

Cute Lab – Messed Up

- [Manual PDF](#)
-

Certainly! Here is a concise cheat sheet for the **CuteLab Messed Up: Metrically Modulating Clock Generator** eurorack module, based on the manual you provided.

[Messed Up User Manual PDF](#)

Messed Up Cheat Sheet

Quick Overview

- **Type:** Modulating Clock Generator
 - **Use:** Generates flexible clock/divide rhythms and stretchable tempos for advanced metric modulation, polyrhythms, and synced clocking.
 - **Clocks:** Internal or external.
 - **Unique:** Truncation and modulation for complex rhythmic changes.
-

Inputs, Outputs, Controls: Quick Reference

Inputs (CV, Gate, or Clock Jacks)

#	Jack/Input Name	Function	Range/Notes
2	Clock In	External clock input	Standard 0-5V or higher for modular clocks
14	Modulate In	Trigger input for metric modulation	Rising edge triggers modulation
13	Beat CV In	CV to beat value	±5V typical (manual unspecified)
16	Divide CV In	CV to divide value	±5V typical; attenuvertable (see control 12)
15	Truncate CV In	CV to truncation	±5V typical

Outputs (Gate/Clock Out)

#	Jack/Output Name	Function / Voltage	Description
21	Beat Out	Gate out (0-5V)	Fires for each beat
20	Divide Out	Gate out (0-5V)	Fires for divided beats
19	Truncate Out	Gate out (0-5V)	Fires with truncation
17	Downbeat Out	Gate out (0-5V)	Fires for 1st beat of each measure

#	Jack/Output Name	Function / Voltage	Description
18	EoM Out	Gate out (0-5V)	End of Modulation trigger

Knobs, Encoders, and Button Controls

#	Control	Function
1	Tap Tempo Button	Sets/holds tempo, shows BPM, clock start/stop
5	Divide Encoder	Adjust divide value (int or CV), push: latch
6	Beat Encoder	Adjust beat value (int or CV), push: latch
4	Modulate Button	Triggers modulation, queues modulation
10	Truncate Knob	Sets truncation position
12	Divide CV Attenuverter	Scales/inverts divide CV in

Toggles & Indicators

#	Toggle/Switch/LED	Function
11	Free Mod. Toggle	Free/latched modulation to measure
9	Round Trip Mod. Toggle	Enable/disable round trip modulation
7	Divide Latch LED	Red: divides changes latched
8	Beat Latch LED	Red: beat changes latched

Display

#	Display Component	Function
3	7-Segment Display	Shows tempo, settings, or config menu value



Features & Workflow

Basic Patch & Use

- **Simple clock:** Clock In → Beat Out, Drive sequencers/drums.
- **Set tempo:** Tap clock button or hold and use encoders.
- **Change signature:** Set "Beat" and "Divide" for custom meters/ratios.
- **Modulation:** Press Modulate button, or external trigger, to "stretch" tempo into a new ratio.
- **Round Trip:** Toggle up for A→B→A switching.
- **Free:** Toggle modulation to next measure or immediate (beat aligned).
- **Truncate:** Add rhythmic variation using truncate knob or CV.
- **Latch:** Encoders can queue changes to the next downbeat.

Voltage Ranges

- **All Logic/Gate outs:** 0V (low), 5V (high) typical.
- **CV Inputs:** ±5V (noted, use external attenuators if needed).
- **External Clock:** Accepts typical modular gates/clocks 0-5V up.

Configuration Menu (Hold Divide encoder to enter)

- **Input Clock Divider:** Adjust input clock scaling 1:1–1:9
- **Clock Stop:** Module stops if no external clock.
- **Beat/Divide Output Multiplier:** Send more clock pulses (1, 2, 4, or 8 PPN)
- **Duty Cycle Mode:** 50% or short pulse (10ms)

- **Beat Input Reset:** Use Beat CV jack as reset instead of CV
- **Modulation Style:** After mod, outputs can sync, stay, or flip roles.

Presets

- Save/recall all current settings (tempo, beat, divide, options) to one of 9 presets.
- (Hold Beat encoder to enter preset mode.)

Firmware

- Update via USB mini on back PCB. See [CuteLab Github](#) for files/instructions.
-

Concepts/Best Practices

- **Metric Modulation:** Use different beat/divide values then modulate, changing the rhythmic grid.
 - **Truncation:** Great for syncopation or subtle groove changes.
 - **Latch:** Smooth live performance changes by quantizing to the measure.
 - **Sync Outputs:** Use Downbeat or EoM out to sync other modules to modulation or measure start.
-

References

- [Manual PDF \(add your link here!\)](#)
 - [Generated With Eurorack Processor](#)
-

Tip: Experiment with unusual Beat/Divide values, modulate and use truncation for polyrhythms that are tight but breathe!

If you have questions about a specific use case, just ask!