


TAW

Cusack Tap-A-Whirl V3





 **Option Knob** - Function depends on what else is going on. Read each description to see how to access each function:


Tap Divide - Controls how your tap will be divided. Positions are from counter clockwise, ¼, ½, 1/3, 1, 2, 3, 4, 6. The Option Knob will adjust Tap Divide whenever the pedal is engaged, and you are NOT holding the Tap Switch down.


Fade-In - All the way down the pedal turns on right away, all the way up is about 4 seconds. The Option Knob adjusts Fade-In while in Bypass.


Brake Speed - Controls how fast the tempo will change when you hold the Tap switch. All the way counter clockwise is the slowest. The Option Knob adjusts this setting whenever the Tap Switch is being held down for more than ½ second (you are using the Brake Function).


 **Level** - Controls the output level of the Left output. There is also an internal volume for the Right output, when used in Stereo Mode.


 **Rate** - Controls the Speed of the tremolo effect. Turning this knob will over-ride the current tempo. While adjusting the tempo with the Rate knob, the Tap-Divide does not operate. Tapping a tempo with the foot-switch will override the Rate Knob.


 **Depth** - Controls the depth of the tremolo effect. Left is no effect, and right is full effect. Above about noon the waveform (Not the audio) will start clipping, and become asymmetrical.


 **Wave** - Selects one of 8 waveforms in the current bank. With 3 banks, there are a total of 24 waveforms.


 **Bank Switch** - Selects between banks A, B, and C. See waveform images on the next page to see which waveforms are in each bank.


 **Mode Switch** - Preset and Live. In Preset mode changing the waveform will load the saved parameters for that waveform. In Live mode, all current settings will apply to ALL waveforms. While in Preset Mode, any changes made are temporary. They will revert back to the saved settings if you change the waveform.

 **Tap Speed** - Tap twice to set the tempo. It's also a modified "brake" control. If you hold it down, the Tempo slows down. If you let go and hold it again it will speed up. Every time you hold and release, it changes direction. Wherever you let go, it will stay at that tempo. It defaults to Slowing Down whenever you Engage the effect.


 **Bypass** - Kick the switch to change from Bypass to Engaged.


 **IN** - This is the input to the pedal. This jack dis-connects power, so unplug when not in use.


 **OUT** - The Output jack is a Stereo output. The Right output is a modified inversion of the left channel. Make sure to set the jumper to Stereo for correct operation in bypass. While in Mono, the Right output is active while the pedal is on, but muted while the pedal is off. In Stereo mode, both outputs are True Bypassed.

 **DC Power Jack** - This has the same pin-out as most standard pedal supplies: tip is ground, sleeve 9V.

Right Level - Internal Trim Pot for Right Output Level.

 **Status LED (Red/Green)** - When the effect is bypassed the LED is off. When the effect is Engaged the LED is RED. When the battery is going dead the light will blink, GREEN if bypassed, RED if on.

 **Tempo LED (Blue)** - This LED gives you a visual view of the tempo, and waveform.

 **External Tap** - External RCA jack on the back of the pedal. This can be used as either a Tap IN, or OUT. Connect a cable from the RCA jack to another pedal's Tap input to use the internal switch on the Tap-A-Whirl to tap both at the same time. Plug an external momentary switch IN to this jack to set the tempo remotely.



Power Consumption - ~15mA.

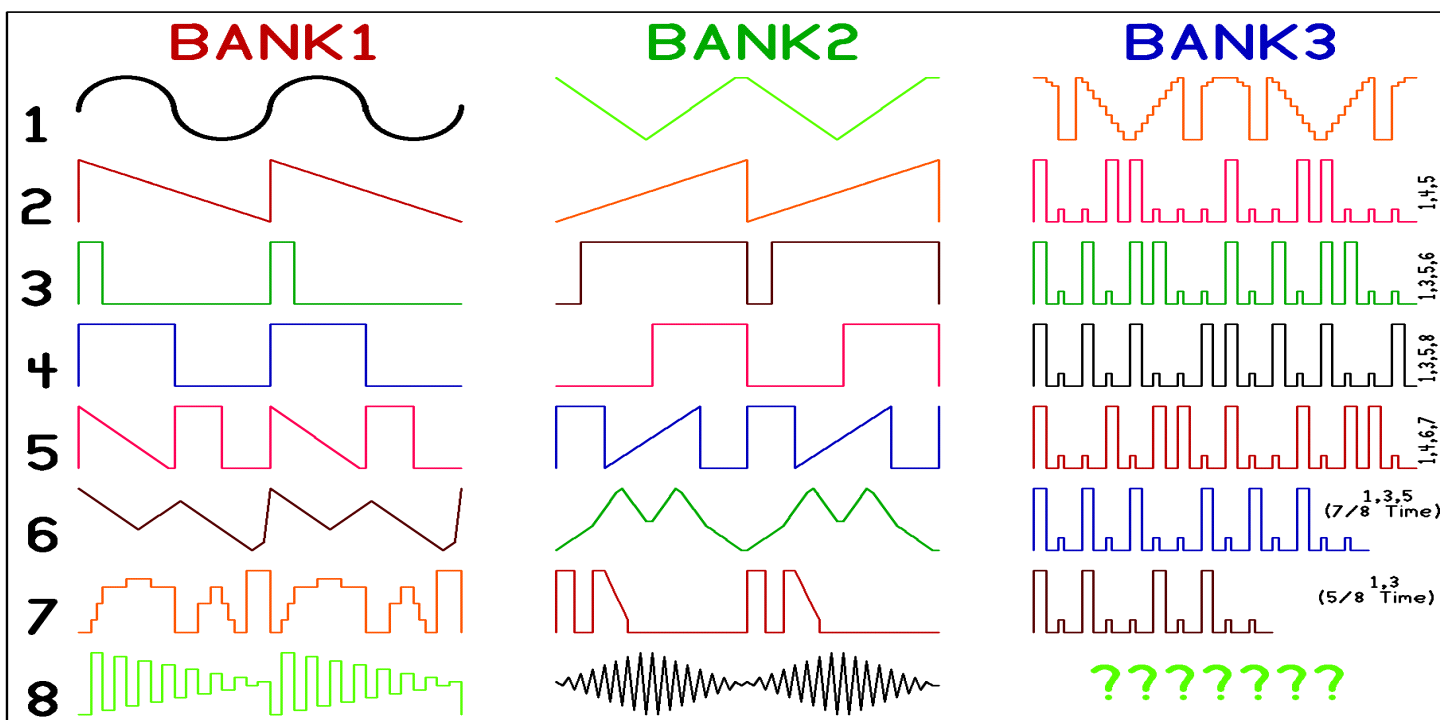
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Operation

Adjusting Settings - To put it simply, whenever you are using the Brake Function, the Option Knob will control the Brake Speed. Whenever the pedal is active (RED LED is on), the Option Knob will adjust Tap Divide. While in Bypass, the Option Knob will adjust Fade-In. It takes a little getting used to, but once it is understood, changing parameters is simple.

Saving Settings - The Fade-in, Brake Speed, Tap Divide and Tempo are all programmable for each waveform independently. Once you have the settings for a given waveform simply push BOTH footswitches at the same time to save those settings. The Status LED will blink to tell you they are saved. Save the settings before changing waveforms or you will lose any changes. These settings are stored in EEPROM, and will be saved even if the pedal is powered off, and the battery is unplugged.

Depth Setting - The Depth knob is set up to act like a standard depth knob between 0 and about 1/2 way up (noon). Above noon, the waveform starts to get clipped, and makes the waves asymmetrical. For the asymmetrical amp tremolo, just adjust the depth of the sine wave to match. While using the rhythmic patterns in Bank C, turning the depth all the way up will only accent the main beats; As you turn the depth down, the un-accented (But still in time) beats will come through slightly lower in level than the accented beats; As you turn it down further, the entire signal will pass, with the un-accented beats slightly louder than the background, and the accented beats the loudest.



Internal Settings

Stereo Jumper
 Short A-B for Stereo
 Short B-C for Mono
 NOTE: If the pedal is set for Stereo operation and a Mono plug is used on the output, it will cause the bypassed level to be loaded down. It usually sounds weak with a loss of high end if set improperly. Make sure to set the jumper to Mono if used with mono cables.

