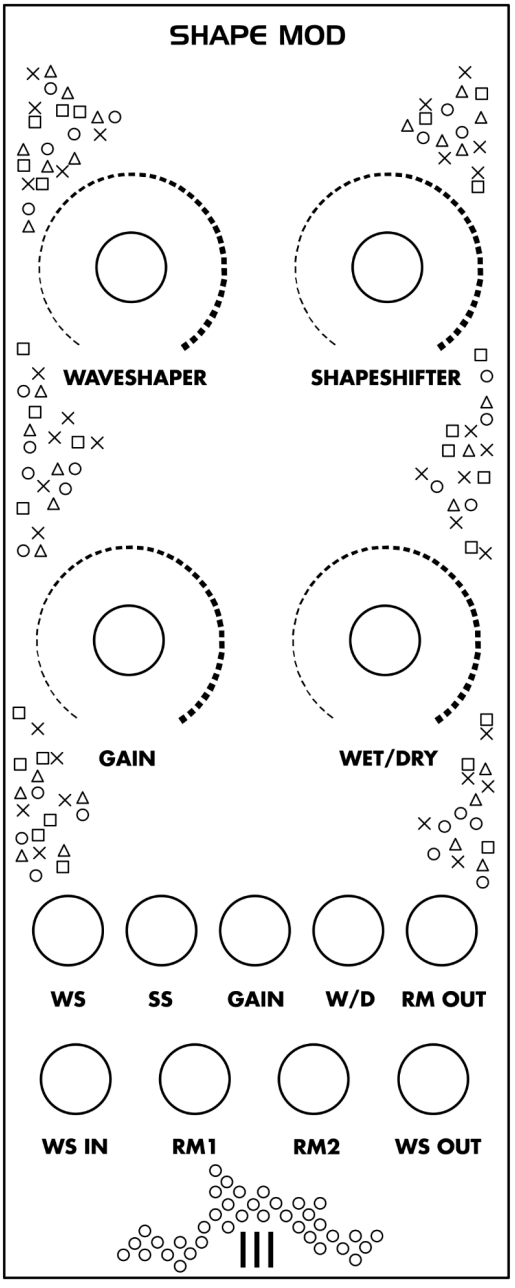
Tre Modular - Shape Mod

User Manual

Thank you for choosing the Tre Modular - Shape Mod Eurorack module!

This guide will walk you through the features, and usage of the Shape Mod module.



Shape Mod:

Shape Mod is an analog waveshaper/wavefolder with an integrated ring modulator. Shape mod is inspired by the Alisa 1377 but expanded with additional shaping stages, CV control, and a ring modulator. It is designed primarily for oscillators and steady sound sources, but it also excels at transforming drum machines, percussive voices, and transient-rich material.

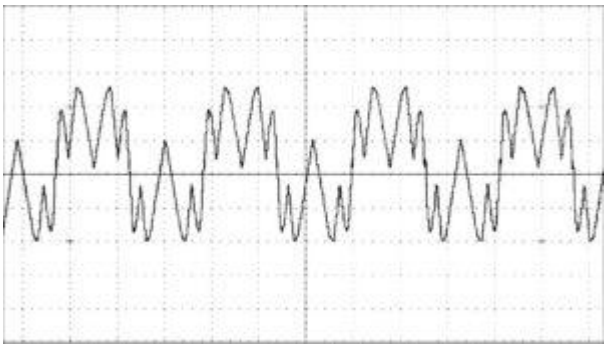
Shape Mod adds harmonic content, asymmetry, and dynamic movement, turning simple signals into rich, expressive timbres.

Waveshaper:

The waveshaping section is based on the waveshaper of the Alisa 1377. Shape Mod expands on the original design with two additional shaping stages, extending the sonic range while preserving the characteristic Alisa-like tone.

In essence it is similar to classic wavefolders. It folds the presented signal in of itself. What makes this module unique is that it does that in a nonlinear way that distorts the sound in a musically pleasing way.

If presented with a triangle wave it will produce a sine-like signal if the waveshape potentiometer is turned counter clockwise. If the potentiometer is turned all the way clockwise it will produce a waveform as seen in the picture.



Due to the nature of this circuit waveshaper will not work properly with square waves.

Shapeshifter:

Shape mod does its waveshaping in stages. Shapeshifter potentiometer gives you the control over the polarity of one of these stages. This changes the characteristics of the resulting sound. On one end it gives a softer sounding waveform and on the other it produces a more harsh sound.

Ring Modulator:

Shape Mod includes a fully analog four-quadrant ring modulator built around the AS3363 IC. This circuit multiplies two signals together, producing classic ring-mod sidebands and metallic, FM-like tones.

In this ring modulator both inputs are equal, but for practical patching you can think of: RM1 as the *carrier* input and RM2 as the *modulator* input. Swapping them produces the same spectrum, only with possible phase differences depending on the source.

When nothing is patched into RM inputs, the waveshaper output is normalled to both RM1 and RM2, allowing self-modulation. Patching into either jack breaks the normalled connection for that input.

VCA:

Shape Mod can operate as a single-channel VCA

- Patch your signal into WS IN
- Set WET/DRY fully to dry
- Use GAIN and GAIN CV to control amplitude

v3.0:

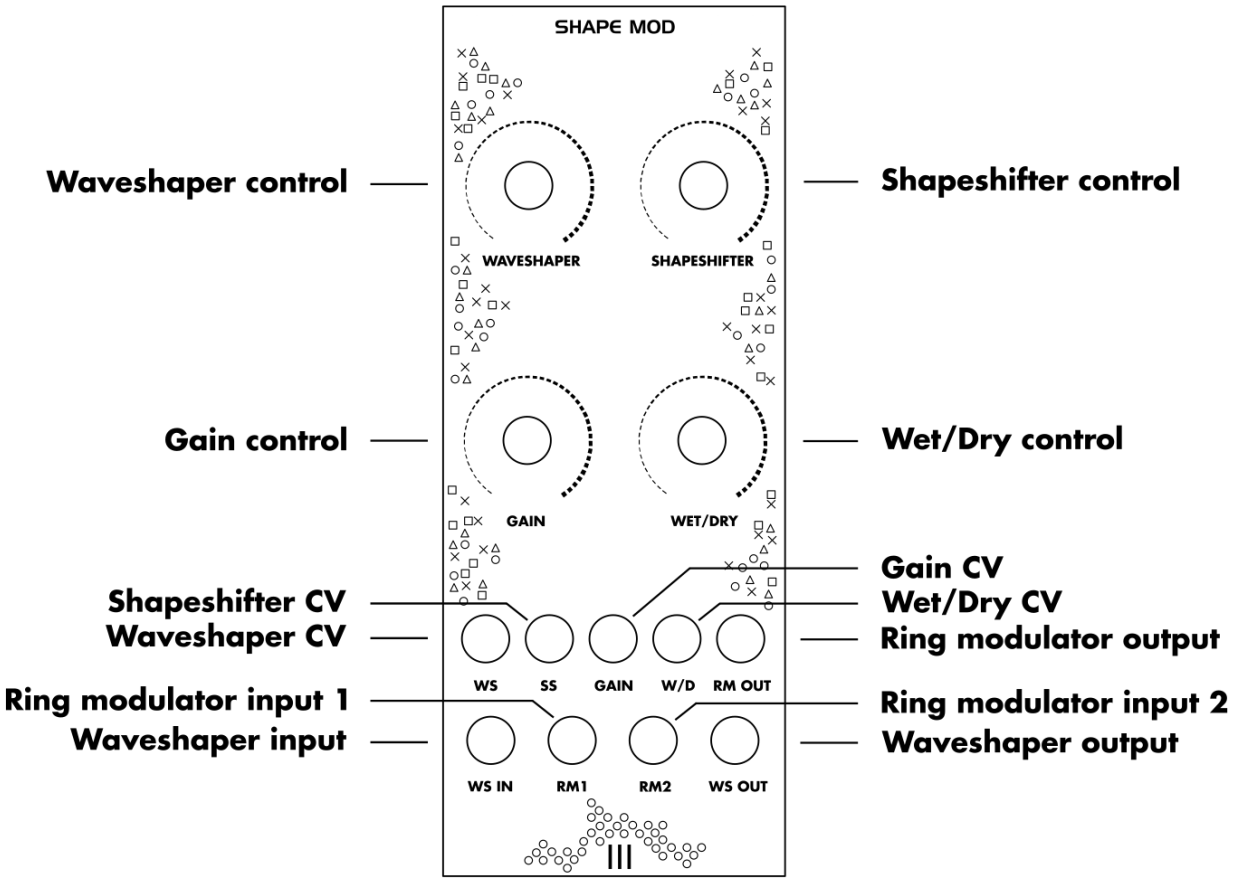
On revision 3.0 we have worked some more on the sound capabilities of this module. Since the new version sounded different from the original. We have found a way to give you both the original and the new one in the same module. On the back of it you will find a small slide switch that lets you choose between two modes N and O. **O** - Original and **N** - New.

Original - In “Original” mode you will get more bassy and rounded sound.

New - In “New” mode you will get more squelchy sound with more pronounced folding.

Specifications:

- **Module width:** 10 HP
- **Module depth:** 25mm
- **CV:** 0-10v
- **Power Consumption:** 43mA at +12V / 42mA at -12V



Controls:

Waveshaper control (WAVESHAPER): Adjusts the waveshaping effect.

Shapeshifter control (SHAPESHIFTER): Controls polarity of a specific waveshaping stage.

Gain control (GAIN): Adjusts waveshapers gain.

Wet/Dry control (WET/DRY): Blends between processed (wet) and unprocessed (dry) signals.

Voltage-Controlled Features:

Waveshaper CV (WS): Voltage control over the waveshaping effect.

Shapeshifter CV (SS): Voltage control over the shapeshifter effect.

Gain CV (GAIN): Voltage control over the gain.

Wet/Dry CV (W/D): Voltage control to adjust the mix between wet and dry signals. Positive voltage adjusts waveshaper towards clean signal and negative voltage towards processed signal.

Inputs:

Waveshaper input (WS IN): Input for the signal to be processed by the waveshaper.

Ring modulator input 1 (RM1): Accepts an external signal when patched; otherwise, it is normaled to Waveshapers output..

Ring modulator input 2 (RM2): Accepts an external signal when patched; otherwise, it is normaled to Waveshapers output.

Outputs:

Waveshaper output (WS OUT): Output for the waveshaper.

Ring modulator output (RM OUT): Output for the signal from the ring modulator.

Installation:

Power off your Eurorack system.

Insert the module into an available slot.

Connect the power cable, ensuring correct polarity.

Power on your Eurorack system.

Enjoy!

Additional Information:

For any additional questions or support, please contact Tre Modular at support@tremodular.com .

Happy patching!