

Buchla and Tiptop Audio – 248t

- [Manual PDF](#)
-

[Manual PDF](#)

Tiptop Audio / Buchla 248t MARF – creative patch ideas and module pairing analysis

The **248t MARF** is much more than a sequencer. It's really a **two-lane, stage-addressable, programmable CV choreography system** with:

- 16 stages
- per-stage voltage
- per-stage time
- per-stage pulse assignment
- per-stage behavior modifiers
- two independent function generators reading the same 16-stage memory
- internal or external addressing
- voltage and time outputs simultaneously
- ART + analog CV outputs
- external CV substitution for stage voltage or stage time

That means it can behave as:

- a pitch sequencer
- a timing sequencer
- a burst/gate pattern generator
- a dual related sequencer
- a programmable slew/portamento source

- a voltage-addressed preset scanner
- a CV processor for external signals
- a semi-generative compositional brain

Below are practical and musical ways to pair it with other Eurorack modules.

Quick mental model: what the 248t is best at

The MARF shines when you use it for **phrasing**, not just note order.

Its real strengths are:

- **different duration per step**
- **different behavior per step**: stop, sustain, enable, first/last loop boundaries
- **different pulse maps per step**
- **independent stage traversal by two function generators**
- **external CV becoming "stage data"**
- **continuous stage addressing for scanning/morphing behavior**

So instead of asking "what melody should I sequence?", a better question is:

"What musical process do I want staged over time?"

Best partner module categories

1. Complex oscillators / precision VCOs

The obvious pairing, but still one of the richest.

Why it works

- Quantized MARF stages become melodic structure.
- Sloped stages create glides tied to stage duration.

- Half-range and limited range are especially useful for playable pitch spans.
- ART output is designed for 259t-style precision control.

Great pairings

- **Tiptop/Buchla 259t**
- **Make Noise DPO**
- **Frap Tools Brenso**
- **Instruō Cs-L**
- **Intellijel Rubicon 2 + Dixie 2+**
- any stable 1V/oct VCO

Creative uses

- **Lane 1 = pitch, Lane 2 = timbre animation**
Send FG1 voltage to oscillator pitch and FG2 voltage to wavefolder amount, FM index, or symmetry.
 - **Time-derived timbre**
Patch a MARF **Time Output** to wavefolder depth or filter resonance, so longer notes also become brighter or more intense.
 - **Glide only on chosen notes**
Use the **Sloped** modifier only on specific stages to create selective portamento instead of global glide.
-

2. Low pass gates and VCAs

This is one of the most Buchla-native uses of the MARF.

Why it works

The manual specifically notes the **Reference Output** is a downward ramp over the stage interval and is useful for driving a **292t LPG** directly.

Great pairings

- **Tiptop/Buchla 292t**
- **Make Noise Optomix**
- **Doepfer A-101-2**
- **Random*Source LxD style LPG/VCA combos**
- any clean VCA for amplitude articulation

Creative uses

- **Patch the Reference Output directly to LPG CV**
 - Voltage output controls pitch
 - Reference output shapes amplitude
 - Pulse output triggers secondary events This creates very “self-contained phrase cells.”
 - **Use Pulse 1 and Pulse 2 to articulate different VCAs**
 - Pulse 1 opens a melodic voice
 - Pulse 2 opens a noise/percussion layer
 - **Unequal note lengths become unequal envelope lengths** Since the reference ramp follows stage duration, the amplitude contour naturally reflects rhythmic phrasing.
-

3. Envelope generators / function generators

MARF becomes a conductor for layered articulation.

Great pairings

- **Make Noise Maths**
- **Frap Falistri**
- **Intellijel Quadrax**
- **Xaoc Zadar**
- **Befaco Rampage**
- **Doepfer A-140-2 / A-171-2**

Creative uses

- **Use Pulse 1 for short envelopes, Pulse 2 for long envelopes**
Send them to different envelope generators, then mix or route them to different destinations.
 - **Gate pattern extraction** Program pulse outputs on certain stages and use them to trigger envelopes independently of the main pitch line.
 - **Conditional envelope shape** Use MARF's **Stop / Sustain / Enable** stages to create places where an external gate must "unlock" the phrase, while envelopes continue to behave differently downstream.
-

4. Sequential switches / matrix routers

This is one of the best non-obvious uses.

Great pairings

- **Doepfer A-151 / A-152**
- **Boss Bow Two / similar router**
- **Verbos Sequence Selector**
- **Worng SoundStage-style routing context**
- **Any sequential switch / matrix mixer**

Creative uses

- **Pulse outputs as routing logic** Use Pulse 1 / Pulse 2 / All Pulses to switch audio sources, FX sends, or modulation destinations.
- **Stage-addressed orchestration** Let MARF pitch a voice while also changing:
 - which oscillator is heard
 - which filter receives it
 - which effect send is active
- **Two FGs, one memory, different outputs** One FG can drive pitch while the other, with different addressing, triggers switches for arrangement-level changes.

5. Sample & hold / random / uncertainty modules

MARF pairs beautifully with controlled randomness.

Great pairings

- **Make Noise Wogglebug**
- **Mutable Marbles**
- **Verbos Random Sampling**
- **SSF Ultra-Random**
- **Doepfer A-149-1 / A-149-2**
- **Turing Machine + expanders**

Creative uses

- **External voltage source mode** Set some stages' voltage source to **External**, and patch random CV into A/B/C/D.
Now the slider chooses which external stream is active per stage.
- **External time control** Feed random CV into A/B/C/D and use it as **time source** on selected stages, making note duration probabilistic.
- **Structured randomness** Alternate between internal programmed stages and externally sourced random stages.
Result: composed phrases with pockets of uncertainty.
- **Generative gate unlocking** Use random gates into the **Start** input on stages programmed with **Enable** or **Sustain** to create semi-autonomous phrasing.

6. Quantizers and harmonic processors

Even though the MARF already quantizes, external harmonic processors expand it.

Great pairings

- **Intellijel Scales**
- **ADDAC quantizers**
- **Shakmat Bard Quartet**
- **O_C / Ornament & Crime**
- **precision adder / transposer modules**

Creative uses

- **Use MARF unquantized, then quantize externally** This lets you preserve MARF slider nuance while changing scale systems on the fly externally.
 - **Dual-layer pitch logic**
 - FG1 = melody
 - FG2 = transposition offset into precision adder or secondary quantizer
 - **Patch Time Output into quantizer transpose** Longer notes can force harmonic shifts or modal changes.
-

7. Precision adders / offsets / utility mixers

This is where MARF becomes compositional rather than merely sequenced.

Great pairings

- **Doepfer A-185-2**
- **Frap 321**
- **Happy Nerding 3xMIA**
- **Intellijel Triplatt**
- **Befaco A*B+C**
- any offset/attenuverter/mixer utility

Creative uses

- **Two-FG harmonic relationship** Mix the outputs of both function generators:
 - one sets root movement
 - the other sets interval color
 - **Use one FG as transposition of the other** Create phrases that recur with shifting interval frameworks.
 - **Dynamic time scaling** Send slow CV through an attenuverter into the **Time Multiplier CV** for macro-form tempo breathing.
-

8. Filters and resonators

The per-stage timing and voltage control make for excellent spectral choreography.

Great pairings

- **Rossum Morpheus**
- **Mutable Ripples / clones**
- **QPAS**
- **Belgrad**
- **Three Sisters**
- **Twin Peak or multimode filters**
- **resonator banks / modal filters**

Creative uses

- **Pitch to oscillator, Time Output to filter cutoff** Longer notes open the filter further, or vice versa.
 - **Second FG as formant sequencer** Keep one FG on pitch and use the other to sequence filter frequency or resonance.
 - **Continuous stage address as scanned filter choreography** Set stage address to continuous and sweep across programmed voltages like a performance macro over a filter bank.
-

9. Effects: delay, reverb, granular, spectral processors

MARF can create highly staged FX composition.

Great pairings

- **Mimeophon**
- **Chronoblob / delay**
- **Erbe-Verb**
- **FX Aid**
- **Arbhar / granular**
- **Data Bender**
- **Beads / Clouds-style texture processors**

Creative uses

- **Pulse 2 as sparse FX send trigger** Only certain stages bloom into delay or reverb.
- **Voltage output to dry voice, Time output to effect parameter** For example:
 - Time output → delay time, feedback, grain density, or reverb size
- **External input processing** Feed an LFO, random source, or joystick voltage into A/B/C/D, then let MARF decide which external source controls an FX parameter at each stage.

10. Clock dividers, logic, and trigger processors

MARF is especially deep when paired with timing utilities.

Great pairings

- **Pamela's Pro Workout**
- **4ms QCD**
- **Shakmat Clock O'Pawn / Time Wizard**

- **Doepfer logic modules**
- **Mutable Branches / logic probability**
- **vpme Euclidean modules**

Creative uses

- **All Pulses output as a variable clock** Since each new stage emits a pulse, and each stage can have different lengths, the resulting clock is *phrased* rather than metronomic.
 - **Use All Pulses to drive another sequencer** A second sequencer or percussion engine will inherit MARF's irregular rhythm.
 - **Logic-conditioned starts** Feed logic-combined gate signals into a Function Generator's Start input so certain stages only progress under specific rhythmic conditions.
 - **Stop/Sustain/Enable as form logic** These are effectively compositional timing conditions; use clock utilities to create "if/when" advancement behavior.
-

11. Joysticks, touch controllers, pressure controllers

Excellent for performance because MARF has external addressing and external source selection.

Great pairings

- **Intellijel Planar 2**
- **Make Noise Pressure Points + Brains**
- **Soundmachines Lightstrip**
- **Bela Gliss**
- **Tetrapad / Tête**
- **joystick or CV fader banks**

Creative uses

- **External stage address performance** Put stage address in **External** and scan stages manually with a joystick or fader.
 - **Continuous mode as a CV lookup table** Program 16 stage voltages, then sweep across them like a custom transfer function.
 - **Gesture to structure** One joystick axis controls stage address, another goes into time multiplier CV.
 - **Performance-selected external sources** Send different controller voltages into A/B/C/D and use stage programming to choose among them across the phrase.
-

12. Samplers and drum modules

MARF is superb for “composed rhythm.”

Great pairings

- **Assimil8or**
- **Bitbox**
- **Squid Salmples**
- **Basimilus Iteritas Alter**
- **WMD drum voices**
- **Tiptop one-shots / drum modules**
- any trigger-based percussion voice

Creative uses

- **Pulse 1 = kick/snare grid, Pulse 2 = fills**
 - **All Pulses = master advancement trigger for drum variation**
 - **Reference output to drum timbre** A ramp over stage duration can modulate decay, pitch, or sample start.
 - **Stage-specific duration for fills** Short stages for ratchets/bursts, long stages for rests or sustained space.
 - **Use second FG to sequence sample select or drum morphing** while first FG handles pitch or melodic percussion.
-

Especially powerful MARF-specific patch concepts

1. One memory, two readers

This is maybe the single most important creative feature.

Both function generators read the same 16 stages, but they can behave differently.

Patch idea

- **FG1**: normal run, internal clock, melodic line
- **FG2**: external stage address, manually scanned or CV-addressed timbre line

Result: one set of programmed stage values yields two related but non-identical performances.

Modules to pair

- oscillator + filter
- switch + effect
- VCA matrix

2. Stage-specific external CV substitution

This is uniquely powerful.

A stage can use internal programmed voltage or choose an external source A/B/C/D instead.

Patch idea

Use: - A = slow random - B = envelope follower - C = joystick - D = LFO

Program different stages to select different external sources.

Now the MARF is acting like a **composed CV router/processor**, not just a sequencer.

Great downstream targets

- oscillator pitch
 - filter cutoff
 - effect depth
 - panning
 - wavefolder amount
-

3. Time as music, not just timing

The lower sliders aren't just step lengths. The **Time Output** gives you a second expressive CV related to that programmed duration.

Patch idea

- Pitch from Voltage Output
- Amplitude contour from Reference Output
- Brightness from Time Output

Now each stage has: - a note - a duration - an amplitude decay shape - a corresponding timbral brightness value

That's almost like per-note articulation metadata.

4. Stop, Sustain, Enable as compositional grammar

These aren't mere performance functions; they let you create **decision points** in a sequence.

Patch idea

- Use **Enable** on stage 8
- Feed Start input from a probabilistic gate source
- Sequence only advances past stage 8 when the condition is met

This creates: - looping hesitation - phrase elongation - evolving form - call/response delays

Great pairings

- Bernoulli gate
- random trigger module
- logic combiners
- manual gate button
- footswitch gate interface for performance

5. Continuous Address mode as a wavetable-like CV scanner

When stage address is in **Continuous**, you can sweep through the 16 programmed values.

Patch idea

Program stage voltages as: - a custom scale - non-linear modulation curve
- stepped waveshape - chord voicing offsets

Then scan with: - LFO - envelope - random smooth voltage - joystick

This turns MARF into: - a transfer function - a custom quantized contour - a CV wavetable

Great pairings

- vector joystick
- smooth random

- envelope follower
 - pressure controller
-

Patch recipes

Patch 1: Buchla-style animated melody voice

Modules: - 248t - 259t or any complex oscillator - 292t or LPG - reverb

Patch: - MARF Voltage Out → oscillator pitch - MARF Reference Out → LPG CV - MARF Pulse 1 → LPG trigger or envelope trigger - oscillator → LPG → reverb

Program: - Quantize selected stages - Add Sloped to a few transitions - Vary interval times heavily - Use First/Last to define a shorter cyclic phrase within 16 stages

Result: An organic line with natural note lengths, selective glide, and Buchla-like articulation.

Patch 2: Melody + timbre counterpoint

Modules: - 248t - oscillator - filter or wavefolder - VCA - envelope

Patch: - FG1 Voltage Out → oscillator pitch - FG2 Voltage Out → filter cutoff or wavefolder amount - Pulse 1 → envelope trigger - envelope → VCA CV

Program: - FG1 cycles stages 1–8 - FG2 cycles stages 5–12 or is manually addressed - Different time multipliers for each FG

Result: Pitch and timbre evolve in related but offset phrasing, giving a strong “composed” feeling.

Patch 3: Composed random

Modules: - 248t - random voltage source - quantizer or VCO - LPG/VCA - clock source

Patch: - random CV → external input A - some stages set Voltage Source to External - others remain Internal - Pulse outputs trigger articulation

Program: - Stages 1–4 internal melody - Stage 5 random note - Stage 6 internal - Stage 7 random note with slope - Stage 8 stop or enable

Result: A melody that feels authored but keeps opening windows of surprise.

Patch 4: Irregular master clock brain

Modules: - 248t - percussion sequencer or trigger sequencer - drum voices - clock divider / logic

Patch: - All Pulses Out → external clock input of another sequencer - Pulse 1 → kick trigger - Pulse 2 → accent/fill trigger - Time sliders define macro rhythm

Result: Instead of fixed clock divisions, your whole system moves according to MARF's stage durations.

Patch 5: Custom CV lookup table for effects

Modules: - 248t - joystick or LFO - delay/reverb/granular module

Patch: - Stage Address set to Continuous + External - joystick or LFO → address CV - Voltage Out → effect parameter - Time Out → second effect parameter

Program: Create 16 deliberate “sweet spots” for: - feedback - size - texture - grain density

Result: A performance-friendly morphing effect macro that avoids dead zones.

Patch 6: Harmonic duet from one sequencer memory

Modules: - 248t - 2 oscillators - 2 VCAs/LPGs - mixer

Patch: - FG1 Voltage Out → Osc 1 pitch - FG2 Voltage Out → Osc 2 pitch - Pulse 1 → voice 1 envelope - Pulse 2 → voice 2 envelope

Program: - Shared stage memory - Different first/last points - One voice quantized, one partially sloped/unquantized

Result: Two interrelated melodic voices with deep internal cohesion.

Specific module recommendations that would be especially fun

Best “Buchla-adjacent” pairing set

- **259t** — natural partner for ART and complex pitch motion
- **292t** — Reference Output becomes immediately musical
- **281t** — pulse-derived contour generation
- **245t / 246t / 257t** — utility and compositional expansion

Great modern utility partners

- **Pamela’s Pro Workout** — clocks, gates, conditional starts
- **Maths** — shaping, slewing, mixing, envelope extraction
- **Happy Nerding 3xMIA** — indispensable offsets/scaling
- **Doepfer A-151** — cheap but transformative for routing

- **O_C** — harmonic processing, quantization, CV logic
- **Planar 2** — outstanding for external addressing and live scanning

Great “generative” partners

- **Mutable Marbles**
- **Verbos Random Sampling**
- **Turing Machine**
- **A-149-1**
- **Branches / Bernoulli gate style modules**

Great timbre destinations

- **QPAS**
- **Morpheus**
- **Mimeophon**
- **Data Bender**
- **Brenso / DPO / Cs-L**

Less obvious but excellent uses

Use MARF as a CV processor, not a sequencer

Feed external CV into A/B/C/D and let stage programming decide: - whether it's quantized - whether it's sloped - what range it occupies - when it appears

This can turn a boring LFO into a staged musical structure.

Use it to stage modulation density

Program Pulse 1 and Pulse 2 sparsely, then use them to trigger additional modulation events only on important stages.

Build “phrases with checkpoints”

Use Stop and Enable stages so the sequence pauses at dramatic points until another module “permits” continuation.

Make a pseudo-arpeggiator with continuous addressing

Program chord tones across stages, then externally scan stage address with an LFO/envelope for unusual directional arpeggiation.

Create asymmetrical loop nesting

Set First/Last boundaries differently for the two function generators so they phase against each other while sharing stage content.

Practical advice for getting the most out of it

1. Start with half range for pitch work

The manual recommends **half range** or limited ranges with 259t. In practice this also makes all pitch sequencing easier and more musical.

2. Treat Time Output as equally important as Voltage Output

That’s one of the biggest “secret weapons” of the module.

3. Use Pulse 1, Pulse 2, and All Pulses separately

These three gate streams can drive: - envelopes - switches - clocks - resets
- accents

4. Reserve a few stages for external source mode

Even in a mostly programmed sequence, external-source stages create a great balance of structure and variation.

5. Exploit the two FGs as separate performers

Think of them as two musicians reading the same score differently.

Best pairings by musical goal

For melodic composition

- stable VCO
- quantizer or precision adder
- LPG/VCA
- envelope

For generative music

- random CV source
- Bernoulli gate / probability gate
- logic
- clock tools

For live performance

- joystick
- macro controller
- sequential switch
- reverb/delay

For sound design

- complex oscillator
- wavefolder
- resonant filter
- granular/effect processor

For rhythmic systems

- drum voices
- trigger sequencer
- clock divider
- logic processor

Final thought

The 248t is most rewarding when you stop using it like a normal 16-step sequencer and start using it like a **programmable timeline of decisions**.

If you want, I can also give you any of these in one of these formats:

1. **10 concrete patch sheets** with exact cable routing
2. **Best companion modules by budget**
3. **A starter workflow for learning the 248t in 30 minutes**
4. **A “best modules to pair with 248t” shopping list by manufacturer**

Generated With [Eurorack Processor](#)