

FOLD Manual



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General Info

Synthrotek's FOLD is a combination Wavefolder and Ring Modulator. The FOLD changes the shape of a waveform in order to create harmonics and find new timbres and sonic palettes. The Ring Modulator circuit mixes two waves together to make metallic, bell-like tones, big bass lines and Dalek sci-fi robotic sounds. Patch your folded wave into the ring mod (or vice versa) for sonic euphoria!

Features:

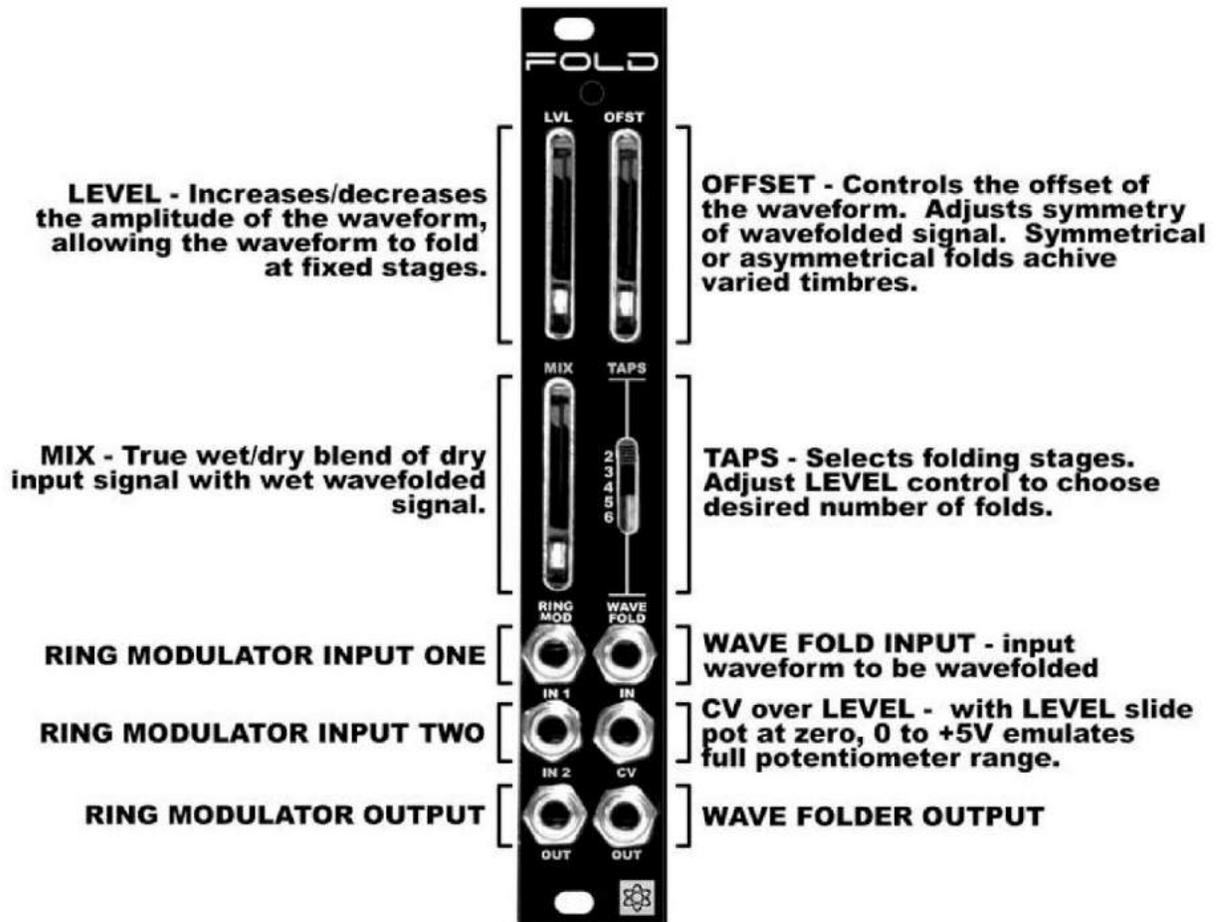
- Ring modulator
- Taps switch selects 2, 3, 4, 5 or 6 stages of folding
- Bipolar CV input over Level
- Offset for adjusting wave symmetry
- Wet/dry Mix

Specifications:

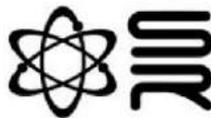
- Module width: 4HP
- Module depth: 60mm
- Current draw:
 - +12V: 50 mA
 - -12V: 40 mA
 - +5V: 0 mA



Quick Start Guide



The FOLD module is dual purpose timbre generator. The three jacks on the left are used exclusively for the the RING MODULATOR. The pots and switch have no effect on the ring modulator. Input two different signals to generate a ring modulated output signal. The three jacks on the right and the rest of the controls affect the WAVE FOLDER portion of the module. The RING MODULATOR and the WAVE FOLDER functions can be used independently, or patch the output of the RING MODULATOR into the WAVE FOLD INPUT to generate even more dynamic audio waveforms.



classic noise.

Important Links

[Store Page](#)

[Assembly Instructions](#)

[Bill of Materials](#)

Powering Up your Module

Turn off your modular system before plugging in your FOLD module. Plugging in your module while the power is on (“hot swapping”) can damage a module. Plug a 10 to 16 pin power cable into the module and then into your power supply, aligning the stripe of the cable with the STRIPE indicator on the power supply. Then power it on!

Testing Instructions

If you built the FOLD yourself, [use these instructions to test your module](#) to make sure it is fully functional.

Front Panel Controls and Jacks

Ring Modulator

The ring mod circuit only uses the three bottom left jacks; none of the other jacks or controls apply to it.

- Patch two audio signals into IN 1 and IN 2.
- Patch the output into a mixer; the two signals should combine together. Some frequency combinations will sound better than others, so mess around with it a bit!

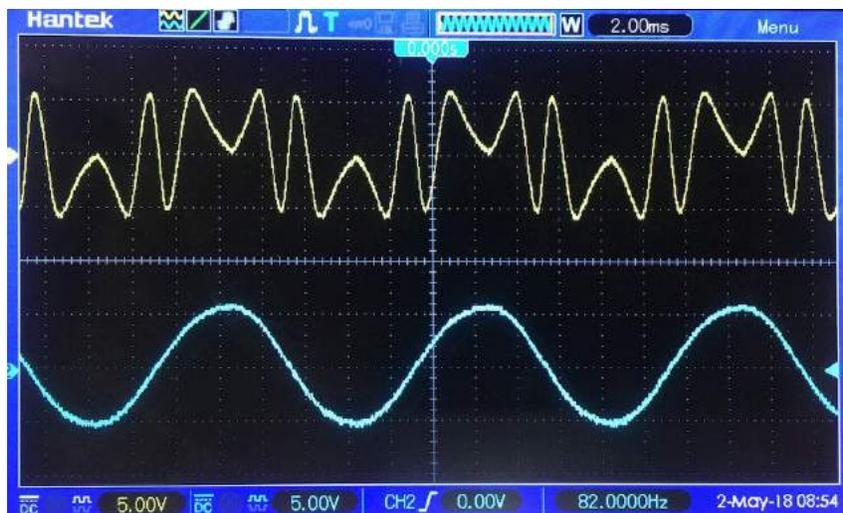
Wave Folder

LVL

- The LVL pot increases the amplitude of the affected waveform or the waveform to be folded until it folds. Along with the TAPS switch, it controls the number of folds in the waveform. This pot will not function unless the MIX pot is above 0%.

OFST

- The OFST pot controls the offset. This pot will not function unless both the MIX and LVL pots are above 0%. It can't be used to offset the dry signal alone.
- The OFST pot can adjust the folded wave up or down to help achieve the desired timbre and wave symmetry and can make folded waves clip. Adjust to taste.
- The example below shows a symmetrically folded wave. Notice how the smaller folds coming from top and bottom are the same size. These folds don't have to meet in the middle for them to be symmetrical, so long as they are the same size.



- Here's an example of an asymmetrical wave: one big wave-hump on one side.



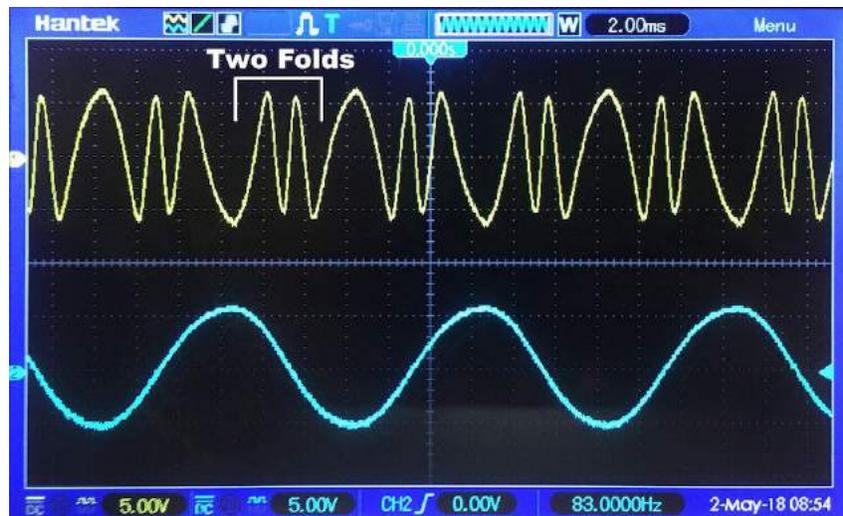
- You can use the OFST to clip the wave. Moving it to extremes can result in clipping, which can be used to create a distorted effect.

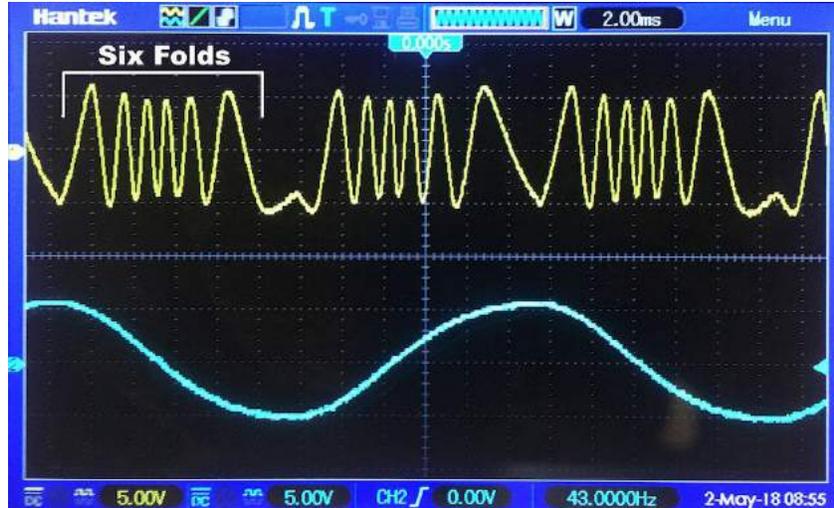
MIX

- The MIX pot is a true wet/dry blend of the dry input signal and the wet wavefolded signal.
- The MIX pot must be above 0% for the other controls to function.

TAPS Switch

- Selects the number of folding stages/folds: 2, 3, 4, 5 or 6.





WAVE FOLD Jack

- The input waveform to be folded. Sine and triangle waves are a great place to start.

CV over LVL Jack

- The CV input responds to both positive and negative voltage. When the LVL pot is at 0%, 0V to +5V will emulate the full travel of the pot. When the LVL pot is at 100%, 0V to -5V will emulate the full travel of the pot down to 0%.
- With the LVL pot at 100%, positive voltage will push past the limits of the LVL pot.

OUT Jack (right side)

- The output for the folded waveform.

More questions? Get a hold of us here:

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