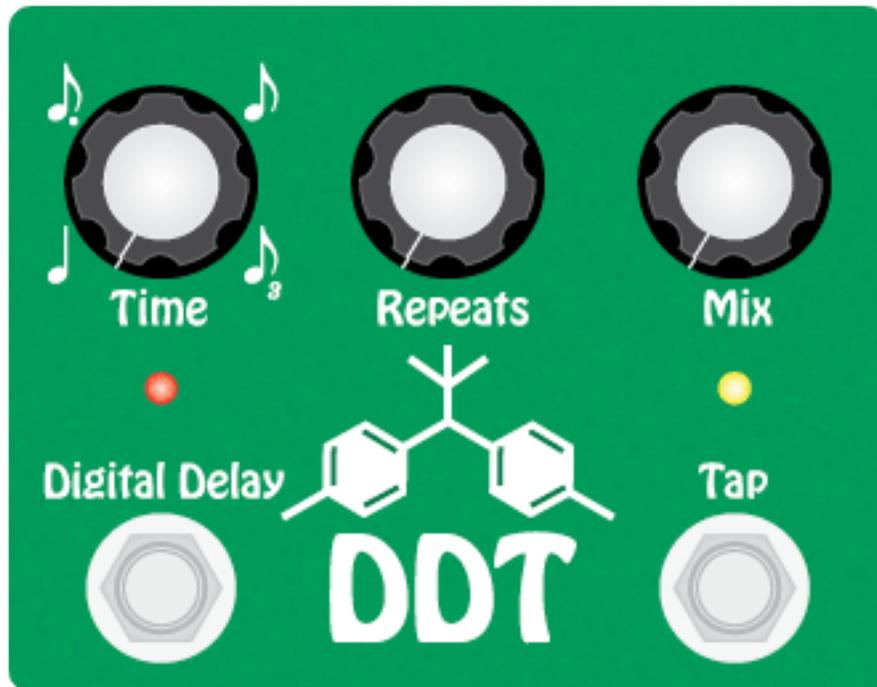


DDT

Digital Delay with Tap

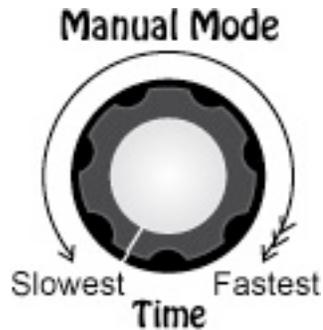
The Samuel Audio **DDT** is a Digital Delay with Tap based on the PT2399 chip, providing a delay range from a maximum of 600 to a minimum of 30 ms. Three simple controls allow the user to adjust delay time, number of repeats, and dry-to-wet mix. The pedal features two modes of operation. Power up in Manual Mode, and simply adjust the Time knob to control the delay tempo. Or tap a tempo, and select different beats based on the Time knob position. The tempo indicator blinks at the tapped tempo. The **DDT** also has an indicator showing that the effect is active and when it is off, it is in true bypass mode. The **DDT** operates from 9V battery or standard effects pedal power supply with a negative center pin.



When power is first applied, the yellow LED will blink one time to indicate that the device is powered. The **DDT** comes up in Manual Mode.

Manual Mode

In Manual Mode, the delay timing is set using the **Time** knob.



With the knob turned completely counter-clockwise the Delay Effect is at its slowest speed of 600 ms. The Delay Effect timing gets faster as the knob is turned clockwise, up to its fastest speed of about 30 ms.

Tap Mode

To operate the **DDT Digital Delay** in Tap Mode, begin tapping the tempo on the **Tap** foot switch. A minimum of two (2) taps is required for the pedal to switch from Manual to Tap mode, and to determine the tap interval. This interval is the Tap Tempo, which is immediately available, and displayed by the flashing yellow LED. After the first two taps, additional tap intervals are averaged into the current Tap Tempo.



In the Tap Mode, the **Time** knob sets the Delay Effect based on the Tap Tempo. The area around the knob is divided into four (4) quadrants with the notation shown below.



Time Quadrant	Delay Effect	Maximum
Quarter	Delay effect is the tapped tempo	Up to 600 ms
Dotted Eighth	Delay effect is 3/4 of tapped tempo	Up to 800 ms
Eighth	Delay effect is 1/2 of tapped tempo	Up to 1200 ms
Triplet Eighth	Delay effect is 1/3 of tapped tempo	Up to 1800 ms

The **DDT Digital Delay with Tap** can recognize Tap Tempos as slow as approximately 1800 milliseconds (1.8 sec). The maximum Delay Effect is 600 ms.

For example if the Tap Tempo is equal to 500 ms (1/2 second) the Delay Effects are as follows:

Time Quadrant	Delay Effect	Delay Timing
Quarter	Delay effect is the tapped tempo	500 ms
Dotted Eighth	Delay effect is 3/4 of tapped tempo	375 ms
Eighth	Delay effect is 1/2 of tapped tempo	250 ms
Triplet Eighth	Delay effect is 1/3 of tapped tempo	167 ms

Activate Delay Effect

The **Digital Delay** foot switch is used to activate the Delay Effect. The red LED will light when the effect is active.



Tap the **Digital Delay** foot switch to turn the effect off, and put the pedal in true bypass mode. Bypass is indicated when the red LED is off. In Tap Mode, the yellow LED will continue to flash at the Tap Tempo. This allows the user to set the tempo while the effect is off, and then turn the effect on when desired.

Tap in New Tempo

When a tempo is tapped in, the interval is calculated by the time difference between the first two taps. This tap tempo is immediately available and displayed by the flashing yellow LED. Any additional tap that is received within 2 seconds of the last will be averaged into the current interval. After 2 seconds without a tap, this tempo is locked in. Tapping again will initiate a new tap tempo sequence. A minimum of 2 taps is required to calculate a new tempo.

Tap Mode to Manual Mode

To return to Manual Mode from Tap Mode, press and hold down the **Tap** foot switch until the yellow LED stops flashing.

Repeats

The number of times the delay effect repeats is adjusted using the **Repeats** knob. With the knob position fully to the left, or counter-clockwise, is one repeat. All the way to the right, or clockwise, is infinite repeats.



Mix

The **Mix** knob adjusts the mix between the dry signal and wet (effected) signal. With the knob position fully to the left, or counter-clockwise, the signal is all dry, with no effect. All the way to the right, or clockwise, is the maximum effect.

