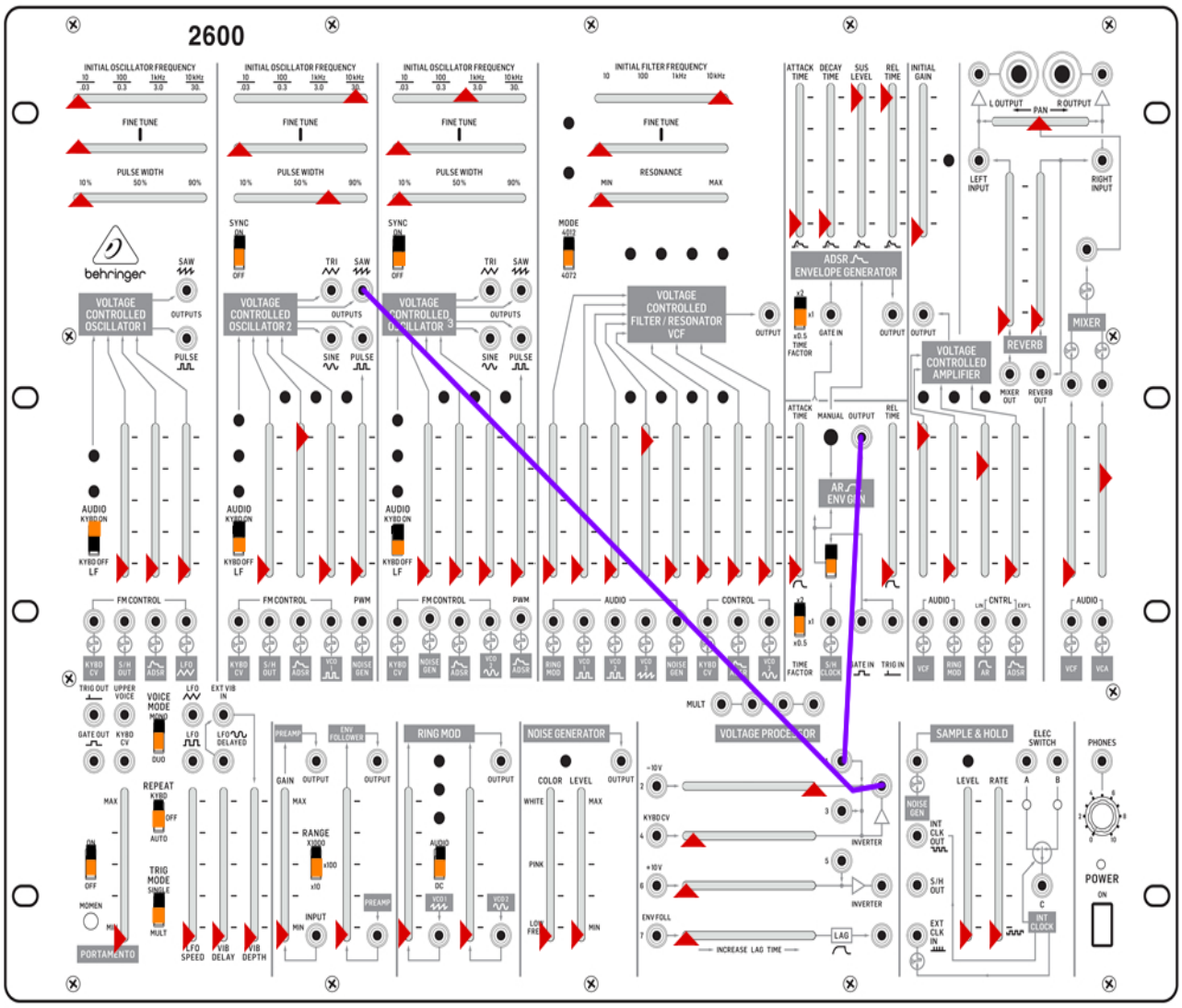

Voltage Controlled On-Time

Adjust VCO2 pulse width for envelope length

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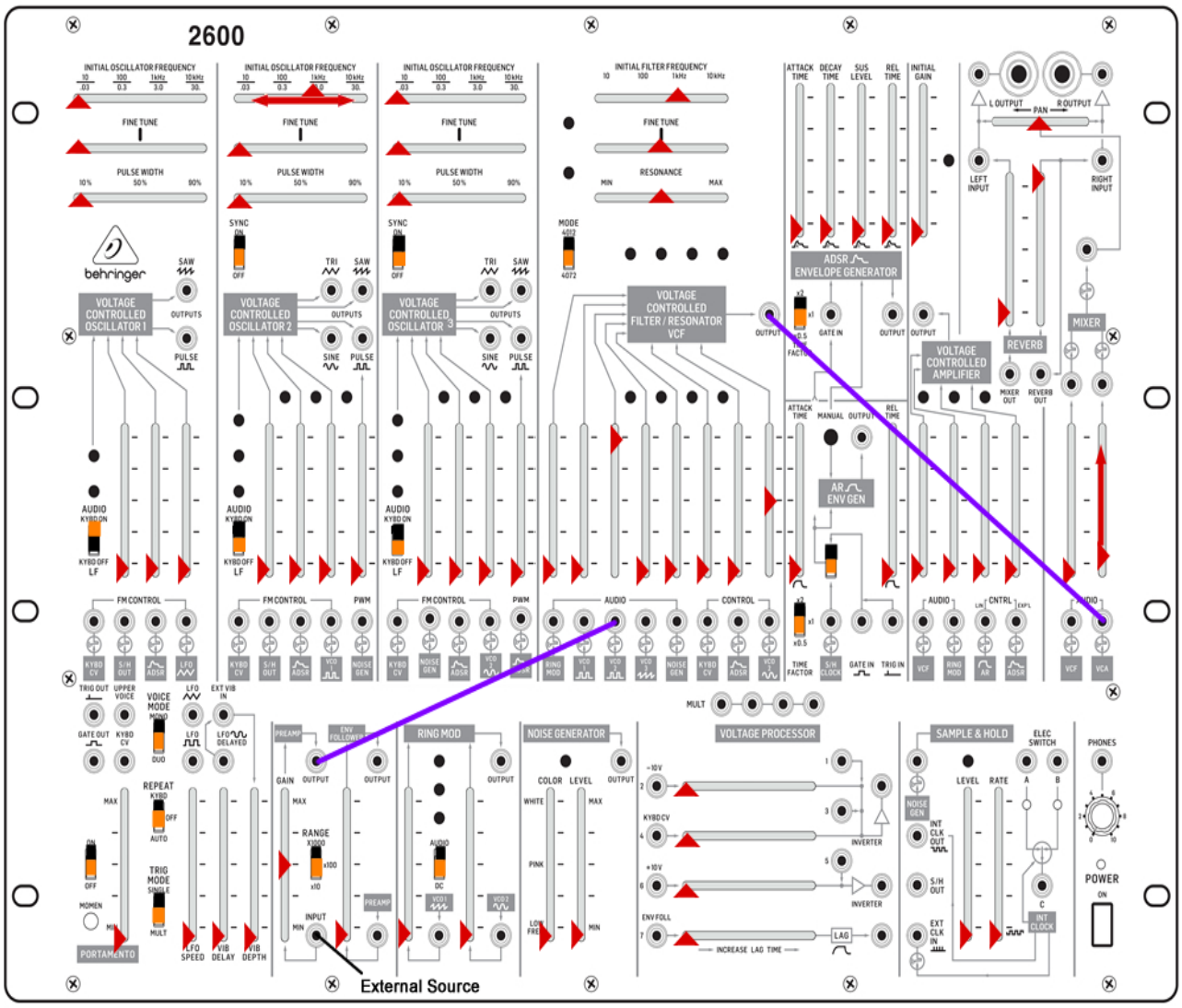

Ethereal Phase Shifting on External Source

Adjust VCO 2 in to VCF for phase
VCO2 frequency for phase shifting speed

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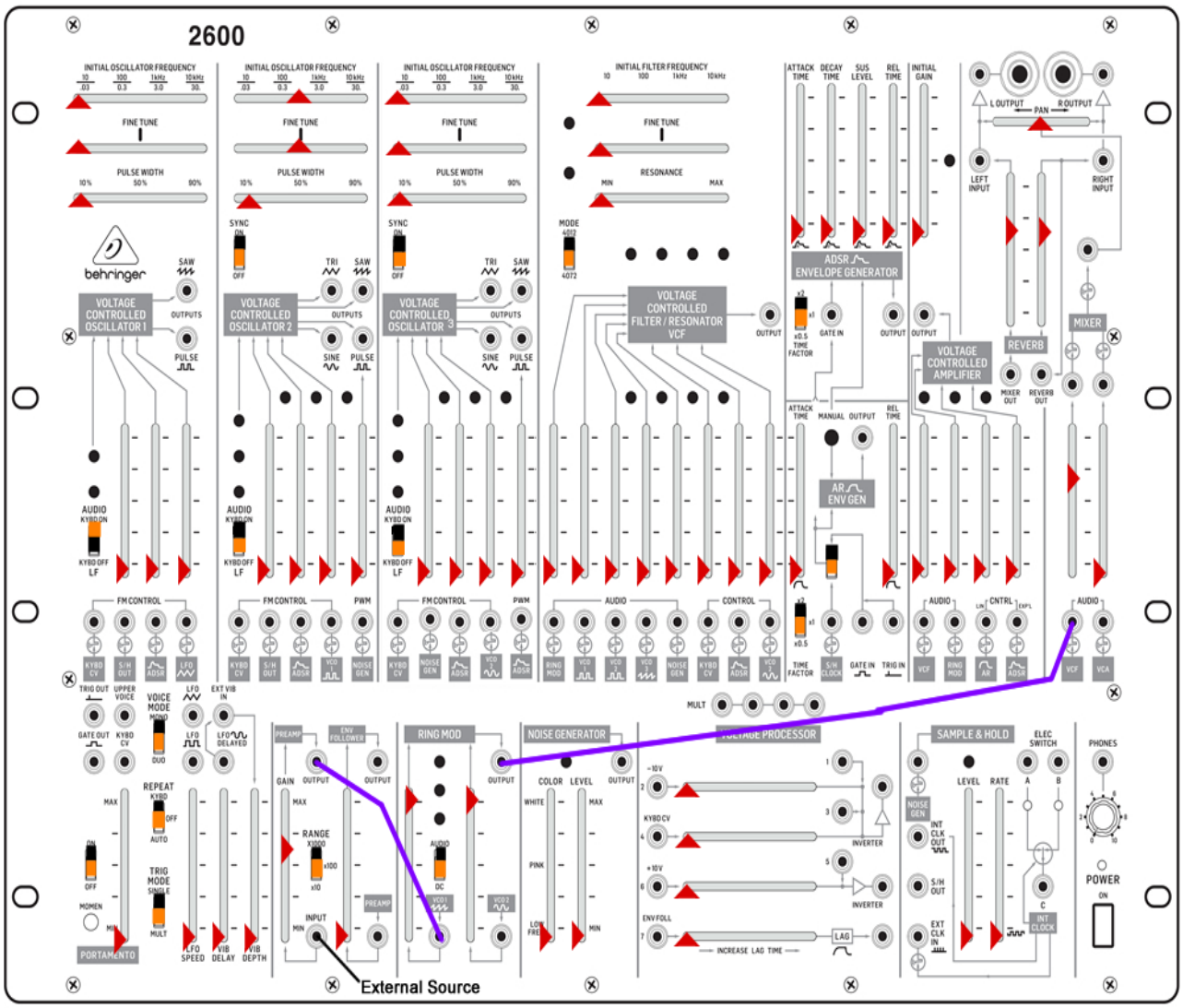

Modulated External Source

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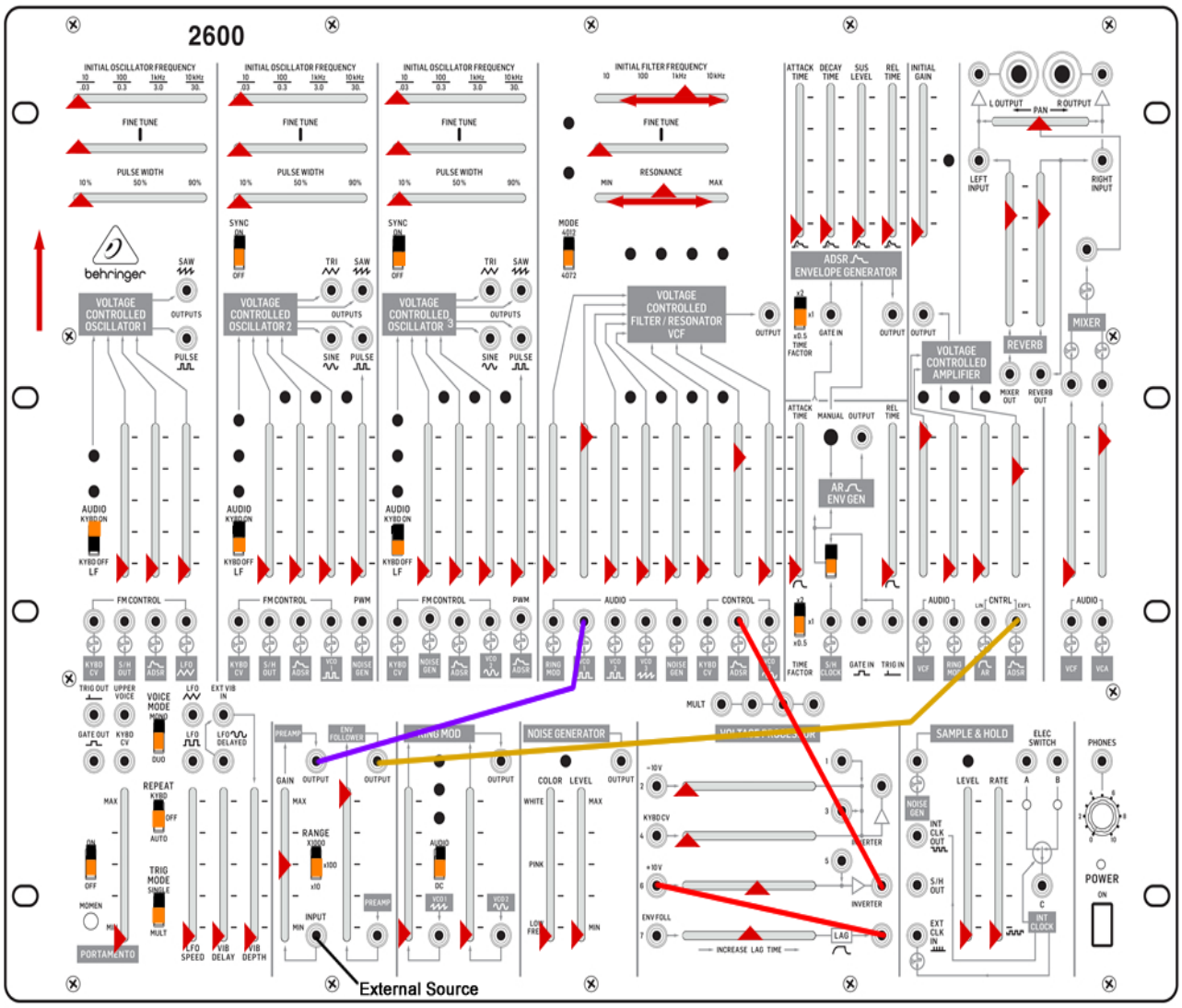

“Ow” on External Source

Adjust VCF frequency and Resonance as desired

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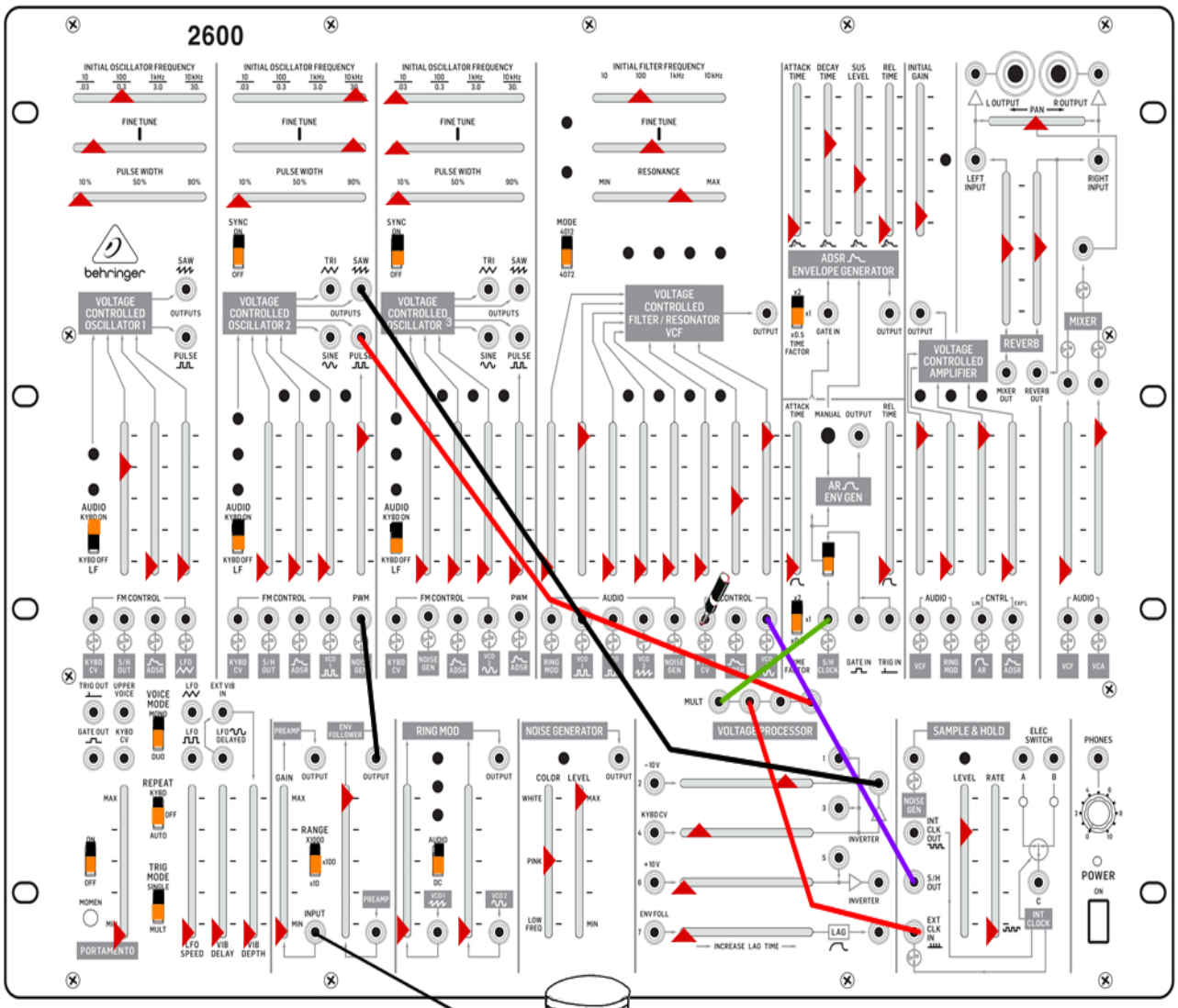

Drum Controlled ADSR & S/H

Adjust pre-amp gain for gate sensitivity

(Mic in Drum)

Dummy plug.

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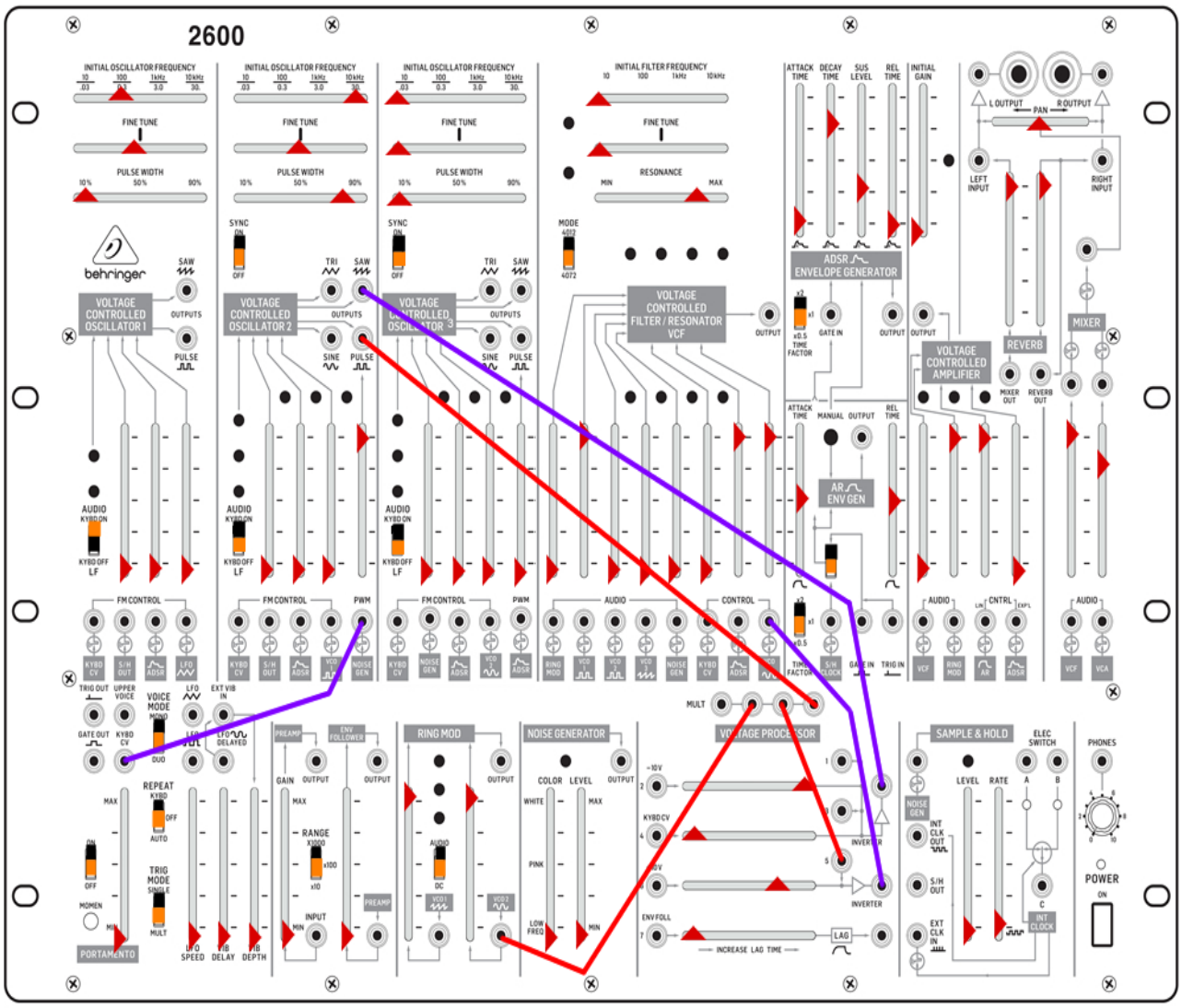

Split Keyboard - Bass ‘Ow’ and Violin

1. Adjust VCO2 pulse width while playing keys C3 and Csharp3 alternately. You are fine tuning the placement of the split so that a violin will be heard on Csharp3 and an ‘Ow’ on C3.
2. Adjust the +10v Inverter slider for desired filtering on ‘Ow’