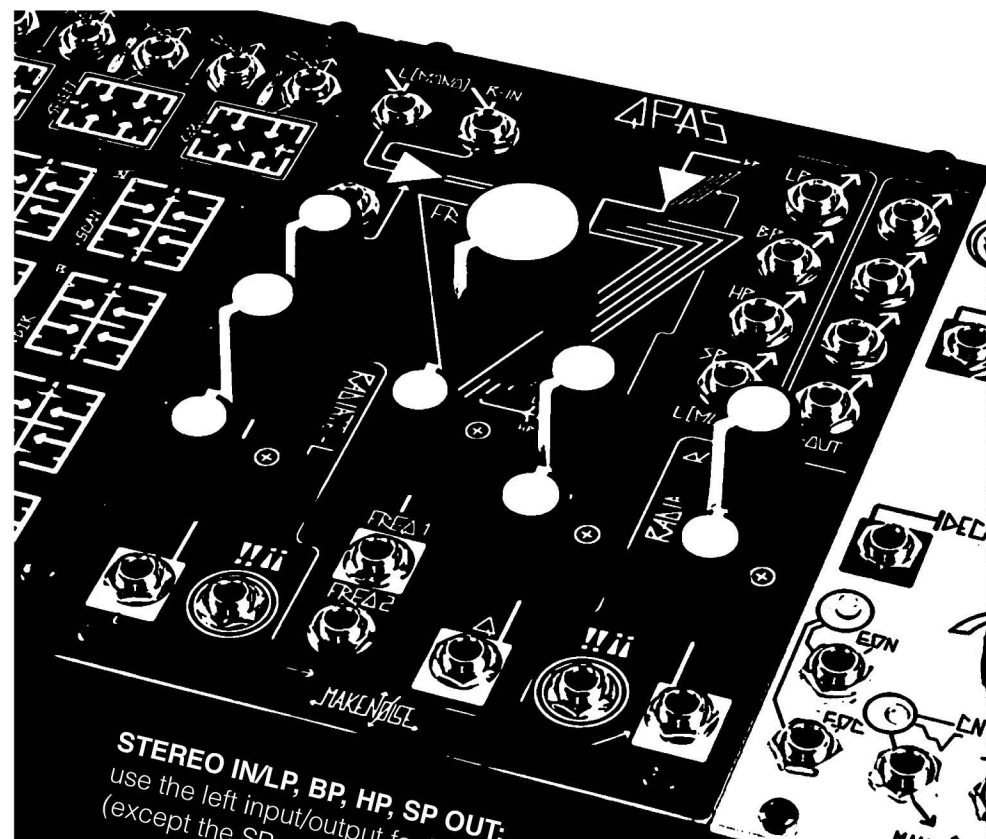
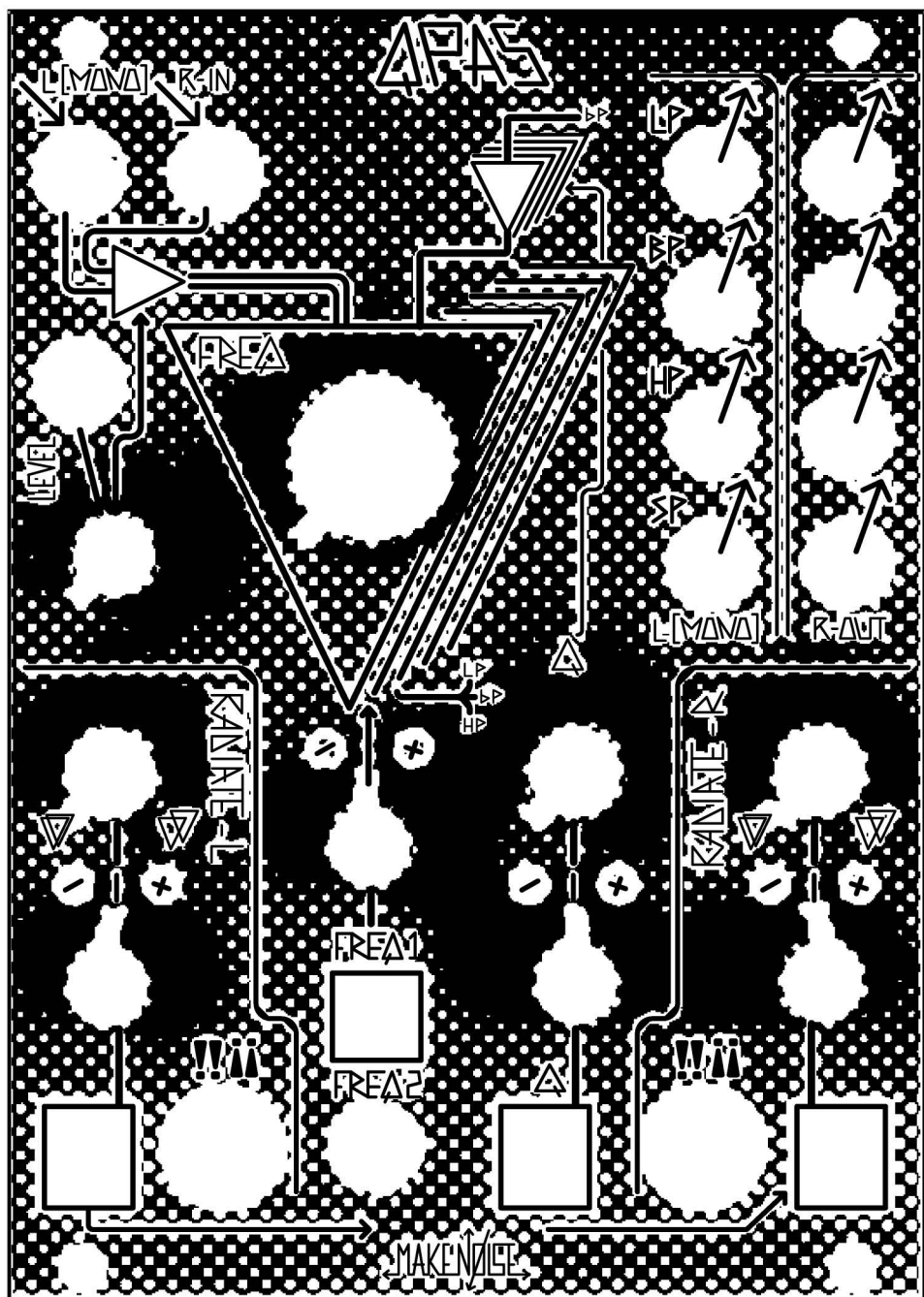


MAKE

FEB. 2019

NOISE



STEREO IN/LP, BP, HP, SP OUT:
use the left input/output for Mono operation
(except the SP outputs, which are always stereo)

LEVEL:
pre-filter signal level. When used with CV
this acts as an exponential stereo VCA

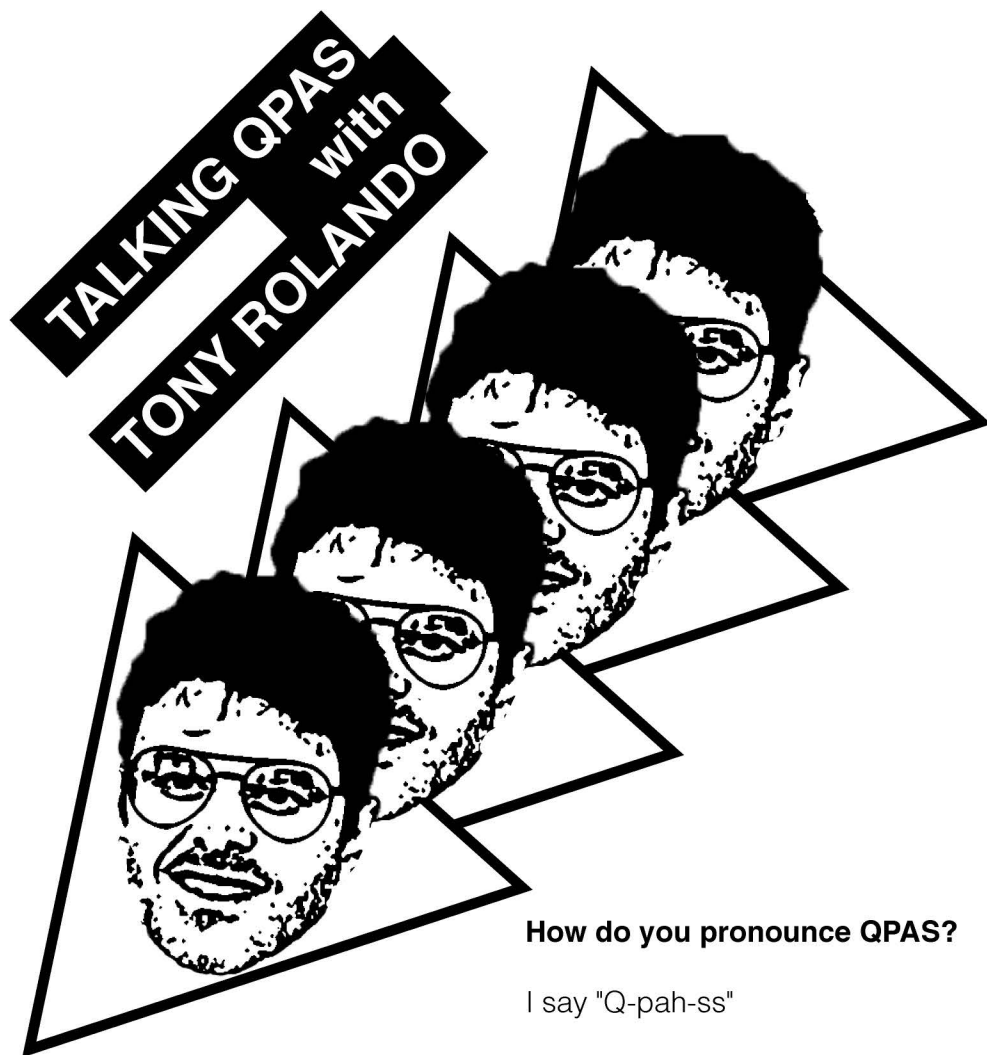
FREQ:
Controls the cutoff frequency
for all four filters

!!!:
experimental inputs that affect many aspects
of the filter cores at once
(patch anything here— audio,
sub-audio, clocks— and see what happens!)

RADIATE L/R:
Controls the frequency spreading and animation
between all four filter cores
(L affects filters 1 & 2, R affects 3 & 4).

Q:
sets the resonance amount for all four filters
(will not self-oscillate)





Speaking of names, "Smile Pass" seems to be a new thing. Is this a new filter type? How did you land on that name? Can you talk more about what it is?

I designed the front panel and realized there was room for one more pair of outputs. I went back to the prototype and experimented with adding and subtracting different combinations of taps from the filter cores. I wanted to create a filter type that would allow for animation of resonant peaks without the loss of bottom or top end of the spectrum that must occur in a LP, BP and HP filter to give those types their dramatic sound. I also wanted to add something that could not be achieved by mixing the existing LP, BP and HP outputs. The SP output is the subtle result of that experimentation.

What was your inspiration for the module? Is it based on a previously existing filter, or is it a new thing entirely?

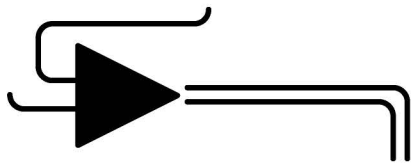
I wanted to design stereo filter that could be dramatically animated and capable of mono to stereo, stereo to mono, mono to mono and stereo to stereo. Something that was more functional than just linking two filter modules. I knew I needed at least two filter cores to achieve stereo and so I had to first design a single filter core where the character and repeatability was not so defined by the vactrol utilized in other MN filters.

I enjoy the QMMG and MMG, but they require many trims and specialized selection of the vactrol parts to work well and even then there is a great deal of variation in from one unit to the next. That might not work well for a stereo filter. It took longer then I anticipated to develop the single filter core. I designed 4 completely different cores. The first one was too noisy, especially when you consider there would be multiple cores in the final design and thus the noise from each would combine into a higher noise floor. The second required too many trims to be effective. With multiple cores in the final module, I had to consider things like this... beta testers were brutally honest thankfully. Once we had a good filter core, I could prototype a multi-core, stereo version. I attempted 2, 3 and 4 core versions. It was not until I reached 4 cores that I really felt the dramatic animation I had been seeking. Finally I had to come up with a way to control 4 filter cores simultaneously that was powerful but simple enough to encourage system integration rather than system domination.

What are some of your favorite features on the module?

The Radiate parameters are the most exciting to me as they define the image and animation of the final sound. I think they are an elegant way to handle animation of multiple filter cores within a modular synthesizer. The normalization between the two Radiate parameter further eases this handling.

I also like the VCA at the input. The traditional location for a VCA is post-filter, so my hope is that this pre-filter VCA will encourage the less common signal path and that inspirational to folks.



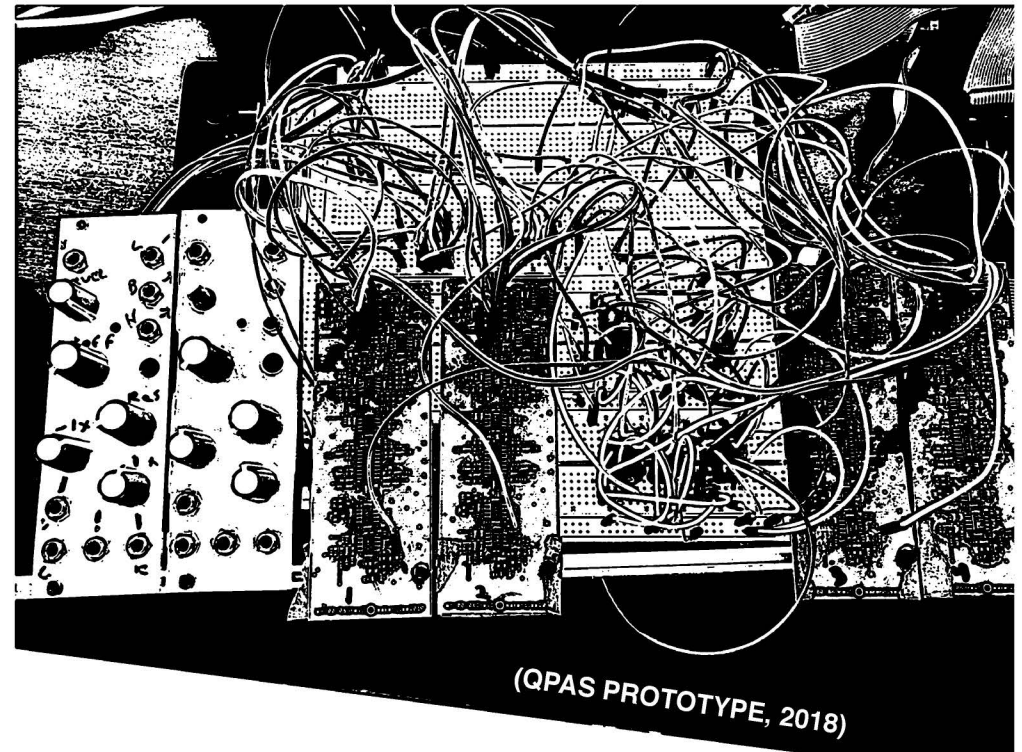
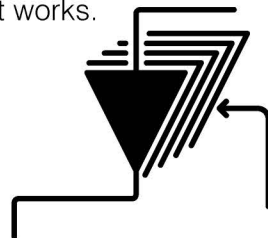
As an engineer, how do you envision people using the module, and are you ever surprised to see how people use your designs in ways that you hadn't envisioned?

I'm not considered an engineer, but if I were, I would envision people using the module properly, in a well constructed enclosure, plugged into a well designed and conservatively loaded power supply.

My vision of how a module will be used is usually very limited. I rarely have a patch idea that is so brilliant it would merit recording. It is far more exciting to watch Youtube videos and go to concerts to see people patch the modules. This is why I include features and functionalities that I do not fully understand. My hope is that these features will inspire new sounds, approaches and music.

The faceplate for the module is really interesting. Can you talk a bit about any visual design inspirations (either to this module or to Make Noise in general) and what the significance of the triangles on the QPAS faceplate?

It is an artist rendering of a functional block diagram. I've always enjoyed the points where engineering and design intersect with art. For example, the machines Francis Picabia drew, have a look at "Alarm Clock." I am able to envision the machines working, but due in part to the abstractions provided by Picabia, I am able to envision them working in many different ways, and that sparks the imagination. The QPAS faceplate is an abstract representation of the circuits within the module. The 4 golden triangles represent the 4 filter cores. There is another triangle that represents the stereo VCA at the input. Another block shows the wiring of the feedback paths to achieve the Q or resonance of all 4 filters simultaneously. There is additional graphics that spread the triangle apart to show how the radiate circuit works.



The module has stereo inputs and stereo outputs— can it be used with mono signals?

Yes. The right input is normalled to the left so with nothing patched to the right input the mono signal is shared to both channels. The Radiate parameters allow for creation of stereo signals from mono signals. Modulating the Radiate parameters will animate your stereo image. Additionally you could transform a stereo signal into a gloriously resonant mono signal as the right outputs are normalled to the left outputs. Patching only the left output will combine all 4 peaks to one channel. The sound is quite useful.

The !!jj inputs are interesting— what were your thoughts behind including such experimental inputs on the module, and do you have any recommendations on how people should interact with them?

There are several circuit points that could be modulated in the QPAS. Some modulate very well and are already available at the panel, cutoff Frequency, Q... while others have limited modulation use and are buried. I wanted to have some way to modulate these buried circuit points. I also wanted to have a way to hammer multiple circuit points with modulation simultaneously. Something like the ACCENT on the MMG, or the STRIKE on the DPO, but with even greater effectiveness. The abstract nature of these modulation points seemed to warrant the !!jj title. My hope is that in titling them in such a way, people will experiment and patch to these inputs with reckless abandon. They respond to nearly anything. Just keep it from within the modular system, and you will be safe enough.



“Refraction,”
the new EP by
Evan Caminiti,
will be released
by Make Noise Records
on Friday, February 15th.

Below,
Evan shares some
thoughts on the record,
his process
and influences.



The record has a feel to it— a distant atmosphere that falls in and out of time with the world around it. Were there emotions, events or scenes that you were aiming to evoke over *Refraction's* four tracks?

I didn't have anything that specifically conceptual in mind but I did embrace artifacts that I started referring to as “digital transients” - some non-musical cuts and clicks. I liked that they changed your relationship to the music as a listener by making you aware of the process. It's like the seams on a garment. And I'm really bored by “seamless” feeling electronic music.

As to the mood - at a very high level I knew I wanted to make something more open and light sounding than my last album. Inject it with colors rather than it feeling black and white.

The sound of the record is both crisp and worn, electronic and organic all at once. What decisions guided you towards creating the types of sounds featured on *Refraction*?

The aesthetic was partially inspired by Ta Nahesi Coate's *Black Panther* comic with Brian Stelfreeze's illustrations. It was really the meeting of grounded, earthy elements - colors, patterns, landscapes, and the futuristic/sci-fi elements - all of this crazy technology - that inspired me.

The sounds have a physicality to them as well— were they inspired by particular objects or places?

Yeah, largely one place. When I was working on these tracks I had just moved from Queens to South Brooklyn and had a great running route that took me to Brooklyn Bridge Park area on the East River. It was the end of summer/beginning of fall so it was still humid and warm and there was a lot of insect and bird activity around sunset when I would run.

Likewise, can you talk about the moments of field recordings that appear on the release? Where were they recorded? Did the field recordings come before (and inspire) the electronic sounds on the record?

There are a lot of sounds captured around the Brooklyn Bridge Park area - the sounds of the animals and the sounds of the ferry dock. Right around this time I also had a residency at EMS Stockholm, so there is a recording of water lapping at the shores along the street I would walk to get to the studio. I can't remember what came first between field recordings and electronic sounds but one of the interesting things that happened was this processing patch I set up to emulate a tape delay ended up sounding a lot like crickets when the resonance was high on the filter I was using.

Both in sound and production, *Refraction* seems to draw from a wide selection of influences. Who inspires you to create, and were any artists (visual or sonic) on your mind (or turntable) while these pieces came together?

There was a hypothetical question that laid the foundation for this material in a lot of ways. I found myself frequently thinking about how dystopian everything feels these days - which lead me to ask - what does utopia look like? This idea of utopia steered me towards the use of “nature” sounds because one of the biggest ways our current reality feels so dystopian is how human actions are harming so many species, slowly making the world uninhabitable. Through a Pauline Oliveros inspired approach, I focused in on the non man-made sounds around me and really grew to appreciate them in new ways. When you're used to the constant sound of sirens, horns, and the subway, getting over to the park and listening to some frogs and crickets is really refreshing.

Musically, I was listening to a lot of dub and Chain Reaction records. In the case of CR, that material is already really abstracted takes on dub and techno, but I wanted to take the abstraction further, or take it somewhere else altogether.

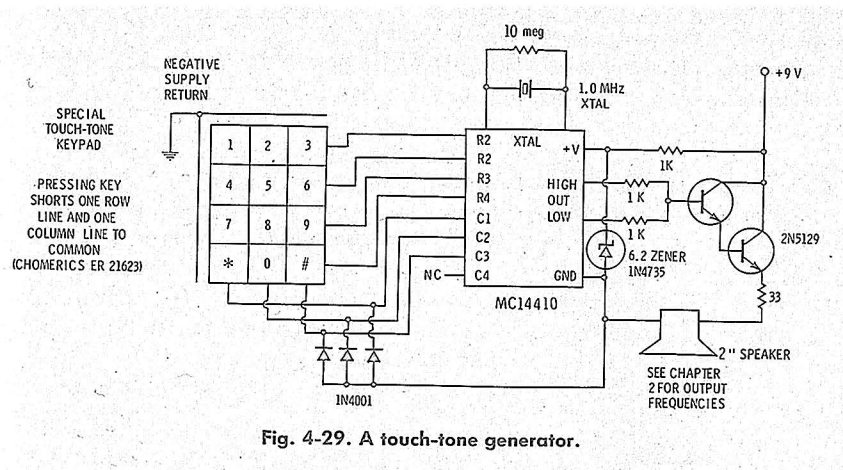
I'm particularly intrigued by your use of space on the record— both the expansive environments created with reverb, and also how the distance between notes seems to expand and breathe. What inspired this approach?

I think of the spaciousness as relating to this 'utopia' concept. For example, my daily routine of cramming on a crowded subway car twice a day, surrounded by lots of loud man-made noises was also feeling pretty dystopian. That experience is defined by a lack of physical space and overwhelming noise - it's a sensory assault. While that has it's positive aspects and there are interesting sounds to find within it, I wanted this EP to exist more within that space of the park by the river. Breathing room.

Where do you envision this music existing (either in terms of location or time)? Was it created with a particular place in mind, or does the music exist independent of such specifics?

I suppose it exists in some imagined place informed by Brooklyn, Stockholm, and Wakanda.

VC Environment: “Landline Blues” (patch notes)



“Landline Blues” was a video in our VC Environment series on Instagram that patched a Shared System to act (and sound) like a touch-tone phone.

The inspiration for this patch was the touch-tone telephone technology (known as “DTMF”) introduced in the mid-60s, which selected a pair of tones at the push of a button within a matrix of pre-selected frequencies.

“Landline Blues” is patch with five sections:

1. **Dial Tone:** the drone the preceeds a call.
2. **Touch-Tone:** the sound of numbers being entered.
3. **Ringing Tone:** the waiting sound before the call is connected.
4. **Busy Signal:** the sound played when a phone number is already in use.
5. **Automated Message:** a gentle reminder to hang up and try again.

Note: “Landline Blues” was tuned to the frequencies used in North American phones. Other parts of the world employed different frequencies. These other tone settings can be found online (search: “Ringing Tone” and “Busy Tone” for international variations).

1. Dial Tone:

Patch the Step 1 Gate output from Pressure Points to a Mult, and from there to both the Ch.1 and Ch.4 Cycle inputs on Maths.
Patch Pressure Points Row 2 out to Maths Ch.4 Both in.
Patch Pressure Points Row 3 out to Maths Ch.1 Both in.
Patch Maths Ch.1 Variable output to modDemix Ch.1 Signal in.
Patch Maths Ch.4 Variable output to modDemix Ch.2 Signal in.
Patch modDemix SUM output to the monitors.

Turn up the modDemix channels one at a time for ease of tuning:
Press Pressure Points pad 1 and use the Row 2 and 3 knbs to tune

Maths Ch.1 to 440 Hz (Row 2). use a tuner to measure the frequency and set Rise and Fall to Cycle at audio rate

Maths Ch.4 to 350 Hz (Row 3).

Patch Maths EOR to modDemix Ch.2 Carrier in.

Patch Maths EOC to modDemix Ch.1 Carrier in.

Ringing Tone

This is almost identical to the Dial Tone, with some slight variations in tuning and playing style:

Patch Pressure Points Ch.2 Gate to

the same mult as Pressure Points Ch.1 Gate.

Tune **Maths Ch.1** (via Pressure Points Row 3 to **440 Hz**.

Tune **Maths Ch.4** (via Pressure Points Row 2) to **480 Hz**.

The North American Ringing Tone pattern is 2-seconds on, 4-seconds off. (*this on/off pattern is different elsewhere— adjust for your reigon).

Tap and hold Pressure Points’ Pad 2 to match this rhythm.

Busy Signal

The Busy Signal features its own interval and timing, but is essentially the same patch as the Dial and Ringing Tones:

Patch Pressure Points Ch.3 Gate to

the same mult as the Pressure Points Ch.1 and Ch.2 Gates.

Tune **Maths Ch.1** (via Pressure Points Row 3) to **620 Hz**.

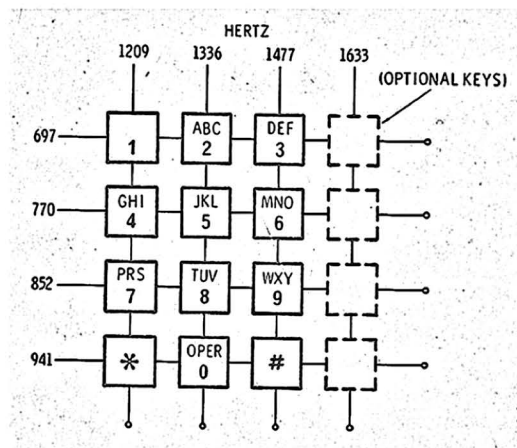
Tune **Maths Ch.4** (via Pressure Points Row 2) to **480 Hz**.

The North American Busy Signal pattern is .5 seconds on, .5 seconds off. (*this on/off pattern is different elsewhere— adjust for your reigon).

Tap and hold Pressure Points’ Pad 3 to match this rhythm.

Once these tunings have been made, patch the SUM out of the modDemix to the AUX input of the Optomix.





Touch-Tone:

The illustration to the left lists the matrix of tones used in the Touch-Tone system.

(The original version of René was used in the filming of "Landline Blues."

The patch notes below cover both the patch as it appeared on Instagram as well as an option for new René as well!)

Tuning, for "original" René users:

Patch the Optomix Sum output to an unused Mult channel and connect your monitoring to this mult channel.

Patch QCV from René to DPO VCO-B to 1v/oct in.

Patch DPO VCO-B Sine to Optomix Ch.2 Signal in.

Tune the left column of René so that each pad produces **1209Hz** on **VCO-B**. Repeat for the other three columns of René pads (**1336**, **1477** and **1633Hz**).

Store these values in one of the 4 available slots on the Q Page.

Once Stored, disable the preset.

Patch CV from René to DPO VCO-A to 1v/oct in.

Patch DPO VCO-A Sine to Optomix Ch.1 Signal in.

Tune the top row of René so that each pad produces **697Hz** on **VCO-A**.

Repeat for the other three rows of René pads (**710**, **852** and **941Hz**).

Tuning, for "new" René users:

Substitute Ch.X and Ch.Y for the QCV and CV steps listed above.

Dialing, for "original" René users:

Patch René to the so-called "MPC Mode" (ala James Cigler's *René 301* video):

Patch Maths Ch.3 out (set full CW) to XMOD in.

Disable all Gates for René.

Engage Gate + Mod on René's FUN page.

Patch René's X-GATE output to a mult, and from there to the CV in on Optomix Ch.1 and Ch.2.

Dialing, for "new" René users:

Patch a dummy cable to the output of Maths Ch.3.

Set Maths Ch.3's attenuverter fully CW.

Patch a dummy cable to the XCLK input on René.

On ACCESS, disable the right-most column of locations for the X Channel.

To "randomize" the calling, choose one of the later SNAKE patterns.

Place a fingertip on the Tip of one of the dummy cables and hold it there.

Touch the Tip of the other dummy cable with another finger to dial.

Remove your finger from the second cable to "release" the button.

Repeat this until you have completed dialing your number.

To complete the patch, send the Optomix's SUM output to the Left input of the Morphagene and set the SOS control to Noon. Monitor the module's Left output and follow these steps:

Recording:

"If you'd like to make a call, please hang up and try again."

The last piece of the patch is a recording of Jane Barbe reading the text above made for and used by the Bell Telephone company. It can be easily found by searching for the phrase on YouTube.

Record it into your Morphagene.

Patch Pressure Points Step 4 Gate out to the Morphagene's Play input

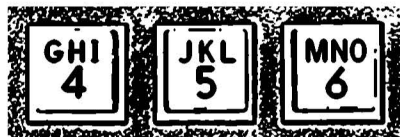
Set the Morphagene to 1:1, Gene-Size and Slide fully CCW.

Tap the fourth Pressure Points pad to play the phrase.

With these pieces in place, "Landline Blues" can be recreated on any Shared System!

The order and duration for its sections are as follow:

1. **Dial Tone**. Hold for as long as necessary.
2. **Touch-Tone**. Dial either 7 or 10 "digits"
3. **Ringing Tone**. After a brief pause, this tone should be played in a two-seconds on, four seconds-off pattern. Repeat this several times.
4. **Busy Signal**. Immediately follow the Ringing Tone with half second on, half second off bursts of this interval. Repeat for as long as necessary
5. **Recording**. Trigger this recording, and re-play it as many times as necessary before "hanging up" and silencing the patch.



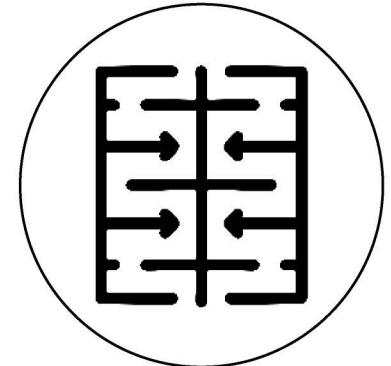
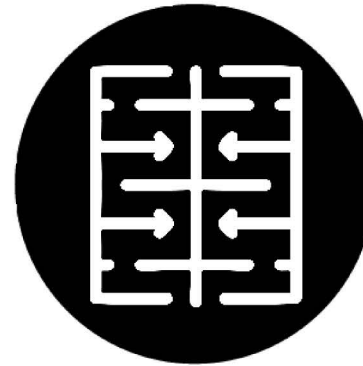
**FOR THESE AND MORE
HEAD TO:
MAKENOISEMUSIC.COM/ADJUNCTS**

SHARED SYSTEM SHIRT

Designed by
Wilson Ward Kemp
\$20, all sizes
S-XL

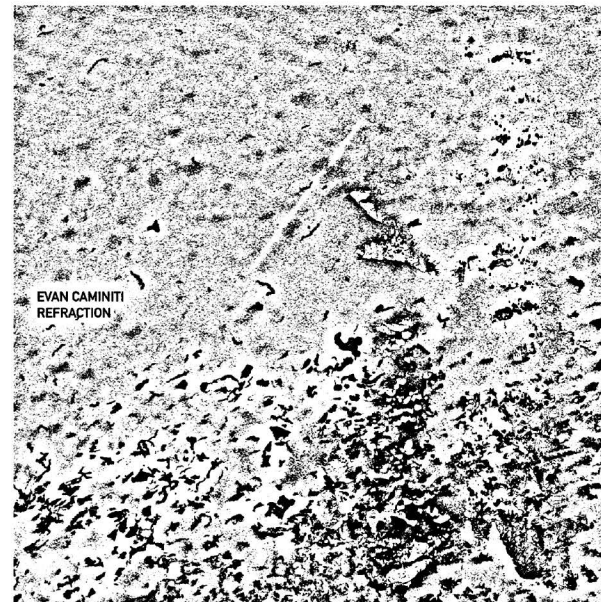


RENÉ TOUCHPLATE SHIRT
\$20, all sizes
S-XXL



RENÉ TOUCHPLATE 1" BUTTONS

black on white or gold on black!
Mail us a self-addressed stamped envelope
for one of each!



"REFRACTION"
by Evan Caminiti
Make Noise Records #10
Clear vinyl 12", \$15