Vein-Tap.com
Dark Arts Tap Tempo Phaser
Instruction Manual

Contents

Intro

Thank you for choosing the Dark Arts Tap Tempo Phaser from Vein-Tap.com! We're sure it's about to become your go-to phase shifter unit. It's got a multitude of awesome control options, but most importantly, it's a fantastic, musical phaser with pure, old-school analogue tone circuitry which can help you create fantastic modulation sounds.

This manual will explain the Dark Arts' controls and options. Read thoroughly and soon you will be master of the Dark Arts, and you'll know exactly how to create your own custom modulation sounds.

Thanks again for choosing the Dark Arts Tap Tempo Phaser from Vein-Tap.com, and remember that if you need any help, email me at info@vein-tap.com and I'll be glad to offer advice.

All the best!
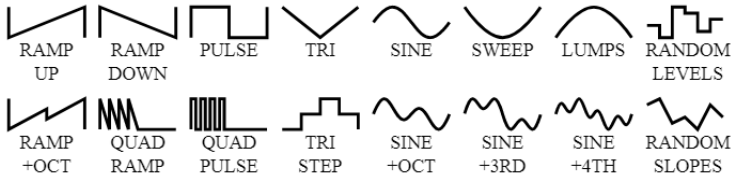
Ben
Vein-Tap.com

Pedal Diagram

1. Power Jack – plug a standard, centre negative 9v power supply here. Most standard power supplies will work: if it'll power a Boss pedal, it'll power the Dark Arts Tap Tempo Phaser. Please use a true isolated pedal power source to avoid noise or hum problems.

2. Input – plug your guitar, or the previous effects pedal in your chain, in here.

3. Output – plug your amp, or the next pedal in your chain, in here.

4. Bypass Footswitch – turn the effect on and off with this soft touch footswitch.

5. Tap Tempo Footswitch – tap your desired tempo with this soft touch footswitch. Tapping a tempo overrides the Rate control, and turning the Rate control resets the tapped tempo.

6. Status / Wave LED – this LED will reflect the wave you create with the Dark Arts' controls. This LED will light red when the effect is bypassed, and yellow when the effect is engaged.

7. Alternate Wave Set Switch – allows you to choose between the Original and the Alternate Wave Sets. See page 5 for more details about this switch.

8. Tempo LED – this LED reflects the tempo that can be set with either the Rate control or tapped in with the Tap Tempo Footswitch.

9. Centre Shift Control - see page 7 for more details about this control.

10. Tempo Multiplier Control - see page 8 for more details about this control.

11. Rate Control – controls how fast the phase wave is, from 20 seconds per cycle at 1 to 12.5 cycles per second at 11.

12. Feedback Control – controls how much of the affected signal is fed back into the phase circuit, allowing you to choose how subtle or how extreme you want your phase sound to be.

13. Voice Control – see page 11 for more details on this control.

14. Wave Shape Selector – see page 5 for more details about this control.

15. Tap In / Out – the Dark Arts can accept an external momentary normally open tap tempo footswitch, or send a momentary normally open signal, with this ¼" jack socket.

Wave Shapes

There are 16 wave shapes to choose from with this control:

The Wave Shape control allows you to select 8 wave shapes in

RAMP UP	RAMP DOWN	PULSE	TRI	SINE	SWEEP	LUMPS	RANDOM LEVELS

RAMP +OCT	QUAD RAMP	QUAD PULSE	TRI STEP	SINE +OCT	SINE +3RD	SINE +4TH	RANDOM SLOPES

sequence. When the Alternate Waves Switch is set to the left, the upper 8 wave forms on the diagram above are available. When set to the right, the lower 8 wave forms are available.

The wave shapes, in order, are:

1. Ramp Up – phase frequency travels from low at the beginning of the cycle to high at the end.

2. Ramp Down – phase frequency travels from high at the beginning of the cycle to low at the end.

3. Pulse – phase frequency alternates between high and low, with no slope between the two.

4. Triangle – phase frequency travels from low to high and back again at a uniform rate.

5. Sine Wave – phase frequency travels from low to high faster at the centre of the wave, and slows at the zenith and nadir of the wave.

6. Sweep – phase frequency travels quickly to and from the zenith, and slowly at the nadir of the wave.

7. Lumps – phase frequency travels quickly to and from the nadir of the wave, and slowly at the zenith of the wave.

8. Random Levels – phase frequency changes randomly, with no slope in between points.

9. Ramp + Oct: like the Ramp Up wave shape, with a sudden shallow dip in the middle of the wave.

10. Quad Ramp: four rapid down ramps, which stay down on the fourth ramp for an equal amount of time.

11. Quad Pulse: four rapid square wave pulses, which stay low after the fourth pulse for an equal amount of time.

12. Tri Step – signal divides evenly between 0%, 50% and 100%.

13. Sine + Oct: like the Sine wave, with a smaller wave in the parent wave's centre.

14. Sine + 3rd: Two positive sine waves followed by two negative sine waves.

15. Sine + 4th: One half, one full, and one half positive sine wave, followed by one half, one full, and one half negative sine wave.

16. Random Slopes – phase frequency slopes between random levels.

Centre Shift

The Dark Arts Tap Tempo Phaser's Centre Shift control allows you to take the centre point of a wave, and move it. This is best expressed graphically. In this example, we're using the triangle wave shape:
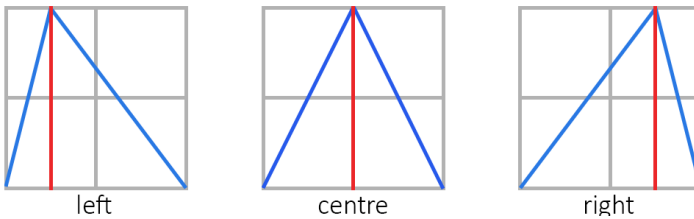
The Centre Shift control moves the exact centre of the wave shape, so the equivalent change on the Sine Wave shape would be:
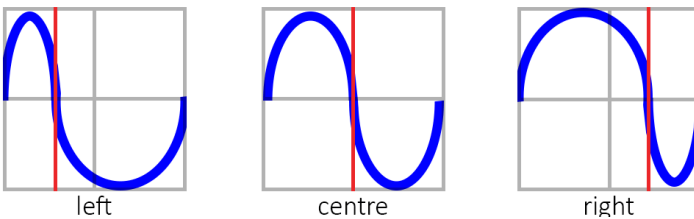
This can be applied to all waves except both Random wave shapes, which can be neither tamed nor reasoned with.
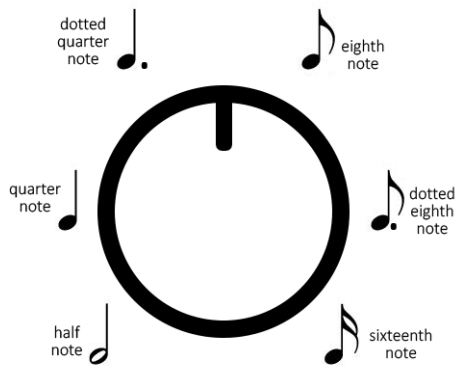
Tempo Multiplier

The Tempo Multiplier control allows you to take the tempo, either tapped in with the Tap Tempo Footswitch or set by the Rate control, and multiply it to get certain tempo divisions.

The multipliers are, from left to right:

1. Half note, or minim. Tempo is read at 50%.

2. Quarter note, or crotchet. Tempo is read as set.

3. Dotted quarter note, or triplet crotchet. Tempo is read at 150%.

4. Eighth note, or quaver. Tempo is read at 200%.

5. Dotted eighth note, or triplet quaver. Tempo is read at 300%.

6. Sixteenth note, or semiquaver. Tempo is read at 400%.

Using the Tempo Multiplier allows you to get untappably fast tempos – up to 100 cycles per second.

Voice Control

This control allows you to select the voice of the Dark Arts. At 0, this control allows only the modulated signal through, creating a rhythmic vibrato effect. At 11, this control only lets dry signal through. Traditional phase effects occur when these two signals are blended in equal measure, and by mixing these signals in different ratios, you can choose the voice of your phase effect, with the most dramatic phase occuring when the control is at dead centre. Experiment with this control, as it offers far more variety than traditional phasers are capable of.

Pre-Amp or Effects Loop Placement

It's entirely up to you where you put your Dark Arts Tap Tempo Phaser in your pedal chain. If your amp has an effects loop, then putting the Dark Arts in it will make the pedal have a more profound effect on your signal, especially if you're using a high-gain amplifier. Placing the effect before your amp's input will make the effect a little more subtle, especially on high gain amplifiers and doubly so when the effect is put before drive / distortion pedals.

As always, there's nothing more fun than experimenting with your tone, so find out what your friends and bandmates would do, ask on the forums, consider the fact that modulation effects such as phasers traditionally go in the effects loop of an amp… and then throw the rules away and find out for yourself. There's nothing better than sounding good when the rules say you shouldn't!

Outro

That's everything! I really hope you love your Dark Arts Tap Tempo Phaser as much as I love my own, and that it soon becomes an essential part of your pedalboard. Remember that your Dark Arts pedal enjoys a lifetime guarantee, so if ever you have any problems, get in touch with me at info@vein-tap.com and I'll put any problems right or answer any questions you may have.

Enjoy your new pedal, and thanks again for choosing Vein-Tap.com!

All the best,

Ben
Vein-Tap.com